284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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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 : P4665

ATTENTION : Ernie Wu

Laboratory Certification ID # 20012

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Cover Page

Order ID : P4665

Project ID : CTO WE13

Client : Tetra Tech NUS, Inc.

Lab Sample Number	Client Sample Number
P4665-01	BP-VPB-190-TB-20241029
P4665-02	VPB190-HYD-20241030
P4665-03	BP-VPB-190-EB-20241030
P4665-04	BP-VPB-190-GW-538-540
P4665-05	BP-VPB-190-GW-558-560
P4665-06	BP-VPB-190-GW-583-585
P4665-07	BP-VPB-190-GW-598-600

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

Signature : _____

Date: 11/11/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager: Ernie Wu
Chemtech Project # P4665
Test Name: VOCMS Group1

A. Number of Samples and Date of Receipt:
7 Water samples were received on 10/31/2024.

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

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column RXI-624SIL MS 30m 0.25mm 1.4 um. Cat#13868.The analysis of VOCMS Group1 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.

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

The Continuous Calibration met the requirements .
The Tuning criteria met requirements.

E. Additional Comments:
The laboratory certifies that the all-electronic diskette deliverable exactly match the data summary forms (i.e. Form Is)."
Samples for MS/MSD for VOC analysis were not provided with this set of samples. The Blank Spike Duplicate is reported with the data.

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The not QT review data is reported in the Miscellaneous.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

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

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

Signature_____

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CASE NARRATIVE

Tetra Tech NUS, Inc.
Project Name: CTO WE13
Project Manager : Ernie Wu
Chemtech Project # P4665
Test Name: SVOC-SIMGroup1

A. Number of Samples and Date of Receipt:
7 Water samples were received on 10/31/2024.

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

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

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria except for VPB190-HYD-20241030 [2-Methylnaphthalene-d10 - 0%, Fluoranthene-d10 - 5%], VPB190-HYD-20241030RE [2-Methylnaphthalene-d10 - 0%, Fluoranthene-d10 - 6%], sample was reanalyzed to confirm the failure and reported, while for PB164594BSD [2-Fluorobiphenyl - 109%], failing surrogates was not associated with client parameter list, therefore no corrective action taken.

The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .

The Continuous Calibration File ID BN034850.D met the requirements except for 2,4,6-Tribromophenol is not associated with client parameter list therefore no corrective action taken.

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The Continuous Calibration File ID BN034863.D met the requirements except for 2,4,6-Tribromophenol and Terphenyl-d14 are not associated with client parameter list 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)."

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

The not QT review data is reported in the Miscellaneous.
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

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

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

Signature_____

284 Sheffield Street, Mountainside NJ 07092 Tel.
908-789-8900 Fax: 908-789-8922

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 is 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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4665

	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 Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: SOHIL JODHANI **Date:** 11/11/2024

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LAB CHRONICLE

OrderID:	P4665	**OrderDate:**	10/31/2024 3:52:00 PM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	K51,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4665-01	**BP-VPB-190-TB-20241029**	**Water**			**10/29/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-02	**VPB190-HYD-20241030**	**Water**			**10/30/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-03	**BP-VPB-190-EB-20241030**	**Water**			**10/30/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-04	**BP-VPB-190-GW-538-540**	**Water**			**10/29/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-05	**BP-VPB-190-GW-558-560**	**Water**			**10/29/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-06	**BP-VPB-190-GW-583-585**	**Water**			**10/30/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	
P4665-07	**BP-VPB-190-GW-598-600**	**Water**			**10/30/24**			**10/31/24**
			VOCMS Group1	8260-Low			11/01/24	

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Hit Summary Sheet
SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID:	**BP-VPB-190-GW-558-560**								
P4665-05	BP-VPB-190-GW-5	Water	Acetone	6.80		1.40	3.80	5.00	ug/L
P4665-05	BP-VPB-190-GW-5	Water	2-Butanone	2.60	J	1.30	2.50	5.00	ug/L
			Total Voc :	9.40					
			Total Concentration:	9.40					
Client ID:	**BP-VPB-190-GW-583-585**								
P4665-06	BP-VPB-190-GW-5	Water	Acetone	7.70		1.40	3.80	5.00	ug/L
P4665-06	BP-VPB-190-GW-5	Water	2-Butanone	2.30	J	1.30	2.50	5.00	ug/L
			Total Voc :	10.0					
			Total Concentration:	10.0					
Client ID:	**BP-VPB-190-GW-598-600**								
P4665-07	BP-VPB-190-GW-5	Water	1,1,2-Trichlorotrifluoroethane	0.98	J	0.25	0.50	1.00	ug/L
			Total Voc :	0.98					
			Total Concentration:	0.98					

SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-TB-20241029	SDG No.:	P4665
Lab Sample ID:	P4665-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084635.D	1		11/01/24 13:53	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-TB-20241029	SDG No.:	P4665
Lab Sample ID:	P4665-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084635.D	1		11/01/24 13:53	VN110124

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	50.8		81 - 118		102%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	47.0		89 - 112		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.6		85 - 114		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	172000	8.223				
540-36-3	1,4-Difluorobenzene	304000	9.1				
3114-55-4	Chlorobenzene-d5	271000	11.864				
3855-82-1	1,4-Dichlorobenzene-d4	118000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-TB-20241029	SDG No.:	P4665
Lab Sample ID:	P4665-01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084635.D	1		11/01/24 13:53	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	VPB190-HYD-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084638.D	1		11/01/24 15:06	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	VPB190-HYD-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084638.D	1		11/01/24 15:06	VN110124

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	49.6		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	46.2		89 - 112		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	171000	8.224				
540-36-3	1,4-Difluorobenzene	296000	9.1				
3114-55-4	Chlorobenzene-d5	262000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	114000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	VPB190-HYD-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-02	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084638.D	1		11/01/24 15:06	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-EB-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084639.D	1		11/01/24 15:30	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-EB-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084639.D	1		11/01/24 15:30	VN110124

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	49.9		81 - 118		100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	47.9		89 - 112		96%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.7		85 - 114		91%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	171000	8.218				
540-36-3	1,4-Difluorobenzene	300000	9.1				
3114-55-4	Chlorobenzene-d5	268000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-EB-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-03	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084639.D	1		11/01/24 15:30	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-538-540	SDG No.:	P4665
Lab Sample ID:	P4665-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084640.D	1		11/01/24 15:54	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-538-540	SDG No.:	P4665
Lab Sample ID:	P4665-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084640.D	1		11/01/24 15:54	VN110124

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	51.4		81 - 118		103%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		80 - 119		102%	SPK: 50
2037-26-5	Toluene-d8	48.4		89 - 112		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		85 - 114		95%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	175000	8.224				
540-36-3	1,4-Difluorobenzene	307000	9.1				
3114-55-4	Chlorobenzene-d5	281000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	125000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-538-540	SDG No.:	P4665
Lab Sample ID:	P4665-04	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084640.D	1		11/01/24 15:54	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-558-560	SDG No.:	P4665
Lab Sample ID:	P4665-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084636.D	1		11/01/24 14:17	VN110124

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	6.80		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	2.60	J	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-558-560	SDG No.:	P4665
Lab Sample ID:	P4665-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084636.D	1		11/01/24 14:17	VN110124

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	49.9		81 - 118		100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	46.8		89 - 112		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.2		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	180000	8.224				
540-36-3	1,4-Difluorobenzene	311000	9.1				
3114-55-4	Chlorobenzene-d5	279000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	122000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-558-560	SDG No.:	P4665
Lab Sample ID:	P4665-05	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084636.D	1		11/01/24 14:17	VN110124

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-583-585	SDG No.:	P4665
Lab Sample ID:	P4665-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084637.D	1		11/01/24 14:42	VN110124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	0.50	U	0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	0.75	U	0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	3.80	U	1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	0.75	U	0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	0.50	U	0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.50	U	0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.75	U	0.26	0.75	1.00	ug/L
67-64-1	Acetone	7.70		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	2.30	J	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-583-585	SDG No.:	P4665
Lab Sample ID:	P4665-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084637.D	1		11/01/24 14:42	VN110124

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	49.6		81 - 118		99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		80 - 119		98%	SPK: 50
2037-26-5	Toluene-d8	47.2		89 - 112		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.1		85 - 114		92%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	182000	8.224				
540-36-3	1,4-Difluorobenzene	323000	9.1				
3114-55-4	Chlorobenzene-d5	289000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	124000	13.794				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-583-585	SDG No.:	P4665
Lab Sample ID:	P4665-06	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084637.D	1		11/01/24 14:42	VN110124

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

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-598-600	SDG No.:	P4665
Lab Sample ID:	P4665-07	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084641.D	1		11/01/24 16:19	VN110124

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	0.98	J	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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-598-600	SDG No.:	P4665
Lab Sample ID:	P4665-07	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084641.D	1		11/01/24 16:19	VN110124

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	50.0		81 - 118		100%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		80 - 119		99%	SPK: 50
2037-26-5	Toluene-d8	47.2		89 - 112		94%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.2		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	170000	8.218				
540-36-3	1,4-Difluorobenzene	295000	9.1				
3114-55-4	Chlorobenzene-d5	266000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.788				
TENTATIVE IDENTIFIED COMPOUNDS							
75-43-4	Dichlorofluoromethane	N.D					

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-598-600	SDG No.:	P4665
Lab Sample ID:	P4665-07	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084641.D	1		11/01/24 16:19	VN110124

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

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

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

QC SUMMARY

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

Surrogate Summary

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
P4665-01	BP-VPB-190-TB-20241029	1,2-Dichloroethane-d4	50	50.8	102	81	118
		Dibromofluoromethane	50	49.2	98	80	119
		Toluene-d8	50	47.0	94	89	112
		4-Bromofluorobenzene	50	47.6	95	85	114
P4665-02	VPB190-HYD-20241030	1,2-Dichloroethane-d4	50	49.6	99	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	46.2	92	89	112
		4-Bromofluorobenzene	50	46.9	94	85	114
P4665-03	BP-VPB-190-EB-20241030	1,2-Dichloroethane-d4	50	49.9	100	81	118
		Dibromofluoromethane	50	49.5	99	80	119
		Toluene-d8	50	47.9	96	89	112
		4-Bromofluorobenzene	50	45.7	91	85	114
P4665-04	BP-VPB-190-GW-538-540	1,2-Dichloroethane-d4	50	51.4	103	81	118
		Dibromofluoromethane	50	50.8	102	80	119
		Toluene-d8	50	48.5	97	89	112
		4-Bromofluorobenzene	50	47.7	95	85	114
P4665-05	BP-VPB-190-GW-558-560	1,2-Dichloroethane-d4	50	49.9	100	81	118
		Dibromofluoromethane	50	49.8	100	80	119
		Toluene-d8	50	46.8	94	89	112
		4-Bromofluorobenzene	50	46.2	92	85	114
P4665-06	BP-VPB-190-GW-583-585	1,2-Dichloroethane-d4	50	49.6	99	81	118
		Dibromofluoromethane	50	48.9	98	80	119
		Toluene-d8	50	47.3	94	89	112
		4-Bromofluorobenzene	50	46.1	92	85	114
P4665-07	BP-VPB-190-GW-598-600	1,2-Dichloroethane-d4	50	50.0	100	81	118
		Dibromofluoromethane	50	49.5	99	80	119
		Toluene-d8	50	47.2	94	89	112
		4-Bromofluorobenzene	50	47.2	94	85	114
VN1101WBL01	VN1101WBL01	1,2-Dichloroethane-d4	50	51.6	103	81	118
		Dibromofluoromethane	50	49.8	100	80	119
		Toluene-d8	50	47.4	95	89	112
		4-Bromofluorobenzene	50	46.8	94	85	114
VN1101WBS01	VN1101WBS01	1,2-Dichloroethane-d4	50	44.3	89	81	118
		Dibromofluoromethane	50	45.1	90	80	119
		Toluene-d8	50	46.1	92	89	112
		4-Bromofluorobenzene	50	47.0	94	85	114
VN1101WBSD0	VN1101WBSD01	1,2-Dichloroethane-d4	50	45.0	90	81	118
		Dibromofluoromethane	50	46.5	93	80	119
		Toluene-d8	50	46.3	93	89	112
		4-Bromofluorobenzene	50	46.5	93	85	114

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low **Datafile :** VN084631.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1101WBS01	Chloromethane	20	16.4	ug/L	82			50	139	
	Vinyl chloride	20	18.9	ug/L	95			58	137	
	Bromomethane	20	18.0	ug/L	90			53	141	
	Chloroethane	20	18.2	ug/L	91			60	138	
	Trichlorofluoromethane	20	18.8	ug/L	94			65	141	
	1,1,2-Trichlorotrifluoroethane	20	19.3	ug/L	97			70	136	
	1,1-Dichloroethene	20	17.7	ug/L	89			71	131	
	Acetone	100	96.0	ug/L	96			39	160	
	Carbon disulfide	20	16.7	ug/L	84			64	133	
	Methyl tert-butyl Ether	20	19.1	ug/L	96			71	124	
	Methylene Chloride	20	19.0	ug/L	95			74	124	
	trans-1,2-Dichloroethene	20	18.5	ug/L	93			75	124	
	1,1-Dichloroethane	20	19.1	ug/L	96			77	125	
	2-Butanone	100	96.7	ug/L	97			56	143	
	Carbon Tetrachloride	20	19.7	ug/L	99			72	136	
	cis-1,2-Dichloroethene	20	18.4	ug/L	92			78	123	
	Chloroform	20	19.6	ug/L	98			79	124	
	1,1,1-Trichloroethane	20	19.4	ug/L	97			74	131	
	Methylcyclohexane	20	18.4	ug/L	92			72	132	
	Benzene	20	18.8	ug/L	94			79	120	
	1,2-Dichloroethane	20	19.5	ug/L	98			73	128	
	Trichloroethene	20	18.4	ug/L	92			79	123	
	1,2-Dichloropropane	20	19.1	ug/L	96			78	122	
	Bromodichloromethane	20	19.2	ug/L	96			79	125	
	4-Methyl-2-Pentanone	100	100	ug/L	100			67	130	
	Toluene	20	20.1	ug/L	101			80	121	
	t-1,3-Dichloropropene	20	17.7	ug/L	89			73	127	
	cis-1,3-Dichloropropene	20	18.7	ug/L	94			75	124	
	1,1,2-Trichloroethane	20	20.0	ug/L	100			80	119	
	2-Hexanone	100	110	ug/L	110			57	139	
	Dibromochloromethane	20	20.3	ug/L	102			74	126	
	Tetrachloroethene	20	18.6	ug/L	93			74	129	
	Chlorobenzene	20	18.3	ug/L	92			82	118	
	Ethyl Benzene	20	18.8	ug/L	94			79	121	
	m/p-Xylenes	40	38.9	ug/L	97			80	121	
	o-Xylene	20	20.0	ug/L	100			78	122	
	Styrene	20	19.4	ug/L	97			78	123	
	Bromoform	20	19.0	ug/L	95			66	130	
	Isopropylbenzene	20	18.5	ug/L	93			72	131	
	1,1,2,2-Tetrachloroethane	20	18.1	ug/L	91			71	121	
	1,3-Dichlorobenzene	20	16.8	ug/L	84			80	119	
	1,4-Dichlorobenzene	20	17.3	ug/L	86			79	118	
	1,2-Dichlorobenzene	20	17.0	ug/L	85			80	119	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: SW8260-Low **Datafile :** VN084632.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN1101WBSD01	Chloromethane	20	16.8	ug/L	84	2		50	139	20
	Vinyl chloride	20	18.9	ug/L	95	0		58	137	20
	Bromomethane	20	18.4	ug/L	92	2		53	141	20
	Chloroethane	20	19.0	ug/L	95	4		60	138	20
	Trichlorofluoromethane	20	20.1	ug/L	101	7		65	141	20
	1,1,2-Trichlorotrifluoroethane	20	19.7	ug/L	99	2		70	136	20
	1,1-Dichloroethene	20	18.5	ug/L	93	4		71	131	20
	Acetone	100	110	ug/L	110	14		39	160	20
	Carbon disulfide	20	17.5	ug/L	88	5		64	133	20
	Methyl tert-butyl Ether	20	20.4	ug/L	102	6		71	124	20
	Methylene Chloride	20	19.4	ug/L	97	2		74	124	20
	trans-1,2-Dichloroethene	20	19.0	ug/L	95	2		75	124	20
	1,1-Dichloroethane	20	19.9	ug/L	100	4		77	125	20
	2-Butanone	100	100	ug/L	100	3		56	143	20
	Carbon Tetrachloride	20	20.1	ug/L	101	2		72	136	20
	cis-1,2-Dichloroethene	20	19.6	ug/L	98	6		78	123	20
	Chloroform	20	20.1	ug/L	101	3		79	124	20
	1,1,1-Trichloroethane	20	20.1	ug/L	101	4		74	131	20
	Methylcyclohexane	20	19.6	ug/L	98	6		72	132	20
	Benzene	20	19.4	ug/L	97	3		79	120	20
	1,2-Dichloroethane	20	20.4	ug/L	102	4		73	128	20
	Trichloroethene	20	19.2	ug/L	96	4		79	123	20
	1,2-Dichloropropane	20	20.1	ug/L	101	5		78	122	20
	Bromodichloromethane	20	20.1	ug/L	101	5		79	125	20
	4-Methyl-2-Pentanone	100	110	ug/L	110	10		67	130	20
	Toluene	20	20.8	ug/L	104	3		80	121	20
	t-1,3-Dichloropropene	20	19.3	ug/L	97	9		73	127	20
	cis-1,3-Dichloropropene	20	19.6	ug/L	98	4		75	124	20
	1,1,2-Trichloroethane	20	21.1	ug/L	106	6		80	119	20
	2-Hexanone	100	110	ug/L	110	0		57	139	20
	Dibromochloromethane	20	21.1	ug/L	106	4		74	126	20
	Tetrachloroethene	20	19.8	ug/L	99	6		74	129	20
	Chlorobenzene	20	18.9	ug/L	95	3		82	118	20
	Ethyl Benzene	20	19.4	ug/L	97	3		79	121	20
	m/p-Xylenes	40	39.8	ug/L	100	3		80	121	20
	o-Xylene	20	20.1	ug/L	101	1		78	122	20
	Styrene	20	20.2	ug/L	101	4		78	123	20
	Bromoform	20	19.5	ug/L	98	3		66	130	20
	Isopropylbenzene	20	19.2	ug/L	96	3		72	131	20
	1,1,2,2-Tetrachloroethane	20	18.7	ug/L	94	3		71	121	20
	1,3-Dichlorobenzene	20	17.3	ug/L	86	2		80	119	20
	1,4-Dichlorobenzene	20	18.5	ug/L	93	8		79	118	20
	1,2-Dichlorobenzene	20	18.2	ug/L	91	7		80	119	20

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VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1101WBL01

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: VN084630.D Lab Sample ID: VN1101WBL01

Date Analyzed: 11/01/2024 Time Analyzed: 11:29

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN1101WBS01	VN1101WBS01	VN084631.D	11/01/2024
VN1101WBSD01	VN1101WBSD01	VN084632.D	11/01/2024
BP-VPB-190-TB-20241029	P4665-01	VN084635.D	11/01/2024
BP-VPB-190-GW-558-560	P4665-05	VN084636.D	11/01/2024
BP-VPB-190-GW-583-585	P4665-06	VN084637.D	11/01/2024
VPB190-HYD-20241030	P4665-02	VN084638.D	11/01/2024
BP-VPB-190-EB-20241030	P4665-03	VN084639.D	11/01/2024
BP-VPB-190-GW-538-540	P4665-04	VN084640.D	11/01/2024
BP-VPB-190-GW-598-600	P4665-07	VN084641.D	11/01/2024

COMMENTS:

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: VN084569.D BFB Injection Date: 10/30/2024

Instrument ID: MSVOA_N BFB Injection Time: 10:42

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	50.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	73.5
175	5.0 - 9.0% of mass 174	5.7 (7.7) 1
176	95.0 - 101.0% of mass 174	70.1 (95.4) 1
177	5.0 - 9.0% of mass 176	4.8 (6.9) 2

1-Value is % mass 174 2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN084570.D	10/30/2024	11:46
VSTDICCC050	VSTDICCC050	VN084571.D	10/30/2024	12:09
VSTDICC020	VSTDICC020	VN084572.D	10/30/2024	12:33
VSTDICC010	VSTDICC010	VN084573.D	10/30/2024	12:57
VSTDICC005	VSTDICC005	VN084574.D	10/30/2024	13:21
VSTDICC001	VSTDICC001	VN084575.D	10/30/2024	13:45

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: VN084627.D BFB Injection Date: 11/01/2024

Instrument ID: MSVOA_N BFB Injection Time: 09:48

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.5
75	30.0 - 60.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	1.1 (1.5) 1
174	50.0 - 100.0% of mass 95	74.6
175	5.0 - 9.0% of mass 174	5.4 (7.2) 1
176	95.0 - 101.0% of mass 174	71.2 (95.5) 1
177	5.0 - 9.0% of mass 176	4.9 (6.9) 2

1-Value is % mass 174 2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN084628.D	11/01/2024	10:22
VN1101WBL01	VN1101WBL01	VN084630.D	11/01/2024	11:29
VN1101WBS01	VN1101WBS01	VN084631.D	11/01/2024	12:08
VN1101WBSD01	VN1101WBSD01	VN084632.D	11/01/2024	12:32
BP-VPB-190-TB-20241029	P4665-01	VN084635.D	11/01/2024	13:53
BP-VPB-190-GW-558-560	P4665-05	VN084636.D	11/01/2024	14:17
BP-VPB-190-GW-583-585	P4665-06	VN084637.D	11/01/2024	14:42
VPB190-HYD-20241030	P4665-02	VN084638.D	11/01/2024	15:06
BP-VPB-190-EB-20241030	P4665-03	VN084639.D	11/01/2024	15:30
BP-VPB-190-GW-538-540	P4665-04	VN084640.D	11/01/2024	15:54
BP-VPB-190-GW-598-600	P4665-07	VN084641.D	11/01/2024	16:19
VSTDCCC050EC	VSTDCCC050	VN084643.D	11/01/2024	17:07

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: VN084628.D Date Analyzed: 11/01/2024

Instrument ID: MSVOA_N Time Analyzed: 10:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	184180	8.22	299507	9.10	271207	11.87
UPPER LIMIT	368360	8.724	599014	9.6	542414	12.365
LOWER LIMIT	92090	7.724	149754	8.6	135604	11.365
EPA SAMPLE NO.						
BP-VPB-190-TB-20241029	171981	8.22	304211	9.10	270682	11.86
VPB190-HYD-20241030	170724	8.22	295624	9.10	261626	11.87
BP-VPB-190-EB-20241030	170733	8.22	299750	9.10	267728	11.87
BP-VPB-190-GW-538-540	175313	8.22	307267	9.10	280834	11.87
BP-VPB-190-GW-558-560	179662	8.22	311395	9.10	278810	11.87
BP-VPB-190-GW-583-585	182088	8.22	322631	9.10	288967	11.87
BP-VPB-190-GW-598-600	169823	8.22	295064	9.10	266018	11.87
VN1101WBL01	180035	8.22	318575	9.10	285991	11.87
VN1101WBS01	190995	8.22	320452	9.10	287801	11.87
VN1101WBSD01	179647	8.22	303928	9.10	276373	11.87

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

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: VN084628.D Date Analyzed: 11/01/2024

Instrument ID: MSVOA_N Time Analyzed: 10:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	136355	13.794				
UPPER LIMIT	272710	14.294				
LOWER LIMIT	68177.5	13.294				
EPA SAMPLE NO.						
BP-VPB-190-TB-20241029	117747	13.79				
VPB190-HYD-20241030	113670	13.79				
BP-VPB-190-EB-20241030	115295	13.79				
BP-VPB-190-GW-538-540	124509	13.79				
BP-VPB-190-GW-558-560	121785	13.79				
BP-VPB-190-GW-583-585	124365	13.79				
BP-VPB-190-GW-598-600	115441	13.79				
VN1101WBL01	125664	13.79				
VN1101WBS01	147052	13.79				
VN1101WBSD01	139639	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

QC SAMPLE DATA

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBL01	SDG No.:	P4665
Lab Sample ID:	VN1101WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084630.D	1		11/01/24 11:29	VN110124

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBL01	SDG No.:	P4665
Lab Sample ID:	VN1101WBL01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084630.D	1		11/01/24 11:29	VN110124

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	51.6		81 - 118		103%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		80 - 119		100%	SPK: 50
2037-26-5	Toluene-d8	47.4		89 - 112		95%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.8		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	180000	8.224				
540-36-3	1,4-Difluorobenzene	319000	9.1				
3114-55-4	Chlorobenzene-d5	286000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	126000	13.788				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements
J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

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Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBS01	SDG No.:	P4665
Lab Sample ID:	VN1101WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084631.D	1		11/01/24 12:08	VN110124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	16.4		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	18.9		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.0		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	18.2		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.8		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.3		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.7		0.26	0.75	1.00	ug/L
67-64-1	Acetone	96.0		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	16.7		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.1		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	19.0		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.5		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.1		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	96.7		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.7		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.4		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	19.6		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.4		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	18.4		0.19	0.50	1.00	ug/L
71-43-2	Benzene	18.8		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.5		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	18.4		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	19.2		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	20.1		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.7		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.7		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.0		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	110		1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBS01	SDG No.:	P4665
Lab Sample ID:	VN1101WBS01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084631.D	1		11/01/24 12:08	VN110124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	20.3		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	18.6		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.3		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	18.8		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	38.9		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	20.0		0.14	0.50	1.00	ug/L
100-42-5	Styrene	19.4		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.0		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	18.5		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.1		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	16.8		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	17.3		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	17.0		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	44.3		81 - 118		89%	SPK: 50
1868-53-7	Dibromofluoromethane	45.1		80 - 119		90%	SPK: 50
2037-26-5	Toluene-d8	46.1		89 - 112		92%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.0		85 - 114		94%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	191000	8.224				
540-36-3	1,4-Difluorobenzene	320000	9.1				
3114-55-4	Chlorobenzene-d5	288000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	147000	13.794				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBSD01	SDG No.:	P4665
Lab Sample ID:	VN1101WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084632.D	1		11/01/24 12:32	VN110124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
74-87-3	Chloromethane	16.8		0.35	0.50	1.00	ug/L
75-01-4	Vinyl Chloride	18.9		0.34	0.75	1.00	ug/L
74-83-9	Bromomethane	18.4		1.40	3.80	5.00	ug/L
75-00-3	Chloroethane	19.0		0.56	0.75	1.00	ug/L
75-69-4	Trichlorofluoromethane	20.1		0.34	0.50	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.7		0.25	0.50	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.5		0.26	0.75	1.00	ug/L
67-64-1	Acetone	110		1.40	3.80	5.00	ug/L
75-15-0	Carbon Disulfide	17.5		0.32	0.75	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	20.4		0.16	0.50	1.00	ug/L
75-09-2	Methylene Chloride	19.4		0.32	0.50	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.0		0.25	0.50	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.9		0.23	0.50	1.00	ug/L
78-93-3	2-Butanone	100		1.30	2.50	5.00	ug/L
56-23-5	Carbon Tetrachloride	20.1		0.25	0.50	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.6		0.25	0.75	1.00	ug/L
67-66-3	Chloroform	20.1		0.26	0.50	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.1		0.19	0.50	1.00	ug/L
108-87-2	Methylcyclohexane	19.6		0.19	0.50	1.00	ug/L
71-43-2	Benzene	19.4		0.16	0.50	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.4		0.24	0.50	1.00	ug/L
79-01-6	Trichloroethene	19.2		0.32	0.75	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.1		0.19	0.50	1.00	ug/L
75-27-4	Bromodichloromethane	20.1		0.24	0.50	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	110		0.75	2.50	5.00	ug/L
108-88-3	Toluene	20.8		0.18	0.50	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.3		0.21	0.50	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.6		0.18	0.50	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	21.1		0.21	0.50	1.00	ug/L
591-78-6	2-Hexanone	110		1.10	2.50	5.00	ug/L

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	VN1101WBSD01	SDG No.:	P4665
Lab Sample ID:	VN1101WBSD01	Matrix:	Water
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084632.D	1		11/01/24 12:32	VN110124

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
124-48-1	Dibromochloromethane	21.1		0.18	0.50	1.00	ug/L
127-18-4	Tetrachloroethene	19.8		0.25	0.50	1.00	ug/L
108-90-7	Chlorobenzene	18.9		0.13	0.50	1.00	ug/L
100-41-4	Ethyl Benzene	19.4		0.16	0.50	1.00	ug/L
179601-23-1	m/p-Xylenes	39.8		0.31	1.00	2.00	ug/L
95-47-6	o-Xylene	20.1		0.14	0.50	1.00	ug/L
100-42-5	Styrene	20.2		0.16	0.50	1.00	ug/L
75-25-2	Bromoform	19.5		0.21	0.50	1.00	ug/L
98-82-8	Isopropylbenzene	19.2		0.13	0.50	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.7		0.27	0.50	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	17.3		0.24	0.50	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.5		0.27	0.50	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.2		0.19	0.50	1.00	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	45.0		81 - 118		90%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		80 - 119		93%	SPK: 50
2037-26-5	Toluene-d8	46.3		89 - 112		93%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.5		85 - 114		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	180000	8.224				
540-36-3	1,4-Difluorobenzene	304000	9.1				
3114-55-4	Chlorobenzene-d5	276000	11.865				
3855-82-1	1,4-Dichlorobenzene-d4	140000	13.788				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

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

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

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

LAB FILE ID: RRF100 = VN084570.D RRF050 = VN084571.D RRF020 = VN084572.D
RRF010 = VN084573.D RRF005 = VN084574.D RRF001 = VN084575.D

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

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

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VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

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

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

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

LAB FILE ID: RRF100 = VN084570.D RRF050 = VN084571.D RRF020 = VN084572.D
RRF010 = VN084573.D RRF005 = VN084574.D RRF001 = VN084575.D

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

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: MSVOA_N Calibration Date/Time: 11/01/2024 10:22

Lab File ID: VN084628.D Init. Calib. Date(s): 10/30/2024 10/30/2024

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.582	0.1	-38.87	20
Vinyl Chloride	0.618	0.566		-8.41	20
Bromomethane	0.328	0.288		-12.19	20
Chloroethane	0.488	0.364		-25.41	20
Trichlorofluoromethane	1.018	0.944		-7.27	20
1,1,2-Trichlorotrifluoroethane	0.575	0.549		-4.52	20
1,1-Dichloroethene	0.569	0.502		-11.77	20
Acetone	0.238	0.204		-14.29	20
Carbon Disulfide	1.753	1.480		-15.57	20
Methyl tert-butyl Ether	1.745	1.720		-1.43	20
Methylene Chloride	0.635	0.598		-5.83	20
trans-1,2-Dichloroethene	0.585	0.542		-7.35	20
1,1-Dichloroethane	1.102	1.047	0.1	-4.99	20
2-Butanone	0.337	0.326		-3.26	20
Carbon Tetrachloride	0.525	0.514		-2.1	20
cis-1,2-Dichloroethene	0.683	0.652		-4.54	20
Chloroform	1.121	1.078		-3.84	20
1,1,1-Trichloroethane	1.021	0.967		-5.29	20
Methylcyclohexane	0.478	0.490		2.51	20
Benzene	1.507	1.457		-3.32	20
1,2-Dichloroethane	0.488	0.484		-0.82	20
Trichloroethene	0.348	0.325		-6.61	20
1,2-Dichloropropane	0.354	0.356		0.56	20
Bromodichloromethane	0.526	0.522		-0.76	20
4-Methyl-2-Pentanone	0.406	0.430		5.91	20
Toluene	0.882	0.905		2.61	20
t-1,3-Dichloropropene	0.544	0.517		-4.96	20
cis-1,3-Dichloropropene	0.576	0.566		-1.74	20
1,1,2-Trichloroethane	0.332	0.331		-0.3	20
2-Hexanone	0.296	0.316		6.76	20
Dibromochloromethane	0.378	0.401		6.09	20
Tetrachloroethene	0.333	0.327		-1.8	20
Chlorobenzene	1.119	1.038	0.3	-7.24	20
Ethyl Benzene	1.867	1.850		-0.91	20
m/p-Xylenes	0.707	0.721		1.98	20
o-Xylene	0.661	0.681		3.03	20
Styrene	1.154	1.181		2.34	20
Bromoform	0.293	0.294	0.1	0.34	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: MSVOA_N Calibration Date/Time: 11/01/2024 10:22

Lab File ID: VN084628.D Init. Calib. Date(s): 10/30/2024 10/30/2024

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	3.470		-0.97	20
1,1,2,2-Tetrachloroethane	1.170	1.079	0.3	-7.78	20
1,3-Dichlorobenzene	1.838	1.617		-12.02	20
1,4-Dichlorobenzene	1.937	1.621		-16.31	20
1,2-Dichlorobenzene	1.766	1.620		-8.27	20
1,2-Dichloroethane-d4	0.722	0.644		-10.8	20
Dibromofluoromethane	0.338	0.325		-3.85	20
Toluene-d8	1.247	1.185		-4.97	20
4-Bromofluorobenzene	0.466	0.451		-3.22	20

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: MSVOA_N Calibration Date/Time: 11/01/2024 17:07

Lab File ID: VN084643.D Init. Calib. Date(s): 10/30/2024 10/30/2024

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chloromethane	0.952	0.561	0.1	-41.07	50
Vinyl Chloride	0.618	0.546		-11.65	50
Bromomethane	0.328	0.284		-13.41	50
Chloroethane	0.488	0.367		-24.8	50
Trichlorofluoromethane	1.018	0.913		-10.31	50
1,1,2-Trichlorotrifluoroethane	0.575	0.529		-8	50
1,1-Dichloroethene	0.569	0.500		-12.13	50
Acetone	0.238	0.247		3.78	50
Carbon Disulfide	1.753	1.430		-18.43	50
Methyl tert-butyl Ether	1.745	1.731		-0.8	50
Methylene Chloride	0.635	0.579		-8.82	50
trans-1,2-Dichloroethene	0.585	0.534		-8.72	50
1,1-Dichloroethane	1.102	1.038	0.1	-5.81	50
2-Butanone	0.337	0.364		8.01	50
Carbon Tetrachloride	0.525	0.494		-5.91	50
cis-1,2-Dichloroethene	0.683	0.637		-6.74	50
Chloroform	1.121	1.072		-4.37	50
1,1,1-Trichloroethane	1.021	0.952		-6.76	50
Methylcyclohexane	0.478	0.469		-1.88	50
Benzene	1.507	1.406		-6.7	50
1,2-Dichloroethane	0.488	0.463		-5.12	50
Trichloroethene	0.348	0.312		-10.35	50
1,2-Dichloropropane	0.354	0.338		-4.52	50
Bromodichloromethane	0.526	0.504		-4.18	50
4-Methyl-2-Pentanone	0.406	0.443		9.11	50
Toluene	0.882	0.867		-1.7	50
t-1,3-Dichloropropene	0.544	0.504		-7.35	50
cis-1,3-Dichloropropene	0.576	0.541		-6.08	50
1,1,2-Trichloroethane	0.332	0.328		-1.21	50
2-Hexanone	0.296	0.332		12.16	50
Dibromochloromethane	0.378	0.383		1.32	50
Tetrachloroethene	0.333	0.300		-9.91	50
Chlorobenzene	1.119	0.998	0.3	-10.81	50
Ethyl Benzene	1.867	1.760		-5.73	50
m/p-Xylenes	0.707	0.681		-3.68	50
o-Xylene	0.661	0.650		-1.66	50
Styrene	1.154	1.140		-1.21	50
Bromoform	0.293	0.285	0.1	-2.73	50

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

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VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: MSVOA_N Calibration Date/Time: 11/01/2024 17:07

Lab File ID: VN084643.D Init. Calib. Date(s): 10/30/2024 10/30/2024

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

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Isopropylbenzene	3.504	3.160		-9.82	50
1,1,2,2-Tetrachloroethane	1.170	1.019	0.3	-12.91	50
1,3-Dichlorobenzene	1.838	1.473		-19.86	50
1,4-Dichlorobenzene	1.937	1.473		-23.95	50
1,2-Dichlorobenzene	1.766	1.464		-17.1	50
1,2-Dichloroethane-d4	0.722	0.639		-11.5	50
Dibromofluoromethane	0.338	0.309		-8.58	50
Toluene-d8	1.247	1.142		-8.42	50
4-Bromofluorobenzene	0.466	0.447		-4.08	50

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

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LAB CHRONICLE

OrderID:	P4665	**OrderDate:**	10/31/2024 3:52:00 PM
Client:	Tetra Tech NUS, Inc.	**Project:**	CTO WE13
Contact:	Ernie Wu	**Location:**	K51,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4665-02	**VPB190-HYD-20241030**	**Water**			**10/30/24**			**10/31/24**
			SVOC-SIMGroup1	8270-Modified		11/01/24	11/05/24	
P4665-02RE	**VPB190-HYD-20241030RE**	**Water**			**10/30/24**			**10/31/24**
			SVOC-SIMGroup1	8270-Modified		11/01/24	11/05/24	
P4665-05	**BP-VPB-190-GW-558-560**	**Water**			**10/29/24**			**10/31/24**
			SVOC-SIMGroup1	8270-Modified		11/01/24	11/04/24	
P4665-07	**BP-VPB-190-GW-598-600**	**Water**			**10/30/24**			**10/31/24**
			SVOC-SIMGroup1	8270-Modified		11/01/24	11/04/24	

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Hit Summary Sheet
SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : BP-VPB-190-GW-558-560								
P4665-05	BP-VPB-190-GW-558-56 WATER	1,4-Dioxane	0.830		0.09	0.25	0.25	ug/L
		Total Svoc :			**0.83**			
		Total Concentration:			**0.83**			
Client ID : BP-VPB-190-GW-598-600								
P4665-07	BP-VPB-190-GW-598-60 WATER	1,4-Dioxane	2.300		0.07	0.2	0.2	ug/L
		Total Svoc :			**2.30**			
		Total Concentration:			**2.30**			

SAMPLE DATA

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	VPB190-HYD-20241030	SDG No.:	P4665
Lab Sample ID:	P4665-02	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034858.D	1	11/01/24 09:35	11/05/24 02:21	PB164594

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	*	30 - 150		0%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.022	*	30 - 150		5%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.39		55 - 111		97%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		53 - 106		102%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.47		58 - 132		118%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	6200	7.59				
1146-65-2	Naphthalene-d8	18900	10.351				
15067-26-2	Acenaphthene-d10	9180	14.222				
1517-22-2	Phenanthrene-d10	18100	16.97				
1719-03-5	Chrysene-d12	9320	21.161				
1520-96-3	Perylene-d12	6200	23.341				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	VPB190-HYD-20241030RE	SDG No.:	P4665
Lab Sample ID:	P4665-02RE	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	980 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034866.D	1	11/01/24 09:35	11/05/24 11:49	PB164594

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	*	30 - 150		0%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.023	*	30 - 150		6%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.40		55 - 111		99%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		53 - 106		103%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.42		58 - 132		105%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	7600	7.589				
1146-65-2	Naphthalene-d8	22700	10.351				
15067-26-2	Acenaphthene-d10	10600	14.222				
1517-22-2	Phenanthrene-d10	21100	16.97				
1719-03-5	Chrysene-d12	12400	21.16				
1520-96-3	Perylene-d12	8750	23.335				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/29/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-558-560	SDG No.:	P4665
Lab Sample ID:	P4665-05	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	800 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034846.D	1	11/01/24 09:35	11/04/24 19:06	PB164594

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.83		0.090	0.25	0.25	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.28		30 - 150		69%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.34		30 - 150		85%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.28		55 - 111		71%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.30		53 - 106		74%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.35		58 - 132		87%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	5920	7.589				
1146-65-2	Naphthalene-d8	18100	10.351				
15067-26-2	Acenaphthene-d10	9300	14.219				
1517-22-2	Phenanthrene-d10	17900	16.964				
1719-03-5	Chrysene-d12	10500	21.158				
1520-96-3	Perylene-d12	8180	23.339				

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

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Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	10/30/24
Project:	CTO WE13	Date Received:	10/31/24
Client Sample ID:	BP-VPB-190-GW-598-600	SDG No.:	P4665
Lab Sample ID:	P4665-07	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	990 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034847.D	1	11/01/24 09:35	11/04/24 19:42	PB164594

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	2.30		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.38		30 - 150		94%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.46		30 - 150		114%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		53 - 106		103%	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	7010	7.589				
1146-65-2	Naphthalene-d8	21400	10.351				
15067-26-2	Acenaphthene-d10	10800	14.218				
1517-22-2	Phenanthrene-d10	20500	16.964				
1719-03-5	Chrysene-d12	11700	21.158				
1520-96-3	Perylene-d12	8920	23.339				

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

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Surrogate Summary

SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	High
P4665-02	VPB190-HYD-20241030	2-Methylnaphthalene-d10	0.4	0	0	*	30	150
		Fluoranthene-d10	0.4	0.022	5	*	30	150
		Nitrobenzene-d5	0.4	0.39	97		55	111
		2-Fluorobiphenyl	0.4	0.41	102		53	106
		Terphenyl-d14	0.4	0.47	118		58	132
P4665-02RE	VPB190-HYD-20241030RE	2-Methylnaphthalene-d10	0.4	0	0	*	30	150
		Fluoranthene-d10	0.4	0.023	6	*	30	150
		Nitrobenzene-d5	0.4	0.40	99		55	111
		2-Fluorobiphenyl	0.4	0.41	103		53	106
		Terphenyl-d14	0.4	0.42	105		58	132
P4665-05	BP-VPB-190-GW-558-560	2-Methylnaphthalene-d10	0.4	0.28	69		30	150
		Fluoranthene-d10	0.4	0.34	85		30	150
		Nitrobenzene-d5	0.4	0.28	71		55	111
		2-Fluorobiphenyl	0.4	0.30	74		53	106
		Terphenyl-d14	0.4	0.35	87		58	132
P4665-07	BP-VPB-190-GW-598-600	2-Methylnaphthalene-d10	0.4	0.38	94		30	150
		Fluoranthene-d10	0.4	0.46	114		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.41	103		53	106
		Terphenyl-d14	0.4	0.52	129		58	132
PB164594BL	PB164594BL	2-Methylnaphthalene-d10	0.4	0.35	88		30	150
		Fluoranthene-d10	0.4	0.36	90		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.41	102		53	106
		Terphenyl-d14	0.4	0.46	114		58	132
PB164594BS	PB164594BS	2-Methylnaphthalene-d10	0.4	0.49	123		30	150
		Fluoranthene-d10	0.4	0.32	80		30	150
		Nitrobenzene-d5	0.4	0.38	95		55	111
		2-Fluorobiphenyl	0.4	0.42	104		53	106
		Terphenyl-d14	0.4	0.52	129		58	132
PB164594BSD	PB164594BSD	2-Methylnaphthalene-d10	0.4	0.48	121		30	150
		Fluoranthene-d10	0.4	0.32	79		30	150
		Nitrobenzene-d5	0.4	0.39	97		55	111
		2-Fluorobiphenyl	0.4	0.44	109	*	53	106
		Terphenyl-d14	0.4	0.52	131		58	132

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034859.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB164594BS	1,4-Dioxane	0.4	0.37	ug/L	93				70	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4665

Client: Tetra Tech NUS, Inc.

Analytical Method: 8270-Modified **DataFile:** BN034860.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	Limits RPD
PB164594BSD	1,4-Dioxane	0.4	0.39	ug/L	98	5			70	130	20

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB164594BL

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

Lab File ID: BN034864.D Lab Sample ID: PB164594BL

Instrument ID: BNA_N Date Extracted: 11/01/2024

Matrix: (soil/water) Water Date Analyzed: 11/05/2024

Level: (low/med) LOW Time Analyzed: 10:37

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VPB190-HYD-20241030	P4665-02	BN034858.D	11/05/2024
BP-VPB-190-GW-558-560	P4665-05	BN034846.D	11/04/2024
BP-VPB-190-GW-598-600	P4665-07	BN034847.D	11/04/2024
PB164594BS	PB164594BS	BN034859.D	11/05/2024
PB164594BSD	PB164594BSD	BN034860.D	11/05/2024

COMMENTS:

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4665 SDG NO.: P4665

Lab File ID: BN034739.D DFTPP Injection Date: 10/30/2024

Instrument ID: BNA_N DFTPP Injection Time: 08:41

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	38.7
68	Less than 2.0% of mass 69	0.6 (1.4) 1
69	Mass 69 relative abundance	40
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	10.0 - 80.0% of mass 198	53.2
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	6.5
275	10.0 - 60.0% of mass 198	21.7
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	9.4
442	Greater than 50% of mass 198	61
443	15.0 - 24.0% of mass 442	11.3 (18.5) 2

1-Value is % mass 69 2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC0.1	SSTDICC0.1	BN034740.D	10/30/2024	09:20
SSTDICC0.2	SSTDICC0.2	BN034741.D	10/30/2024	09:56
SSTDICCC0.4	SSTDICCC0.4	BN034742.D	10/30/2024	10:32
SSTDICC0.8	SSTDICC0.8	BN034743.D	10/30/2024	11:08
SSTDICC1.6	SSTDICC1.6	BN034744.D	10/30/2024	11:44
SSTDICC3.2	SSTDICC3.2	BN034745.D	10/30/2024	12:20
SSTDICC5.0	SSTDICC5.0	BN034746.D	10/30/2024	12:56

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4665 SDG NO.: P4665

Lab File ID: BN034836.D DFTPP Injection Date: 11/04/2024

Instrument ID: BNA_N DFTPP Injection Time: 09:30

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	46
68	Less than 2.0% of mass 69	0.8 (1.8) 1
69	Mass 69 relative abundance	44.3
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	56.3
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7
275	10.0 - 60.0% of mass 198	22.1
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	7.9
442	Greater than 50% of mass 198	51.3
443	15.0 - 24.0% of mass 442	9.7 (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	BN034837.D	11/04/2024	10:45
BP-VPB-190-GW-558-560	P4665-05	BN034846.D	11/04/2024	19:06
BP-VPB-190-GW-598-600	P4665-07	BN034847.D	11/04/2024	19:42
SSTDCCC0.4EC	SSTDCCC0.4	BN034848.D	11/04/2024	20:18

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4665 SDG NO.: P4665

Lab File ID: BN034849.D DFTPP Injection Date: 11/04/2024

Instrument ID: BNA_N DFTPP Injection Time: 20:54

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	53.1
68	Less than 2.0% of mass 69	0.8 (1.6) 1
69	Mass 69 relative abundance	49
70	Less than 2.0% of mass 69	0.3 (0.6) 1
127	10.0 - 80.0% of mass 198	61.5
197	Less than 2.0% of mass 198	0.6
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	24.1
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	8.8
442	Greater than 50% of mass 198	58.2
443	15.0 - 24.0% of mass 442	11.1 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC0.4	SSTDCCC0.4	BN034850.D	11/04/2024	21:33
VPB190-HYD-20241030	P4665-02	BN034858.D	11/05/2024	02:21
PB164594BS	PB164594BS	BN034859.D	11/05/2024	02:57
PB164594BSD	PB164594BSD	BN034860.D	11/05/2024	03:33
SSTDCCC0.4EC	SSTDCCC0.4	BN034861.D	11/05/2024	04:09

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM SAS No.: P4665 SDG NO.: P4665

Lab File ID: BN034862.D DFTPP Injection Date: 11/05/2024

Instrument ID: BNA_N DFTPP Injection Time: 08:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	58.2
68	Less than 2.0% of mass 69	0.9 (1.6) 1
69	Mass 69 relative abundance	53.6
70	Less than 2.0% of mass 69	0.3 (0.5) 1
127	10.0 - 80.0% of mass 198	61.8
197	Less than 2.0% of mass 198	0.5
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	20.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	7.2
442	Greater than 50% of mass 198	44
443	15.0 - 24.0% of mass 442	8.3 (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	BN034863.D	11/05/2024	09:23
PB164594BL	PB164594BL	BN034864.D	11/05/2024	10:37
VPB190-HYD-20241030RE	P4665-02RE	BN034866.D	11/05/2024	11:49
SSTDCCC0.4EC	SSTDCCC0.4	BN034867.D	11/05/2024	12:46

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034837.D Time Analyzed: 10:45

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	8324	7.597	24670	10.36	13111	14.22
	UPPER LIMIT	16648	8.097	49340	10.862	26222	14.722
	LOWER LIMIT	4162	7.097	12335	9.862	6555.5	13.722
	EPA SAMPLE NO.						
01	BP-VPB-190-GW-558-560	5919	7.59	18121	10.35	9295	14.22
02	BP-VPB-190-GW-598-600	7011	7.59	21397	10.35	10772	14.22

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034837.D Time Analyzed: 10:45

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	27070	16.97	17835	21.16	15548	23.344
	UPPER LIMIT	54140	17.47	35670	21.66	31096	23.844
	LOWER LIMIT	13535	16.47	8917.5	20.66	7774	22.844
	EPA SAMPLE NO.						
01	BP-VPB-190-GW-558-560	17886	16.96	10535	21.16	8175	23.34
02	BP-VPB-190-GW-598-600	20500	16.96	11729	21.16	8924	23.34

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.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034850.D Time Analyzed: 21:33

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	7674	7.589	23850	10.35	12009	14.22
	UPPER LIMIT	15348	8.089	47700	10.851	24018	14.722
	LOWER LIMIT	3837	7.089	11925	9.851	6004.5	13.722
	EPA SAMPLE NO.						
01	VPB190-HYD-20241030	6202	7.59	18944	10.35	9177	14.22
02	PB164594BS	7147	7.59	21161	10.35	10006	14.22
03	PB164594BSD	6749	7.59	19671	10.35	8893	14.22

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/04/2024

Lab File ID: BN034850.D Time Analyzed: 21:33

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	23508	16.97	14579		21.16	11281		23.335
	UPPER LIMIT	47016	17.47	29158		21.66	22562		23.835
	LOWER LIMIT	11754	16.47	7289.5		20.66	5640.5		22.835
	EPA SAMPLE NO.								
01	VPB190-HYD-20241030	18137	16.97	9318		21.16	6197		23.34
02	PB164594BS	17488	16.97	6741	*	21.16	4990	*	23.34
03	PB164594BSD	15802	16.97	5819	*	21.16	4708	*	23.34

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.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/05/2024

Lab File ID: BN034863.D Time Analyzed: 09:23

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	8979	7.589	27748	10.35	13645	14.22
	UPPER LIMIT	17958	8.089	55496	10.851	27290	14.722
	LOWER LIMIT	4489.5	7.089	13874	9.851	6822.5	13.722
	EPA SAMPLE NO.						
01	PB164594BL	7362	7.59	21619	10.35	10048	14.22
02	VPB190-HYD-20241030RE	7601	7.59	22735	10.35	10621	14.22

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.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG NO.: P4665

EPA Sample No.: SSTDCCC0.4 Date Analyzed: 11/05/2024

Lab File ID: BN034863.D Time Analyzed: 09:23

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	26678	16.97	16206	21.16	12712	23.335
	UPPER LIMIT	53356	17.47	32412	21.66	25424	23.835
	LOWER LIMIT	13339	16.47	8103	20.66	6356	22.835
	EPA SAMPLE NO.						
01	PB164594BL	19701	16.96	9905	21.17	7739	23.34
02	VPB190-HYD-20241030RE	21100	16.97	12441	21.16	8745	23.34

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	CTO WE13			Date Received:	
Client Sample ID:	PB164594BL			SDG No.:	P4665
Lab Sample ID:	PB164594BL			Matrix:	Water
Analytical Method:	SW8270SIM			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC-SIMGroup1
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034864.D	1	11/01/24 09:35	11/05/24 10:37	PB164594

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.20	U	0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.35		30 - 150		88%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.36		30 - 150		90%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.41		53 - 106		102%	SPK: 0.4
1718-51-0	Terphenyl-d14	0.46		58 - 132		114%	SPK: 0.4
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	7360	7.589				
1146-65-2	Naphthalene-d8	21600	10.351				
15067-26-2	Acenaphthene-d10	10000	14.218				
1517-22-2	Phenanthrene-d10	19700	16.964				
1719-03-5	Chrysene-d12	9910	21.167				
1520-96-3	Perylene-d12	7740	23.344				

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

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Fax : 908 789 8922

Report of Analysis

Client:	Tetra Tech NUS, Inc.	Date Collected:	
Project:	CTO WE13	Date Received:	
Client Sample ID:	PB164594BS	SDG No.:	P4665
Lab Sample ID:	PB164594BS	Matrix:	Water
Analytical Method:	SW8270SIM	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOC-SIMGroup1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034859.D	1	11/01/24 09:35	11/05/24 02:57	PB164594

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.37		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.49		30 - 150		123%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		80%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.38		55 - 111		95%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.42		53 - 106		104%	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	7150	7.589				
1146-65-2	Naphthalene-d8	21200	10.351				
15067-26-2	Acenaphthene-d10	10000	14.222				
1517-22-2	Phenanthrene-d10	17500	16.97				
1719-03-5	Chrysene-d12	6740	21.16				
1520-96-3	Perylene-d12	4990	23.341				

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	
Project:	CTO WE13			Date Received:	
Client Sample ID:	PB164594BSD			SDG No.:	P4665
Lab Sample ID:	PB164594BSD			Matrix:	Water
Analytical Method:	SW8270SIM			% Solid:	0
Sample Wt/Vol:	1000	Units:	mL	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOC-SIMGroup1
Extraction Type :			Decanted : N	Level :	LOW
Injection Volume :			GPC Factor : 1.0	GPC Cleanup : N	PH :
Prep Method :	SW3510C				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BN034860.D	1	11/01/24 09:35	11/05/24 03:33	PB164594

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
123-91-1	1,4-Dioxane	0.39		0.070	0.20	0.20	ug/L
SURROGATES							
7297-45-2	2-Methylnaphthalene-d10	0.48		30 - 150		121%	SPK: 0.4
93951-69-0	Fluoranthene-d10	0.32		30 - 150		79%	SPK: 0.4
4165-60-0	Nitrobenzene-d5	0.39		55 - 111		97%	SPK: 0.4
321-60-8	2-Fluorobiphenyl	0.44	*	53 - 106		109%	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	6750	7.589				
1146-65-2	Naphthalene-d8	19700	10.351				
15067-26-2	Acenaphthene-d10	8890	14.222				
1517-22-2	Phenanthrene-d10	15800	16.97				
1719-03-5	Chrysene-d12	5820	21.16				
1520-96-3	Perylene-d12	4710	23.338				

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

Response Factor Report BNA_N

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN103024.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Wed Oct 30 13:28:24 2024
Response Via : Initial Calibration

Calibration Files
0.1 =BN034740.D 0.2 =BN034741.D 0.4 =BN034742.D 0.8 =BN034743.D 1.6 =BN034744.D 3.2 =BN034745.D 5.0 =BN034746.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	0.498	0.441	0.407	0.462	0.438	0.418	0.405	0.439	7.62
3)		n-Nitrosodimet...	0.506	0.483	0.437	0.537	0.523	0.484	0.490	0.494	6.58
4)	S	2-Fluorophenol	1.305	1.235	1.096	1.293	1.248	1.144	1.161	1.212	6.55
5)	S	Phenol-d6	1.675	1.592	1.406	1.658	1.625	1.511	1.552	1.574	5.96
6)		bis(2-Chloroet...	1.155	1.134	1.057	1.247	1.211	1.115	1.124	1.149	5.51
7)	I	Naphthalene-d8	----------ISTD----------								
8)	S	Nitrobenzene-d5	0.320	0.305	0.278	0.338	0.328	0.308	0.323	0.314	6.25
9)		Naphthalene	1.150	1.096	0.996	1.191	1.153	1.069	1.087	1.106	5.87
10)		Hexachlorobuta...	0.191	0.182	0.165	0.197	0.190	0.173	0.177	0.182	6.17
11)	SURR	2-Methylnaphth...	0.577	0.560	0.519	0.628	0.617	0.569	0.584	0.579	6.27
12)		2-Methylnaphth...	0.719	0.708	0.649	0.785	0.769	0.709	0.725	0.723	6.16
13)	I	Acenaphthene-d10	----------ISTD----------								
14)	S	2,4,6-Tribromo...	0.199	0.178	0.158	0.204	0.213	0.206	0.224	0.198	11.32
15)	S	2-Fluorobiphenyl	1.593	1.579	1.360	1.726	1.667	1.542	1.561	1.575	7.29
16)		Acenaphthylene	2.027	1.956	1.678	2.156	2.136	2.018	2.077	2.007	8.02
17)		Acenaphthene	1.338	1.292	1.133	1.458	1.440	1.332	1.368	1.337	8.07
18)		Fluorene	1.692	1.628	1.434	1.816	1.793	1.650	1.653	1.667	7.55
19)	I	Phenanthrene-d10	----------ISTD----------								
20)		4,6-Dinitro-2-...	0.043	0.045	0.060	0.065	0.069	0.076	0.059	22.17	
21)		4-Bromophenyl-...	0.235	0.234	0.210	0.246	0.238	0.229	0.229	0.231	4.76
22)		Hexachlorobenzene	0.265	0.262	0.238	0.278	0.267	0.254	0.250	0.259	5.10
23)		Atrazine	0.196	0.190	0.178	0.214	0.214	0.203	0.199	0.199	6.44
24)		Pentachlorophenol	0.102	0.088	0.091	0.114	0.122	0.127	0.138	0.112	16.80
25)		Phenanthrene	1.166	1.168	1.076	1.267	1.233	1.168	1.158	1.176	5.16
26)		Anthracene	1.080	1.074	0.990	1.163	1.177	1.108	1.114	1.101	5.67
27)	SURR	Fluoranthene-d10	0.935	0.883	0.849	1.006	1.019	0.940	0.937	0.938	6.48
28)		Fluoranthene	1.282	1.221	1.174	1.404	1.416	1.296	1.283	1.297	6.82
29)	I	Chrysene-d12	----------ISTD----------								
30)		Pyrene	2.207	2.148	1.926	2.280	2.091	2.001	1.987	2.091	6.12
31)	S	Terphenyl-d14	0.911	0.869	0.788	0.931	0.867	0.825	0.822	0.859	5.92
32)		Benzo(a)anthra...	1.620	1.534	1.406	1.721	1.679	1.581	1.606	1.592	6.45
33)		Chrysene	1.596	1.522	1.406	1.688	1.644	1.519	1.538	1.559	5.98
34)		Bis(2-ethylhex...	1.487	1.243	1.291	1.388	1.332	1.237	1.342	1.331	6.57
35)	I	Perylene-d12	----------ISTD----------								

Method Path : Z:\svoasrv\HPCHEM1\BNA_N\Methods\
Method File : 8270-SIM-BN103024.M

36)		Indeno(1,2,3-c...	1.517	1.552	1.332	1.572	1.482	1.423	1.421	1.471	5.76
37)		Benzo(b)fluora...	1.589	1.500	1.450	1.753	1.730	1.619	1.632	1.610	6.87
38)		Benzo(k)fluora...	1.562	1.491	1.396	1.704	1.653	1.605	1.588	1.571	6.52
39)	C	Benzo(a)pyrene	1.315	1.277	1.181	1.434	1.404	1.336	1.355	1.329	6.31
40)		Dibenzo(a,h)an...	1.189	1.210	1.035	1.230	1.152	1.110	1.107	1.147	5.98
41)		Benzo(g,h,i)pe...	1.302	1.335	1.138	1.329	1.223	1.185	1.170	1.240	6.54

(#) = Out of Range

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/04/2024 10:45

Lab File ID: BN034837.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.509		-12.1	20.0
Fluoranthene-d10	0.938	0.850		-9.4	20.0
2-Fluorophenol	1.212	1.321		9.0	20.0
Phenol-d6	1.574	1.765		12.1	20.0
Nitrobenzene-d5	0.314	0.267		-15.0	20.0
2-Fluorobiphenyl	1.575	1.431		-9.1	20.0
2,4,6-Tribromophenol	0.198	0.184		-7.1	20.0
Terphenyl-d14	0.859	0.704		-18.0	20.0
1,4-Dioxane	0.439	0.380		-13.4	20.0

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/04/2024 20:18

Lab File ID: BN034848.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.488		-15.7	50.0
Fluoranthene-d10	0.938	0.802		-14.5	50.0
2-Fluorophenol	1.212	1.008		-16.8	50.0
Phenol-d6	1.574	1.339		-14.9	50.0
Nitrobenzene-d5	0.314	0.263		-16.2	50.0
2-Fluorobiphenyl	1.575	1.392		-11.6	50.0
2,4,6-Tribromophenol	0.198	0.112		-43.4	50.0
Terphenyl-d14	0.859	0.716		-16.6	50.0
1,4-Dioxane	0.439	0.402		-8.4	50.0

All other compounds must meet a minimum RRF of 0.010.

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/04/2024 21:33

Lab File ID: BN034850.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.495		-14.5	20.0
Fluoranthene-d10	0.938	0.829		-11.6	20.0
2-Fluorophenol	1.212	1.320		8.9	20.0
Phenol-d6	1.574	1.837		16.7	20.0
Nitrobenzene-d5	0.314	0.268		-14.6	20.0
2-Fluorobiphenyl	1.575	1.396		-11.4	20.0
2,4,6-Tribromophenol	0.198	0.157		-20.7	20.0
Terphenyl-d14	0.859	0.690		-19.7	20.0
1,4-Dioxane	0.439	0.410		-6.6	20.0

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/05/2024 04:09

Lab File ID: BN034861.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.506		-12.6	50.0
Fluoranthene-d10	0.938	0.812		-13.4	50.0
2-Fluorophenol	1.212	1.041		-14.1	50.0
Phenol-d6	1.574	1.409		-10.5	50.0
Nitrobenzene-d5	0.314	0.279		-11.1	50.0
2-Fluorobiphenyl	1.575	1.451		-7.9	50.0
2,4,6-Tribromophenol	0.198	0.105		-47.0	50.0
Terphenyl-d14	0.859	0.735		-14.4	50.0
1,4-Dioxane	0.439	0.451		2.7	50.0

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/05/2024 09:23

Lab File ID: BN034863.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4 Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.493		-14.9	20.0
Fluoranthene-d10	0.938	0.814		-13.2	20.0
2-Fluorophenol	1.212	1.283		5.9	20.0
Phenol-d6	1.574	1.818		15.5	20.0
Nitrobenzene-d5	0.314	0.275		-12.4	20.0
2-Fluorobiphenyl	1.575	1.404		-10.9	20.0
2,4,6-Tribromophenol	0.198	0.147		-25.8	20.0
Terphenyl-d14	0.859	0.683		-20.5	20.0
1,4-Dioxane	0.439	0.397		-9.6	20.0

All other compounds must meet a minimum RRF of 0.010.

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Fax : 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4665 SAS No.: P4665 SDG No.: P4665

Instrument ID: BNA_N Calibration Date/Time: 11/05/2024 12:46

Lab File ID: BN034867.D Init. Calib. Date(s): 10/30/2024 10/30/2024

EPA Sample No.: SSTDCCC0.4EC Init. Calib. Time(s): 09:20 12:56

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

COMPOUND	RRF	RRF0.4	MIN RRF	%D	MAX%D
2-Methylnaphthalene-d10	0.579	0.483		-16.6	50.0
Fluoranthene-d10	0.938	0.785		-16.3	50.0
2-Fluorophenol	1.212	0.999		-17.6	50.0
Phenol-d6	1.574	1.370		-13.0	50.0
Nitrobenzene-d5	0.314	0.275		-12.4	50.0
2-Fluorobiphenyl	1.575	1.390		-11.7	50.0
2,4,6-Tribromophenol	0.198	0.099		-50.0	50.0
Terphenyl-d14	0.859	0.680		-20.8	50.0
1,4-Dioxane	0.439	0.427		-2.7	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: P4665/666

COC Number:

CLIENT INFORMATION	PROJECT INFORMATION	BILLING INFORMATION
COMPANY: Tetra Tech	PROJECT NAME: NWIRP Bethpage	BILL TO: SEE CONTRACT PO#
ADDRESS: 4433 Corporation Lane Suite 300	PROJECT #: 112G08005-WE13 LOCATION: VPB-189	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

FAX: 2 & 10 DAYS*
HARD COPY: 2 & 10 DAYS*
EDD 2 & 10 DAYS*
* TO BE APPROVED BY CHEMTECH
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ RESEULTS ONLY
- ☐ RESULTS + QC
- ☐ New Jersey REDUCED
- ☐ New Jersey CLP
- ☐ USEPA CLP
- ☐ New York State ASP "B"
- ☐ New York State ASP "A"
- ☐ Other
- ☐ EDD Format

ANALYSIS

1	2	3	4	5	6	7	8	9
VOC(SW846-8260B)	1,4 Dioxane (8270 SIM)							

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES A	1	2	3	4	5	6	7	8	9	COMMENTS
1.	BP-VPB-190-TB-20241029	QA		X	10/29/24	8:00	2	2										Trip Blank
2.	VPB190-HYD-20241030	QA		X	10/30/24	9:15	5	2	1	2								Hydrant Sample
3.	BP-VPB-190-EB-20241030	QA		X	10/30/24	10:25	2	2										Equipment Blank
4.	BP-VPB-190-GW-538-540	AQ		X	10/29/24	10:40	2	2										
5.	BP-VPB-190-GW-558-560	AQ		X	10/29/24	13:30	5	4	1									Collected extra vials due to high particulate matter
6.	BP-VPB-190-GW-583-585	AQ		X	10/30/24	12:05	4	4										Collected extra vials due to high particulate matter
7.	BP-VPB-190-GW-598-600	AQ		X	10/30/24	14:15	3	2	1									
8.																		
9.																		
10.																		

COMMENTS <-- Specify Preservatives
A-HCl B-HNO3
C-H2SO4 D-NaOH
E-ICE F-Other

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

	DATE/TIME		
1. RELINQUISHED BY SAMPLER	10/31/24 15:30	1. RECEIVED BY	1650 10-31-24
2. RELINQUISHED BY	DATE/TIME	2. RECEIVED BY	
3. RELINQUISHED BY	1850 10-31-24	3. RECEIVED FOR LAB BY	

Conditions of bottles or coolers at receipt: ☐ Compliant ☐ Non Compliant ☐ Cooler Temp 2.9°C
MeOH extraction requires an additional 4oz. Jar for percent solid ☐ Ice in Cooler?:

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

Page 1 of 1

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

Shipment Complete ☐ YES ☐ NO

WHITE - CHEMTECH COPYFOR 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

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P4665 TETR06 **Order Date :** 10/31/2024 3:52:00 PM **Project Mgr :**
Client Name : Tetra Tech NUS, Inc. **Project Name :** CTO WE13 **Report Type :** Level 4
Client Contact : Ernie Wu **Receive DateTime :** 10/31/2024 ~~12:00:00~~ 18:50 AM **EDD Type :** ADAPT
Invoice Name : Tetra Tech NUS, Inc. **Purchase Order :** **Hard Copy Date :**
Invoice Contact : Ernie Wu **Date Signoff :**

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P4665-01	BP-VPB-190-TB-20241029	Water	10/29/2024	08:00					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-02	VPB190-HYD-20241030	Water	10/30/2024	09:15					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-03	BP-VPB-190-EB-20241030	Water	10/30/2024	10:25					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-04	BP-VPB-190-GW-538-540	Water	~~10/30/2024~~ 10/29/2024	10:40					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-05	BP-VPB-190-GW-558-560	Water	~~10/30/2024~~ 10/29/2024	13:30					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-06	BP-VPB-190-GW-583-585	Water	10/30/2024	12:05					
					VOCMS Group1		8260-Low	2 Bus. Days	
P4665-07	BP-VPB-190-GW-598-600	Water	10/30/2024	14:15					
					VOCMS Group1		8260-Low	2 Bus. Days	

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	P4665 TETR06	**Order Date :**	10/31/2024 3:52:00 PM	**Project Mgr :**	
Client Name :	Tetra Tech NUS, Inc.	**Project Name :**	CTO WE13	**Report Type :**	Level 4
Client Contact :	Ernie Wu	**Receive DateTime :**	10/31/2024 ~~12:00:00~~ 18:50 AM	**EDD Type :**	ADAPT
Invoice Name :	Tetra Tech NUS, Inc.	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Ernie Wu			**Date Signoff :**	

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

Relinguished By :
Date / Time : 11-1-24 0915

Received By : Jay
Date / Time : 11/1/24 0915 Ng#4

Storage Area : VOA Refridgerator Room