

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-2024 1029	Water			10/29/24			10/31/24
			VOCMS Group1	8260-Low			11/01/24	
P4665-02	VPB190-HYD-202410 30	Water			10/30/24			10/31/24
			VOCMS Group1	8260-Low			11/01/24	
P4665-03	BP-VPB-190-EB-2024 1030	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	

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

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

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					

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	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

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					

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	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

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					

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	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

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					

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	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

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					

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
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	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

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					

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

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

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	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

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					

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
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U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



QC SUMMARY

Surrogate Summary

SDG No.: **P4665**

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

Analytical Method: **SW8260-Low**

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	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

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	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	

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	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

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: _____

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

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

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.

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

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

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

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

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	
Soil Aliquot Vol:			uL	
GC Column:	RXI-624	ID :	0.25	
Prep Method :		Level :	LOW	
		Final Vol:	5000	uL
		Test:	VOCMS Group1	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
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

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

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>TETR06</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>P4665</u>
Instrument ID:	<u>MSVOA_N</u>	SAS No.:	<u>P4665</u>
Heated Purge: (Y/N)	<u>N</u>	SDG No.:	<u>P4665</u>
GC Column:	<u>RXI-624</u>	Calibration Date(s):	<u>10/30/2024</u>
ID:	<u>0.25 (mm)</u>	Calibration Time(s):	<u>11:46</u>
			<u>13:45</u>

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

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: 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	RRF	% RSD	
Dibromochloromethane	0.404	0.394	0.391	0.393	0.377	0.312	0.378	8.9	
Tetrachloroethene	0.326	0.313	0.333	0.347	0.351	0.325	0.333	4.3	
Chlorobenzene	1.068	1.061	1.149	1.123	1.165	1.146	1.119	3.9	
Ethyl Benzene	1.957	1.891	1.928	1.880	1.849	1.697	1.867	4.9	
m/p-Xylenes	0.737	0.728	0.737	0.701	0.683	0.654	0.707	4.8	
o-Xylene	0.703	0.690	0.701	0.679	0.645	0.550	0.661	8.9	
Styrene	1.223	1.205	1.206	1.144	1.093	1.050	1.154	6.1	
Bromoform	0.287	0.295	0.298	0.289	0.302	0.286	0.293	2.3	
Isopropylbenzene	3.558	3.570	3.701	3.605	3.402	3.188	3.504	5.2	
1,1,2,2-Tetrachloroethane	1.052	1.073	1.163	1.190	1.317	1.222	1.170	8.4	
1,3-Dichlorobenzene	1.642	1.668	1.770	1.802	1.884	2.264	1.838	12.3	
1,4-Dichlorobenzene	1.646	1.674	1.782	1.867	1.879	2.773	1.937	21.7	
1,2-Dichlorobenzene	1.601	1.618	1.748	1.732	1.879	2.021	1.766	9.1	
1,2-Dichloroethane-d4	0.689	0.721	0.708	0.722	0.771		0.722	4.2	
Dibromofluoromethane	0.334	0.344	0.326	0.336	0.353		0.338	3.1	
Toluene-d8	1.267	1.303	1.216	1.231	1.217		1.247	3	
4-Bromofluorobenzene	0.481	0.493	0.450	0.451	0.454		0.466	4.3	

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: 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.

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.

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.

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.