

LAB CHRONICLE

OrderID:	P4549	OrderDate:	10/24/2024 4:00:00 PM
Client:	Tetra Tech NUS, Inc.	Project:	CTO WE13
Contact:	Ernie Wu	Location:	K11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4549-01	TT-TB-20241024	Water	VOCMS Group4	624.1	10/24/24		10/25/24	10/24/24
P4549-02	TT-067-IDWGW-20241024	Water	VOCMS Group4	624.1	10/24/24		10/25/24	10/24/24
P4549-03	TT-068-IDWGW-20241024	Water	VOCMS Group4	624.1	10/24/24		10/25/24	10/24/24
P4549-04	TT-069-IDWGW-20241024	Water	VOCMS Group4	624.1	10/24/24		10/25/24	10/24/24

Hit Summary Sheet
SW-846

SDG No.: P4549
Client: Tetra Tech NUS, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: P4549-02	TT-067-IDWGW-20241024 TT-067-IDWGW-20 Water		Trichloroethene	3.80	J	3.10	20.0	ug/L
			Total Voc :	3.80				
			Total Concentration:	3.80				
Client ID: P4549-03	TT-068-IDWGW-20241024 TT-068-IDWGW-20 Water		Trichloroethene	25.2		3.10	20.0	ug/L
			Total Voc :	25.2				
			Total Concentration:	25.2				
Client ID: P4549-04	TT-069-IDWGW-20241024 TT-069-IDWGW-20 Water		Trichloroethene	26.2		3.10	20.0	ug/L
			Total Voc :	26.2				
			Total Concentration:	26.2				



SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/24/24	
Project:	CTO WE13		Date Received:	10/24/24	
Client Sample ID:	TT-TB-20241024		SDG No.:	P4549	
Lab Sample ID:	P4549-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084512.D	1		10/25/24 13:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.20	U	1.20	5.00	ug/L
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
67-64-1	Acetone	4.90	U	4.90	25.0	ug/L
75-15-0	Carbon Disulfide	0.93	U	0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.83	U	0.83	5.00	ug/L
79-20-9	Methyl Acetate	1.20	U	1.20	5.00	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
110-82-7	Cyclohexane	1.00	U	1.00	5.00	ug/L
78-93-3	2-Butanone	3.60	U	3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	1.10	U	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.90	U	0.90	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
108-87-2	Methylcyclohexane	0.89	U	0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.75	U	0.75	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-TB-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-01			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084512.D	1		10/25/24 13:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.70	U	0.70	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	4.20	U	4.20	25.0	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.68	U	0.68	5.00	ug/L
591-78-6	2-Hexanone	3.90	U	3.90	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.78	U	0.78	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	0.91	5.00	ug/L
67-72-1	Hexachloroethane	0.91	U	0.91	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L
100-42-5	Styrene	0.80	U	0.80	5.00	ug/L
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
98-82-8	Isopropylbenzene	0.85	U	0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	1.70	U	1.70	5.00	ug/L
108-86-1	Bromobenzene	0.69	U	0.69	5.00	ug/L
103-65-1	n-propylbenzene	0.80	U	0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	0.81	U	0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.74	U	0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	0.82	U	0.82	5.00	ug/L
98-06-6	tert-butylbenzene	0.77	U	0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.83	U	0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	0.77	U	0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/24/24	
Project:	CTO WE13		Date Received:	10/24/24	
Client Sample ID:	TT-TB-20241024		SDG No.:	P4549	
Lab Sample ID:	P4549-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084512.D	1		10/25/24 13:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.82	U	0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
104-51-8	n-Butylbenzene	0.86	U	0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.10	U	1.10	5.00	ug/L
91-20-3	Naphthalene	1.40	U	1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.40	U	1.40	5.00	ug/L
74-88-4	Methyl Iodide	0.94	U	0.94	5.00	ug/L
80-62-6	Methyl methacrylate	1.00	U	1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.1		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	29.3		91 - 112	98%	SPK: 30
460-00-4	4-Bromofluorobenzene	25.2		63 - 112	84%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	29900	7.818			
540-36-3	1,4-Difluorobenzene	153000	9.1			
3114-55-4	Chlorobenzene-d5	136000	11.865			

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:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-067-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-02			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084516.D	4		10/25/24 15:15	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	4.90	U	4.90	20.0	ug/L
74-87-3	Chloromethane	4.70	U	4.70	20.0	ug/L
75-01-4	Vinyl Chloride	4.90	U	4.90	20.0	ug/L
74-83-9	Bromomethane	5.50	U	5.50	20.0	ug/L
75-00-3	Chloroethane	11.7	U	11.7	20.0	ug/L
75-69-4	Trichlorofluoromethane	4.00	U	4.00	20.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4.20	U	4.20	20.0	ug/L
75-35-4	1,1-Dichloroethene	4.20	U	4.20	20.0	ug/L
107-02-8	Acrolein	37.2	U	37.2	100	ug/L
107-13-1	Acrylonitrile	14.7	U	14.7	100	ug/L
67-64-1	Acetone	19.6	U	19.6	100	ug/L
75-15-0	Carbon Disulfide	3.70	U	3.70	20.0	ug/L
1634-04-4	Methyl tert-Butyl Ether	3.30	U	3.30	20.0	ug/L
79-20-9	Methyl Acetate	4.90	U	4.90	20.0	ug/L
75-09-2	Methylene Chloride	4.80	U	4.80	20.0	ug/L
156-60-5	trans-1,2-Dichloroethene	3.80	U	3.80	20.0	ug/L
75-34-3	1,1-Dichloroethane	3.20	U	3.20	20.0	ug/L
110-82-7	Cyclohexane	4.10	U	4.10	20.0	ug/L
78-93-3	2-Butanone	14.2	U	14.2	100	ug/L
56-23-5	Carbon Tetrachloride	3.60	U	3.60	20.0	ug/L
594-20-7	2,2-Dichloropropane	4.60	U	4.60	20.0	ug/L
156-59-2	cis-1,2-Dichloroethene	3.60	U	3.60	20.0	ug/L
67-66-3	Chloroform	2.90	U	2.90	20.0	ug/L
71-55-6	1,1,1-Trichloroethane	3.20	U	3.20	20.0	ug/L
108-87-2	Methylcyclohexane	3.60	U	3.60	20.0	ug/L
563-58-6	1,1-Dichloropropene	3.00	U	3.00	20.0	ug/L
71-43-2	Benzene	2.80	U	2.80	20.0	ug/L
107-06-2	1,2-Dichloroethane	3.00	U	3.00	20.0	ug/L
79-01-6	Trichloroethene	3.80	J	3.10	20.0	ug/L
78-87-5	1,2-Dichloropropane	2.60	U	2.60	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-067-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-02			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084516.D	4		10/25/24 15:15	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	2.80	U	2.80	20.0	ug/L
75-27-4	Bromodichloromethane	3.20	U	3.20	20.0	ug/L
108-10-1	4-Methyl-2-Pentanone	16.6	U	16.6	100	ug/L
108-88-3	Toluene	2.90	U	2.90	20.0	ug/L
10061-02-6	t-1,3-Dichloropropene	3.20	U	3.20	20.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	3.30	U	3.30	20.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.70	U	2.70	20.0	ug/L
142-28-9	1,3-Dichloropropane	2.70	U	2.70	20.0	ug/L
591-78-6	2-Hexanone	15.8	U	15.8	100	ug/L
124-48-1	Dibromochloromethane	2.90	U	2.90	20.0	ug/L
106-93-4	1,2-Dibromoethane	3.10	U	3.10	20.0	ug/L
127-18-4	Tetrachloroethene	3.80	U	3.80	20.0	ug/L
108-90-7	Chlorobenzene	2.70	U	2.70	20.0	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	3.60	U	3.60	20.0	ug/L
67-72-1	Hexachloroethane	3.60	U	3.60	20.0	ug/L
100-41-4	Ethyl Benzene	2.90	U	2.90	20.0	ug/L
179601-23-1	m/p-Xylenes	6.90	U	6.90	40.0	ug/L
95-47-6	o-Xylene	3.30	U	3.30	20.0	ug/L
100-42-5	Styrene	3.20	U	3.20	20.0	ug/L
75-25-2	Bromoform	4.00	U	4.00	20.0	ug/L
98-82-8	Isopropylbenzene	3.40	U	3.40	20.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.40	U	2.40	20.0	ug/L
96-18-4	1,2,3-Trichloropropane	6.90	U	6.90	20.0	ug/L
108-86-1	Bromobenzene	2.80	U	2.80	20.0	ug/L
103-65-1	n-propylbenzene	3.20	U	3.20	20.0	ug/L
95-49-8	2-Chlorotoluene	3.20	U	3.20	20.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.00	U	3.00	20.0	ug/L
106-43-4	4-Chlorotoluene	3.30	U	3.30	20.0	ug/L
98-06-6	tert-butylbenzene	3.10	U	3.10	20.0	ug/L
95-63-6	1,2,4-Trimethylbenzene	3.30	U	3.30	20.0	ug/L
135-98-8	sec-Butylbenzene	3.10	U	3.10	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/24/24	
Project:	CTO WE13		Date Received:	10/24/24	
Client Sample ID:	TT-067-IDWGW-20241024		SDG No.:	P4549	
Lab Sample ID:	P4549-02		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084516.D	4		10/25/24 15:15	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	3.30	U	3.30	20.0	ug/L
541-73-1	1,3-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
106-46-7	1,4-Dichlorobenzene	3.80	U	3.80	20.0	ug/L
104-51-8	n-Butylbenzene	3.40	U	3.40	20.0	ug/L
95-50-1	1,2-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	3.60	U	3.60	20.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	4.40	U	4.40	20.0	ug/L
87-68-3	Hexachlorobutadiene	4.40	U	4.40	20.0	ug/L
91-20-3	Naphthalene	5.80	U	5.80	20.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.60	U	5.60	20.0	ug/L
74-88-4	Methyl Iodide	3.80	U	3.80	20.0	ug/L
80-62-6	Methyl methacrylate	4.00	U	4.00	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.0		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	28.5		91 - 112	95%	SPK: 30
460-00-4	4-Bromofluorobenzene	25.2		63 - 112	84%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	28300	7.812			
540-36-3	1,4-Difluorobenzene	137000	9.1			
3114-55-4	Chlorobenzene-d5	126000	11.865			

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:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-068-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-03			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084515.D	4		10/25/24 14:51	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	4.90	U	4.90	20.0	ug/L
74-87-3	Chloromethane	4.70	U	4.70	20.0	ug/L
75-01-4	Vinyl Chloride	4.90	U	4.90	20.0	ug/L
74-83-9	Bromomethane	5.50	U	5.50	20.0	ug/L
75-00-3	Chloroethane	11.7	U	11.7	20.0	ug/L
75-69-4	Trichlorofluoromethane	4.00	U	4.00	20.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4.20	U	4.20	20.0	ug/L
75-35-4	1,1-Dichloroethene	4.20	U	4.20	20.0	ug/L
107-02-8	Acrolein	37.2	U	37.2	100	ug/L
107-13-1	Acrylonitrile	14.7	U	14.7	100	ug/L
67-64-1	Acetone	19.6	U	19.6	100	ug/L
75-15-0	Carbon Disulfide	3.70	U	3.70	20.0	ug/L
1634-04-4	Methyl tert-Butyl Ether	3.30	U	3.30	20.0	ug/L
79-20-9	Methyl Acetate	4.90	U	4.90	20.0	ug/L
75-09-2	Methylene Chloride	4.80	U	4.80	20.0	ug/L
156-60-5	trans-1,2-Dichloroethene	3.80	U	3.80	20.0	ug/L
75-34-3	1,1-Dichloroethane	3.20	U	3.20	20.0	ug/L
110-82-7	Cyclohexane	4.10	U	4.10	20.0	ug/L
78-93-3	2-Butanone	14.2	U	14.2	100	ug/L
56-23-5	Carbon Tetrachloride	3.60	U	3.60	20.0	ug/L
594-20-7	2,2-Dichloropropane	4.60	U	4.60	20.0	ug/L
156-59-2	cis-1,2-Dichloroethene	3.60	U	3.60	20.0	ug/L
67-66-3	Chloroform	2.90	U	2.90	20.0	ug/L
71-55-6	1,1,1-Trichloroethane	3.20	U	3.20	20.0	ug/L
108-87-2	Methylcyclohexane	3.60	U	3.60	20.0	ug/L
563-58-6	1,1-Dichloropropene	3.00	U	3.00	20.0	ug/L
71-43-2	Benzene	2.80	U	2.80	20.0	ug/L
107-06-2	1,2-Dichloroethane	3.00	U	3.00	20.0	ug/L
79-01-6	Trichloroethene	25.2		3.10	20.0	ug/L
78-87-5	1,2-Dichloropropane	2.60	U	2.60	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-068-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-03			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084515.D	4		10/25/24 14:51	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	2.80	U	2.80	20.0	ug/L
75-27-4	Bromodichloromethane	3.20	U	3.20	20.0	ug/L
108-10-1	4-Methyl-2-Pentanone	16.6	U	16.6	100	ug/L
108-88-3	Toluene	2.90	U	2.90	20.0	ug/L
10061-02-6	t-1,3-Dichloropropene	3.20	U	3.20	20.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	3.30	U	3.30	20.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.70	U	2.70	20.0	ug/L
142-28-9	1,3-Dichloropropane	2.70	U	2.70	20.0	ug/L
591-78-6	2-Hexanone	15.8	U	15.8	100	ug/L
124-48-1	Dibromochloromethane	2.90	U	2.90	20.0	ug/L
106-93-4	1,2-Dibromoethane	3.10	U	3.10	20.0	ug/L
127-18-4	Tetrachloroethene	3.80	U	3.80	20.0	ug/L
108-90-7	Chlorobenzene	2.70	U	2.70	20.0	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	3.60	U	3.60	20.0	ug/L
67-72-1	Hexachloroethane	3.60	U	3.60	20.0	ug/L
100-41-4	Ethyl Benzene	2.90	U	2.90	20.0	ug/L
179601-23-1	m/p-Xylenes	6.90	U	6.90	40.0	ug/L
95-47-6	o-Xylene	3.30	U	3.30	20.0	ug/L
100-42-5	Styrene	3.20	U	3.20	20.0	ug/L
75-25-2	Bromoform	4.00	U	4.00	20.0	ug/L
98-82-8	Isopropylbenzene	3.40	U	3.40	20.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.40	U	2.40	20.0	ug/L
96-18-4	1,2,3-Trichloropropane	6.90	U	6.90	20.0	ug/L
108-86-1	Bromobenzene	2.80	U	2.80	20.0	ug/L
103-65-1	n-propylbenzene	3.20	U	3.20	20.0	ug/L
95-49-8	2-Chlorotoluene	3.20	U	3.20	20.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.00	U	3.00	20.0	ug/L
106-43-4	4-Chlorotoluene	3.30	U	3.30	20.0	ug/L
98-06-6	tert-butylbenzene	3.10	U	3.10	20.0	ug/L
95-63-6	1,2,4-Trimethylbenzene	3.30	U	3.30	20.0	ug/L
135-98-8	sec-Butylbenzene	3.10	U	3.10	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/24/24	
Project:	CTO WE13		Date Received:	10/24/24	
Client Sample ID:	TT-068-IDWGW-20241024		SDG No.:	P4549	
Lab Sample ID:	P4549-03		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084515.D	4		10/25/24 14:51	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	3.30	U	3.30	20.0	ug/L
541-73-1	1,3-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
106-46-7	1,4-Dichlorobenzene	3.80	U	3.80	20.0	ug/L
104-51-8	n-Butylbenzene	3.40	U	3.40	20.0	ug/L
95-50-1	1,2-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	3.60	U	3.60	20.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	4.40	U	4.40	20.0	ug/L
87-68-3	Hexachlorobutadiene	4.40	U	4.40	20.0	ug/L
91-20-3	Naphthalene	5.80	U	5.80	20.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.60	U	5.60	20.0	ug/L
74-88-4	Methyl Iodide	3.80	U	3.80	20.0	ug/L
80-62-6	Methyl methacrylate	4.00	U	4.00	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	31.0		91 - 110	103%	SPK: 30
2037-26-5	Toluene-d8	28.6		91 - 112	95%	SPK: 30
460-00-4	4-Bromofluorobenzene	24.7		63 - 112	82%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	29100	7.818			
540-36-3	1,4-Difluorobenzene	146000	9.1			
3114-55-4	Chlorobenzene-d5	134000	11.865			

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:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-069-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-04			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084517.D	4		10/25/24 15:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	4.90	U	4.90	20.0	ug/L
74-87-3	Chloromethane	4.70	U	4.70	20.0	ug/L
75-01-4	Vinyl Chloride	4.90	U	4.90	20.0	ug/L
74-83-9	Bromomethane	5.50	U	5.50	20.0	ug/L
75-00-3	Chloroethane	11.7	U	11.7	20.0	ug/L
75-69-4	Trichlorofluoromethane	4.00	U	4.00	20.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4.20	U	4.20	20.0	ug/L
75-35-4	1,1-Dichloroethene	4.20	U	4.20	20.0	ug/L
107-02-8	Acrolein	37.2	U	37.2	100	ug/L
107-13-1	Acrylonitrile	14.7	U	14.7	100	ug/L
67-64-1	Acetone	19.6	U	19.6	100	ug/L
75-15-0	Carbon Disulfide	3.70	U	3.70	20.0	ug/L
1634-04-4	Methyl tert-Butyl Ether	3.30	U	3.30	20.0	ug/L
79-20-9	Methyl Acetate	4.90	U	4.90	20.0	ug/L
75-09-2	Methylene Chloride	4.80	U	4.80	20.0	ug/L
156-60-5	trans-1,2-Dichloroethene	3.80	U	3.80	20.0	ug/L
75-34-3	1,1-Dichloroethane	3.20	U	3.20	20.0	ug/L
110-82-7	Cyclohexane	4.10	U	4.10	20.0	ug/L
78-93-3	2-Butanone	14.2	U	14.2	100	ug/L
56-23-5	Carbon Tetrachloride	3.60	U	3.60	20.0	ug/L
594-20-7	2,2-Dichloropropane	4.60	U	4.60	20.0	ug/L
156-59-2	cis-1,2-Dichloroethene	3.60	U	3.60	20.0	ug/L
67-66-3	Chloroform	2.90	U	2.90	20.0	ug/L
71-55-6	1,1,1-Trichloroethane	3.20	U	3.20	20.0	ug/L
108-87-2	Methylcyclohexane	3.60	U	3.60	20.0	ug/L
563-58-6	1,1-Dichloropropene	3.00	U	3.00	20.0	ug/L
71-43-2	Benzene	2.80	U	2.80	20.0	ug/L
107-06-2	1,2-Dichloroethane	3.00	U	3.00	20.0	ug/L
79-01-6	Trichloroethene	26.2		3.10	20.0	ug/L
78-87-5	1,2-Dichloropropane	2.60	U	2.60	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.			Date Collected:	10/24/24	
Project:	CTO WE13			Date Received:	10/24/24	
Client Sample ID:	TT-069-IDWGW-20241024			SDG No.:	P4549	
Lab Sample ID:	P4549-04			Matrix:	Water	
Analytical Method:	E624.1			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084517.D	4		10/25/24 15:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	2.80	U	2.80	20.0	ug/L
75-27-4	Bromodichloromethane	3.20	U	3.20	20.0	ug/L
108-10-1	4-Methyl-2-Pentanone	16.6	U	16.6	100	ug/L
108-88-3	Toluene	2.90	U	2.90	20.0	ug/L
10061-02-6	t-1,3-Dichloropropene	3.20	U	3.20	20.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	3.30	U	3.30	20.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.70	U	2.70	20.0	ug/L
142-28-9	1,3-Dichloropropane	2.70	U	2.70	20.0	ug/L
591-78-6	2-Hexanone	15.8	U	15.8	100	ug/L
124-48-1	Dibromochloromethane	2.90	U	2.90	20.0	ug/L
106-93-4	1,2-Dibromoethane	3.10	U	3.10	20.0	ug/L
127-18-4	Tetrachloroethene	3.80	U	3.80	20.0	ug/L
108-90-7	Chlorobenzene	2.70	U	2.70	20.0	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	3.60	U	3.60	20.0	ug/L
67-72-1	Hexachloroethane	3.60	U	3.60	20.0	ug/L
100-41-4	Ethyl Benzene	2.90	U	2.90	20.0	ug/L
179601-23-1	m/p-Xylenes	6.90	U	6.90	40.0	ug/L
95-47-6	o-Xylene	3.30	U	3.30	20.0	ug/L
100-42-5	Styrene	3.20	U	3.20	20.0	ug/L
75-25-2	Bromoform	4.00	U	4.00	20.0	ug/L
98-82-8	Isopropylbenzene	3.40	U	3.40	20.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	2.40	U	2.40	20.0	ug/L
96-18-4	1,2,3-Trichloropropane	6.90	U	6.90	20.0	ug/L
108-86-1	Bromobenzene	2.80	U	2.80	20.0	ug/L
103-65-1	n-propylbenzene	3.20	U	3.20	20.0	ug/L
95-49-8	2-Chlorotoluene	3.20	U	3.20	20.0	ug/L
108-67-8	1,3,5-Trimethylbenzene	3.00	U	3.00	20.0	ug/L
106-43-4	4-Chlorotoluene	3.30	U	3.30	20.0	ug/L
98-06-6	tert-butylbenzene	3.10	U	3.10	20.0	ug/L
95-63-6	1,2,4-Trimethylbenzene	3.30	U	3.30	20.0	ug/L
135-98-8	sec-Butylbenzene	3.10	U	3.10	20.0	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	10/24/24	
Project:	CTO WE13		Date Received:	10/24/24	
Client Sample ID:	TT-069-IDWGW-20241024		SDG No.:	P4549	
Lab Sample ID:	P4549-04		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084517.D	4		10/25/24 15:39	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	3.30	U	3.30	20.0	ug/L
541-73-1	1,3-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
106-46-7	1,4-Dichlorobenzene	3.80	U	3.80	20.0	ug/L
104-51-8	n-Butylbenzene	3.40	U	3.40	20.0	ug/L
95-50-1	1,2-Dichlorobenzene	3.50	U	3.50	20.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	3.60	U	3.60	20.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	4.40	U	4.40	20.0	ug/L
87-68-3	Hexachlorobutadiene	4.40	U	4.40	20.0	ug/L
91-20-3	Naphthalene	5.80	U	5.80	20.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.60	U	5.60	20.0	ug/L
74-88-4	Methyl Iodide	3.80	U	3.80	20.0	ug/L
80-62-6	Methyl methacrylate	4.00	U	4.00	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.1		91 - 112	97%	SPK: 30
460-00-4	4-Bromofluorobenzene	25.8		63 - 112	86%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	27900	7.812			
540-36-3	1,4-Difluorobenzene	143000	9.1			
3114-55-4	Chlorobenzene-d5	128000	11.865			

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.: P4549

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
P4549-01	TT-TB-20241024	1,2-Dichloroethane-d4	30	30.1	100	91	110
		Toluene-d8	30	29.3	98	91	112
		4-Bromofluorobenzene	30	25.2	84	63	112
P4549-02	TT-067-IDWGW-20241024	1,2-Dichloroethane-d4	30	30.0	100	91	110
		Toluene-d8	30	28.6	95	91	112
		4-Bromofluorobenzene	30	25.2	84	63	112
P4549-03	TT-068-IDWGW-20241024	1,2-Dichloroethane-d4	30	30.9	103	91	110
		Toluene-d8	30	28.6	95	91	112
		4-Bromofluorobenzene	30	24.7	82	63	112
P4549-04	TT-069-IDWGW-20241024	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	29.1	97	91	112
		4-Bromofluorobenzene	30	25.8	86	63	112
VN1025WBL01	VN1025WBL01	1,2-Dichloroethane-d4	30	30.0	100	91	110
		Toluene-d8	30	30.1	100	91	112
		4-Bromofluorobenzene	30	26.2	87	63	112
VN1025WBS01	VN1025WBS01	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	29.9	100	91	112
		4-Bromofluorobenzene	30	30.6	102	63	112
VN1025WBSD0	VN1025WBSD01	1,2-Dichloroethane-d4	30	30.3	101	91	110
		Toluene-d8	30	29.5	98	91	112
		4-Bromofluorobenzene	30	30.3	101	63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4549

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN084505.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1025WBS01	Dichlorodifluoromethane	20	17.5	ug/L	88			72	118	
	Chloromethane	20	17.5	ug/L	88			1	205	
	Vinyl Chloride	20	18.2	ug/L	91			5	195	
	Bromomethane	20	17.5	ug/L	88			15	185	
	Chloroethane	20	18.5	ug/L	93			40	160	
	Trichlorofluoromethane	20	18.7	ug/L	94			50	150	
	1,1,2-Trichlorotrifluoroethane	20	19.9	ug/L	100			64	127	
	1,1-Dichloroethene	20	18.5	ug/L	93			50	150	
	Acrolein	100	99.2	ug/L	99			60	140	
	Acrylonitrile	100	89.2	ug/L	89			60	140	
	Acetone	100	110	ug/L	110			41	148	
	Carbon disulfide	20	16.5	ug/L	83			76	107	
	Methyl tert-butyl Ether	20	18.8	ug/L	94			82	114	
	Methyl Acetate	20	21.2	ug/L	106			63	139	
	Methylene Chloride	20	19.0	ug/L	95			60	140	
	trans-1,2-Dichloroethene	20	17.8	ug/L	89			70	130	
	1,1-Dichloroethane	20	18.8	ug/L	94			70	130	
	Cyclohexane	20	17.5	ug/L	88			79	113	
	2-Butanone	100	95.6	ug/L	96			69	129	
	Carbon Tetrachloride	20	18.7	ug/L	94			70	130	
	2,2-Dichloropropane	20	19.4	ug/L	97			62	139	
	cis-1,2-Dichloroethene	20	18.5	ug/L	93			81	112	
	Chloroform	20	19.4	ug/L	97			70	135	
	1,1,1-Trichloroethane	20	18.1	ug/L	91			70	130	
	Methylcyclohexane	20	17.4	ug/L	87			79	112	
	1,1-Dichloropropene	20	17.8	ug/L	89			70	139	
	Benzene	20	18.2	ug/L	91			65	135	
	1,2-Dichloroethane	20	18.8	ug/L	94			70	130	
	Trichloroethene	20	18.5	ug/L	93			65	135	
	1,2-Dichloropropane	20	18.4	ug/L	92			35	165	
	Dibromomethane	20	18.4	ug/L	92			72	138	
	Bromodichloromethane	20	19.2	ug/L	96			65	135	
	4-Methyl-2-Pentanone	100	92.6	ug/L	93			73	131	
	Toluene	20	18.8	ug/L	94			70	130	
	t-1,3-Dichloropropene	20	17.8	ug/L	89			50	150	
	cis-1,3-Dichloropropene	20	18.1	ug/L	91			25	175	
	1,1,2-Trichloroethane	20	18.7	ug/L	94			70	130	
	1,3-Dichloropropane	20	18.7	ug/L	94			70	141	
	2-Hexanone	100	94.4	ug/L	94			72	128	
	Dibromochloromethane	20	18.9	ug/L	95			70	135	
	1,2-Dibromoethane	20	18.0	ug/L	90			86	114	
	Tetrachloroethene	20	19.3	ug/L	97			70	130	
	Chlorobenzene	20	18.5	ug/L	93			65	135	
	1,1,1,2-Tetrachloroethane	20	19.3	ug/L	97			63	138	
	Hexachloroethane	20	18.3	ug/L	92			70	130	
	Ethyl Benzene	20	18.6	ug/L	93			60	140	
	m/p-Xylenes	40	37.6	ug/L	94			87	111	
	o-Xylene	20	18.4	ug/L	92			87	111	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4549

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN084505.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1025WBS01	Styrene	20	18.8	ug/L	94			85	106	
	Bromoform	20	17.9	ug/L	90			70	130	
	Isopropylbenzene	20	19.0	ug/L	95			86	112	
	1,1,2,2-Tetrachloroethane	20	18.9	ug/L	95			60	140	
	1,2,3-Trichloropropane	20	18.0	ug/L	90			61	148	
	Bromobenzene	20	19.1	ug/L	96			59	142	
	N-propylbenzene	20	19.0	ug/L	95			67	139	
	2-Chlorotoluene	20	19.0	ug/L	95			66	138	
	1,3,5-Trimethylbenzene	20	19.1	ug/L	96			66	139	
	4-Chlorotoluene	20	18.8	ug/L	94			66	141	
	tert-Butylbenzene	20	19.2	ug/L	96			56	140	
	1,2,4-Trimethylbenzene	20	19.0	ug/L	95			63	142	
	Sec-butylbenzene	20	19.0	ug/L	95			63	144	
	p-Isopropyltoluene	20	18.6	ug/L	93			57	147	
	1,3-Dichlorobenzene	20	19.1	ug/L	96			70	130	
	1,4-Dichlorobenzene	20	18.9	ug/L	95			65	135	
	n-Butylbenzene	20	18.4	ug/L	92			49	157	
	1,2-Dichlorobenzene	20	19.1	ug/L	96			65	135	
	1,2-Dibromo-3-Chloropropane	20	19.2	ug/L	96			69	122	
	1,2,4-Trichlorobenzene	20	17.9	ug/L	90			61	118	
	Hexachlorobutadiene	20	18.5	ug/L	93			16	187	
	Naphthalene	20	16.8	ug/L	84			45	152	
	1,2,3-Trichlorobenzene	20	17.9	ug/L	90			38	159	
	Methyl iodide	20	17.8	ug/L	89			70	130	
	Methyl methacrylate	20	17.2	ug/L	86			70	130	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4549

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN084506.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1025WBSD01	Dichlorodifluoromethane	20	17.2	ug/L	86	2		72	118	20
	Chloromethane	20	16.8	ug/L	84	5		1	205	20
	Vinyl Chloride	20	18.0	ug/L	90	1		5	195	20
	Bromomethane	20	17.2	ug/L	86	2		15	185	20
	Chloroethane	20	18.6	ug/L	93	0		40	160	20
	Trichlorofluoromethane	20	18.3	ug/L	92	2		50	150	20
	1,1,2-Trichlorotrifluoroethane	20	18.9	ug/L	95	5		64	127	20
	1,1-Dichloroethene	20	17.9	ug/L	90	3		50	150	20
	Acrolein	100	100	ug/L	100	1		60	140	20
	Acrylonitrile	100	92.5	ug/L	93	4		60	140	20
	Acetone	100	110	ug/L	110	0		41	148	20
	Carbon disulfide	20	15.9	ug/L	79	5		76	107	20
	Methyl tert-butyl Ether	20	19.1	ug/L	96	2		82	114	20
	Methyl Acetate	20	21.9	ug/L	110	4		63	139	20
	Methylene Chloride	20	18.7	ug/L	94	1		60	140	20
	trans-1,2-Dichloroethene	20	17.5	ug/L	88	1		70	130	20
	1,1-Dichloroethane	20	18.7	ug/L	94	0		70	130	20
	Cyclohexane	20	17.2	ug/L	86	2		79	113	20
	2-Butanone	100	97.6	ug/L	98	2		69	129	20
	Carbon Tetrachloride	20	18.5	ug/L	93	1		70	130	20
	2,2-Dichloropropane	20	19.2	ug/L	96	1		62	139	20
	cis-1,2-Dichloroethene	20	18.4	ug/L	92	1		81	112	20
	Chloroform	20	18.8	ug/L	94	3		70	135	20
	1,1,1-Trichloroethane	20	18.2	ug/L	91	0		70	130	20
	Methylcyclohexane	20	17.1	ug/L	86	1		79	112	20
	1,1-Dichloropropene	20	17.5	ug/L	88	1		70	139	20
	Benzene	20	18.5	ug/L	93	2		65	135	20
	1,2-Dichloroethane	20	18.7	ug/L	94	0		70	130	20
	Trichloroethene	20	18.5	ug/L	93	0		65	135	20
	1,2-Dichloropropane	20	18.2	ug/L	91	1		35	165	20
	Dibromomethane	20	18.4	ug/L	92	0		72	138	20
	Bromodichloromethane	20	18.5	ug/L	93	3		65	135	20
	4-Methyl-2-Pentanone	100	95.9	ug/L	96	3		73	131	20
	Toluene	20	18.6	ug/L	93	1		70	130	20
	t-1,3-Dichloropropene	20	17.8	ug/L	89	0		50	150	20
	cis-1,3-Dichloropropene	20	18.6	ug/L	93	2		25	175	20
	1,1,2-Trichloroethane	20	18.6	ug/L	93	1		70	130	20
	1,3-Dichloropropane	20	18.5	ug/L	93	1		70	141	20
	2-Hexanone	100	97.3	ug/L	97	3		72	128	20
	Dibromochloromethane	20	18.3	ug/L	92	3		70	135	20
	1,2-Dibromoethane	20	18.0	ug/L	90	0		86	114	20
	Tetrachloroethene	20	18.5	ug/L	93	4		70	130	20
	Chlorobenzene	20	18.5	ug/L	93	0		65	135	20
	1,1,1,2-Tetrachloroethane	20	18.9	ug/L	95	2		63	138	20
	Hexachloroethane	20	17.6	ug/L	88	4		70	130	20
	Ethyl Benzene	20	18.2	ug/L	91	2		60	140	20
	m/p-Xylenes	40	37.3	ug/L	93	1		87	111	20
	o-Xylene	20	18.5	ug/L	93	1		87	111	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: P4549

Client: Tetra Tech NUS, Inc.

Analytical Method: SW624.1

Datafile : VN084506.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN1025WBSD01	Styrene	20	18.3	ug/L	92	2		85	106	20
	Bromoform	20	18.2	ug/L	91	1		70	130	20
	Isopropylbenzene	20	18.5	ug/L	93	2		86	112	20
	1,1,2,2-Tetrachloroethane	20	19.1	ug/L	96	1		60	140	20
	1,2,3-Trichloropropane	20	21.3	ug/L	106	16		61	148	20
	Bromobenzene	20	18.2	ug/L	91	5		59	142	20
	N-propylbenzene	20	18.3	ug/L	92	3		67	139	20
	2-Chlorotoluene	20	18.6	ug/L	93	2		66	138	20
	1,3,5-Trimethylbenzene	20	18.5	ug/L	93	3		66	139	20
	4-Chlorotoluene	20	18.3	ug/L	92	2		66	141	20
	tert-Butylbenzene	20	18.8	ug/L	94	2		56	140	20
	1,2,4-Trimethylbenzene	20	18.1	ug/L	91	4		63	142	20
	Sec-butylbenzene	20	18.5	ug/L	93	2		63	144	20
	p-Isopropyltoluene	20	18.3	ug/L	92	1		57	147	20
	1,3-Dichlorobenzene	20	18.5	ug/L	93	3		70	130	20
	1,4-Dichlorobenzene	20	18.0	ug/L	90	5		65	135	20
	n-Butylbenzene	20	17.4	ug/L	87	6		49	157	20
	1,2-Dichlorobenzene	20	18.4	ug/L	92	4		65	135	20
	1,2-Dibromo-3-Chloropropane	20	19.0	ug/L	95	1		69	122	20
	1,2,4-Trichlorobenzene	20	17.6	ug/L	88	2		61	118	20
	Hexachlorobutadiene	20	17.6	ug/L	88	6		16	187	20
	Naphthalene	20	16.7	ug/L	84	0		45	152	20
	1,2,3-Trichlorobenzene	20	17.6	ug/L	88	2		38	159	20
	Methyl iodide	20	17.5	ug/L	88	1		70	130	20
	Methyl methacrylate	20	18.0	ug/L	90	5		70	130	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN1025WBL01

Lab Name: CHEMTECH

Contract: TETR06

Lab Code: CHEM Case No.: P4549

SAS No.: P4549 SDG NO.: P4549

Lab File ID: VN084507.D

Lab Sample ID: VN1025WBL01

Date Analyzed: 10/25/2024

Time Analyzed: 11:27

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
VN1025WBS01	VN1025WBS01	VN084505.D	10/25/2024
VN1025WBSD01	VN1025WBSD01	VN084506.D	10/25/2024
TT-TB-20241024	P4549-01	VN084512.D	10/25/2024
TT-068-IDWGW-20241024	P4549-03	VN084515.D	10/25/2024
TT-067-IDWGW-20241024	P4549-02	VN084516.D	10/25/2024
TT-069-IDWGW-20241024	P4549-04	VN084517.D	10/25/2024

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4549 SAS No.: P4549 SDG NO.: P4549
Lab File ID: VN084336.D BFB Injection Date: 10/08/2024
Instrument ID: MSVOA_N BFB Injection Time: 09:08
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
75	30.0 - 60.0% of mass 95	51.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	73.7
175	5.0 - 9.0% of mass 174	5.5 (7.5) 1
176	95.0 - 101.0% of mass 174	70.3 (95.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6.3) 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
VSTDICC150	VSTDICC150	VN084337.D	10/08/2024	09:43
VSTDICC100	VSTDICC100	VN084338.D	10/08/2024	10:07
VSTDICC050	VSTDICC050	VN084339.D	10/08/2024	10:31
VSTDICCC020	VSTDICCC020	VN084340.D	10/08/2024	10:55
VSTDICC005	VSTDICC005	VN084341.D	10/08/2024	11:19

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4549 SAS No.: P4549 SDG NO.: P4549
Lab File ID: VN084502.D BFB Injection Date: 10/25/2024
Instrument ID: MSVOA_N BFB Injection Time: 08:21
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	19.4
75	30.0 - 60.0% of mass 95	54
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	0.6 (0.7) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	72.6 (95.4) 1
177	5.0 - 9.0% of mass 176	4.5 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VN084504.D	10/25/2024	10:04
VN1025WBS01	VN1025WBS01	VN084505.D	10/25/2024	10:40
VN1025WBSD01	VN1025WBSD01	VN084506.D	10/25/2024	11:04
VN1025WBL01	VN1025WBL01	VN084507.D	10/25/2024	11:27
TT-TB-20241024	P4549-01	VN084512.D	10/25/2024	13:39
TT-068-IDWGW-20241024	P4549-03	VN084515.D	10/25/2024	14:51
TT-067-IDWGW-20241024	P4549-02	VN084516.D	10/25/2024	15:15
TT-069-IDWGW-20241024	P4549-04	VN084517.D	10/25/2024	15:39
VSTDCCC020EC	VSTDCCC020	VN084527.D	10/25/2024	19:37

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: TETR06
Lab Code: CHEM Case No.: P4549 SAS No.: P4549 SDG NO.: P4549
Lab File ID: VN084504.D Date Analyzed: 10/25/2024
Instrument ID: MSVOA_N Time Analyzed: 10:04
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	35506	7.81	200200	9.10	180518	11.87
UPPER LIMIT	71012	8.312	400400	9.6	361036	12.365
LOWER LIMIT	17753	7.312	100100	8.6	90259	11.365
EPA SAMPLE NO.						
TT-TB-20241024	29940	7.82	152700	9.10	136002	11.87
TT-067-IDWGW-20241024	28275	7.81	137388	9.10	125598	11.87
TT-068-IDWGW-20241024	29141	7.82	145814	9.10	133742	11.87
TT-069-IDWGW-20241024	27891	7.81	142505	9.10	128076	11.87
VN1025WBL01	32302	7.81	175246	9.10	150285	11.87
VN1025WBS01	35006	7.81	196424	9.10	178483	11.87
VN1025WBSD01	34702	7.81	195213	9.10	177752	11.87

IS1 = Bromochloromethane
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.



QC SAMPLE DATA

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBL01		SDG No.:	P4549
Lab Sample ID:	VN1025WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084507.D	1		10/25/24 11:27	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.20	U	1.20	5.00	ug/L
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
67-64-1	Acetone	4.90	U	4.90	25.0	ug/L
75-15-0	Carbon Disulfide	0.93	U	0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	0.83	U	0.83	5.00	ug/L
79-20-9	Methyl Acetate	1.20	U	1.20	5.00	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
110-82-7	Cyclohexane	1.00	U	1.00	5.00	ug/L
78-93-3	2-Butanone	3.60	U	3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	1.10	U	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.90	U	0.90	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
108-87-2	Methylcyclohexane	0.89	U	0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.75	U	0.75	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBL01		SDG No.:	P4549
Lab Sample ID:	VN1025WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084507.D	1		10/25/24 11:27	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	0.70	U	0.70	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	4.20	U	4.20	25.0	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.68	U	0.68	5.00	ug/L
591-78-6	2-Hexanone	3.90	U	3.90	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.78	U	0.78	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	0.91	5.00	ug/L
67-72-1	Hexachloroethane	0.91	U	0.91	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L
100-42-5	Styrene	0.80	U	0.80	5.00	ug/L
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
98-82-8	Isopropylbenzene	0.85	U	0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	1.70	U	1.70	5.00	ug/L
108-86-1	Bromobenzene	0.69	U	0.69	5.00	ug/L
103-65-1	n-propylbenzene	0.80	U	0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	0.81	U	0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.74	U	0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	0.82	U	0.82	5.00	ug/L
98-06-6	tert-butylbenzene	0.77	U	0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.83	U	0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	0.77	U	0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBL01		SDG No.:	P4549
Lab Sample ID:	VN1025WBL01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084507.D	1		10/25/24 11:27	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	0.82	U	0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
104-51-8	n-Butylbenzene	0.86	U	0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.91	U	0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.10	U	1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	1.10	U	1.10	5.00	ug/L
91-20-3	Naphthalene	1.40	U	1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.40	U	1.40	5.00	ug/L
74-88-4	Methyl Iodide	0.94	U	0.94	5.00	ug/L
80-62-6	Methyl methacrylate	1.00	U	1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.0		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	30.1		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	26.2		63 - 112	87%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	32300	7.812			
540-36-3	1,4-Difluorobenzene	175000	9.1			
3114-55-4	Chlorobenzene-d5	150000	11.865			

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:	VN1025WBS01		SDG No.:	P4549
Lab Sample ID:	VN1025WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084505.D	1		10/25/24 10:40	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.5		1.20	5.00	ug/L
74-87-3	Chloromethane	17.5		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	18.2		1.20	5.00	ug/L
74-83-9	Bromomethane	17.5		1.40	5.00	ug/L
75-00-3	Chloroethane	18.5		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	18.7		1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.9		1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.5		1.10	5.00	ug/L
107-02-8	Acrolein	99.2		9.30	25.0	ug/L
107-13-1	Acrylonitrile	89.2		3.70	25.0	ug/L
67-64-1	Acetone	110		4.90	25.0	ug/L
75-15-0	Carbon Disulfide	16.5		0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	18.8		0.83	5.00	ug/L
79-20-9	Methyl Acetate	21.2		1.20	5.00	ug/L
75-09-2	Methylene Chloride	19.0		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.8		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	18.8		0.81	5.00	ug/L
110-82-7	Cyclohexane	17.5		1.00	5.00	ug/L
78-93-3	2-Butanone	95.6		3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	18.7		0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	19.4		1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.5		0.90	5.00	ug/L
67-66-3	Chloroform	19.4		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.1		0.79	5.00	ug/L
108-87-2	Methylcyclohexane	17.4		0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	17.8		0.75	5.00	ug/L
71-43-2	Benzene	18.2		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.8		0.75	5.00	ug/L
79-01-6	Trichloroethene	18.5		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	18.4		0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBS01		SDG No.:	P4549
Lab Sample ID:	VN1025WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084505.D	1		10/25/24 10:40	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	18.4		0.70	5.00	ug/L
75-27-4	Bromodichloromethane	19.2		0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	92.6		4.20	25.0	ug/L
108-88-3	Toluene	18.8		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.8		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.1		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.7		0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	18.7		0.68	5.00	ug/L
591-78-6	2-Hexanone	94.4		3.90	25.0	ug/L
124-48-1	Dibromochloromethane	18.9		0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	18.0		0.78	5.00	ug/L
127-18-4	Tetrachloroethene	19.3		0.94	5.00	ug/L
108-90-7	Chlorobenzene	18.5		0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	19.3		0.91	5.00	ug/L
67-72-1	Hexachloroethane	18.3		0.91	5.00	ug/L
100-41-4	Ethyl Benzene	18.6		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	37.6		1.70	10.0	ug/L
95-47-6	o-Xylene	18.4		0.82	5.00	ug/L
100-42-5	Styrene	18.8		0.80	5.00	ug/L
75-25-2	Bromoform	17.9		1.00	5.00	ug/L
98-82-8	Isopropylbenzene	19.0		0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.9		0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	18.0		1.70	5.00	ug/L
108-86-1	Bromobenzene	19.1		0.69	5.00	ug/L
103-65-1	n-propylbenzene	19.0		0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	19.0		0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	19.1		0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	18.8		0.82	5.00	ug/L
98-06-6	tert-butylbenzene	19.2		0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	19.0		0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	19.0		0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBS01		SDG No.:	P4549
Lab Sample ID:	VN1025WBS01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084505.D	1		10/25/24 10:40	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	18.6		0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.1		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.9		0.95	5.00	ug/L
104-51-8	n-Butylbenzene	18.4		0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.1		0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.2		0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	17.9		1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	18.5		1.10	5.00	ug/L
91-20-3	Naphthalene	16.8		1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.9		1.40	5.00	ug/L
74-88-4	Methyl Iodide	17.8		0.94	5.00	ug/L
80-62-6	Methyl methacrylate	17.2		1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.9		91 - 112	100%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.6		63 - 112	102%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	35000	7.812			
540-36-3	1,4-Difluorobenzene	196000	9.1			
3114-55-4	Chlorobenzene-d5	178000	11.865			

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:	VN1025WBSD01		SDG No.:	P4549
Lab Sample ID:	VN1025WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084506.D	1		10/25/24 11:04	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.2		1.20	5.00	ug/L
74-87-3	Chloromethane	16.8		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	18.0		1.20	5.00	ug/L
74-83-9	Bromomethane	17.2		1.40	5.00	ug/L
75-00-3	Chloroethane	18.6		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	18.3		1.00	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		1.10	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.9		1.10	5.00	ug/L
107-02-8	Acrolein	100		9.30	25.0	ug/L
107-13-1	Acrylonitrile	92.5		3.70	25.0	ug/L
67-64-1	Acetone	110		4.90	25.0	ug/L
75-15-0	Carbon Disulfide	15.9		0.93	5.00	ug/L
1634-04-4	Methyl tert-Butyl Ether	19.1		0.83	5.00	ug/L
79-20-9	Methyl Acetate	21.9		1.20	5.00	ug/L
75-09-2	Methylene Chloride	18.7		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.5		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	18.7		0.81	5.00	ug/L
110-82-7	Cyclohexane	17.2		1.00	5.00	ug/L
78-93-3	2-Butanone	97.6		3.60	25.0	ug/L
56-23-5	Carbon Tetrachloride	18.5		0.91	5.00	ug/L
594-20-7	2,2-Dichloropropane	19.2		1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.4		0.90	5.00	ug/L
67-66-3	Chloroform	18.8		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.2		0.79	5.00	ug/L
108-87-2	Methylcyclohexane	17.1		0.89	5.00	ug/L
563-58-6	1,1-Dichloropropene	17.5		0.75	5.00	ug/L
71-43-2	Benzene	18.5		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	18.7		0.75	5.00	ug/L
79-01-6	Trichloroethene	18.5		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	18.2		0.65	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBSD01		SDG No.:	P4549
Lab Sample ID:	VN1025WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084506.D	1		10/25/24 11:04	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
74-95-3	Dibromomethane	18.4		0.70	5.00	ug/L
75-27-4	Bromodichloromethane	18.5		0.81	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	95.9		4.20	25.0	ug/L
108-88-3	Toluene	18.6		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.8		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.6		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.6		0.68	5.00	ug/L
142-28-9	1,3-Dichloropropane	18.5		0.68	5.00	ug/L
591-78-6	2-Hexanone	97.3		3.90	25.0	ug/L
124-48-1	Dibromochloromethane	18.3		0.72	5.00	ug/L
106-93-4	1,2-Dibromoethane	18.0		0.78	5.00	ug/L
127-18-4	Tetrachloroethene	18.5		0.94	5.00	ug/L
108-90-7	Chlorobenzene	18.5		0.67	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	18.9		0.91	5.00	ug/L
67-72-1	Hexachloroethane	17.6		0.91	5.00	ug/L
100-41-4	Ethyl Benzene	18.2		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	37.3		1.70	10.0	ug/L
95-47-6	o-Xylene	18.5		0.82	5.00	ug/L
100-42-5	Styrene	18.3		0.80	5.00	ug/L
75-25-2	Bromoform	18.2		1.00	5.00	ug/L
98-82-8	Isopropylbenzene	18.5		0.85	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	19.1		0.60	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	21.3		1.70	5.00	ug/L
108-86-1	Bromobenzene	18.2		0.69	5.00	ug/L
103-65-1	n-propylbenzene	18.3		0.80	5.00	ug/L
95-49-8	2-Chlorotoluene	18.6		0.81	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	18.5		0.74	5.00	ug/L
106-43-4	4-Chlorotoluene	18.3		0.82	5.00	ug/L
98-06-6	tert-butylbenzene	18.8		0.77	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	18.1		0.83	5.00	ug/L
135-98-8	sec-Butylbenzene	18.5		0.77	5.00	ug/L

Report of Analysis

Client:	Tetra Tech NUS, Inc.		Date Collected:	
Project:	CTO WE13		Date Received:	
Client Sample ID:	VN1025WBSD01		SDG No.:	P4549
Lab Sample ID:	VN1025WBSD01		Matrix:	Water
Analytical Method:	E624.1		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group4
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN084506.D	1		10/25/24 11:04	VN102524

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
99-87-6	p-Isopropyltoluene	18.3		0.82	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.5		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.0		0.95	5.00	ug/L
104-51-8	n-Butylbenzene	17.4		0.86	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.4		0.88	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19.0		0.91	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	17.6		1.10	5.00	ug/L
87-68-3	Hexachlorobutadiene	17.6		1.10	5.00	ug/L
91-20-3	Naphthalene	16.7		1.40	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.6		1.40	5.00	ug/L
74-88-4	Methyl Iodide	17.5		0.94	5.00	ug/L
80-62-6	Methyl methacrylate	18.0		1.00	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.3		91 - 110	101%	SPK: 30
2037-26-5	Toluene-d8	29.5		91 - 112	98%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.3		63 - 112	101%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	34700	7.812			
540-36-3	1,4-Difluorobenzene	195000	9.1			
3114-55-4	Chlorobenzene-d5	178000	11.865			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: TETR06

Lab Code: CHEM Case No.: P4549 SAS No.: P4549 SDG No.: P4549

Instrument ID: MSVOA_N Calibration Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Calibration Time(s): 09:43 11:19

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

LAB FILE ID:		RRF150 = VN084337.D		RRF100 = VN084338.D		RRF050 = VN084339.D		RRF020 = VN084340.D		RRF005 = VN084341.D		RRF =			
COMPOUND		RRF150	RRF100	RRF050	RRF020	RRF005	RRF								% RSD
Dichlorodifluoromethane		1.784	1.757	1.768	1.931	1.918		1.832							4.7
Chloromethane		2.067	2.037	2.024	2.146	2.148		2.084							2.8
Vinyl Chloride		2.018	1.986	2.005	2.098	2.113		2.044							2.8
Bromomethane		1.236	1.234	1.249	1.418	1.635		1.354							12.9
Chloroethane		1.264	1.205	1.228	1.396	1.607		1.340							12.4
Trichlorofluoromethane		3.237	3.246	3.256	3.403	3.505		3.329							3.6
1,1,2-Trichlorotrifluoroethane		1.861	1.829	1.799	1.891	1.981		1.872							3.7
1,1-Dichloroethene		1.833	1.832	1.870	1.834	1.971		1.868							3.2
Acrolein		0.440	0.450	0.431	0.402	0.449		0.434							4.5
Acrylonitrile		1.069	1.026	1.064	1.069	1.024		1.051							2.2
Acetone		0.329	0.315	0.306	0.286	0.265		0.300							8.3
Carbon Disulfide		5.386	5.270	5.346	5.704	6.106		5.562							6.2
Methyl tert-Butyl Ether		6.327	6.268	6.286	6.312	6.019		6.242							2
Methyl Acetate		2.383	2.367	2.435	2.287	2.221		2.339							3.6
Methylene Chloride		2.067	2.014	2.090	2.147	2.203		2.104							3.5
trans-1,2-Dichloroethene		1.948	1.923	1.947	2.012	2.055		1.977							2.8
1,1-Dichloroethane		3.674	3.601	3.659	3.837	3.908		3.736							3.5
Cyclohexane		0.594	0.572	0.559	0.590	0.535		0.570							4.2
2-Butanone		0.275	0.269	0.268	0.257	0.242		0.262							5
Carbon Tetrachloride		0.556	0.548	0.531	0.544	0.547		0.545							1.6
2,2-Dichloropropane		0.605	0.583	0.569	0.576	0.560		0.579							3
cis-1,2-Dichloroethene		2.321	2.240	2.294	2.364	2.284		2.300							2
Chloroform		3.759	3.650	3.795	3.901	3.812		3.783							2.4
1,1,1-Trichloroethane		0.630	0.629	0.619	0.648	0.621		0.629							1.8
Methylcyclohexane		0.593	0.566	0.535	0.519	0.491		0.541							7.4
1,1-Dichloropropene		0.508	0.493	0.487	0.493	0.482		0.492							2
Benzene		1.571	1.514	1.511	1.557	1.555		1.542							1.8
1,2-Dichloroethane		0.520	0.505	0.508	0.522	0.515		0.514							1.4
Trichloroethene		0.358	0.353	0.345	0.366	0.353		0.355							2.1
1,2-Dichloropropane		0.384	0.371	0.363	0.386	0.375		0.376							2.5

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>TETR06</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>P4549</u>
Instrument ID:	<u>MSVOA_N</u>	SAS No.:	<u>P4549</u>
Heated Purge: (Y/N)	<u>N</u>	SDG No.:	<u>P4549</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)
		Calibration Date(s):	<u>10/08/2024</u>
		Calibration Time(s):	<u>09:43</u>

LAB FILE ID:		RRF150 = VN084337.D		RRF100 = VN084338.D		RRF050 = VN084339.D		
		RRF020 = VN084340.D		RRF005 = VN084341.D		RRF =		
COMPOUND	RRF150	RRF100	RRF050	RRF020	RRF005	RRF	RRF	% RSD
Dibromomethane	0.268	0.257	0.257	0.263	0.269		0.263	2.1
Bromodichloromethane	0.568	0.552	0.550	0.559	0.559		0.558	1.3
4-Methyl-2-Pentanone	0.580	0.565	0.573	0.559	0.517		0.559	4.4
Toluene	1.775	1.732	1.746	1.761	1.767		1.756	1
t-1,3-Dichloropropene	0.603	0.581	0.573	0.561	0.564		0.576	2.9
cis-1,3-Dichloropropene	0.637	0.616	0.603	0.613	0.551		0.604	5.3
1,1,2-Trichloroethane	0.356	0.349	0.350	0.354	0.358		0.353	1.1
1,3-Dichloropropane	0.627	0.610	0.607	0.625	0.619		0.617	1.5
2-Hexanone	0.440	0.428	0.434	0.408	0.367		0.415	7.2
Dibromochloromethane	0.431	0.417	0.416	0.416	0.407		0.417	2
1,2-Dibromoethane	0.371	0.363	0.361	0.370	0.352		0.364	2.1
Tetrachloroethene	0.338	0.328	0.332	0.342	0.357		0.339	3.4
Chlorobenzene	1.102	1.069	1.072	1.086	1.136		1.093	2.5
1,1,1,2-Tetrachloroethane	0.386	0.374	0.380	0.383	0.377		0.380	1.2
Hexachloroethane	0.302	0.289	0.282	0.279	0.276		0.286	3.6
Ethyl Benzene	2.037	1.969	1.930	1.889	1.715		1.908	6.3
m/p-Xylenes	0.768	0.732	0.740	0.725	0.654		0.724	5.9
o-Xylene	0.738	0.710	0.708	0.692	0.641		0.698	5.2
Styrene	1.289	1.232	1.226	1.183	1.059		1.198	7.2
Bromoform	0.295	0.287	0.276	0.264	0.261		0.277	5.2
Isopropylbenzene	1.892	1.828	1.813	1.786	1.587		1.781	6.5
1,1,2,2-Tetrachloroethane	0.562	0.544	0.557	0.549	0.543		0.551	1.5
1,2,3-Trichloropropane	0.492	0.471	0.479	0.466	0.452		0.472	3.1
Bromobenzene	0.446	0.431	0.435	0.428	0.416		0.431	2.5
n-propylbenzene	2.289	2.177	2.158	2.107	1.881		2.123	7.1
2-Chlorotoluene	1.396	1.329	1.315	1.322	1.233		1.319	4.4
1,3,5-Trimethylbenzene	1.614	1.543	1.532	1.488	1.323		1.500	7.3
4-Chlorotoluene	1.428	1.353	1.352	1.323	1.248		1.341	4.8
tert-butylbenzene	1.376	1.330	1.309	1.260	1.122		1.279	7.6
1,2,4-Trimethylbenzene	1.642	1.567	1.550	1.502	1.347		1.522	7.2

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>CHEMTECH</u>	Contract:	<u>TETR06</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>P4549</u>
Instrument ID:	<u>MSVOA_N</u>	SAS No.:	<u>P4549</u>
Heated Purge: (Y/N)	<u>N</u>	SDG No.:	<u>P4549</u>
GC Column:	<u>RXI-624</u>	Calibration Date(s):	<u>10/08/2024</u>
ID:	<u>0.25 (mm)</u>	Calibration Time(s):	<u>09:43</u>
			<u>11:19</u>

LAB FILE ID:		RRF150 = VN084337.D		RRF100 = VN084338.D		RRF050 = VN084339.D	
		RRF020 = VN084340.D		RRF005 = VN084341.D		RRF =	
COMPOUND	RRF150	RRF100	RRF050	RRF020	RRF005	RRF	% RSD
sec-Butylbenzene	1.913	1.831	1.794	1.746	1.522	1.762	8.3
p-Isopropyltoluene	1.641	1.549	1.499	1.439	1.286	1.483	8.9
1,3-Dichlorobenzene	0.851	0.811	0.808	0.790	0.750	0.802	4.6
1,4-Dichlorobenzene	0.842	0.805	0.788	0.761	0.786	0.796	3.8
n-Butylbenzene	1.484	1.371	1.302	1.199	1.065	1.284	12.5
1,2-Dichlorobenzene	0.811	0.783	0.780	0.756	0.748	0.775	3.2
1,2-Dibromo-3-Chloropropane	0.120	0.116	0.119	0.110	0.098	0.113	8
1,2,4-Trichlorobenzene	0.436	0.416	0.410	0.381	0.372	0.403	6.5
Hexachlorobutadiene	0.183	0.177	0.179	0.173	0.220	0.187	10.3
Naphthalene	1.554	1.481	1.420	1.285	1.093	1.366	13.3
1,2,3-Trichlorobenzene	0.436	0.416	0.410	0.381	0.372	0.403	6.5
1,2-Dichloroethane-d4	2.393	2.419	2.371	2.467	2.428	2.415	1.5
Toluene-d8	1.397	1.374	1.378	1.395	1.404	1.390	0.9
4-Bromofluorobenzene	0.514	0.506	0.498	0.492	0.465	0.495	3.8
Methyl Iodide	2.503	2.450	2.473	2.469	2.378	2.455	1.9
Methyl methacrylate	0.431	0.420	0.420	0.404	0.369	0.409	5.9

* 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.: P4549 SAS No.: P4549 SDG No.: P4549

Instrument ID: MSVOA_N Calibration Date/Time: 10/25/2024 10:04

Lab File ID: VN084504.D Init. Calib. Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:43 11:19

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	1.832	1.676		-8.52	
Chloromethane	2.084	1.831		-12.14	
Vinyl Chloride	2.044	1.874	0.1	-8.32	
Bromomethane	1.354	1.189	0.1	-12.19	
Chloroethane	1.340	1.274		-4.93	
Trichlorofluoromethane	3.329	3.123		-6.19	
1,1,2-Trichlorotrifluoroethane	1.872	1.862		-0.53	
1,1-Dichloroethene	1.868	1.715	0.1	-8.19	
Acrolein	0.434	0.431		-0.69	
Acrylonitrile	1.051	0.953		-9.32	
Acetone	0.300	0.368		22.67	
Carbon Disulfide	5.562	4.632		-16.72	
Methyl tert-Butyl Ether	6.242	5.963		-4.47	
Methyl Acetate	2.339	2.483		6.16	
Methylene Chloride	2.104	1.939		-7.84	
trans-1,2-Dichloroethene	1.977	1.797		-9.1	
1,1-Dichloroethane	3.736	3.621	0.2	-3.08	
Cyclohexane	0.570	0.489		-14.21	
2-Butanone	0.262	0.252		-3.82	
Carbon Tetrachloride	0.545	0.504	0.1	-7.52	
2,2-Dichloropropane	0.579	0.569		-1.73	
cis-1,2-Dichloroethene	2.300	2.240		-2.61	
Chloroform	3.783	3.824	0.2	1.08	
1,1,1-Trichloroethane	0.629	0.603	0.1	-4.13	
Methylcyclohexane	0.541	0.486		-10.17	
1,1-Dichloropropene	0.492	0.447		-9.15	
Benzene	1.542	1.442	0.5	-6.49	
1,2-Dichloroethane	0.514	0.488	0.1	-5.06	
Trichloroethene	0.355	0.335	0.3	-5.63	
1,2-Dichloropropane	0.376	0.353		-6.12	
Dibromomethane	0.263	0.248		-5.7	
Bromodichloromethane	0.558	0.524	0.2	-6.09	
4-Methyl-2-Pentanone	0.559	0.530		-5.19	
Toluene	1.756	1.683	0.4	-4.16	
t-1,3-Dichloropropene	0.576	0.532	0.1	-7.64	
cis-1,3-Dichloropropene	0.604	0.565	0.2	-6.46	
1,1,2-Trichloroethane	0.353	0.335	0.1	-5.1	
1,3-Dichloropropane	0.617	0.579		-6.16	

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.: P4549 SAS No.: P4549 SDG No.: P4549

Instrument ID: MSVOA_N Calibration Date/Time: 10/25/2024 10:04

Lab File ID: VN084504.D Init. Calib. Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:43 11:19

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
2-Hexanone	0.415	0.406		-2.17	
Dibromochloromethane	0.417	0.392	0.1	-5.99	
1,2-Dibromoethane	0.364	0.334		-8.24	
Tetrachloroethene	0.339	0.348	0.2	2.65	
Chlorobenzene	1.093	1.036	0.5	-5.22	
1,1,1,2-Tetrachloroethane	0.380	0.376		-1.05	
Hexachloroethane	0.286	0.267		-6.64	
Ethyl Benzene	1.908	1.839	0.1	-3.62	
m/p-Xylenes	0.724	0.700	0.3	-3.32	
o-Xylene	0.698	0.660	0.3	-5.44	
Styrene	1.198	1.135	0.3	-5.26	
Bromoform	0.277	0.257	0.1	-7.22	
Isopropylbenzene	1.781	1.702		-4.44	
1,1,2,2-Tetrachloroethane	0.551	0.534	0.3	-3.09	
1,2,3-Trichloropropane	0.472	0.431		-8.69	
Bromobenzene	0.431	0.413		-4.18	
n-propylbenzene	2.123	2.073		-2.36	
2-Chlorotoluene	1.319	1.281		-2.88	
1,3,5-Trimethylbenzene	1.500	1.481		-1.27	
4-Chlorotoluene	1.341	1.299		-3.13	
tert-butylbenzene	1.279	1.245		-2.66	
1,2,4-Trimethylbenzene	1.522	1.452		-4.6	
sec-Butylbenzene	1.762	1.726		-2.04	
p-Isopropyltoluene	1.483	1.429		-3.64	
1,3-Dichlorobenzene	0.802	0.774	0.2	-3.49	
1,4-Dichlorobenzene	0.796	0.772	0.2	-3.02	
n-Butylbenzene	1.284	1.218		-5.14	
1,2-Dichlorobenzene	0.775	0.774	0.2	-0.13	
1,2-Dibromo-3-Chloropropane	0.113	0.109		-3.54	
1,2,4-Trichlorobenzene	0.403	0.370	0.2	-8.19	
Hexachlorobutadiene	0.187	0.184		-1.6	
Naphthalene	1.366	1.162		-14.93	
1,2,3-Trichlorobenzene	0.403	0.370		-8.19	
1,2-Dichloroethane-d4	2.415	2.412	0.01	-0.12	
Toluene-d8	1.390	1.390	0.01	0	
4-Bromofluorobenzene	0.495	0.511	0.2	3.23	
Methyl Iodide	2.455	2.262		-7.86	
Methyl methacrylate	0.409	0.351		-14.18	

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.: P4549 SAS No.: P4549 SDG No.: P4549

Instrument ID: MSVOA_N Calibration Date/Time: 10/25/2024 19:37

Lab File ID: VN084527.D Init. Calib. Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:43 11:19

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	1.832	1.694		-7.53	50
Chloromethane	2.084	1.957		-6.09	50
Vinyl Chloride	2.044	1.938	0.1	-5.19	50
Bromomethane	1.354	1.250	0.1	-7.68	50
Chloroethane	1.340	1.229		-8.28	50
Trichlorofluoromethane	3.329	3.208		-3.63	50
1,1,2-Trichlorotrifluoroethane	1.872	1.881		0.48	50
1,1-Dichloroethene	1.868	1.752	0.1	-6.21	50
Acrolein	0.434	0.424		-2.3	50
Acrylonitrile	1.051	0.946		-9.99	50
Acetone	0.300	0.258		-14	50
Carbon Disulfide	5.562	4.811		-13.5	50
Methyl tert-Butyl Ether	6.242	5.925		-5.08	50
Methyl Acetate	2.339	2.432		3.98	50
Methylene Chloride	2.104	2.094		-0.47	50
trans-1,2-Dichloroethene	1.977	1.851		-6.37	50
1,1-Dichloroethane	3.736	3.694	0.2	-1.12	50
Cyclohexane	0.570	0.523		-8.25	50
2-Butanone	0.262	0.236		-9.92	50
Carbon Tetrachloride	0.545	0.538	0.1	-1.28	50
2,2-Dichloropropane	0.579	0.448		-22.63	50
cis-1,2-Dichloroethene	2.300	2.230		-3.04	50
Chloroform	3.783	3.831	0.2	1.27	50
1,1,1-Trichloroethane	0.629	0.624	0.1	-0.8	50
Methylcyclohexane	0.541	0.468		-13.49	50
1,1-Dichloropropene	0.492	0.465		-5.49	50
Benzene	1.542	1.548	0.5	0.39	50
1,2-Dichloroethane	0.514	0.521	0.1	1.36	50
Trichloroethene	0.355	0.350	0.3	-1.41	50
1,2-Dichloropropane	0.376	0.372		-1.06	50
Dibromomethane	0.263	0.259		-1.52	50
Bromodichloromethane	0.558	0.558	0.2	0	50
4-Methyl-2-Pentanone	0.559	0.534		-4.47	50
Toluene	1.756	1.770	0.4	0.8	50
t-1,3-Dichloropropene	0.576	0.526	0.1	-8.68	50
cis-1,3-Dichloropropene	0.604	0.571	0.2	-5.46	50
1,1,2-Trichloroethane	0.353	0.360	0.1	1.98	50
1,3-Dichloropropane	0.617	0.600		-2.76	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.: P4549 SAS No.: P4549 SDG No.: P4549

Instrument ID: MSVOA_N Calibration Date/Time: 10/25/2024 19:37

Lab File ID: VN084527.D Init. Calib. Date(s): 10/08/2024 10/08/2024

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:43 11:19

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

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
2-Hexanone	0.415	0.386		-6.99	50
Dibromochloromethane	0.417	0.423	0.1	1.44	50
1,2-Dibromoethane	0.364	0.350		-3.85	50
Tetrachloroethene	0.339	0.351	0.2	3.54	50
Chlorobenzene	1.093	1.081	0.5	-1.1	50
1,1,1,2-Tetrachloroethane	0.380	0.388		2.11	50
Hexachloroethane	0.286	0.274		-4.2	50
Ethyl Benzene	1.908	1.839	0.1	-3.62	50
m/p-Xylenes	0.724	0.719	0.3	-0.69	50
o-Xylene	0.698	0.686	0.3	-1.72	50
Styrene	1.198	1.171	0.3	-2.25	50
Bromoform	0.277	0.264	0.1	-4.69	50
Isopropylbenzene	1.781	1.714		-3.76	50
1,1,2,2-Tetrachloroethane	0.551	0.548	0.3	-0.54	50
1,2,3-Trichloropropane	0.472	0.515		9.11	50
Bromobenzene	0.431	0.443		2.78	50
n-propylbenzene	2.123	2.063		-2.83	50
2-Chlorotoluene	1.319	1.315		-0.3	50
1,3,5-Trimethylbenzene	1.500	1.512		0.8	50
4-Chlorotoluene	1.341	1.316		-1.86	50
tert-butylbenzene	1.279	1.238		-3.21	50
1,2,4-Trimethylbenzene	1.522	1.492		-1.97	50
sec-Butylbenzene	1.762	1.731		-1.76	50
p-Isopropyltoluene	1.483	1.413		-4.72	50
1,3-Dichlorobenzene	0.802	0.799	0.2	-0.37	50
1,4-Dichlorobenzene	0.796	0.779	0.2	-2.14	50
n-Butylbenzene	1.284	1.164		-9.35	50
1,2-Dichlorobenzene	0.775	0.752	0.2	-2.97	50
1,2-Dibromo-3-Chloropropane	0.113	0.101		-10.62	50
1,2,4-Trichlorobenzene	0.403	0.374	0.2	-7.2	50
Hexachlorobutadiene	0.187	0.166		-11.23	50
Naphthalene	1.366	1.139		-16.62	50
1,2,3-Trichlorobenzene	0.403	0.374		-7.2	50
1,2-Dichloroethane-d4	2.415	2.425	0.01	0.41	50
Toluene-d8	1.390	1.397	0.01	0.5	50
4-Bromofluorobenzene	0.495	0.489	0.2	-1.21	50
Methyl Iodide	2.455	2.276		-7.29	50
Methyl methacrylate	0.409	0.376		-8.07	50

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