

LAB CHRONICLE

OrderID:	Q2543	OrderDate:	7/9/2025 12:26:00 PM
Client:	CDM Smith	Project:	South River WM Replacement
Contact:	Marcie Ann Encinas	Location:	O42,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2543-01	TP-41	SOIL	VOC-TCLVOA-10	8260D	07/08/25		07/10/25	07/09/25
Q2543-02	TP-49	SOIL	VOC-TCLVOA-10	8260D	07/09/25		07/10/25	07/09/25
Q2543-03	TP-23	SOIL	VOC-TCLVOA-10	8260D	07/09/25		07/10/25	07/09/25
Q2543-04	TP-23-99	SOIL	VOC-TCLVOA-10	8260D	07/09/25		07/10/25	07/09/25

Hit Summary Sheet
SW-846

SDG No.: Q2543
Client: CDM Smith

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	TP-41							
Q2543-01	TP-41	SOIL	Acetone	77.9		3.60	19.2	ug/Kg
Q2543-01	TP-41	SOIL	Carbon Disulfide	1.10	J	0.81	3.80	ug/Kg
Q2543-01	TP-41	SOIL	2-Butanone	22.2		5.00	19.2	ug/Kg
Q2543-01	TP-41	SOIL	Methylcyclohexane	4.40		0.70	3.80	ug/Kg
Q2543-01	TP-41	SOIL	m/p-Xylenes	4.20	J	0.95	7.70	ug/Kg
			Total Voc :			110		
Q2543-01	TP-41	SOIL	2-Ethyl-oxetane	* 4.30	J	0	0	ug/Kg
			Total Tics :			4.30		
			Total Concentration:			114		
Client ID:	TP-49							
Q2543-02	TP-49	SOIL	Acetone	14.8	J	4.10	21.5	ug/Kg
			Total Voc :			14.8		
			Total Concentration:			14.8		
Client ID:	TP-23							
Q2543-03	TP-23	SOIL	Acetone	6.90	J	4.30	22.5	ug/Kg
Q2543-03	TP-23	SOIL	Methylene Chloride	5.90	J	3.20	9.00	ug/Kg
			Total Voc :			12.8		
Q2543-03	TP-23	SOIL	n-Hexane	* 4.70	J	0	0	ug/Kg
			Total Tics :			4.70		
			Total Concentration:			17.5		
Client ID:	TP-23-99							
Q2543-04	TP-23-99	SOIL	Acetone	7.50	J	5.30	27.8	ug/Kg
			Total Voc :			7.50		
			Total Concentration:			7.50		



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	07/08/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-41	SDG No.:	Q2543
Lab Sample ID:	Q2543-01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	82
Sample Wt/Vol:	7.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031809.D	1	07/10/25 17:26	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.88	U	0.88	3.80	ug/Kg
74-87-3	Chloromethane	0.88	U	0.88	3.80	ug/Kg
75-01-4	Vinyl Chloride	0.61	U	0.61	3.80	ug/Kg
74-83-9	Bromomethane	0.82	U	0.82	3.80	ug/Kg
75-00-3	Chloroethane	0.97	U	0.97	3.80	ug/Kg
75-69-4	Trichlorofluoromethane	0.93	U	0.93	3.80	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.81	U	0.81	3.80	ug/Kg
75-35-4	1,1-Dichloroethene	0.77	U	0.77	3.80	ug/Kg
67-64-1	Acetone	77.9		3.60	19.2	ug/Kg
75-15-0	Carbon Disulfide	1.10	J	0.81	3.80	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.56	U	0.56	3.80	ug/Kg
79-20-9	Methyl Acetate	1.20	U	1.20	3.80	ug/Kg
75-09-2	Methylene Chloride	2.70	U	2.70	7.70	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.66	U	0.66	3.80	ug/Kg
75-34-3	1,1-Dichloroethane	0.61	U	0.61	3.80	ug/Kg
110-82-7	Cyclohexane	0.61	U	0.61	3.80	ug/Kg
78-93-3	2-Butanone	22.2		5.00	19.2	ug/Kg
56-23-5	Carbon Tetrachloride	0.74	U	0.74	3.80	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.58	U	0.58	3.80	ug/Kg
74-97-5	Bromochloromethane	0.88	U	0.88	3.80	ug/Kg
67-66-3	Chloroform	0.65	U	0.65	3.80	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.71	U	0.71	3.80	ug/Kg
108-87-2	Methylcyclohexane	4.40		0.70	3.80	ug/Kg
71-43-2	Benzene	0.61	U	0.61	3.80	ug/Kg
107-06-2	1,2-Dichloroethane	0.61	U	0.61	3.80	ug/Kg
79-01-6	Trichloroethene	0.62	U	0.62	3.80	ug/Kg
78-87-5	1,2-Dichloropropane	0.70	U	0.70	3.80	ug/Kg
75-27-4	Bromodichloromethane	0.60	U	0.60	3.80	ug/Kg
108-10-1	4-Methyl-2-Pentanone	2.70	U	2.70	19.2	ug/Kg
108-88-3	Toluene	0.60	U	0.60	3.80	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	07/08/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-41	SDG No.:	Q2543
Lab Sample ID:	Q2543-01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	82
Sample Wt/Vol:	7.94	Units:	g
Soil Aliquot Vol:		Final Vol:	5000 uL
		Test:	VOC-TCLVOA-10
GC Column:	RXI-624	Level :	LOW
Prep Method :	ID : 0.25		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031809.D	1	07/10/25 17:26	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.50	U	0.50	3.80	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.48	U	0.48	3.80	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.71	U	0.71	3.80	ug/Kg
591-78-6	2-Hexanone	2.80	U	2.80	19.2	ug/Kg
124-48-1	Dibromochloromethane	0.67	U	0.67	3.80	ug/Kg
106-93-4	1,2-Dibromoethane	0.68	U	0.68	3.80	ug/Kg
127-18-4	Tetrachloroethene	0.81	U	0.81	3.80	ug/Kg
108-90-7	Chlorobenzene	0.70	U	0.70	3.80	ug/Kg
100-41-4	Ethyl Benzene	0.51	U	0.51	3.80	ug/Kg
179601-23-1	m/p-Xylenes	4.20	J	0.95	7.70	ug/Kg
95-47-6	o-Xylene	0.63	U	0.63	3.80	ug/Kg
100-42-5	Styrene	0.55	U	0.55	3.80	ug/Kg
75-25-2	Bromoform	0.66	U	0.66	3.80	ug/Kg
98-82-8	Isopropylbenzene	0.60	U	0.60	3.80	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	0.93	U	0.93	3.80	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.30	U	1.30	3.80	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.20	U	1.20	3.80	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.10	U	1.10	3.80	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.40	U	1.40	3.80	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.30	U	2.30	3.80	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.40	U	2.40	3.80	ug/Kg

SURROGATES

17060-07-0	1,2-Dichloroethane-d4	56.7	63 - 155	113%	SPK: 50
1868-53-7	Dibromofluoromethane	47.2	70 - 134	94%	SPK: 50
2037-26-5	Toluene-d8	46.0	74 - 123	92%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.2	17 - 146	98%	SPK: 50

INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	171000	7.965
540-36-3	1,4-Difluorobenzene	378000	8.855
3114-55-4	Chlorobenzene-d5	348000	11.635
3855-82-1	1,4-Dichlorobenzene-d4	159000	13.555

TENTATIVE IDENTIFIED COMPOUNDS

- A
- B
- C
- D**
- E
- F
- G

Report of Analysis

Client:	CDM Smith	Date Collected:	07/08/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-41	SDG No.:	Q2543
Lab Sample ID:	Q2543-01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	82
Sample Wt/Vol:	7.94 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031809.D	1	07/10/25 17:26	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
1010386-40-2	2-Ethyl-oxetane	4.30	J		5.98	ug/Kg

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:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-49	SDG No.:	Q2543
Lab Sample ID:	Q2543-02	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	73.9
Sample Wt/Vol:	7.88 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031810.D	1	07/10/25 17:48	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	0.98	U	0.98	4.30	ug/Kg
74-87-3	Chloromethane	0.98	U	0.98	4.30	ug/Kg
75-01-4	Vinyl Chloride	0.68	U	0.68	4.30	ug/Kg
74-83-9	Bromomethane	0.92	U	0.92	4.30	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	4.30	ug/Kg
75-69-4	Trichlorofluoromethane	1.00	U	1.00	4.30	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.91	U	0.91	4.30	ug/Kg
75-35-4	1,1-Dichloroethene	0.86	U	0.86	4.30	ug/Kg
67-64-1	Acetone	14.8	J	4.10	21.5	ug/Kg
75-15-0	Carbon Disulfide	0.91	U	0.91	4.30	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.63	U	0.63	4.30	ug/Kg
79-20-9	Methyl Acetate	1.30	U	1.30	4.30	ug/Kg
75-09-2	Methylene Chloride	3.00	U	3.00	8.60	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.74	U	0.74	4.30	ug/Kg
75-34-3	1,1-Dichloroethane	0.69	U	0.69	4.30	ug/Kg
110-82-7	Cyclohexane	0.68	U	0.68	4.30	ug/Kg
78-93-3	2-Butanone	5.60	U	5.60	21.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.83	U	0.83	4.30	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.64	U	0.64	4.30	ug/Kg
74-97-5	Bromochloromethane	0.99	U	0.99	4.30	ug/Kg
67-66-3	Chloroform	0.72	U	0.72	4.30	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.80	U	0.80	4.30	ug/Kg
108-87-2	Methylcyclohexane	0.78	U	0.78	4.30	ug/Kg
71-43-2	Benzene	0.68	U	0.68	4.30	ug/Kg
107-06-2	1,2-Dichloroethane	0.68	U	0.68	4.30	ug/Kg
79-01-6	Trichloroethene	0.70	U	0.70	4.30	ug/Kg
78-87-5	1,2-Dichloropropane	0.78	U	0.78	4.30	ug/Kg
75-27-4	Bromodichloromethane	0.67	U	0.67	4.30	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.10	U	3.10	21.5	ug/Kg
108-88-3	Toluene	0.67	U	0.67	4.30	ug/Kg

Report of Analysis

Client:	CDM Smith		Date Collected:	07/09/25	
Project:	South River WM Replacement		Date Received:	07/09/25	
Client Sample ID:	TP-49		SDG No.:	Q2543	
Lab Sample ID:	Q2543-02		Matrix:	SOIL	
Analytical Method:	8260D		% Solid:	73.9	
Sample Wt/Vol:	7.88	Units: g	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031810.D	1	07/10/25 17:48	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.56	U	0.56	4.30	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.53	U	0.53	4.30	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.79	U	0.79	4.30	ug/Kg
591-78-6	2-Hexanone	3.20	U	3.20	21.5	ug/Kg
124-48-1	Dibromochloromethane	0.75	U	0.75	4.30	ug/Kg
106-93-4	1,2-Dibromoethane	0.76	U	0.76	4.30	ug/Kg
127-18-4	Tetrachloroethene	0.90	U	0.90	4.30	ug/Kg
108-90-7	Chlorobenzene	0.78	U	0.78	4.30	ug/Kg
100-41-4	Ethyl Benzene	0.58	U	0.58	4.30	ug/Kg
179601-23-1	m/p-Xylenes	1.10	U	1.10	8.60	ug/Kg
95-47-6	o-Xylene	0.70	U	0.70	4.30	ug/Kg
100-42-5	Styrene	0.61	U	0.61	4.30	ug/Kg
75-25-2	Bromoform	0.74	U	0.74	4.30	ug/Kg
98-82-8	Isopropylbenzene	0.67	U	0.67	4.30	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	1.00	4.30	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.50	U	1.50	4.30	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.30	U	1.30	4.30	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.20	U	1.20	4.30	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.60	U	1.60	4.30	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.60	U	2.60	4.30	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.70	U	2.70	4.30	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.9		63 - 155	118%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		70 - 134	100%	SPK: 50
2037-26-5	Toluene-d8	48.0		74 - 123	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.6		17 - 146	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.965			
540-36-3	1,4-Difluorobenzene	353000	8.849			
3114-55-4	Chlorobenzene-d5	345000	11.635			
3855-82-1	1,4-Dichlorobenzene-d4	158000	13.556			

Report of Analysis

Client:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-49	SDG No.:	Q2543
Lab Sample ID:	Q2543-02	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	73.9
Sample Wt/Vol:	7.88	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOC-TCLVOA-10

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031810.D	1	07/10/25 17:48	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	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:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23	SDG No.:	Q2543
Lab Sample ID:	Q2543-03	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85
Sample Wt/Vol:	6.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031811.D	1	07/10/25 18:10	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	1.00	4.50	ug/Kg
74-87-3	Chloromethane	1.00	U	1.00	4.50	ug/Kg
75-01-4	Vinyl Chloride	0.71	U	0.71	4.50	ug/Kg
74-83-9	Bromomethane	0.96	U	0.96	4.50	ug/Kg
75-00-3	Chloroethane	1.10	U	1.10	4.50	ug/Kg
75-69-4	Trichlorofluoromethane	1.10	U	1.10	4.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	0.95	U	0.95	4.50	ug/Kg
75-35-4	1,1-Dichloroethene	0.90	U	0.90	4.50	ug/Kg
67-64-1	Acetone	6.90	J	4.30	22.5	ug/Kg
75-15-0	Carbon Disulfide	0.95	U	0.95	4.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.66	U	0.66	4.50	ug/Kg
79-20-9	Methyl Acetate	1.40	U	1.40	4.50	ug/Kg
75-09-2	Methylene Chloride	5.90	J	3.20	9.00	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.77	U	0.77	4.50	ug/Kg
75-34-3	1,1-Dichloroethane	0.72	U	0.72	4.50	ug/Kg
110-82-7	Cyclohexane	0.71	U	0.71	4.50	ug/Kg
78-93-3	2-Butanone	5.90	U	5.90	22.5	ug/Kg
56-23-5	Carbon Tetrachloride	0.87	U	0.87	4.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.67	U	0.67	4.50	ug/Kg
74-97-5	Bromochloromethane	1.00	U	1.00	4.50	ug/Kg
67-66-3	Chloroform	0.76	U	0.76	4.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.84	U	0.84	4.50	ug/Kg
108-87-2	Methylcyclohexane	0.82	U	0.82	4.50	ug/Kg
71-43-2	Benzene	0.71	U	0.71	4.50	ug/Kg
107-06-2	1,2-Dichloroethane	0.71	U	0.71	4.50	ug/Kg
79-01-6	Trichloroethene	0.73	U	0.73	4.50	ug/Kg
78-87-5	1,2-Dichloropropane	0.82	U	0.82	4.50	ug/Kg
75-27-4	Bromodichloromethane	0.70	U	0.70	4.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.20	U	3.20	22.5	ug/Kg
108-88-3	Toluene	0.70	U	0.70	4.50	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23	SDG No.:	Q2543
Lab Sample ID:	Q2543-03	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85
Sample Wt/Vol:	6.54	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	Final Vol:	5000
Prep Method :	ID : 0.25	Test:	VOC-TCLVOA-10
		Level :	LOW

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031811.D	1	07/10/25 18:10	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.58	U	0.58	4.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.56	U	0.56	4.50	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.83	U	0.83	4.50	ug/Kg
591-78-6	2-Hexanone	3.30	U	3.30	22.5	ug/Kg
124-48-1	Dibromochloromethane	0.78	U	0.78	4.50	ug/Kg
106-93-4	1,2-Dibromoethane	0.79	U	0.79	4.50	ug/Kg
127-18-4	Tetrachloroethene	0.94	U	0.94	4.50	ug/Kg
108-90-7	Chlorobenzene	0.82	U	0.82	4.50	ug/Kg
100-41-4	Ethyl Benzene	0.60	U	0.60	4.50	ug/Kg
179601-23-1	m/p-Xylenes	1.10	U	1.10	9.00	ug/Kg
95-47-6	o-Xylene	0.74	U	0.74	4.50	ug/Kg
100-42-5	Styrene	0.64	U	0.64	4.50	ug/Kg
75-25-2	Bromoform	0.77	U	0.77	4.50	ug/Kg
98-82-8	Isopropylbenzene	0.70	U	0.70	4.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.10	U	1.10	4.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.50	U	1.50	4.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.40	U	1.40	4.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.30	U	1.30	4.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.70	U	1.70	4.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.70	U	2.70	4.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.90	U	2.90	4.50	ug/Kg

SURROGATES

17060-07-0	1,2-Dichloroethane-d4	58.5	63 - 155	117%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4	70 - 134	101%	SPK: 50
2037-26-5	Toluene-d8	47.9	74 - 123	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.0	17 - 146	104%	SPK: 50

INTERNAL STANDARDS

363-72-4	Pentafluorobenzene	167000	7.965
540-36-3	1,4-Difluorobenzene	355000	8.855
3114-55-4	Chlorobenzene-d5	345000	11.629
3855-82-1	1,4-Dichlorobenzene-d4	166000	13.556

TENTATIVE IDENTIFIED COMPOUNDS

- A
- B
- C
- D**
- E
- F
- G

Report of Analysis

Client:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23	SDG No.:	Q2543
Lab Sample ID:	Q2543-03	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85
Sample Wt/Vol:	6.54 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031811.D	1	07/10/25 18:10	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
000110-54-3	n-Hexane	4.70	J		5.97	ug/Kg

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:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23-99	SDG No.:	Q2543
Lab Sample ID:	Q2543-04	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85.4
Sample Wt/Vol:	5.27 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031812.D	1	07/10/25 18:32	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.30	U	1.30	5.60	ug/Kg
74-87-3	Chloromethane	1.30	U	1.30	5.60	ug/Kg
75-01-4	Vinyl Chloride	0.88	U	0.88	5.60	ug/Kg
74-83-9	Bromomethane	1.20	U	1.20	5.60	ug/Kg
75-00-3	Chloroethane	1.40	U	1.40	5.60	ug/Kg
75-69-4	Trichlorofluoromethane	1.30	U	1.30	5.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.20	U	1.20	5.60	ug/Kg
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.60	ug/Kg
67-64-1	Acetone	7.50	J	5.30	27.8	ug/Kg
75-15-0	Carbon Disulfide	1.20	U	1.20	5.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.81	U	0.81	5.60	ug/Kg
79-20-9	Methyl Acetate	1.70	U	1.70	5.60	ug/Kg
75-09-2	Methylene Chloride	3.90	U	3.90	11.1	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.96	U	0.96	5.60	ug/Kg
75-34-3	1,1-Dichloroethane	0.89	U	0.89	5.60	ug/Kg
110-82-7	Cyclohexane	0.88	U	0.88	5.60	ug/Kg
78-93-3	2-Butanone	7.30	U	7.30	27.8	ug/Kg
56-23-5	Carbon Tetrachloride	1.10	U	1.10	5.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.83	U	0.83	5.60	ug/Kg
74-97-5	Bromochloromethane	1.30	U	1.30	5.60	ug/Kg
67-66-3	Chloroform	0.93	U	0.93	5.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	1.00	U	1.00	5.60	ug/Kg
108-87-2	Methylcyclohexane	1.00	U	1.00	5.60	ug/Kg
71-43-2	Benzene	0.88	U	0.88	5.60	ug/Kg
107-06-2	1,2-Dichloroethane	0.88	U	0.88	5.60	ug/Kg
79-01-6	Trichloroethene	0.90	U	0.90	5.60	ug/Kg
78-87-5	1,2-Dichloropropane	1.00	U	1.00	5.60	ug/Kg
75-27-4	Bromodichloromethane	0.87	U	0.87	5.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	4.00	U	4.00	27.8	ug/Kg
108-88-3	Toluene	0.87	U	0.87	5.60	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23-99	SDG No.:	Q2543
Lab Sample ID:	Q2543-04	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85.4
Sample Wt/Vol:	5.27 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031812.D	1	07/10/25 18:32	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.72	U	0.72	5.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.69	U	0.69	5.60	ug/Kg
79-00-5	1,1,2-Trichloroethane	1.00	U	1.00	5.60	ug/Kg
591-78-6	2-Hexanone	4.10	U	4.10	27.8	ug/Kg
124-48-1	Dibromochloromethane	0.97	U	0.97	5.60	ug/Kg
106-93-4	1,2-Dibromoethane	0.98	U	0.98	5.60	ug/Kg
127-18-4	Tetrachloroethene	1.20	U	1.20	5.60	ug/Kg
108-90-7	Chlorobenzene	1.00	U	1.00	5.60	ug/Kg
100-41-4	Ethyl Benzene	0.74	U	0.74	5.60	ug/Kg
179601-23-1	m/p-Xylenes	1.40	U	1.40	11.1	ug/Kg
95-47-6	o-Xylene	0.91	U	0.91	5.60	ug/Kg
100-42-5	Styrene	0.79	U	0.79	5.60	ug/Kg
75-25-2	Bromoform	0.96	U	0.96	5.60	ug/Kg
98-82-8	Isopropylbenzene	0.87	U	0.87	5.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.30	U	1.30	5.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.90	U	1.90	5.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.70	U	1.70	5.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.60	U	1.60	5.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.00	U	2.00	5.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.30	U	3.30	5.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.50	U	3.50	5.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.8		63 - 155	112%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		70 - 134	94%	SPK: 50
2037-26-5	Toluene-d8	45.4		74 - 123	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		17 - 146	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	171000	7.965			
540-36-3	1,4-Difluorobenzene	375000	8.849			
3114-55-4	Chlorobenzene-d5	354000	11.635			
3855-82-1	1,4-Dichlorobenzene-d4	168000	13.556			

Report of Analysis

Client:	CDM Smith	Date Collected:	07/09/25
Project:	South River WM Replacement	Date Received:	07/09/25
Client Sample ID:	TP-23-99	SDG No.:	Q2543
Lab Sample ID:	Q2543-04	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	85.4
Sample Wt/Vol:	5.27	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOC-TCLVOA-10

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031812.D	1	07/10/25 18:32	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	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.: **Q2543**

Client: **CDM Smith**

Analytical Method: **SW8260D**

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q2543-01	TP-41	1,2-Dichloroethane-d4	50	56.7	113		63	155
		Dibromofluoromethane	50	47.2	94		70	134
		Toluene-d8	50	46.0	92		74	123
		4-Bromofluorobenzene	50	49.2	98		17	146
Q2543-02	TP-49	1,2-Dichloroethane-d4	50	58.9	118		63	155
		Dibromofluoromethane	50	50.1	100		70	134
		Toluene-d8	50	48.0	96		74	123
		4-Bromofluorobenzene	50	51.6	103		17	146
Q2543-03	TP-23	1,2-Dichloroethane-d4	50	58.5	117		63	155
		Dibromofluoromethane	50	50.4	101		70	134
		Toluene-d8	50	47.9	96		74	123
		4-Bromofluorobenzene	50	52.0	104		17	146
Q2543-04	TP-23-99	1,2-Dichloroethane-d4	50	55.8	112		63	155
		Dibromofluoromethane	50	47.1	94		70	134
		Toluene-d8	50	45.4	91		74	123
		4-Bromofluorobenzene	50	49.4	99		17	146
VW0710SBL01	VW0710SBL01	1,2-Dichloroethane-d4	50	55.9	112		63	155
		Dibromofluoromethane	50	46.0	92		70	134
		Toluene-d8	50	45.5	91		74	123
		4-Bromofluorobenzene	50	45.6	91		17	146
VW0710SBS01	VW0710SBS01	1,2-Dichloroethane-d4	50	48.8	98		63	155
		Dibromofluoromethane	50	47.6	95		70	134
		Toluene-d8	50	49.3	99		74	123
		4-Bromofluorobenzene	50	51.3	103		17	146
VW0710SBSD0	VW0710SBSD01	1,2-Dichloroethane-d4	50	51.5	103		63	155
		Dibromofluoromethane	50	49.9	100		70	134
		Toluene-d8	50	49.8	100		74	123
		4-Bromofluorobenzene	50	51.9	104		17	146

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q2543	SW-846	Analytical Method:	SW8260D
Client:	CDM Smith		Datafile :	VW031793.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VW0710SBS01	Dichlorodifluoromethane	20	18.5	ug/Kg	93			64	136	
	Chloromethane	20	19.3	ug/Kg	97			52	151	
	Vinyl chloride	20	20.1	ug/Kg	101			56	148	
	Bromomethane	20	18.8	ug/Kg	94			58	141	
	Chloroethane	20	19.6	ug/Kg	98			69	130	
	Trichlorofluoromethane	20	18.3	ug/Kg	92			69	134	
	1,1,2-Trichlorotrifluoroethane	20	19.3	ug/Kg	97			81	123	
	1,1-Dichloroethene	20	20.2	ug/Kg	101			79	121	
	Acetone	100	100	ug/Kg	100			40	171	
	Carbon disulfide	20	18.7	ug/Kg	94			59	130	
	Methyl tert-butyl Ether	20	21.2	ug/Kg	106			77	129	
	Methyl Acetate	20	17.7	ug/Kg	89			69	149	
	Methylene Chloride	20	24.3	ug/Kg	121			72	131	
	trans-1,2-Dichloroethene	20	20.1	ug/Kg	101			80	123	
	1,1-Dichloroethane	20	20.3	ug/Kg	102			82	123	
	Cyclohexane	20	20.2	ug/Kg	101			76	122	
	2-Butanone	100	110	ug/Kg	110			69	131	
	Carbon Tetrachloride	20	19.6	ug/Kg	98			76	129	
	cis-1,2-Dichloroethene	20	20.8	ug/Kg	104			82	123	
	Bromochloromethane	20	20.2	ug/Kg	101			80	127	
	Chloroform	20	21.2	ug/Kg	106			82	125	
	1,1,1-Trichloroethane	20	19.8	ug/Kg	99			80	126	
	Methylcyclohexane	20	20.4	ug/Kg	102			77	123	
	Benzene	20	20.8	ug/Kg	104			84	121	
	1,2-Dichloroethane	20	20.4	ug/Kg	102			81	126	
	Trichloroethene	20	20.4	ug/Kg	102			83	122	
	1,2-Dichloropropane	20	21.1	ug/Kg	106			83	122	
	Bromodichloromethane	20	20.3	ug/Kg	102			82	123	
	4-Methyl-2-Pentanone	100	100	ug/Kg	100			70	135	
	Toluene	20	20.9	ug/Kg	104			83	122	
	t-1,3-Dichloropropene	20	20.6	ug/Kg	103			78	124	
	cis-1,3-Dichloropropene	20	20.9	ug/Kg	104			81	122	
	1,1,2-Trichloroethane	20	20.6	ug/Kg	103			82	125	
	2-Hexanone	100	110	ug/Kg	110			66	138	
	Dibromochloromethane	20	19.4	ug/Kg	97			79	125	
	1,2-Dibromoethane	20	20.5	ug/Kg	103			80	125	
	Tetrachloroethene	20	19.5	ug/Kg	98			83	125	
	Chlorobenzene	20	21.4	ug/Kg	107			84	122	
	Ethyl Benzene	20	22.0	ug/Kg	110			82	124	
	m/p-Xylenes	40	42.3	ug/Kg	106			83	124	
	o-Xylene	20	21.8	ug/Kg	109			83	123	
	Styrene	20	21.4	ug/Kg	107			82	124	
	Bromoform	20	18.0	ug/Kg	90			75	127	
	Isopropylbenzene	20	20.4	ug/Kg	102			82	124	
	1,1,2,2-Tetrachloroethane	20	19.8	ug/Kg	99			77	127	
	1,3-Dichlorobenzene	20	19.9	ug/Kg	100			83	122	
	1,4-Dichlorobenzene	20	19.1	ug/Kg	96			84	121	
	1,2-Dichlorobenzene	20	20.0	ug/Kg	100			83	124	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2543</u>	Analytical Method:	<u>SW8260D</u>
Client:	<u>CDM Smith</u>	Datafile :	<u>VW031793.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VW0710SBS01	1,2-Dibromo-3-Chloropropane	20	18.2	ug/Kg	91			66	134	
	1,2,4-Trichlorobenzene	20	19.4	ug/Kg	97			78	127	
	1,2,3-Trichlorobenzene	20	18.5	ug/Kg	93			70	137	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SDG No.:	Q2543	SW-846	Analytical Method:	SW8260D
Client:	CDM Smith		Datafile :	VW031794.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VW0710SBSD01	Dichlorodifluoromethane	20	19.6	ug/Kg	98	5		64	136	20
	Chloromethane	20	19.4	ug/Kg	97	0		52	151	20
	Vinyl chloride	20	20.7	ug/Kg	104	3		56	148	20
	Bromomethane	20	18.6	ug/Kg	93	1		58	141	20
	Chloroethane	20	19.4	ug/Kg	97	1		69	130	20
	Trichlorofluoromethane	20	16.6	ug/Kg	83	10		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	20.5	ug/Kg	103	6		81	123	20
	1,1-Dichloroethene	20	20.2	ug/Kg	101	0		79	121	20
	Acetone	100	110	ug/Kg	110	10		40	171	20
	Carbon disulfide	20	19.3	ug/Kg	97	3		59	130	20
	Methyl tert-butyl Ether	20	21.6	ug/Kg	108	2		77	129	20
	Methyl Acetate	20	19.0	ug/Kg	95	7		69	149	20
	Methylene Chloride	20	24.4	ug/Kg	122	1		72	131	20
	trans-1,2-Dichloroethene	20	20.6	ug/Kg	103	2		80	123	20
	1,1-Dichloroethane	20	21.2	ug/Kg	106	4		82	123	20
	Cyclohexane	20	21.2	ug/Kg	106	5		76	122	20
	2-Butanone	100	110	ug/Kg	110	0		69	131	20
	Carbon Tetrachloride	20	19.7	ug/Kg	99	1		76	129	20
	cis-1,2-Dichloroethene	20	21.4	ug/Kg	107	3		82	123	20
	Bromochloromethane	20	21.5	ug/Kg	108	7		80	127	20
	Chloroform	20	21.0	ug/Kg	105	1		82	125	20
	1,1,1-Trichloroethane	20	20.0	ug/Kg	100	1		80	126	20
	Methylcyclohexane	20	20.6	ug/Kg	103	1		77	123	20
	Benzene	20	21.2	ug/Kg	106	2		84	121	20
	1,2-Dichloroethane	20	21.3	ug/Kg	106	4		81	126	20
	Trichloroethene	20	19.5	ug/Kg	98	4		83	122	20
	1,2-Dichloropropane	20	21.1	ug/Kg	106	0		83	122	20
	Bromodichloromethane	20	20.8	ug/Kg	104	2		82	123	20
	4-Methyl-2-Pentanone	100	100	ug/Kg	100	0		70	135	20
	Toluene	20	20.7	ug/Kg	104	0		83	122	20
	t-1,3-Dichloropropene	20	20.6	ug/Kg	103	0		78	124	20
	cis-1,3-Dichloropropene	20	21.3	ug/Kg	106	2		81	122	20
	1,1,2-Trichloroethane	20	21.5	ug/Kg	108	5		82	125	20
	2-Hexanone	100	110	ug/Kg	110	0		66	138	20
	Dibromochloromethane	20	20.4	ug/Kg	102	5		79	125	20
	1,2-Dibromoethane	20	20.5	ug/Kg	103	0		80	125	20
	Tetrachloroethene	20	19.2	ug/Kg	96	2		83	125	20
	Chlorobenzene	20	21.2	ug/Kg	106	1		84	122	20
	Ethyl Benzene	20	21.3	ug/Kg	106	4		82	124	20
	m/p-Xylenes	40	41.8	ug/Kg	104	2		83	124	20
	o-Xylene	20	21.1	ug/Kg	106	3		83	123	20
	Styrene	20	21.4	ug/Kg	107	0		82	124	20
	Bromoform	20	19.5	ug/Kg	98	9		75	127	20
	Isopropylbenzene	20	21.1	ug/Kg	106	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	21.3	ug/Kg	106	7		77	127	20
	1,3-Dichlorobenzene	20	21.9	ug/Kg	110	10		83	122	20
	1,4-Dichlorobenzene	20	20.5	ug/Kg	103	7		84	121	20
	1,2-Dichlorobenzene	20	20.8	ug/Kg	104	4		83	124	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q2543</u>	Analytical Method:	<u>SW8260D</u>
Client:	<u>CDM Smith</u>	Datafile :	<u>VW031794.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VW0710SBSD01	1,2-Dibromo-3-Chloropropane	20	19.9	ug/Kg	100	9		66	134	20
	1,2,4-Trichlorobenzene	20	19.8	ug/Kg	99	2		78	127	20
	1,2,3-Trichlorobenzene	20	19.5	ug/Kg	98	5		70	137	20

VOLATILE METHOD BLANK SUMMARY

Client ID

VW0710SBL01

Lab Name: Alliance

Contract: CAMP02

Lab Code: ACE

SDG NO.: Q2543

Lab File ID: VW031792.D

Lab Sample ID: VW0710SBL01

Date Analyzed: 07/10/2025

Time Analyzed: 10:15

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

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_W

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VW0710SBS01	VW0710SBS01	VW031793.D	07/10/2025
VW0710SBSD01	VW0710SBSD01	VW031794.D	07/10/2025
TP-41	Q2543-01	VW031809.D	07/10/2025
TP-49	Q2543-02	VW031810.D	07/10/2025
TP-23	Q2543-03	VW031811.D	07/10/2025
TP-23-99	Q2543-04	VW031812.D	07/10/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: VW031728.D
Instrument ID: MSVOA_W
GC Column: RXI-624 ID: 0.25 (mm)

Contract: CAMP02
SDG NO.: Q2543
BFB Injection Date: 06/30/2025
BFB Injection Time: 08:56
Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	52.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	65.4
175	5.0 - 9.0% of mass 174	5.4 (8.2) 1
176	95.0 - 101.0% of mass 174	64.8 (99.2) 1
177	5.0 - 9.0% of mass 176	4.1 (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:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VW031729.D	06/30/2025	09:54
VSTDIC010	VSTDIC010	VW031730.D	06/30/2025	10:15
VSTDIC020	VSTDIC020	VW031731.D	06/30/2025	10:58
VSTDIC050	VSTDIC050	VW031732.D	06/30/2025	11:21
VSTDIC100	VSTDIC100	VW031733.D	06/30/2025	12:34
VSTDIC150	VSTDIC150	VW031734.D	06/30/2025	12:55

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: CAMP02

Lab Code: ACE

SDG NO.: Q2543

Lab File ID: VW031790.D

BFB Injection Date: 07/10/2025

Instrument ID: MSVOA_W

BFB Injection Time: 08:16

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

Heated Purge: Y/N Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	52.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	64.3
175	5.0 - 9.0% of mass 174	4.9 (7.6) 1
176	95.0 - 101.0% of mass 174	63.2 (98.3) 1
177	5.0 - 9.0% of mass 176	3.9 (6.1) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VW031791.D	07/10/2025	08:47
VW0710SBL01	VW0710SBL01	VW031792.D	07/10/2025	10:15
VW0710SBS01	VW0710SBS01	VW031793.D	07/10/2025	11:05
VW0710SBSD01	VW0710SBSD01	VW031794.D	07/10/2025	11:33
TP-41	Q2543-01	VW031809.D	07/10/2025	17:26
TP-49	Q2543-02	VW031810.D	07/10/2025	17:48
TP-23	Q2543-03	VW031811.D	07/10/2025	18:10
TP-23-99	Q2543-04	VW031812.D	07/10/2025	18:32

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: CAMP02
Lab Code: ACE SDG NO.: Q2543
Lab File ID: VW031791.D Date Analyzed: 07/10/2025
Instrument ID: MSVOA_W Time Analyzed: 08:47
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	245114	7.97	431816	8.85	372703	11.63
UPPER LIMIT	490228	8.465	863632	9.349	745406	12.129
LOWER LIMIT	122557	7.465	215908	8.349	186352	11.129
EPA SAMPLE NO.						
TP-41	171010	7.97	378208	8.86	348050	11.64
TP-49	160019	7.97	352818	8.85	344995	11.64
TP-23	167231	7.97	355443	8.86	345205	11.63
TP-23-99	171007	7.97	374934	8.85	354079	11.64
VW0710SBL01	178449	7.96	403423	8.85	368923	11.64
VW0710SBS01	227800	7.97	411611	8.86	356304	11.64
VW0710SBSD01	226314	7.97	415001	8.85	365558	11.63

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: Alliance Contract: CAMP02
 Lab Code: ACE SDG NO.: Q2543
 Lab File ID: VW031791.D Date Analyzed: 07/10/2025
 Instrument ID: MSVOA_W Time Analyzed: 08:47
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	173821	13.556				
UPPER LIMIT	347642	14.056				
LOWER LIMIT	86910.5	13.056				
EPA SAMPLE NO.						
TP-41	159478	13.56				
TP-49	157809	13.56				
TP-23	165908	13.56				
TP-23-99	167590	13.56				
VW0710SBL01	171872	13.56				
VW0710SBS01	178658	13.56				
VW0710SBSD01	173637	13.56				

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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBL01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBL01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031792.D	1	07/10/25 10:15	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	1.10	U	1.10	5.00	ug/Kg
74-87-3	Chloromethane	1.10	U	1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	0.79	U	0.79	5.00	ug/Kg
74-83-9	Bromomethane	1.10	U	1.10	5.00	ug/Kg
75-00-3	Chloroethane	1.30	U	1.30	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	1.20	U	1.20	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	1.10	U	1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	1.00	U	1.00	5.00	ug/Kg
67-64-1	Acetone	4.70	U	4.70	25.0	ug/Kg
75-15-0	Carbon Disulfide	1.10	U	1.10	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	0.73	U	0.73	5.00	ug/Kg
79-20-9	Methyl Acetate	1.50	U	1.50	5.00	ug/Kg
75-09-2	Methylene Chloride	3.50	U	3.50	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	0.86	U	0.86	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	0.80	U	0.80	5.00	ug/Kg
110-82-7	Cyclohexane	0.79	U	0.79	5.00	ug/Kg
78-93-3	2-Butanone	6.50	U	6.50	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	0.97	U	0.97	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	0.75	U	0.75	5.00	ug/Kg
74-97-5	Bromochloromethane	1.20	U	1.20	5.00	ug/Kg
67-66-3	Chloroform	0.84	U	0.84	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	0.93	U	0.93	5.00	ug/Kg
108-87-2	Methylcyclohexane	0.91	U	0.91	5.00	ug/Kg
71-43-2	Benzene	0.79	U	0.79	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	0.79	U	0.79	5.00	ug/Kg
79-01-6	Trichloroethene	0.81	U	0.81	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	0.91	U	0.91	5.00	ug/Kg
75-27-4	Bromodichloromethane	0.78	U	0.78	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	3.60	U	3.60	25.0	ug/Kg
108-88-3	Toluene	0.78	U	0.78	5.00	ug/Kg

Report of Analysis

Client:	CDM Smith		Date Collected:	
Project:	South River WM Replacement		Date Received:	
Client Sample ID:	VW0710SBL01		SDG No.:	Q2543
Lab Sample ID:	VW0710SBL01		Matrix:	SOIL
Analytical Method:	8260D		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031792.D	1	07/10/25 10:15	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	0.65	U	0.65	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	0.62	U	0.62	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	0.92	U	0.92	5.00	ug/Kg
591-78-6	2-Hexanone	3.70	U	3.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	0.87	U	0.87	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	0.88	U	0.88	5.00	ug/Kg
127-18-4	Tetrachloroethene	1.10	U	1.10	5.00	ug/Kg
108-90-7	Chlorobenzene	0.91	U	0.91	5.00	ug/Kg
100-41-4	Ethyl Benzene	0.67	U	0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	1.20	U	1.20	10.0	ug/Kg
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/Kg
100-42-5	Styrene	0.71	U	0.71	5.00	ug/Kg
75-25-2	Bromoform	0.86	U	0.86	5.00	ug/Kg
98-82-8	Isopropylbenzene	0.78	U	0.78	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	1.20	U	1.20	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	1.70	U	1.70	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	1.60	U	1.60	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	1.50	U	1.50	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	1.80	U	1.80	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.00	U	3.00	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.20	U	3.20	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.9		63 - 155	112%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		70 - 134	92%	SPK: 50
2037-26-5	Toluene-d8	45.5		74 - 123	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		17 - 146	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	178000	7.959			
540-36-3	1,4-Difluorobenzene	403000	8.849			
3114-55-4	Chlorobenzene-d5	369000	11.635			
3855-82-1	1,4-Dichlorobenzene-d4	172000	13.556			

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBL01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBL01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031792.D	1	07/10/25 10:15	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBS01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBS01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031793.D	1	07/10/25 11:05	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.5		1.10	5.00	ug/Kg
74-87-3	Chloromethane	19.3		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.1		0.79	5.00	ug/Kg
74-83-9	Bromomethane	18.8		1.10	5.00	ug/Kg
75-00-3	Chloroethane	19.6		1.30	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.3		1.20	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.3		1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.2		1.00	5.00	ug/Kg
67-64-1	Acetone	100		4.70	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.7		1.10	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.2		0.73	5.00	ug/Kg
79-20-9	Methyl Acetate	17.7		1.50	5.00	ug/Kg
75-09-2	Methylene Chloride	24.3		3.50	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.1		0.86	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.3		0.80	5.00	ug/Kg
110-82-7	Cyclohexane	20.2		0.79	5.00	ug/Kg
78-93-3	2-Butanone	110		6.50	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.6		0.97	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.8		0.75	5.00	ug/Kg
74-97-5	Bromochloromethane	20.2		1.20	5.00	ug/Kg
67-66-3	Chloroform	21.2		0.84	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.8		0.93	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.4		0.91	5.00	ug/Kg
71-43-2	Benzene	20.8		0.79	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.79	5.00	ug/Kg
79-01-6	Trichloroethene	20.4		0.81	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	21.1		0.91	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.3		0.78	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	100		3.60	25.0	ug/Kg
108-88-3	Toluene	20.9		0.78	5.00	ug/Kg

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBS01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBS01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031793.D	1	07/10/25 11:05	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	20.6		0.65	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.9		0.62	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.6		0.92	5.00	ug/Kg
591-78-6	2-Hexanone	110		3.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.4		0.87	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.5		0.88	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.5		1.10	5.00	ug/Kg
108-90-7	Chlorobenzene	21.4		0.91	5.00	ug/Kg
100-41-4	Ethyl Benzene	22.0		0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	42.3		1.20	10.0	ug/Kg
95-47-6	o-Xylene	21.8		0.82	5.00	ug/Kg
100-42-5	Styrene	21.4		0.71	5.00	ug/Kg
75-25-2	Bromoform	18.0		0.86	5.00	ug/Kg
98-82-8	Isopropylbenzene	20.4		0.78	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	19.8		1.20	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.9		1.70	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.1		1.60	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.0		1.50	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	18.2		1.80	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	19.4		3.00	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	18.5		3.20	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.8		63 - 155	98%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		70 - 134	95%	SPK: 50
2037-26-5	Toluene-d8	49.3		74 - 123	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.3		17 - 146	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	228000	7.965			
540-36-3	1,4-Difluorobenzene	412000	8.855			
3114-55-4	Chlorobenzene-d5	356000	11.635			
3855-82-1	1,4-Dichlorobenzene-d4	179000	13.556			

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBS01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBS01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
GC Column:	RXI-624	ID :	0.25
Prep Method :		Level :	LOW
		Final Vol:	5000
		Test:	VOC-TCLVOA-10

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031793.D	1	07/10/25 11:05	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	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:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBSD01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBSD01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031794.D	1	07/10/25 11:33	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.6		1.10	5.00	ug/Kg
74-87-3	Chloromethane	19.4		1.10	5.00	ug/Kg
75-01-4	Vinyl Chloride	20.7		0.79	5.00	ug/Kg
74-83-9	Bromomethane	18.6		1.10	5.00	ug/Kg
75-00-3	Chloroethane	19.4		1.30	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	16.6		1.20	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	20.5		1.10	5.00	ug/Kg
75-35-4	1,1-Dichloroethene	20.2		1.00	5.00	ug/Kg
67-64-1	Acetone	110		4.70	25.0	ug/Kg
75-15-0	Carbon Disulfide	19.3		1.10	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	21.6		0.73	5.00	ug/Kg
79-20-9	Methyl Acetate	19.0		1.50	5.00	ug/Kg
75-09-2	Methylene Chloride	24.4		3.50	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	20.6		0.86	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	21.2		0.80	5.00	ug/Kg
110-82-7	Cyclohexane	21.2		0.79	5.00	ug/Kg
78-93-3	2-Butanone	110		6.50	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.7		0.97	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	21.4		0.75	5.00	ug/Kg
74-97-5	Bromochloromethane	21.5		1.20	5.00	ug/Kg
67-66-3	Chloroform	21.0		0.84	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	20.0		0.93	5.00	ug/Kg
108-87-2	Methylcyclohexane	20.6		0.91	5.00	ug/Kg
71-43-2	Benzene	21.2		0.79	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	21.3		0.79	5.00	ug/Kg
79-01-6	Trichloroethene	19.5		0.81	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	21.1		0.91	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.8		0.78	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	100		3.60	25.0	ug/Kg
108-88-3	Toluene	20.7		0.78	5.00	ug/Kg

Report of Analysis

Client:	CDM Smith		Date Collected:	
Project:	South River WM Replacement		Date Received:	
Client Sample ID:	VW0710SBSD01	SDG No.:	Q2543	
Lab Sample ID:	VW0710SBSD01	Matrix:	SOIL	
Analytical Method:	8260D	% Solid:	100	
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031794.D	1	07/10/25 11:33	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
10061-02-6	t-1,3-Dichloropropene	20.6		0.65	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	21.3		0.62	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	21.5		0.92	5.00	ug/Kg
591-78-6	2-Hexanone	110		3.70	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.4		0.87	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.5		0.88	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.2		1.10	5.00	ug/Kg
108-90-7	Chlorobenzene	21.2		0.91	5.00	ug/Kg
100-41-4	Ethyl Benzene	21.3		0.67	5.00	ug/Kg
179601-23-1	m/p-Xylenes	41.8		1.20	10.0	ug/Kg
95-47-6	o-Xylene	21.1		0.82	5.00	ug/Kg
100-42-5	Styrene	21.4		0.71	5.00	ug/Kg
75-25-2	Bromoform	19.5		0.86	5.00	ug/Kg
98-82-8	Isopropylbenzene	21.1		0.78	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	21.3		1.20	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	21.9		1.70	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	20.5		1.60	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	20.8		1.50	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	19.9		1.80	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	19.8		3.00	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	19.5		3.20	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.5		63 - 155	103%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		70 - 134	100%	SPK: 50
2037-26-5	Toluene-d8	49.8		74 - 123	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.9		17 - 146	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	226000	7.965			
540-36-3	1,4-Difluorobenzene	415000	8.849			
3114-55-4	Chlorobenzene-d5	366000	11.629			
3855-82-1	1,4-Dichlorobenzene-d4	174000	13.556			

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	VW0710SBSD01	SDG No.:	Q2543
Lab Sample ID:	VW0710SBSD01	Matrix:	SOIL
Analytical Method:	8260D	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VW031794.D	1	07/10/25 11:33	VW071025

CAS Number	Parameter	Conc.	Qualifier	MDL	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



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>Alliance</u>	Contract:	<u>CAMP02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2543</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date(s):	<u>06/30/2025</u> <u>06/30/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Calibration Time(s):	<u>09:54</u> <u>12:55</u>
GC Column:	<u>RXI-624</u> ID: <u>0.25</u> (mm)		

LAB FILE ID:		RRF005 = VW031729.D		RRF010 = VW031730.D		RRF020 = VW031731.D		
		RRF050 = VW031732.D		RRF100 = VW031733.D		RRF150 = VW031734.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dichlorodifluoromethane	0.330	0.371	0.352	0.310	0.329	0.351	0.341	6.3
Chloromethane	0.409	0.410	0.428	0.375	0.405	0.436	0.411	5.1
Vinyl Chloride	0.523	0.534	0.576	0.514	0.545	0.546	0.540	4
Bromomethane	0.429	0.431	0.443	0.396	0.412	0.418	0.421	3.9
Chloroethane	0.370	0.372	0.379	0.347	0.360	0.372	0.367	3.1
Trichlorofluoromethane	0.509	0.508	0.442	0.469	0.466	0.546	0.490	7.7
1,1,2-Trichlorotrifluoroethane	0.577	0.563	0.569	0.508	0.517	0.530	0.544	5.4
1,1-Dichloroethene	0.602	0.625	0.622	0.556	0.581	0.588	0.596	4.4
Acetone	0.238	0.191	0.171	0.163	0.157	0.144	0.177	18.8
Carbon Disulfide	1.571	1.588	1.647	1.536	1.590	1.633	1.594	2.5
Methyl tert-butyl Ether	1.007	1.018	1.038	1.033	0.982	0.988	1.011	2.3
Methyl Acetate	0.540	0.523	0.498	0.528	0.467	0.485	0.507	5.6
Methylene Chloride	1.029	0.980	0.905	0.692	0.655	0.626	0.814	21.7
trans-1,2-Dichloroethene	0.635	0.623	0.667	0.613	0.631	0.629	0.633	2.9
1,1-Dichloroethane	1.154	1.163	1.219	1.116	1.131	1.153	1.156	3.1
Cyclohexane	1.175	1.065	1.033	0.937	0.940	0.981	1.022	8.9
2-Butanone	0.224	0.224	0.221	0.249	0.231	0.237	0.231	4.6
Carbon Tetrachloride	0.477	0.498	0.498	0.461	0.468	0.485	0.481	3.2
cis-1,2-Dichloroethene	0.711	0.709	0.754	0.716	0.736	0.740	0.728	2.5
Bromochloromethane	0.531	0.501	0.535	0.504	0.500	0.489	0.510	3.7
Chloroform	1.230	1.239	1.299	1.204	1.189	1.208	1.228	3.2
1,1,1-Trichloroethane	0.933	0.983	0.971	0.925	0.907	0.959	0.946	3.1
Methylcyclohexane	0.573	0.571	0.604	0.566	0.592	0.619	0.587	3.6
Benzene	1.410	1.394	1.483	1.375	1.349	1.371	1.397	3.4
1,2-Dichloroethane	0.490	0.490	0.493	0.464	0.449	0.445	0.472	4.7
Trichloroethene	0.344	0.346	0.367	0.344	0.337	0.354	0.349	3.1
1,2-Dichloropropane	0.348	0.344	0.353	0.331	0.324	0.325	0.338	3.7
Bromodichloromethane	0.509	0.512	0.524	0.511	0.502	0.510	0.511	1.4
4-Methyl-2-Pentanone	0.285	0.301	0.295	0.313	0.289	0.287	0.295	3.5
Toluene	0.882	0.898	0.938	0.876	0.874	0.899	0.894	2.7

* 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>Alliance</u>	Contract:	<u>CAMP02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2543</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date(s):	<u>06/30/2025</u> <u>06/30/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Calibration Time(s):	<u>09:54</u> <u>12:55</u>
GC Column:	<u>RXI-624</u> ID: <u>0.25</u> (mm)		

LAB FILE ID:		RRF005 = VW031729.D		RRF010 = VW031730.D		RRF020 = VW031731.D		
		RRF050 = VW031732.D		RRF100 = VW031733.D		RRF150 = VW031734.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
t-1,3-Dichloropropene	0.432	0.460	0.491	0.496	0.497	0.500	0.480	5.7
cis-1,3-Dichloropropene	0.514	0.521	0.571	0.549	0.547	0.560	0.544	4.1
1,1,2-Trichloroethane	0.299	0.282	0.299	0.285	0.275	0.273	0.286	4
2-Hexanone	0.185	0.201	0.195	0.219	0.201	0.199	0.200	5.6
Dibromochloromethane	0.329	0.332	0.353	0.352	0.336	0.345	0.341	3
1,2-Dibromoethane	0.288	0.285	0.296	0.290	0.274	0.281	0.286	2.7
Tetrachloroethene	0.331	0.321	0.324	0.314	0.329	0.344	0.327	3.2
Chlorobenzene	1.128	1.116	1.116	1.062	1.078	1.120	1.103	2.4
Ethyl Benzene	1.860	1.899	1.911	1.885	1.934	1.989	1.913	2.3
m/p-Xylenes	0.690	0.730	0.751	0.727	0.750	0.764	0.735	3.6
o-Xylene	0.636	0.654	0.685	0.682	0.705	0.723	0.681	4.7
Styrene	1.066	1.154	1.195	1.209	1.206	1.232	1.177	5.1
Bromoform	0.197	0.202	0.203	0.219	0.215	0.223	0.210	5.1
Isopropylbenzene	3.643	3.549	3.683	3.732	4.080	4.132	3.803	6.4
1,1,2,2-Tetrachloroethane	0.891	0.839	0.812	0.843	0.829	0.852	0.844	3.2
1,3-Dichlorobenzene	1.771	1.705	1.683	1.644	1.681	1.723	1.701	2.5
1,4-Dichlorobenzene	1.815	1.750	1.700	1.702	1.735	1.745	1.741	2.4
1,2-Dichlorobenzene	1.599	1.518	1.511	1.575	1.563	1.563	1.555	2.2
1,2-Dibromo-3-Chloropropane	0.169	0.159	0.153	0.166	0.167	0.174	0.165	4.6
1,2,4-Trichlorobenzene	0.965	0.899	0.929	0.933	1.000	1.028	0.959	5
1,2,3-Trichlorobenzene	0.863	0.865	0.827	0.862	0.944	0.926	0.881	5
1,2-Dichloroethane-d4	0.731	0.732	0.739	0.715	0.702	0.687	0.718	2.8
Dibromofluoromethane	0.322	0.324	0.348	0.324	0.327	0.312	0.326	3.6
Toluene-d8	1.121	1.245	1.290	1.208	1.229	1.193	1.214	4.7
4-Bromofluorobenzene	0.436	0.452	0.463	0.447	0.450	0.434	0.447	2.4

* 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:	<u>Alliance</u>	Contract:	<u>CAMP02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2543</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date/Time:	<u>07/10/2025 08:47</u>
Lab File ID:	<u>VW031791.D</u>	Init. Calib. Date(s):	<u>06/30/2025 06/30/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>09:54 12:55</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.341	0.332		-2.64	20
Chloromethane	0.411	0.420	0.1	2.19	20
Vinyl Chloride	0.540	0.564		4.44	20
Bromomethane	0.421	0.402		-4.51	20
Chloroethane	0.367	0.366		-0.27	20
Trichlorofluoromethane	0.490	0.492		0.41	20
1,1,2-Trichlorotrifluoroethane	0.544	0.551		1.29	20
1,1-Dichloroethene	0.596	0.602		1.01	20
Acetone	0.177	0.174		-1.7	20
Carbon Disulfide	1.594	1.572		-1.38	20
Methyl tert-butyl Ether	1.011	1.104		9.2	20
Methyl Acetate	0.507	0.519		2.37	20
Methylene Chloride	0.814	0.823		1.11	20
trans-1,2-Dichloroethene	0.633	0.640		1.11	20
1,1-Dichloroethane	1.156	1.209	0.1	4.59	20
Cyclohexane	1.022	1.029		0.69	20
2-Butanone	0.231	0.241		4.33	20
Carbon Tetrachloride	0.481	0.507		5.41	20
cis-1,2-Dichloroethene	0.728	0.766		5.22	20
Bromochloromethane	0.510	0.525		2.94	20
Chloroform	1.228	1.273		3.66	20
1,1,1-Trichloroethane	0.946	0.972		2.75	20
Methylcyclohexane	0.587	0.637		8.52	20
Benzene	1.397	1.483		6.16	20
1,2-Dichloroethane	0.472	0.498		5.51	20
Trichloroethene	0.349	0.349		0	20
1,2-Dichloropropane	0.338	0.363		7.4	20
Bromodichloromethane	0.511	0.559		9.39	20
4-Methyl-2-Pentanone	0.295	0.312		5.76	20
Toluene	0.894	0.967		8.17	20
t-1,3-Dichloropropene	0.480	0.540		12.5	20
cis-1,3-Dichloropropene	0.544	0.610		12.13	20
1,1,2-Trichloroethane	0.286	0.303		5.94	20
2-Hexanone	0.200	0.219		9.5	20
Dibromochloromethane	0.341	0.365		7.04	20
1,2-Dibromoethane	0.286	0.301		5.24	20
Tetrachloroethene	0.327	0.330		0.92	20
Chlorobenzene	1.103	1.194	0.3	8.25	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:	<u>Alliance</u>	Contract:	<u>CAMP02</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q2543</u>
Instrument ID:	<u>MSVOA_W</u>	Calibration Date/Time:	<u>07/10/2025 08:47</u>
Lab File ID:	<u>VW031791.D</u>	Init. Calib. Date(s):	<u>06/30/2025 06/30/2025</u>
Heated Purge: (Y/N)	<u>Y</u>	Init. Calib. Time(s):	<u>09:54 12:55</u>
GC Column:	<u>RXI-624</u>	ID:	<u>0.25</u> (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Ethyl Benzene	1.913	2.125		11.08	20
m/p-Xylenes	0.735	0.834		13.47	20
o-Xylene	0.681	0.781		14.68	20
Styrene	1.177	1.307		11.05	20
Bromoform	0.210	0.217	0.1	3.33	20
Isopropylbenzene	3.803	4.324		13.7	20
1,1,2,2-Tetrachloroethane	0.844	0.925	0.3	9.6	20
1,3-Dichlorobenzene	1.701	1.790		5.23	20
1,4-Dichlorobenzene	1.741	1.807		3.79	20
1,2-Dichlorobenzene	1.555	1.645		5.79	20
1,2-Dibromo-3-Chloropropane	0.165	0.173		4.85	20
1,2,4-Trichlorobenzene	0.959	1.053		9.8	20
1,2,3-Trichlorobenzene	0.881	0.966		9.65	20
1,2-Dichloroethane-d4	0.718	0.700		-2.51	20
Dibromofluoromethane	0.326	0.329		0.92	20
Toluene-d8	1.214	1.231		1.4	20
4-Bromofluorobenzene	0.447	0.459		2.68	20

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