

LAB CHRONICLE

OrderID:	Q1241	OrderDate:	1/30/2025 2:58:00 PM
Client:	RU2 Engineering, LLC	Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR
Contact:	Rutu Manani	Location:	E11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1241-01	JPP-3.5-013025	SOIL	VOCMS Group1	8260D	01/30/25		02/04/25	01/30/25
Q1241-02	JPP-3.5-013025	TCLP	TCLP VOA	8260D	01/30/25		02/04/25	01/30/25
Q1241-05	JPP-5.3-013025	SOIL	VOCMS Group1	8260D	01/30/25		02/05/25	01/30/25
Q1241-06	JPP-5.3-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-09	JPP-5.2-013025	SOIL	VOCMS Group1	8260D	01/30/25		02/04/25	01/30/25
Q1241-10	JPP-5.2-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-13	JPP-5.4-013025	SOIL	VOCMS Group1	8260D	01/30/25		02/04/25	01/30/25
Q1241-14	JPP-5.4-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-17	JPP-51.4-013025	SOIL	VOCMS Group1	8260D	01/30/25		02/04/25	01/30/25
Q1241-18	JPP-51.4-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25

Hit Summary Sheet
SW-846

SDG No.: Q1241
Client: RU2 Engineering, LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	JPP-3.5-013025							
Q1241-01	JPP-3.5-013025	SOIL	Naphthalene	* 1.90	J	1.20	4.10	ug/Kg
			Total Tics :	1.90				
			Total Concentration:	1.90				
Client ID:	JPP-5.2-013025							
Q1241-09	JPP-5.2-013025	SOIL	Acetone	31.4		3.40	13.5	ug/Kg
Q1241-09	JPP-5.2-013025	SOIL	Carbon Disulfide	1.20	J	0.69	2.70	ug/Kg
Q1241-09	JPP-5.2-013025	SOIL	Isopropylbenzene	0.85	J	0.36	2.70	ug/Kg
			Total Voc :	33.5				
Q1241-09	JPP-5.2-013025	SOIL	.beta.-Pinene	* 3.00	J	0	0	ug/Kg
Q1241-09	JPP-5.2-013025	SOIL	p-Isopropyltoluene	* 3.20	J	0.31	2.70	ug/Kg
Q1241-09	JPP-5.2-013025	SOIL	Naphthalene	* 2.00	J	0.80	2.70	ug/Kg
			Total Tics :	8.20				
			Total Concentration:	41.6				
Client ID:	JPP-5.4-013025							
Q1241-13	JPP-5.4-013025	SOIL	Acetone	7.70	J	3.60	14.3	ug/Kg
Q1241-13	JPP-5.4-013025	SOIL	Toluene	4.80		0.38	2.90	ug/Kg
Q1241-13	JPP-5.4-013025	SOIL	m/p-Xylenes	0.88	J	0.77	5.70	ug/Kg
			Total Voc :	13.4				
Q1241-13	JPP-5.4-013025	SOIL	Propene	* 4.10	J	0	0	ug/Kg
			Total Tics :	4.10				
			Total Concentration:	17.5				
Client ID:	JPP-51.4-013025							
Q1241-17	JPP-51.4-013025	SOIL	.alpha.-Pinene	* 5.90	J	0	0	ug/Kg
			Total Tics :	5.90				
			Total Concentration:	5.90				



SAMPLE DATA

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.6
Sample Wt/Vol:	7.16 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021063.D	1		02/04/25 17:00	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	4.10	U	1.40	4.10	ug/Kg
74-87-3	Chloromethane	4.10	U	0.96	4.10	ug/Kg
75-01-4	Vinyl Chloride	4.10	U	0.64	4.10	ug/Kg
74-83-9	Bromomethane	4.10	U	0.85	4.10	ug/Kg
75-00-3	Chloroethane	4.10	U	0.83	4.10	ug/Kg
75-69-4	Trichlorofluoromethane	4.10	U	0.75	4.10	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	4.10	U	0.88	4.10	ug/Kg
75-65-0	Tert butyl alcohol	20.6	U	12.9	20.6	ug/Kg
75-35-4	1,1-Dichloroethene	4.10	U	0.64	4.10	ug/Kg
67-64-1	Acetone	20.6	U	5.20	20.6	ug/Kg
75-15-0	Carbon Disulfide	4.10	U	1.10	4.10	ug/Kg
1634-04-4	Methyl tert-butyl Ether	4.10	U	0.55	4.10	ug/Kg
79-20-9	Methyl Acetate	4.10	U	1.50	4.10	ug/Kg
75-09-2	Methylene Chloride	8.30	U	2.80	8.30	ug/Kg
156-60-5	trans-1,2-Dichloroethene	4.10	U	0.69	4.10	ug/Kg
75-34-3	1,1-Dichloroethane	4.10	U	0.52	4.10	ug/Kg
110-82-7	Cyclohexane	4.10	U	0.57	4.10	ug/Kg
78-93-3	2-Butanone	20.6	U	4.70	20.6	ug/Kg
56-23-5	Carbon Tetrachloride	4.10	U	0.72	4.10	ug/Kg
156-59-2	cis-1,2-Dichloroethene	4.10	U	0.50	4.10	ug/Kg
74-97-5	Bromochloromethane	4.10	U	2.00	4.10	ug/Kg
67-66-3	Chloroform	4.10	U	0.55	4.10	ug/Kg
71-55-6	1,1,1-Trichloroethane	4.10	U	0.64	4.10	ug/Kg
108-87-2	Methylcyclohexane	4.10	U	0.72	4.10	ug/Kg
71-43-2	Benzene	4.10	U	0.59	4.10	ug/Kg
107-06-2	1,2-Dichloroethane	4.10	U	0.50	4.10	ug/Kg
79-01-6	Trichloroethene	4.10	U	0.62	4.10	ug/Kg
78-87-5	1,2-Dichloropropane	4.10	U	0.54	4.10	ug/Kg
75-27-4	Bromodichloromethane	4.10	U	0.46	4.10	ug/Kg
108-10-1	4-Methyl-2-Pentanone	20.6	U	3.60	20.6	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.6
Sample Wt/Vol:	7.16 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021063.D	1		02/04/25 17:00	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	4.10	U	0.55	4.10	ug/Kg
10061-02-6	t-1,3-Dichloropropene	4.10	U	0.50	4.10	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	4.10	U	0.47	4.10	ug/Kg
79-00-5	1,1,2-Trichloroethane	4.10	U	0.69	4.10	ug/Kg
591-78-6	2-Hexanone	20.6	U	4.00	20.6	ug/Kg
124-48-1	Dibromochloromethane	4.10	U	0.54	4.10	ug/Kg
106-93-4	1,2-Dibromoethane	4.10	U	0.65	4.10	ug/Kg
127-18-4	Tetrachloroethene	4.10	U	0.73	4.10	ug/Kg
108-90-7	Chlorobenzene	4.10	U	0.61	4.10	ug/Kg
100-41-4	Ethyl Benzene	4.10	U	0.51	4.10	ug/Kg
179601-23-1	m/p-Xylenes	8.30	U	1.10	8.30	ug/Kg
95-47-6	o-Xylene	4.10	U	0.58	4.10	ug/Kg
100-42-5	Styrene	4.10	U	0.50	4.10	ug/Kg
75-25-2	Bromoform	4.10	U	0.67	4.10	ug/Kg
98-82-8	Isopropylbenzene	4.10	U	0.55	4.10	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	4.10	U	0.91	4.10	ug/Kg
541-73-1	1,3-Dichlorobenzene	4.10	U	0.61	4.10	ug/Kg
106-46-7	1,4-Dichlorobenzene	4.10	U	0.66	4.10	ug/Kg
95-50-1	1,2-Dichlorobenzene	4.10	U	0.49	4.10	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	4.10	U	1.30	4.10	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	4.10	U	0.65	4.10	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	4.10	U	0.64	4.10	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	61.7		50 - 163	123%	SPK: 50
1868-53-7	Dibromofluoromethane	52.8		54 - 147	106%	SPK: 50
2037-26-5	Toluene-d8	49.9		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.5		29 - 146	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	149000	7.707			
540-36-3	1,4-Difluorobenzene	278000	8.616			
3114-55-4	Chlorobenzene-d5	241000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	81200	13.346			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-3.5-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	84.6
Sample Wt/Vol:	7.16 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021063.D	1		02/04/25 17:00	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
91-20-3	Naphthalene	1.90	J		15.1	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:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	7.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021092.D	1		02/05/25 16:35	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	3.60	U	1.20	3.60	ug/Kg
74-87-3	Chloromethane	3.60	U	0.84	3.60	ug/Kg
75-01-4	Vinyl Chloride	3.60	U	0.56	3.60	ug/Kg
74-83-9	Bromomethane	3.60	U	0.75	3.60	ug/Kg
75-00-3	Chloroethane	3.60	U	0.73	3.60	ug/Kg
75-69-4	Trichlorofluoromethane	3.60	U	0.66	3.60	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	3.60	U	0.77	3.60	ug/Kg
75-65-0	Tert butyl alcohol	18.1	U	11.3	18.1	ug/Kg
75-35-4	1,1-Dichloroethene	3.60	U	0.56	3.60	ug/Kg
67-64-1	Acetone	18.1	U	4.50	18.1	ug/Kg
75-15-0	Carbon Disulfide	3.60	U	0.93	3.60	ug/Kg
1634-04-4	Methyl tert-butyl Ether	3.60	U	0.48	3.60	ug/Kg
79-20-9	Methyl Acetate	3.60	U	1.30	3.60	ug/Kg
75-09-2	Methylene Chloride	7.20	U	2.50	7.20	ug/Kg
156-60-5	trans-1,2-Dichloroethene	3.60	U	0.61	3.60	ug/Kg
75-34-3	1,1-Dichloroethane	3.60	U	0.46	3.60	ug/Kg
110-82-7	Cyclohexane	3.60	U	0.50	3.60	ug/Kg
78-93-3	2-Butanone	18.1	U	4.10	18.1	ug/Kg
56-23-5	Carbon Tetrachloride	3.60	U	0.63	3.60	ug/Kg
156-59-2	cis-1,2-Dichloroethene	3.60	U	0.44	3.60	ug/Kg
74-97-5	Bromochloromethane	3.60	U	1.80	3.60	ug/Kg
67-66-3	Chloroform	3.60	U	0.48	3.60	ug/Kg
71-55-6	1,1,1-Trichloroethane	3.60	U	0.56	3.60	ug/Kg
108-87-2	Methylcyclohexane	3.60	U	0.63	3.60	ug/Kg
71-43-2	Benzene	3.60	U	0.52	3.60	ug/Kg
107-06-2	1,2-Dichloroethane	3.60	U	0.44	3.60	ug/Kg
79-01-6	Trichloroethene	3.60	U	0.54	3.60	ug/Kg
78-87-5	1,2-Dichloropropane	3.60	U	0.48	3.60	ug/Kg
75-27-4	Bromodichloromethane	3.60	U	0.41	3.60	ug/Kg
108-10-1	4-Methyl-2-Pentanone	18.1	U	3.10	18.1	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	7.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021092.D	1		02/05/25 16:35	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	3.60	U	0.48	3.60	ug/Kg
10061-02-6	t-1,3-Dichloropropene	3.60	U	0.43	3.60	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	3.60	U	0.41	3.60	ug/Kg
79-00-5	1,1,2-Trichloroethane	3.60	U	0.61	3.60	ug/Kg
591-78-6	2-Hexanone	18.1	U	3.50	18.1	ug/Kg
124-48-1	Dibromochloromethane	3.60	U	0.47	3.60	ug/Kg
106-93-4	1,2-Dibromoethane	3.60	U	0.57	3.60	ug/Kg
127-18-4	Tetrachloroethene	3.60	U	0.64	3.60	ug/Kg
108-90-7	Chlorobenzene	3.60	U	0.54	3.60	ug/Kg
100-41-4	Ethyl Benzene	3.60	U	0.45	3.60	ug/Kg
179601-23-1	m/p-Xylenes	7.20	U	0.98	7.20	ug/Kg
95-47-6	o-Xylene	3.60	U	0.51	3.60	ug/Kg
100-42-5	Styrene	3.60	U	0.43	3.60	ug/Kg
75-25-2	Bromoform	3.60	U	0.59	3.60	ug/Kg
98-82-8	Isopropylbenzene	3.60	U	0.48	3.60	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	3.60	U	0.80	3.60	ug/Kg
541-73-1	1,3-Dichlorobenzene	3.60	U	0.54	3.60	ug/Kg
106-46-7	1,4-Dichlorobenzene	3.60	U	0.58	3.60	ug/Kg
95-50-1	1,2-Dichlorobenzene	3.60	U	0.43	3.60	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	3.60	U	1.10	3.60	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	3.60	U	0.57	3.60	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	3.60	U	0.56	3.60	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.3		50 - 163	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		54 - 147	104%	SPK: 50
2037-26-5	Toluene-d8	48.9		58 - 134	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	39.2		29 - 146	78%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	193000	7.713			
540-36-3	1,4-Difluorobenzene	356000	8.615			
3114-55-4	Chlorobenzene-d5	296000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	91300	13.352			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.3-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-05	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	89.3
Sample Wt/Vol:	7.74 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021092.D	1		02/05/25 16:35	VY020525

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:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.2-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.3
Sample Wt/Vol:	10.62 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021065.D	1		02/04/25 17:47	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.70	U	0.89	2.70	ug/Kg
74-87-3	Chloromethane	2.70	U	0.63	2.70	ug/Kg
75-01-4	Vinyl Chloride	2.70	U	0.42	2.70	ug/Kg
74-83-9	Bromomethane	2.70	U	0.56	2.70	ug/Kg
75-00-3	Chloroethane	2.70	U	0.54	2.70	ug/Kg
75-69-4	Trichlorofluoromethane	2.70	U	0.49	2.70	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.70	U	0.58	2.70	ug/Kg
75-65-0	Tert butyl alcohol	13.5	U	8.40	13.5	ug/Kg
75-35-4	1,1-Dichloroethene	2.70	U	0.42	2.70	ug/Kg
67-64-1	Acetone	31.4		3.40	13.5	ug/Kg
75-15-0	Carbon Disulfide	1.20	J	0.69	2.70	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.70	U	0.36	2.70	ug/Kg
79-20-9	Methyl Acetate	2.70	U	0.97	2.70	ug/Kg
75-09-2	Methylene Chloride	5.40	U	1.80	5.40	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.70	U	0.45	2.70	ug/Kg
75-34-3	1,1-Dichloroethane	2.70	U	0.34	2.70	ug/Kg
110-82-7	Cyclohexane	2.70	U	0.37	2.70	ug/Kg
78-93-3	2-Butanone	13.5	U	3.10	13.5	ug/Kg
56-23-5	Carbon Tetrachloride	2.70	U	0.47	2.70	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.70	U	0.33	2.70	ug/Kg
74-97-5	Bromochloromethane	2.70	U	1.30	2.70	ug/Kg
67-66-3	Chloroform	2.70	U	0.36	2.70	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.70	U	0.42	2.70	ug/Kg
108-87-2	Methylcyclohexane	2.70	U	0.47	2.70	ug/Kg
71-43-2	Benzene	2.70	U	0.39	2.70	ug/Kg
107-06-2	1,2-Dichloroethane	2.70	U	0.33	2.70	ug/Kg
79-01-6	Trichloroethene	2.70	U	0.40	2.70	ug/Kg
78-87-5	1,2-Dichloropropane	2.70	U	0.36	2.70	ug/Kg
75-27-4	Bromodichloromethane	2.70	U	0.30	2.70	ug/Kg
108-10-1	4-Methyl-2-Pentanone	13.5	U	2.30	13.5	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC			Date Collected:	01/30/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR			Date Received:	01/30/25	
Client Sample ID:	JPP-5.2-013025			SDG No.:	Q1241	
Lab Sample ID:	Q1241-09			Matrix:	SOIL	
Analytical Method:	SW8260			% Solid:	87.3	
Sample Wt/Vol:	10.62	Units:	g	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :						

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021065.D	1		02/04/25 17:47	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	2.70	U	0.36	2.70	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.70	U	0.32	2.70	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.70	U	0.31	2.70	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.70	U	0.45	2.70	ug/Kg
591-78-6	2-Hexanone	13.5	U	2.60	13.5	ug/Kg
124-48-1	Dibromochloromethane	2.70	U	0.35	2.70	ug/Kg
106-93-4	1,2-Dibromoethane	2.70	U	0.43	2.70	ug/Kg
127-18-4	Tetrachloroethene	2.70	U	0.48	2.70	ug/Kg
108-90-7	Chlorobenzene	2.70	U	0.40	2.70	ug/Kg
100-41-4	Ethyl Benzene	2.70	U	0.33	2.70	ug/Kg
179601-23-1	m/p-Xylenes	5.40	U	0.73	5.40	ug/Kg
95-47-6	o-Xylene	2.70	U	0.38	2.70	ug/Kg
100-42-5	Styrene	2.70	U	0.32	2.70	ug/Kg
75-25-2	Bromoform	2.70	U	0.44	2.70	ug/Kg
98-82-8	Isopropylbenzene	0.85	J	0.36	2.70	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.70	U	0.59	2.70	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.70	U	0.40	2.70	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.70	U	0.43	2.70	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.70	U	0.32	2.70	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.70	U	0.84	2.70	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.70	U	0.43	2.70	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.70	U	0.42	2.70	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	69.5		50 - 163	139%	SPK: 50
1868-53-7	Dibromofluoromethane	32.1		54 - 147	64%	SPK: 50
2037-26-5	Toluene-d8	50.9		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.0		29 - 146	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	146000	7.707			
540-36-3	1,4-Difluorobenzene	280000	8.615			
3114-55-4	Chlorobenzene-d5	270000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	121000	13.346			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.2-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-09	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87.3
Sample Wt/Vol:	10.62 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021065.D	1		02/04/25 17:47	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
000127-91-3	.beta.-Pinene	3.00	J		12.8	ug/Kg
99-87-6	p-Isopropyltoluene	3.20	J		13.3	ug/Kg
91-20-3	Naphthalene	2.00	J		15.1	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:	RU2 Engineering, LLC		Date Collected:	01/30/25	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	01/30/25	
Client Sample ID:	JPP-5.4-013025		SDG No.:	Q1241	
Lab Sample ID:	Q1241-13		Matrix:	SOIL	
Analytical Method:	SW8260		% Solid:	87	
Sample Wt/Vol:	10.03	Units: g	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021066.D	1		02/04/25 18:10	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.90	U	0.95	2.90	ug/Kg
74-87-3	Chloromethane	2.90	U	0.66	2.90	ug/Kg
75-01-4	Vinyl Chloride	2.90	U	0.44	2.90	ug/Kg
74-83-9	Bromomethane	2.90	U	0.59	2.90	ug/Kg
75-00-3	Chloroethane	2.90	U	0.58	2.90	ug/Kg
75-69-4	Trichlorofluoromethane	2.90	U	0.52	2.90	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.90	U	0.61	2.90	ug/Kg
75-65-0	Tert butyl alcohol	14.3	U	8.90	14.3	ug/Kg
75-35-4	1,1-Dichloroethene	2.90	U	0.45	2.90	ug/Kg
67-64-1	Acetone	7.70	J	3.60	14.3	ug/Kg
75-15-0	Carbon Disulfide	2.90	U	0.73	2.90	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.90	U	0.38	2.90	ug/Kg
79-20-9	Methyl Acetate	2.90	U	1.00	2.90	ug/Kg
75-09-2	Methylene Chloride	5.70	U	2.00	5.70	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.90	U	0.48	2.90	ug/Kg
75-34-3	1,1-Dichloroethane	2.90	U	0.36	2.90	ug/Kg
110-82-7	Cyclohexane	2.90	U	0.40	2.90	ug/Kg
78-93-3	2-Butanone	14.3	U	3.30	14.3	ug/Kg
56-23-5	Carbon Tetrachloride	2.90	U	0.50	2.90	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.90	U	0.35	2.90	ug/Kg
74-97-5	Bromochloromethane	2.90	U	1.40	2.90	ug/Kg
67-66-3	Chloroform	2.90	U	0.38	2.90	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.90	U	0.45	2.90	ug/Kg
108-87-2	Methylcyclohexane	2.90	U	0.50	2.90	ug/Kg
71-43-2	Benzene	2.90	U	0.41	2.90	ug/Kg
107-06-2	1,2-Dichloroethane	2.90	U	0.35	2.90	ug/Kg
79-01-6	Trichloroethene	2.90	U	0.43	2.90	ug/Kg
78-87-5	1,2-Dichloropropane	2.90	U	0.38	2.90	ug/Kg
75-27-4	Bromodichloromethane	2.90	U	0.32	2.90	ug/Kg
108-10-1	4-Methyl-2-Pentanone	14.3	U	2.50	14.3	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87
Sample Wt/Vol:	10.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021066.D	1		02/04/25 18:10	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	4.80		0.38	2.90	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.90	U	0.34	2.90	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.90	U	0.33	2.90	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.90	U	0.48	2.90	ug/Kg
591-78-6	2-Hexanone	14.3	U	2.70	14.3	ug/Kg
124-48-1	Dibromochloromethane	2.90	U	0.37	2.90	ug/Kg
106-93-4	1,2-Dibromoethane	2.90	U	0.45	2.90	ug/Kg
127-18-4	Tetrachloroethene	2.90	U	0.51	2.90	ug/Kg
108-90-7	Chlorobenzene	2.90	U	0.42	2.90	ug/Kg
100-41-4	Ethyl Benzene	2.90	U	0.36	2.90	ug/Kg
179601-23-1	m/p-Xylenes	0.88	J	0.77	5.70	ug/Kg
95-47-6	o-Xylene	2.90	U	0.40	2.90	ug/Kg
100-42-5	Styrene	2.90	U	0.34	2.90	ug/Kg
75-25-2	Bromoform	2.90	U	0.46	2.90	ug/Kg
98-82-8	Isopropylbenzene	2.90	U	0.38	2.90	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.90	U	0.63	2.90	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.90	U	0.42	2.90	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.90	U	0.46	2.90	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.90	U	0.34	2.90	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.90	U	0.89	2.90	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.90	U	0.45	2.90	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.90	U	0.45	2.90	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	65.1		50 - 163	130%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	50.9		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.5		29 - 146	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	156000	7.707			
540-36-3	1,4-Difluorobenzene	293000	8.616			
3114-55-4	Chlorobenzene-d5	278000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.346			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-5.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-13	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	87
Sample Wt/Vol:	10.03 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021066.D	1		02/04/25 18:10	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
000115-07-1	Propene	4.10	J		1.82	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:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.3
Sample Wt/Vol:	10.65 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021067.D	1		02/04/25 18:33	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	2.50	U	0.83	2.50	ug/Kg
74-87-3	Chloromethane	2.50	U	0.58	2.50	ug/Kg
75-01-4	Vinyl Chloride	2.50	U	0.39	2.50	ug/Kg
74-83-9	Bromomethane	2.50	U	0.52	2.50	ug/Kg
75-00-3	Chloroethane	2.50	U	0.51	2.50	ug/Kg
75-69-4	Trichlorofluoromethane	2.50	U	0.46	2.50	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	2.50	U	0.54	2.50	ug/Kg
75-65-0	Tert butyl alcohol	12.6	U	7.80	12.6	ug/Kg
75-35-4	1,1-Dichloroethene	2.50	U	0.39	2.50	ug/Kg
67-64-1	Acetone	12.6	U	3.10	12.6	ug/Kg
75-15-0	Carbon Disulfide	2.50	U	0.64	2.50	ug/Kg
1634-04-4	Methyl tert-butyl Ether	2.50	U	0.34	2.50	ug/Kg
79-20-9	Methyl Acetate	2.50	U	0.91	2.50	ug/Kg
75-09-2	Methylene Chloride	5.00	U	1.70	5.00	ug/Kg
156-60-5	trans-1,2-Dichloroethene	2.50	U	0.42	2.50	ug/Kg
75-34-3	1,1-Dichloroethane	2.50	U	0.32	2.50	ug/Kg
110-82-7	Cyclohexane	2.50	U	0.35	2.50	ug/Kg
78-93-3	2-Butanone	12.6	U	2.90	12.6	ug/Kg
56-23-5	Carbon Tetrachloride	2.50	U	0.44	2.50	ug/Kg
156-59-2	cis-1,2-Dichloroethene	2.50	U	0.31	2.50	ug/Kg
74-97-5	Bromochloromethane	2.50	U	1.20	2.50	ug/Kg
67-66-3	Chloroform	2.50	U	0.34	2.50	ug/Kg
71-55-6	1,1,1-Trichloroethane	2.50	U	0.39	2.50	ug/Kg
108-87-2	Methylcyclohexane	2.50	U	0.44	2.50	ug/Kg
71-43-2	Benzene	2.50	U	0.36	2.50	ug/Kg
107-06-2	1,2-Dichloroethane	2.50	U	0.31	2.50	ug/Kg
79-01-6	Trichloroethene	2.50	U	0.38	2.50	ug/Kg
78-87-5	1,2-Dichloropropane	2.50	U	0.33	2.50	ug/Kg
75-27-4	Bromodichloromethane	2.50	U	0.28	2.50	ug/Kg
108-10-1	4-Methyl-2-Pentanone	12.6	U	2.20	12.6	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.3
Sample Wt/Vol:	10.65 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021067.D	1		02/04/25 18:33	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	2.50	U	0.34	2.50	ug/Kg
10061-02-6	t-1,3-Dichloropropene	2.50	U	0.30	2.50	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	2.50	U	0.29	2.50	ug/Kg
79-00-5	1,1,2-Trichloroethane	2.50	U	0.42	2.50	ug/Kg
591-78-6	2-Hexanone	12.6	U	2.40	12.6	ug/Kg
124-48-1	Dibromochloromethane	2.50	U	0.33	2.50	ug/Kg
106-93-4	1,2-Dibromoethane	2.50	U	0.40	2.50	ug/Kg
127-18-4	Tetrachloroethene	2.50	U	0.45	2.50	ug/Kg
108-90-7	Chlorobenzene	2.50	U	0.37	2.50	ug/Kg
100-41-4	Ethyl Benzene	2.50	U	0.31	2.50	ug/Kg
179601-23-1	m/p-Xylenes	5.00	U	0.68	5.00	ug/Kg
95-47-6	o-Xylene	2.50	U	0.35	2.50	ug/Kg
100-42-5	Styrene	2.50	U	0.30	2.50	ug/Kg
75-25-2	Bromoform	2.50	U	0.41	2.50	ug/Kg
98-82-8	Isopropylbenzene	2.50	U	0.34	2.50	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	2.50	U	0.55	2.50	ug/Kg
541-73-1	1,3-Dichlorobenzene	2.50	U	0.37	2.50	ug/Kg
106-46-7	1,4-Dichlorobenzene	2.50	U	0.40	2.50	ug/Kg
95-50-1	1,2-Dichlorobenzene	2.50	U	0.30	2.50	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	2.50	U	0.78	2.50	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	2.50	U	0.40	2.50	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	2.50	U	0.39	2.50	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	67.3		50 - 163	135%	SPK: 50
1868-53-7	Dibromofluoromethane	53.7		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	51.2		58 - 134	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.7		29 - 146	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	155000	7.707			
540-36-3	1,4-Difluorobenzene	289000	8.616			
3114-55-4	Chlorobenzene-d5	278000	11.414			
3855-82-1	1,4-Dichlorobenzene-d4	110000	13.346			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	01/30/25
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	01/30/25
Client Sample ID:	JPP-51.4-013025	SDG No.:	Q1241
Lab Sample ID:	Q1241-17	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	93.3
Sample Wt/Vol:	10.65 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021067.D	1		02/04/25 18:33	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TENTATIVE IDENTIFIED COMPOUNDS						
000080-56-8	.alpha.-Pinene	5.90	J		12.3	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



QC SUMMARY

Surrogate Summary

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1241-01	JPP-3.5-013025	1,2-Dichloroethane-d4	50	61.7	123	50	163
		Dibromofluoromethane	50	52.8	106	54	147
		Toluene-d8	50	49.9	100	58	134
		4-Bromofluorobenzene	50	42.5	85	29	146
Q1241-05	JPP-5.3-013025	1,2-Dichloroethane-d4	50	57.3	115	50	163
		Dibromofluoromethane	50	51.8	104	54	147
		Toluene-d8	50	48.9	98	58	134
		4-Bromofluorobenzene	50	39.2	78	29	146
Q1241-09	JPP-5.2-013025	1,2-Dichloroethane-d4	50	69.5	139	50	163
		Dibromofluoromethane	50	32.0	64	54	147
		Toluene-d8	50	50.9	102	58	134
		4-Bromofluorobenzene	50	55.0	110	29	146
Q1241-13	JPP-5.4-013025	1,2-Dichloroethane-d4	50	65.1	130	50	163
		Dibromofluoromethane	50	53.3	107	54	147
		Toluene-d8	50	50.9	102	58	134
		4-Bromofluorobenzene	50	51.5	103	29	146
Q1241-17	JPP-51.4-013025	1,2-Dichloroethane-d4	50	67.3	135	50	163
		Dibromofluoromethane	50	53.7	107	54	147
		Toluene-d8	50	51.2	102	58	134
		4-Bromofluorobenzene	50	53.7	107	29	146
VY0204SBL01	VY0204SBL01	1,2-Dichloroethane-d4	50	57.4	115	50	163
		Dibromofluoromethane	50	51.6	103	54	147
		Toluene-d8	50	49.8	100	58	134
		4-Bromofluorobenzene	50	47.5	95	29	146
VY0204SBS01	VY0204SBS01	1,2-Dichloroethane-d4	50	44.3	89	50	163
		Dibromofluoromethane	50	44.6	89	54	147
		Toluene-d8	50	45.4	91	58	134
		4-Bromofluorobenzene	50	45.0	90	29	146
VY0204SBSD01	VY0204SBSD01	1,2-Dichloroethane-d4	50	55.2	110	50	163
		Dibromofluoromethane	50	53.3	107	54	147
		Toluene-d8	50	54.0	108	58	134
		4-Bromofluorobenzene	50	56.3	113	29	146
VY0205SBL01	VY0205SBL01	1,2-Dichloroethane-d4	50	56.8	114	50	163
		Dibromofluoromethane	50	50.9	102	54	147
		Toluene-d8	50	49.8	100	58	134
		4-Bromofluorobenzene	50	44.8	90	29	146
VY0205SBS01	VY0205SBS01	1,2-Dichloroethane-d4	50	46.6	93	50	163
		Dibromofluoromethane	50	46.0	92	54	147
		Toluene-d8	50	46.6	93	58	134
		4-Bromofluorobenzene	50	46.7	93	29	146

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0204SBS01	Dichlorodifluoromethane	20	18.7	ug/Kg	94			64	136	
	Chloromethane	20	18.1	ug/Kg	91			70	130	
	Vinyl chloride	20	17.9	ug/Kg	90			72	129	
	Bromomethane	20	17.8	ug/Kg	89			58	141	
	Chloroethane	20	17.7	ug/Kg	89			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	18.9	ug/Kg	95			81	123	
	Tert butyl alcohol	100	97.5	ug/Kg	98			24	175	
	1,1-Dichloroethene	20	18.1	ug/Kg	91			79	121	
	Acetone	100	95.3	ug/Kg	95			60	131	
	Carbon disulfide	20	17.7	ug/Kg	89			45	154	
	Methyl tert-butyl Ether	20	17.8	ug/Kg	89			77	129	
	Methyl Acetate	20	18.0	ug/Kg	90			69	149	
	Methylene Chloride	20	18.3	ug/Kg	92			56	174	
	trans-1,2-Dichloroethene	20	17.9	ug/Kg	90			80	123	
	1,1-Dichloroethane	20	18.6	ug/Kg	93			82	123	
	Cyclohexane	20	18.5	ug/Kg	93			76	122	
	2-Butanone	100	92.2	ug/Kg	92			69	131	
	Carbon Tetrachloride	20	18.8	ug/Kg	94			76	129	
	cis-1,2-Dichloroethene	20	18.3	ug/Kg	92			82	123	
	Bromochloromethane	20	19.9	ug/Kg	100			80	127	
	Chloroform	20	18.5	ug/Kg	93			82	125	
	1,1,1-Trichloroethane	20	18.9	ug/Kg	95			80	126	
	Methylcyclohexane	20	18.4	ug/Kg	92			77	123	
	Benzene	20	18.5	ug/Kg	93			84	121	
	1,2-Dichloroethane	20	18.1	ug/Kg	91			81	126	
	Trichloroethene	20	18.6	ug/Kg	93			83	122	
	1,2-Dichloropropane	20	19.1	ug/Kg	96			83	122	
	Bromodichloromethane	20	18.6	ug/Kg	93			82	123	
	4-Methyl-2-Pentanone	100	92.4	ug/Kg	92			70	135	
	Toluene	20	18.9	ug/Kg	95			83	122	
	t-1,3-Dichloropropene	20	18.2	ug/Kg	91			78	124	
	cis-1,3-Dichloropropene	20	18.6	ug/Kg	93			81	122	
	1,1,2-Trichloroethane	20	18.4	ug/Kg	92			82	125	
	2-Hexanone	100	90.8	ug/Kg	91			66	138	
	Dibromochloromethane	20	18.3	ug/Kg	92			79	125	
	1,2-Dibromoethane	20	17.8	ug/Kg	89			80	125	
	Tetrachloroethene	20	18.9	ug/Kg	95			83	125	
	Chlorobenzene	20	18.6	ug/Kg	93			84	122	
	Ethyl Benzene	20	18.7	ug/Kg	94			82	124	
	m/p-Xylenes	40	37.8	ug/Kg	95			83	124	
	o-Xylene	20	18.6	ug/Kg	93			83	123	
	Styrene	20	18.8	ug/Kg	94			82	124	
	Bromoform	20	18.6	ug/Kg	93			75	127	
	Isopropylbenzene	20	17.7	ug/Kg	89			82	124	
	1,1,2,2-Tetrachloroethane	20	17.4	ug/Kg	87			77	127	
	1,3-Dichlorobenzene	20	17.9	ug/Kg	90			83	122	
	1,4-Dichlorobenzene	20	18.3	ug/Kg	92			84	121	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021048.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VY0204SBS01	1,2-Dichlorobenzene	20	18.2	ug/Kg	91			83	124	
	1,2-Dibromo-3-Chloropropane	20	16.3	ug/Kg	81			66	134	
	1,2,4-Trichlorobenzene	20	18.3	ug/Kg	92			78	127	
	1,2,3-Trichlorobenzene	20	17.8	ug/Kg	89			70	137	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0204SBSD01	Dichlorodifluoromethane	20	19.3	ug/Kg	97	3		64	136	20
	Chloromethane	20	19.7	ug/Kg	99	8		70	130	20
	Vinyl chloride	20	18.1	ug/Kg	91	1		72	129	20
	Bromomethane	20	19.2	ug/Kg	96	8		58	141	20
	Chloroethane	20	17.6	ug/Kg	88	1		69	130	20
	Trichlorofluoromethane	20	18.4	ug/Kg	92	1		69	134	20
	1,1,2-Trichlorotrifluoroethane	20	19.1	ug/Kg	96	1		81	123	20
	Tert butyl alcohol	100	120	ug/Kg	120	20		24	175	20
	1,1-Dichloroethene	20	18.9	ug/Kg	95	4		79	121	20
	Acetone	100	120	ug/Kg	120	23	*	60	131	20
	Carbon disulfide	20	18.3	ug/Kg	92	3		45	154	20
	Methyl tert-butyl Ether	20	20.4	ug/Kg	102	14		77	129	20
	Methyl Acetate	20	21.7	ug/Kg	109	19		69	149	20
	Methylene Chloride	20	20.2	ug/Kg	101	9		56	174	20
	trans-1,2-Dichloroethene	20	19.5	ug/Kg	98	9		80	123	20
	1,1-Dichloroethane	20	20.1	ug/Kg	101	8		82	123	20
	Cyclohexane	20	18.6	ug/Kg	93	0		76	122	20
	2-Butanone	100	110	ug/Kg	110	18		69	131	20
	Carbon Tetrachloride	20	19.3	ug/Kg	97	3		76	129	20
	cis-1,2-Dichloroethene	20	20.0	ug/Kg	100	8		82	123	20
	Bromochloromethane	20	23.4	ug/Kg	117	16		80	127	20
	Chloroform	20	20.1	ug/Kg	101	8		82	125	20
	1,1,1-Trichloroethane	20	19.9	ug/Kg	100	5		80	126	20
	Methylcyclohexane	20	18.5	ug/Kg	93	1		77	123	20
	Benzene	20	20.0	ug/Kg	100	7		84	121	20
	1,2-Dichloroethane	20	20.4	ug/Kg	102	11		81	126	20
	Trichloroethene	20	19.4	ug/Kg	97	4		83	122	20
	1,2-Dichloropropane	20	20.1	ug/Kg	101	5		83	122	20
	Bromodichloromethane	20	20.6	ug/Kg	103	10		82	123	20
	4-Methyl-2-Pentanone	100	110	ug/Kg	110	18		70	135	20
	Toluene	20	20.1	ug/Kg	101	6		83	122	20
	t-1,3-Dichloropropene	20	20.3	ug/Kg	102	11		78	124	20
	cis-1,3-Dichloropropene	20	20.1	ug/Kg	101	8		81	122	20
	1,1,2-Trichloroethane	20	20.5	ug/Kg	103	11		82	125	20
	2-Hexanone	100	110	ug/Kg	110	19		66	138	20
	Dibromochloromethane	20	20.7	ug/Kg	104	12		79	125	20
	1,2-Dibromoethane	20	20.1	ug/Kg	101	13		80	125	20
	Tetrachloroethene	20	19.6	ug/Kg	98	3		83	125	20
	Chlorobenzene	20	19.7	ug/Kg	99	6		84	122	20
	Ethyl Benzene	20	19.6	ug/Kg	98	4		82	124	20
	m/p-Xylenes	40	39.7	ug/Kg	99	4		83	124	20
	o-Xylene	20	20.1	ug/Kg	101	8		83	123	20
	Styrene	20	20.2	ug/Kg	101	7		82	124	20
	Bromoform	20	21.3	ug/Kg	106	13		75	127	20
	Isopropylbenzene	20	18.5	ug/Kg	93	4		82	124	20
	1,1,2,2-Tetrachloroethane	20	20.3	ug/Kg	102	16		77	127	20
	1,3-Dichlorobenzene	20	19.2	ug/Kg	96	6		83	122	20
	1,4-Dichlorobenzene	20	19.8	ug/Kg	99	7		84	121	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021049.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0204SBSD01	1,2-Dichlorobenzene	20	19.9	ug/Kg	100	9		83	124	20
	1,2-Dibromo-3-Chloropropane	20	20.8	ug/Kg	104	25	*	66	134	20
	1,2,4-Trichlorobenzene	20	20.1	ug/Kg	101	9		78	127	20
	1,2,3-Trichlorobenzene	20	20.9	ug/Kg	104	16		70	137	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021076.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VY0205SBS01	Dichlorodifluoromethane	20	17.9	ug/Kg	90			64	136	
	Chloromethane	20	18.3	ug/Kg	92			70	130	
	Vinyl chloride	20	18.2	ug/Kg	91			72	129	
	Bromomethane	20	18.3	ug/Kg	92			58	141	
	Chloroethane	20	18.1	ug/Kg	91			69	130	
	Trichlorofluoromethane	20	18.1	ug/Kg	91			69	134	
	1,1,2-Trichlorotrifluoroethane	20	17.9	ug/Kg	90			81	123	
	Tert butyl alcohol	100	90.0	ug/Kg	90			24	175	
	1,1-Dichloroethene	20	17.9	ug/Kg	90			79	121	
	Acetone	100	97.1	ug/Kg	97			60	131	
	Carbon disulfide	20	17.0	ug/Kg	85			45	154	
	Methyl tert-butyl Ether	20	18.5	ug/Kg	93			77	129	
	Methyl Acetate	20	18.5	ug/Kg	93			69	149	
	Methylene Chloride	20	18.7	ug/Kg	94			56	174	
	trans-1,2-Dichloroethene	20	18.4	ug/Kg	92			80	123	
	1,1-Dichloroethane	20	19.1	ug/Kg	96			82	123	
	Cyclohexane	20	18.2	ug/Kg	91			76	122	
	2-Butanone	100	94.8	ug/Kg	95			69	131	
	Carbon Tetrachloride	20	18.9	ug/Kg	95			76	129	
	cis-1,2-Dichloroethene	20	18.8	ug/Kg	94			82	123	
	Bromochloromethane	20	20.9	ug/Kg	104			80	127	
	Chloroform	20	19.3	ug/Kg	97			82	125	
	1,1,1-Trichloroethane	20	19.0	ug/Kg	95			80	126	
	Methylcyclohexane	20	17.8	ug/Kg	89			77	123	
	Benzene	20	19.3	ug/Kg	97			84	121	
	1,2-Dichloroethane	20	19.4	ug/Kg	97			81	126	
	Trichloroethene	20	18.7	ug/Kg	94			83	122	
	1,2-Dichloropropane	20	19.4	ug/Kg	97			83	122	
	Bromodichloromethane	20	19.3	ug/Kg	97			82	123	
	4-Methyl-2-Pentanone	100	93.8	ug/Kg	94			70	135	
	Toluene	20	19.1	ug/Kg	96			83	122	
	t-1,3-Dichloropropene	20	18.8	ug/Kg	94			78	124	
	cis-1,3-Dichloropropene	20	19.0	ug/Kg	95			81	122	
	1,1,2-Trichloroethane	20	19.8	ug/Kg	99			82	125	
	2-Hexanone	100	94.4	ug/Kg	94			66	138	
	Dibromochloromethane	20	19.4	ug/Kg	97			79	125	
	1,2-Dibromoethane	20	18.9	ug/Kg	95			80	125	
	Tetrachloroethene	20	18.8	ug/Kg	94			83	125	
	Chlorobenzene	20	18.8	ug/Kg	94			84	122	
	Ethyl Benzene	20	18.7	ug/Kg	94			82	124	
	m/p-Xylenes	40	38.1	ug/Kg	95			83	124	
	o-Xylene	20	18.8	ug/Kg	94			83	123	
	Styrene	20	19.4	ug/Kg	97			82	124	
	Bromoform	20	18.7	ug/Kg	94			75	127	
	Isopropylbenzene	20	18.0	ug/Kg	90			82	124	
	1,1,2,2-Tetrachloroethane	20	18.1	ug/Kg	91			77	127	
	1,3-Dichlorobenzene	20	18.6	ug/Kg	93			83	122	
	1,4-Dichlorobenzene	20	18.6	ug/Kg	93			84	121	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VY021076.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VY0205SBS01	1,2-Dichlorobenzene	20	18.7	ug/Kg	94			83	124	
	1,2-Dibromo-3-Chloropropane	20	17.4	ug/Kg	87			66	134	
	1,2,4-Trichlorobenzene	20	18.1	ug/Kg	91			78	127	
	1,2,3-Trichlorobenzene	20	17.6	ug/Kg	88			70	137	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0204SBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1241

SAS No.: Q1241 SDG NO.: Q1241

Lab File ID: VY021047.D

Lab Sample ID: VY0204SBL01

Date Analyzed: 02/04/2025

Time Analyzed: 10:15

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

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025
JPP-3.5-013025	Q1241-01	VY021063.D	02/04/2025
JPP-5.2-013025	Q1241-09	VY021065.D	02/04/2025
JPP-5.4-013025	Q1241-13	VY021066.D	02/04/2025
JPP-51.4-013025	Q1241-17	VY021067.D	02/04/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VY0205SBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1241

SAS No.: Q1241 SDG NO.: Q1241

Lab File ID: VY021075.D

Lab Sample ID: VY0205SBL01

Date Analyzed: 02/05/2025

Time Analyzed: 09:51

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

Heated Purge: (Y/N) Y

Instrument ID: MSVOA_Y

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VY0205SBS01	VY0205SBS01	VY021076.D	02/05/2025
JPP-5.3-013025	Q1241-05	VY021092.D	02/05/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
Lab File ID: VY021019.D BFB Injection Date: 02/03/2025
Instrument ID: MSVOA_Y BFB Injection Time: 09:51
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	15.3
75	30.0 - 60.0% of mass 95	49
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.3 (0.4) 1
174	50.0 - 100.0% of mass 95	89.7
175	5.0 - 9.0% of mass 174	7 (7.8) 1
176	95.0 - 101.0% of mass 174	87 (97) 1
177	5.0 - 9.0% of mass 176	5.9 (6.8) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VY021020.D	02/03/2025	10:35
VSTDIC010	VSTDIC010	VY021021.D	02/03/2025	10:57
VSTDIC020	VSTDIC020	VY021022.D	02/03/2025	11:20
VSTDIC050	VSTDIC050	VY021023.D	02/03/2025	11:43
VSTDIC100	VSTDIC100	VY021024.D	02/03/2025	12:21
VSTDIC150	VSTDIC150	VY021025.D	02/03/2025	12:44

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
Lab File ID: VY021045.D BFB Injection Date: 02/04/2025
Instrument ID: MSVOA_Y BFB Injection Time: 09:16
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	21.3
75	30.0 - 60.0% of mass 95	55.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.3 (1.5) 1
174	50.0 - 100.0% of mass 95	88.1
175	5.0 - 9.0% of mass 174	7 (7.9) 1
176	95.0 - 101.0% of mass 174	84.8 (96.1) 1
177	5.0 - 9.0% of mass 176	5.3 (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
VSTDCCC050	VSTDCCC050	VY021046.D	02/04/2025	09:47
VY0204SBL01	VY0204SBL01	VY021047.D	02/04/2025	10:15
VY0204SBS01	VY0204SBS01	VY021048.D	02/04/2025	10:52
VY0204SBSD01	VY0204SBSD01	VY021049.D	02/04/2025	11:15
JPP-3.5-013025	Q1241-01	VY021063.D	02/04/2025	17:00
JPP-5.2-013025	Q1241-09	VY021065.D	02/04/2025	17:47
JPP-5.4-013025	Q1241-13	VY021066.D	02/04/2025	18:10
JPP-51.4-013025	Q1241-17	VY021067.D	02/04/2025	18:33

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
Lab File ID: VY021073.D BFB Injection Date: 02/05/2025
Instrument ID: MSVOA_Y 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	22
75	30.0 - 60.0% of mass 95	56
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.5 (1.7) 1
174	50.0 - 100.0% of mass 95	85.2
175	5.0 - 9.0% of mass 174	6.6 (7.8) 1
176	95.0 - 101.0% of mass 174	83.2 (97.6) 1
177	5.0 - 9.0% of mass 176	5.5 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VY021074.D	02/05/2025	09:16
VY0205SBL01	VY0205SBL01	VY021075.D	02/05/2025	09:51
VY0205SBS01	VY0205SBS01	VY021076.D	02/05/2025	10:21
JPP-5.3-013025	Q1241-05	VY021092.D	02/05/2025	16:35

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
Lab File ID: VY021046.D Date Analyzed: 02/04/2025
Instrument ID: MSVOA_Y Time Analyzed: 09:47
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	154178	7.71	233780	8.62	206737	11.42
UPPER LIMIT	308356	8.213	467560	9.115	413474	11.92
LOWER LIMIT	77089	7.213	116890	8.115	103369	10.92
EPA SAMPLE NO.						
JPP-3.5-013025	148841	7.71	277787	8.62	241489	11.41
JPP-5.2-013025	146429	7.71	279661	8.62	270362	11.41
JPP-5.4-013025	156172	7.71	292974	8.62	277904	11.41
JPP-51.4-013025	155127	7.71	289464	8.62	277580	11.41
VY0204SBL01	173019	7.71	321305	8.62	292351	11.42
VY0204SBS01	159738	7.71	247448	8.62	212473	11.42
VY0204SBSD01	146628	7.71	228862	8.62	199914	11.42

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
 Lab File ID: VY021046.D Date Analyzed: 02/04/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:47
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	102470	13.352				
UPPER LIMIT	204940	13.852				
LOWER LIMIT	51235	12.852				
EPA SAMPLE NO.						
JPP-3.5-013025	81247	13.35				
JPP-5.2-013025	120739	13.35				
JPP-5.4-013025	111742	13.35				
JPP-51.4-013025	109757	13.35				
VY0204SBL01	114535	13.35				
VY0204SBS01	108974	13.35				
VY0204SBSD01	101483	13.35				

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.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
 Lab File ID: VY021074.D Date Analyzed: 02/05/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:16
 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	142538	7.73	216303	8.63	187147	11.43
UPPER LIMIT	285076	8.225	432606	9.128	374294	11.926
LOWER LIMIT	71269	7.225	108152	8.128	93573.5	10.926
EPA SAMPLE NO.						
JPP-5.3-013025	193458	7.71	355898	8.62	296013	11.42
VY0205SBL01	173976	7.72	323562	8.62	290166	11.43
VY0205SBS01	152907	7.72	236588	8.62	204354	11.43

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
 Lab File ID: VY021074.D Date Analyzed: 02/05/2025
 Instrument ID: MSVOA_Y Time Analyzed: 09:16
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) Y

	IS4 AREA #	RT #				
12 HOUR STD	88650	13.358				
UPPER LIMIT	177300	13.858				
LOWER LIMIT	44325	12.858				
EPA SAMPLE NO.						
JPP-5.3-013025	91291	13.35				
VY0205SBL01	107232	13.36				
VY0205SBS01	102238	13.36				

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:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0204SBL01		SDG No.:	Q1241
Lab Sample ID:	VY0204SBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		50 - 163	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		54 - 147	103%	SPK: 50
2037-26-5	Toluene-d8	49.8		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		29 - 146	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	173000	7.713			
540-36-3	1,4-Difluorobenzene	321000	8.616			
3114-55-4	Chlorobenzene-d5	292000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	115000	13.353			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBL01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021047.D	1		02/04/25 10:15	VY020425

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:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0205SBL01	SDG No.:	Q1241
Lab Sample ID:	VY0205SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021075.D	1		02/05/25 09:51	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	U	1.70	5.00	ug/Kg
74-87-3	Chloromethane	5.00	U	1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	5.00	U	0.77	5.00	ug/Kg
74-83-9	Bromomethane	5.00	U	1.00	5.00	ug/Kg
75-00-3	Chloroethane	5.00	U	1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	5.00	U	0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	U	1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	25.0	U	15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	5.00	U	0.78	5.00	ug/Kg
67-64-1	Acetone	25.0	U	6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	5.00	U	1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	5.00	U	0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	5.00	U	1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	10.0	U	3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	5.00	U	0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	5.00	U	0.63	5.00	ug/Kg
110-82-7	Cyclohexane	5.00	U	0.69	5.00	ug/Kg
78-93-3	2-Butanone	25.0	U	5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	5.00	U	0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	5.00	U	0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	5.00	U	2.40	5.00	ug/Kg
67-66-3	Chloroform	5.00	U	0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	5.00	U	0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	5.00	U	0.87	5.00	ug/Kg
71-43-2	Benzene	5.00	U	0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	5.00	U	0.61	5.00	ug/Kg
79-01-6	Trichloroethene	5.00	U	0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	5.00	U	0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	5.00	U	0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	25.0	U	4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0205SBL01		SDG No.:	Q1241
Lab Sample ID:	VY0205SBL01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021075.D	1		02/05/25 09:51	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	5.00	U	0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	5.00	U	0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	5.00	U	0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	5.00	U	0.84	5.00	ug/Kg
591-78-6	2-Hexanone	25.0	U	4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	5.00	U	0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	5.00	U	0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	5.00	U	0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	5.00	U	0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	5.00	U	0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	10.0	U	1.40	10.0	ug/Kg
95-47-6	o-Xylene	5.00	U	0.70	5.00	ug/Kg
100-42-5	Styrene	5.00	U	0.60	5.00	ug/Kg
75-25-2	Bromoform	5.00	U	0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	5.00	U	0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	5.00	U	1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	5.00	U	0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	5.00	U	0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	5.00	U	0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	U	1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	5.00	U	0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	5.00	U	0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.8		50 - 163	114%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		54 - 147	102%	SPK: 50
2037-26-5	Toluene-d8	49.8		58 - 134	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.8		29 - 146	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	174000	7.719			
540-36-3	1,4-Difluorobenzene	324000	8.622			
3114-55-4	Chlorobenzene-d5	290000	11.426			
3855-82-1	1,4-Dichlorobenzene-d4	107000	13.359			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0205SBL01	SDG No.:	Q1241
Lab Sample ID:	VY0205SBL01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021075.D	1		02/05/25 09:51	VY020525

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:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0204SBS01		SDG No.:	Q1241
Lab Sample ID:	VY0204SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	18.7		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.1		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	17.9		0.77	5.00	ug/Kg
74-83-9	Bromomethane	17.8		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.7		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	18.9		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	97.5		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.1		0.78	5.00	ug/Kg
67-64-1	Acetone	95.3		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.7		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	17.8		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	18.0		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	18.3		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	17.9		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	18.6		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.5		0.69	5.00	ug/Kg
78-93-3	2-Butanone	92.2		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.8		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.3		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	19.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	18.5		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	18.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.4		0.87	5.00	ug/Kg
71-43-2	Benzene	18.5		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	18.1		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.6		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	18.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	92.4		4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	18.9		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.2		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	18.6		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	18.4		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	90.8		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	18.3		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	17.8		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.9		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	18.6		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	37.8		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.6		0.70	5.00	ug/Kg
100-42-5	Styrene	18.8		0.60	5.00	ug/Kg
75-25-2	Bromoform	18.6		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	17.7		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	17.4		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	17.9		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	18.3		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	18.2		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	16.3		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.3		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.8		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	44.3		50 - 163	89%	SPK: 50
1868-53-7	Dibromofluoromethane	44.6		54 - 147	89%	SPK: 50
2037-26-5	Toluene-d8	45.4		58 - 134	91%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.0		29 - 146	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	160000	7.707			
540-36-3	1,4-Difluorobenzene	247000	8.616			
3114-55-4	Chlorobenzene-d5	212000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	109000	13.353			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBS01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021048.D	1		02/04/25 10:52	VY020425

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:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VY0205SBS01		SDG No.:	Q1241
Lab Sample ID:	VY0205SBS01		Matrix:	SOIL
Analytical Method:	SW8260		% Solid:	100
Sample Wt/Vol:	5	Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	VOCMS Group1
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021076.D	1		02/05/25 10:21	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	17.9		1.70	5.00	ug/Kg
74-87-3	Chloromethane	18.3		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.2		0.77	5.00	ug/Kg
74-83-9	Bromomethane	18.3		1.00	5.00	ug/Kg
75-00-3	Chloroethane	18.1		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.1		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	17.9		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	90.0		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	17.9		0.78	5.00	ug/Kg
67-64-1	Acetone	97.1		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	17.0		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	18.5		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	18.5		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	18.7		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	18.4		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	19.1		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.2		0.69	5.00	ug/Kg
78-93-3	2-Butanone	94.8		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	18.9		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	18.8		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	20.9		2.40	5.00	ug/Kg
67-66-3	Chloroform	19.3		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.0		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	17.8		0.87	5.00	ug/Kg
71-43-2	Benzene	19.3		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	19.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	18.7		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	19.4		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	19.3		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	93.8		4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0205SBS01	SDG No.:	Q1241
Lab Sample ID:	VY0205SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021076.D	1		02/05/25 10:21	VY020525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	19.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	18.8		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	19.0		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	19.8		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	94.4		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	19.4		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	18.9		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	18.8		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	18.8		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	18.7		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	38.1		1.40	10.0	ug/Kg
95-47-6	o-Xylene	18.8		0.70	5.00	ug/Kg
100-42-5	Styrene	19.4		0.60	5.00	ug/Kg
75-25-2	Bromoform	18.7		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.0		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	18.1		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	18.6		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	18.6		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	18.7		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	17.4		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	18.1		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	17.6		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.6		50 - 163	93%	SPK: 50
1868-53-7	Dibromofluoromethane	46.0		54 - 147	92%	SPK: 50
2037-26-5	Toluene-d8	46.7		58 - 134	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		29 - 146	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	153000	7.719			
540-36-3	1,4-Difluorobenzene	237000	8.622			
3114-55-4	Chlorobenzene-d5	204000	11.426			
3855-82-1	1,4-Dichlorobenzene-d4	102000	13.359			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0205SBS01	SDG No.:	Q1241
Lab Sample ID:	VY0205SBS01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021076.D	1		02/05/25 10:21	VY020525

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:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
75-71-8	Dichlorodifluoromethane	19.3		1.70	5.00	ug/Kg
74-87-3	Chloromethane	19.7		1.20	5.00	ug/Kg
75-01-4	Vinyl Chloride	18.1		0.77	5.00	ug/Kg
74-83-9	Bromomethane	19.2		1.00	5.00	ug/Kg
75-00-3	Chloroethane	17.6		1.00	5.00	ug/Kg
75-69-4	Trichlorofluoromethane	18.4		0.91	5.00	ug/Kg
76-13-1	1,1,2-Trichlorotrifluoroethane	19.1		1.10	5.00	ug/Kg
75-65-0	Tert butyl alcohol	120		15.6	25.0	ug/Kg
75-35-4	1,1-Dichloroethene	18.9		0.78	5.00	ug/Kg
67-64-1	Acetone	120		6.20	25.0	ug/Kg
75-15-0	Carbon Disulfide	18.3		1.30	5.00	ug/Kg
1634-04-4	Methyl tert-butyl Ether	20.4		0.67	5.00	ug/Kg
79-20-9	Methyl Acetate	21.7		1.80	5.00	ug/Kg
75-09-2	Methylene Chloride	20.2		3.40	10.0	ug/Kg
156-60-5	trans-1,2-Dichloroethene	19.5		0.84	5.00	ug/Kg
75-34-3	1,1-Dichloroethane	20.1		0.63	5.00	ug/Kg
110-82-7	Cyclohexane	18.6		0.69	5.00	ug/Kg
78-93-3	2-Butanone	110		5.70	25.0	ug/Kg
56-23-5	Carbon Tetrachloride	19.3		0.87	5.00	ug/Kg
156-59-2	cis-1,2-Dichloroethene	20.0		0.61	5.00	ug/Kg
74-97-5	Bromochloromethane	23.4		2.40	5.00	ug/Kg
67-66-3	Chloroform	20.1		0.67	5.00	ug/Kg
71-55-6	1,1,1-Trichloroethane	19.9		0.78	5.00	ug/Kg
108-87-2	Methylcyclohexane	18.5		0.87	5.00	ug/Kg
71-43-2	Benzene	20.0		0.72	5.00	ug/Kg
107-06-2	1,2-Dichloroethane	20.4		0.61	5.00	ug/Kg
79-01-6	Trichloroethene	19.4		0.75	5.00	ug/Kg
78-87-5	1,2-Dichloropropane	20.1		0.66	5.00	ug/Kg
75-27-4	Bromodichloromethane	20.6		0.56	5.00	ug/Kg
108-10-1	4-Methyl-2-Pentanone	110		4.40	25.0	ug/Kg

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
108-88-3	Toluene	20.1		0.67	5.00	ug/Kg
10061-02-6	t-1,3-Dichloropropene	20.3		0.60	5.00	ug/Kg
10061-01-5	cis-1,3-Dichloropropene	20.1		0.57	5.00	ug/Kg
79-00-5	1,1,2-Trichloroethane	20.5		0.84	5.00	ug/Kg
591-78-6	2-Hexanone	110		4.80	25.0	ug/Kg
124-48-1	Dibromochloromethane	20.7		0.65	5.00	ug/Kg
106-93-4	1,2-Dibromoethane	20.1		0.79	5.00	ug/Kg
127-18-4	Tetrachloroethene	19.6		0.89	5.00	ug/Kg
108-90-7	Chlorobenzene	19.7		0.74	5.00	ug/Kg
100-41-4	Ethyl Benzene	19.6		0.62	5.00	ug/Kg
179601-23-1	m/p-Xylenes	39.7		1.40	10.0	ug/Kg
95-47-6	o-Xylene	20.1		0.70	5.00	ug/Kg
100-42-5	Styrene	20.2		0.60	5.00	ug/Kg
75-25-2	Bromoform	21.3		0.81	5.00	ug/Kg
98-82-8	Isopropylbenzene	18.5		0.67	5.00	ug/Kg
79-34-5	1,1,2,2-Tetrachloroethane	20.3		1.10	5.00	ug/Kg
541-73-1	1,3-Dichlorobenzene	19.2		0.74	5.00	ug/Kg
106-46-7	1,4-Dichlorobenzene	19.8		0.80	5.00	ug/Kg
95-50-1	1,2-Dichlorobenzene	19.9		0.59	5.00	ug/Kg
96-12-8	1,2-Dibromo-3-Chloropropane	20.8		1.60	5.00	ug/Kg
120-82-1	1,2,4-Trichlorobenzene	20.1		0.79	5.00	ug/Kg
87-61-6	1,2,3-Trichlorobenzene	20.9		0.78	5.00	ug/Kg
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.2		50 - 163	110%	SPK: 50
1868-53-7	Dibromofluoromethane	53.3		54 - 147	107%	SPK: 50
2037-26-5	Toluene-d8	53.9		58 - 134	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.3		29 - 146	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	147000	7.707			
540-36-3	1,4-Difluorobenzene	229000	8.616			
3114-55-4	Chlorobenzene-d5	200000	11.42			
3855-82-1	1,4-Dichlorobenzene-d4	101000	13.346			

Report of Analysis

Client:	RU2 Engineering, LLC	Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR	Date Received:	
Client Sample ID:	VY0204SBSD01	SDG No.:	Q1241
Lab Sample ID:	VY0204SBSD01	Matrix:	SOIL
Analytical Method:	SW8260	% Solid:	100
Sample Wt/Vol:	5 Units: g	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group1
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VY021049.D	1		02/04/25 11:15	VY020425

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>CHEMTECH</u>	Contract:	<u>RUTW01</u>
Lab Code:	<u>CHEM</u>	Case No.:	<u>Q1241</u>
Instrument ID:	<u>MSVOA_Y</u>	SAS No.:	<u>Q1241</u>
Heated Purge: (Y/N)	<u>Y</u>	SDG No.:	<u>Q1241</u>
GC Column:	<u>RXI-624</u>	Calibration Date(s):	<u>02/03/2025</u>
ID:	<u>0.25 (mm)</u>	Calibration Time(s):	<u>10:35</u>
			<u>12:44</u>

LAB FILE ID:	RRF005 = VY021020.D	RRF010 = VY021021.D	RRF020 = VY021022.D	RRF050 = VY021023.D	RRF100 = VY021024.D	RRF150 = VY021025.D		
COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Dichlorodifluoromethane	0.503	0.438	0.413	0.445	0.419	0.457	0.446	7.2
Chloromethane	0.524	0.445	0.408	0.421	0.404	0.437	0.440	10.1
Vinyl Chloride	0.535	0.441	0.404	0.424	0.408	0.443	0.443	10.9
Bromomethane	0.356	0.275	0.249	0.258	0.246	0.257	0.274	15.2
Chloroethane	0.316	0.270	0.240	0.255	0.239	0.261	0.263	10.7
Trichlorofluoromethane	0.924	0.814	0.755	0.789	0.743	0.813	0.806	8
1,1,2-Trichlorotrifluoroethane	0.587	0.507	0.472	0.494	0.466	0.510	0.506	8.6
Tert butyl alcohol	0.042	0.039	0.035	0.032	0.028	0.032	0.035	14.8
1,1-Dichloroethene	0.529	0.471	0.441	0.469	0.452	0.498	0.477	6.8
Acetone	0.087	0.083	0.078	0.077	0.070	0.083	0.080	7.5
Carbon Disulfide	1.673	1.456	1.389	1.475	1.421	1.556	1.495	7
Methyl tert-butyl Ether	1.271	1.185	1.168	1.216	1.124	1.265	1.205	4.8
Methyl Acetate	0.300	0.282	0.268	0.287	0.253	0.291	0.280	6.1
Methylene Chloride	0.570	0.506	0.473	0.485	0.452	0.494	0.497	8.2
trans-1,2-Dichloroethene	0.578	0.518	0.502	0.522	0.490	0.538	0.525	5.8
1,1-Dichloroethane	1.104	0.948	0.923	0.947	0.911	0.989	0.970	7.3
Cyclohexane	1.093	0.885	0.807	0.827	0.779	0.852	0.874	13
2-Butanone	0.134	0.133	0.126	0.135	0.121	0.139	0.131	5.2
Carbon Tetrachloride	0.604	0.551	0.522	0.547	0.522	0.581	0.555	5.9
cis-1,2-Dichloroethene	0.662	0.584	0.577	0.599	0.575	0.626	0.604	5.7
Bromochloromethane	0.373	0.368	0.381	0.413	0.374	0.394	0.384	4.4
Chloroform	1.107	1.016	0.947	0.982	0.921	1.006	0.997	6.5
1,1,1-Trichloroethane	1.067	0.901	0.867	0.912	0.863	0.949	0.927	8.2
Methylcyclohexane	0.609	0.550	0.536	0.588	0.570	0.629	0.581	6.1
Benzene	1.512	1.382	1.327	1.378	1.323	1.436	1.393	5.1
1,2-Dichloroethane	0.435	0.390	0.367	0.379	0.352	0.395	0.386	7.4
Trichloroethene	0.401	0.355	0.341	0.349	0.338	0.375	0.360	6.7
1,2-Dichloropropane	0.357	0.329	0.319	0.327	0.311	0.341	0.331	5
Bromodichloromethane	0.528	0.500	0.469	0.482	0.459	0.506	0.491	5.2
4-Methyl-2-Pentanone	0.202	0.211	0.202	0.216	0.194	0.224	0.208	5.2

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG No.: Q1241

Instrument ID: MSVOA_Y Calibration Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Calibration Time(s): 10:35 12:44

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

LAB FILE ID:		RRF005 = VY021020.D		RRF010 = VY021021.D		RRF020 = VY021022.D		RRF050 = VY021023.D		RRF100 = VY021024.D		RRF150 = VY021025.D	
COMPOUND		RRF005	RRF010	RRF020	RRF050	RRF100	RRF150	RRF	% RSD				
Toluene		0.913	0.856	0.840	0.876	0.844	0.918	0.875	3.9				
t-1,3-Dichloropropene		0.441	0.426	0.419	0.449	0.427	0.483	0.441	5.3				
cis-1,3-Dichloropropene		0.528	0.516	0.502	0.525	0.501	0.560	0.522	4.2				
1,1,2-Trichloroethane		0.261	0.235	0.231	0.235	0.217	0.242	0.237	6.1				
2-Hexanone		0.124	0.131	0.128	0.144	0.129	0.149	0.134	7.4				
Dibromochloromethane		0.359	0.330	0.324	0.329	0.310	0.346	0.333	5.2				
1,2-Dibromoethane		0.232	0.223	0.215	0.225	0.203	0.233	0.222	5				
Tetrachloroethene		0.409	0.367	0.352	0.361	0.351	0.387	0.371	6.2				
Chlorobenzene		1.237	1.115	1.054	1.080	1.048	1.146	1.113	6.4				
Ethyl Benzene		2.101	1.899	1.865	1.943	1.914	2.093	1.969	5.2				
m/p-Xylenes		0.772	0.723	0.709	0.733	0.711	0.773	0.737	3.9				
o-Xylene		0.723	0.658	0.660	0.681	0.670	0.729	0.687	4.6				
Styrene		1.154	1.118	1.105	1.156	1.128	1.208	1.145	3.2				
Bromoform		0.231	0.222	0.217	0.216	0.205	0.229	0.220	4.4				
Isopropylbenzene		4.122	3.695	3.673	3.809	3.871	4.263	3.906	6.1				
1,1,2,2-Tetrachloroethane		0.707	0.646	0.635	0.632	0.597	0.680	0.650	6				
1,3-Dichlorobenzene		1.937	1.686	1.660	1.683	1.652	1.824	1.740	6.6				
1,4-Dichlorobenzene		1.906	1.702	1.632	1.665	1.599	1.778	1.714	6.6				
1,2-Dichlorobenzene		1.668	1.524	1.440	1.460	1.405	1.567	1.510	6.4				
1,2-Dibromo-3-Chloropropane		0.099	0.099	0.089	0.097	0.089	0.109	0.097	7.6				
1,2,4-Trichlorobenzene		0.796	0.754	0.743	0.875	0.873	1.004	0.841	11.6				
1,2,3-Trichlorobenzene		0.641	0.640	0.626	0.733	0.726	0.832	0.700	11.4				
1,2-Dichloroethane-d4		0.566	0.557	0.478	0.503	0.454	0.516	0.512	8.5				
Dibromofluoromethane		0.351	0.326	0.301	0.313	0.297	0.333	0.320	6.4				
Toluene-d8		1.295	1.237	1.139	1.202	1.158	1.288	1.220	5.3				
4-Bromofluorobenzene		0.417	0.408	0.371	0.403	0.375	0.418	0.399	5.2				

* 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 CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG No.: Q1241

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.446	0.470		5.38	20
Chloromethane	0.440	0.443	0.1	0.68	20
Vinyl Chloride	0.443	0.443		0	20
Bromomethane	0.274	0.270		-1.46	20
Chloroethane	0.263	0.263		0	20
Trichlorofluoromethane	0.806	0.812		0.74	20
1,1,2-Trichlorotrifluoroethane	0.506	0.522		3.16	20
Tert butyl alcohol	0.035	0.035		0	20
1,1-Dichloroethene	0.477	0.489		2.52	20
Acetone	0.080	0.085		6.25	20
Carbon Disulfide	1.495	1.571		5.08	20
Methyl tert-butyl Ether	1.205	1.270		5.39	20
Methyl Acetate	0.280	0.312		11.43	20
Methylene Chloride	0.497	0.513		3.22	20
trans-1,2-Dichloroethene	0.525	0.550		4.76	20
1,1-Dichloroethane	0.970	1.014	0.1	4.54	20
Cyclohexane	0.874	0.883		1.03	20
2-Butanone	0.131	0.143		9.16	20
Carbon Tetrachloride	0.555	0.591		6.49	20
cis-1,2-Dichloroethene	0.604	0.639		5.8	20
Bromochloromethane	0.384	0.407		5.99	20
Chloroform	0.997	1.045		4.81	20
1,1,1-Trichloroethane	0.927	0.969		4.53	20
Methylcyclohexane	0.581	0.623		7.23	20
Benzene	1.393	1.501		7.75	20
1,2-Dichloroethane	0.386	0.414		7.25	20
Trichloroethene	0.360	0.380		5.56	20
1,2-Dichloropropane	0.331	0.357		7.86	20
Bromodichloromethane	0.491	0.518		5.5	20
4-Methyl-2-Pentanone	0.208	0.238		14.42	20
Toluene	0.875	0.954		9.03	20
t-1,3-Dichloropropene	0.441	0.486		10.2	20
cis-1,3-Dichloropropene	0.522	0.569		9	20
1,1,2-Trichloroethane	0.237	0.253		6.75	20
2-Hexanone	0.134	0.157		17.16	20
Dibromochloromethane	0.333	0.359		7.81	20
1,2-Dibromoethane	0.222	0.240		8.11	20
Tetrachloroethene	0.371	0.387		4.31	20

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG No.: Q1241

Instrument ID: MSVOA_Y Calibration Date/Time: 02/04/2025 09:47

Lab File ID: VY021046.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chlorobenzene	1.113	1.159	0.3	4.13	20
Ethyl Benzene	1.969	2.119		7.62	20
m/p-Xylenes	0.737	0.793		7.6	20
o-Xylene	0.687	0.747		8.73	20
Styrene	1.145	1.261		10.13	20
Bromoform	0.220	0.240	0.1	9.09	20
Isopropylbenzene	3.906	4.054		3.76	20
1,1,2,2-Tetrachloroethane	0.650	0.677	0.3	4.15	20
1,3-Dichlorobenzene	1.740	1.821		4.66	20
1,4-Dichlorobenzene	1.714	1.787		4.26	20
1,2-Dichlorobenzene	1.510	1.568		3.84	20
1,2-Dibromo-3-Chloropropane	0.097	0.101		4.12	20
1,2,4-Trichlorobenzene	0.841	0.932		10.82	20
1,2,3-Trichlorobenzene	0.700	0.777		11	20
1,2-Dichloroethane-d4	0.512	0.534		4.3	20
Dibromofluoromethane	0.320	0.343		7.19	20
Toluene-d8	1.220	1.329		8.93	20
4-Bromofluorobenzene	0.399	0.446		11.78	20

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG No.: Q1241

Instrument ID: MSVOA_Y Calibration Date/Time: 02/05/2025 09:16

Lab File ID: VY021074.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.446	0.476		6.73	20
Chloromethane	0.440	0.457	0.1	3.86	20
Vinyl Chloride	0.443	0.467		5.42	20
Bromomethane	0.274	0.279		1.83	20
Chloroethane	0.263	0.275		4.56	20
Trichlorofluoromethane	0.806	0.838		3.97	20
1,1,2-Trichlorotrifluoroethane	0.506	0.521		2.96	20
Tert butyl alcohol	0.035	0.027		-22.86	20
1,1-Dichloroethene	0.477	0.487		2.1	20
Acetone	0.080	0.080		0	20
Carbon Disulfide	1.495	1.554		3.95	20
Methyl tert-butyl Ether	1.205	1.130		-6.22	20
Methyl Acetate	0.280	0.268		-4.29	20
Methylene Chloride	0.497	0.491		-1.21	20
trans-1,2-Dichloroethene	0.525	0.539		2.67	20
1,1-Dichloroethane	0.970	0.985	0.1	1.55	20
Cyclohexane	0.874	0.877		0.34	20
2-Butanone	0.131	0.126		-3.82	20
Carbon Tetrachloride	0.555	0.585		5.41	20
cis-1,2-Dichloroethene	0.604	0.608		0.66	20
Bromochloromethane	0.384	0.428		11.46	20
Chloroform	0.997	1.005		0.8	20
1,1,1-Trichloroethane	0.927	0.955		3.02	20
Methylcyclohexane	0.581	0.631		8.61	20
Benzene	1.393	1.446		3.81	20
1,2-Dichloroethane	0.386	0.383		-0.78	20
Trichloroethene	0.360	0.370		2.78	20
1,2-Dichloropropane	0.331	0.342		3.32	20
Bromodichloromethane	0.491	0.498		1.43	20
4-Methyl-2-Pentanone	0.208	0.201		-3.37	20
Toluene	0.875	0.917		4.8	20
t-1,3-Dichloropropene	0.441	0.445		0.91	20
cis-1,3-Dichloropropene	0.522	0.531		1.72	20
1,1,2-Trichloroethane	0.237	0.234		-1.27	20
2-Hexanone	0.134	0.129		-3.73	20
Dibromochloromethane	0.333	0.329		-1.2	20
1,2-Dibromoethane	0.222	0.215		-3.15	20
Tetrachloroethene	0.371	0.385		3.77	20

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: RUTW01

Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG No.: Q1241

Instrument ID: MSVOA_Y Calibration Date/Time: 02/05/2025 09:16

Lab File ID: VY021074.D Init. Calib. Date(s): 02/03/2025 02/03/2025

Heated Purge: (Y/N) Y Init. Calib. Time(s): 10:35 12:44

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Chlorobenzene	1.113	1.125	0.3	1.08	20
Ethyl Benzene	1.969	2.068		5.03	20
m/p-Xylenes	0.737	0.781		5.97	20
o-Xylene	0.687	0.717		4.37	20
Styrene	1.145	1.202		4.98	20
Bromoform	0.220	0.215	0.1	-2.27	20
Isopropylbenzene	3.906	4.182		7.07	20
1,1,2,2-Tetrachloroethane	0.650	0.624	0.3	-4	20
1,3-Dichlorobenzene	1.740	1.786		2.64	20
1,4-Dichlorobenzene	1.714	1.736		1.28	20
1,2-Dichlorobenzene	1.510	1.493		-1.13	20
1,2-Dibromo-3-Chloropropane	0.097	0.087		-10.31	20
1,2,4-Trichlorobenzene	0.841	0.821		-2.38	20
1,2,3-Trichlorobenzene	0.700	0.660		-5.71	20
1,2-Dichloroethane-d4	0.512	0.543		6.05	20
Dibromofluoromethane	0.320	0.344		7.5	20
Toluene-d8	1.220	1.368		12.13	20
4-Bromofluorobenzene	0.399	0.435		9.02	20

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