

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
Q1241-02	JPP-3.5-013025	TCLP	TCLP VOA	8260D	01/30/25		02/04/25	01/30/25
Q1241-06	JPP-5.3-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-10	JPP-5.2-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-14	JPP-5.4-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25
Q1241-18	JPP-51.4-013025	TCLP	TCLP VOA	8260D	01/30/25		02/03/25	01/30/25



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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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:				0				
Total Voc :								
Total Concentration:								



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:	Q1241-02			Matrix:	TCLP	
Analytical Method:	SW8260			% Solid:	0	
Sample Wt/Vol:	5	Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:			uL	Test:	TCLP VOA	
GC Column:	RXI-624	ID :	0.25	Level :	LOW	
Prep Method :	SW5035					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085650.D	1		02/04/25 14:27	VN020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	UQ	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.2		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	51.1		86 - 113	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.1		77 - 121	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	192000	8.224			
540-36-3	1,4-Difluorobenzene	373000	9.1			
3114-55-4	Chlorobenzene-d5	341000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	120000	13.794			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	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:	Q1241-06		Matrix:	TCLP	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :	SW5035				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085636.D	1		02/03/25 20:49	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.6		74 - 125	107%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	53.0		86 - 113	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.3		77 - 121	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	165000	8.224			
540-36-3	1,4-Difluorobenzene	346000	9.1			
3114-55-4	Chlorobenzene-d5	327000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	116000	13.788			

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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:	Q1241-10		Matrix:	TCLP	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA	
GC Column:	RXI-624	ID : 0.25	Level :	LOW	
Prep Method :	SW5035				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085637.D	1		02/03/25 21:13	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.9		74 - 125	110%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		75 - 124	99%	SPK: 50
2037-26-5	Toluene-d8	53.5		86 - 113	107%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		77 - 121	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	158000	8.224			
540-36-3	1,4-Difluorobenzene	330000	9.1			
3114-55-4	Chlorobenzene-d5	316000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	114000	13.788			

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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:	Q1241-14	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085638.D	1		02/03/25 21:37	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.5		74 - 125	109%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	53.8		86 - 113	108%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		77 - 121	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	164000	8.224			
540-36-3	1,4-Difluorobenzene	344000	9.1			
3114-55-4	Chlorobenzene-d5	331000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	116000	13.788			

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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:	Q1241-18	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085639.D	1		02/03/25 22:01	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.1		74 - 125	108%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		75 - 124	100%	SPK: 50
2037-26-5	Toluene-d8	52.5		86 - 113	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.1		77 - 121	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	168000	8.224			
540-36-3	1,4-Difluorobenzene	350000	9.1			
3114-55-4	Chlorobenzene-d5	332000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	119000	13.788			

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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
Q1241-02	JPP-3.5-013025	1,2-Dichloroethane-d4	50	49.2	98	74	125
		Dibromofluoromethane	50	48.7	97	75	124
		Toluene-d8	50	51.1	102	86	113
		4-Bromofluorobenzene	50	44.1	88	77	121
Q1241-06	JPP-5.3-013025	1,2-Dichloroethane-d4	50	53.6	107	74	125
		Dibromofluoromethane	50	50.1	100	75	124
		Toluene-d8	50	53.0	106	86	113
		4-Bromofluorobenzene	50	45.3	91	77	121
Q1241-10	JPP-5.2-013025	1,2-Dichloroethane-d4	50	54.9	110	74	125
		Dibromofluoromethane	50	49.5	99	75	124
		Toluene-d8	50	53.5	107	86	113
		4-Bromofluorobenzene	50	47.0	94	77	121
Q1241-14	JPP-5.4-013025	1,2-Dichloroethane-d4	50	54.5	109	74	125
		Dibromofluoromethane	50	49.9	100	75	124
		Toluene-d8	50	53.8	108	86	113
		4-Bromofluorobenzene	50	45.6	91	77	121
Q1241-18	JPP-51.4-013025	1,2-Dichloroethane-d4	50	54.1	108	74	125
		Dibromofluoromethane	50	49.9	100	75	124
		Toluene-d8	50	52.5	105	86	113
		4-Bromofluorobenzene	50	45.1	90	77	121
VN0203WBL01	VN0203WBL01	1,2-Dichloroethane-d4	50	50.4	101	74	125
		Dibromofluoromethane	50	50.6	101	75	124
		Toluene-d8	50	50.1	100	86	113
		4-Bromofluorobenzene	50	42.6	85	77	121
VN0203WBS01	VN0203WBS01	1,2-Dichloroethane-d4	50	47.8	96	74	125
		Dibromofluoromethane	50	52.2	104	75	124
		Toluene-d8	50	54.6	109	86	113
		4-Bromofluorobenzene	50	51.1	102	77	121
VN0203WBSD0	VN0203WBSD01	1,2-Dichloroethane-d4	50	48.0	96	74	125
		Dibromofluoromethane	50	51.0	102	75	124
		Toluene-d8	50	51.7	103	86	113
		4-Bromofluorobenzene	50	48.8	98	77	121

Surrogate Summary

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
VN0204WBL01	VN0204WBL01	1,2-Dichloroethane-d4	50	49.9	100	74	125
		Dibromofluoromethane	50	50.3	101	75	124
		Toluene-d8	50	49.2	98	86	113
		4-Bromofluorobenzene	50	44.2	88	77	121
VN0204WBS02	VN0204WBS02	1,2-Dichloroethane-d4	50	45.2	90	74	125
		Dibromofluoromethane	50	48.7	97	75	124
		Toluene-d8	50	49.8	100	86	113
		4-Bromofluorobenzene	50	47.8	96	77	121

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VN085619.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN0203WBS01	Vinyl chloride	20	18.0	ug/L	90			65	117	
	1,1-Dichloroethene	20	17.3	ug/L	86			74	110	
	2-Butanone	100	88.6	ug/L	89			65	122	
	Carbon Tetrachloride	20	17.5	ug/L	88			77	113	
	Chloroform	20	19.0	ug/L	95			79	113	
	Benzene	20	18.6	ug/L	93			82	109	
	1,2-Dichloroethane	20	17.2	ug/L	86			80	115	
	Trichloroethene	20	18.4	ug/L	92			77	113	
	Tetrachloroethene	20	19.2	ug/L	96			67	123	
	Chlorobenzene	20	19.0	ug/L	95			82	109	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260D

Datafile : VN085620.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits	RPD
									High	
VN0203WBSD01	Vinyl chloride	20	18.9	ug/L	95	5		65	117	20
	1,1-Dichloroethene	20	18.1	ug/L	91	6		74	110	20
	2-Butanone	100	94.6	ug/L	95	7		65	122	20
	Carbon Tetrachloride	20	17.8	ug/L	89	1		77	113	20
	Chloroform	20	19.8	ug/L	99	4		79	113	20
	Benzene	20	18.8	ug/L	94	1		82	109	20
	1,2-Dichloroethane	20	17.5	ug/L	88	2		80	115	20
	Trichloroethene	20	18.2	ug/L	91	1		77	113	20
	Tetrachloroethene	20	19.1	ug/L	96	0		67	123	20
	Chlorobenzene	20	19.6	ug/L	98	3		82	109	20

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1241

Client: RU2 Engineering, LLC

Analytical Method: SW8260-Low

Datafile : VN085651.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VN0204WBS02	Vinyl chloride	20	25.2	ug/L	126		*	65	117	
	1,1-Dichloroethene	20	21.6	ug/L	108			74	110	
	2-Butanone	100	99.4	ug/L	99			65	122	
	Carbon Tetrachloride	20	19.1	ug/L	96			77	113	
	Chloroform	20	20.1	ug/L	101			79	113	
	Benzene	20	20.6	ug/L	103			82	109	
	1,2-Dichloroethane	20	18.2	ug/L	91			80	115	
	Trichloroethene	20	19.8	ug/L	99			77	113	
	Tetrachloroethene	20	21.2	ug/L	106			67	123	
	Chlorobenzene	20	20.7	ug/L	104			82	109	

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0203WBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1241

SAS No.: Q1241 SDG NO.: Q1241

Lab File ID: VN085618.D

Lab Sample ID: VN0203WBL01

Date Analyzed: 02/03/2025

Time Analyzed: 13:34

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

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025
JPP-5.3-013025	Q1241-06	VN085636.D	02/03/2025
JPP-5.2-013025	Q1241-10	VN085637.D	02/03/2025
JPP-5.4-013025	Q1241-14	VN085638.D	02/03/2025
JPP-51.4-013025	Q1241-18	VN085639.D	02/03/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0204WBL01

Lab Name: CHEMTECH

Contract: RUTW01

Lab Code: CHEM Case No.: Q1241

SAS No.: Q1241 SDG NO.: Q1241

Lab File ID: VN085647.D

Lab Sample ID: VN0204WBL01

Date Analyzed: 02/04/2025

Time Analyzed: 12:31

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

Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
JPP-3.5-013025	Q1241-02	VN085650.D	02/04/2025
VN0204WBS02	VN0204WBS02	VN085651.D	02/04/2025

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: VN085437.D BFB Injection Date: 01/14/2025
Instrument ID: MSVOA_N BFB Injection Time: 14:22
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	58
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	1.4 (1.8) 1
174	50.0 - 100.0% of mass 95	76
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	74.1 (97.4) 1
177	5.0 - 9.0% of mass 176	4.9 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN085438.D	01/14/2025	14:56
VSTDICCC050	VSTDICCC050	VN085439.D	01/14/2025	15:19
VSTDICC020	VSTDICC020	VN085440.D	01/14/2025	15:43
VSTDICC010	VSTDICC010	VN085441.D	01/14/2025	16:07
VSTDICC005	VSTDICC005	VN085442.D	01/14/2025	16:31
VSTDICC001	VSTDICC001	VN085443.D	01/14/2025	17:19

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: VN085616.D BFB Injection Date: 02/03/2025
Instrument ID: MSVOA_N BFB Injection Time: 12:23
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	54.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1.4 (1.9) 1
174	50.0 - 100.0% of mass 95	76.2
175	5.0 - 9.0% of mass 174	5.5 (7.2) 1
176	95.0 - 101.0% of mass 174	75 (98.4) 1
177	5.0 - 9.0% of mass 176	5.1 (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
VSTDCCC050	VSTDCCC050	VN085617.D	02/03/2025	12:56
VN0203WBL01	VN0203WBL01	VN085618.D	02/03/2025	13:34
VN0203WBS01	VN0203WBS01	VN085619.D	02/03/2025	13:58
VN0203WBSD01	VN0203WBSD01	VN085620.D	02/03/2025	14:22
JPP-5.3-013025	Q1241-06	VN085636.D	02/03/2025	20:49
JPP-5.2-013025	Q1241-10	VN085637.D	02/03/2025	21:13
JPP-5.4-013025	Q1241-14	VN085638.D	02/03/2025	21:37
JPP-51.4-013025	Q1241-18	VN085639.D	02/03/2025	22:01

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: VN085644.D BFB Injection Date: 02/04/2025
Instrument ID: MSVOA_N BFB Injection Time: 09:55
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.4
75	30.0 - 60.0% of mass 95	51.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	1.2 (1.4) 1
174	50.0 - 100.0% of mass 95	80.1
175	5.0 - 9.0% of mass 174	5.8 (7.2) 1
176	95.0 - 101.0% of mass 174	77.2 (96.3) 1
177	5.0 - 9.0% of mass 176	4.4 (5.7) 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	VN085645.D	02/04/2025	11:05
VN0204WBL01	VN0204WBL01	VN085647.D	02/04/2025	12:31
JPP-3.5-013025	Q1241-02	VN085650.D	02/04/2025	14:27
VN0204WBS02	VN0204WBS02	VN085651.D	02/04/2025	14:51

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: VN085617.D Date Analyzed: 02/03/2025
Instrument ID: MSVOA_N Time Analyzed: 12:56
GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	193909	8.22	331362	9.10	301323	11.87
UPPER LIMIT	387818	8.718	662724	9.6	602646	12.365
LOWER LIMIT	96954.5	7.718	165681	8.6	150662	11.365
EPA SAMPLE NO.						
JPP-5.3-013025	164691	8.22	346323	9.10	326963	11.87
JPP-5.2-013025	157669	8.22	330403	9.10	315638	11.87
JPP-5.4-013025	163991	8.22	343832	9.10	330622	11.87
JPP-51.4-013025	168419	8.22	349686	9.10	332324	11.87
VN0203WBL01	183958	8.22	354826	9.10	307130	11.87
VN0203WBS01	188870	8.22	327054	9.10	287245	11.87
VN0203WBSD01	177381	8.22	316818	9.10	277592	11.87

IS1 = Pentafluorobenzene

IS2 = 1,4-Difluorobenzene

IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

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

* Values outside of QC limits.

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
 Lab File ID: VN085617.D Date Analyzed: 02/03/2025
 Instrument ID: MSVOA_N Time Analyzed: 12:56
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	152662	13.788				
UPPER LIMIT	305324	14.288				
LOWER LIMIT	76331	13.288				
EPA SAMPLE NO.						
JPP-5.3-013025	116207	13.79				
JPP-5.2-013025	114334	13.79				
JPP-5.4-013025	116237	13.79				
JPP-51.4-013025	119364	13.79				
VN0203WBL01	111992	13.79				
VN0203WBS01	141185	13.79				
VN0203WBSD01	132351	13.79				

IS4 = 1,4-Dichlorobenzene-d4

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

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

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: VN085645.D Date Analyzed: 02/04/2025
 Instrument ID: MSVOA_N Time Analyzed: 11:05
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	200704	8.22	345148	9.10	309053	11.87
UPPER LIMIT	401408	8.724	690296	9.6	618106	12.365
LOWER LIMIT	100352	7.724	172574	8.6	154527	11.365
EPA SAMPLE NO.						
JPP-3.5-013025	192282	8.22	373073	9.10	340715	11.87
VN0204WBL01	197983	8.22	379434	9.10	328690	11.87
VN0204WBS02	206401	8.22	367320	9.10	317764	11.87

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: RUTW01
 Lab Code: CHEM Case No.: Q1241 SAS No.: Q1241 SDG NO.: Q1241
 Lab File ID: VN085645.D Date Analyzed: 02/04/2025
 Instrument ID: MSVOA_N Time Analyzed: 11:05
 GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	157058	13.788				
UPPER LIMIT	314116	14.288				
LOWER LIMIT	78529	13.288				
EPA SAMPLE NO.						
JPP-3.5-013025	119994	13.79				
VN0204WBL01	132287	13.79				
VN0204WBS02	150317	13.79				

IS4 = 1,4-Dichlorobenzene-d4

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

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



QC SAMPLE DATA

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VN0203WBL01		SDG No.:	Q1241
Lab Sample ID:	VN0203WBL01		Matrix:	TCLP
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085618.D	1		02/03/25 13:34	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.00	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	U	0.26	5.00	ug/L
78-93-3	2-Butanone	25.0	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	U	0.25	5.00	ug/L
67-66-3	Chloroform	5.00	U	0.26	5.00	ug/L
71-43-2	Benzene	5.00	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	5.00	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	5.00	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	5.00	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.4		74 - 125	101%	SPK: 50
1868-53-7	Dibromofluoromethane	50.6		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	50.1		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.6		77 - 121	85%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	184000	8.224			
540-36-3	1,4-Difluorobenzene	355000	9.1			
3114-55-4	Chlorobenzene-d5	307000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	112000	13.788			

U = Not Detected

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J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VN0204WBL01		SDG No.:	Q1241
Lab Sample ID:	VN0204WBL01		Matrix:	TCLP
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085647.D	1		02/04/25 12:31	VN020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	1.00	U	0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.26	1.00	ug/L
78-93-3	2-Butanone	5.00	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.25	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.26	1.00	ug/L
71-43-2	Benzene	1.00	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.32	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		74 - 125	100%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		75 - 124	101%	SPK: 50
2037-26-5	Toluene-d8	49.2		86 - 113	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.2		77 - 121	88%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	198000	8.224			
540-36-3	1,4-Difluorobenzene	379000	9.1			
3114-55-4	Chlorobenzene-d5	329000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788			

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* = 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:	VN0203WBS01		SDG No.:	Q1241
Lab Sample ID:	VN0203WBS01		Matrix:	TCLP
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085619.D	1		02/03/25 13:58	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.0		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	17.3		0.26	5.00	ug/L
78-93-3	2-Butanone	88.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.5		0.25	5.00	ug/L
67-66-3	Chloroform	19.0		0.26	5.00	ug/L
71-43-2	Benzene	18.6		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.2		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.4		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.2		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.0		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.8		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	52.2		75 - 124	104%	SPK: 50
2037-26-5	Toluene-d8	54.6		86 - 113	109%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.1		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	189000	8.224			
540-36-3	1,4-Difluorobenzene	327000	9.1			
3114-55-4	Chlorobenzene-d5	287000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	141000	13.788			

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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:	VN0204WBS02		SDG No.:	Q1241
Lab Sample ID:	VN0204WBS02		Matrix:	TCLP
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085651.D	1		02/04/25 14:51	VN020425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	25.2		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	21.6		0.26	1.00	ug/L
78-93-3	2-Butanone	99.4		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.1		0.25	1.00	ug/L
67-66-3	Chloroform	20.1		0.26	1.00	ug/L
71-43-2	Benzene	20.6		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.2		0.24	1.00	ug/L
79-01-6	Trichloroethene	19.8		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	21.2		0.25	1.00	ug/L
108-90-7	Chlorobenzene	20.7		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	45.2		74 - 125	90%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	49.8		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.8		77 - 121	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	206000	8.224			
540-36-3	1,4-Difluorobenzene	367000	9.1			
3114-55-4	Chlorobenzene-d5	318000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	150000	13.788			

U = Not Detected

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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Report of Analysis

Client:	RU2 Engineering, LLC		Date Collected:	
Project:	NYCDDC SANTWOBR Brooklyn Bridge BBMCR		Date Received:	
Client Sample ID:	VN0203WBSD01		SDG No.:	Q1241
Lab Sample ID:	VN0203WBSD01		Matrix:	TCLP
Analytical Method:	SW8260		% Solid:	0
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA
GC Column:	RXI-624	ID : 0.25	Level :	LOW
Prep Method :				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085620.D	1		02/03/25 14:22	VN020325

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	18.9		0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.26	5.00	ug/L
78-93-3	2-Butanone	94.6		1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	17.8		0.25	5.00	ug/L
67-66-3	Chloroform	19.8		0.26	5.00	ug/L
71-43-2	Benzene	18.8		0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	17.5		0.24	5.00	ug/L
79-01-6	Trichloroethene	18.2		0.32	5.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	5.00	ug/L
108-90-7	Chlorobenzene	19.6		0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.0		74 - 125	96%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	51.7		86 - 113	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		77 - 121	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	177000	8.224			
540-36-3	1,4-Difluorobenzene	317000	9.1			
3114-55-4	Chlorobenzene-d5	278000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	132000	13.788			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products



CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: RUTW01

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

Instrument ID: MSVOA_N Calibration Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Calibration Time(s): 14:56 17:19

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

LAB FILE ID:		RRF100 = VN085438.D		RRF050 = VN085439.D		RRF020 = VN085440.D			
		RRF010 = VN085441.D		RRF005 = VN085442.D		RRF001 = VN085443.D			
COMPOUND	RRF100	RRF050	RRF020	RRF010	RRF005	RRF001	RRF	% RSD	
Vinyl Chloride	0.697	0.686	0.727	0.711	0.781	0.819	0.737	7.1	
1,1-Dichloroethene	0.548	0.533	0.556	0.526	0.559	0.497	0.537	4.3	
2-Butanone	0.378	0.390	0.398	0.363	0.387	0.386	0.384	3.1	
Carbon Tetrachloride	0.574	0.530	0.579	0.529	0.565	0.567	0.557	4	
Chloroform	1.197	1.175	1.241	1.169	1.253	1.273	1.218	3.6	
Benzene	1.551	1.449	1.527	1.376	1.474	1.400	1.463	4.7	
1,2-Dichloroethane	0.569	0.547	0.575	0.522	0.574	0.517	0.551	4.8	
Trichloroethene	0.362	0.324	0.352	0.310	0.343	0.352	0.341	5.8	
Tetrachloroethene	0.351	0.322	0.365	0.338	0.346	0.323	0.341	4.9	
Chlorobenzene	1.133	1.076	1.154	1.047	1.110	1.051	1.095	4	
1,2-Dichloroethane-d4	0.774	0.831	0.754	0.762	0.914		0.807	8.3	
Dibromofluoromethane	0.359	0.358	0.335	0.310	0.373		0.347	7.1	
Toluene-d8	1.339	1.267	1.207	1.076	1.274		1.232	8.1	
4-Bromofluorobenzene	0.475	0.449	0.410	0.357	0.417		0.422	10.6	

* 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_N Calibration Date/Time: 02/03/2025 12:56

Lab File ID: VN085617.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.737	0.636		-13.7	20
1,1-Dichloroethene	0.537	0.488		-9.13	20
2-Butanone	0.384	0.336		-12.5	20
Carbon Tetrachloride	0.557	0.512		-8.08	20
Chloroform	1.218	1.179		-3.2	20
Benzene	1.463	1.422		-2.8	20
1,2-Dichloroethane	0.551	0.500		-9.26	20
Trichloroethene	0.341	0.329		-3.52	20
Tetrachloroethene	0.341	0.330		-3.23	20
Chlorobenzene	1.095	1.101	0.3	0.55	20
1,2-Dichloroethane-d4	0.807	0.719		-10.9	20
Dibromofluoromethane	0.347	0.346		-0.29	20
Toluene-d8	1.232	1.296		5.2	20
4-Bromofluorobenzene	0.422	0.438		3.79	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_N Calibration Date/Time: 02/04/2025 11:05

Lab File ID: VN085645.D Init. Calib. Date(s): 01/14/2025 01/14/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:56 17:19

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

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.737	0.924		25.37	20
1,1-Dichloroethene	0.537	0.620		15.46	20
2-Butanone	0.384	0.371		-3.38	20
Carbon Tetrachloride	0.557	0.585		5.03	20
Chloroform	1.218	1.257		3.2	20
Benzene	1.463	1.643		12.3	20
1,2-Dichloroethane	0.551	0.538		-2.36	20
Trichloroethene	0.341	0.382		12.02	20
Tetrachloroethene	0.341	0.397		16.42	20
Chlorobenzene	1.095	1.230	0.3	12.33	20
1,2-Dichloroethane-d4	0.807	0.771		-4.46	20
Dibromofluoromethane	0.347	0.369		6.34	20
Toluene-d8	1.232	1.373		11.44	20
4-Bromofluorobenzene	0.422	0.472		11.85	20

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