284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Cover Page

Order ID : Q2869

Project ID : Former Schlumberger STC PTC Site D3868221

Client : JACOBS Engineering Group, Inc.

Lab Sample Number	Client Sample Number
Q2869-01	MW-19B-71.5-081325
Q2869-02	MW-19B-71.5-081325
Q2869-03	MW-01-6.5-081325
Q2869-04	MW-11A-13.5-081325
Q2869-05	MW-19B-71.5-081325-FD
Q2869-06	MW-19B-71.5-081325-FD
Q2869-07	EB01-081325
Q2869-08	EB01-081325
Q2869-09	MW-19B-71.5-081325-SIM
Q2869-10	EB02-081325
Q2869-11	TB01-081325

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 8/26/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q2869**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **KETAN PATEL** **Date:** **08/26/2025**

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LAB CHRONICLE

OrderID:	Q2869	**OrderDate:**	8/14/2025 9:15:00 AM
Client:	JACOBS Engineering Group, Inc.	**Project:**	Former Schlumberger STC PTC Site D3868221
Contact:	John Ynfante	**Location:**	J31,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2869-01	**MW-19B-71.5-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/19/25	
Q2869-03	**MW-01-6.5-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/21/25	
Q2869-04	**MW-11A-13.5-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/21/25	
Q2869-04DL	**MW-11A-13.5-081325 DL**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/21/25	
Q2869-05	**MW-19B-71.5-081325 -FD**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/21/25	
Q2869-07	**EB01-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/19/25	
Q2869-10	**EB02-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/19/25	
Q2869-11	**TB01-081325**	**Water**			**08/13/25**			**08/13/25**
			VOCMS Group3	8260-Low			08/19/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2869

Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**MW-19B-71.5-081325**							
Q2869-01	MW-19B-71.5-0813	Water	cis-1,2-Dichloroethene	4900		19.0	100	ug/L
Q2869-01	MW-19B-71.5-0813	Water	Trichloroethene	5400		9.30	100	ug/L
Q2869-01	MW-19B-71.5-0813	Water	Tetrachloroethene	240		23.0	100	ug/L
			Total Voc :	10500				
			Total Concentration:	10500				
Client ID:	**MW-01-6.5-081325**							
Q2869-03	MW-01-6.5-081325	Water	cis-1,2-Dichloroethene	14.2		0.19	1.00	ug/L
Q2869-03	MW-01-6.5-081325	Water	Trichloroethene	41.5		0.090	1.00	ug/L
Q2869-03	MW-01-6.5-081325	Water	Tetrachloroethene	0.31	J	0.23	1.00	ug/L
			Total Voc :	56.0				
			Total Concentration:	56.0				
Client ID:	**MW-11A-13.5-081325**							
Q2869-04	MW-11A-13.5-0813	Water	Vinyl Chloride	11.2		2.60	10.0	ug/L
Q2869-04	MW-11A-13.5-0813	Water	cis-1,2-Dichloroethene	1500		1.90	10.0	ug/L
Q2869-04	MW-11A-13.5-0813	Water	Trichloroethene	1900	E	0.93	10.0	ug/L
Q2869-04	MW-11A-13.5-0813	Water	Tetrachloroethene	14.1		2.30	10.0	ug/L
			Total Voc :	3430				
			Total Concentration:	3430				
Client ID:	**MW-11A-13.5-081325DL**							
Q2869-04DL	MW-11A-13.5-0813	Water	cis-1,2-Dichloroethene	1500	D	3.80	20.0	ug/L
Q2869-04DL	MW-11A-13.5-0813	Water	Trichloroethene	1900	D	1.90	20.0	ug/L
Q2869-04DL	MW-11A-13.5-0813	Water	Tetrachloroethene	13.2	JD	4.60	20.0	ug/L
			Total Voc :	3410				
			Total Concentration:	3410				
Client ID:	**MW-19B-71.5-081325-FD**							
Q2869-05	MW-19B-71.5-0813	Water	Vinyl Chloride	29.5	J	10.4	40.0	ug/L
Q2869-05	MW-19B-71.5-0813	Water	1,1-Dichloroethene	27.6	J	9.20	40.0	ug/L
Q2869-05	MW-19B-71.5-0813	Water	cis-1,2-Dichloroethene	4200		7.60	40.0	ug/L
Q2869-05	MW-19B-71.5-0813	Water	Trichloroethene	4100		3.70	40.0	ug/L
Q2869-05	MW-19B-71.5-0813	Water	Tetrachloroethene	180		9.20	40.0	ug/L
			Total Voc :	8540				
			Total Concentration:	8540				

QC SUMMARY

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Surrogate Summary

SDG No.: Q2869

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q2869-01	MW-19B-71.5-081325	1,2-Dichloroethane-d4	50	57.9	116		70 (74)	130 (125)
		Dibromofluoromethane	50	50.5	101		70 (75)	130 (124)
		Toluene-d8	50	49.4	99		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.0	110		70 (77)	130 (121)
Q2869-03	MW-01-6.5-081325	1,2-Dichloroethane-d4	50	59.8	120		70 (74)	130 (125)
		Dibromofluoromethane	50	50.7	101		70 (75)	130 (124)
		Toluene-d8	50	48.8	98		70 (86)	130 (113)
		4-Bromofluorobenzene	50	56.5	113		70 (77)	130 (121)
Q2869-04	MW-11A-13.5-081325	1,2-Dichloroethane-d4	50	52.2	104		70 (74)	130 (125)
		Dibromofluoromethane	50	48.0	96		70 (75)	130 (124)
		Toluene-d8	50	48.1	96		70 (86)	130 (113)
		4-Bromofluorobenzene	50	53.3	107		70 (77)	130 (121)
Q2869-04DL	MW-11A-13.5-081325DL	1,2-Dichloroethane-d4	50	53.2	106		70 (74)	130 (125)
		Dibromofluoromethane	50	48.4	97		70 (75)	130 (124)
		Toluene-d8	50	48.5	97		70 (86)	130 (113)
		4-Bromofluorobenzene	50	53.1	106		70 (77)	130 (121)
Q2869-05	MW-19B-71.5-081325-FD	1,2-Dichloroethane-d4	50	56.8	114		70 (74)	130 (125)
		Dibromofluoromethane	50	49.6	99		70 (75)	130 (124)
		Toluene-d8	50	49.1	98		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.7	111		70 (77)	130 (121)
Q2869-07	EB01-081325	1,2-Dichloroethane-d4	50	60.9	122		70 (74)	130 (125)
		Dibromofluoromethane	50	51.7	103		70 (75)	130 (124)
		Toluene-d8	50	50.0	100		70 (86)	130 (113)
		4-Bromofluorobenzene	50	57.2	114		70 (77)	130 (121)
Q2869-10	EB02-081325	1,2-Dichloroethane-d4	50	57.0	114		70 (74)	130 (125)
		Dibromofluoromethane	50	51.0	102		70 (75)	130 (124)
		Toluene-d8	50	50.3	101		70 (86)	130 (113)
		4-Bromofluorobenzene	50	56.1	112		70 (77)	130 (121)
Q2869-11	TB01-081325	1,2-Dichloroethane-d4	50	58.6	117		70 (74)	130 (125)
		Dibromofluoromethane	50	49.8	100		70 (75)	130 (124)
		Toluene-d8	50	48.2	96		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.8	112		70 (77)	130 (121)
VX0819WBL01	VX0819WBL01	1,2-Dichloroethane-d4	50	57.3	114		70 (74)	130 (125)
		Dibromofluoromethane	50	50.9	102		70 (75)	130 (124)
		Toluene-d8	50	49.5	99		70 (86)	130 (113)
		4-Bromofluorobenzene	50	56.1	112		70 (77)	130 (121)
VX0819WBS01	VX0819WBS01	1,2-Dichloroethane-d4	50	54.3	109		70 (74)	130 (125)
		Dibromofluoromethane	50	52.1	104		70 (75)	130 (124)
		Toluene-d8	50	50.5	101		70 (86)	130 (113)
		4-Bromofluorobenzene	50	52.8	106		70 (77)	130 (121)
VX0819WBSD0	VX0819WBSD01	1,2-Dichloroethane-d4	50	54.2	108		70 (74)	130 (125)
		Dibromofluoromethane	50	52.0	104		70 (75)	130 (124)
		Toluene-d8	50	50.7	101		70 (86)	130 (113)
		4-Bromofluorobenzene	50	53.7	107		70 (77)	130 (121)
VX0821WBL01	VX0821WBL01	1,2-Dichloroethane-d4	50	57.4	115		70 (74)	130 (125)
		Dibromofluoromethane	50	49.0	98		70 (75)	130 (124)
		Toluene-d8	50	48.7	97		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.6	111		70 (77)	130 (121)
VX0821WBS02	VX0821WBS02	1,2-Dichloroethane-d4	50	57.3	115		70 (74)	130 (125)
		Dibromofluoromethane	50	51.6	103		70 (75)	130 (124)

( ) = LABORATORY INHOUSE LIMIT

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Surrogate Summary

SDG No.: Q2869

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
VX0821WBS02	VX0821WBS02	Toluene-d8	50	50.2	100		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.6	111		70 (77)	130 (121)

( ) = LABORATORY INHOUSE LIMIT

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2869 **Analytical Method:** SW8260-Low

Client: JACOBS Engineering Group, Inc. **Datafile :** VX047403.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0819WBS01	Vinyl chloride	20	16.6	ug/L	83			70 (65)	130 (117)	
	1,1-Dichloroethene	20	17.3	ug/L	86			70 (74)	130 (110)	
	1,1-Dichloroethane	20	18.6	ug/L	93			70 (78)	130 (112)	
	cis-1,2-Dichloroethene	20	18.5	ug/L	93			70 (77)	130 (110)	
	1,1,1-Trichloroethane	20	17.9	ug/L	90			70 (80)	130 (108)	
	Benzene	20	18.0	ug/L	90			70 (82)	130 (109)	
	1,2-Dichloroethane	20	18.7	ug/L	94			70 (80)	130 (115)	
	Trichloroethene	20	17.2	ug/L	86			70 (77)	130 (113)	
	1,1,2-Trichloroethane	20	18.8	ug/L	94			70 (83)	130 (112)	
	Tetrachloroethene	20	16.7	ug/L	84			70 (67)	130 (123)	

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2869 **Analytical Method:** SW8260-Low

Client: JACOBS Engineering Group, Inc. **Datafile :** VX047405.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX0819WBSD01	Vinyl chloride	20	16.4	ug/L	82	1		70 (65)	130 (117)	20 (19)
	1,1-Dichloroethene	20	16.5	ug/L	83	4		70 (74)	130 (110)	20 (20)
	1,1-Dichloroethane	20	17.9	ug/L	90	3		70 (78)	130 (112)	20 (20)
	cis-1,2-Dichloroethene	20	17.8	ug/L	89	4		70 (77)	130 (110)	20 (20)
	1,1,1-Trichloroethane	20	17.5	ug/L	88	2		70 (80)	130 (108)	20 (20)
	Benzene	20	17.6	ug/L	88	2		70 (82)	130 (109)	20 (15)
	1,2-Dichloroethane	20	19.0	ug/L	95	1		70 (80)	130 (115)	20 (20)
	Trichloroethene	20	17.1	ug/L	86	0		70 (77)	130 (113)	20 (15)
	1,1,2-Trichloroethane	20	19.2	ug/L	96	2		70 (83)	130 (112)	20 (20)
	Tetrachloroethene	20	16.4	ug/L	82	2		70 (67)	130 (123)	20 (15)

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2869 **Analytical Method:** SW8260-Low

Client: JACOBS Engineering Group, Inc. **Datafile :** VX047467.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0821WBS02	Vinyl chloride	20	19.3	ug/L	97			70 (65)	130 (117)	
	1,1-Dichloroethene	20	20.0	ug/L	100			70 (74)	130 (110)	
	1,1-Dichloroethane	20	21.8	ug/L	109			70 (78)	130 (112)	
	cis-1,2-Dichloroethene	20	21.9	ug/L	110			70 (77)	130 (110)	
	1,1,1-Trichloroethane	20	20.6	ug/L	103			70 (80)	130 (108)	
	Benzene	20	20.6	ug/L	103			70 (82)	130 (109)	
	1,2-Dichloroethane	20	21.5	ug/L	108			70 (80)	130 (115)	
	Trichloroethene	20	20.1	ug/L	101			70 (77)	130 (113)	
	1,1,2-Trichloroethane	20	21.9	ug/L	110			70 (83)	130 (112)	
	Tetrachloroethene	20	18.2	ug/L	91			70 (67)	130 (123)	

( ) = LABORATORY INHOUSE LIMIT

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VOLATILE METHOD BLANK SUMMARY

Client ID: VX0819WBL01

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2869

Lab File ID: VX047402.D Lab Sample ID: VX0819WBL01

Date Analyzed: 08/19/2025 Time Analyzed: 10:55

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0819WBS01	VX0819WBS01	VX047403.D	08/19/2025
VX0819WBSD01	VX0819WBSD01	VX047405.D	08/19/2025
EB01-081325	Q2869-07	VX047416.D	08/19/2025
EB02-081325	Q2869-10	VX047417.D	08/19/2025
TB01-081325	Q2869-11	VX047418.D	08/19/2025
MW-19B-71.5-081325	Q2869-01	VX047421.D	08/19/2025

COMMENTS:

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VOLATILE METHOD BLANK SUMMARY

Client ID: VX0821WBL01

Lab Name: Alliance | Contract: JACO05

Lab Code: ACE | SDG NO.: Q2869

Lab File ID: VX047457.D | Lab Sample ID: VX0821WBL01

Date Analyzed: 08/21/2025 | Time Analyzed: 10:24

GC Column: DB-624UI ID: 0.18 (mm) | Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MW-11A-13.5-081325	Q2869-04	VX047460.D	08/21/2025
MW-19B-71.5-081325-FD	Q2869-05	VX047461.D	08/21/2025
MW-01-6.5-081325	Q2869-03	VX047462.D	08/21/2025
VX0821WBS02	VX0821WBS02	VX047467.D	08/21/2025
MW-11A-13.5-081325DL	Q2869-04DL	VX047468.D	08/21/2025

COMMENTS:

Raw Data: **VX047347.D**

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance | Contract: JACO05

Lab Code: ACE | SDG NO.: Q2869

Lab File ID: VX047347.D | BFB Injection Date: 08/15/2025

Instrument ID: MSVOA_X | BFB Injection Time: 08:28

GC Column: DB-624UI ID: 0.18 (mm) | Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.3
75	30.0 - 60.0% of mass 95	51.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.9 (1.1) 1
174	50.0 - 100.0% of mass 95	74.3
175	5.0 - 9.0% of mass 174	6.1 (8.2) 1
176	95.0 - 101.0% of mass 174	71.9 (96.8) 1
177	5.0 - 9.0% of mass 176	4.4 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VX047349.D	08/15/2025	09:40
VSTDICC020	VSTDICC020	VX047350.D	08/15/2025	10:01
VSTDICCC050	VSTDICCC050	VX047351.D	08/15/2025	10:22
VSTDICC100	VSTDICC100	VX047352.D	08/15/2025	10:43
VSTDICC150	VSTDICC150	VX047353.D	08/15/2025	11:05
VSTDICC001	VSTDICC001	VX047356.D	08/15/2025	12:30

Raw Data: **VX047399.D**

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance
Contract: JACO05
Lab Code: ACE
SDG NO.: Q2869
Lab File ID: VX047399.D
BFB Injection Date: 08/19/2025
Instrument ID: MSVOA_X
BFB Injection Time: 08:38
GC Column: DB-624UI ID: 0.18 (mm)
Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19
75	30.0 - 60.0% of mass 95	50.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.9 (1.2) 1
174	50.0 - 100.0% of mass 95	72.1
175	5.0 - 9.0% of mass 174	5.3 (7.4) 1
176	95.0 - 101.0% of mass 174	70.3 (97.6) 1
177	5.0 - 9.0% of mass 176	5 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX047400.D	08/19/2025	09:37
VX0819WBL01	VX0819WBL01	VX047402.D	08/19/2025	10:55
VX0819WBS01	VX0819WBS01	VX047403.D	08/19/2025	11:55
VX0819WBSD01	VX0819WBSD01	VX047405.D	08/19/2025	12:37
EB01-081325	Q2869-07	VX047416.D	08/19/2025	16:36
EB02-081325	Q2869-10	VX047417.D	08/19/2025	16:57
TB01-081325	Q2869-11	VX047418.D	08/19/2025	17:18
MW-19B-71.5-081325	Q2869-01	VX047421.D	08/19/2025	18:22

Raw Data: **VX047454.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance | Contract: JACO05

Lab Code: ACE | SDG NO.: Q2869

Lab File ID: VX047454.D | BFB Injection Date: 08/21/2025

Instrument ID: MSVOA_X | BFB Injection Time: 07:58

GC Column: DB-624UI ID: 0.18 (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	51.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	77.9
175	5.0 - 9.0% of mass 174	5.5 (7.1) 1
176	95.0 - 101.0% of mass 174	74.3 (95.4) 1
177	5.0 - 9.0% of mass 176	5 (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:

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX047455.D	08/21/2025	09:35
VX0821WBL01	VX0821WBL01	VX047457.D	08/21/2025	10:24
MW-11A-13.5-081325	Q2869-04	VX047460.D	08/21/2025	11:39
MW-19B-71.5-081325-FD	Q2869-05	VX047461.D	08/21/2025	12:00
MW-01-6.5-081325	Q2869-03	VX047462.D	08/21/2025	12:22
VX0821WBS02	VX0821WBS02	VX047467.D	08/21/2025	14:07
MW-11A-13.5-081325DL	Q2869-04DL	VX047468.D	08/21/2025	14:28

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Fax : 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2869

Lab File ID: VX047400.D Date Analyzed: 08/19/2025

Instrument ID: MSVOA_X Time Analyzed: 09:37

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	203851	5.56	365078	6.76	334051	10.06
UPPER LIMIT	407702	6.062	730156	7.263	668102	10.555
LOWER LIMIT	101926	5.062	182539	6.263	167026	9.555
EPA SAMPLE NO.						
MW-19B-71.5-081325	199878	5.57	404740	6.77	406772	10.06
EB01-081325	223227	5.56	449571	6.77	464745	10.06
EB02-081325	205773	5.56	414097	6.77	417583	10.06
TB01-081325	204851	5.56	415100	6.77	420679	10.06
VX0819WBL01	204625	5.56	410508	6.76	416324	10.06
VX0819WBS01	225610	5.56	400778	6.76	370967	10.05
VX0819WBSD01	228746	5.57	395063	6.77	371284	10.06

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.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2869

Lab File ID: VX047400.D Date Analyzed: 08/19/2025

Instrument ID: MSVOA_X Time Analyzed: 09:37

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	167955	12.018				
UPPER LIMIT	335910	12.518				
LOWER LIMIT	83977.5	11.518				
EPA SAMPLE NO.						
MW-19B-71.5-081325	210685	12.02				
EB01-081325	238761	12.02				
EB02-081325	212656	12.02				
TB01-081325	219893	12.02				
VX0819WBL01	212865	12.02				
VX0819WBS01	189862	12.02				
VX0819WBSD01	189413	12.02				

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.

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2869

Lab File ID: VX047455.D Date Analyzed: 08/21/2025

Instrument ID: MSVOA_X Time Analyzed: 09:35

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	229258	5.56	398048	6.76	349454	10.05
UPPER LIMIT	458516	6.056	796096	7.263	698908	10.549
LOWER LIMIT	114629	5.056	199024	6.263	174727	9.549
EPA SAMPLE NO.						
MW-01-6.5-081325	206081	5.57	418758	6.77	421107	10.06
MW-11A-13.5-081325	209250	5.56	413436	6.77	399927	10.06
MW-11A-13.5-081325DL	195089	5.56	386665	6.77	376333	10.06
MW-19B-71.5-081325-FD	234783	5.56	477817	6.77	477729	10.06
VX0821WBL01	216518	5.56	445927	6.77	448054	10.06
VX0821WBS02	219757	5.56	395822	6.77	370697	10.06

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.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2869

Lab File ID: VX047455.D Date Analyzed: 08/21/2025

Instrument ID: MSVOA_X Time Analyzed: 09:35

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	170891	12.018				
UPPER LIMIT	341782	12.518				
LOWER LIMIT	85445.5	11.518				
EPA SAMPLE NO.						
MW-01-6.5-081325	214194	12.02				
MW-11A-13.5-081325	194035	12.02				
MW-11A-13.5-081325DL	185836	12.02				
MW-19B-71.5-081325-FD	247621	12.02				
VX0821WBL01	231897	12.02				
VX0821WBS02	193487	12.02				

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.

SAMPLE DATA

Raw Data: **VX047421.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	MW-19B-71.5-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047421.D	100	08/19/25 18:22	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	26.0	U	26.0	100	ug/L
75-35-4	1,1-Dichloroethene	23.0	U	23.0	100	ug/L
75-34-3	1,1-Dichloroethane	23.0	U	23.0	100	ug/L
156-59-2	cis-1,2-Dichloroethene	4900		19.0	100	ug/L
71-55-6	1,1,1-Trichloroethane	20.0	U	20.0	100	ug/L
71-43-2	Benzene	15.0	U	15.0	100	ug/L
107-06-2	1,2-Dichloroethane	22.0	U	22.0	100	ug/L
79-01-6	Trichloroethene	5400		9.30	100	ug/L
79-00-5	1,1,2-Trichloroethane	21.0	U	21.0	100	ug/L
127-18-4	Tetrachloroethene	240		23.0	100	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.9		70 (74) - 130 (125)	116%	SPK: 50
1868-53-7	Dibromofluoromethane	50.5		70 (75) - 130 (124)	101%	SPK: 50
2037-26-5	Toluene-d8	49.4		70 (86) - 130 (113)	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.0		70 (77) - 130 (121)	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	200000	5.568			
540-36-3	1,4-Difluorobenzene	405000	6.769			
3114-55-4	Chlorobenzene-d5	407000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	211000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047421.D
Acq On : 19 Aug 2025 18:22
Operator : JC/MD
Sample : Q2869-01 100X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 23 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Quant Time: Aug 20 01:31:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

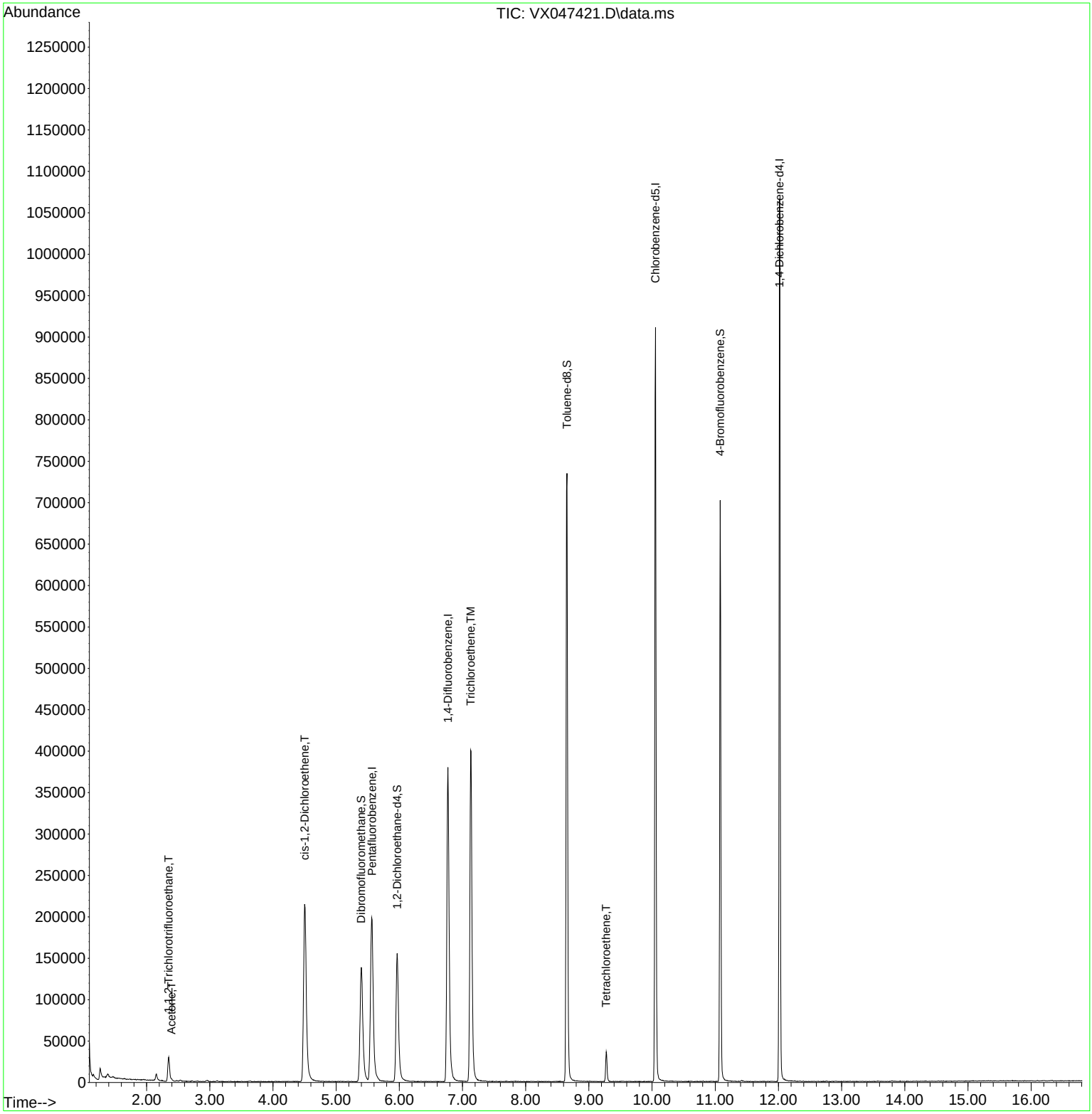
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	199878	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	404740	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	406772	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	210685	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	161847	57.857	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 115.720%			
35) Dibromofluoromethane	5.397	113	132697	50.517	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.040%			
50) Toluene-d8	8.653	98	463512	49.368	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 98.740%			
62) 4-Bromofluorobenzene	11.079	95	190416	54.959	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 109.920%			
Target Compounds						Qvalue
9) 1,1,2-Trichlorotrifluo...	2.349	101	12950	5.246	ug/l	98
16) Acetone	2.392	43	2004	1.906	ug/l #	84
27) cis-1,2-Dichloroethene	4.501	96	151907	48.828	ug/l	90
44) Trichloroethene	7.129	130	170320	53.593	ug/l	100
64) Tetrachloroethene	9.275	164	7149	2.430	ug/l	95

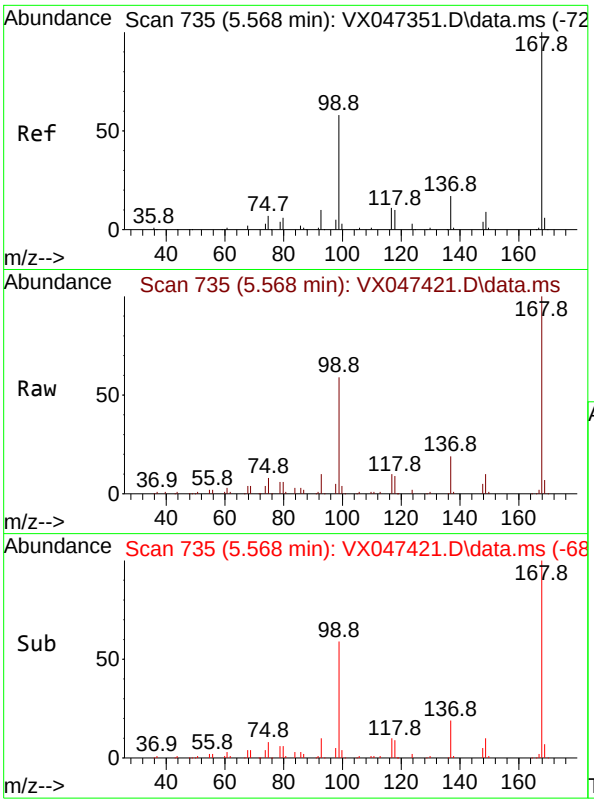
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047421.D
Acq On : 19 Aug 2025 18:22
Operator : JC/MD
Sample : Q2869-01 100X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 23 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Quant Time: Aug 20 01:31:20 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



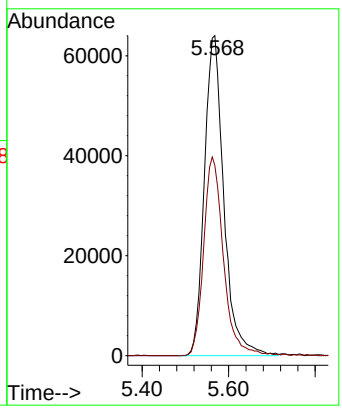


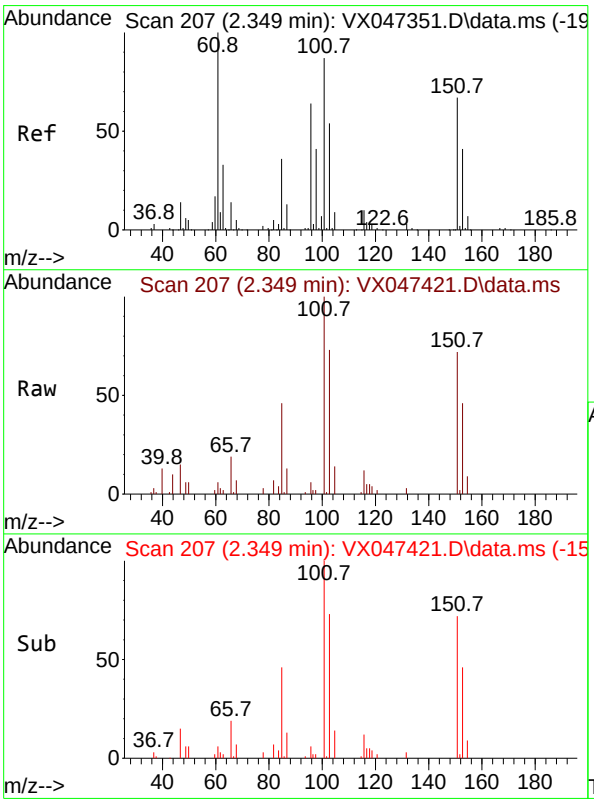
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion:168 Resp: 199878

Ion	Ratio	Lower	Upper
168	100		
99	59.5	47.9	71.9

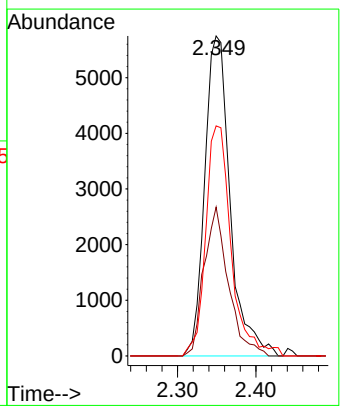


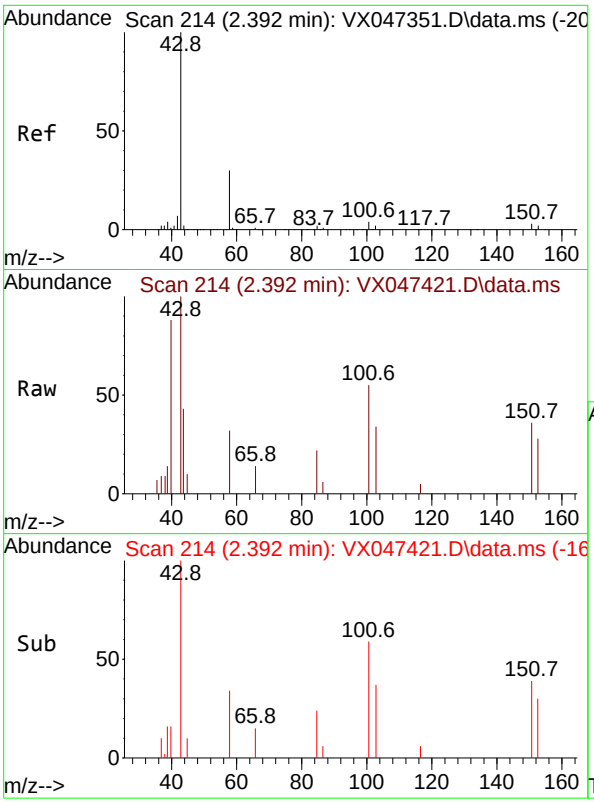


#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.246 ug/l
RT: 2.349 min Scan# 207
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion:101 Resp: 12950

Ion	Ratio	Lower	Upper
101	100		
85	44.8	34.3	51.5
151	72.1	59.2	88.8



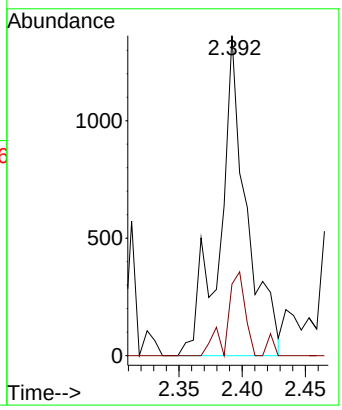


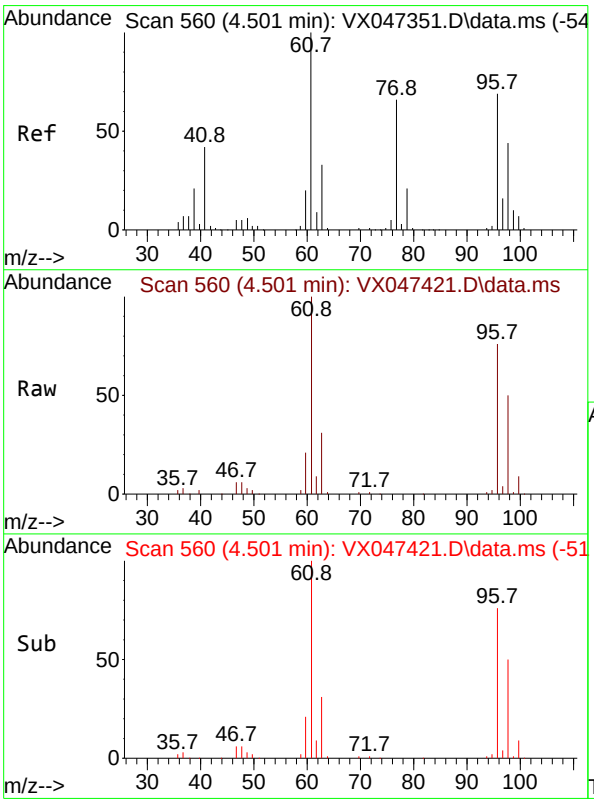
#16
Acetone
Concen: 1.906 ug/l
RT: 2.392 min Scan# 21
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion: 43 Resp: 2004

Ion	Ratio	Lower	Upper
43	100		
58	22.3	24.8	37.2#

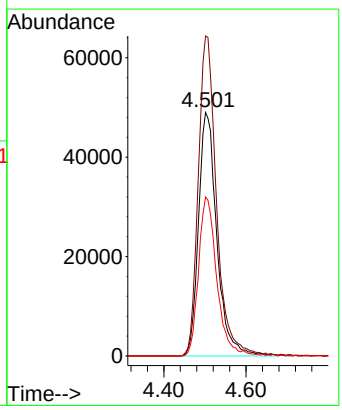


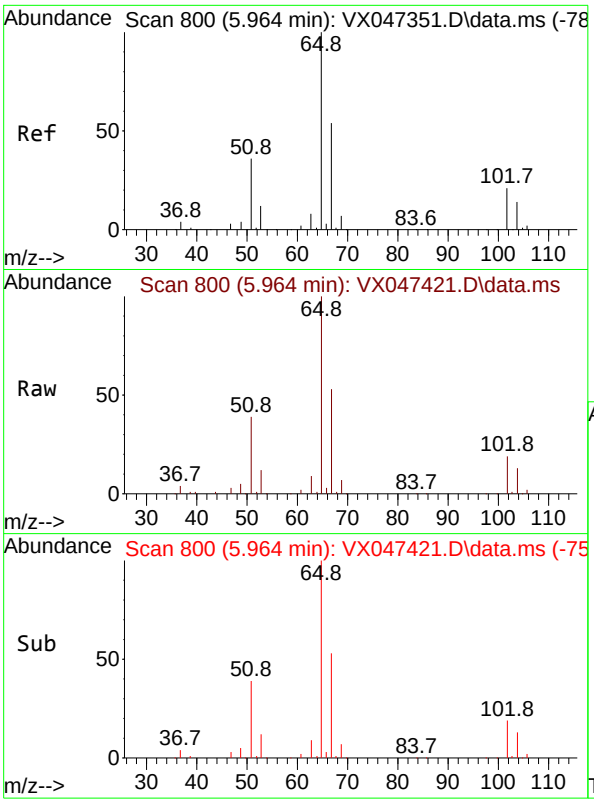


#27
cis-1,2-Dichloroethene
Concen: 48.828 ug/l
RT: 4.501 min Scan# 560
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion: 96 Resp: 151907

Ion	Ratio	Lower	Upper
96	100		
61	130.7	0.0	296.6
98	64.8	0.0	130.4



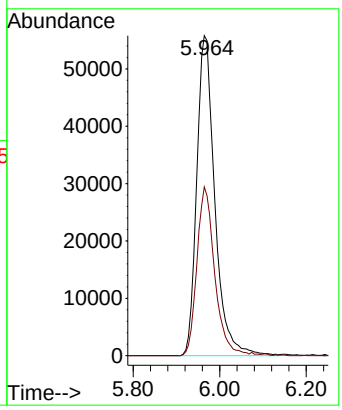


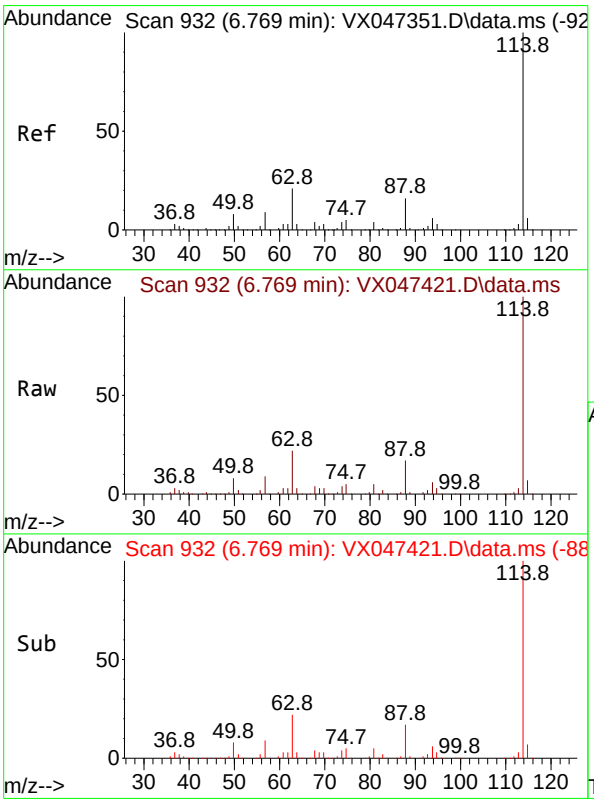
#33
1,2-Dichloroethane-d4
Concen: 57.857 ug/l
RT: 5.964 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion: 65 Resp: 161847

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	106.0

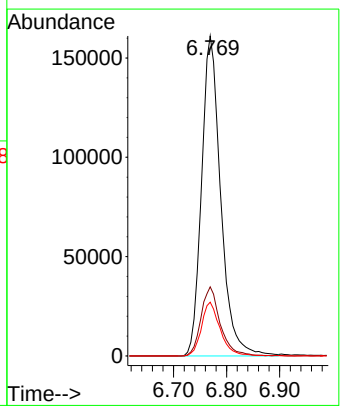


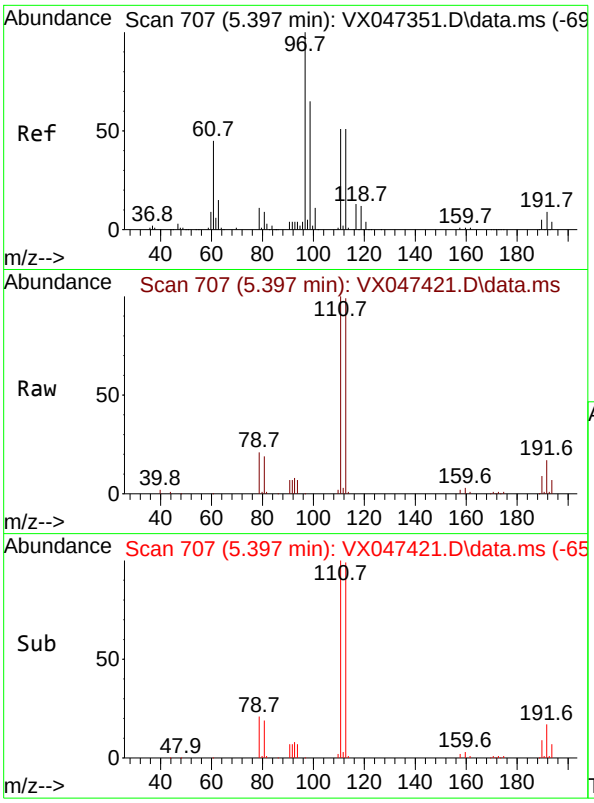


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 932
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion:114 Resp: 404740

Ion	Ratio	Lower	Upper
114	100		
63	21.6	0.0	42.4
88	16.8	0.0	33.0



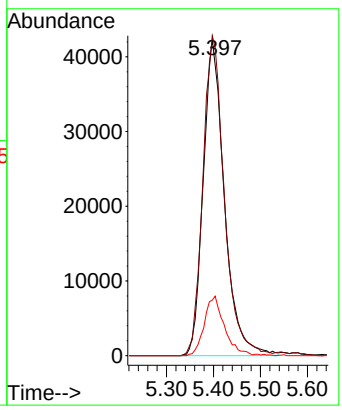


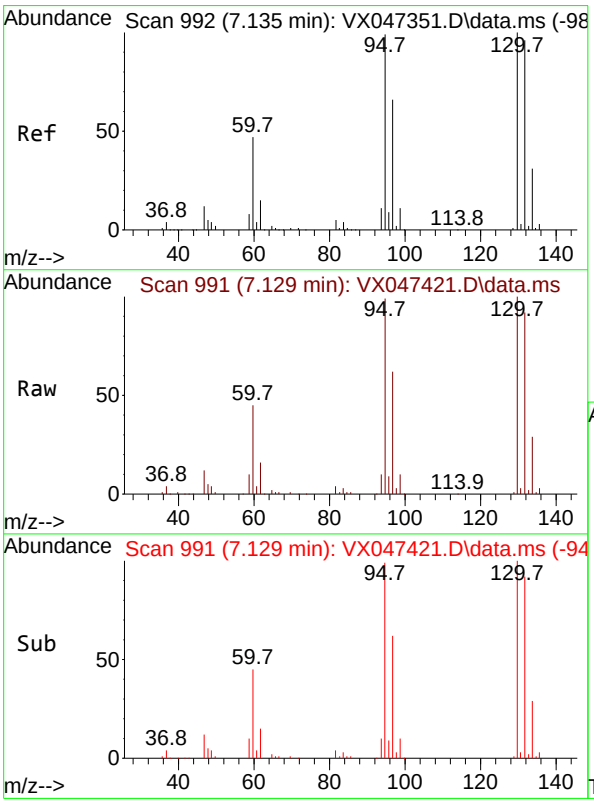
#35
Dibromofluoromethane
Concen: 50.517 ug/l
RT: 5.397 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion:113 Resp: 132697

Ion	Ratio	Lower	Upper
113	100		
111	102.3	81.4	122.2
192	18.0	14.1	21.1

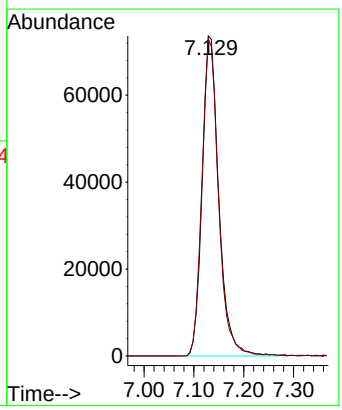


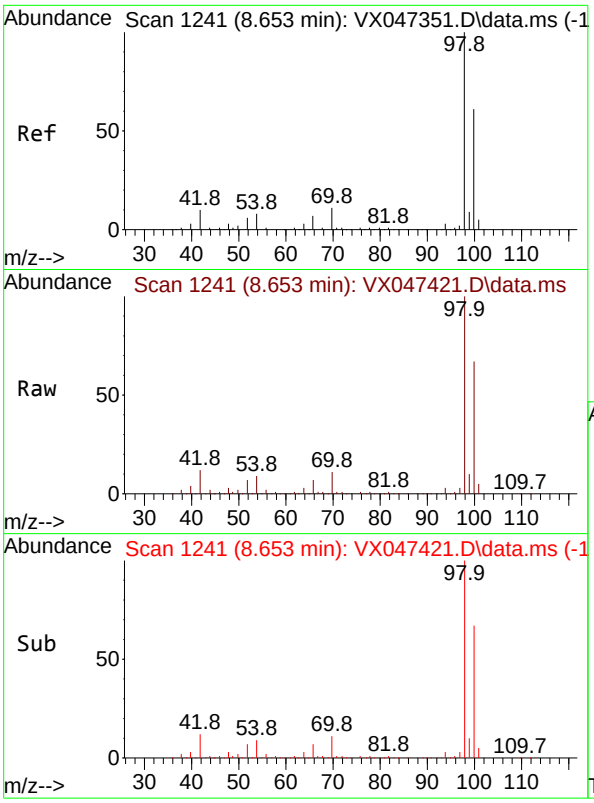


#44
Trichloroethene
Concen: 53.593 ug/l
RT: 7.129 min Scan# 991
Delta R.T. -0.006 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion:130 Resp: 170320

Ion	Ratio	Lower	Upper
130	100		
95	99.0	0.0	198.6



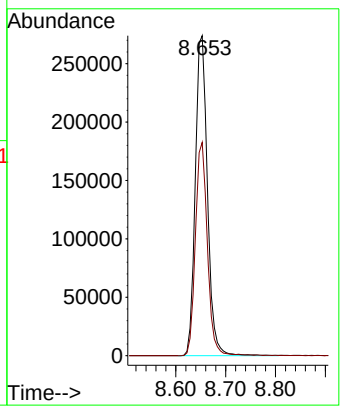


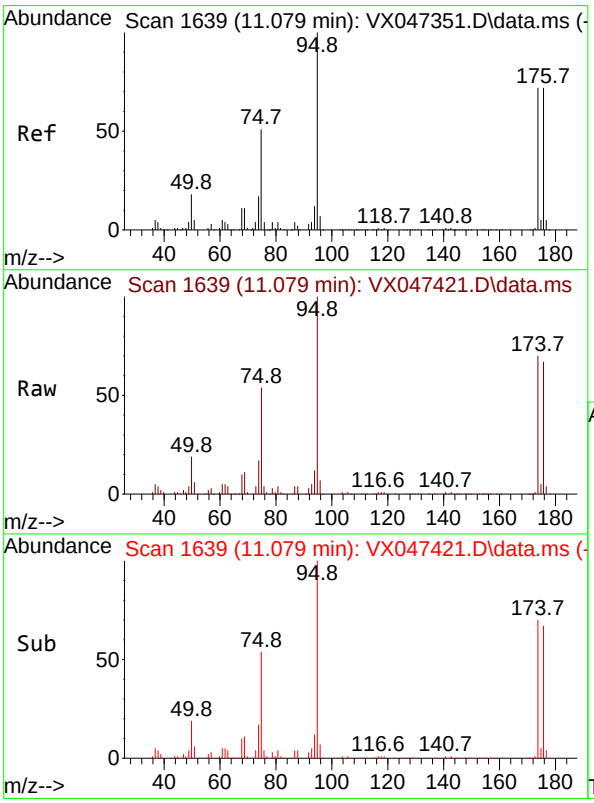
#50
Toluene-d8
Concen: 49.368 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion: 98 Resp: 463512

Ion	Ratio	Lower	Upper
98	100		
100	65.8	53.9	80.9

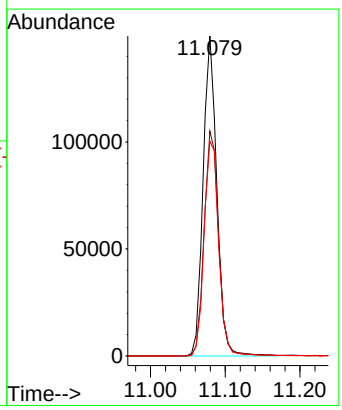


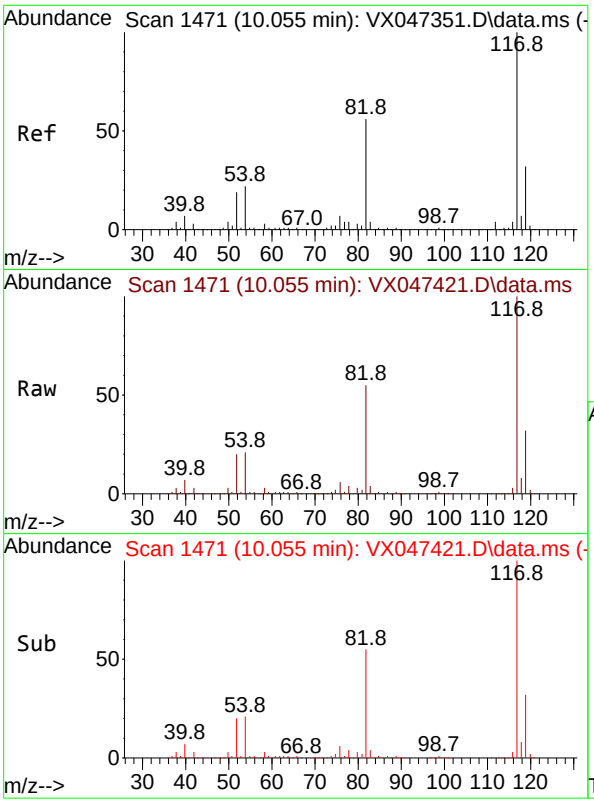


#62
4-Bromofluorobenzene
Concen: 54.959 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion: 95 Resp: 190416

Ion	Ratio	Lower	Upper
95	100		
174	74.5	0.0	148.0
176	71.8	0.0	145.4



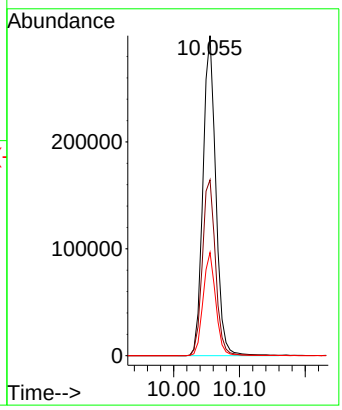


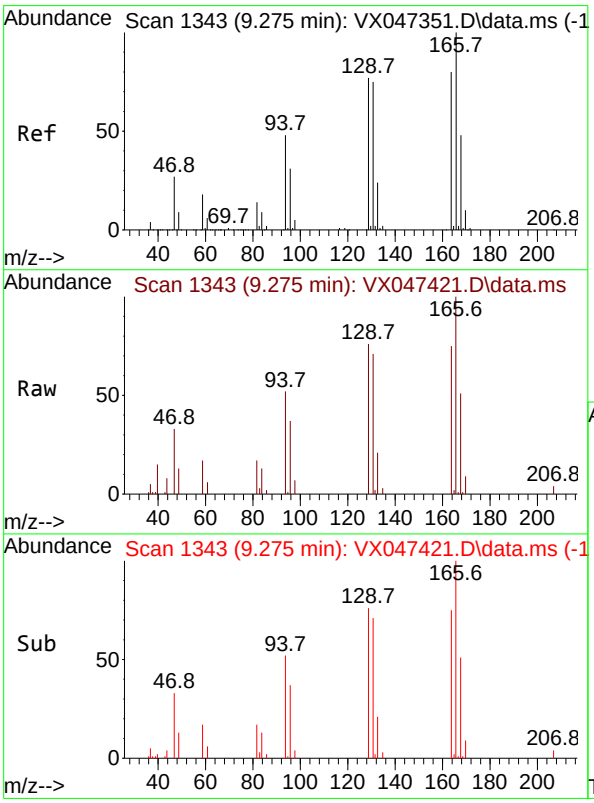
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion:117 Resp: 406772

Ion	Ratio	Lower	Upper
117	100		
82	55.0	45.0	67.4
119	32.2	25.8	38.8

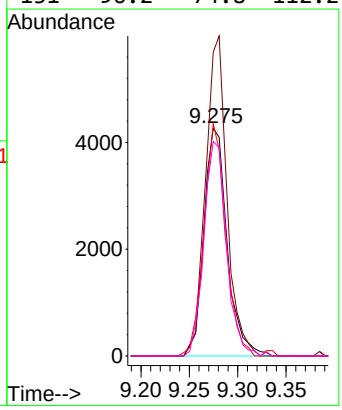


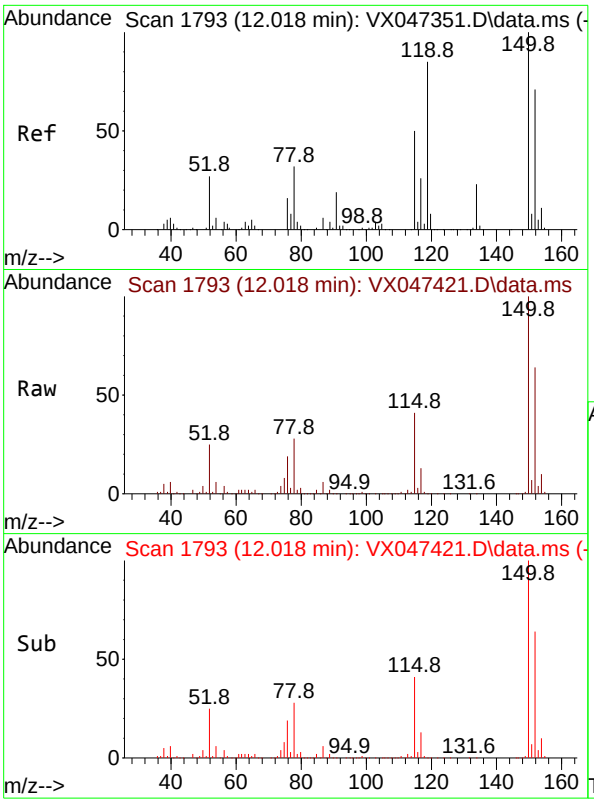


#64
Tetrachloroethene
Concen: 2.430 ug/l
RT: 9.275 min Scan# 1343
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Tgt Ion:164 Resp: 7149

Ion	Ratio	Lower	Upper
164	100		
166	133.4	100.3	150.5
129	102.0	77.7	116.5
131	96.2	74.8	112.2



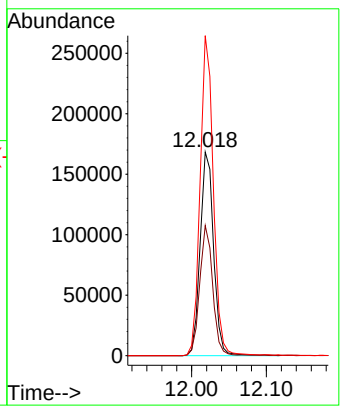


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047421.D
Acq: 19 Aug 2025 18:22

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325

Tgt Ion:152 Resp: 210685

Ion	Ratio	Lower	Upper
152	100		
115	61.9	44.6	133.8
150	154.1	0.0	349.8



Raw Data: **VX047462.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	MW-01-6.5-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-03	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047462.D	1	08/21/25 12:22	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	14.2		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	41.5		0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.31	J	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.8		70 (74) - 130 (125)	120%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		70 (75) - 130 (124)	101%	SPK: 50
2037-26-5	Toluene-d8	48.8		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.5		70 (77) - 130 (121)	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	206000	5.568			
540-36-3	1,4-Difluorobenzene	419000	6.769			
3114-55-4	Chlorobenzene-d5	421000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	214000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047462.D
Acq On : 21 Aug 2025 12:22
Operator : JC/MD
Sample : Q2869-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Quant Time: Aug 22 03:43:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

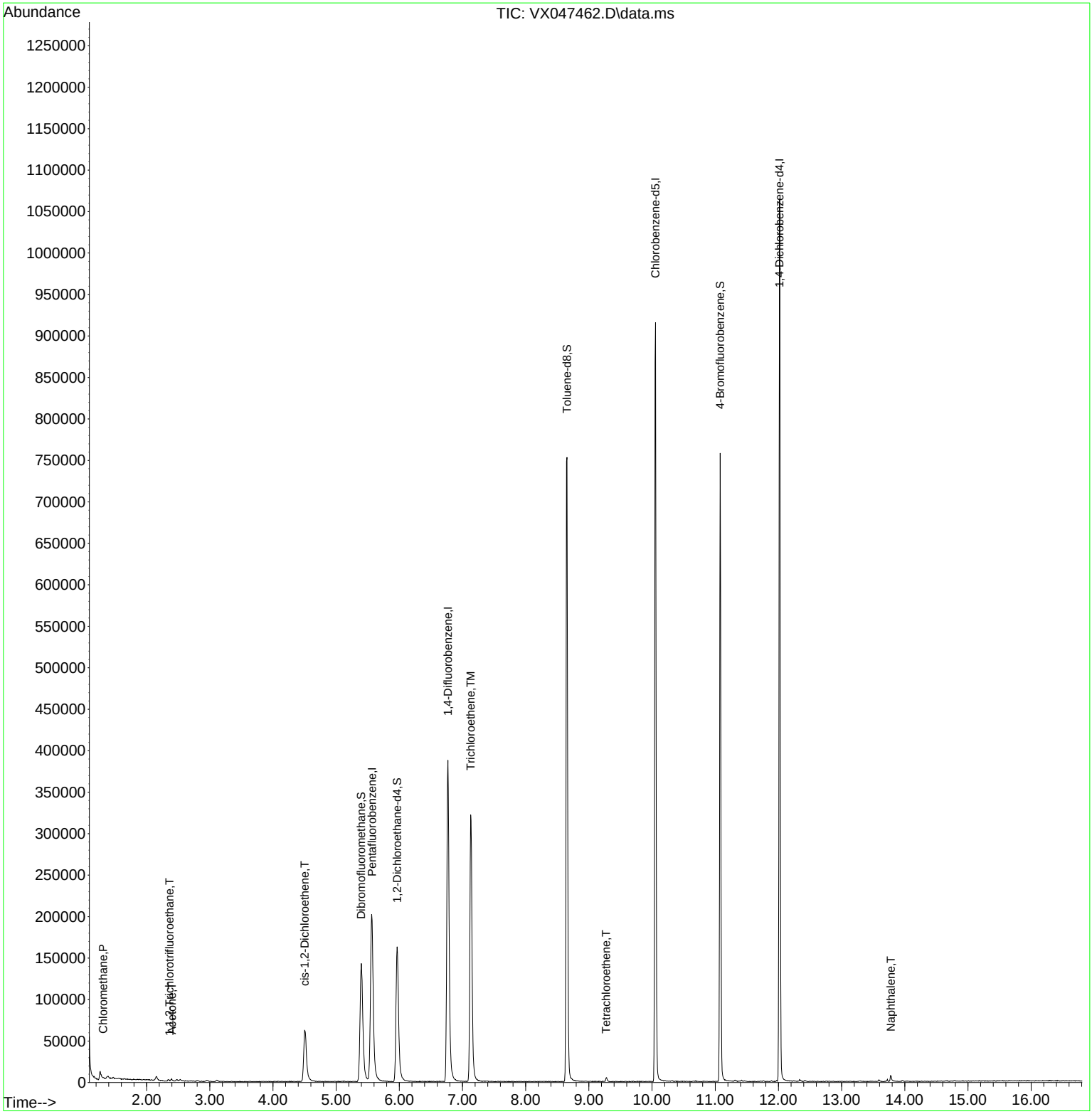
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	206081	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	418758	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	421107	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	214194	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	172517	59.815	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 119.640%#			
35) Dibromofluoromethane	5.397	113	137805	50.705	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.420%			
50) Toluene-d8	8.653	98	473569	48.751	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 97.500%			
62) 4-Bromofluorobenzene	11.079	95	202612	56.522	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 113.040%			
Target Compounds						Qvalue
3) Chloromethane	1.313	50	685	0.290	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.361	101	770	0.303	ug/l	89
16) Acetone	2.398	43	4044	3.730	ug/l #	79
27) cis-1,2-Dichloroethene	4.501	96	45426	14.162	ug/l	90
44) Trichloroethene	7.129	130	136522	41.520	ug/l	97
64) Tetrachloroethene	9.275	164	938	0.308	ug/l #	82
95) Naphthalene	13.780	128	6519	0.458	ug/l #	93

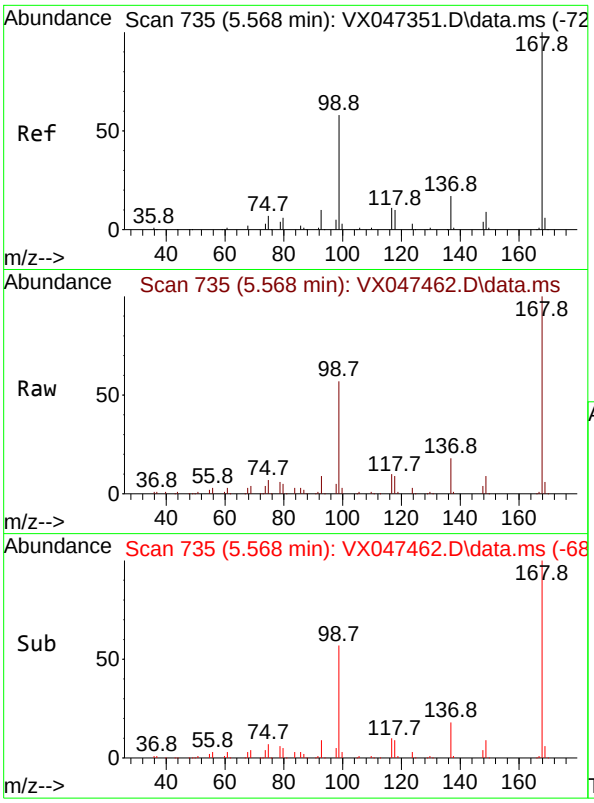
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047462.D
Acq On : 21 Aug 2025 12:22
Operator : JC/MD
Sample : Q2869-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Quant Time: Aug 22 03:43:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



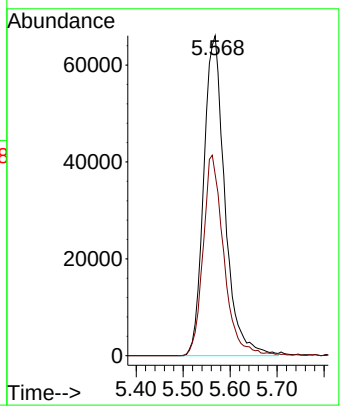


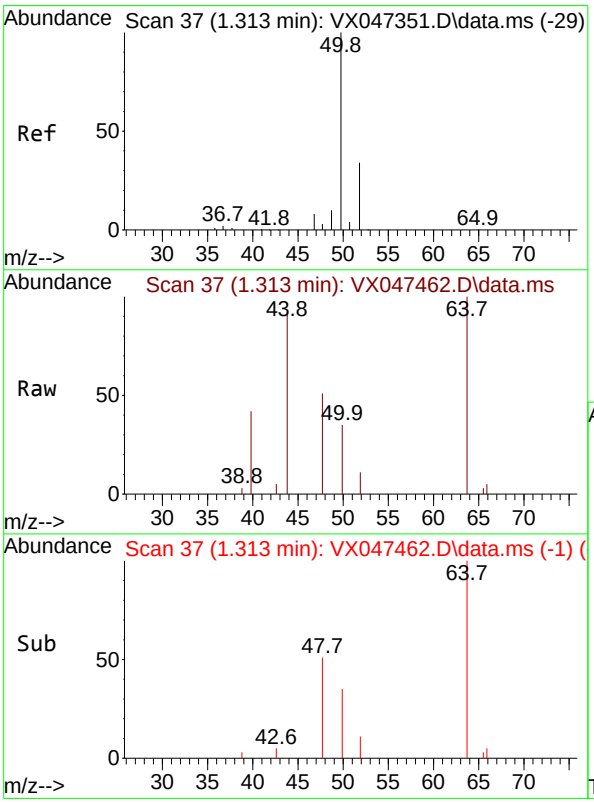
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:168 Resp: 206081

Ion	Ratio	Lower	Upper
168	100		
99	56.6	47.9	71.9

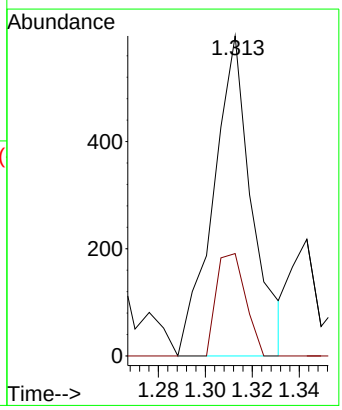


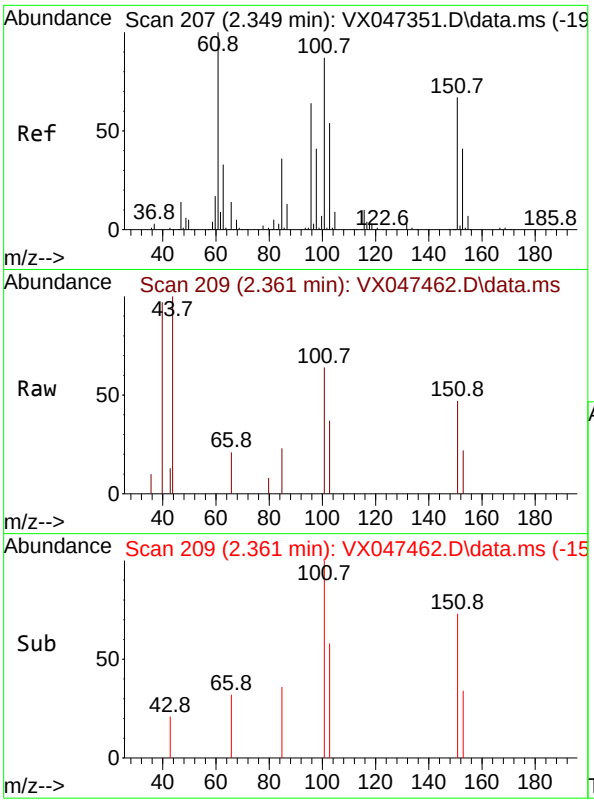


#3
Chloromethane
Concen: 0.290 ug/l
RT: 1.313 min Scan# 37
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion: 50 Resp: 685

Ion	Ratio	Lower	Upper
50	100		
52	32.0	27.0	40.4



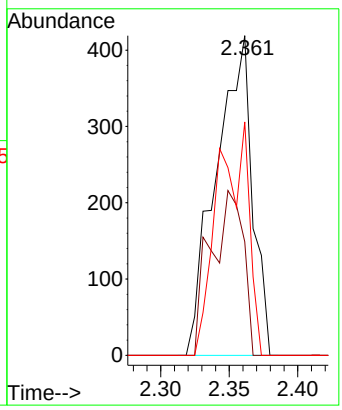


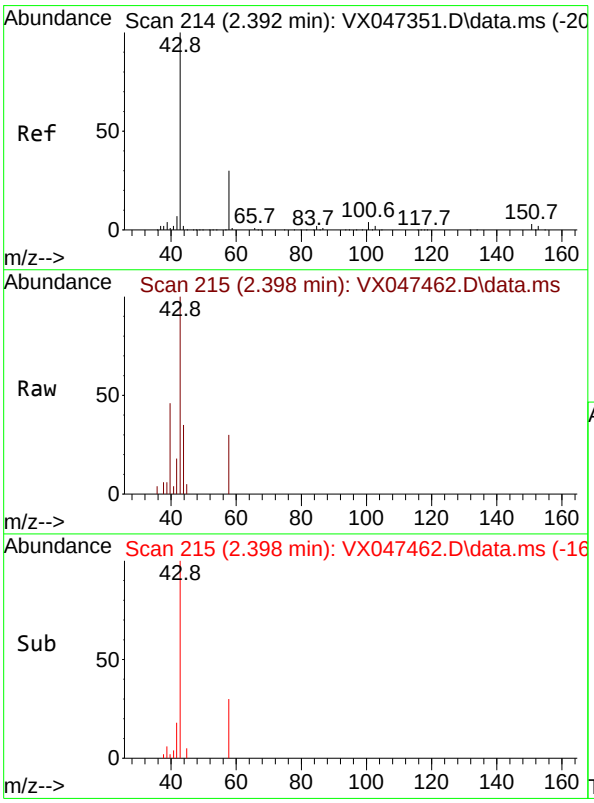
#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.303 ug/l
RT: 2.361 min Scan# 2
Delta R.T. 0.012 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:101 Resp: 770

Ion	Ratio	Lower	Upper
101	100		
85	46.4	34.3	51.5
151	62.6	59.2	88.8

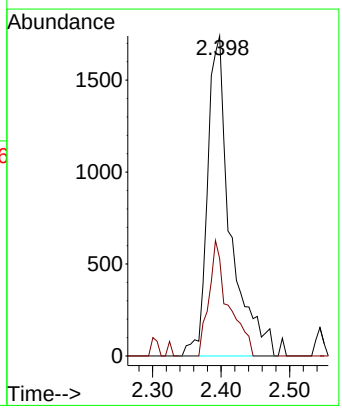


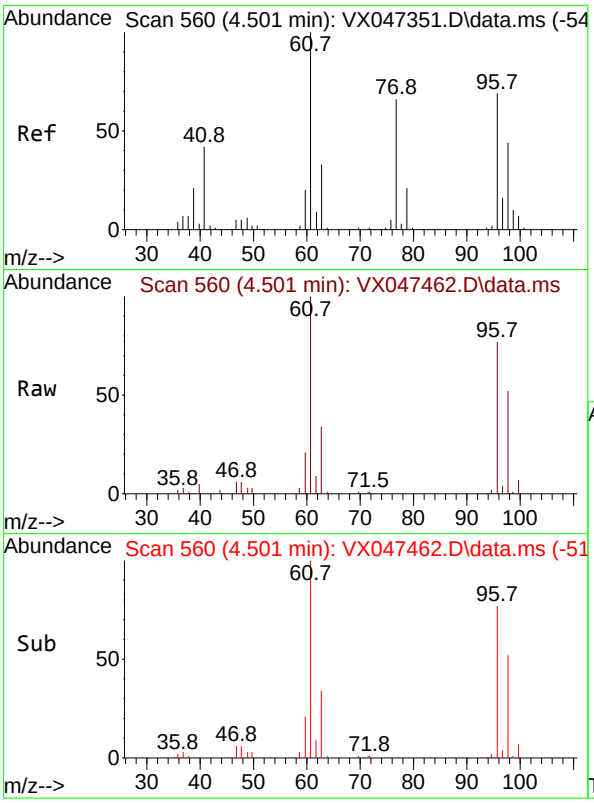


#16
Acetone
Concen: 3.730 ug/l
RT: 2.398 min Scan# 215
Delta R.T. 0.006 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion: 43 Resp: 4044

Ion	Ratio	Lower	Upper
43	100		
58	42.4	24.8	37.2#



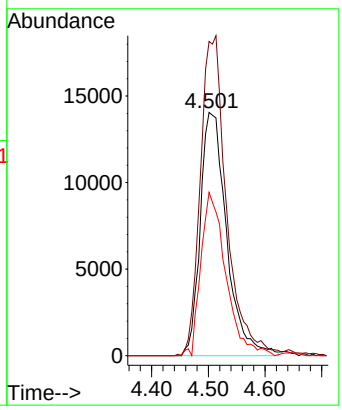


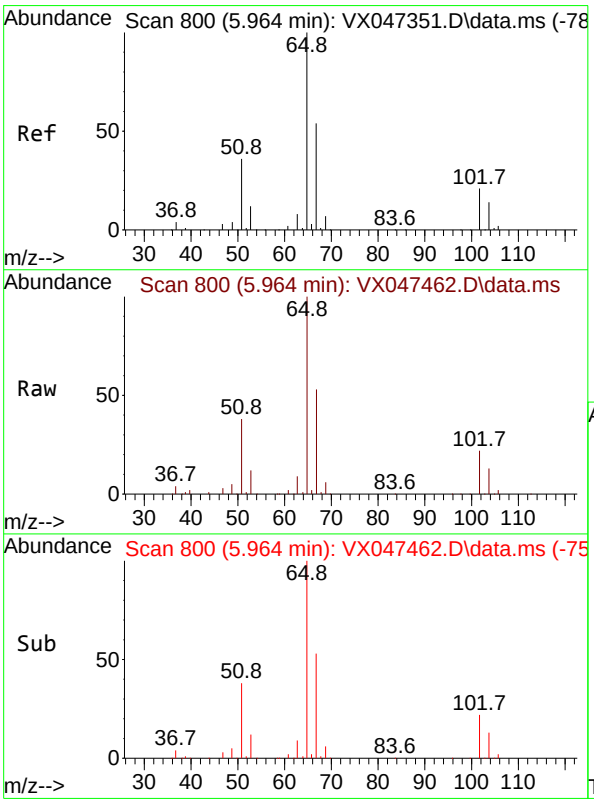
#27
cis-1,2-Dichloroethene
Concen: 14.162 ug/l
RT: 4.501 min Scan# 5
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion: 96 Resp: 45426

Ion	Ratio	Lower	Upper
96	100		
61	130.6	0.0	296.6
98	63.5	0.0	130.4

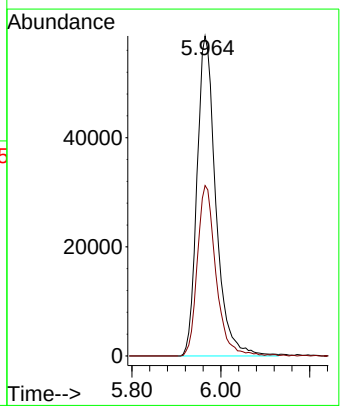


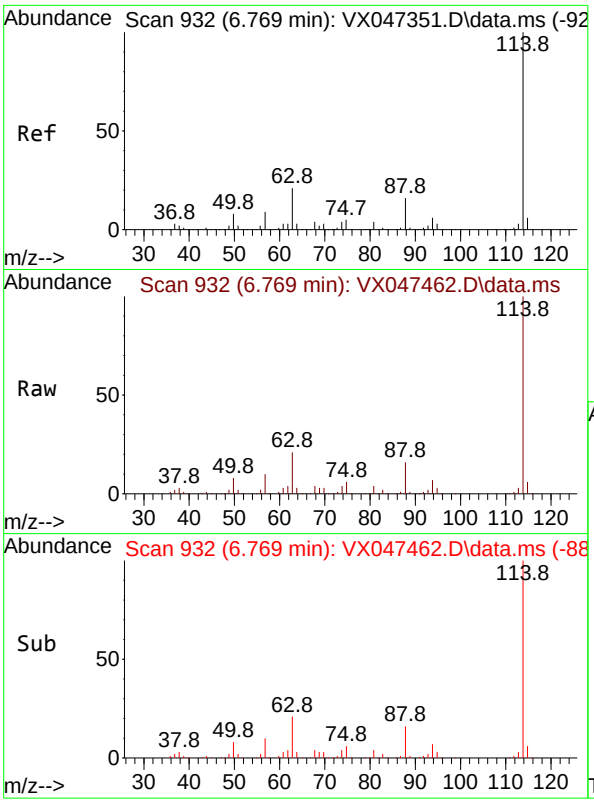


#33
1,2-Dichloroethane-d4
Concen: 59.815 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion: 65 Resp: 172517

Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	106.0



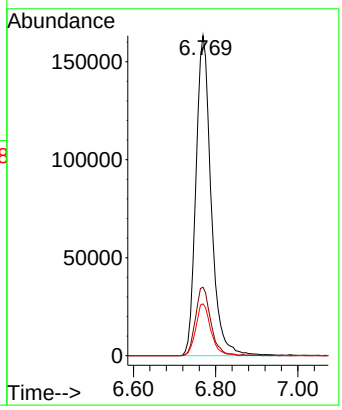


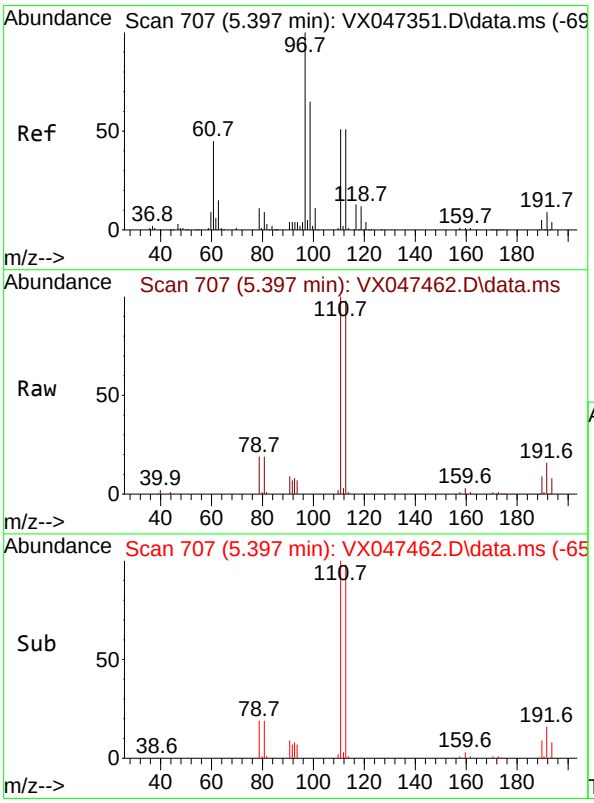
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:114 Resp: 418758

Ion	Ratio	Lower	Upper
114	100		
63	21.4	0.0	42.4
88	16.2	0.0	33.0

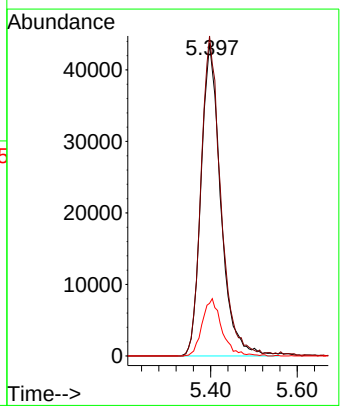


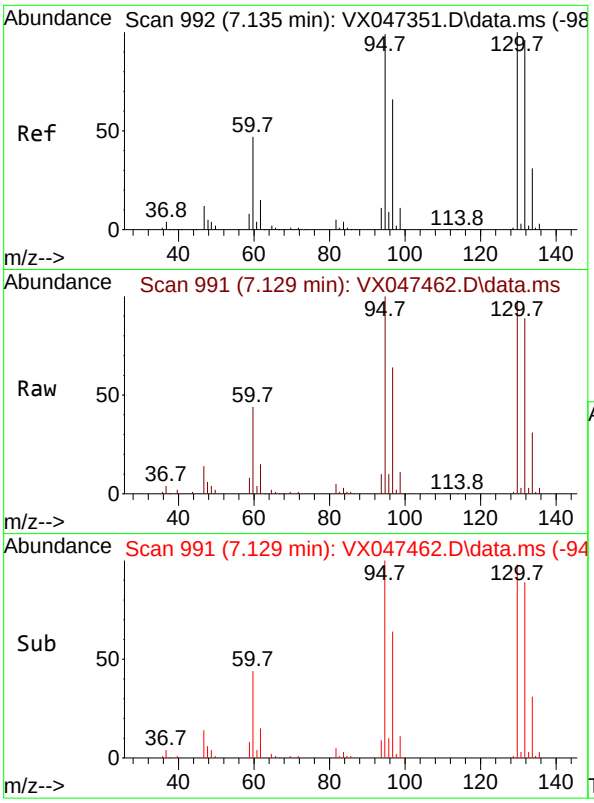


#35
Dibromofluoromethane
Concen: 50.705 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion:113 Resp: 137805

Ion	Ratio	Lower	Upper
113	100		
111	102.4	81.4	122.2
192	18.0	14.1	21.1



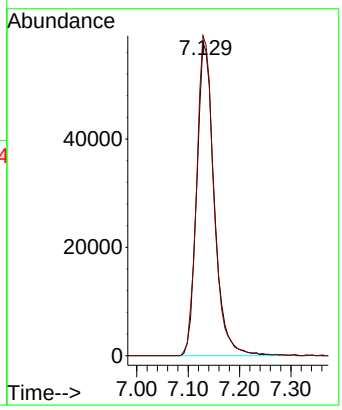


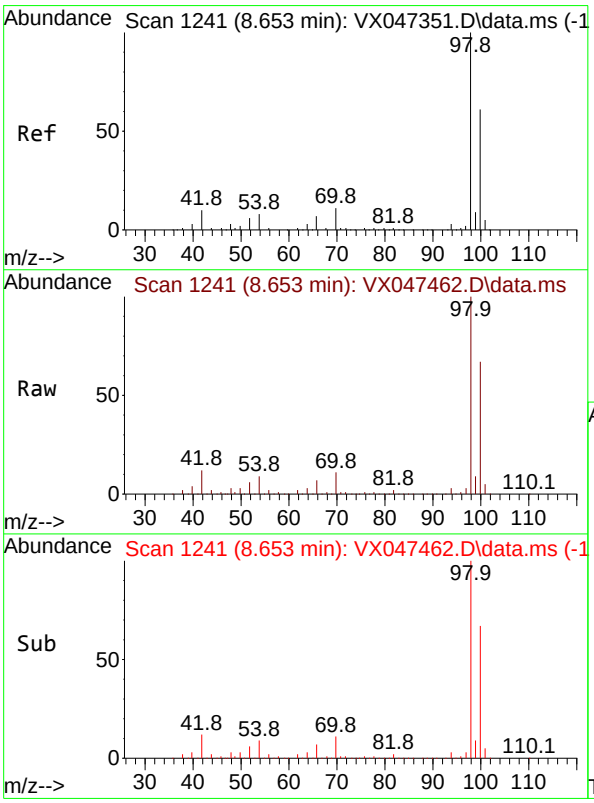
#44
Trichloroethene
Concen: 41.520 ug/l
RT: 7.129 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:130 Resp: 136522

Ion	Ratio	Lower	Upper
130	100		
95	102.1	0.0	198.6

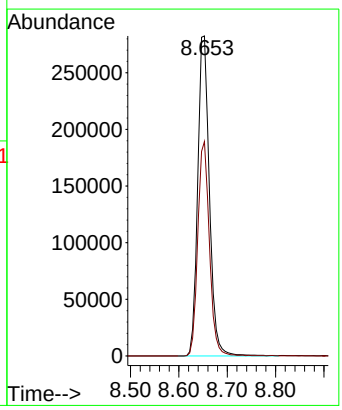


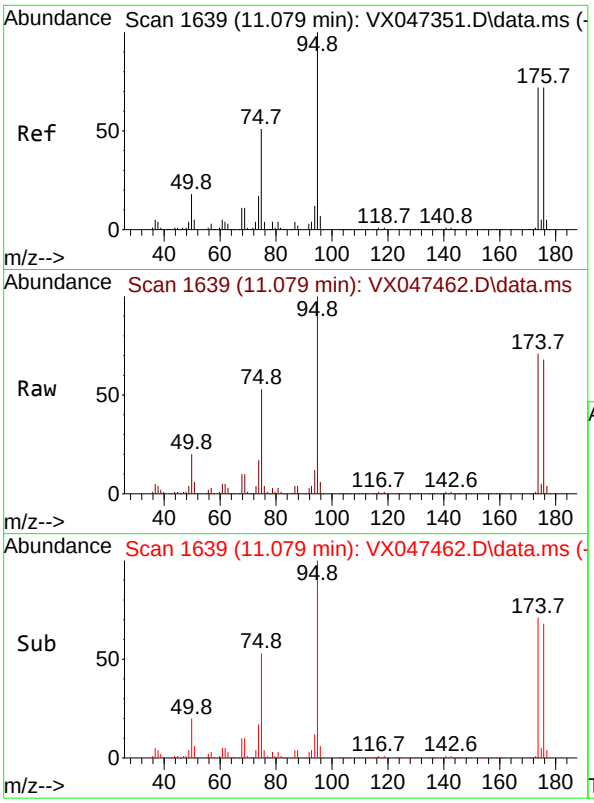


#50
Toluene-d8
Concen: 48.751 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion: 98 Resp: 473569

Ion	Ratio	Lower	Upper
98	100		
100	66.5	53.9	80.9



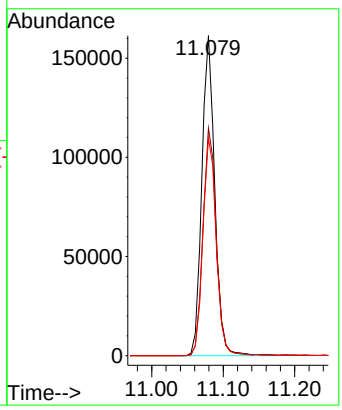


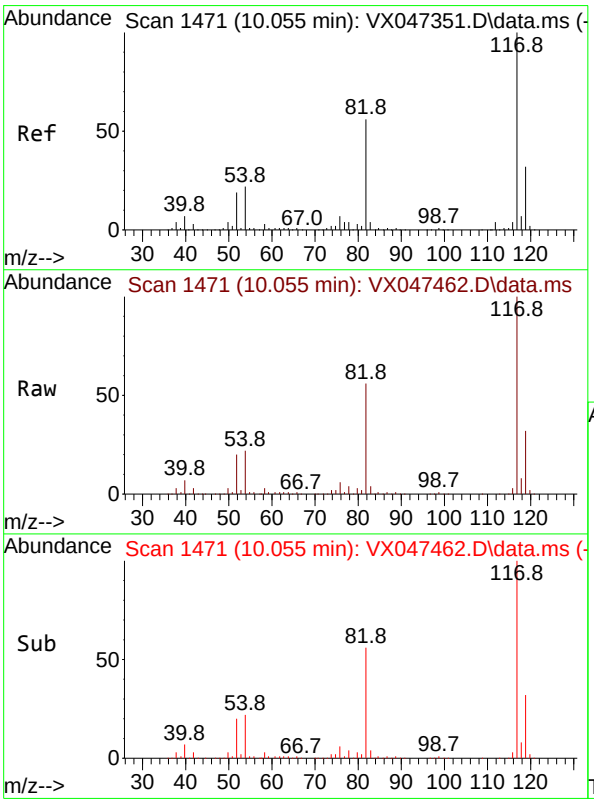
#62
4-Bromofluorobenzene
Concen: 56.522 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion: 95 Resp: 202612

Ion	Ratio	Lower	Upper
95	100		
174	73.5	0.0	148.0
176	70.5	0.0	145.4

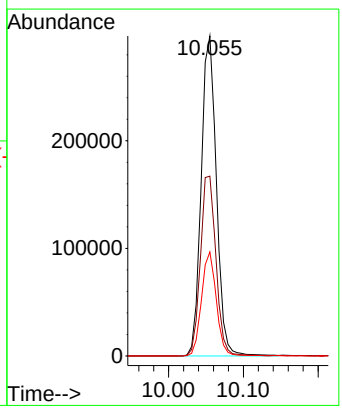


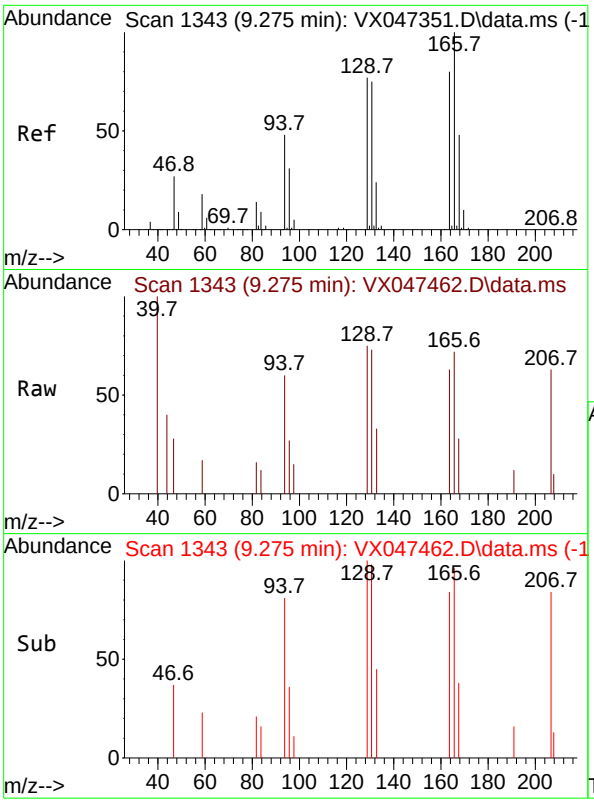


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion:117 Resp: 421107

Ion	Ratio	Lower	Upper
117	100		
82	56.2	45.0	67.4
119	32.5	25.8	38.8



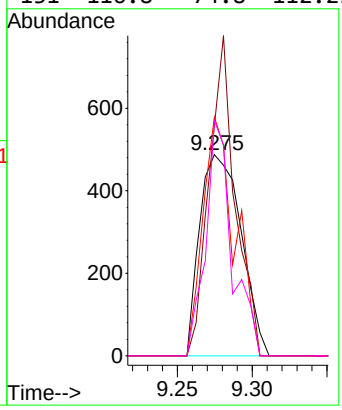


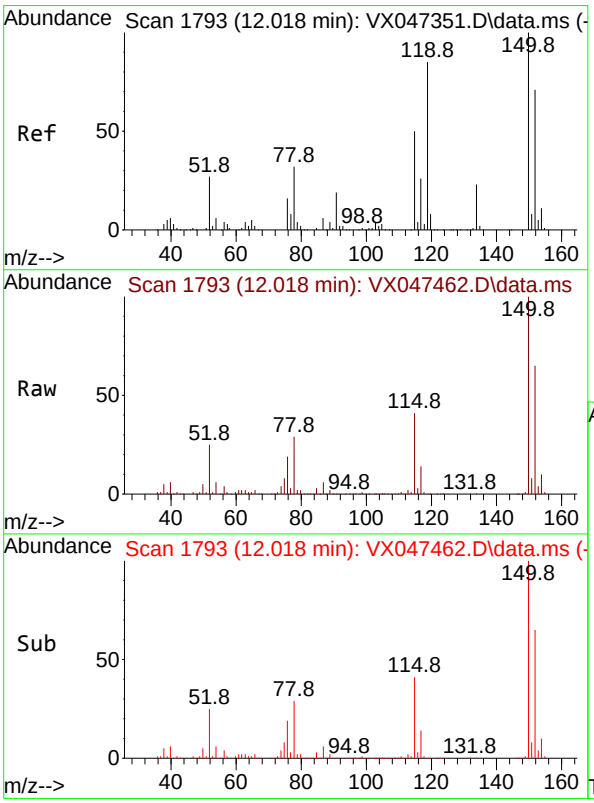
#64
Tetrachloroethene
Concen: 0.308 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:164 Resp: 938

Ion	Ratio	Lower	Upper
164	100		
166	113.9	100.3	150.5
129	118.6	77.7	116.5#
131	116.8	74.8	112.2#

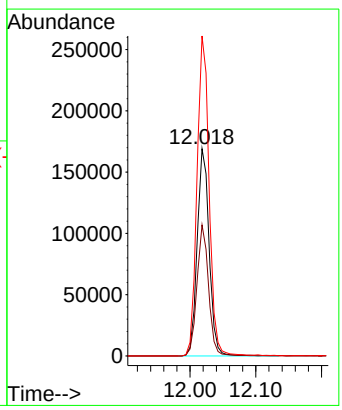


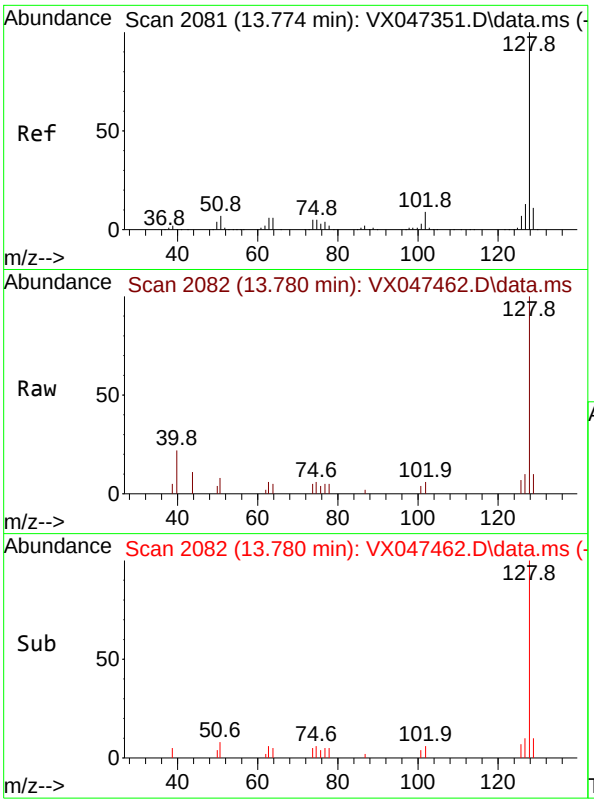


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Tgt Ion:152 Resp: 214194

Ion	Ratio	Lower	Upper
152	100		
115	61.5	44.6	133.8
150	156.5	0.0	349.8



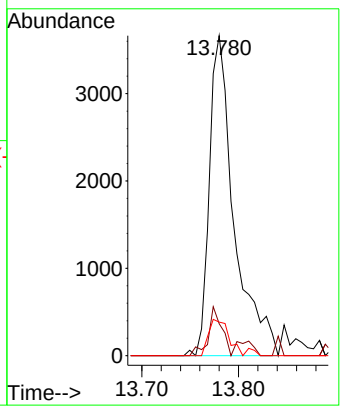


#95
Naphthalene
Concen: 0.458 ug/l
RT: 13.780 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047462.D
Acq: 21 Aug 2025 12:22

Instrument :
MSVOA_X
ClientSampleId :
MW-01-6.5-081325

Tgt Ion:128 Resp: 6519

Ion	Ratio	Lower	Upper
128	100		
127	8.3	10.1	15.1#
129	10.0	8.7	13.1



Raw Data: **VX047460.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	MW-11A-13.5-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-04	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047460.D	10	08/21/25 11:39	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	11.2		2.60	10.0	ug/L
75-35-4	1,1-Dichloroethene	2.30	U	2.30	10.0	ug/L
75-34-3	1,1-Dichloroethane	2.30	U	2.30	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	1500		1.90	10.0	ug/L
71-55-6	1,1,1-Trichloroethane	2.00	U	2.00	10.0	ug/L
71-43-2	Benzene	1.50	U	1.50	10.0	ug/L
107-06-2	1,2-Dichloroethane	2.20	U	2.20	10.0	ug/L
79-01-6	Trichloroethene	1900	E	0.93	10.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.10	U	2.10	10.0	ug/L
127-18-4	Tetrachloroethene	14.1		2.30	10.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.2		70 (74) - 130 (125)	104%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		70 (75) - 130 (124)	96%	SPK: 50
2037-26-5	Toluene-d8	48.1		70 (86) - 130 (113)	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.3		70 (77) - 130 (121)	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	209000	5.562			
540-36-3	1,4-Difluorobenzene	413000	6.769			
3114-55-4	Chlorobenzene-d5	400000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	194000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047460.D
Acq On : 21 Aug 2025 11:39
Operator : JC/MD
Sample : Q2869-04 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Quant Time: Aug 22 03:42:19 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

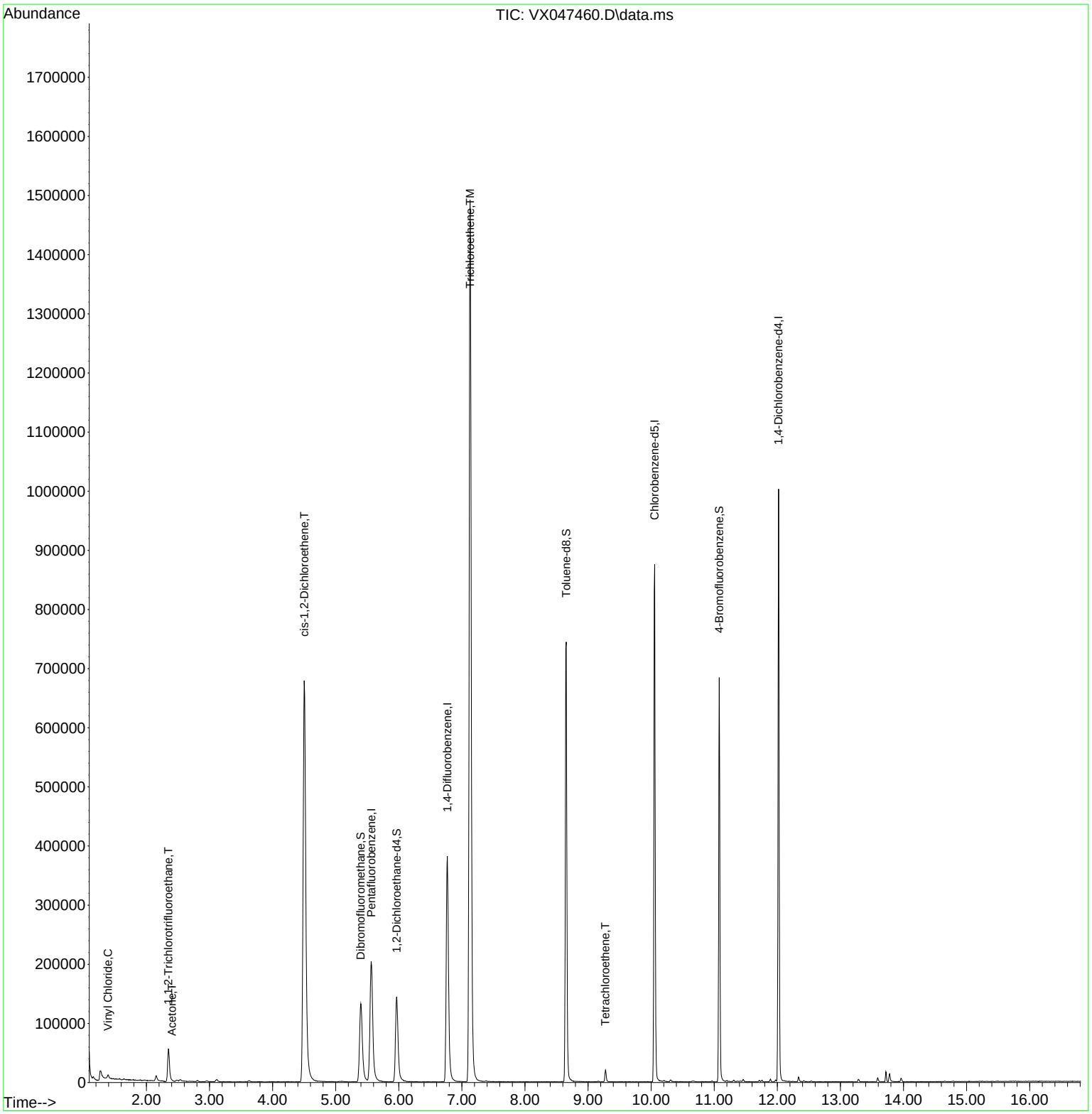
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	209250	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	413436	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	399927	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	194035	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	152914	52.215	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.440%			
35) Dibromofluoromethane	5.397	113	128659	47.949	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 95.900%			
50) Toluene-d8	8.653	98	461732	48.144	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 96.280%			
62) 4-Bromofluorobenzene	11.079	95	188755	53.334	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.660%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.392	62	3369	1.119	ug/l #	66
9) 1,1,2-Trichlorotrifluo...	2.349	101	23528	9.104	ug/l	98
16) Acetone	2.404	43	2290	2.080	ug/l #	86
27) cis-1,2-Dichloroethene	4.501	96	476083	146.176	ug/l	90
44) Trichloroethene	7.129	130	609435	187.731	ug/l	100
64) Tetrachloroethene	9.275	164	4063	1.405	ug/l #	84

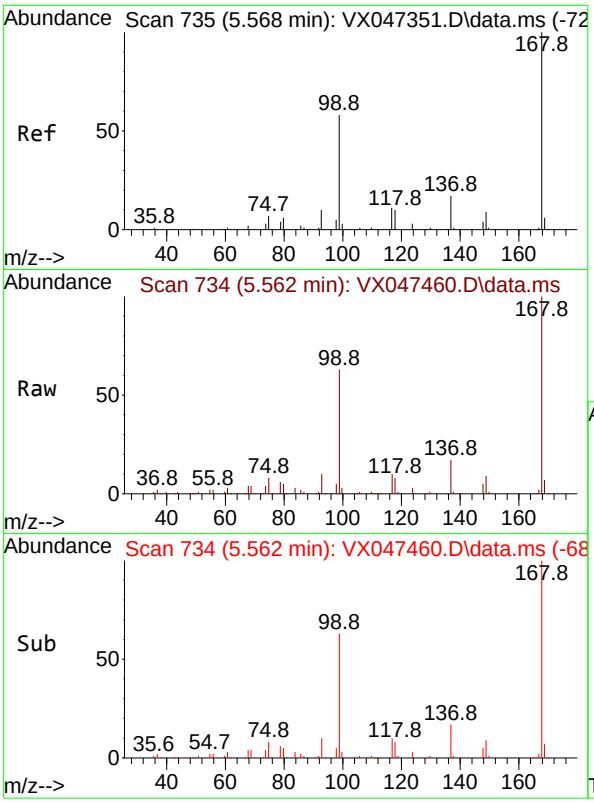
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047460.D
Acq On : 21 Aug 2025 11:39
Operator : JC/MD
Sample : Q2869-04 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Quant Time: Aug 22 03:42:19 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



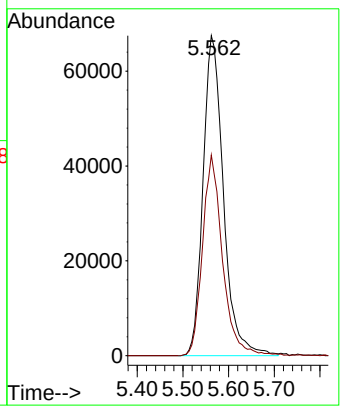


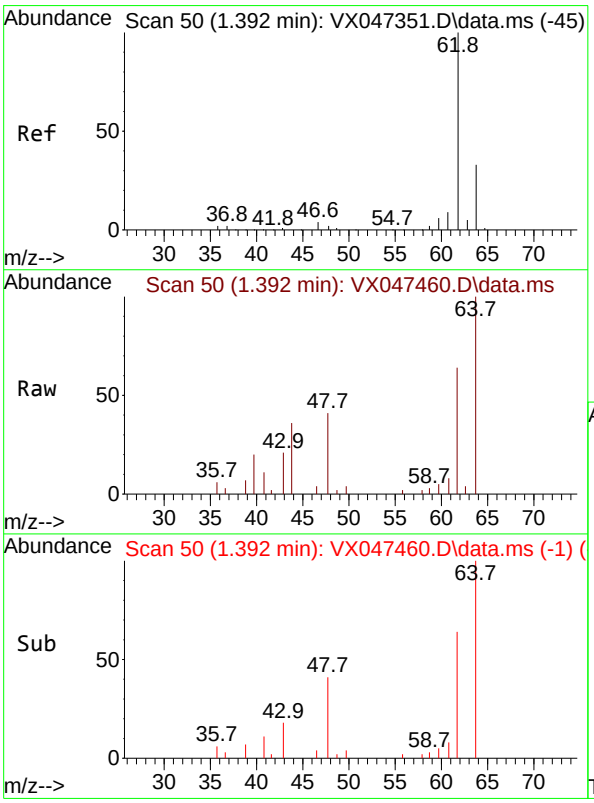
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion:168 Resp: 209250

Ion	Ratio	Lower	Upper
168	100		
99	62.7	47.9	71.9

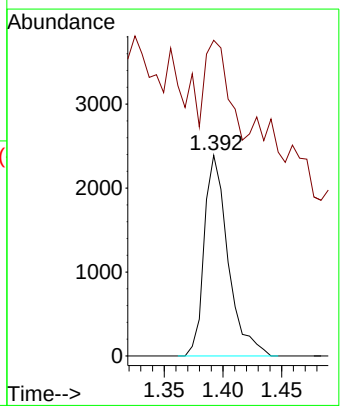


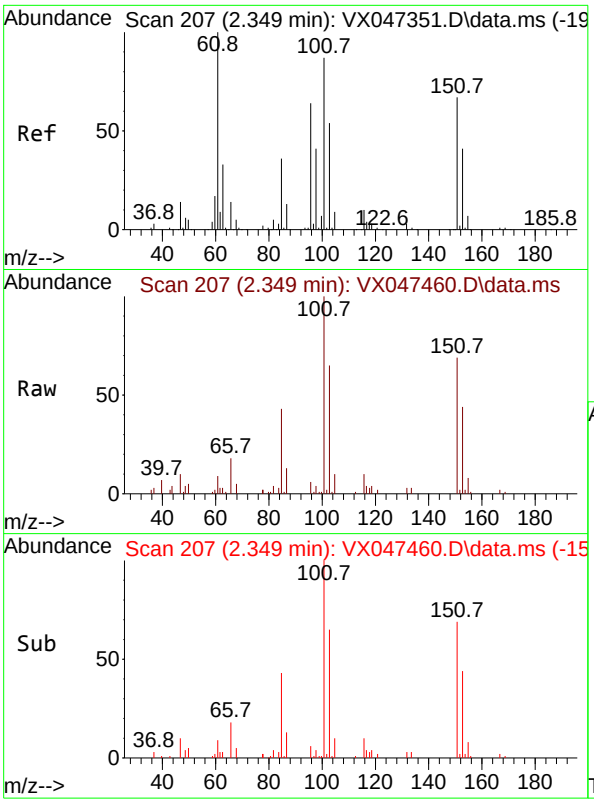


#4
Vinyl Chloride
Concen: 1.119 ug/l
RT: 1.392 min Scan# 50
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion: 62 Resp: 3369

Ion	Ratio	Lower	Upper
62	100		
64	52.3	26.5	39.7#



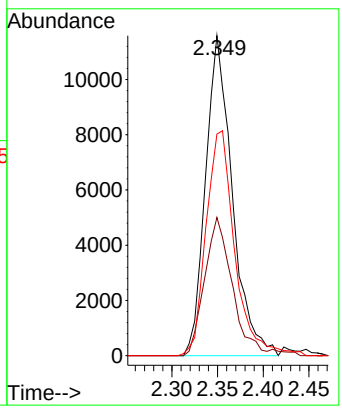


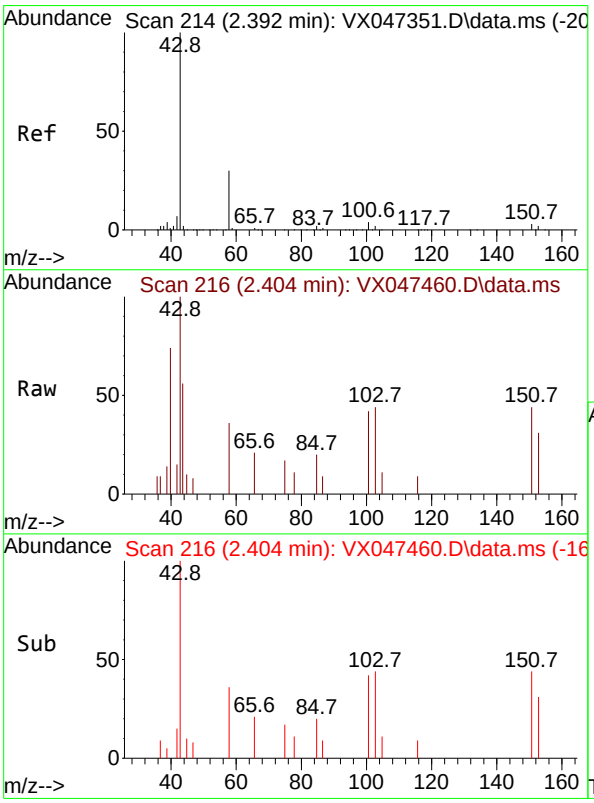
#9
1,1,2-Trichlorotrifluoroethane
Concen: 9.104 ug/l
RT: 2.349 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion:101 Resp: 23528

Ion	Ratio	Lower	Upper
101	100		
85	44.3	34.3	51.5
151	75.6	59.2	88.8

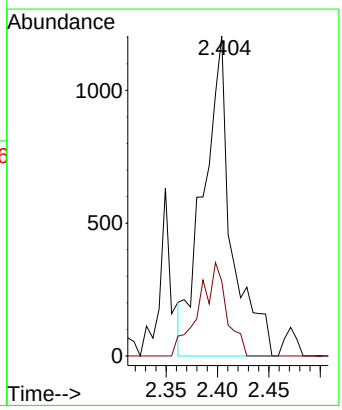


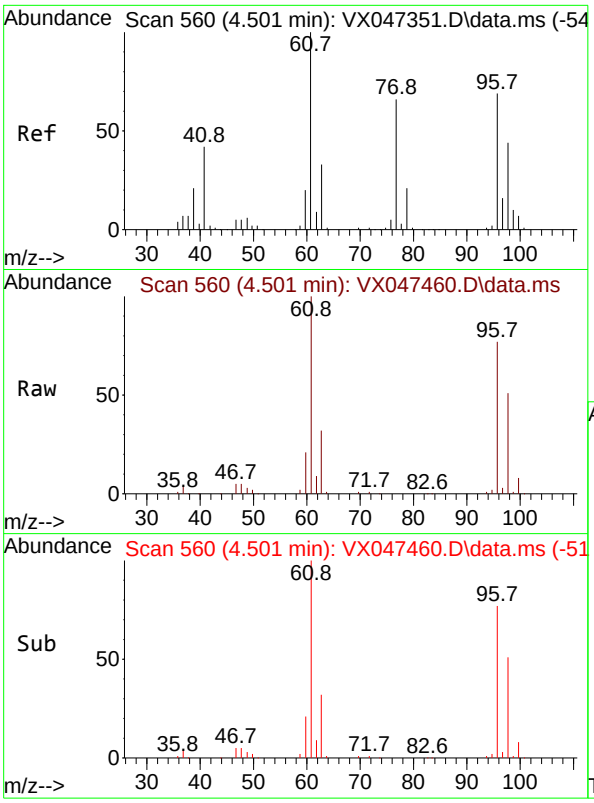


#16
Acetone
Concen: 2.080 ug/l
RT: 2.404 min Scan# 216
Delta R.T. 0.012 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion: 43 Resp: 2290

Ion	Ratio	Lower	Upper
43	100		
58	23.4	24.8	37.2#



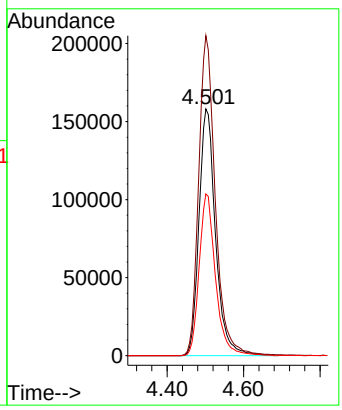


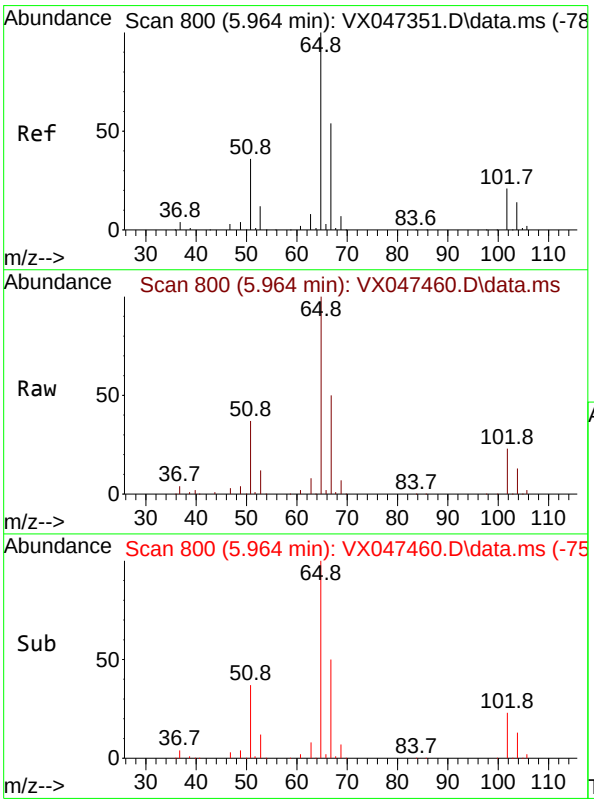
#27
cis-1,2-Dichloroethene
Concen: 146.176 ug/l
RT: 4.501 min Scan# 5
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion: 96 Resp: 476083

Ion	Ratio	Lower	Upper
96	100		
61	130.2	0.0	296.6
98	64.6	0.0	130.4

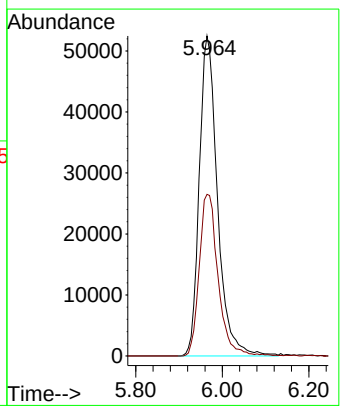


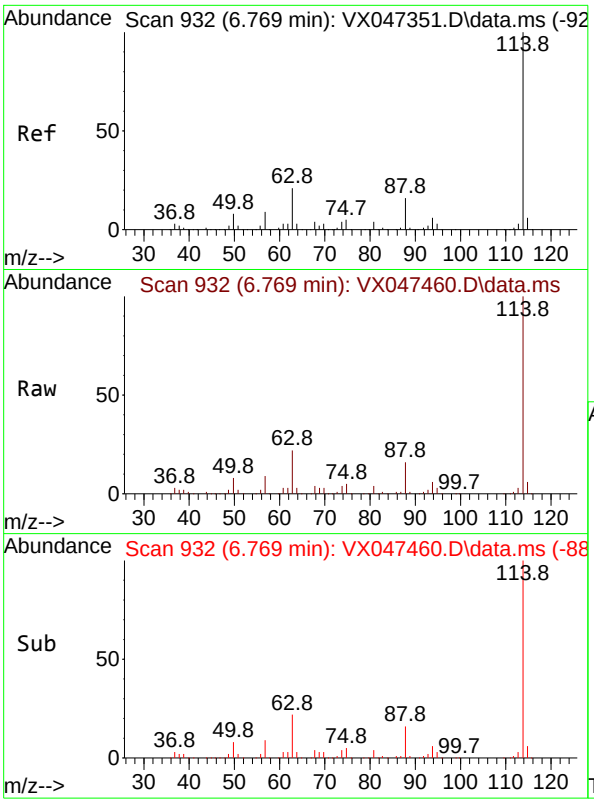


#33
1,2-Dichloroethane-d4
Concen: 52.215 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion: 65 Resp: 152914

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	106.0



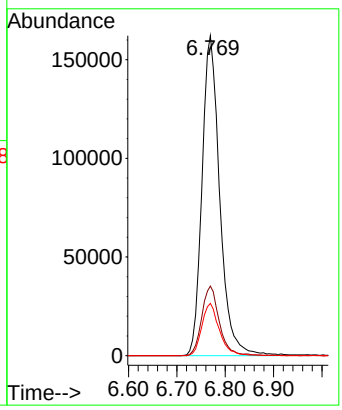


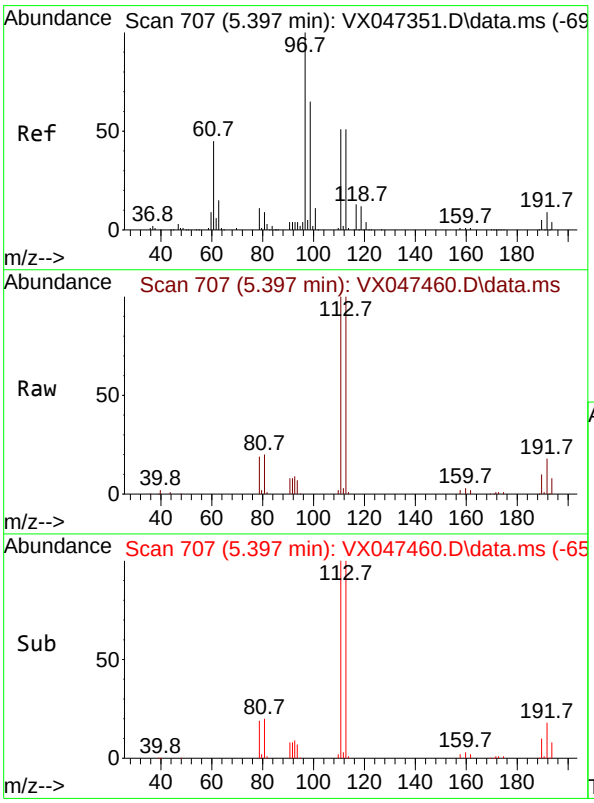
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion:114 Resp: 413436

Ion	Ratio	Lower	Upper
114	100		
63	21.7	0.0	42.4
88	16.4	0.0	33.0

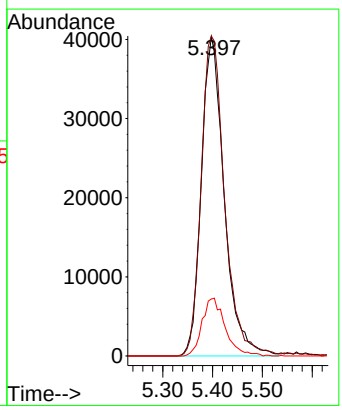


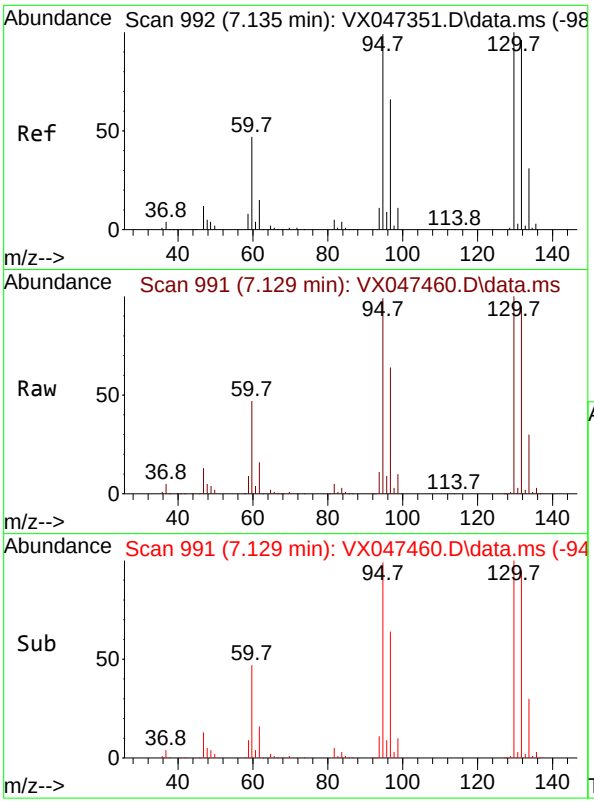


#35
Dibromofluoromethane
Concen: 47.949 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion:113 Resp: 128659

Ion	Ratio	Lower	Upper
113	100		
111	102.5	81.4	122.2
192	18.3	14.1	21.1



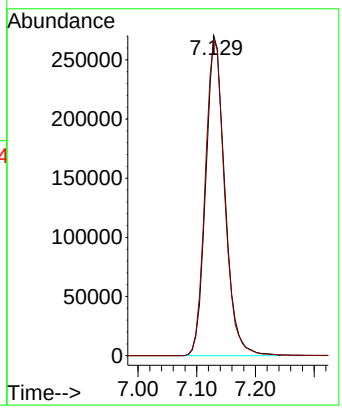


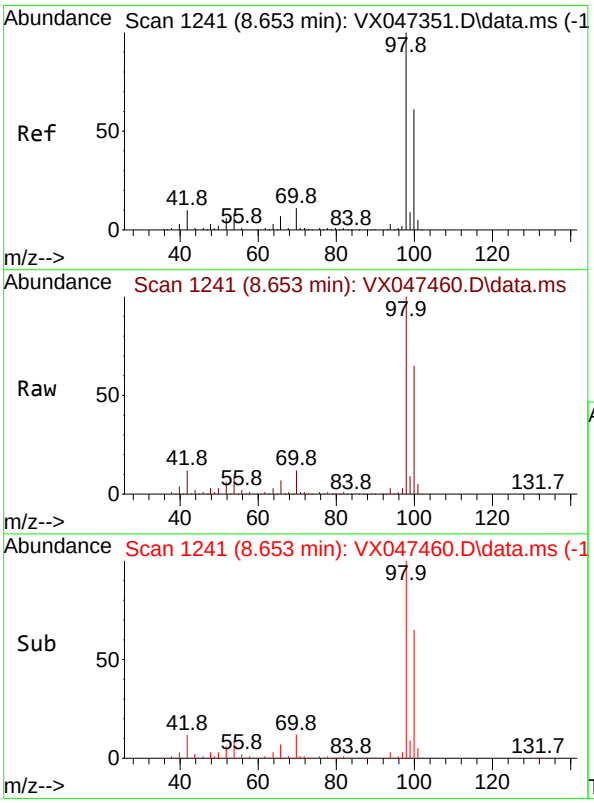
#44
Trichloroethene
Concen: 187.731 ug/l
RT: 7.129 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion:130 Resp: 609435

Ion	Ratio	Lower	Upper
130	100		
95	98.8	0.0	198.6

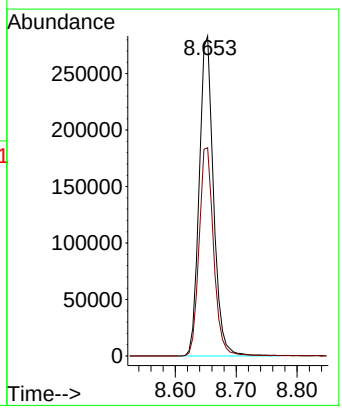


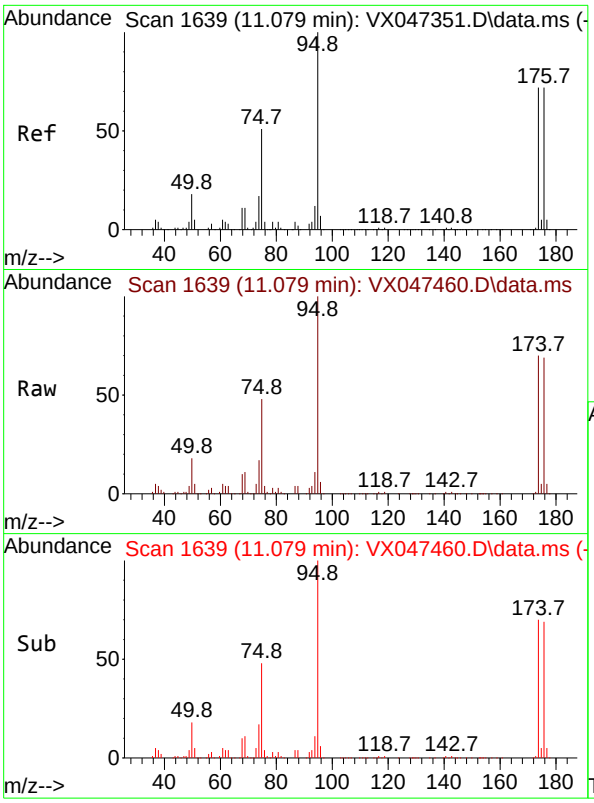


#50
Toluene-d8
Concen: 48.144 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion: 98 Resp: 461732

Ion	Ratio	Lower	Upper
98	100		
100	66.2	53.9	80.9



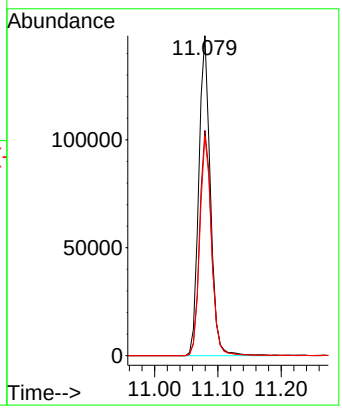


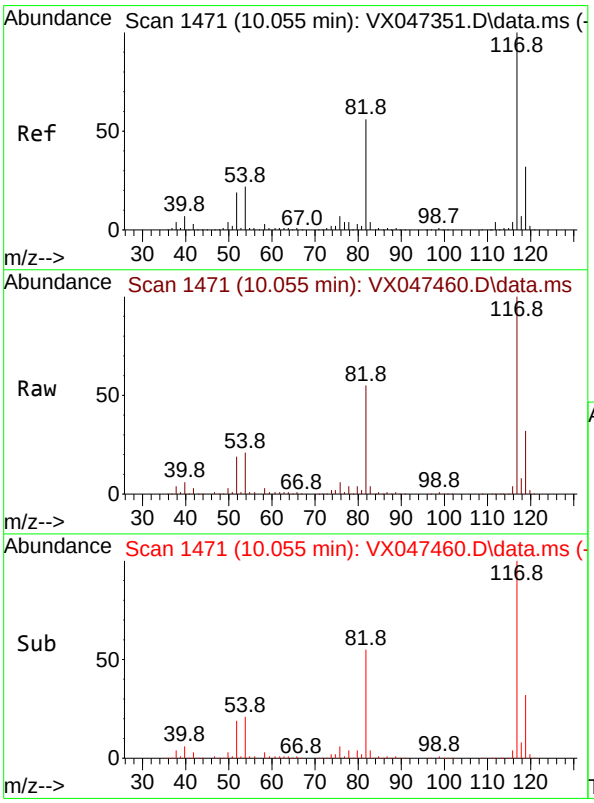
#62
4-Bromofluorobenzene
Concen: 53.334 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion: 95 Resp: 188755

Ion	Ratio	Lower	Upper
95	100		
174	72.0	0.0	148.0
176	69.1	0.0	145.4

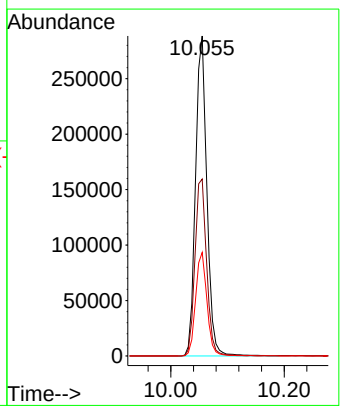


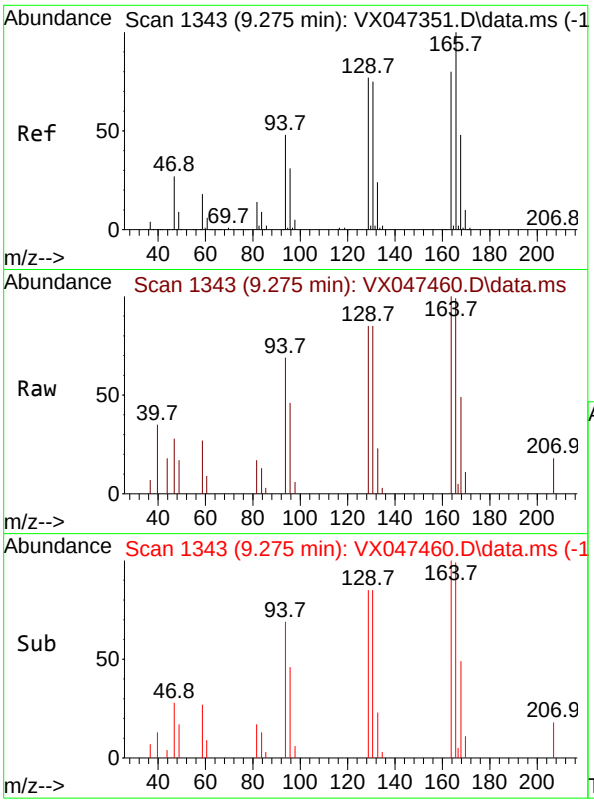


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion:117 Resp: 399927

Ion	Ratio	Lower	Upper
117	100		
82	55.3	45.0	67.4
119	32.3	25.8	38.8



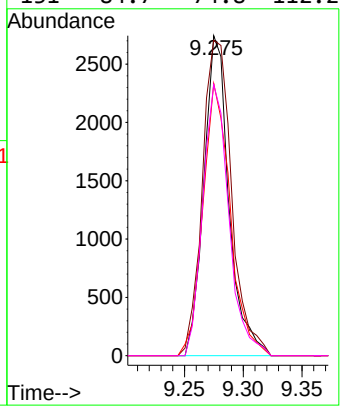


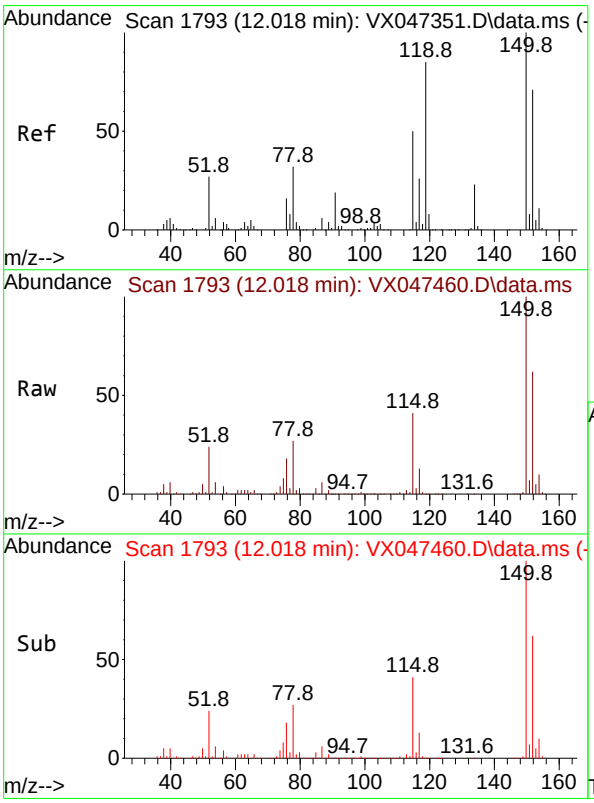
#64
Tetrachloroethene
Concen: 1.405 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325

Tgt Ion:164 Resp: 4063

Ion	Ratio	Lower	Upper
164	100		
166	98.5	100.3	150.5#
129	85.1	77.7	116.5
131	84.7	74.8	112.2

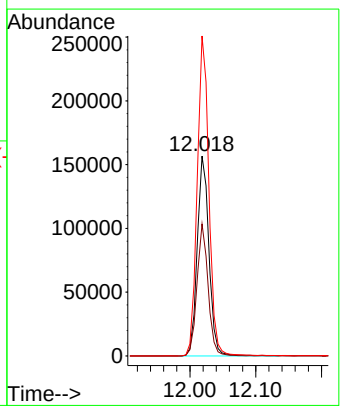




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047460.D
Acq: 21 Aug 2025 11:39

Tgt Ion:152 Resp: 194035

Ion	Ratio	Lower	Upper
152	100		
115	62.7	44.6	133.8
150	159.8	0.0	349.8



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	MW-11A-13.5-081325DL	SDG No.:	Q2869
Lab Sample ID:	Q2869-04DL	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047468.D	20	08/21/25 14:28	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	5.20	UD	5.20	20.0	ug/L
75-35-4	1,1-Dichloroethene	4.60	UD	4.60	20.0	ug/L
75-34-3	1,1-Dichloroethane	4.60	UD	4.60	20.0	ug/L
156-59-2	cis-1,2-Dichloroethene	1500	D	3.80	20.0	ug/L
71-55-6	1,1,1-Trichloroethane	4.00	UD	4.00	20.0	ug/L
71-43-2	Benzene	3.00	UD	3.00	20.0	ug/L
107-06-2	1,2-Dichloroethane	4.40	UD	4.40	20.0	ug/L
79-01-6	Trichloroethene	1900	D	1.90	20.0	ug/L
79-00-5	1,1,2-Trichloroethane	4.20	UD	4.20	20.0	ug/L
127-18-4	Tetrachloroethene	13.2	JD	4.60	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.2		70 (74) - 130 (125)	106%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		70 (75) - 130 (124)	97%	SPK: 50
2037-26-5	Toluene-d8	48.4		70 (86) - 130 (113)	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.1		70 (77) - 130 (121)	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	195000	5.562			
540-36-3	1,4-Difluorobenzene	387000	6.769			
3114-55-4	Chlorobenzene-d5	376000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	186000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047468.D
Acq On : 21 Aug 2025 14:28
Operator : JC/MD
Sample : Q2869-04DL 20X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Quant Time: Aug 22 03:47:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

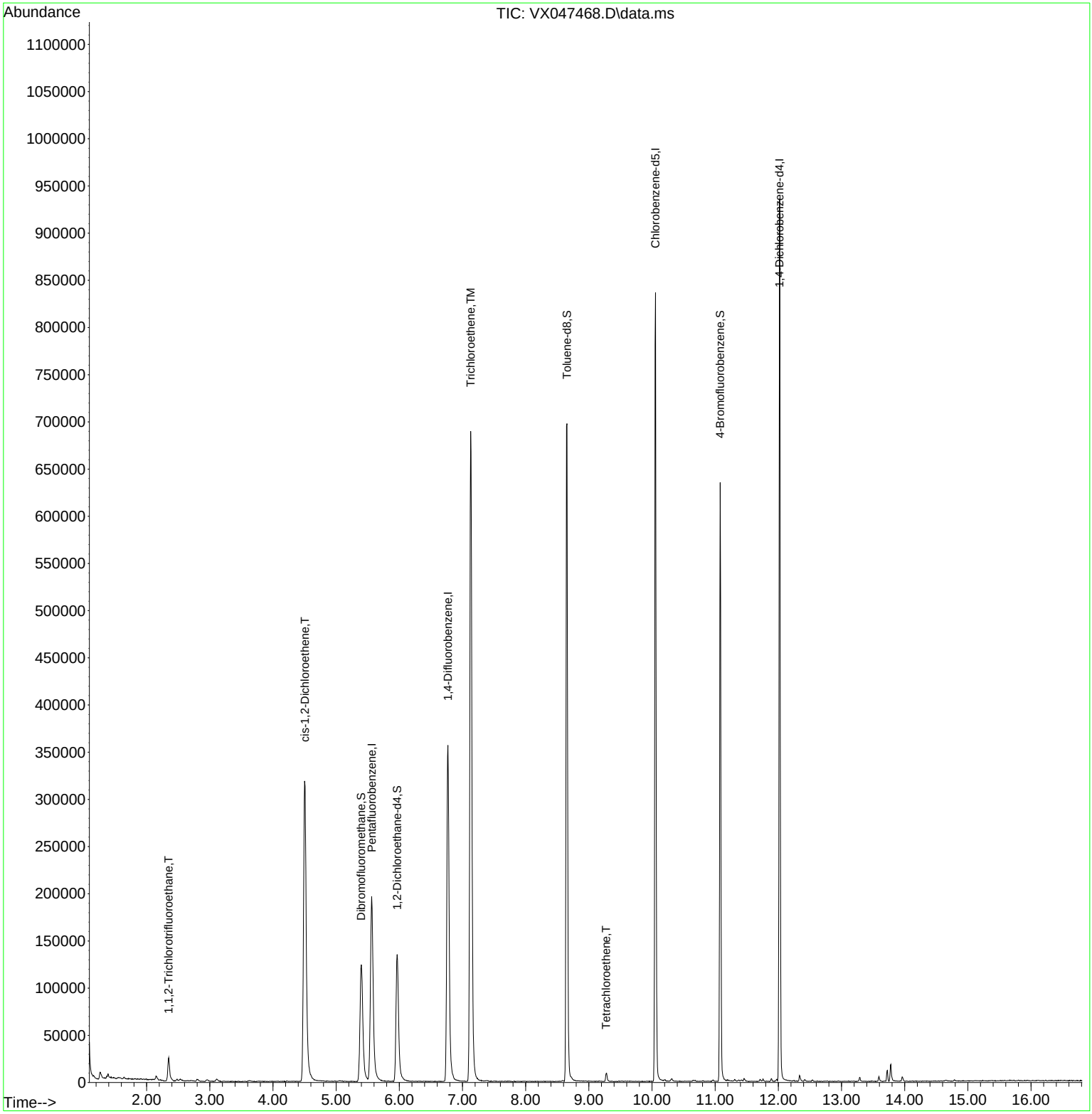
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	195089	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	386665	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	376333	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	185836	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	145202	53.181	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.360%			
35) Dibromofluoromethane	5.397	113	121502	48.417	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 96.840%			
50) Toluene-d8	8.653	98	434529	48.445	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 96.880%			
62) 4-Bromofluorobenzene	11.079	95	175623	53.059	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.120%			
Target Compounds						Qvalue
9) 1,1,2-Trichlorotrifluo...	2.349	101	10607	4.402	ug/l	96
27) cis-1,2-Dichloroethene	4.507	96	227423	74.896	ug/l	89
44) Trichloroethene	7.129	130	286321	94.305	ug/l	99
64) Tetrachloroethene	9.275	164	1793	0.659	ug/l	95

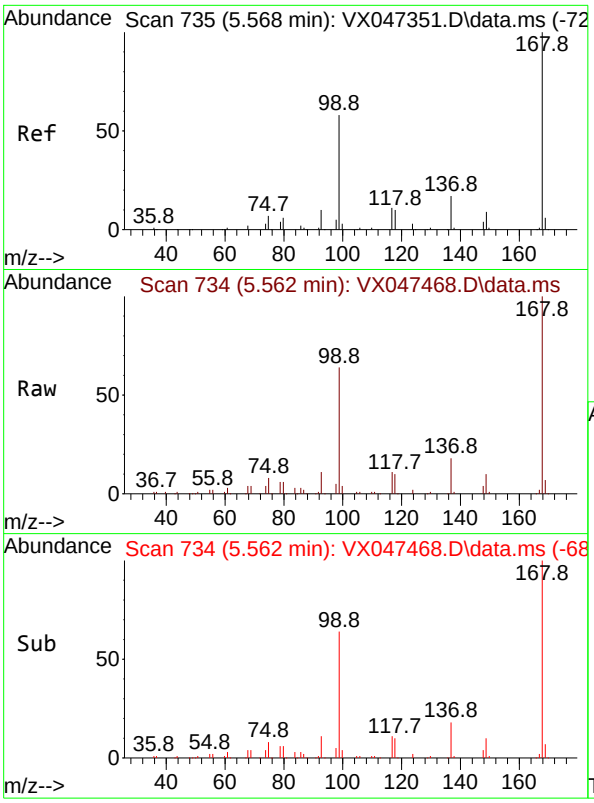
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047468.D
Acq On : 21 Aug 2025 14:28
Operator : JC/MD
Sample : Q2869-04DL 20X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Quant Time: Aug 22 03:47:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



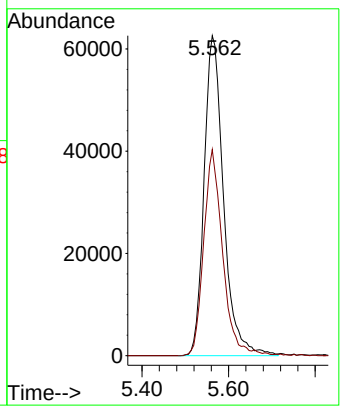


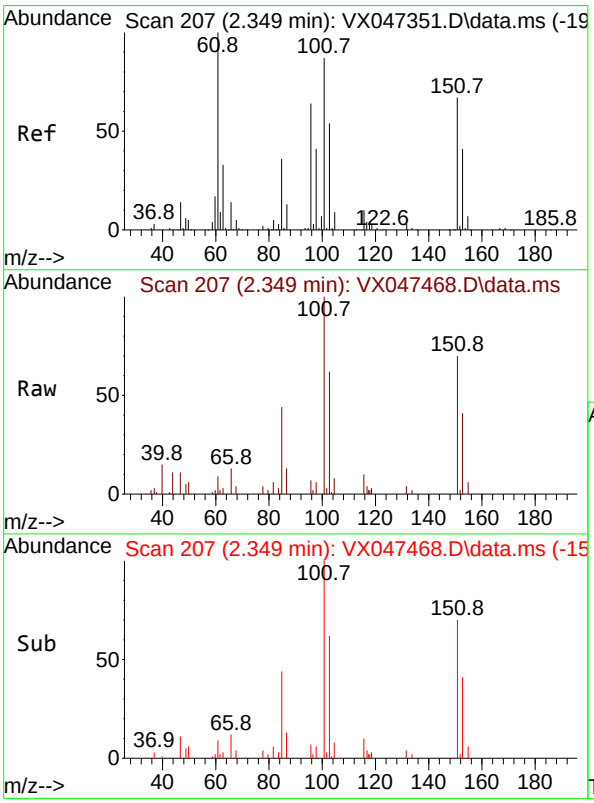
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion:168 Resp: 195089

Ion	Ratio	Lower	Upper
168	100		
99	64.4	47.9	71.9

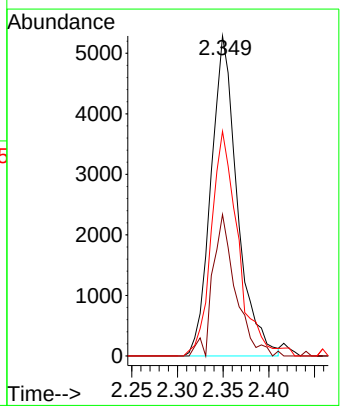


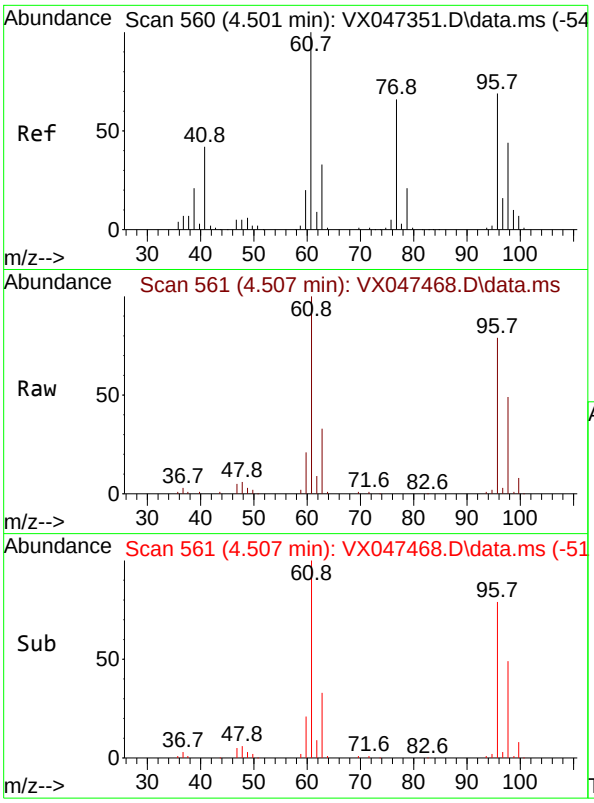


#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.402 ug/l
RT: 2.349 min Scan# 207
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion:101 Resp: 10607

Ion	Ratio	Lower	Upper
101	100		
85	38.5	34.3	51.5
151	71.8	59.2	88.8



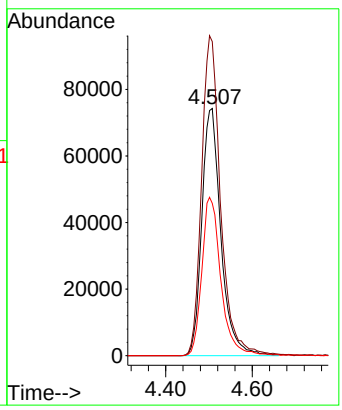


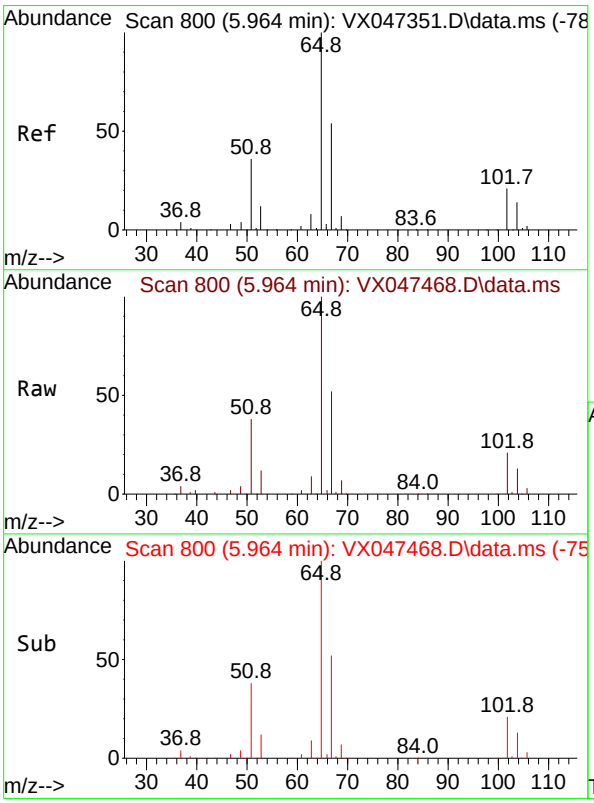
#27
cis-1,2-Dichloroethene
Concen: 74.896 ug/l
RT: 4.507 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion: 96 Resp: 227423

Ion	Ratio	Lower	Upper
96	100		
61	129.5	0.0	296.6
98	64.0	0.0	130.4

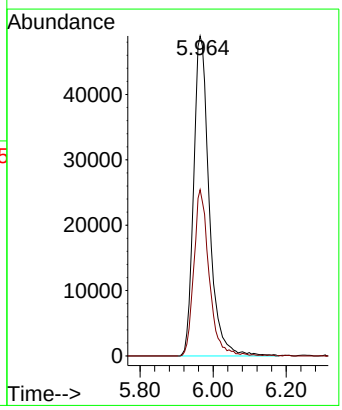


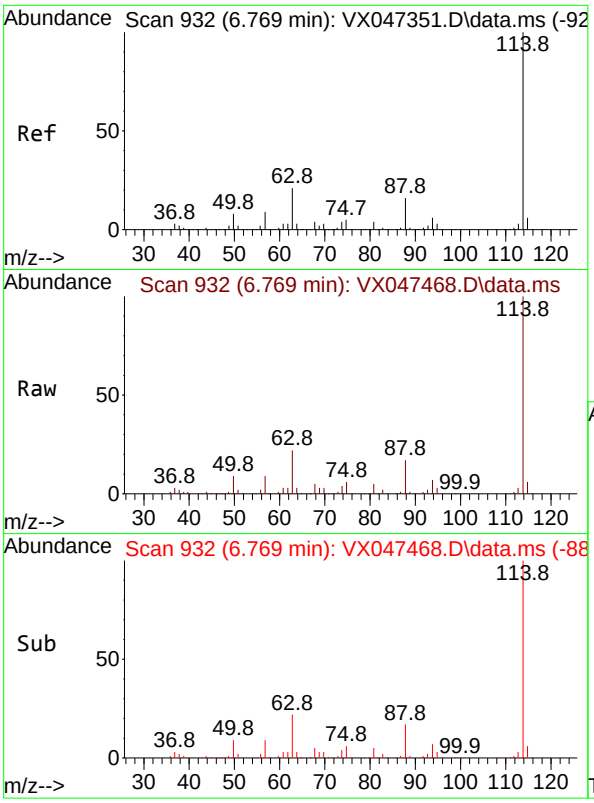


#33
1,2-Dichloroethane-d4
Concen: 53.181 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion: 65 Resp: 145202

Ion	Ratio	Lower	Upper
65	100		
67	50.6	0.0	106.0



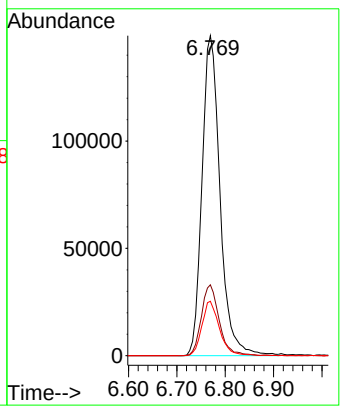


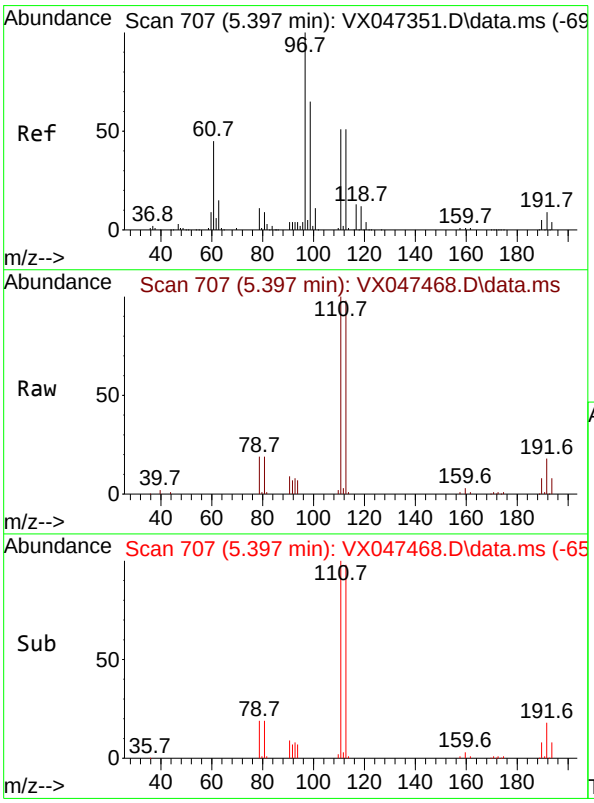
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion:114 Resp: 386665

Ion	Ratio	Lower	Upper
114	100		
63	22.1	0.0	42.4
88	17.0	0.0	33.0

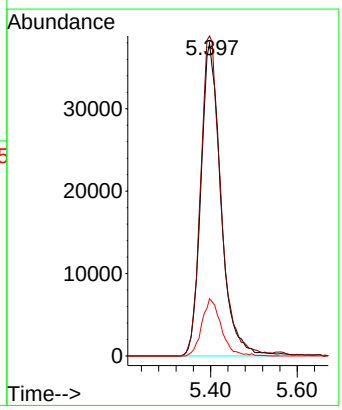


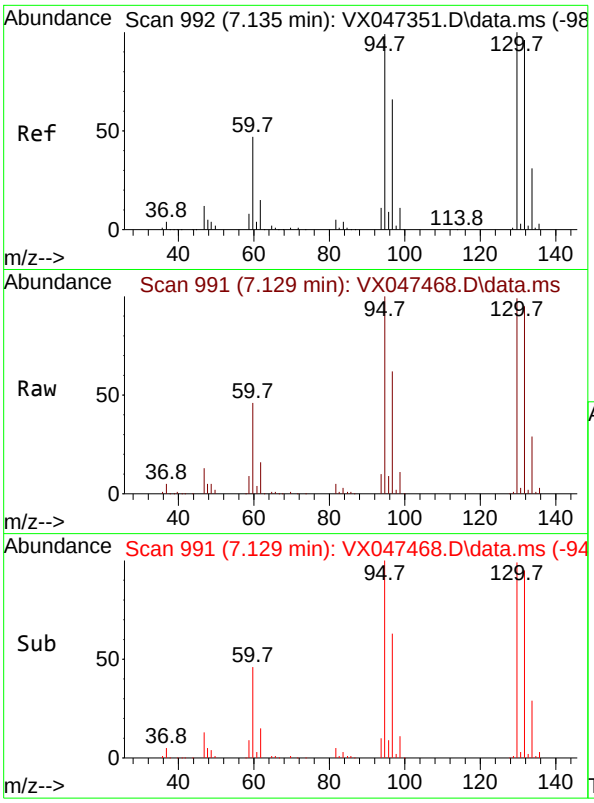


#35
Dibromofluoromethane
Concen: 48.417 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion:113 Resp: 121502

Ion	Ratio	Lower	Upper
113	100		
111	103.5	81.4	122.2
192	17.8	14.1	21.1



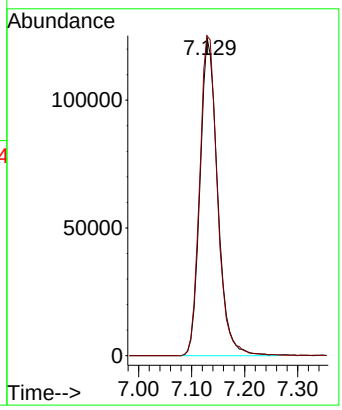


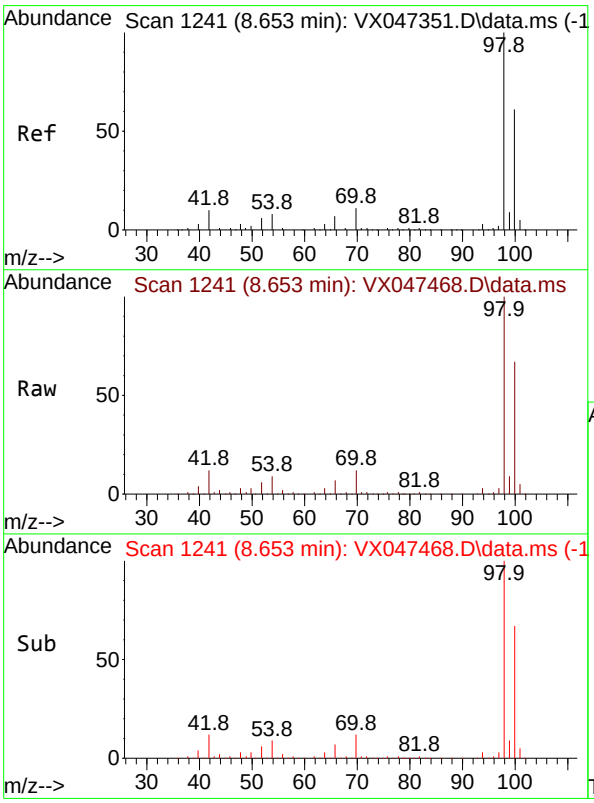
#44
Trichloroethene
Concen: 94.305 ug/l
RT: 7.129 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion:130 Resp: 286321

Ion	Ratio	Lower	Upper
130	100		
95	100.7	0.0	198.6

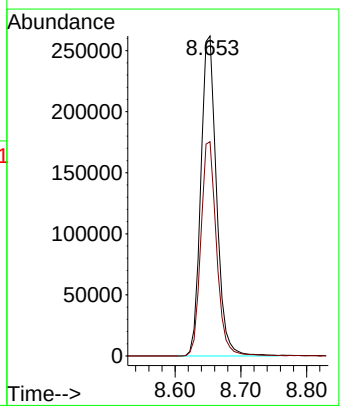


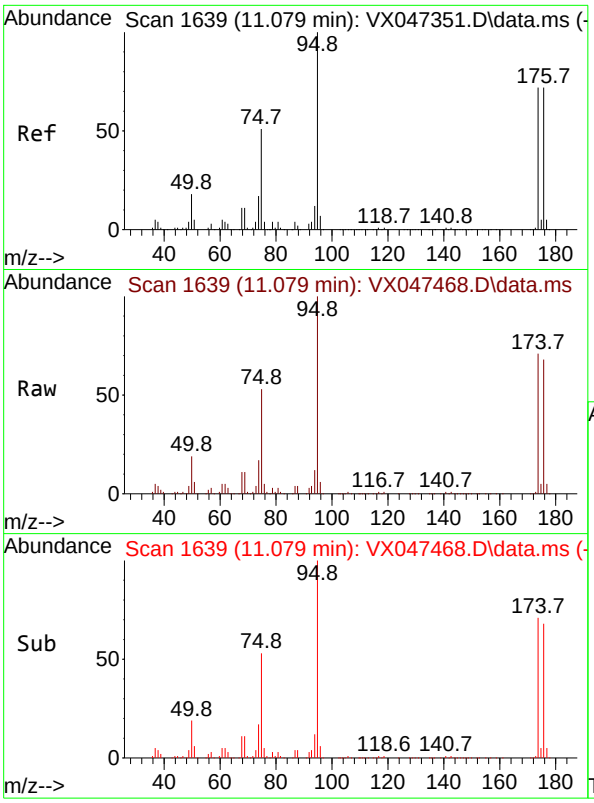


#50
Toluene-d8
Concen: 48.445 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion: 98 Resp: 434529

Ion	Ratio	Lower	Upper
98	100		
100	67.0	53.9	80.9



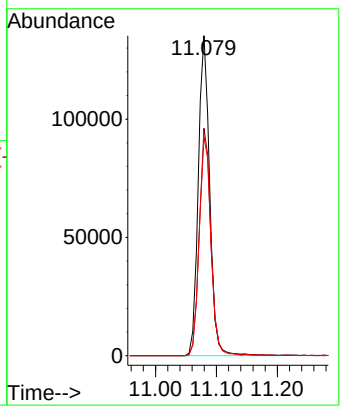


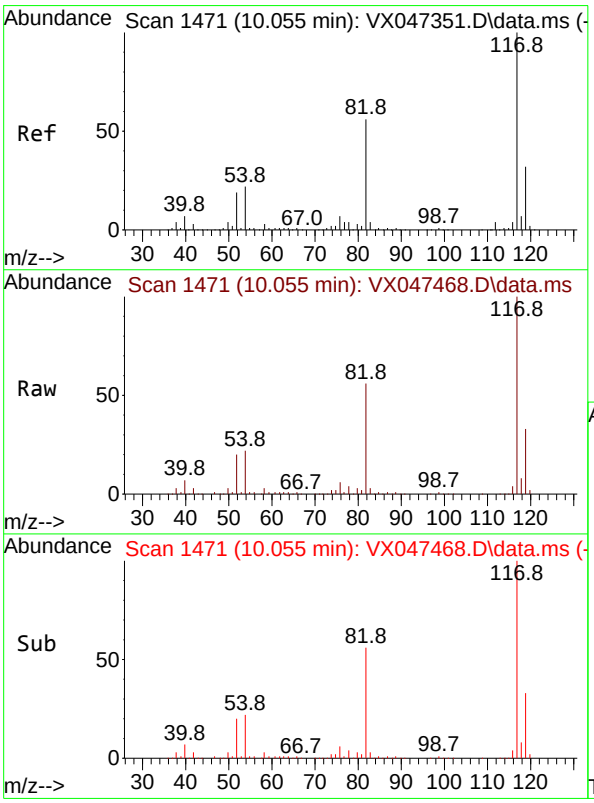
#62
4-Bromofluorobenzene
Concen: 53.059 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion: 95 Resp: 175623

Ion	Ratio	Lower	Upper
95	100		
174	72.3	0.0	148.0
176	70.7	0.0	145.4

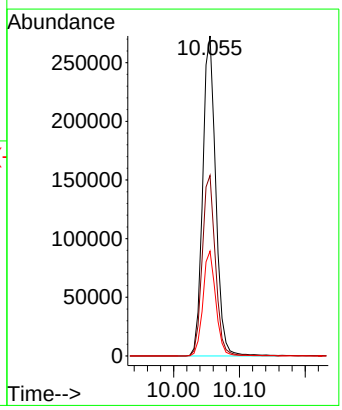


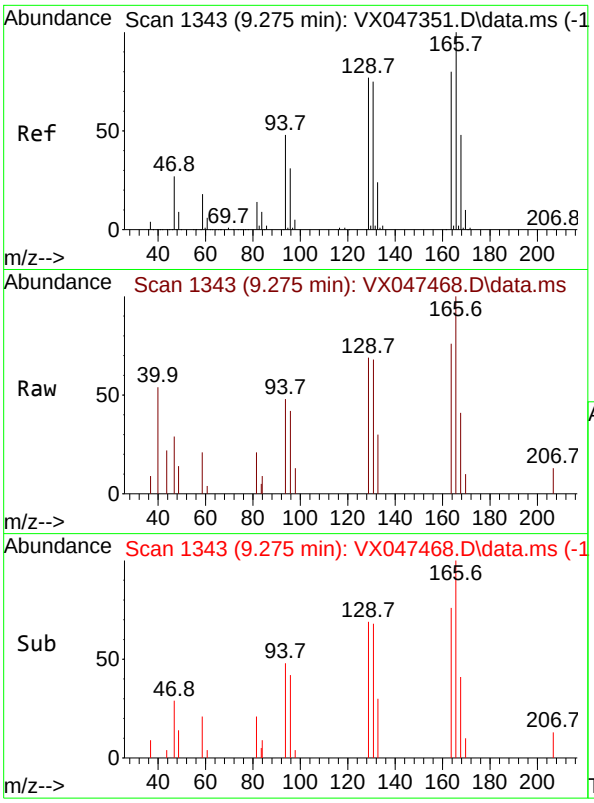


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion:117 Resp: 376333

Ion	Ratio	Lower	Upper
117	100		
82	56.4	45.0	67.4
119	32.7	25.8	38.8



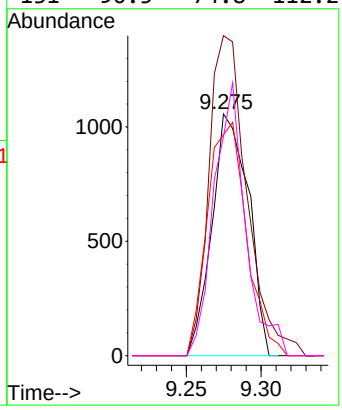


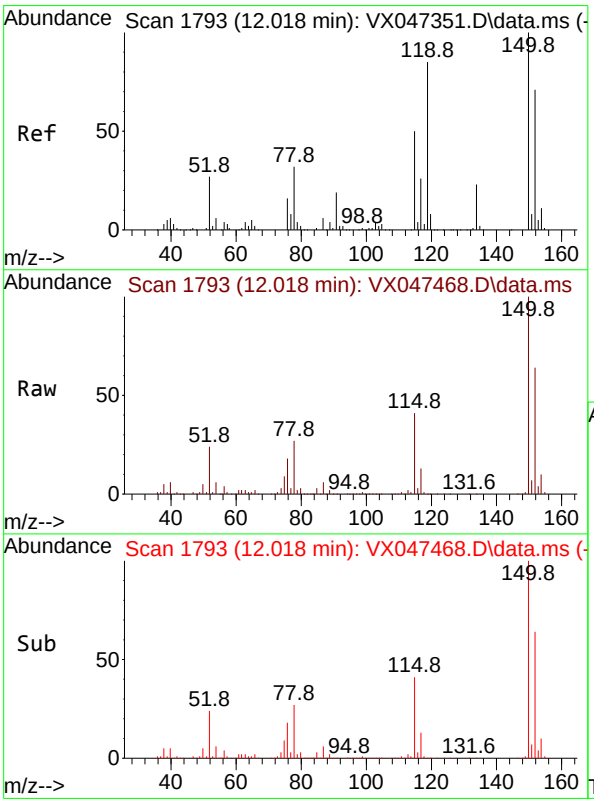
#64
Tetrachloroethene
Concen: 0.659 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Instrument :
MSVOA_X
ClientSampleId :
MW-11A-13.5-081325DL

Tgt Ion:164 Resp: 1793

Ion	Ratio	Lower	Upper
164	100		
166	132.4	100.3	150.5
129	91.4	77.7	116.5
131	90.5	74.8	112.2

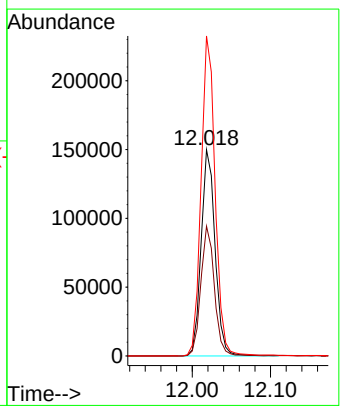




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047468.D
Acq: 21 Aug 2025 14:28

Tgt Ion:152 Resp: 185836

Ion	Ratio	Lower	Upper
152	100		
115	61.2	44.6	133.8
150	155.6	0.0	349.8



Raw Data: **VX047461.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	MW-19B-71.5-081325-FD	SDG No.:	Q2869
Lab Sample ID:	Q2869-05	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047461.D	40	08/21/25 12:00	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	29.5	J	10.4	40.0	ug/L
75-35-4	1,1-Dichloroethene	27.6	J	9.20	40.0	ug/L
75-34-3	1,1-Dichloroethane	9.20	U	9.20	40.0	ug/L
156-59-2	cis-1,2-Dichloroethene	4200		7.60	40.0	ug/L
71-55-6	1,1,1-Trichloroethane	8.00	U	8.00	40.0	ug/L
71-43-2	Benzene	6.00	U	6.00	40.0	ug/L
107-06-2	1,2-Dichloroethane	8.80	U	8.80	40.0	ug/L
79-01-6	Trichloroethene	4100		3.70	40.0	ug/L
79-00-5	1,1,2-Trichloroethane	8.40	U	8.40	40.0	ug/L
127-18-4	Tetrachloroethene	180		9.20	40.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.8		70 (74) - 130 (125)	114%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		70 (75) - 130 (124)	99%	SPK: 50
2037-26-5	Toluene-d8	49.1		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.7		70 (77) - 130 (121)	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	235000	5.562			
540-36-3	1,4-Difluorobenzene	478000	6.769			
3114-55-4	Chlorobenzene-d5	478000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	248000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047461.D
Acq On : 21 Aug 2025 12:00
Operator : JC/MD
Sample : Q2869-05 40X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Quant Time: Aug 22 03:42:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

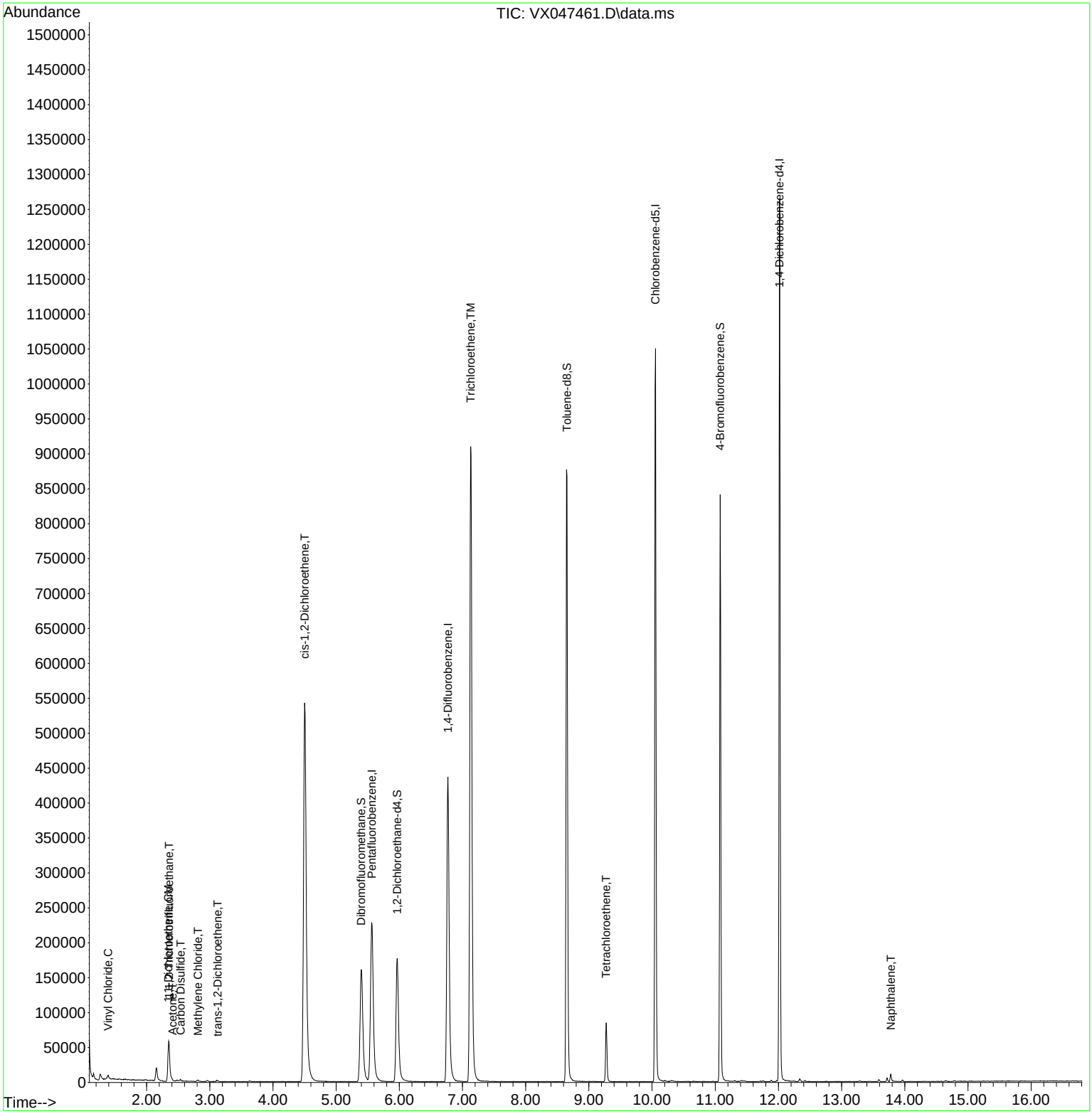
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	234783	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	477817	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	477729	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	247621	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	186685	56.815	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 113.620%			
35) Dibromofluoromethane	5.397	113	153944	49.642	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.280%			
50) Toluene-d8	8.653	98	544241	49.101	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 98.200%			
62) 4-Bromofluorobenzene	11.079	95	227719	55.674	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.340%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.392	62	2490	0.737	ug/l	96
9) 1,1,2-Trichlorotrifluo...	2.355	101	25101	8.657	ug/l	99
12) 1,1-Dichloroethene	2.343	96	2040	0.690	ug/l #	84
16) Acetone	2.410	43	2583	2.091	ug/l	98
17) Carbon Disulfide	2.538	76	2354	0.264	ug/l #	75
20) Methylene Chloride	2.812	84	978	0.299	ug/l #	87
21) trans-1,2-Dichloroethene	3.123	96	846	0.270	ug/l #	42
27) cis-1,2-Dichloroethene	4.501	96	383526	104.951	ug/l	88
44) Trichloroethene	7.129	130	380783	101.492	ug/l	100
64) Tetrachloroethene	9.275	164	15750	4.558	ug/l	87
95) Naphthalene	13.780	128	7720	0.470	ug/l	98

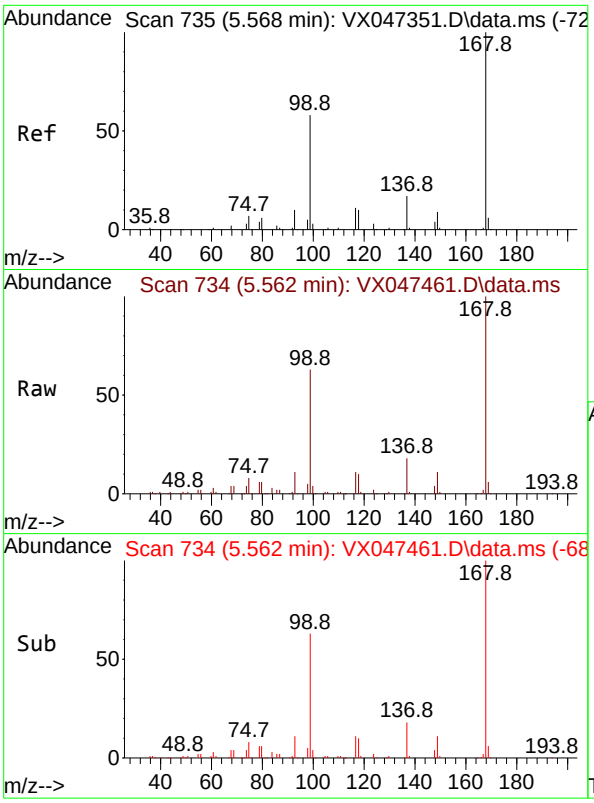
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047461.D
Acq On : 21 Aug 2025 12:00
Operator : JC/MD
Sample : Q2869-05 40X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Quant Time: Aug 22 03:42:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



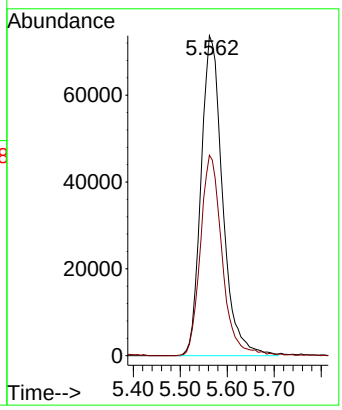


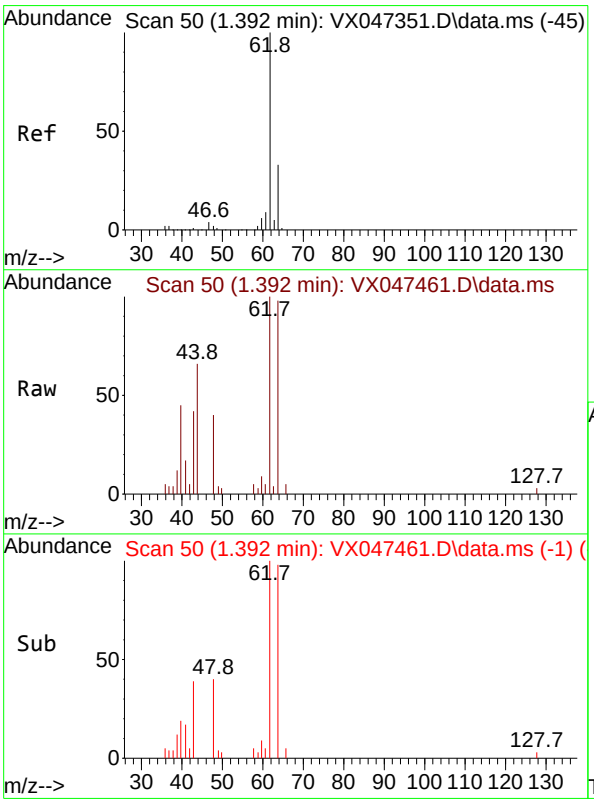
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:168 Resp: 234783

Ion	Ratio	Lower	Upper
168	100		
99	62.5	47.9	71.9

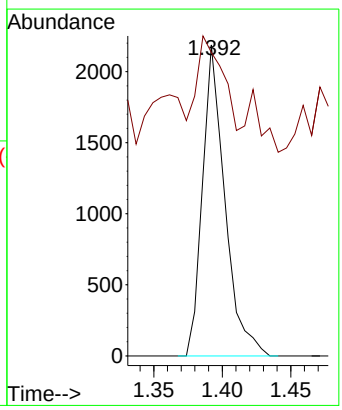


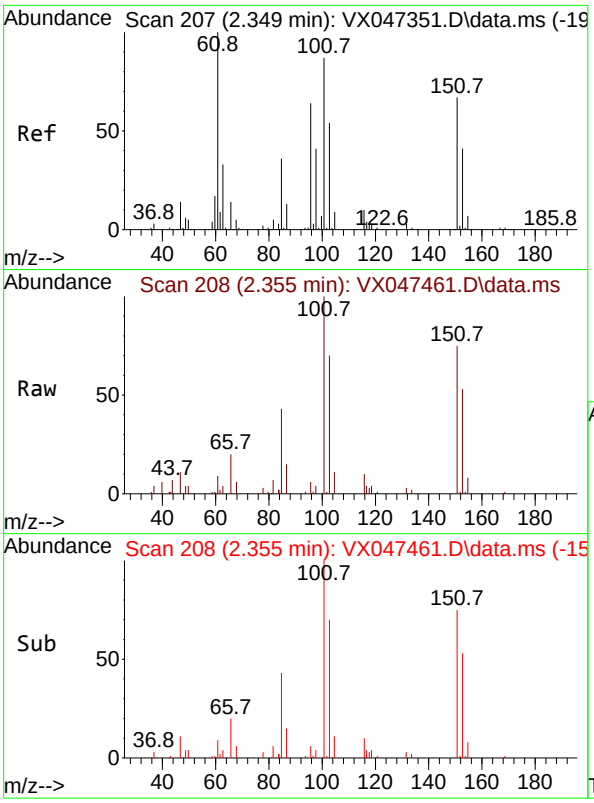


#4
Vinyl Chloride
Concen: 0.737 ug/l
RT: 1.392 min Scan# 50
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 62 Resp: 2490

Ion	Ratio	Lower	Upper
62	100		
64	31.0	26.5	39.7



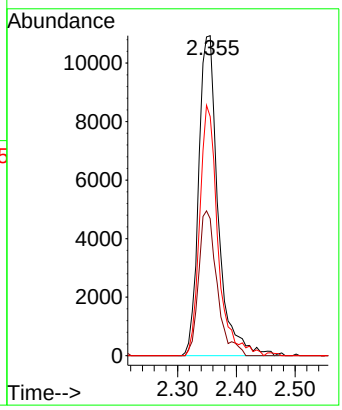


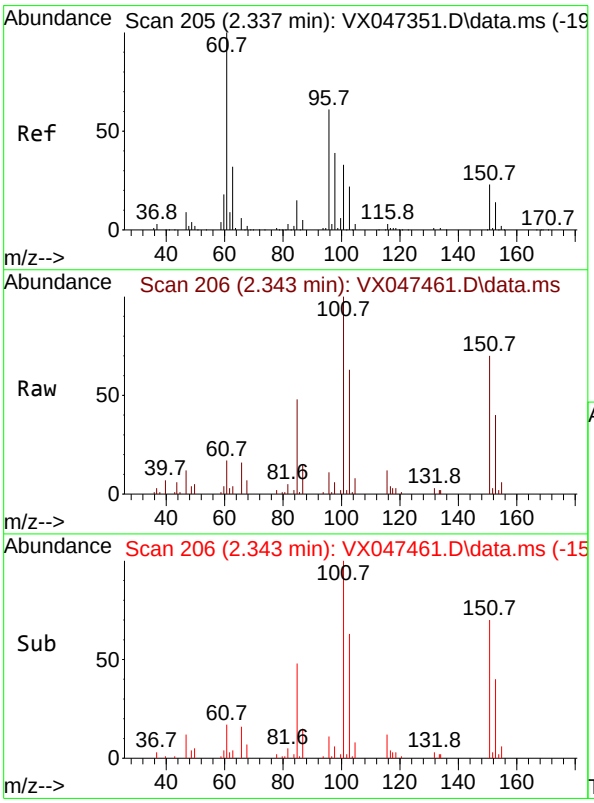
#9
1,1,2-Trichlorotrifluoroethane
Concen: 8.657 ug/l
RT: 2.355 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:101 Resp: 25101

Ion	Ratio	Lower	Upper
101	100		
85	42.9	34.3	51.5
151	73.2	59.2	88.8

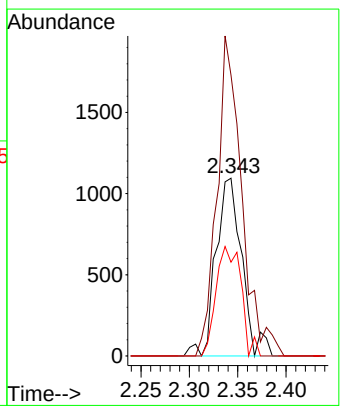


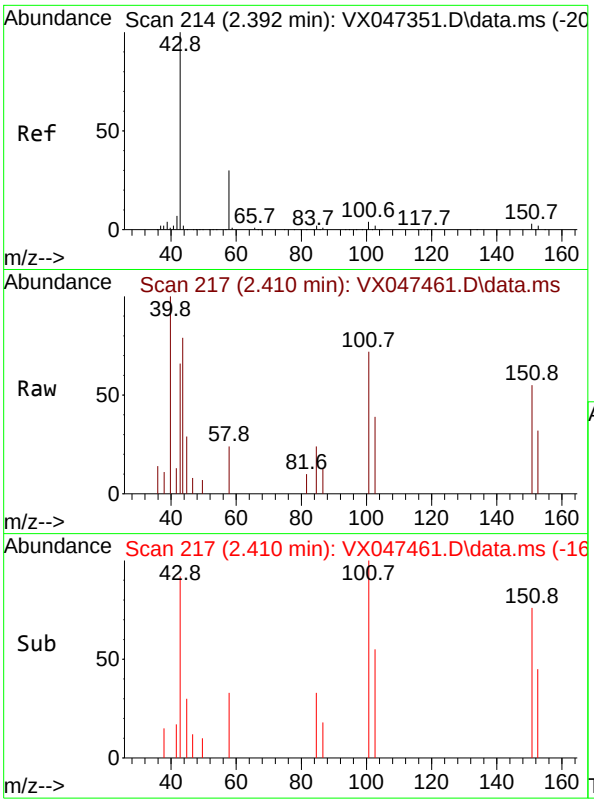


#12
1,1-Dichloroethene
Concen: 0.690 ug/l
RT: 2.343 min Scan# 206
Delta R.T. 0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 96 Resp: 2040

Ion	Ratio	Lower	Upper
96	100		
61	145.4	132.2	198.2
98	48.6	51.2	76.8#



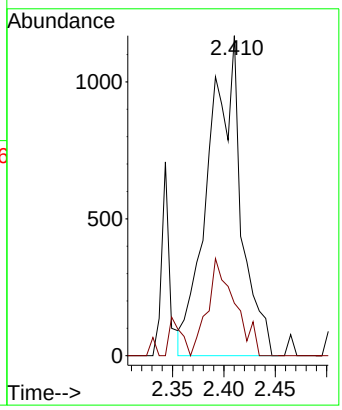


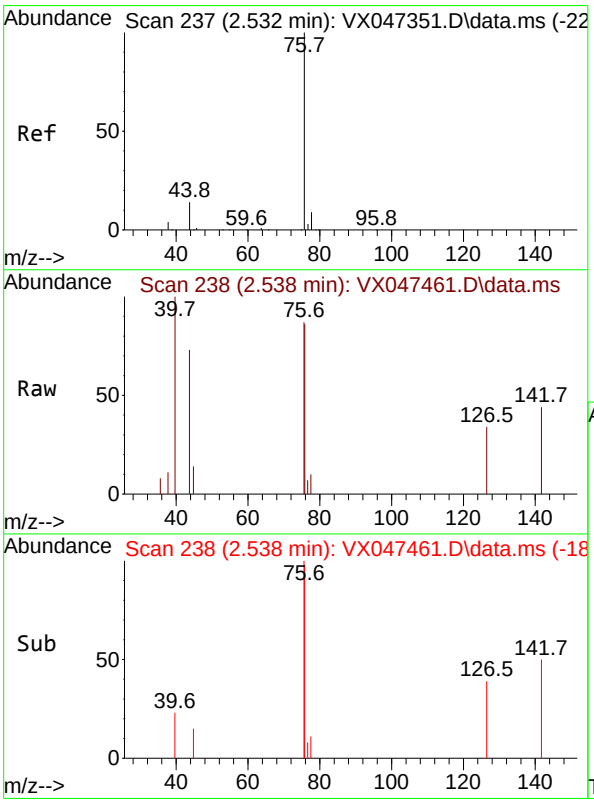
#16
Acetone
Concen: 2.091 ug/l
RT: 2.410 min Scan# 21
Delta R.T. 0.018 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion: 43 Resp: 2583

Ion	Ratio	Lower	Upper
43	100		
58	31.8	24.8	37.2

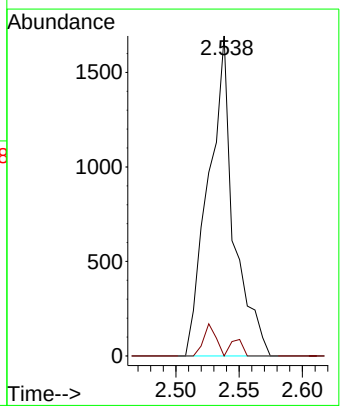


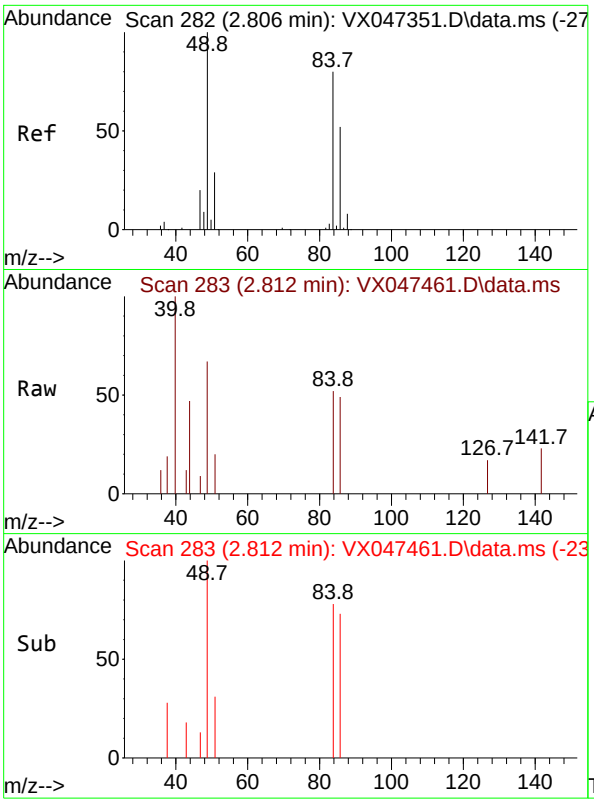


#17
Carbon Disulfide
Concen: 0.264 ug/l
RT: 2.538 min Scan# 238
Delta R.T. 0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 76 Resp: 2354

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.2	10.8#



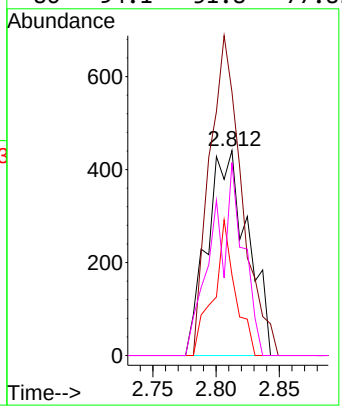


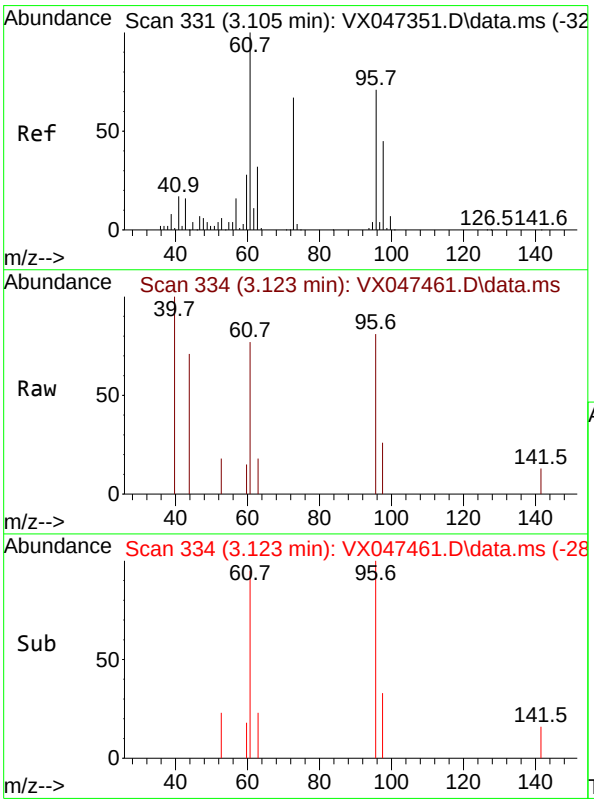
#20
Methylene Chloride
Concen: 0.299 ug/l
RT: 2.812 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion: 84 Resp: 978

Ion	Ratio	Lower	Upper
84	100		
49	128.6	100.1	150.1
51	39.2	29.5	44.3
86	94.1	51.8	77.8#

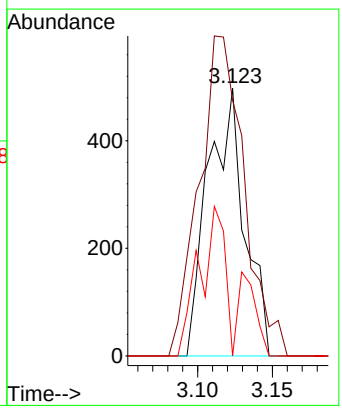


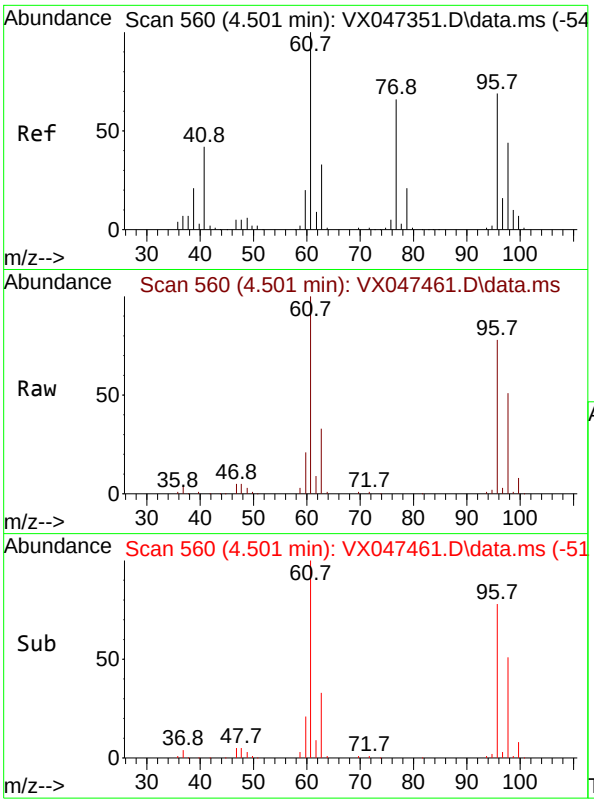


#21
trans-1,2-Dichloroethene
Concen: 0.270 ug/l
RT: 3.123 min Scan# 334
Delta R.T. 0.018 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 96 Resp: 846

Ion	Ratio	Lower	Upper
96	100		
61	82.9	112.6	169.0#
98	0.0	50.9	76.3#



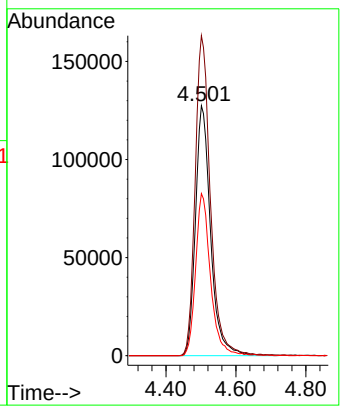


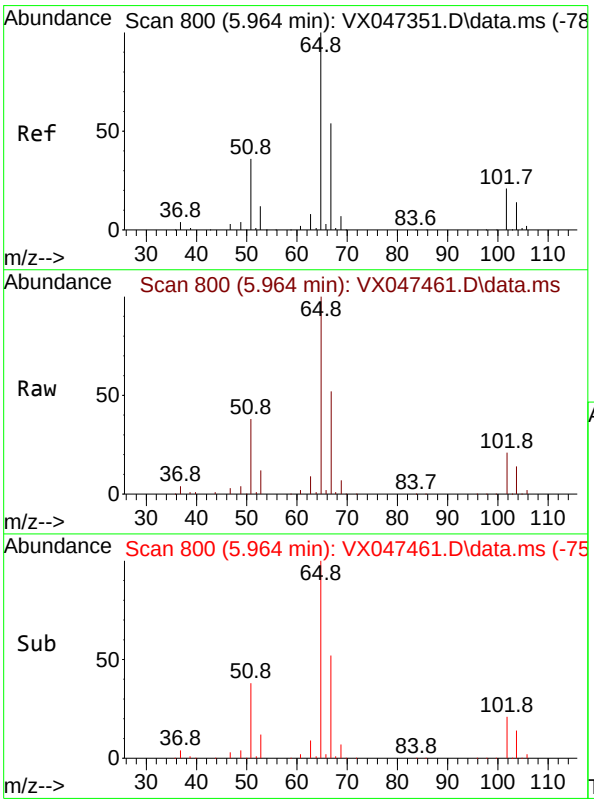
#27
cis-1,2-Dichloroethene
Concen: 104.951 ug/l
RT: 4.501 min Scan# 5
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion: 96 Resp: 383526

Ion	Ratio	Lower	Upper
96	100		
61	128.6	0.0	296.6
98	63.4	0.0	130.4

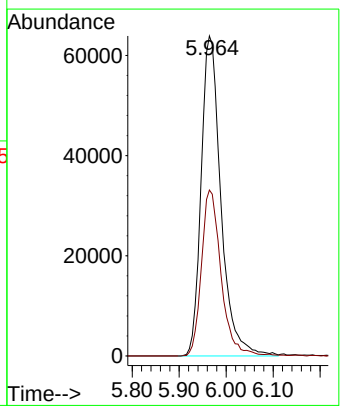


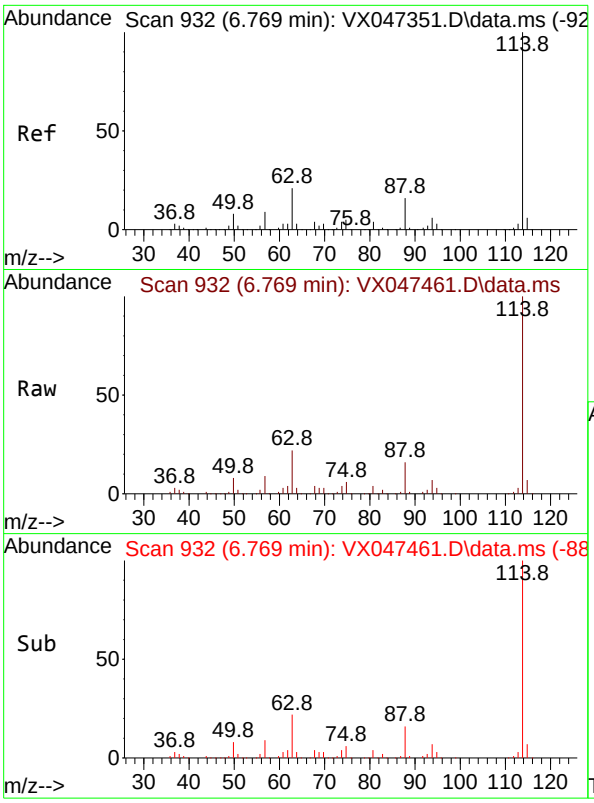


#33
1,2-Dichloroethane-d4
Concen: 56.815 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 65 Resp: 186685

Ion	Ratio	Lower	Upper
65	100		
67	51.5	0.0	106.0



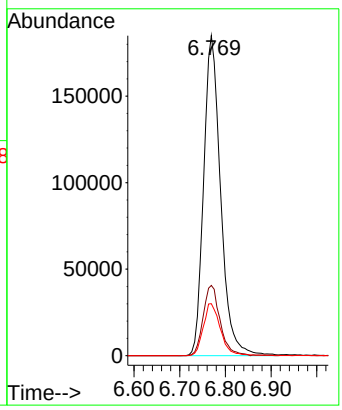


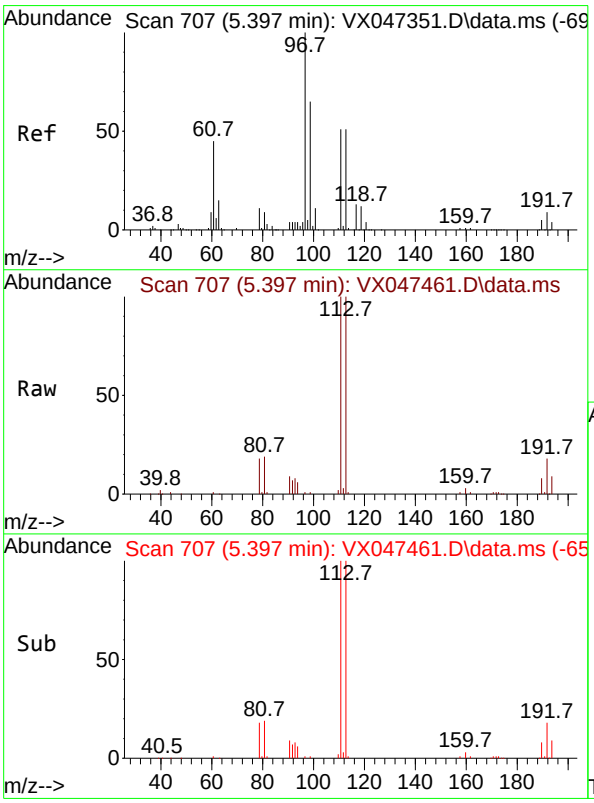
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:114 Resp: 477817

Ion	Ratio	Lower	Upper
114	100		
63	22.0	0.0	42.4
88	16.3	0.0	33.0

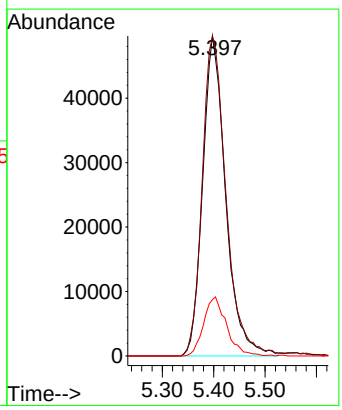


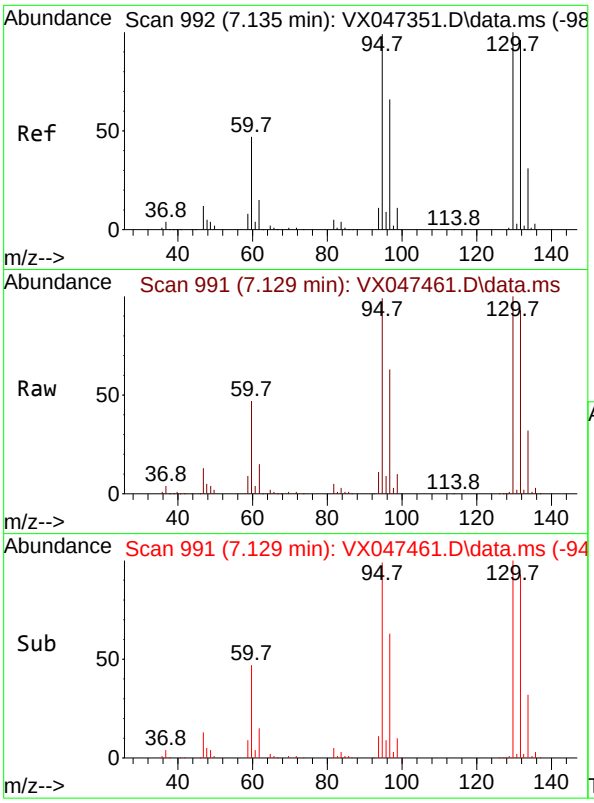


#35
Dibromofluoromethane
Concen: 49.642 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion:113 Resp: 153944

Ion	Ratio	Lower	Upper
113	100		
111	103.6	81.4	122.2
192	18.4	14.1	21.1



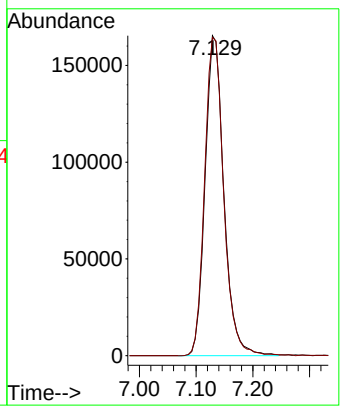


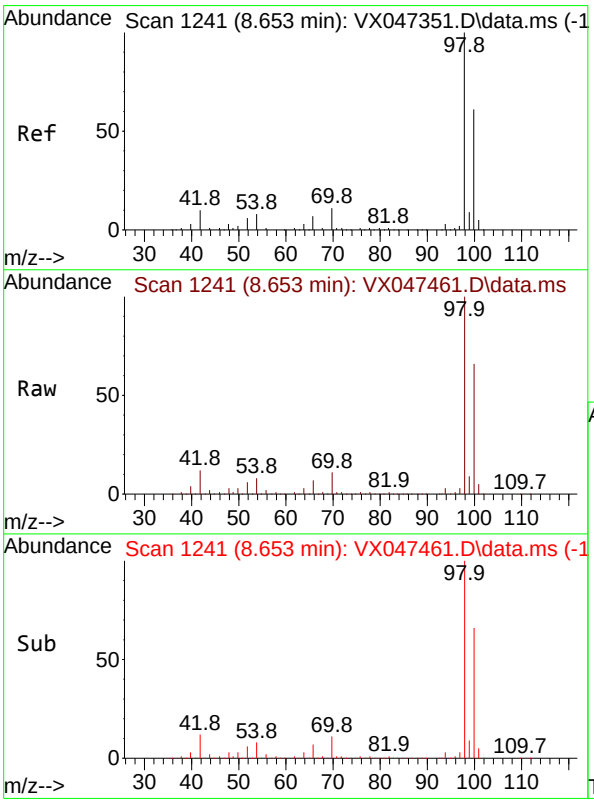
#44
Trichloroethene
Concen: 101.492 ug/l
RT: 7.129 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:130 Resp: 380783

Ion	Ratio	Lower	Upper
130	100		
95	99.5	0.0	198.6

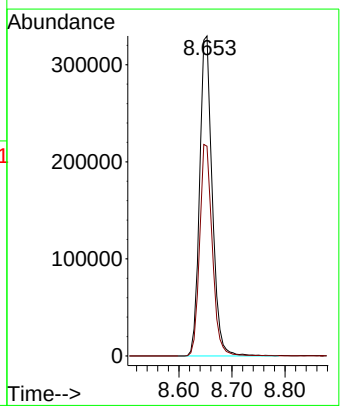


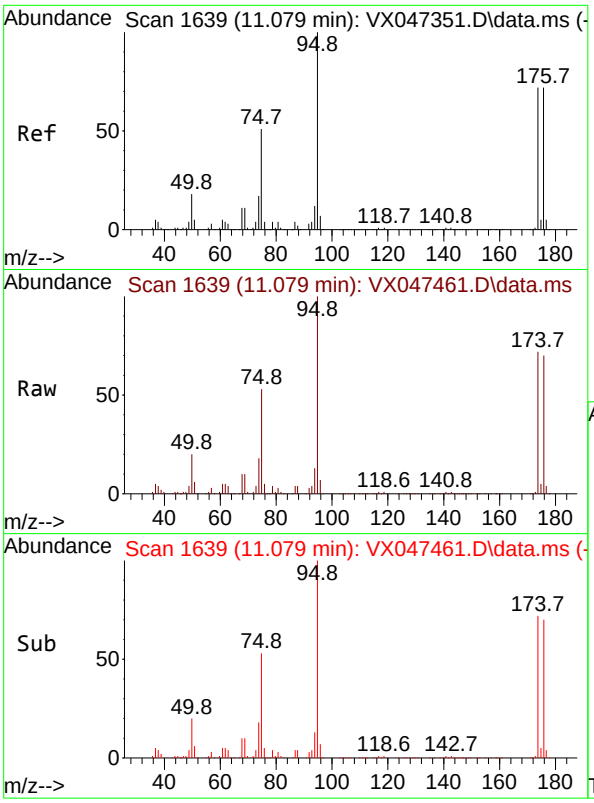


#50
Toluene-d8
Concen: 49.101 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion: 98 Resp: 544241

Ion	Ratio	Lower	Upper
98	100		
100	66.4	53.9	80.9



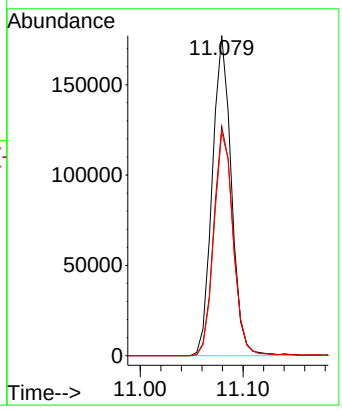


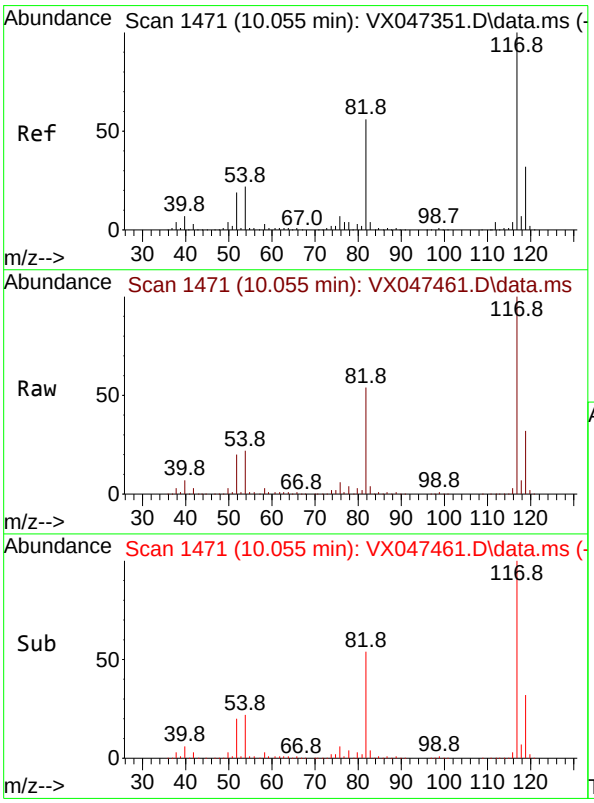
#62
4-Bromofluorobenzene
Concen: 55.674 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion: 95 Resp: 227719

Ion	Ratio	Lower	Upper
95	100		
174	72.9	0.0	148.0
176	71.2	0.0	145.4

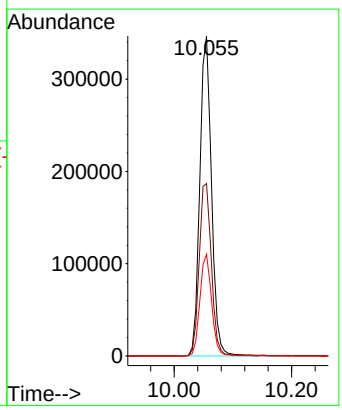


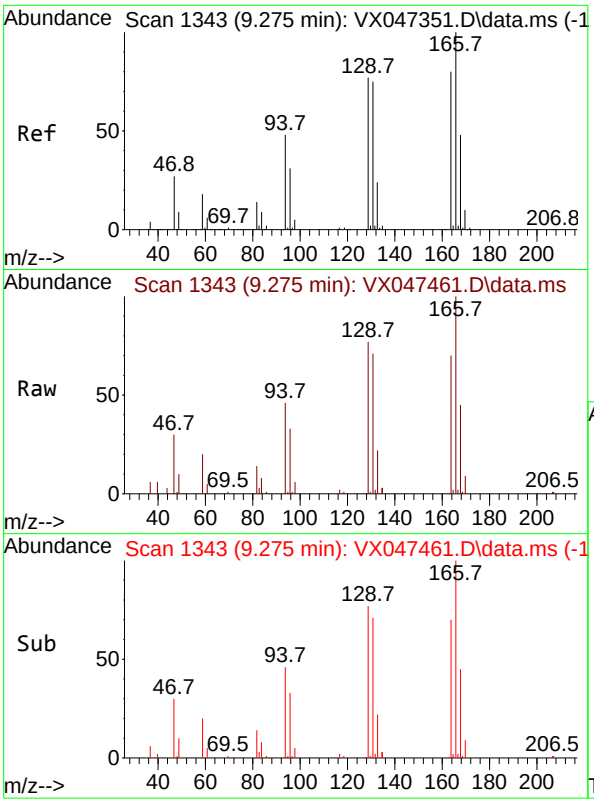


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion:117 Resp: 477729

Ion	Ratio	Lower	Upper
117	100		
82	53.8	45.0	67.4
119	31.8	25.8	38.8



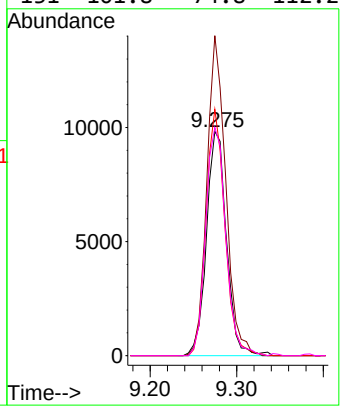


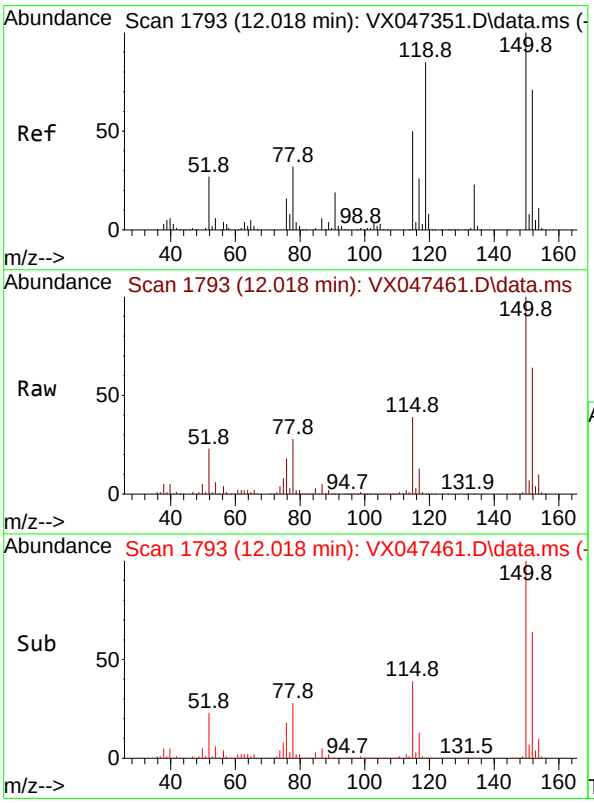
#64
Tetrachloroethene
Concen: 4.558 ug/l
RT: 9.275 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:164 Resp: 15750

Ion	Ratio	Lower	Upper
164	100		
166	142.7	100.3	150.5
129	109.8	77.7	116.5
131	101.8	74.8	112.2

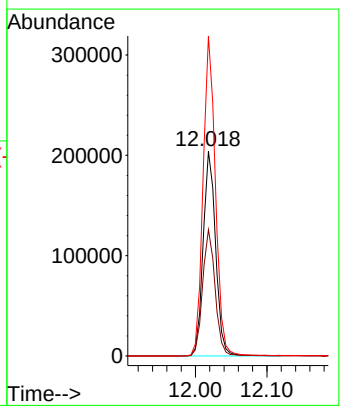


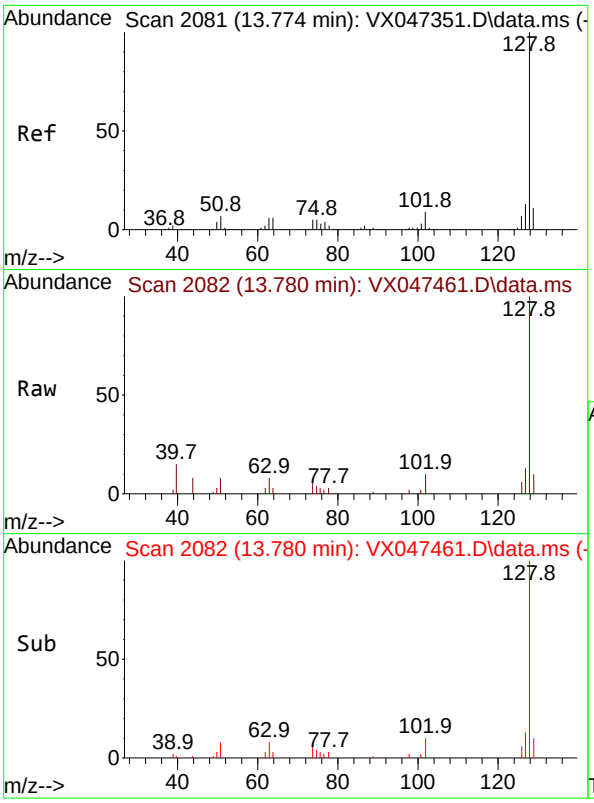


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Tgt Ion:152 Resp: 247621

Ion	Ratio	Lower	Upper
152	100		
115	62.2	44.6	133.8
150	155.0	0.0	349.8



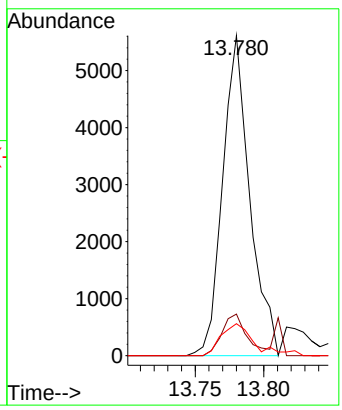


#95
Naphthalene
Concen: 0.470 ug/l
RT: 13.780 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047461.D
Acq: 21 Aug 2025 12:00

Instrument :
MSVOA_X
ClientSampleId :
MW-19B-71.5-081325-FD

Tgt Ion:128 Resp: 7720

Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.1	15.1
129	12.3	8.7	13.1



Raw Data: **VX047416.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	EB01-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-07	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047416.D	1	08/19/25 16:36	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	60.9		70 (74) - 130 (125)	122%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		70 (75) - 130 (124)	103%	SPK: 50
2037-26-5	Toluene-d8	50.0		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	57.2		70 (77) - 130 (121)	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	223000	5.562			
540-36-3	1,4-Difluorobenzene	450000	6.769			
3114-55-4	Chlorobenzene-d5	465000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	239000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047416.D
Acq On : 19 Aug 2025 16:36
Operator : JC/MD
Sample : Q2869-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Quant Time: Aug 20 01:29:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

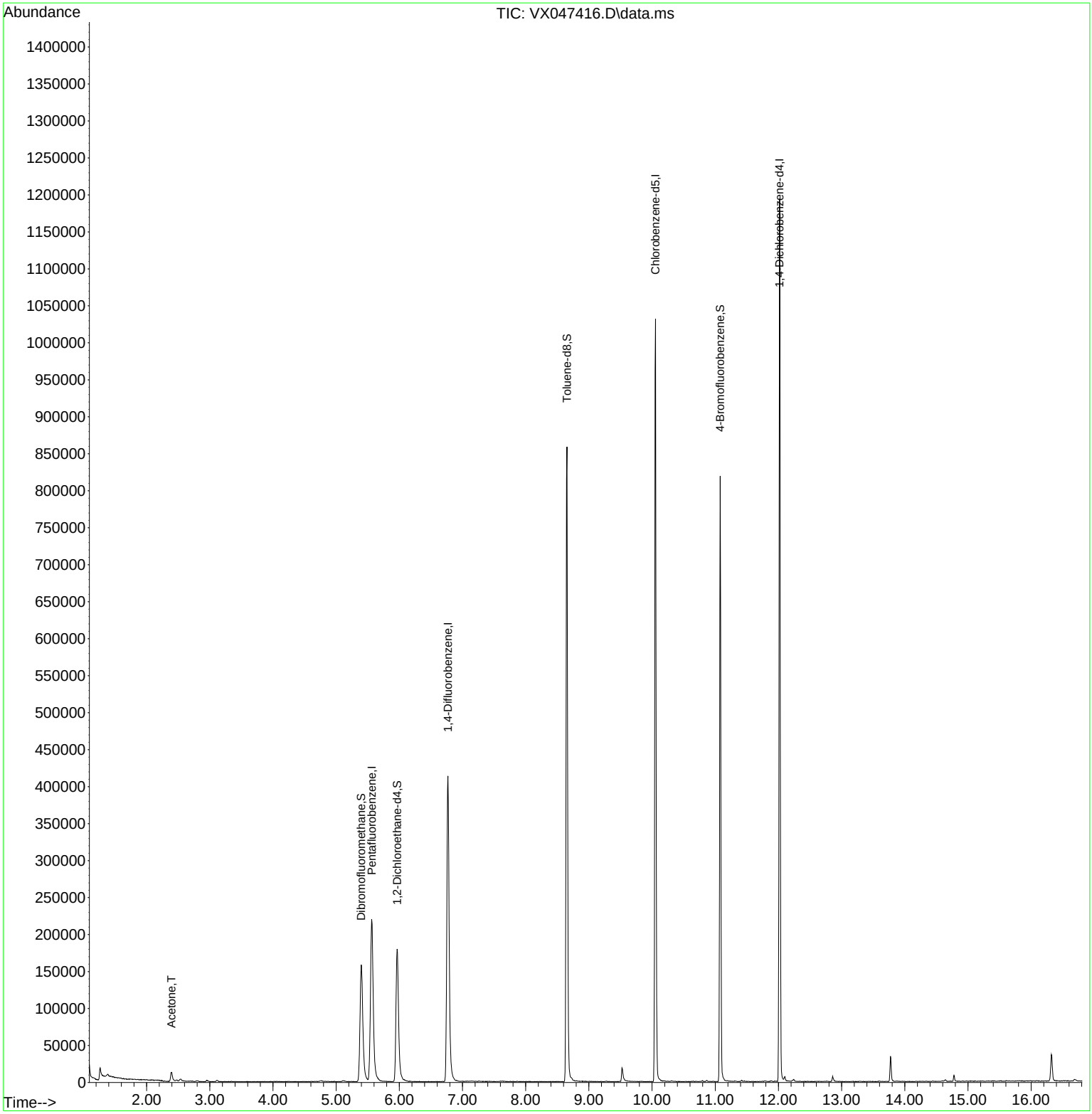
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	223227	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	449571	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	464745	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	238761	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	190215	60.886	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 121.780%#			
35) Dibromofluoromethane	5.397	113	150935	51.730	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.460%			
50) Toluene-d8	8.653	98	521428	49.999	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 100.000%			
62) 4-Bromofluorobenzene	11.079	95	220160	57.208	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 114.420%			
Target Compounds						Qvalue
16) Acetone	2.392	43	17383	14.803	ug/l	93

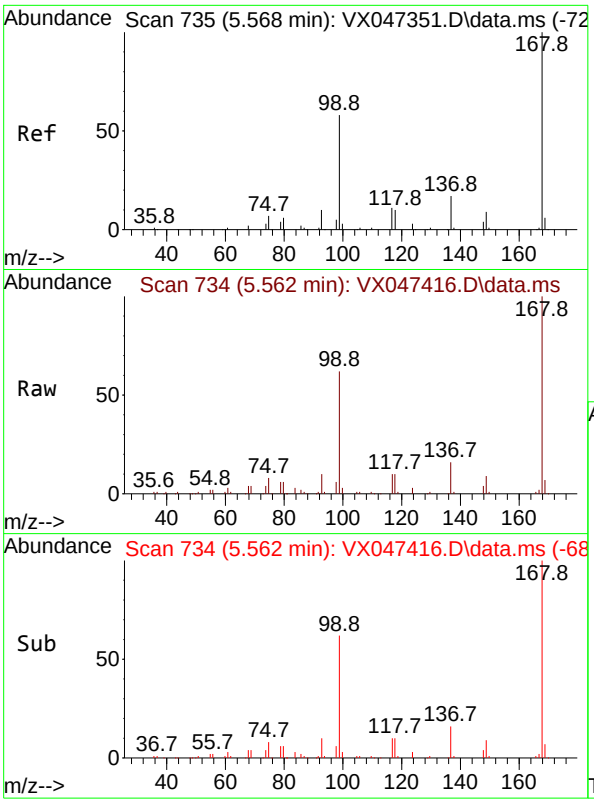
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047416.D
Acq On : 19 Aug 2025 16:36
Operator : JC/MD
Sample : Q2869-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Quant Time: Aug 20 01:29:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



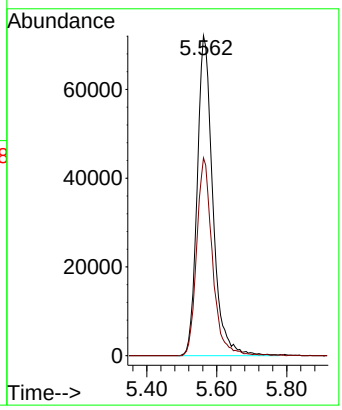


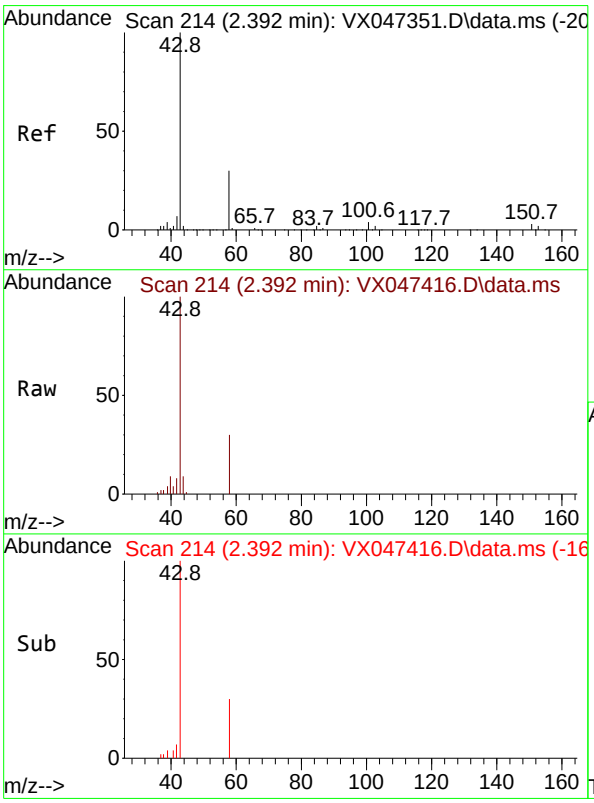
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Tgt Ion:168 Resp: 223227

Ion	Ratio	Lower	Upper
168	100		
99	61.8	47.9	71.9

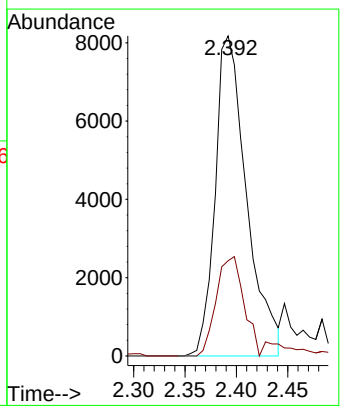


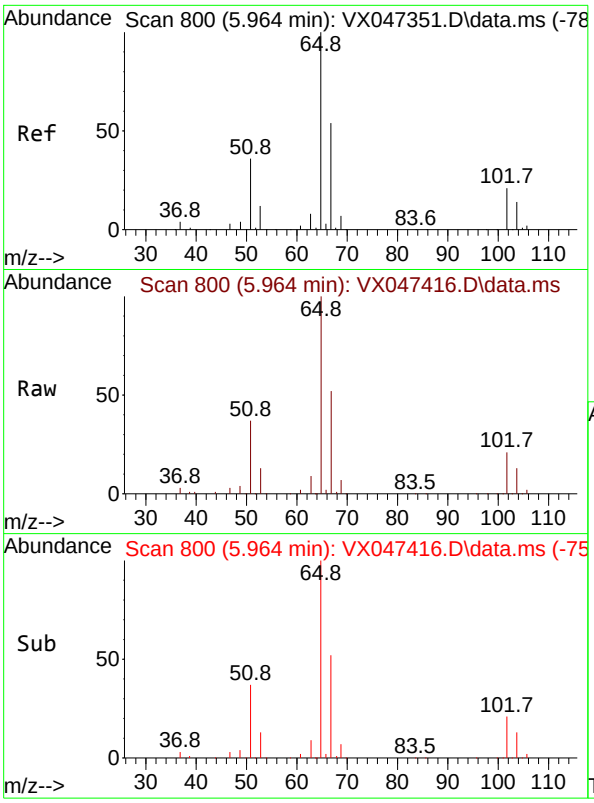


#16
Acetone
Concen: 14.803 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Tgt Ion: 43 Resp: 17383

Ion	Ratio	Lower	Upper
43	100		
58	27.3	24.8	37.2



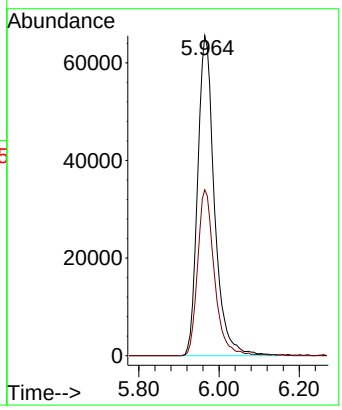


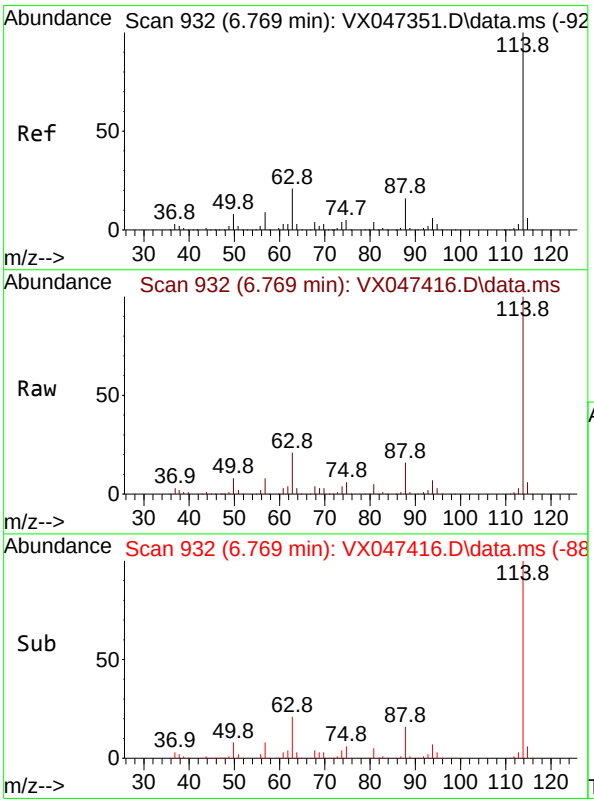
#33
1,2-Dichloroethane-d4
Concen: 60.886 ug/l
RT: 5.964 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Tgt Ion: 65 Resp: 190215

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	106.0

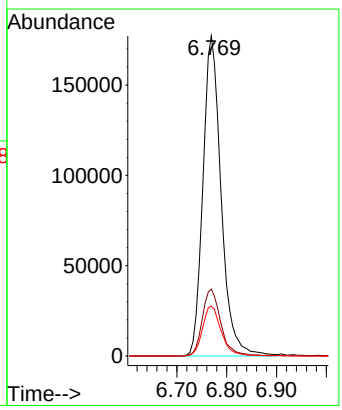


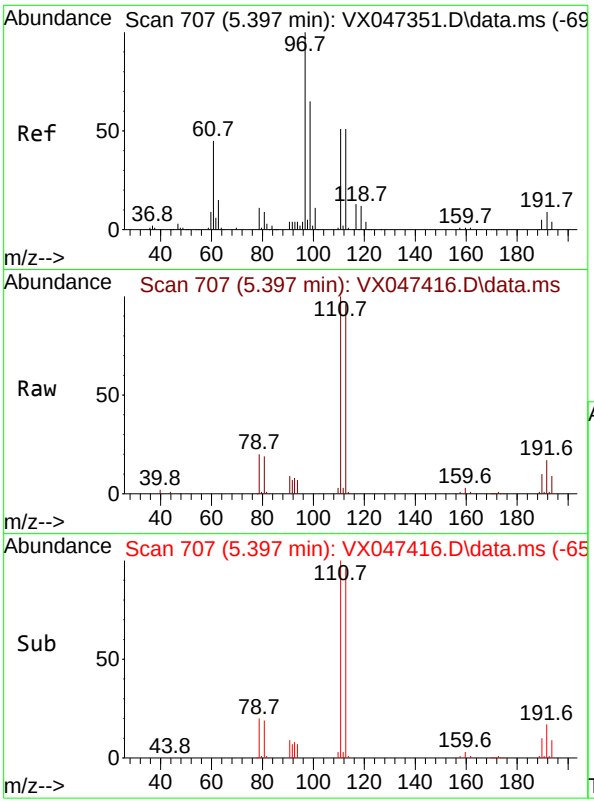


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 932
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Tgt Ion:114 Resp: 449571

Ion	Ratio	Lower	Upper
114	100		
63	20.9	0.0	42.4
88	15.6	0.0	33.0



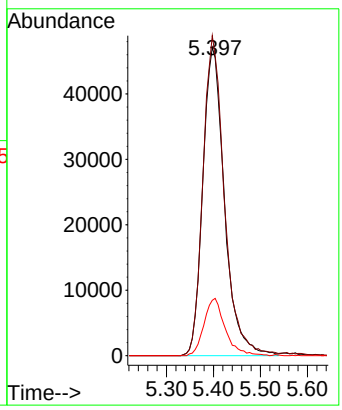


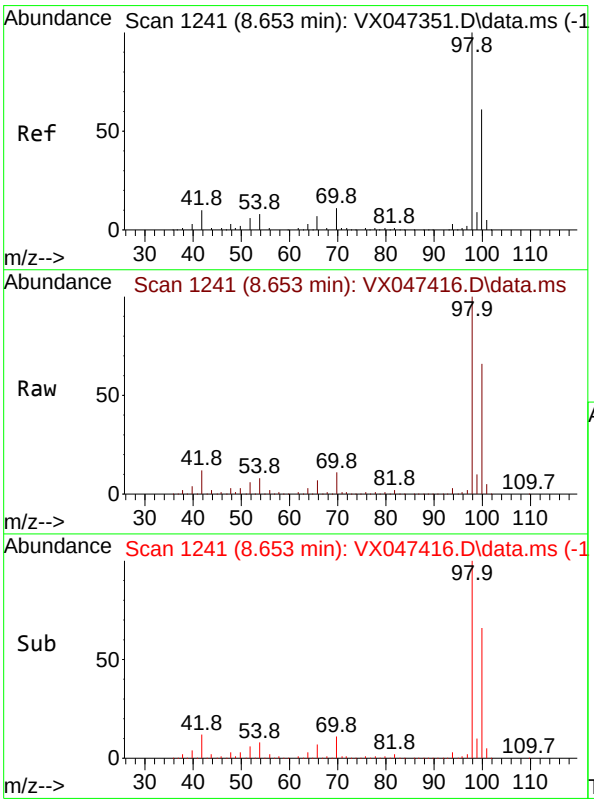
#35
Dibromofluoromethane
Concen: 51.730 ug/l
RT: 5.397 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Tgt Ion:113 Resp: 150935

Ion	Ratio	Lower	Upper
113	100		
111	102.3	81.4	122.2
192	18.2	14.1	21.1

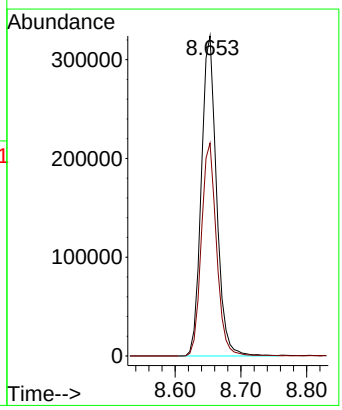


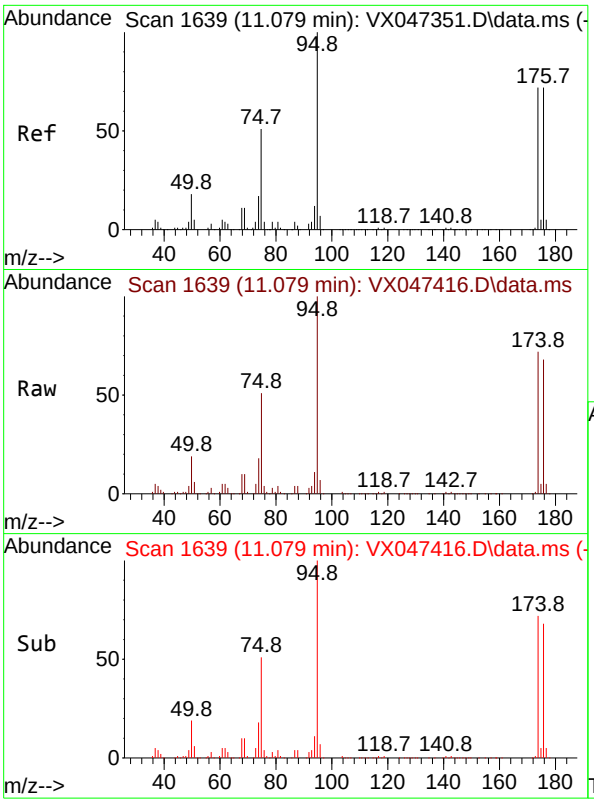


#50
Toluene-d8
Concen: 49.999 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Tgt Ion: 98 Resp: 521428

Ion	Ratio	Lower	Upper
98	100		
100	66.4	53.9	80.9



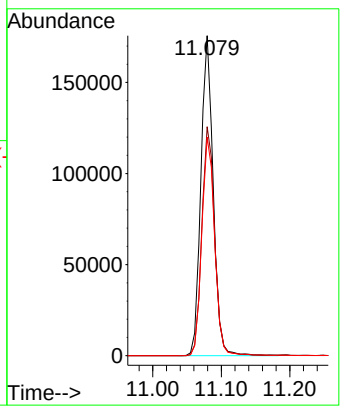


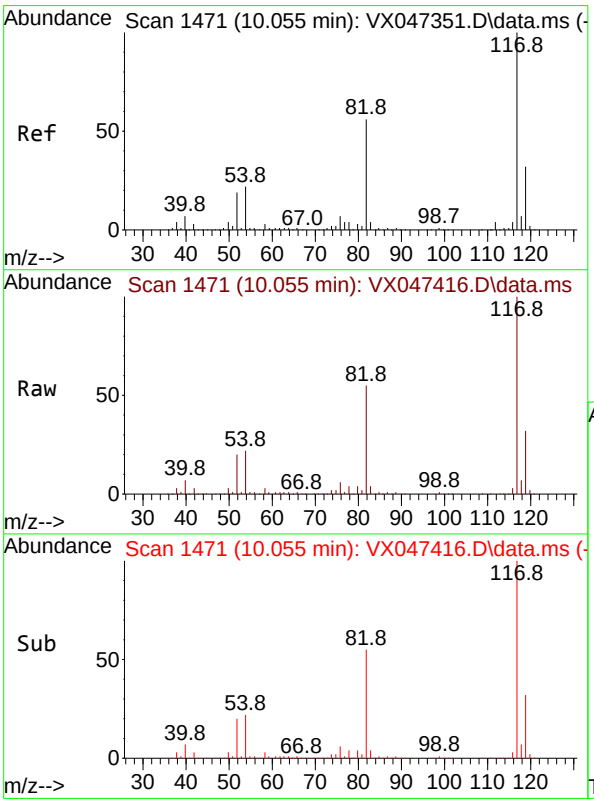
#62
4-Bromofluorobenzene
Concen: 57.208 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Tgt Ion: 95 Resp: 220160

Ion	Ratio	Lower	Upper
95	100		
174	74.1	0.0	148.0
176	71.2	0.0	145.4

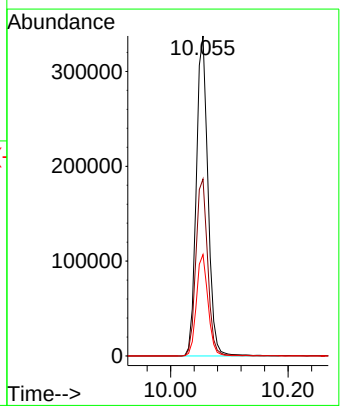


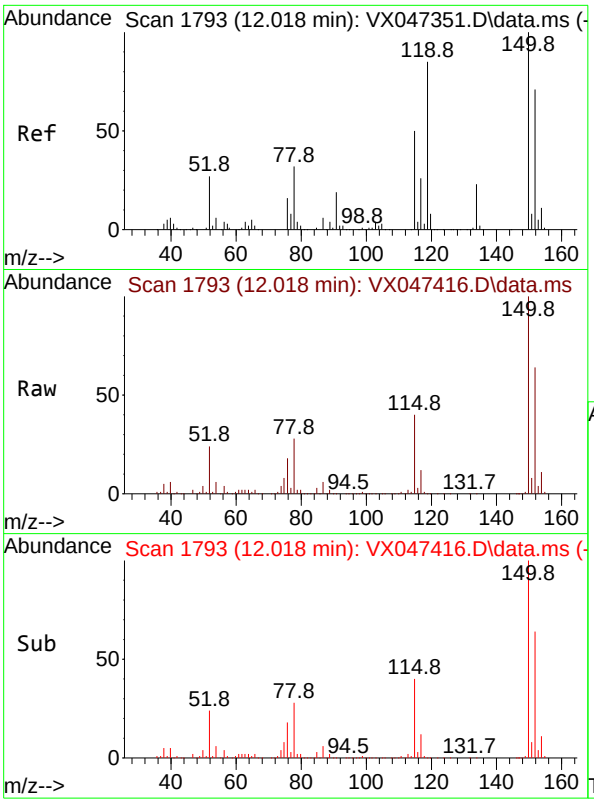


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Tgt Ion:117 Resp: 464745

Ion	Ratio	Lower	Upper
117	100		
82	55.3	45.0	67.4
119	31.7	25.8	38.8



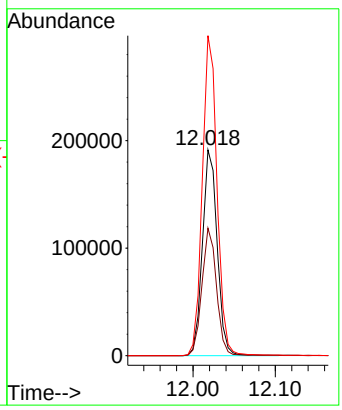


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047416.D
Acq: 19 Aug 2025 16:36

Instrument :
MSVOA_X
ClientSampleId :
EB01-081325

Tgt Ion:152 Resp: 238761

Ion	Ratio	Lower	Upper
152	100		
115	61.4	44.6	133.8
150	155.1	0.0	349.8



Raw Data: **VX047417.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	EB02-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-10	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047417.D	1	08/19/25 16:57	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.0		70 (74) - 130 (125)	114%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		70 (75) - 130 (124)	102%	SPK: 50
2037-26-5	Toluene-d8	50.3		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.2		70 (77) - 130 (121)	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	206000	5.562			
540-36-3	1,4-Difluorobenzene	414000	6.769			
3114-55-4	Chlorobenzene-d5	418000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	213000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047417.D
Acq On : 19 Aug 2025 16:57
Operator : JC/MD
Sample : Q2869-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Quant Time: Aug 20 01:29:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	205773	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	414097	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	417583	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	212656	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	164219	57.023	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 114.040%			
35) Dibromofluoromethane	5.397	113	137119	51.021	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.040%			
50) Toluene-d8	8.653	98	483216	50.304	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 100.600%			
62) 4-Bromofluorobenzene	11.079	95	199041	56.150	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 112.300%			
Target Compounds						Qvalue
16) Acetone	2.398	43	8905	8.226	ug/l #	84

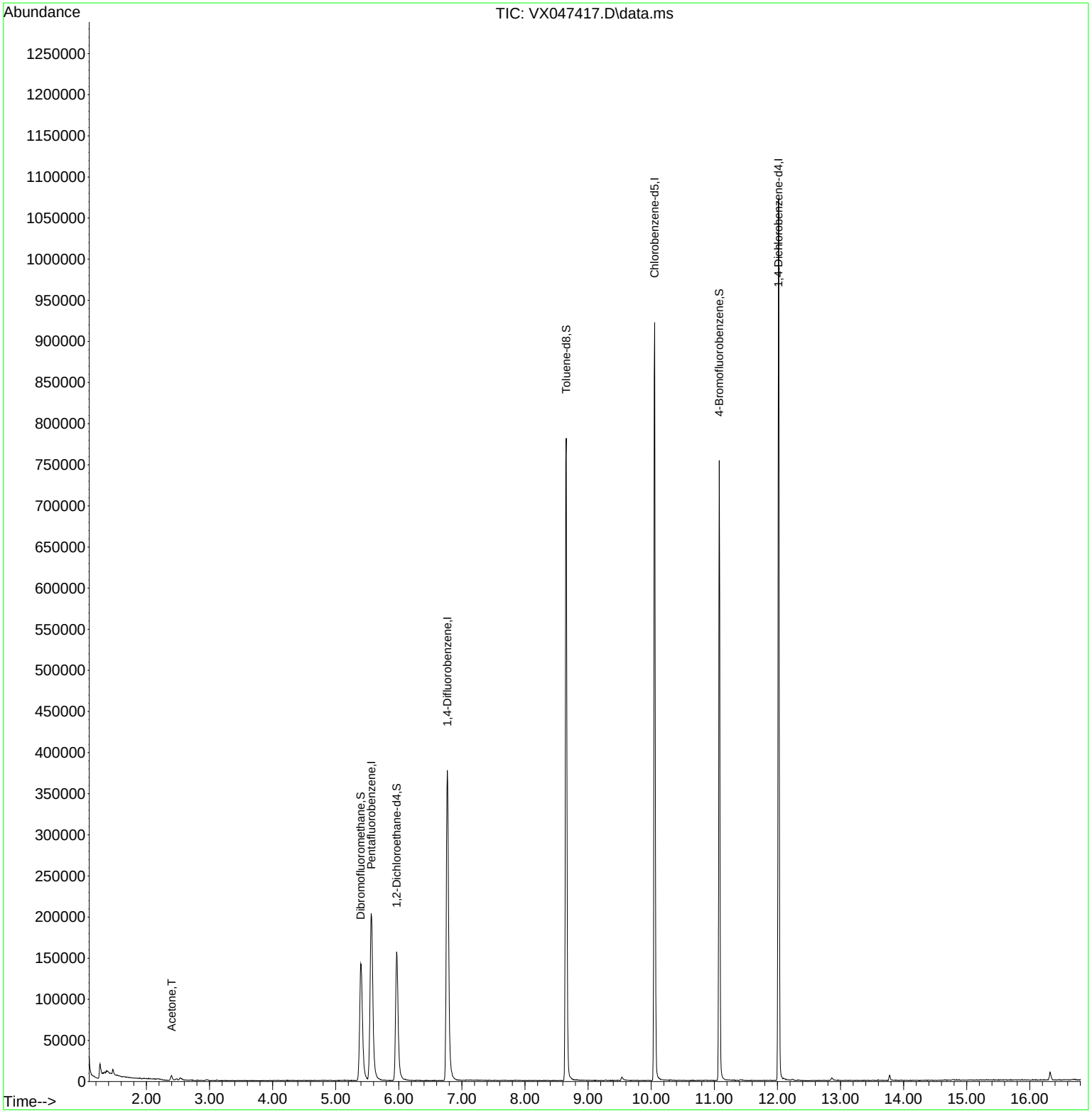
(#) = qualifier out of range (m) = manual integration (+) = signals summed

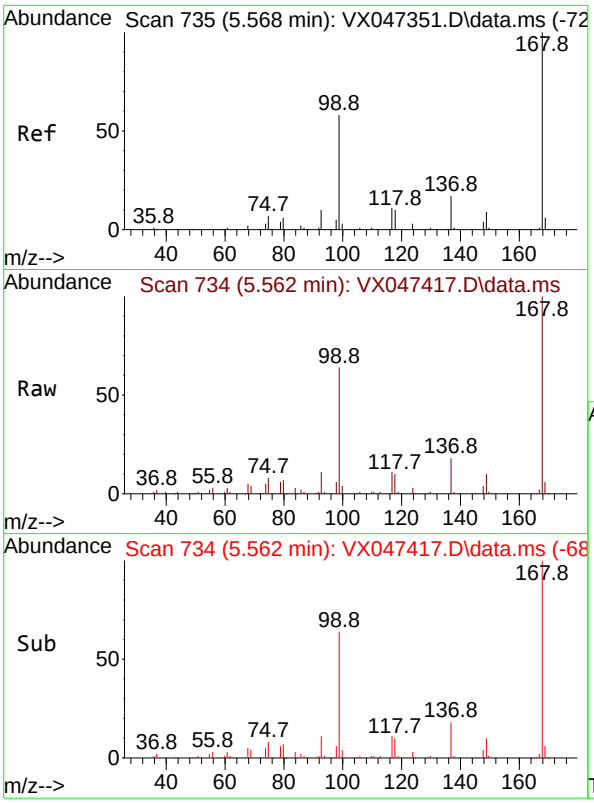
Sample Results: **VX047417.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047417.D
Acq On : 19 Aug 2025 16:57
Operator : JC/MD
Sample : Q2869-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Quant Time: Aug 20 01:29:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



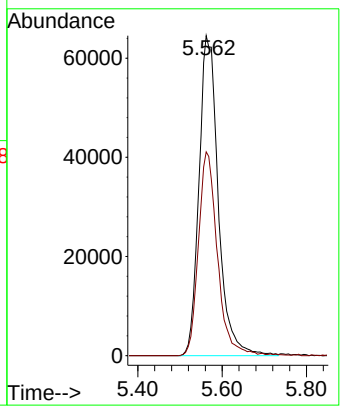


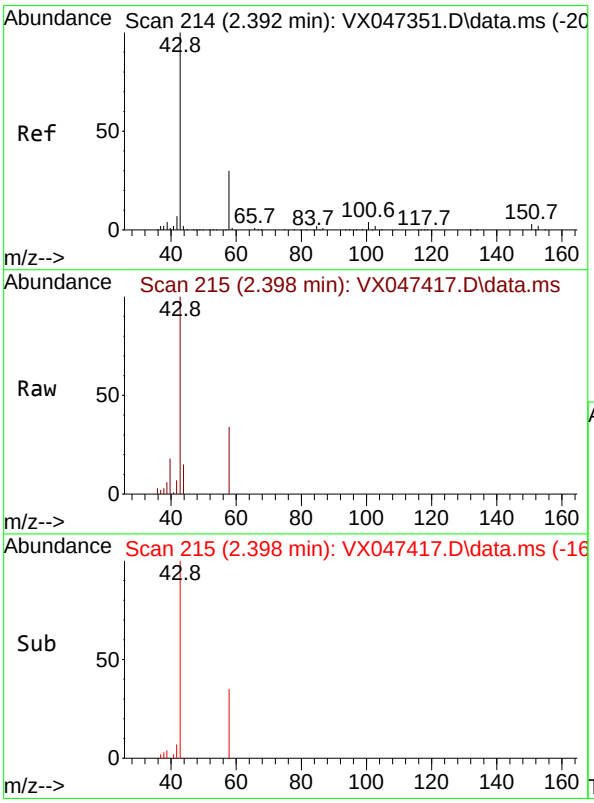
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Tgt Ion:168 Resp: 205773

Ion	Ratio	Lower	Upper
168	100		
99	63.7	47.9	71.9

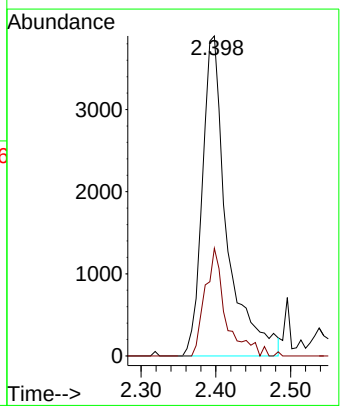


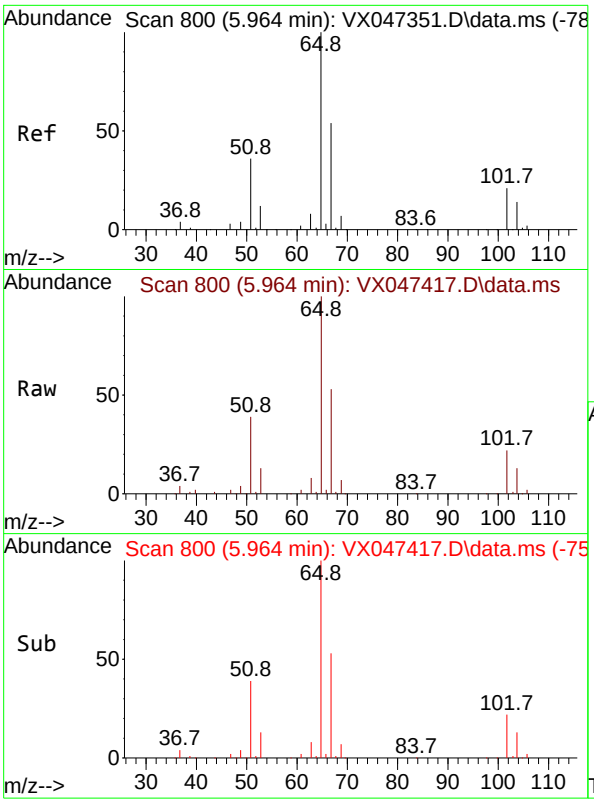


#16
Acetone
Concen: 8.226 ug/l
RT: 2.398 min Scan# 215
Delta R.T. 0.006 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Tgt Ion: 43 Resp: 8905

Ion	Ratio	Lower	Upper
43	100		
58	40.0	24.8	37.2#



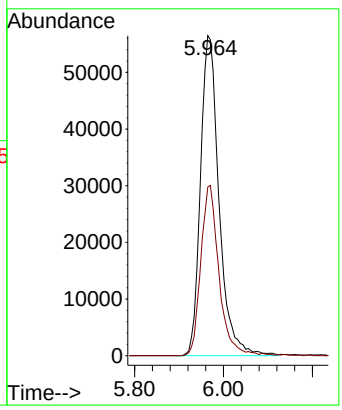


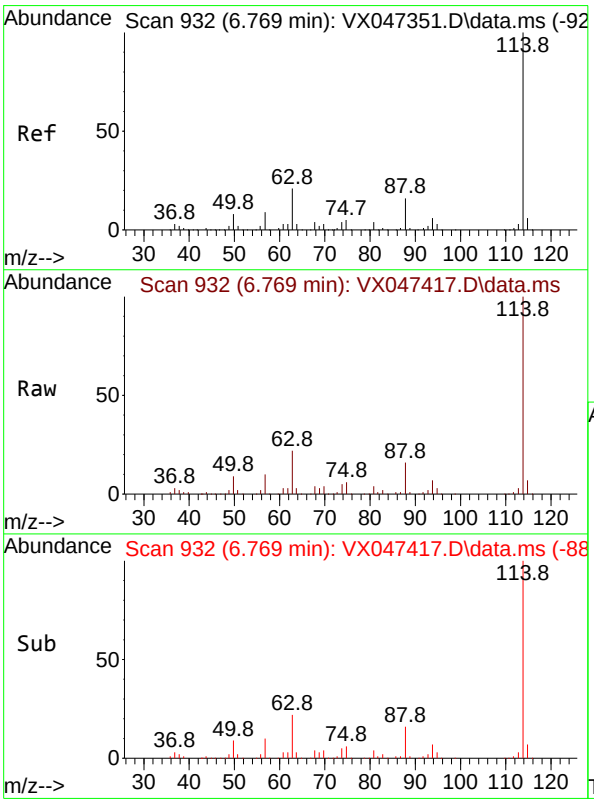
#33
1,2-Dichloroethane-d4
Concen: 57.023 ug/l
RT: 5.964 min Scan# 8
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Tgt Ion: 65 Resp: 164219

Ion	Ratio	Lower	Upper
65	100		
67	51.8	0.0	106.0

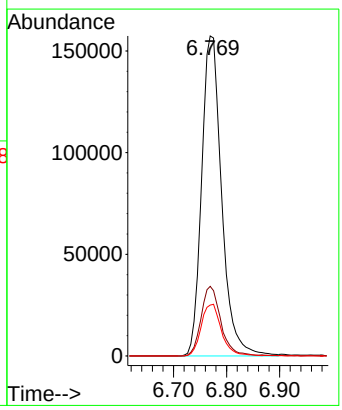


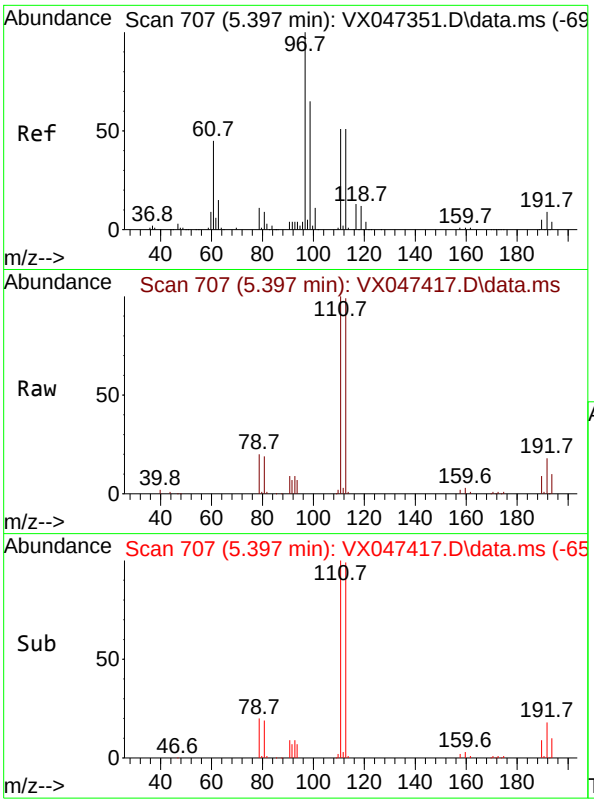


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 932
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Tgt Ion:114 Resp: 414097

Ion	Ratio	Lower	Upper
114	100		
63	24.8	0.0	42.4
88	15.9	0.0	33.0



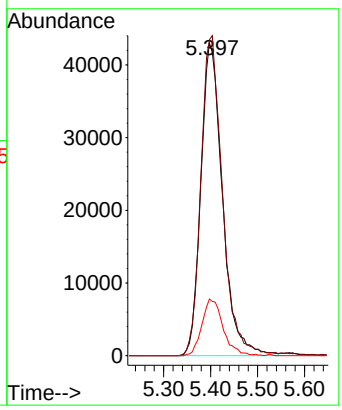


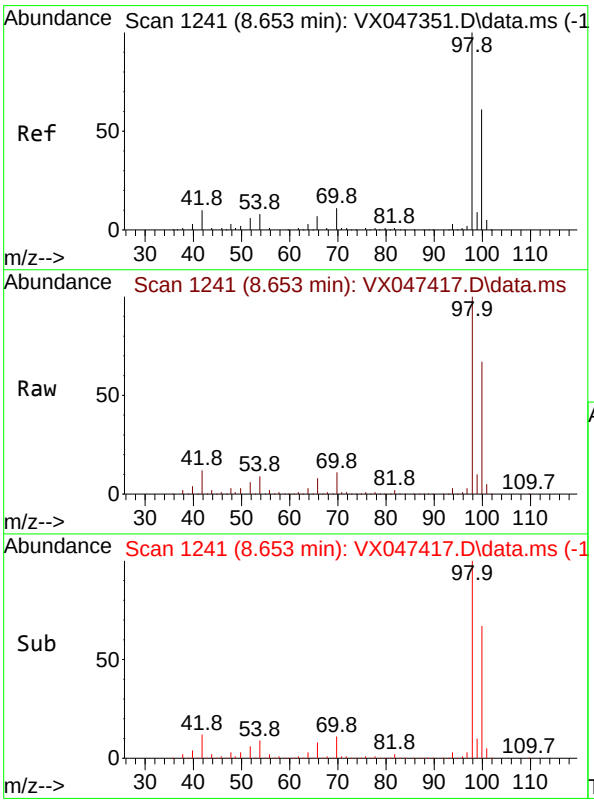
#35
Dibromofluoromethane
Concen: 51.021 ug/l
RT: 5.397 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Tgt Ion:113 Resp: 137119

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.4	122.2
192	17.8	14.1	21.1

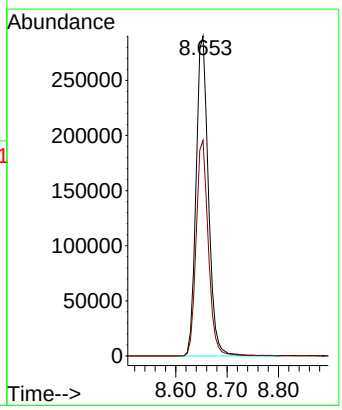


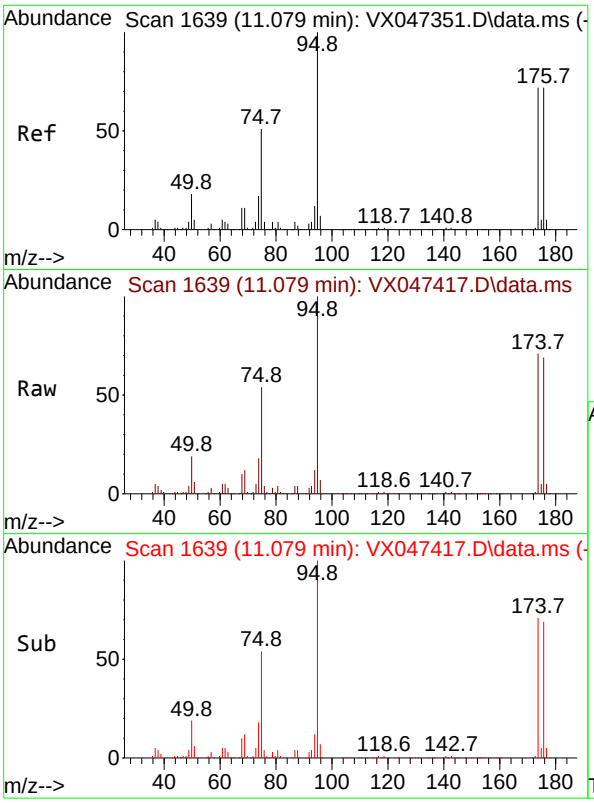


#50
Toluene-d8
Concen: 50.304 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Tgt Ion: 98 Resp: 483216

Ion	Ratio	Lower	Upper
98	100		
100	66.8	53.9	80.9



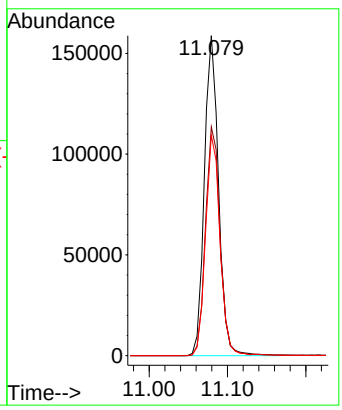


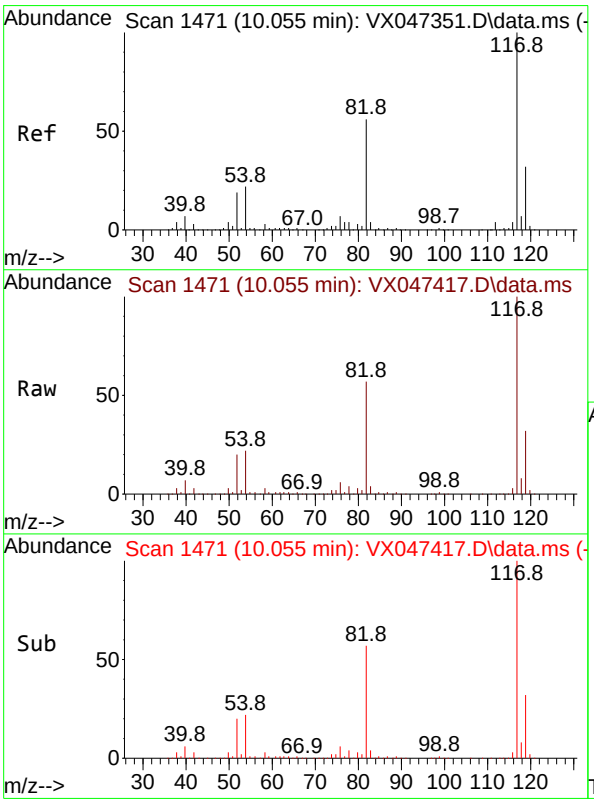
#62
4-Bromofluorobenzene
Concen: 56.150 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Tgt Ion: 95 Resp: 199041

Ion	Ratio	Lower	Upper
95	100		
174	74.0	0.0	148.0
176	70.7	0.0	145.4

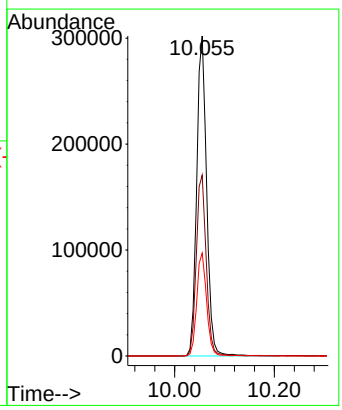


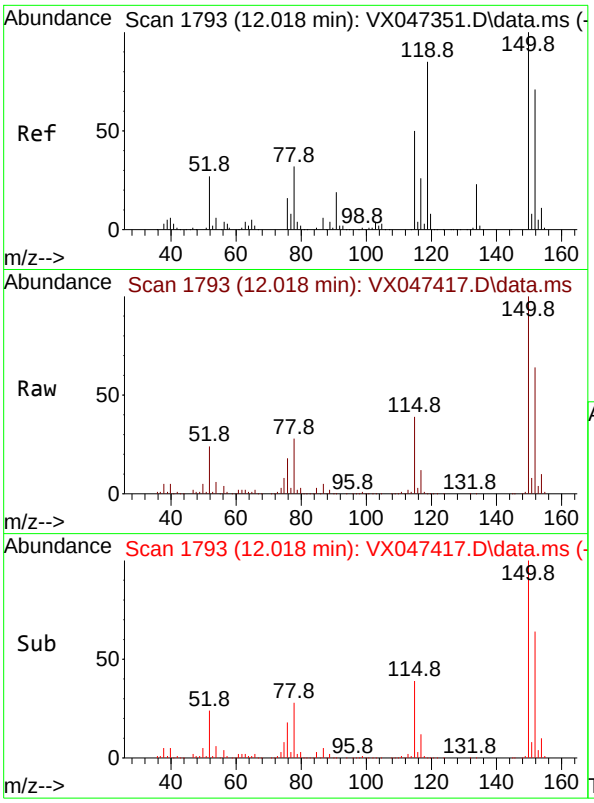


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Tgt Ion:117 Resp: 417583

Ion	Ratio	Lower	Upper
117	100		
82	56.5	45.0	67.4
119	32.2	25.8	38.8



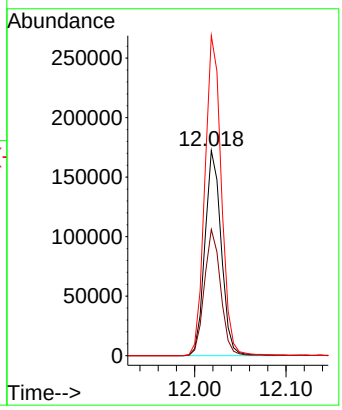


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047417.D
Acq: 19 Aug 2025 16:57

Instrument :
MSVOA_X
ClientSampleId :
EB02-081325

Tgt Ion:152 Resp: 212656

Ion	Ratio	Lower	Upper
152	100		
115	61.8	44.6	133.8
150	158.1	0.0	349.8



Raw Data: **VX047418.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	08/13/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/13/25
Client Sample ID:	TB01-081325	SDG No.:	Q2869
Lab Sample ID:	Q2869-11	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047418.D	1	08/19/25 17:18	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.6		70 (74) - 130 (125)	117%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		70 (75) - 130 (124)	100%	SPK: 50
2037-26-5	Toluene-d8	48.2		70 (86) - 130 (113)	96%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.8		70 (77) - 130 (121)	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	205000	5.562			
540-36-3	1,4-Difluorobenzene	415000	6.769			
3114-55-4	Chlorobenzene-d5	421000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	220000	12.018			

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

Sample Results: **VX047418.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047418.D
Acq On : 19 Aug 2025 17:18
Operator : JC/MD
Sample : Q2869-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Quant Time: Aug 20 01:30:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	204851	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	415100	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	420679	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	219893	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	167900	58.564	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 117.120%#			
35) Dibromofluoromethane	5.397	113	134098	49.776	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.560%			
50) Toluene-d8	8.653	98	464326	48.221	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 96.440%			
62) 4-Bromofluorobenzene	11.079	95	198402	55.835	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.660%			
Target Compounds						Qvalue

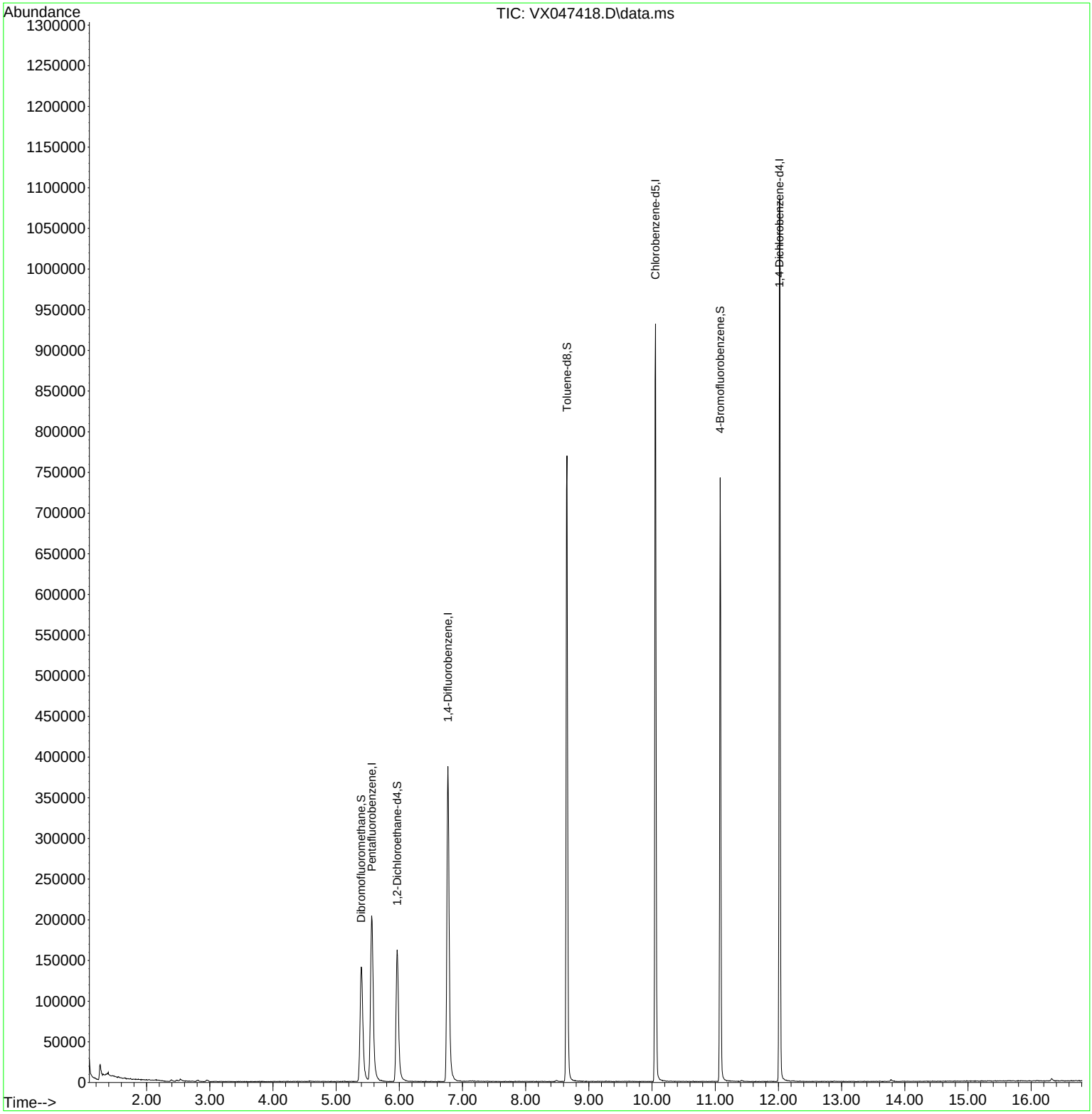
(#) = qualifier out of range (m) = manual integration (+) = signals summed

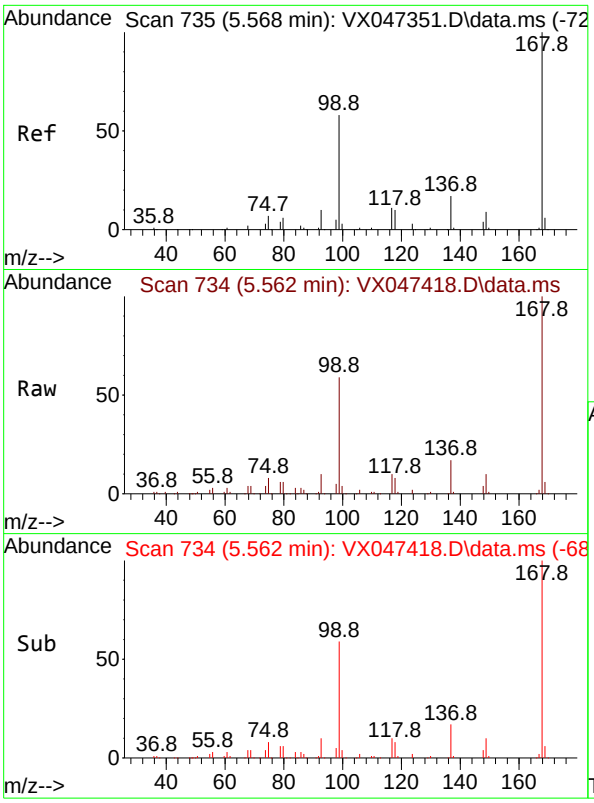
Sample Results: **VX047418.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047418.D
Acq On : 19 Aug 2025 17:18
Operator : JC/MD
Sample : Q2869-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Quant Time: Aug 20 01:30:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



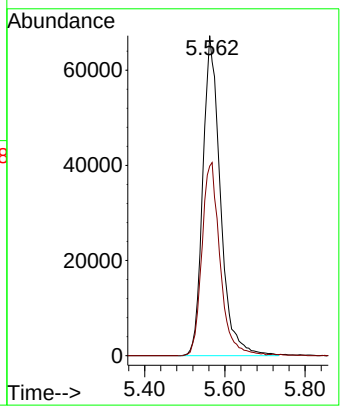


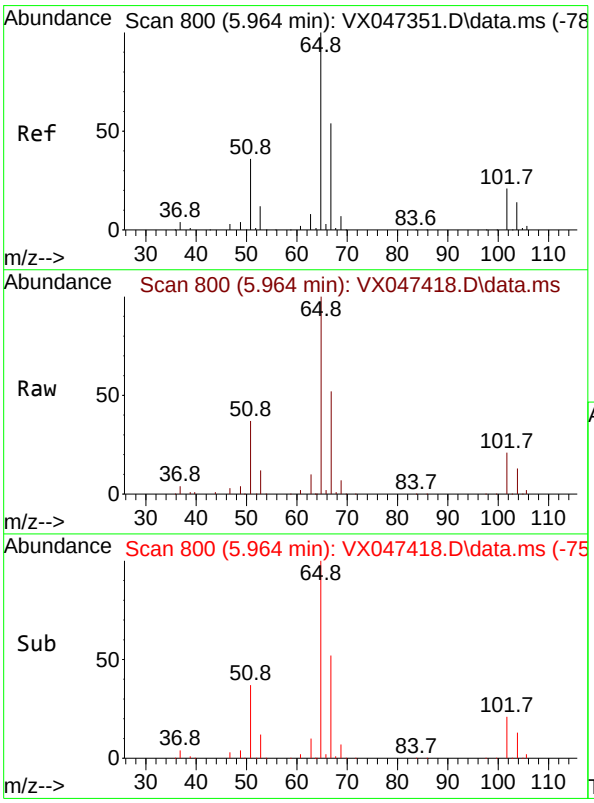
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Tgt Ion:168 Resp: 204851

Ion	Ratio	Lower	Upper
168	100		
99	59.3	47.9	71.9

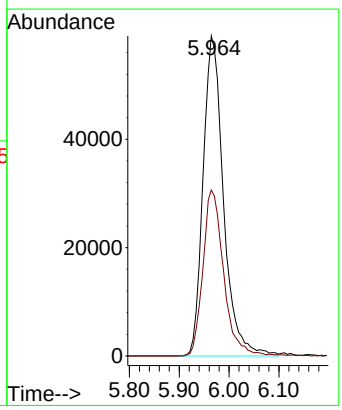


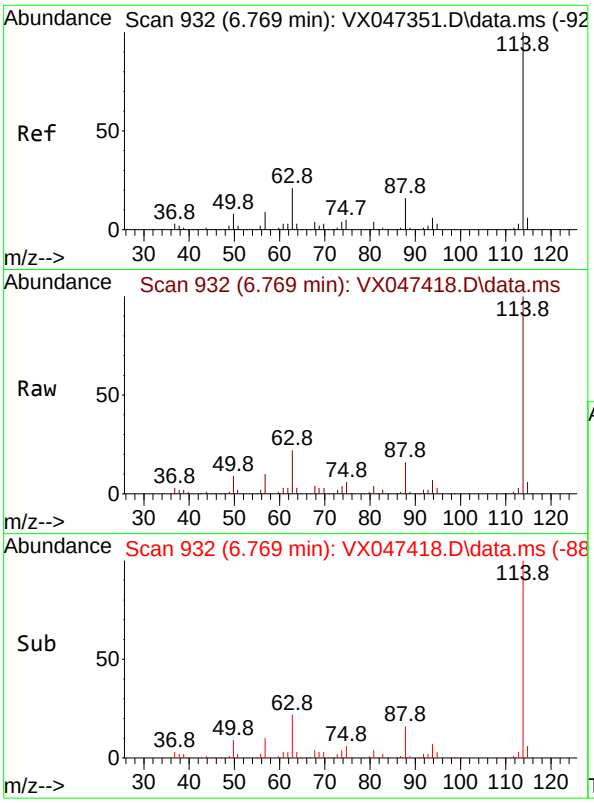


#33
1,2-Dichloroethane-d4
Concen: 58.564 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Tgt Ion: 65 Resp: 167900

Ion	Ratio	Lower	Upper
65	100		
67	52.9	0.0	106.0



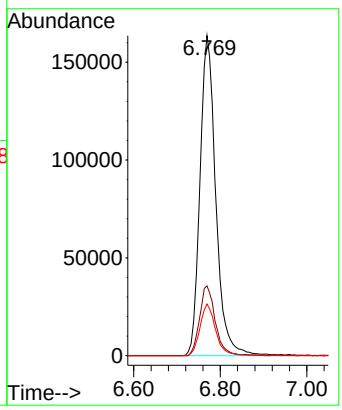


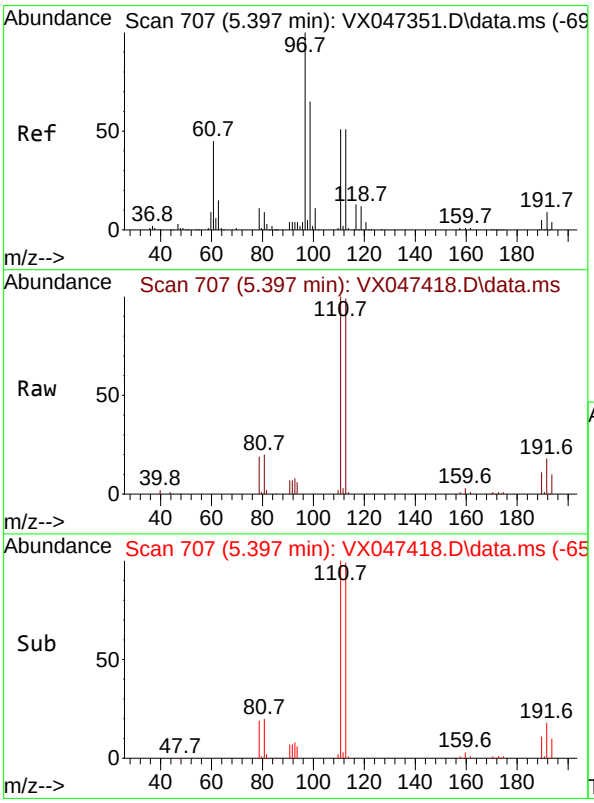
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Tgt Ion:114 Resp: 415100

Ion	Ratio	Lower	Upper
114	100		
63	21.8	0.0	42.4
88	16.2	0.0	33.0

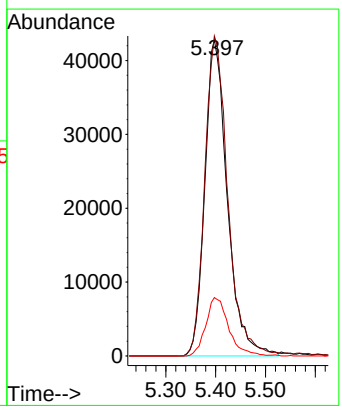


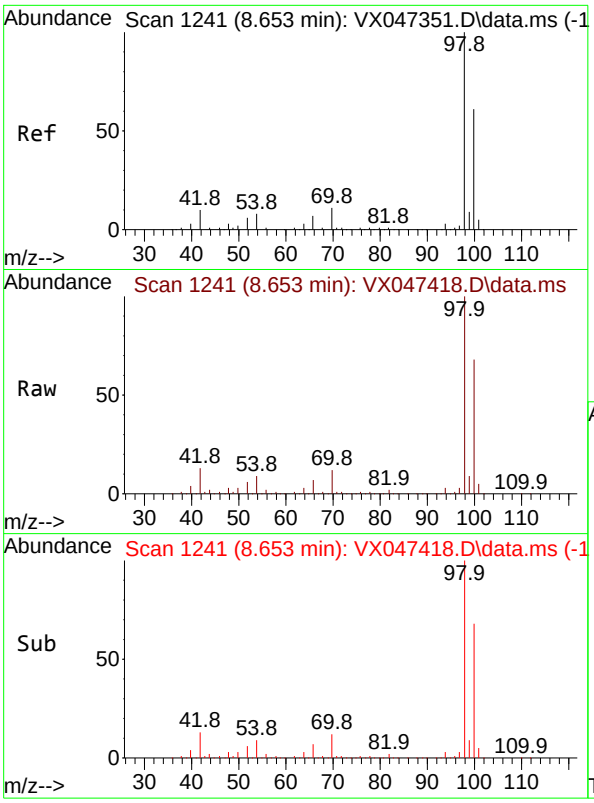


#35
Dibromofluoromethane
Concen: 49.776 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Tgt Ion:113 Resp: 134098

Ion	Ratio	Lower	Upper
113	100		
111	103.8	81.4	122.2
192	18.8	14.1	21.1



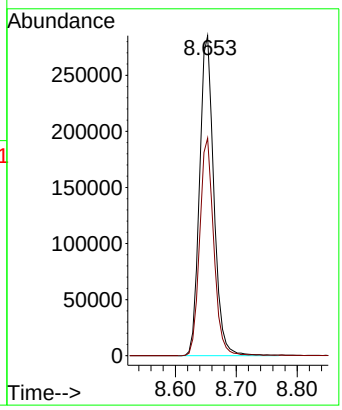


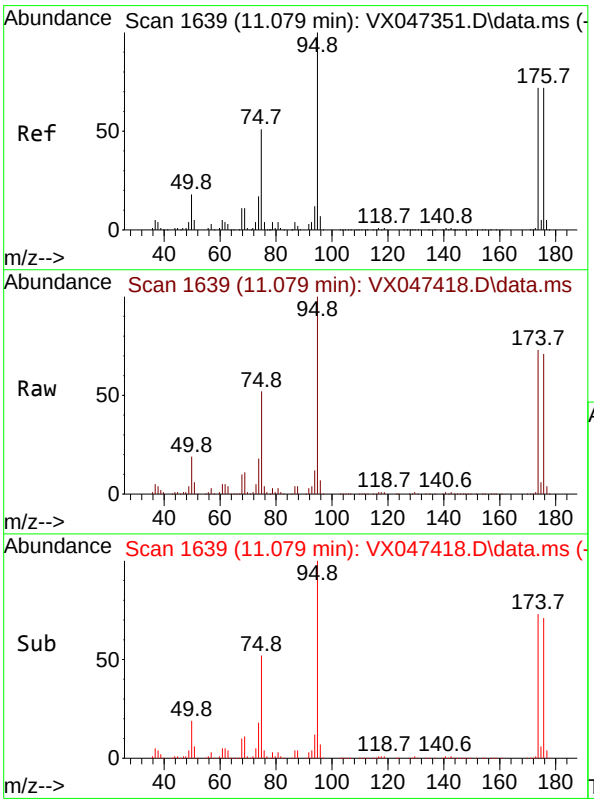
#50
Toluene-d8
Concen: 48.221 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Tgt Ion: 98 Resp: 464326

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.9	80.9

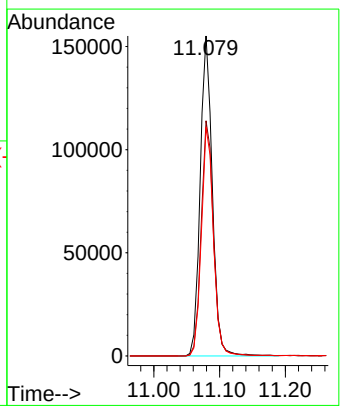


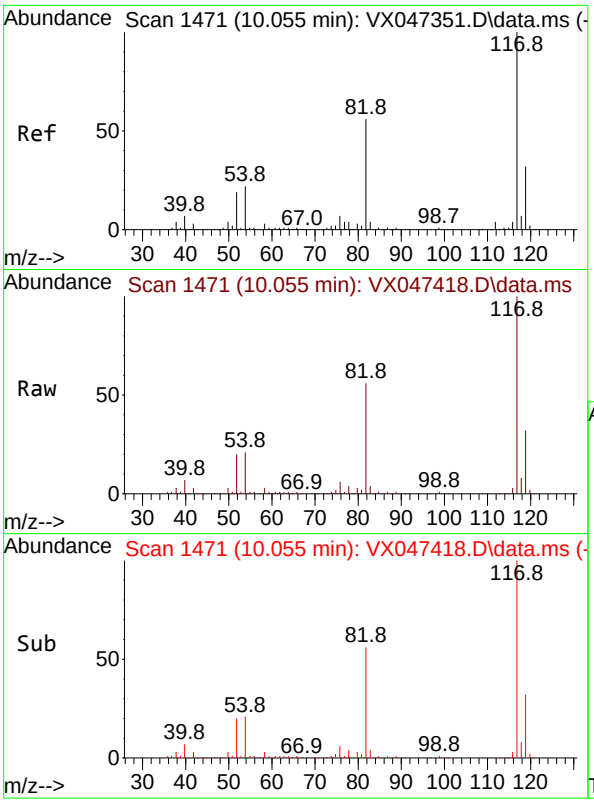


#62
4-Bromofluorobenzene
Concen: 55.835 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Tgt Ion: 95 Resp: 198402

Ion	Ratio	Lower	Upper
95	100		
174	74.5	0.0	148.0
176	71.3	0.0	145.4



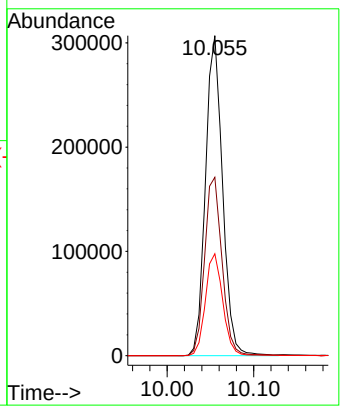


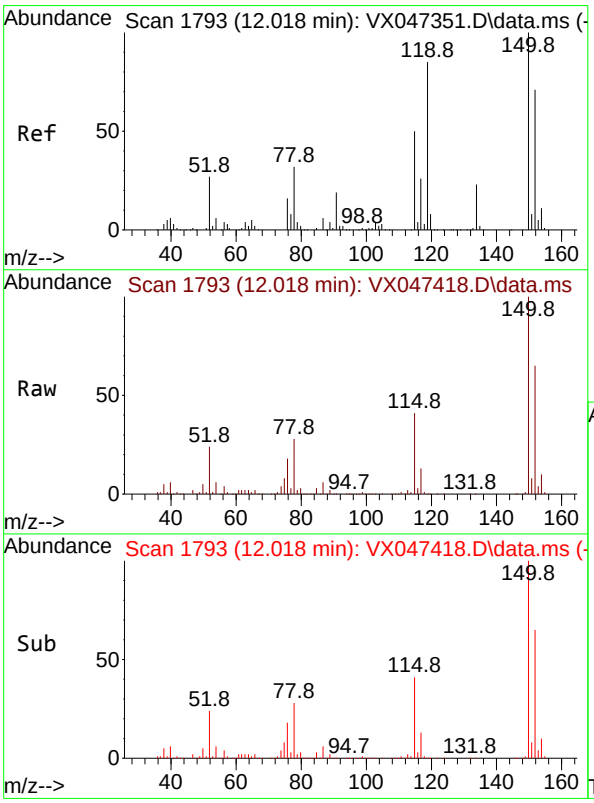
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Instrument :
MSVOA_X
ClientSampleId :
TB01-081325

Tgt Ion:117 Resp: 420679

Ion	Ratio	Lower	Upper
117	100		
82	55.7	45.0	67.4
119	31.8	25.8	38.8

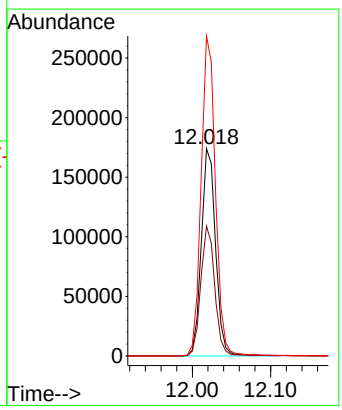




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047418.D
Acq: 19 Aug 2025 17:18

Tgt Ion:152 Resp: 219893

Ion	Ratio	Lower	Upper
152	100		
115	61.5	44.6	133.8
150	155.1	0.0	349.8



CALIBRATION SUMMARY

Raw Data

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG No.: Q2869

Instrument ID: MSVOA_X Calibration Date(s): 08/15/2025 08/15/2025

Heated Purge: (Y/N) N Calibration Time(s): 09:40 12:30

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF005 = VX047349.D RRF020 = VX047350.D RRF050 = VX047351.D
RRF100 = VX047352.D RRF150 = VX047353.D RRF001 = VX047356.D

COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF001	$\overline{RRF}$	% RSD
Vinyl Chloride	0.651	0.751	0.800	0.729	0.757	0.630	0.720	9.2
1,1-Dichloroethene	0.575	0.664	0.697	0.635	0.651	0.555	0.630	8.6
1,1-Dichloroethane	1.180	1.294	1.356	1.210	1.238	1.052	1.222	8.5
cis-1,2-Dichloroethene	0.758	0.826	0.846	0.769	0.779	0.692	0.778	7
1,1,1-Trichloroethane	1.043	1.151	1.195	1.081	1.106	0.863	1.073	10.8
Benzene	1.502	1.665	1.701	1.516	1.504	1.312	1.533	9.1
1,2-Dichloroethane	0.521	0.594	0.600	0.532	0.528	0.484	0.543	8.3
Trichloroethene	0.383	0.423	0.432	0.390	0.391	0.336	0.393	8.6
1,1,2-Trichloroethane	0.358	0.393	0.396	0.352	0.347	0.313	0.360	8.6
Tetrachloroethene	0.351	0.384	0.398	0.360	0.360	0.316	0.362	7.8
1,2-Dichloroethane-d4	0.709	0.581	0.700	0.747	0.762		0.700	10.2
Dibromofluoromethane	0.310	0.278	0.331	0.354	0.349		0.325	9.6
Toluene-d8	1.157	0.994	1.171	1.246	1.232		1.160	8.7
4-Bromofluorobenzene	0.441	0.371	0.428	0.452	0.448		0.428	7.8

* 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.

Response Factor Report MSVOA_X2

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
Method File : 82X081525W.M
Title : SW846 8260
Last Update : Mon Aug 18 04:18:28 2025
Response Via : Initial Calibration

Calibration Files
1 =VX047356.D 5 =VX047349.D 20 =VX047350.D 50 =VX047351.D 100 =VX047352.D 150 =VX047353.D

		Compound	1	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.546	0.558	0.638	0.731	0.671	0.680	0.637	11.38
3)	P	Chloromethane	0.549	0.539	0.568	0.624	0.567	0.594	0.573	5.41
4)	C	Vinyl Chloride	0.630	0.651	0.751	0.800	0.729	0.757	0.720	9.16#
5)	T	Bromomethane		0.251	0.296	0.336	0.309	0.261	0.291	11.94
6)	T	Chloroethane	0.515	0.392	0.440	0.463	0.410	0.422	0.440	10.01
7)	T	Trichlorofluor...	0.938	1.012	1.121	1.188	1.060	1.069	1.065	8.10
8)	T	Diethyl Ether	0.340	0.351	0.387	0.415	0.370	0.385	0.375	7.21
9)	T	1,1,2-Trichlor...	0.494	0.589	0.664	0.697	0.624	0.637	0.618	11.41
10)	T	Methyl Iodide		0.820	0.912	1.163	1.181	1.215	1.058	16.96
11)	T	Tert butyl alc...		0.052	0.059	0.068	0.062	0.063	0.061	9.76
12)	CM	1,1-Dichloroet...	0.555	0.575	0.664	0.697	0.635	0.651	0.630	8.61#
13)	T	Acrolein		0.130	0.122	0.132	0.127	0.131	0.129	3.22
14)	T	Allyl chloride	0.951	1.023	1.143	1.211	1.109	1.124	1.093	8.47
15)	T	Acrylonitrile	0.248	0.260	0.314	0.340	0.299	0.303	0.294	11.64
16)	T	Acetone	0.249	0.259	0.310	0.280	0.240	0.240	0.263	10.48
17)	T	Carbon Disulfide	2.069	1.747	1.916	1.993	1.819	1.854	1.900	6.21
18)	T	Methyl Acetate	0.621	0.620	0.661	0.769	0.689	0.728	0.682	8.75
19)	T	Methyl tert-bu...	1.554	1.768	2.019	2.175	1.962	2.014	1.915	11.49
20)	T	Methylene Chlo...	0.691	0.645	0.732	0.757	0.669	0.684	0.697	5.94
21)	T	trans-1,2-Dich...	0.621	0.638	0.705	0.725	0.655	0.664	0.668	5.98
22)	T	Diisopropyl ether	1.735	2.035	2.372	2.460	2.180	2.186	2.161	11.92
23)	T	Vinyl Acetate	1.412	1.596	1.919	2.040	1.821	1.841	1.772	12.91
24)	P	1,1-Dichloroet...	1.052	1.180	1.294	1.356	1.210	1.238	1.222	8.53
25)	T	2-Butanone	0.287	0.328	0.378	0.389	0.342	0.343	0.344	10.56
26)	T	2,2-Dichloropr...	0.776	0.864	0.976	1.017	0.940	0.960	0.922	9.49
27)	T	cis-1,2-Dichlo...	0.692	0.758	0.826	0.846	0.769	0.779	0.778	6.99
28)	T	Bromochloromet...	0.481	0.543	0.402	0.540	0.560	0.525	0.508	11.55
29)	T	Tetrahydrofuran	0.219	0.206	0.227	0.246	0.219	0.219	0.223	5.97
30)	C	Chloroform	1.091	1.236	1.328	1.368	1.214	1.243	1.247	7.75#
31)	T	Cyclohexane		1.024	1.202	1.210	1.082	1.112	1.126	7.05
32)	T	1,1,1-Trichlor...	0.863	1.043	1.151	1.195	1.081	1.106	1.073	10.80
33)	S	1,2-Dichloroet...		0.709	0.581	0.700	0.747	0.762	0.700	10.19
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...		0.310	0.278	0.331	0.354	0.349	0.325	9.56
36)	T	1,1-Dichloropr...	0.474	0.475	0.551	0.562	0.509	0.502	0.512	7.25
37)	T	Ethyl Acetate	0.492	0.491	0.568	0.590	0.528	0.523	0.532	7.57
38)	T	Carbon Tetrach...	0.515	0.536	0.596	0.607	0.549	0.554	0.560	6.31
39)	T	Methylcyclohexane	0.595	0.589	0.673	0.695	0.640	0.642	0.639	6.55
40)	TM	Benzene	1.312	1.502	1.665	1.701	1.516	1.504	1.533	9.07
41)	T	Methacrylonitrile	0.175	0.192	0.244	0.258	0.245	0.231	0.224	14.75
42)	TM	1,2-Dichloroet...	0.484	0.521	0.594	0.600	0.532	0.528	0.543	8.33
43)	T	Isopropyl Acetate	0.645	0.660	0.811	0.868	0.798	0.802	0.764	11.82
44)	TM	Trichloroethene	0.336	0.383	0.423	0.432	0.390	0.391	0.393	8.64
45)	C	1,2-Dichloropr...	0.357	0.349	0.415	0.421	0.381	0.382	0.384	7.60#
46)	T	Dibromomethane	0.248	0.272	0.302	0.302	0.273	0.276	0.279	7.34
47)	T	Bromodichlorom...	0.513	0.548	0.621	0.635	0.578	0.573	0.578	7.81
48)	T	Methyl methacr...	0.352	0.335	0.419	0.445	0.412	0.417	0.397	10.89
49)	T	1,4-Dioxane	0.003	0.004	0.004	0.004	0.004	0.004	0.004	14.33
50)	S	Toluene-d8		1.157	0.994	1.171	1.246	1.232	1.160	8.66
51)	T	4-Methyl-2-Pen...	0.346	0.408	0.479	0.509	0.451	0.444	0.440	12.98
52)	CM	Toluene	0.802	0.920	1.043	1.057	0.936	0.927	0.947	9.87#
53)	T	t-1,3-Dichloro...	0.371	0.444	0.537	0.584	0.541	0.550	0.505	15.92
54)	T	cis-1,3-Dichlo...	0.451	0.531	0.608	0.642	0.592	0.602	0.571	12.05
55)	T	1,1,2-Trichlor...	0.313	0.358	0.393	0.396	0.352	0.347	0.360	8.61
56)	T	Ethyl methacry...	0.405	0.466	0.562	0.617	0.563	0.569	0.530	14.84

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
Method File : 82X081525W.M

57)	T	1,3-Dichloropr...	0.553	0.591	0.672	0.670	0.600	0.592	0.613	7.78
58)	T	2-Chloroethyl ...	0.103	0.191	0.184	0.274	0.256	0.259	0.211	30.82
59)	T	2-Hexanone	0.239	0.284	0.338	0.347	0.310	0.306	0.304	12.89
60)	T	Dibromochlorom...	0.382	0.412	0.461	0.464	0.426	0.420	0.428	7.31
61)	T	1,2-Dibromoethane	0.336	0.358	0.397	0.409	0.365	0.361	0.371	7.24
62)	S	4-Bromofluorob...		0.441	0.371	0.428	0.452	0.448	0.428	7.78
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.316	0.351	0.384	0.398	0.360	0.360	0.362	7.79
65)	PM	Chlorobenzene	1.073	1.163	1.268	1.286	1.163	1.175	1.188	6.58
66)	T	1,1,1,2-Tetrac...	0.345	0.389	0.423	0.441	0.403	0.409	0.402	8.27
67)	C	Ethyl Benzene	1.718	1.941	2.216	2.277	2.062	2.056	2.045	9.81#
68)	T	m/p-Xylenes	0.642	0.722	0.831	0.858	0.765	0.759	0.763	10.18
69)	T	o-Xylene	0.651	0.679	0.793	0.813	0.735	0.732	0.734	8.55
70)	T	Styrene	0.909	1.186	1.397	1.411	1.271	1.266	1.240	14.80
71)	P	Bromoform	0.241	0.294	0.322	0.335	0.306	0.313	0.302	10.89
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	3.211	3.547	4.192	4.399	4.048	4.080	3.913	11.36
74)	T	N-amyl acetate	1.047	1.230	1.539	1.729	1.658	1.712	1.486	19.05
75)	P	1,1,2,2-Tetrac...	1.044	1.077	1.208	1.269	1.142	1.152	1.149	7.19
76)	T	1,2,3-Trichlor...	0.818	0.888	0.941	1.014	0.919	0.921	0.917	6.98
77)	T	Bromobenzene	0.797	0.909	1.017	1.053	0.978	0.977	0.955	9.54
78)	T	n-propylbenzene	3.905	4.263	5.031	5.179	4.817	4.844	4.673	10.45
79)	T	2-Chlorotoluene	2.545	2.612	3.039	3.096	2.828	2.830	2.825	7.80
80)	T	1,3,5-Trimethy...	2.716	2.909	3.463	3.588	3.311	3.329	3.219	10.44
81)	T	trans-1,4-Dich...		0.089	0.141	0.199	0.215	0.246	0.178	35.26
82)	T	4-Chlorotoluene	3.043	3.128	3.542	3.630	3.299	3.338	3.330	6.83
83)	T	tert-Butylbenzene	2.658	2.867	3.451	3.619	3.334	3.342	3.212	11.48
84)	T	1,2,4-Trimethy...	2.516	2.990	3.521	3.645	3.318	3.326	3.219	12.74
85)	T	sec-Butylbenzene	3.273	3.630	4.323	4.417	4.101	4.142	3.981	11.07
86)	T	p-Isopropyltol...	2.961	3.071	3.569	3.726	3.416	3.469	3.369	8.75
87)	T	1,3-Dichlorobe...	1.710	1.719	1.907	1.983	1.811	1.823	1.825	5.82
88)	T	1,4-Dichlorobe...	1.936	1.788	1.952	1.986	1.788	1.814	1.877	4.81
89)	T	n-Butylbenzene	2.816	2.796	3.309	3.444	3.208	3.227	3.133	8.52
90)	T	Hexachloroethane	0.529	0.505	0.584	0.653	0.618	0.657	0.591	10.74
91)	T	1,2-Dichlorobe...	1.631	1.617	1.851	1.862	1.705	1.729	1.733	6.06
92)	T	1,2-Dibromo-3-...	0.191	0.182	0.225	0.247	0.238	0.249	0.222	13.01
93)	T	1,2,4-Trichlor...	1.144	1.030	1.168	1.234	1.191	1.204	1.161	6.16
94)	T	Hexachlorobuta...	0.562	0.367	0.387	0.404	0.376	0.383	0.413	17.91
95)	T	Naphthalene	2.674	2.705	3.401	3.779	3.639	3.717	3.319	15.20
96)	T	1,2,3-Trichlor...	1.075	0.919	1.109	1.174	1.132	1.160	1.095	8.48

(#) = Out of Range

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047349.D
Acq On : 15 Aug 2025 09:40
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:52:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	281608	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	479446	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	434591	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	224159	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.971	65	19963	5.065	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 10.140%#			
35) Dibromofluoromethane	5.397	113	14862	4.776	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 9.560%#			
50) Toluene-d8	8.653	98	55469	4.987	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 9.980%#			
62) 4-Bromofluorobenzene	11.079	95	21138	5.150	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 10.300%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	15718	4.378	ug/l	97
3) Chloromethane	1.313	50	15170	4.697	ug/l	92
4) Vinyl Chloride	1.392	62	18322	4.520	ug/l	94
5) Bromomethane	1.624	94	7076	4.322	ug/l	94
6) Chloroethane	1.709	64	11042	4.452	ug/l	96
7) Trichlorofluoromethane	1.904	101	28485	4.751	ug/l	93
8) Diethyl Ether	2.148	74	9891	4.685	ug/l	92
9) 1,1,2-Trichlorotrifluo...	2.343	101	16582	4.768	ug/l	99
10) Methyl Iodide	2.471	142	23080	3.872	ug/l	97
11) Tert butyl alcohol	2.965	59	7340	21.408	ug/l #	89
12) 1,1-Dichloroethene	2.337	96	16204	4.570	ug/l	92
13) Acrolein	2.252	56	18274	25.248	ug/l	97
14) Allyl chloride	2.678	41	28797	4.676	ug/l	100
15) Acrylonitrile	3.087	53	36613	22.099	ug/l	97
16) Acetone	2.392	43	36440	24.598	ug/l	94
17) Carbon Disulfide	2.532	76	49197	4.598	ug/l	99
18) Methyl Acetate	2.721	43	17456	4.547	ug/l	93
19) Methyl tert-butyl Ether	3.130	73	49799	4.617	ug/l	100
20) Methylene Chloride	2.806	84	18175	4.633	ug/l	97
21) trans-1,2-Dichloroethene	3.105	96	17974	4.776	ug/l	88
22) Diisopropyl ether	3.776	45	57311	4.708	ug/l	96
23) Vinyl Acetate	3.739	43	224747	22.525	ug/l	100
24) 1,1-Dichloroethane	3.623	63	33241	4.831	ug/l	99
25) 2-Butanone	4.581	43	46235	23.830	ug/l	97
26) 2,2-Dichloropropane	4.489	77	24325	4.684	ug/l	99
27) cis-1,2-Dichloroethene	4.501	96	21338	4.868	ug/l	96
28) Bromochloromethane	4.916	49	15283	5.338	ug/l	98
29) Tetrahydrofuran	5.038	42	28938m	23.076	ug/l	
30) Chloroform	5.105	83	34798	4.955	ug/l	97
31) Cyclohexane	5.483	56	28847	4.548	ug/l	91
32) 1,1,1-Trichloroethane	5.404	97	29367	4.859	ug/l	99
36) 1,1-Dichloropropene	5.702	75	22796	4.641	ug/l	96
37) Ethyl Acetate	4.739	43	23521	4.613	ug/l	99
38) Carbon Tetrachloride	5.690	117	25718	4.791	ug/l	96
39) Methylcyclohexane	7.385	83	28242	4.609	ug/l	98
40) Benzene	6.050	78	72021	4.899	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047349.D
Acq On : 15 Aug 2025 09:40
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 02:52:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	4.958	41	9185	4.271 ug/l #	91
42) 1,2-Dichloroethane	6.099	62	24979	4.796 ug/l	99
43) Isopropyl Acetate	6.361	43	31621	4.316 ug/l	97
44) Trichloroethene	7.135	130	18386	4.884 ug/l	99
45) 1,2-Dichloropropane	7.434	63	16729	4.542 ug/l	95
46) Dibromomethane	7.592	93	13062	4.885 ug/l	97
47) Bromodichloromethane	7.824	83	26280	4.741 ug/l	95
48) Methyl methacrylate	7.702	41	16053	4.222 ug/l	99
49) 1,4-Dioxane	7.696	88	3959m	109.635 ug/l	
51) 4-Methyl-2-Pentanone	8.580	43	97891	23.221 ug/l	97
52) Toluene	8.720	92	44099	4.854 ug/l	98
53) t-1,3-Dichloropropene	8.982	75	21300	4.403 ug/l	94
54) cis-1,3-Dichloropropene	8.373	75	25475	4.652 ug/l	93
55) 1,1,2-Trichloroethane	9.153	97	17150	4.972 ug/l #	83
56) Ethyl methacrylate	9.122	69	22362	4.397 ug/l	97
57) 1,3-Dichloropropane	9.311	76	28336	4.821 ug/l	98
58) 2-Chloroethyl Vinyl ether	8.245	63	45735	26.559 ug/l	98
59) 2-Hexanone	9.433	43	68164	23.375 ug/l	96
60) Dibromochloromethane	9.519	129	19760	4.820 ug/l	97
61) 1,2-Dibromoethane	9.610	107	17154	4.823 ug/l	97
64) Tetrachloroethene	9.275	164	15266	4.856 ug/l	91
65) Chlorobenzene	10.080	112	50559	4.896 ug/l	95
66) 1,1,1,2-Tetrachloroethane	10.165	131	16894	4.839 ug/l	96
67) Ethyl Benzene	10.195	91	84363	4.746 ug/l	98
68) m/p-Xylenes	10.299	106	62714	9.462 ug/l	97
69) o-Xylene	10.640	106	29488	4.623 ug/l	100
70) Styrene	10.653	104	51543	4.783 ug/l	98
71) Bromoform	10.799	173	12769	4.869 ug/l #	94
73) Isopropylbenzene	10.964	105	79512	4.533 ug/l	99
74) N-amyl acetate	10.842	43	27565	4.138 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.213	83	24139	4.687 ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	19912m	4.843 ug/l	
77) Bromobenzene	11.195	156	20380	4.758 ug/l	96
78) n-propylbenzene	11.305	91	95550	4.561 ug/l	100
79) 2-Chlorotoluene	11.366	91	58544	4.623 ug/l	98
80) 1,3,5-Trimethylbenzene	11.451	105	65210	4.518 ug/l	98
81) trans-1,4-Dichloro-2-b...	11.018	75	1992	9.640 ug/l	87
82) 4-Chlorotoluene	11.451	91	70117	4.697 ug/l	98
83) tert-Butylbenzene	11.713	119	64267	4.463 ug/l	97
84) 1,2,4-Trimethylbenzene	11.750	105	67032	4.644 ug/l	98
85) sec-Butylbenzene	11.890	105	81375	4.559 ug/l	99
86) p-Isopropyltoluene	12.006	119	68849	4.559 ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	38531	4.709 ug/l	99
88) 1,4-Dichlorobenzene	12.037	146	40089	4.763 ug/l	93
89) n-Butylbenzene	12.329	91	62666	4.461 ug/l	99
90) Hexachloroethane	12.536	117	11325	4.274 ug/l	98
91) 1,2-Dichlorobenzene	12.335	146	36248	4.667 ug/l	98
92) 1,2-Dibromo-3-Chloropr...	12.945	75	4081	4.097 ug/l	99
93) 1,2,4-Trichlorobenzene	13.585	180	23080	4.432 ug/l	96
94) Hexachlorobutadiene	13.725	225	8221	4.436 ug/l	94
95) Naphthalene	13.774	128	60645	4.076 ug/l	99
96) 1,2,3-Trichlorobenzene	13.957	180	20611	4.199 ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047349.D
Acq On : 15 Aug 2025 09:40
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:52:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

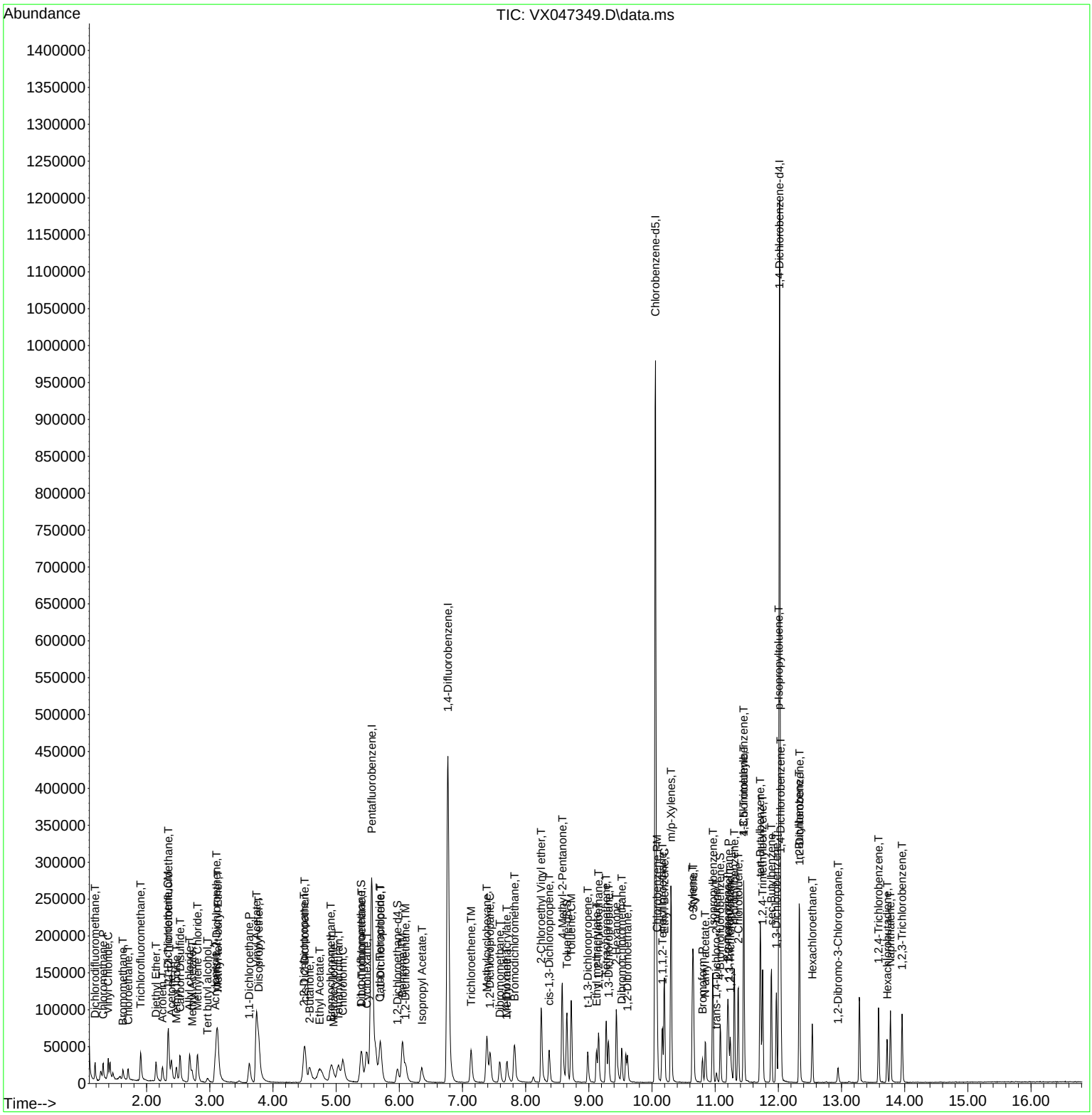
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047349.D
Acq On : 15 Aug 2025 09:40
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 02:52:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047350.D
Acq On : 15 Aug 2025 10:01
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	259497	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	434596	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	392362	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	196732	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	60290	16.601	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 33.200%#			
35) Dibromofluoromethane	5.397	113	48382	17.153	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 34.300%#			
50) Toluene-d8	8.653	98	172730	17.133	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 34.260%#			
62) 4-Bromofluorobenzene	11.079	95	64433	17.320	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 34.640%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	66192	20.010	ug/l	96
3) Chloromethane	1.313	50	58950	19.810	ug/l	96
4) Vinyl Chloride	1.392	62	77968	20.874	ug/l	99
5) Bromomethane	1.624	94	30761	20.389	ug/l	89
6) Chloroethane	1.703	64	45658	19.979	ug/l	100
7) Trichlorofluoromethane	1.904	101	116366	21.062	ug/l	96
8) Diethyl Ether	2.148	74	40131	20.629	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.349	101	68887	21.495	ug/l	100
10) Methyl Iodide	2.471	142	94708	17.244	ug/l	99
11) Tert butyl alcohol	2.965	59	30471	96.445	ug/l	98
12) 1,1-Dichloroethene	2.337	96	68973	21.110	ug/l	98
13) Acrolein	2.252	56	63232	94.809	ug/l	100
14) Allyl chloride	2.678	41	118613	20.902	ug/l	99
15) Acrylonitrile	3.081	53	163095	106.830	ug/l	99
16) Acetone	2.392	43	161019	117.954	ug/l	95
17) Carbon Disulfide	2.532	76	198834	20.167	ug/l	98
18) Methyl Acetate	2.715	43	68662	19.410	ug/l	99
19) Methyl tert-butyl Ether	3.130	73	209527	21.080	ug/l	98
20) Methylene Chloride	2.806	84	76029	21.033	ug/l	97
21) trans-1,2-Dichloroethene	3.111	96	73205	21.110	ug/l	99
22) Diisopropyl ether	3.776	45	246210	21.949	ug/l	98
23) Vinyl Acetate	3.733	43	996178	108.348	ug/l	97
24) 1,1-Dichloroethane	3.629	63	134271	21.177	ug/l	99
25) 2-Butanone	4.568	43	195973	109.614	ug/l	96
26) 2,2-Dichloropropane	4.489	77	101341	21.177	ug/l	100
27) cis-1,2-Dichloroethene	4.501	96	85695	21.217	ug/l	98
28) Bromochloromethane	4.910	49	41717	15.812	ug/l	100
29) Tetrahydrofuran	5.032	42	117869	102.002	ug/l	97
30) Chloroform	5.105	83	137885	21.309	ug/l	96
31) Cyclohexane	5.483	56	124775	21.348	ug/l	98
32) 1,1,1-Trichloroethane	5.397	97	119441	21.445	ug/l	98
36) 1,1-Dichloropropene	5.702	75	95703	21.494	ug/l	99
37) Ethyl Acetate	4.727	43	98709	21.355	ug/l	96
38) Carbon Tetrachloride	5.690	117	103616	21.296	ug/l	96
39) Methylcyclohexane	7.385	83	116913	21.051	ug/l	95
40) Benzene	6.050	78	289406	21.716	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047350.D
Acq On : 15 Aug 2025 10:01
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.940	41	42490	21.799	ug/l		96
42) 1,2-Dichloroethane	6.098	62	103227	21.867	ug/l		98
43) Isopropyl Acetate	6.348	43	141062	21.243	ug/l		99
44) Trichloroethene	7.135	130	73526	21.546	ug/l		94
45) 1,2-Dichloropropane	7.434	63	72118	21.601	ug/l		100
46) Dibromomethane	7.586	93	52472	21.648	ug/l		99
47) Bromodichloromethane	7.824	83	107990	21.491	ug/l		98
48) Methyl methacrylate	7.696	41	72765	21.111	ug/l		100
49) 1,4-Dioxane	7.684	88	13554m	414.079	ug/l		
51) 4-Methyl-2-Pentanone	8.574	43	416671	109.039	ug/l		100
52) Toluene	8.720	92	181368	22.024	ug/l		100
53) t-1,3-Dichloropropene	8.982	75	93302	21.275	ug/l		99
54) cis-1,3-Dichloropropene	8.366	75	105701	21.294	ug/l		99
55) 1,1,2-Trichloroethane	9.153	97	68282	21.838	ug/l		98
56) Ethyl methacrylate	9.116	69	97675	21.188	ug/l		99
57) 1,3-Dichloropropane	9.311	76	116737	21.910	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.244	63	159793	78.521	ug/l		99
59) 2-Hexanone	9.433	43	293885	111.182	ug/l		100
60) Dibromochloromethane	9.519	129	80119	21.561	ug/l		98
61) 1,2-Dibromoethane	9.610	107	68961	21.388	ug/l		99
64) Tetrachloroethene	9.275	164	60329	21.257	ug/l		93
65) Chlorobenzene	10.079	112	198998	21.342	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.159	131	66366	21.056	ug/l		99
67) Ethyl Benzene	10.195	91	347834	21.675	ug/l		99
68) m/p-Xylenes	10.299	106	260945	43.608	ug/l		98
69) o-Xylene	10.640	106	124422	21.606	ug/l		99
70) Styrene	10.653	104	219310	22.540	ug/l		99
71) Bromoform	10.799	173	50519	21.335	ug/l	#	99
73) Isopropylbenzene	10.963	105	329846	21.425	ug/l		99
74) N-amyl acetate	10.842	43	121116	20.717	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.207	83	95098	21.039	ug/l		98
76) 1,2,3-Trichloropropane	11.238	75	74083m	20.531	ug/l		
77) Bromobenzene	11.195	156	80066	21.298	ug/l		99
78) n-propylbenzene	11.305	91	395888	21.531	ug/l		99
79) 2-Chlorotoluene	11.360	91	239133	21.515	ug/l		97
80) 1,3,5-Trimethylbenzene	11.451	105	272501	21.513	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	11057	19.090	ug/l		90
82) 4-Chlorotoluene	11.451	91	278705	21.272	ug/l		99
83) tert-Butylbenzene	11.713	119	271541	21.487	ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	277110	21.876	ug/l		100
85) sec-Butylbenzene	11.890	105	340203	21.719	ug/l		99
86) p-Isopropyltoluene	12.006	119	280855	21.189	ug/l		99
87) 1,3-Dichlorobenzene	11.969	146	150028	20.890	ug/l		99
88) 1,4-Dichlorobenzene	12.036	146	153630	20.798	ug/l		99
89) n-Butylbenzene	12.329	91	260428	21.124	ug/l		99
90) Hexachloroethane	12.536	117	45934	19.754	ug/l		100
91) 1,2-Dichlorobenzene	12.335	146	145629	21.363	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	17698	20.246	ug/l		100
93) 1,2,4-Trichlorobenzene	13.585	180	91878	20.105	ug/l		100
94) Hexachlorobutadiene	13.719	225	30481	18.738	ug/l		98
95) Naphthalene	13.774	128	267664	20.495	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	87275	20.261	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047350.D
Acq On : 15 Aug 2025 10:01
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

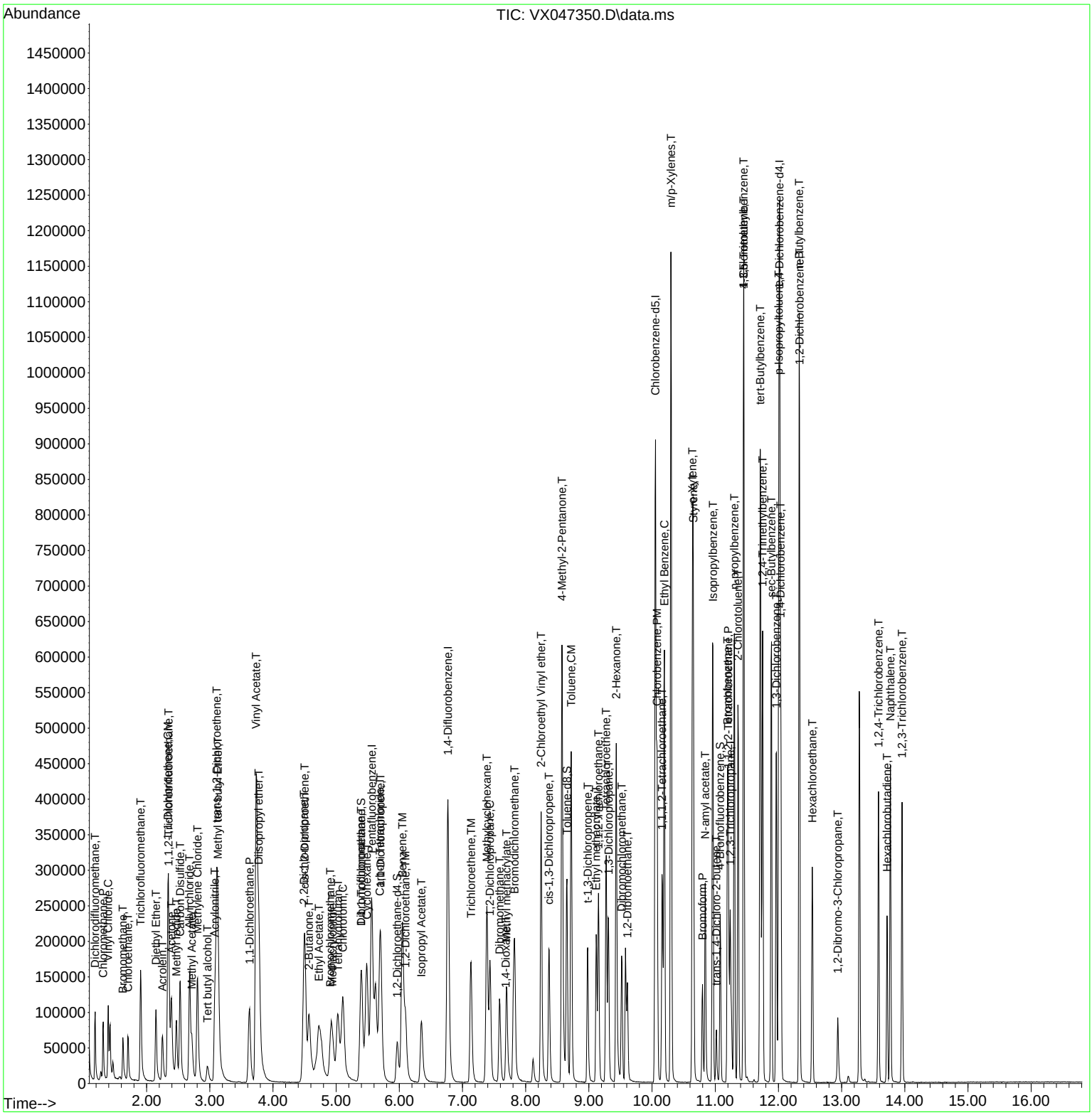
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047350.D
Acq On : 15 Aug 2025 10:01
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 18 02:53:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047351.D
Acq On : 15 Aug 2025 10:22
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	238847	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	405572	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	363128	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	177366	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	167238	50.030	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.060%			
35) Dibromofluoromethane	5.397	113	134437	51.074	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.140%			
50) Toluene-d8	8.653	98	475041	50.492	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 100.980%			
62) 4-Bromofluorobenzene	11.079	95	173764	50.050	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 100.100%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	174629	57.354	ug/l	100
3) Chloromethane	1.313	50	148962	54.385	ug/l	100
4) Vinyl Chloride	1.392	62	191163	55.604	ug/l	100
5) Bromomethane	1.630	94	80221	57.770	ug/l	100
6) Chloroethane	1.709	64	110475	52.521	ug/l	100
7) Trichlorofluoromethane	1.904	101	283655	55.781	ug/l	100
8) Diethyl Ether	2.148	74	99184	55.393	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.349	101	166491	56.441	ug/l	100
10) Methyl Iodide	2.471	142	277741	54.943	ug/l	100
11) Tert butyl alcohol	2.959	59	81382	279.856	ug/l	100
12) 1,1-Dichloroethene	2.337	96	166359	55.319	ug/l	100
13) Acrolein	2.251	56	157735	256.954	ug/l	100
14) Allyl chloride	2.678	41	289338	55.394	ug/l	100
15) Acrylonitrile	3.081	53	405784	288.775	ug/l	100
16) Acetone	2.392	43	334538	266.252	ug/l	100
17) Carbon Disulfide	2.532	76	476020	52.455	ug/l	100
18) Methyl Acetate	2.715	43	183721	56.425	ug/l	100
19) Methyl tert-butyl Ether	3.123	73	519477	56.782	ug/l	100
20) Methylene Chloride	2.806	84	180921	54.377	ug/l	100
21) trans-1,2-Dichloroethene	3.105	96	173226	54.272	ug/l	100
22) Diisopropyl ether	3.776	45	587571	56.909	ug/l	100
23) Vinyl Acetate	3.733	43	2436350	287.897	ug/l	100
24) 1,1-Dichloroethane	3.623	63	323982	55.516	ug/l	100
25) 2-Butanone	4.568	43	464136	282.051	ug/l	100
26) 2,2-Dichloropropane	4.495	77	242859	55.137	ug/l	100
27) cis-1,2-Dichloroethene	4.501	96	202109	54.366	ug/l	100
28) Bromochloromethane	4.910	49	129079	53.153	ug/l	100
29) Tetrahydrofuran	5.025	42	293474	275.925	ug/l	100
30) Chloroform	5.105	83	326781	54.867	ug/l	100
31) Cyclohexane	5.483	56	288914	53.705	ug/l	100
32) 1,1,1-Trichloroethane	5.397	97	285500	55.692	ug/l	100
36) 1,1-Dichloropropene	5.708	75	228086	54.893	ug/l	100
37) Ethyl Acetate	4.721	43	239310	55.477	ug/l	100
38) Carbon Tetrachloride	5.690	117	246368	54.258	ug/l	100
39) Methylcyclohexane	7.391	83	281960	54.402	ug/l	100
40) Benzene	6.050	78	689965	55.477	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047351.D
Acq On : 15 Aug 2025 10:22
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Methacrylonitrile	4.940	41	104680	57.547	ug/l	100
42) 1,2-Dichloroethane	6.098	62	243489	55.271	ug/l	100
43) Isopropyl Acetate	6.348	43	352090	56.817	ug/l	100
44) Trichloroethene	7.135	130	175409	55.081	ug/l	100
45) 1,2-Dichloropropane	7.433	63	170556	54.740	ug/l	100
46) Dibromomethane	7.586	93	122428	54.124	ug/l	100
47) Bromodichloromethane	7.824	83	257393	54.888	ug/l	100
48) Methyl methacrylate	7.696	41	180568	56.136	ug/l	100
49) 1,4-Dioxane	7.677	88	36298	1188.274	ug/l	100
51) 4-Methyl-2-Pentanone	8.573	43	1031709	289.311	ug/l	100
52) Toluene	8.720	92	428577	55.767	ug/l	100
53) t-1,3-Dichloropropene	8.976	75	237021	57.913	ug/l	100
54) cis-1,3-Dichloropropene	8.366	75	260352	56.202	ug/l	100
55) 1,1,2-Trichloroethane	9.153	97	160439	54.984	ug/l	100
56) Ethyl methacrylate	9.116	69	250221	58.164	ug/l	100
57) 1,3-Dichloropropane	9.311	76	271755	54.656	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.244	63	555513	269.738	ug/l	100
59) 2-Hexanone	9.433	43	703268	285.099	ug/l	100
60) Dibromochloromethane	9.518	129	188384	54.326	ug/l	100
61) 1,2-Dibromoethane	9.610	107	165776	55.095	ug/l	100
64) Tetrachloroethene	9.275	164	144361	54.962	ug/l	100
65) Chlorobenzene	10.079	112	467009	54.119	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.159	131	160305	54.954	ug/l	100
67) Ethyl Benzene	10.195	91	826783	55.667	ug/l	100
68) m/p-Xylenes	10.299	106	622895	112.475	ug/l	100
69) o-Xylene	10.640	106	295290	55.407	ug/l	100
70) Styrene	10.652	104	512239	56.883	ug/l	100
71) Bromoform	10.799	173	121692	55.530	ug/l	100
73) Isopropylbenzene	10.963	105	780181	56.210	ug/l	100
74) N-amyl acetate	10.841	43	306720	58.194	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.207	83	225063	55.228	ug/l	100
76) 1,2,3-Trichloropropane	11.238	75	179785m	55.266	ug/l	
77) Bromobenzene	11.195	156	186832	55.124	ug/l	100
78) n-propylbenzene	11.299	91	918573	55.413	ug/l	100
79) 2-Chlorotoluene	11.360	91	549070	54.793	ug/l	100
80) 1,3,5-Trimethylbenzene	11.451	105	636323	55.720	ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	35295	47.608	ug/l	100
82) 4-Chlorotoluene	11.451	91	643830	54.505	ug/l	100
83) tert-Butylbenzene	11.713	119	641951	56.344	ug/l	100
84) 1,2,4-Trimethylbenzene	11.750	105	646548	56.614	ug/l	100
85) sec-Butylbenzene	11.890	105	783341	55.470	ug/l	100
86) p-Isopropyltoluene	12.006	119	660872	55.303	ug/l	100
87) 1,3-Dichlorobenzene	11.969	146	351718	54.320	ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	352196	52.886	ug/l	100
89) n-Butylbenzene	12.329	91	610840	54.957	ug/l	100
90) Hexachloroethane	12.536	117	115780	55.228	ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	330287	53.742	ug/l	100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	43861	55.654	ug/l	100
93) 1,2,4-Trichlorobenzene	13.585	180	218820	53.111	ug/l	100
94) Hexachlorobutadiene	13.725	225	71744	48.921	ug/l	100
95) Naphthalene	13.774	128	670303	56.930	ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	208179	53.605	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047351.D
Acq On : 15 Aug 2025 10:22
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:53:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

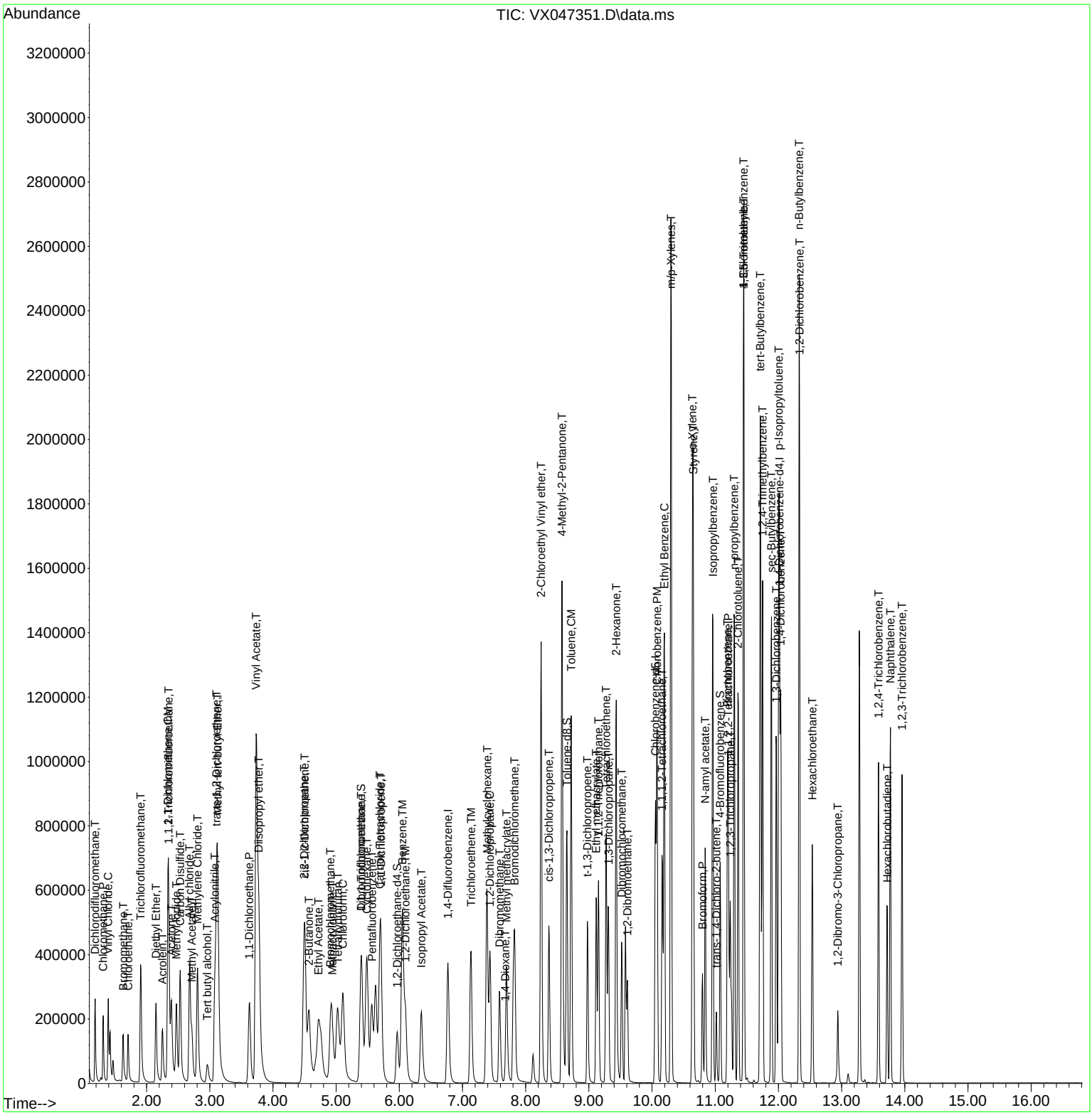
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047351.D
Acq On : 15 Aug 2025 10:22
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 18 02:53:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047352.D
Acq On : 15 Aug 2025 10:43
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:54:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	230991	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	391443	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	345492	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	163776	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	345087	106.746	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117			Recovery = 213.500%#		
35) Dibromofluoromethane	5.397	113	276832	108.967	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124			Recovery = 217.940%#		
50) Toluene-d8	8.653	98	975414	107.419	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112			Recovery = 214.840%#		
62) 4-Bromofluorobenzene	11.079	95	353668	105.546	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123			Recovery = 211.100%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	309782	105.204	ug/l	99
3) Chloromethane	1.313	50	261885	98.864	ug/l	96
4) Vinyl Chloride	1.392	62	336909	101.331	ug/l	97
5) Bromomethane	1.624	94	142644	106.217	ug/l	96
6) Chloroethane	1.703	64	189413	93.112	ug/l	98
7) Trichlorofluoromethane	1.904	101	489572	99.548	ug/l	99
8) Diethyl Ether	2.148	74	171145	98.832	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.349	101	288420	101.101	ug/l	99
10) Methyl Iodide	2.471	142	545687	111.619	ug/l	98
11) Tert butyl alcohol	2.971	59	143673	510.865	ug/l	99
12) 1,1-Dichloroethene	2.337	96	293450	100.899	ug/l	99
13) Acrolein	2.252	56	294322	495.763	ug/l	100
14) Allyl chloride	2.678	41	512225	101.402	ug/l	99
15) Acrylonitrile	3.081	53	691797	509.058	ug/l	100
16) Acetone	2.392	43	554774	456.549	ug/l	98
17) Carbon Disulfide	2.532	76	840388	95.757	ug/l	100
18) Methyl Acetate	2.715	43	318444	101.128	ug/l	100
19) Methyl tert-butyl Ether	3.129	73	906301	102.433	ug/l	98
20) Methylene Chloride	2.806	84	309183	96.088	ug/l	99
21) trans-1,2-Dichloroethene	3.105	96	302669	98.051	ug/l	99
22) Diisopropyl ether	3.776	45	1007141	100.865	ug/l	99
23) Vinyl Acetate	3.733	43	4206762	514.008	ug/l	99
24) 1,1-Dichloroethane	3.623	63	558936	99.034	ug/l	99
25) 2-Butanone	4.568	43	789816	496.288	ug/l	98
26) 2,2-Dichloropropane	4.489	77	434139	101.916	ug/l	100
27) cis-1,2-Dichloroethene	4.507	96	355238	98.806	ug/l	99
28) Bromochloromethane	4.910	49	258648	110.131	ug/l	99
29) Tetrahydrofuran	5.019	42	505709	491.640	ug/l	98
30) Chloroform	5.105	83	560984	97.394	ug/l	100
31) Cyclohexane	5.489	56	499975	96.100	ug/l	98
32) 1,1,1-Trichloroethane	5.397	97	499294	100.709	ug/l	99
36) 1,1-Dichloropropene	5.702	75	398144	99.278	ug/l	100
37) Ethyl Acetate	4.727	43	413279	99.265	ug/l	99
38) Carbon Tetrachloride	5.690	117	430061	98.132	ug/l	99
39) Methylcyclohexane	7.385	83	500907	100.134	ug/l	97
40) Benzene	6.050	78	1186760	98.866	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047352.D
Acq On : 15 Aug 2025 10:43
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 18 02:54:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	4.940	41	191678	109.177 ug/l	95
42) 1,2-Dichloroethane	6.098	62	416430	97.940 ug/l	99
43) Isopropyl Acetate	6.348	43	624423	104.400 ug/l	100
44) Trichloroethene	7.135	130	304976	99.224 ug/l	98
45) 1,2-Dichloropropane	7.434	63	298616	99.300 ug/l	97
46) Dibromomethane	7.586	93	214069	98.052 ug/l	99
47) Bromodichloromethane	7.824	83	452578	99.995 ug/l	100
48) Methyl methacrylate	7.696	41	322487	103.875 ug/l	99
49) 1,4-Dioxane	7.684	88	61142	2073.830 ug/l	97
51) 4-Methyl-2-Pentanone	8.574	43	1766006	513.097 ug/l	99
52) Toluene	8.720	92	733119	98.837 ug/l	100
53) t-1,3-Dichloropropene	8.982	75	423279	107.156 ug/l	97
54) cis-1,3-Dichloropropene	8.366	75	463640	103.698 ug/l	99
55) 1,1,2-Trichloroethane	9.153	97	275607	97.863 ug/l	98
56) Ethyl methacrylate	9.116	69	440765	106.154 ug/l	100
57) 1,3-Dichloropropane	9.311	76	469804	97.899 ug/l	99
58) 2-Chloroethyl Vinyl ether	8.244	63	1000312	496.016 ug/l	99
59) 2-Hexanone	9.433	43	1215128	510.384 ug/l	100
60) Dibromochloromethane	9.519	129	333420	99.621 ug/l	100
61) 1,2-Dibromoethane	9.610	107	285821	98.420 ug/l	98
64) Tetrachloroethene	9.275	164	248666	99.506 ug/l	98
65) Chlorobenzene	10.079	112	803672	97.887 ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.165	131	278595	100.380 ug/l	99
67) Ethyl Benzene	10.195	91	1424862	100.832 ug/l	99
68) m/p-Xylenes	10.299	106	1056553	200.518 ug/l	99
69) o-Xylene	10.640	106	508020	100.188 ug/l	99
70) Styrene	10.652	104	878271	102.509 ug/l	100
71) Bromoform	10.799	173	211374	101.376 ug/l	99
73) Isopropylbenzene	10.963	105	1326045	103.466 ug/l	99
74) N-amyl acetate	10.841	43	543008	111.573 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.207	83	374215	99.448 ug/l	99
76) 1,2,3-Trichloropropane	11.238	75	301098m	100.238 ug/l	
77) Bromobenzene	11.195	156	320460	102.397 ug/l	99
78) n-propylbenzene	11.305	91	1577819	103.081 ug/l	100
79) 2-Chlorotoluene	11.360	91	926261	100.105 ug/l	99
80) 1,3,5-Trimethylbenzene	11.451	105	1084580	102.852 ug/l	100
81) trans-1,4-Dichloro-2-b...	11.018	75	70384	93.696 ug/l	98
82) 4-Chlorotoluene	11.451	91	1080450	99.058 ug/l	99
83) tert-Butylbenzene	11.713	119	1092054	103.803 ug/l	99
84) 1,2,4-Trimethylbenzene	11.750	105	1086843	103.064 ug/l	99
85) sec-Butylbenzene	11.890	105	1343222	103.010 ug/l	99
86) p-Isopropyltoluene	12.006	119	1118938	101.405 ug/l	99
87) 1,3-Dichlorobenzene	11.969	146	593233	99.223 ug/l	100
88) 1,4-Dichlorobenzene	12.036	146	585597	95.231 ug/l	99
89) n-Butylbenzene	12.329	91	1050897	102.394 ug/l	100
90) Hexachloroethane	12.536	117	202423	104.570 ug/l	100
91) 1,2-Dichlorobenzene	12.335	146	558580	98.430 ug/l	99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	77939	107.101 ug/l	98
93) 1,2,4-Trichlorobenzene	13.585	180	389962	102.504 ug/l	98
94) Hexachlorobutadiene	13.719	225	123286	91.042 ug/l	98
95) Naphthalene	13.774	128	1191910	109.632 ug/l	100
96) 1,2,3-Trichlorobenzene	13.957	180	370778	103.395 ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047352.D
Acq On : 15 Aug 2025 10:43
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:54:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

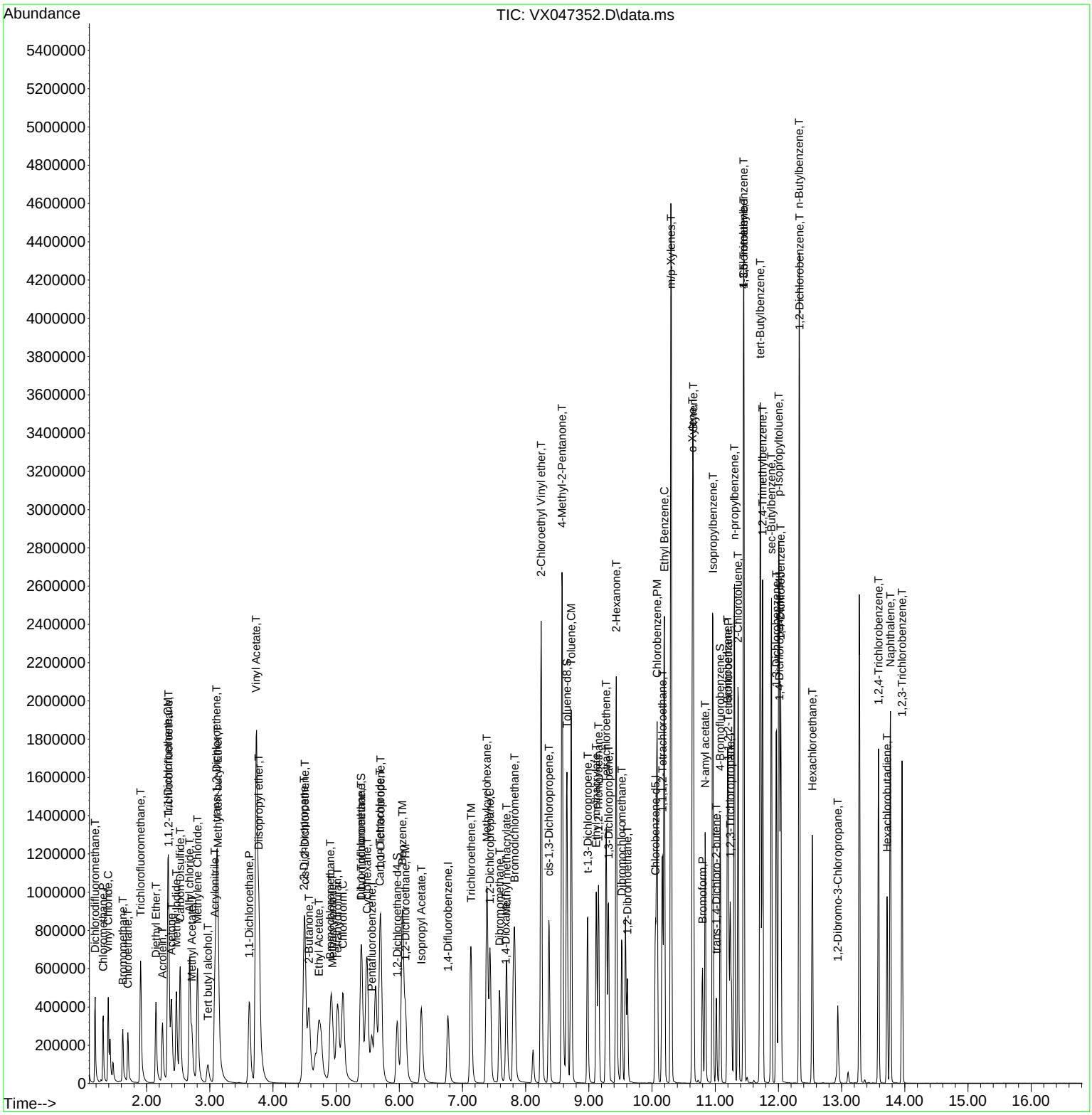
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047352.D
Acq On : 15 Aug 2025 10:43
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 18 02:54:48 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047353.D
Acq On : 15 Aug 2025 11:05
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:55:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	218039	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	378315	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	330090	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	153878	50.000	ug/l	# 0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	498398	163.328	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 326.660%#			
35) Dibromofluoromethane	5.397	113	396260	161.390	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 322.780%#			
50) Toluene-d8	8.653	98	1397755	159.272	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 318.540%#			
62) 4-Bromofluorobenzene	11.079	95	508844	157.125	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 314.240%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	445045	160.118	ug/l	98
3) Chloromethane	1.313	50	388526	155.385	ug/l	97
4) Vinyl Chloride	1.392	62	494933	157.702	ug/l	97
5) Bromomethane	1.618	94	170864	134.788	ug/l	100
6) Chloroethane	1.703	64	276042	143.758	ug/l	97
7) Trichlorofluoromethane	1.904	101	699331	150.647	ug/l	98
8) Diethyl Ether	2.148	74	251983	154.158	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.349	101	416485	154.664	ug/l	99
10) Methyl Iodide	2.471	142	794834	172.239	ug/l	98
11) Tert butyl alcohol	2.977	59	206679	778.553	ug/l	100
12) 1,1-Dichloroethene	2.337	96	425622	155.037	ug/l	99
13) Acrolein	2.252	56	429798	766.968	ug/l	100
14) Allyl chloride	2.678	41	735481	154.247	ug/l	99
15) Acrylonitrile	3.087	53	991254	772.742	ug/l	100
16) Acetone	2.392	43	784600	684.039	ug/l	99
17) Carbon Disulfide	2.532	76	1212975	146.420	ug/l	100
18) Methyl Acetate	2.715	43	476497	160.309	ug/l	99
19) Methyl tert-butyl Ether	3.130	73	1317168	157.713	ug/l	100
20) Methylene Chloride	2.806	84	447216	147.242	ug/l	98
21) trans-1,2-Dichloroethene	3.105	96	434634	149.166	ug/l	98
22) Diisopropyl ether	3.776	45	1429793	151.699	ug/l	99
23) Vinyl Acetate	3.733	43	6020474	779.316	ug/l	100
24) 1,1-Dichloroethane	3.623	63	809793	152.005	ug/l	99
25) 2-Butanone	4.568	43	1122803	747.433	ug/l	98
26) 2,2-Dichloropropane	4.495	77	627662	156.100	ug/l	100
27) cis-1,2-Dichloroethene	4.501	96	509580	150.154	ug/l	99
28) Bromochloromethane	4.916	49	343257	154.839	ug/l	100
29) Tetrahydrofuran	5.019	42	717541	739.017	ug/l	97
30) Chloroform	5.105	83	812939	149.521	ug/l	99
31) Cyclohexane	5.483	56	727704	148.180	ug/l	98
32) 1,1,1-Trichloroethane	5.397	97	723635	154.630	ug/l	99
36) 1,1-Dichloropropene	5.702	75	570157	147.104	ug/l	99
37) Ethyl Acetate	4.727	43	593362	147.465	ug/l	97
38) Carbon Tetrachloride	5.690	117	628733	148.444	ug/l	98
39) Methylcyclohexane	7.385	83	729123	150.814	ug/l	97
40) Benzene	6.050	78	1706889	147.130	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047353.D
Acq On : 15 Aug 2025 11:05
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 18 02:55:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.940	41	262323	154.600	ug/l		98
42) 1,2-Dichloroethane	6.098	62	599255	145.829	ug/l		100
43) Isopropyl Acetate	6.348	43	910348	157.486	ug/l		100
44) Trichloroethene	7.129	130	443361	149.252	ug/l		98
45) 1,2-Dichloropropane	7.434	63	433512	149.161	ug/l		99
46) Dibromomethane	7.586	93	312886	148.288	ug/l		99
47) Bromodichloromethane	7.824	83	650767	148.773	ug/l		99
48) Methyl methacrylate	7.696	41	473316	157.749	ug/l		99
49) 1,4-Dioxane	7.677	88	88481	3105.263	ug/l		97
51) 4-Methyl-2-Pentanone	8.580	43	2521407	757.992	ug/l		100
52) Toluene	8.720	92	1052008	146.750	ug/l		99
53) t-1,3-Dichloropropene	8.976	75	624499	163.583	ug/l		99
54) cis-1,3-Dichloropropene	8.366	75	682860	158.029	ug/l		100
55) 1,1,2-Trichloroethane	9.153	97	394302	144.868	ug/l		97
56) Ethyl methacrylate	9.116	69	646154	161.020	ug/l		99
57) 1,3-Dichloropropane	9.311	76	672087	144.911	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.244	63	1468000	748.853	ug/l		99
59) 2-Hexanone	9.433	43	1737616	755.168	ug/l		100
60) Dibromochloromethane	9.525	129	476650	147.358	ug/l		99
61) 1,2-Dibromoethane	9.610	107	410057	146.099	ug/l		99
64) Tetrachloroethene	9.275	164	356989	149.518	ug/l		99
65) Chlorobenzene	10.079	112	1163848	148.370	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.165	131	405123	152.780	ug/l		100
67) Ethyl Benzene	10.195	91	2036272	150.823	ug/l		99
68) m/p-Xylenes	10.299	106	1502542	298.466	ug/l		99
69) o-Xylene	10.640	106	725154	149.683	ug/l		100
70) Styrene	10.653	104	1253652	153.150	ug/l		99
71) Bromoform	10.799	173	309626	155.427	ug/l	#	99
73) Isopropylbenzene	10.963	105	1883521	156.417	ug/l		99
74) N-amyl acetate	10.842	43	790124	172.791	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.213	83	531651	150.375	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	425332m	150.704	ug/l		
77) Bromobenzene	11.195	156	451000	153.378	ug/l		99
78) n-propylbenzene	11.305	91	2235938	155.473	ug/l		99
79) 2-Chlorotoluene	11.366	91	1306418	150.272	ug/l		99
80) 1,3,5-Trimethylbenzene	11.451	105	1536791	155.110	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	113338	154.967	ug/l		97
82) 4-Chlorotoluene	11.451	91	1541070	150.376	ug/l		100
83) tert-Butylbenzene	11.713	119	1542621	156.062	ug/l		98
84) 1,2,4-Trimethylbenzene	11.750	105	1535261	154.952	ug/l		99
85) sec-Butylbenzene	11.890	105	1912224	156.078	ug/l		100
86) p-Isopropyltoluene	12.006	119	1601345	154.459	ug/l		100
87) 1,3-Dichlorobenzene	11.969	146	841394	149.783	ug/l		100
88) 1,4-Dichlorobenzene	12.036	146	837395	144.939	ug/l		100
89) n-Butylbenzene	12.329	91	1489473	154.462	ug/l		100
90) Hexachloroethane	12.536	117	303295	166.757	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	798192	149.701	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	115101	168.342	ug/l		97
93) 1,2,4-Trichlorobenzene	13.585	180	555658	155.453	ug/l		100
94) Hexachlorobutadiene	13.725	225	176870	139.013	ug/l		98
95) Naphthalene	13.774	128	1715681	167.959	ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	535287	158.872	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047353.D
Acq On : 15 Aug 2025 11:05
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:55:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

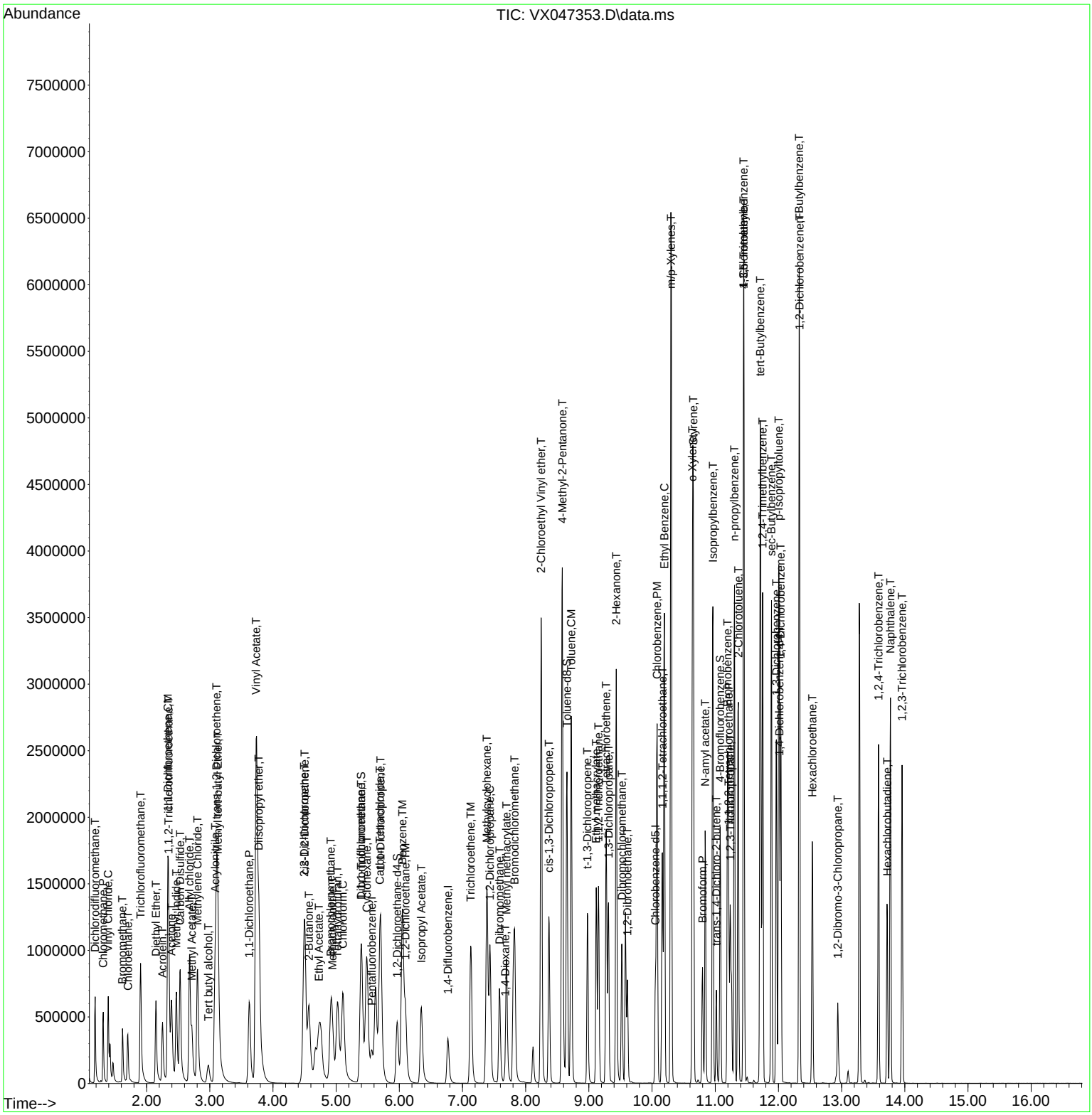
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047353.D
Acq On : 15 Aug 2025 11:05
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 18 02:55:37 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047356.D
Acq On : 15 Aug 2025 12:30
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:56:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	286149	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	494689	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	456440	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	228745	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l	
Spiked Amount 50.000	Range 78 - 117		Recovery =	0.000%#		
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l	
Spiked Amount 50.000	Range 75 - 124		Recovery =	0.000%#		
50) Toluene-d8	0.000	98	0d	0.000	ug/l	
Spiked Amount 50.000	Range 92 - 112		Recovery =	0.000%#		
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l	
Spiked Amount 50.000	Range 83 - 123		Recovery =	0.000%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.184	85	3127	0.857	ug/l	94
3) Chloromethane	1.313	50	3143	0.958	ug/l	99
4) Vinyl Chloride	1.392	62	3606	0.876	ug/l #	68
6) Chloroethane	1.709	64	2950	1.171	ug/l	91
7) Trichlorofluoromethane	1.904	101	5369	0.881	ug/l	86
8) Diethyl Ether	2.148	74	1947	0.908	ug/l	77
9) 1,1,2-Trichlorotrifluo...	2.349	101	2830	0.801	ug/l #	90
12) 1,1-Dichloroethene	2.337	96	3176	0.882	ug/l #	84
14) Allyl chloride	2.684	41	5441m	0.869	ug/l	
15) Acrylonitrile	3.087	53	7106	4.221	ug/l	89
16) Acetone	2.392	43	7123	4.732	ug/l	91
17) Carbon Disulfide	2.532	76	11842	1.089	ug/l #	93
18) Methyl Acetate	2.721	43	3556	0.912	ug/l #	84
19) Methyl tert-butyl Ether	3.129	73	8892	0.811	ug/l	95
20) Methylene Chloride	2.812	84	3953	0.992	ug/l	88
21) trans-1,2-Dichloroethene	3.111	96	3552	0.929	ug/l #	87
22) Diisopropyl ether	3.782	45	9930	0.803	ug/l	96
23) Vinyl Acetate	3.751	43	40393	3.984	ug/l #	90
24) 1,1-Dichloroethane	3.629	63	6019	0.861	ug/l #	85
25) 2-Butanone	4.605	43	8214	4.166	ug/l #	87
26) 2,2-Dichloropropane	4.489	77	4442	0.842	ug/l	80
27) cis-1,2-Dichloroethene	4.513	96	3960	0.889	ug/l	88
28) Bromochloromethane	4.934	49	2750	0.945	ug/l #	89
29) Tetrahydrofuran	5.044	42	6273m	4.923	ug/l	
30) Chloroform	5.117	83	6246	0.875	ug/l	86
32) 1,1,1-Trichloroethane	5.415	97	4939	0.804	ug/l #	49
36) 1,1-Dichloropropene	5.708	75	4692	0.926	ug/l	94
37) Ethyl Acetate	4.757	43	4864m	0.924	ug/l	
38) Carbon Tetrachloride	5.696	117	5100	0.921	ug/l	92
39) Methylcyclohexane	7.391	83	5884	0.931	ug/l	88
40) Benzene	6.056	78	12977	0.855	ug/l	92
41) Methacrylonitrile	4.958	41	1736m	0.782	ug/l	
42) 1,2-Dichloroethane	6.123	62	4784	0.890	ug/l	88
43) Isopropyl Acetate	6.366	43	6382	0.844	ug/l #	81
44) Trichloroethene	7.141	130	3329	0.857	ug/l	87
45) 1,2-Dichloropropane	7.446	63	3532	0.929	ug/l #	88

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047356.D
Acq On : 15 Aug 2025 12:30
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 02:56:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Dibromomethane	7.592	93	2453	0.889	ug/l		94
47) Bromodichloromethane	7.830	83	5078	0.888	ug/l	#	98
48) Methyl methacrylate	7.720	41	3480m	0.887	ug/l		
49) 1,4-Dioxane	7.708	88	559m	15.003	ug/l		
51) 4-Methyl-2-Pentanone	8.586	43	17109	3.933	ug/l		96
52) Toluene	8.726	92	7930	0.846	ug/l		99
53) t-1,3-Dichloropropene	8.988	75	3671	0.735	ug/l		91
54) cis-1,3-Dichloropropene	8.378	75	4466	0.790	ug/l		94
55) 1,1,2-Trichloroethane	9.159	97	3095	0.870	ug/l		97
56) Ethyl methacrylate	9.128	69	4003	0.763	ug/l		94
57) 1,3-Dichloropropane	9.311	76	5471	0.902	ug/l		94
58) 2-Chloroethyl Vinyl ether	8.256	63	5074	10.313	ug/l		95
59) 2-Hexanone	9.439	43	11811	3.926	ug/l		92
60) Dibromochloromethane	9.524	129	3776	0.893	ug/l		87
61) 1,2-Dibromoethane	9.616	107	3325	0.906	ug/l		94
64) Tetrachloroethene	9.274	164	2888	0.875	ug/l		94
65) Chlorobenzene	10.079	112	9799	0.903	ug/l		97
66) 1,1,1,2-Tetrachloroethane	10.165	131	3146	0.858	ug/l	#	65
67) Ethyl Benzene	10.195	91	15680	0.840	ug/l		90
68) m/p-Xylenes	10.305	106	11714	1.683	ug/l		98
69) o-Xylene	10.640	106	5943	0.887	ug/l		93
70) Styrene	10.664	104	8294	0.733	ug/l		91
71) Bromoform	10.805	173	2201	0.799	ug/l	#	94
73) Isopropylbenzene	10.963	105	14688	0.821	ug/l		94
74) N-amyl acetate	10.853	43	4792	0.705	ug/l	#	94
75) 1,1,2,2-Tetrachloroethane	11.213	83	4778	0.909	ug/l		97
76) 1,2,3-Trichloropropane	11.244	75	3744m	0.892	ug/l		
77) Bromobenzene	11.201	156	3648	0.835	ug/l		92
78) n-propylbenzene	11.305	91	17866	0.836	ug/l		100
79) 2-Chlorotoluene	11.366	91	11644	0.901	ug/l		93
80) 1,3,5-Trimethylbenzene	11.451	105	12427	0.844	ug/l		99
82) 4-Chlorotoluene	11.457	91	13922	0.914	ug/l		97
83) tert-Butylbenzene	11.713	119	12162	0.828	ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	11509	0.781	ug/l		99
85) sec-Butylbenzene	11.890	105	14973	0.822	ug/l		97
86) p-Isopropyltoluene	12.012	119	13546	0.879	ug/l		95
87) 1,3-Dichlorobenzene	11.975	146	7821	0.937	ug/l		97
88) 1,4-Dichlorobenzene	12.042	146	8856m	1.031	ug/l		
89) n-Butylbenzene	12.335	91	12883	0.899	ug/l		97
90) Hexachloroethane	12.536	117	2421	0.895	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	7461	0.941	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	12.945	75	876	0.862	ug/l		96
93) 1,2,4-Trichlorobenzene	13.591	180	5232	0.985	ug/l		99
94) Hexachlorobutadiene	13.725	225	2573	1.360	ug/l		95
95) Naphthalene	13.780	128	12231	0.805	ug/l		97
96) 1,2,3-Trichlorobenzene	13.957	180	4918	0.982	ug/l		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

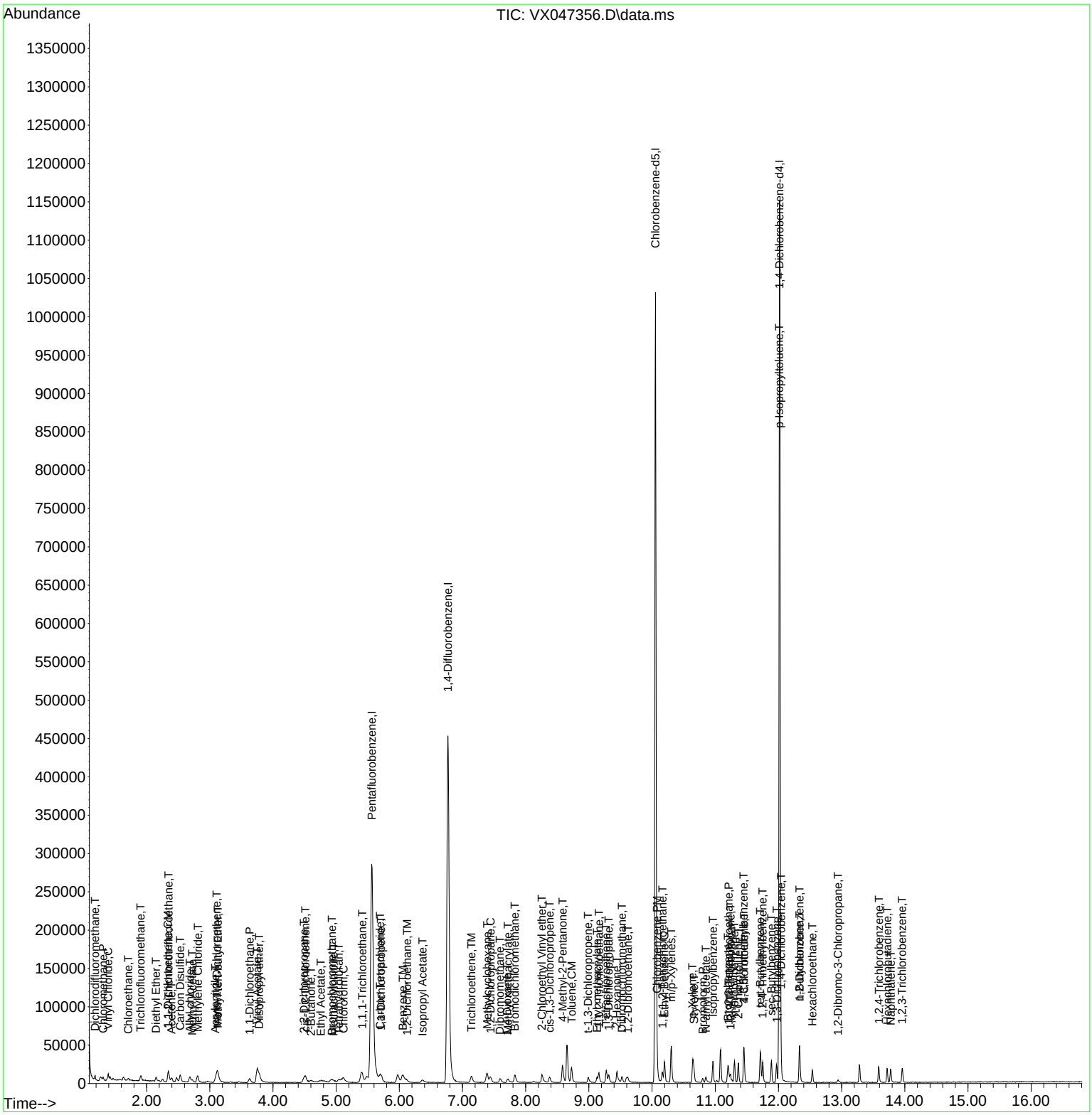
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047356.D
Acq On : 15 Aug 2025 12:30
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 18 02:56:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 02:51:35 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	250887	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	427543	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	379004	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	185789	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	192241	54.750	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 109.500%			
35) Dibromofluoromethane	5.391	113	153967	55.488	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 110.980%			
50) Toluene-d8	8.647	98	540007	54.448	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 108.900%			
62) 4-Bromofluorobenzene	11.079	95	200280	54.723	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 109.440%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	166246	51.981	ug/l	99
3) Chloromethane	1.313	50	143779	49.973	ug/l	96
4) Vinyl Chloride	1.392	62	183527	50.822	ug/l	97
5) Bromomethane	1.630	94	81779	56.066	ug/l	98
6) Chloroethane	1.703	64	109193	49.421	ug/l	99
7) Trichlorofluoromethane	1.904	101	266531	49.898	ug/l	99
8) Diethyl Ether	2.148	74	94290	50.132	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.343	101	155403	50.154	ug/l	99
10) Methyl Iodide	2.465	142	238348	44.887	ug/l	99
11) Tert butyl alcohol	2.959	59	70101	229.494	ug/l	97
12) 1,1-Dichloroethene	2.337	96	158941	50.316	ug/l	99
13) Acrolein	2.245	56	133586	207.171	ug/l	99
14) Allyl chloride	2.678	41	271599	49.503	ug/l	100
15) Acrylonitrile	3.075	53	369146	250.094	ug/l	99
16) Acetone	2.386	43	324930	246.195	ug/l	96
17) Carbon Disulfide	2.526	76	457873	48.034	ug/l	99
18) Methyl Acetate	2.715	43	163394	47.774	ug/l	97
19) Methyl tert-butyl Ether	3.123	73	481187	50.072	ug/l	98
20) Methylene Chloride	2.800	84	173780	49.724	ug/l	99
21) trans-1,2-Dichloroethene	3.105	96	165465	49.352	ug/l	97
22) Diisopropyl ether	3.769	45	556979	51.358	ug/l	99
23) Vinyl Acetate	3.727	43	2264555	254.755	ug/l	99
24) 1,1-Dichloroethane	3.617	63	303962	49.586	ug/l	98
25) 2-Butanone	4.562	43	422081	244.186	ug/l	100
26) 2,2-Dichloropropane	4.483	77	232204	50.188	ug/l	99
27) cis-1,2-Dichloroethene	4.501	96	193324	49.507	ug/l	98
28) Bromochloromethane	4.903	49	145787	57.153	ug/l	100
29) Tetrahydrofuran	5.019	42	268867	240.659	ug/l	99
30) Chloroform	5.099	83	306888	49.055	ug/l	98
31) Cyclohexane	5.477	56	265960	47.066	ug/l	99
32) 1,1,1-Trichloroethane	5.391	97	263954	49.018	ug/l	99
36) 1,1-Dichloropropene	5.702	75	208616	47.627	ug/l	99
37) Ethyl Acetate	4.721	43	214695	47.213	ug/l	99
38) Carbon Tetrachloride	5.684	117	226854	47.393	ug/l	100
39) Methylcyclohexane	7.379	83	257199	47.074	ug/l	96
40) Benzene	6.043	78	638127	48.672	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.934	41	93517	48.768	ug/l		97
42) 1,2-Dichloroethane	6.086	62	226201	48.708	ug/l		99
43) Isopropyl Acetate	6.342	43	318400	48.740	ug/l		100
44) Trichloroethene	7.129	130	161053	47.974	ug/l		98
45) 1,2-Dichloropropane	7.427	63	160155	48.760	ug/l		98
46) Dibromomethane	7.580	93	115651	48.500	ug/l		98
47) Bromodichloromethane	7.824	83	237881	48.121	ug/l		100
48) Methyl methacrylate	7.690	41	164810	48.604	ug/l		99
49) 1,4-Dioxane	7.677	88	29362m	890.740	ug/l		
51) 4-Methyl-2-Pentanone	8.574	43	916499	243.797	ug/l		99
52) Toluene	8.720	92	394588	48.706	ug/l		100
53) t-1,3-Dichloropropene	8.976	75	218807	50.716	ug/l		99
54) cis-1,3-Dichloropropene	8.366	75	243957	49.956	ug/l		100
55) 1,1,2-Trichloroethane	9.147	97	148831	48.385	ug/l		98
56) Ethyl methacrylate	9.116	69	227388	50.140	ug/l		100
57) 1,3-Dichloropropane	9.305	76	253108	48.290	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.238	63	480379	222.770	ug/l		98
59) 2-Hexanone	9.427	43	630542	242.481	ug/l		99
60) Dibromochloromethane	9.518	129	175911	48.122	ug/l		99
61) 1,2-Dibromoethane	9.610	107	152160	47.971	ug/l		99
64) Tetrachloroethene	9.275	164	131233	47.871	ug/l		98
65) Chlorobenzene	10.079	112	429835	47.724	ug/l		97
66) 1,1,1,2-Tetrachloroethane	10.159	131	146443	48.099	ug/l		99
67) Ethyl Benzene	10.189	91	756938	48.829	ug/l		99
68) m/p-Xylenes	10.299	106	570536	98.705	ug/l		99
69) o-Xylene	10.640	106	273804	49.223	ug/l		99
70) Styrene	10.652	104	471591	50.176	ug/l		100
71) Bromoform	10.799	173	110810	48.446	ug/l	#	99
73) Isopropylbenzene	10.957	105	718690	49.432	ug/l		100
74) N-amyl acetate	10.841	43	277245	50.217	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.207	83	205267	48.087	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	163259m	47.911	ug/l		
77) Bromobenzene	11.195	156	172064	48.465	ug/l		99
78) n-propylbenzene	11.299	91	856923	49.351	ug/l		99
79) 2-Chlorotoluene	11.360	91	506366	48.241	ug/l		99
80) 1,3,5-Trimethylbenzene	11.451	105	586315	49.013	ug/l		99
81) trans-1,4-Dichloro-2-b...	11.018	75	32392	42.686	ug/l		99
82) 4-Chlorotoluene	11.451	91	592542	47.889	ug/l		99
83) tert-Butylbenzene	11.713	119	594831	49.841	ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	595697	49.796	ug/l		99
85) sec-Butylbenzene	11.890	105	732328	49.507	ug/l		100
86) p-Isopropyltoluene	12.006	119	617508	49.332	ug/l		100
87) 1,3-Dichlorobenzene	11.969	146	325055	47.926	ug/l		100
88) 1,4-Dichlorobenzene	12.036	146	326132	46.752	ug/l		100
89) n-Butylbenzene	12.329	91	576963	49.556	ug/l		99
90) Hexachloroethane	12.536	117	107051	48.749	ug/l		99
91) 1,2-Dichlorobenzene	12.329	146	304391	47.283	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	38911	47.135	ug/l		96
93) 1,2,4-Trichlorobenzene	13.585	180	206837	47.926	ug/l		98
94) Hexachlorobutadiene	13.725	225	66005	42.967	ug/l		98
95) Naphthalene	13.774	128	604650	49.026	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	194540	47.822	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

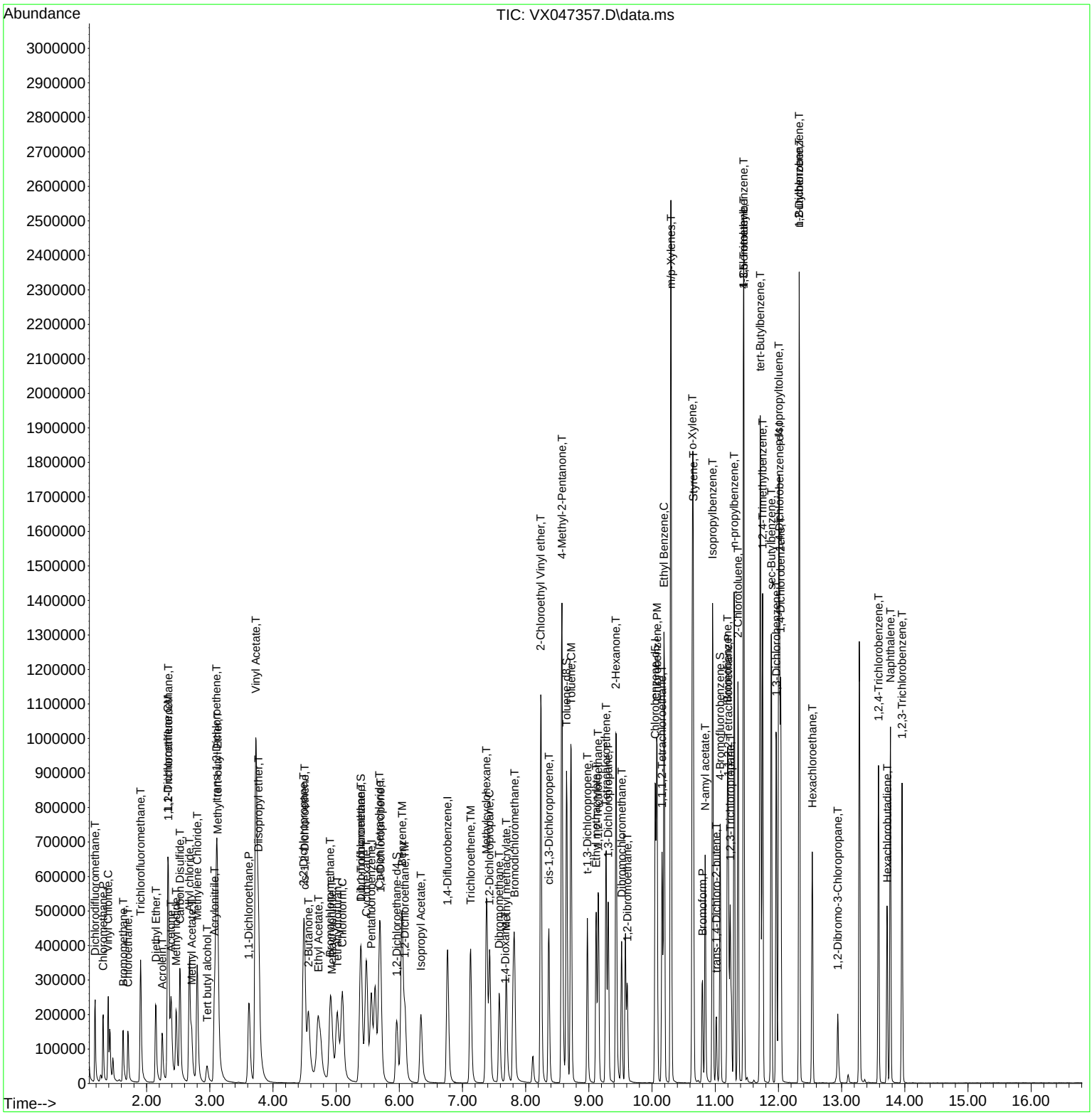
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Manual Integrations APPROVED

Reviewed By :John Carlone 08/18/2025
Supervised By :Mahesh Dadoda 08/19/2025



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	-0.01
2	T	Dichlorodifluoromethane	0.637	0.663	-4.1	95	0.00
3	P	Chloromethane	0.573	0.573	0.0	97	0.00
4	C	Vinyl Chloride	0.720	0.732	-1.7#	96	0.00
5	T	Bromomethane	0.291	0.326	-12.0	102	0.00
6	T	Chloroethane	0.440	0.435	1.1	99	0.00
7	T	Trichlorofluoromethane	1.065	1.062	0.3	94	0.00
8	T	Diethyl Ether	0.375	0.376	-0.3	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.618	0.619	-0.2	93	0.00
10	T	Methyl Iodide	1.058	0.950	10.2	86	0.00
11	T	Tert butyl alcohol	0.061	0.056	8.2	86	0.00
12	CM	1,1-Dichloroethene	0.630	0.634	-0.6#	96	0.00
13	T	Acrolein	0.129	0.106	17.8	85	0.00
14	T	Allyl chloride	1.093	1.083	0.9	94	0.00
15	T	Acrylonitrile	0.294	0.294	0.0	91	0.00
16	T	Acetone	0.263	0.259	1.5	97	0.00
17	T	Carbon Disulfide	1.900	1.825	3.9	96	0.00
18	T	Methyl Acetate	0.682	0.651	4.5	89	0.00
19	T	Methyl tert-butyl Ether	1.915	1.918	-0.2	93	0.00
20	T	Methylene Chloride	0.697	0.693	0.6	96	0.00
21	T	trans-1,2-Dichloroethene	0.668	0.660	1.2	96	0.00
22	T	Diisopropyl ether	2.161	2.220	-2.7	95	0.00
23	T	Vinyl Acetate	1.772	1.805	-1.9	93	0.00
24	P	1,1-Dichloroethane	1.222	1.212	0.8	94	0.00
25	T	2-Butanone	0.344	0.336	2.3	91	0.00
26	T	2,2-Dichloropropane	0.922	0.926	-0.4	96	-0.01
27	T	cis-1,2-Dichloroethene	0.778	0.771	0.9	96	0.00
28	T	Bromochloromethane	0.508	0.581	-14.4	113	0.00
29	T	Tetrahydrofuran	0.223	0.214	4.0	92	0.00
30	C	Chloroform	1.247	1.223	1.9#	94	0.00
31	T	Cyclohexane	1.126	1.060	5.9	92	0.00
32	T	1,1,1-Trichloroethane	1.073	1.052	2.0	92	0.00
33	S	1,2-Dichloroethane-d4	0.700	0.766	-9.4	115	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
35	S	Dibromofluoromethane	0.325	0.360	-10.8	115	0.00
36	T	1,1-Dichloropropene	0.512	0.488	4.7	91	0.00
37	T	Ethyl Acetate	0.532	0.502	5.6	90	0.00
38	T	Carbon Tetrachloride	0.560	0.531	5.2	92	0.00
39	T	Methylcyclohexane	0.639	0.602	5.8	91	-0.01
40	TM	Benzene	1.533	1.493	2.6	92	0.00
41	T	Methacrylonitrile	0.224	0.219	2.2	89	0.00
42	TM	1,2-Dichloroethane	0.543	0.529	2.6	93	-0.01
43	T	Isopropyl Acetate	0.764	0.745	2.5	90	0.00
44	TM	Trichloroethene	0.393	0.377	4.1	92	0.00
45	C	1,2-Dichloropropane	0.384	0.375	2.3#	94	0.00
46	T	Dibromomethane	0.279	0.271	2.9	94	0.00
47	T	Bromodichloromethane	0.578	0.556	3.8	92	0.00
48	T	Methyl methacrylate	0.397	0.385	3.0	91	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.004	0.003	25.0	81	0.00
50	S	Toluene-d8	1.160	1.263	-8.9	114	0.00
51	T	4-Methyl-2-Pentanone	0.440	0.429	2.5	89	0.00
52	CM	Toluene	0.947	0.923	2.5#	92	0.00
53	T	t-1,3-Dichloropropene	0.505	0.512	-1.4	92	0.00
54	T	cis-1,3-Dichloropropene	0.571	0.571	0.0	94	0.00
55	T	1,1,2-Trichloroethane	0.360	0.348	3.3	93	0.00
56	T	Ethyl methacrylate	0.530	0.532	-0.4	91	0.00
57	T	1,3-Dichloropropane	0.613	0.592	3.4	93	0.00
58	T	2-Chloroethyl Vinyl ether	0.211	0.225	-6.6	86	0.00
59	T	2-Hexanone	0.304	0.295	3.0	90	0.00
60	T	Dibromochloromethane	0.428	0.411	4.0	93	0.00
61	T	1,2-Dibromoethane	0.371	0.356	4.0	92	0.00
62	S	4-Bromofluorobenzene	0.428	0.468	-9.3	115	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
64	T	Tetrachloroethene	0.362	0.346	4.4	91	0.00
65	PM	Chlorobenzene	1.188	1.134	4.5	92	0.00
66	T	1,1,1,2-Tetrachloroethane	0.402	0.386	4.0	91	0.00
67	C	Ethyl Benzene	2.045	1.997	2.3#	92	0.00
68	T	m/p-Xylenes	0.763	0.753	1.3	92	0.00
69	T	o-Xylene	0.734	0.722	1.6	93	0.00
70	T	Styrene	1.240	1.244	-0.3	92	0.00
71	P	Bromoform	0.302	0.292	3.3	91	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	105	0.00
73	T	Isopropylbenzene	3.913	3.868	1.2	92	0.00
74	T	N-amyl acetate	1.486	1.492	-0.4	90	0.00
75	P	1,1,2,2-Tetrachloroethane	1.149	1.105	3.8	91	0.00
76	T	1,2,3-Trichloropropane	0.917	0.879	4.1	91	0.00
77	T	Bromobenzene	0.955	0.926	3.0	92	0.00
78	T	n-propylbenzene	4.673	4.612	1.3	93	0.00
79	T	2-Chlorotoluene	2.825	2.725	3.5	92	0.00
80	T	1,3,5-Trimethylbenzene	3.219	3.156	2.0	92	0.00
81	T	trans-1,4-Dichloro-2-butene	0.178	0.174	2.2	92	0.00
82	T	4-Chlorotoluene	3.330	3.189	4.2	92	0.00
83	T	tert-Butylbenzene	3.212	3.202	0.3	93	0.00
84	T	1,2,4-Trimethylbenzene	3.219	3.206	0.4	92	0.00
85	T	sec-Butylbenzene	3.981	3.942	1.0	93	0.00
86	T	p-Isopropyltoluene	3.369	3.324	1.3	93	0.00
87	T	1,3-Dichlorobenzene	1.825	1.750	4.1	92	0.00
88	T	1,4-Dichlorobenzene	1.877	1.755	6.5	93	0.00
89	T	n-Butylbenzene	3.133	3.105	0.9	94	0.00
90	T	Hexachloroethane	0.591	0.576	2.5	92	0.00
91	T	1,2-Dichlorobenzene	1.733	1.638	5.5	92	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.222	0.209	5.9	89	0.00
93	T	1,2,4-Trichlorobenzene	1.161	1.113	4.1	95	0.00
94	T	Hexachlorobutadiene	0.413	0.355	14.0	92	0.00
95	T	Naphthalene	3.319	3.254	2.0	90	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	1.095	1.047	4.4	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	105	-0.01
2	T	Dichlorodifluoromethane	50.000	51.981	-4.0	95	0.00
3	P	Chloromethane	50.000	49.973	0.1	97	0.00
4	C	Vinyl Chloride	50.000	50.822	-1.6#	96	0.00
5	T	Bromomethane	50.000	56.066	-12.1	102	0.00
6	T	Chloroethane	50.000	49.421	1.2	99	0.00
7	T	Trichlorofluoromethane	50.000	49.898	0.2	94	0.00
8	T	Diethyl Ether	50.000	50.132	-0.3	95	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	50.154	-0.3	93	0.00
10	T	Methyl Iodide	50.000	44.887	10.2	86	0.00
11	T	Tert butyl alcohol	250.000	229.494	8.2	86	0.00
12	CM	1,1-Dichloroethene	50.000	50.316	-0.6#	96	0.00
13	T	Acrolein	250.000	207.171	17.1	85	0.00
14	T	Allyl chloride	50.000	49.503	1.0	94	0.00
15	T	Acrylonitrile	250.000	250.094	-0.0	91	0.00
16	T	Acetone	250.000	246.195	1.5	97	0.00
17	T	Carbon Disulfide	50.000	48.034	3.9	96	0.00
18	T	Methyl Acetate	50.000	47.774	4.5	89	0.00
19	T	Methyl tert-butyl Ether	50.000	50.072	-0.1	93	0.00
20	T	Methylene Chloride	50.000	49.724	0.6	96	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.352	1.3	96	0.00
22	T	Diisopropyl ether	50.000	51.358	-2.7	95	0.00
23	T	Vinyl Acetate	250.000	254.755	-1.9	93	0.00
24	P	1,1-Dichloroethane	50.000	49.586	0.8	94	0.00
25	T	2-Butanone	250.000	244.186	2.3	91	0.00
26	T	2,2-Dichloropropane	50.000	50.188	-0.4	96	-0.01
27	T	cis-1,2-Dichloroethene	50.000	49.507	1.0	96	0.00
28	T	Bromochloromethane	50.000	57.153	-14.3	113	0.00
29	T	Tetrahydrofuran	250.000	240.659	3.7	92	0.00
30	C	Chloroform	50.000	49.055	1.9#	94	0.00
31	T	Cyclohexane	50.000	47.066	5.9	92	0.00
32	T	1,1,1-Trichloroethane	50.000	49.018	2.0	92	0.00
33	S	1,2-Dichloroethane-d4	50.000	54.750	-9.5	115	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	105	0.00
35	S	Dibromofluoromethane	50.000	55.488	-11.0	115	0.00
36	T	1,1-Dichloropropene	50.000	47.627	4.7	91	0.00
37	T	Ethyl Acetate	50.000	47.213	5.6	90	0.00
38	T	Carbon Tetrachloride	50.000	47.393	5.2	92	0.00
39	T	Methylcyclohexane	50.000	47.074	5.9	91	-0.01
40	TM	Benzene	50.000	48.672	2.7	92	0.00
41	T	Methacrylonitrile	50.000	48.768	2.5	89	0.00
42	TM	1,2-Dichloroethane	50.000	48.708	2.6	93	-0.01
43	T	Isopropyl Acetate	50.000	48.740	2.5	90	0.00
44	TM	Trichloroethene	50.000	47.974	4.1	92	0.00
45	C	1,2-Dichloropropane	50.000	48.760	2.5#	94	0.00
46	T	Dibromomethane	50.000	48.500	3.0	94	0.00
47	T	Bromodichloromethane	50.000	48.121	3.8	92	0.00
48	T	Methyl methacrylate	50.000	48.604	2.8	91	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	890.740	10.9	81	0.00
50	S	Toluene-d8	50.000	54.448	-8.9	114	0.00
51	T	4-Methyl-2-Pentanone	250.000	243.797	2.5	89	0.00
52	CM	Toluene	50.000	48.706	2.6#	92	0.00
53	T	t-1,3-Dichloropropene	50.000	50.716	-1.4	92	0.00
54	T	cis-1,3-Dichloropropene	50.000	49.956	0.1	94	0.00
55	T	1,1,2-Trichloroethane	50.000	48.385	3.2	93	0.00
56	T	Ethyl methacrylate	50.000	50.140	-0.3	91	0.00
57	T	1,3-Dichloropropane	50.000	48.290	3.4	93	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	222.770	10.9	86	0.00
59	T	2-Hexanone	250.000	242.481	3.0	90	0.00
60	T	Dibromochloromethane	50.000	48.122	3.8	93	0.00
61	T	1,2-Dibromoethane	50.000	47.971	4.1	92	0.00
62	S	4-Bromofluorobenzene	50.000	54.723	-9.4	115	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	104	0.00
64	T	Tetrachloroethene	50.000	47.871	4.3	91	0.00
65	PM	Chlorobenzene	50.000	47.724	4.6	92	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	48.099	3.8	91	0.00
67	C	Ethyl Benzene	50.000	48.829	2.3#	92	0.00
68	T	m/p-Xylenes	100.000	98.705	1.3	92	0.00
69	T	o-Xylene	50.000	49.223	1.6	93	0.00
70	T	Styrene	50.000	50.176	-0.4	92	0.00
71	P	Bromoform	50.000	48.446	3.1	91	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	105	0.00
73	T	Isopropylbenzene	50.000	49.432	1.1	92	0.00
74	T	N-amyl acetate	50.000	50.217	-0.4	90	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	48.087	3.8	91	0.00
76	T	1,2,3-Trichloropropane	50.000	47.911	4.2	91	0.00
77	T	Bromobenzene	50.000	48.465	3.1	92	0.00
78	T	n-propylbenzene	50.000	49.351	1.3	93	0.00
79	T	2-Chlorotoluene	50.000	48.241	3.5	92	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.013	2.0	92	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	42.686	14.6	92	0.00
82	T	4-Chlorotoluene	50.000	47.889	4.2	92	0.00
83	T	tert-Butylbenzene	50.000	49.841	0.3	93	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.796	0.4	92	0.00
85	T	sec-Butylbenzene	50.000	49.507	1.0	93	0.00
86	T	p-Isopropyltoluene	50.000	49.332	1.3	93	0.00
87	T	1,3-Dichlorobenzene	50.000	47.926	4.1	92	0.00
88	T	1,4-Dichlorobenzene	50.000	46.752	6.5	93	0.00
89	T	n-Butylbenzene	50.000	49.556	0.9	94	0.00
90	T	Hexachloroethane	50.000	48.749	2.5	92	0.00
91	T	1,2-Dichlorobenzene	50.000	47.283	5.4	92	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	47.135	5.7	89	0.00
93	T	1,2,4-Trichlorobenzene	50.000	47.926	4.1	95	0.00
94	T	Hexachlorobutadiene	50.000	42.967	14.1	92	0.00
95	T	Naphthalene	50.000	49.026	1.9	90	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX081525

Quant Time: Aug 18 04:22:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	47.822	4.4	93	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Raw Data: **VX047400.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	Alliance	Contract:	JACO05
Lab Code:	ACE	SDG No.:	Q2869
Instrument ID:	MSVOA_X	Calibration Date/Time:	08/19/2025 09:37
Lab File ID:	VX047400.D	Init. Calib. Date(s):	08/15/2025 08/15/2025
Heated Purge: (Y/N)	N	Init. Calib. Time(s):	09:40 12:30

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.720	0.658		-8.61	20
1,1-Dichloroethene	0.630	0.596		-5.4	20
1,1-Dichloroethane	1.222	1.251	0.1	2.37	20
cis-1,2-Dichloroethene	0.778	0.806		3.6	20
1,1,1-Trichloroethane	1.073	1.041		-2.98	20
Benzene	1.533	1.493		-2.61	20
1,2-Dichloroethane	0.543	0.561		3.32	20
Trichloroethene	0.393	0.360		-8.4	20
1,1,2-Trichloroethane	0.360	0.376		4.44	20
Tetrachloroethene	0.362	0.319		-11.88	20
1,2-Dichloroethane-d4	0.700	0.805		15	20
Dibromofluoromethane	0.325	0.344		5.85	20
Toluene-d8	1.160	1.173		1.12	20
4-Bromofluorobenzene	0.428	0.455		6.31	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	203851	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.763	114	365078	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	334051	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	167955	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	164085	57.514	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 115.020%			
35) Dibromofluoromethane	5.391	113	125647	53.029	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.060%			
50) Toluene-d8	8.647	98	428388	50.584	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 101.160%			
62) 4-Bromofluorobenzene	11.079	95	166205	53.183	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 106.360%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	118983	45.787	ug/l	100
3) Chloromethane	1.313	50	115723	49.503	ug/l	98
4) Vinyl Chloride	1.392	62	134206	45.739	ug/l	93
5) Bromomethane	1.624	94	54388	45.891	ug/l	97
6) Chloroethane	1.703	64	83086	46.281	ug/l	98
7) Trichlorofluoromethane	1.904	101	195173	44.970	ug/l	98
8) Diethyl Ether	2.148	74	84247	55.128	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.343	101	118600	47.108	ug/l	99
10) Methyl Iodide	2.471	142	182007	42.186	ug/l	99
11) Tert butyl alcohol	2.959	59	73438	295.893	ug/l	99
12) 1,1-Dichloroethene	2.337	96	121485	47.332	ug/l	97
13) Acrolein	2.246	56	147637	281.792	ug/l	100
14) Allyl chloride	2.678	41	225494	50.583	ug/l	99
15) Acrylonitrile	3.081	53	342772	285.809	ug/l	100
16) Acetone	2.392	43	286462	267.129	ug/l	99
17) Carbon Disulfide	2.526	76	347652	44.886	ug/l	100
18) Methyl Acetate	2.715	43	158065	56.879	ug/l	99
19) Methyl tert-butyl Ether	3.123	73	434808	55.686	ug/l	98
20) Methylene Chloride	2.800	84	149480	52.640	ug/l	98
21) trans-1,2-Dichloroethene	3.105	96	133669	49.068	ug/l	96
22) Diisopropyl ether	3.770	45	486194	55.175	ug/l	95
23) Vinyl Acetate	3.727	43	2049454	283.754	ug/l	100
24) 1,1-Dichloroethane	3.623	63	255069	51.211	ug/l	97
25) 2-Butanone	4.562	43	398410	283.674	ug/l	98
26) 2,2-Dichloropropane	4.483	77	185064	49.229	ug/l	99
27) cis-1,2-Dichloroethene	4.501	96	164241	51.764	ug/l	97
28) Bromochloromethane	4.904	49	126113	60.847	ug/l	100
29) Tetrahydrofuran	5.019	42	254725	280.608	ug/l	99
30) Chloroform	5.099	83	265903	52.310	ug/l	98
31) Cyclohexane	5.477	56	202692	44.146	ug/l	98
32) 1,1,1-Trichloroethane	5.391	97	212180	48.495	ug/l	99
36) 1,1-Dichloropropene	5.702	75	168226	44.977	ug/l	99
37) Ethyl Acetate	4.721	43	196036	50.486	ug/l	98
38) Carbon Tetrachloride	5.684	117	183778	44.963	ug/l	99
39) Methylcyclohexane	7.385	83	197227	42.274	ug/l	95
40) Benzene	6.044	78	545222	48.701	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.934	41	83588	51.049	ug/l		94
42) 1,2-Dichloroethane	6.092	62	204929	51.678	ug/l		99
43) Isopropyl Acetate	6.342	43	298419	53.497	ug/l		100
44) Trichloroethene	7.129	130	131351	45.821	ug/l		93
45) 1,2-Dichloropropane	7.434	63	142494	50.806	ug/l		99
46) Dibromomethane	7.580	93	103627	50.893	ug/l		99
47) Bromodichloromethane	7.824	83	215133	50.965	ug/l		99
48) Methyl methacrylate	7.690	41	154171	53.246	ug/l		99
49) 1,4-Dioxane	7.684	88	32666	1160.527	ug/l		96
51) 4-Methyl-2-Pentanone	8.574	43	875170	272.635	ug/l		99
52) Toluene	8.720	92	333637	48.228	ug/l		100
53) t-1,3-Dichloropropene	8.976	75	201870	54.796	ug/l		98
54) cis-1,3-Dichloropropene	8.366	75	220487	52.876	ug/l		99
55) 1,1,2-Trichloroethane	9.153	97	137274	52.264	ug/l		96
56) Ethyl methacrylate	9.116	69	211825	54.700	ug/l		99
57) 1,3-Dichloropropane	9.305	76	233945	52.271	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.238	63	493500	266.315	ug/l		99
59) 2-Hexanone	9.427	43	601025	270.676	ug/l		100
60) Dibromochloromethane	9.519	129	162215	51.968	ug/l		99
61) 1,2-Dibromoethane	9.610	107	141178	52.124	ug/l		100
64) Tetrachloroethene	9.275	164	106511	44.081	ug/l		98
65) Chlorobenzene	10.080	112	376884	47.476	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.159	131	132983	49.556	ug/l		99
67) Ethyl Benzene	10.195	91	642247	47.006	ug/l		100
68) m/p-Xylenes	10.299	106	484787	95.157	ug/l		100
69) o-Xylene	10.640	106	233222	47.570	ug/l		99
70) Styrene	10.653	104	417727	50.426	ug/l		100
71) Bromoform	10.799	173	105509	52.336	ug/l	#	99
73) Isopropylbenzene	10.957	105	594503	45.232	ug/l		99
74) N-amyl acetate	10.842	43	263829	52.861	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.207	83	194960	50.522	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	152071m	49.366	ug/l		
77) Bromobenzene	11.195	156	157141	48.962	ug/l		98
78) n-propylbenzene	11.299	91	717602	45.715	ug/l		100
79) 2-Chlorotoluene	11.360	91	438581	46.220	ug/l		99
80) 1,3,5-Trimethylbenzene	11.445	105	505924	46.784	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	30598	44.250	ug/l		100
82) 4-Chlorotoluene	11.451	91	521477	46.620	ug/l		100
83) tert-Butylbenzene	11.713	119	507953	47.081	ug/l		98
84) 1,2,4-Trimethylbenzene	11.750	105	513998	47.529	ug/l		99
85) sec-Butylbenzene	11.890	105	609145	45.552	ug/l		100
86) p-Isopropyltoluene	12.006	119	514402	45.458	ug/l		99
87) 1,3-Dichlorobenzene	11.963	146	285904	46.630	ug/l		99
88) 1,4-Dichlorobenzene	12.037	146	291680	46.253	ug/l		100
89) n-Butylbenzene	12.329	91	480705	45.672	ug/l		100
90) Hexachloroethane	12.536	117	91716	46.201	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	278982	47.938	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	37258	49.925	ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	187378	48.028	ug/l		99
94) Hexachlorobutadiene	13.725	225	63372	45.633	ug/l		100
95) Naphthalene	13.774	128	571033	51.217	ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	181090	49.242	ug/l		100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

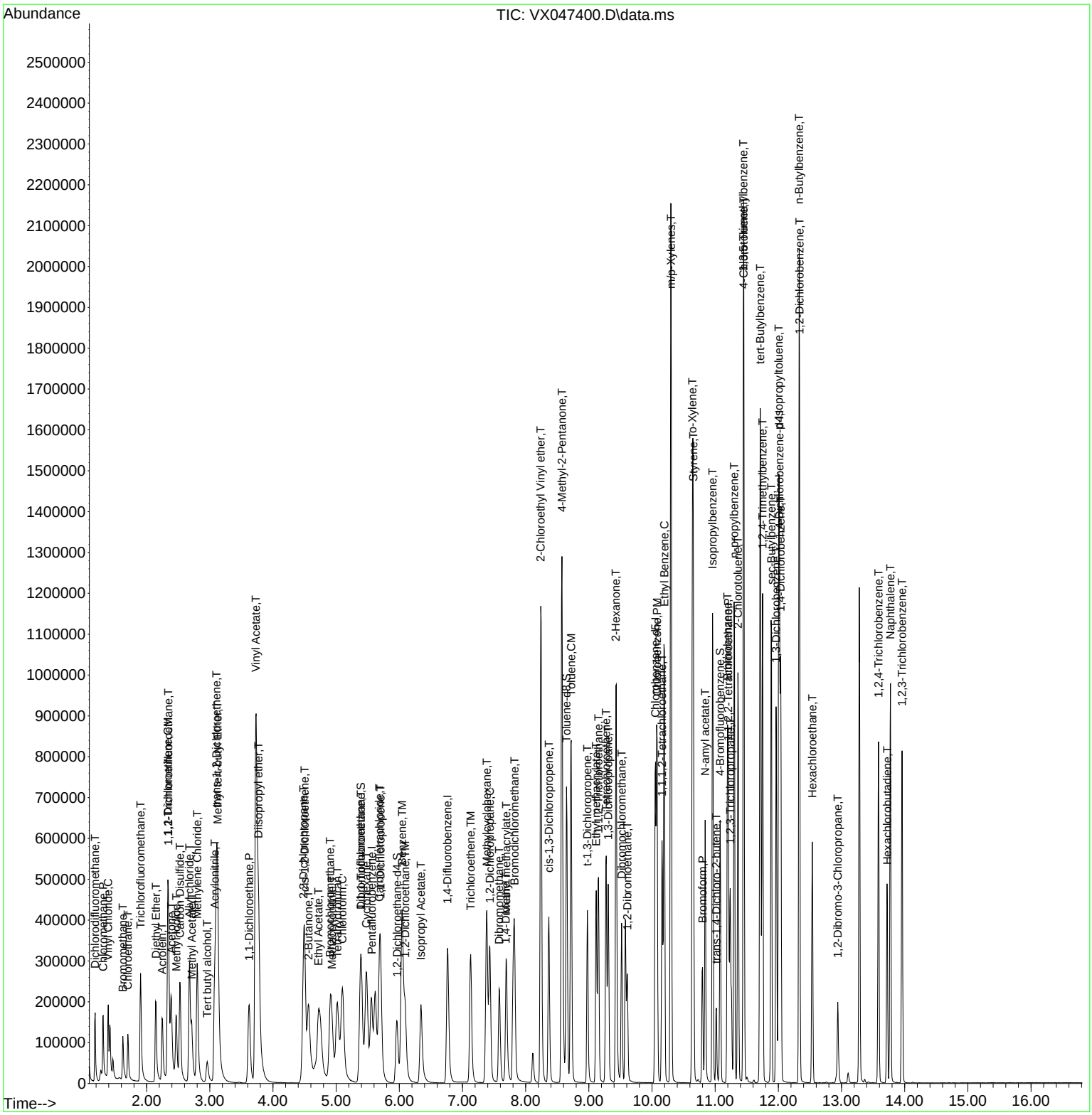
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025



Evaluate Continuing Calibration Report

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	85	0.00
2	T	Dichlorodifluoromethane	0.637	0.584	8.3	68	0.00
3	P	Chloromethane	0.573	0.568	0.9	78	0.00
4	C	Vinyl Chloride	0.720	0.658	8.6#	70	0.00
5	T	Bromomethane	0.291	0.267	8.2	68	0.00
6	T	Chloroethane	0.440	0.408	7.3	75	0.00
7	T	Trichlorofluoromethane	1.065	0.957	10.1	69	0.00
8	T	Diethyl Ether	0.375	0.413	-10.1	85	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.618	0.582	5.8	71	0.00
10	T	Methyl Iodide	1.058	0.893	15.6	66	0.00
11	T	Tert butyl alcohol	0.061	0.072	-18.0	90	0.00
12	CM	1,1-Dichloroethene	0.630	0.596	5.4#	73	0.00
13	T	Acrolein	0.129	0.145	-12.4	94	0.00
14	T	Allyl chloride	1.093	1.106	-1.2	78	0.00
15	T	Acrylonitrile	0.294	0.336	-14.3	84	0.00
16	T	Acetone	0.263	0.281	-6.8	86	0.00
17	T	Carbon Disulfide	1.900	1.705	10.3	73	0.00
18	T	Methyl Acetate	0.682	0.775	-13.6	86	0.00
19	T	Methyl tert-butyl Ether	1.915	2.133	-11.4	84	0.00
20	T	Methylene Chloride	0.697	0.733	-5.2	83	0.00
21	T	trans-1,2-Dichloroethene	0.668	0.656	1.8	77	0.00
22	T	Diisopropyl ether	2.161	2.385	-10.4	83	0.00
23	T	Vinyl Acetate	1.772	2.011	-13.5	84	0.00
24	P	1,1-Dichloroethane	1.222	1.251	-2.4	79	0.00
25	T	2-Butanone	0.344	0.391	-13.7	86	0.00
26	T	2,2-Dichloropropane	0.922	0.908	1.5	76	-0.01
27	T	cis-1,2-Dichloroethene	0.778	0.806	-3.6	81	0.00
28	T	Bromochloromethane	0.508	0.619	-21.9	98	0.00
29	T	Tetrahydrofuran	0.223	0.250	-12.1	87	0.00
30	C	Chloroform	1.247	1.304	-4.6#	81	0.00
31	T	Cyclohexane	1.126	0.994	11.7	70	0.00
32	T	1,1,1-Trichloroethane	1.073	1.041	3.0	74	0.00
33	S	1,2-Dichloroethane-d4	0.700	0.805	-15.0	98	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
35	S	Dibromofluoromethane	0.325	0.344	-5.8	93	0.00
36	T	1,1-Dichloropropene	0.512	0.461	10.0	74	0.00
37	T	Ethyl Acetate	0.532	0.537	-0.9	82	0.00
38	T	Carbon Tetrachloride	0.560	0.503	10.2	75	0.00
39	T	Methylcyclohexane	0.639	0.540	15.5	70	0.00
40	TM	Benzene	1.533	1.493	2.6	79	0.00
41	T	Methacrylonitrile	0.224	0.229	-2.2	80	0.00
42	TM	1,2-Dichloroethane	0.543	0.561	-3.3	84	0.00
43	T	Isopropyl Acetate	0.764	0.817	-6.9	85	0.00
44	TM	Trichloroethene	0.393	0.360	8.4	75	0.00
45	C	1,2-Dichloropropane	0.384	0.390	-1.6#	84	0.00
46	T	Dibromomethane	0.279	0.284	-1.8	85	0.00
47	T	Bromodichloromethane	0.578	0.589	-1.9	84	0.00
48	T	Methyl methacrylate	0.397	0.422	-6.3	85	0.00

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.004	0.004	0.0	90	0.00
50	S	Toluene-d8	1.160	1.173	-1.1	90	0.00
51	T	4-Methyl-2-Pentanone	0.440	0.479	-8.9	85	0.00
52	CM	Toluene	0.947	0.914	3.5#	78	0.00
53	T	t-1,3-Dichloropropene	0.505	0.553	-9.5	85	0.00
54	T	cis-1,3-Dichloropropene	0.571	0.604	-5.8	85	0.00
55	T	1,1,2-Trichloroethane	0.360	0.376	-4.4	86	0.00
56	T	Ethyl methacrylate	0.530	0.580	-9.4	85	0.00
57	T	1,3-Dichloropropane	0.613	0.641	-4.6	86	0.00
58	T	2-Chloroethyl Vinyl ether	0.211	0.270	-28.0#	89	0.00
59	T	2-Hexanone	0.304	0.329	-8.2	85	0.00
60	T	Dibromochloromethane	0.428	0.444	-3.7	86	0.00
61	T	1,2-Dibromoethane	0.371	0.387	-4.3	85	0.00
62	S	4-Bromofluorobenzene	0.428	0.455	-6.3	96	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
64	T	Tetrachloroethene	0.362	0.319	11.9	74	0.00
65	PM	Chlorobenzene	1.188	1.128	5.1	81	0.00
66	T	1,1,1,2-Tetrachloroethane	0.402	0.398	1.0	83	0.00
67	C	Ethyl Benzene	2.045	1.923	6.0#	78	0.00
68	T	m/p-Xylenes	0.763	0.726	4.8	78	0.00
69	T	o-Xylene	0.734	0.698	4.9	79	0.00
70	T	Styrene	1.240	1.250	-0.8	82	0.00
71	P	Bromoform	0.302	0.316	-4.6	87	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00
73	T	Isopropylbenzene	3.913	3.540	9.5	76	0.00
74	T	N-amyl acetate	1.486	1.571	-5.7	86	0.00
75	P	1,1,2,2-Tetrachloroethane	1.149	1.161	-1.0	87	0.00
76	T	1,2,3-Trichloropropane	0.917	0.905	1.3	85	0.00
77	T	Bromobenzene	0.955	0.936	2.0	84	0.00
78	T	n-propylbenzene	4.673	4.273	8.6	78	0.00
79	T	2-Chlorotoluene	2.825	2.611	7.6	80	0.00
80	T	1,3,5-Trimethylbenzene	3.219	3.012	6.4	80	0.00
81	T	trans-1,4-Dichloro-2-butene	0.178	0.182	-2.2	87	0.00
82	T	4-Chlorotoluene	3.330	3.105	6.8	81	0.00
83	T	tert-Butylbenzene	3.212	3.024	5.9	79	0.00
84	T	1,2,4-Trimethylbenzene	3.219	3.060	4.9	79	0.00
85	T	sec-Butylbenzene	3.981	3.627	8.9	78	0.00
86	T	p-Isopropyltoluene	3.369	3.063	9.1	78	0.00
87	T	1,3-Dichlorobenzene	1.825	1.702	6.7	81	0.00
88	T	1,4-Dichlorobenzene	1.877	1.737	7.5	83	0.00
89	T	n-Butylbenzene	3.133	2.862	8.6	79	0.00
90	T	Hexachloroethane	0.591	0.546	7.6	79	0.00
91	T	1,2-Dichlorobenzene	1.733	1.661	4.2	84	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.222	0.222	0.0	85	0.00
93	T	1,2,4-Trichlorobenzene	1.161	1.116	3.9	86	0.00
94	T	Hexachlorobutadiene	0.413	0.377	8.7	88	0.00
95	T	Naphthalene	3.319	3.400	-2.4	85	0.00

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	1.095	1.078	1.6	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	85	0.00
2	T	Dichlorodifluoromethane	50.000	45.787	8.4	68	0.00
3	P	Chloromethane	50.000	49.503	1.0	78	0.00
4	C	Vinyl Chloride	50.000	45.739	8.5#	70	0.00
5	T	Bromomethane	50.000	45.891	8.2	68	0.00
6	T	Chloroethane	50.000	46.281	7.4	75	0.00
7	T	Trichlorofluoromethane	50.000	44.970	10.1	69	0.00
8	T	Diethyl Ether	50.000	55.128	-10.3	85	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	47.108	5.8	71	0.00
10	T	Methyl Iodide	50.000	42.186	15.6	66	0.00
11	T	Tert butyl alcohol	250.000	295.893	-18.4	90	0.00
12	CM	1,1-Dichloroethene	50.000	47.332	5.3#	73	0.00
13	T	Acrolein	250.000	281.792	-12.7	94	0.00
14	T	Allyl chloride	50.000	50.583	-1.2	78	0.00
15	T	Acrylonitrile	250.000	285.809	-14.3	84	0.00
16	T	Acetone	250.000	267.129	-6.9	86	0.00
17	T	Carbon Disulfide	50.000	44.886	10.2	73	0.00
18	T	Methyl Acetate	50.000	56.879	-13.8	86	0.00
19	T	Methyl tert-butyl Ether	50.000	55.686	-11.4	84	0.00
20	T	Methylene Chloride	50.000	52.640	-5.3	83	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.068	1.9	77	0.00
22	T	Diisopropyl ether	50.000	55.175	-10.3	83	0.00
23	T	Vinyl Acetate	250.000	283.754	-13.5	84	0.00
24	P	1,1-Dichloroethane	50.000	51.211	-2.4	79	0.00
25	T	2-Butanone	250.000	283.674	-13.5	86	0.00
26	T	2,2-Dichloropropane	50.000	49.229	1.5	76	-0.01
27	T	cis-1,2-Dichloroethene	50.000	51.764	-3.5	81	0.00
28	T	Bromochloromethane	50.000	60.847	-21.7	98	0.00
29	T	Tetrahydrofuran	250.000	280.608	-12.2	87	0.00
30	C	Chloroform	50.000	52.310	-4.6#	81	0.00
31	T	Cyclohexane	50.000	44.146	11.7	70	0.00
32	T	1,1,1-Trichloroethane	50.000	48.495	3.0	74	0.00
33	S	1,2-Dichloroethane-d4	50.000	57.514	-15.0	98	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	90	0.00
35	S	Dibromofluoromethane	50.000	53.029	-6.1	93	0.00
36	T	1,1-Dichloropropene	50.000	44.977	10.0	74	0.00
37	T	Ethyl Acetate	50.000	50.486	-1.0	82	0.00
38	T	Carbon Tetrachloride	50.000	44.963	10.1	75	0.00
39	T	Methylcyclohexane	50.000	42.274	15.5	70	0.00
40	TM	Benzene	50.000	48.701	2.6	79	0.00
41	T	Methacrylonitrile	50.000	51.049	-2.1	80	0.00
42	TM	1,2-Dichloroethane	50.000	51.678	-3.4	84	0.00
43	T	Isopropyl Acetate	50.000	53.497	-7.0	85	0.00
44	TM	Trichloroethene	50.000	45.821	8.4	75	0.00
45	C	1,2-Dichloropropane	50.000	50.806	-1.6#	84	0.00
46	T	Dibromomethane	50.000	50.893	-1.8	85	0.00
47	T	Bromodichloromethane	50.000	50.965	-1.9	84	0.00
48	T	Methyl methacrylate	50.000	53.246	-6.5	85	0.00

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	1160.527	-16.1	90	0.00
50	S	Toluene-d8	50.000	50.584	-1.2	90	0.00
51	T	4-Methyl-2-Pentanone	250.000	272.635	-9.1	85	0.00
52	CM	Toluene	50.000	48.228	3.5#	78	0.00
53	T	t-1,3-Dichloropropene	50.000	54.796	-9.6	85	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.876	-5.8	85	0.00
55	T	1,1,2-Trichloroethane	50.000	52.264	-4.5	86	0.00
56	T	Ethyl methacrylate	50.000	54.700	-9.4	85	0.00
57	T	1,3-Dichloropropane	50.000	52.271	-4.5	86	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	266.315	-6.5	89	0.00
59	T	2-Hexanone	250.000	270.676	-8.3	85	0.00
60	T	Dibromochloromethane	50.000	51.968	-3.9	86	0.00
61	T	1,2-Dibromoethane	50.000	52.124	-4.2	85	0.00
62	S	4-Bromofluorobenzene	50.000	53.183	-6.4	96	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	92	0.00
64	T	Tetrachloroethene	50.000	44.081	11.8	74	0.00
65	PM	Chlorobenzene	50.000	47.476	5.0	81	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	49.556	0.9	83	0.00
67	C	Ethyl Benzene	50.000	47.006	6.0#	78	0.00
68	T	m/p-Xylenes	100.000	95.157	4.8	78	0.00
69	T	o-Xylene	50.000	47.570	4.9	79	0.00
70	T	Styrene	50.000	50.426	-0.9	82	0.00
71	P	Bromoform	50.000	52.336	-4.7	87	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	95	0.00
73	T	Isopropylbenzene	50.000	45.232	9.5	76	0.00
74	T	N-amyl acetate	50.000	52.861	-5.7	86	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	50.522	-1.0	87	0.00
76	T	1,2,3-Trichloropropane	50.000	49.366	1.3	85	0.00
77	T	Bromobenzene	50.000	48.962	2.1	84	0.00
78	T	n-propylbenzene	50.000	45.715	8.6	78	0.00
79	T	2-Chlorotoluene	50.000	46.220	7.6	80	0.00
80	T	1,3,5-Trimethylbenzene	50.000	46.784	6.4	80	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	44.250	11.5	87	0.00
82	T	4-Chlorotoluene	50.000	46.620	6.8	81	0.00
83	T	tert-Butylbenzene	50.000	47.081	5.8	79	0.00
84	T	1,2,4-Trimethylbenzene	50.000	47.529	4.9	79	0.00
85	T	sec-Butylbenzene	50.000	45.552	8.9	78	0.00
86	T	p-Isopropyltoluene	50.000	45.458	9.1	78	0.00
87	T	1,3-Dichlorobenzene	50.000	46.630	6.7	81	0.00
88	T	1,4-Dichlorobenzene	50.000	46.253	7.5	83	0.00
89	T	n-Butylbenzene	50.000	45.672	8.7	79	0.00
90	T	Hexachloroethane	50.000	46.201	7.6	79	0.00
91	T	1,2-Dichlorobenzene	50.000	47.938	4.1	84	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	49.925	0.2	85	0.00
93	T	1,2,4-Trichlorobenzene	50.000	48.028	3.9	86	0.00
94	T	Hexachlorobutadiene	50.000	45.633	8.7	88	0.00
95	T	Naphthalene	50.000	51.217	-2.4	85	0.00

Sample Results: **VX047400.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047400.D
Acq On : 19 Aug 2025 09:37
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 19 10:00:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	49.242	1.5	87	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Raw Data: **VX047455.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	Alliance	Contract:	JACO05
Lab Code:	ACE	SDG No.:	Q2869
Instrument ID:	MSVOA_X	Calibration Date/Time:	08/21/2025 09:35
Lab File ID:	VX047455.D	Init. Calib. Date(s):	08/15/2025 08/15/2025
Heated Purge: (Y/N)	N	Init. Calib. Time(s):	09:40 12:30

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.720	0.680		-5.56	20
1,1-Dichloroethene	0.630	0.604		-4.13	20
1,1-Dichloroethane	1.222	1.230	0.1	0.65	20
cis-1,2-Dichloroethene	0.778	0.772		-0.77	20
1,1,1-Trichloroethane	1.073	1.042		-2.89	20
Benzene	1.533	1.480		-3.46	20
1,2-Dichloroethane	0.543	0.540		-0.55	20
Trichloroethene	0.393	0.363		-7.63	20
1,1,2-Trichloroethane	0.360	0.356		-1.11	20
Tetrachloroethene	0.362	0.340		-6.08	20
1,2-Dichloroethane-d4	0.700	0.705		0.71	20
Dibromofluoromethane	0.325	0.317		-2.46	20
Toluene-d8	1.160	1.105		-4.74	20
4-Bromofluorobenzene	0.428	0.421		-1.64	20

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	229258	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	398048	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	349454	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	170891	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	161541	50.347	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.700%			
35) Dibromofluoromethane	5.391	113	126257	48.873	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 97.740%			
50) Toluene-d8	8.647	98	440017	47.654	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 95.300%			
62) 4-Bromofluorobenzene	11.079	95	167385	49.124	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 98.240%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	137054	46.896	ug/l	98
3) Chloromethane	1.313	50	118337	45.011	ug/l	100
4) Vinyl Chloride	1.392	62	155972	47.266	ug/l	97
5) Bromomethane	1.624	94	67970	50.995	ug/l	100
6) Chloroethane	1.703	64	92773	45.950	ug/l	97
7) Trichlorofluoromethane	1.904	101	228011	46.714	ug/l	97
8) Diethyl Ether	2.142	74	89364	51.996	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.343	101	137327	48.502	ug/l	99
10) Methyl Iodide	2.471	142	198280	40.864	ug/l	99
11) Tert butyl alcohol	2.959	59	74546	267.071	ug/l	100
12) 1,1-Dichloroethene	2.337	96	138483	47.975	ug/l	97
13) Acrolein	2.245	56	152087	258.116	ug/l	100
14) Allyl chloride	2.678	41	253477	50.558	ug/l	98
15) Acrylonitrile	3.081	53	341743	253.372	ug/l	99
16) Acetone	2.386	43	340465	282.303	ug/l	100
17) Carbon Disulfide	2.526	76	377752	43.368	ug/l	99
18) Methyl Acetate	2.709	43	175090	56.023	ug/l	99
19) Methyl tert-butyl Ether	3.117	73	460788	52.473	ug/l	97
20) Methylene Chloride	2.800	84	158663	49.682	ug/l	95
21) trans-1,2-Dichloroethene	3.105	96	143651	46.888	ug/l	100
22) Diisopropyl ether	3.764	45	530561	53.537	ug/l	90
23) Vinyl Acetate	3.727	43	2128926	262.092	ug/l	99
24) 1,1-Dichloroethane	3.617	63	281992	50.342	ug/l	98
25) 2-Butanone	4.556	43	432900	274.073	ug/l	100
26) 2,2-Dichloropropane	4.483	77	211457	50.016	ug/l	100
27) cis-1,2-Dichloroethene	4.495	96	176936	49.585	ug/l	99
28) Bromochloromethane	4.904	49	132726	56.941	ug/l	99
29) Tetrahydrofuran	5.013	42	247179	242.119	ug/l	98
30) Chloroform	5.099	83	284762	49.812	ug/l	98
31) Cyclohexane	5.477	56	237389	45.973	ug/l	96
32) 1,1,1-Trichloroethane	5.391	97	238782	48.527	ug/l	100
36) 1,1-Dichloropropene	5.696	75	187916	46.080	ug/l	99
37) Ethyl Acetate	4.715	43	185529	43.823	ug/l	98
38) Carbon Tetrachloride	5.684	117	201253	45.160	ug/l	98
39) Methylcyclohexane	7.379	83	231636	45.537	ug/l	95
40) Benzene	6.044	78	589135	48.265	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.928	41	85816	48.068	ug/l		96
42) 1,2-Dichloroethane	6.092	62	215079	49.745	ug/l		100
43) Isopropyl Acetate	6.336	43	301985	49.652	ug/l		99
44) Trichloroethene	7.129	130	144331	46.179	ug/l		98
45) 1,2-Dichloropropane	7.427	63	151021	49.387	ug/l		99
46) Dibromomethane	7.580	93	109389	49.273	ug/l		97
47) Bromodichloromethane	7.818	83	229317	49.826	ug/l		99
48) Methyl methacrylate	7.690	41	157170	49.786	ug/l		99
49) 1,4-Dioxane	7.677	88	35931	1170.790	ug/l		95
51) 4-Methyl-2-Pentanone	8.574	43	859427	245.555	ug/l		98
52) Toluene	8.714	92	367491	48.722	ug/l		99
53) t-1,3-Dichloropropene	8.976	75	212547	52.915	ug/l		100
54) cis-1,3-Dichloropropene	8.366	75	234037	51.476	ug/l		99
55) 1,1,2-Trichloroethane	9.147	97	141600	49.445	ug/l		98
56) Ethyl methacrylate	9.116	69	214659	50.841	ug/l		98
57) 1,3-Dichloropropane	9.305	76	245575	50.324	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.238	63	496030	246.162	ug/l		99
59) 2-Hexanone	9.427	43	588782	243.199	ug/l		100
60) Dibromochloromethane	9.519	129	169913	49.925	ug/l		99
61) 1,2-Dibromoethane	9.610	107	144626	48.974	ug/l		100
64) Tetrachloroethene	9.269	164	118711	46.965	ug/l		98
65) Chlorobenzene	10.079	112	404956	48.764	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.159	131	141556	50.425	ug/l		99
67) Ethyl Benzene	10.189	91	701634	49.089	ug/l		99
68) m/p-Xylenes	10.299	106	523170	98.164	ug/l		99
69) o-Xylene	10.640	106	255854	49.886	ug/l		98
70) Styrene	10.653	104	441303	50.924	ug/l		100
71) Bromoform	10.793	173	105815	50.174	ug/l	#	99
73) Isopropylbenzene	10.957	105	662630	49.550	ug/l		100
74) N-amyl acetate	10.842	43	257431	50.693	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.207	83	197287	50.246	ug/l		98
76) 1,2,3-Trichloropropane	11.238	75	158508m	50.572	ug/l		
77) Bromobenzene	11.195	156	162842	49.867	ug/l		99
78) n-propylbenzene	11.299	91	785818	49.201	ug/l		99
79) 2-Chlorotoluene	11.360	91	469970	48.677	ug/l		99
80) 1,3,5-Trimethylbenzene	11.445	105	543536	49.398	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	32124	45.408	ug/l		98
82) 4-Chlorotoluene	11.451	91	547058	48.067	ug/l		100
83) tert-Butylbenzene	11.713	119	546135	49.750	ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	550436	50.024	ug/l		99
85) sec-Butylbenzene	11.890	105	669670	49.218	ug/l		100
86) p-Isopropyltoluene	12.006	119	568699	49.393	ug/l		100
87) 1,3-Dichlorobenzene	11.963	146	298542	47.855	ug/l		99
88) 1,4-Dichlorobenzene	12.036	146	304807	47.505	ug/l		99
89) n-Butylbenzene	12.329	91	533265	49.796	ug/l		99
90) Hexachloroethane	12.536	117	99175	49.100	ug/l		99
91) 1,2-Dichlorobenzene	12.329	146	288109	48.655	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	37071	48.821	ug/l		99
93) 1,2,4-Trichlorobenzene	13.585	180	194113	48.899	ug/l		99
94) Hexachlorobutadiene	13.719	225	69786	49.389	ug/l		99
95) Naphthalene	13.774	128	585297	51.594	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	186476	49.836	ug/l		97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

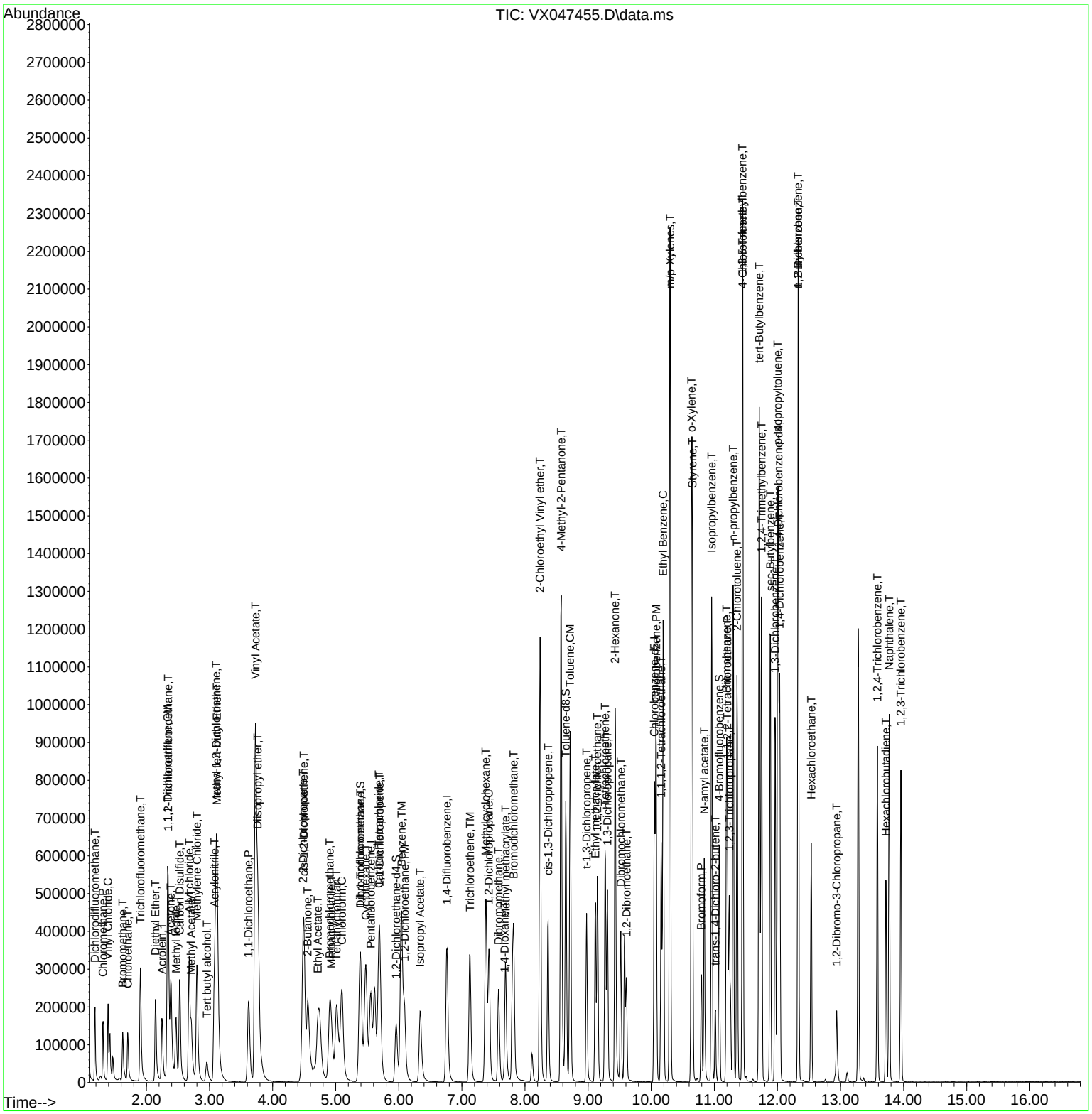
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	96	-0.01
2	T	Dichlorodifluoromethane	0.637	0.598	6.1	78	0.00
3	P	Chloromethane	0.573	0.516	9.9	79	0.00
4	C	Vinyl Chloride	0.720	0.680	5.6#	82	0.00
5	T	Bromomethane	0.291	0.296	-1.7	85	0.00
6	T	Chloroethane	0.440	0.405	8.0	84	0.00
7	T	Trichlorofluoromethane	1.065	0.995	6.6	80	0.00
8	T	Diethyl Ether	0.375	0.390	-4.0	90	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.618	0.599	3.1	82	0.00
10	T	Methyl Iodide	1.058	0.865	18.2	71	0.00
11	T	Tert butyl alcohol	0.061	0.065	-6.6	92	0.00
12	CM	1,1-Dichloroethene	0.630	0.604	4.1#	83	0.00
13	T	Acrolein	0.129	0.133	-3.1	96	0.00
14	T	Allyl chloride	1.093	1.106	-1.2	88	0.00
15	T	Acrylonitrile	0.294	0.298	-1.4	84	0.00
16	T	Acetone	0.263	0.297	-12.9	102	0.00
17	T	Carbon Disulfide	1.900	1.648	13.3	79	0.00
18	T	Methyl Acetate	0.682	0.764	-12.0	95	0.00
19	T	Methyl tert-butyl Ether	1.915	2.010	-5.0	89	0.00
20	T	Methylene Chloride	0.697	0.692	0.7	88	0.00
21	T	trans-1,2-Dichloroethene	0.668	0.627	6.1	83	0.00
22	T	Diisopropyl ether	2.161	2.314	-7.1	90	-0.01
23	T	Vinyl Acetate	1.772	1.857	-4.8	87	0.00
24	P	1,1-Dichloroethane	1.222	1.230	-0.7	87	0.00
25	T	2-Butanone	0.344	0.378	-9.9	93	-0.01
26	T	2,2-Dichloropropane	0.922	0.922	0.0	87	-0.01
27	T	cis-1,2-Dichloroethene	0.778	0.772	0.8	88	0.00
28	T	Bromochloromethane	0.508	0.579	-14.0	103	0.00
29	T	Tetrahydrofuran	0.223	0.216	3.1	84	-0.01
30	C	Chloroform	1.247	1.242	0.4#	87	0.00
31	T	Cyclohexane	1.126	1.035	8.1	82	0.00
32	T	1,1,1-Trichloroethane	1.073	1.042	2.9	84	0.00
33	S	1,2-Dichloroethane-d4	0.700	0.705	-0.7	97	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
35	S	Dibromofluoromethane	0.325	0.317	2.5	94	0.00
36	T	1,1-Dichloropropene	0.512	0.472	7.8	82	-0.01
37	T	Ethyl Acetate	0.532	0.466	12.4	78	0.00
38	T	Carbon Tetrachloride	0.560	0.506	9.6	82	0.00
39	T	Methylcyclohexane	0.639	0.582	8.9	82	-0.01
40	TM	Benzene	1.533	1.480	3.5	85	0.00
41	T	Methacrylonitrile	0.224	0.216	3.6	82	-0.01
42	TM	1,2-Dichloroethane	0.543	0.540	0.6	88	0.00
43	T	Isopropyl Acetate	0.764	0.759	0.7	86	-0.01
44	TM	Trichloroethene	0.393	0.363	7.6	82	0.00
45	C	1,2-Dichloropropane	0.384	0.379	1.3#	89	0.00
46	T	Dibromomethane	0.279	0.275	1.4	89	0.00
47	T	Bromodichloromethane	0.578	0.576	0.3	89	0.00
48	T	Methyl methacrylate	0.397	0.395	0.5	87	0.00

Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.004	0.005	-25.0	99	0.00
50	S	Toluene-d8	1.160	1.105	4.7	93	0.00
51	T	4-Methyl-2-Pentanone	0.440	0.432	1.8	83	0.00
52	CM	Toluene	0.947	0.923	2.5#	86	0.00
53	T	t-1,3-Dichloropropene	0.505	0.534	-5.7	90	0.00
54	T	cis-1,3-Dichloropropene	0.571	0.588	-3.0	90	0.00
55	T	1,1,2-Trichloroethane	0.360	0.356	1.1	88	0.00
56	T	Ethyl methacrylate	0.530	0.539	-1.7	86	0.00
57	T	1,3-Dichloropropane	0.613	0.617	-0.7	90	0.00
58	T	2-Chloroethyl Vinyl ether	0.211	0.249	-18.0	89	0.00
59	T	2-Hexanone	0.304	0.296	2.6	84	0.00
60	T	Dibromochloromethane	0.428	0.427	0.2	90	0.00
61	T	1,2-Dibromoethane	0.371	0.363	2.2	87	0.00
62	S	4-Bromofluorobenzene	0.428	0.421	1.6	96	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
64	T	Tetrachloroethene	0.362	0.340	6.1	82	0.00
65	PM	Chlorobenzene	1.188	1.159	2.4	87	0.00
66	T	1,1,1,2-Tetrachloroethane	0.402	0.405	-0.7	88	0.00
67	C	Ethyl Benzene	2.045	2.008	1.8#	85	0.00
68	T	m/p-Xylenes	0.763	0.749	1.8	84	0.00
69	T	o-Xylene	0.734	0.732	0.3	87	0.00
70	T	Styrene	1.240	1.263	-1.9	86	0.00
71	P	Bromoform	0.302	0.303	-0.3	87	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
73	T	Isopropylbenzene	3.913	3.878	0.9	85	0.00
74	T	N-amyl acetate	1.486	1.506	-1.3	84	0.00
75	P	1,1,2,2-Tetrachloroethane	1.149	1.154	-0.4	88	0.00
76	T	1,2,3-Trichloropropane	0.917	0.928	-1.2	88	0.00
77	T	Bromobenzene	0.955	0.953	0.2	87	0.00
78	T	n-propylbenzene	4.673	4.598	1.6	86	0.00
79	T	2-Chlorotoluene	2.825	2.750	2.7	86	0.00
80	T	1,3,5-Trimethylbenzene	3.219	3.181	1.2	85	0.00
81	T	trans-1,4-Dichloro-2-butene	0.178	0.188	-5.6	91	0.00
82	T	4-Chlorotoluene	3.330	3.201	3.9	85	0.00
83	T	tert-Butylbenzene	3.212	3.196	0.5	85	0.00
84	T	1,2,4-Trimethylbenzene	3.219	3.221	-0.1	85	0.00
85	T	sec-Butylbenzene	3.981	3.919	1.6	85	0.00
86	T	p-Isopropyltoluene	3.369	3.328	1.2	86	0.00
87	T	1,3-Dichlorobenzene	1.825	1.747	4.3	85	0.00
88	T	1,4-Dichlorobenzene	1.877	1.784	5.0	87	0.00
89	T	n-Butylbenzene	3.133	3.120	0.4	87	0.00
90	T	Hexachloroethane	0.591	0.580	1.9	86	0.00
91	T	1,2-Dichlorobenzene	1.733	1.686	2.7	87	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.222	0.217	2.3	85	0.00
93	T	1,2,4-Trichlorobenzene	1.161	1.136	2.2	89	0.00
94	T	Hexachlorobutadiene	0.413	0.408	1.2	97	0.00
95	T	Naphthalene	3.319	3.425	-3.2	87	0.00

Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	1.095	1.091	0.4	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	96	-0.01
2	T	Dichlorodifluoromethane	50.000	46.896	6.2	78	0.00
3	P	Chloromethane	50.000	45.011	10.0	79	0.00
4	C	Vinyl Chloride	50.000	47.266	5.5#	82	0.00
5	T	Bromomethane	50.000	50.995	-2.0	85	0.00
6	T	Chloroethane	50.000	45.950	8.1	84	0.00
7	T	Trichlorofluoromethane	50.000	46.714	6.6	80	0.00
8	T	Diethyl Ether	50.000	51.996	-4.0	90	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	48.502	3.0	82	0.00
10	T	Methyl Iodide	50.000	40.864	18.3	71	0.00
11	T	Tert butyl alcohol	250.000	267.071	-6.8	92	0.00
12	CM	1,1-Dichloroethene	50.000	47.975	4.0#	83	0.00
13	T	Acrolein	250.000	258.116	-3.2	96	0.00
14	T	Allyl chloride	50.000	50.558	-1.1	88	0.00
15	T	Acrylonitrile	250.000	253.372	-1.3	84	0.00
16	T	Acetone	250.000	282.303	-12.9	102	0.00
17	T	Carbon Disulfide	50.000	43.368	13.3	79	0.00
18	T	Methyl Acetate	50.000	56.023	-12.0	95	0.00
19	T	Methyl tert-butyl Ether	50.000	52.473	-4.9	89	0.00
20	T	Methylene Chloride	50.000	49.682	0.6	88	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.888	6.2	83	0.00
22	T	Diisopropyl ether	50.000	53.537	-7.1	90	-0.01
23	T	Vinyl Acetate	250.000	262.092	-4.8	87	0.00
24	P	1,1-Dichloroethane	50.000	50.342	-0.7	87	0.00
25	T	2-Butanone	250.000	274.073	-9.6	93	-0.01
26	T	2,2-Dichloropropane	50.000	50.016	-0.0	87	-0.01
27	T	cis-1,2-Dichloroethene	50.000	49.585	0.8	88	0.00
28	T	Bromochloromethane	50.000	56.941	-13.9	103	0.00
29	T	Tetrahydrofuran	250.000	242.119	3.2	84	-0.01
30	C	Chloroform	50.000	49.812	0.4#	87	0.00
31	T	Cyclohexane	50.000	45.973	8.1	82	0.00
32	T	1,1,1-Trichloroethane	50.000	48.527	2.9	84	0.00
33	S	1,2-Dichloroethane-d4	50.000	50.347	-0.7	97	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	98	0.00
35	S	Dibromofluoromethane	50.000	48.873	2.3	94	0.00
36	T	1,1-Dichloropropene	50.000	46.080	7.8	82	-0.01
37	T	Ethyl Acetate	50.000	43.823	12.4	78	0.00
38	T	Carbon Tetrachloride	50.000	45.160	9.7	82	0.00
39	T	Methylcyclohexane	50.000	45.537	8.9	82	-0.01
40	TM	Benzene	50.000	48.265	3.5	85	0.00
41	T	Methacrylonitrile	50.000	48.068	3.9	82	-0.01
42	TM	1,2-Dichloroethane	50.000	49.745	0.5	88	0.00
43	T	Isopropyl Acetate	50.000	49.652	0.7	86	-0.01
44	TM	Trichloroethene	50.000	46.179	7.6	82	0.00
45	C	1,2-Dichloropropane	50.000	49.387	1.2#	89	0.00
46	T	Dibromomethane	50.000	49.273	1.5	89	0.00
47	T	Bromodichloromethane	50.000	49.826	0.3	89	0.00
48	T	Methyl methacrylate	50.000	49.786	0.4	87	0.00

Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	1170.790	-17.1	99	0.00
50	S	Toluene-d8	50.000	47.654	4.7	93	0.00
51	T	4-Methyl-2-Pentanone	250.000	245.555	1.8	83	0.00
52	CM	Toluene	50.000	48.722	2.6#	86	0.00
53	T	t-1,3-Dichloropropene	50.000	52.915	-5.8	90	0.00
54	T	cis-1,3-Dichloropropene	50.000	51.476	-3.0	90	0.00
55	T	1,1,2-Trichloroethane	50.000	49.445	1.1	88	0.00
56	T	Ethyl methacrylate	50.000	50.841	-1.7	86	0.00
57	T	1,3-Dichloropropane	50.000	50.324	-0.6	90	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	246.162	1.5	89	0.00
59	T	2-Hexanone	250.000	243.199	2.7	84	0.00
60	T	Dibromochloromethane	50.000	49.925	0.2	90	0.00
61	T	1,2-Dibromoethane	50.000	48.974	2.1	87	0.00
62	S	4-Bromofluorobenzene	50.000	49.124	1.8	96	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	96	0.00
64	T	Tetrachloroethene	50.000	46.965	6.1	82	0.00
65	PM	Chlorobenzene	50.000	48.764	2.5	87	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	50.425	-0.8	88	0.00
67	C	Ethyl Benzene	50.000	49.089	1.8#	85	0.00
68	T	m/p-Xylenes	100.000	98.164	1.8	84	0.00
69	T	o-Xylene	50.000	49.886	0.2	87	0.00
70	T	Styrene	50.000	50.924	-1.8	86	0.00
71	P	Bromoform	50.000	50.174	-0.3	87	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	96	0.00
73	T	Isopropylbenzene	50.000	49.550	0.9	85	0.00
74	T	N-amyl acetate	50.000	50.693	-1.4	84	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	50.246	-0.5	88	0.00
76	T	1,2,3-Trichloropropane	50.000	50.572	-1.1	88	0.00
77	T	Bromobenzene	50.000	49.867	0.3	87	0.00
78	T	n-propylbenzene	50.000	49.201	1.6	86	0.00
79	T	2-Chlorotoluene	50.000	48.677	2.6	86	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.398	1.2	85	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	45.408	9.2	91	0.00
82	T	4-Chlorotoluene	50.000	48.067	3.9	85	0.00
83	T	tert-Butylbenzene	50.000	49.750	0.5	85	0.00
84	T	1,2,4-Trimethylbenzene	50.000	50.024	-0.0	85	0.00
85	T	sec-Butylbenzene	50.000	49.218	1.6	85	0.00
86	T	p-Isopropyltoluene	50.000	49.393	1.2	86	0.00
87	T	1,3-Dichlorobenzene	50.000	47.855	4.3	85	0.00
88	T	1,4-Dichlorobenzene	50.000	47.505	5.0	87	0.00
89	T	n-Butylbenzene	50.000	49.796	0.4	87	0.00
90	T	Hexachloroethane	50.000	49.100	1.8	86	0.00
91	T	1,2-Dichlorobenzene	50.000	48.655	2.7	87	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	48.821	2.4	85	0.00
93	T	1,2,4-Trichlorobenzene	50.000	48.899	2.2	89	0.00
94	T	Hexachlorobutadiene	50.000	49.389	1.2	97	0.00
95	T	Naphthalene	50.000	51.594	-3.2	87	0.00

Sample Results: **VX047455.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047455.D
Acq On : 21 Aug 2025 09:35
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Aug 22 03:38:28 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	49.836	0.3	90	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

QC SAMPLE DATA

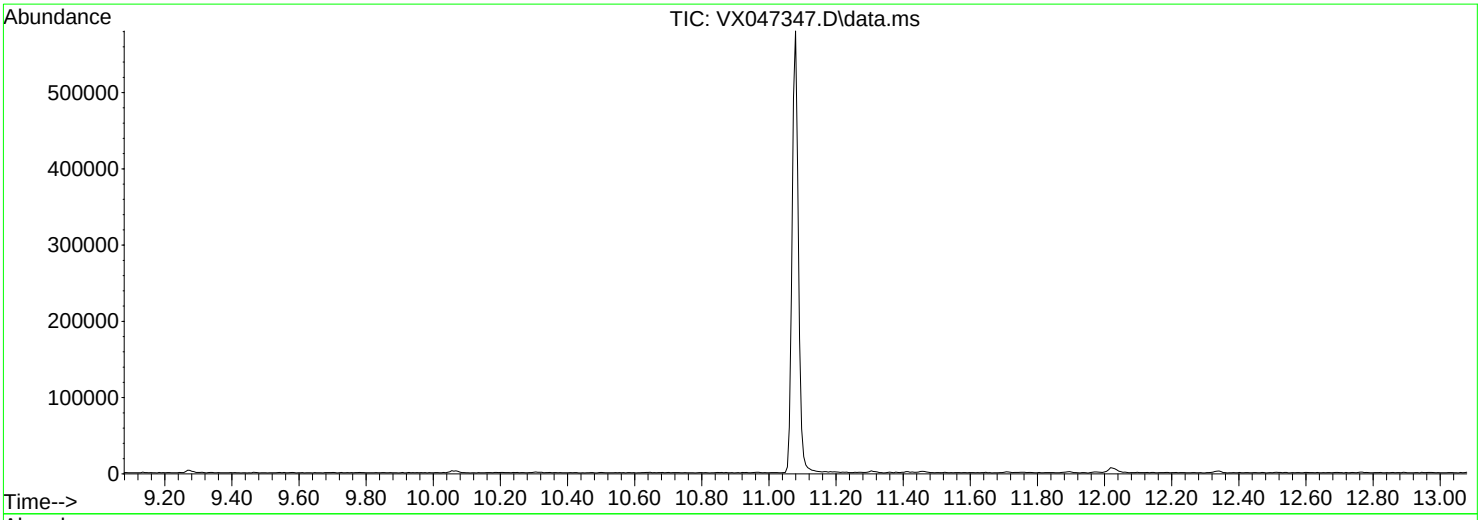
Sample Results: **VX047347.D**

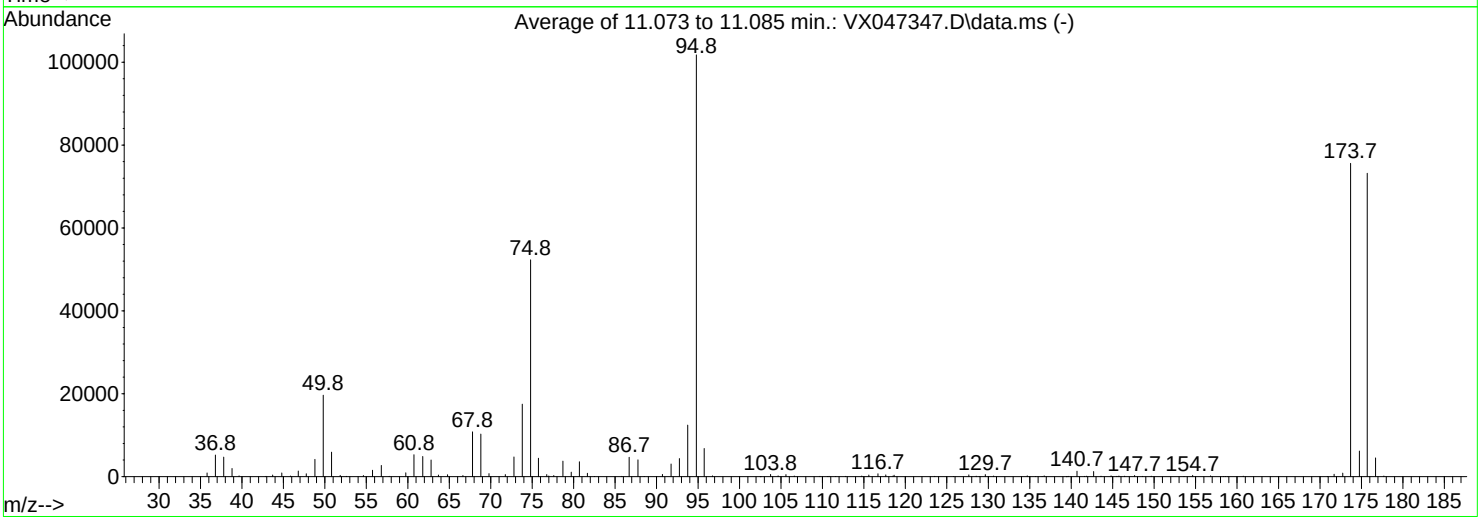
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047347.D
Acq On : 15 Aug 2025 08:28
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Title : SW846 8260
Last Update : Mon Aug 18 04:18:28 2025





AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	19650	PASS
75	95	30	60	51.4	52320	PASS
95	95	100	100	100.0	101773	PASS
96	95	5	9	6.7	6795	PASS
173	174	0.00	2	1.1	867	PASS
174	95	50	100	74.3	75603	PASS
175	174	5	9	8.2	6186	PASS
176	174	95	101	96.8	73213	PASS
177	176	5	9	6.2	4510	PASS

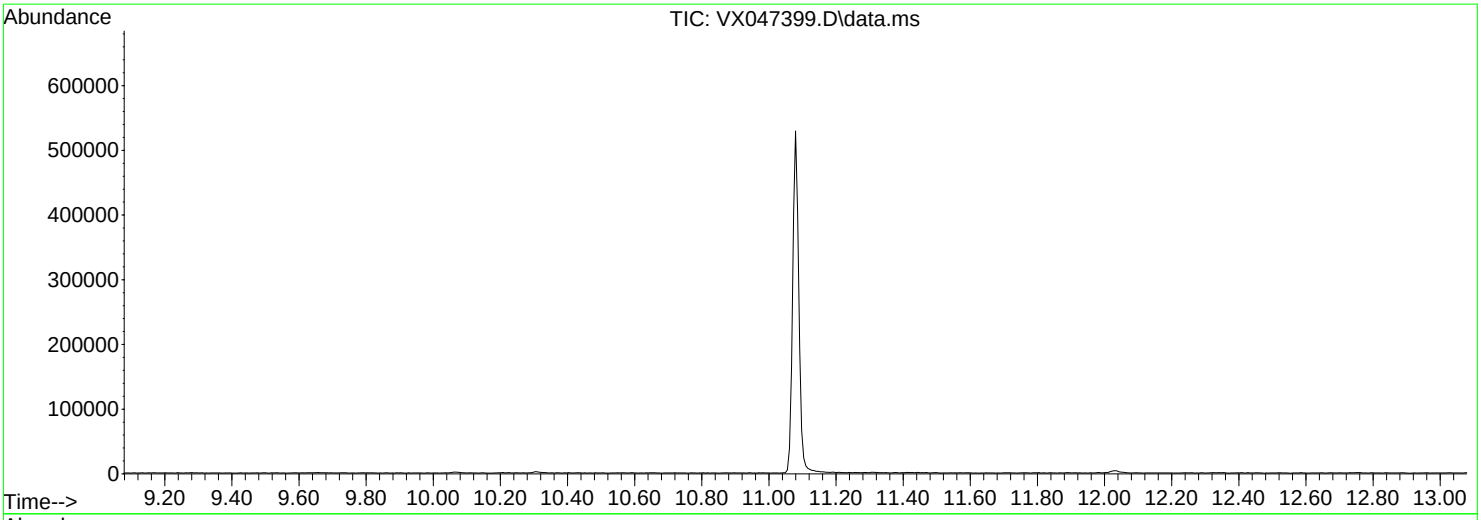
Sample Results: **VX047399.D**

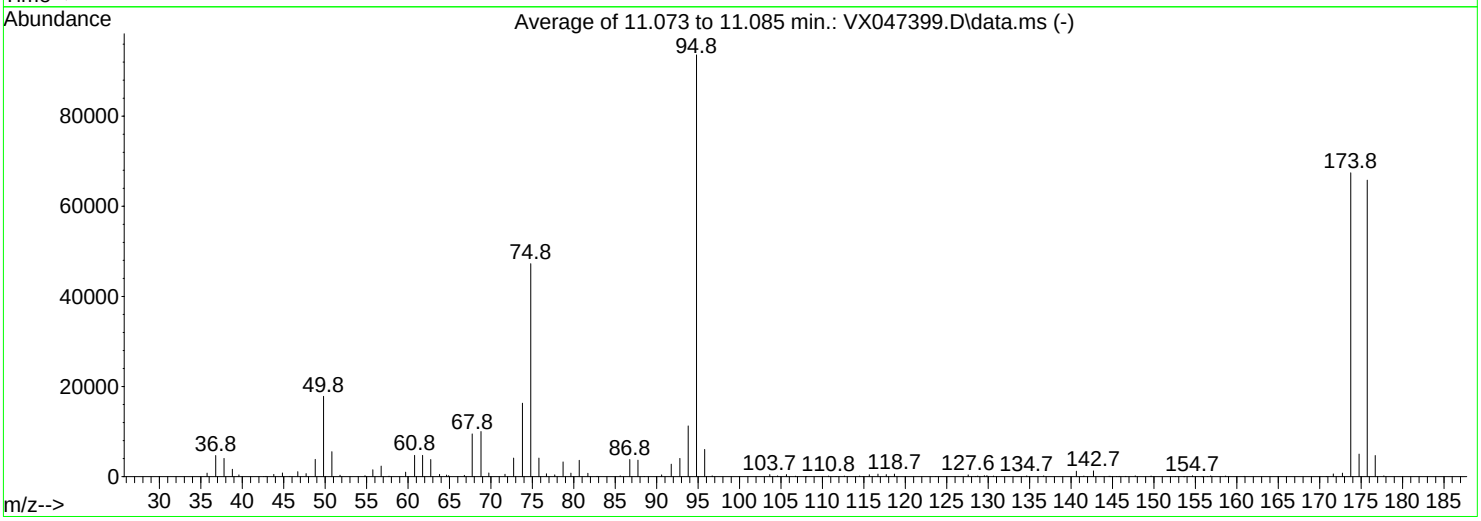
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047399.D
Acq On : 19 Aug 2025 08:38
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Title : SW846 8260
Last Update : Mon Aug 18 04:18:28 2025





AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.0	17812	PASS
75	95	30	60	50.5	47256	PASS
95	95	100	100	100.0	93616	PASS
96	95	5	9	6.5	6053	PASS
173	174	0.00	2	1.2	803	PASS
174	95	50	100	72.1	67451	PASS
175	174	5	9	7.4	5006	PASS
176	174	95	101	97.6	65808	PASS
177	176	5	9	7.1	4681	PASS

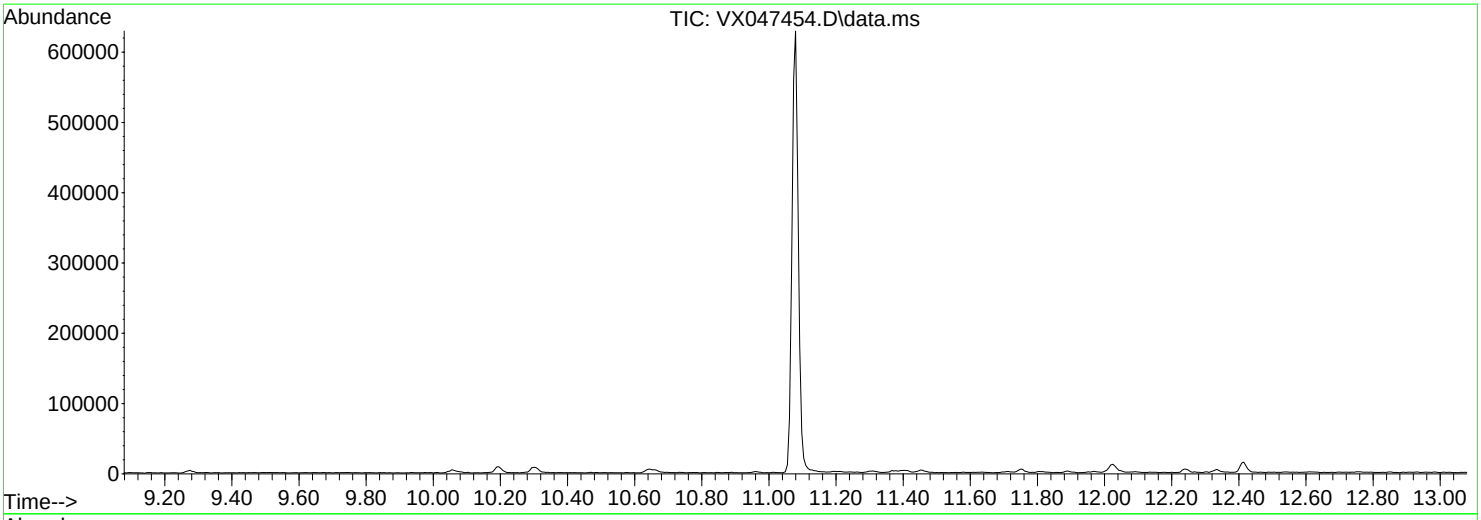
Sample Results: **VX047454.D**

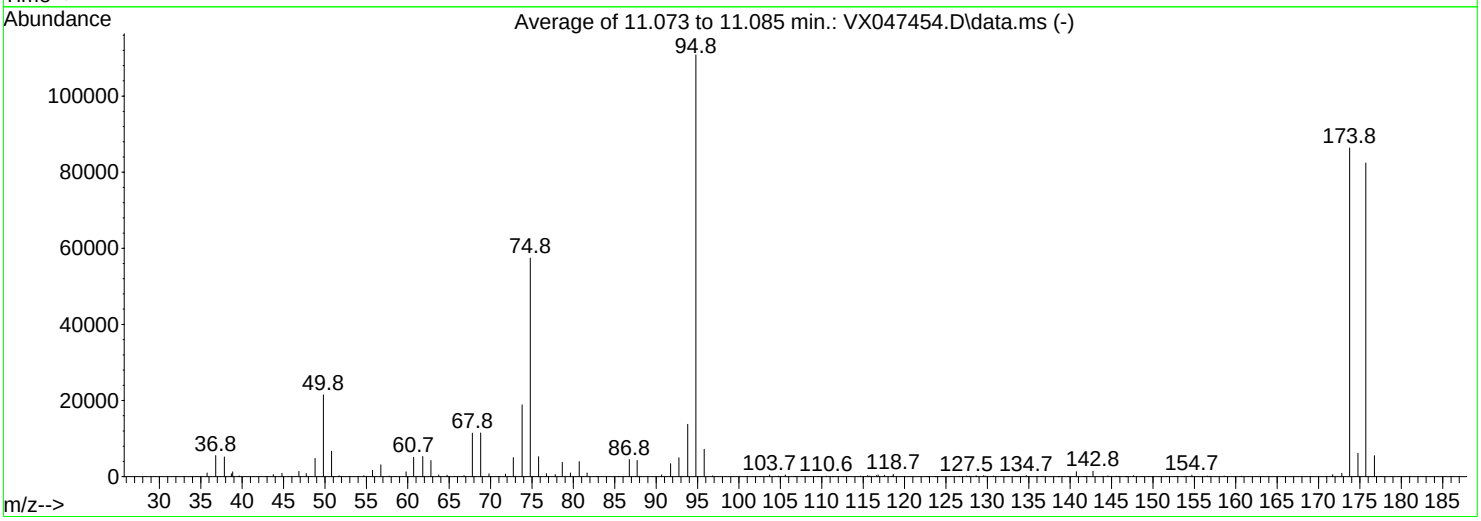
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047454.D
Acq On : 21 Aug 2025 07:58
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Title : SW846 8260
Last Update : Mon Aug 18 04:18:28 2025





AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	21493	PASS
75	95	30	60	51.8	57413	PASS
95	95	100	100	100.0	110837	PASS
96	95	5	9	6.5	7187	PASS
173	174	0.00	2	1.0	873	PASS
174	95	50	100	77.9	86360	PASS
175	174	5	9	7.1	6128	PASS
176	174	95	101	95.4	82403	PASS
177	176	5	9	6.7	5524	PASS

Raw Data: **VX047402.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	
Client Sample ID:	VX0819WBL01	SDG No.:	Q2869
Lab Sample ID:	VX0819WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047402.D	1	08/19/25 10:55	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.2		70 (74) - 130 (125)	114%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		70 (75) - 130 (124)	102%	SPK: 50
2037-26-5	Toluene-d8	49.5		70 (86) - 130 (113)	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.1		70 (77) - 130 (121)	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	205000	5.562			
540-36-3	1,4-Difluorobenzene	411000	6.763			
3114-55-4	Chlorobenzene-d5	416000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	213000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047402.D
Acq On : 19 Aug 2025 10:55
Operator : JC/MD
Sample : VX0819WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Quant Time: Aug 19 11:12:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	204625	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.763	114	410508	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	416324	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	212865	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	163941	57.246	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 114.500%			
35) Dibromofluoromethane	5.391	113	135590	50.893	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.780%			
50) Toluene-d8	8.647	98	471489	49.512	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 99.020%			
62) 4-Bromofluorobenzene	11.079	95	197272	56.138	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 112.280%			

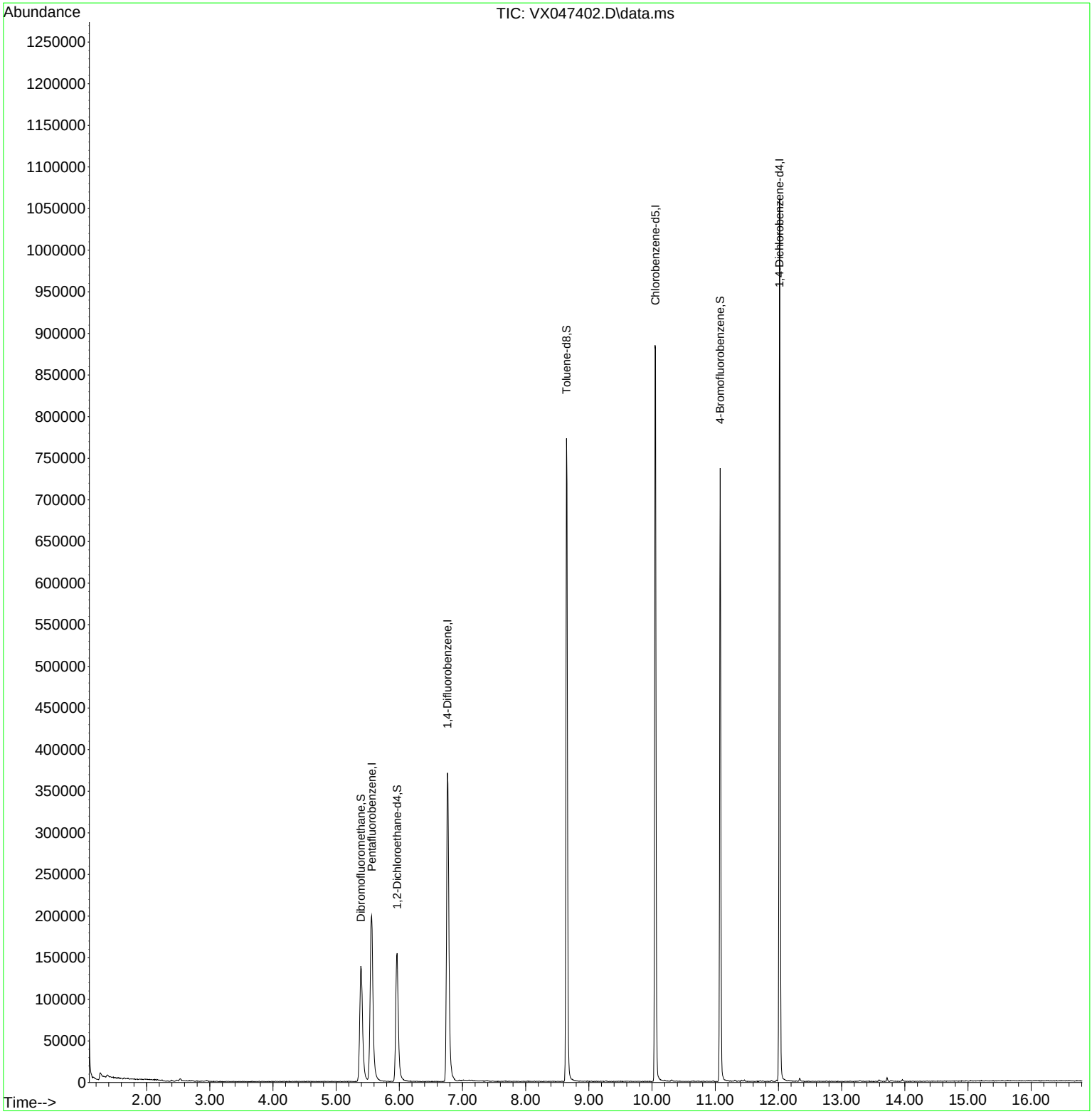
Target Compounds Qvalue

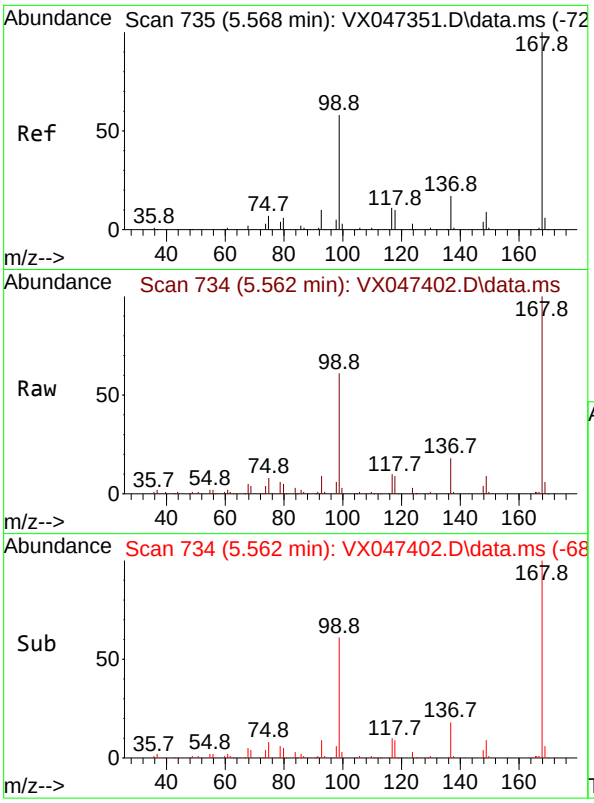
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047402.D
Acq On : 19 Aug 2025 10:55
Operator : JC/MD
Sample : VX0819WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Quant Time: Aug 19 11:12:22 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



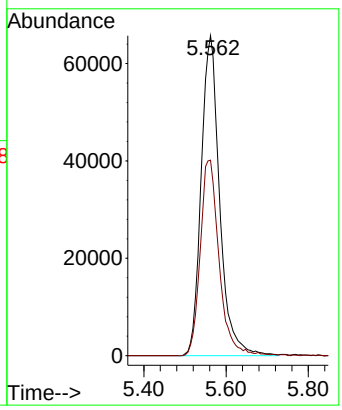


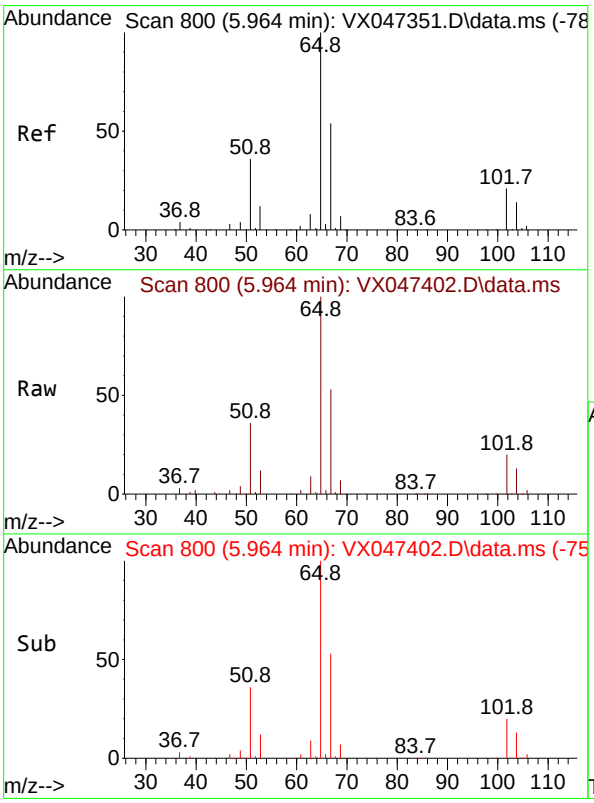
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Tgt Ion:168 Resp: 204625

Ion	Ratio	Lower	Upper
168	100		
99	61.1	47.9	71.9

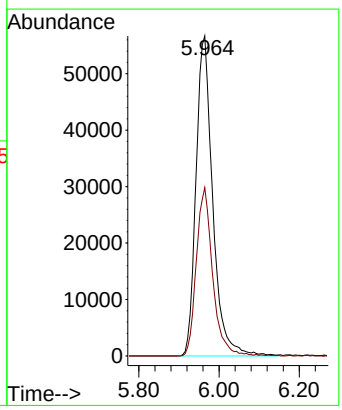


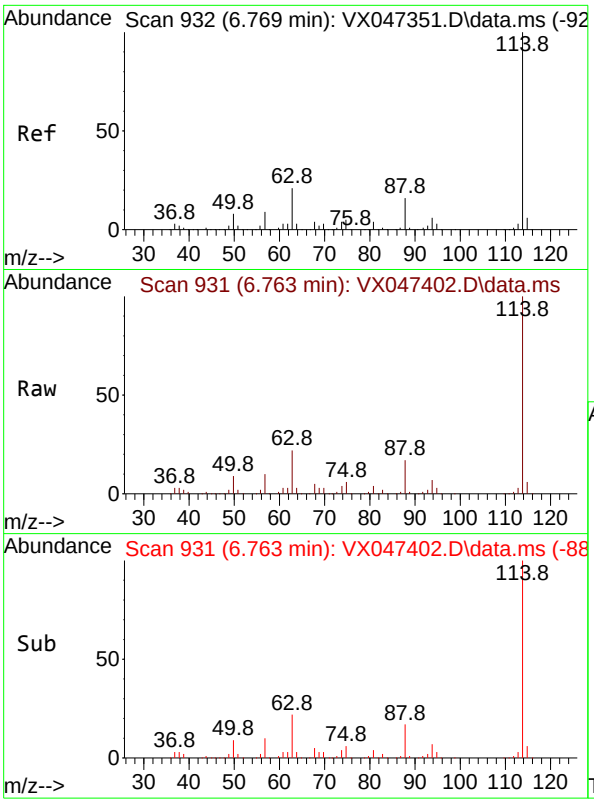


#33
1,2-Dichloroethane-d4
Concen: 57.246 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Tgt Ion: 65 Resp: 163941

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	106.0



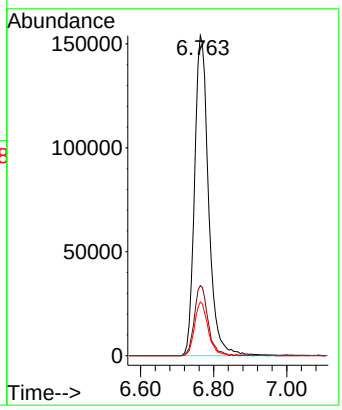


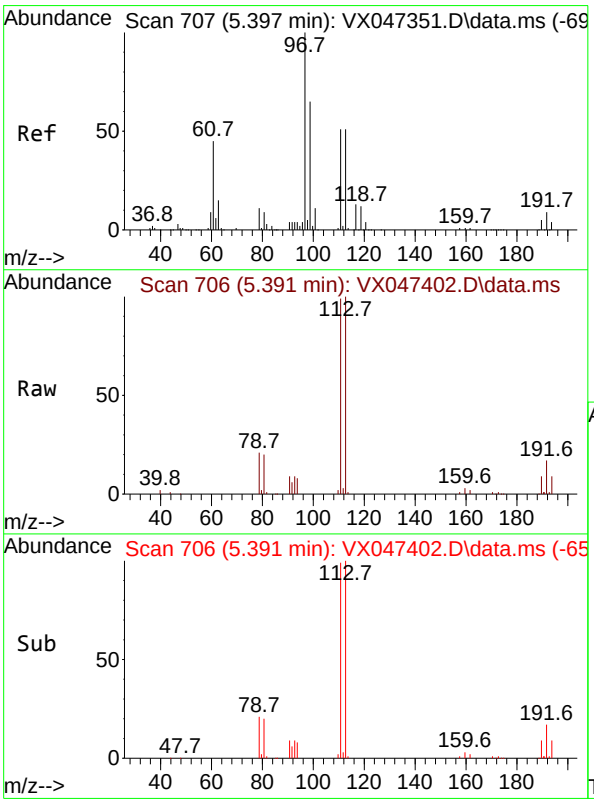
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.763 min Scan# 9
Delta R.T. -0.006 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Tgt Ion:114 Resp: 410508

Ion	Ratio	Lower	Upper
114	100		
63	21.9	0.0	42.4
88	16.7	0.0	33.0

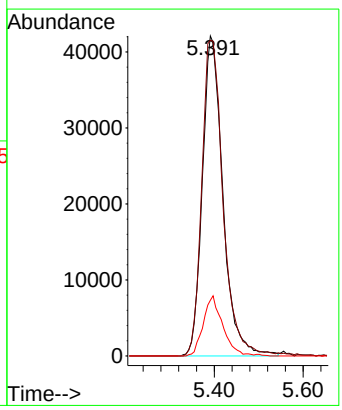


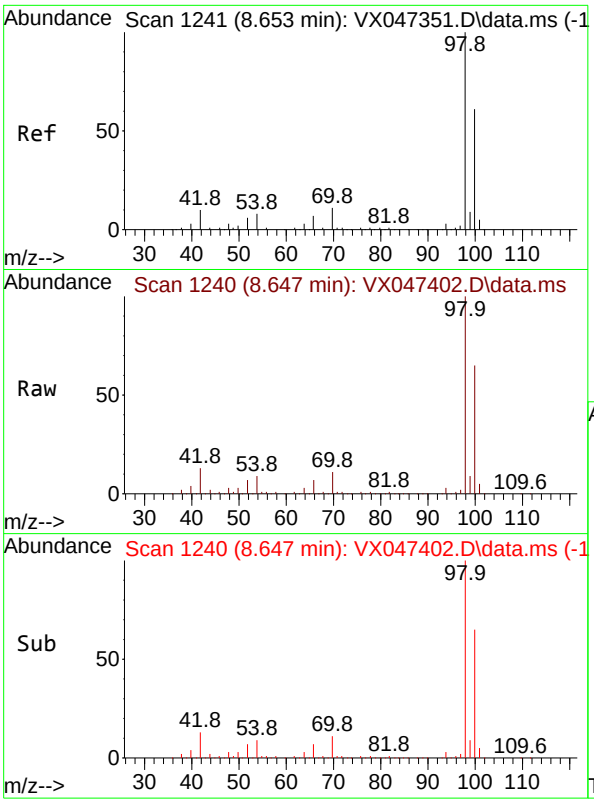


#35
Dibromofluoromethane
Concen: 50.893 ug/l
RT: 5.391 min Scan# 706
Delta R.T. -0.006 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Tgt Ion:113 Resp: 135590

Ion	Ratio	Lower	Upper
113	100		
111	102.1	81.4	122.2
192	17.8	14.1	21.1



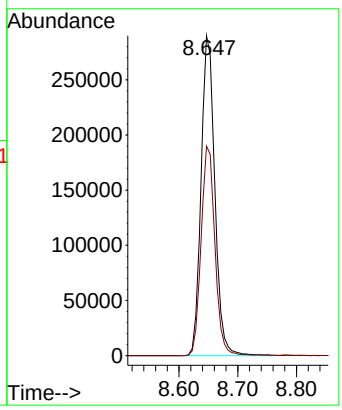


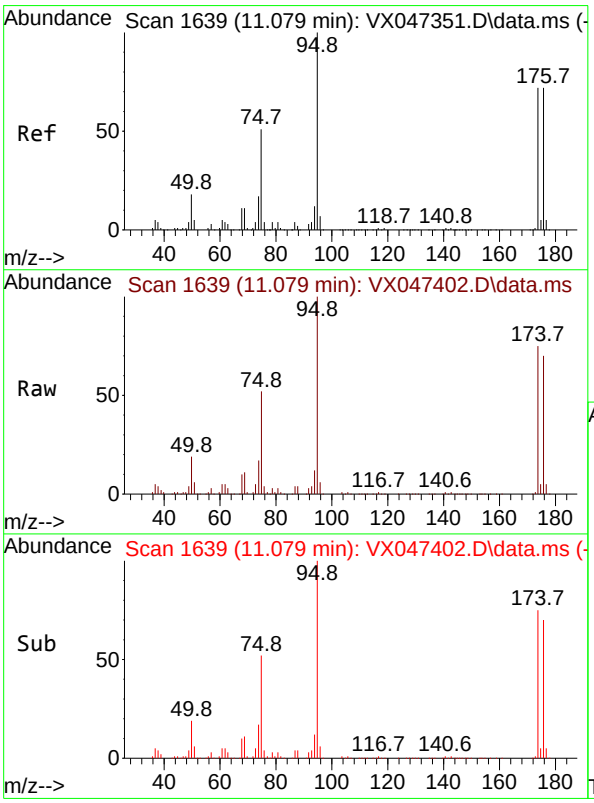
#50
Toluene-d8
Concen: 49.512 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Tgt Ion: 98 Resp: 471489

Ion	Ratio	Lower	Upper
98	100		
100	65.8	53.9	80.9

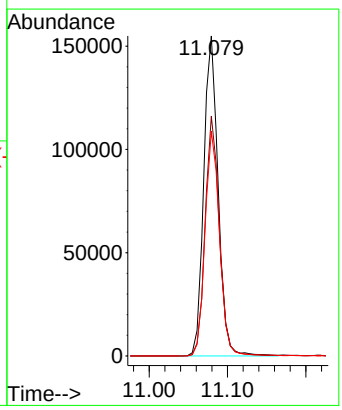


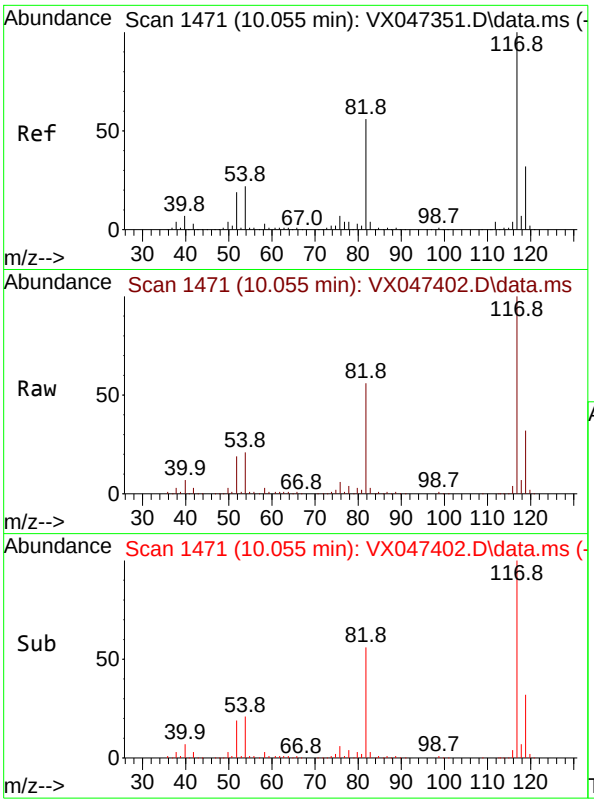


#62
4-Bromofluorobenzene
Concen: 56.138 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Tgt Ion: 95 Resp: 197272

Ion	Ratio	Lower	Upper
95	100		
174	74.0	0.0	148.0
176	70.8	0.0	145.4



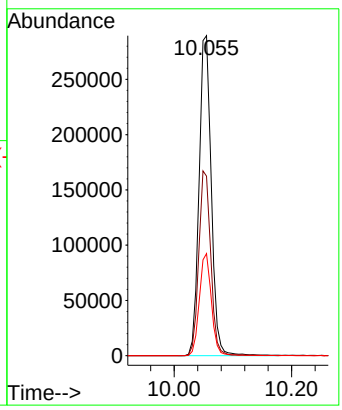


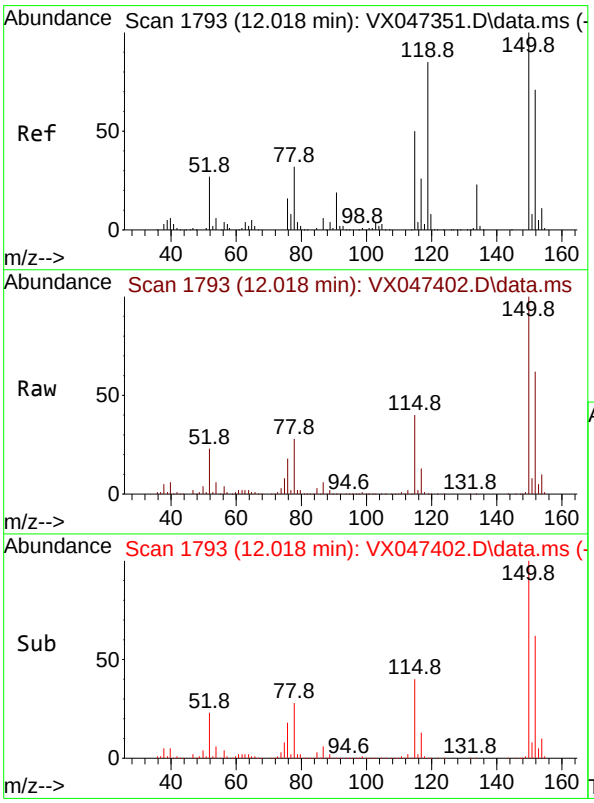
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBL01

Tgt Ion:117 Resp: 416324

Ion	Ratio	Lower	Upper
117	100		
82	56.1	45.0	67.4
119	31.9	25.8	38.8

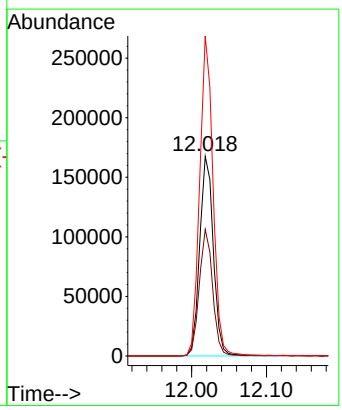




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047402.D
Acq: 19 Aug 2025 10:55

Tgt Ion:152 Resp: 212865

Ion	Ratio	Lower	Upper
152	100		
115	61.9	44.6	133.8
150	156.7	0.0	349.8



Raw Data: **VX047457.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	
Client Sample ID:	VX0821WBL01	SDG No.:	Q2869
Lab Sample ID:	VX0821WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047457.D	1	08/21/25 10:24	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.26	U	0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	1.00	ug/L
71-43-2	Benzene	0.15	U	0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	1.00	ug/L
79-01-6	Trichloroethene	0.090	U	0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	1.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.4		70 (74) - 130 (125)	115%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	48.7		70 (86) - 130 (113)	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.6		70 (77) - 130 (121)	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	217000	5.562			
540-36-3	1,4-Difluorobenzene	446000	6.769			
3114-55-4	Chlorobenzene-d5	448000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	232000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047457.D
Acq On : 21 Aug 2025 10:24
Operator : JC/MD
Sample : VX0821WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Quant Time: Aug 22 03:39:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

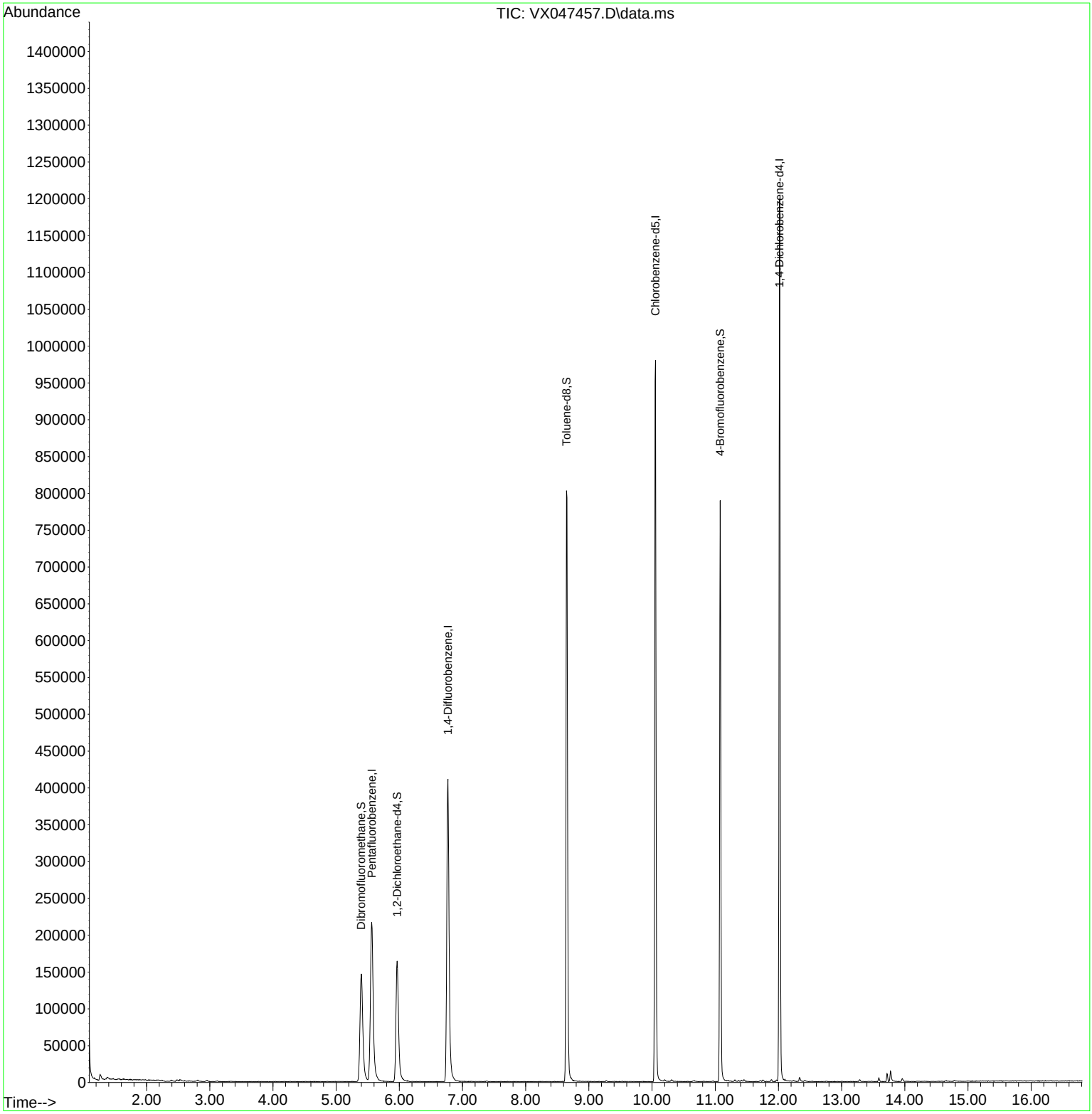
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	216518	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	445927	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	448054	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	231897	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	173844	57.370	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 114.740%			
35) Dibromofluoromethane	5.397	113	141661	48.948	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 97.900%			
50) Toluene-d8	8.647	98	503800	48.703	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 97.400%			
62) 4-Bromofluorobenzene	11.079	95	212116	55.568	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.140%			
Target Compounds						Qvalue

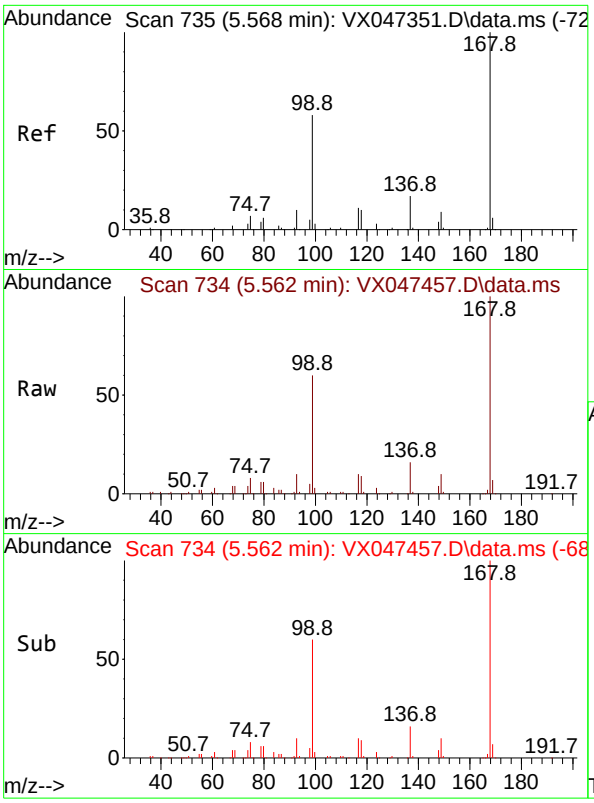
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047457.D
Acq On : 21 Aug 2025 10:24
Operator : JC/MD
Sample : VX0821WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Quant Time: Aug 22 03:39:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



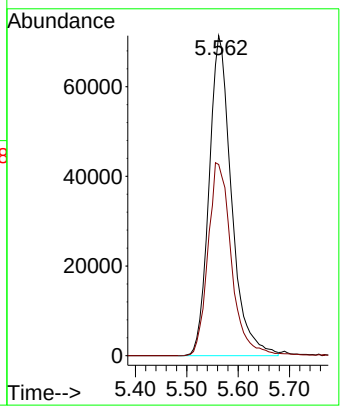


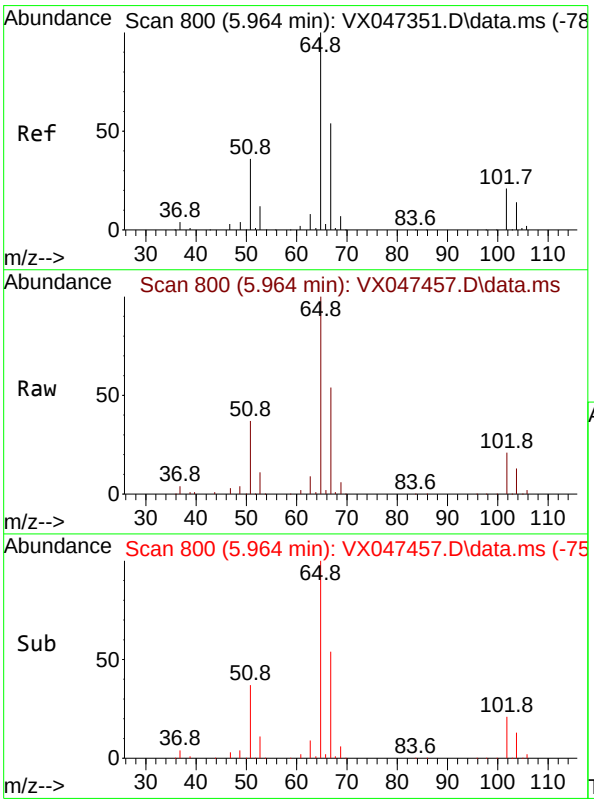
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.562 min Scan# 7
Delta R.T. -0.006 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Tgt Ion:168 Resp: 216518

Ion	Ratio	Lower	Upper
168	100		
99	59.8	47.9	71.9

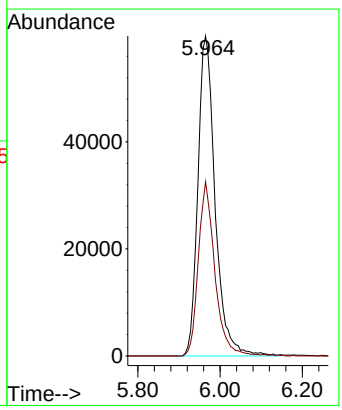


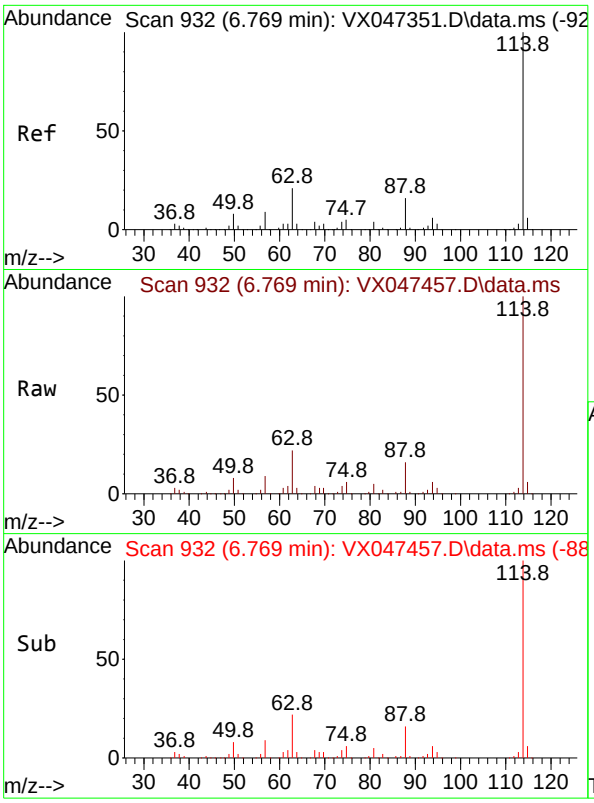


#33
1,2-Dichloroethane-d4
Concen: 57.370 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Tgt Ion: 65 Resp: 173844

Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	106.0



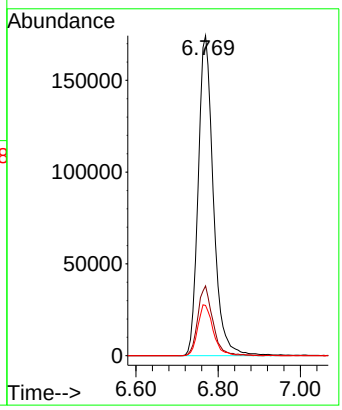


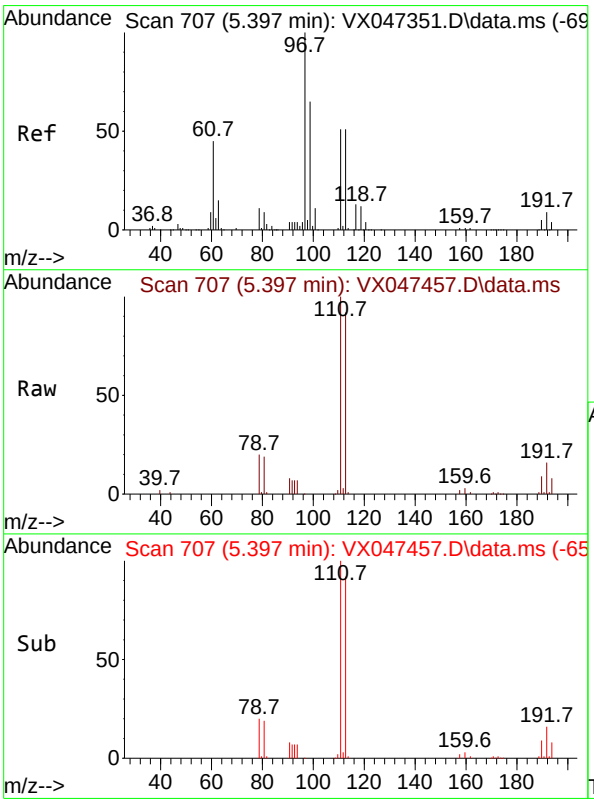
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Tgt Ion:114 Resp: 445927

Ion	Ratio	Lower	Upper
114	100		
63	21.8	0.0	42.4
88	15.7	0.0	33.0

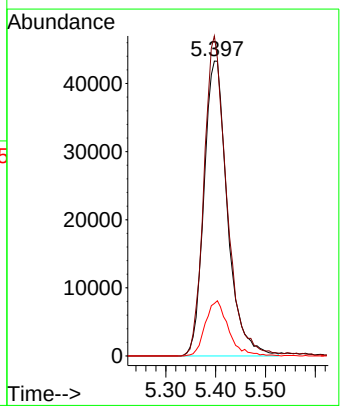


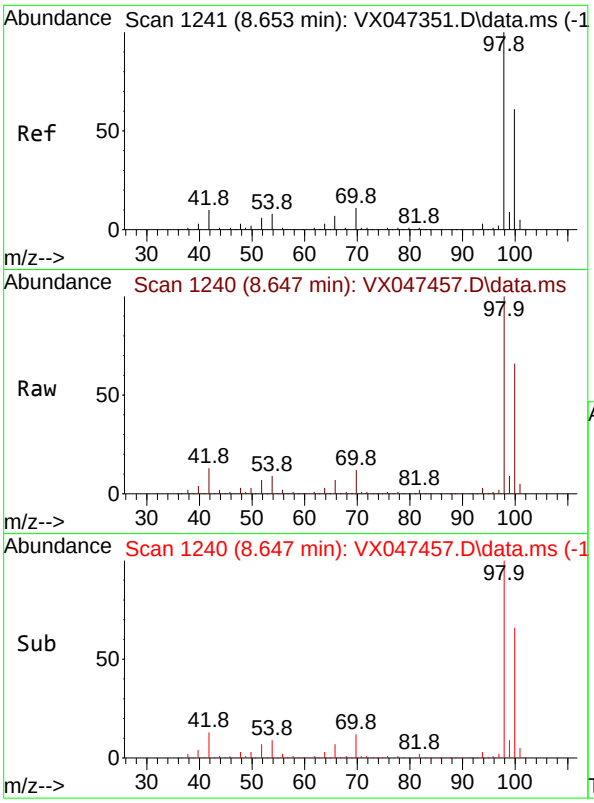


#35
Dibromofluoromethane
Concen: 48.948 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Tgt Ion:113 Resp: 141661

Ion	Ratio	Lower	Upper
113	100		
111	104.7	81.4	122.2
192	18.4	14.1	21.1



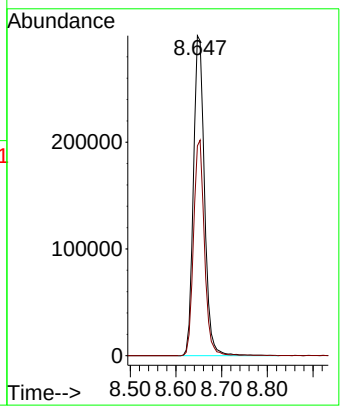


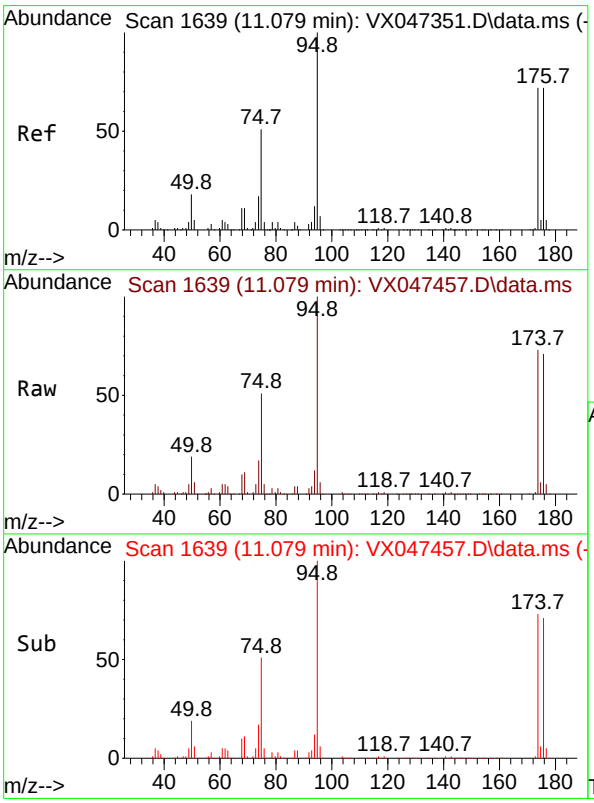
#50
Toluene-d8
Concen: 48.703 ug/l
RT: 8.647 min Scan# 1
Delta R.T. -0.006 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Tgt Ion: 98 Resp: 503800

Ion	Ratio	Lower	Upper
98	100		
100	66.3	53.9	80.9

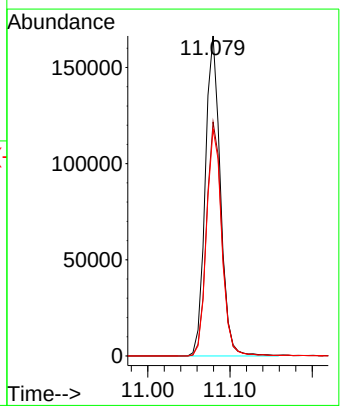


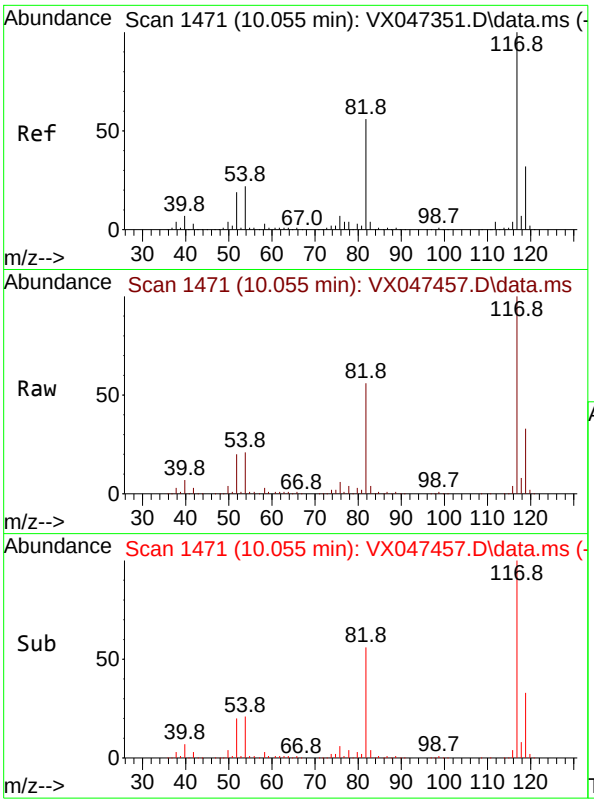


#62
4-Bromofluorobenzene
Concen: 55.568 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Tgt Ion: 95 Resp: 212116

Ion	Ratio	Lower	Upper
95	100		
174	74.2	0.0	148.0
176	71.7	0.0	145.4



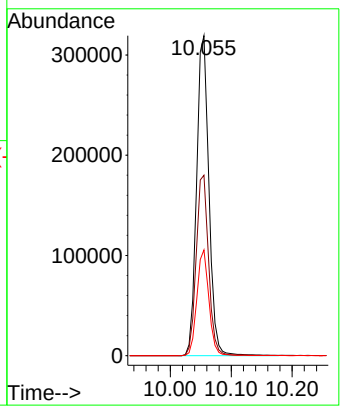


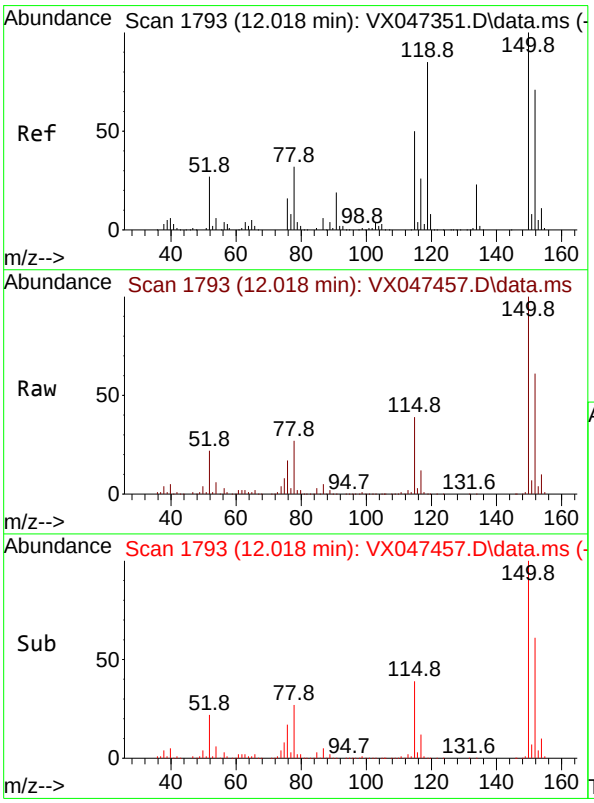
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBL01

Tgt Ion:117 Resp: 448054

Ion	Ratio	Lower	Upper
117	100		
82	56.4	45.0	67.4
119	33.1	25.8	38.8

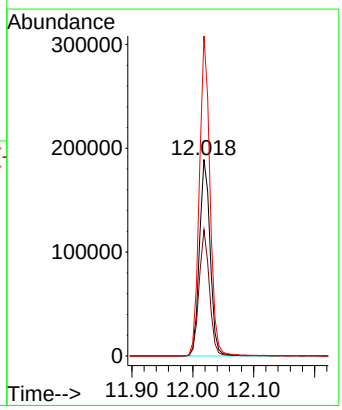




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047457.D
Acq: 21 Aug 2025 10:24

Tgt Ion:152 Resp: 231897

Ion	Ratio	Lower	Upper
152	100		
115	62.1	44.6	133.8
150	159.9	0.0	349.8



Raw Data: **VX047403.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	
Client Sample ID:	VX0819WBS01	SDG No.:	Q2869
Lab Sample ID:	VX0819WBS01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047403.D	1	08/19/25 11:55	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.6		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.3		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.6		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.5		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.9		0.20	1.00	ug/L
71-43-2	Benzene	18.0		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.7		0.22	1.00	ug/L
79-01-6	Trichloroethene	17.2		0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	18.8		0.21	1.00	ug/L
127-18-4	Tetrachloroethene	16.7		0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.3		70 (74) - 130 (125)	109%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		70 (75) - 130 (124)	104%	SPK: 50
2037-26-5	Toluene-d8	50.6		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.8		70 (77) - 130 (121)	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	226000	5.556			
540-36-3	1,4-Difluorobenzene	401000	6.763			
3114-55-4	Chlorobenzene-d5	371000	10.049			
3855-82-1	1,4-Dichlorobenzene-d4	190000	12.018			

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

Sample Results: **VX047403.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047403.D
Acq On : 19 Aug 2025 11:55
Operator : JC/MD
Sample : VX0819WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 12:13:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	225610	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	400778	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	370967	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	189862	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	171357	54.270	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.540%			
35) Dibromofluoromethane	5.391	113	135576	52.123	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 104.240%			
50) Toluene-d8	8.647	98	470012	50.555	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 101.120%			
62) 4-Bromofluorobenzene	11.079	95	181013	52.762	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 105.520%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	47669	16.575	ug/l	100
3) Chloromethane	1.313	50	44596	17.237	ug/l	98
4) Vinyl Chloride	1.392	62	53957	16.616	ug/l	98
5) Bromomethane	1.630	94	23833	18.170	ug/l	82
6) Chloroethane	1.709	64	34734	17.482	ug/l	98
7) Trichlorofluoromethane	1.904	101	78843	16.414	ug/l	94
8) Diethyl Ether	2.142	74	31787	18.794	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.343	101	46101	16.545	ug/l	99
10) Methyl Iodide	2.471	142	67548	14.146	ug/l	98
11) Tert butyl alcohol	2.959	59	27543	100.272	ug/l	99
12) 1,1-Dichloroethene	2.337	96	49153	17.304	ug/l	97
13) Acrolein	2.252	56	49678	85.675	ug/l	98
14) Allyl chloride	2.678	41	88890	18.017	ug/l	98
15) Acrylonitrile	3.081	53	129576	97.623	ug/l	99
16) Acetone	2.386	43	134660	113.461	ug/l	99
17) Carbon Disulfide	2.526	76	140642	16.407	ug/l	100
18) Methyl Acetate	2.715	43	59381	19.307	ug/l	99
19) Methyl tert-butyl Ether	3.123	73	165987	19.208	ug/l	99
20) Methylene Chloride	2.800	84	59628	18.973	ug/l	97
21) trans-1,2-Dichloroethene	3.105	96	53480	17.738	ug/l	95
22) Diisopropyl ether	3.770	45	188286	19.306	ug/l	94
23) Vinyl Acetate	3.733	43	775713	97.042	ug/l	98
24) 1,1-Dichloroethane	3.623	63	102305	18.559	ug/l	97
25) 2-Butanone	4.562	43	164408	105.771	ug/l	98
26) 2,2-Dichloropropane	4.483	77	76816	18.463	ug/l	98
27) cis-1,2-Dichloroethene	4.501	96	65115	18.543	ug/l	99
28) Bromochloromethane	4.904	49	52508	22.891	ug/l	96
29) Tetrahydrofuran	5.019	42	97079	96.629	ug/l	96
30) Chloroform	5.099	83	106302	18.896	ug/l	97
31) Cyclohexane	5.477	56	84972	16.722	ug/l	98
32) 1,1,1-Trichloroethane	5.391	97	86840	17.934	ug/l	98
36) 1,1-Dichloropropene	5.702	75	69481	16.922	ug/l	99
37) Ethyl Acetate	4.715	43	70075	16.439	ug/l	96
38) Carbon Tetrachloride	5.684	117	75969	16.931	ug/l	98
39) Methylcyclohexane	7.385	83	77886	15.207	ug/l	97
40) Benzene	6.044	78	220693	17.957	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047403.D
Acq On : 19 Aug 2025 11:55
Operator : JC/MD
Sample : VX0819WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 12:13:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.934	41	35045	19.496	ug/l		92
42) 1,2-Dichloroethane	6.092	62	81344	18.686	ug/l		99
43) Isopropyl Acetate	6.348	43	110451	18.037	ug/l		99
44) Trichloroethene	7.129	130	54266	17.244	ug/l		99
45) 1,2-Dichloropropane	7.434	63	56455	18.336	ug/l		98
46) Dibromomethane	7.580	93	41245	18.452	ug/l		98
47) Bromodichloromethane	7.824	83	84911	18.324	ug/l		95
48) Methyl methacrylate	7.696	41	58149	18.294	ug/l		98
49) 1,4-Dioxane	7.690	88	11911	385.469	ug/l		98
51) 4-Methyl-2-Pentanone	8.574	43	337359	95.733	ug/l		98
52) Toluene	8.720	92	137617	18.121	ug/l		100
53) t-1,3-Dichloropropene	8.976	75	75672	18.711	ug/l		97
54) cis-1,3-Dichloropropene	8.366	75	85316	18.637	ug/l		99
55) 1,1,2-Trichloroethane	9.153	97	54306	18.834	ug/l		100
56) Ethyl methacrylate	9.116	69	76225	17.930	ug/l		96
57) 1,3-Dichloropropane	9.305	76	94506	19.235	ug/l		97
58) 2-Chloroethyl Vinyl ether	8.238	63	194420	100.929	ug/l		98
59) 2-Hexanone	9.433	43	237159	97.292	ug/l		100
60) Dibromochloromethane	9.519	129	64471	18.814	ug/l		100
61) 1,2-Dibromoethane	9.610	107	55618	18.705	ug/l		99
64) Tetrachloroethene	9.269	164	44832	16.708	ug/l		98
65) Chlorobenzene	10.079	112	155025	17.585	ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.159	131	53110	17.822	ug/l		99
67) Ethyl Benzene	10.189	91	259370	17.094	ug/l		99
68) m/p-Xylenes	10.299	106	198745	35.129	ug/l		100
69) o-Xylene	10.640	106	95777	17.591	ug/l		99
70) Styrene	10.653	104	168799	18.349	ug/l		99
71) Bromoform	10.799	173	40177	17.946	ug/l	#	99
73) Isopropylbenzene	10.957	105	247370	16.649	ug/l		100
74) N-amyl acetate	10.842	43	100954	17.893	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.207	83	78682	18.037	ug/l		97
76) 1,2,3-Trichloropropane	11.238	75	57347m	16.468	ug/l		
77) Bromobenzene	11.195	156	63986	17.636	ug/l		98
78) n-propylbenzene	11.299	91	295566	16.657	ug/l		100
79) 2-Chlorotoluene	11.360	91	182492	17.013	ug/l		100
80) 1,3,5-Trimethylbenzene	11.451	105	206597	16.900	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	10138	18.529	ug/l		97
82) 4-Chlorotoluene	11.451	91	216373	17.112	ug/l		100
83) tert-Butylbenzene	11.713	119	203328	16.671	ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	214157	17.518	ug/l		100
85) sec-Butylbenzene	11.890	105	254977	16.867	ug/l		100
86) p-Isopropyltoluene	12.006	119	214549	16.772	ug/l		100
87) 1,3-Dichlorobenzene	11.969	146	118907	17.156	ug/l		100
88) 1,4-Dichlorobenzene	12.036	146	122086	17.126	ug/l		99
89) n-Butylbenzene	12.329	91	197431	16.594	ug/l		99
90) Hexachloroethane	12.536	117	35860	15.980	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	115308	17.527	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	12.939	75	14165	16.791	ug/l		96
93) 1,2,4-Trichlorobenzene	13.585	180	73210	16.600	ug/l		99
94) Hexachlorobutadiene	13.719	225	25313	16.124	ug/l		98
95) Naphthalene	13.774	128	217150	17.229	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	71038	17.088	ug/l		99

Sample Results: **VX047403.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047403.D
Acq On : 19 Aug 2025 11:55
Operator : JC/MD
Sample : VX0819WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Quant Time: Aug 19 12:13:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

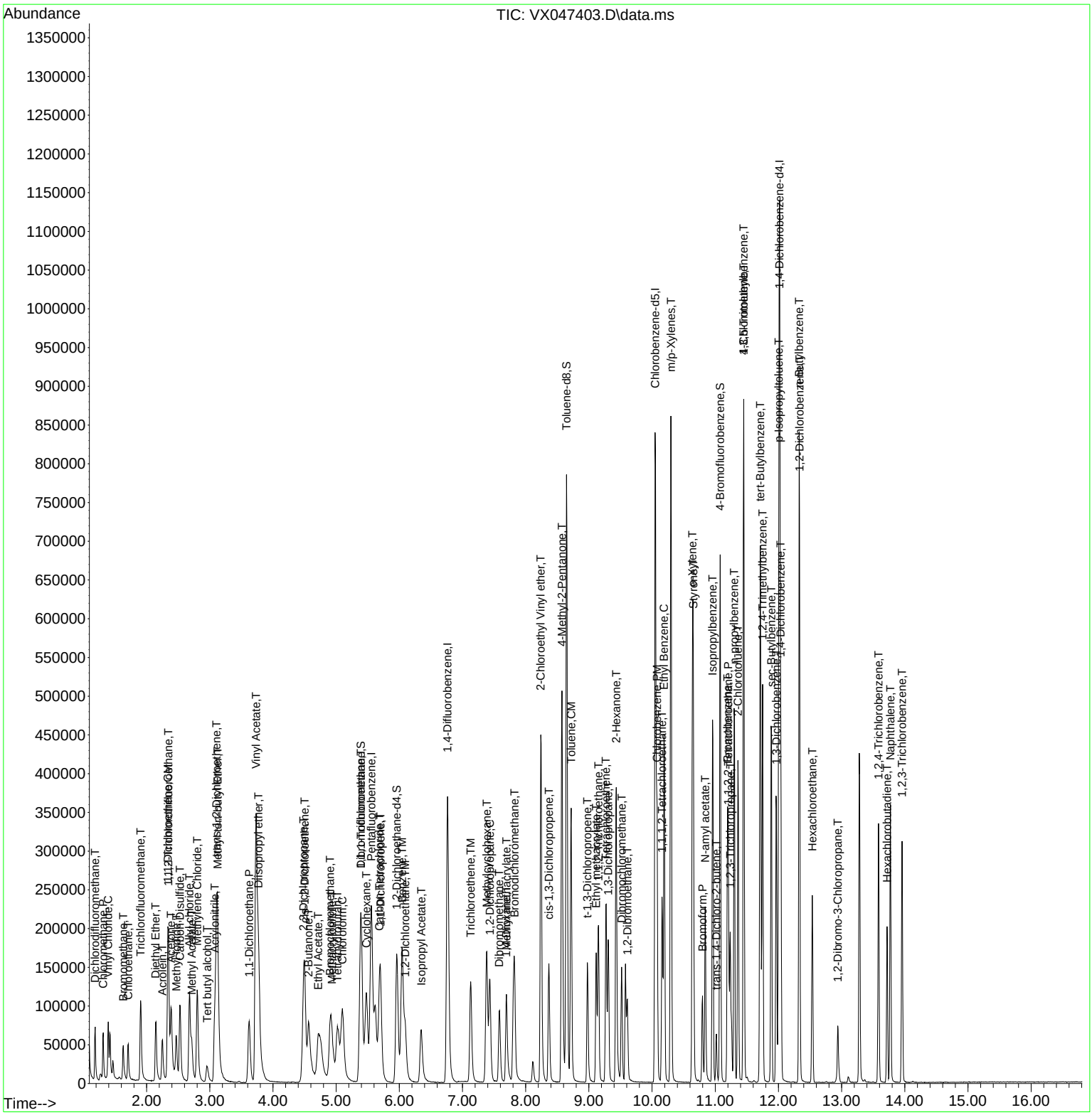
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047403.D
Acq On : 19 Aug 2025 11:55
Operator : JC/MD
Sample : VX0819WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 12:13:06 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025



Raw Data: **VX047467.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	
Client Sample ID:	VX0821WBS02	SDG No.:	Q2869
Lab Sample ID:	VX0821WBS02	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047467.D	1	08/21/25 14:07	VX082125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	19.3		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	20.0		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	21.8		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	21.9		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	20.6		0.20	1.00	ug/L
71-43-2	Benzene	20.6		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	21.5		0.22	1.00	ug/L
79-01-6	Trichloroethene	20.1		0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	21.9		0.21	1.00	ug/L
127-18-4	Tetrachloroethene	18.2		0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	57.3		70 (74) - 130 (125)	115%	SPK: 50
1868-53-7	Dibromofluoromethane	51.6		70 (75) - 130 (124)	103%	SPK: 50
2037-26-5	Toluene-d8	50.2		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.6		70 (77) - 130 (121)	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	220000	5.562			
540-36-3	1,4-Difluorobenzene	396000	6.769			
3114-55-4	Chlorobenzene-d5	371000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	193000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047467.D
Acq On : 21 Aug 2025 14:07
Operator : JC/MD
Sample : VX0821WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBS02

Quant Time: Aug 22 03:46:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.562	168	219757	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	395822	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	370697	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	193487	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	176124	57.266	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117			Recovery = 114.540%		
35) Dibromofluoromethane	5.397	113	132673	51.645	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124			Recovery = 103.300%		
50) Toluene-d8	8.653	98	460935	50.200	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112			Recovery = 100.400%		
62) 4-Bromofluorobenzene	11.079	95	188500	55.632	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123			Recovery = 111.260%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	52136	18.611	ug/l	96
3) Chloromethane	1.313	50	49473	19.631	ug/l	99
4) Vinyl Chloride	1.392	62	61123	19.324	ug/l	100
5) Bromomethane	1.630	94	25522	19.976	ug/l	97
6) Chloroethane	1.709	64	39889	20.611	ug/l	100
7) Trichlorofluoromethane	1.904	101	91456	19.547	ug/l	99
8) Diethyl Ether	2.148	74	36285	22.025	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.349	101	53527	19.722	ug/l	98
10) Methyl Iodide	2.471	142	67680	14.551	ug/l	99
11) Tert butyl alcohol	2.959	59	30845	115.284	ug/l	99
12) 1,1-Dichloroethene	2.337	96	55363	20.009	ug/l	98
13) Acrolein	2.251	56	59011	104.481	ug/l	98
14) Allyl chloride	2.678	41	99967	20.801	ug/l	99
15) Acrylonitrile	3.081	53	143612	111.079	ug/l	99
16) Acetone	2.392	43	118906	102.856	ug/l	96
17) Carbon Disulfide	2.526	76	149558	17.912	ug/l	100
18) Methyl Acetate	2.715	43	72122	24.075	ug/l	100
19) Methyl tert-butyl Ether	3.123	73	186862	22.199	ug/l	99
20) Methylene Chloride	2.806	84	67266	21.974	ug/l	94
21) trans-1,2-Dichloroethene	3.105	96	60380	20.560	ug/l	98
22) Diisopropyl ether	3.769	45	221856	23.355	ug/l	85
23) Vinyl Acetate	3.733	43	864017	110.968	ug/l	100
24) 1,1-Dichloroethane	3.623	63	117074	21.804	ug/l	98
25) 2-Butanone	4.574	43	178447	117.861	ug/l	99
26) 2,2-Dichloropropane	4.495	77	80184	19.786	ug/l	100
27) cis-1,2-Dichloroethene	4.507	96	74958	21.915	ug/l	98
28) Bromochloromethane	4.916	49	55023	24.626	ug/l	100
29) Tetrahydrofuran	5.031	42	108635	111.012	ug/l	98
30) Chloroform	5.105	83	123736	22.580	ug/l	94
31) Cyclohexane	5.483	56	97308	19.660	ug/l	99
32) 1,1,1-Trichloroethane	5.391	97	97000	20.565	ug/l	98
36) 1,1-Dichloropropene	5.708	75	80408	19.828	ug/l	99
37) Ethyl Acetate	4.727	43	77407	18.387	ug/l	98
38) Carbon Tetrachloride	5.696	117	86344	19.484	ug/l	95
39) Methylcyclohexane	7.385	83	89674	17.728	ug/l	90
40) Benzene	6.050	78	250369	20.627	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047467.D
Acq On : 21 Aug 2025 14:07
Operator : JC/MD
Sample : VX0821WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBS02

Quant Time: Aug 22 03:46:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.940	41	40042	22.555	ug/l		92
42) 1,2-Dichloroethane	6.098	62	92470	21.507	ug/l		100
43) Isopropyl Acetate	6.348	43	125855	20.809	ug/l		100
44) Trichloroethene	7.135	130	62561	20.129	ug/l		99
45) 1,2-Dichloropropane	7.433	63	64285	21.141	ug/l		100
46) Dibromomethane	7.586	93	45974	20.825	ug/l		99
47) Bromodichloromethane	7.824	83	95100	20.779	ug/l		100
48) Methyl methacrylate	7.696	41	66527	21.192	ug/l		97
49) 1,4-Dioxane	7.690	88	11979	392.523	ug/l		97
51) 4-Methyl-2-Pentanone	8.574	43	381590	109.641	ug/l		97
52) Toluene	8.720	92	157838	21.044	ug/l		100
53) t-1,3-Dichloropropene	8.982	75	83536	20.914	ug/l		99
54) cis-1,3-Dichloropropene	8.366	75	95182	21.053	ug/l		97
55) 1,1,2-Trichloroethane	9.153	97	62404	21.913	ug/l		99
56) Ethyl methacrylate	9.116	69	89883	21.408	ug/l		98
57) 1,3-Dichloropropane	9.311	76	106790	22.007	ug/l		98
58) 2-Chloroethyl Vinyl ether	8.244	63	184544	97.327	ug/l		99
59) 2-Hexanone	9.433	43	254945	105.899	ug/l		100
60) Dibromochloromethane	9.518	129	71992	21.272	ug/l		99
61) 1,2-Dibromoethane	9.610	107	61680	21.004	ug/l		99
64) Tetrachloroethene	9.275	164	48854	18.220	ug/l		95
65) Chlorobenzene	10.079	112	175397	19.911	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.165	131	60389	20.279	ug/l		98
67) Ethyl Benzene	10.195	91	298088	19.660	ug/l		98
68) m/p-Xylenes	10.299	106	227285	40.202	ug/l		99
69) o-Xylene	10.640	106	111463	20.487	ug/l		98
70) Styrene	10.652	104	191132	20.792	ug/l		100
71) Bromoform	10.799	173	45830	20.486	ug/l	#	97
73) Isopropylbenzene	10.963	105	285672	18.867	ug/l		100
74) N-amyl acetate	10.841	43	109541	19.051	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.213	83	88882	19.993	ug/l		98
76) 1,2,3-Trichloropropane	11.238	75	68907m	19.417	ug/l		
77) Bromobenzene	11.195	156	71647	19.378	ug/l		99
78) n-propylbenzene	11.305	91	337183	18.646	ug/l		99
79) 2-Chlorotoluene	11.366	91	209103	19.128	ug/l		98
80) 1,3,5-Trimethylbenzene	11.451	105	235770	18.925	ug/l		99
81) trans-1,4-Dichloro-2-b...	11.018	75	11188	19.413	ug/l		89
82) 4-Chlorotoluene	11.451	91	244430	18.969	ug/l		100
83) tert-Butylbenzene	11.713	119	235583	18.954	ug/l		98
84) 1,2,4-Trimethylbenzene	11.750	105	240110	19.273	ug/l		99
85) sec-Butylbenzene	11.890	105	288712	18.741	ug/l		100
86) p-Isopropyltoluene	12.006	119	244146	18.728	ug/l		99
87) 1,3-Dichlorobenzene	11.969	146	132909	18.817	ug/l		98
88) 1,4-Dichlorobenzene	12.036	146	134397	18.500	ug/l		98
89) n-Butylbenzene	12.329	91	222499	18.350	ug/l		99
90) Hexachloroethane	12.536	117	41201	18.016	ug/l		95
91) 1,2-Dichlorobenzene	12.335	146	128956	19.235	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	16504	19.197	ug/l		97
93) 1,2,4-Trichlorobenzene	13.585	180	81841	18.209	ug/l		99
94) Hexachlorobutadiene	13.725	225	27303	17.066	ug/l		97
95) Naphthalene	13.774	128	261329	20.346	ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	77394	18.268	ug/l		100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047467.D
Acq On : 21 Aug 2025 14:07
Operator : JC/MD
Sample : VX0821WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBS02

Quant Time: Aug 22 03:46:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

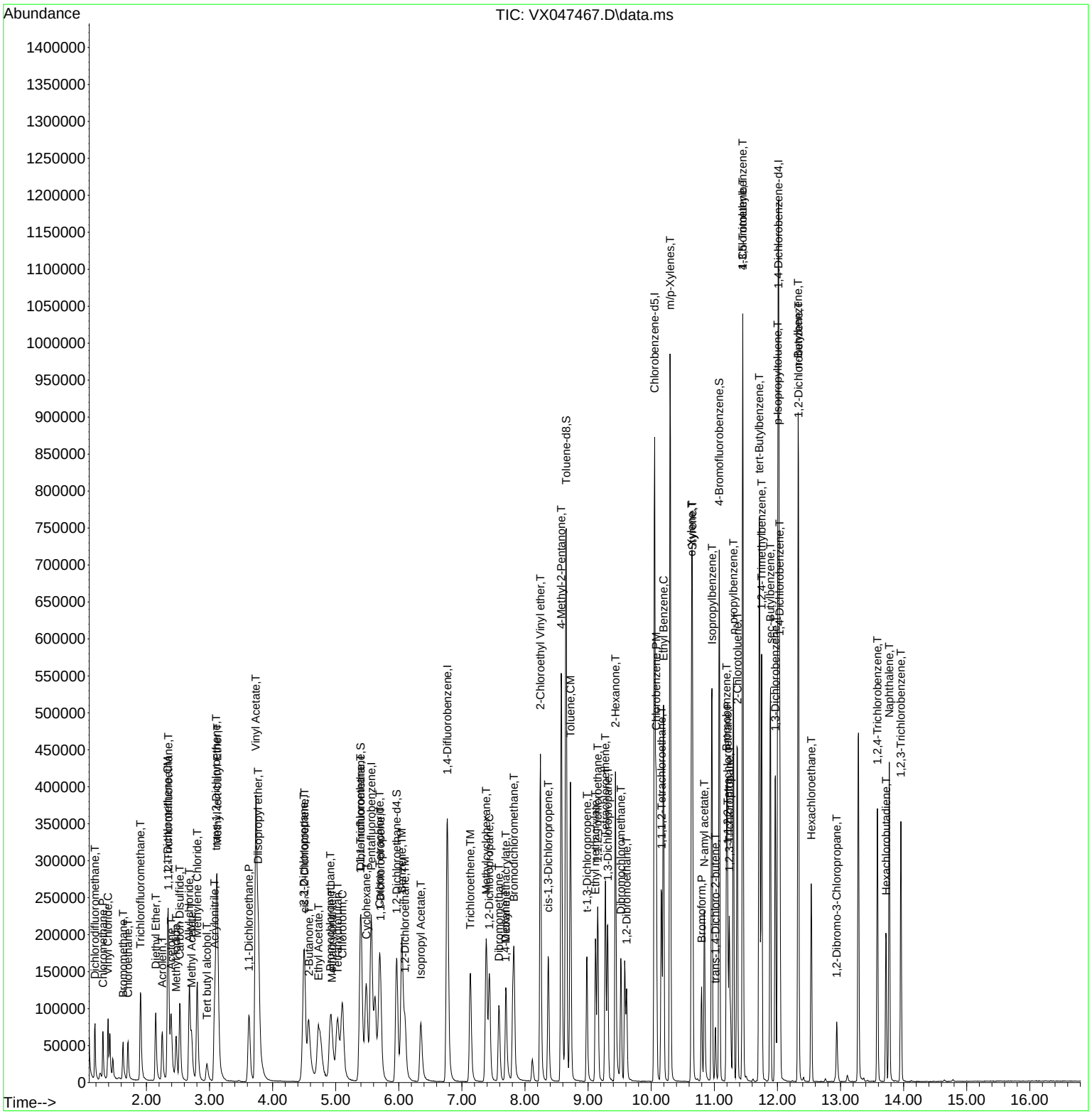
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082125\
Data File : VX047467.D
Acq On : 21 Aug 2025 14:07
Operator : JC/MD
Sample : VX0821WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0821WBS02

Quant Time: Aug 22 03:46:04 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration



Raw Data: **VX047405.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	
Client Sample ID:	VX0819WBSD01	SDG No.:	Q2869
Lab Sample ID:	VX0819WBSD01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group3
GC Column:	DB-624UI ID : 0.18	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VX047405.D	1	08/19/25 12:37	VX081925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.4		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.5		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.9		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.8		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.5		0.20	1.00	ug/L
71-43-2	Benzene	17.6		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.0		0.22	1.00	ug/L
79-01-6	Trichloroethene	17.1		0.090	1.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.2		0.21	1.00	ug/L
127-18-4	Tetrachloroethene	16.4		0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.2		70 (74) - 130 (125)	108%	SPK: 50
1868-53-7	Dibromofluoromethane	52.0		70 (75) - 130 (124)	104%	SPK: 50
2037-26-5	Toluene-d8	50.7		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.7		70 (77) - 130 (121)	107%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	229000	5.568			
540-36-3	1,4-Difluorobenzene	395000	6.769			
3114-55-4	Chlorobenzene-d5	371000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	189000	12.018			

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047405.D
Acq On : 19 Aug 2025 12:37
Operator : JC/MD
Sample : VX0819WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 12:54:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	228746	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	395063	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	371284	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	189413	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	173401	54.165	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.320%			
35) Dibromofluoromethane	5.397	113	133228	51.961	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 103.920%			
50) Toluene-d8	8.653	98	464961	50.736	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 101.480%			
62) 4-Bromofluorobenzene	11.079	95	181529	53.678	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 107.360%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	48167	16.518	ug/l	99
3) Chloromethane	1.313	50	47416	18.076	ug/l	95
4) Vinyl Chloride	1.392	62	54098	16.431	ug/l #	64
5) Bromomethane	1.630	94	18415	13.847	ug/l	98
6) Chloroethane	1.709	64	40053	19.883	ug/l	99
7) Trichlorofluoromethane	1.904	101	79190	16.260	ug/l	94
8) Diethyl Ether	2.148	74	31587	18.420	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.349	101	47865	16.943	ug/l	100
10) Methyl Iodide	2.471	142	60898	12.579	ug/l	96
11) Tert butyl alcohol	2.965	59	30718	110.297	ug/l	98
12) 1,1-Dichloroethene	2.337	96	47603	16.528	ug/l	95
13) Acrolein	2.251	56	49016	83.374	ug/l	99
14) Allyl chloride	2.678	41	86456	17.283	ug/l	99
15) Acrylonitrile	3.081	53	131580	97.773	ug/l	98
16) Acetone	2.392	43	118674	98.621	ug/l	96
17) Carbon Disulfide	2.532	76	143093	16.465	ug/l	99
18) Methyl Acetate	2.715	43	63853	20.477	ug/l	99
19) Methyl tert-butyl Ether	3.123	73	165202	18.855	ug/l	95
20) Methylene Chloride	2.806	84	58414	18.332	ug/l	98
21) trans-1,2-Dichloroethene	3.111	96	52164	17.065	ug/l	95
22) Diisopropyl ether	3.776	45	185604	18.771	ug/l	97
23) Vinyl Acetate	3.739	43	769207	94.909	ug/l	99
24) 1,1-Dichloroethane	3.629	63	100080	17.907	ug/l	97
25) 2-Butanone	4.568	43	160156	101.623	ug/l	99
26) 2,2-Dichloropropane	4.495	77	72356	17.153	ug/l	100
27) cis-1,2-Dichloroethene	4.501	96	63332	17.788	ug/l	100
28) Bromochloromethane	4.916	49	50702	21.801	ug/l	98
29) Tetrahydrofuran	5.025	42	102951	101.069	ug/l	98
30) Chloroform	5.105	83	104850	18.382	ug/l	97
31) Cyclohexane	5.483	56	81758	15.869	ug/l	98
32) 1,1,1-Trichloroethane	5.397	97	86106	17.538	ug/l	99
36) 1,1-Dichloropropene	5.708	75	66551	16.443	ug/l	98
37) Ethyl Acetate	4.727	43	75546	17.979	ug/l	98
38) Carbon Tetrachloride	5.690	117	75099	16.979	ug/l	98
39) Methylcyclohexane	7.385	83	80376	15.920	ug/l	96
40) Benzene	6.050	78	213254	17.603	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047405.D
Acq On : 19 Aug 2025 12:37
Operator : JC/MD
Sample : VX0819WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 12:54:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.946	41	33732	19.037	ug/l		98
42) 1,2-Dichloroethane	6.098	62	81377	18.964	ug/l		99
43) Isopropyl Acetate	6.348	43	116749	19.341	ug/l		99
44) Trichloroethene	7.135	130	53112	17.122	ug/l		99
45) 1,2-Dichloropropane	7.433	63	55453	18.271	ug/l		99
46) Dibromomethane	7.586	93	41218	18.707	ug/l		98
47) Bromodichloromethane	7.824	83	82785	18.123	ug/l		96
48) Methyl methacrylate	7.696	41	59306	18.928	ug/l		98
49) 1,4-Dioxane	7.683	88	12842	421.610	ug/l		95
51) 4-Methyl-2-Pentanone	8.574	43	351322	101.138	ug/l		98
52) Toluene	8.720	92	135282	18.071	ug/l		100
53) t-1,3-Dichloropropene	8.982	75	74320	18.642	ug/l		99
54) cis-1,3-Dichloropropene	8.372	75	82154	18.206	ug/l		97
55) 1,1,2-Trichloroethane	9.153	97	54565	19.197	ug/l		98
56) Ethyl methacrylate	9.116	69	80828	19.288	ug/l		98
57) 1,3-Dichloropropane	9.311	76	92722	19.145	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.244	63	190782	100.511	ug/l		100
59) 2-Hexanone	9.433	43	241137	100.355	ug/l		97
60) Dibromochloromethane	9.518	129	62976	18.644	ug/l		99
61) 1,2-Dibromoethane	9.610	107	56725	19.354	ug/l		96
64) Tetrachloroethene	9.275	164	44006	16.386	ug/l		98
65) Chlorobenzene	10.079	112	150949	17.108	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.165	131	51594	17.298	ug/l		99
67) Ethyl Benzene	10.195	91	255830	16.847	ug/l		100
68) m/p-Xylenes	10.299	106	194493	34.348	ug/l		98
69) o-Xylene	10.640	106	92973	17.062	ug/l		100
70) Styrene	10.652	104	162232	17.620	ug/l		100
71) Bromoform	10.799	173	40831	18.222	ug/l	#	98
73) Isopropylbenzene	10.963	105	244270	16.480	ug/l		99
74) N-amyl acetate	10.841	43	100184	17.799	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.207	83	79781	18.332	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	59679m	17.179	ug/l		
77) Bromobenzene	11.195	156	63251	17.475	ug/l		97
78) n-propylbenzene	11.305	91	293555	16.583	ug/l		100
79) 2-Chlorotoluene	11.360	91	179419	16.766	ug/l		98
80) 1,3,5-Trimethylbenzene	11.451	105	206343	16.919	ug/l		99
81) trans-1,4-Dichloro-2-b...	11.018	75	9694	18.086	ug/l		93
82) 4-Chlorotoluene	11.451	91	212416	16.839	ug/l		100
83) tert-Butylbenzene	11.713	119	203047	16.688	ug/l		99
84) 1,2,4-Trimethylbenzene	11.750	105	208526	17.098	ug/l		99
85) sec-Butylbenzene	11.890	105	251738	16.692	ug/l		100
86) p-Isopropyltoluene	12.006	119	213521	16.732	ug/l		99
87) 1,3-Dichlorobenzene	11.969	146	118575	17.148	ug/l		99
88) 1,4-Dichlorobenzene	12.036	146	118652	16.684	ug/l		98
89) n-Butylbenzene	12.329	91	197278	16.620	ug/l		100
90) Hexachloroethane	12.536	117	36224	16.180	ug/l		96
91) 1,2-Dichlorobenzene	12.335	146	113288	17.261	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	14730	17.502	ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	72411	16.457	ug/l		99
94) Hexachlorobutadiene	13.719	225	25996	16.599	ug/l		97
95) Naphthalene	13.774	128	219869	17.486	ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	71446	17.227	ug/l		98

Sample Results: **VX047405.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047405.D
Acq On : 19 Aug 2025 12:37
Operator : JC/MD
Sample : VX0819WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 12:54:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

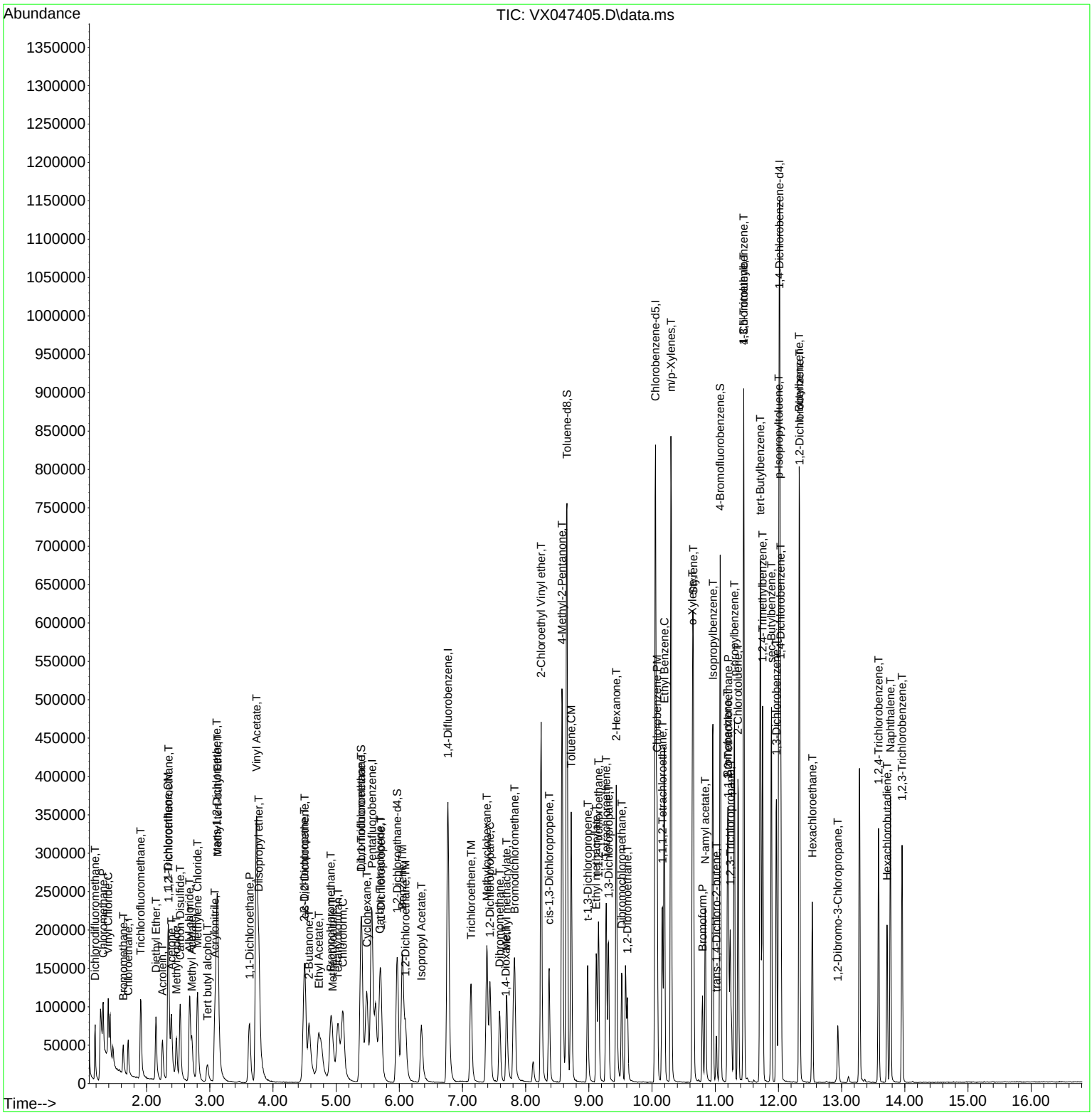
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081925\
Data File : VX047405.D
Acq On : 19 Aug 2025 12:37
Operator : JC/MD
Sample : VX0819WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 19 12:54:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0819WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/20/2025
Supervised By :Mahesh Dadoda 08/20/2025



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Manual Integration Report

Sequence:	VX081525	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VX047349.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:37:53 AM	MMDadoda	8/19/2025 1:41:03 AM	Peak Integrated by Software
VSTDICC005	VX047349.D	1,4-Dioxane	JOHN	8/18/2025 8:37:53 AM	MMDadoda	8/19/2025 1:41:03 AM	Peak Integrated by Software
VSTDICC005	VX047349.D	Tetrahydrofuran	JOHN	8/18/2025 8:37:53 AM	MMDadoda	8/19/2025 1:41:03 AM	Peak Integrated by Software
VSTDICC020	VX047350.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:37:58 AM	MMDadoda	8/19/2025 1:41:04 AM	Peak Integrated by Software
VSTDICC020	VX047350.D	1,4-Dioxane	JOHN	8/18/2025 8:37:58 AM	MMDadoda	8/19/2025 1:41:04 AM	Peak Integrated by Software
VSTDICCC050	VX047351.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:42:59 AM	MMDadoda	8/19/2025 1:41:07 AM	Peak Integrated by Software
VSTDICC100	VX047352.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:43:03 AM	MMDadoda	8/19/2025 1:41:08 AM	Peak Integrated by Software
VSTDICC150	VX047353.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:43:07 AM	MMDadoda	8/19/2025 1:41:10 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	1,4-Dichlorobenzene	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	1,4-Dioxane	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	Allyl chloride	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	Ethyl Acetate	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software

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Manual Integration Report

Sequence:	VX081525	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX047356.D	Methacrylonitrile	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	Methyl methacrylate	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC001	VX047356.D	Tetrahydrofuran	JOHN	8/18/2025 8:43:18 AM	MMDadoda	8/19/2025 1:41:24 AM	Peak Integrated by Software
VSTDICV050	VX047357.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:43:25 AM	MMDadoda	8/19/2025 1:41:26 AM	Peak Integrated by Software
VSTDICV050	VX047357.D	1,4-Dioxane	JOHN	8/18/2025 8:43:25 AM	MMDadoda	8/19/2025 1:41:26 AM	Peak Integrated by Software
VSTDCCC050	VX047369.D	1,2,3-Trichloropropane	JOHN	8/18/2025 8:43:44 AM	MMDadoda	8/19/2025 1:41:35 AM	Peak Integrated by Software

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Manual Integration Report

Sequence:	VX081925	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX047400.D	1,2,3-Trichloropropane	JOHN	8/20/2025 8:36:13 AM	MMDadoda	8/20/2025 8:57:32 AM	Peak Integrated by Software
VX0819WBS01	VX047403.D	1,2,3-Trichloropropane	JOHN	8/20/2025 8:36:18 AM	MMDadoda	8/20/2025 8:57:35 AM	Peak Integrated by Software
VX0819WBSD01	VX047405.D	1,2,3-Trichloropropane	JOHN	8/20/2025 8:36:23 AM	MMDadoda	8/20/2025 8:57:36 AM	Peak Integrated by Software
VSTDCCC050	VX047425.D	1,2,3-Trichloropropane	JOHN	8/20/2025 8:36:41 AM	MMDadoda	8/20/2025 8:57:39 AM	Peak Integrated by Software

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Manual Integration Report

Sequence:	Vx082125	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX047455.D	1,2,3-Trichloropropane	JOHN	8/22/2025 9:18:39 AM	MMDadoda	8/22/2025 10:54:21 PM	Peak Integrated by Software
VX0821WBS02	VX047467.D	1,2,3-Trichloropropane	JOHN	8/22/2025 9:18:52 AM	MMDadoda	8/22/2025 10:54:29 PM	Peak Integrated by Software
VSTDCCC050	VX047482.D	1,2,3-Trichloropropane	JOHN	8/22/2025 9:19:36 AM	MMDadoda	8/22/2025 10:54:39 PM	Peak Integrated by Software

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Fax : 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081525

Review By	John Carlone	Review On	8/18/2025 8:45:53 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/19/2025 1:41:47 AM		
SubDirectory	VX081525	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135148
Initial Calibration Stds	VP135153,VP135154,VP135155,VP135156,VP135157,VP135158
CCC	VP135152
Internal Standard/PEM	
ICV/I.BLK	VP135159
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX047347.D	15 Aug 2025 08:28	JC/MD	Ok
2	VSTDICC001	VX047348.D	15 Aug 2025 09:18	JC/MD	Not Ok
3	VSTDICC005	VX047349.D	15 Aug 2025 09:40	JC/MD	Ok,M
4	VSTDICC020	VX047350.D	15 Aug 2025 10:01	JC/MD	Ok,M
5	VSTDICCC050	VX047351.D	15 Aug 2025 10:22	JC/MD	Ok,M
6	VSTDICC100	VX047352.D	15 Aug 2025 10:43	JC/MD	Ok,M
7	VSTDICC150	VX047353.D	15 Aug 2025 11:05	JC/MD	Ok,M
8	IBLK	VX047354.D	15 Aug 2025 11:26	JC/MD	Ok
9	VSTDICC001	VX047355.D	15 Aug 2025 12:08	JC/MD	Not Ok
10	VSTDICC001	VX047356.D	15 Aug 2025 12:30	JC/MD	Ok,M
11	VSTDICV050	VX047357.D	15 Aug 2025 13:11	JC/MD	Ok,M
12	VX0815WBL01	VX047358.D	15 Aug 2025 13:39	JC/MD	Ok
13	VX0815MBL01	VX047359.D	15 Aug 2025 14:00	JC/MD	Ok
14	VX0815WBS01	VX047360.D	15 Aug 2025 14:21	JC/MD	Ok,M
15	VX0815WBSD01	VX047361.D	15 Aug 2025 14:49	JC/MD	Ok,M
16	Q2880-01	VX047362.D	15 Aug 2025 15:10	JC/MD	Ok
17	Q2880-02	VX047363.D	15 Aug 2025 15:32	JC/MD	Ok
18	Q2880-03	VX047364.D	15 Aug 2025 15:53	JC/MD	Ok
19	Q2880-04	VX047365.D	15 Aug 2025 16:15	JC/MD	Ok
20	Q2886-01	VX047366.D	15 Aug 2025 16:36	JC/MD	Ok
21	Q2886-02	VX047367.D	15 Aug 2025 16:58	JC/MD	ReRun

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081525

Review By	John Carlone	Review On	8/18/2025 8:45:53 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/19/2025 1:41:47 AM		
SubDirectory	VX081525	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135148
Initial Calibration Stds	VP135153,VP135154,VP135155,VP135156,VP135157,VP135158
CCC	VP135152
Internal Standard/PEM	
ICV/I.BLK	VP135159
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q2837-01	VX047368.D	15 Aug 2025 17:19	JC/MD	Ok,M
23	VSTDCCC050	VX047369.D	15 Aug 2025 17:41	JC/MD	Ok,M

M : Manual Integration

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081925

Review By	John Carlone	Review On	8/20/2025 8:46:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/20/2025 8:58:28 AM		
SubDirectory	VX081925	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135170
Initial Calibration Stds	
CCC	VP135171,VP135172
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX047399.D	19 Aug 2025 08:38	JC/MD	Ok
2	VSTDCCC050	VX047400.D	19 Aug 2025 09:37	JC/MD	Ok,M
3	VX0819MBL01	VX047401.D	19 Aug 2025 10:05	JC/MD	Ok
4	VX0819WBL01	VX047402.D	19 Aug 2025 10:55	JC/MD	Ok
5	VX0819WBS01	VX047403.D	19 Aug 2025 11:55	JC/MD	Ok,M
6	Q2815-11	VX047404.D	19 Aug 2025 12:16	JC/MD	Ok
7	VX0819WBSD01	VX047405.D	19 Aug 2025 12:37	JC/MD	Ok,M
8	Q2815-12	VX047406.D	19 Aug 2025 12:59	JC/MD	Ok
9	Q2815-16RE	VX047407.D	19 Aug 2025 13:20	JC/MD	Confirms
10	Q2815-24	VX047408.D	19 Aug 2025 13:41	JC/MD	Ok
11	Q2815-26	VX047409.D	19 Aug 2025 14:07	JC/MD	ReRun
12	Q2841-01	VX047410.D	19 Aug 2025 14:29	JC/MD	Ok
13	Q2841-01DL	VX047411.D	19 Aug 2025 14:50	JC/MD	Not Ok
14	Q2815-20	VX047412.D	19 Aug 2025 15:11	JC/MD	Ok
15	Q2815-21	VX047413.D	19 Aug 2025 15:32	JC/MD	ReRun
16	Q2815-22	VX047414.D	19 Aug 2025 15:53	JC/MD	ReRun
17	Q2815-23	VX047415.D	19 Aug 2025 16:14	JC/MD	Ok
18	Q2869-07	VX047416.D	19 Aug 2025 16:36	JC/MD	Ok
19	Q2869-10	VX047417.D	19 Aug 2025 16:57	JC/MD	Ok
20	Q2869-11	VX047418.D	19 Aug 2025 17:18	JC/MD	Ok
21	Q2815-18	VX047419.D	19 Aug 2025 17:39	JC/MD	Ok

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Fax : 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081925

Review By	John Carlone	Review On	8/20/2025 8:46:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/20/2025 8:58:28 AM		
SubDirectory	VX081925	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135170
Initial Calibration Stds	
CCC	VP135171,VP135172
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q2815-19	VX047420.D	19 Aug 2025 18:00	JC/MD	Ok
23	Q2869-01	VX047421.D	19 Aug 2025 18:22	JC/MD	Ok
24	VX0819MBS01	VX047422.D	19 Aug 2025 18:43	JC/MD	Ok,M
25	Q2844-09DL	VX047423.D	19 Aug 2025 19:04	JC/MD	Ok
26	Q2884-03DL	VX047424.D	19 Aug 2025 19:25	JC/MD	Ok
27	VSTDCCC050	VX047425.D	19 Aug 2025 19:47	JC/MD	Ok,M

M : Manual Integration

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Fax : 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082125

Review By	John Carlone	Review On	8/22/2025 9:26:16 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 10:55:07 PM		
SubDirectory	VX082125	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135197
Initial Calibration Stds	
CCC	VP135198,VP135199
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX047454.D	21 Aug 2025 07:58	JC/MD	Ok
2	VSTDCCC050	VX047455.D	21 Aug 2025 09:35	JC/MD	Ok,M
3	VX0821MBL01	VX047456.D	21 Aug 2025 10:03	JC/MD	Ok
4	VX0821WBL01	VX047457.D	21 Aug 2025 10:24	JC/MD	Ok
5	VX0821WBS01	VX047458.D	21 Aug 2025 10:50	JC/MD	Not Ok
6	VX0821WBSD01	VX047459.D	21 Aug 2025 11:18	JC/MD	Not Ok
7	Q2869-04	VX047460.D	21 Aug 2025 11:39	JC/MD	Dilution
8	Q2869-05	VX047461.D	21 Aug 2025 12:00	JC/MD	Ok
9	Q2869-03	VX047462.D	21 Aug 2025 12:22	JC/MD	Ok
10	Q2900-02DL	VX047463.D	21 Aug 2025 12:43	JC/MD	Ok
11	Q2900-03DL	VX047464.D	21 Aug 2025 13:04	JC/MD	Ok
12	Q2900-05DL	VX047465.D	21 Aug 2025 13:25	JC/MD	Ok
13	Q2900-08	VX047466.D	21 Aug 2025 13:46	JC/MD	Ok
14	VX0821WBS02	VX047467.D	21 Aug 2025 14:07	JC/MD	Ok,M
15	Q2869-04DL	VX047468.D	21 Aug 2025 14:28	JC/MD	Ok
16	Q2900-07RE	VX047469.D	21 Aug 2025 14:49	JC/MD	Confirms
17	VX0821WBSD02	VX047470.D	21 Aug 2025 15:10	JC/MD	Ok,M
18	Q2900-06	VX047471.D	21 Aug 2025 15:31	JC/MD	Ok
19	Q2903-01	VX047472.D	21 Aug 2025 15:53	JC/MD	Ok
20	Q2903-02	VX047473.D	21 Aug 2025 16:14	JC/MD	ReRun
21	Q2900-04	VX047474.D	21 Aug 2025 16:35	JC/MD	Ok

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082125

Review By	John Carlone	Review On	8/22/2025 9:26:16 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 10:55:07 PM		
SubDirectory	VX082125	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135197
Initial Calibration Stds	
CCC	VP135198,VP135199
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q2903-03	VX047475.D	21 Aug 2025 16:56	JC/MD	Ok,M
23	Q2903-04	VX047476.D	21 Aug 2025 17:17	JC/MD	Ok
24	Q2903-05MS	VX047477.D	21 Aug 2025 17:39	JC/MD	Not Ok
25	Q2903-06MSD	VX047478.D	21 Aug 2025 18:00	JC/MD	Not Ok
26	Q2903-07	VX047479.D	21 Aug 2025 18:21	JC/MD	Dilution
27	Q2903-08	VX047480.D	21 Aug 2025 18:42	JC/MD	Ok
28	Q2903-09	VX047481.D	21 Aug 2025 19:03	JC/MD	ReRun
29	VSTDCCC050	VX047482.D	21 Aug 2025 19:25	JC/MD	Ok,M

M : Manual Integration

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081525

Review By	John Carlone	Review On	8/18/2025 8:45:53 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/19/2025 1:41:47 AM		
SubDirectory	VX081525	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135148
Initial Calibration Stds	VP135153,VP135154,VP135155,VP135156,VP135157,VP135158
CCC	VP135152
Internal Standard/PEM	
ICV/I.BLK	VP135159
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX047347.D	15 Aug 2025 08:28		JC/MD	Ok
2	VSTDICC001	VSTDICC001	VX047348.D	15 Aug 2025 09:18	Not used	JC/MD	Not Ok
3	VSTDICC005	VSTDICC005	VX047349.D	15 Aug 2025 09:40	LR-58,81	JC/MD	Ok,M
4	VSTDICC020	VSTDICC020	VX047350.D	15 Aug 2025 10:01		JC/MD	Ok,M
5	VSTDICCC050	VSTDICCC050	VX047351.D	15 Aug 2025 10:22		JC/MD	Ok,M
6	VSTDICC100	VSTDICC100	VX047352.D	15 Aug 2025 10:43		JC/MD	Ok,M
7	VSTDICC150	VSTDICC150	VX047353.D	15 Aug 2025 11:05		JC/MD	Ok,M
8	IBLK	IBLK	VX047354.D	15 Aug 2025 11:26		JC/MD	Ok
9	VSTDICC001	VSTDICC001	VX047355.D	15 Aug 2025 12:08	Not used	JC/MD	Not Ok
10	VSTDICC001	VSTDICC001	VX047356.D	15 Aug 2025 12:30		JC/MD	Ok,M
11	VSTDICV050	ICVVX081525	VX047357.D	15 Aug 2025 13:11		JC/MD	Ok,M
12	VX0815WBL01	VX0815WBL01	VX047358.D	15 Aug 2025 13:39		JC/MD	Ok
13	VX0815MBL01	VX0815MBL01	VX047359.D	15 Aug 2025 14:00		JC/MD	Ok
14	VX0815WBS01	VX0815WBS01	VX047360.D	15 Aug 2025 14:21		JC/MD	Ok,M
15	VX0815WBSD01	VX0815WBSD01	VX047361.D	15 Aug 2025 14:49		JC/MD	Ok,M
16	Q2880-01	STORAGE-BLANK-SO	VX047362.D	15 Aug 2025 15:10	vial A pH<2	JC/MD	Ok
17	Q2880-02	STORAGE-BLANK-WA	VX047363.D	15 Aug 2025 15:32	vial A pH<2	JC/MD	Ok
18	Q2880-03	STORAGE-BLANK-WA	VX047364.D	15 Aug 2025 15:53	vial A pH<2	JC/MD	Ok

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081525

Review By	John Carlone	Review On	8/18/2025 8:45:53 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/19/2025 1:41:47 AM		
SubDirectory	VX081525	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135148
Initial Calibration Stds	VP135153,VP135154,VP135155,VP135156,VP135157,VP135158
CCC	VP135152
Internal Standard/PEM	
ICV/I.BLK	VP135159
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q2880-04	STORAGE-BLANK-SAI	VX047365.D	15 Aug 2025 16:15	vial A pH<2	JC/MD	Ok
20	Q2886-01	BP-TT182D-TB-202508	VX047366.D	15 Aug 2025 16:36	vial A pH<2	JC/MD	Ok
21	Q2886-02	BP-TT182D-GW-20250	VX047367.D	15 Aug 2025 16:58	vial A pH<2 Surrogate Fail	JC/MD	ReRun
22	Q2837-01	TW-WTS-13	VX047368.D	15 Aug 2025 17:19	vial B pH<2	JC/MD	Ok,M
23	VSTDCCC050	VSTDCCC050EC	VX047369.D	15 Aug 2025 17:41		JC/MD	Ok,M

M : Manual Integration

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081925

Review By	John Carlone	Review On	8/20/2025 8:46:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/20/2025 8:58:28 AM		
SubDirectory	VX081925	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135170
Initial Calibration Stds	
CCC	VP135171,VP135172
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX047399.D	19 Aug 2025 08:38		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX047400.D	19 Aug 2025 09:37	pH#Lot#V12668	JC/MD	Ok,M
3	VX0819MBL01	VX0819MBL01	VX047401.D	19 Aug 2025 10:05		JC/MD	Ok
4	VX0819WBL01	VX0819WBL01	VX047402.D	19 Aug 2025 10:55		JC/MD	Ok
5	VX0819WBS01	VX0819WBS01	VX047403.D	19 Aug 2025 11:55		JC/MD	Ok,M
6	Q2815-11	TW-22M-W	VX047404.D	19 Aug 2025 12:16	vial B pH<2	JC/MD	Ok
7	VX0819WBSD01	VX0819WBSD01	VX047405.D	19 Aug 2025 12:37		JC/MD	Ok,M
8	Q2815-12	TW-22M-S	VX047406.D	19 Aug 2025 12:59	vial B pH<2	JC/MD	Ok
9	Q2815-16RE	TW-17M-SRE	VX047407.D	19 Aug 2025 13:20	vial B pH<2 Surrogate Fail	JC/MD	Confirms
10	Q2815-24	TB	VX047408.D	19 Aug 2025 13:41	vial A pH<2 TB	JC/MD	Ok
11	Q2815-26	FB	VX047409.D	19 Aug 2025 14:07	vial A pH<2 FB;Surrogate Fail	JC/MD	ReRun
12	Q2841-01	MW-06-6.5-08122025	VX047410.D	19 Aug 2025 14:29	vial A pH<2	JC/MD	Ok
13	Q2841-01DL	MW-06-6.5-08122025D	VX047411.D	19 Aug 2025 14:50	Not required	JC/MD	Not Ok
14	Q2815-20	TW-11M-W	VX047412.D	19 Aug 2025 15:11	vial A pH<2	JC/MD	Ok
15	Q2815-21	TW-11M-E	VX047413.D	19 Aug 2025 15:32	vial A pH<2 Surrogate Fail	JC/MD	ReRun
16	Q2815-22	TW-11M-S	VX047414.D	19 Aug 2025 15:53	vial A pH<2 Surrogate Fail	JC/MD	ReRun
17	Q2815-23	TW-11M-N	VX047415.D	19 Aug 2025 16:14	vial A pH<2	JC/MD	Ok
18	Q2869-07	EB01-081325	VX047416.D	19 Aug 2025 16:36	vial A pH<2 EB	JC/MD	Ok

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX081925

Review By	John Carlone	Review On	8/20/2025 8:46:25 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/20/2025 8:58:28 AM		
SubDirectory	VX081925	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135170
Initial Calibration Stds	
CCC	VP135171,VP135172
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q2869-10	EB02-081325	VX047417.D	19 Aug 2025 16:57	vial A pH<2 EB	JC/MD	Ok
20	Q2869-11	TB01-081325	VX047418.D	19 Aug 2025 17:18	vial A pH<2 TB	JC/MD	Ok
21	Q2815-18	TW-84SB-W	VX047419.D	19 Aug 2025 17:39	vial A pH<2	JC/MD	Ok
22	Q2815-19	DUP	VX047420.D	19 Aug 2025 18:00	vial A pH<2	JC/MD	Ok
23	Q2869-01	MW-19B-71.5-081325	VX047421.D	19 Aug 2025 18:22	vial A pH<2	JC/MD	Ok
24	VX0819MBS01	VX0819MBS01	VX047422.D	19 Aug 2025 18:43		JC/MD	Ok,M
25	Q2844-09DL	MOO-25-0226DL	VX047423.D	19 Aug 2025 19:04		JC/MD	Ok
26	Q2884-03DL	302DL	VX047424.D	19 Aug 2025 19:25		JC/MD	Ok
27	VSTDCCC050	VSTDCCC050EC	VX047425.D	19 Aug 2025 19:47		JC/MD	Ok,M

M : Manual Integration

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082125

Review By	John Carlone	Review On	8/22/2025 9:26:16 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 10:55:07 PM		
SubDirectory	VX082125	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135197
Initial Calibration Stds	
CCC	VP135198,VP135199
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX047454.D	21 Aug 2025 07:58		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX047455.D	21 Aug 2025 09:35	pH#Lot#V12668	JC/MD	Ok,M
3	VX0821MBL01	VX0821MBL01	VX047456.D	21 Aug 2025 10:03		JC/MD	Ok
4	VX0821WBL01	VX0821WBL01	VX047457.D	21 Aug 2025 10:24		JC/MD	Ok
5	VX0821WBS01	VX0821WBS01	VX047458.D	21 Aug 2025 10:50	Recovery fail	JC/MD	Not Ok
6	VX0821WBSD01	VX0821WBSD01	VX047459.D	21 Aug 2025 11:18	Recovery fail	JC/MD	Not Ok
7	Q2869-04	MW-11A-13.5-081325	VX047460.D	21 Aug 2025 11:39	vial A pH<2 Need 20X	JC/MD	Dilution
8	Q2869-05	MW-19B-71.5-081325-I	VX047461.D	21 Aug 2025 12:00	vial A pH<2	JC/MD	Ok
9	Q2869-03	MW-01-6.5-081325	VX047462.D	21 Aug 2025 12:22	vial A pH<2	JC/MD	Ok
10	Q2900-02DL	MN-12C-081825DL	VX047463.D	21 Aug 2025 12:43	vial B pH<2	JC/MD	Ok
11	Q2900-03DL	DUP-01-081825DL	VX047464.D	21 Aug 2025 13:04	vial B pH<2	JC/MD	Ok
12	Q2900-05DL	MW-11C-081825DL	VX047465.D	21 Aug 2025 13:25	vial B pH<2	JC/MD	Ok
13	Q2900-08	TB-081825	VX047466.D	21 Aug 2025 13:46	vial B pH<2 TB	JC/MD	Ok
14	VX0821WBS02	VX0821WBS02	VX047467.D	21 Aug 2025 14:07		JC/MD	Ok,M
15	Q2869-04DL	MW-11A-13.5-081325D	VX047468.D	21 Aug 2025 14:28	vial B pH<2	JC/MD	Ok
16	Q2900-07RE	MW-11B-081825RE	VX047469.D	21 Aug 2025 14:49	vial B pH<2 Surrogate Fail	JC/MD	Confirms
17	VX0821WBSD02	VX0821WBSD02	VX047470.D	21 Aug 2025 15:10		JC/MD	Ok,M
18	Q2900-06	MW-17C-081825	VX047471.D	21 Aug 2025 15:31	vial B pH<2	JC/MD	Ok

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082125

Review By	John Carlone	Review On	8/22/2025 9:26:16 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 10:55:07 PM		
SubDirectory	VX082125	HP Acquire Method		HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135197
Initial Calibration Stds	
CCC	VP135198,VP135199
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q2903-01	MW-6A-081925	VX047472.D	21 Aug 2025 15:53	vial A pH<2	JC/MD	Ok
20	Q2903-02	MW-1C-081925	VX047473.D	21 Aug 2025 16:14	vial A pH<2 Surrogate Fail	JC/MD	ReRun
21	Q2900-04	MW-17B-081825	VX047474.D	21 Aug 2025 16:35	vial B pH<2	JC/MD	Ok
22	Q2903-03	MW-6B-081925	VX047475.D	21 Aug 2025 16:56	vial A pH<2	JC/MD	Ok,M
23	Q2903-04	MW-1B-081925	VX047476.D	21 Aug 2025 17:17	vial A pH<2	JC/MD	Ok
24	Q2903-05MS	Q2903-03MSMS	VX047477.D	21 Aug 2025 17:39	Spike not added	JC/MD	Not Ok
25	Q2903-06MSD	Q2903-03MSDMSD	VX047478.D	21 Aug 2025 18:00	Surrogate Fail;Spike not added	JC/MD	Not Ok
26	Q2903-07	MW-12B-081925	VX047479.D	21 Aug 2025 18:21	vial A pH<2 Surrogate Fail;Need 10X	JC/MD	Dilution
27	Q2903-08	MW-18B-081925	VX047480.D	21 Aug 2025 18:42	vial A pH<2	JC/MD	Ok
28	Q2903-09	DUP-02-081925	VX047481.D	21 Aug 2025 19:03	vial A pH<2 Surrogate Fail	JC/MD	ReRun
29	VSTDCCC050	VSTDCCC050EC	VX047482.D	21 Aug 2025 19:25		JC/MD	Ok,M

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Prep Standard - Chemical Standard Summary

Order ID : Q2869

Test : VOCMS Group3

Prepbatch ID :

Sequence ID/Qc Batch ID: VX081925,Vx082125,

Standard ID :
VP134142,VP134149,VP134933,VP134956,VP134957,VP135059,VP135129,VP135170,VP135171,VP135172,VP135197,VP135198,VP135199,

Chemical ID :
V13391,V14290,V14444,V14446,V14507,V14508,V14529,V14530,V14625,V14626,V14636,V14637,V14638,V14639,V14668,V14671,V14673,V14675,V14702,V14705,V14716,V14745,V14751,V14806,V14807,V14843,V14906,V14929,V15057,V15058,V15059,W3112,

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP134142	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14668 + 1.00000ml of V14671 + 1.00000ml of V14673 + 1.00000ml of V14675 + 16.00000ml of V14929 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP134149	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14636 + 1.00000ml of V14637 + 1.00000ml of V14638 + 1.00000ml of V14639 + 46.00000ml of V14929 = Final Quantity: 50.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP134933	07/29/2025	01/29/2026	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/19/2025

FROM 0.40000ml of V14906 + 24.60000ml of V14625 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP134956	08/01/2025	11/09/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/06/2025

FROM 0.25000ml of V14290 + 24.75000ml of V14626 = Final Quantity: 25.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP134957	08/01/2025	11/22/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/06/2025

FROM 0.50000ml of V13391 + 49.50000ml of V14625 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP135059	08/11/2025	09/19/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/19/2025

FROM 0.40000ml of V14843 + 1.00000ml of V14444 + 1.00000ml of V14446 + 1.00000ml of V14507 + 1.00000ml of V14508 + 1.00000ml of V14529 + 1.00000ml of V14530 + 1.00000ml of V14705 + 1.00000ml of V14745 + 1.00000ml of V14751 + 1.00000ml of V14806 + 1.00000ml of V14807 + 1.50000ml of V14702 + 1.50000ml of V14716 + 10.60000ml of V14625 = Final Quantity: 25.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP135129	08/14/2025	09/13/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/19/2025

FROM 1.00000ml of V15059 + 1.50000ml of V15057 + 1.50000ml of V15058 + 21.00000ml of V14625 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP135170	08/19/2025	08/20/2025	John Carlone	None	None	Mahesh Dadoda 08/20/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP134957 = Final Quantity: 40.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP135171	08/19/2025	08/20/2025	John Carlone	None	None	Mahesh Dadoda 08/20/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135059 + 0.01250ml of VP135129 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP135172	08/19/2025	08/20/2025	John Carlone	None	None	Mahesh Dadoda 08/20/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135059 + 0.01250ml of VP135129 = Final Quantity: 40.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP135197	08/21/2025	08/22/2025	John Carlone	None	None	Mahesh Dadoda 08/22/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP134957 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP135198	08/21/2025	08/22/2025	John Carlone	None	None	Mahesh Dadoda 08/22/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135059 + 0.01250ml of VP135129 = Final Quantity: 40.000 ml

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VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP135199	08/21/2025	08/22/2025	John Carlone	None	None	Mahesh Dadoda 08/22/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135059 + 0.01250ml of VP135129 = Final Quantity: 40.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0191805	11/22/2025	11/22/2024 / SAM	01/13/2023 / SAM	V13391

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0210184	12/12/2025	12/12/2024 / SAM	04/15/2024 / SAM	V14290

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	09/30/2025	08/08/2025 / SAM	08/15/2024 / SAM	V14444

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	09/30/2025	08/08/2025 / SAM	08/15/2024 / SAM	V14446

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	02/08/2026	08/08/2025 / SAM	09/17/2024 / SAM	V14507

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	02/08/2026	08/08/2025 / SAM	09/17/2024 / SAM	V14508

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	02/08/2026	08/08/2025 / SAM	09/18/2024 / SAM	V14529

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	02/08/2026	08/08/2025 / SAM	09/18/2024 / SAM	V14530

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	23I0762004	01/29/2026	07/29/2025 / SAM	11/26/2024 / SAM	V14625

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	23I0762004	11/09/2025	05/09/2025 / SAM	11/26/2024 / SAM	V14626

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14636

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14637

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14639

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14671

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14673

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14675

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	02/08/2026	08/08/2025 / SAM	12/17/2024 / SAM	V14702

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	02/08/2026	08/08/2025 / SAM	12/17/2024 / SAM	V14705

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	02/08/2026	08/08/2025 / SAM	12/17/2024 / SAM	V14716

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	02/08/2026	08/08/2025 / SAM	12/17/2024 / SAM	V14745

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	02/08/2026	08/08/2025 / SAM	12/17/2024 / SAM	V14751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0220471	02/08/2026	08/08/2025 / SAM	01/08/2025 / SAM	V14806

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0220471	02/08/2026	08/08/2025 / SAM	01/08/2025 / SAM	V14807

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0217535	11/12/2025	05/12/2025 / SAM	01/21/2025 / SAM	V14843

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0223904	07/29/2026	07/29/2025 / SAM	03/24/2025 / SAM	V14906

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	24G0262002	12/06/2025	06/06/2025 / SAM	05/09/2025 / SAM	V14929

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	081325	09/13/2025	08/14/2025 / SAM	08/14/2025 / SAM	V15057

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	081325	09/13/2025	08/14/2025 / SAM	08/14/2025 / SAM	V15058

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	081325	09/13/2025	08/14/2025 / SAM	08/14/2025 / SAM	V15059

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
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Certificate of Analysis

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Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
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Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0466)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 846mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

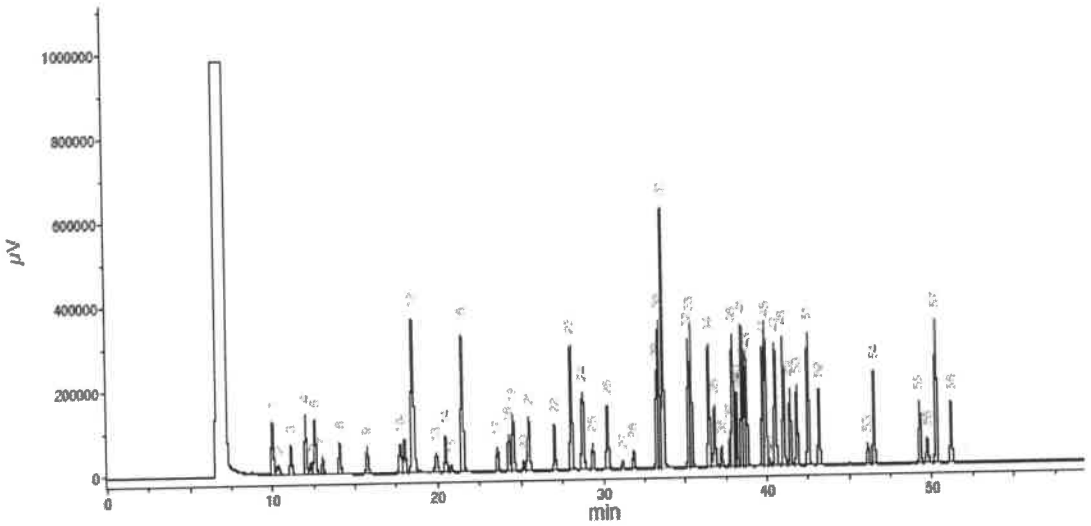
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,3-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	19.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.63
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.46
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0466)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS0000	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06128PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 846mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.6	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.8	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 8040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

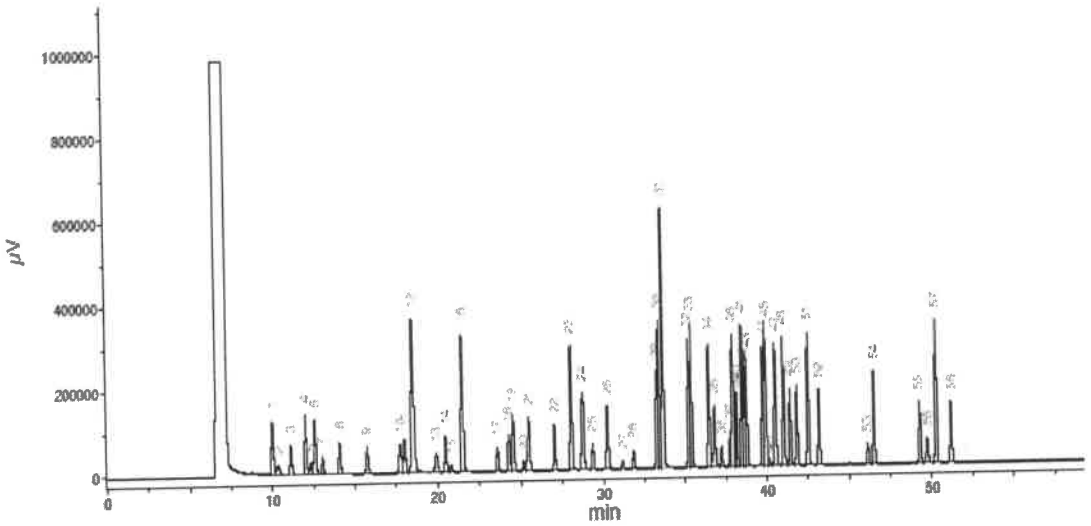
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 16, "P95317 L021624 (2000µg/mL in MeOH)"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,3-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	19.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
35	cis-1,4-Dichloro-2-butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.12
50	1,4-Dichlorobenzene	41.63
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.46
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

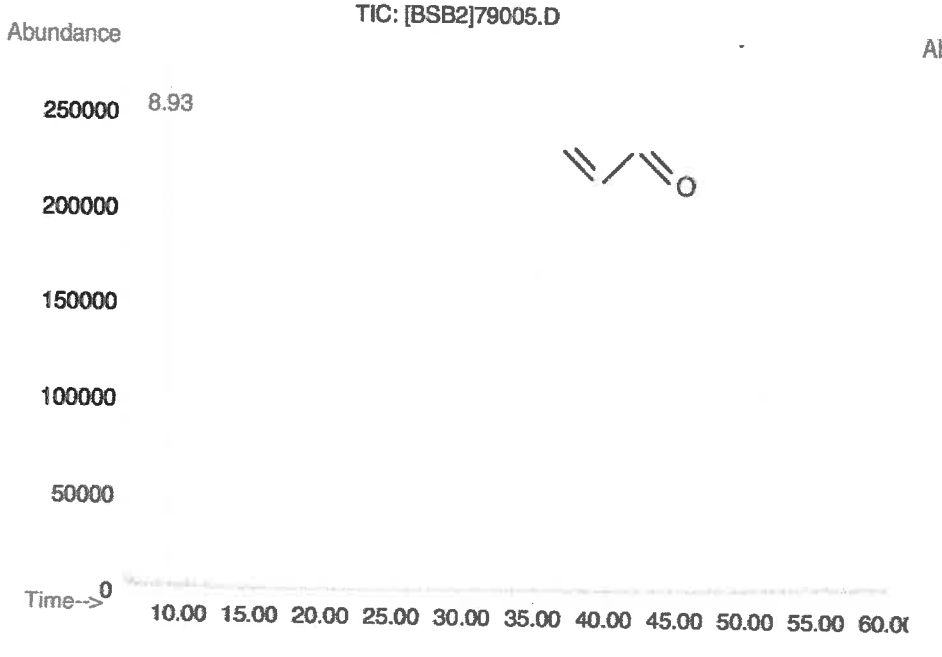
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

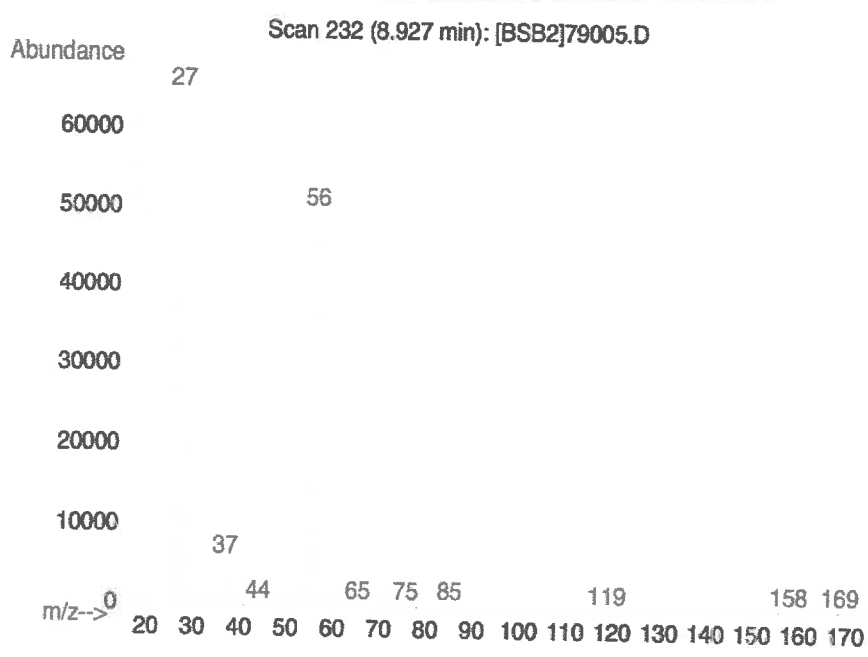
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





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- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
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- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

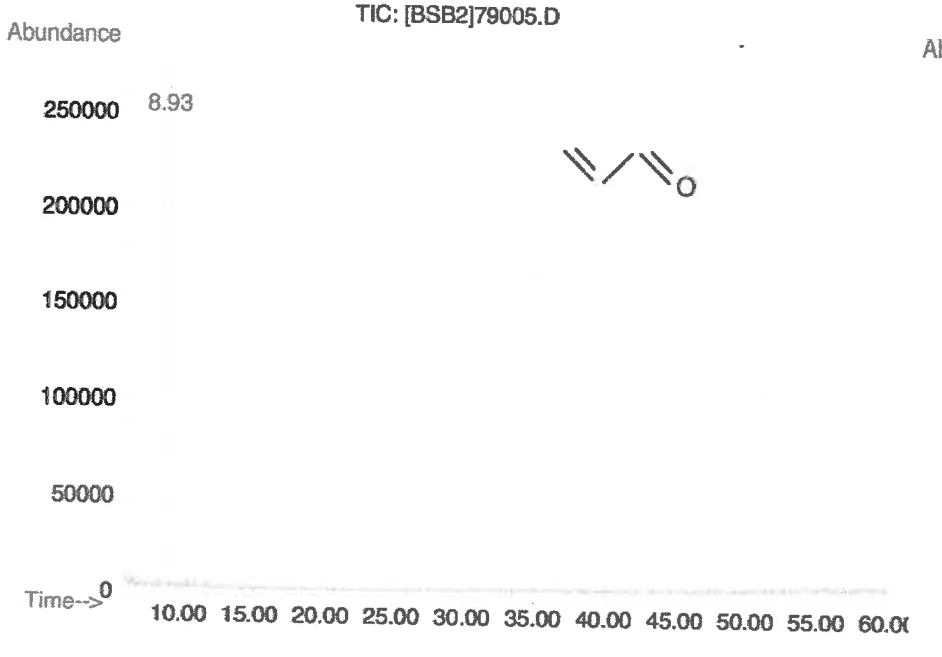
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

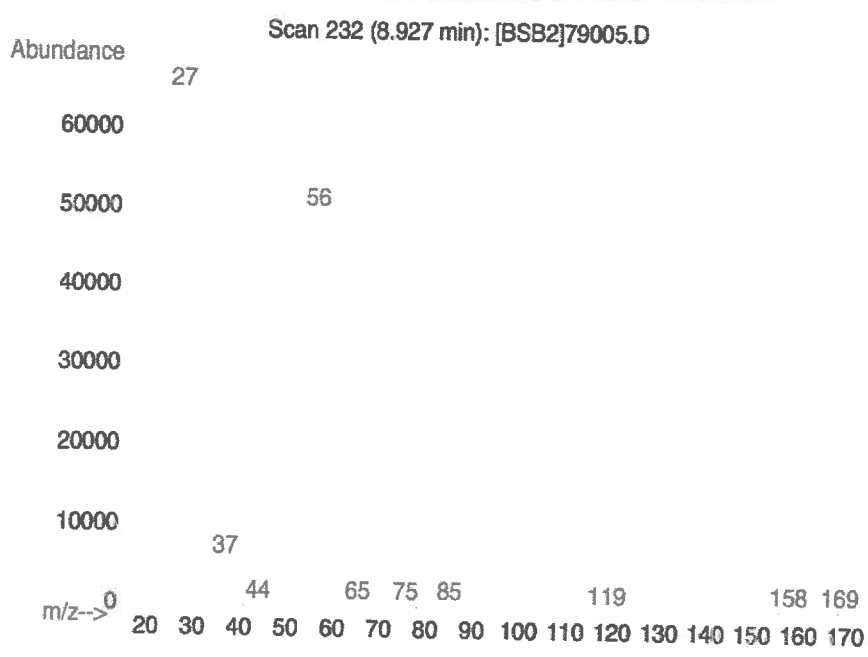
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





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- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

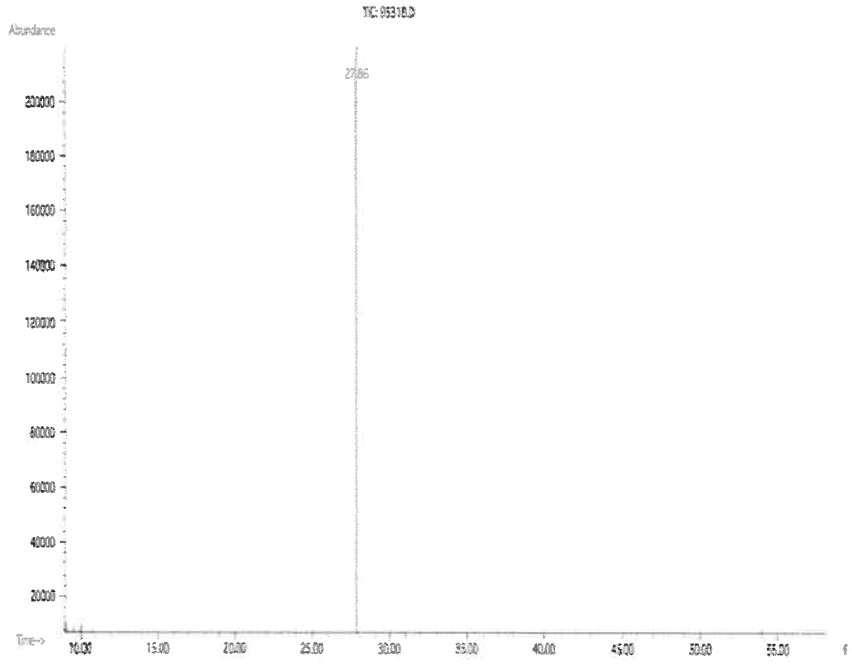
V14630 to V14649

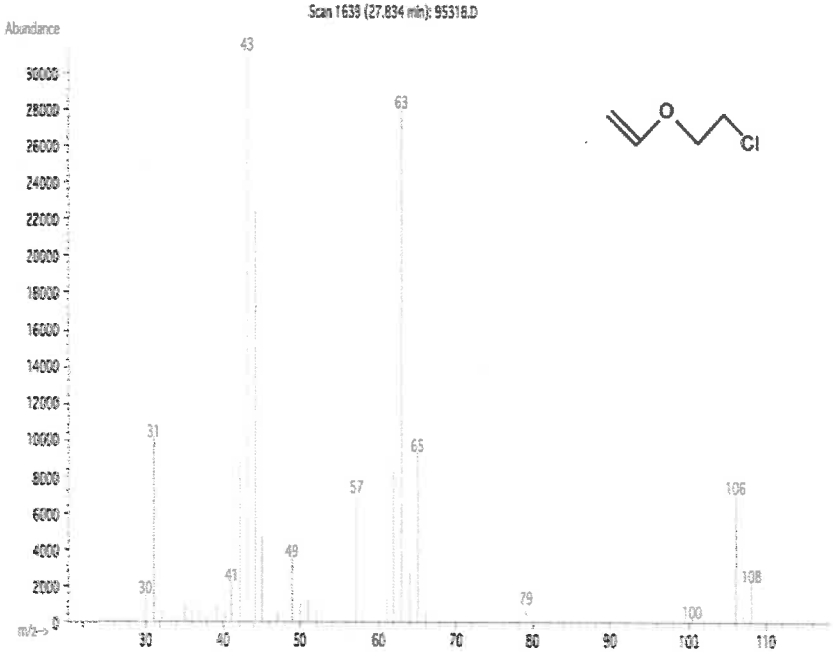
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





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Absolute Standards Inc.
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Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

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Certified Reference Material CRM

Rec 12/6/24
20 vial

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

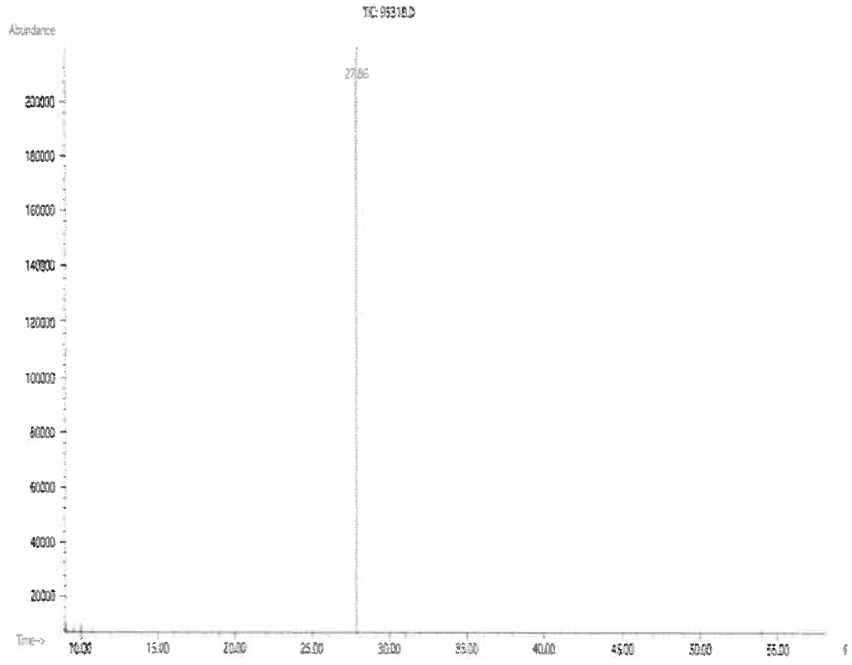
V14630 to V14649

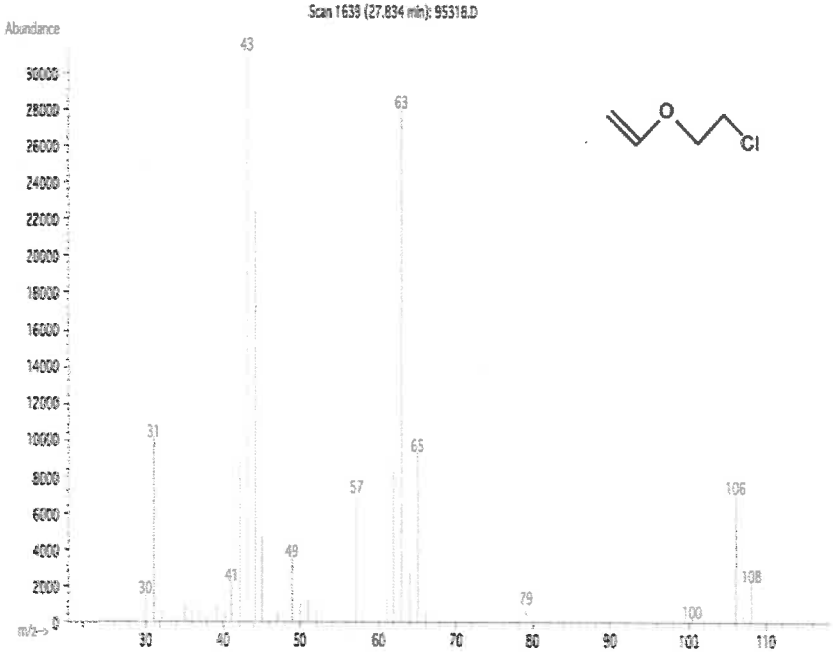
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





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Safety Data Sheet (SDS) GHS/OSHA Compliant

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Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

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LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
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Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

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LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

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CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

V14630 to V14649

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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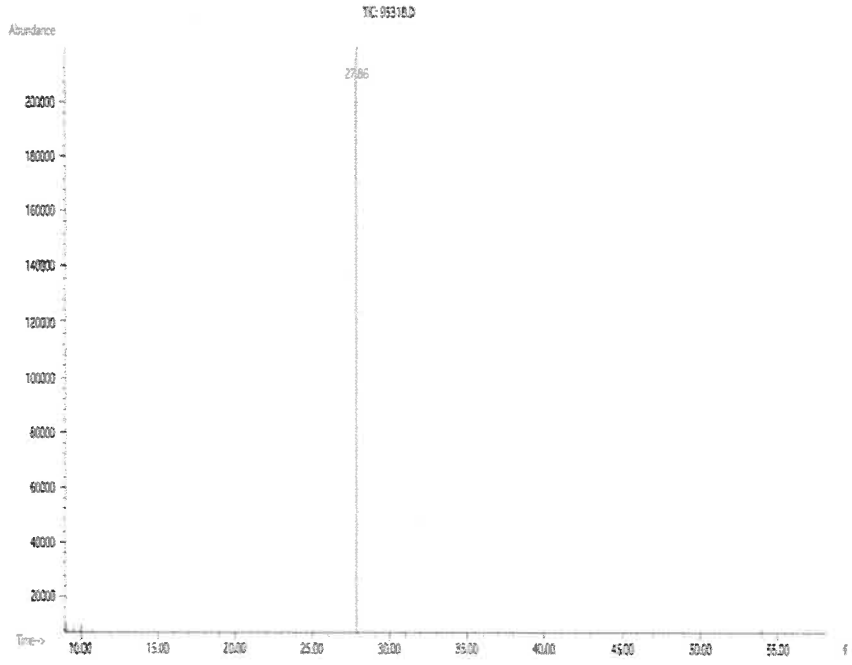
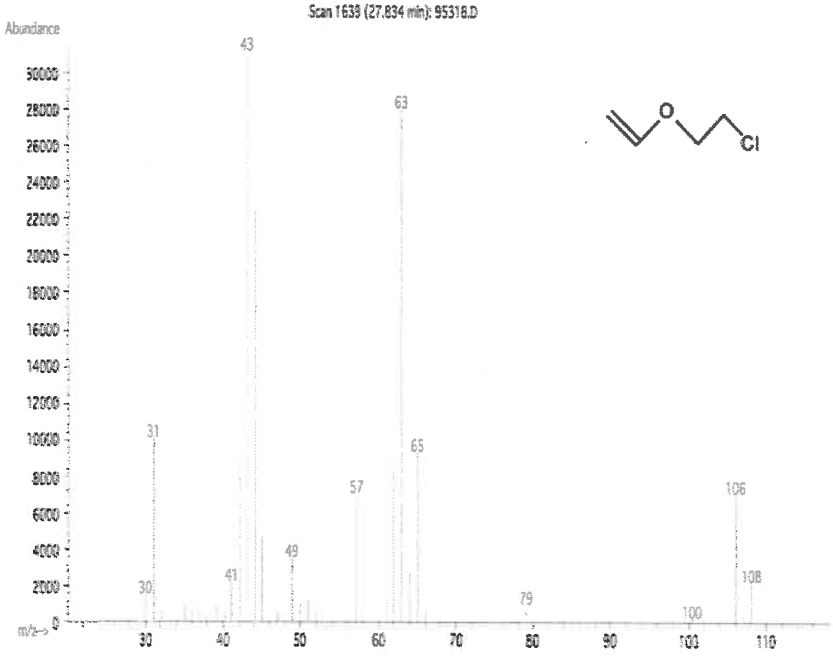
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





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Safety Data Sheet (SDS) GHS/OSHA Compliant

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Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
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Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
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Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
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Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

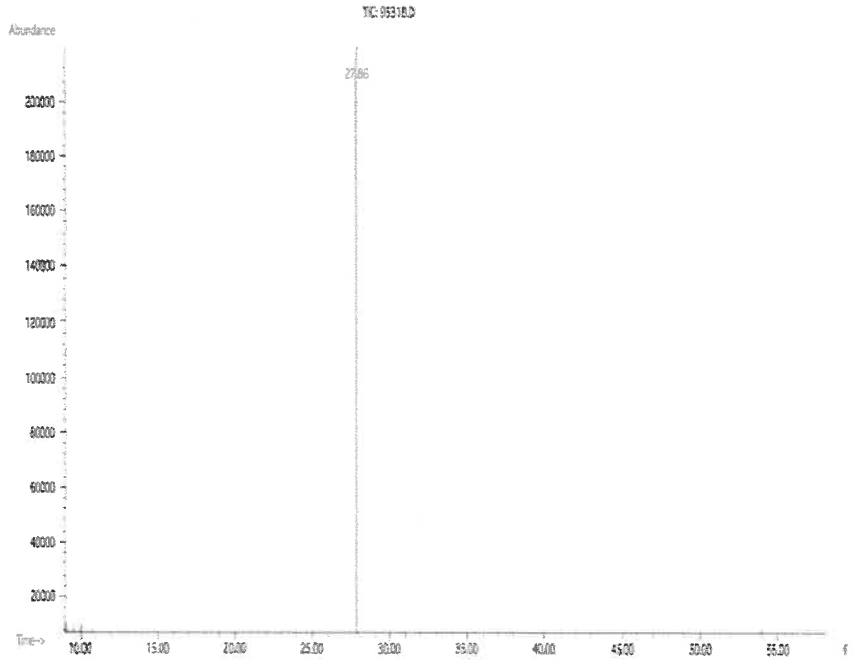
V14630 to V14649

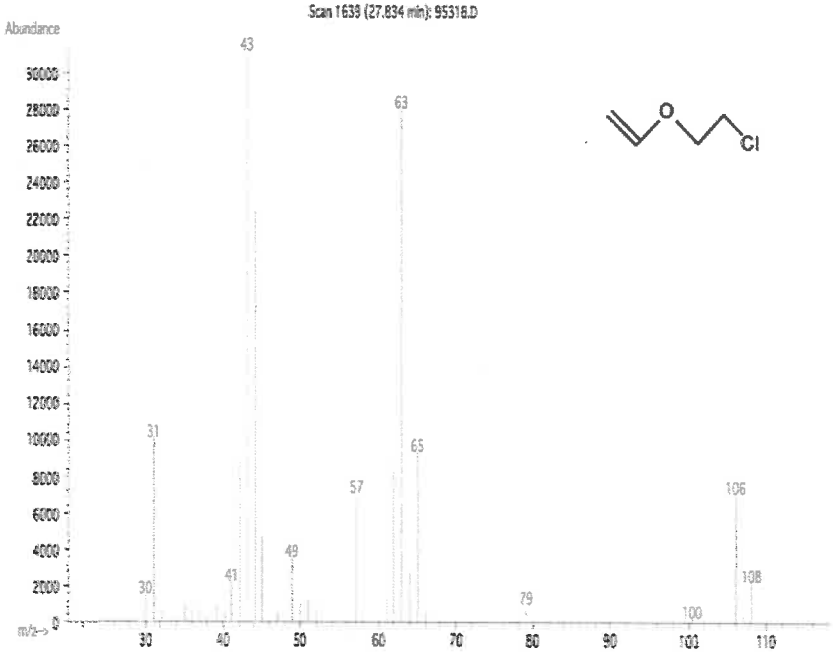
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
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Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

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UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

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OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

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RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0191805

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	2,483.9 µg/mL	+/- 139.5488

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

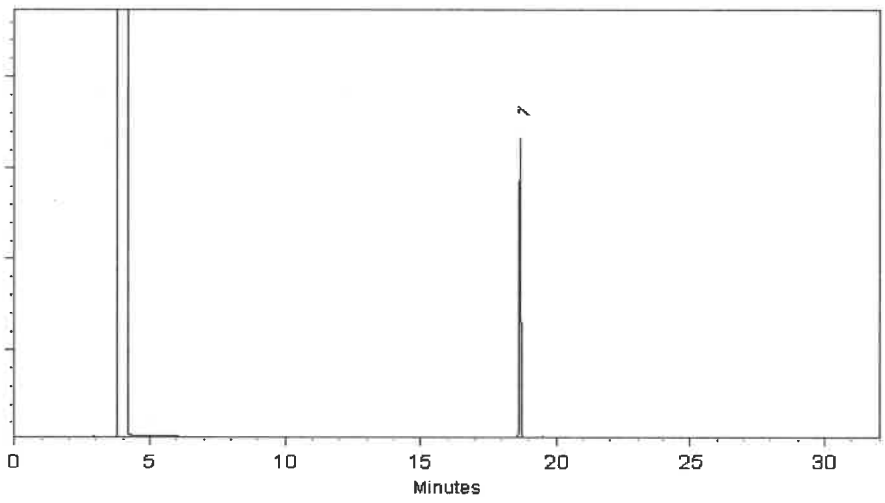
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Alicia Leathers - Operation Technician I **Date Mixed:** 17-Nov-2022 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Nov-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0209618

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

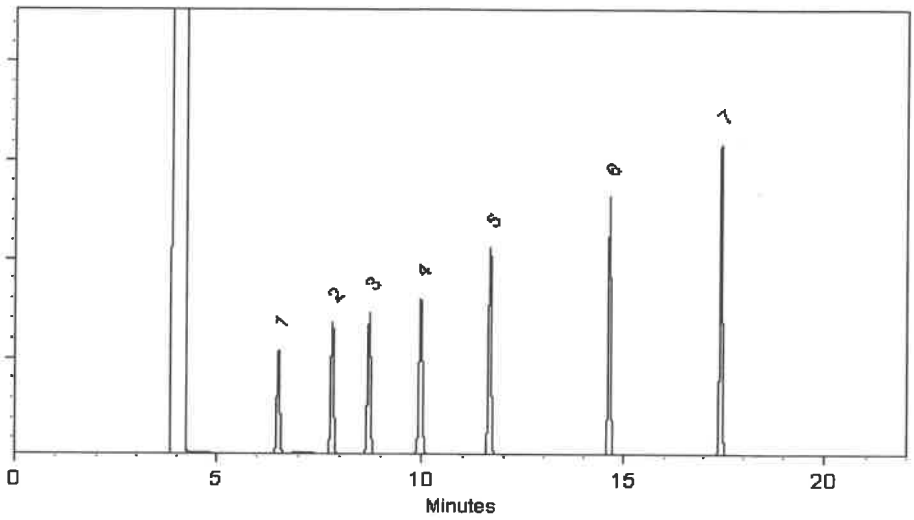
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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@ 8°C/min. (hold 5 min.)

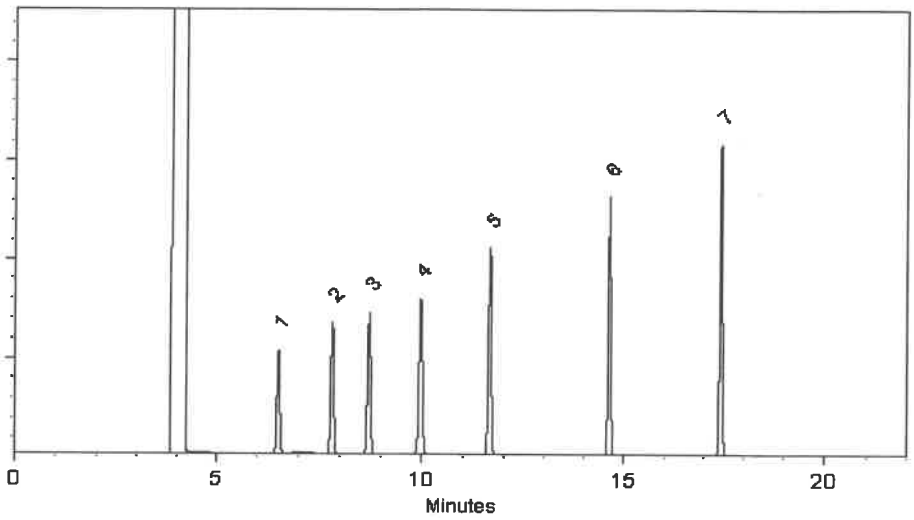
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Sam Moodler - Operations Tech I

Date Mixed: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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gravimetric

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0210184

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	25,212.0 µg/mL	+/- 1,427.8857
2	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,220.0 µg/mL	+/- 1,428.3388
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,116.0 µg/mL	+/- 1,422.4487
4	Pentafluorobenzene	363-72-4	MKCR9383	99%	25,180.0 µg/mL	+/- 1,426.0734

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

John Friedline - Operations Technician I

Date Mixed: 11-Apr-2024 **Balance:** 1127510105

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

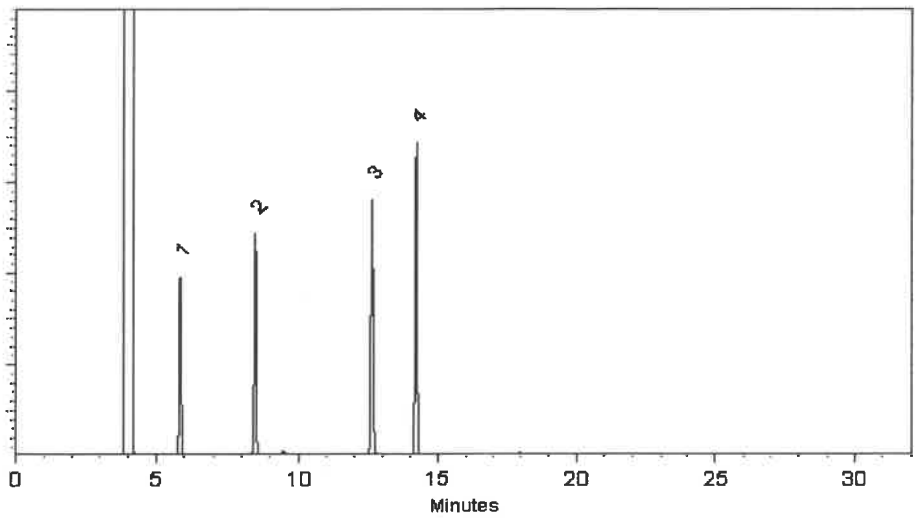
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

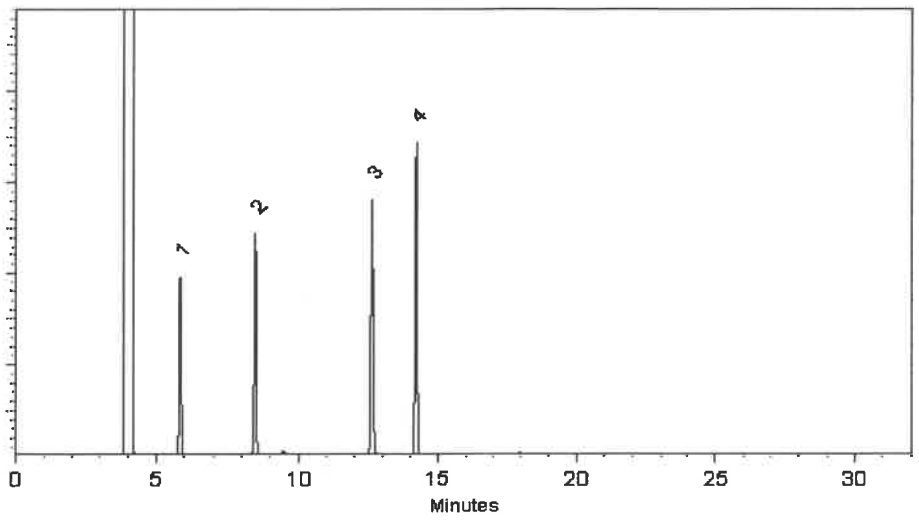
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Certificate #3222.01

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

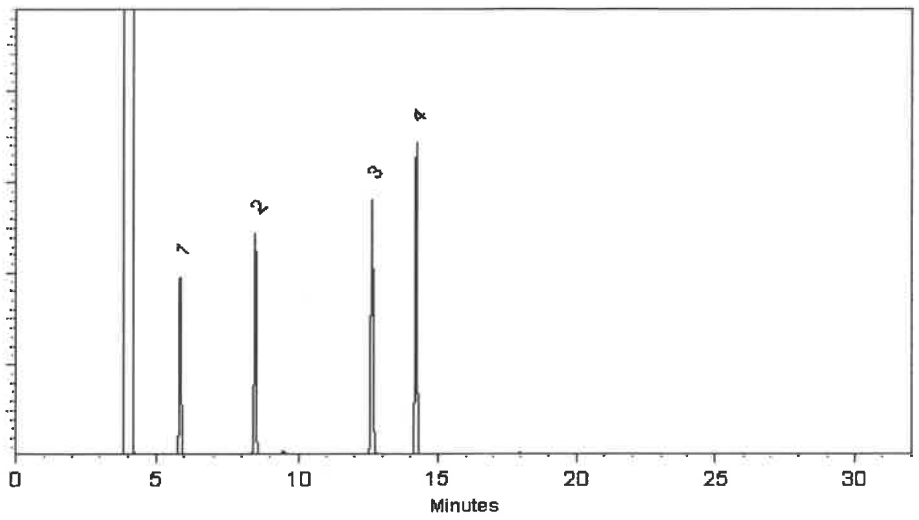
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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Dec: 12/09/24

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

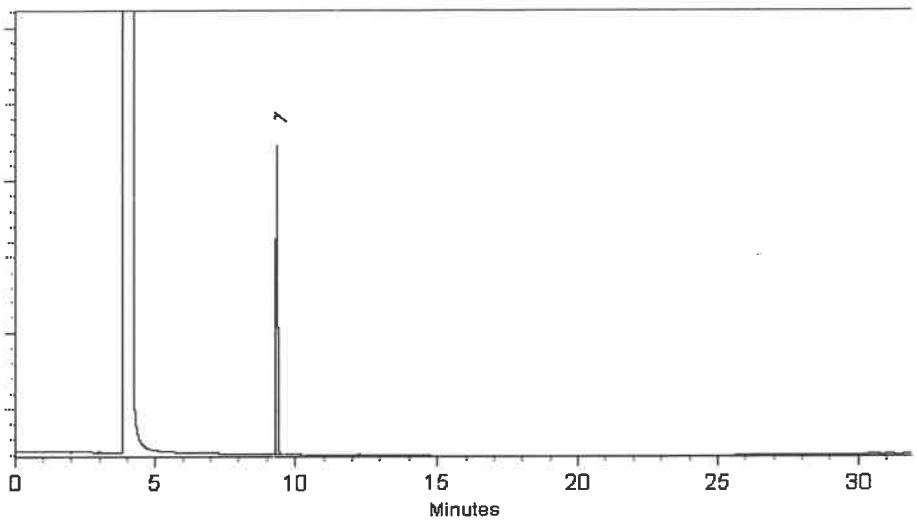
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
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Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Dec: 12/09/24

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Certificate #3222.01

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

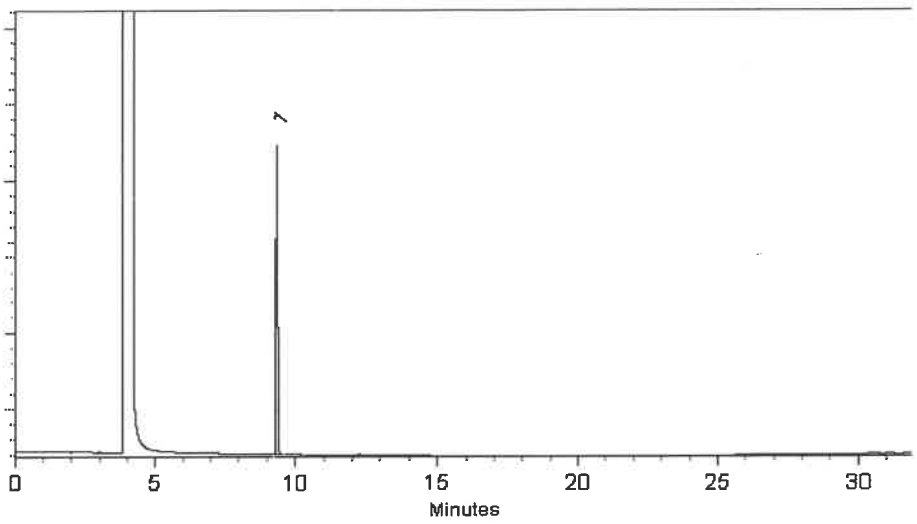
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Dec: 12/09/24

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Reference Material Producer
Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

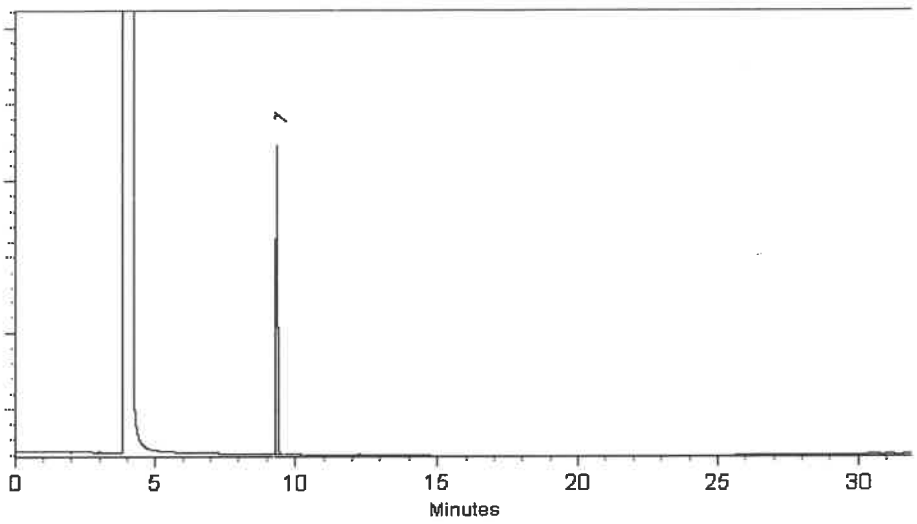
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Reference Material Producer
Certificate #3222.01

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2029 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

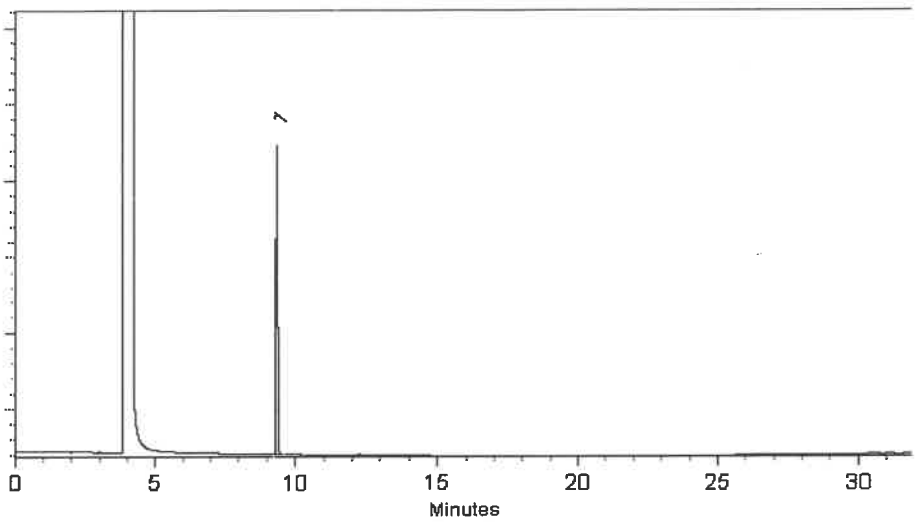
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

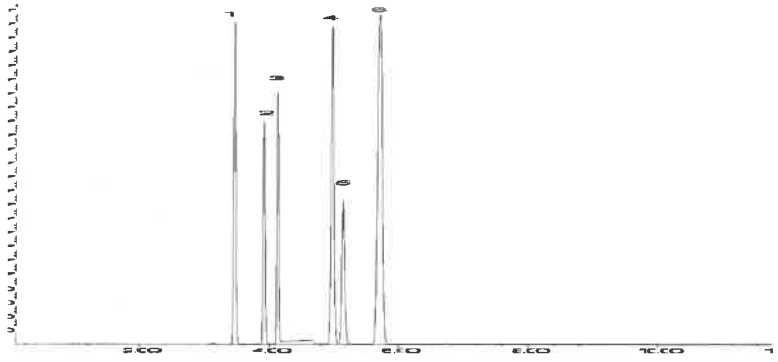
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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CERTIFIED REFERENCE MATERIAL

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

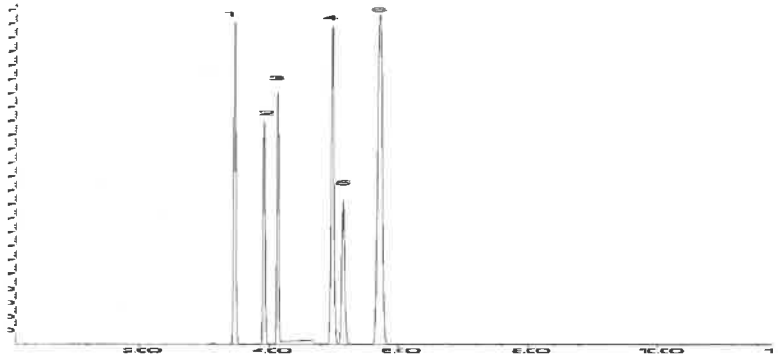
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

J14842 to 14846

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Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0217535

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

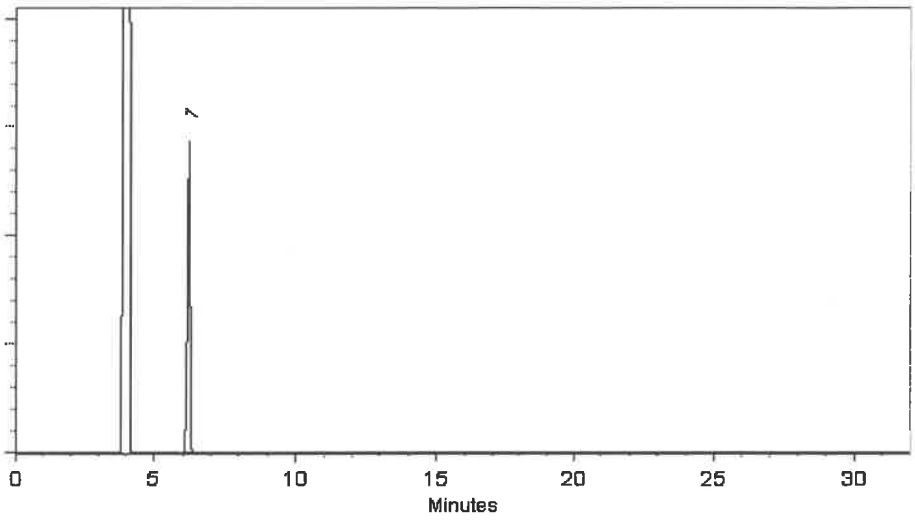
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024 **Balance Serial #** B251644995

Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Zoviny Rec 01/08/21

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Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

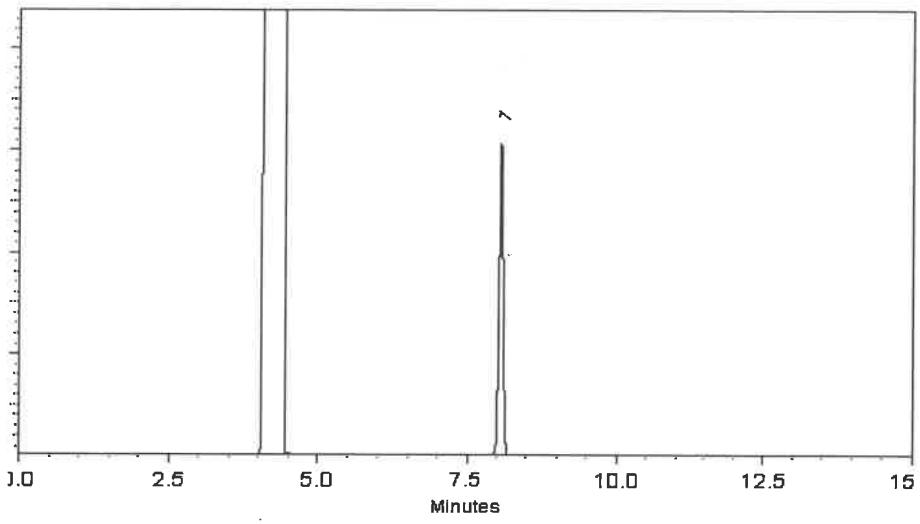
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Zoviny Rec 01/08/21

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

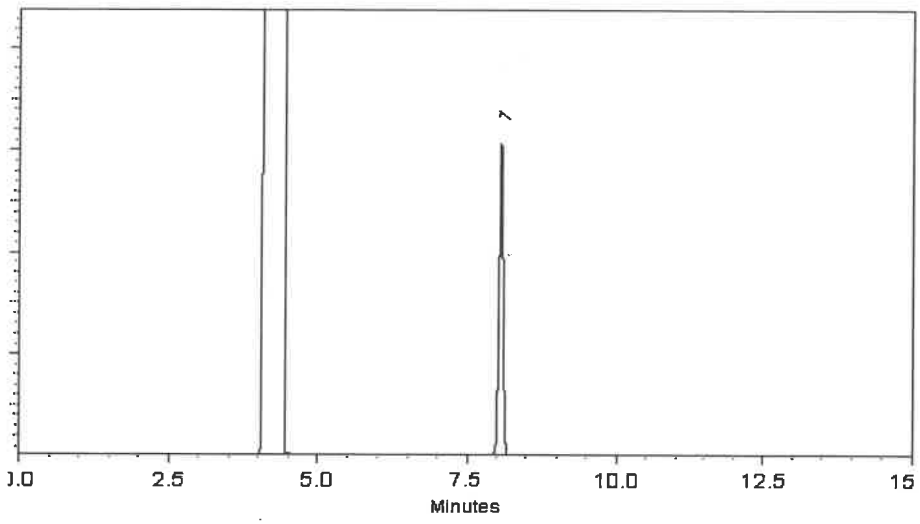
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
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10 vial

CERTIFIED REFERENCE MATERIAL

Lee 03/31/25

Certificate of Analysis

gravimetric

V14904 to V14913

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0223904

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dichloroethane-d4	17060-07-0	PR-33313	99%	25,108.0 µg/mL	+/- 1,421.9957
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	0000268853	99%	25,108.0 µg/mL	+/- 1,421.9957
3	Dibromofluoromethane	1868-53-7	VENKAT02	99%	25,232.0 µg/mL	+/- 1,429.0184
4	Toluene-d8	2037-26-5	PR-34141	99%	25,156.0 µg/mL	+/- 1,424.7141

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Brittany Federinko - Operations Tech I

Date Mixed: 27-Mar-2025 **Balance:** B251644995

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
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Certified Uncertainty Value Notes:

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$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25

avantor™ | J.T.Baker®

V14921 to
V14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rev 08/14/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 081325
Description: Acrolein

Solvent(s): Water **Lot#** 041725Q

V15057 to V15061

Expiration Date: 091325
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

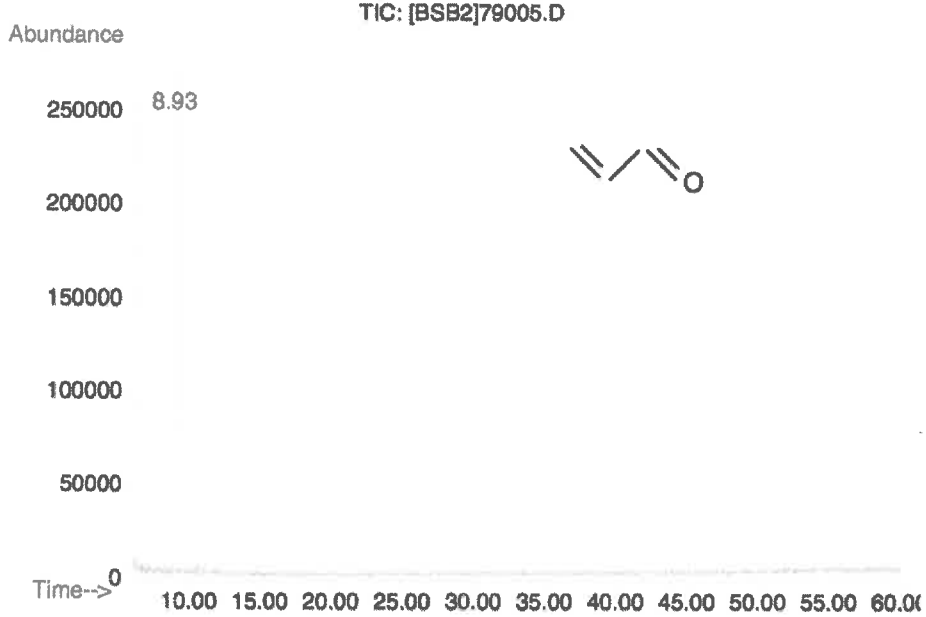
Weight(s) shown below were combined and diluted to (mL): 10.0

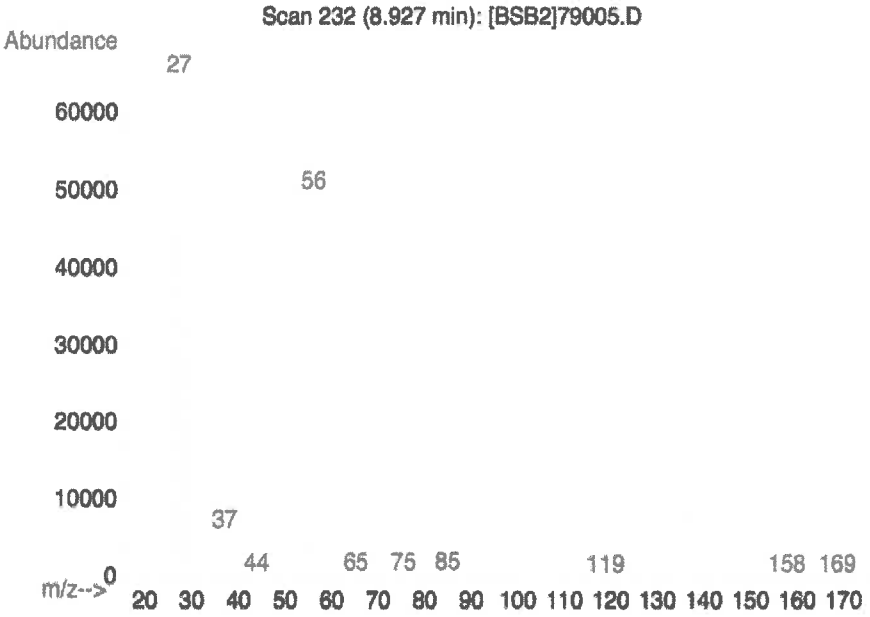
Eli Aliaga 081325
Formulated By: Eli Aliaga DATE

Pedro Rentas 081325
Reviewed By: Pedro L. Rentas DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Rev 1.0, 2/25/2025

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rev 08/14/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 081325
Description: Acrolein

Solvent(s): Water **Lot#** 041725Q

V15057 to V15061

Expiration Date: 091325
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

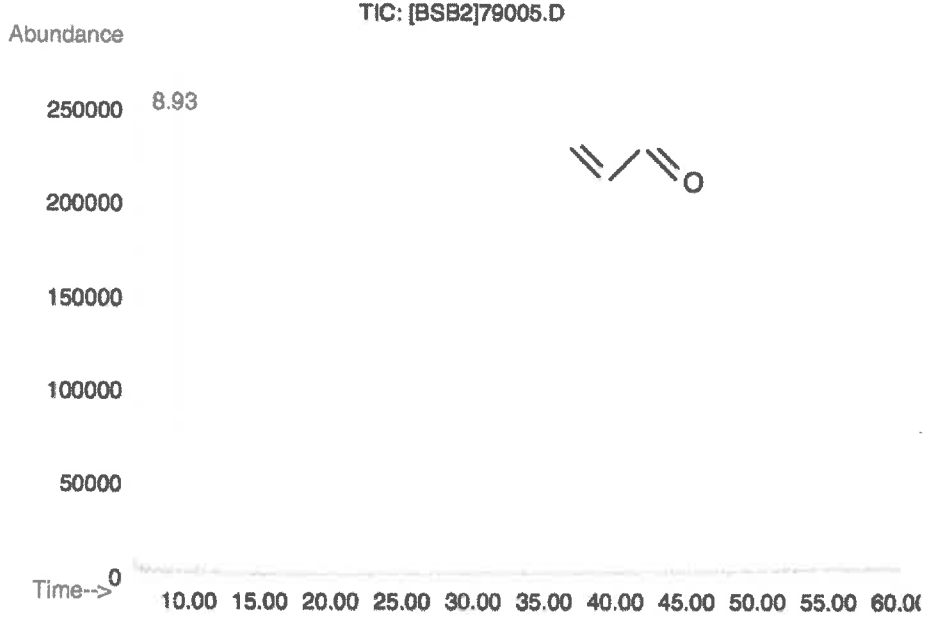
Weight(s) shown below were combined and diluted to (mL): 10.0

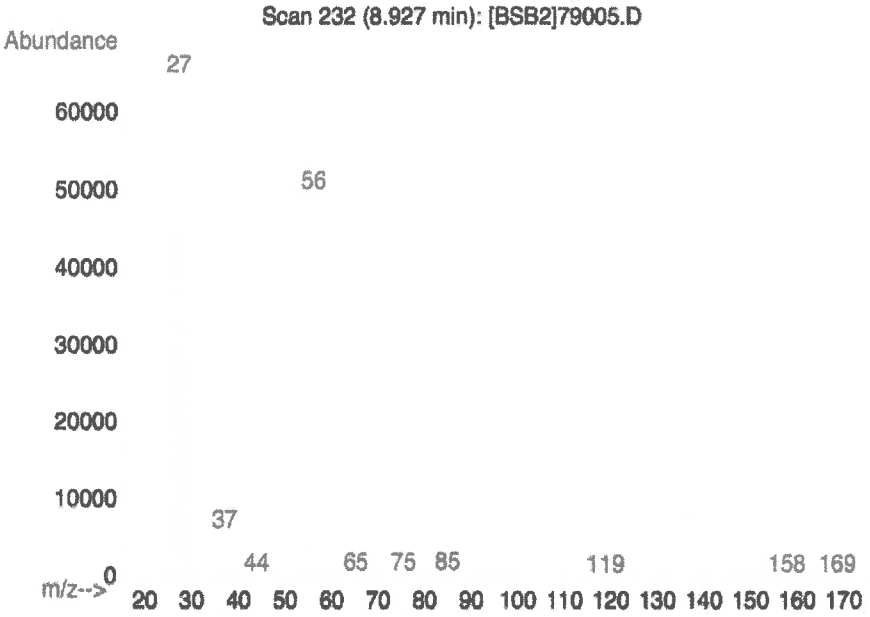
Eli Aliaga 081325
Formulated By: Eli Aliaga DATE

Pedro Rentas 081325
Reviewed By: Pedro L. Rentas DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





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Rev 1.0, 2/25/2025

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rev 08/14/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 081325
Description: Acrolein

Solvent(s): Water **Lot#** 041725Q

V15057 to V15061

Expiration Date: 091325
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

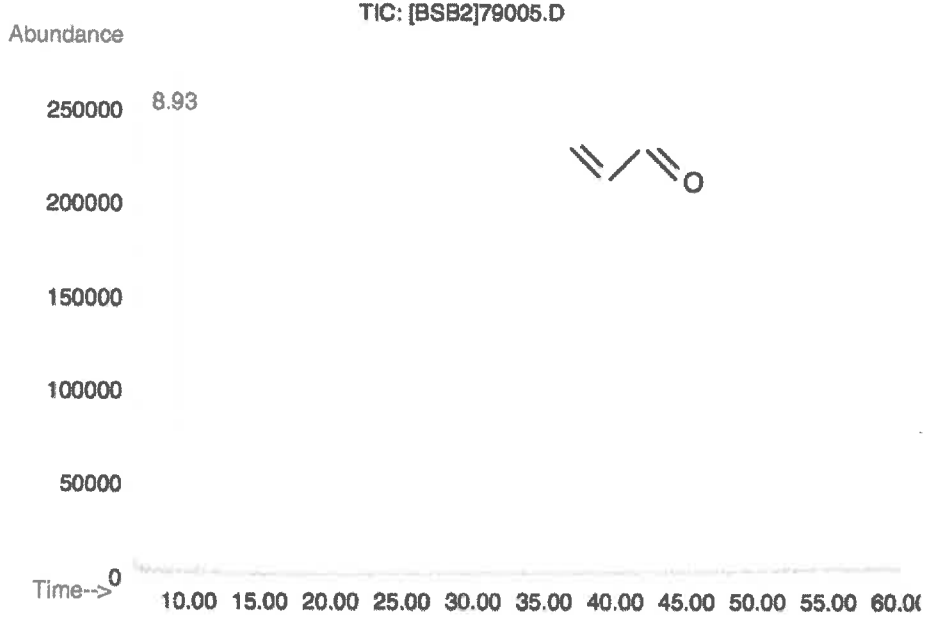
Weight(s) shown below were combined and diluted to (mL): 10.0

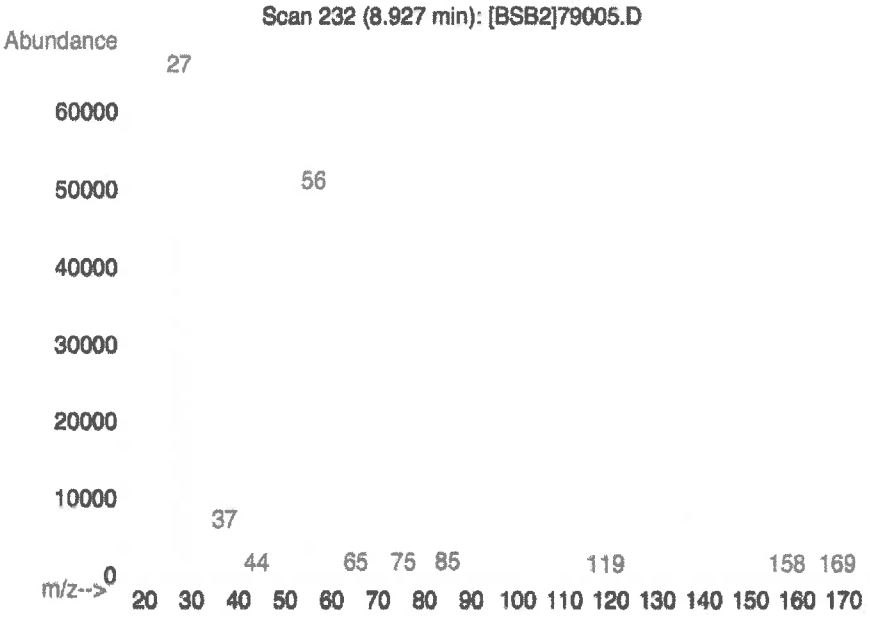
Eli Aliaga 081325
Formulated By: Eli Aliaga DATE

Pedro Rentas 081325
Reviewed By: Pedro L. Rentas DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Rev 1.0, 2/25/2025

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 · Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q 2869
COC Number 2047200

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Jacobs
ADDRESS: 412 Mt Kemble Ave Suite #100
CITY Morristown STATE: NJ ZIP: 07960
ATTENTION: John. Yntante
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: STC PTC
PROJECT NO.: D3868221 LOCATION: Princeton Junction
PROJECT MANAGER: Mary Murphy
e-mail: Mary.Murphy@Jacobs.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Mary Murphy PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard TAT DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☒ Level 3 (Results + QC + Raw Data)
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced ☐ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other
- ☐ EDD FORMAT

ANALYSIS

1. Site specific VOCs (8260D - Low)
2. 1,4 Dioxane (8270E - SIM)
3. Total Metals (6020B)
4. Dissolved Iron (6020B)
5. Alkalinity (SM2320B)
6. TDS (SM2540C)
7. Anions (9056)
8. Private VOCs (SFAM01.1-SIM)
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
								A/E	E	B/E	E	E	E	E	A/E		← Specify Preservatives A-HCl D-NaOH B-HN03 E-ICE C-H2SO4 F-OTHER
1.	MW-19B-71.5-081325	GW		X	8/13/25	1152	8	X	X	X	X	X	X	X	X	TH	
2.	MW-01-6.5-081325	GW		X	8/13/25	1110	4	X	X								
3.	MW-11A-13.5-081325	GW		X	8/13/25	1510	4	X	X								
4.	MW-19B-71.5-081325-FD	GW		X	8/13/25	1155	8	X	X	X	X	X	X	X			
5.	EB01-081325	DI		X	8/13/25	1500	9	X	X	X	X	X	X	X			
6.	MW-19B-71.5-081325-SIM	GW		X	8/13/25	1158	2								X		
7.	EB02-081325	DI		X	8/13/25	1600	4	X	X								
8.	TB01-081325	DI		X	8/13/25	1605	2	X									
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	9/13/25 1645	1.	8-13-25 1645
2.		2.	
3.	8-13-25 1810	3.	

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.1 °C
Comments: See work order for list of site specific VOCs
EB01 Dissolved iron bottles are preserved w/ HN03, the other diss iron samples are un preserved

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

DP 08/15/2025

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2869 JACO05
Client Name : JACOBS Engineering Grou
Client Contact : John Ynfante
Invoice Name : JACOBS Engineering Grou
Invoice Contact : John Ynfante

Order Date : 8/14/2025 9:15:00 AM
Project Name : Former Schlumberger STC
Receive DateTime : 8/13/2025 6:18:00 PM
Purchase Order :

Project Mgr :
Report Type : ~~Level 4~~ Level 3
EDD Type : CH2MHILL
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2869-01	MW-19B-71.5-081325	Water	08/13/2025	11:52	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-03	MW-01-6.5-081325	Water	08/13/2025	~~15:10~~ 11:10	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-04	MA-11A-13.5-081325	Water	08/13/2025	~~11:55~~ 15:10	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-05	MW-19B-71.5-081325-FD	Water	08/13/2025	~~15:00~~ 11:55	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-07	EB01-081325	Water	08/13/2025	~~16:00~~ 15:00	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-09	MW-19B-71.5-081325-SIM	Water	08/13/2025	11:58	VOC-SIM		SFAM_VOCSIM		10 Bus. Days
Q2869-10	EB02-081325	Water	08/13/2025	16:00	VOCMS Group3		8260-Low		10 Bus. Days
Q2869-11	TB01-081325	Water	08/13/2025	16:05					

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LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOCMS Group3		8260-Low		10 Bus. Days

Relinguished By :
Date / Time : 8/14/25 1020

Received By :
Date / Time : 8/14/25 10:20

Storage Area : VOA Refridgerator Room