DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

Laboratory Name : Alliance Technical Group LLC

Client : JACOBS Engineering Group, Inc.

Project Location : Princeton Junction

Project Number : D3868221

Laboratory Sample ID(s) : Q2878

Sampling Date(s) : 8/13/2025,08/14/2025

List DKQP Methods Used (e.g., 8260,8270, et Cetra) **,6020B,7470A,8260D,8270-Modified,9056A,SM2320 B,SM2540 C,SOP**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☑ Yes ☐ No
1A	Were the method specified handling, preservation, and holding time requirements met?	☑ Yes ☐ No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	☐ Yes ☐ No ☑ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (4±2° C)?	☑ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐ Yes ☑ No
5	a)Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt? b)Were these reporting limits met?	☑ Yes ☐ No ☑ Yes ☐ No ☐ N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☑ Yes ☐ No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	☐ Yes ☑ No

Notes: For all questions to which the response was “No” (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is “No”, the data package does not meet the requirements for “Data of Known Quality.”

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Cover Page

Order ID : Q2878

Project ID : Former Schlumberger STC PTC Site D3868221

Client : JACOBS Engineering Group, Inc.

Lab Sample Number	Client Sample Number
Q2878-01	MW-18B-57.5-081325
Q2878-02	MW-18B-57.5-081325
Q2878-05	MW-11A-37.5-081425
Q2878-06	TB01-081425

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: 8/28/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

JACOBS Engineering Group, Inc.
Project Name: Former Schlumberger STC PTC Site D3868221
Project # N/A
Order ID # Q2878
Test Name: VOCMS Group3

A. Number of Samples and Date of Receipt:
3 Water samples were received on 08/14/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOCMS Group3. This data package contains results for VOCMS Group3.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. The analysis of VOCMS Group3 was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Internal Standards Areas were met for all analysis.
The Retention Times were met for all analysis.

The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.
The Blank Spike Duplicate met requirements for all compounds.
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.
The Continuous Calibration met the requirements.
The Tuning criteria met requirements.

Sample MW-11B-37.5-081425 was run at straight dilution after checking past history of this sample containing high amounts of compounds cis-1,2-Dichloroethene and Trichloroethene.

Sample MW-18B-57.5-081325 was diluted due to high concentration.

E. Additional Comments:
This data package has been revised due to client ID changed for sample#05 as per client request.
Samples for MS/MSD for VOC analysis were not provided with this set of samples.
The Blank Spike Duplicate is reported with the data.

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The SIM analysis is not required for the sample MW-18B-57.5-081325-SIM as all the SIM target analytes are detected at or above the sample adjusted CRQLs in the full scan analysis, a SIM analysis is not to be performed for that sample."

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <20% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 20% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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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 #: **Q2878**

	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: **MAYUR DESAI** **Date:** **08/28/2025**

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LAB CHRONICLE

OrderID:	Q2878	**OrderDate:**	8/14/2025 3:49:00 PM
Client:	JACOBS Engineering Group, Inc.	**Project:**	Former Schlumberger STC PTC Site D3868221
Contact:	John Ynfante	**Location:**	D31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2878-01	**MW-18B-57.5-081325**	**Water**			**08/13/25**			**08/14/25**
			VOCMS Group3	8260-Low			08/20/25	
Q2878-01DL	**MW-18B-57.5-081325 DL**	**Water**			**08/13/25**			**08/14/25**
			VOCMS Group3	8260-Low			08/20/25	
Q2878-05	**MW-11B-37.5-081425**	**Water**			**08/14/25**			**08/14/25**
			VOCMS Group3	8260-Low			08/20/25	
Q2878-06	**TB01-081425**	**Water**			**08/14/25**			**08/14/25**
			VOCMS Group3	8260-Low			08/20/25	

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Hit Summary Sheet
SW-846

SDG No.: Q2878

Client: JACOBS Engineering Group, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**MW-18B-57.5-081325**							
Q2878-01	MW-18B-57.5-0813	Water	Vinyl Chloride	55.1		0.26	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	1,1-Dichloroethene	8.60		0.23	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	1,1-Dichloroethane	8.00		0.23	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	cis-1,2-Dichloroethene	900	E	0.19	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	Benzene	1.60		0.15	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	1,2-Dichloroethane	1.60		0.22	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	Trichloroethene	160	E	0.090	1.00	ug/L
Q2878-01	MW-18B-57.5-0813	Water	Tetrachloroethene	0.95	J	0.23	1.00	ug/L
			Total Voc :	1140				
			Total Concentration:	1140				
Client ID:	**MW-18B-57.5-081325DL**							
Q2878-01DL	MW-18B-57.5-0813	Water	Vinyl Chloride	50.0	D	2.60	10.0	ug/L
Q2878-01DL	MW-18B-57.5-0813	Water	1,1-Dichloroethene	7.60	JD	2.30	10.0	ug/L
Q2878-01DL	MW-18B-57.5-0813	Water	1,1-Dichloroethane	6.80	JD	2.30	10.0	ug/L
Q2878-01DL	MW-18B-57.5-0813	Water	cis-1,2-Dichloroethene	810	D	1.90	10.0	ug/L
Q2878-01DL	MW-18B-57.5-0813	Water	Benzene	6.30	JD	1.50	10.0	ug/L
Q2878-01DL	MW-18B-57.5-0813	Water	Trichloroethene	150	D	0.93	10.0	ug/L
			Total Voc :	1030				
			Total Concentration:	1030				
Client ID:	**MW-11B-37.5-081425**							
Q2878-05	MW-11B-37.5-0814	Water	1,1-Dichloroethene	61.5		11.5	50.0	ug/L
Q2878-05	MW-11B-37.5-0814	Water	1,1-Dichloroethane	61.4		11.5	50.0	ug/L
Q2878-05	MW-11B-37.5-0814	Water	cis-1,2-Dichloroethene	2200		9.50	50.0	ug/L
Q2878-05	MW-11B-37.5-0814	Water	Trichloroethene	4600		4.70	50.0	ug/L
			Total Voc :	6920				
			Total Concentration:	6920				

QC SUMMARY

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Surrogate Summary

SDG No.: Q2878

Client: JACOBS Engineering Group, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q2878-01	MW-18B-57.5-081325	1,2-Dichloroethane-d4	50	54.3	109		70 (74)	130 (125)
		Dibromofluoromethane	50	48.2	96		70 (75)	130 (124)
		Toluene-d8	50	49.0	98		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.8	112		70 (77)	130 (121)
Q2878-01DL	MW-18B-57.5-081325DL	1,2-Dichloroethane-d4	50	55.7	111		70 (74)	130 (125)
		Dibromofluoromethane	50	49.9	100		70 (75)	130 (124)
		Toluene-d8	50	50.1	100		70 (86)	130 (113)
		4-Bromofluorobenzene	50	57.1	114		70 (77)	130 (121)
Q2878-05	MW-11B-37.5-081425	1,2-Dichloroethane-d4	50	56.3	113		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	56.8	114		70 (77)	130 (121)
Q2878-06	TB01-081425	1,2-Dichloroethane-d4	50	57.8	116		70 (74)	130 (125)
		Dibromofluoromethane	50	50.4	101		70 (75)	130 (124)
		Toluene-d8	50	50.5	101		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.1	110		70 (77)	130 (121)
VX0820WBL01	VX0820WBL01	1,2-Dichloroethane-d4	50	57.9	116		70 (74)	130 (125)
		Dibromofluoromethane	50	51.3	103		70 (75)	130 (124)
		Toluene-d8	50	50.7	101		70 (86)	130 (113)
		4-Bromofluorobenzene	50	55.9	112		70 (77)	130 (121)
VX0820WBS01	VX0820WBS01	1,2-Dichloroethane-d4	50	49.0	98		70 (74)	130 (125)
		Dibromofluoromethane	50	49.9	100		70 (75)	130 (124)
		Toluene-d8	50	49.2	98		70 (86)	130 (113)
		4-Bromofluorobenzene	50	50.2	100		70 (77)	130 (121)
VX0820WBSD0	VX0820WBSD01	1,2-Dichloroethane-d4	50	51.0	102		70 (74)	130 (125)
		Dibromofluoromethane	50	50.5	101		70 (75)	130 (124)
		Toluene-d8	50	50.2	100		70 (86)	130 (113)
		4-Bromofluorobenzene	50	51.7	103		70 (77)	130 (121)

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2878 **Analytical Method:** SW8260-Low

Client: JACOBS Engineering Group, Inc. **Datafile :** VX047430.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0820WBS01	Vinyl chloride	20	16.1	ug/L	81			70 (65)	130 (117)	
	1,1-Dichloroethene	20	16.8	ug/L	84			70 (74)	130 (110)	
	1,1-Dichloroethane	20	17.2	ug/L	86			70 (78)	130 (112)	
	cis-1,2-Dichloroethene	20	17.1	ug/L	86			70 (77)	130 (110)	
	1,1,1-Trichloroethane	20	17.2	ug/L	86			70 (80)	130 (108)	
	Benzene	20	17.6	ug/L	88			70 (82)	130 (109)	
	1,2-Dichloroethane	20	17.6	ug/L	88			70 (80)	130 (115)	
	Trichloroethene	20	17.2	ug/L	86			70 (77)	130 (113)	
	1,1,2-Trichloroethane	20	18.1	ug/L	91			70 (83)	130 (112)	
	Tetrachloroethene	20	17.2	ug/L	86			70 (67)	130 (123)	

( ) = LABORATORY INHOUSE LIMIT

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2878 **Analytical Method:** SW8260-Low

Client: JACOBS Engineering Group, Inc. **Datafile :** VX047431.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX0820WBSD01	Vinyl chloride	20	16.3	ug/L	81	0		70 (65)	130 (117)	20 (19)
	1,1-Dichloroethene	20	16.3	ug/L	81	4		70 (74)	130 (110)	20 (20)
	1,1-Dichloroethane	20	17.6	ug/L	88	2		70 (78)	130 (112)	20 (20)
	cis-1,2-Dichloroethene	20	17.2	ug/L	86	0		70 (77)	130 (110)	20 (20)
	1,1,1-Trichloroethane	20	17.3	ug/L	86	0		70 (80)	130 (108)	20 (20)
	Benzene	20	17.9	ug/L	90	2		70 (82)	130 (109)	20 (15)
	1,2-Dichloroethane	20	18.2	ug/L	91	3		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	18.9	ug/L	95	4		70 (83)	130 (112)	20 (20)
	Tetrachloroethene	20	17.0	ug/L	85	1		70 (67)	130 (123)	20 (15)

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VOLATILE METHOD BLANK SUMMARY

Client ID: VX0820WBL01

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2878

Lab File ID: VX047429.D Lab Sample ID: VX0820WBL01

Date Analyzed: 08/20/2025 Time Analyzed: 10:07

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
VX0820WBS01	VX0820WBS01	VX047430.D	08/20/2025
VX0820WBSD01	VX0820WBSD01	VX047431.D	08/20/2025
TB01-081425	Q2878-06	VX047441.D	08/20/2025
MW-18B-57.5-081325	Q2878-01	VX047450.D	08/20/2025
MW-18B-57.5-081325DL	Q2878-01DL	VX047451.D	08/20/2025
MW-11B-37.5-081425	Q2878-05	VX047452.D	08/20/2025

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.: Q2878

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: **VX047426.D**

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VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance | Contract: JACO05

Lab Code: ACE | SDG NO.: Q2878

Lab File ID: VX047426.D | BFB Injection Date: 08/20/2025

Instrument ID: MSVOA_X | BFB Injection Time: 07:50

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	52.7
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	0.8 (1) 1
174	50.0 - 100.0% of mass 95	75.4
175	5.0 - 9.0% of mass 174	6 (7.9) 1
176	95.0 - 101.0% of mass 174	72.1 (95.6) 1
177	5.0 - 9.0% of mass 176	5 (6.9) 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	VX047427.D	08/20/2025	09:25
VX0820WBL01	VX0820WBL01	VX047429.D	08/20/2025	10:07
VX0820WBS01	VX0820WBS01	VX047430.D	08/20/2025	10:35
VX0820WBSD01	VX0820WBSD01	VX047431.D	08/20/2025	11:06
TB01-081425	Q2878-06	VX047441.D	08/20/2025	14:42
MW-18B-57.5-081325	Q2878-01	VX047450.D	08/20/2025	17:57
MW-18B-57.5-081325DL	Q2878-01DL	VX047451.D	08/20/2025	18:18
MW-11B-37.5-081425	Q2878-05	VX047452.D	08/20/2025	18:40

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VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: JACO05

Lab Code: ACE SDG NO.: Q2878

Lab File ID: VX047427.D Date Analyzed: 08/20/2025

Instrument ID: MSVOA_X Time Analyzed: 09:25

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	222102	5.56	369648	6.76	338607	10.05
UPPER LIMIT	444204	6.056	739296	7.263	677214	10.549
LOWER LIMIT	111051	5.056	184824	6.263	169304	9.549
EPA SAMPLE NO.						
MW-18B-57.5-081325	205051	5.57	415601	6.77	411051	10.06
MW-18B-57.5-081325DL	215725	5.57	432331	6.77	427580	10.06
MW-11B-37.5-081425	233413	5.57	475099	6.78	465473	10.06
TB01-081425	298809	5.57	610463	6.78	600442	10.06
VX0820WBL01	280589	5.57	574542	6.77	560929	10.06
VX0820WBS01	244648	5.56	407608	6.76	368354	10.06
VX0820WBSD01	227988	5.56	384011	6.76	353527	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.: Q2878

Lab File ID: VX047427.D Date Analyzed: 08/20/2025

Instrument ID: MSVOA_X Time Analyzed: 09:25

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

	IS4 AREA #	RT #				
12 HOUR STD	165668	12.018				
UPPER LIMIT	331336	12.518				
LOWER LIMIT	82834	11.518				
EPA SAMPLE NO.						
MW-18B-57.5-081325	206897	12.02				
MW-18B-57.5-081325DL	219266	12.02				
MW-11B-37.5-081425	242657	12.02				
TB01-081425	294767	12.02				
VX0820WBL01	279679	12.02				
VX0820WBS01	188940	12.02				
VX0820WBSD01	182846	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: **VX047450.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:	08/14/25
Client Sample ID:	MW-18B-57.5-081325	SDG No.:	Q2878
Lab Sample ID:	Q2878-01	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
VX047450.D	1	08/20/25 17:57	VX082025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	55.1		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	8.60		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	8.00		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	900	E	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	1.60		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.60		0.22	1.00	ug/L
79-01-6	Trichloroethene	160	E	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	0.95	J	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	48.2		70 (75) - 130 (124)	96%	SPK: 50
2037-26-5	Toluene-d8	49.0		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.8		70 (77) - 130 (121)	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	205000	5.568			
540-36-3	1,4-Difluorobenzene	416000	6.769			
3114-55-4	Chlorobenzene-d5	411000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	207000	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\VX082025\
Data File : VX047450.D
Acq On : 20 Aug 2025 17:57
Operator : JC/MD
Sample : Q2878-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Quant Time: Aug 21 01:37:11 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	205051	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	415601	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	411051	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	206897	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.970	65	155820	54.297	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.600%			
35) Dibromofluoromethane	5.403	113	130125	48.243	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 96.480%			
50) Toluene-d8	8.653	98	472687	49.030	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 98.060%			
62) 4-Bromofluorobenzene	11.079	95	198622	55.829	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.660%			
Target Compounds						Qvalue
3) Chloromethane	1.313	50	3616	1.538	ug/l	99
4) Vinyl Chloride	1.392	62	162715	55.130	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.349	101	12048	4.757	ug/l	94
12) 1,1-Dichloroethene	2.343	96	22164	8.585	ug/l	96
16) Acetone	2.392	43	40491	37.537	ug/l	97
17) Carbon Disulfide	2.532	76	30720	3.943	ug/l	97
20) Methylene Chloride	2.806	84	1981	0.694	ug/l	89
21) trans-1,2-Dichloroethene	3.111	96	20295	7.406	ug/l	95
24) 1,1-Dichloroethane	3.629	63	40088	8.001	ug/l	95
27) cis-1,2-Dichloroethene	4.507	96	2864874	897.640	ug/l	89
29) Tetrahydrofuran	5.038	42	23542	25.782	ug/l	94
30) Chloroform	5.123	83	1382m	0.270	ug/l	
40) Benzene	6.056	78	20126	1.579	ug/l	98
42) 1,2-Dichloroethane	6.104	62	7414	1.642	ug/l	91
44) Trichloroethene	7.135	130	529655	162.306	ug/l	97
52) Toluene	8.726	92	8994	1.142	ug/l	93
64) Tetrachloroethene	9.281	164	2827	0.951	ug/l	96
67) Ethyl Benzene	10.195	91	11095	0.660	ug/l	97
68) m/p-Xylenes	10.305	106	4057	0.647	ug/l	95
69) o-Xylene	10.646	106	2042	0.338	ug/l	94
70) Styrene	10.665	104	3204	0.314	ug/l	95
84) 1,2,4-Trimethylbenzene	11.756	105	4379	0.329	ug/l	94
95) Naphthalene	13.774	128	213891	15.573	ug/l	99

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

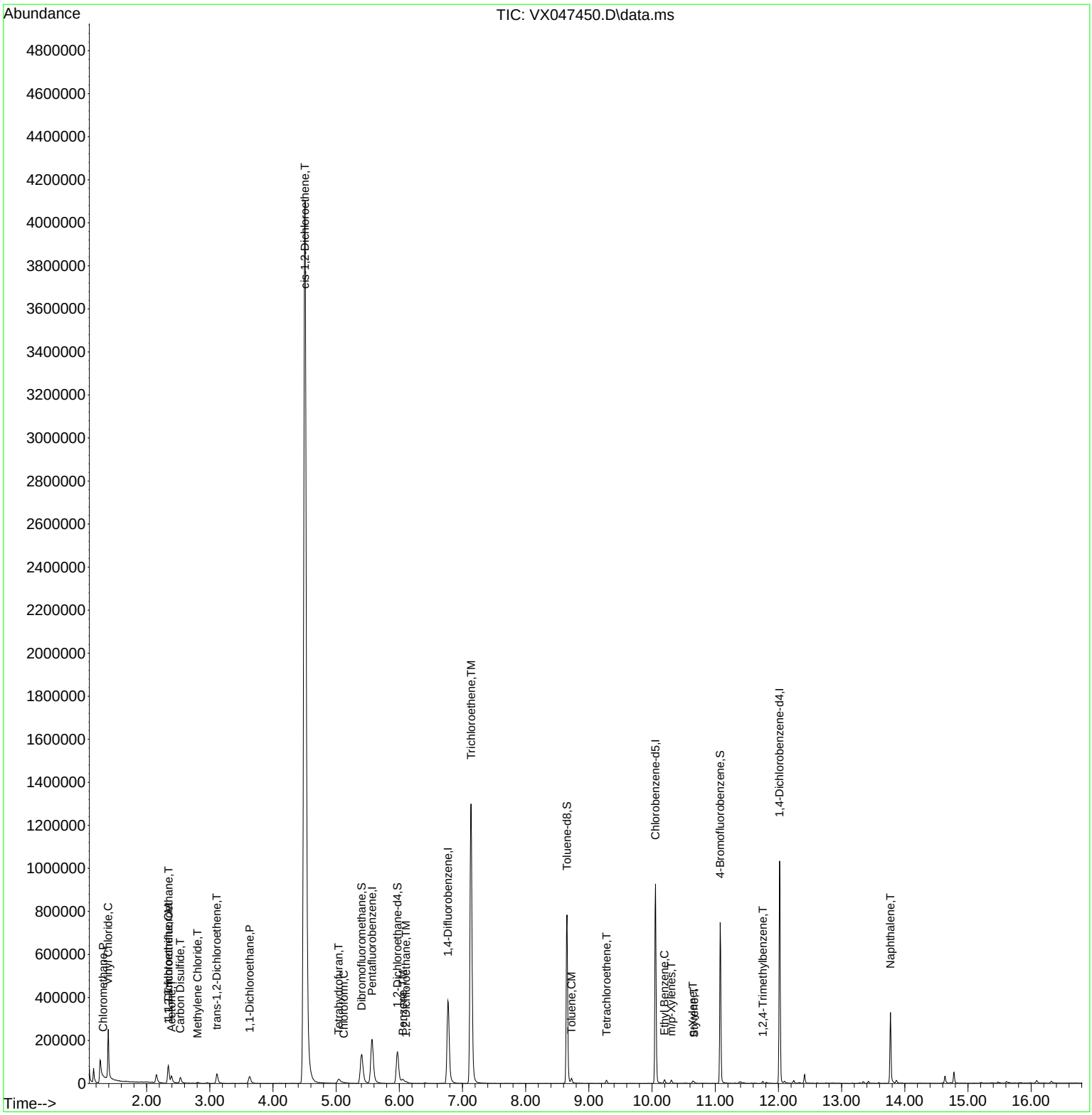
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047450.D
Acq On : 20 Aug 2025 17:57
Operator : JC/MD
Sample : Q2878-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

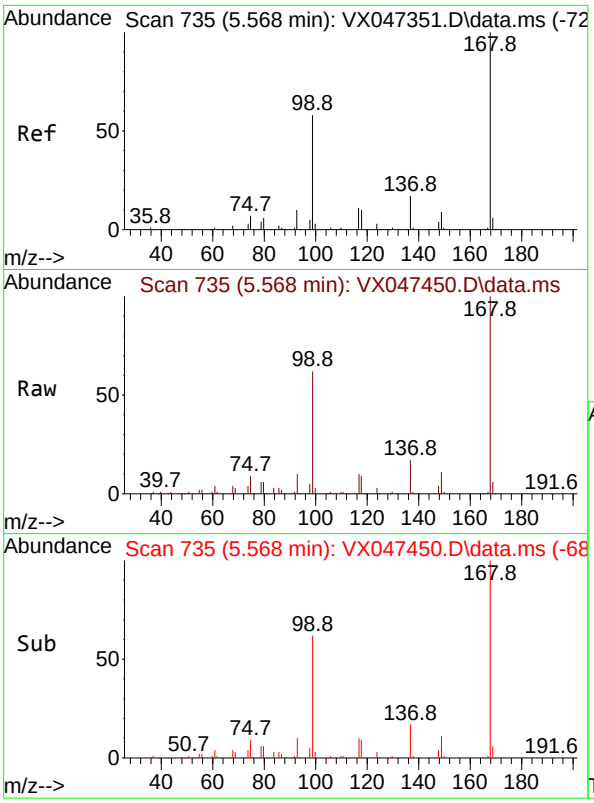
Quant Time: Aug 21 01:37:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\82X081525W.M
Quant Title : SW846 8260
QLast Update : Mon Aug 18 04:18:28 2025
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

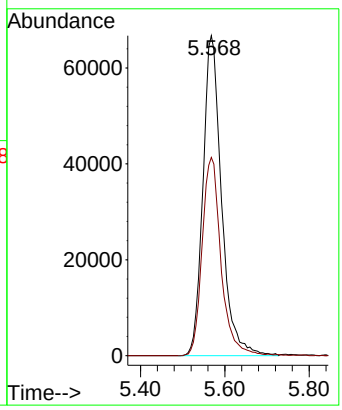




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:168 Resp: 20505

Ion	Ratio	Lower	Upper
168	100		
99	61.9	47.9	71.9



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

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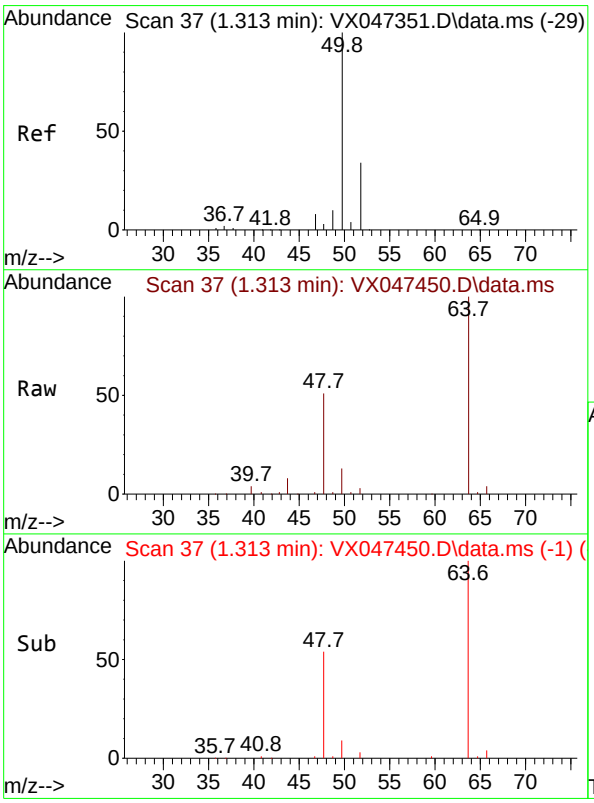
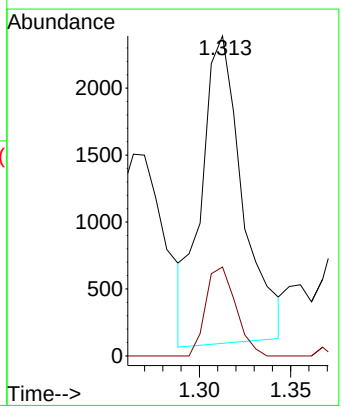
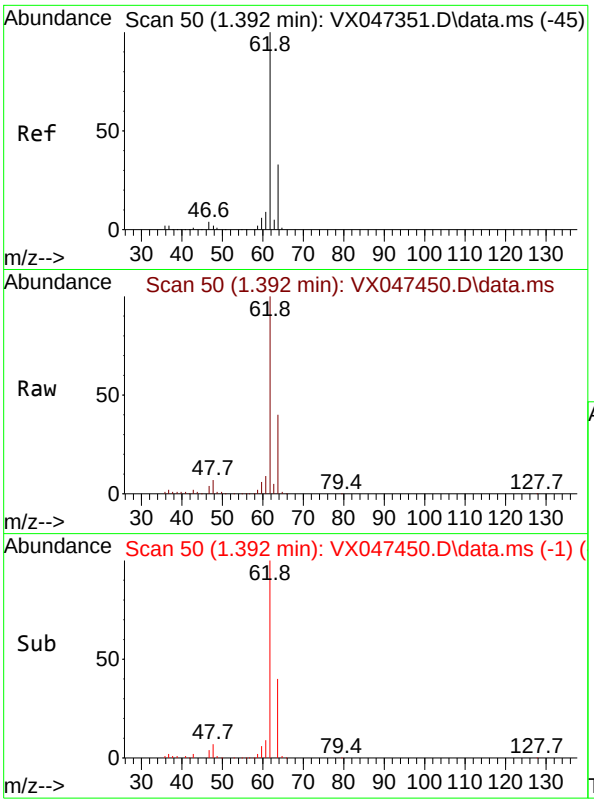


#3
Chloromethane
Concen: 1.538 ug/l
RT: 1.313 min Scan# 37
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 50 Resp: 3616

Ion	Ratio	Lower	Upper
50	100		
52	34.0	27.0	40.4





#4
Vinyl Chloride
Concen: 55.130 ug/l
RT: 1.392 min Scan# 5
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 62 Resp: 16271

Ion	Ratio	Lower	Upper
62	100		
64	35.0	26.5	39.7

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

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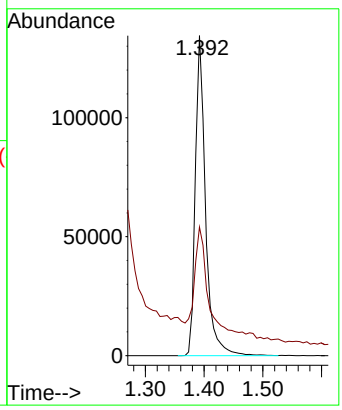
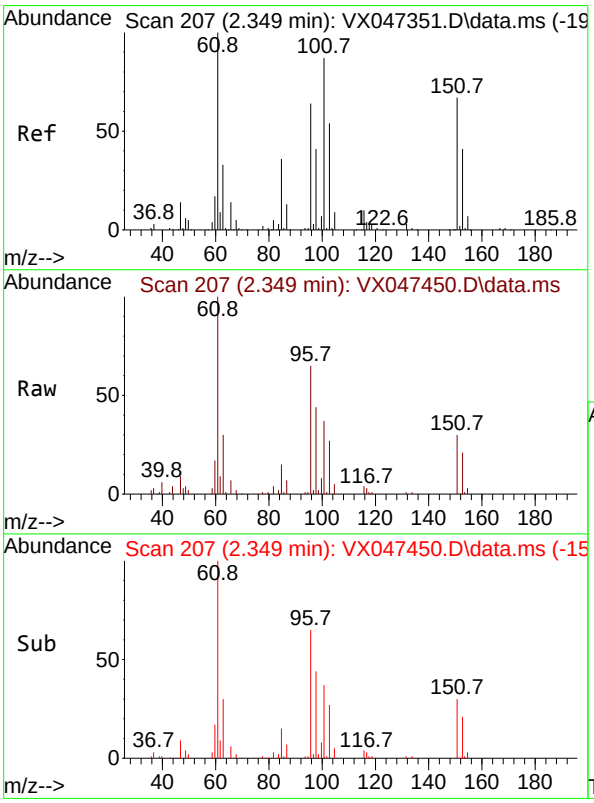
Supervised By :Mahesh Dadoda 08/22/2025

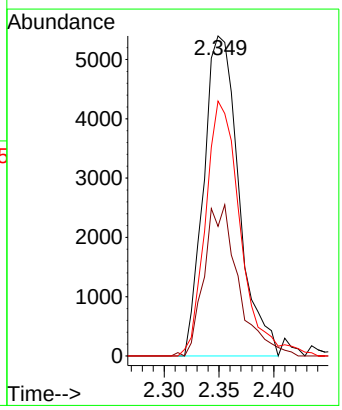


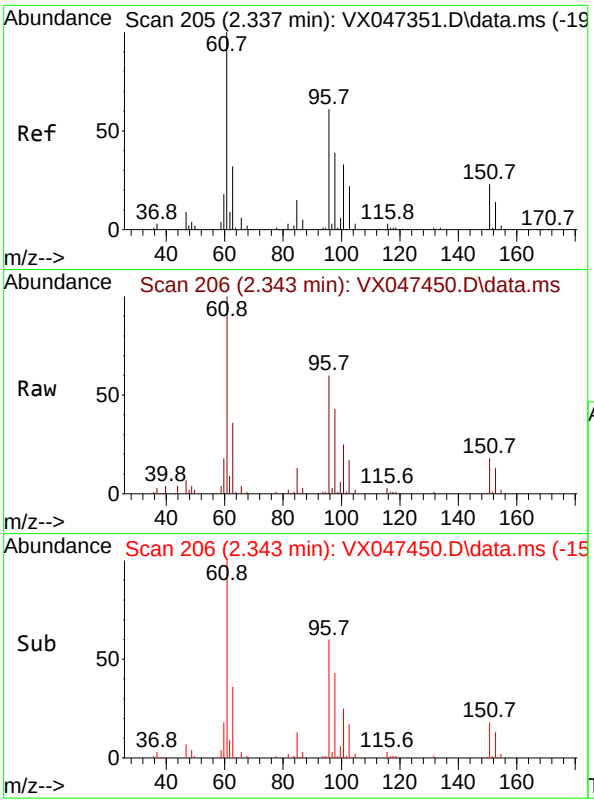


#9
1,1,2-Trichlorotrifluoroethane
Concen: 4.757 ug/l
RT: 2.349 min Scan# 207
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:101 Resp: 12048

Ion	Ratio	Lower	Upper
101	100		
85	46.0	34.3	51.5
151	79.2	59.2	88.8

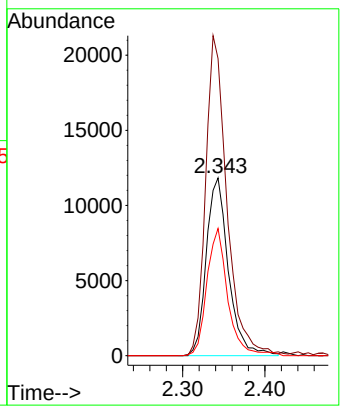




#12
1,1-Dichloroethene
Concen: 8.585 ug/l
RT: 2.343 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 96 Resp: 2216

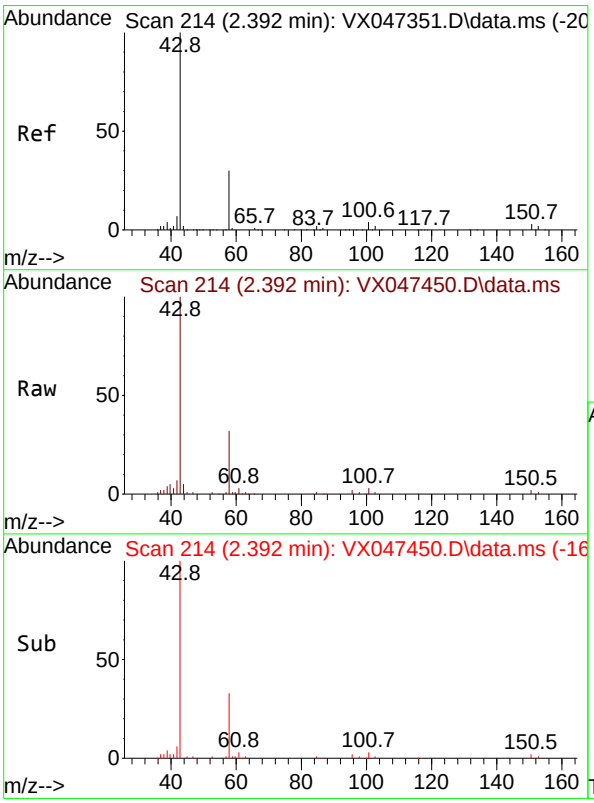
Ion	Ratio	Lower	Upper
96	100		
61	167.1	132.2	198.2
98	71.6	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

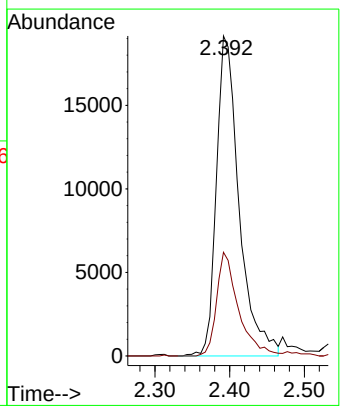
Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

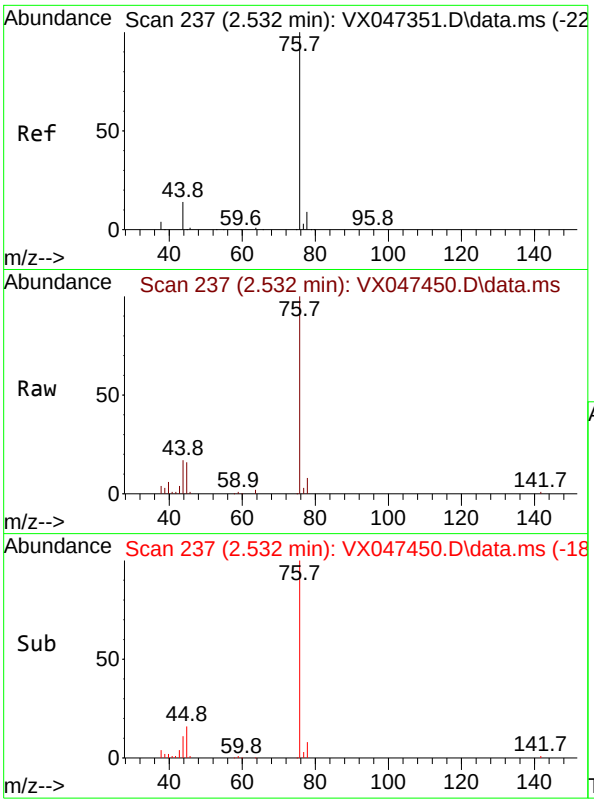


#16
Acetone
Concen: 37.537 ug/l
RT: 2.392 min Scan# 214
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 43 Resp: 40491

Ion	Ratio	Lower	Upper
43	100		
58	32.6	24.8	37.2

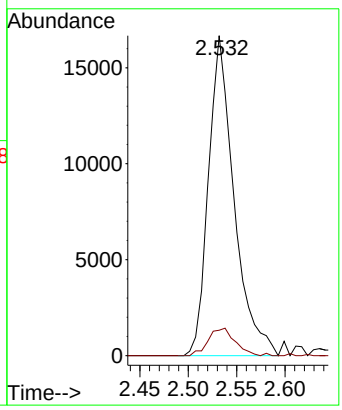




#17
Carbon Disulfide
Concen: 3.943 ug/l
RT: 2.532 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 76 Resp: 3072

Ion	Ratio	Lower	Upper
76	100		
78	7.9	7.2	10.8



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

Reviewed By :John Carlone 08/21/2025
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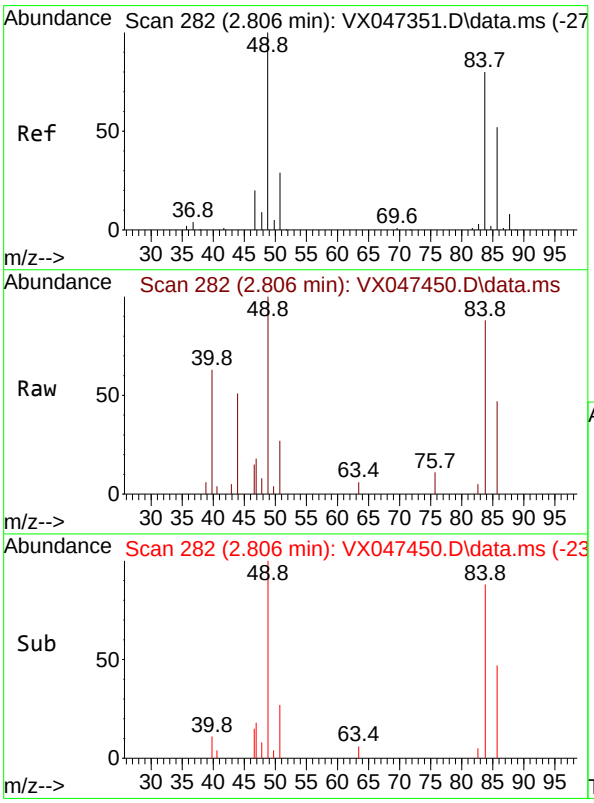
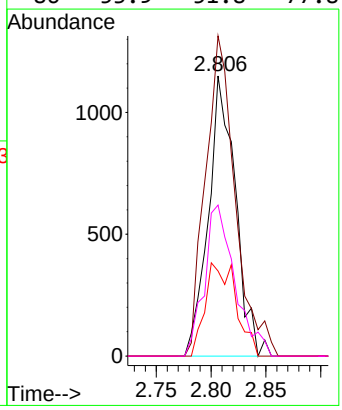
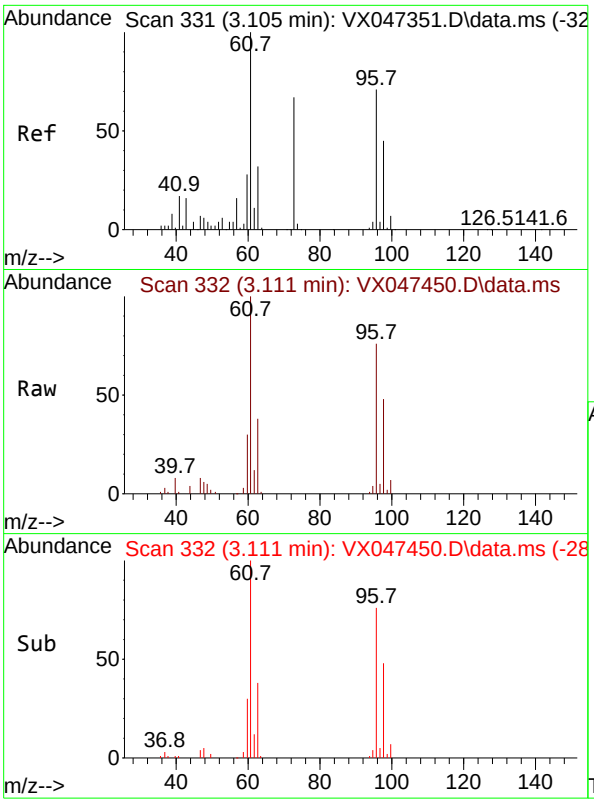


#20
Methylene Chloride
Concen: 0.694 ug/l
RT: 2.806 min Scan# 282
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 84 Resp: 1981

Ion	Ratio	Lower	Upper
84	100		
49	114.3	100.1	150.1
51	30.3	29.5	44.3
86	53.9	51.8	77.8

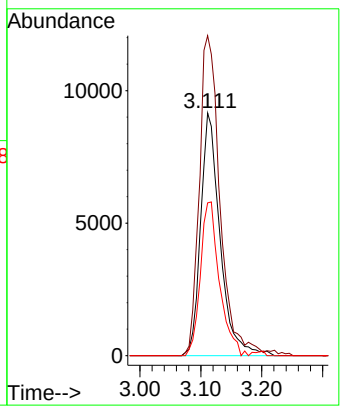




#21
trans-1,2-Dichloroethene
Concen: 7.406 ug/l
RT: 3.111 min Scan# 3
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 96 Resp: 2029

Ion	Ratio	Lower	Upper
96	100		
61	131.8	112.6	169.0
98	63.0	50.9	76.3



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

Reviewed By :John Carlone 08/21/2025
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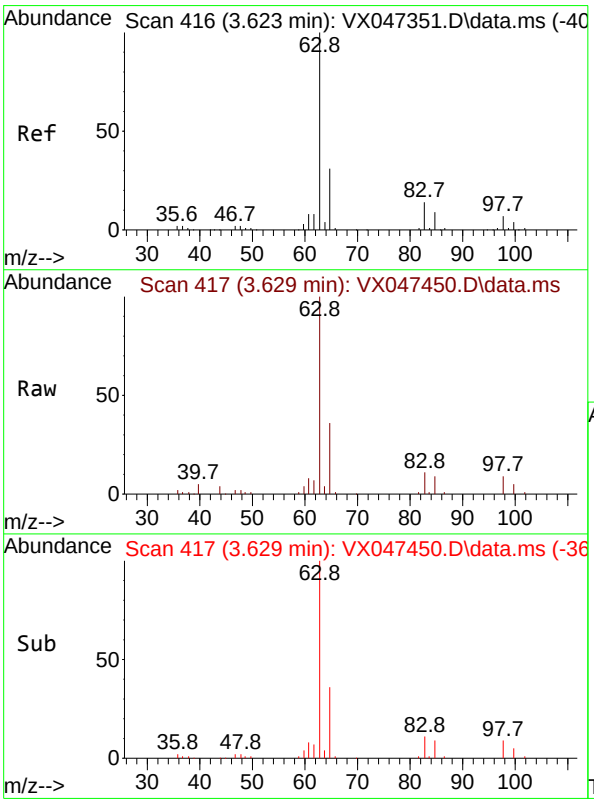
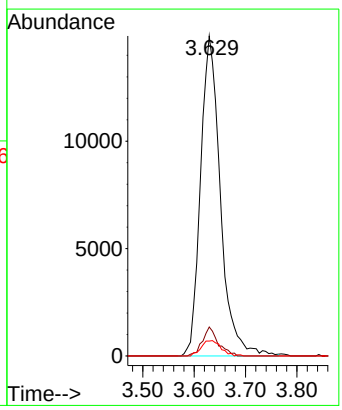
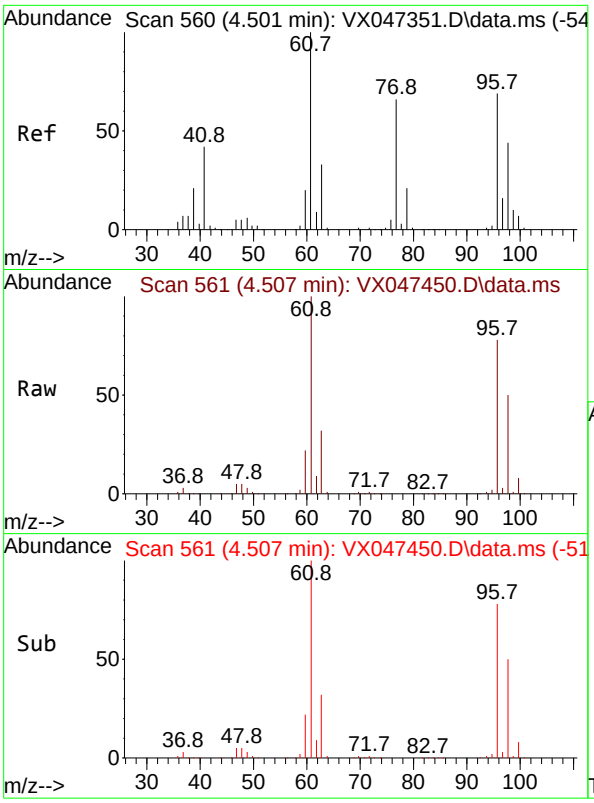


#24
1,1-Dichloroethane
Concen: 8.001 ug/l
RT: 3.629 min Scan# 417
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 63 Resp: 40088

Ion	Ratio	Lower	Upper
63	100		
98	9.1	3.3	9.9
100	4.7	2.1	6.3

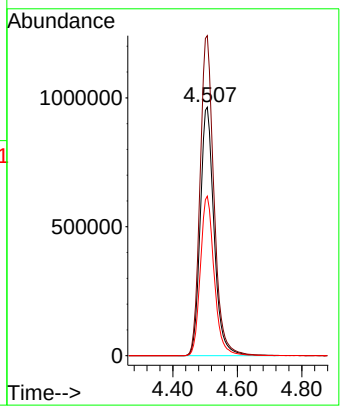




#27
cis-1,2-Dichloroethene
Concen: 897.640 ug/l
RT: 4.507 min Scan# 5
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 96 Resp: 286487

Ion	Ratio	Lower	Upper
96	100		
61	129.2	0.0	296.6
98	64.3	0.0	130.4



Instrument :
MSVOA_X
ClientSampleId :
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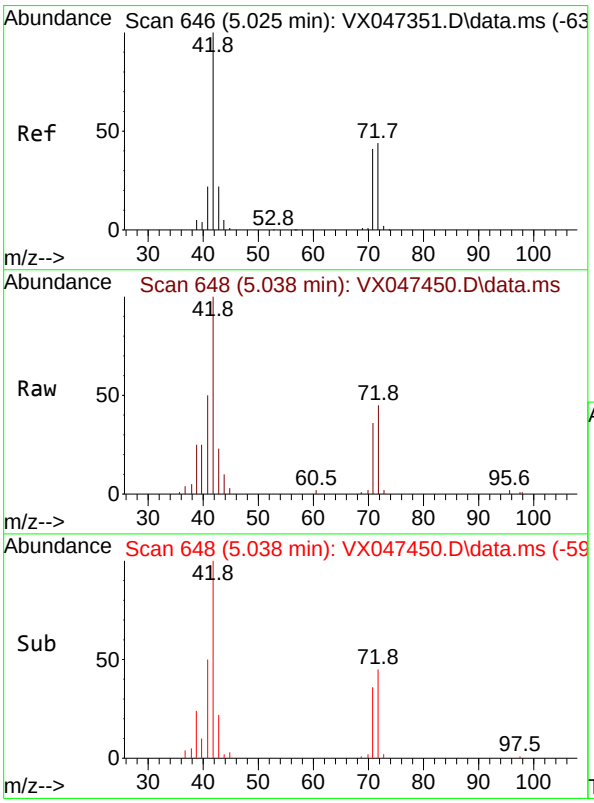
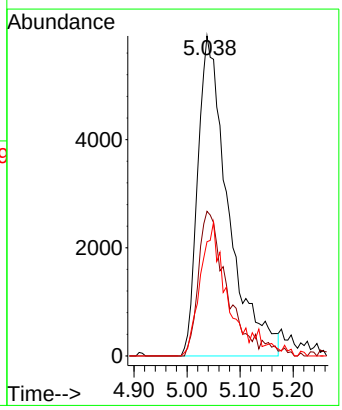
Supervised By :Mahesh Dadoda 08/22/2025

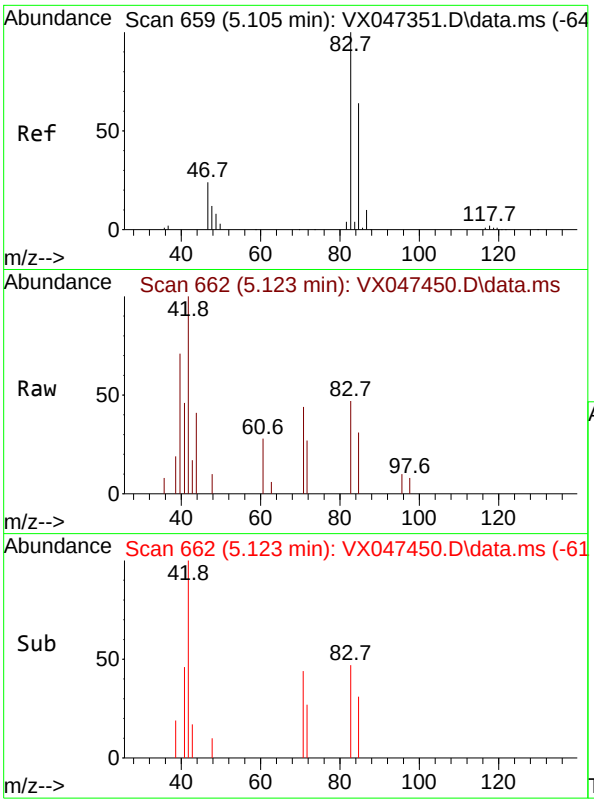


#29
Tetrahydrofuran
Concen: 25.782 ug/l
RT: 5.038 min Scan# 648
Delta R.T. 0.012 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 42 Resp: 23542

Ion	Ratio	Lower	Upper
42	100		
72	41.3	34.6	51.8
71	34.9	32.6	49.0





#30
Chloroform
Concen: 0.270 ug/l m
RT: 5.123 min Scan# 6
Delta R.T. 0.018 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 83 Resp: 138

Ion	Ratio	Lower	Upper
83	100		
85	66.4	51.2	76.8

Instrument :
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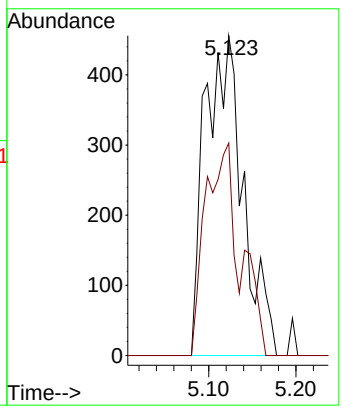
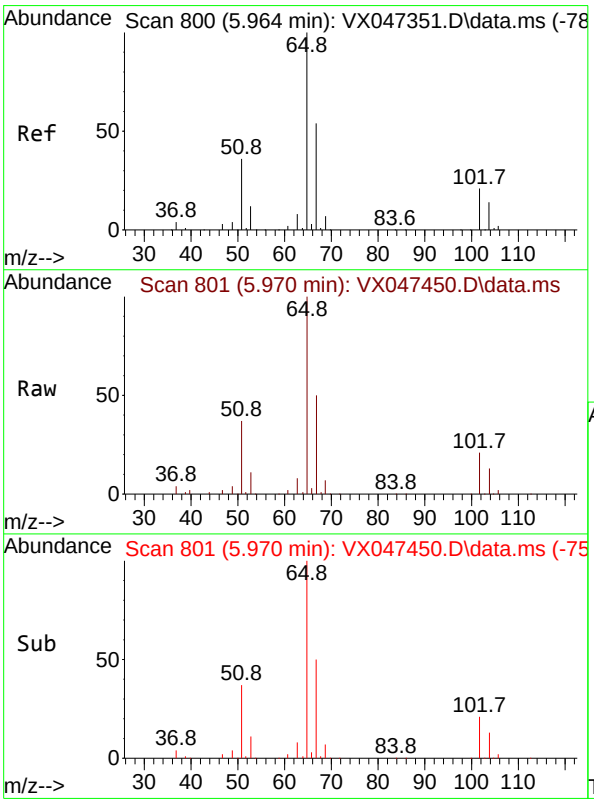
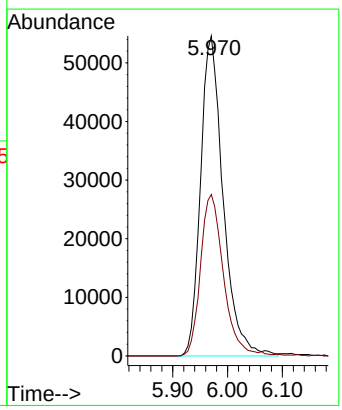


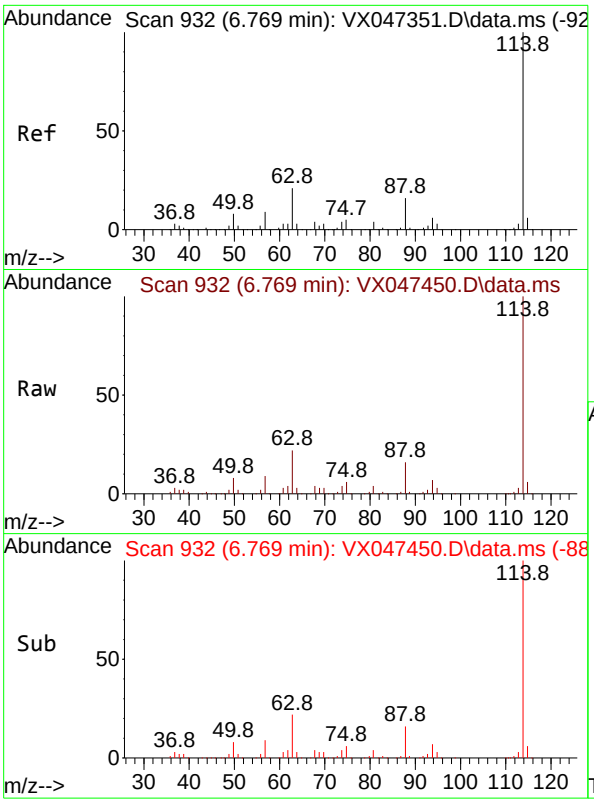


#33
1,2-Dichloroethane-d4
Concen: 54.297 ug/l
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 65 Resp: 155820

Ion	Ratio	Lower	Upper
65	100		
67	51.6	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: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:114 Resp: 41560

Ion	Ratio	Lower	Upper
114	100		
63	22.5	0.0	42.4
88	16.1	0.0	33.0

Instrument :
MSVOA_X
ClientSampleId :
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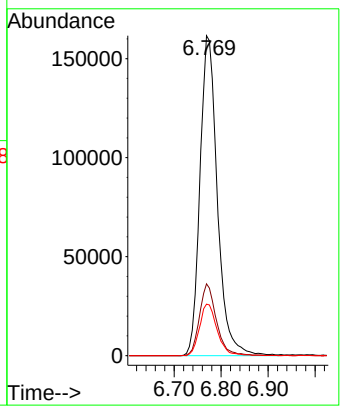
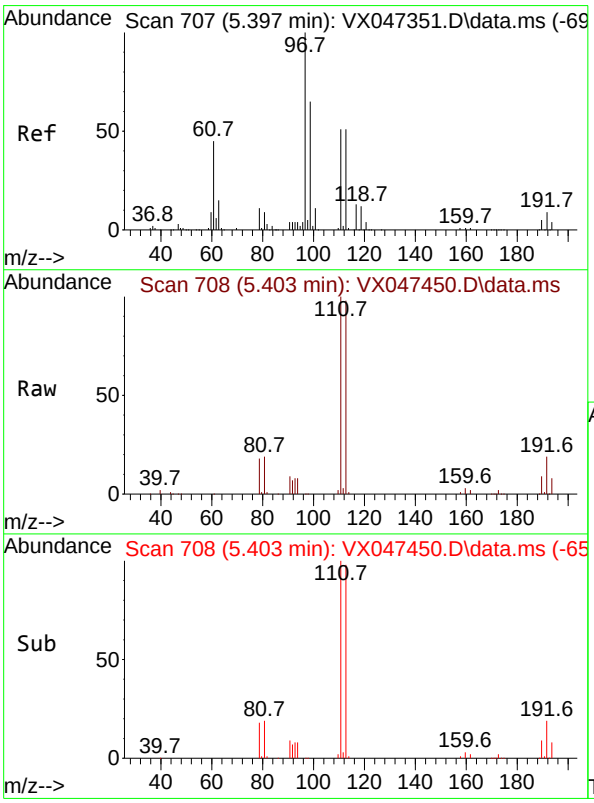
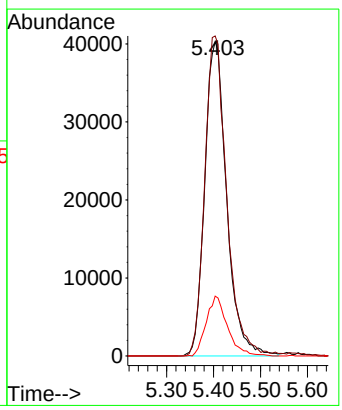


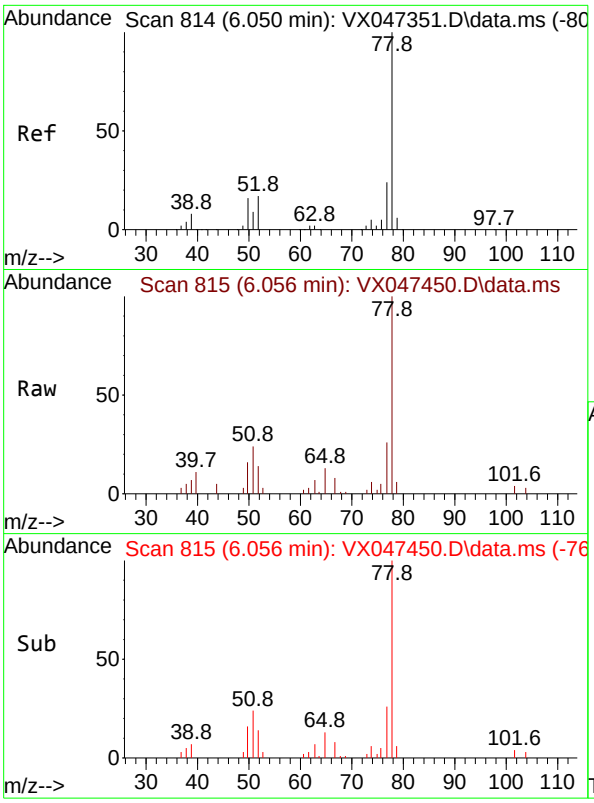


#35
Dibromofluoromethane
Concen: 48.243 ug/l
RT: 5.403 min Scan# 708
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:113 Resp: 130125

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.4	122.2
192	18.5	14.1	21.1

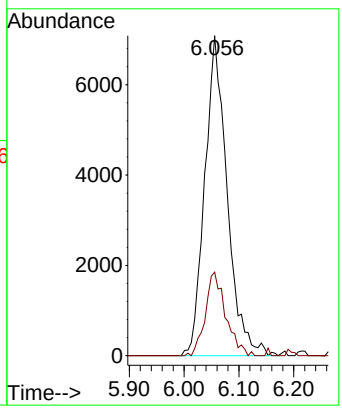




#40
Benzene
Concen: 1.579 ug/l
RT: 6.056 min Scan# 8
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 78 Resp: 2012

Ion	Ratio	Lower	Upper
78	100		
77	24.6	19.0	28.4



Instrument :
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ClientSampleId :
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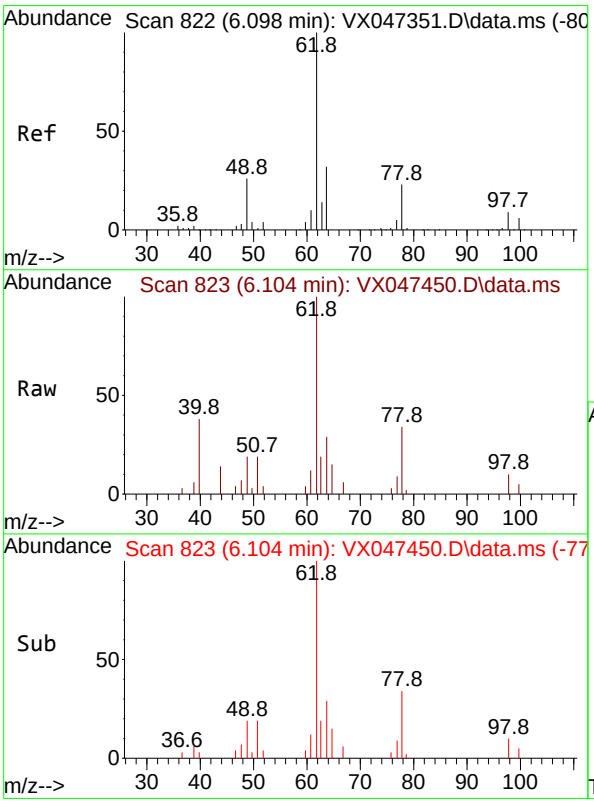
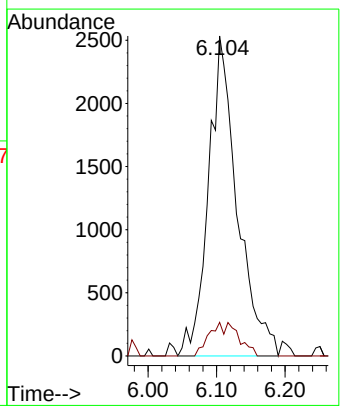
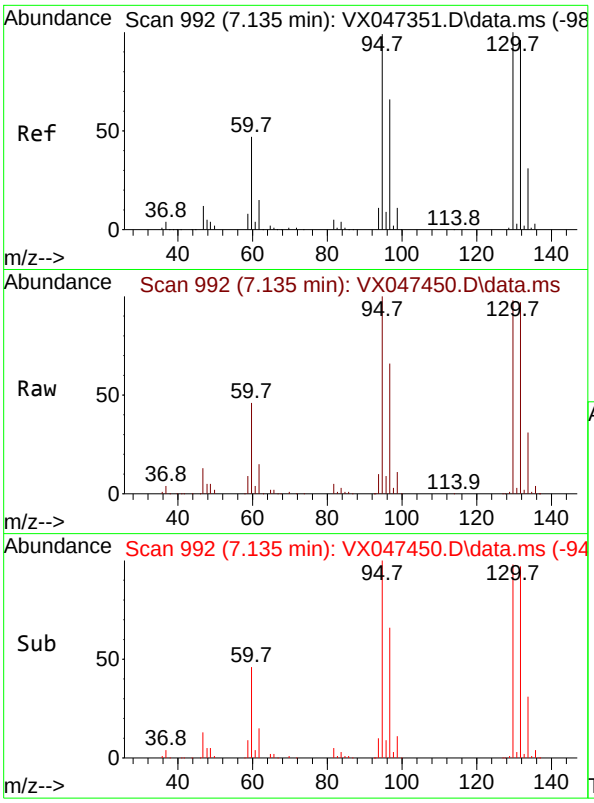


#42
1,2-Dichloroethane
Concen: 1.642 ug/l
RT: 6.104 min Scan# 823
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 62 Resp: 7414

Ion	Ratio	Lower	Upper
62	100		
98	5.6	0.0	18.0





#44
Trichloroethene
Concen: 162.306 ug/l
RT: 7.135 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:130 Resp: 52965

Ion	Ratio	Lower	Upper
130	100		
95	102.5	0.0	198.6

Instrument :
MSVOA_X
ClientSampleId :
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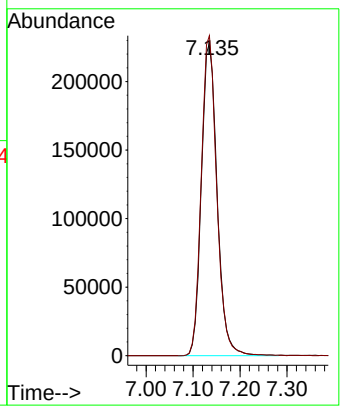
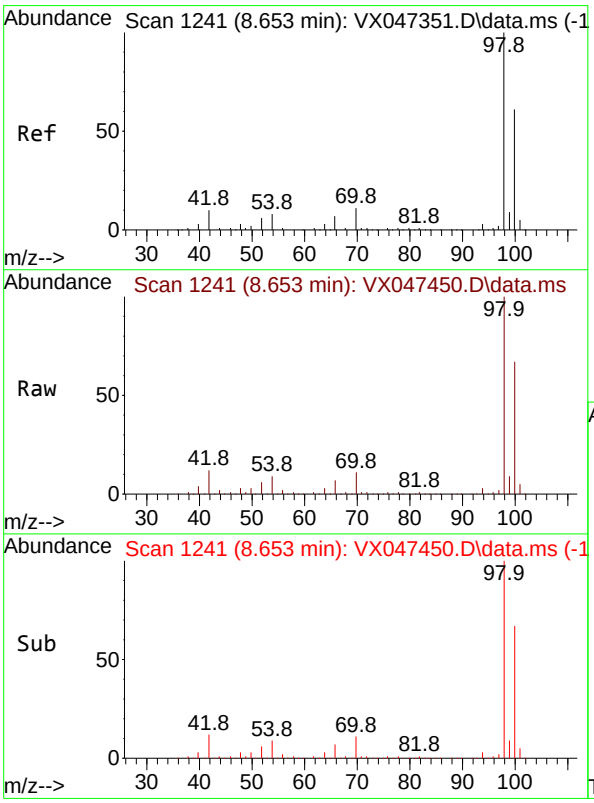
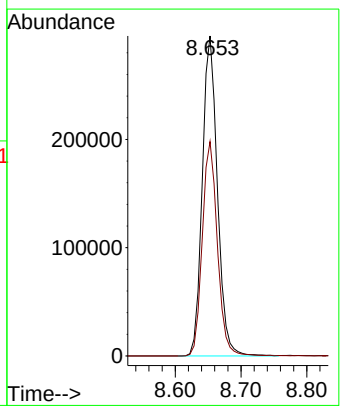


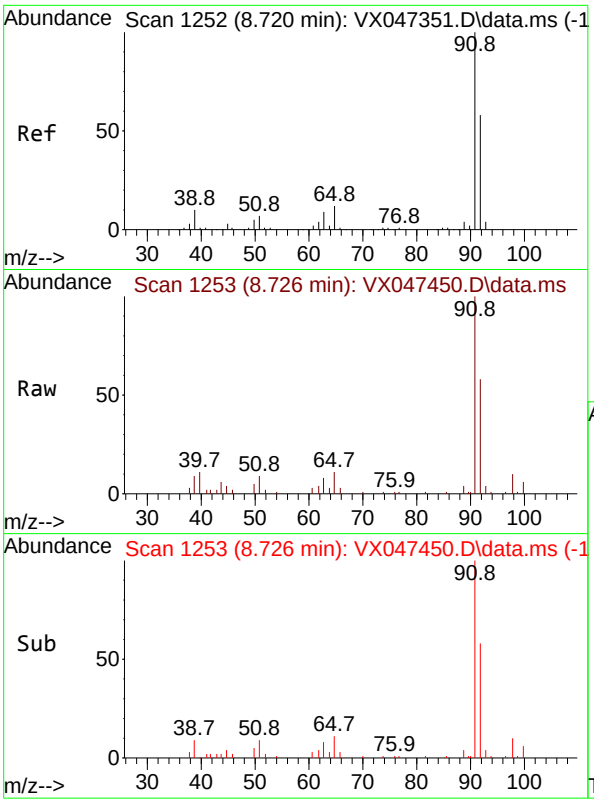


#50
Toluene-d8
Concen: 49.030 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 98 Resp: 472687

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.9	80.9

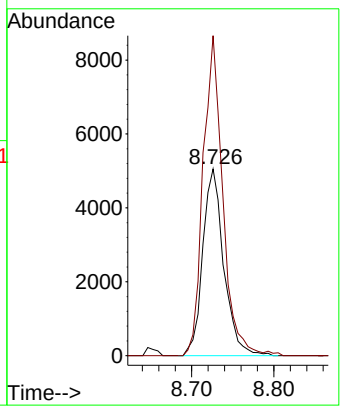




#52
Toluene
Concen: 1.142 ug/l
RT: 8.726 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 92 Resp: 899

Ion	Ratio	Lower	Upper
92	100		
91	160.4	136.3	204.5



Instrument :
MSVOA_X
ClientSampleId :
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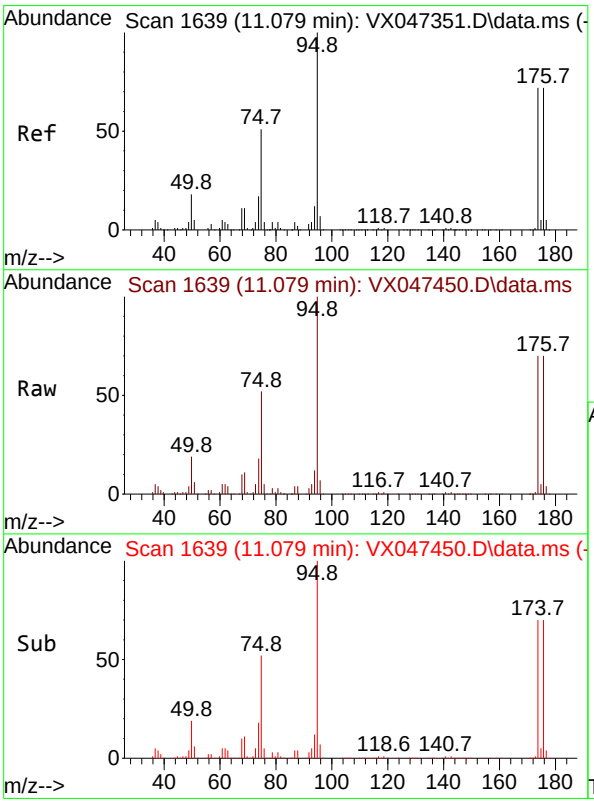
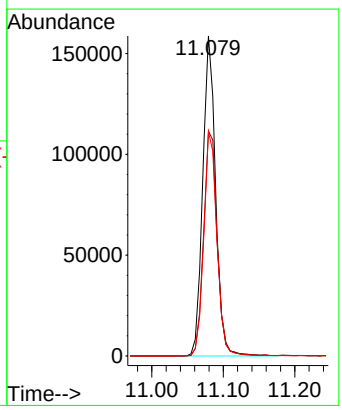
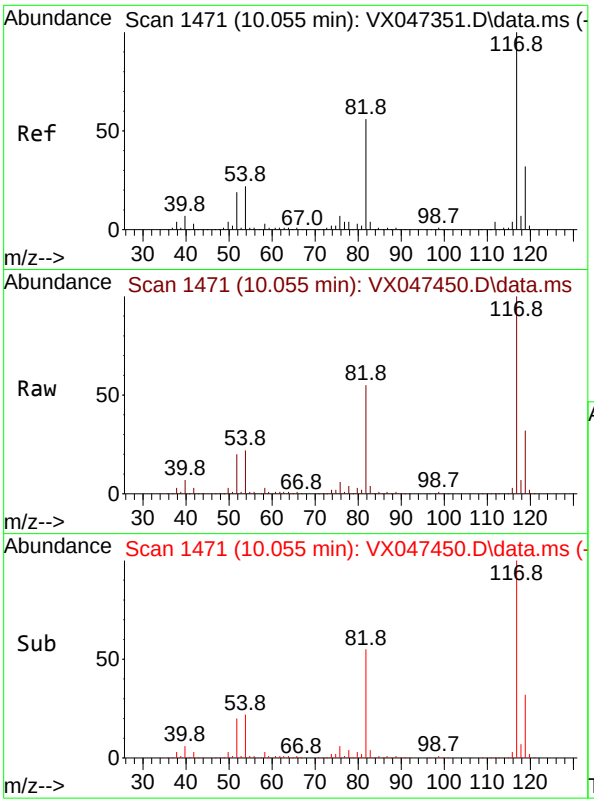


#62
4-Bromofluorobenzene
Concen: 55.829 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 95 Resp: 198622

Ion	Ratio	Lower	Upper
95	100		
174	74.0	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: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:117 Resp: 41105

Ion	Ratio	Lower	Upper
117	100		
82	55.5	45.0	67.4
119	31.5	25.8	38.8

Instrument :
MSVOA_X
ClientSampleId :
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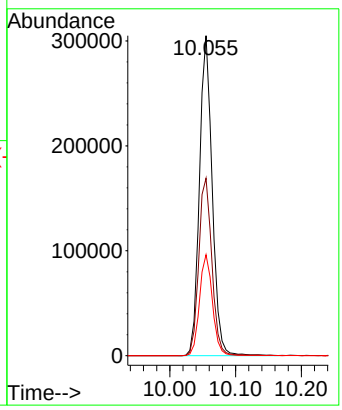
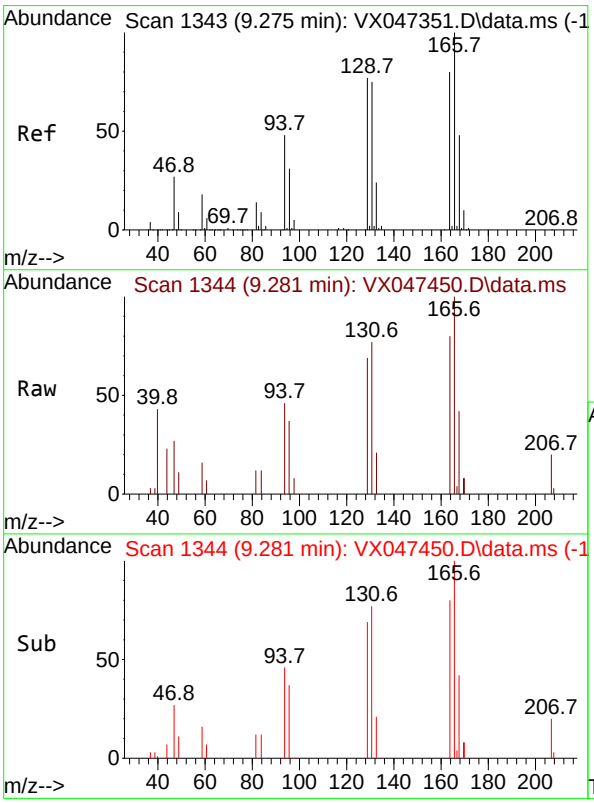
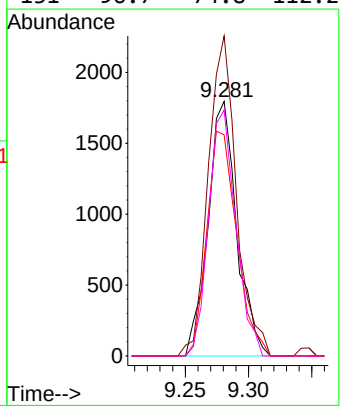


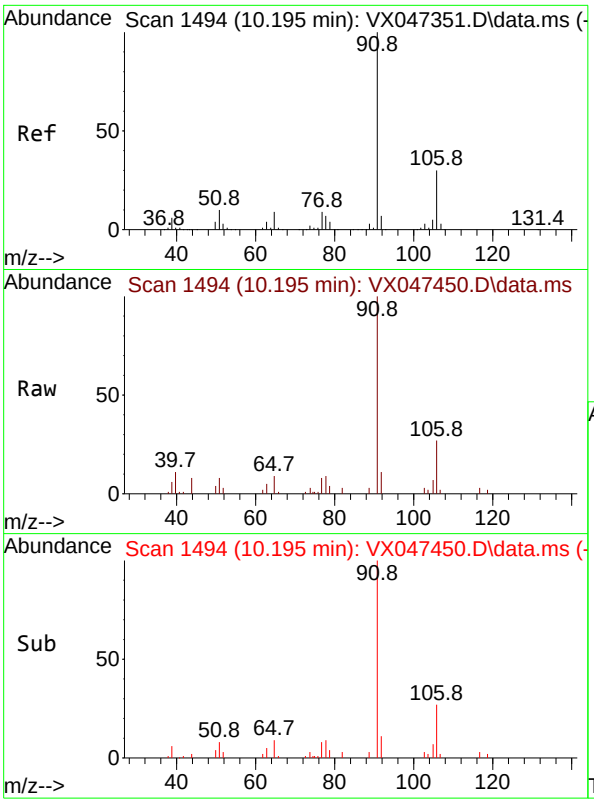


#64
Tetrachloroethene
Concen: 0.951 ug/l
RT: 9.281 min Scan# 1344
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:164 Resp: 2827

Ion	Ratio	Lower	Upper
164	100		
166	125.7	100.3	150.5
129	86.9	77.7	116.5
131	96.7	74.8	112.2





#67
Ethyl Benzene
Concen: 0.660 ug/l
RT: 10.195 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion: 91 Resp: 1109

Ion	Ratio	Lower	Upper
91	100		
106	28.7	24.4	36.6

Instrument :
MSVOA_X
ClientSampleId :
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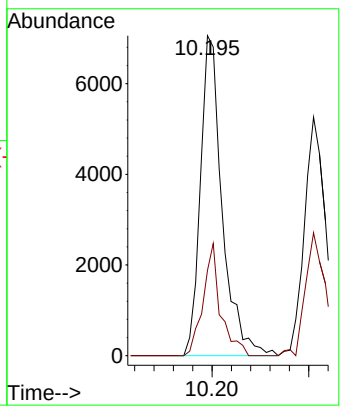
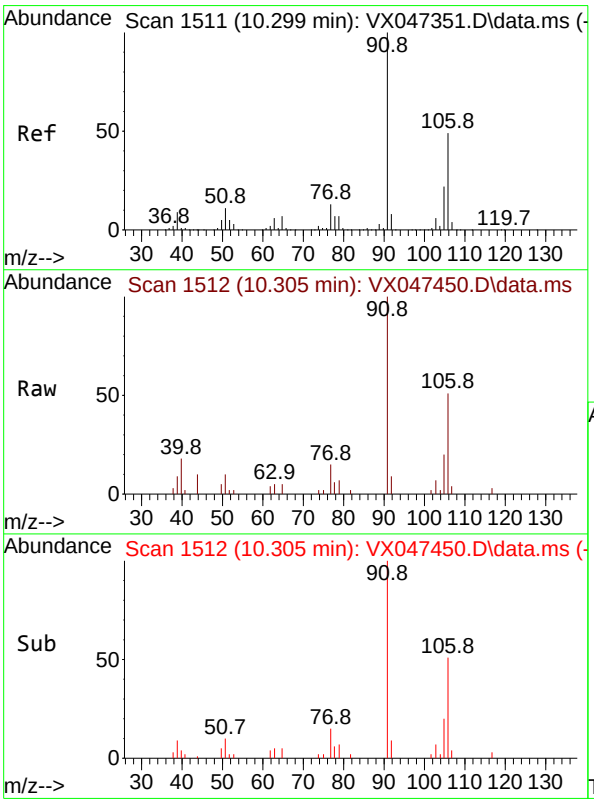
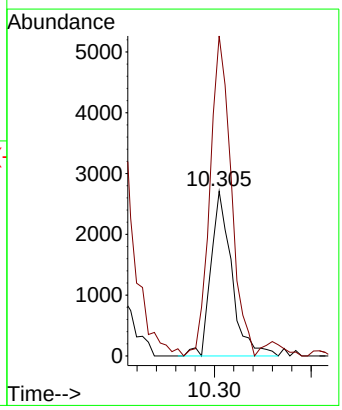


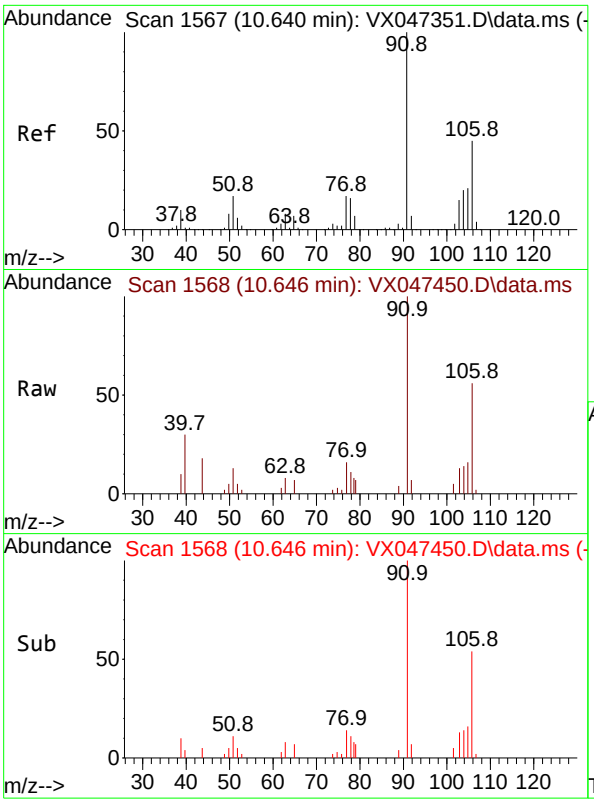


#68
m/p-Xylenes
Concen: 0.647 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:106 Resp: 4057

Ion	Ratio	Lower	Upper
106	100		
91	197.8	164.7	247.1





#69
o-Xylene
Concen: 0.338 ug/l
RT: 10.646 min Scan# 1
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:106 Resp: 204

Ion	Ratio	Lower	Upper
106	100		
91	211.0	110.6	331.8

Instrument :
MSVOA_X
ClientSampleId :
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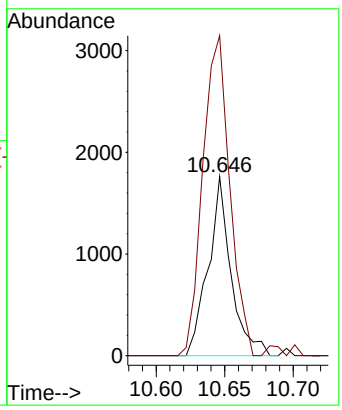
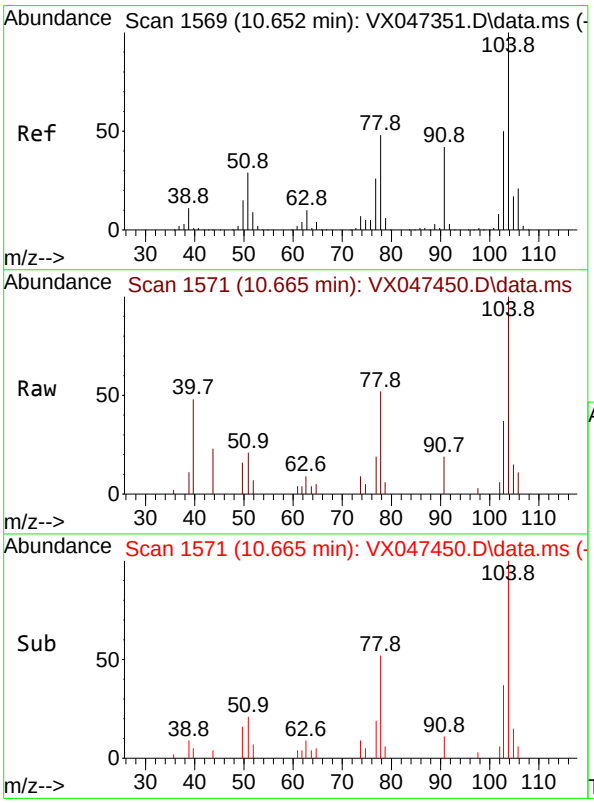
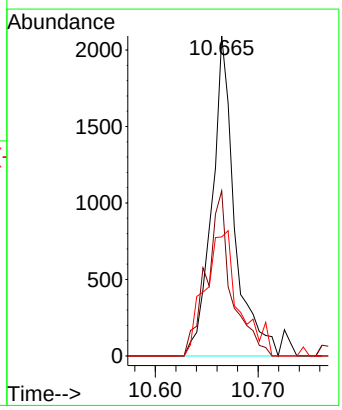


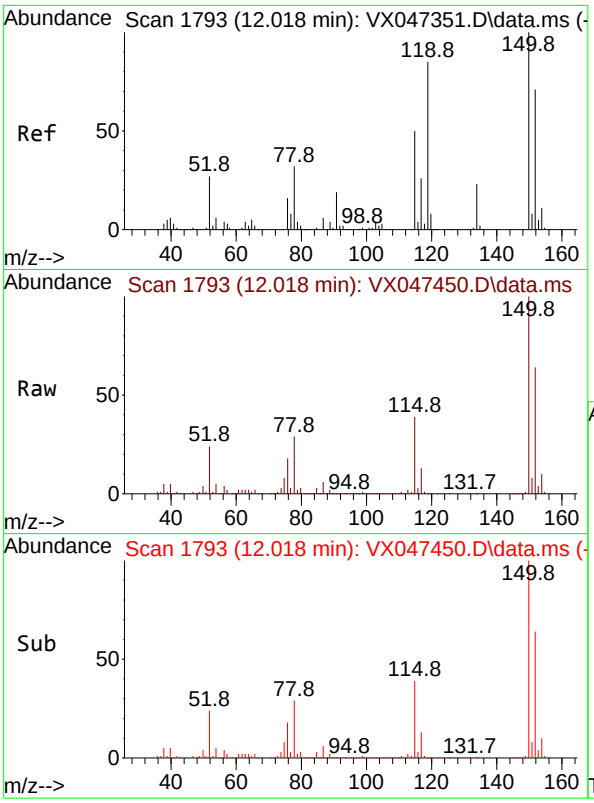


#70
Styrene
Concen: 0.314 ug/l
RT: 10.665 min Scan# 1571
Delta R.T. 0.012 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:104 Resp: 3204

Ion	Ratio	Lower	Upper
104	100		
78	56.1	41.8	62.8
103	58.0	43.6	65.4

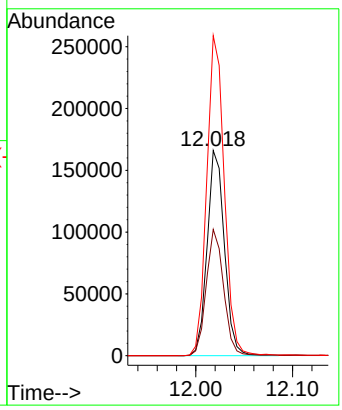




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:152 Resp: 20689

Ion	Ratio	Lower	Upper
152	100		
115	61.6	44.6	133.8
150	158.0	0.0	349.8



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

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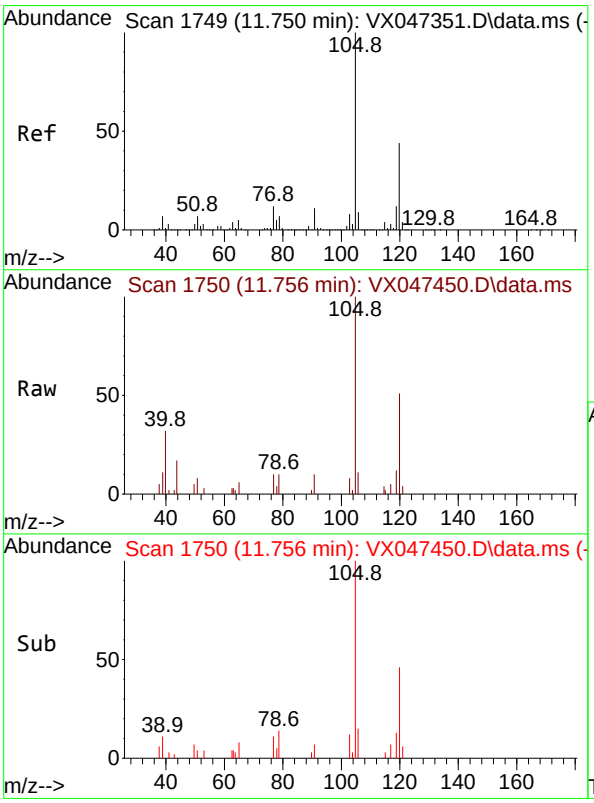
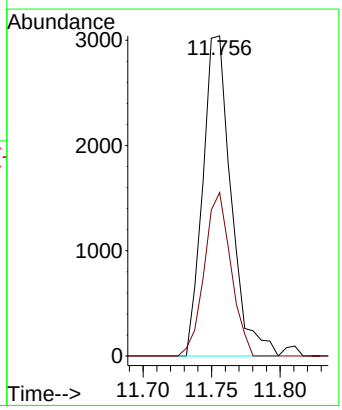
Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

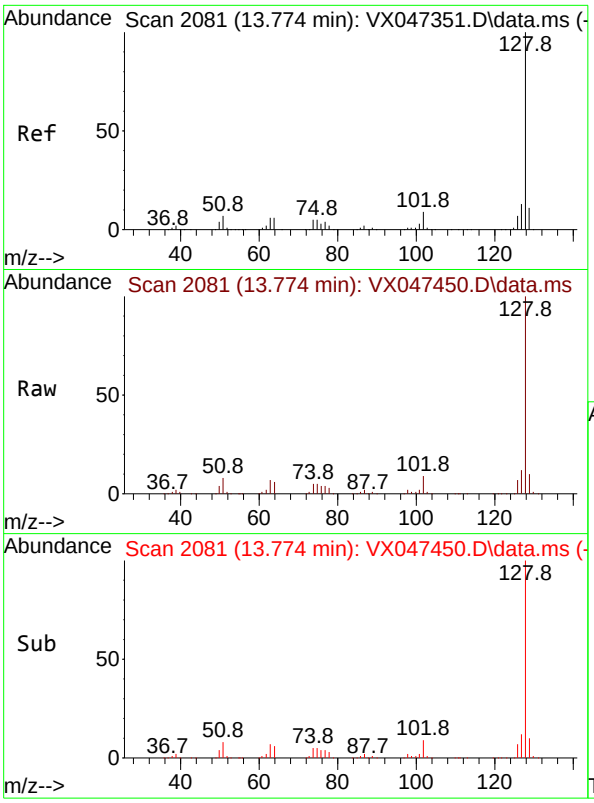


#84
1,2,4-Trimethylbenzene
Concen: 0.329 ug/l
RT: 11.756 min Scan# 1750
Delta R.T. 0.006 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:105 Resp: 4379

Ion	Ratio	Lower	Upper
105	100		
120	47.8	21.9	65.7

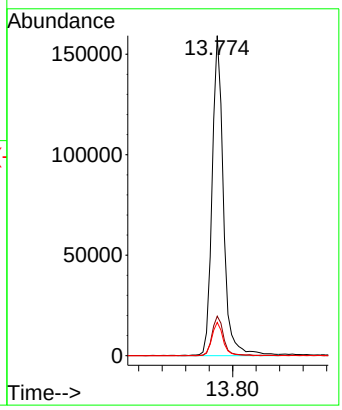




#95
Naphthalene
Concen: 15.573 ug/l
RT: 13.774 min Scan# 2
Delta R.T. 0.000 min
Lab File: VX047450.D
Acq: 20 Aug 2025 17:57

Tgt Ion:128 Resp: 21389

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.1	15.1
129	10.4	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325

Manual Integrations
APPROVED

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Supervised By :Mahesh Dadoda 08/22/2025

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:	08/14/25
Client Sample ID:	MW-18B-57.5-081325DL	SDG No.:	Q2878
Lab Sample ID:	Q2878-01DL	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
VX047451.D	10	08/20/25 18:18	VX082025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	50.0	D	2.60	10.0	ug/L
75-35-4	1,1-Dichloroethene	7.60	JD	2.30	10.0	ug/L
75-34-3	1,1-Dichloroethane	6.80	JD	2.30	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	810	D	1.90	10.0	ug/L
71-55-6	1,1,1-Trichloroethane	2.00	UD	2.00	10.0	ug/L
71-43-2	Benzene	6.30	JD	1.50	10.0	ug/L
107-06-2	1,2-Dichloroethane	2.20	UD	2.20	10.0	ug/L
79-01-6	Trichloroethene	150	D	0.93	10.0	ug/L
79-00-5	1,1,2-Trichloroethane	2.10	UD	2.10	10.0	ug/L
127-18-4	Tetrachloroethene	2.30	UD	2.30	10.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.7		70 (74) - 130 (125)	111%	SPK: 50
1868-53-7	Dibromofluoromethane	49.9		70 (75) - 130 (124)	100%	SPK: 50
2037-26-5	Toluene-d8	50.1		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	57.1		70 (77) - 130 (121)	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	216000	5.568			
540-36-3	1,4-Difluorobenzene	432000	6.769			
3114-55-4	Chlorobenzene-d5	428000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	219000	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: **VX047451.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047451.D
Acq On : 20 Aug 2025 18:18
Operator : JC/MD
Sample : Q2878-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Aug 21 01:37:46 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 :
MW-18B-57.5-081325DL

Manual Integrations APPROVED

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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	215725	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	432331	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	427580	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	219266	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.970	65	168273	55.735	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 111.480%			
35) Dibromofluoromethane	5.403	113	140124	49.940	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.880%			
50) Toluene-d8	8.653	98	502298	50.085	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 100.160%			
62) 4-Bromofluorobenzene	11.079	95	211301	57.095	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 114.180%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.392	62	15518	4.998	ug/l #	55
9) 1,1,2-Trichlorotrifluo...	2.355	101	921	0.346	ug/l	88
12) 1,1-Dichloroethene	2.337	96	2062	0.759	ug/l	98
16) Acetone	2.398	43	5950	5.243	ug/l	91
17) Carbon Disulfide	2.532	76	4859	0.593	ug/l	98
20) Methylene Chloride	2.812	84	959	0.319	ug/l #	78
21) trans-1,2-Dichloroethene	3.117	96	3018	1.047	ug/l #	87
24) 1,1-Dichloroethane	3.629	63	3602	0.683	ug/l #	93
27) cis-1,2-Dichloroethene	4.507	96	273342	81.407	ug/l	89
29) Tetrahydrofuran	5.056	42	2399m	2.497	ug/l	
40) Benzene	6.062	78	8309	0.627	ug/l	94
44) Trichloroethene	7.135	130	49879	14.693	ug/l	94
52) Toluene	8.726	92	4849	0.592	ug/l	91
67) Ethyl Benzene	10.201	91	7353	0.420	ug/l	100
68) m/p-Xylenes	10.305	106	2534	0.389	ug/l	93
95) Naphthalene	13.774	128	140385	9.645	ug/l	100

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047451.D
Acq On : 20 Aug 2025 18:18
Operator : JC/MD
Sample : Q2878-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
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Instrument :
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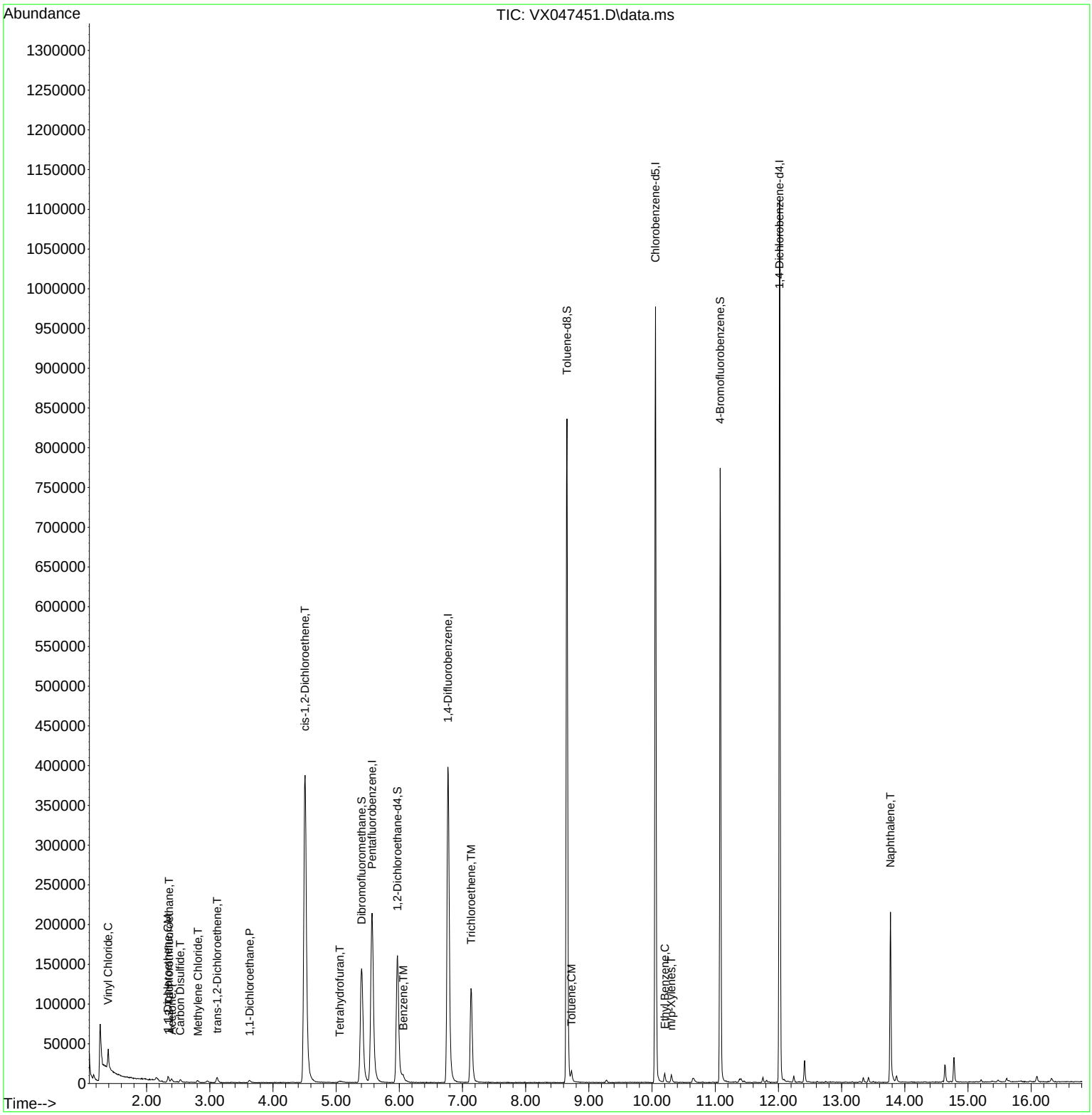

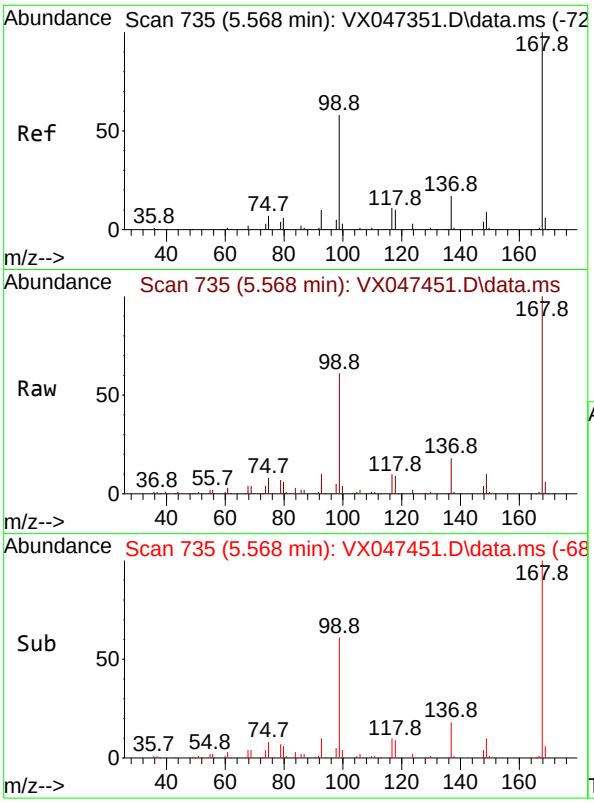

#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:168 Resp: 21572

Ion	Ratio	Lower	Upper
168	100		
99	60.7	47.9	71.9

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

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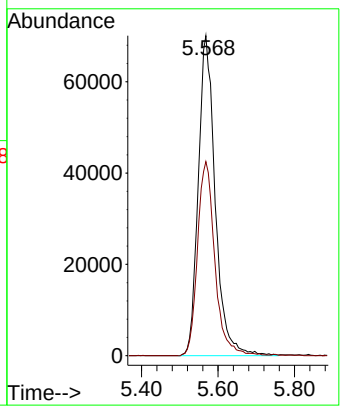
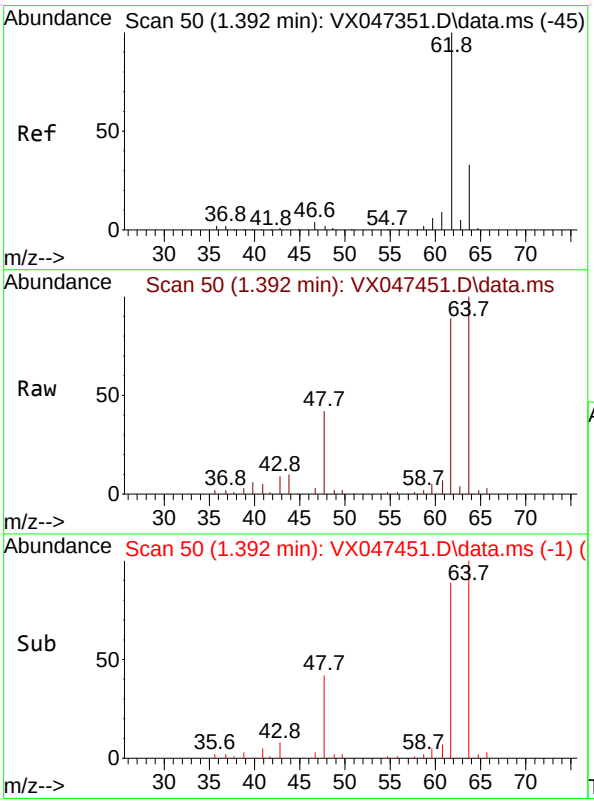
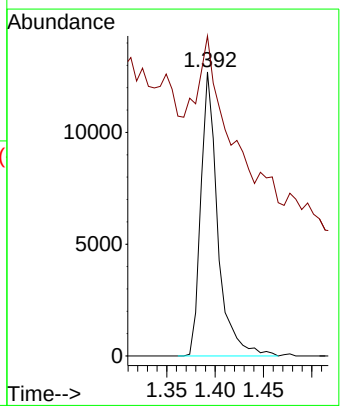


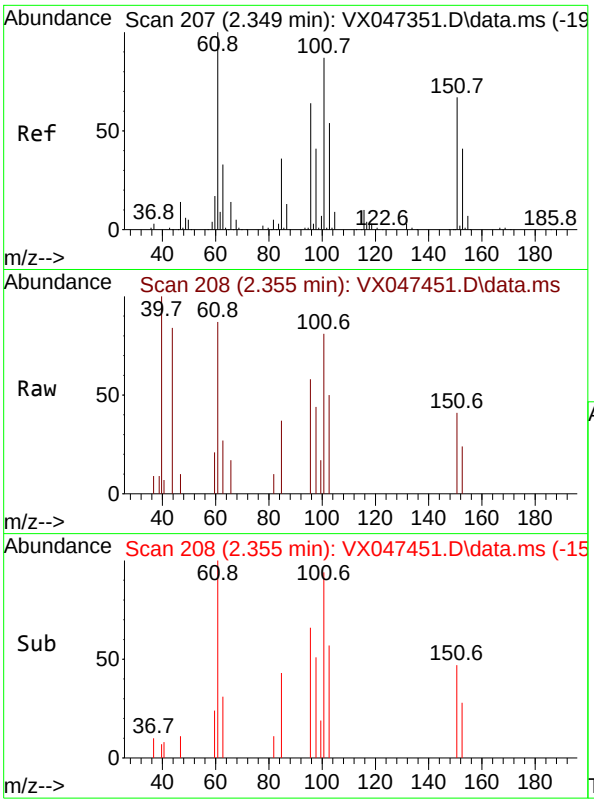


#4
Vinyl Chloride
Concen: 4.998 ug/l
RT: 1.392 min Scan# 50
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 62 Resp: 15518

Ion	Ratio	Lower	Upper
62	100		
64	58.7	26.5	39.7#





#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.346 ug/l
RT: 2.355 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:101 Resp: 92

Ion	Ratio	Lower	Upper
101	100		
85	46.0	34.3	51.5
151	87.9	59.2	88.8

Instrument :
MSVOA_X
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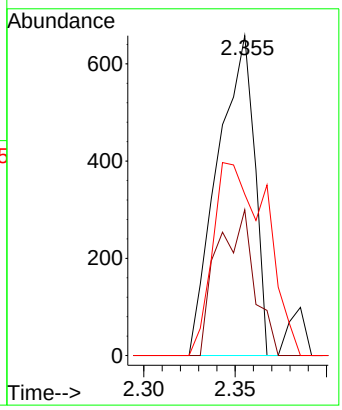
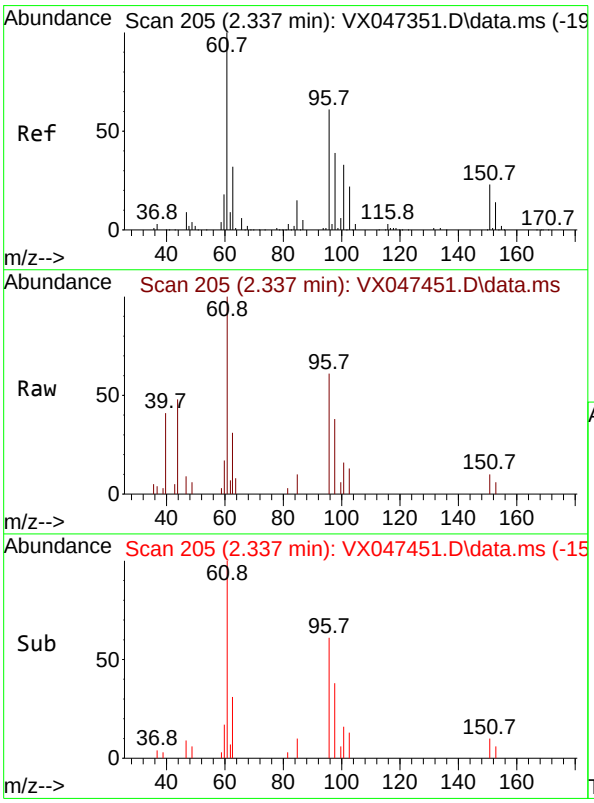
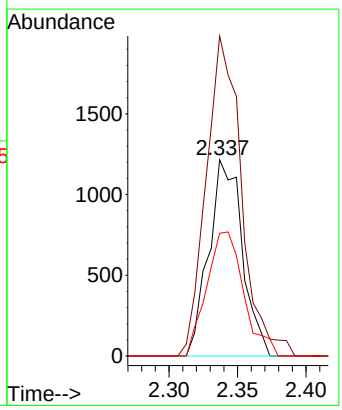


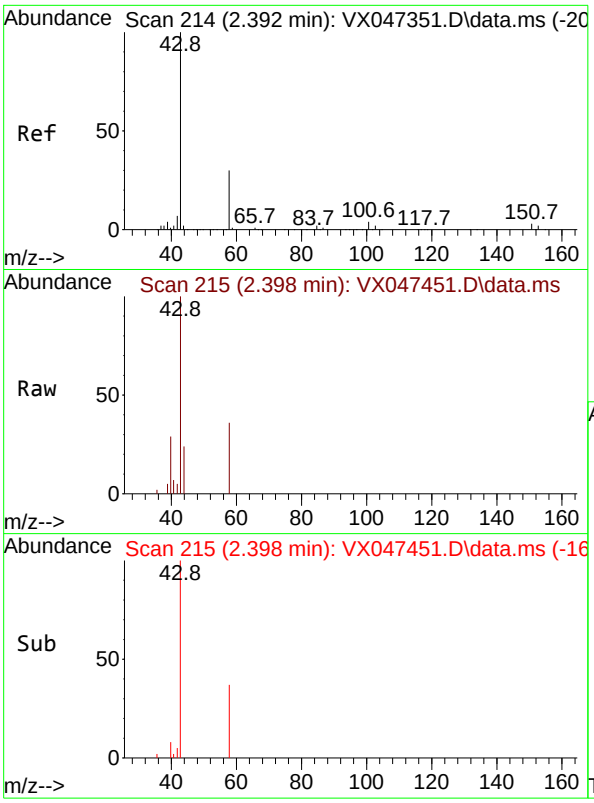


#12
1,1-Dichloroethene
Concen: 0.759 ug/l
RT: 2.337 min Scan# 205
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 96 Resp: 2062

Ion	Ratio	Lower	Upper
96	100		
61	163.1	132.2	198.2
98	62.6	51.2	76.8

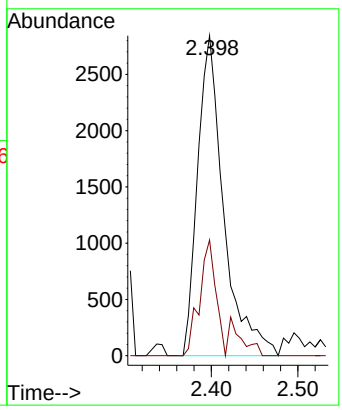




#16
Acetone
Concen: 5.243 ug/l
RT: 2.398 min Scan# 21
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 43 Resp: 595

Ion	Ratio	Lower	Upper
43	100		
58	36.2	24.8	37.2



Instrument :
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ClientSampleId :
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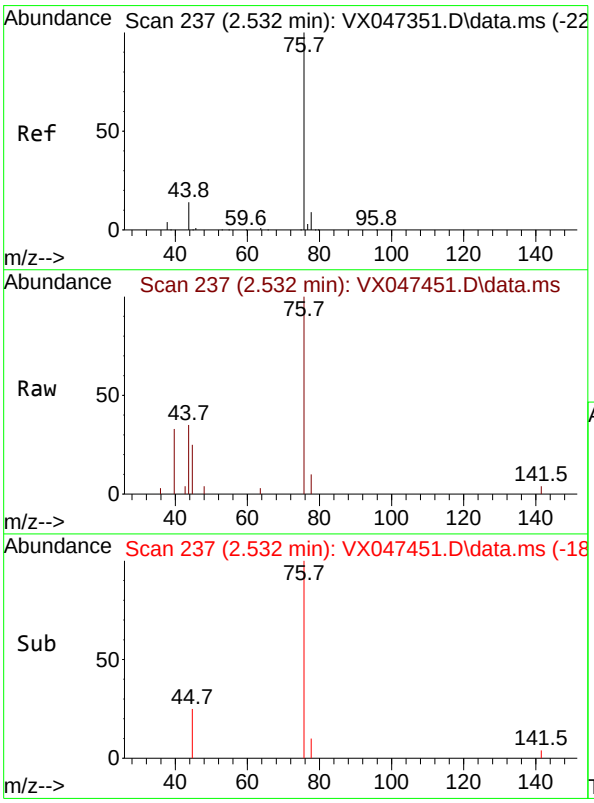
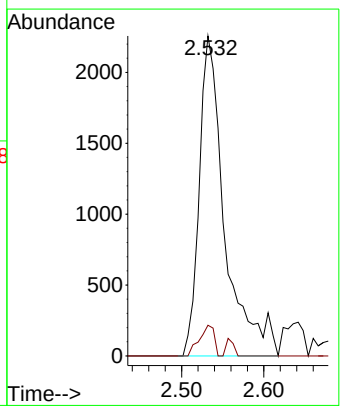
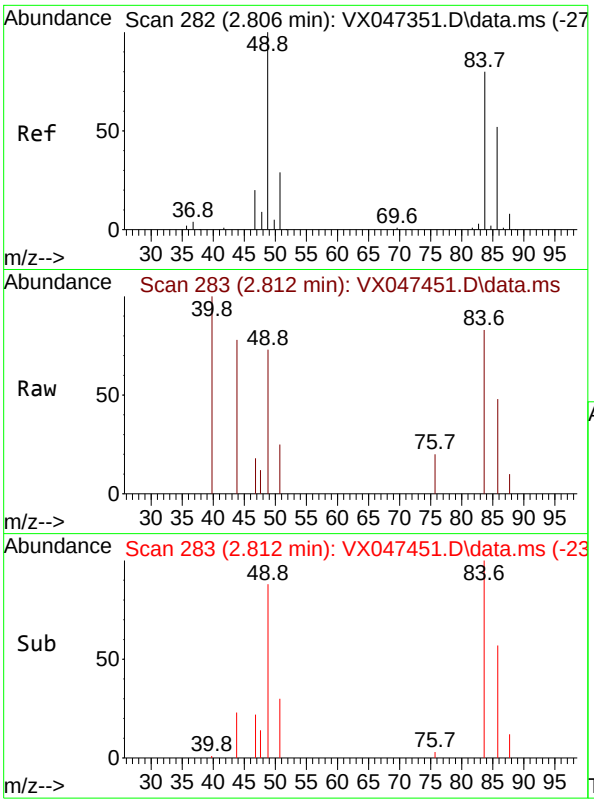


#17
Carbon Disulfide
Concen: 0.593 ug/l
RT: 2.532 min Scan# 237
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 76 Resp: 4859

Ion	Ratio	Lower	Upper
76	100		
78	9.6	7.2	10.8

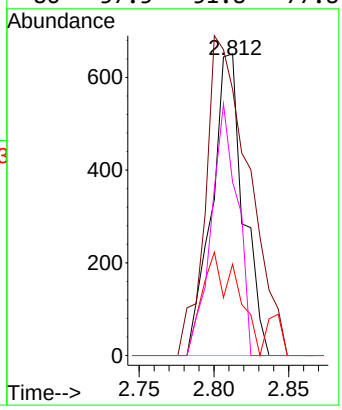




#20
Methylene Chloride
Concen: 0.319 ug/l
RT: 2.812 min Scan# 2
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 84 Resp: 95

Ion	Ratio	Lower	Upper
84	100		
49	88.2	100.1	150.1#
51	30.3	29.5	44.3
86	57.5	51.8	77.8



Instrument :
MSVOA_X
ClientSampleId :
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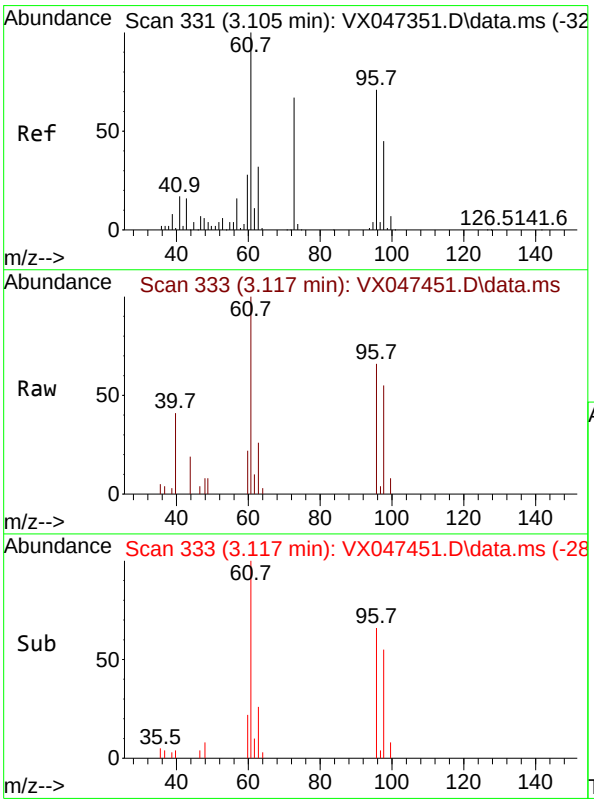
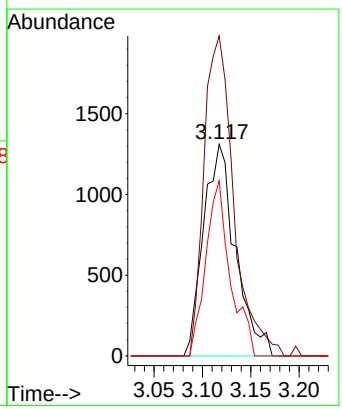
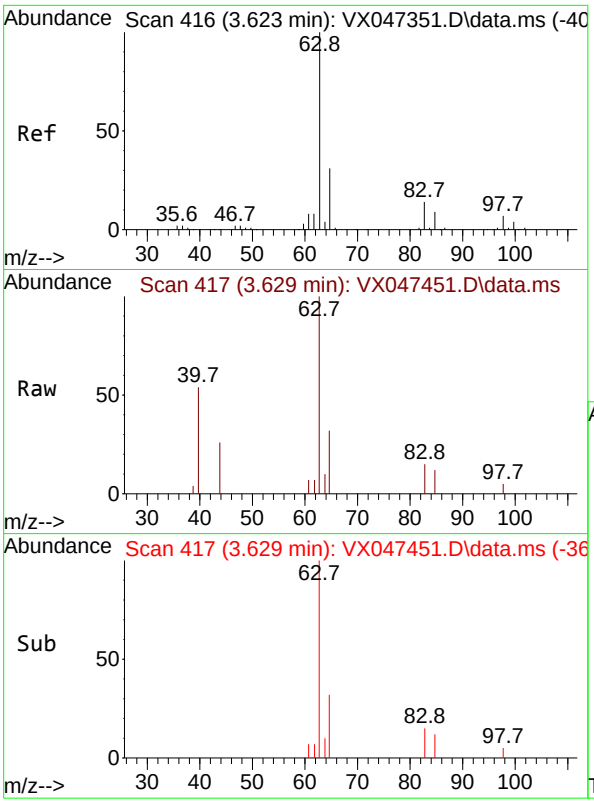


#21
trans-1,2-Dichloroethene
Concen: 1.047 ug/l
RT: 3.117 min Scan# 333
Delta R.T. 0.012 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 96 Resp: 3018

Ion	Ratio	Lower	Upper
96	100		
61	151.1	112.6	169.0
98	82.8	50.9	76.3#

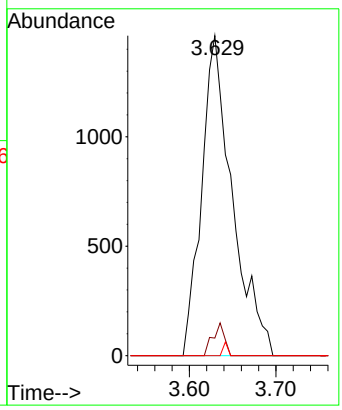




#24
1,1-Dichloroethane
Concen: 0.683 ug/l
RT: 3.629 min Scan# 4
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 63 Resp: 360

Ion	Ratio	Lower	Upper
63	100		
98	5.5	3.3	9.9
100	0.0	2.1	6.3



Instrument :
MSVOA_X
ClientSampleId :
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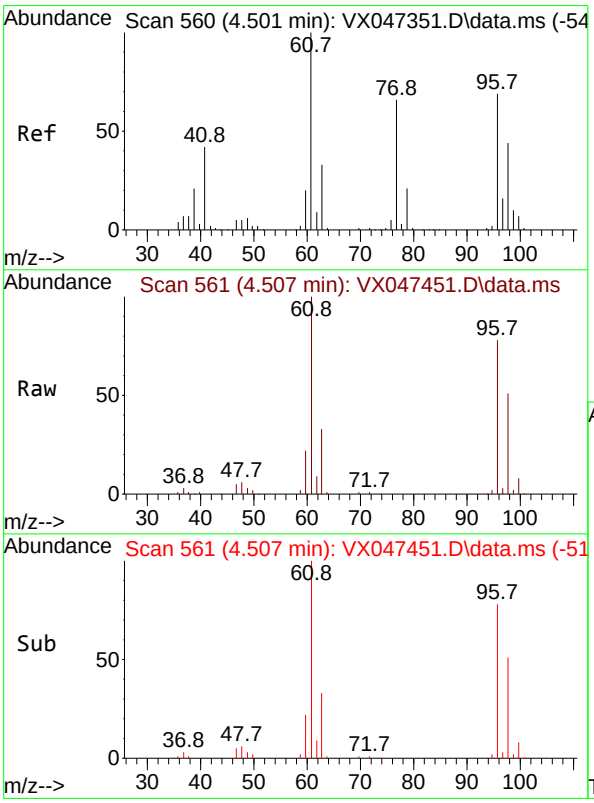
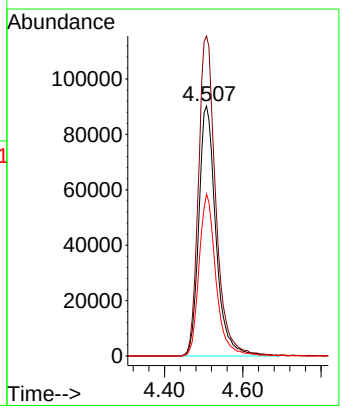
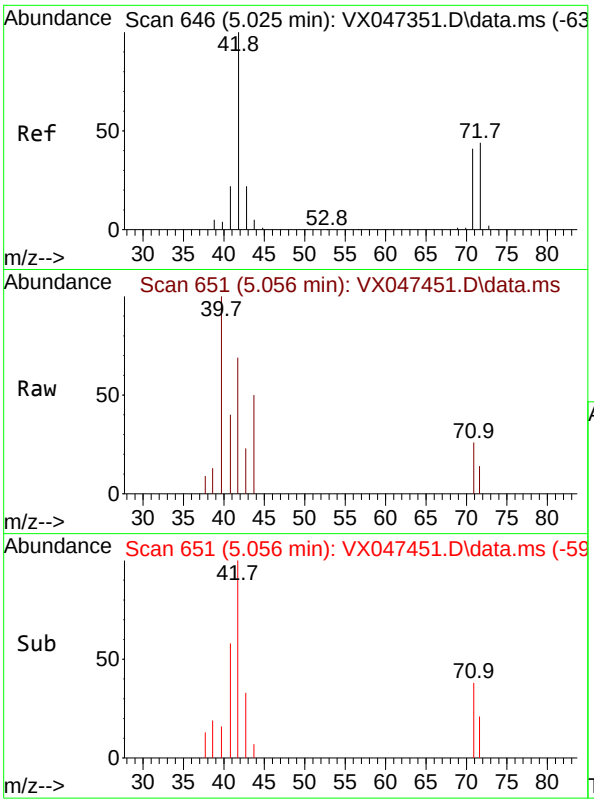


#27
cis-1,2-Dichloroethene
Concen: 81.407 ug/l
RT: 4.507 min Scan# 561
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 96 Resp: 273342

Ion	Ratio	Lower	Upper
96	100		
61	129.7	0.0	296.6
98	63.7	0.0	130.4





#29
Tetrahydrofuran
Concen: 2.497 ug/l m
RT: 5.056 min Scan# 6
Delta R.T. 0.031 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 42 Resp: 239

Ion	Ratio	Lower	Upper
42	100		
72	6.8	34.6	51.8#
71	17.4	32.6	49.0#

Instrument :
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ClientSampleId :
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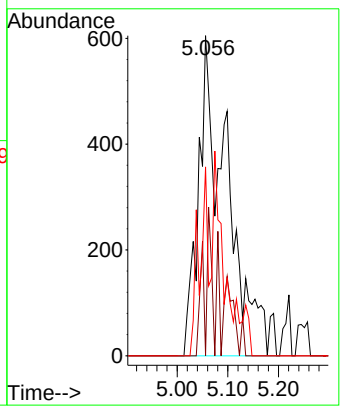
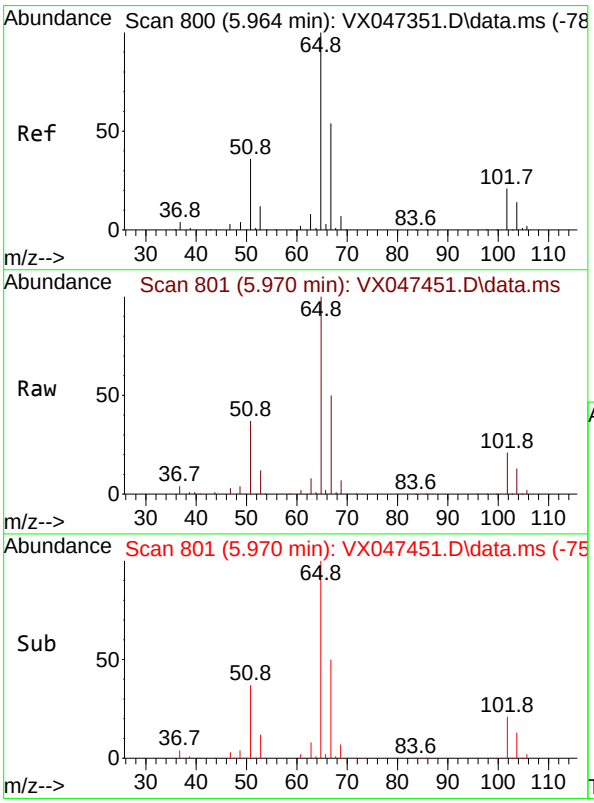
Supervised By :Mahesh Dadoda 08/22/2025

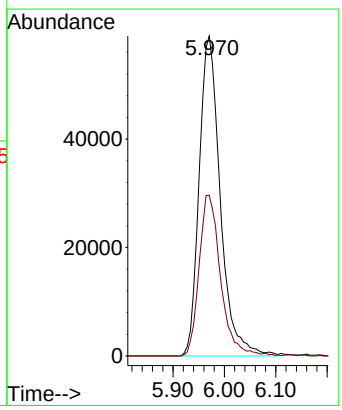


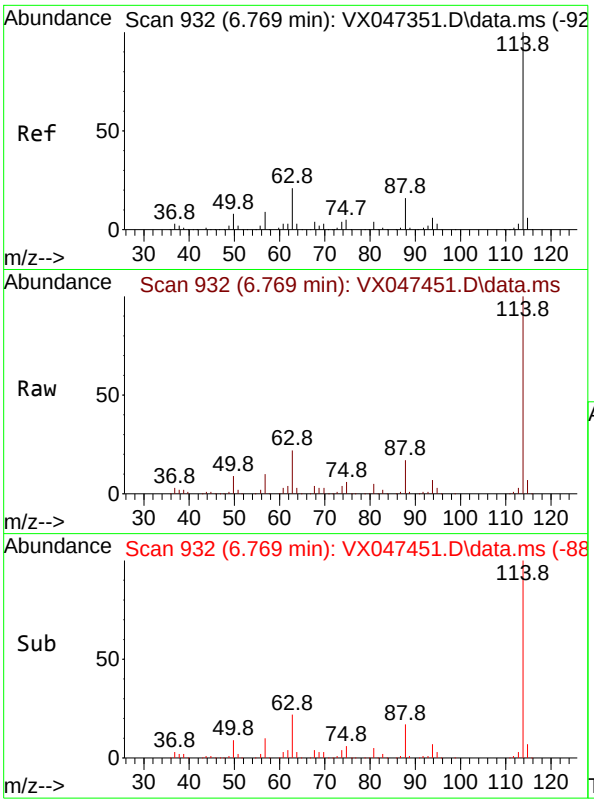


#33
1,2-Dichloroethane-d4
Concen: 55.735 ug/l
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 65 Resp: 168273

Ion	Ratio	Lower	Upper
65	100		
67	51.2	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: VX047451.D
Acq: 20 Aug 2025 18:18

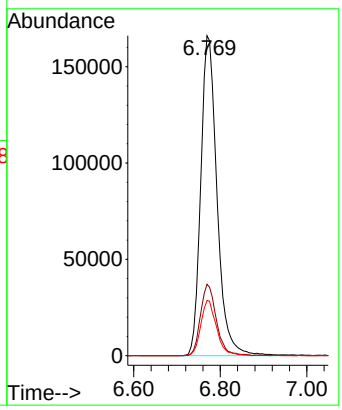
Tgt Ion:114 Resp: 43233

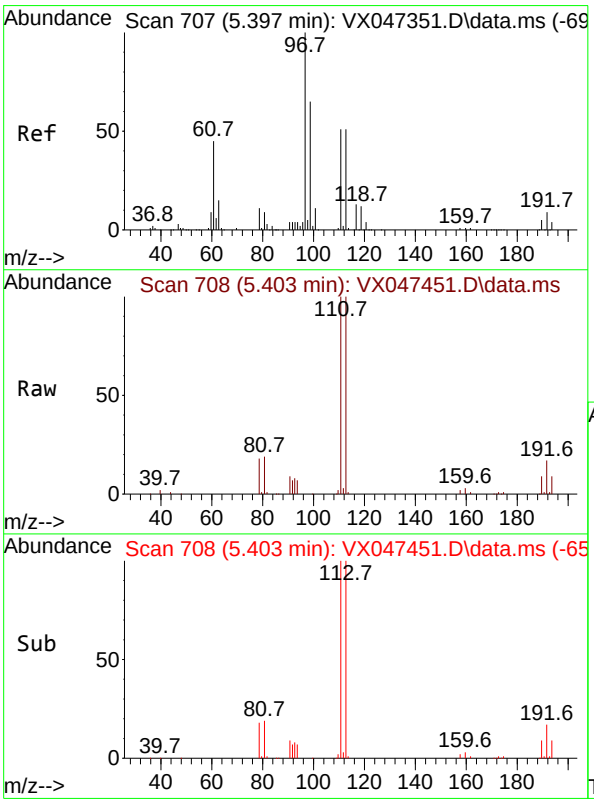
Ion	Ratio	Lower	Upper
114	100		
63	22.3	0.0	42.4
88	17.2	0.0	33.0

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

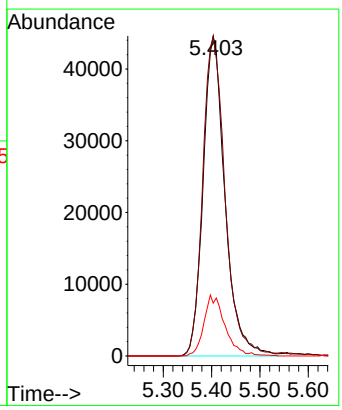


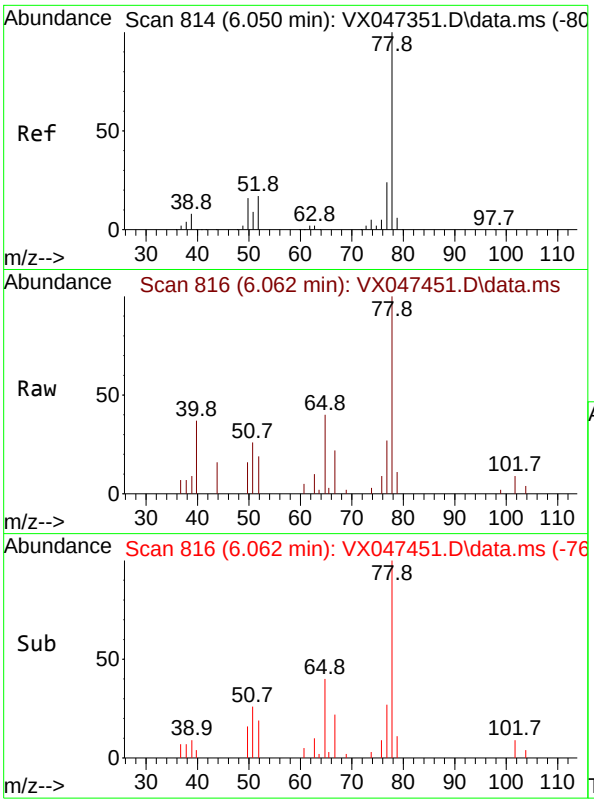


#35
Dibromofluoromethane
Concen: 49.940 ug/l
RT: 5.403 min Scan# 708
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:113 Resp: 140124

Ion	Ratio	Lower	Upper
113	100		
111	102.0	81.4	122.2
192	18.4	14.1	21.1





#40
Benzene
Concen: 0.627 ug/l
RT: 6.062 min Scan# 8
Delta R.T. 0.012 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

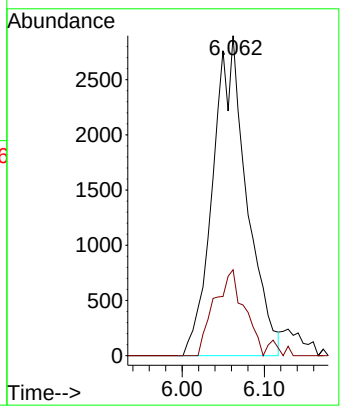
Tgt Ion: 78 Resp: 830

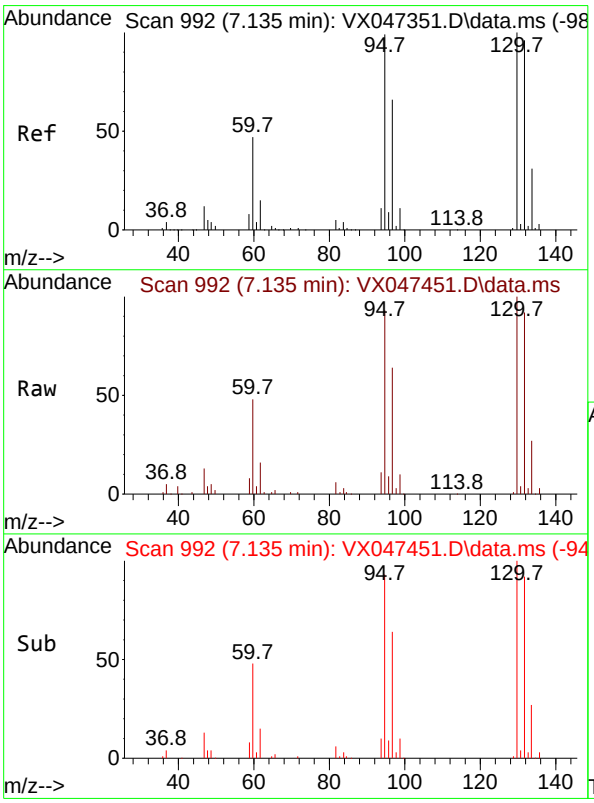
Ion	Ratio	Lower	Upper
78	100		
77	26.8	19.0	28.4

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

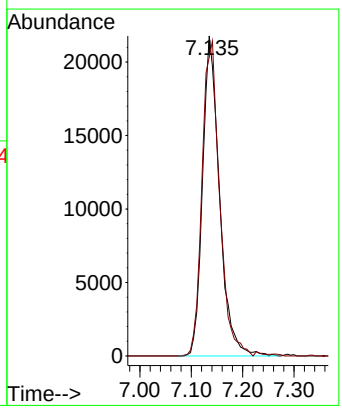


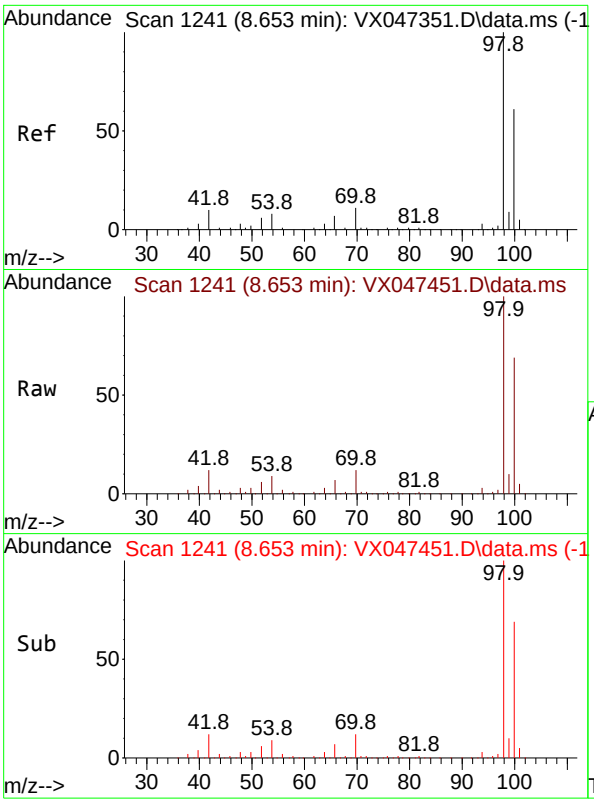


#44
Trichloroethene
Concen: 14.693 ug/l
RT: 7.135 min Scan# 992
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:130 Resp: 49879

Ion	Ratio	Lower	Upper
130	100		
95	93.4	0.0	198.6





#50
Toluene-d8
Concen: 50.085 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

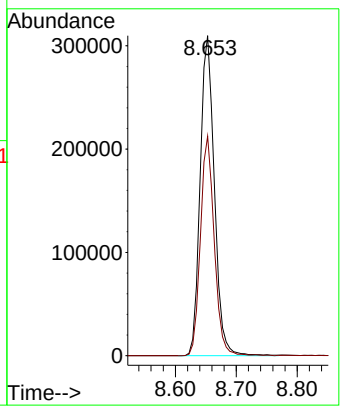
Tgt Ion: 98 Resp: 50229

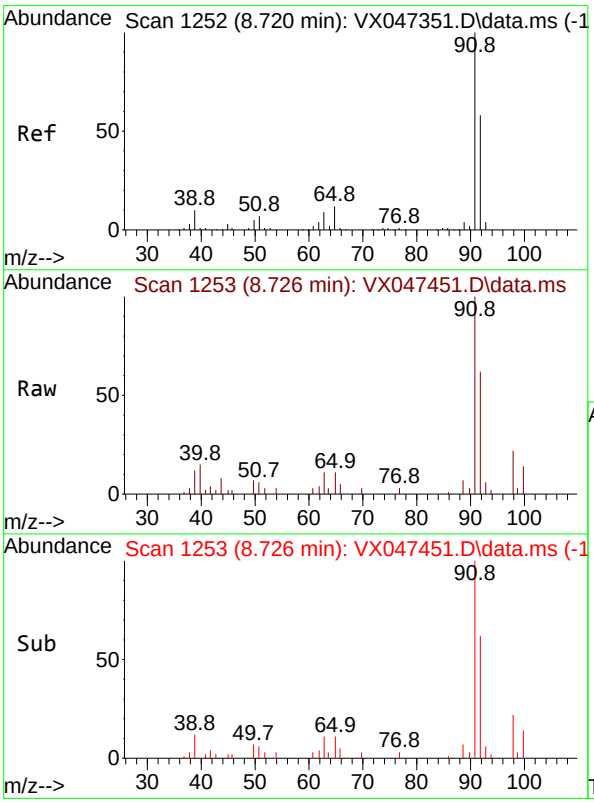
Ion	Ratio	Lower	Upper
98	100		
100	66.6	53.9	80.9

Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

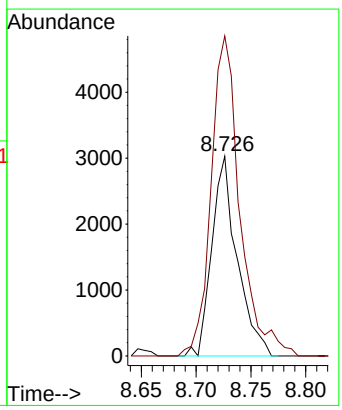


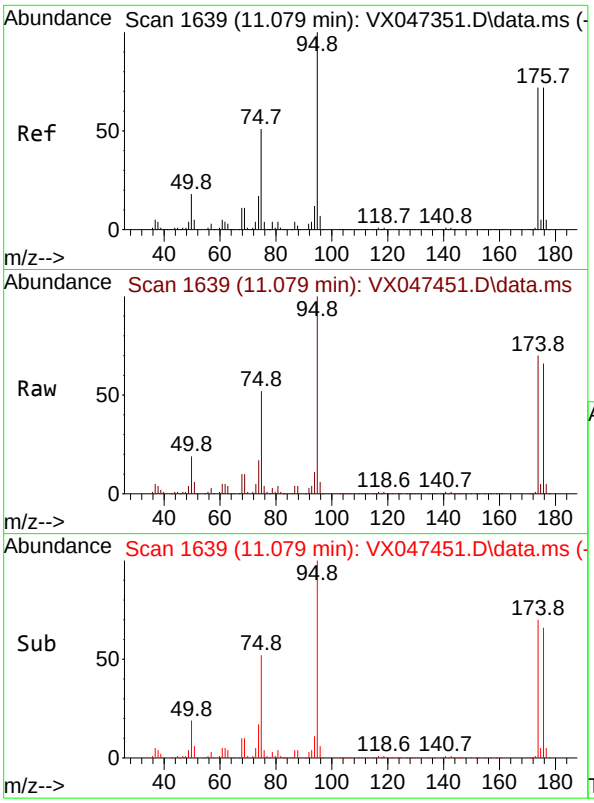


#52
Toluene
Concen: 0.592 ug/l
RT: 8.726 min Scan# 1253
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 92 Resp: 4849

Ion	Ratio	Lower	Upper
92	100		
91	182.9	136.3	204.5

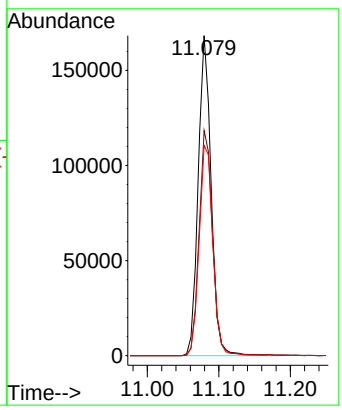




#62
4-Bromofluorobenzene
Concen: 57.095 ug/l
RT: 11.079 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 95 Resp: 21130

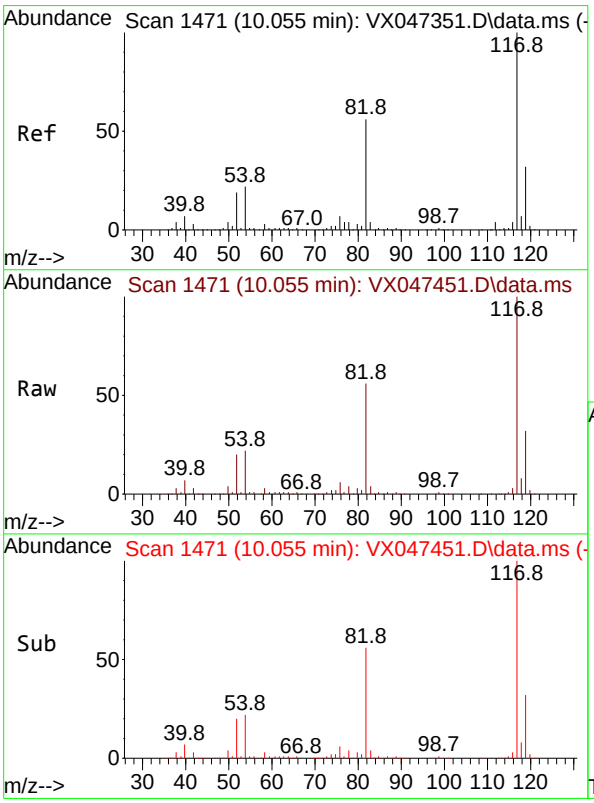
Ion	Ratio	Lower	Upper
95	100		
174	73.3	0.0	148.0
176	69.5	0.0	145.4



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

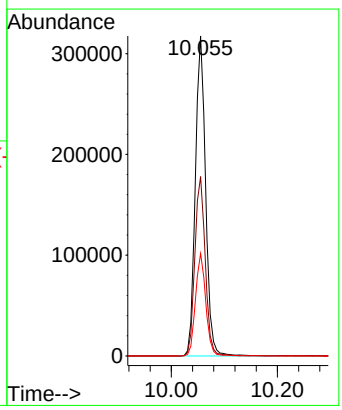
Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

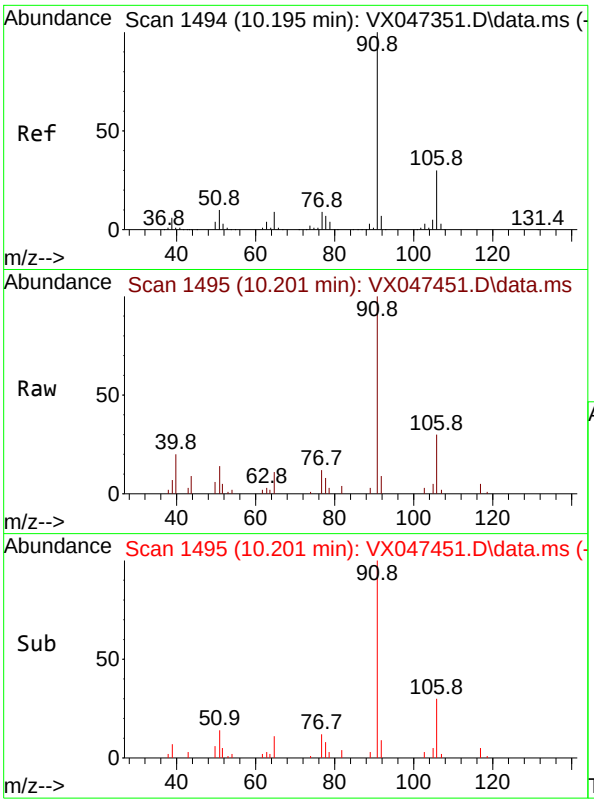


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 1471
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:117 Resp: 427580

Ion	Ratio	Lower	Upper
117	100		
82	56.0	45.0	67.4
119	32.0	25.8	38.8

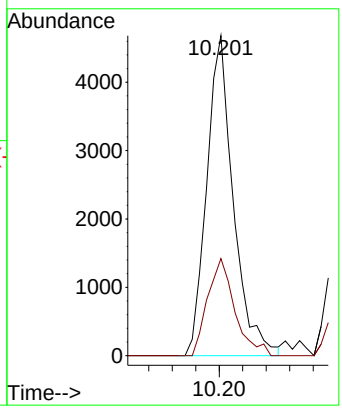




#67
Ethyl Benzene
Concen: 0.420 ug/l
RT: 10.201 min Scan# 14
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion: 91 Resp: 735

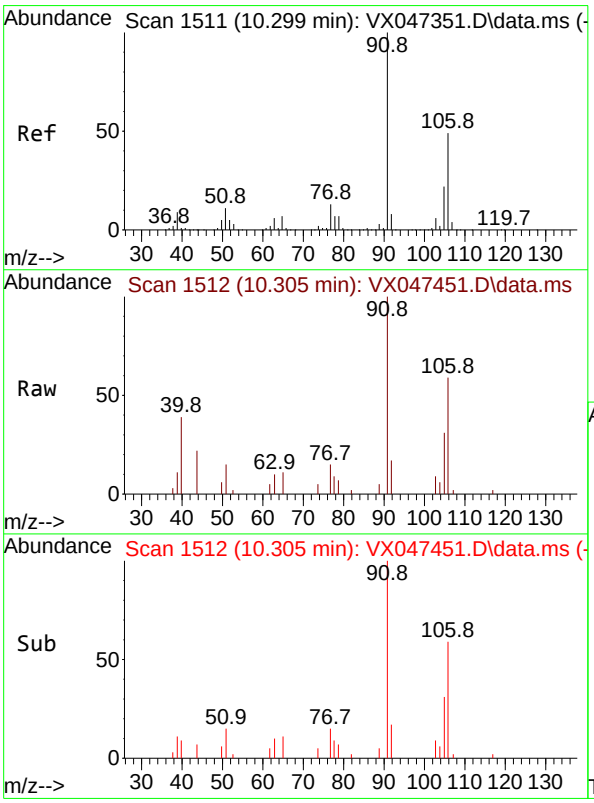
Ion	Ratio	Lower	Upper
91	100		
106	30.4	24.4	36.6



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

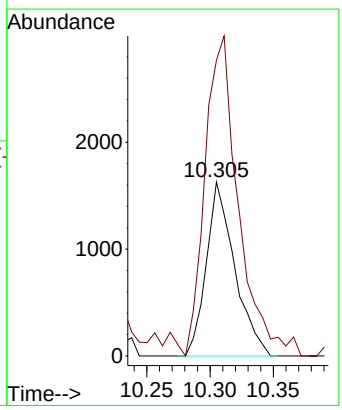
Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

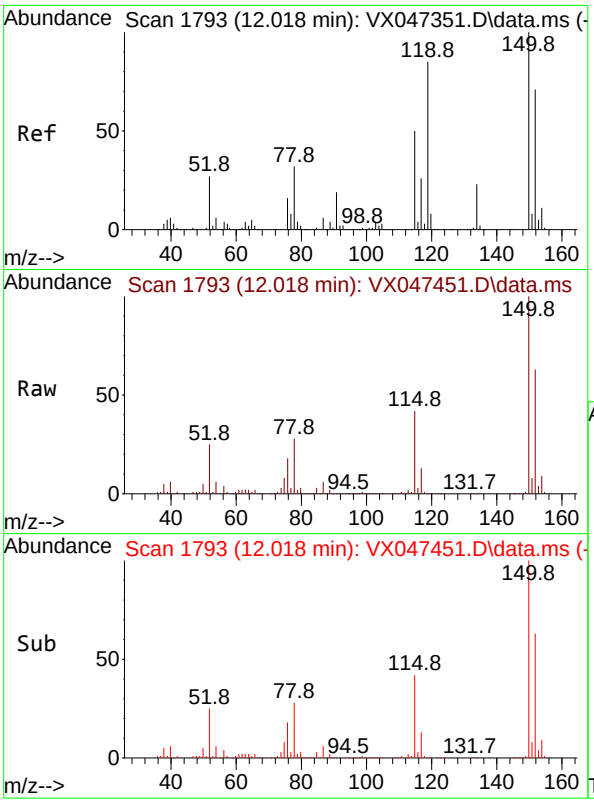


#68
m/p-Xylenes
Concen: 0.389 ug/l
RT: 10.305 min Scan# 1512
Delta R.T. 0.006 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:106 Resp: 2534

Ion	Ratio	Lower	Upper
106	100		
91	216.9	164.7	247.1

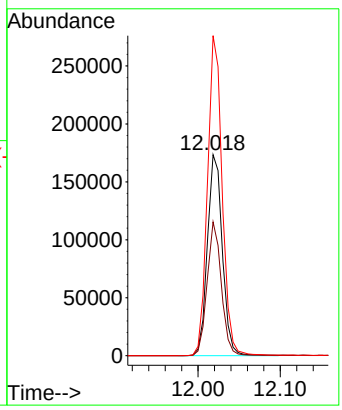




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:152 Resp: 21926

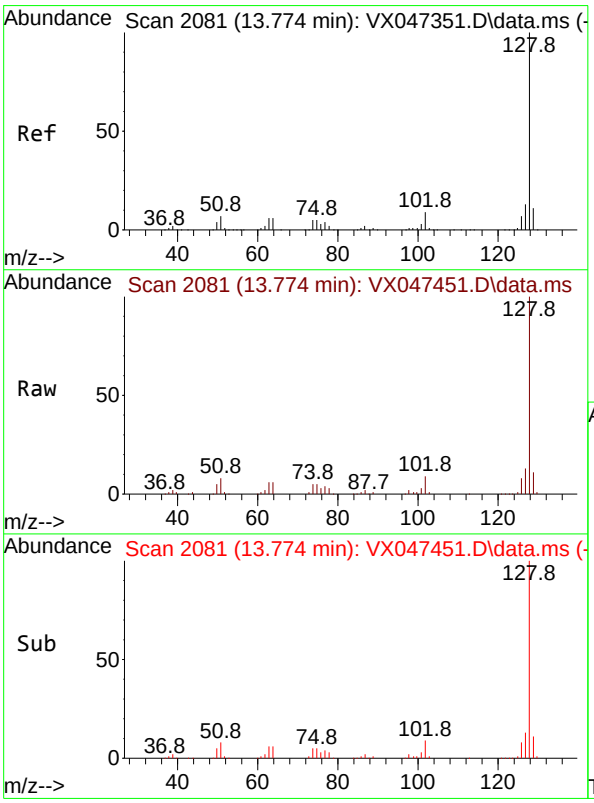
Ion	Ratio	Lower	Upper
152	100		
115	63.4	44.6	133.8
150	156.6	0.0	349.8



Instrument :
MSVOA_X
ClientSampleId :
MW-18B-57.5-081325DL

Manual Integrations
APPROVED

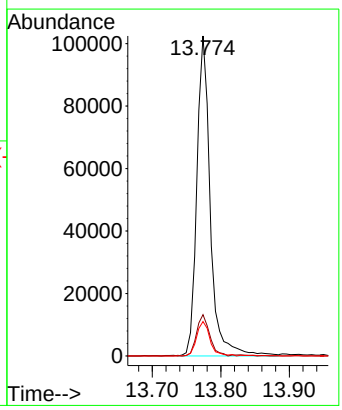
Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025



#95
Naphthalene
Concen: 9.645 ug/l
RT: 13.774 min Scan# 2081
Delta R.T. 0.000 min
Lab File: VX047451.D
Acq: 20 Aug 2025 18:18

Tgt Ion:128 Resp: 140385

Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.1	15.1
129	10.7	8.7	13.1



Raw Data: **VX047452.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:	08/14/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/14/25
Client Sample ID:	MW-11B-37.5-081425	SDG No.:	Q2878
Lab Sample ID:	Q2878-05	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
VX047452.D	50	08/20/25 18:40	VX082025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	13.0	U	13.0	50.0	ug/L
75-35-4	1,1-Dichloroethene	61.5		11.5	50.0	ug/L
75-34-3	1,1-Dichloroethane	61.4		11.5	50.0	ug/L
156-59-2	cis-1,2-Dichloroethene	2200		9.50	50.0	ug/L
71-55-6	1,1,1-Trichloroethane	10.0	U	10.0	50.0	ug/L
71-43-2	Benzene	7.50	U	7.50	50.0	ug/L
107-06-2	1,2-Dichloroethane	11.0	U	11.0	50.0	ug/L
79-01-6	Trichloroethene	4600		4.70	50.0	ug/L
79-00-5	1,1,2-Trichloroethane	10.5	U	10.5	50.0	ug/L
127-18-4	Tetrachloroethene	11.5	U	11.5	50.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.3		70 (74) - 130 (125)	113%	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	56.8		70 (77) - 130 (121)	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	233000	5.568			
540-36-3	1,4-Difluorobenzene	475000	6.775			
3114-55-4	Chlorobenzene-d5	465000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	243000	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\VX082025\
Data File : VX047452.D
Acq On : 20 Aug 2025 18:40
Operator : JC/MD
Sample : Q2878-05 50X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 27 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Quant Time: Aug 21 01:38:17 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

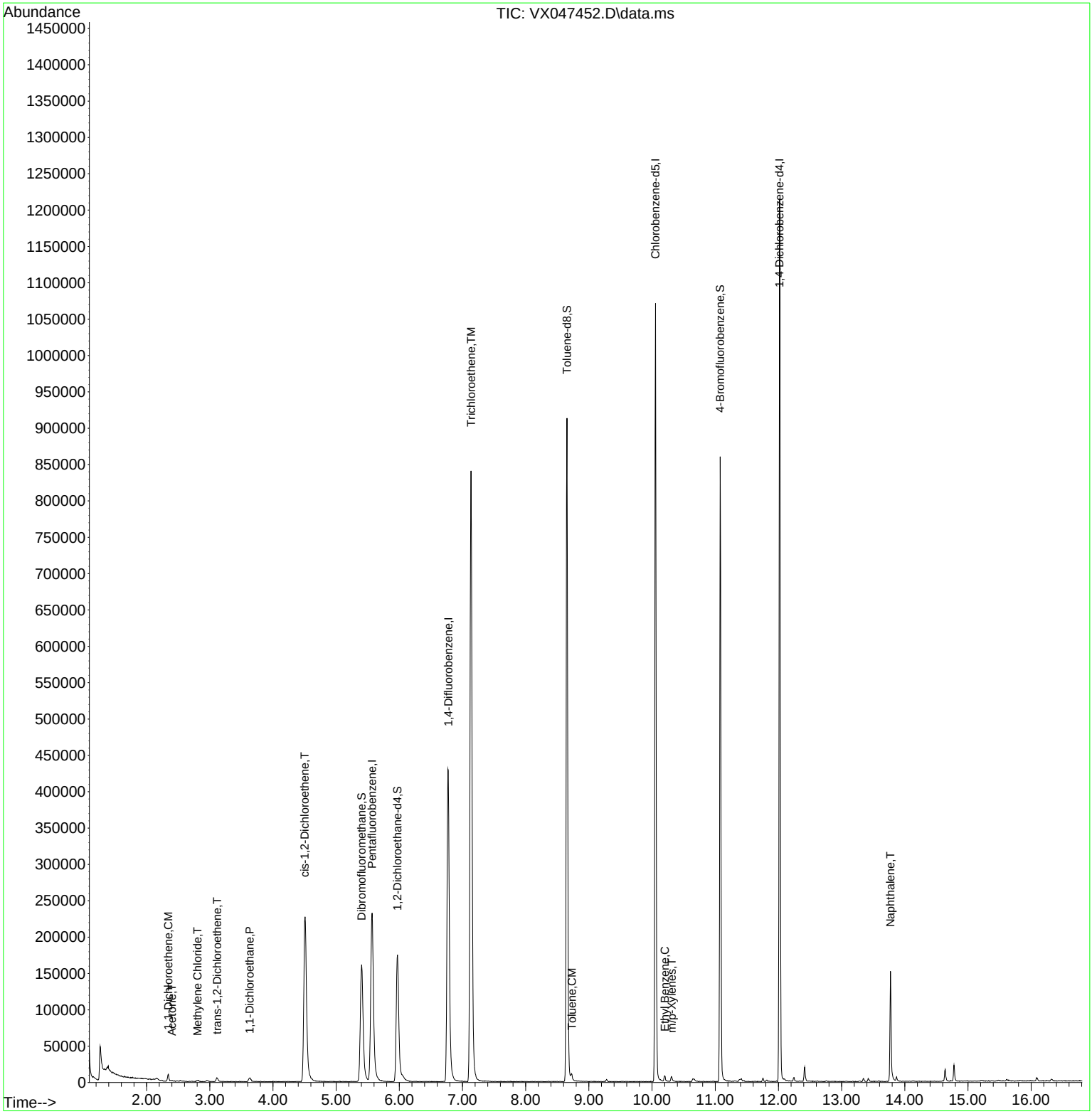
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	233413	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.775	114	475099	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	465473	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	242657	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.970	65	184033	56.336	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 112.680%			
35) Dibromofluoromethane	5.403	113	155611	50.467	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.940%			
50) Toluene-d8	8.653	98	544870	49.439	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 98.880%			
62) 4-Bromofluorobenzene	11.079	95	231003	56.800	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 113.600%			
Target Compounds						Qvalue
12) 1,1-Dichloroethene	2.343	96	3613	1.229	ug/l #	90
16) Acetone	2.398	43	1834	1.494	ug/l	92
20) Methylene Chloride	2.806	84	922	0.284	ug/l	89
21) trans-1,2-Dichloroethene	3.117	96	2574	0.825	ug/l	96
24) 1,1-Dichloroethane	3.629	63	7002	1.228	ug/l #	93
27) cis-1,2-Dichloroethene	4.501	96	163315	44.953	ug/l	89
44) Trichloroethene	7.135	130	343338	92.036	ug/l	96
52) Toluene	8.732	92	3358	0.373	ug/l	84
67) Ethyl Benzene	10.201	91	5646	0.297	ug/l #	85
68) m/p-Xylenes	10.311	106	2227	0.314	ug/l	87
95) Naphthalene	13.774	128	103253	6.410	ug/l	99

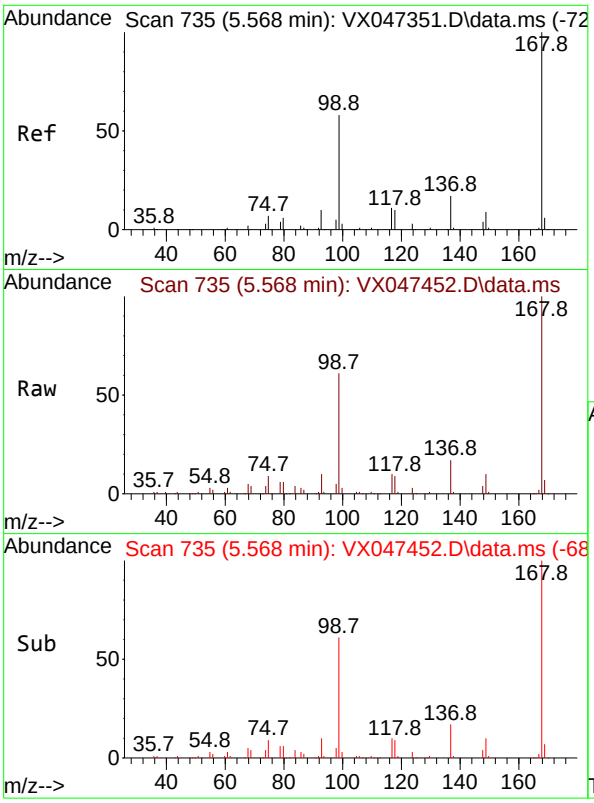
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047452.D
Acq On : 20 Aug 2025 18:40
Operator : JC/MD
Sample : Q2878-05 50X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 27 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Quant Time: Aug 21 01:38:17 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



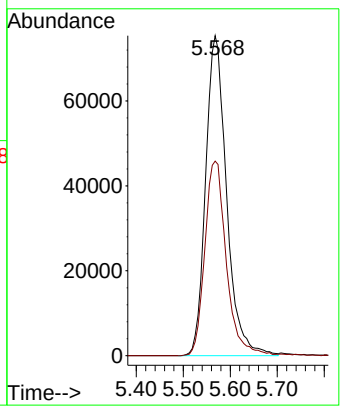


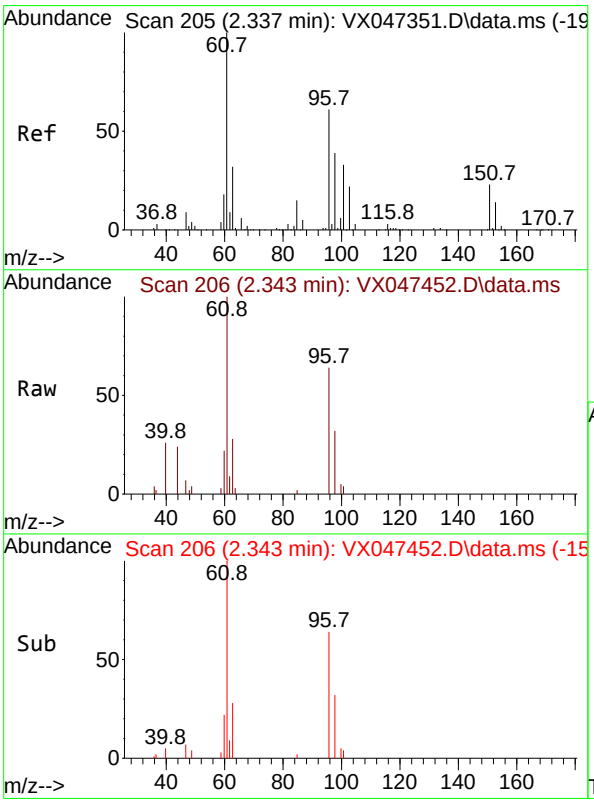
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:168 Resp: 233413

Ion	Ratio	Lower	Upper
168	100		
99	60.8	47.9	71.9

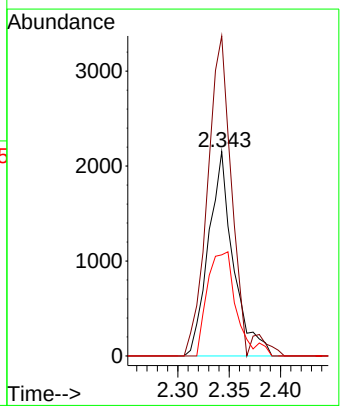


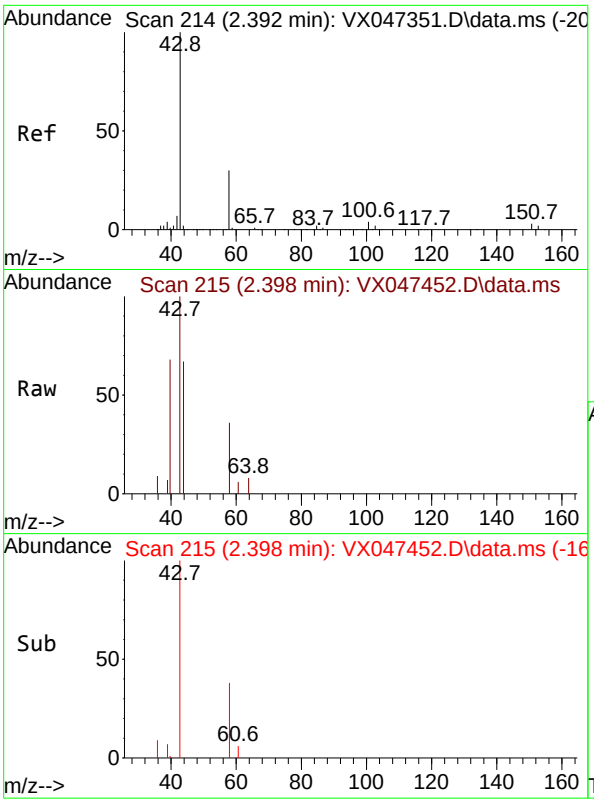


#12
1,1-Dichloroethene
Concen: 1.229 ug/l
RT: 2.343 min Scan# 206
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 96 Resp: 3613

Ion	Ratio	Lower	Upper
96	100		
61	156.6	132.2	198.2
98	49.5	51.2	76.8#



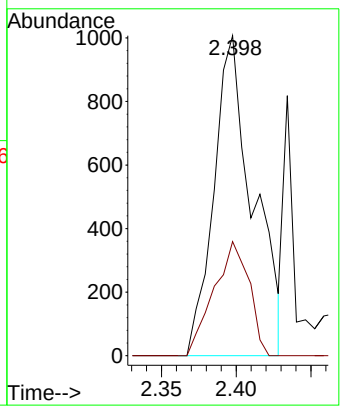


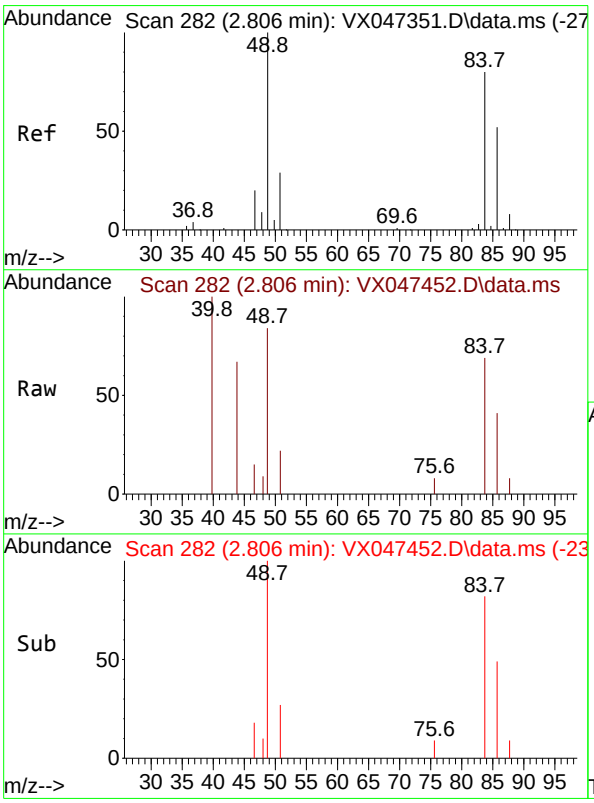
#16
Acetone
Concen: 1.494 ug/l
RT: 2.398 min Scan# 21
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion: 43 Resp: 1834

Ion	Ratio	Lower	Upper
43	100		
58	35.7	24.8	37.2

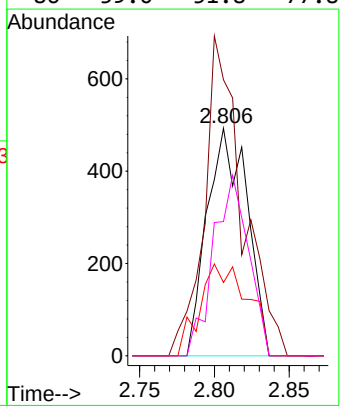


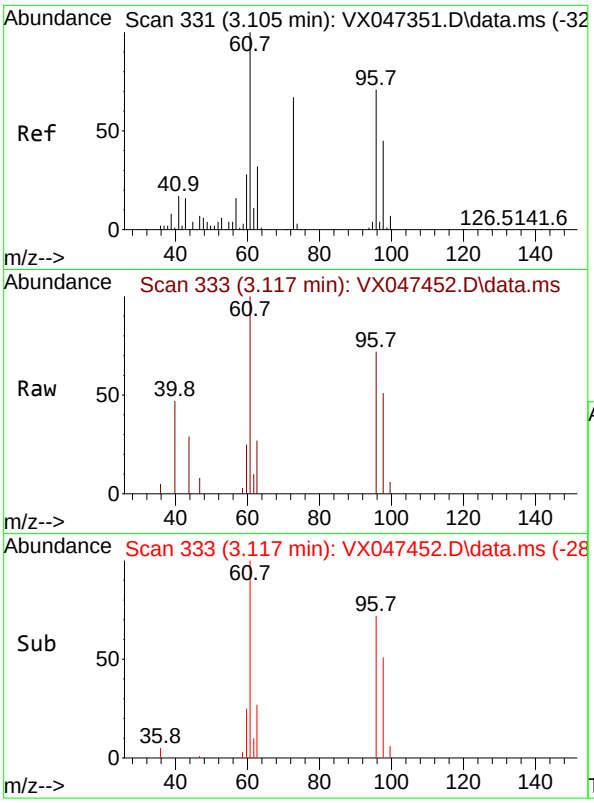


#20
Methylene Chloride
Concen: 0.284 ug/l
RT: 2.806 min Scan# 282
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 84 Resp: 922

Ion	Ratio	Lower	Upper
84	100		
49	110.3	100.1	150.1
51	32.3	29.5	44.3
86	59.0	51.8	77.8



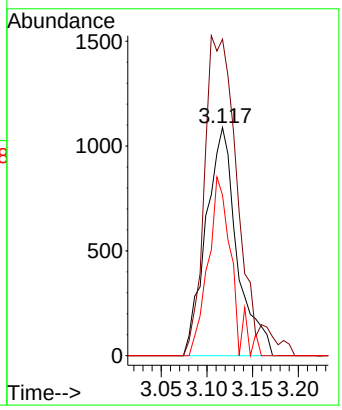


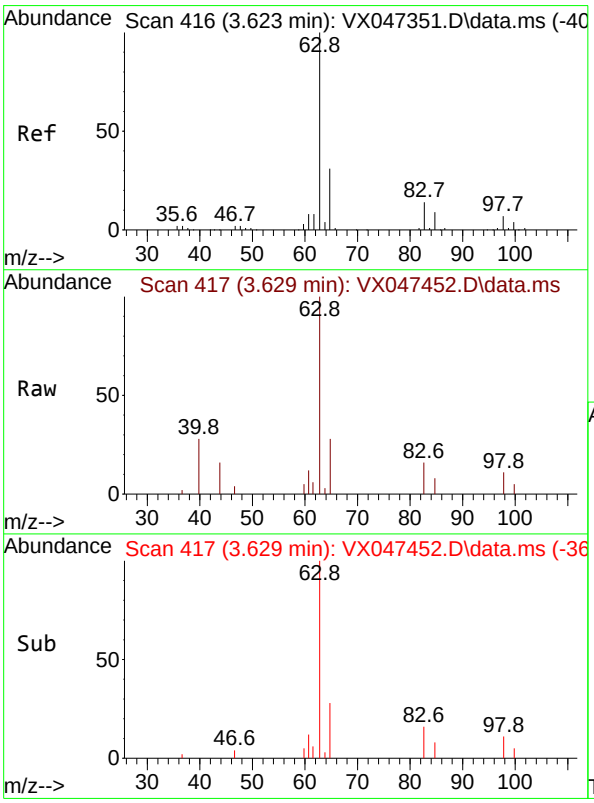
#21
trans-1,2-Dichloroethene
Concen: 0.825 ug/l
RT: 3.117 min Scan# 3
Delta R.T. 0.012 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion: 96 Resp: 2574

Ion	Ratio	Lower	Upper
96	100		
61	138.7	112.6	169.0
98	70.3	50.9	76.3

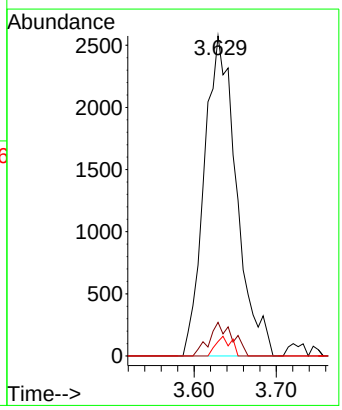


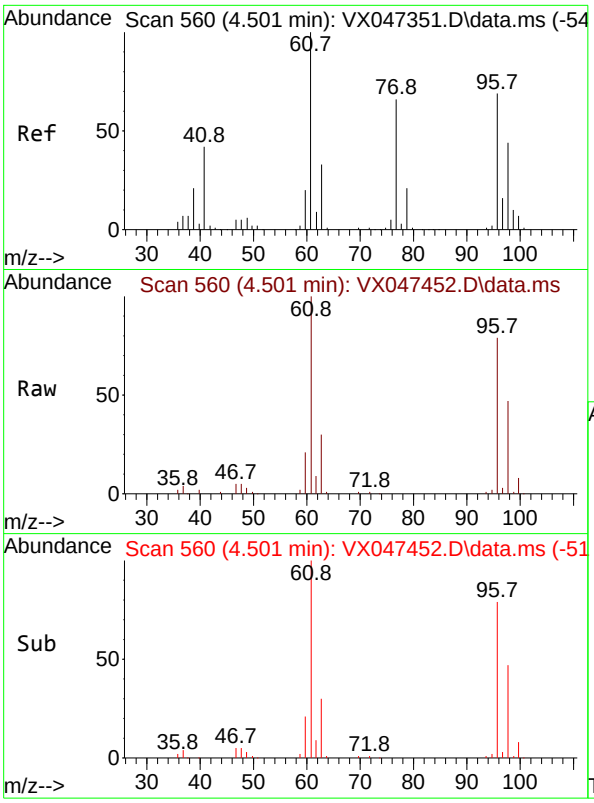


#24
1,1-Dichloroethane
Concen: 1.228 ug/l
RT: 3.629 min Scan# 417
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 63 Resp: 7002

Ion	Ratio	Lower	Upper
63	100		
98	10.5	3.3	9.9#
100	4.5	2.1	6.3



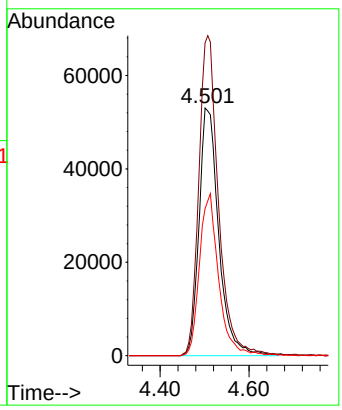


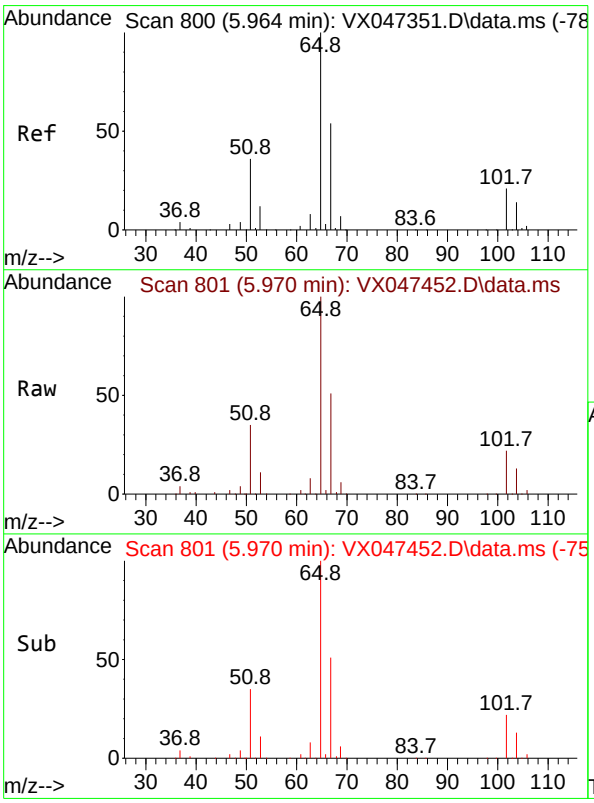
#27
cis-1,2-Dichloroethene
Concen: 44.953 ug/l
RT: 4.501 min Scan# 5
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion: 96 Resp: 163315

Ion	Ratio	Lower	Upper
96	100		
61	129.4	0.0	296.6
98	63.6	0.0	130.4

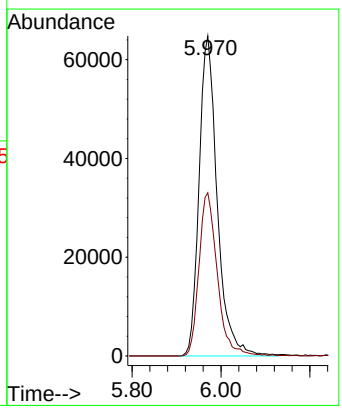


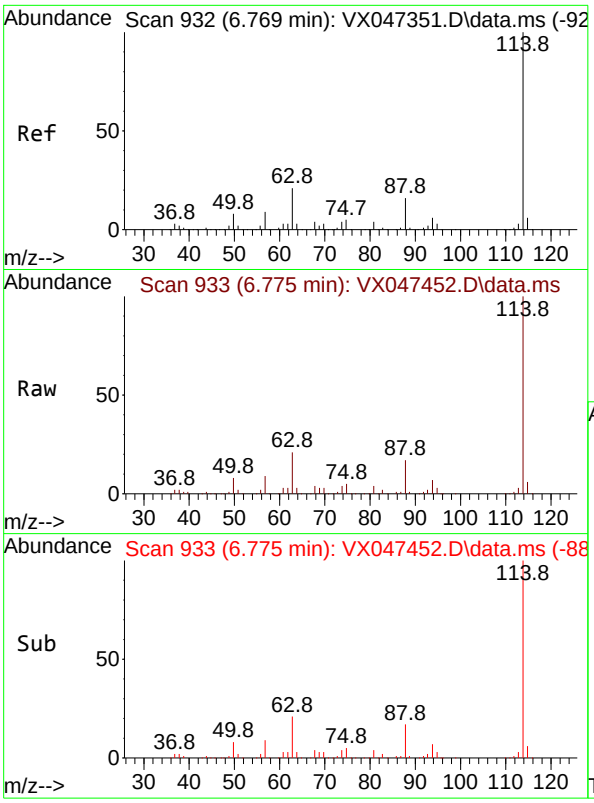


#33
1,2-Dichloroethane-d4
Concen: 56.336 ug/l
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 65 Resp: 184033

Ion	Ratio	Lower	Upper
65	100		
67	51.6	0.0	106.0



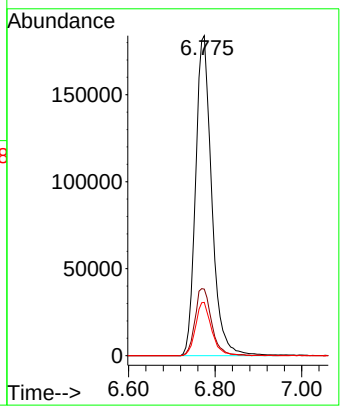


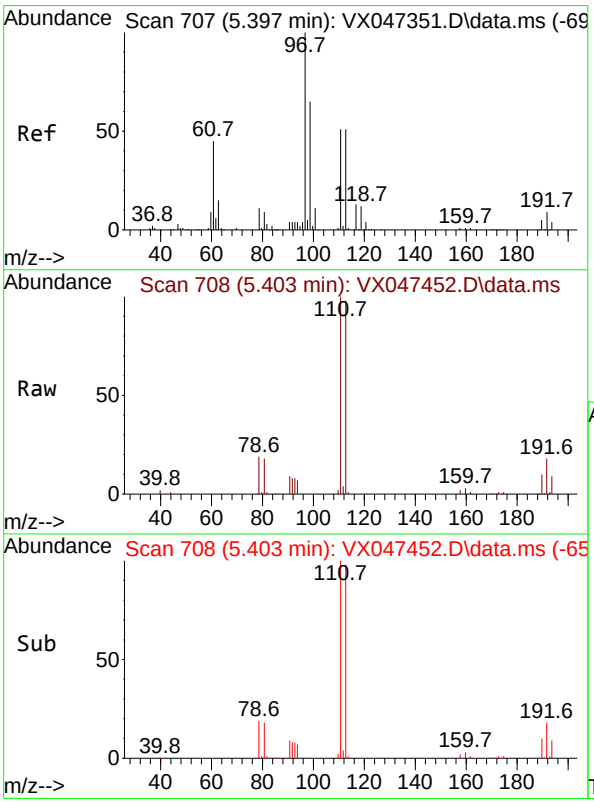
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.775 min Scan# 9
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:114 Resp: 475099

Ion	Ratio	Lower	Upper
114	100		
63	20.8	0.0	42.4
88	16.7	0.0	33.0

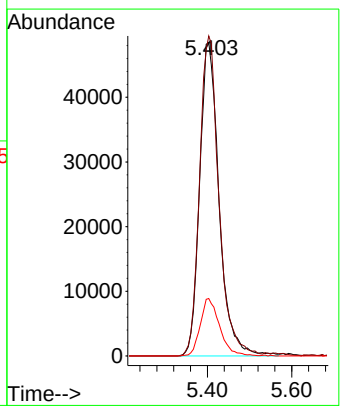


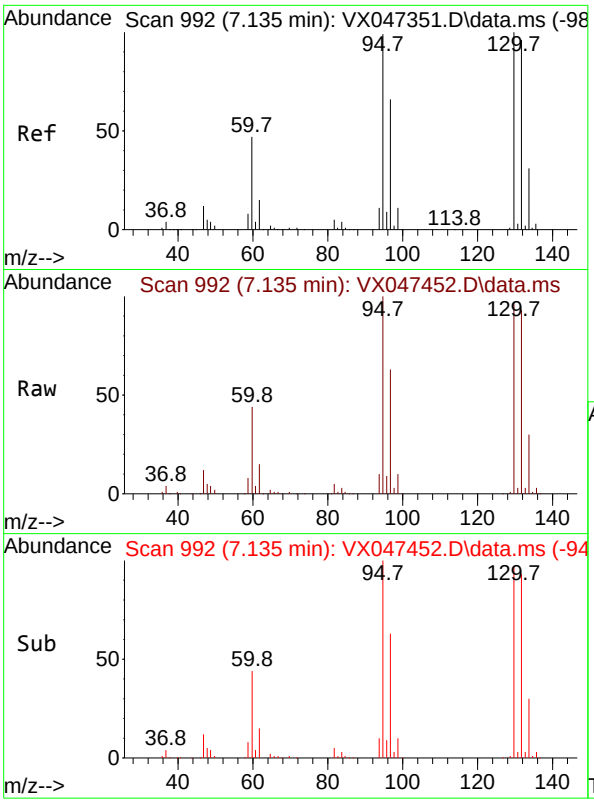


#35
Dibromofluoromethane
Concen: 50.467 ug/l
RT: 5.403 min Scan# 708
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion:113 Resp: 155611

Ion	Ratio	Lower	Upper
113	100		
111	101.7	81.4	122.2
192	18.2	14.1	21.1



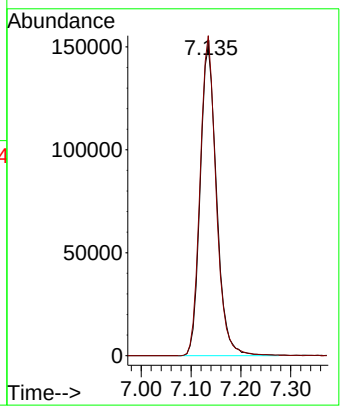


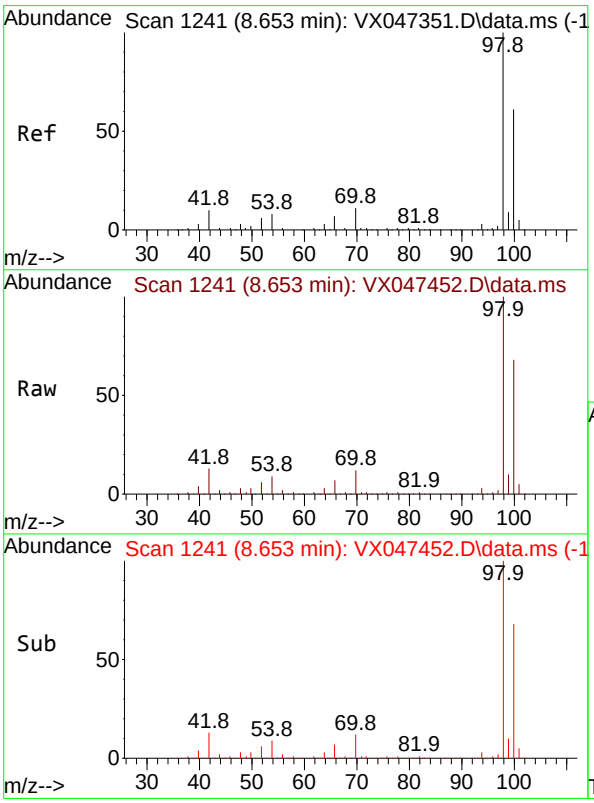
#44
Trichloroethene
Concen: 92.036 ug/l
RT: 7.135 min Scan# 9
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:130 Resp: 343338

Ion	Ratio	Lower	Upper
130	100		
95	103.4	0.0	198.6

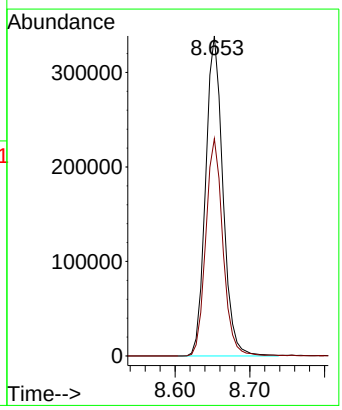


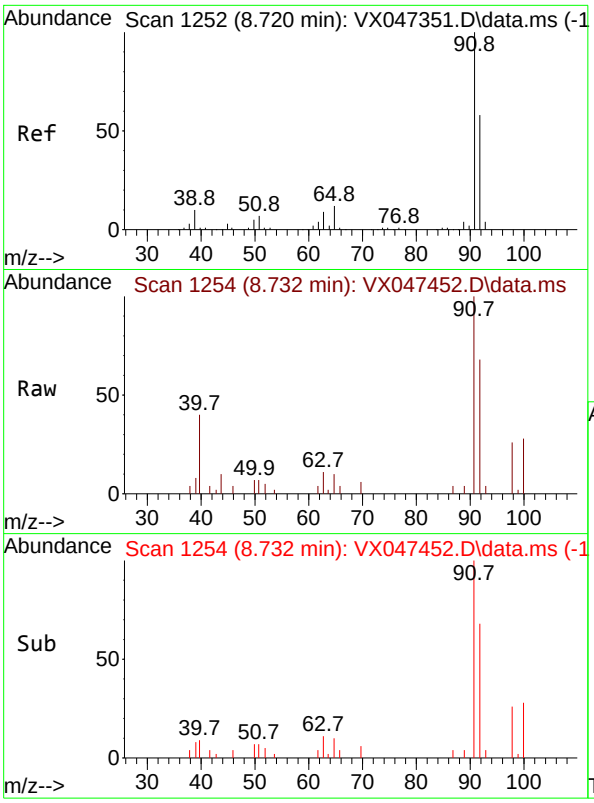


#50
Toluene-d8
Concen: 49.439 ug/l
RT: 8.653 min Scan# 1241
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 98 Resp: 544870

Ion	Ratio	Lower	Upper
98	100		
100	67.2	53.9	80.9



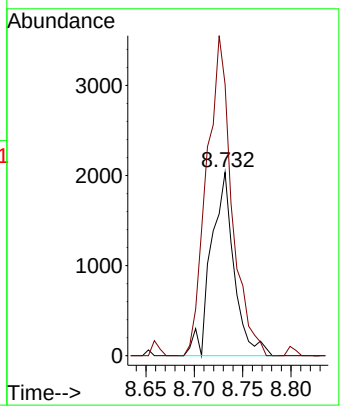


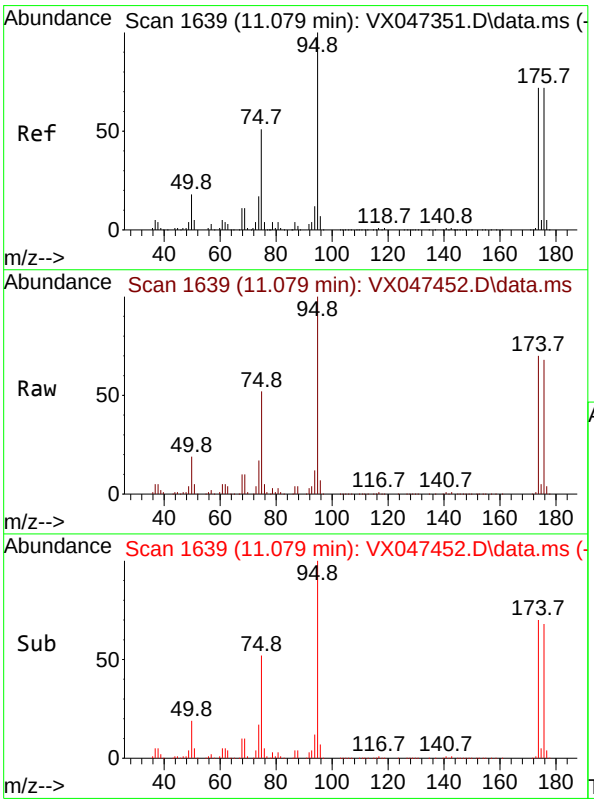
#52
Toluene
Concen: 0.373 ug/l
RT: 8.732 min Scan# 1
Delta R.T. 0.012 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion: 92 Resp: 3358

Ion	Ratio	Lower	Upper
92	100		
91	191.8	136.3	204.5

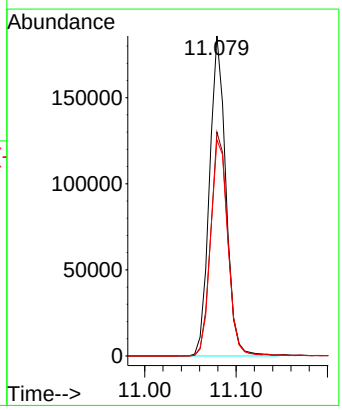


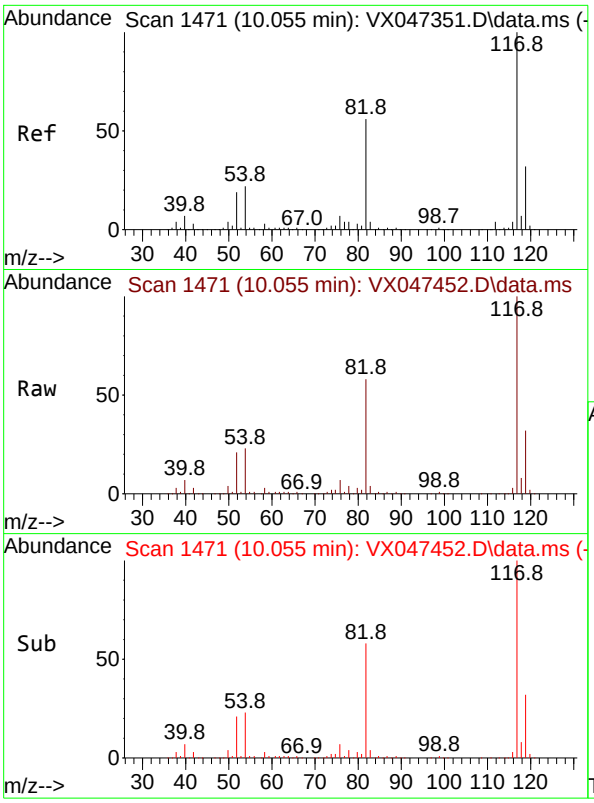


#62
4-Bromofluorobenzene
Concen: 56.800 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 95 Resp: 231003

Ion	Ratio	Lower	Upper
95	100		
174	72.7	0.0	148.0
176	71.1	0.0	145.4



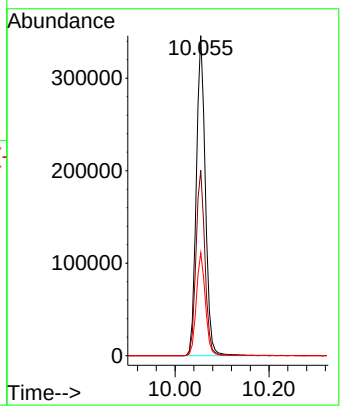


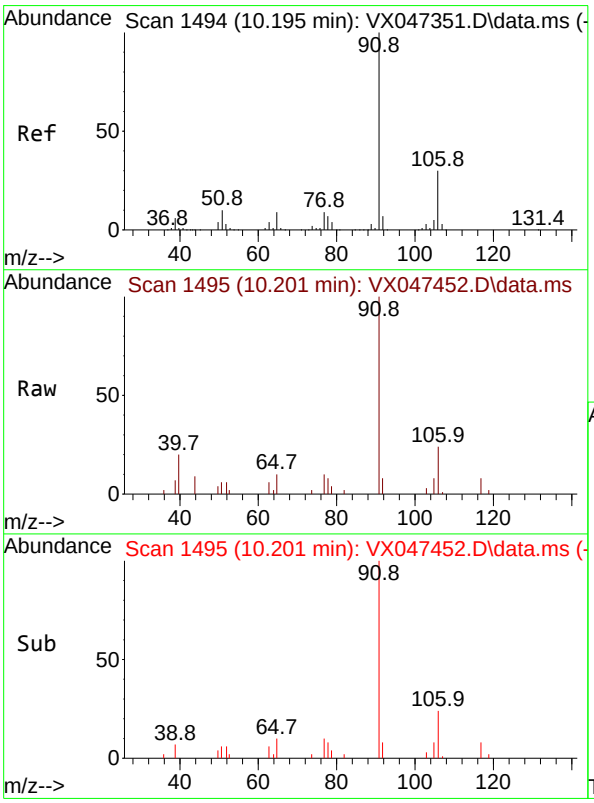
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:117 Resp: 465473

Ion	Ratio	Lower	Upper
117	100		
82	57.9	45.0	67.4
119	32.1	25.8	38.8

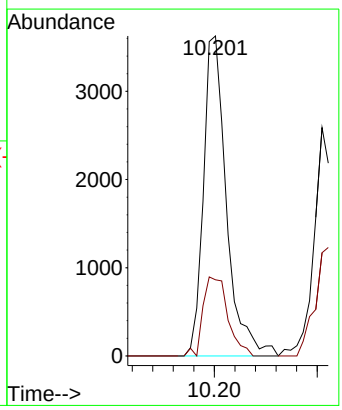


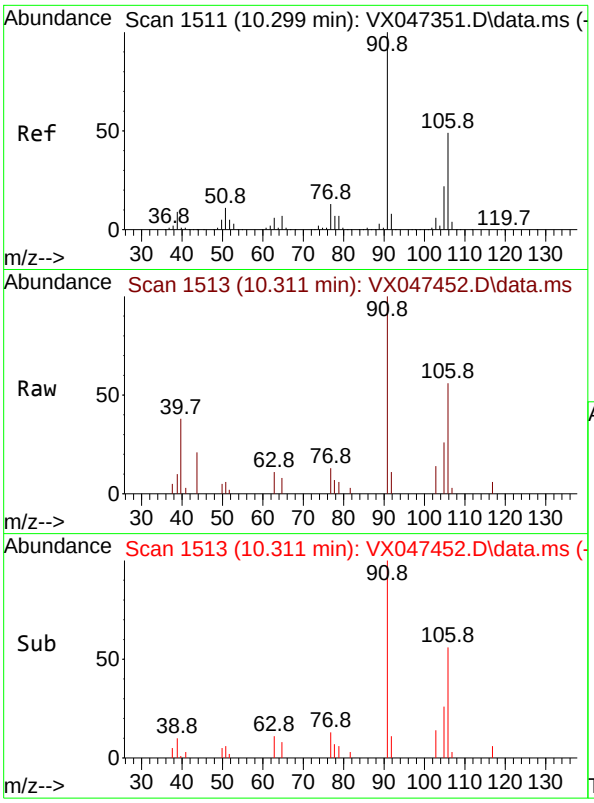


#67
Ethyl Benzene
Concen: 0.297 ug/l
RT: 10.201 min Scan# 1495
Delta R.T. 0.006 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion: 91 Resp: 5646

Ion	Ratio	Lower	Upper
91	100		
106	22.1	24.4	36.6#



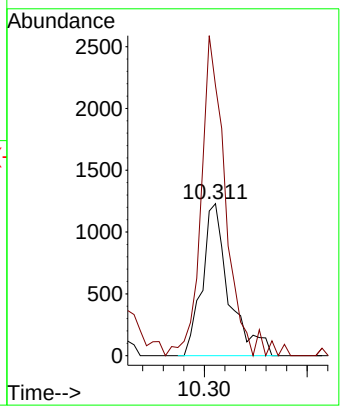


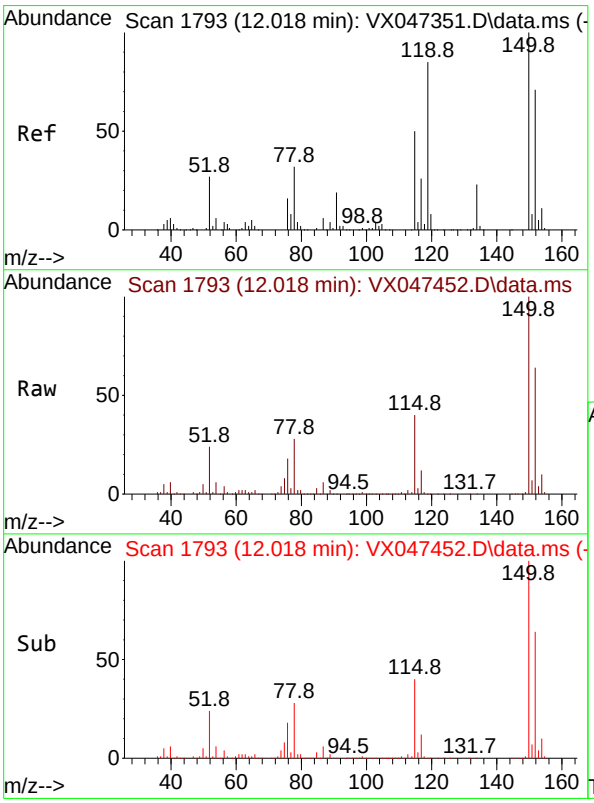
#68
m/p-Xylenes
Concen: 0.314 ug/l
RT: 10.311 min Scan# 1
Delta R.T. 0.012 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:106 Resp: 2227

Ion	Ratio	Lower	Upper
106	100		
91	185.1	164.7	247.1

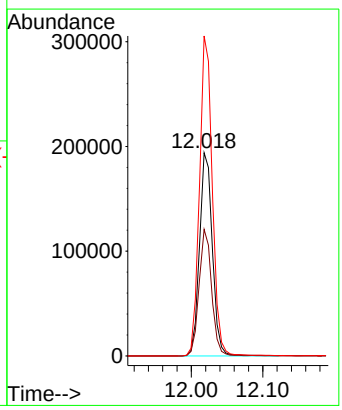


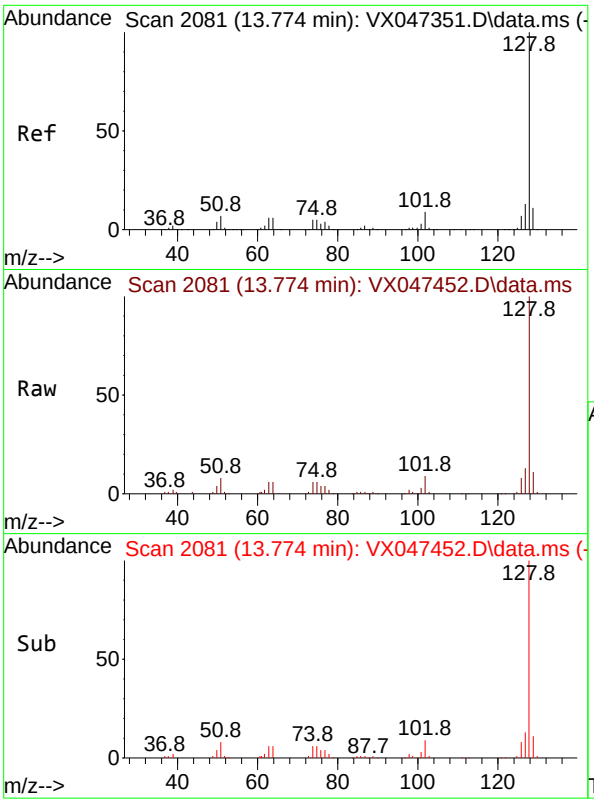


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Tgt Ion:152 Resp: 242657

Ion	Ratio	Lower	Upper
152	100		
115	60.9	44.6	133.8
150	157.1	0.0	349.8



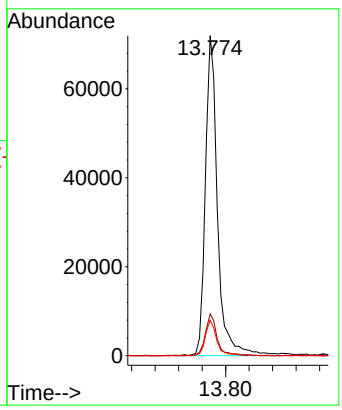


#95
Naphthalene
Concen: 6.410 ug/l
RT: 13.774 min Scan# 2
Delta R.T. -0.000 min
Lab File: VX047452.D
Acq: 20 Aug 2025 18:40

Instrument :
MSVOA_X
ClientSampleId :
MW-11B-37.5-081425

Tgt Ion:128 Resp: 103253

Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.1	15.1
129	10.2	8.7	13.1



Raw Data: **VX047441.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:	08/14/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	08/14/25
Client Sample ID:	TB01-081425	SDG No.:	Q2878
Lab Sample ID:	Q2878-06	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
VX047441.D	1	08/20/25 14:42	VX082025

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	57.8		70 (74) - 130 (125)	116%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		70 (75) - 130 (124)	101%	SPK: 50
2037-26-5	Toluene-d8	50.5		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.1		70 (77) - 130 (121)	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	299000	5.568			
540-36-3	1,4-Difluorobenzene	610000	6.775			
3114-55-4	Chlorobenzene-d5	600000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	295000	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\VX082025\
Data File : VX047441.D
Acq On : 20 Aug 2025 14:42
Operator : JC/MD
Sample : Q2878-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Quant Time: Aug 21 01:32:21 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

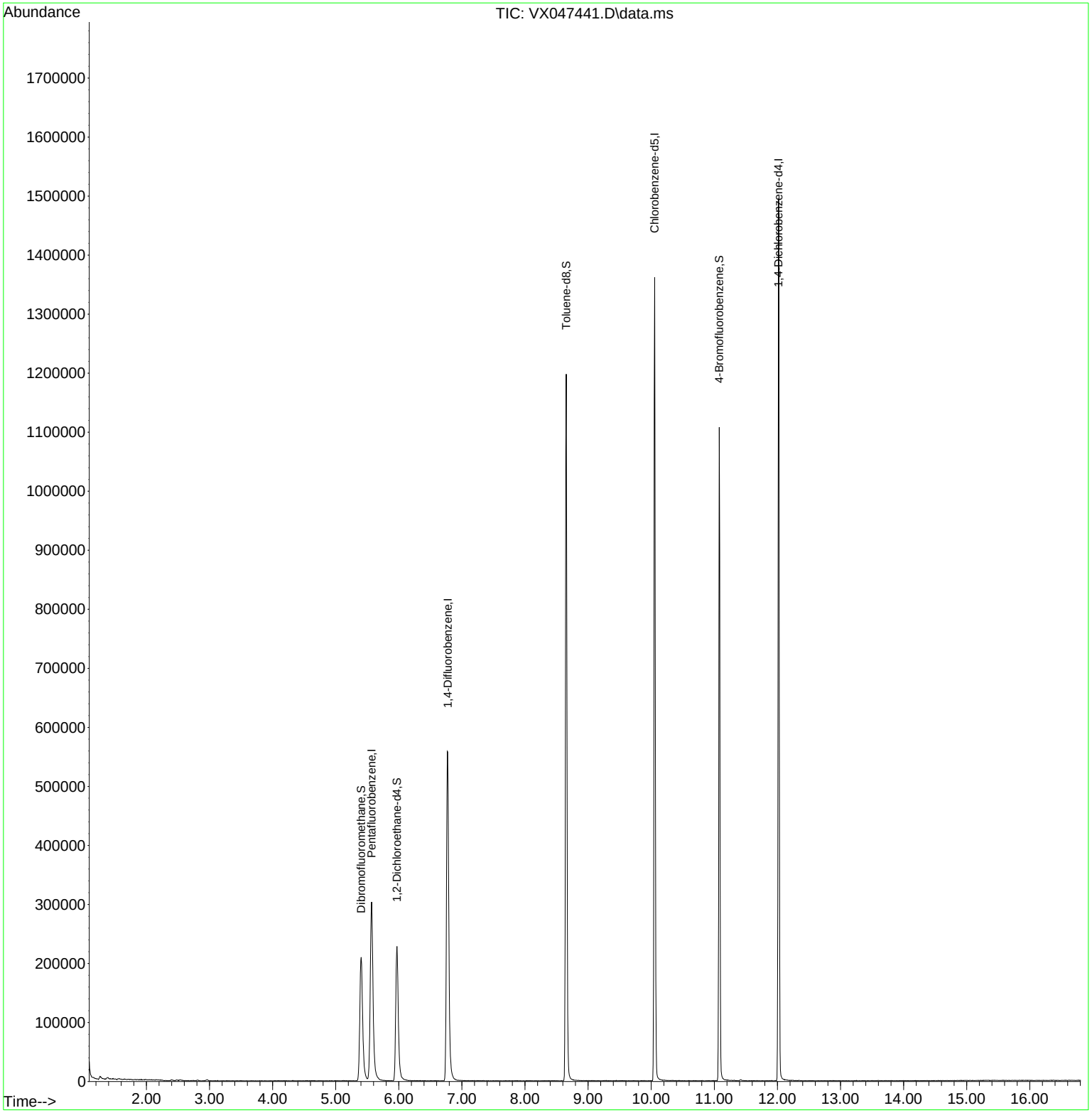
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	298809	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.775	114	610463	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	600442	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	294767	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.970	65	241793	57.819	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 115.640%			
35) Dibromofluoromethane	5.403	113	199788	50.427	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.860%			
50) Toluene-d8	8.653	98	715700	50.540	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 101.080%			
62) 4-Bromofluorobenzene	11.079	95	287809	55.075	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 110.160%			
Target Compounds						Qvalue

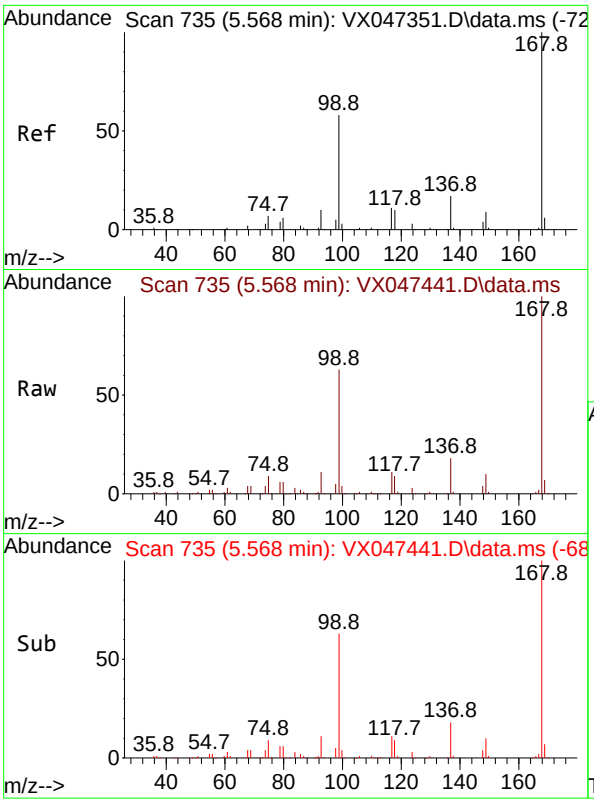
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047441.D
Acq On : 20 Aug 2025 14:42
Operator : JC/MD
Sample : Q2878-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Quant Time: Aug 21 01:32:21 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



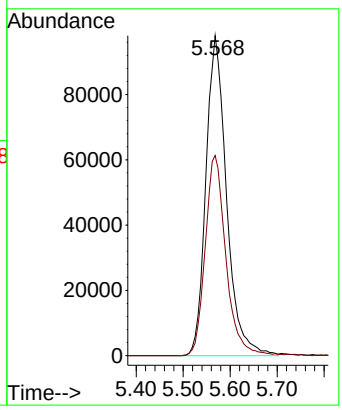


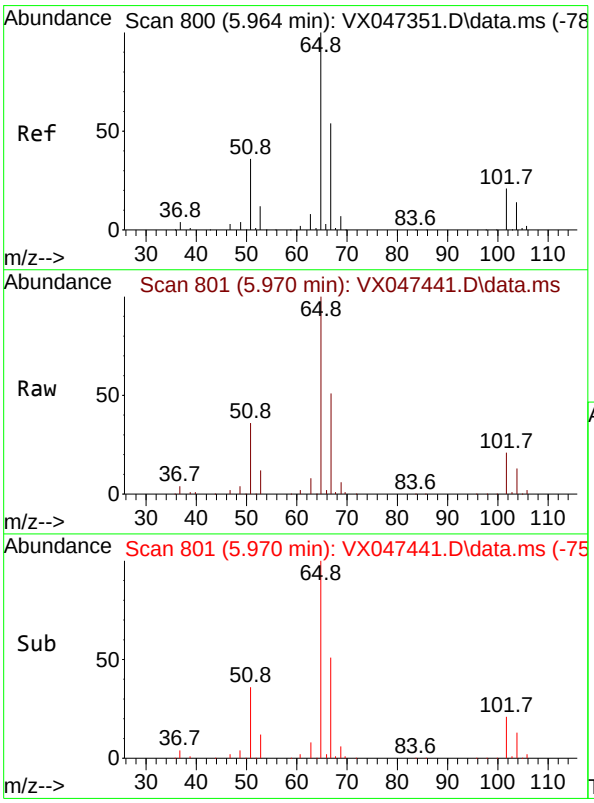
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Tgt Ion:168 Resp: 298809

Ion	Ratio	Lower	Upper
168	100		
99	62.5	47.9	71.9

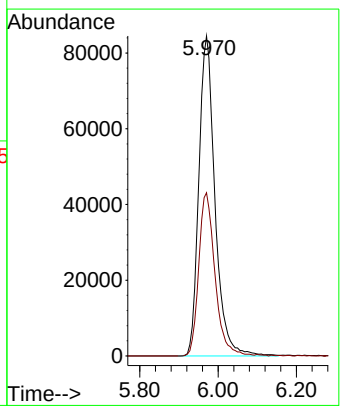


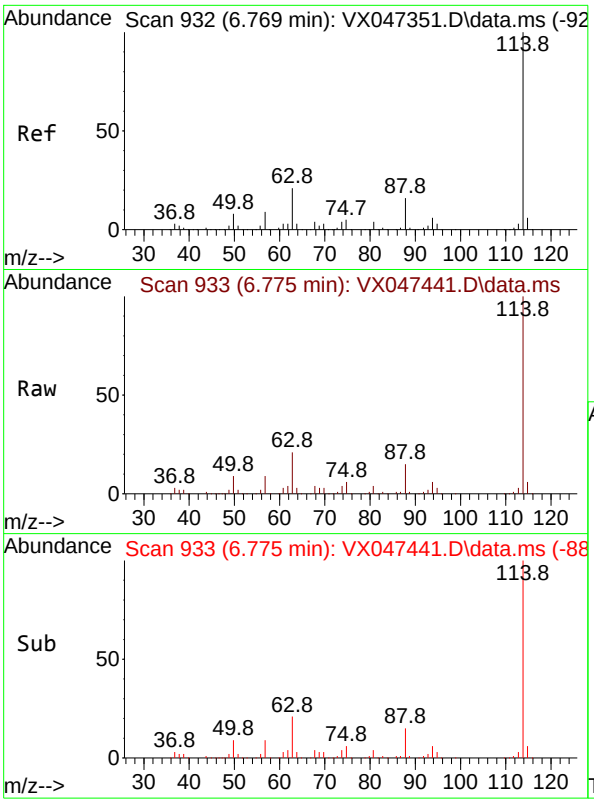


#33
1,2-Dichloroethane-d4
Concen: 57.819 ug/l
RT: 5.970 min Scan# 801
Delta R.T. 0.006 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Tgt Ion: 65 Resp: 241793

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	106.0



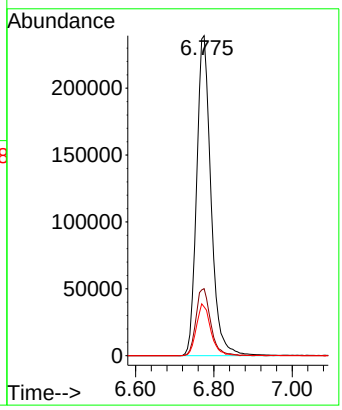


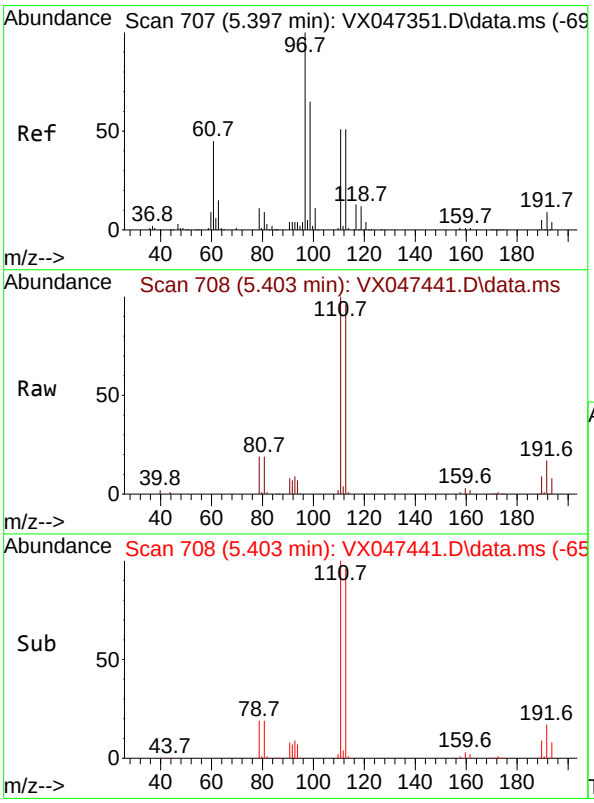
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.775 min Scan# 9
Delta R.T. 0.006 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Tgt Ion:114 Resp: 610463

Ion	Ratio	Lower	Upper
114	100		
63	20.9	0.0	42.4
88	15.2	0.0	33.0

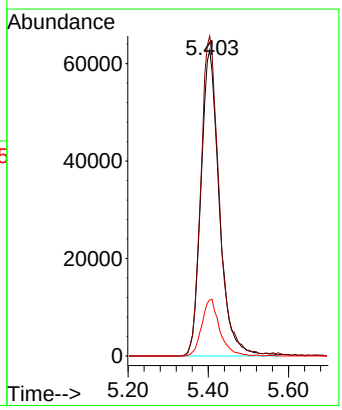


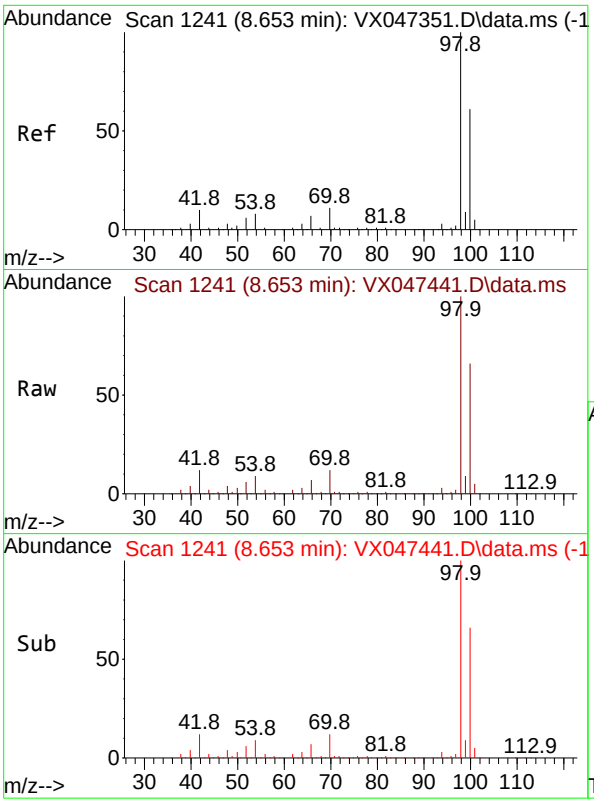


#35
Dibromofluoromethane
Concen: 50.427 ug/l
RT: 5.403 min Scan# 708
Delta R.T. 0.006 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Tgt Ion:113 Resp: 199788

Ion	Ratio	Lower	Upper
113	100		
111	104.2	81.4	122.2
192	18.0	14.1	21.1



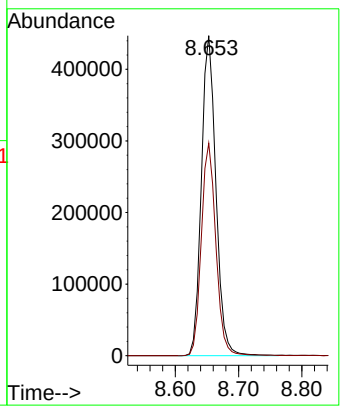


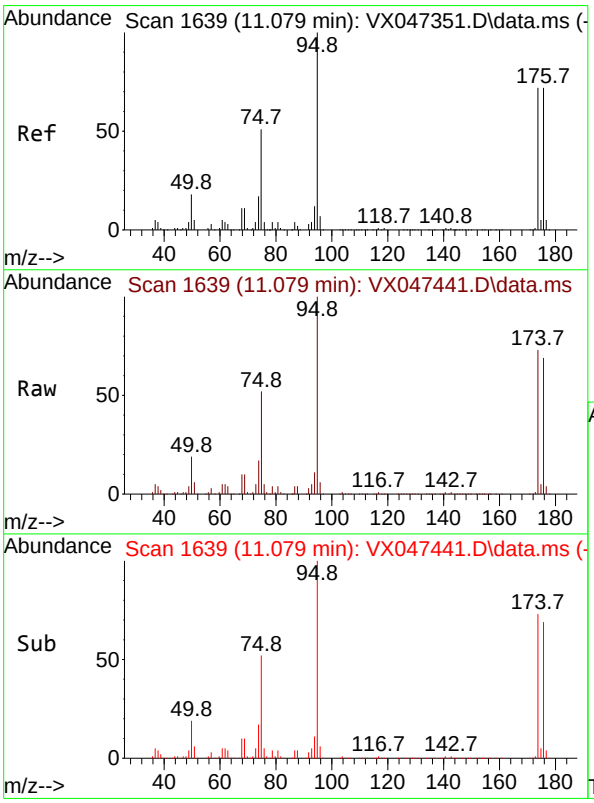
#50
Toluene-d8
Concen: 50.540 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Tgt Ion: 98 Resp: 715700

Ion	Ratio	Lower	Upper
98	100		
100	66.3	53.9	80.9

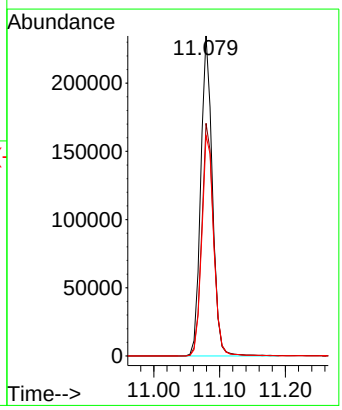


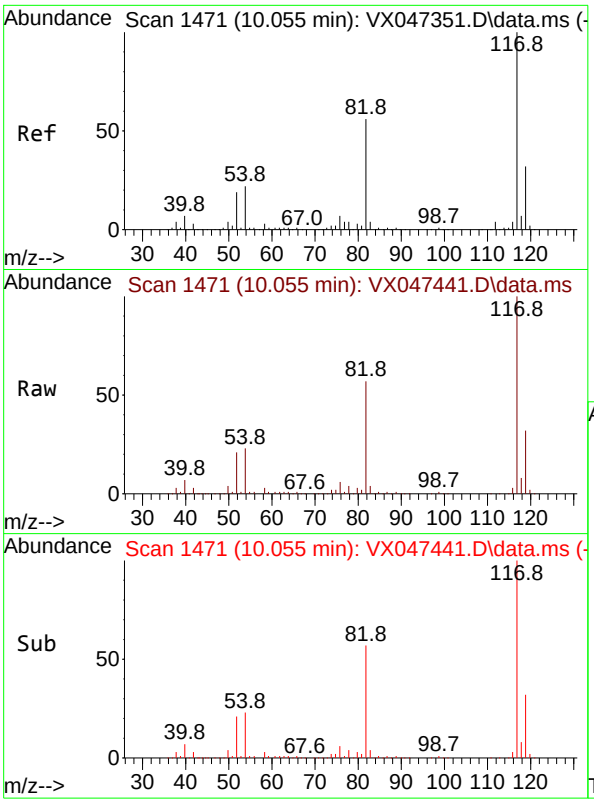


#62
4-Bromofluorobenzene
Concen: 55.075 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Tgt Ion: 95 Resp: 287809

Ion	Ratio	Lower	Upper
95	100		
174	74.3	0.0	148.0
176	71.2	0.0	145.4



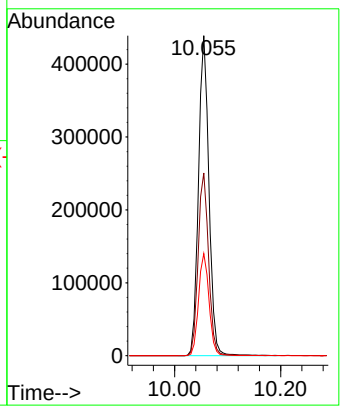


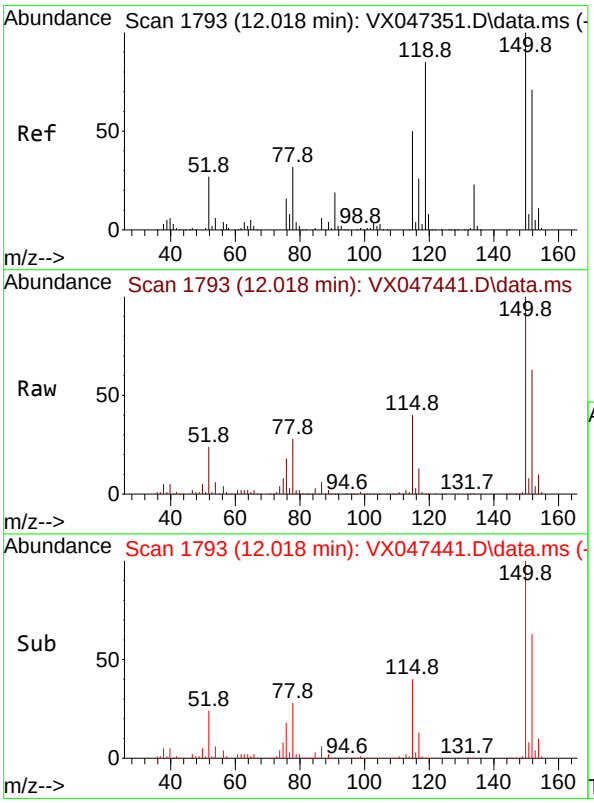
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Instrument :
MSVOA_X
ClientSampleId :
TB01-081425

Tgt Ion:117 Resp: 600442

Ion	Ratio	Lower	Upper
117	100		
82	57.1	45.0	67.4
119	31.9	25.8	38.8

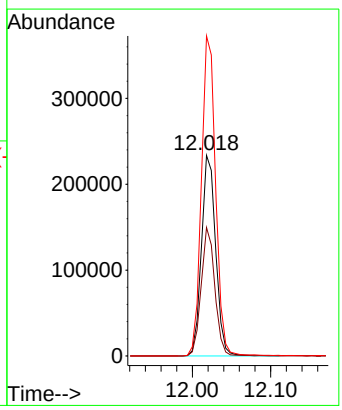




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047441.D
Acq: 20 Aug 2025 14:42

Tgt Ion:152 Resp: 294767

Ion	Ratio	Lower	Upper
152	100		
115	61.5	44.6	133.8
150	159.3	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.: Q2878

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

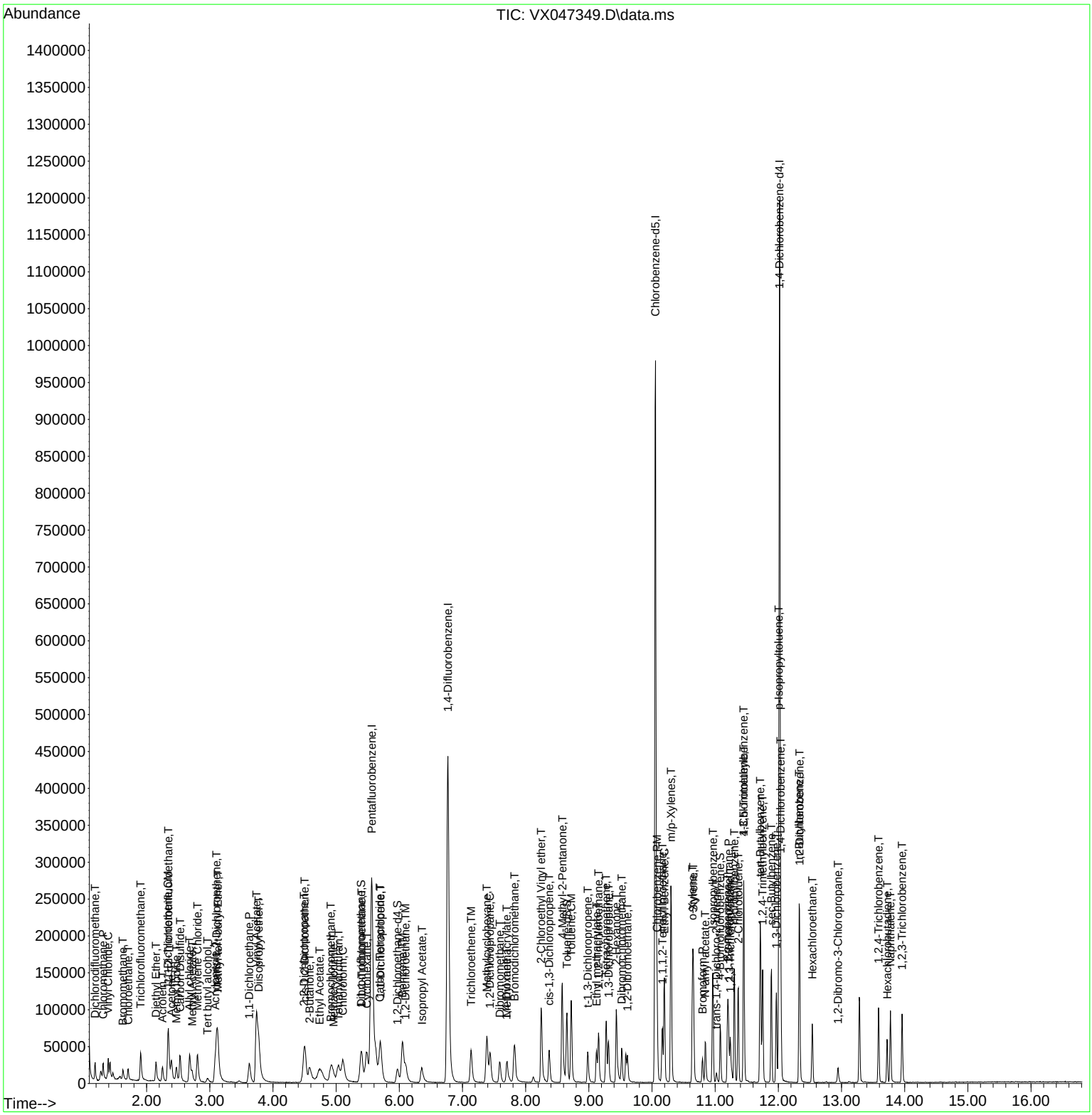
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047349.D
Acq On : 15 Aug 2025 09:40
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

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

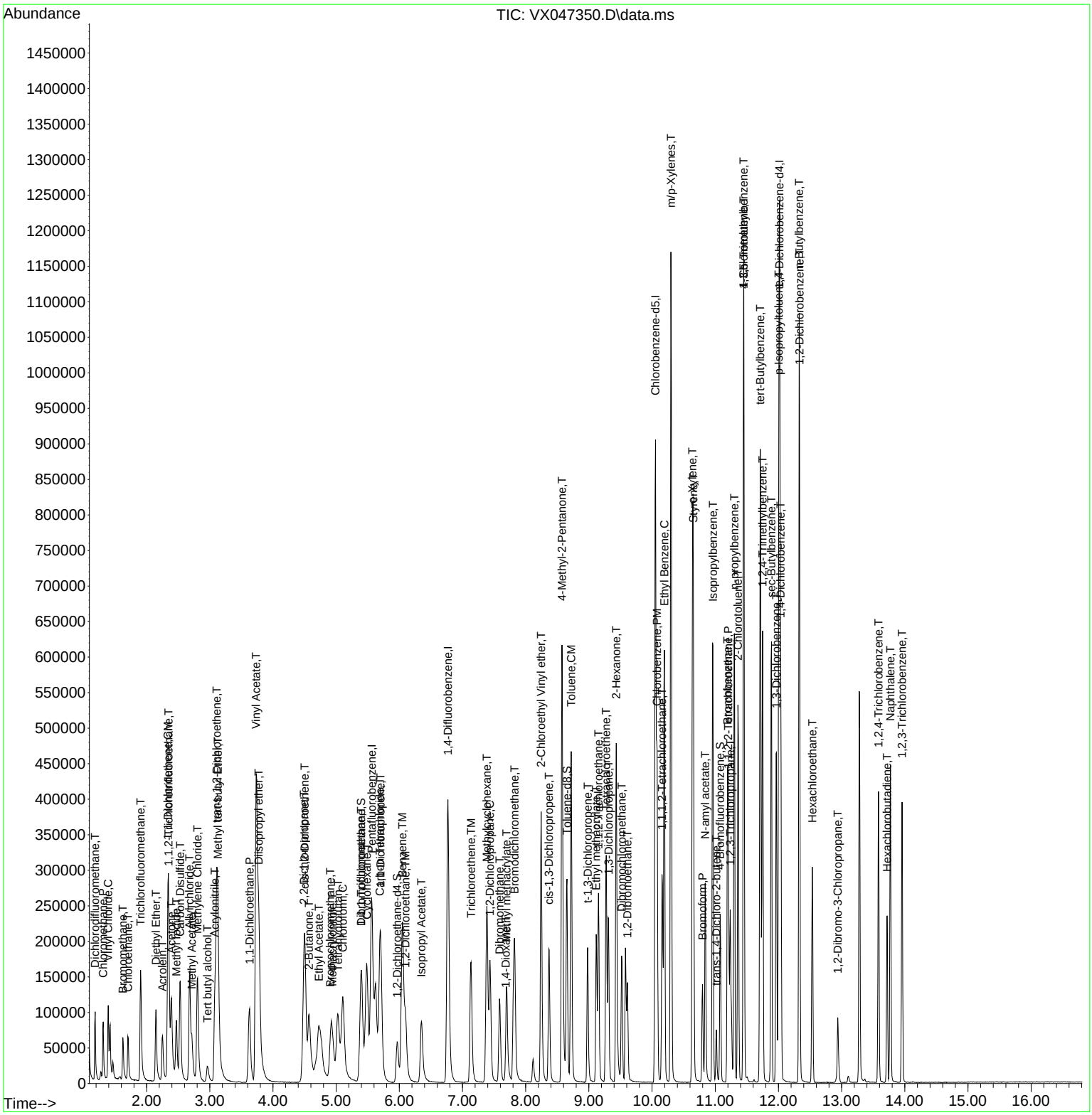
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047350.D
Acq On : 15 Aug 2025 10:01
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

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

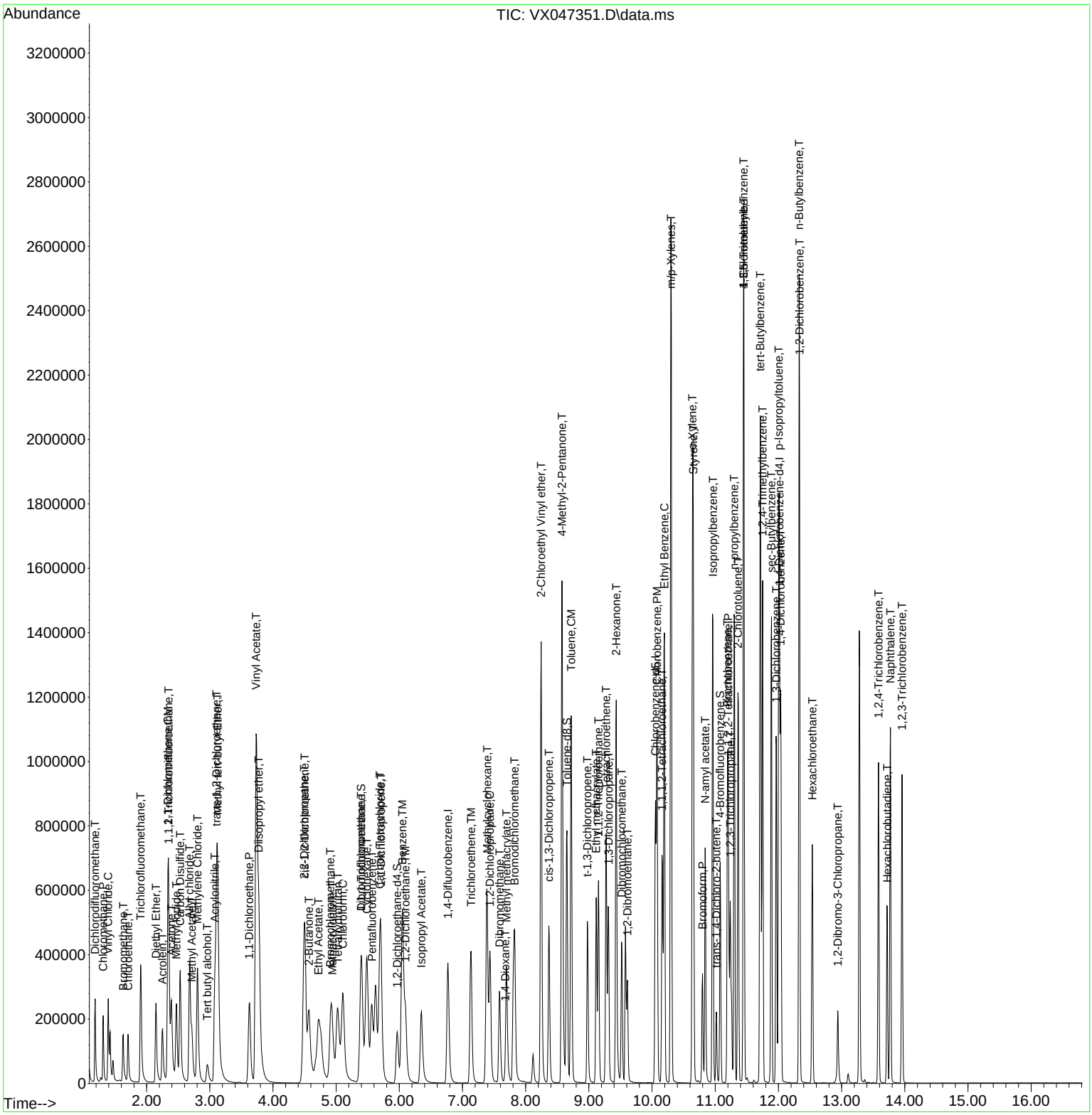
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047351.D
Acq On : 15 Aug 2025 10:22
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

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

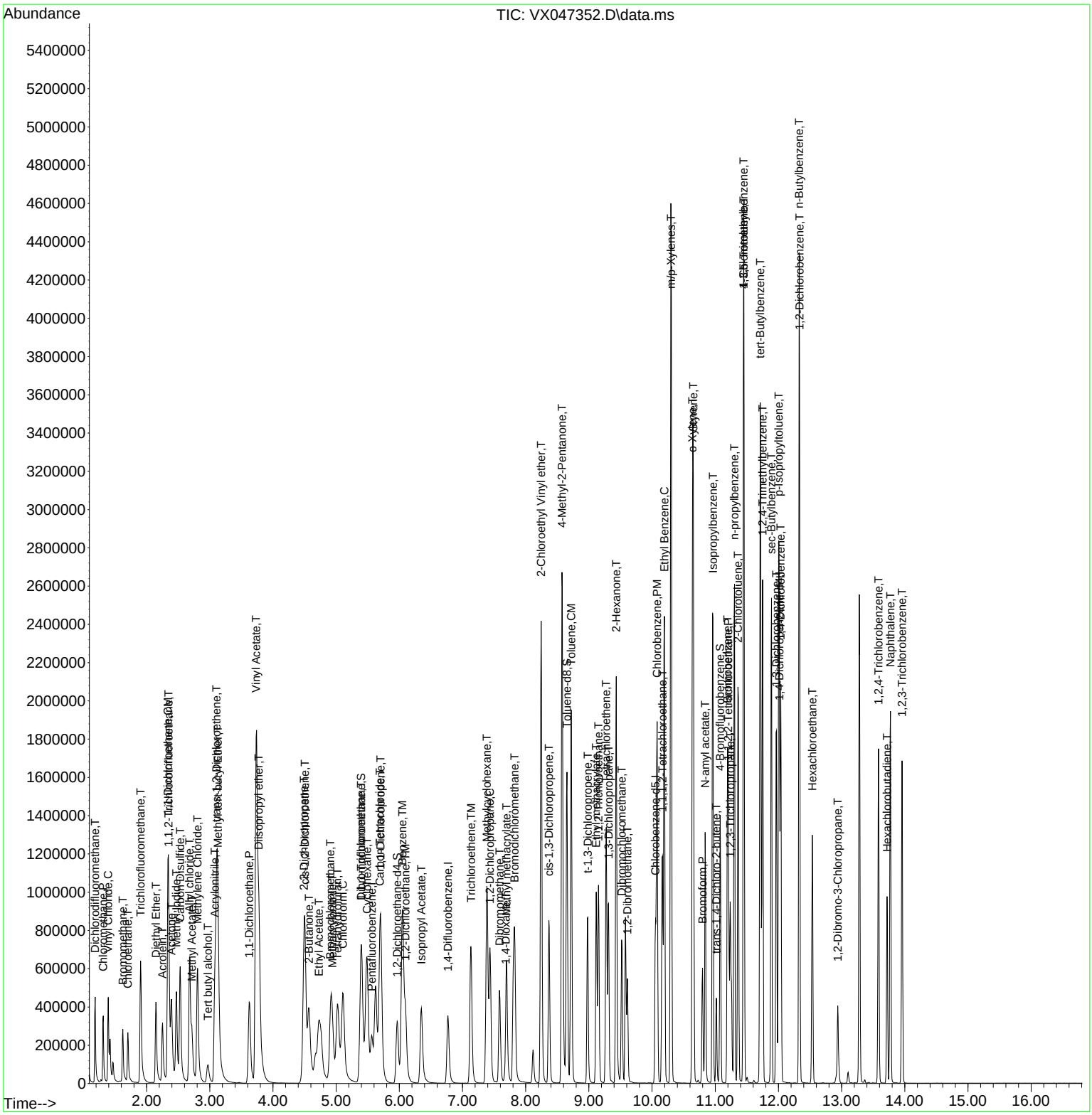
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047352.D
Acq On : 15 Aug 2025 10:43
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

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

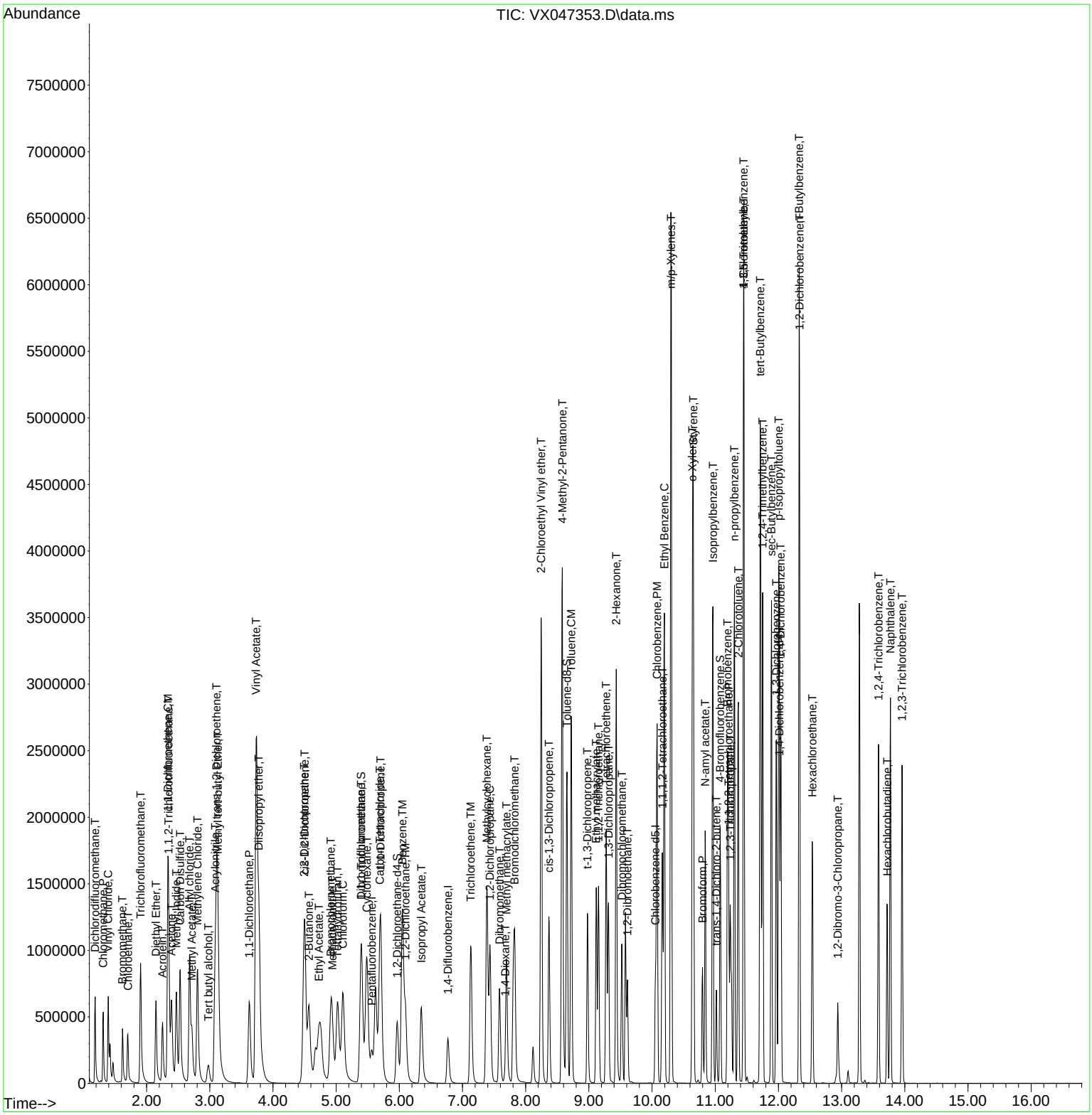
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047353.D
Acq On : 15 Aug 2025 11:05
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

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

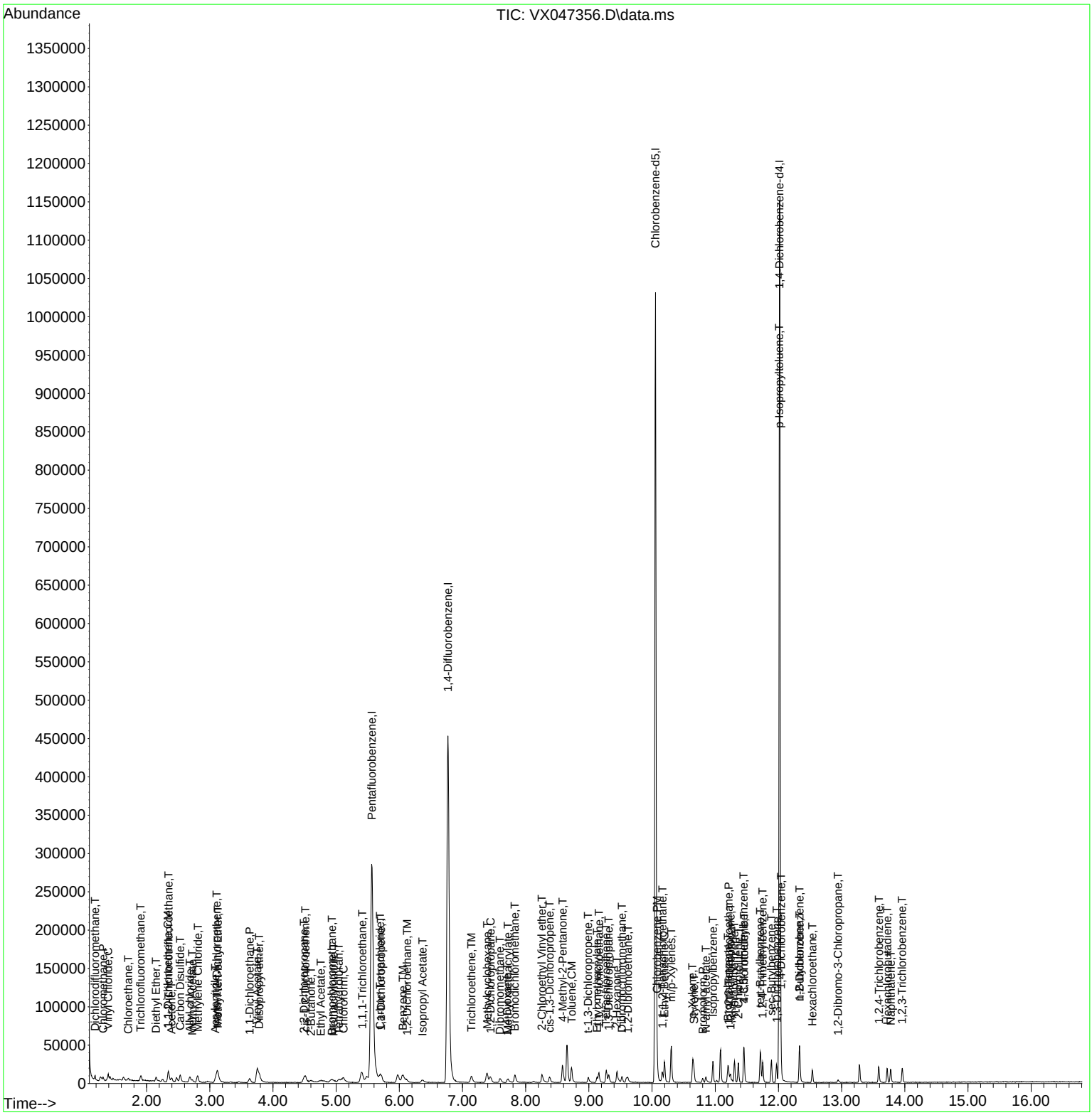
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047356.D
Acq On : 15 Aug 2025 12:30
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

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

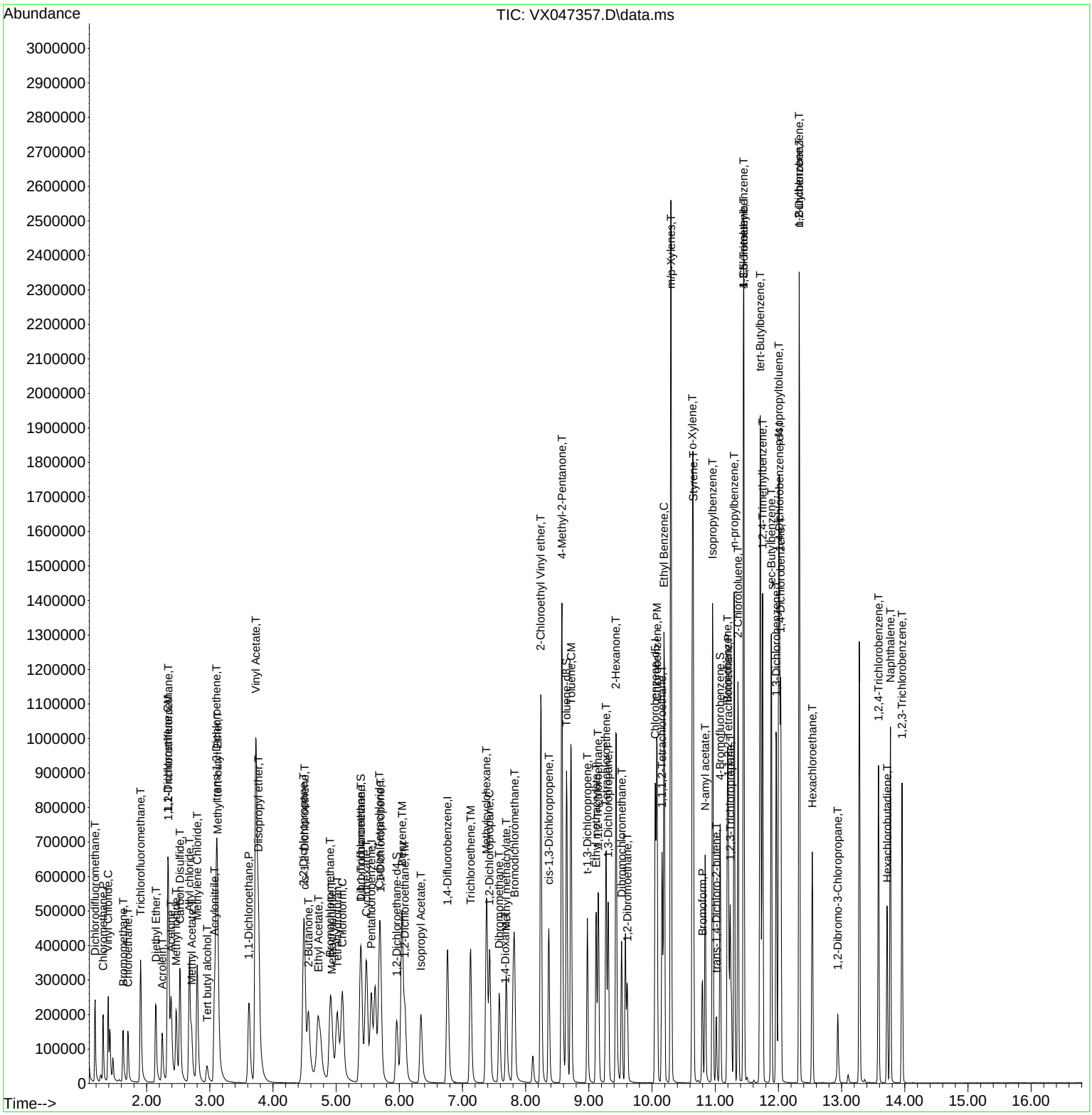
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047357.D
Acq On : 15 Aug 2025 13:11
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

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: **VX047427.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.:	Q2878
Instrument ID:	MSVOA_X	Calibration Date/Time:	08/20/2025 09:25
Lab File ID:	VX047427.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	0.671		-6.81	20
1,1-Dichloroethene	0.630	0.586		-6.98	20
1,1-Dichloroethane	1.222	1.158	0.1	-5.24	20
cis-1,2-Dichloroethene	0.778	0.733		-5.78	20
1,1,1-Trichloroethane	1.073	1.016		-5.31	20
Benzene	1.533	1.484		-3.2	20
1,2-Dichloroethane	0.543	0.539		-0.74	20
Trichloroethene	0.393	0.368		-6.36	20
1,1,2-Trichloroethane	0.360	0.361		0.28	20
Tetrachloroethene	0.362	0.335		-7.46	20
1,2-Dichloroethane-d4	0.700	0.747		6.71	20
Dibromofluoromethane	0.325	0.355		9.23	20
Toluene-d8	1.160	1.231		6.12	20
4-Bromofluorobenzene	0.428	0.465		8.65	20

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

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 21 01:24:47 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 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	222102	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	369648	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.049	117	338607	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	165668	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	165825	53.348	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.700%			
35) Dibromofluoromethane	5.391	113	131333	54.744	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 109.480%			
50) Toluene-d8	8.647	98	454952	53.057	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 106.120%			
62) 4-Bromofluorobenzene	11.079	95	171750	54.278	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 108.560%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	137479	48.557	ug/l	99
3) Chloromethane	1.307	50	116471	45.729	ug/l	96
4) Vinyl Chloride	1.392	62	149112	46.643	ug/l	98
5) Bromomethane	1.624	94	62138	48.121	ug/l	96
6) Chloroethane	1.703	64	86133	44.036	ug/l	100
7) Trichlorofluoromethane	1.904	101	222951	47.149	ug/l	100
8) Diethyl Ether	2.148	74	81534	48.968	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.343	101	137505	50.129	ug/l	99
10) Methyl Iodide	2.465	142	175616	37.360	ug/l	99
11) Tert butyl alcohol	2.959	59	77273	285.760	ug/l	98
12) 1,1-Dichloroethene	2.337	96	130124	46.532	ug/l	97
13) Acrolein	2.246	56	166950	292.470	ug/l	100
14) Allyl chloride	2.678	41	233998	48.177	ug/l	97
15) Acrylonitrile	3.075	53	345699	264.563	ug/l	100
16) Acetone	2.386	43	339865	290.885	ug/l	98
17) Carbon Disulfide	2.526	76	362926	43.008	ug/l	99
18) Methyl Acetate	2.709	43	168367	55.608	ug/l	99
19) Methyl tert-butyl Ether	3.124	73	426473	50.130	ug/l	99
20) Methylene Chloride	2.800	84	145340	46.976	ug/l	96
21) trans-1,2-Dichloroethene	3.105	96	138016	46.500	ug/l	99
22) Diisopropyl ether	3.764	45	479860	49.981	ug/l #	82
23) Vinyl Acetate	3.727	43	2003620	254.613	ug/l	100
24) 1,1-Dichloroethane	3.617	63	257251	47.405	ug/l	99
25) 2-Butanone	4.562	43	432361	282.551	ug/l	99
26) 2,2-Dichloropropane	4.483	77	196523	47.981	ug/l	100
27) cis-1,2-Dichloroethene	4.495	96	162834	47.103	ug/l	99
28) Bromochloromethane	4.904	49	118739	52.582	ug/l	98
29) Tetrahydrofuran	5.013	42	258151	261.014	ug/l	98
30) Chloroform	5.099	83	263954	47.660	ug/l	100
31) Cyclohexane	5.483	56	232913	46.560	ug/l	97
32) 1,1,1-Trichloroethane	5.391	97	225596	47.325	ug/l	99
36) 1,1-Dichloropropene	5.696	75	179428	47.379	ug/l	99
37) Ethyl Acetate	4.721	43	198822	50.571	ug/l	99
38) Carbon Tetrachloride	5.684	117	196495	47.480	ug/l	97
39) Methylcyclohexane	7.385	83	227398	48.139	ug/l	95
40) Benzene	6.044	78	548553	48.393	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 21 01:24:47 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 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.928	41	81393	49.094	ug/l		94
42) 1,2-Dichloroethane	6.093	62	199161	49.602	ug/l		99
43) Isopropyl Acetate	6.342	43	290517	51.437	ug/l		100
44) Trichloroethene	7.129	130	136195	46.924	ug/l		99
45) 1,2-Dichloropropane	7.428	63	139581	49.152	ug/l		100
46) Dibromomethane	7.580	93	101467	49.216	ug/l		99
47) Bromodichloromethane	7.818	83	213085	49.856	ug/l		99
48) Methyl methacrylate	7.690	41	149931	51.141	ug/l		99
49) 1,4-Dioxane	7.684	88	36343	1275.197	ug/l		96
51) 4-Methyl-2-Pentanone	8.574	43	871077	268.005	ug/l		99
52) Toluene	8.714	92	343297	49.011	ug/l		99
53) t-1,3-Dichloropropene	8.976	75	195614	52.441	ug/l		100
54) cis-1,3-Dichloropropene	8.367	75	214406	50.782	ug/l		99
55) 1,1,2-Trichloroethane	9.147	97	133399	50.160	ug/l		98
56) Ethyl methacrylate	9.116	69	204493	52.154	ug/l		99
57) 1,3-Dichloropropane	9.305	76	229079	50.551	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.238	63	484861	258.666	ug/l		99
59) 2-Hexanone	9.427	43	608467	270.640	ug/l		100
60) Dibromochloromethane	9.519	129	158872	50.268	ug/l		99
61) 1,2-Dibromoethane	9.610	107	136781	49.876	ug/l		99
64) Tetrachloroethene	9.269	164	113583	46.376	ug/l		96
65) Chlorobenzene	10.073	112	376977	46.849	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.159	131	129555	47.629	ug/l		100
67) Ethyl Benzene	10.189	91	656208	47.382	ug/l		99
68) m/p-Xylenes	10.299	106	499398	96.706	ug/l		100
69) o-Xylene	10.640	106	238178	47.927	ug/l		98
70) Styrene	10.653	104	412220	49.091	ug/l		100
71) Bromoform	10.799	173	102529	50.173	ug/l	#	99
73) Isopropylbenzene	10.957	105	631147	48.683	ug/l		99
74) N-amyl acetate	10.842	43	252091	51.206	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.207	83	190203	49.970	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	154268m	50.771	ug/l		
77) Bromobenzene	11.195	156	151602	47.888	ug/l		99
78) n-propylbenzene	11.299	91	752772	48.618	ug/l		99
79) 2-Chlorotoluene	11.360	91	443648	47.399	ug/l		100
80) 1,3,5-Trimethylbenzene	11.451	105	516490	48.420	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	32638	47.211	ug/l		99
82) 4-Chlorotoluene	11.451	91	524154	47.507	ug/l		100
83) tert-Butylbenzene	11.713	119	525854	49.413	ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	521624	48.900	ug/l		99
85) sec-Butylbenzene	11.890	105	656494	49.771	ug/l		100
86) p-Isopropyltoluene	12.006	119	548635	49.153	ug/l		99
87) 1,3-Dichlorobenzene	11.963	146	285444	47.198	ug/l		99
88) 1,4-Dichlorobenzene	12.037	146	288167	46.327	ug/l		100
89) n-Butylbenzene	12.329	91	520953	50.180	ug/l		100
90) Hexachloroethane	12.536	117	96627	49.346	ug/l		100
91) 1,2-Dichlorobenzene	12.329	146	272826	47.527	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	37072	50.361	ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	185776	48.275	ug/l		98
94) Hexachlorobutadiene	13.719	225	70719	51.627	ug/l		98
95) Naphthalene	13.774	128	565526	51.423	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	176412	48.632	ug/l		100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 21 01:24:47 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 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

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

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

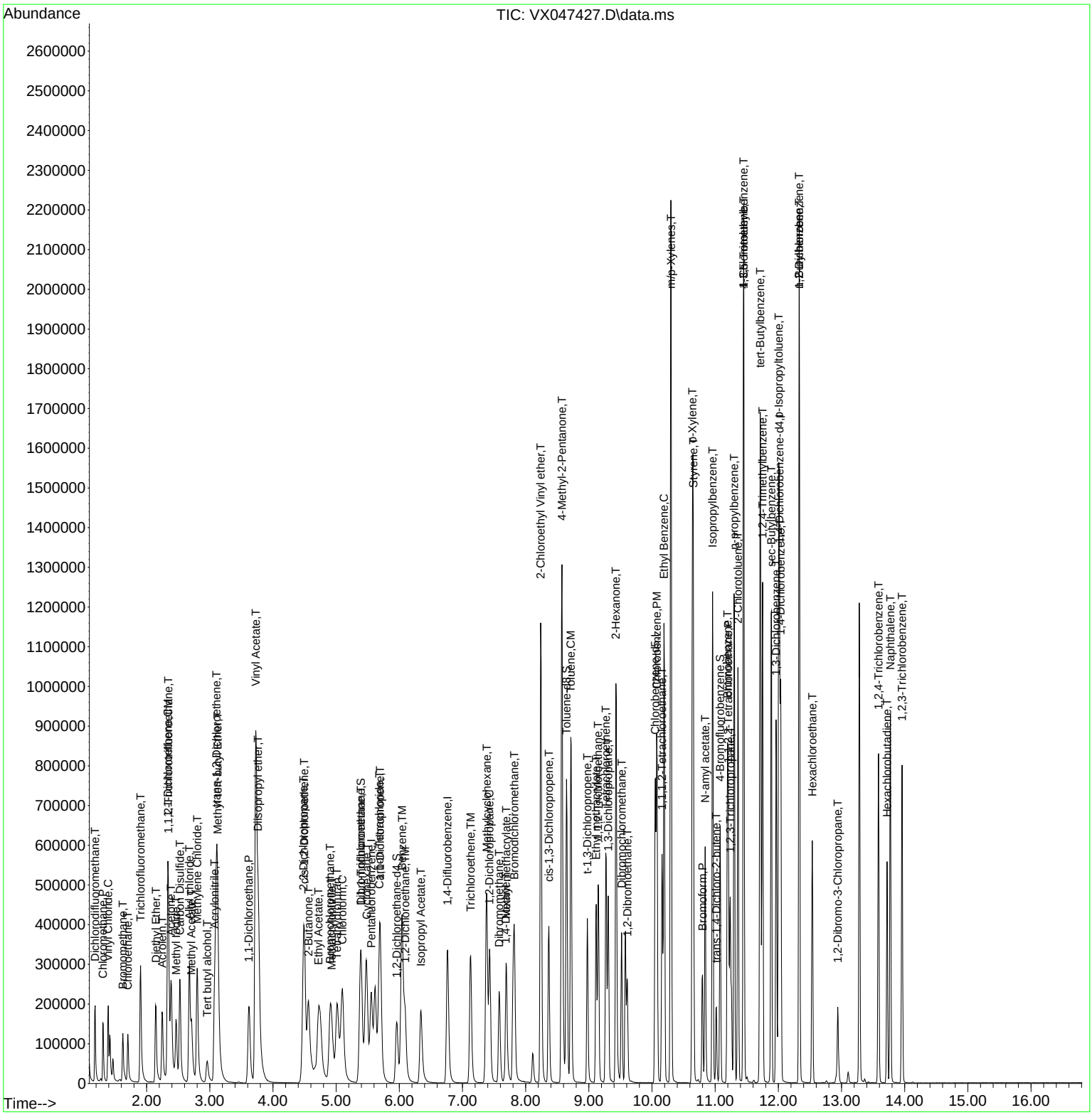
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 21 01:24:47 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 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025



Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	93	-0.01
2	T	Dichlorodifluoromethane	0.637	0.619	2.8	79	0.00
3	P	Chloromethane	0.573	0.524	8.6	78	0.00
4	C	Vinyl Chloride	0.720	0.671	6.8#	78	0.00
5	T	Bromomethane	0.291	0.280	3.8	77	0.00
6	T	Chloroethane	0.440	0.388	11.8	78	0.00
7	T	Trichlorofluoromethane	1.065	1.004	5.7	79	0.00
8	T	Diethyl Ether	0.375	0.367	2.1	82	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.618	0.619	-0.2	83	0.00
10	T	Methyl Iodide	1.058	0.791	25.2#	63	0.00
11	T	Tert butyl alcohol	0.061	0.070	-14.8	95	0.00
12	CM	1,1-Dichloroethene	0.630	0.586	7.0#	78	0.00
13	T	Acrolein	0.129	0.150	-16.3	106	0.00
14	T	Allyl chloride	1.093	1.054	3.6	81	0.00
15	T	Acrylonitrile	0.294	0.311	-5.8	85	0.00
16	T	Acetone	0.263	0.306	-16.3	102	0.00
17	T	Carbon Disulfide	1.900	1.634	14.0	76	0.00
18	T	Methyl Acetate	0.682	0.758	-11.1	92	0.00
19	T	Methyl tert-butyl Ether	1.915	1.920	-0.3	82	0.00
20	T	Methylene Chloride	0.697	0.654	6.2	80	0.00
21	T	trans-1,2-Dichloroethene	0.668	0.621	7.0	80	0.00
22	T	Diisopropyl ether	2.161	2.161	0.0	82	-0.01
23	T	Vinyl Acetate	1.772	1.804	-1.8	82	0.00
24	P	1,1-Dichloroethane	1.222	1.158	5.2	79	0.00
25	T	2-Butanone	0.344	0.389	-13.1	93	0.00
26	T	2,2-Dichloropropane	0.922	0.885	4.0	81	-0.01
27	T	cis-1,2-Dichloroethene	0.778	0.733	5.8	81	0.00
28	T	Bromochloromethane	0.508	0.535	-5.3	92	0.00
29	T	Tetrahydrofuran	0.223	0.232	-4.0	88	-0.01
30	C	Chloroform	1.247	1.188	4.7#	81	0.00
31	T	Cyclohexane	1.126	1.049	6.8	81	0.00
32	T	1,1,1-Trichloroethane	1.073	1.016	5.3	79	0.00
33	S	1,2-Dichloroethane-d4	0.700	0.747	-6.7	99	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
35	S	Dibromofluoromethane	0.325	0.355	-9.2	98	0.00
36	T	1,1-Dichloropropene	0.512	0.485	5.3	79	-0.01
37	T	Ethyl Acetate	0.532	0.538	-1.1	83	0.00
38	T	Carbon Tetrachloride	0.560	0.532	5.0	80	0.00
39	T	Methylcyclohexane	0.639	0.615	3.8	81	0.00
40	TM	Benzene	1.533	1.484	3.2	80	0.00
41	T	Methacrylonitrile	0.224	0.220	1.8	78	-0.01
42	TM	1,2-Dichloroethane	0.543	0.539	0.7	82	0.00
43	T	Isopropyl Acetate	0.764	0.786	-2.9	83	0.00
44	TM	Trichloroethene	0.393	0.368	6.4	78	0.00
45	C	1,2-Dichloropropane	0.384	0.378	1.6#	82	0.00
46	T	Dibromomethane	0.279	0.274	1.8	83	0.00
47	T	Bromodichloromethane	0.578	0.576	0.3	83	0.00
48	T	Methyl methacrylate	0.397	0.406	-2.3	83	0.00

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	100	0.00
50	S	Toluene-d8	1.160	1.231	-6.1	96	0.00
51	T	4-Methyl-2-Pentanone	0.440	0.471	-7.0	84	0.00
52	CM	Toluene	0.947	0.929	1.9#	80	0.00
53	T	t-1,3-Dichloropropene	0.505	0.529	-4.8	83	0.00
54	T	cis-1,3-Dichloropropene	0.571	0.580	-1.6	82	0.00
55	T	1,1,2-Trichloroethane	0.360	0.361	-0.3	83	0.00
56	T	Ethyl methacrylate	0.530	0.553	-4.3	82	0.00
57	T	1,3-Dichloropropane	0.613	0.620	-1.1	84	0.00
58	T	2-Chloroethyl Vinyl ether	0.211	0.262	-24.2	87	0.00
59	T	2-Hexanone	0.304	0.329	-8.2	87	0.00
60	T	Dibromochloromethane	0.428	0.430	-0.5	84	0.00
61	T	1,2-Dibromoethane	0.371	0.370	0.3	83	0.00
62	S	4-Bromofluorobenzene	0.428	0.465	-8.6	99	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00
64	T	Tetrachloroethene	0.362	0.335	7.5	79	0.00
65	PM	Chlorobenzene	1.188	1.113	6.3	81	0.00
66	T	1,1,1,2-Tetrachloroethane	0.402	0.383	4.7	81	0.00
67	C	Ethyl Benzene	2.045	1.938	5.2#	79	0.00
68	T	m/p-Xylenes	0.763	0.737	3.4	80	0.00
69	T	o-Xylene	0.734	0.703	4.2	81	0.00
70	T	Styrene	1.240	1.217	1.9	80	0.00
71	P	Bromoform	0.302	0.303	-0.3	84	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
73	T	Isopropylbenzene	3.913	3.810	2.6	81	0.00
74	T	N-amyl acetate	1.486	1.522	-2.4	82	0.00
75	P	1,1,2,2-Tetrachloroethane	1.149	1.148	0.1	85	0.00
76	T	1,2,3-Trichloropropane	0.917	0.931	-1.5	86	0.00
77	T	Bromobenzene	0.955	0.915	4.2	81	0.00
78	T	n-propylbenzene	4.673	4.544	2.8	82	0.00
79	T	2-Chlorotoluene	2.825	2.678	5.2	81	0.00
80	T	1,3,5-Trimethylbenzene	3.219	3.118	3.1	81	0.00
81	T	trans-1,4-Dichloro-2-butene	0.178	0.197	-10.7	92	0.00
82	T	4-Chlorotoluene	3.330	3.164	5.0	81	0.00
83	T	tert-Butylbenzene	3.212	3.174	1.2	82	0.00
84	T	1,2,4-Trimethylbenzene	3.219	3.149	2.2	81	0.00
85	T	sec-Butylbenzene	3.981	3.963	0.5	84	0.00
86	T	p-Isopropyltoluene	3.369	3.312	1.7	83	0.00
87	T	1,3-Dichlorobenzene	1.825	1.723	5.6	81	0.00
88	T	1,4-Dichlorobenzene	1.877	1.739	7.4	82	0.00
89	T	n-Butylbenzene	3.133	3.145	-0.4	85	0.00
90	T	Hexachloroethane	0.591	0.583	1.4	83	0.00
91	T	1,2-Dichlorobenzene	1.733	1.647	5.0	83	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.222	0.224	-0.9	85	0.00
93	T	1,2,4-Trichlorobenzene	1.161	1.121	3.4	85	0.00
94	T	Hexachlorobutadiene	0.413	0.427	-3.4	99	0.00
95	T	Naphthalene	3.319	3.414	-2.9	84	0.00

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	1.065	2.7	85	0.00

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

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	93	-0.01
2	T	Dichlorodifluoromethane	50.000	48.557	2.9	79	0.00
3	P	Chloromethane	50.000	45.729	8.5	78	0.00
4	C	Vinyl Chloride	50.000	46.643	6.7#	78	0.00
5	T	Bromomethane	50.000	48.121	3.8	77	0.00
6	T	Chloroethane	50.000	44.036	11.9	78	0.00
7	T	Trichlorofluoromethane	50.000	47.149	5.7	79	0.00
8	T	Diethyl Ether	50.000	48.968	2.1	82	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	50.129	-0.3	83	0.00
10	T	Methyl Iodide	50.000	37.360	25.3#	63	0.00
11	T	Tert butyl alcohol	250.000	285.760	-14.3	95	0.00
12	CM	1,1-Dichloroethene	50.000	46.532	6.9#	78	0.00
13	T	Acrolein	250.000	292.470	-17.0	106	0.00
14	T	Allyl chloride	50.000	48.177	3.6	81	0.00
15	T	Acrylonitrile	250.000	264.563	-5.8	85	0.00
16	T	Acetone	250.000	290.885	-16.4	102	0.00
17	T	Carbon Disulfide	50.000	43.008	14.0	76	0.00
18	T	Methyl Acetate	50.000	55.608	-11.2	92	0.00
19	T	Methyl tert-butyl Ether	50.000	50.130	-0.3	82	0.00
20	T	Methylene Chloride	50.000	46.976	6.0	80	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.500	7.0	80	0.00
22	T	Diisopropyl ether	50.000	49.981	0.0	82	-0.01
23	T	Vinyl Acetate	250.000	254.613	-1.8	82	0.00
24	P	1,1-Dichloroethane	50.000	47.405	5.2	79	0.00
25	T	2-Butanone	250.000	282.551	-13.0	93	0.00
26	T	2,2-Dichloropropane	50.000	47.981	4.0	81	-0.01
27	T	cis-1,2-Dichloroethene	50.000	47.103	5.8	81	0.00
28	T	Bromochloromethane	50.000	52.582	-5.2	92	0.00
29	T	Tetrahydrofuran	250.000	261.014	-4.4	88	-0.01
30	C	Chloroform	50.000	47.660	4.7#	81	0.00
31	T	Cyclohexane	50.000	46.560	6.9	81	0.00
32	T	1,1,1-Trichloroethane	50.000	47.325	5.3	79	0.00
33	S	1,2-Dichloroethane-d4	50.000	53.348	-6.7	99	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	91	0.00
35	S	Dibromofluoromethane	50.000	54.744	-9.5	98	0.00
36	T	1,1-Dichloropropene	50.000	47.379	5.2	79	-0.01
37	T	Ethyl Acetate	50.000	50.571	-1.1	83	0.00
38	T	Carbon Tetrachloride	50.000	47.480	5.0	80	0.00
39	T	Methylcyclohexane	50.000	48.139	3.7	81	0.00
40	TM	Benzene	50.000	48.393	3.2	80	0.00
41	T	Methacrylonitrile	50.000	49.094	1.8	78	-0.01
42	TM	1,2-Dichloroethane	50.000	49.602	0.8	82	0.00
43	T	Isopropyl Acetate	50.000	51.437	-2.9	83	0.00
44	TM	Trichloroethene	50.000	46.924	6.2	78	0.00
45	C	1,2-Dichloropropane	50.000	49.152	1.7#	82	0.00
46	T	Dibromomethane	50.000	49.216	1.6	83	0.00
47	T	Bromodichloromethane	50.000	49.856	0.3	83	0.00
48	T	Methyl methacrylate	50.000	51.141	-2.3	83	0.00

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	1275.197	-27.5#	100	0.00
50	S	Toluene-d8	50.000	53.057	-6.1	96	0.00
51	T	4-Methyl-2-Pentanone	250.000	268.005	-7.2	84	0.00
52	CM	Toluene	50.000	49.011	2.0#	80	0.00
53	T	t-1,3-Dichloropropene	50.000	52.441	-4.9	83	0.00
54	T	cis-1,3-Dichloropropene	50.000	50.782	-1.6	82	0.00
55	T	1,1,2-Trichloroethane	50.000	50.160	-0.3	83	0.00
56	T	Ethyl methacrylate	50.000	52.154	-4.3	82	0.00
57	T	1,3-Dichloropropane	50.000	50.551	-1.1	84	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	258.666	-3.5	87	0.00
59	T	2-Hexanone	250.000	270.640	-8.3	87	0.00
60	T	Dibromochloromethane	50.000	50.268	-0.5	84	0.00
61	T	1,2-Dibromoethane	50.000	49.876	0.2	83	0.00
62	S	4-Bromofluorobenzene	50.000	54.278	-8.6	99	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	93	0.00
64	T	Tetrachloroethene	50.000	46.376	7.2	79	0.00
65	PM	Chlorobenzene	50.000	46.849	6.3	81	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	47.629	4.7	81	0.00
67	C	Ethyl Benzene	50.000	47.382	5.2#	79	0.00
68	T	m/p-Xylenes	100.000	96.706	3.3	80	0.00
69	T	o-Xylene	50.000	47.927	4.1	81	0.00
70	T	Styrene	50.000	49.091	1.8	80	0.00
71	P	Bromoform	50.000	50.173	-0.3	84	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	93	0.00
73	T	Isopropylbenzene	50.000	48.683	2.6	81	0.00
74	T	N-amyl acetate	50.000	51.206	-2.4	82	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.970	0.1	85	0.00
76	T	1,2,3-Trichloropropane	50.000	50.771	-1.5	86	0.00
77	T	Bromobenzene	50.000	47.888	4.2	81	0.00
78	T	n-propylbenzene	50.000	48.618	2.8	82	0.00
79	T	2-Chlorotoluene	50.000	47.399	5.2	81	0.00
80	T	1,3,5-Trimethylbenzene	50.000	48.420	3.2	81	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	47.211	5.6	92	0.00
82	T	4-Chlorotoluene	50.000	47.507	5.0	81	0.00
83	T	tert-Butylbenzene	50.000	49.413	1.2	82	0.00
84	T	1,2,4-Trimethylbenzene	50.000	48.900	2.2	81	0.00
85	T	sec-Butylbenzene	50.000	49.771	0.5	84	0.00
86	T	p-Isopropyltoluene	50.000	49.153	1.7	83	0.00
87	T	1,3-Dichlorobenzene	50.000	47.198	5.6	81	0.00
88	T	1,4-Dichlorobenzene	50.000	46.327	7.3	82	0.00
89	T	n-Butylbenzene	50.000	50.180	-0.4	85	0.00
90	T	Hexachloroethane	50.000	49.346	1.3	83	0.00
91	T	1,2-Dichlorobenzene	50.000	47.527	4.9	83	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	50.361	-0.7	85	0.00
93	T	1,2,4-Trichlorobenzene	50.000	48.275	3.5	85	0.00
94	T	Hexachlorobutadiene	50.000	51.627	-3.3	99	0.00
95	T	Naphthalene	50.000	51.423	-2.8	84	0.00

Sample Results: **VX047427.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047427.D
Acq On : 20 Aug 2025 09:25
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 21 01:24:47 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	48.632	2.7	85	0.00

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

QC SAMPLE DATA

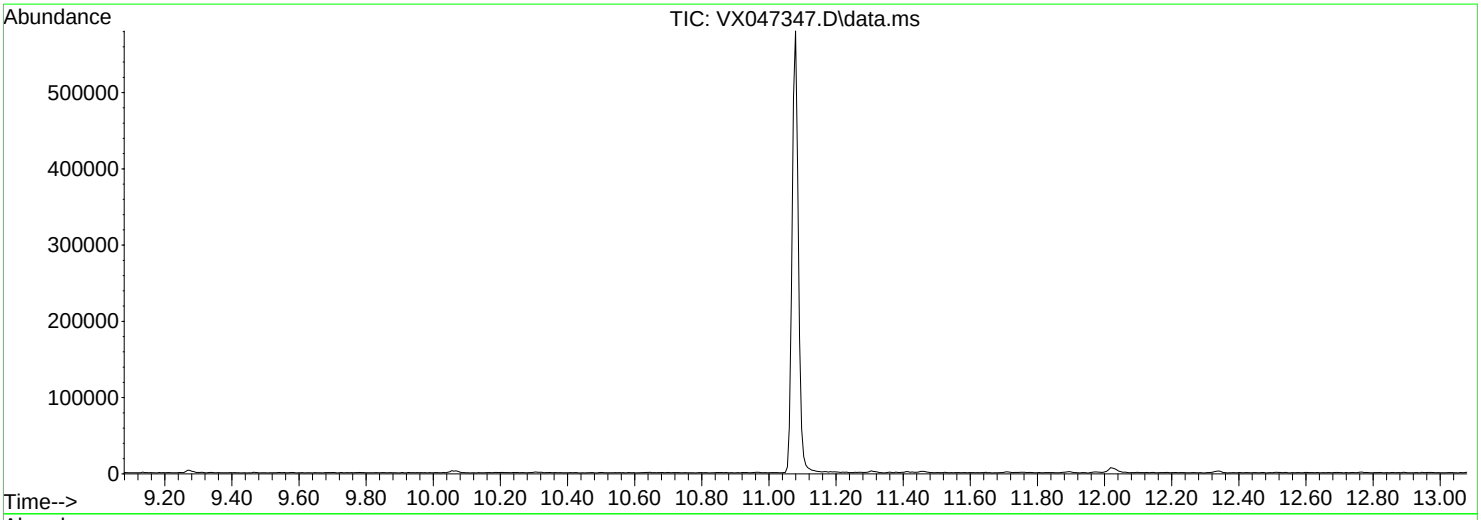
Sample Results: **VX047347.D**

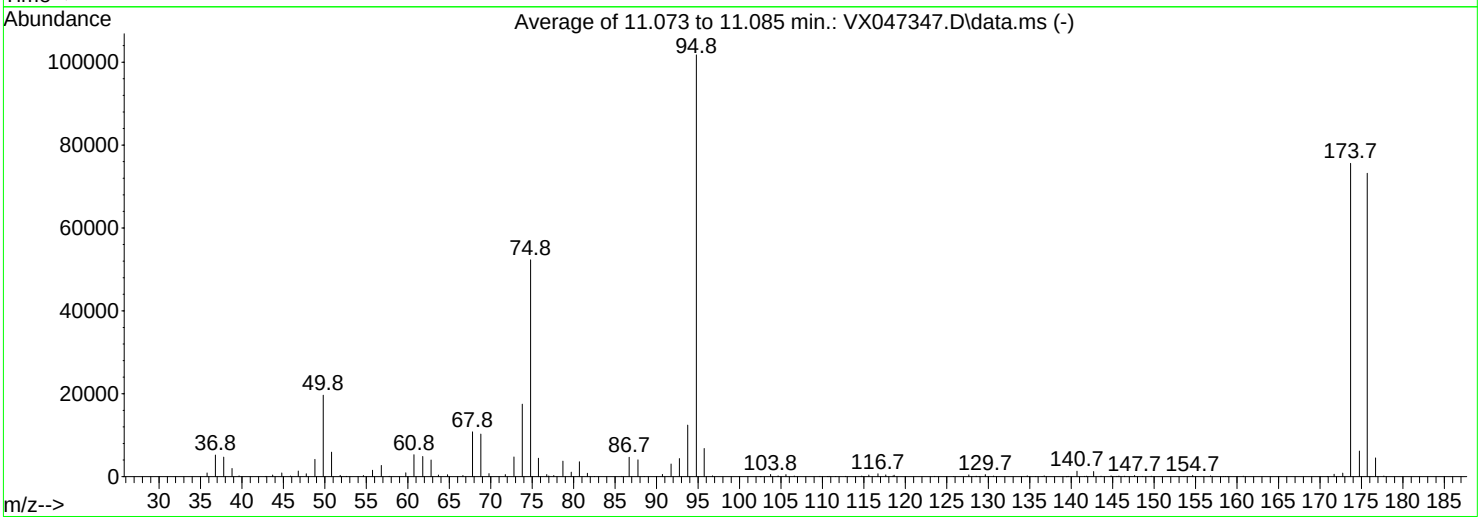
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX081525\
Data File : VX047347.D
Acq On : 15 Aug 2025 08:28
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

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

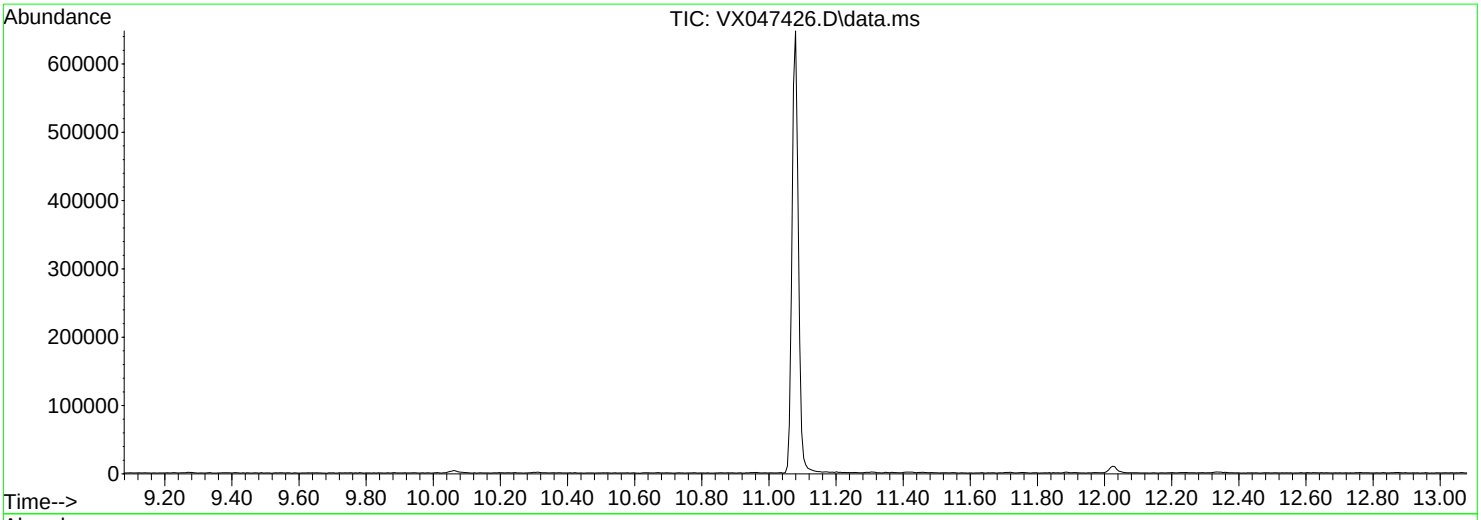
Sample Results: **VX047426.D**

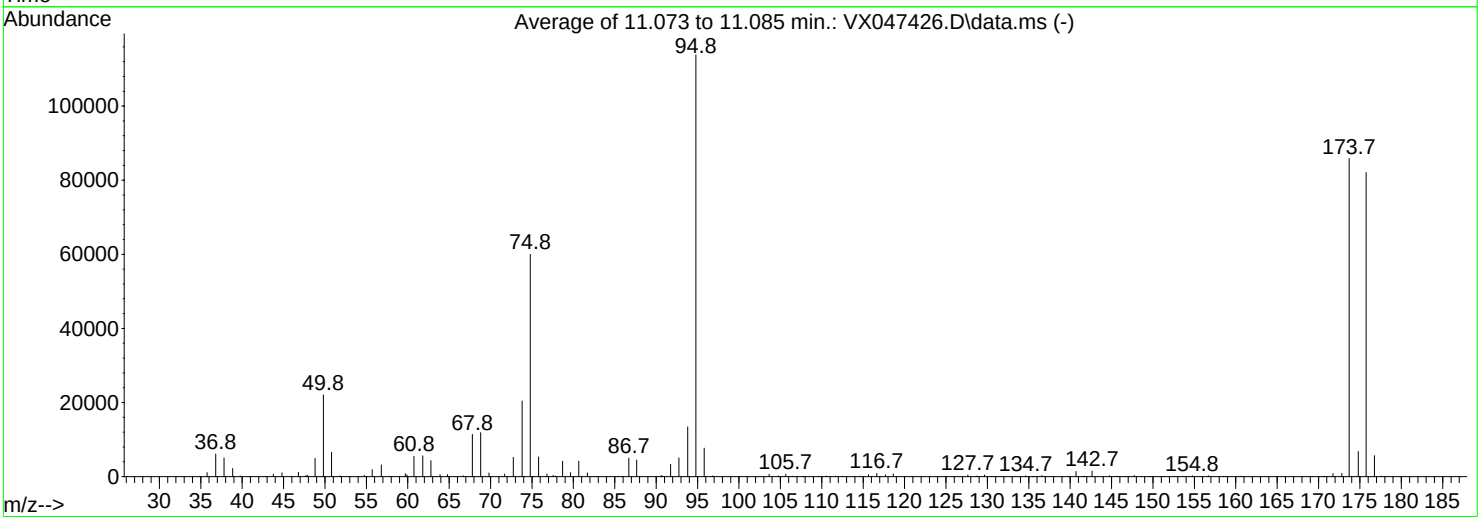
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047426.D
Acq On : 20 Aug 2025 07:50
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

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 1631

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.4	22083	PASS
75	95	30	60	52.7	59984	PASS
95	95	100	100	100.0	113832	PASS
96	95	5	9	6.7	7668	PASS
173	174	0.00	2	1.0	862	PASS
174	95	50	100	75.4	85840	PASS
175	174	5	9	7.9	6779	PASS
176	174	95	101	95.6	82077	PASS
177	176	5	9	6.9	5652	PASS

Raw Data: **VX047429.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:	VX0820WBL01	SDG No.:	Q2878
Lab Sample ID:	VX0820WBL01	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
VX047429.D	1	08/20/25 10:07	VX082025

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	57.9		70 (74) - 130 (125)	116%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		70 (75) - 130 (124)	103%	SPK: 50
2037-26-5	Toluene-d8	50.7		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.9		70 (77) - 130 (121)	112%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	281000	5.568			
540-36-3	1,4-Difluorobenzene	575000	6.769			
3114-55-4	Chlorobenzene-d5	561000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	280000	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\VX082025\
Data File : VX047429.D
Acq On : 20 Aug 2025 10:07
Operator : JC/MD
Sample : VX0820WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Quant Time: Aug 21 01:26:19 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

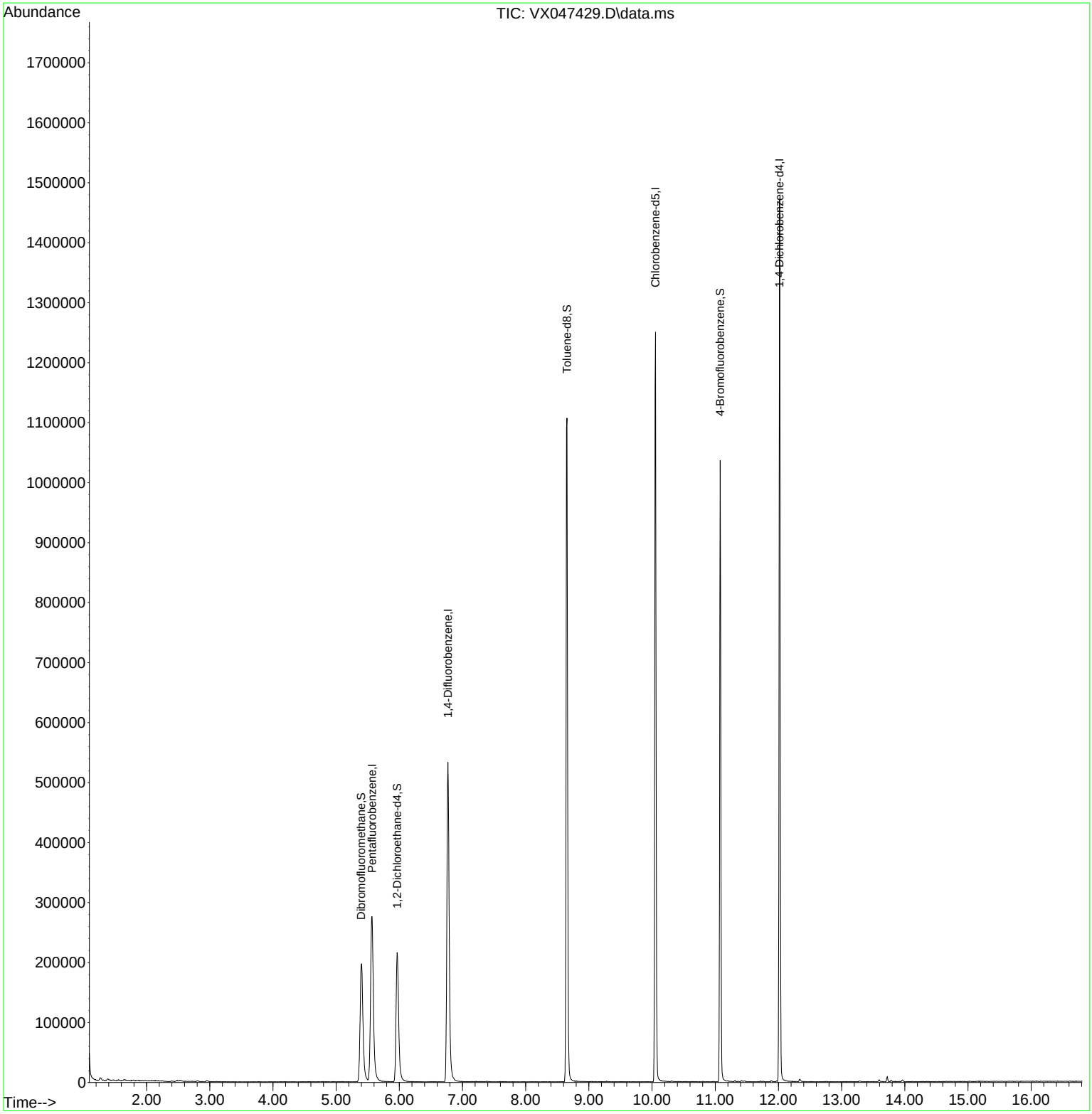
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.568	168	280589	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	6.769	114	574542	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	560929	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	279679	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	227227	57.864	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 115.720%			
35) Dibromofluoromethane	5.397	113	191362	51.320	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.640%			
50) Toluene-d8	8.653	98	676059	50.725	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 101.460%			
62) 4-Bromofluorobenzene	11.079	95	274800	55.874	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 111.740%			
Target Compounds						Qvalue

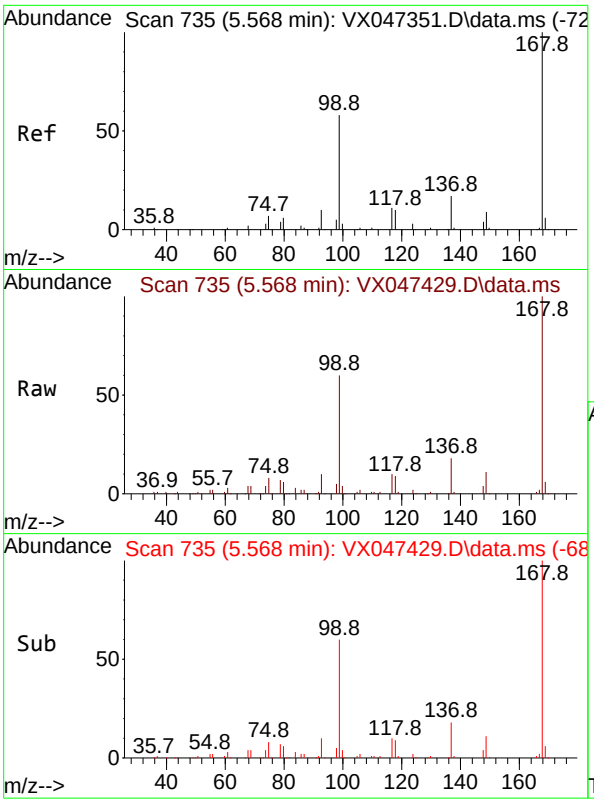
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047429.D
Acq On : 20 Aug 2025 10:07
Operator : JC/MD
Sample : VX0820WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Quant Time: Aug 21 01:26:19 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



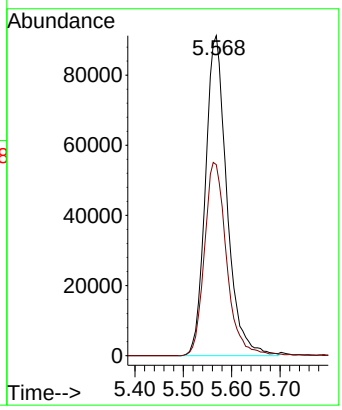


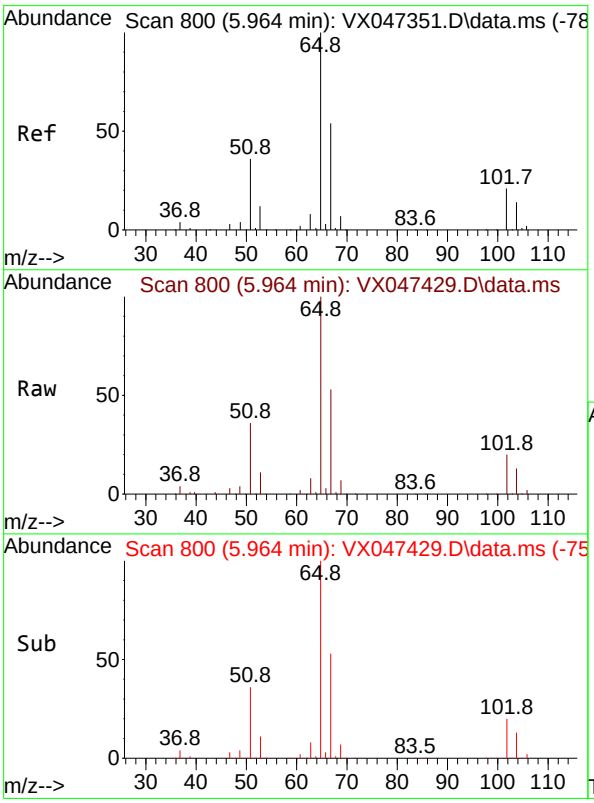
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.568 min Scan# 7
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Tgt Ion:168 Resp: 280589

Ion	Ratio	Lower	Upper
168	100		
99	59.7	47.9	71.9

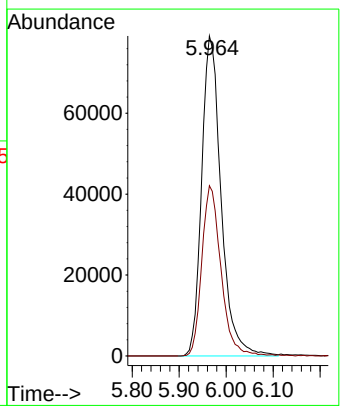


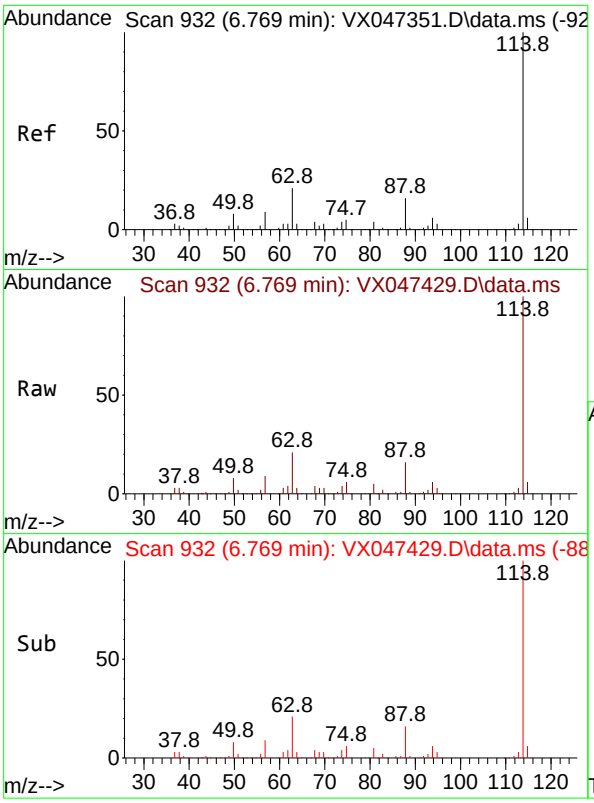


#33
1,2-Dichloroethane-d4
Concen: 57.864 ug/l
RT: 5.964 min Scan# 800
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Tgt Ion: 65 Resp: 227227

Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	106.0



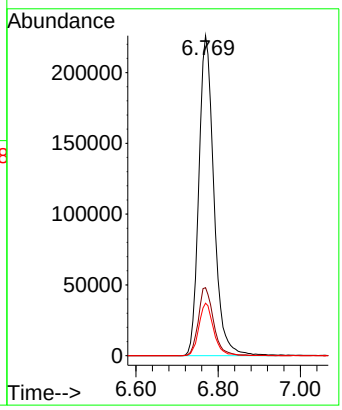


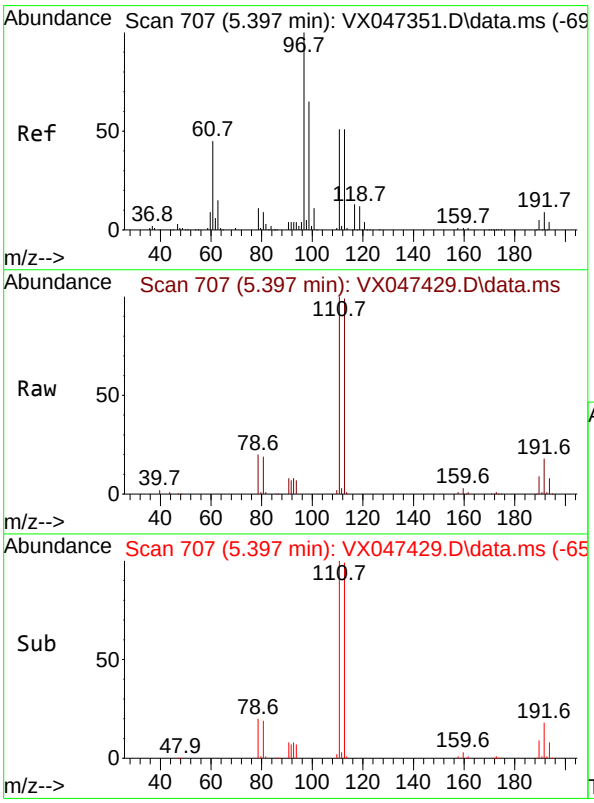
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.769 min Scan# 9
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Tgt Ion:114 Resp: 574542

Ion	Ratio	Lower	Upper
114	100		
63	21.2	0.0	42.4
88	16.4	0.0	33.0

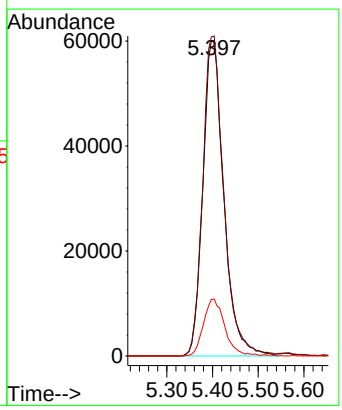


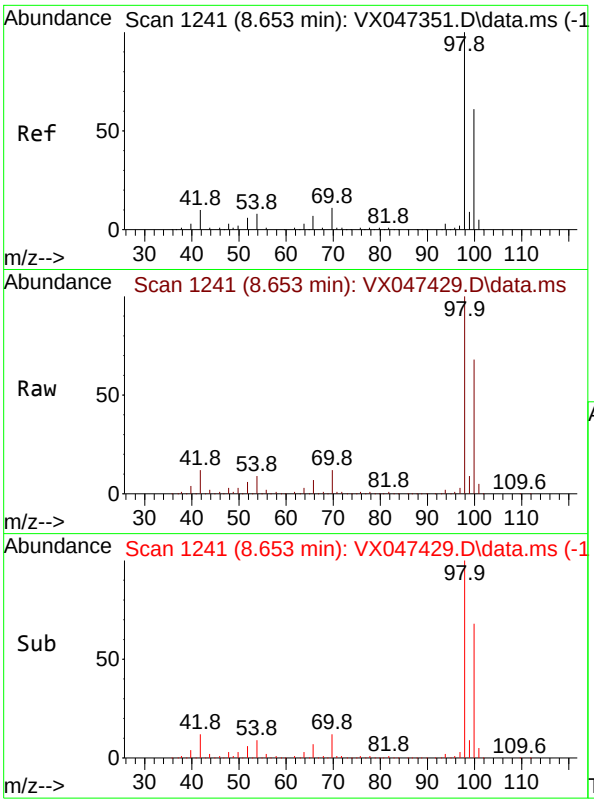


#35
Dibromofluoromethane
Concen: 51.320 ug/l
RT: 5.397 min Scan# 707
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Tgt Ion:113 Resp: 191362

Ion	Ratio	Lower	Upper
113	100		
111	101.8	81.4	122.2
192	18.3	14.1	21.1



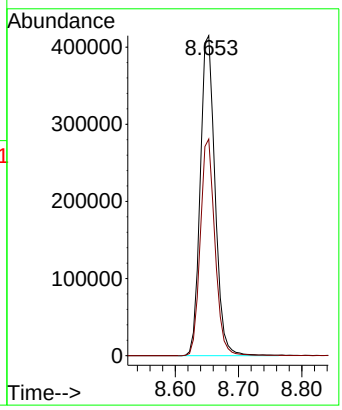


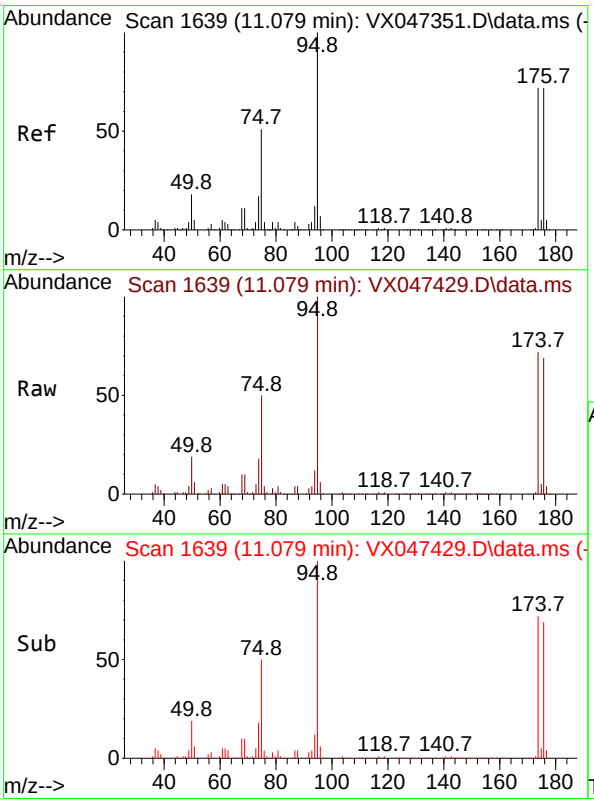
#50
Toluene-d8
Concen: 50.725 ug/l
RT: 8.653 min Scan# 1
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Tgt Ion: 98 Resp: 676059

Ion	Ratio	Lower	Upper
98	100		
100	67.0	53.9	80.9

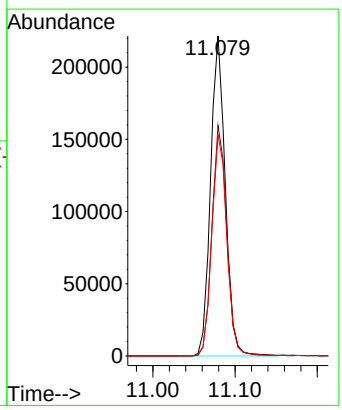


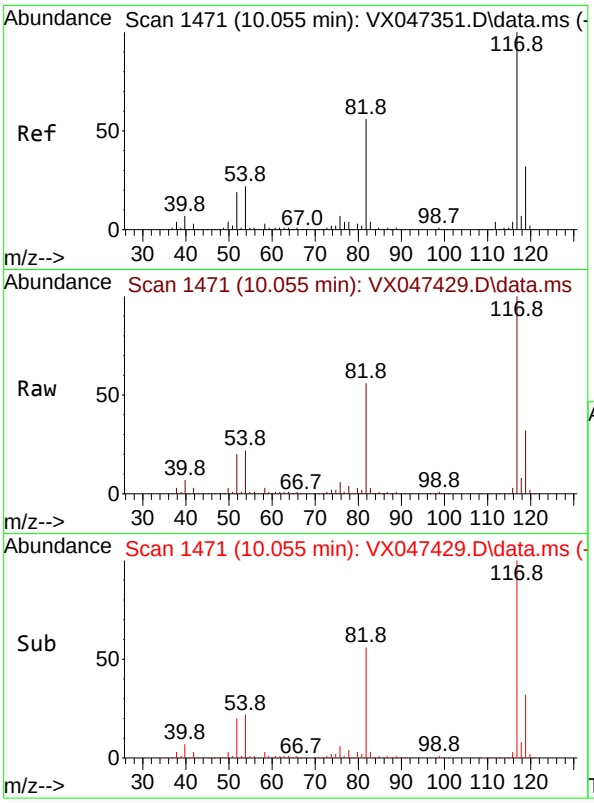


#62
4-Bromofluorobenzene
Concen: 55.874 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Tgt Ion: 95 Resp: 274800

Ion	Ratio	Lower	Upper
95	100		
174	73.4	0.0	148.0
176	70.4	0.0	145.4



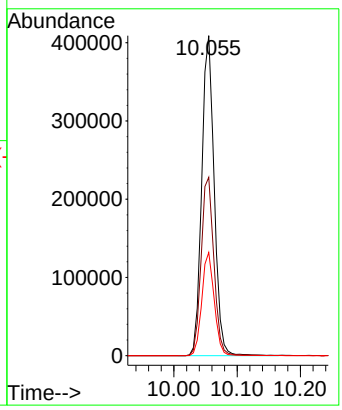


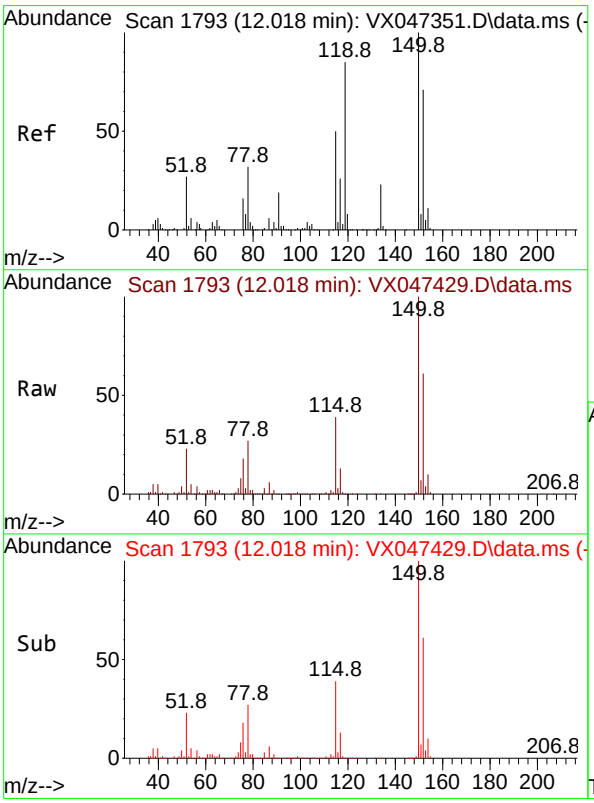
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.055 min Scan# 14
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBL01

Tgt Ion:117 Resp: 560929

Ion	Ratio	Lower	Upper
117	100		
82	55.8	45.0	67.4
119	32.2	25.8	38.8

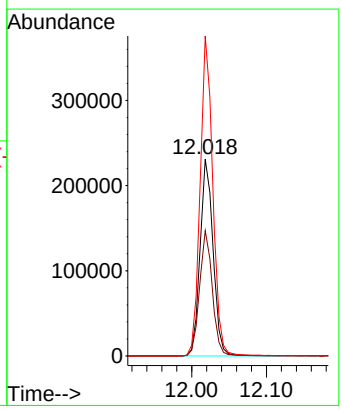




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.018 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VX047429.D
Acq: 20 Aug 2025 10:07

Tgt Ion:152 Resp: 279679

Ion	Ratio	Lower	Upper
152	100		
115	62.5	44.6	133.8
150	157.8	0.0	349.8



Raw Data: **VX047430.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:	VX0820WBS01	SDG No.:	Q2878
Lab Sample ID:	VX0820WBS01	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
VX047430.D	1	08/20/25 10:35	VX082025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.1		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.8		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.2		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.1		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.2		0.20	1.00	ug/L
71-43-2	Benzene	17.6		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	17.6		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	18.1		0.21	1.00	ug/L
127-18-4	Tetrachloroethene	17.2		0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		70 (74) - 130 (125)	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.8		70 (75) - 130 (124)	100%	SPK: 50
2037-26-5	Toluene-d8	49.2		70 (86) - 130 (113)	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.2		70 (77) - 130 (121)	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	245000	5.556			
540-36-3	1,4-Difluorobenzene	408000	6.763			
3114-55-4	Chlorobenzene-d5	368000	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\VX082025\
Data File : VX047430.D
Acq On : 20 Aug 2025 10:35
Operator : JC/MD
Sample : VX0820WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 01:26:55 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 :
VX0820WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	244648	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	407608	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	368354	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	188940	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.964	65	167819	49.014	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.020%			
35) Dibromofluoromethane	5.391	113	131872	49.849	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 99.700%			
50) Toluene-d8	8.647	98	465580	49.239	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 98.480%			
62) 4-Bromofluorobenzene	11.079	95	175075	50.176	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 100.360%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	53608	17.189	ug/l	99
3) Chloromethane	1.313	50	46690	16.642	ug/l	98
4) Vinyl Chloride	1.392	62	56657	16.089	ug/l	98
5) Bromomethane	1.630	94	23724	16.679	ug/l	97
6) Chloroethane	1.703	64	34003	15.782	ug/l	97
7) Trichlorofluoromethane	1.904	101	88810	17.050	ug/l	92
8) Diethyl Ether	2.148	74	30454	16.605	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.349	101	53855	17.824	ug/l	99
10) Methyl Iodide	2.471	142	60929	11.767	ug/l	96
11) Tert butyl alcohol	2.959	59	28713	96.397	ug/l	99
12) 1,1-Dichloroethene	2.337	96	51780	16.810	ug/l	100
13) Acrolein	2.246	56	55598	88.423	ug/l	97
14) Allyl chloride	2.678	41	88985	16.632	ug/l	100
15) Acrylonitrile	3.081	53	129142	89.724	ug/l	100
16) Acetone	2.386	43	115342	89.622	ug/l	96
17) Carbon Disulfide	2.526	76	143721	15.462	ug/l	98
18) Methyl Acetate	2.715	43	62524	18.747	ug/l	98
19) Methyl tert-butyl Ether	3.124	73	159152	16.984	ug/l	98
20) Methylene Chloride	2.800	84	58590	17.192	ug/l	97
21) trans-1,2-Dichloroethene	3.105	96	54587	16.697	ug/l	98
22) Diisopropyl ether	3.770	45	186733	17.657	ug/l	91
23) Vinyl Acetate	3.733	43	739375	85.298	ug/l	100
24) 1,1-Dichloroethane	3.623	63	102911	17.216	ug/l	99
25) 2-Butanone	4.568	43	156985	93.136	ug/l	100
26) 2,2-Dichloropropane	4.483	77	77655	17.212	ug/l	99
27) cis-1,2-Dichloroethene	4.501	96	64958	17.059	ug/l	98
28) Bromochloromethane	4.904	49	49457	19.883	ug/l #	14
29) Tetrahydrofuran	5.020	42	100323	92.088	ug/l	98
30) Chloroform	5.105	83	106236	17.414	ug/l	97
31) Cyclohexane	5.483	56	93514	16.971	ug/l	100
32) 1,1,1-Trichloroethane	5.391	97	90227	17.183	ug/l	98
36) 1,1-Dichloropropene	5.696	75	72507	17.363	ug/l	98
37) Ethyl Acetate	4.721	43	69374	16.002	ug/l #	96
38) Carbon Tetrachloride	5.690	117	80032	17.538	ug/l	97
39) Methylcyclohexane	7.385	83	89125	17.110	ug/l	94
40) Benzene	6.050	78	220365	17.630	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047430.D
Acq On : 20 Aug 2025 10:35
Operator : JC/MD
Sample : VX0820WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 01:26:55 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 :
VX0820WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	4.940	41	32344	17.692	ug/l		93
42) 1,2-Dichloroethane	6.099	62	77919	17.599	ug/l		99
43) Isopropyl Acetate	6.349	43	110163	17.688	ug/l		99
44) Trichloroethene	7.135	130	54954	17.170	ug/l		99
45) 1,2-Dichloropropane	7.434	63	54273	17.332	ug/l		100
46) Dibromomethane	7.586	93	40698	17.902	ug/l		98
47) Bromodichloromethane	7.824	83	82328	17.469	ug/l		100
48) Methyl methacrylate	7.696	41	56854	17.587	ug/l		97
49) 1,4-Dioxane	7.690	88	11406	362.941	ug/l		93
51) 4-Methyl-2-Pentanone	8.574	43	335125	93.506	ug/l		98
52) Toluene	8.720	92	138882	17.981	ug/l		98
53) t-1,3-Dichloropropene	8.976	75	72403	17.602	ug/l		98
54) cis-1,3-Dichloropropene	8.366	75	81220	17.445	ug/l		97
55) 1,1,2-Trichloroethane	9.153	97	53137	18.120	ug/l		96
56) Ethyl methacrylate	9.116	69	75185	17.389	ug/l		99
57) 1,3-Dichloropropane	9.305	76	89328	17.876	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.245	63	187096	95.949	ug/l		98
59) 2-Hexanone	9.433	43	226987	91.559	ug/l		99
60) Dibromochloromethane	9.519	129	61655	17.691	ug/l		98
61) 1,2-Dibromoethane	9.610	107	52535	17.373	ug/l		100
64) Tetrachloroethene	9.275	164	45932	17.239	ug/l		97
65) Chlorobenzene	10.080	112	151755	17.336	ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.159	131	52523	17.750	ug/l		98
67) Ethyl Benzene	10.195	91	264573	17.561	ug/l		98
68) m/p-Xylenes	10.299	106	200944	35.769	ug/l		99
69) o-Xylene	10.640	106	97003	17.943	ug/l		96
70) Styrene	10.653	104	164340	17.991	ug/l		100
71) Bromoform	10.799	173	39163	17.617	ug/l	#	99
73) Isopropylbenzene	10.964	105	256220	17.329	ug/l		99
74) N-amyl acetate	10.842	43	93750	16.697	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.207	83	76376	17.594	ug/l		99
76) 1,2,3-Trichloropropane	11.238	75	60088m	17.340	ug/l		
77) Bromobenzene	11.195	156	62108	17.202	ug/l		98
78) n-propylbenzene	11.305	91	305865	17.321	ug/l		100
79) 2-Chlorotoluene	11.360	91	181694	17.021	ug/l		99
80) 1,3,5-Trimethylbenzene	11.451	105	210710	17.321	ug/l		100
81) trans-1,4-Dichloro-2-b...	11.018	75	10400	18.858	ug/l		96
82) 4-Chlorotoluene	11.451	91	216515	17.207	ug/l		99
83) tert-Butylbenzene	11.713	119	211697	17.442	ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	213463	17.547	ug/l		99
85) sec-Butylbenzene	11.890	105	268675	17.860	ug/l		100
86) p-Isopropyltoluene	12.006	119	225219	17.692	ug/l		99
87) 1,3-Dichlorobenzene	11.970	146	116436	16.881	ug/l		99
88) 1,4-Dichlorobenzene	12.037	146	120251	16.951	ug/l		99
89) n-Butylbenzene	12.329	91	208015	17.569	ug/l		99
90) Hexachloroethane	12.536	117	37901	16.972	ug/l		98
91) 1,2-Dichlorobenzene	12.335	146	112636	17.205	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	14705	17.516	ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	71685	16.333	ug/l		99
94) Hexachlorobutadiene	13.719	225	27248	17.442	ug/l		98
95) Naphthalene	13.774	128	212701	16.959	ug/l		100
96) 1,2,3-Trichlorobenzene	13.957	180	70071	16.938	ug/l		100

Sample Results: **VX047430.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047430.D
Acq On : 20 Aug 2025 10:35
Operator : JC/MD
Sample : VX0820WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 01:26:55 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 :
VX0820WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

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

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

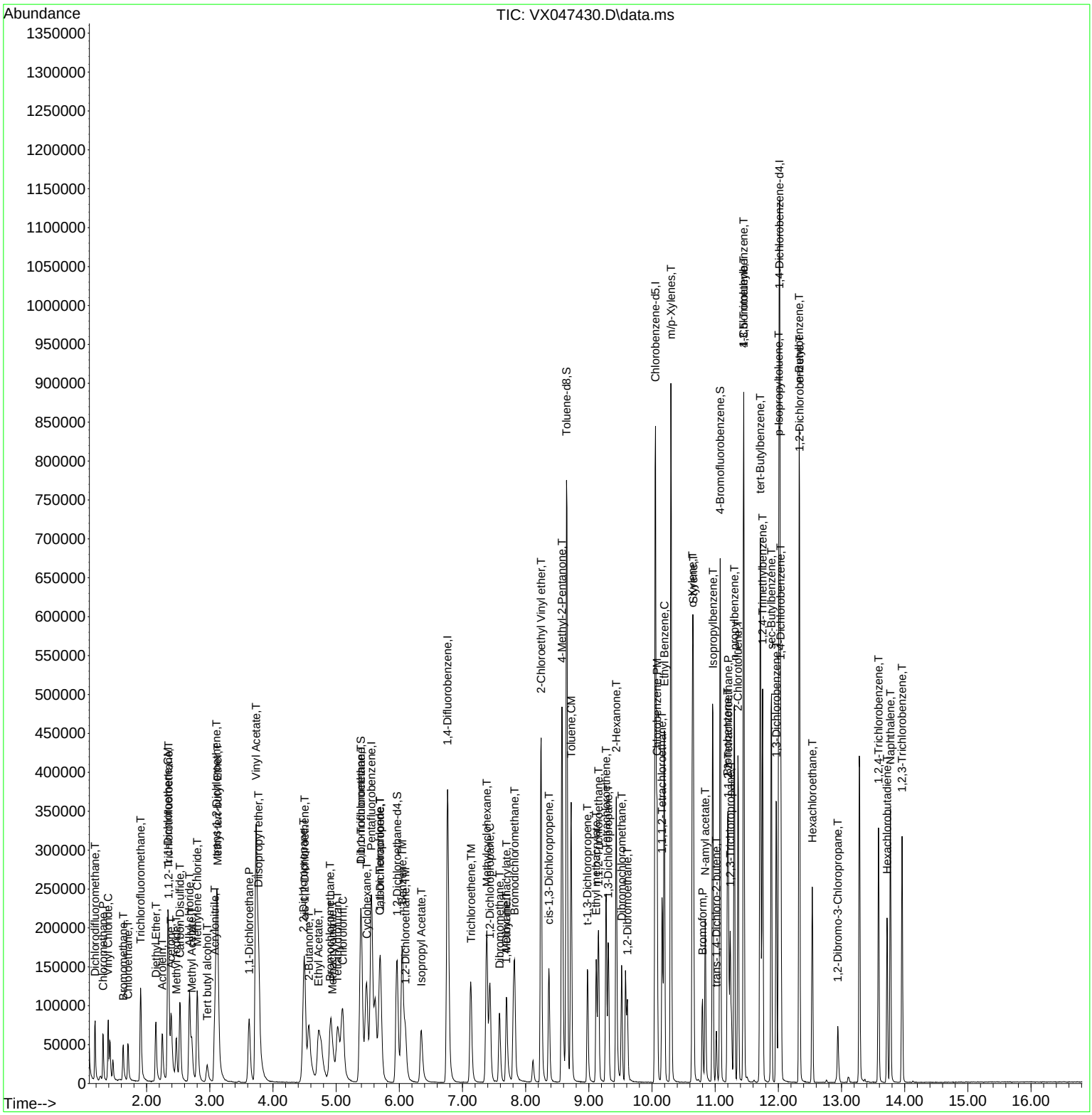
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047430.D
Acq On : 20 Aug 2025 10:35
Operator : JC/MD
Sample : VX0820WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 21 01:26:55 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 :
VX0820WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025



Raw Data: **VX047431.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:	VX0820WBSD01	SDG No.:	Q2878
Lab Sample ID:	VX0820WBSD01	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
VX047431.D	1	08/20/25 11:06	VX082025

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	16.3		0.26	1.00	ug/L
75-35-4	1,1-Dichloroethene	16.3		0.23	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.6		0.23	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.2		0.19	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	17.3		0.20	1.00	ug/L
71-43-2	Benzene	17.9		0.15	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.2		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	18.9		0.21	1.00	ug/L
127-18-4	Tetrachloroethene	17.0		0.23	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.0		70 (74) - 130 (125)	102%	SPK: 50
1868-53-7	Dibromofluoromethane	50.4		70 (75) - 130 (124)	101%	SPK: 50
2037-26-5	Toluene-d8	50.2		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.7		70 (77) - 130 (121)	103%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	228000	5.556			
540-36-3	1,4-Difluorobenzene	384000	6.763			
3114-55-4	Chlorobenzene-d5	354000	10.055			
3855-82-1	1,4-Dichlorobenzene-d4	183000	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\VX082025\
Data File : VX047431.D
Acq On : 20 Aug 2025 11:06
Operator : JC/MD
Sample : VX0820WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 01:27:49 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 :
VX0820WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	5.556	168	227988	50.000	ug/l	-0.01
34) 1,4-Difluorobenzene	6.763	114	384011	50.000	ug/l	0.00
63) Chlorobenzene-d5	10.055	117	353527	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.018	152	182846	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	5.958	65	162719	50.997	ug/l	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 102.000%			
35) Dibromofluoromethane	5.391	113	125723	50.445	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 100.900%			
50) Toluene-d8	8.647	98	446972	50.176	ug/l	0.00
Spiked Amount 50.000	Range 92 - 112		Recovery = 100.360%			
62) 4-Bromofluorobenzene	11.079	95	169991	51.712	ug/l	0.00
Spiked Amount 50.000	Range 83 - 123		Recovery = 103.420%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.185	85	47766	16.435	ug/l	96
3) Chloromethane	1.313	50	44193	16.903	ug/l	100
4) Vinyl Chloride	1.392	62	53564	16.323	ug/l	99
5) Bromomethane	1.630	94	22897	17.274	ug/l	93
6) Chloroethane	1.703	64	33153	16.512	ug/l	94
7) Trichlorofluoromethane	1.904	101	80790	16.644	ug/l	97
8) Diethyl Ether	2.148	74	30154	17.643	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.349	101	49180	17.466	ug/l	99
10) Methyl Iodide	2.471	142	62366	12.925	ug/l	98
11) Tert butyl alcohol	2.959	59	28284	101.896	ug/l	99
12) 1,1-Dichloroethene	2.337	96	46858	16.324	ug/l	96
13) Acrolein	2.251	56	55323	94.415	ug/l	99
14) Allyl chloride	2.678	41	85637	17.176	ug/l	95
15) Acrylonitrile	3.081	53	130185	97.058	ug/l	99
16) Acetone	2.392	43	106316	88.645	ug/l	99
17) Carbon Disulfide	2.526	76	134531	15.531	ug/l	99
18) Methyl Acetate	2.715	43	61940	19.929	ug/l	99
19) Methyl tert-butyl Ether	3.123	73	156324	17.901	ug/l	99
20) Methylene Chloride	2.800	84	55948	17.617	ug/l	98
21) trans-1,2-Dichloroethene	3.105	96	50391	16.539	ug/l	95
22) Diisopropyl ether	3.769	45	181876	18.455	ug/l	94
23) Vinyl Acetate	3.733	43	729825	90.349	ug/l	100
24) 1,1-Dichloroethane	3.623	63	97939	17.582	ug/l	99
25) 2-Butanone	4.568	43	156361	99.545	ug/l	95
26) 2,2-Dichloropropane	4.483	77	69257	16.473	ug/l	99
27) cis-1,2-Dichloroethene	4.501	96	60972	17.182	ug/l	98
28) Bromochloromethane	4.903	49	47632	20.549	ug/l	97
29) Tetrahydrofuran	5.031	42	97222	95.762	ug/l	97
30) Chloroform	5.099	83	102109	17.961	ug/l	100
31) Cyclohexane	5.483	56	84781	16.510	ug/l	98
32) 1,1,1-Trichloroethane	5.391	97	84427	17.254	ug/l	98
36) 1,1-Dichloropropene	5.702	75	69369	17.632	ug/l	99
37) Ethyl Acetate	4.727	43	69988	17.136	ug/l	99
38) Carbon Tetrachloride	5.690	117	73703	17.143	ug/l	98
39) Methylcyclohexane	7.385	83	81477	16.603	ug/l	95
40) Benzene	6.043	78	210834	17.904	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047431.D
Acq On : 20 Aug 2025 11:06
Operator : JC/MD
Sample : VX0820WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 01:27:49 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 :
VX0820WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	4.940	41	32225	18.710 ug/l		95
42) 1,2-Dichloroethane	6.092	62	75740	18.158 ug/l		98
43) Isopropyl Acetate	6.348	43	107083	18.250 ug/l		99
44) Trichloroethene	7.129	130	51689	17.142 ug/l		89
45) 1,2-Dichloropropane	7.433	63	51821	17.566 ug/l		94
46) Dibromomethane	7.586	93	38833	18.131 ug/l		99
47) Bromodichloromethane	7.824	83	79446	17.893 ug/l	#	97
48) Methyl methacrylate	7.696	41	55754	18.306 ug/l		97
49) 1,4-Dioxane	7.690	88	13278	448.471 ug/l		97
51) 4-Methyl-2-Pentanone	8.573	43	330877	97.994 ug/l		98
52) Toluene	8.720	92	131557	18.079 ug/l		98
53) t-1,3-Dichloropropene	8.976	75	69086	17.828 ug/l		99
54) cis-1,3-Dichloropropene	8.366	75	78242	17.838 ug/l		96
55) 1,1,2-Trichloroethane	9.153	97	52294	18.928 ug/l		97
56) Ethyl methacrylate	9.116	69	74450	18.278 ug/l		98
57) 1,3-Dichloropropane	9.305	76	88113	18.717 ug/l		100
58) 2-Chloroethyl Vinyl ether	8.244	63	185370	100.474 ug/l		100
59) 2-Hexanone	9.433	43	223032	95.492 ug/l		100
60) Dibromochloromethane	9.518	129	60107	18.307 ug/l		100
61) 1,2-Dibromoethane	9.610	107	54038	18.968 ug/l		98
64) Tetrachloroethene	9.275	164	43565	17.037 ug/l		96
65) Chlorobenzene	10.079	112	146221	17.405 ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.159	131	50211	17.680 ug/l		99
67) Ethyl Benzene	10.195	91	249927	17.284 ug/l		99
68) m/p-Xylenes	10.299	106	191975	35.606 ug/l		99
69) o-Xylene	10.640	106	89811	17.309 ug/l		99
70) Styrene	10.652	104	157756	17.994 ug/l		100
71) Bromoform	10.799	173	38527	18.058 ug/l	#	98
73) Isopropylbenzene	10.963	105	241936	16.908 ug/l		99
74) N-amyl acetate	10.841	43	93131	17.140 ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.207	83	75532	17.979 ug/l		98
76) 1,2,3-Trichloropropane	11.238	75	58654m	17.490 ug/l		
77) Bromobenzene	11.195	156	59608	17.060 ug/l		98
78) n-propylbenzene	11.305	91	287881	16.846 ug/l		98
79) 2-Chlorotoluene	11.360	91	172746	16.722 ug/l		100
80) 1,3,5-Trimethylbenzene	11.451	105	201744	17.136 ug/l		99
81) trans-1,4-Dichloro-2-b...	11.018	75	9836	18.609 ug/l		94
82) 4-Chlorotoluene	11.451	91	205121	16.845 ug/l		99
83) tert-Butylbenzene	11.713	119	200091	17.036 ug/l		100
84) 1,2,4-Trimethylbenzene	11.750	105	204454	17.366 ug/l		100
85) sec-Butylbenzene	11.890	105	254052	17.451 ug/l		99
86) p-Isopropyltoluene	12.006	119	212198	17.225 ug/l		100
87) 1,3-Dichlorobenzene	11.969	146	114949	17.221 ug/l		99
88) 1,4-Dichlorobenzene	12.036	146	113624	16.551 ug/l		97
89) n-Butylbenzene	12.329	91	196627	17.160 ug/l		99
90) Hexachloroethane	12.536	117	37123	17.177 ug/l		96
91) 1,2-Dichlorobenzene	12.335	146	110765	17.483 ug/l		99
92) 1,2-Dibromo-3-Chloropr...	12.939	75	14196	17.473 ug/l		98
93) 1,2,4-Trichlorobenzene	13.585	180	70584	16.618 ug/l		99
94) Hexachlorobutadiene	13.719	225	27444	18.153 ug/l		96
95) Naphthalene	13.774	128	209954	17.297 ug/l		99
96) 1,2,3-Trichlorobenzene	13.957	180	69798	17.434 ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047431.D
Acq On : 20 Aug 2025 11:06
Operator : JC/MD
Sample : VX0820WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0820WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025

Quant Time: Aug 21 01:27:49 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

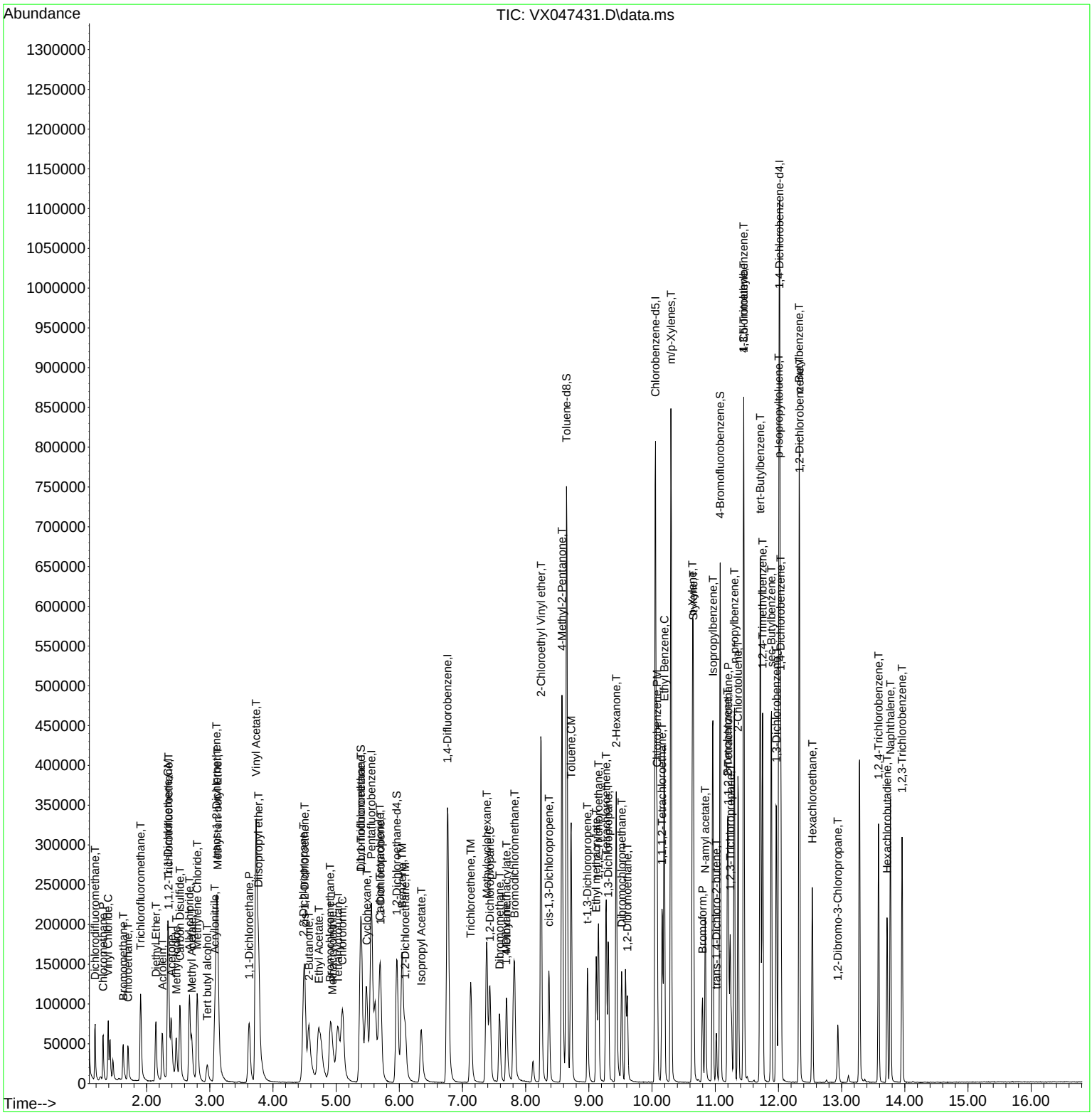
Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX082025\
Data File : VX047431.D
Acq On : 20 Aug 2025 11:06
Operator : JC/MD
Sample : VX0820WBSD01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 21 01:27:49 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 :
VX0820WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 08/21/2025
Supervised By :Mahesh Dadoda 08/22/2025



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

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

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

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

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

Manual Integration Report

Sequence:	VX082025	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX047427.D	1,2,3-Trichloropropane	JOHN	8/21/2025 8:44:58 AM	MMDadoda	8/22/2025 1:13:01 AM	Peak Integrated by Software
VX0820WBS01	VX047430.D	1,2,3-Trichloropropane	JOHN	8/21/2025 8:45:03 AM	MMDadoda	8/22/2025 1:13:04 AM	Peak Integrated by Software
VX0820WBSD01	VX047431.D	1,2,3-Trichloropropane	JOHN	8/21/2025 8:45:08 AM	MMDadoda	8/22/2025 1:13:06 AM	Peak Integrated by Software
Q2878-01	VX047450.D	Chloroform	JOHN	8/21/2025 8:45:32 AM	MMDadoda	8/22/2025 1:13:14 AM	Peak Integrated by Software
Q2878-01DL	VX047451.D	Tetrahydrofuran	JOHN	8/21/2025 8:45:37 AM	MMDadoda	8/22/2025 1:13:16 AM	Peak Integrated by Software
VSTDCCC050	VX047453.D	1,2,3-Trichloropropane	JOHN	8/21/2025 8:45:42 AM	MMDadoda	8/22/2025 1:13:19 AM	Peak Integrated by Software

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

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

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

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082025

Review By	John Carlone	Review On	8/21/2025 8:55:57 AM				
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 1:13:48 AM				
SubDirectory	VX082025	HP Acquire Method	MSVOA_X		HP Processing Method	82X081525W.M	

STD. NAME	STD REF.#
Tune/Reschk	VP135191
Initial Calibration Stds	
CCC	VP135192,VP135193
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX047426.D	20 Aug 2025 07:50	JC/MD	Ok
2	VSTDCCC050	VX047427.D	20 Aug 2025 09:25	JC/MD	Ok,M
3	VX0820MBL01	VX047428.D	20 Aug 2025 09:46	JC/MD	Ok
4	VX0820WBL01	VX047429.D	20 Aug 2025 10:07	JC/MD	Ok
5	VX0820WBS01	VX047430.D	20 Aug 2025 10:35	JC/MD	Ok,M
6	VX0820WBSD01	VX047431.D	20 Aug 2025 11:06	JC/MD	Ok,M
7	Q2815-21RE	VX047432.D	20 Aug 2025 11:28	JC/MD	Confirms
8	Q2815-22	VX047433.D	20 Aug 2025 11:49	JC/MD	Ok
9	Q2815-26	VX047434.D	20 Aug 2025 12:11	JC/MD	Ok
10	Q2878-01	VX047435.D	20 Aug 2025 12:32	JC/MD	Not Ok
11	Q2878-05	VX047436.D	20 Aug 2025 12:54	JC/MD	Not Ok
12	Q2869-03	VX047437.D	20 Aug 2025 13:15	JC/MD	Not Ok
13	Q2869-04	VX047438.D	20 Aug 2025 13:37	JC/MD	Not Ok
14	Q2869-05	VX047439.D	20 Aug 2025 13:59	JC/MD	Not Ok
15	IBLK	VX047440.D	20 Aug 2025 14:20	JC/MD	Ok
16	Q2878-06	VX047441.D	20 Aug 2025 14:42	JC/MD	Ok
17	Q2900-07	VX047442.D	20 Aug 2025 15:04	JC/MD	ReRun
18	Q2900-01	VX047443.D	20 Aug 2025 15:25	JC/MD	Ok
19	Q2900-02	VX047444.D	20 Aug 2025 15:47	JC/MD	Dilution
20	Q2900-03	VX047445.D	20 Aug 2025 16:09	JC/MD	Dilution
21	Q2900-04	VX047446.D	20 Aug 2025 16:30	JC/MD	ReRun

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082025

Review By	John Carlone	Review On	8/21/2025 8:55:57 AM				
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 1:13:48 AM				
SubDirectory	VX082025	HP Acquire Method	MSVOA_X		HP Processing Method	82X081525W.M	

STD. NAME	STD REF.#
Tune/Reschk	VP135191
Initial Calibration Stds	
CCC	VP135192,VP135193
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q2900-05	VX047447.D	20 Aug 2025 16:52	JC/MD	Dilution
23	Q2900-06	VX047448.D	20 Aug 2025 17:14	JC/MD	ReRun
24	Q2900-08	VX047449.D	20 Aug 2025 17:35	JC/MD	ReRun
25	Q2878-01	VX047450.D	20 Aug 2025 17:57	JC/MD	Dilution
26	Q2878-01DL	VX047451.D	20 Aug 2025 18:18	JC/MD	Ok,M
27	Q2878-05	VX047452.D	20 Aug 2025 18:40	JC/MD	Ok
28	VSTDCCC050	VX047453.D	20 Aug 2025 19:01	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 # VX082025

Review By	John Carlone	Review On	8/21/2025 8:55:57 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 1:13:48 AM		
SubDirectory	VX082025	HP Acquire Method	MSVOA_X	HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135191
Initial Calibration Stds	
CCC	VP135192,VP135193
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	VX047426.D	20 Aug 2025 07:50		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX047427.D	20 Aug 2025 09:25	pH#Lot#V12668	JC/MD	Ok,M
3	VX0820MBL01	VX0820MBL01	VX047428.D	20 Aug 2025 09:46		JC/MD	Ok
4	VX0820WBL01	VX0820WBL01	VX047429.D	20 Aug 2025 10:07		JC/MD	Ok
5	VX0820WBS01	VX0820WBS01	VX047430.D	20 Aug 2025 10:35		JC/MD	Ok,M
6	VX0820WBSD01	VX0820WBSD01	VX047431.D	20 Aug 2025 11:06		JC/MD	Ok,M
7	Q2815-21RE	TW-11M-ERE	VX047432.D	20 Aug 2025 11:28	vial B pH<2 Surrogate Fail	JC/MD	Confirms
8	Q2815-22	TW-11M-S	VX047433.D	20 Aug 2025 11:49	vial B pH<2	JC/MD	Ok
9	Q2815-26	FB	VX047434.D	20 Aug 2025 12:11	vial B pH<2 FB	JC/MD	Ok
10	Q2878-01	MW-18B-57.5-081325	VX047435.D	20 Aug 2025 12:32	Run @ lower dilution	JC/MD	Not Ok
11	Q2878-05	MW-11B-37.5-081425	VX047436.D	20 Aug 2025 12:54	Run @ lower dilution	JC/MD	Not Ok
12	Q2869-03	MW-01-6.5-081325	VX047437.D	20 Aug 2025 13:15	Need straight run	JC/MD	Not Ok
13	Q2869-04	MW-11A-13.5-081325	VX047438.D	20 Aug 2025 13:37	Run @ 10x	JC/MD	Not Ok
14	Q2869-05	MW-19B-71.5-081325-I	VX047439.D	20 Aug 2025 13:59	Run @ 40x	JC/MD	Not Ok
15	IBLK	IBLK	VX047440.D	20 Aug 2025 14:20		JC/MD	Ok
16	Q2878-06	TB01-081425	VX047441.D	20 Aug 2025 14:42	vial A pH<2 TB	JC/MD	Ok
17	Q2900-07	MW-11B-081825	VX047442.D	20 Aug 2025 15:04	vial A pH<2 Surrogate Fail	JC/MD	ReRun
18	Q2900-01	MN-9C-081825	VX047443.D	20 Aug 2025 15:25	vial A pH<2	JC/MD	Ok

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Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX082025

Review By	John Carlone	Review On	8/21/2025 8:55:57 AM		
Supervise By	Mahesh Dadoda	Supervise On	8/22/2025 1:13:48 AM		
SubDirectory	VX082025	HP Acquire Method	MSVOA_X	HP Processing Method	82X081525W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135191
Initial Calibration Stds	
CCC	VP135192,VP135193
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q2900-02	MN-12C-081825	VX047444.D	20 Aug 2025 15:47	vial A pH<2 Surrogate Fail;Need 50X	JC/MD	Dilution
20	Q2900-03	DUP-01-081825	VX047445.D	20 Aug 2025 16:09	vial A pH<2 Surrogate Fail;Need 50X	JC/MD	Dilution
21	Q2900-04	MW-17B-081825	VX047446.D	20 Aug 2025 16:30	vial A pH<2 E flag of previous sample	JC/MD	ReRun
22	Q2900-05	MW-11C-081825	VX047447.D	20 Aug 2025 16:52	vial A pH<2 Need 50X	JC/MD	Dilution
23	Q2900-06	MW-17C-081825	VX047448.D	20 Aug 2025 17:14	vial A pH<2 Surrogate Fail	JC/MD	ReRun
24	Q2900-08	TB-081825	VX047449.D	20 Aug 2025 17:35	vial A pH<2 TB,Surrogate Fail	JC/MD	ReRun
25	Q2878-01	MW-18B-57.5-081325	VX047450.D	20 Aug 2025 17:57	vial A pH<2 Need 10X	JC/MD	Dilution
26	Q2878-01DL	MW-18B-57.5-081325D	VX047451.D	20 Aug 2025 18:18	vial B pH<2	JC/MD	Ok,M
27	Q2878-05	MW-11B-37.5-081425	VX047452.D	20 Aug 2025 18:40	vial A pH<2	JC/MD	Ok
28	VSTDCCC050	VSTDCCC050EC	VX047453.D	20 Aug 2025 19:01		JC/MD	Ok,M

M : Manual Integration

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Prep Standard - Chemical Standard Summary

Order ID : Q2878

Test : VOCMS Group3

Prepbatch ID :

Sequence ID/Qc Batch ID: VX082025,

Standard ID :
VP134142,VP134149,VP134933,VP134956,VP134957,VP135059,VP135129,VP135191,VP135192,VP135193,

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	VP135191	08/20/2025	08/21/2025	John Carlone	None	None	Semsettin Yesilyurt 08/22/2025

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	VP135192	08/20/2025	08/21/2025	John Carlone	None	None	Semsettin Yesilyurt 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

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP135193	08/20/2025	08/21/2025	John Carlone	None	None	Semsettin Yesilyurt 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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CHEMICAL RECEIPT LOG BOOK

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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CHEMICAL RECEIPT LOG BOOK

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
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avantor™ | J.T.Baker®

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Country of Origin: USA
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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

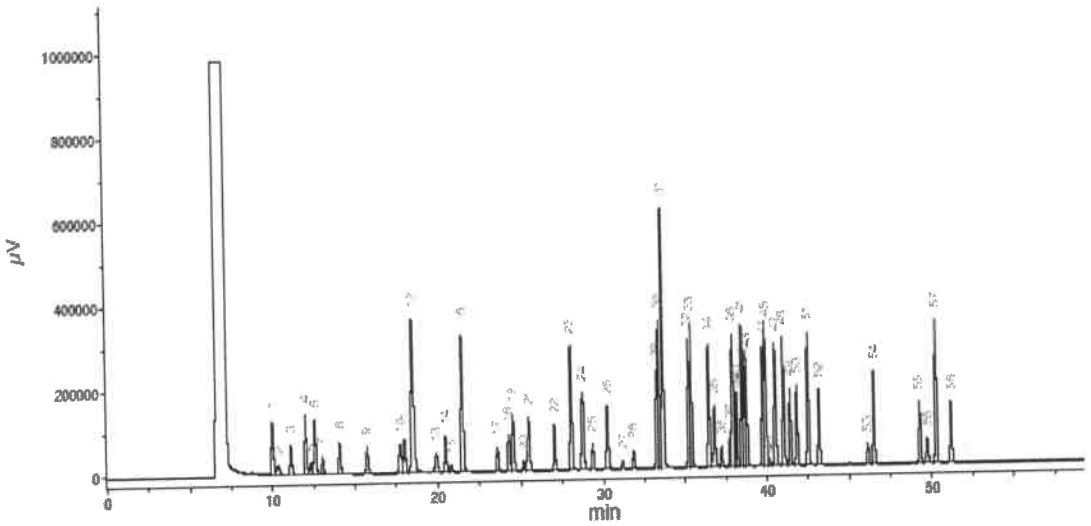
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, 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).

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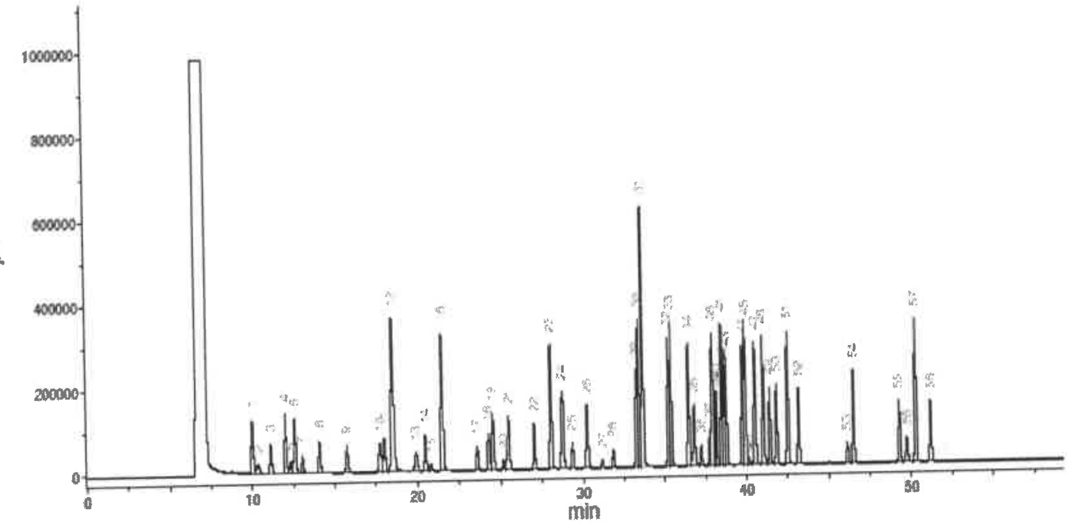
Run 16, "P95317 L021624 [2000µg/mL in MeOH]"

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-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.34
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	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.88
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.07
23	Toluene	28.03
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
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	33.86
32	o-Xylene	35.33
33	Styrene	35.39
34	Isopropylbenzene/Bromoform	36.48
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	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.82
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.48
55	1,2,4-Trichlorobenzene	49.25
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
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
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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

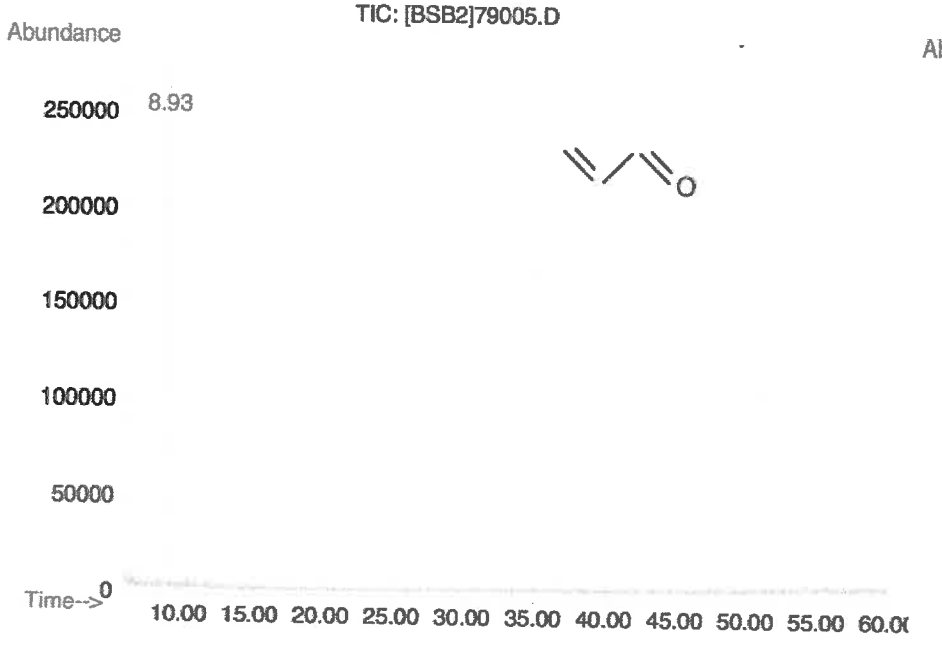
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

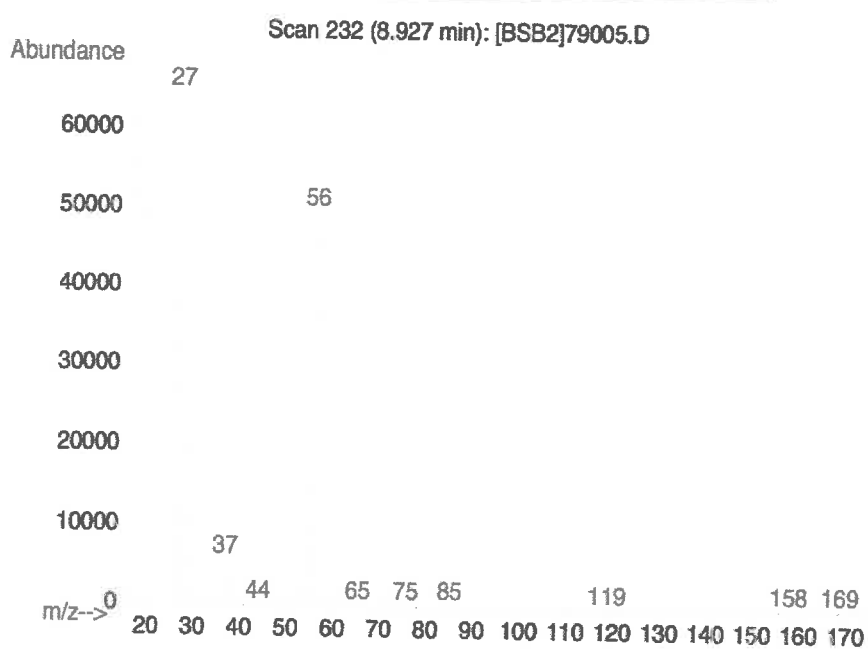
Formulated By: Justin Dippold 091424 DATE

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.





- 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.
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Certified Reference Material CRM

Rec 09/16/24 2 Vials

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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

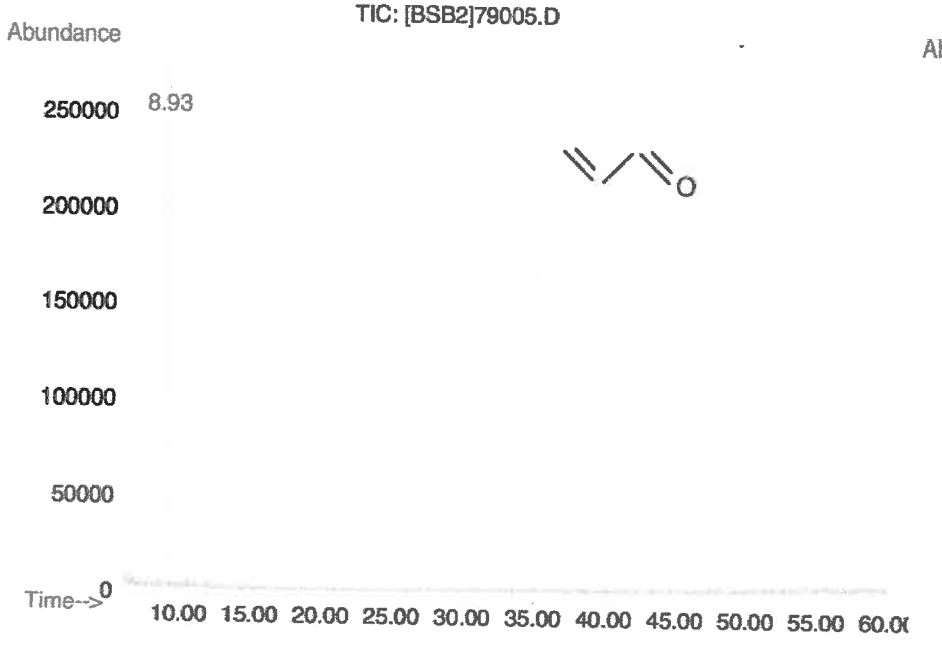
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

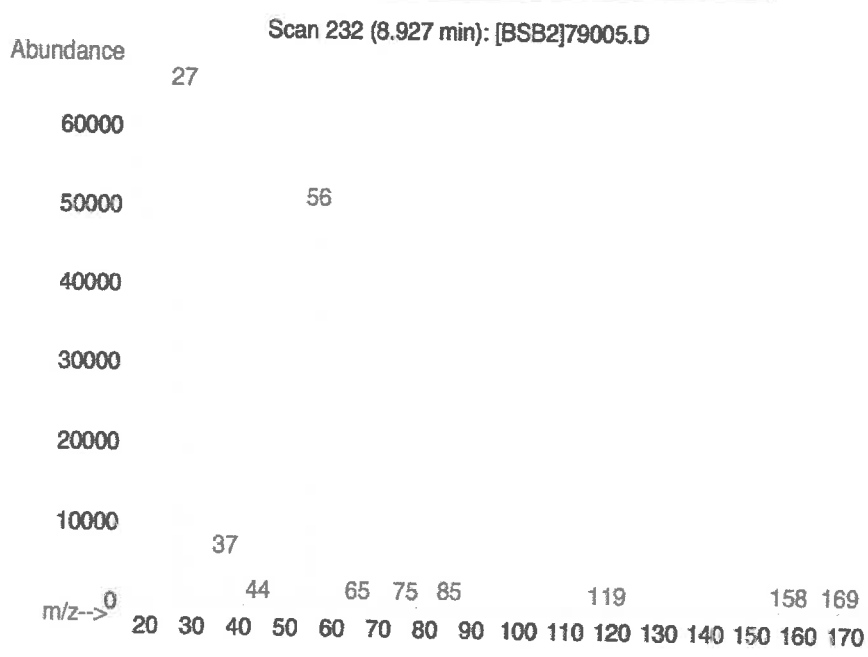
Formulated By: Justin Dippold 091424 DATE

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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Certified Reference Material CRM

Rec 12/6/24
20 vial

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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

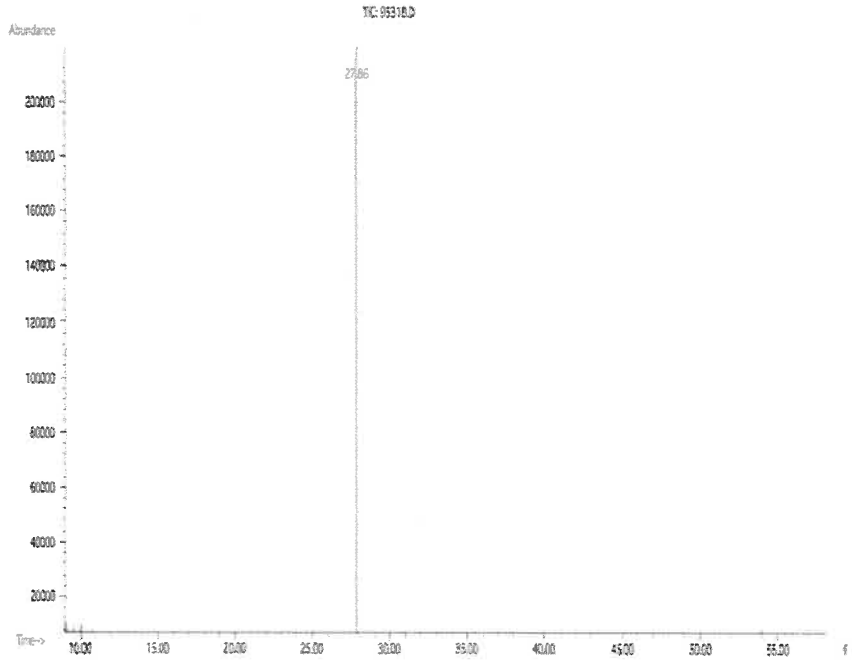
V14630 to V14649

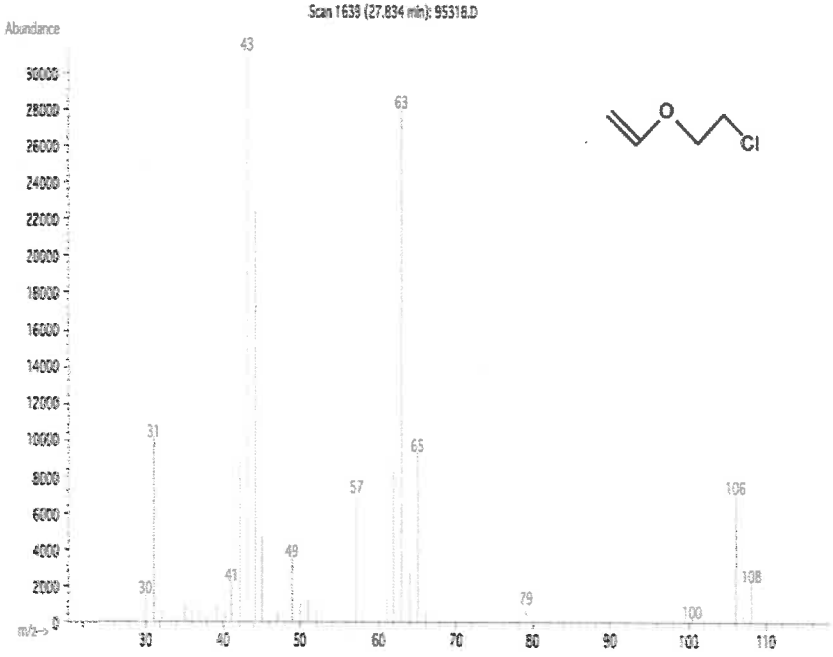
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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.
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.
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

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

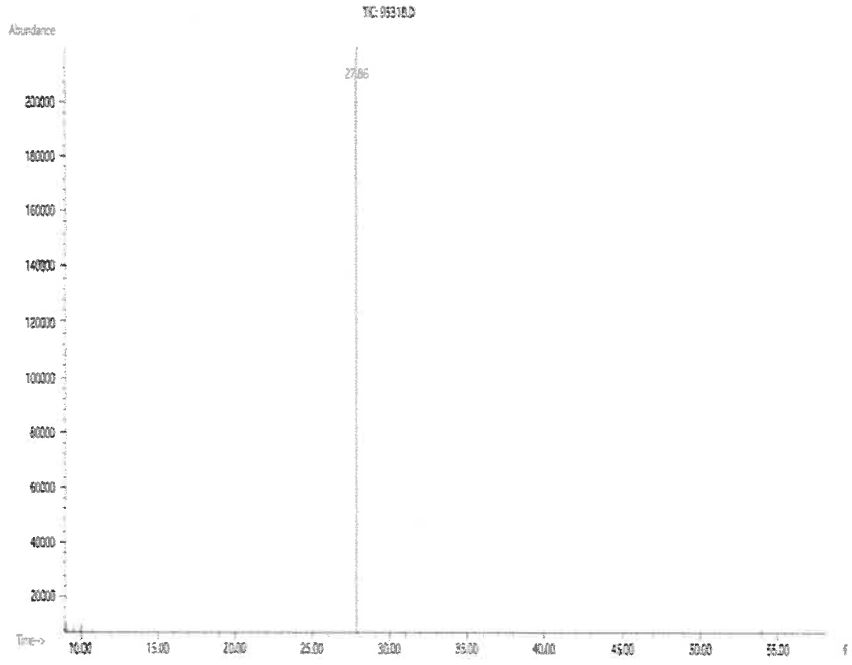
V14630 to V14649

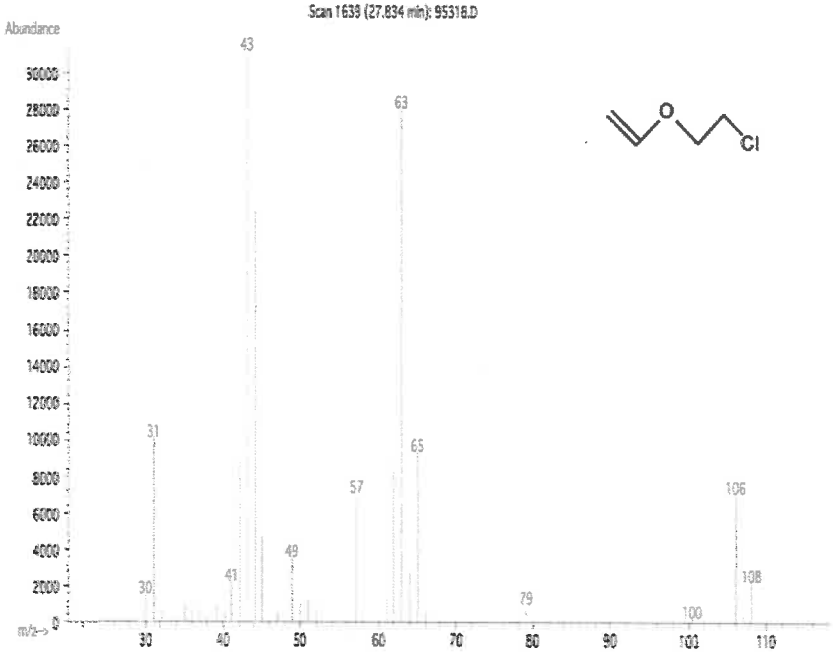
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

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).

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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.
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

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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

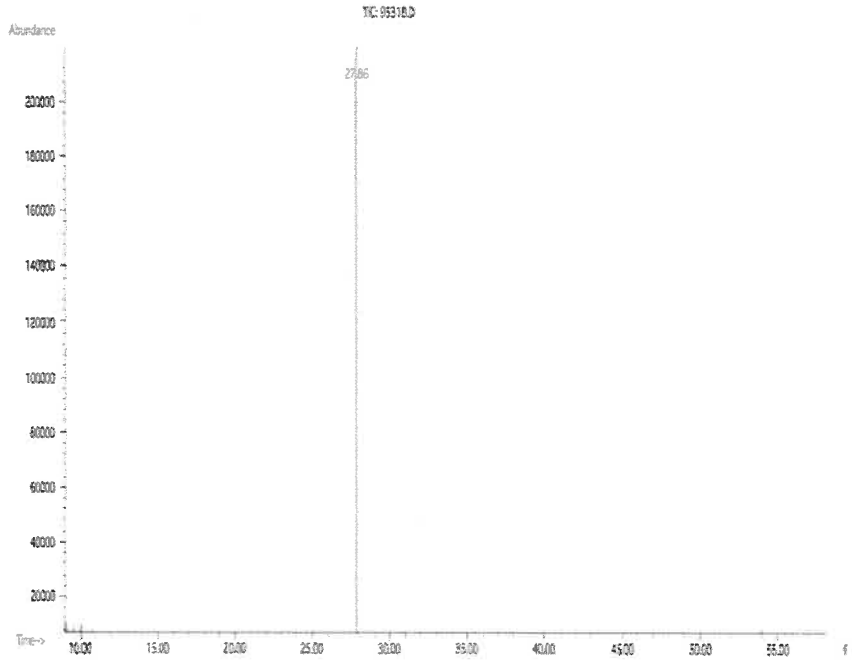
V14630 to V14649

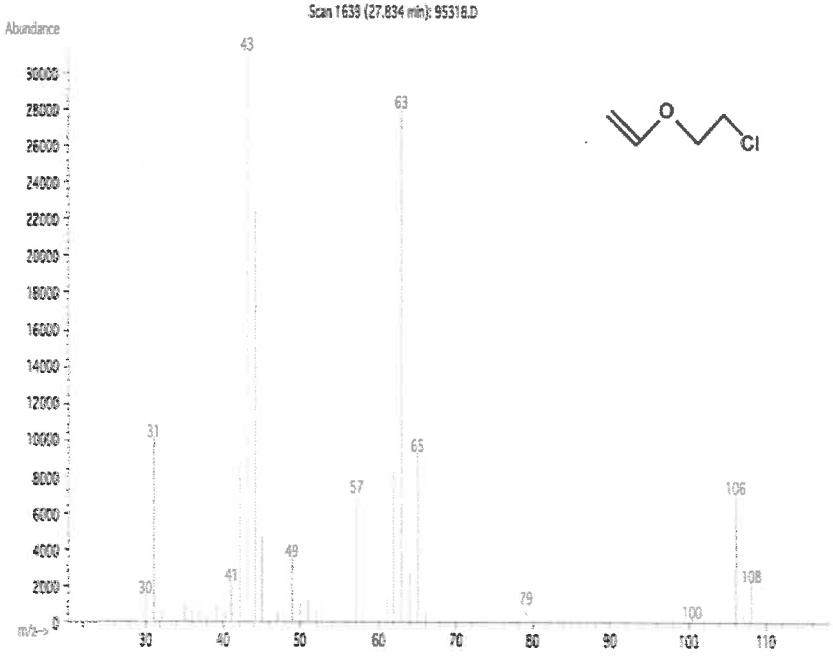
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
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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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

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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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Dispose with normal Laboratory Solvent Waste.

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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

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V14630 to V14649

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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
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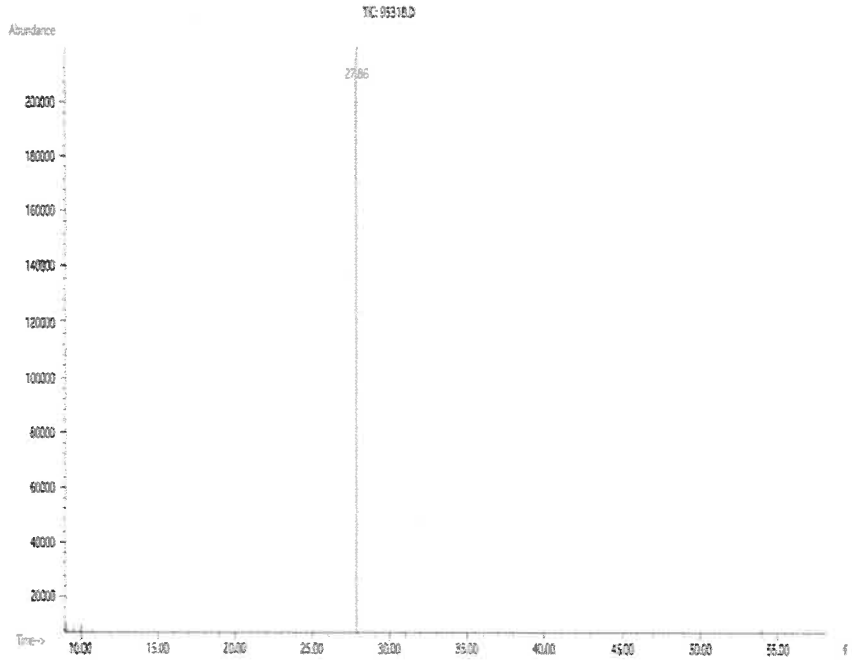
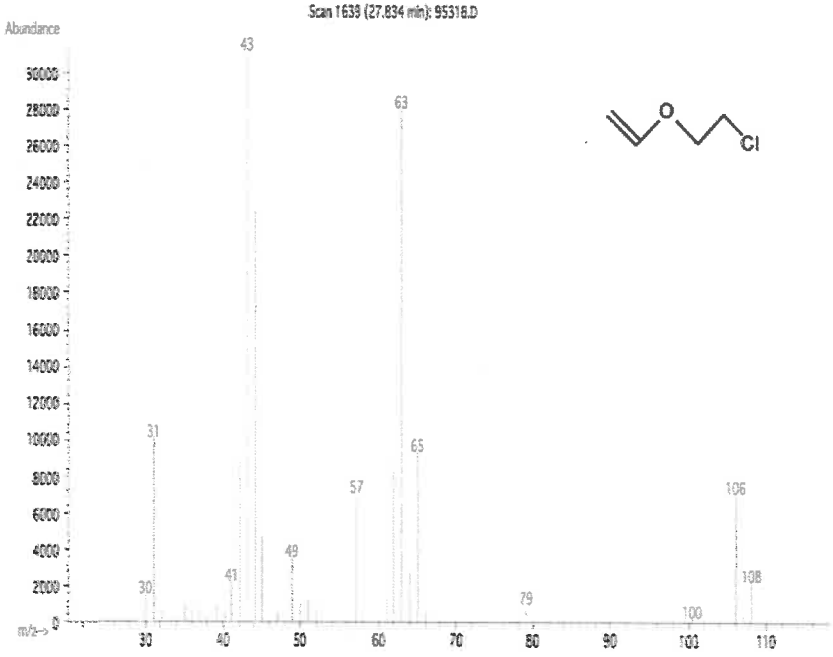
Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





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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)

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Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
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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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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.)

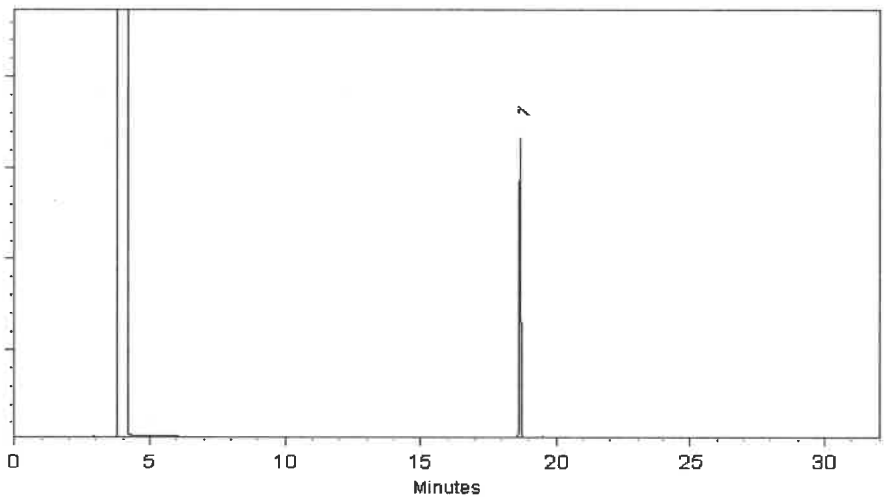
Inj. Temp:
200°C

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.

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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. : 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.)

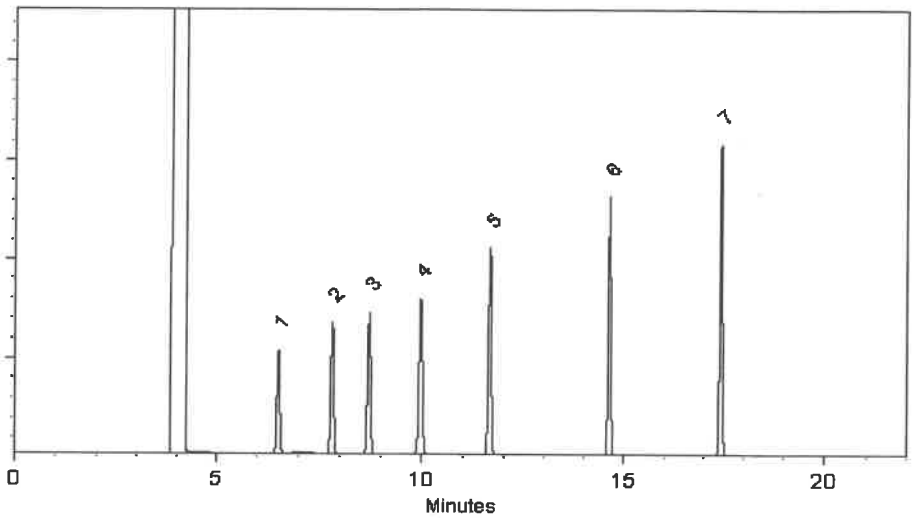
Inj. Temp:
200°C

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:

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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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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.)

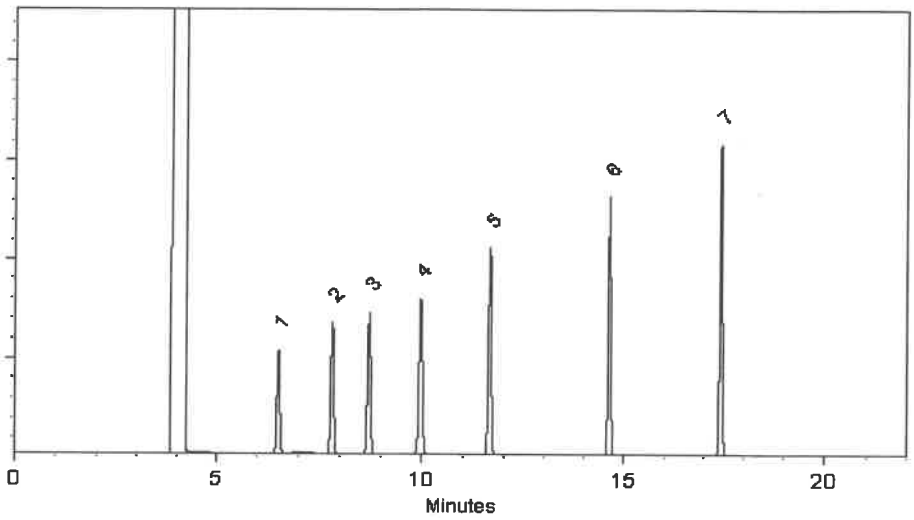
Inj. Temp:
200°C

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.
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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:

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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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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. : 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.

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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.)

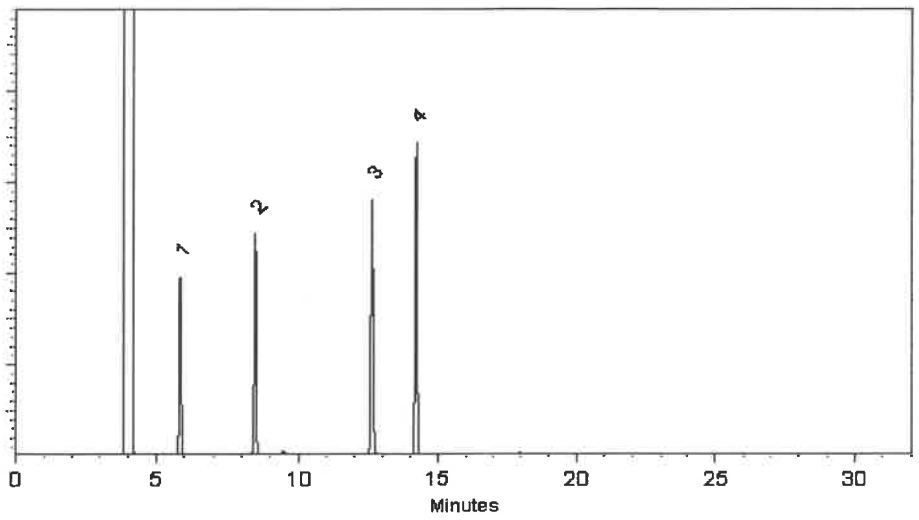
Inj. Temp:
200°C

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:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  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.)

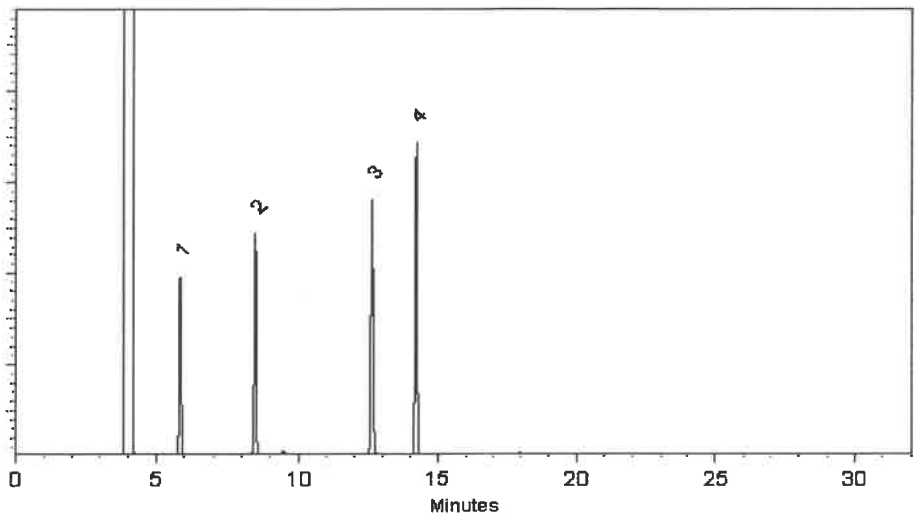
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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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:

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Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
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- 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:

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Handling Notes:

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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.)

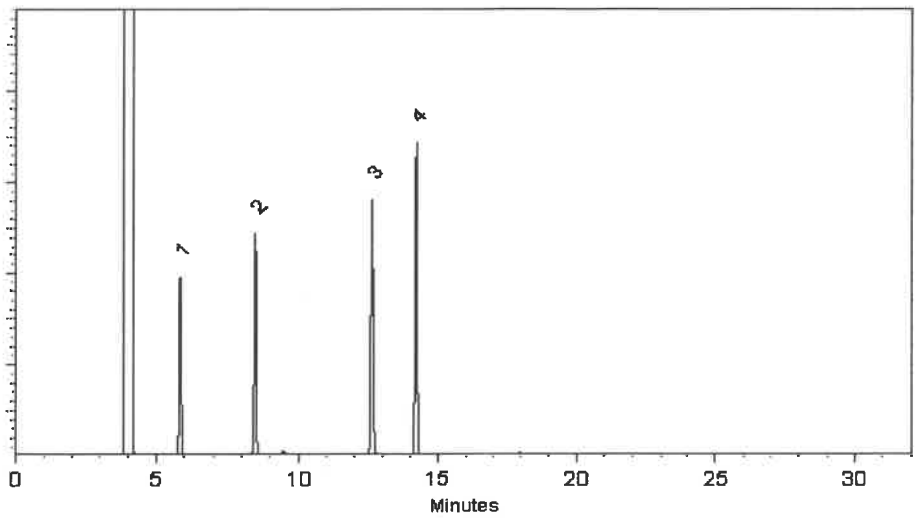
Inj. Temp:
200°C

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:

- 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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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. : 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.)

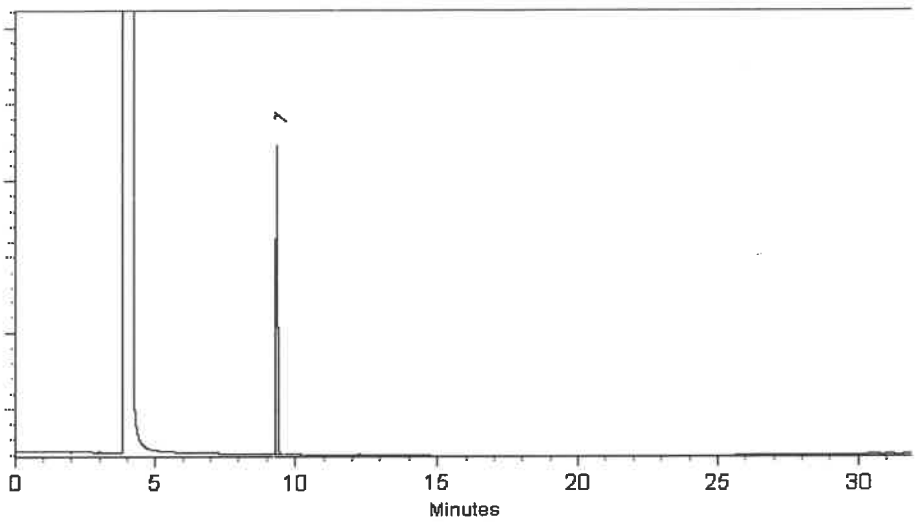
Inj. Temp:
200°C

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.
- 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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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.)

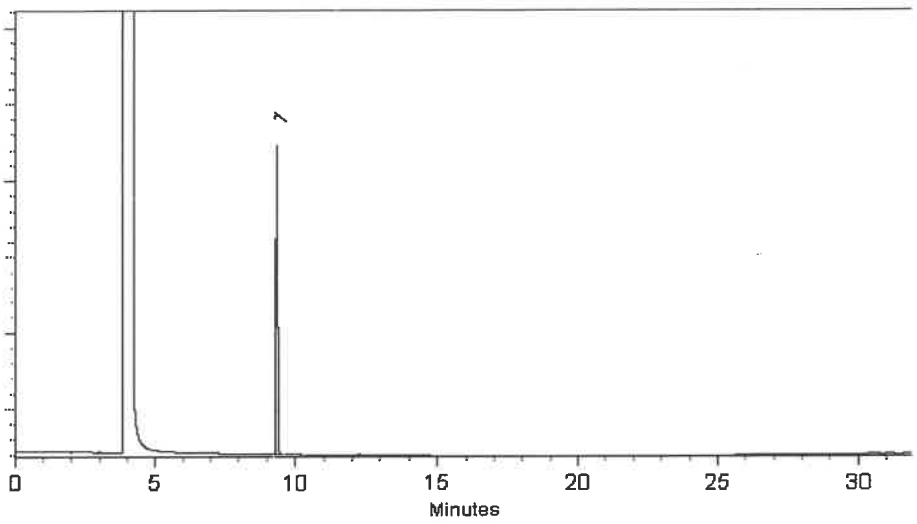
Inj. Temp:
200°C

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:

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Purity Notes:

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Manufacturing Notes:

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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)
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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:
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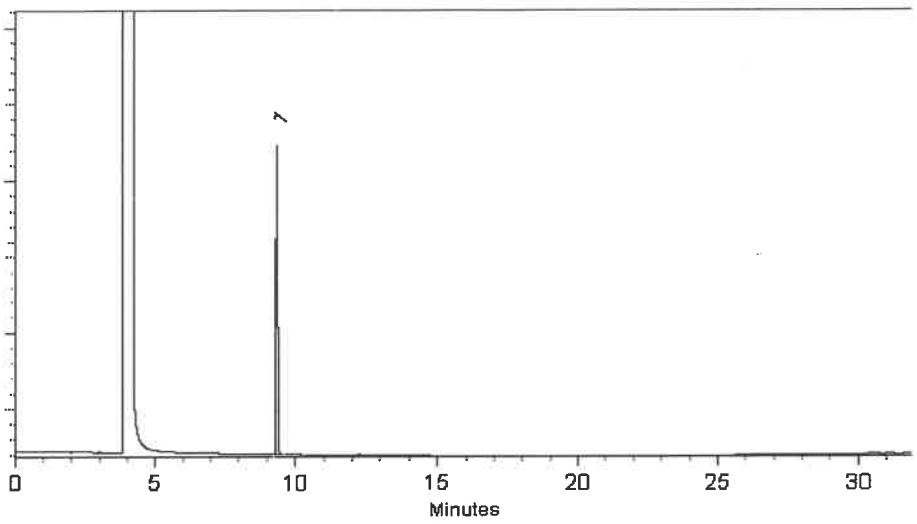
Det. Temp:
250°C

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

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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

Dec: 12/09/24

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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.)

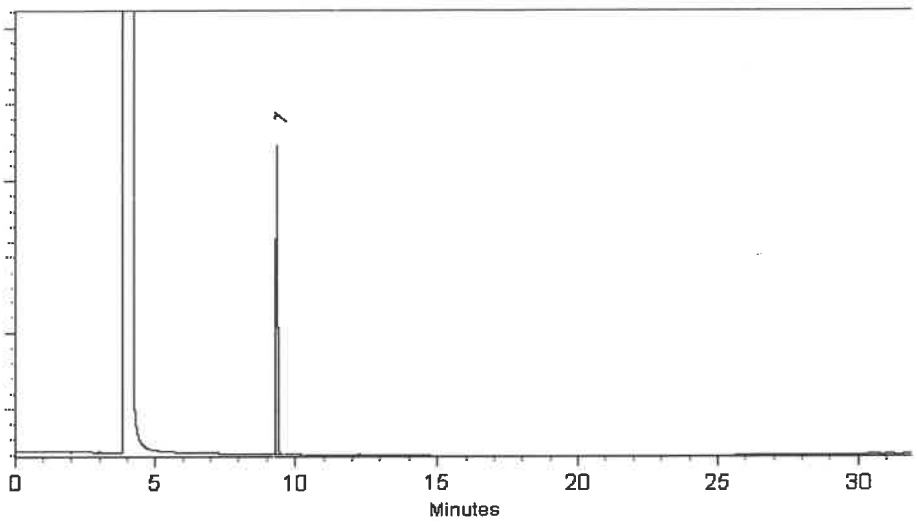
Inj. Temp:
200°C

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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

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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. : 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.

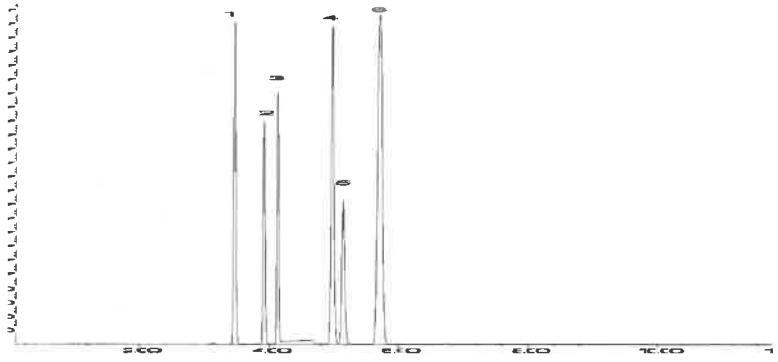
Inj. Temp:
200°C

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

30 Vial

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V14727 to
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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.

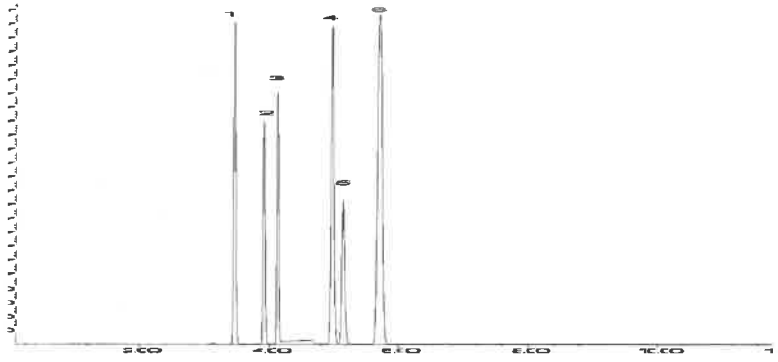
Inj. Temp:
200°C

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:

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J14842 to 14846

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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.)

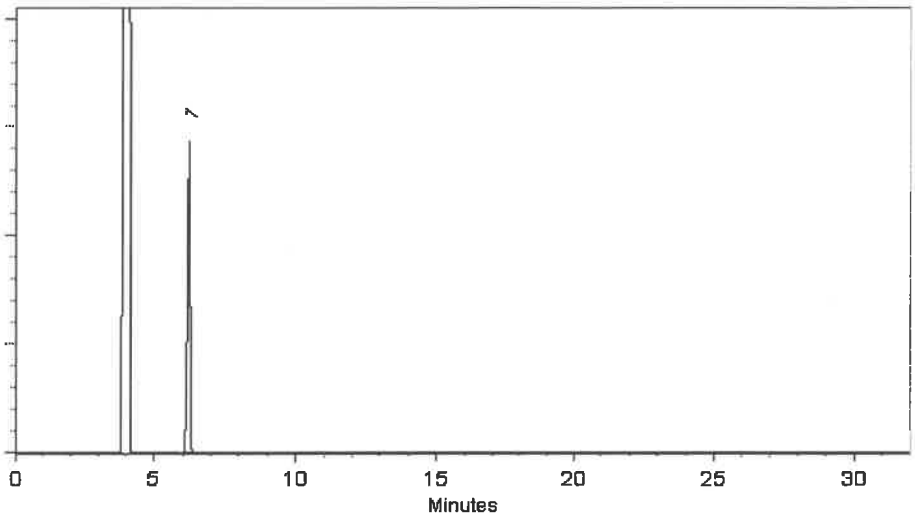
Inj. Temp:
200°C

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.
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Zoviny Rec 01/08/21

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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.)

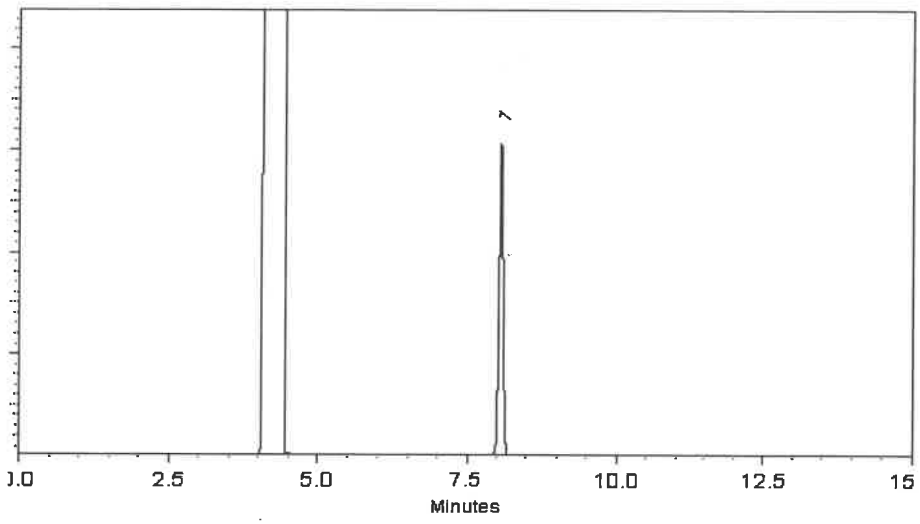
Inj. Temp:
200°C

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:

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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.

Zoviny Rec 01/08/21

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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.)

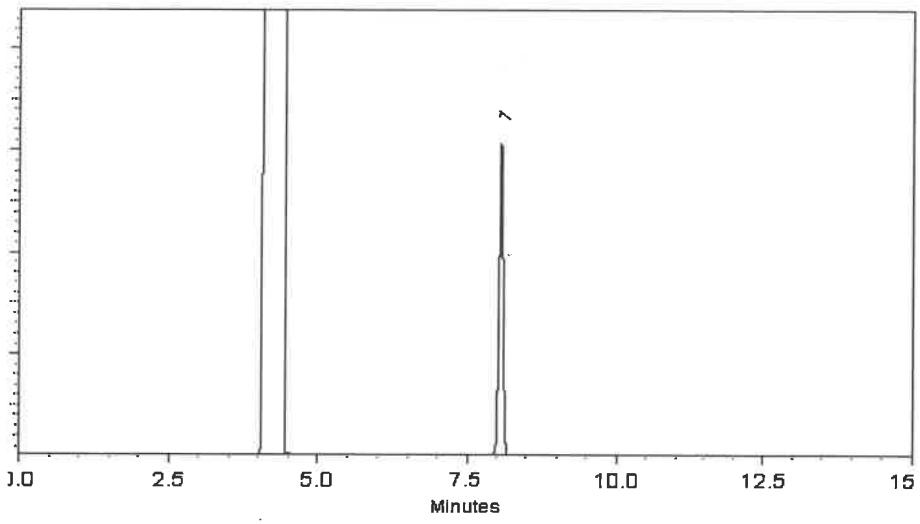
Inj. Temp:
200°C

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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

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.
- 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.

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- 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.

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

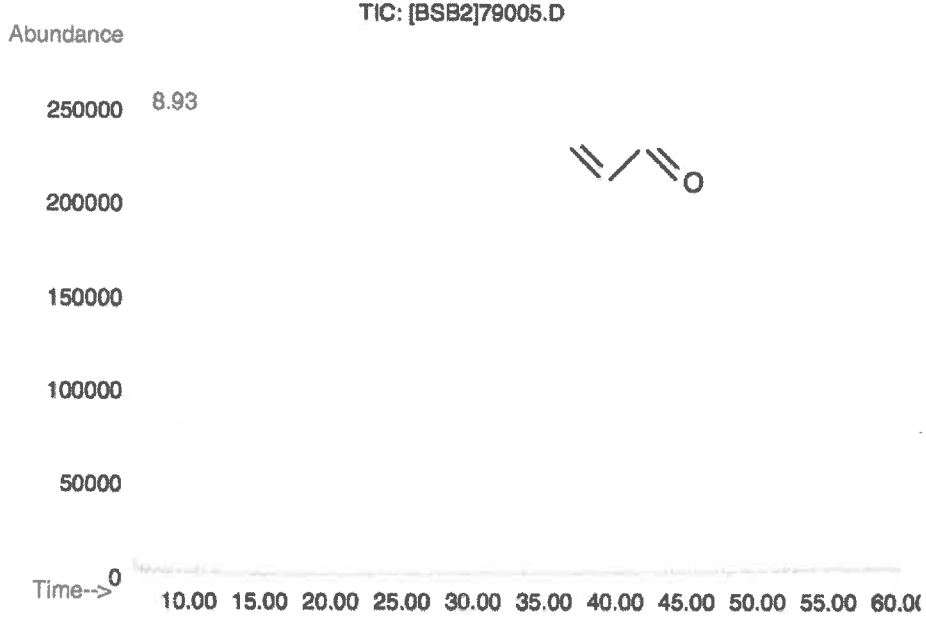
Weight(s) shown below were combined and diluted to (mL): 10.0

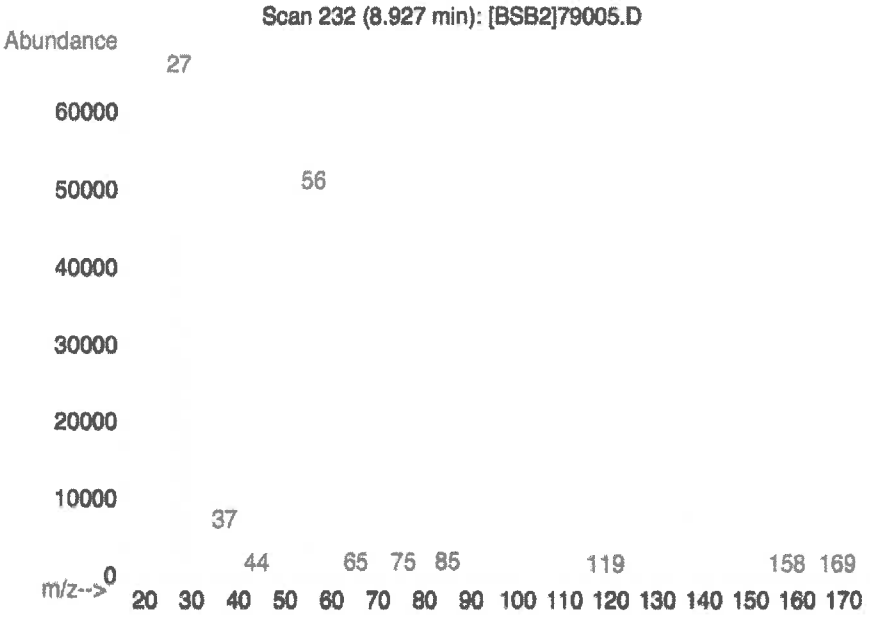
Eli Aliaga 081325
Formulated By: Eli Aliaga DATE

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

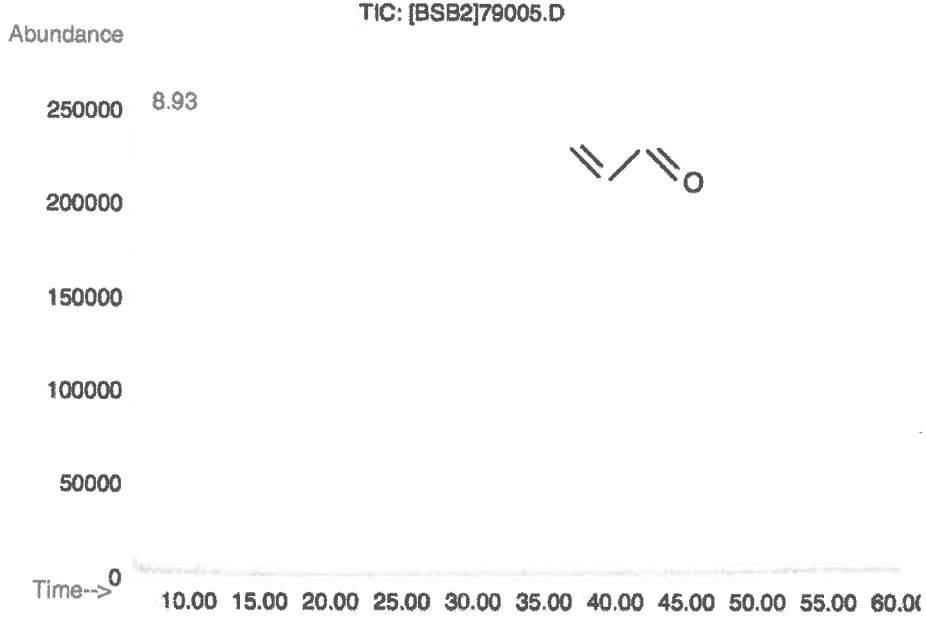
Weight(s) shown below were combined and diluted to (mL): 10.0

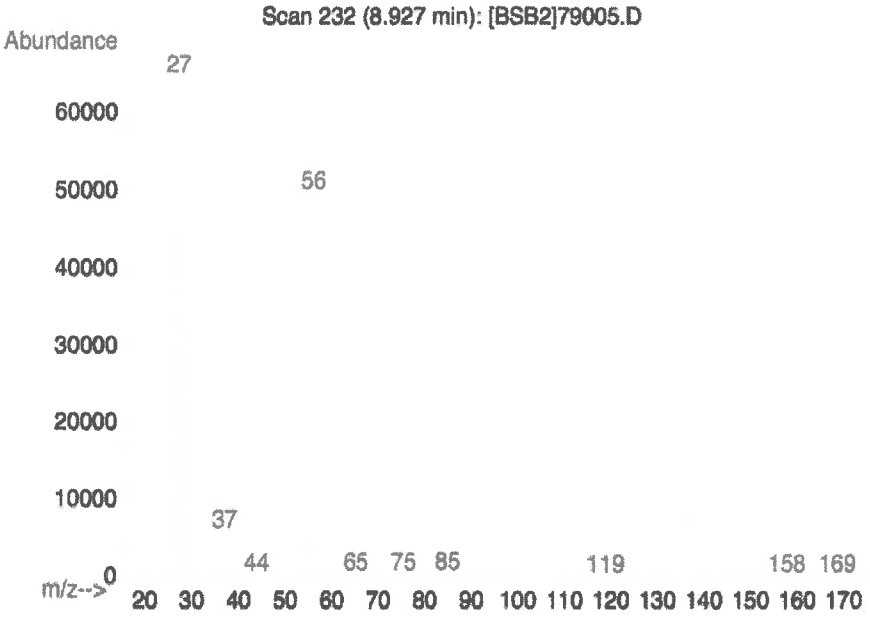
Eli Aliaga 081325
Formulated By: Eli Aliaga DATE

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

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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
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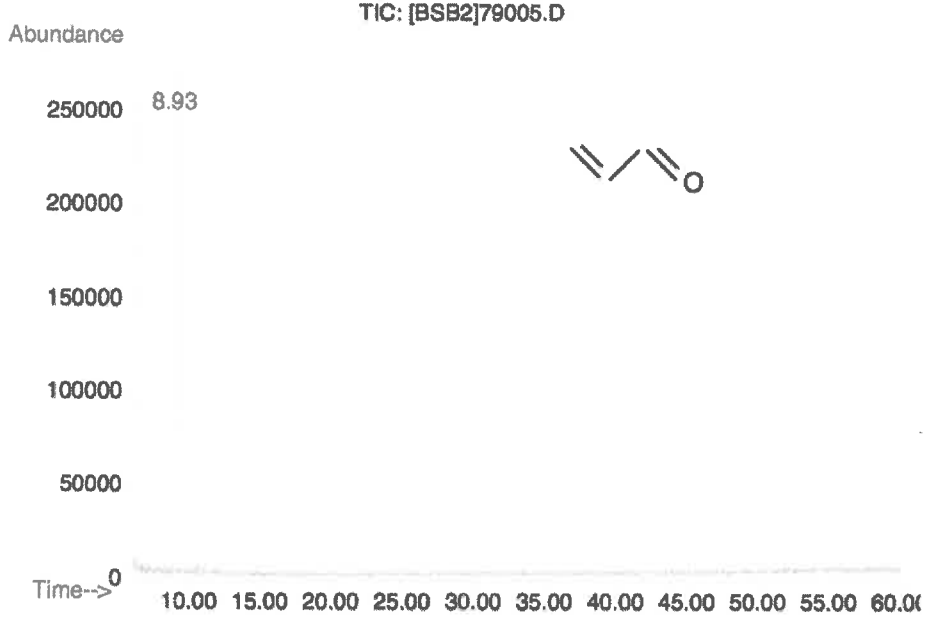

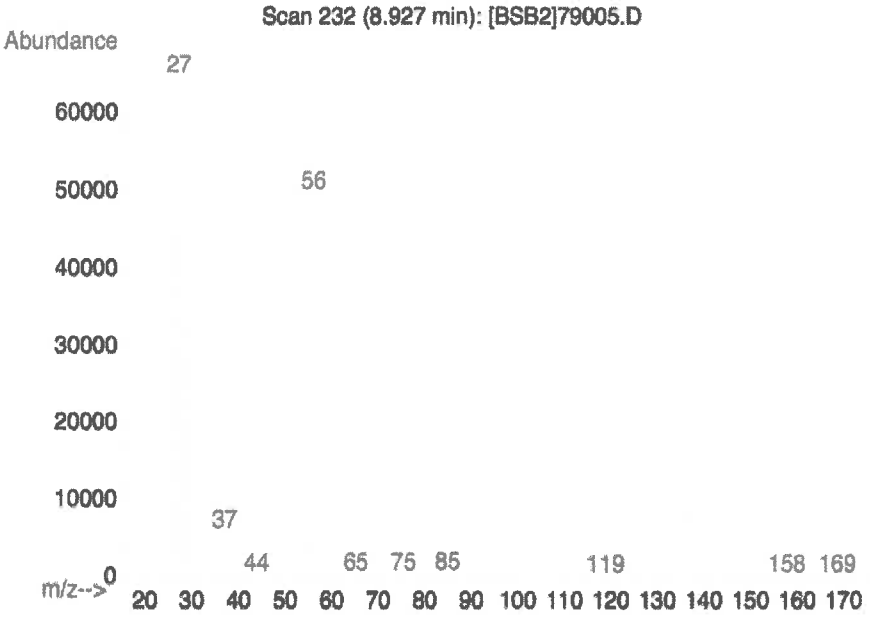

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Rev 1.0, 2/25/2025

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 2878
COC Number 2047805

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Jacobs
ADDRESS: 412 Mt Kemble Ave Suite 100
CITY Morristown STATE: NJ ZIP: 07960
ATTENTION: John Yunfante John.Yunfante@Jacobs.com
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: STC PT C
PROJECT NO.: D3868221 LOCATION: Princeton Junction
(1) email
PROJECT MANAGER: Mary.Murphy@Jacobs.com
e-mail: Project Manager: Mary Murphy
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Mary Murphy PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) (1) 3+ 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	2	3	4	5	6	7	8	9
Site Specific VOCs (8260B-LOW)	1,4 Dioxane (8270E-SIM)	Total Metals (6020B)	Dissolved Metals (6020B)	Alkalinity (SM2320B)	TDS (SM2540C)	Anions (9056)	Trace VOCs (8260B-SIM)	1,5 FAMOI (1,4-Dioxane)

PRESERVATIVES

1	2	3	4	5	6	7	8	9
A/E	E	B/E	B/E	E	E	E	A/E	

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

#	ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9
1.		MW-18B-57.5-081325	GW		X	8/13/25	1545	9	X	X	X	X	X	X	X		
2.		MW-18B-57.5-081325-SIM	GW		X	8/13/25	1548	2								X	
3.		MW-11A-37.5-081425	GW		X	8/14/25	1037	4	X	X							
4.		TB01-081425	DI		X	8/14/25	1200	2	X								
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME	RECEIVED BY
1. RELINQUISHED BY SAMPLER:	8/14/25 1542	1.
2. RELINQUISHED BY SAMPLER:	DATE/TIME:	2. RECEIVED BY:
3. RELINQUISHED BY SAMPLER:	DATE/TIME:	3. RECEIVED BY:

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
IR Gun #1

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

From: Yazmeen Gomez
Sent: Wednesday, August 27, 2025 11:27 AM
To: Ynfante, John
Subject: Q2869 & Q2878
Attachments: Q2869-01(100X).pdf; Q2869-05dup(40x).pdf; Q2878-01.pdf

John,

Please see below from the lab -

Q2869-01 (MW-19B-71.5-081325)100X
Q2869-05(MW-19B-71.5-081325-DUP) 40X

Lab has analyzed samples at straight dilution to avoid any contamination to the instrument.

Sample has high hits of analytes and requested for sim analysis also Q2869-09(MW-19B-71.5-081325-SIM) Which is not possible to analyze for the sample.

Q2878-01(MW-18B-57.5-081325) sample analyzed straight without any dilution, and the sample need dilution for some analytes, also has high hit for Vinyl Chloride which is SIM target analyte

Q2878-03(MW-18B-57.5-081325-SIM) will need to be cancelled.

Best Regards,

Yazmeen Gomez
Sr. Project Manager
An Alliance Technical Group Company
Main: 908-789-8900
Direct: 908-728-3147
Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092
www.alliancetg.com

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

QA Control Code: A2070148

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

DP 08/18/2025

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2878 JACO05
Client Name : JACOBS Engineering Grou
Client Contact : John Ynfante
Invoice Name : JACOBS Engineering Grou
Invoice Contact : John Ynfante

Order Date : 8/14/2025 3:49:00 PM
Project Name : Former Schlumberger STC
Receive DateTime : 8/14/2025 3:42:00 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
Q2878-01	MW-18B-57.5-081325	Water	~~08/14/2025~~ 08/13/2025	15:45	VOCMS Group3		8260-Low	10 Bus. Days	
Q2878-03	MW-18B-57.5-081325-SIM	Water	~~08/14/2025~~ 08/13/2025	15:48	VOC-SIM		SFAM_VOCSIM	10 Bus. Days	
Q2878-05	MW-11A-37.5-081425	Water	08/14/2025	10:37	VOCMS Group3		8260-Low	10 Bus. Days	
Q2878-06	TB01-081425	Water	08/14/2025	12:00	VOCMS Group3		8260-Low	10 Bus. Days	

Relinguished By : [signature]
Date / Time : 8/14/25 16:05

Received By : JC
Date / Time : 8/14/25 1605

Storage Area : **VOA Refridgerator Room**