

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040925\
 Data File : VL042294.D
 Acq On : 09 Apr 2025 15:50
 Operator : SY/MD
 Sample : Q1665-08
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-DUP-2-3242025

Quant Time: Apr 10 01:45:44 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.787	49	159184	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	384747	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.882	117	314874	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	236151	9.133	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	91.300%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	9013	0.383	ppbv	100
3) Chlorodifluoromethane	1.476	51	29537	1.230	ppbv #	90
4) Chloromethane	1.534	50	10945	1.139	ppbv	99
6) Bromomethane	1.670	94	190	0.044	ppbv #	63
7) Chloroethane	1.706	64	431	0.112	ppbv	95
9) Propene	1.887	41	22225	2.019	ppbv	95
11) Trichlorofluoromethane	1.877	101	5632	0.246	ppbv	99
12) 1,1,2-Trichlorotrifluo...	2.136	101	1388	0.074	ppbv #	81
13) Ethanol	1.722	45	35576	34.196	ppbv	82
15) Acetone	1.835	43	257522	11.567	ppbv	96
16) 1,3-Butadiene	1.599	39	3737	0.344	ppbv #	53
17) tert-Butyl alcohol	1.887	59	8353	0.301	ppbv	95
19) Isopropyl Alcohol	1.887	45	224606	17.881	ppbv #	33
20) Methylene Chloride	2.062	84	8683	1.047	ppbv #	84
21) Allyl Chloride	2.046	41	1988	0.127	ppbv #	79
23) Vinyl Acetate	2.476	43	7754	0.805	ppbv #	34
25) Ethyl Acetate	2.826	43	18155	0.314	ppbv #	87
26) Hexane	2.829	57	20910	0.937	ppbv #	31
29) Chloroform	2.848	83	10374	0.318	ppbv	96
34) 2-Butanone	2.560	43	91945	3.296	ppbv	97
35) Carbon Tetrachloride	3.764	117	2461	0.082	ppbv #	83
36) Benzene	3.661	78	3707	0.097	ppbv #	93
39) 1,2-Dichloropropane	3.962	63	97793	7.040	ppbv #	22
41) Tetrahydrofuran	3.069	42	2861	0.178	ppbv #	86

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

Quant Time: Apr 10 01:45:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Mar 28 02:00:52 2025
Response via : Initial Calibration

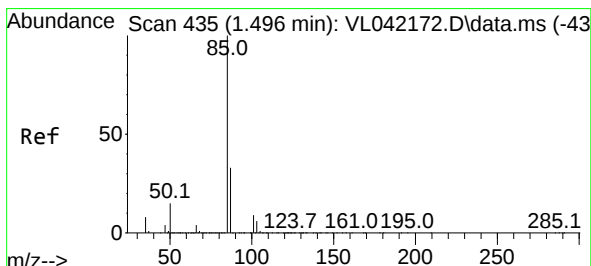
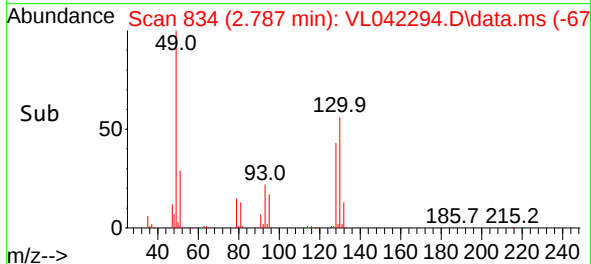
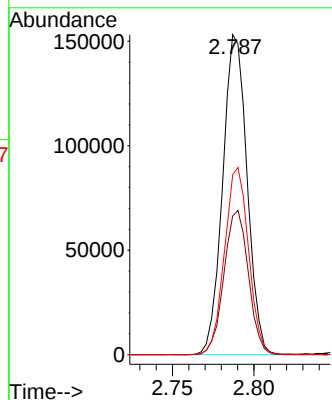
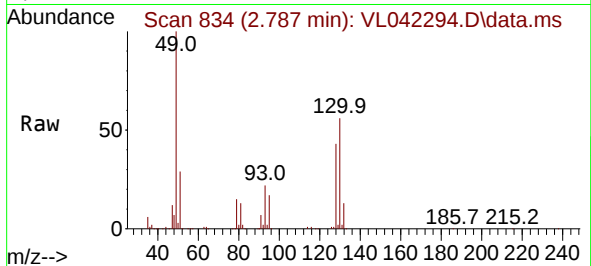




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

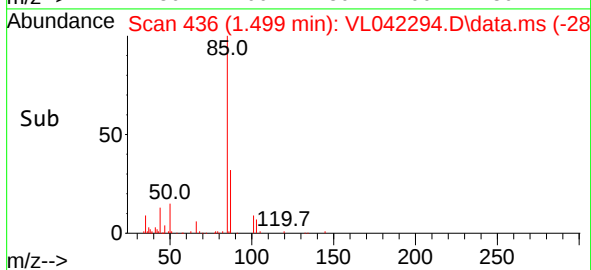
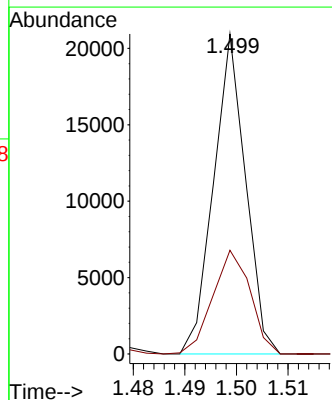
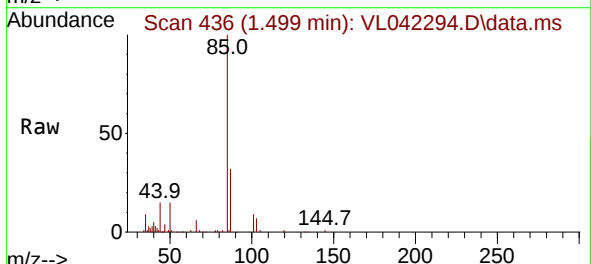
Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

Tgt Ion: 49 Resp: 159184
Ion Ratio Lower Upper
49 100
128 45.2 22.9 68.5
130 57.8 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.383 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 85 Resp: 9013
Ion Ratio Lower Upper
85 100
87 32.4 26.1 39.1

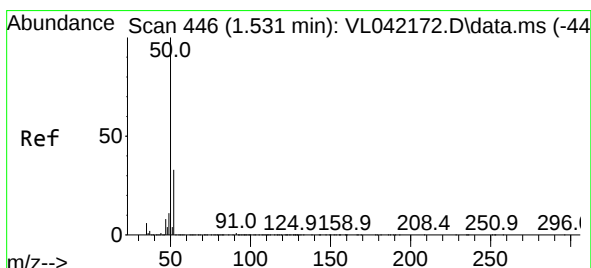
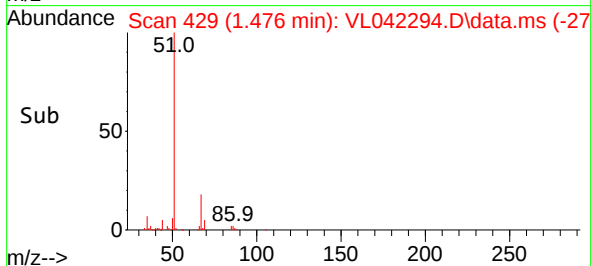
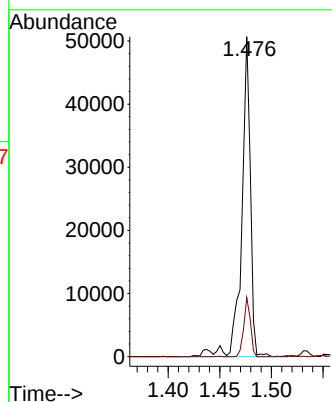
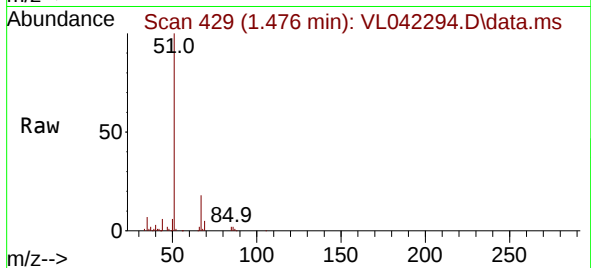




#3
Chlorodifluoromethane
Concen: 1.230 ppbv
RT: 1.476 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

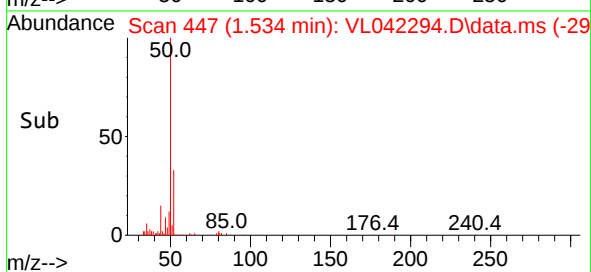
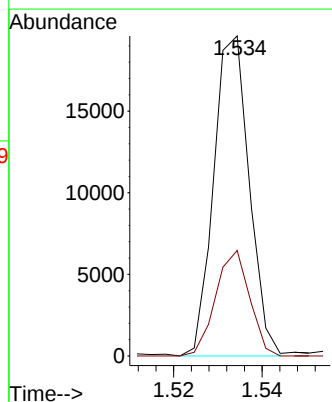
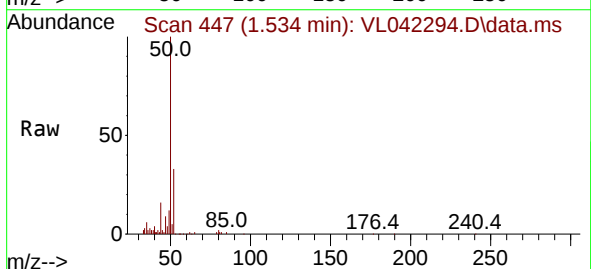
Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

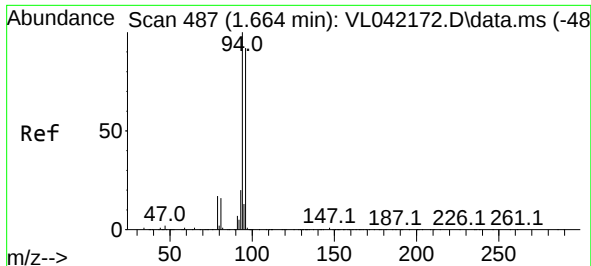
Tgt Ion: 51 Resp: 29537
Ion Ratio Lower Upper
51 100
67 14.3 15.0 22.6#



#4
Chloromethane
Concen: 1.139 ppbv
RT: 1.534 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 50 Resp: 10945
Ion Ratio Lower Upper
50 100
52 32.9 26.1 39.1

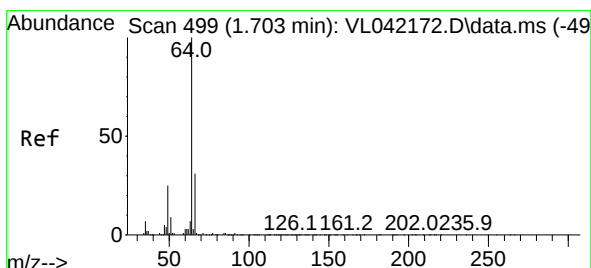
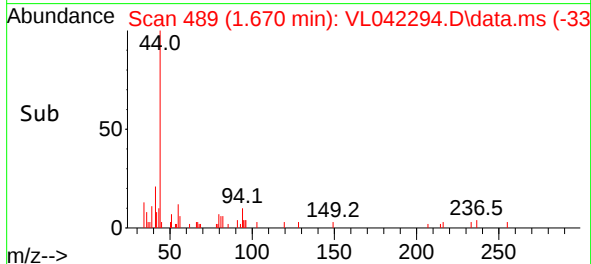
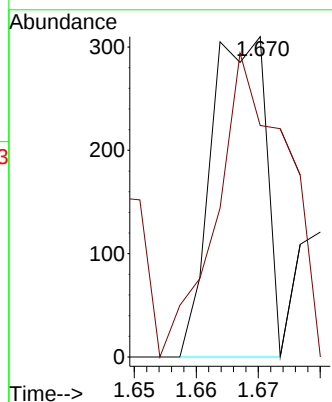
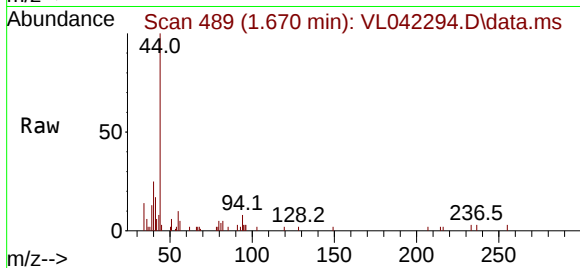




#6
Bromomethane
Concen: 0.044 ppbv
RT: 1.670 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

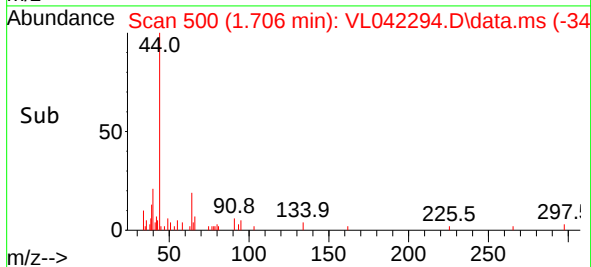
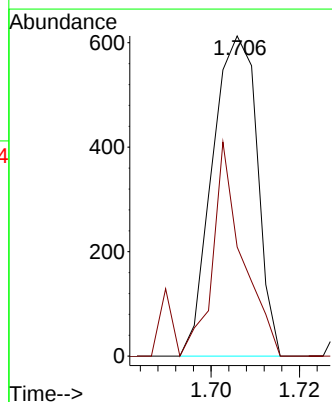
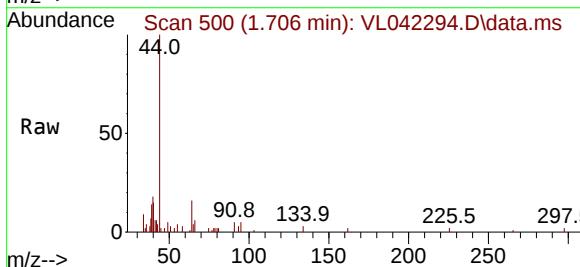
Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

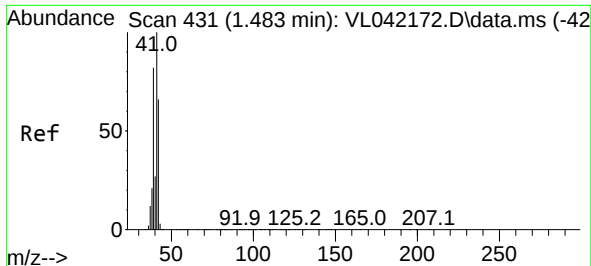
Tgt Ion: 94 Resp: 190
Ion Ratio Lower Upper
94 100
96 56.1 73.1 109.7#



#7
Chloroethane
Concen: 0.112 ppbv
RT: 1.706 min Scan# 500
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 64 Resp: 431
Ion Ratio Lower Upper
64 100
66 34.1 25.2 37.8

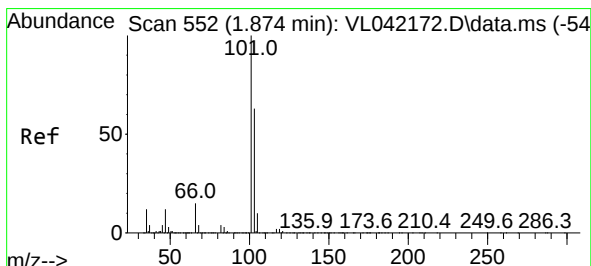
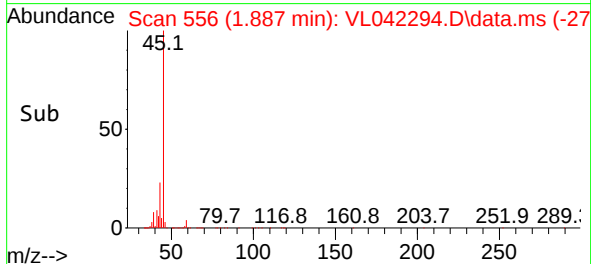
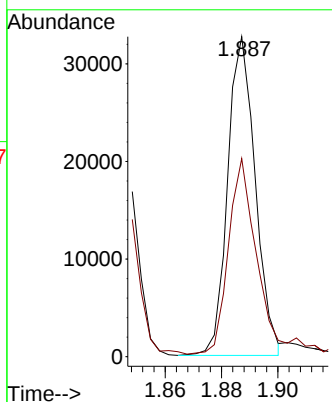
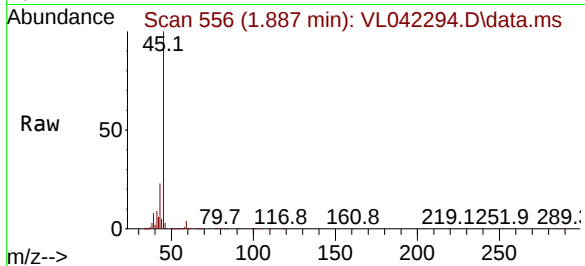




#9
 Propene
 Concen: 2.019 ppbv
 RT: 1.887 min Scan# 51
 Delta R.T. 0.404 min
 Lab File: VL042294.D
 Acq: 09 Apr 2025 15:50

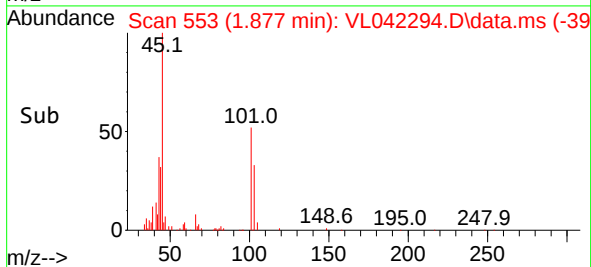
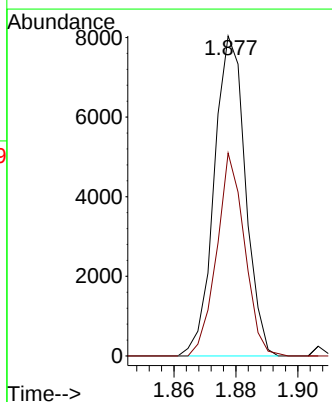
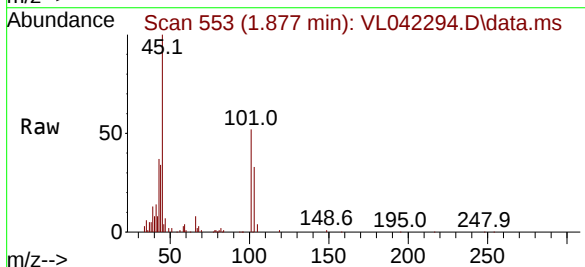
Instrument :
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 ClientSampleId :
 IA-DUP-2-3242025

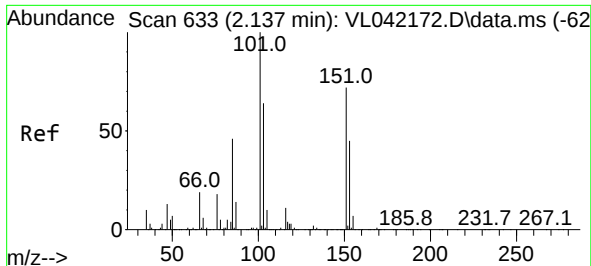
Tgt Ion: 41 Resp: 22225
 Ion Ratio Lower Upper
 41 100
 42 65.5 55.4 83.2



#11
 Trichlorofluoromethane
 Concen: 0.246 ppbv
 RT: 1.877 min Scan# 553
 Delta R.T. 0.003 min
 Lab File: VL042294.D
 Acq: 09 Apr 2025 15:50

Tgt Ion: 101 Resp: 5632
 Ion Ratio Lower Upper
 101 100
 103 63.4 50.2 75.2

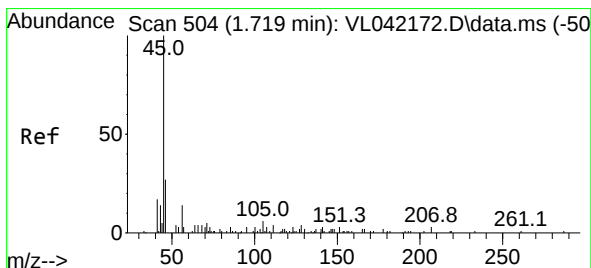
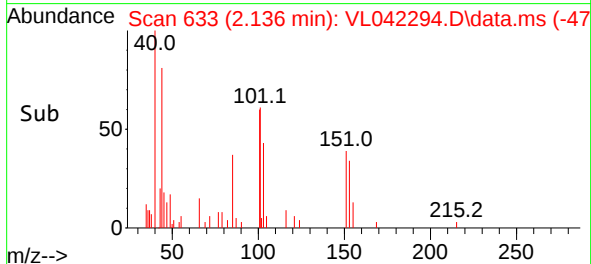
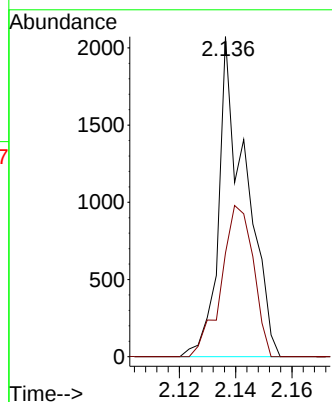
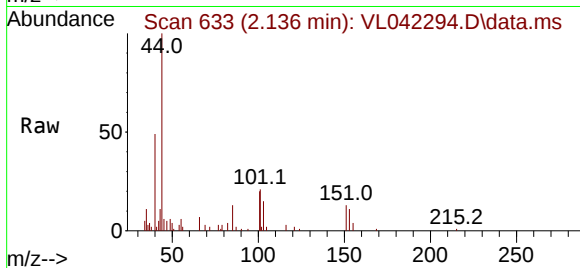




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.074 ppbv
 RT: 2.136 min Scan# 61
 Delta R.T. -0.000 min
 Lab File: VL042294.D
 Acq: 09 Apr 2025 15:50

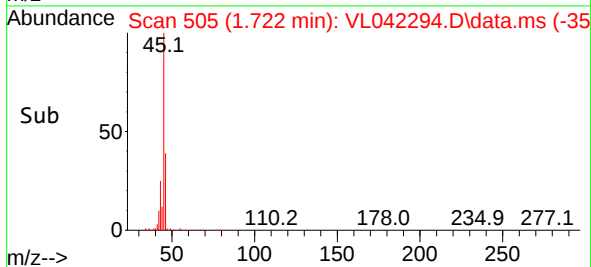
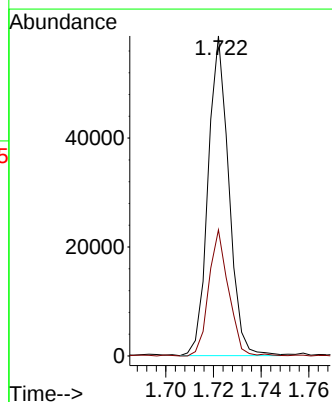
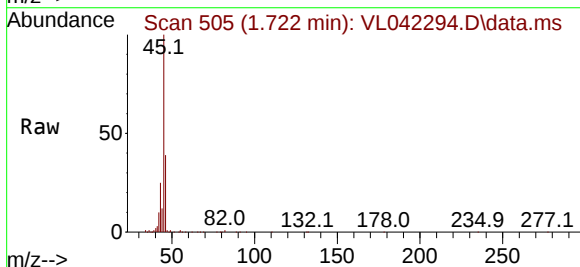
Instrument :
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 ClientSampleId :
 IA-DUP-2-3242025

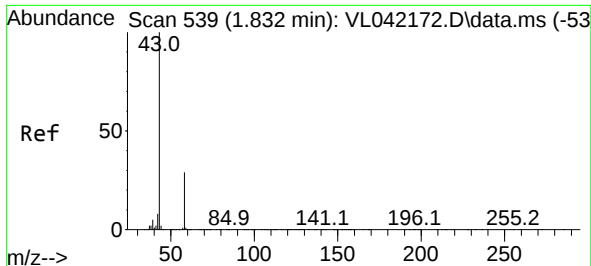
Tgt Ion:101 Resp: 1388
 Ion Ratio Lower Upper
 101 100
 151 55.8 57.1 85.7#



#13
 Ethanol
 Concen: 34.196 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.003 min
 Lab File: VL042294.D
 Acq: 09 Apr 2025 15:50

Tgt Ion: 45 Resp: 35576
 Ion Ratio Lower Upper
 45 100
 46 38.1 20.2 80.8





#15

Acetone

Concen: 11.567 ppbv

RT: 1.835 min Scan# 54

Delta R.T. 0.003 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

Instrument :

MSVOA_L

ClientSampleId :

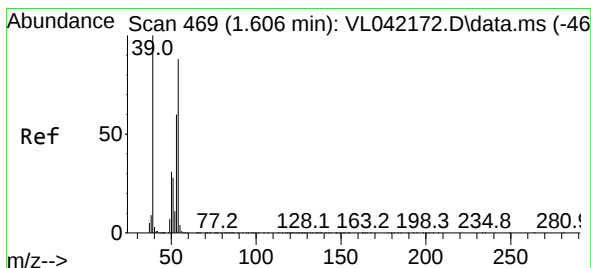
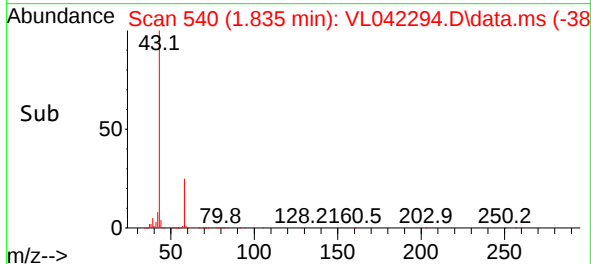
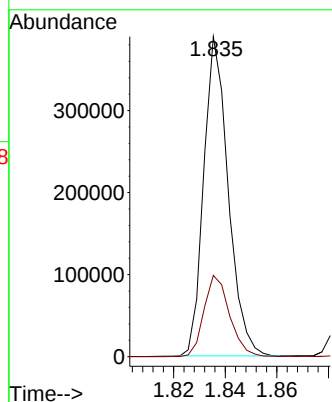
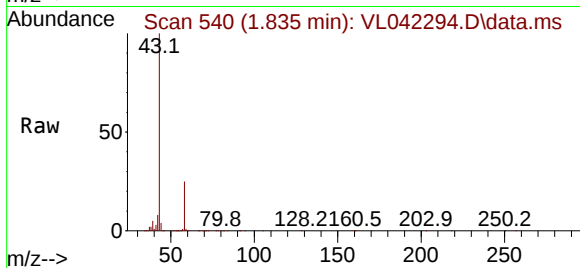
IA-DUP-2-3242025

Tgt Ion: 43 Resp: 257522

Ion Ratio Lower Upper

43 100

58 26.6 23.2 34.8



#16

1,3-Butadiene

Concen: 0.344 ppbv

RT: 1.599 min Scan# 467

Delta R.T. -0.007 min

Lab File: VL042294.D

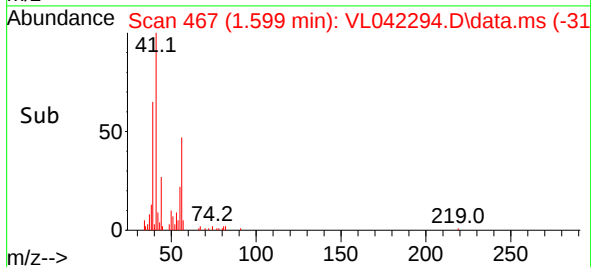
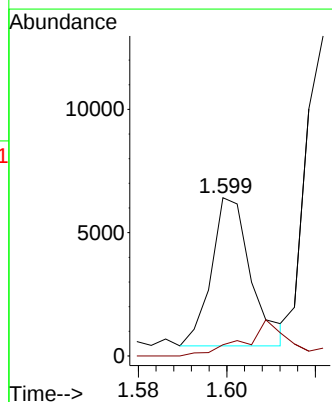
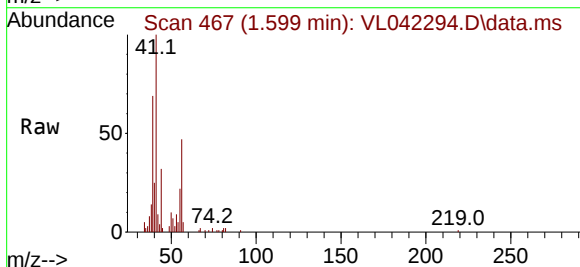
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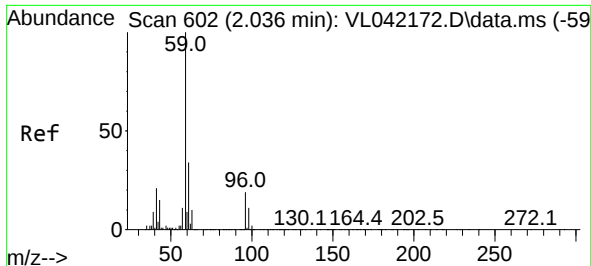
Tgt Ion: 39 Resp: 3737

Ion Ratio Lower Upper

39 100

54 35.8 60.7 91.1#

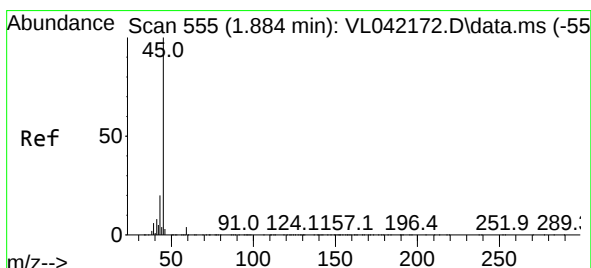
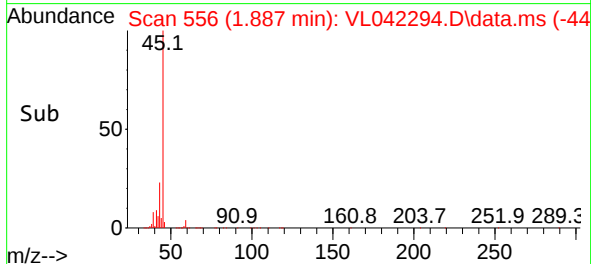
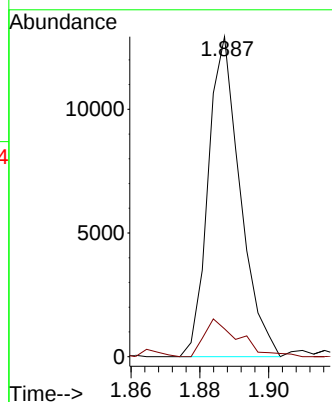
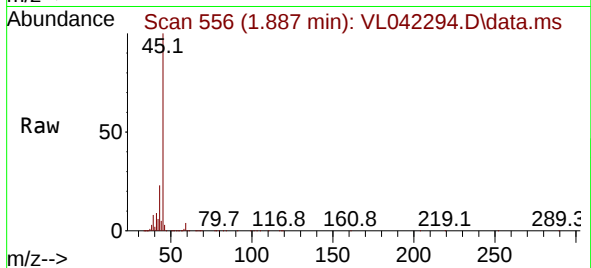




#17
tert-Butyl alcohol
Concen: 0.301 ppbv
RT: 1.887 min Scan# 556
Delta R.T. -0.149 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

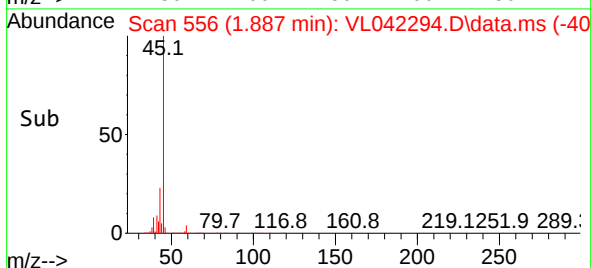
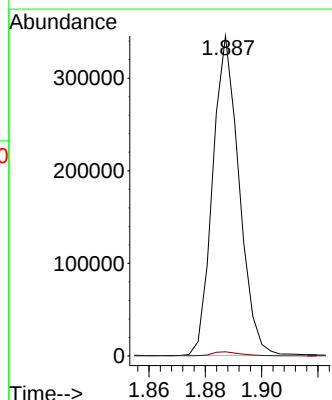
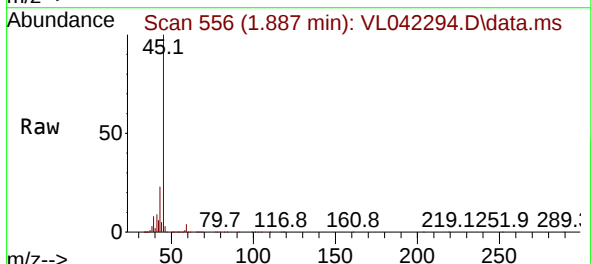
Instrument :
MSVOA_L
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IA-DUP-2-3242025

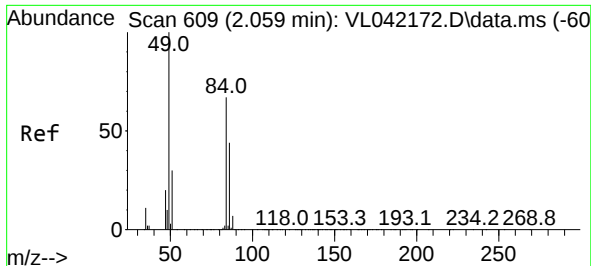
Tgt Ion: 59 Resp: 8353
Ion Ratio Lower Upper
59 100
57 12.8 8.9 13.3



#19
Isopropyl Alcohol
Concen: 17.881 ppbv
RT: 1.887 min Scan# 556
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 45 Resp: 224606
Ion Ratio Lower Upper
45 100
58 1.5 36.9 55.3#

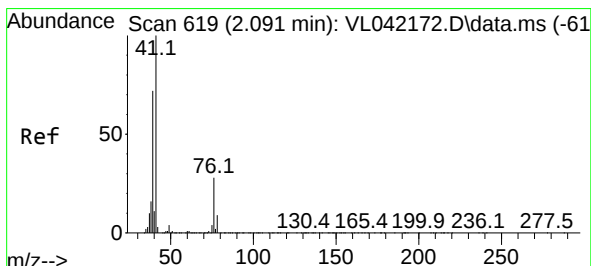
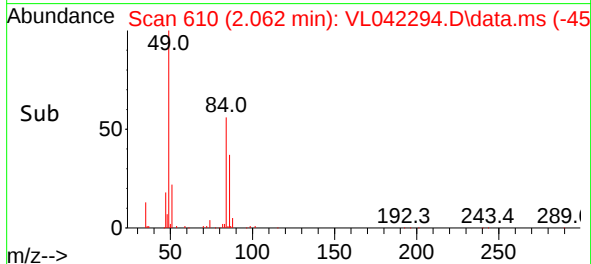
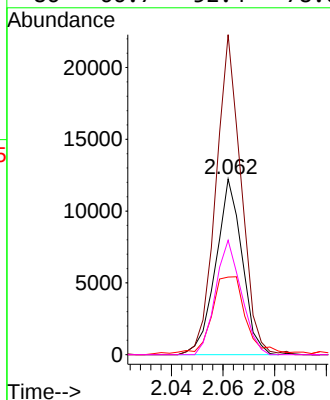
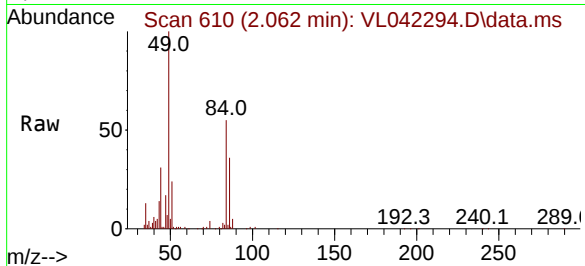




#20
Methylene Chloride
Concen: 1.047 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

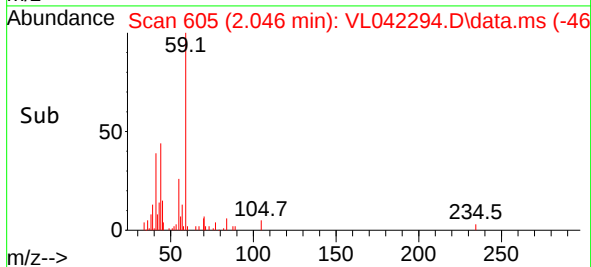
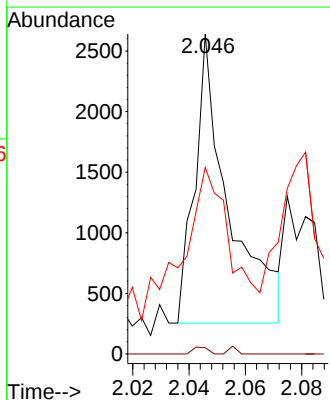
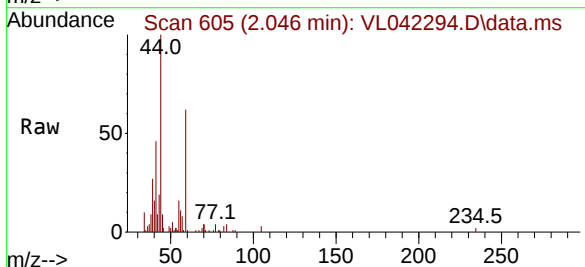
Instrument :
MSVOA_1
ClientSampleId :
IA-DUP-2-3242025

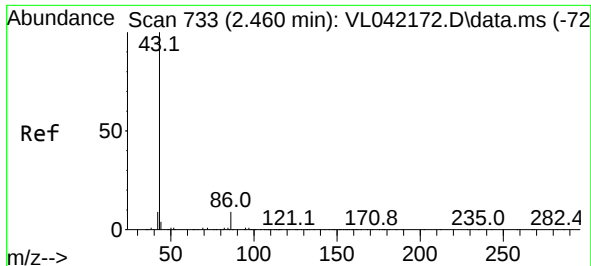
Tgt Ion: 84 Resp: 8683
Ion Ratio Lower Upper
84 100
49 182.2 120.2 180.4#
51 43.8 37.4 56.0
86 66.7 52.4 78.6



#21
Allyl Chloride
Concen: 0.127 ppbv
RT: 2.046 min Scan# 605
Delta R.T. -0.046 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 41 Resp: 1988
Ion Ratio Lower Upper
41 100
76 0.0 24.1 36.1#
39 82.8 61.1 91.7

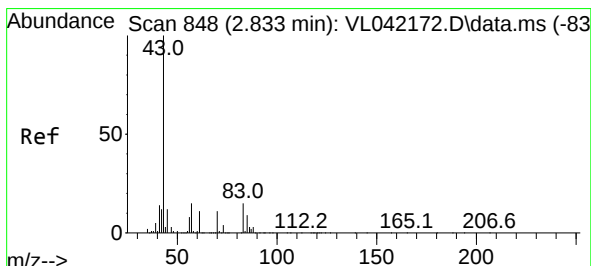
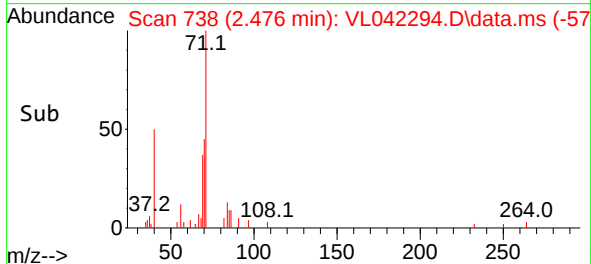
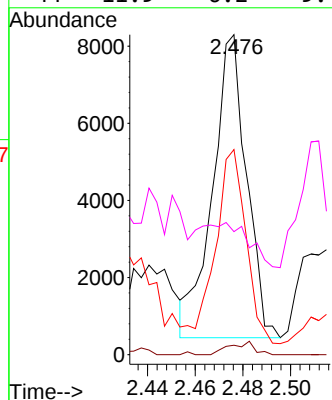
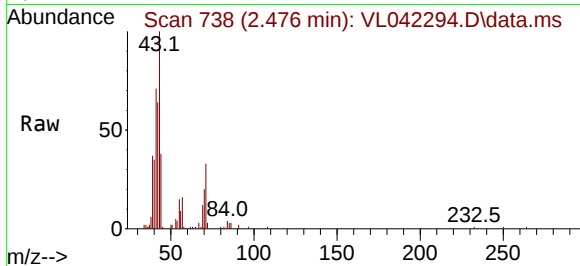




#23
Vinyl Acetate
Concen: 0.805 ppbv
RT: 2.476 min Scan# 71
Delta R.T. 0.016 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

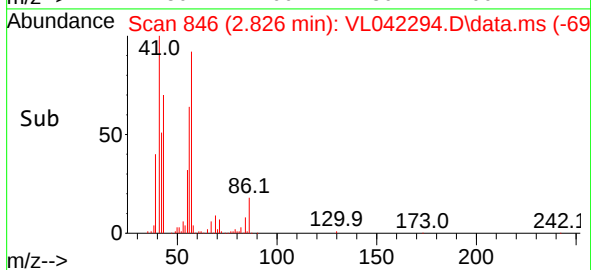
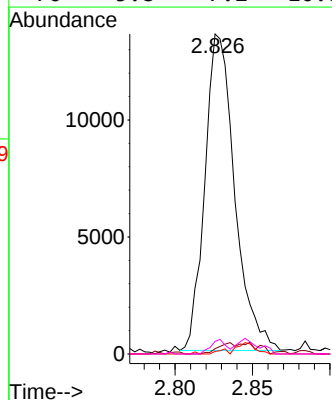
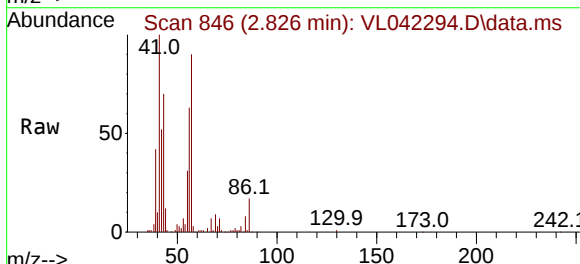
Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

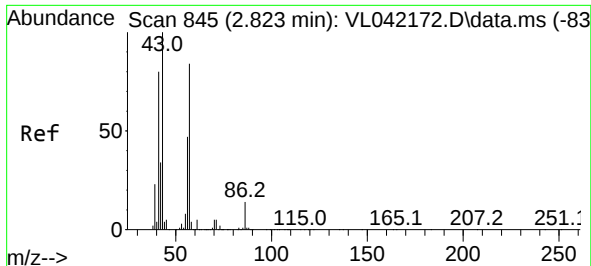
Tgt Ion:	43	Resp:	7754
Ion	Ratio	Lower	Upper
43	100		
86	3.1	5.5	8.3#
42	64.0	8.6	13.0#
44	11.9	6.2	9.4#



#25
Ethyl Acetate
Concen: 0.314 ppbv
RT: 2.826 min Scan# 846
Delta R.T. -0.007 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion:	43	Resp:	18155
Ion	Ratio	Lower	Upper
43	100		
45	5.6	8.2	12.2#
61	2.7	7.3	10.9#
70	5.8	7.2	10.8#

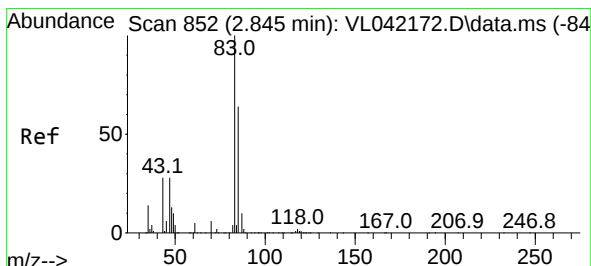
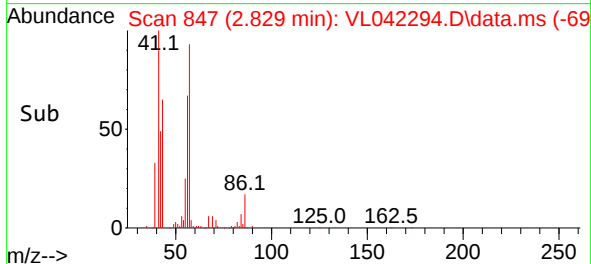
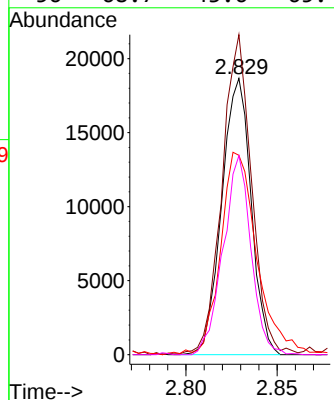
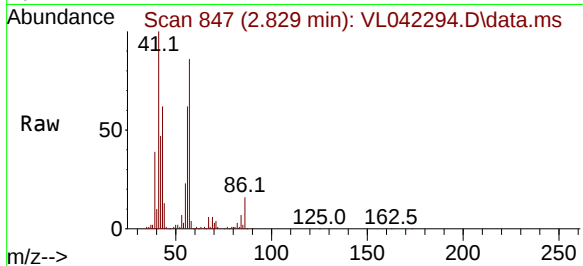




#26
Hexane
Concen: 0.937 ppbv
RT: 2.829 min Scan# 845
Delta R.T. 0.006 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

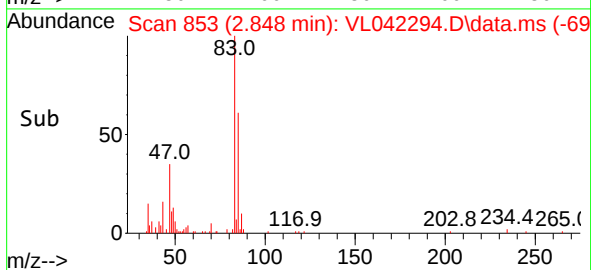
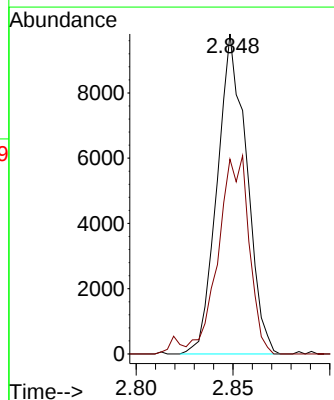
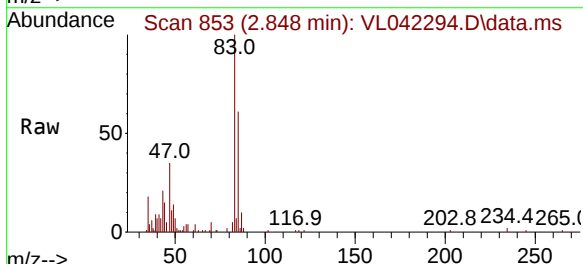
Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

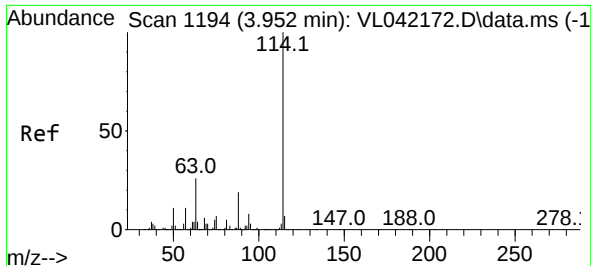
Tgt Ion: 57 Resp: 20910
Ion Ratio Lower Upper
57 100
41 120.6 76.6 114.8#
43 88.4 207.8 311.8#
56 68.7 43.6 65.4#



#29
Chloroform
Concen: 0.318 ppbv
RT: 2.848 min Scan# 853
Delta R.T. 0.003 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 83 Resp: 10374
Ion Ratio Lower Upper
83 100
85 60.8 51.4 77.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. 0.006 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

Instrument :

MSVOA_L

ClientSampleId :

IA-DUP-2-3242025

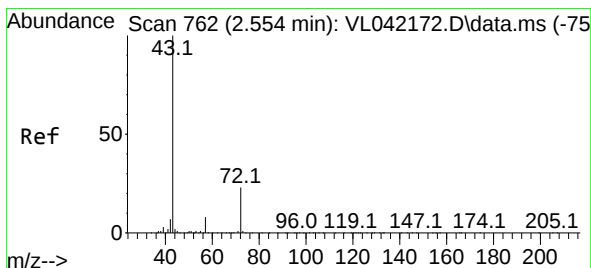
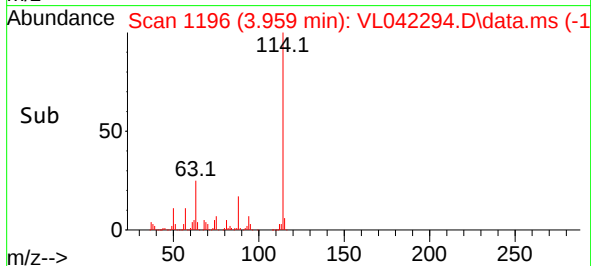
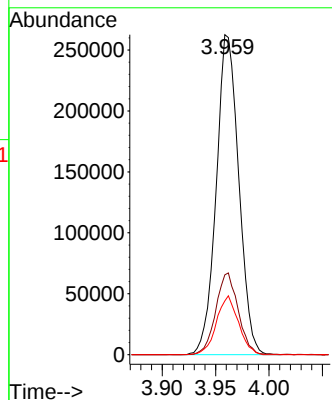
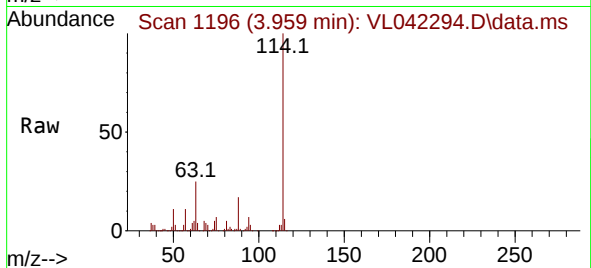
Tgt Ion:114 Resp: 384747

Ion Ratio Lower Upper

114 100

63 25.5 20.7 31.1

88 18.0 15.0 22.4



#34

2-Butanone

Concen: 3.296 ppbv

RT: 2.560 min Scan# 764

Delta R.T. 0.006 min

Lab File: VL042294.D

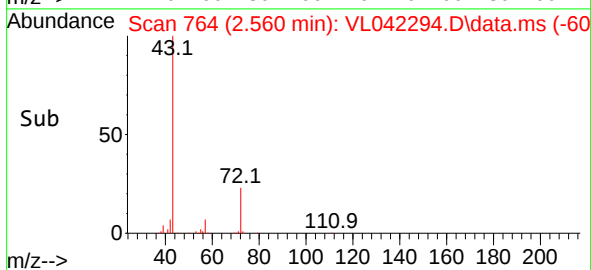
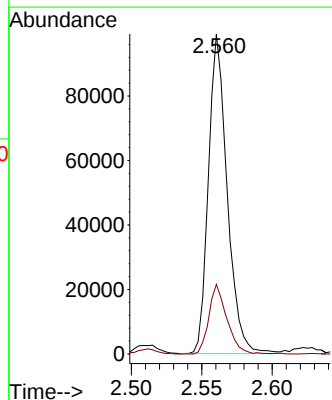
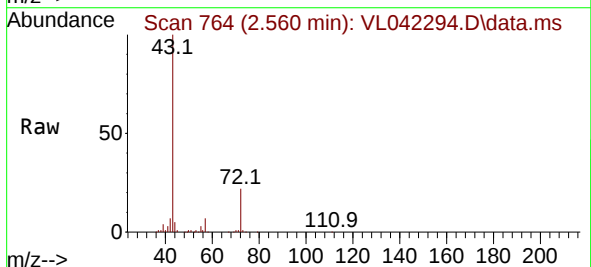
Acq: 09 Apr 2025 15:50

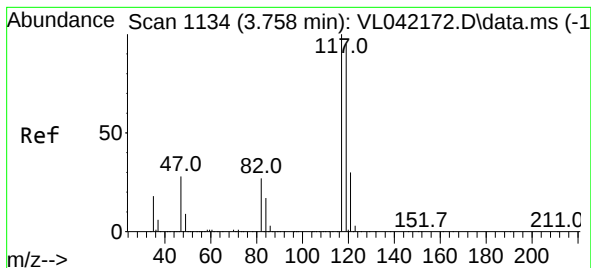
Tgt Ion: 43 Resp: 91945

Ion Ratio Lower Upper

43 100

72 21.0 18.2 27.2





#35

Carbon Tetrachloride

Concen: 0.082 ppbv

RT: 3.764 min Scan# 1136

Delta R.T. 0.006 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

Instrument :

MSVOA_1

ClientSampleId :

IA-DUP-2-3242025

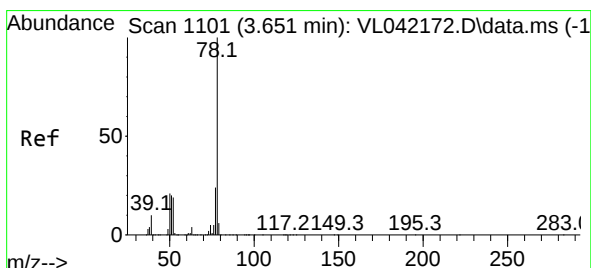
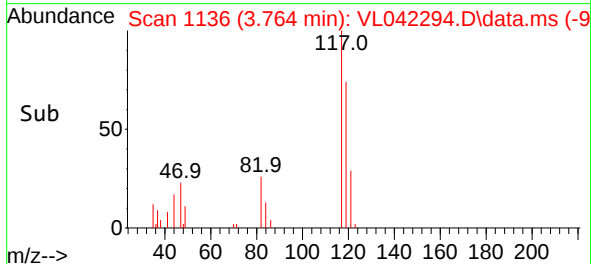
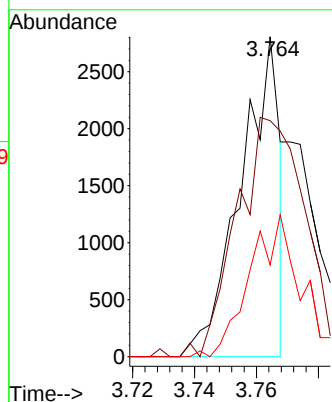
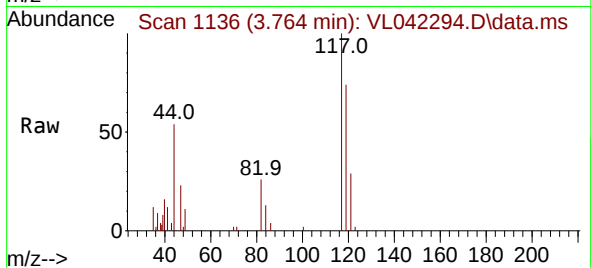
Tgt Ion:117 Resp: 2461

Ion Ratio Lower Upper

117 100

119 73.7 76.2 114.2#

121 28.6 24.2 36.4



#36

Benzene

Concen: 0.097 ppbv

RT: 3.661 min Scan# 1104

Delta R.T. 0.009 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

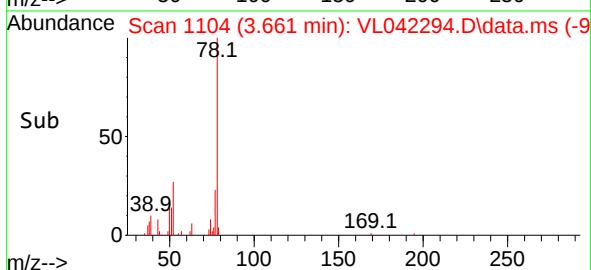
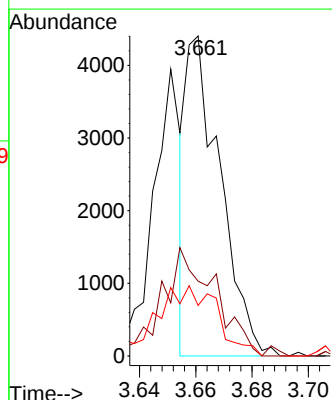
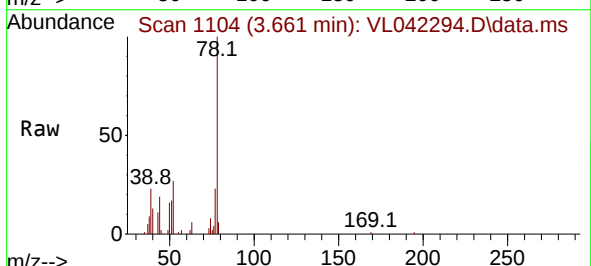
Tgt Ion: 78 Resp: 3707

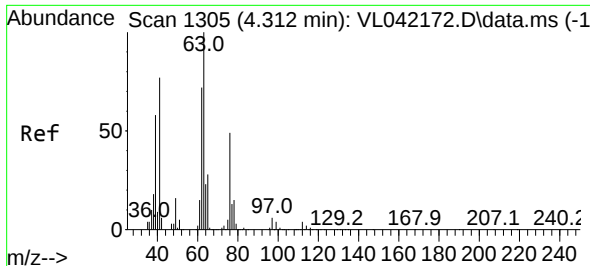
Ion Ratio Lower Upper

78 100

77 21.9 19.1 28.7

50 15.8 16.6 24.8#





#39

1,2-Dichloropropane

Concen: 7.040 ppbv

RT: 3.962 min Scan# 1197

Delta R.T. -0.350 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

Instrument :

MSVOA_L

ClientSampleId :

IA-DUP-2-3242025

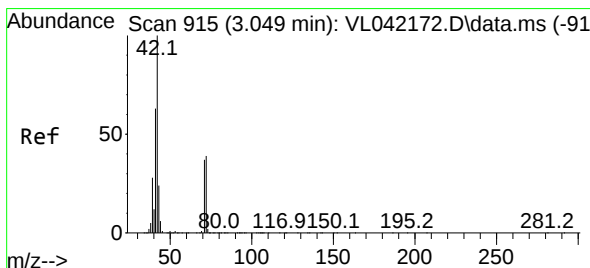
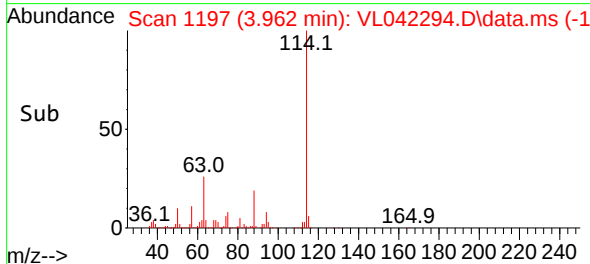
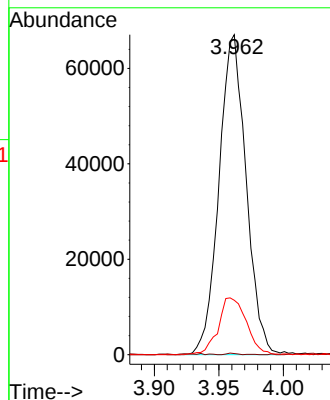
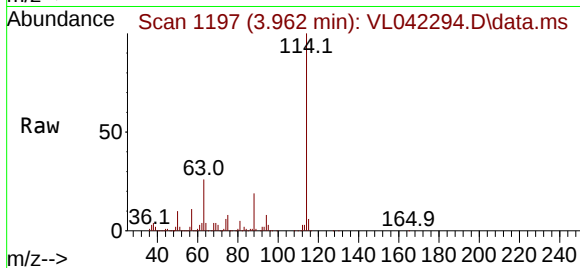
Tgt Ion: 63 Resp: 97793

Ion Ratio Lower Upper

63 100

41 0.4 61.7 92.5#

62 17.0 57.6 86.4#



#41

Tetrahydrofuran

Concen: 0.178 ppbv

RT: 3.069 min Scan# 921

Delta R.T. 0.019 min

Lab File: VL042294.D

Acq: 09 Apr 2025 15:50

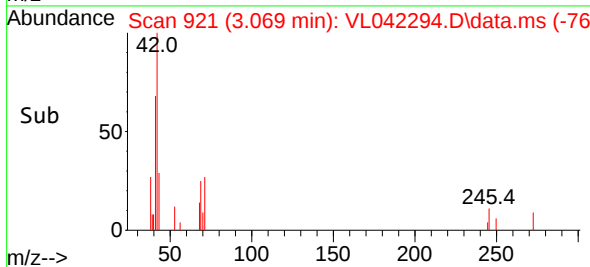
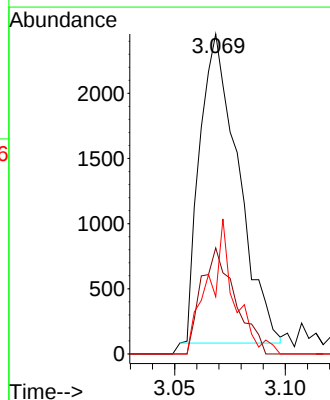
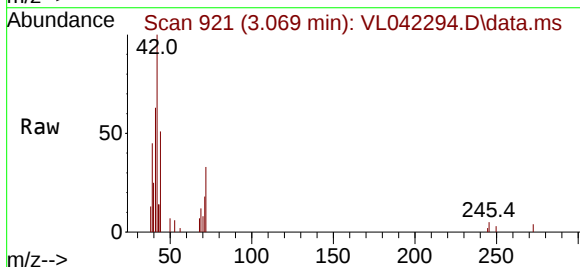
Tgt Ion: 42 Resp: 2861

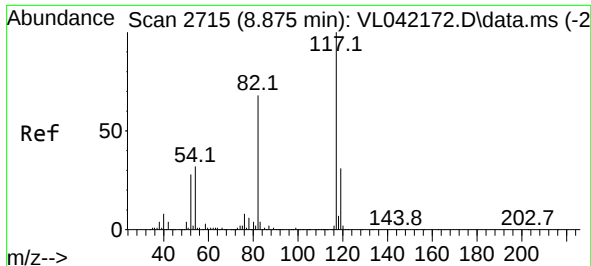
Ion Ratio Lower Upper

42 100

72 30.3 31.4 47.0#

71 29.6 30.2 45.4#

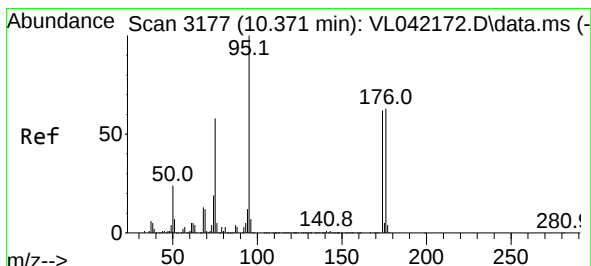
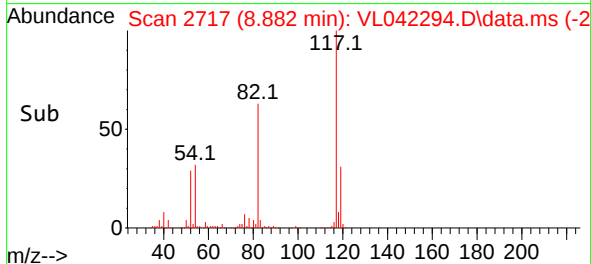
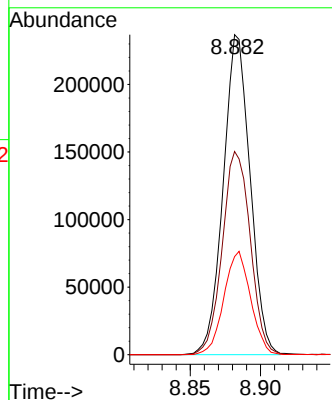
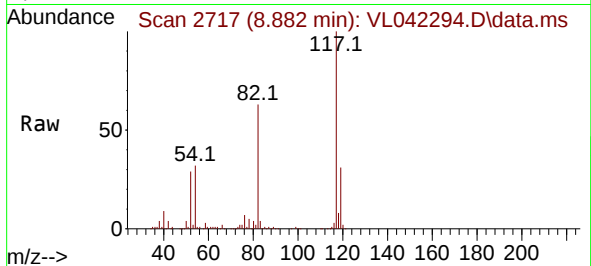




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.882 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Instrument :
MSVOA_L
ClientSampleId :
IA-DUP-2-3242025

Tgt Ion: 117 Resp: 314874
Ion Ratio Lower Upper
117 100
82 66.2 55.8 83.6
119 32.2 25.5 38.3



#68
1-Bromo-4-Fluorobenzene
Concen: 9.133 ppbv
RT: 10.377 min Scan# 3179
Delta R.T. 0.006 min
Lab File: VL042294.D
Acq: 09 Apr 2025 15:50

Tgt Ion: 95 Resp: 236151
Ion Ratio Lower Upper
95 100
174 63.3 50.6 76.0
175 4.7 3.8 5.6

