

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040925\
 Data File : VL042291.D
 Acq On : 09 Apr 2025 14:02
 Operator : SY/MD
 Sample : Q1665-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-DUP-1-3242025DUP

Quant Time: Apr 10 01:43:41 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	2.784	49	156655	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	397453	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	332015	10.000	ppbv	0.00

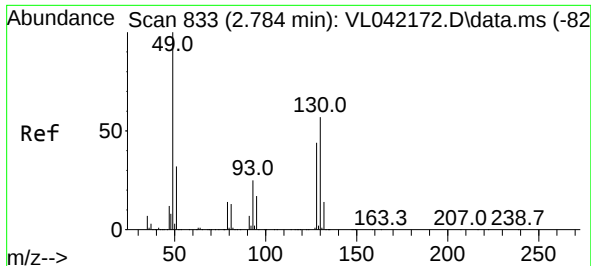
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	254829	9.346	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.500%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.496	85	8694	0.376	ppbv	98
3) Chlorodifluoromethane	1.842	51	769	0.033	ppbv	97
4) Chloromethane	1.531	50	5160	0.546	ppbv	96
9) Propene	1.486	41	8735	0.807	ppbv	85
10) Heptane	4.975	43	1165	0.040	ppbv #	70
11) Trichlorofluoromethane	2.140	101	1343	0.060	ppbv	87
12) 1,1,2-Trichlorotrifluo...	2.140	101	1343	0.073	ppbv	93
13) Ethanol	1.719	45	13066	12.762	ppbv	82
15) Acetone	1.832	43	79514	3.629	ppbv	93
16) 1,3-Butadiene	1.599	39	2144	0.200	ppbv #	50
17) tert-Butyl alcohol	2.043	59	1332	0.049	ppbv #	71
19) Isopropyl Alcohol	1.884	45	23262	1.882	ppbv #	39
20) Methylene Chloride	2.059	84	7721	0.946	ppbv	92
21) Allyl Chloride	2.075	41	532	0.034	ppbv #	48
23) Vinyl Acetate	2.454	43	2459	0.259	ppbv #	35
25) Ethyl Acetate	2.823	43	24881	0.438	ppbv #	82
26) Hexane	2.823	57	29831	1.358	ppbv #	32
34) 2-Butanone	2.557	43	9468	0.329	ppbv	96
35) Carbon Tetrachloride	3.755	117	2063	0.066	ppbv #	65
36) Benzene	3.655	78	9601	0.244	ppbv	99
39) 1,2-Dichloropropane	3.952	63	100711	7.018	ppbv #	22
53) Toluene	6.924	91	12958	0.277	ppbv	96
60) o-Xylene	9.959	91	2248	0.048	ppbv	98
74) 1,2,4-Trimethylbenzene	11.532	105	2929	0.050	ppbv #	64

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

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QLast Update : Fri Mar 28 02:00:52 2025
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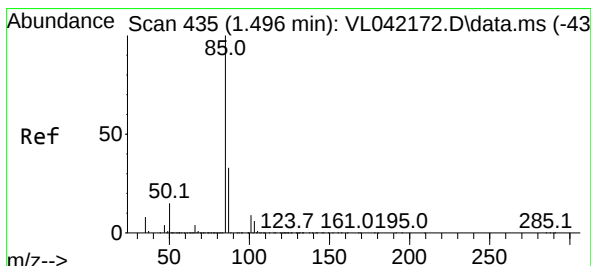
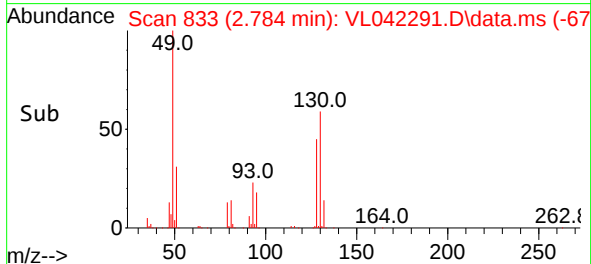
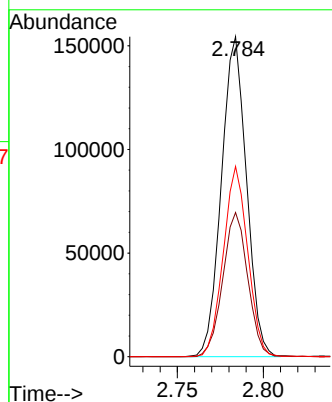
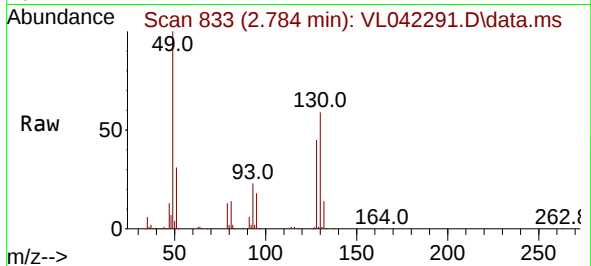




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

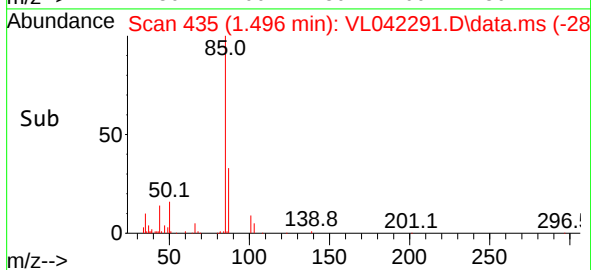
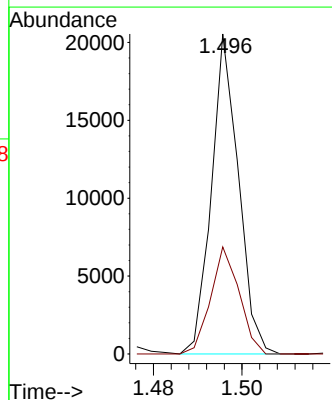
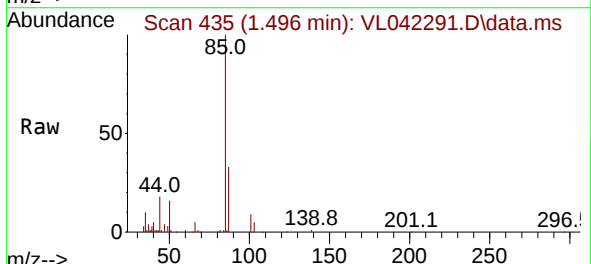
Instrument :
MSVOA_L
ClientSampleId :
AA-DUP-1-3242025DUP

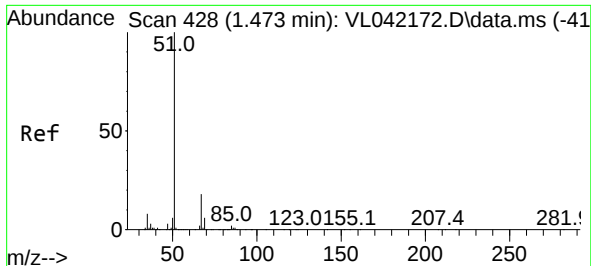
Tgt Ion: 49 Resp: 156655
Ion Ratio Lower Upper
49 100
128 44.8 22.9 68.5
130 57.8 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.376 ppbv
RT: 1.496 min Scan# 435
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 85 Resp: 8694
Ion Ratio Lower Upper
85 100
87 33.5 26.1 39.1

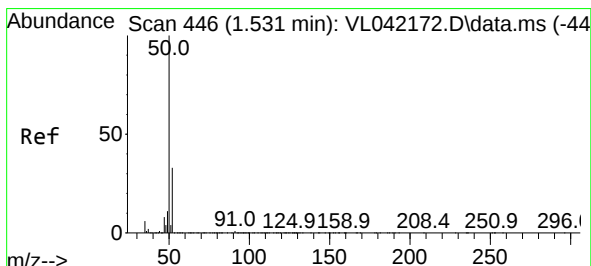
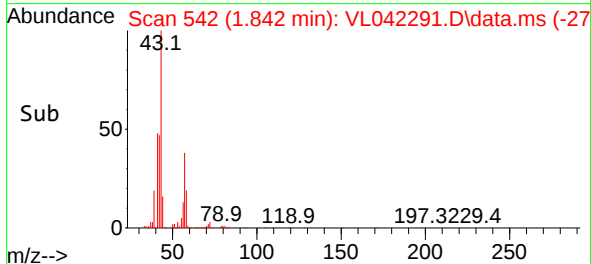
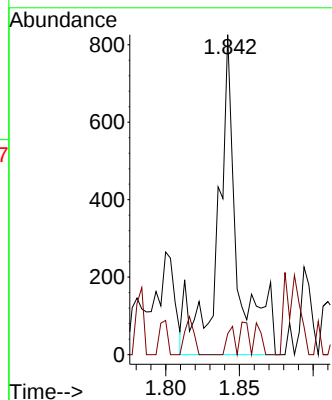
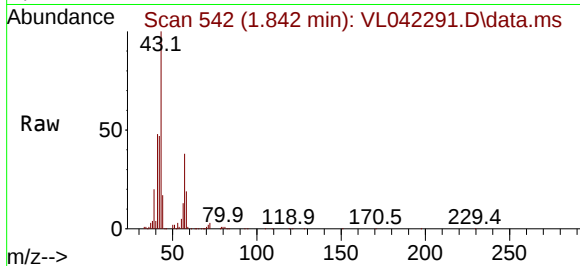




#3
Chlorodifluoromethane
Concen: 0.033 ppbv
RT: 1.842 min Scan# 54
Delta R.T. 0.369 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

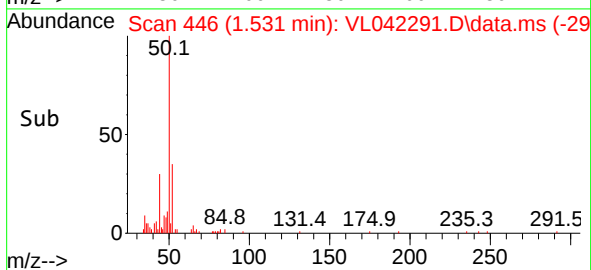
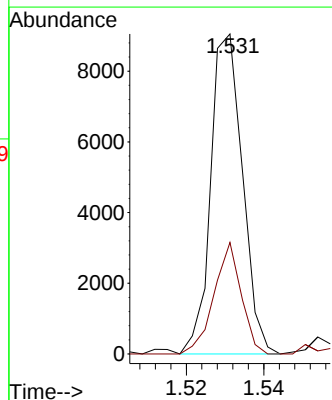
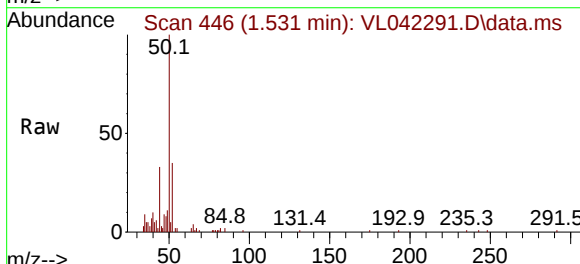
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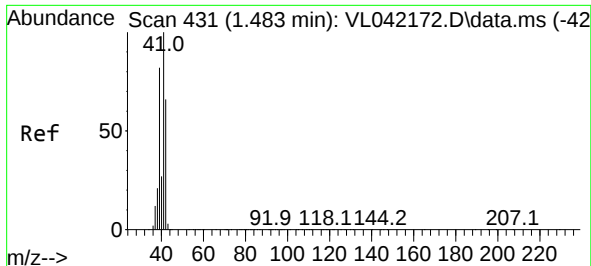
Tgt Ion: 51 Resp: 769
Ion Ratio Lower Upper
51 100
67 20.2 15.0 22.6



#4
Chloromethane
Concen: 0.546 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 50 Resp: 5160
Ion Ratio Lower Upper
50 100
52 34.9 26.1 39.1





#9

Propene

Concen: 0.807 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Instrument :

MSVOA_L

ClientSampleId :

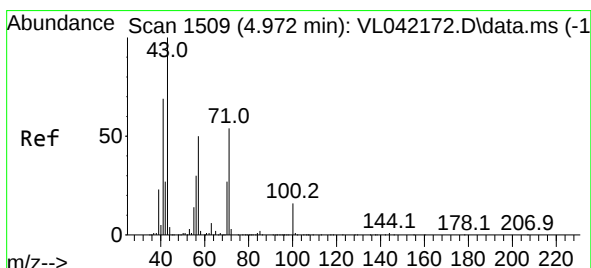
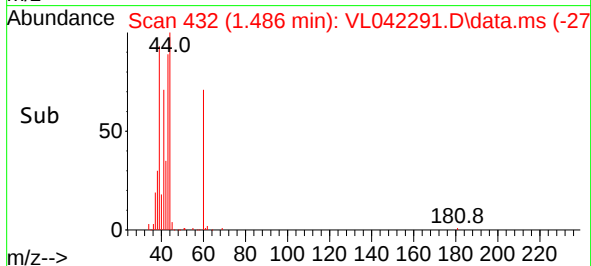
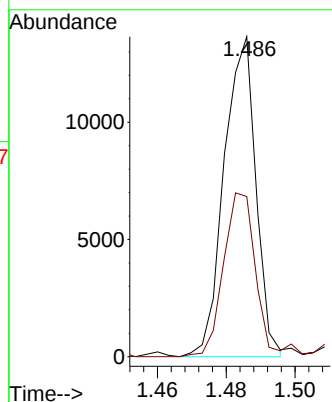
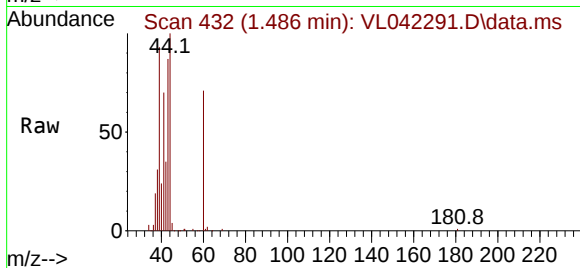
AA-DUP-1-3242025DUP

Tgt Ion: 41 Resp: 8735

Ion Ratio Lower Upper

41 100

42 57.1 55.4 83.2



#10

Heptane

Concen: 0.040 ppbv

RT: 4.975 min Scan# 1510

Delta R.T. 0.003 min

Lab File: VL042291.D

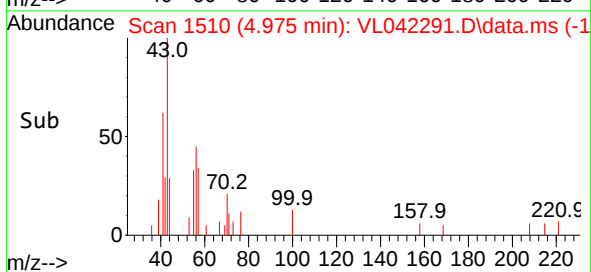
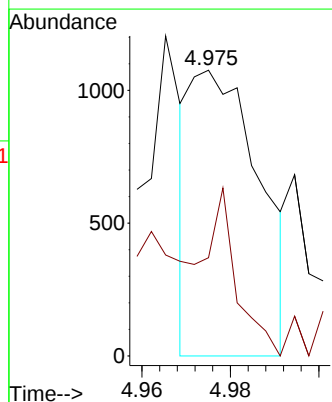
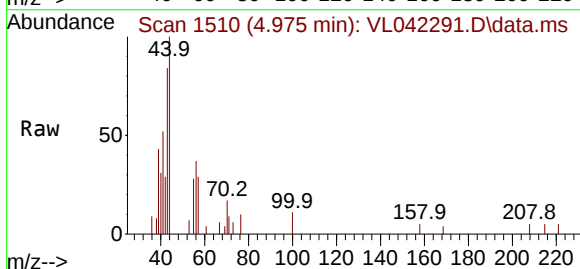
Acq: 09 Apr 2025 14:02

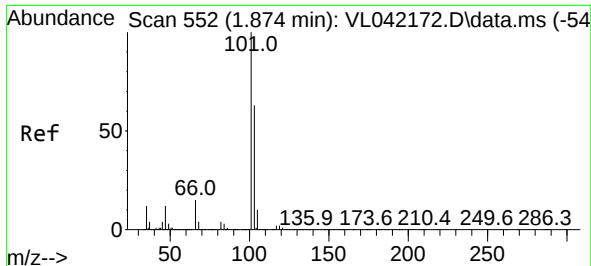
Tgt Ion: 43 Resp: 1165

Ion Ratio Lower Upper

43 100

57 70.1 39.4 59.2#

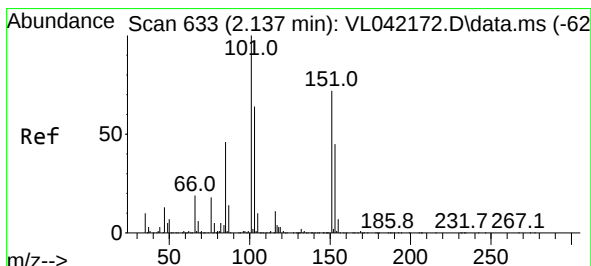
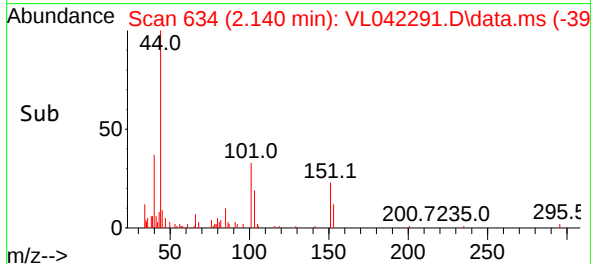
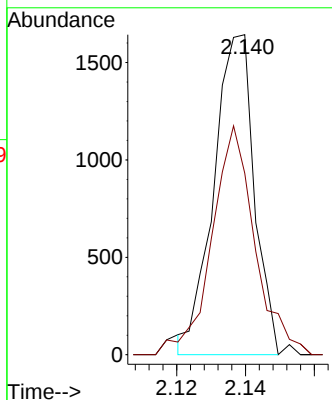
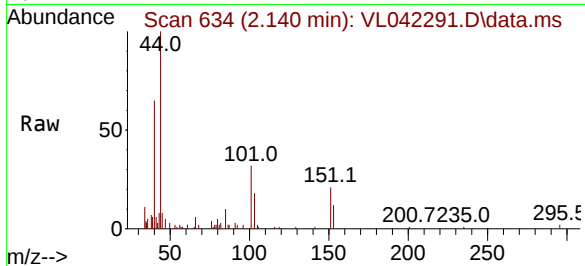




#11
 Trichlorofluoromethane
 Concen: 0.060 ppbv
 RT: 2.140 min Scan# 61
 Delta R.T. 0.265 min
 Lab File: VL042291.D
 Acq: 09 Apr 2025 14:02

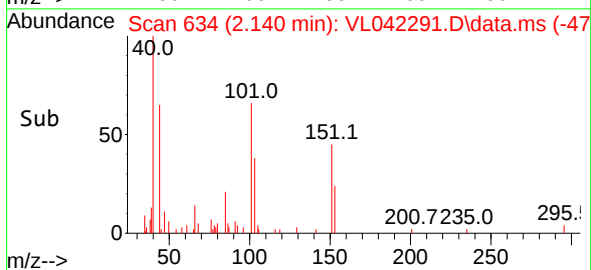
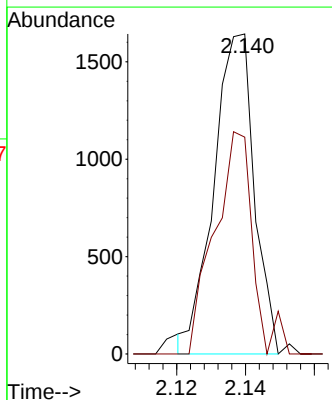
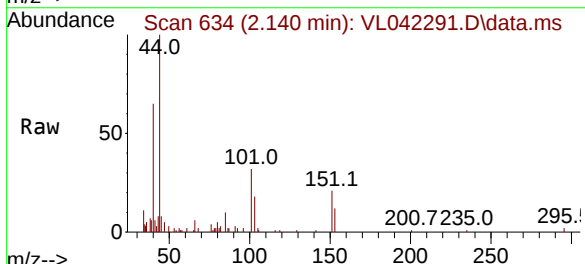
Instrument :
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 ClientSampleId :
 AA-DUP-1-3242025DUP

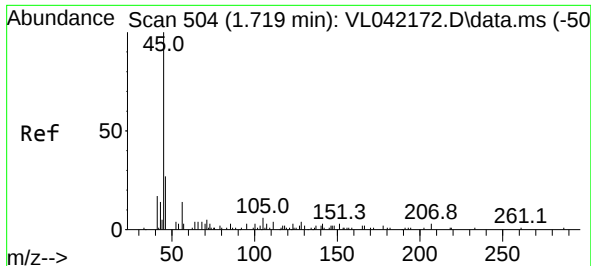
Tgt Ion:101 Resp: 1343
 Ion Ratio Lower Upper
 101 100
 103 52.8 50.2 75.2



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.073 ppbv
 RT: 2.140 min Scan# 634
 Delta R.T. 0.003 min
 Lab File: VL042291.D
 Acq: 09 Apr 2025 14:02

Tgt Ion:101 Resp: 1343
 Ion Ratio Lower Upper
 101 100
 151 65.7 57.1 85.7

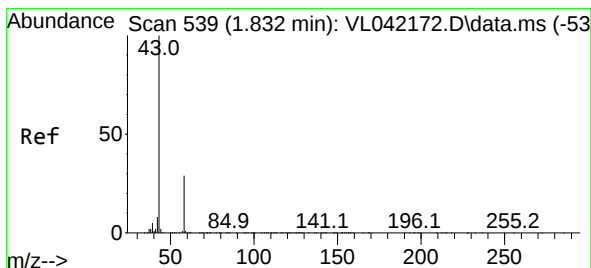
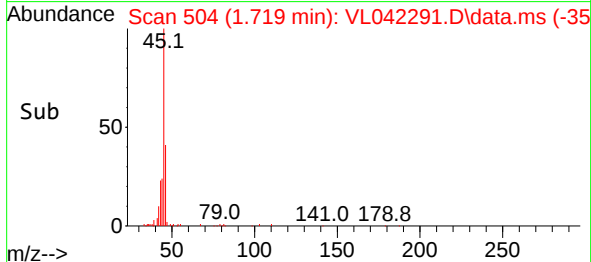
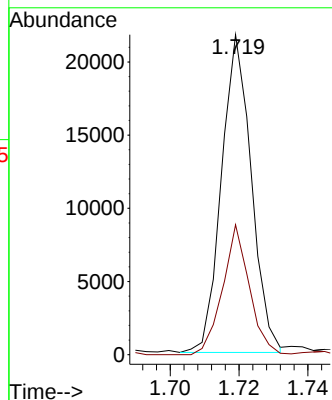
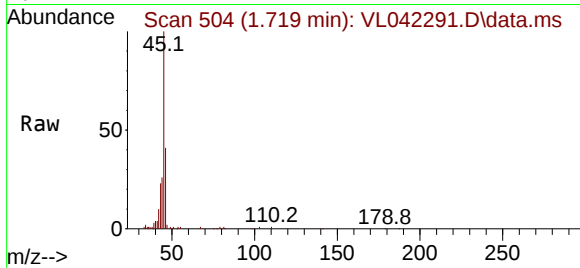




#13
Ethanol
Concen: 12.762 ppbv
RT: 1.719 min Scan# 504
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

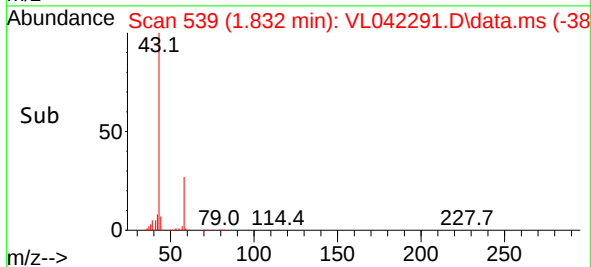
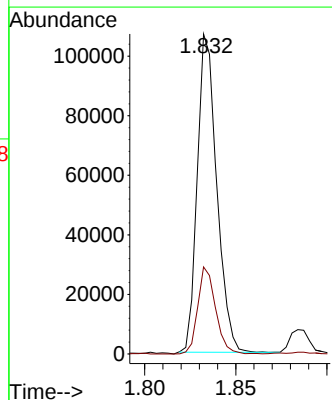
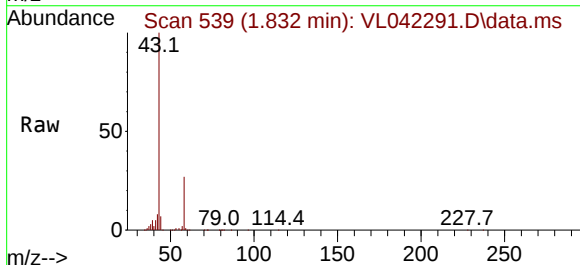
Instrument :
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AA-DUP-1-3242025DUP

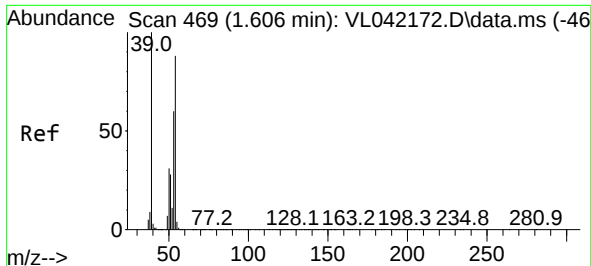
Tgt Ion: 45 Resp: 13066
Ion Ratio Lower Upper
45 100
46 37.8 20.2 80.8



#15
Acetone
Concen: 3.629 ppbv
RT: 1.832 min Scan# 539
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 43 Resp: 79514
Ion Ratio Lower Upper
43 100
58 25.3 23.2 34.8

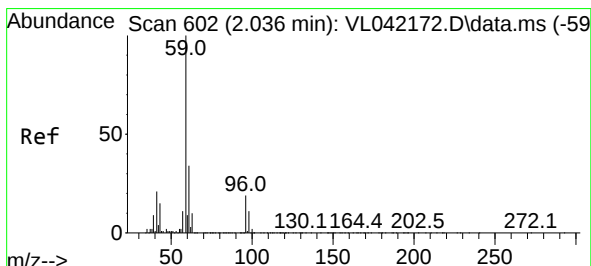
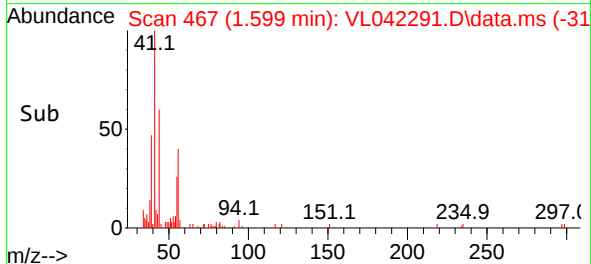
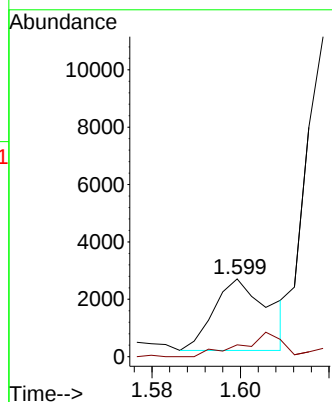
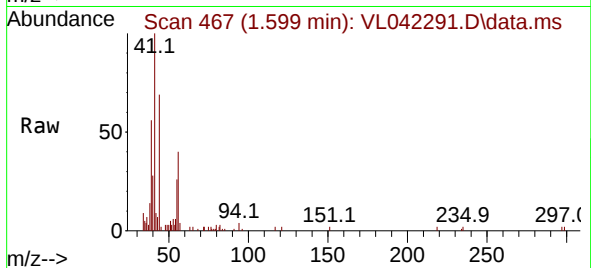




#16
1,3-Butadiene
Concen: 0.200 ppbv
RT: 1.599 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

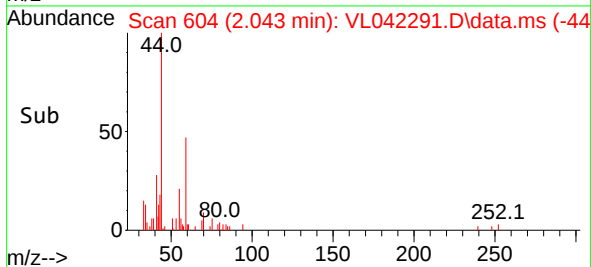
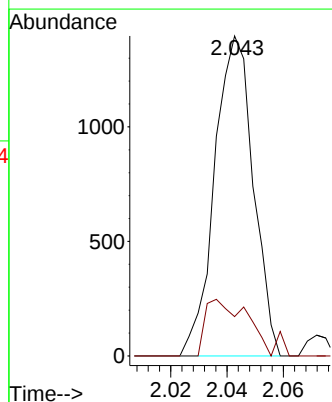
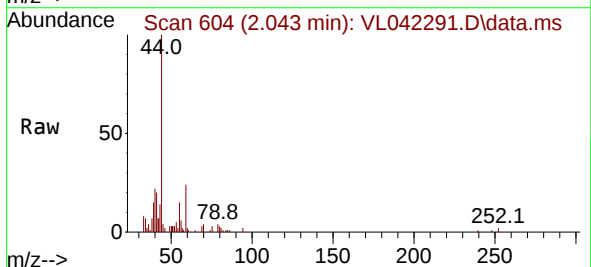
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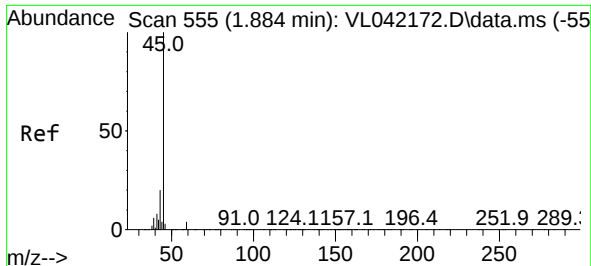
Tgt Ion: 39 Resp: 2144
Ion Ratio Lower Upper
39 100
54 33.3 60.7 91.1#



#17
tert-Butyl alcohol
Concen: 0.049 ppbv
RT: 2.043 min Scan# 604
Delta R.T. 0.006 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 59 Resp: 1332
Ion Ratio Lower Upper
59 100
57 0.0 8.9 13.3#

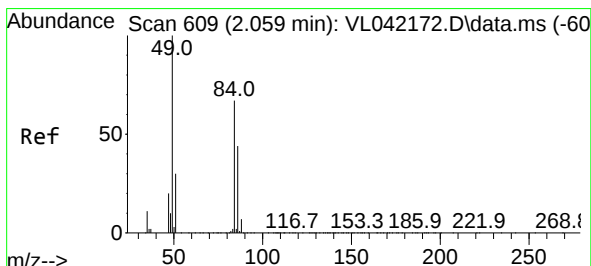
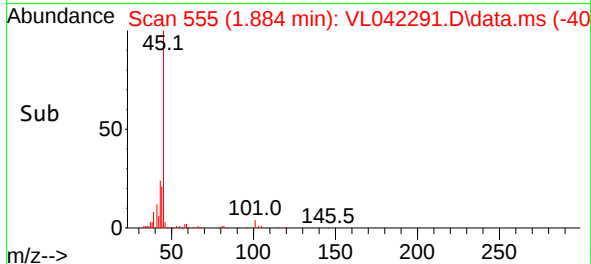
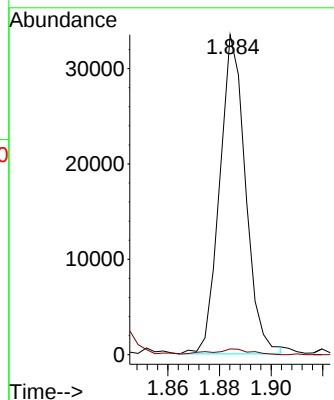
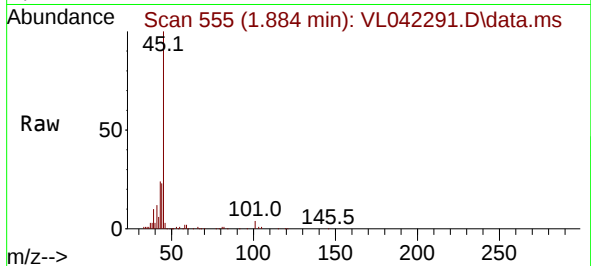




#19
Isopropyl Alcohol
Concen: 1.882 ppbv
RT: 1.884 min Scan# 511
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

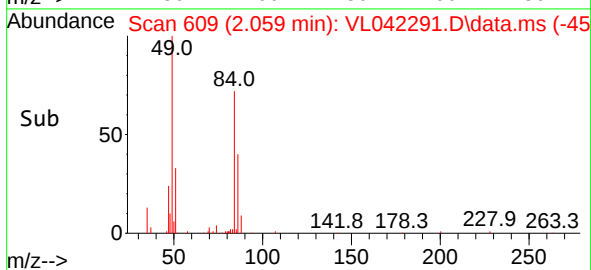
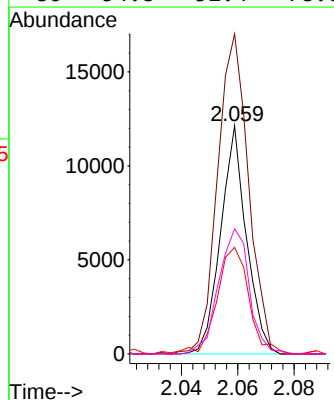
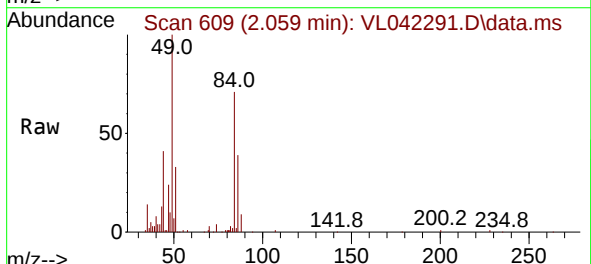
Instrument :
MSVOA_L
ClientSampleId :
AA-DUP-1-3242025DUP

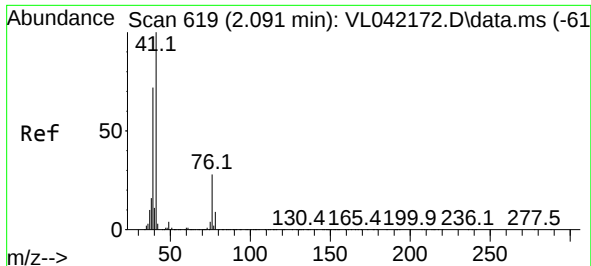
Tgt Ion: 45 Resp: 23262
Ion Ratio Lower Upper
45 100
58 86.4 36.9 55.3#



#20
Methylene Chloride
Concen: 0.946 ppbv
RT: 2.059 min Scan# 609
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 84 Resp: 7721
Ion Ratio Lower Upper
84 100
49 140.2 120.2 180.4
51 45.4 37.4 56.0
86 54.8 52.4 78.6





#21

Allyl Chloride

Concen: 0.034 ppbv

RT: 2.075 min Scan# 61

Delta R.T. -0.016 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Instrument :

MSVOA_L

ClientSampleId :

AA-DUP-1-3242025DUP

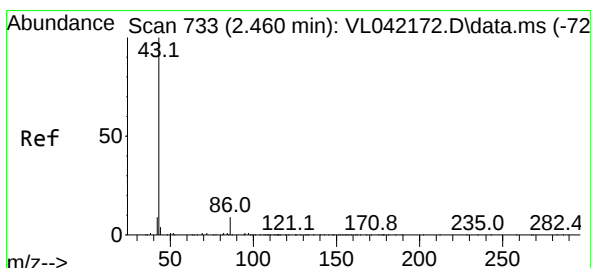
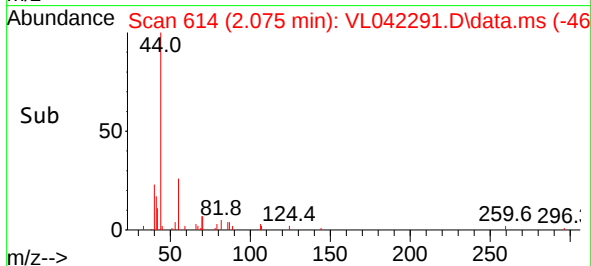
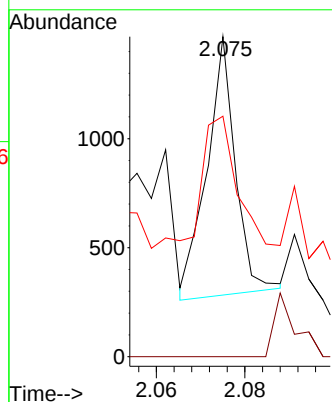
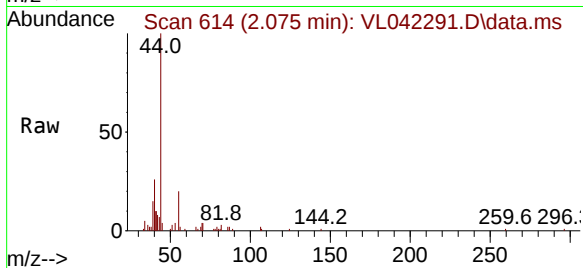
Tgt Ion: 41 Resp: 532

Ion Ratio Lower Upper

41 100

76 18.6 24.1 36.1#

39 131.2 61.1 91.7#



#23

Vinyl Acetate

Concen: 0.259 ppbv

RT: 2.454 min Scan# 731

Delta R.T. -0.007 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Tgt Ion: 43 Resp: 2459

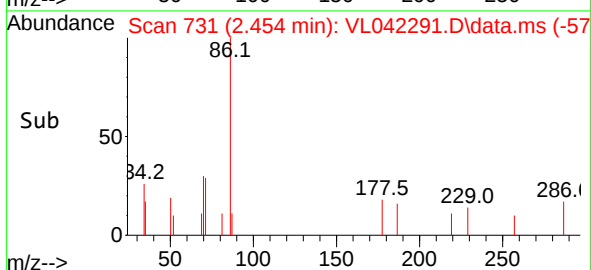
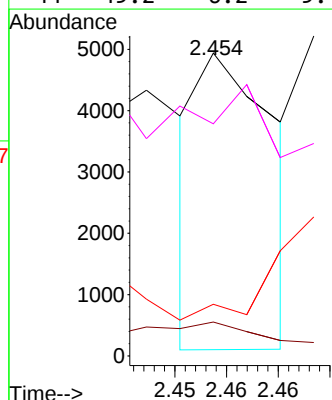
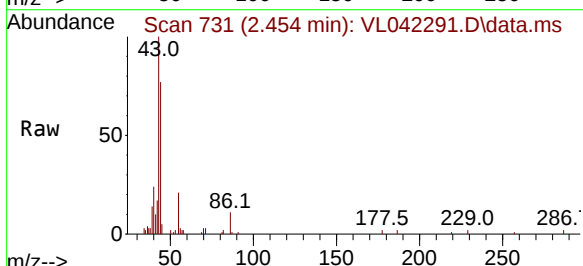
Ion Ratio Lower Upper

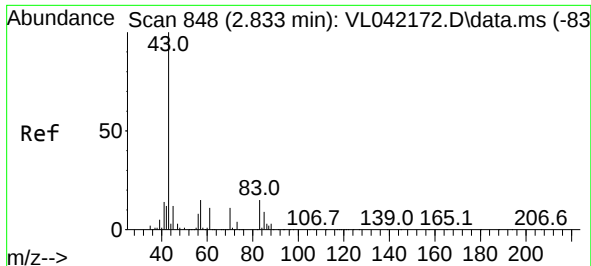
43 100

86 26.8 5.5 8.3#

42 23.0 8.6 13.0#

44 49.2 6.2 9.4#

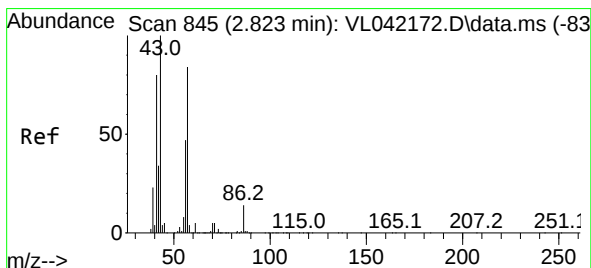
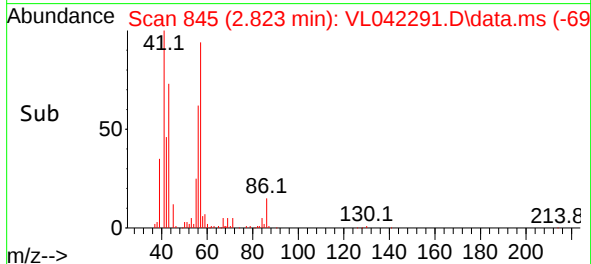
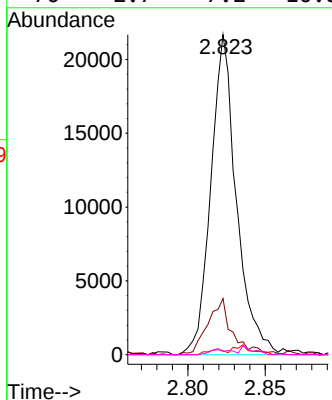
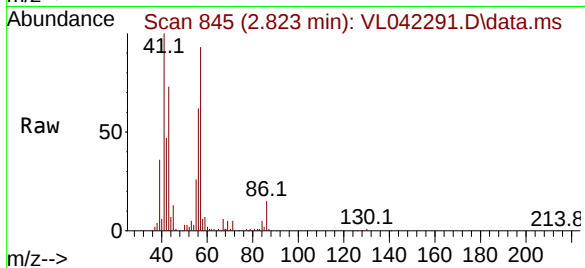




#25
Ethyl Acetate
Concen: 0.438 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.010 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

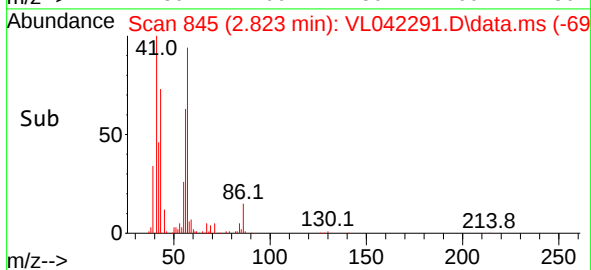
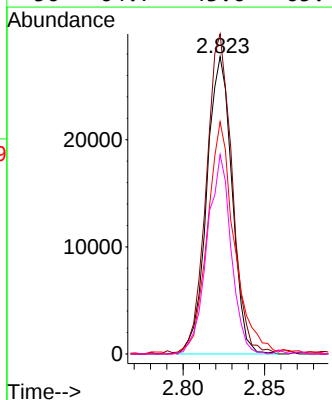
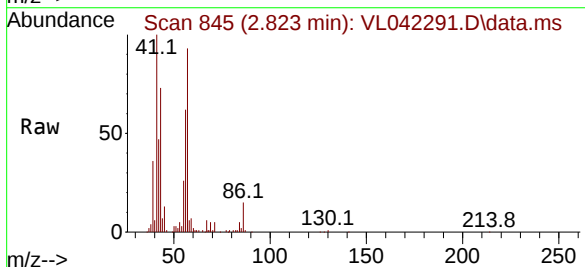
Instrument :
MSVOA_L
ClientSampleId :
AA-DUP-1-3242025DUP

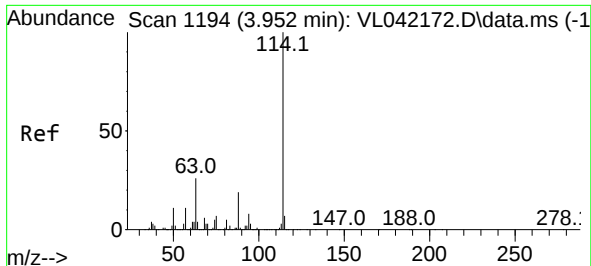
Tgt Ion:	43	Resp:	24881
Ion	Ratio	Lower	Upper
43	100		
45	17.9	8.2	12.2#
61	3.3	7.3	10.9#
70	2.7	7.2	10.8#



#26
Hexane
Concen: 1.358 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion:	57	Resp:	29831
Ion	Ratio	Lower	Upper
57	100		
41	111.8	76.6	114.8
43	85.5	207.8	311.8#
56	64.7	43.6	65.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.000 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Instrument :

MSVOA_L

ClientSampleId :

AA-DUP-1-3242025DUP

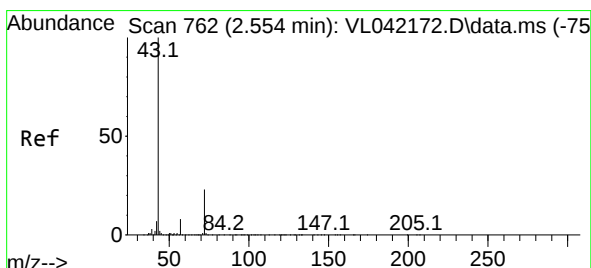
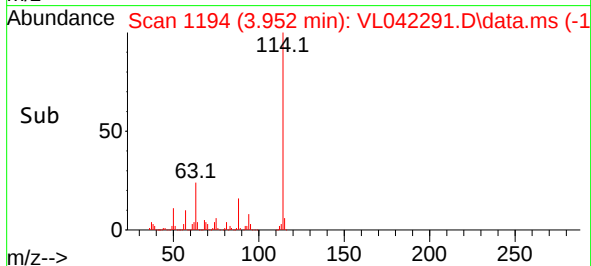
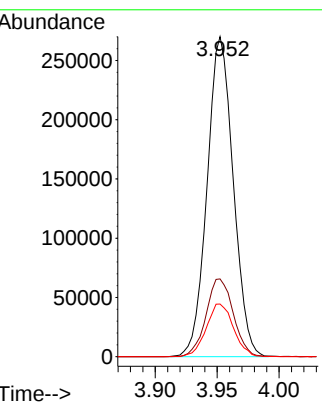
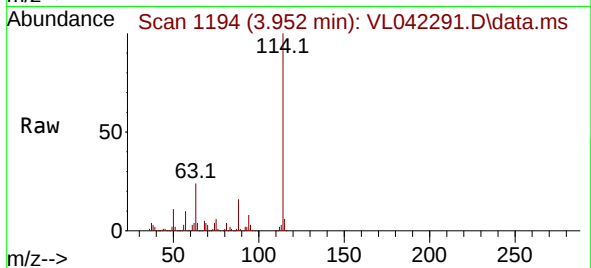
Tgt Ion:114 Resp: 397453

Ion Ratio Lower Upper

114 100

63 25.5 20.7 31.1

88 17.2 15.0 22.4



#34

2-Butanone

Concen: 0.329 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.003 min

Lab File: VL042291.D

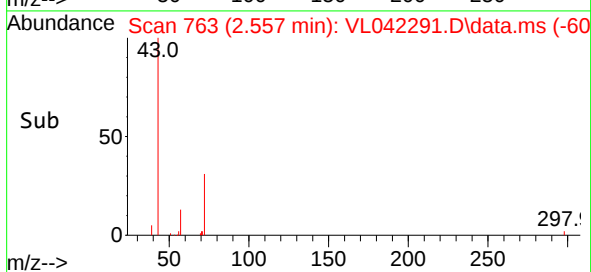
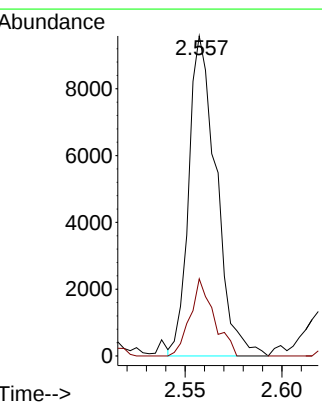
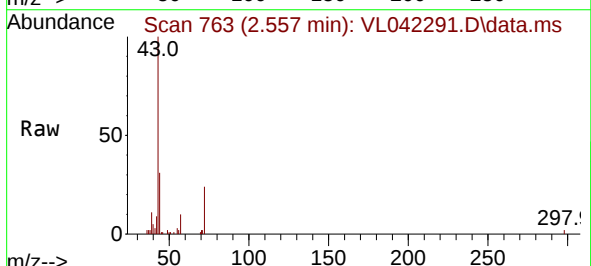
Acq: 09 Apr 2025 14:02

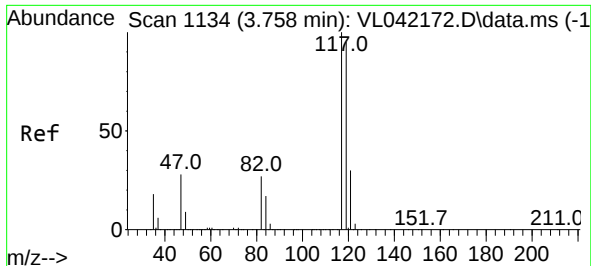
Tgt Ion: 43 Resp: 9468

Ion Ratio Lower Upper

43 100

72 20.8 18.2 27.2

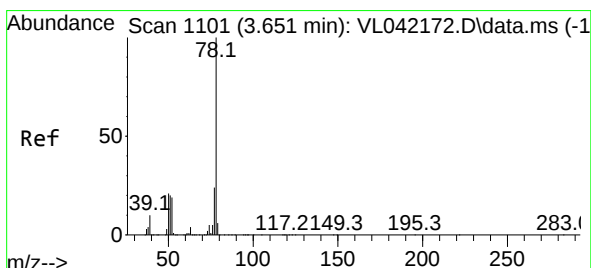
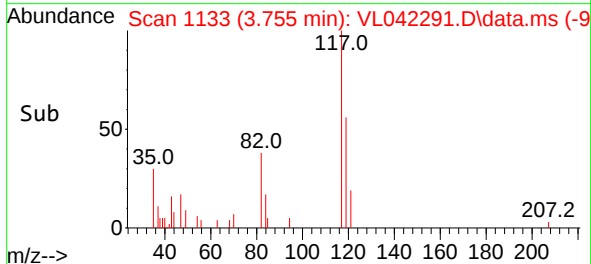
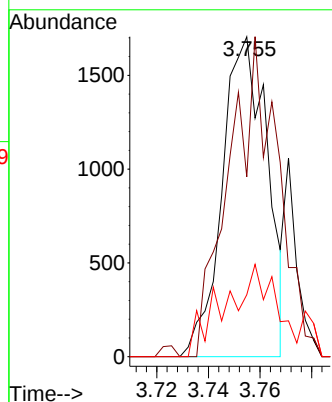
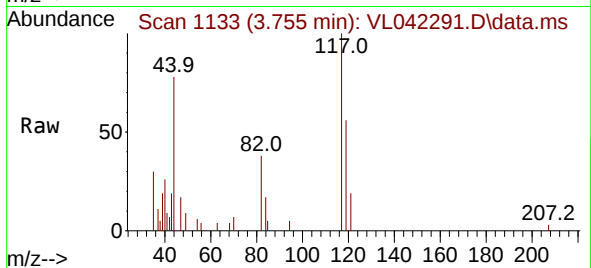




#35
Carbon Tetrachloride
Concen: 0.066 ppbv
RT: 3.755 min Scan# 1133
Delta R.T. -0.003 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

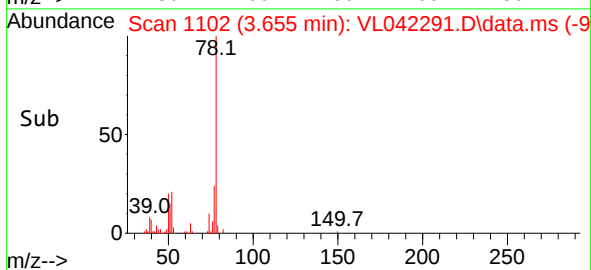
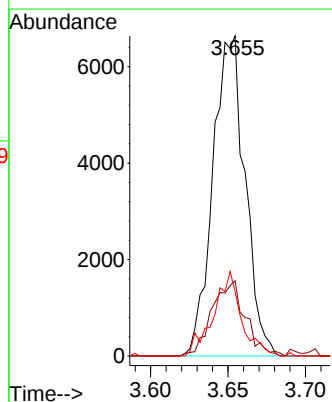
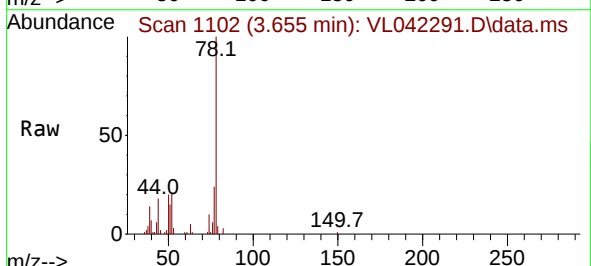
Instrument :
MSVOA_L
ClientSampleId :
AA-DUP-1-3242025DUP

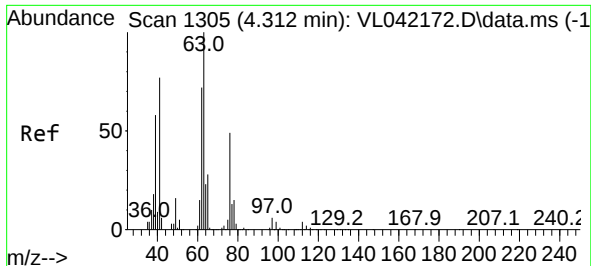
Tgt Ion: 117 Resp: 2063
Ion Ratio Lower Upper
117 100
119 56.2 76.2 114.2#
121 19.4 24.2 36.4#



#36
Benzene
Concen: 0.244 ppbv
RT: 3.655 min Scan# 1102
Delta R.T. 0.003 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 78 Resp: 9601
Ion Ratio Lower Upper
78 100
77 23.5 19.1 28.7
50 20.3 16.6 24.8





#39

1,2-Dichloropropane

Concen: 7.018 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.359 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Instrument :

MSVOA_L

ClientSampleId :

AA-DUP-1-3242025DUP

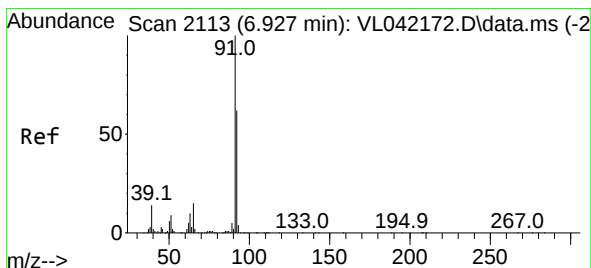
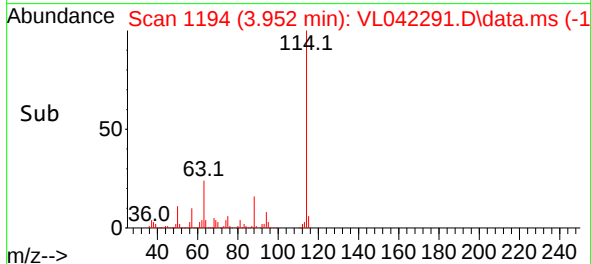
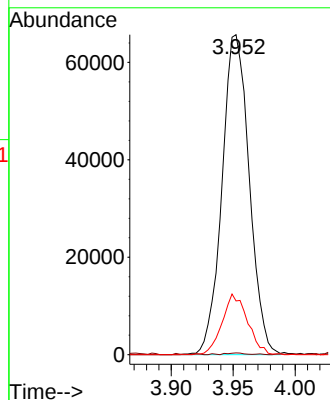
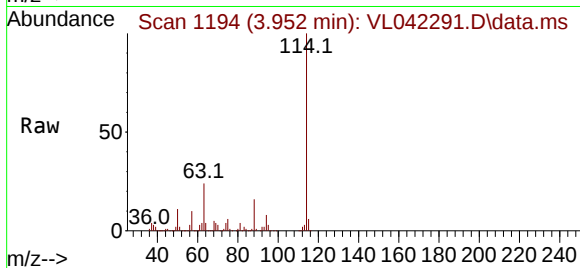
Tgt Ion: 63 Resp: 100711

Ion Ratio Lower Upper

63 100

41 0.4 61.7 92.5#

62 16.8 57.6 86.4#



#53

Toluene

Concen: 0.277 ppbv

RT: 6.924 min Scan# 2112

Delta R.T. -0.003 min

Lab File: VL042291.D

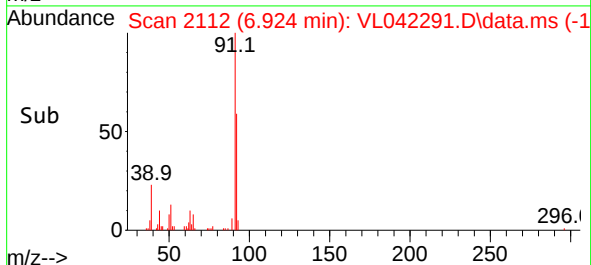
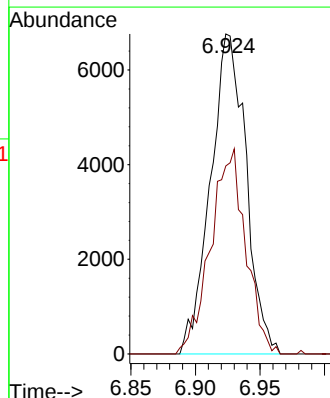
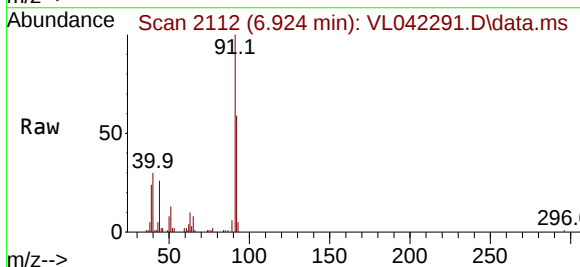
Acq: 09 Apr 2025 14:02

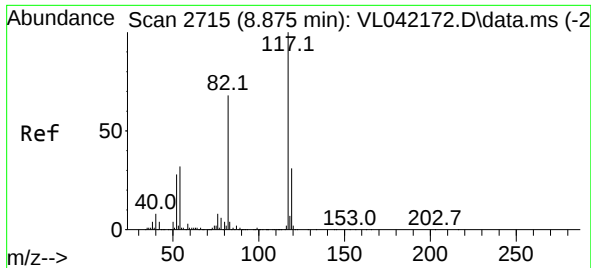
Tgt Ion: 91 Resp: 12958

Ion Ratio Lower Upper

91 100

92 63.2 48.4 72.6

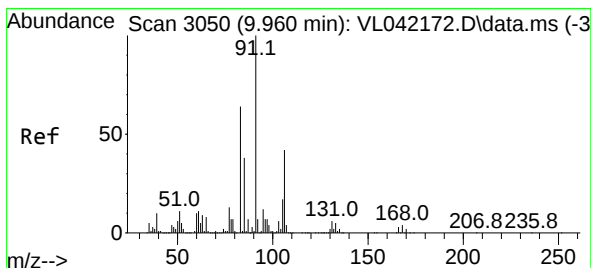
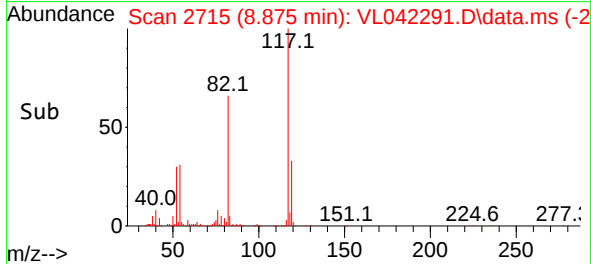
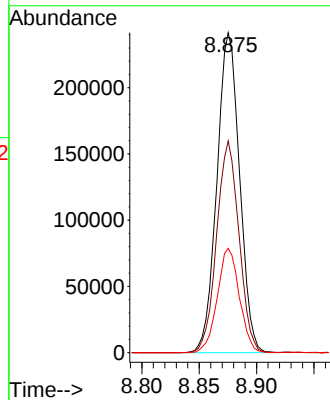
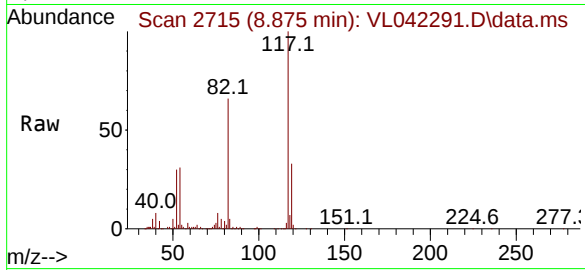




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 21
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

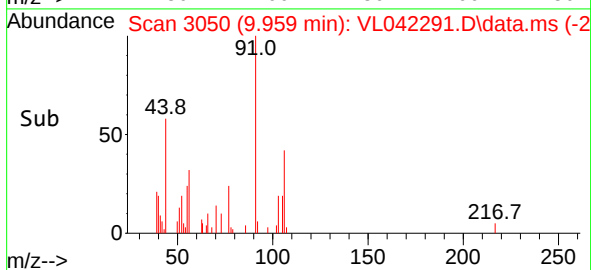
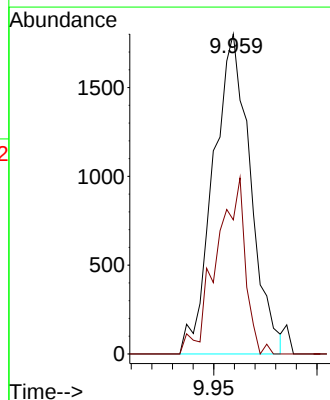
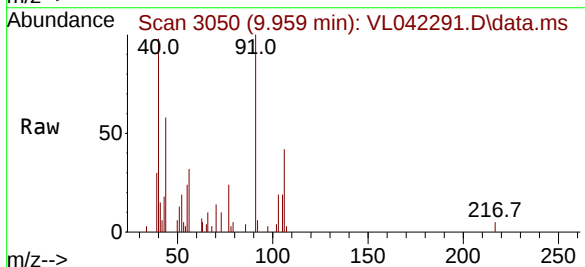
Instrument :
MSVOA_L
ClientSampleId :
AA-DUP-1-3242025DUP

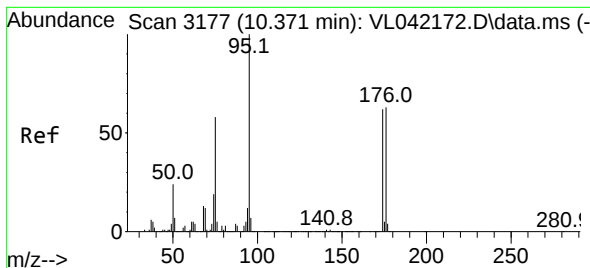
Tgt Ion:117 Resp: 332015
Ion Ratio Lower Upper
117 100
82 65.3 55.8 83.6
119 31.8 25.5 38.3



#60
o-Xylene
Concen: 0.048 ppbv
RT: 9.959 min Scan# 3050
Delta R.T. -0.000 min
Lab File: VL042291.D
Acq: 09 Apr 2025 14:02

Tgt Ion: 91 Resp: 2248
Ion Ratio Lower Upper
91 100
106 43.1 20.8 62.5





#68

1-Bromo-4-Fluorobenzene

Concen: 9.346 ppbv

RT: 10.371 min Scan# 3177

Delta R.T. -0.000 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Instrument :

MSVOA_L

ClientSampleId :

AA-DUP-1-3242025DUP

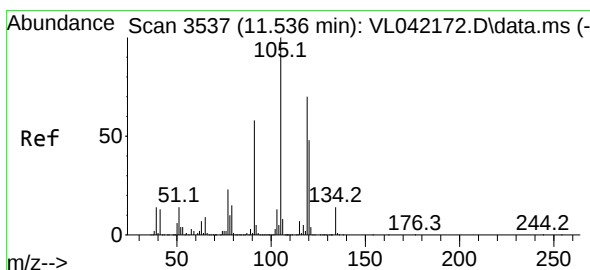
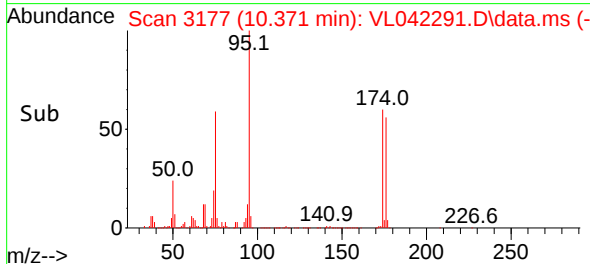
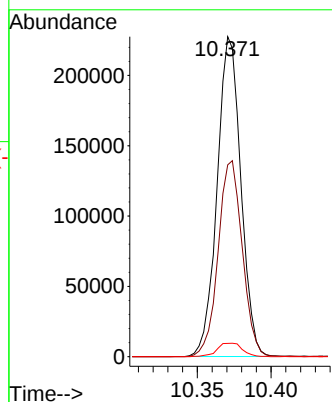
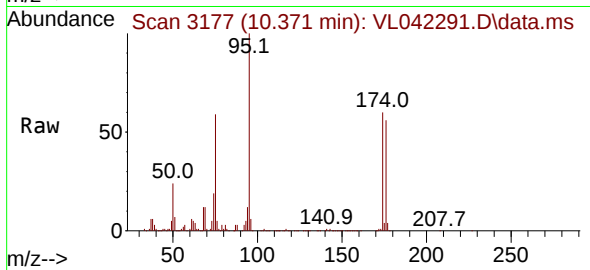
Tgt Ion: 95 Resp: 254829

Ion Ratio Lower Upper

95 100

174 62.4 50.6 76.0

175 4.5 3.8 5.6



#74

1,2,4-Trimethylbenzene

Concen: 0.050 ppbv

RT: 11.532 min Scan# 3536

Delta R.T. -0.003 min

Lab File: VL042291.D

Acq: 09 Apr 2025 14:02

Tgt Ion: 105 Resp: 2929

Ion Ratio Lower Upper

105 100

120 35.5 38.6 58.0#

91 17.6 46.2 69.2#

77 9.0 18.6 27.8#

