

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043229.D
 Acq On : 19 Nov 2025 00:13
 Operator : SY/MD
 Sample : Q3651-04DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2DL

Quant Time: Nov 19 01:42:49 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.787	49	91882	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	238827	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	187305	10.000	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	142715	10.395	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.900%

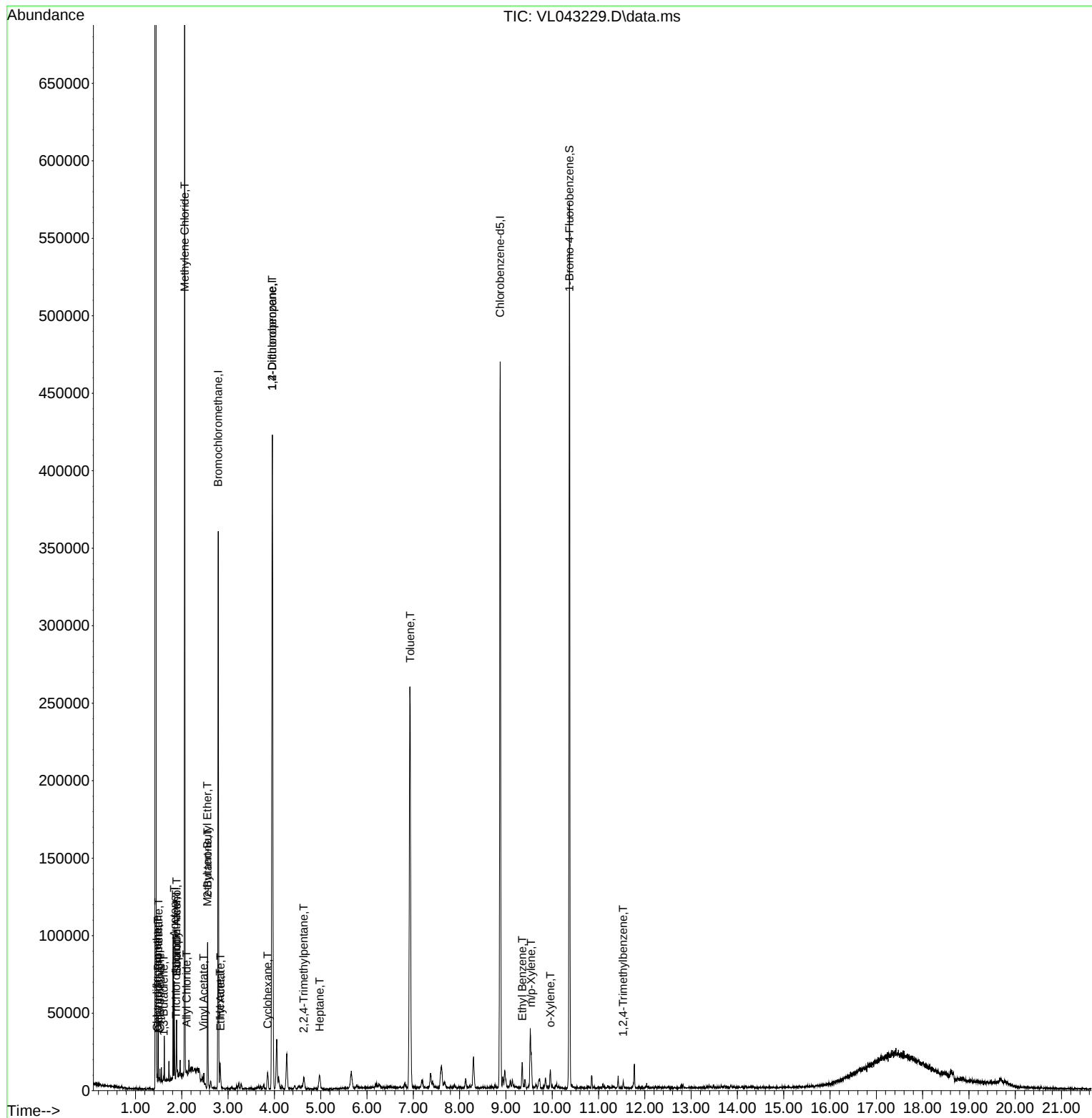
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.499	85	622	0.048	ppbv #	65
3) Chlorodifluoromethane	1.466	51	1221	0.096	ppbv #	84
4) Chloromethane	1.531	50	297	0.061	ppbv #	45
9) Propene	1.489	41	2928	0.541	ppbv #	1
10) Heptane	4.978	43	941	0.058	ppbv #	1
11) Trichlorofluoromethane	1.877	101	1745	0.139	ppbv #	83
13) Ethanol	1.887	45	15499	8.144	ppbv #	38
15) Acetone	1.835	43	26258	2.057	ppbv	99
16) 1,3-Butadiene	1.609	39	354	0.062	ppbv #	12
19) Isopropyl Alcohol	1.887	45	15499	2.149	ppbv	94
20) Methylene Chloride	2.062	84	111175	31.222	ppbv	96
21) Allyl Chloride	2.107	41	316	0.037	ppbv #	21
23) Vinyl Acetate	2.470	43	2059	0.134	ppbv #	41
25) Ethyl Acetate	2.839	43	2158	0.078	ppbv #	42
26) Hexane	2.826	57	3488	0.289	ppbv #	14
28) Methyl tert-Butyl Ether	2.554	73	512	0.086	ppbv #	1
30) Cyclohexane	3.855	84	1013	0.100	ppbv #	1
34) 2-Butanone	2.557	43	56206	3.334	ppbv	99
39) 1,2-Dichloropropane	3.955	63	63843	7.627	ppbv #	23
44) 2,2,4-Trimethylpentane	4.635	57	4409	0.112	ppbv #	34
53) Toluene	6.933	91	73576	2.717	ppbv #	1
58) Ethyl Benzene	9.354	91	8676	0.241	ppbv #	86
59) m/p-Xylene	9.545	91	6109	0.211	ppbv #	31
60) o-Xylene	9.962	91	5207	0.180	ppbv	100
74) 1,2,4-Trimethylbenzene	11.532	105	1713	0.053	ppbv #	54

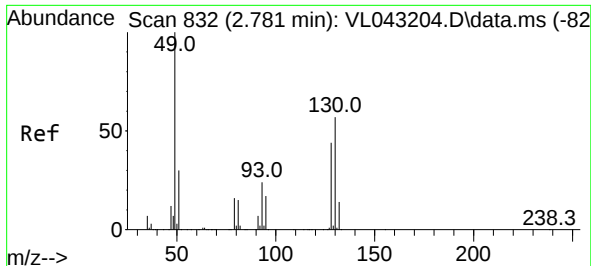
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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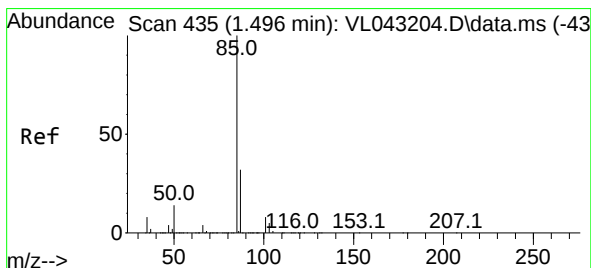
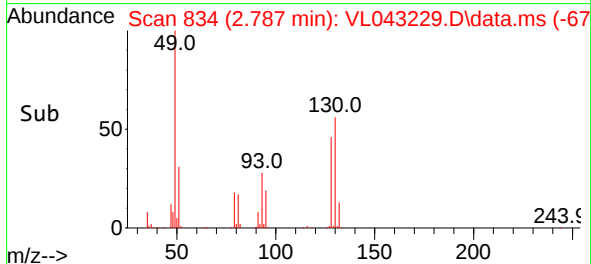
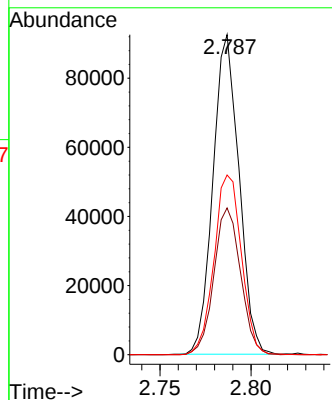
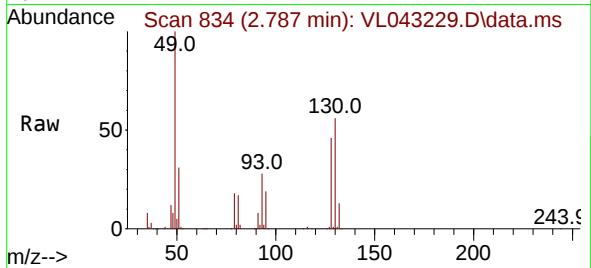




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

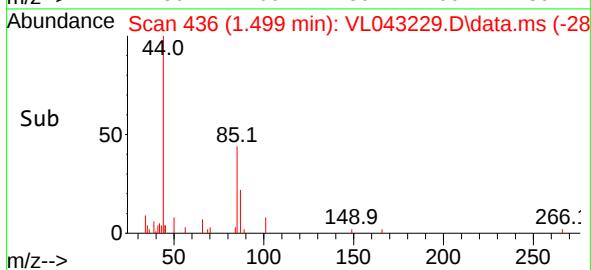
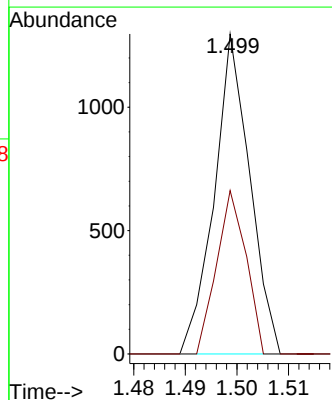
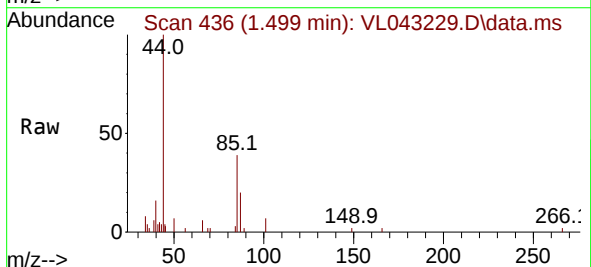
Instrument :
MSVOA_L
ClientSampleId :
IA2DL

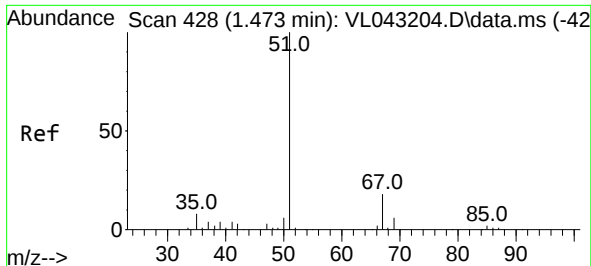
Tgt Ion: 49 Resp: 91882
Ion Ratio Lower Upper
49 100
128 47.1 23.0 69.0
130 59.2 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.048 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 85 Resp: 622
Ion Ratio Lower Upper
85 100
87 51.0 25.4 38.2#

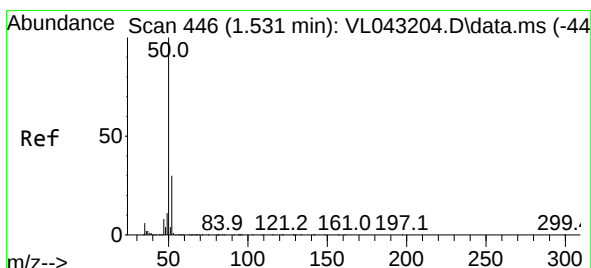
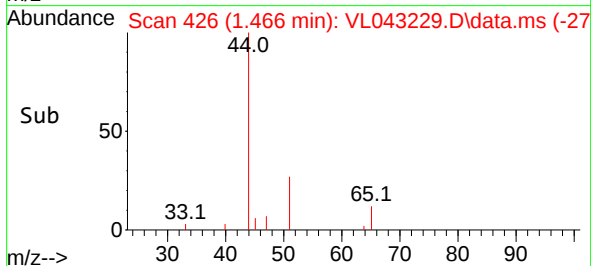
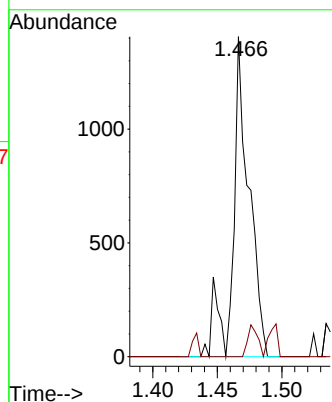
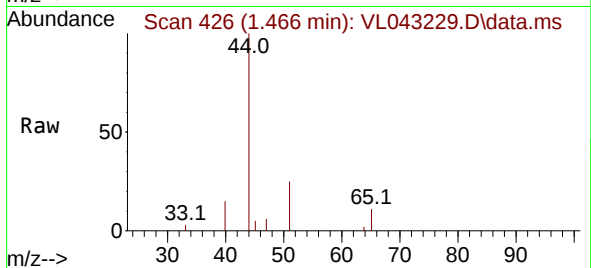




#3
Chlorodifluoromethane
Concen: 0.096 ppbv
RT: 1.466 min Scan# 41
Delta R.T. -0.007 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

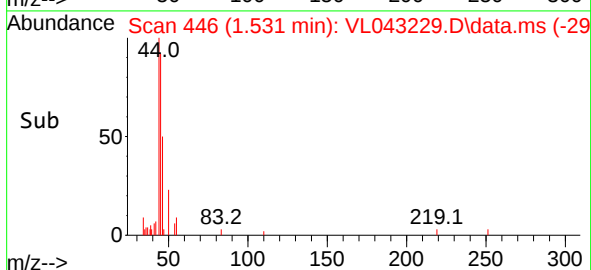
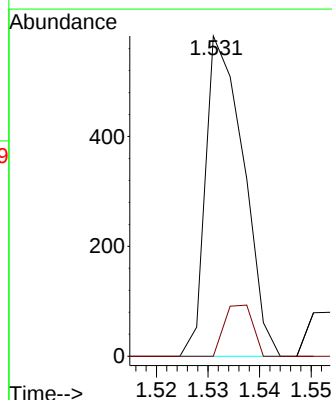
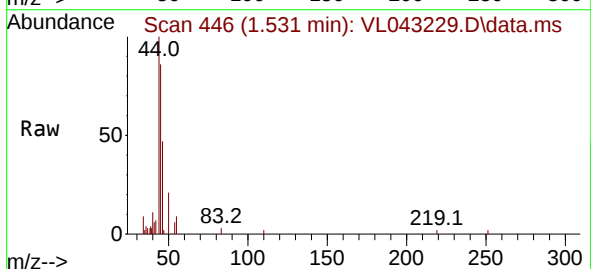
Instrument :
MSVOA_L
ClientSampleId :
IA2DL

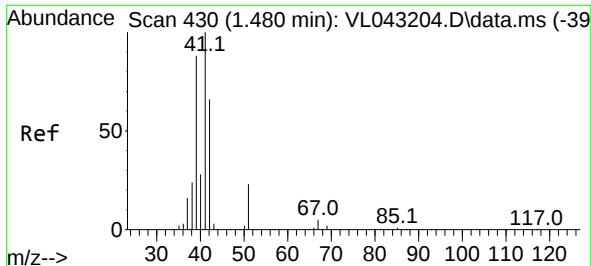
Tgt Ion: 51 Resp: 1221
Ion Ratio Lower Upper
51 100
67 11.5 14.9 22.3#



#4
Chloromethane
Concen: 0.061 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 50 Resp: 297
Ion Ratio Lower Upper
50 100
52 0.0 24.1 36.1#





#9

Propene

Concen: 0.541 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.009 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

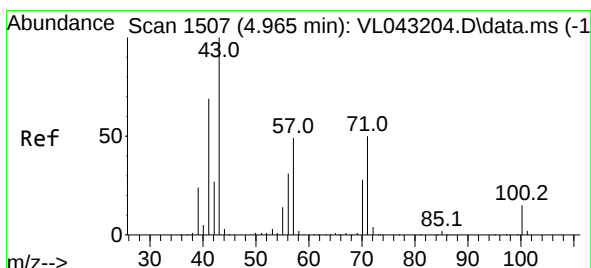
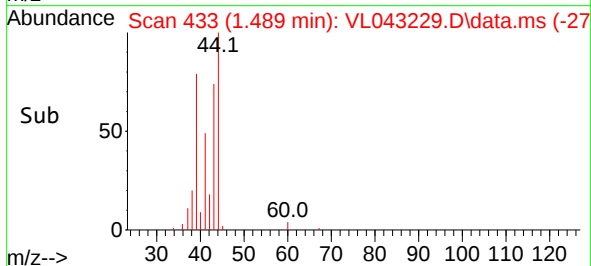
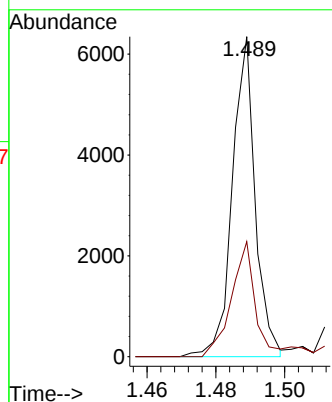
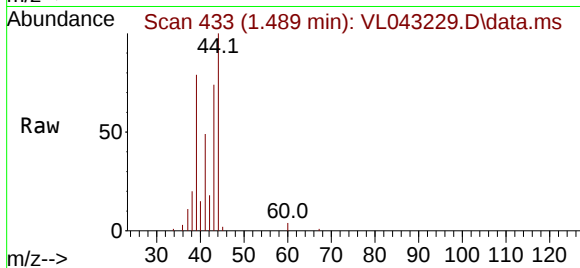
IA2DL

Tgt Ion: 41 Resp: 2928

Ion Ratio Lower Upper

41 100

42 41.7 3.7 5.5#



#10

Heptane

Concen: 0.058 ppbv

RT: 4.978 min Scan# 1511

Delta R.T. 0.013 min

Lab File: VL043229.D

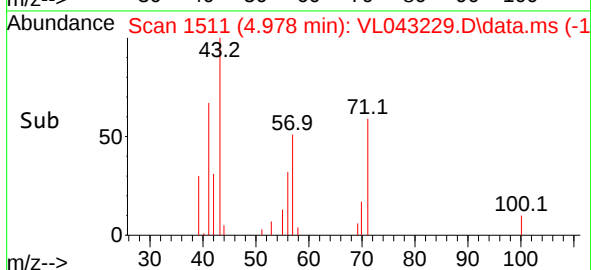
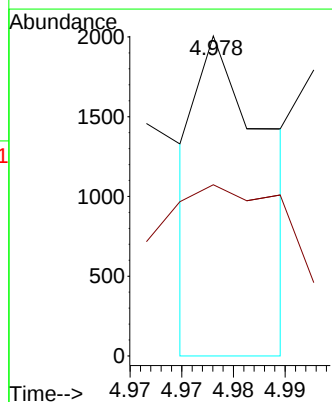
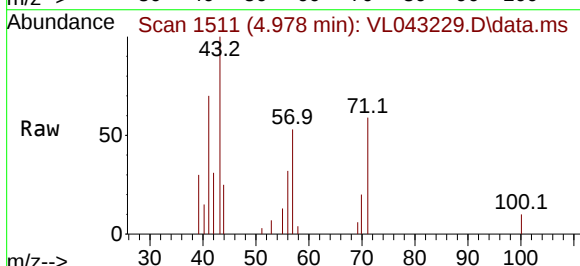
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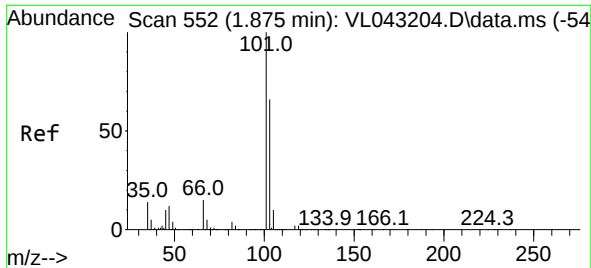
Tgt Ion: 43 Resp: 941

Ion Ratio Lower Upper

43 100

57 220.5 39.7 59.5#

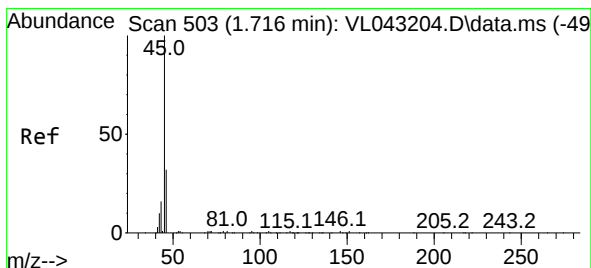
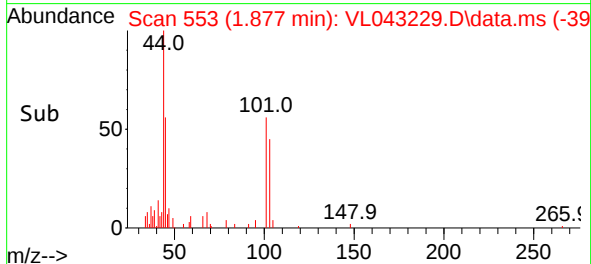
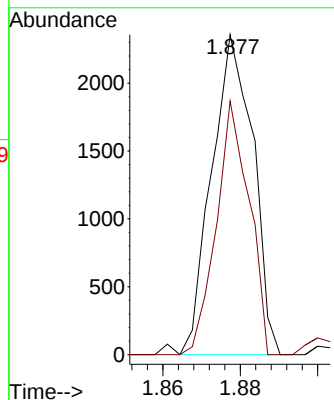
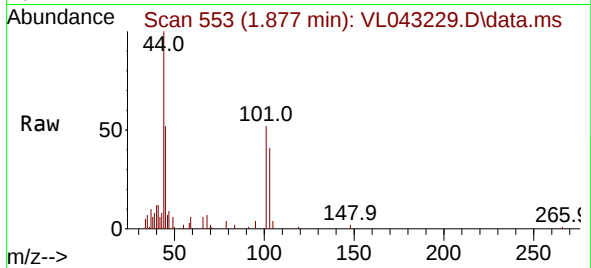




#11
 Trichlorofluoromethane
 Concen: 0.139 ppbv
 RT: 1.877 min Scan# 552
 Delta R.T. 0.003 min
 Lab File: VL043229.D
 Acq: 19 Nov 2025 00:13

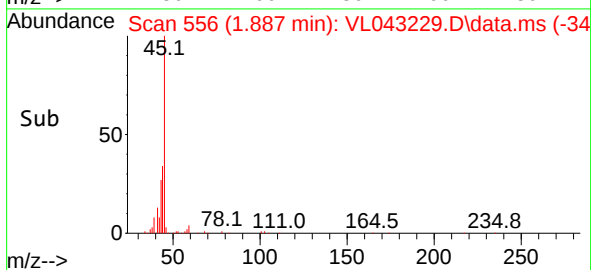
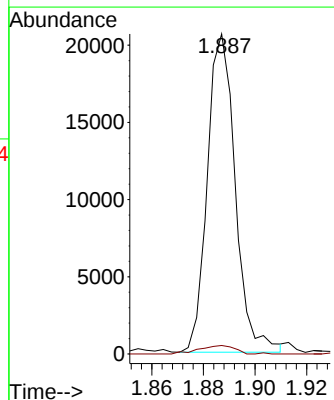
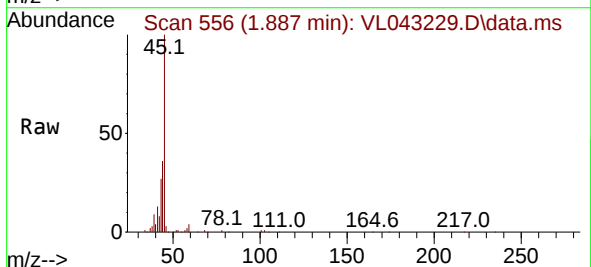
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2DL

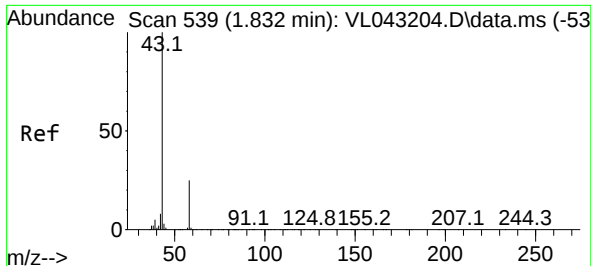
Tgt Ion:101 Resp: 1745
 Ion Ratio Lower Upper
 101 100
 103 79.3 52.6 79.0#



#13
 Ethanol
 Concen: 8.144 ppbv
 RT: 1.887 min Scan# 556
 Delta R.T. 0.171 min
 Lab File: VL043229.D
 Acq: 19 Nov 2025 00:13

Tgt Ion: 45 Resp: 15499
 Ion Ratio Lower Upper
 45 100
 46 0.0 15.0 59.8#





#15

Acetone

Concen: 2.057 ppbv

RT: 1.835 min Scan# 54

Delta R.T. 0.003 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

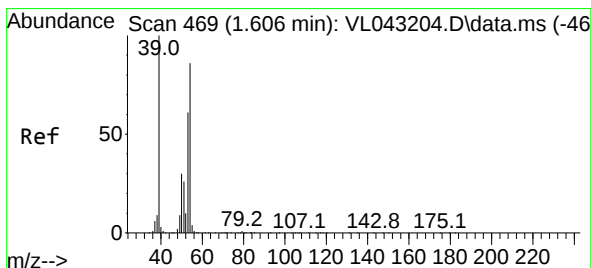
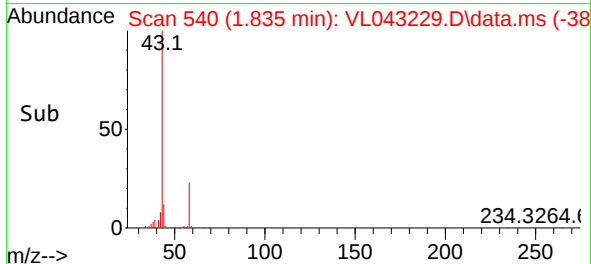
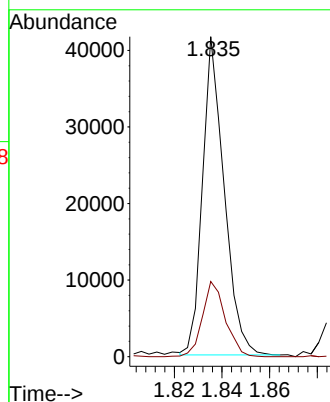
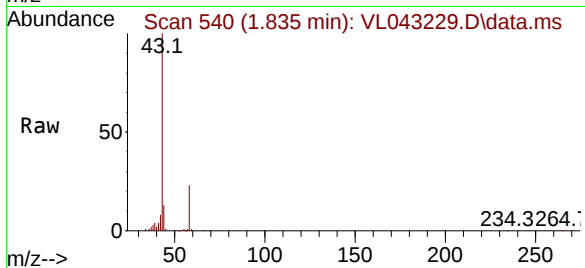
IA2DL

Tgt Ion: 43 Resp: 26258

Ion Ratio Lower Upper

43 100

58 25.3 20.7 31.1



#16

1,3-Butadiene

Concen: 0.062 ppbv

RT: 1.609 min Scan# 470

Delta R.T. 0.003 min

Lab File: VL043229.D

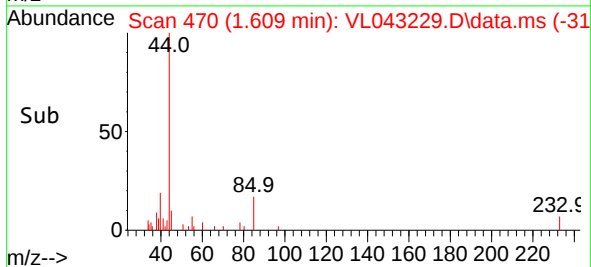
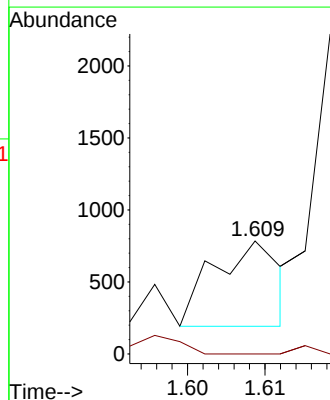
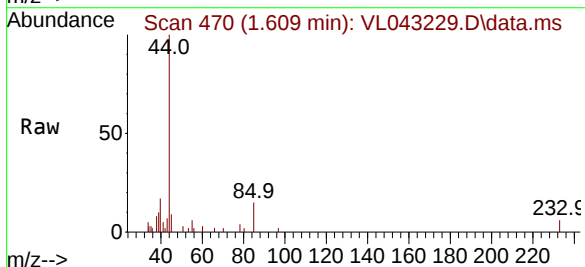
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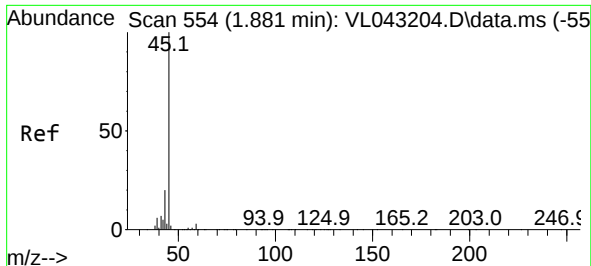
Tgt Ion: 39 Resp: 354

Ion Ratio Lower Upper

39 100

54 0.0 59.4 89.2#

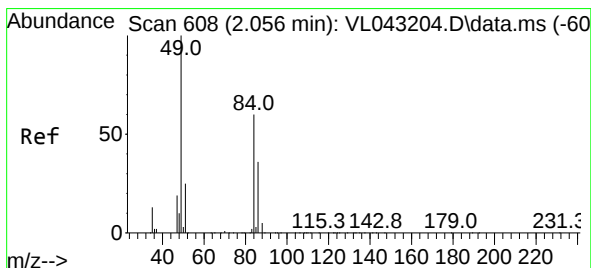
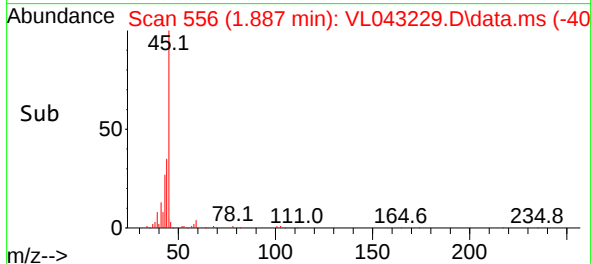
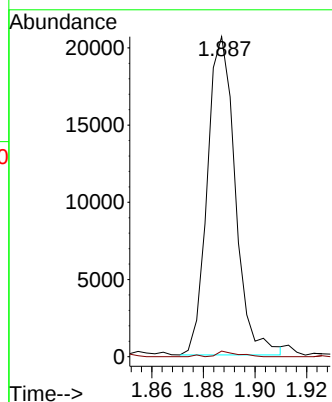
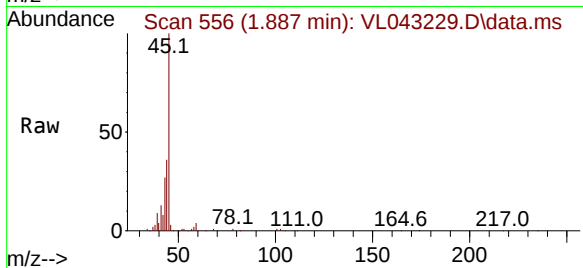




#19
Isopropyl Alcohol
Concen: 2.149 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.006 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

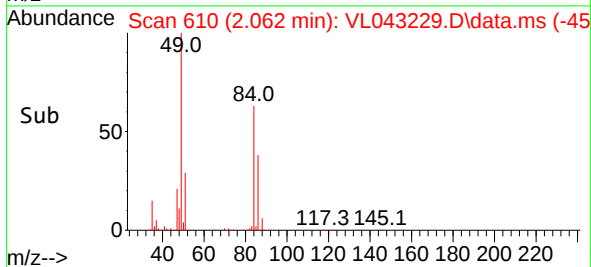
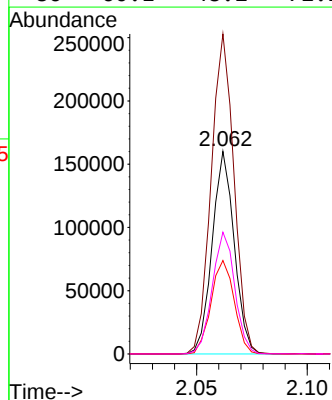
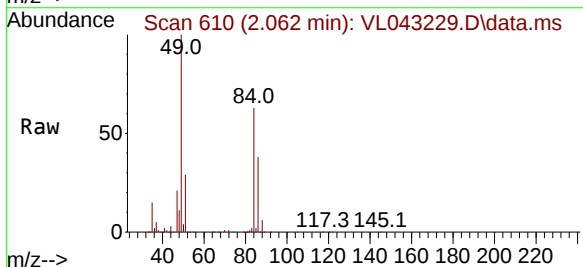
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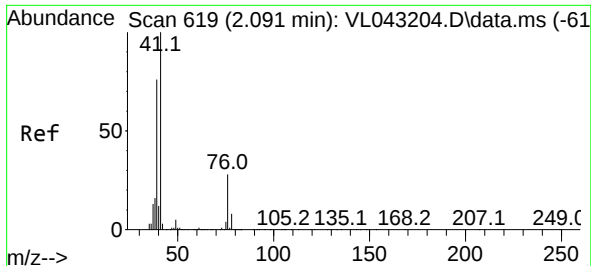
Tgt Ion: 45 Resp: 15499
Ion Ratio Lower Upper
45 100
58 42.8 31.3 46.9



#20
Methylene Chloride
Concen: 31.222 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.006 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 84 Resp: 111175
Ion Ratio Lower Upper
84 100
49 158.0 132.9 199.3
51 46.1 34.8 52.2
86 60.1 48.2 72.2

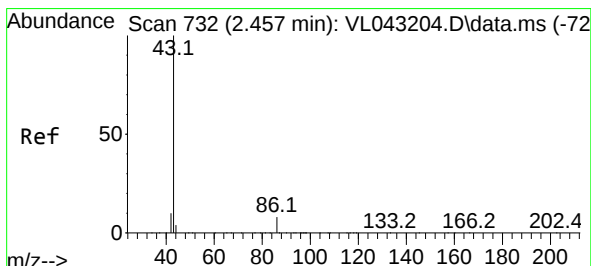
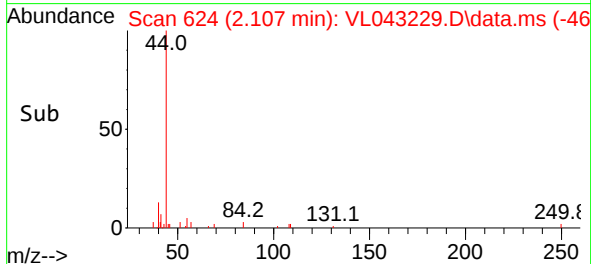
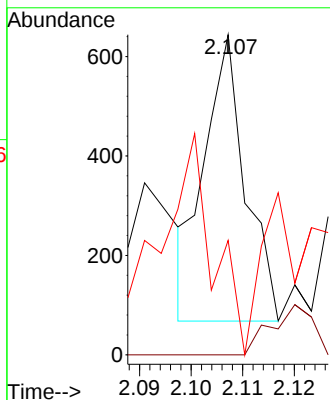
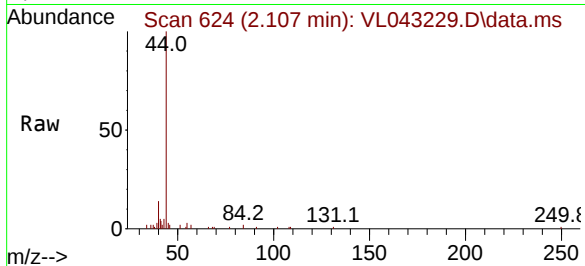




#21
 Allyl Chloride
 Concen: 0.037 ppbv
 RT: 2.107 min Scan# 619
 Delta R.T. 0.016 min
 Lab File: VL043229.D
 Acq: 19 Nov 2025 00:13

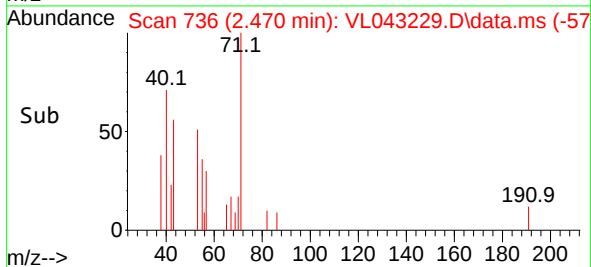
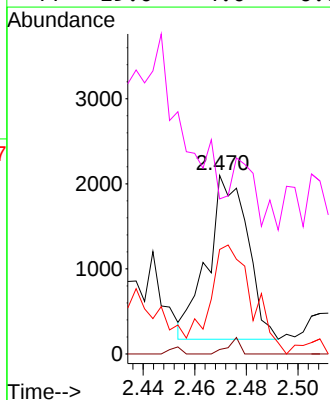
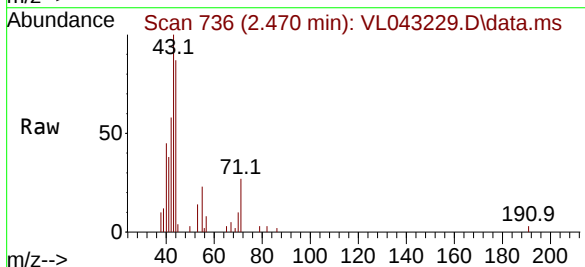
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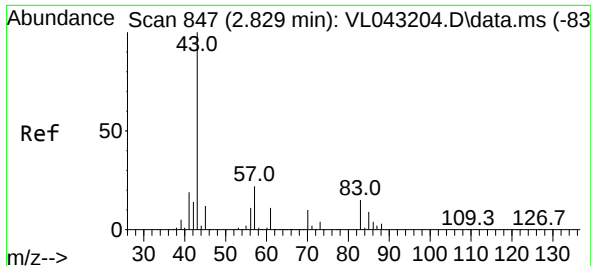
Tgt Ion: 41	Resp:	316
Ion Ratio	Lower	Upper
41	100	
76	0.0	22.1 33.1#
39	0.0	61.0 91.4#



#23
 Vinyl Acetate
 Concen: 0.134 ppbv
 RT: 2.470 min Scan# 736
 Delta R.T. 0.013 min
 Lab File: VL043229.D
 Acq: 19 Nov 2025 00:13

Tgt Ion: 43	Resp:	2059
Ion Ratio	Lower	Upper
43	100	
86	2.7	6.2 9.2#
42	48.0	8.0 12.0#
44	19.0	4.0 6.0#





#25

Ethyl Acetate

Concen: 0.078 ppbv

RT: 2.839 min Scan# 81

Delta R.T. 0.009 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2DL

Tgt Ion: 43 Resp: 2158

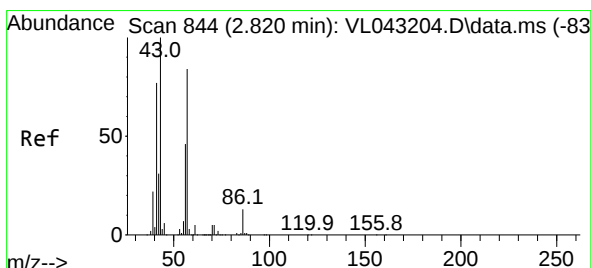
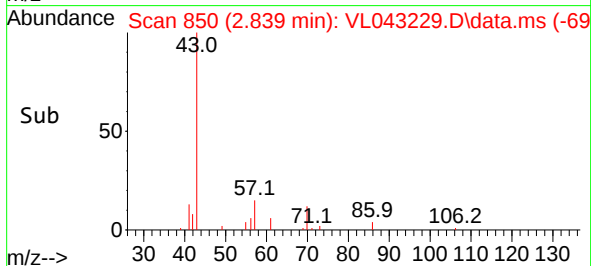
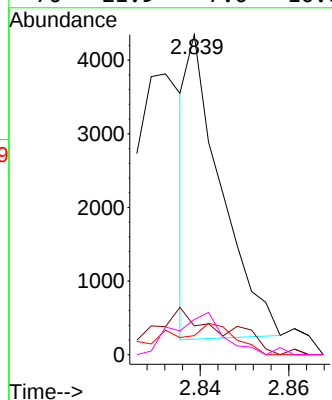
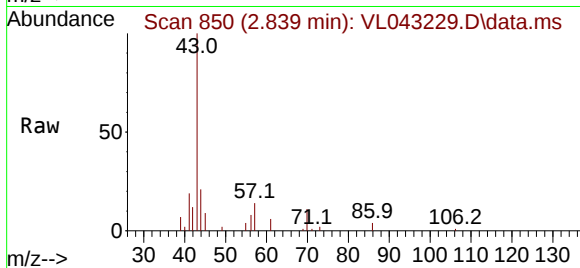
Ion Ratio Lower Upper

43 100

45 46.9 8.1 12.1#

61 20.6 7.0 10.4#

70 21.9 7.0 10.6#



#26

Hexane

Concen: 0.289 ppbv

RT: 2.826 min Scan# 846

Delta R.T. 0.006 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Tgt Ion: 57 Resp: 3488

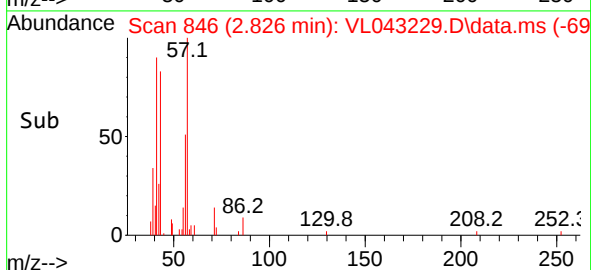
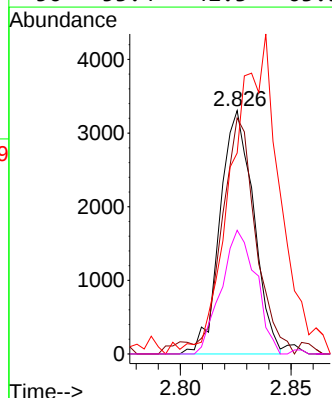
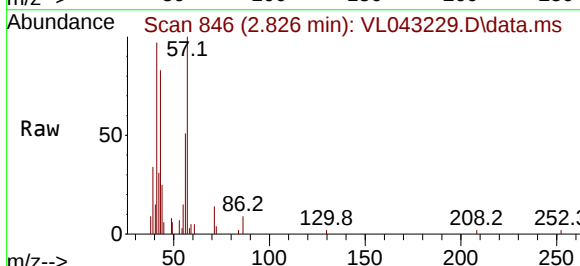
Ion Ratio Lower Upper

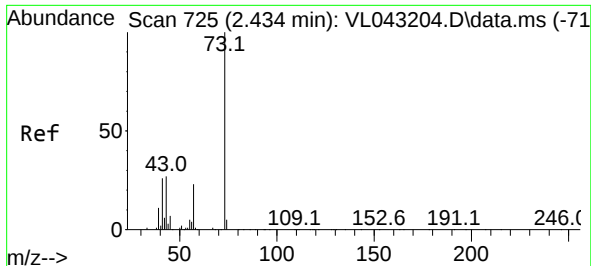
57 100

41 102.3 74.6 111.8

43 0.0 179.0 268.4#

56 53.4 42.3 63.5

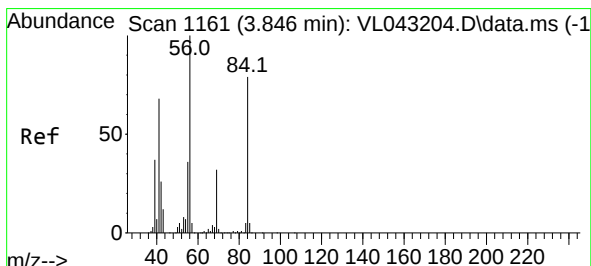
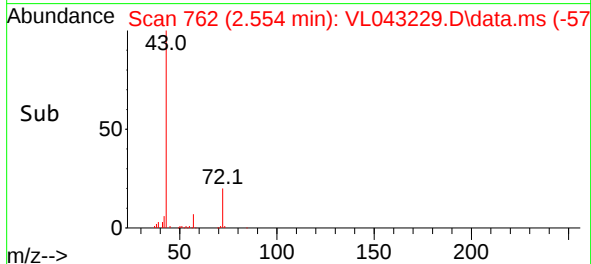
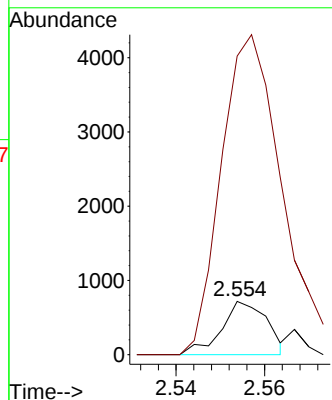
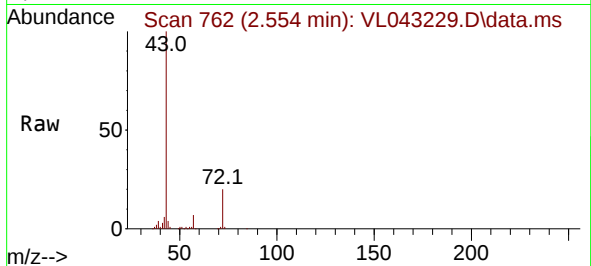




#28
Methyl tert-Butyl Ether
Concen: 0.086 ppbv
RT: 2.554 min Scan# 71
Delta R.T. 0.119 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

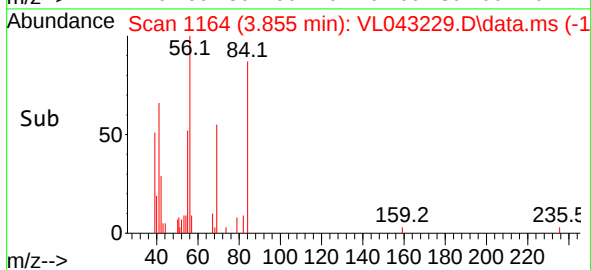
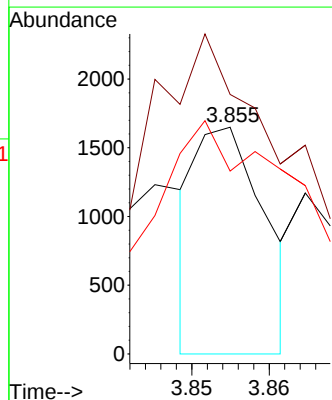
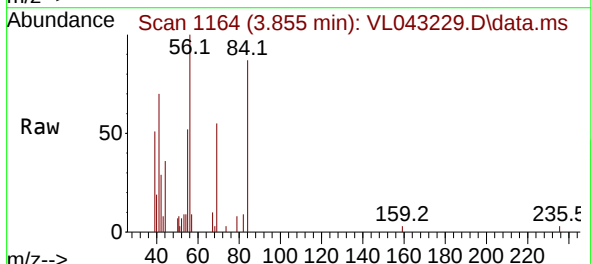
Instrument :
MSVOA_1
ClientSampleId :
IA2DL

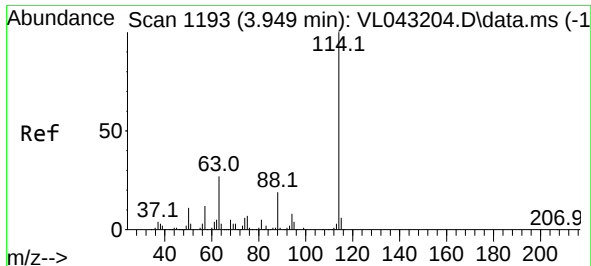
Tgt Ion: 73 Resp: 512
Ion Ratio Lower Upper
73 100
57 815.8 19.8 29.8#



#30
Cyclohexane
Concen: 0.100 ppbv
RT: 3.855 min Scan# 1164
Delta R.T. 0.009 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 84 Resp: 1013
Ion Ratio Lower Upper
84 100
56 350.5 104.7 157.1#
41 276.6 69.0 103.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. 0.006 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2DL

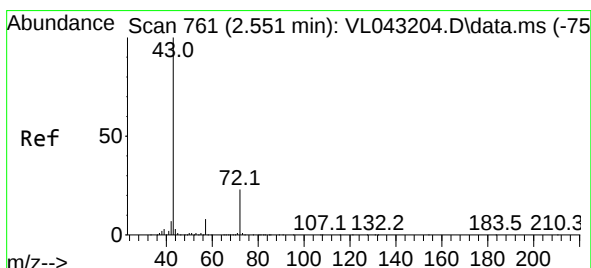
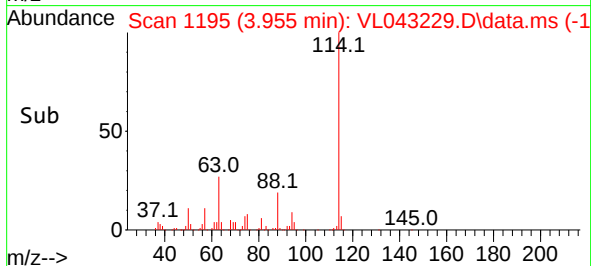
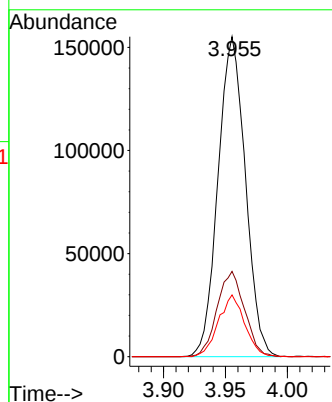
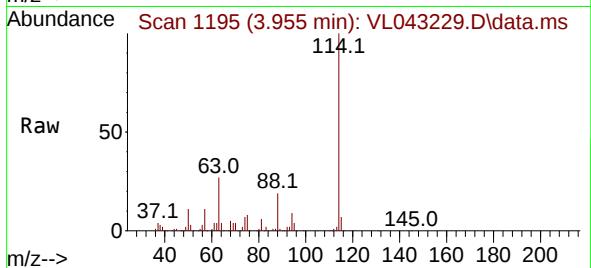
Tgt Ion:114 Resp: 238827

Ion Ratio Lower Upper

114 100

63 26.8 21.0 31.6

88 18.6 14.9 22.3



#34

2-Butanone

Concen: 3.334 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043229.D

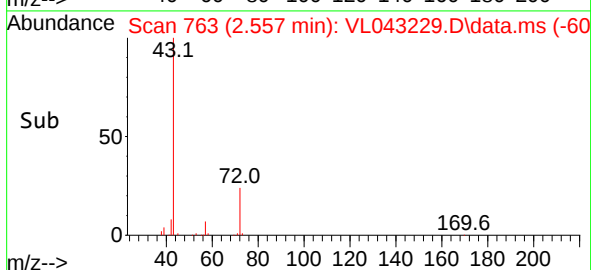
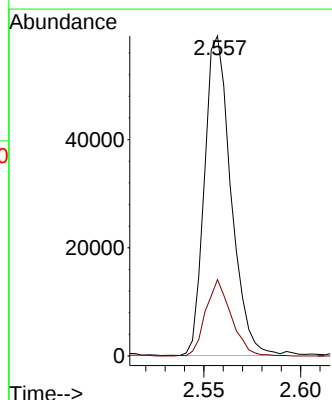
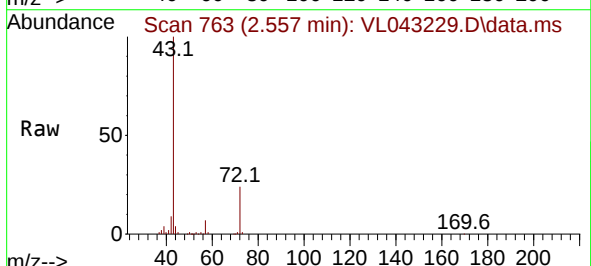
Acq: 19 Nov 2025 00:13

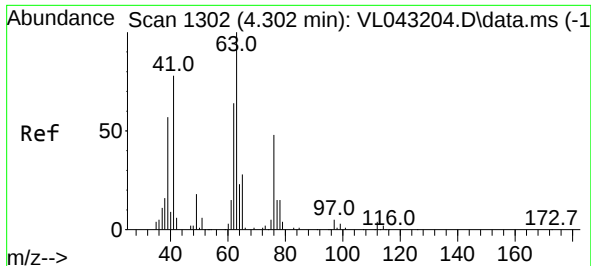
Tgt Ion: 43 Resp: 56206

Ion Ratio Lower Upper

43 100

72 23.1 18.1 27.1





#39

1,2-Dichloropropane

Concen: 7.627 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.347 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2DL

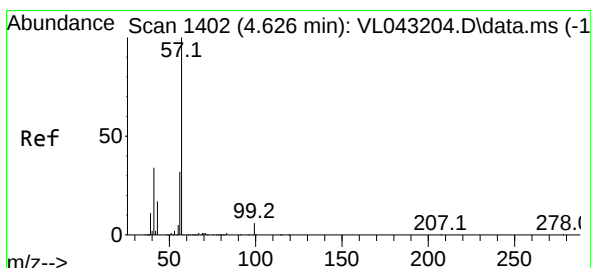
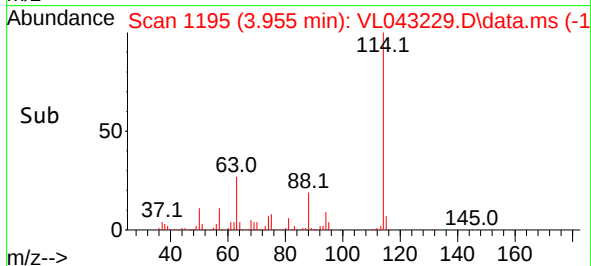
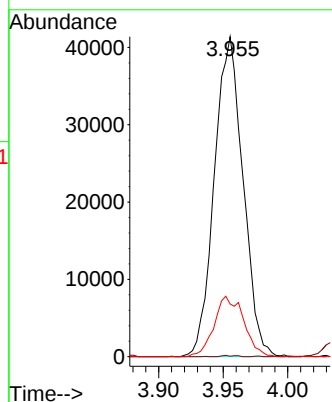
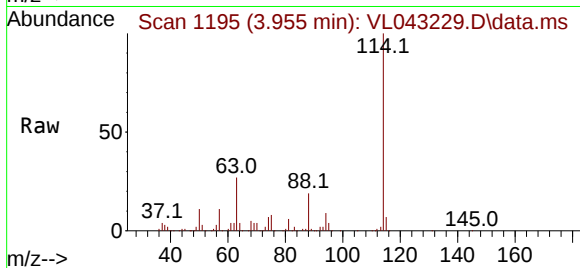
Tgt Ion: 63 Resp: 63843

Ion Ratio Lower Upper

63 100

41 0.1 62.6 93.8#

62 16.5 51.0 76.6#



#44

2,2,4-Trimethylpentane

Concen: 0.112 ppbv

RT: 4.635 min Scan# 1405

Delta R.T. 0.009 min

Lab File: VL043229.D

Acq: 19 Nov 2025 00:13

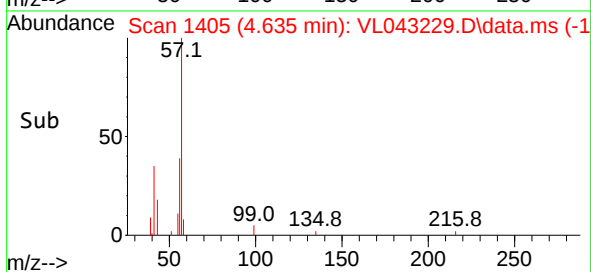
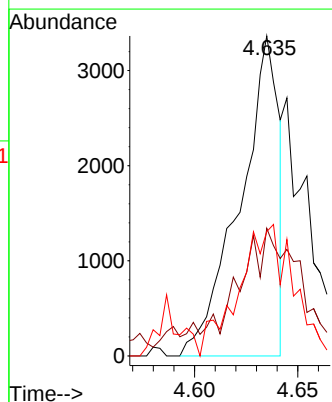
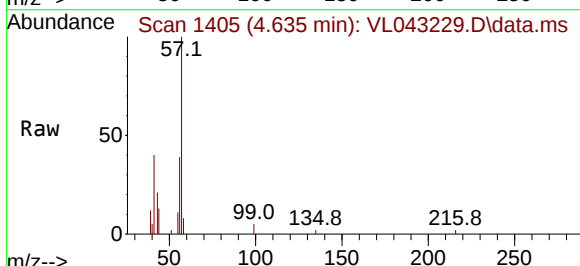
Tgt Ion: 57 Resp: 4409

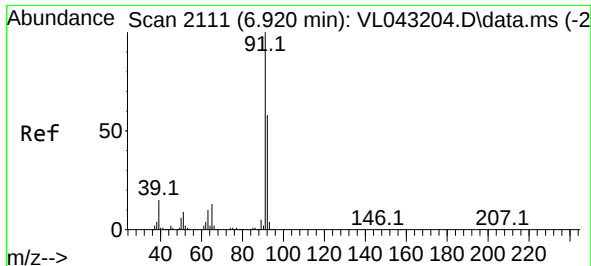
Ion Ratio Lower Upper

57 100

41 73.5 28.0 42.0#

56 68.3 25.6 38.4#

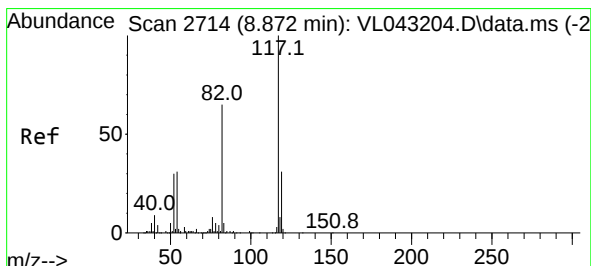
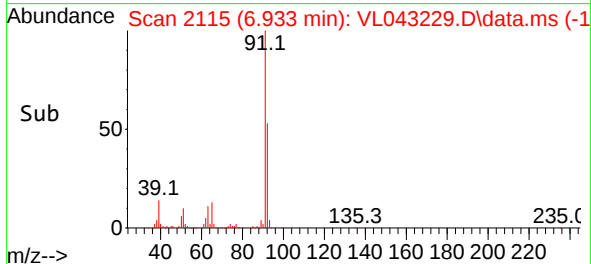
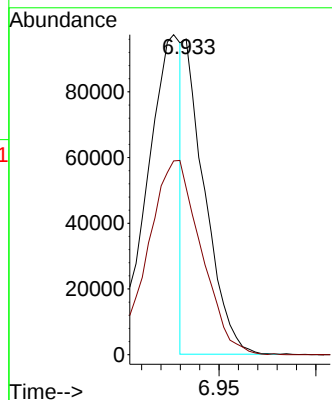
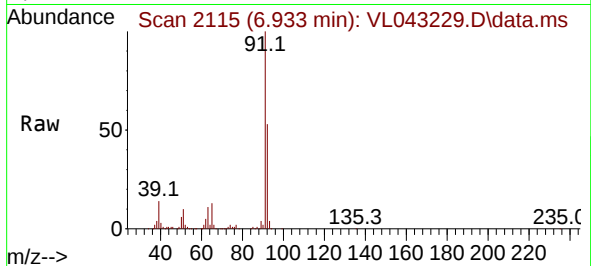




#53
Toluene
Concen: 2.717 ppbv
RT: 6.933 min Scan# 2111
Delta R.T. 0.013 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

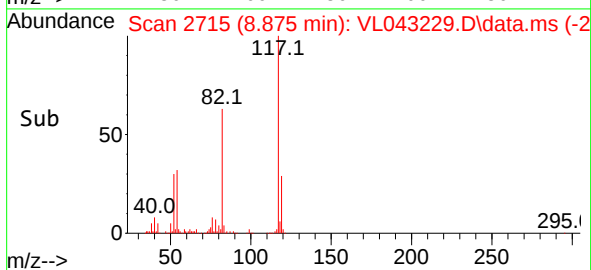
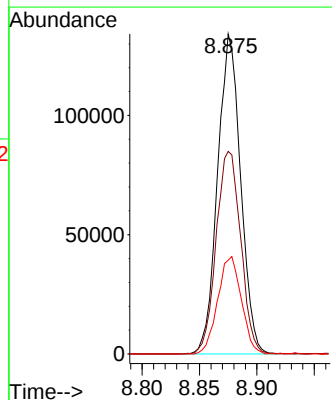
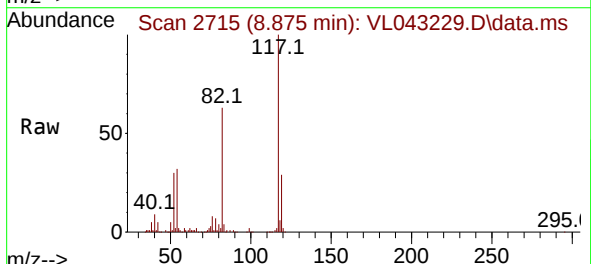
Instrument :
MSVOA_L
ClientSampleId :
IA2DL

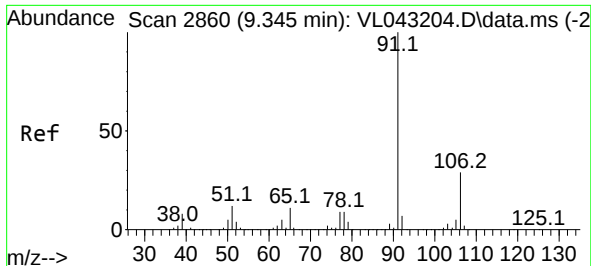
Tgt Ion: 91 Resp: 73576
Ion Ratio Lower Upper
91 100
92 153.7 47.4 71.0#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.003 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 117 Resp: 187305
Ion Ratio Lower Upper
117 100
82 67.4 56.1 84.1
119 31.4 25.0 37.6

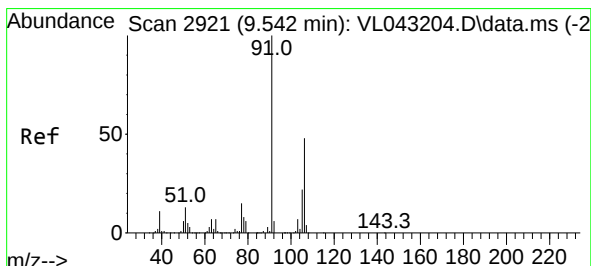
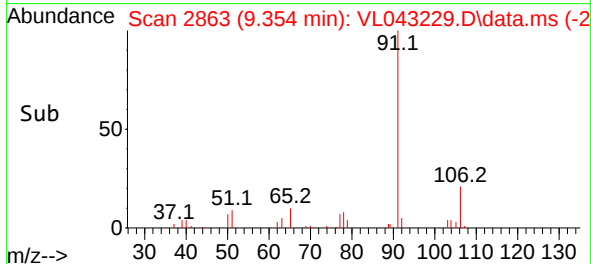
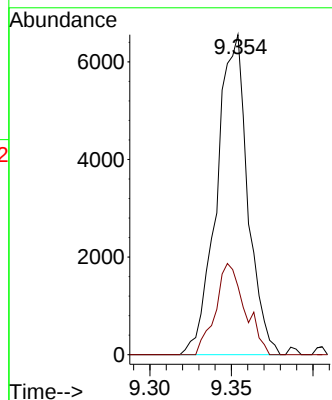
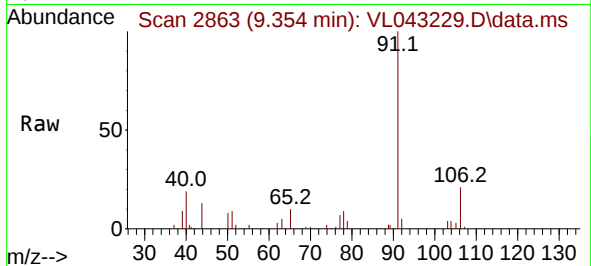




#58
Ethyl Benzene
Concen: 0.241 ppbv
RT: 9.354 min Scan# 21
Delta R.T. 0.009 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

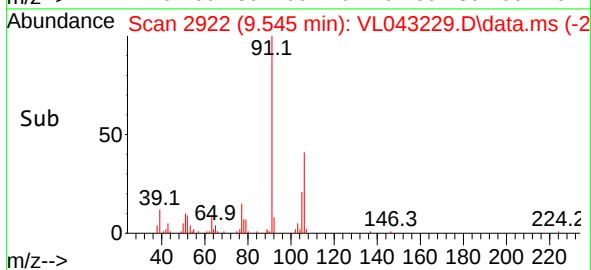
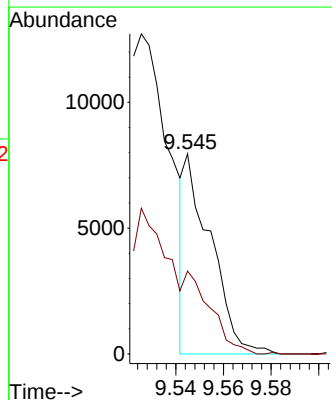
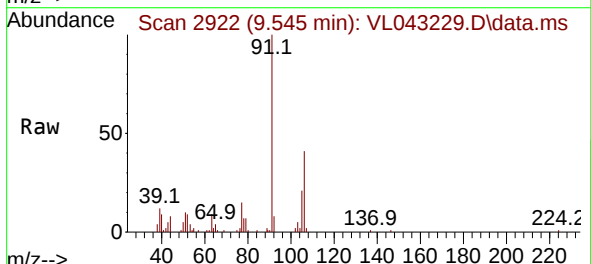
Instrument :
MSVOA_L
ClientSampleId :
IA2DL

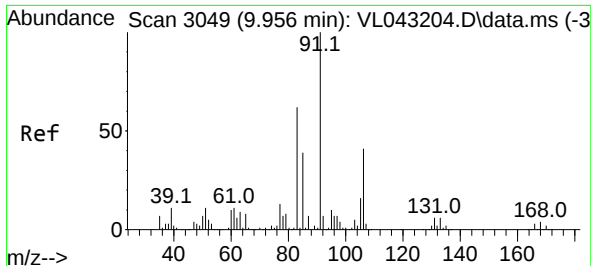
Tgt Ion: 91 Resp: 8676
Ion Ratio Lower Upper
91 100
106 21.3 22.8 34.2#



#59
m/p-Xylene
Concen: 0.211 ppbv
RT: 9.545 min Scan# 2922
Delta R.T. 0.003 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 91 Resp: 6109
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1#

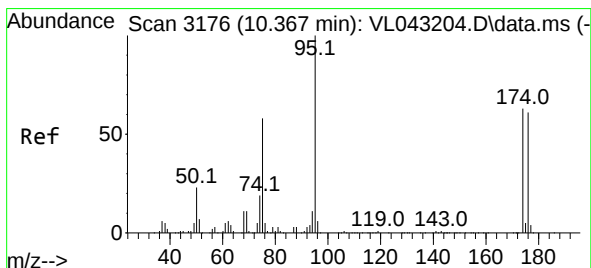
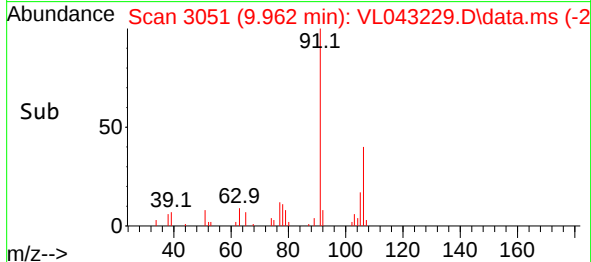
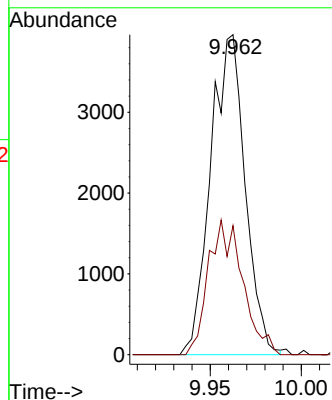
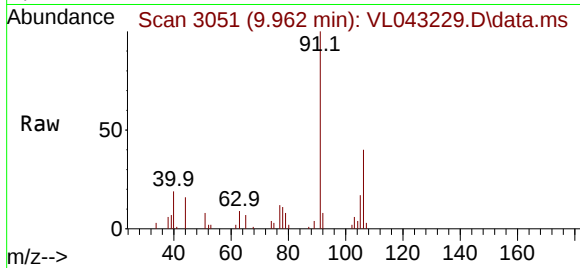




#60
o-Xylene
Concen: 0.180 ppbv
RT: 9.962 min Scan# 3049
Delta R.T. 0.006 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

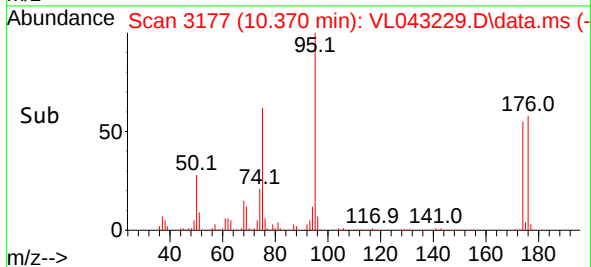
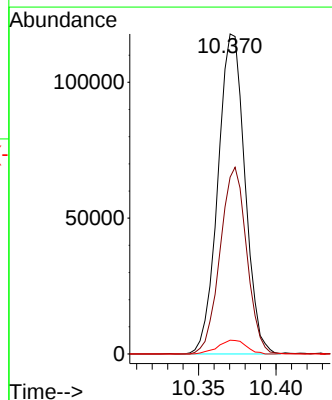
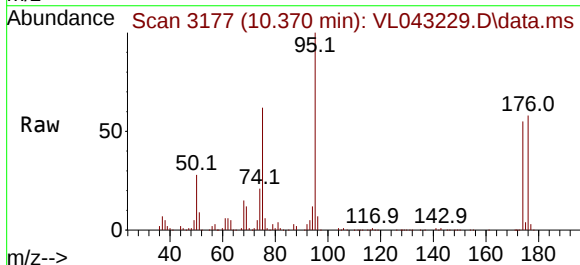
Instrument :
MSVOA_L
ClientSampleId :
IA2DL

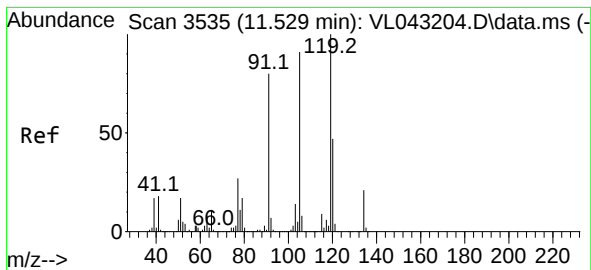
Tgt Ion: 91 Resp: 5207
Ion Ratio Lower Upper
91 100
106 41.8 20.9 62.8



#68
1-Bromo-4-Fluorobenzene
Concen: 10.395 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL043229.D
Acq: 19 Nov 2025 00:13

Tgt Ion: 95 Resp: 142715
Ion Ratio Lower Upper
95 100
174 57.5 50.2 75.2
175 4.5 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.053 ppbv

RT: 11.532 min Scan# 3

Delta R.T. 0.003 min

Lab File: VL043229.D

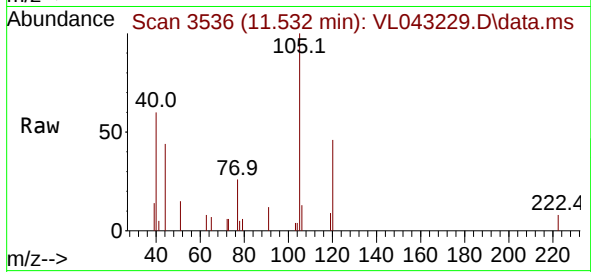
Acq: 19 Nov 2025 00:13

Instrument :

MSVOA_L

ClientSampleId :

IA2DL



Tgt Ion:105 Resp: 1713

Ion Ratio Lower Upper

105 100

120 45.7 41.7 62.5

91 12.2 70.0 105.0#

77 25.6 23.8 35.8

