

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043230.D
 Acq On : 19 Nov 2025 00:44
 Operator : SY/MD
 Sample : Q3651-06DL 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL

Quant Time: Nov 19 03:20:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-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	94238	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	242243	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	186991	10.000	ppbv	0.00

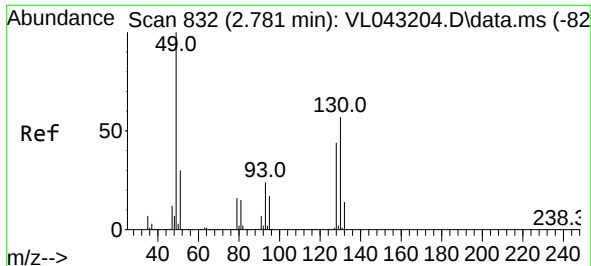
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	141972	10.358	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.600%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.499	85	723	0.054	ppbv #	66
3) Chlorodifluoromethane	1.476	51	1466	0.112	ppbv #	87
4) Chloromethane	1.534	50	2829	0.569	ppbv #	77
9) Propene	1.486	41	665	0.120	ppbv #	1
10) Heptane	4.975	43	576	0.035	ppbv #	28
13) Ethanol	1.722	45	20611	10.560	ppbv	97
15) Acetone	1.835	43	8957	0.684	ppbv	93
16) 1,3-Butadiene	1.602	39	345	0.059	ppbv #	63
17) tert-Butyl alcohol	2.046	59	1188	0.069	ppbv #	62
19) Isopropyl Alcohol	1.722	45	20611	2.786	ppbv #	37
20) Methylene Chloride	2.062	84	5048	0.568	ppbv	82
23) Vinyl Acetate	2.450	43	1373	0.087	ppbv #	78
25) Ethyl Acetate	2.557	43	51160	1.812	ppbv #	76
26) Hexane	2.826	57	1760	0.142	ppbv #	55
27) Carbon Disulfide	2.152	76	617	0.049	ppbv #	61
28) Methyl tert-Butyl Ether	2.554	73	497	0.082	ppbv #	1
29) Chloroform	2.845	83	652	0.037	ppbv	86
34) 2-Butanone	2.557	43	51160	2.992	ppbv	98
39) 1,2-Dichloropropane	3.955	63	66436	7.824	ppbv #	24
53) Toluene	6.927	91	162410	5.912	ppbv	100
60) o-Xylene	9.956	91	1187	0.041	ppbv #	34

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

Quant Time: Nov 19 03:20:46 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

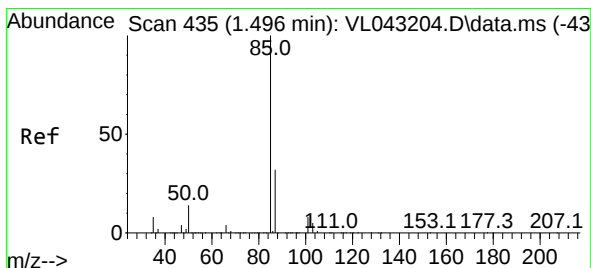
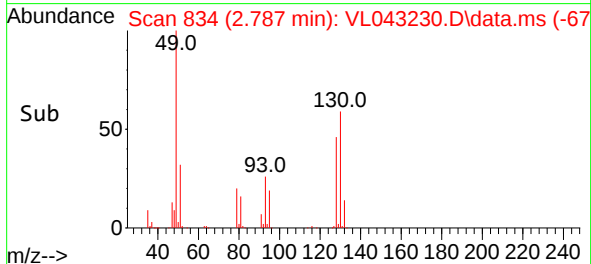
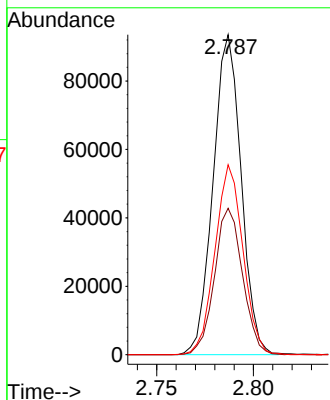
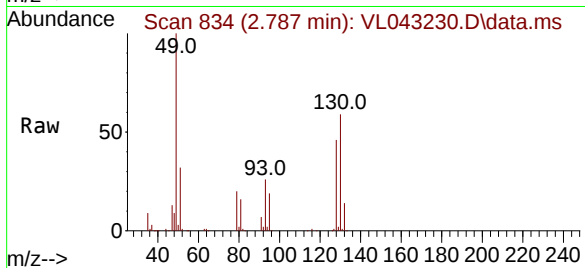




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

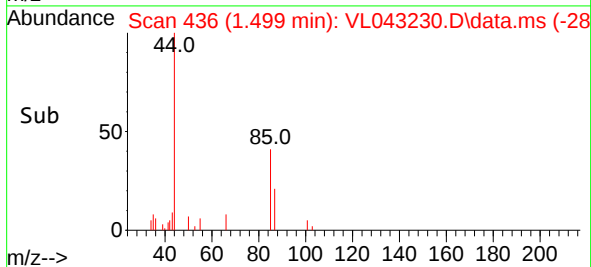
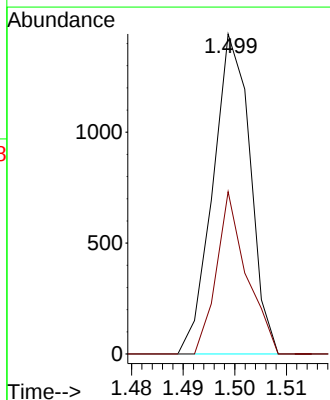
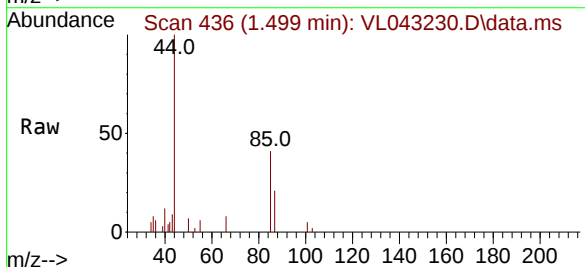
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

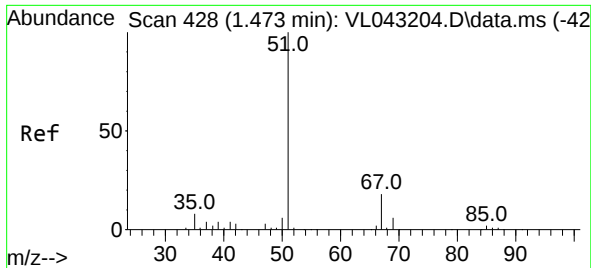
Tgt Ion: 49 Resp: 94238
Ion Ratio Lower Upper
49 100
128 45.8 23.0 69.0
130 59.3 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.054 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 85 Resp: 723
Ion Ratio Lower Upper
85 100
87 50.7 25.4 38.2#





#3

Chlorodifluoromethane

Concen: 0.112 ppbv

RT: 1.476 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043230.D

Acq: 19 Nov 2025 00:44

Instrument :

MSVOA_L

ClientSampleId :

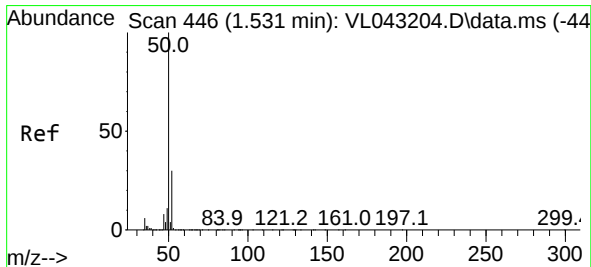
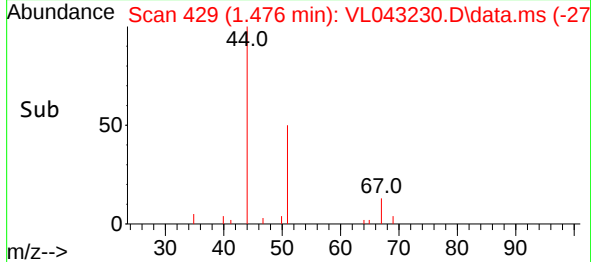
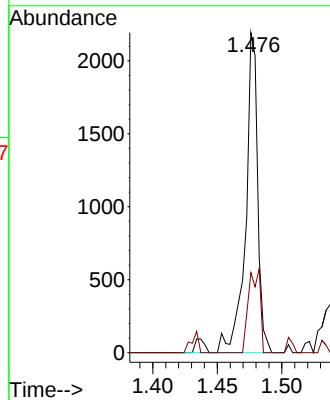
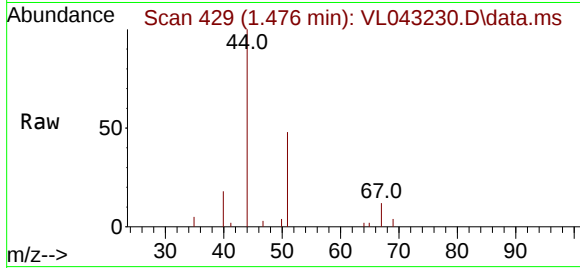
IA3DL

Tgt Ion: 51 Resp: 1466

Ion Ratio Lower Upper

51 100

67 24.4 14.9 22.3#



#4

Chloromethane

Concen: 0.569 ppbv

RT: 1.534 min Scan# 447

Delta R.T. 0.003 min

Lab File: VL043230.D

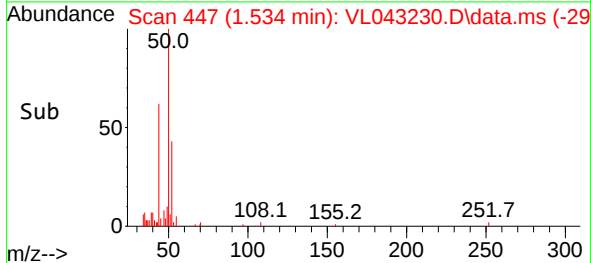
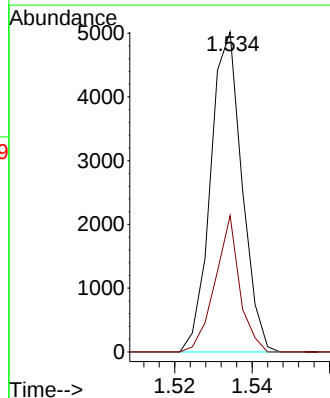
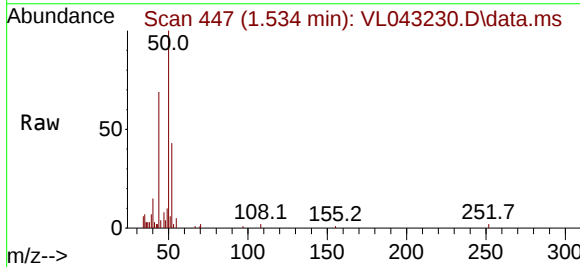
Acq: 19 Nov 2025 00:44

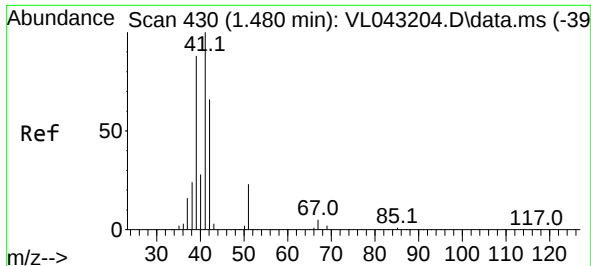
Tgt Ion: 50 Resp: 2829

Ion Ratio Lower Upper

50 100

52 42.6 24.1 36.1#





#9

Propene

Concen: 0.120 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043230.D

Acq: 19 Nov 2025 00:44

Instrument :

MSVOA_L

ClientSampleId :

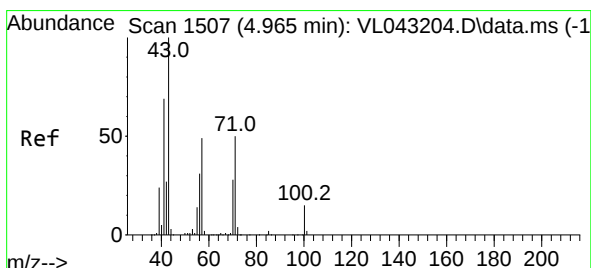
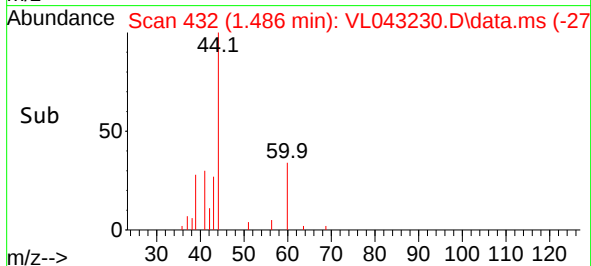
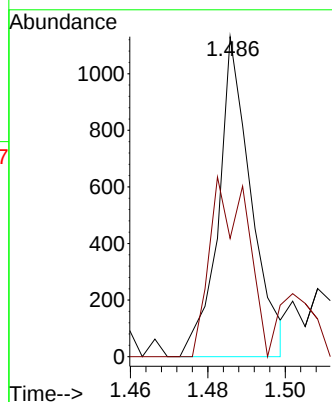
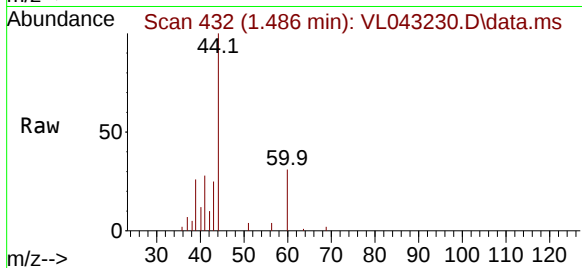
IA3DL

Tgt Ion: 41 Resp: 665

Ion Ratio Lower Upper

41 100

42 63.9 3.7 5.5#



#10

Heptane

Concen: 0.035 ppbv

RT: 4.975 min Scan# 1510

Delta R.T. 0.009 min

Lab File: VL043230.D

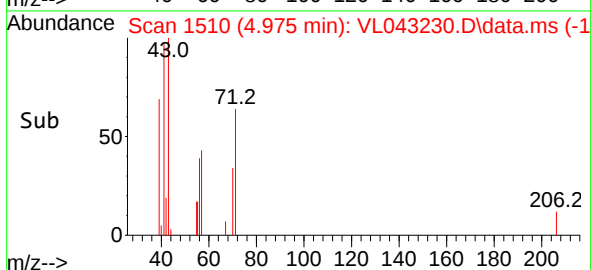
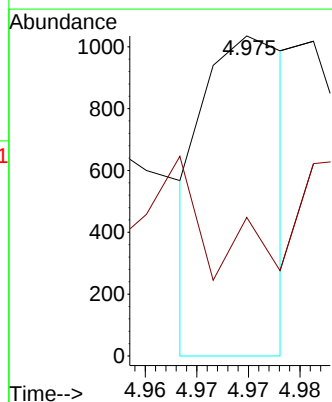
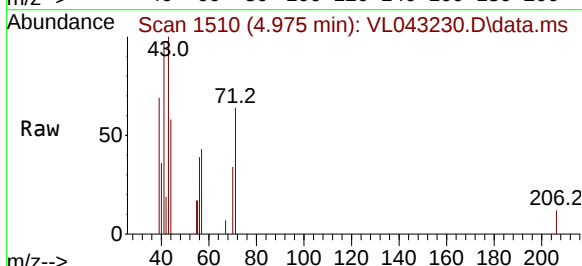
Acq: 19 Nov 2025 00:44

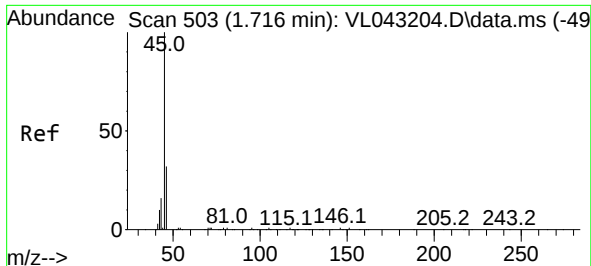
Tgt Ion: 43 Resp: 576

Ion Ratio Lower Upper

43 100

57 0.0 39.7 59.5#

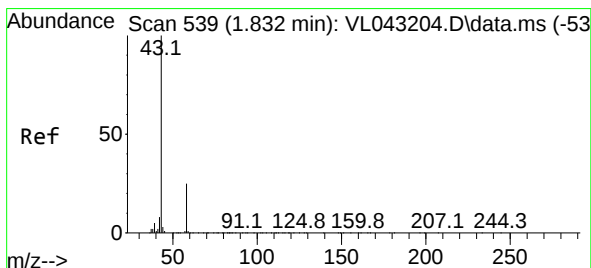
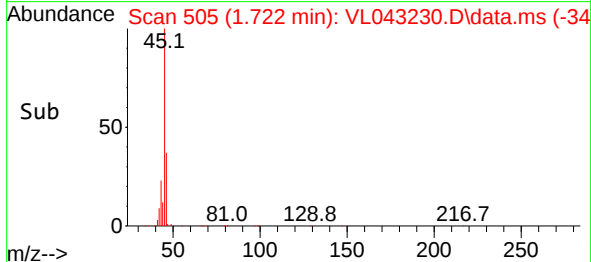
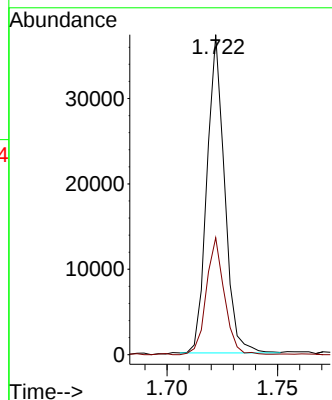
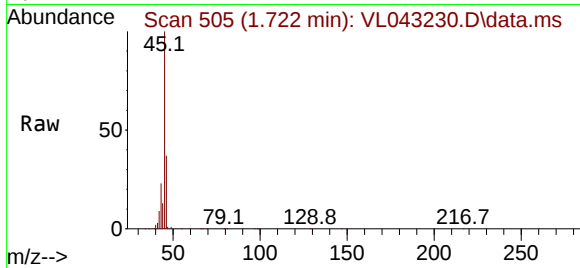




#13
Ethanol
Concen: 10.560 ppbv
RT: 1.722 min Scan# 50
Delta R.T. 0.006 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

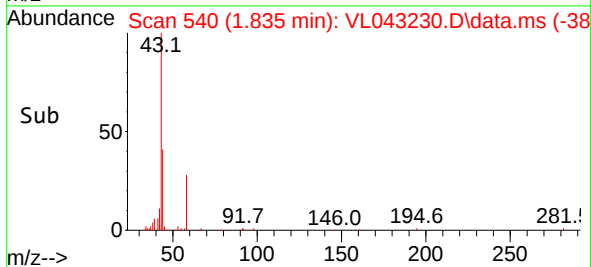
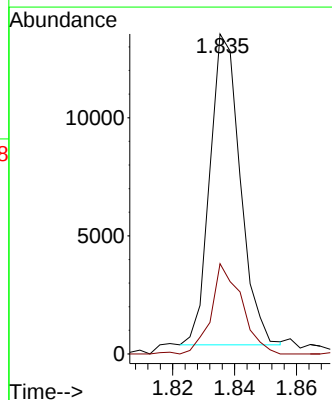
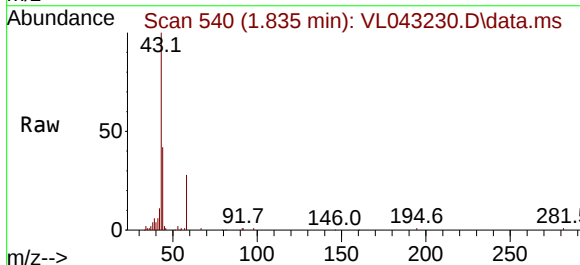
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

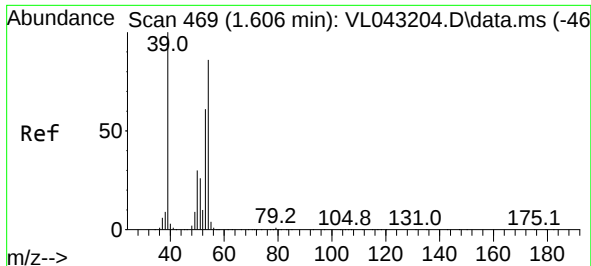
Tgt Ion: 45 Resp: 20611
Ion Ratio Lower Upper
45 100
46 39.0 15.0 59.8



#15
Acetone
Concen: 0.684 ppbv
RT: 1.835 min Scan# 540
Delta R.T. 0.003 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 43 Resp: 8957
Ion Ratio Lower Upper
43 100
58 29.7 20.7 31.1

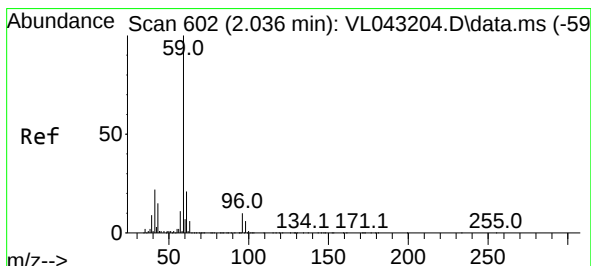
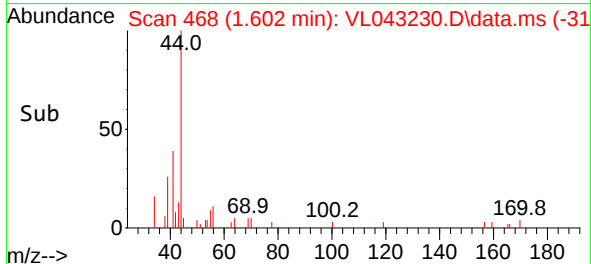
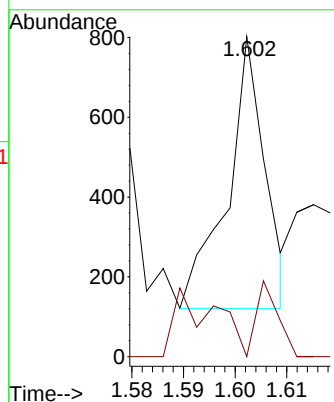
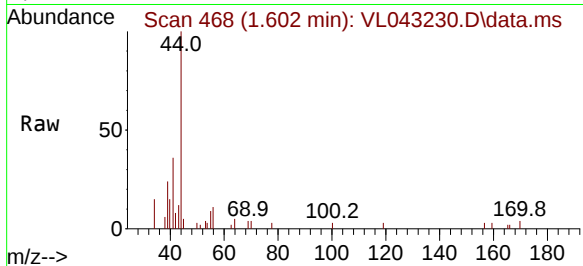




#16
1,3-Butadiene
Concen: 0.059 ppbv
RT: 1.602 min Scan# 468
Delta R.T. -0.004 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

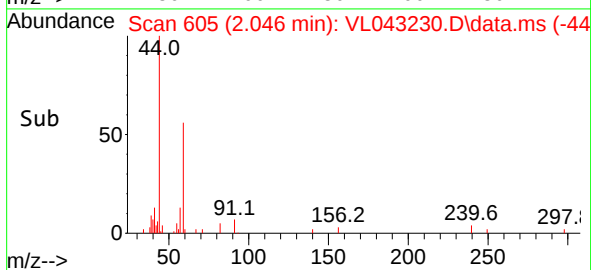
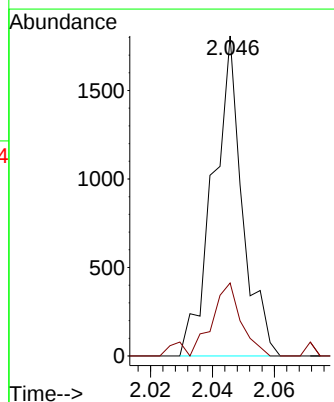
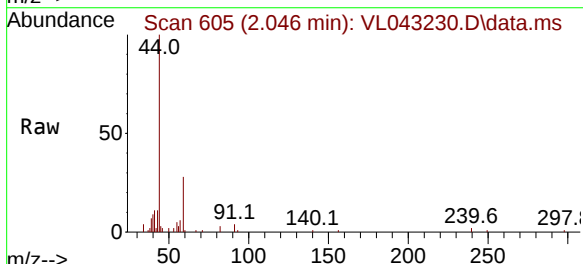
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

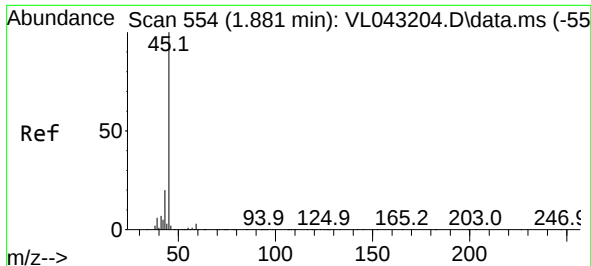
Tgt Ion: 39 Resp: 345
Ion Ratio Lower Upper
39 100
54 43.2 59.4 89.2#



#17
tert-Butyl alcohol
Concen: 0.069 ppbv
RT: 2.046 min Scan# 605
Delta R.T. 0.009 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 59 Resp: 1188
Ion Ratio Lower Upper
59 100
57 25.8 9.0 13.4#

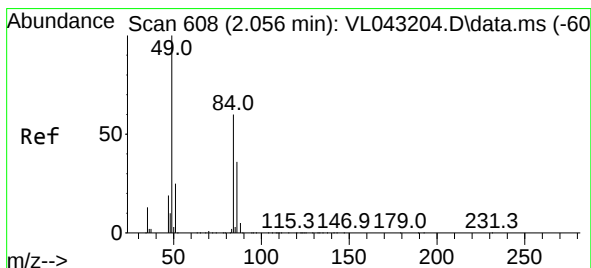
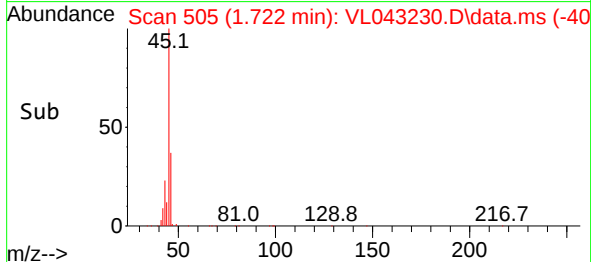
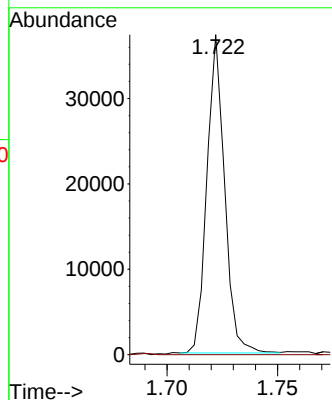
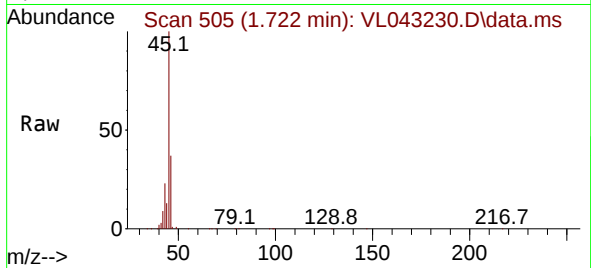




#19
Isopropyl Alcohol
Concen: 2.786 ppbv
RT: 1.722 min Scan# 50
Delta R.T. -0.159 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

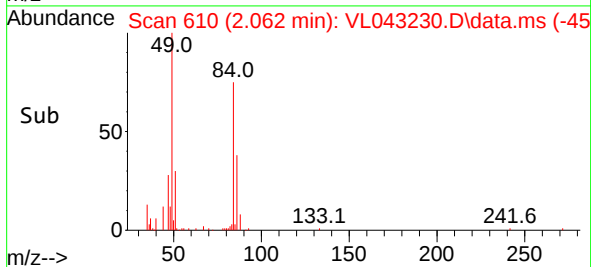
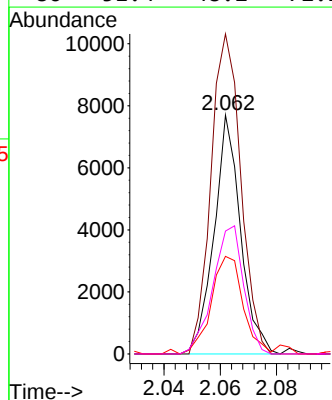
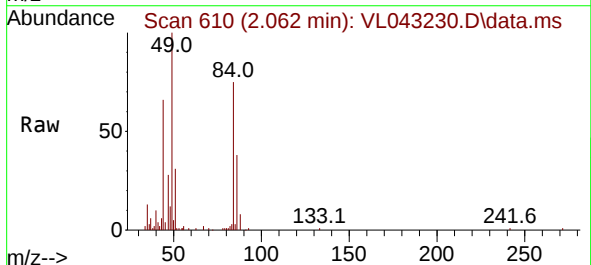
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

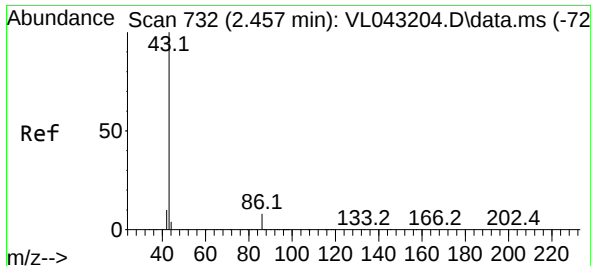
Tgt Ion: 45 Resp: 20611
Ion Ratio Lower Upper
45 100
58 0.6 31.3 46.9#



#20
Methylene Chloride
Concen: 0.568 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.006 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 84 Resp: 5048
Ion Ratio Lower Upper
84 100
49 133.9 132.9 199.3
51 42.1 34.8 52.2
86 51.4 48.2 72.2

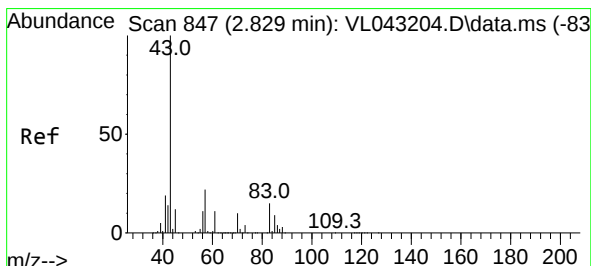
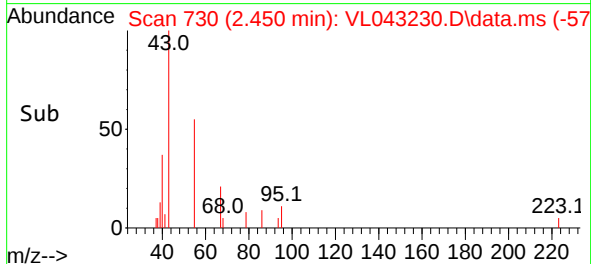
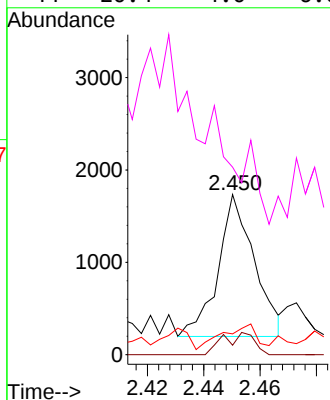
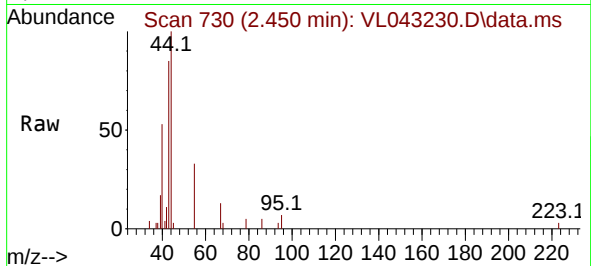




#23
 Vinyl Acetate
 Concen: 0.087 ppbv
 RT: 2.450 min Scan# 713
 Delta R.T. -0.007 min
 Lab File: VL043230.D
 Acq: 19 Nov 2025 00:44

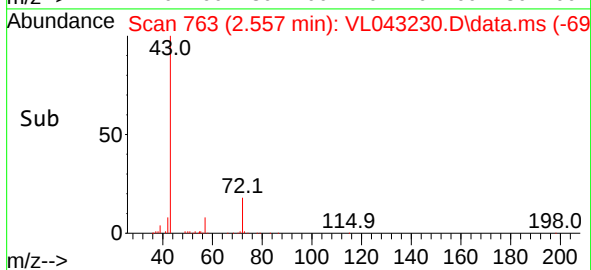
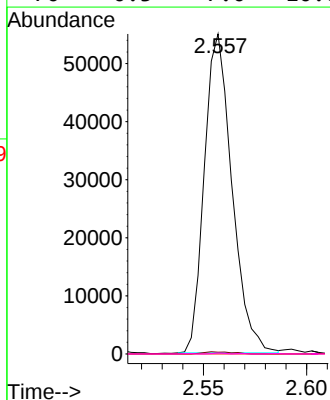
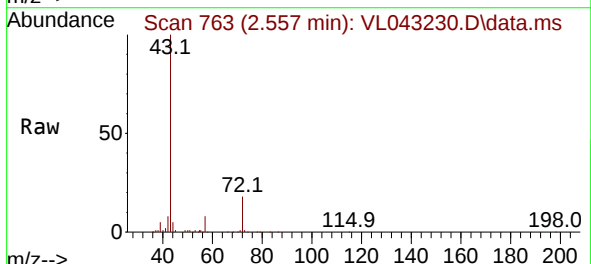
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL

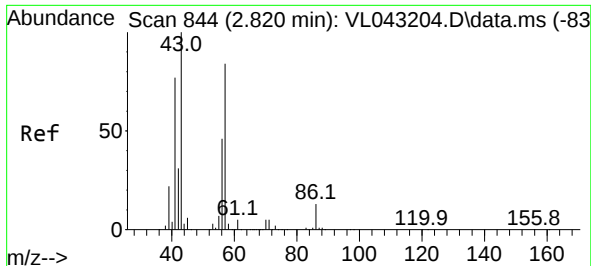
Tgt Ion: 43	Resp:	1373	
Ion	Ratio	Lower	Upper
43	100		
86	6.6	6.2	9.2
42	1.3	8.0	12.0#
44	20.4	4.0	6.0#



#25
 Ethyl Acetate
 Concen: 1.812 ppbv
 RT: 2.557 min Scan# 763
 Delta R.T. -0.272 min
 Lab File: VL043230.D
 Acq: 19 Nov 2025 00:44

Tgt	Ion: 43	Resp:	51160
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.1	12.1#
61	0.0	7.0	10.4#
70	0.3	7.0	10.6#

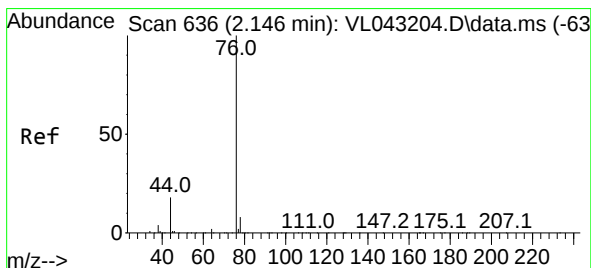
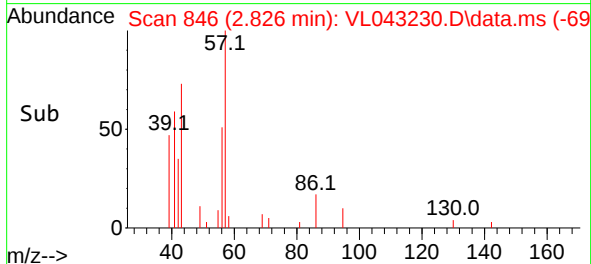
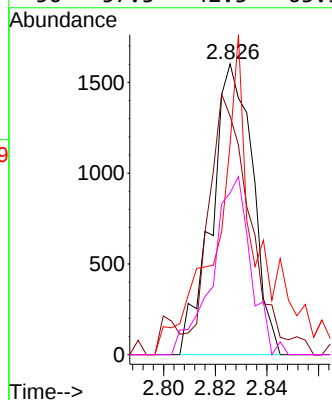
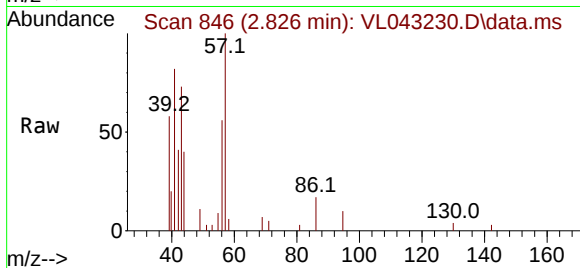




#26
Hexane
Concen: 0.142 ppbv
RT: 2.826 min Scan# 844
Delta R.T. 0.006 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

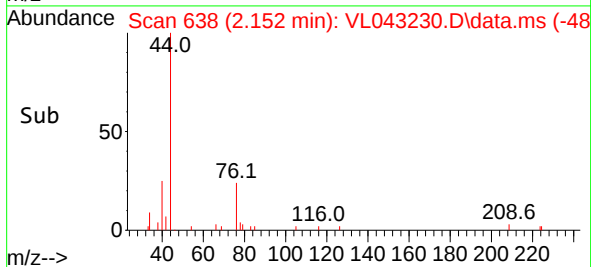
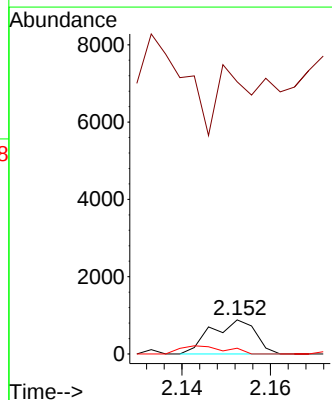
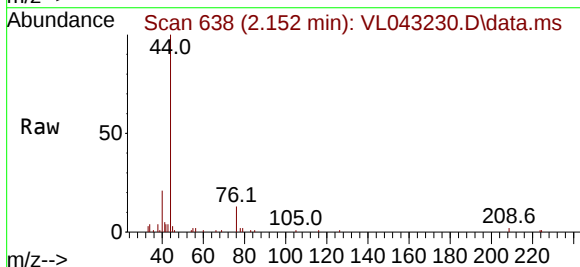
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

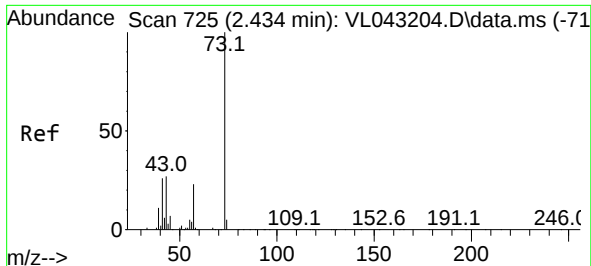
Tgt Ion: 57	Resp: 1760		
Ion	Ratio	Lower	Upper
57	100		
41	101.3	74.6	111.8
43	111.3	179.0	268.4#
56	57.3	42.3	63.5



#27
Carbon Disulfide
Concen: 0.049 ppbv
RT: 2.152 min Scan# 638
Delta R.T. 0.006 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 76	Resp: 617		
Ion Ratio	Lower	Upper	
76 100			
44 0.0	16.1	24.1#	
78 24.3	9.6	14.4#	





#28

Methyl tert-Butyl Ether

Concen: 0.082 ppbv

RT: 2.554 min Scan# 70

Delta R.T. 0.119 min

Lab File: VL043230.D

Acq: 19 Nov 2025 00:44

Instrument :

MSVOA_L

ClientSampleId :

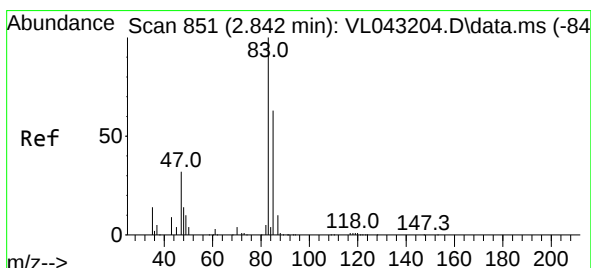
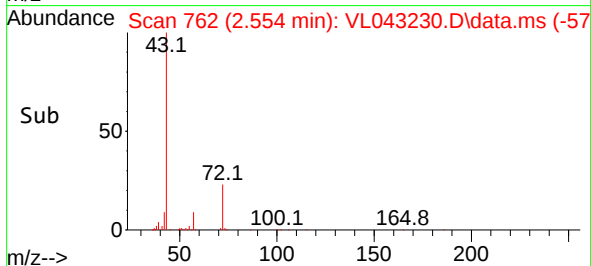
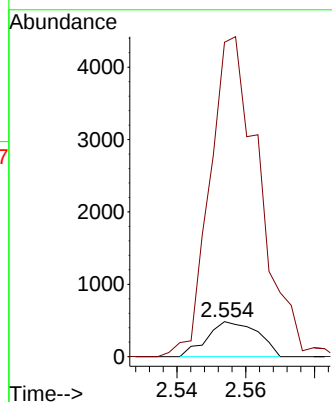
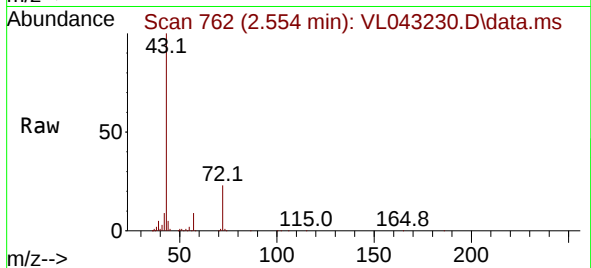
IA3DL

Tgt Ion: 73 Resp: 497

Ion Ratio Lower Upper

73 100

57 933.6 19.8 29.8#



#29

Chloroform

Concen: 0.037 ppbv

RT: 2.845 min Scan# 852

Delta R.T. 0.003 min

Lab File: VL043230.D

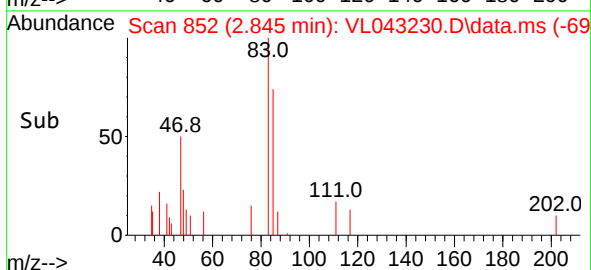
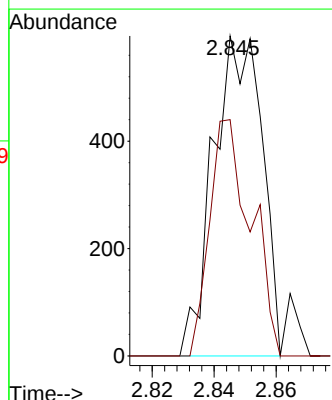
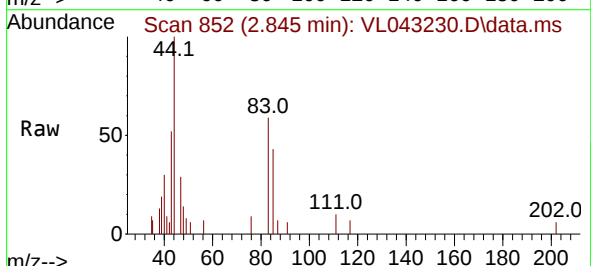
Acq: 19 Nov 2025 00:44

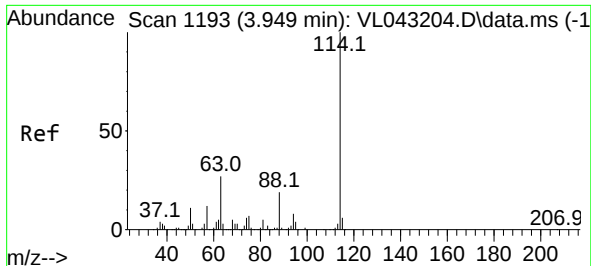
Tgt Ion: 83 Resp: 652

Ion Ratio Lower Upper

83 100

85 73.8 50.5 75.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1193

Delta R.T. 0.006 min

Lab File: VL043230.D

Acq: 19 Nov 2025 00:44

Instrument :

MSVOA_L

ClientSampleId :

IA3DL

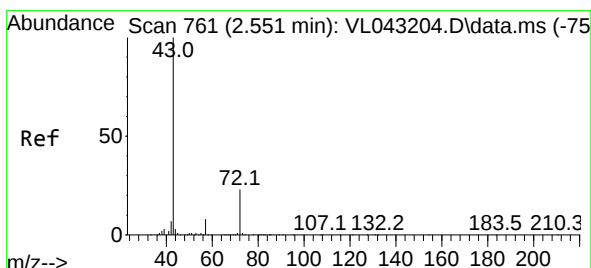
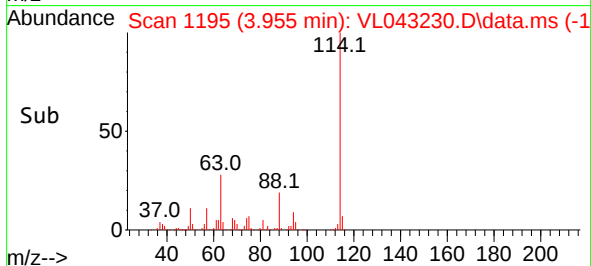
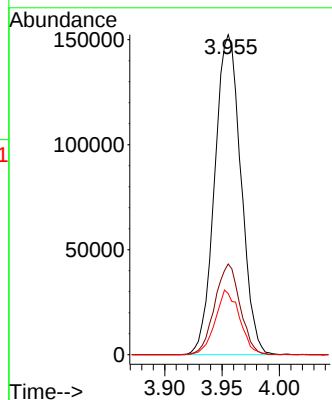
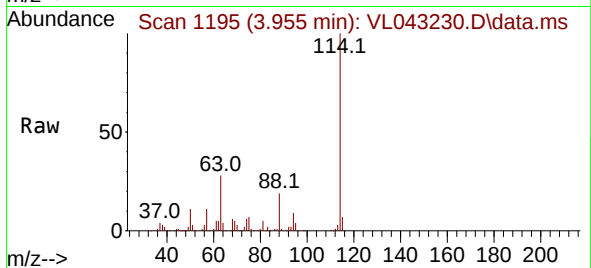
Tgt Ion:114 Resp: 242243

Ion Ratio Lower Upper

114 100

63 27.5 21.0 31.6

88 18.8 14.9 22.3



#34

2-Butanone

Concen: 2.992 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043230.D

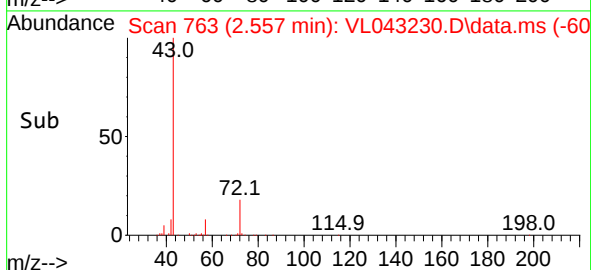
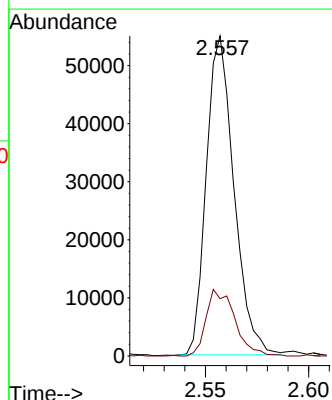
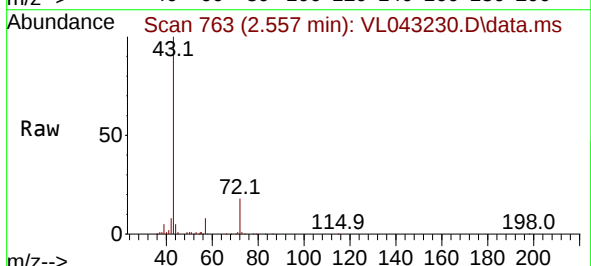
Acq: 19 Nov 2025 00:44

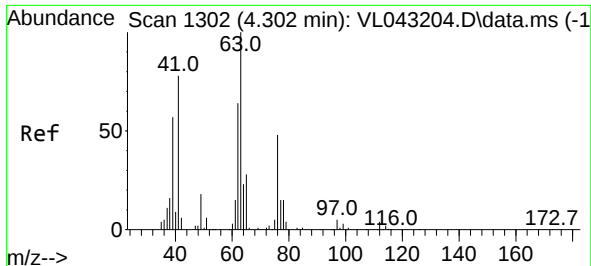
Tgt Ion: 43 Resp: 51160

Ion Ratio Lower Upper

43 100

72 21.8 18.1 27.1





#39

1,2-Dichloropropane

Concen: 7.824 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.347 min

Lab File: VL043230.D

Acq: 19 Nov 2025 00:44

Instrument :

MSVOA_L

ClientSampleId :

IA3DL

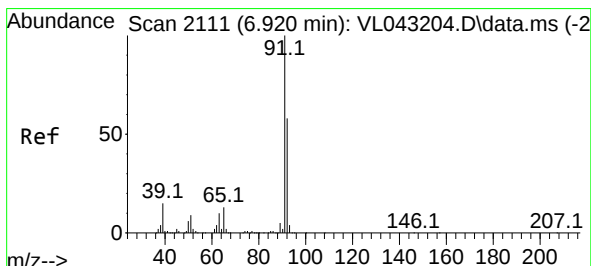
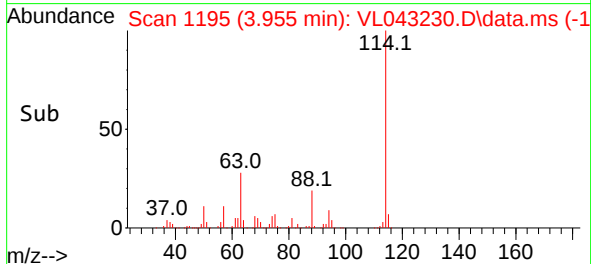
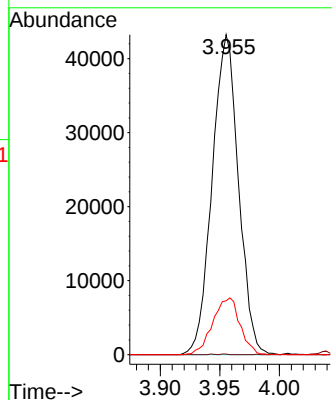
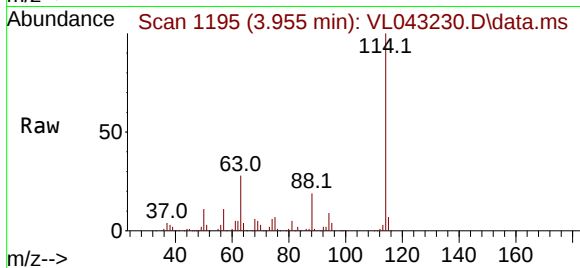
Tgt Ion: 63 Resp: 66436

Ion Ratio Lower Upper

63 100

41 0.2 62.6 93.8#

62 16.8 51.0 76.6#



#53

Toluene

Concen: 5.912 ppbv

RT: 6.927 min Scan# 2113

Delta R.T. 0.006 min

Lab File: VL043230.D

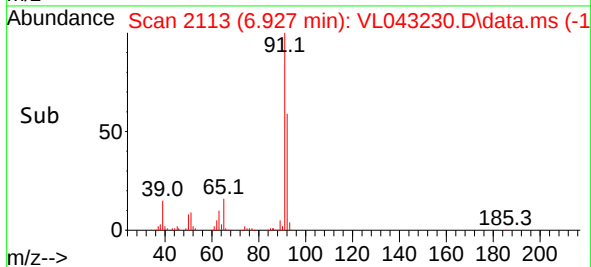
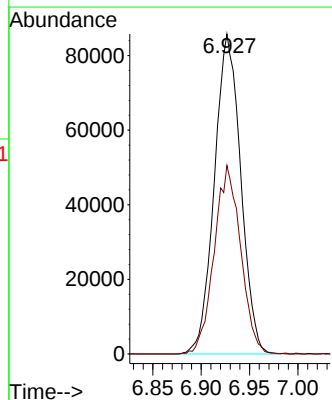
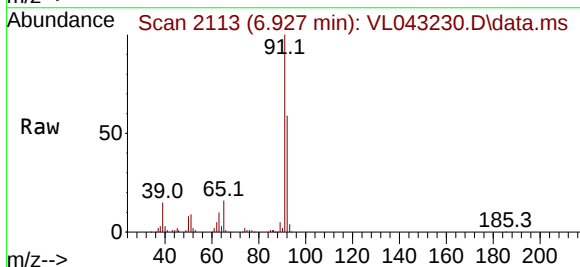
Acq: 19 Nov 2025 00:44

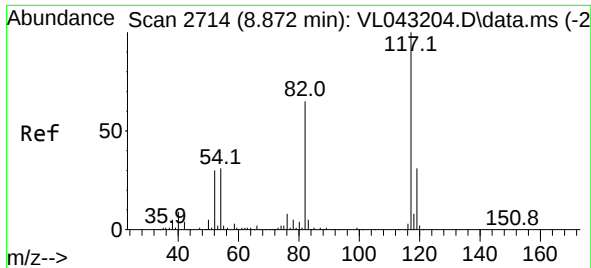
Tgt Ion: 91 Resp: 162410

Ion Ratio Lower Upper

91 100

92 59.1 47.4 71.0

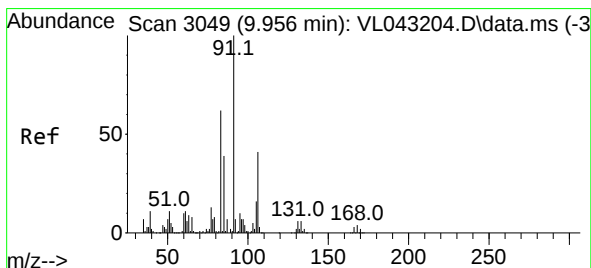
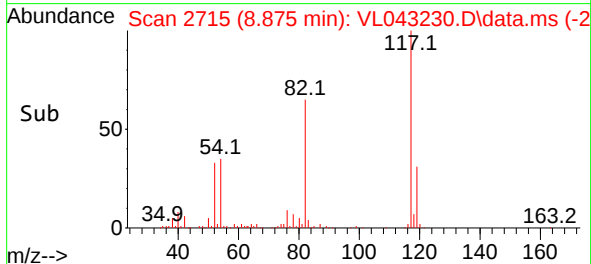
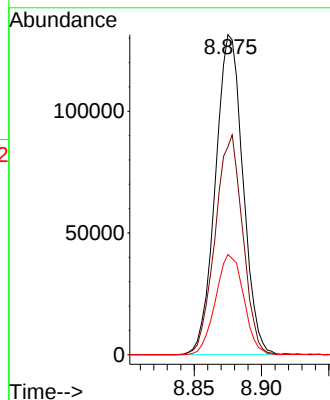
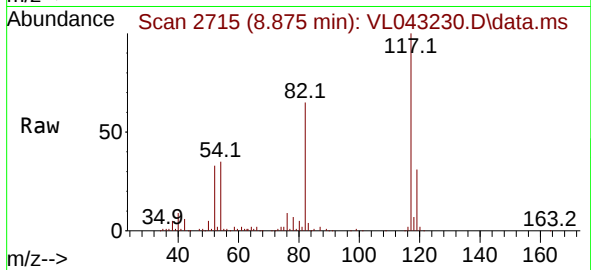




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

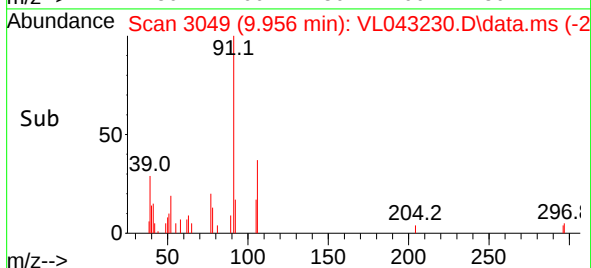
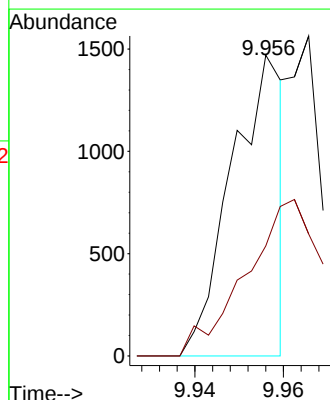
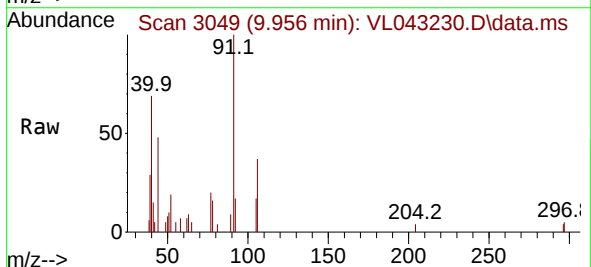
Instrument :
MSVOA_L
ClientSampleId :
IA3DL

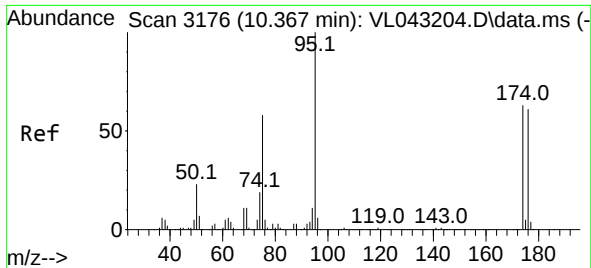
Tgt Ion:117 Resp: 186991
Ion Ratio Lower Upper
117 100
82 68.7 56.1 84.1
119 32.0 25.0 37.6



#60
o-Xylene
Concen: 0.041 ppbv
RT: 9.956 min Scan# 3049
Delta R.T. -0.000 min
Lab File: VL043230.D
Acq: 19 Nov 2025 00:44

Tgt Ion: 91 Resp: 1187
Ion Ratio Lower Upper
91 100
106 0.0 20.9 62.8#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.358 ppbv
 RT: 10.370 min Scan# 31
 Delta R.T. 0.003 min
 Lab File: VL043230.D
 Acq: 19 Nov 2025 00:44

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3DL

Tgt Ion: 95 Resp: 141972
 Ion Ratio Lower Upper
 95 100
 174 57.4 50.2 75.2
 175 4.4 4.1 6.1

