

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042125\
 Data File : VL042411.D
 Acq On : 21 Apr 2025 19:16
 Operator : SY/MD
 Sample : Q1843-01DUP 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DUP

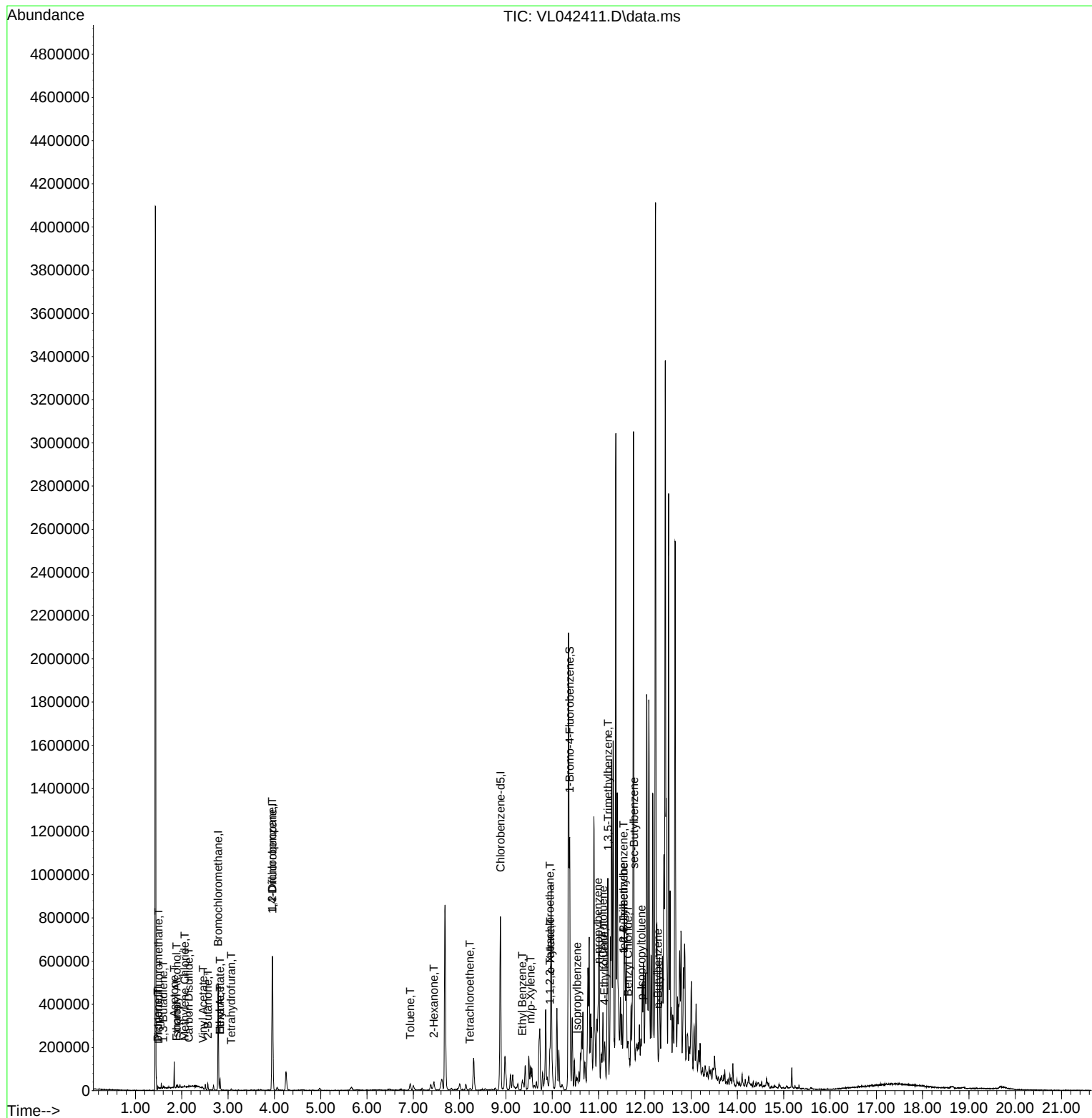
Quant Time: Apr 22 02:57:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 18 02:14:00 2025
 Response via : Initial Calibration

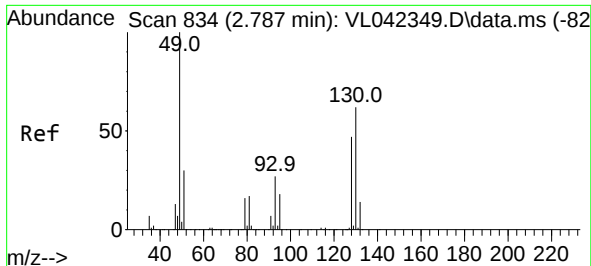
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.784	49	129760	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	357552	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.882	117	305947	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	265917	10.577	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.800%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	958	0.042	ppbv #	71
9) Propene	1.483	41	2390	0.240	ppbv	97
13) Ethanol	1.887	45	4397	2.782	ppbv #	24
15) Acetone	1.835	43	48083	2.264	ppbv	93
16) 1,3-Butadiene	1.602	39	1806	0.178	ppbv #	52
19) Isopropyl Alcohol	1.887	45	4397	0.373	ppbv #	1
20) Methylene Chloride	2.062	84	1394	0.168	ppbv	87
23) Vinyl Acetate	2.457	43	604	0.070	ppbv #	1
25) Ethyl Acetate	2.823	43	8057	0.154	ppbv #	77
26) Hexane	2.823	57	12264	0.579	ppbv #	34
27) Carbon Disulfide	2.149	76	784	0.035	ppbv #	1
34) 2-Butanone	2.560	43	17917	0.634	ppbv	100
39) 1,2-Dichloropropane	3.955	63	98573	6.859	ppbv #	23
41) Tetrahydrofuran	3.065	42	1170	0.071	ppbv #	47
51) 2-Hexanone	7.441	43	25099	0.596	ppbv #	87
52) Tetrachloroethene	8.221	164	675	0.045	ppbv #	71
53) Toluene	6.936	91	10691	0.231	ppbv #	29
58) Ethyl Benzene	9.354	91	21310	0.352	ppbv	98
59) m/p-Xylene	9.532	91	56104	1.149	ppbv	100
60) o-Xylene	9.963	91	30668	0.624	ppbv	99
62) Isopropylbenzene	10.539	105	14907	0.206	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.950	83	3522	0.111	ppbv #	25
64) n-propylbenzene	10.989	120	10199	0.562	ppbv	88
65) tert-Butylbenzene	11.539	119	12433	0.187	ppbv #	47
66) Benzyl Chloride	11.639	91	485	0.067	ppbv #	1
67) sec-Butylbenzene	11.769	105	30792	0.334	ppbv	100
69) p-Isopropyltoluene	11.927	119	15604	0.195	ppbv	97
70) n-Butylbenzene	12.283	91	9379	0.112	ppbv #	77
71) 2-Chlorotoluene	11.095	91	13468	0.238	ppbv	75
72) 4-Ethyltoluene	11.125	105	34385	0.572	ppbv #	56
73) 1,3,5-Trimethylbenzene	11.205	105	40995	0.772	ppbv	92
74) 1,2,4-Trimethylbenzene	11.539	105	106231	1.714	ppbv #	62

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

Quant Time: Apr 22 02:57:47 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Apr 18 02:14:00 2025
Response via : Initial Calibration

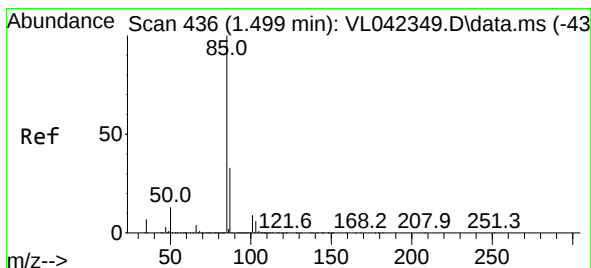
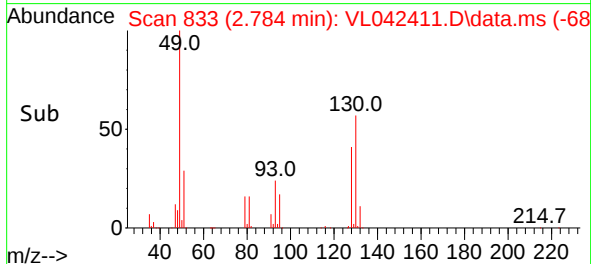
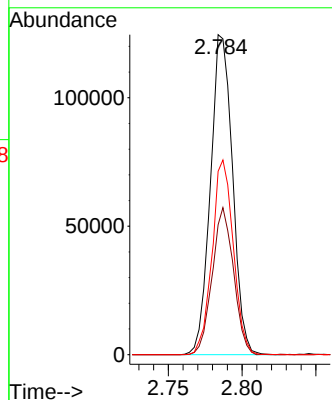
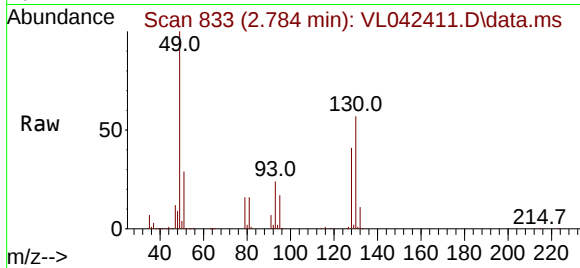




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.784 min Scan# 81
 Delta R.T. -0.003 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

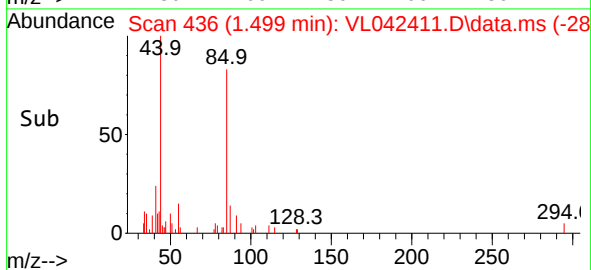
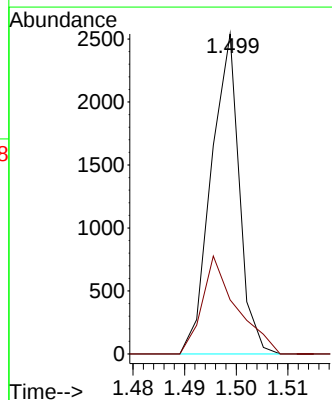
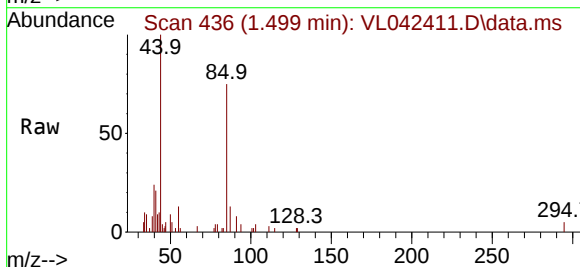
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DUP

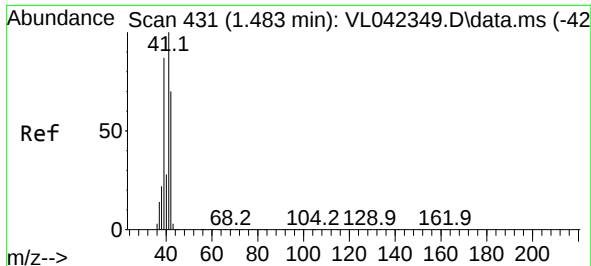
Tgt Ion: 49 Resp: 129760
 Ion Ratio Lower Upper
 49 100
 128 44.4 22.8 68.4
 130 58.4 29.3 88.0



#2
 Dichlorodifluoromethane
 Concen: 0.042 ppbv
 RT: 1.499 min Scan# 436
 Delta R.T. 0.000 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

Tgt Ion: 85 Resp: 958
 Ion Ratio Lower Upper
 85 100
 87 16.9 26.6 39.8#

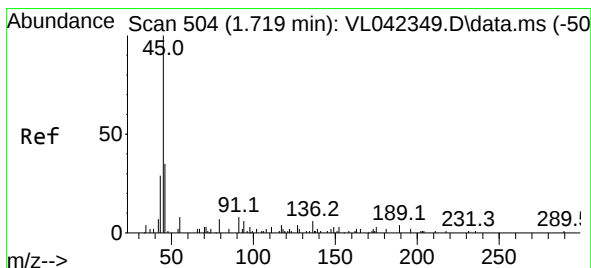
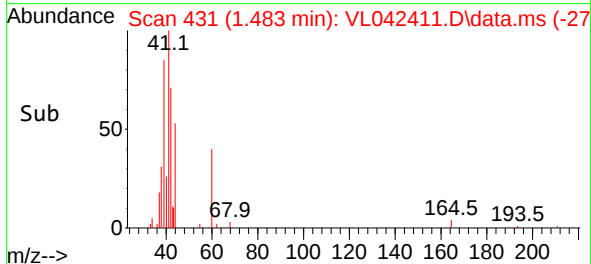
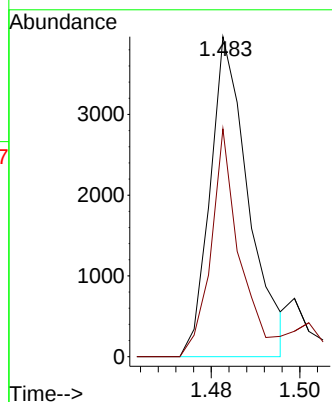
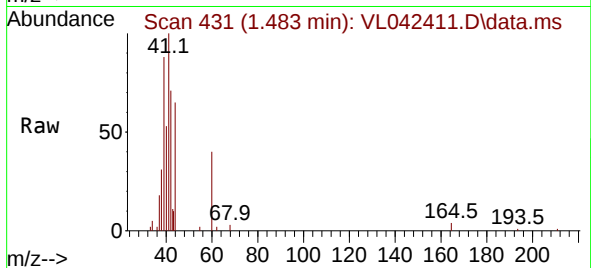




#9
Propene
Concen: 0.240 ppbv
RT: 1.483 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

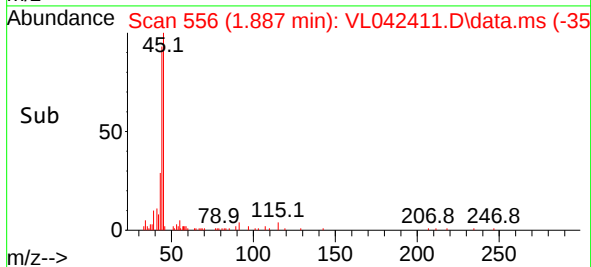
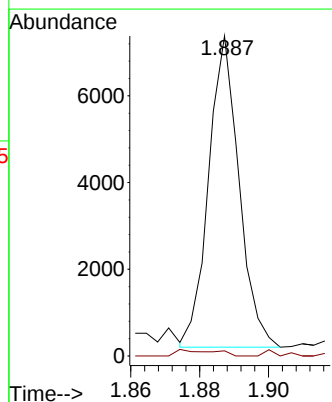
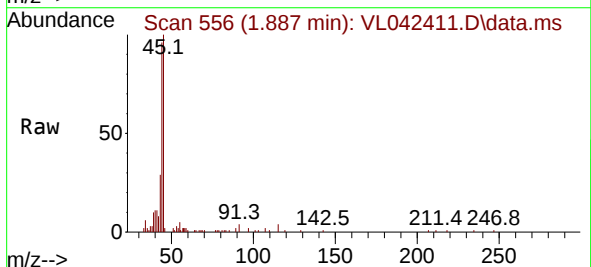
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

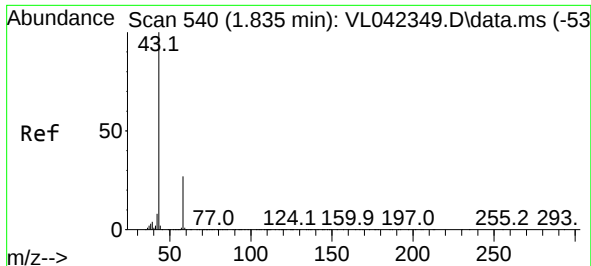
Tgt Ion: 41 Resp: 2390
Ion Ratio Lower Upper
41 100
42 67.7 56.2 84.4



#13
Ethanol
Concen: 2.782 ppbv
RT: 1.887 min Scan# 556
Delta R.T. 0.168 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 45 Resp: 4397
Ion Ratio Lower Upper
45 100
46 0.0 21.9 87.7#





#15

Acetone

Concen: 2.264 ppbv

RT: 1.835 min Scan# 54

Delta R.T. 0.000 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

Instrument :

MSVOA_L

ClientSampleId :

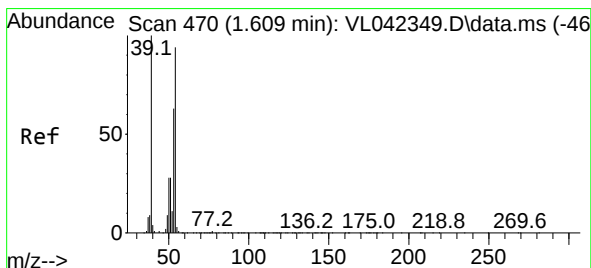
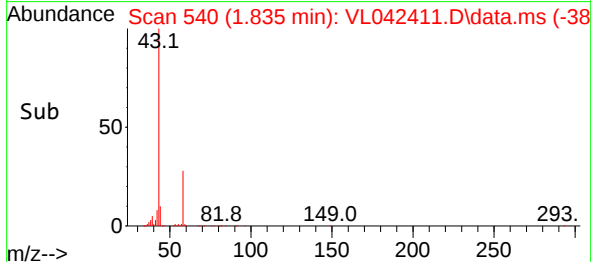
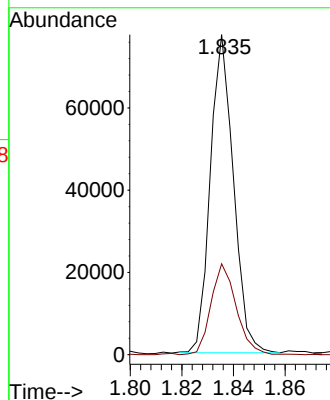
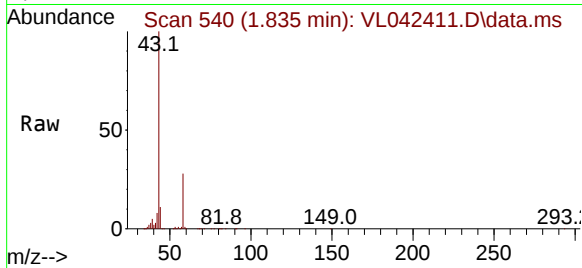
SV1DUP

Tgt Ion: 43 Resp: 48083

Ion Ratio Lower Upper

43 100

58 31.6 22.4 33.6



#16

1,3-Butadiene

Concen: 0.178 ppbv

RT: 1.602 min Scan# 468

Delta R.T. -0.006 min

Lab File: VL042411.D

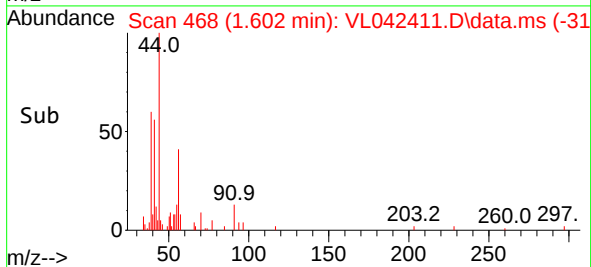
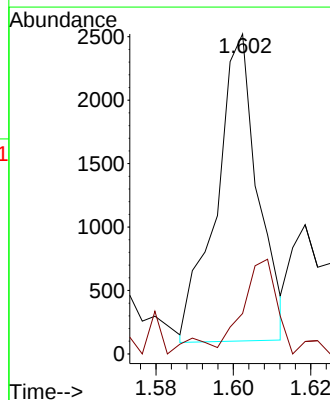
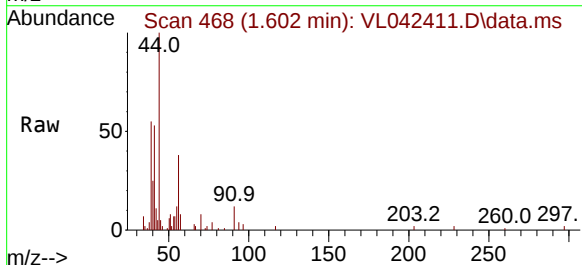
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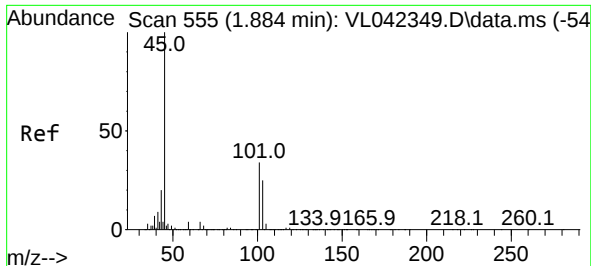
Tgt Ion: 39 Resp: 1806

Ion Ratio Lower Upper

39 100

54 38.5 64.9 97.3#

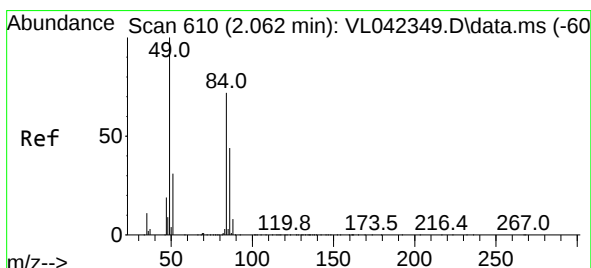
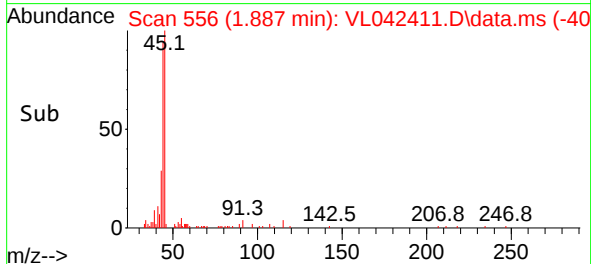
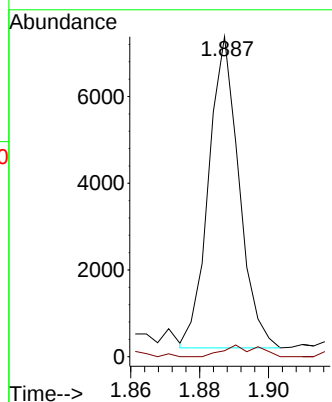
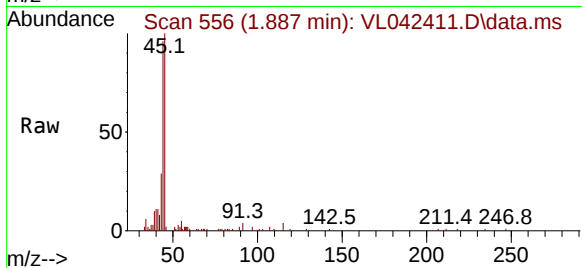




#19
Isopropyl Alcohol
Concen: 0.373 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.003 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

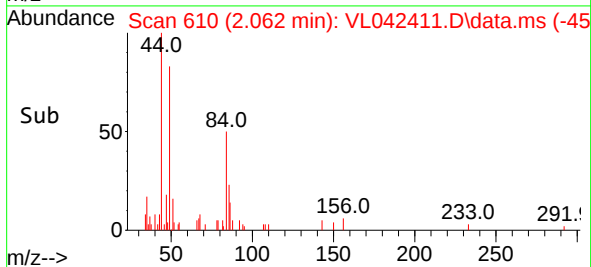
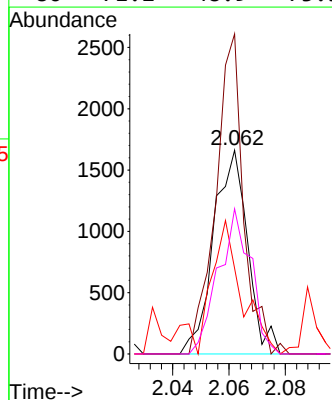
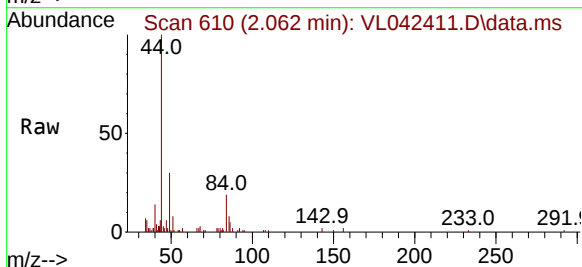
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

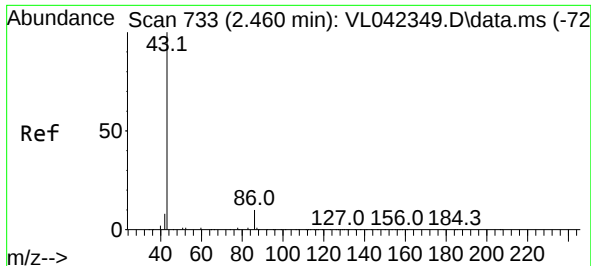
Tgt Ion: 45 Resp: 4397
Ion Ratio Lower Upper
45 100
58 345.1 34.5 51.7#



#20
Methylene Chloride
Concen: 0.168 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 84 Resp: 1394
Ion Ratio Lower Upper
84 100
49 157.0 111.6 167.4
51 48.9 35.1 52.7
86 71.2 48.9 73.3

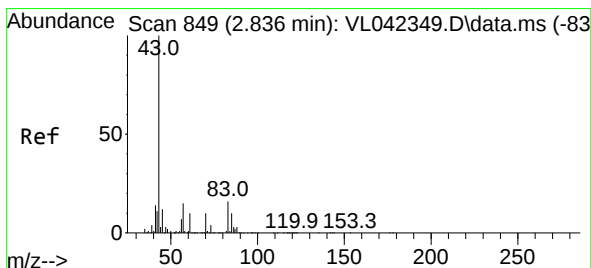
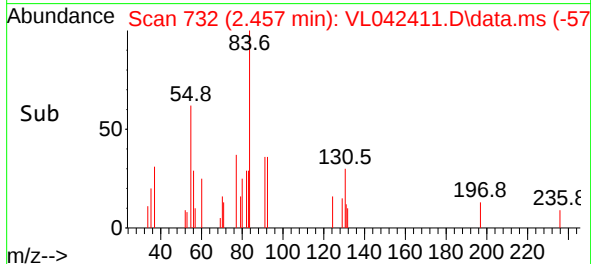
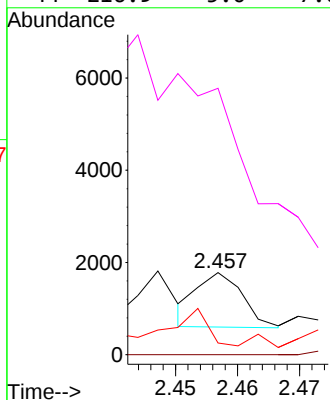
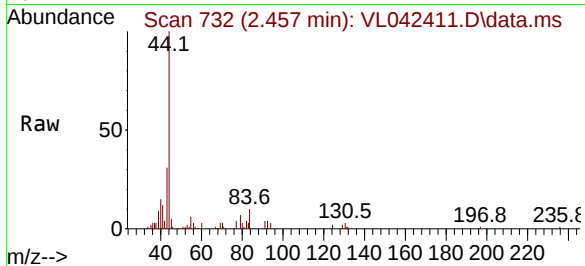




#23
Vinyl Acetate
Concen: 0.070 ppbv
RT: 2.457 min Scan# 71
Delta R.T. -0.003 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

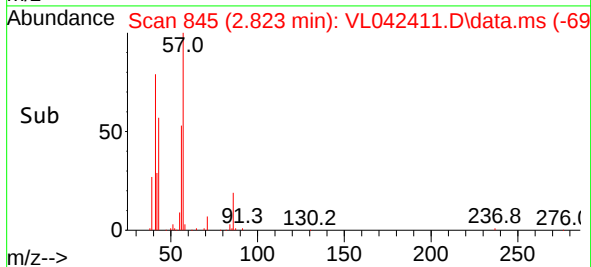
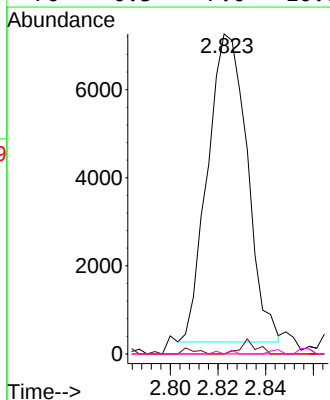
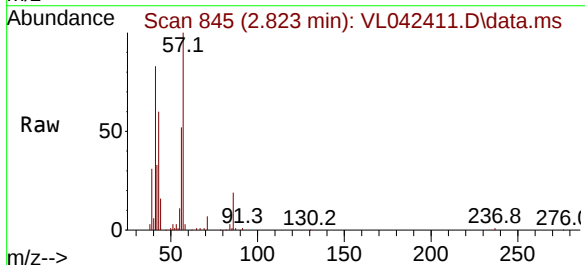
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

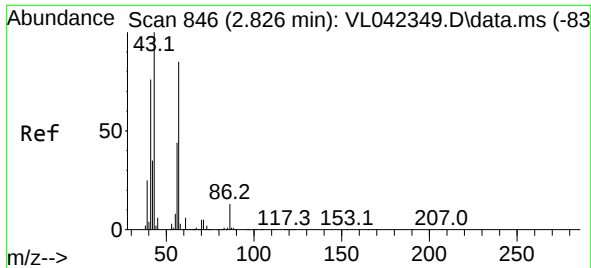
Tgt Ion: 43 Resp: 604
Ion Ratio Lower Upper
43 100
86 0.0 6.5 9.7#
42 8.6 7.8 11.8
44 216.9 5.0 7.6#



#25
Ethyl Acetate
Concen: 0.154 ppbv
RT: 2.823 min Scan# 845
Delta R.T. -0.013 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 43 Resp: 8057
Ion Ratio Lower Upper
43 100
45 2.5 8.3 12.5#
61 0.0 7.3 10.9#
70 0.3 7.0 10.6#

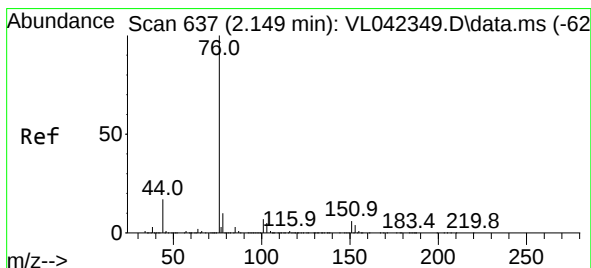
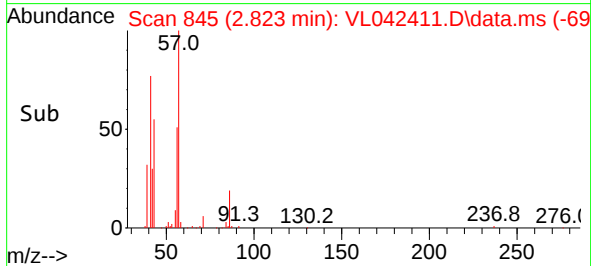
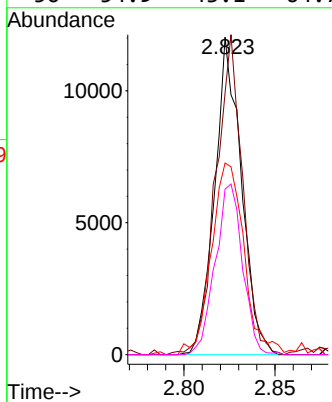
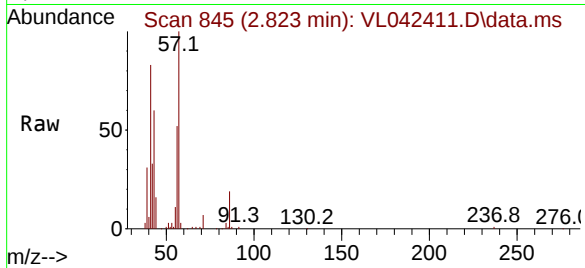




#26
Hexane
Concen: 0.579 ppbv
RT: 2.823 min Scan# 846
Delta R.T. -0.003 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

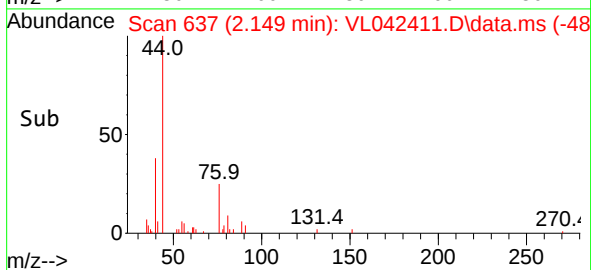
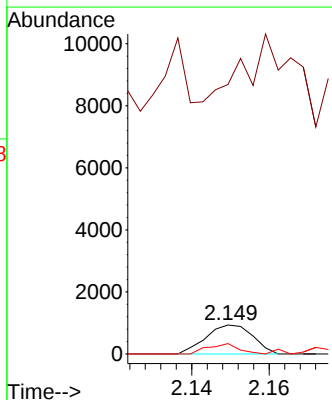
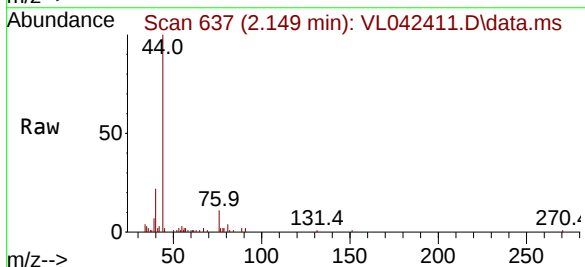
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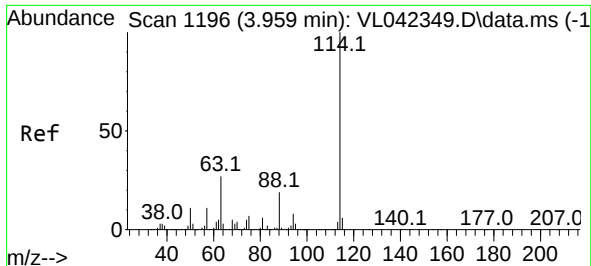
Tgt Ion: 57 Resp: 12264
Ion Ratio Lower Upper
57 100
41 100.5 77.9 116.9
43 76.1 208.4 312.6#
56 54.9 43.1 64.7



#27
Carbon Disulfide
Concen: 0.035 ppbv
RT: 2.149 min Scan# 637
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 76 Resp: 784
Ion Ratio Lower Upper
76 100
44 1328.2 15.5 23.3#
78 0.0 9.3 13.9#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.959 min Scan# 1196

Delta R.T. 0.000 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

Instrument :

MSVOA_L

ClientSampleId :

SV1DUP

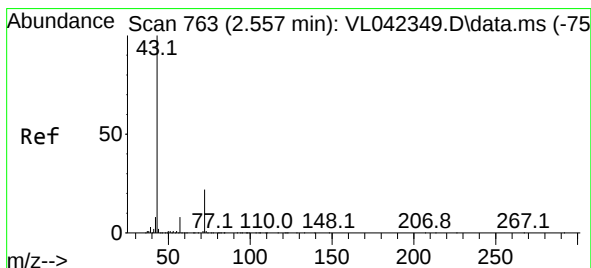
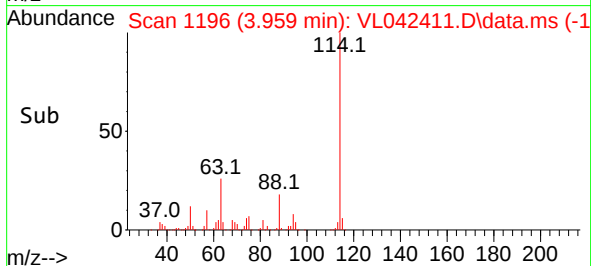
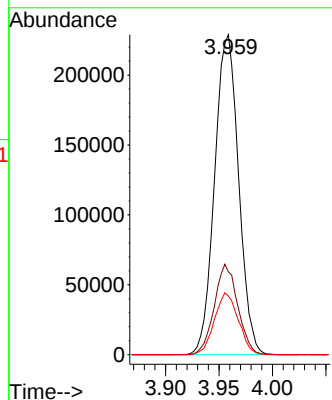
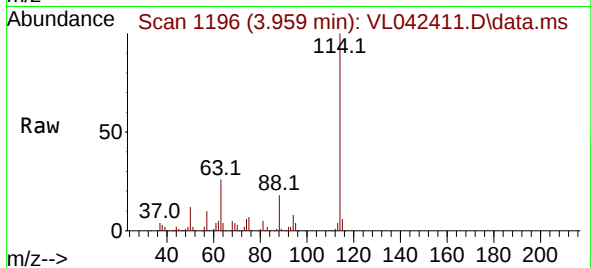
Tgt Ion:114 Resp: 357552

Ion Ratio Lower Upper

114 100

63 27.6 21.8 32.6

88 19.2 15.5 23.3



#34

2-Butanone

Concen: 0.634 ppbv

RT: 2.560 min Scan# 764

Delta R.T. 0.003 min

Lab File: VL042411.D

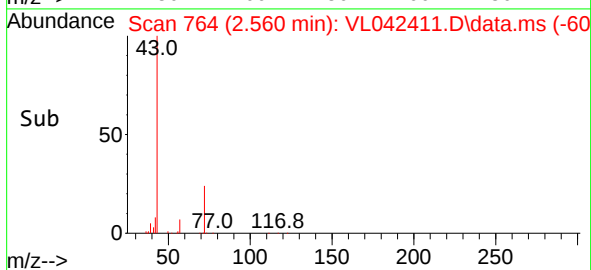
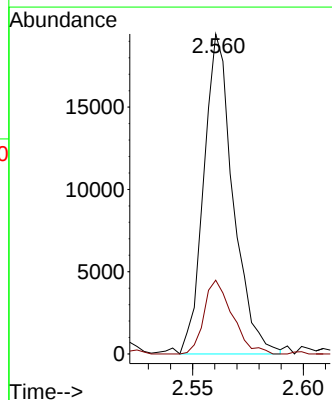
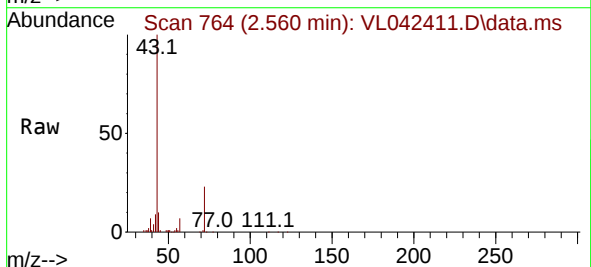
Acq: 21 Apr 2025 19:16

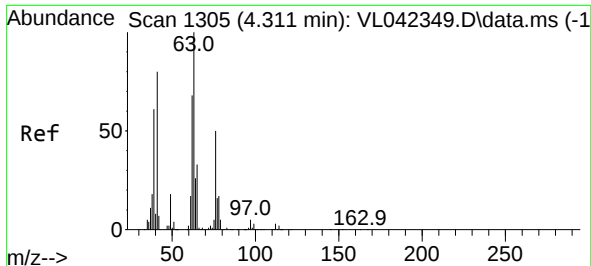
Tgt Ion: 43 Resp: 17917

Ion Ratio Lower Upper

43 100

72 22.5 18.2 27.2





#39

1,2-Dichloropropane

Concen: 6.859 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.356 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

Instrument :

MSVOA_L

ClientSampleId :

SV1DUP

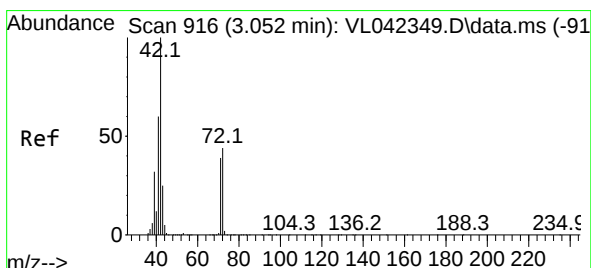
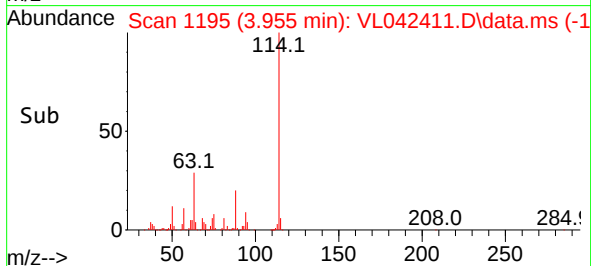
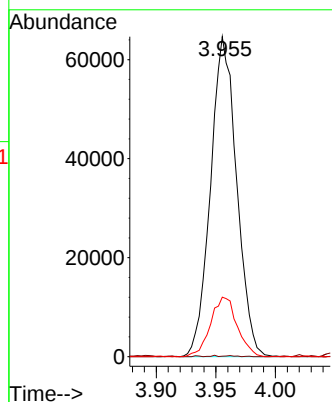
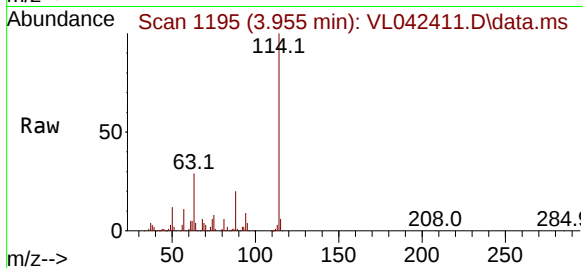
Tgt Ion: 63 Resp: 98573

Ion Ratio Lower Upper

63 100

41 0.2 64.2 96.2#

62 18.6 54.3 81.5#



#41

Tetrahydrofuran

Concen: 0.071 ppbv

RT: 3.065 min Scan# 920

Delta R.T. 0.013 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

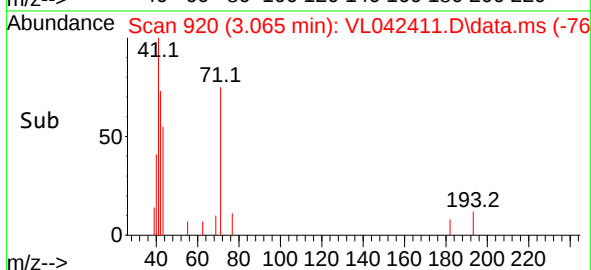
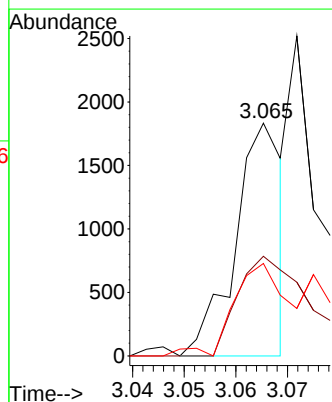
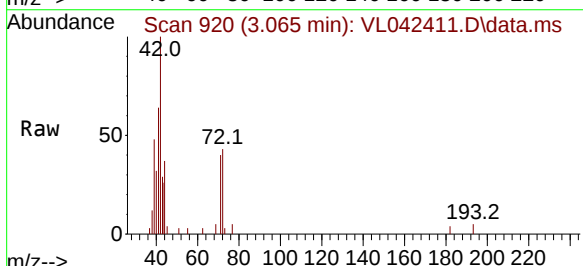
Tgt Ion: 42 Resp: 1170

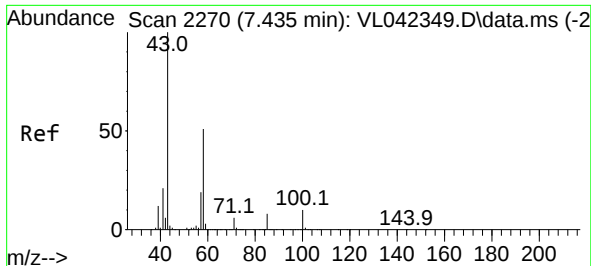
Ion Ratio Lower Upper

42 100

72 69.1 32.3 48.5#

71 76.3 31.4 47.2#

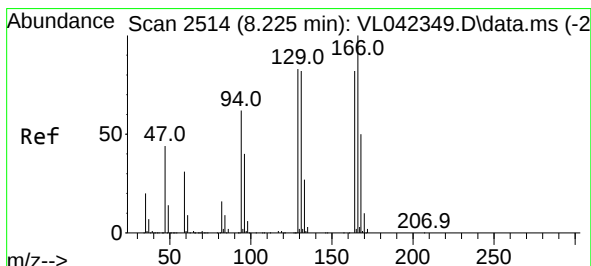
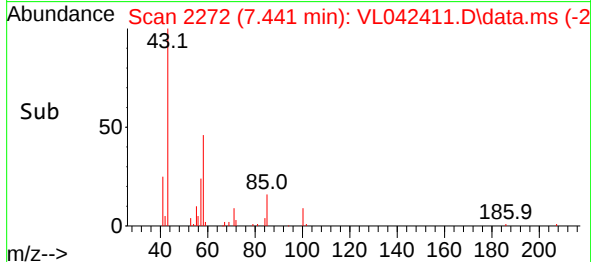
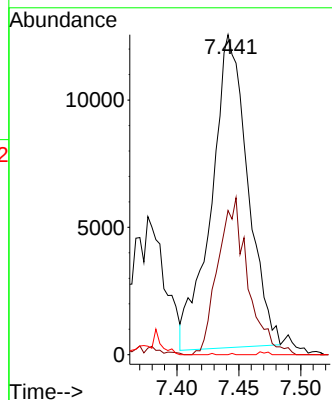
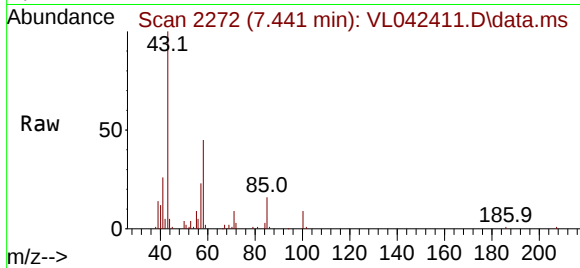




#51
2-Hexanone
Concen: 0.596 ppbv
RT: 7.441 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

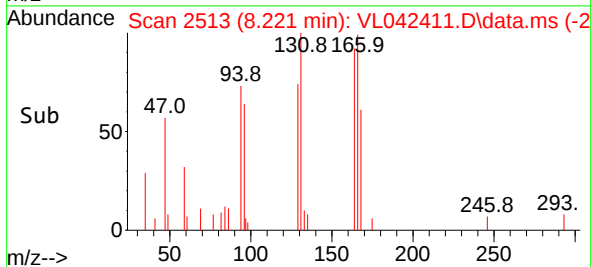
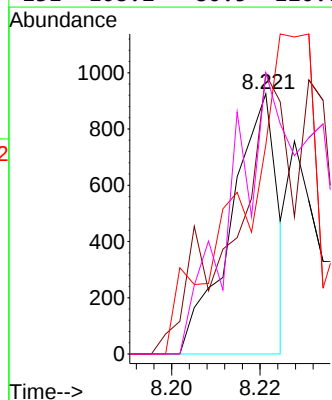
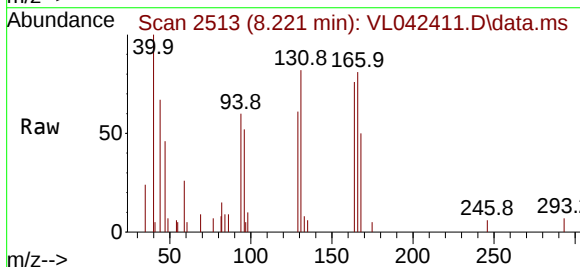
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

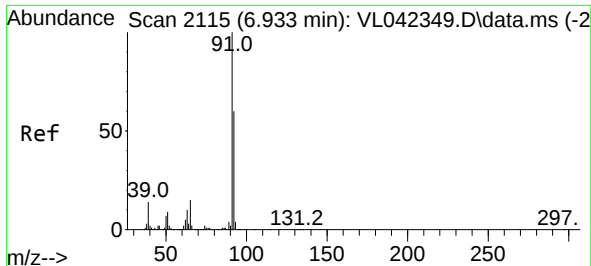
Tgt Ion: 43 Resp: 25099
Ion Ratio Lower Upper
43 100
58 41.4 40.2 60.4
98 0.2 0.1 0.1#



#52
Tetrachloroethene
Concen: 0.045 ppbv
RT: 8.221 min Scan# 2513
Delta R.T. -0.003 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 164 Resp: 675
Ion Ratio Lower Upper
164 100
166 95.0 98.2 147.2#
129 47.1 81.8 122.8#
131 108.2 80.5 120.7

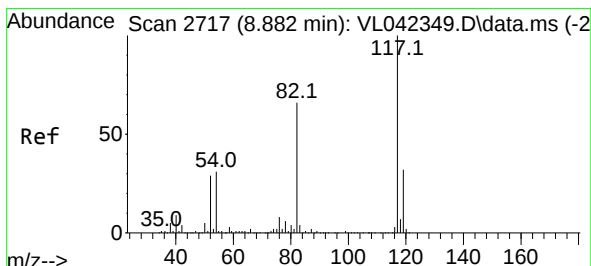
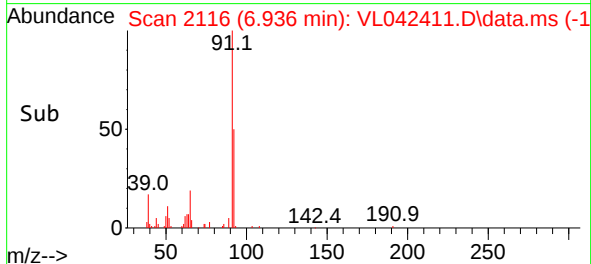
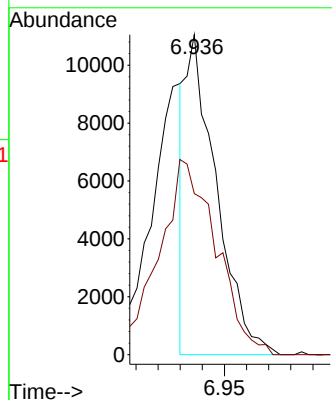
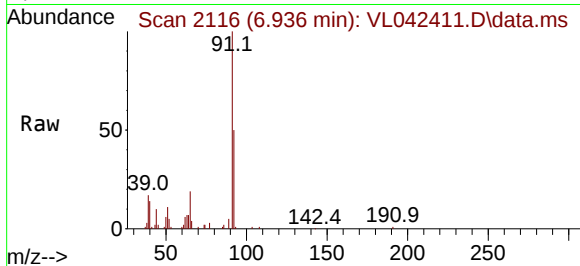




#53
Toluene
Concen: 0.231 ppbv
RT: 6.936 min Scan# 2115
Delta R.T. 0.003 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

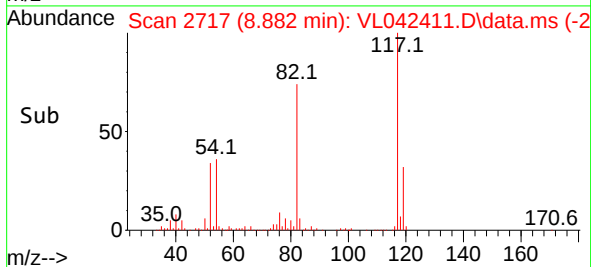
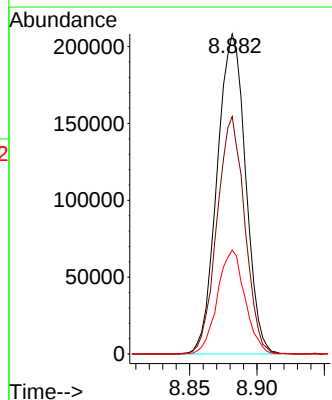
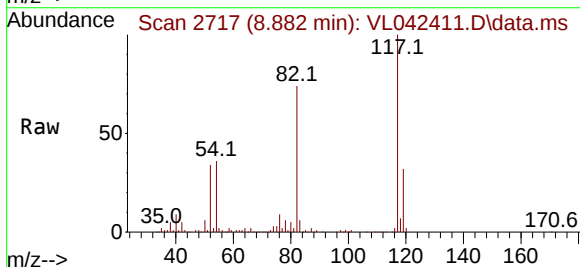
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

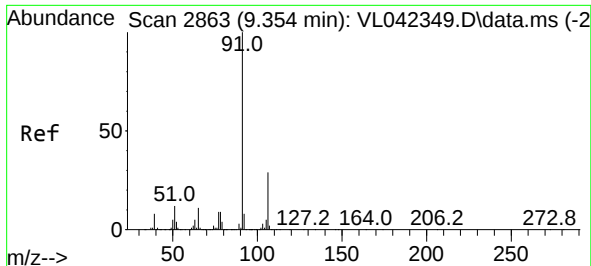
Tgt Ion: 91 Resp: 10691
Ion Ratio Lower Upper
91 100
92 114.1 48.2 72.4#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.882 min Scan# 2717
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 117 Resp: 305947
Ion Ratio Lower Upper
117 100
82 72.3 57.8 86.6
119 31.5 25.2 37.8

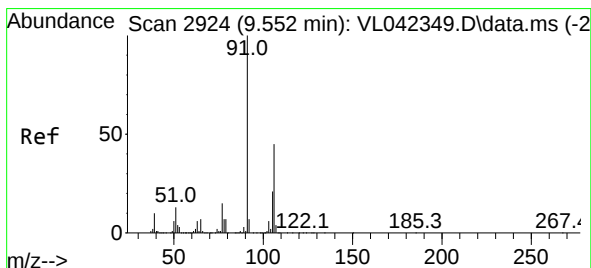
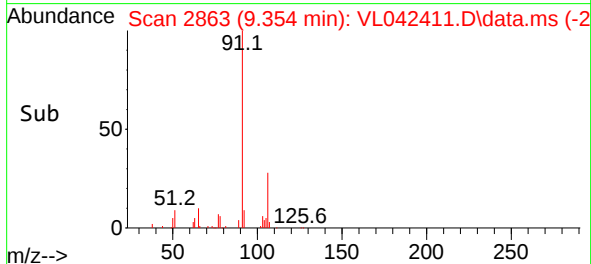
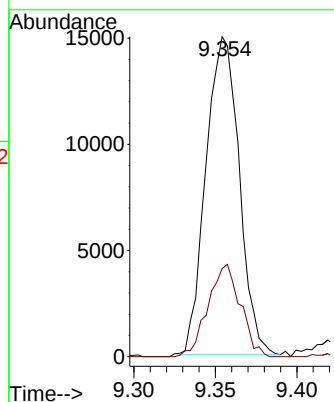
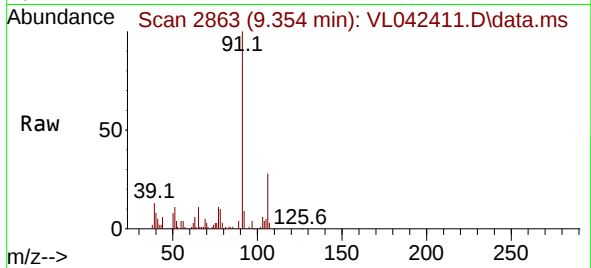




#58
Ethyl Benzene
Concen: 0.352 ppbv
RT: 9.354 min Scan# 2118
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

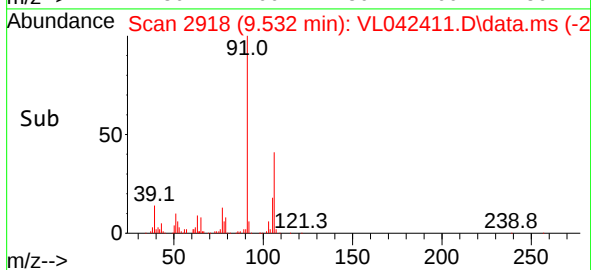
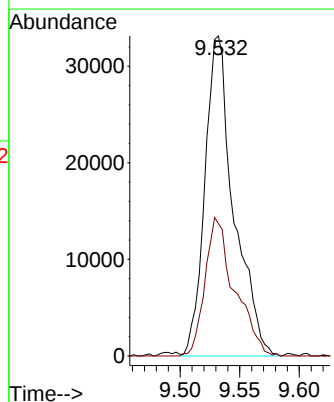
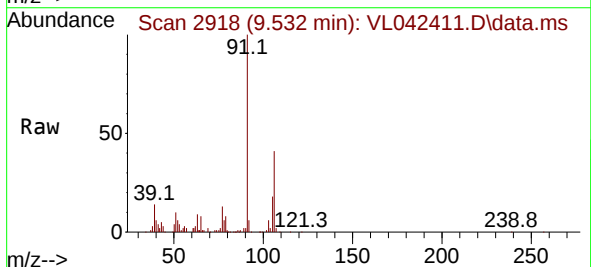
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

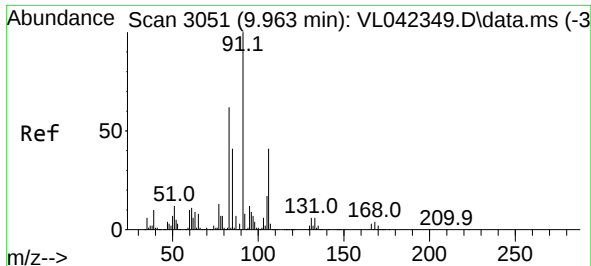
Tgt Ion: 91 Resp: 21310
Ion Ratio Lower Upper
91 100
106 27.7 23.0 34.4



#59
m/p-Xylene
Concen: 1.149 ppbv
RT: 9.532 min Scan# 2918
Delta R.T. -0.019 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 91 Resp: 56104
Ion Ratio Lower Upper
91 100
106 44.3 35.4 53.2

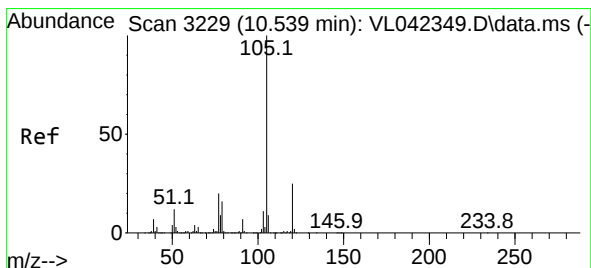
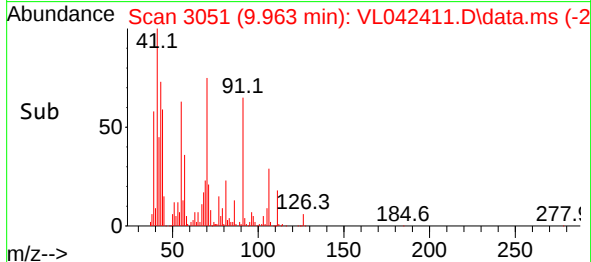
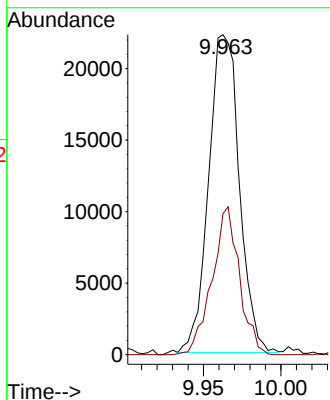
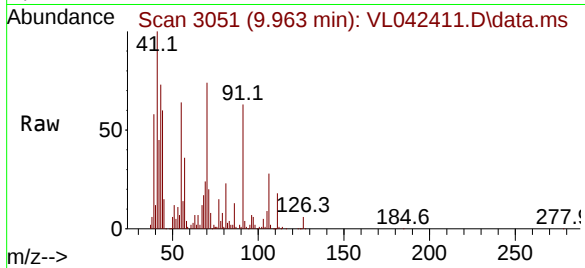




#60
o-Xylene
Concen: 0.624 ppbv
RT: 9.963 min Scan# 3051
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

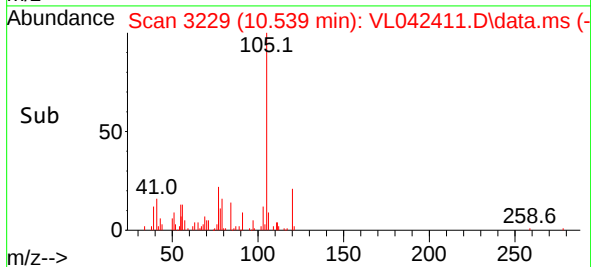
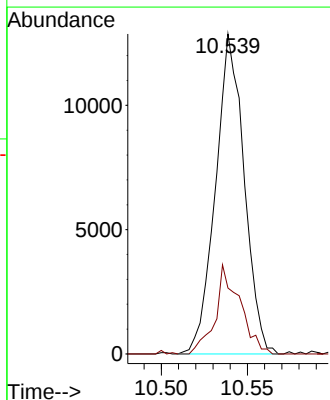
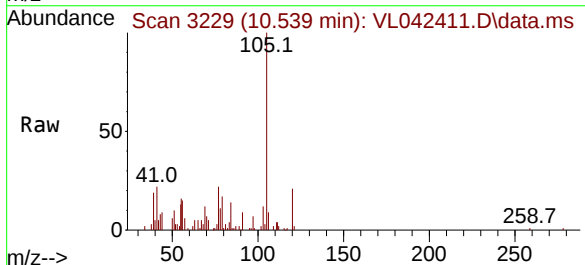
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

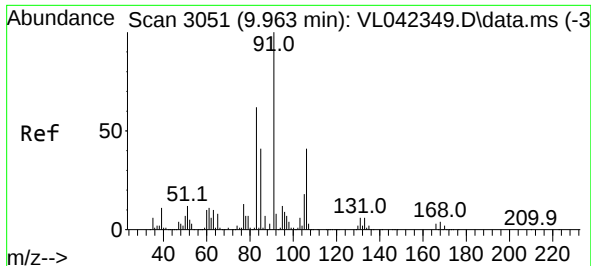
Tgt Ion: 91 Resp: 30668
Ion Ratio Lower Upper
91 100
106 41.4 21.1 63.4



#62
Isopropylbenzene
Concen: 0.206 ppbv
RT: 10.539 min Scan# 3229
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion:105 Resp: 14907
Ion Ratio Lower Upper
105 100
120 24.3 19.8 29.8

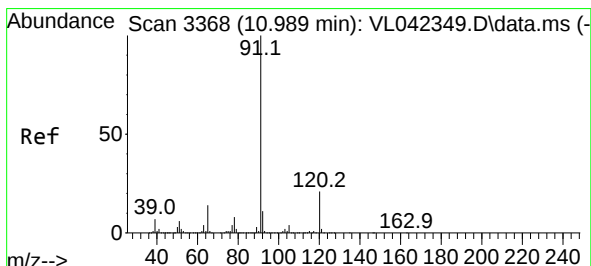
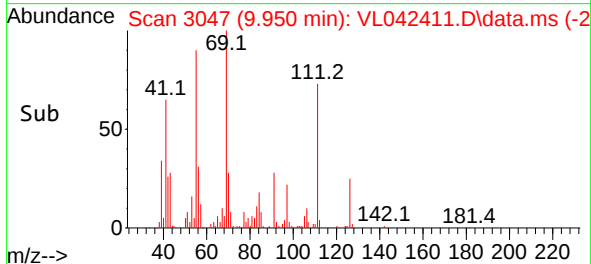
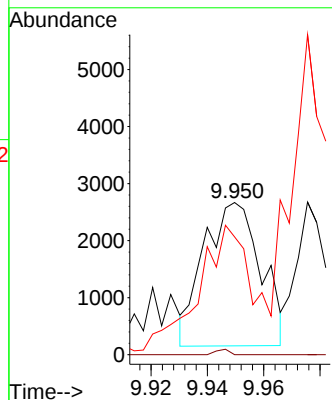
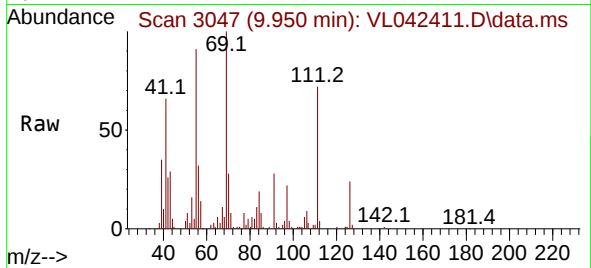




#63
1,1,2,2-Tetrachloroethane
Concen: 0.111 ppbv
RT: 9.950 min Scan# 3051
Delta R.T. -0.013 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

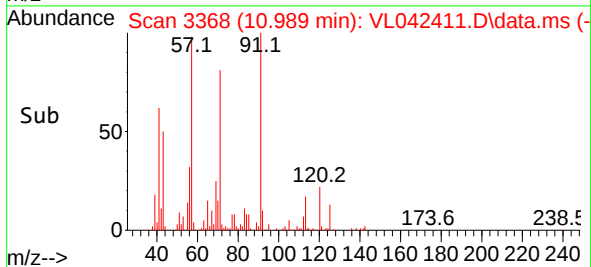
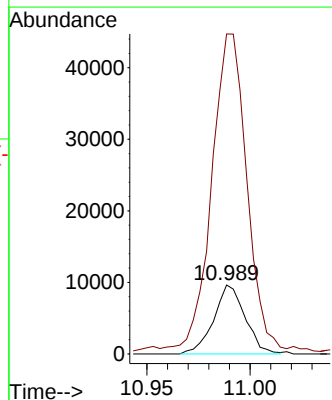
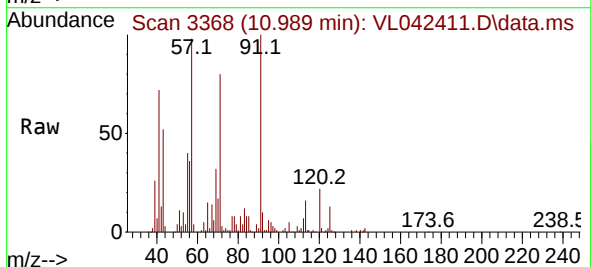
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

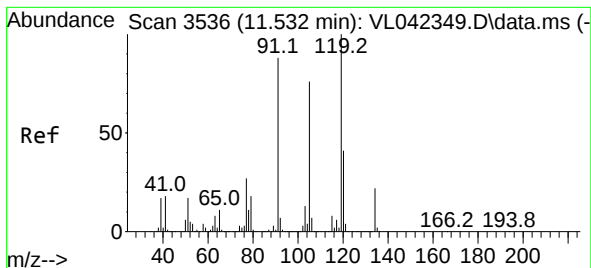
Tgt Ion: 83 Resp: 3522
Ion Ratio Lower Upper
83 100
131 0.0 4.5 13.7#
85 0.0 32.4 97.0#



#64
n-propylbenzene
Concen: 0.562 ppbv
RT: 10.989 min Scan# 3368
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion: 120 Resp: 10199
Ion Ratio Lower Upper
120 100
91 523.2 392.4 588.6





#65

tert-Butylbenzene

Concen: 0.187 ppbv

RT: 11.539 min Scan# 3536

Delta R.T. 0.007 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

Instrument :

MSVOA_L

ClientSampleId :

SV1DUP

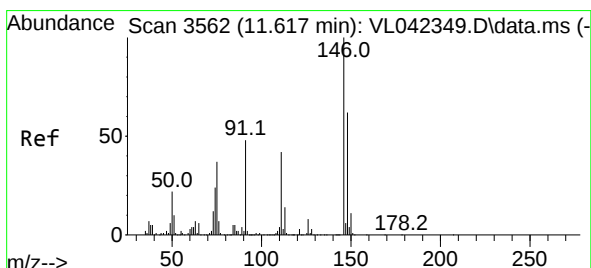
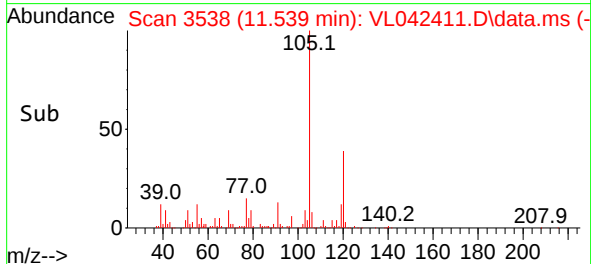
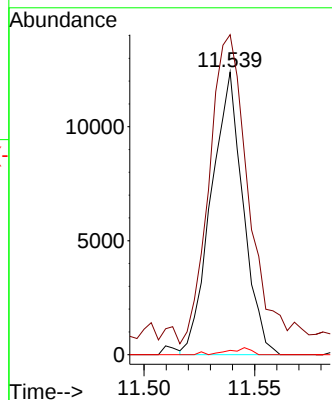
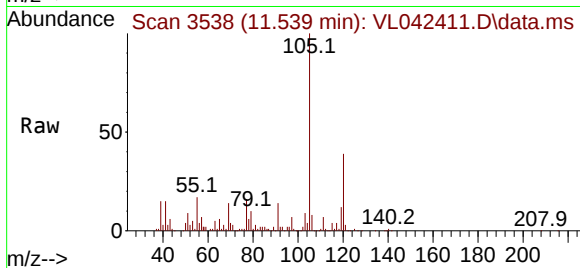
Tgt Ion:119 Resp: 12433

Ion Ratio Lower Upper

119 100

91 145.6 74.6 111.8#

134 1.8 18.8 28.2#



#66

Benzyl Chloride

Concen: 0.067 ppbv

RT: 11.639 min Scan# 3569

Delta R.T. 0.023 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

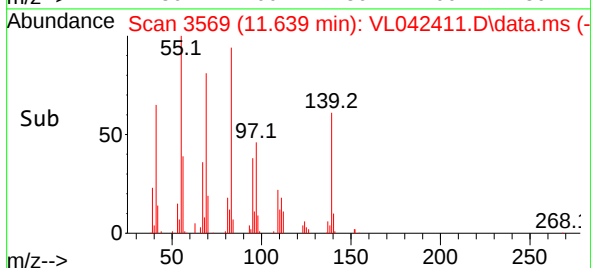
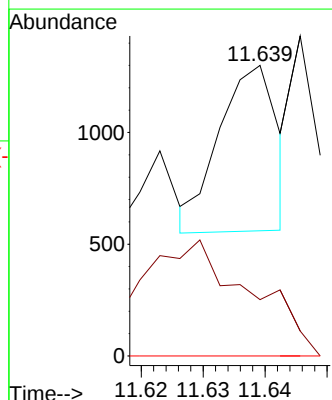
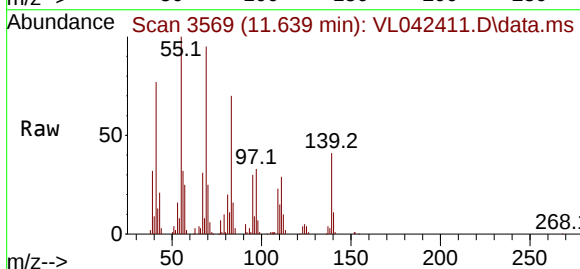
Tgt Ion: 91 Resp: 485

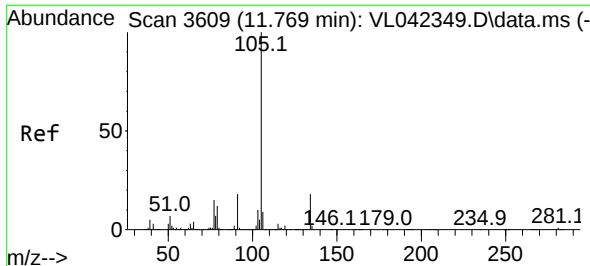
Ion Ratio Lower Upper

91 100

126 237.1 11.8 17.6#

128 0.0 4.5 6.7#

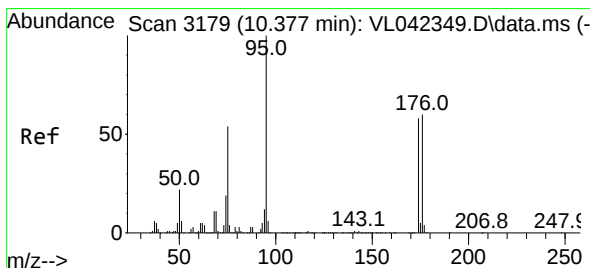
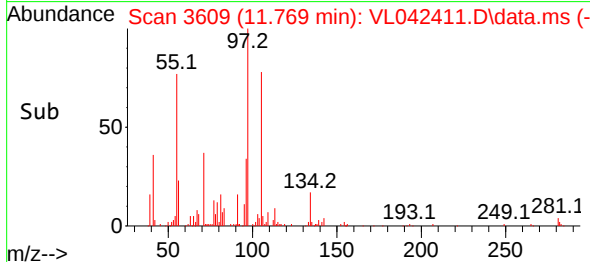
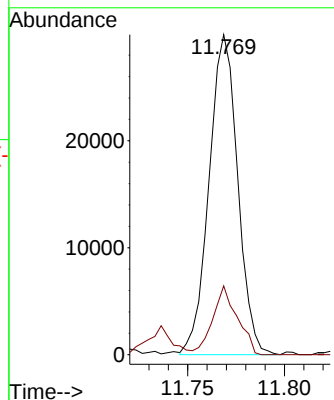
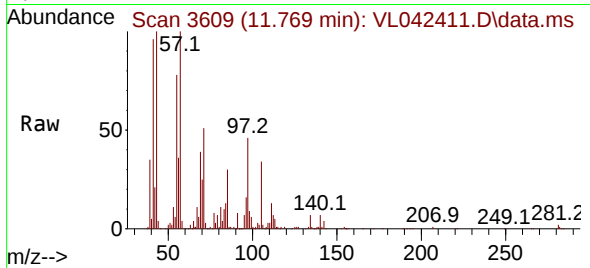




#67
 sec-Butylbenzene
 Concen: 0.334 ppbv
 RT: 11.769 min Scan# 3609
 Delta R.T. 0.000 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

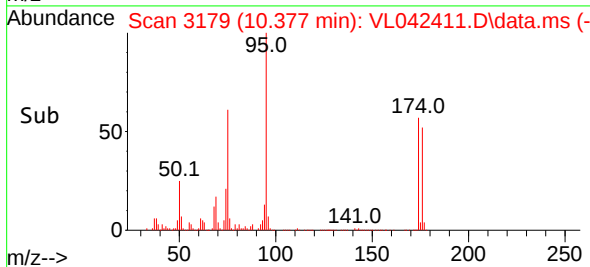
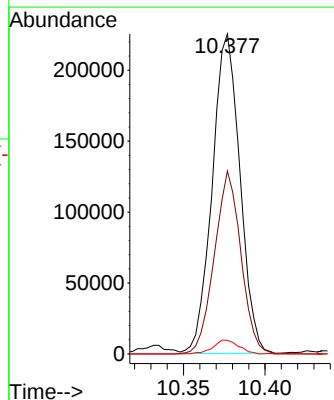
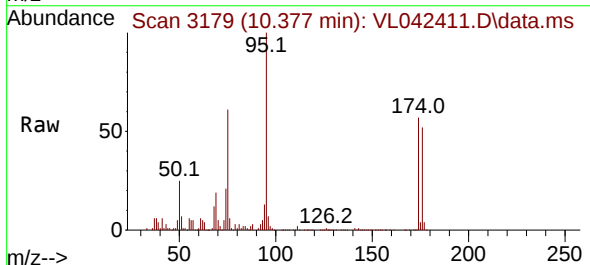
Instrument :
 MSVOA_1
 ClientSampleId :
 SV1DUP

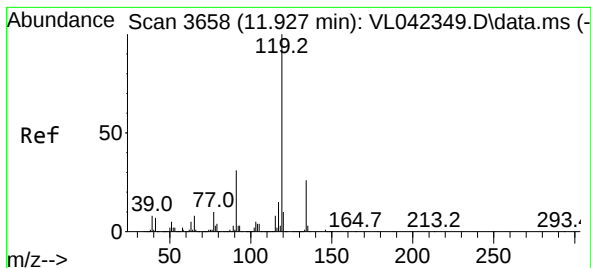
Tgt Ion:105 Resp: 30792
 Ion Ratio Lower Upper
 105 100
 134 18.0 14.6 21.8



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.577 ppbv
 RT: 10.377 min Scan# 3179
 Delta R.T. 0.000 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

Tgt Ion: 95 Resp: 265917
 Ion Ratio Lower Upper
 95 100
 174 54.8 48.5 72.7
 175 4.1 3.7 5.5





#69

p-Isopropyltoluene

Concen: 0.195 ppbv

RT: 11.927 min Scan# 3658

Delta R.T. 0.000 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

Instrument :

MSVOA_L

ClientSampleId :

SV1DUP

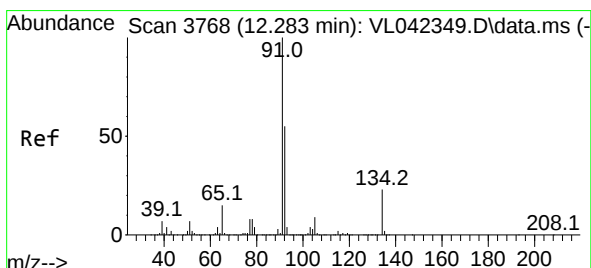
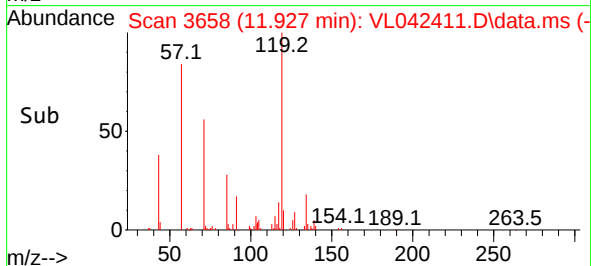
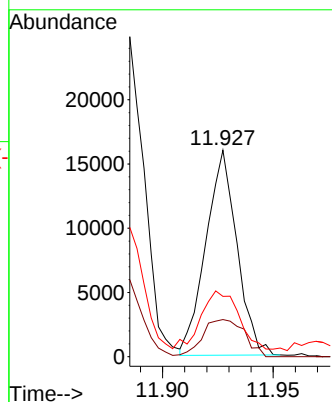
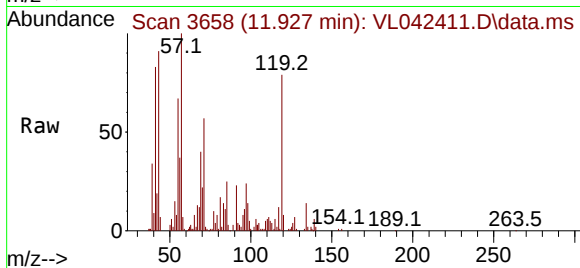
Tgt Ion:119 Resp: 15604

Ion Ratio Lower Upper

119 100

134 24.3 20.0 30.0

91 33.2 24.4 36.6



#70

n-Butylbenzene

Concen: 0.112 ppbv

RT: 12.283 min Scan# 3768

Delta R.T. 0.000 min

Lab File: VL042411.D

Acq: 21 Apr 2025 19:16

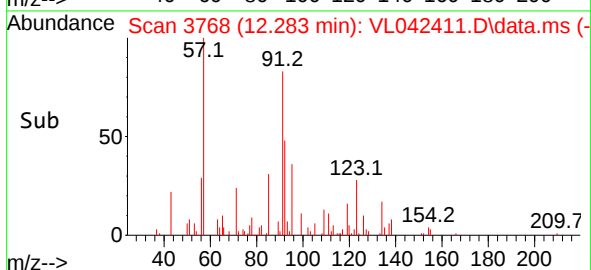
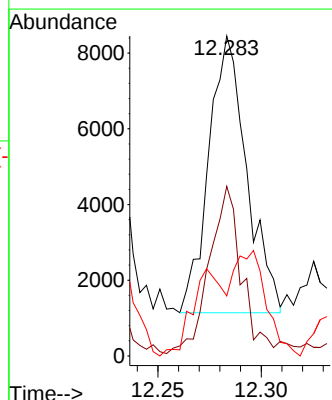
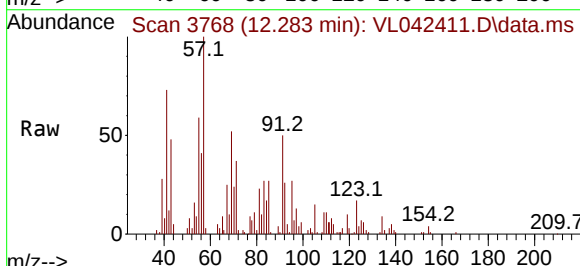
Tgt Ion: 91 Resp: 9379

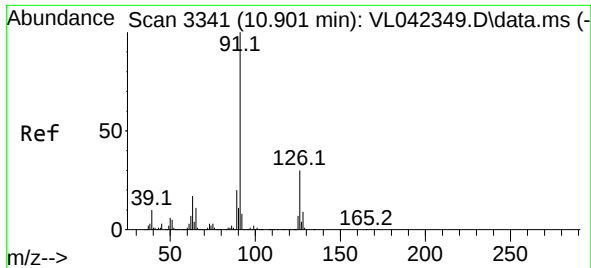
Ion Ratio Lower Upper

91 100

92 53.2 44.2 66.4

134 58.2 18.2 27.4#

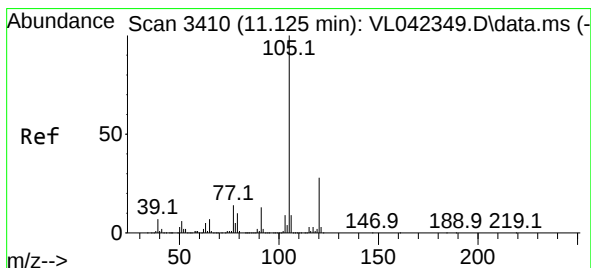
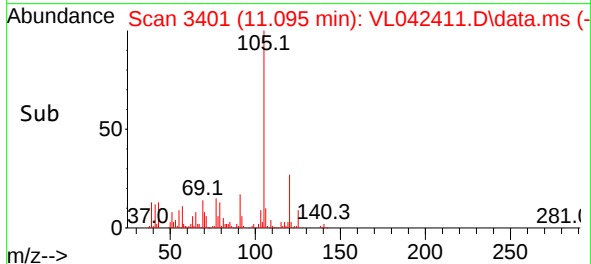
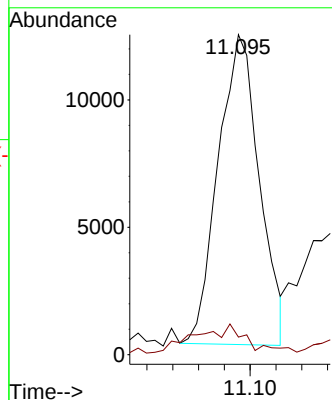
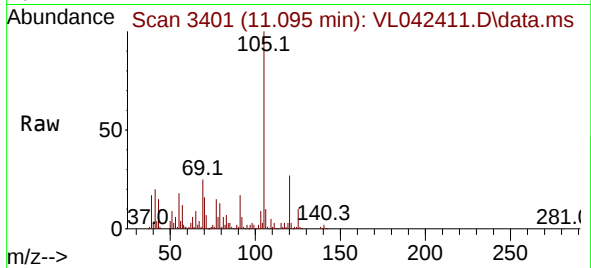




#71
2-Chlorotoluene
Concen: 0.238 ppbv
RT: 11.095 min Scan# 3410
Delta R.T. 0.194 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

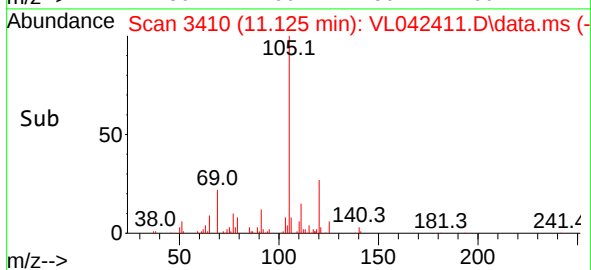
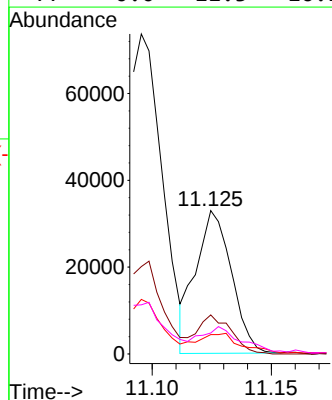
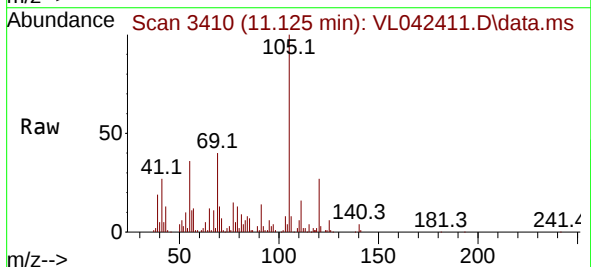
Instrument :
MSVOA_L
ClientSampleId :
SV1DUP

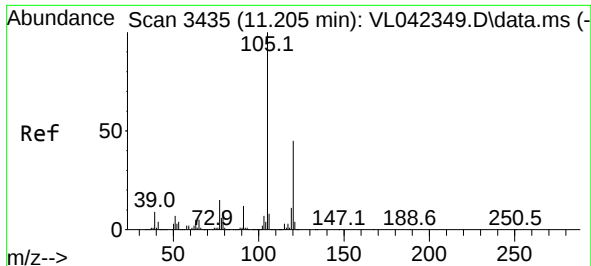
Tgt Ion: 91 Resp: 13468
Ion Ratio Lower Upper
91 100
126 14.9 11.4 45.4



#72
4-Ethyltoluene
Concen: 0.572 ppbv
RT: 11.125 min Scan# 3410
Delta R.T. 0.000 min
Lab File: VL042411.D
Acq: 21 Apr 2025 19:16

Tgt Ion:105 Resp: 34385
Ion Ratio Lower Upper
105 100
120 0.0 23.2 34.8#
91 0.0 10.4 15.6#
77 0.0 11.3 16.9#

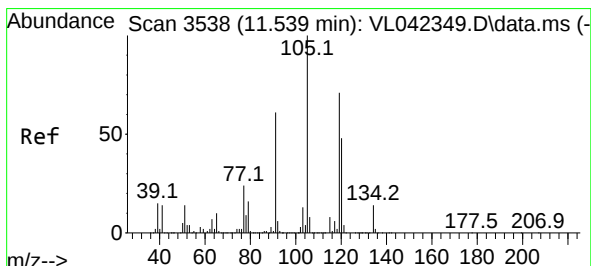
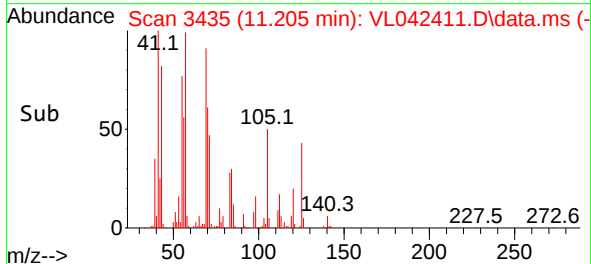
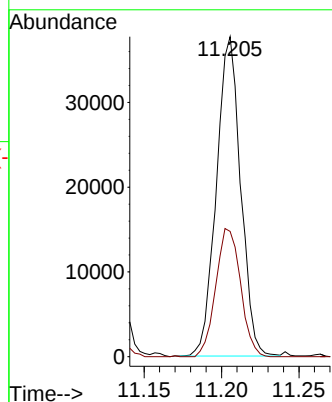
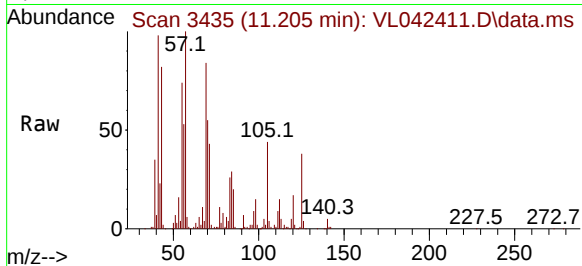




#73
 1,3,5-Trimethylbenzene
 Concen: 0.772 ppbv
 RT: 11.205 min Scan# 3435
 Delta R.T. 0.000 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

Instrument :
 MSVOA_1
 ClientSampleId :
 SV1DUP

Tgt Ion:105 Resp: 40995
 Ion Ratio Lower Upper
 105 100
 120 39.2 35.6 53.4



#74
 1,2,4-Trimethylbenzene
 Concen: 1.714 ppbv
 RT: 11.539 min Scan# 3538
 Delta R.T. 0.000 min
 Lab File: VL042411.D
 Acq: 21 Apr 2025 19:16

Tgt Ion:105 Resp: 106231
 Ion Ratio Lower Upper
 105 100
 120 38.9 38.1 57.1
 91 12.6 48.8 73.2#
 77 13.5 19.0 28.4#

