

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL100825\
 Data File : VL043064.D
 Acq On : 08 Oct 2025 15:05
 Operator : SY/MD
 Sample : Q3306-04 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Quant Time: Oct 09 01:19:40 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL100225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Oct 03 08:23:34 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.813	49	202104	10.000	ppbv	0.04
33) 1,4-Difluorobenzene	3.985	114	508213	10.000	ppbv	0.05
55) Chlorobenzene-d5	8.888	117	479185	10.000	ppbv	0.03

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	367061	10.633	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.300%

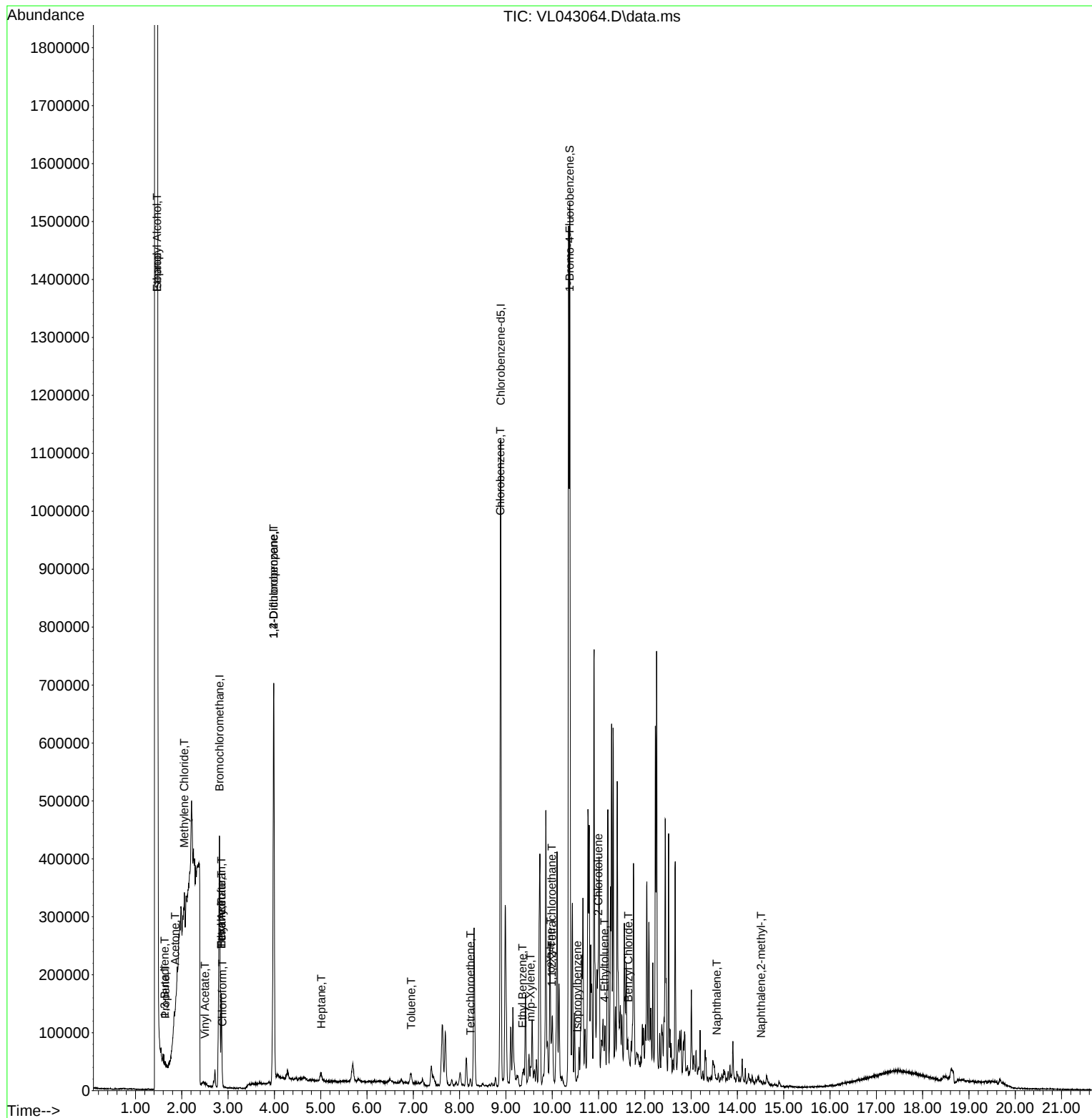
Target Compounds						Qvalue
9) Propene	1.644	41	706	0.053	ppbv	87
10) Heptane	5.014	43	2019	0.062	ppbv #	1
13) Ethanol	1.463	45	265810	550.811	ppbv #	1
15) Acetone	1.858	43	3212	0.114	ppbv #	47
16) 1,3-Butadiene	1.628	39	403	0.035	ppbv #	11
19) Isopropyl Alcohol	1.463	45	265810	19.605	ppbv #	25
20) Methylene Chloride	2.056	84	4213	0.341	ppbv	93
23) Vinyl Acetate	2.502	43	435	0.072	ppbv #	81
25) Ethyl Acetate	2.855	43	25554	0.360	ppbv #	74
26) Hexane	2.855	57	37601	1.377	ppbv #	30
29) Chloroform	2.874	83	7093	0.152	ppbv	98
39) 1,2-Dichloropropane	3.985	63	129779	7.211	ppbv #	23
41) Tetrahydrofuran	2.855	42	17663	0.991	ppbv #	51
52) Tetrachloroethene	8.238	164	1065	0.059	ppbv #	77
53) Toluene	6.956	91	4699	0.096	ppbv #	21
57) Chlorobenzene	8.878	112	2867	0.057	ppbv #	1
58) Ethyl Benzene	9.357	91	9390	0.126	ppbv	90
59) m/p-Xylene	9.535	91	21061	0.336	ppbv	100
60) o-Xylene	9.966	91	15422	0.247	ppbv	90
62) Isopropylbenzene	10.542	105	2933	0.031	ppbv	94
63) 1,1,2,2-Tetrachloroethane	9.992	83	1553	0.035	ppbv #	25
66) Benzyl Chloride	11.642	91	351	0.108	ppbv #	65
71) 2-Chlorotoluene	10.995	91	6638	0.096	ppbv	82
72) 4-Ethyltoluene	11.128	105	2910	0.039	ppbv #	8
79) Naphthalene	13.555	128	42	0.235	ppbv #	69
80) Naphthalene,2-methyl-	14.510	142	38	0.663	ppbv #	1

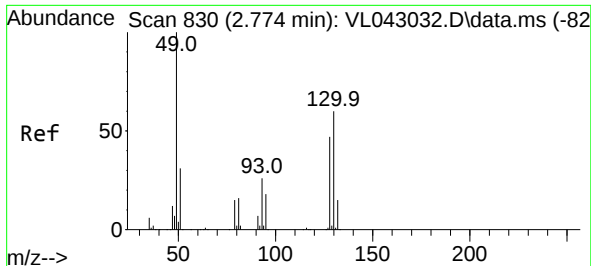
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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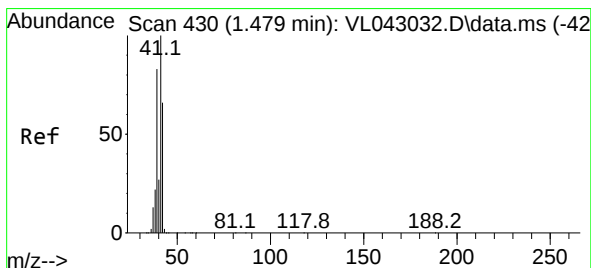
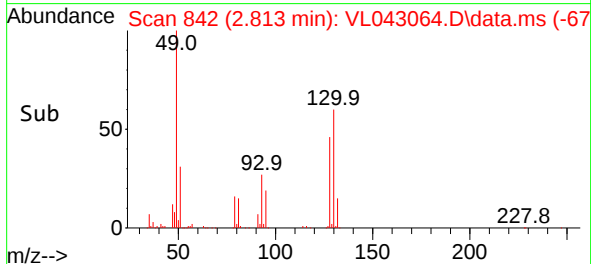
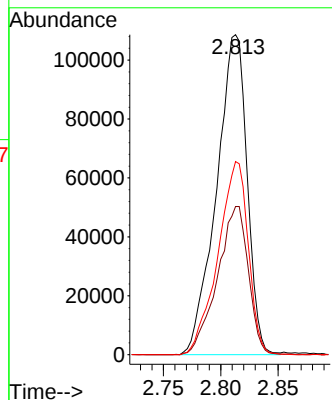
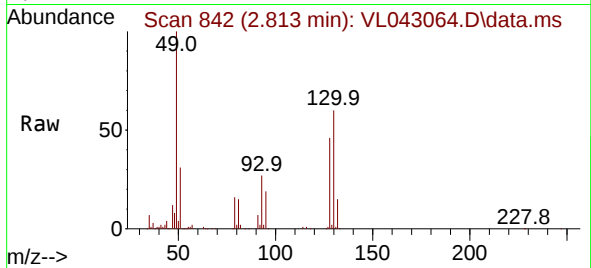




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.813 min Scan# 84
Delta R.T. 0.039 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

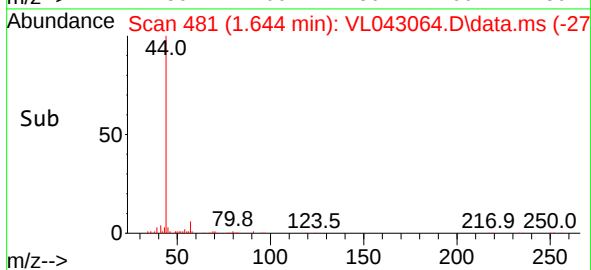
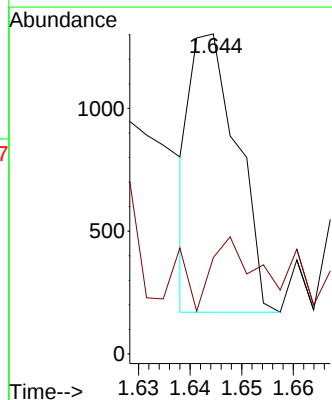
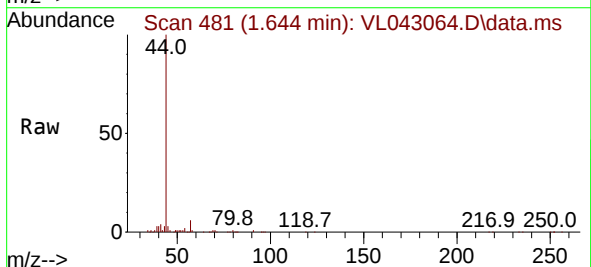
Instrument :
MSVOA_L
ClientSampleId :
SV2

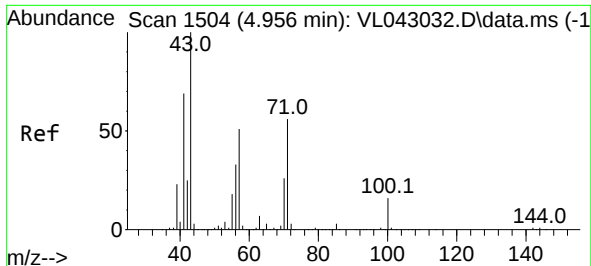
Tgt Ion: 49 Resp: 202104
Ion Ratio Lower Upper
49 100
128 46.6 24.1 72.2
130 59.5 31.4 94.3



#9
Propene
Concen: 0.053 ppbv
RT: 1.644 min Scan# 481
Delta R.T. 0.165 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 41 Resp: 706
Ion Ratio Lower Upper
41 100
42 56.5 53.3 79.9

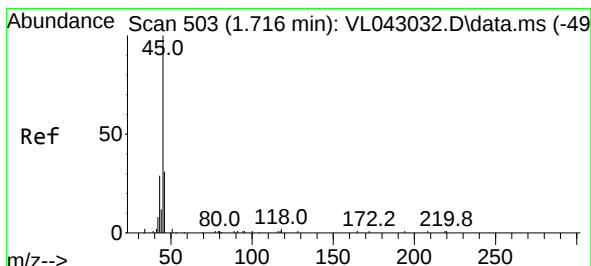
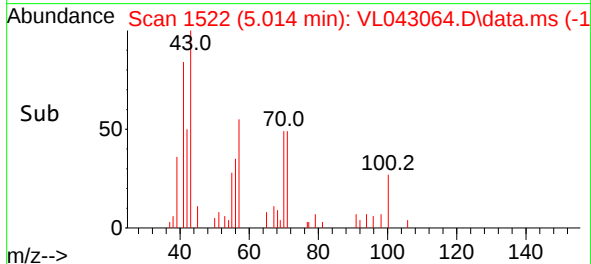
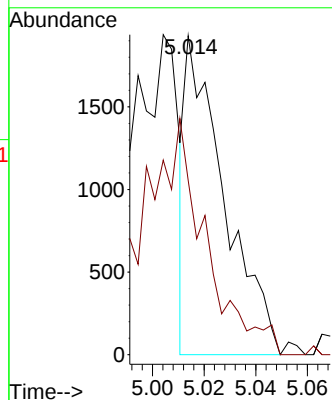
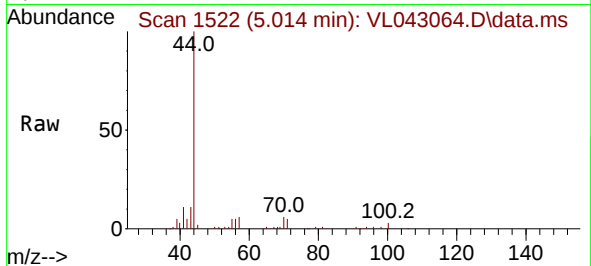




#10
Heptane
Concen: 0.062 ppbv
RT: 5.014 min Scan# 11
Delta R.T. 0.058 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

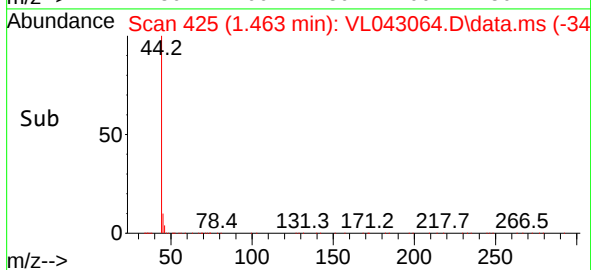
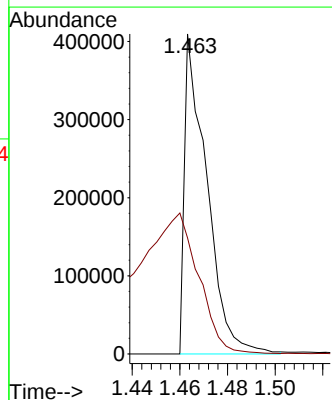
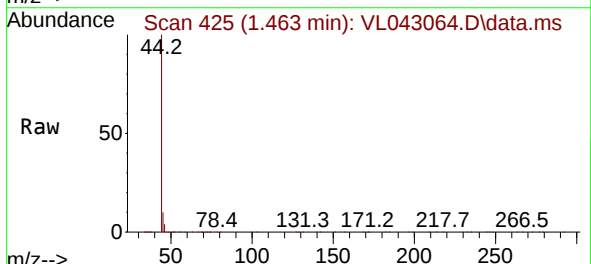
Instrument :
MSVOA_L
ClientSampleId :
SV2

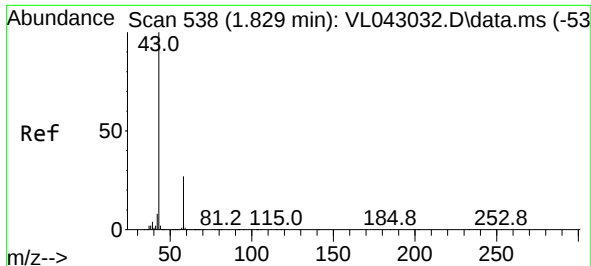
Tgt Ion: 43 Resp: 2019
Ion Ratio Lower Upper
43 100
57 142.9 40.3 60.5#



#13
Ethanol
Concen: 550.811 ppbv
RT: 1.463 min Scan# 425
Delta R.T. -0.253 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 45 Resp: 265810
Ion Ratio Lower Upper
45 100
46 145.7 17.8 71.4#





#15

Acetone

Concen: 0.114 ppbv

RT: 1.858 min Scan# 54

Delta R.T. 0.029 min

Lab File: VL043064.D

Acq: 08 Oct 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

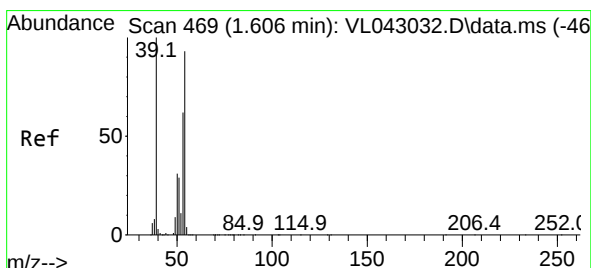
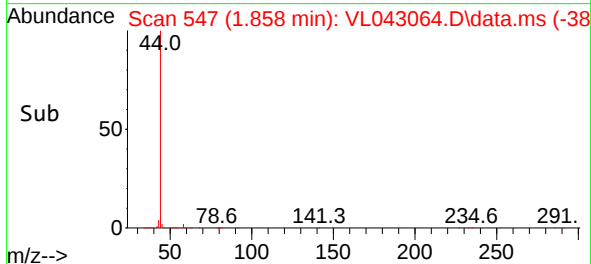
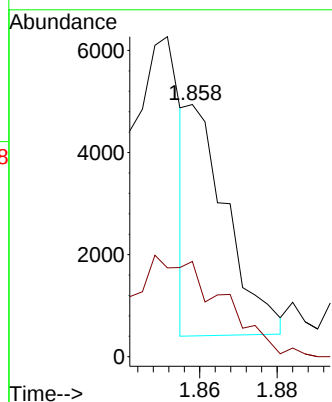
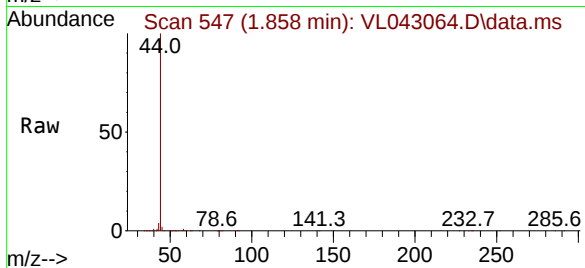
SV2

Tgt Ion: 43 Resp: 3212

Ion Ratio Lower Upper

43 100

58 0.0 22.2 33.4#



#16

1,3-Butadiene

Concen: 0.035 ppbv

RT: 1.628 min Scan# 476

Delta R.T. 0.023 min

Lab File: VL043064.D

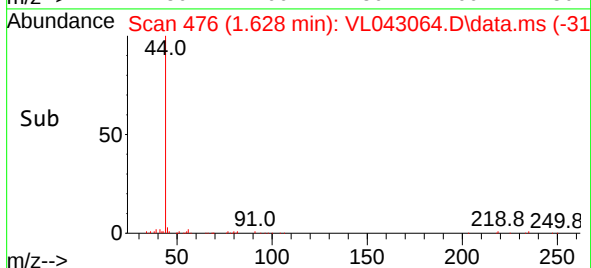
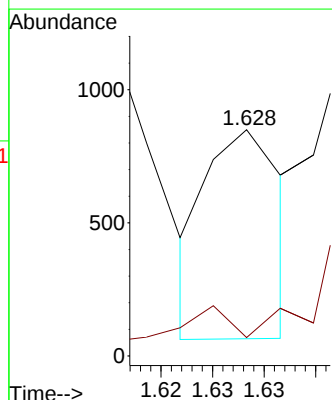
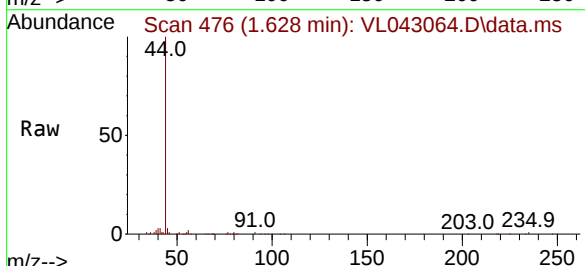
Acq: 08 Oct 2025 15:05

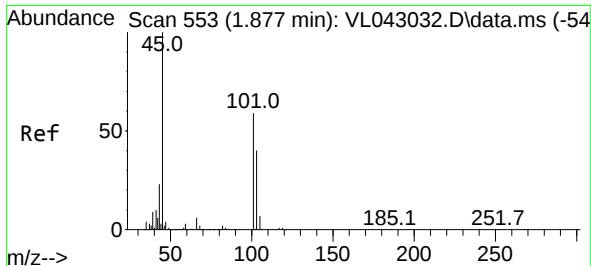
Tgt Ion: 39 Resp: 403

Ion Ratio Lower Upper

39 100

54 0.0 61.4 92.2#

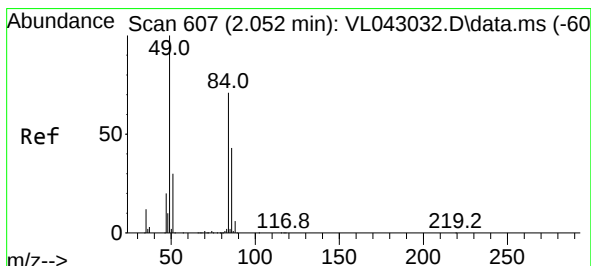
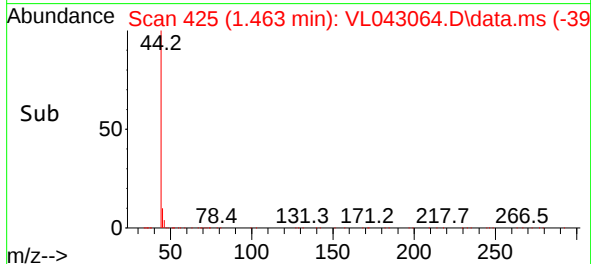
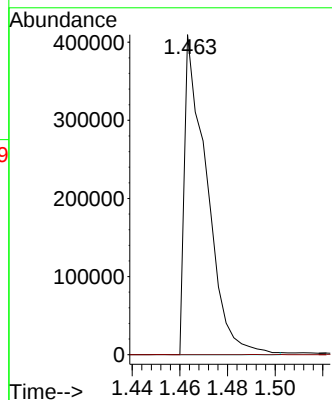
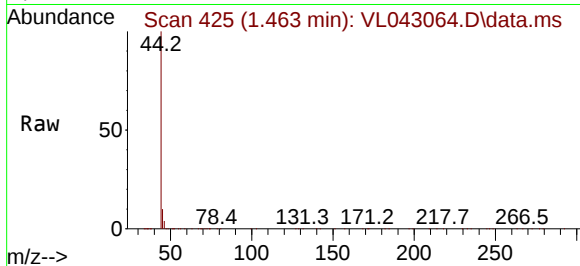




#19
Isopropyl Alcohol
Concen: 19.605 ppbv
RT: 1.463 min Scan# 41
Delta R.T. -0.414 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

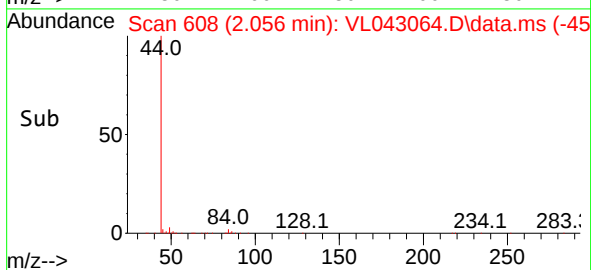
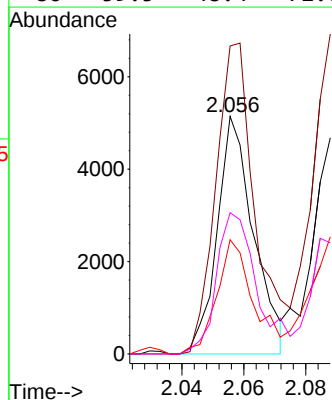
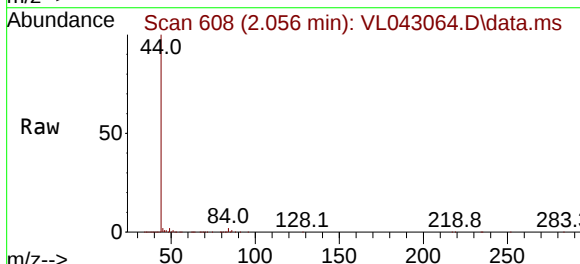
Instrument :
MSVOA_L
ClientSampleId :
SV2

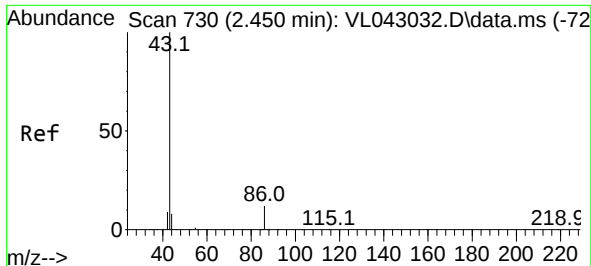
Tgt Ion: 45 Resp: 265810
Ion Ratio Lower Upper
45 100
58 0.1 42.3 63.5#



#20
Methylene Chloride
Concen: 0.341 ppbv
RT: 2.056 min Scan# 608
Delta R.T. 0.003 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 84 Resp: 4213
Ion Ratio Lower Upper
84 100
49 129.7 112.5 168.7
51 48.1 34.2 51.2
86 59.5 48.4 72.6

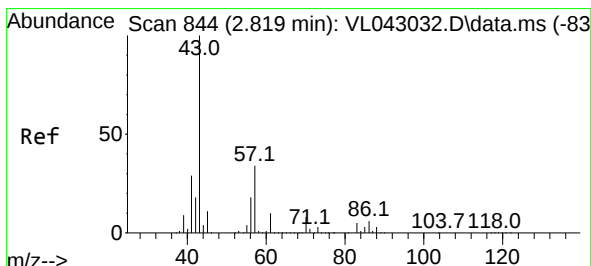
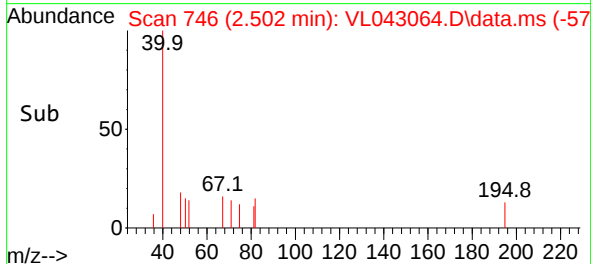
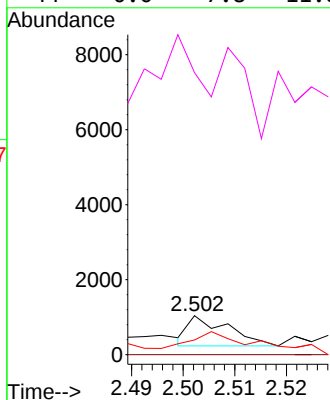
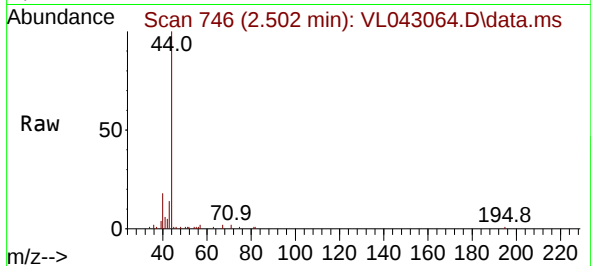




#23
 Vinyl Acetate
 Concen: 0.072 ppbv
 RT: 2.502 min Scan# 746
 Delta R.T. 0.052 min
 Lab File: VL043064.D
 Acq: 08 Oct 2025 15:05

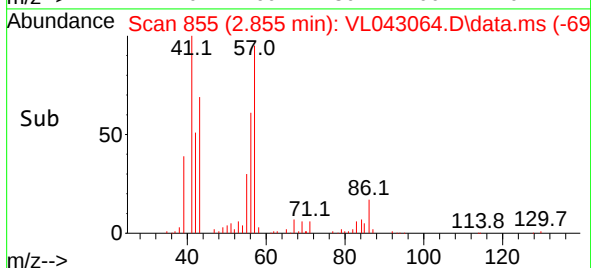
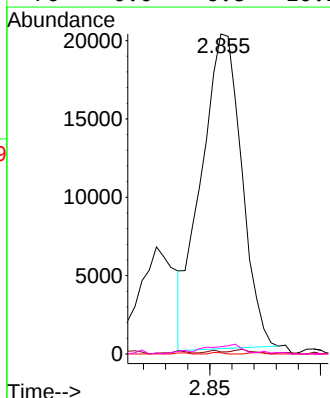
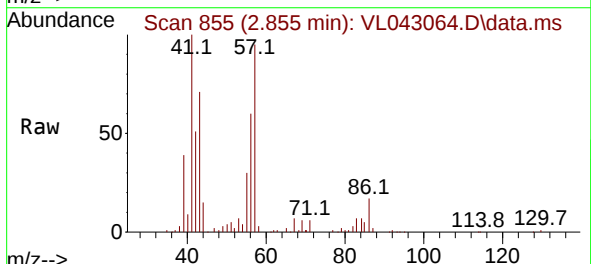
Instrument :
 MSVOA_1
 ClientSampleId :
 SV2

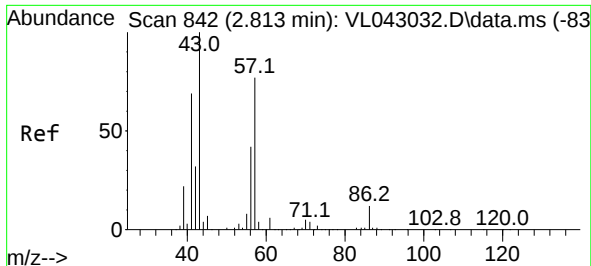
Tgt Ion: 43	Resp: 435
Ion Ratio	Lower Upper
43 100	
86 0.0	7.5 11.3#
42 12.9	8.4 12.6#
44 0.0	7.8 11.8#



#25
 Ethyl Acetate
 Concen: 0.360 ppbv
 RT: 2.855 min Scan# 855
 Delta R.T. 0.036 min
 Lab File: VL043064.D
 Acq: 08 Oct 2025 15:05

Tgt	Ion: 43	Resp:	25554
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.3	12.5#
61	0.2	7.5	11.3#
70	0.0	6.8	10.2#

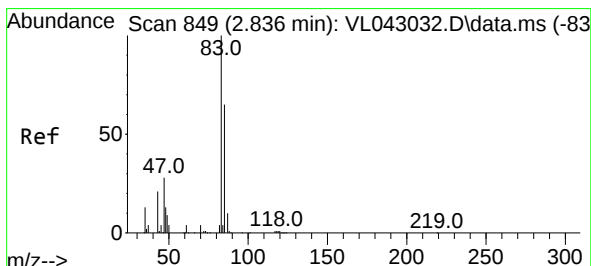
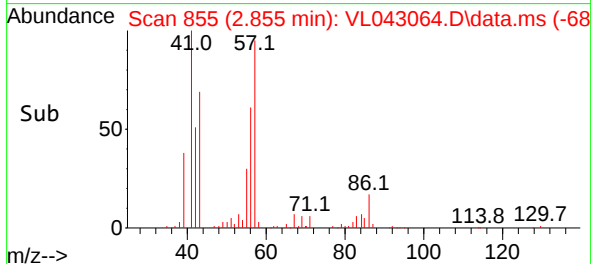
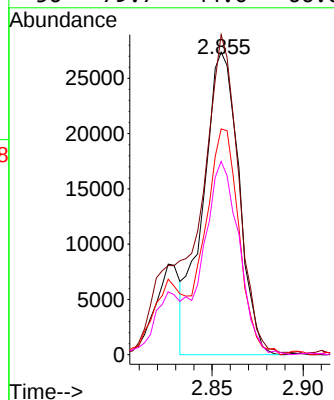
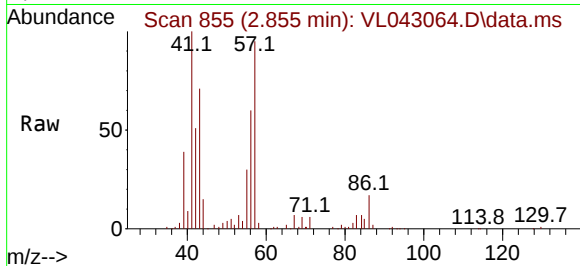




#26
Hexane
Concen: 1.377 ppbv
RT: 2.855 min Scan# 81
Delta R.T. 0.042 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

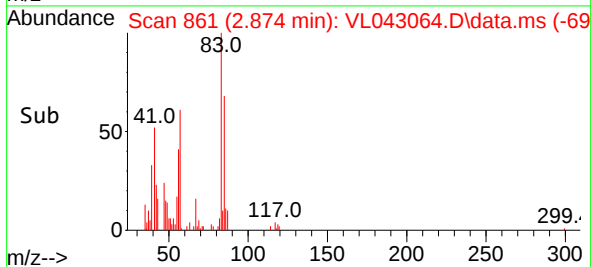
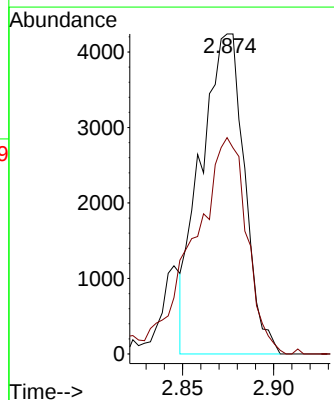
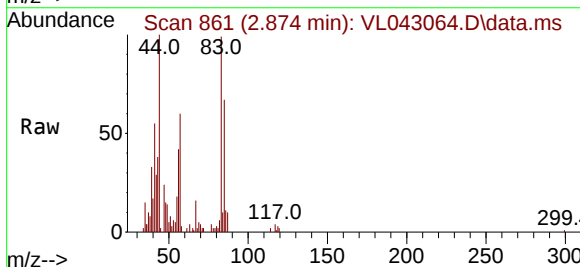
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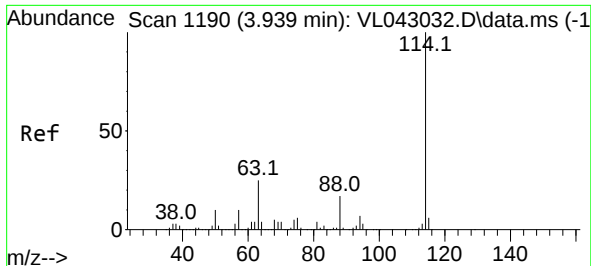
Tgt Ion: 57 Resp: 37601
Ion Ratio Lower Upper
57 100
41 129.5 76.1 114.1#
43 92.7 201.4 302.0#
56 79.7 44.0 66.0#



#29
Chloroform
Concen: 0.152 ppbv
RT: 2.874 min Scan# 861
Delta R.T. 0.039 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 83 Resp: 7093
Ion Ratio Lower Upper
83 100
85 66.4 52.0 78.0





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.985 min Scan# 11

Delta R.T. 0.045 min

Lab File: VL043064.D

Acq: 08 Oct 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

SV2

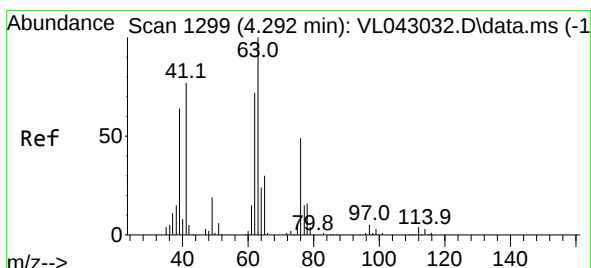
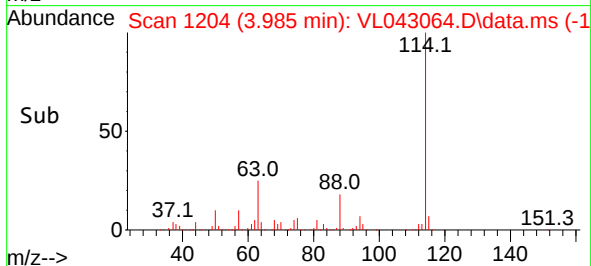
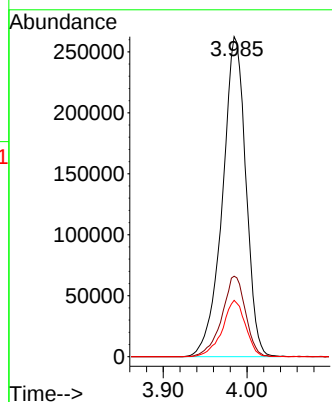
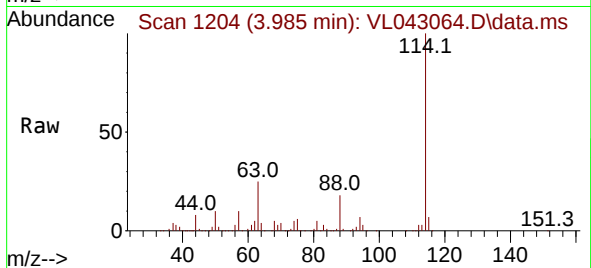
Tgt Ion:114 Resp: 508213

Ion Ratio Lower Upper

114 100

63 25.6 19.4 29.2

88 17.5 13.9 20.9



#39

1,2-Dichloropropane

Concen: 7.211 ppbv

RT: 3.985 min Scan# 1204

Delta R.T. -0.307 min

Lab File: VL043064.D

Acq: 08 Oct 2025 15:05

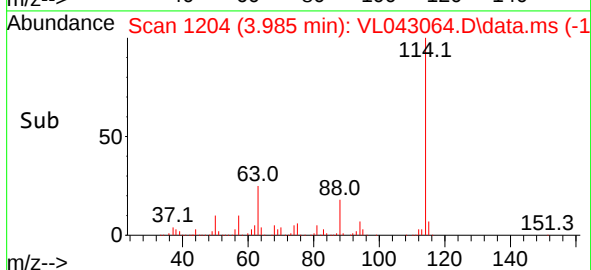
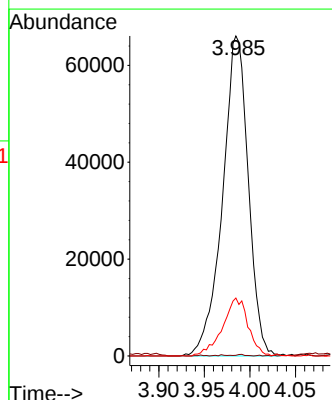
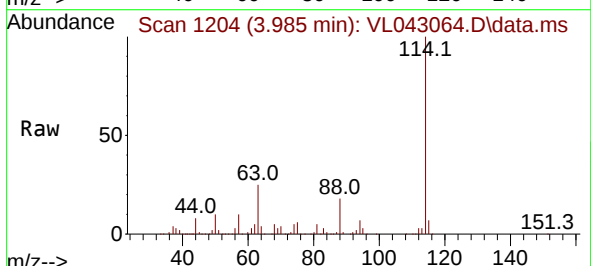
Tgt Ion: 63 Resp: 129779

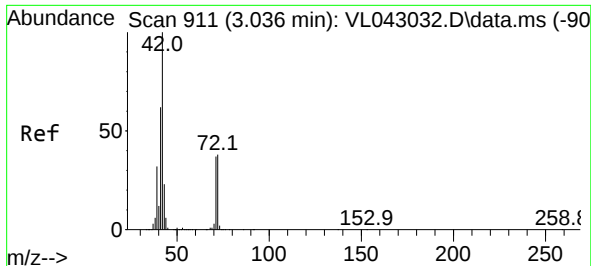
Ion Ratio Lower Upper

63 100

41 0.2 61.6 92.4#

62 18.1 58.1 87.1#

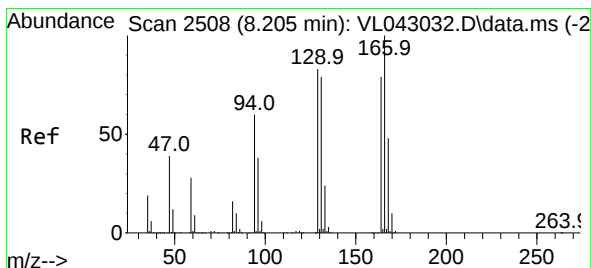
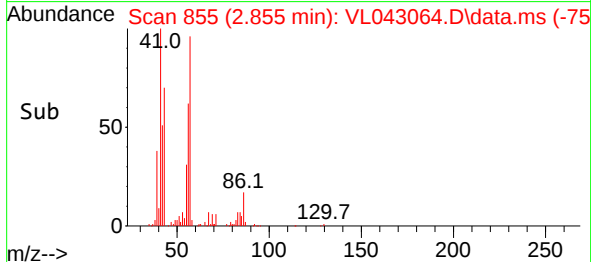
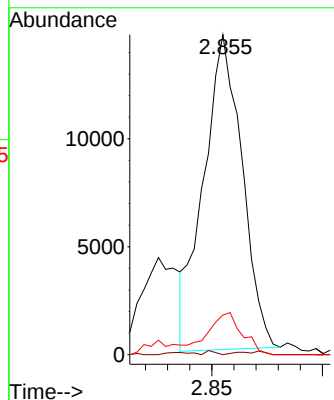
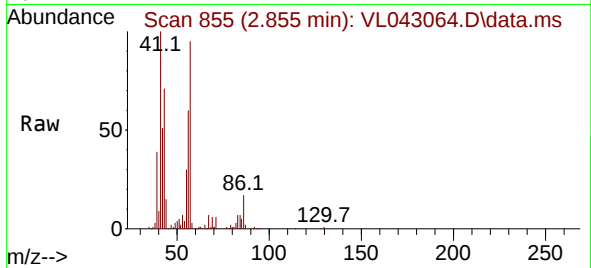




#41
Tetrahydrofuran
Concen: 0.991 ppbv
RT: 2.855 min Scan# 81
Delta R.T. -0.181 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

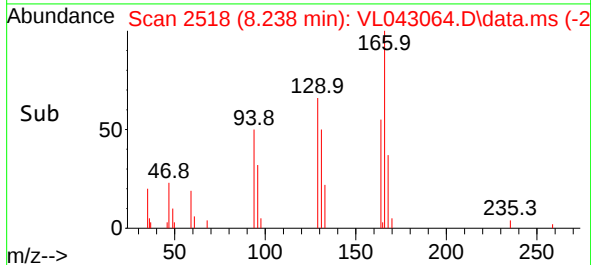
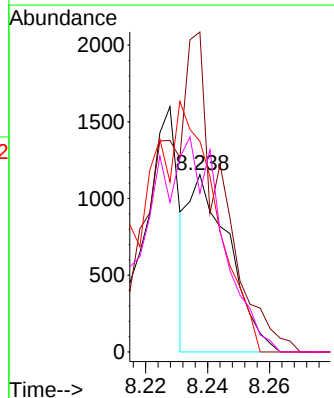
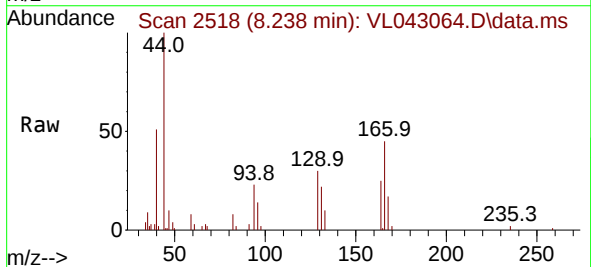
Instrument :
MSVOA_L
ClientSampleId :
SV2

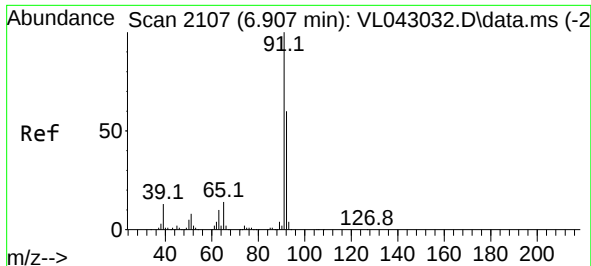
Tgt Ion: 42 Resp: 17663
Ion Ratio Lower Upper
42 100
72 1.5 31.0 46.6#
71 15.5 29.8 44.6#



#52
Tetrachloroethene
Concen: 0.059 ppbv
RT: 8.238 min Scan# 2518
Delta R.T. 0.032 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 164 Resp: 1065
Ion Ratio Lower Upper
164 100
166 172.8 101.8 152.8#
129 118.9 84.5 126.7
131 89.4 80.9 121.3

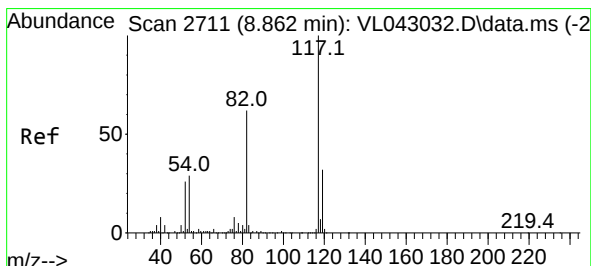
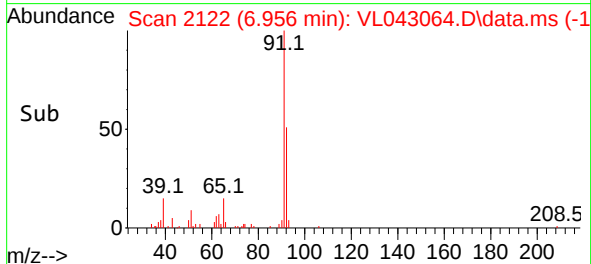
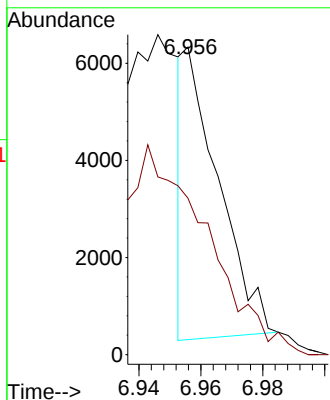
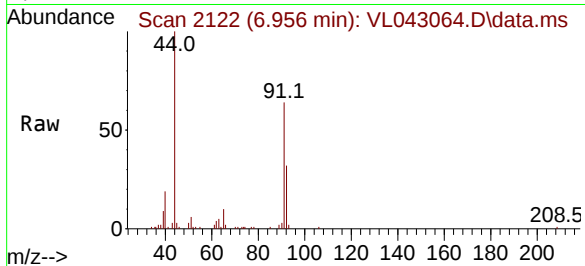




#53
Toluene
Concen: 0.096 ppbv
RT: 6.956 min Scan# 2107
Delta R.T. 0.049 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

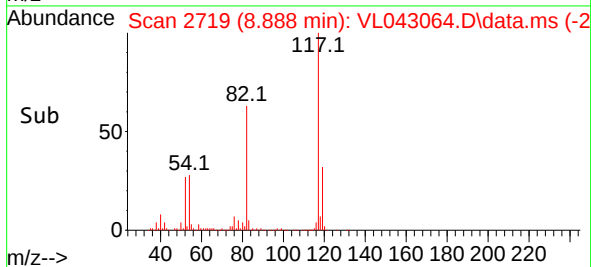
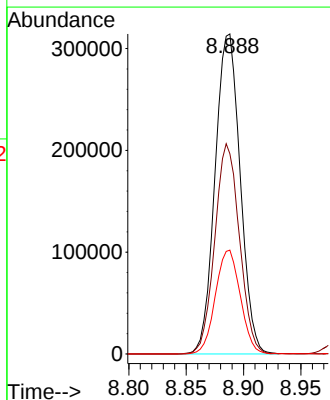
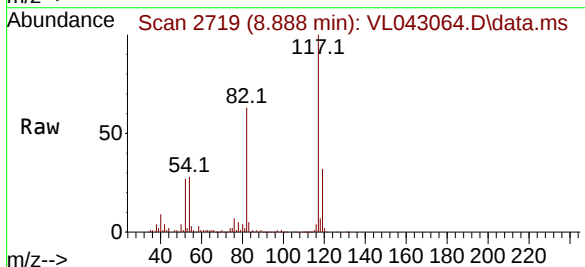
Instrument :
MSVOA_L
ClientSampleId :
SV2

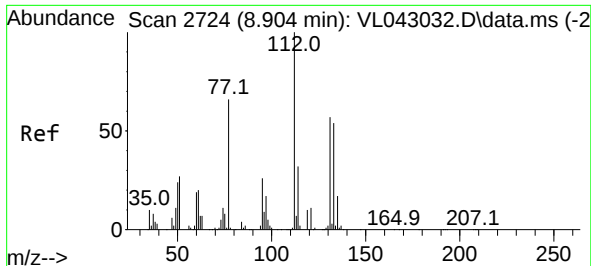
Tgt Ion: 91 Resp: 4699
Ion Ratio Lower Upper
91 100
92 0.0 47.8 71.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.888 min Scan# 2719
Delta R.T. 0.026 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 117 Resp: 479185
Ion Ratio Lower Upper
117 100
82 64.6 53.0 79.6
119 32.3 25.4 38.2

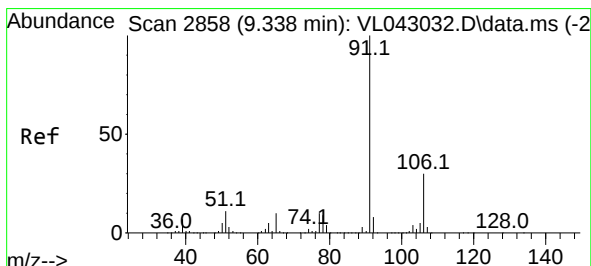
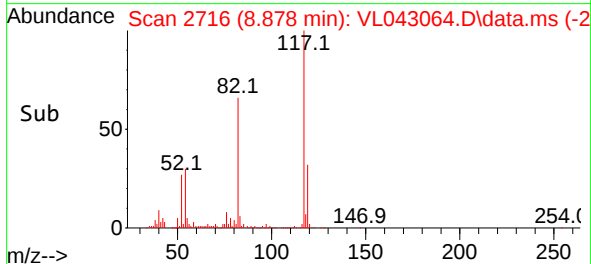
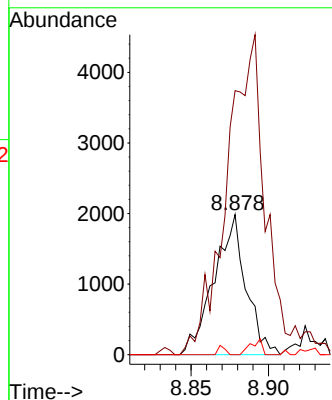
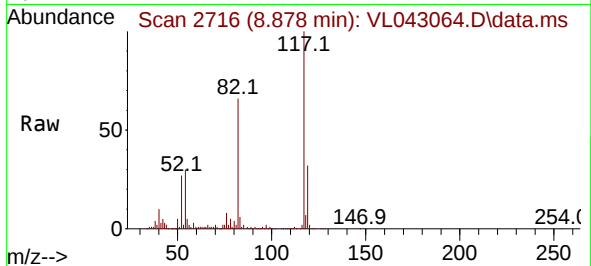




#57
Chlorobenzene
Concen: 0.057 ppbv
RT: 8.878 min Scan# 21
Delta R.T. -0.026 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

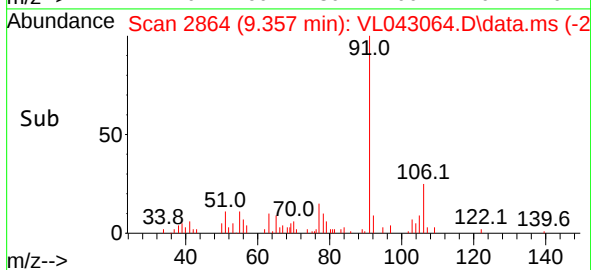
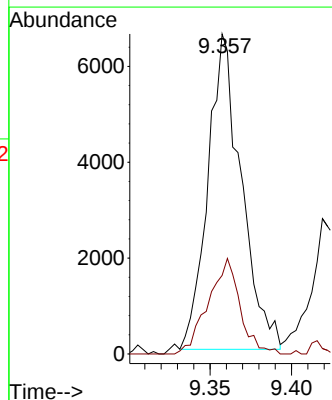
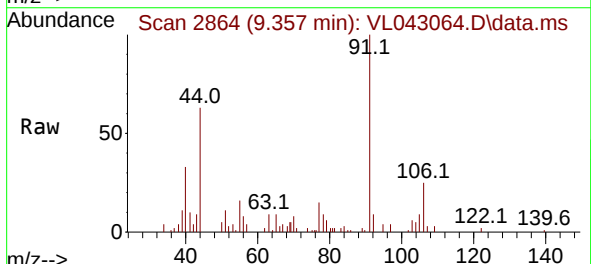
Instrument :
MSVOA_L
ClientSampleId :
SV2

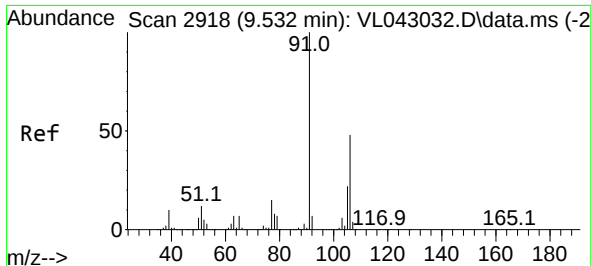
Tgt Ion:112 Resp: 2867
Ion Ratio Lower Upper
112 100
77 188.3 53.2 79.8#
114 0.0 28.6 35.0#



#58
Ethyl Benzene
Concen: 0.126 ppbv
RT: 9.357 min Scan# 2864
Delta R.T. 0.019 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 91 Resp: 9390
Ion Ratio Lower Upper
91 100
106 24.9 24.1 36.1





#59

m/p-Xylene

Concen: 0.336 ppbv

RT: 9.535 min Scan# 2918

Delta R.T. 0.003 min

Lab File: VL043064.D

Acq: 08 Oct 2025 15:05

Instrument :

MSVOA_L

ClientSampleId :

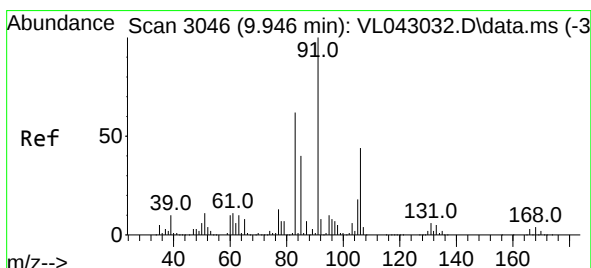
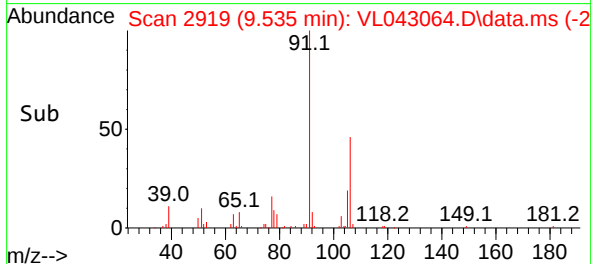
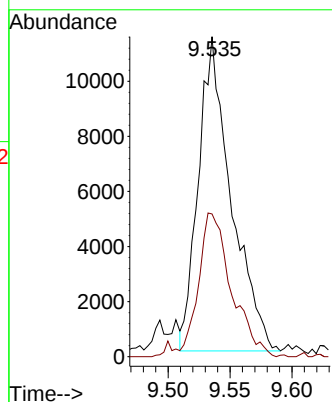
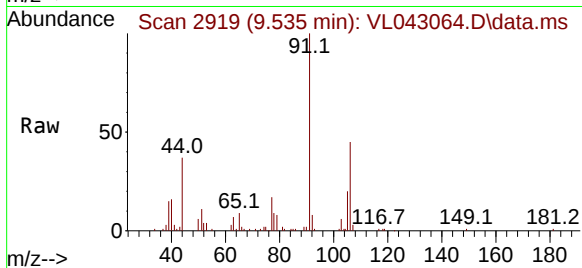
SV2

Tgt Ion: 91 Resp: 21061

Ion Ratio Lower Upper

91 100

106 47.0 37.5 56.3



#60

o-Xylene

Concen: 0.247 ppbv

RT: 9.966 min Scan# 3052

Delta R.T. 0.019 min

Lab File: VL043064.D

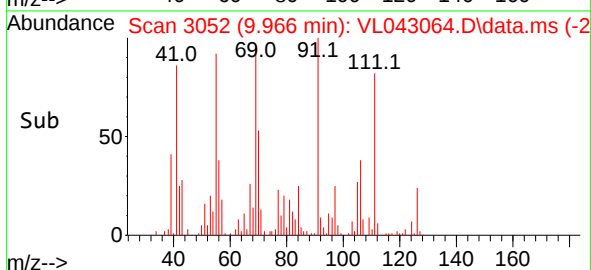
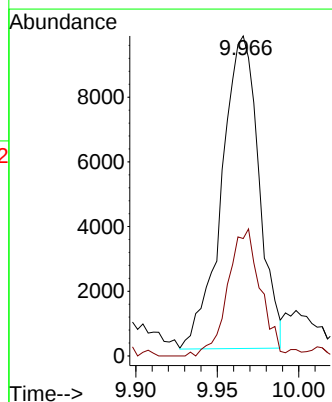
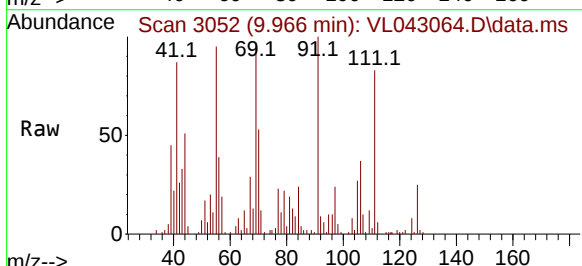
Acq: 08 Oct 2025 15:05

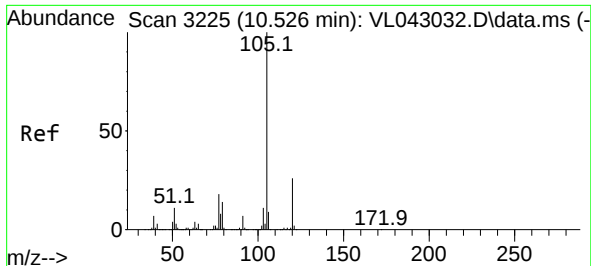
Tgt Ion: 91 Resp: 15422

Ion Ratio Lower Upper

91 100

106 37.1 21.9 65.5

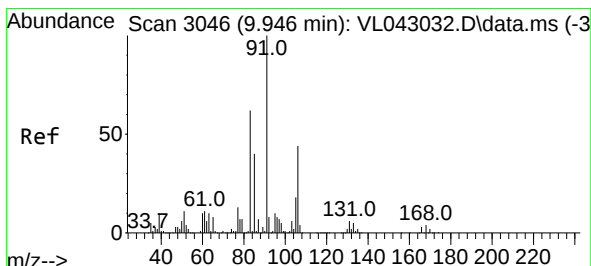
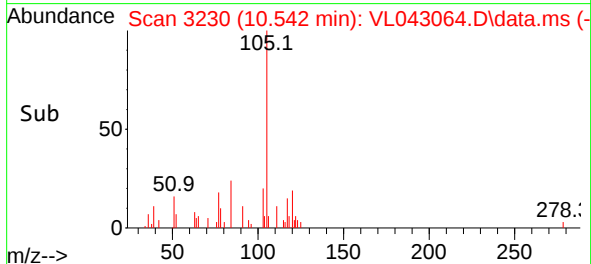
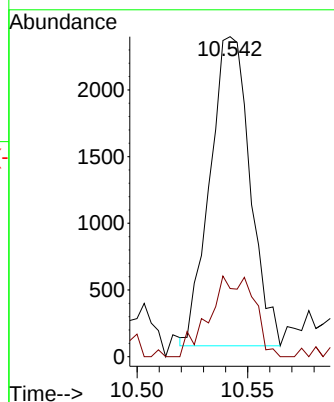
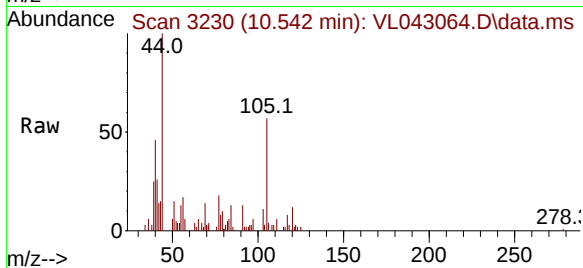




#62
Isopropylbenzene
Concen: 0.031 ppbv
RT: 10.542 min Scan# 31
Delta R.T. 0.016 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

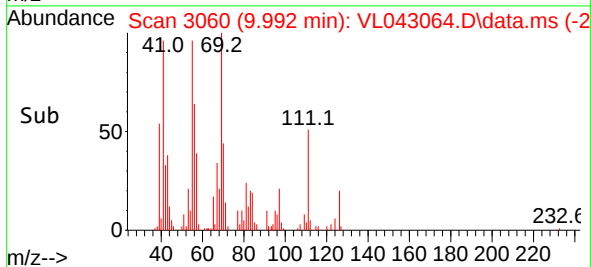
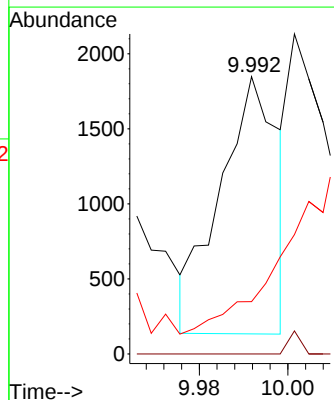
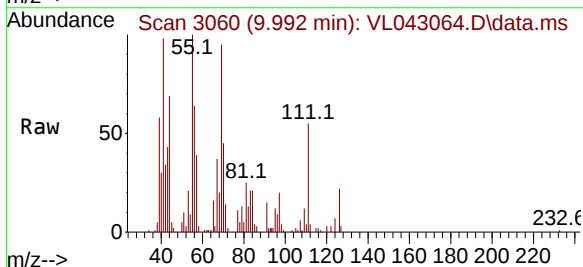
Instrument :
MSVOA_L
ClientSampleId :
SV2

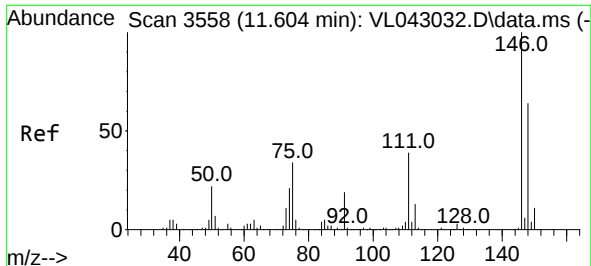
Tgt Ion:105 Resp: 2933
Ion Ratio Lower Upper
105 100
120 28.8 20.6 31.0



#63
1,1,2,2-Tetrachloroethane
Concen: 0.035 ppbv
RT: 9.992 min Scan# 3060
Delta R.T. 0.045 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 83 Resp: 1553
Ion Ratio Lower Upper
83 100
131 0.0 4.7 14.1#
85 0.0 32.0 96.2#

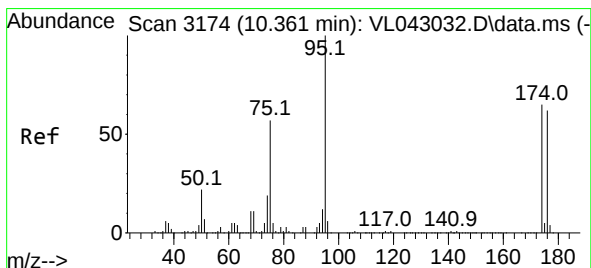
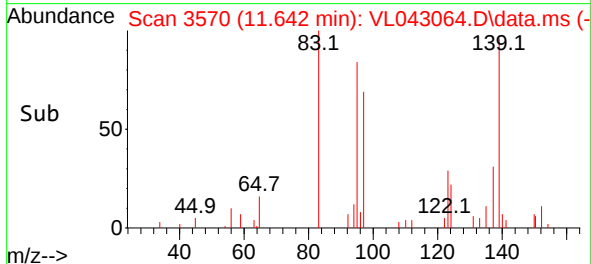
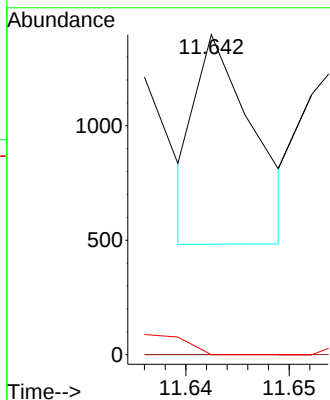
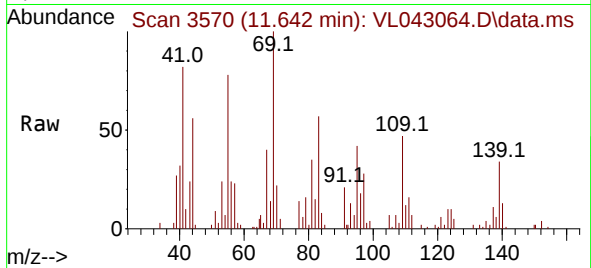




#66
Benzyl Chloride
Concen: 0.108 ppbv
RT: 11.642 min Scan# 3170
Delta R.T. 0.039 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

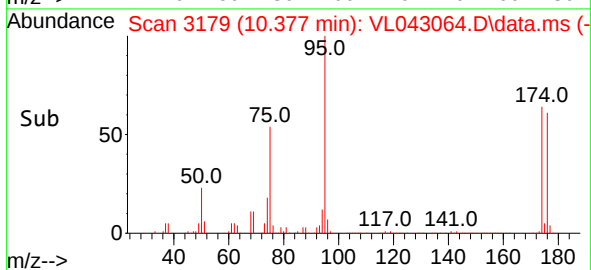
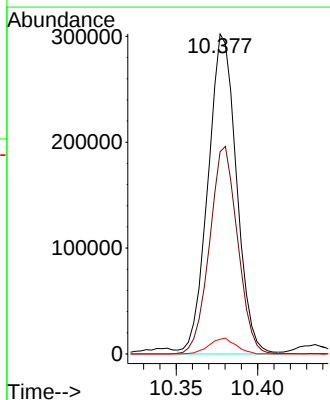
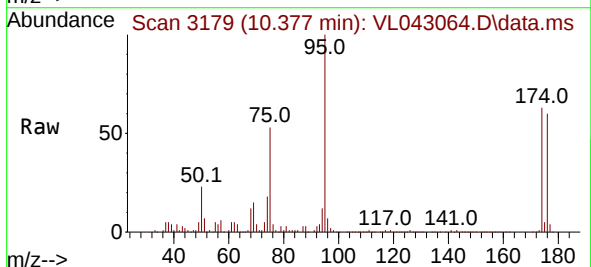
Instrument :
MSVOA_L
ClientSampleId :
SV2

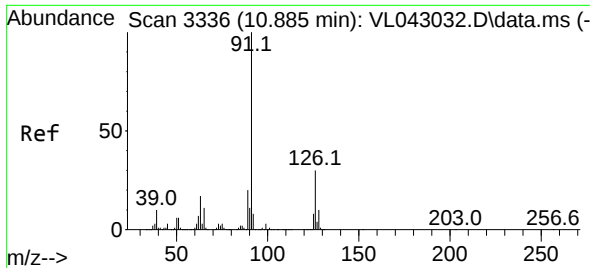
Tgt Ion: 91 Resp: 351
Ion Ratio Lower Upper
91 100
126 0.0 14.2 21.4#
128 0.0 4.8 7.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.633 ppbv
RT: 10.377 min Scan# 3179
Delta R.T. 0.016 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 95 Resp: 367061
Ion Ratio Lower Upper
95 100
174 64.1 52.3 78.5
175 4.7 3.8 5.8

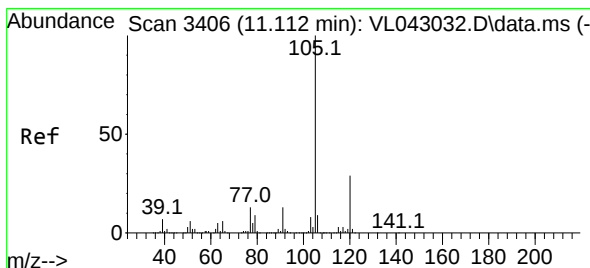
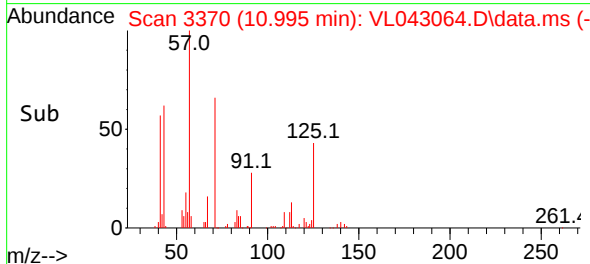
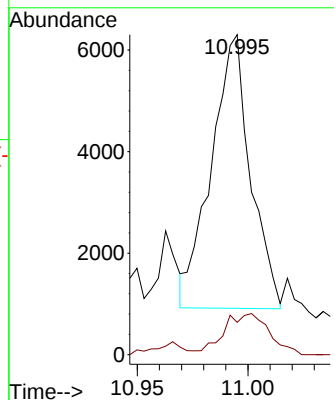
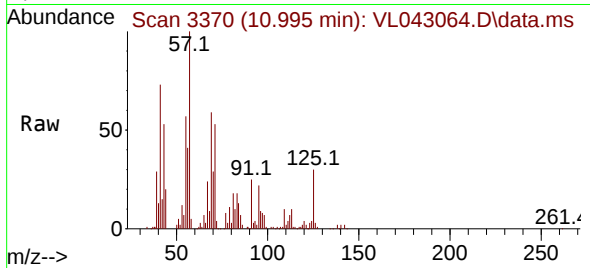




#71
2-Chlorotoluene
Concen: 0.096 ppbv
RT: 10.995 min Scan# 3111
Delta R.T. 0.110 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

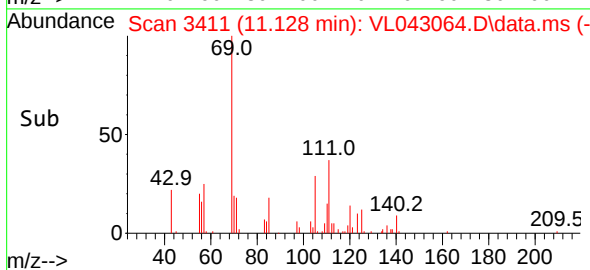
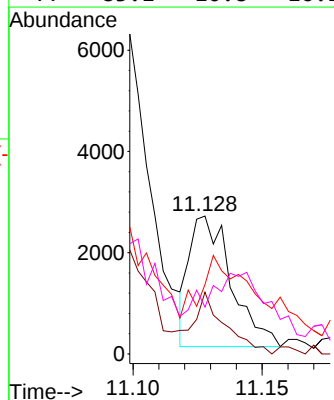
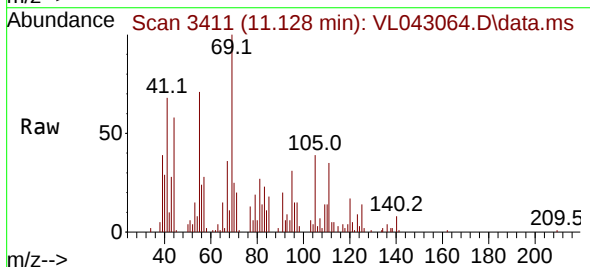
Instrument :
MSVOA_L
ClientSampleId :
SV2

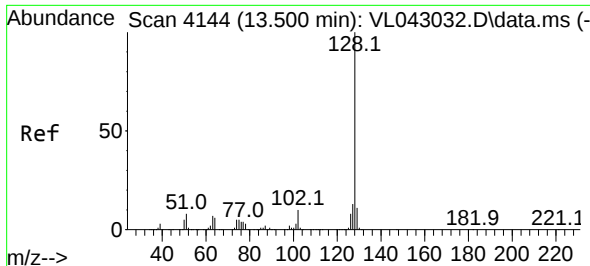
Tgt Ion: 91 Resp: 6638
Ion Ratio Lower Upper
91 100
126 20.7 12.2 48.6



#72
4-Ethyltoluene
Concen: 0.039 ppbv
RT: 11.128 min Scan# 3411
Delta R.T. 0.016 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion: 105 Resp: 2910
Ion Ratio Lower Upper
105 100
120 0.0 23.5 35.3#
91 50.1 10.4 15.6#
77 83.1 10.8 16.2#

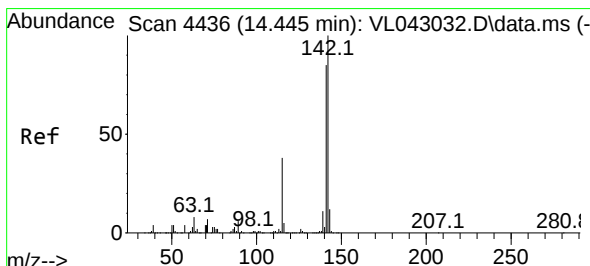
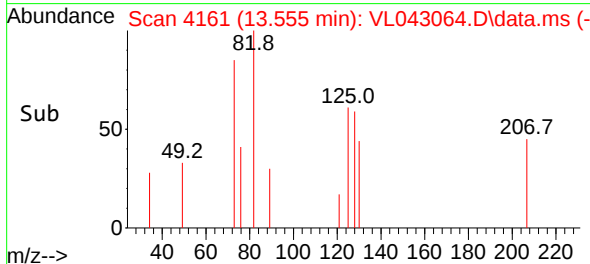
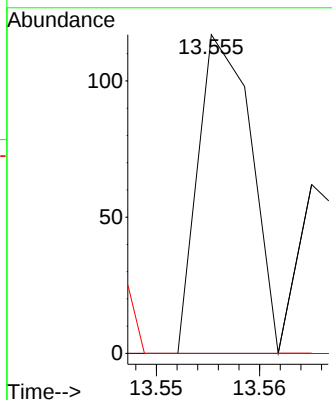
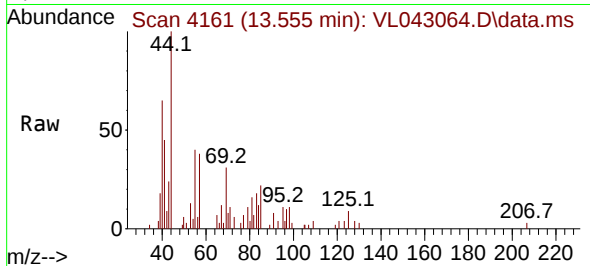




#79
Naphthalene
Concen: 0.235 ppbv
RT: 13.555 min Scan# 4144
Delta R.T. 0.055 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion:128 Resp: 42
Ion Ratio Lower Upper
128 100
127 0.0 10.6 16.0#
129 0.0 8.8 13.2#



#80
Naphthalene,2-methyl-
Concen: 0.663 ppbv
RT: 14.510 min Scan# 4456
Delta R.T. 0.065 min
Lab File: VL043064.D
Acq: 08 Oct 2025 15:05

Tgt Ion:142 Resp: 38
Ion Ratio Lower Upper
142 100
141 0.0 66.6 100.0#
115 881.6 30.1 45.1#

