

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL072225\
 Data File : VL042739.D
 Acq On : 22 Jul 2025 20:01
 Operator : SY/MD
 Sample : Q2617-03DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 23 03:05:30 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072225AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Jul 23 02:51:39 2025
 Response via : Initial Calibration

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

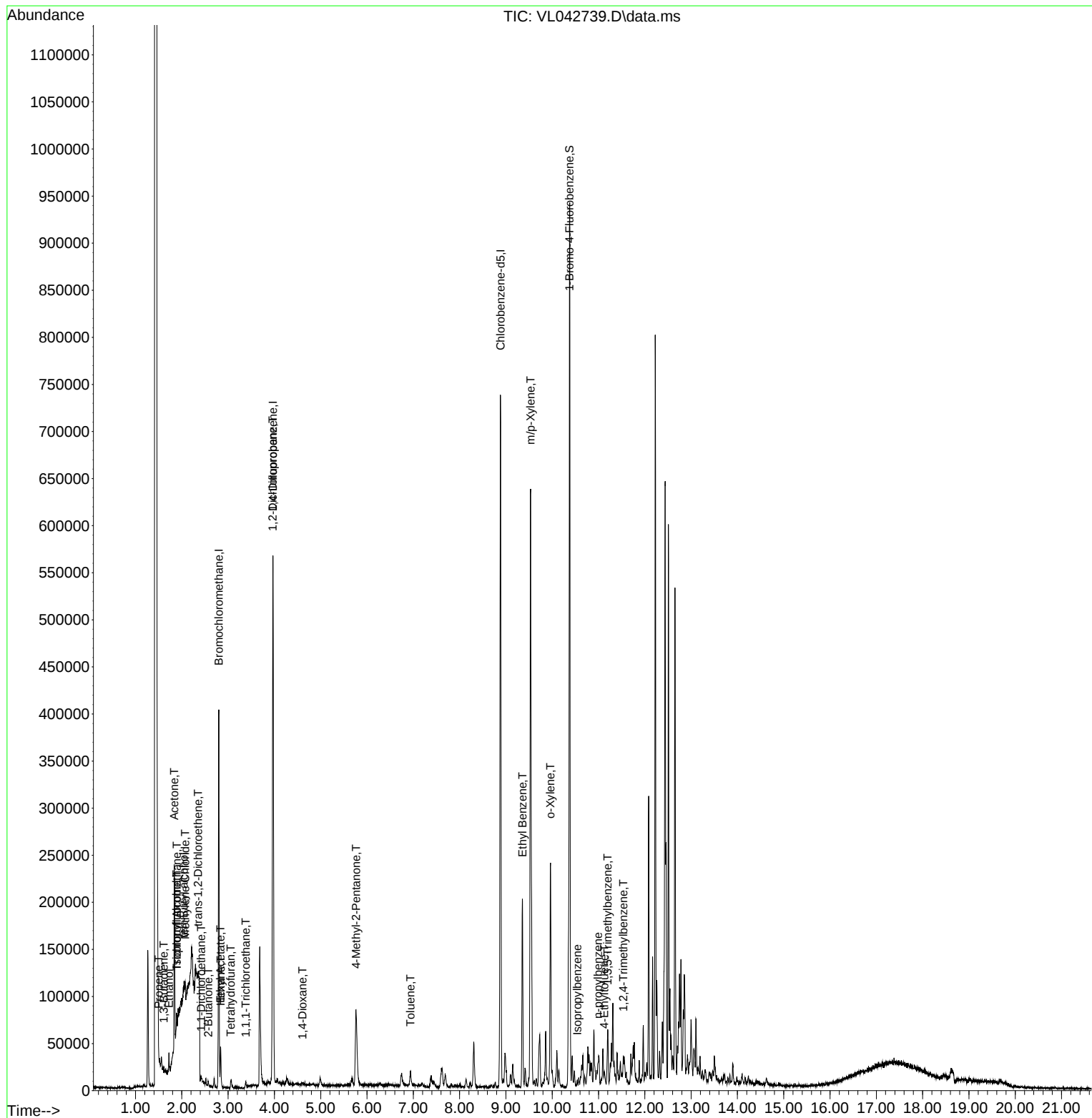
Internal Standards							
1)	Bromochloromethane	2.800	49	115982	10.000	ppbv	0.01
33)	1,4-Difluorobenzene	3.969	114	336933	10.000	ppbv	0.01
55)	Chlorobenzene-d5	8.882	117	290192	10.000	ppbv	0.00
System Monitoring Compounds							
68)	1-Bromo-4-Fluorobenzene	10.374	95	237738	10.136	ppbv	0.00
Spiked Amount		10.000	Range	65 - 135	Recovery	=	101.400%
Target Compounds							
							Qvalue
9)	Propene	1.502	41	289	0.040	ppbv	# 18
11)	Trichlorofluoromethane	1.891	101	588	0.032	ppbv	# 67
13)	Ethanol	1.722	45	7470	6.112	ppbv	# 35
15)	Acetone	1.836	43	139999	7.209	ppbv	97
16)	1,3-Butadiene	1.612	39	478	0.057	ppbv	# 16
17)	tert-Butyl alcohol	2.046	59	1989	0.108	ppbv	# 70
19)	Isopropyl Alcohol	1.888	45	7816	0.759	ppbv	# 1
20)	Methylene Chloride	2.075	84	1734	0.284	ppbv	# 89
22)	trans-1,2-Dichloroethene	2.354	96	258	0.036	ppbv	# 56
24)	1,1-Dichloroethane	2.418	63	584	0.041	ppbv	# 89
25)	Ethyl Acetate	2.839	43	7634	0.213	ppbv	# 77
26)	Hexane	2.842	57	10839	0.689	ppbv	# 39
32)	1,1,1-Trichloroethane	3.380	97	2400	0.088	ppbv	87
34)	2-Butanone	2.570	43	4512	0.194	ppbv	93
39)	1,2-Dichloropropane	3.965	63	90186	7.738	ppbv	# 20
40)	1,4-Dioxane	4.606	88	459	0.083	ppbv	# 1
41)	Tetrahydrofuran	3.056	42	708	0.061	ppbv	# 36
50)	4-Methyl-2-Pentanone	5.765	43	71490	2.351	ppbv	98
53)	Toluene	6.940	91	8312	0.236	ppbv	89
58)	Ethyl Benzene	9.358	91	110276	2.275	ppbv	99
59)	m/p-Xylene	9.532	91	362908	9.358	ppbv	98
60)	o-Xylene	9.963	91	104367	2.665	ppbv	99
62)	Isopropylbenzene	10.542	105	2829	0.049	ppbv	# 90
64)	n-propylbenzene	10.989	120	634	0.043	ppbv	# 1
72)	4-Ethyltoluene	11.125	105	3819	0.082	ppbv	# 58
73)	1,3,5-Trimethylbenzene	11.199	105	9503	0.246	ppbv	# 75
74)	1,2,4-Trimethylbenzene	11.536	105	9106	0.215	ppbv	# 57

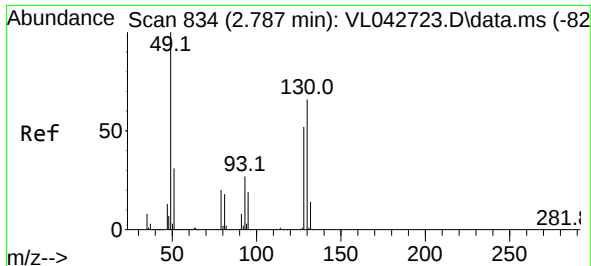
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Jul 23 03:05:30 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL072225AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Wed Jul 23 02:51:39 2025
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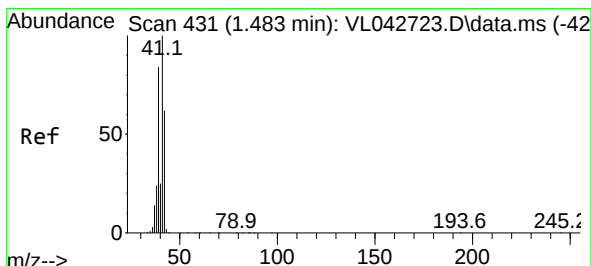
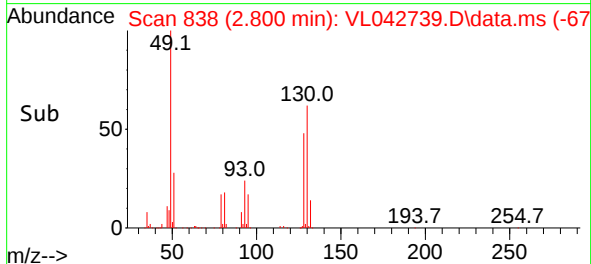
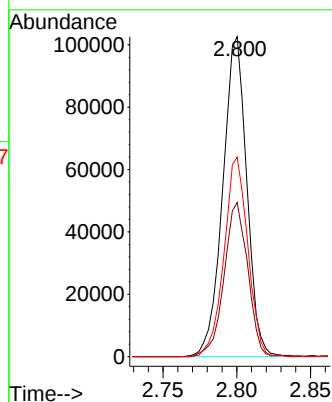
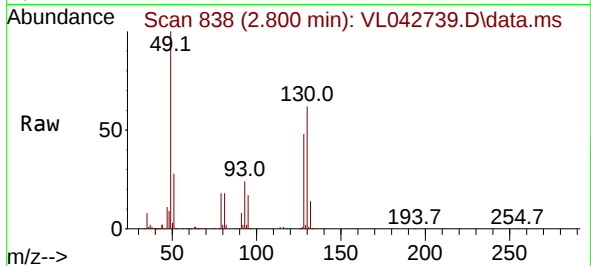




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 81
Delta R.T. 0.013 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

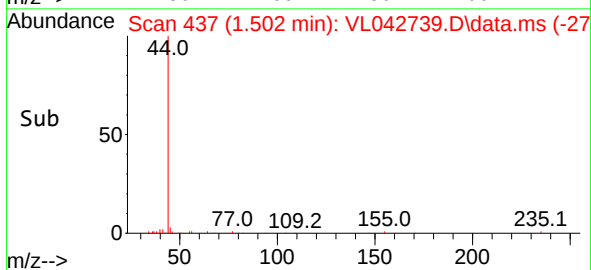
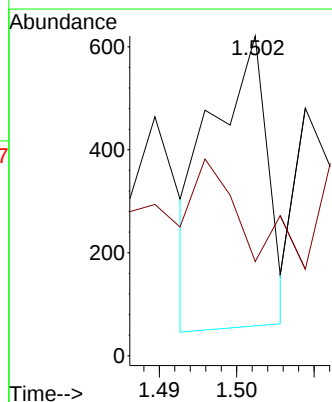
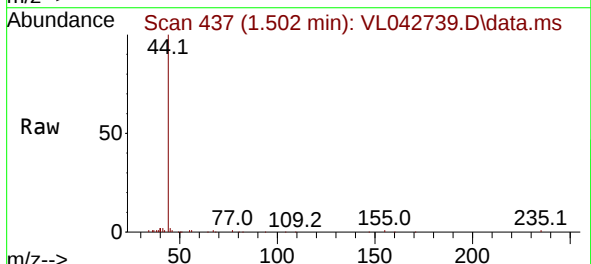
Instrument :
MSVOA_L
ClientSampleId :

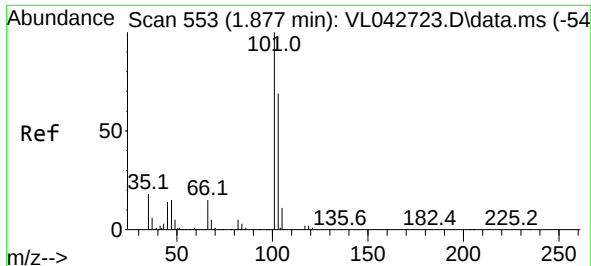
Tgt Ion: 49 Resp: 115982
Ion Ratio Lower Upper
49 100
128 47.7 24.5 73.5
130 62.0 31.7 95.1



#9
Propene
Concen: 0.040 ppbv
RT: 1.502 min Scan# 437
Delta R.T. 0.020 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 41 Resp: 289
Ion Ratio Lower Upper
41 100
42 0.0 52.0 78.0#

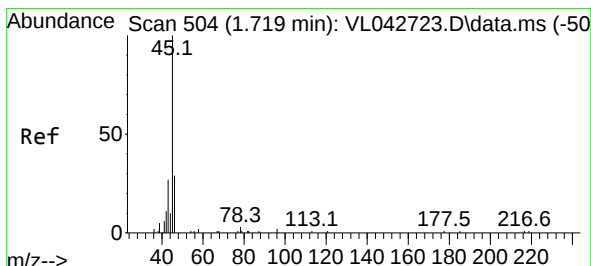
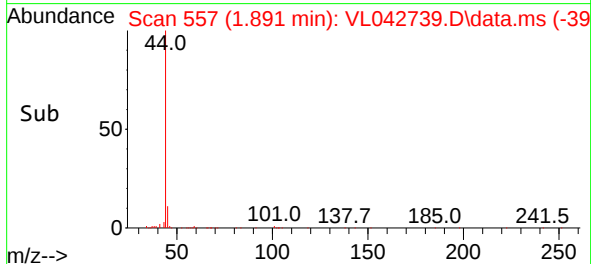
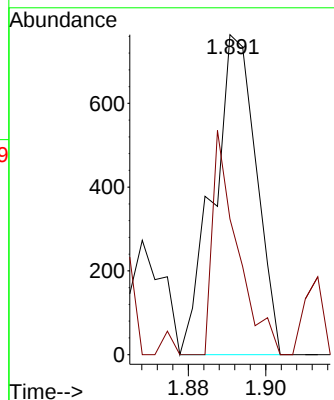
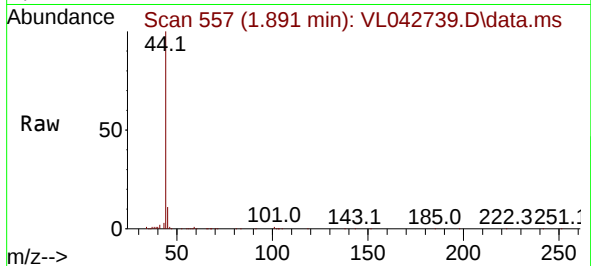




#11
 Trichlorofluoromethane
 Concen: 0.032 ppbv
 RT: 1.891 min Scan# 505
 Delta R.T. 0.013 min
 Lab File: VL042739.D
 Acq: 22 Jul 2025 20:01

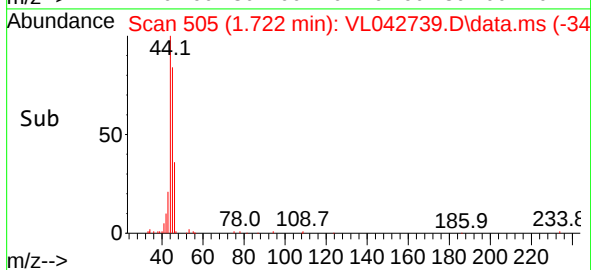
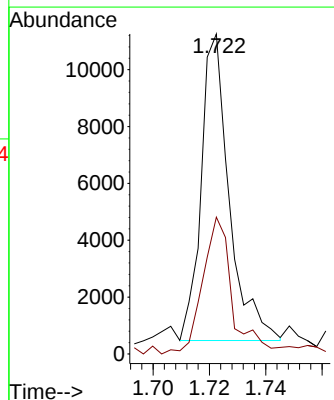
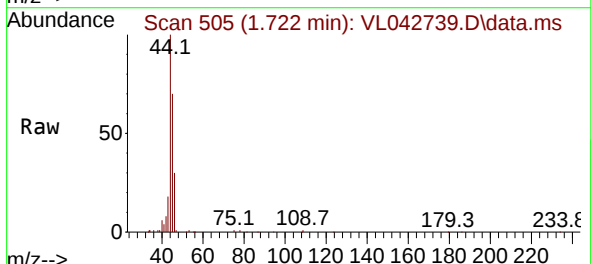
Instrument :
 MSVOA_L
 ClientSampleId :

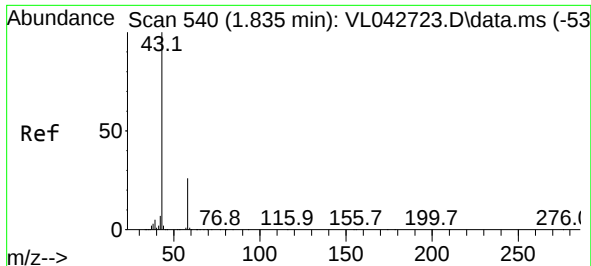
Tgt Ion:101 Resp: 588
 Ion Ratio Lower Upper
 101 100
 103 42.4 55.2 82.8#



#13
 Ethanol
 Concen: 6.112 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.004 min
 Lab File: VL042739.D
 Acq: 22 Jul 2025 20:01

Tgt Ion: 45 Resp: 7470
 Ion Ratio Lower Upper
 45 100
 46 0.0 16.3 65.1#

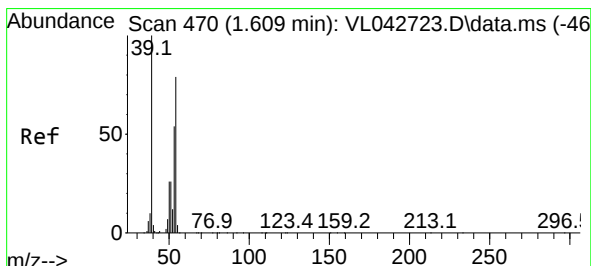
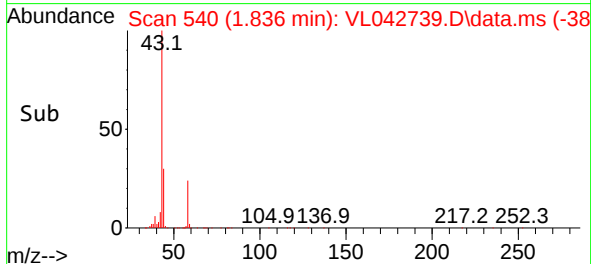
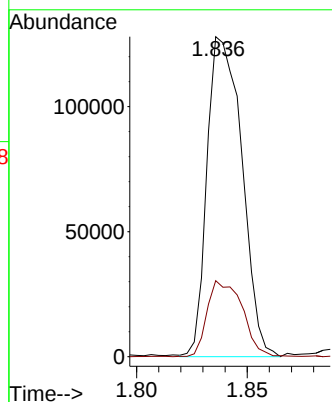
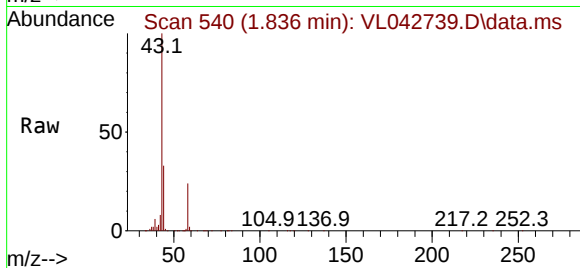




#15
Acetone
Concen: 7.209 ppbv
RT: 1.836 min Scan# 54
Delta R.T. 0.000 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

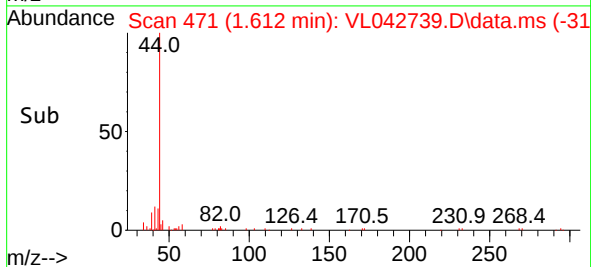
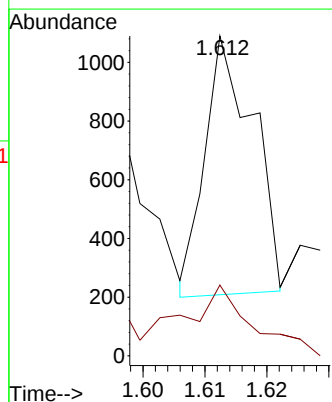
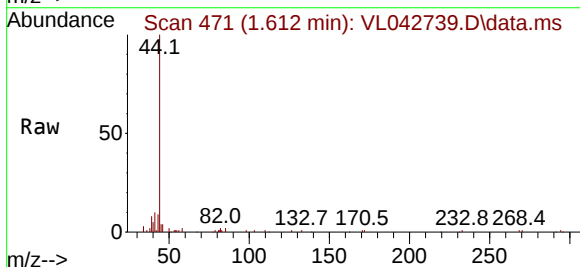
Instrument :
MSVOA_L
ClientSampleId :

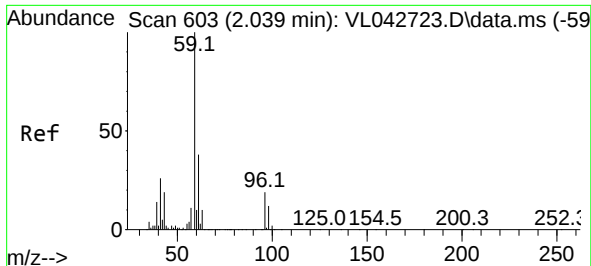
Tgt Ion: 43 Resp: 139999
Ion Ratio Lower Upper
43 100
58 24.1 20.5 30.7



#16
1,3-Butadiene
Concen: 0.057 ppbv
RT: 1.612 min Scan# 471
Delta R.T. 0.004 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 39 Resp: 478
Ion Ratio Lower Upper
39 100
54 0.0 54.6 82.0#

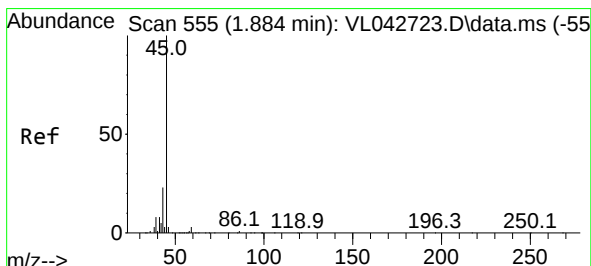
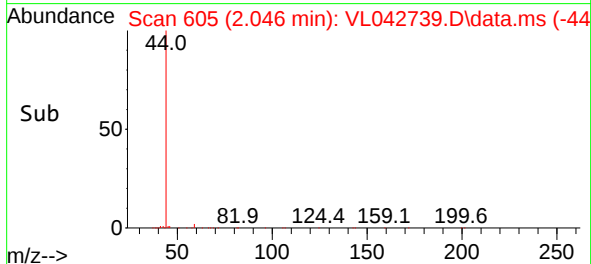
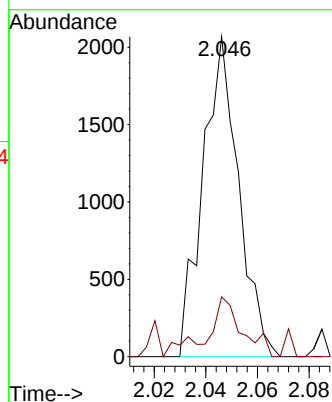
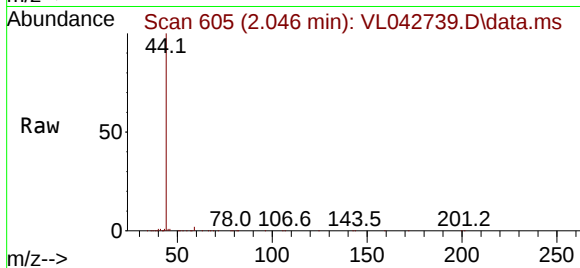




#17
tert-Butyl alcohol
Concen: 0.108 ppbv
RT: 2.046 min Scan# 603
Delta R.T. 0.007 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

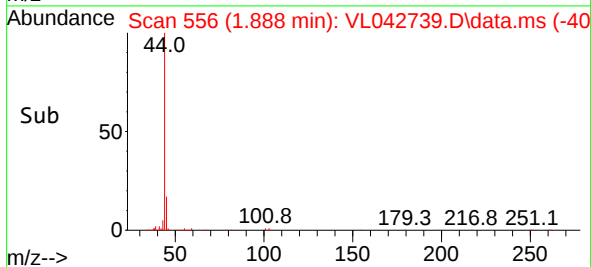
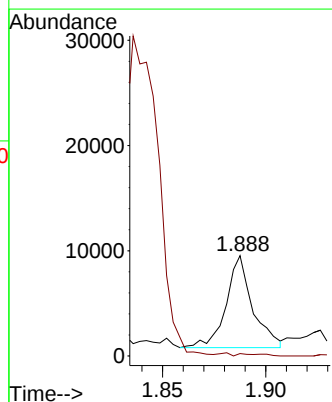
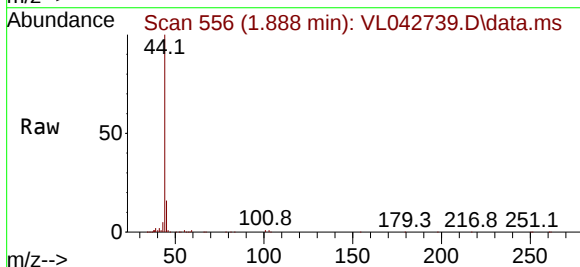
Instrument :
MSVOA_L
ClientSampleId :

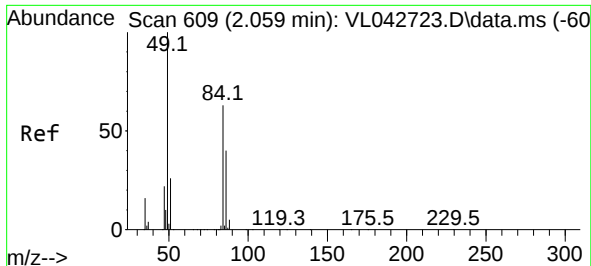
Tgt Ion: 59 Resp: 1989
Ion Ratio Lower Upper
59 100
57 22.9 9.1 13.7#



#19
Isopropyl Alcohol
Concen: 0.759 ppbv
RT: 1.888 min Scan# 556
Delta R.T. 0.004 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 45 Resp: 7816
Ion Ratio Lower Upper
45 100
58 432.2 30.6 46.0#



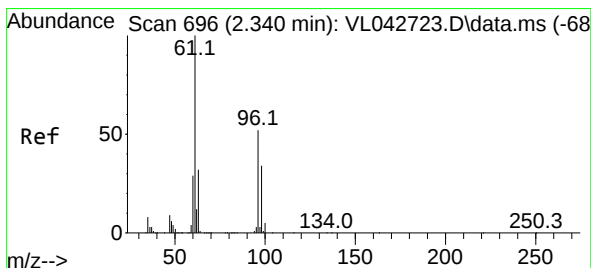
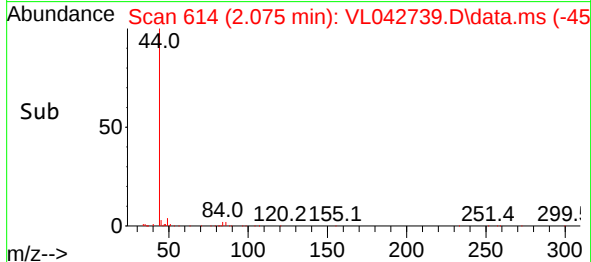
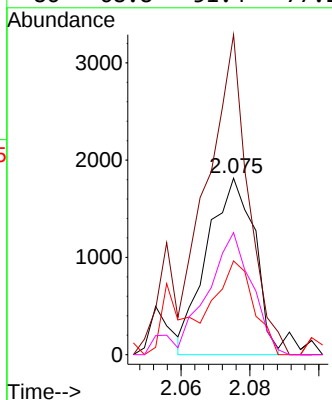
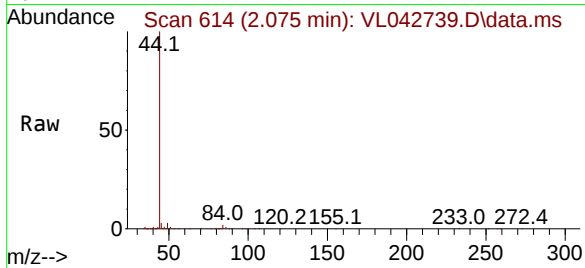


#20
Methylene Chloride
Concen: 0.284 ppbv
RT: 2.075 min Scan# 61
Delta R.T. 0.017 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Instrument :
MSVOA_L
ClientSampleId :

Tgt Ion: 84 Resp: 1734

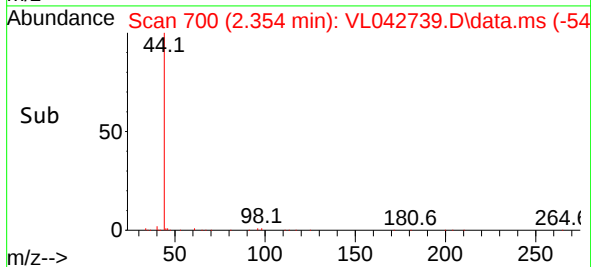
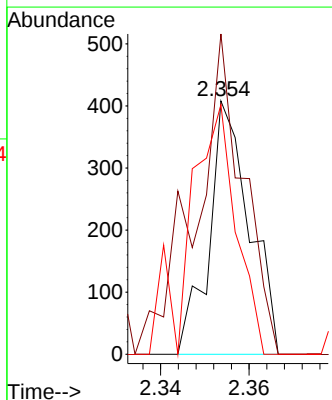
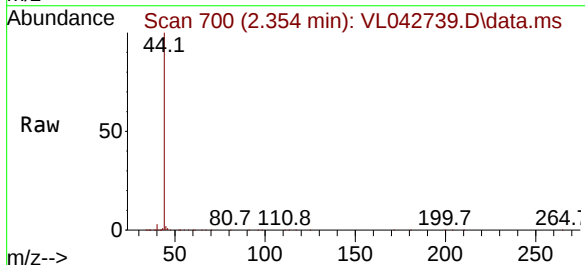
Ion	Ratio	Lower	Upper
84	100		
49	174.5	128.2	192.4
51	55.1	34.5	51.7#
86	68.8	51.4	77.2

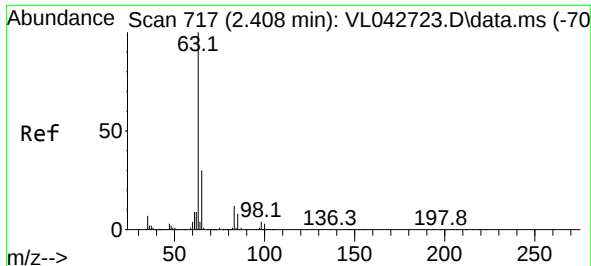


#22
trans-1,2-Dichloroethene
Concen: 0.036 ppbv
RT: 2.354 min Scan# 700
Delta R.T. 0.013 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 96 Resp: 258

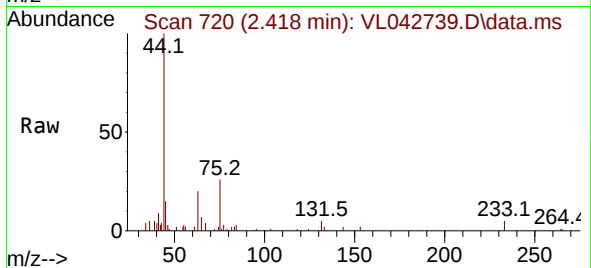
Ion	Ratio	Lower	Upper
96	100		
61	126.5	154.6	232.0#
98	98.5	53.1	79.7#



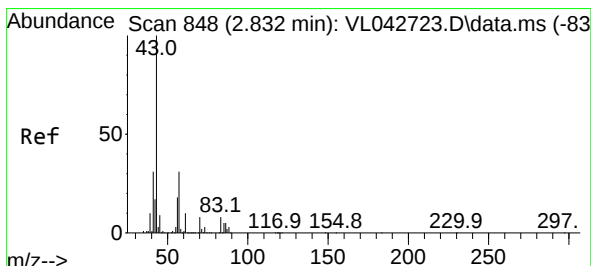
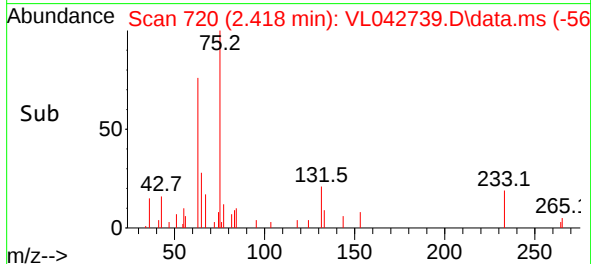
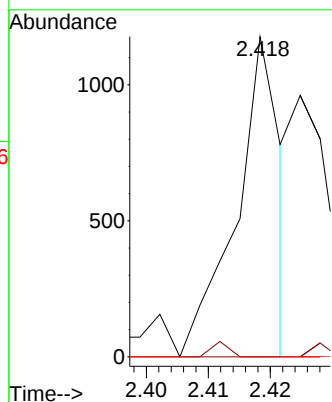


#24
1,1-Dichloroethane
Concen: 0.041 ppbv
RT: 2.418 min Scan# 717
Delta R.T. 0.010 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Instrument :
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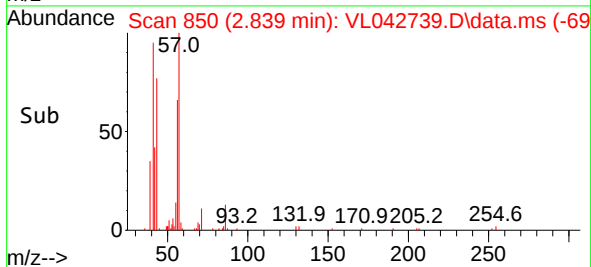
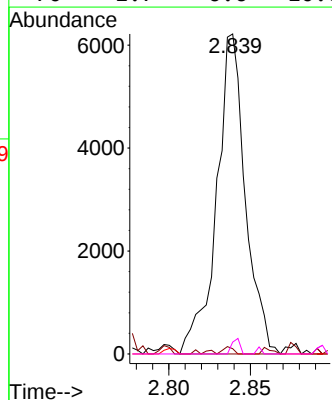
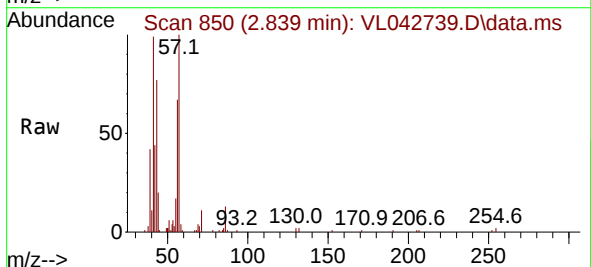


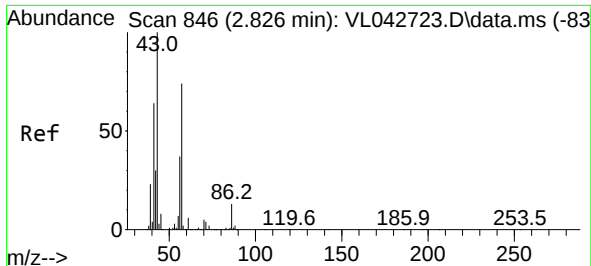
Tgt Ion: 63 Resp: 584
Ion Ratio Lower Upper
63 100
98 0.0 2.0 5.8#
100 0.0 1.6 4.7#



#25
Ethyl Acetate
Concen: 0.213 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.007 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

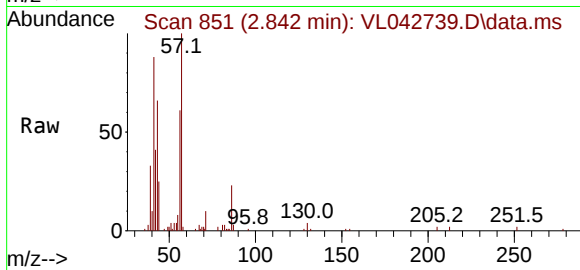
Tgt Ion: 43 Resp: 7634
Ion Ratio Lower Upper
43 100
45 0.0 7.8 11.6#
61 0.0 7.0 10.6#
70 1.7 6.6 10.0#



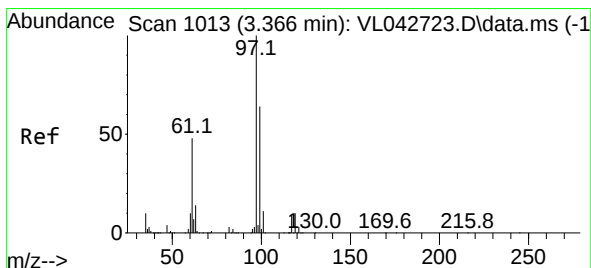
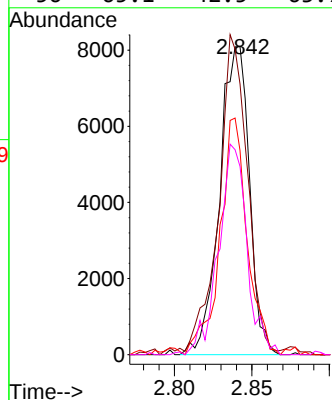
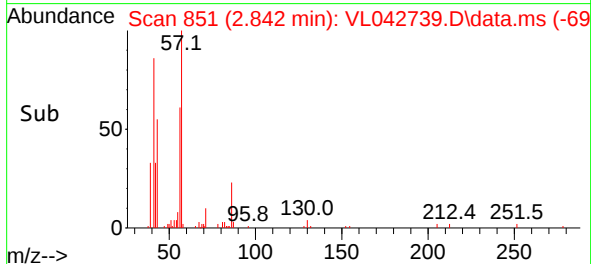


#26
Hexane
Concen: 0.689 ppbv
RT: 2.842 min Scan# 81
Delta R.T. 0.017 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Instrument :
MSVOA_L
ClientSampleId :

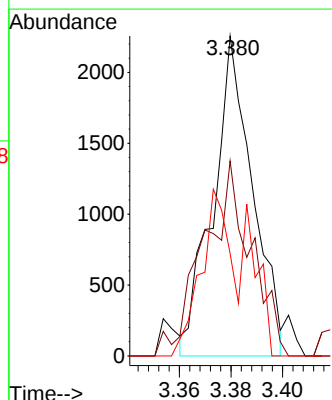
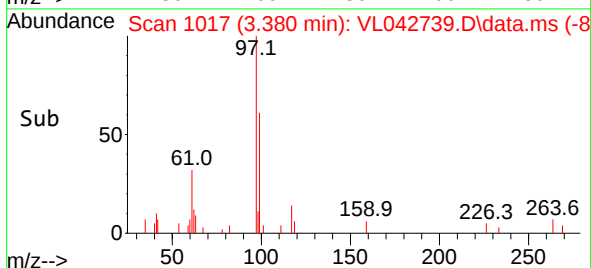
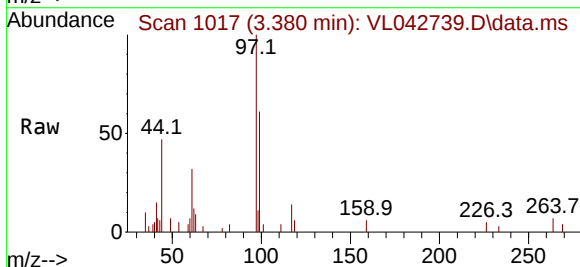


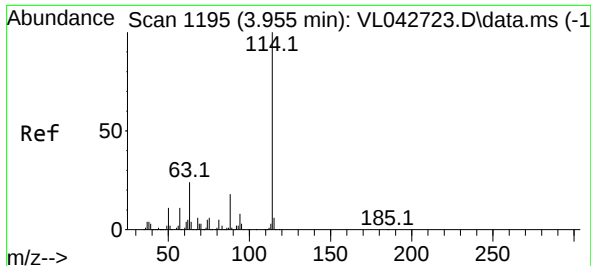
Tgt Ion: 57 Resp: 10839
Ion Ratio Lower Upper
57 100
41 103.2 77.3 115.9
43 72.7 182.3 273.5#
56 65.1 42.5 63.7#



#32
1,1,1-Trichloroethane
Concen: 0.088 ppbv
RT: 3.380 min Scan# 1017
Delta R.T. 0.013 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 97 Resp: 2400
Ion Ratio Lower Upper
97 100
99 75.4 51.4 77.0
61 57.4 39.6 59.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.969 min Scan# 1199

Delta R.T. 0.013 min

Lab File: VL042739.D

Acq: 22 Jul 2025 20:01

Instrument :

MSVOA_L

ClientSampleId :

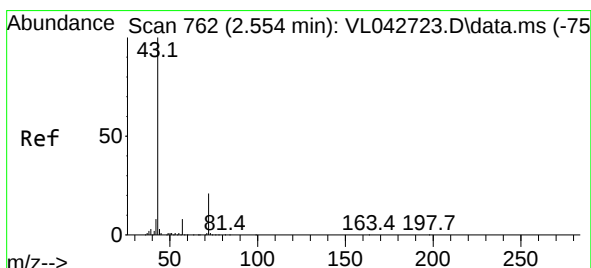
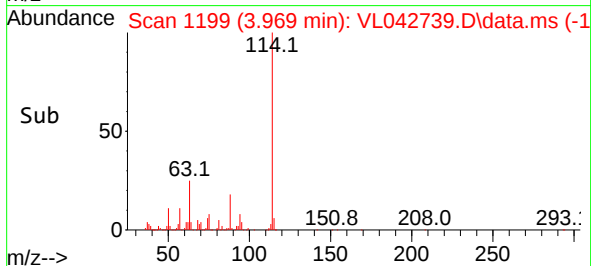
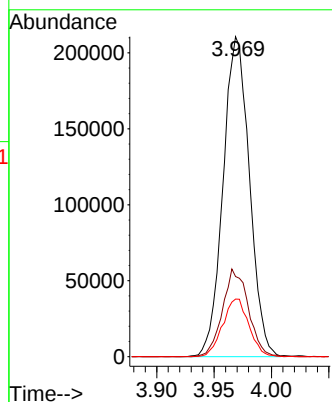
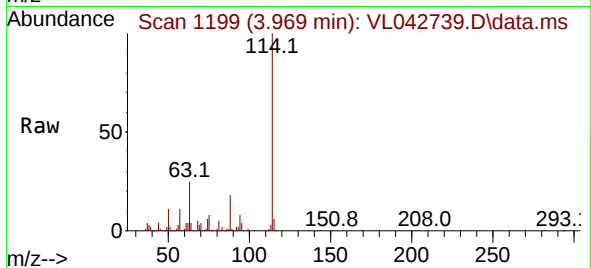
Tgt Ion:114 Resp: 336933

Ion Ratio Lower Upper

114 100

63 26.8 20.4 30.6

88 17.9 14.5 21.7



#34

2-Butanone

Concen: 0.194 ppbv

RT: 2.570 min Scan# 767

Delta R.T. 0.017 min

Lab File: VL042739.D

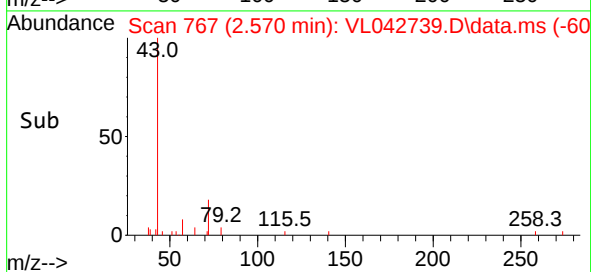
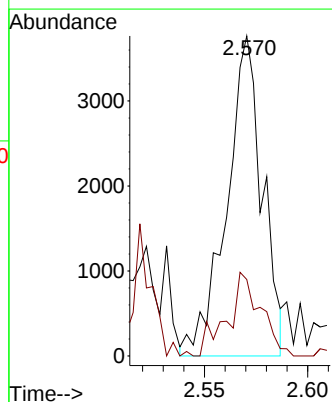
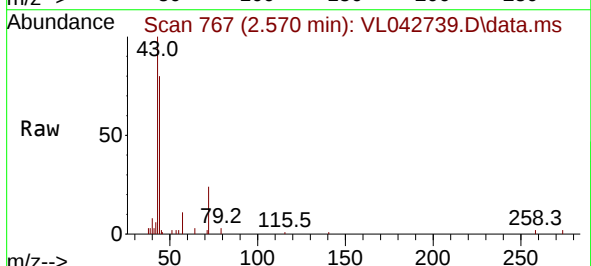
Acq: 22 Jul 2025 20:01

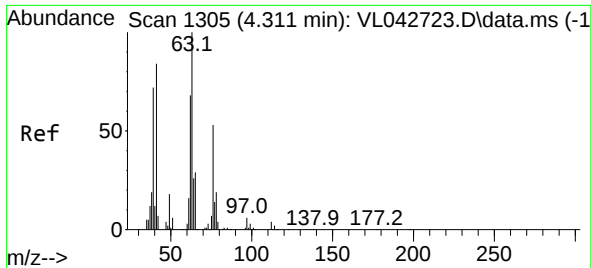
Tgt Ion: 43 Resp: 4512

Ion Ratio Lower Upper

43 100

72 24.4 17.0 25.6





#39

1,2-Dichloropropane

Concen: 7.738 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. -0.346 min

Lab File: VL042739.D

Acq: 22 Jul 2025 20:01

Instrument :

MSVOA_L

ClientSampleId :

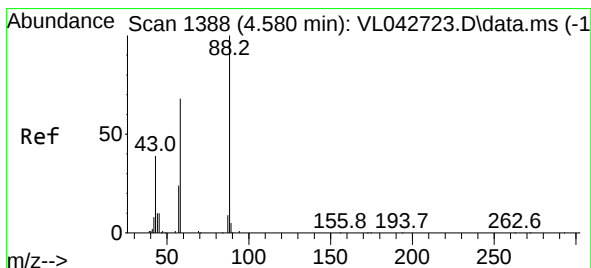
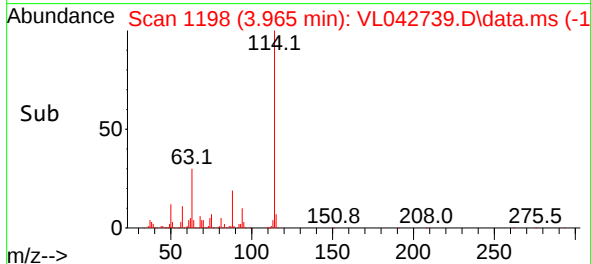
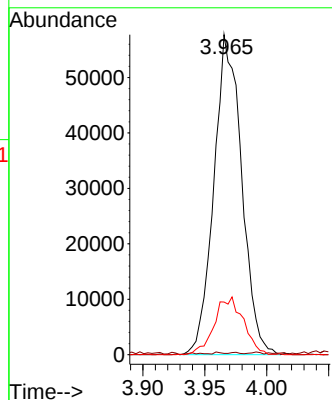
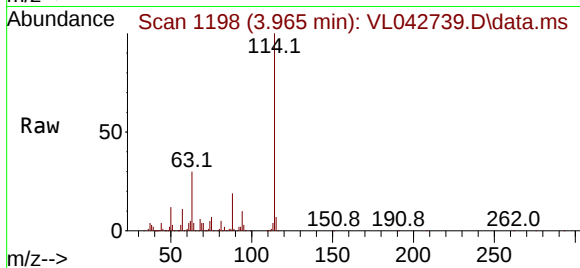
Tgt Ion: 63 Resp: 90186

Ion Ratio Lower Upper

63 100

41 0.6 67.7 101.5#

62 16.3 54.1 81.1#



#40

1,4-Dioxane

Concen: 0.083 ppbv

RT: 4.606 min Scan# 1396

Delta R.T. 0.026 min

Lab File: VL042739.D

Acq: 22 Jul 2025 20:01

Tgt Ion: 88 Resp: 459

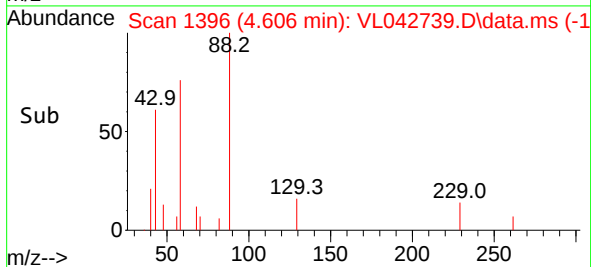
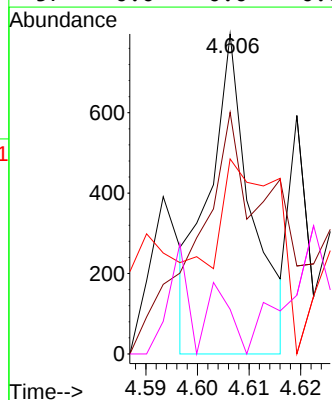
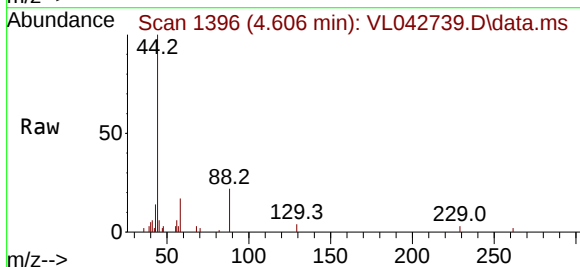
Ion Ratio Lower Upper

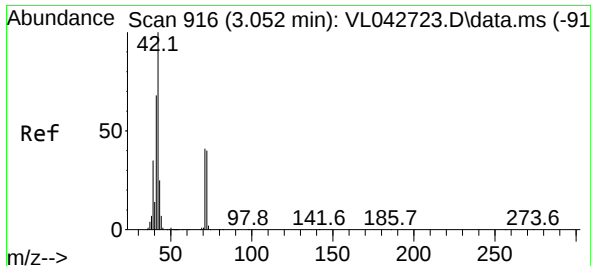
88 100

58 181.9 59.8 89.8#

43 243.1 32.6 48.8#

57 0.0 0.0 0.0

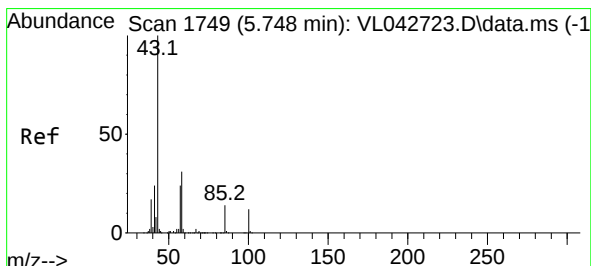
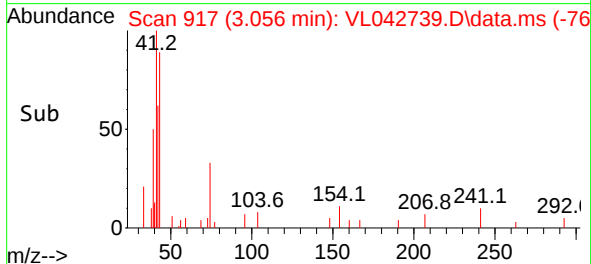
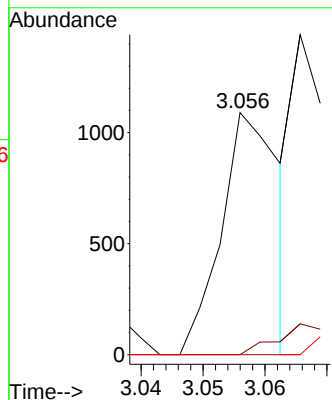
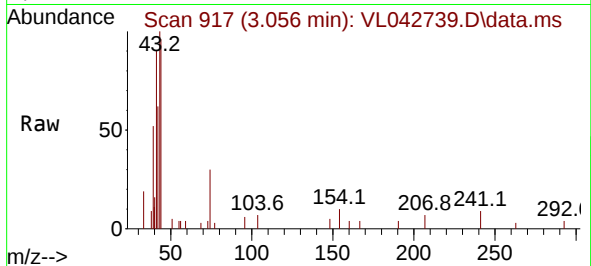




#41
Tetrahydrofuran
Concen: 0.061 ppbv
RT: 3.056 min Scan# 916
Delta R.T. 0.004 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

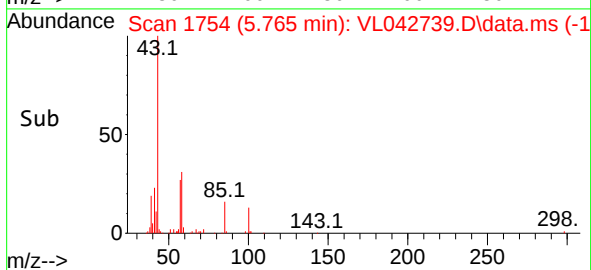
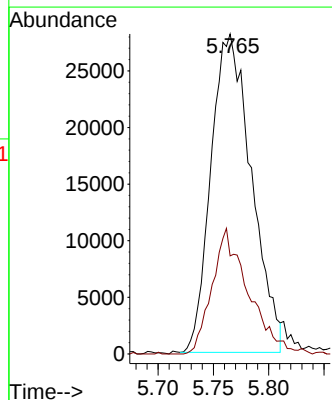
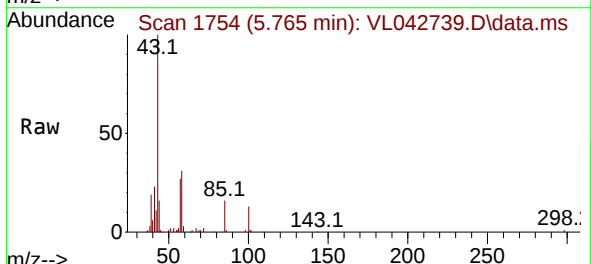
Instrument :
MSVOA_L
ClientSampleId :

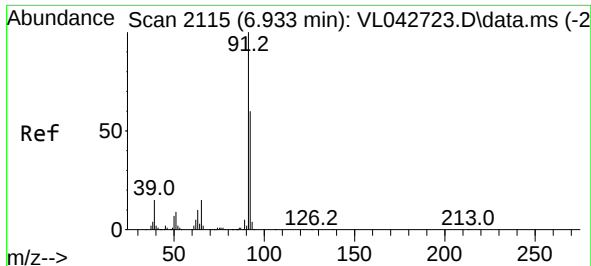
Tgt Ion: 42 Resp: 708
Ion Ratio Lower Upper
42 100
72 0.0 32.2 48.2#
71 0.0 29.8 44.6#



#50
4-Methyl-2-Pentanone
Concen: 2.351 ppbv
RT: 5.765 min Scan# 1754
Delta R.T. 0.017 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 43 Resp: 71490
Ion Ratio Lower Upper
43 100
58 35.5 27.6 41.4

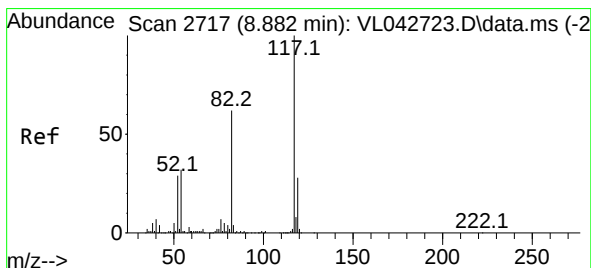
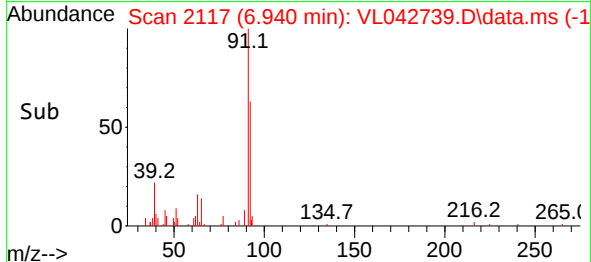
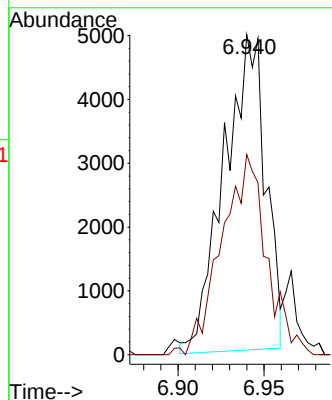
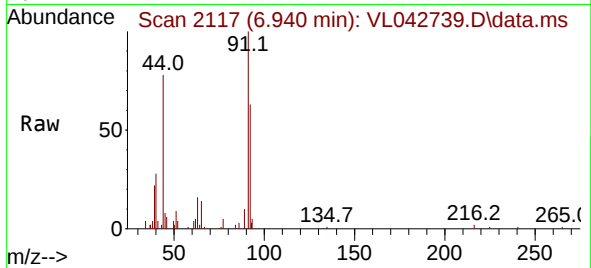




#53
Toluene
Concen: 0.236 ppbv
RT: 6.940 min Scan# 2115
Delta R.T. 0.007 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

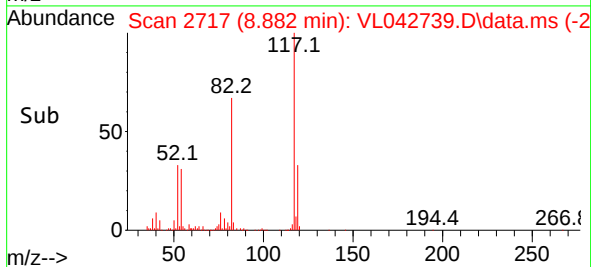
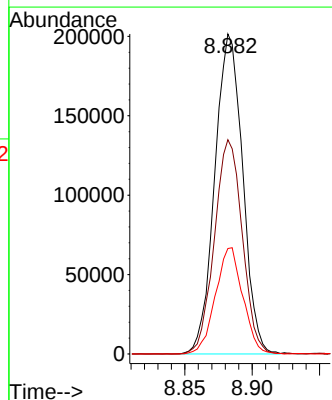
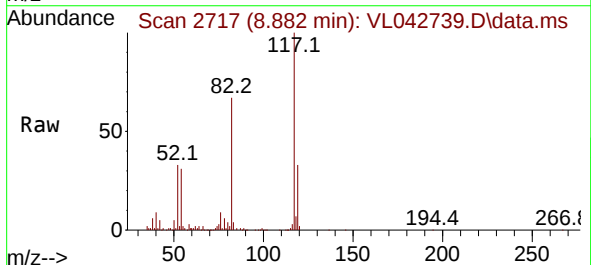
Instrument :
MSVOA_L
ClientSampleId :

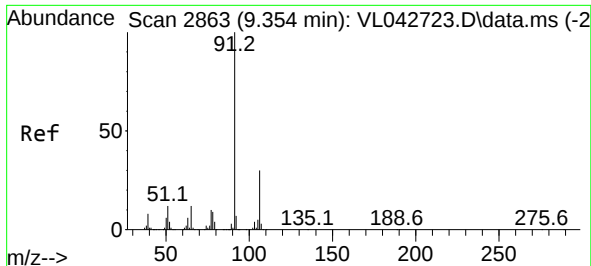
Tgt Ion: 91 Resp: 8312
Ion Ratio Lower Upper
91 100
92 68.5 48.2 72.4



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.882 min Scan# 2717
Delta R.T. 0.000 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 117 Resp: 290192
Ion Ratio Lower Upper
117 100
82 67.0 54.6 81.8
119 32.7 25.3 37.9





#58

Ethyl Benzene

Concen: 2.275 ppbv

RT: 9.358 min Scan# 21

Delta R.T. 0.004 min

Lab File: VL042739.D

Acq: 22 Jul 2025 20:01

Instrument :

MSVOA_L

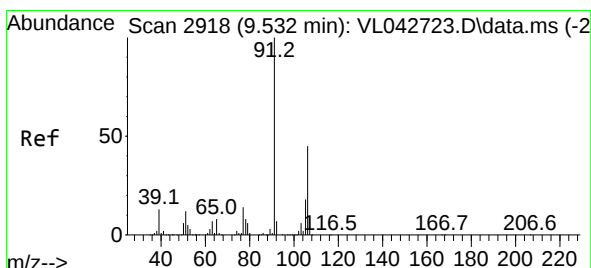
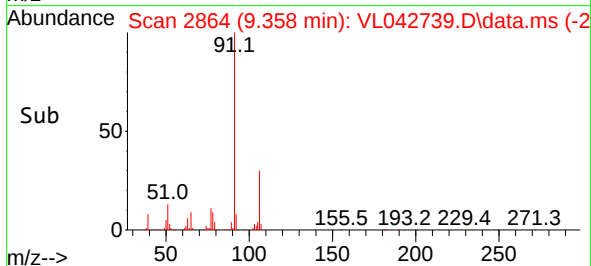
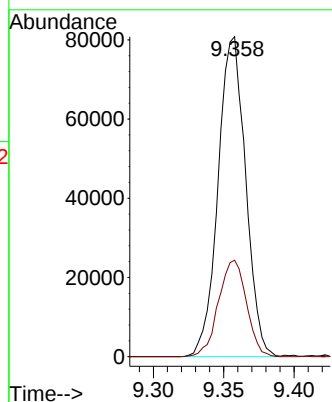
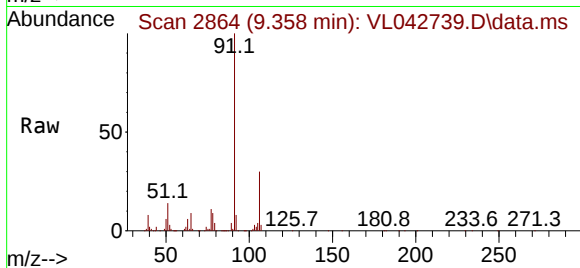
ClientSampleId :

Tgt Ion: 91 Resp: 110276

Ion Ratio Lower Upper

91 100

106 30.2 23.7 35.5



#59

m/p-Xylene

Concen: 9.358 ppbv

RT: 9.532 min Scan# 2918

Delta R.T. 0.000 min

Lab File: VL042739.D

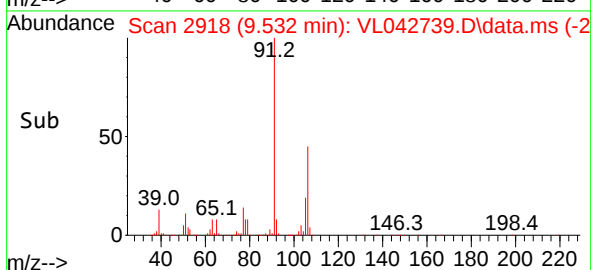
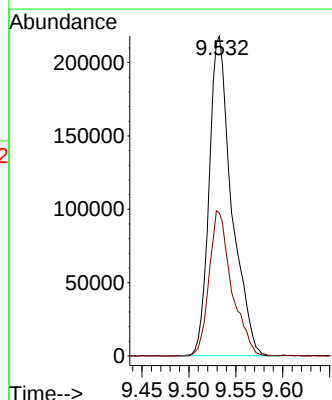
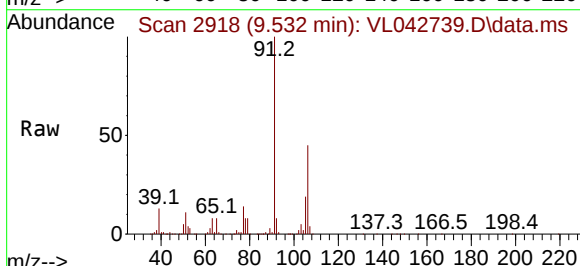
Acq: 22 Jul 2025 20:01

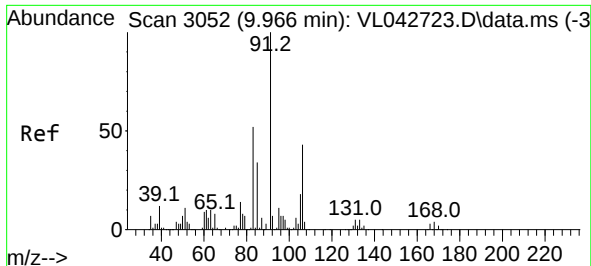
Tgt Ion: 91 Resp: 362908

Ion Ratio Lower Upper

91 100

106 45.4 37.3 55.9

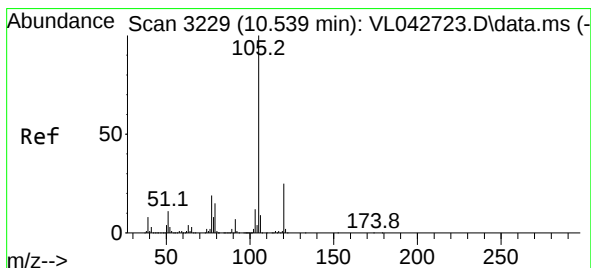
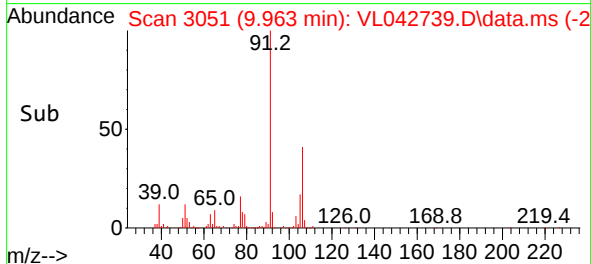
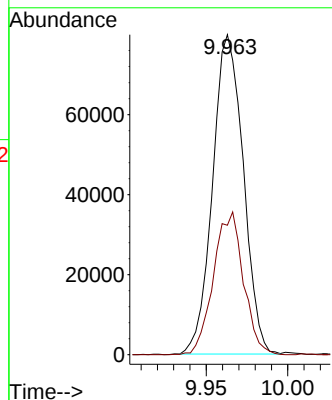
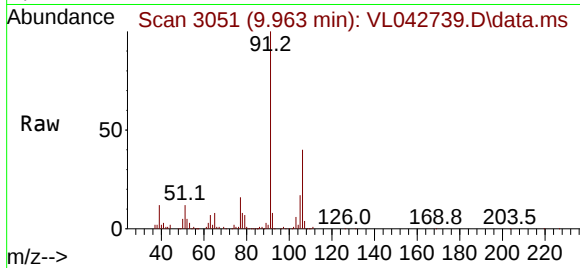




#60
o-Xylene
Concen: 2.665 ppbv
RT: 9.963 min Scan# 3052
Delta R.T. -0.003 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

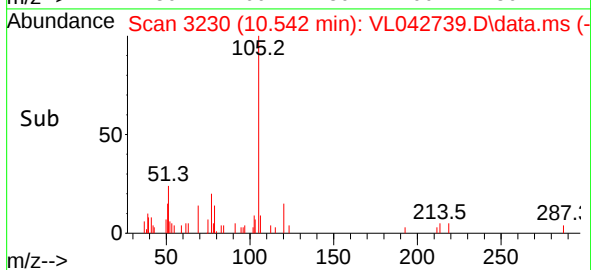
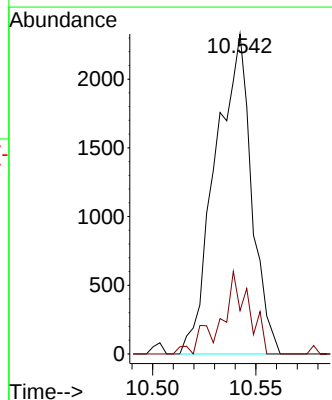
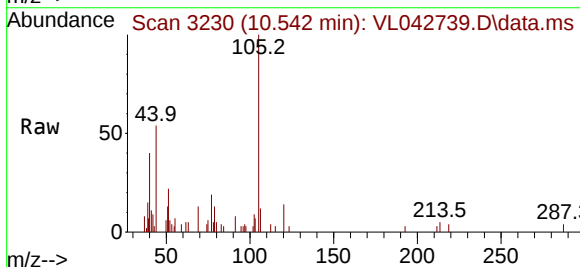
Instrument :
MSVOA_L
ClientSampleId :

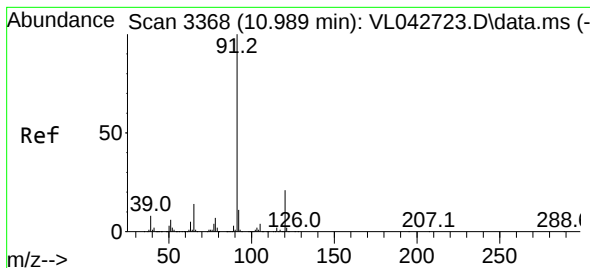
Tgt Ion: 91 Resp: 104367
Ion Ratio Lower Upper
91 100
106 43.6 21.4 64.3



#62
Isopropylbenzene
Concen: 0.049 ppbv
RT: 10.542 min Scan# 3230
Delta R.T. 0.004 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Tgt Ion: 105 Resp: 2829
Ion Ratio Lower Upper
105 100
120 20.1 20.2 30.2#

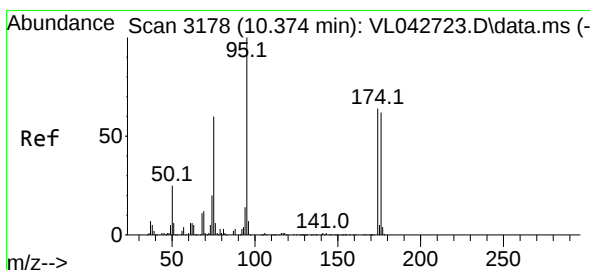
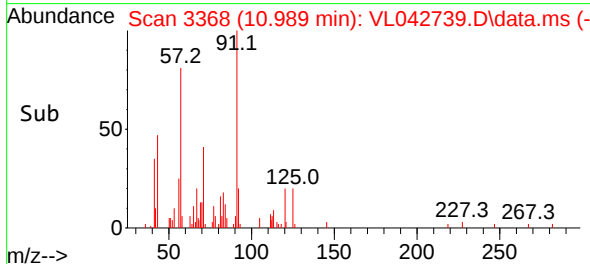
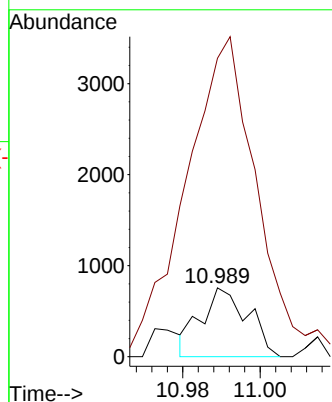
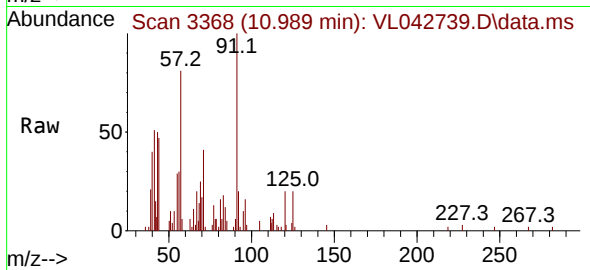




#64
n-propylbenzene
Concen: 0.043 ppbv
RT: 10.989 min Scan# 3178
Delta R.T. 0.000 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

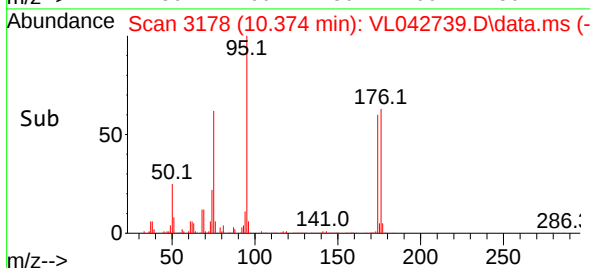
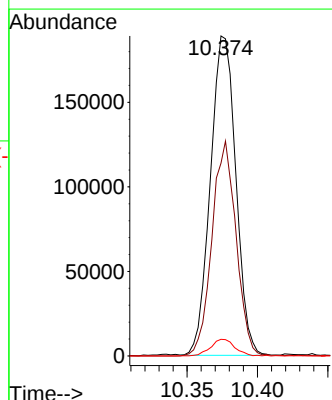
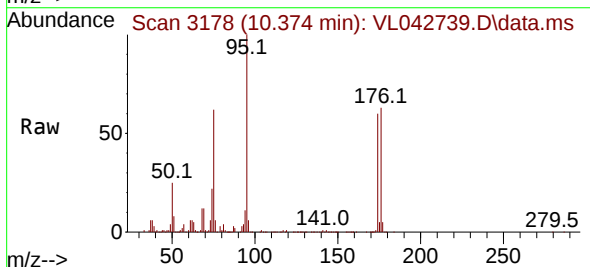
Instrument :
MSVOA_L
ClientSampleId :

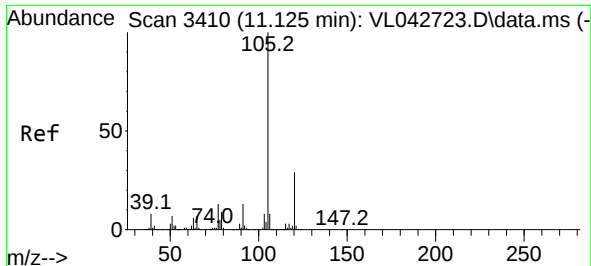
Tgt Ion:120 Resp: 634
Ion Ratio Lower Upper
120 100
91 753.2 377.4 566.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.136 ppbv
RT: 10.374 min Scan# 3178
Delta R.T. 0.000 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

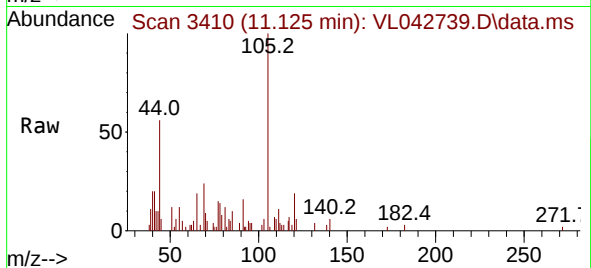
Tgt Ion: 95 Resp: 237738
Ion Ratio Lower Upper
95 100
174 63.9 51.4 77.2
175 5.1 4.2 6.4



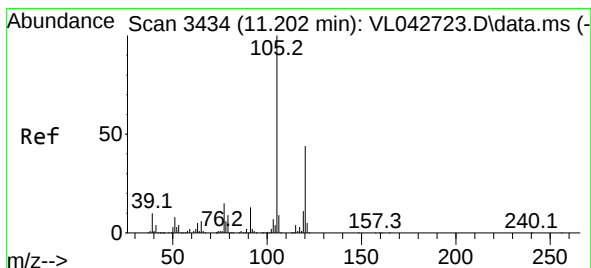
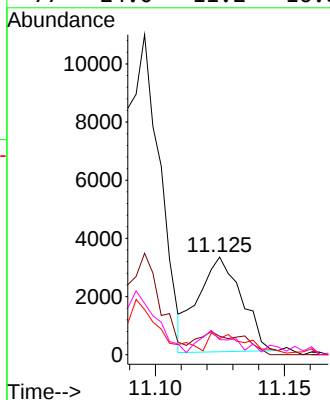
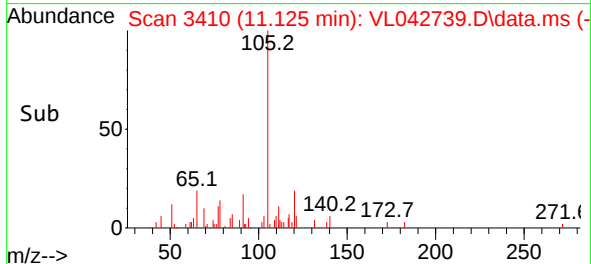


#72
4-Ethyltoluene
Concen: 0.082 ppbv
RT: 11.125 min Scan# 3410
Delta R.T. 0.000 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

Instrument :
MSVOA_L
ClientSampleId :

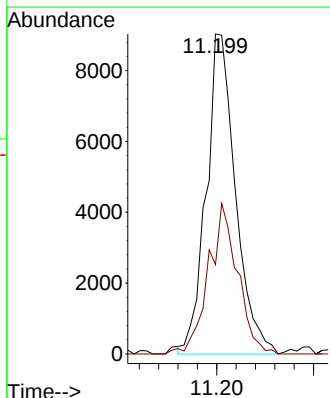
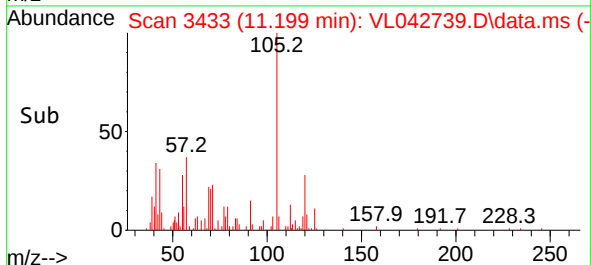
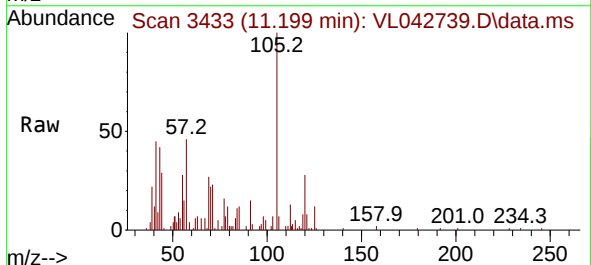


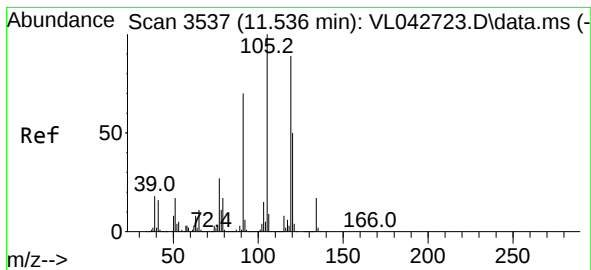
Tgt Ion:105 Resp: 3819
Ion Ratio Lower Upper
105 100
120 0.0 23.4 35.0#
91 0.0 10.6 15.8#
77 24.0 11.2 16.8#



#73
1,3,5-Trimethylbenzene
Concen: 0.246 ppbv
RT: 11.199 min Scan# 3433
Delta R.T. -0.003 min
Lab File: VL042739.D
Acq: 22 Jul 2025 20:01

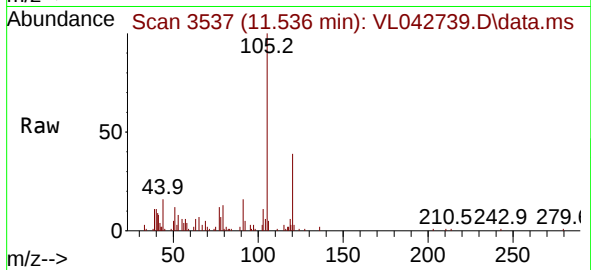
Tgt Ion:105 Resp: 9503
Ion Ratio Lower Upper
105 100
120 27.9 35.2 52.8#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.215 ppbv
 RT: 11.536 min Scan# 31
 Delta R.T. 0.000 min
 Lab File: VL042739.D
 Acq: 22 Jul 2025 20:01

Instrument :
 MSVOA_L
 ClientSampleId :



Tgt Ion:	105	Resp:	9106
Ion	Ratio	Lower	Upper
105	100		
120	39.6	39.9	59.9#
91	15.9	56.5	84.7#
77	11.0	21.8	32.6#

