

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042595.D
 Acq On : 29 May 2025 20:37
 Operator : SY/MD
 Sample : Q2124-03DL 20X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL

Quant Time: May 30 02:14:18 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

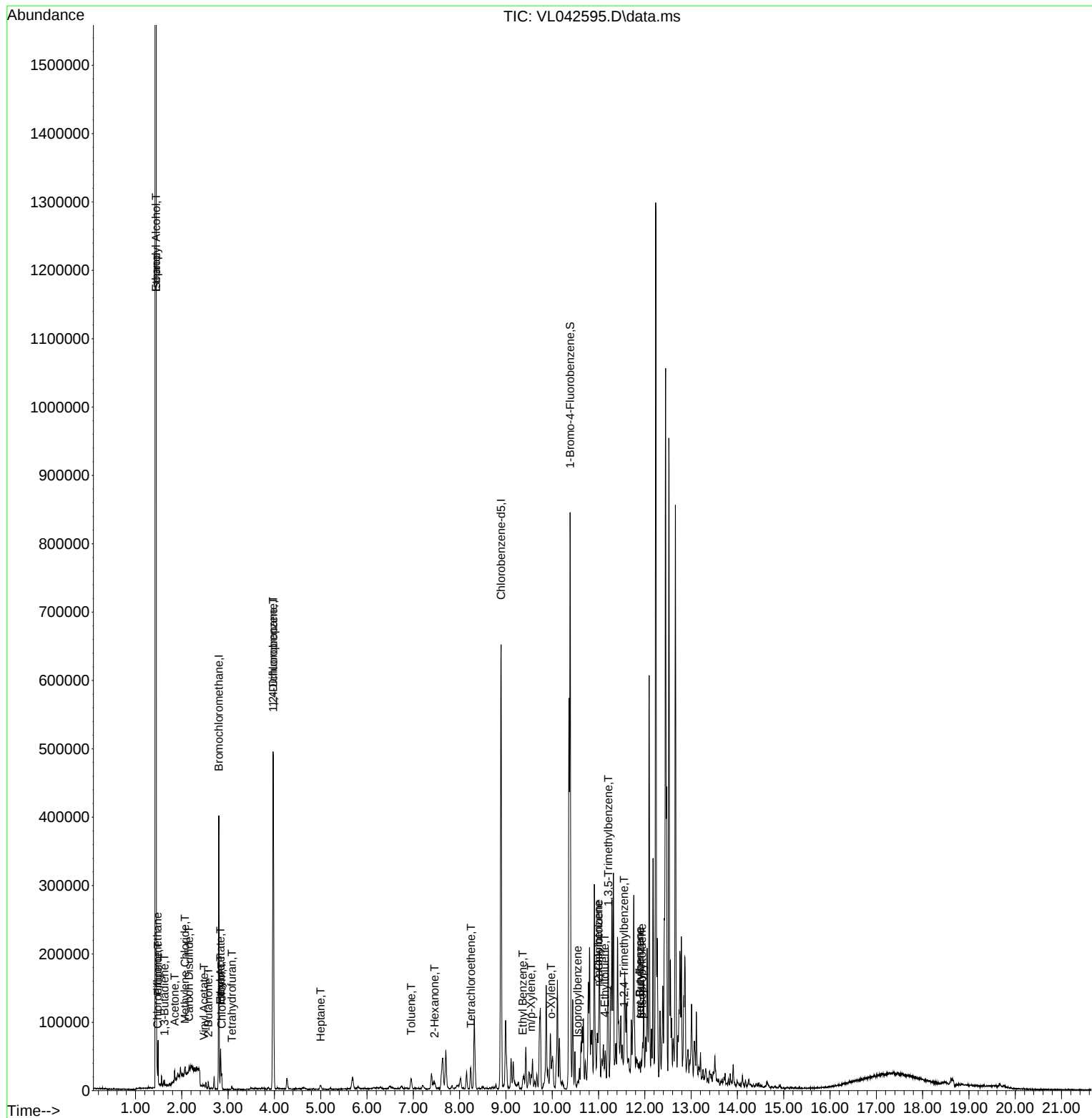
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

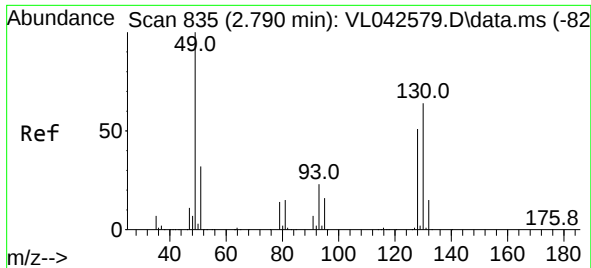
Internal Standards						
1) Bromochloromethane	2.800	49	108661	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.971	114	312802	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.894	117	276032	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.386	95	206403	9.975	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.800%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	1.473	51	978	0.053	ppbv #	86
9) Propene	1.489	41	2259	0.305	ppbv	87
10) Heptane	5.001	43	2248	0.108	ppbv #	28
13) Ethanol	1.444	45	64030	72.536	ppbv #	1
15) Acetone	1.845	43	5905	0.451	ppbv #	77
16) 1,3-Butadiene	1.625	39	603	0.097	ppbv #	13
19) Isopropyl Alcohol	1.444	45	64030	8.183	ppbv #	38
20) Methylene Chloride	2.068	84	864	0.200	ppbv #	88
23) Vinyl Acetate	2.483	43	1026	0.058	ppbv #	58
25) Ethyl Acetate	2.839	43	10519	0.294	ppbv #	79
26) Hexane	2.839	57	14419	0.886	ppbv #	43
27) Carbon Disulfide	2.159	76	4377	0.350	ppbv #	62
29) Chloroform	2.861	83	8601	0.406	ppbv	99
34) 2-Butanone	2.570	43	6460	0.290	ppbv	94
39) 1,2-Dichloropropane	3.975	63	75002	6.584	ppbv #	23
41) Tetrahydrofuran	3.085	42	1737	0.133	ppbv #	93
51) 2-Hexanone	7.457	43	1971	0.080	ppbv #	4
52) Tetrachloroethene	8.247	164	1505	0.131	ppbv	85
53) Toluene	6.952	91	11057	0.311	ppbv	97
58) Ethyl Benzene	9.364	91	4115	0.088	ppbv	92
59) m/p-Xylene	9.542	91	6094	0.165	ppbv #	30
60) o-Xylene	9.975	91	5853	0.159	ppbv	99
62) Isopropylbenzene	10.548	105	3137	0.058	ppbv	95
64) n-propylbenzene	10.998	120	1205	0.083	ppbv #	16
65) tert-Butylbenzene	11.895	119	2329	0.047	ppbv	94
67) sec-Butylbenzene	11.888	105	2880	0.042	ppbv	93
69) p-Isopropyltoluene	11.937	119	2454	0.042	ppbv #	75
71) 2-Chlorotoluene	11.001	91	3069	0.074	ppbv	83
72) 4-Ethyltoluene	11.134	105	3879	0.085	ppbv #	55
73) 1,3,5-Trimethylbenzene	11.212	105	3870	0.102	ppbv	91
74) 1,2,4-Trimethylbenzene	11.548	105	8047	0.191	ppbv #	65

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

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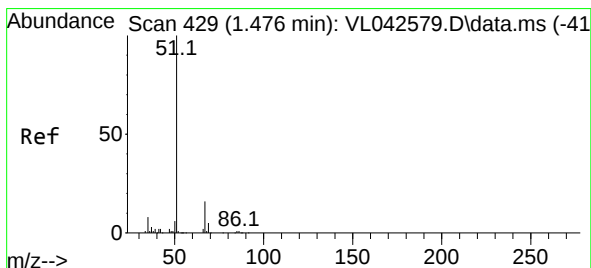
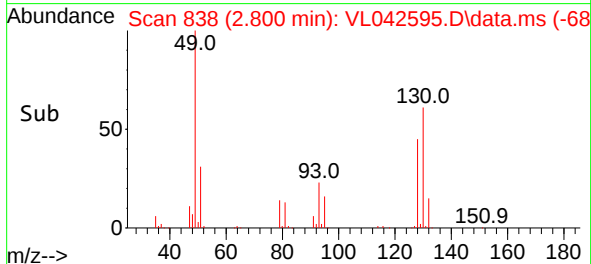
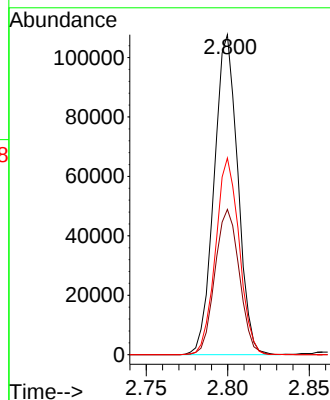
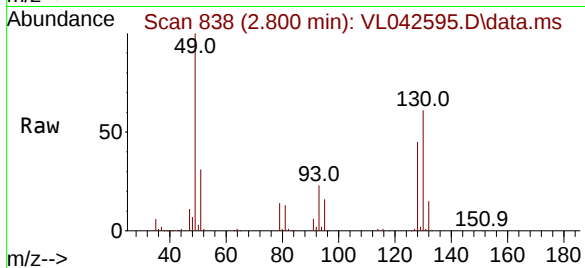




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

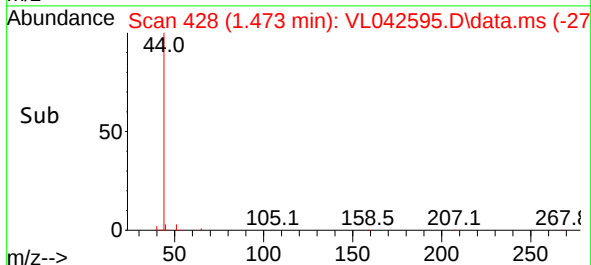
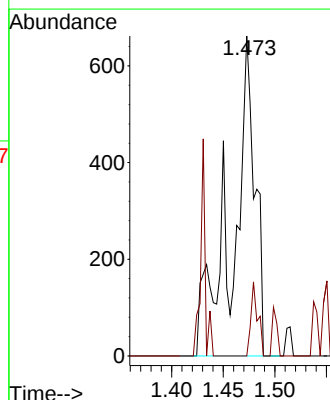
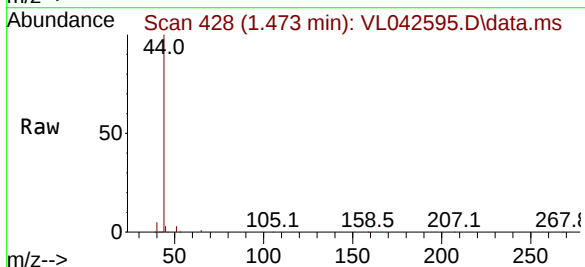
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SV3DL

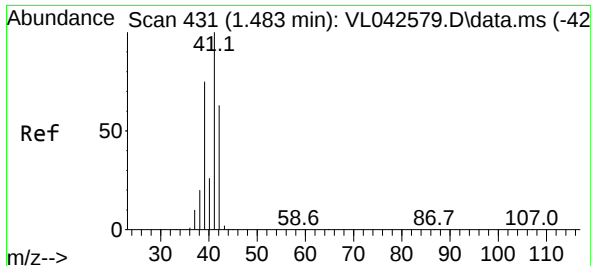
Tgt Ion: 49 Resp: 108661
Ion Ratio Lower Upper
49 100
128 46.8 24.2 72.6
130 61.3 30.4 91.2



#3
Chlorodifluoromethane
Concen: 0.053 ppbv
RT: 1.473 min Scan# 428
Delta R.T. -0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 51 Resp: 978
Ion Ratio Lower Upper
51 100
67 10.6 13.4 20.2#





#9

Propene

Concen: 0.305 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Instrument :

MSVOA_L

ClientSampleId :

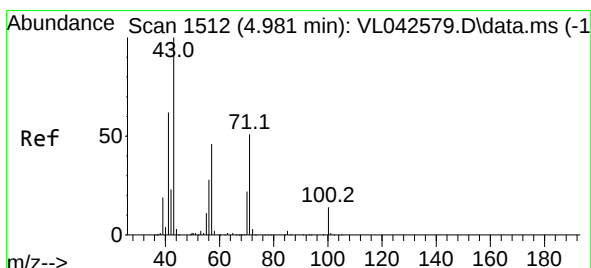
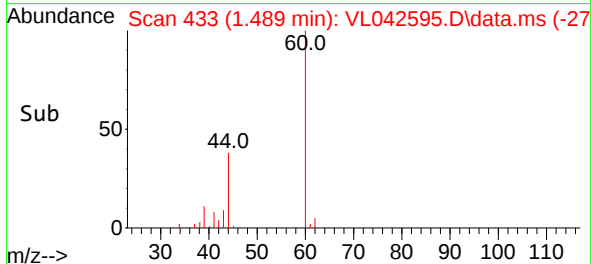
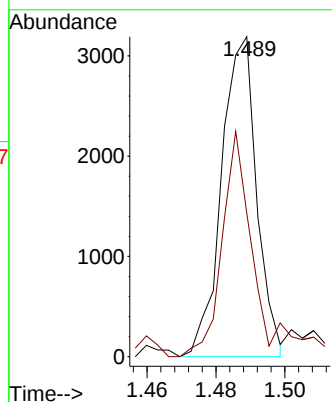
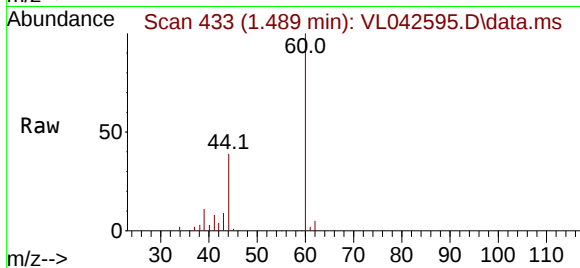
SV3DL

Tgt Ion: 41 Resp: 2259

Ion Ratio Lower Upper

41 100

42 77.4 53.3 79.9



#10

Heptane

Concen: 0.108 ppbv

RT: 5.001 min Scan# 1518

Delta R.T. 0.019 min

Lab File: VL042595.D

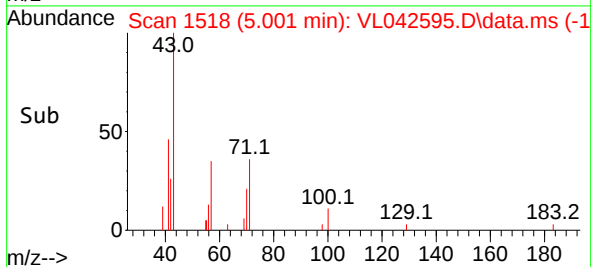
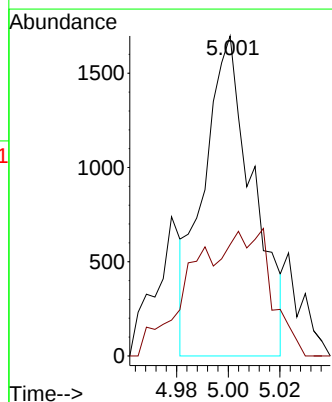
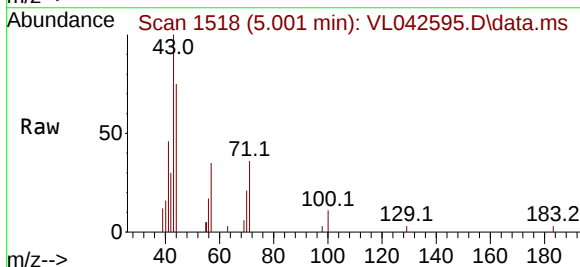
Acq: 29 May 2025 20:37

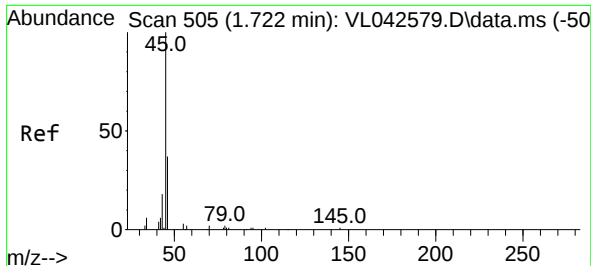
Tgt Ion: 43 Resp: 2248

Ion Ratio Lower Upper

43 100

57 0.0 38.9 58.3#

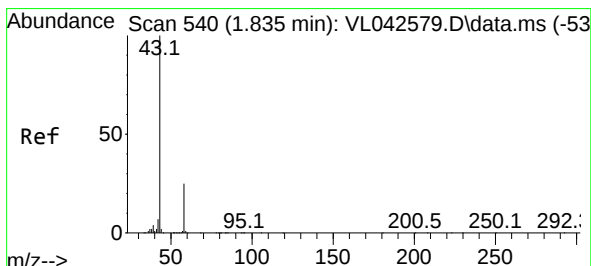
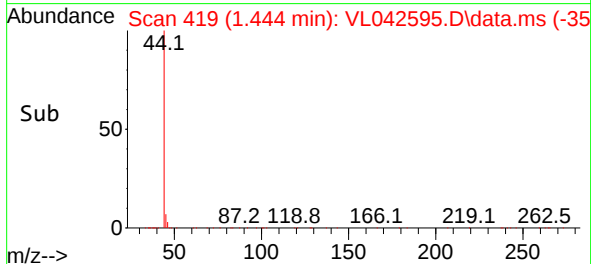
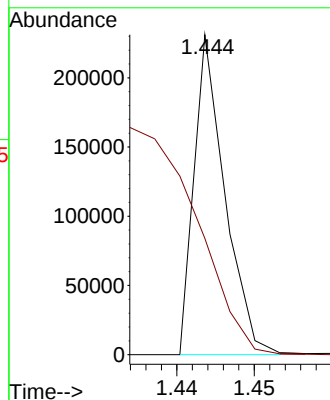
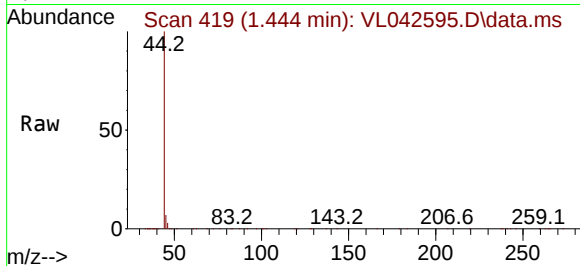




#13
Ethanol
Concen: 72.536 ppbv
RT: 1.444 min Scan# 41
Delta R.T. -0.279 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

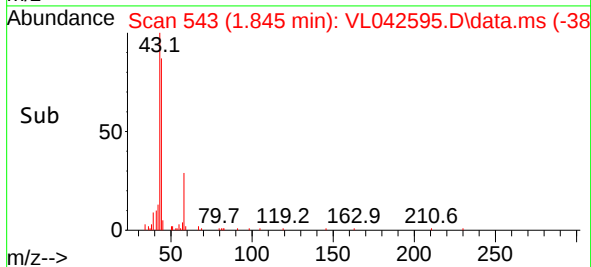
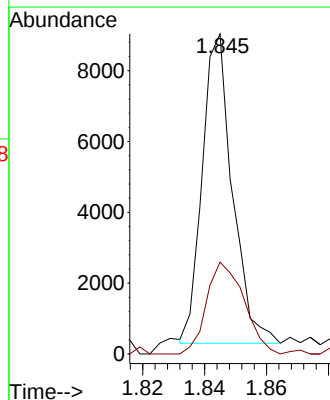
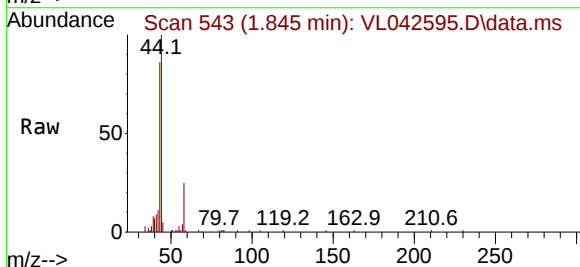
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

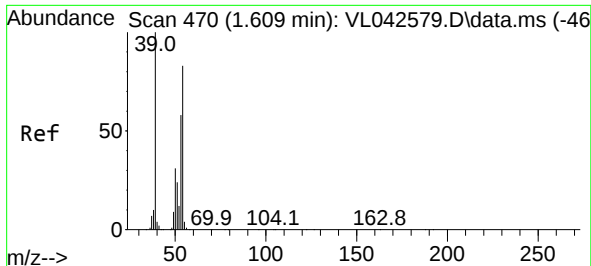
Tgt Ion: 45 Resp: 64030
Ion Ratio Lower Upper
45 100
46 307.9 14.5 58.1#



#15
Acetone
Concen: 0.451 ppbv
RT: 1.845 min Scan# 543
Delta R.T. 0.010 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 43 Resp: 5905
Ion Ratio Lower Upper
43 100
58 38.0 21.0 31.4#





#16

1,3-Butadiene

Concen: 0.097 ppbv

RT: 1.625 min Scan# 41

Delta R.T. 0.016 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Instrument :

MSVOA_L

ClientSampleId :

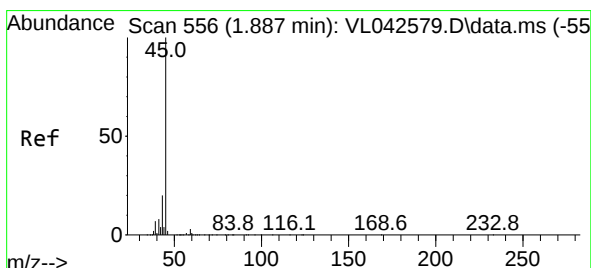
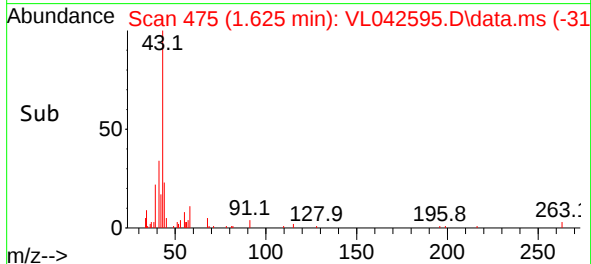
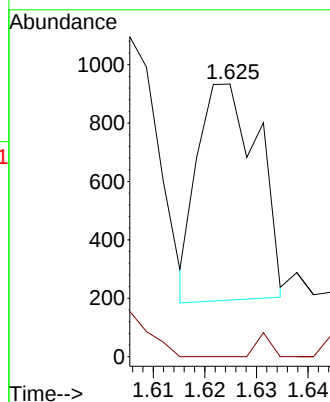
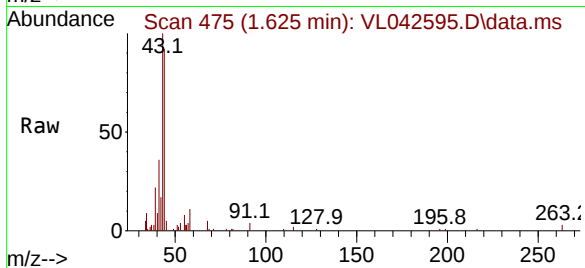
SV3DL

Tgt Ion: 39 Resp: 603

Ion Ratio Lower Upper

39 100

54 0.0 57.9 86.9#



#19

Isopropyl Alcohol

Concen: 8.183 ppbv

RT: 1.444 min Scan# 419

Delta R.T. -0.444 min

Lab File: VL042595.D

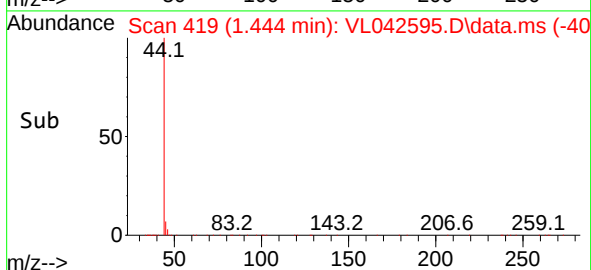
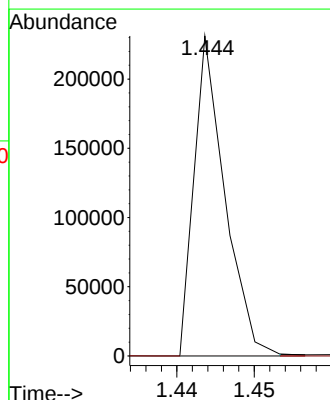
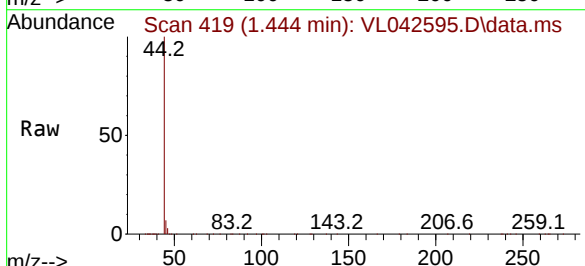
Acq: 29 May 2025 20:37

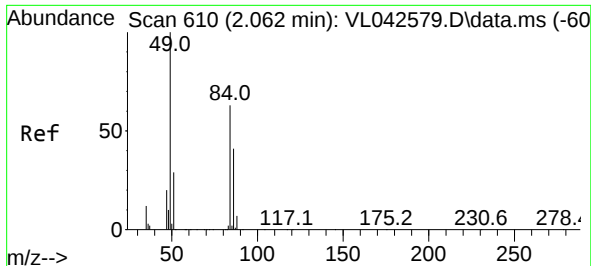
Tgt Ion: 45 Resp: 64030

Ion Ratio Lower Upper

45 100

58 0.1 29.4 44.2#





#20

Methylene Chloride

Concen: 0.200 ppbv

RT: 2.068 min Scan# 61

Delta R.T. 0.006 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

Tgt Ion: 84 Resp: 864

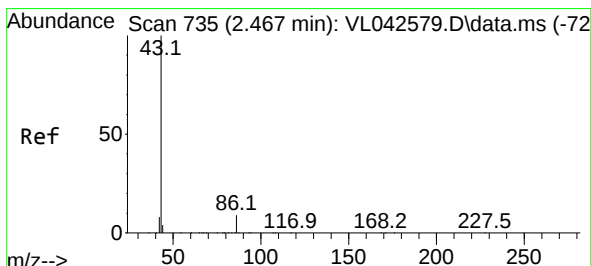
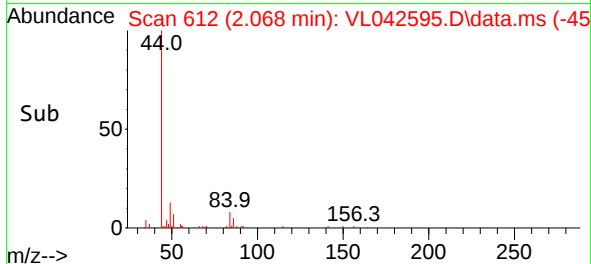
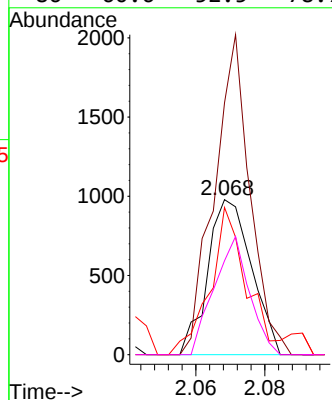
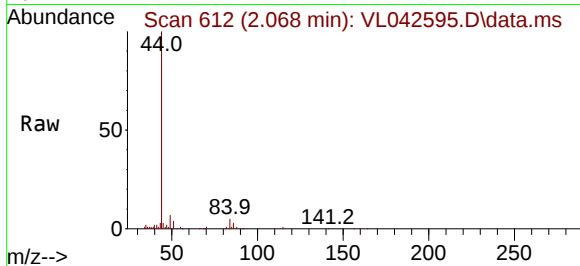
Ion Ratio Lower Upper

84 100

49 162.4 128.8 193.2

51 86.1 38.6 57.8#

86 60.6 52.5 78.7



#23

Vinyl Acetate

Concen: 0.058 ppbv

RT: 2.483 min Scan# 740

Delta R.T. 0.016 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Tgt Ion: 43 Resp: 1026

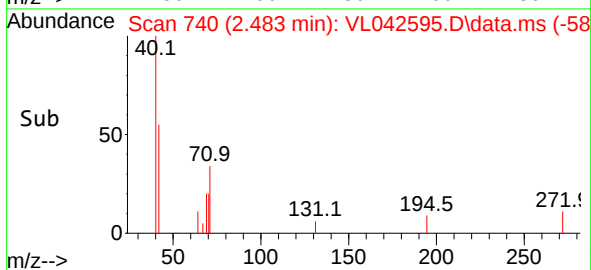
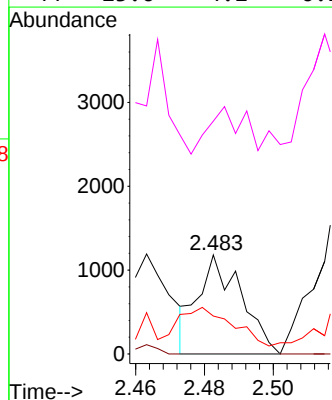
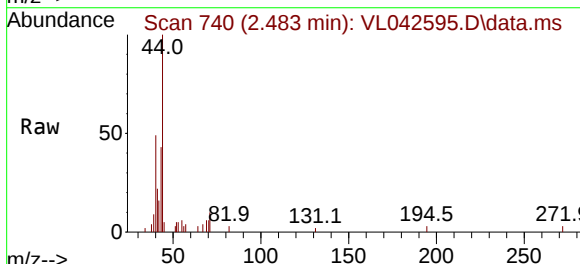
Ion Ratio Lower Upper

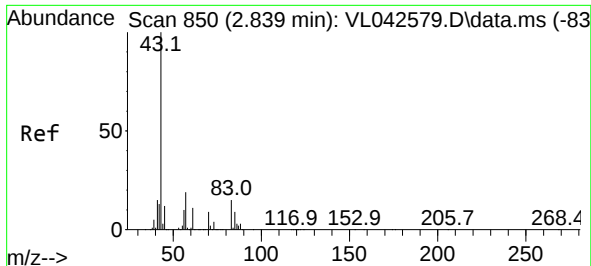
43 100

86 0.0 6.6 9.8#

42 26.9 7.0 10.4#

44 23.6 4.2 6.2#

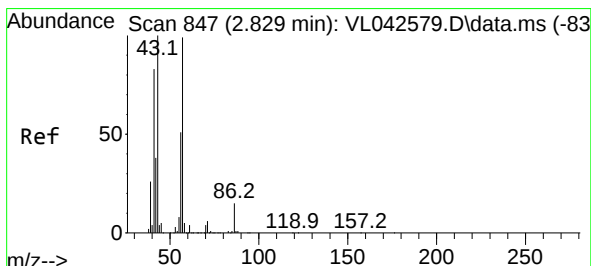
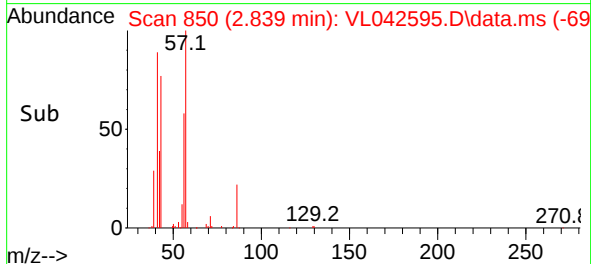
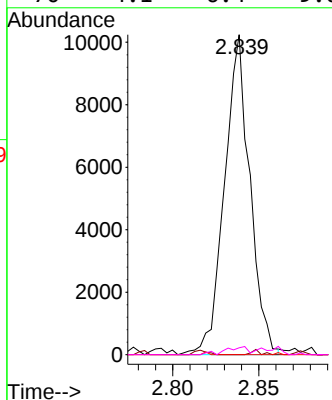
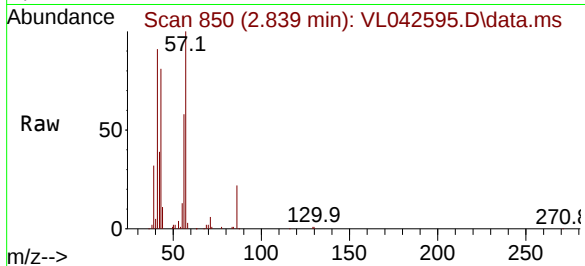




#25
Ethyl Acetate
Concen: 0.294 ppbv
RT: 2.839 min Scan# 81
Delta R.T. -0.000 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

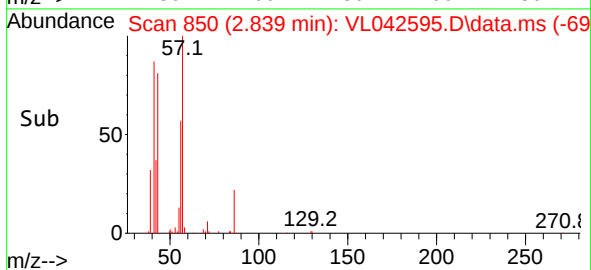
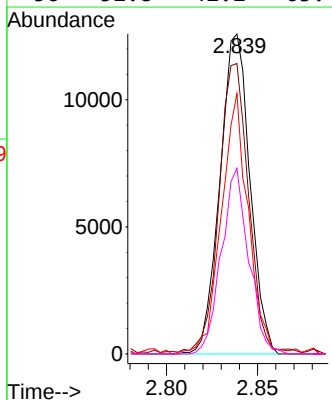
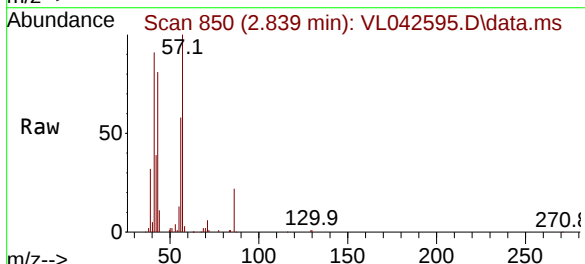
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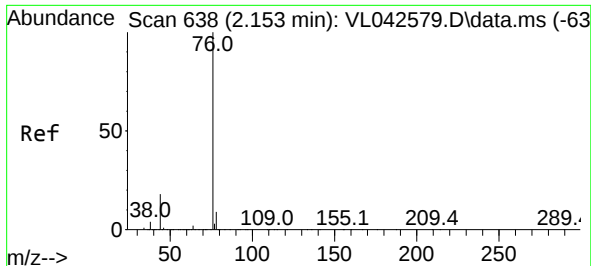
Tgt Ion: 43	Resp: 10519
Ion Ratio	Lower Upper
43 100	
45 0.6	8.2 12.2#
61 0.1	7.1 10.7#
70 4.1	6.4 9.6#



#26
Hexane
Concen: 0.886 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.010 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 57	Resp: 14419
Ion Ratio	Lower Upper
57 100	
41 91.7	70.6 106.0
43 76.4	181.1 271.7#
56 52.8	42.2 63.4

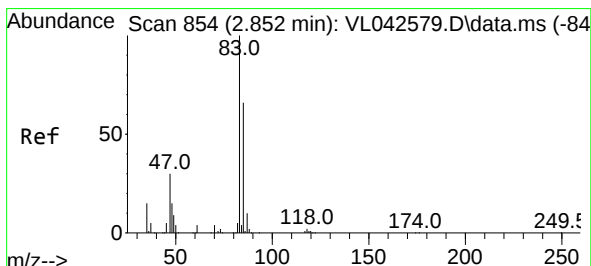
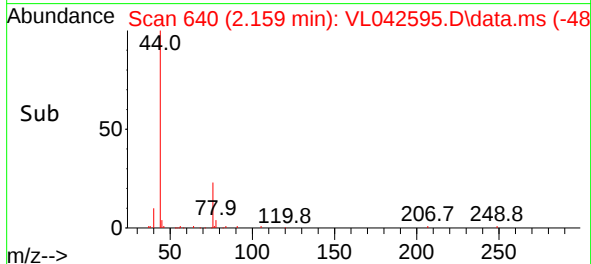
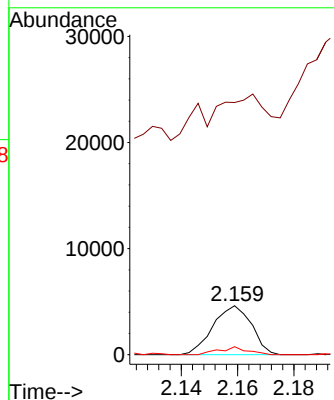
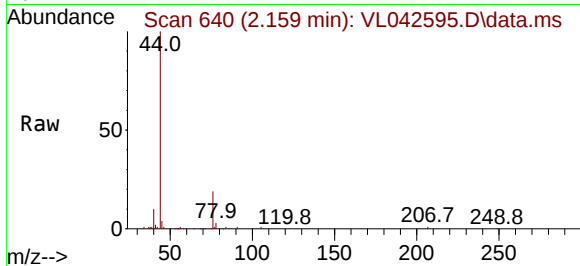




#27
Carbon Disulfide
Concen: 0.350 ppbv
RT: 2.159 min Scan# 640
Delta R.T. 0.006 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

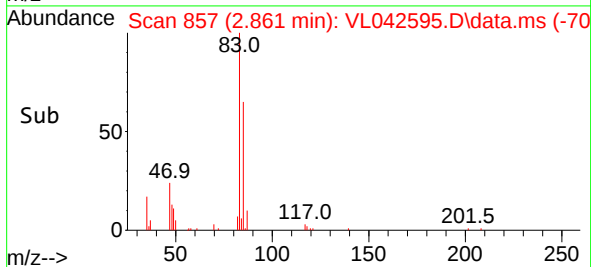
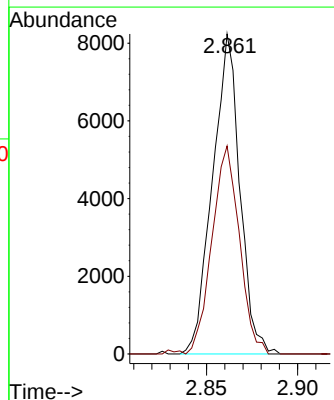
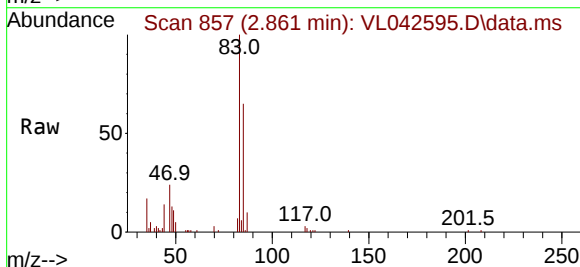
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

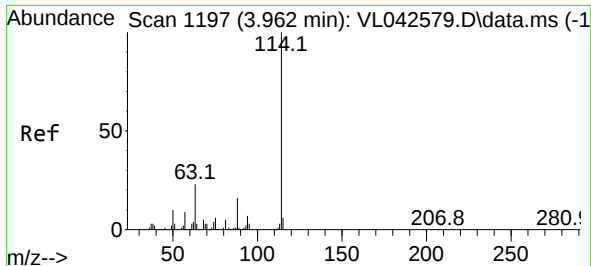
Tgt Ion: 76 Resp: 4377
Ion Ratio Lower Upper
76 100
44 0.0 21.3 31.9#
78 13.7 9.4 14.0



#29
Chloroform
Concen: 0.406 ppbv
RT: 2.861 min Scan# 857
Delta R.T. 0.010 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 83 Resp: 8601
Ion Ratio Lower Upper
83 100
85 65.0 52.8 79.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.971 min Scan# 1197

Delta R.T. 0.010 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

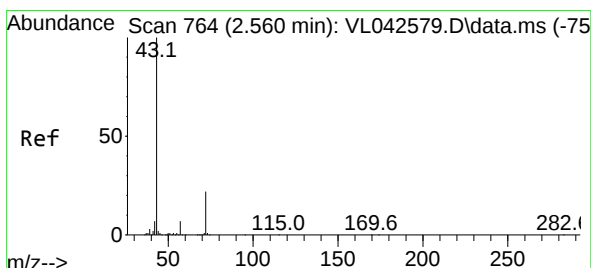
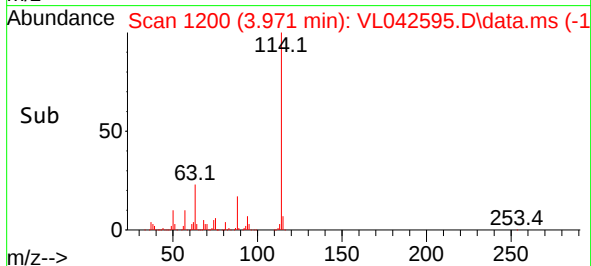
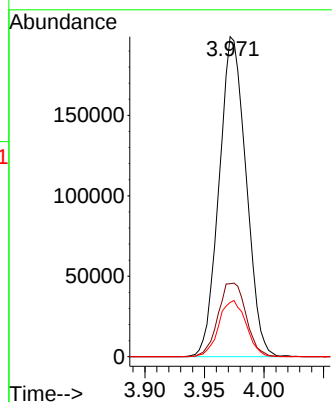
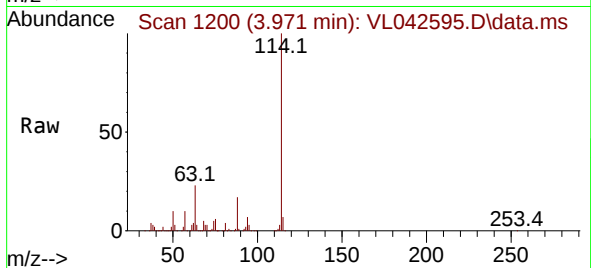
Tgt Ion:114 Resp: 312802

Ion Ratio Lower Upper

114 100

63 24.0 19.0 28.6

88 17.8 13.6 20.4



#34

2-Butanone

Concen: 0.290 ppbv

RT: 2.570 min Scan# 767

Delta R.T. 0.010 min

Lab File: VL042595.D

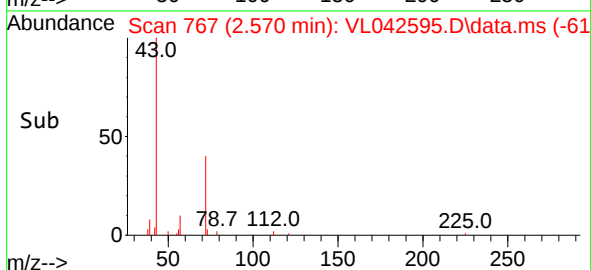
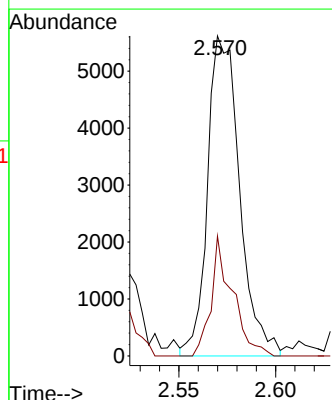
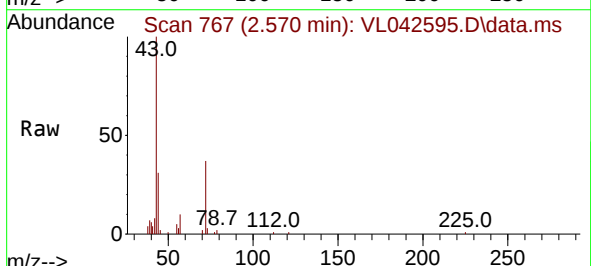
Acq: 29 May 2025 20:37

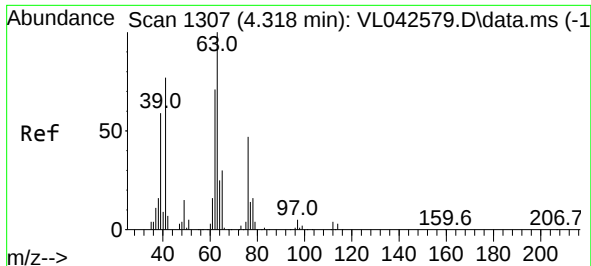
Tgt Ion: 43 Resp: 6460

Ion Ratio Lower Upper

43 100

72 25.0 17.7 26.5





#39

1,2-Dichloropropane

Concen: 6.584 ppbv

RT: 3.975 min Scan# 11

Delta R.T. -0.343 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

Instrument :

MSVOA_L

ClientSampleId :

SV3DL

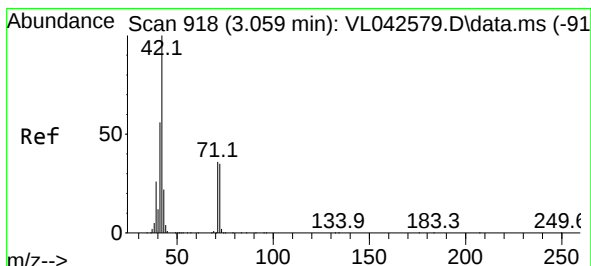
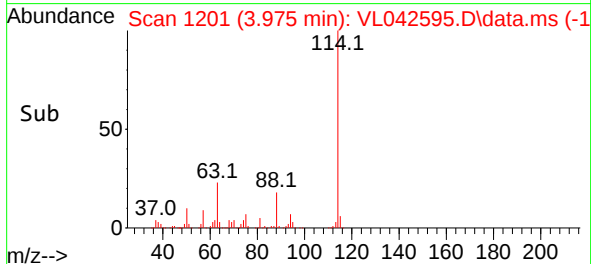
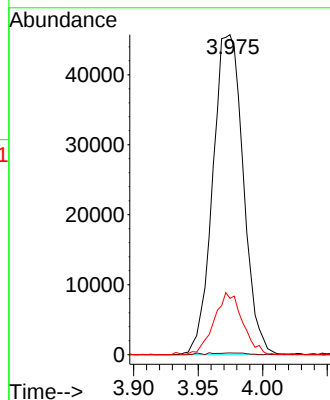
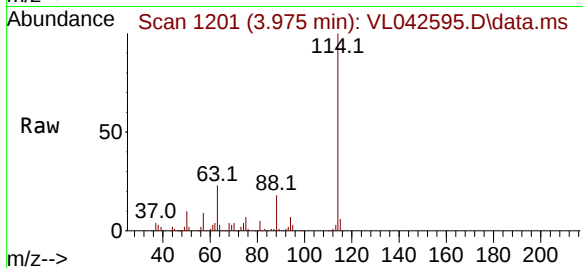
Tgt Ion: 63 Resp: 75002

Ion Ratio Lower Upper

63 100

41 0.5 61.8 92.6#

62 17.5 56.6 85.0#



#41

Tetrahydrofuran

Concen: 0.133 ppbv

RT: 3.085 min Scan# 926

Delta R.T. 0.026 min

Lab File: VL042595.D

Acq: 29 May 2025 20:37

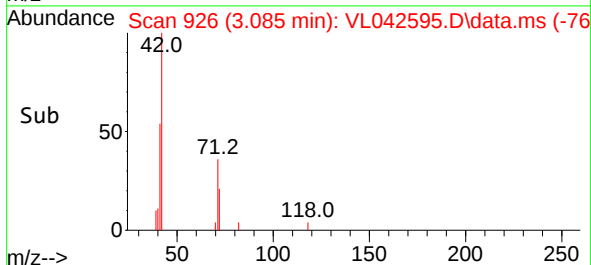
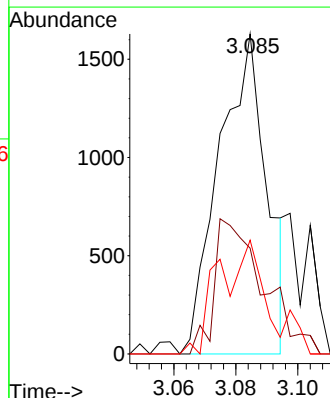
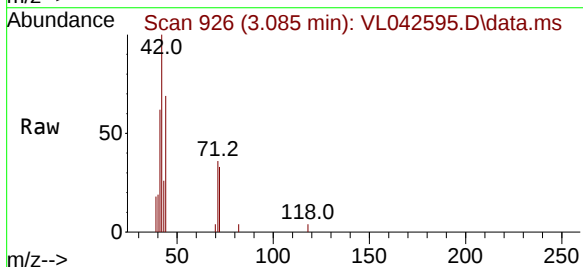
Tgt Ion: 42 Resp: 1737

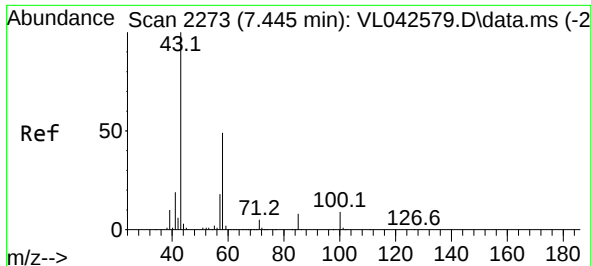
Ion Ratio Lower Upper

42 100

72 43.8 28.9 43.3#

71 36.7 28.5 42.7

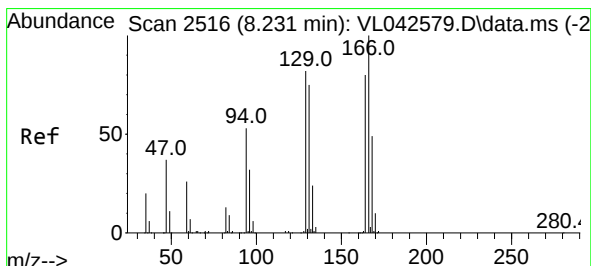
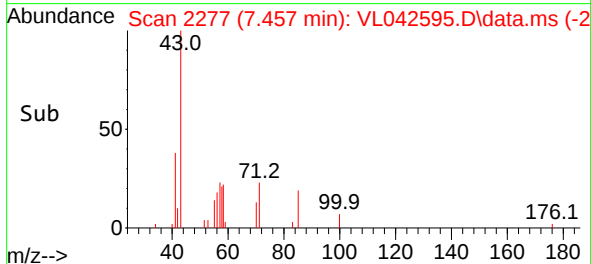
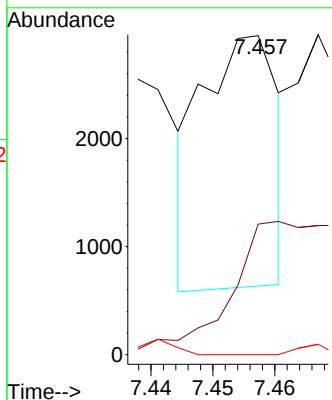
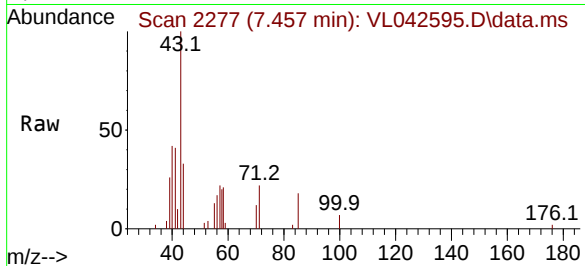




#51
2-Hexanone
Concen: 0.080 ppbv
RT: 7.457 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

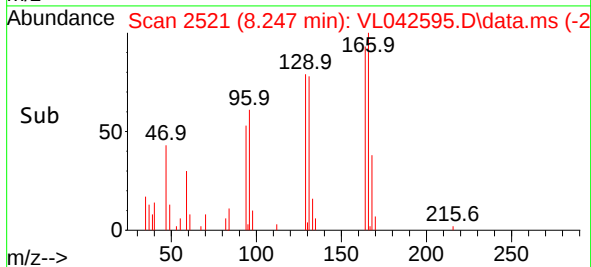
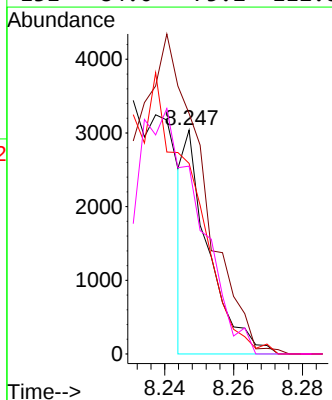
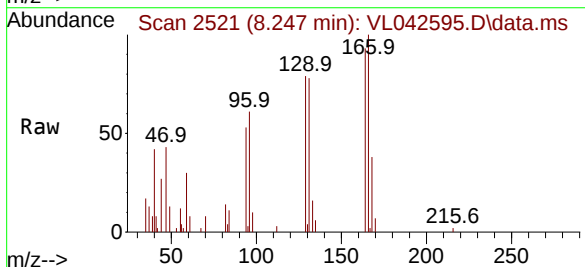
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

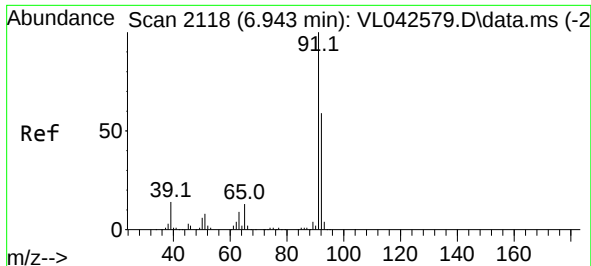
Tgt Ion: 43 Resp: 1971
Ion Ratio Lower Upper
43 100
58 116.4 39.9 59.9#
98 0.0 0.1 0.1#



#52
Tetrachloroethene
Concen: 0.131 ppbv
RT: 8.247 min Scan# 2521
Delta R.T. 0.016 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 164 Resp: 1505
Ion Ratio Lower Upper
164 100
166 105.5 100.0 150.0
129 85.2 82.2 123.4
131 84.0 75.2 112.8

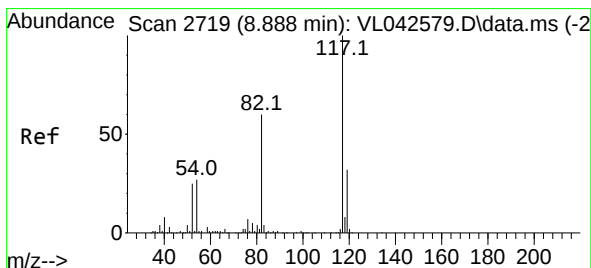
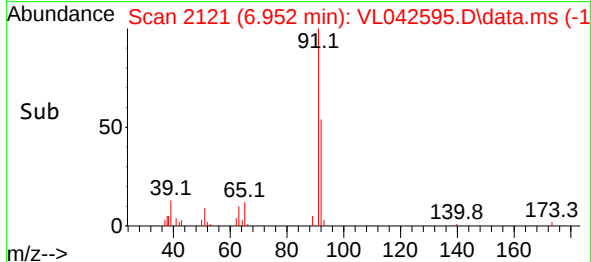
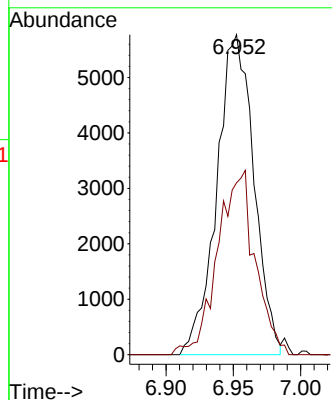
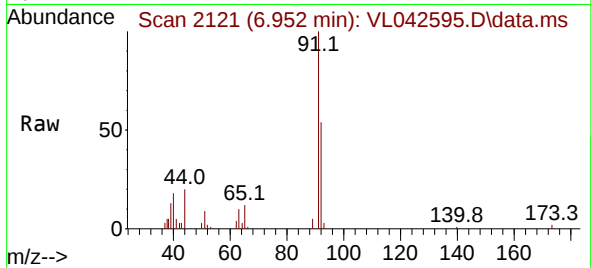




#53
Toluene
Concen: 0.311 ppbv
RT: 6.952 min Scan# 2118
Delta R.T. 0.010 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

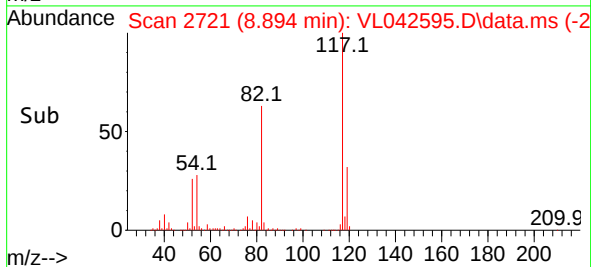
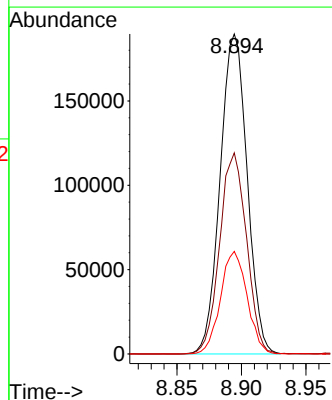
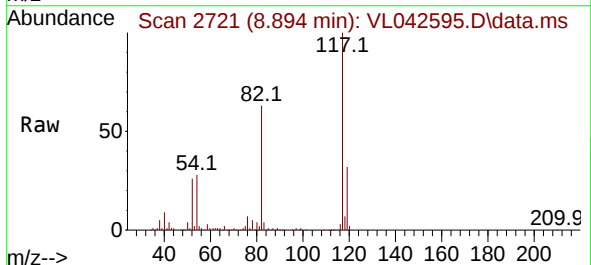
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

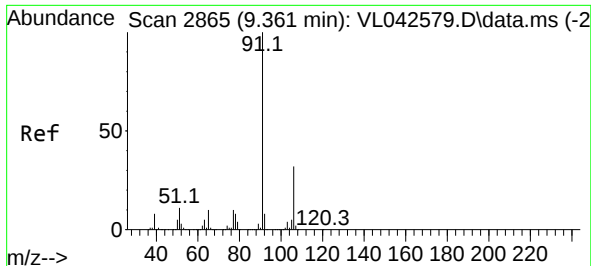
Tgt Ion: 91 Resp: 11057
Ion Ratio Lower Upper
91 100
92 58.2 48.2 72.4



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.894 min Scan# 2721
Delta R.T. 0.006 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 117 Resp: 276032
Ion Ratio Lower Upper
117 100
82 62.5 51.2 76.8
119 31.7 26.3 39.5

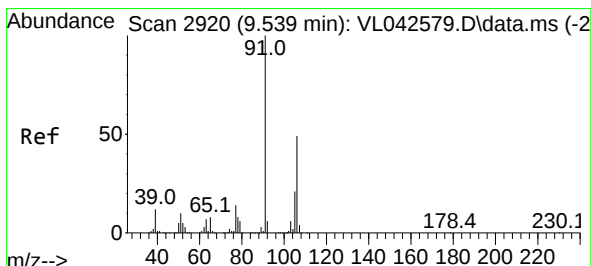
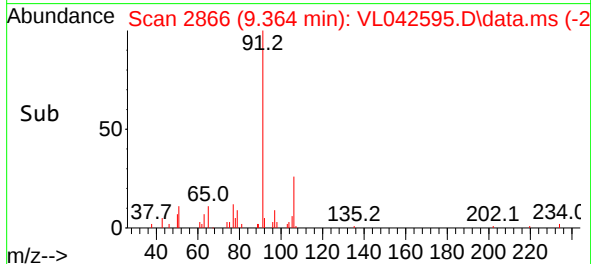
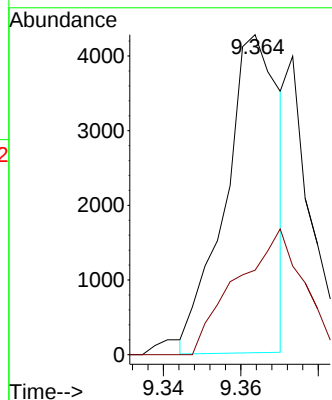
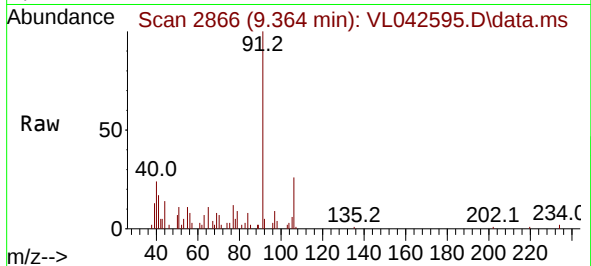




#58
Ethyl Benzene
Concen: 0.088 ppbv
RT: 9.364 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

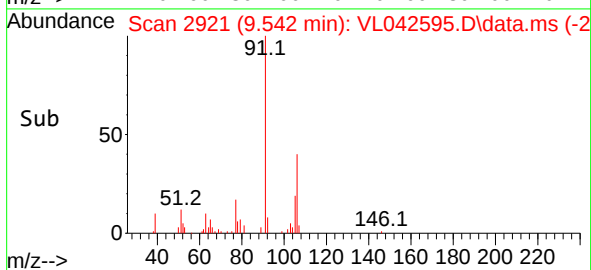
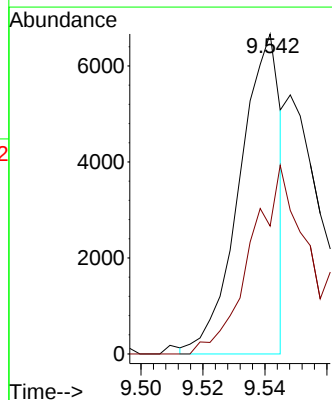
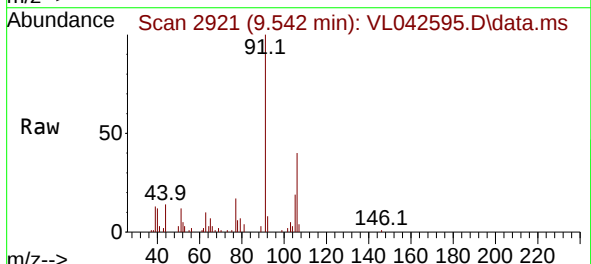
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

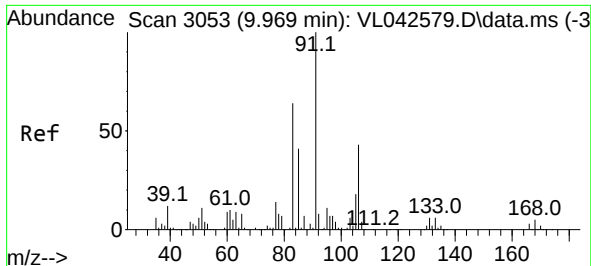
Tgt Ion: 91 Resp: 4115
Ion Ratio Lower Upper
91 100
106 27.7 25.9 38.9



#59
m/p-Xylene
Concen: 0.165 ppbv
RT: 9.542 min Scan# 2921
Delta R.T. 0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 91 Resp: 6094
Ion Ratio Lower Upper
91 100
106 96.3 38.8 58.2#

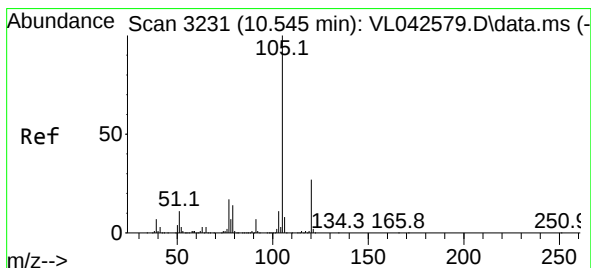
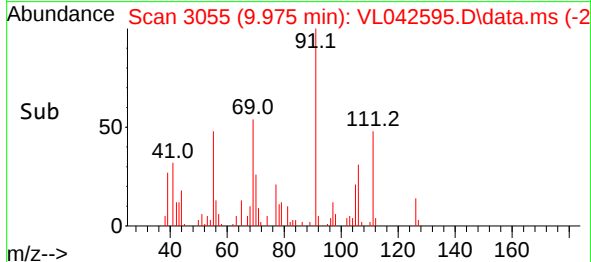
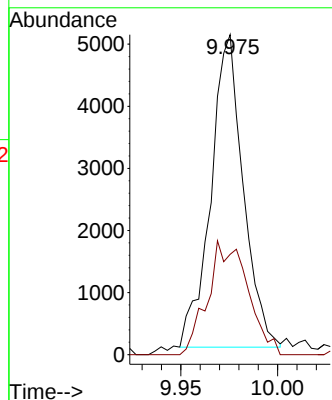
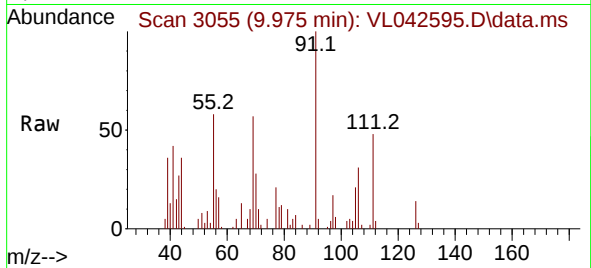




#60
o-Xylene
Concen: 0.159 ppbv
RT: 9.975 min Scan# 3053
Delta R.T. 0.006 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

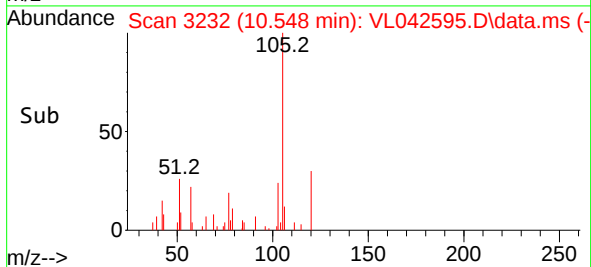
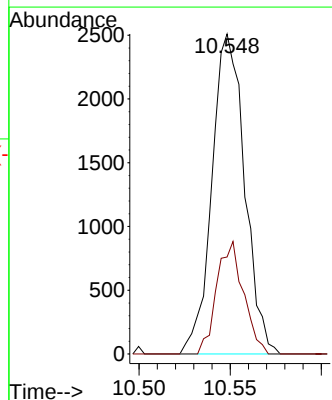
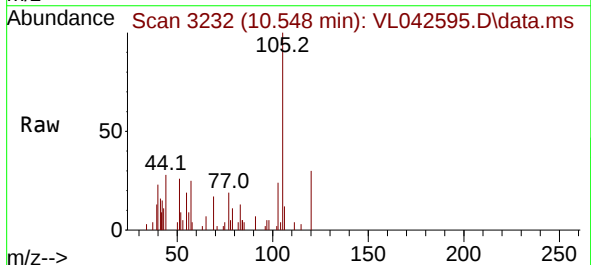
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

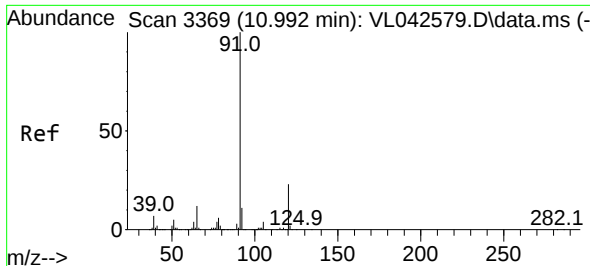
Tgt Ion: 91 Resp: 5853
Ion Ratio Lower Upper
91 100
106 44.7 22.9 68.5



#62
Isopropylbenzene
Concen: 0.058 ppbv
RT: 10.548 min Scan# 3232
Delta R.T. 0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion: 105 Resp: 3137
Ion Ratio Lower Upper
105 100
120 28.7 20.9 31.3

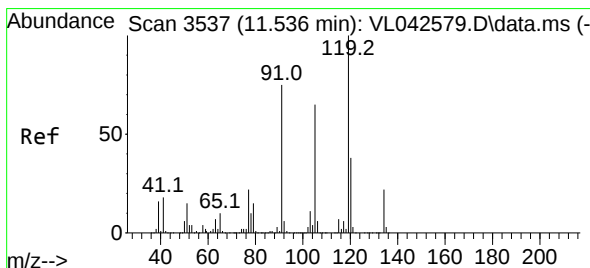
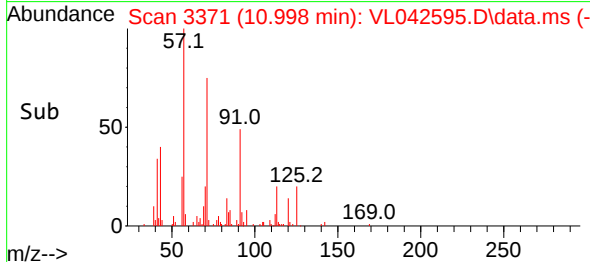
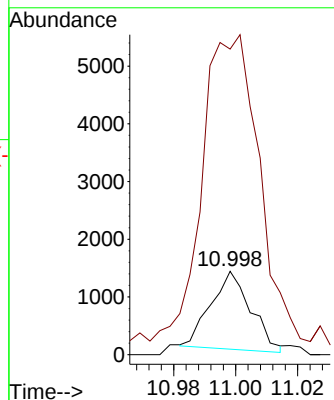
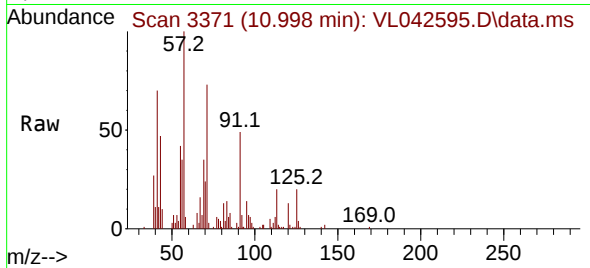




#64
n-propylbenzene
Concen: 0.083 ppbv
RT: 10.998 min Scan# 31
Delta R.T. 0.006 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

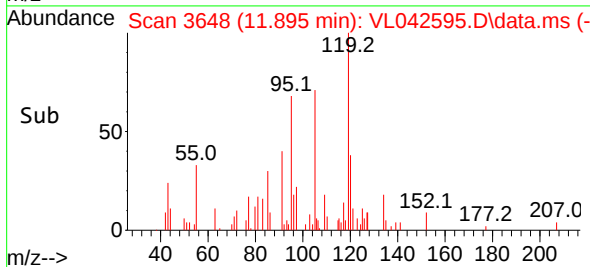
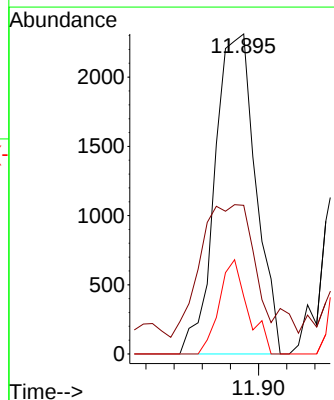
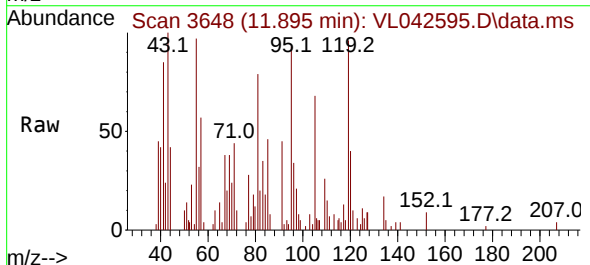
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

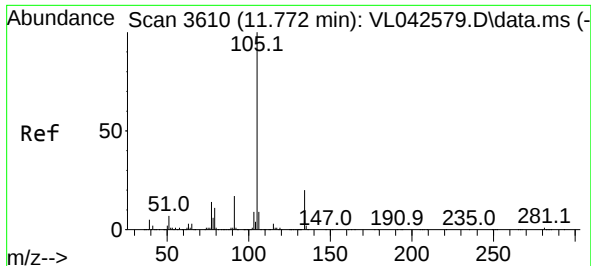
Tgt Ion:120 Resp: 1205
Ion Ratio Lower Upper
120 100
91 671.5 363.0 544.6#



#65
tert-Butylbenzene
Concen: 0.047 ppbv
RT: 11.895 min Scan# 3648
Delta R.T. 0.359 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

Tgt Ion:119 Resp: 2329
Ion Ratio Lower Upper
119 100
91 82.4 61.1 91.7
134 20.6 17.4 26.2

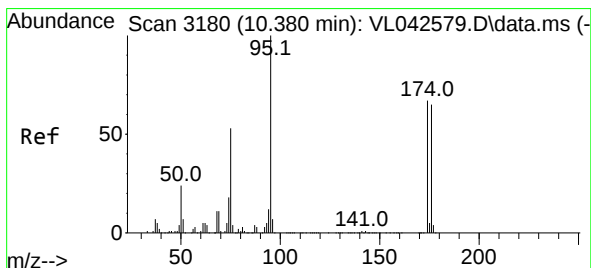
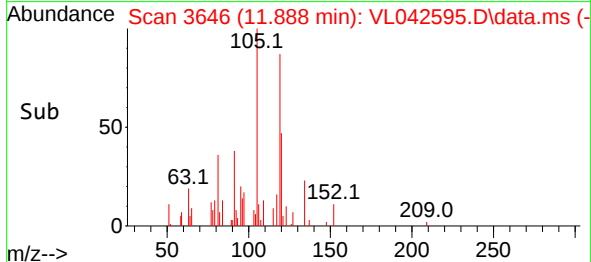
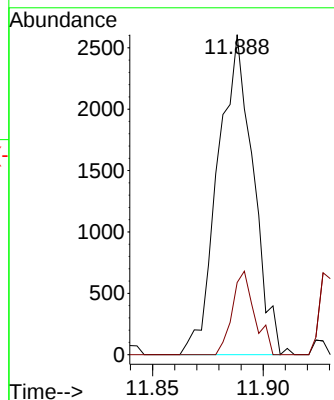
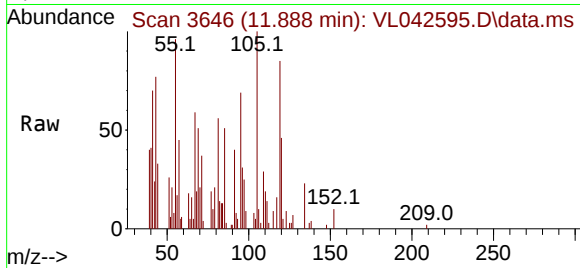




#67
 sec-Butylbenzene
 Concen: 0.042 ppbv
 RT: 11.888 min Scan# 3182
 Delta R.T. 0.116 min
 Lab File: VL042595.D
 Acq: 29 May 2025 20:37

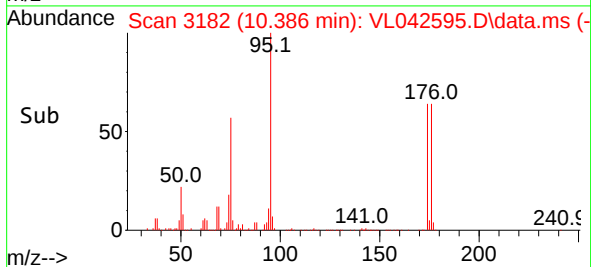
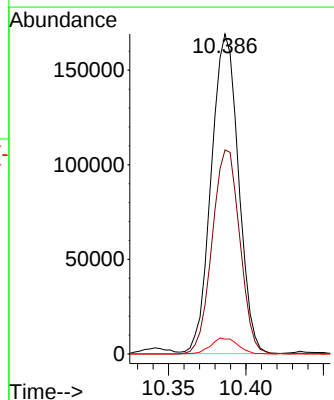
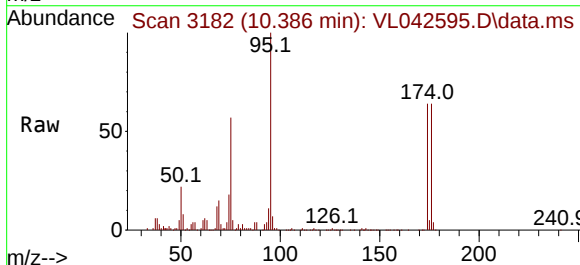
Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL

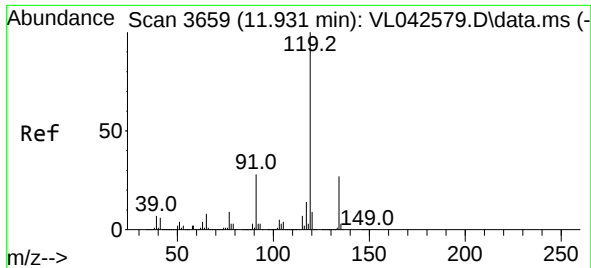
Tgt Ion:105 Resp: 2880
 Ion Ratio Lower Upper
 105 100
 134 16.6 15.8 23.6



#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.975 ppbv
 RT: 10.386 min Scan# 3182
 Delta R.T. 0.006 min
 Lab File: VL042595.D
 Acq: 29 May 2025 20:37

Tgt Ion: 95 Resp: 206403
 Ion Ratio Lower Upper
 95 100
 174 65.0 53.1 79.7
 175 5.0 4.2 6.2

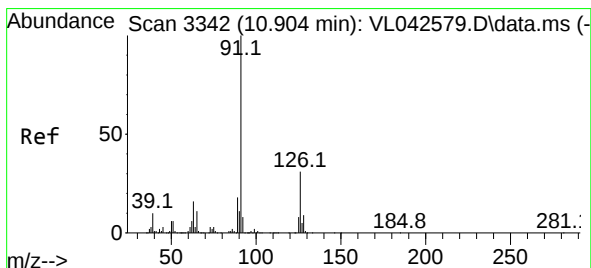
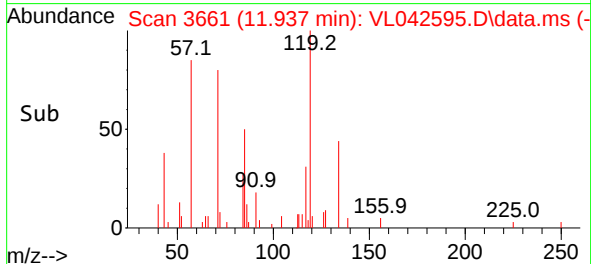
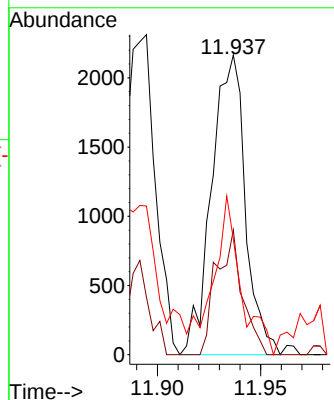
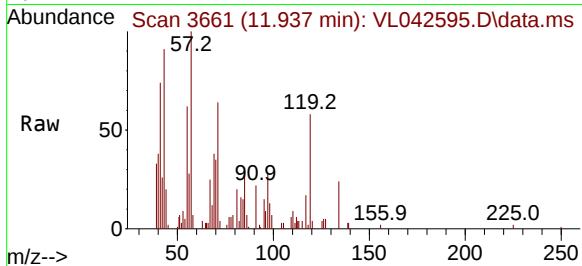




#69
 p-Isopropyltoluene
 Concen: 0.042 ppbv
 RT: 11.937 min Scan# 3661
 Delta R.T. 0.006 min
 Lab File: VL042595.D
 Acq: 29 May 2025 20:37

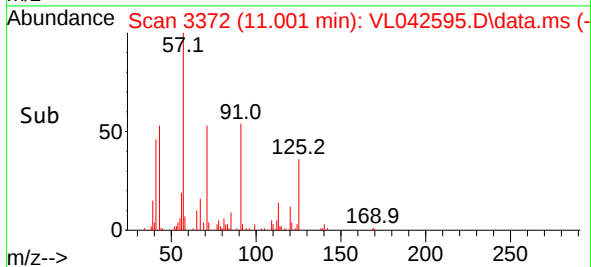
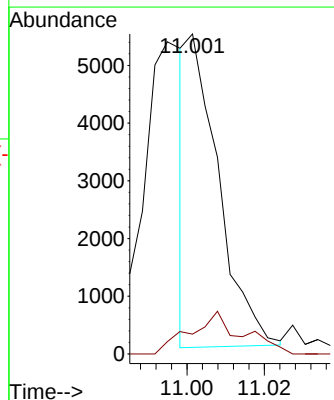
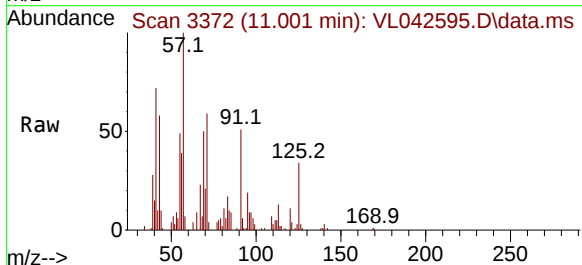
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 ClientSampleId :
 SV3DL

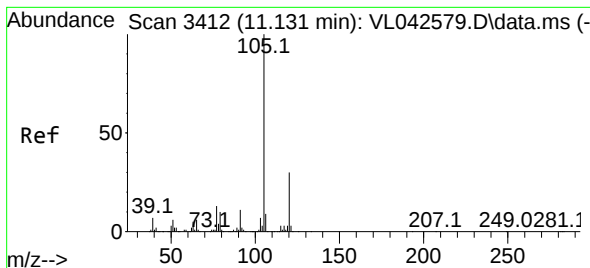
Tgt Ion: 119 Resp: 2454
 Ion Ratio Lower Upper
 119 100
 134 32.1 21.1 31.7#
 91 47.8 21.9 32.9#



#71
 2-Chlorotoluene
 Concen: 0.074 ppbv
 RT: 11.001 min Scan# 3372
 Delta R.T. 0.097 min
 Lab File: VL042595.D
 Acq: 29 May 2025 20:37

Tgt Ion: 91 Resp: 3069
 Ion Ratio Lower Upper
 91 100
 126 22.2 12.6 50.4

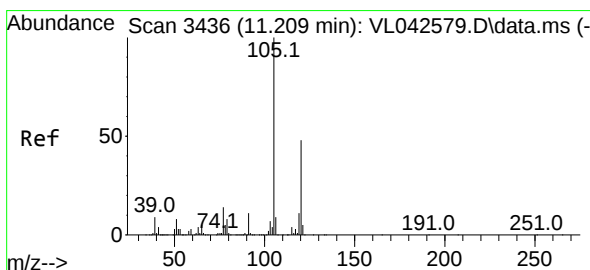
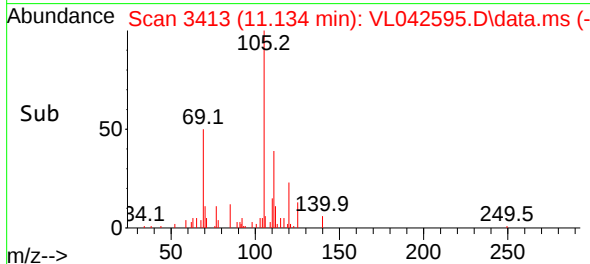
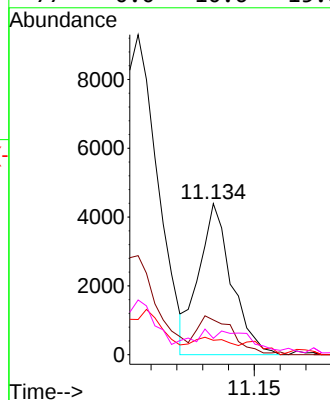
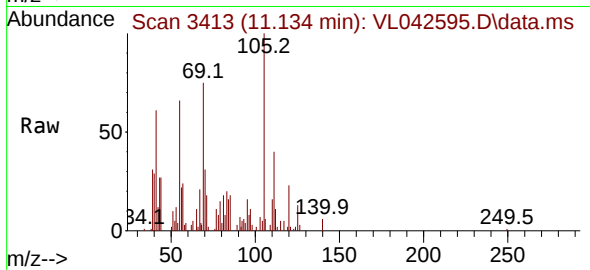




#72
4-Ethyltoluene
Concen: 0.085 ppbv
RT: 11.134 min Scan# 3412
Delta R.T. 0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

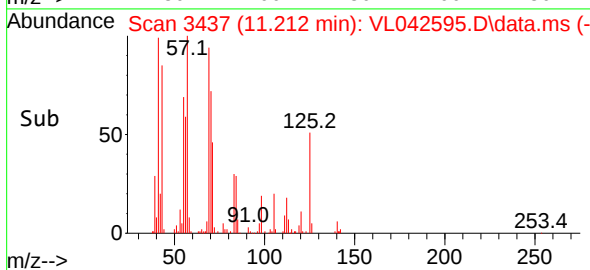
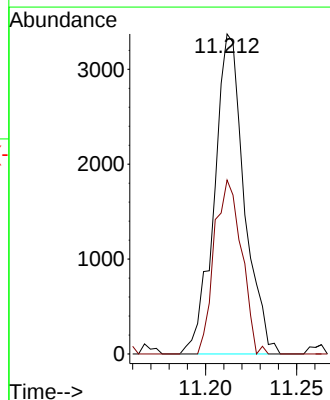
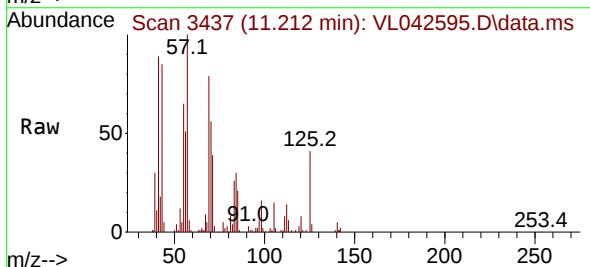
Instrument :
MSVOA_L
ClientSampleId :
SV3DL

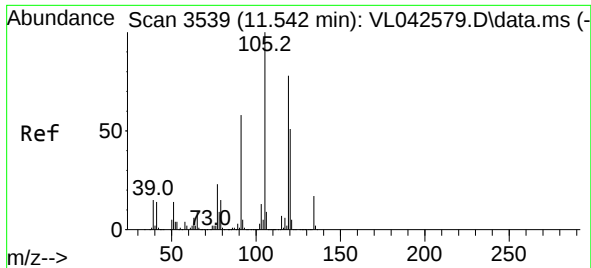
Tgt Ion:	105	Resp:	3879
Ion Ratio	Lower	Upper	
105	100		
120	0.0	24.6	36.8#
91	0.0	9.6	14.4#
77	0.0	10.6	15.8#



#73
1,3,5-Trimethylbenzene
Concen: 0.102 ppbv
RT: 11.212 min Scan# 3437
Delta R.T. 0.003 min
Lab File: VL042595.D
Acq: 29 May 2025 20:37

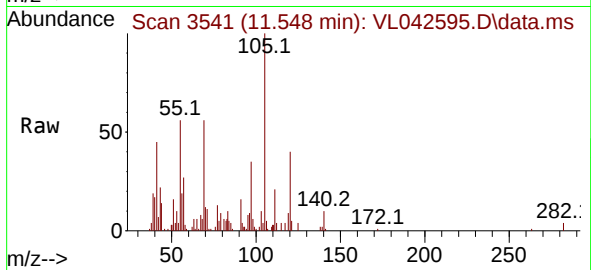
Tgt Ion:	105	Resp:	3870
Ion Ratio	Lower	Upper	
105	100		
120	54.3	38.8	58.2





#74
 1,2,4-Trimethylbenzene
 Concen: 0.191 ppbv
 RT: 11.548 min Scan# 3541
 Delta R.T. 0.006 min
 Lab File: VL042595.D
 Acq: 29 May 2025 20:37

Instrument :
 MSVOA_L
 ClientSampleId :
 SV3DL



Tgt Ion:	105	Resp:	8047
Ion	Ratio	Lower	Upper
105	100		
120	39.8	40.8	61.2#
91	18.6	46.8	70.2#
77	7.0	18.2	27.2#

