

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL112025\
 Data File : VL043261.D
 Acq On : 20 Nov 2025 12:49
 Operator : SY/MD
 Sample : Q3655-01 2X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-1

Quant Time: Nov 21 00:37:15 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : Semsettin
 Yesilyurt

11/21/2025
 Supervised By : Mahesh
 Dadoda

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

Internal Standards						
1) Bromochloromethane	2.784	49	103035	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	274703	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	210056	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	151243	9.823	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	3995	0.275	ppbv	95
3) Chlorodifluoromethane	1.473	51	1514m	0.106	ppbv	
4) Chloromethane	1.535	50	1113	0.205	ppbv	90
9) Propene	1.489	41	1610	0.265	ppbv #	1
11) Trichlorofluoromethane	1.878	101	2007	0.143	ppbv	95
13) Ethanol	1.722	45	3531	1.655	ppbv #	38
15) Acetone	1.836	43	7706m	0.538	ppbv	
19) Isopropyl Alcohol	1.888	45	4190	0.518	ppbv #	1
20) Methylene Chloride	2.062	84	5379	0.532	ppbv #	83
26) Hexane	2.823	57	13470	0.995	ppbv #	44
34) 2-Butanone	2.561	43	8515	0.439	ppbv	95
35) Carbon Tetrachloride	3.765	117	1354m	0.065	ppbv	
36) Benzene	3.658	78	3771m	0.143	ppbv	
52) Tetrachloroethene	8.218	164	60277	6.160	ppbv	89
53) Toluene	6.920	91	6952m	0.223	ppbv	
59) m/p-Xylene	9.526	91	4368m	0.135	ppbv	

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

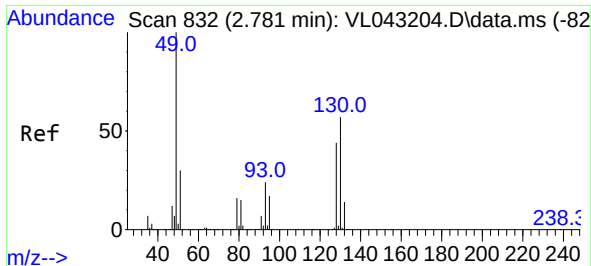
Manual Integrations
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Supervised By :Mahesh
Dadoda

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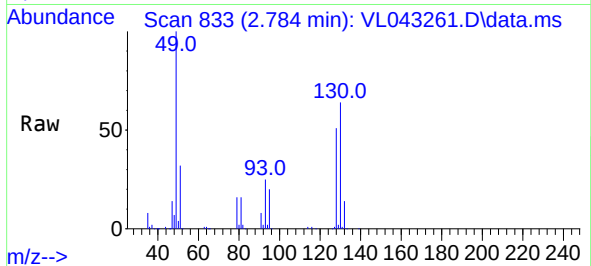
Chromatogram plot showing Abundance vs Time (min). The y-axis ranges from 0 to 5,600,000. The x-axis ranges from 1.00 to 21.00 minutes. Major peaks are labeled with chemical names and their retention times.

Retention Time (min)	Chemical Name
1.50	Chloroethane, I
1.60	Chloroethane, T
1.70	Isobutane, I
1.80	Isobutane, T
1.90	Isobutane, I
2.00	Isobutane, T
2.10	Isobutane, I
2.20	Isobutane, T
2.30	Isobutane, I
2.40	Isobutane, T
2.50	Isobutane, I
2.60	Isobutane, T
2.70	Isobutane, I
2.80	Isobutane, T
2.90	Isobutane, I
3.00	Isobutane, T
3.10	Isobutane, I
3.20	Isobutane, T
3.30	Isobutane, I
3.40	Isobutane, T
3.50	Isobutane, I
3.60	Isobutane, T
3.70	Isobutane, I
3.80	Isobutane, T
3.90	Isobutane, I
4.00	Isobutane, T
4.10	Isobutane, I
4.20	Isobutane, T
4.30	Isobutane, I
4.40	Isobutane, T
4.50	Isobutane, I
4.60	Isobutane, T
4.70	Isobutane, I
4.80	Isobutane, T
4.90	Isobutane, I
5.00	Isobutane, T
5.10	Isobutane, I
5.20	Isobutane, T
5.30	Isobutane, I
5.40	Isobutane, T
5.50	Isobutane, I
5.60	Isobutane, T
5.70	Isobutane, I
5.80	Isobutane, T
5.90	Isobutane, I
6.00	Isobutane, T
6.10	Isobutane, I
6.20	Isobutane, T
6.30	Isobutane, I
6.40	Isobutane, T
6.50	Isobutane, I
6.60	Isobutane, T
6.70	Isobutane, I
6.80	Isobutane, T
6.90	Isobutane, I
7.00	Isobutane, T
7.10	Isobutane, I
7.20	Isobutane, T
7.30	Isobutane, I
7.40	Isobutane, T
7.50	Isobutane, I
7.60	Isobutane, T
7.70	Isobutane, I
7.80	Isobutane, T
7.90	Isobutane, I
8.00	Isobutane, T
8.10	Isobutane, I
8.20	Isobutane, T
8.30	Isobutane, I
8.40	Isobutane, T
8.50	Isobutane, I
8.60	Isobutane, T
8.70	Isobutane, I
8.80	Isobutane, T
8.90	Isobutane, I
9.00	Isobutane, T
9.10	Isobutane, I
9.20	Isobutane, T
9.30	Isobutane, I
9.40	Isobutane, T
9.50	Isobutane, I
9.60	Isobutane, T
9.70	Isobutane, I
9.80	Isobutane, T
9.90	Isobutane, I
10.00	Isobutane, T
10.10	Isobutane, I
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10.40	Isobutane, T
10.50	Isobutane, I
10.60	Isobutane, T
10.70	Isobutane, I
10.80	Isobutane, T
10.90	Isobutane, I
11.00	Isobutane, T
11.10	Isobutane, I
11.20	Isobutane, T
11.30	Isobutane, I
11.40	Isobutane, T
11.50	Isobutane, I
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11.70	Isobutane, I
11.80	Isobutane, T
11.90	Isobutane, I
12.00	Isobutane, T
12.10	Isobutane, I
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12.50	Isobutane, I
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12.90	Isobutane, I
13.00	Isobutane, T
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13.50	Isobutane, I
13.60	Isobutane, T
13.70	Isobutane, I
13.80	Isobutane, T
13.90	Isobutane, I
14.00	Isobutane, T
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14.70	Isobutane, I
14.80	Isobutane, T
14.90	Isobutane, I
15.00	Isobutane, T
15.10	Isobutane, I
15.20	Isobutane, T
15.30	Isobutane, I
15.40	Isobutane, T
15.50	Isobutane, I
15.60	Isobutane, T
15.70	Isobutane, I
15.80	Isobutane, T
15.90	Isobutane, I
16.00	Isobutane, T
16.10	Isobutane, I
16.20	Isobutane, T
16.30	Isobutane, I
16.40	Isobutane, T
16.50	Isobutane, I
16.60	Isobutane, T
16.70	Isobutane, I
16.80	Isobutane, T
16.90	Isobutane, I
17.00	Isobutane, T
17.10	Isobutane, I
17.20	Isobutane, T
17.30	Isobutane, I
17.40	Isobutane, T
17.50	



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 811
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



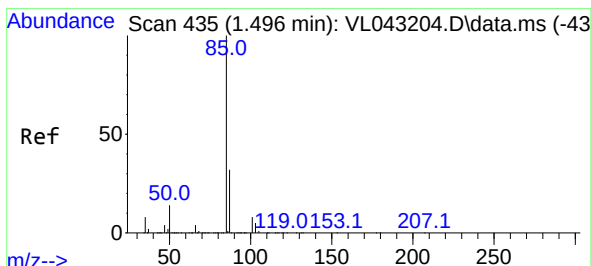
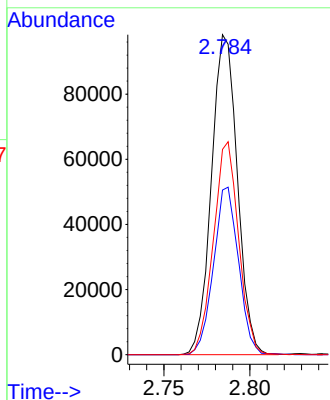
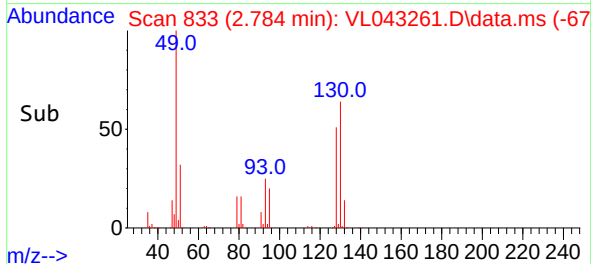
Tgt Ion: 49 Resp: 103035
Ion Ratio Lower Upper
49 100
128 50.6 23.0 69.0
130 64.8 29.9 89.7

Manual Integrations
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Reviewed By :Semsettin
Yesilyurt

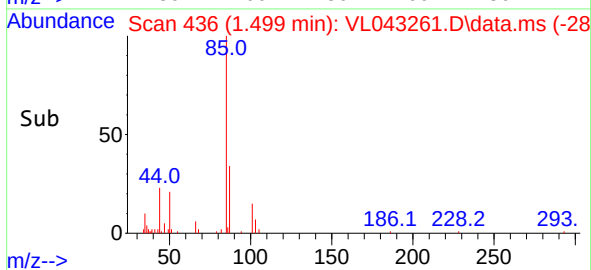
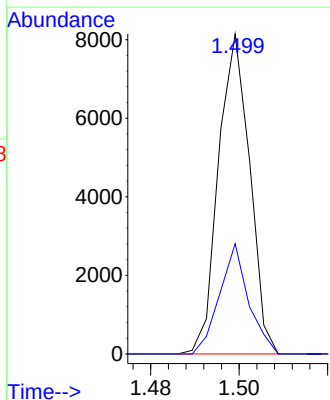
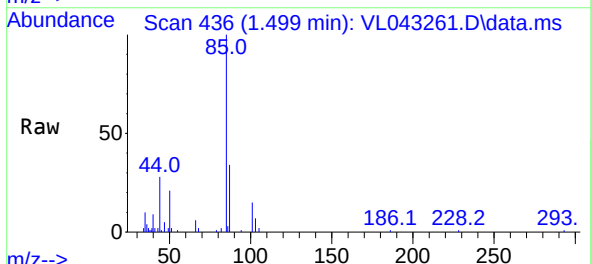
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Dadoda

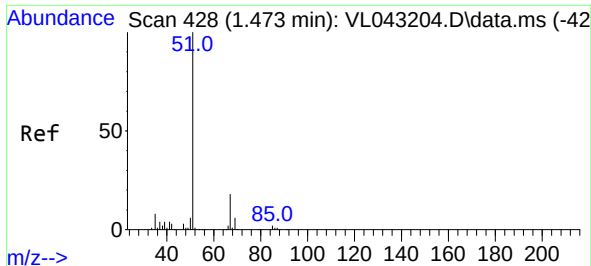
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#2
Dichlorodifluoromethane
Concen: 0.275 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

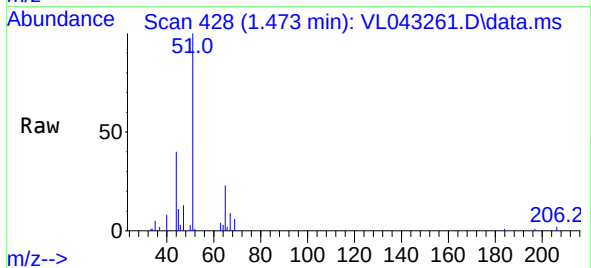
Tgt Ion: 85 Resp: 3995
Ion Ratio Lower Upper
85 100
87 34.5 25.4 38.2





#3
Chlorodifluoromethane
Concen: 0.106 ppbv m
RT: 1.473 min Scan# 41
Delta R.T. 0.000 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



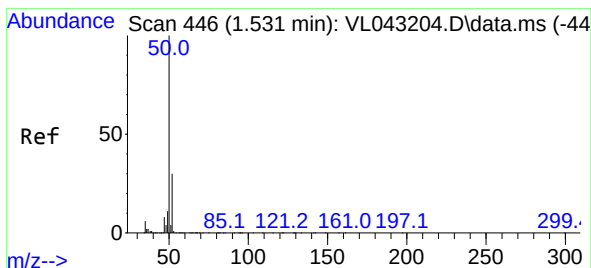
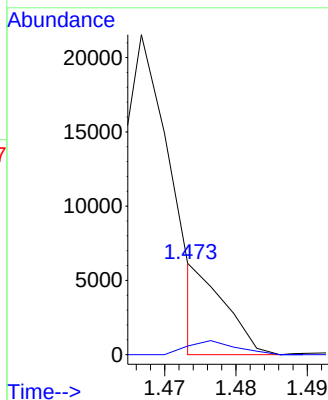
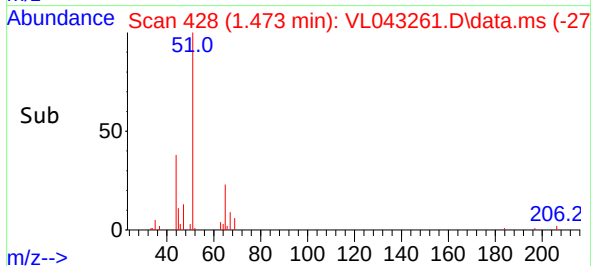
Tgt Ion: 51 Resp: 1514
Ion Ratio Lower Upper
51 100
67 32.0 14.9 22.3

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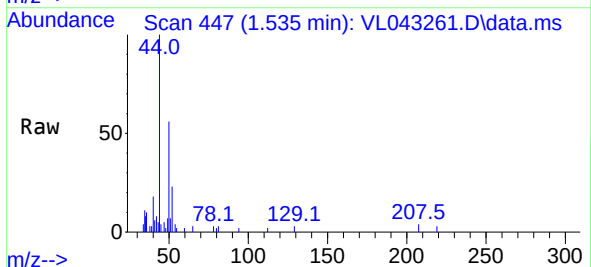
Reviewed By :Semsettin
Yesilyurt

11/21/2025
Supervised By :Mahesh
Dadoda

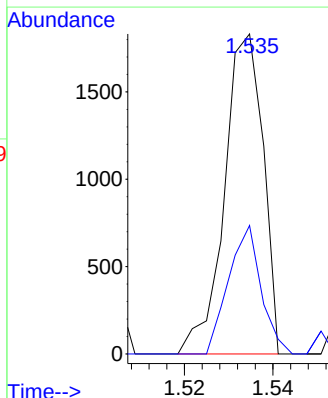
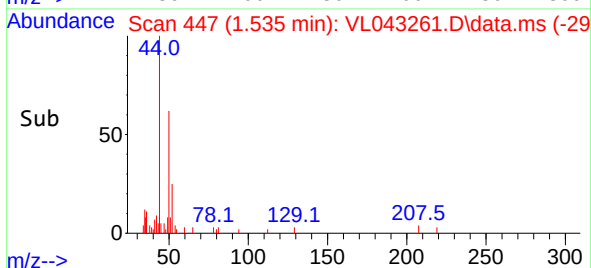
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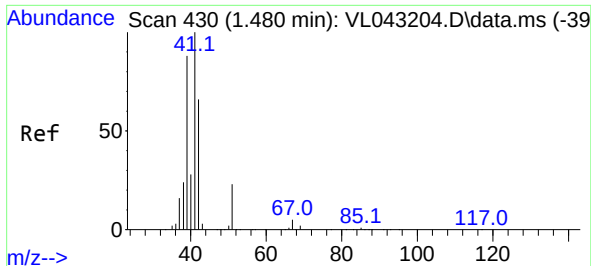


#4
Chloromethane
Concen: 0.205 ppbv
RT: 1.535 min Scan# 447
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49



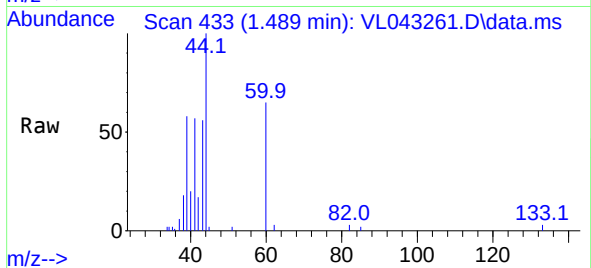
Tgt Ion: 50 Resp: 1113
Ion Ratio Lower Upper
50 100
52 35.6 24.1 36.1





#9
Propene
Concen: 0.265 ppbv
RT: 1.489 min Scan# 41
Delta R.T. 0.010 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



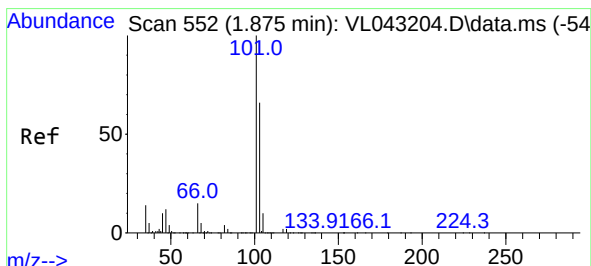
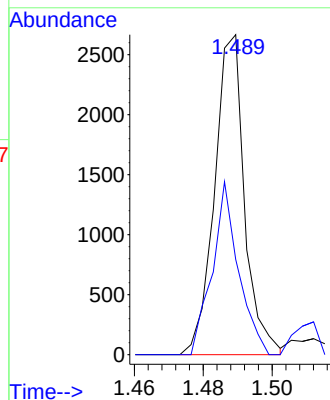
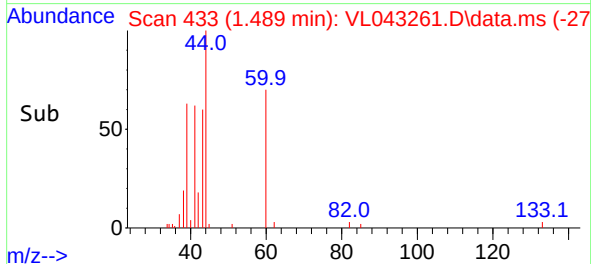
Tgt Ion: 41 Resp: 1610
Ion Ratio Lower Upper
41 100
42 55.3 3.7 5.5

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Yesilyurt

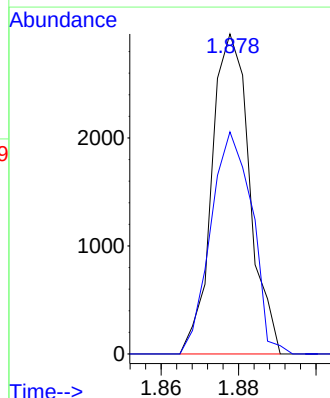
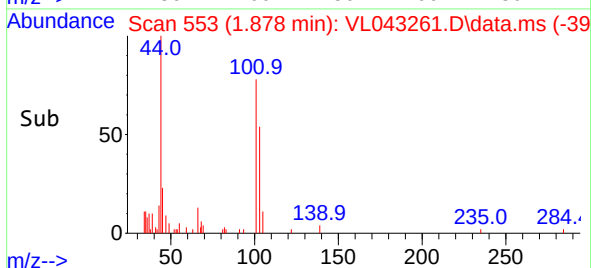
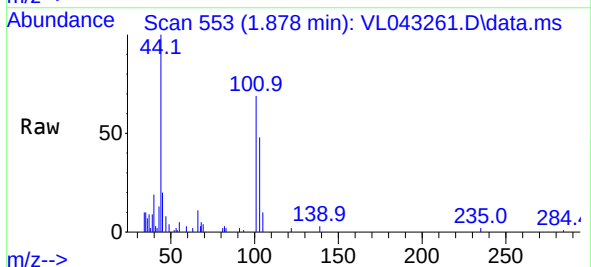
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Supervised By :Mahesh
Dadoda

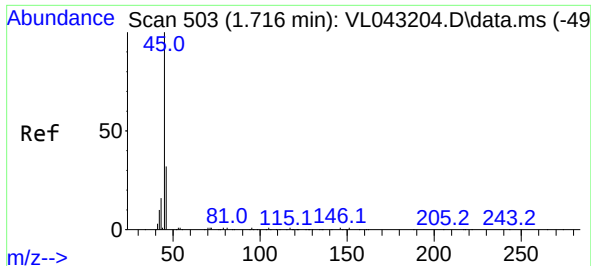
11/21/2025



#11
Trichlorofluoromethane
Concen: 0.143 ppbv
RT: 1.878 min Scan# 553
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Tgt Ion:101 Resp: 2007
Ion Ratio Lower Upper
101 100
103 69.4 52.6 79.0





#13
Ethanol
Concen: 1.655 ppbv
RT: 1.722 min Scan# 503
Delta R.T. 0.007 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1

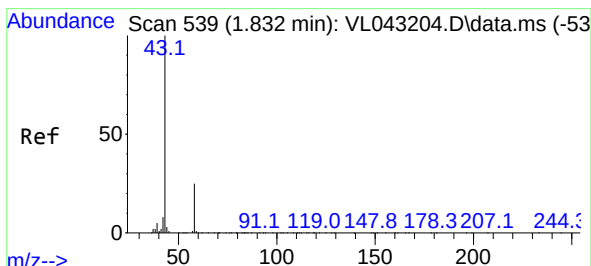
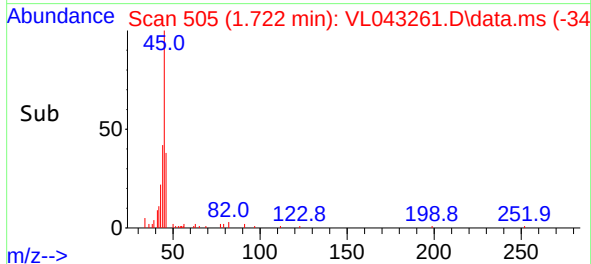
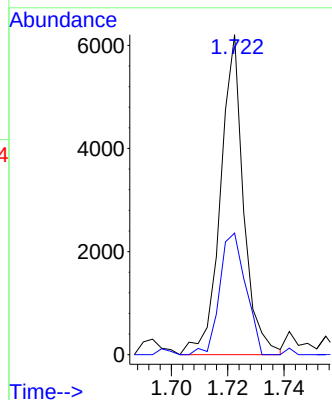
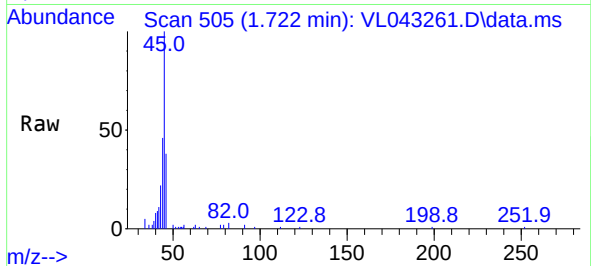
Tgt Ion: 45 Resp: 353
Ion Ratio Lower Upper
45 100
46 0.0 15.0 59.8

Manual Integrations
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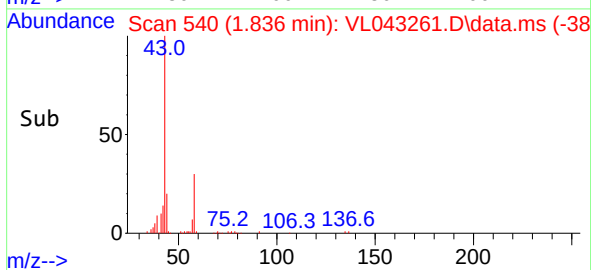
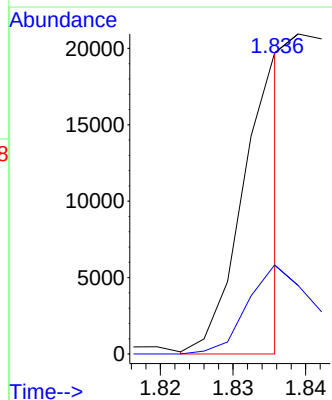
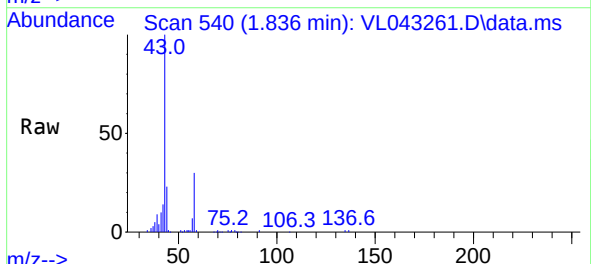
11/21/2025
Supervised By :Mahesh
Dadoda

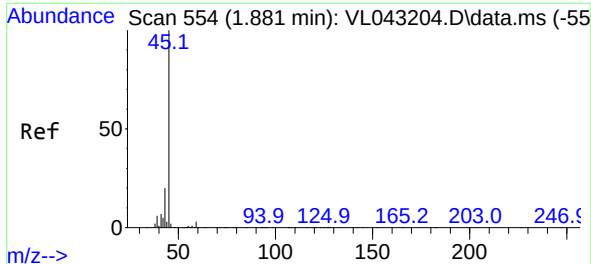
11/21/2025



#15
Acetone
Concen: 0.538 ppbv m
RT: 1.836 min Scan# 540
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Tgt Ion: 43 Resp: 7706
Ion Ratio Lower Upper
43 100
58 54.5 20.7 31.1#





#19
Isopropyl Alcohol
Concen: 0.518 ppbv
RT: 1.888 min Scan# 519
Delta R.T. 0.007 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1

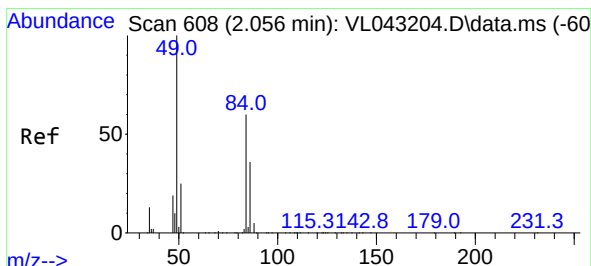
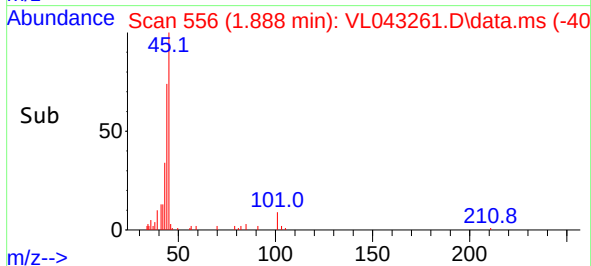
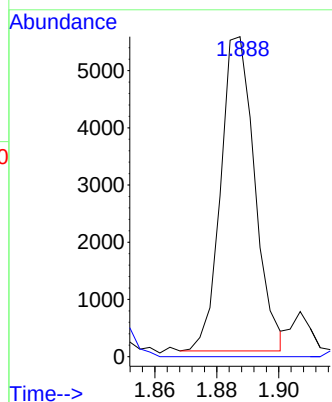
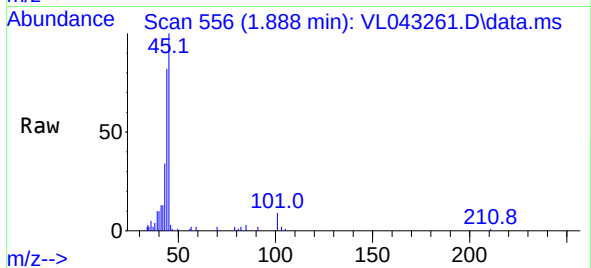
Tgt Ion: 45 Resp: 4190
Ion Ratio Lower Upper
45 100
58 100.3 31.3 46.9

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Yesilyurt

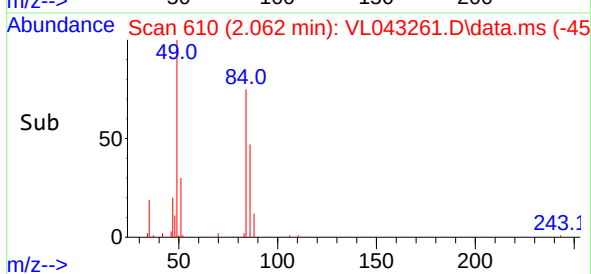
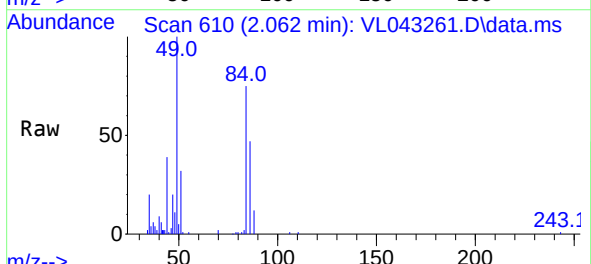
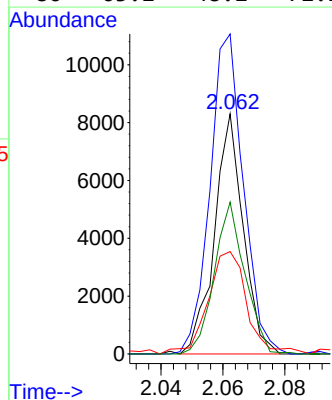
11/21/2025
Supervised By :Mahesh
Dadoda

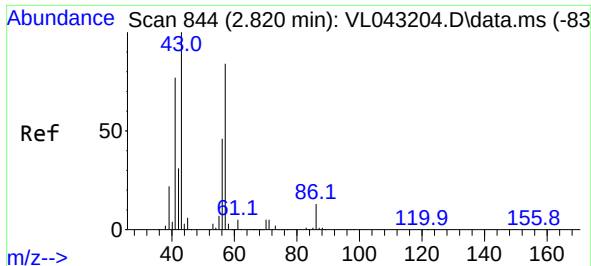
11/21/2025



#20
Methylene Chloride
Concen: 0.532 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.006 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

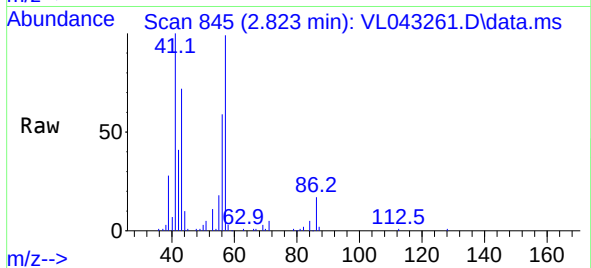
Tgt Ion: 84 Resp: 5379
Ion Ratio Lower Upper
84 100
49 132.3 132.9 199.3#
51 40.6 34.8 52.2
86 63.2 48.2 72.2





#26
Hexane
Concen: 0.995 ppbv
RT: 2.823 min Scan# 844
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



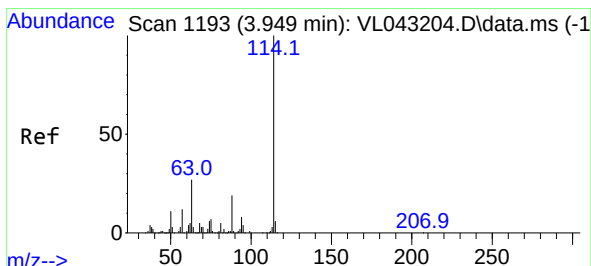
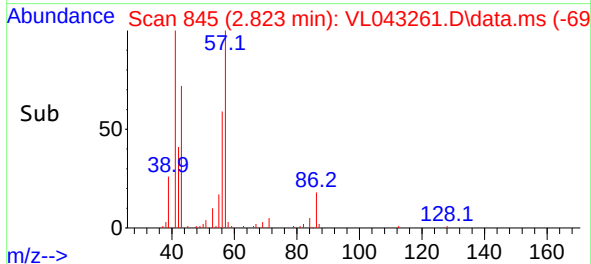
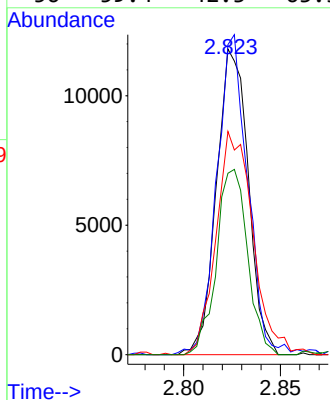
Tgt Ion: 57 Resp: 13470
Ion Ratio Lower Upper
57 100
41 104.5 74.6 111.8
43 84.7 179.0 268.4
56 59.4 42.3 63.5

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Reviewed By :Semsettin
Yesilyurt

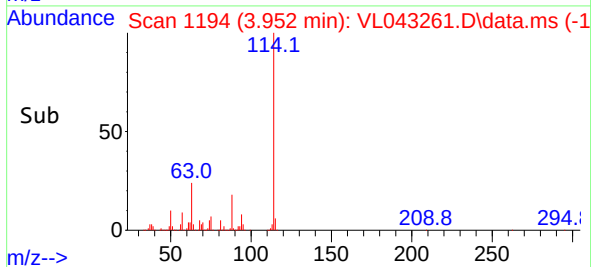
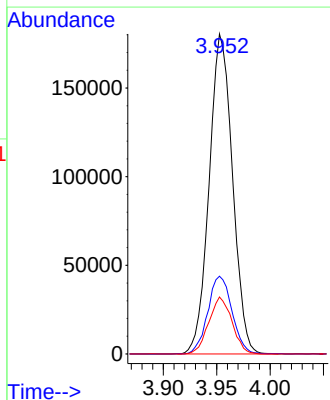
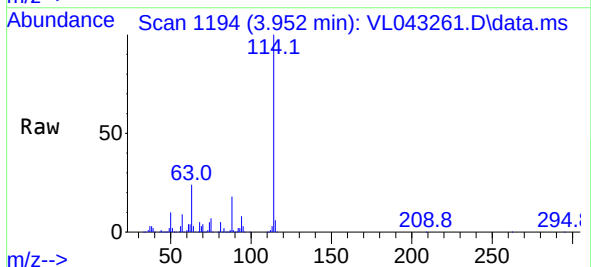
11/21/2025
Supervised By :Mahesh
Dadoda

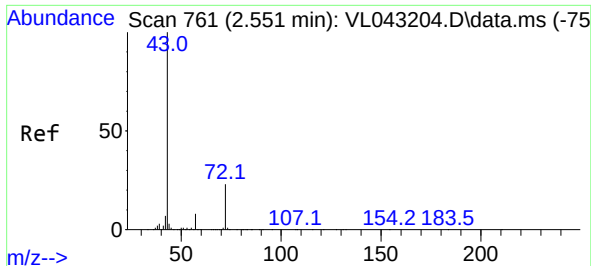
11/21/2025



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.952 min Scan# 1194
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Tgt Ion:114 Resp: 274703
Ion Ratio Lower Upper
114 100
63 25.3 21.0 31.6
88 17.6 14.9 22.3





#34
2-Butanone
Concen: 0.439 ppbv
RT: 2.561 min Scan# 761
Delta R.T. 0.010 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1

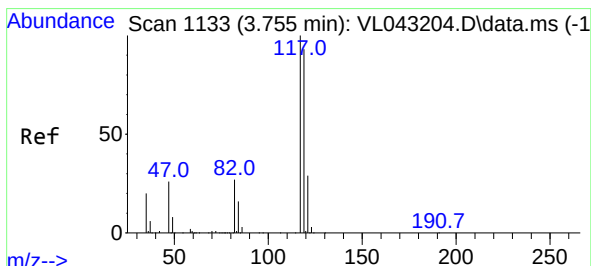
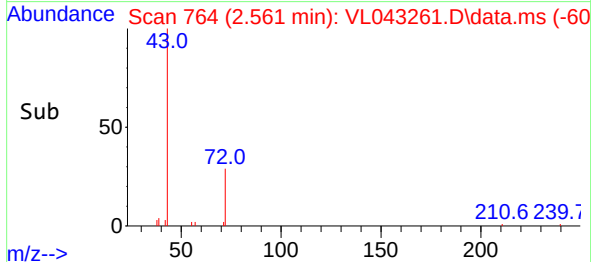
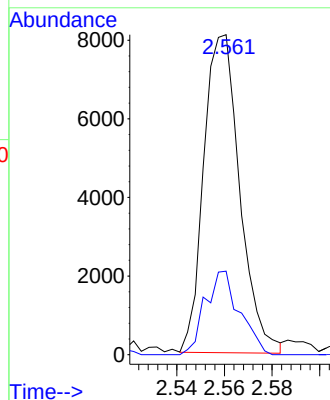
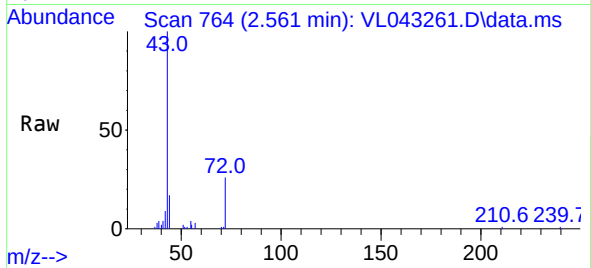
Tgt Ion: 43 Resp: 851
Ion Ratio Lower Upper
43 100
72 25.0 18.1 27.1

Manual Integrations
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Reviewed By :Semsettin
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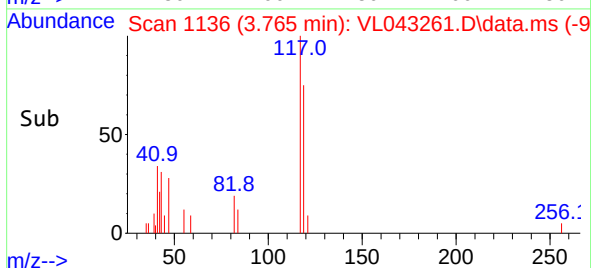
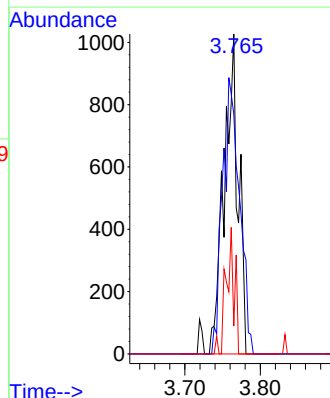
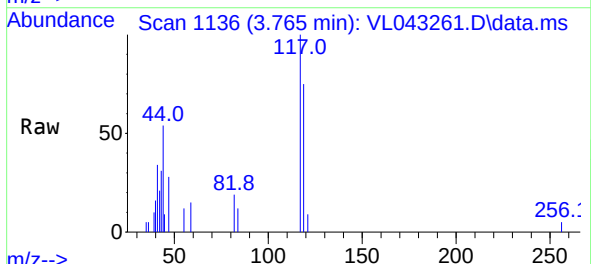
11/21/2025
Supervised By :Mahesh
Dadoda

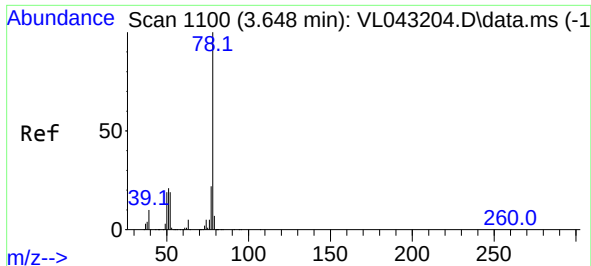
11/21/2025



#35
Carbon Tetrachloride
Concen: 0.065 ppbv m
RT: 3.765 min Scan# 1136
Delta R.T. 0.010 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

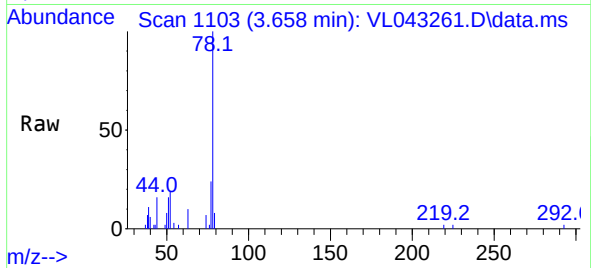
Tgt Ion:117 Resp: 1354
Ion Ratio Lower Upper
117 100
119 74.9 74.6 112.0
121 8.7 23.2 34.8#





#36
Benzene
Concen: 0.143 ppbv m
RT: 3.658 min Scan# 1100
Delta R.T. 0.010 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



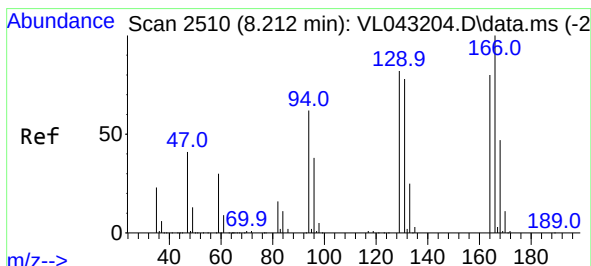
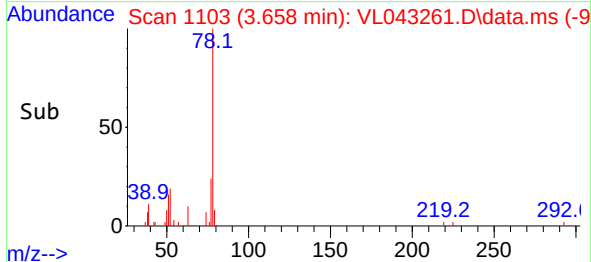
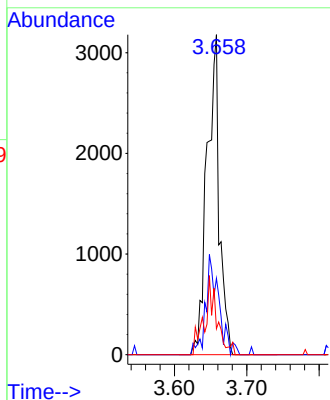
Tgt Ion: 78 Resp: 377
Ion Ratio Lower Upper
78 100
77 23.9 17.5 26.3
50 8.1 15.5 23.3

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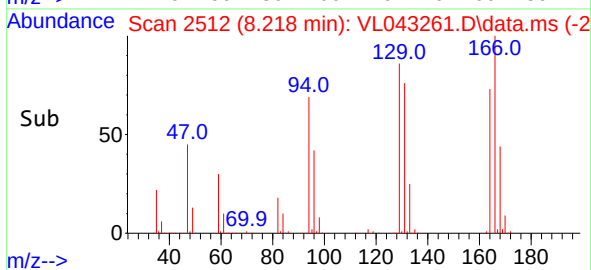
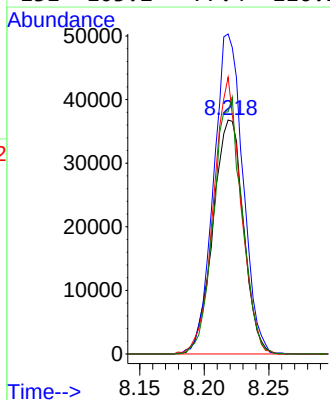
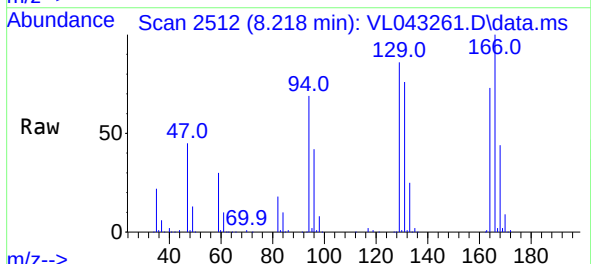
11/21/2025
Supervised By :Mahesh
Dadoda

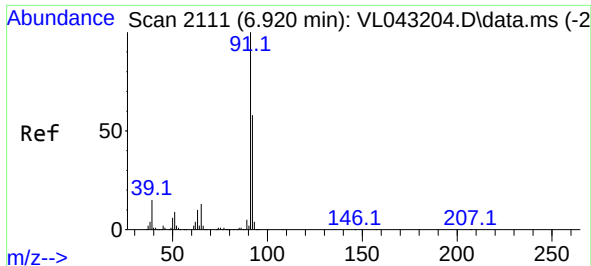
11/21/2025



#52
Tetrachloroethene
Concen: 6.160 ppbv
RT: 8.218 min Scan# 2512
Delta R.T. 0.007 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

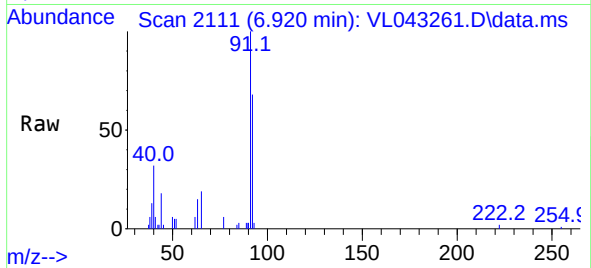
Tgt Ion:164 Resp: 60277
Ion Ratio Lower Upper
164 100
166 136.4 99.4 149.2
129 118.3 81.8 122.8
131 103.2 77.4 116.2





#53
Toluene
Concen: 0.223 ppbv m
RT: 6.920 min Scan# 2111
Delta R.T. 0.000 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



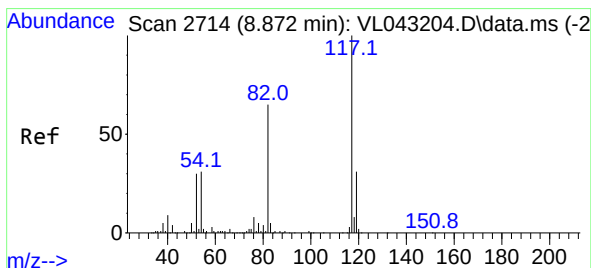
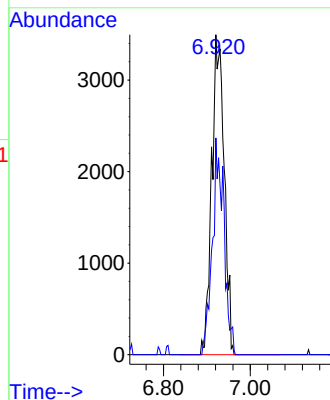
Tgt Ion: 91 Resp: 6952
Ion Ratio Lower Upper
91 100
92 0.0 47.4 71.0

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Yesilyurt

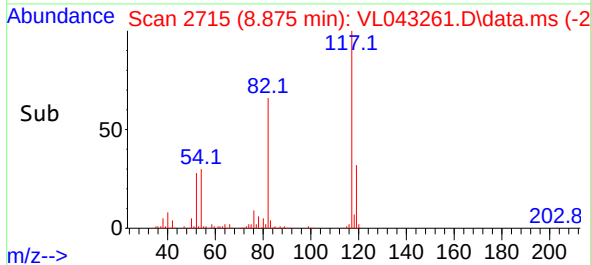
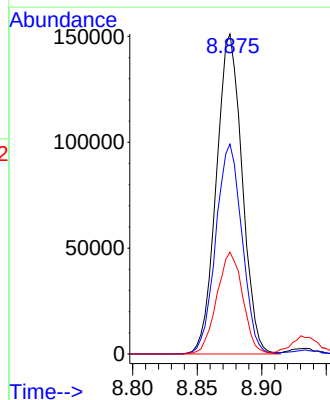
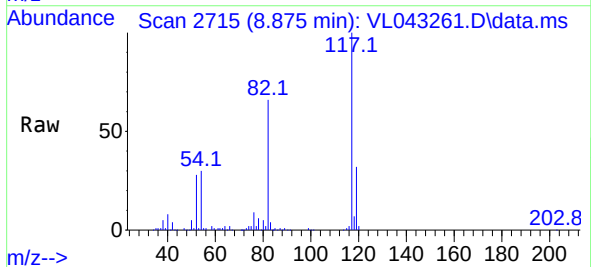
11/21/2025
Supervised By :Mahesh
Dadoda

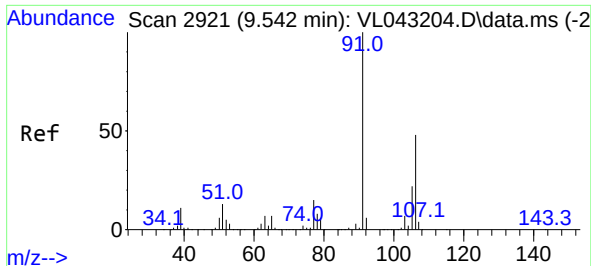
11/21/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

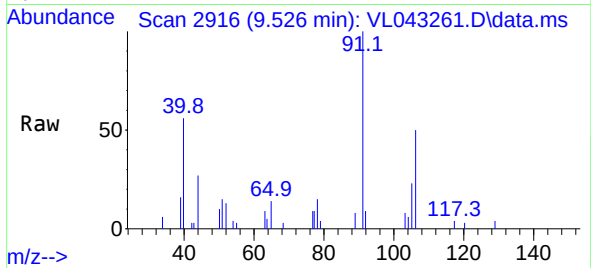
Tgt Ion:117 Resp: 210056
Ion Ratio Lower Upper
117 100
82 66.6 56.1 84.1
119 31.9 25.0 37.6





#59
m/p-Xylene
Concen: 0.135 ppbv m
RT: 9.526 min Scan# 2921
Delta R.T. -0.016 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Instrument :
MSVOA_L
ClientSampleId :
SG-1



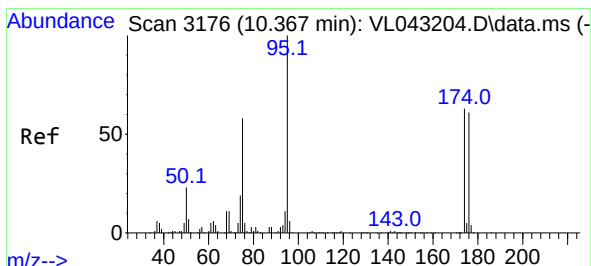
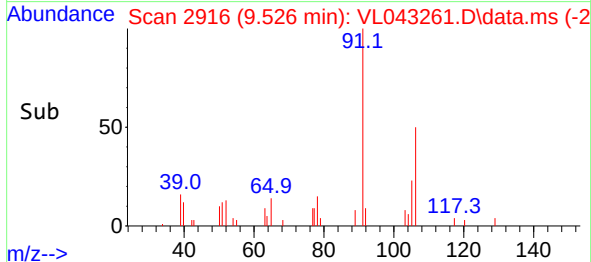
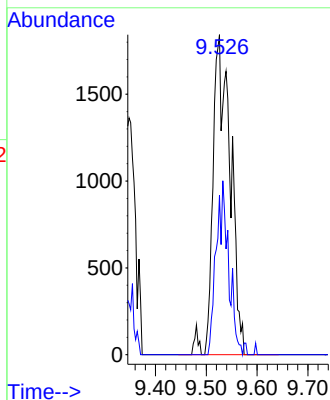
Tgt Ion: 91 Resp: 4368
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1

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Reviewed By :Semsettin
Yesilyurt

11/21/2025
Supervised By :Mahesh
Dadoda

11/21/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 9.823 ppbv
RT: 10.371 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL043261.D
Acq: 20 Nov 2025 12:49

Tgt Ion: 95 Resp: 151243
Ion Ratio Lower Upper
95 100
174 66.2 50.2 75.2
175 4.9 4.1 6.1

