

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042825\
 Data File : VL042423.D
 Acq On : 28 Apr 2025 13:26
 Operator : SY/MD
 Sample : Q1665-19
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-B2-2-3242025

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2025
 Supervised By :Mahesh Dadoda 04/30/2025

Quant Time: Apr 29 01:36:28 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 2

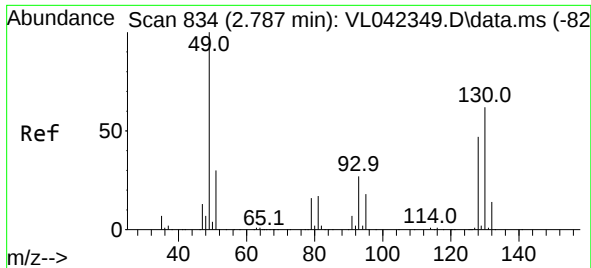
QLast Update : Fri Apr 18 02:14:00 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	134276	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.953	114	394249	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.879	117	337638	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.374	95	295822	10.662	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.600%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.496	85	10922	0.460	ppbv	97
4) Chloromethane	1.532	50	6178	0.658	ppbv	94
9) Propene	1.486	41	45181m	4.392	ppbv	
10) Heptane	4.969	43	14174m	0.490	ppbv	
11) Trichlorofluoromethane	1.875	101	5064	0.224	ppbv	96
13) Ethanol	1.719	45	530749	324.570	ppbv	75
15) Acetone	1.833	43	377040m	17.153	ppbv	
17) tert-Butyl alcohol	2.043	59	80244	2.946	ppbv	100
19) Isopropyl Alcohol	1.884	45	390564	31.985	ppbv #	77
20) Methylene Chloride	2.059	84	7626	0.886	ppbv	89
26) Hexane	2.826	57	51632	2.354	ppbv #	42
30) Cyclohexane	3.852	84	3756m	0.212	ppbv	
34) 2-Butanone	2.558	43	49884	1.600	ppbv	96
35) Carbon Tetrachloride	3.762	117	2109m	0.059	ppbv	
36) Benzene	3.655	78	19225	0.452	ppbv #	86
37) 1,2-Dichloroethane	3.215	62	11718	0.459	ppbv	97
44) 2,2,4-Trimethylpentane	4.632	57	49004m	0.667	ppbv	
50) 4-Methyl-2-Pentanone	5.755	43	20843m	0.402	ppbv	
51) 2-Hexanone	7.442	43	11653m	0.251	ppbv	
52) Tetrachloroethene	8.215	164	744m	0.045	ppbv	
53) Toluene	6.930	91	202018	3.959	ppbv	100
58) Ethyl Benzene	9.351	91	33321	0.498	ppbv	99
59) m/p-Xylene	9.526	91	66442	1.233	ppbv	97
60) o-Xylene	9.963	91	27079	0.499	ppbv	97
61) Styrene	9.869	104	8176	0.316	ppbv	94
64) n-propylbenzene	10.986	120	2190	0.109	ppbv	89
72) 4-Ethyltoluene	11.128	105	8239m	0.124	ppbv	
73) 1,3,5-Trimethylbenzene	11.203	105	8221	0.140	ppbv #	83
74) 1,2,4-Trimethylbenzene	11.533	105	26441	0.387	ppbv #	63

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



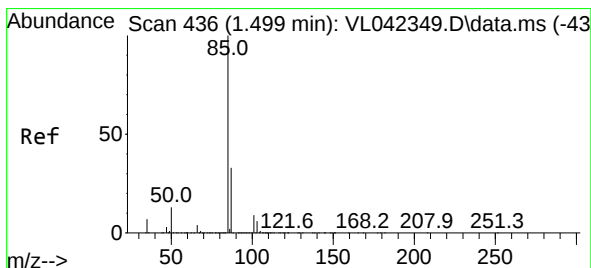
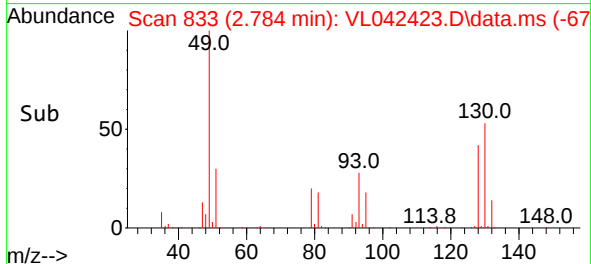
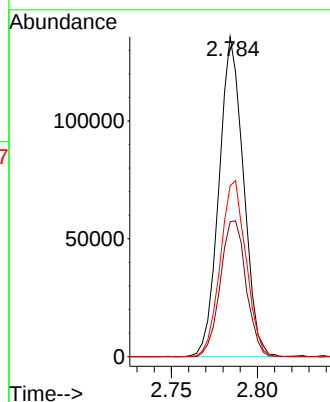
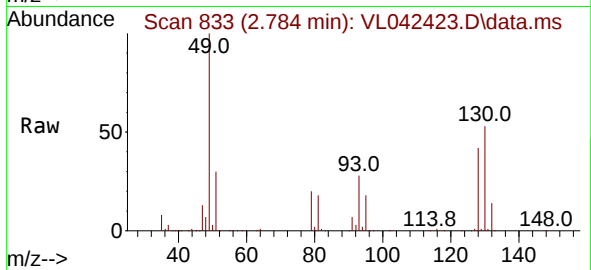
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Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Instrument : MSVOA_L
ClientSampleId : IA-B2-2-3242025

Tgt Ion: 49 Resp: 134270
Ion Ratio Lower Upper
49 100
128 44.7 22.8 68.4
130 57.8 29.3 88.0

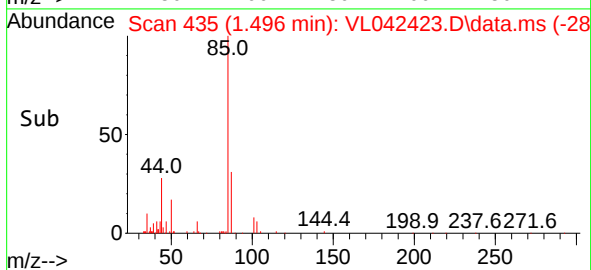
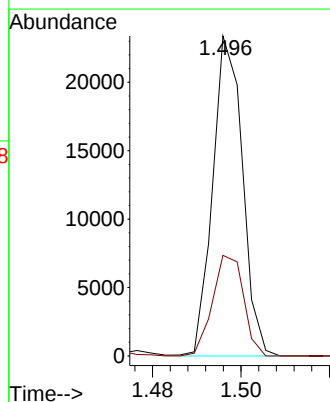
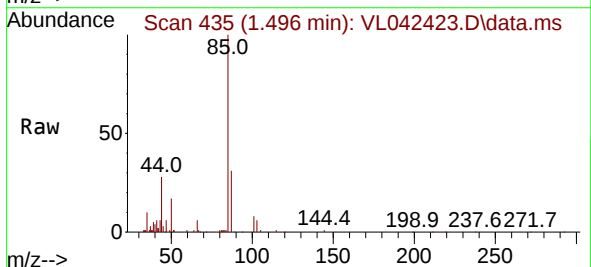
Manual Integrations
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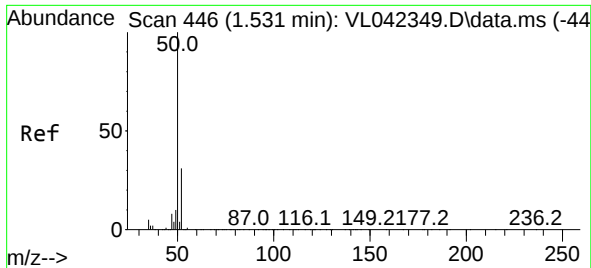
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#2
Dichlorodifluoromethane
Concen: 0.460 ppbv
RT: 1.496 min Scan# 435
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

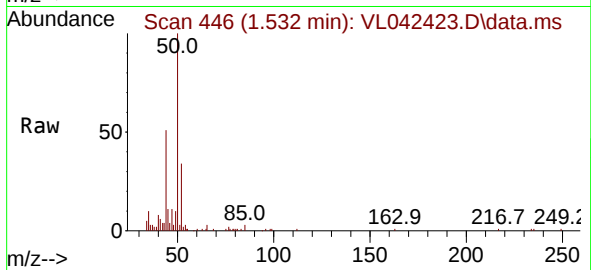
Tgt Ion: 85 Resp: 10922
Ion Ratio Lower Upper
85 100
87 31.5 26.6 39.8





#4
Chloromethane
Concen: 0.658 ppbv
RT: 1.532 min Scan# 446
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

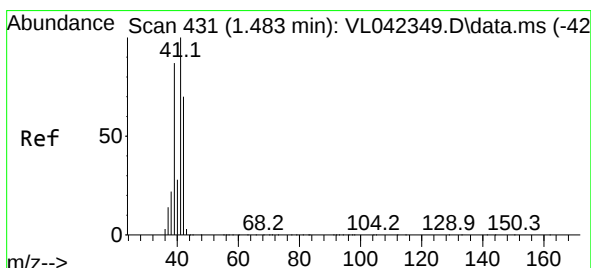
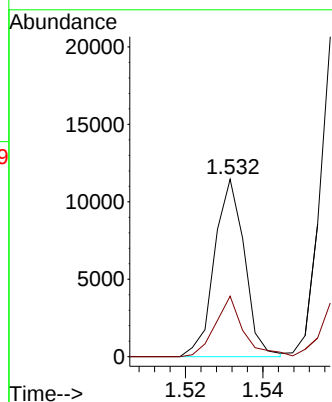
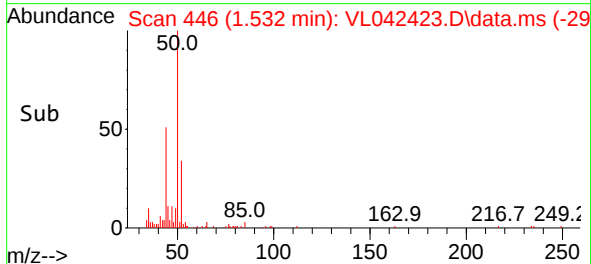
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



Tgt Ion: 50 Resp: 6178
Ion Ratio Lower Upper
50 100
52 34.1 24.7 37.1

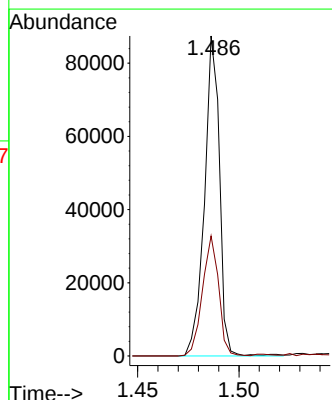
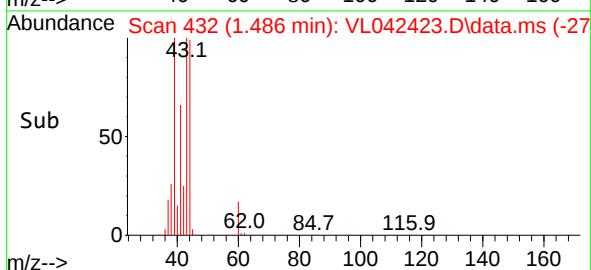
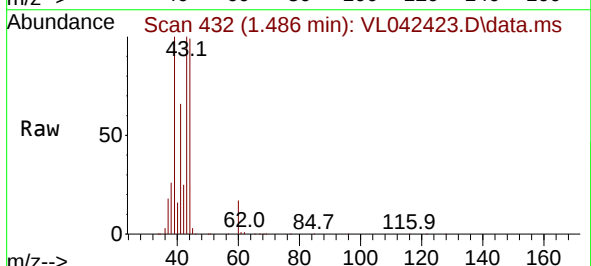
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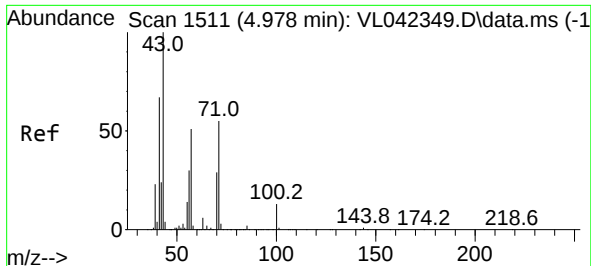
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#9
Propene
Concen: 4.392 ppbv m
RT: 1.486 min Scan# 432
Delta R.T. 0.004 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

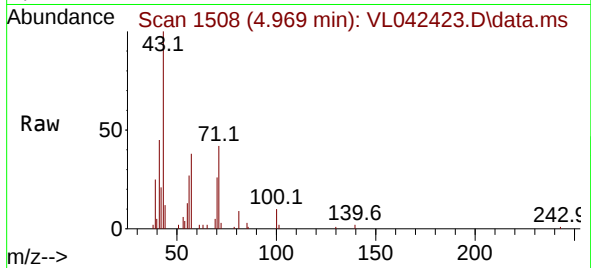
Tgt Ion: 41 Resp: 45181
Ion Ratio Lower Upper
41 100
42 579.0 56.2 84.4#





#10
Heptane
Concen: 0.490 ppbv m
RT: 4.969 min Scan# 1511
Delta R.T. -0.009 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

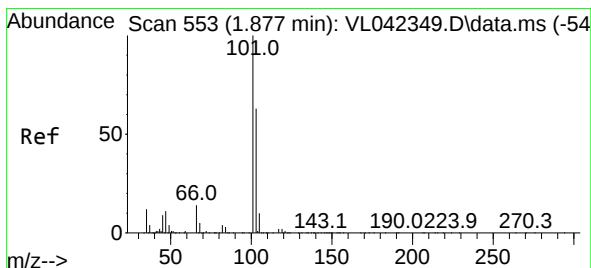
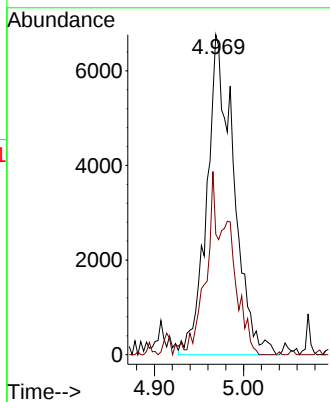
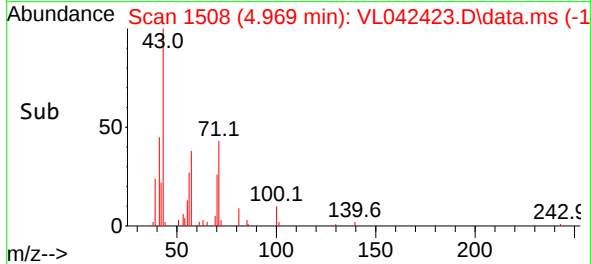
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



Tgt Ion: 43 Resp: 14174
Ion Ratio Lower Upper
43 100
57 52.9 39.9 59.9

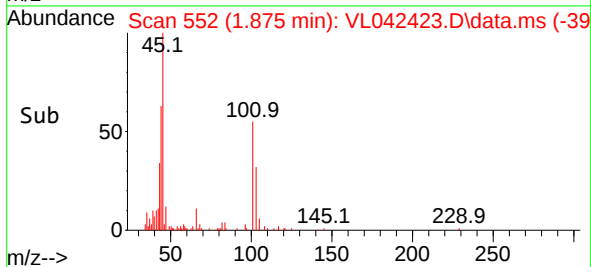
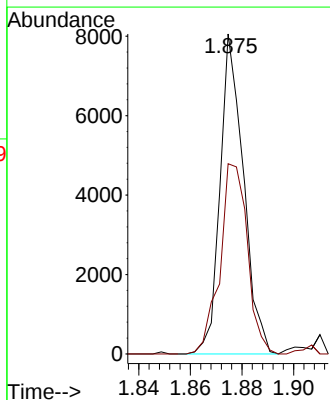
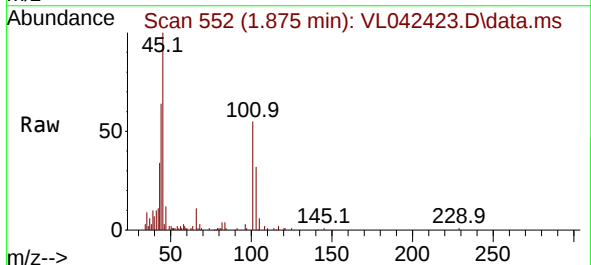
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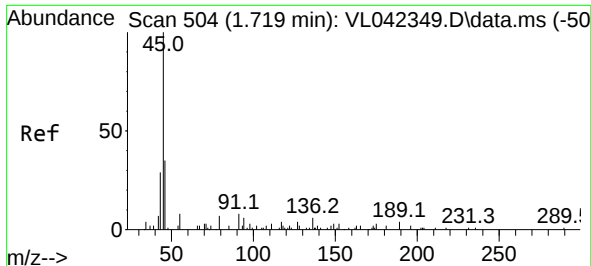
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#11
Trichlorofluoromethane
Concen: 0.224 ppbv
RT: 1.875 min Scan# 552
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

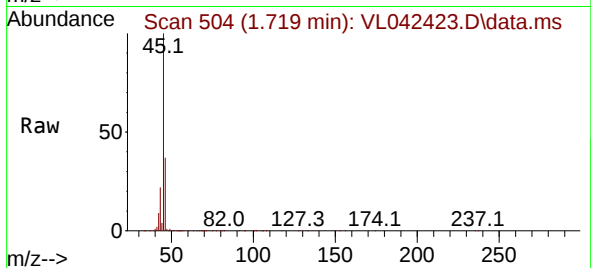
Tgt Ion:101 Resp: 5064
Ion Ratio Lower Upper
101 100
103 59.4 50.1 75.1





#13
Ethanol
Concen: 324.570 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

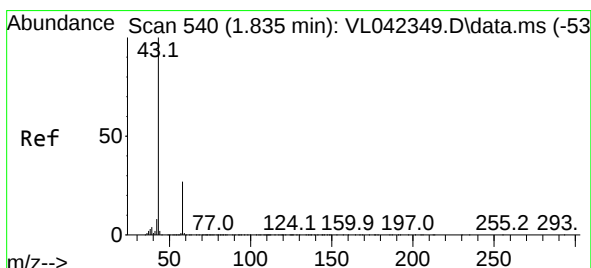
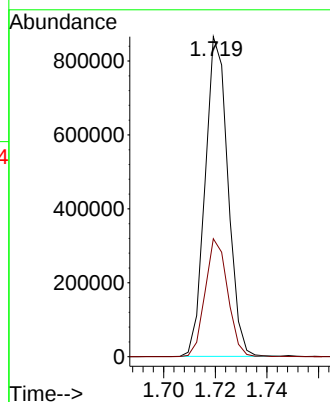
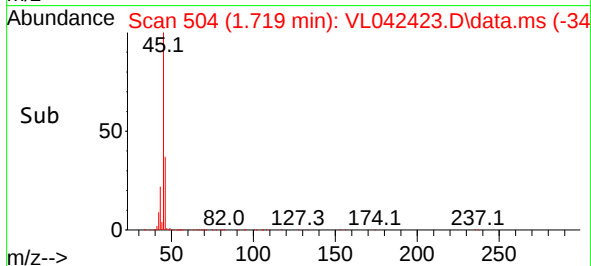
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



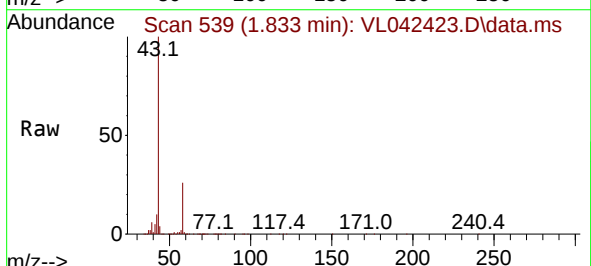
Tgt Ion: 45 Resp: 530749
Ion Ratio Lower Upper
45 100
46 36.6 21.9 87.7

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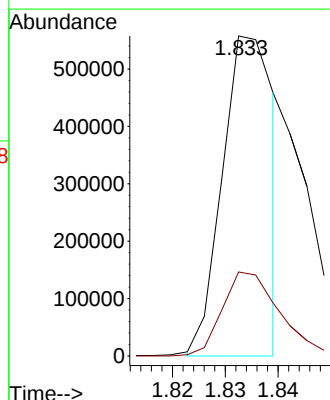
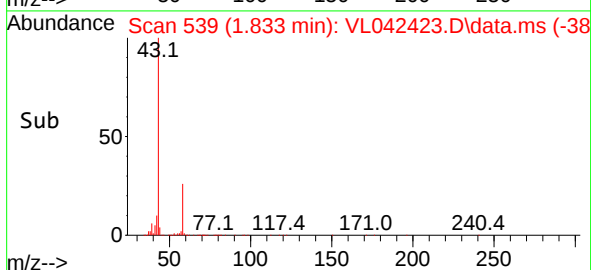
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025

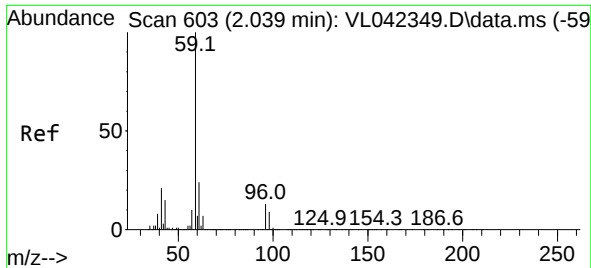


#15
Acetone
Concen: 17.153 ppbv m
RT: 1.833 min Scan# 539
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26



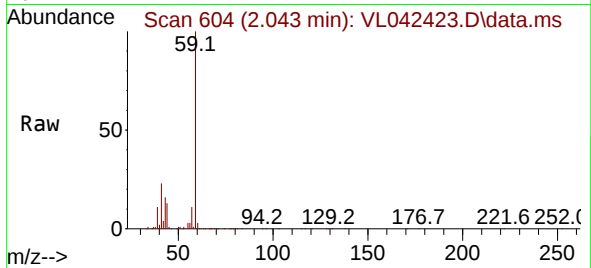
Tgt Ion: 43 Resp: 377040
Ion Ratio Lower Upper
43 100
58 29.4 22.4 33.6





#17
tert-Butyl alcohol
Concen: 2.946 ppbv
RT: 2.043 min Scan# 603
Delta R.T. 0.004 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

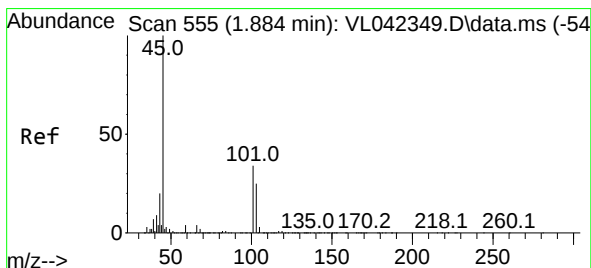
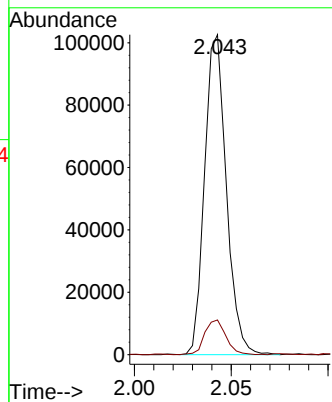
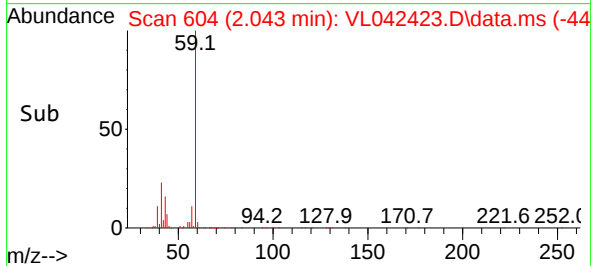
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



Tgt Ion: 59 Resp: 80244
Ion Ratio Lower Upper
59 100
57 11.0 8.7 13.1

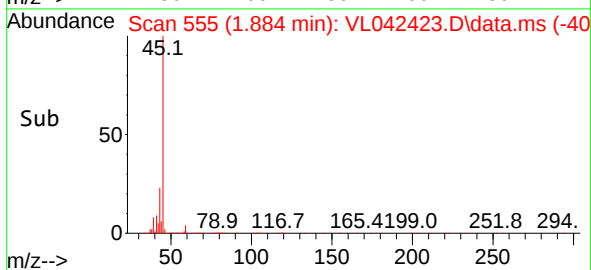
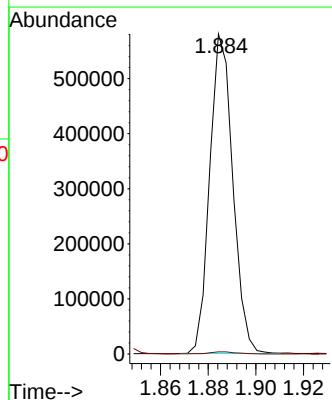
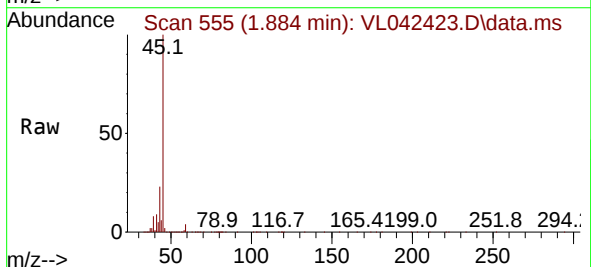
Manual Integrations
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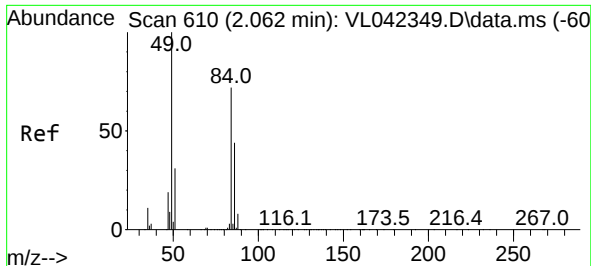
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#19
Isopropyl Alcohol
Concen: 31.985 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

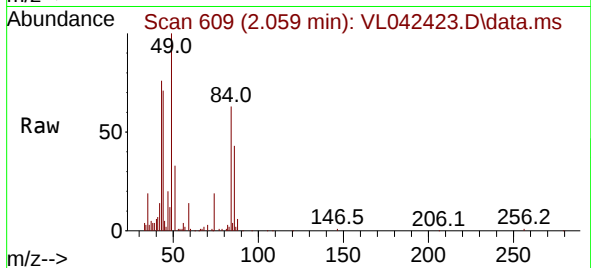
Tgt Ion: 45 Resp: 390564
Ion Ratio Lower Upper
45 100
58 28.3 34.5 51.7#





#20
Methylene Chloride
Concen: 0.886 ppbv
RT: 2.059 min Scan# 609
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

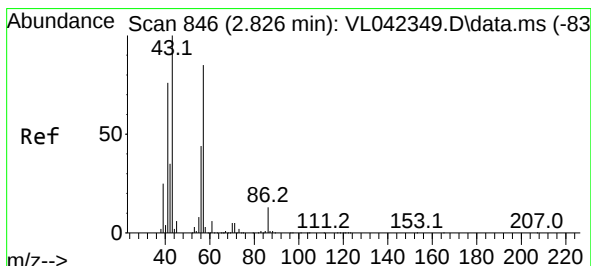
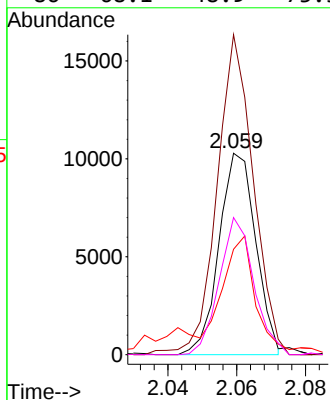
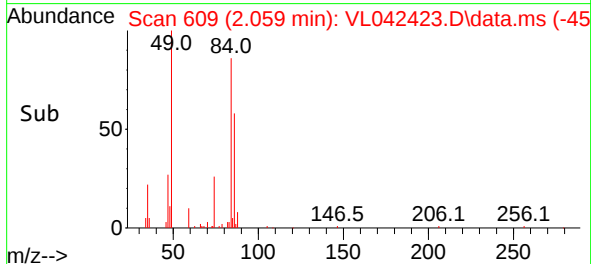
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MSVOA_L
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IA-B2-2-3242025



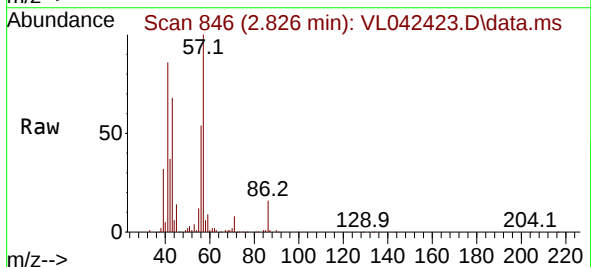
Tgt Ion: 84 Resp: 7620
Ion Ratio Lower Upper
84 100
49 156.3 111.6 167.4
51 47.0 35.1 52.7
86 68.1 48.9 73.3

Manual Integrations
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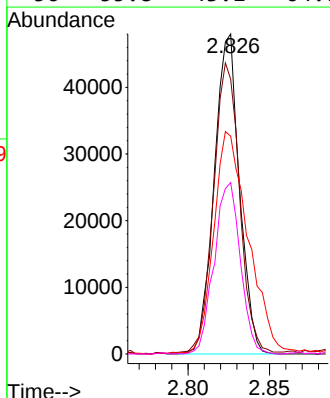
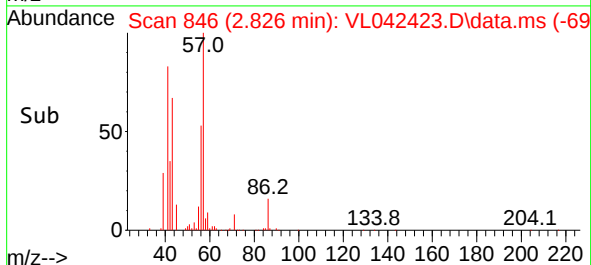
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025

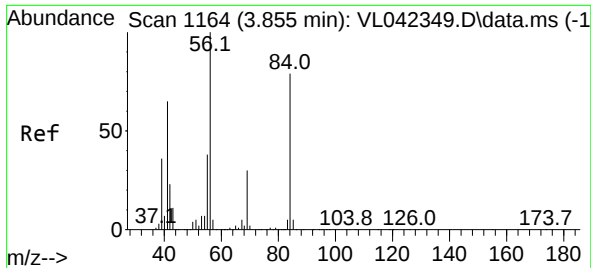


#26
Hexane
Concen: 2.354 ppbv
RT: 2.826 min Scan# 846
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26



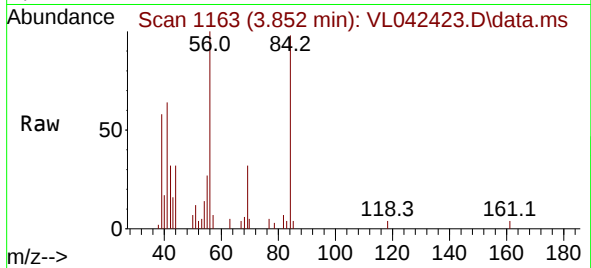
Tgt Ion: 57 Resp: 51632
Ion Ratio Lower Upper
57 100
41 95.5 77.9 116.9
43 97.6 208.4 312.6#
56 55.8 43.1 64.7





#30
Cyclohexane
Concen: 0.212 ppbv m
RT: 3.852 min Scan# 1163
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

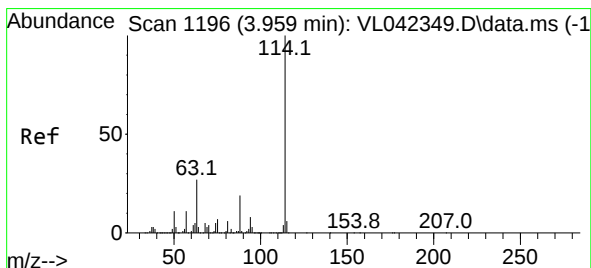
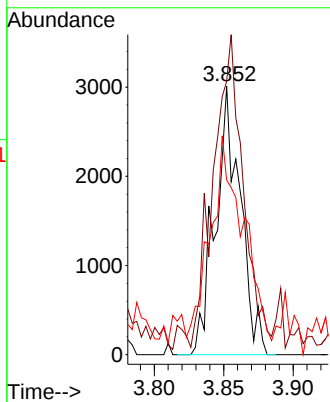
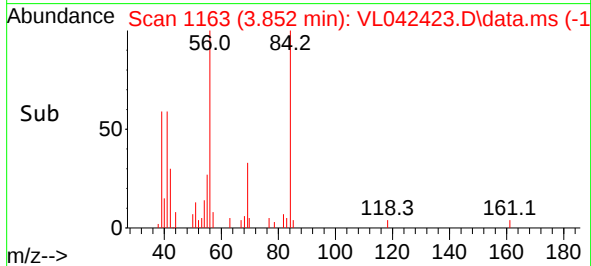
Instrument : MSVOA_L
ClientSampleId : IA-B2-2-3242025



Tgt Ion: 84 Resp: 3750
Ion Ratio Lower Upper
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56 147.4 101.0 151.4
41 101.7 67.4 101.0

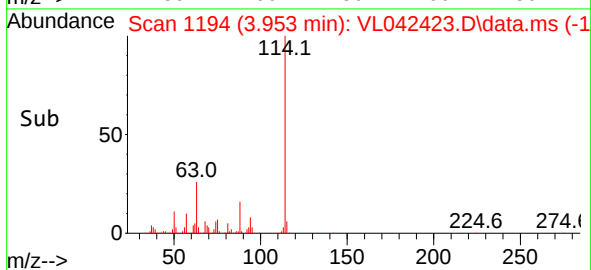
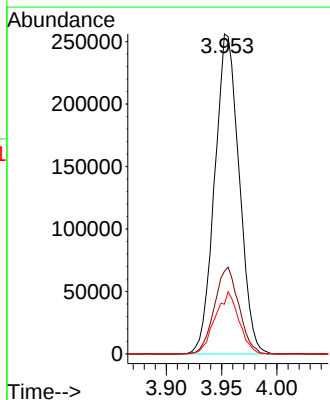
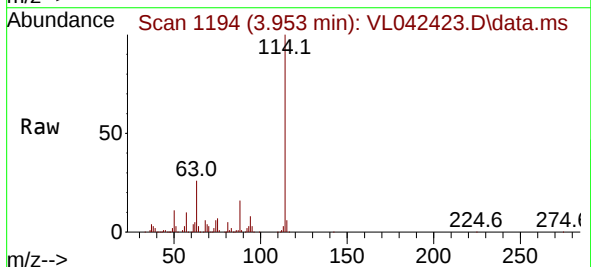
Manual Integrations
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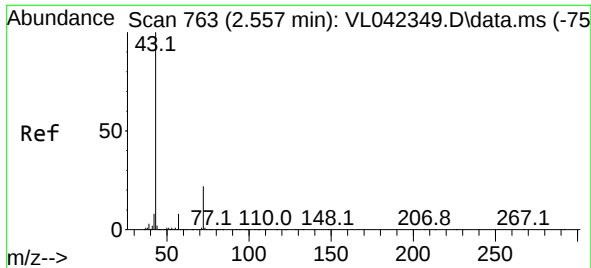
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.953 min Scan# 1194
Delta R.T. -0.006 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

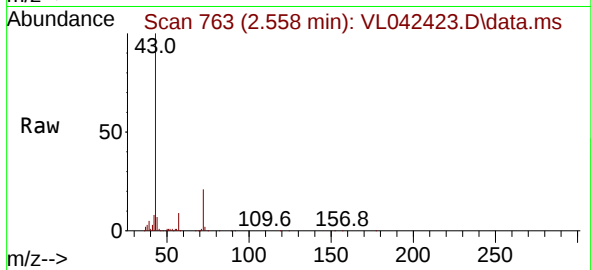
Tgt Ion:114 Resp: 394249
Ion Ratio Lower Upper
114 100
63 27.1 21.8 32.6
88 19.0 15.5 23.3





#34
2-Butanone
Concen: 1.600 ppbv
RT: 2.558 min Scan# 763
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

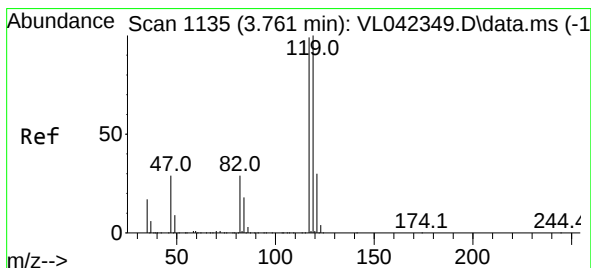
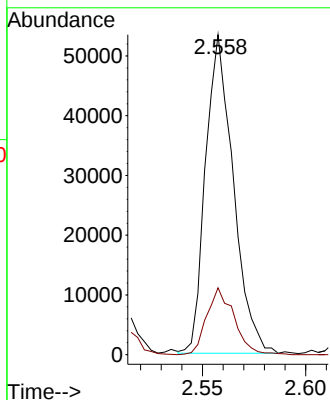
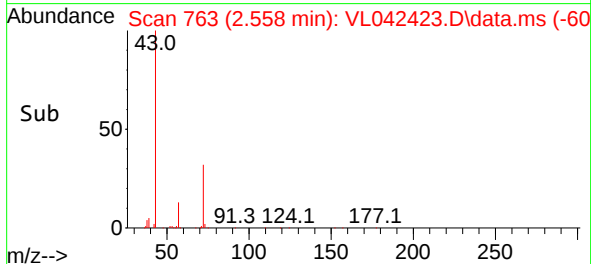
Instrument : MSVOA_L
ClientSampleId : IA-B2-2-3242025



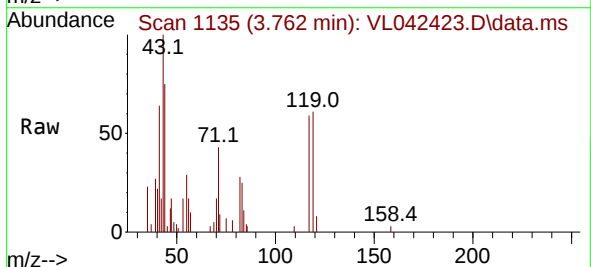
Tgt Ion: 43 Resp: 49884
Ion Ratio Lower Upper
43 100
72 20.7 18.2 27.2

Manual Integrations
APPROVED

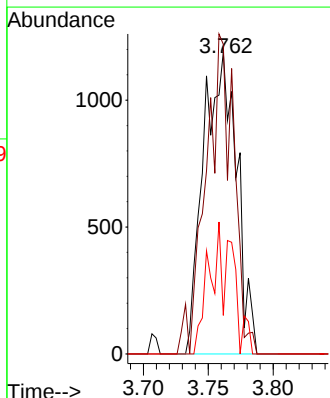
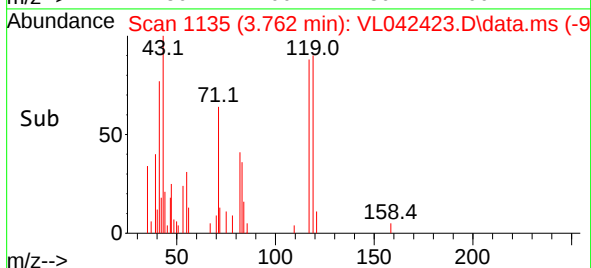
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025

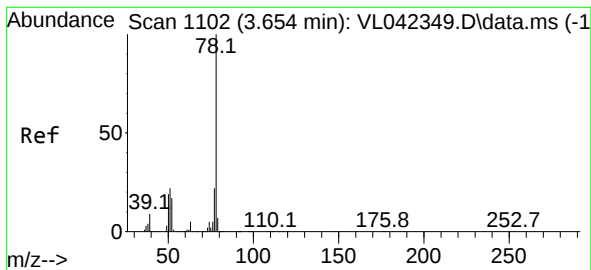


#35
Carbon Tetrachloride
Concen: 0.059 ppbv m
RT: 3.762 min Scan# 1135
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26



Tgt Ion:117 Resp: 2109
Ion Ratio Lower Upper
117 100
119 102.5 80.5 120.7
121 12.8 24.2 36.2#





#36

Benzene

Concen: 0.452 ppbv

RT: 3.655 min Scan# 1102

Delta R.T. 0.000 min

Lab File: VL042423.D

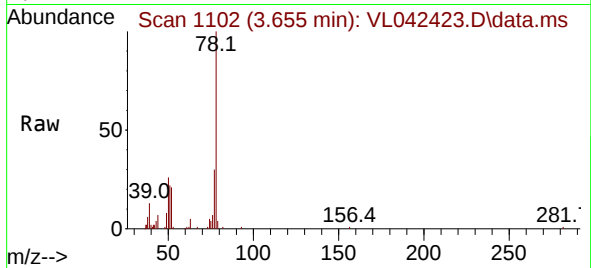
Acq: 28 Apr 2025 13:26

Instrument :

MSVOA_L

ClientSampleId :

IA-B2-2-3242025

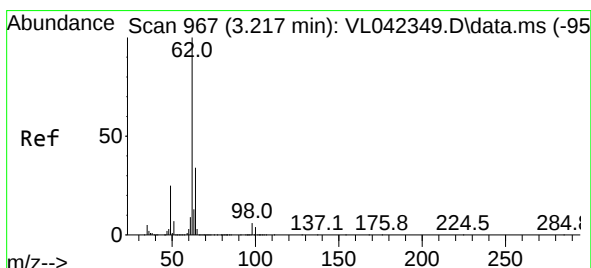
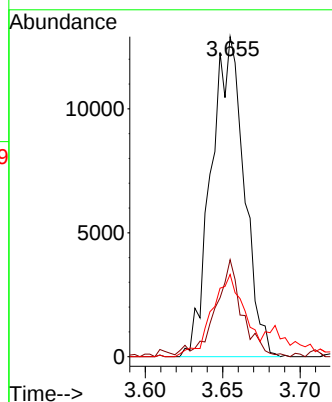
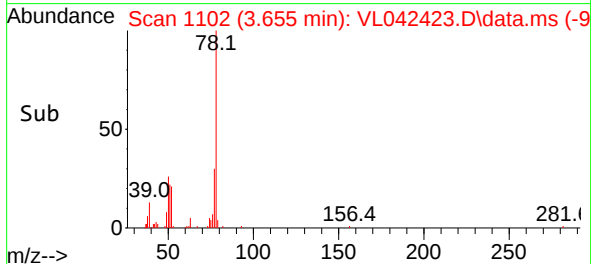


Tgt Ion: 78	Resp: 1922
Ion Ratio	Lower Upper
78 100	
77 29.4	17.4 26.0
50 24.8	15.5 23.3

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#37

1,2-Dichloroethane

Concen: 0.459 ppbv

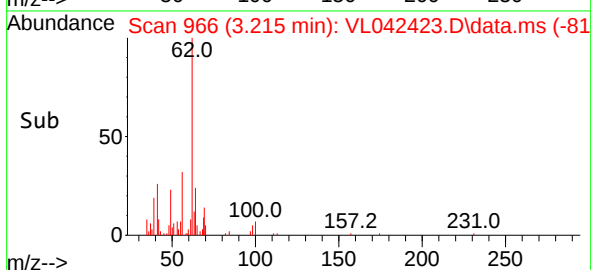
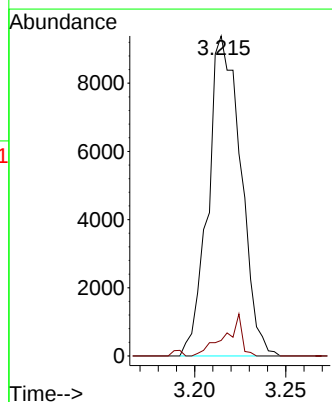
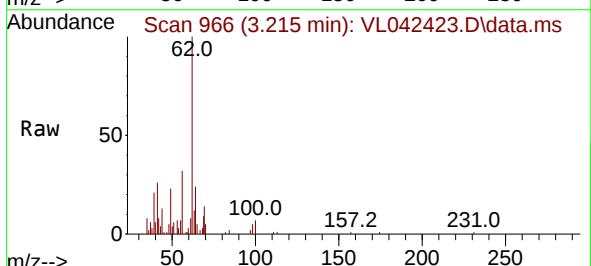
RT: 3.215 min Scan# 966

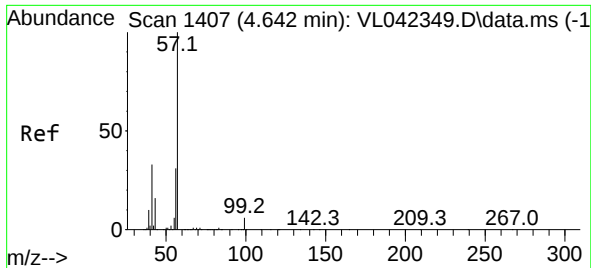
Delta R.T. -0.003 min

Lab File: VL042423.D

Acq: 28 Apr 2025 13:26

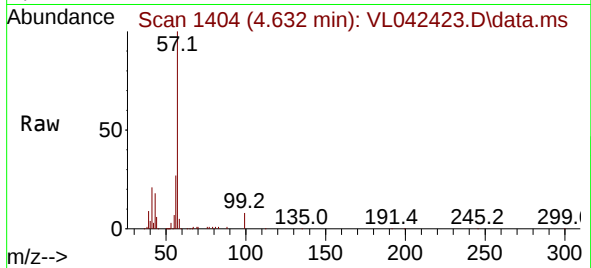
Tgt Ion: 62	Resp: 11718
Ion Ratio	Lower Upper
62 100	
98 7.4	5.1 7.7





#44
2,2,4-Trimethylpentane
Concen: 0.667 ppbv m
RT: 4.632 min Scan# 1407
Delta R.T. -0.009 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

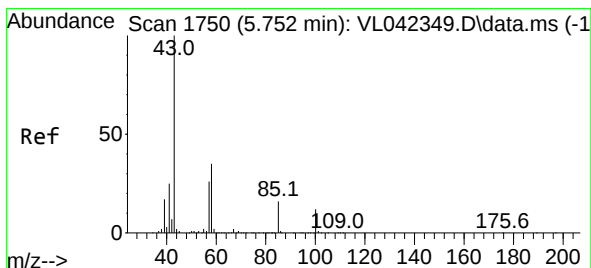
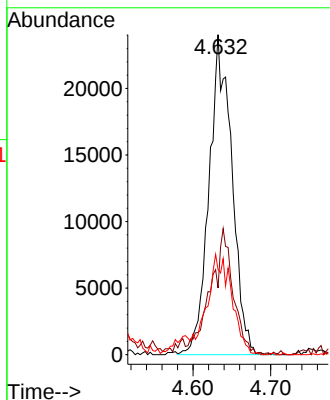
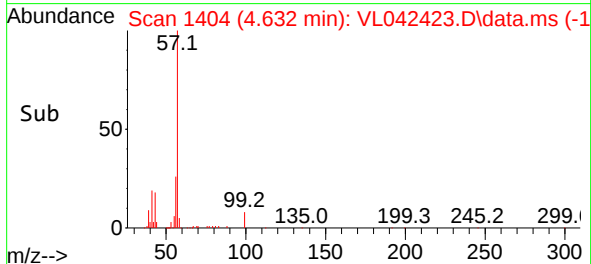
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



Tgt Ion: 57 Resp: 49004
Ion Ratio Lower Upper
57 100
41 0.0 27.2 40.8
56 38.1 25.7 38.5

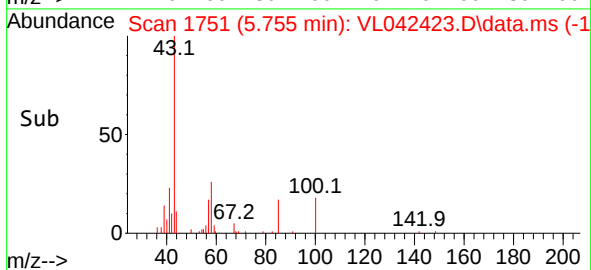
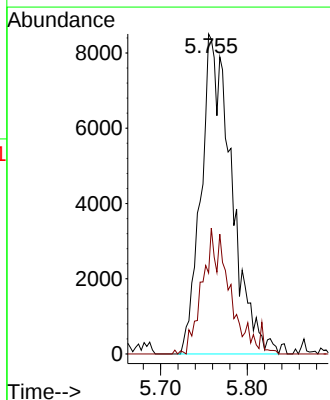
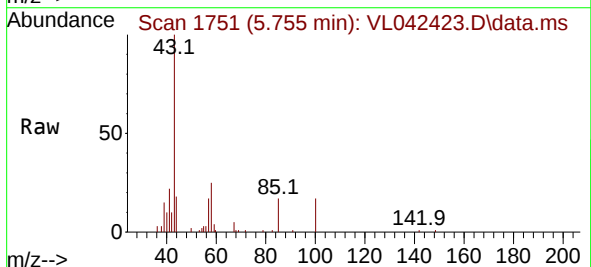
Manual Integrations
APPROVED

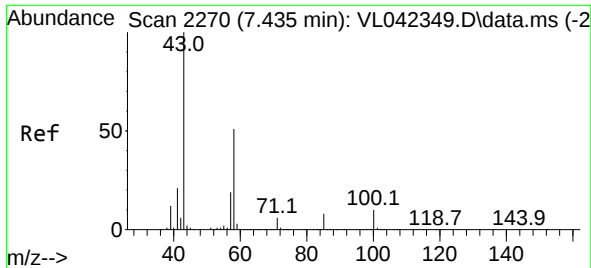
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#50
4-Methyl-2-Pentanone
Concen: 0.402 ppbv m
RT: 5.755 min Scan# 1751
Delta R.T. 0.004 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Tgt Ion: 43 Resp: 20843
Ion Ratio Lower Upper
43 100
58 35.4 28.6 43.0





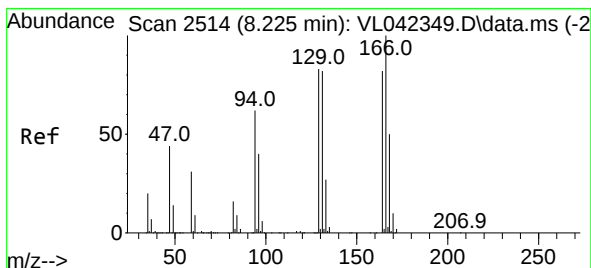
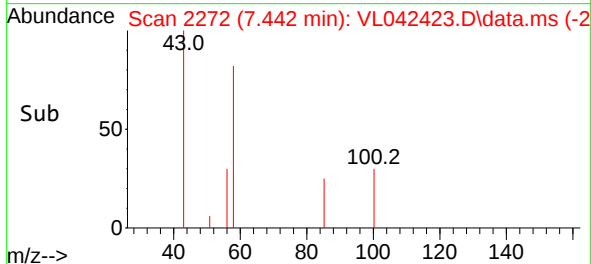
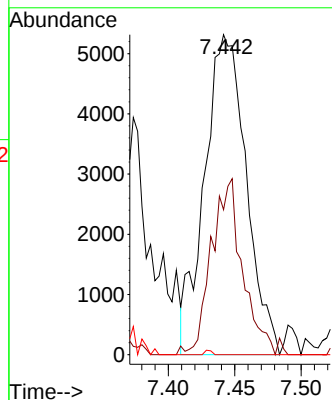
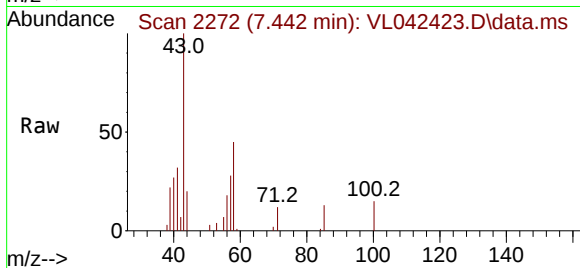
#51
2-Hexanone
Concen: 0.251 ppbv m
RT: 7.442 min Scan# 2115
Delta R.T. 0.007 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Instrument : MSVOA_L
ClientSampleId : IA-B2-2-3242025

Tgt Ion: 43 Resp: 1165
Ion Ratio Lower Upper
43 100
58 0.0 40.2 60.4#
98 0.2 0.1 0.1#

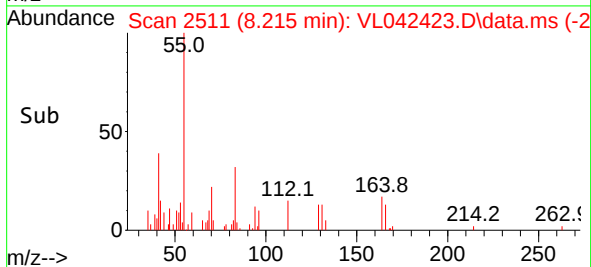
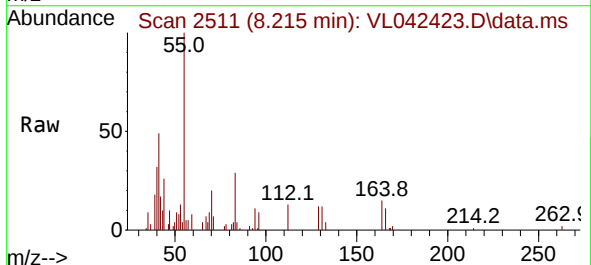
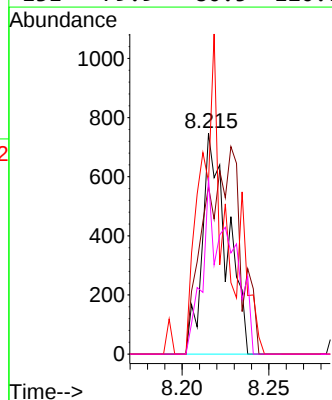
Manual Integrations
APPROVED

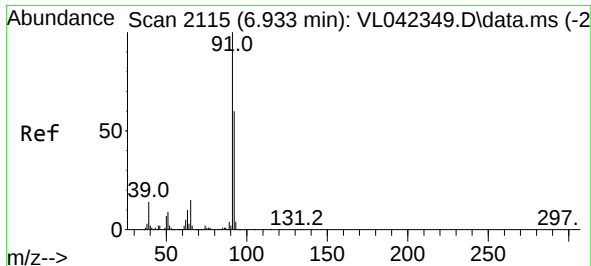
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#52
Tetrachloroethene
Concen: 0.045 ppbv m
RT: 8.215 min Scan# 2511
Delta R.T. -0.009 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Tgt Ion:164 Resp: 744
Ion Ratio Lower Upper
164 100
166 75.9 98.2 147.2#
129 78.0 81.8 122.8#
131 79.9 80.5 120.7#





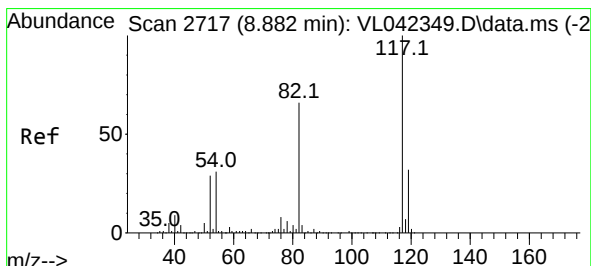
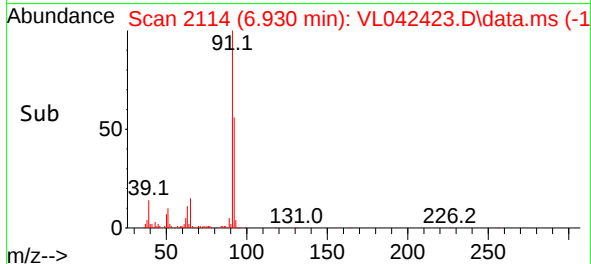
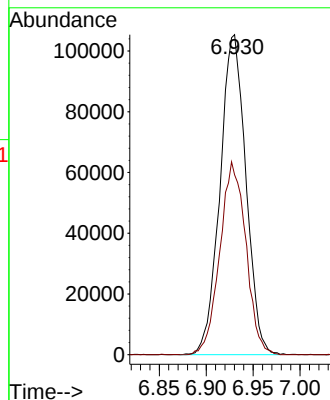
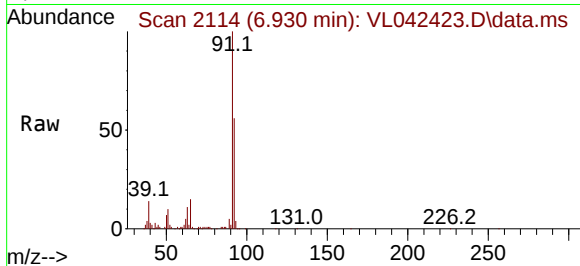
#53
Toluene
Concen: 3.959 ppbv
RT: 6.930 min Scan# 2115
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025

Tgt Ion: 91 Resp: 202018
Ion Ratio Lower Upper
91 100
92 60.6 48.2 72.4

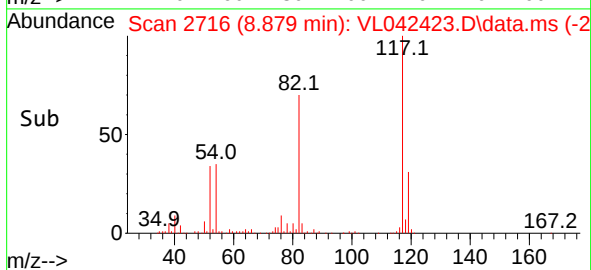
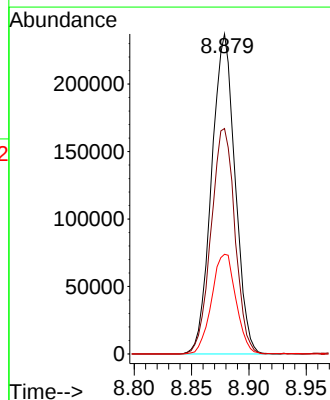
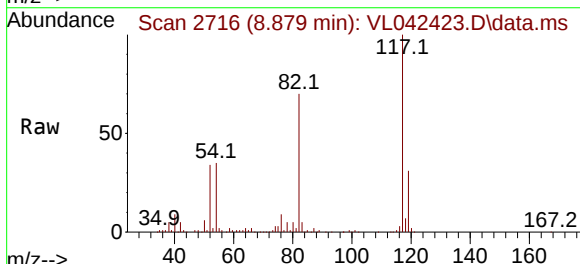
Manual Integrations
APPROVED

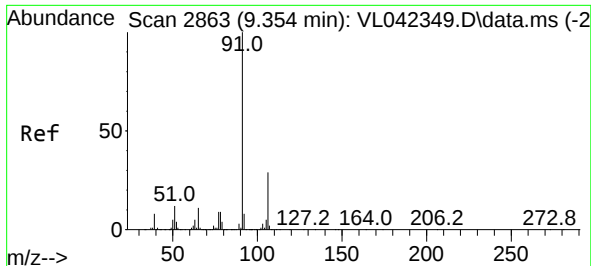
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.879 min Scan# 2716
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

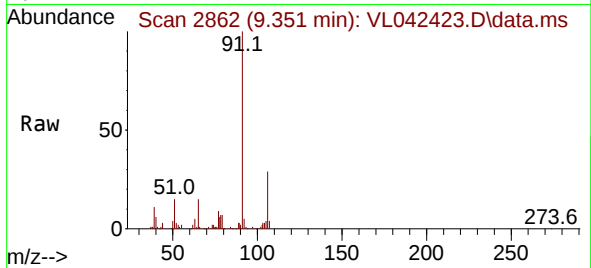
Tgt Ion:117 Resp: 337638
Ion Ratio Lower Upper
117 100
82 71.5 57.8 86.6
119 32.3 25.2 37.8





#58
Ethyl Benzene
Concen: 0.498 ppbv
RT: 9.351 min Scan# 2862
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

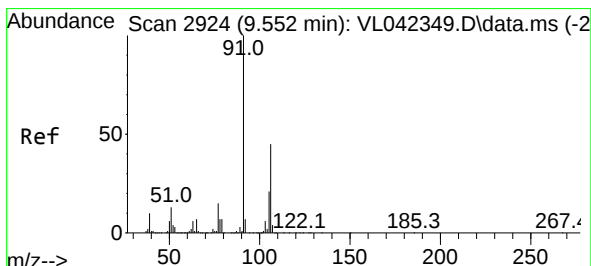
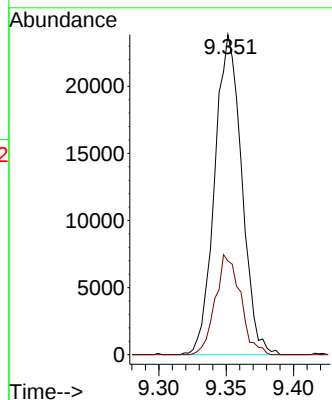
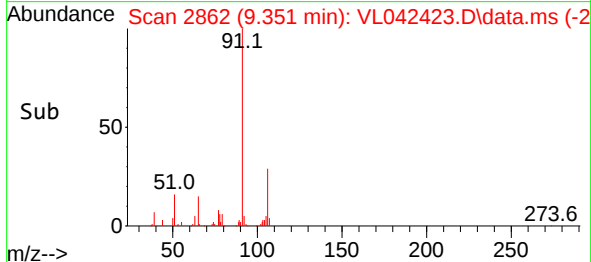
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



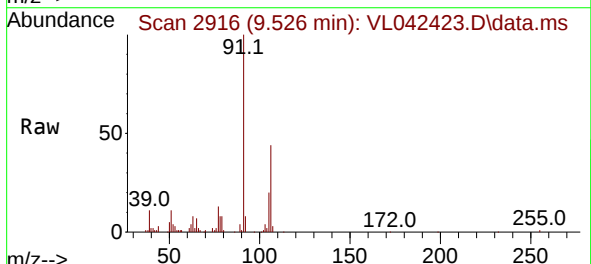
Tgt Ion: 91 Resp: 3332
Ion Ratio Lower Upper
91 100
106 29.3 23.0 34.4

Manual Integrations
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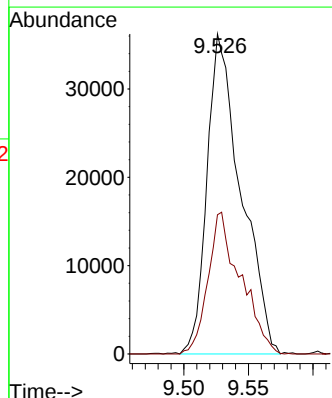
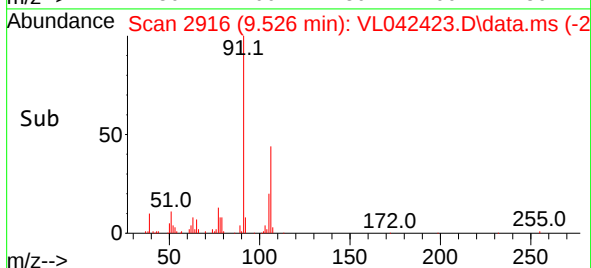
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025

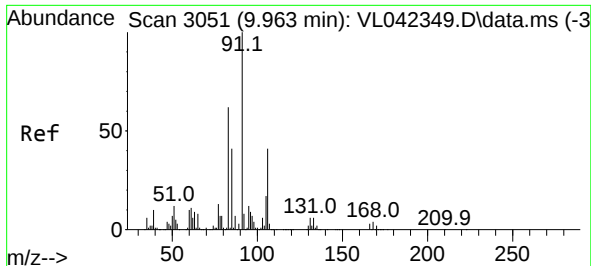


#59
m/p-Xylene
Concen: 1.233 ppbv
RT: 9.526 min Scan# 2916
Delta R.T. -0.026 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26



Tgt Ion: 91 Resp: 66442
Ion Ratio Lower Upper
91 100
106 42.5 35.4 53.2





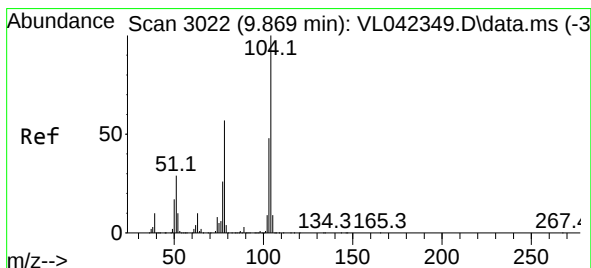
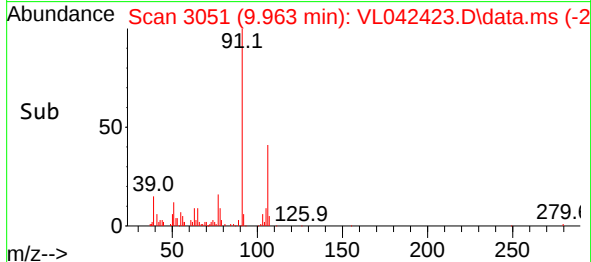
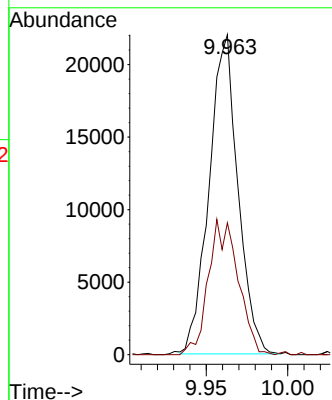
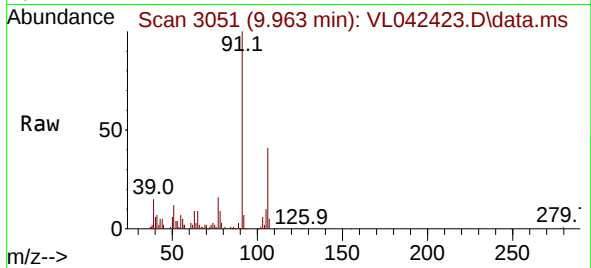
#60
o-Xylene
Concen: 0.499 ppbv
RT: 9.963 min Scan# 3051
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025

Tgt Ion: 91 Resp: 27079
Ion Ratio Lower Upper
91 100
106 43.9 21.1 63.4

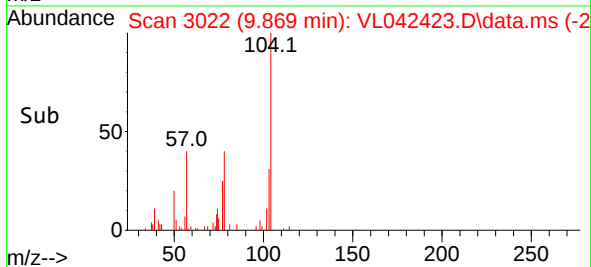
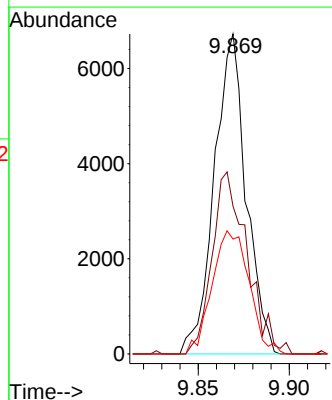
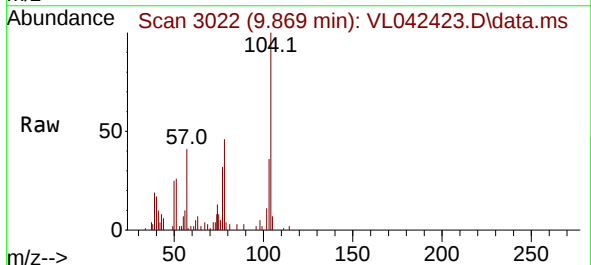
Manual Integrations
APPROVED

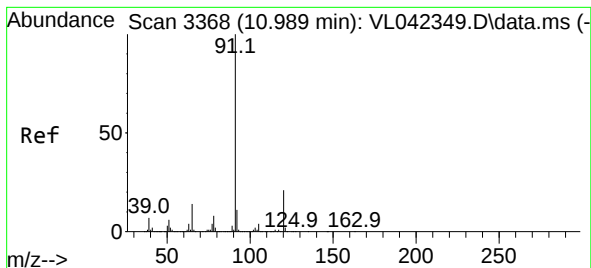
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#61
Styrene
Concen: 0.316 ppbv
RT: 9.869 min Scan# 3022
Delta R.T. 0.000 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Tgt Ion:104 Resp: 8176
Ion Ratio Lower Upper
104 100
78 62.6 44.6 66.8
103 44.8 37.4 56.0





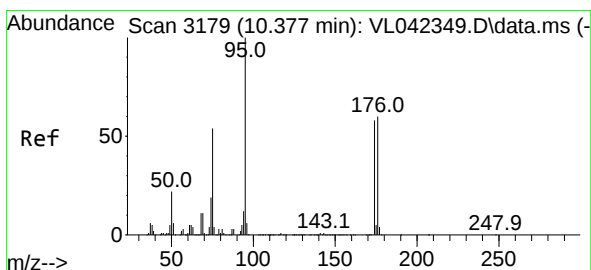
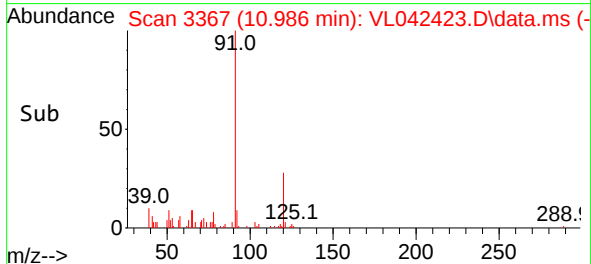
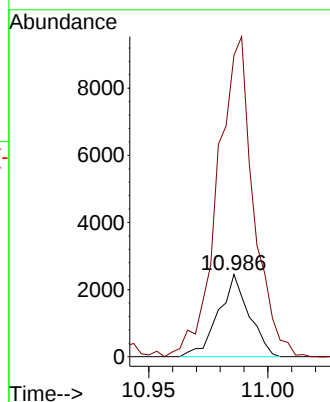
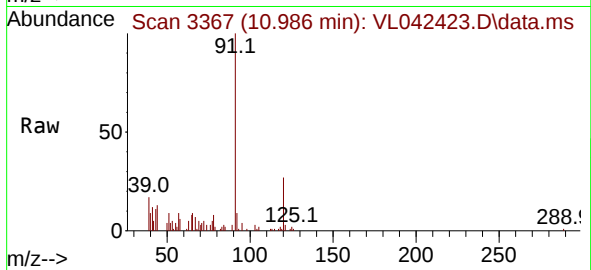
#64
n-propylbenzene
Concen: 0.109 ppbv
RT: 10.986 min Scan# 3178
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025

Tgt Ion:120 Resp: 2190
Ion Ratio Lower Upper
120 100
91 459.9 392.4 588.6

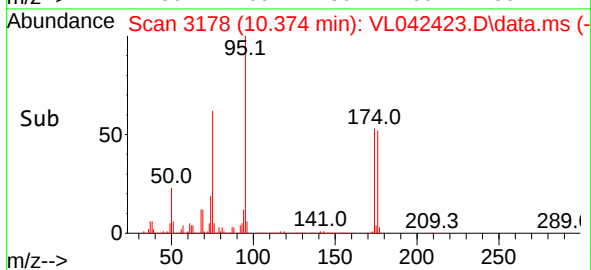
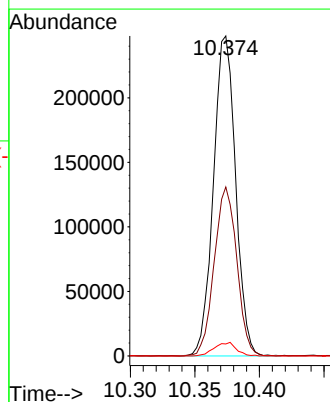
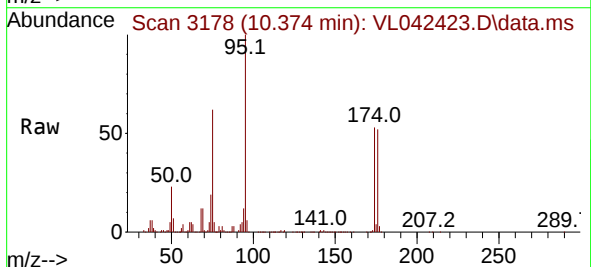
Manual Integrations
APPROVED

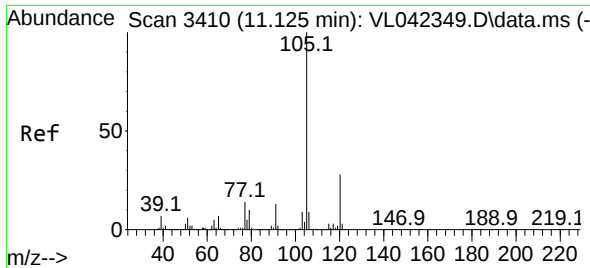
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 10.662 ppbv
RT: 10.374 min Scan# 3178
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

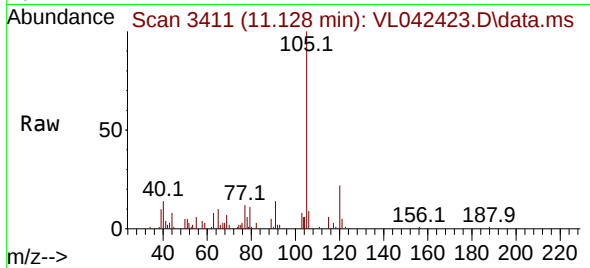
Tgt Ion: 95 Resp: 295822
Ion Ratio Lower Upper
95 100
174 53.7 48.5 72.7
175 4.2 3.7 5.5





#72
4-Ethyltoluene
Concen: 0.124 ppbv m
RT: 11.128 min Scan# 3410
Delta R.T. 0.004 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26

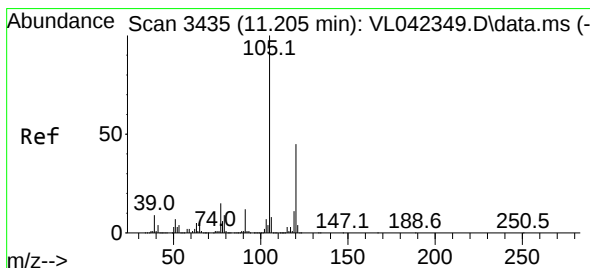
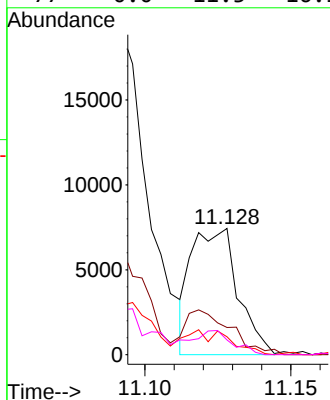
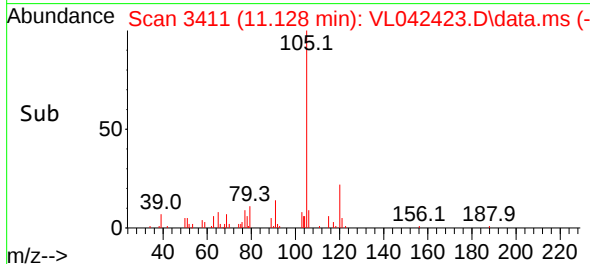
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-2-3242025



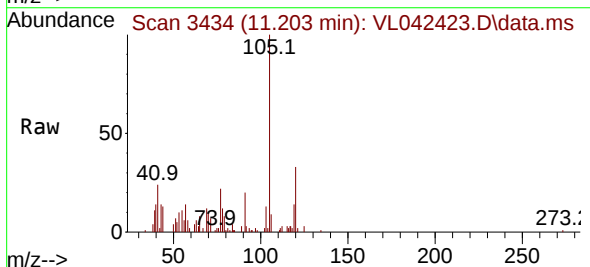
Tgt Ion:105 Resp: 8239
Ion Ratio Lower Upper
105 100
120 0.0 23.2 34.8
91 0.0 10.4 15.6
77 0.0 11.3 16.9#

Manual Integrations
APPROVED

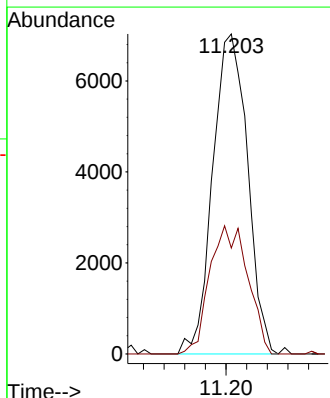
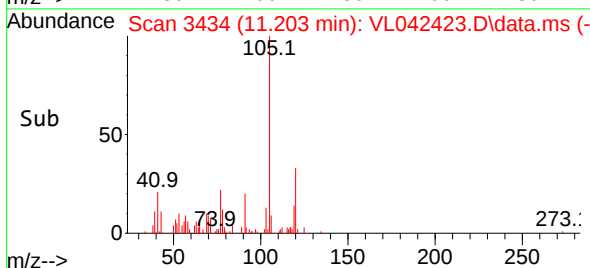
Reviewed By :Semsettin Yesilyurt 04/29/2025
Supervised By :Mahesh Dadoda 04/30/2025

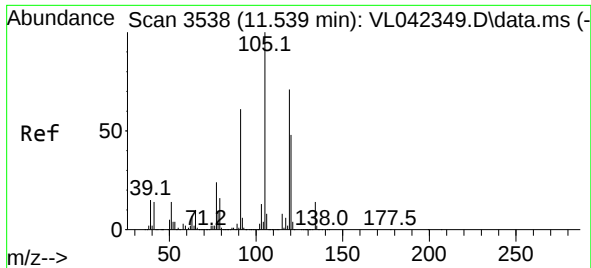


#73
1,3,5-Trimethylbenzene
Concen: 0.140 ppbv
RT: 11.203 min Scan# 3434
Delta R.T. -0.003 min
Lab File: VL042423.D
Acq: 28 Apr 2025 13:26



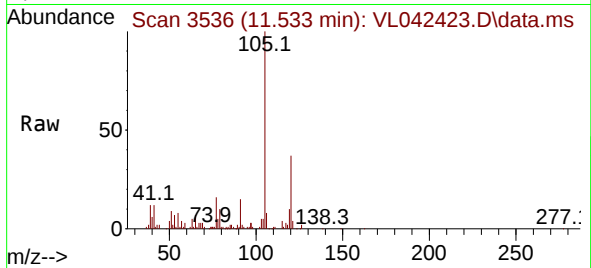
Tgt Ion:105 Resp: 8221
Ion Ratio Lower Upper
105 100
120 33.1 35.6 53.4#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.387 ppbv
 RT: 11.533 min Scan# 3536
 Delta R.T. -0.006 min
 Lab File: VL042423.D
 Acq: 28 Apr 2025 13:26

Instrument : MSVOA_L
 ClientSampleId : IA-B2-2-3242025



Tgt Ion:	105	Resp:	2644
Ion Ratio	Lower	Upper	
105	100		
120	36.4	38.1	57.1
91	14.0	48.8	73.2
77	15.4	19.0	28.4

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2025
 Supervised By :Mahesh Dadoda 04/30/2025

