

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043216.D
 Acq On : 18 Nov 2025 17:06
 Operator : SY/MD
 Sample : Q3651-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 01:37:09 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

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

Internal Standards						
1) Bromochloromethane	2.784	49	100351	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	262303	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	209925	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	153270	9.961	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.600%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.499	85	6238	0.441	ppbv	94
3) Chlorodifluoromethane	1.476	51	3576m	0.257	ppbv	
4) Chloromethane	1.531	50	2391	0.452	ppbv	89
9) Propene	1.489	41	27746	4.694	ppbv #	1
10) Heptane	4.978	43	47112m	2.678	ppbv	
11) Trichlorofluoromethane	1.877	101	16627	1.212	ppbv	95
13) Ethanol	1.719	45	45525	21.903	ppbv	98
15) Acetone	1.832	43	266713	19.130	ppbv	96
19) Isopropyl Alcohol	1.884	45	160275	20.344	ppbv	98
20) Methylene Chloride	2.059	84	968424	254.954	ppbv	84
25) Ethyl Acetate	2.832	43	62337	2.073	ppbv #	94
26) Hexane	2.826	57	32285	2.449	ppbv	86
30) Cyclohexane	3.852	84	30559	2.765	ppbv	98
34) 2-Butanone	2.551	43	575504	31.082	ppbv	99
35) Carbon Tetrachloride	3.755	117	1135m	0.057	ppbv	
36) Benzene	3.651	78	8905m	0.354	ppbv	
44) 2,2,4-Trimethylpentane	4.638	57	75256	1.744	ppbv #	83
50) 4-Methyl-2-Pentanone	5.752	43	6381m	0.245	ppbv	
52) Tetrachloroethene	8.215	164	2163m	0.231	ppbv	
53) Toluene	6.930	91	1941988	65.288	ppbv	98
58) Ethyl Benzene	9.348	91	110526	2.735	ppbv	100
59) m/p-Xylene	9.526	91	294403	9.088	ppbv	100
60) o-Xylene	9.956	91	64946	2.007	ppbv	96
61) Styrene	9.862	104	1636m	0.116	ppbv	
72) 4-Ethyltoluene	11.124	105	6660	0.169	ppbv #	55
73) 1,3,5-Trimethylbenzene	11.199	105	7120	0.215	ppbv	99
74) 1,2,4-Trimethylbenzene	11.532	105	25655	0.711	ppbv #	48
79) Naphthalene	13.510	128	3287m	0.103	ppbv	

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

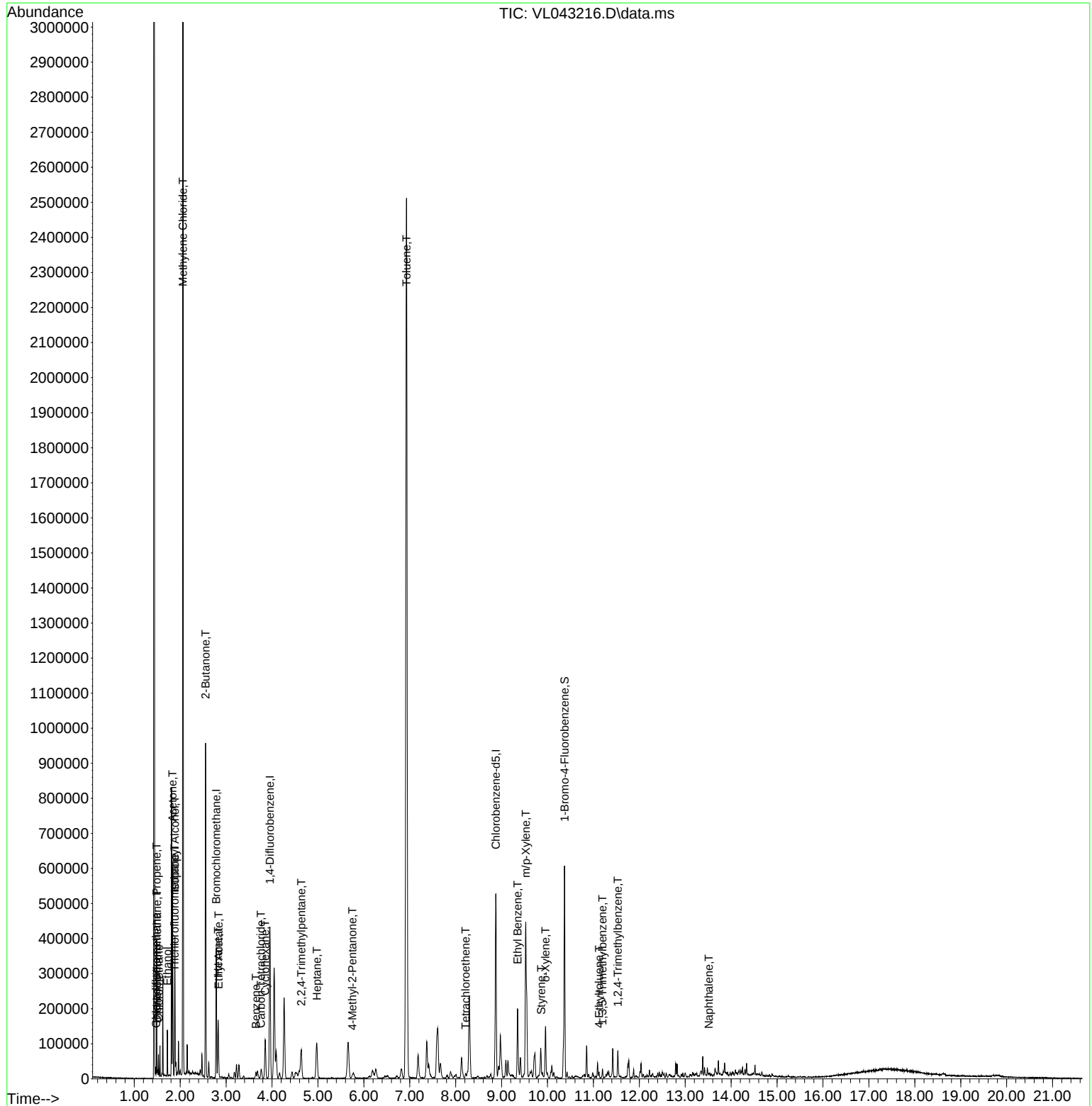
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
Data File : VL043216.D
Acq On : 18 Nov 2025 17:06
Operator : SY/MD
Sample : Q3651-04
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

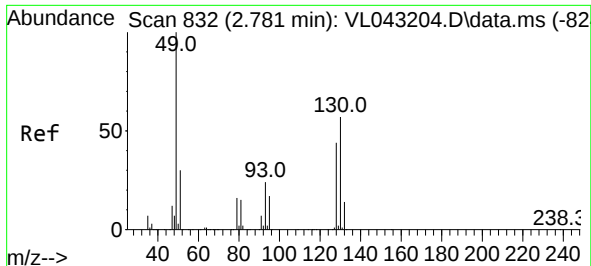
Instrument :
MSVOA_L
ClientSampleId :
IA2

Quant Time: Nov 19 01:37:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
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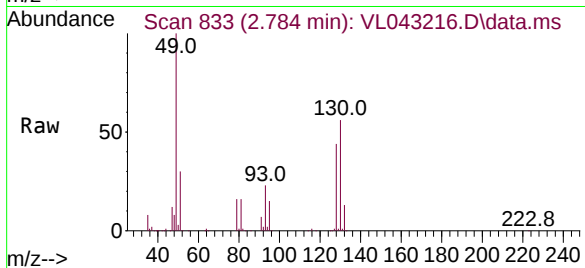
Reviewed By : Semsettin Yesilyurt 11/19/2025
Supervised By : Mahesh Dadoda 11/19/2025





#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 832
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

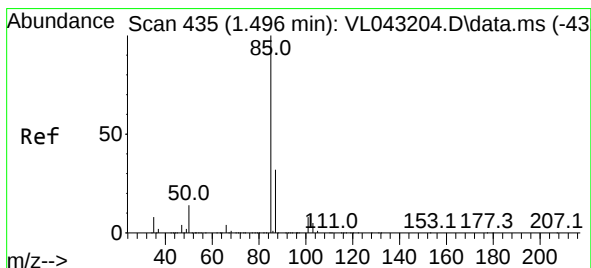
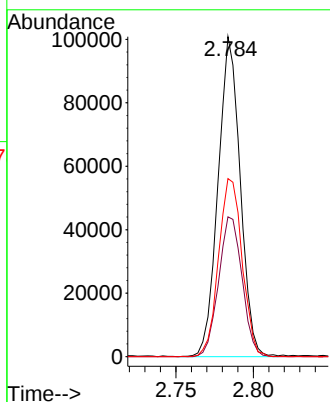
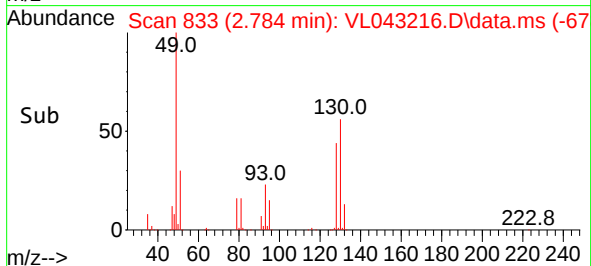
Instrument :
MSVOA_L
ClientSampleId :
IA2



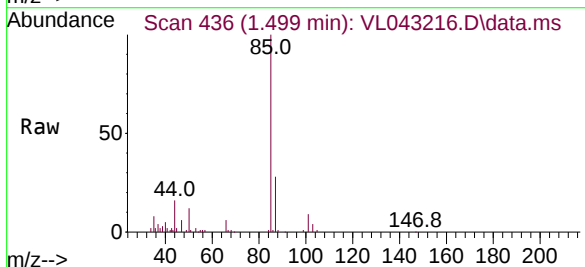
Tgt Ion: 49 Resp: 10035
Ion Ratio Lower Upper
49 100
128 46.1 23.0 69.0
130 59.1 29.9 89.7

Manual Integrations
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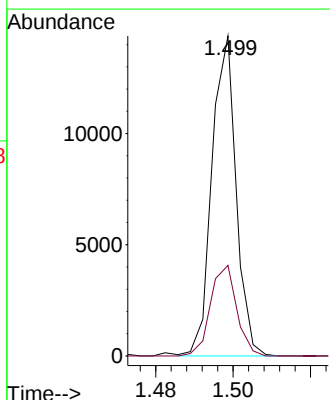
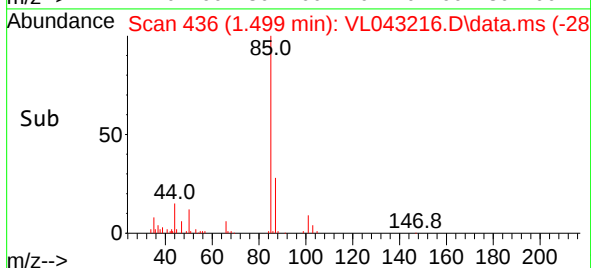
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025

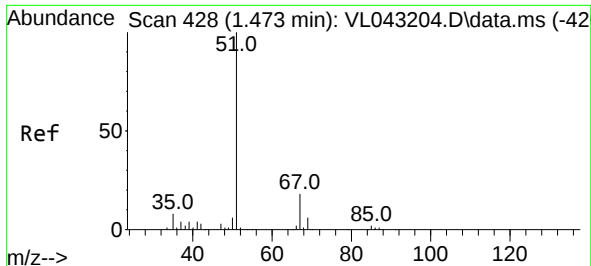


#2
Dichlorodifluoromethane
Concen: 0.441 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06



Tgt Ion: 85 Resp: 6238
Ion Ratio Lower Upper
85 100
87 28.3 25.4 38.2





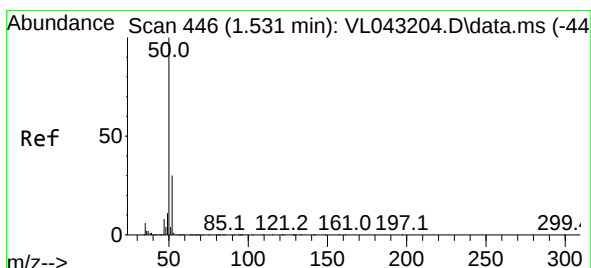
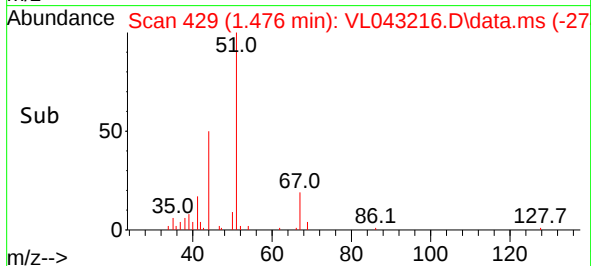
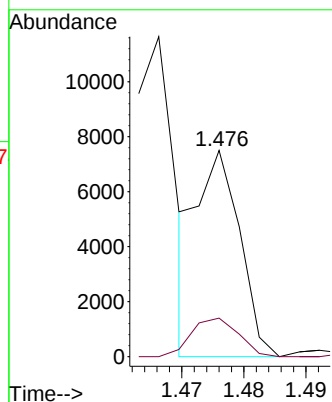
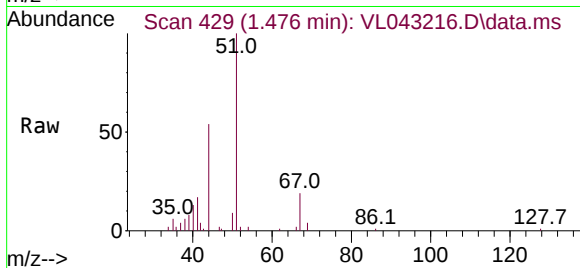
#3
Chlorodifluoromethane
Concen: 0.257 ppbv m
RT: 1.476 min Scan# 429
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 51 Resp: 3576
Ion Ratio Lower Upper
51 100
67 0.0 14.9 22.3

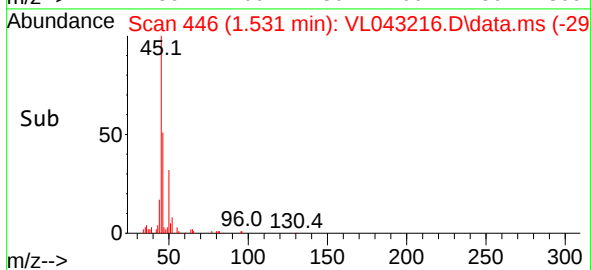
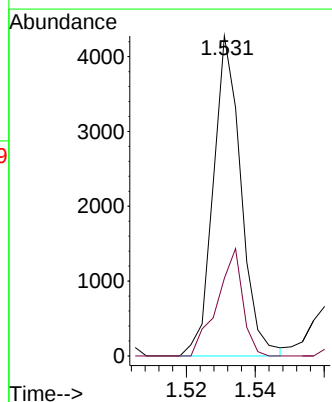
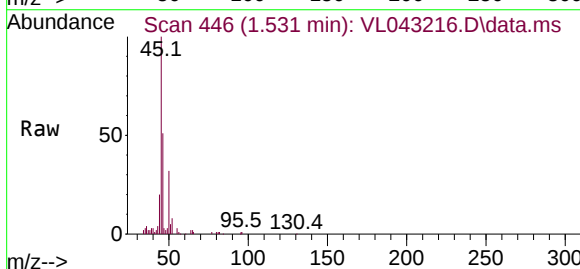
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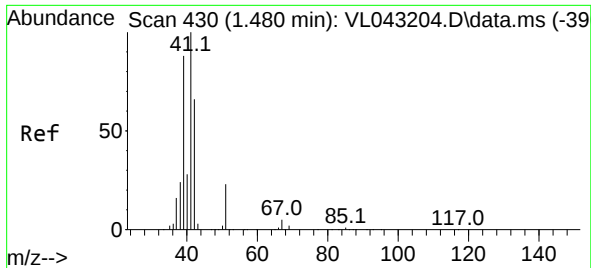
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#4
Chloromethane
Concen: 0.452 ppbv
RT: 1.531 min Scan# 446
Delta R.T. -0.000 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Tgt Ion: 50 Resp: 2391
Ion Ratio Lower Upper
50 100
52 24.2 24.1 36.1





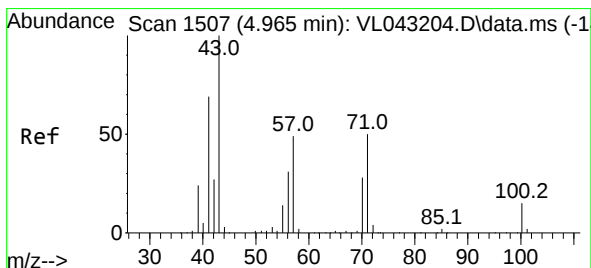
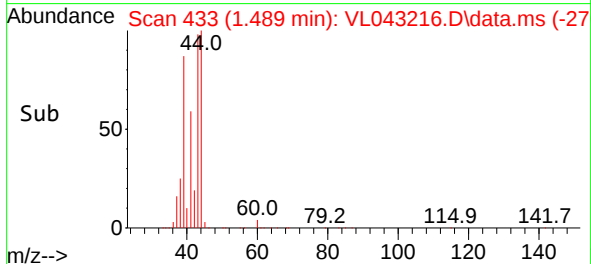
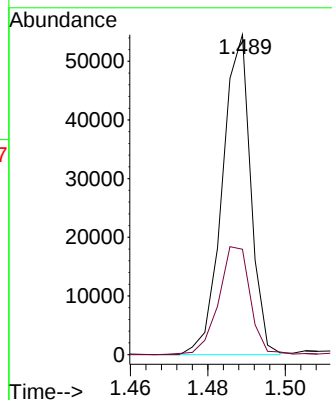
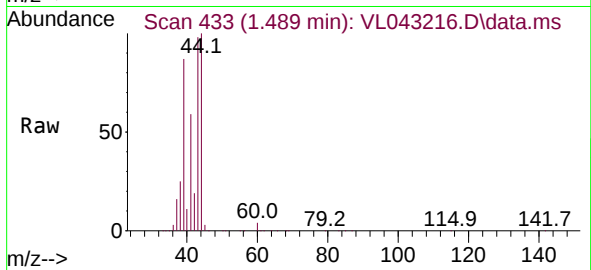
#9
 Propene
 Concen: 4.694 ppbv
 RT: 1.489 min Scan# 431
 Delta R.T. 0.009 min
 Lab File: VL043216.D
 Acq: 18 Nov 2025 17:06

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tgt Ion: 41 Resp: 27746
 Ion Ratio Lower Upper
 41 100
 42 38.2 3.7 5.5

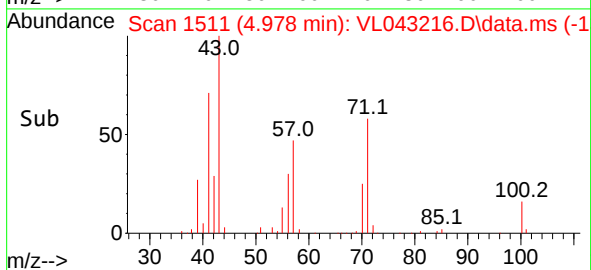
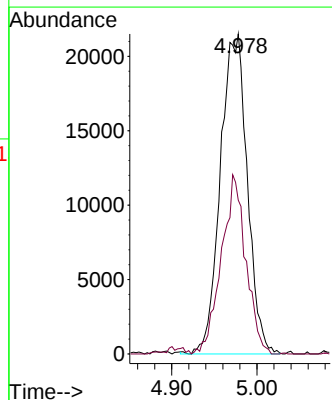
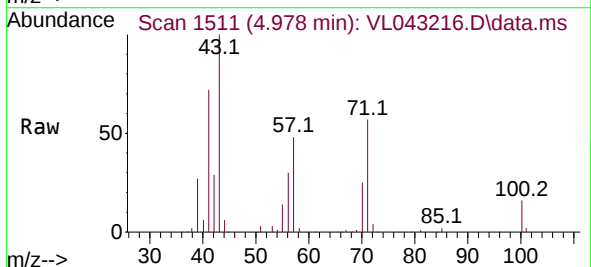
Manual Integrations
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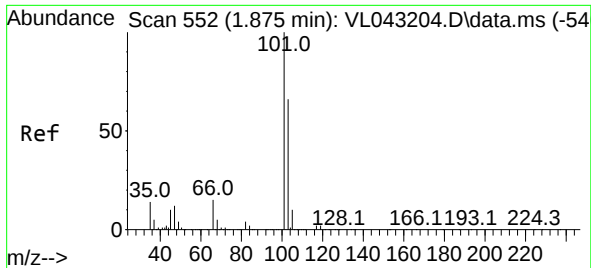
Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025



#10
 Heptane
 Concen: 2.678 ppbv m
 RT: 4.978 min Scan# 1511
 Delta R.T. 0.013 min
 Lab File: VL043216.D
 Acq: 18 Nov 2025 17:06

Tgt Ion: 43 Resp: 47112
 Ion Ratio Lower Upper
 43 100
 57 51.0 39.7 59.5





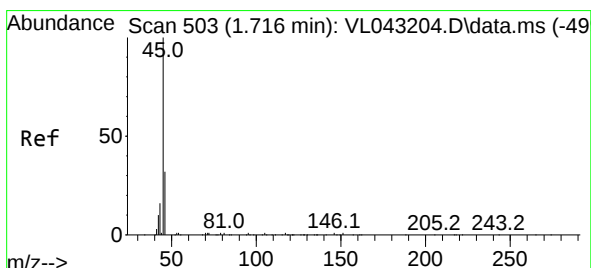
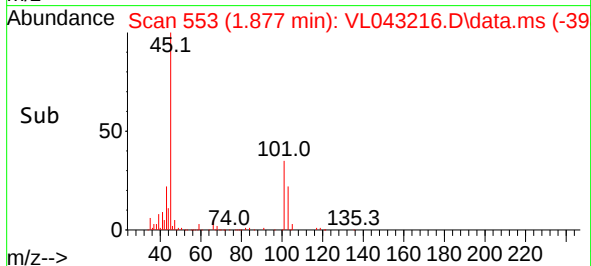
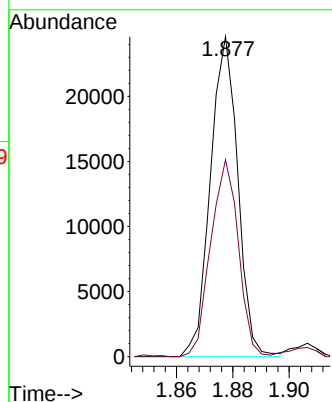
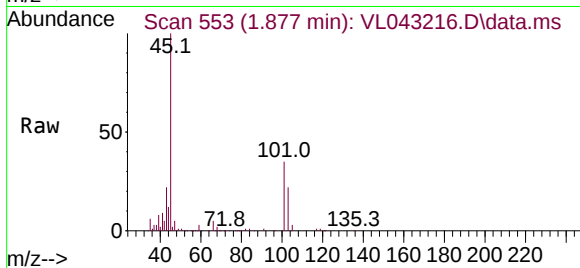
#11
Trichlorofluoromethane
Concen: 1.212 ppbv
RT: 1.877 min Scan# 501
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion:101 Resp: 1662
Ion Ratio Lower Upper
101 100
103 61.5 52.6 79.0

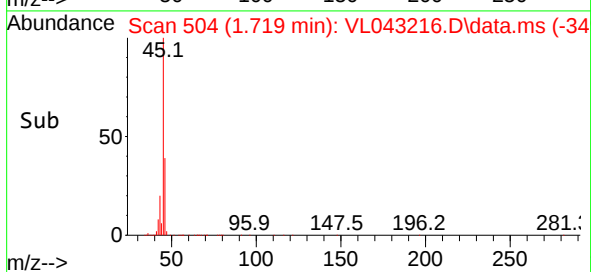
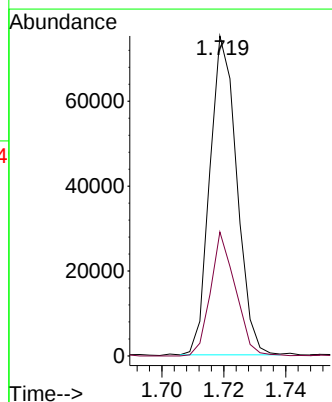
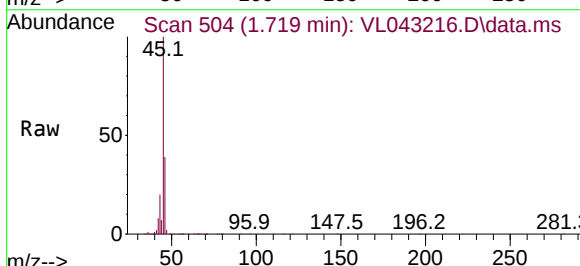
Manual Integrations
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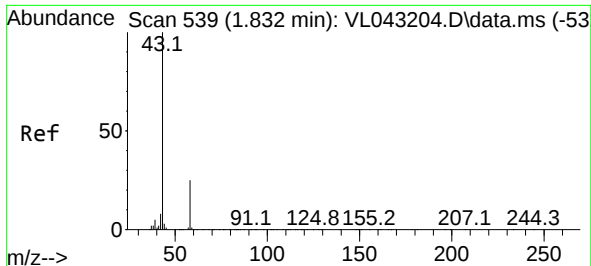
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#13
Ethanol
Concen: 21.903 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

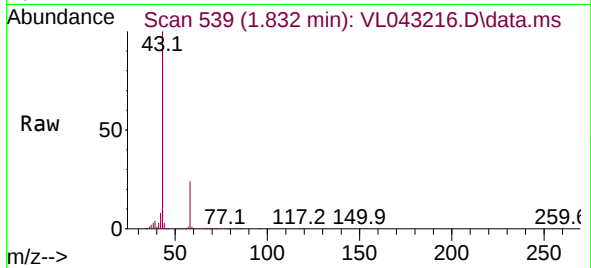
Tgt Ion: 45 Resp: 45525
Ion Ratio Lower Upper
45 100
46 36.1 15.0 59.8





#15
Acetone
Concen: 19.130 ppbv
RT: 1.832 min Scan# 539
Delta R.T. -0.000 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

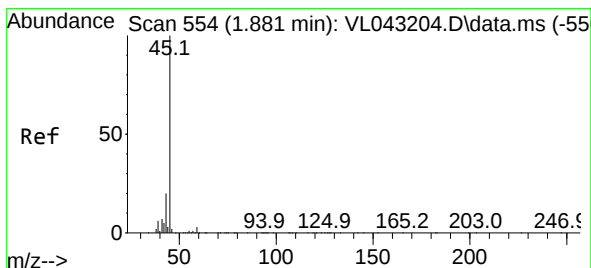
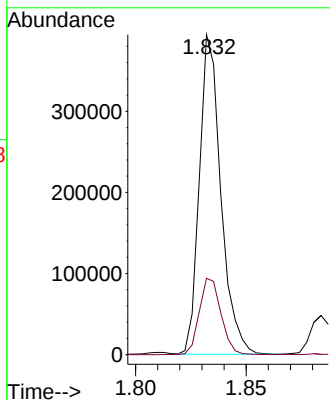
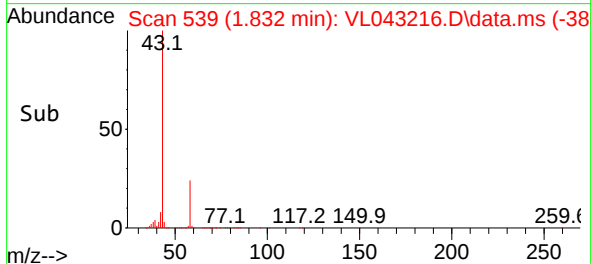
Instrument :
MSVOA_L
ClientSampleId :
IA2



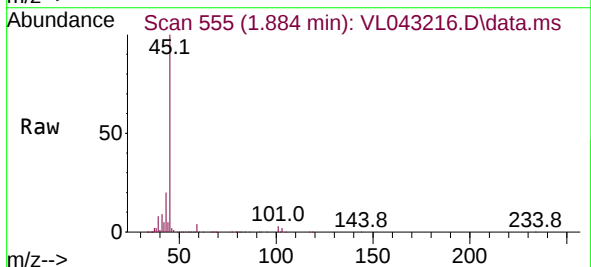
Tgt Ion: 43 Resp: 266713
Ion Ratio Lower Upper
43 100
58 24.1 20.7 31.1

Manual Integrations
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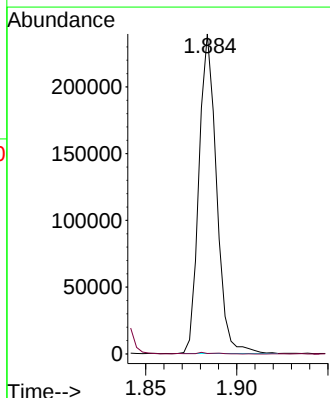
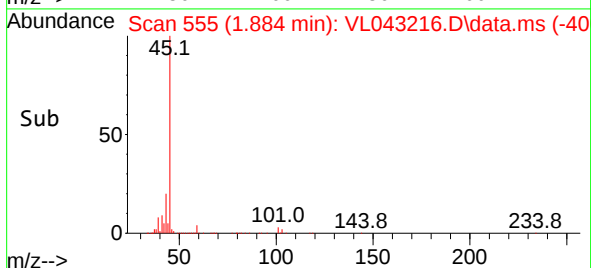
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025

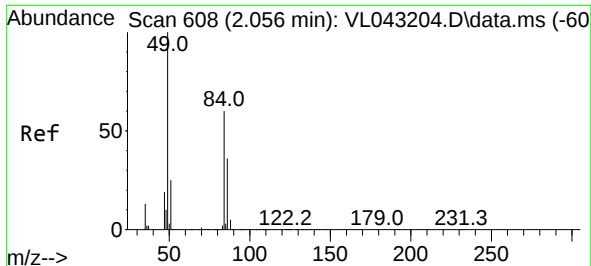


#19
Isopropyl Alcohol
Concen: 20.344 ppbv
RT: 1.884 min Scan# 555
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06



Tgt Ion: 45 Resp: 160275
Ion Ratio Lower Upper
45 100
58 40.1 31.3 46.9





#20

Methylene Chloride

Concen: 254.954 ppbv

RT: 2.059 min Scan# 608

Delta R.T. 0.003 min

Lab File: VL043216.D

Acq: 18 Nov 2025 17:06

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion: 84 Resp: 968424

Ion Ratio Lower Upper

84 100

49 137.9 132.9 199.3

51 49.0 34.8 52.2

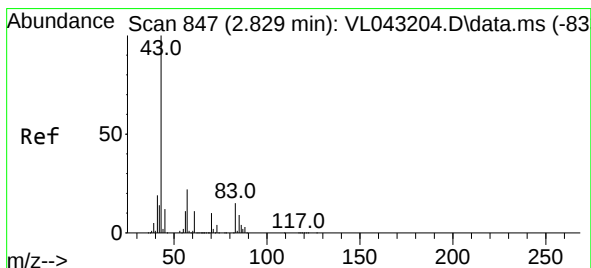
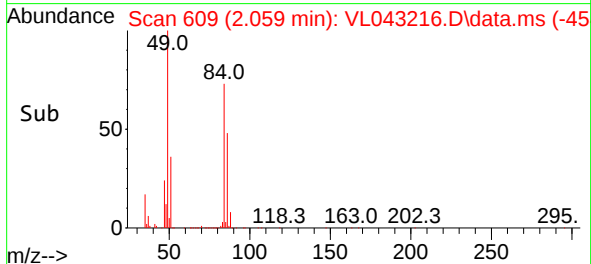
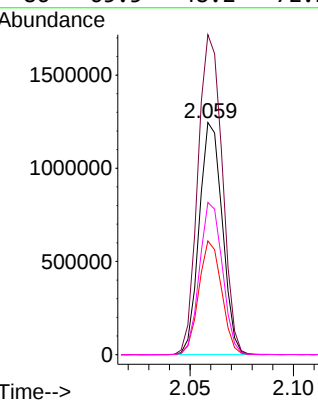
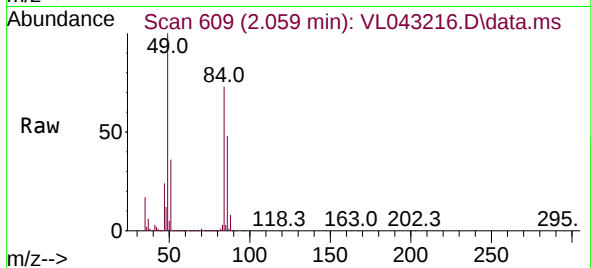
86 65.5 48.2 72.2

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 11/19/2025

Supervised By :Mahesh Dadoda 11/19/2025



#25

Ethyl Acetate

Concen: 2.073 ppbv

RT: 2.832 min Scan# 848

Delta R.T. 0.003 min

Lab File: VL043216.D

Acq: 18 Nov 2025 17:06

Tgt Ion: 43 Resp: 62337

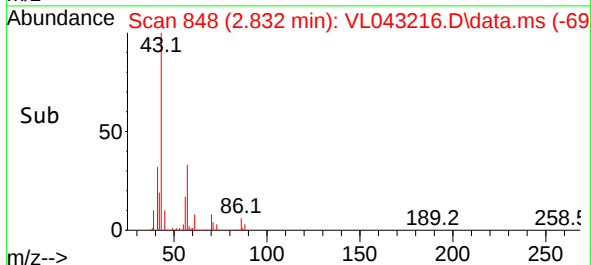
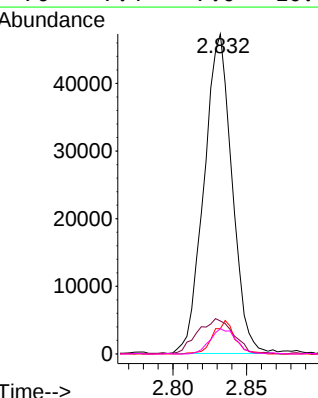
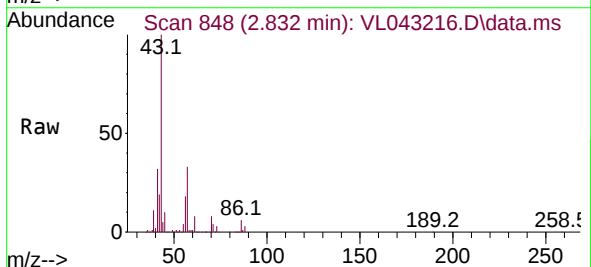
Ion Ratio Lower Upper

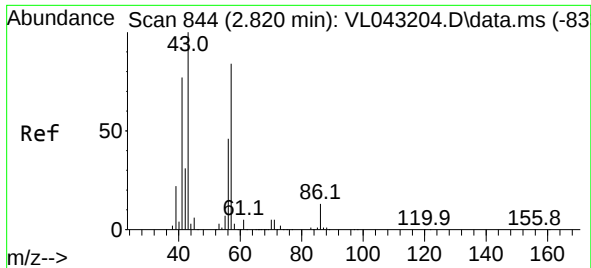
43 100

45 14.4 8.1 12.1#

61 8.1 7.0 10.4

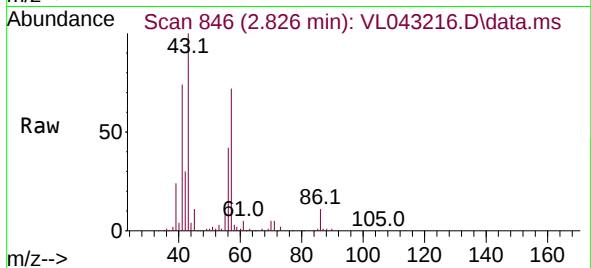
70 7.4 7.0 10.6





#26
Hexane
Concen: 2.449 ppbv
RT: 2.826 min Scan# 844
Delta R.T. 0.006 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

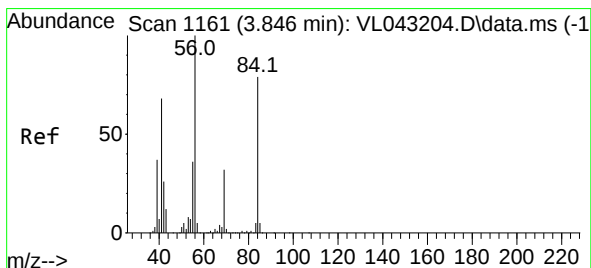
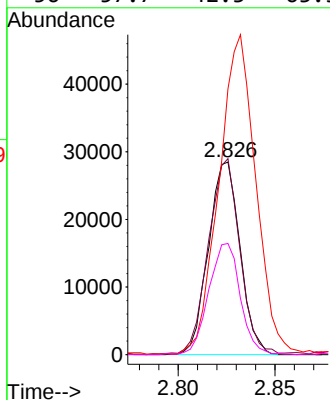
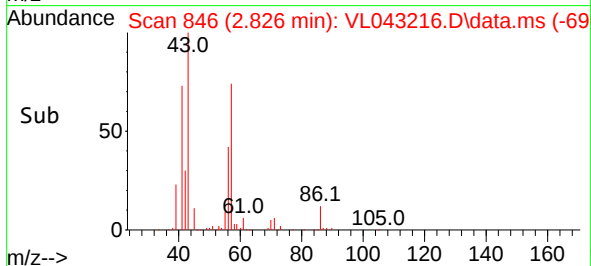
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion: 57 Resp: 32285
Ion Ratio Lower Upper
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41 102.0 74.6 111.8
43 196.1 179.0 268.4
56 57.7 42.3 63.5

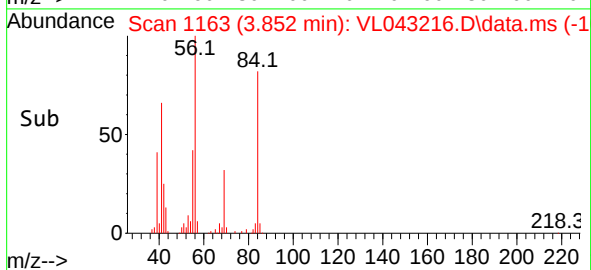
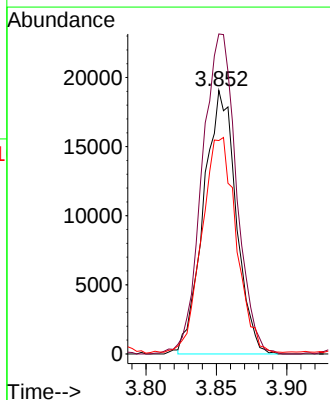
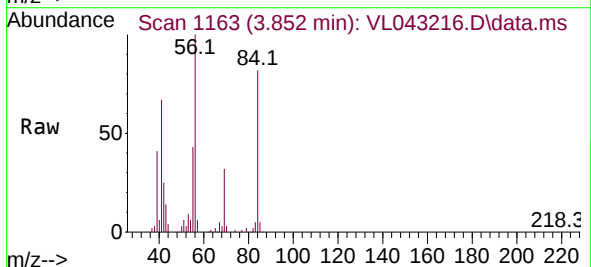
Manual Integrations
APPROVED

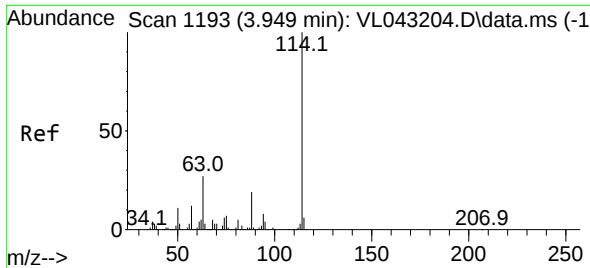
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#30
Cyclohexane
Concen: 2.765 ppbv
RT: 3.852 min Scan# 1163
Delta R.T. 0.006 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Tgt Ion: 84 Resp: 30559
Ion Ratio Lower Upper
84 100
56 128.4 104.7 157.1
41 85.5 69.0 103.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. 0.006 min

Lab File: VL043216.D

Acq: 18 Nov 2025 17:06

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tgt Ion:114 Resp: 262303

Ion Ratio Lower Upper

114 100

63 25.7 21.0 31.6

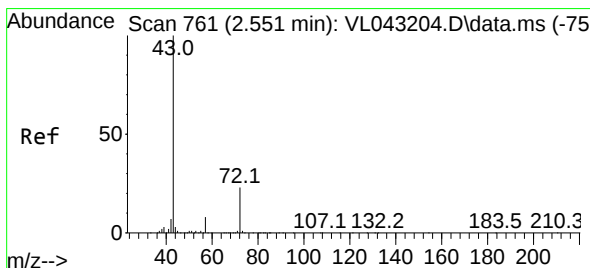
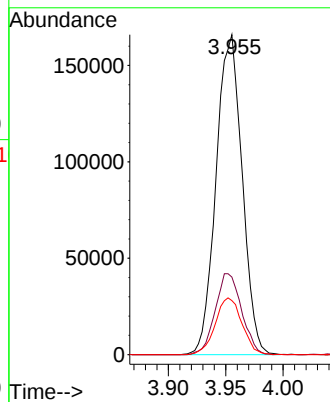
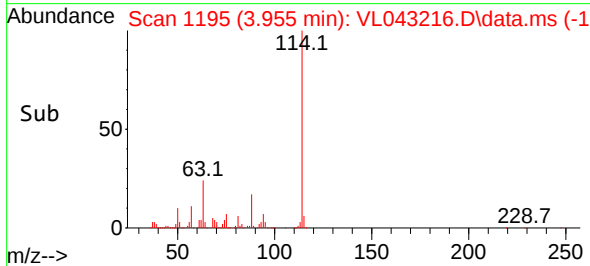
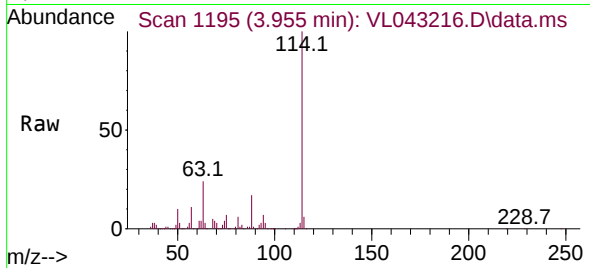
88 18.1 14.9 22.3

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025

Supervised By :Mahesh Dadoda 11/19/2025



#34

2-Butanone

Concen: 31.082 ppbv

RT: 2.551 min Scan# 761

Delta R.T. -0.000 min

Lab File: VL043216.D

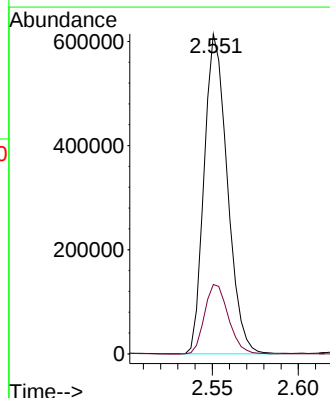
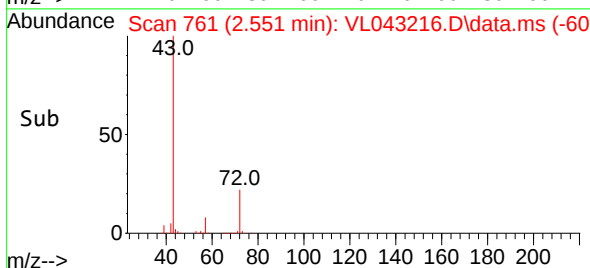
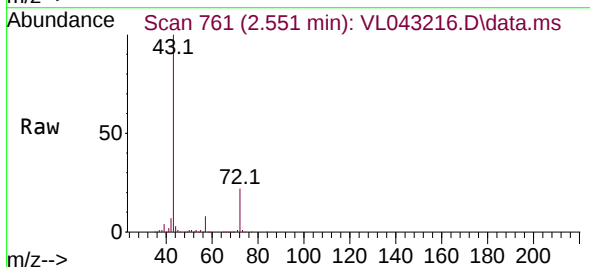
Acq: 18 Nov 2025 17:06

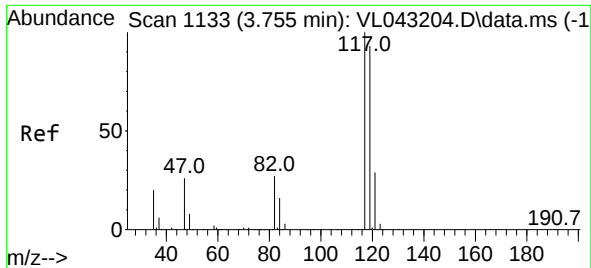
Tgt Ion: 43 Resp: 575504

Ion Ratio Lower Upper

43 100

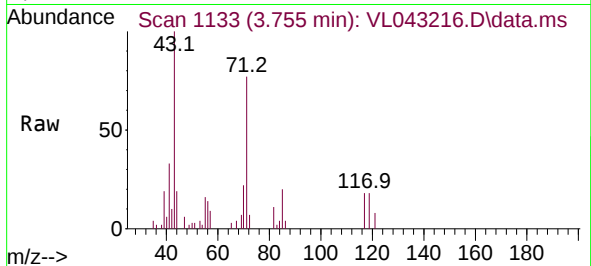
72 22.3 18.1 27.1





#35
Carbon Tetrachloride
Concen: 0.057 ppbv m
RT: 3.755 min Scan# 1133
Delta R.T. -0.000 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

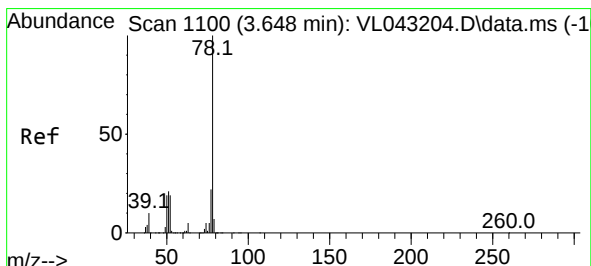
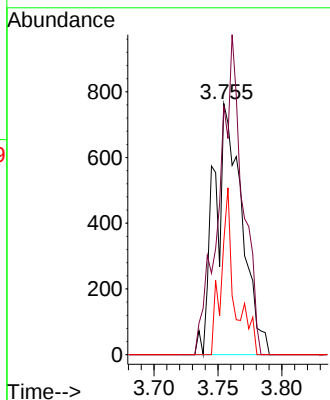
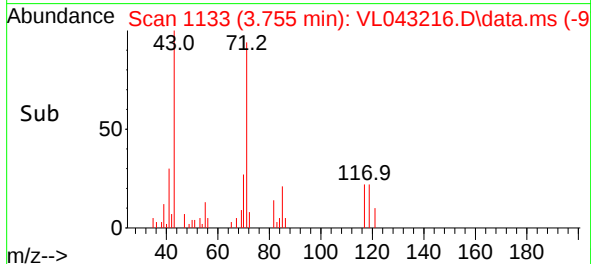
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion: 117 Resp: 1135
Ion Ratio Lower Upper
117 100
119 99.2 74.6 112.0
121 45.2 23.2 34.8

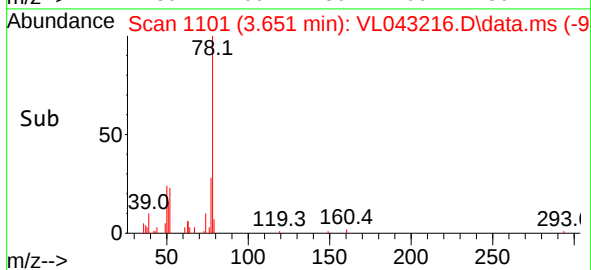
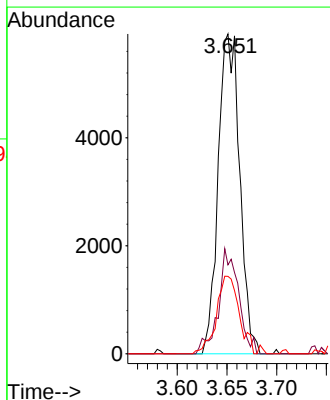
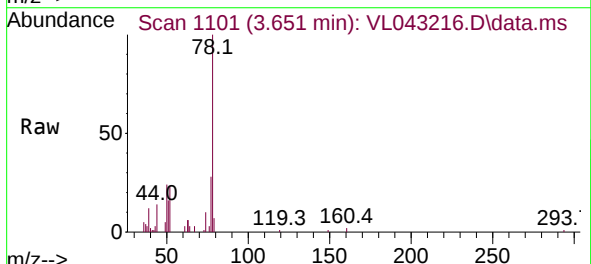
Manual Integrations
APPROVED

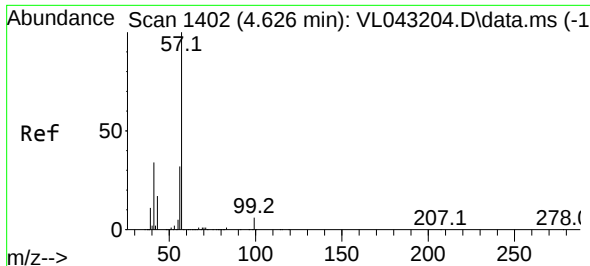
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#36
Benzene
Concen: 0.354 ppbv m
RT: 3.651 min Scan# 1101
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

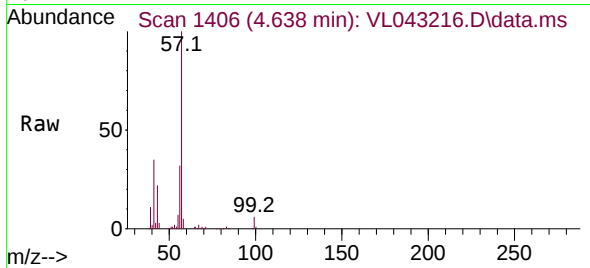
Tgt Ion: 78 Resp: 8905
Ion Ratio Lower Upper
78 100
77 27.8 17.5 26.3#
50 24.2 15.5 23.3#





#44
2,2,4-Trimethylpentane
Concen: 1.744 ppbv
RT: 4.638 min Scan# 1402
Delta R.T. 0.013 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

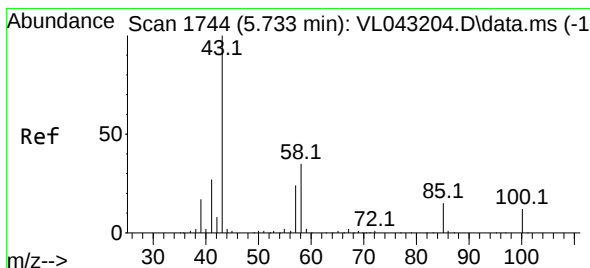
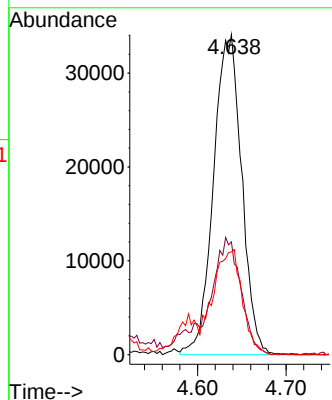
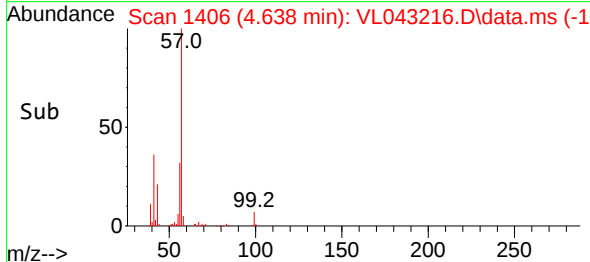
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion: 57 Resp: 75256
Ion Ratio Lower Upper
57 100
41 43.2 28.0 42.0
56 42.9 25.6 38.4

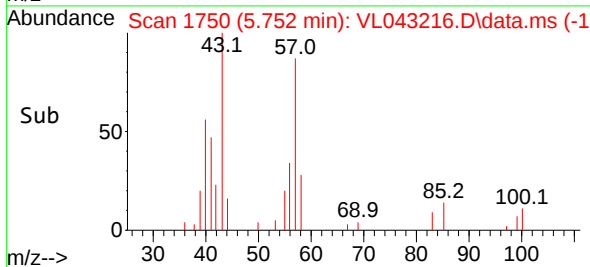
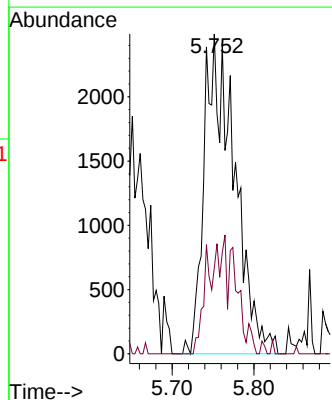
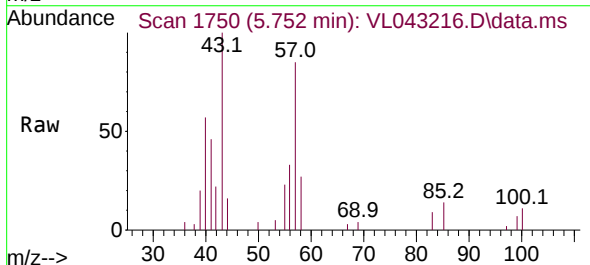
Manual Integrations
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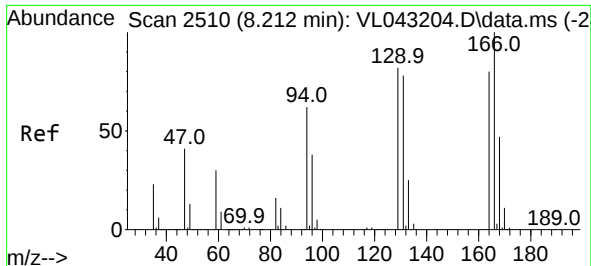
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#50
4-Methyl-2-Pentanone
Concen: 0.245 ppbv m
RT: 5.752 min Scan# 1750
Delta R.T. 0.019 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

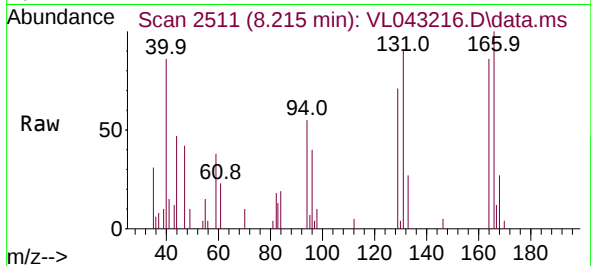
Tgt Ion: 43 Resp: 6381
Ion Ratio Lower Upper
43 100
58 0.0 28.4 42.6





#52
Tetrachloroethene
Concen: 0.231 ppbv m
RT: 8.215 min Scan# 2114
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

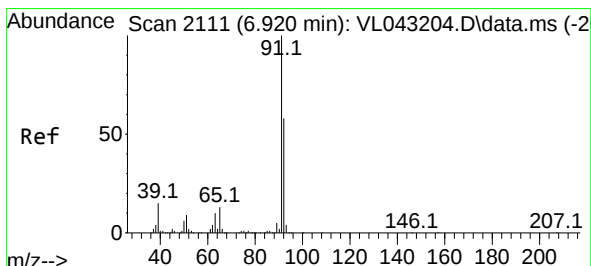
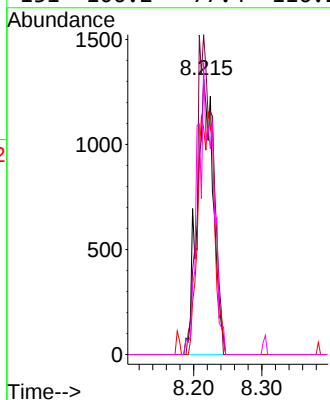
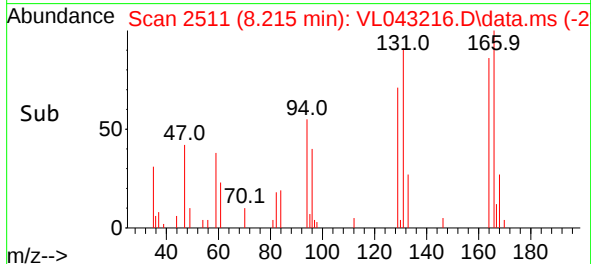
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion:164 Resp: 2163
Ion Ratio Lower Upper
164 100
166 116.3 99.4 149.2
129 82.3 81.8 122.8
131 106.2 77.4 116.2

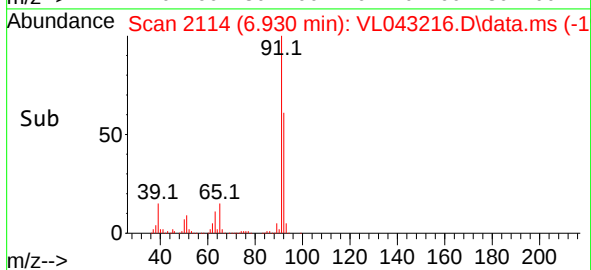
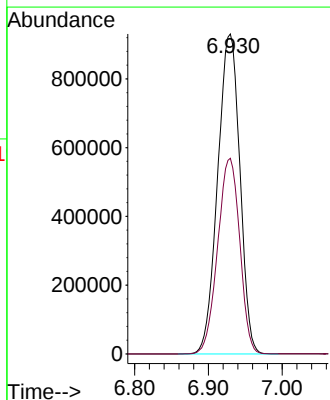
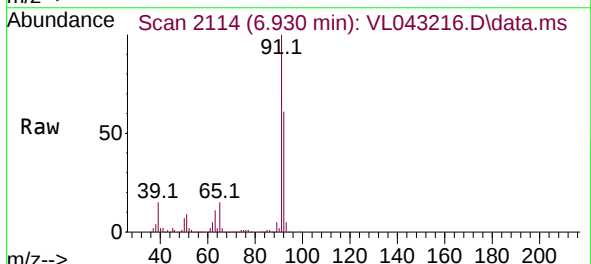
Manual Integrations
APPROVED

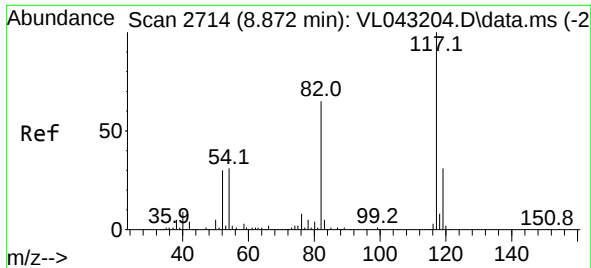
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#53
Toluene
Concen: 65.288 ppbv
RT: 6.930 min Scan# 2114
Delta R.T. 0.009 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

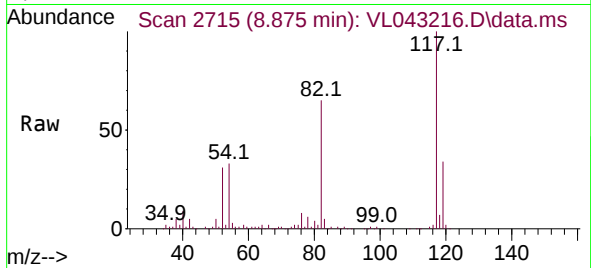
Tgt Ion: 91 Resp: 1941988
Ion Ratio Lower Upper
91 100
92 60.8 47.4 71.0





#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2715
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

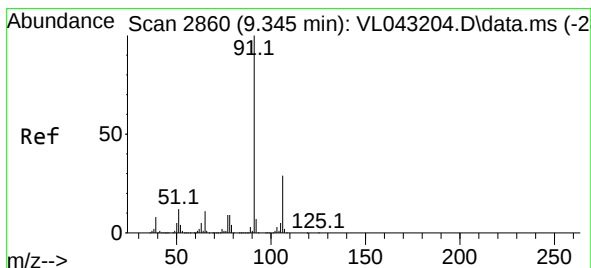
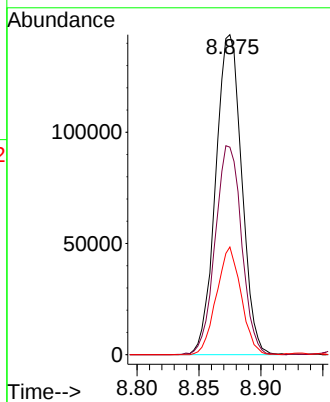
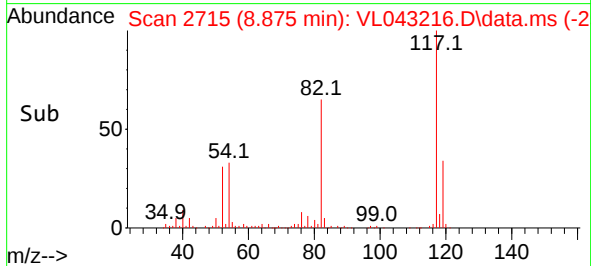
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion:117 Resp: 209925
Ion Ratio Lower Upper
117 100
82 66.0 56.1 84.1
119 31.9 25.0 37.6

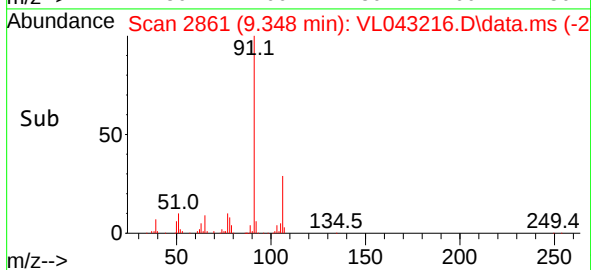
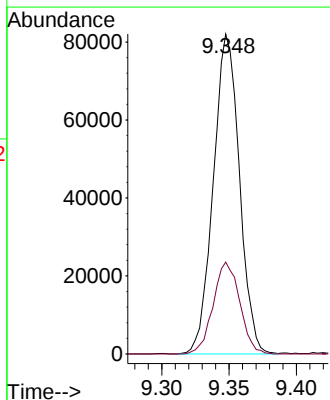
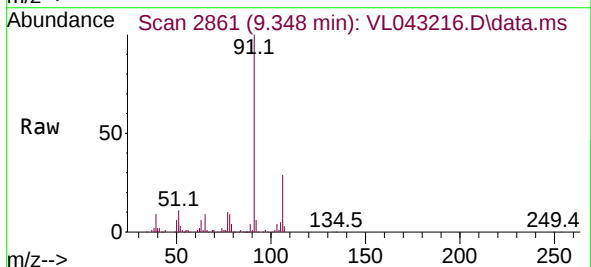
Manual Integrations
APPROVED

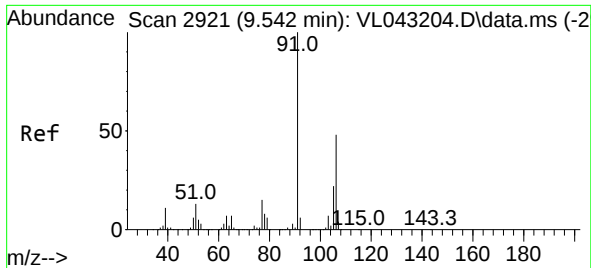
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#58
Ethyl Benzene
Concen: 2.735 ppbv
RT: 9.348 min Scan# 2861
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Tgt Ion: 91 Resp: 110526
Ion Ratio Lower Upper
91 100
106 28.7 22.8 34.2





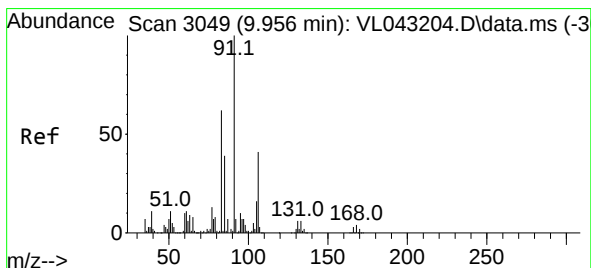
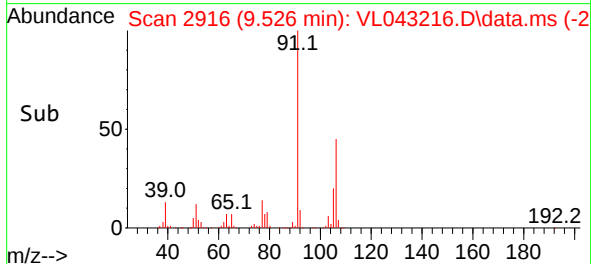
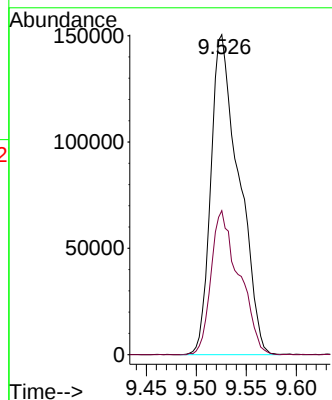
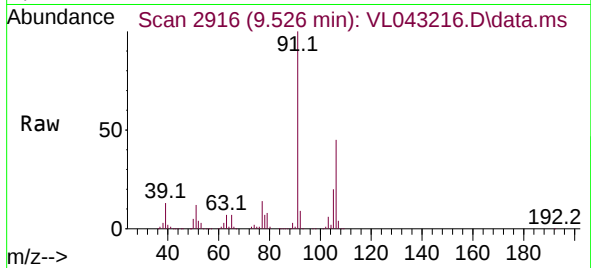
#59
m/p-Xylene
Concen: 9.088 ppbv
RT: 9.526 min Scan# 2916
Delta R.T. -0.017 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 91 Resp: 294403
Ion Ratio Lower Upper
91 100
106 44.9 36.1 54.1

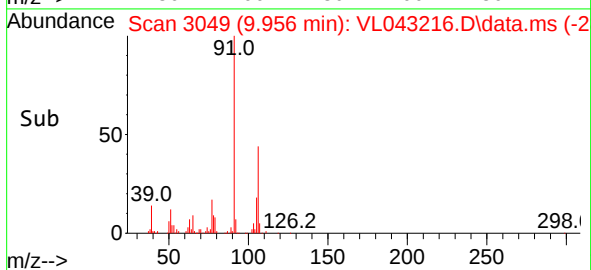
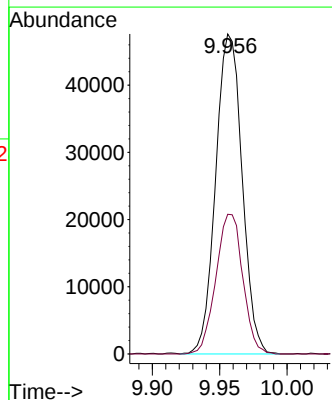
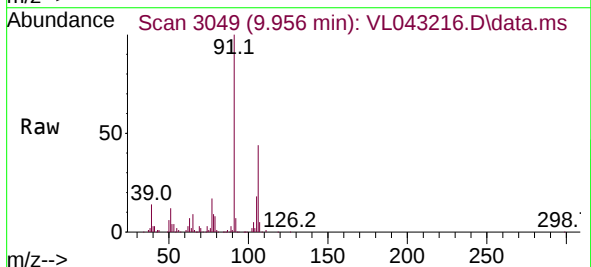
Manual Integrations
APPROVED

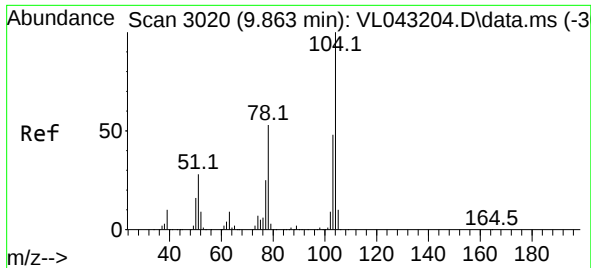
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#60
o-Xylene
Concen: 2.007 ppbv
RT: 9.956 min Scan# 3049
Delta R.T. -0.000 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Tgt Ion: 91 Resp: 64946
Ion Ratio Lower Upper
91 100
106 44.3 20.9 62.8





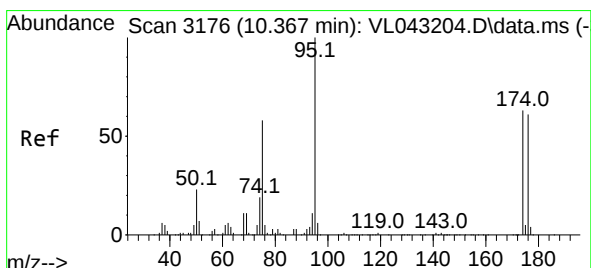
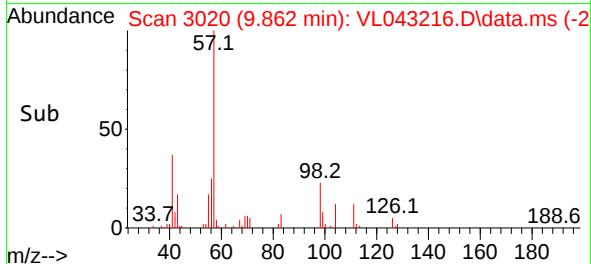
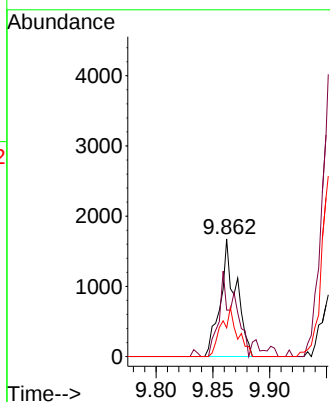
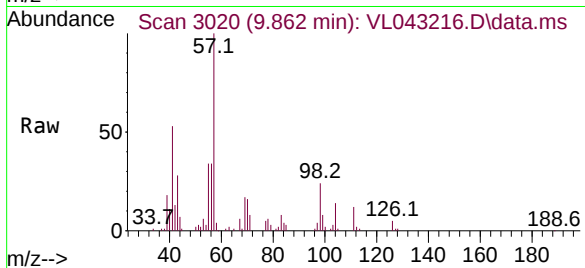
#61
Styrene
Concen: 0.116 ppbv m
RT: 9.862 min Scan# 3020
Delta R.T. -0.000 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion:104 Resp: 1636
Ion Ratio Lower Upper
104 100
78 78.9 42.1 63.1
103 42.4 37.2 55.8

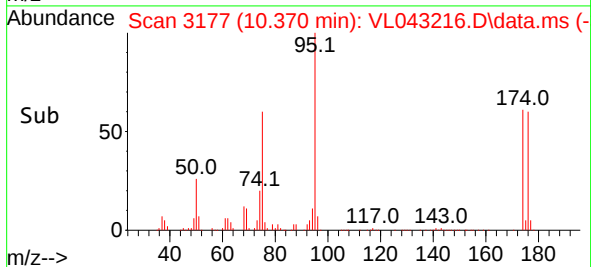
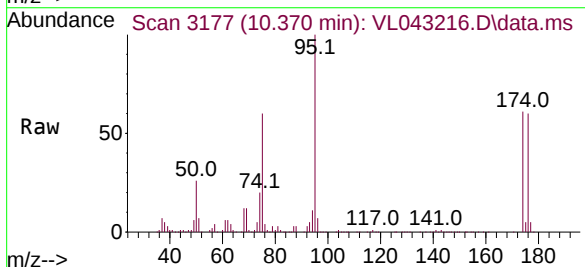
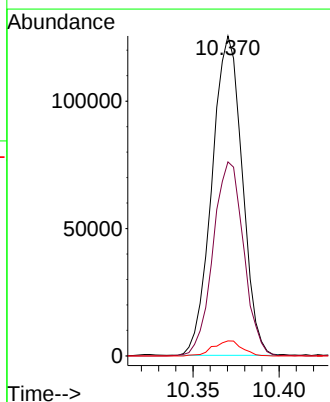
Manual Integrations
APPROVED

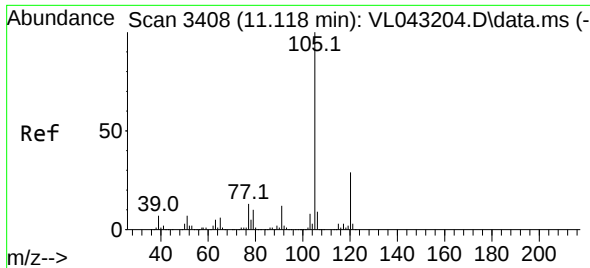
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 9.961 ppbv
RT: 10.370 min Scan# 3177
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

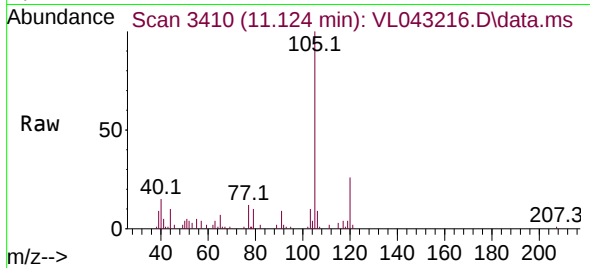
Tgt Ion: 95 Resp: 153270
Ion Ratio Lower Upper
95 100
174 61.4 50.2 75.2
175 4.5 4.1 6.1





#72
4-Ethyltoluene
Concen: 0.169 ppbv
RT: 11.124 min Scan# 3410
Delta R.T. 0.006 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

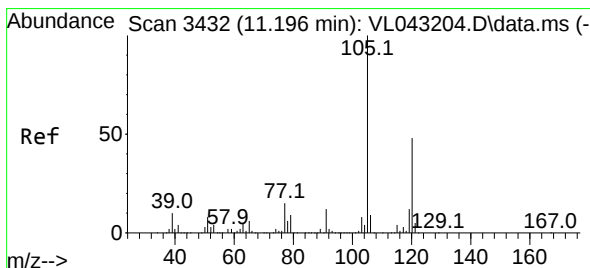
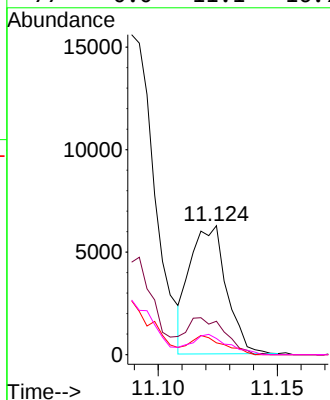
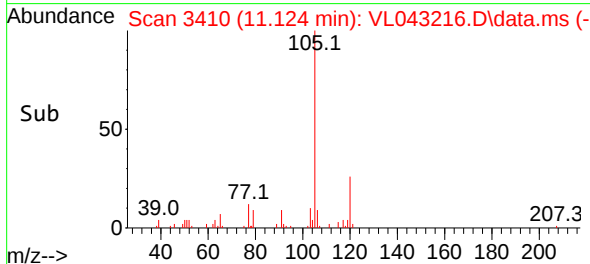
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion:105 Resp: 6660
Ion Ratio Lower Upper
105 100
120 0.0 23.8 35.8
91 0.0 10.3 15.5
77 0.0 11.1 16.7

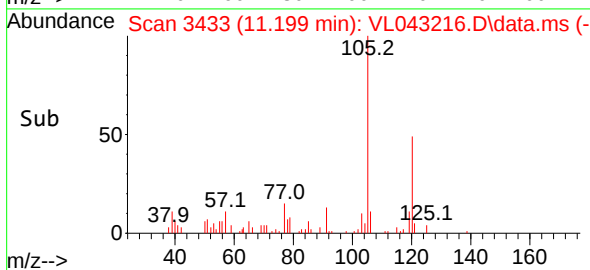
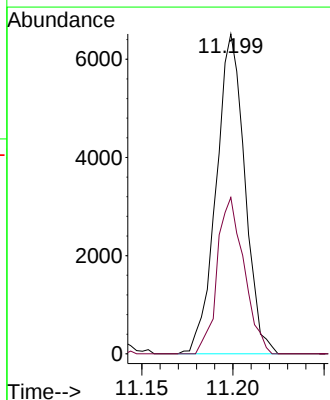
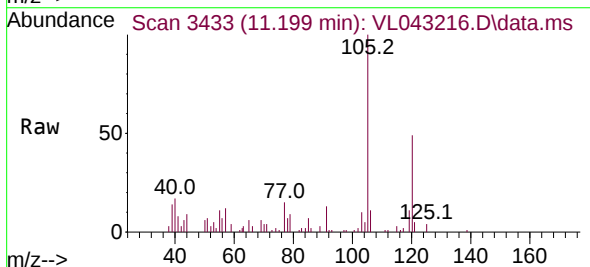
Manual Integrations
APPROVED

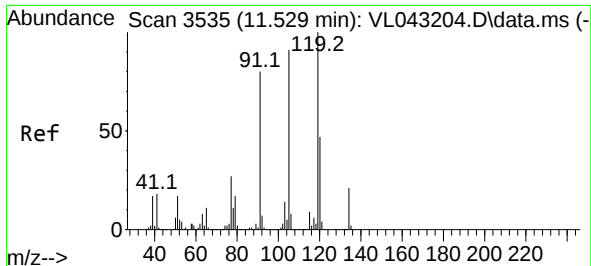
Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#73
1,3,5-Trimethylbenzene
Concen: 0.215 ppbv
RT: 11.199 min Scan# 3433
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

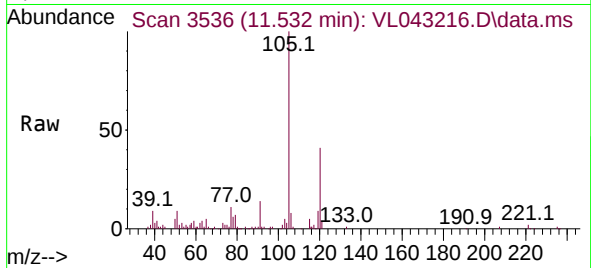
Tgt Ion:105 Resp: 7120
Ion Ratio Lower Upper
105 100
120 48.9 38.6 57.8





#74
1,2,4-Trimethylbenzene
Concen: 0.711 ppbv
RT: 11.532 min Scan# 3536
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

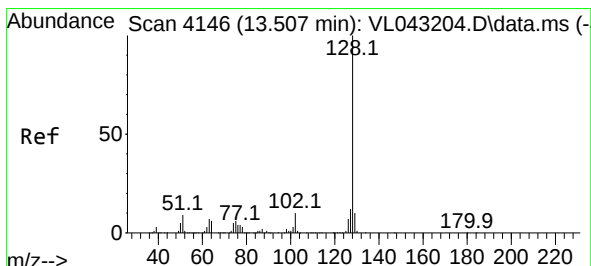
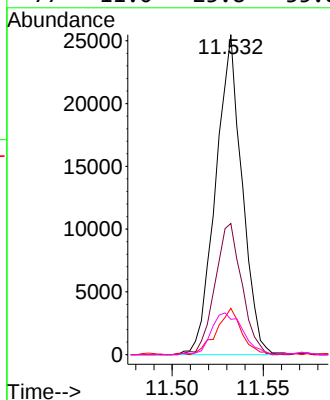
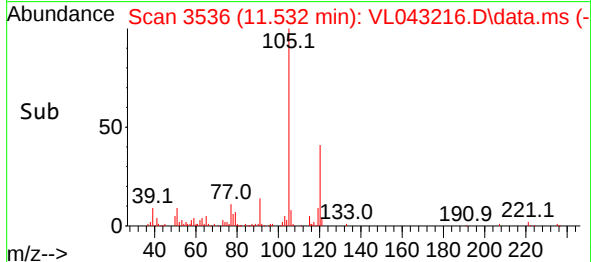
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion:105 Resp: 2565
Ion Ratio Lower Upper
105 100
120 40.7 41.7 62.5
91 14.5 70.0 105.0
77 11.0 23.8 35.8

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



#79
Naphthalene
Concen: 0.103 ppbv m
RT: 13.510 min Scan# 4147
Delta R.T. 0.003 min
Lab File: VL043216.D
Acq: 18 Nov 2025 17:06

Tgt Ion:128 Resp: 3287
Ion Ratio Lower Upper
128 100
127 10.3 9.9 14.9
129 8.9 8.4 12.6

