

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121621\
 Data File : VL038190.D
 Acq On : 16 Dec 2021 15:23
 Operator : SY/AP
 Sample : M5117-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 IA-2

Manual Integrations
 APPROVED

Reviewed By :Amit Patel 12/20/2021
 Supervised By :Mahesh Dadoda 12/20/2021

Quant Time: Dec 17 05:54:17 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821A
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	960539	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2537709	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	2151050	10.00	ppbv	0.00

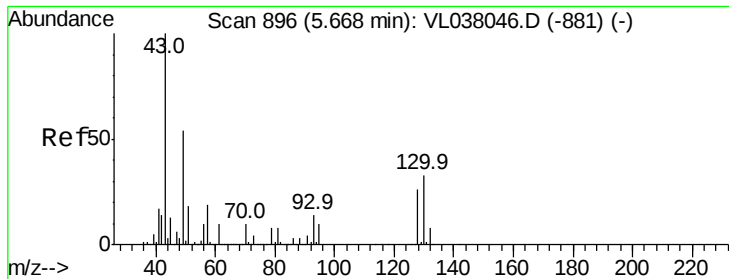
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	1714728	11.05	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.50%

Target Compounds

						Ovalue
2) Dichlorodifluoromethane	3.05	85	34818	0.219	ppbv	96
3) Chlorodifluoromethane	3.00	51	550389m	2.729	ppbv	
4) Chloromethane	3.15	50	31879	0.464	ppbv	89
9) Propene	3.03	41	770860m	10.376	ppbv	
10) Heptane	8.12	43	76634	0.417	ppbv	97
11) Trichlorofluoromethane	3.95	101	29505	0.196	ppbv	96
13) Ethanol	3.60	45	3691768	514.236	ppbv	89
15) Acetone	3.85	43	529945	6.363	ppbv #	79
19) Isopropyl Alcohol	3.97	45	564682	9.384	ppbv #	96
20) Methylene Chloride	4.35	84	161512	3.462	ppbv	91
26) Hexane	5.69	57	366883	2.750	ppbv #	52
30) Cyclohexane	7.13	84	37652	0.311	ppbv	86
34) 2-Butanone	5.25	43	50196	0.491	ppbv	95
35) Carbon Tetrachloride	7.01	117	10446m	0.059	ppbv	
36) Benzene	6.89	78	346137	1.367	ppbv	98
38) Trichloroethene	7.83	130	8262m	0.087	ppbv	
44) 2,2,4-Trimethylpentane	7.86	57	279073	0.659	ppbv #	87
52) Tetrachloroethene	11.22	164	4373m	0.047	ppbv	
53) Toluene	9.80	91	670307	2.301	ppbv	97
58) Ethyl Benzene	12.71	91	140726	0.396	ppbv	97
59) m/p-Xylene	12.96	91	369141	1.233	ppbv	98
60) o-Xylene	13.69	91	134588	0.485	ppbv	92
61) Styrene	13.52	104	20248m	0.136	ppbv	
72) 4-Ethyltoluene	15.84	105	45289m	0.141	ppbv	
73) 1,3,5-Trimethylbenzene	16.00	105	35187m	0.120	ppbv	
74) 1,2,4-Trimethylbenzene	16.76	105	122166m	0.403	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

49 100

128 47.

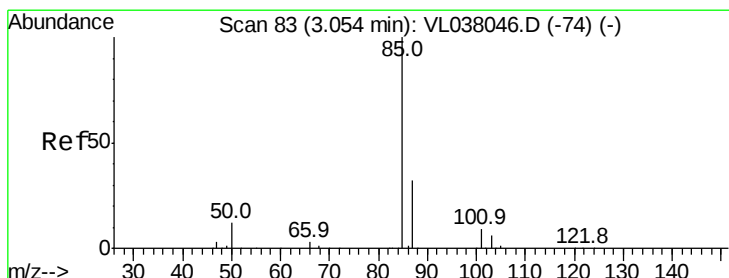
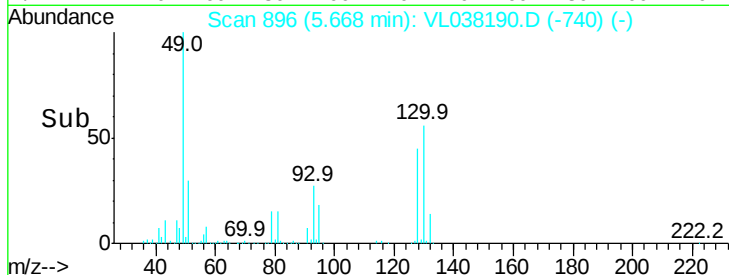
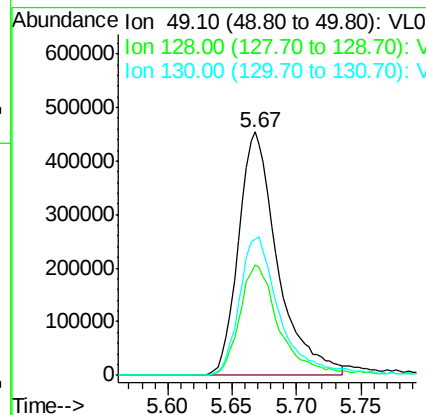
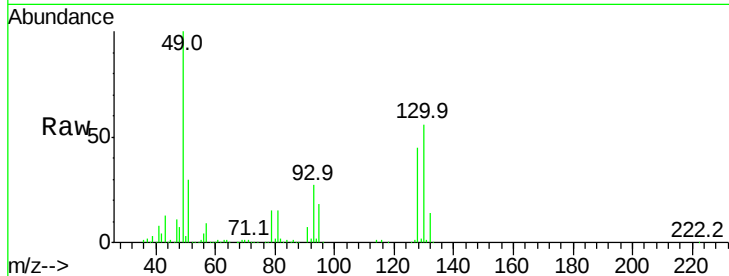
130 59.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#2

Dichlorodifluoromethane

Concen: 0.219 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL038190.D

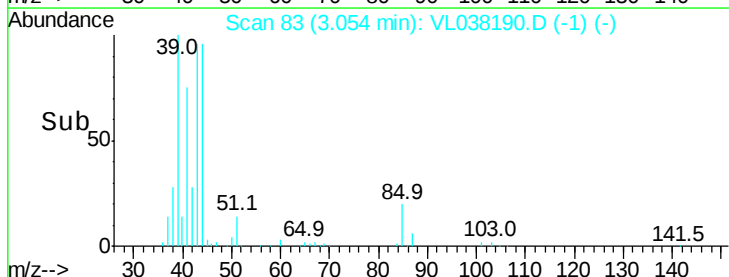
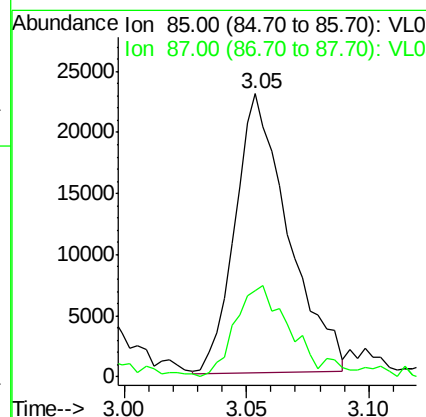
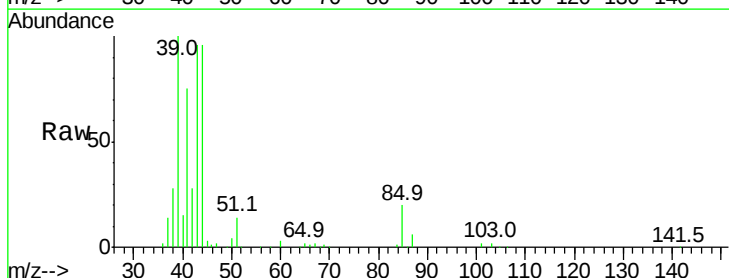
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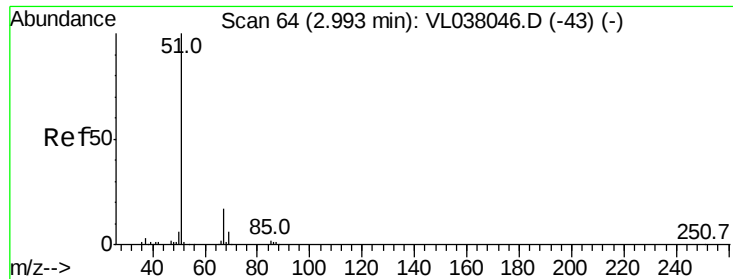
Tgt Ion: 85 Resp: 34818

Ion Ratio Lower Upper

85 100

87 29.7 25.8 38.6





#3

Chlorodifluoromethane

Concen: 2.729 ppbv m

RT: 3.00 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

51 100

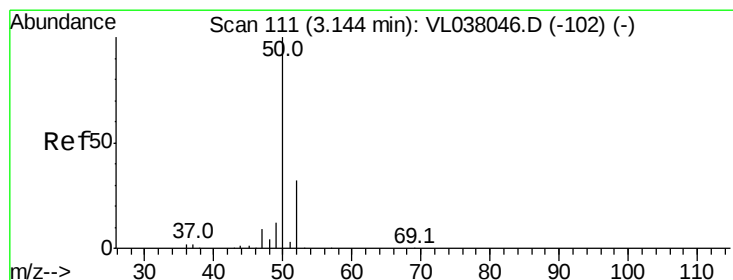
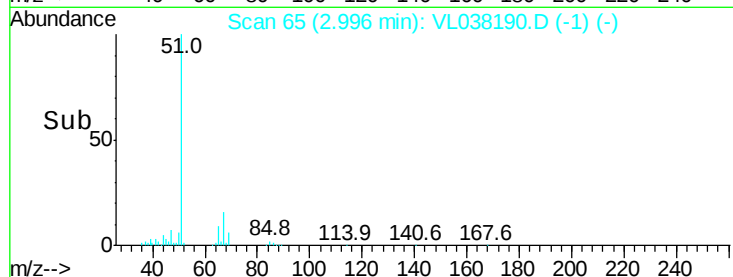
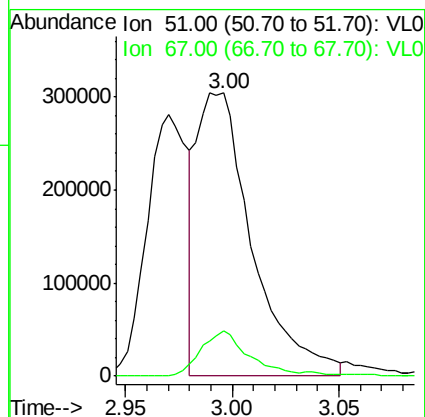
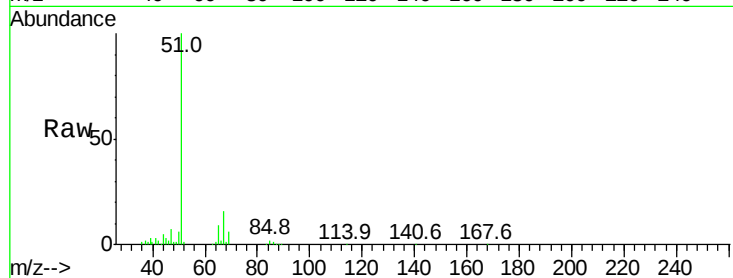
67 14.

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#4

Chloromethane

Concen: 0.464 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL038190.D

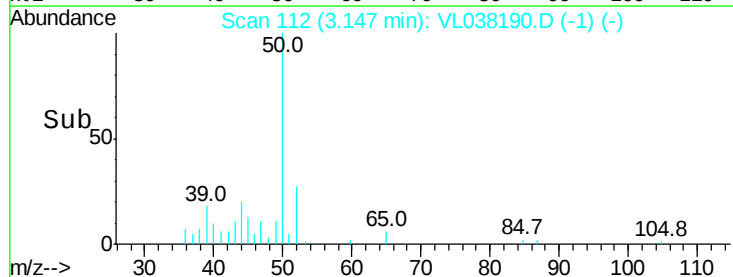
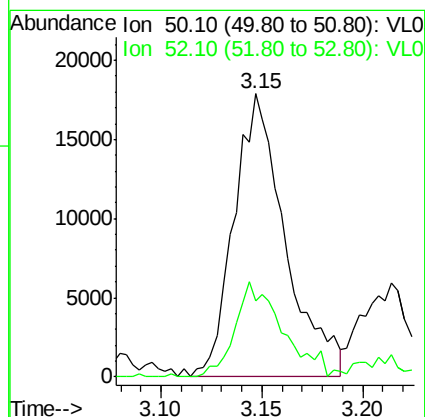
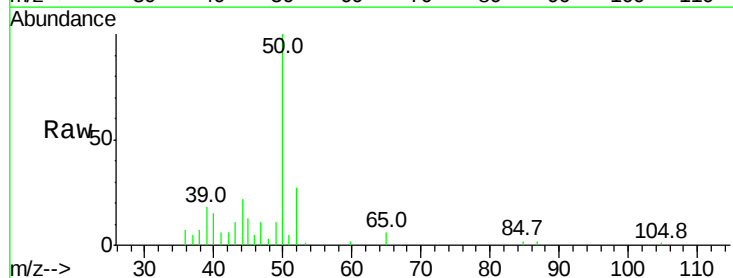
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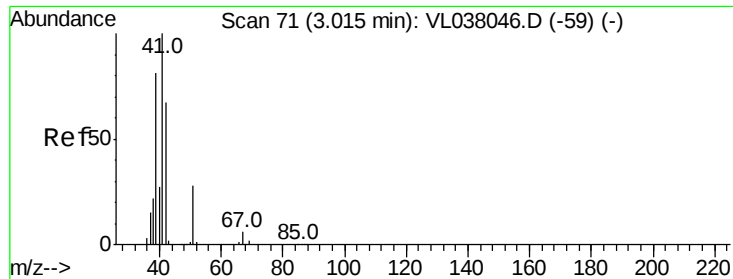
Tgt Ion: 50 Resp: 31879

Ion Ratio Lower Upper

50 100

52 25.7 25.4 38.0





#9

Propene

Concen: 10.376 ppbv m

RT: 3.03

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

41 100

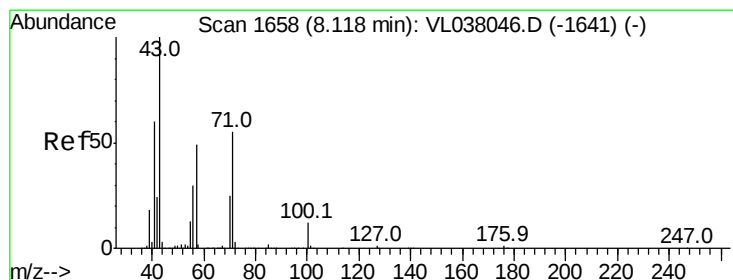
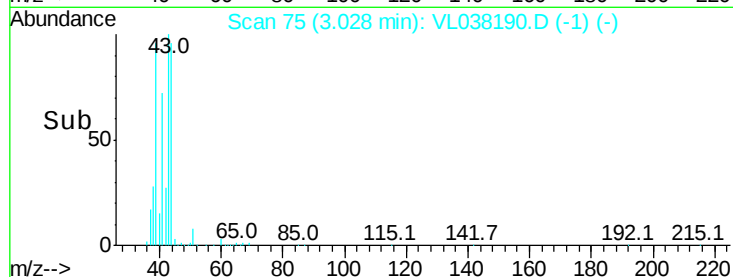
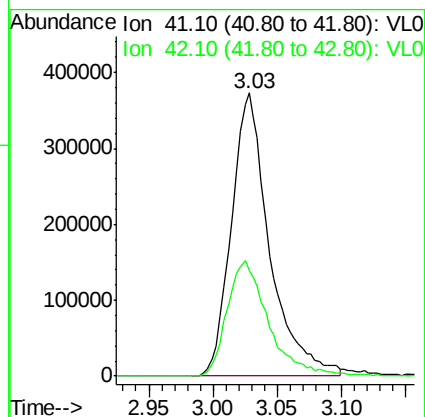
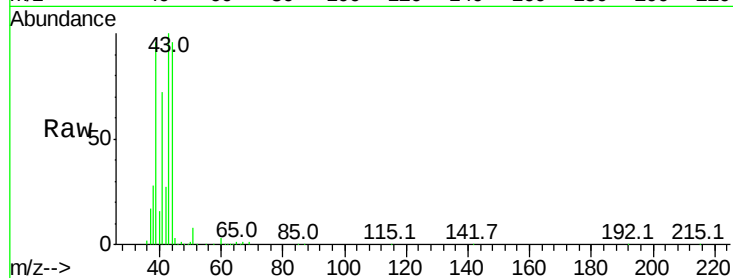
42 27.

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#10

Heptane

Concen: 0.417 ppbv

RT: 8.12 min Scan# 1659

Delta R.T. 0.00 min

Lab File: VL038190.D

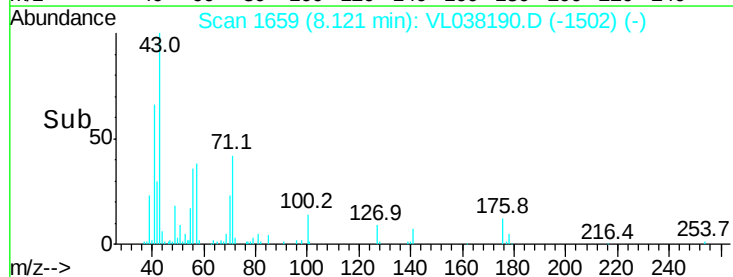
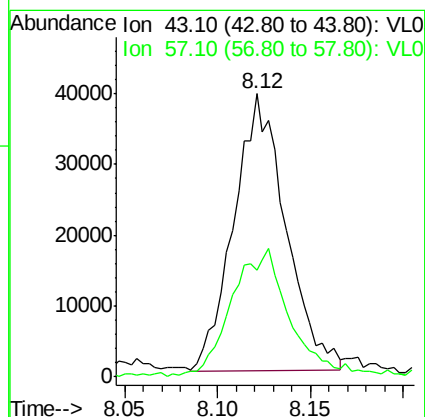
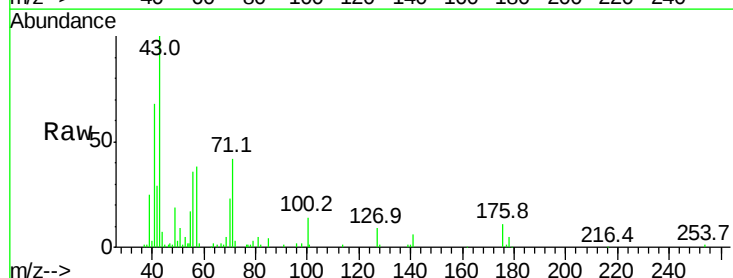
Acq: 16 Dec 2021 15:23

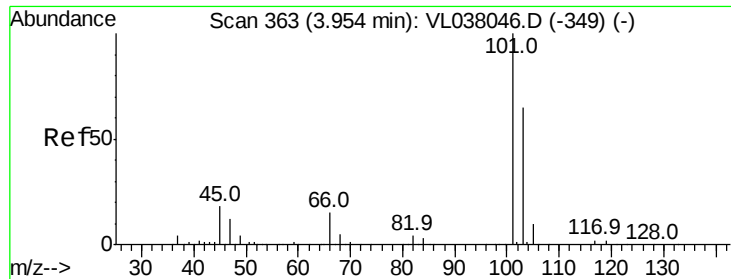
Tgt Ion: 43 Resp: 76634

Ion Ratio Lower Upper

43 100

57 48.4 40.4 60.6



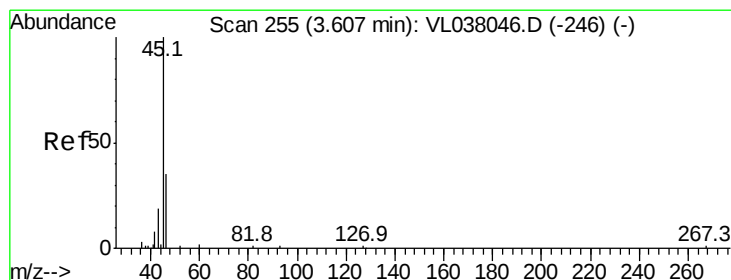
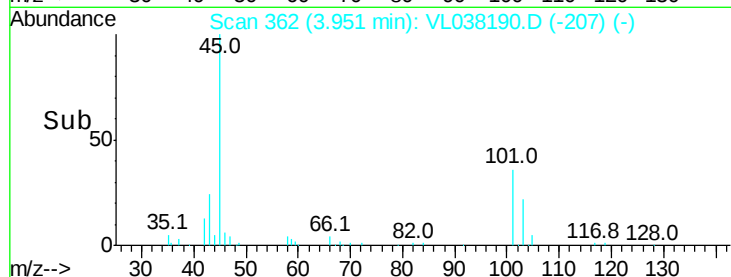
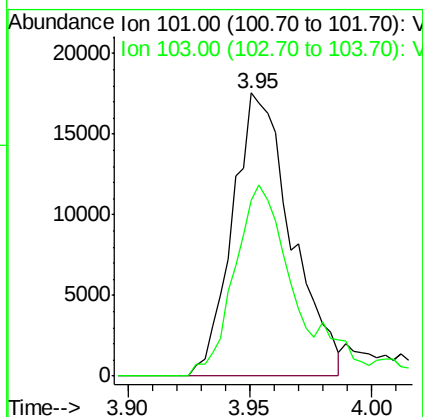
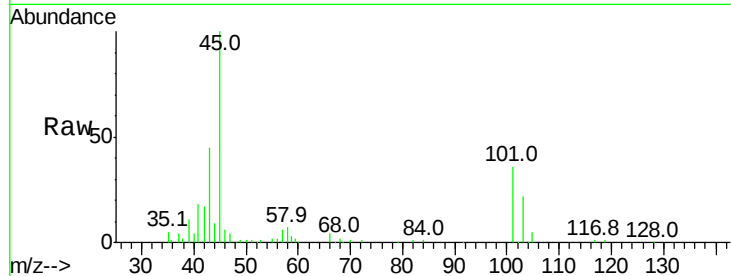


#11
Trichlorofluoromethane
Concen: 0.196 ppbv
RT: 3.95
Instrument: MSVOA_L
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Dec 2021 15:23

Tot Ion:1
Ion Rati
101 100
103 61.

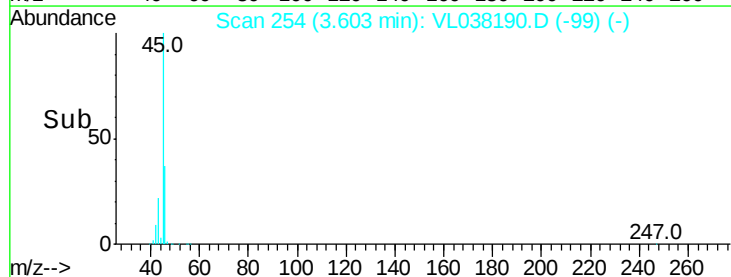
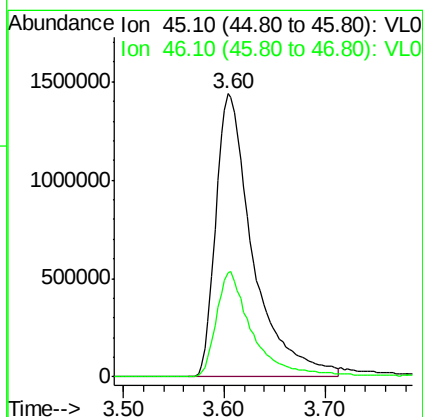
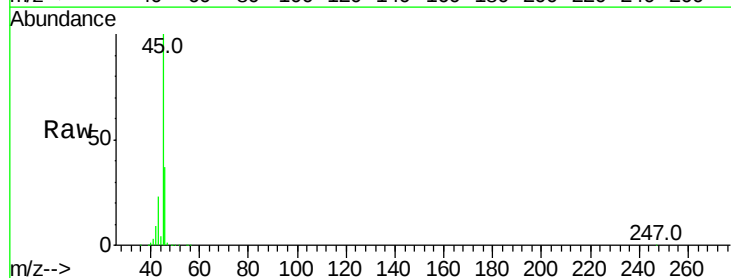
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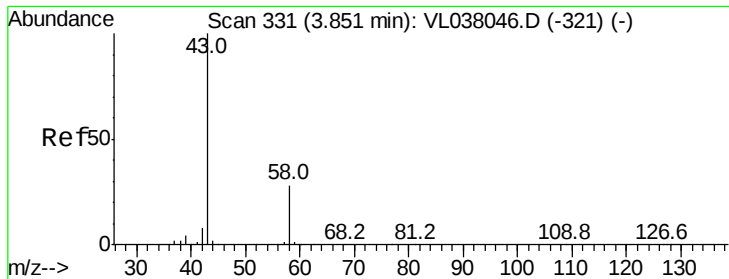
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#13
Ethanol
Concen: 514.236 ppbv
RT: 3.60 min Scan# 254
Delta R.T. -0.00 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion: 45 Resp: 3691768
Ion Ratio Lower Upper
45 100
46 37.0 17.6 70.2





#15

Acetone

Concen: 6.363 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

43 100

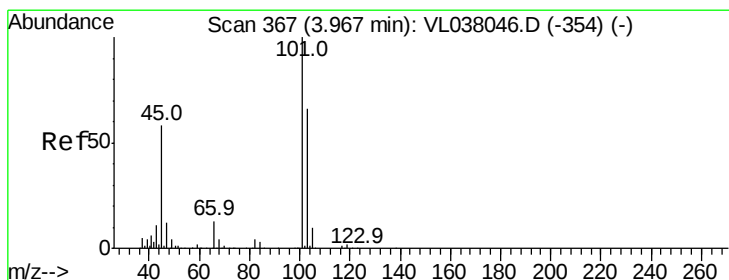
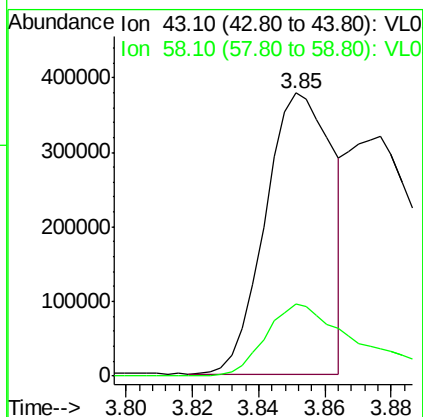
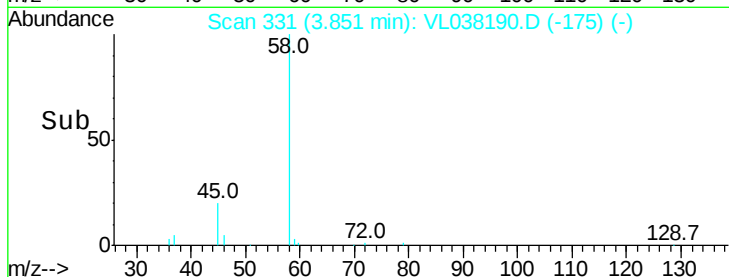
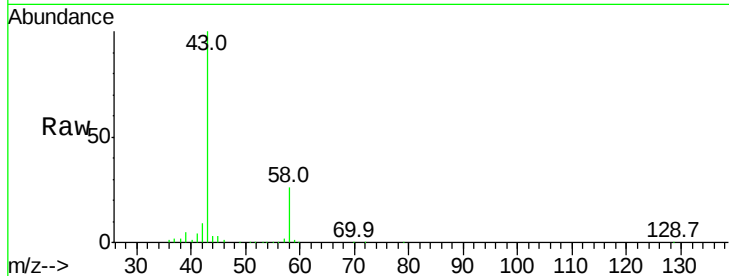
58 38.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#19

Isopropyl Alcohol

Concen: 9.384 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.00 min

Lab File: VL038190.D

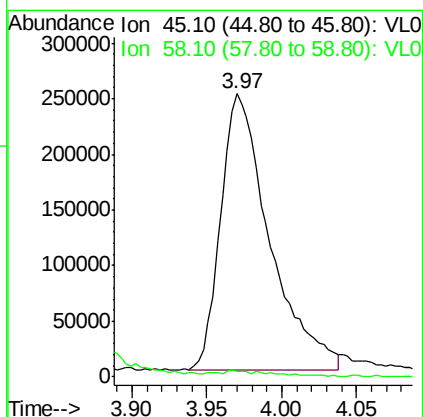
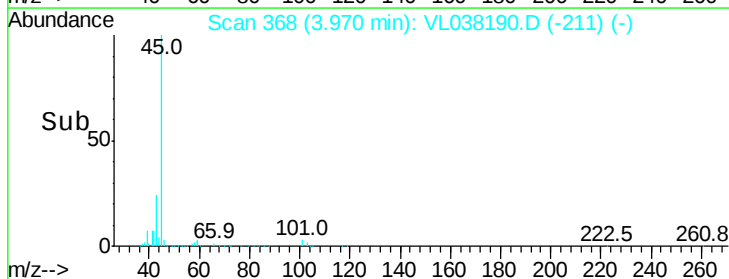
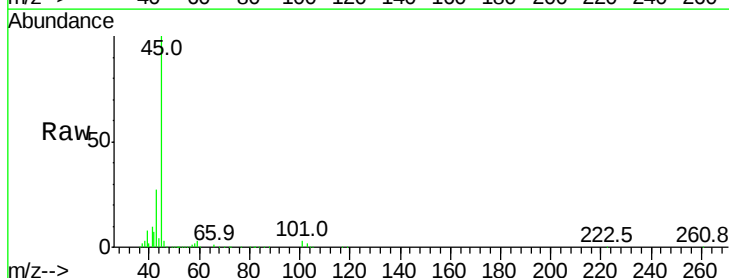
Acq: 16 Dec 2021 15:23

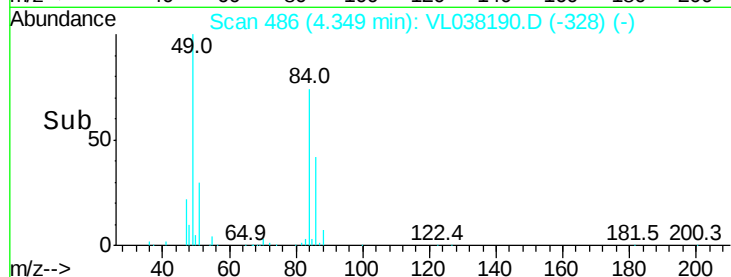
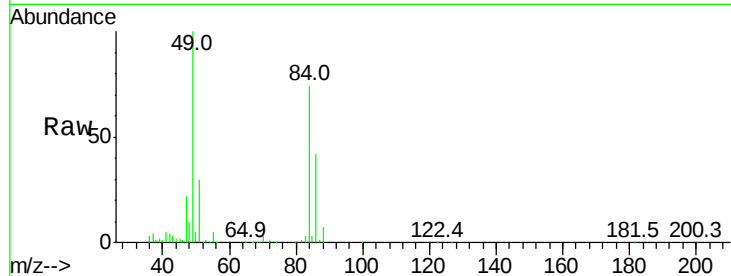
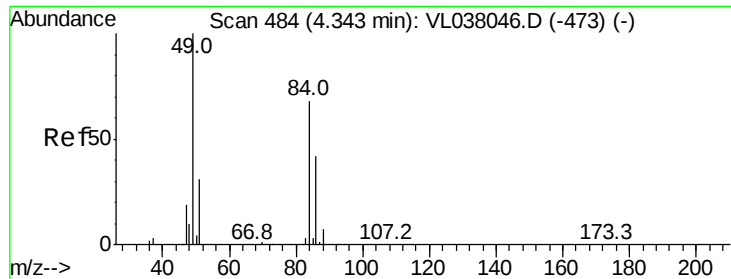
Tgt Ion: 45 Resp: 564682

Ion Ratio Lower Upper

45 100

58 3.1 1.4 2.0#



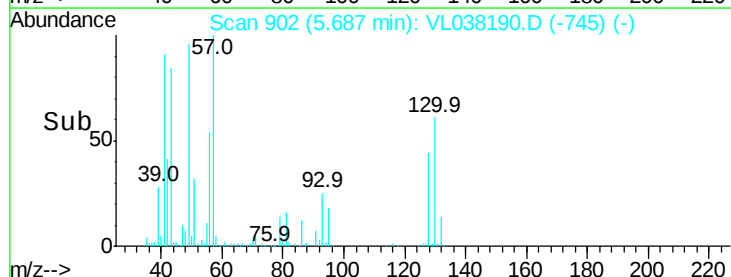
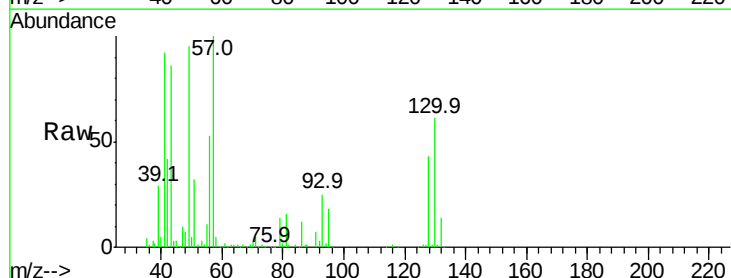
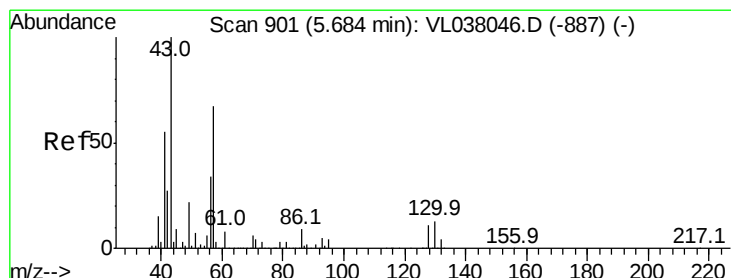
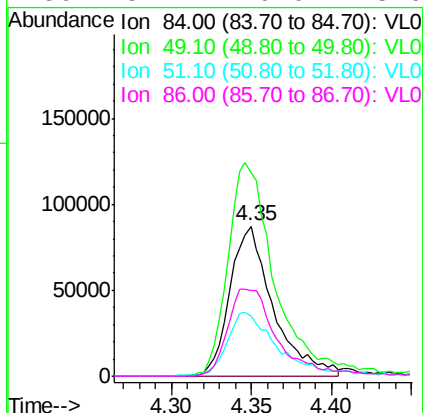


#20
Methvlene Chloride
Concen: 3.462 ppbv
RT: 4.35
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Dec 2021 15:23

Tot Ion:
Ion Ratio
84 100
49 134.
51 39.
86 57.1 49.0 73.6

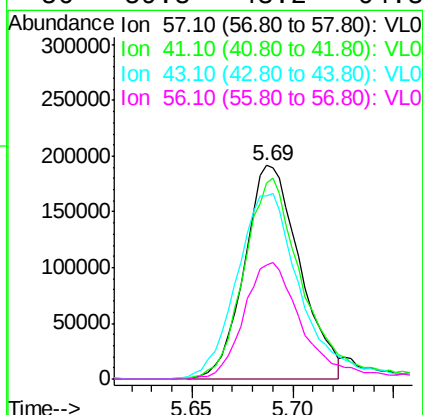
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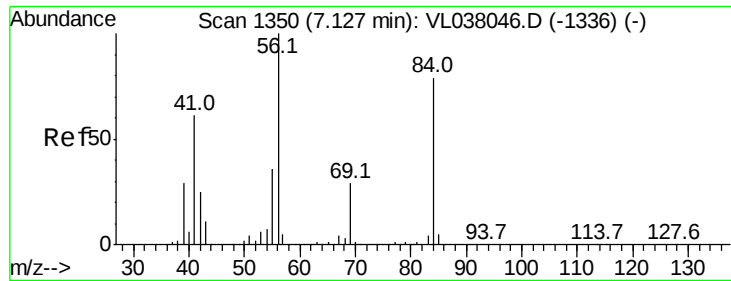
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#26
Hexane
Concen: 2.750 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.00 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion: 57 Resp: 366883
Ion Ratio Lower Upper
57 100
41 100.6 71.4 107.2
43 102.9 174.6 261.8#
56 59.8 43.2 64.8



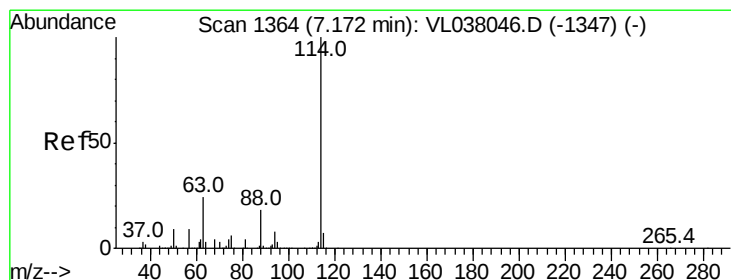
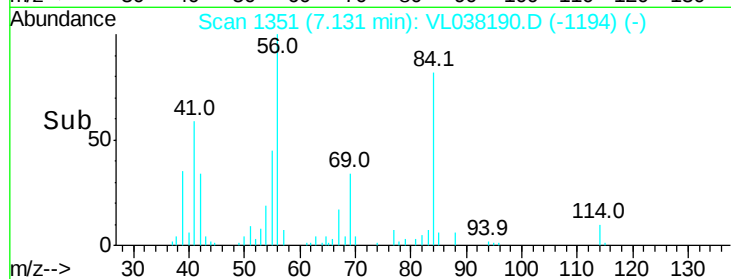
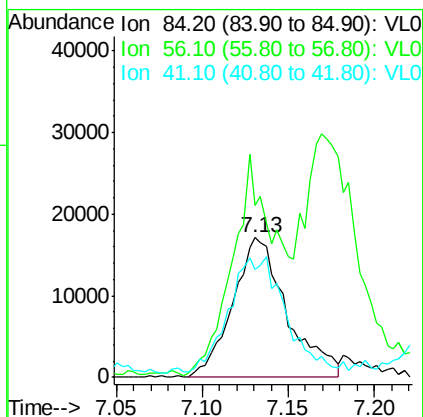
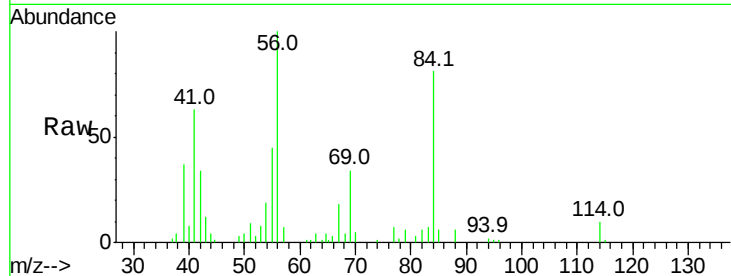


#30
Cvclohexane
Concen: 0.311 ppbv
RT: 7.13
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 16 Dec 2021 15:23

Tot Ion:
Ion Ratio
84 100
56 115.
41 90.

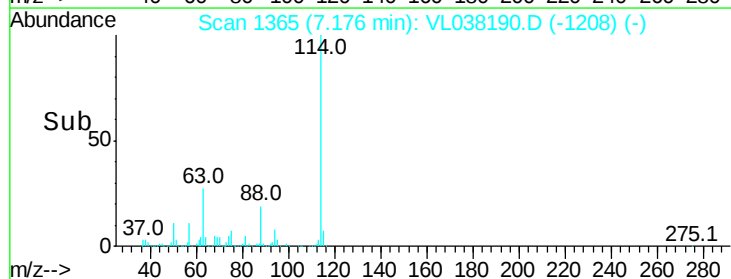
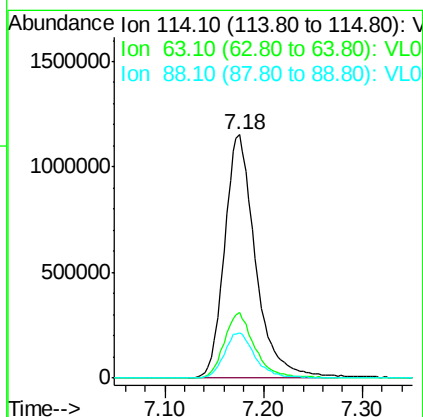
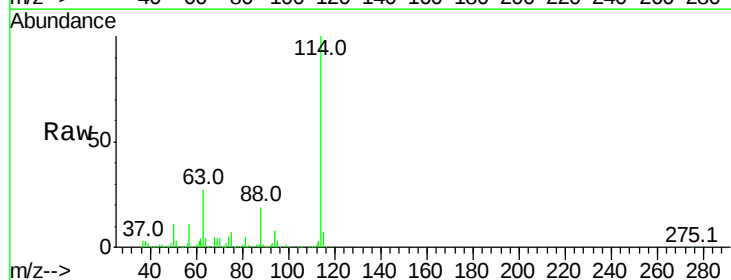
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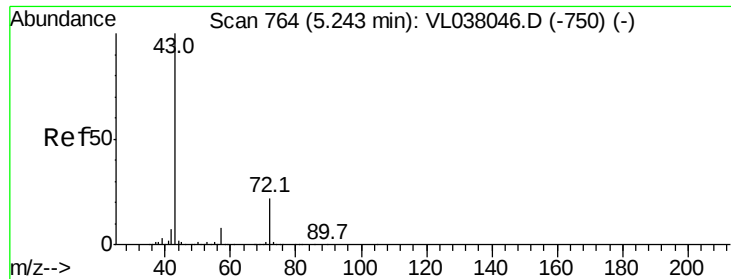
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion:114 Resp: 2537709
Ion Ratio Lower Upper
114 100
63 26.8 19.7 29.5
88 18.8 14.4 21.6





#34

2-Butanone

Concen: 0.491 ppbv

RT: 5.25

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

43 100

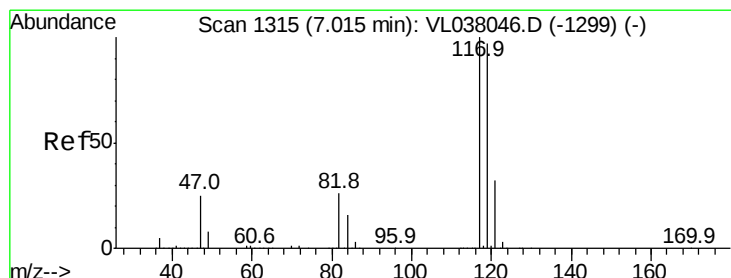
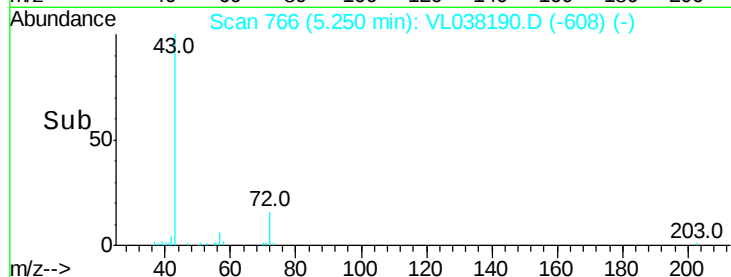
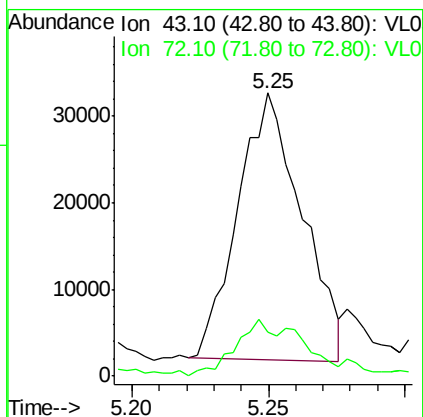
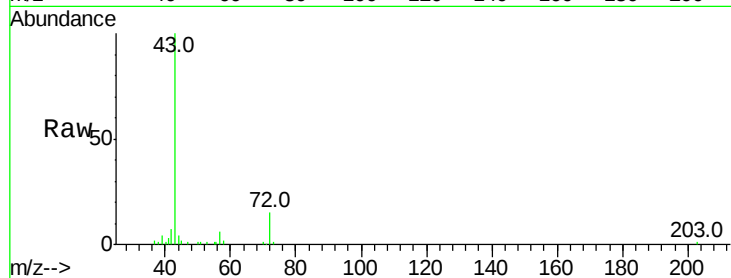
72 26.

Manual Integrations

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Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#35

Carbon Tetrachloride

Concen: 0.059 ppbv m

RT: 7.01 min Scan# 1315

Delta R.T. 0.00 min

Lab File: VL038190.D

Acq: 16 Dec 2021 15:23

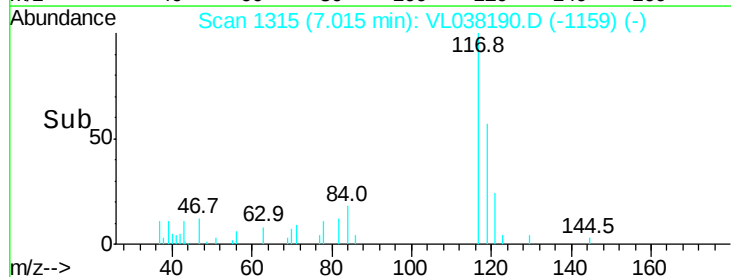
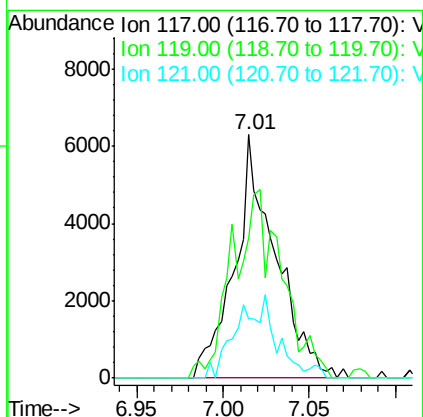
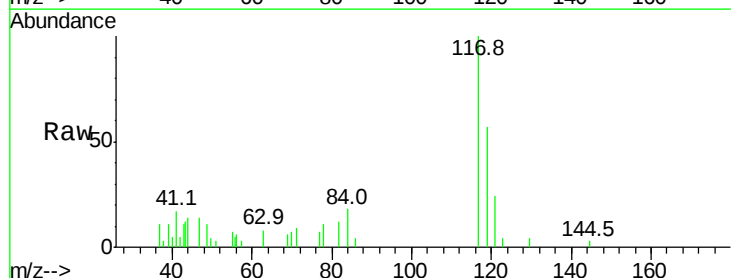
Tgt Ion:117 Resp: 10446

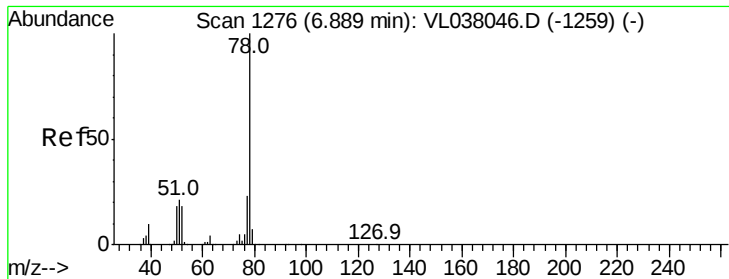
Ion Ratio Lower Upper

117 100

119 57.4 77.7 116.5#

121 24.4 25.6 38.4#





#36

Benzene

Concen: 1.367 ppbv

RT: 6.89 Instrument :

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

78 100

77 21.

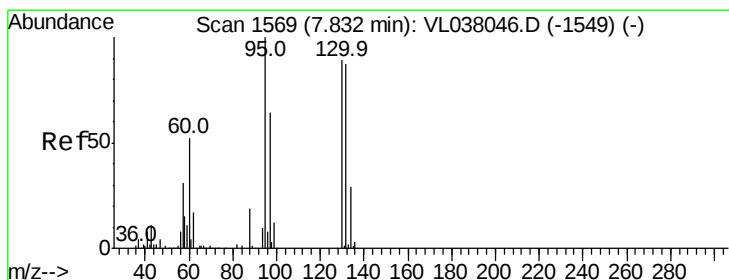
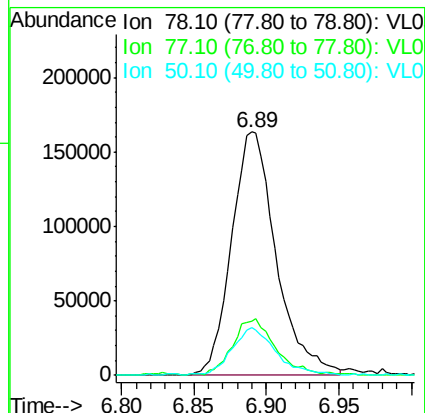
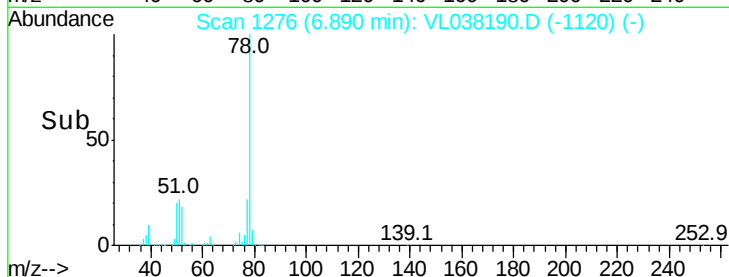
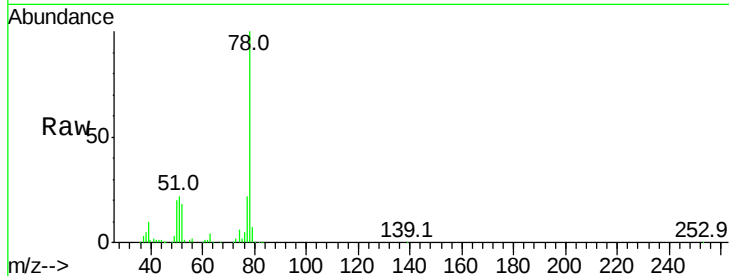
50 19.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#38

Trichloroethene

Concen: 0.087 ppbv m

RT: 7.83 min Scan# 1570

Delta R.T. 0.00 min

Lab File: VL038190.D

Acq: 16 Dec 2021 15:23

Tgt Ion:130 Resp: 8262

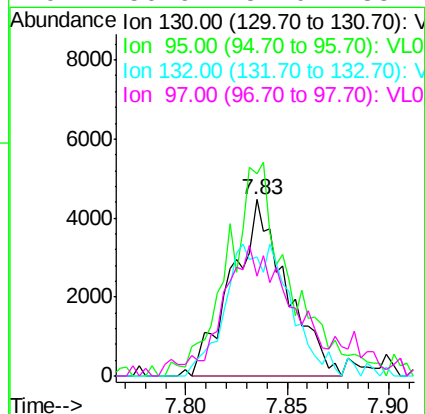
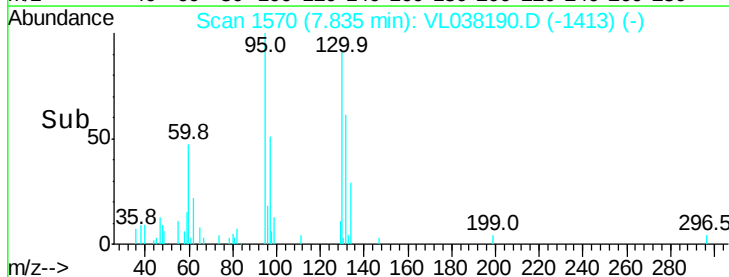
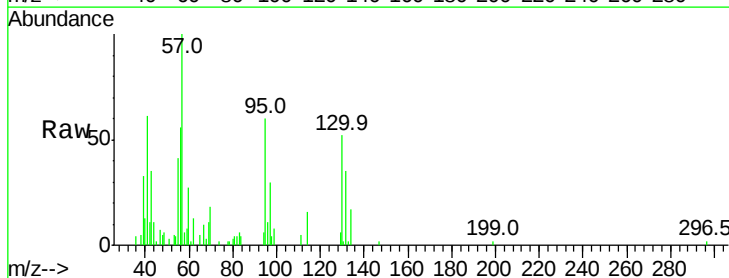
Ion Ratio Lower Upper

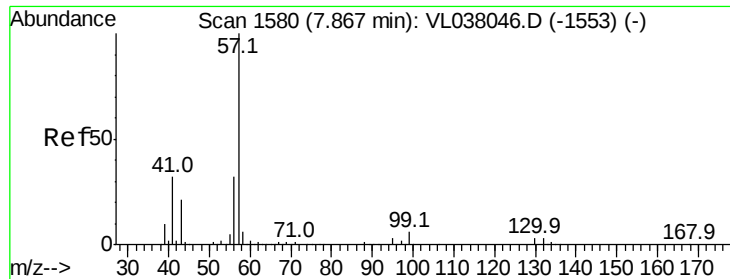
130 100

95 115.2 89.4 134.2

132 67.4 78.2 117.2#

97 56.6 57.0 85.4#



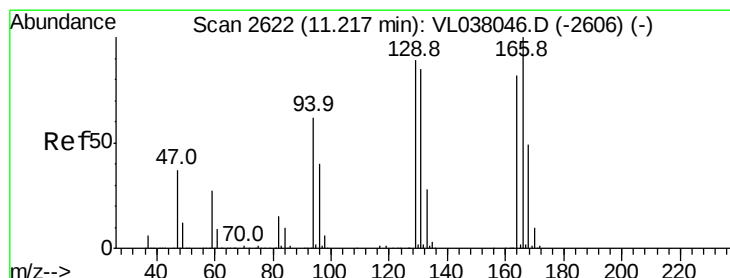
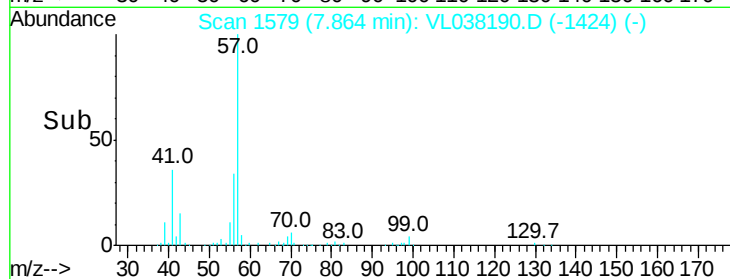
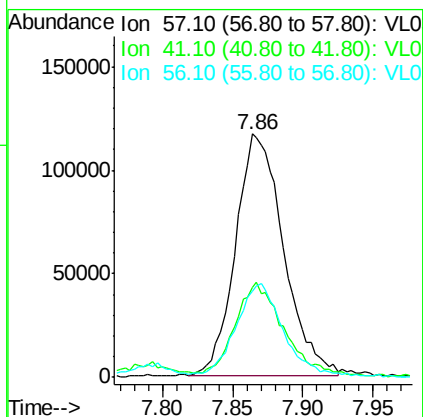
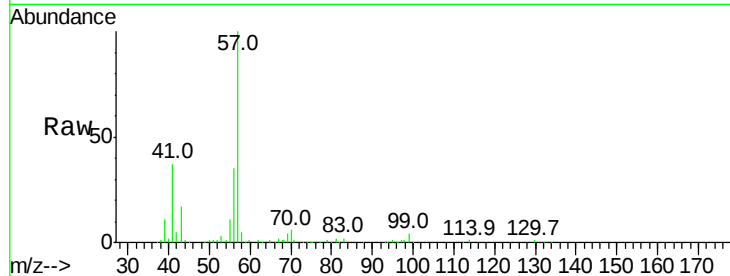


#44
2,2,4-Trimethylpentane
Concen: 0.659 ppbv
RT: 7.86
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Dec 2021 15:23

Tot Ion:
Ion Ratio
57 100
41 40.
56 38.

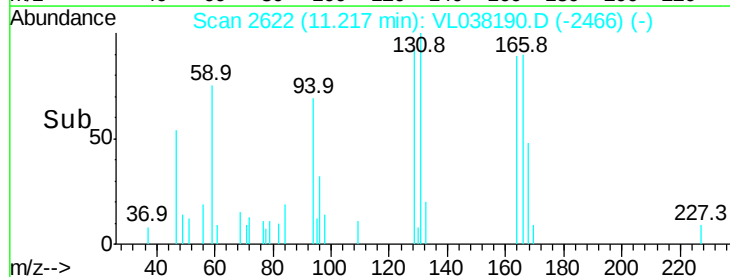
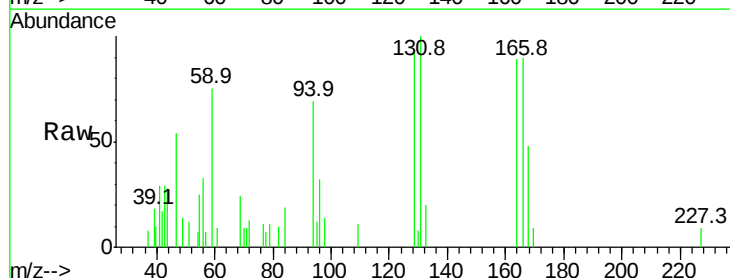
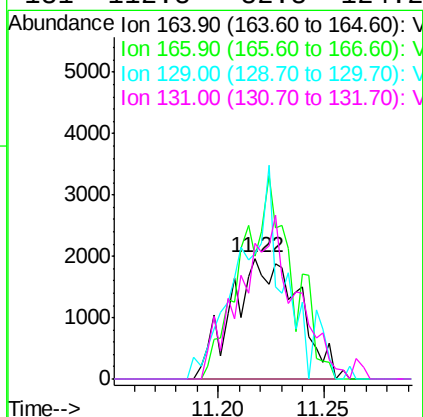
Manual Integrations
APPROVED

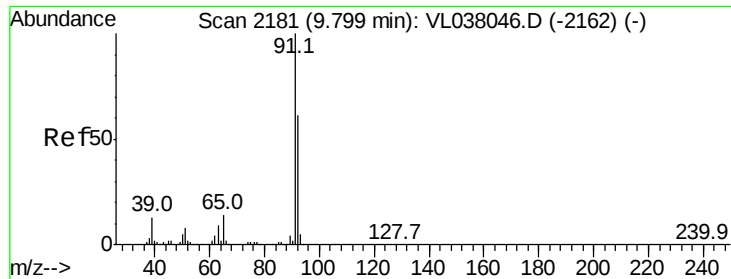
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#52
Tetrachloroethene
Concen: 0.047 ppbv m
RT: 11.22 min Scan# 2622
Delta R.T. 0.00 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion:164 Resp: 4373
Ion Ratio Lower Upper
164 100
166 102.0 97.2 145.8
129 103.8 86.9 130.3
131 112.8 82.8 124.2





#53

Toluene

Concen: 2.301 ppbv

RT: 9.80

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:

Ion Ratio

91 100

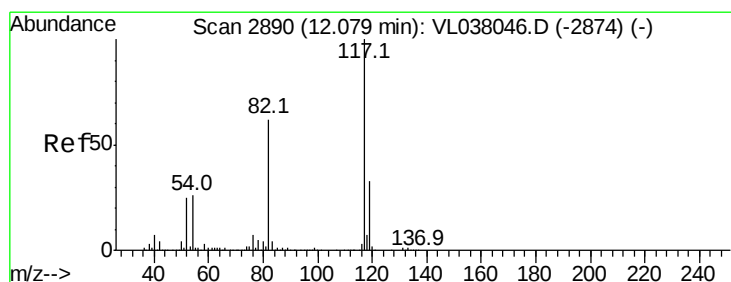
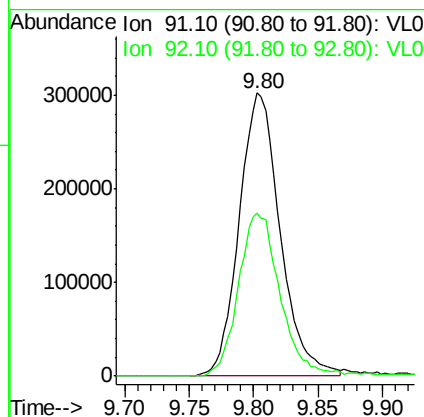
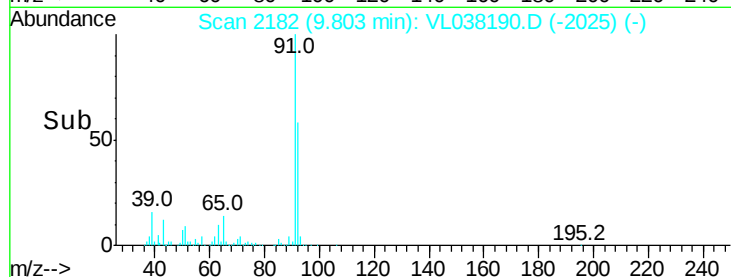
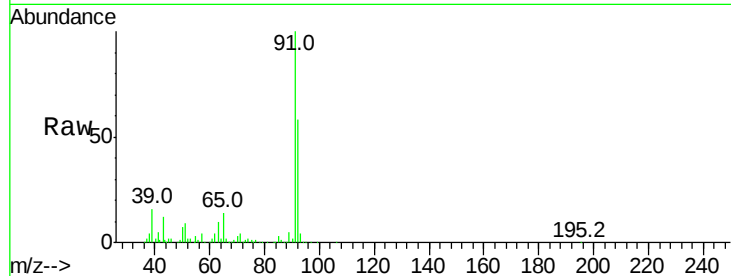
92 59.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2891

Delta R.T. 0.00 min

Lab File: VL038190.D

Acq: 16 Dec 2021 15:23

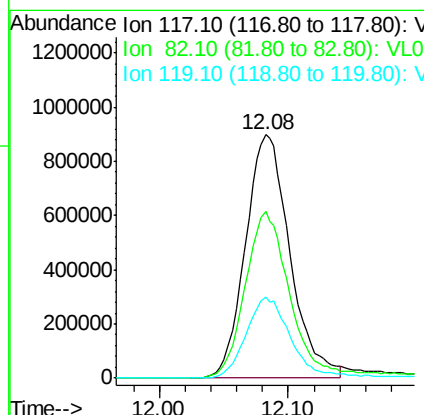
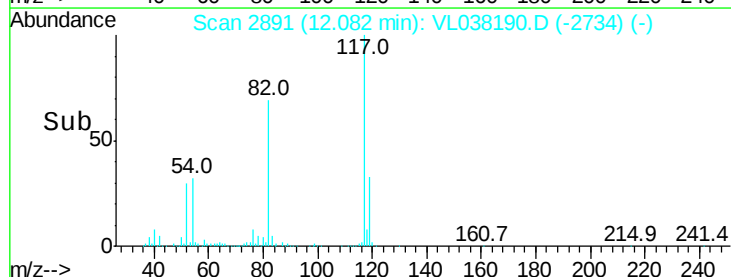
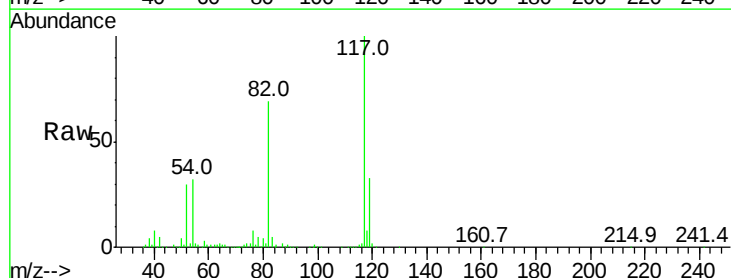
Tgt Ion:117 Resp: 2151050

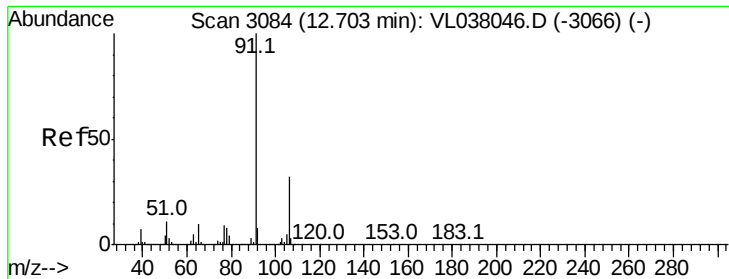
Ion Ratio Lower Upper

117 100

82 72.6 52.8 79.2

119 34.3 26.8 40.2



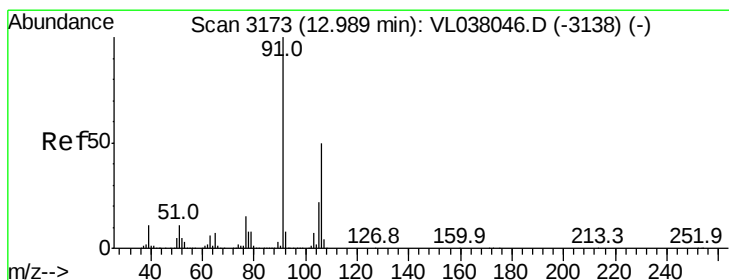
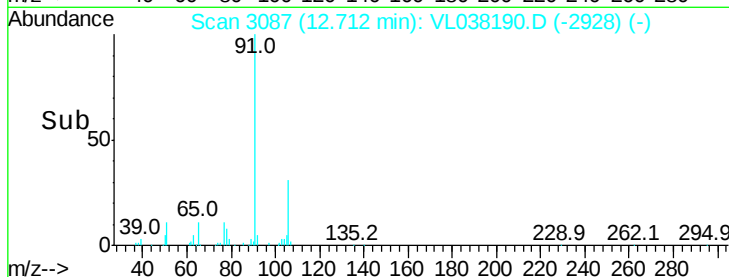
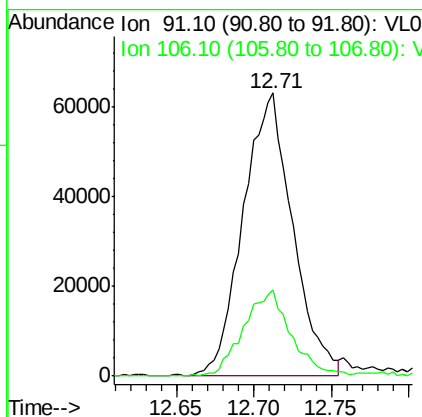
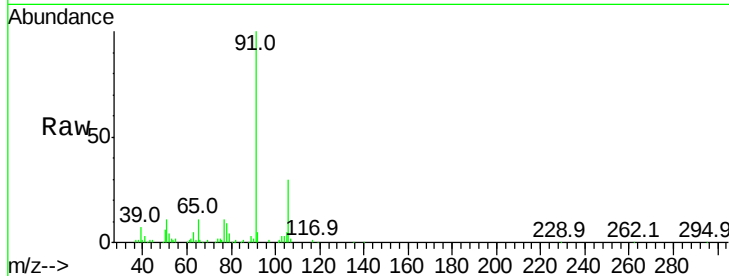


#58
Ethyl Benzene
Concen: 0.396 ppbv
RT: 12.71 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 16 Dec 2021 15:23

Tot Ion:
Ion Ratio
91 100
106 30.

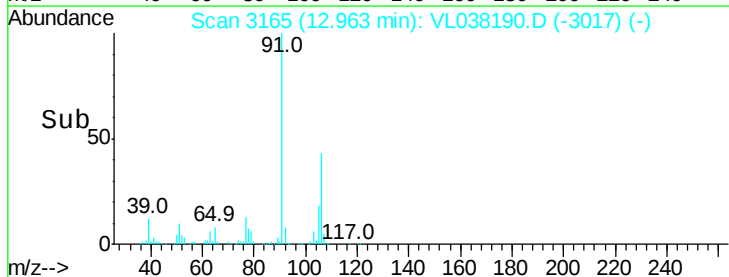
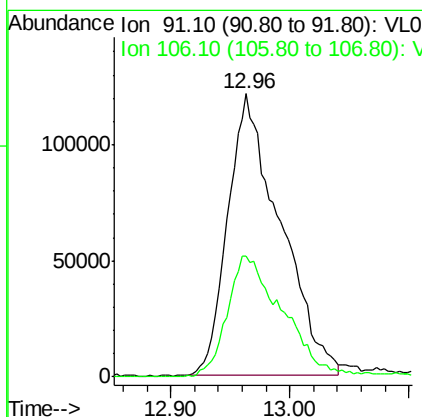
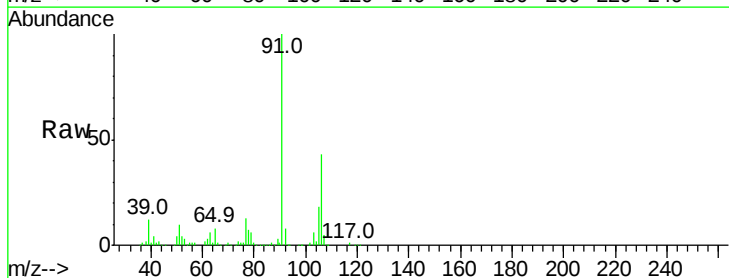
Manual Integrations
APPROVED

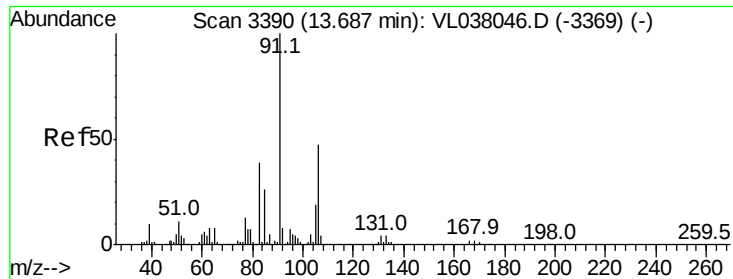
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#59
m/p-Xylene
Concen: 1.233 ppbv
RT: 12.96 min Scan# 3165
Delta R.T. -0.03 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion: 91 Resp: 369141
Ion Ratio Lower Upper
91 100
106 46.4 38.1 57.1



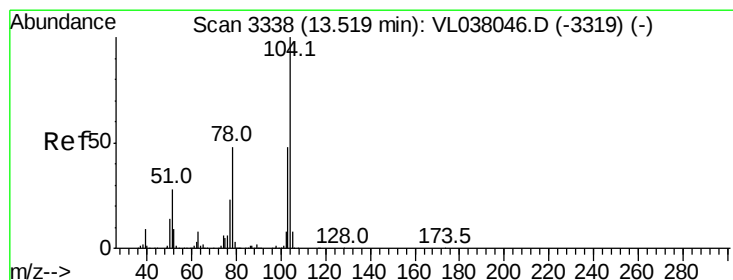
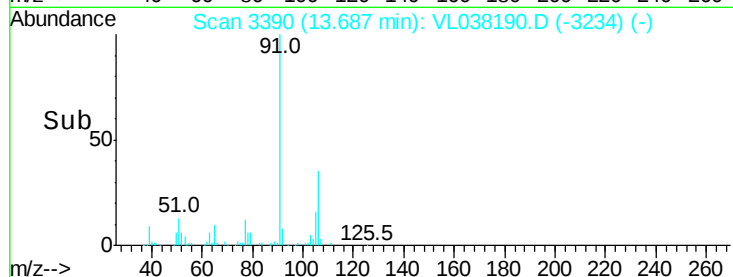
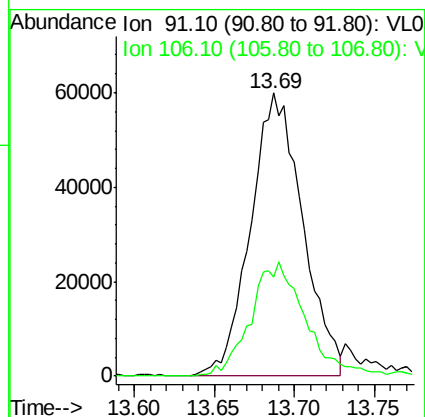
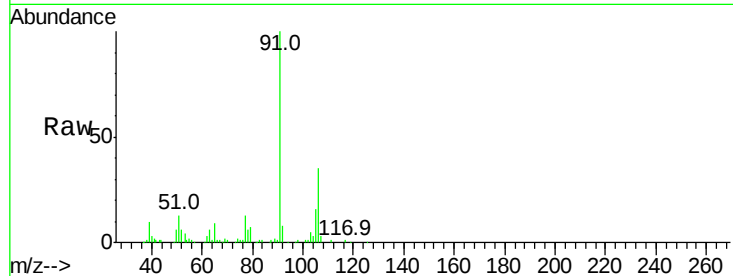


#60
o-Xylene
Concen: 0.485 ppbv
RT: 13.69
Delta R.T. MSVOA_L
Lab File: ClientSampled :
Acq: 16 Dec 2021 15:23

Tot Ion:
Ion Ratio
91 100
106 42.

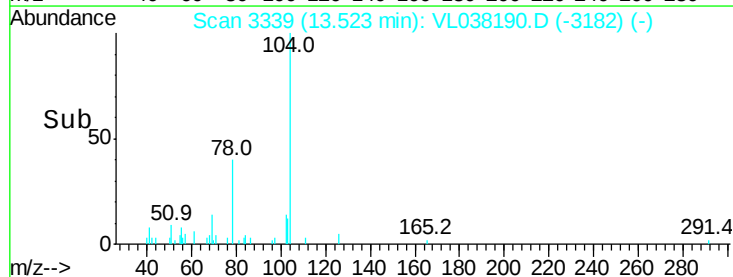
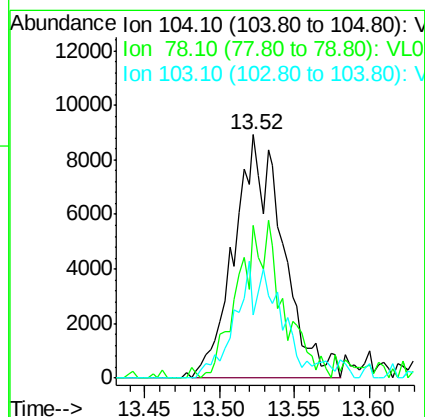
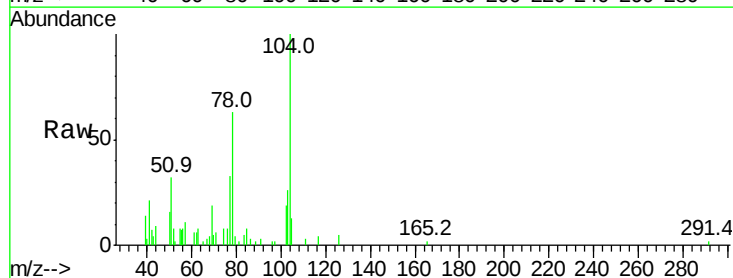
Manual Integrations
APPROVED

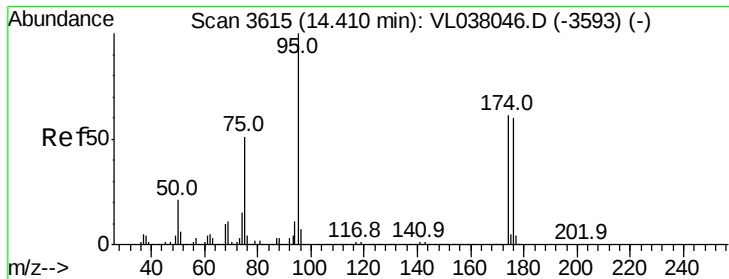
Reviewed By :Amit Patel 12/20/2021
Supervised By :Mahesh Dadoda 12/20/2021



#61
Styrene
Concen: 0.136 ppbv m
RT: 13.52 min Scan# 3339
Delta R.T. 0.00 min
Lab File: VL038190.D
Acq: 16 Dec 2021 15:23

Tgt Ion:104 Resp: 20248
Ion Ratio Lower Upper
104 100
78 0.0 39.8 59.6#
103 46.0 38.2 57.2



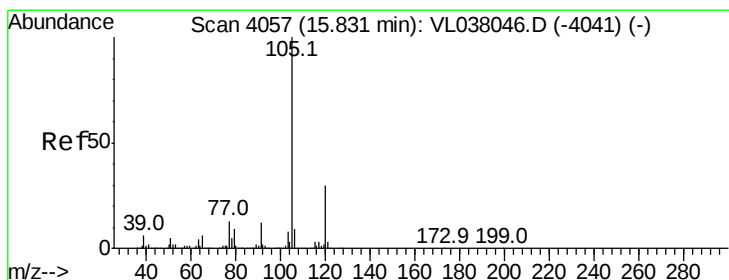
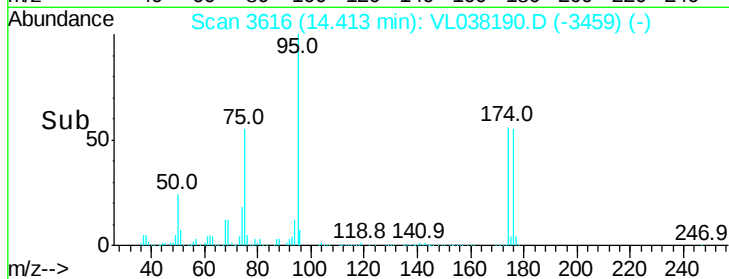
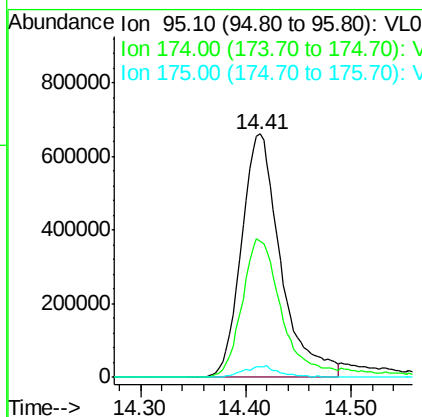
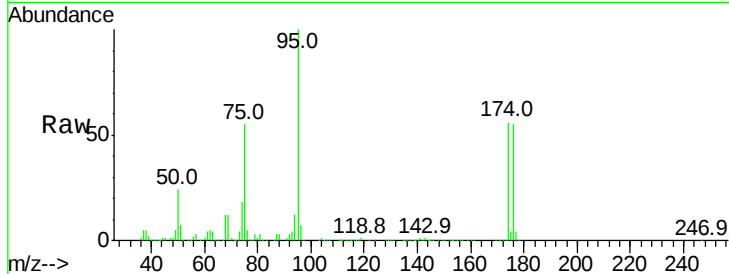


#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.051 ppbv
 RT: 14.41 min
 Delta R.T.: 0.01 min
 Lab File: VL038190.D
 Acq: 16 Dec 2021 15:23

Tot Ion:
 Ion Ratio
 95 100
 174 62.
 175 4.

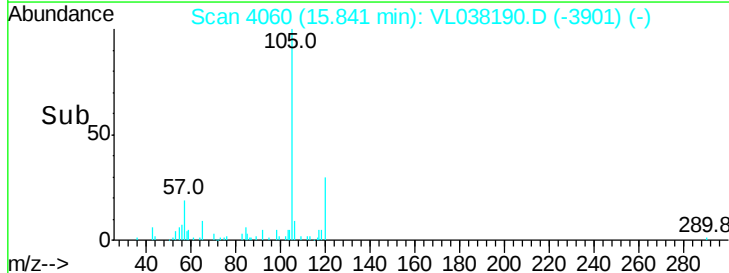
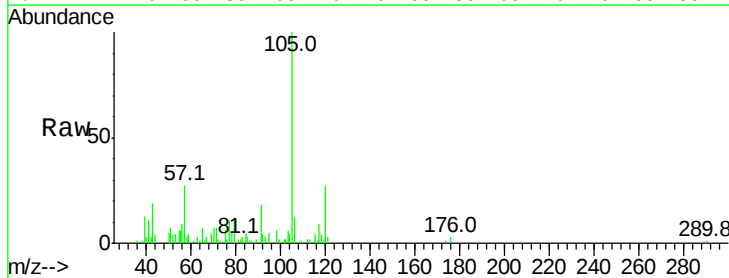
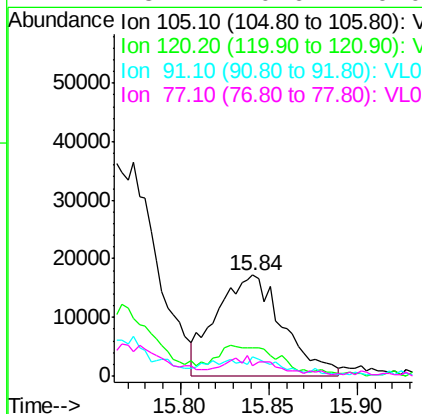
Manual Integrations
 APPROVED

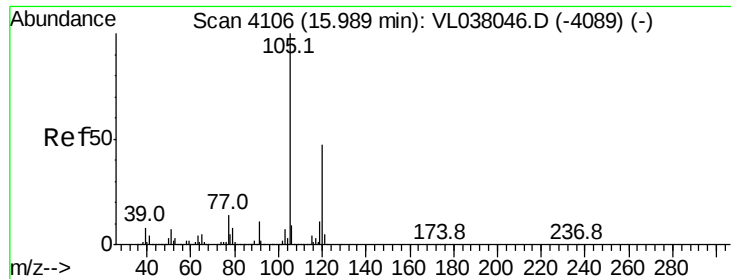
Reviewed By :Amit Patel 12/20/2021
 Supervised By :Mahesh Dadoda 12/20/2021



#72
 4-Ethyltoluene
 Concen: 0.141 ppbv m
 RT: 15.84 min Scan# 4060
 Delta R.T.: 0.01 min
 Lab File: VL038190.D
 Acq: 16 Dec 2021 15:23

Tgt Ion:105 Resp: 45289
 Ion Ratio Lower Upper
 105 100
 120 31.7 25.1 37.7
 91 17.0 9.7 14.5#
 77 15.7 10.6 16.0





#73

1,3,5-Trimethylbenzene

Concen: 0.120 ppbv m

RT: 16.00

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 16 Dec 2021 15:23

Tot Ion:1

Ion Rati

105 100

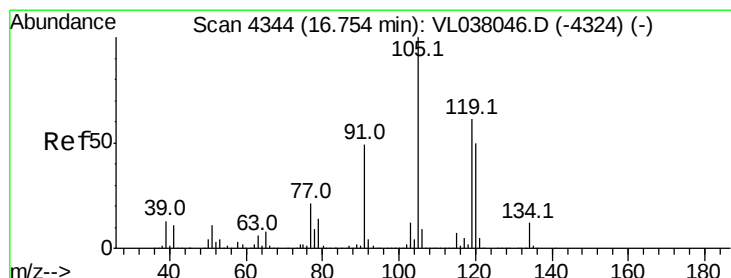
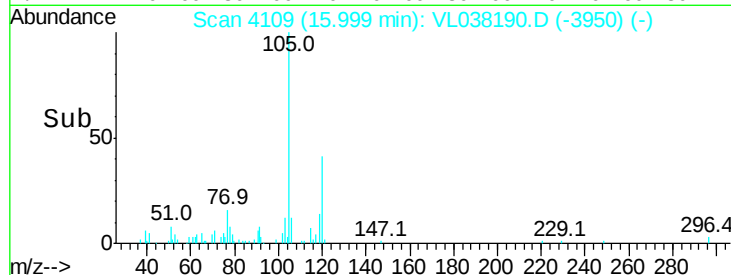
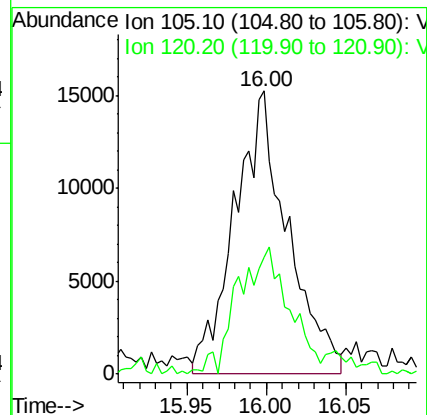
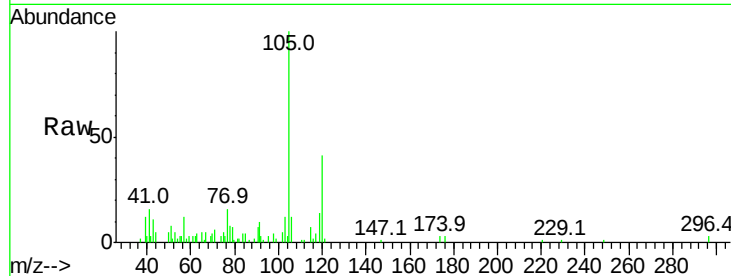
120 41.

Manual Integrations

APPROVED

Reviewed By :Amit Patel 12/20/2021

Supervised By :Mahesh Dadoda 12/20/2021



#74

1,2,4-Trimethylbenzene

Concen: 0.403 ppbv m

RT: 16.76 min Scan# 4346

Delta R.T. 0.01 min

Lab File: VL038190.D

Acq: 16 Dec 2021 15:23

Tgt Ion:105 Resp: 122166

Ion Ratio Lower Upper

105 100

120 40.7 40.1 60.1

91 12.8 39.8 59.8#

77 16.3 16.6 25.0#

