

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042721\  
 Data File : VL036855.D  
 Acq On : 27 Apr 2021 13:15  
 Operator : SY/AP  
 Sample : M2174-02  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA L  
 ClientSampleId :  
 IA2

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2021  
 Supervised By :Mahesh Dadoda 04/29/2021

Quant Time: Apr 29 15:54:52 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL042721A  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
 QLast Update : Tue Apr 27 16:56:35 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.67  | 49   | 1376222  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3320907  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 2922964  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.42  | 95    | 2326125  | 9.91     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.10% |

## Target Compounds

|                            |       |     |         |         |        | Ovalue |
|----------------------------|-------|-----|---------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.05  | 85  | 59207   | 0.273   | ppbv   | 100    |
| 3) Chlorodifluoromethane   | 2.99  | 51  | 73432   | 0.293   | ppbv   | 95     |
| 4) Chloromethane           | 3.14  | 50  | 39587   | 0.480   | ppbv # | 85     |
| 9) Propene                 | 3.02  | 41  | 127319m | 1.667   | ppbv   |        |
| 10) Heptane                | 8.12  | 43  | 42281m  | 0.220   | ppbv   |        |
| 11) Trichlorofluoromethane | 3.95  | 101 | 45528m  | 0.235   | ppbv   |        |
| 13) Ethanol                | 3.61  | 45  | 1717709 | 176.327 | ppbv   | 91     |
| 15) Acetone                | 3.85  | 43  | 1137184 | 8.767   | ppbv # | 89     |
| 19) Isopropyl Alcohol      | 3.98  | 45  | 191466  | 2.979   | ppbv # | 86     |
| 20) Methylene Chloride     | 4.35  | 84  | 431892  | 6.963   | ppbv   | 95     |
| 26) Hexane                 | 5.68  | 57  | 395733  | 2.670   | ppbv # | 49     |
| 30) Cyclohexane            | 7.16  | 84  | 35259m  | 0.300   | ppbv   |        |
| 35) Carbon Tetrachloride   | 7.03  | 117 | 16616m  | 0.074   | ppbv   |        |
| 36) Benzene                | 6.89  | 78  | 75164   | 0.269   | ppbv # | 94     |
| 52) Tetrachloroethene      | 11.22 | 164 | 41484m  | 0.435   | ppbv   |        |
| 53) Toluene                | 9.81  | 91  | 325766  | 1.113   | ppbv   | 100    |
| 58) Ethyl Benzene          | 12.71 | 91  | 40171m  | 0.108   | ppbv   |        |
| 59) m/p-Xylene             | 12.98 | 91  | 126067m | 0.380   | ppbv   |        |
| 60) o-Xylene               | 13.69 | 91  | 47165m  | 0.147   | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.77 | 105 | 51741m  | 0.146   | ppbv   |        |

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

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MSVOA\_L  
ClientSampleId :  
IA2

Manual Integrations  
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Quant Time: Apr 29 15:54:52 2021

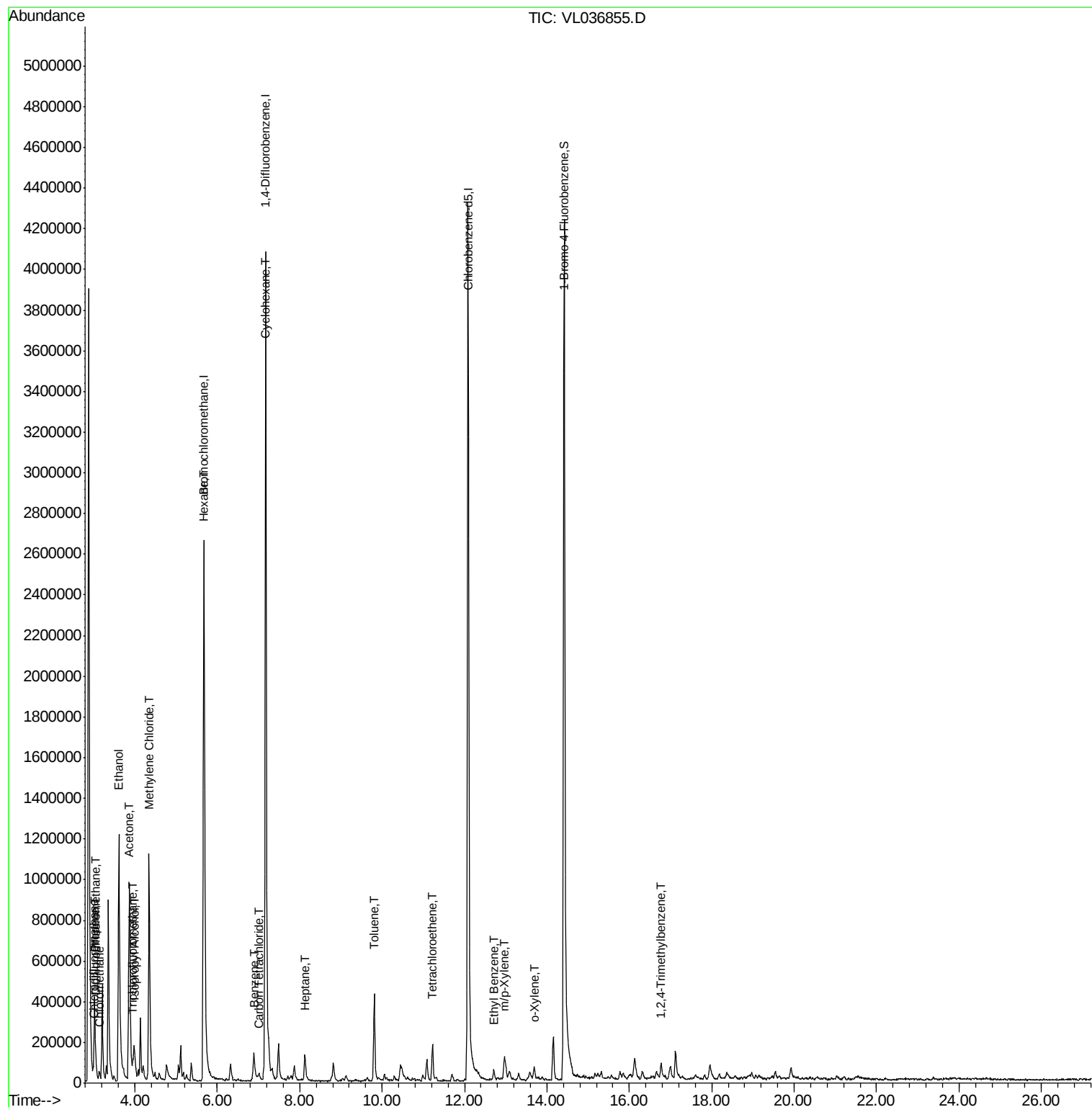
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL042721

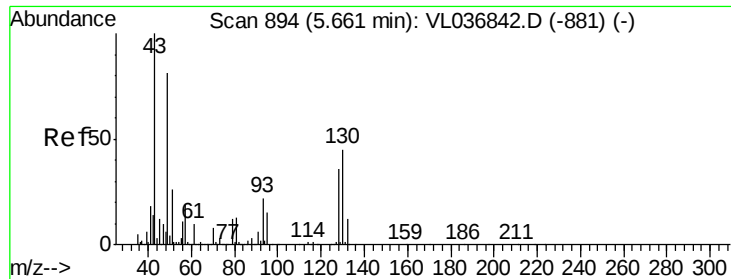
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:

QLast Update : Tue Apr 27 16:56:35 2021

Response via : Initial Calibration

Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA\_L

Delta R.T. 0.00

Lab File: ClientSampleId: IA2

Acq: 27 Apr 2021 13:15

Tot Ion:

Ion Ratio

49 100

128 46.

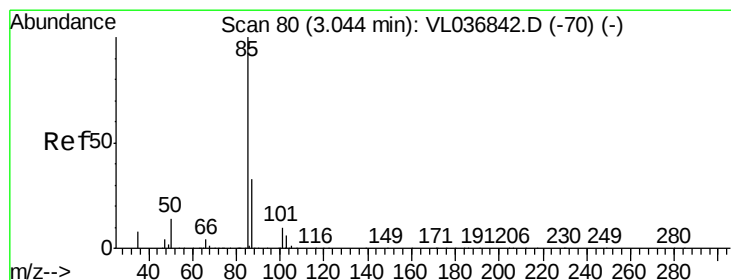
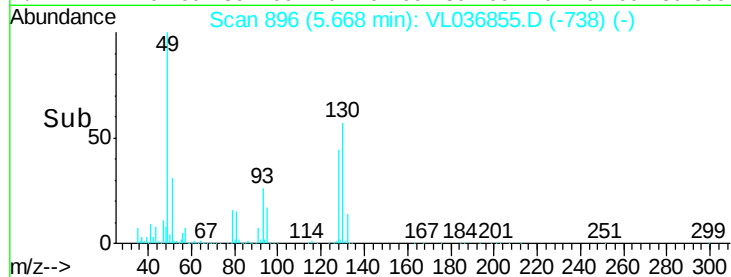
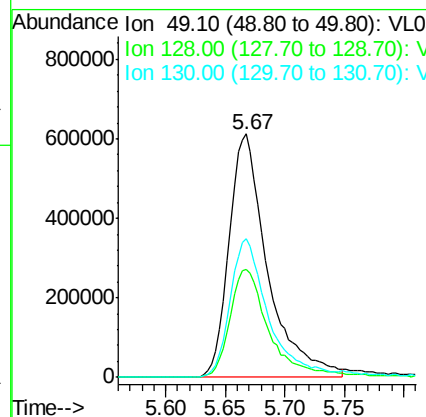
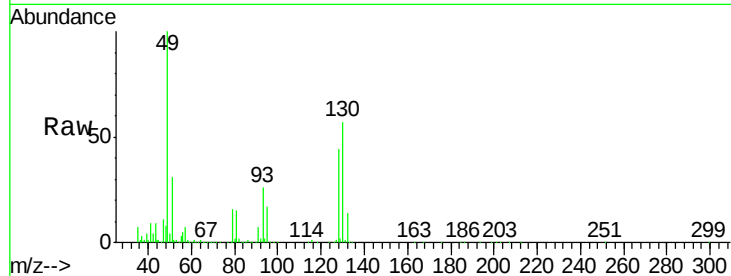
130 58.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/29/2021

Supervised By :Mahesh Dadoda 04/29/2021



#2

Dichlorodifluoromethane

Concen: 0.273 ppbv

RT: 3.05 min Scan# 81

Delta R.T. 0.00 min

Lab File: VL036855.D

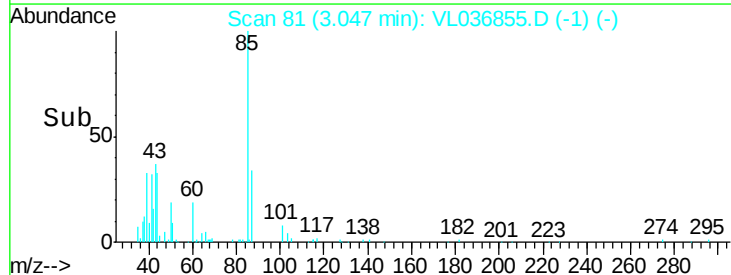
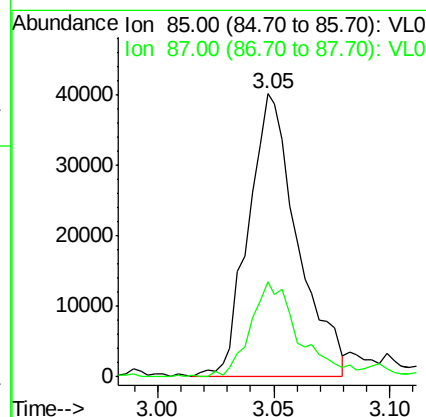
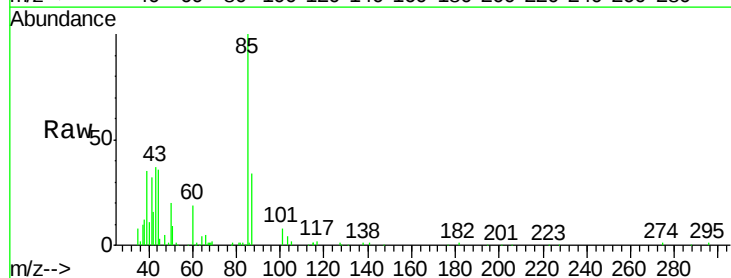
Acq: 27 Apr 2021 13:15

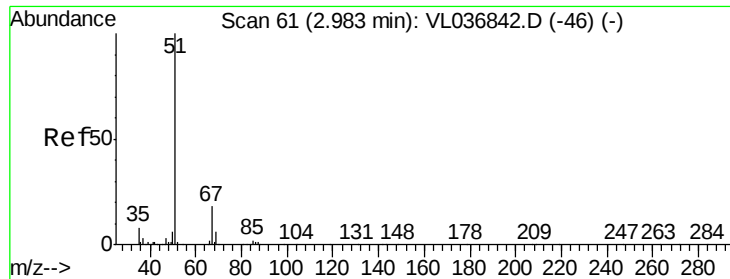
Tgt Ion: 85 Resp: 59207

Ion Ratio Lower Upper

85 100

87 33.0 26.2 39.2





#3

Chlorodifluoromethane

Concen: 0.293 ppbv

RT: 2.99 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 27 Apr 2021 13:15

Tot Ion:

Ion Ratio

51 100

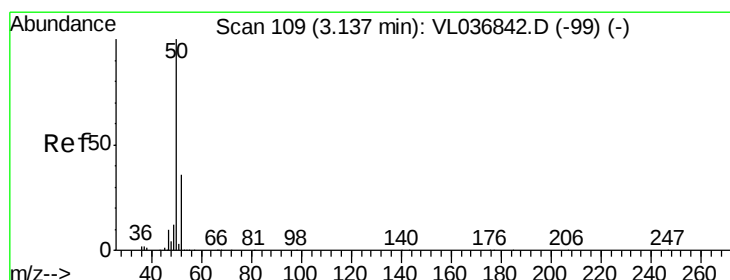
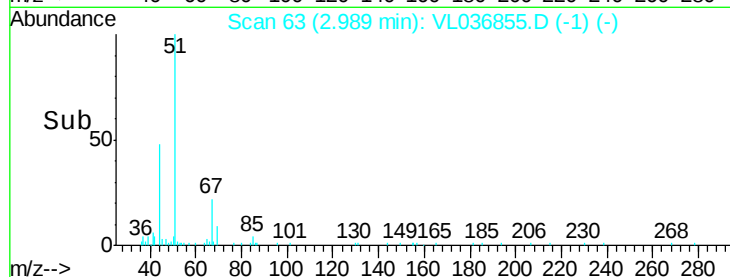
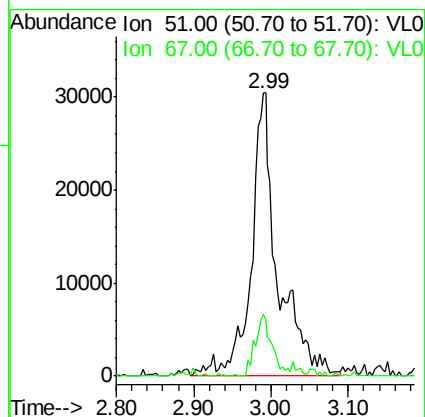
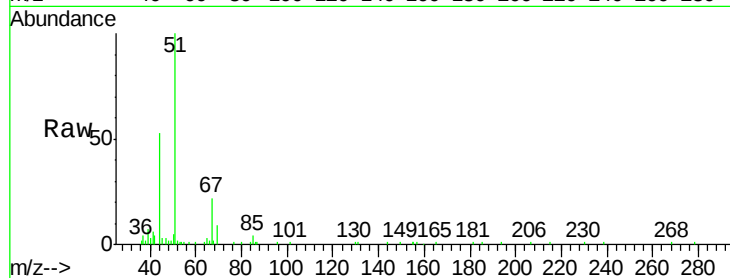
67 16.

Manual Integrations

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#4

Chloromethane

Concen: 0.480 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.01 min

Lab File: VL036855.D

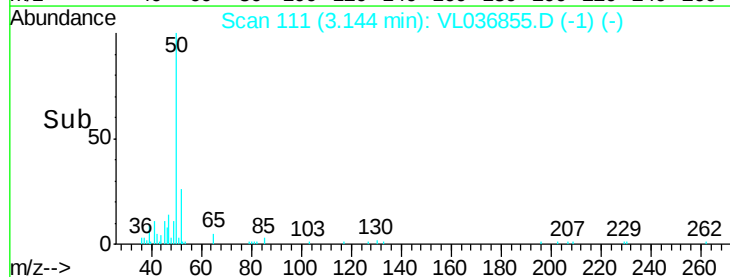
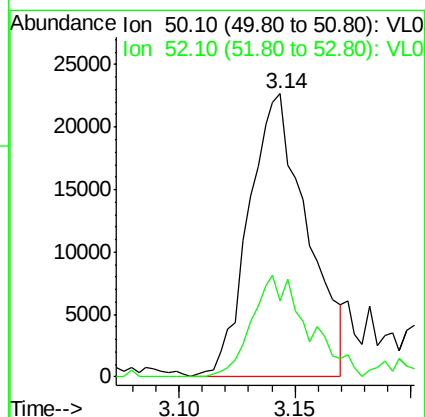
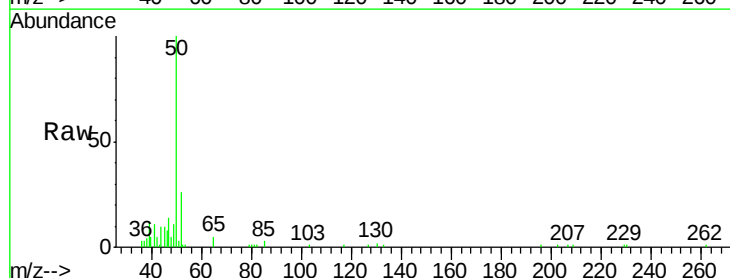
Acq: 27 Apr 2021 13:15

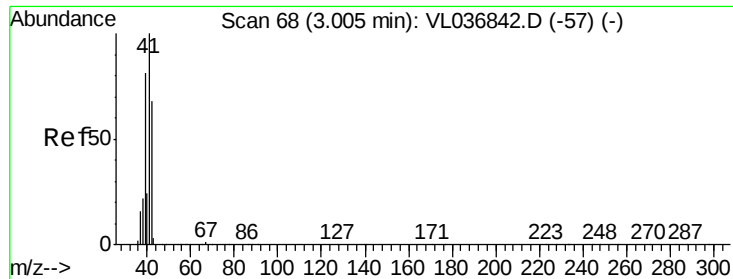
Tgt Ion: 50 Resp: 39587

Ion Ratio Lower Upper

50 100

52 26.6 28.5 42.7#





#9

Propene

Concen: 1.667 ppbv m

RT: 3.02

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 27 Apr 2021 13:15

Tot Ion:

Ion Ratio

41 100

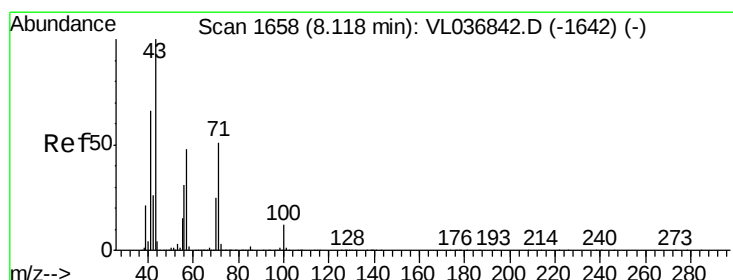
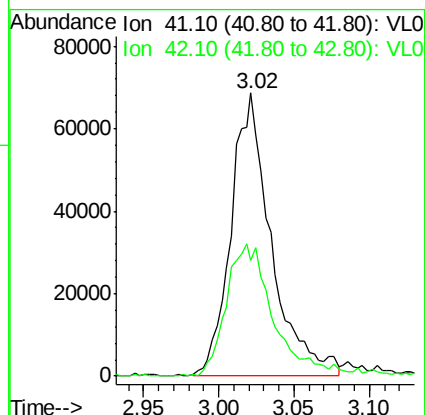
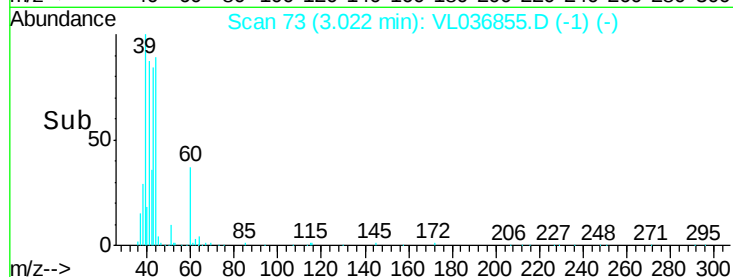
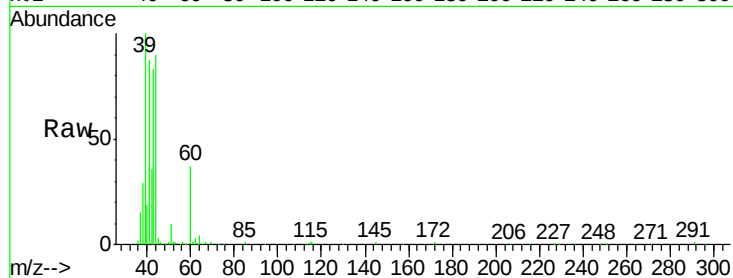
42 85.

Manual Integrations

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Supervised By :Mahesh Dadoda 04/29/2021



#10

Heptane

Concen: 0.220 ppbv m

RT: 8.12 min Scan# 1658

Delta R.T. 0.00 min

Lab File: VL036855.D

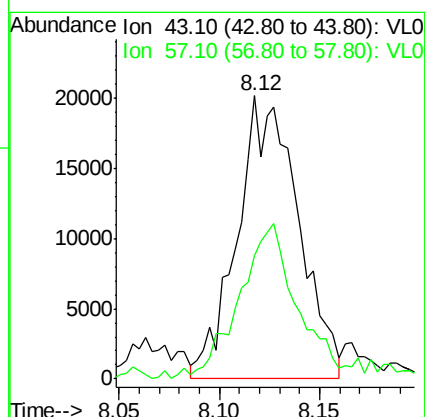
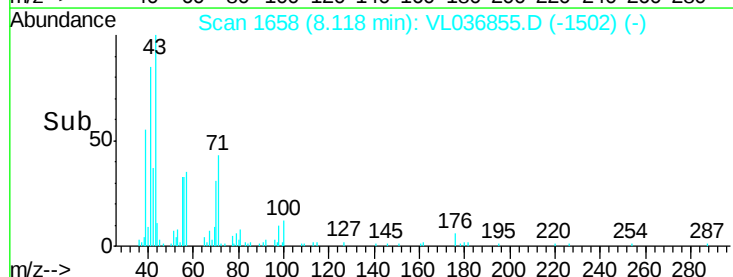
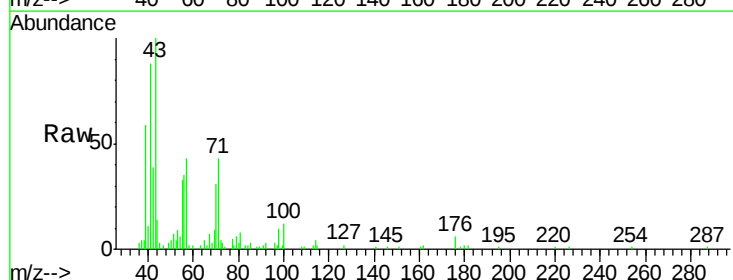
Acq: 27 Apr 2021 13:15

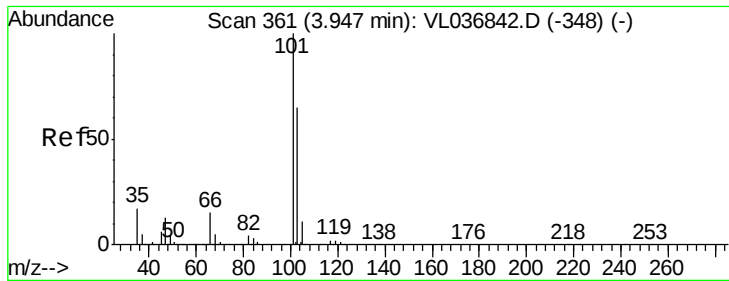
Tgt Ion: 43 Resp: 42281

Ion Ratio Lower Upper

43 100

57 56.7 38.8 58.2



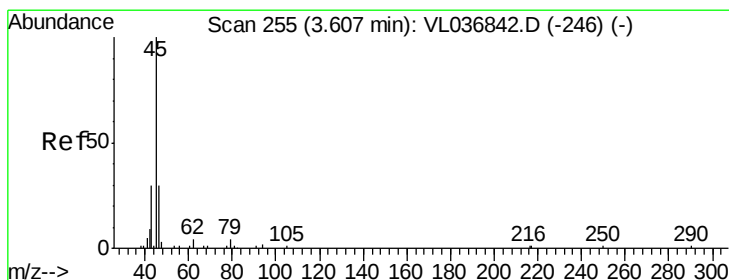
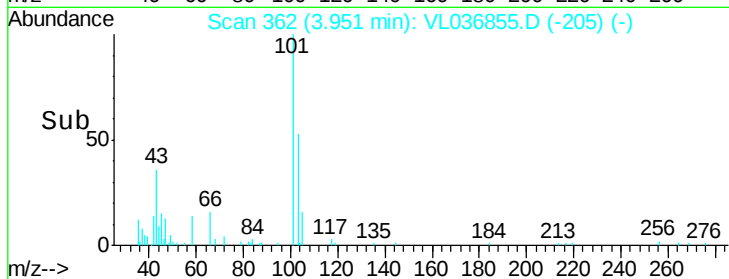
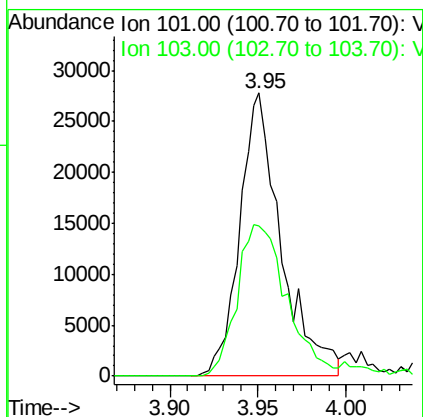
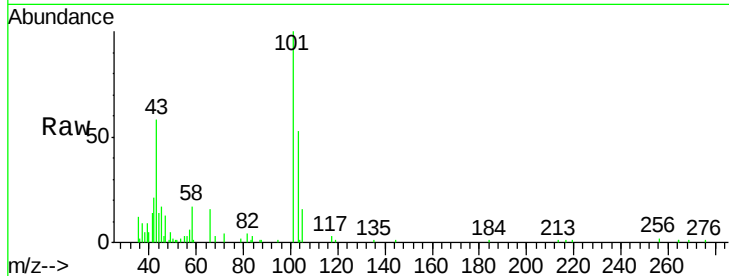


#11  
 Trichlorofluoromethane  
 Concen: 0.235 ppbv m  
 RT: 3.95 Instrument : MSVOA\_1  
 Delta R.T. ClientSampleId :  
 Lab File: IA2  
 Acq: 27 Apr 2021 13:15

Tot Ion:1  
 Ion Rati  
 101 100  
 103 53.

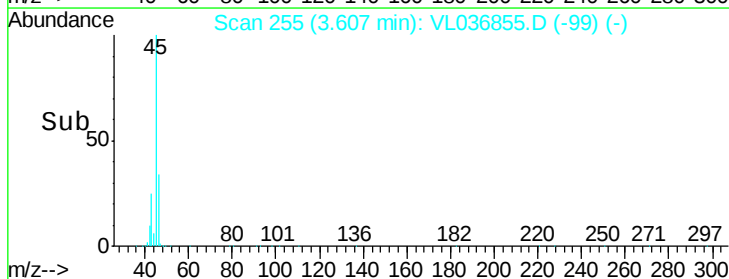
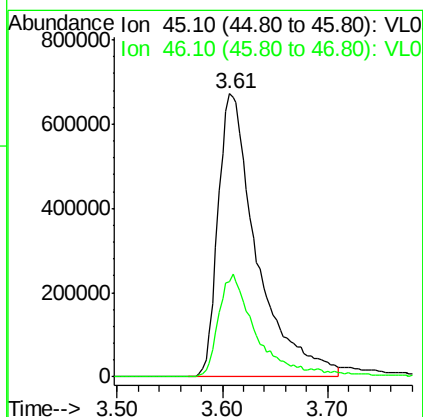
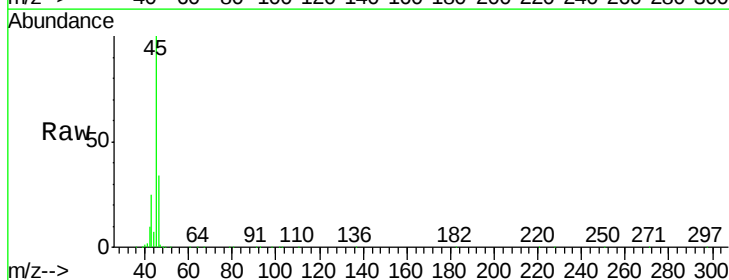
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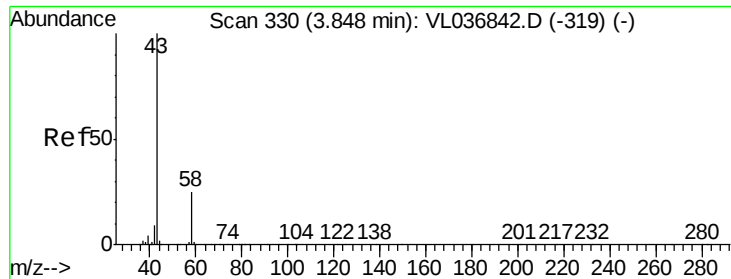
Reviewed By :Semsettin Yesilyurt 04/29/2021  
 Supervised By :Mahesh Dadoda 04/29/2021



#13  
 Ethanol  
 Concen: 176.327 ppbv  
 RT: 3.61 min Scan# 255  
 Delta R.T. 0.00 min  
 Lab File: VL036855.D  
 Acq: 27 Apr 2021 13:15

Tgt Ion: 45 Resp: 1717709  
 Ion Ratio Lower Upper  
 45 100  
 46 36.5 16.8 67.4



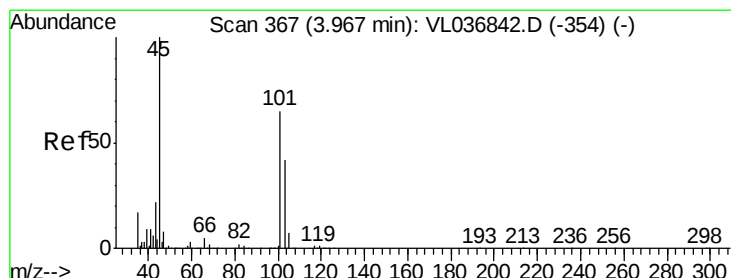
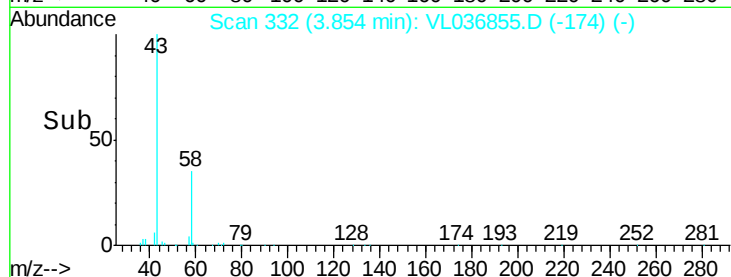
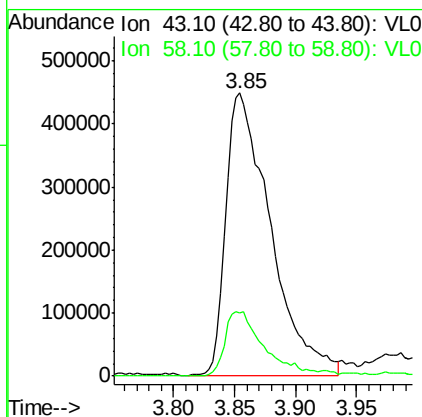
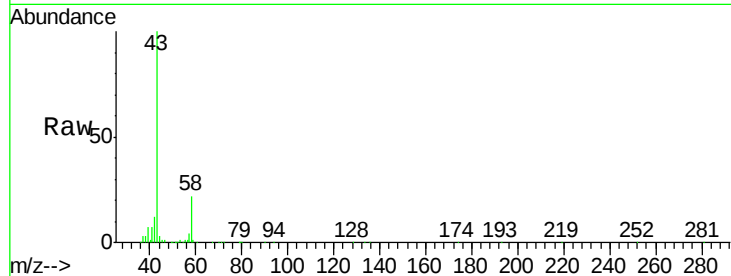


#15  
Acetone  
Concen: 8.767 ppbv  
RT: 3.85  
Delta R.T. MSVOA\_L  
Lab File: ClientSampleId :  
Acq: 27 Apr 2021 13:15

Tot Ion:  
Ion Ratio  
43 100  
58 21.

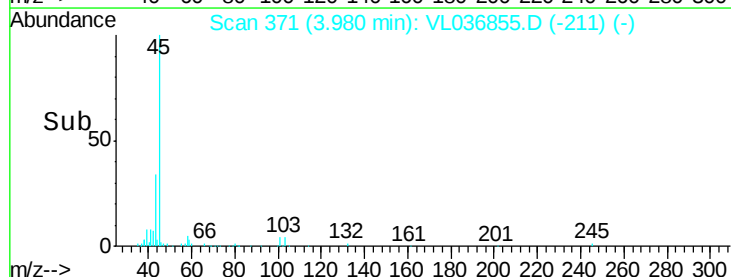
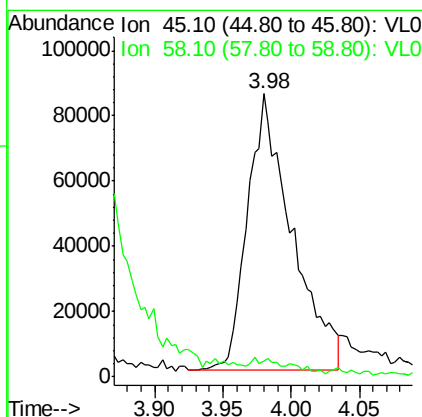
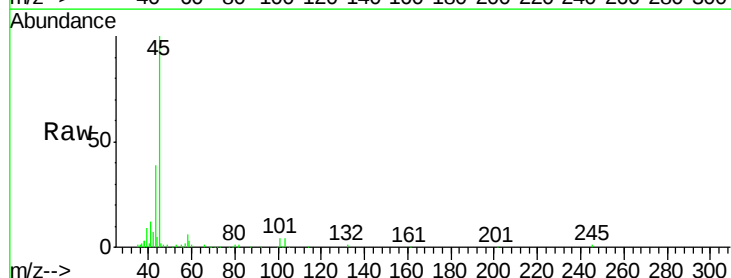
Manual Integrations  
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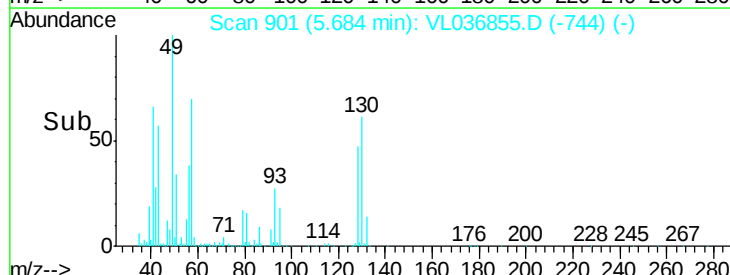
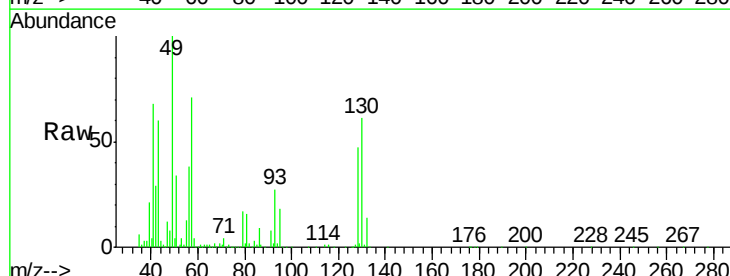
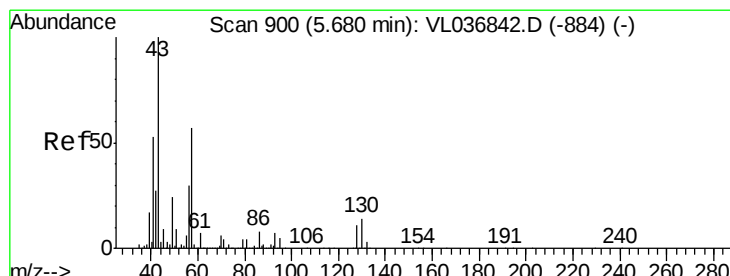
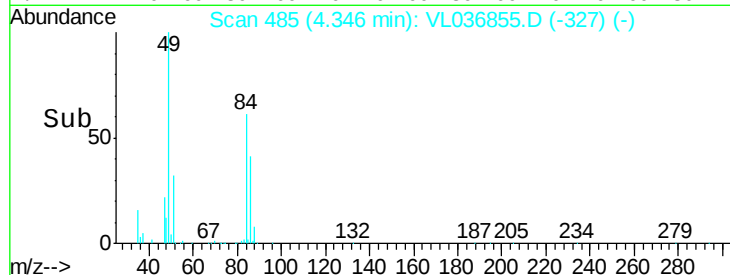
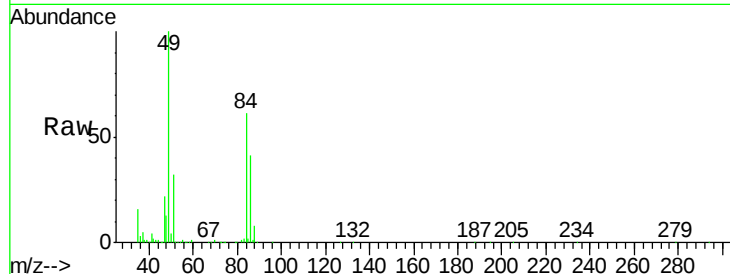
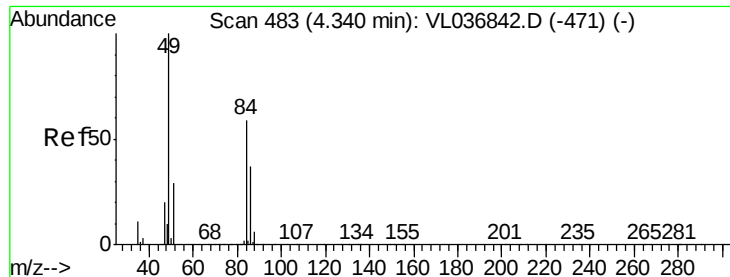
Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#19  
Isopropyl Alcohol  
Concen: 2.979 ppbv  
RT: 3.98 min Scan# 371  
Delta R.T. 0.01 min  
Lab File: VL036855.D  
Acq: 27 Apr 2021 13:15

Tgt Ion: 45 Resp: 191466  
Ion Ratio Lower Upper  
45 100  
58 8.1 2.8 4.2#



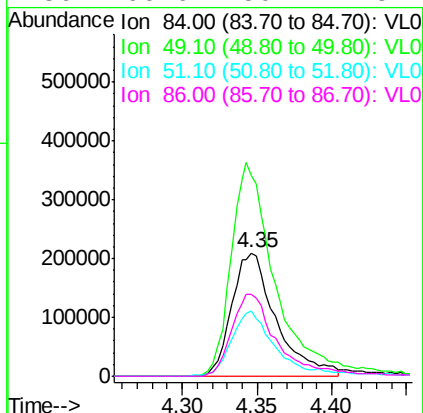


#20  
Methvlene Chloride  
Concen: 6.963 ppbv  
RT: 4.35  
Instrument : MSVOA\_L  
Delta R.T. :  
Lab File: ClientSampleId :  
Acq: 27 Apr 2021 13:15

Tot Ion:  
Ion Ratio  
84 100  
49 162.  
51 52.  
86 66.6 50.2 75.2

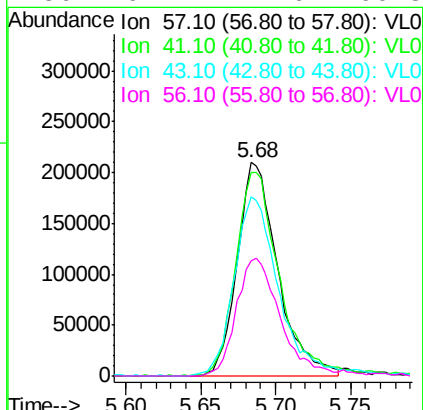
Manual Integrations  
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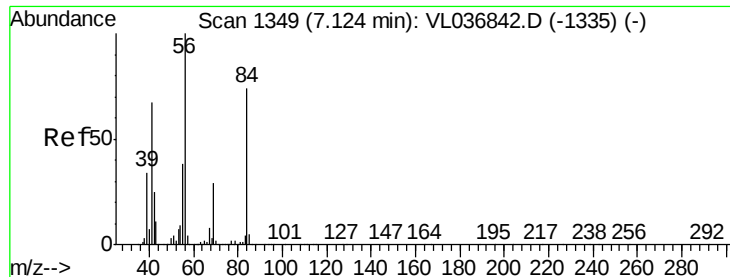
Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#26  
Hexane  
Concen: 2.670 ppbv  
RT: 5.68 min Scan# 901  
Delta R.T. 0.00 min  
Lab File: VL036855.D  
Acq: 27 Apr 2021 13:15

Tgt Ion: 57 Resp: 395733  
Ion Ratio Lower Upper  
57 100  
41 104.5 77.7 116.5  
43 94.4 180.5 270.7#  
56 61.4 44.6 66.8



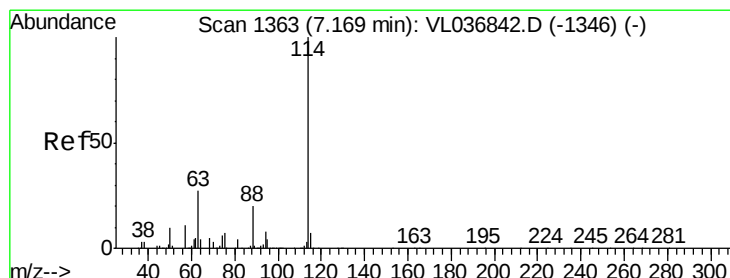
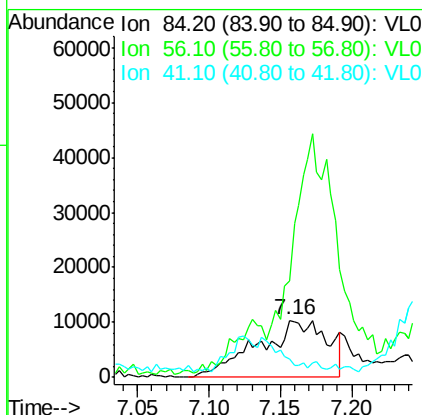
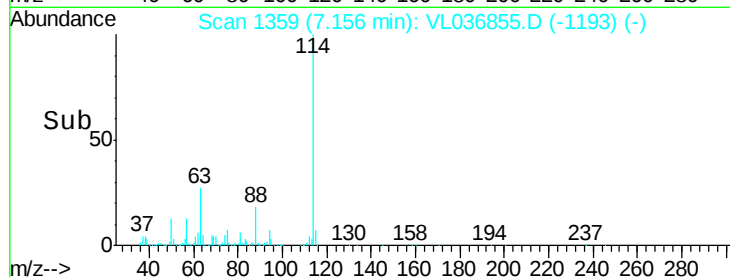
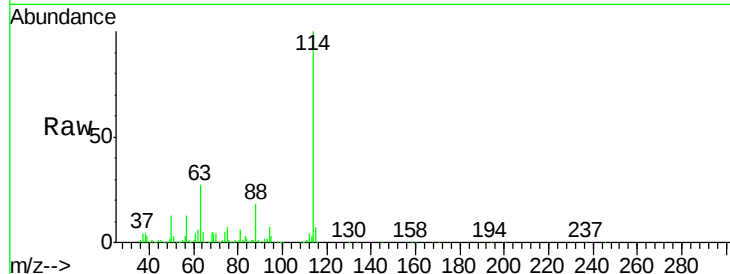


#30  
Cvclohexane  
Concen: 0.300 ppbv m  
RT: 7.16  
Instrument : MSVOA\_1  
Delta R.T.  
Lab File: ClientSampleId :  
Acq: 27 Apr 2021 13:15

Tot Ion:  
Ion Ratio  
84 100  
56 0.  
41 0.

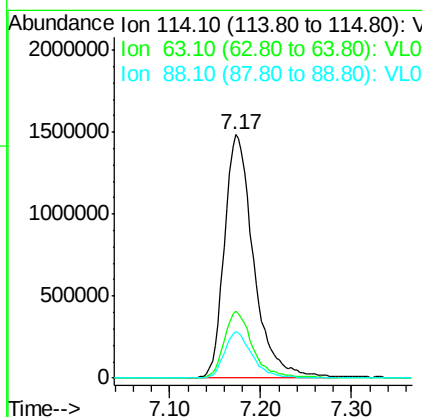
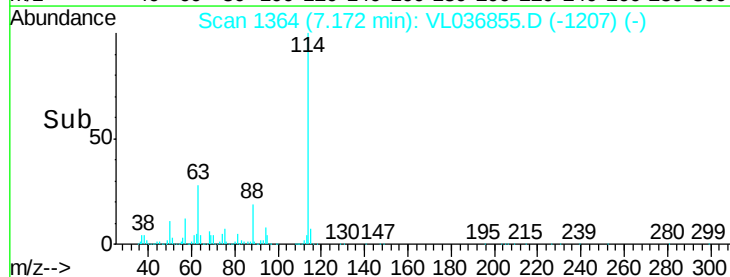
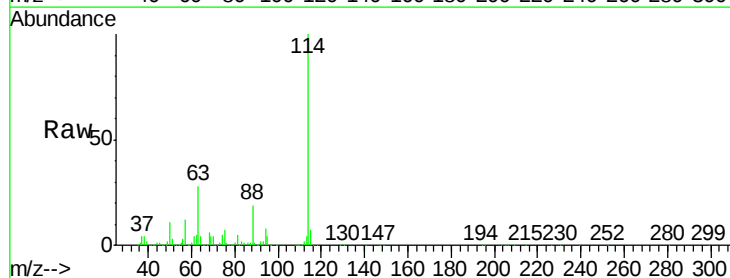
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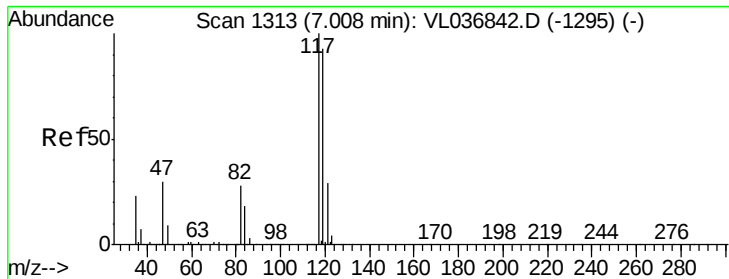
Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.17 min Scan# 1364  
Delta R.T. 0.00 min  
Lab File: VL036855.D  
Acq: 27 Apr 2021 13:15

Tgt Ion:114 Resp: 3320907  
Ion Ratio Lower Upper  
114 100  
63 27.0 21.9 32.9  
88 18.4 15.1 22.7



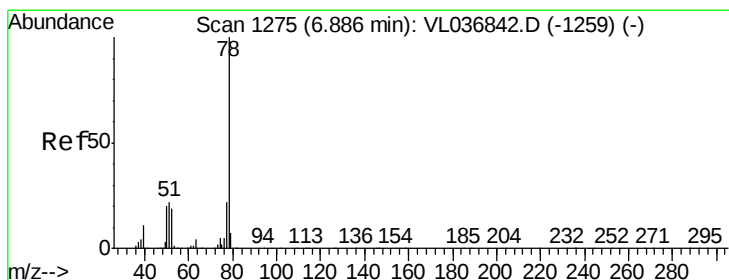
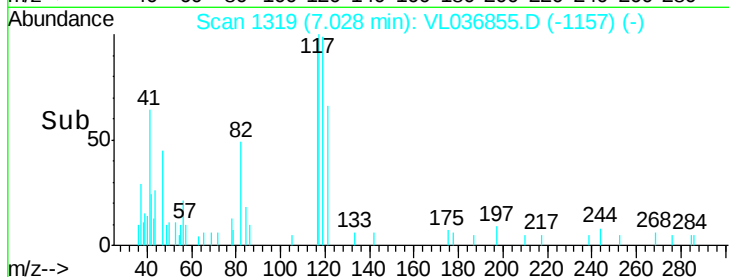
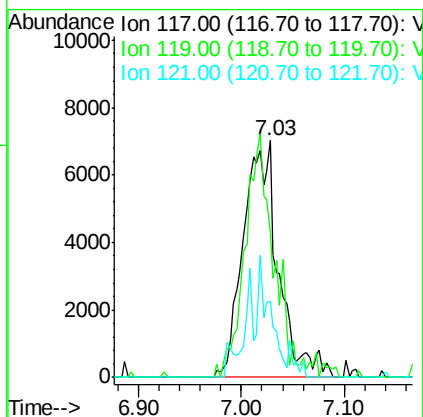
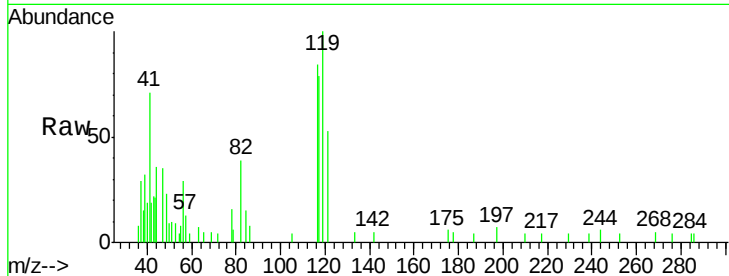


#35  
Carbon Tetrachloride  
Concen: 0.074 ppbv m  
RT: 7.03  
Instrument: MSVOA\_L  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 27 Apr 2021 13:15

Tot Ion:1  
Ion Rati  
117 100  
119 119.  
121 62.

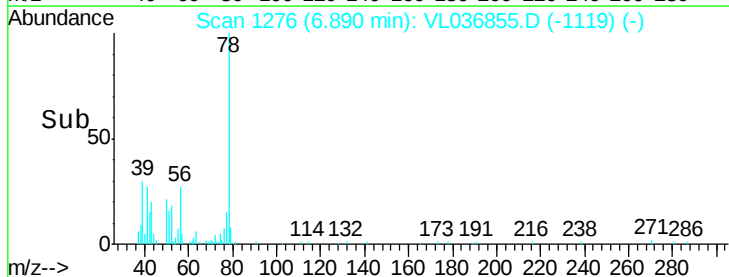
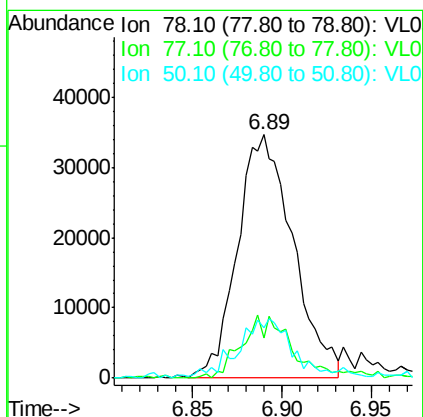
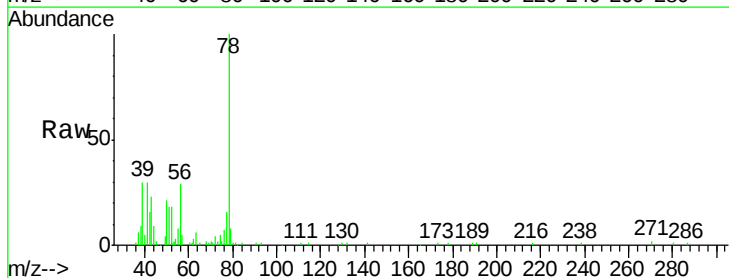
Manual Integrations  
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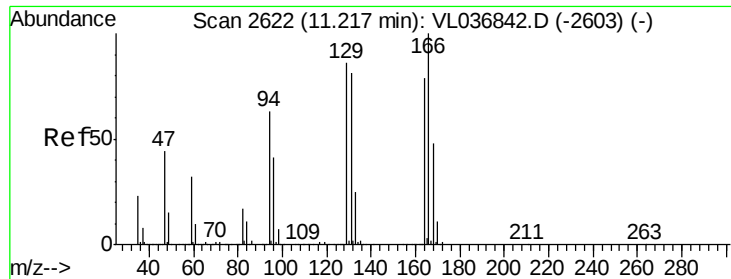
Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#36  
Benzene  
Concen: 0.269 ppbv  
RT: 6.89 min Scan# 1276  
Delta R.T. 0.00 min  
Lab File: VL036855.D  
Acq: 27 Apr 2021 13:15

Tgt Ion: 78 Resp: 75164  
Ion Ratio Lower Upper  
78 100  
77 16.9 17.6 26.4#  
50 20.7 16.3 24.5





#52

Tetrachloroethene

Concen: 0.435 ppbv m

RT: 11.22

Delta R.T. MSVOA\_L

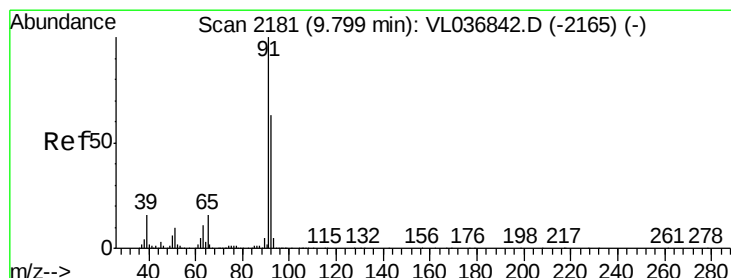
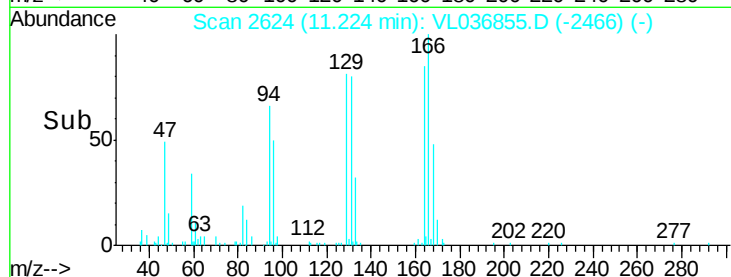
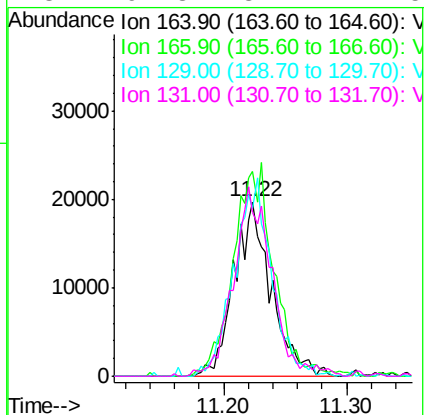
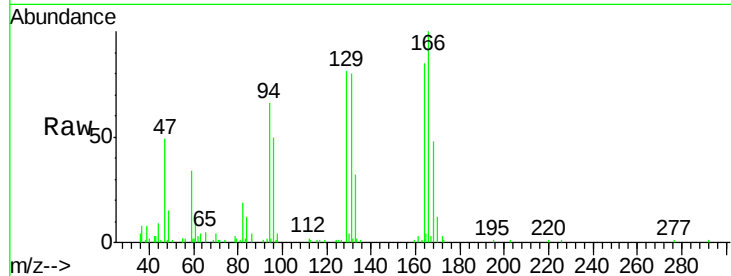
Lab File: ClientSampleId :

Acq: 27 Apr 2021 13:15

Tot Ion:1  
Ion Rati  
164 100  
166 118.  
129 96.  
131 94.3 81.7 122.5

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#53

Toluene

Concen: 1.113 ppbv

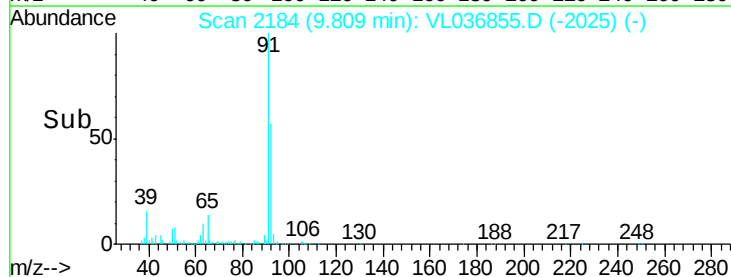
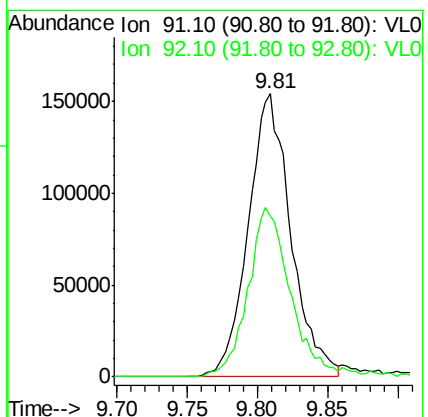
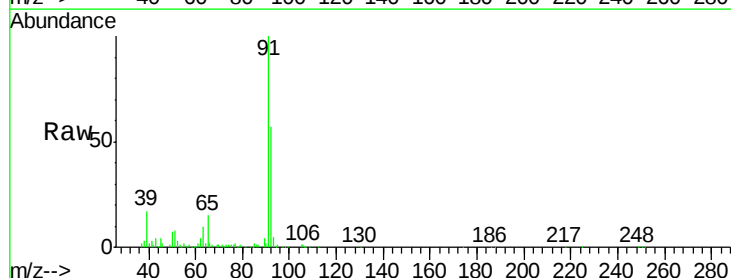
RT: 9.81 min Scan# 2184

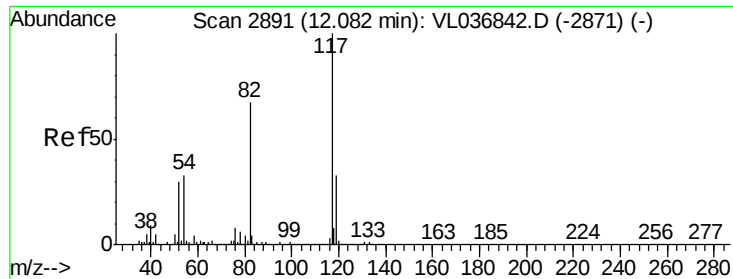
Delta R.T. 0.01 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

Tgt Ion: 91 Resp: 325766  
Ion Ratio Lower Upper  
91 100  
92 61.0 49.0 73.4



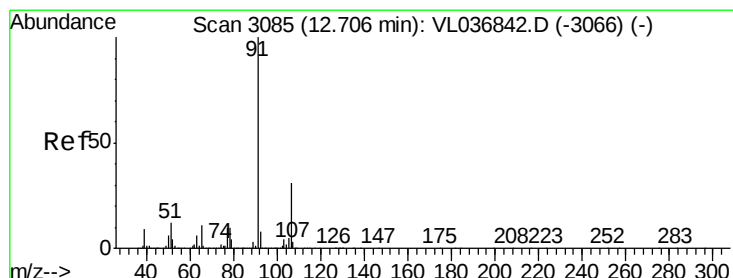
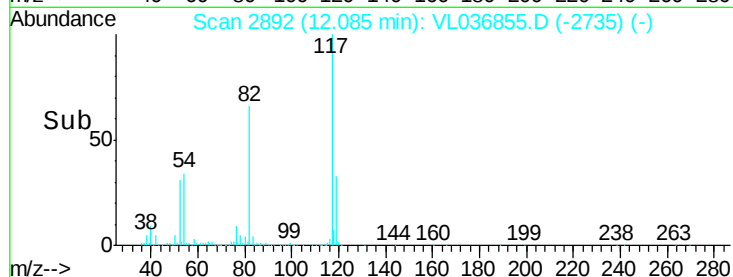
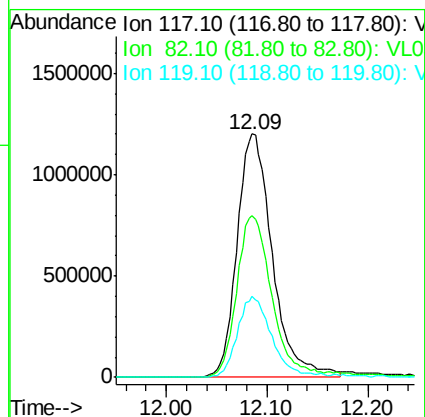
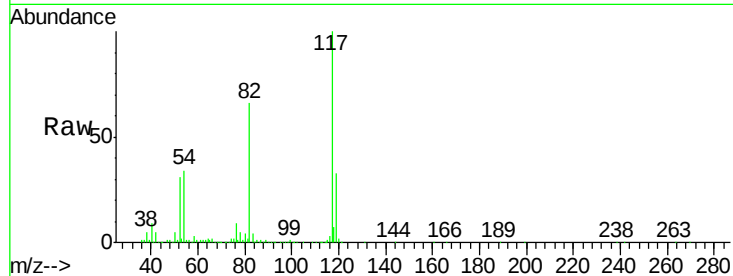


#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.09 min  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 27 Apr 2021 13:15

Tot Ion:1  
Ion Rati  
117 100  
82 69.  
119 33.

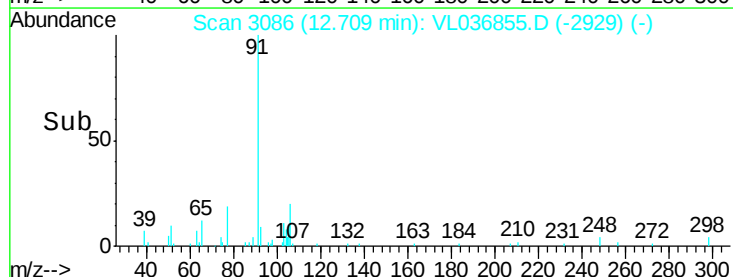
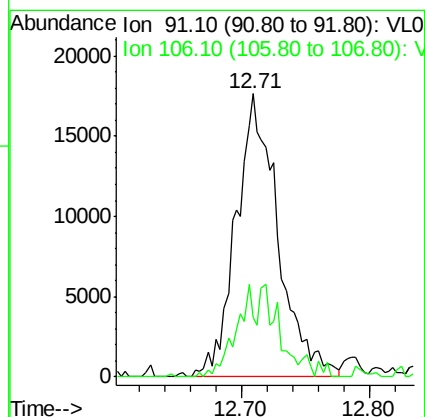
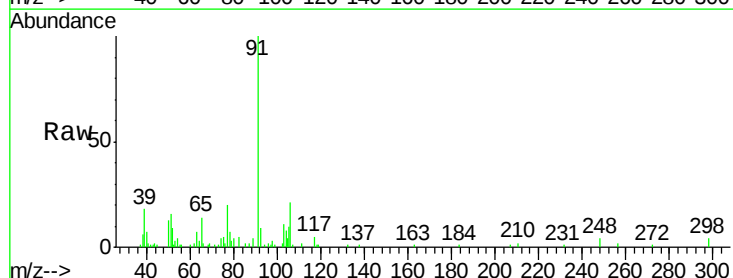
Manual Integrations  
APPROVED

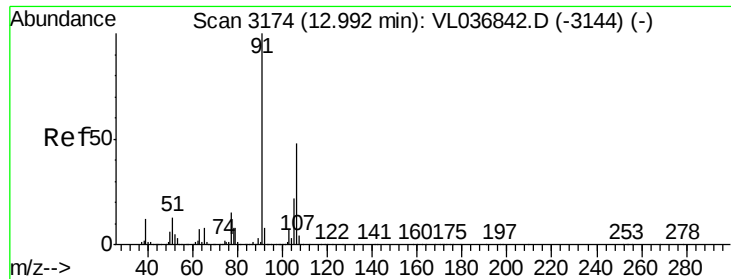
Reviewed By :Semsettin Yesilyurt 04/29/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#58  
Ethyl Benzene  
Concen: 0.108 ppbv m  
RT: 12.71 min Scan# 3086  
Delta R.T. 0.00 min  
Lab File: VL036855.D  
Acq: 27 Apr 2021 13:15

Tgt Ion: 91 Resp: 40171  
Ion Ratio Lower Upper  
91 100  
106 20.8 25.1 37.7#





#59

m/p-Xylene

Concen: 0.380 ppbv m

RT: 12.98

Delta R.T. MSVOA\_L

Lab File: ClientSampled :

Acq: 27 Apr 2021 13:15

Tot Ion:

Ion Ratio

91 100

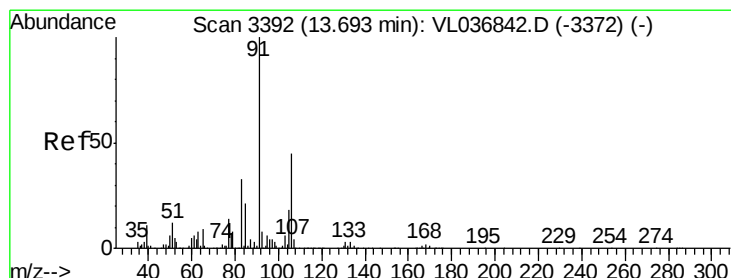
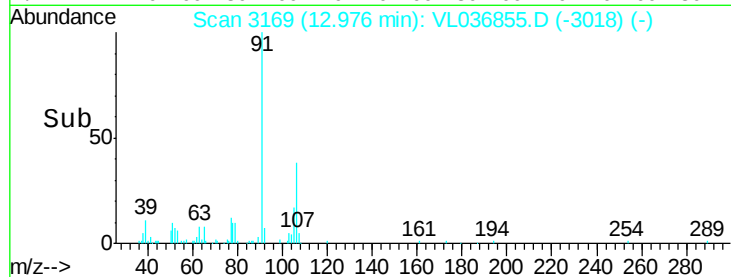
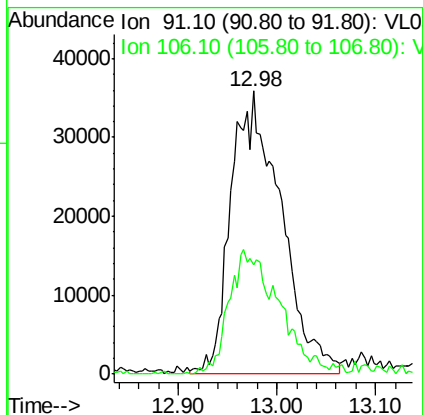
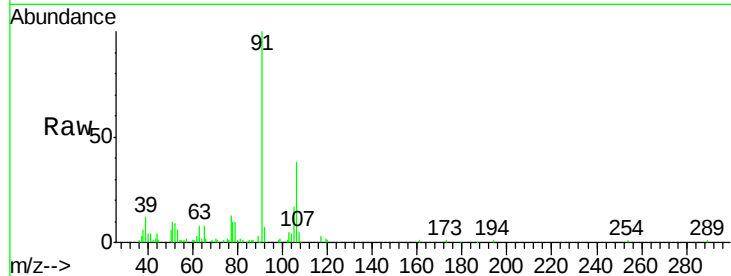
106 0.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2021

Supervised By :Mahesh Dadoda 04/29/2021



#60

o-Xylene

Concen: 0.147 ppbv m

RT: 13.69 min Scan# 3391

Delta R.T. -0.00 min

Lab File: VL036855.D

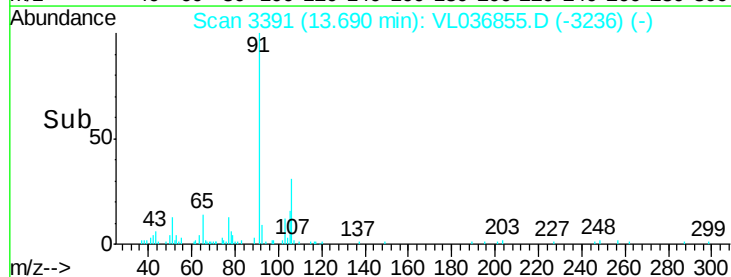
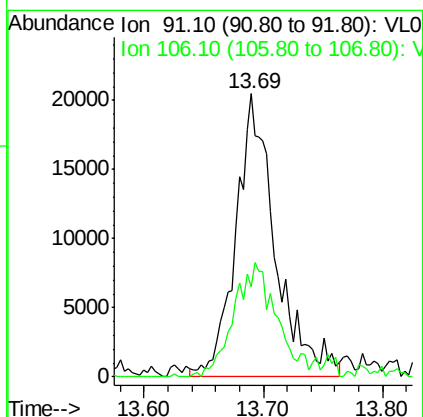
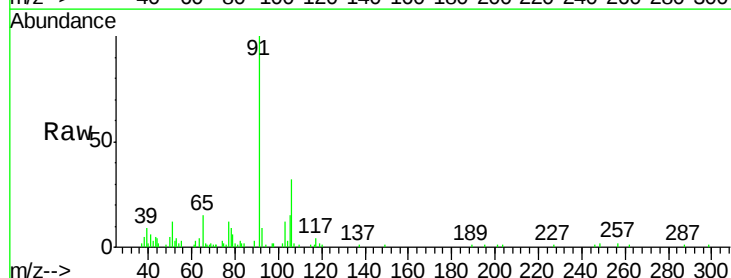
Acq: 27 Apr 2021 13:15

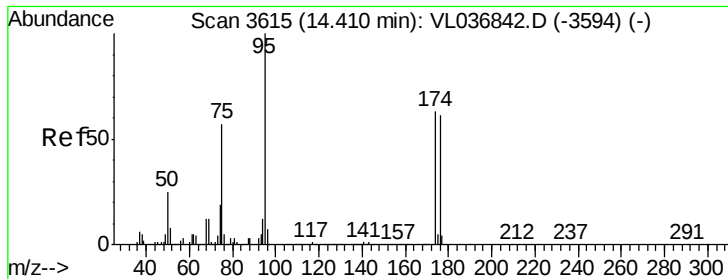
Tgt Ion: 91 Resp: 47165

Ion Ratio Lower Upper

91 100

106 46.7 22.6 67.7





#68

1-Bromo-4-Fluorobenzene

Concen: 9.914 ppbv

RT: 14.42

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 27 Apr 2021 13:15

Tot Ion:

Ion Ratio

95 100

174 66.

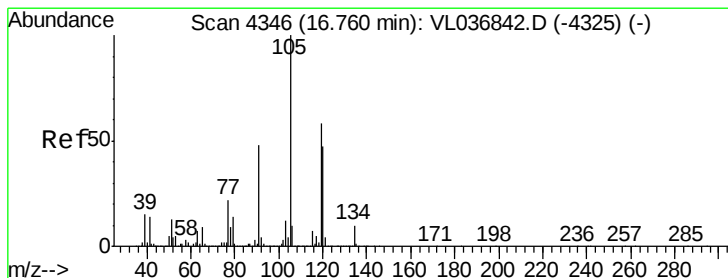
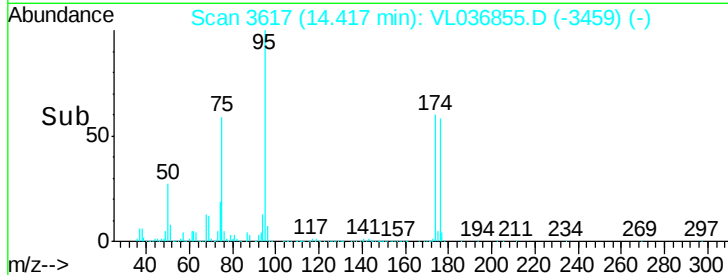
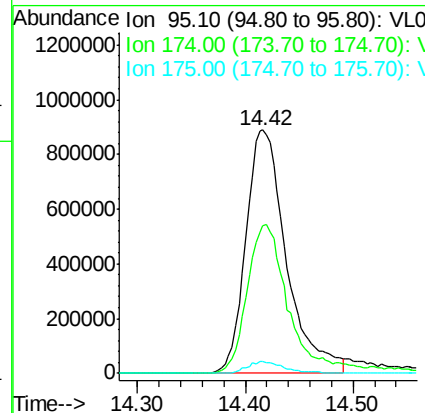
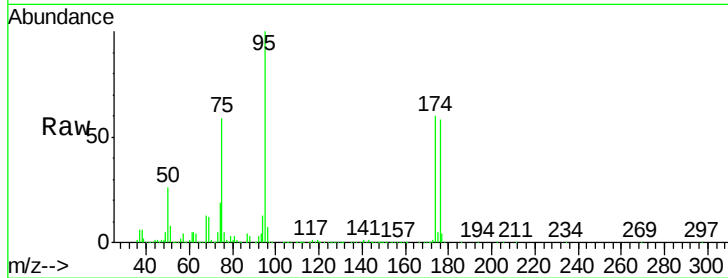
175 4.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/29/2021

Supervised By :Mahesh Dadoda 04/29/2021



#74

1,2,4-Trimethylbenzene

Concen: 0.146 ppbv m

RT: 16.77 min Scan# 4349

Delta R.T. 0.01 min

Lab File: VL036855.D

Acq: 27 Apr 2021 13:15

Tgt Ion:105 Resp: 51741

Ion Ratio Lower Upper

105 100

120 47.1 37.6 56.4

91 16.2 39.0 58.4#

77 16.6 17.4 26.0#

