

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041321\  
 Data File : VL036810.D  
 Acq On : 13 Apr 2021 19:33  
 Operator : SY/AP  
 Sample : M2018-02 2X  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA L  
 ClientSampleId :  
 SG2

Manual Integrations  
 APPROVED

Reviewed By : Semsettin Yesilyurt 04/14/2021  
 Supervised By : Mahesh Dadoda 04/14/2021

Quant Time: Apr 14 09:26:27 2021

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521A

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

QLast Update : Thu Mar 25 09:42:40 2021

Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1321940  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 3372321  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 2736709  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.42  | 95    | 1988164  | 9.12     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 91.20% |

Target Compounds

|                            |       |     |         |        |        | Ovalue |
|----------------------------|-------|-----|---------|--------|--------|--------|
| 2) Dichlorodifluoromethane | 3.04  | 85  | 20945   | 0.097  | ppbv   | 91     |
| 4) Chloromethane           | 3.14  | 50  | 17391   | 0.199  | ppbv # | 86     |
| 9) Propene                 | 3.01  | 41  | 3365354 | 42.741 | ppbv   | 93     |
| 10) Heptane                | 8.13  | 43  | 2981617 | 14.864 | ppbv   | 99     |
| 11) Trichlorofluoromethane | 3.94  | 101 | 31966   | 0.145  | ppbv   | 97     |
| 13) Ethanol                | 3.61  | 45  | 181407m | 19.347 | ppbv   |        |
| 15) Acetone                | 3.84  | 43  | 2960373 | 22.753 | ppbv # | 84     |
| 17) tert-Butyl alcohol     | 4.30  | 59  | 256390  | 2.264  | ppbv # | 94     |
| 19) Isopropyl Alcohol      | 3.97  | 45  | 615690m | 8.602  | ppbv   |        |
| 20) Methylene Chloride     | 4.34  | 84  | 51543   | 0.846  | ppbv # | 92     |
| 26) Hexane                 | 5.68  | 57  | 743828  | 5.182  | ppbv # | 47     |
| 27) Carbon Disulfide       | 4.55  | 76  | 2422191 | 17.129 | ppbv   | 98     |
| 30) Cyclohexane            | 7.13  | 84  | 281039  | 2.414  | ppbv   | 91     |
| 34) 2-Butanone             | 5.25  | 43  | 185974  | 1.130  | ppbv # | 90     |
| 35) Carbon Tetrachloride   | 7.02  | 117 | 14553m  | 0.056  | ppbv   |        |
| 36) Benzene                | 6.89  | 78  | 1174087 | 3.775  | ppbv   | 96     |
| 52) Tetrachloroethene      | 11.23 | 164 | 6327m   | 0.055  | ppbv   |        |
| 53) Toluene                | 9.81  | 91  | 1742497 | 5.261  | ppbv   | 99     |
| 58) Ethyl Benzene          | 12.72 | 91  | 284231  | 0.714  | ppbv   | 90     |
| 59) m/p-Xylene             | 12.97 | 91  | 675914m | 1.946  | ppbv   |        |
| 60) o-Xylene               | 13.70 | 91  | 175781  | 0.523  | ppbv   | 97     |
| 61) Styrene                | 13.53 | 104 | 252777  | 1.496  | ppbv   | 99     |
| 62) Isopropylbenzene       | 14.67 | 105 | 5936953 | 13.129 | ppbv   | 99     |
| 72) 4-Ethyltoluene         | 15.84 | 105 | 69771m  | 0.190  | ppbv   |        |
| 73) 1,3,5-Trimethylbenzene | 16.00 | 105 | 34984m  | 0.102  | ppbv   |        |
| 74) 1,2,4-Trimethylbenzene | 16.77 | 105 | 113168m | 0.308  | ppbv   |        |

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

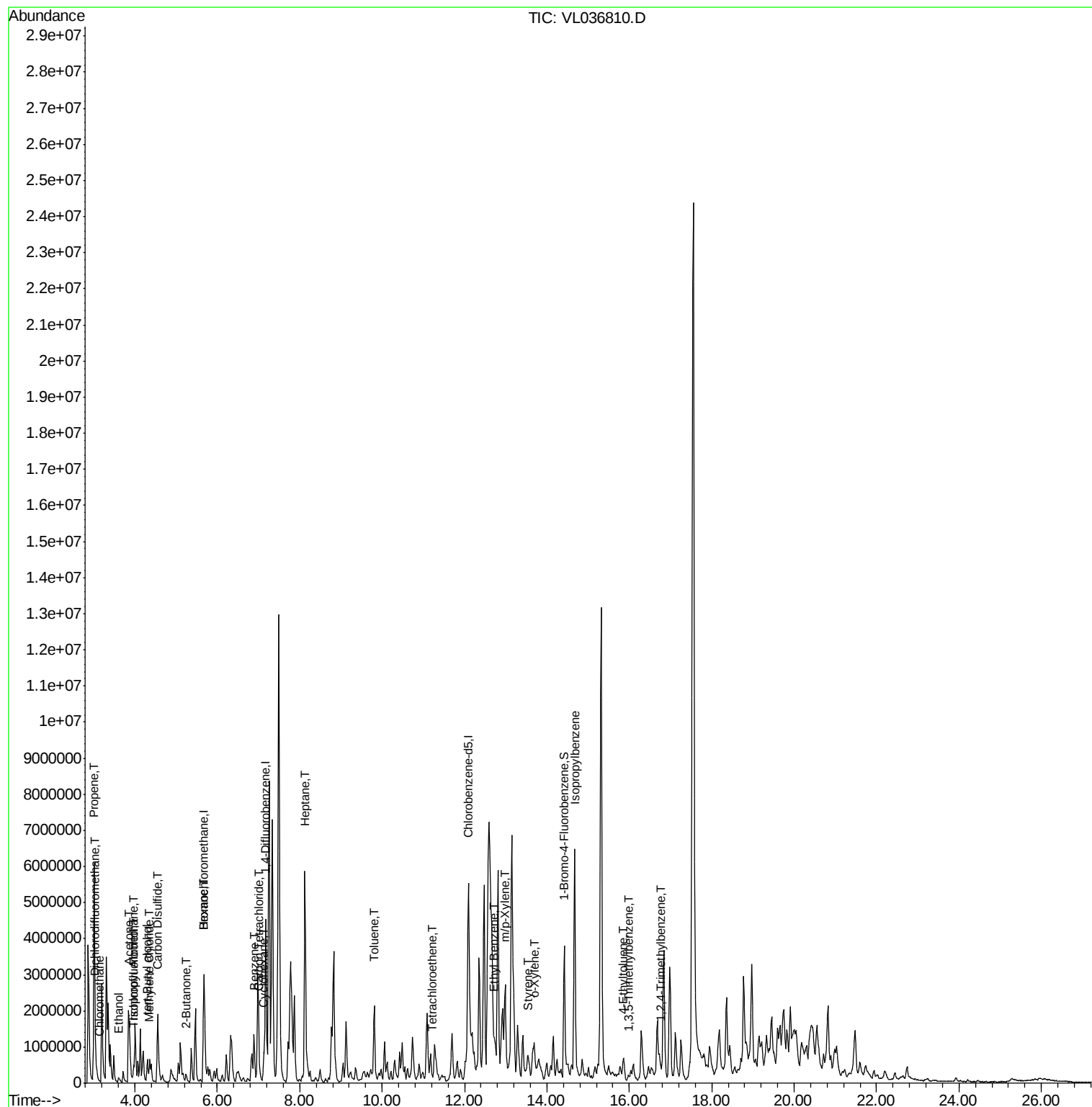
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041321\  
Data File : VL036810.D  
Acq On : 13 Apr 2021 19:33  
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Instrument :  
MSVOA\_L  
ClientSampleId :  
SG2

Quant Time: Apr 14 09:26:27 2021  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument:  
QLast Update : Thu Mar 25 09:42:40 2021  
Response via : Initial Calibration

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument :

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 13 Apr 2021 19:33 SG2

Tot Ion:

Ion Ratio

49 100

128 47.

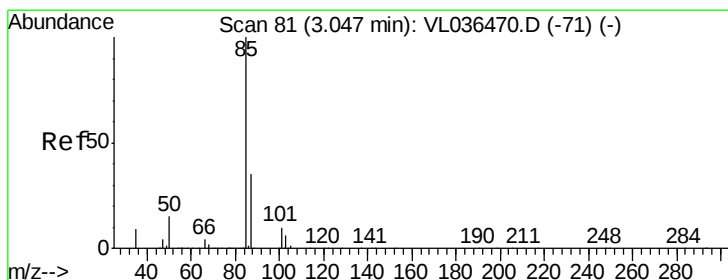
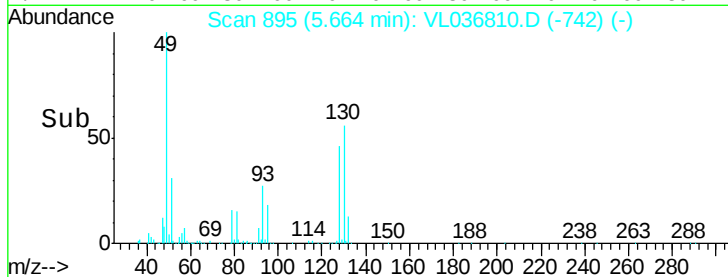
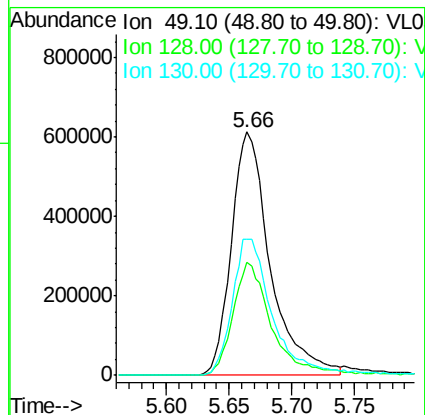
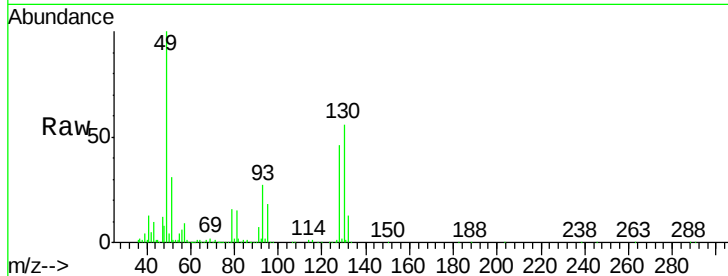
130 59.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#2

Dichlorodifluoromethane

Concen: 0.097 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL036810.D

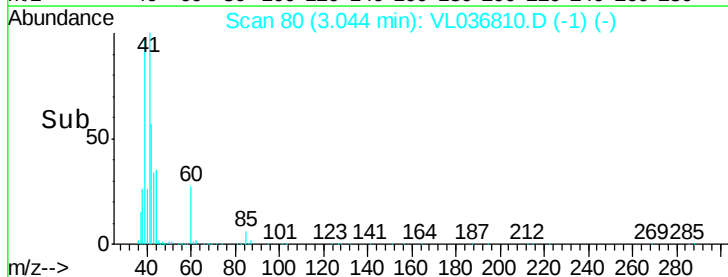
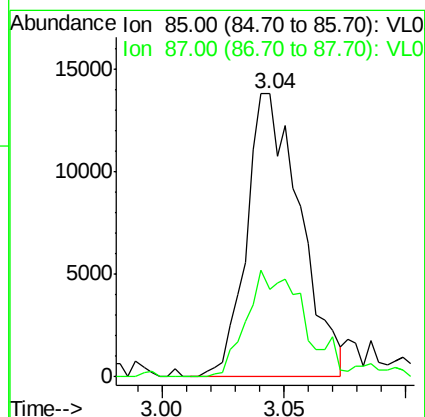
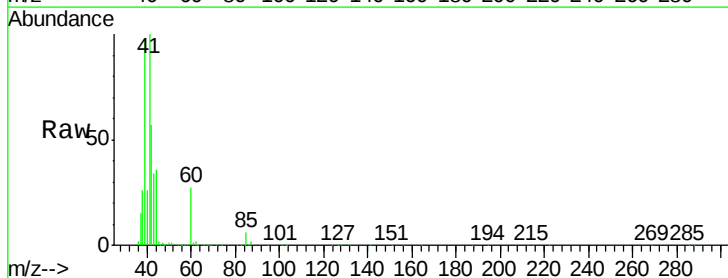
Acq: 13 Apr 2021 19:33

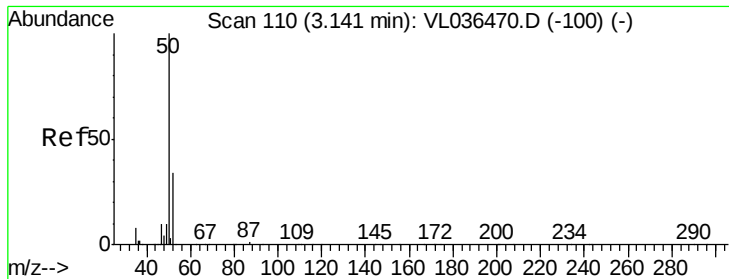
Tgt Ion: 85 Resp: 20945

Ion Ratio Lower Upper

85 100

87 29.4 27.8 41.8





#4

Chloromethane

Concen: 0.199 ppbv

RT: 3.14

Delta R.T. MSVOA\_L

Lab File:

Acq: 13 Apr 2021 19:33

ClientSampleId :

SG2

Tot Ion:

Ion Ratio

50 100

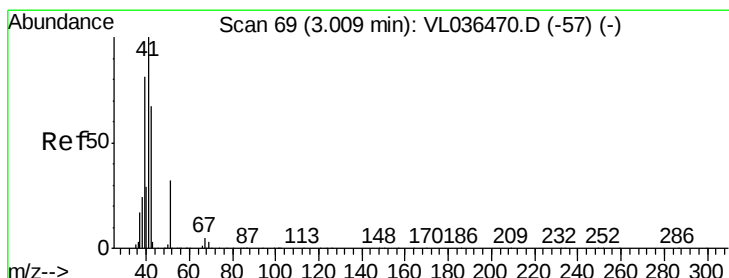
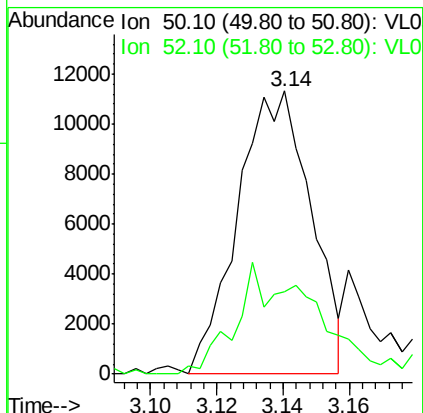
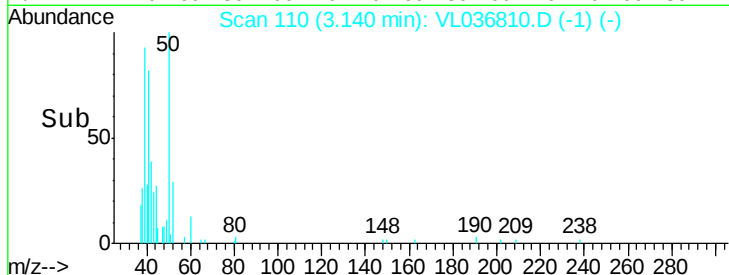
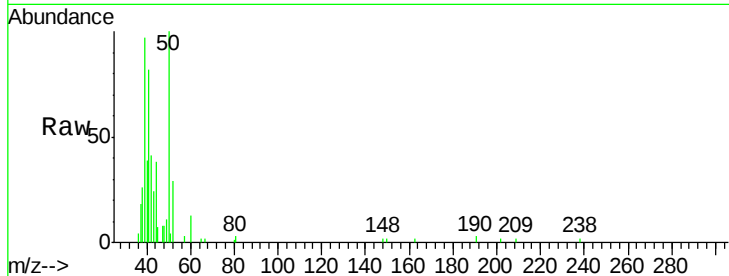
52 26.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#9

Propene

Concen: 42.741 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.00 min

Lab File: VL036810.D

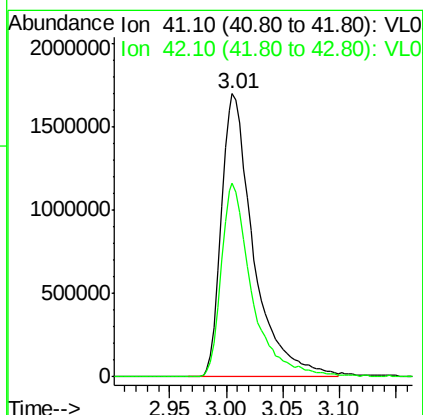
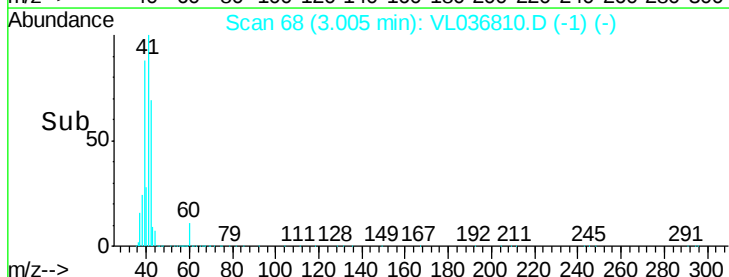
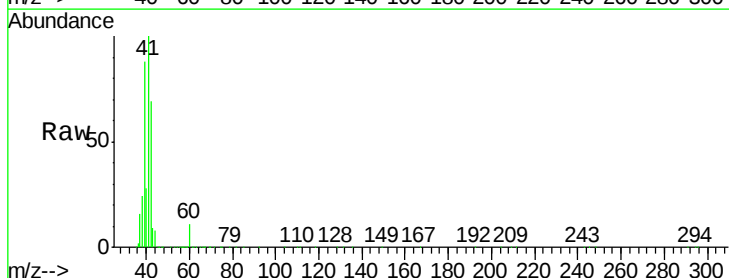
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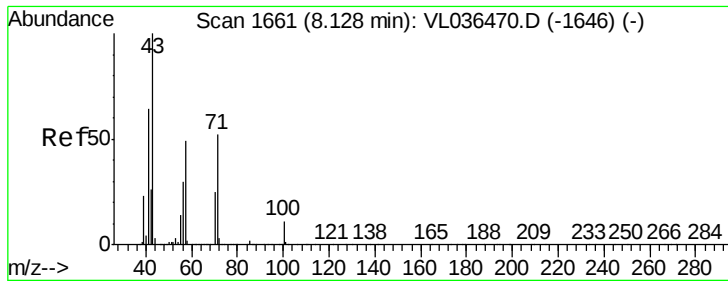
Tgt Ion: 41 Resp: 3365354

Ion Ratio Lower Upper

41 100

42 65.7 57.0 85.4



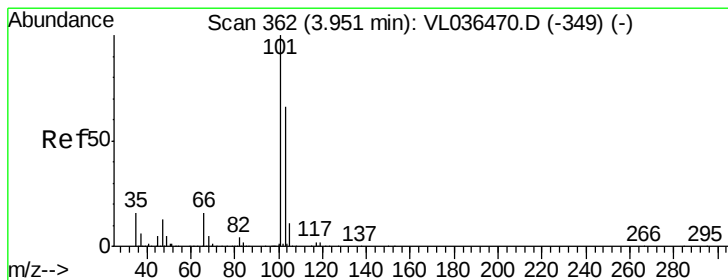
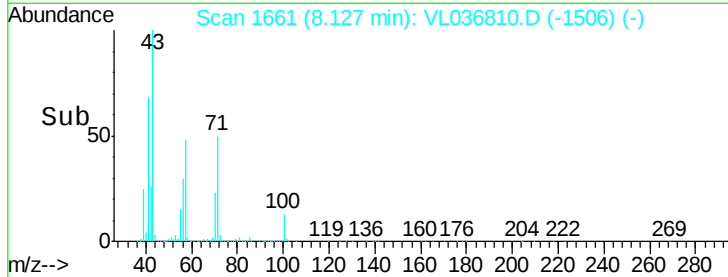
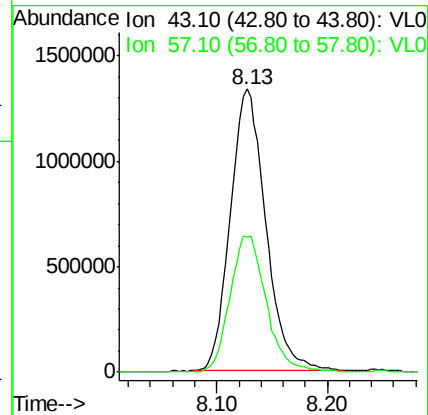
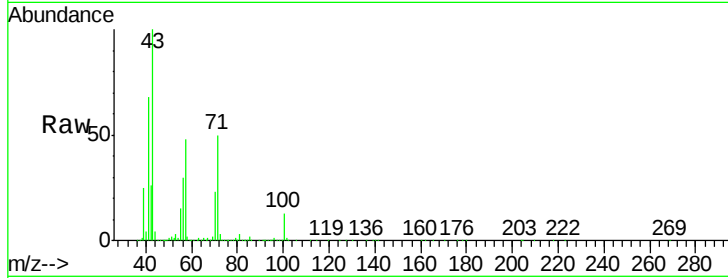


#10  
 Heptane  
 Concen: 14.864 ppbv  
 RT: 8.13  
 Instrument: MSVOA\_1  
 Delta R.T.:  
 Lab File: ClientSampleId:  
 Acq: 13 Apr 2021 19:33

Tot Ion:  
 Ion Ratio  
 43 100  
 57 49.

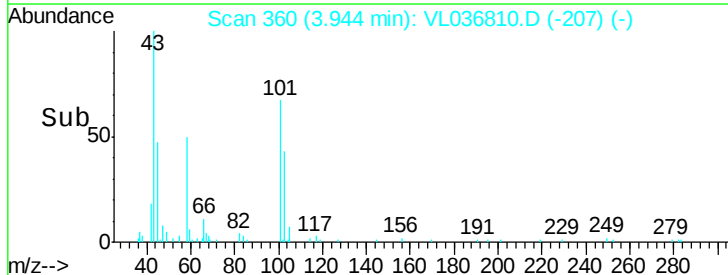
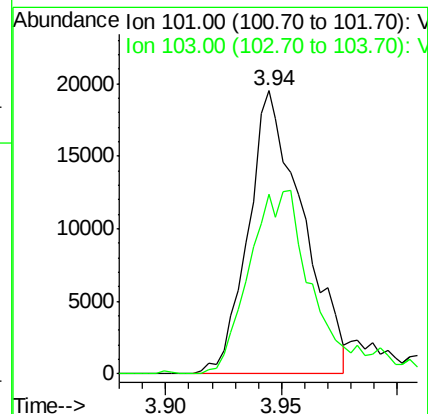
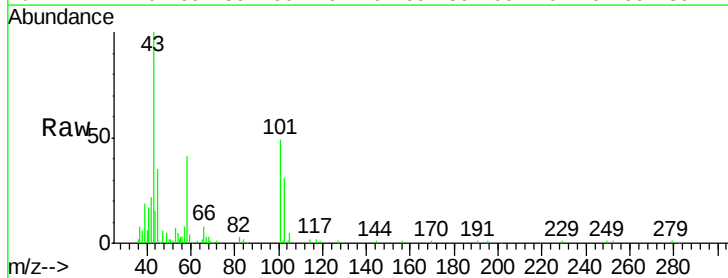
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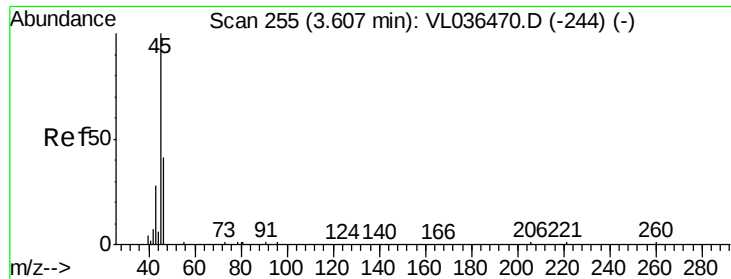
Reviewed By :Semsettin Yesilyurt 04/14/2021  
 Supervised By :Mahesh Dadoda 04/14/2021



#11  
 Trichlorofluoromethane  
 Concen: 0.145 ppbv  
 RT: 3.94 min Scan# 360  
 Delta R.T.: -0.01 min  
 Lab File: VL036810.D  
 Acq: 13 Apr 2021 19:33

Tgt Ion:101 Resp: 31966  
 Ion Ratio Lower Upper  
 101 100  
 103 63.4 52.5 78.7



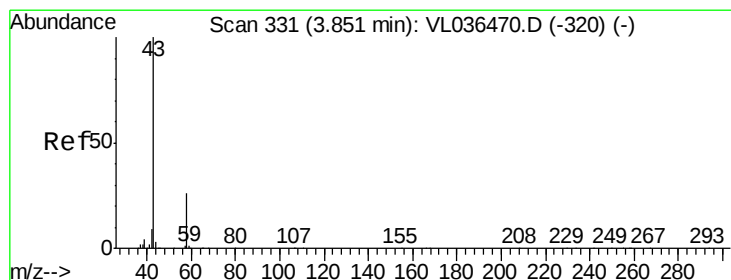
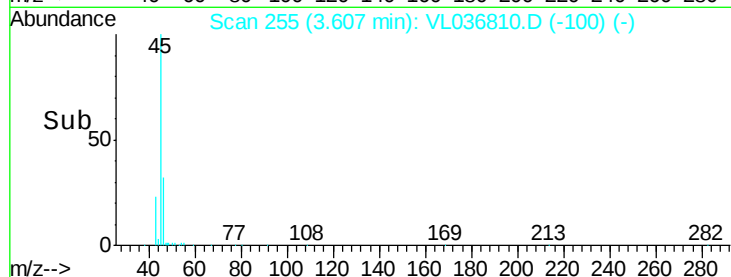
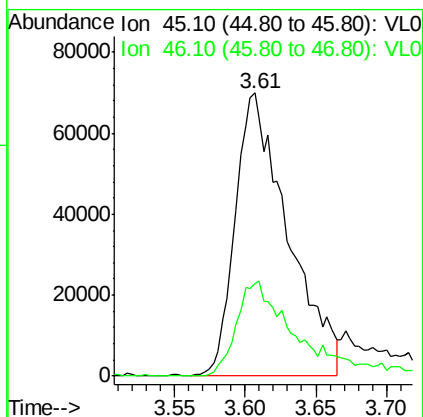
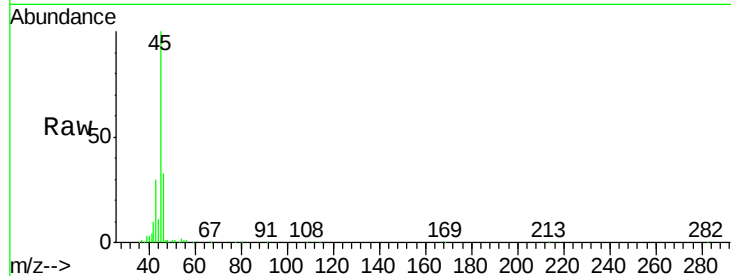


#13  
Ethanol  
Concen: 19.347 ppbv m  
RT: 3.61  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 13 Apr 2021 19:33

Tot Ion:  
Ion Ratio  
45 100  
46 38.

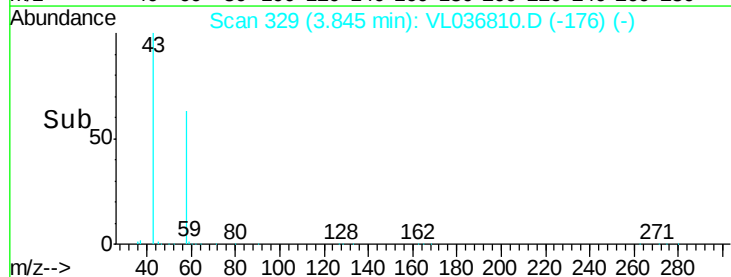
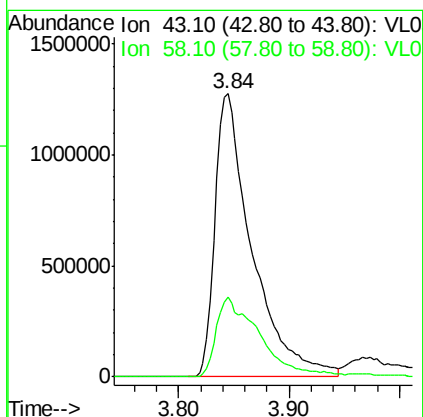
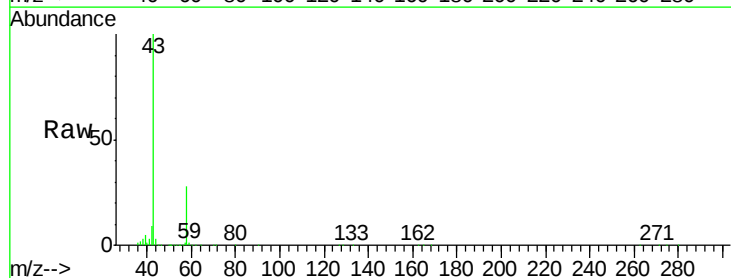
Manual Integrations  
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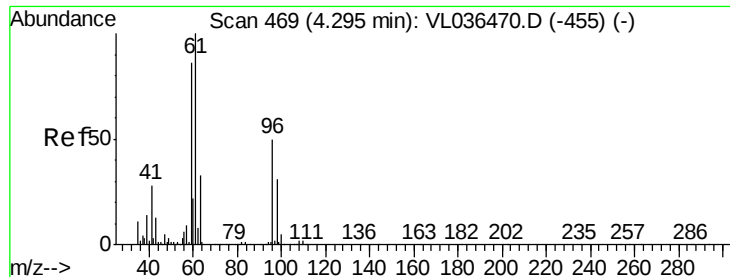
Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021



#15  
Acetone  
Concen: 22.753 ppbv  
RT: 3.84 min Scan# 329  
Delta R.T. -0.01 min  
Lab File: VL036810.D  
Acq: 13 Apr 2021 19:33

Tgt Ion: 43 Resp: 2960373  
Ion Ratio Lower Upper  
43 100  
58 34.6 21.2 31.8#





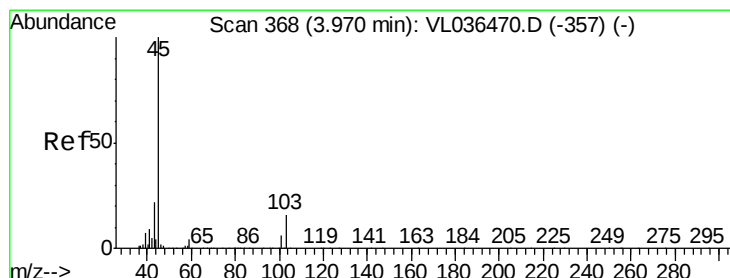
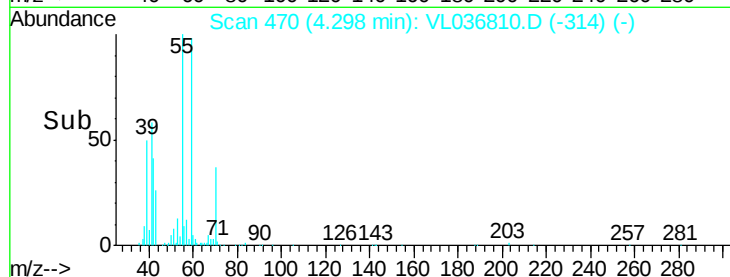
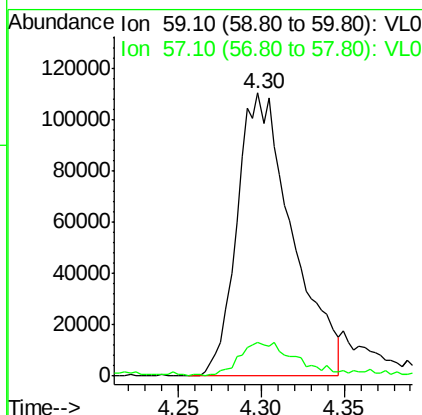
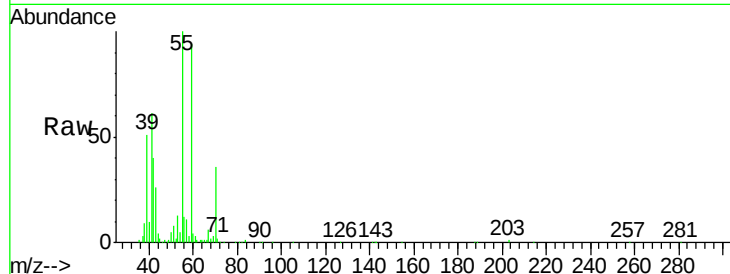
#17

tert-Butyl alcohol  
Concen: 2.264 ppbv  
RT: 4.30  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 13 Apr 2021 19:33

Tot Ion:  
Ion Ratio  
59 100  
57 13.

Manual Integrations  
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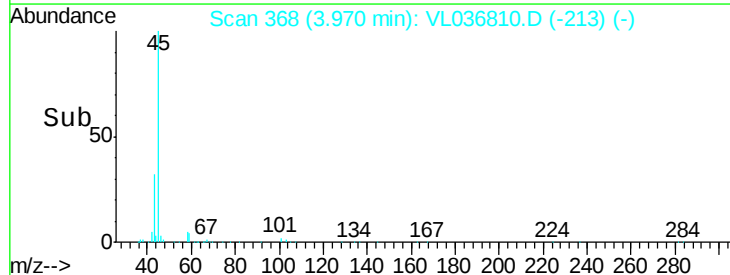
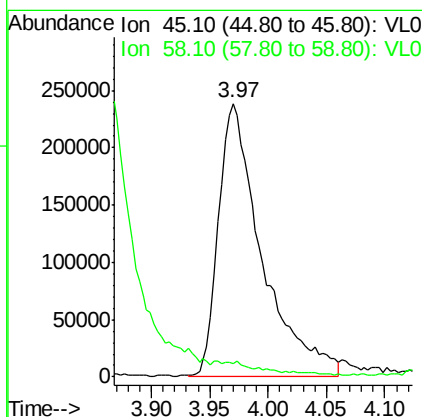
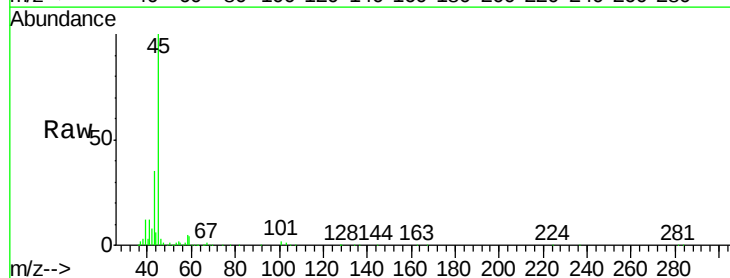
Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021

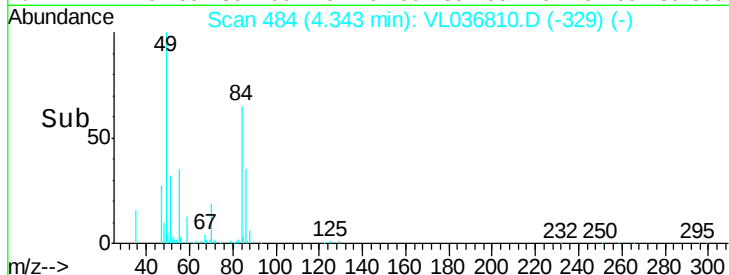
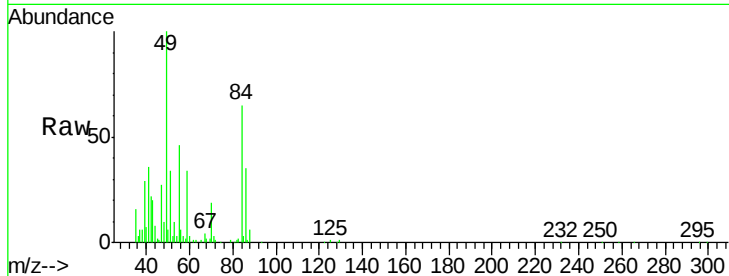
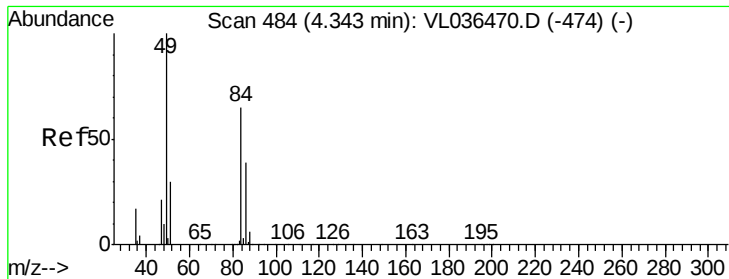


#19

Isopropyl Alcohol  
Concen: 8.602 ppbv m  
RT: 3.97 min Scan# 368  
Delta R.T. -0.00 min  
Lab File: VL036810.D  
Acq: 13 Apr 2021 19:33

Tgt Ion: 45 Resp: 615690  
Ion Ratio Lower Upper  
45 100  
58 0.0 2.9 4.3#



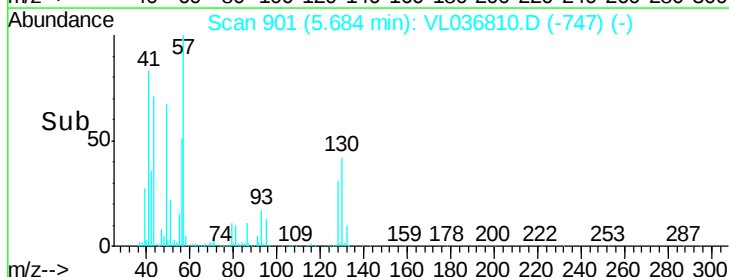
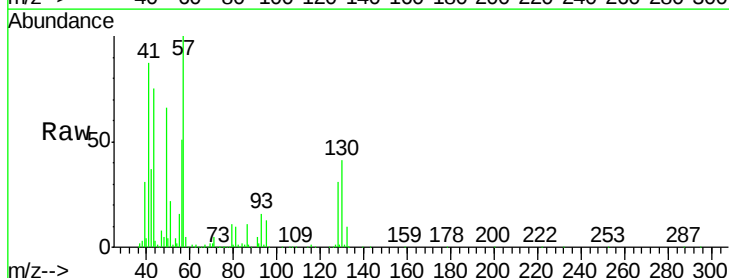
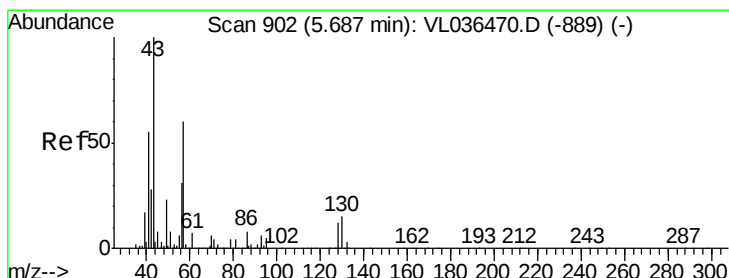
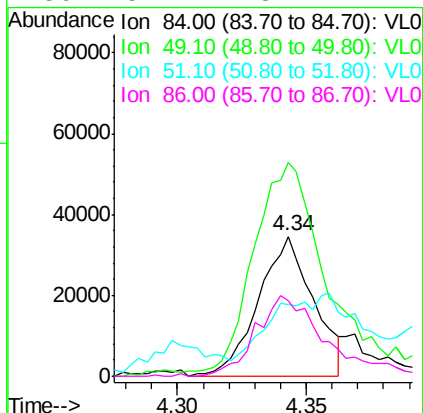


#20  
Methylene Chloride  
Concen: 0.846 ppbv  
RT: 4.34  
Instrument: MSVOA\_1  
Delta R.T.:  
Lab File: ClientSampleId : SG2  
Acq: 13 Apr 2021 19:33

Tot Ion:  
Ion Ratio  
84 100  
49 149.  
51 30.  
86 54.2 48.2 72.4

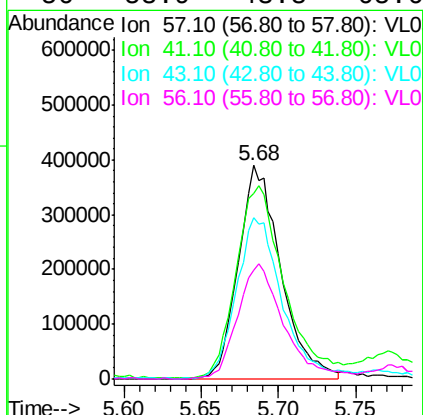
Manual Integrations  
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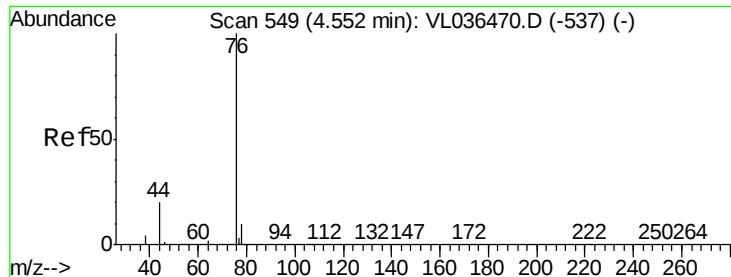
Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021



#26  
Hexane  
Concen: 5.182 ppbv  
RT: 5.68 min Scan# 901  
Delta R.T. -0.00 min  
Lab File: VL036810.D  
Acq: 13 Apr 2021 19:33

Tgt Ion: 57 Resp: 743828  
Ion Ratio Lower Upper  
57 100  
41 102.5 77.2 115.8  
43 81.4 173.8 260.6#  
56 58.9 43.8 65.6





#27

Carbon Disulfide

Concen: 17.129 ppbv

RT: 4.55 Instrument: MSVOA\_L

Delta R.T. ClientSampleId:

Lab File: SG2

Acq: 13 Apr 2021 19:33

Tot Ion:

Ion Ratio

76 100

44 21.

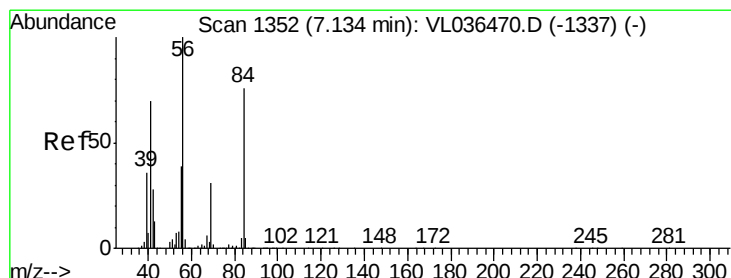
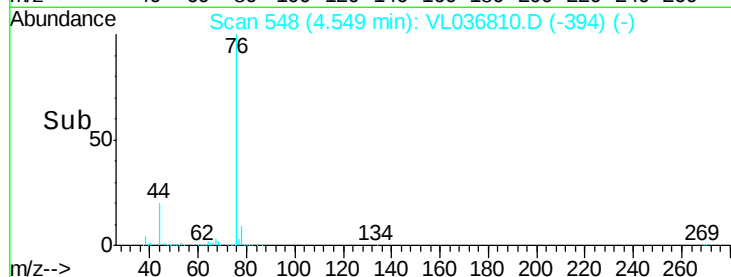
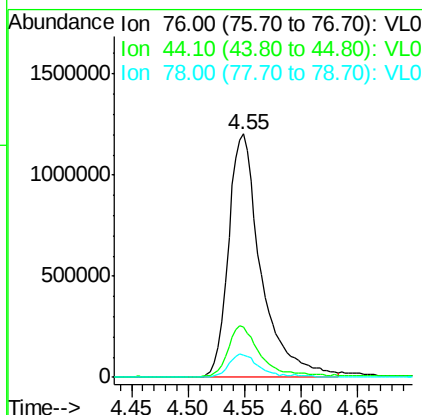
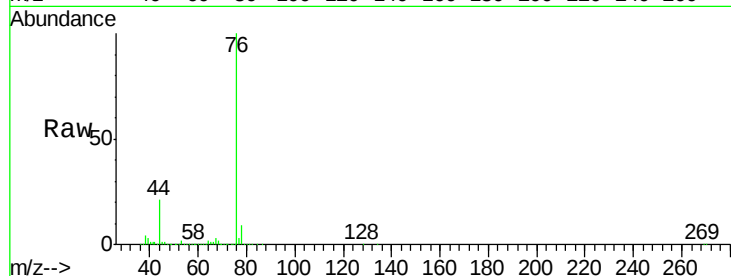
78 9.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#30

Cyclohexane

Concen: 2.414 ppbv

RT: 7.13 min Scan# 1352

Delta R.T. -0.00 min

Lab File: VL036810.D

Acq: 13 Apr 2021 19:33

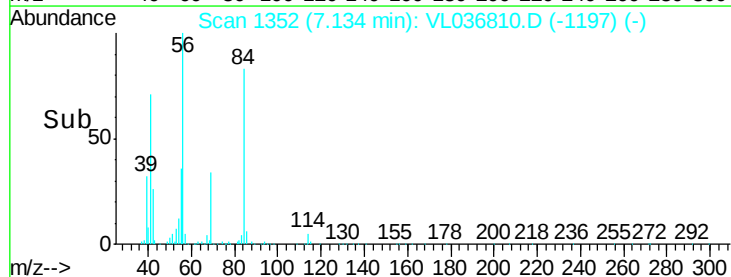
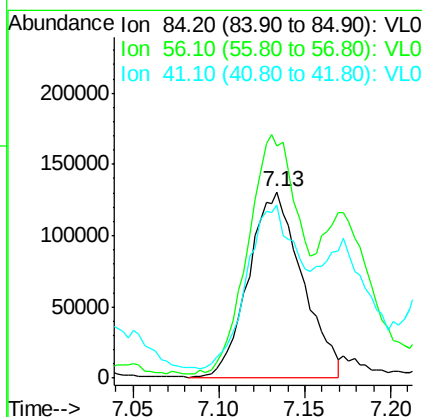
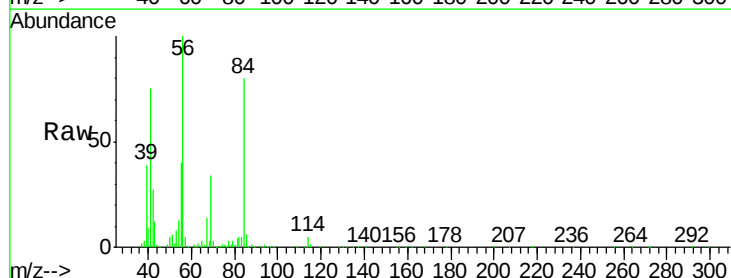
Tgt Ion: 84 Resp: 281039

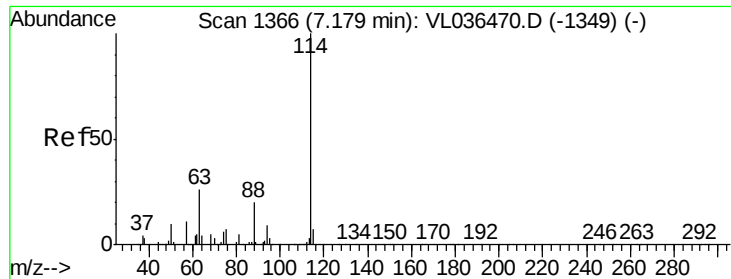
Ion Ratio Lower Upper

84 100

56 127.8 114.6 171.8

41 90.9 75.3 112.9





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18

Delta R.T. MSVOA\_L

Lab File: ClientSampleId : SG2

Acq: 13 Apr 2021 19:33

Tot Ion:1

Ion Rati

114 100

63 27.

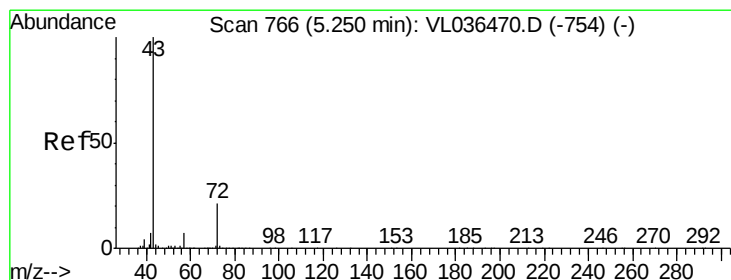
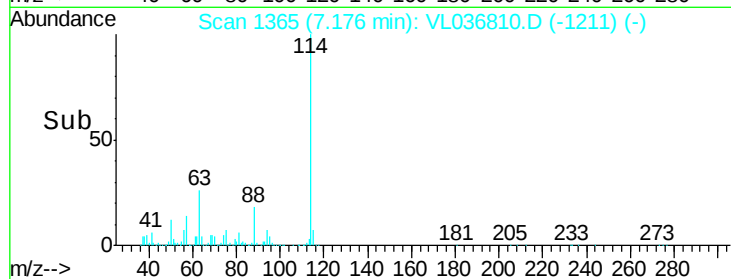
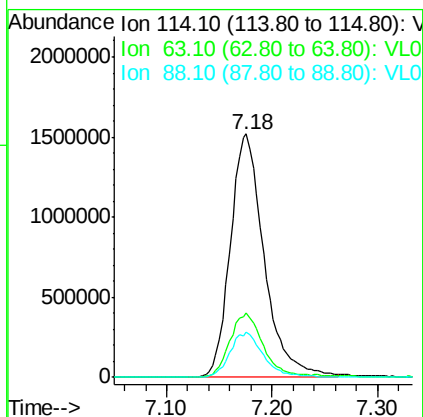
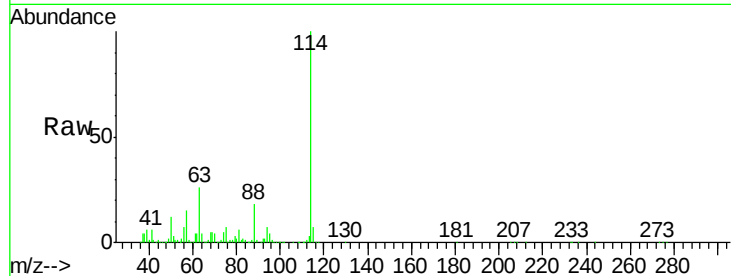
88 18.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#34

2-Butanone

Concen: 1.130 ppbv

RT: 5.25 min Scan# 766

Delta R.T. -0.00 min

Lab File: VL036810.D

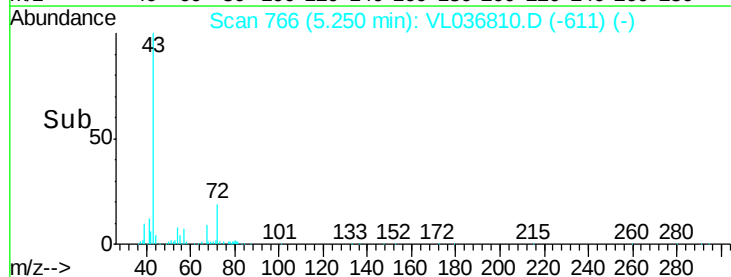
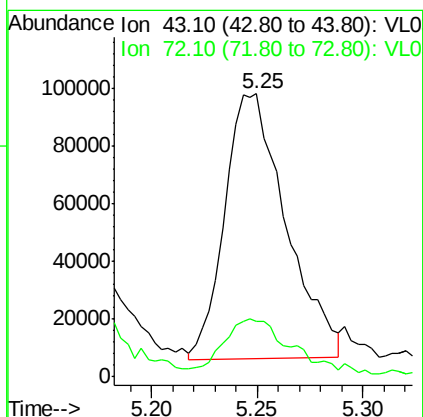
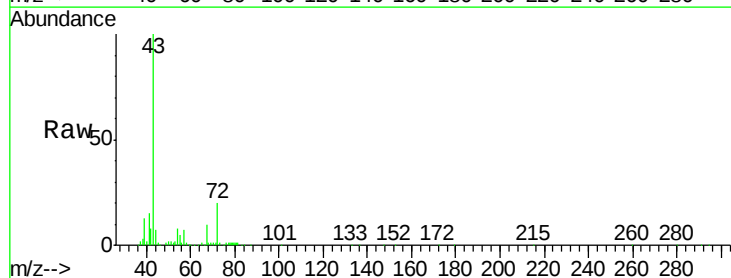
Acq: 13 Apr 2021 19:33

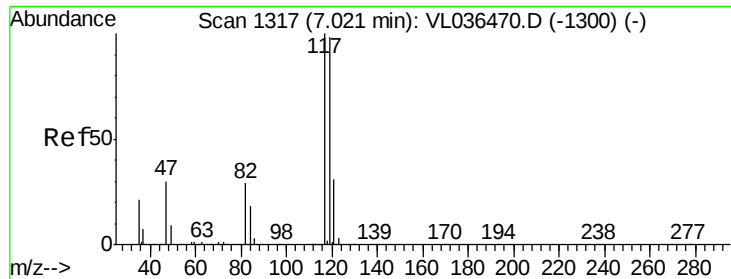
Tgt Ion: 43 Resp: 185974

Ion Ratio Lower Upper

43 100

72 26.1 17.0 25.6#





#35

Carbon Tetrachloride

Concen: 0.056 ppbv m

RT: 7.02 Instrument :

Delta R.T. MSVOA\_L

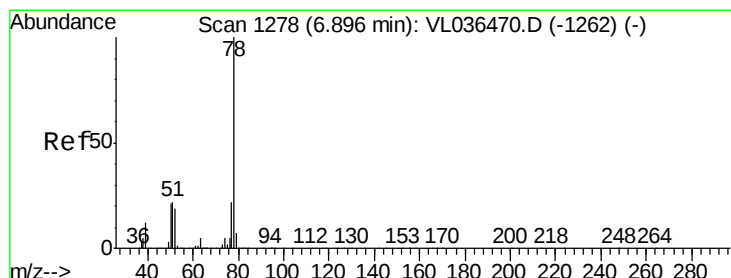
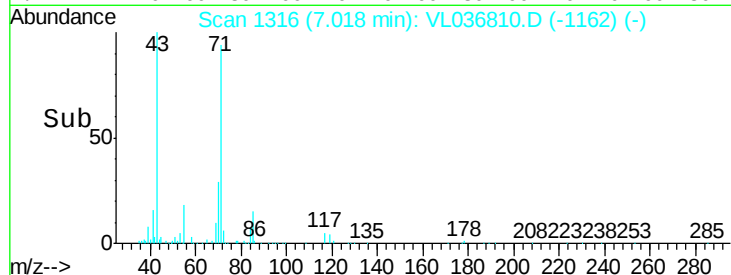
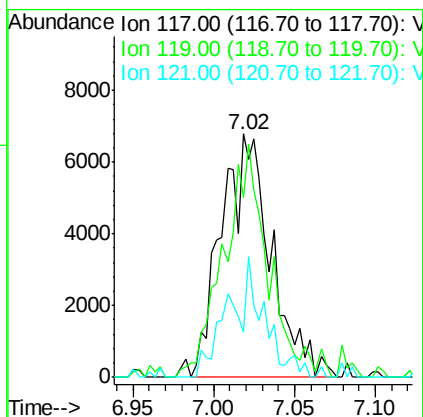
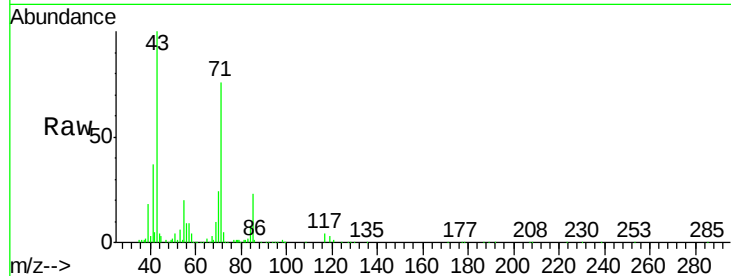
Lab File: ClientSampleId :

Acq: 13 Apr 2021 19:33 SG2

Tot Ion:1  
Ion Rati  
117 100  
119 73.  
121 18.

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021



#36

Benzene

Concen: 3.775 ppbv

RT: 6.89 min Scan# 1276

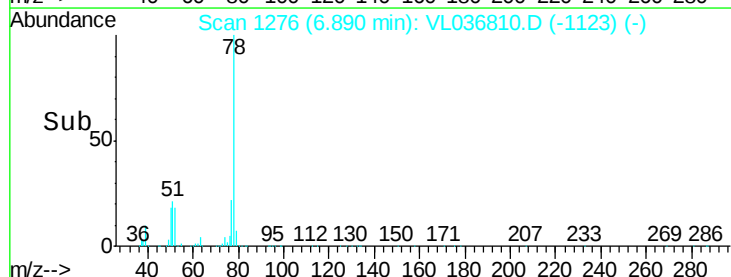
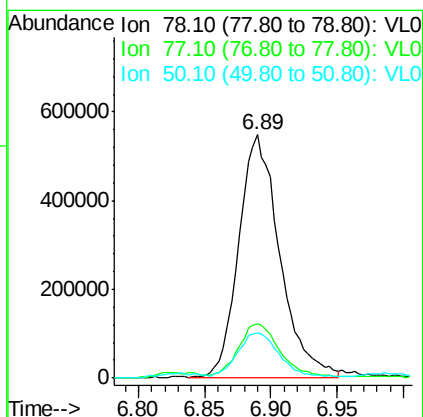
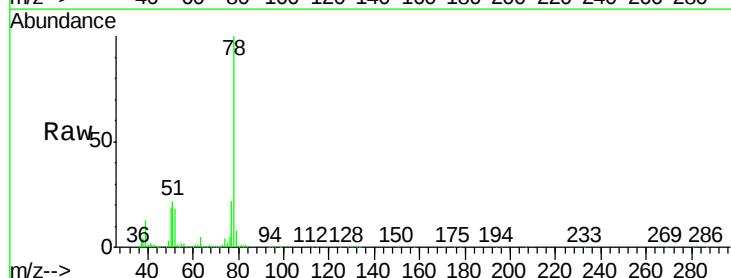
Delta R.T. -0.01 min

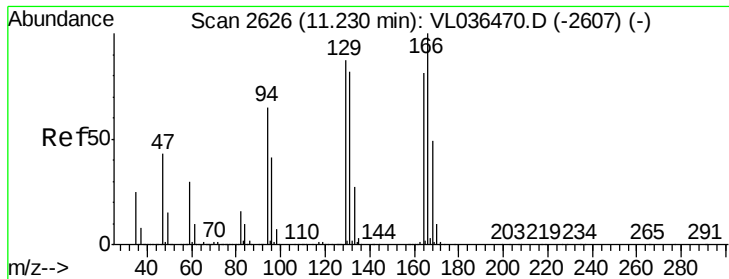
Lab File: VL036810.D

Acq: 13 Apr 2021 19:33

Tgt Ion: 78 Resp: 1174087

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 78  | 100   |       |       |
| 77  | 21.4  | 18.0  | 27.0  |
| 50  | 17.8  | 16.5  | 24.7  |





#52

Tetrachloroethene

Concen: 0.055 ppbv m

RT: 11.23

Delta R.T. MSVOA\_L

Lab File:

Acq: 13 Apr 2021 19:33

ClientSampleId :

SG2

Manual Integrations  
APPROVED

Tot Ion:1

Ion Rati

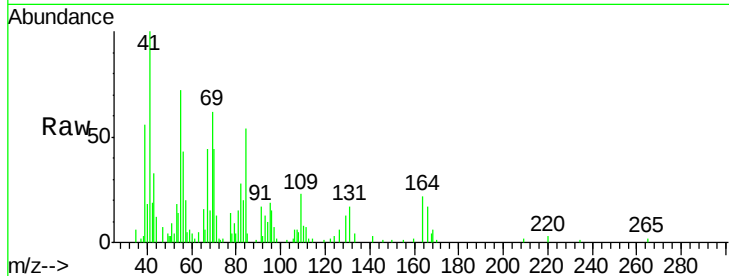
164 100

166 76.

129 55.

131 76.8 80.9 121.3#

Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021

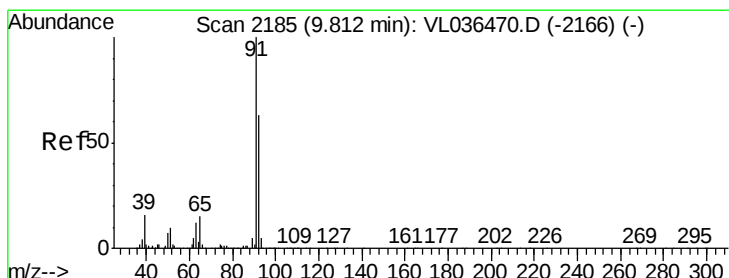
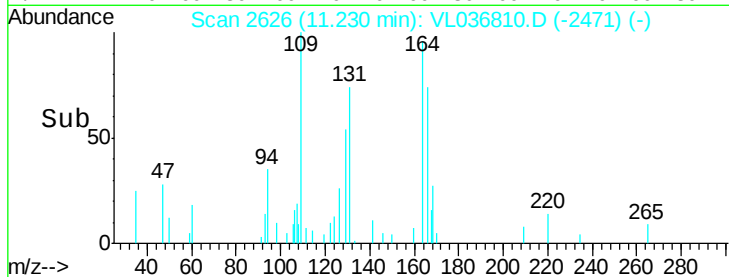
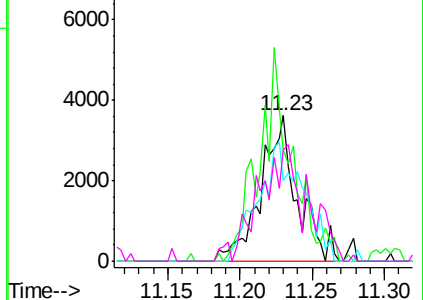


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 5.261 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.01 min

Lab File: VL036810.D

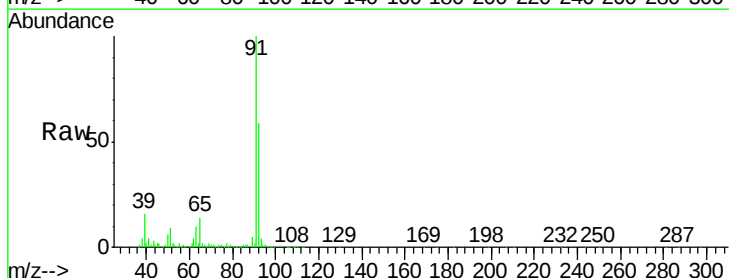
Acq: 13 Apr 2021 19:33

Tgt Ion: 91 Resp: 1742497

Ion Ratio Lower Upper

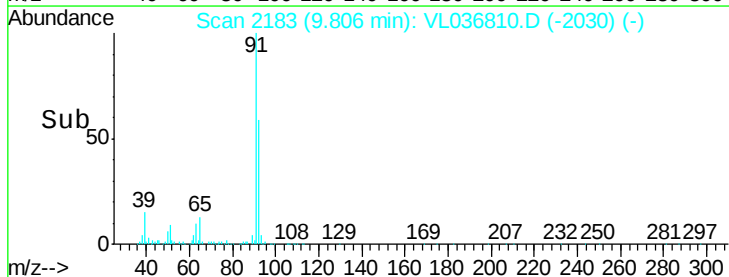
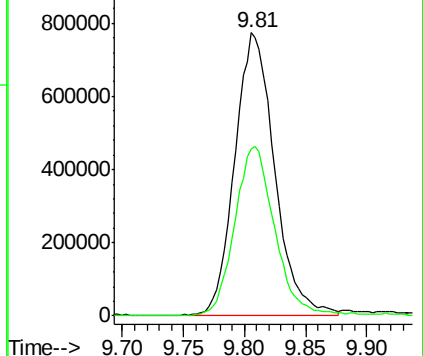
91 100

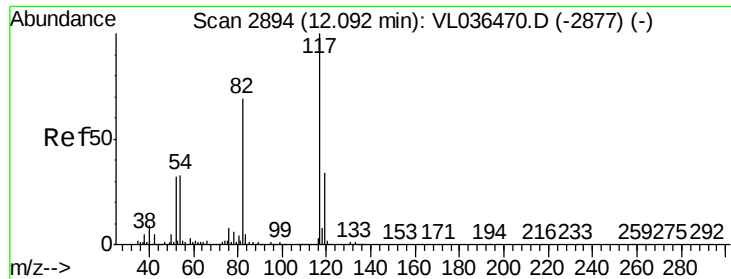
92 60.0 48.8 73.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



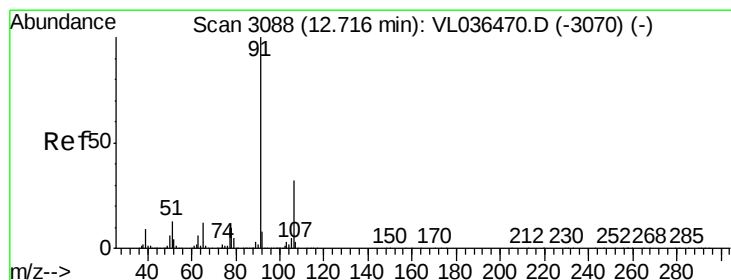
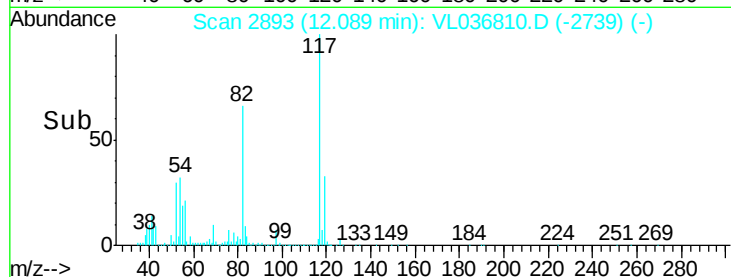
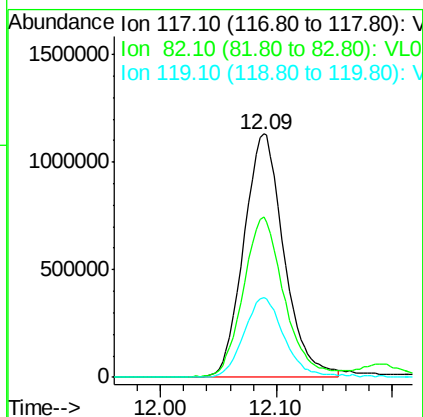
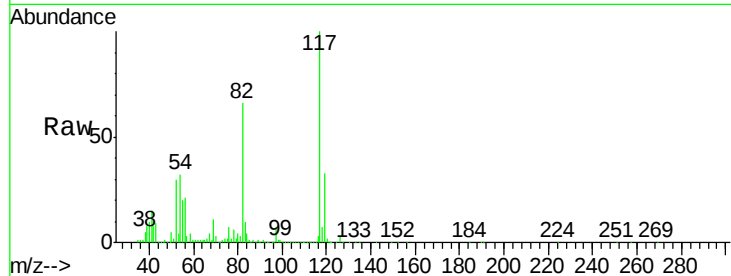


#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.09 min  
Instrument: MSVOA\_L  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 13 Apr 2021 19:33

Tot Ion: 1  
Ion Ratio  
117 100  
82 67.  
119 33.

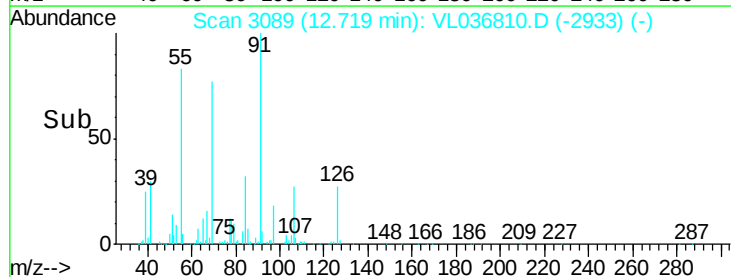
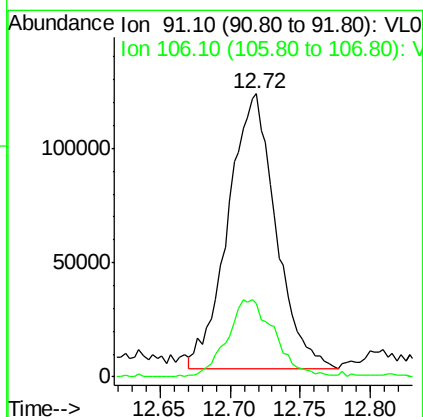
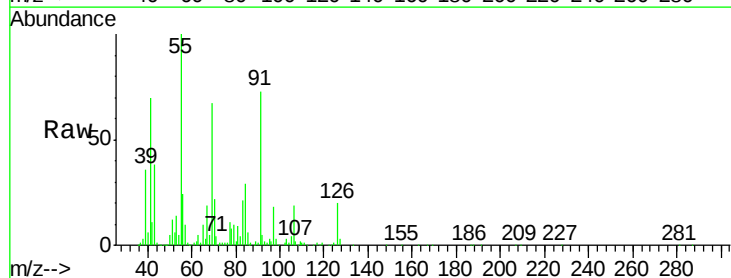
Manual Integrations  
APPROVED

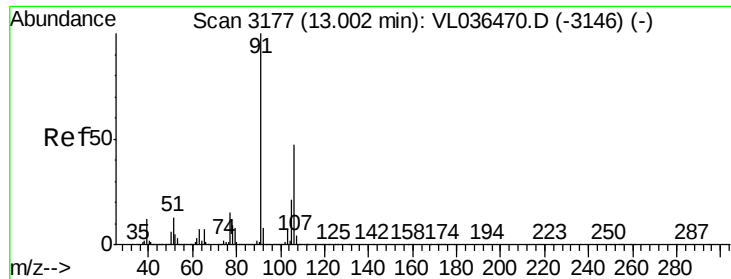
Reviewed By : Semsettin Yesilyurt 04/14/2021  
Supervised By : Mahesh Dadoda 04/14/2021



#58  
Ethyl Benzene  
Concen: 0.714 ppbv  
RT: 12.72 min Scan# 3089  
Delta R.T.: 0.00 min  
Lab File: VL036810.D  
Acq: 13 Apr 2021 19:33

Tgt Ion: 91 Resp: 284231  
Ion Ratio Lower Upper  
91 100  
106 26.0 25.3 37.9



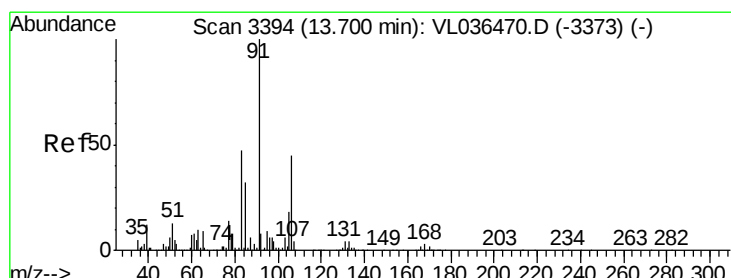
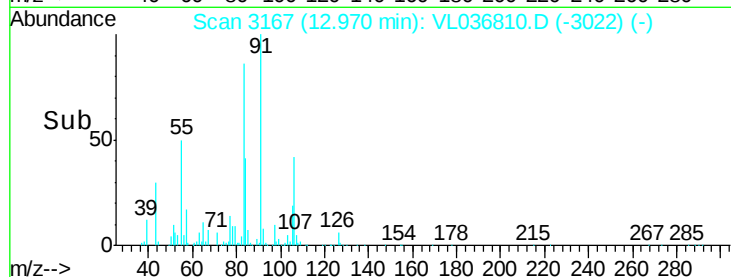
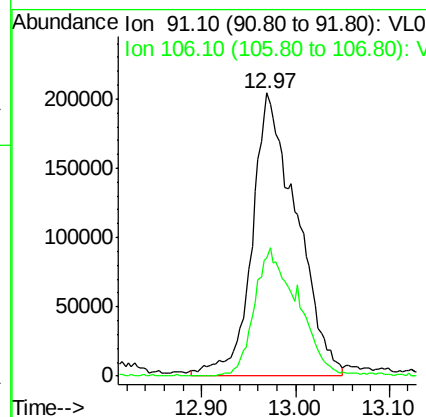
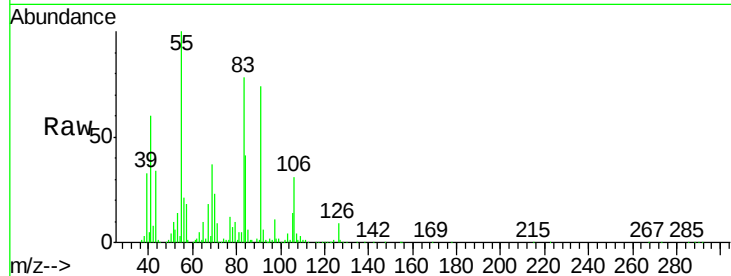


#59  
m/p-Xylene  
Concen: 1.946 ppbv m  
RT: 12.97  
Instrument: MSVOA\_L  
Delta R.T.:  
Lab File: ClientSampleId :  
Acq: 13 Apr 2021 19:33

Tot Ion:  
Ion Ratio  
91 100  
106 0.

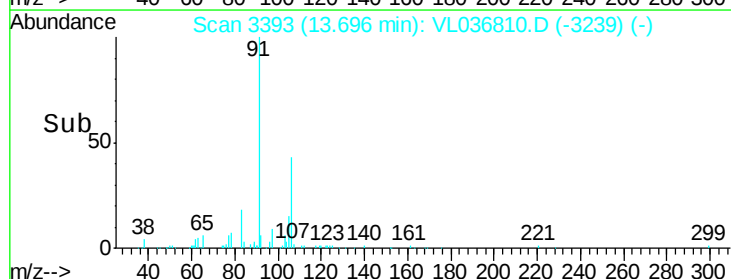
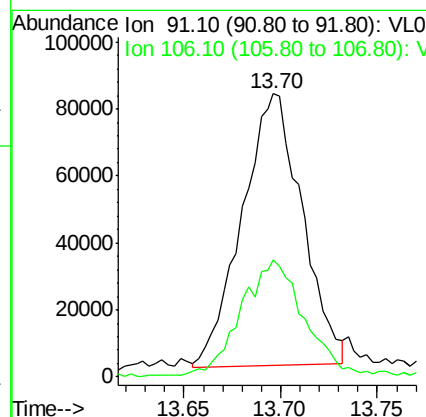
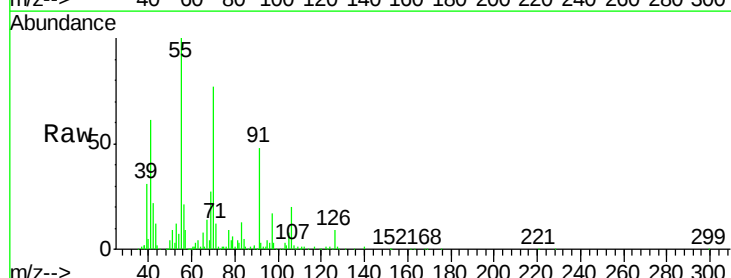
Manual Integrations  
APPROVED

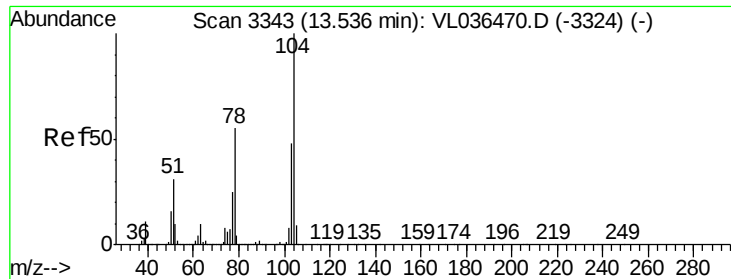
Reviewed By :Semsettin Yesilyurt 04/14/2021  
Supervised By :Mahesh Dadoda 04/14/2021



#60  
o-Xylene  
Concen: 0.523 ppbv  
RT: 13.70 min Scan# 3393  
Delta R.T. -0.00 min  
Lab File: VL036810.D  
Acq: 13 Apr 2021 19:33

Tgt Ion: 91 Resp: 175781  
Ion Ratio Lower Upper  
91 100  
106 46.6 22.3 66.9





#61

Stvrene

Concen: 1.496 ppbv

RT: 13.53

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 13 Apr 2021 19:33

Tot Ion:1

Ion Rati

104 100

78 54.

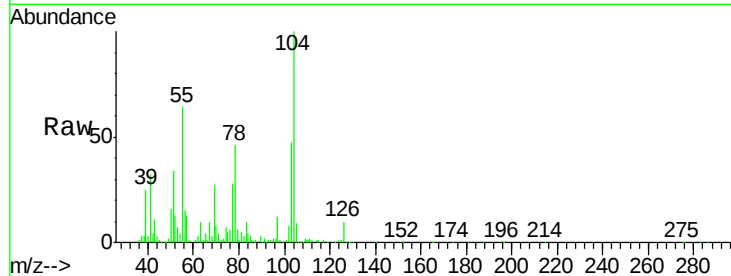
103 49.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021

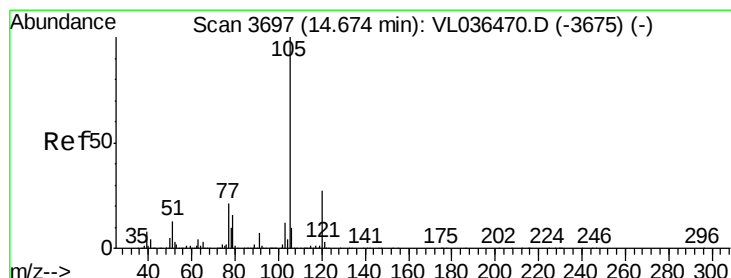
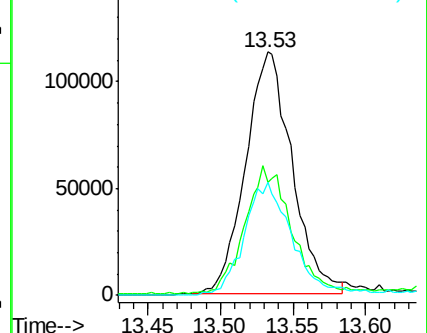
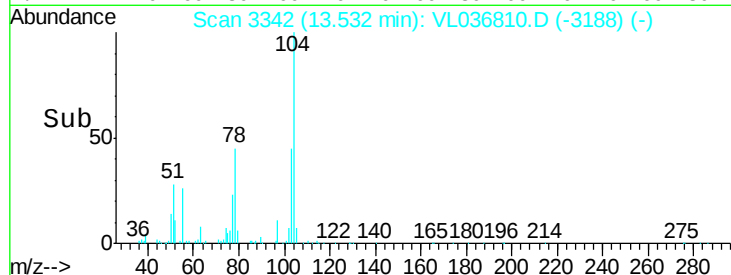
Supervised By :Mahesh Dadoda 04/14/2021



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 13.129 ppbv

RT: 14.67 min Scan# 3697

Delta R.T. -0.00 min

Lab File: VL036810.D

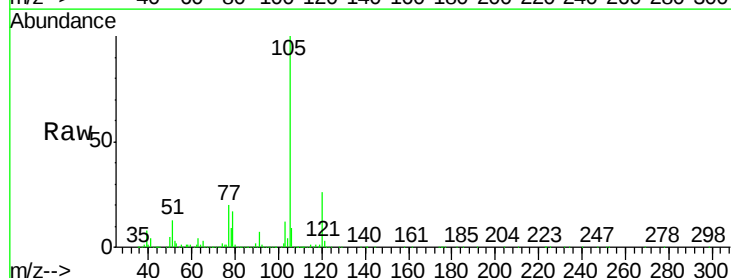
Acq: 13 Apr 2021 19:33

Tgt Ion:105 Resp: 5936953

Ion Ratio Lower Upper

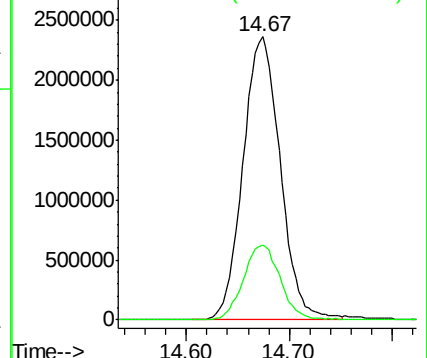
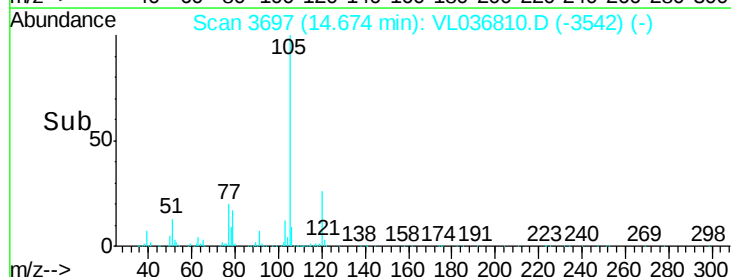
105 100

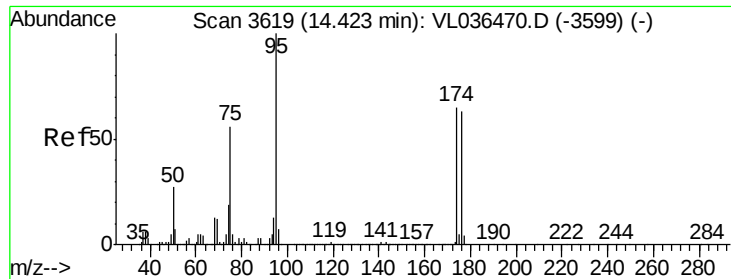
120 26.4 20.6 31.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#68

1-Bromo-4-Fluorobenzene

Concen: 9.115 ppbv

RT: 14.42

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 13 Apr 2021 19:33

Tot Ion:

Ion Ratio

95 100

174 65.

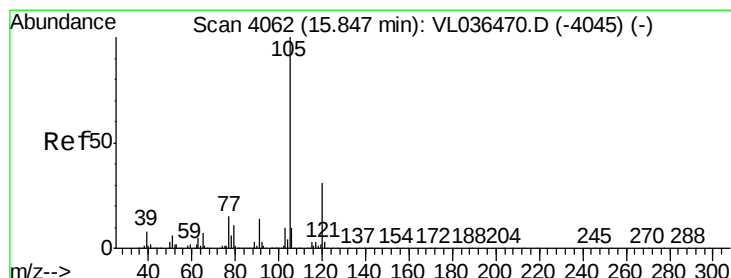
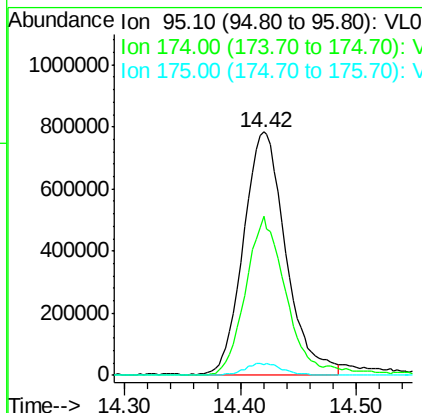
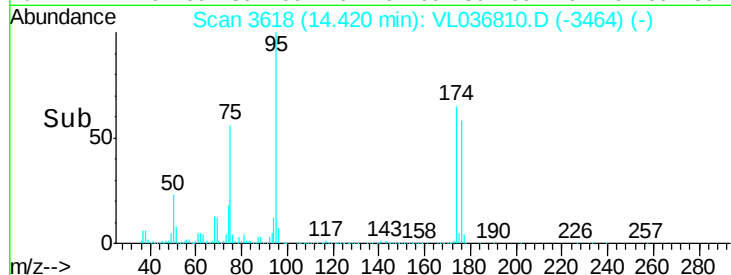
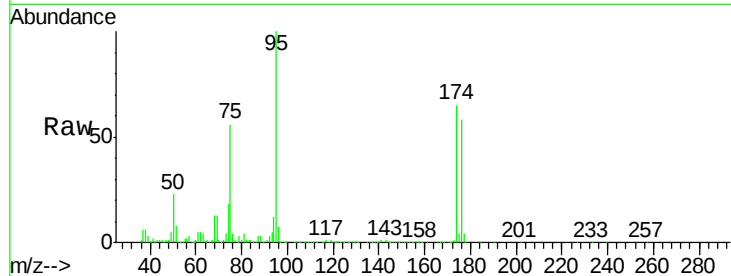
175 4.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#72

4-Ethyltoluene

Concen: 0.190 ppbv m

RT: 15.84 min Scan# 4061

Delta R.T. -0.00 min

Lab File: VL036810.D

Acq: 13 Apr 2021 19:33

Tgt Ion:105 Resp: 69771

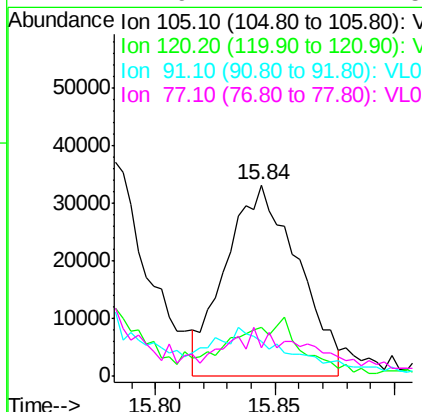
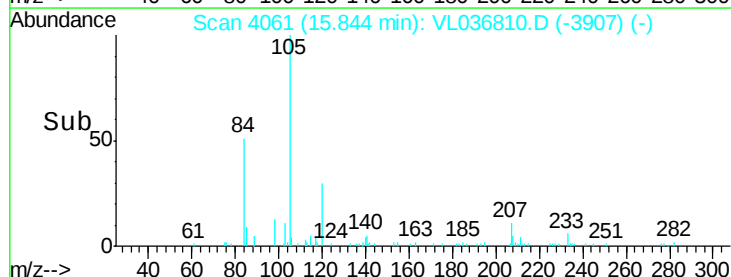
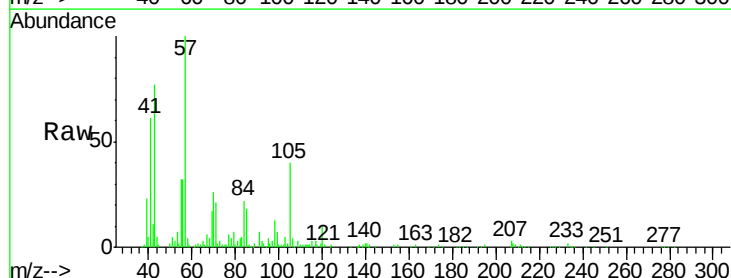
Ion Ratio Lower Upper

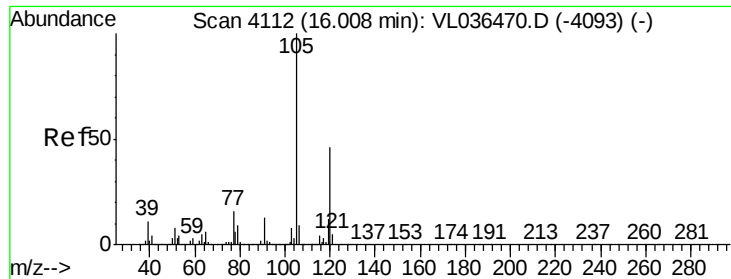
105 100

120 30.0 24.0 36.0

91 0.0 11.0 16.4#

77 24.9 11.7 17.5#





#73

1,3,5-Trimethylbenzene

Concen: 0.102 ppbv m

RT: 16.00

Delta R.T. MSVOA\_L

Lab File: ClientSampleId :

Acq: 13 Apr 2021 19:33

Tot Ion:1

Ion Rati

105 100

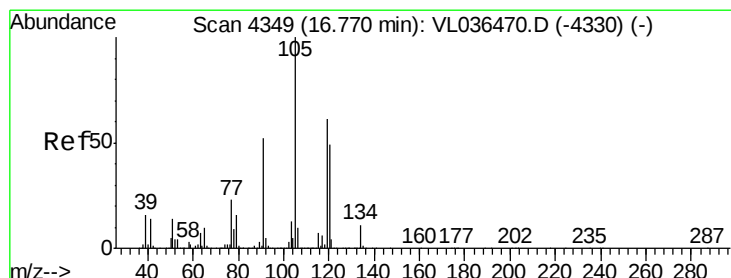
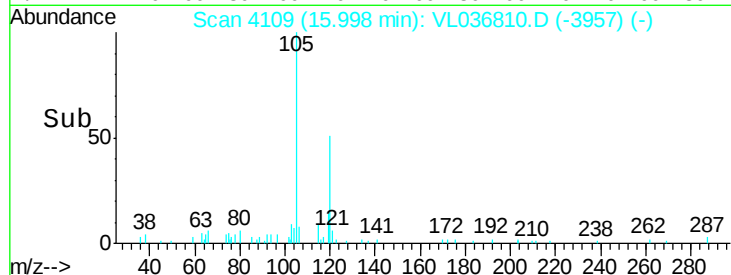
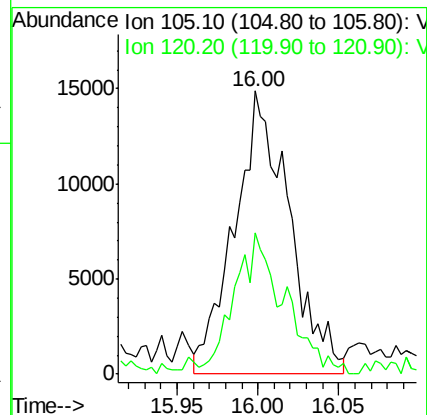
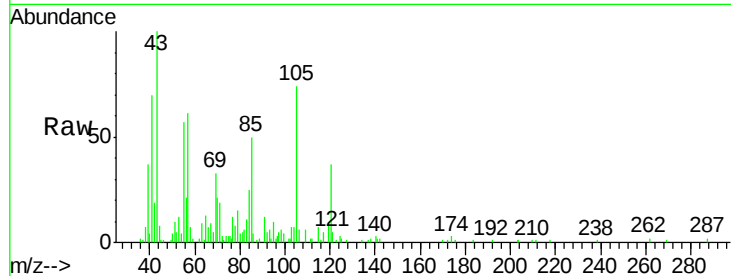
120 50.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/14/2021

Supervised By :Mahesh Dadoda 04/14/2021



#74

1,2,4-Trimethylbenzene

Concen: 0.308 ppbv m

RT: 16.77 min Scan# 4349

Delta R.T. -0.00 min

Lab File: VL036810.D

Acq: 13 Apr 2021 19:33

Tgt Ion:105 Resp: 113168

Ion Ratio Lower Upper

105 100

120 35.6 39.2 58.8#

91 13.0 42.6 64.0#

77 14.8 18.6 28.0#

