

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL042721\  
 Data File : VL036861.D  
 Acq On : 27 Apr 2021 17:13  
 Operator : SY/AP  
 Sample : M2172-04  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA L  
 ClientSampleId :  
 OFFSITE-DDC-INTERMEDIATE-1

Manual Integrations  
 APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021  
 Supervised By :Mahesh Dadoda 04/29/2021

Quant Time: Apr 29 16:07:36 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   | 1396984  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.18  | 114  | 3226130  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.09 | 117  | 2752015  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

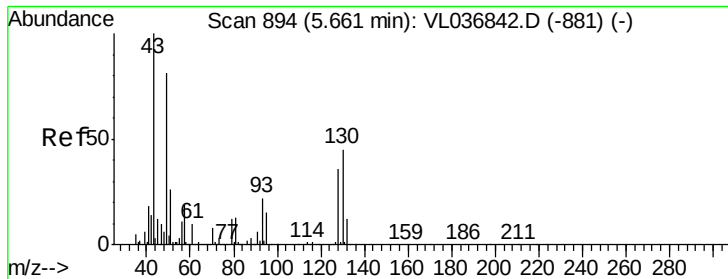
|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.42  | 95    | 2213724  | 10.02    | ppbv | 0.01    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 100.20% |

## Target Compounds

|                              | R.T.  | QIon | Response | Conc   | Units  | Ovalue |
|------------------------------|-------|------|----------|--------|--------|--------|
| 2) Dichlorodifluoromethane   | 3.05  | 85   | 53905m   | 0.245  | ppbv   |        |
| 3) Chlorodifluoromethane     | 2.99  | 51   | 66626m   | 0.262  | ppbv   |        |
| 4) Chloromethane             | 3.15  | 50   | 29405    | 0.352  | ppbv # | 85     |
| 5) Vinyl Chloride            | 3.26  | 62   | 18050m   | 0.214  | ppbv   |        |
| 9) Propene                   | 3.02  | 41   | 75394    | 0.972  | ppbv   | 85     |
| 11) Trichlorofluoromethane   | 3.95  | 101  | 42745    | 0.218  | ppbv   | 90     |
| 13) Ethanol                  | 3.62  | 45   | 97654    | 9.875  | ppbv   | 88     |
| 15) Acetone                  | 3.86  | 43   | 696158   | 5.287  | ppbv   | 98     |
| 18) 1,1-Dichloroethene       | 4.29  | 96   | 7159m    | 0.125  | ppbv   |        |
| 19) Isopropyl Alcohol        | 4.00  | 45   | 70591    | 1.082  | ppbv # | 85     |
| 20) Methylene Chloride       | 4.35  | 84   | 1170383  | 18.588 | ppbv   | 96     |
| 22) trans-1,2-Dichloroethene | 4.89  | 96   | 12792    | 0.223  | ppbv # | 65     |
| 26) Hexane                   | 5.69  | 57   | 1136827  | 7.555  | ppbv # | 44     |
| 29) Chloroform               | 5.76  | 83   | 104622   | 0.446  | ppbv   | 94     |
| 30) Cyclohexane              | 7.17  | 84   | 38388m   | 0.322  | ppbv   |        |
| 31) cis-1,2-Dichloroethene   | 5.55  | 61   | 1158128  | 8.574  | ppbv   | 97     |
| 34) 2-Butanone               | 5.26  | 43   | 116966   | 0.828  | ppbv   | 96     |
| 35) Carbon Tetrachloride     | 7.02  | 117  | 14432m   | 0.066  | ppbv   |        |
| 36) Benzene                  | 6.90  | 78   | 59051m   | 0.217  | ppbv   |        |
| 38) Trichloroethene          | 7.84  | 130  | 17098m   | 0.177  | ppbv   |        |
| 41) Tetrahydrofuran          | 6.07  | 42   | 19663m   | 0.318  | ppbv   |        |
| 44) 2,2,4-Trimethylpentane   | 7.88  | 57   | 62722    | 0.135  | ppbv # | 63     |
| 52) Tetrachloroethene        | 11.23 | 164  | 5635m    | 0.061  | ppbv   |        |
| 53) Toluene                  | 9.81  | 91   | 178499   | 0.628  | ppbv   | 97     |
| 59) m/p-Xylene               | 12.98 | 91   | 57528m   | 0.184  | ppbv   |        |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA\_L

Delta R.T.

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId : OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

49 100

128 45.

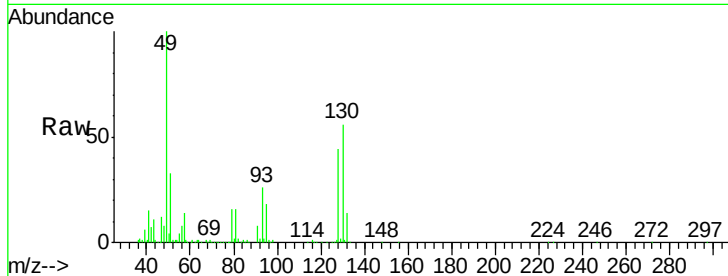
130 59.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

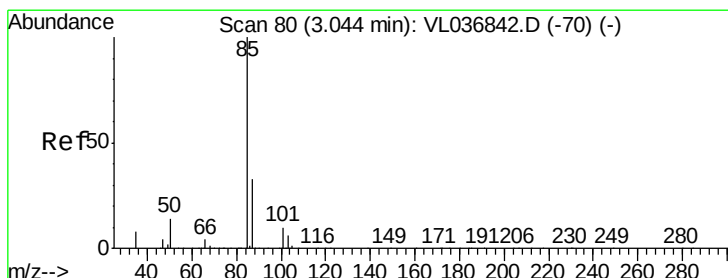
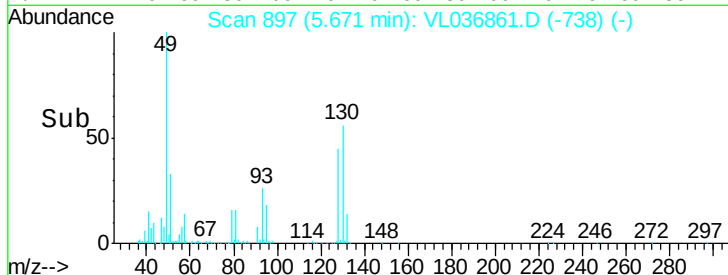
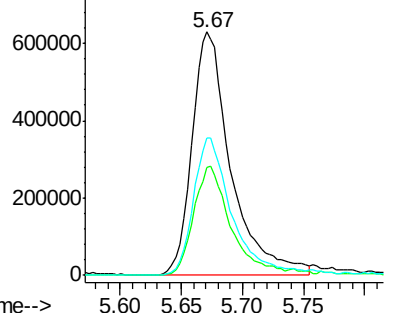
Supervised By :Mahesh Dadoda 04/29/2021



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.245 ppbv m

RT: 3.05 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL036861.D

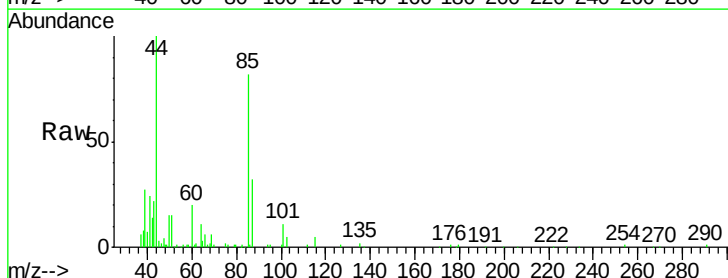
Acq: 27 Apr 2021 17:13

Tgt Ion: 85 Resp: 53905

Ion Ratio Lower Upper

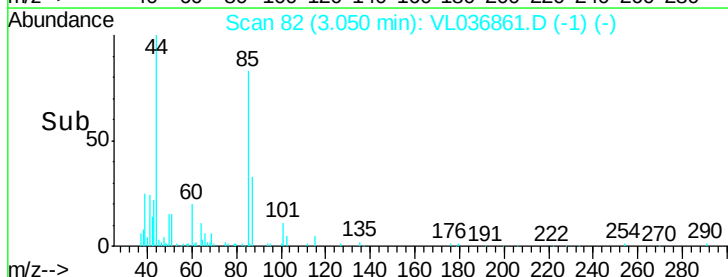
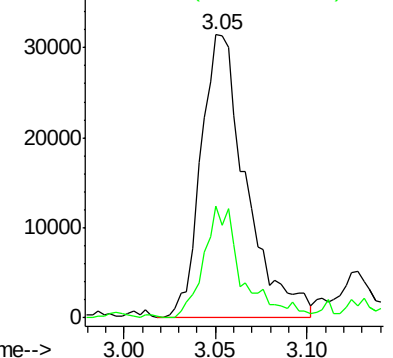
85 100

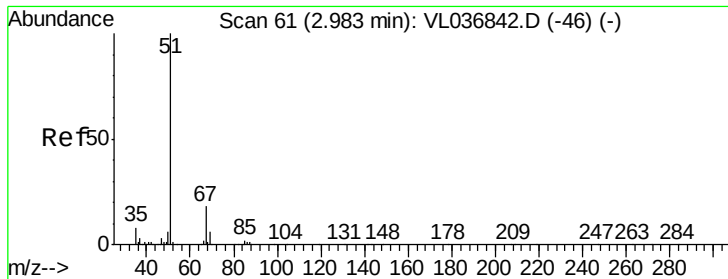
87 39.4 26.2 39.2#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.262 ppbv m

RT: 2.99 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

51 100

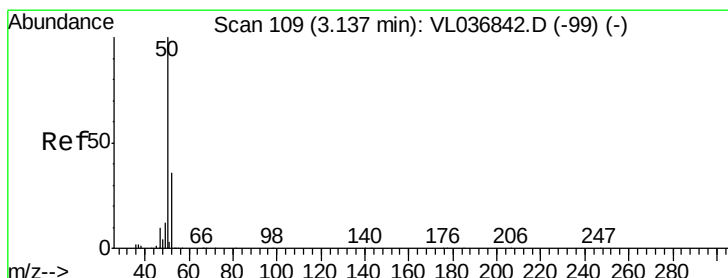
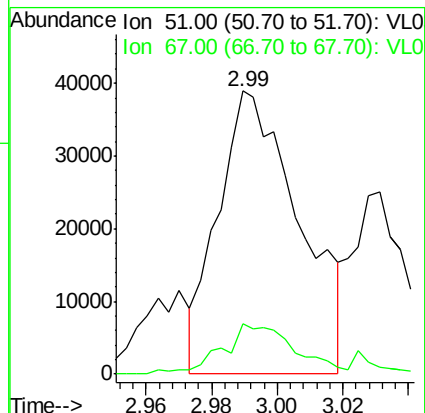
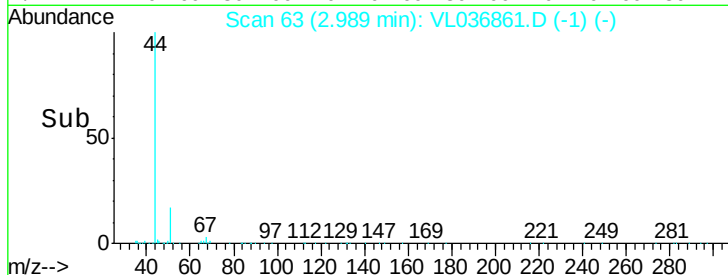
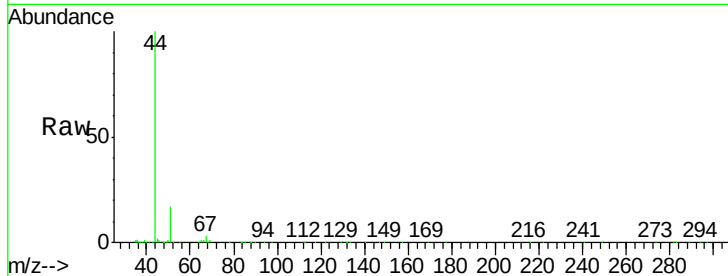
67 19.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/28/2021

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#4

Chloromethane

Concen: 0.352 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.01 min

Lab File: VL036861.D

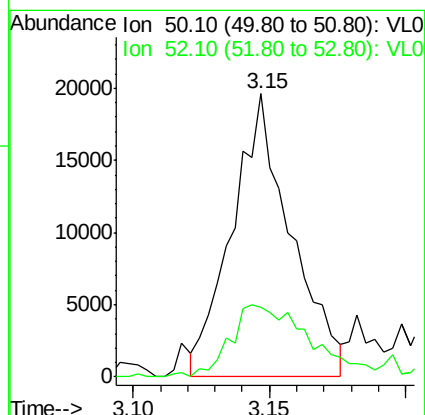
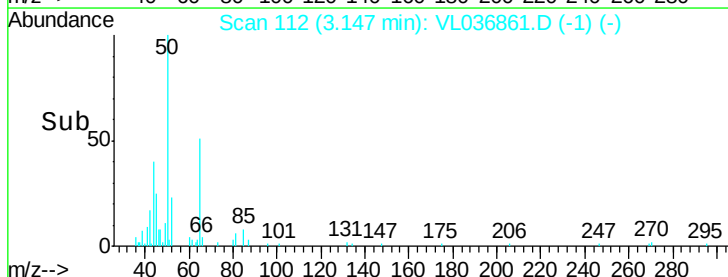
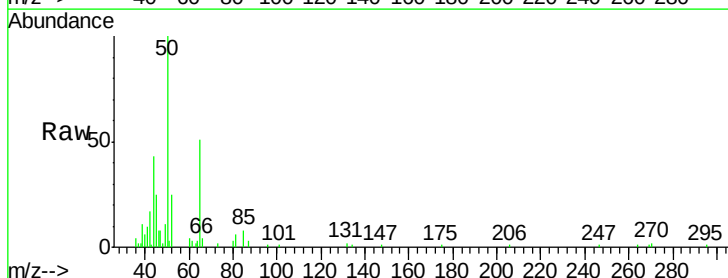
Acq: 27 Apr 2021 17:13

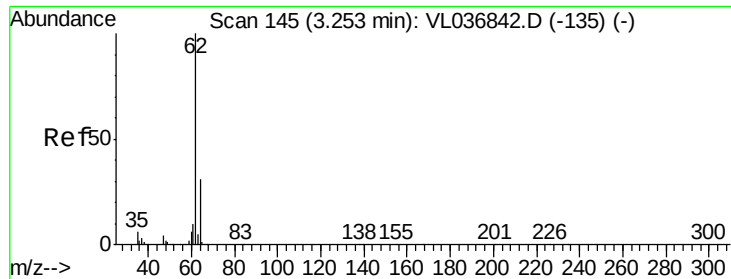
Tgt Ion: 50 Resp: 29405

Ion Ratio Lower Upper

50 100

52 27.0 28.5 42.7#





#5

Vinyl Chloride

Concen: 0.214 ppbv m

RT: 3.26 Instrument:

Delta R.T. MSVOA\_1

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

62 100

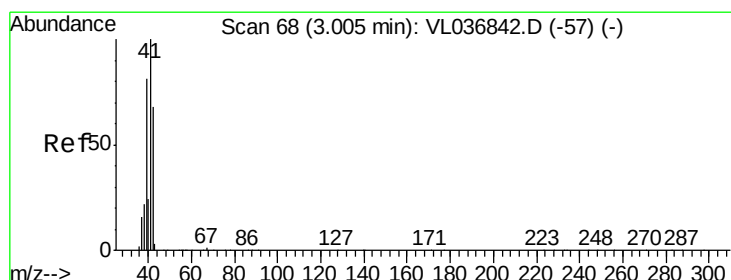
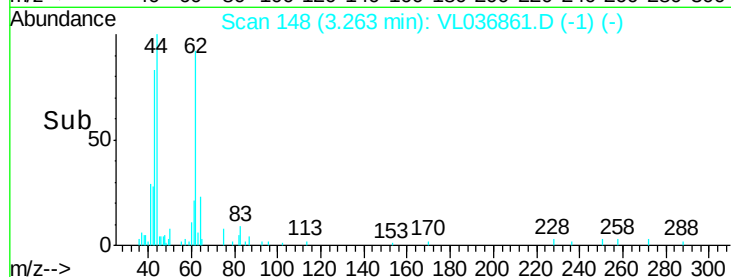
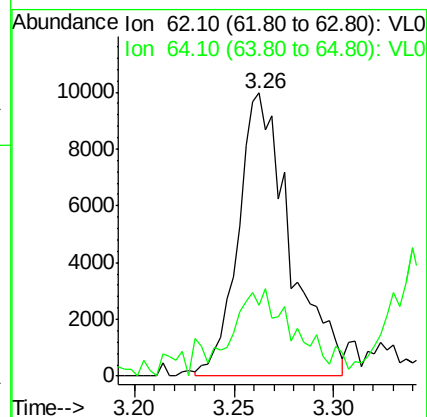
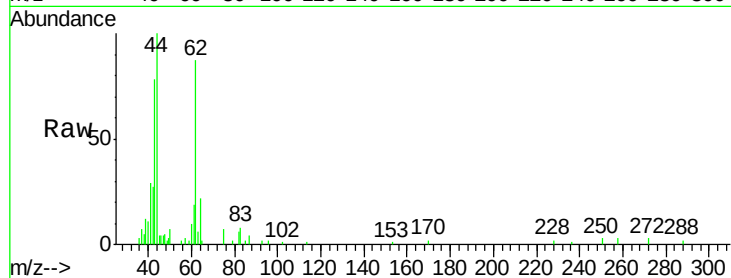
64 25.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/28/2021

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#9

Propene

Concen: 0.972 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL036861.D

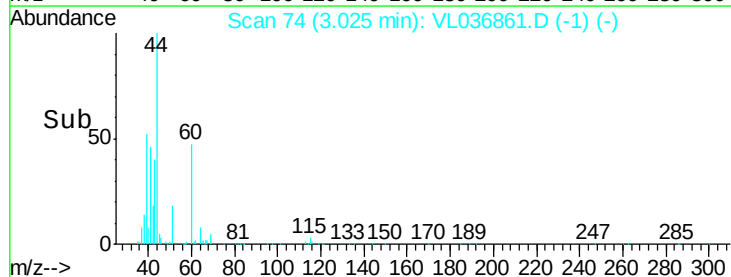
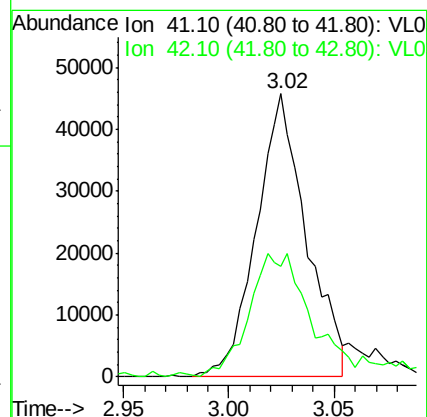
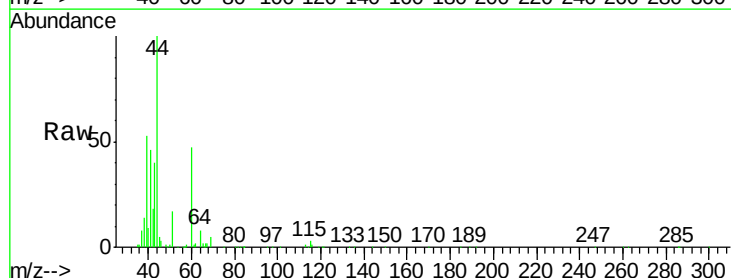
Acq: 27 Apr 2021 17:13

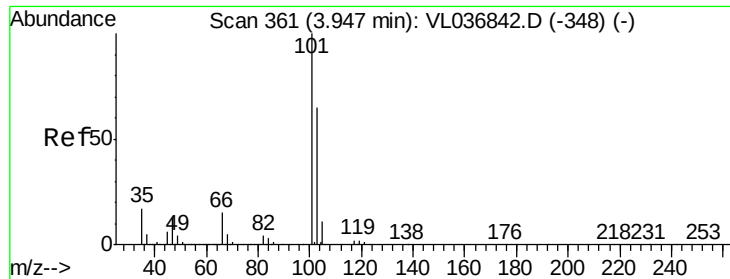
Tgt Ion: 41 Resp: 75394

Ion Ratio Lower Upper

41 100

42 57.7 56.0 84.0





#11

Trichlorofluoromethane

Concen: 0.218 ppbv

RT: 3.95 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:1

Ion Rati

101 100

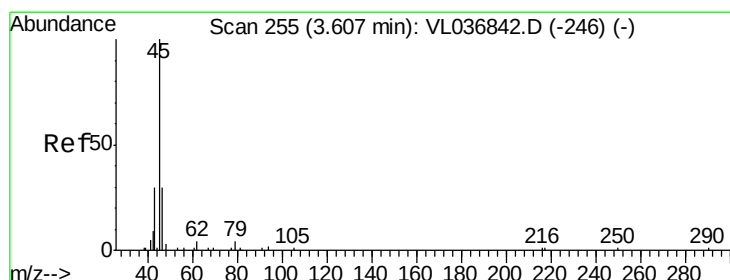
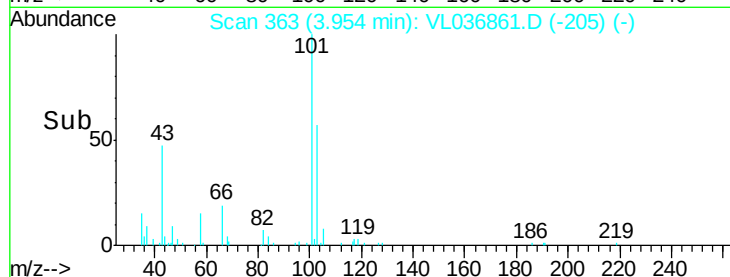
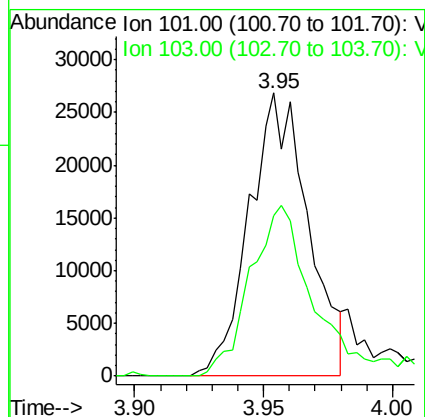
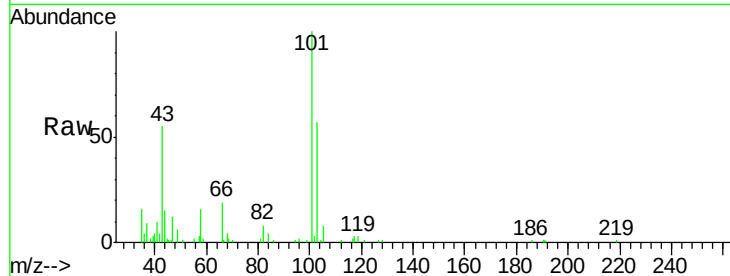
103 56.

Manual Integrations

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#13

Ethanol

Concen: 9.875 ppbv

RT: 3.62 min Scan# 259

Delta R.T. 0.01 min

Lab File: VL036861.D

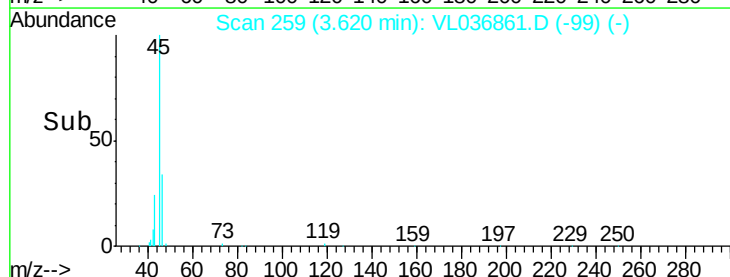
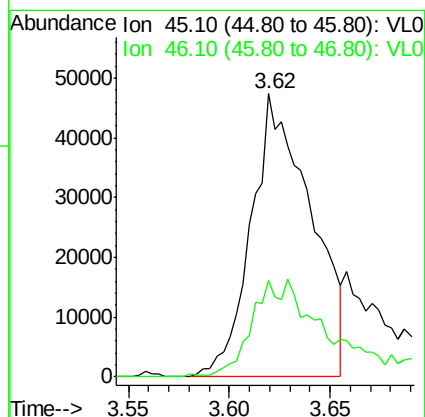
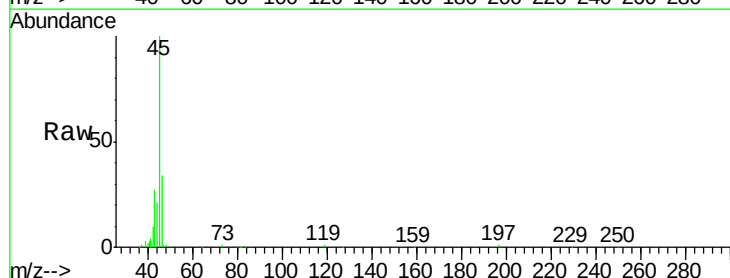
Acq: 27 Apr 2021 17:13

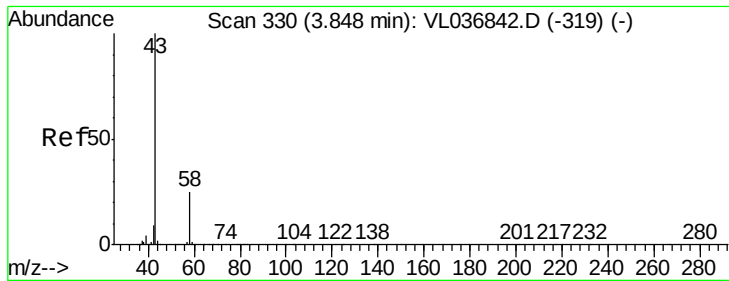
Tgt Ion: 45 Resp: 97654

Ion Ratio Lower Upper

45 100

46 50.0 16.8 67.4





#15

Acetone

Concen: 5.287 ppbv

RT: 3.86

Delta R.T. MSVOA\_L

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId :

OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

43 100

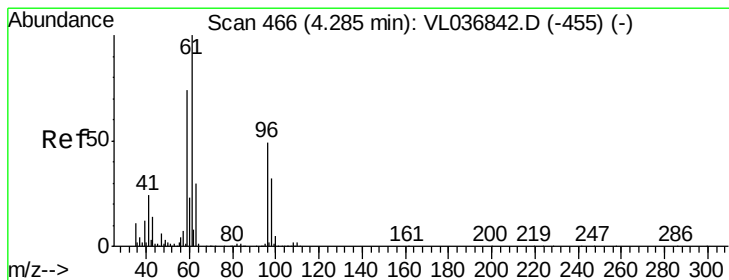
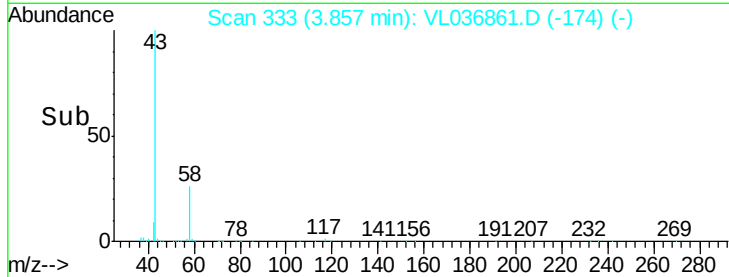
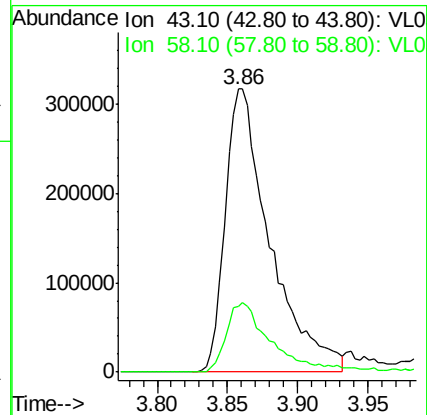
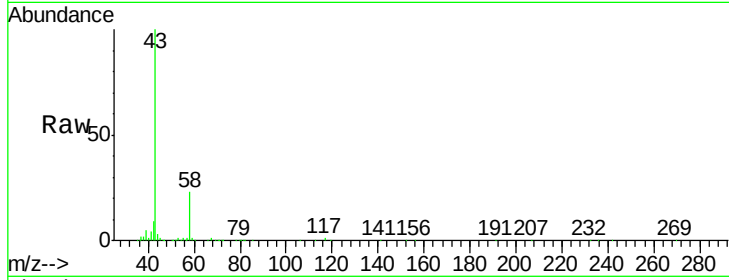
58 25.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/28/2021

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#18

1,1-Dichloroethene

Concen: 0.125 ppbv m

RT: 4.29 min Scan# 468

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

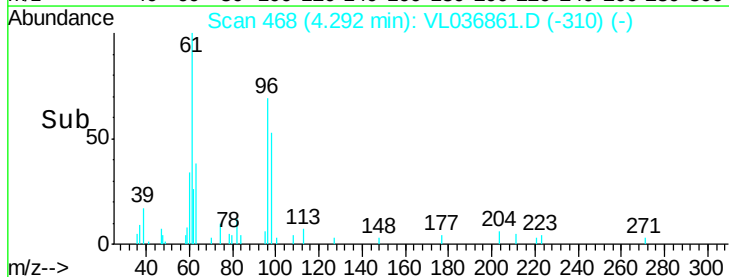
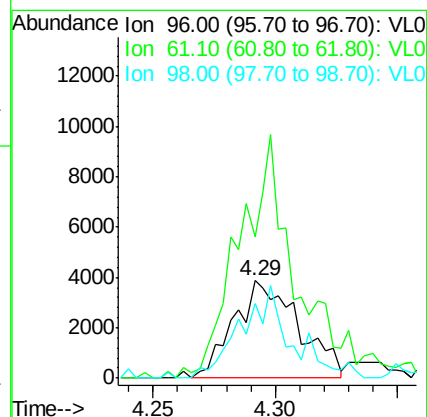
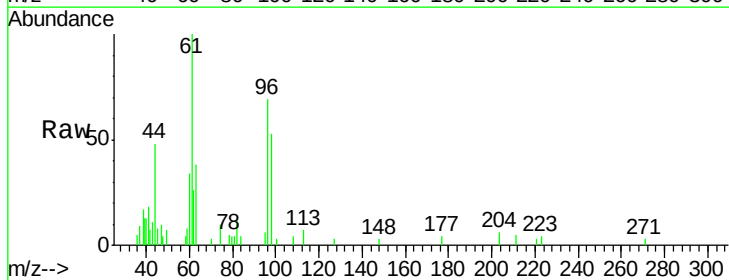
Tgt Ion: 96 Resp: 7159

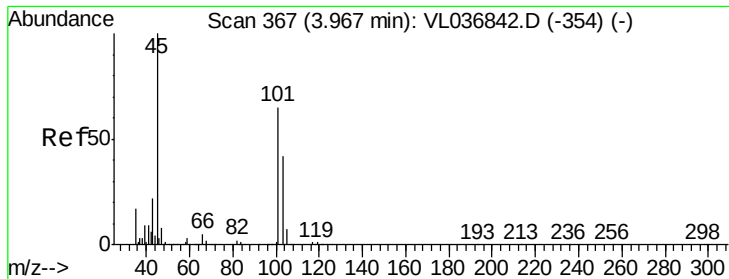
Ion Ratio Lower Upper

96 100

61 144.4 162.2 243.2#

98 76.0 51.8 77.6





#19

Isopropyl Alcohol

Concen: 1.082 ppbv

RT: 4.00

Delta R.T. MSVOA\_L

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId :

OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

45 100

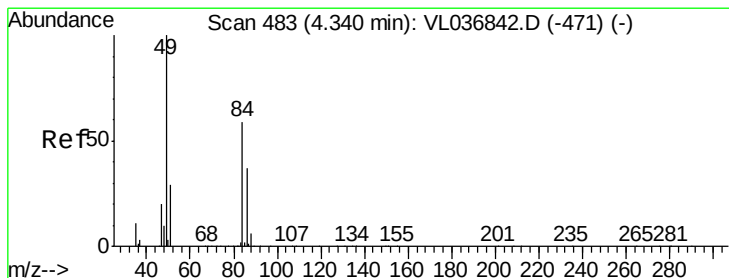
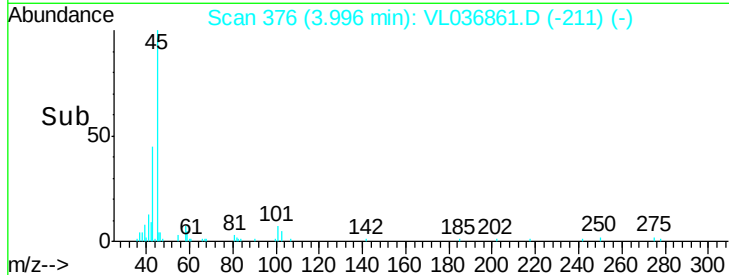
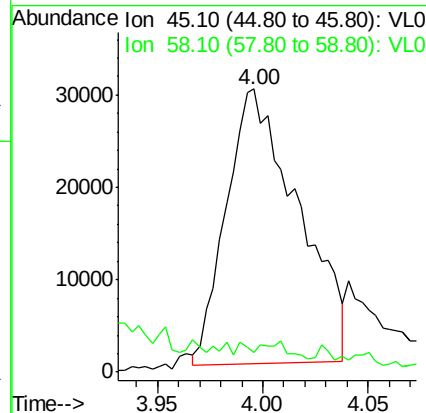
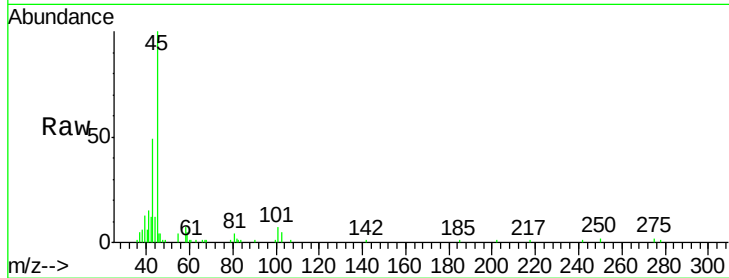
58 8.

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#20

Methylene Chloride

Concen: 18.588 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

Tgt Ion: 84 Resp: 1170383

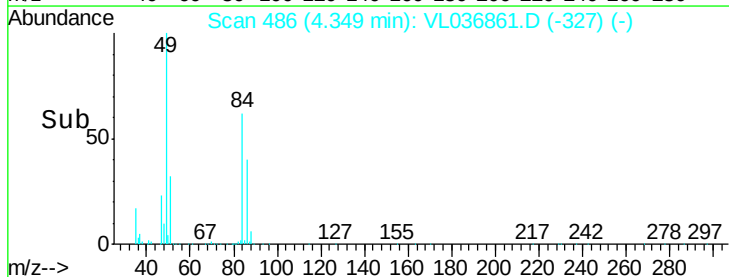
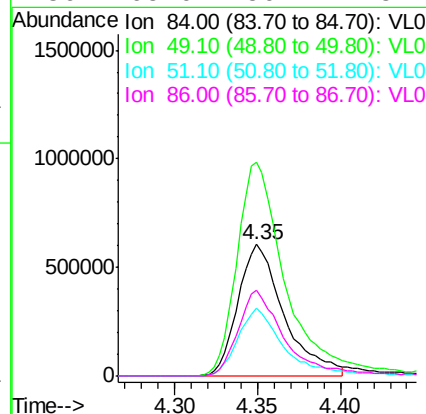
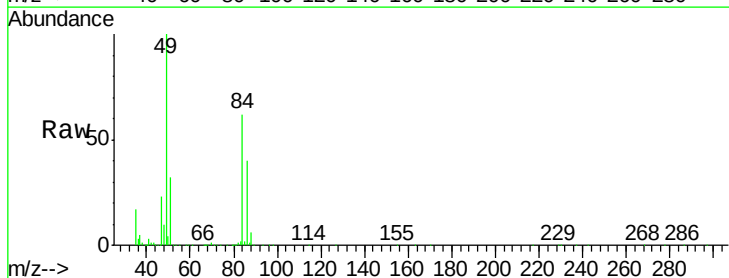
Ion Ratio Lower Upper

84 100

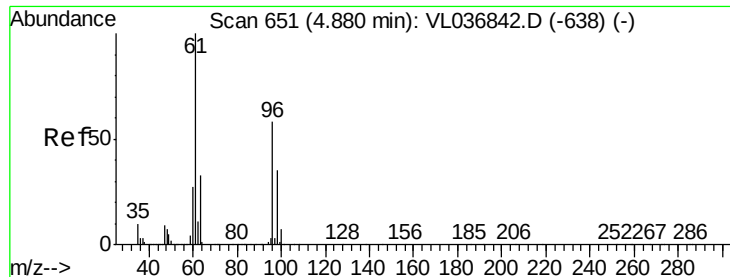
49 162.3 135.4 203.0

51 51.4 39.3 58.9

86 65.0 50.2 75.2







#22

trans-1,2-Dichloroethene

Concen: 0.223 ppbv

RT: 4.89 Instrument: MSVOA\_L

Delta R.T.

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

96 100

61 125.

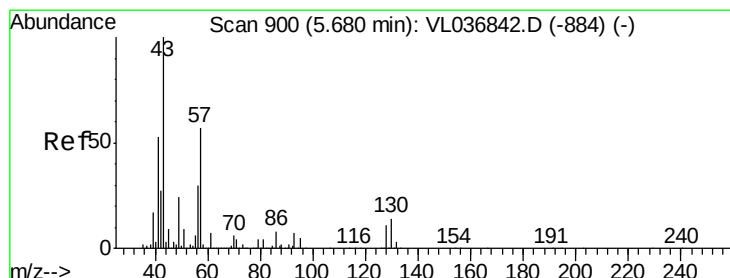
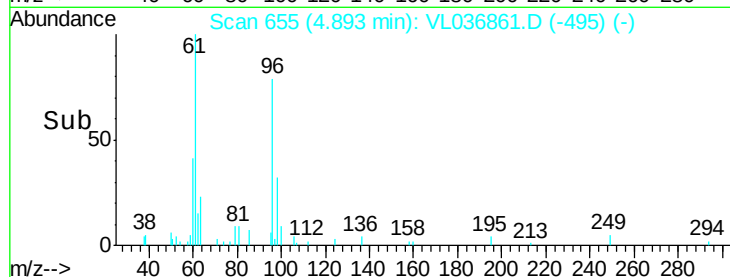
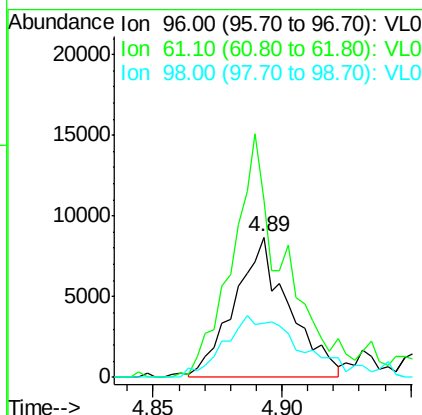
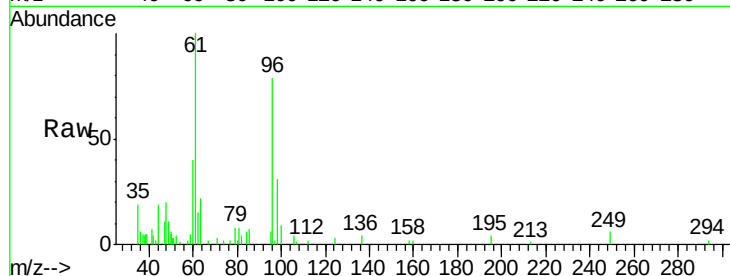
98 32.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#26

Hexane

Concen: 7.555 ppbv

RT: 5.69 min Scan# 904

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

Tgt Ion: 57 Resp: 1136827

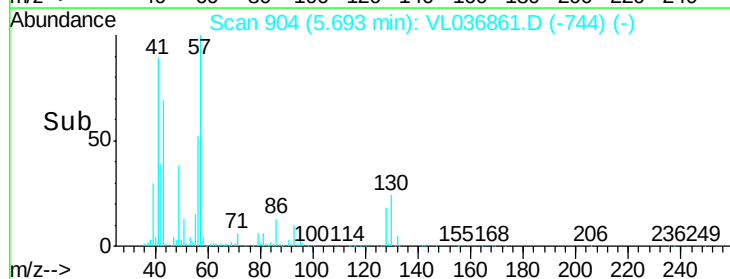
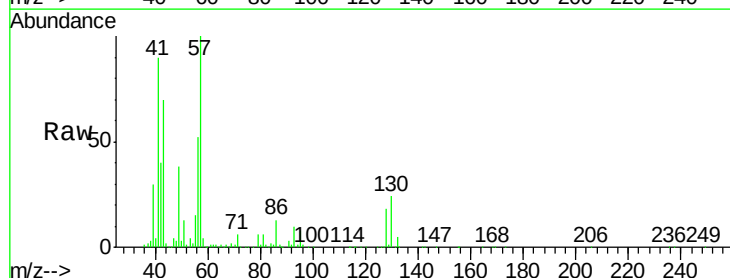
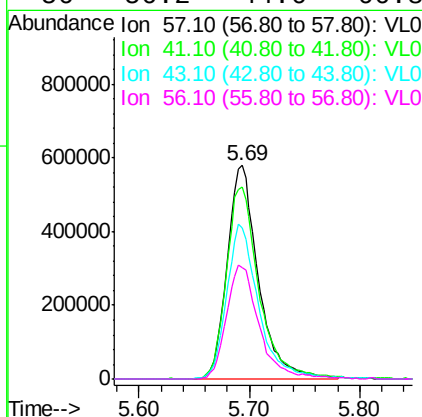
Ion Ratio Lower Upper

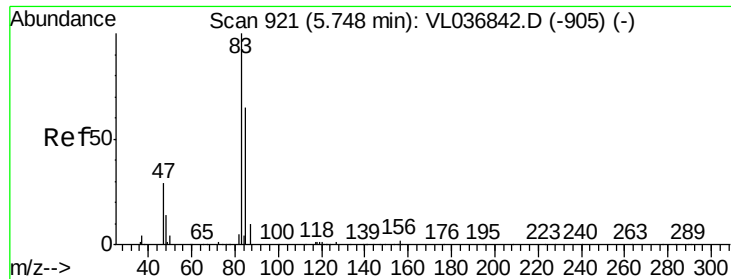
57 100

41 95.9 77.7 116.5

43 73.9 180.5 270.7#

56 56.2 44.6 66.8





#29

Chloroform

Concen: 0.446 ppbv

RT: 5.76 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

83 100

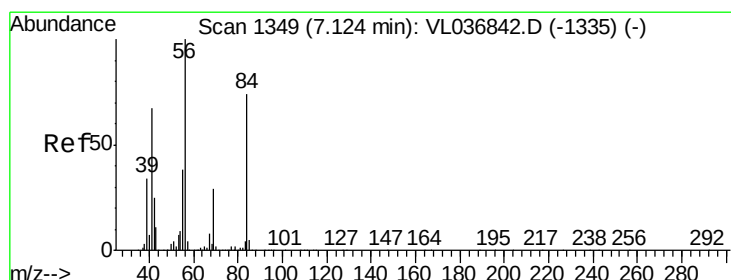
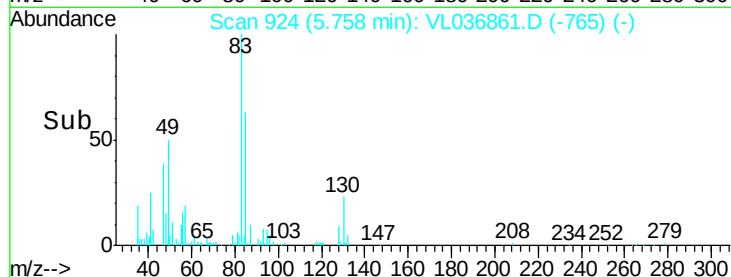
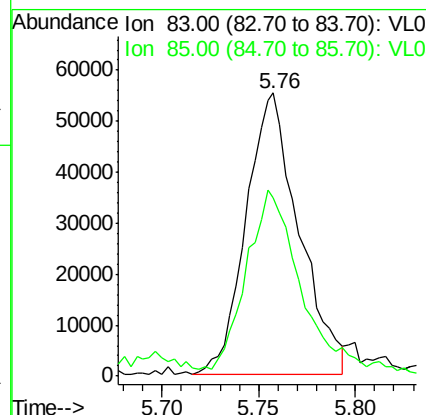
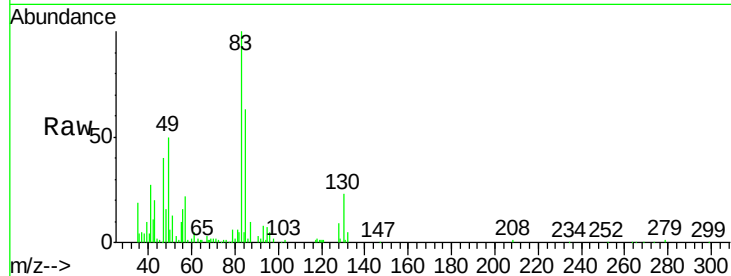
85 60.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#30

Cyclohexane

Concen: 0.322 ppbv m

RT: 7.17 min Scan# 1364

Delta R.T. 0.05 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

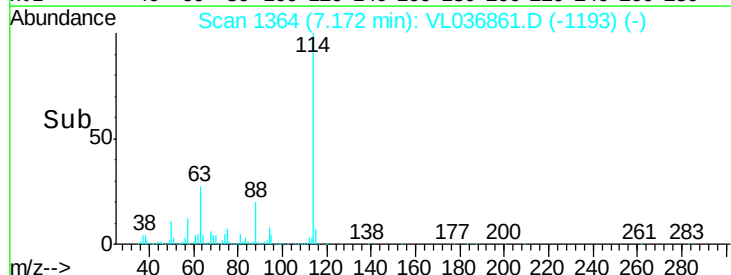
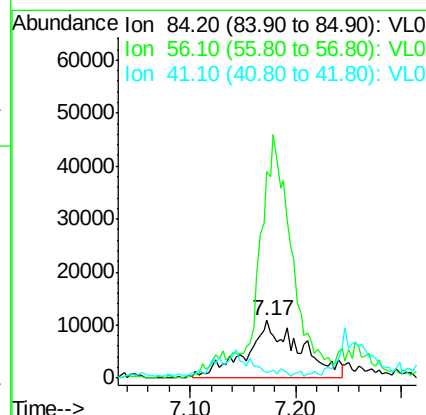
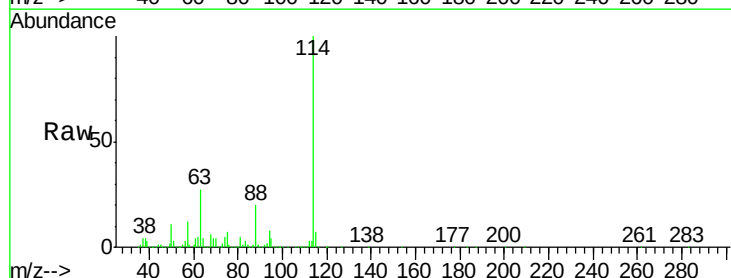
Tgt Ion: 84 Resp: 38388

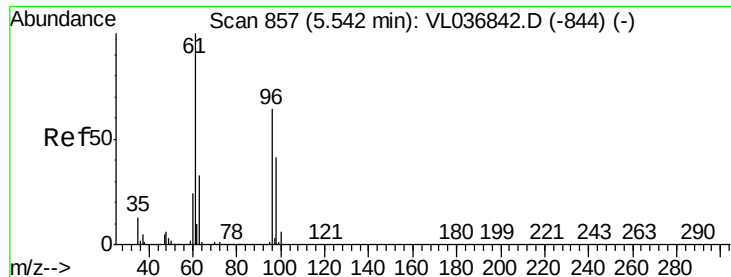
Ion Ratio Lower Upper

84 100

56 0.0 115.8 173.6#

41 0.0 74.6 111.8#





#31

cis-1,2-Dichloroethene

Concen: 8.574 ppbv

RT: 5.55 Instrument: MSVOA\_1

Delta R.T.

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId : OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

61 100

96 66.

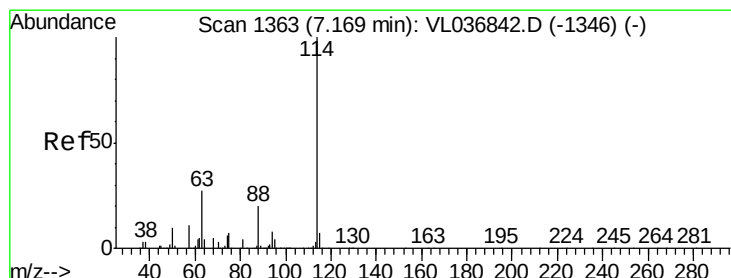
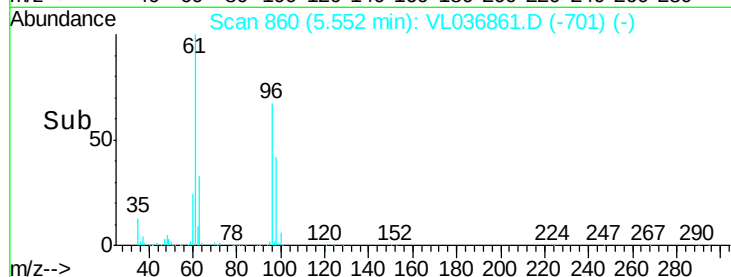
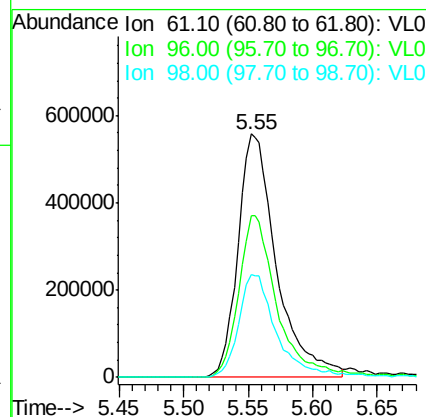
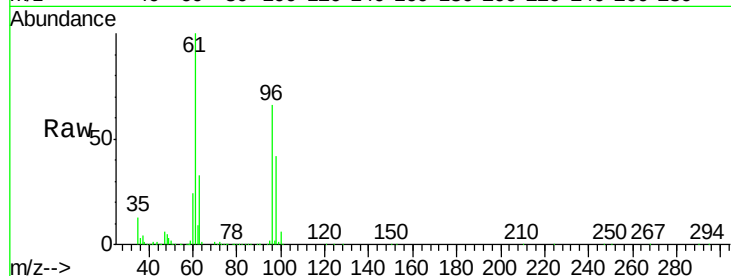
98 42.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

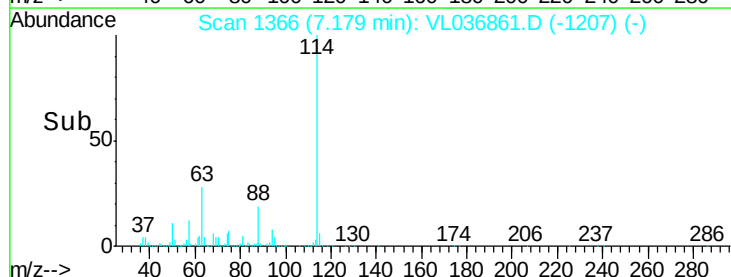
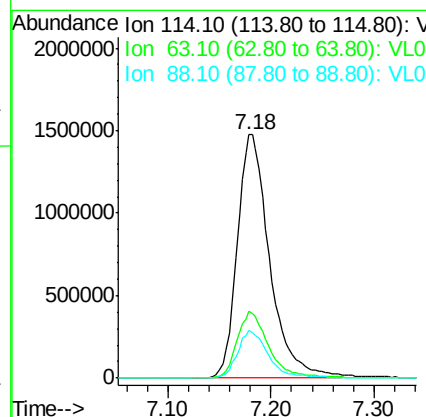
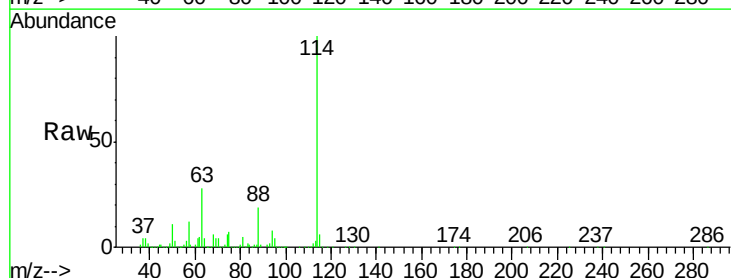
Tgt Ion:114 Resp: 3226130

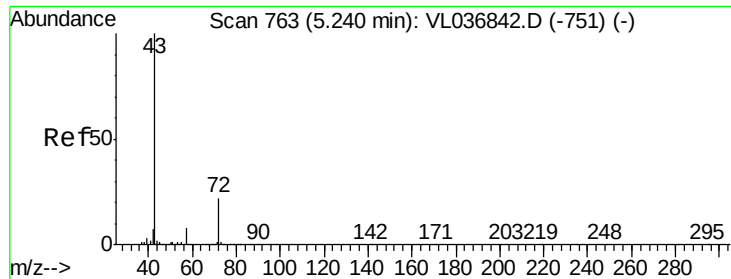
Ion Ratio Lower Upper

114 100

63 27.2 21.9 32.9

88 18.7 15.1 22.7





#34

2-Butanone

Concen: 0.828 ppbv

RT: 5.26

Delta R.T. MSVOA\_L

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId :

OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

43 100

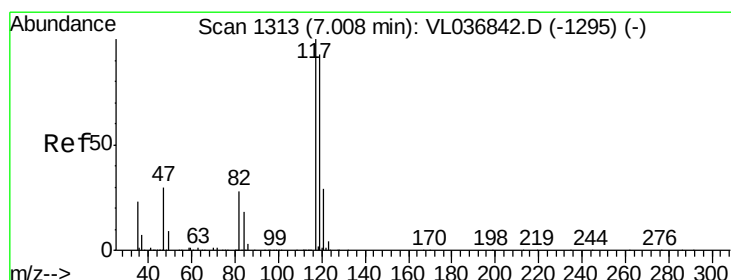
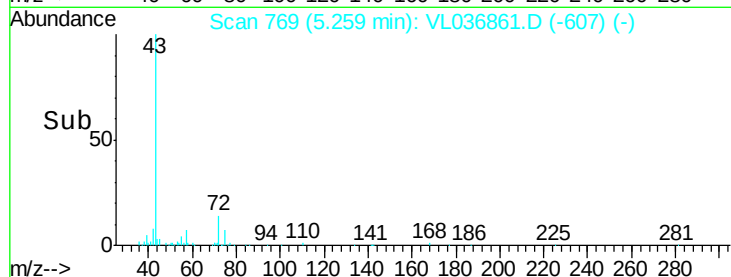
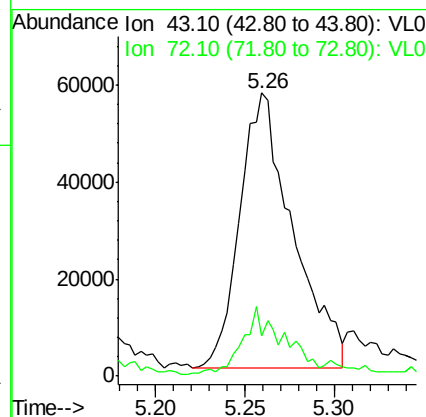
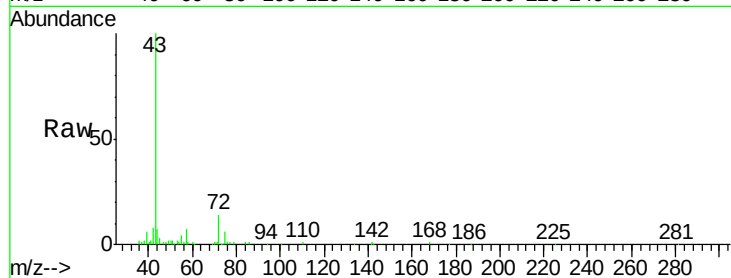
72 23.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#35

Carbon Tetrachloride

Concen: 0.066 ppbv m

RT: 7.02 min Scan# 1317

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

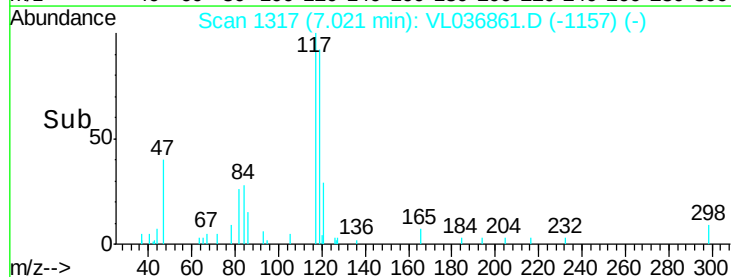
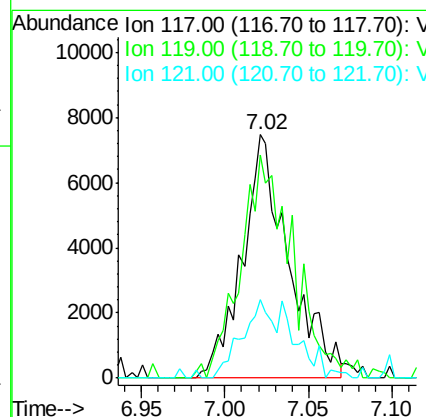
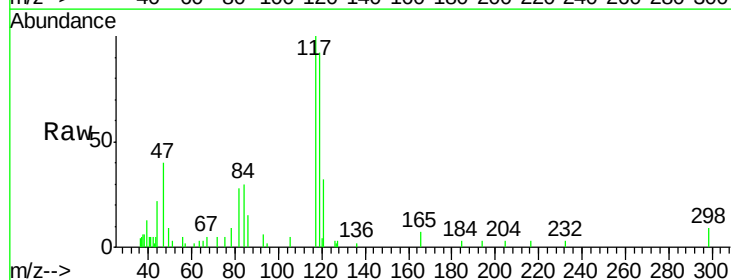
Tgt Ion:117 Resp: 14432

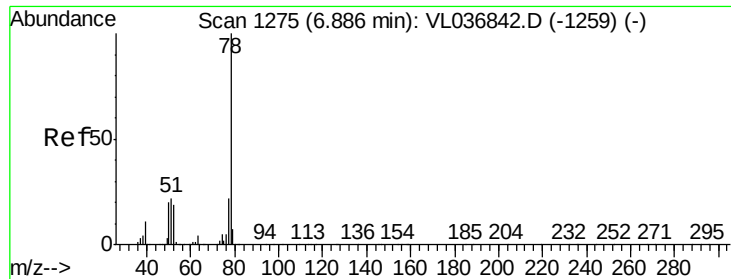
Ion Ratio Lower Upper

117 100

119 91.6 74.6 111.8

121 32.0 23.3 34.9





#36

Benzene

Concen: 0.217 ppbv m

RT: 6.90

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

78 100

77 23.

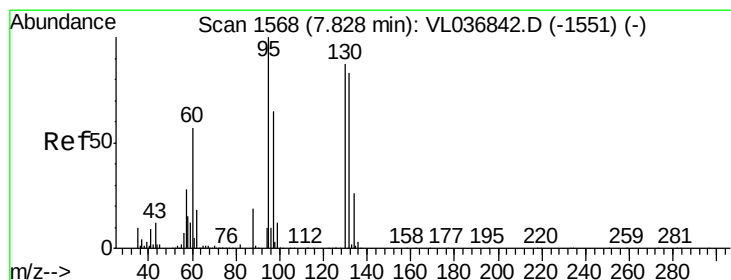
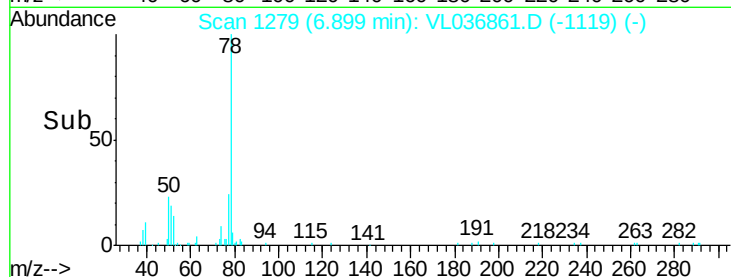
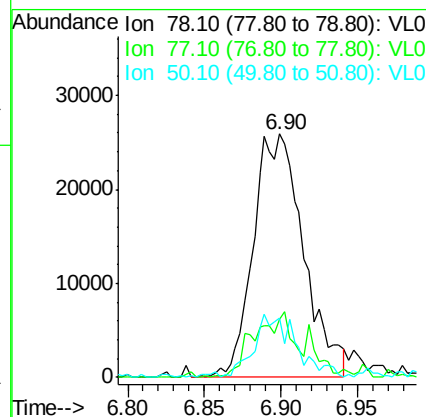
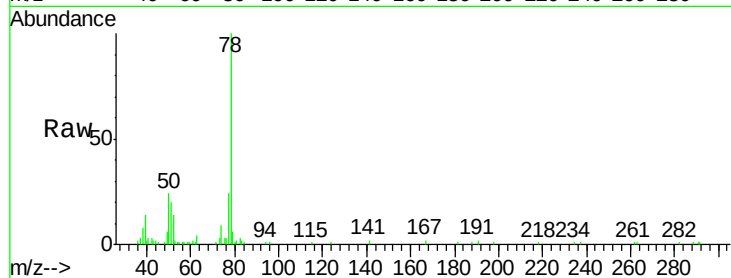
50 24.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#38

Trichloroethene

Concen: 0.177 ppbv m

RT: 7.84 min Scan# 1571

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

Tgt Ion:130 Resp: 17098

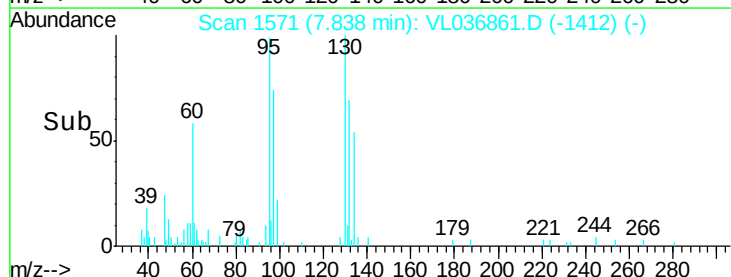
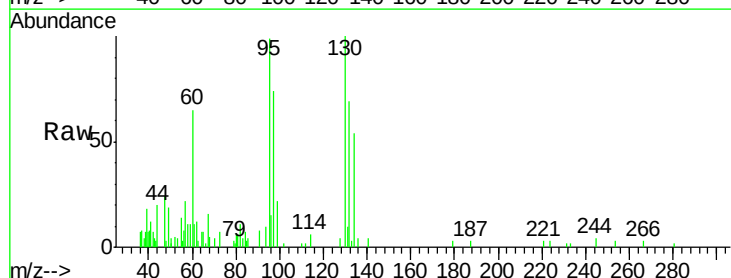
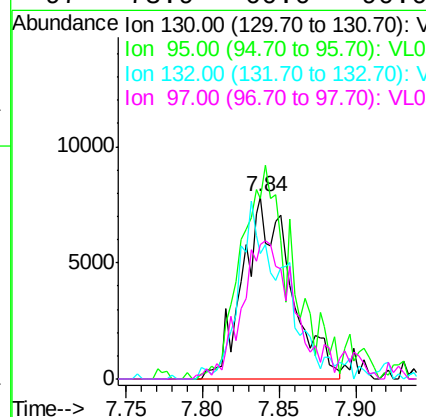
Ion Ratio Lower Upper

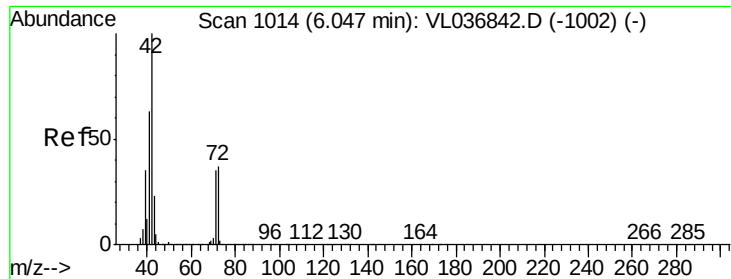
130 100

95 98.7 92.3 138.5

132 68.8 76.8 115.2#

97 73.9 60.0 90.0





#41

Tetrahydrofuran

Concen: 0.318 ppbv m

RT: 6.07 Instrument:

Delta R.T. MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

42 100

72 40.

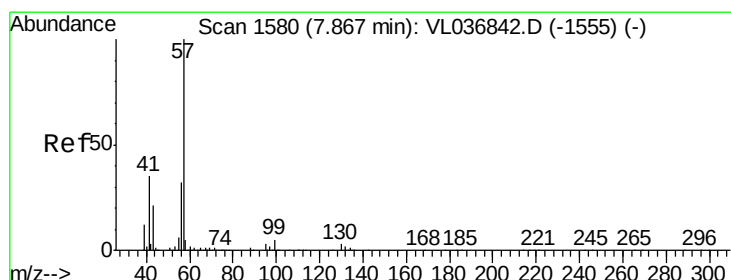
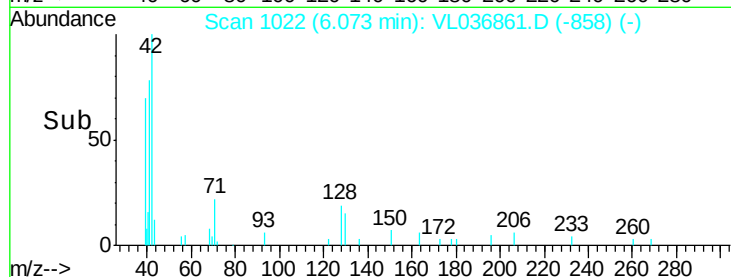
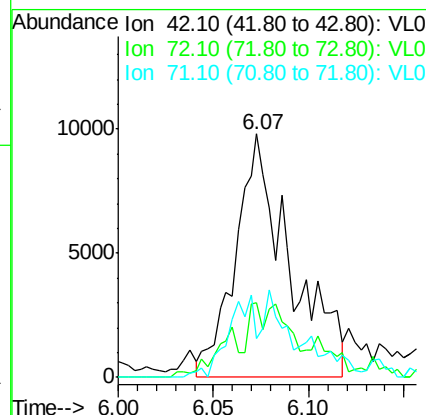
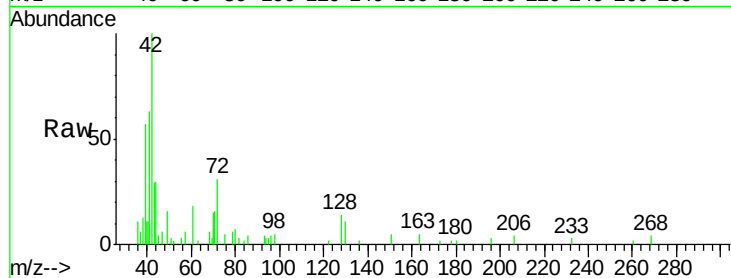
71 38.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021



#44

2,2,4-Trimethylpentane

Concen: 0.135 ppbv

RT: 7.88 min Scan# 1584

Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

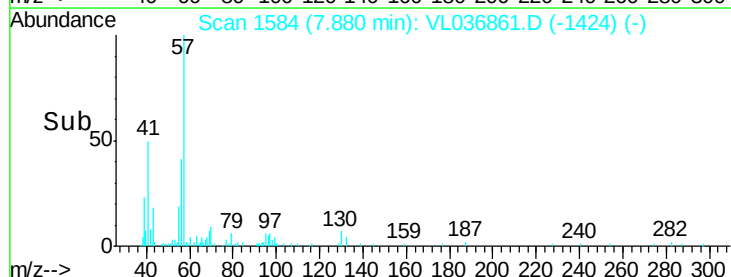
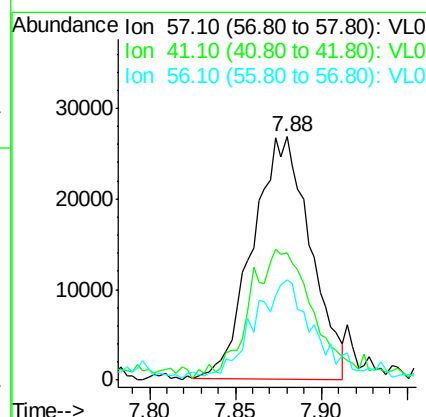
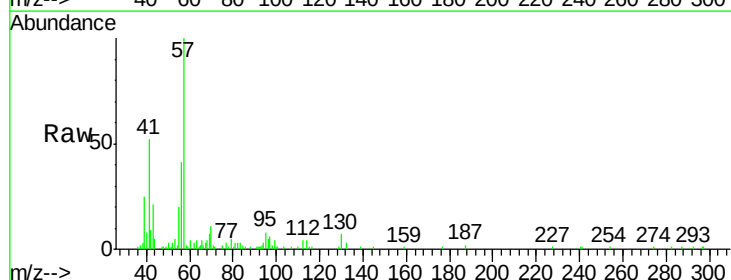
Tgt Ion: 57 Resp: 62722

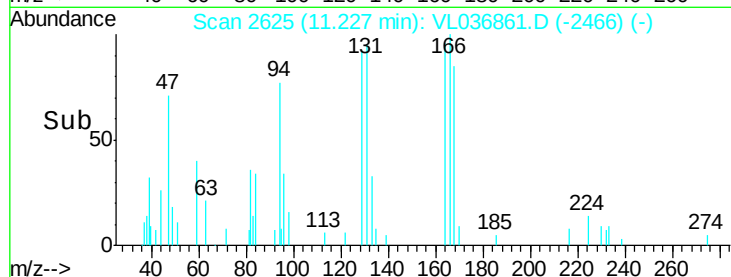
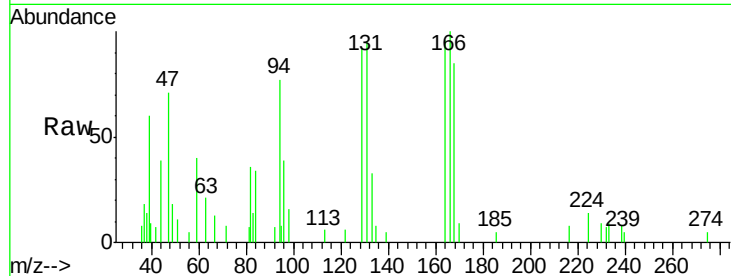
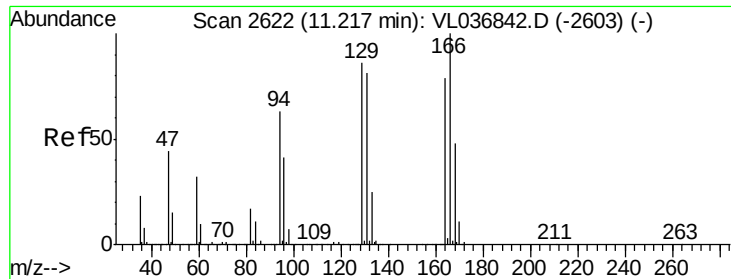
Ion Ratio Lower Upper

57 100

41 61.5 28.2 42.4#

56 48.1 25.9 38.9#





#52

Tetrachloroethene

Concen: 0.061 ppbv m

RT: 11.23

Delta R.T. MSVOA\_L

Lab File:

Acq: 27 Apr 2021 17:13

ClientSampleId :

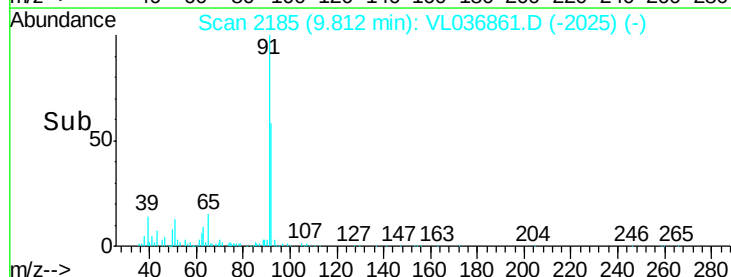
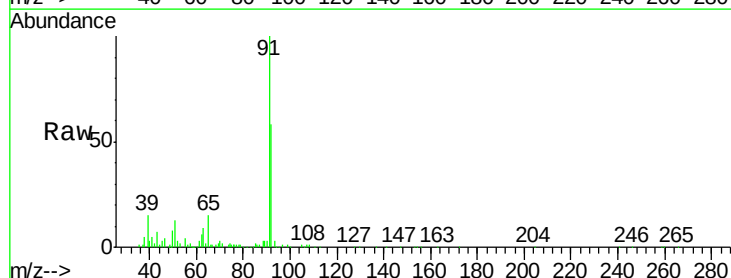
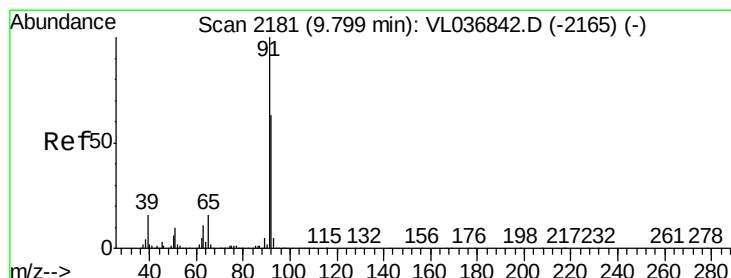
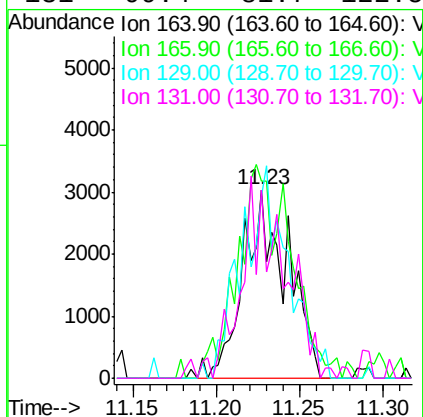
OFFSITE-DDC-INTERMEDIATE-1

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021  
Supervised By :Mahesh Dadoda 04/29/2021

| Tot Ion | Ion  | Ratio      |
|---------|------|------------|
| 164     | 100  |            |
| 166     | 104. |            |
| 129     | 96.  |            |
| 131     | 99.4 | 81.7 122.5 |



#53

Toluene

Concen: 0.628 ppbv

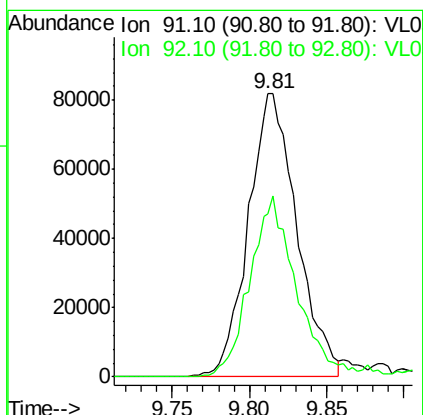
RT: 9.81 min Scan# 2185

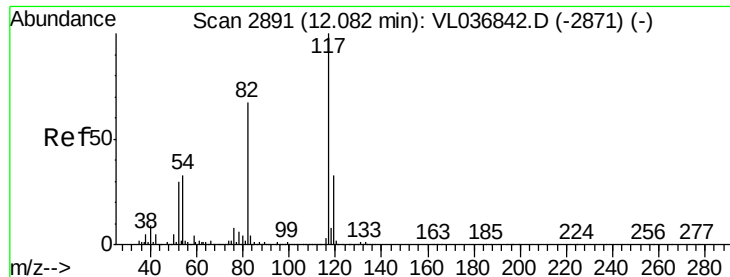
Delta R.T. 0.01 min

Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

| Tgt Ion | Ion  | Ratio | Lower | Upper |
|---------|------|-------|-------|-------|
| 91      | 100  |       |       |       |
| 92      | 63.2 | 49.0  | 73.4  |       |





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09

Delta R.T. MSVOA\_L

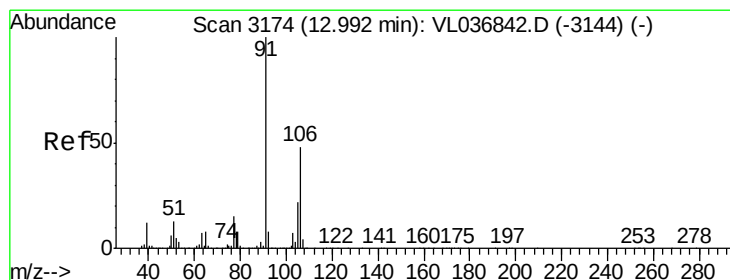
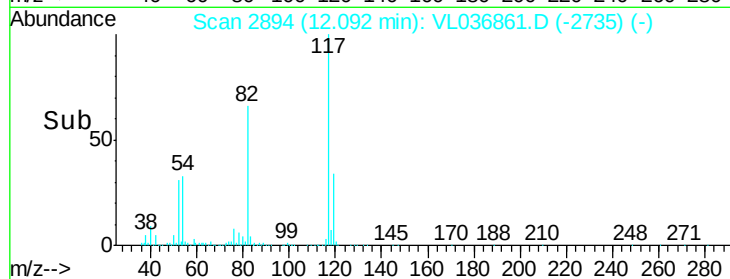
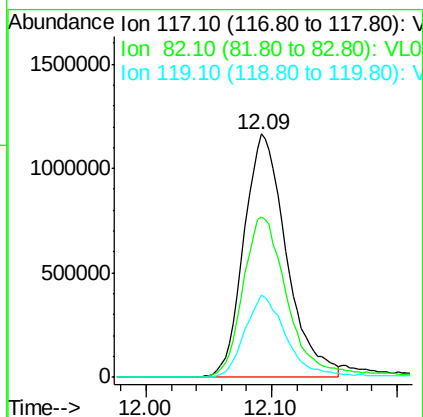
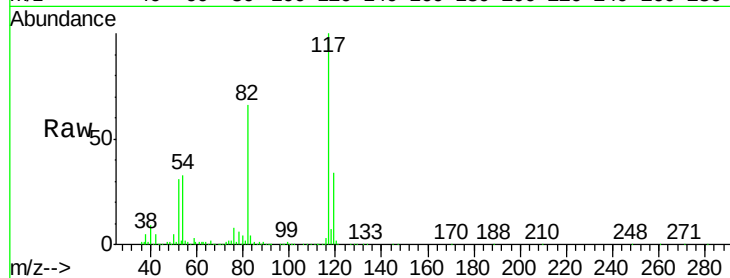
Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:13 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:1  
Ion Rati  
117 100  
82 71.  
119 34.

Manual Integrations  
APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021  
Supervised By :Mahesh Dadoda 04/29/2021



#59

m/p-Xylene

Concen: 0.184 ppbv m

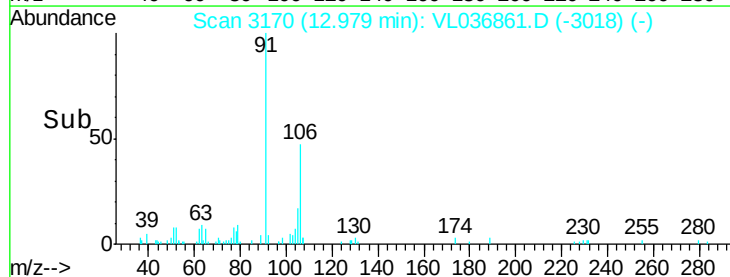
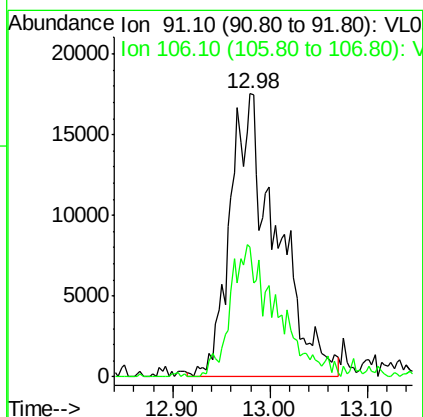
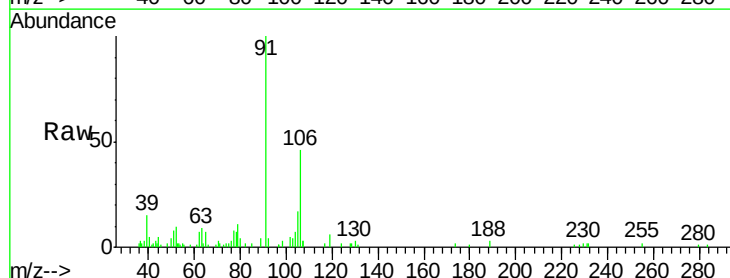
RT: 12.98 min Scan# 3170

Delta R.T. -0.01 min

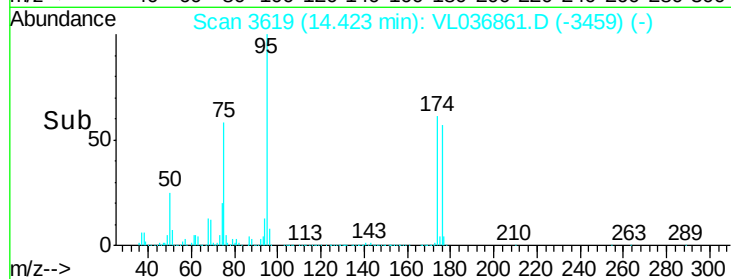
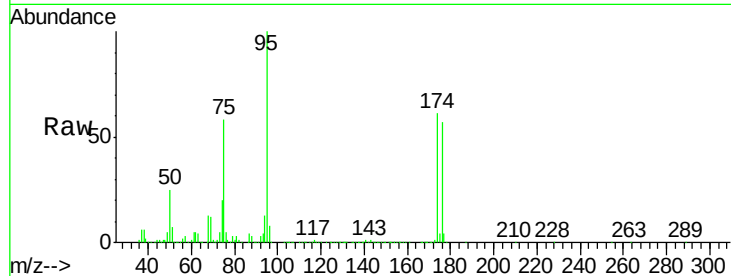
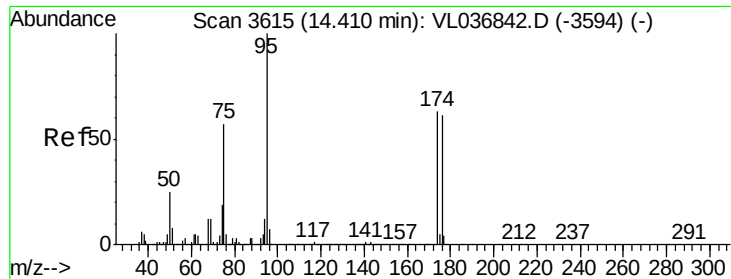
Lab File: VL036861.D

Acq: 27 Apr 2021 17:13

Tgt Ion: 91 Resp: 57528  
Ion Ratio Lower Upper  
91 100  
106 0.0 35.8 53.6#







#68

1-Bromo-4-Fluorobenzene

Concen: 10.021 ppbv

RT: 14.42

Delta R.T: MSVOA\_L

Lab File: ClientSampleId:

Acq: 27 Apr 2021 17:15 OFFSITE-DDC-INTERMEDIATE-1

Tot Ion:

Ion Ratio

95 100

174 67.

175 4.

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 04/28/2021

Supervised By :Mahesh Dadoda 04/29/2021

