

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034949.D  
 Acq On : 6 May 2020 19:33  
 Operator : SY/AP  
 Sample : L2182-13 0.1PPB  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:31:12 PM

Quant Time: May 07 07:27:14 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1142294  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.19  | 114  | 2622875  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.12 | 117  | 2453671  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.46  | 95    | 2053892  | 10.34    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 103.40% |

| Target Compounds               | R.T. | QIon | Response | Conc  | Units  | Ovalue |
|--------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.01 | 85   | 23816m   | 0.147 | ppbv   |        |
| 3) Chlorodifluoromethane       | 2.95 | 51   | 16469    | 0.126 | ppbv   | 94     |
| 4) Chloromethane               | 3.11 | 50   | 8250     | 0.110 | ppbv # | 77     |
| 5) Vinyl Chloride              | 3.22 | 62   | 8672     | 0.119 | ppbv   | 95     |
| 6) Bromomethane                | 3.45 | 94   | 5037     | 0.116 | ppbv # | 61     |
| 7) Chloroethane                | 3.53 | 64   | 3682m    | 0.141 | ppbv   |        |
| 8) Dichlorotetrafluoroethane   | 3.15 | 85   | 20054    | 0.120 | ppbv   | 93     |
| 9) Propene                     | 2.98 | 41   | 7871m    | 0.139 | ppbv   |        |
| 10) Heptane                    | 8.14 | 43   | 9181m    | 0.065 | ppbv   |        |
| 11) Trichlorofluoromethane     | 3.92 | 101  | 18939    | 0.113 | ppbv   | 85     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.47 | 101  | 13483m   | 0.113 | ppbv   |        |
| 13) Ethanol                    | 3.59 | 45   | 2714m    | 0.145 | ppbv   |        |
| 14) Bromoethene                | 3.71 | 108  | 4735m    | 0.096 | ppbv   |        |
| 15) Acetone                    | 3.84 | 43   | 38863    | 0.257 | ppbv # | 90     |
| 16) 1,3-Butadiene              | 3.29 | 39   | 5363     | 0.083 | ppbv # | 80     |
| 17) tert-Butyl alcohol         | 4.29 | 59   | 16798m   | 0.125 | ppbv   |        |
| 18) 1,1-Dichloroethene         | 4.27 | 96   | 7179m    | 0.139 | ppbv   |        |
| 19) Isopropyl Alcohol          | 3.96 | 45   | 15000m   | 0.149 | ppbv   |        |
| 20) Methylene Chloride         | 4.33 | 84   | 12742m   | 0.255 | ppbv   |        |
| 21) Allyl Chloride             | 4.39 | 41   | 9376m    | 0.110 | ppbv   |        |
| 22) trans-1,2-Dichloroethene   | 4.87 | 96   | 5695m    | 0.111 | ppbv   |        |
| 23) Vinyl Acetate              | 5.07 | 43   | 17946    | 0.094 | ppbv # | 81     |
| 24) 1,1-Dichloroethane         | 5.00 | 63   | 18249m   | 0.124 | ppbv   |        |
| 25) Ethyl Acetate              | 5.68 | 43   | 25883    | 0.102 | ppbv # | 89     |
| 26) Hexane                     | 5.69 | 57   | 11251m   | 0.102 | ppbv   |        |
| 27) Carbon Disulfide           | 4.54 | 76   | 11786m   | 0.091 | ppbv   |        |
| 28) Methyl tert-Butyl Ether    | 5.04 | 73   | 14512m   | 0.087 | ppbv   |        |
| 29) Chloroform                 | 5.74 | 83   | 21464m   | 0.119 | ppbv   |        |
| 30) Cyclohexane                | 7.14 | 84   | 4161m    | 0.049 | ppbv   |        |
| 31) cis-1,2-Dichloroethene     | 5.54 | 61   | 9286m    | 0.087 | ppbv   |        |
| 32) 1,1,1-Trichloroethane      | 6.51 | 97   | 17835m   | 0.110 | ppbv   |        |
| 34) 2-Butanone                 | 5.25 | 43   | 15977m   | 0.098 | ppbv   |        |
| 35) Carbon Tetrachloride       | 7.02 | 117  | 16559m   | 0.100 | ppbv   |        |
| 36) Benzene                    | 6.89 | 78   | 18016m   | 0.083 | ppbv   |        |
| 37) 1,2-Dichloroethane         | 6.31 | 62   | 16783m   | 0.126 | ppbv   |        |
| 38) Trichloroethene            | 7.85 | 130  | 7334m    | 0.088 | ppbv   |        |
| 39) 1,2-Dichloropropane        | 7.64 | 63   | 10454m   | 0.121 | ppbv   |        |
| 41) Tetrahydrofuran            | 6.09 | 42   | 5504m    | 0.064 | ppbv   |        |
| 42) Bromodichloromethane       | 7.81 | 83   | 17613m   | 0.098 | ppbv   |        |
| 43) Methyl Methacrylate        | 8.03 | 69   | 6540     | 0.072 | ppbv   | 91     |
| 44) 2,2,4-Trimethylpentane     | 7.89 | 57   | 23902m   | 0.062 | ppbv   |        |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
 Data File : VL034949.D  
 Acq On : 6 May 2020 19:33  
 Operator : SY/AP  
 Sample : L2182-13 0.1PPB  
 Misc : 400ml/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:31:12 PM

Quant Time: May 07 07:27:14 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed May 0  
 QLast Update : Wed May 06 14:49:39 2020  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|-------|------|----------|-------|-------|----------|
| 45) t-1,3-Dichloropropene     | 9.30  | 75   | 5458m    | 0.059 | ppbv  |          |
| 46) cis-1,3-Dichloropropene   | 8.73  | 75   | 7879m    | 0.070 | ppbv  |          |
| 47) 1,1,2-Trichloroethane     | 9.50  | 97   | 9711m    | 0.106 | ppbv  |          |
| 48) Dibromochloromethane      | 10.33 | 129  | 10644m   | 0.076 | ppbv  |          |
| 49) Bromoform                 | 13.08 | 173  | 8643m    | 0.071 | ppbv  |          |
| 50) 4-Methyl-2-Pentanone      | 8.79  | 43   | 16665m   | 0.072 | ppbv  |          |
| 51) 2-Hexanone                | 10.18 | 43   | 9222m    | 0.051 | ppbv  |          |
| 52) Tetrachloroethene         | 11.26 | 164  | 6749m    | 0.088 | ppbv  |          |
| 53) Toluene                   | 9.83  | 91   | 12658m   | 0.055 | ppbv  |          |
| 54) 1,2-Dibromoethane         | 10.65 | 107  | 11807m   | 0.088 | ppbv  |          |
| 56) 1,1,1,2-Tetrachloroethane | 12.14 | 131  | 9912m    | 0.090 | ppbv  |          |
| 57) Chlorobenzene             | 12.19 | 112  | 21581m   | 0.111 | ppbv  |          |
| 58) Ethyl Benzene             | 12.75 | 91   | 17117m   | 0.056 | ppbv  |          |
| 59) m/p-Xylene                | 13.03 | 91   | 31299m   | 0.117 | ppbv  |          |
| 60) o-Xylene                  | 13.72 | 91   | 14671m   | 0.056 | ppbv  |          |
| 61) Styrene                   | 13.56 | 104  | 8103m    | 0.049 | ppbv  |          |
| 62) Isopropylbenzene          | 14.71 | 105  | 27291m   | 0.069 | ppbv  |          |
| 63) 1,1,2,2-Tetrachloroethane | 13.72 | 83   | 20440m   | 0.099 | ppbv  |          |
| 64) n-propylbenzene           | 15.60 | 120  | 5248m    | 0.052 | ppbv  |          |
| 65) tert-Butylbenzene         | 16.80 | 119  | 17309m   | 0.051 | ppbv  |          |
| 66) Benzyl Chloride           | 17.04 | 91   | 8723m    | 0.075 | ppbv  |          |
| 67) sec-Butylbenzene          | 17.34 | 105  | 26805m   | 0.055 | ppbv  |          |
| 69) p-Isopropyltoluene        | 17.71 | 119  | 19620m   | 0.050 | ppbv  |          |
| 70) n-Butylbenzene            | 18.60 | 91   | 24104m   | 0.057 | ppbv  |          |
| 71) 2-Chlorotoluene           | 15.49 | 91   | 19227m   | 0.065 | ppbv  |          |
| 72) 4-Ethyltoluene            | 15.88 | 105  | 17864m   | 0.061 | ppbv  |          |
| 73) 1,3,5-Trimethylbenzene    | 16.04 | 105  | 15006m   | 0.052 | ppbv  |          |
| 74) 1,2,4-Trimethylbenzene    | 16.81 | 105  | 16499m   | 0.053 | ppbv  |          |
| 75) 1,3-Dichlorobenzene       | 17.04 | 146  | 20888m   | 0.114 | ppbv  |          |
| 76) 1,4-Dichlorobenzene       | 17.19 | 146  | 15574m   | 0.089 | ppbv  |          |
| 77) 1,2-Dichlorobenzene       | 17.87 | 146  | 15141m   | 0.088 | ppbv  |          |
| 78) Hexachloro-1,3-Butadiene  | 23.43 | 225  | 19343m   | 0.131 | ppbv  |          |
| 81) 1,2,4-Trichlorobenzene    | 22.01 | 180  | 11443m   | 0.078 | ppbv  |          |

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

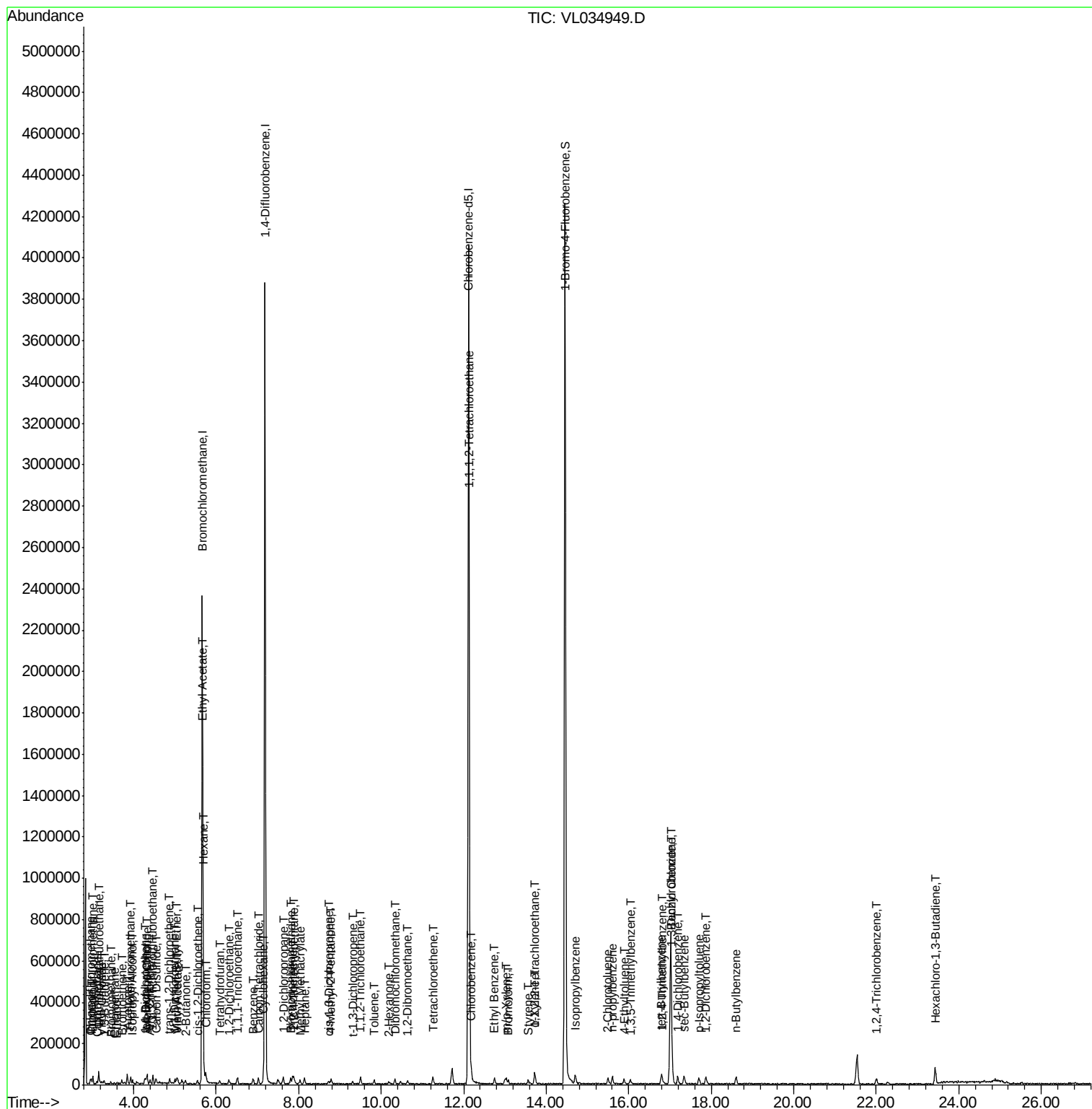
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL050620\  
Data File : VL034949.D  
Acq On : 6 May 2020 19:33  
Operator : SY/AP  
Sample : L2182-13 0.1PPB  
Misc : 400ml/MSVOA L  
ALS Vial : 1 Sample Multiplier: 1

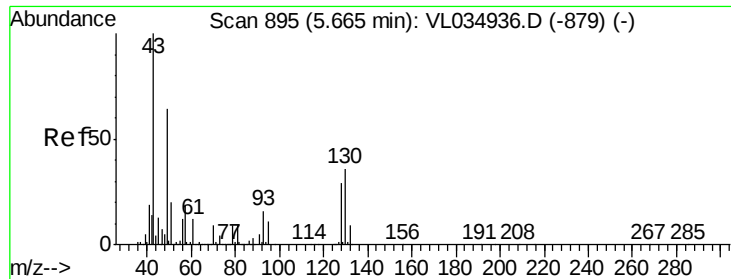
Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM

Quant Time: May 07 07:27:14 2020  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL050620AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Wed May  
QLast Update : Wed May 06 14:49:39 2020  
Response via : Initial Calibration





#1

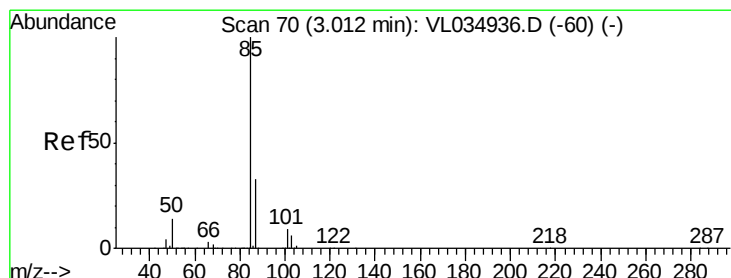
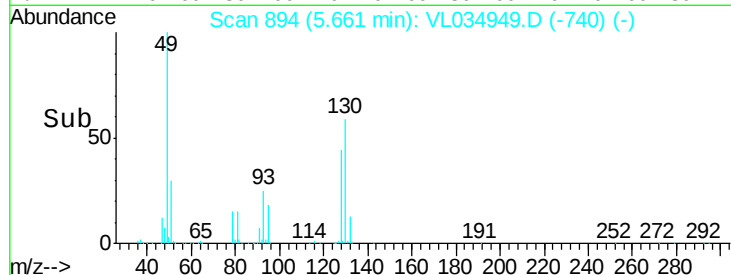
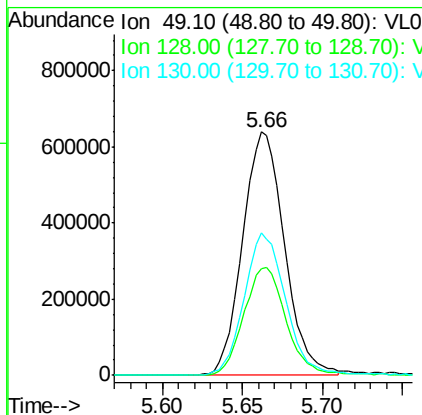
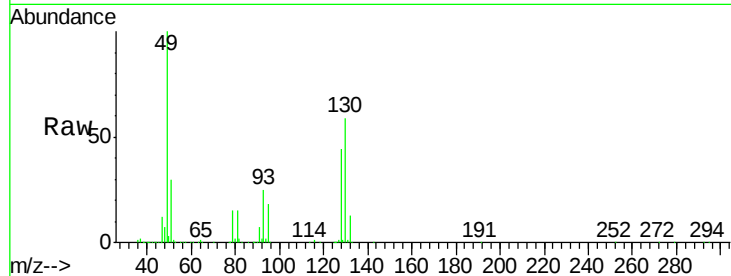
Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.66 min Scan# 894  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

Tot Ion: 49 Resp: 1142294  
 Ion Ratio Lower Upper  
 49 100  
 128 45.4 22.1 66.5  
 130 58.3 29.1 87.3

Manual Integrations  
 APPROVED

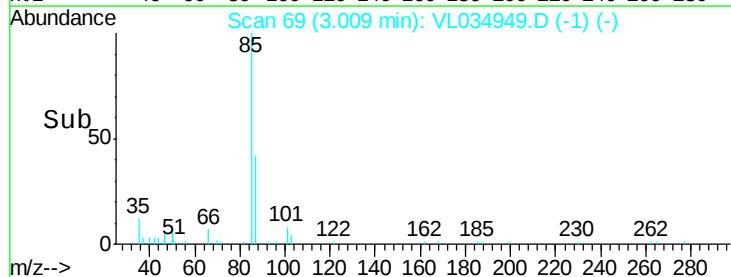
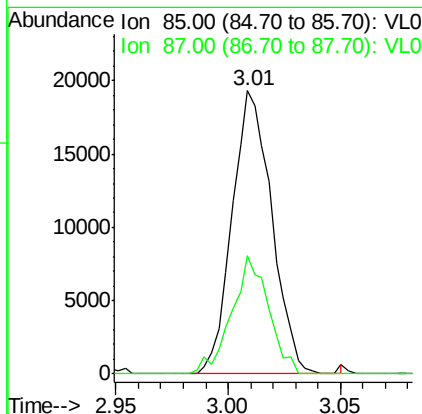
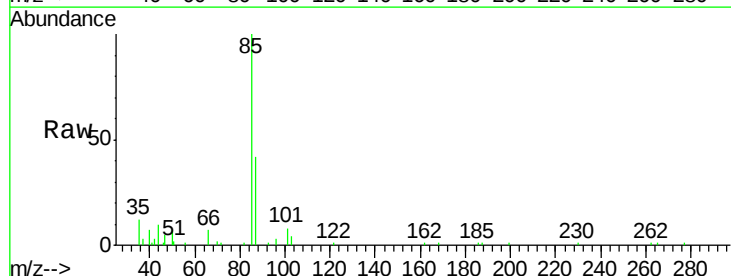
MMDadoda  
 5/7/2020 2:31:12 PM

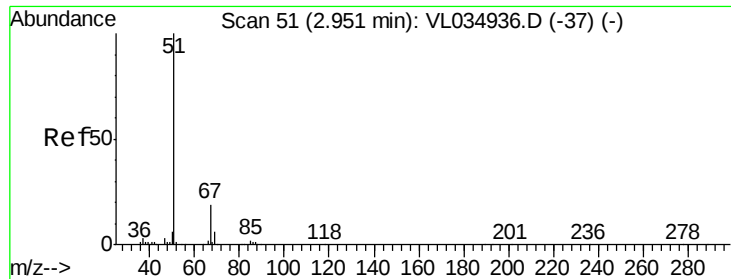


#2

Dichlorodifluoromethane  
 Concen: 0.147 ppbv m  
 RT: 3.01 min Scan# 69  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Tgt Ion: 85 Resp: 23816  
 Ion Ratio Lower Upper  
 85 100  
 87 41.6 26.2 39.2#





#3

Chlorodifluoromethane

Concen: 0.126 ppbv

RT: 2.95 min Scan# 50

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 51 Resp: 16469

Ion Ratio Lower Upper

51 100

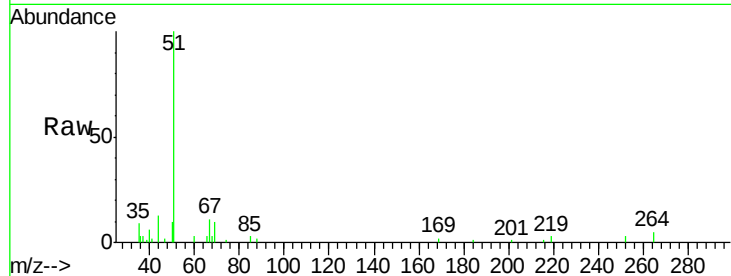
67 21.4 15.0 22.6

Manual Integrations

APPROVED

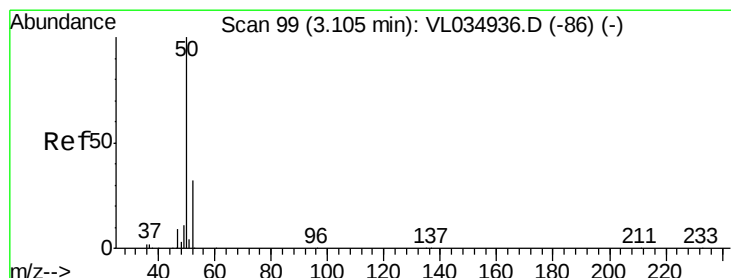
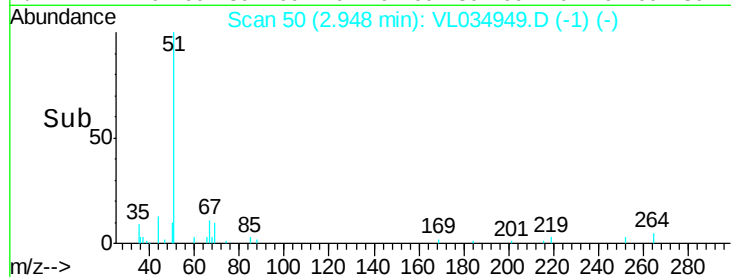
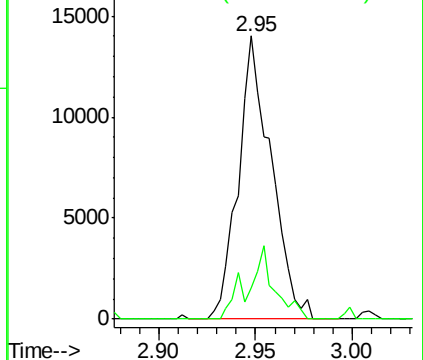
MMDadoda

5/7/2020 2:31:12 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.110 ppbv

RT: 3.11 min Scan# 100

Delta R.T. 0.00 min

Lab File: VL034949.D

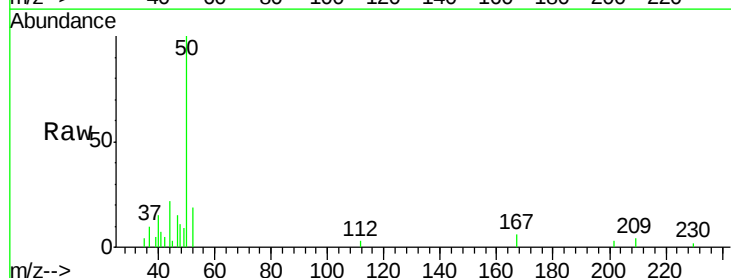
Acq: 6 May 2020 19:33

Tgt Ion: 50 Resp: 8250

Ion Ratio Lower Upper

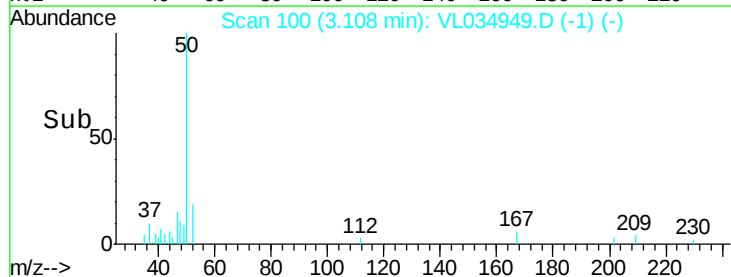
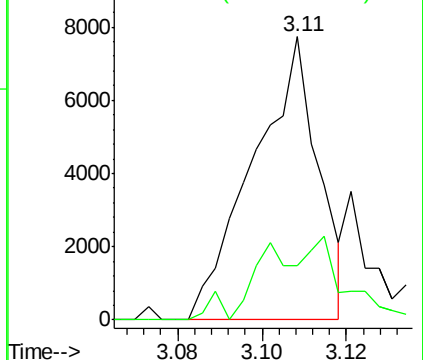
50 100

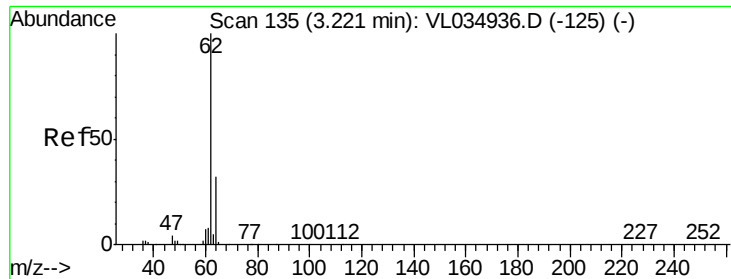
52 19.1 25.4 38.2#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.119 ppbv

RT: 3.22 min Scan# 135

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 62 Resp: 8672

Ion Ratio Lower Upper

62 100

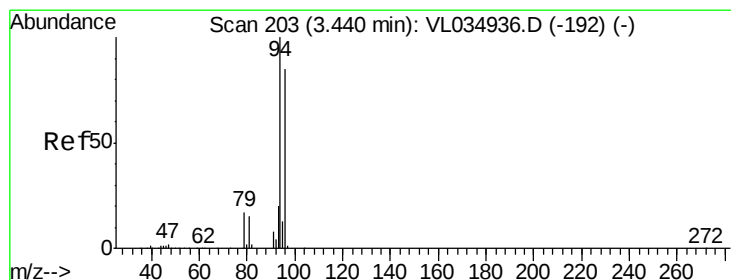
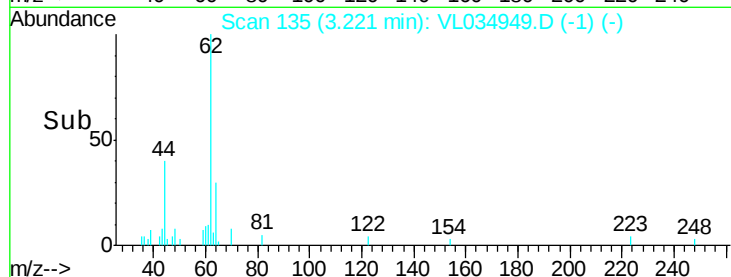
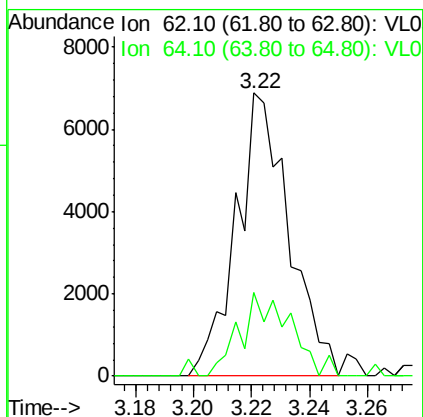
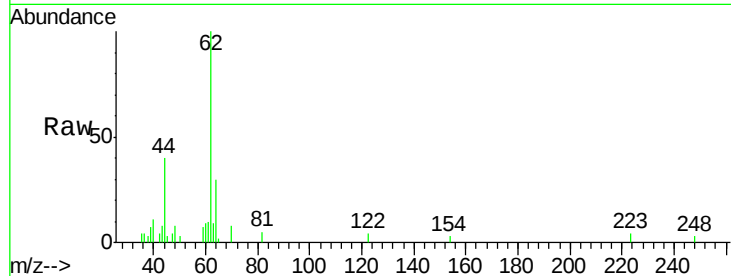
64 29.6 25.7 38.5

Manual Integrations

APPROVED

MMDadoda

5/7/2020 2:31:12 PM



#6

Bromomethane

Concen: 0.116 ppbv

RT: 3.45 min Scan# 205

Delta R.T. 0.01 min

Lab File: VL034949.D

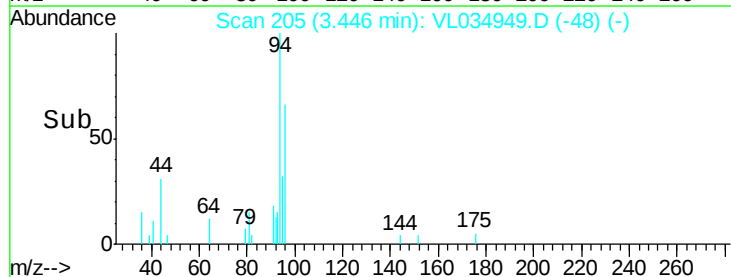
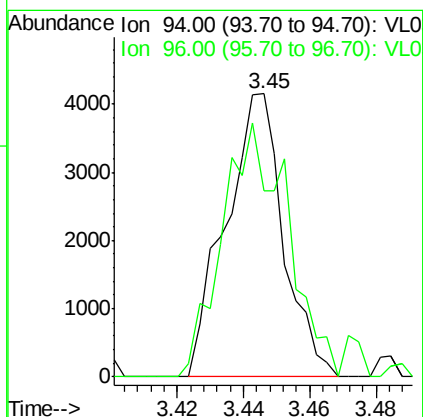
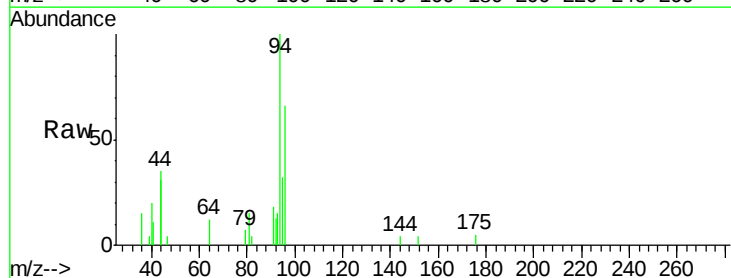
Acq: 6 May 2020 19:33

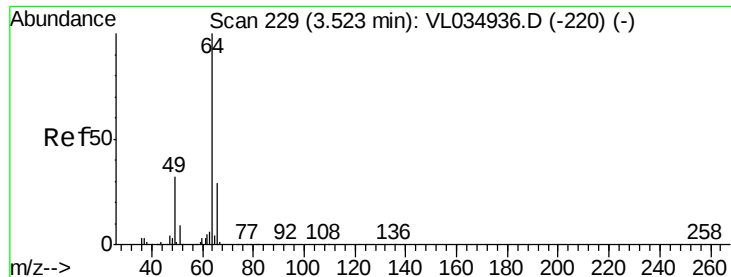
Tgt Ion: 94 Resp: 5037

Ion Ratio Lower Upper

94 100

96 49.8 67.9 101.9#





#7

Chloroethane

Concen: 0.141 ppbv m

RT: 3.53 min Scan# 231

Delta R.T. 0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 64 Resp: 3682

Ion Ratio Lower Upper

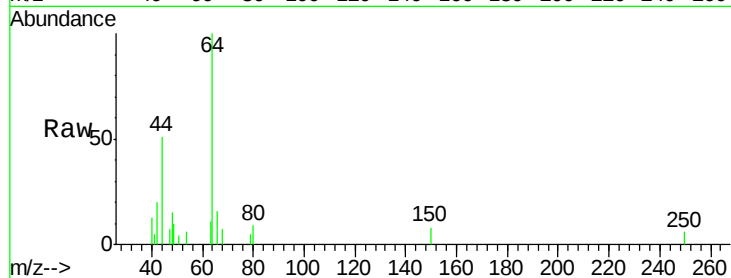
64 100

66 16.1 23.2 34.8#

Manual Integrations  
APPROVED

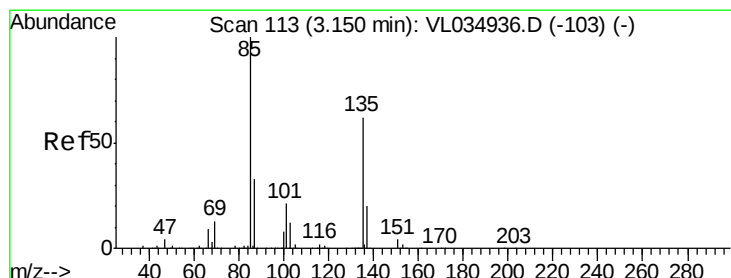
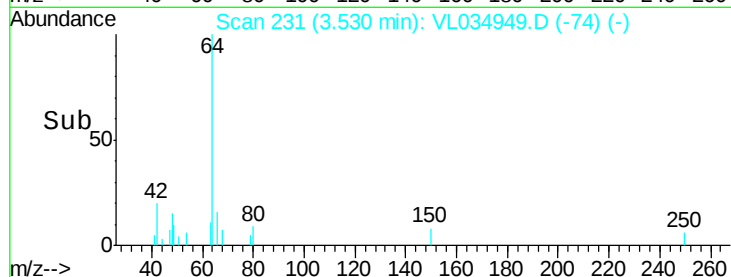
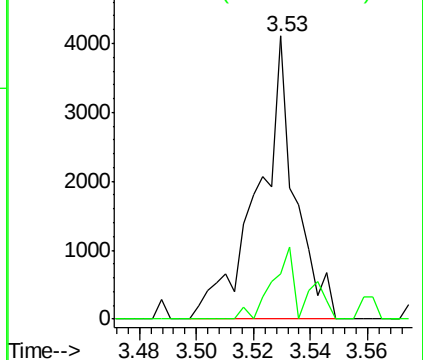
MMDadoda

5/7/2020 2:31:12 PM



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 0.120 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL034949.D

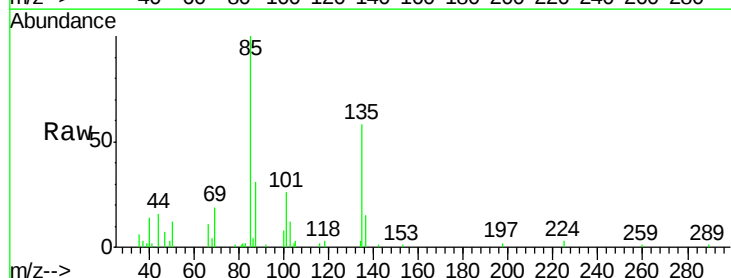
Acq: 6 May 2020 19:33

Tgt Ion: 85 Resp: 20054

Ion Ratio Lower Upper

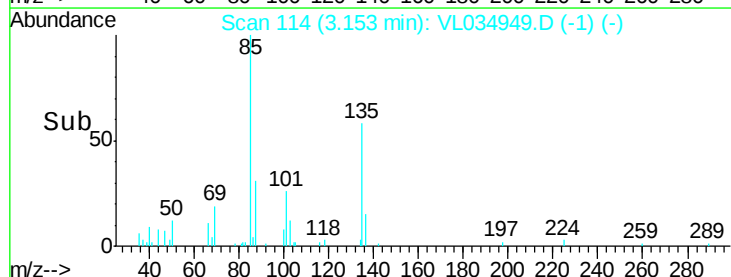
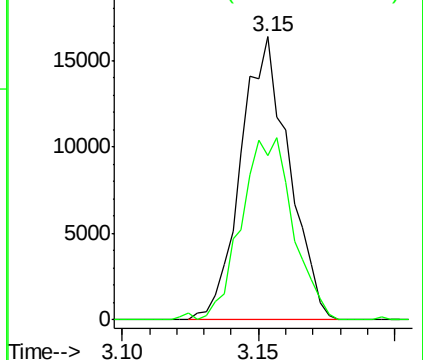
85 100

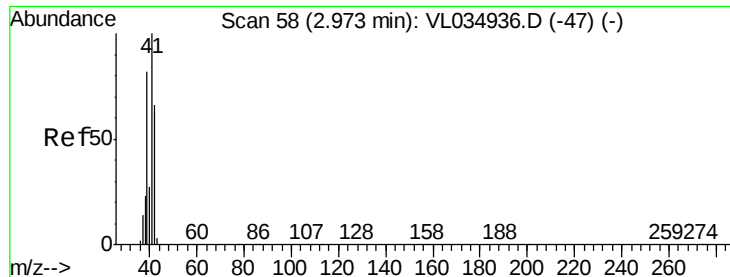
135 69.4 50.9 76.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 0.139 ppbv m

RT: 2.98 min Scan# 59

Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 41 Resp: 7871

Ion Ratio Lower Upper

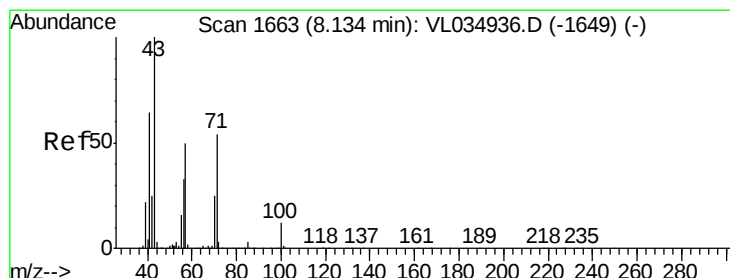
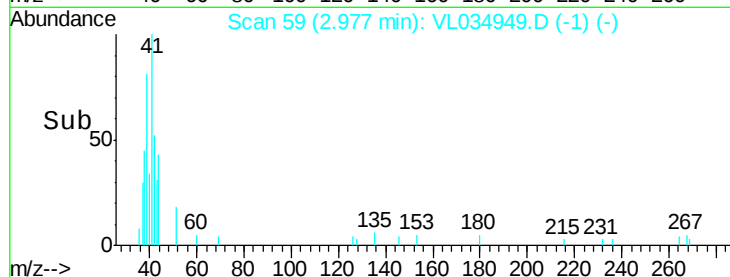
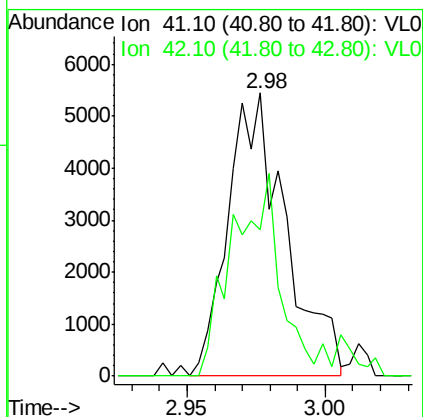
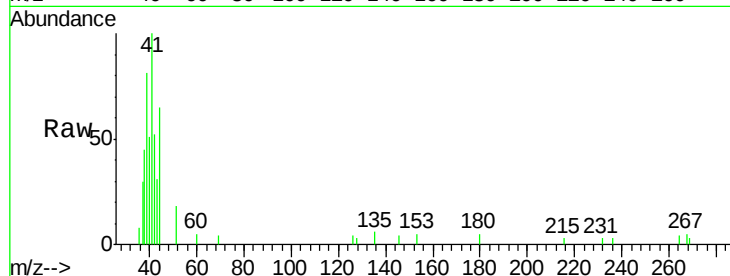
41 100

42 0.0 54.5 81.7#

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:31:12 PM



#10

Heptane

Concen: 0.065 ppbv m

RT: 8.14 min Scan# 1664

Delta R.T. 0.00 min

Lab File: VL034949.D

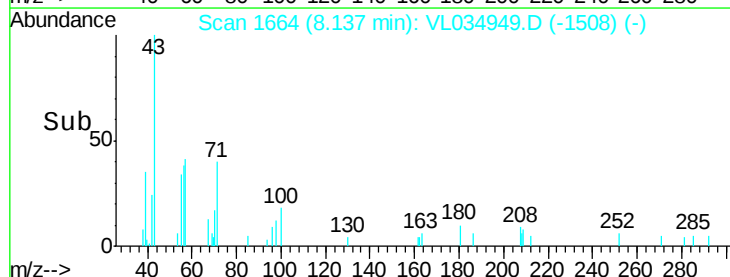
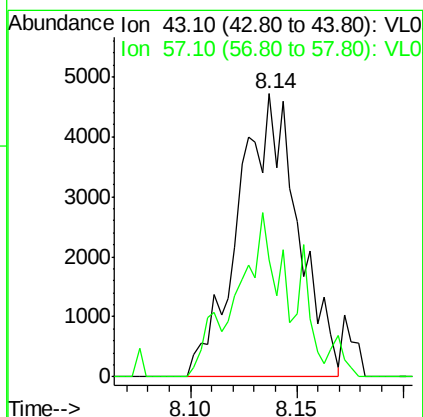
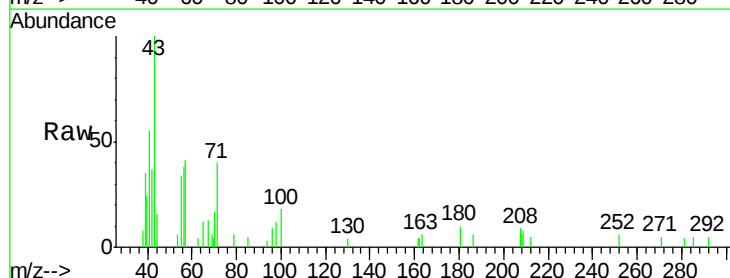
Acq: 6 May 2020 19:33

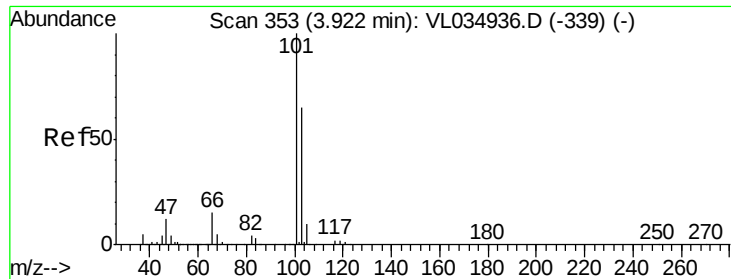
Tgt Ion: 43 Resp: 9181

Ion Ratio Lower Upper

43 100

57 0.0 41.1 61.7#





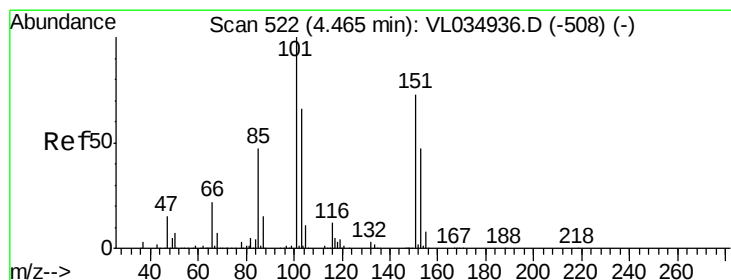
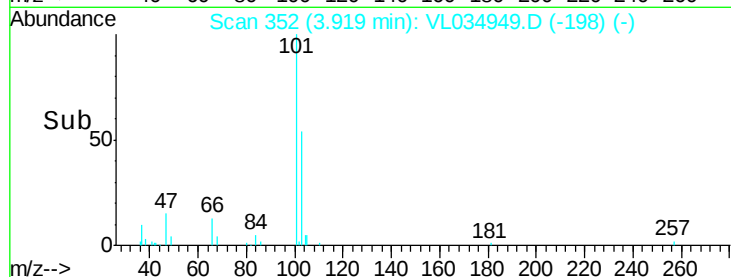
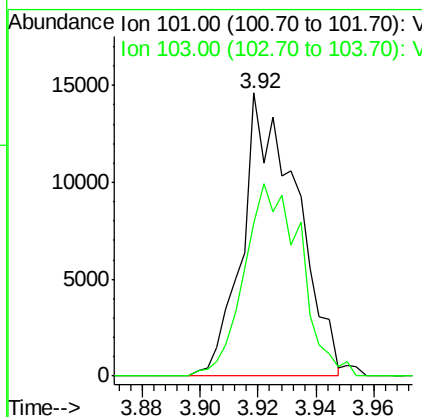
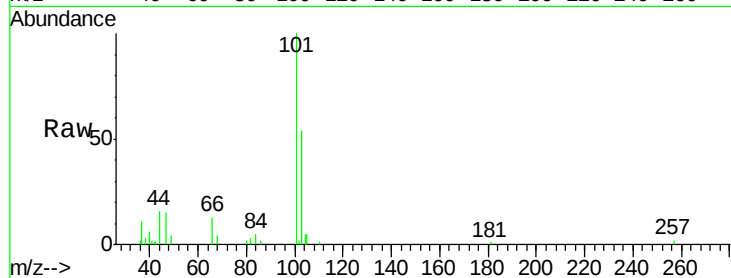
#11  
 Trichlorofluoromethane  
 Concen: 0.113 ppbv  
 RT: 3.92 min Scan# 352  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 103     | 52.8  | 51.9  | 77.9  |

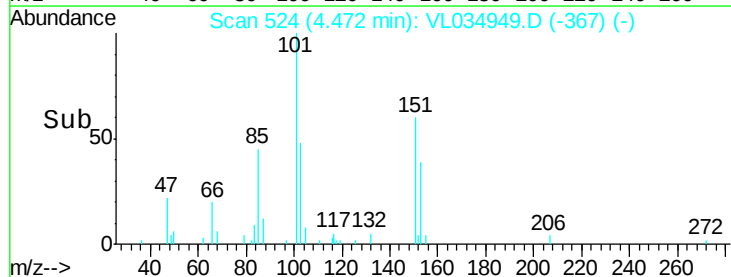
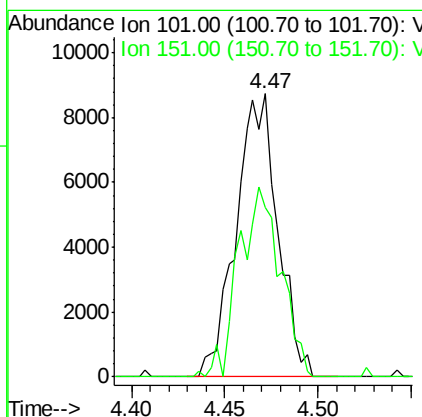
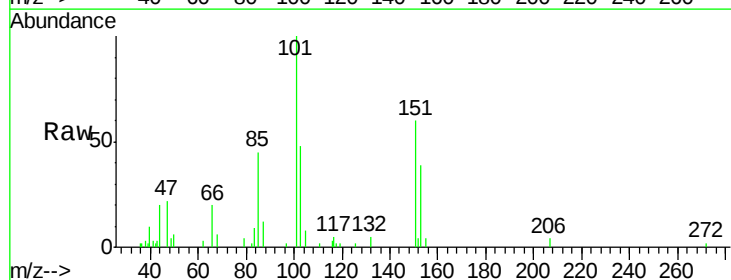
Manual Integrations  
 APPROVED

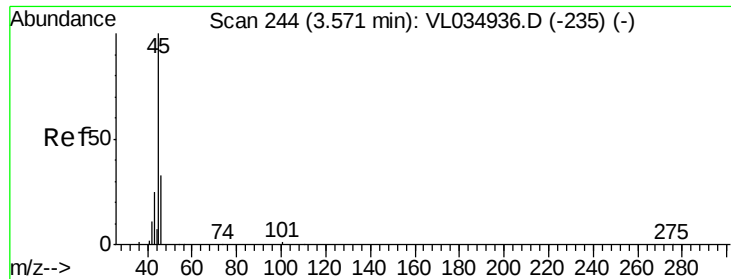
MMDadoda  
 5/7/2020 2:31:12 PM



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.113 ppbv m  
 RT: 4.47 min Scan# 524  
 Delta R.T. 0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 101     | 100   |       |       |
| 151     | 0.0   | 57.6  | 86.4# |





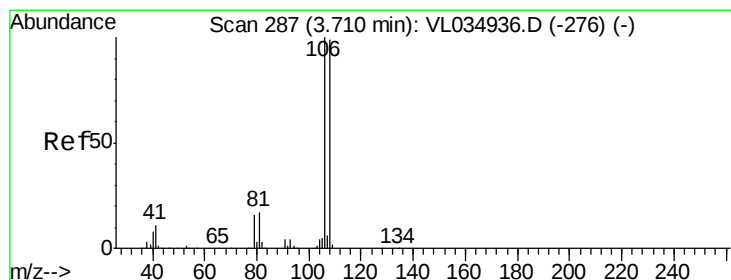
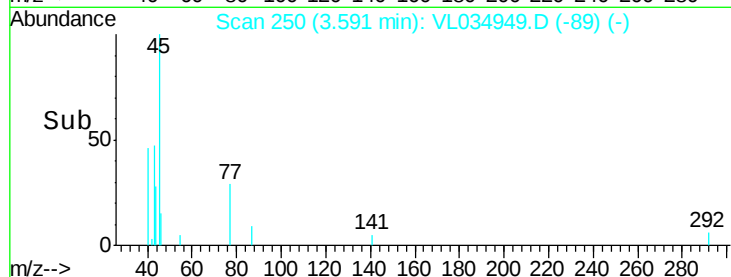
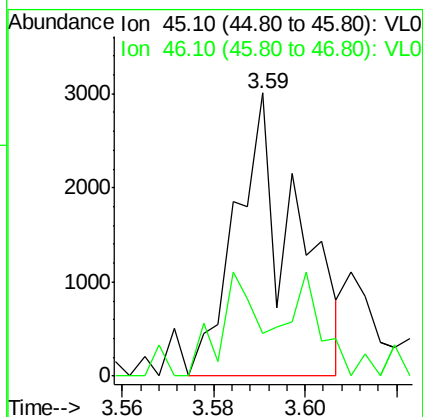
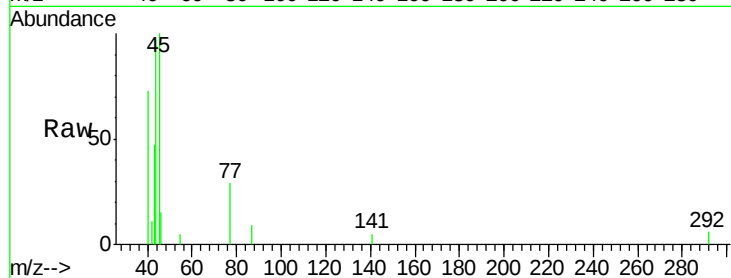
#13  
Ethanol  
Concen: 0.145 ppbv m  
RT: 3.59 min Scan# 250  
Delta R.T. 0.02 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

Tot Ion: 45 Resp: 2714  
Ion Ratio Lower Upper  
45 100  
46 4.3 14.3 57.3#

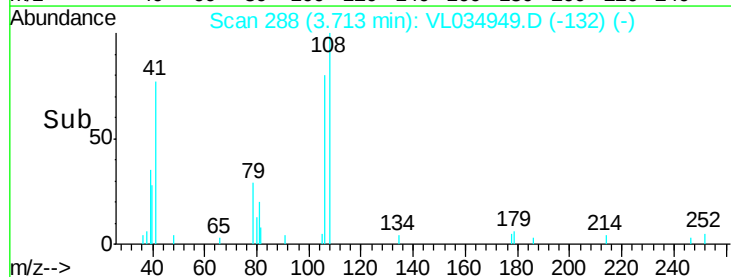
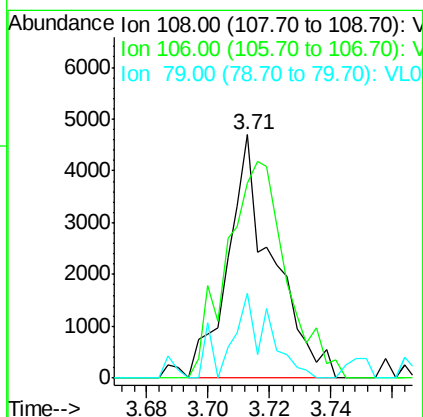
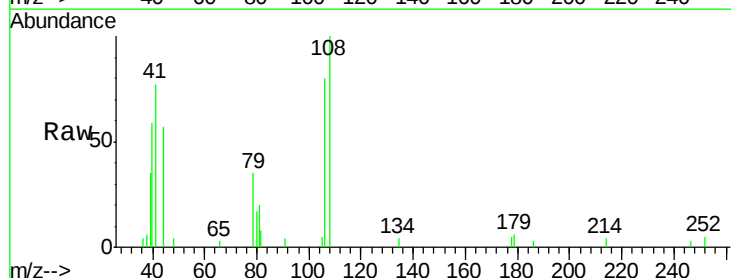
Manual Integrations  
APPROVED

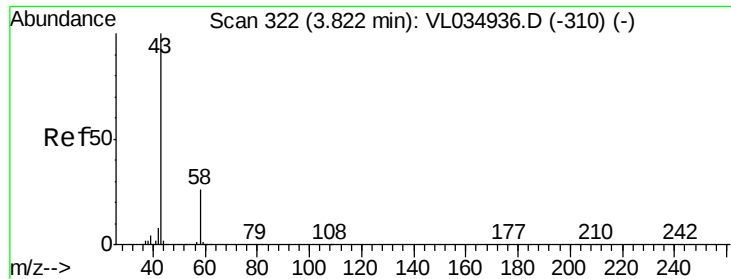
MMDadoda  
5/7/2020 2:31:12 PM



#14  
Bromoethene  
Concen: 0.096 ppbv m  
RT: 3.71 min Scan# 288  
Delta R.T. 0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Tgt Ion: 108 Resp: 4735  
Ion Ratio Lower Upper  
108 100  
106 0.0 84.9 127.3#  
79 32.1 14.1 21.1#





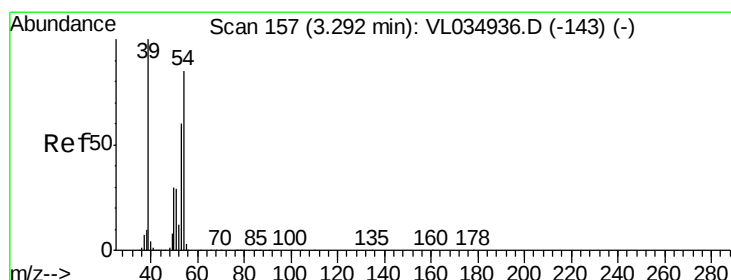
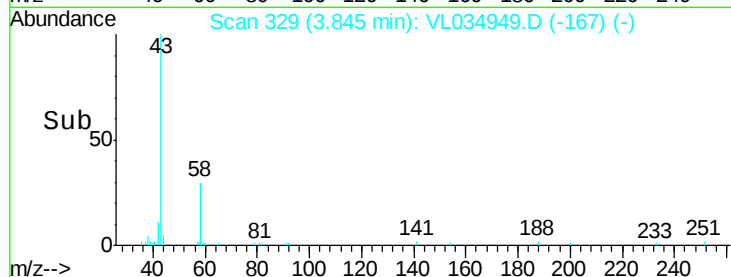
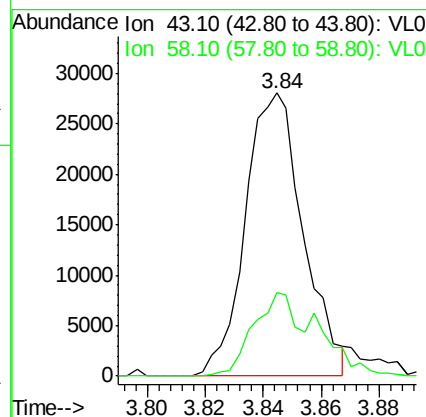
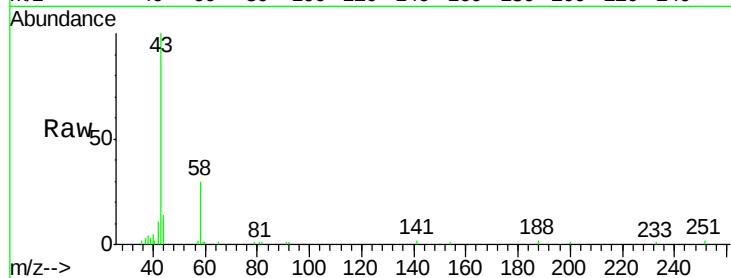
#15  
Acetone  
Concen: 0.257 ppbv  
RT: 3.84 min Scan# 329  
Delta R.T. 0.02 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

Tot Ion: 43 Resp: 38863  
Ion Ratio Lower Upper  
43 100  
58 32.5 21.7 32.5#

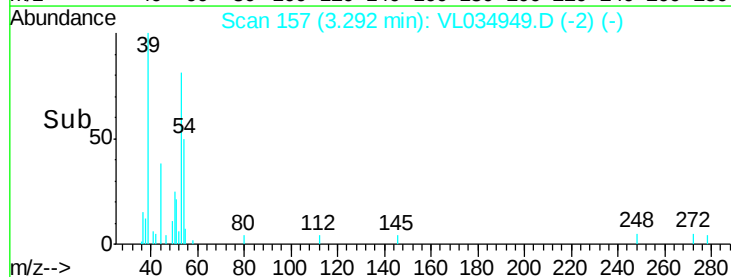
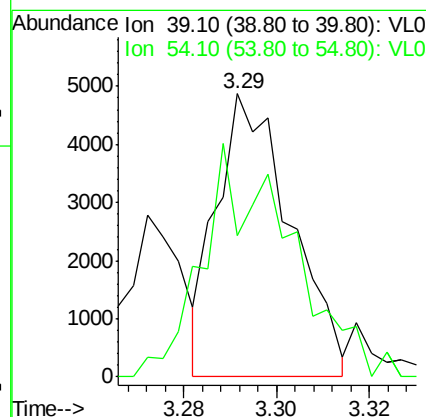
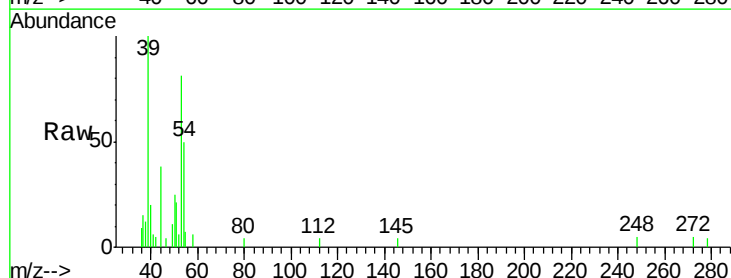
Manual Integrations  
APPROVED

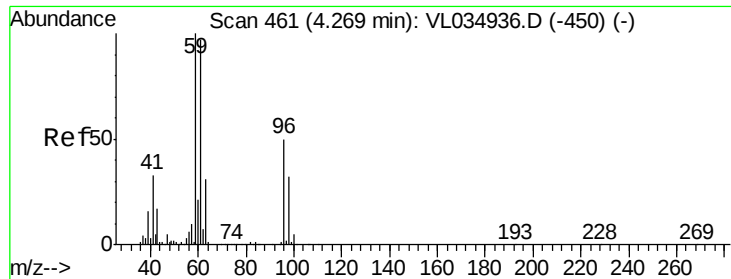
MMDadoda  
5/7/2020 2:31:12 PM



#16  
1,3-Butadiene  
Concen: 0.083 ppbv  
RT: 3.29 min Scan# 157  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Tgt Ion: 39 Resp: 5363  
Ion Ratio Lower Upper  
39 100  
54 101.5 66.6 100.0#





#17

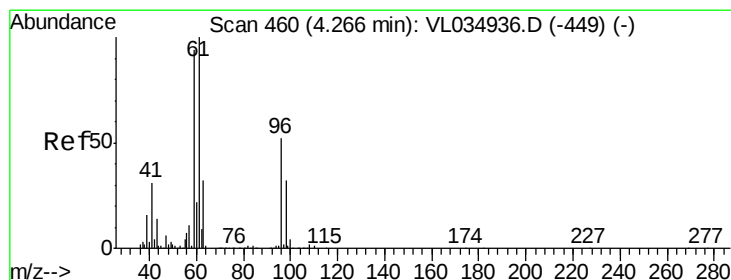
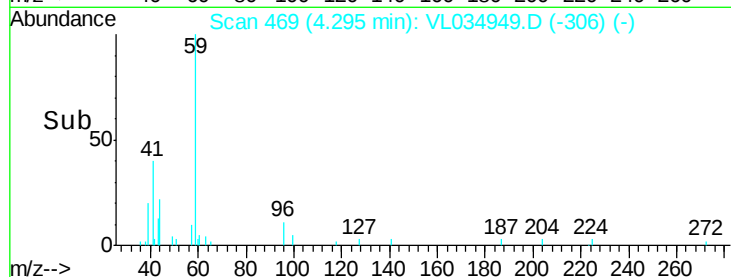
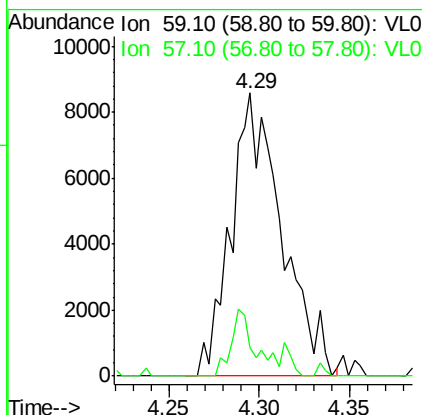
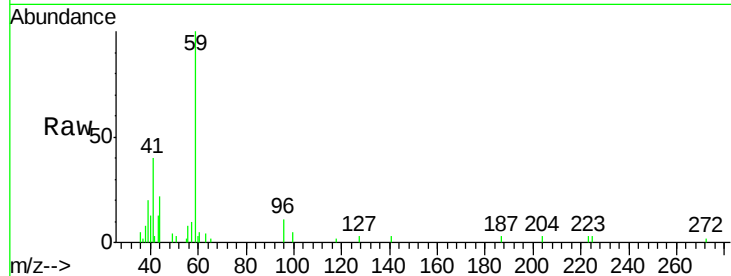
tert-Butyl alcohol  
Concen: 0.125 ppbv m  
RT: 4.29 min Scan# 469  
Delta R.T. 0.03 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion   | 59   | Resp  | 16798 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 57        | 14.0 | 8.7   | 13.1# |

Manual Integrations  
APPROVED

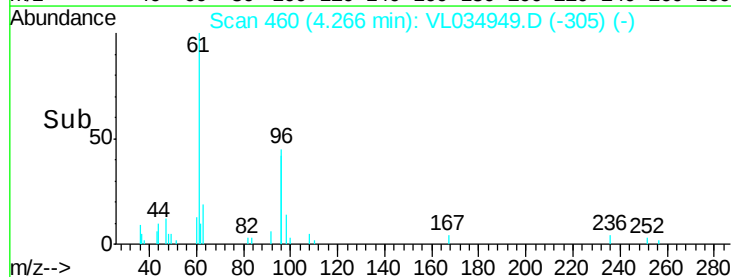
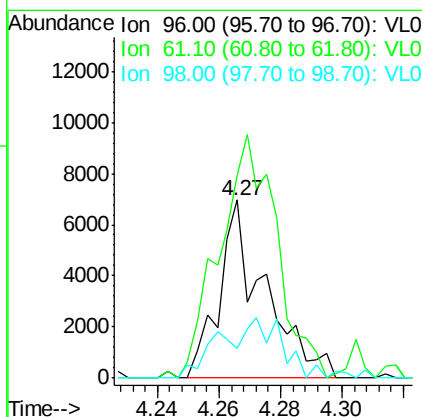
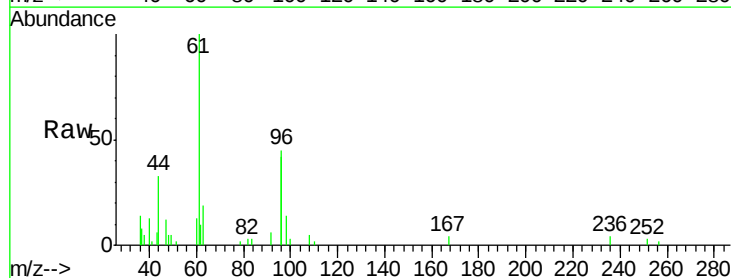
MMDadoda  
5/7/2020 2:31:12 PM

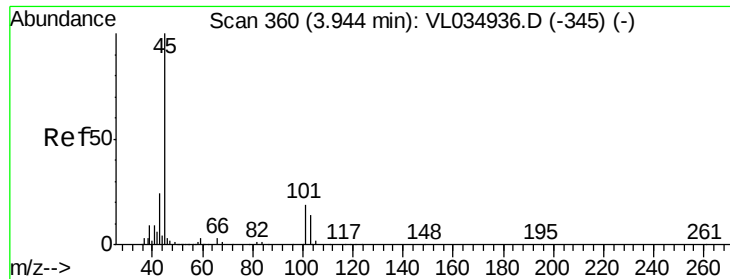


#18

1,1-Dichloroethene  
Concen: 0.139 ppbv m  
RT: 4.27 min Scan# 460  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion   | 96    | Resp  | 7179  |
|-----------|-------|-------|-------|
| Ion Ratio | 100   | Lower | Upper |
| 61        | 220.4 | 152.4 | 228.6 |
| 98        | 31.9  | 48.8  | 73.2# |





#19

Isopropyl Alcohol

Concen: 0.149 ppbv m

RT: 3.96 min Scan# 366

Delta R.T. 0.02 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 45 Resp: 15000

Ion Ratio Lower Upper

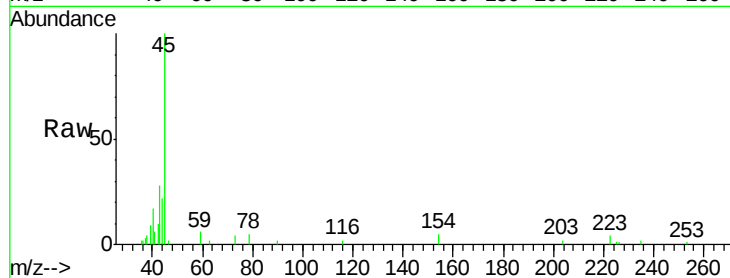
45 100

58 0.0 1.7 2.5#

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:31:12 PM



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.96

12000

10000

8000

6000

4000

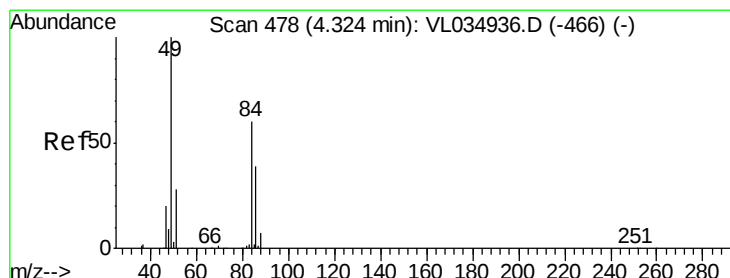
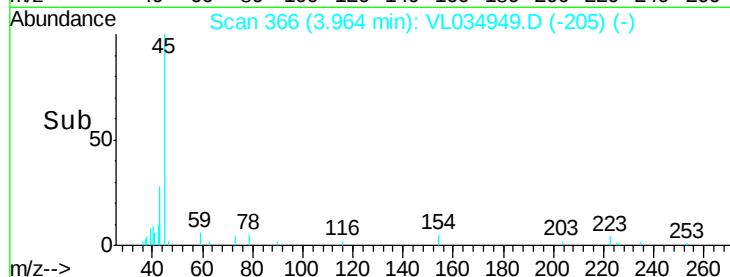
2000

0

Time-->

3.95

4.00



#20

Methylene Chloride

Concen: 0.255 ppbv m

RT: 4.33 min Scan# 479

Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Tgt Ion: 84 Resp: 12742

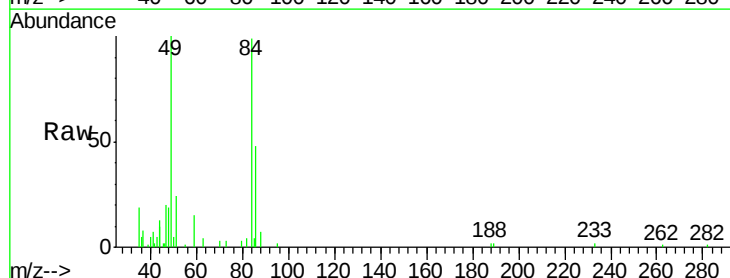
Ion Ratio Lower Upper

84 100

49 101.4 132.5 198.7#

51 24.8 38.4 57.6#

86 48.6 51.2 76.8#



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

15000

10000

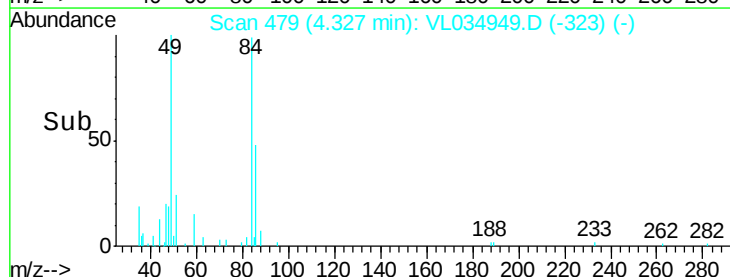
5000

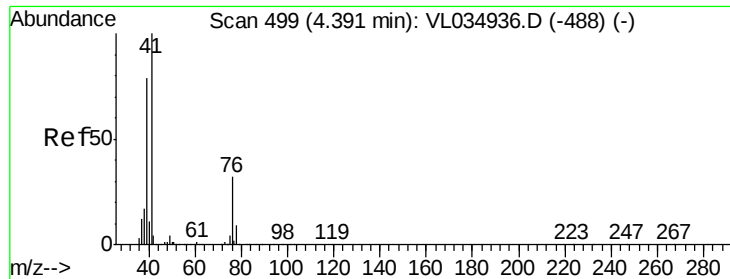
0

Time-->

4.30

4.35





#21

Allvl Chloride

Concen: 0.110 ppbv m

RT: 4.39 min Scan# 498

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

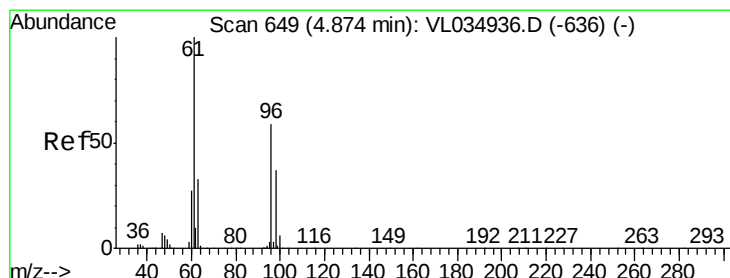
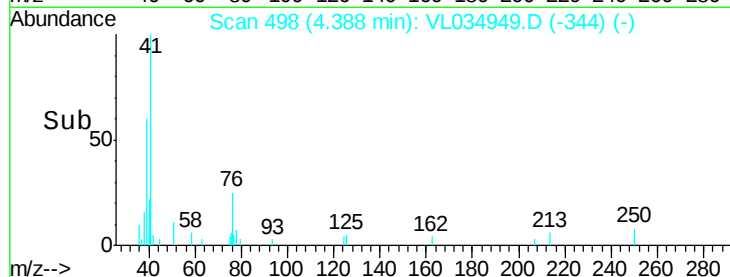
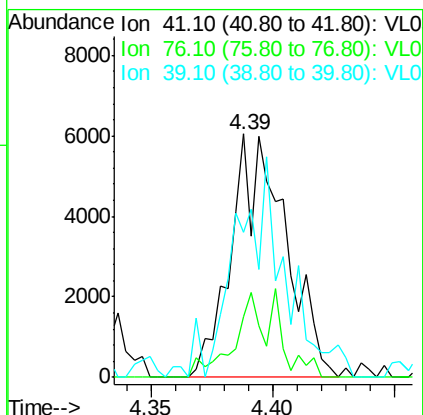
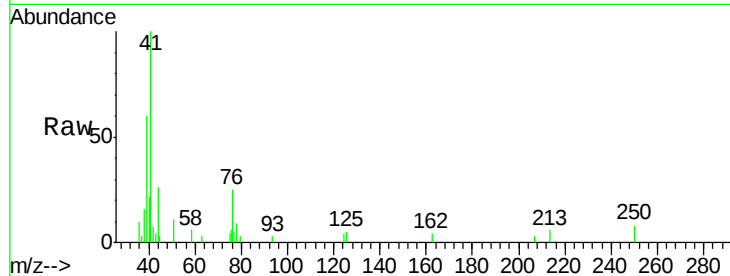
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 41    | Resp: | 9376  |
| Ion Ratio | Lower | Upper |       |
| 41        | 100   |       |       |
| 76        | 0.0   | 23.6  | 35.4# |
| 39        | 0.0   | 61.9  | 92.9# |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#22

trans-1,2-Dichloroethene

Concen: 0.111 ppbv m

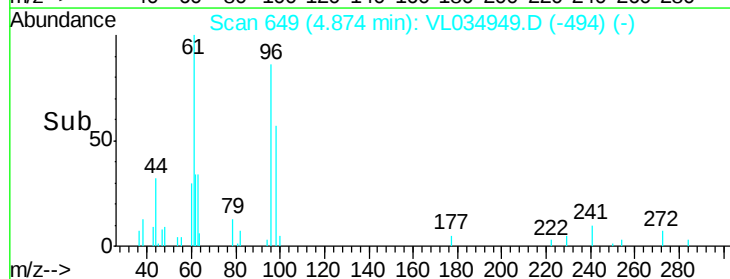
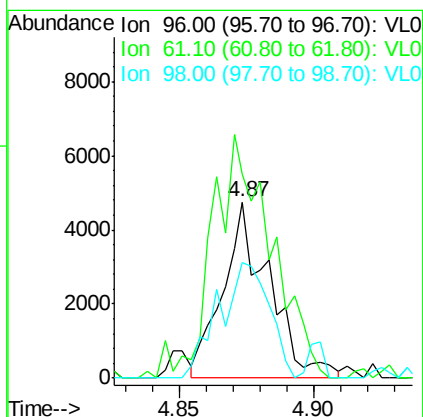
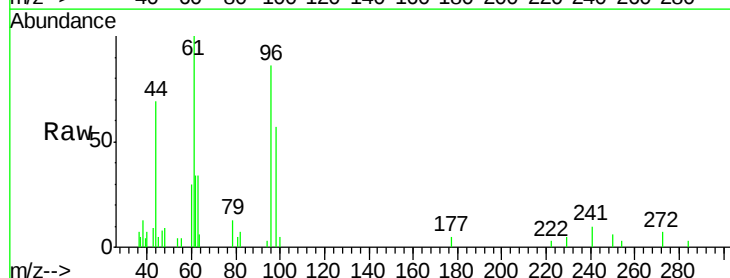
RT: 4.87 min Scan# 649

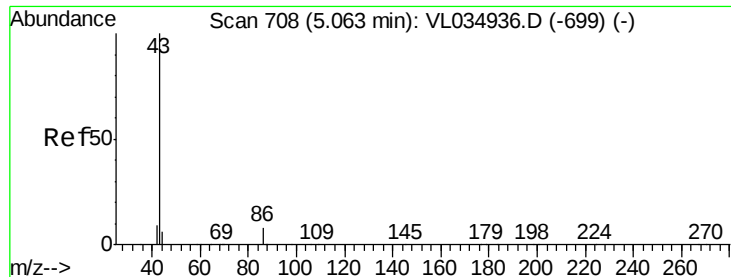
Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 5695   |
| Ion Ratio | Lower | Upper |        |
| 96        | 100   |       |        |
| 61        | 116.1 | 135.3 | 202.9# |
| 98        | 65.8  | 50.4  | 75.6   |





#23

Vinyl Acetate

Concen: 0.094 ppbv

RT: 5.07 min Scan# 709

Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

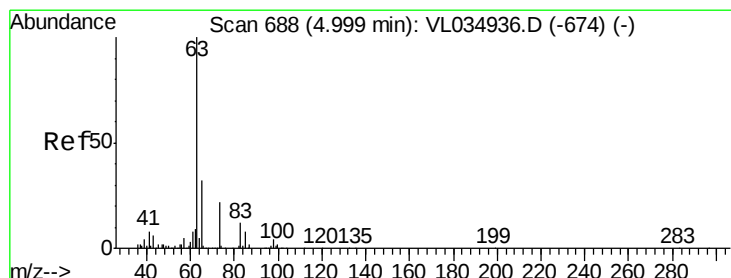
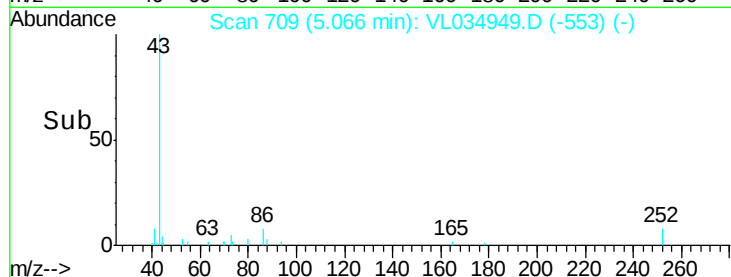
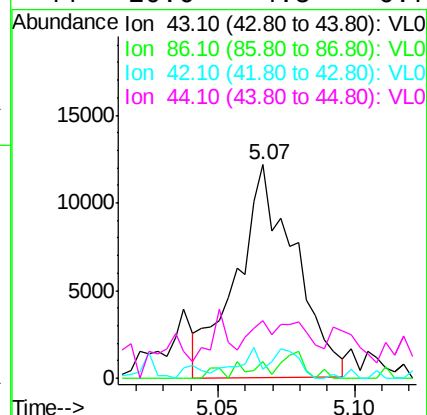
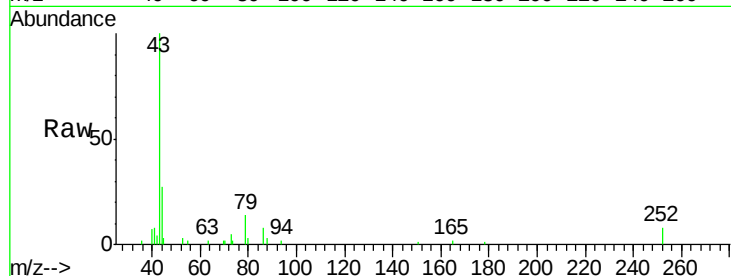
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

| Tot Ion   | 43    | Resp  | 17946 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 43        | 100   |       |       |
| 86        | 8.4   | 5.5   | 8.3#  |
| 42        | 4.6   | 8.0   | 12.0# |
| 44        | 20.6  | 4.5   | 6.7#  |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#24

1,1-Dichloroethane

Concen: 0.124 ppbv m

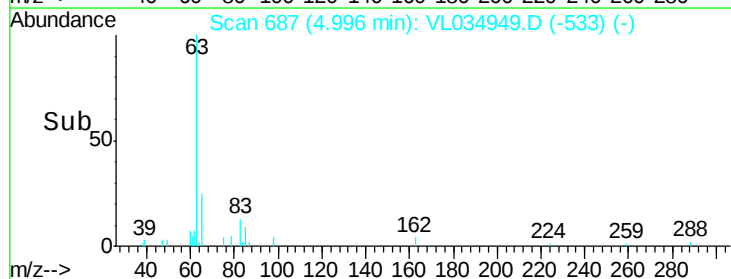
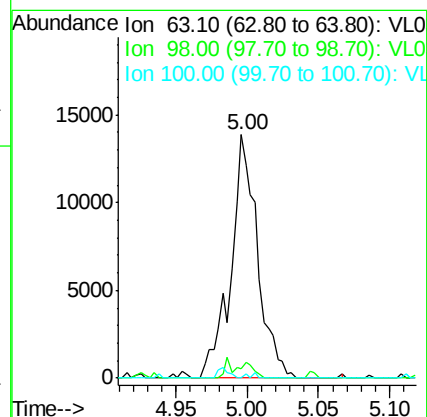
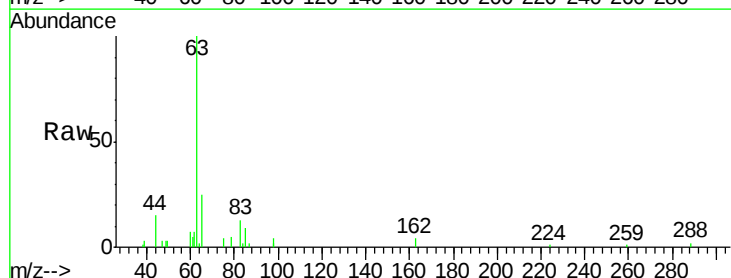
RT: 5.00 min Scan# 687

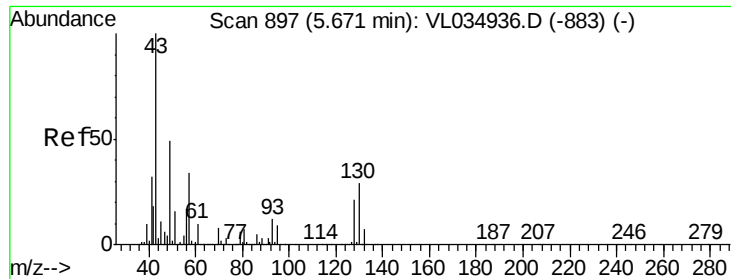
Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

| Tgt Ion   | 63    | Resp  | 18249 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 63        | 100   |       |       |
| 98        | 4.0   | 2.0   | 6.0   |
| 100       | 0.0   | 1.1   | 3.5#  |





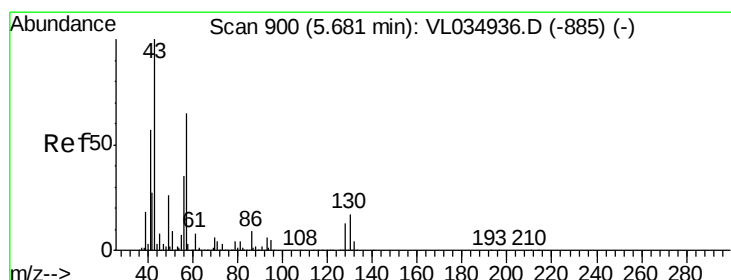
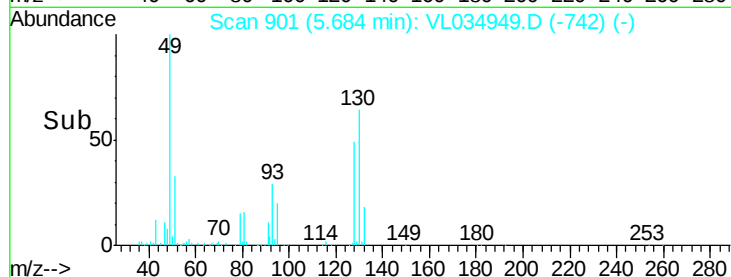
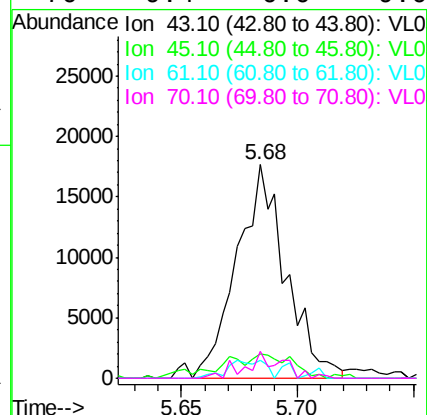
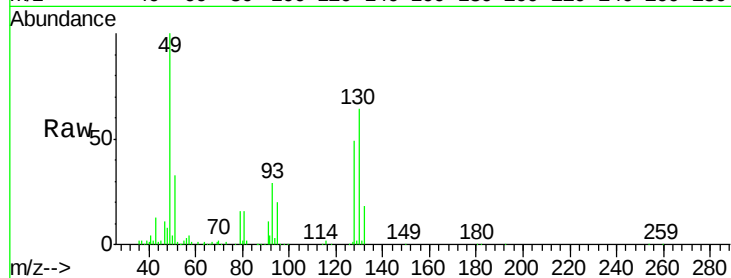
#25  
Ethyl Acetate  
Concen: 0.102 ppbv  
RT: 5.68 min Scan# 901  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion | 43    | Resp  | 25883 |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 43      | 100   |       |       |
| 45      | 17.6  | 8.1   | 12.1# |
| 61      | 8.1   | 7.8   | 11.8  |
| 70      | 9.4   | 6.0   | 9.0#  |

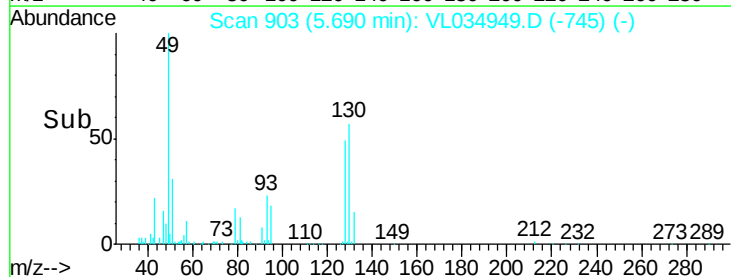
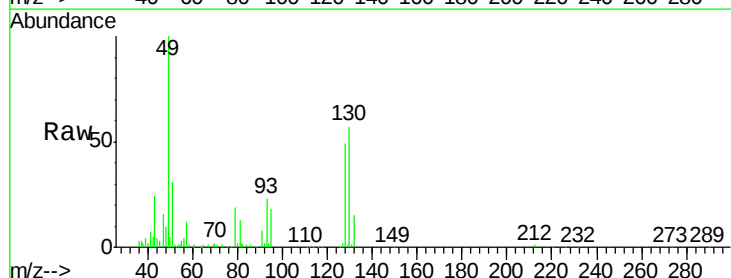
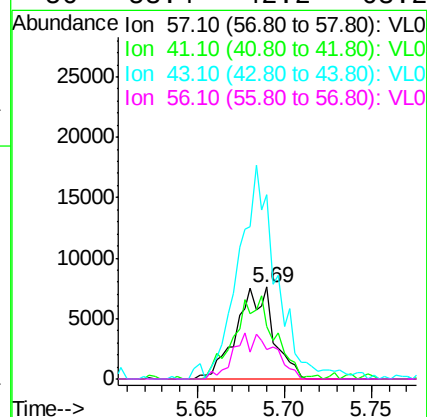
Manual Integrations  
APPROVED

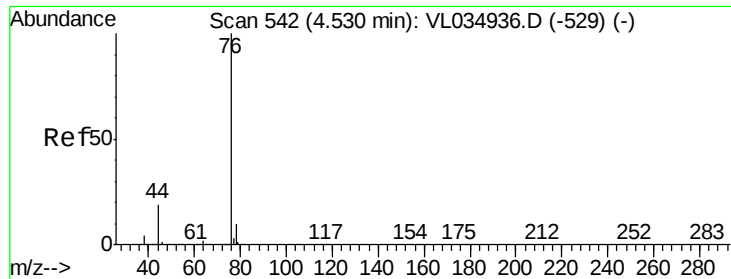
MMDadoda  
5/7/2020 2:31:12 PM



#26  
Hexane  
Concen: 0.102 ppbv m  
RT: 5.69 min Scan# 903  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | 57    | Resp  | 11251  |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 57      | 100   |       |        |
| 41      | 0.0   | 72.7  | 109.1# |
| 43      | 0.0   | 182.1 | 273.1# |
| 56      | 53.4  | 42.2  | 63.2   |





#27

Carbon Disulfide

Concen: 0.091 ppbv m

RT: 4.54 min Scan# 544

Delta R.T. 0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

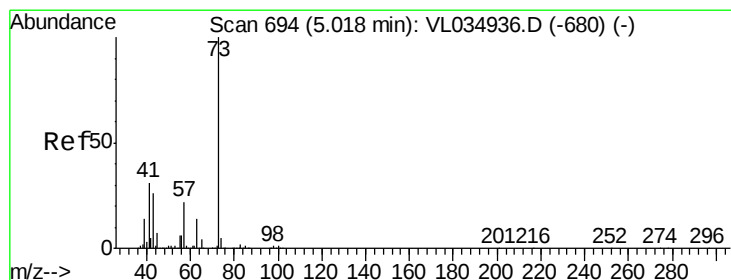
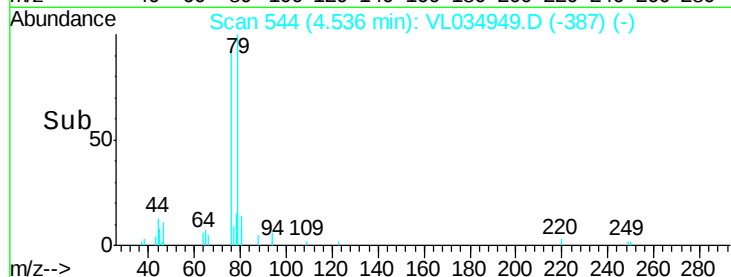
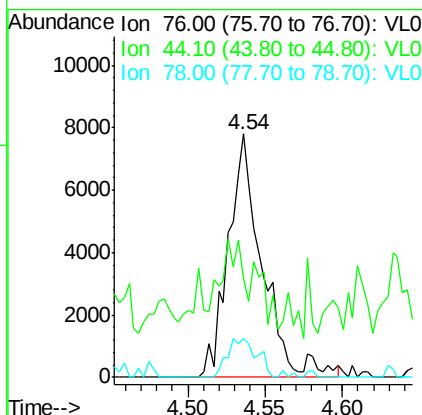
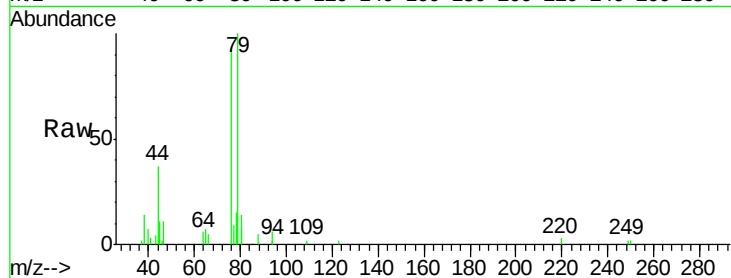
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

|           |       |       |       |
|-----------|-------|-------|-------|
| Tot Ion:  | 76    | Resp: | 11786 |
| Ion Ratio | Lower | Upper |       |
| 76        | 100   |       |       |
| 44        | 45.7  | 15.2  | 22.8# |
| 78        | 15.3  | 7.7   | 11.5# |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#28

Methyl tert-Butyl Ether

Concen: 0.087 ppbv m

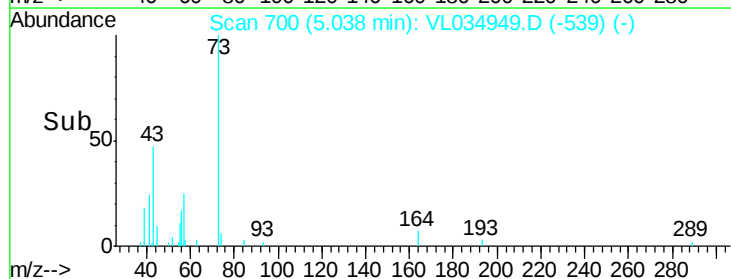
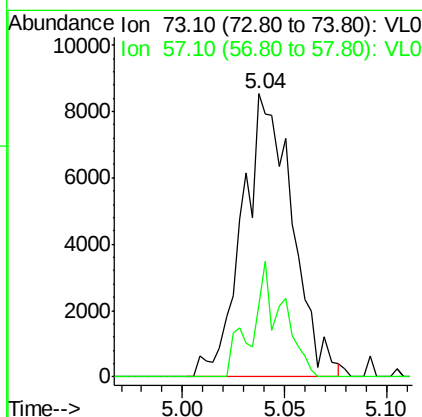
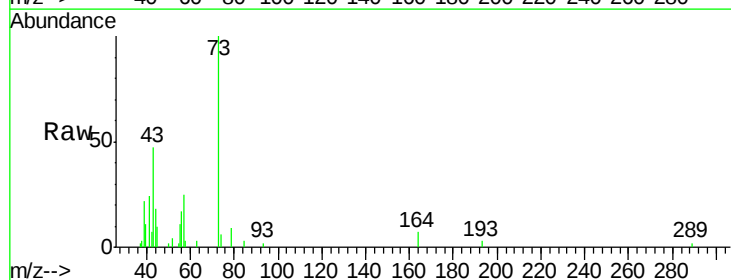
RT: 5.04 min Scan# 700

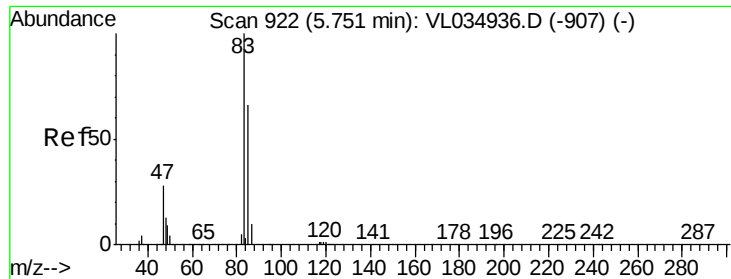
Delta R.T. 0.02 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 73    | Resp: | 14512 |
| Ion Ratio | Lower | Upper |       |
| 73        | 100   |       |       |
| 57        | 0.0   | 18.3  | 27.5# |





#29

Chloroform

Concen: 0.119 ppbv m

RT: 5.74 min Scan# 920

Delta R.T. -0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 83 Resp: 21464

Ion Ratio Lower Upper

83 100

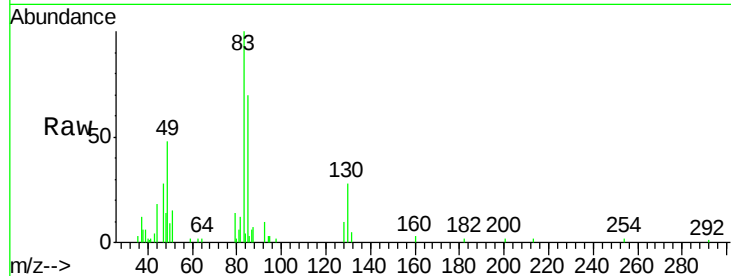
85 69.8 53.0 79.6

Manual Integrations

APPROVED

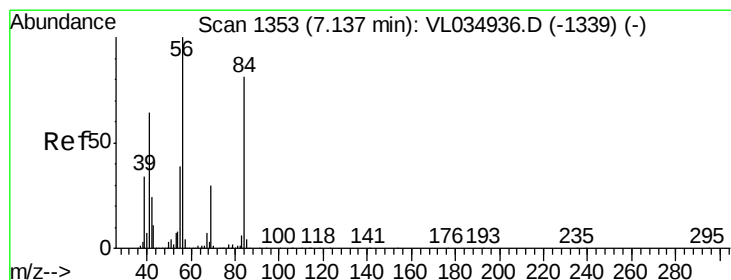
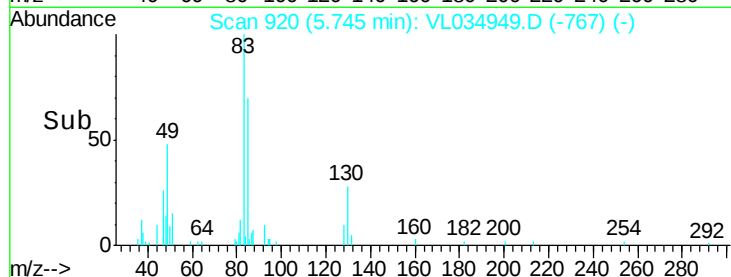
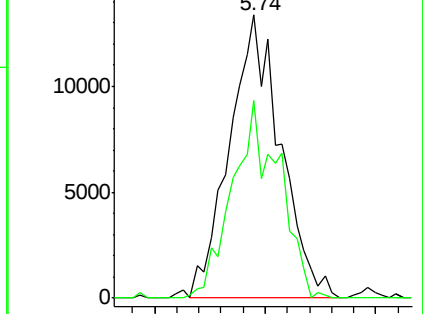
MMDadoda

5/7/2020 2:31:12 PM



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#30

Cyclohexane

Concen: 0.049 ppbv m

RT: 7.14 min Scan# 1355

Delta R.T. 0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

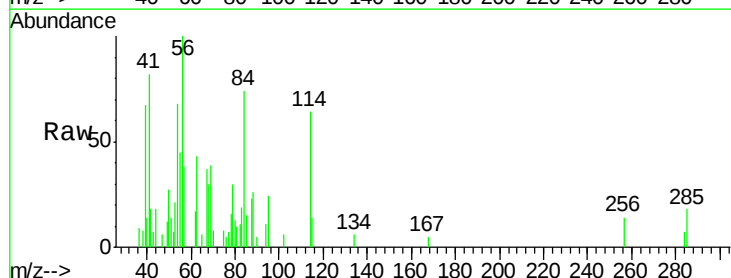
Tgt Ion: 84 Resp: 4161

Ion Ratio Lower Upper

84 100

56 0.0 111.4 167.2#

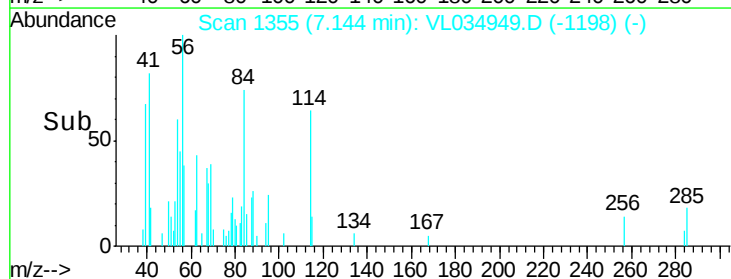
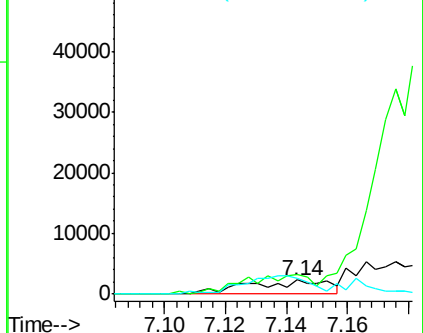
41 0.0 66.7 100.1#

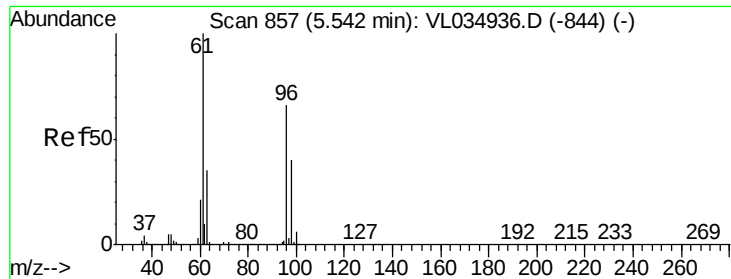


Abundance Ion 84.20 (83.90 to 84.90): VL0

Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0





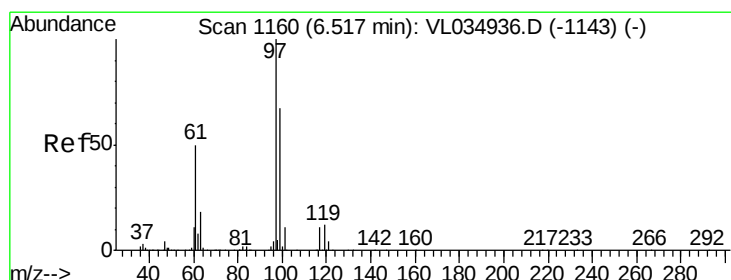
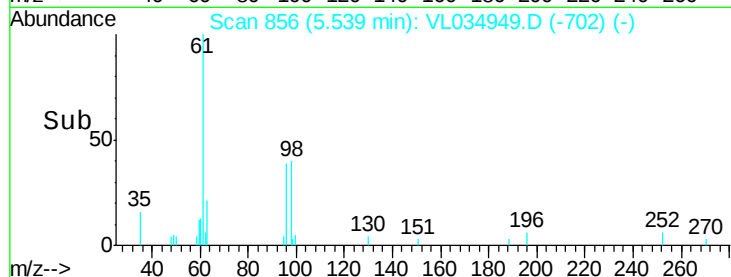
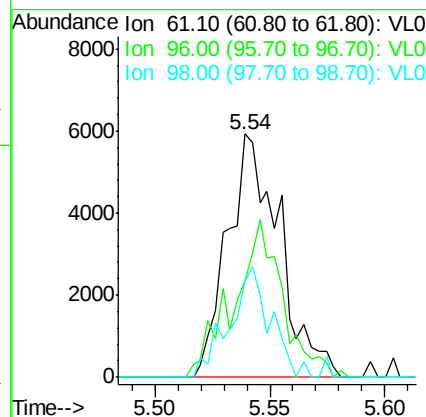
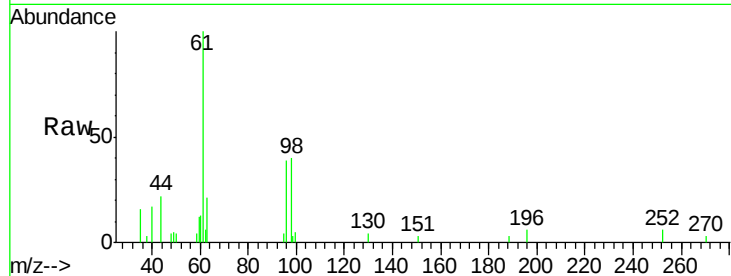
#31  
 cis-1,2-Dichloroethene  
 Concen: 0.087 ppbv m  
 RT: 5.54 min Scan# 856  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 61      | 100   |       |       |
| 96      | 39.5  | 53.0  | 79.6# |
| 98      | 39.7  | 32.2  | 48.2  |

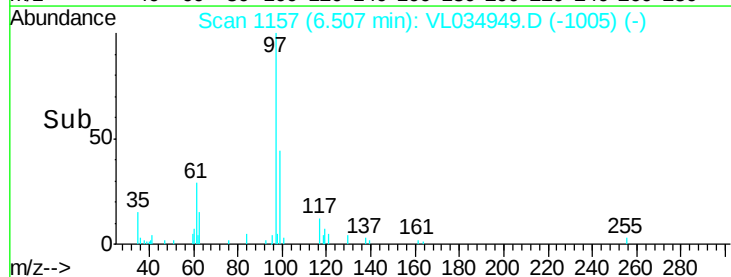
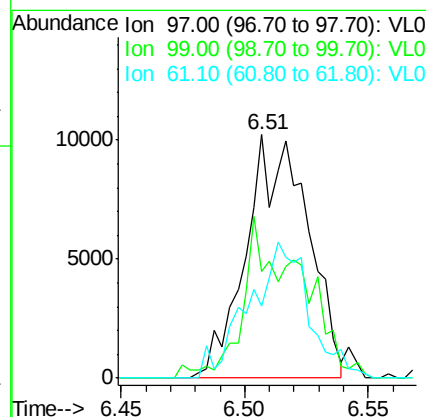
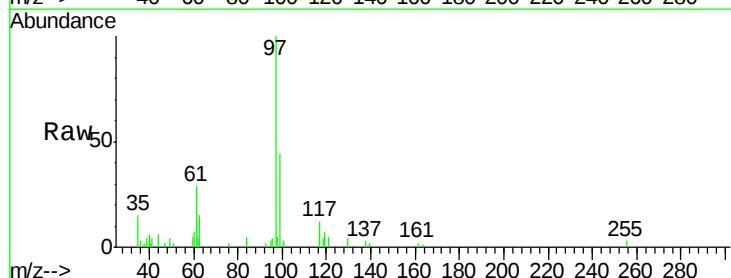
Manual Integrations  
 APPROVED

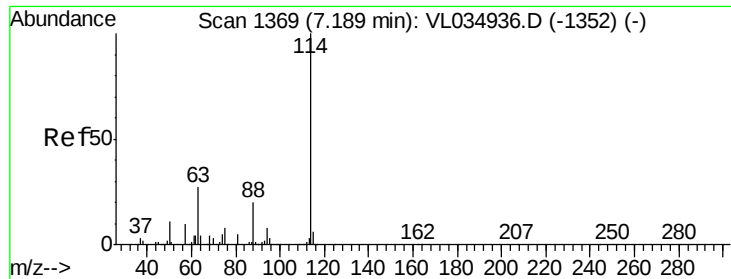
MMDadoda  
 5/7/2020 2:31:12 PM



#32  
 1,1,1-Trichloroethane  
 Concen: 0.110 ppbv m  
 RT: 6.51 min Scan# 1157  
 Delta R.T. -0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 0.0   | 52.1  | 78.1# |
| 61      | 54.2  | 41.8  | 62.8  |





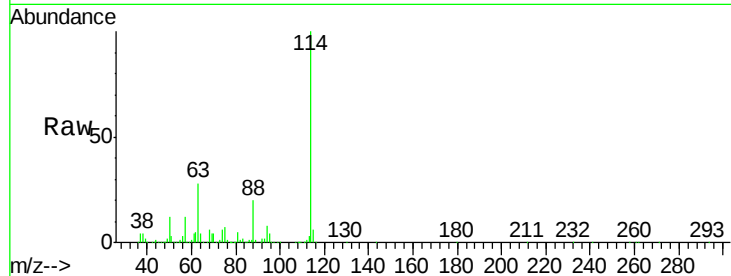
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.19 min Scan# 1368  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

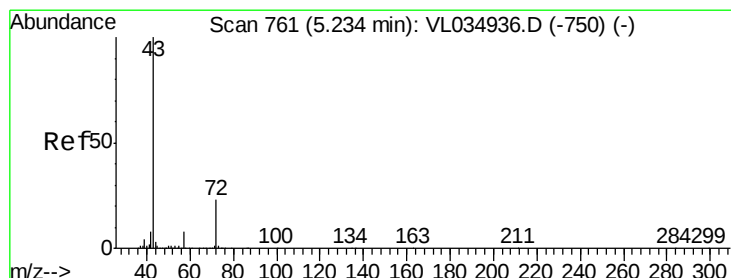
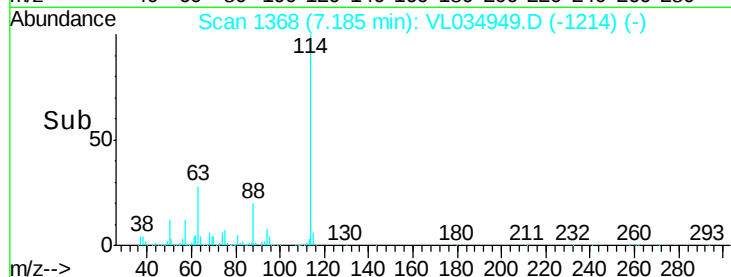
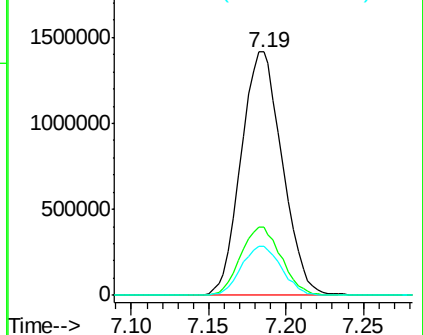
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 27.9  | 22.2  | 33.4  |
| 88      | 19.9  | 15.5  | 23.3  |

Manual Integrations  
 APPROVED

MMDadoda  
 5/7/2020 2:31:12 PM

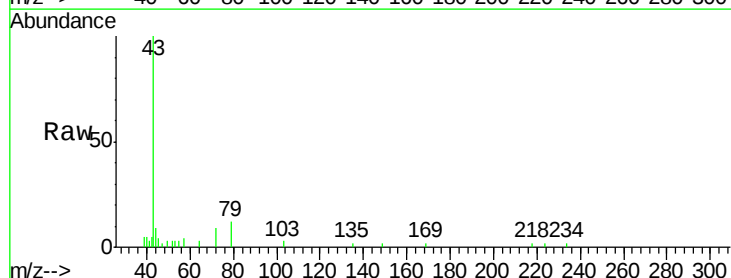


Abundance Ion 114.10 (113.80 to 114.80): VL0  
 Ion 63.10 (62.80 to 63.80): VL0  
 Ion 88.10 (87.80 to 88.80): VL0

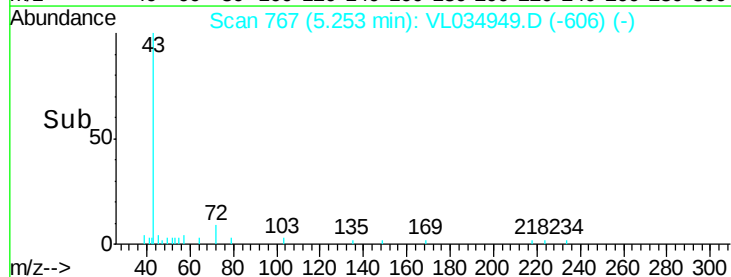
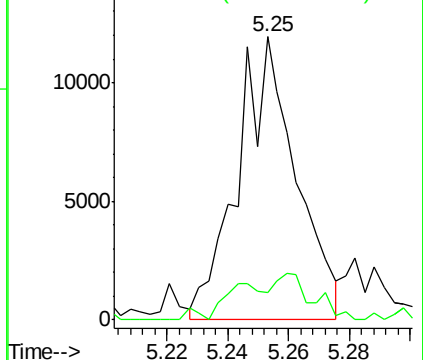


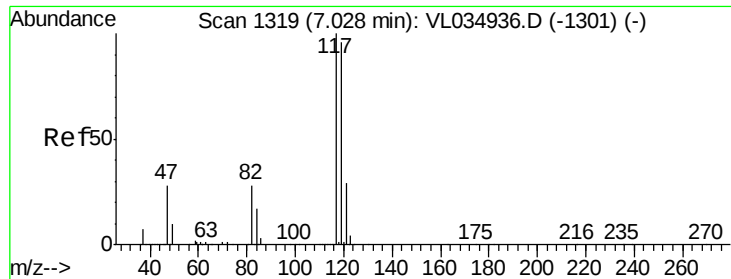
#34  
 2-Butanone  
 Concen: 0.098 ppbv m  
 RT: 5.25 min Scan# 767  
 Delta R.T. 0.02 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 0.0   | 18.0  | 27.0# |



Abundance Ion 43.10 (42.80 to 43.80): VL0  
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.100 ppbv m

RT: 7.02 min Scan# 1318

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

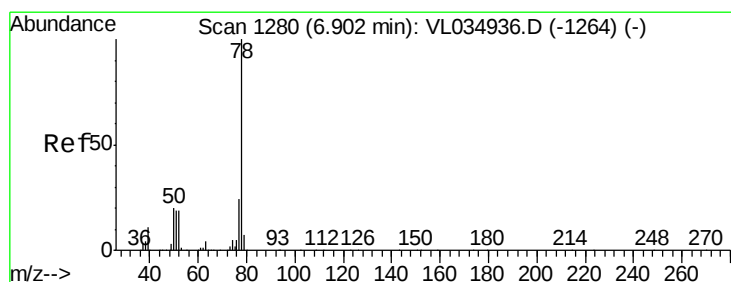
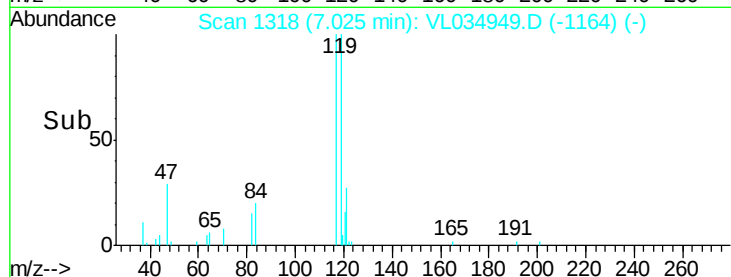
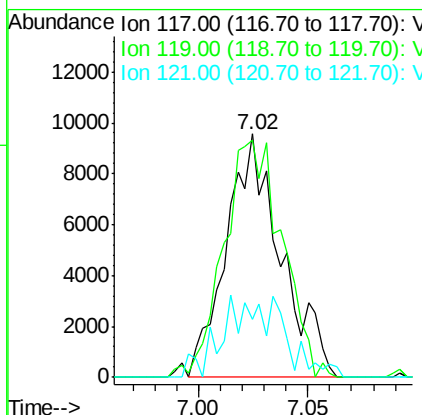
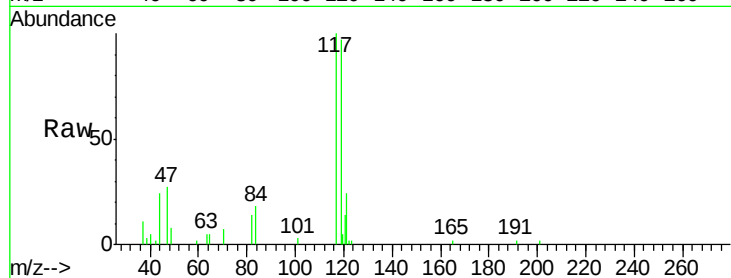
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 117   | Resp: | 16559 |
| Ion      | Ratio | Lower | Upper |
| 117      | 100   |       |       |
| 119      | 97.5  | 77.0  | 115.6 |
| 121      | 23.8  | 23.0  | 34.6  |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#36

Benzene

Concen: 0.083 ppbv m

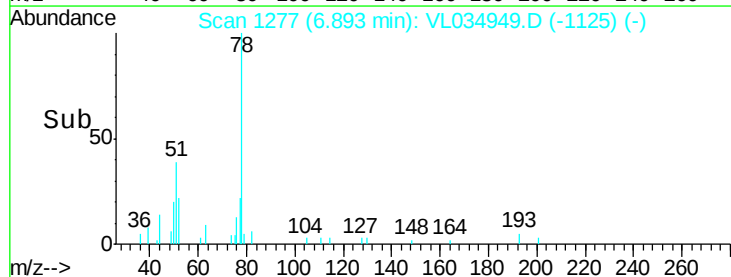
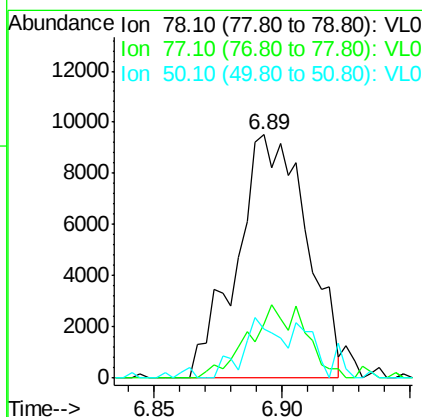
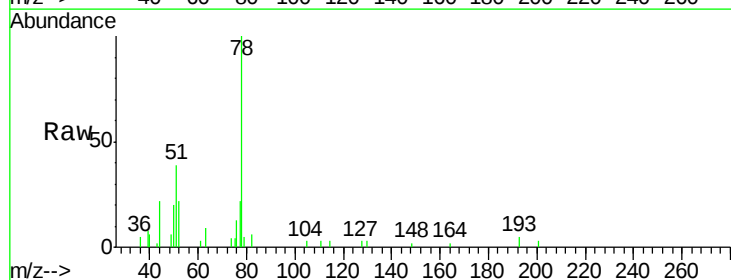
RT: 6.89 min Scan# 1277

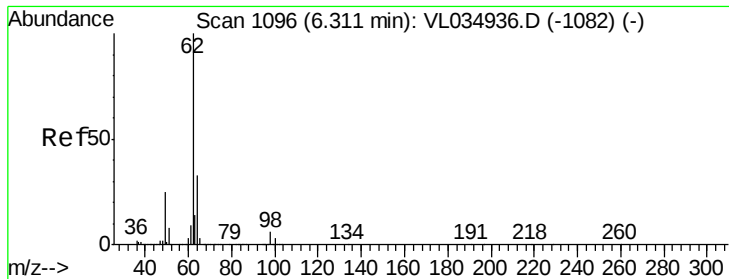
Delta R.T. -0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 78    | Resp: | 18016 |
| Ion      | Ratio | Lower | Upper |
| 78       | 100   |       |       |
| 77       | 22.3  | 19.0  | 28.6  |
| 50       | 19.9  | 15.8  | 23.8  |





#37

1,2-Dichloroethane

Concen: 0.126 ppbv m

RT: 6.31 min Scan# 1096

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 62 Resp: 16783

Ion Ratio Lower Upper

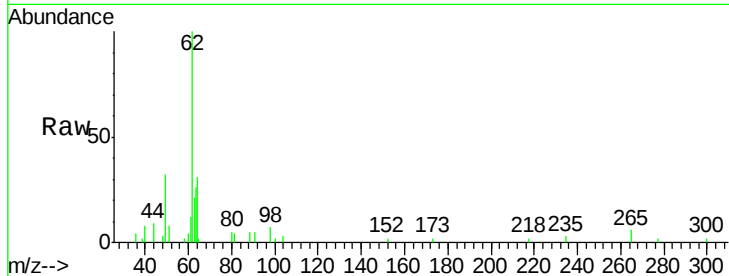
62 100

98 0.0 4.8 7.2#

Manual Integrations  
APPROVED

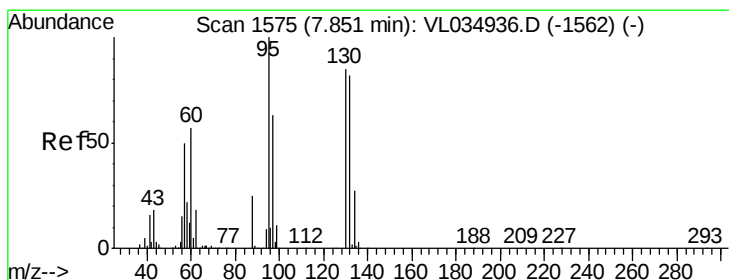
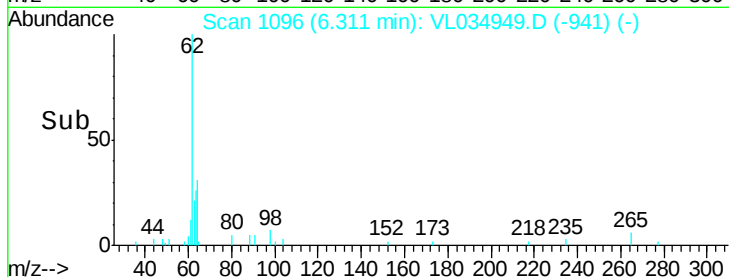
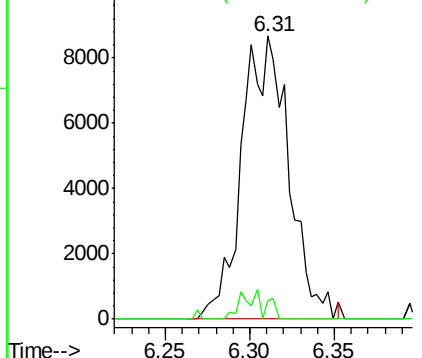
MMDadoda

5/7/2020 2:31:12 PM



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#38

Trichloroethene

Concen: 0.088 ppbv m

RT: 7.85 min Scan# 1576

Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Tgt Ion: 130 Resp: 7334

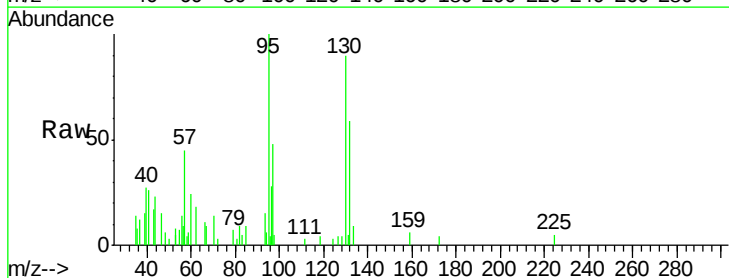
Ion Ratio Lower Upper

130 100

95 110.8 93.4 140.0

132 65.8 76.4 114.6#

97 53.0 58.5 87.7#

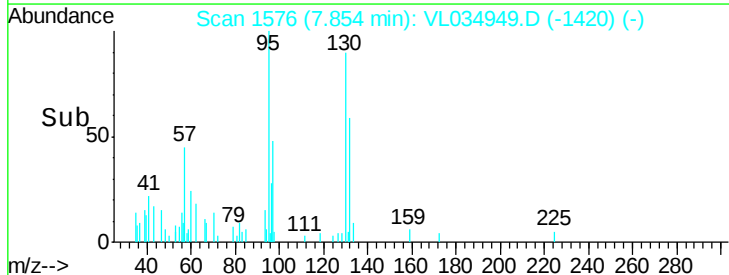
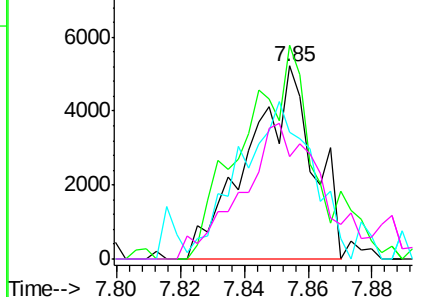


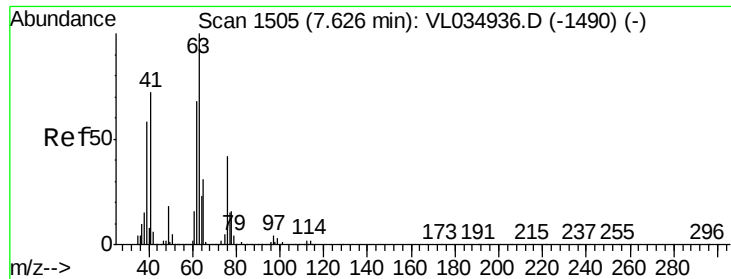
Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0





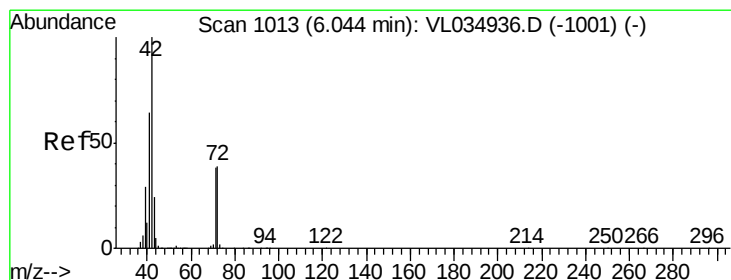
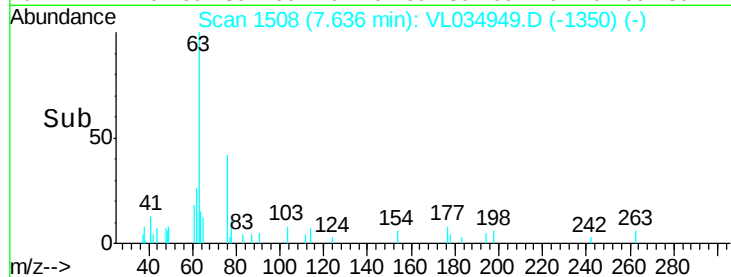
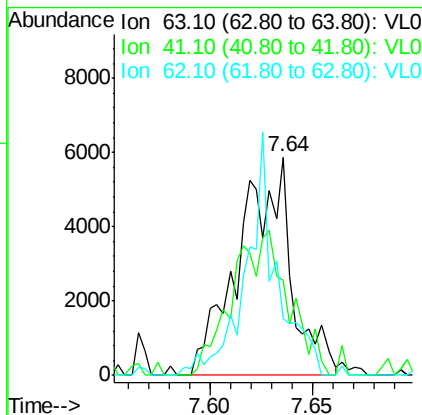
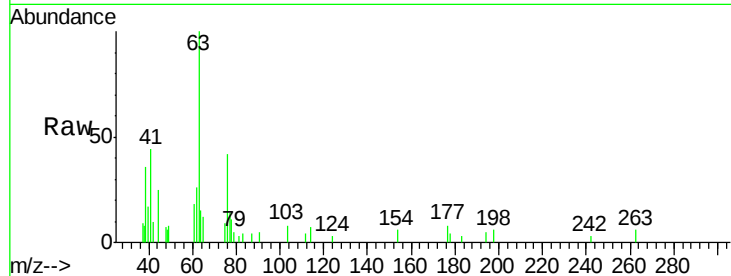
#39  
 1,2-Dichloropropane  
 Concen: 0.121 ppbv m  
 RT: 7.64 min Scan# 1508  
 Delta R.T. 0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 63      | 100   | 10454 |       |       |
| 41      | 43.5  |       | 57.8  | 86.8# |
| 62      | 25.8  |       | 54.2  | 81.2# |

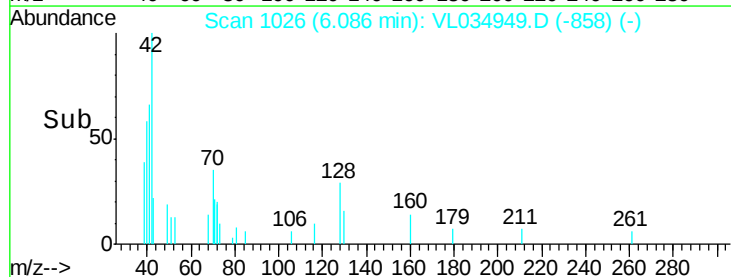
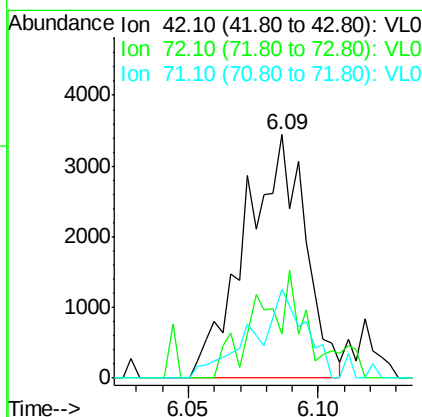
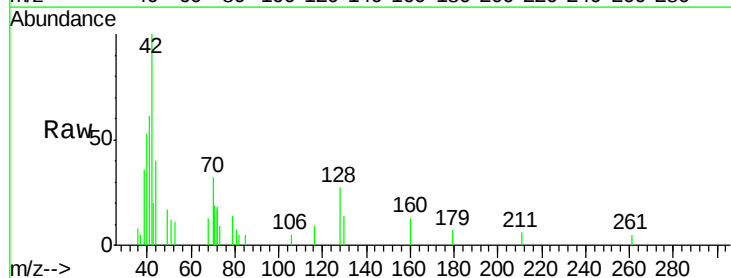
Manual Integrations  
 APPROVED

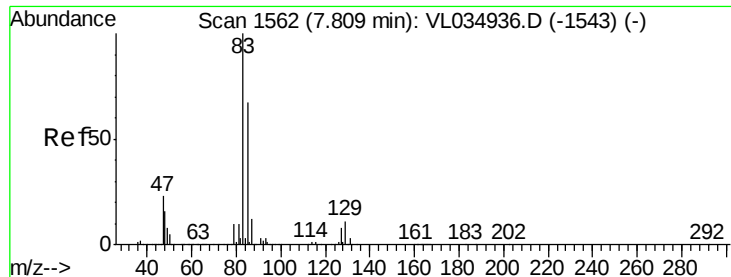
MMDadoda  
 5/7/2020 2:31:12 PM



#41  
 Tetrahydrofuran  
 Concen: 0.064 ppbv m  
 RT: 6.09 min Scan# 1026  
 Delta R.T. 0.04 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Resp | Lower | Upper |
|---------|-------|------|-------|-------|
| 42      | 100   | 5504 |       |       |
| 72      | 2.7   |      | 31.4  | 47.0# |
| 71      | 0.0   |      | 29.8  | 44.8# |





#42

Bromodichloromethane

Concen: 0.098 ppbv m

RT: 7.81 min Scan# 1561

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

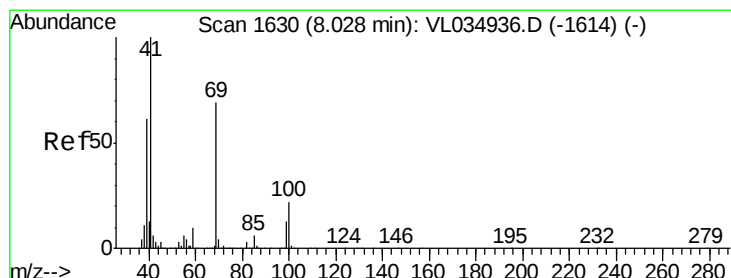
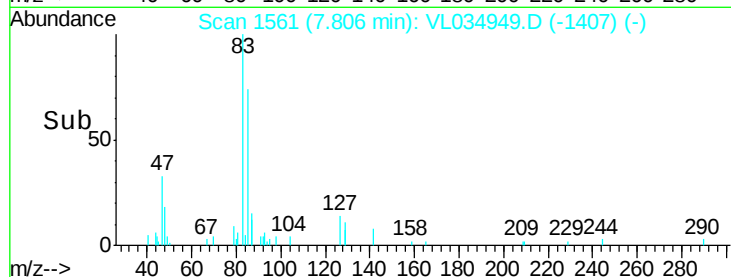
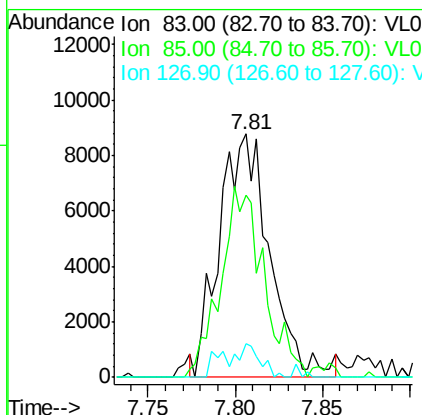
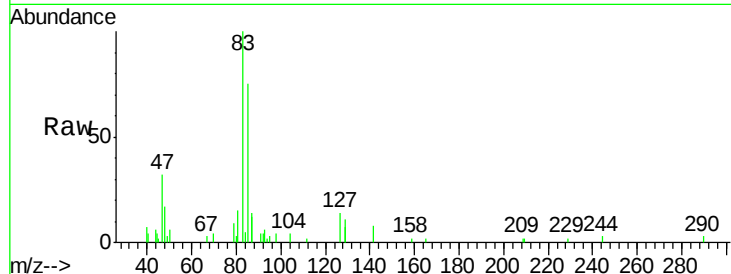
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 83    | Resp: | 17613 |
| Ion      | Ratio | Lower | Upper |
| 83       | 100   |       |       |
| 85       | 74.7  | 53.4  | 80.0  |
| 127      | 13.9  | 6.1   | 9.1#  |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#43

Methyl Methacrylate

Concen: 0.072 ppbv

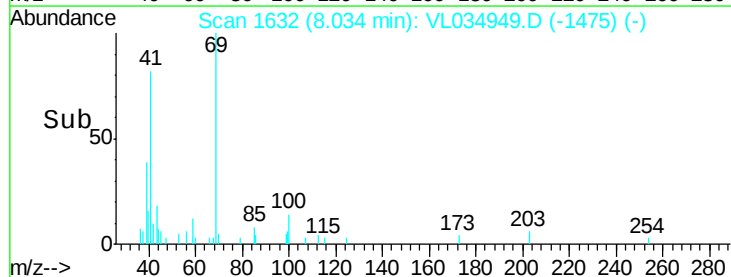
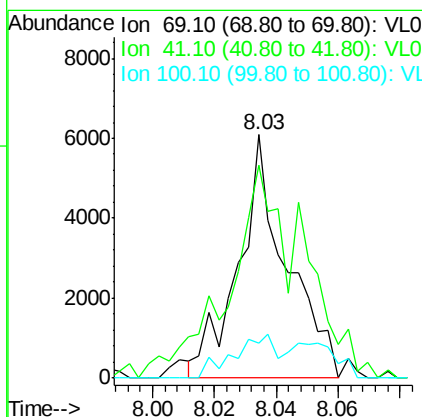
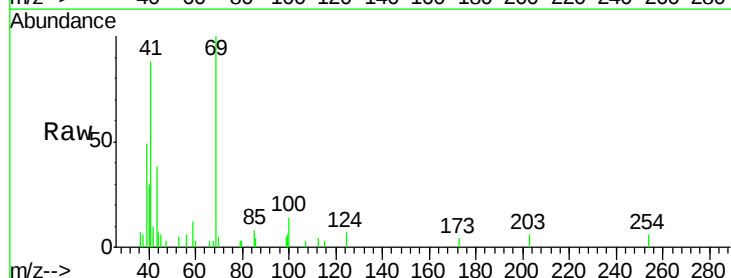
RT: 8.03 min Scan# 1632

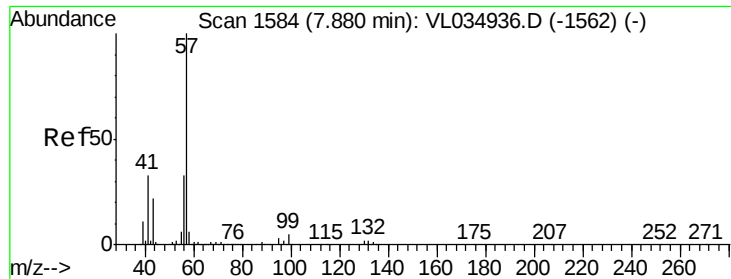
Delta R.T. 0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 69    | Resp: | 6540  |
| Ion      | Ratio | Lower | Upper |
| 69       | 100   |       |       |
| 41       | 136.7 | 119.8 | 179.6 |
| 100      | 29.8  | 25.0  | 37.6  |





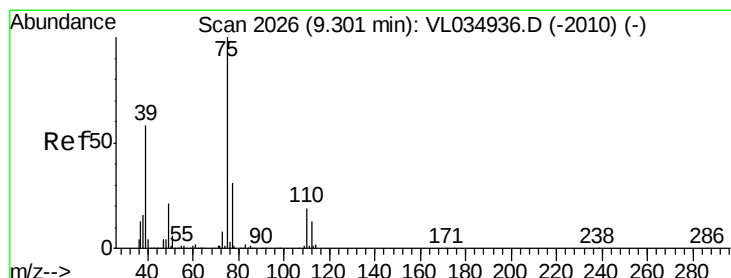
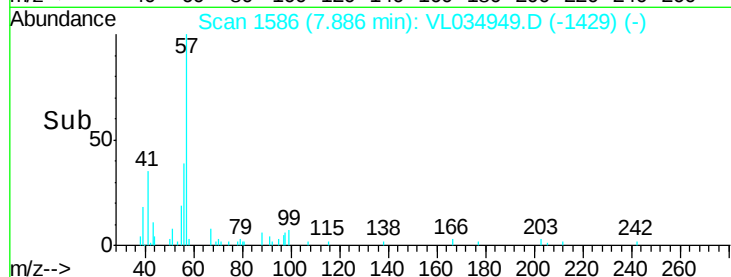
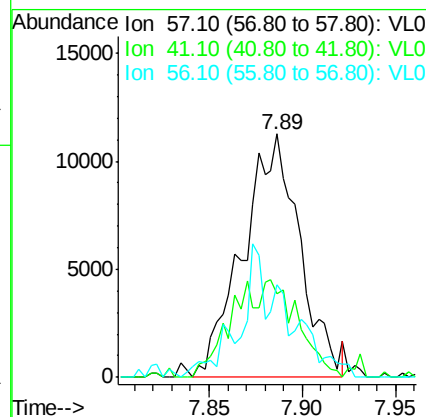
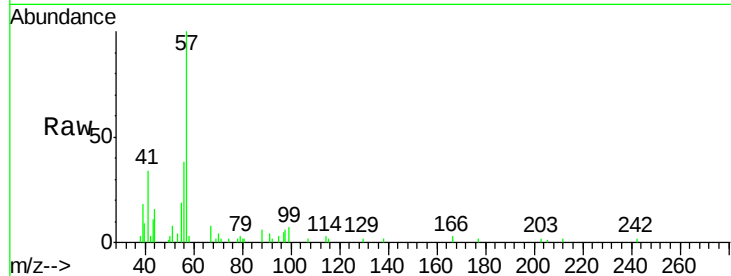
#44  
 2,2,4-Trimethylpentane  
 Concen: 0.062 ppbv m  
 RT: 7.89 min Scan# 1586  
 Delta R.T. 0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 57      | 100   |       |       |
| 41      | 0.0   | 26.4  | 39.6# |
| 56      | 46.5  | 25.5  | 38.3# |

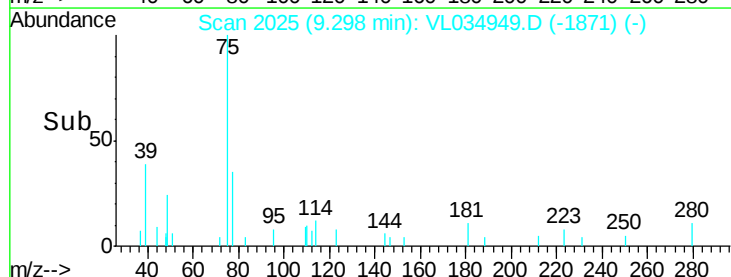
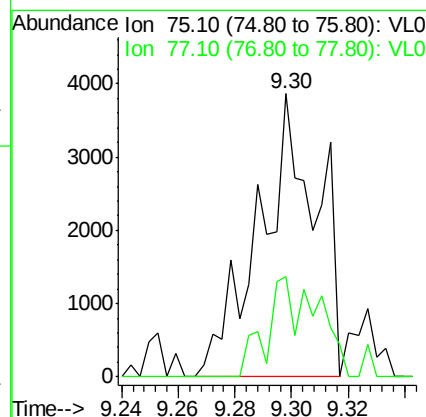
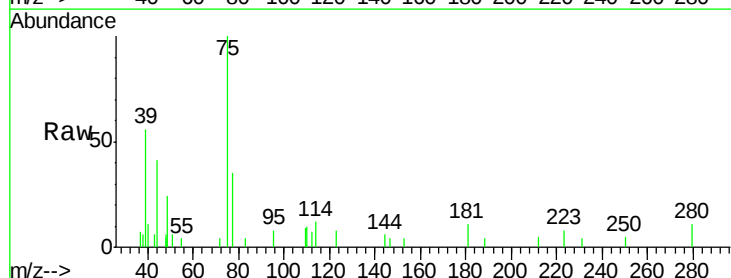
Manual Integrations  
 APPROVED

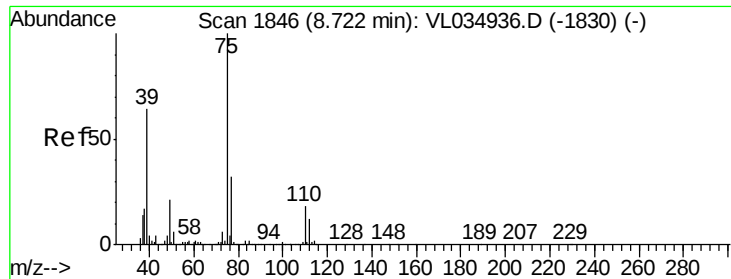
MMDadoda  
 5/7/2020 2:31:12 PM



#45  
 t-1,3-Dichloropropene  
 Concen: 0.059 ppbv m  
 RT: 9.30 min Scan# 2025  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 35.3  | 24.9  | 37.3  |





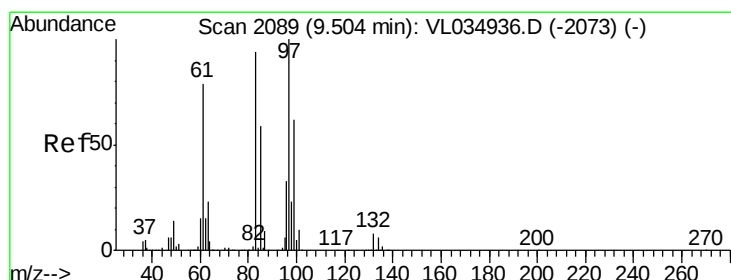
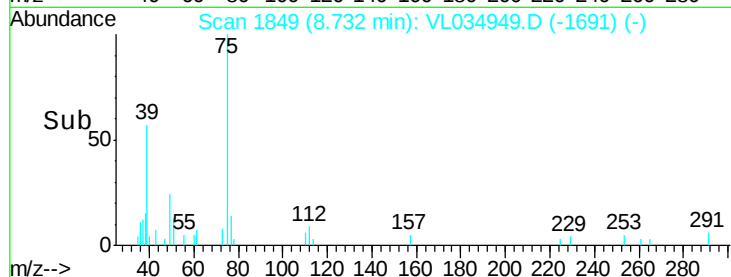
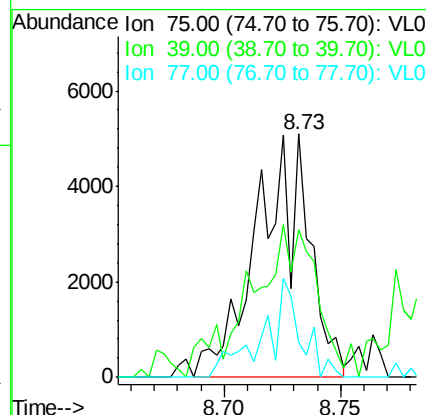
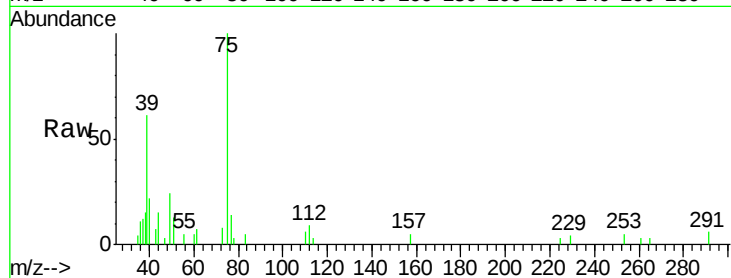
#46  
 cis-1,3-Dichloropropene  
 Concen: 0.070 ppbv m  
 RT: 8.73 min Scan# 1849  
 Delta R.T. 0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 39      | 60.6  | 51.5  | 77.3  |
| 77      | 14.4  | 25.5  | 38.3  |

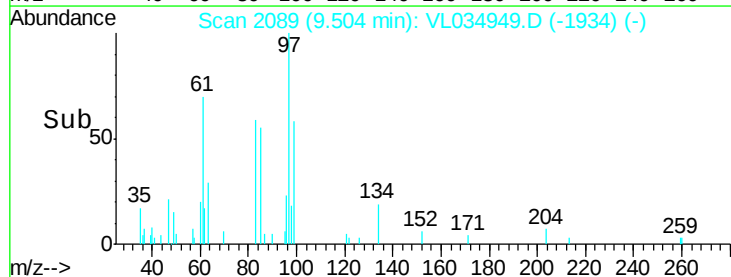
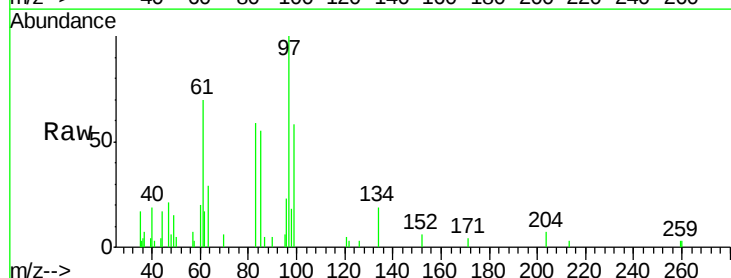
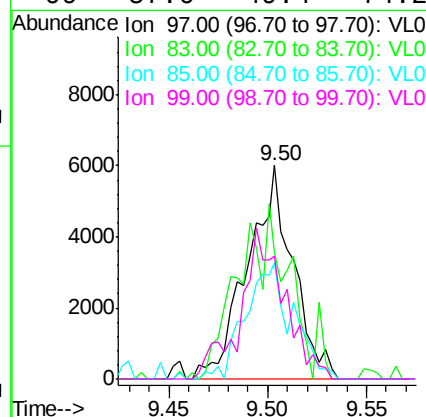
Manual Integrations  
 APPROVED

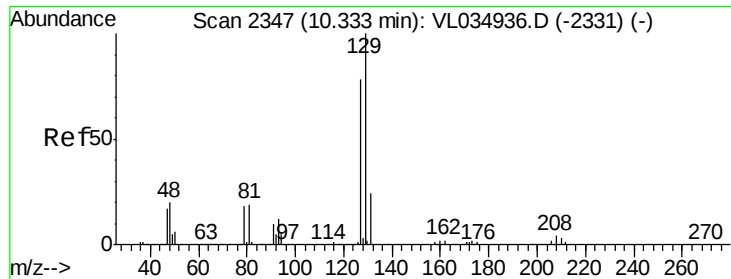
MMDadoda  
 5/7/2020 2:31:12 PM



#47  
 1,1,2-Trichloroethane  
 Concen: 0.106 ppbv m  
 RT: 9.50 min Scan# 2089  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 83      | 59.1  | 75.6  | 113.4 |
| 85      | 54.6  | 47.0  | 70.6  |
| 99      | 57.6  | 49.4  | 74.2  |





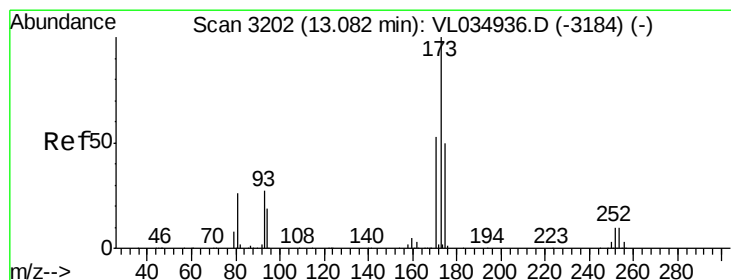
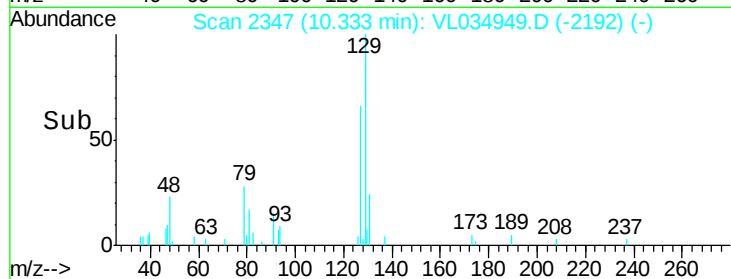
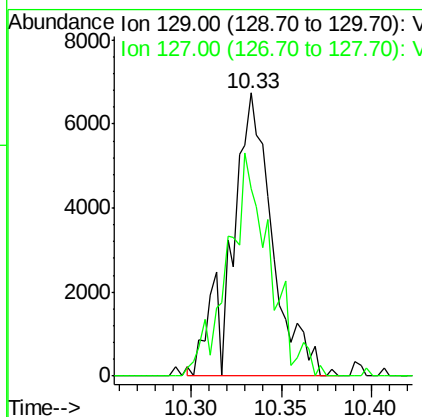
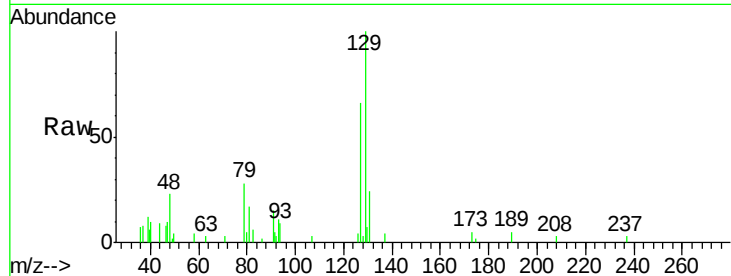
#48  
Dibromochloromethane  
Concen: 0.076 ppbv m  
RT: 10.33 min Scan# 2347  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

Tot Ion:129 Resp: 10644  
Ion Ratio Lower Upper  
129 100  
127 81.2 39.1 117.2

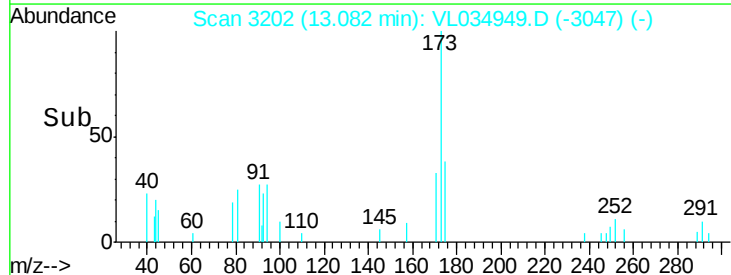
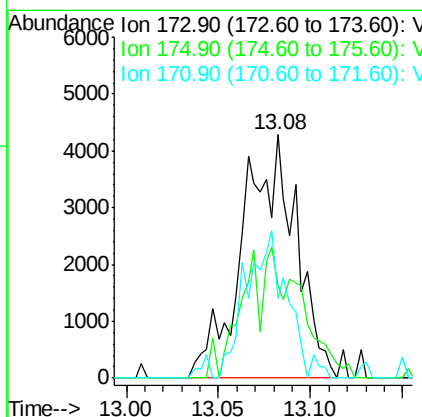
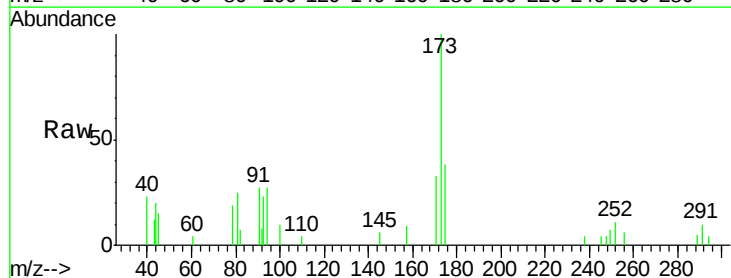
Manual Integrations  
APPROVED

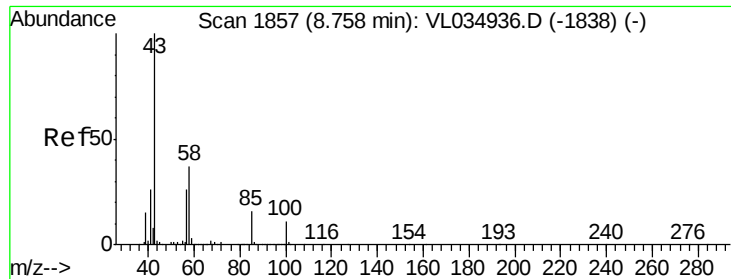
MMDadoda  
5/7/2020 2:31:12 PM



#49  
Bromoform  
Concen: 0.071 ppbv m  
RT: 13.08 min Scan# 3202  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Tgt Ion:173 Resp: 8643  
Ion Ratio Lower Upper  
173 100  
175 0.0 39.0 58.6#  
171 0.0 41.4 62.2#





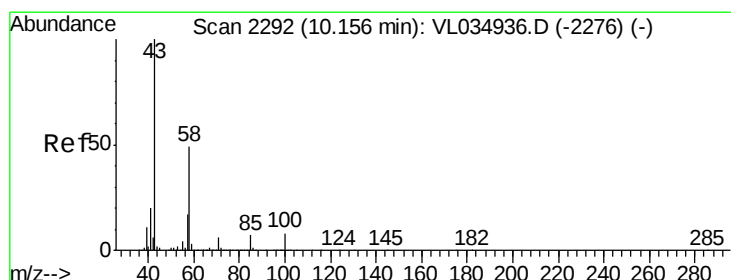
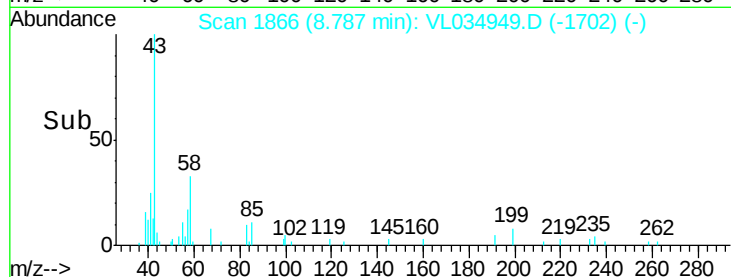
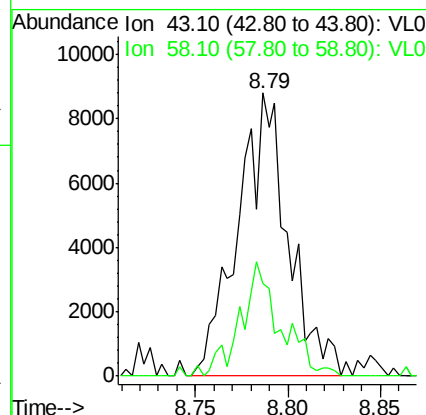
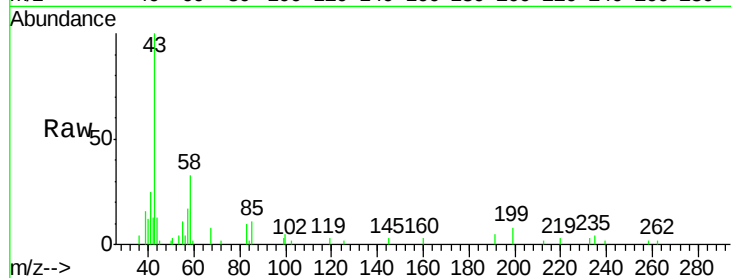
#50  
4-Methyl-2-Pentanone  
Concen: 0.072 ppbv m  
RT: 8.79 min Scan# 1866  
Delta R.T. 0.03 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 29.1  | 43.7# |

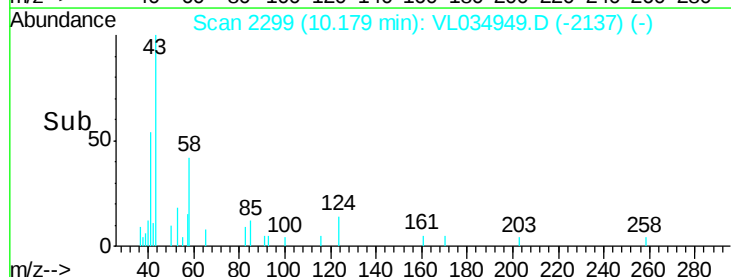
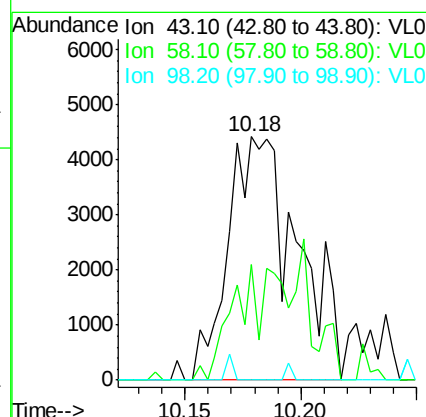
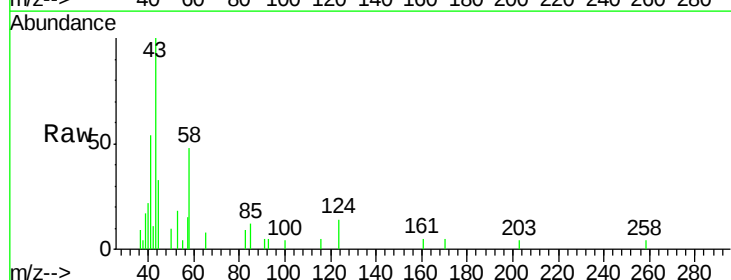
Manual Integrations  
APPROVED

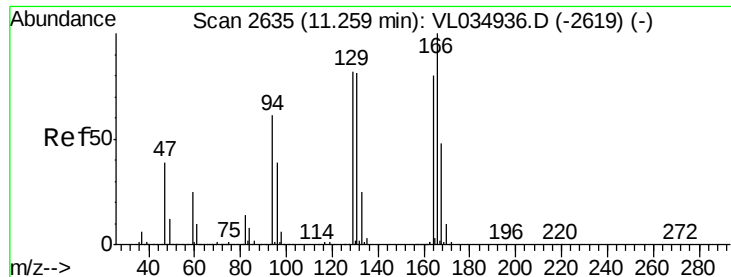
MMDadoda  
5/7/2020 2:31:12 PM



#51  
2-Hexanone  
Concen: 0.051 ppbv m  
RT: 10.18 min Scan# 2299  
Delta R.T. 0.02 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 39.1  | 58.7# |
| 98      | 0.0   | 0.3   | 0.5#  |





#52

Tetrachloroethene

Concen: 0.088 ppbv m

RT: 11.26 min Scan# 2635

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion:164 Resp: 6749

Ion Ratio Lower Upper

164 100

166 99.7 100.7 151.1#

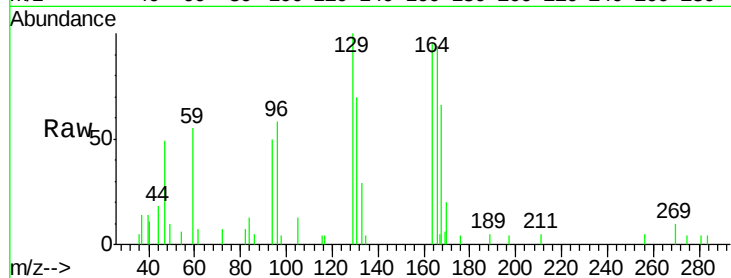
129 105.8 83.0 124.4

131 74.3 81.0 121.4#

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:31:12 PM

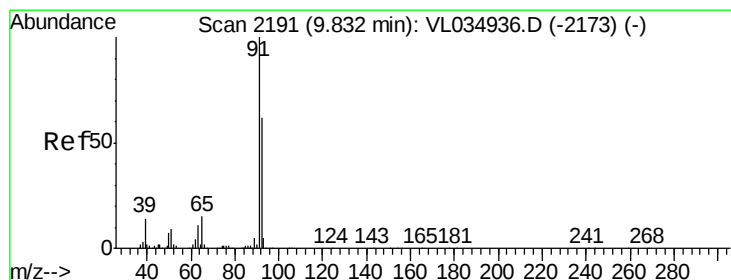
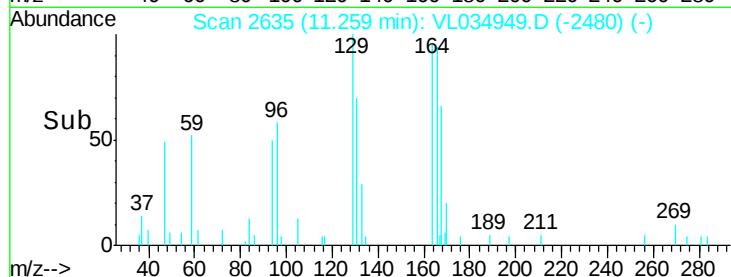
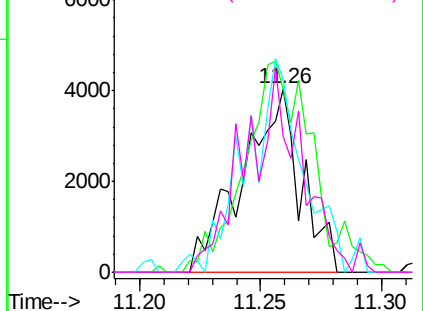


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.055 ppbv m

RT: 9.83 min Scan# 2190

Delta R.T. -0.00 min

Lab File: VL034949.D

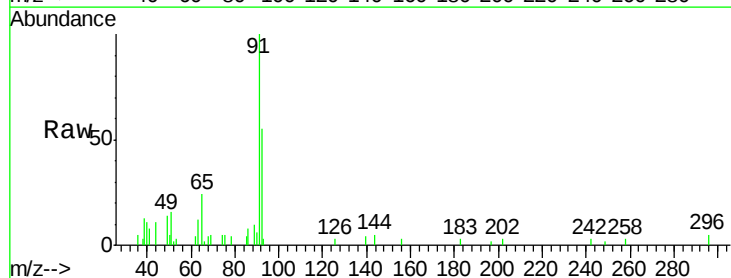
Acq: 6 May 2020 19:33

Tgt Ion: 91 Resp: 12658

Ion Ratio Lower Upper

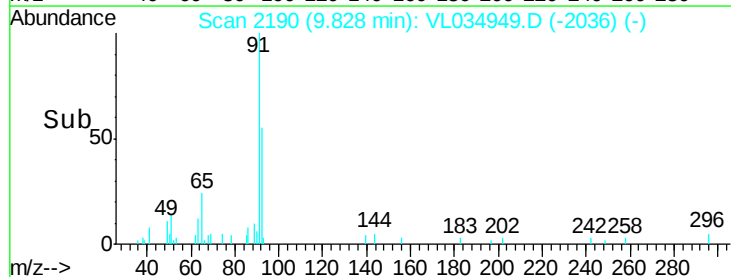
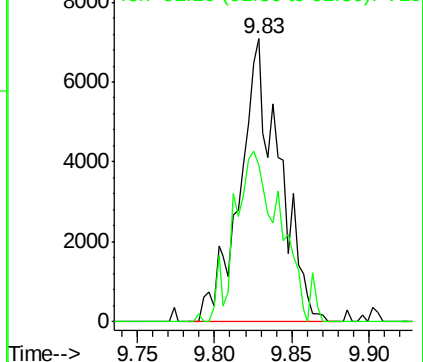
91 100

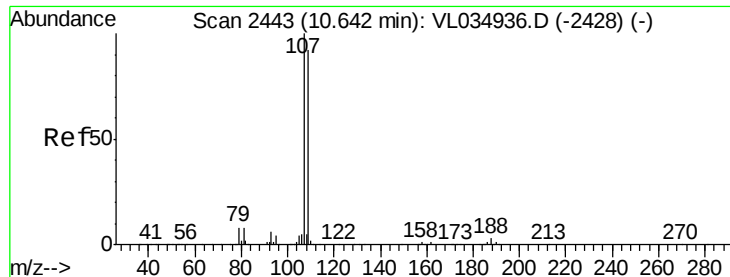
92 69.5 48.6 73.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





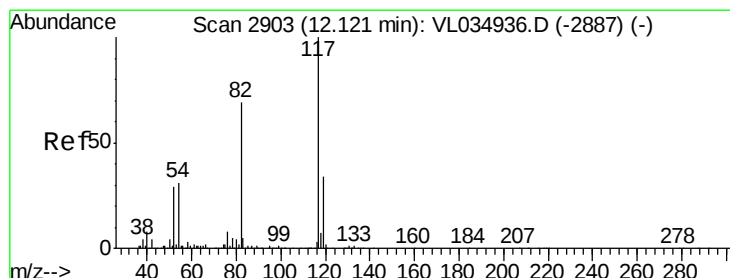
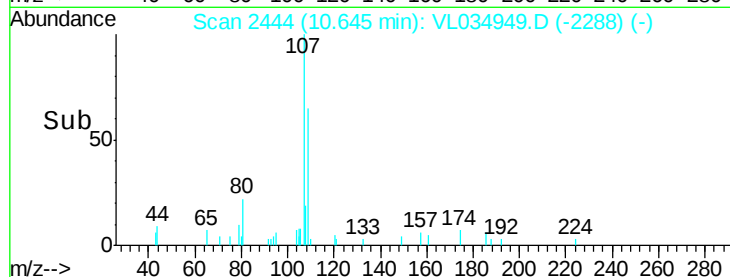
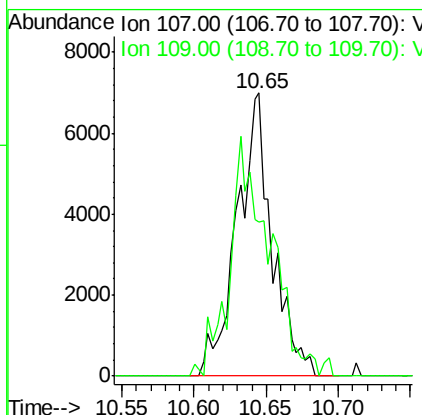
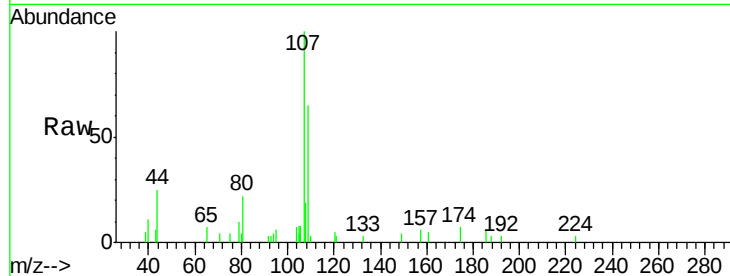
#54  
 1,2-Dibromoethane  
 Concen: 0.088 ppbv m  
 RT: 10.65 min Scan# 2444  
 Delta R.T. 0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

Tot Ion:107 Resp: 11807  
 Ion Ratio Lower Upper  
 107 100  
 109 64.7 73.2 109.8#

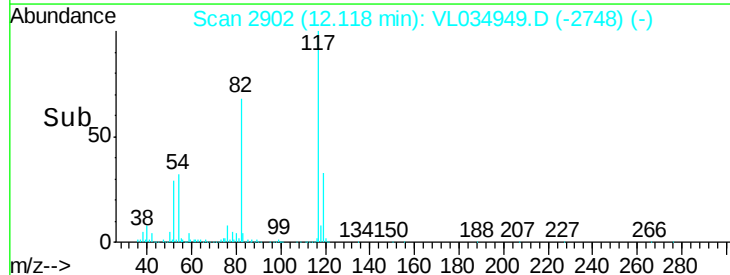
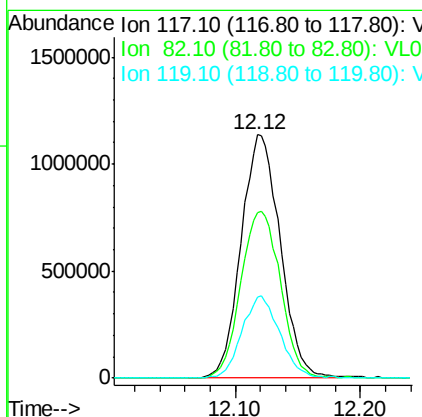
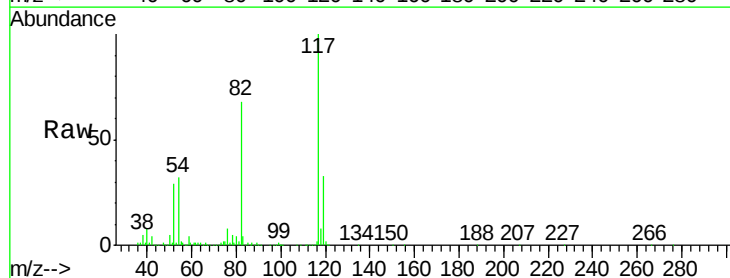
Manual Integrations  
 APPROVED

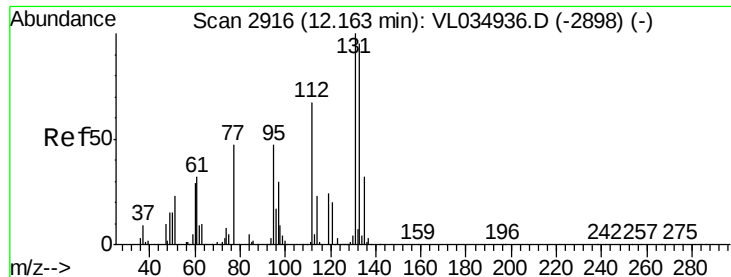
MMDadoda  
 5/7/2020 2:31:12 PM



#55  
 Chlorobenzene-d5  
 Concen: 10.000 ppbv  
 RT: 12.12 min Scan# 2902  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Tgt Ion:117 Resp: 2453671  
 Ion Ratio Lower Upper  
 117 100  
 82 69.9 53.1 79.7  
 119 32.9 26.7 40.1





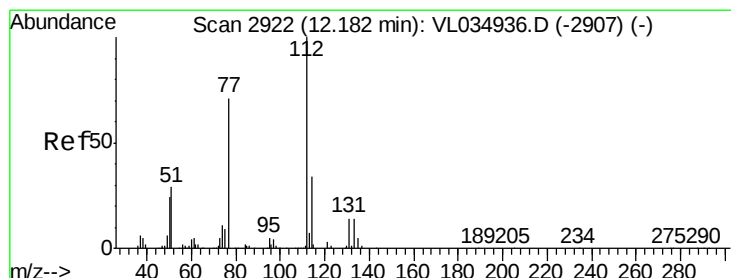
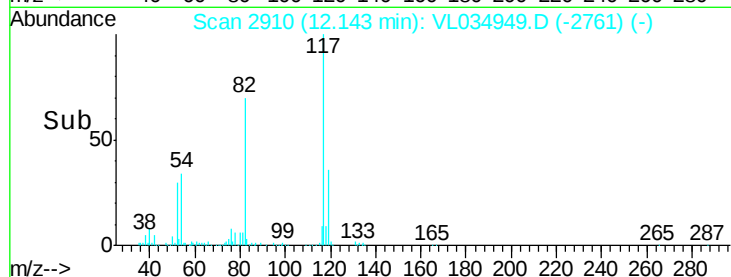
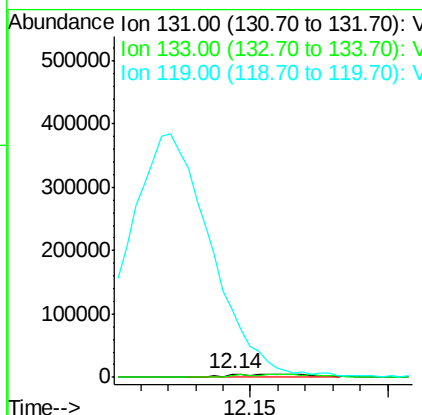
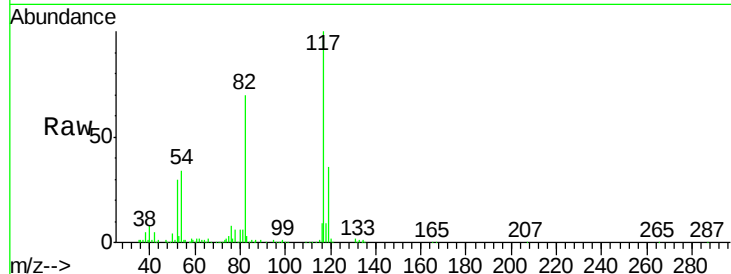
#56  
 1,1,1,2-Tetrachloroethane  
 Concen: 0.090 ppbv m  
 RT: 12.14 min Scan# 2910  
 Delta R.T. -0.02 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 131     | 100   |       |       |
| 133     | 115.3 | 77.7  | 116.5 |
| 119     | 0.0   | 49.8  | 74.6# |

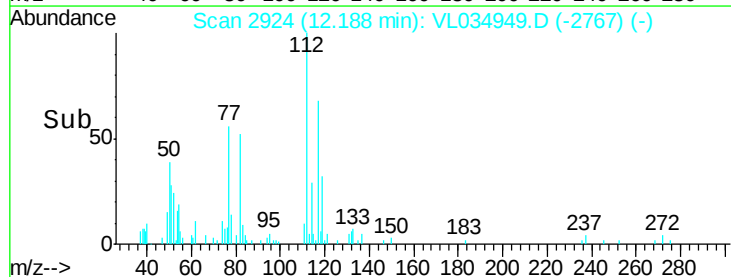
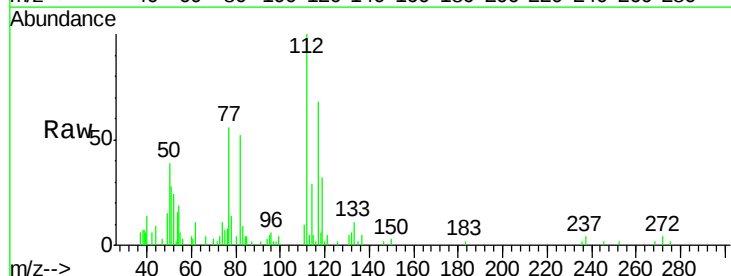
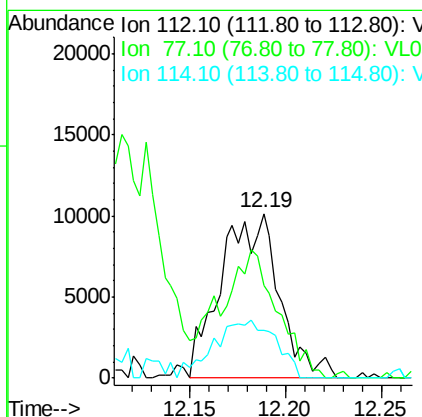
Manual Integrations  
 APPROVED

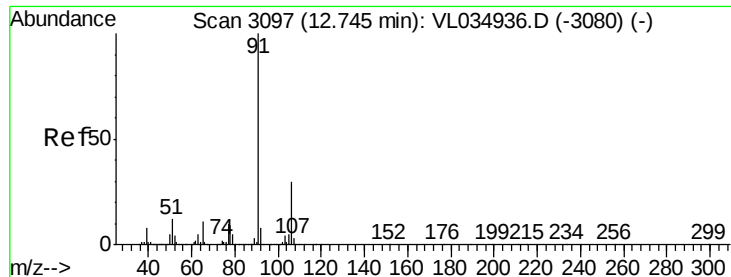
MMDadoda  
 5/7/2020 2:31:12 PM



#57  
 Chlorobenzene  
 Concen: 0.111 ppbv m  
 RT: 12.19 min Scan# 2924  
 Delta R.T. 0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 77      | 56.0  | 57.0  | 85.6# |
| 114     | 28.9  | 30.8  | 37.6# |





#58

Ethyl Benzene

Concen: 0.056 ppbv m

RT: 12.75 min Scan# 3098

Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 91 Resp: 17117

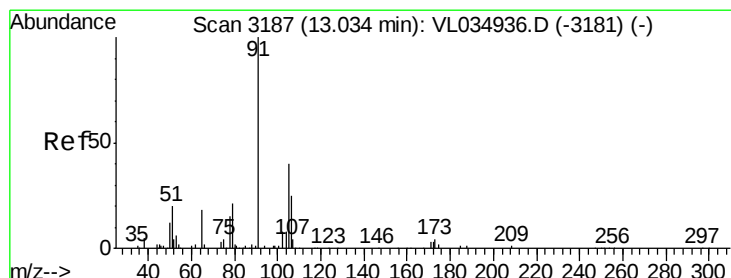
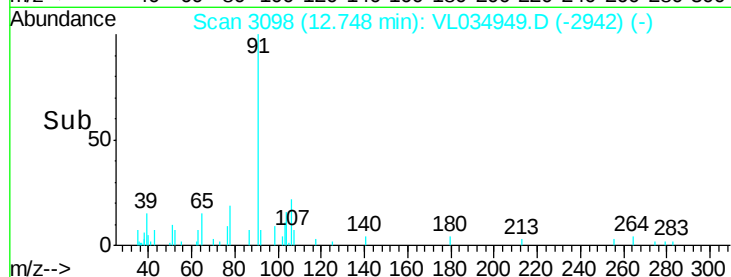
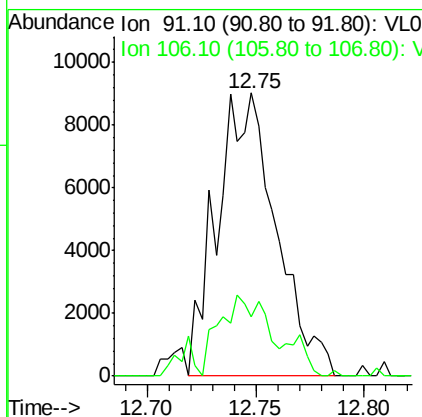
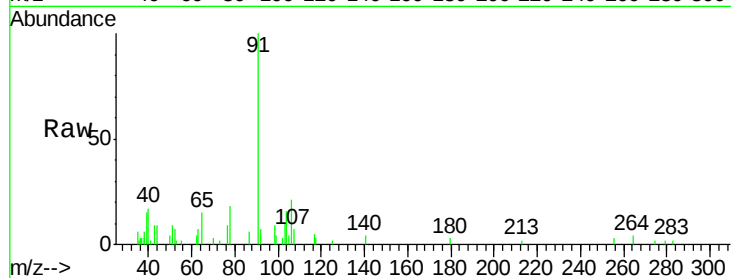
Ion Ratio Lower Upper

91 100

106 20.9 24.2 36.4#

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#59

m/p-Xylene

Concen: 0.117 ppbv m

RT: 13.03 min Scan# 3187

Delta R.T. -0.00 min

Lab File: VL034949.D

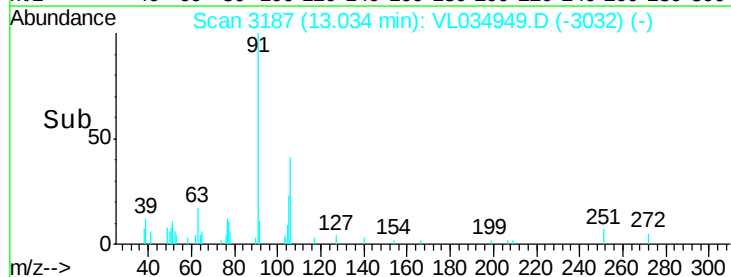
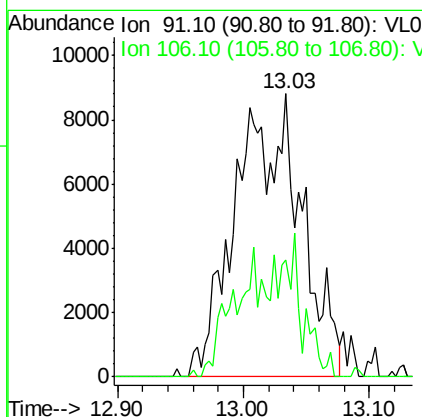
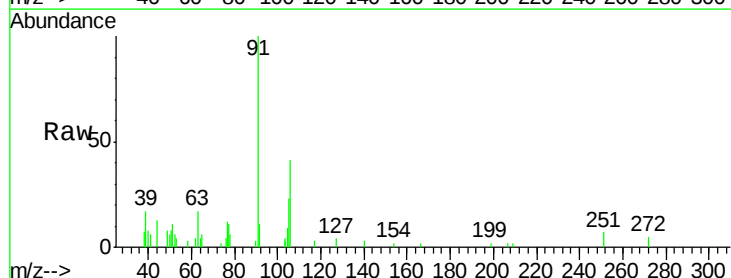
Acq: 6 May 2020 19:33

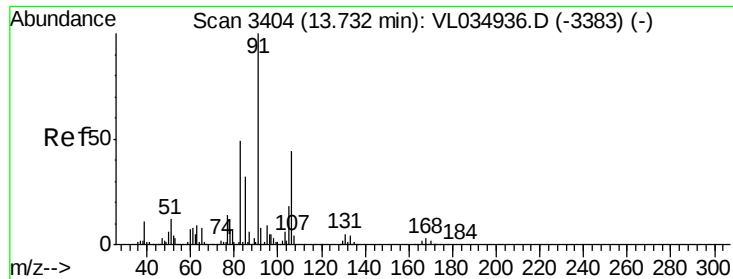
Tgt Ion: 91 Resp: 31299

Ion Ratio Lower Upper

91 100

106 23.9 66.0 99.0#





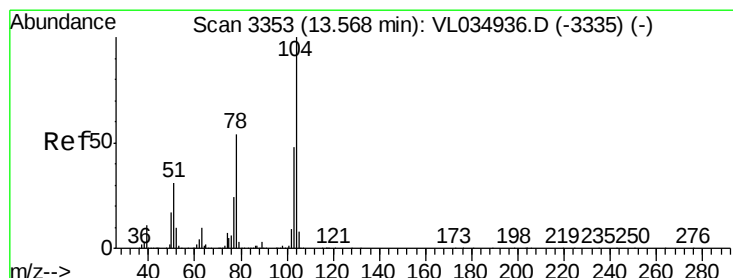
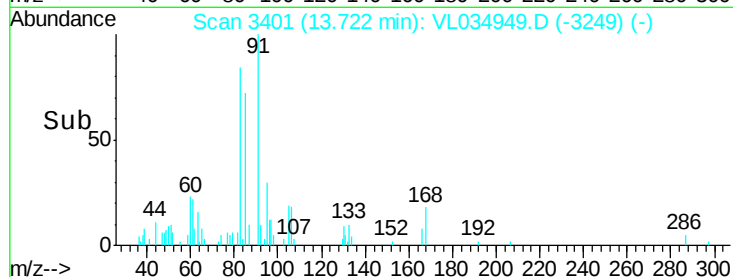
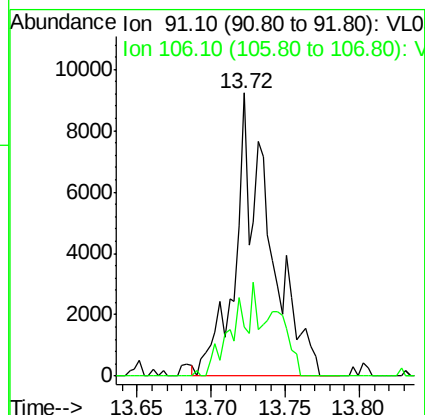
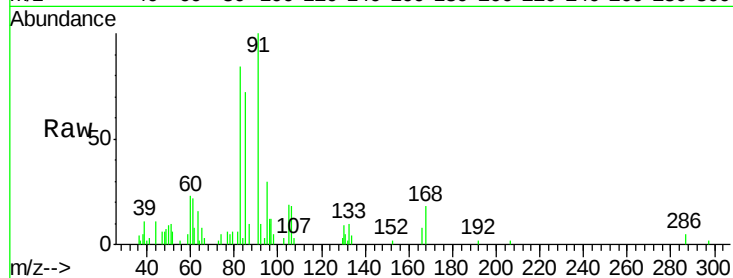
#60  
o-Xylene  
Concen: 0.056 ppbv m  
RT: 13.72 min Scan# 3401  
Delta R.T. -0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

Tot Ion: 91 Resp: 14671  
Ion Ratio Lower Upper  
91 100  
106 38.6 21.9 65.5

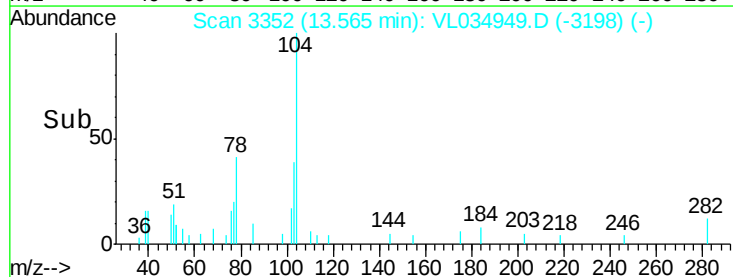
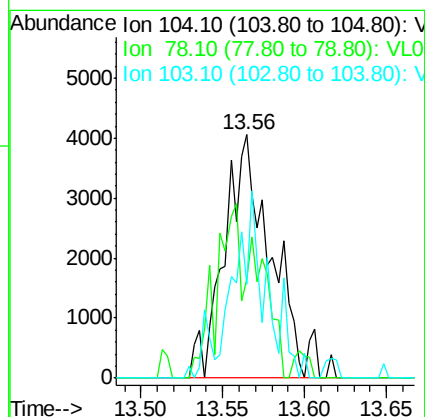
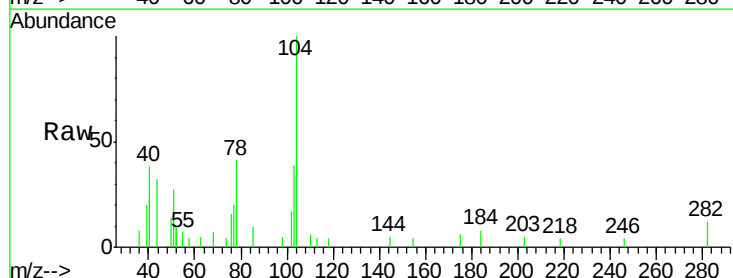
Manual Integrations  
APPROVED

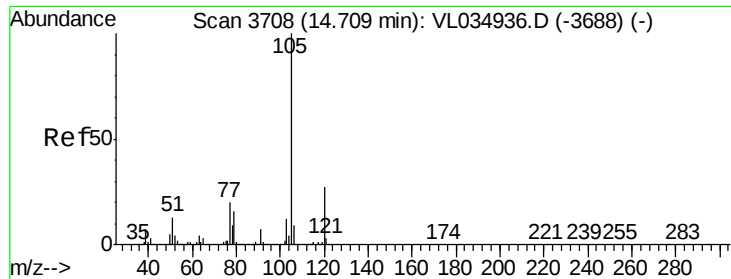
MMDadoda  
5/7/2020 2:31:12 PM



#61  
Styrene  
Concen: 0.049 ppbv m  
RT: 13.56 min Scan# 3352  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Tgt Ion: 104 Resp: 8103  
Ion Ratio Lower Upper  
104 100  
78 0.0 43.7 65.5#  
103 58.2 38.8 58.2





#62

Isopropylbenzene

Concen: 0.069 ppbv m

RT: 14.71 min Scan# 3707

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 105 Resp: 27291

Ion Ratio Lower Upper

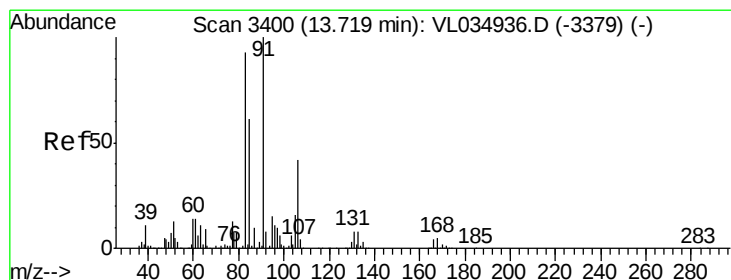
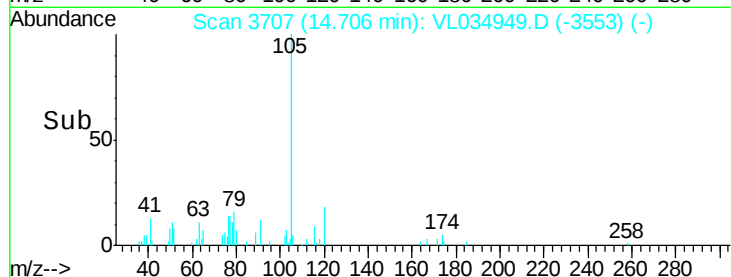
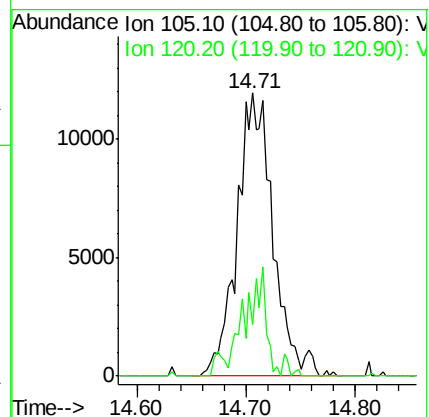
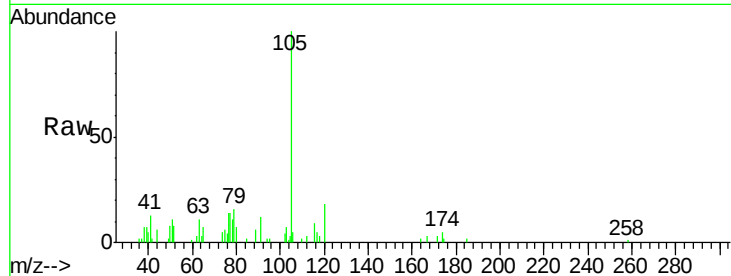
105 100

120 0.0 20.6 31.0#

Manual Integrations  
APPROVED

MMDadoda

5/7/2020 2:31:12 PM



#63

1,1,2,2-Tetrachloroethane

Concen: 0.099 ppbv m

RT: 13.72 min Scan# 3399

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

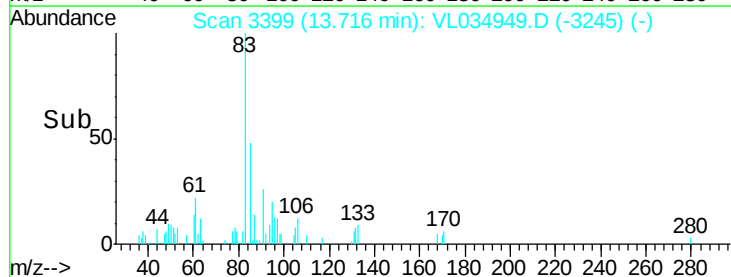
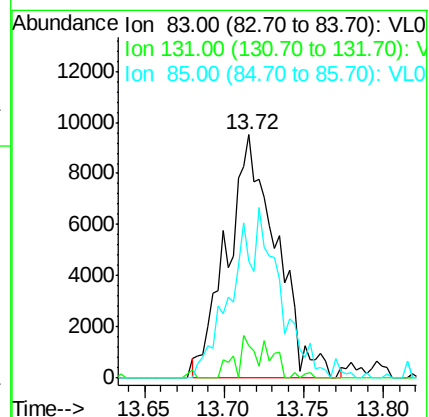
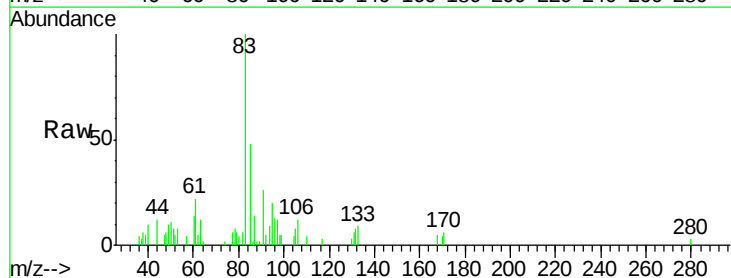
Tgt Ion: 83 Resp: 20440

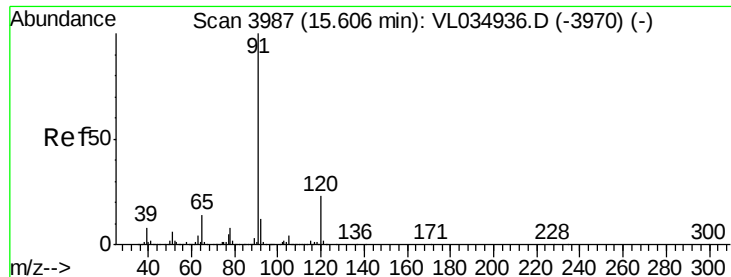
Ion Ratio Lower Upper

83 100

131 11.3 4.7 14.0

85 67.9 32.5 97.4





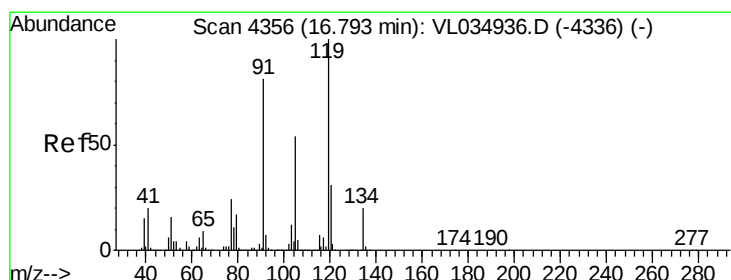
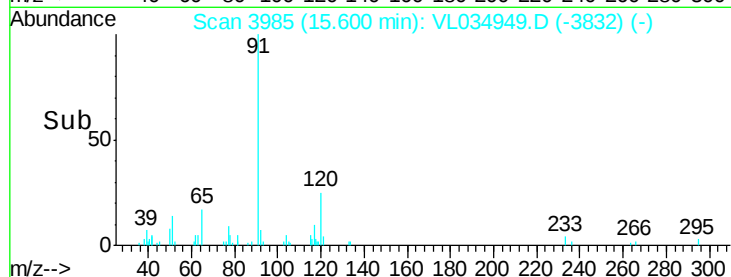
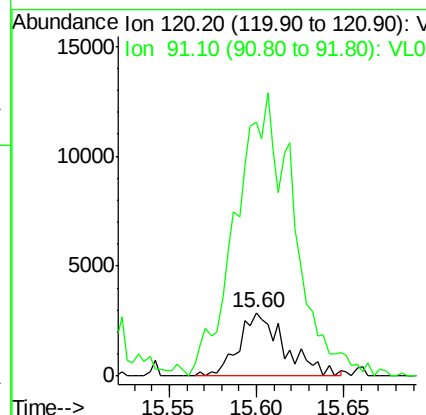
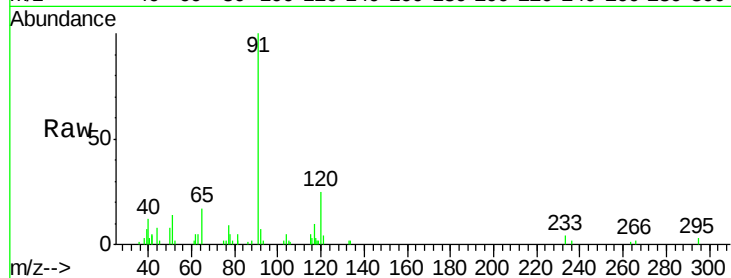
#64  
n-propylbenzene  
Concen: 0.052 ppbv m  
RT: 15.60 min Scan# 3985  
Delta R.T. -0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 120     | 100   |       |        |
| 91      | 0.0   | 373.5 | 560.3# |

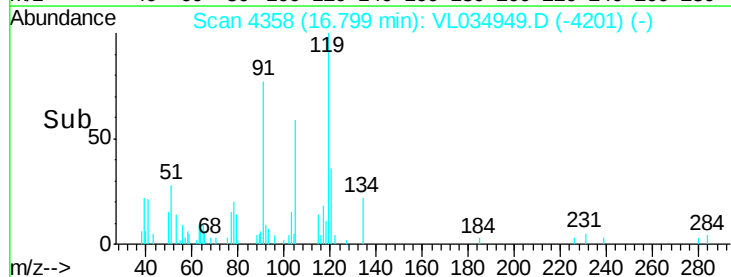
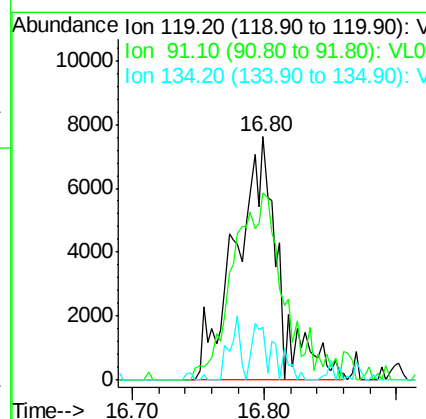
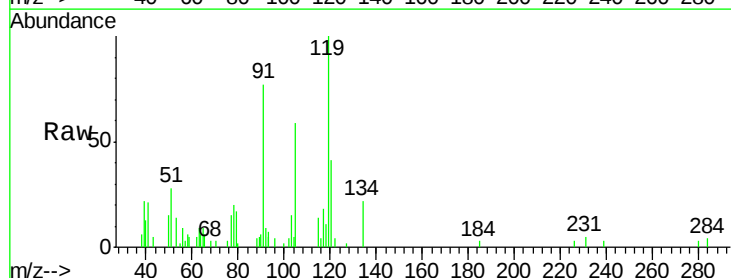
Manual Integrations  
APPROVED

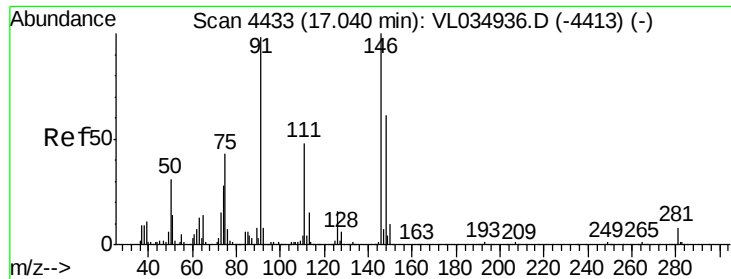
MMDadoda  
5/7/2020 2:31:12 PM



#65  
tert-Butylbenzene  
Concen: 0.051 ppbv m  
RT: 16.80 min Scan# 4358  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 119     | 100   |       |        |
| 91      | 0.0   | 67.5  | 101.3# |
| 134     | 0.0   | 16.1  | 24.1#  |





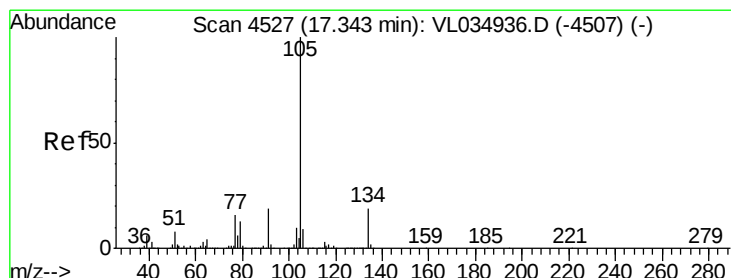
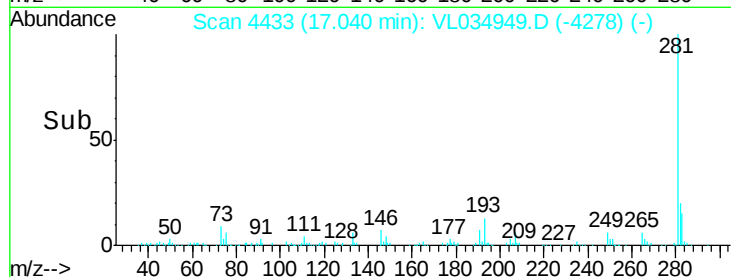
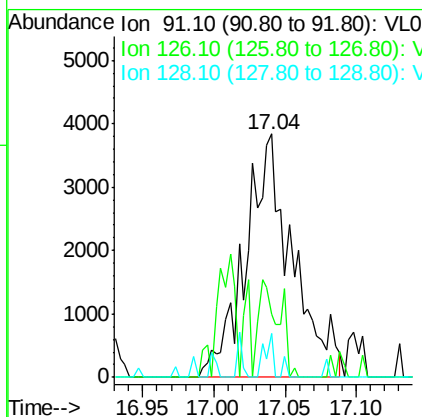
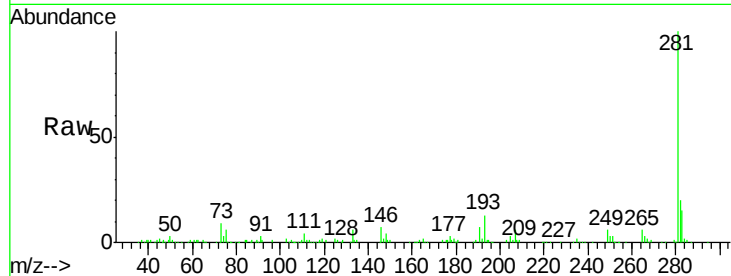
#66  
Benzyl Chloride  
Concen: 0.075 ppbv m  
RT: 17.04 min Scan# 4433  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 17.8  | 13.8  | 20.6  |
| 128     | 0.0   | 4.3   | 6.5   |

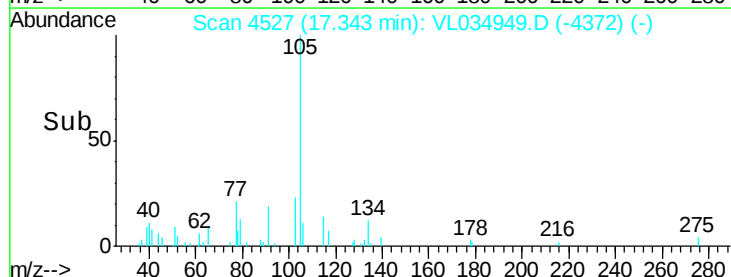
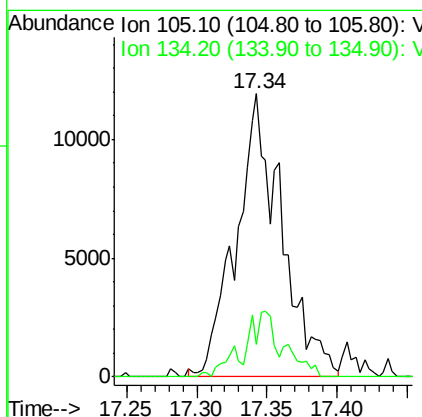
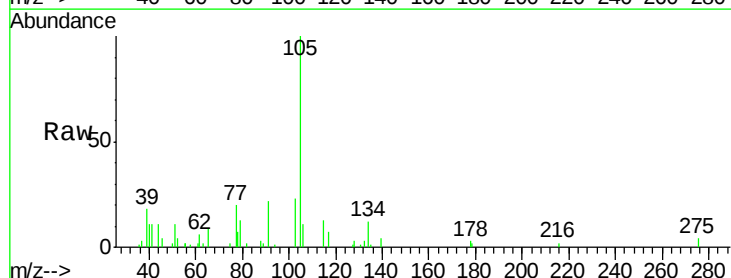
Manual Integrations  
APPROVED

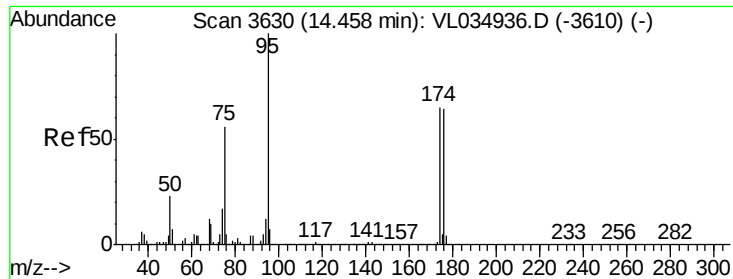
MMDadoda  
5/7/2020 2:31:12 PM



#67  
sec-Butylbenzene  
Concen: 0.055 ppbv m  
RT: 17.34 min Scan# 4527  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 134     | 19.7  | 14.8  | 22.2  |





#68

1-Bromo-4-Fluorobenzene

Concen: 10.341 ppbv

RT: 14.46 min Scan# 3629

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

Tot Ion: 95 Resp: 2053892

Ion Ratio Lower Upper

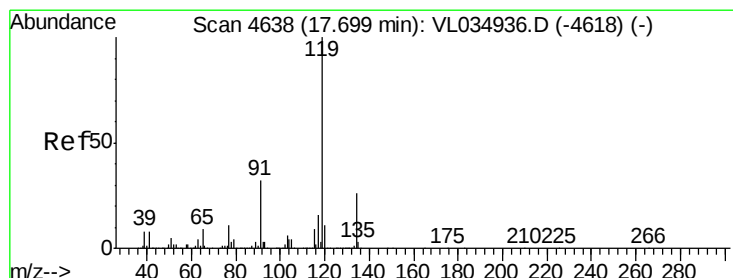
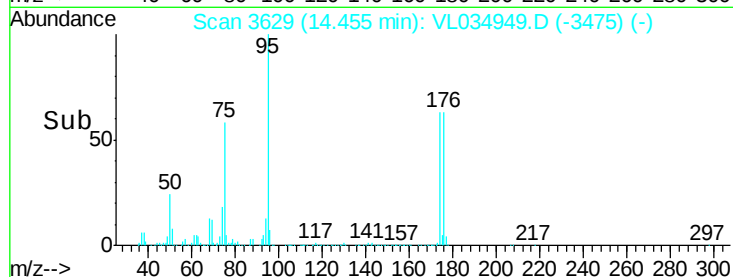
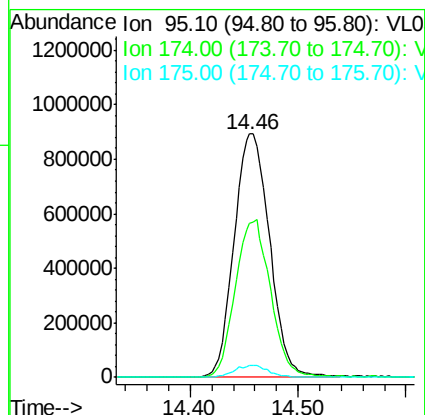
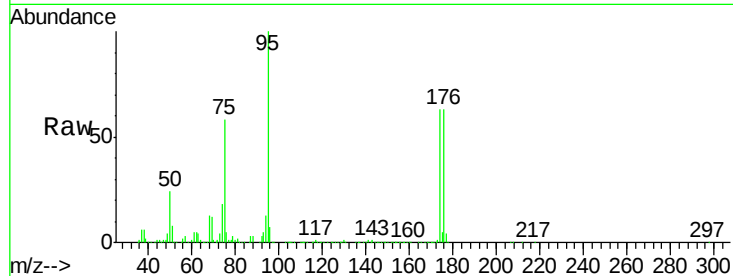
95 100

174 64.5 51.5 77.3

175 4.8 3.8 5.8

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#69

p-Isopropyltoluene

Concen: 0.050 ppbv m

RT: 17.71 min Scan# 4641

Delta R.T. 0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

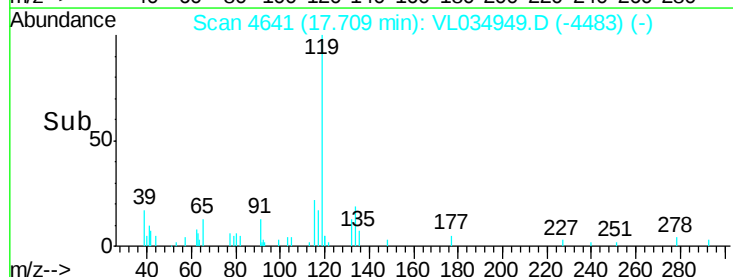
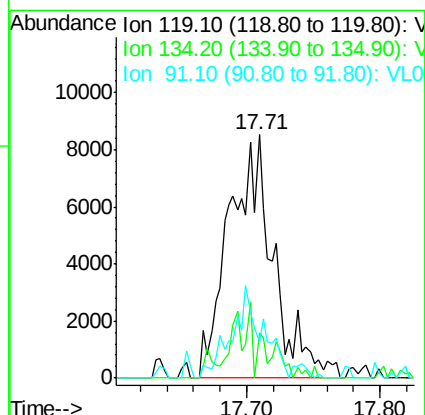
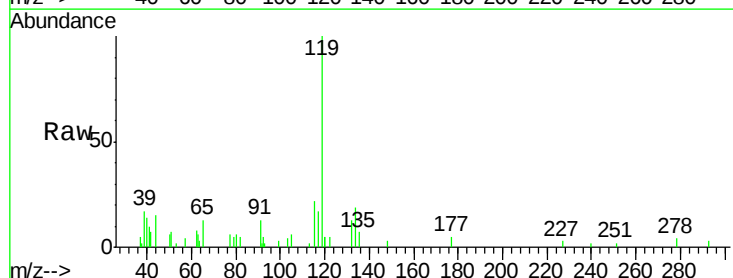
Tgt Ion: 119 Resp: 19620

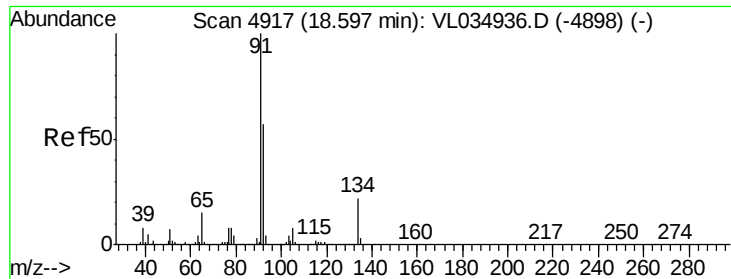
Ion Ratio Lower Upper

119 100

134 0.0 20.3 30.5#

91 0.0 24.6 36.8#





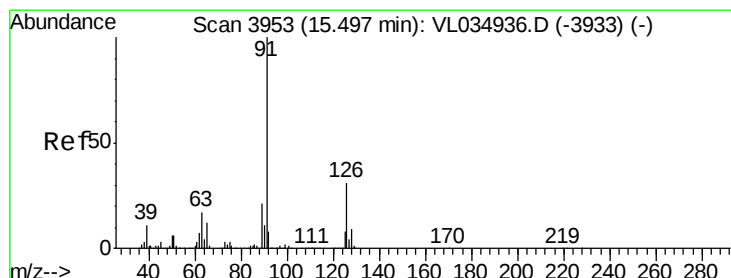
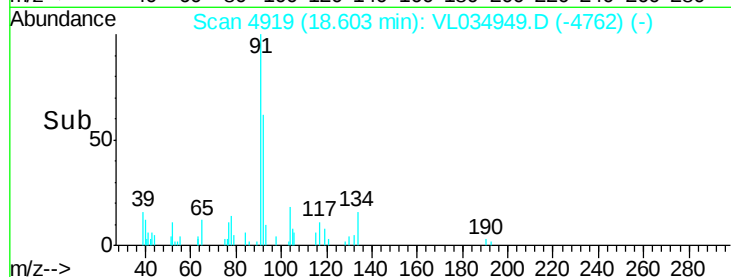
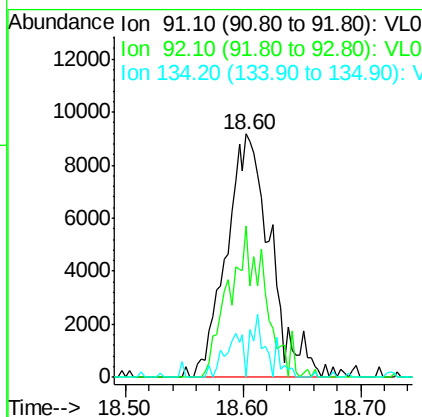
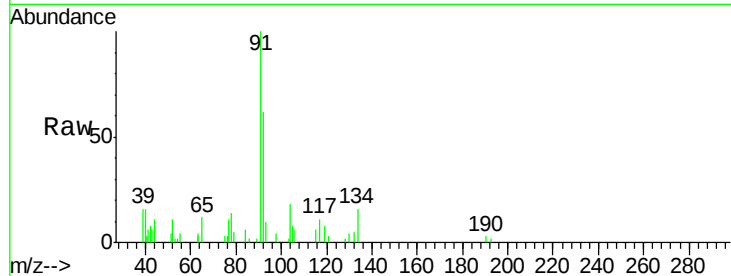
#70  
n-Butylbenzene  
Concen: 0.057 ppbv m  
RT: 18.60 min Scan# 4919  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 0.0   | 44.4  | 66.6# |
| 134     | 7.6   | 18.0  | 27.0# |

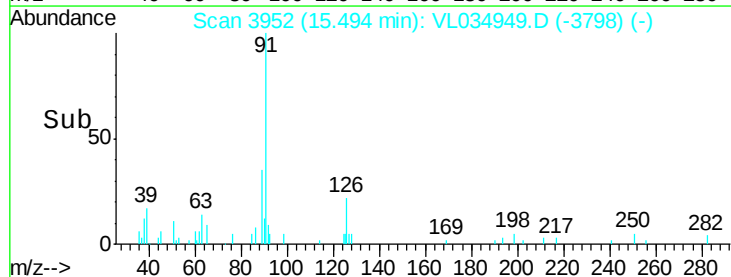
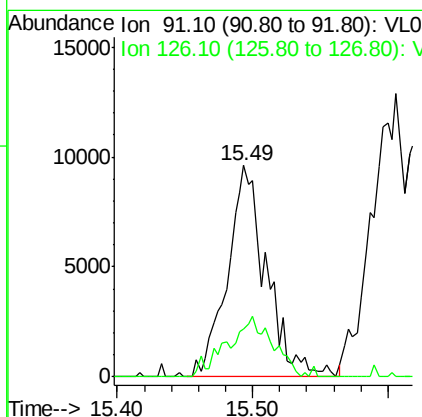
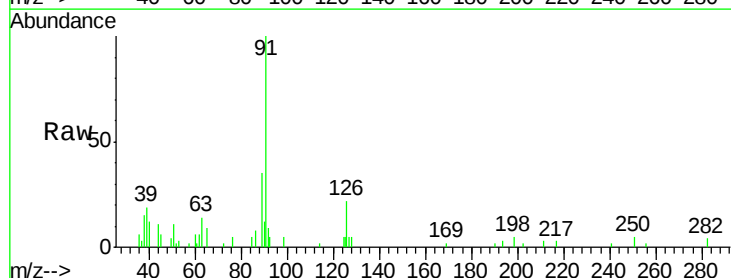
Manual Integrations  
APPROVED

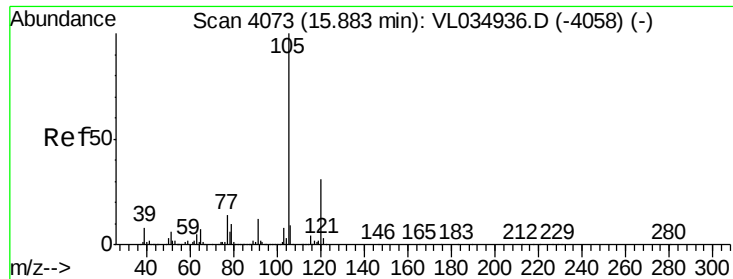
MMDadoda  
5/7/2020 2:31:12 PM



#71  
2-Chlorotoluene  
Concen: 0.065 ppbv m  
RT: 15.49 min Scan# 3952  
Delta R.T. -0.00 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 126     | 33.7  | 12.0  | 47.8  |





#72

4-Ethyltoluene

Concen: 0.061 ppbv m

RT: 15.88 min Scan# 4073

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

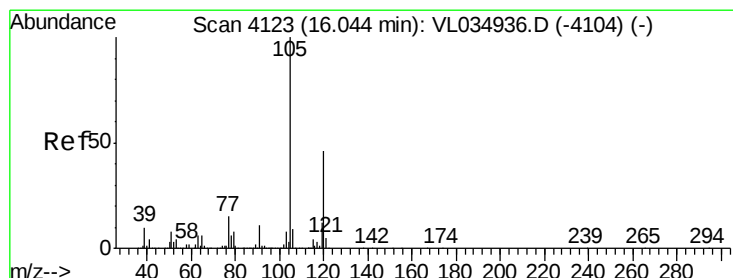
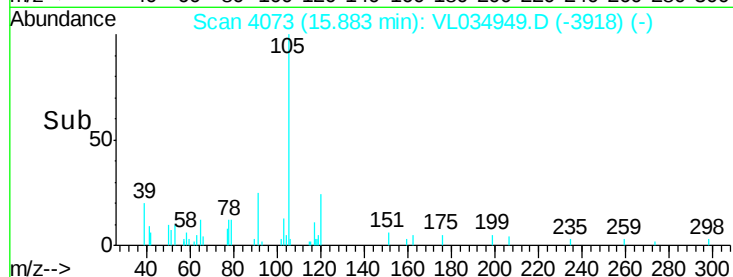
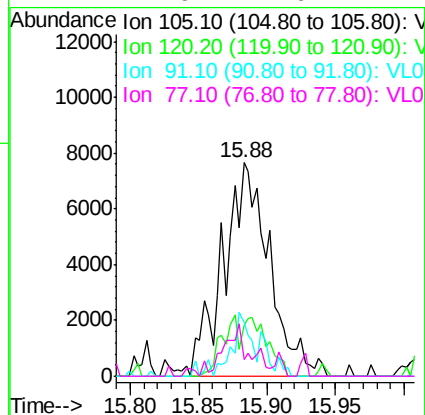
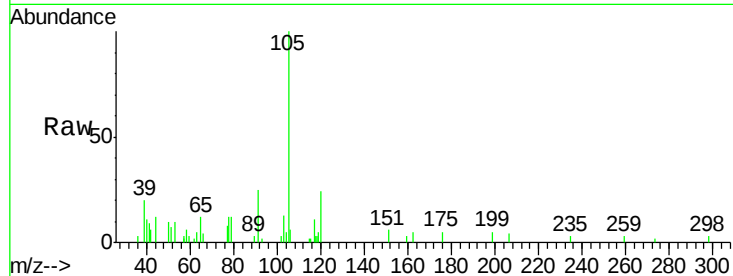
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ion  | Ratio | Resp  | Lower | Upper |
|---------|------|-------|-------|-------|-------|
| 105     | 100  |       | 17864 |       |       |
| 120     | 0.0  | 23.8  | 35.8# |       |       |
| 91      | 17.6 | 10.6  | 15.8# |       |       |
| 77      | 14.6 | 11.6  | 17.4  |       |       |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.052 ppbv m

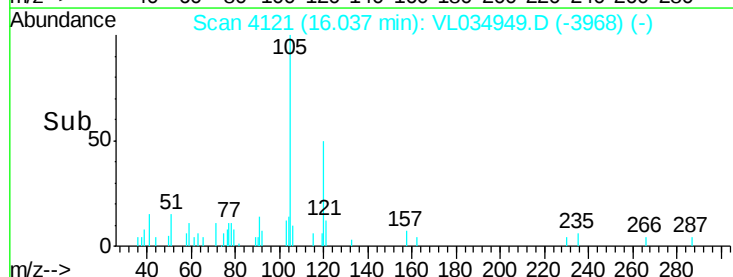
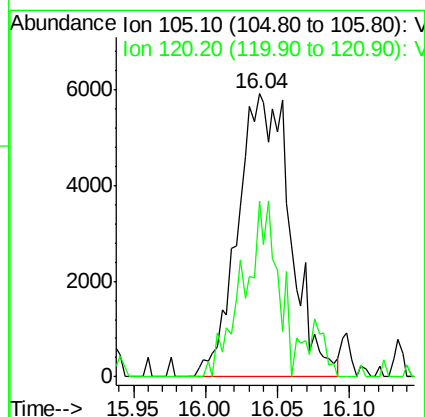
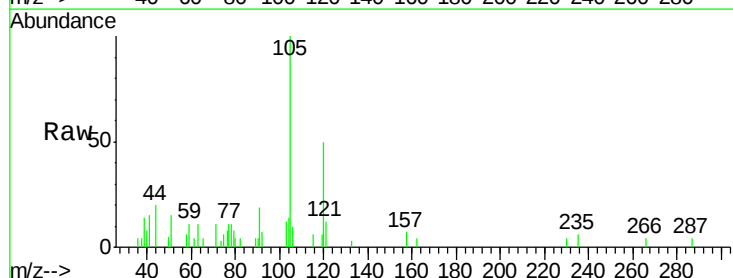
RT: 16.04 min Scan# 4121

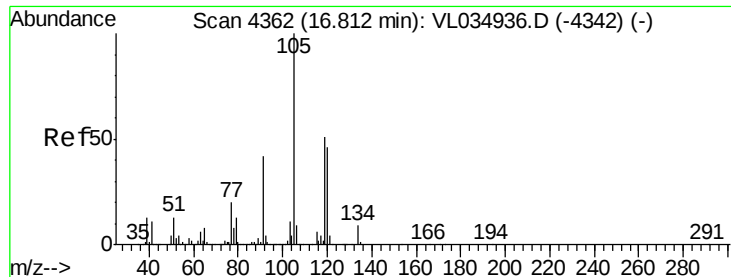
Delta R.T. -0.01 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

| Tgt Ion | Ion  | Ratio | Resp  | Lower | Upper |
|---------|------|-------|-------|-------|-------|
| 105     | 100  |       | 15006 |       |       |
| 120     | 50.4 | 36.4  | 54.6  |       |       |





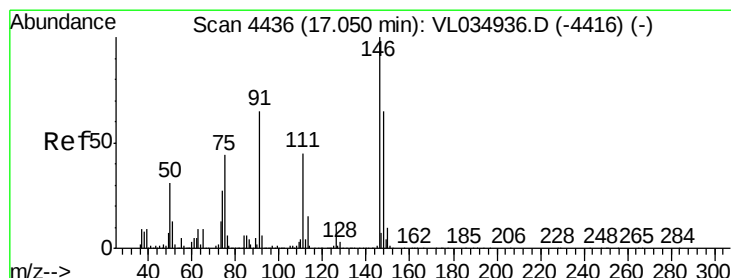
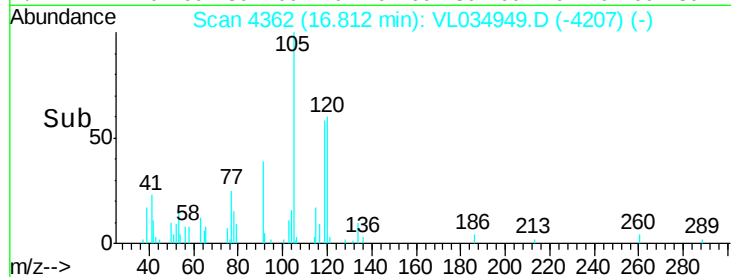
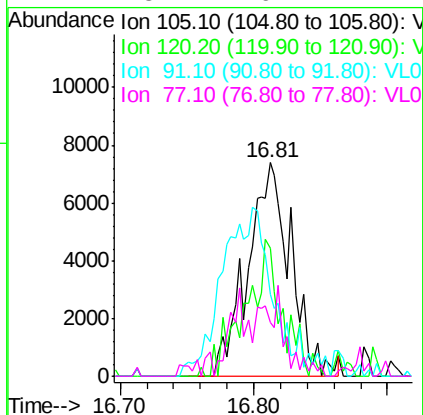
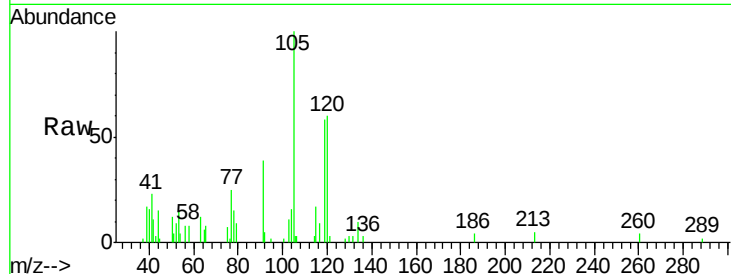
#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.053 ppbv m  
 RT: 16.81 min Scan# 4362  
 Delta R.T. -0.00 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 105     | 100   |       |       |
| 120     | 59.9  | 36.8  | 55.2# |
| 91      | 38.7  | 35.4  | 53.0  |
| 77      | 25.2  | 16.2  | 24.2# |

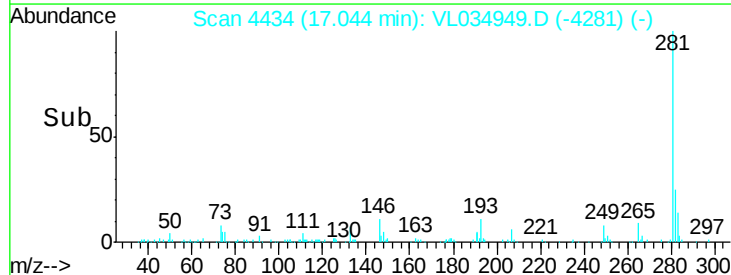
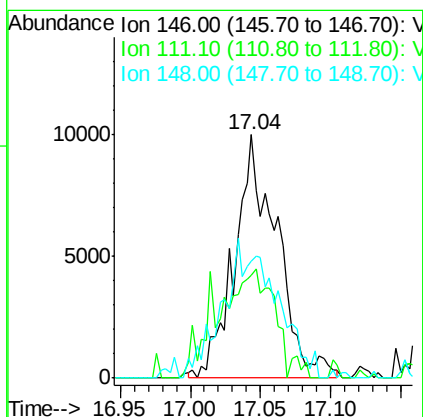
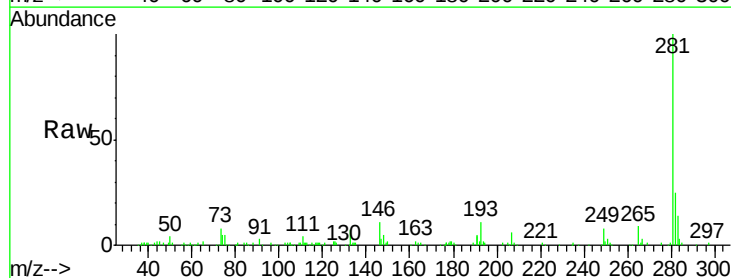
Manual Integrations  
 APPROVED

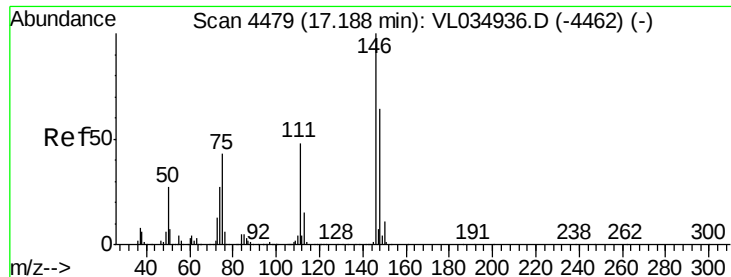
MMDadoda  
 5/7/2020 2:31:12 PM



#75  
 1,3-Dichlorobenzene  
 Concen: 0.114 ppbv m  
 RT: 17.04 min Scan# 4434  
 Delta R.T. -0.01 min  
 Lab File: VL034949.D  
 Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 61.3  | 24.0  | 72.0  |
| 148     | 0.0   | 32.6  | 97.7# |





#76

1,4-Dichlorobenzene

Concen: 0.089 ppbv m

RT: 17.19 min Scan# 4479

Delta R.T. -0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

Instrument :

MSVOA\_L

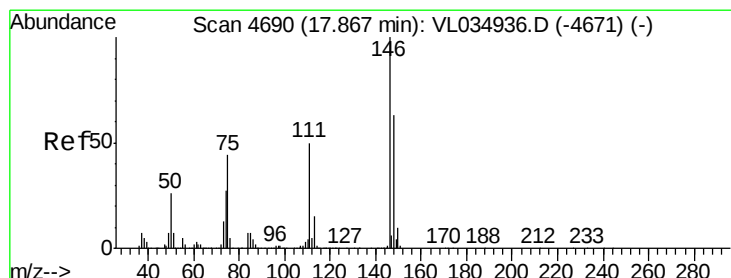
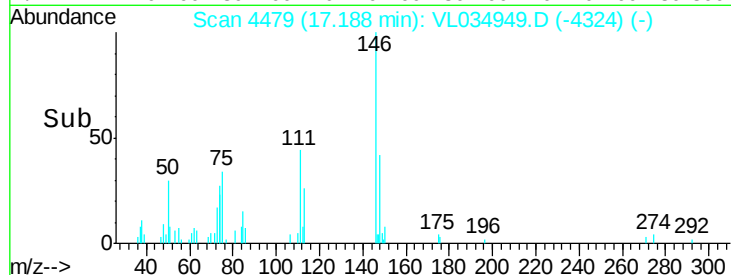
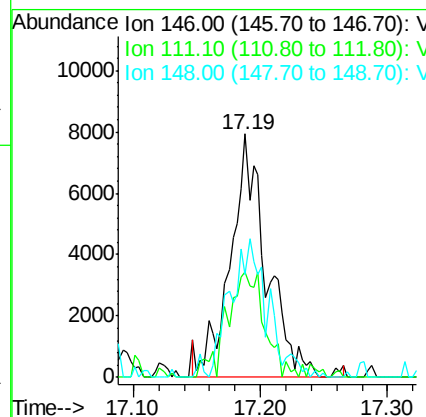
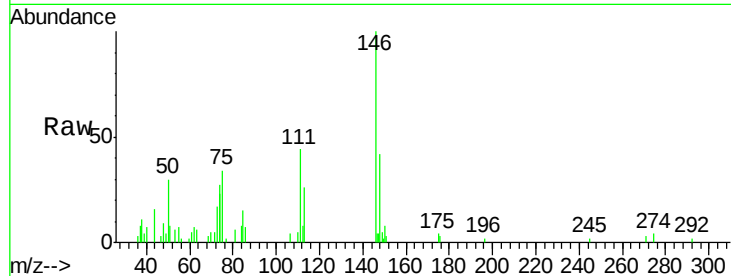
ClientSampleId :

LOD-MDL-AIR-01-QT2-2020

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 47.8  | 23.7  | 71.1  |
| 148     | 0.0   | 32.6  | 97.8# |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM



#77

1,2-Dichlorobenzene

Concen: 0.088 ppbv m

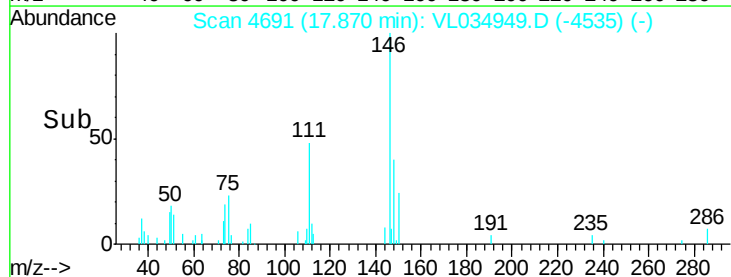
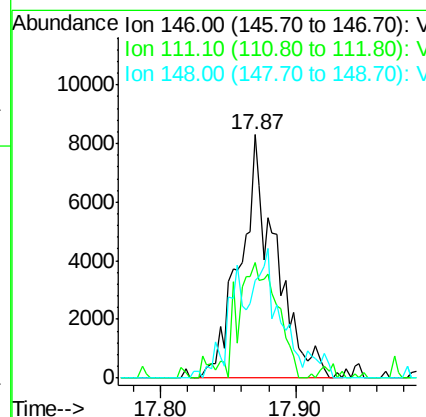
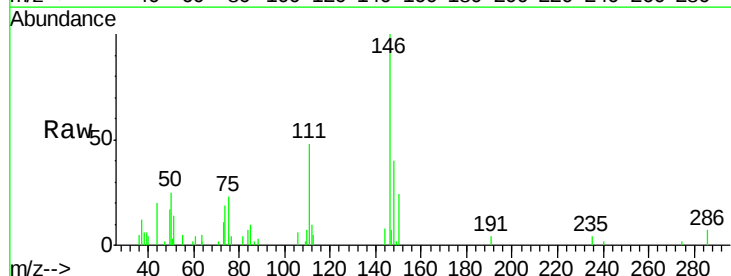
RT: 17.87 min Scan# 4691

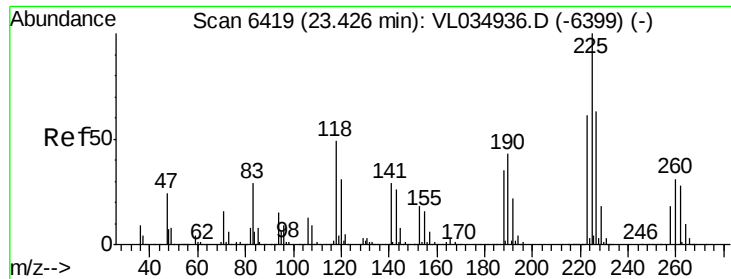
Delta R.T. 0.00 min

Lab File: VL034949.D

Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 55.5  | 24.5  | 73.5  |
| 148     | 0.0   | 31.7  | 95.1# |





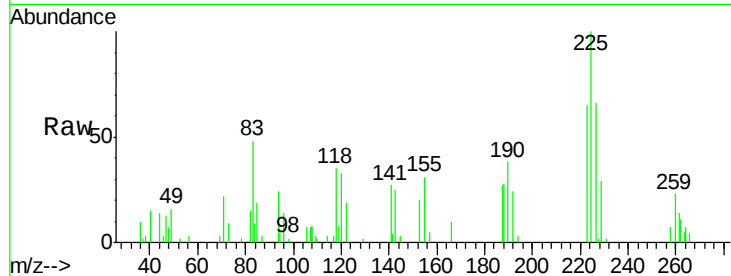
#78  
Hexachloro-1,3-Butadiene  
Concen: 0.131 ppbv m  
RT: 23.43 min Scan# 6421  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
LOD-MDL-AIR-01-QT2-2020

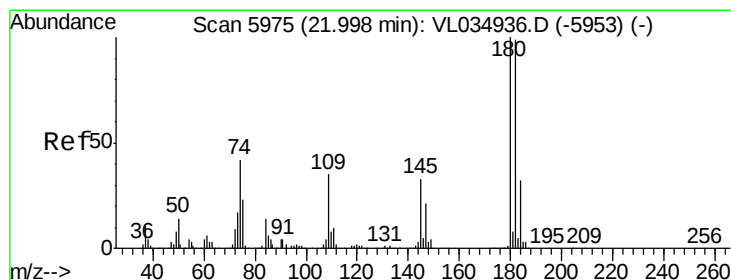
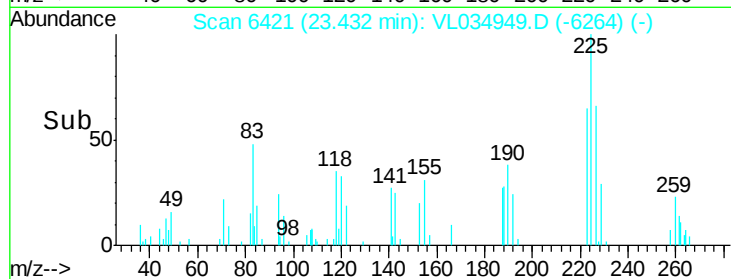
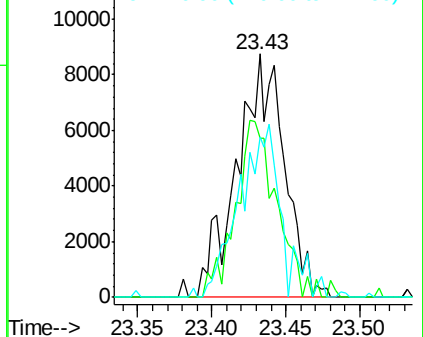
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 63.9  | 49.8  | 74.8  |
| 227     | 0.0   | 51.8  | 77.6# |

Manual Integrations  
APPROVED

MMDadoda  
5/7/2020 2:31:12 PM

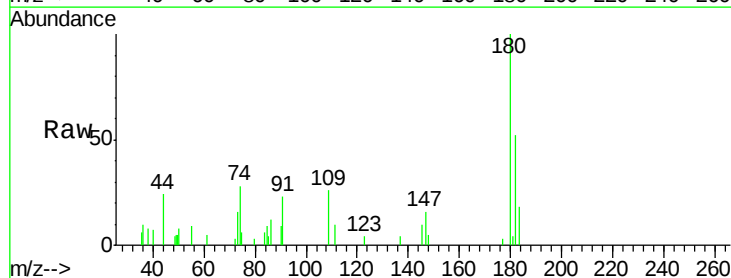


Abundance Ion 224.90 (224.60 to 225.60): V  
Ion 222.90 (222.60 to 223.60): V  
Ion 226.90 (226.60 to 227.60): V



#81  
1,2,4-Trichlorobenzene  
Concen: 0.078 ppbv m  
RT: 22.01 min Scan# 5978  
Delta R.T. 0.01 min  
Lab File: VL034949.D  
Acq: 6 May 2020 19:33

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 180     | 100   |       |        |
| 182     | 0.0   | 77.5  | 116.3# |
| 184     | 0.0   | 24.8  | 37.2#  |



Abundance Ion 180.00 (179.70 to 180.70): V  
Ion 182.00 (181.70 to 182.70): V  
Ion 184.00 (183.70 to 184.70): V

