

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL102418\  
 Data File : VL032694.D  
 Acq On : 24 Oct 2018 19:16  
 Operator : SY/AP  
 Sample : J5164-13 0.4 LOD  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

Quant Time: Oct 25 05:26:45 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL101818AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 25 05:15:43 2018  
 QLast Update : Thu Oct 25 05:15:43 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1431887  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3468545  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3333344  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2570750  | 10.36    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 103.60% |

## Target Compounds

|                                |      |     |        |       |        | Qvalue |
|--------------------------------|------|-----|--------|-------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.09 | 85  | 84940  | 0.582 | ppbv   | 97     |
| 3) Chlorodifluoromethane       | 3.03 | 51  | 51073  | 0.456 | ppbv   | 99     |
| 4) Chloromethane               | 3.18 | 50  | 27967  | 0.447 | ppbv   | 98     |
| 5) Vinyl Chloride              | 3.30 | 62  | 26317  | 0.388 | ppbv   | 100    |
| 6) Bromomethane                | 3.53 | 94  | 18837  | 0.446 | ppbv   | 94     |
| 7) Chloroethane                | 3.62 | 64  | 10437  | 0.418 | ppbv   | 94     |
| 8) Dichlorotetrafluoroethane   | 3.23 | 85  | 71401  | 0.464 | ppbv   | 96     |
| 9) Propene                     | 3.05 | 41  | 17151  | 0.372 | ppbv   | 94     |
| 10) Heptane                    | 8.26 | 43  | 58513  | 0.329 | ppbv   | 98     |
| 11) Trichlorofluoromethane     | 4.02 | 101 | 80308  | 0.421 | ppbv   | 99     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.57 | 101 | 64676  | 0.408 | ppbv   | 89     |
| 13) Ethanol                    | 3.68 | 45  | 5296   | 0.402 | ppbv # | 36     |
| 14) Bromoethene                | 3.80 | 108 | 10858  | 0.203 | ppbv # | 14     |
| 15) Acetone                    | 3.93 | 43  | 61334  | 0.464 | ppbv   | 98     |
| 16) 1,3-Butadiene              | 3.38 | 39  | 18775  | 0.386 | ppbv   | 87     |
| 17) tert-Butyl alcohol         | 4.36 | 59  | 2560   | 0.066 | ppbv # | 100    |
| 18) 1,1-Dichloroethene         | 4.36 | 96  | 32232  | 0.463 | ppbv   | 96     |
| 19) Isopropyl Alcohol          | 4.06 | 45  | 34458  | 0.366 | ppbv # | 92     |
| 20) Methylene Chloride         | 4.42 | 84  | 34814  | 0.519 | ppbv   | 86     |
| 21) Allyl Chloride             | 4.49 | 41  | 44826  | 0.413 | ppbv   | 96     |
| 22) trans-1,2-Dichloroethene   | 4.98 | 96  | 32295  | 0.452 | ppbv   | 82     |
| 23) Vinyl Acetate              | 5.17 | 43  | 83807  | 0.358 | ppbv # | 94     |
| 24) 1,1-Dichloroethane         | 5.10 | 63  | 77468  | 0.421 | ppbv   | 99     |
| 25) Ethyl Acetate              | 5.79 | 43  | 122616 | 0.403 | ppbv   | 99     |
| 26) Hexane                     | 5.79 | 57  | 58317  | 0.405 | ppbv   | 96     |
| 27) Carbon Disulfide           | 4.64 | 76  | 69103  | 0.396 | ppbv # | 88     |
| 28) Methyl tert-Butyl Ether    | 5.15 | 73  | 69872  | 0.338 | ppbv   | 100    |
| 29) Chloroform                 | 5.86 | 83  | 103921 | 0.452 | ppbv   | 99     |
| 30) Cyclohexane                | 7.25 | 84  | 14689  | 0.129 | ppbv # | 1      |
| 31) cis-1,2-Dichloroethene     | 5.66 | 61  | 44587  | 0.334 | ppbv   | 99     |
| 32) 1,1,1-Trichloroethane      | 6.63 | 97  | 96040  | 0.411 | ppbv   | 99     |
| 34) 2-Butanone                 | 5.36 | 43  | 68966  | 0.371 | ppbv   | 98     |
| 35) Carbon Tetrachloride       | 7.15 | 117 | 103492 | 0.420 | ppbv   | 87     |
| 36) Benzene                    | 7.02 | 78  | 96452  | 0.342 | ppbv   | 97     |
| 37) 1,2-Dichloroethane         | 6.42 | 62  | 74732  | 0.433 | ppbv   | 98     |
| 38) Trichloroethene            | 7.98 | 130 | 39446  | 0.378 | ppbv   | 89     |
| 39) 1,2-Dichloropropane        | 7.75 | 63  | 28819  | 0.265 | ppbv   | 100    |
| 40) 1,4-Dioxane                | 7.98 | 88  | 84     | 0.002 | ppbv # | 1      |
| 41) Tetrahydrofuran            | 6.16 | 42  | 326    | 0.003 | ppbv # | 35     |
| 42) Bromodichloromethane       | 7.93 | 83  | 100790 | 0.416 | ppbv   | 94     |
| 43) Methyl Methacrylate        | 8.16 | 69  | 25368  | 0.246 | ppbv # | 67     |

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 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Oct 25 05:15:43 2018  
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 Response via : Initial Calibration

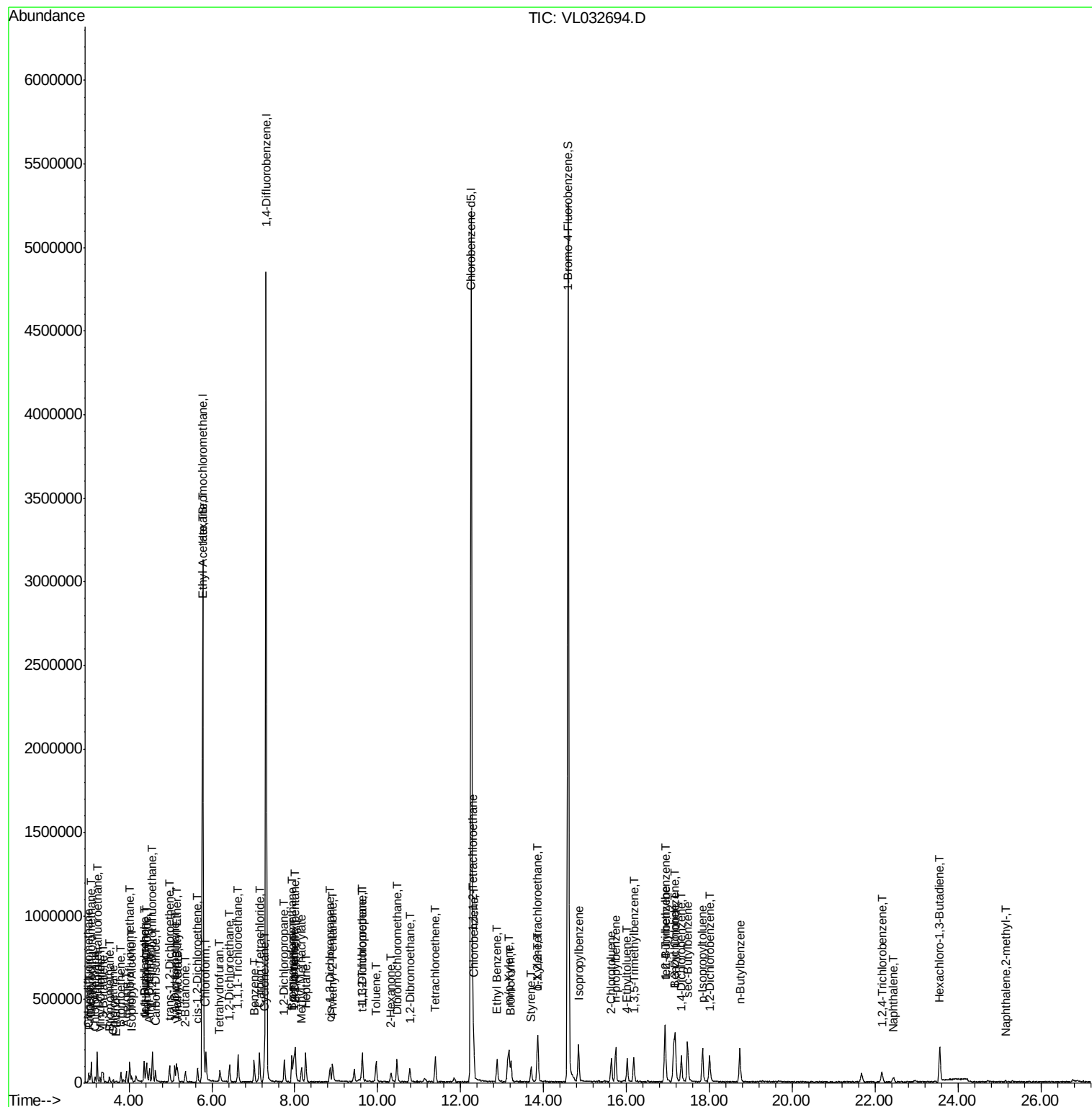
| Internal Standards            | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|-------|--------|----------|
| 44) 2,2,4-Trimethylpentane    | 8.01  | 57   | 157414   | 0.327 | ppbv # | 85       |
| 45) t-1,3-Dichloropropene     | 9.61  | 75   | 264      | 0.002 | ppbv   | 95       |
| 46) cis-1,3-Dichloropropene   | 8.85  | 75   | 45961    | 0.291 | ppbv # | 86       |
| 47) 1,1,2-Trichloroethane     | 9.62  | 97   | 53955    | 0.420 | ppbv # | 84       |
| 48) Dibromochloromethane      | 10.46 | 129  | 75102    | 0.351 | ppbv   | 96       |
| 49) Bromoform                 | 13.22 | 173  | 66773    | 0.397 | ppbv   | 97       |
| 50) 4-Methyl-2-Pentanone      | 8.91  | 43   | 59800    | 0.217 | ppbv # | 85       |
| 51) 2-Hexanone                | 10.32 | 43   | 46668    | 0.228 | ppbv # | 89       |
| 52) Tetrachloroethene         | 11.39 | 164  | 36101    | 0.368 | ppbv   | 86       |
| 53) Toluene                   | 9.96  | 91   | 89192    | 0.276 | ppbv   | 95       |
| 54) 1,2-Dibromoethane         | 10.78 | 107  | 64498    | 0.369 | ppbv   | 89       |
| 56) 1,1,1,2-Tetrachloroethane | 12.30 | 131  | 31314    | 0.215 | ppbv # | 2        |
| 57) Chlorobenzene             | 12.32 | 112  | 111582   | 0.455 | ppbv   | 96       |
| 58) Ethyl Benzene             | 12.88 | 91   | 106180   | 0.274 | ppbv   | 98       |
| 59) m/p-Xylene                | 13.17 | 91   | 74237    | 0.215 | ppbv # | 1        |
| 60) o-Xylene                  | 13.86 | 91   | 70042    | 0.211 | ppbv # | 32       |
| 61) Styrene                   | 13.70 | 104  | 52409    | 0.235 | ppbv   | 96       |
| 62) Isopropylbenzene          | 14.84 | 105  | 166219   | 0.353 | ppbv   | 98       |
| 63) 1,1,2,2-Tetrachloroethane | 13.85 | 83   | 61061    | 0.234 | ppbv # | 38       |
| 64) n-propylbenzene           | 15.74 | 120  | 41100    | 0.351 | ppbv   | 99       |
| 65) tert-Butylbenzene         | 16.93 | 119  | 133206   | 0.332 | ppbv   | 98       |
| 66) Benzyl Chloride           | 17.18 | 91   | 67891    | 0.328 | ppbv   | 95       |
| 67) sec-Butylbenzene          | 17.48 | 105  | 200792   | 0.352 | ppbv   | 99       |
| 69) p-Isopropyltoluene        | 17.83 | 119  | 135724   | 0.300 | ppbv   | 95       |
| 70) n-Butylbenzene            | 18.73 | 91   | 73075    | 0.157 | ppbv # | 33       |
| 71) 2-Chlorotoluene           | 15.64 | 91   | 104797   | 0.313 | ppbv   | 98       |
| 72) 4-Ethyltoluene            | 16.02 | 105  | 63387    | 0.179 | ppbv # | 68       |
| 73) 1,3,5-Trimethylbenzene    | 16.17 | 105  | 102597   | 0.297 | ppbv   | 97       |
| 74) 1,2,4-Trimethylbenzene    | 16.94 | 105  | 122663   | 0.333 | ppbv # | 82       |
| 75) 1,3-Dichlorobenzene       | 17.18 | 146  | 92309    | 0.436 | ppbv   | 98       |
| 76) 1,4-Dichlorobenzene       | 17.33 | 146  | 30773    | 0.157 | ppbv # | 1        |
| 77) 1,2-Dichlorobenzene       | 18.00 | 146  | 79023    | 0.394 | ppbv   | 98       |
| 78) Hexachloro-1,3-Butadiene  | 23.55 | 225  | 31404    | 0.331 | ppbv # | 47       |
| 79) Naphthalene               | 22.44 | 128  | 25325    | 0.111 | ppbv # | 93       |
| 80) Naphthalene,2-methyl-     | 25.15 | 142  | 1326     | 0.024 | ppbv # | 67       |
| 81) 1,2,4-Trichlorobenzene    | 22.15 | 180  | 12213    | 0.103 | ppbv # | 1        |

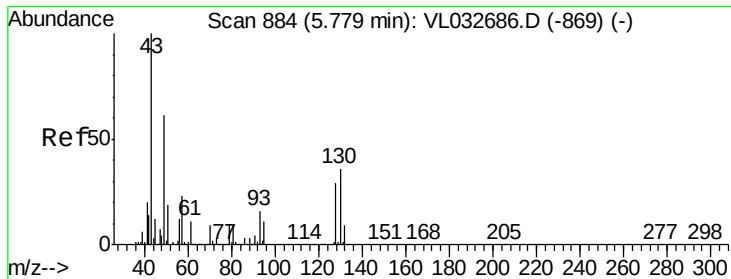
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Oct 25 05:15:43 2018  
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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

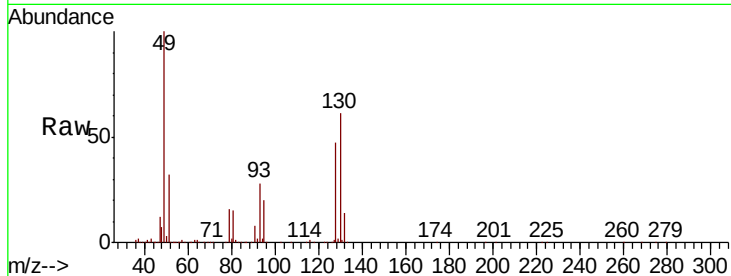
MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 49 Resp: 1431887

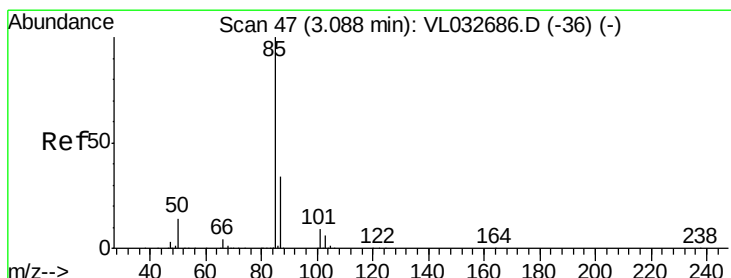
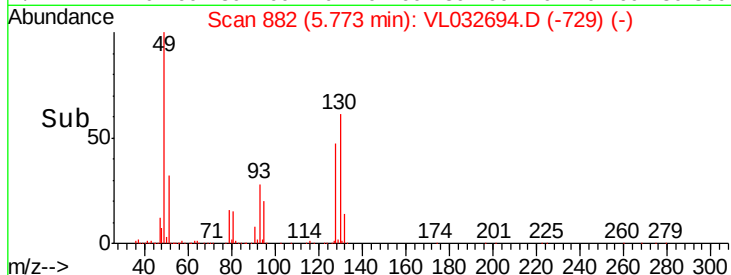
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 49  | 100   |       |       |
| 128 | 50.1  | 22.3  | 66.8  |
| 130 | 63.5  | 28.4  | 85.3  |



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.582 ppbv

RT: 3.09 min Scan# 47

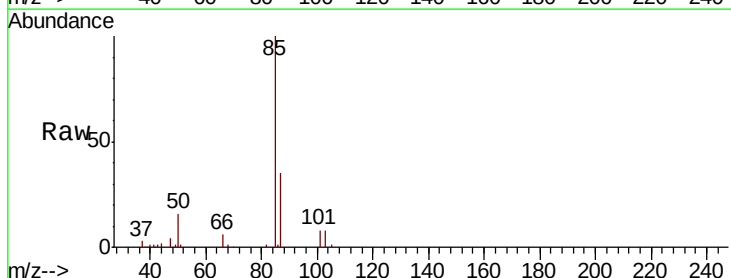
Delta R.T. 0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

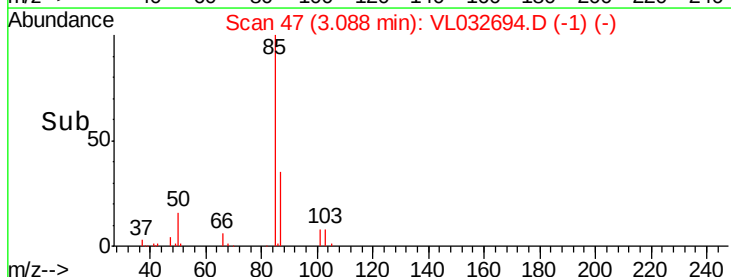
Tgt Ion: 85 Resp: 84940

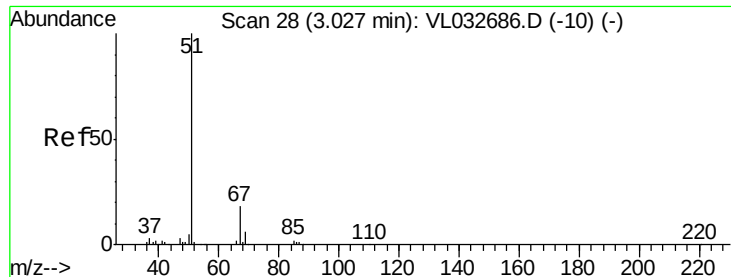
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 85  | 100   |       |       |
| 87  | 34.7  | 26.2  | 39.2  |



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.456 ppbv

RT: 3.03 min Scan# 28

Delta R.T. 0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

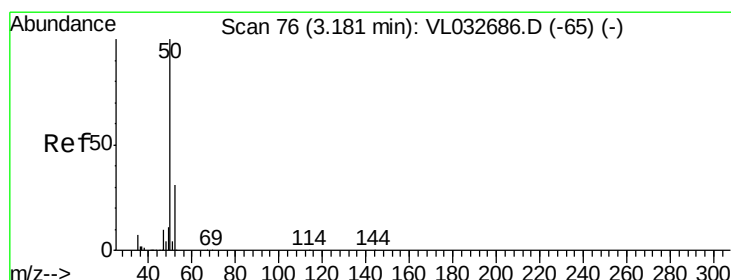
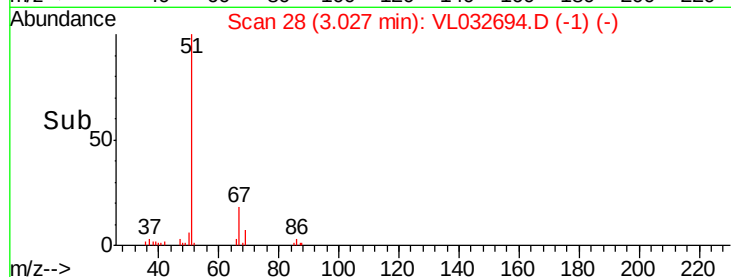
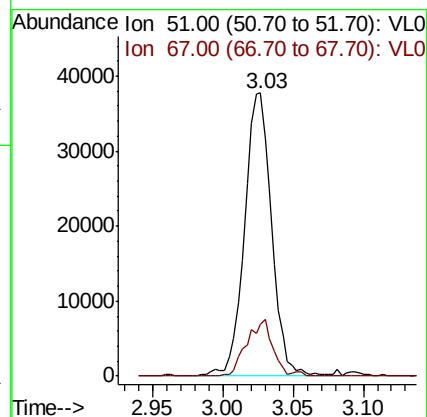
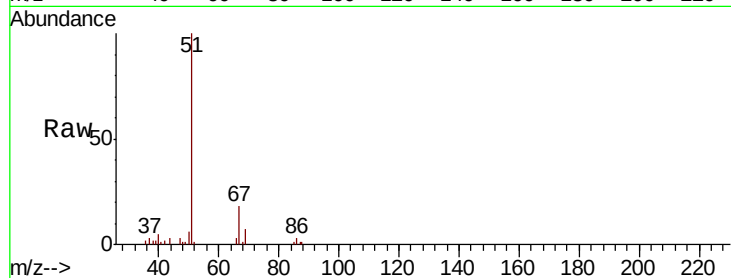
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 51 Resp: 51073

Ion Ratio Lower Upper

51 100

67 19.4 15.2 22.8



#4

Chloromethane

Concen: 0.447 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.00 min

Lab File: VL032694.D

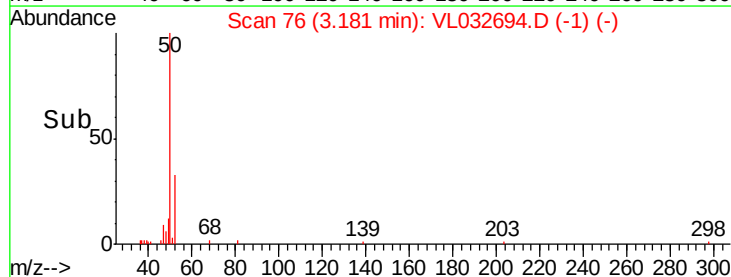
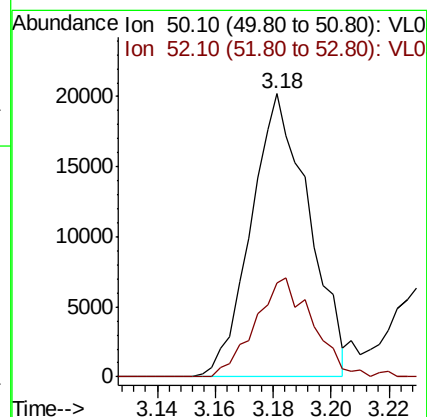
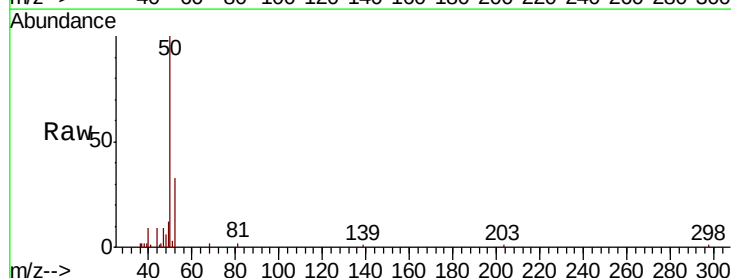
Acq: 24 Oct 2018 19:16

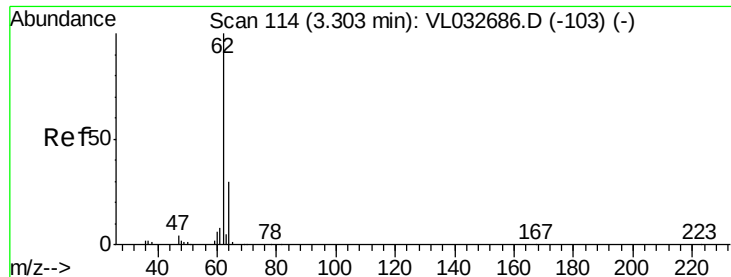
Tgt Ion: 50 Resp: 27967

Ion Ratio Lower Upper

50 100

52 33.4 25.9 38.9





#5

Vinyl Chloride

Concen: 0.388 ppbv

RT: 3.30 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

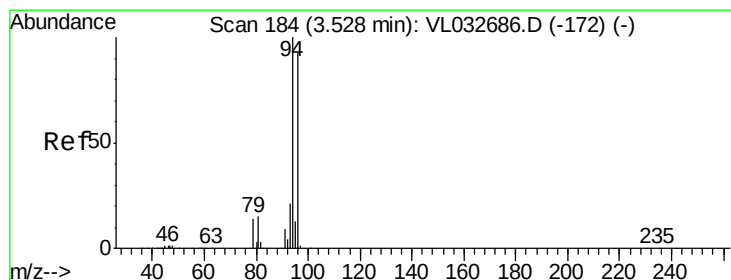
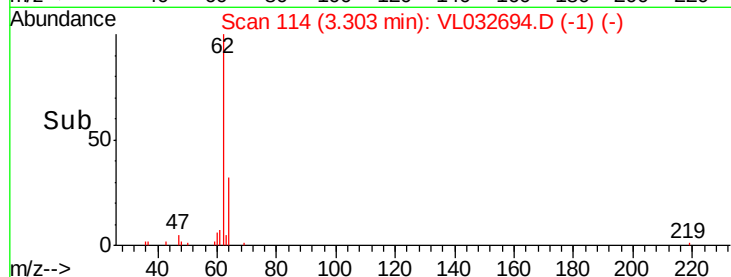
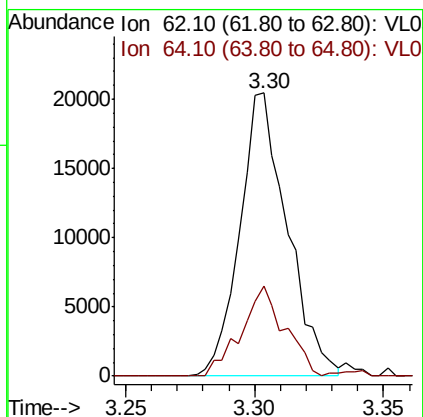
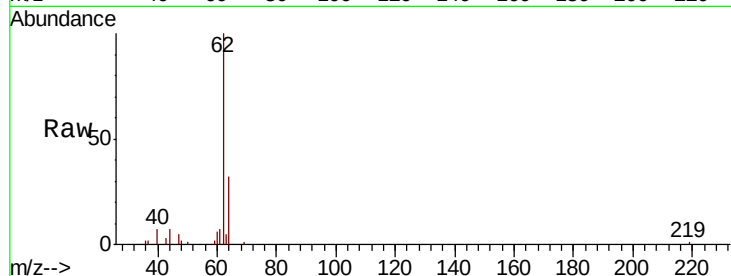
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 62 Resp: 26317

Ion Ratio Lower Upper

62 100

64 32.0 25.5 38.3



#6

Bromomethane

Concen: 0.446 ppbv

RT: 3.53 min Scan# 183

Delta R.T. 0.00 min

Lab File: VL032694.D

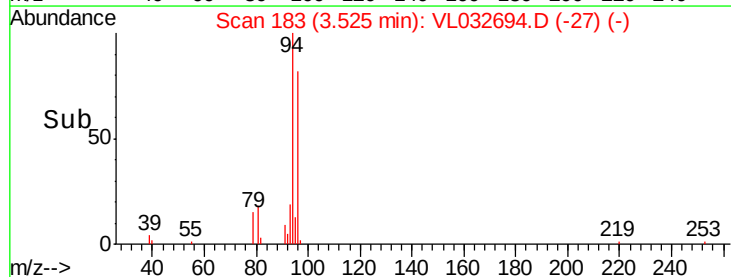
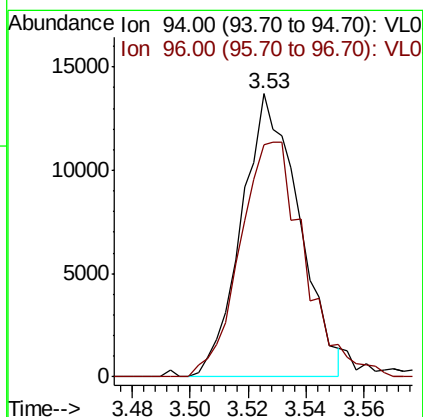
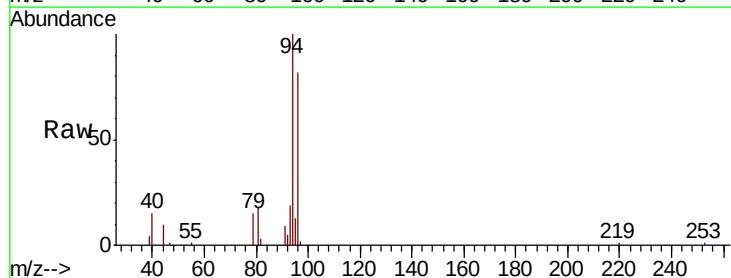
Acq: 24 Oct 2018 19:16

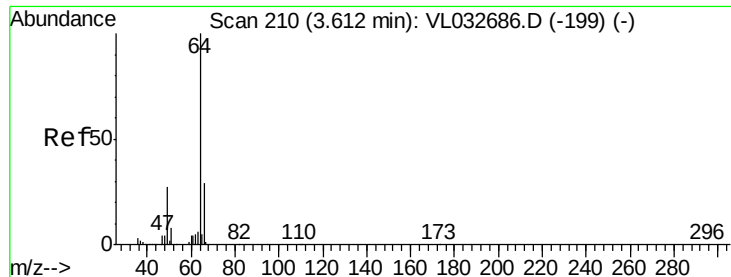
Tgt Ion: 94 Resp: 18837

Ion Ratio Lower Upper

94 100

96 82.0 69.8 104.8





#7

Chloroethane

Concen: 0.418 ppbv

RT: 3.62 min Scan# 211

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

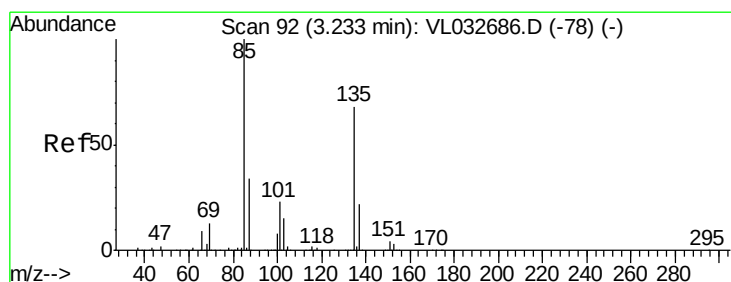
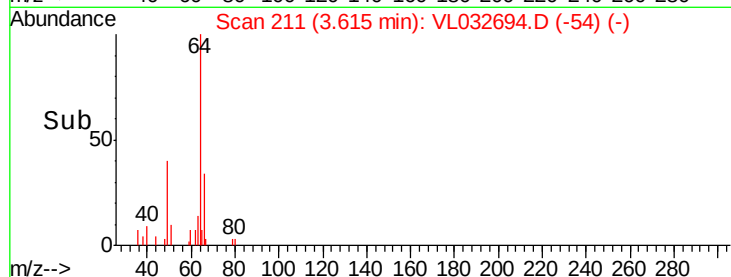
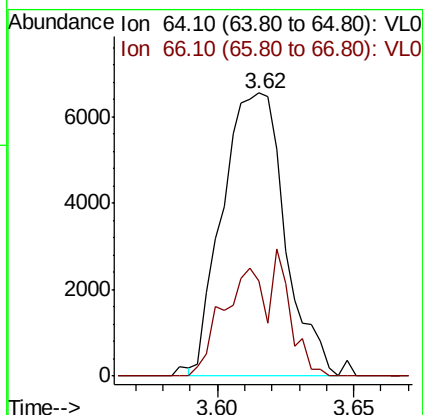
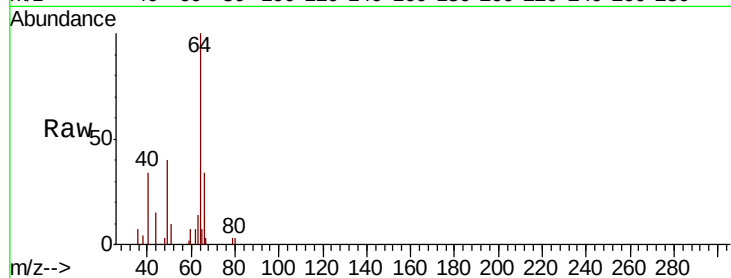
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 64 Resp: 10437

Ion Ratio Lower Upper

64 100

66 33.6 24.4 36.6



#8

Dichlorotetrafluoroethane

Concen: 0.464 ppbv

RT: 3.23 min Scan# 91

Delta R.T. -0.00 min

Lab File: VL032694.D

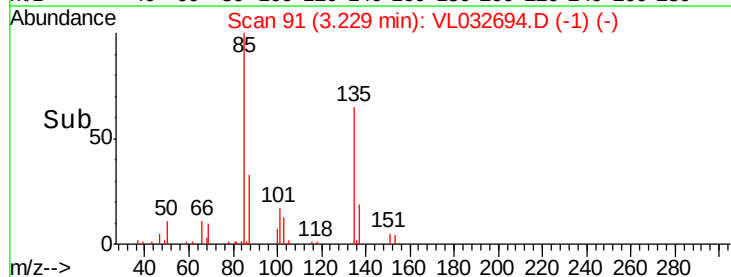
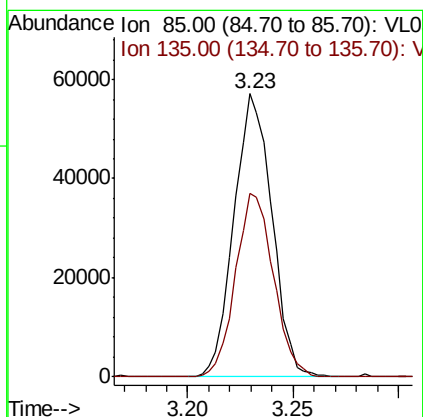
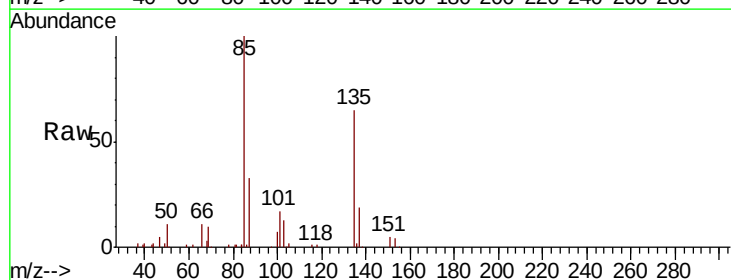
Acq: 24 Oct 2018 19:16

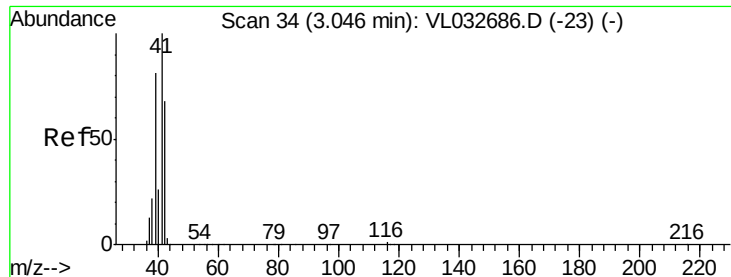
Tgt Ion: 85 Resp: 71401

Ion Ratio Lower Upper

85 100

135 64.6 49.0 73.4





#9

Propene

Concen: 0.372 ppbv

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

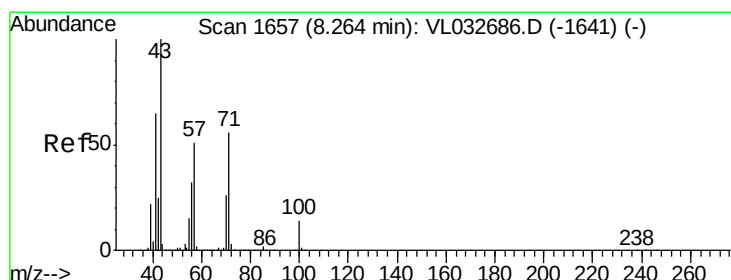
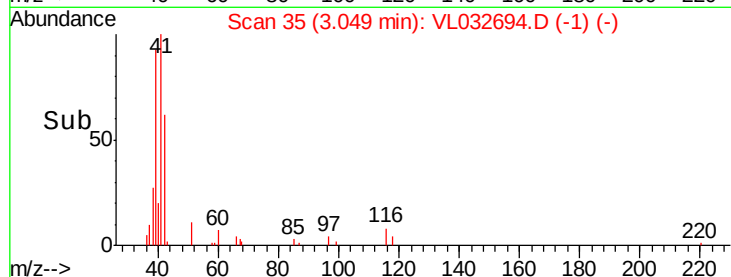
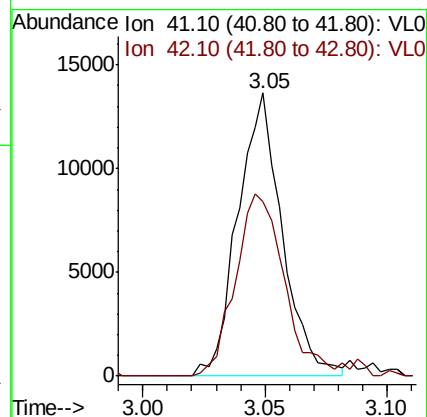
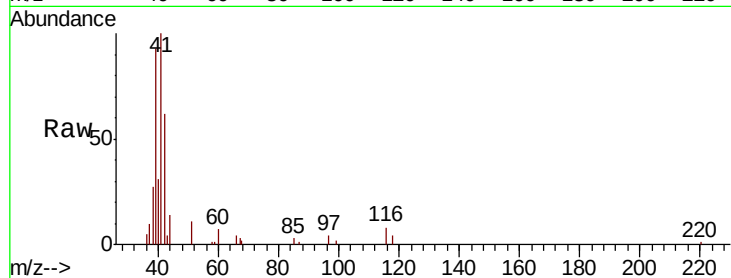
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 41 Resp: 17151

Ion Ratio Lower Upper

41 100

42 74.4 55.4 83.0



#10

Heptane

Concen: 0.329 ppbv

RT: 8.26 min Scan# 1656

Delta R.T. -0.00 min

Lab File: VL032694.D

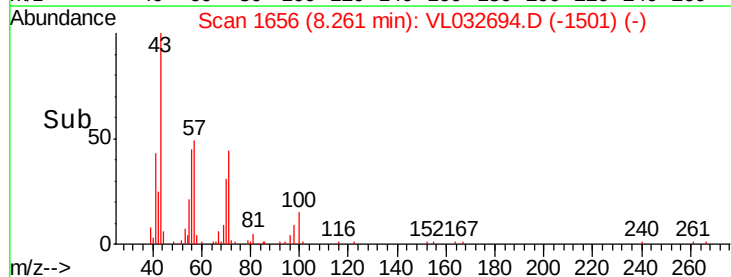
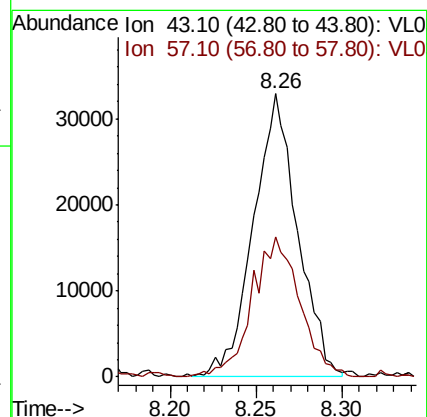
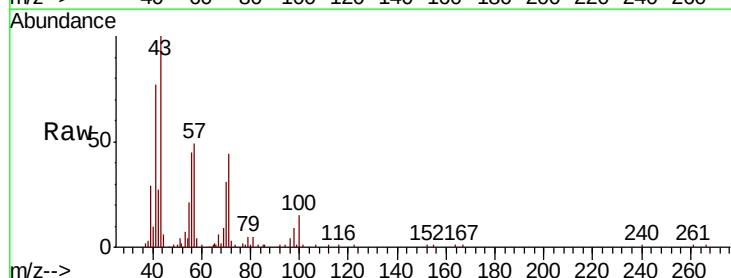
Acq: 24 Oct 2018 19:16

Tgt Ion: 43 Resp: 58513

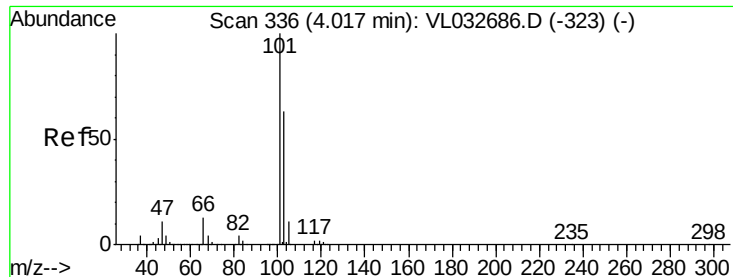
Ion Ratio Lower Upper

43 100

57 53.4 41.5 62.3



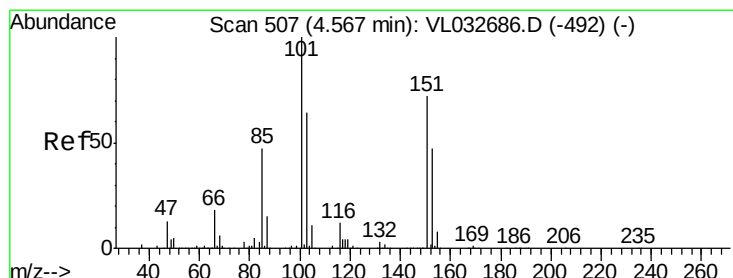
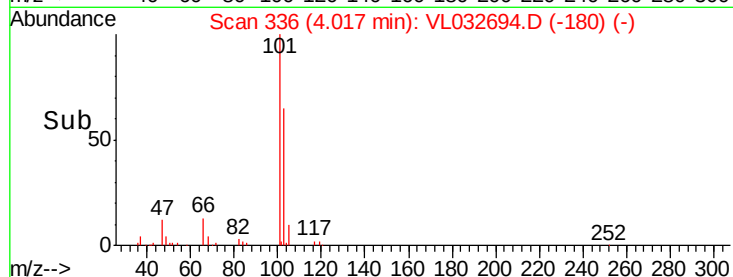
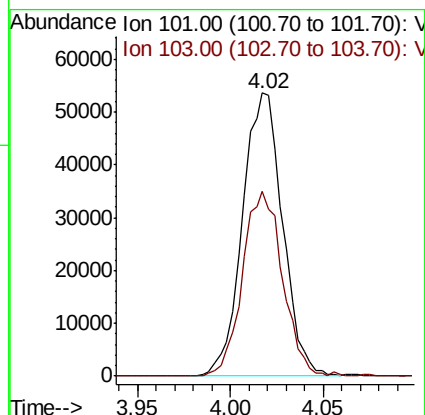
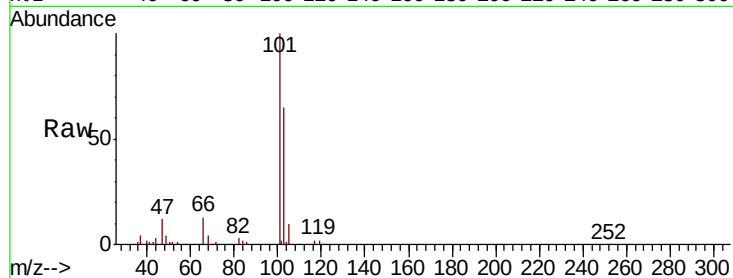




#11  
 Trichlorofluoromethane  
 Concen: 0.421 ppbv  
 RT: 4.02 min Scan# 336  
 Delta R.T. 0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

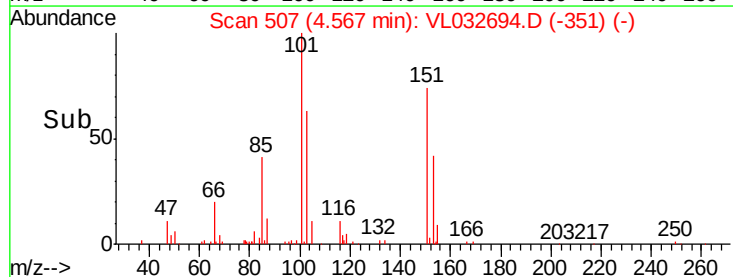
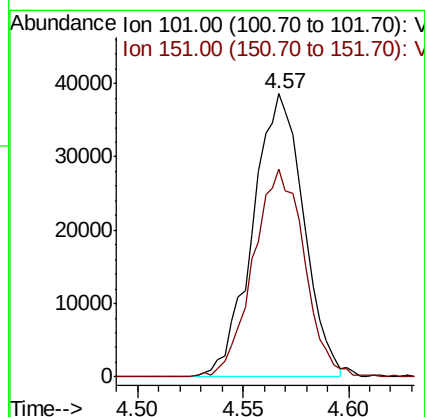
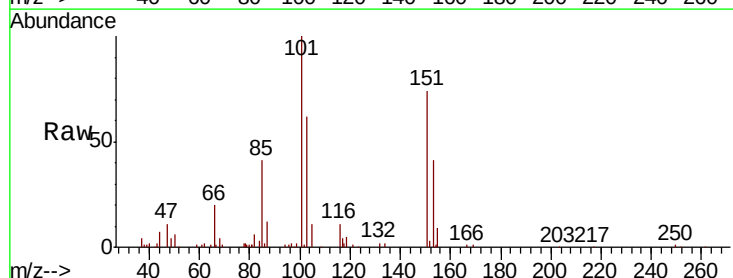
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

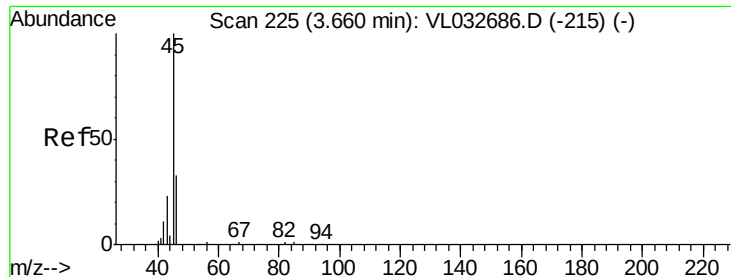
Tgt Ion:101 Resp: 80308  
 Ion Ratio Lower Upper  
 101 100  
 103 65.4 51.4 77.2



#12  
 1,1,2-Trichlorotrifluoroethane  
 Concen: 0.408 ppbv  
 RT: 4.57 min Scan# 507  
 Delta R.T. 0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion:101 Resp: 64676  
 Ion Ratio Lower Upper  
 101 100  
 151 73.9 52.3 78.5

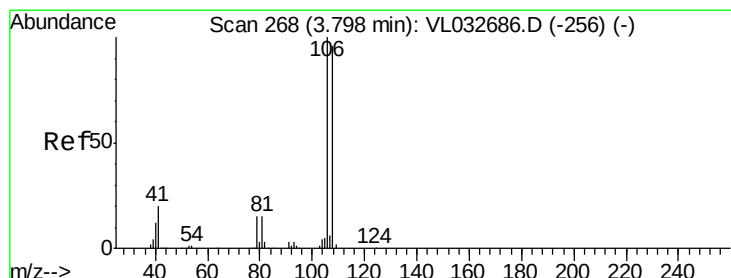
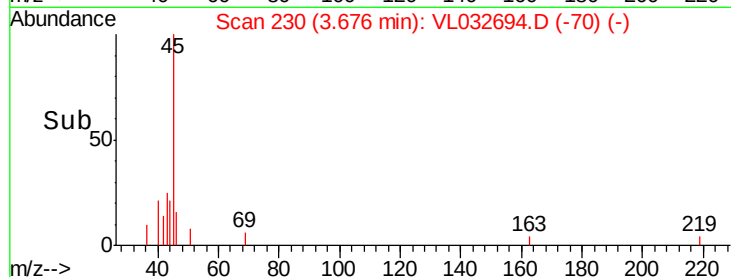
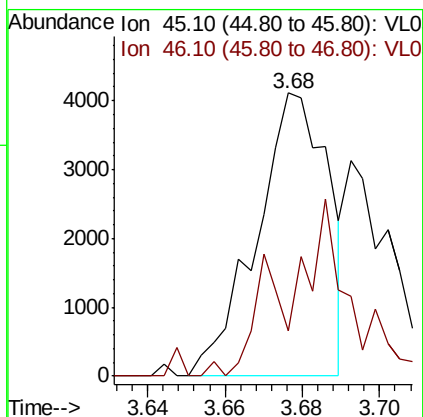
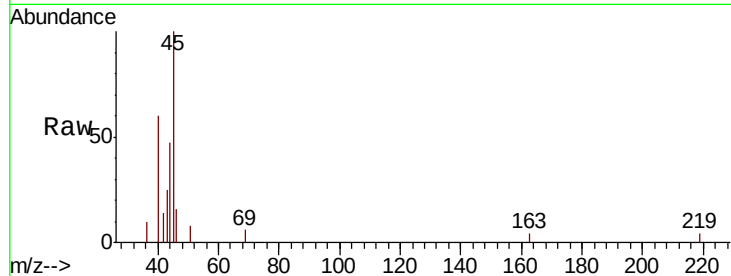




#13  
Ethanol  
Concen: 0.402 ppbv  
RT: 3.68 min Scan# 230  
Delta R.T. 0.02 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

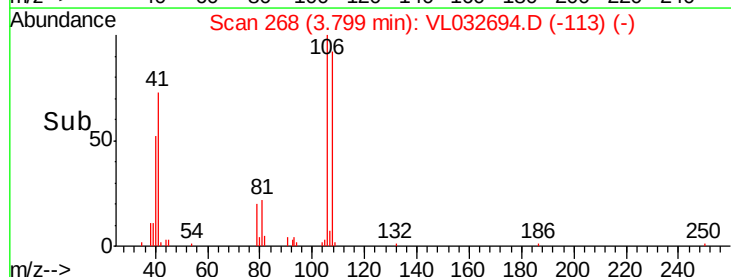
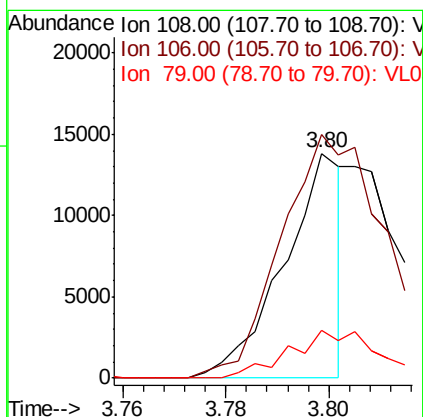
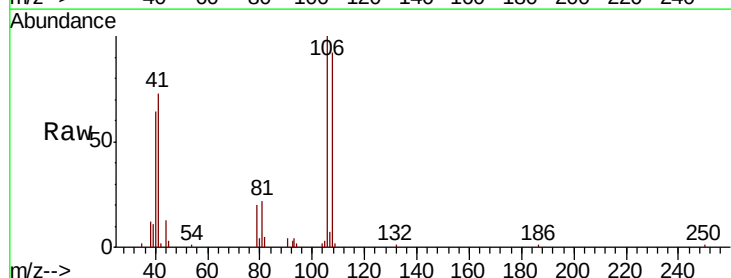
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

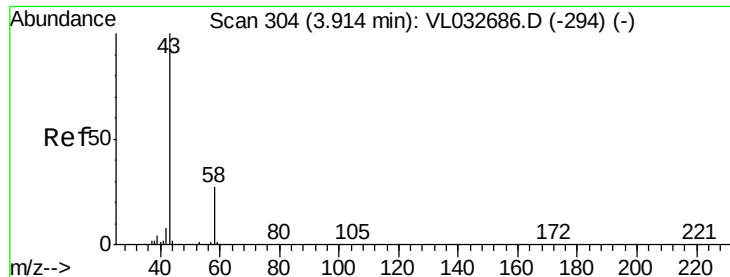
Tgt Ion: 45 Resp: 5296  
Ion Ratio Lower Upper  
45 100  
46 0.0 15.4 61.8#



#14  
Bromoethene  
Concen: 0.203 ppbv  
RT: 3.80 min Scan# 268  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

Tgt Ion: 108 Resp: 10858  
Ion Ratio Lower Upper  
108 100  
106 203.0 85.0 127.4#  
79 34.9 13.7 20.5#





#15

Acetone

Concen: 0.464 ppbv

RT: 3.93 min Scan# 309

Delta R.T. 0.02 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

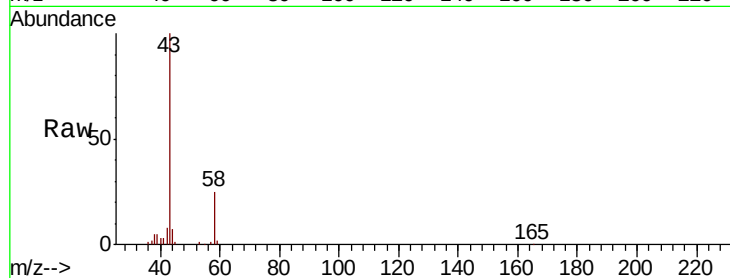
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 43 Resp: 61334

Ion Ratio Lower Upper

43 100

58 28.7 22.1 33.1



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.93

50000

40000

30000

20000

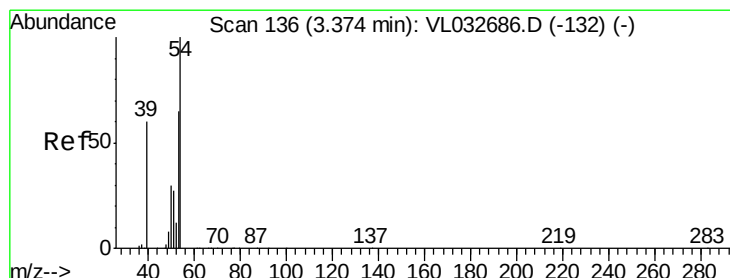
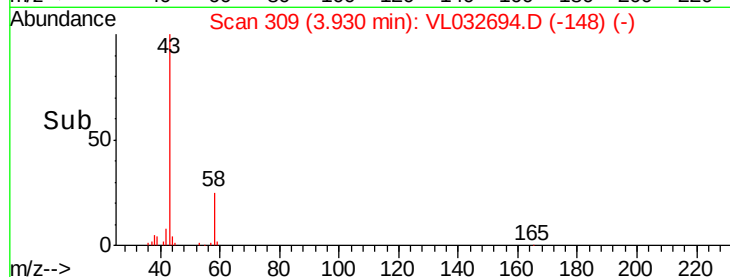
10000

0

Time-->

3.90

3.95



#16

1,3-Butadiene

Concen: 0.386 ppbv

RT: 3.38 min Scan# 137

Delta R.T. 0.00 min

Lab File: VL032694.D

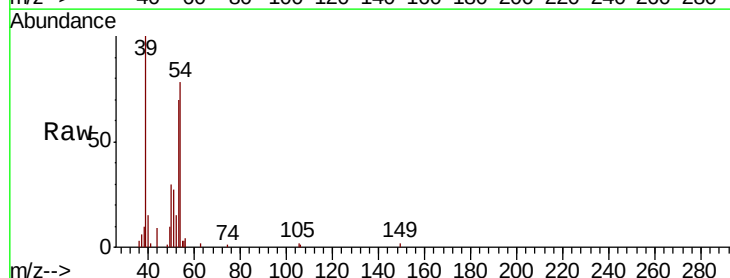
Acq: 24 Oct 2018 19:16

Tgt Ion: 39 Resp: 18775

Ion Ratio Lower Upper

39 100

54 99.3 90.4 135.6



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.38

15000

10000

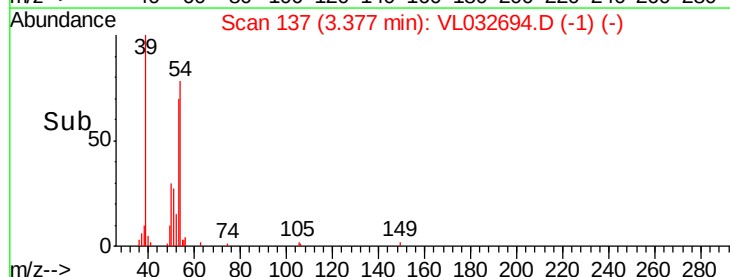
5000

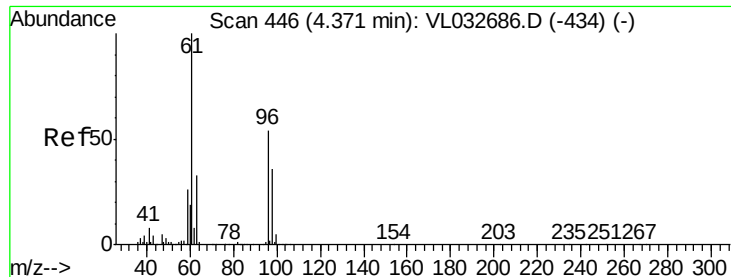
0

Time-->

3.36

3.40





#17

tert-Butyl alcohol

Concen: 0.066 ppbv

RT: 4.36 min Scan# 444

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

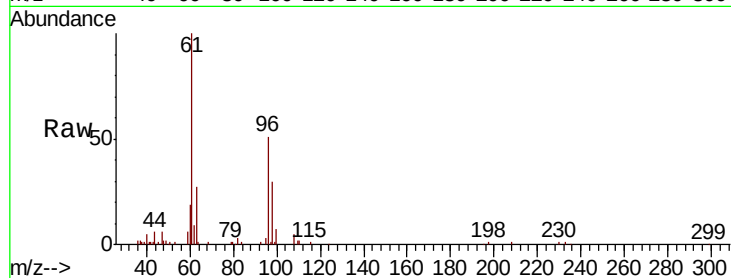
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 59 Resp: 2560

Ion Ratio Lower Upper

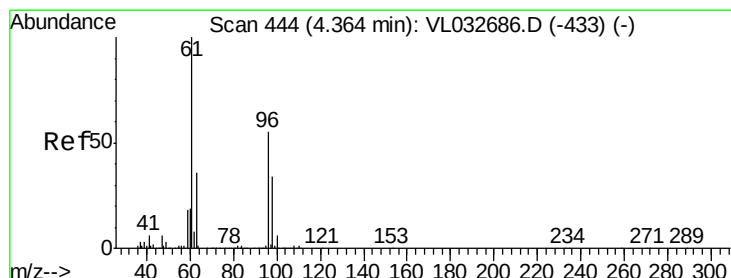
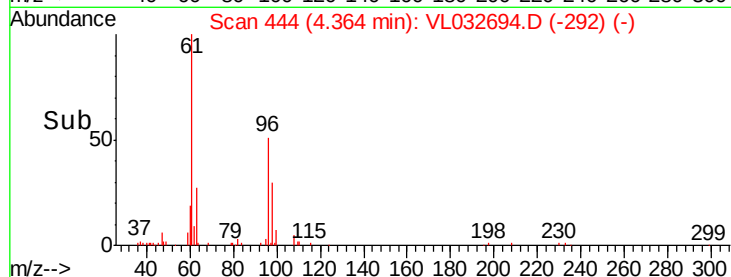
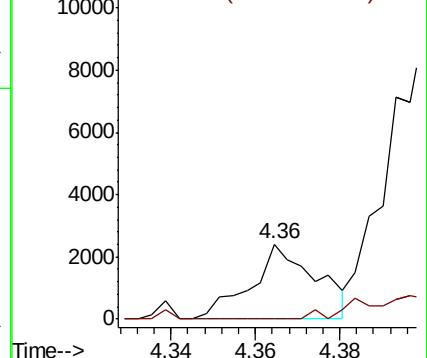
59 100

57 0.0 0.0 0.0



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#18

1,1-Dichloroethene

Concen: 0.463 ppbv

RT: 4.36 min Scan# 444

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

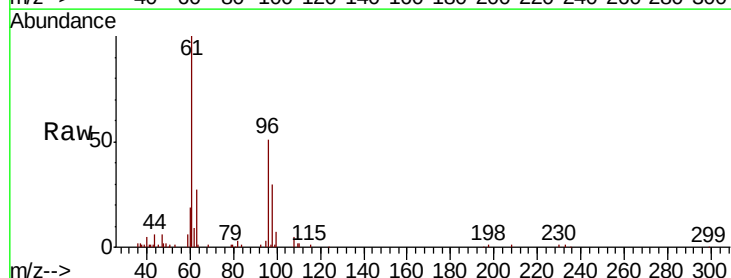
Tgt Ion: 96 Resp: 32232

Ion Ratio Lower Upper

96 100

61 194.1 151.6 227.4

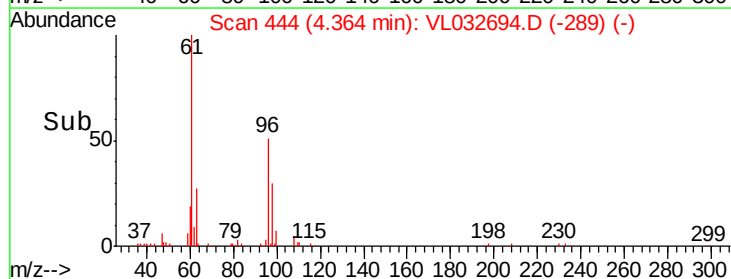
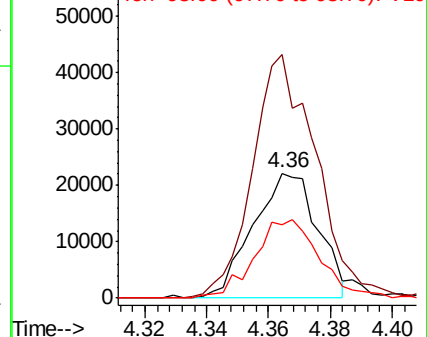
98 58.5 50.6 75.8

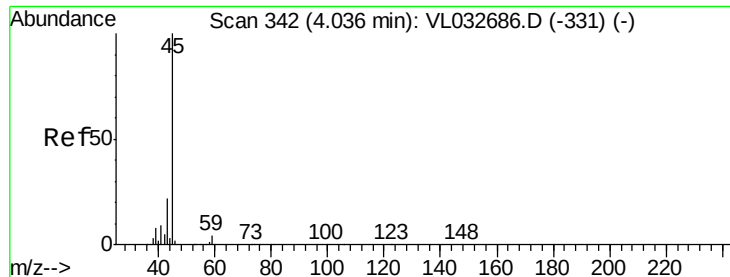


Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0





#19

Isopropyl Alcohol

Concen: 0.366 ppbv

RT: 4.06 min Scan# 349

Delta R.T. 0.03 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

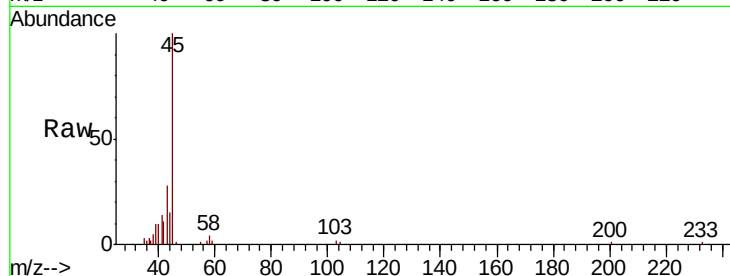
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 45 Resp: 34458

Ion Ratio Lower Upper

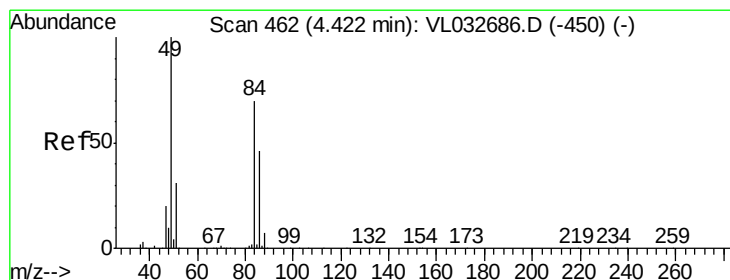
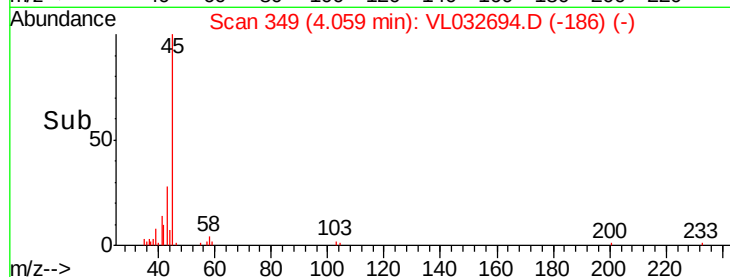
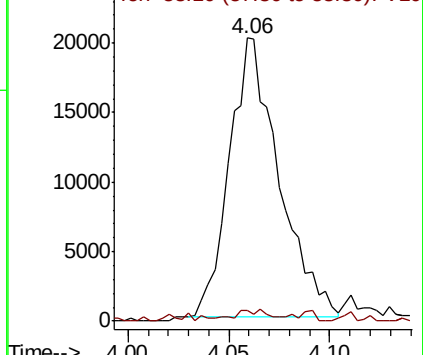
45 100

58 5.2 2.0 3.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 0.519 ppbv

RT: 4.42 min Scan# 462

Delta R.T. 0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Tgt Ion: 84 Resp: 34814

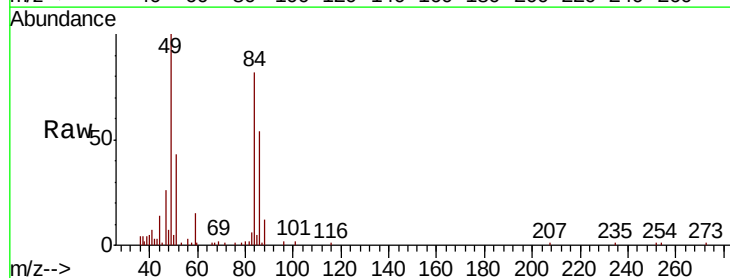
Ion Ratio Lower Upper

84 100

49 117.7 113.5 170.3

51 48.4 34.8 52.2

86 65.0 47.9 71.9

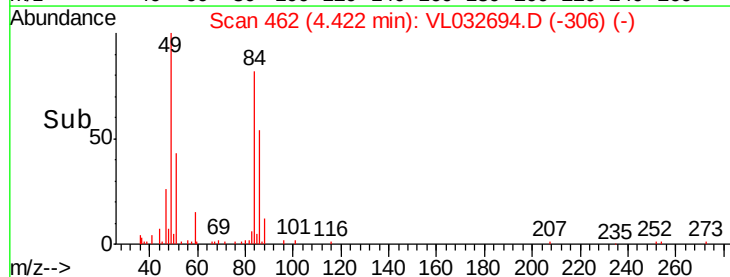
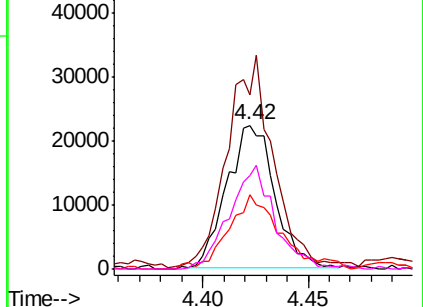


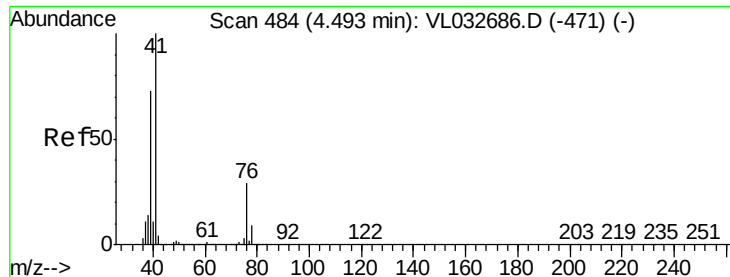
Abundance Ion 84.00 (83.70 to 84.70): VL0

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





#21

Allyl Chloride

Concen: 0.413 ppbv

RT: 4.49 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

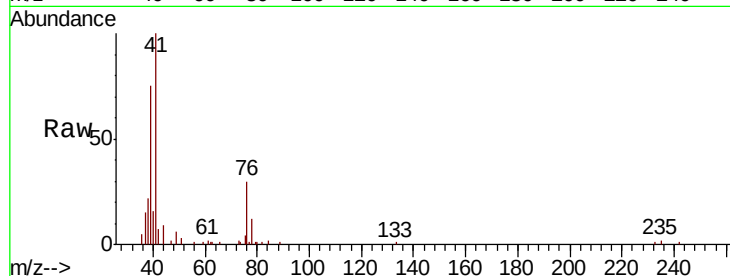
Instrument :

MSVOA\_L

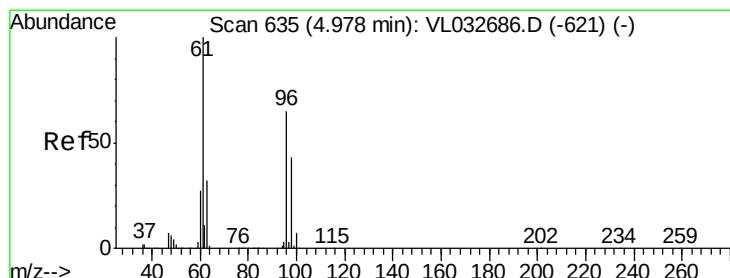
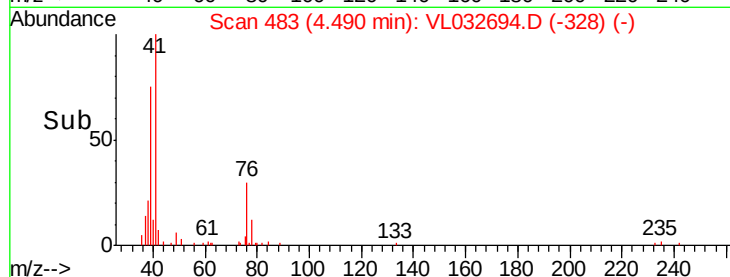
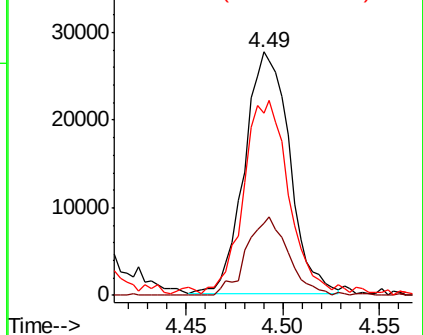
ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 44826 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 76       | 30.2  | 24.3  | 36.5  |
| 39       | 80.2  | 60.3  | 90.5  |



Abundance Ion 41.10 (40.80 to 41.80): VL0  
Ion 76.10 (75.80 to 76.80): VL0  
Ion 39.10 (38.80 to 39.80): VL0



#22

trans-1,2-Dichloroethene

Concen: 0.452 ppbv

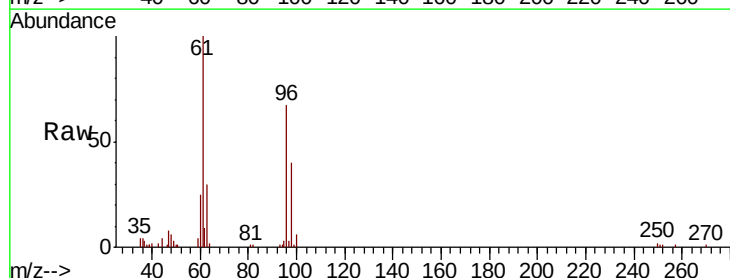
RT: 4.98 min Scan# 634

Delta R.T. -0.00 min

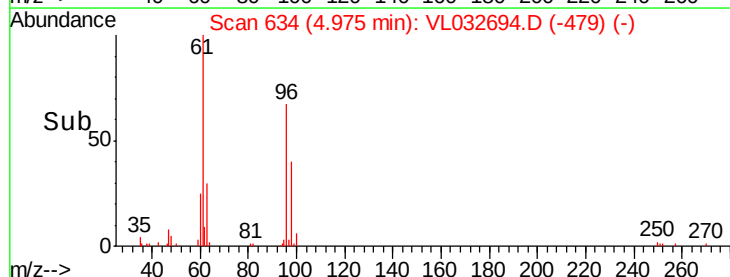
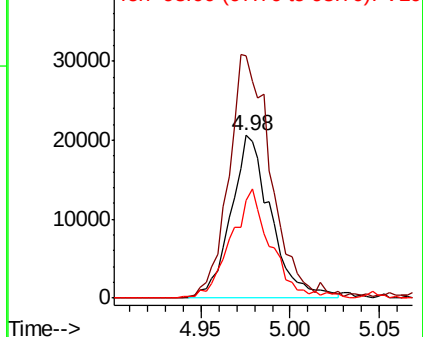
Lab File: VL032694.D

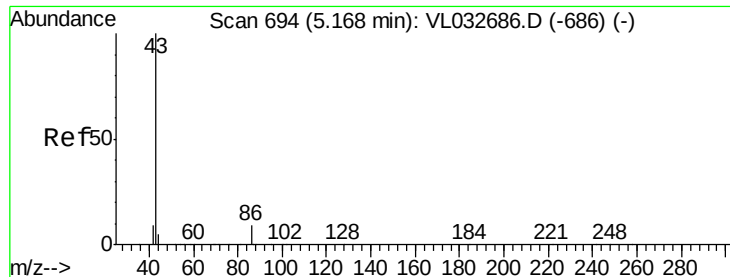
Acq: 24 Oct 2018 19:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 96    | Resp: | 32295 |
| Ion      | Ratio | Lower | Upper |
| 96       | 100   |       |       |
| 61       | 147.5 | 140.4 | 210.6 |
| 98       | 58.5  | 55.0  | 82.6  |



Abundance Ion 96.00 (95.70 to 96.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0

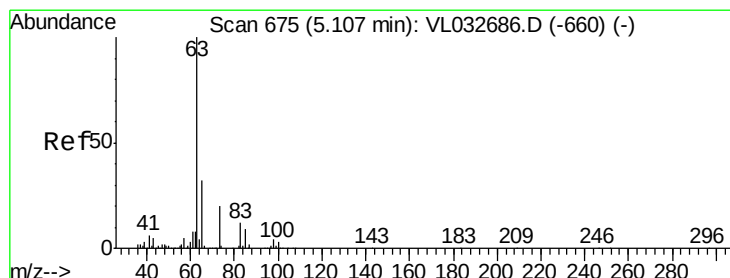
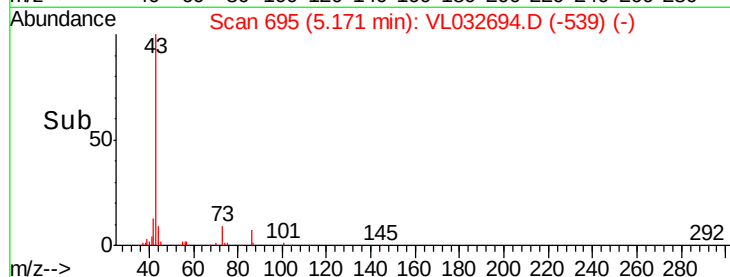
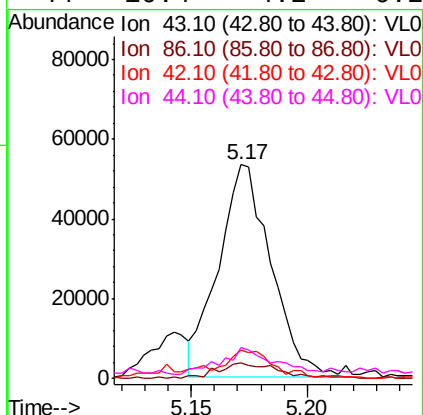
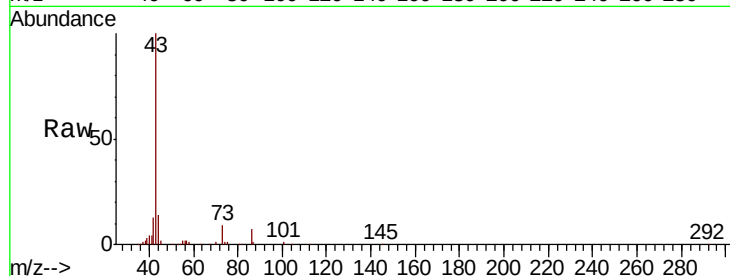




#23  
 Vinyl Acetate  
 Concen: 0.358 ppbv  
 RT: 5.17 min Scan# 695  
 Delta R.T. 0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

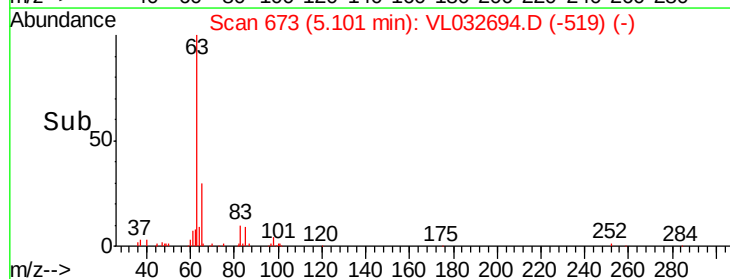
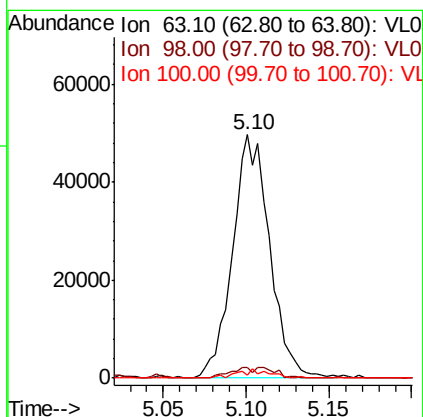
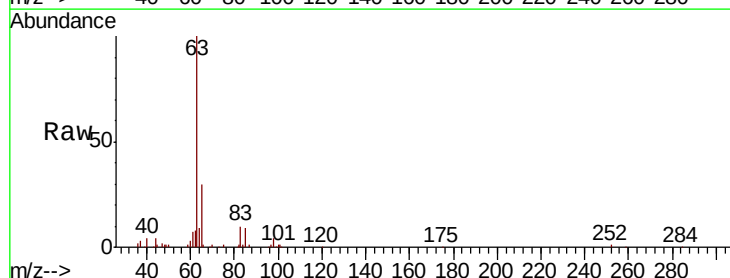
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

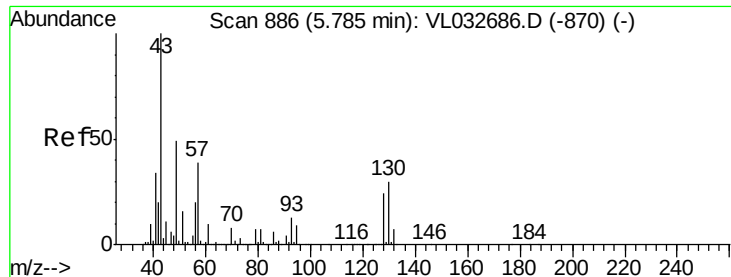
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 83807 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 86       | 7.1   | 6.1   | 9.1   |
| 42       | 10.6  | 7.4   | 11.2  |
| 44       | 10.4  | 4.2   | 6.2#  |



#24  
 1,1-Dichloroethane  
 Concen: 0.421 ppbv  
 RT: 5.10 min Scan# 673  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 77468 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 98       | 4.4   | 2.1   | 6.3   |
| 100      | 1.8   | 1.2   | 3.6   |

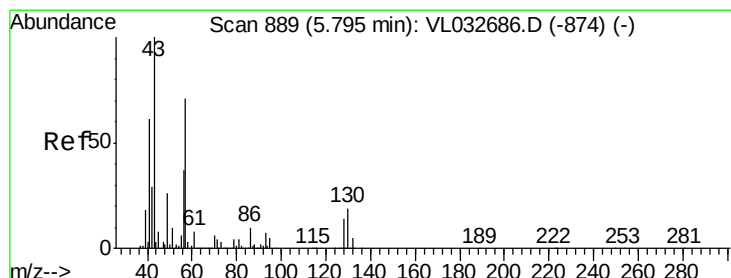
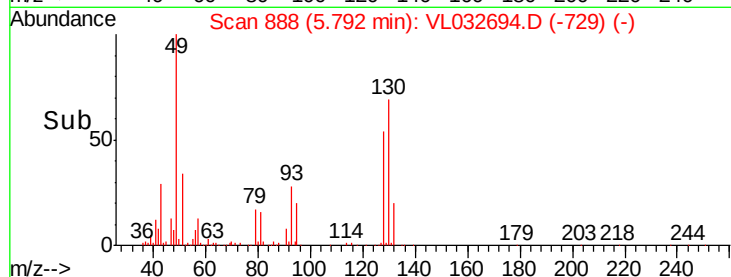
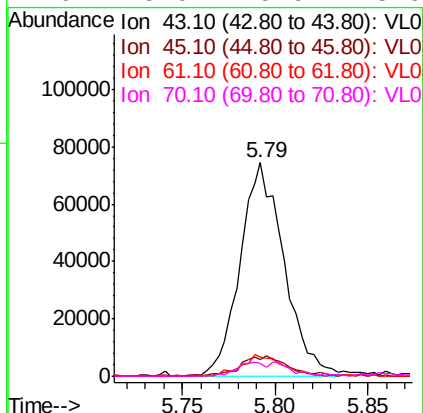
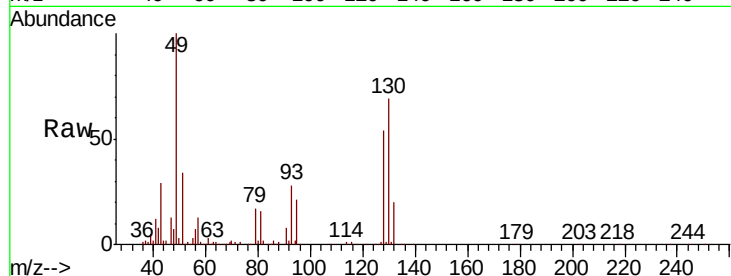




#25  
Ethyl Acetate  
Concen: 0.403 ppbv  
RT: 5.79 min Scan# 888  
Delta R.T. 0.01 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

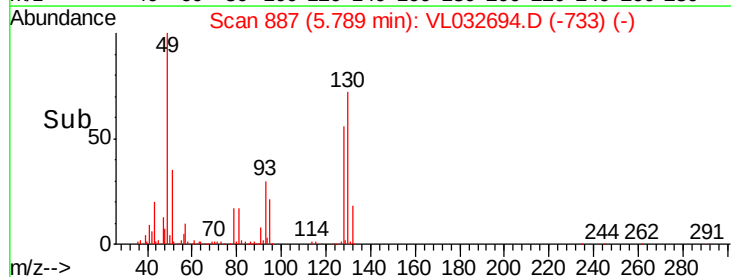
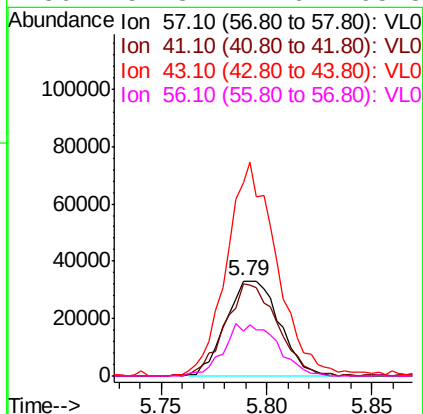
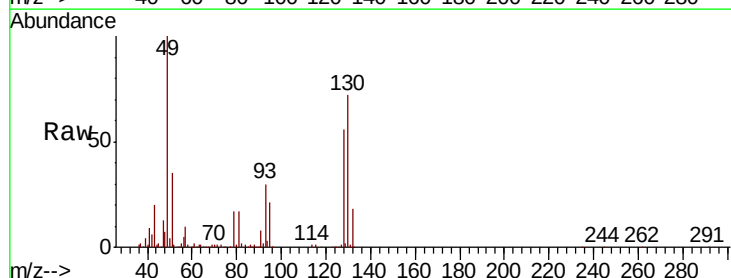
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 122616 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 10.4  | 8.0   | 12.0   |
| 61       | 10.0  | 8.0   | 12.0   |
| 70       | 8.0   | 5.9   | 8.9    |

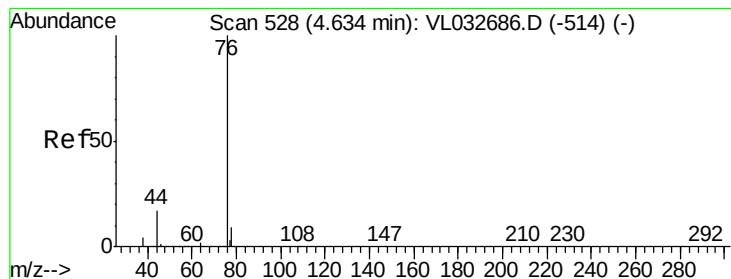


#26  
Hexane  
Concen: 0.405 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 57    | Resp: | 58317 |
| Ion      | Ratio | Lower | Upper |
| 57       | 100   |       |       |
| 41       | 95.7  | 67.4  | 101.0 |
| 43       | 217.7 | 171.9 | 257.9 |
| 56       | 54.3  | 42.6  | 63.8  |







#27

Carbon Disulfide

Concen: 0.396 ppbv

RT: 4.64 min Scan# 529

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

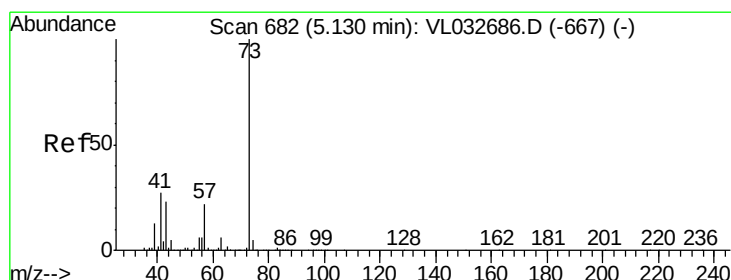
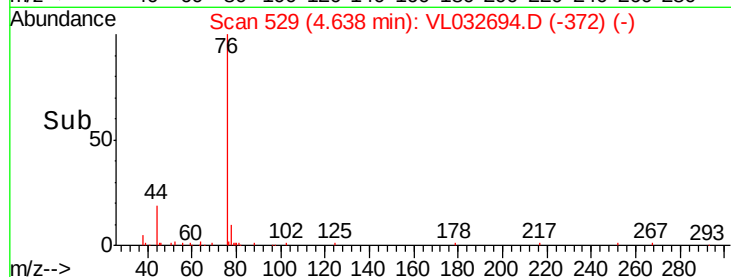
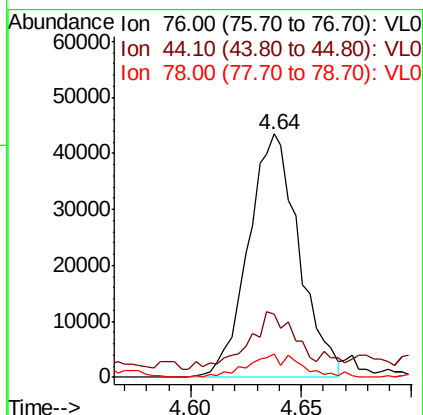
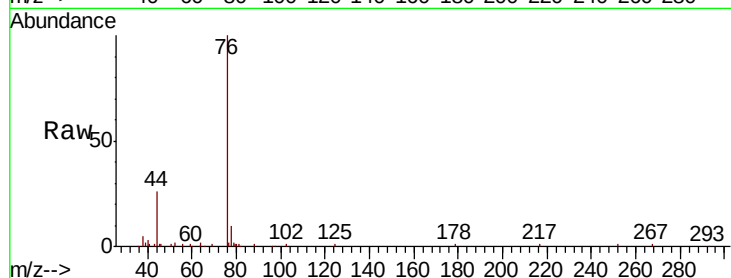
Tgt Ion: 76 Resp: 69103

Ion Ratio Lower Upper

76 100

44 24.5 13.7 20.5#

78 10.0 7.4 11.2



#28

Methyl tert-Butyl Ether

Concen: 0.338 ppbv

RT: 5.15 min Scan# 687

Delta R.T. 0.02 min

Lab File: VL032694.D

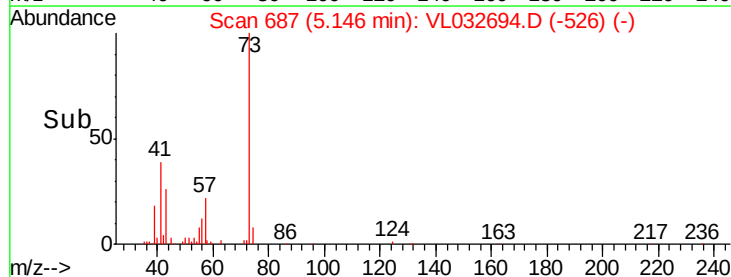
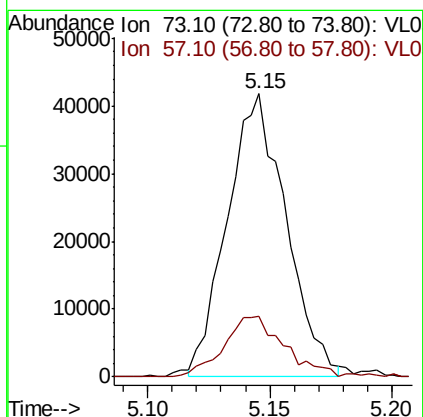
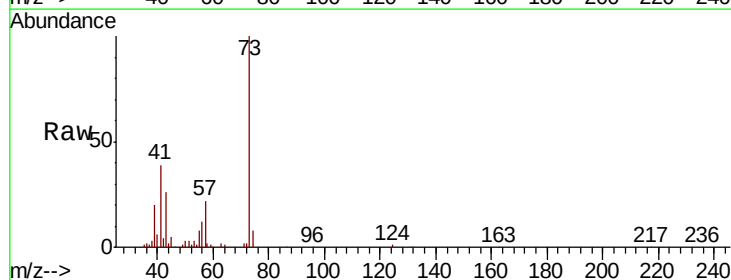
Acq: 24 Oct 2018 19:16

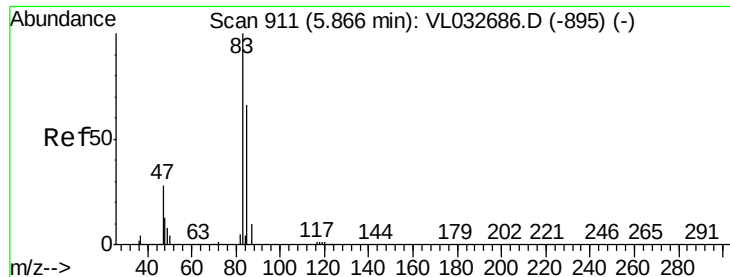
Tgt Ion: 73 Resp: 69872

Ion Ratio Lower Upper

73 100

57 22.5 18.0 27.0

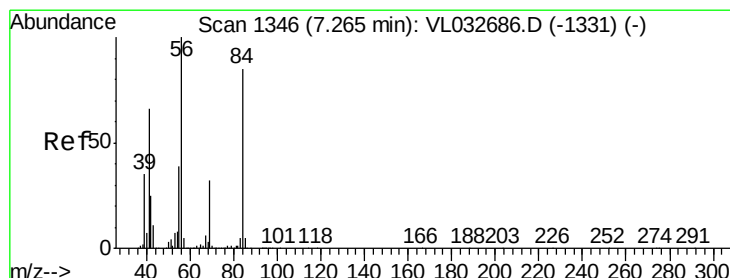
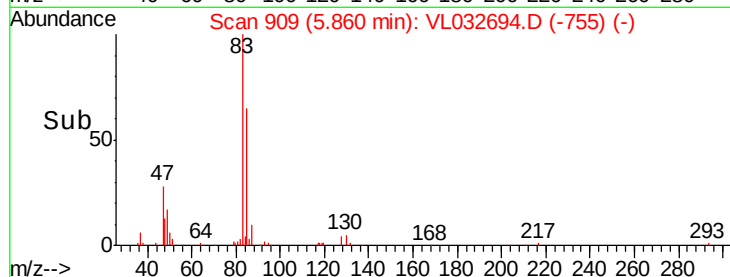
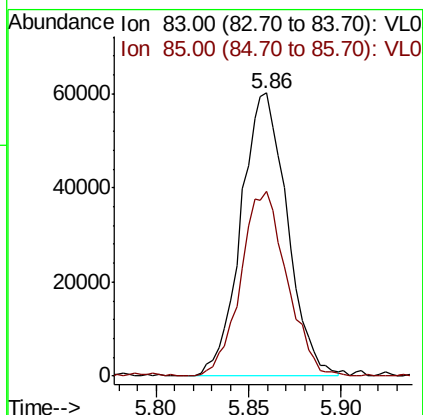
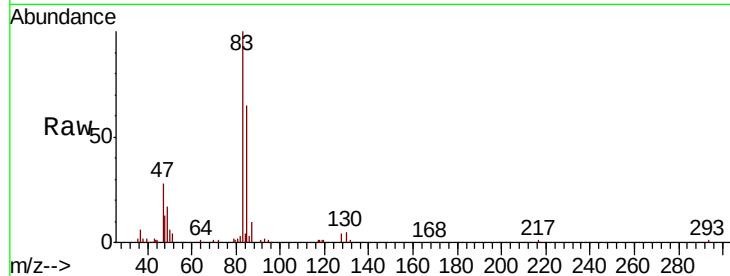




#29  
Chloroform  
Concen: 0.452 ppbv  
RT: 5.86 min Scan# 909  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

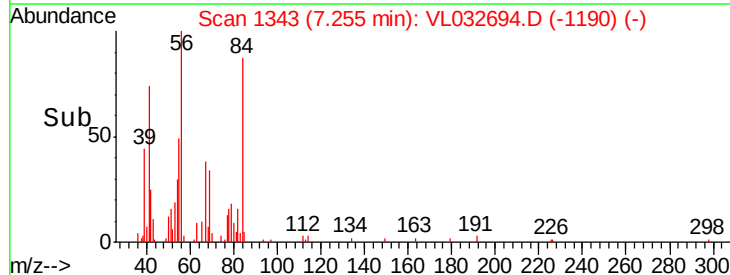
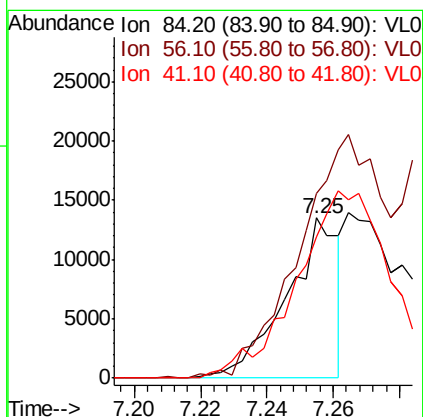
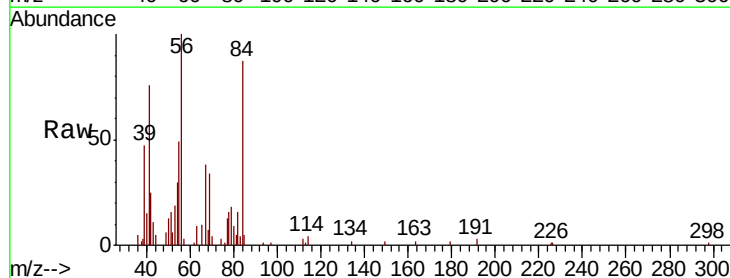
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

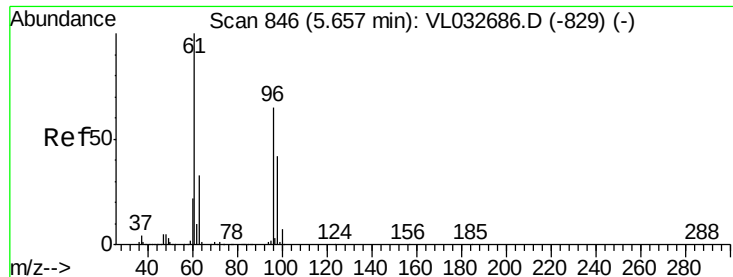
Tgt Ion: 83 Resp: 103921  
Ion Ratio Lower Upper  
83 100  
85 65.3 53.0 79.6



#30  
Cyclohexane  
Concen: 0.129 ppbv  
RT: 7.25 min Scan# 1343  
Delta R.T. -0.01 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

Tgt Ion: 84 Resp: 14689  
Ion Ratio Lower Upper  
84 100  
56 0.0 108.3 162.5#  
41 0.0 64.8 97.2#





#31

cis-1,2-Dichloroethene

Concen: 0.334 ppbv

RT: 5.66 min Scan# 846

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

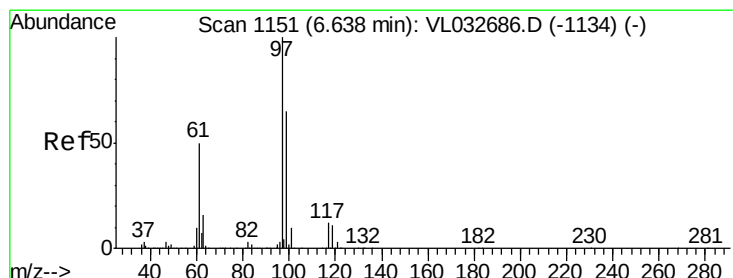
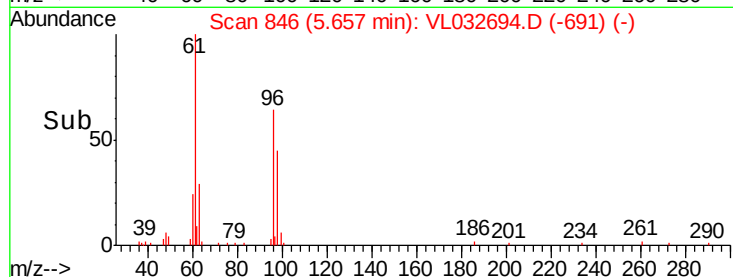
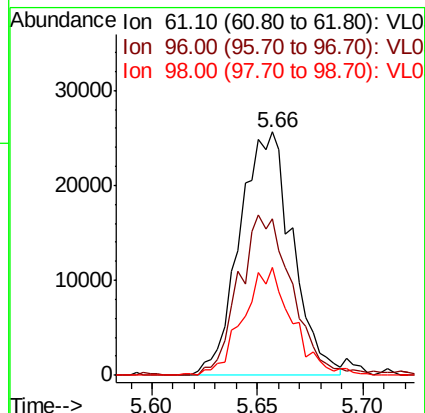
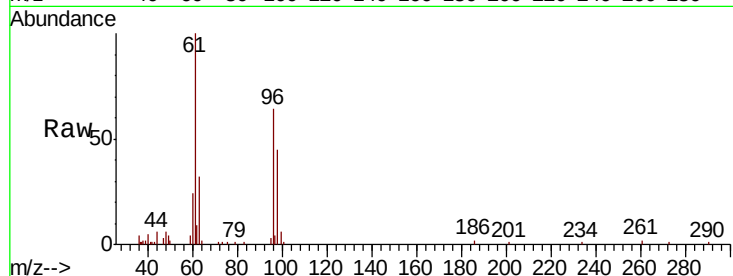
Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 61    | Resp: | 44587 |
| Ion      | Ratio | Lower | Upper |
| 61       | 100   |       |       |
| 96       | 64.2  | 51.8  | 77.6  |
| 98       | 43.8  | 33.8  | 50.6  |



#32

1,1,1-Trichloroethane

Concen: 0.411 ppbv

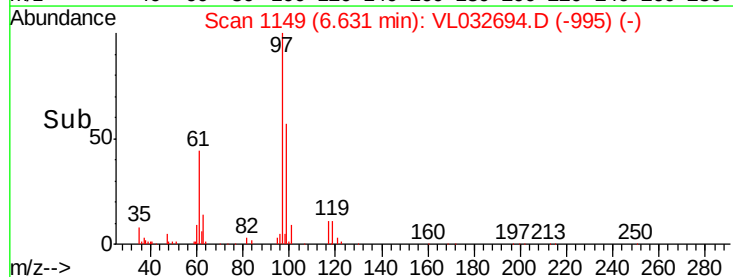
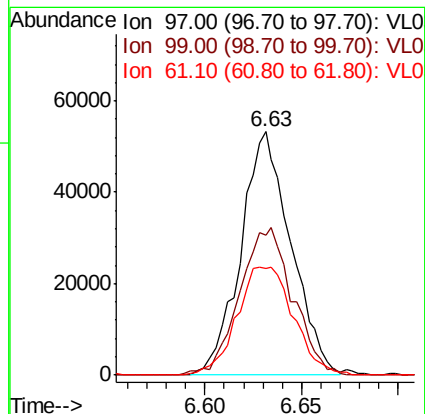
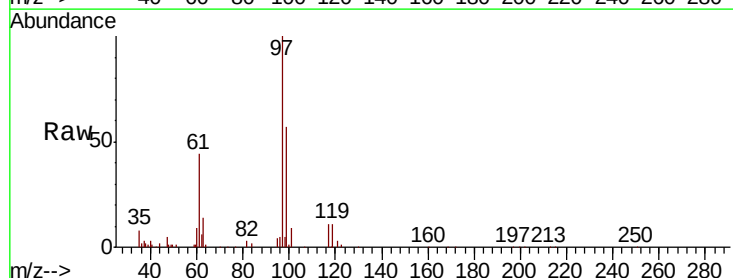
RT: 6.63 min Scan# 1149

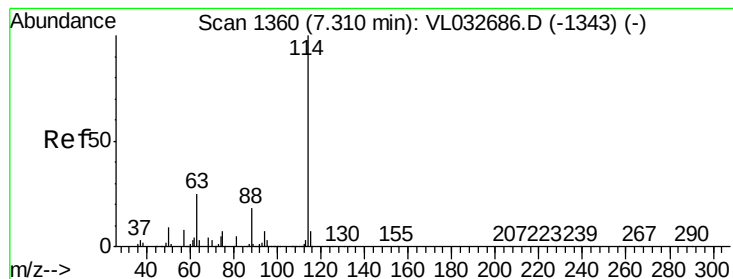
Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 97    | Resp: | 96040 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 64.2  | 52.0  | 78.0  |
| 61       | 50.0  | 40.7  | 61.1  |





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1358

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

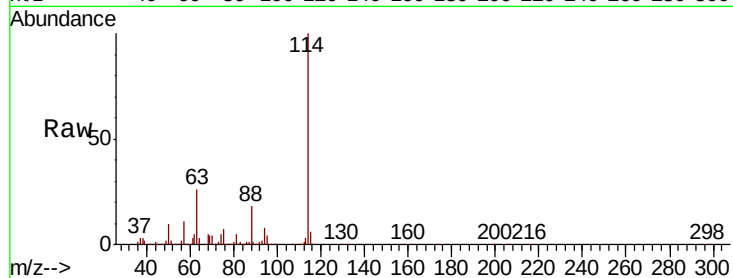
Tgt Ion:114 Resp: 3468545

Ion Ratio Lower Upper

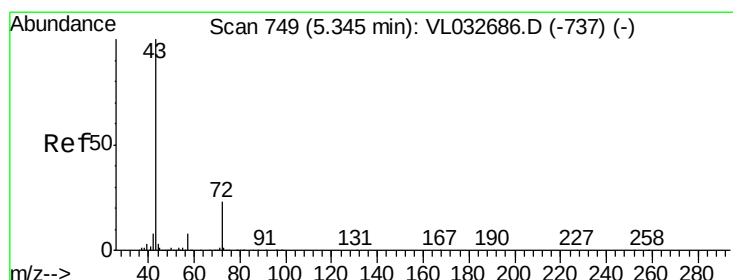
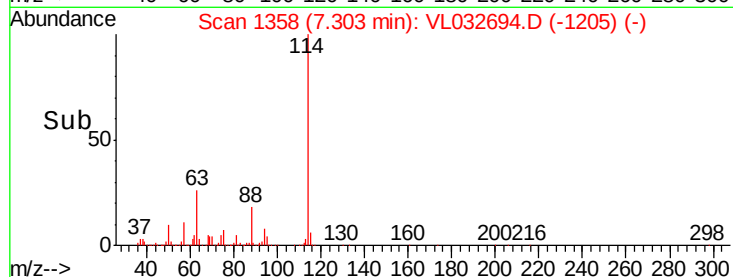
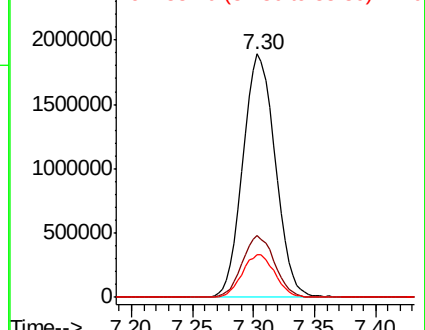
114 100

63 25.3 21.7 32.5

88 17.7 14.9 22.3



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: 0.371 ppbv

RT: 5.36 min Scan# 753

Delta R.T. 0.02 min

Lab File: VL032694.D

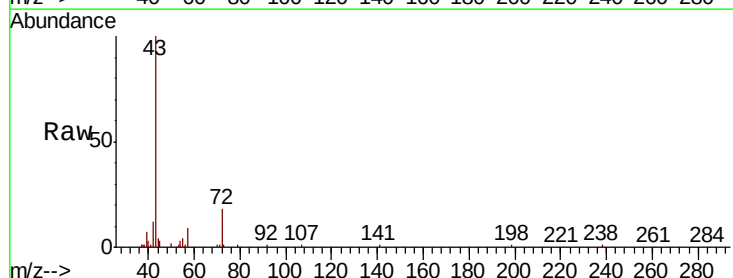
Acq: 24 Oct 2018 19:16

Tgt Ion: 43 Resp: 68966

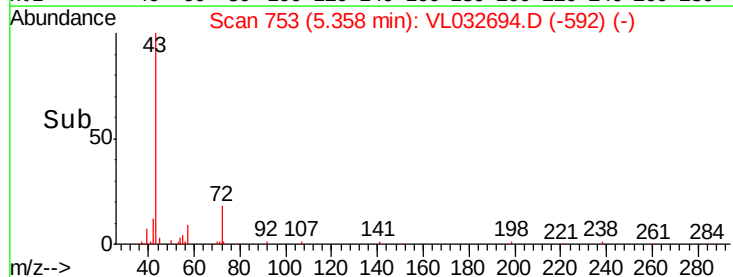
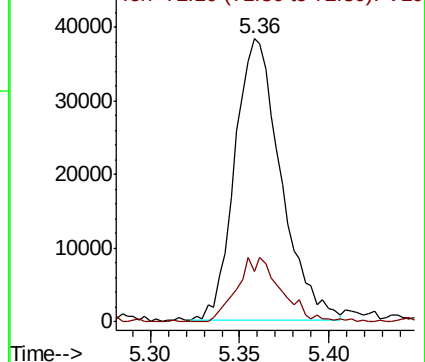
Ion Ratio Lower Upper

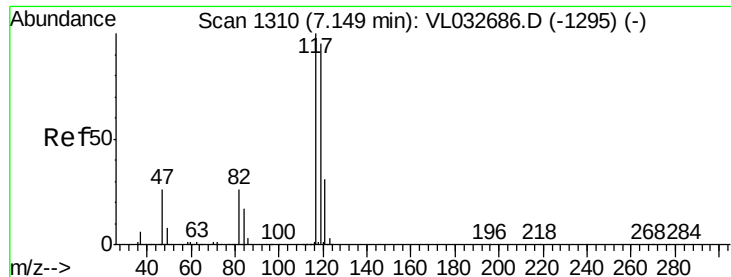
43 100

72 22.1 18.6 27.8



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





#35

Carbon Tetrachloride

Concen: 0.420 ppbv

RT: 7.15 min Scan# 1310

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

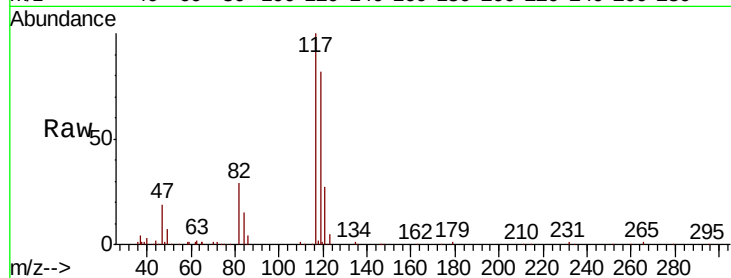
Tgt Ion:117 Resp: 103492

Ion Ratio Lower Upper

117 100

119 81.0 75.7 113.5

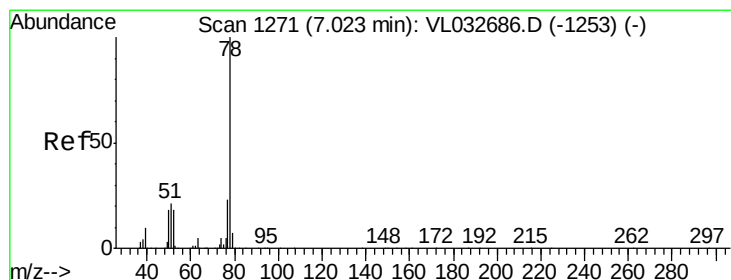
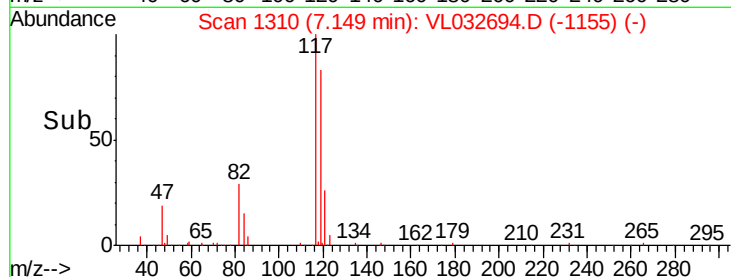
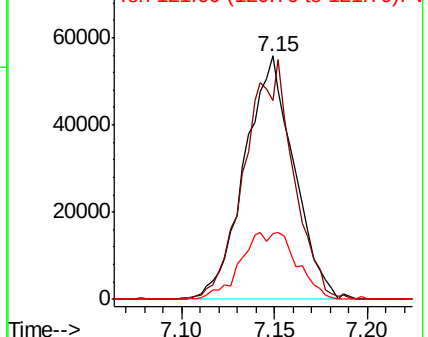
121 26.4 24.7 37.1



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.342 ppbv

RT: 7.02 min Scan# 1269

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

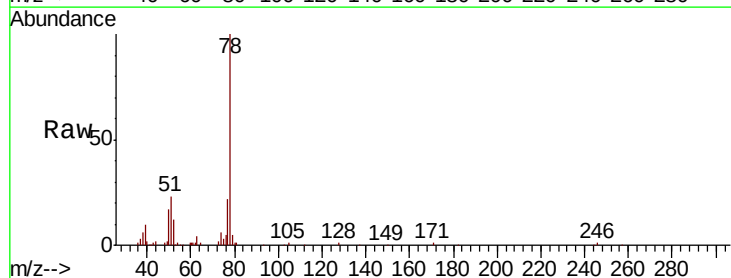
Tgt Ion: 78 Resp: 96452

Ion Ratio Lower Upper

78 100

77 21.6 18.1 27.1

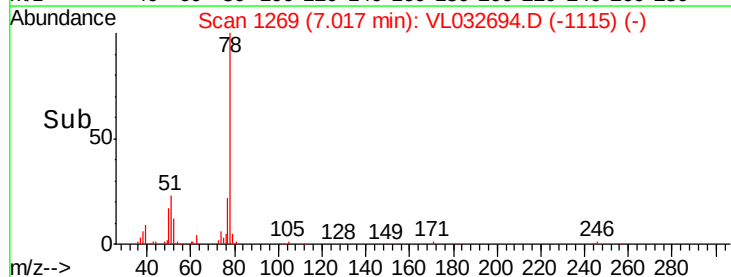
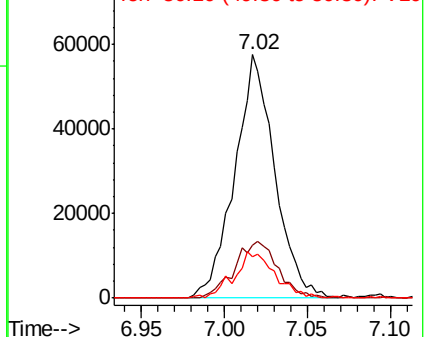
50 16.6 15.1 22.7

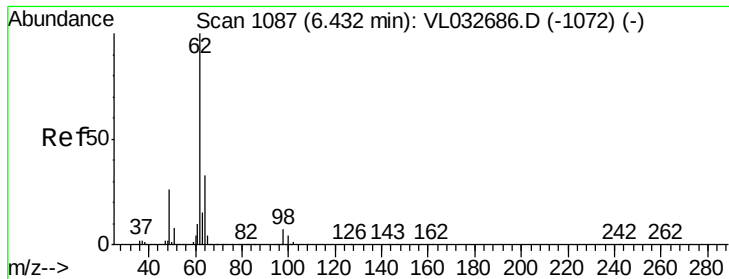


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0

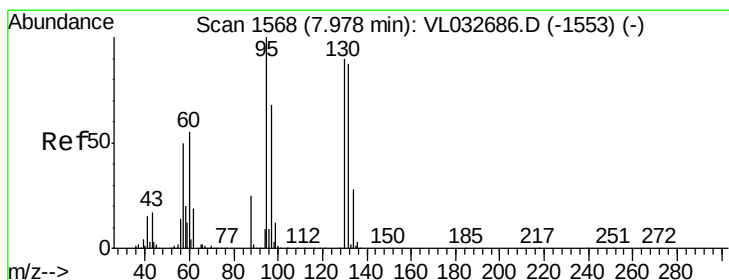
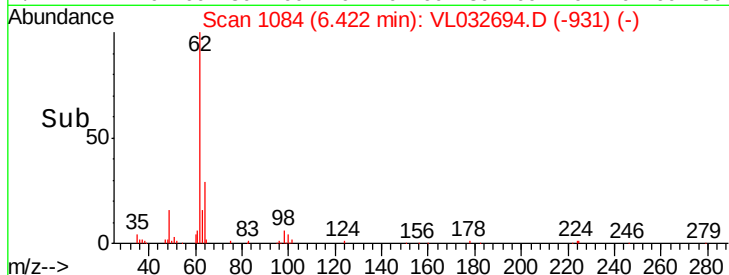
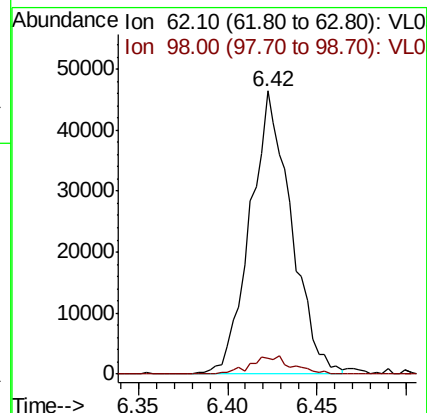
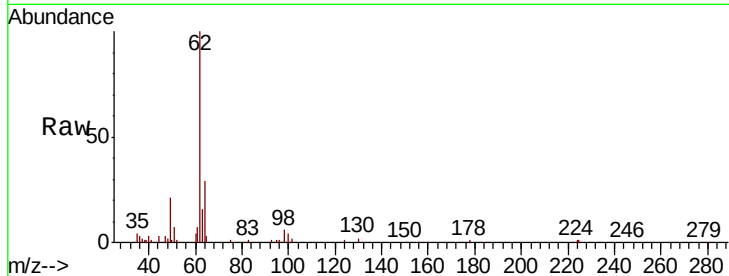




#37  
 1,2-Dichloroethane  
 Concen: 0.433 ppbv  
 RT: 6.42 min Scan# 1084  
 Delta R.T. -0.01 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

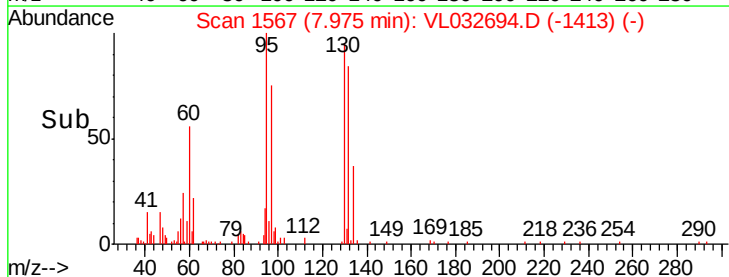
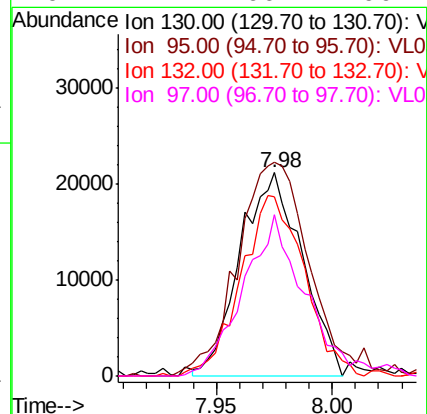
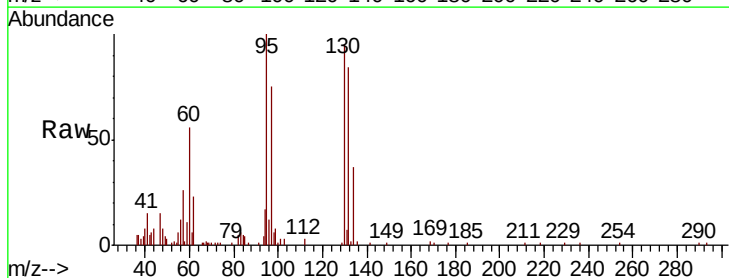
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

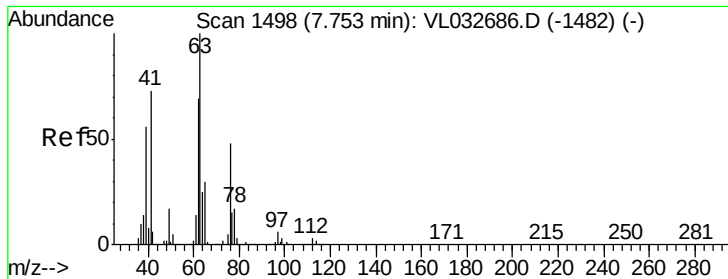
Tgt Ion: 62 Resp: 74732  
 Ion Ratio Lower Upper  
 62 100  
 98 6.3 4.4 6.6



#38  
 Trichloroethene  
 Concen: 0.378 ppbv  
 RT: 7.98 min Scan# 1567  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion: 130 Resp: 39446  
 Ion Ratio Lower Upper  
 130 100  
 95 98.7 93.4 140.0  
 132 84.3 76.5 114.7  
 97 77.1 60.2 90.2

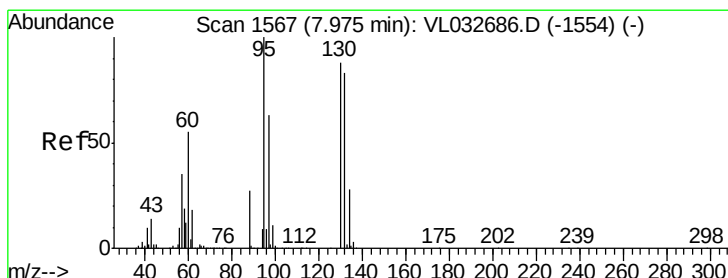
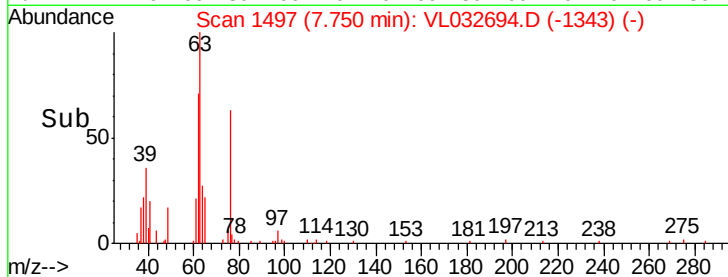
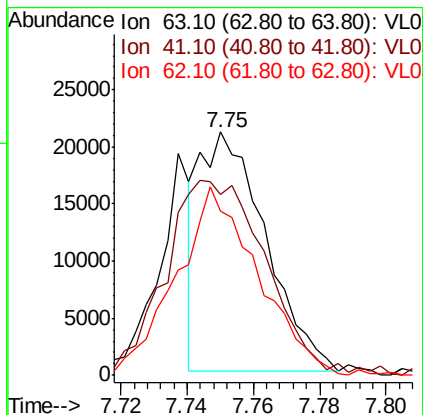
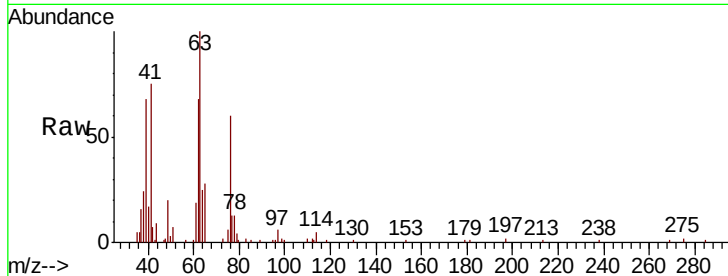




#39  
 1,2-Dichloropropane  
 Concen: 0.265 ppbv  
 RT: 7.75 min Scan# 1497  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

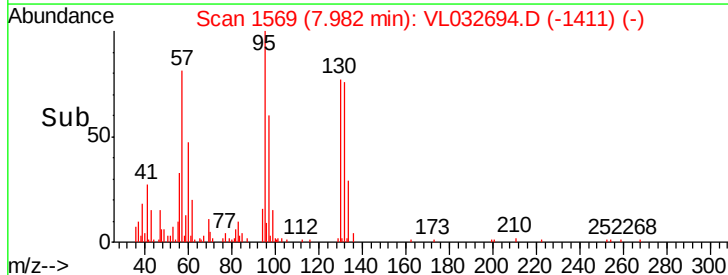
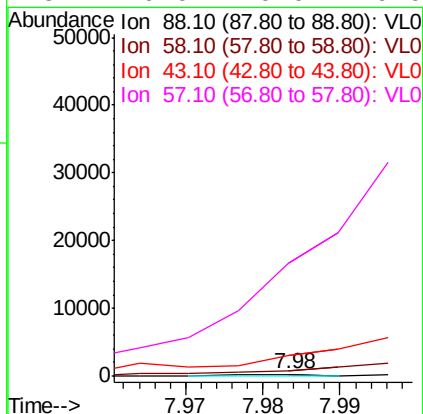
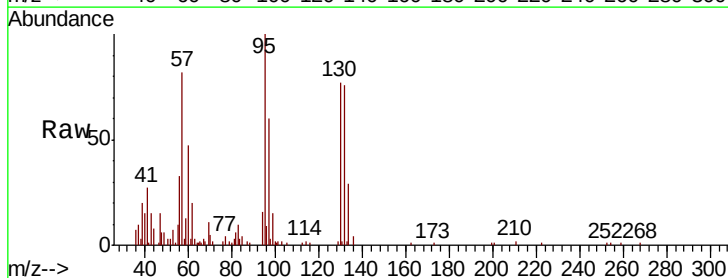
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

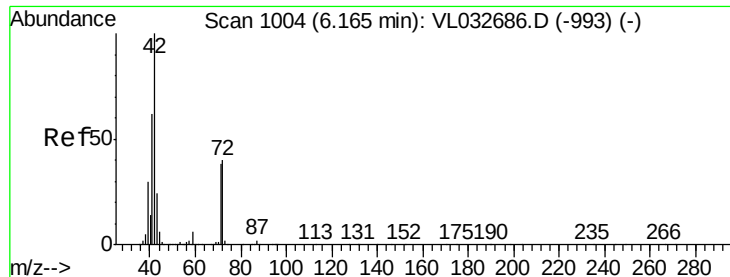
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 28819 |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 41       | 70.8  | 56.2  | 84.4  |
| 62       | 68.0  | 54.4  | 81.6  |



#40  
 1,4-Dioxane  
 Concen: 0.002 ppbv  
 RT: 7.98 min Scan# 1569  
 Delta R.T. 0.01 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 88    | Resp: | 84     |
| Ion      | Ratio | Lower | Upper  |
| 88       | 100   |       |        |
| 58       | 0.0   | 104.0 | 156.0# |
| 43       | 0.0   | 0.0   | 0.0    |
| 57       | 0.0   | 0.0   | 0.0    |





#41

Tetrahydrofuran

Concen: 0.003 ppbv

RT: 6.16 min Scan# 1003

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

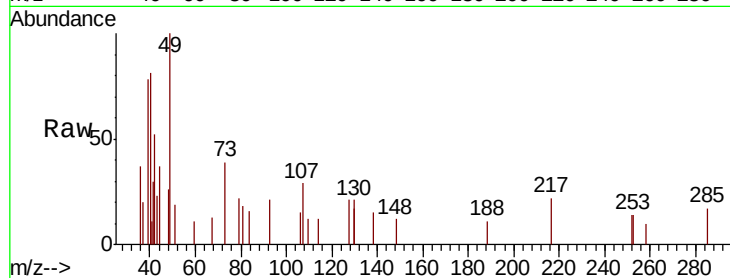
Tgt Ion: 42 Resp: 326

Ion Ratio Lower Upper

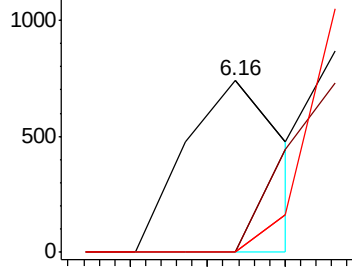
42 100

72 0.0 32.4 48.6#

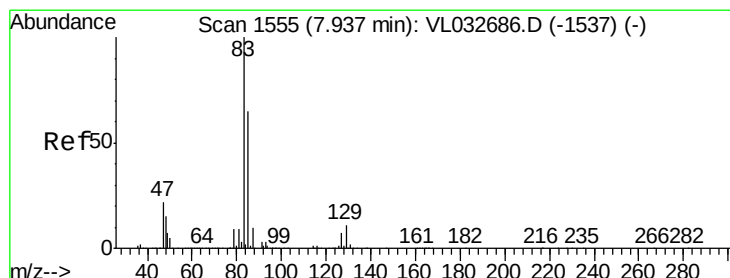
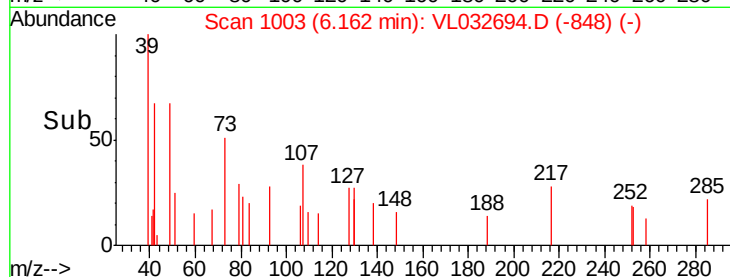
71 0.0 31.3 46.9#



Abundance Ion 42.10 (41.80 to 42.80): VL0  
Ion 72.10 (71.80 to 72.80): VL0  
Ion 71.10 (70.80 to 71.80): VL0



Time-->



#42

Bromodichloromethane

Concen: 0.416 ppbv

RT: 7.93 min Scan# 1553

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

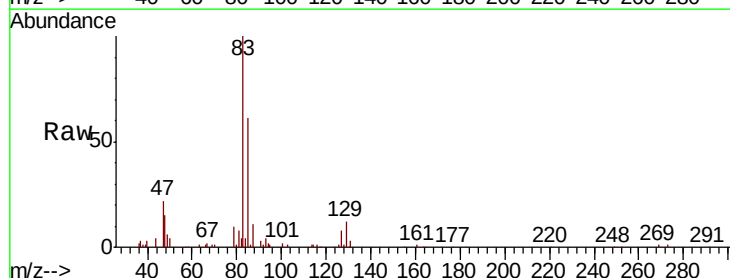
Tgt Ion: 83 Resp: 100790

Ion Ratio Lower Upper

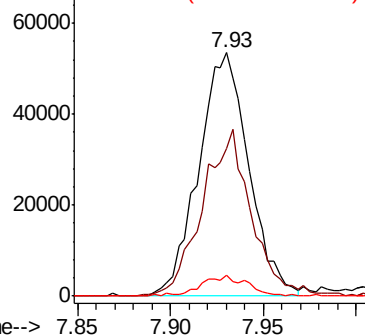
83 100

85 60.0 52.4 78.6

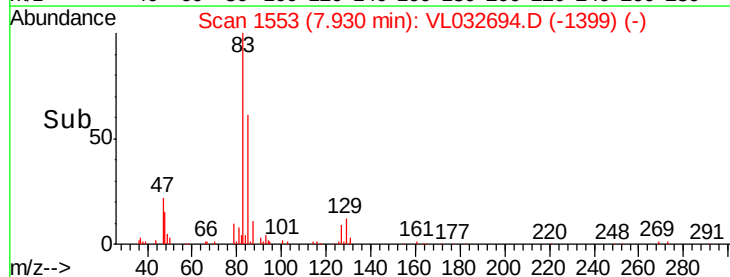
127 8.5 6.1 9.1



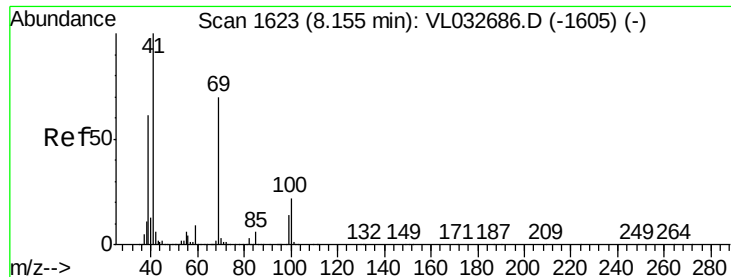
Abundance Ion 83.00 (82.70 to 83.70): VL0  
Ion 85.00 (84.70 to 85.70): VL0  
Ion 126.90 (126.60 to 127.60): V



Time-->







#43

Methyl Methacrylate

Concen: 0.246 ppbv

RT: 8.16 min Scan# 1626

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

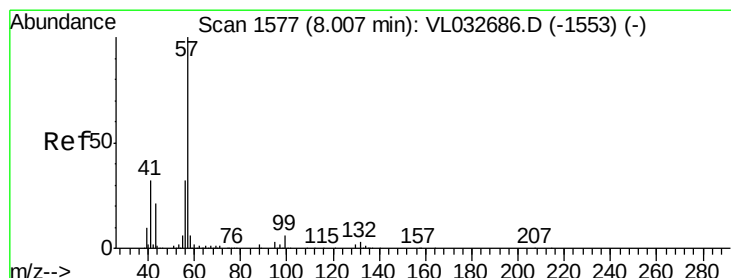
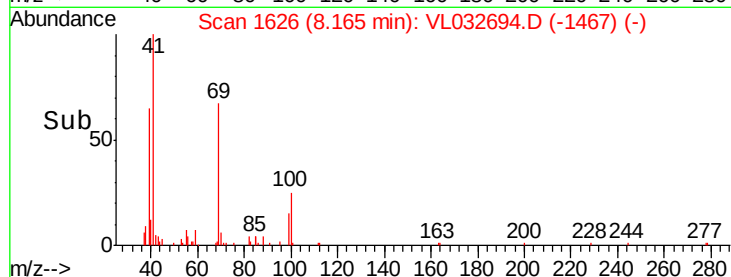
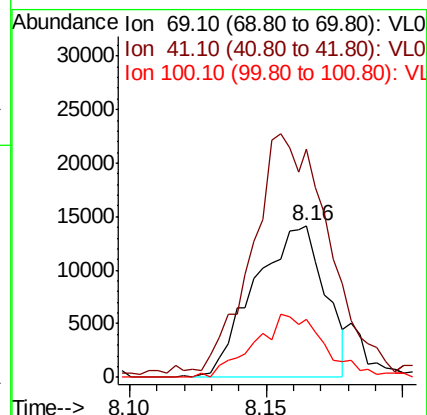
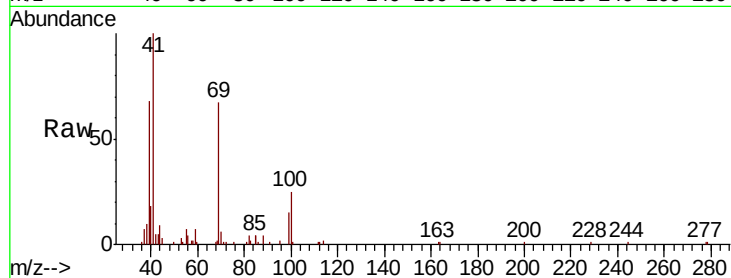
Tgt Ion: 69 Resp: 25368

Ion Ratio Lower Upper

69 100

41 184.9 113.2 169.8#

100 41.5 24.4 36.6#



#44

2,2,4-Trimethylpentane

Concen: 0.327 ppbv

RT: 8.01 min Scan# 1579

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

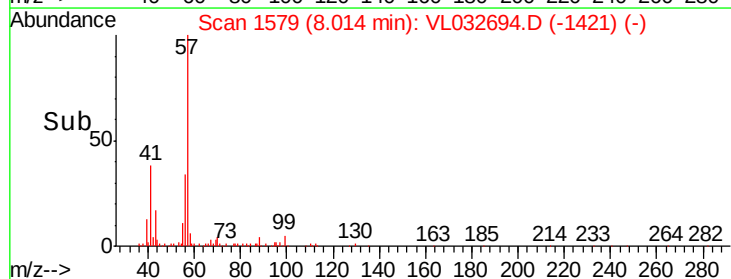
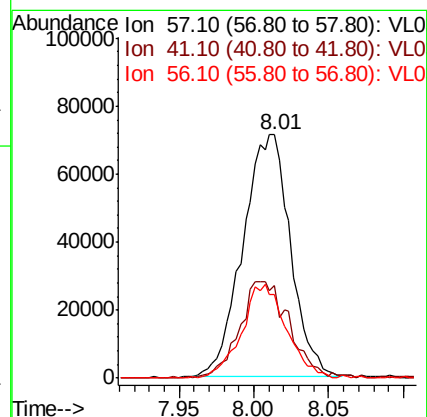
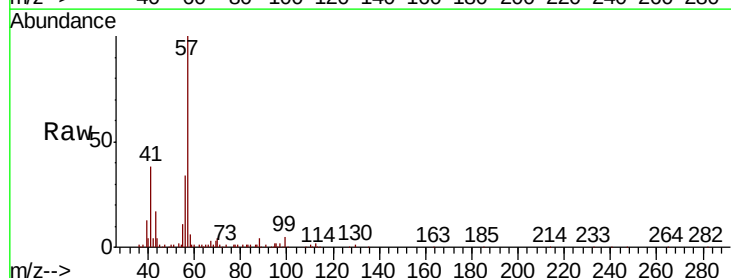
Tgt Ion: 57 Resp: 157414

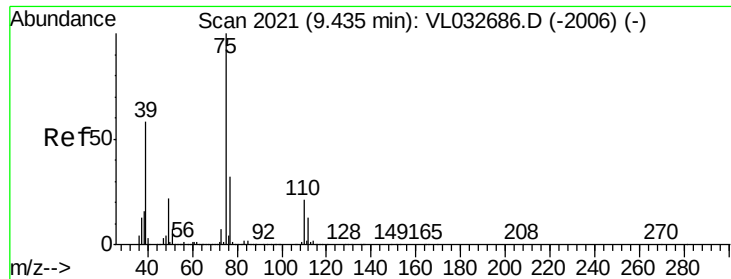
Ion Ratio Lower Upper

57 100

41 42.2 24.7 37.1#

56 36.7 25.0 37.4





#45

t-1,3-Dichloropropene

Concen: 0.002 ppbv

RT: 9.61 min Scan# 2076

Delta R.T. 0.18 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

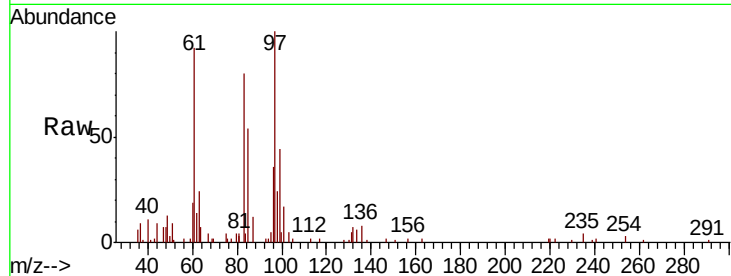
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 75 Resp: 264

Ion Ratio Lower Upper

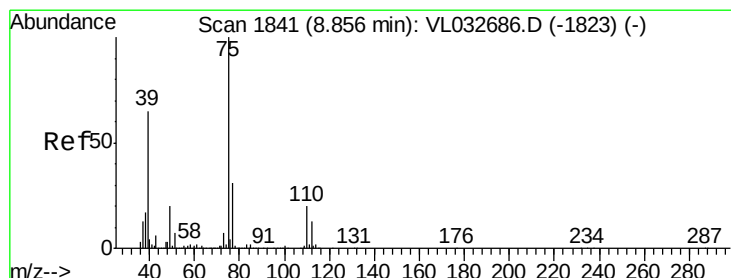
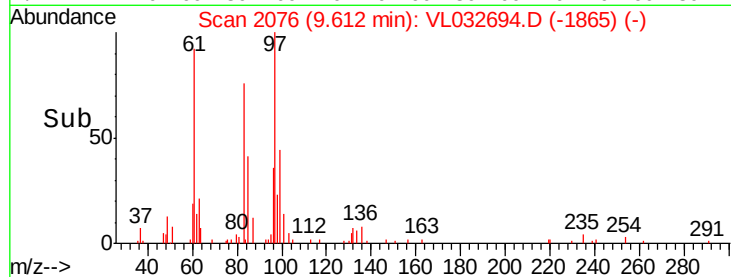
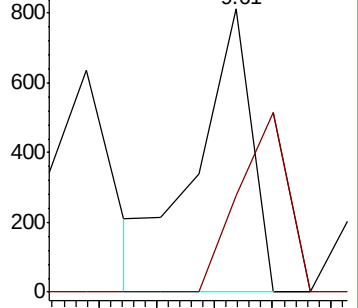
75 100

77 34.2 25.3 37.9



Abundance Ion 75.10 (74.80 to 75.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



#46

cis-1,3-Dichloropropene

Concen: 0.291 ppbv

RT: 8.85 min Scan# 1838

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

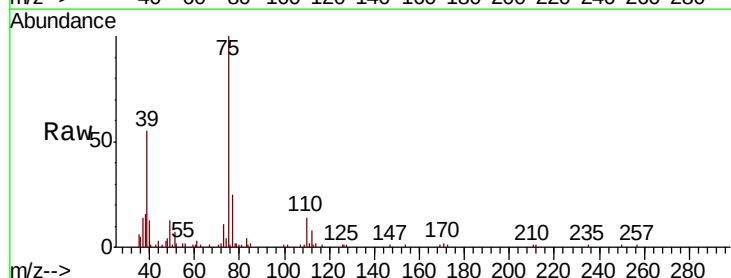
Tgt Ion: 75 Resp: 45961

Ion Ratio Lower Upper

75 100

39 53.5 50.9 76.3

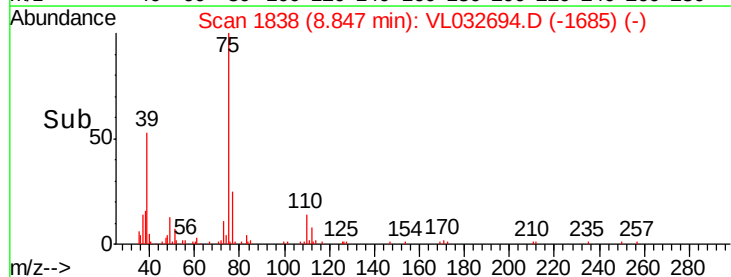
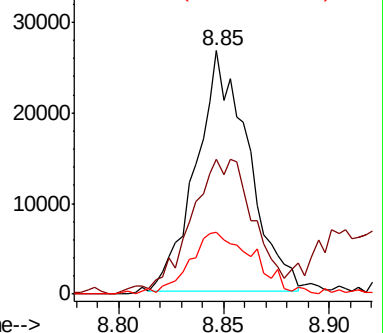
77 23.7 25.8 38.6#

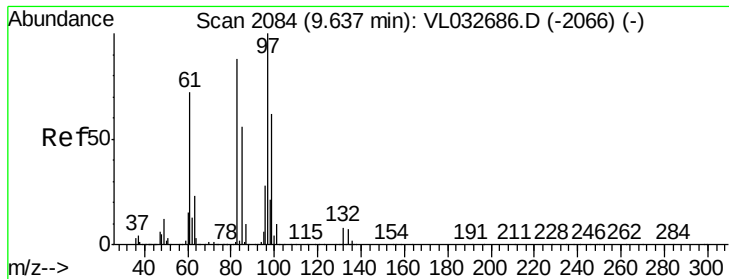


Abundance Ion 75.00 (74.70 to 75.70): VL0

Ion 39.00 (38.70 to 39.70): VL0

Ion 77.00 (76.70 to 77.70): VL0





#47

1,1,2-Trichloroethane

Concen: 0.420 ppbv

RT: 9.62 min Scan# 2080

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 97 Resp: 53955

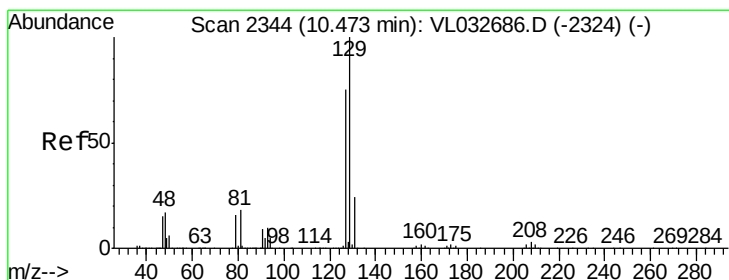
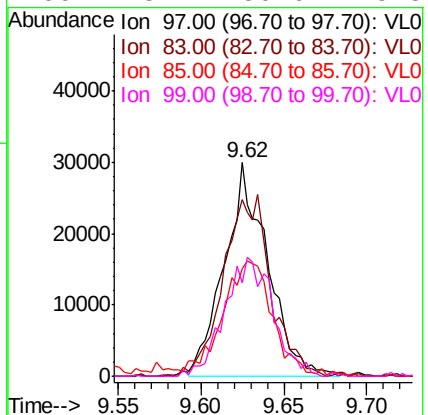
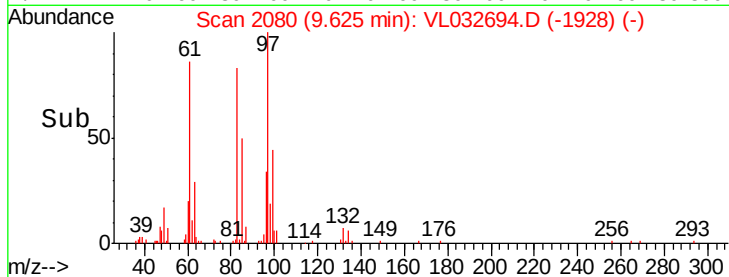
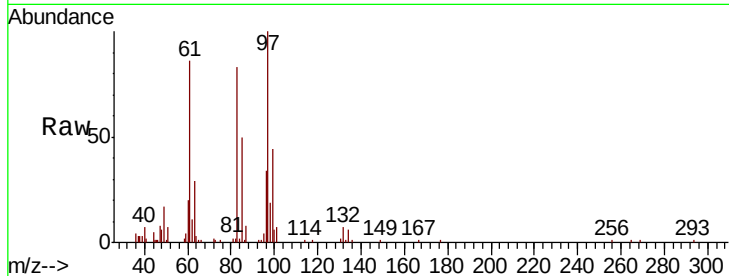
Ion Ratio Lower Upper

97 100

83 80.7 73.5 110.3

85 48.8 45.8 68.6

99 43.2 50.6 75.8#



#48

Dibromochloromethane

Concen: 0.351 ppbv

RT: 10.46 min Scan# 2341

Delta R.T. -0.01 min

Lab File: VL032694.D

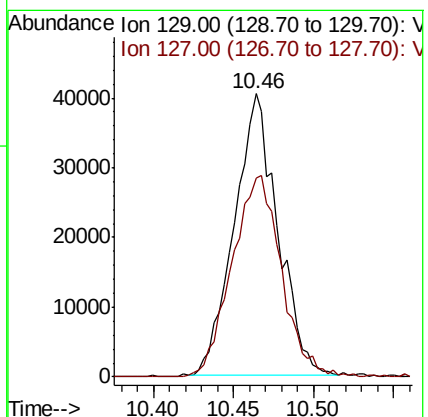
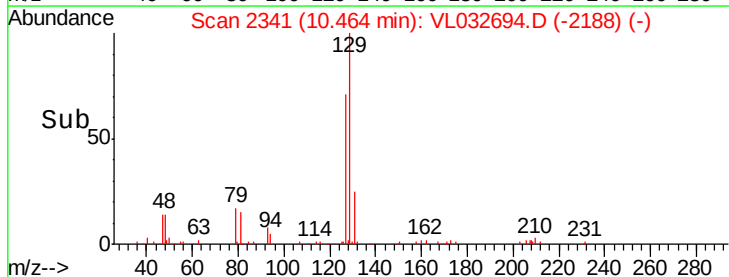
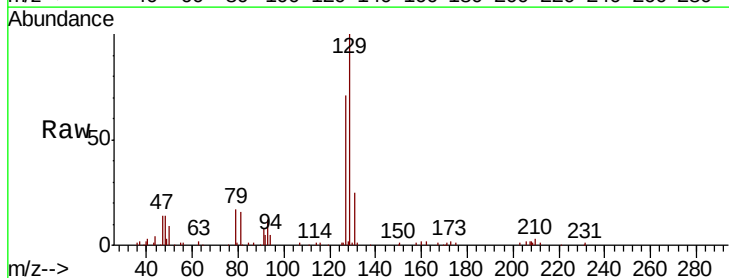
Acq: 24 Oct 2018 19:16

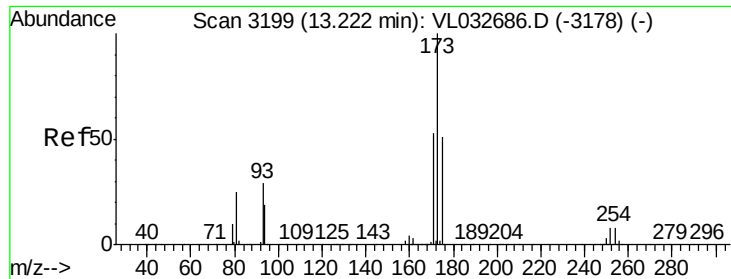
Tgt Ion: 129 Resp: 75102

Ion Ratio Lower Upper

129 100

127 81.6 39.1 117.5





#49

Bromoform

Concen: 0.397 ppbv

RT: 13.22 min Scan# 3197

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

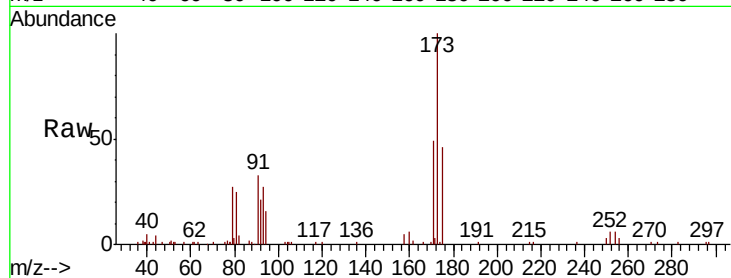
Tgt Ion:173 Resp: 66773

Ion Ratio Lower Upper

173 100

175 46.8 39.0 58.4

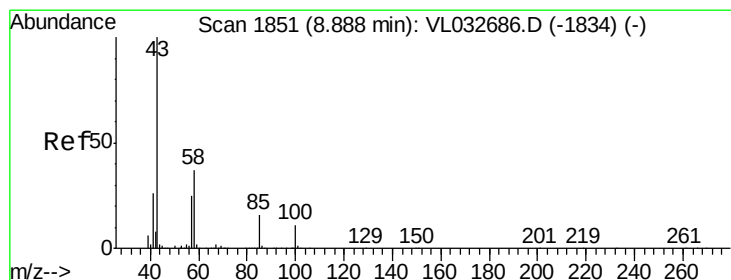
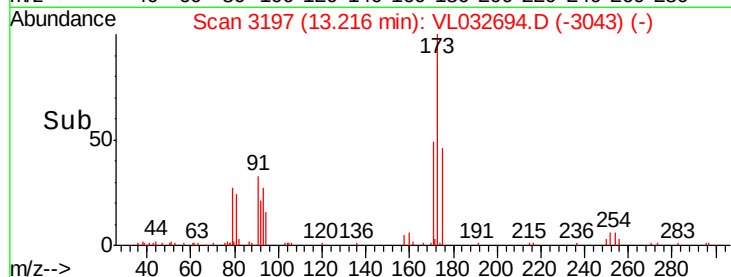
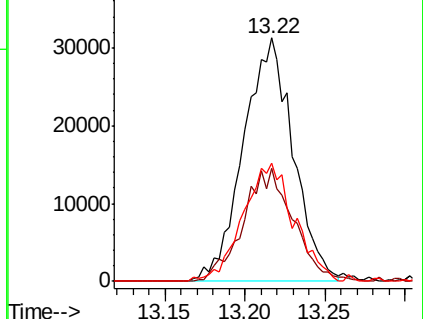
171 50.4 42.2 63.2



Abundance Ion 172.90 (172.60 to 173.60): V

Ion 174.90 (174.60 to 175.60): V

Ion 170.90 (170.60 to 171.60): V



#50

4-Methyl-2-Pentanone

Concen: 0.217 ppbv

RT: 8.91 min Scan# 1858

Delta R.T. 0.03 min

Lab File: VL032694.D

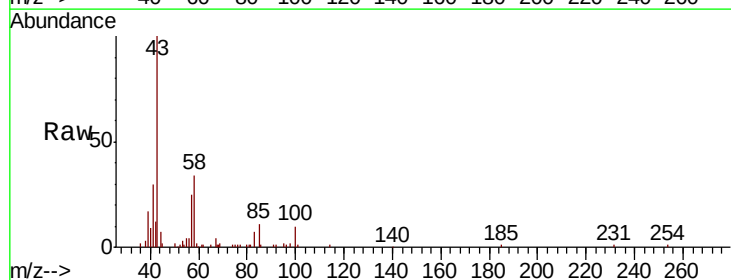
Acq: 24 Oct 2018 19:16

Tgt Ion: 43 Resp: 59800

Ion Ratio Lower Upper

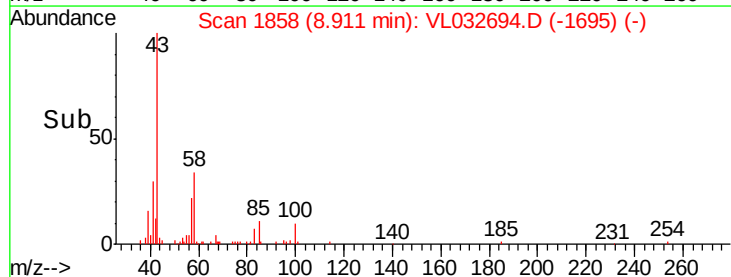
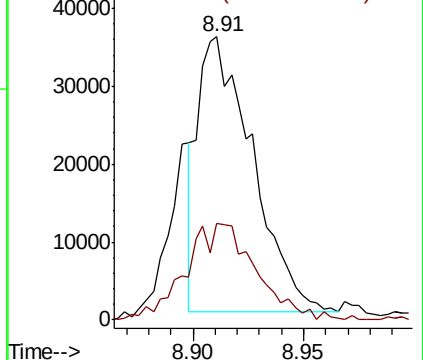
43 100

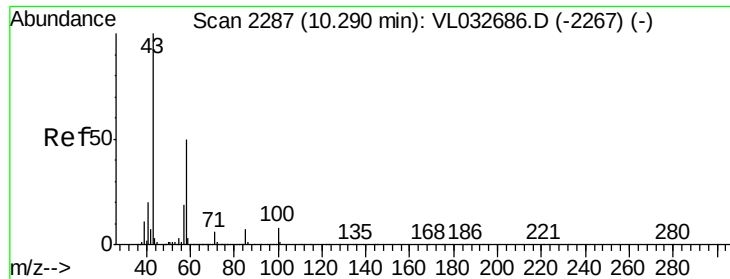
58 46.3 29.7 44.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

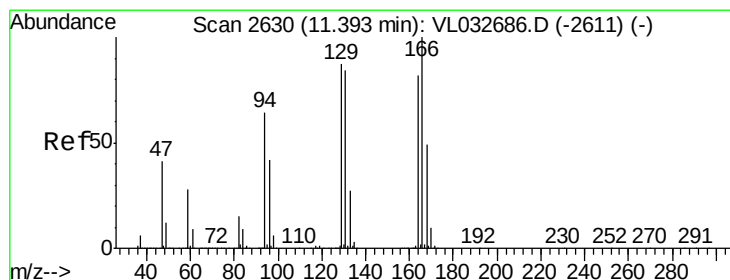
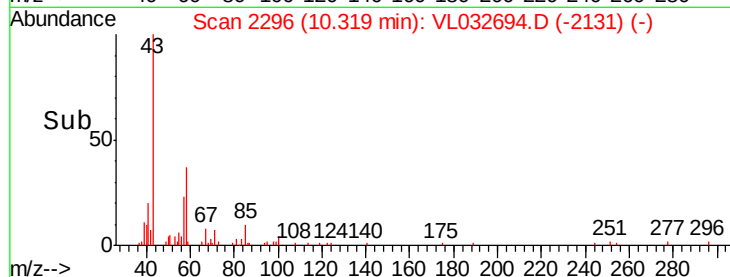
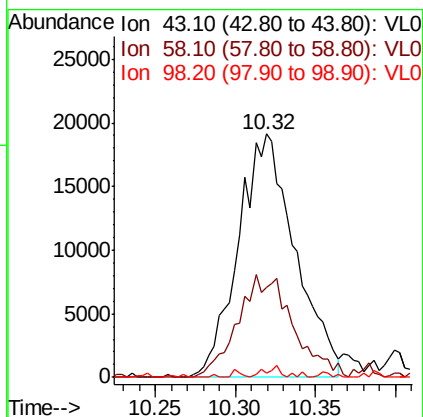
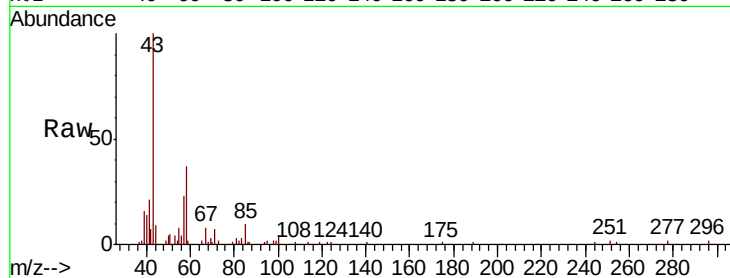




#51  
 2-Hexanone  
 Concen: 0.228 ppbv  
 RT: 10.32 min Scan# 2296  
 Delta R.T. 0.03 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

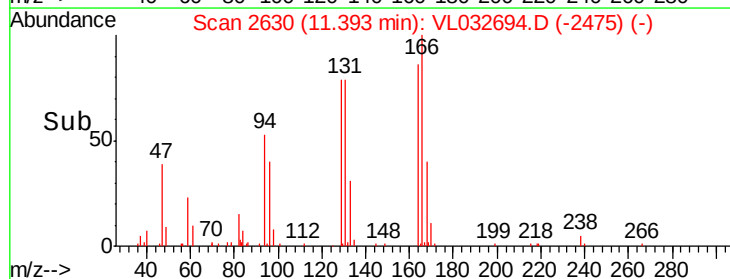
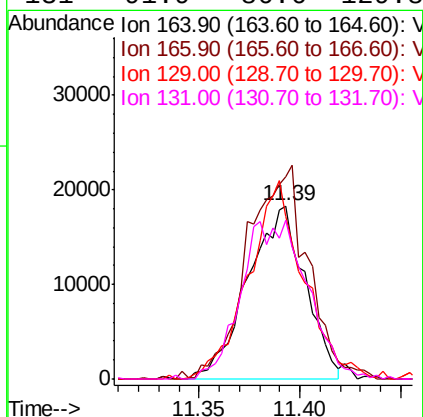
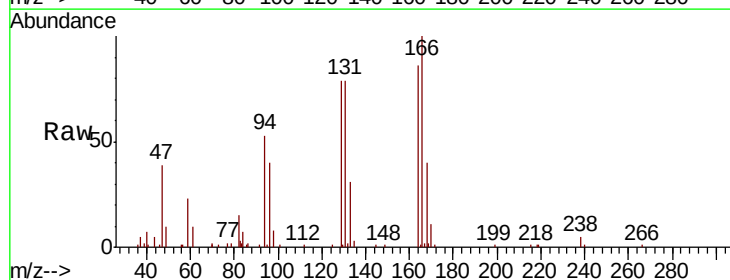
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

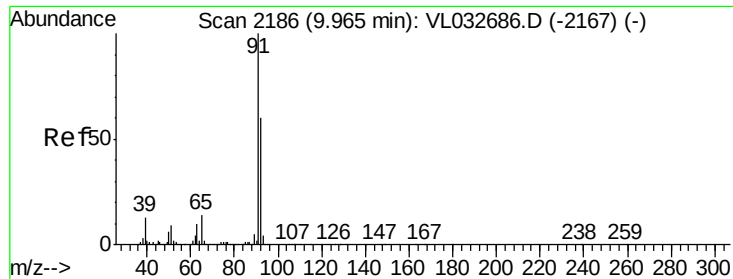
Tgt Ion: 43 Resp: 46668  
 Ion Ratio Lower Upper  
 43 100  
 58 42.7 40.4 60.6  
 98 1.8 0.4 0.6#



#52  
 Tetrachloroethene  
 Concen: 0.368 ppbv  
 RT: 11.39 min Scan# 2630  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion: 164 Resp: 36101  
 Ion Ratio Lower Upper  
 164 100  
 166 115.8 100.5 150.7  
 129 92.8 90.0 135.0  
 131 91.9 86.6 129.8





#53

Toluene

Concen: 0.276 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

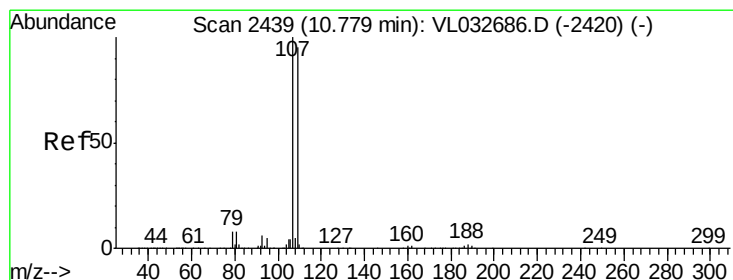
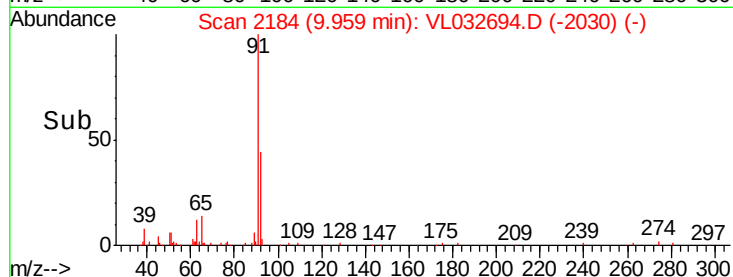
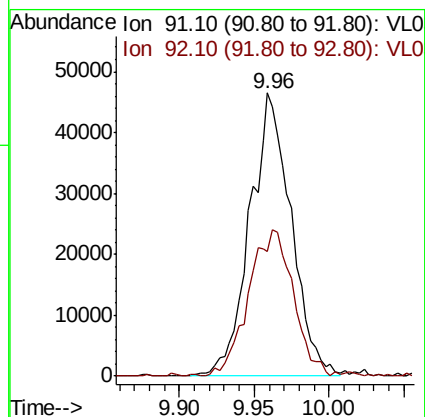
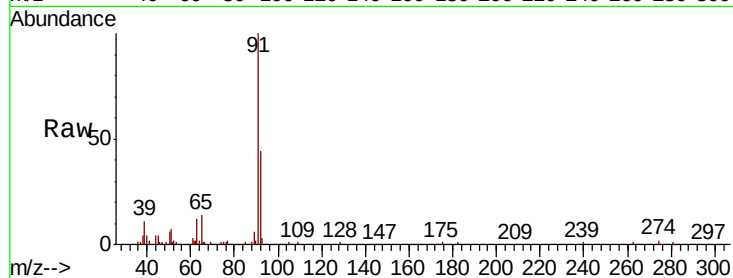
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 91 Resp: 89192

Ion Ratio Lower Upper

91 100

92 56.9 48.4 72.6



#54

1,2-Dibromoethane

Concen: 0.369 ppbv

RT: 10.78 min Scan# 2438

Delta R.T. -0.00 min

Lab File: VL032694.D

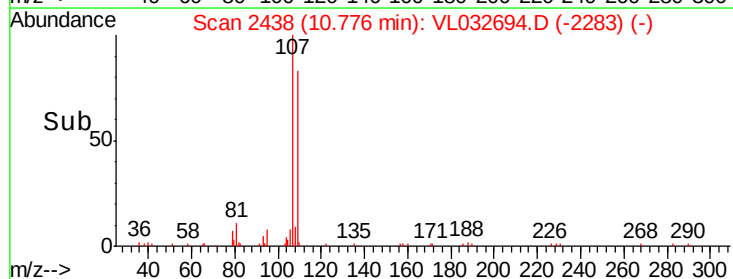
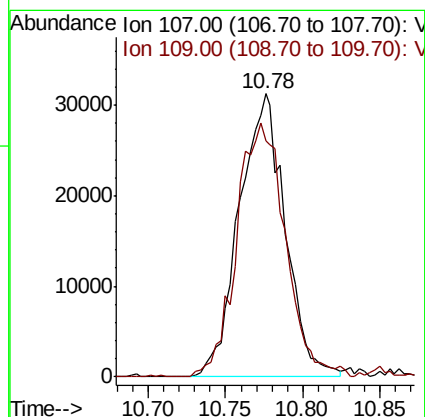
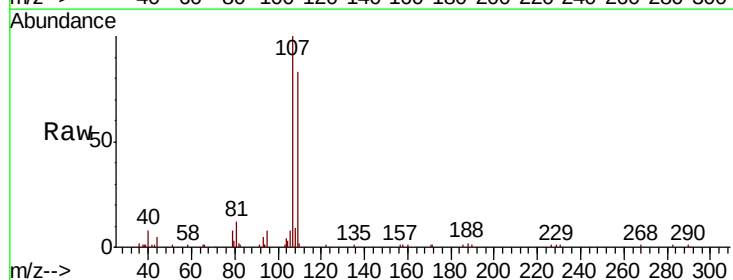
Acq: 24 Oct 2018 19:16

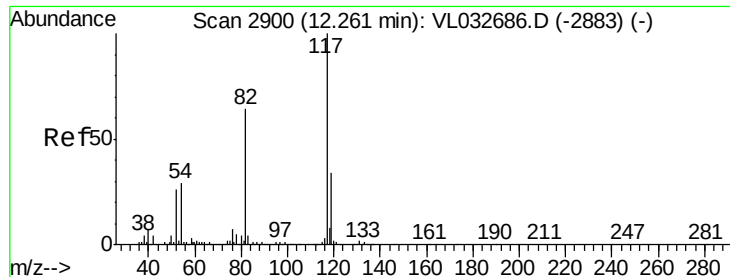
Tgt Ion: 107 Resp: 64498

Ion Ratio Lower Upper

107 100

109 83.5 75.3 112.9

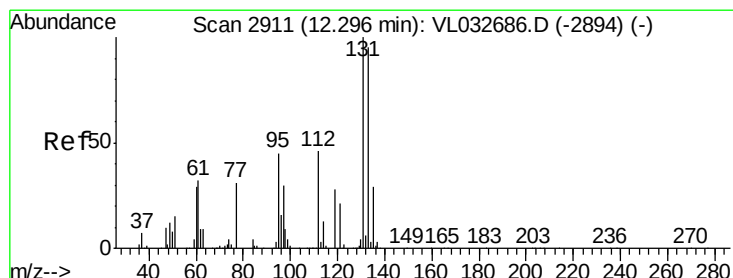
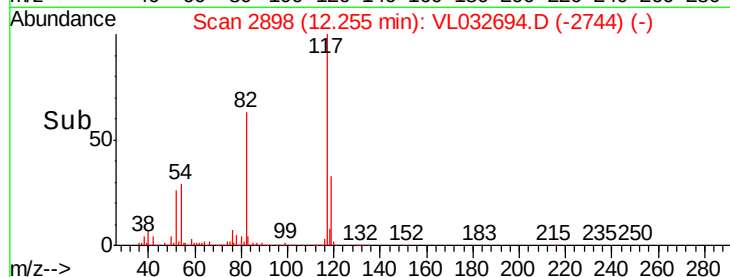
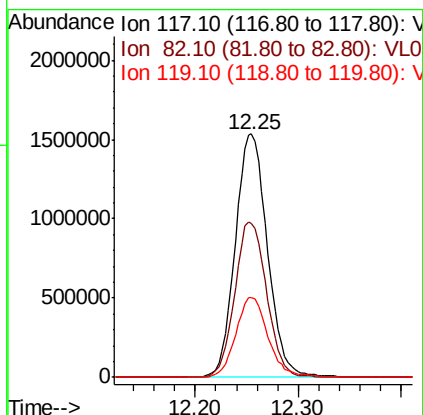
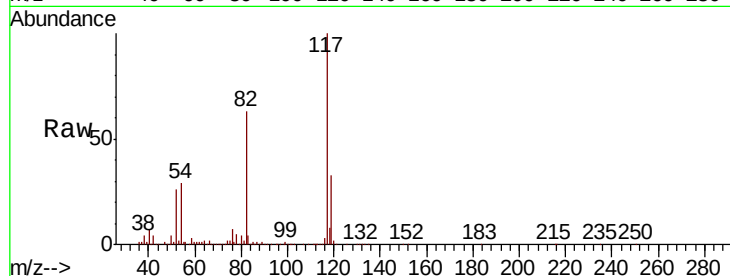




#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.25 min Scan# 2898  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

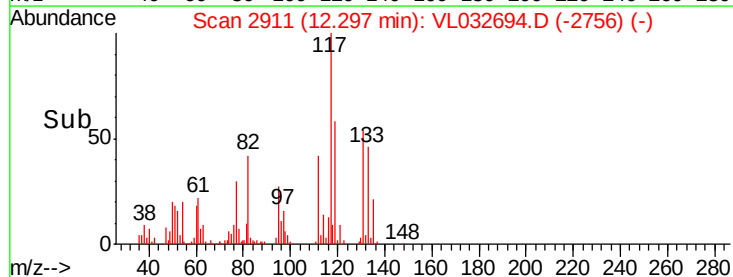
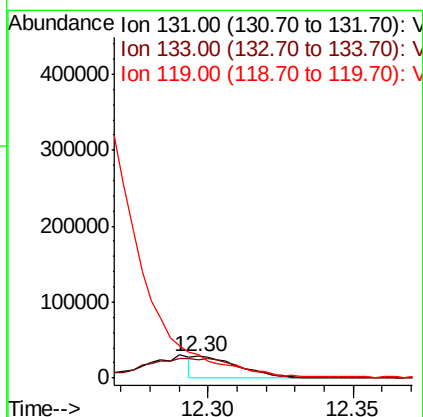
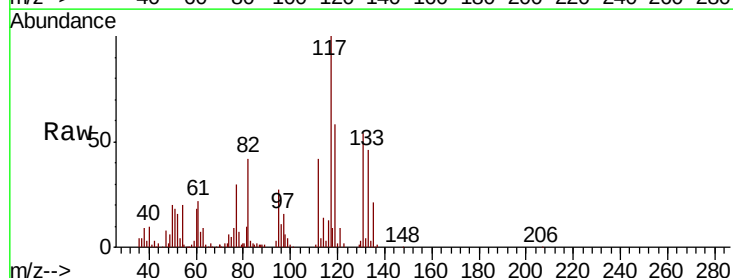
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

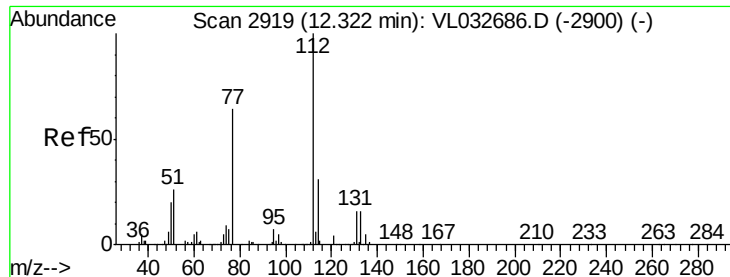
Tgt Ion:117 Resp: 3333344  
Ion Ratio Lower Upper  
117 100  
82 63.3 52.7 79.1  
119 33.3 26.7 40.1



#56  
1,1,1,2-Tetrachloroethane  
Concen: 0.215 ppbv  
RT: 12.30 min Scan# 2911  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

Tgt Ion:131 Resp: 31314  
Ion Ratio Lower Upper  
131 100  
133 200.3 75.4 113.2#  
119 0.0 49.1 73.7#





#57

Chlorobenzene

Concen: 0.455 ppbv

RT: 12.32 min Scan# 2917

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

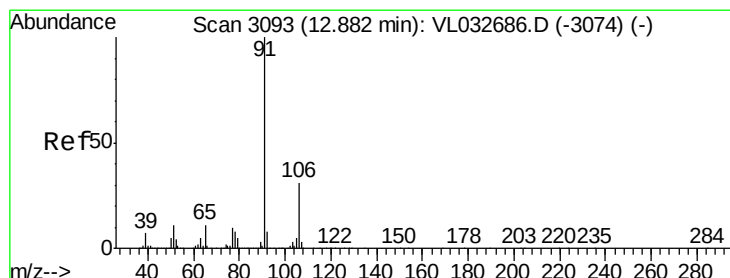
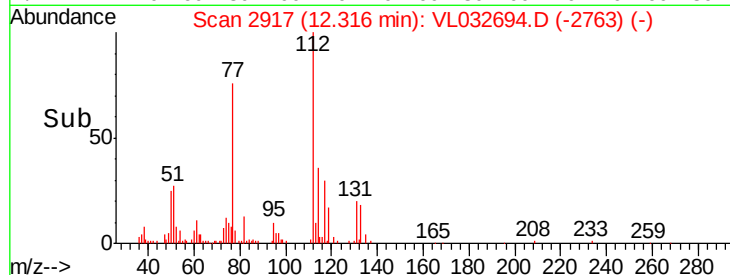
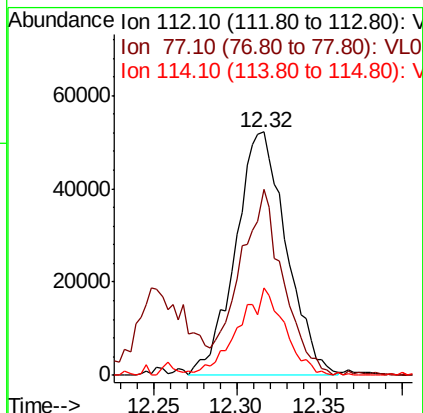
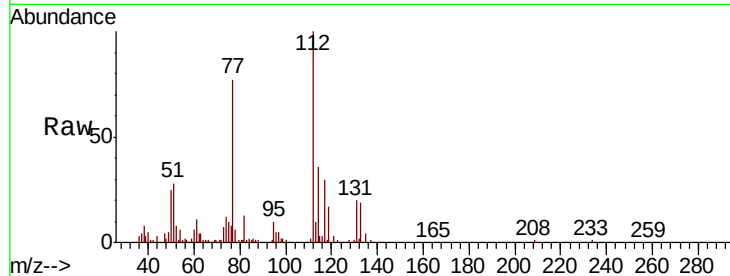
Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 112   | Resp: | 111582 |
| Ion      | Ratio | Lower | Upper  |
| 112      | 100   |       |        |
| 77       | 75.2  | 56.8  | 85.2   |
| 114      | 34.7  | 30.3  | 37.1   |



#58

Ethyl Benzene

Concen: 0.274 ppbv

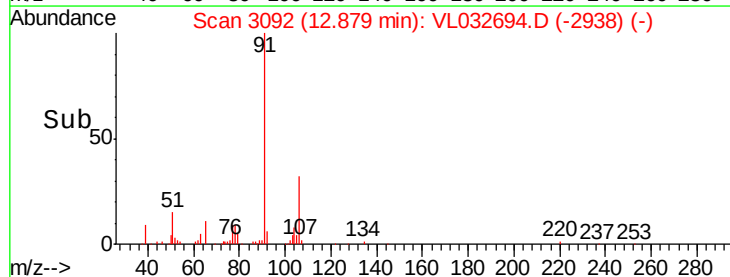
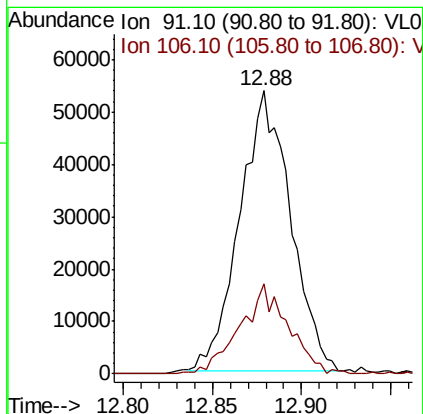
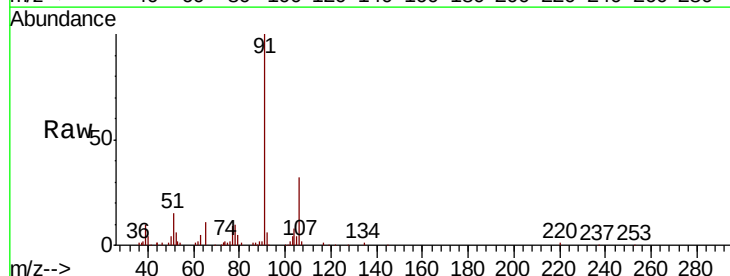
RT: 12.88 min Scan# 3092

Delta R.T. -0.00 min

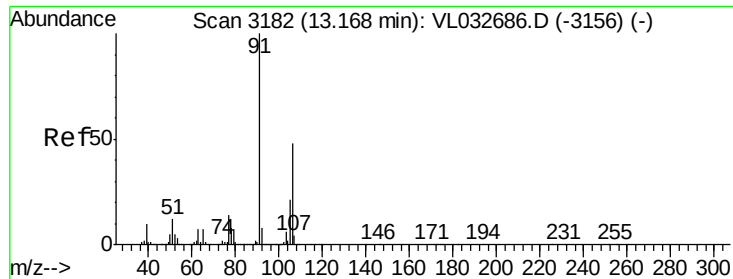
Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 91    | Resp: | 106180 |
| Ion      | Ratio | Lower | Upper  |
| 91       | 100   |       |        |
| 106      | 31.4  | 24.2  | 36.2   |



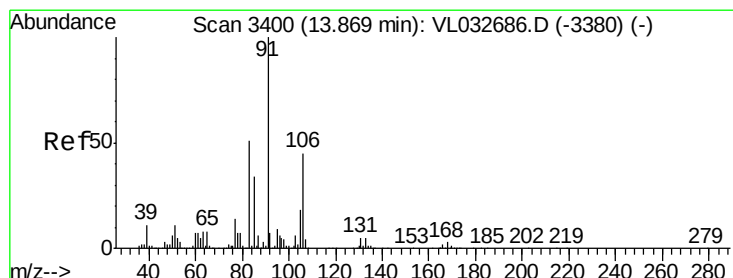
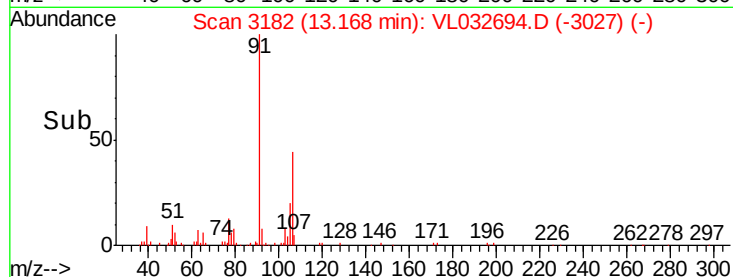
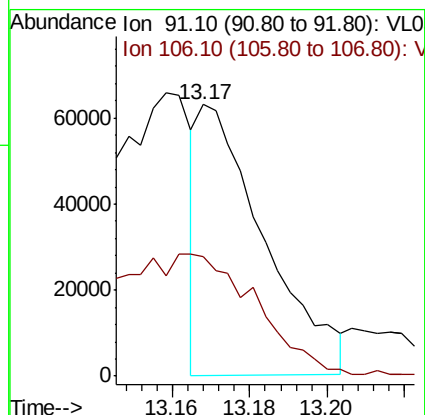
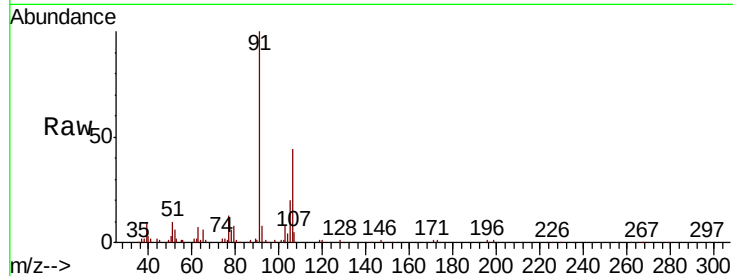




#59  
m/p-Xylene  
Concen: 0.215 ppbv  
RT: 13.17 min Scan# 3182  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

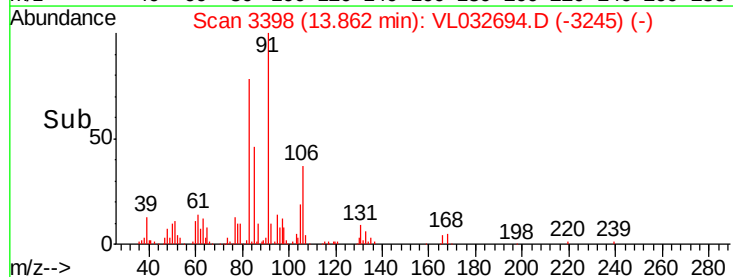
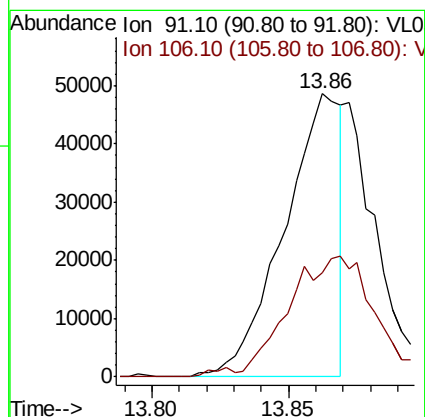
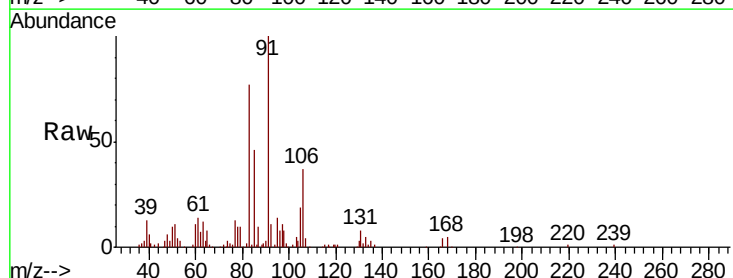
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

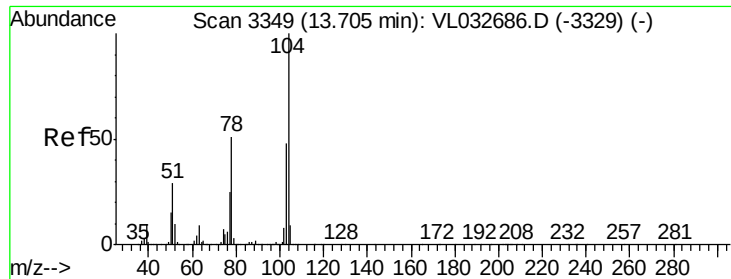
Tgt Ion: 91 Resp: 74237  
Ion Ratio Lower Upper  
91 100  
106 134.3 35.9 53.9#



#60  
o-Xylene  
Concen: 0.211 ppbv  
RT: 13.86 min Scan# 3398  
Delta R.T. -0.01 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

Tgt Ion: 91 Resp: 70042  
Ion Ratio Lower Upper  
91 100  
106 0.0 22.1 66.1#

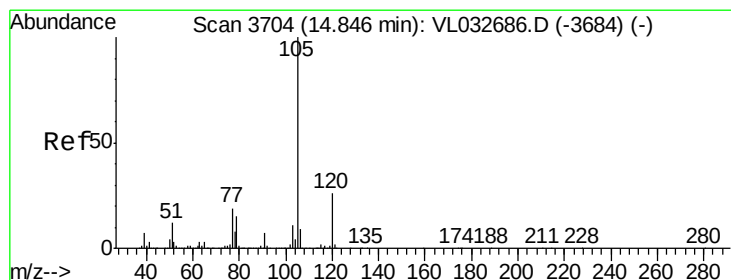
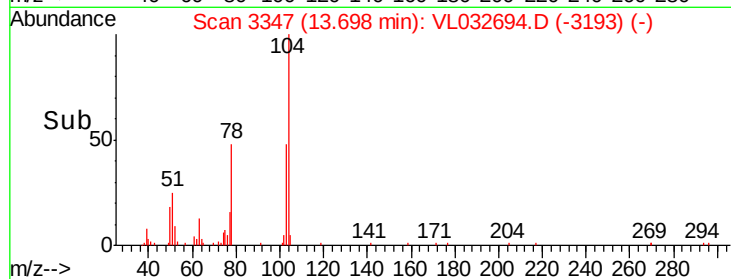
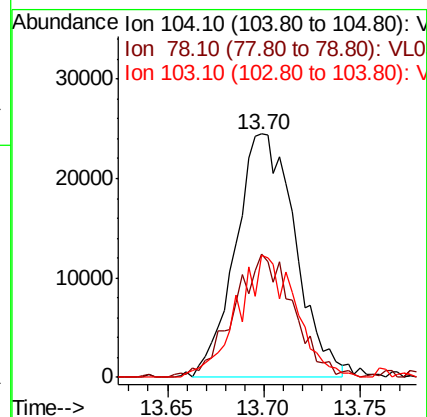
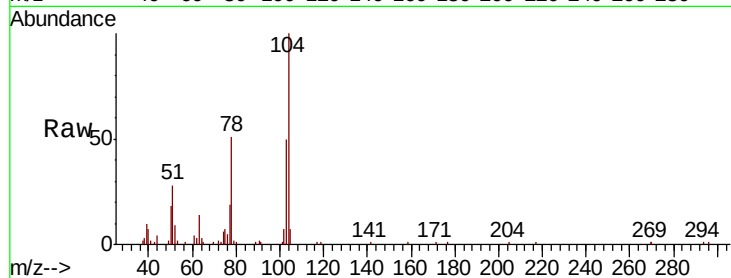




#61  
Styrene  
Concen: 0.235 ppbv  
RT: 13.70 min Scan# 3347  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

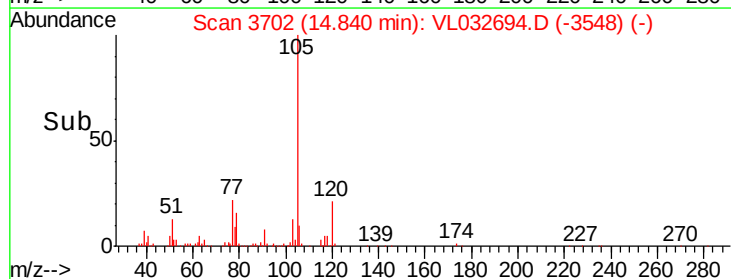
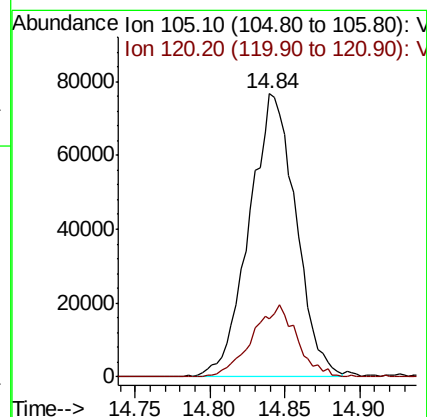
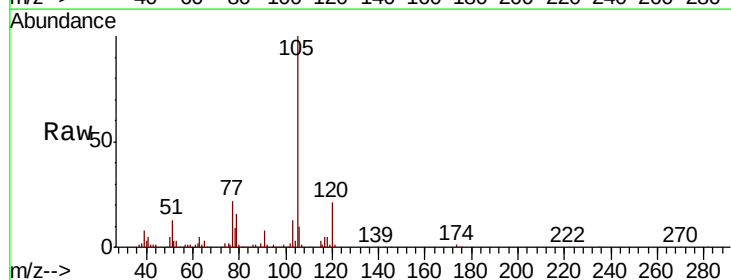
Instrument :  
MSVOA\_L  
ClientSampleId :  
MDL-AIR-03-QT4-2018 0.4 LOD

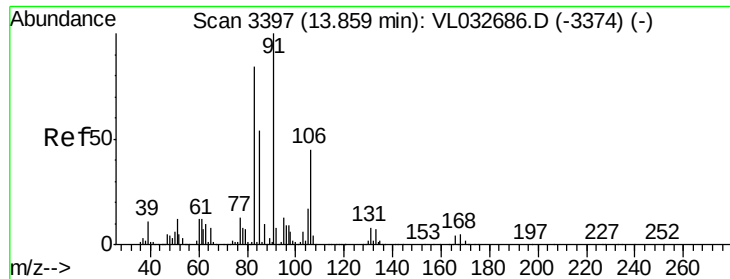
Tgt Ion:104 Resp: 52409  
Ion Ratio Lower Upper  
104 100  
78 51.1 42.8 64.2  
103 49.7 37.4 56.0



#62  
Isopropylbenzene  
Concen: 0.353 ppbv  
RT: 14.84 min Scan# 3702  
Delta R.T. -0.00 min  
Lab File: VL032694.D  
Acq: 24 Oct 2018 19:16

Tgt Ion:105 Resp: 166219  
Ion Ratio Lower Upper  
105 100  
120 24.5 20.5 30.7

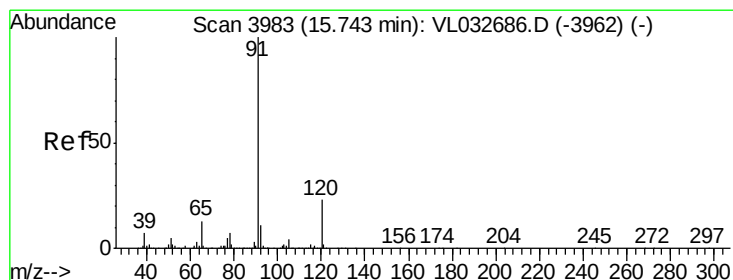
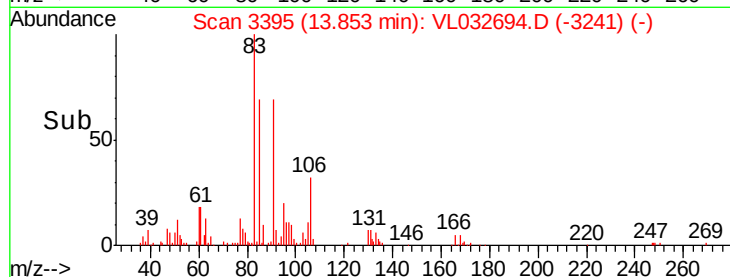
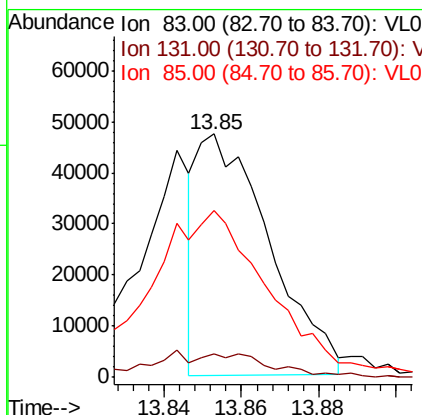
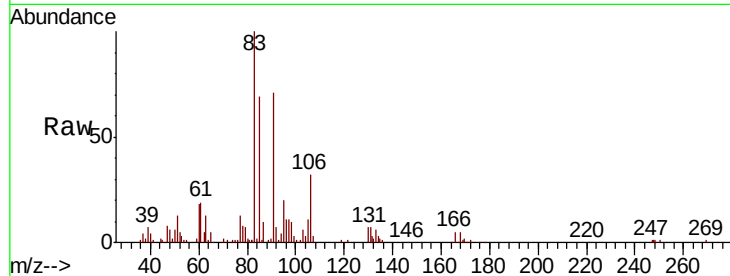




#63  
 1,1,2,2-Tetrachloroethane  
 Concen: 0.234 ppbv  
 RT: 13.85 min Scan# 3395  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

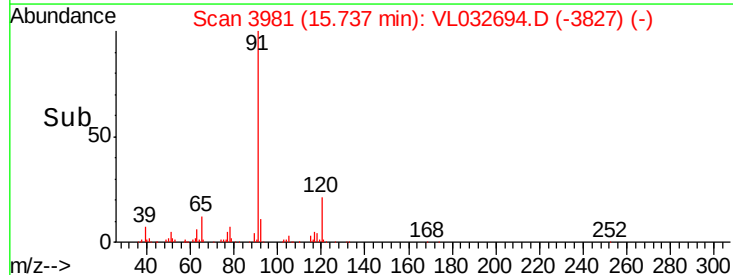
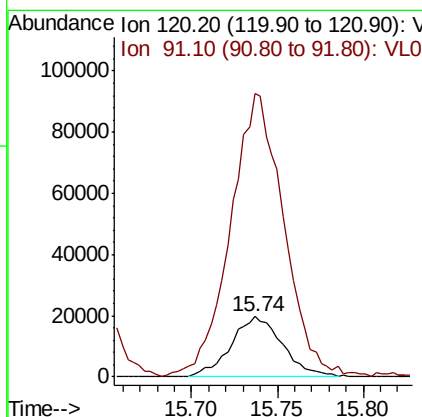
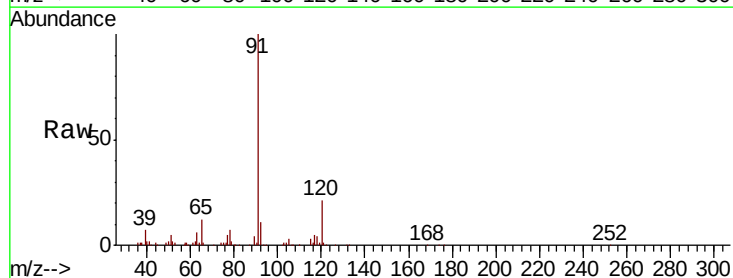
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

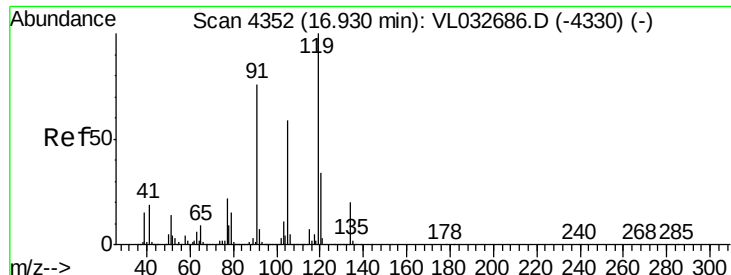
Tgt Ion: 83 Resp: 61061  
 Ion Ratio Lower Upper  
 83 100  
 131 0.0 4.3 12.9#  
 85 117.4 32.3 96.9#



#64  
 n-propylbenzene  
 Concen: 0.351 ppbv  
 RT: 15.74 min Scan# 3981  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion: 120 Resp: 41100  
 Ion Ratio Lower Upper  
 120 100  
 91 486.0 390.2 585.2

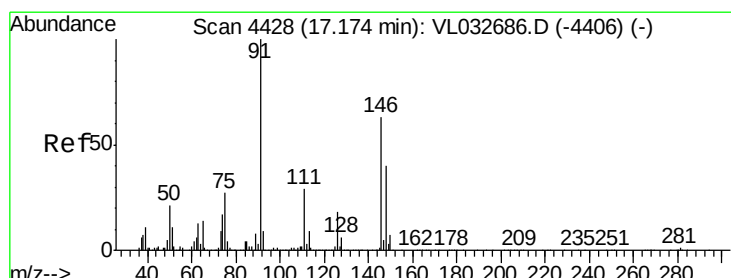
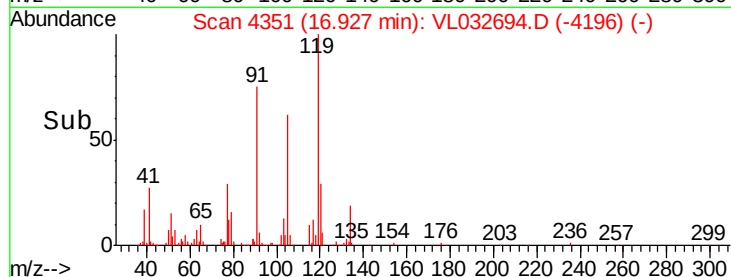
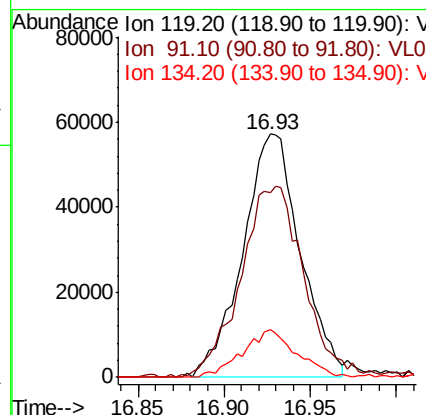
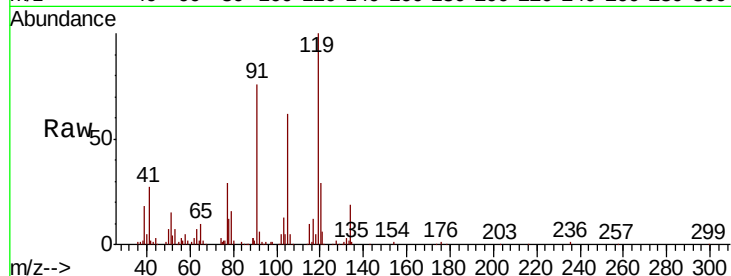




#65  
 tert-Butylbenzene  
 Concen: 0.332 ppbv  
 RT: 16.93 min Scan# 4351  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

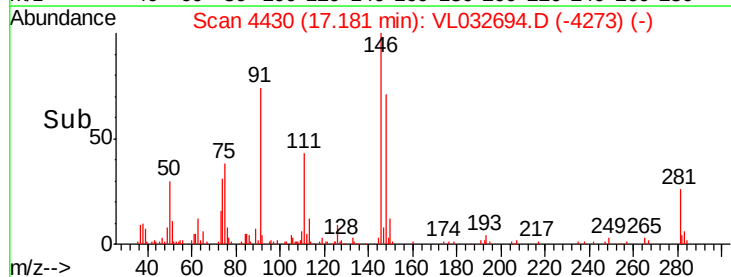
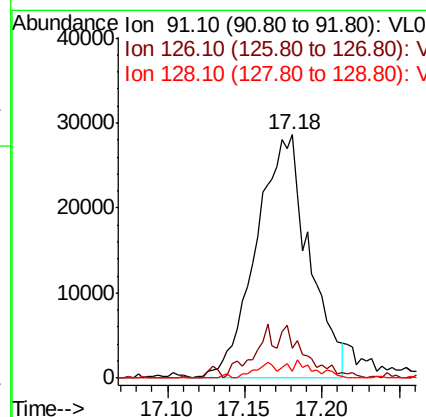
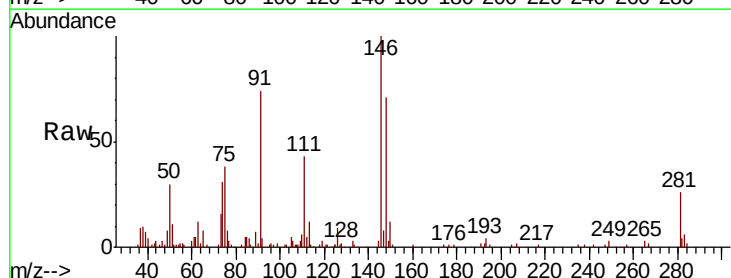
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

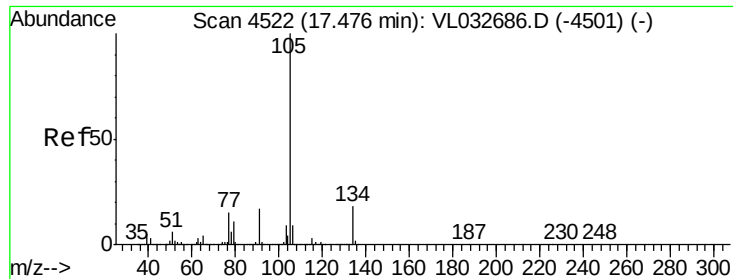
Tgt Ion: 119 Resp: 133206  
 Ion Ratio Lower Upper  
 119 100  
 91 86.7 67.8 101.8  
 134 18.5 15.8 23.8



#66  
 Benzyl Chloride  
 Concen: 0.328 ppbv  
 RT: 17.18 min Scan# 4430  
 Delta R.T. 0.01 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion: 91 Resp: 67891  
 Ion Ratio Lower Upper  
 91 100  
 126 19.9 13.9 20.9  
 128 6.4 4.3 6.5





#67

sec-Butylbenzene

Concen: 0.352 ppbv

RT: 17.48 min Scan# 4522

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

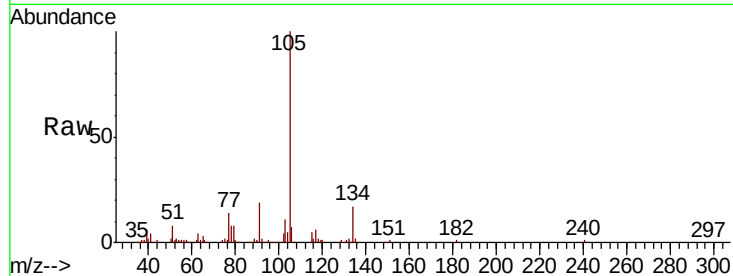
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion:105 Resp: 200792

Ion Ratio Lower Upper

105 100

134 17.5 14.2 21.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V

17.48

100000

80000

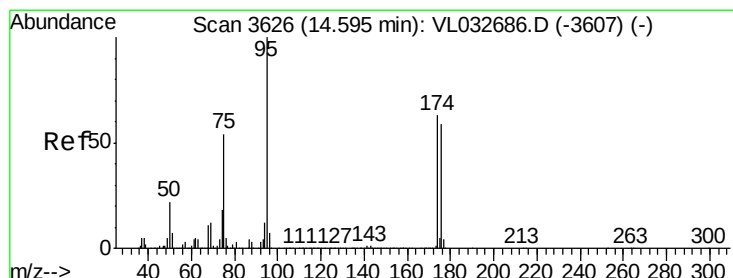
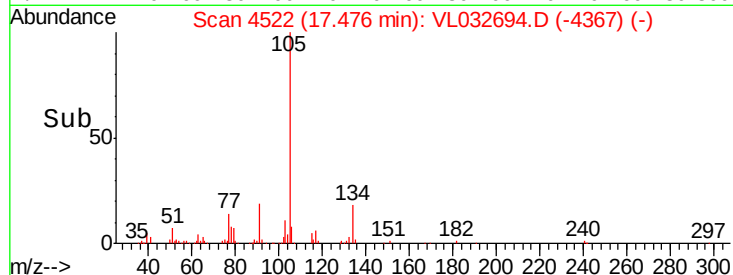
60000

40000

20000

0

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 10.358 ppbv

RT: 14.59 min Scan# 3625

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

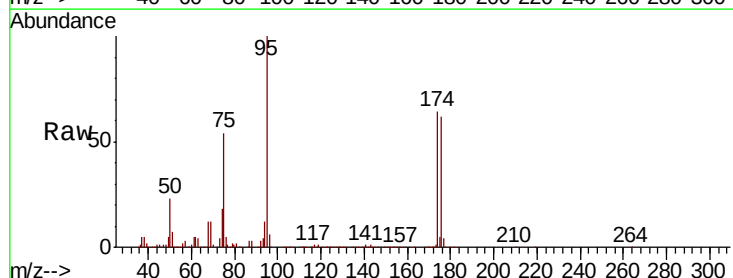
Tgt Ion: 95 Resp: 2570750

Ion Ratio Lower Upper

95 100

174 64.1 46.0 69.0

175 4.6 3.4 5.0



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

14.59

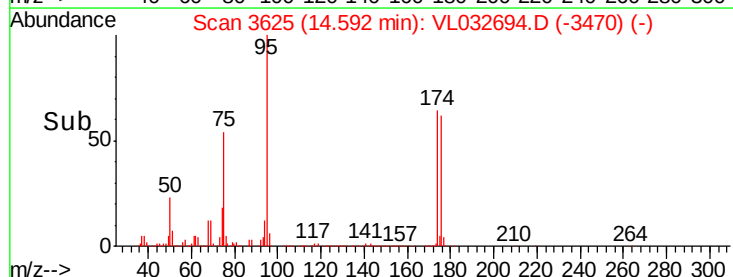
1500000

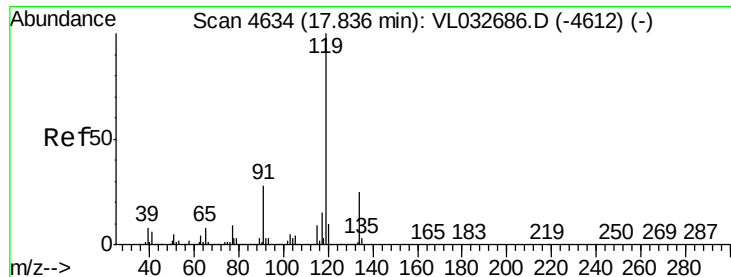
1000000

500000

0

Time-->

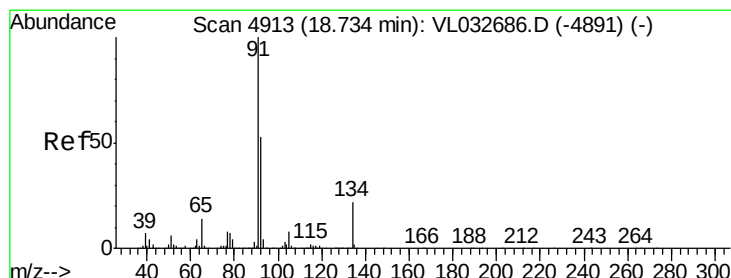
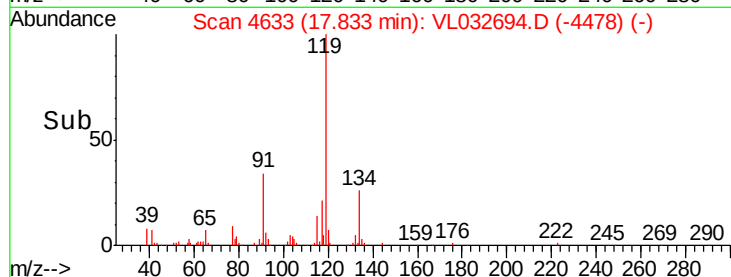
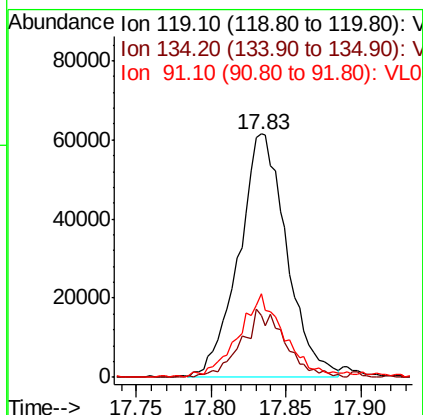
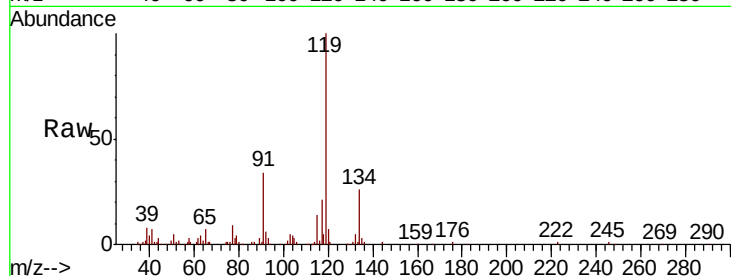




#69  
 p-Isopropyltoluene  
 Concen: 0.300 ppbv  
 RT: 17.83 min Scan# 4633  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

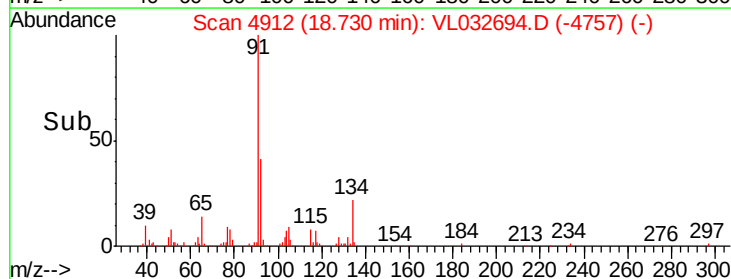
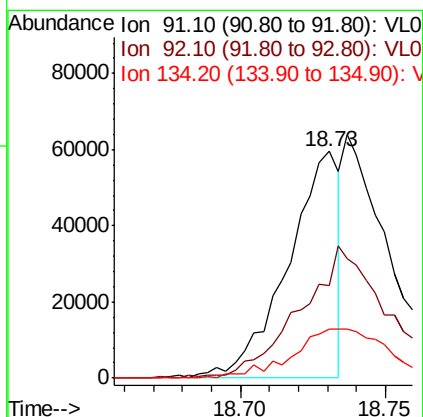
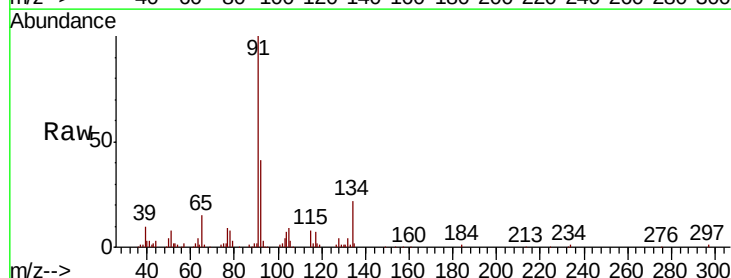
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

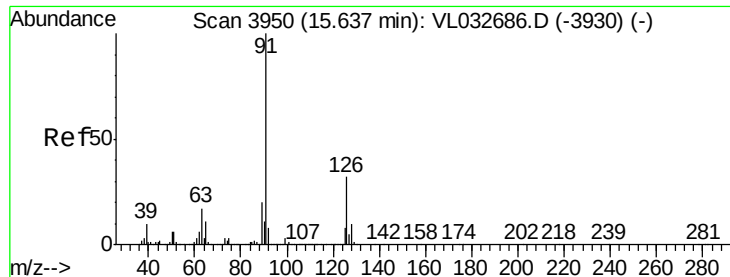
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 119     | 100   |       |       |
| 134     | 25.7  | 20.2  | 30.2  |
| 91      | 35.0  | 24.0  | 36.0  |



#70  
 n-Butylbenzene  
 Concen: 0.157 ppbv  
 RT: 18.73 min Scan# 4912  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 0.0   | 43.0  | 64.4# |
| 134     | 43.1  | 17.0  | 25.6# |





#71

2-Chlorotoluene

Concen: 0.313 ppbv

RT: 15.64 min Scan# 3951

Delta R.T. 0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

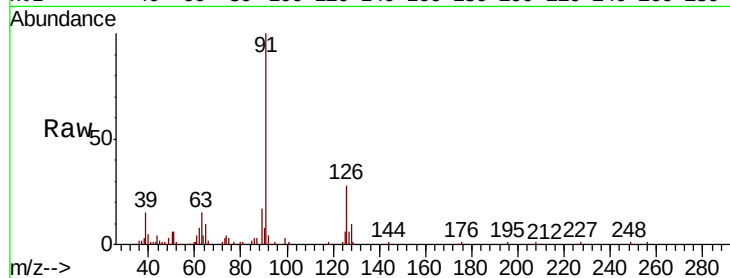
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion: 91 Resp: 104797

Ion Ratio Lower Upper

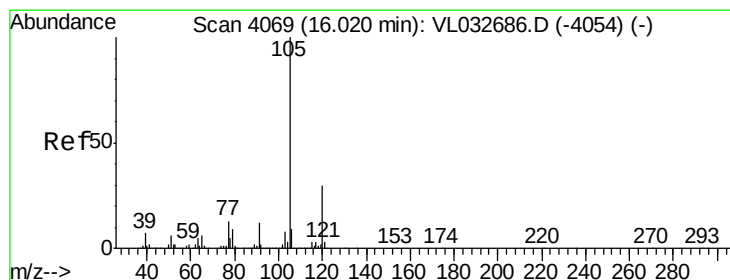
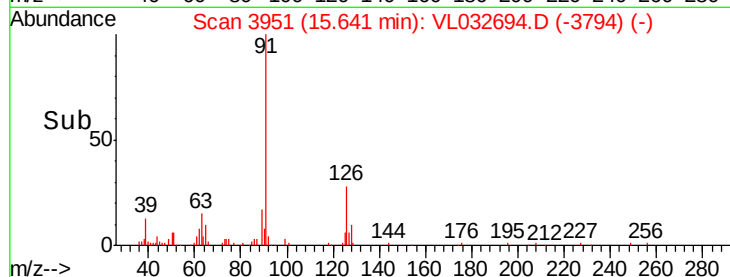
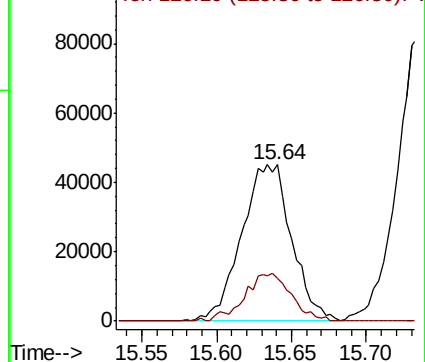
91 100

126 28.5 11.8 47.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 0.179 ppbv

RT: 16.02 min Scan# 4068

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Tgt Ion: 105 Resp: 63387

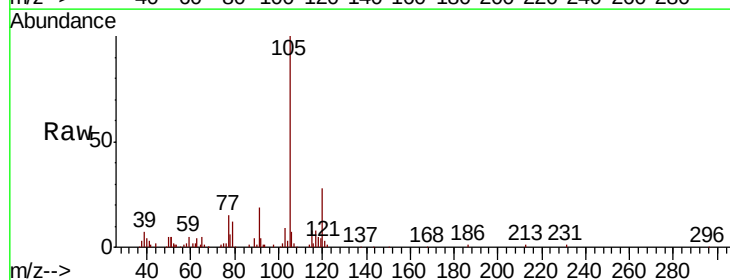
Ion Ratio Lower Upper

105 100

120 48.3 23.7 35.5#

91 0.0 10.4 15.6#

77 24.4 11.4 17.2#

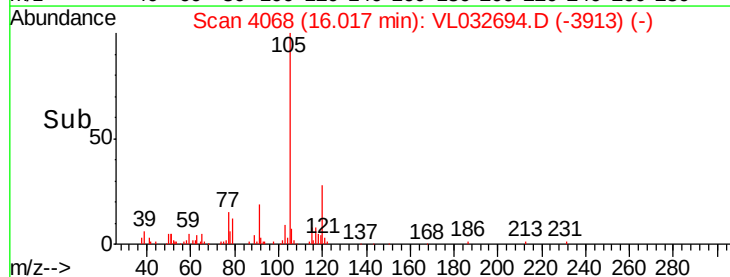
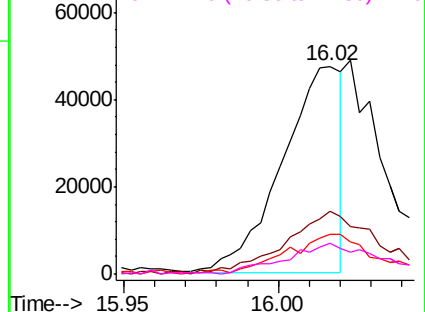


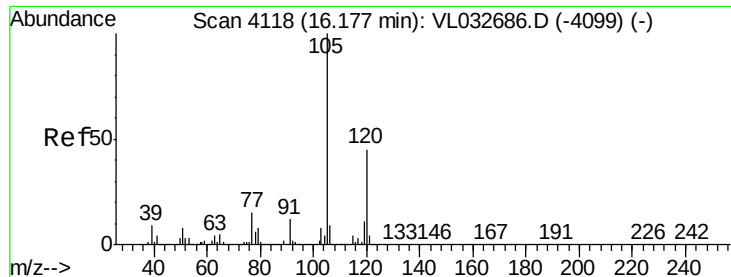
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 0.297 ppbv

RT: 16.17 min Scan# 4117

Delta R.T. -0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

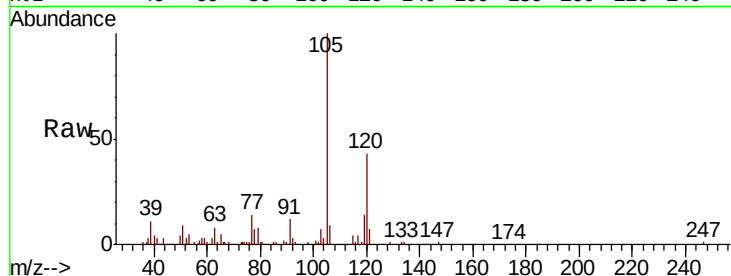
MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion:105 Resp: 102597

Ion Ratio Lower Upper

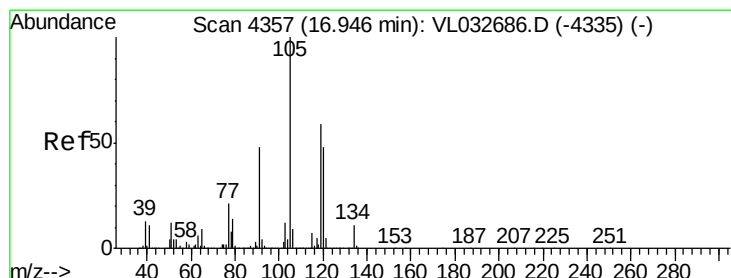
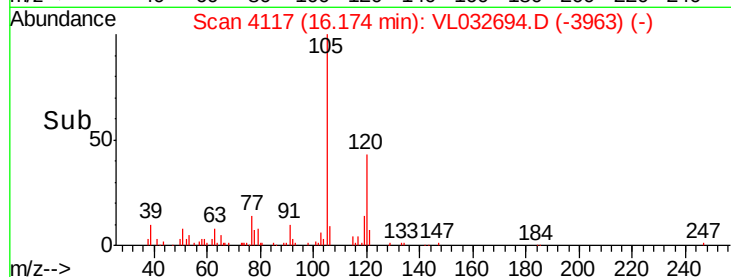
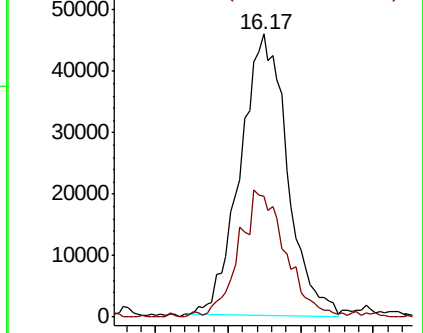
105 100

120 42.6 35.4 53.2



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.333 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. -0.01 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Tgt Ion:105 Resp: 122663

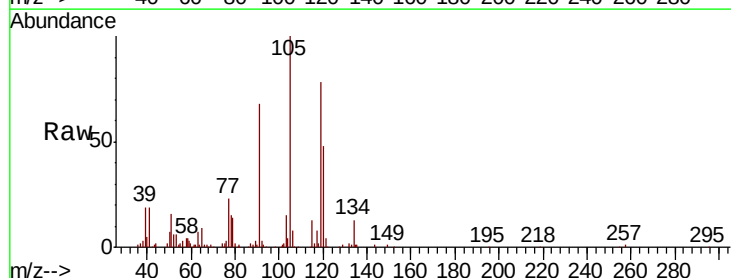
Ion Ratio Lower Upper

105 100

120 46.8 35.8 53.8

91 67.6 33.2 49.8#

77 22.6 16.2 24.4

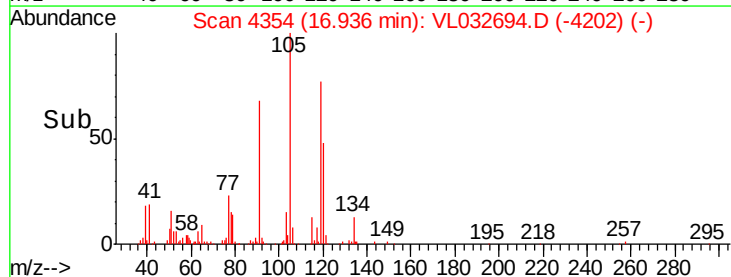
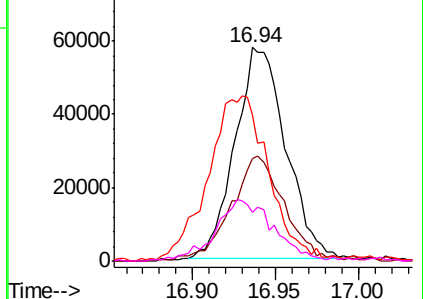


Abundance Ion 105.10 (104.80 to 105.80): V

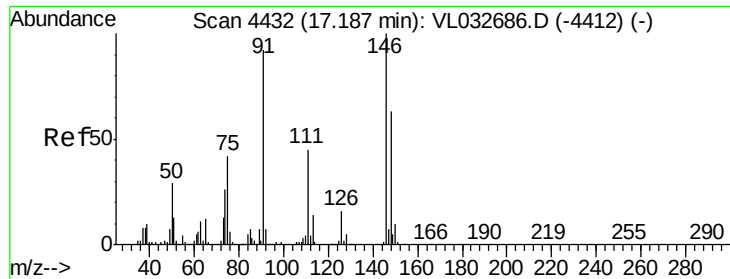
Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



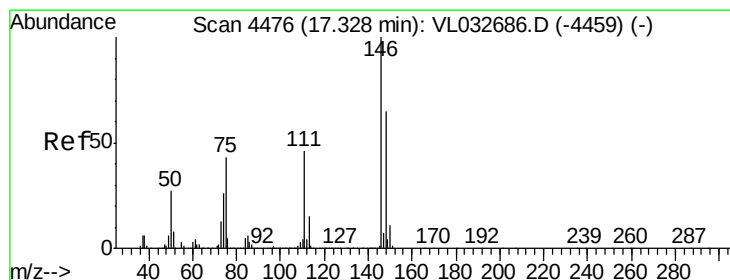
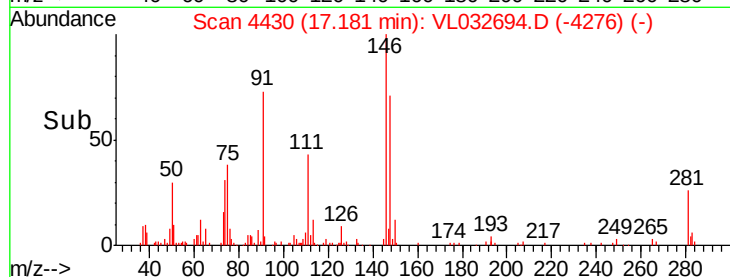
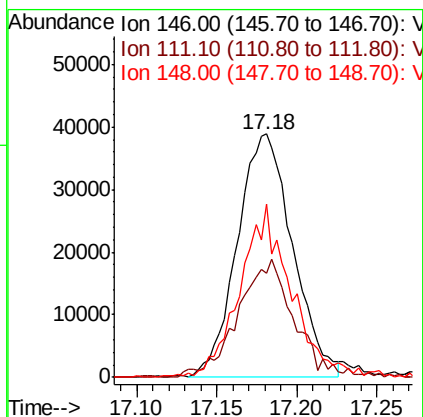
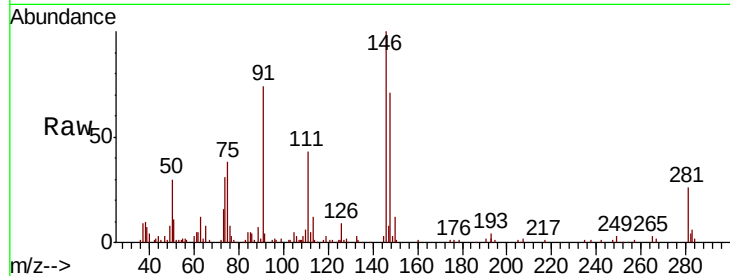




#75  
 1,3-Dichlorobenzene  
 Concen: 0.436 ppbv  
 RT: 17.18 min Scan# 4430  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

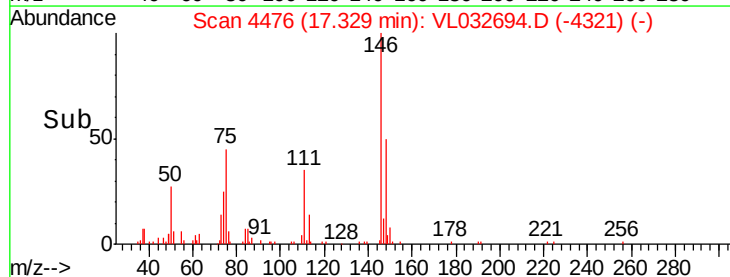
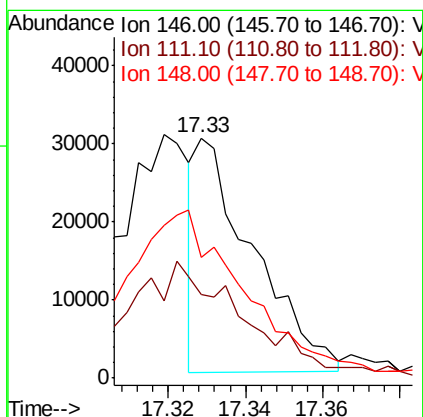
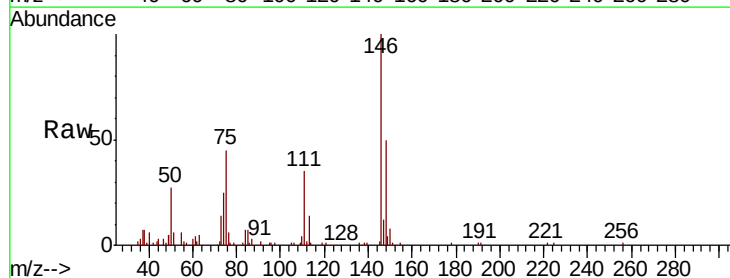
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

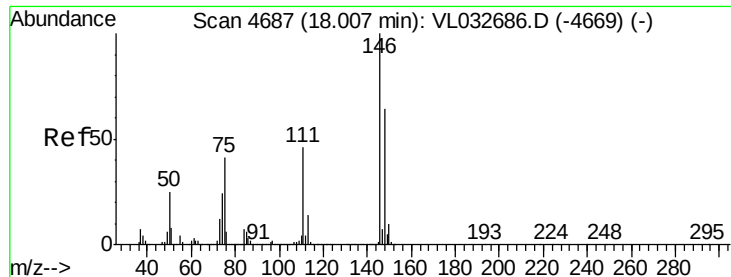
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 49.5  | 24.4  | 73.2  |
| 148     | 65.9  | 31.9  | 95.9  |



#76  
 1,4-Dichlorobenzene  
 Concen: 0.157 ppbv  
 RT: 17.33 min Scan# 4476  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 118.2 | 23.7  | 71.1# |
| 148     | 164.5 | 32.1  | 96.3# |

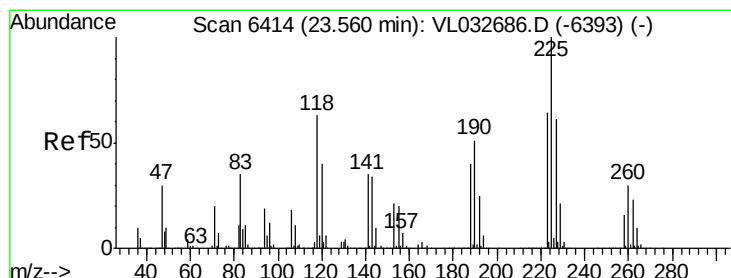
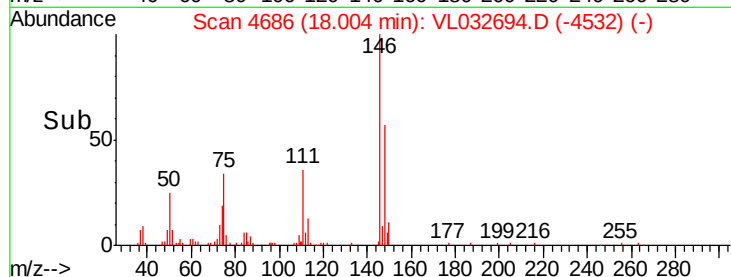
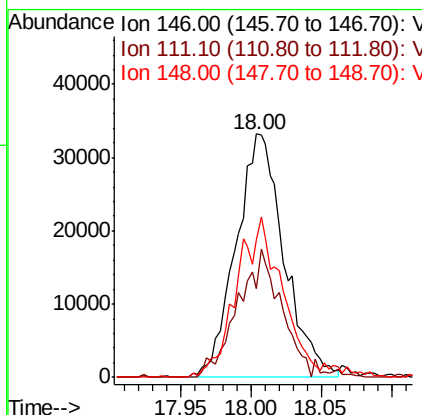
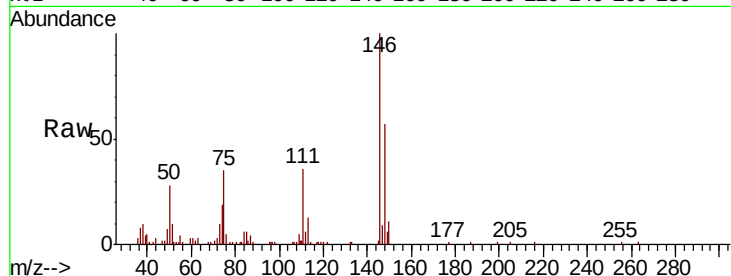




#77  
 1,2-Dichlorobenzene  
 Concen: 0.394 ppbv  
 RT: 18.00 min Scan# 4686  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

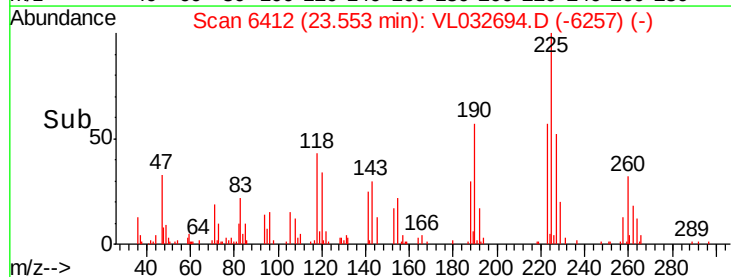
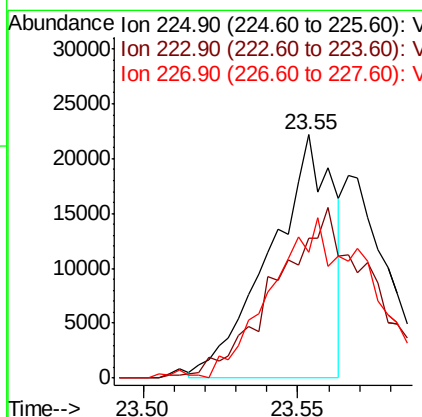
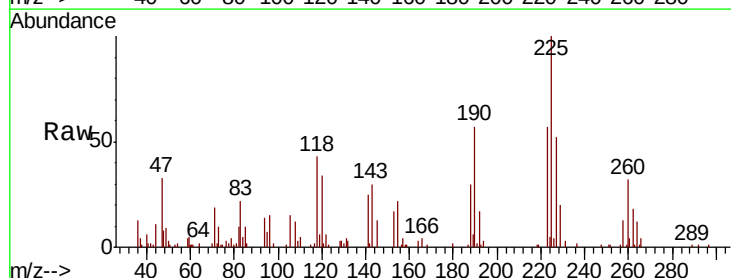
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

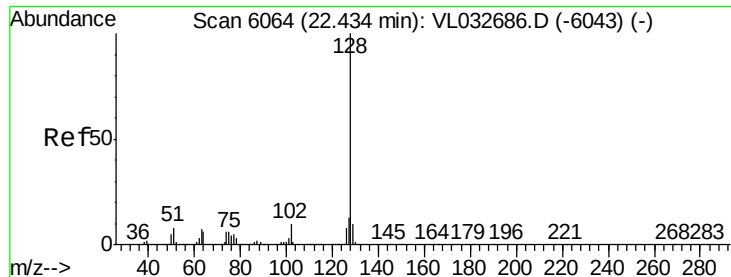
Tgt Ion:146 Resp: 79023  
 Ion Ratio Lower Upper  
 146 100  
 111 48.3 25.3 75.8  
 148 65.2 31.9 95.9



#78  
 Hexachloro-1,3-Butadiene  
 Concen: 0.331 ppbv  
 RT: 23.55 min Scan# 6412  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Tgt Ion:225 Resp: 31404  
 Ion Ratio Lower Upper  
 225 100  
 223 106.1 50.7 76.1#  
 227 103.3 50.7 76.1#





#79

Naphthalene

Concen: 0.111 ppbv

RT: 22.44 min Scan# 6065

Delta R.T. 0.00 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

Instrument :

MSVOA\_L

ClientSampleId :

MDL-AIR-03-QT4-2018 0.4 LOD

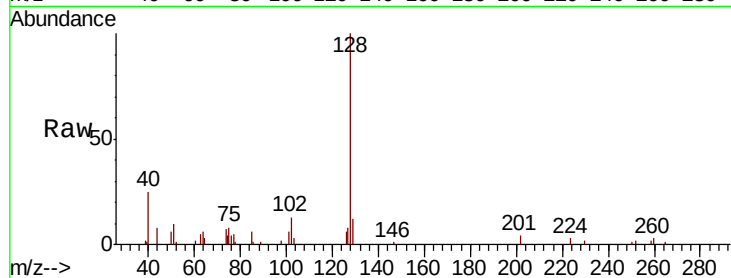
Tgt Ion:128 Resp: 25325

Ion Ratio Lower Upper

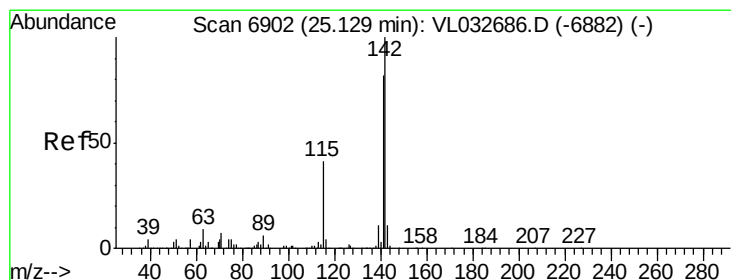
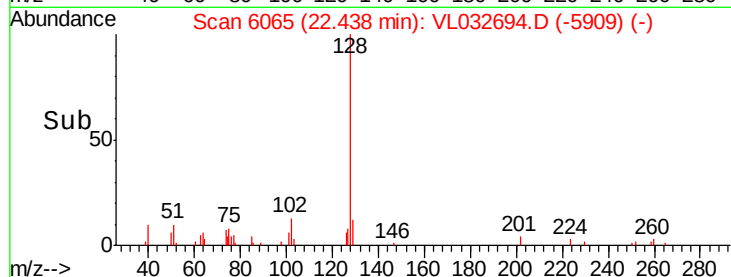
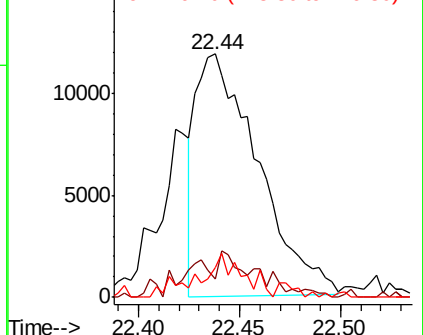
128 100

127 7.9 10.3 15.5#

129 10.8 8.6 13.0



Abundance Ion 128.10 (127.80 to 128.80): V  
Ion 127.10 (126.80 to 127.80): V  
Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.024 ppbv

RT: 25.15 min Scan# 6908

Delta R.T. 0.02 min

Lab File: VL032694.D

Acq: 24 Oct 2018 19:16

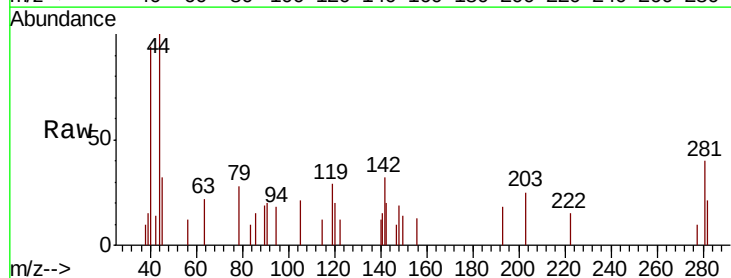
Tgt Ion:142 Resp: 1326

Ion Ratio Lower Upper

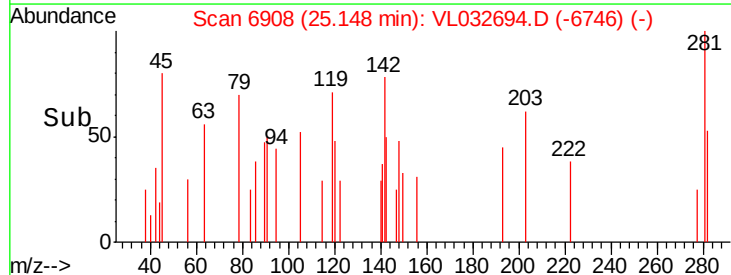
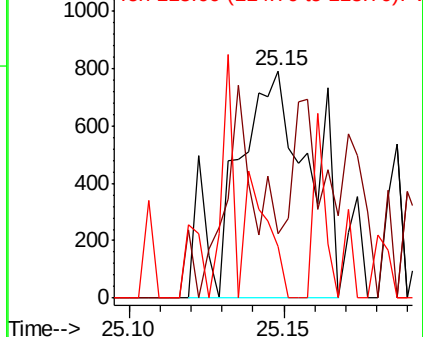
142 100

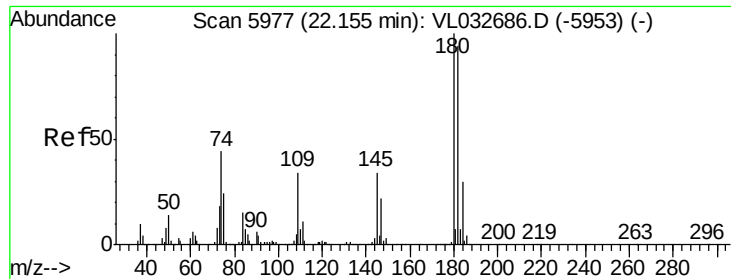
141 117.8 67.5 101.3#

115 57.2 33.5 50.3#



Abundance Ion 142.00 (141.70 to 142.70): V  
Ion 141.00 (140.70 to 141.70): V  
Ion 115.00 (114.70 to 115.70): V





#81  
 1,2,4-Trichlorobenzene  
 Concen: 0.103 ppbv  
 RT: 22.15 min Scan# 5977  
 Delta R.T. -0.00 min  
 Lab File: VL032694.D  
 Acq: 24 Oct 2018 19:16

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 MDL-AIR-03-QT4-2018 0.4 LOD

Tgt Ion:180 Resp: 12213  
 Ion Ratio Lower Upper  
 180 100  
 182 204.3 76.5 114.7#  
 184 71.1 24.7 37.1#

