

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX101218\  
 Data File : VX005317.D  
 Acq On : 13 Oct 2018 02:44  
 Operator : JC/MD  
 Sample : J5393-10DL 100X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 40 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE137-700FT-20181009DL

Quant Time: Oct 13 04:08:59 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X101218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 12 11:28:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 258915   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 371193   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 335796   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 164522   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 150774   | 52.47 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.94% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 120585   | 49.05 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.10%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 448417   | 53.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.26% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 145746   | 45.97 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.94%  |          |

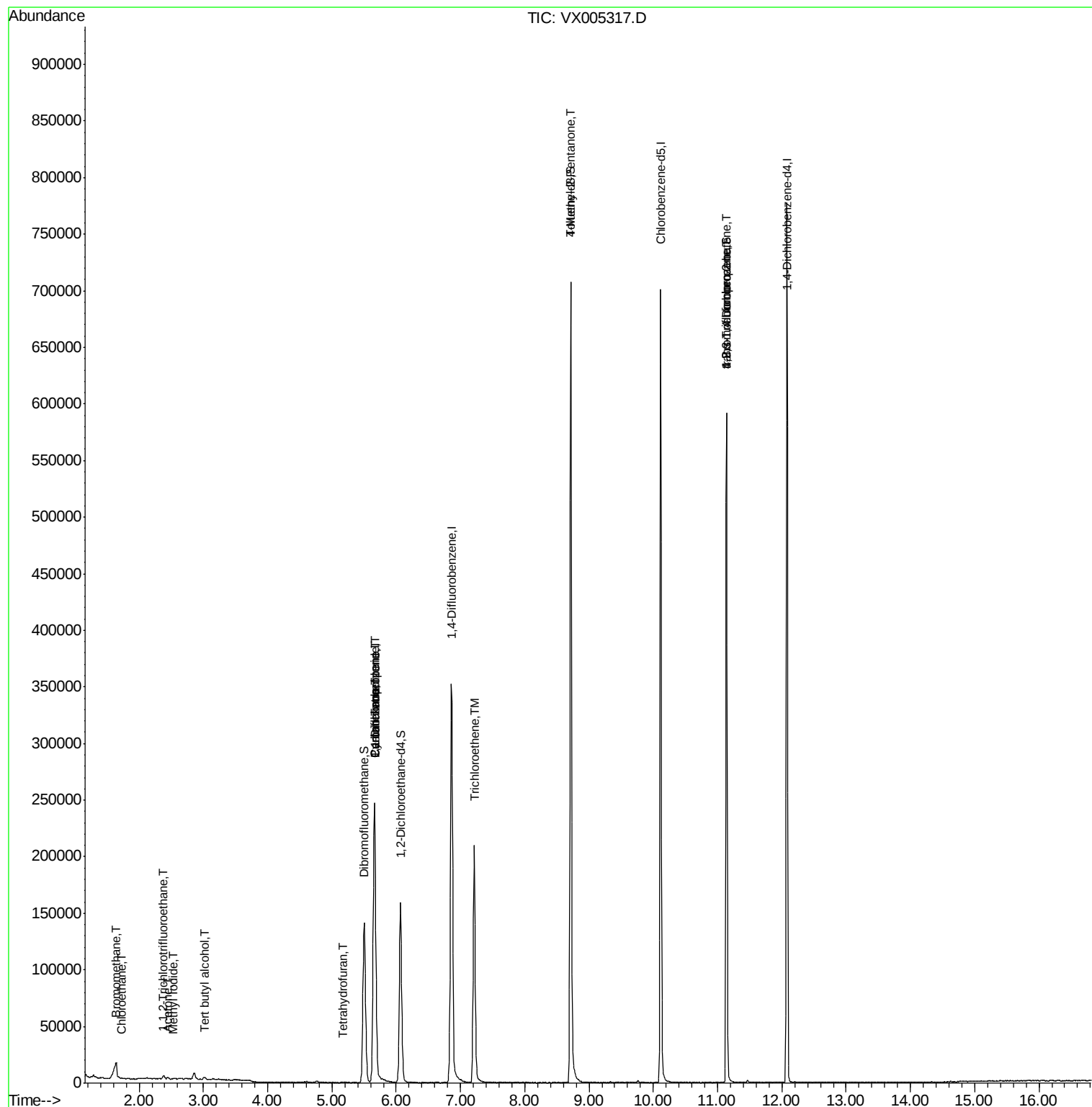
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 676      | 0.982     | ug/l # | 78     |
| 6) Chloroethane                | 1.74  | 64   | 30       | 0.350     | ug/l # | 44     |
| 9) 1,1,2-Trichlorotrifluoroet  | 2.39  | 101  | 884      | 0.386     | ug/l # | 76     |
| 10) Methyl Iodide              | 2.52  | 142  | 240      | 2.580     | ug/l # | 73     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 1520     | 1.875     | ug/l # | 76     |
| 13) Acrolein                   | 2.31  | 56   | 61       | Below Cal | #      | 1      |
| 16) Acetone                    | 2.45  | 43   | 1299     | 0.782     | ug/l   | 88     |
| 20) Methylene Chloride         | 2.85  | 84   | 2501     | Below Cal |        | 94     |
| 29) Tetrahydrofuran            | 5.17  | 42   | 464      | 0.299     | ug/l # | 53     |
| 31) Cyclohexane                | 5.66  | 56   | 4724     | 1.196     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 17371    | 4.832     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 22673    | 6.277     | ug/l # | 16     |
| 44) Trichloroethene            | 7.21  | 130  | 85411    | 30.779    | ug/l   | 91     |
| 51) 4-Methyl-2-Pentanone       | 8.71  | 43   | 2193     | 0.514     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 72439    | 22.699    | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 72439    | 68.971    | ug/l # | 10     |

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

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Quant Time: Oct 13 04:08:59 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X101218W.M  
Quant Title : SW846 8260  
QLast Update : Fri Oct 12 11:28:43 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.00 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

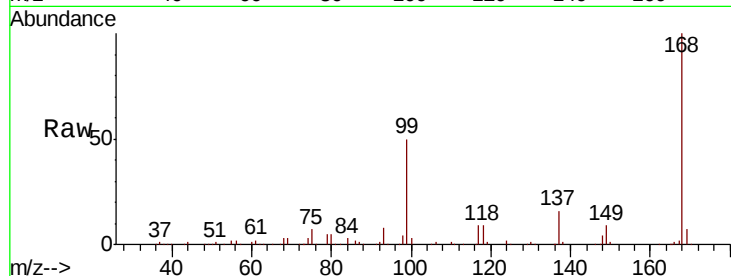
RE137-700FT-20181009DL

Tot Ion:168 Resp: 258915

Ion Ratio Lower Upper

168 100

99 50.1 39.9 59.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

80000

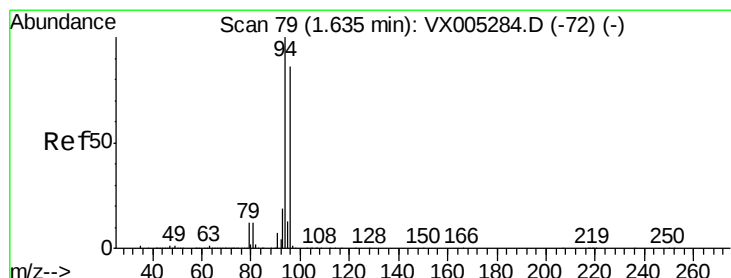
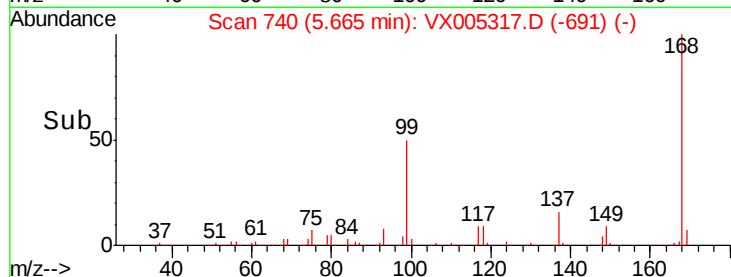
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#5

Bromomethane

Concen: 0.982 ug/l

RT: 1.64 min Scan# 79

Delta R.T. 0.00 min

Lab File: VX005317.D

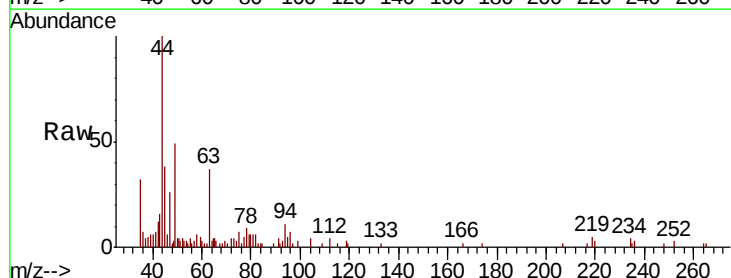
Acq: 13 Oct 2018 02:44

Tgt Ion: 94 Resp: 676

Ion Ratio Lower Upper

94 100

96 71.7 74.5 111.7#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.64

400

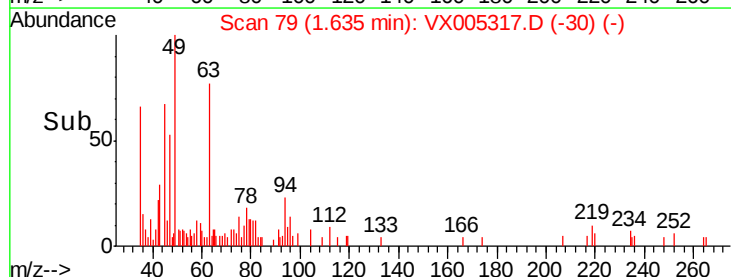
300

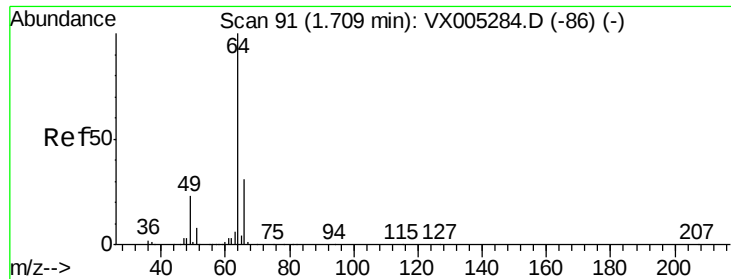
200

100

0

Time--> 1.55 1.60 1.65





#6

Chloroethane

Concen: 0.350 ug/l

RT: 1.74 min Scan# 96

Delta R.T. 0.03 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

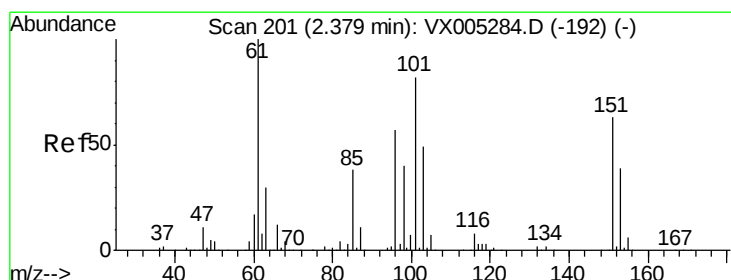
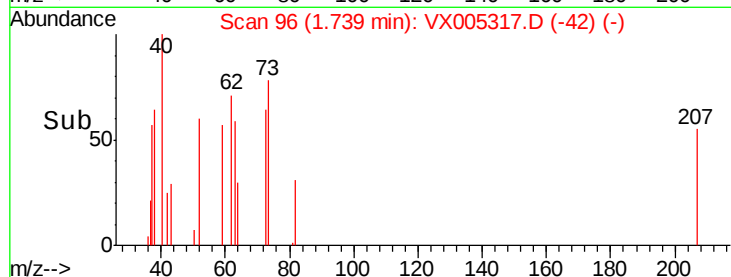
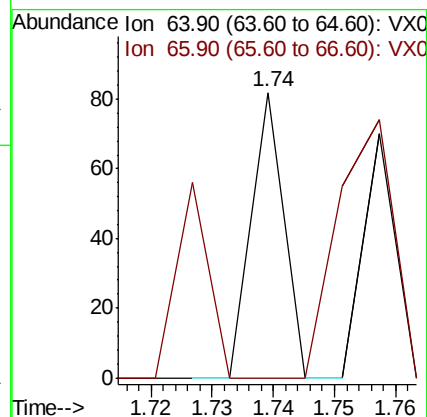
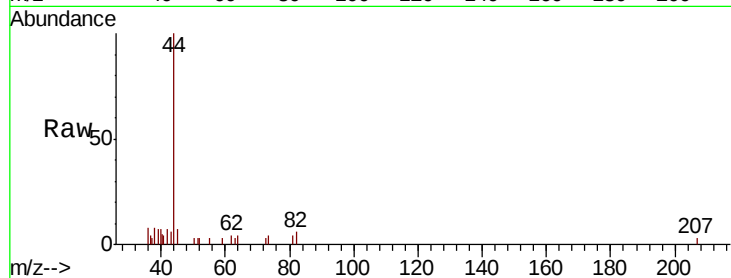
RE137-700FT-20181009DL

Tot Ion: 64 Resp: 30

Ion Ratio Lower Upper

64 100

66 0.0 24.6 36.8#



#9

1,1,2-Trichlorotrifluoroethane

Concen: 0.386 ug/l

RT: 2.39 min Scan# 202

Delta R.T. 0.01 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

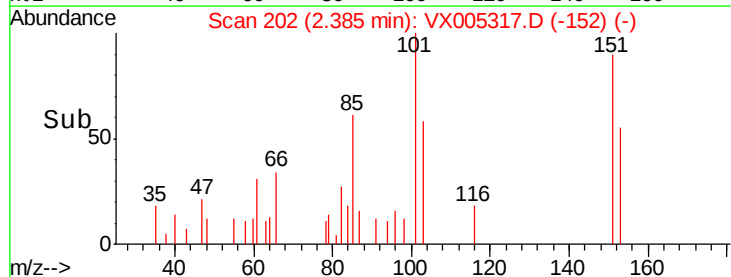
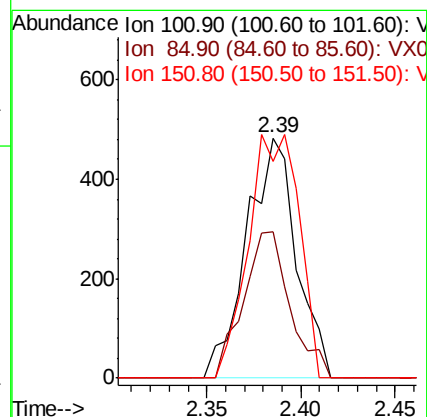
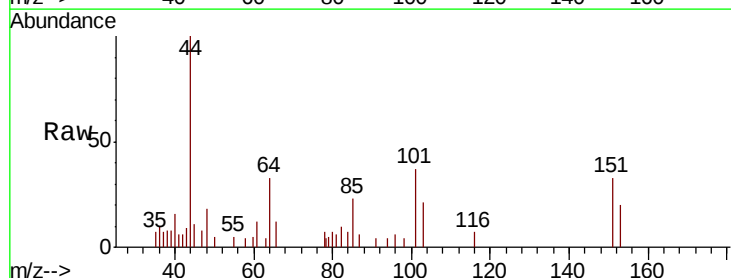
Tgt Ion: 101 Resp: 884

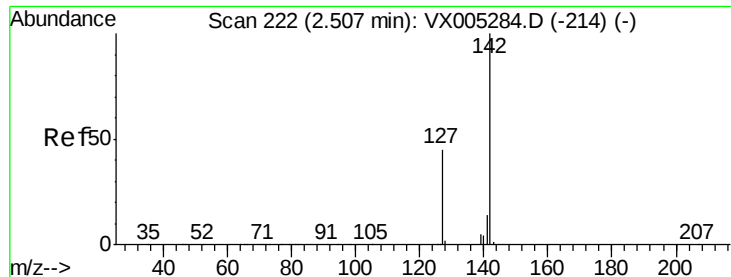
Ion Ratio Lower Upper

101 100

85 57.2 34.2 51.4#

151 103.2 65.0 97.6#





#10

Methyl Iodide

Concen: 2.580 ug/l

RT: 2.52 min Scan# 224

Delta R.T. 0.01 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

RE137-700FT-20181009DL

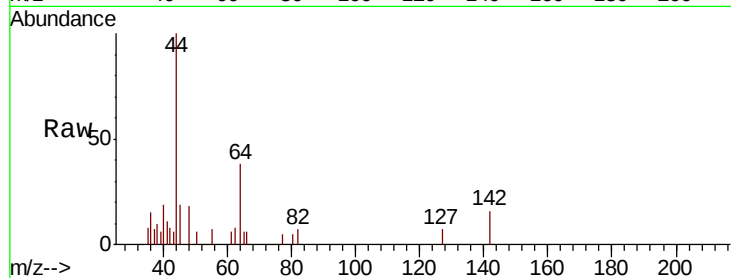
Tot Ion:142 Resp: 240

Ion Ratio Lower Upper

142 100

127 27.1 33.8 50.6#

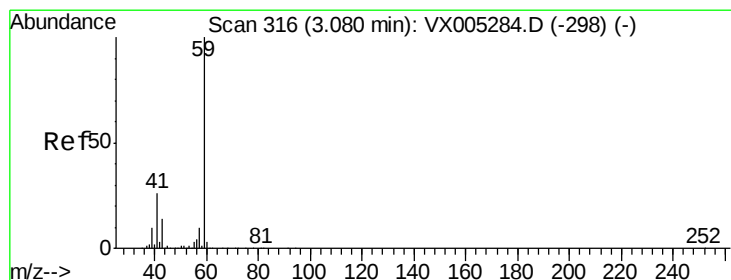
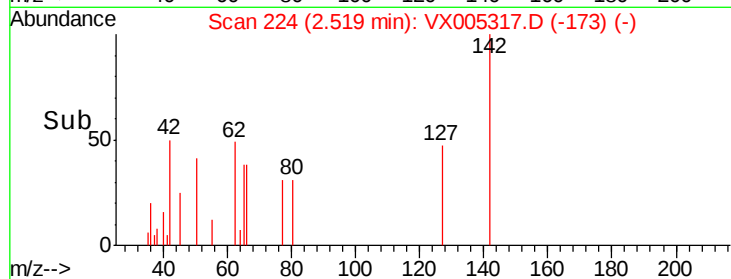
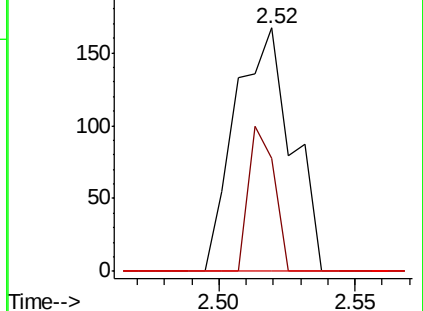
141 0.0 11.4 17.0#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



#11

Tert butyl alcohol

Concen: 1.875 ug/l

RT: 3.02 min Scan# 306

Delta R.T. -0.06 min

Lab File: VX005317.D

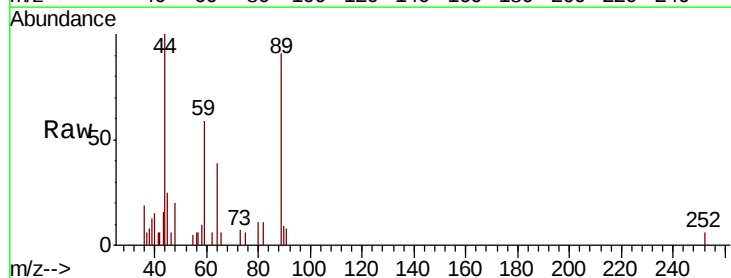
Acq: 13 Oct 2018 02:44

Tgt Ion: 59 Resp: 1520

Ion Ratio Lower Upper

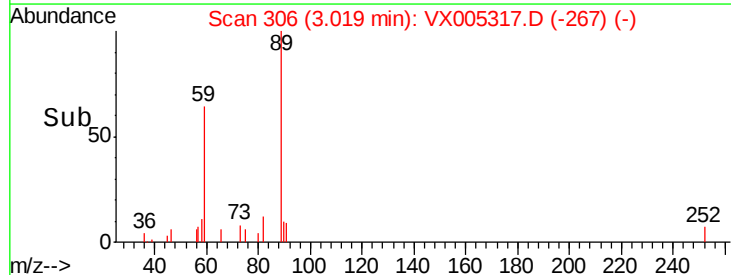
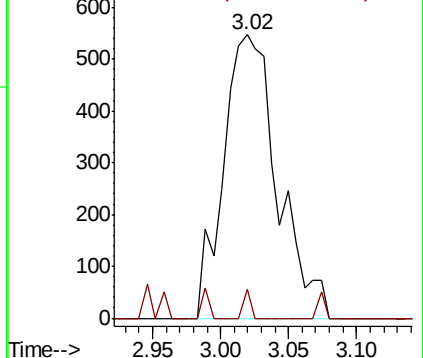
59 100

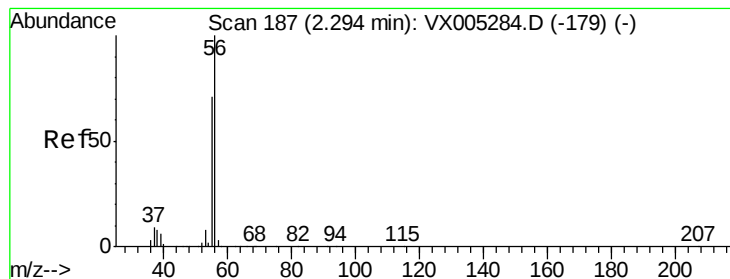
57 1.3 8.2 12.4#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0





#13

Acrolein

Concen: Below Cal

RT: 2.31 min Scan# 189

Delta R.T. 0.01 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

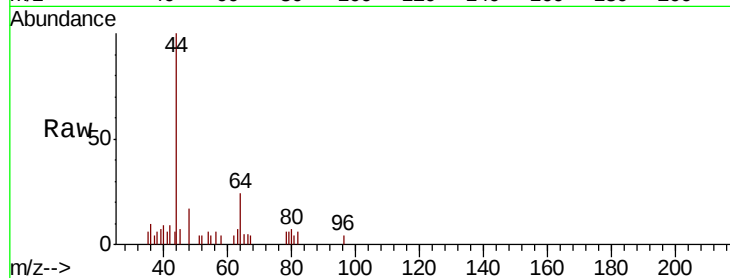
RE137-700FT-20181009DL

Tot Ion: 56 Resp: 61

Ion Ratio Lower Upper

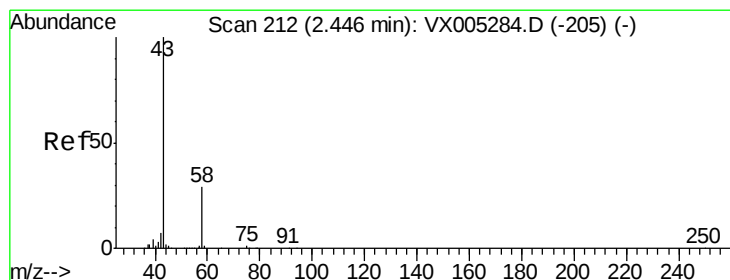
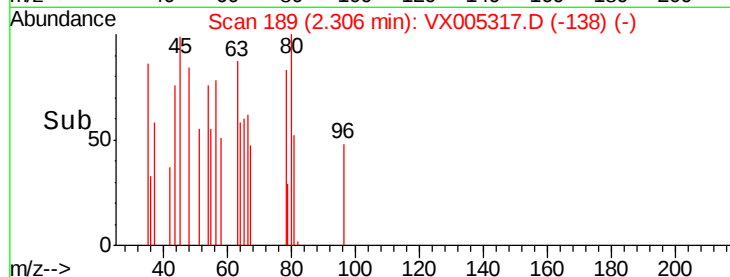
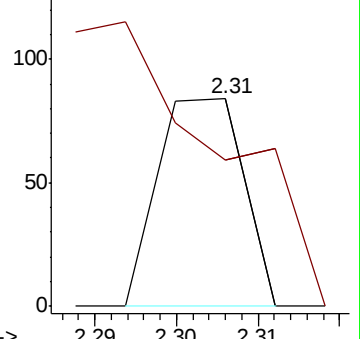
56 100

55 293.4 54.7 82.1#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#16

Acetone

Concen: 0.782 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX005317.D

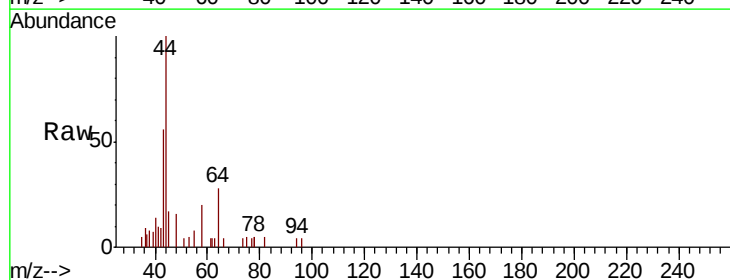
Acq: 13 Oct 2018 02:44

Tgt Ion: 43 Resp: 1299

Ion Ratio Lower Upper

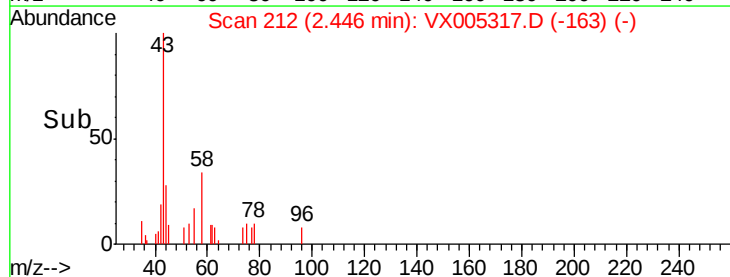
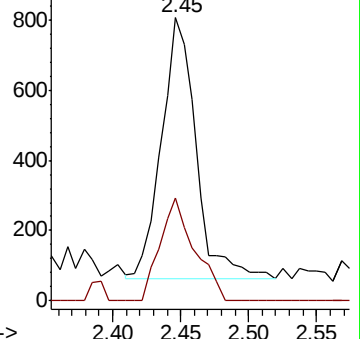
43 100

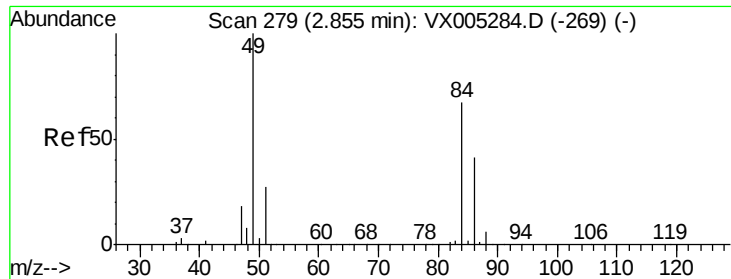
58 39.3 26.2 39.4



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

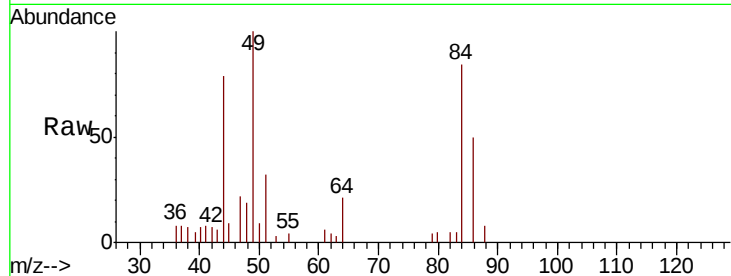




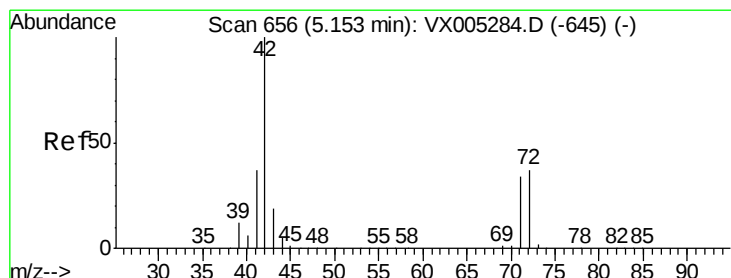
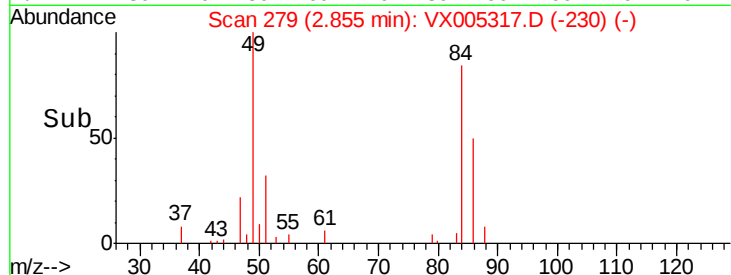
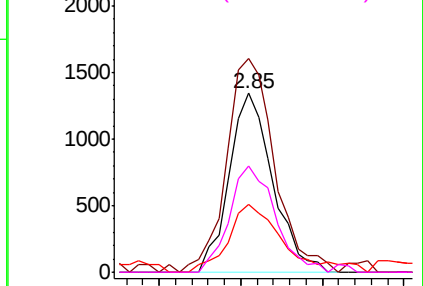
#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.85 min Scan# 279  
Delta R.T. 0.00 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE137-700FT-20181009DL

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 2501  |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 119.3 | 101.2 | 151.8 |
| 51       | 38.2  | 29.5  | 44.3  |
| 86       | 59.3  | 52.3  | 78.5  |

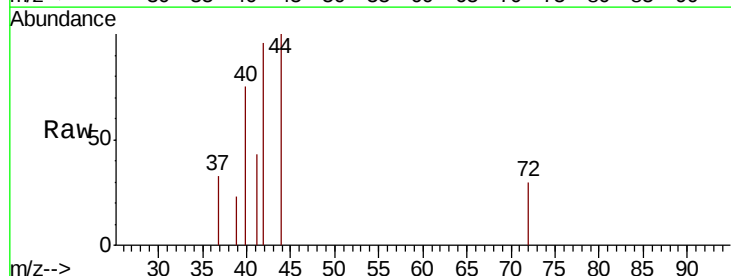


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

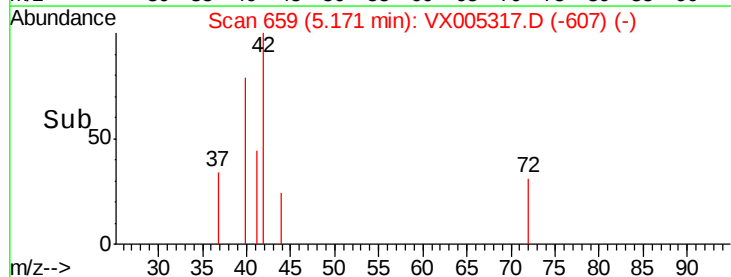
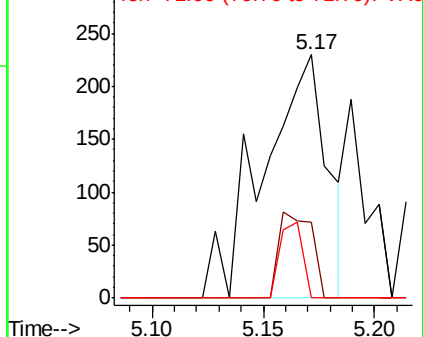


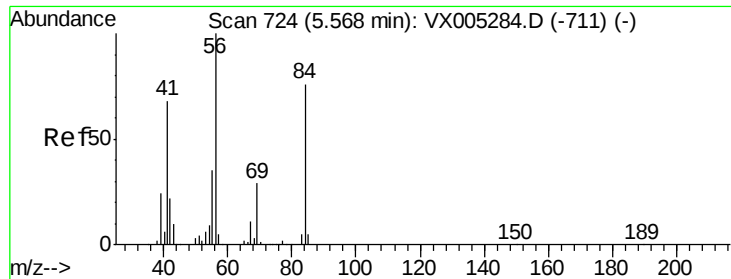
#29  
Tetrahydrofuran  
Concen: 0.299 ug/l  
RT: 5.17 min Scan# 659  
Delta R.T. 0.02 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 464   |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 17.9  | 37.4  | 56.0# |
| 71       | 10.8  | 34.5  | 51.7# |



Abundance Ion 42.00 (41.70 to 42.70): VX0  
Ion 72.00 (71.70 to 72.70): VX0  
Ion 71.00 (70.70 to 71.70): VX0

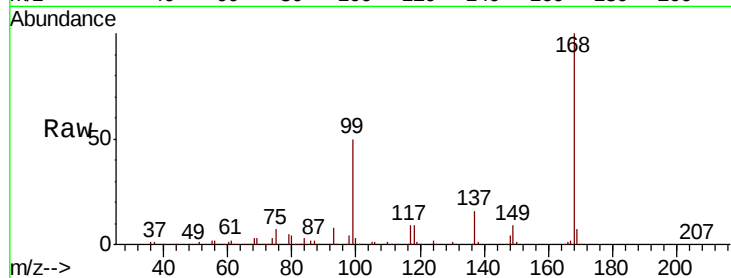




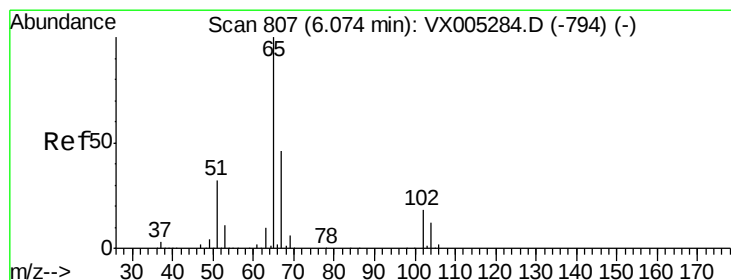
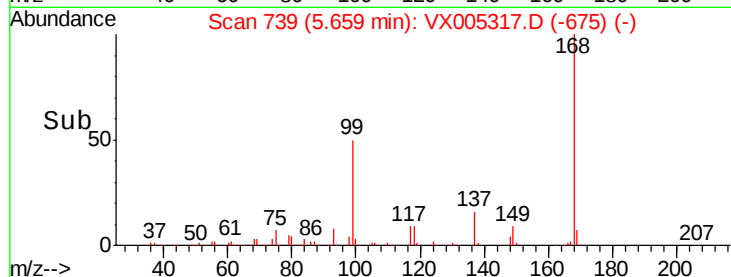
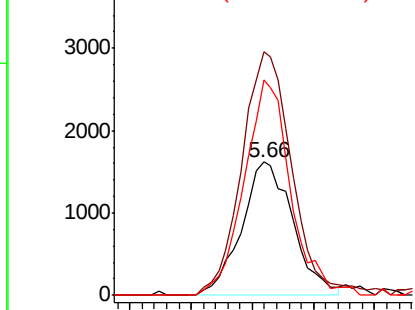
#31  
Cyclohexane  
Concen: 1.196 ug/l  
RT: 5.66 min Scan# 739  
Delta R.T. 0.09 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE137-700FT-20181009DL

Tot Ion: 56 Resp: 4724  
Ion Ratio Lower Upper  
56 100  
69 183.2 25.4 38.2#  
84 162.1 71.4 107.2#

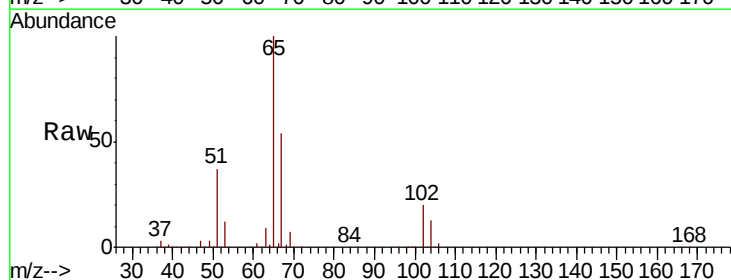


Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0

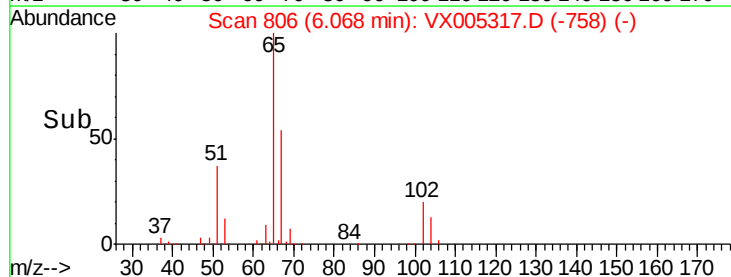
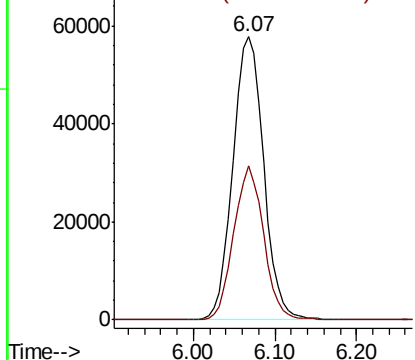


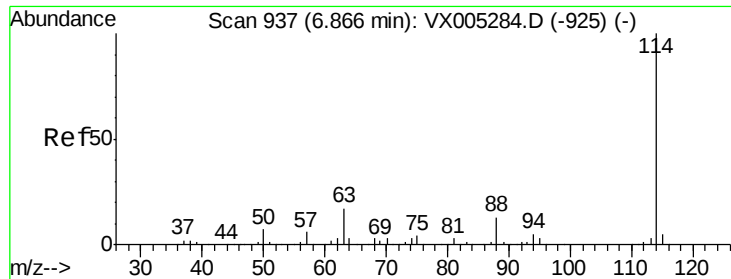
#33  
1,2-Dichloroethane-d4  
Concen: 52.469 ug/l  
RT: 6.07 min Scan# 806  
Delta R.T. -0.01 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Tgt Ion: 65 Resp: 150774  
Ion Ratio Lower Upper  
65 100  
67 53.0 0.0 106.8



Abundance Ion 64.90 (64.60 to 65.60): VX0  
Ion 66.90 (66.60 to 67.60): VX0

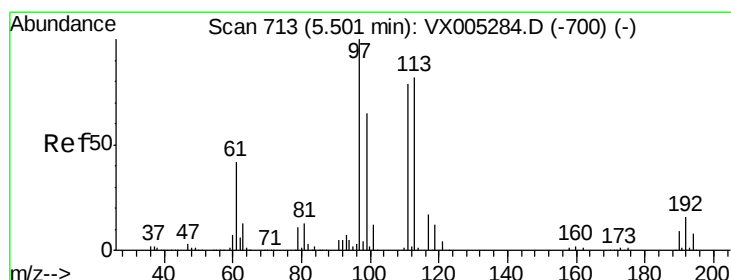
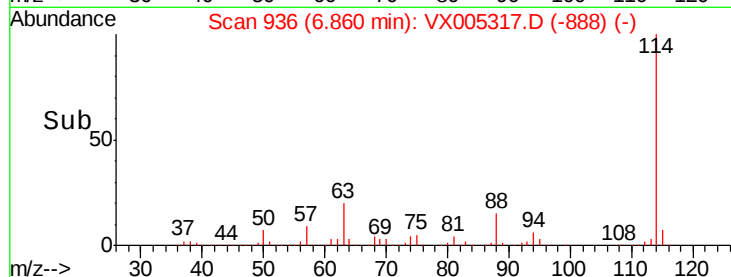
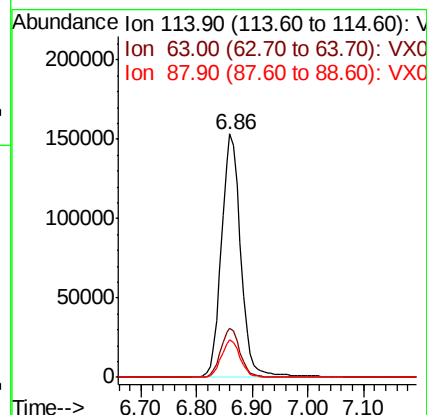
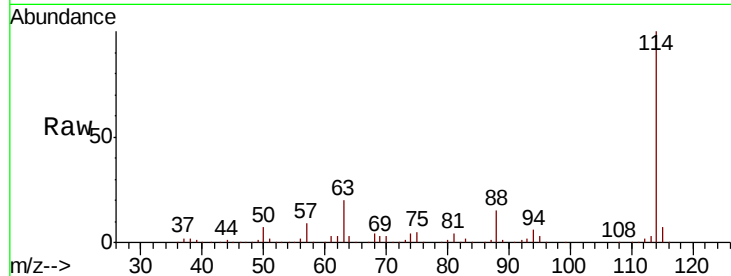




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.86 min Scan# 936  
Delta R.T. -0.01 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

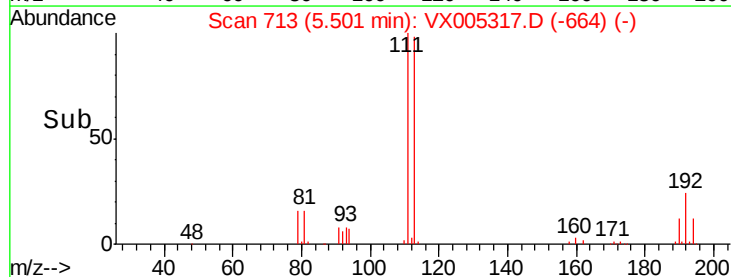
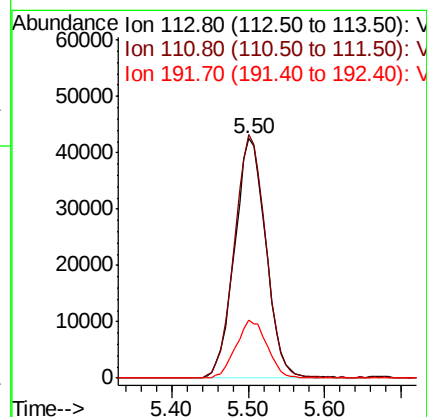
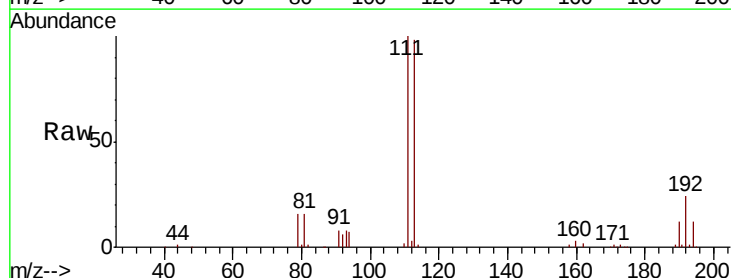
Instrument :  
MSVOA\_X  
ClientSampleId :  
RE137-700FT-20181009DL

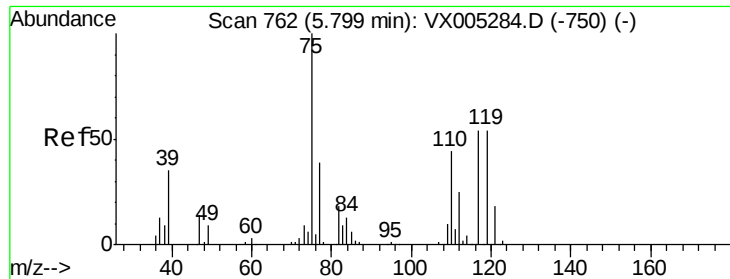
Tot Ion:114 Resp: 371193  
Ion Ratio Lower Upper  
114 100  
63 20.0 0.0 39.0  
88 15.3 0.0 30.4



#35  
Dibromofluoromethane  
Concen: 49.048 ug/l  
RT: 5.50 min Scan# 713  
Delta R.T. -0.00 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Tgt Ion:113 Resp: 120585  
Ion Ratio Lower Upper  
113 100  
111 101.7 82.4 123.6  
192 24.1 19.4 29.2





#36

1,1-Dichloropropene

Concen: 4.832 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

RE137-700FT-20181009DL

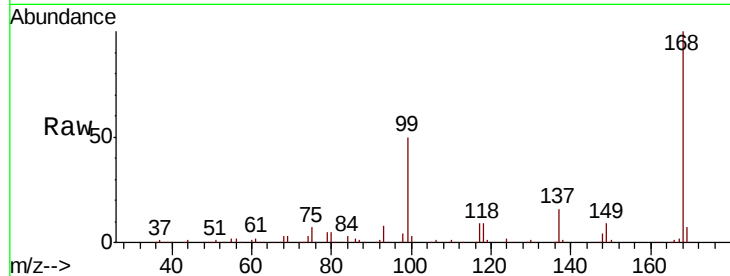
Tot Ion: 75 Resp: 17371

Ion Ratio Lower Upper

75 100

110 9.3 18.0 54.0#

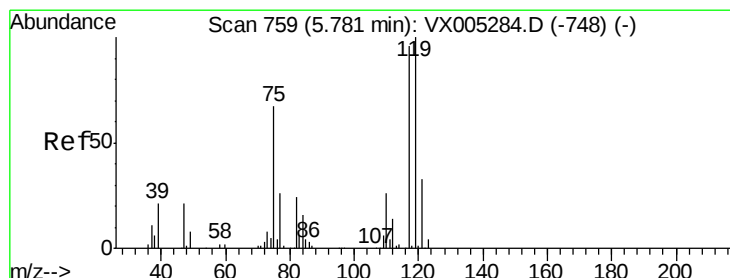
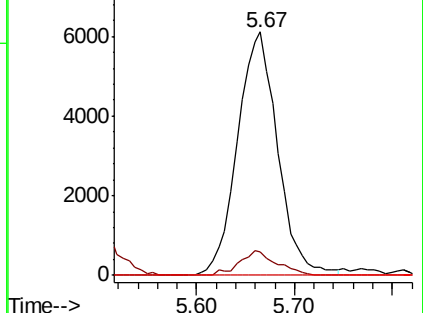
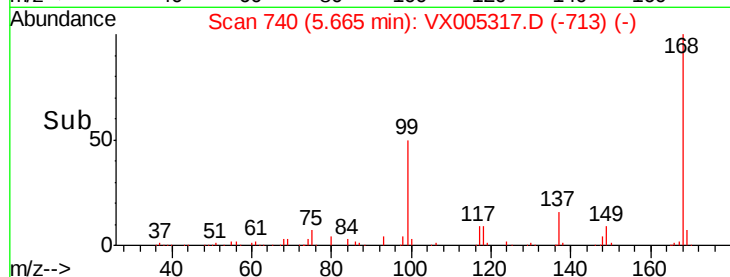
77 0.0 24.6 36.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0



#38

Carbon Tetrachloride

Concen: 6.277 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

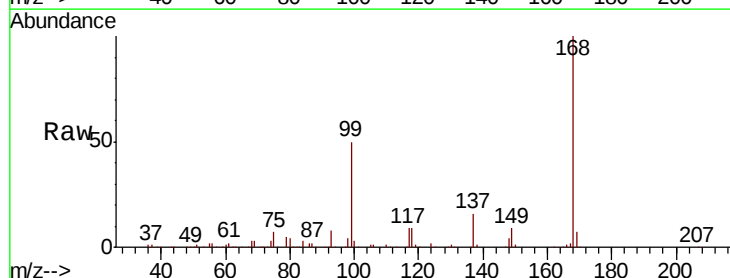
Tgt Ion: 117 Resp: 22673

Ion Ratio Lower Upper

117 100

119 6.2 78.8 118.2#

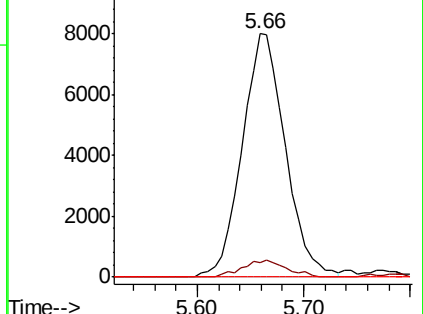
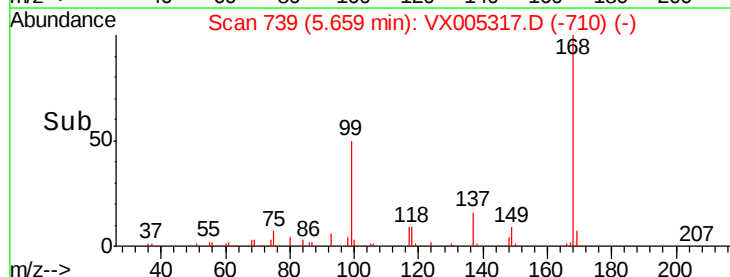
121 0.0 24.9 37.3#

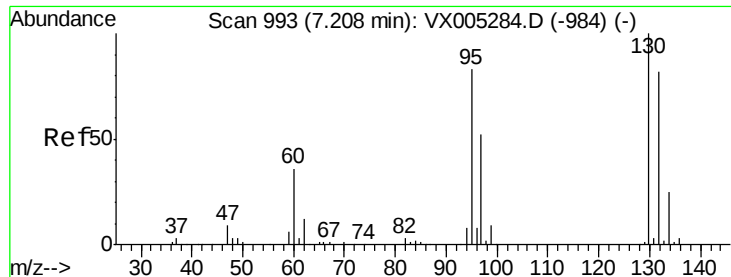


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V

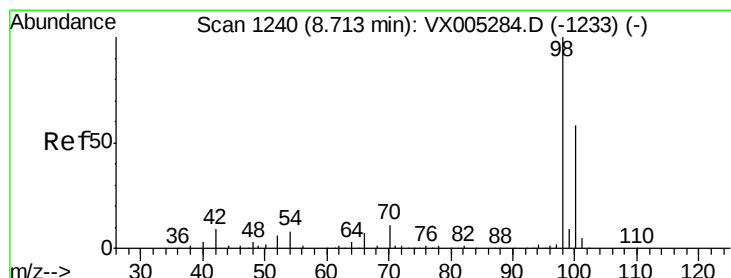
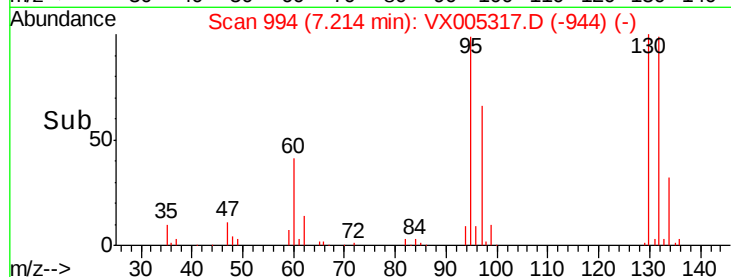
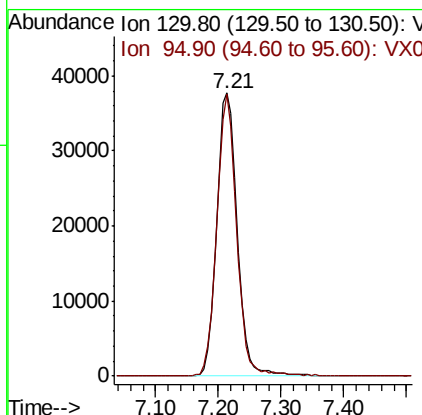
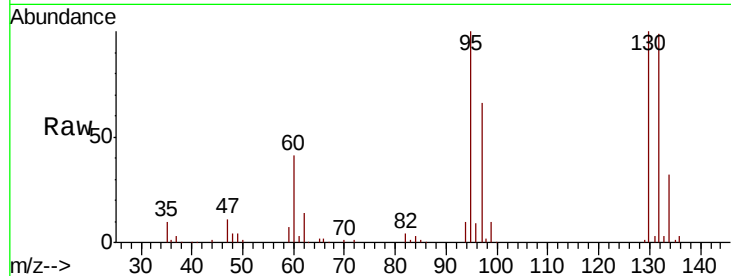




#44  
 Trichloroethene  
 Concen: 30.779 ug/l  
 RT: 7.21 min Scan# 994  
 Delta R.T. 0.01 min  
 Lab File: VX005317.D  
 Acq: 13 Oct 2018 02:44

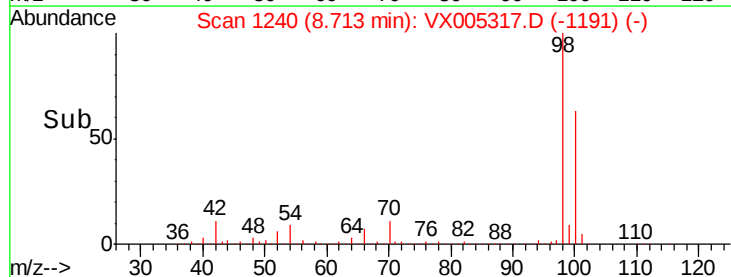
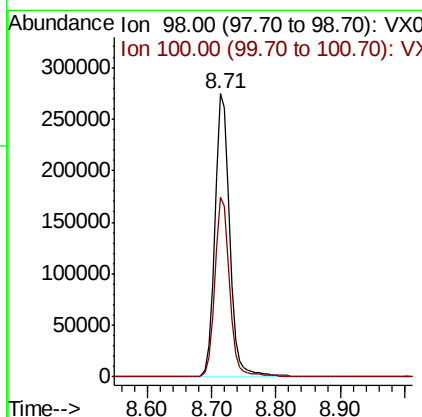
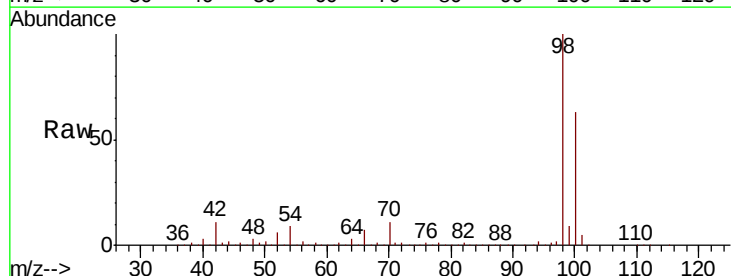
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RE137-700FT-20181009DL

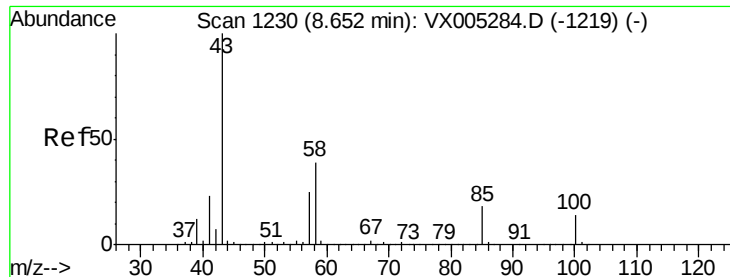
Tot Ion:130 Resp: 85411  
 Ion Ratio Lower Upper  
 130 100  
 95 99.7 0.0 181.6



#50  
 Toluene-d8  
 Concen: 53.129 ug/l  
 RT: 8.71 min Scan# 1240  
 Delta R.T. -0.00 min  
 Lab File: VX005317.D  
 Acq: 13 Oct 2018 02:44

Tgt Ion: 98 Resp: 448417  
 Ion Ratio Lower Upper  
 98 100  
 100 63.2 52.9 79.3





#51

4-Methyl-2-Pentanone

Concen: 0.514 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.06 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

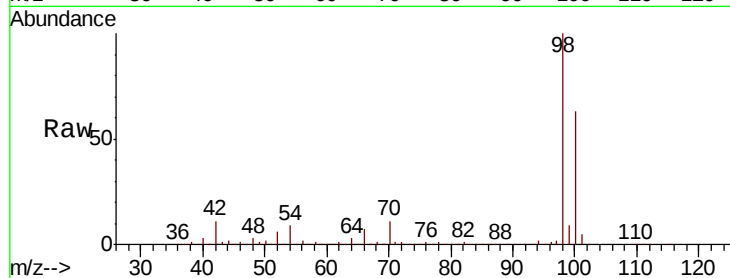
RE137-700FT-20181009DL

Tot Ion: 43 Resp: 2193

Ion Ratio Lower Upper

43 100

58 152.5 33.1 49.7#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2500

2000

1500

1000

500

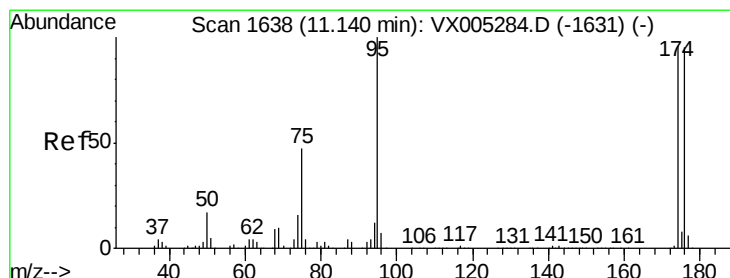
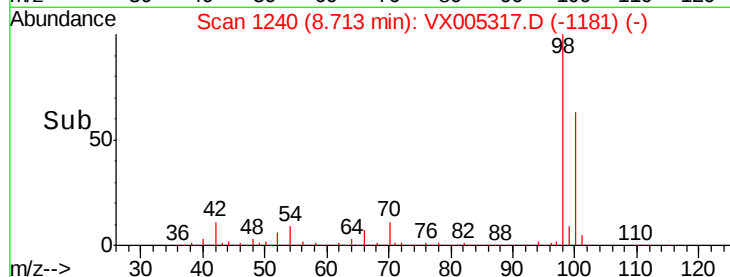
0

8.65

8.70

8.75

Time-->



#62

4-Bromofluorobenzene

Concen: 45.967 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. -0.00 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

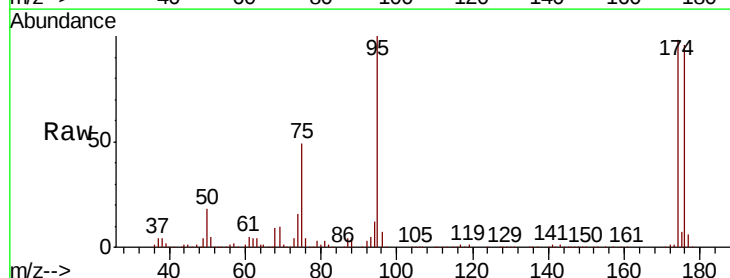
Tgt Ion: 95 Resp: 145746

Ion Ratio Lower Upper

95 100

174 95.7 0.0 185.2

176 92.3 0.0 178.6



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

150000

100000

50000

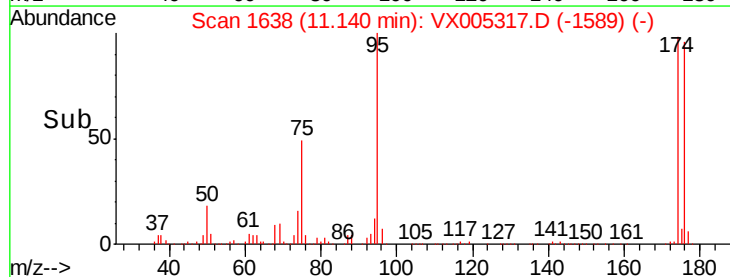
0

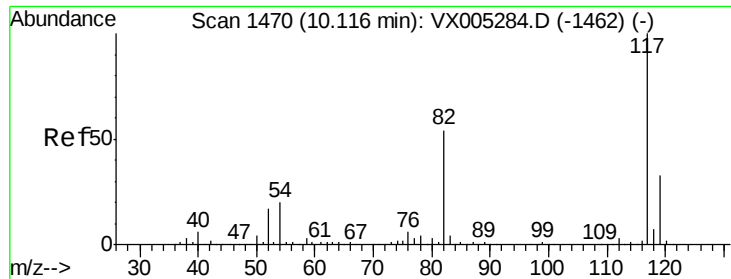
11.10

11.20

11.30

Time-->

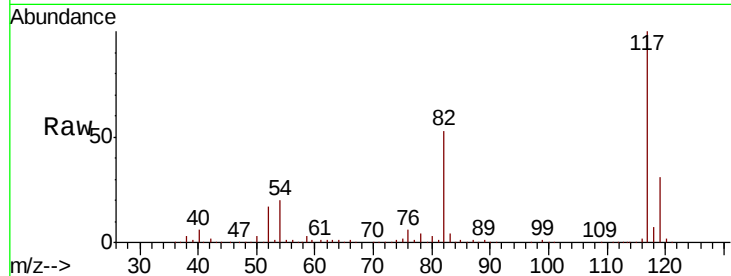




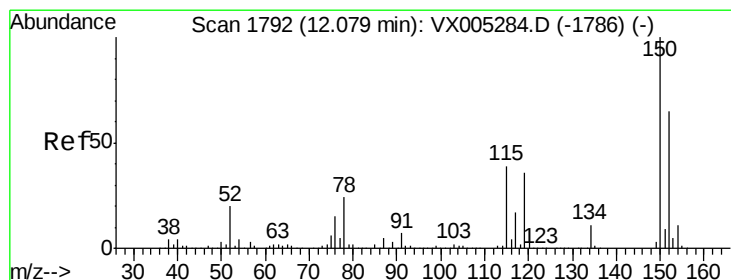
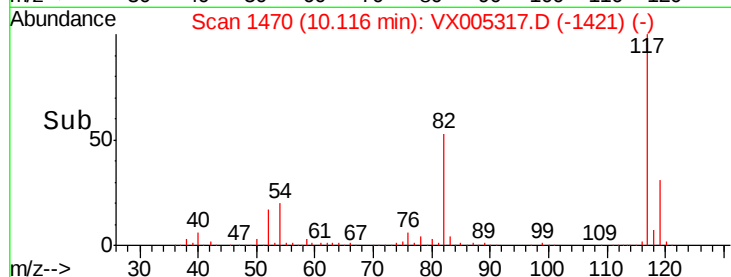
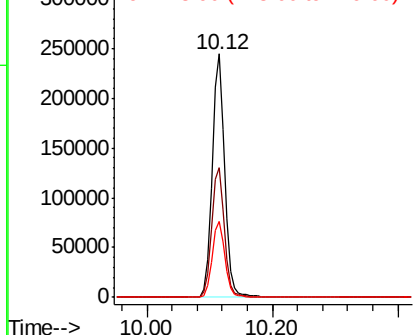
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.12 min Scan# 1470  
Delta R.T. -0.00 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Instrument :  
MSVOA\_X  
ClientSampleId :  
RE137-700FT-20181009DL

Tot Ion:117 Resp: 335796  
Ion Ratio Lower Upper  
117 100  
82 53.2 47.8 71.6  
119 31.1 29.3 43.9

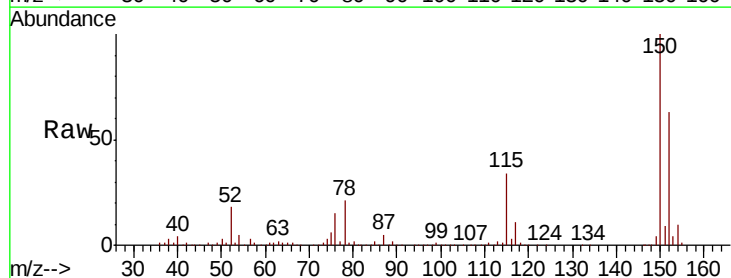


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

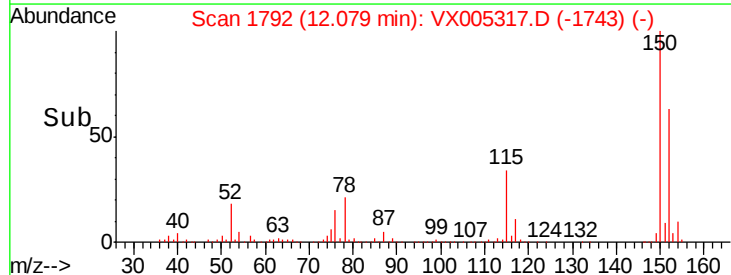
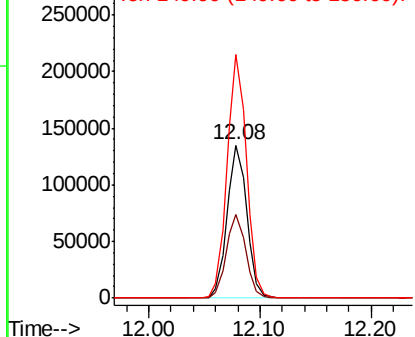


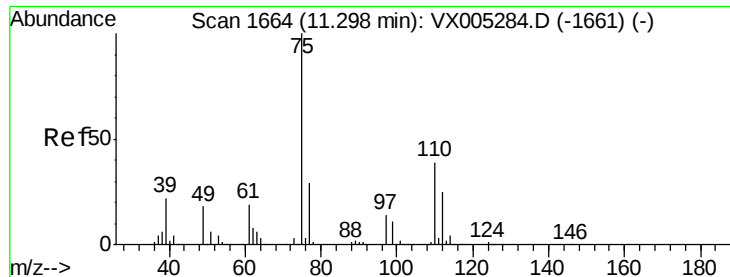
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX005317.D  
Acq: 13 Oct 2018 02:44

Tgt Ion:152 Resp: 164522  
Ion Ratio Lower Upper  
152 100  
115 54.5 39.0 117.0  
150 157.5 0.0 351.0



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 22.699 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. -0.16 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

Instrument :

MSVOA\_X

ClientSampleId :

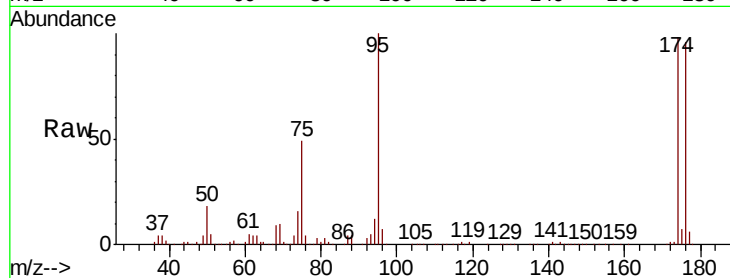
RE137-700FT-20181009DL

Tot Ion: 75 Resp: 72439

Ion Ratio Lower Upper

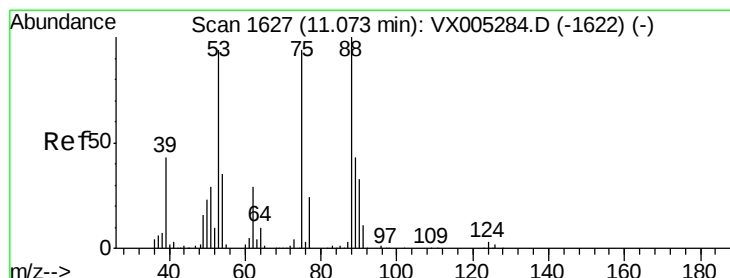
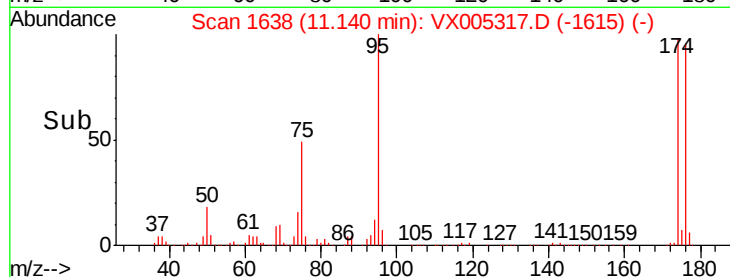
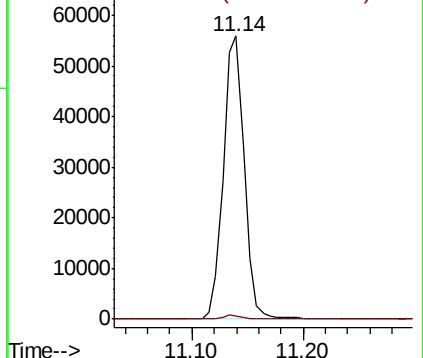
75 100

77 1.4 20.2 60.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0



#81

trans-1,4-Dichloro-2-butene

Concen: 68.971 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. 0.07 min

Lab File: VX005317.D

Acq: 13 Oct 2018 02:44

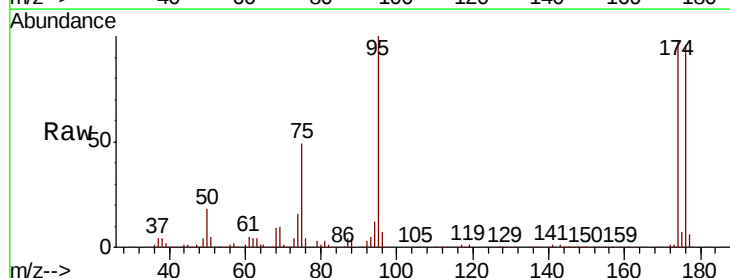
Tgt Ion: 75 Resp: 72439

Ion Ratio Lower Upper

75 100

53 0.2 80.1 120.1#

89 0.0 37.2 55.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

