

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF080218\  
 Data File : VF059818.D  
 Acq On : 2 Aug 2018 23:21  
 Operator : VA/AP  
 Sample : J4267-12  
 Misc : 5.10g/5mL/MSVOA F/SOIL  
 ALS Vial : 97 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

Quant Time: Aug 03 07:07:59 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F073018S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 31 15:23:22 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.04  | 168  | 82410    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 148694   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 61937    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.64 | 152  | 41698    | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 5.02   | 65  | 121953   | 82.34 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 164.68% |      |
| 35) Dibromofluoromethane    | 4.28   | 113 | 89547    | 57.98 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 115.96% |      |
| 50) Toluene-d8              | 7.70   | 98  | 66882    | 18.57 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 37.14%  |      |
| 62) 4-Bromofluorobenzene    | 11.51  | 95  | 149723   | 75.09 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 150.18% |      |

| Target Compounds              |      |     |        |           |        | Qvalue |
|-------------------------------|------|-----|--------|-----------|--------|--------|
| 2) Dichlorodifluoromethane    | 1.07 | 85  | 69     | Below Cal | #      | 44     |
| 3) Chloromethane              | 1.09 | 50  | 389    | Below Cal |        | 94     |
| 4) Vinyl Chloride             | 1.18 | 62  | 140    | Below Cal | #      | 1      |
| 5) Bromomethane               | 1.48 | 94  | 459    | Below Cal |        | 83     |
| 6) Chloroethane               | 1.41 | 64  | 60     | Below Cal | #      | 1      |
| 8) Diethyl Ether              | 1.70 | 74  | 2596   | 9.865     | ug/l   | 90     |
| 11) Tert butyl alcohol        | 2.66 | 59  | 59     | Below Cal | #      | 74     |
| 13) Acrolein                  | 2.11 | 56  | 296    | 24.920    | ug/l   | 81     |
| 15) Acrylonitrile             | 3.04 | 53  | 821    | 8.640     | ug/l # | 34     |
| 16) Acetone                   | 2.33 | 43  | 4366   | 16.389    | ug/l # | 81     |
| 17) Carbon Disulfide          | 1.93 | 76  | 147    | Below Cal | #      | 71     |
| 18) Methyl Acetate            | 2.57 | 43  | 324    | Below Cal |        | 96     |
| 20) Methylene Chloride        | 2.27 | 84  | 3036   | Below Cal | #      | 83     |
| 21) trans-1,2-Dichloroethene  | 2.43 | 96  | 238    | Below Cal | #      | 1      |
| 25) 2-Butanone                | 4.49 | 43  | 848    | 2.852     | ug/l # | 74     |
| 28) Bromochloromethane        | 3.98 | 49  | 63     | Below Cal | #      | 15     |
| 29) Tetrahydrofuran           | 4.23 | 42  | 514    | 4.498     | ug/l # | 58     |
| 31) Cyclohexane               | 3.85 | 56  | 1479   | Below Cal | #      | 71     |
| 36) 1,1-Dichloropropene       | 4.44 | 75  | 547    | Below Cal | #      | 59     |
| 37) Ethyl Acetate             | 4.32 | 43  | 358    | Below Cal | #      | 19     |
| 39) Methylcyclohexane         | 5.62 | 83  | 34766  | 28.418    | ug/l   | 85     |
| 41) Methacrylonitrile         | 4.84 | 41  | 12399  | 32.120    | ug/l # | 53     |
| 43) Isopropyl Acetate         | 7.18 | 43  | 6350   | 7.142     | ug/l # | 46     |
| 48) Methyl methacrylate       | 6.96 | 41  | 25292  | 37.819    | ug/l # | 44     |
| 49) 1,4-Dioxane               | 6.69 | 88  | 63     | Below Cal | #      | 1      |
| 51) 4-Methyl-2-Pentanone      | 8.42 | 43  | 71738  | 106.066   | ug/l # | 49     |
| 52) Toluene                   | 7.75 | 92  | 396    | Below Cal |        | 89     |
| 55) 1,1,2-Trichloroethane     | 8.53 | 97  | 19963  | 24.547    | ug/l # | 41     |
| 56) Ethyl methacrylate        | 8.77 | 69  | 337626 | 398.081   | ug/l # | 85     |
| 58) 2-Chloroethyl Vinyl ether | 7.79 | 63  | 1174   | 11.989    | ug/l   | 100    |
| 59) 2-Hexanone                | 9.55 | 43  | 21940  | 40.480    | ug/l # | 33     |
| 61) 1,2-Dibromoethane         | 9.25 | 107 | 1716   | 1.807     | ug/l # | 1      |
| 64) Tetrachloroethene         | 8.24 | 164 | 69     | Below Cal | #      | 1      |
| 65) Chlorobenzene             | 9.89 | 112 | 5890   | 4.754     | ug/l # | 70     |

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 QLast Update : Tue Jul 31 15:23:22 2018  
 Response via : Initial Calibration

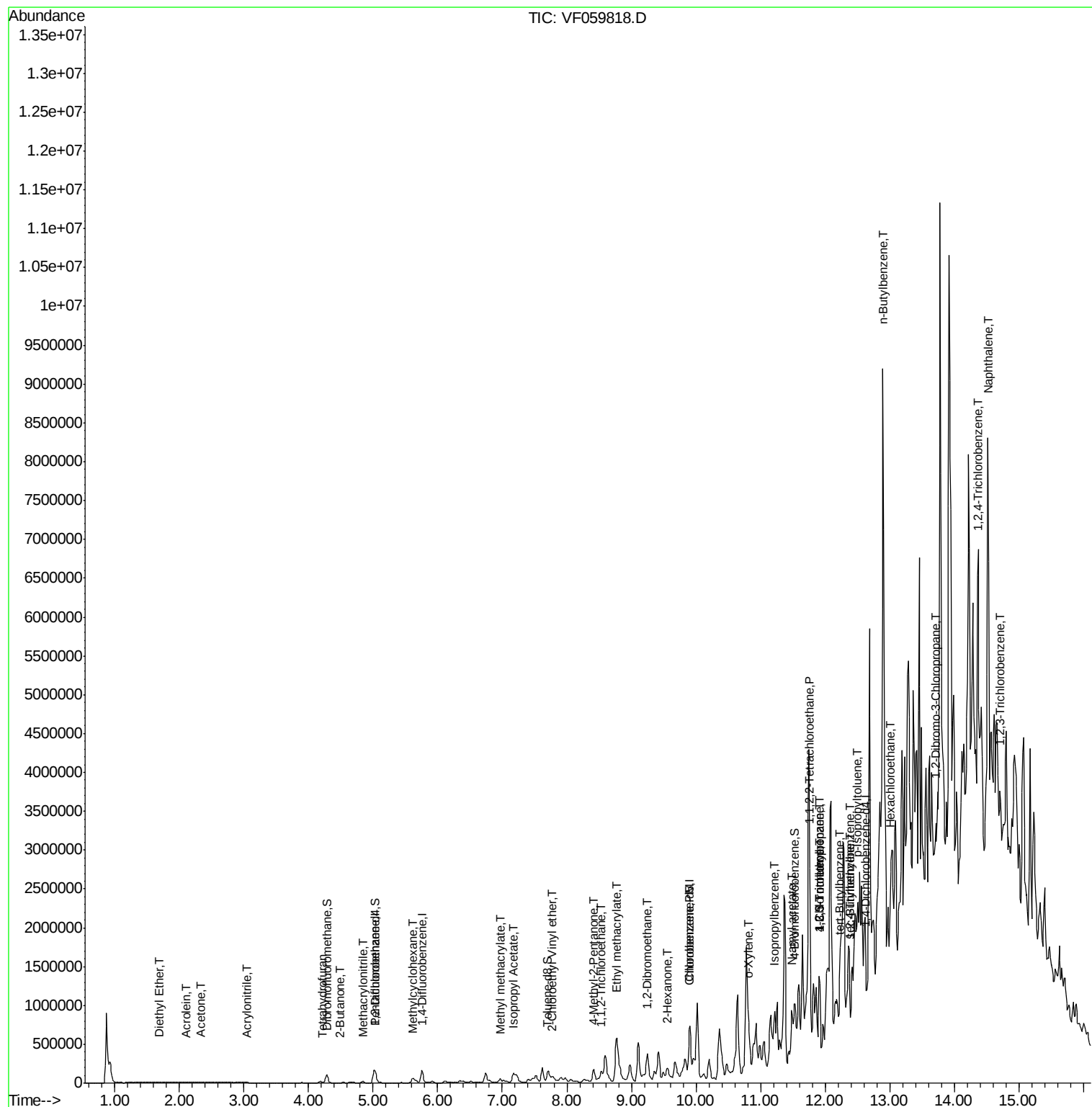
| Internal Standards             | R.T.  | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|-------|------|----------|-----------|--------|----------|
| -----                          |       |      |          |           |        |          |
| 68) m/p-Xylenes                | 10.27 | 106  | 1667     | Below Cal | #      | 29       |
| 69) o-Xylene                   | 10.82 | 106  | 28075    | 35.543    | ug/l   | 88       |
| 73) Isopropylbenzene           | 11.23 | 105  | 4330     | 1.583     | ug/l   | 90       |
| 74) N-amyl acetate             | 11.48 | 43   | 32796    | 47.512    | ug/l # | 1        |
| 75) 1,1,2,2-Tetrachloroethane  | 11.77 | 83   | 116253   | 225.723   | ug/l # | 64       |
| 76) 1,2,3-Trichloropropane     | 11.91 | 75   | 4134     | 9.440     | ug/l # | 1        |
| 78) n-propylbenzene            | 11.69 | 91   | 4349     | Below Cal | #      | 66       |
| 79) 2-Chlorotoluene            | 11.65 | 91   | 2037     | Below Cal |        | 77       |
| 80) 1,3,5-Trimethylbenzene     | 11.91 | 105  | 284426   | 139.273   | ug/l   | 96       |
| 82) 4-Chlorotoluene            | 11.91 | 91   | 31953    | 14.063    | ug/l # | 48       |
| 83) tert-Butylbenzene          | 12.21 | 119  | 13870    | 5.647     | ug/l # | 17       |
| 84) 1,2,4-Trimethylbenzene     | 12.39 | 105  | 46123    | 18.050    | ug/l # | 34       |
| 85) sec-Butylbenzene           | 12.39 | 105  | 46474    | 12.599    | ug/l   | 87       |
| 86) p-Isopropyltoluene         | 12.51 | 119  | 211272   | 91.342    | ug/l   | 92       |
| 87) 1,3-Dichlorobenzene        | 12.66 | 146  | 66       | Below Cal | #      | 1        |
| 88) 1,4-Dichlorobenzene        | 12.66 | 146  | 66       | Below Cal | #      | 1        |
| 89) n-Butylbenzene             | 12.90 | 91   | 130915   | 57.473    | ug/l # | 19       |
| 90) Hexachloroethane           | 13.00 | 117  | 17224    | 24.959    | ug/l # | 18       |
| 91) 1,2-Dichlorobenzene        | 12.96 | 146  | 204      | Below Cal | #      | 1        |
| 92) 1,2-Dibromo-3-Chloropropan | 13.71 | 75   | 5953     | 47.283    | ug/l # | 21       |
| 93) 1,2,4-Trichlorobenzene     | 14.35 | 180  | 67151    | 76.468    | ug/l # | 1        |
| 95) Naphthalene                | 14.53 | 128  | 48301    | 26.867    | ug/l # | 1        |
| 96) 1,2,3-Trichlorobenzene     | 14.71 | 180  | 77661    | 78.154    | ug/l # | 13       |
| -----                          |       |      |          |           |        |          |

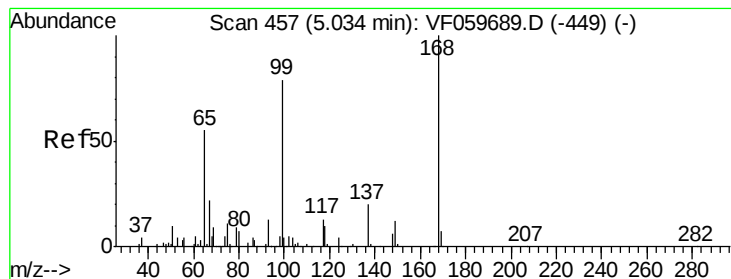
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.04 min Scan# 457

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

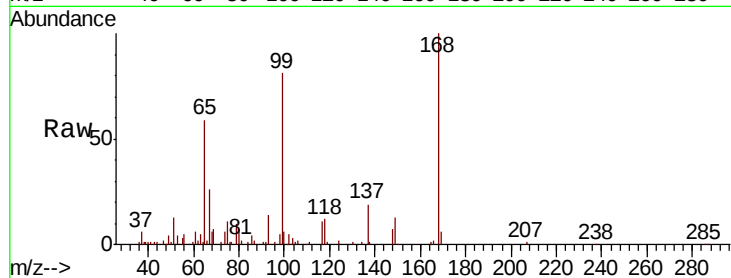
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

Tot Ion:168 Resp: 82410

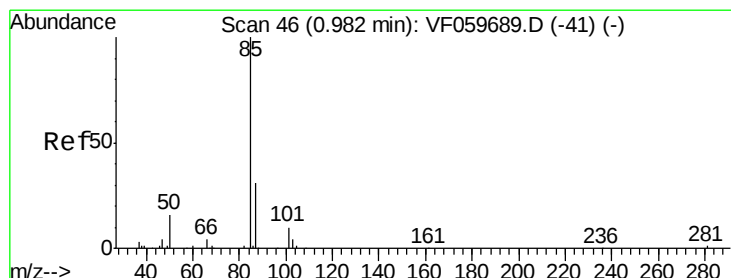
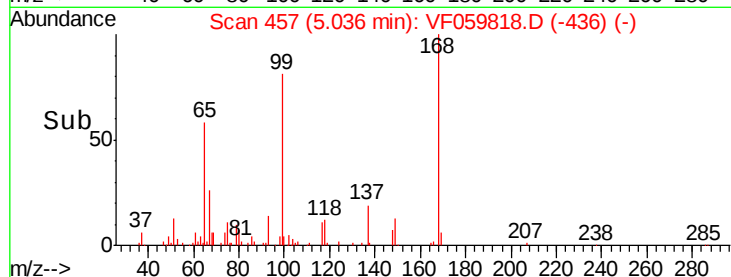
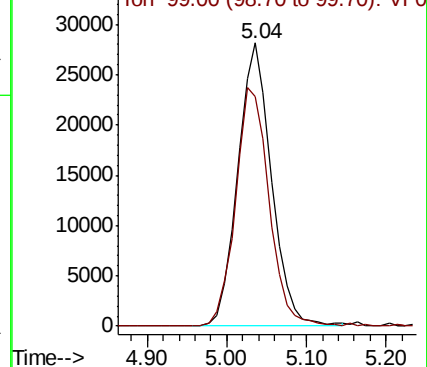
Ion Ratio Lower Upper

168 100

99 80.9 63.3 94.9



Abundance Ion 168.00 (167.70 to 168.70): VF0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.07 min Scan# 55

Delta R.T. 0.09 min

Lab File: VF059818.D

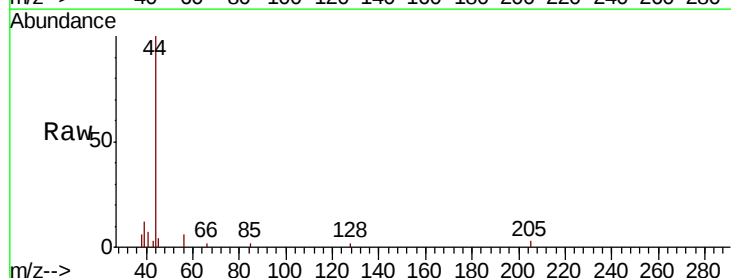
Acq: 2 Aug 2018 23:21

Tgt Ion: 85 Resp: 69

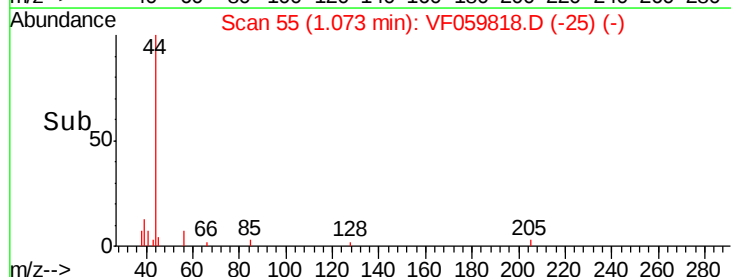
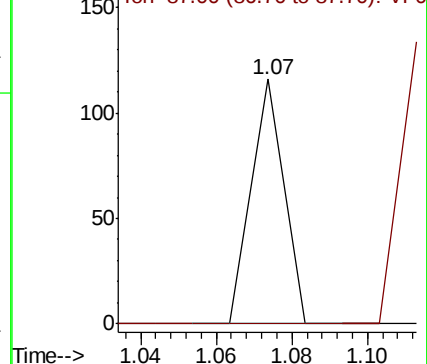
Ion Ratio Lower Upper

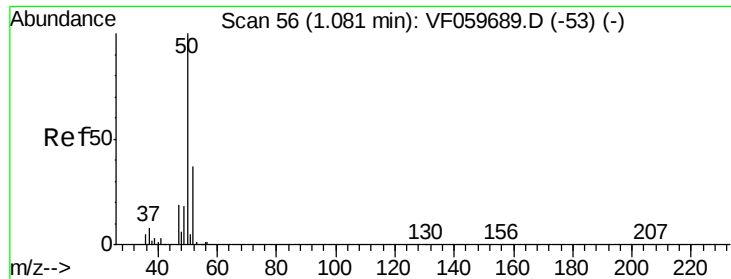
85 100

87 0.0 15.3 45.8#



Abundance Ion 85.00 (84.70 to 85.70): VF0





#3

Chloromethane

Concen: Below Cal

RT: 1.09 min Scan# 57

Delta R.T. 0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

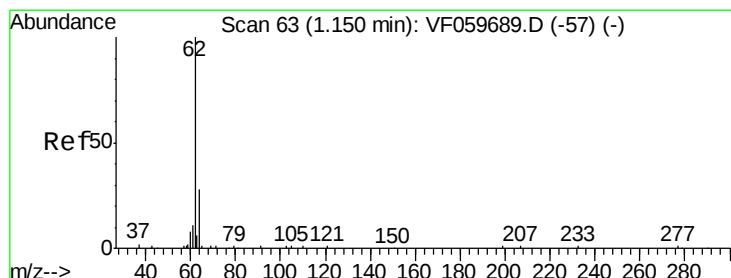
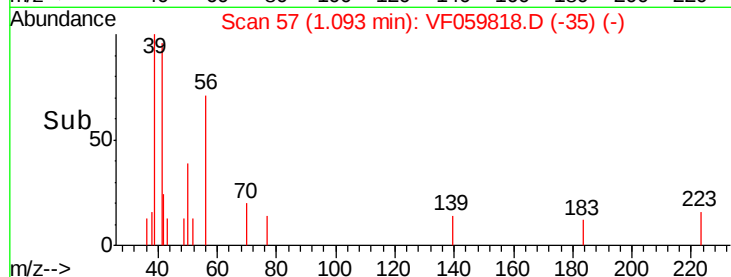
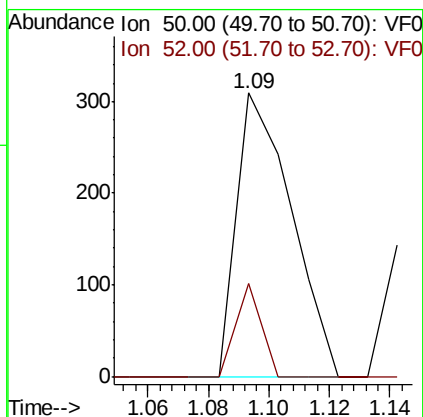
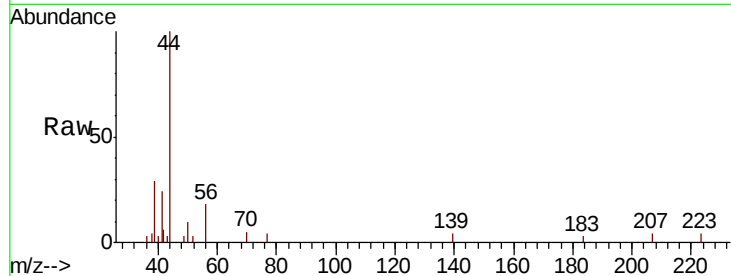
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

Tot Ion: 50 Resp: 389

Ion Ratio Lower Upper

50 100

52 33.0 29.1 43.7



#4

Vinyl Chloride

Concen: Below Cal

RT: 1.18 min Scan# 66

Delta R.T. 0.03 min

Lab File: VF059818.D

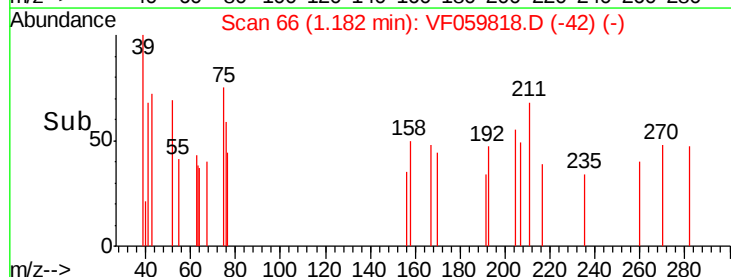
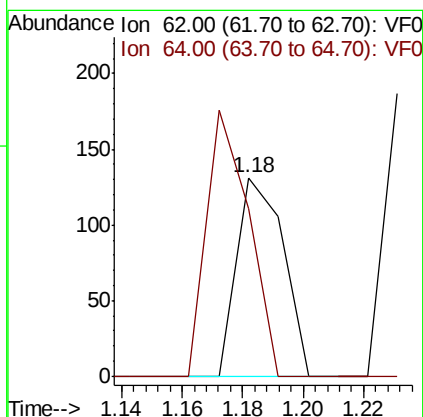
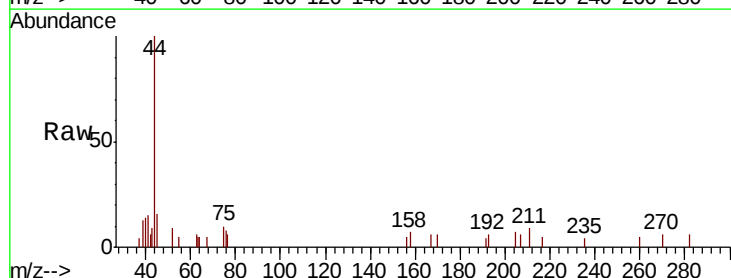
Acq: 2 Aug 2018 23:21

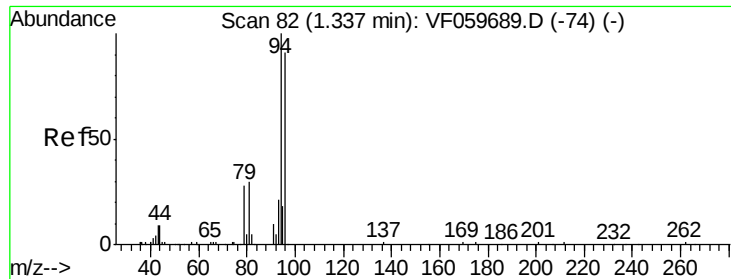
Tgt Ion: 62 Resp: 140

Ion Ratio Lower Upper

62 100

64 84.7 22.6 33.8#





#5

Bromomethane

Concen: Below Cal

RT: 1.48 min Scan# 96

Delta R.T. 0.14 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

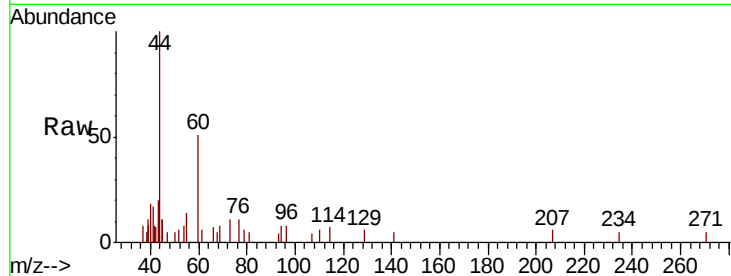
Instrument :  
MSVOA\_F  
ClientSampled :  
UST-S

Tot Ion: 94 Resp: 459

Ion Ratio Lower Upper

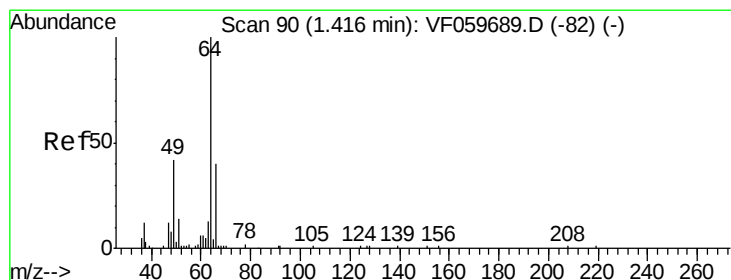
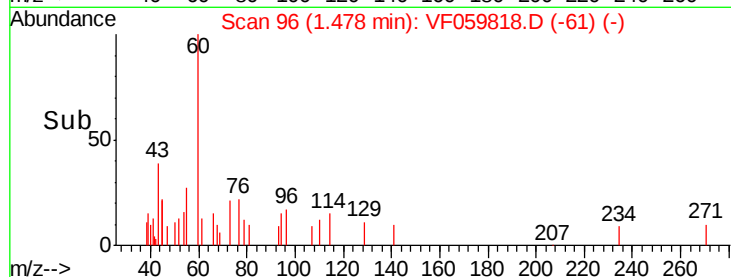
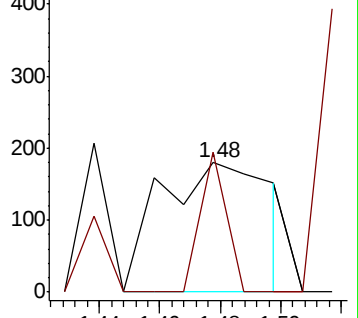
94 100

96 108.3 73.6 110.4



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0



#6

Chloroethane

Concen: Below Cal

RT: 1.41 min Scan# 89

Delta R.T. -0.01 min

Lab File: VF059818.D

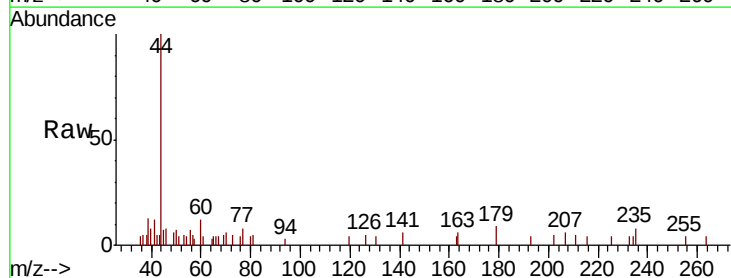
Acq: 2 Aug 2018 23:21

Tgt Ion: 64 Resp: 60

Ion Ratio Lower Upper

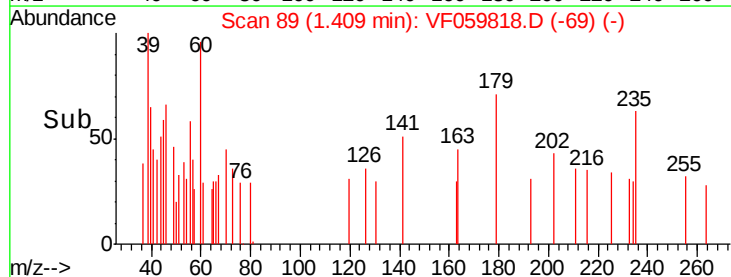
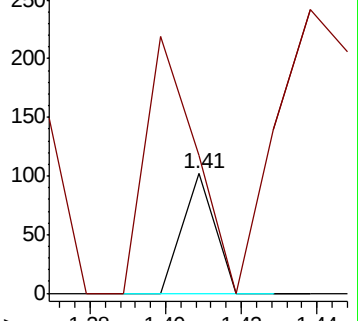
64 100

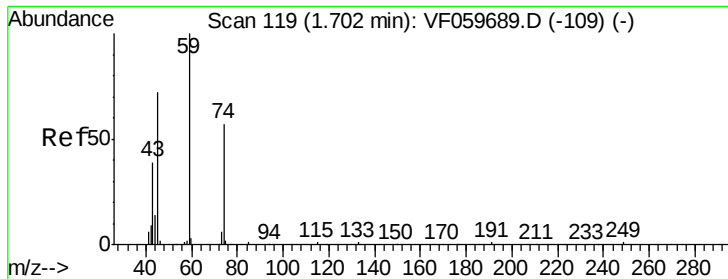
66 114.7 32.6 49.0#



Abundance Ion 64.00 (63.70 to 64.70): VF0

Ion 66.00 (65.70 to 66.70): VF0





#8

Diethyl Ether

Concen: 9.865 ug/l

RT: 1.70 min Scan# 119

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

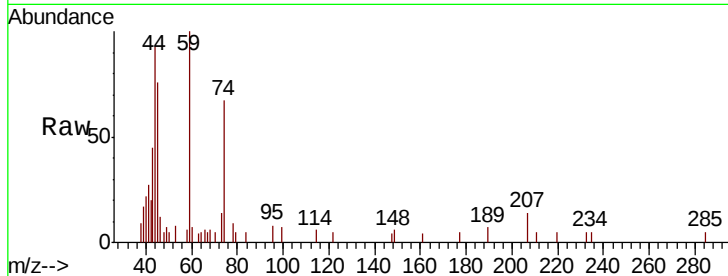
UST-S

Tot Ion: 74 Resp: 2596

Ion Ratio Lower Upper

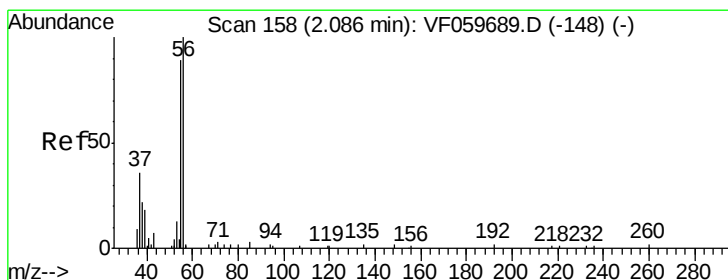
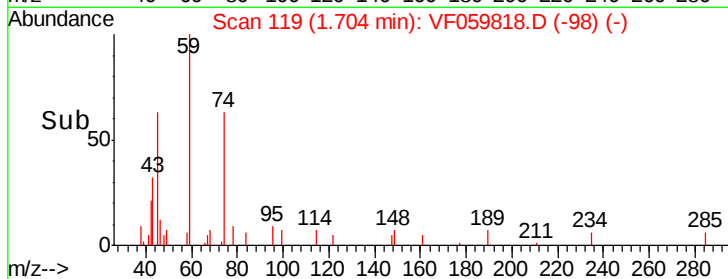
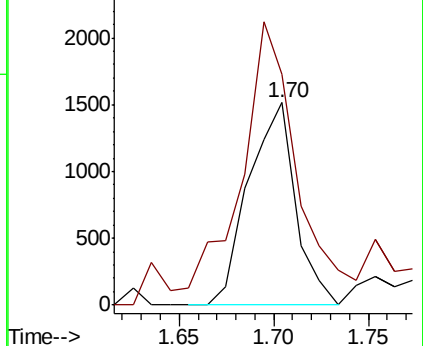
74 100

45 114.2 62.7 188.2



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0



#13

Acrolein

Concen: 24.920 ug/l

RT: 2.11 min Scan# 160

Delta R.T. 0.02 min

Lab File: VF059818.D

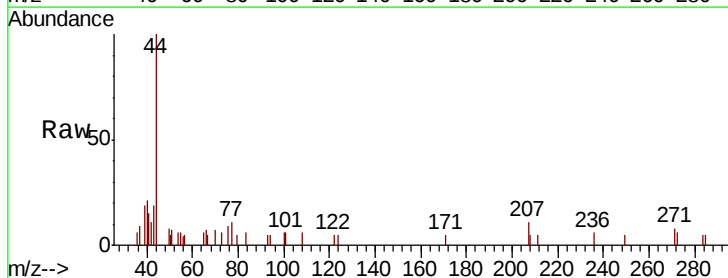
Acq: 2 Aug 2018 23:21

Tgt Ion: 56 Resp: 296

Ion Ratio Lower Upper

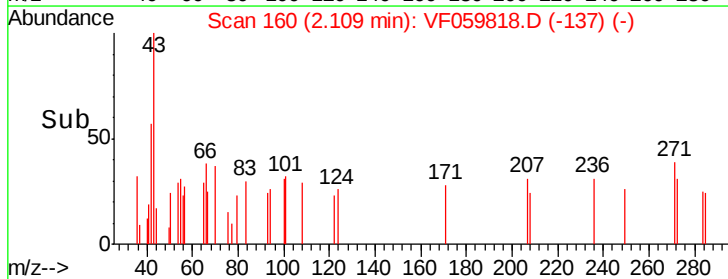
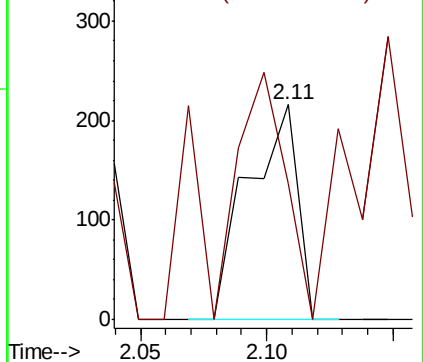
56 100

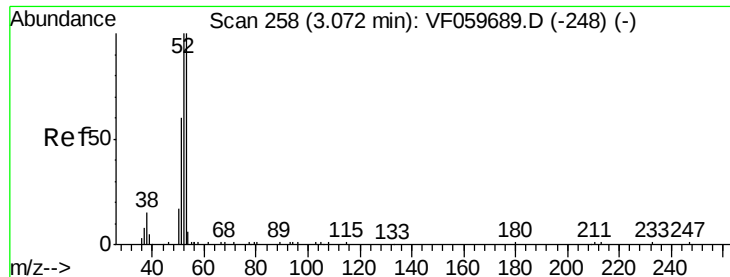
55 109.3 73.2 109.8



Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 55.00 (54.70 to 55.70): VF0





#15

Acrylonitrile

Concen: 8.640 ug/l

RT: 3.04 min Scan# 254

Delta R.T. -0.04 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampled :

UST-S

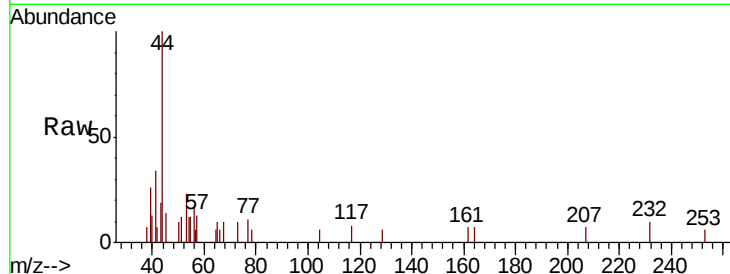
Tot Ion: 53 Resp: 821

Ion Ratio Lower Upper

53 100

52 0.0 80.3 120.5#

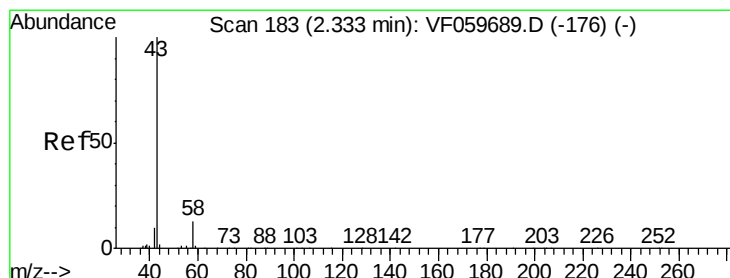
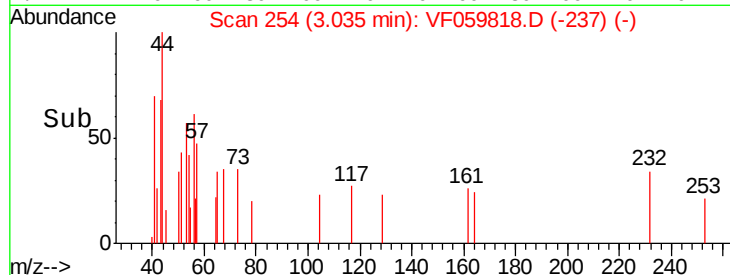
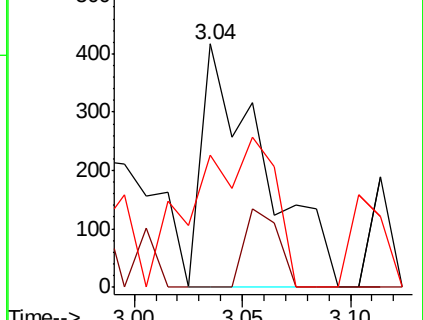
51 54.2 49.4 74.0



Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0



#16

Acetone

Concen: 16.389 ug/l

RT: 2.33 min Scan# 182

Delta R.T. -0.01 min

Lab File: VF059818.D

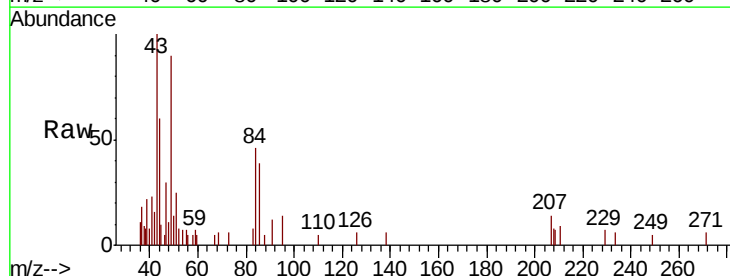
Acq: 2 Aug 2018 23:21

Tgt Ion: 43 Resp: 4366

Ion Ratio Lower Upper

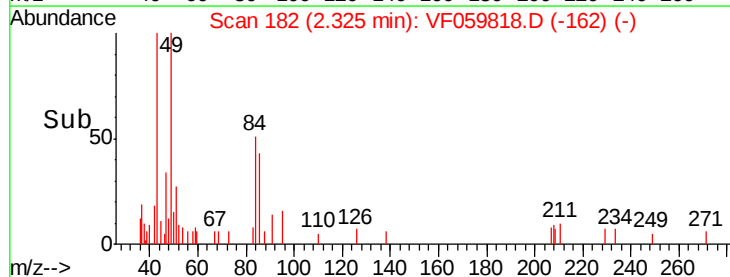
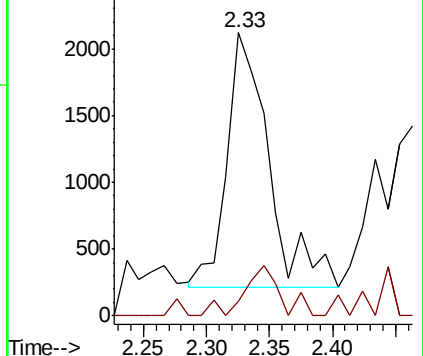
43 100

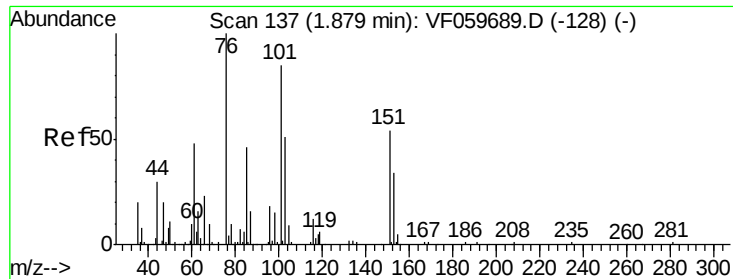
58 5.1 10.1 15.1#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

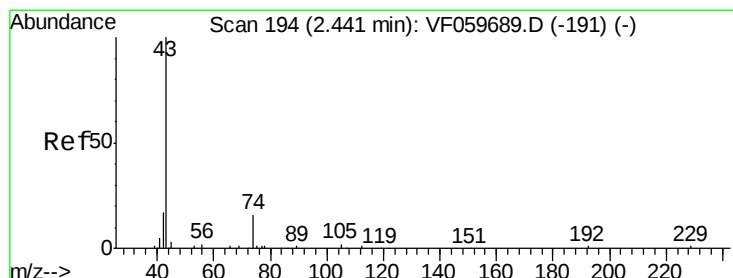
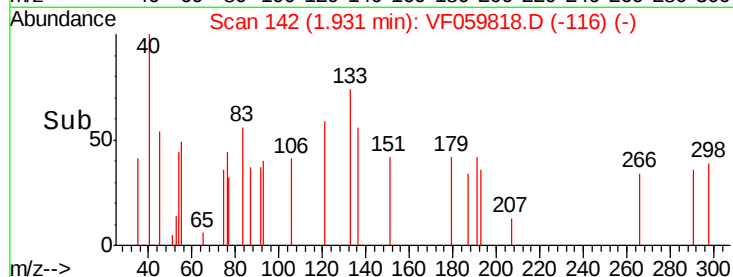
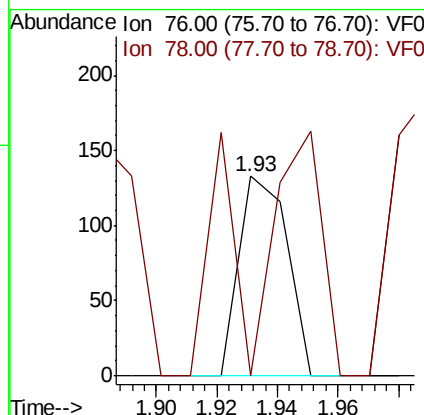
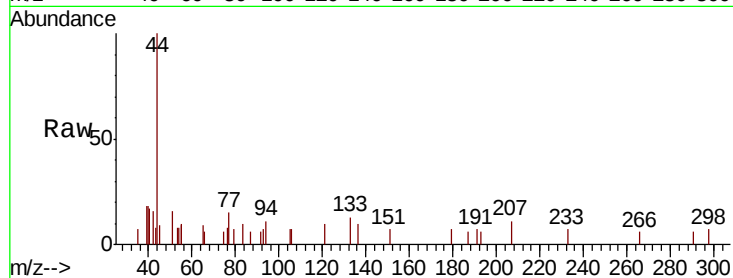




#17  
Carbon Disulfide  
Concen: Below Cal  
RT: 1.93 min Scan# 142  
Delta R.T. 0.05 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

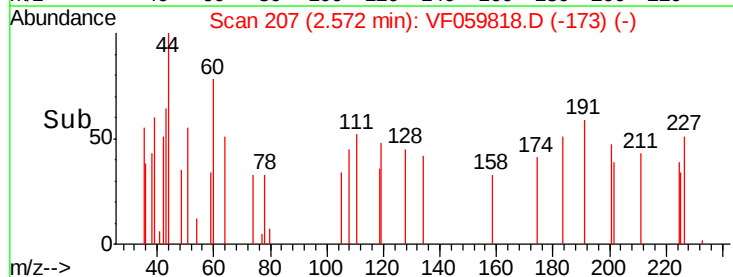
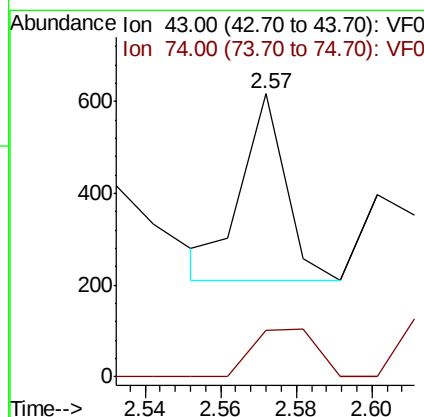
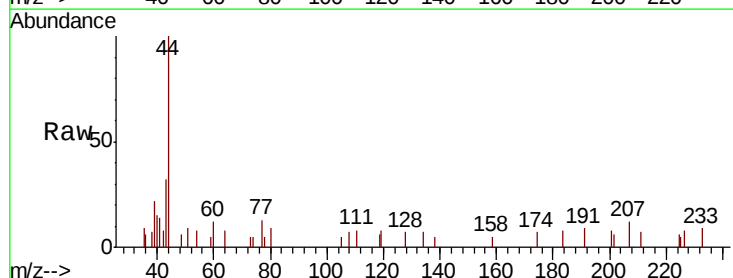
Instrument :  
MSVOA\_F  
ClientSampled :  
UST-S

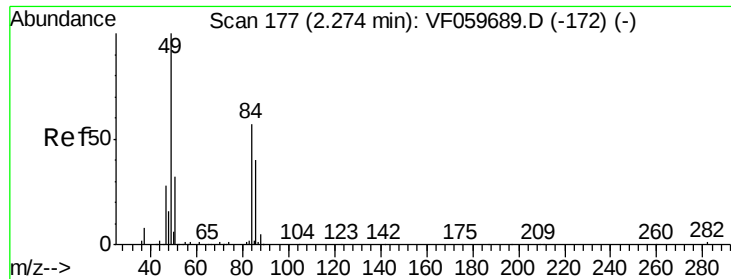
Tot Ion: 76 Resp: 147  
Ion Ratio Lower Upper  
76 100  
78 0.0 8.9 13.3#



#18  
Methyl Acetate  
Concen: Below Cal  
RT: 2.57 min Scan# 207  
Delta R.T. 0.13 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 43 Resp: 324  
Ion Ratio Lower Upper  
43 100  
74 16.4 11.8 17.6

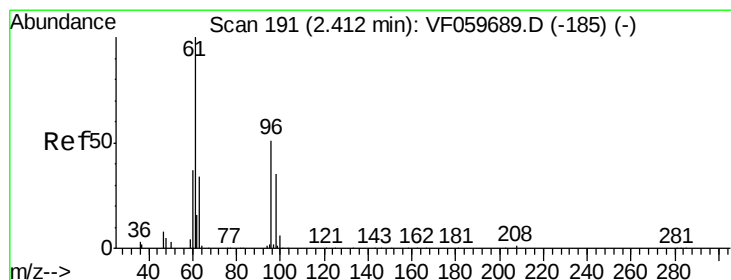
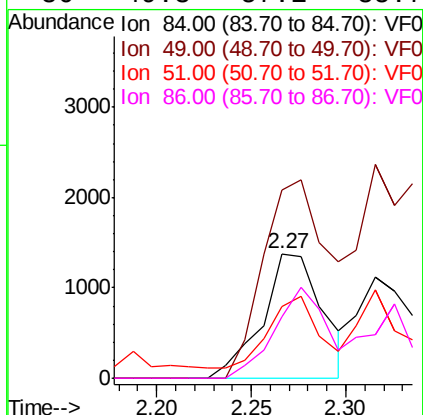
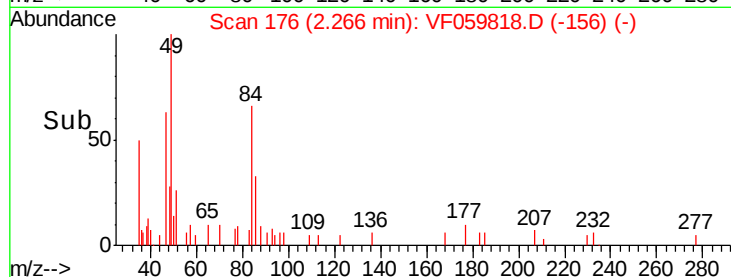
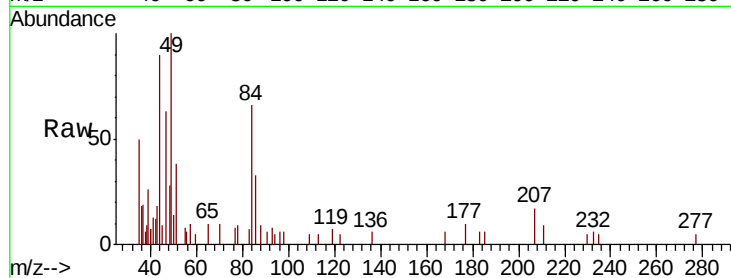




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 2.27 min Scan# 176  
Delta R.T. -0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

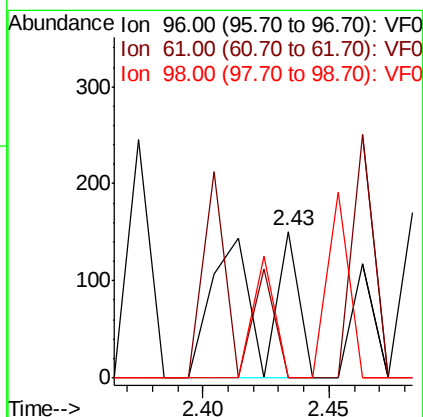
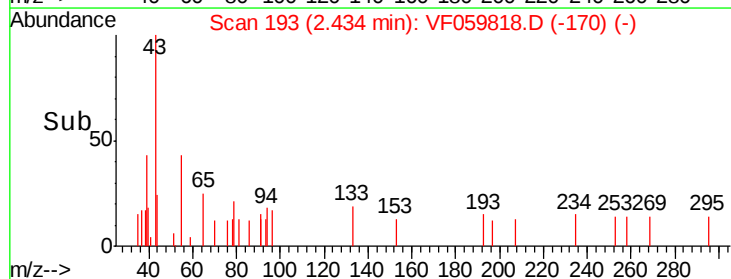
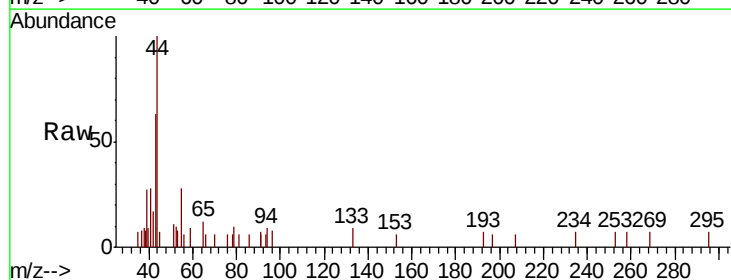
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

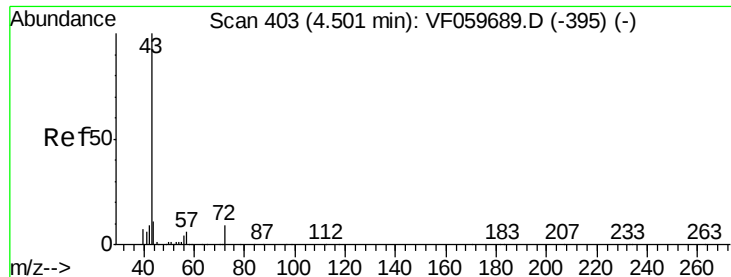
Tot Ion: 84 Resp: 3036  
Ion Ratio Lower Upper  
84 100  
49 151.2 142.2 213.4  
51 57.3 46.2 69.2  
86 49.3 57.1 85.7#



#21  
trans-1,2-Dichloroethene  
Concen: Below Cal  
RT: 2.43 min Scan# 193  
Delta R.T. 0.02 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 96 Resp: 238  
Ion Ratio Lower Upper  
96 100  
61 0.0 157.4 236.0#  
98 0.0 55.0 82.4#

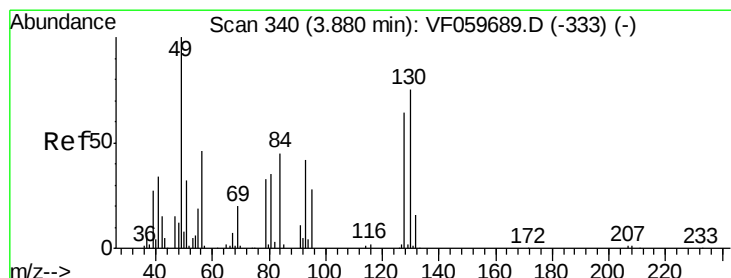
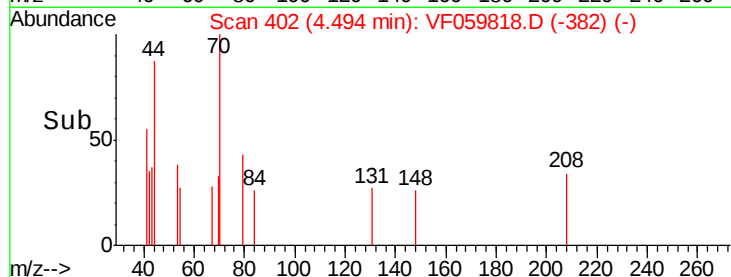
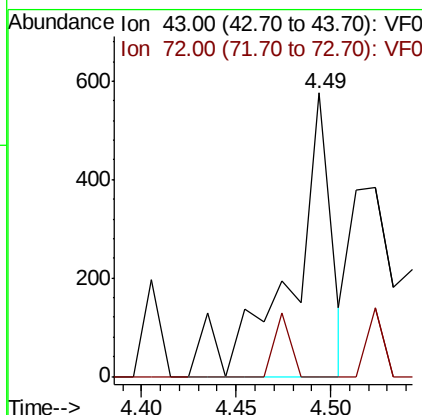
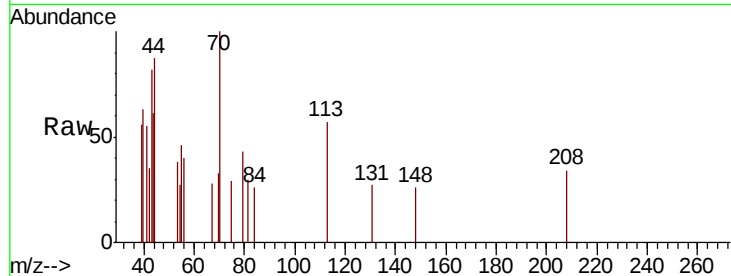




#25  
2-Butanone  
Concen: 2.852 ug/l  
RT: 4.49 min Scan# 402  
Delta R.T. -0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

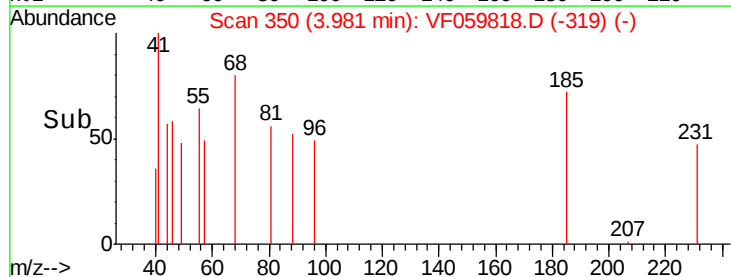
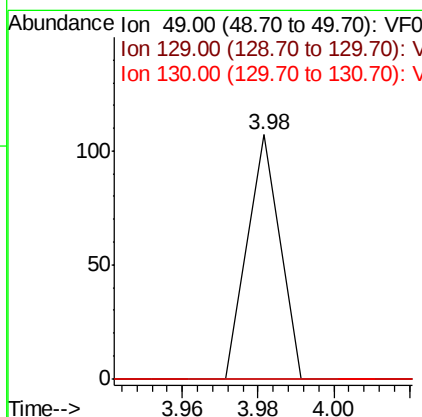
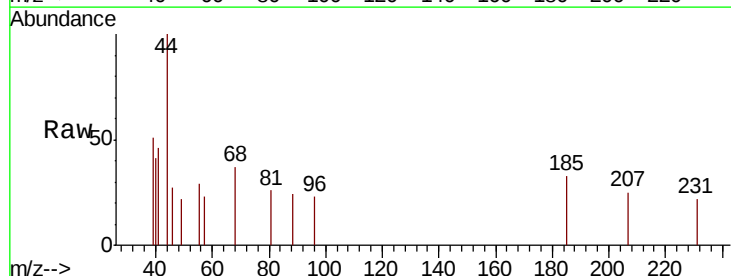
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

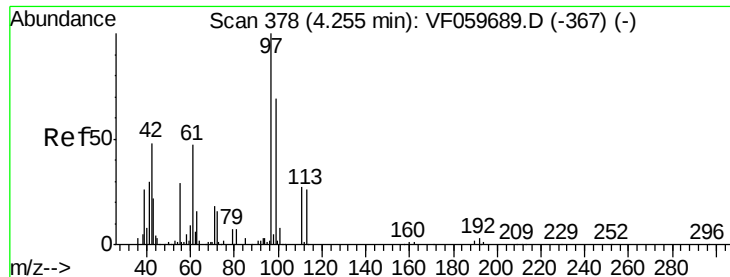
Tot Ion: 43 Resp: 848  
Ion Ratio Lower Upper  
43 100  
72 0.0 7.7 11.5#



#28  
Bromochloromethane  
Concen: Below Cal  
RT: 3.98 min Scan# 350  
Delta R.T. 0.10 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 49 Resp: 63  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 4.8  
130 0.0 59.6 89.4#





#29

Tetrahydrofuran

Concen: 4.498 ug/l

RT: 4.23 min Scan# 375

Delta R.T. -0.03 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampled :

UST-S

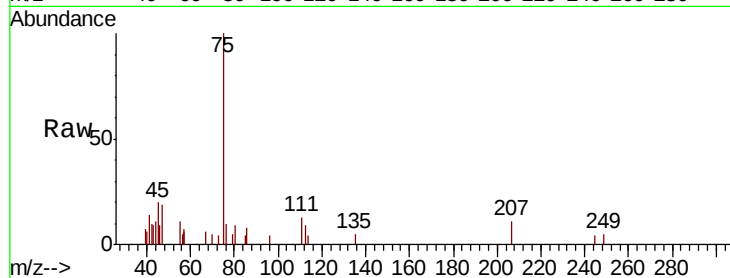
Tot Ion: 42 Resp: 514

Ion Ratio Lower Upper

42 100

72 0.0 27.0 40.6#

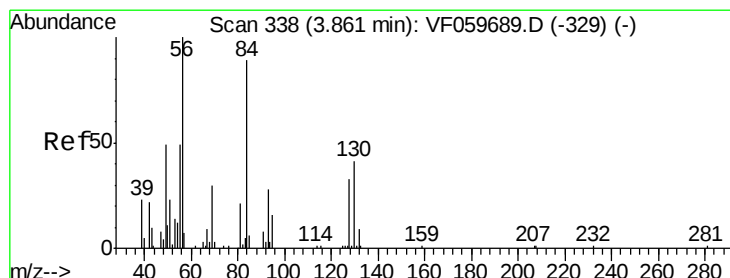
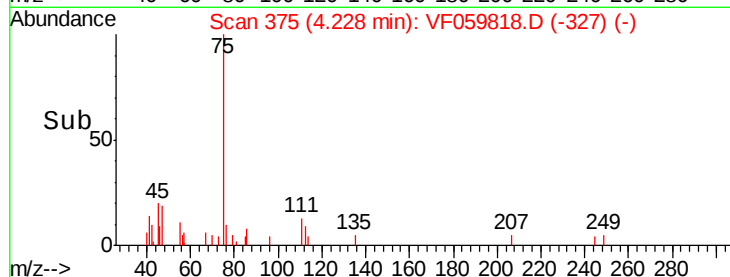
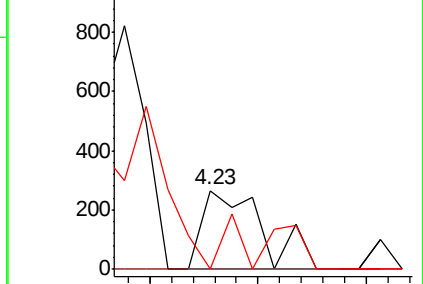
71 21.6 29.7 44.5#



Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0



#31

Cyclohexane

Concen: Below Cal

RT: 3.85 min Scan# 337

Delta R.T. -0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

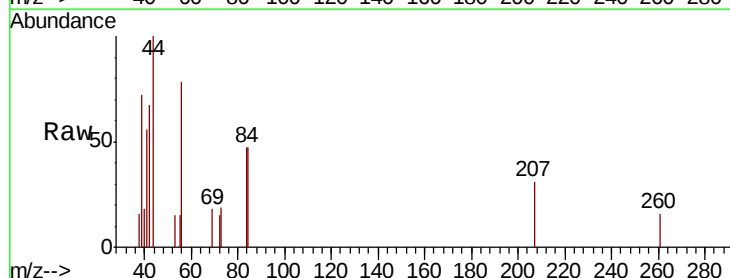
Tgt Ion: 56 Resp: 1479

Ion Ratio Lower Upper

56 100

69 23.0 23.7 35.5#

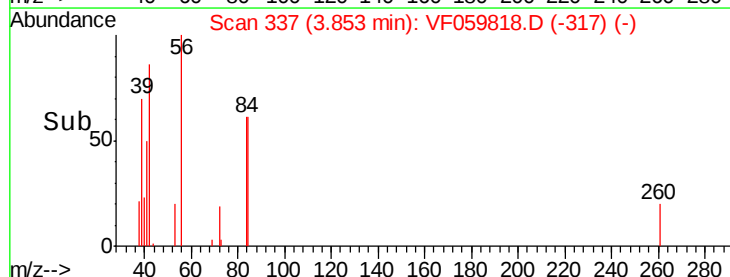
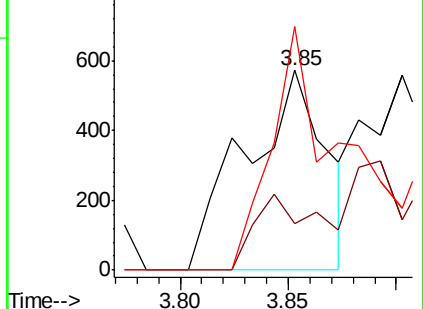
84 121.8 71.1 106.7#

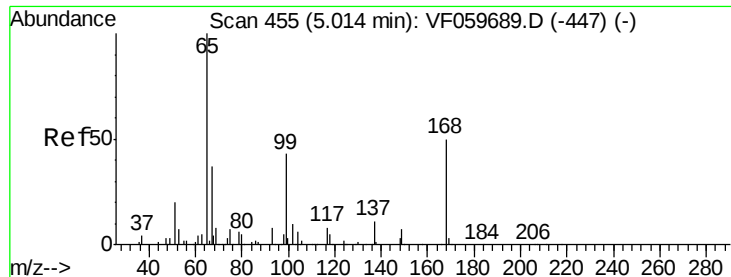


Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 84.00 (83.70 to 84.70): VF0

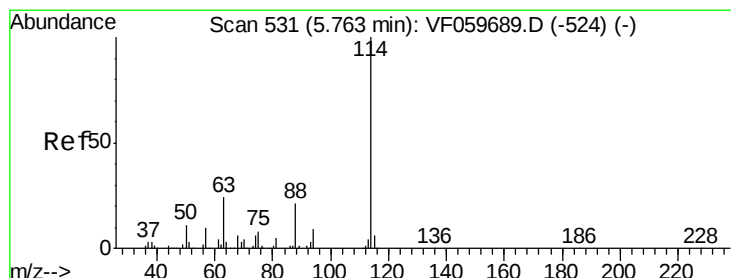
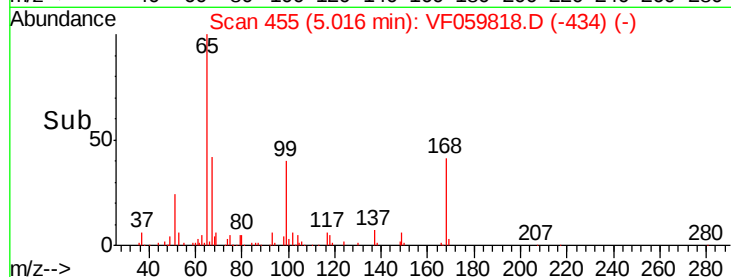
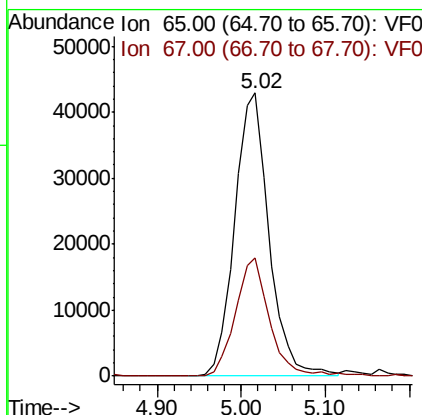
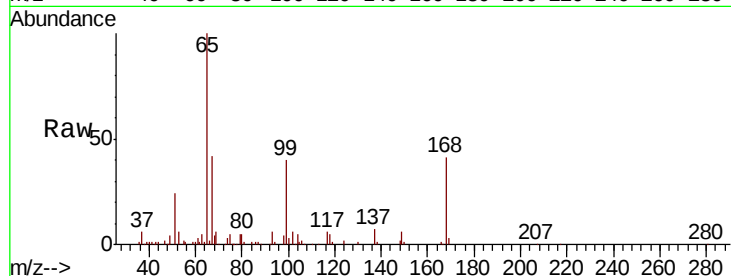




#33  
 1,2-Dichloroethane-d4  
 Concen: 82.341 ug/l  
 RT: 5.02 min Scan# 455  
 Delta R.T. 0.00 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

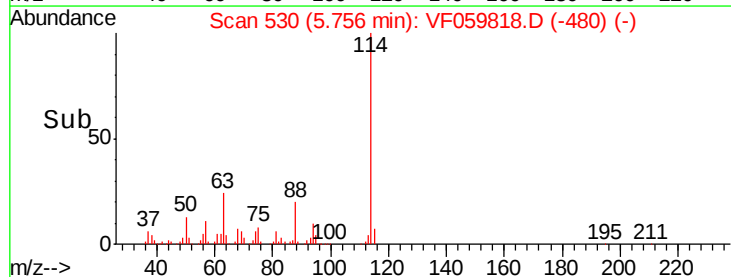
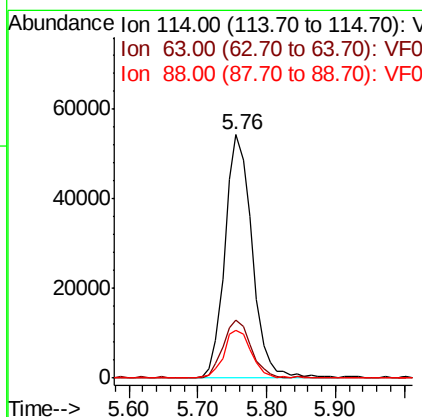
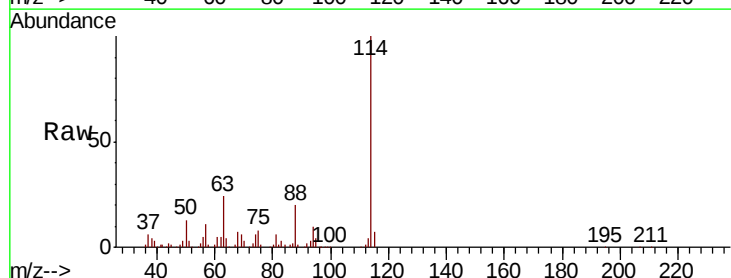
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

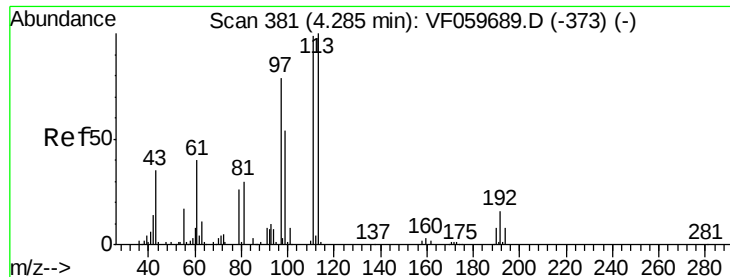
Tot Ion: 65 Resp: 121953  
 Ion Ratio Lower Upper  
 65 100  
 67 42.0 0.0 84.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.76 min Scan# 530  
 Delta R.T. -0.01 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

Tgt Ion: 114 Resp: 148694  
 Ion Ratio Lower Upper  
 114 100  
 63 23.7 0.0 47.4  
 88 19.9 0.0 41.2





#35

Dibromofluoromethane

Concen: 57.981 ug/l

RT: 4.28 min Scan# 380

Delta R.T. -0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

UST-S

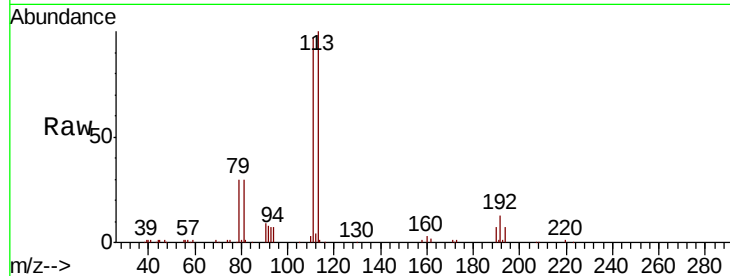
Tot Ion:113 Resp: 89547

Ion Ratio Lower Upper

113 100

111 97.0 79.0 118.4

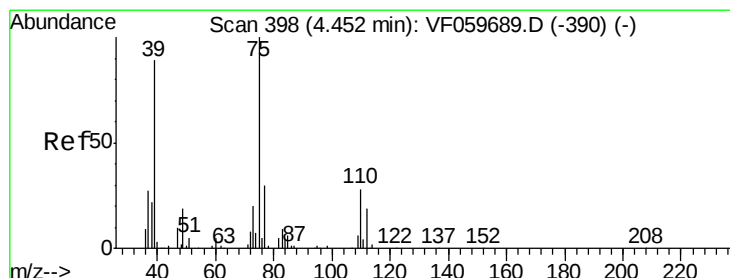
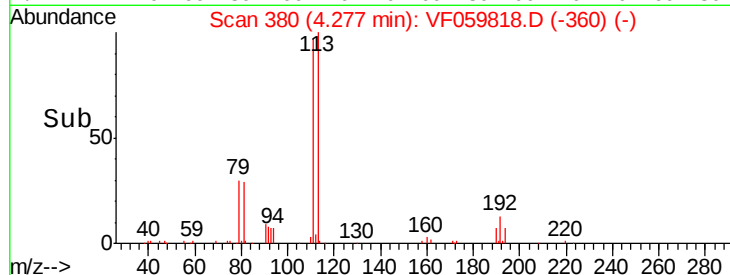
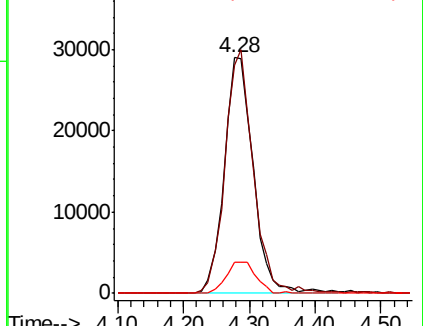
192 13.0 13.2 19.8#



Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V



#36

1,1-Dichloropropene

Concen: Below Cal

RT: 4.44 min Scan# 397

Delta R.T. -0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

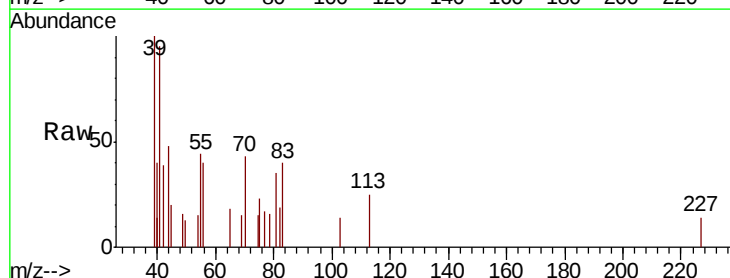
Tgt Ion: 75 Resp: 547

Ion Ratio Lower Upper

75 100

110 0.0 14.0 41.9#

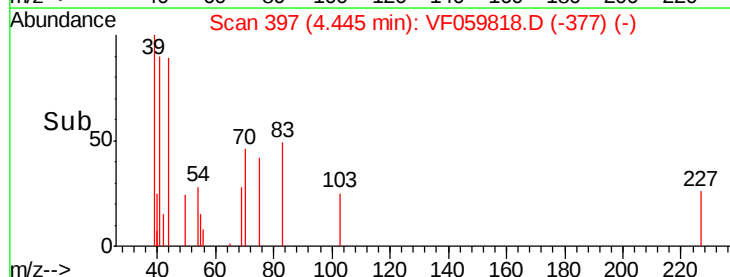
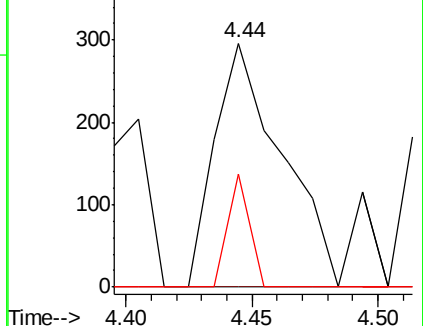
77 46.6 24.2 36.2#

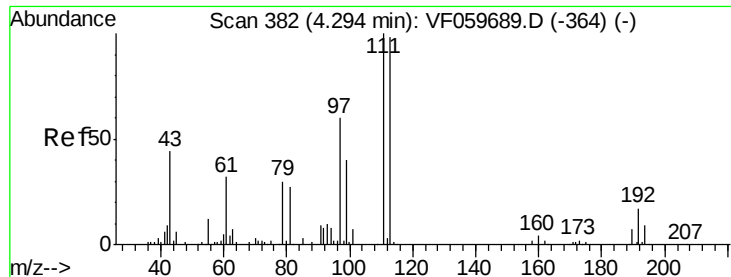


Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 110.00 (109.70 to 110.70): V

Ion 77.00 (76.70 to 77.70): VF0

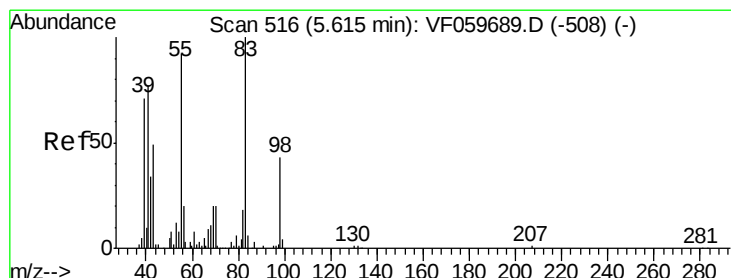
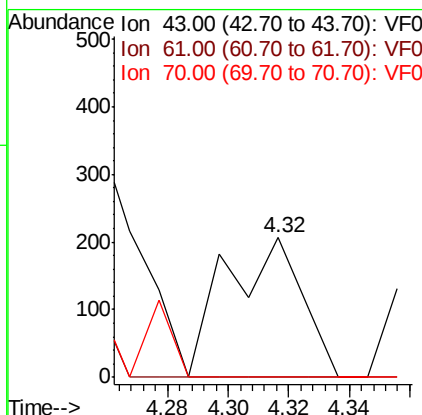
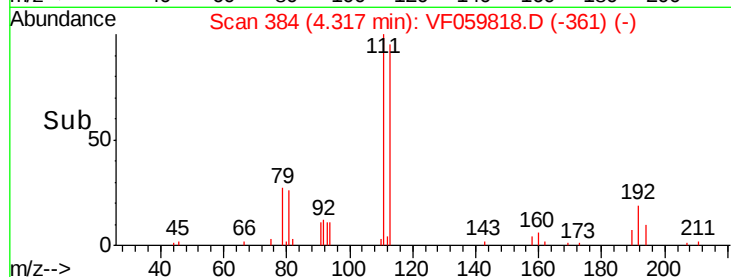
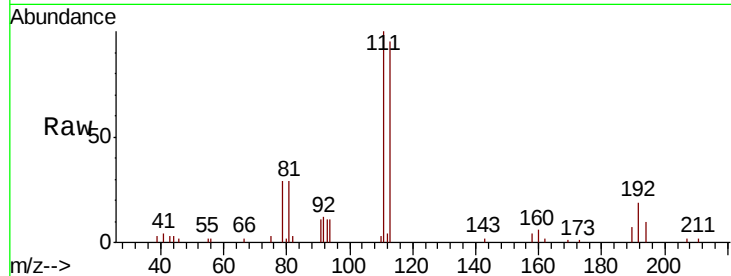




#37  
Ethyl Acetate  
Concen: Below Cal  
RT: 4.32 min Scan# 384  
Delta R.T. 0.02 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

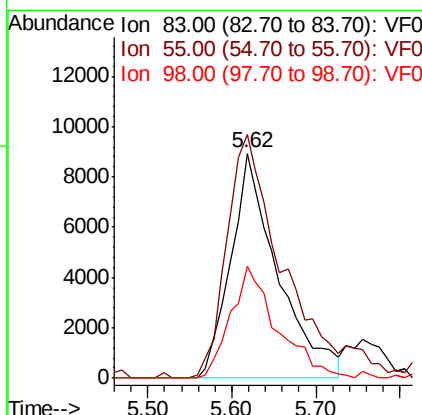
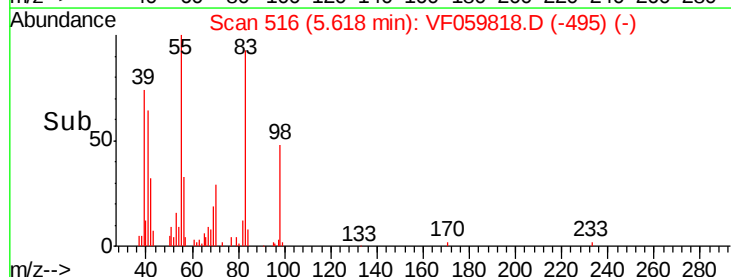
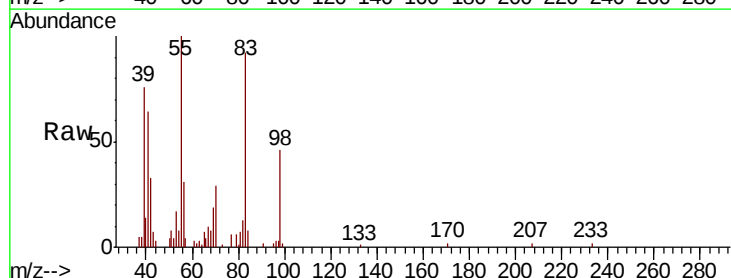
Instrument :  
MSVOA\_F  
ClientSampled :  
UST-S

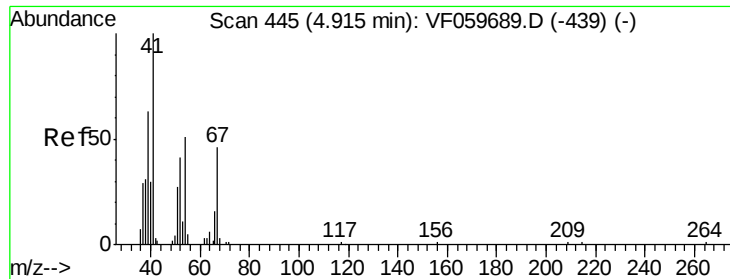
Tot Ion: 43 Resp: 358  
Ion Ratio Lower Upper  
43 100  
61 0.0 58.2 87.2#  
70 0.0 6.0 9.0#



#39  
Methylcyclohexane  
Concen: 28.418 ug/l  
RT: 5.62 min Scan# 516  
Delta R.T. 0.00 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 83 Resp: 34766  
Ion Ratio Lower Upper  
83 100  
55 108.3 73.4 110.2  
98 49.7 34.2 51.4

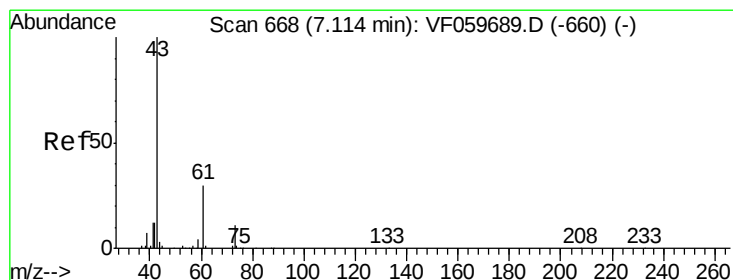
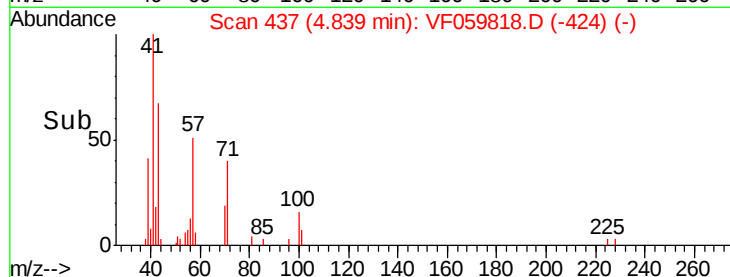
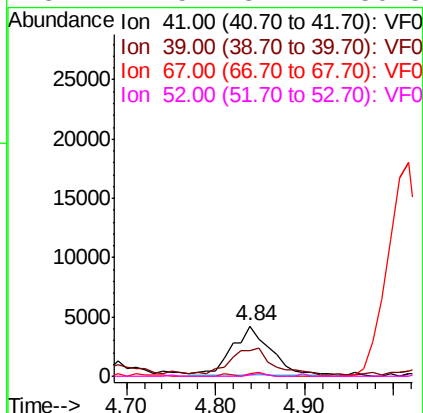
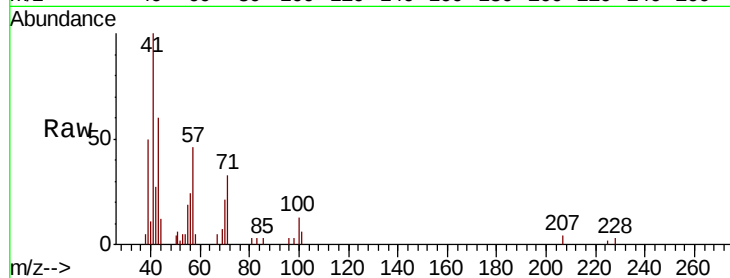




#41  
Methacrylonitrile  
Concen: 32.120 ug/l  
RT: 4.84 min Scan# 437  
Delta R.T. -0.08 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

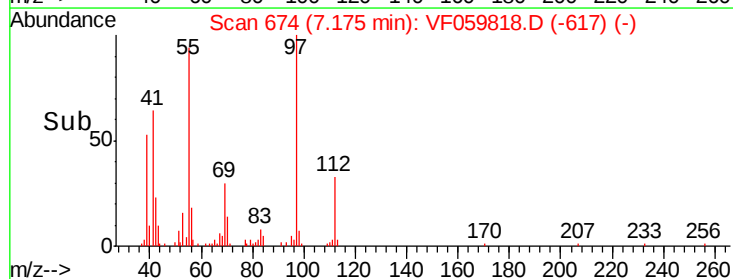
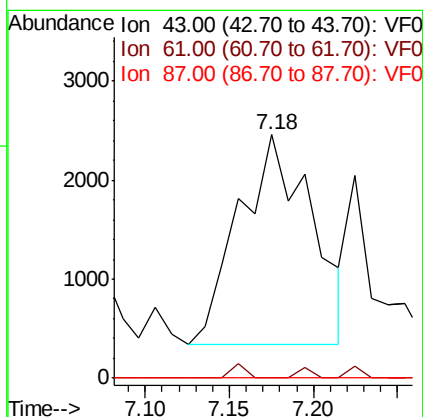
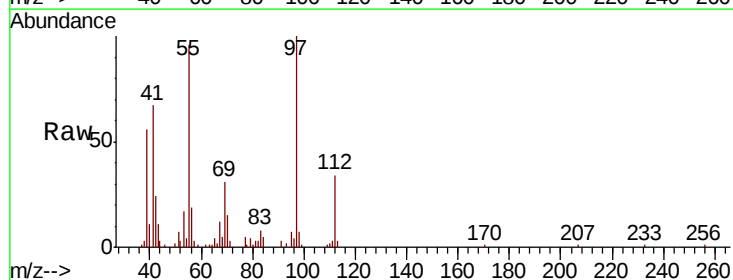
Instrument :  
MSVOA\_F  
ClientSampled :  
UST-S

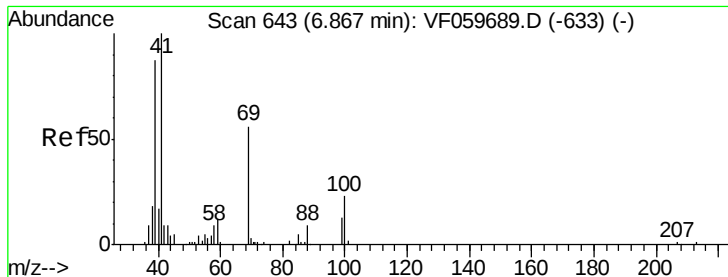
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 12399 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 50.0  | 55.2  | 82.8# |
| 67       | 5.4   | 36.2  | 54.2# |
| 52       | 2.5   | 37.7  | 56.5# |



#43  
Isopropyl Acetate  
Concen: 7.142 ug/l  
RT: 7.18 min Scan# 674  
Delta R.T. 0.06 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 6350  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 0.0   | 23.8  | 35.8# |
| 87       | 0.0   | 0.6   | 1.0#  |

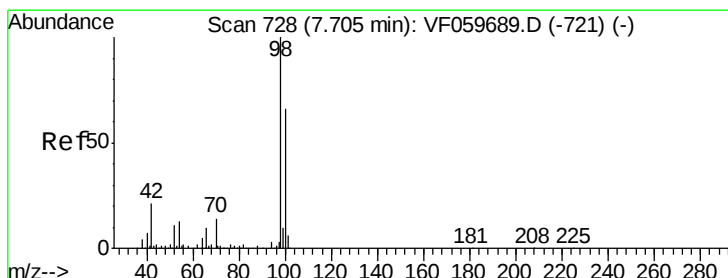
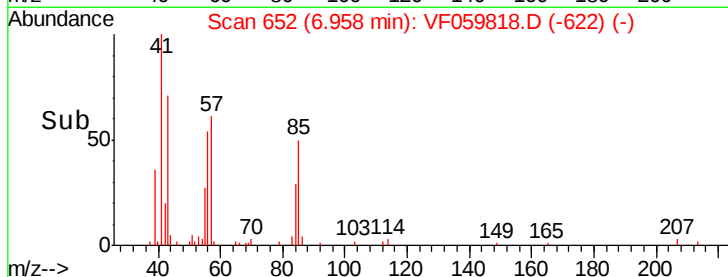
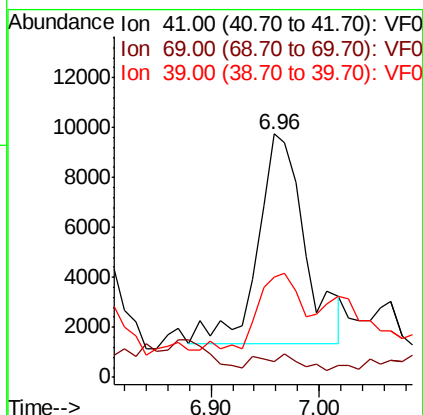
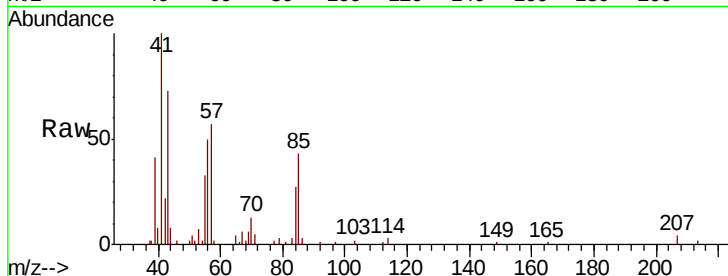




#48  
Methvl methacrylate  
Concen: 37.819 ug/l  
RT: 6.96 min Scan# 652  
Delta R.T. 0.09 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

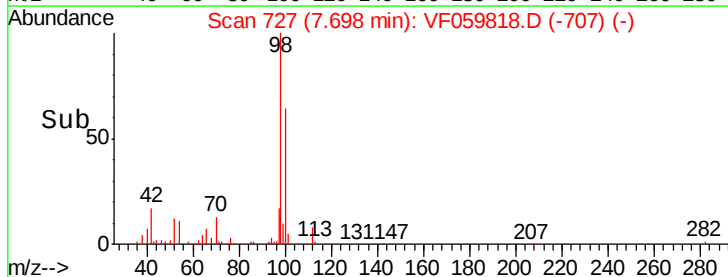
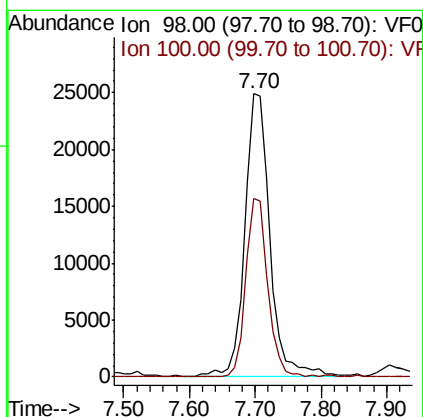
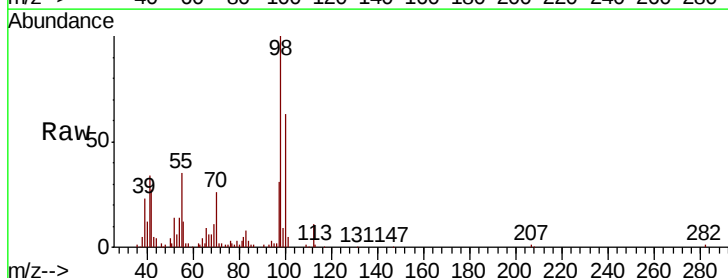
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

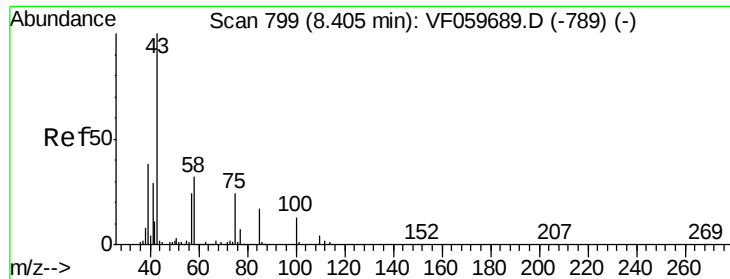
Tot Ion: 41 Resp: 25292  
Ion Ratio Lower Upper  
41 100  
69 6.3 44.4 66.6#  
39 41.3 69.4 104.2#



#50  
Toluene-d8  
Concen: 18.571 ug/l  
RT: 7.70 min Scan# 727  
Delta R.T. -0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 98 Resp: 66882  
Ion Ratio Lower Upper  
98 100  
100 63.0 52.8 79.2





#51

4-Methyl-2-Pentanone

Concen: 106.066 ug/l

RT: 8.42 min Scan# 800

Delta R.T. 0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

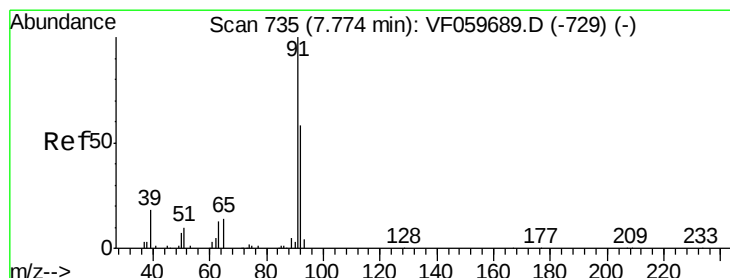
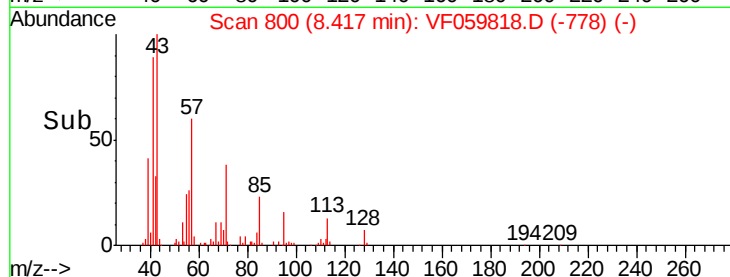
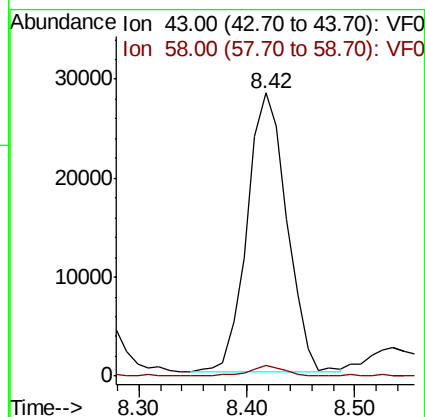
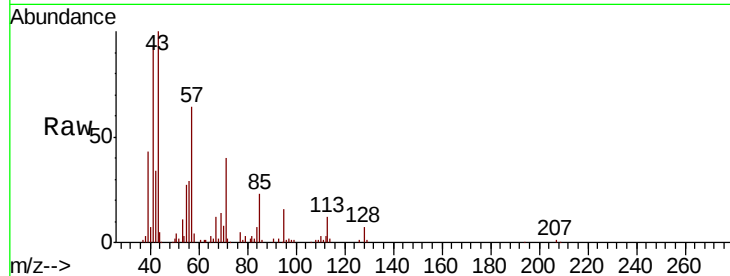
UST-S

Tot Ion: 43 Resp: 71738

Ion Ratio Lower Upper

43 100

58 3.9 25.9 38.9#



#52

Toluene

Concen: Below Cal

RT: 7.75 min Scan# 732

Delta R.T. -0.03 min

Lab File: VF059818.D

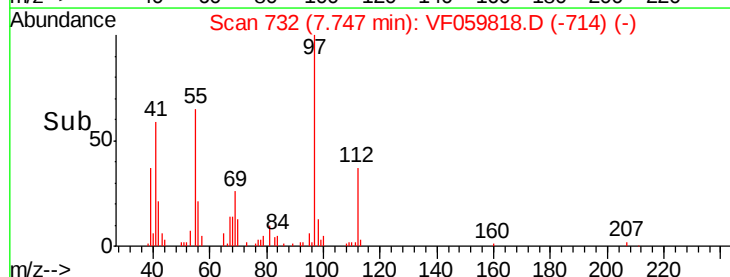
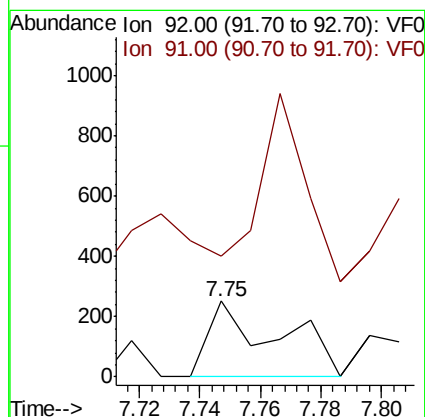
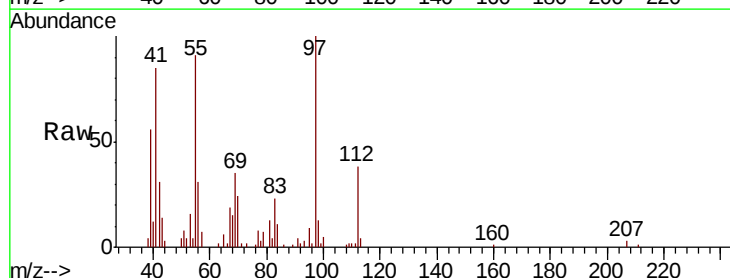
Acq: 2 Aug 2018 23:21

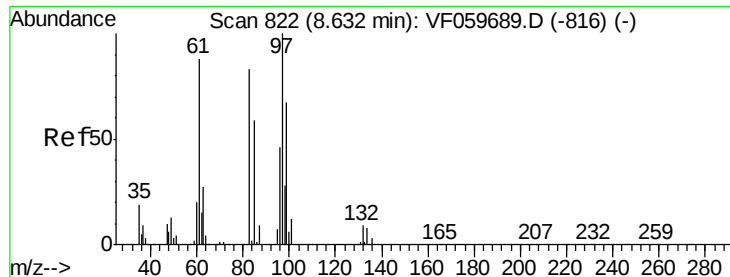
Tgt Ion: 92 Resp: 396

Ion Ratio Lower Upper

92 100

91 158.7 139.0 208.4





#55

1,1,2-Trichloroethane

Concen: 24.547 ug/l

RT: 8.53 min Scan# 811

Delta R.T. -0.11 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

UST-S

Tot Ion: 97 Resp: 19963

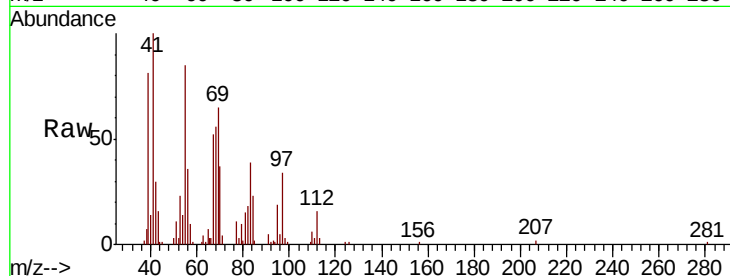
Ion Ratio Lower Upper

97 100

83 113.8 66.6 100.0#

85 6.9 47.4 71.0#

99 1.9 53.2 79.8#

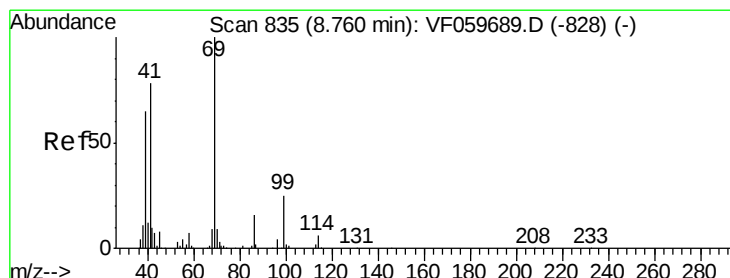
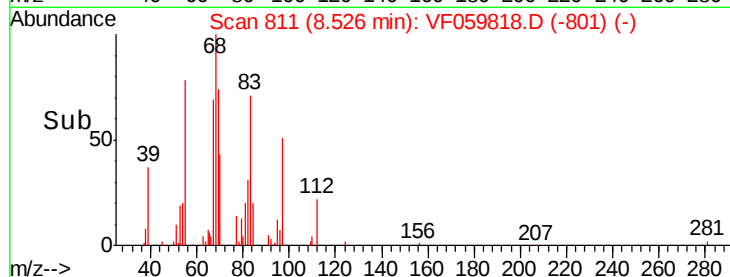
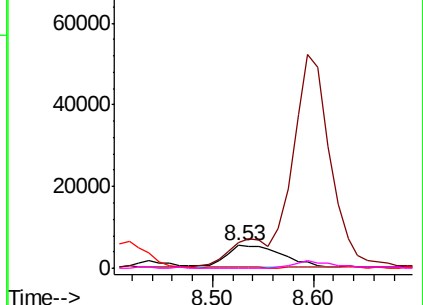


Abundance Ion 97.00 (96.70 to 97.70): VF0

Ion 82.95 (82.65 to 83.65): VF0

Ion 84.95 (84.65 to 85.65): VF0

Ion 98.95 (98.65 to 99.65): VF0



#56

Ethyl methacrylate

Concen: 398.081 ug/l

RT: 8.77 min Scan# 836

Delta R.T. 0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

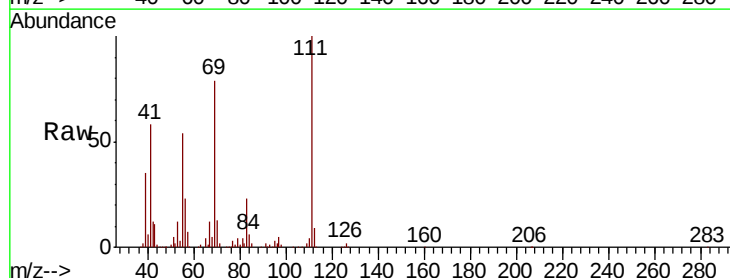
Tgt Ion: 69 Resp: 337626

Ion Ratio Lower Upper

69 100

41 73.7 62.3 93.5

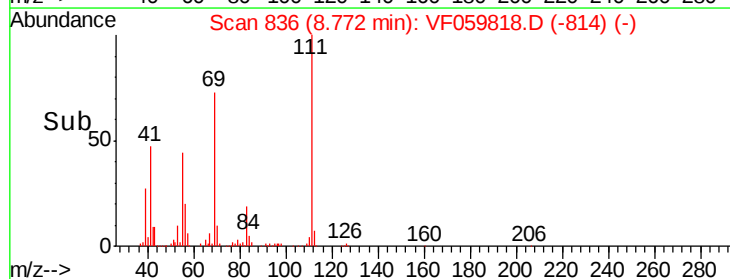
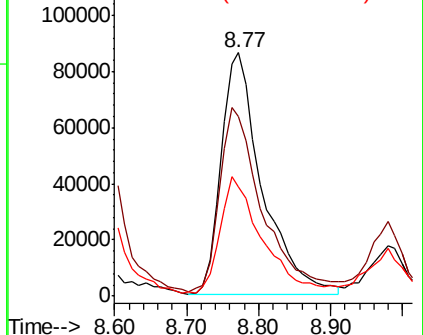
39 44.8 52.4 78.6#

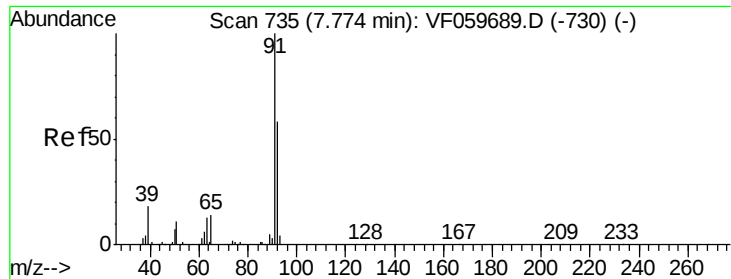


Abundance Ion 69.00 (68.70 to 69.70): VF0

Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0





#58

2-Chloroethyl Vinyl ether

Concen: 11.989 ug/l

RT: 7.79 min Scan# 736

Delta R.T. 0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

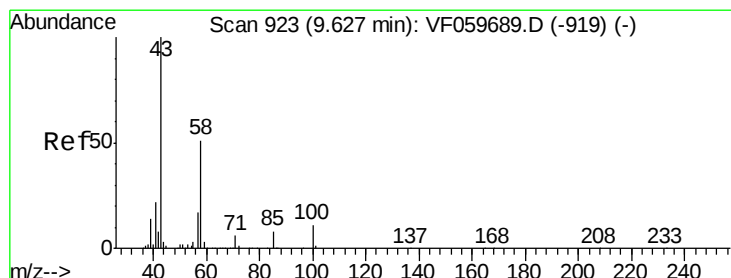
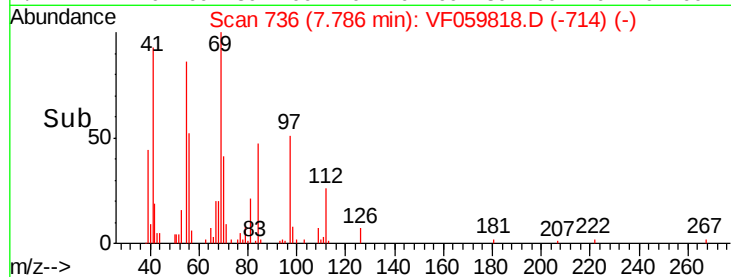
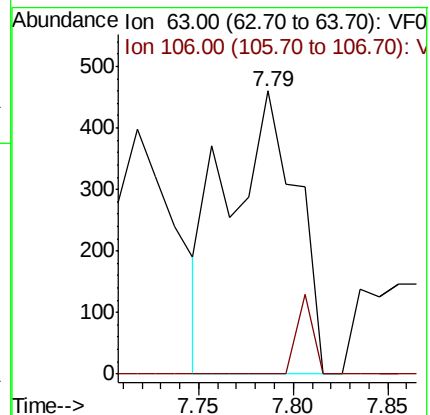
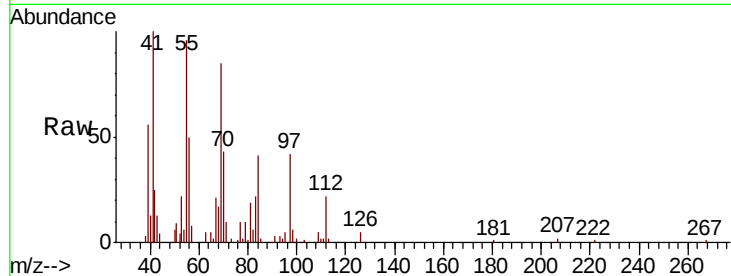
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Tot Ion: 63 Resp: 1174

Ion Ratio Lower Upper

63 100

106 0.0 0.0 0.0



#59

2-Hexanone

Concen: 40.480 ug/l

RT: 9.55 min Scan# 915

Delta R.T. -0.08 min

Lab File: VF059818.D

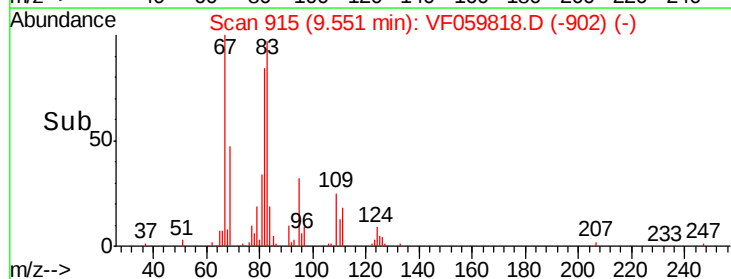
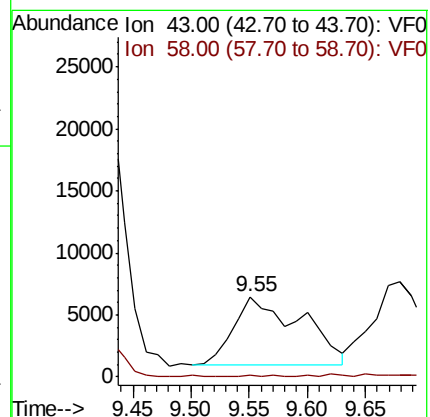
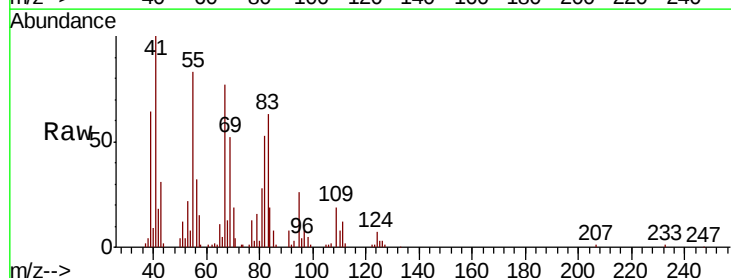
Acq: 2 Aug 2018 23:21

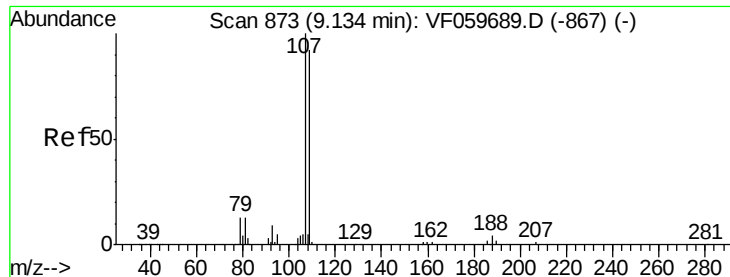
Tgt Ion: 43 Resp: 21940

Ion Ratio Lower Upper

43 100

58 1.8 23.3 69.8#





#61

1,2-Dibromoethane

Concen: 1.807 ug/l

RT: 9.25 min Scan# 884

Delta R.T. 0.11 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

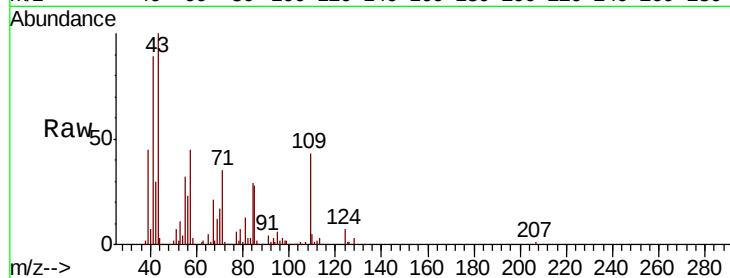
UST-S

Tot Ion:107 Resp: 1716

Ion Ratio Lower Upper

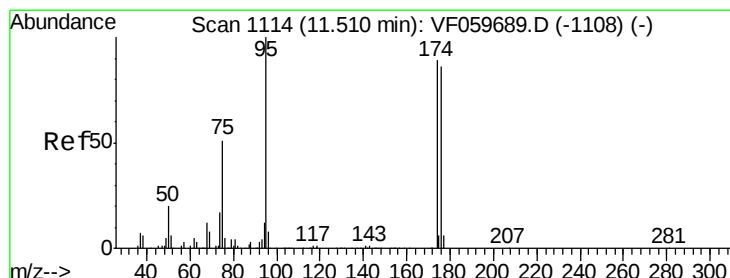
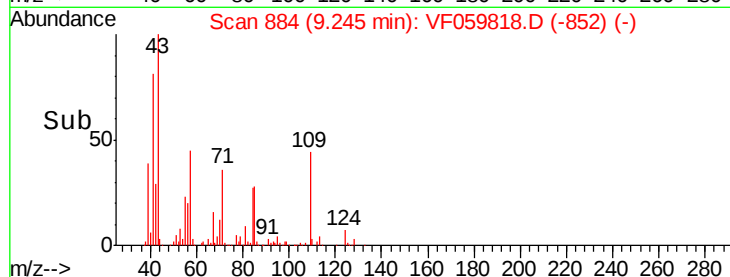
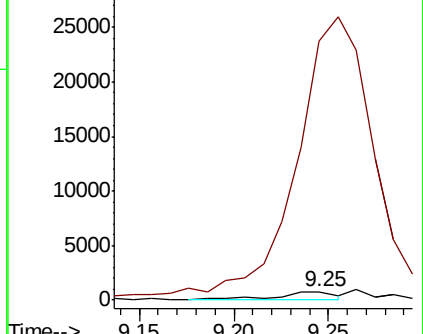
107 100

109 3093.8 73.6 110.4#



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V



#62

4-Bromofluorobenzene

Concen: 75.094 ug/l

RT: 11.51 min Scan# 1114

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

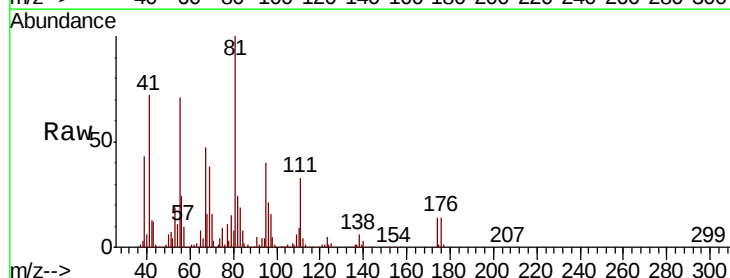
Tgt Ion: 95 Resp: 149723

Ion Ratio Lower Upper

95 100

174 34.8 0.0 178.4

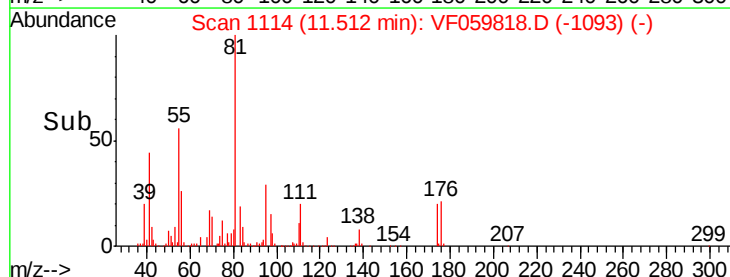
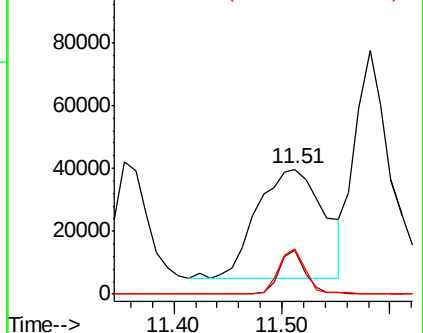
176 36.2 0.0 173.0

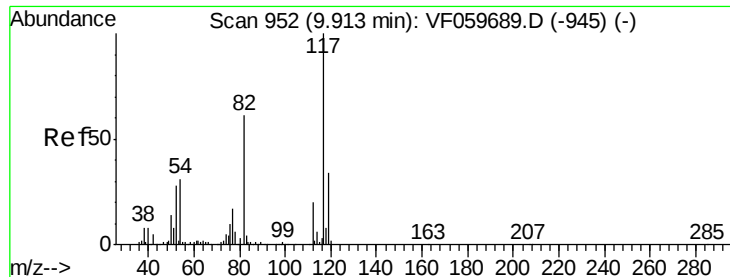


Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V

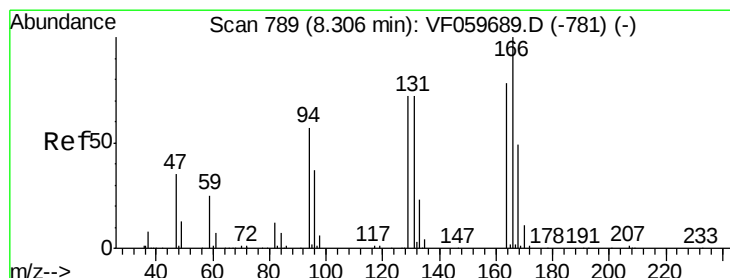
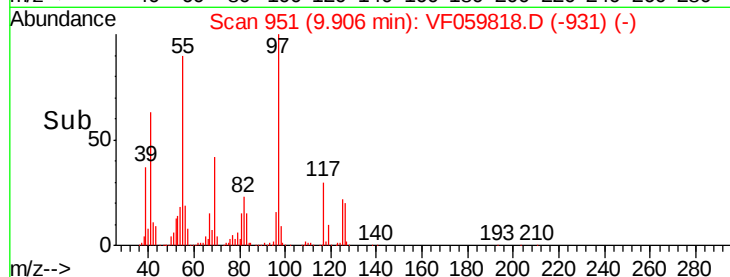
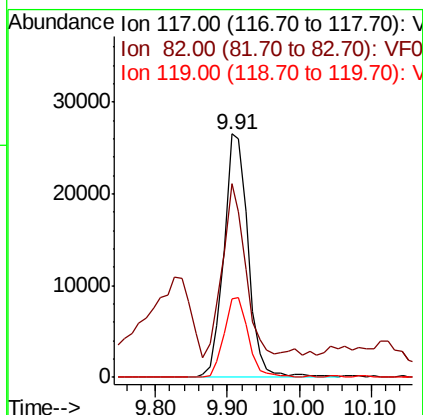
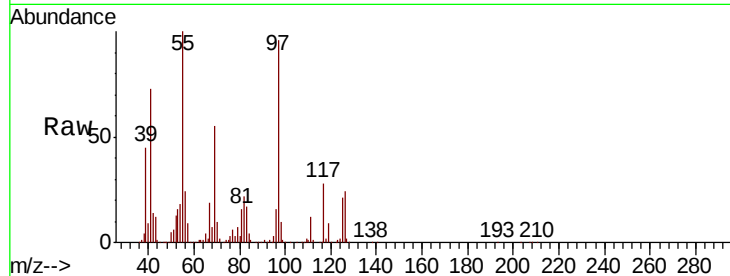




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.91 min Scan# 951  
Delta R.T. -0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

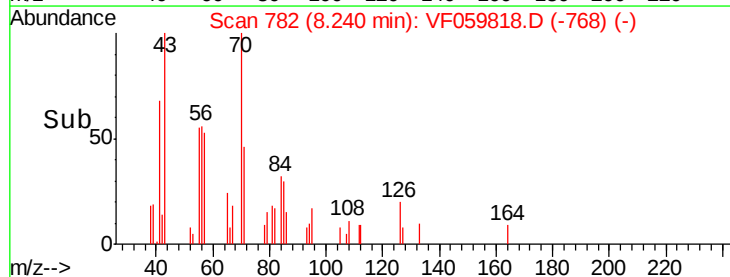
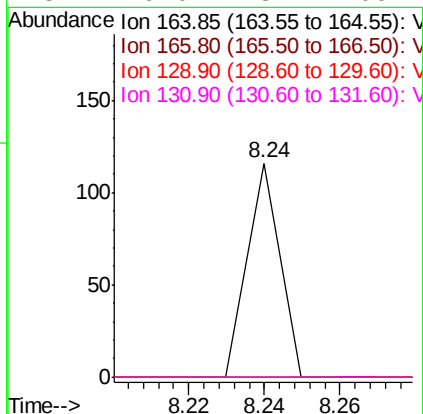
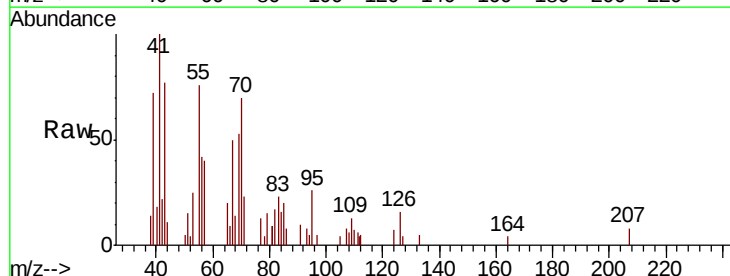
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

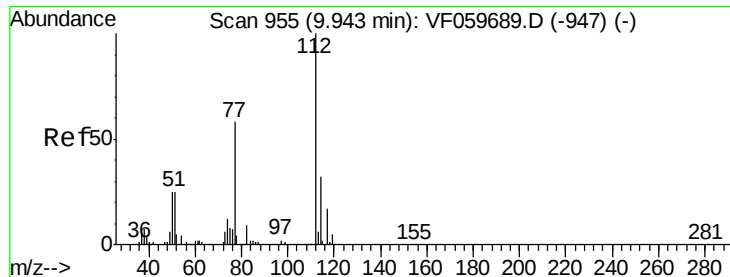
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 79.5  | 49.0  | 73.4# |
| 119     | 32.2  | 27.3  | 40.9  |



#64  
Tetrachloroethene  
Concen: Below Cal  
RT: 8.24 min Scan# 782  
Delta R.T. -0.07 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 0.0   | 102.1 | 153.1# |
| 129     | 0.0   | 73.8  | 110.6# |
| 131     | 0.0   | 73.1  | 109.7# |

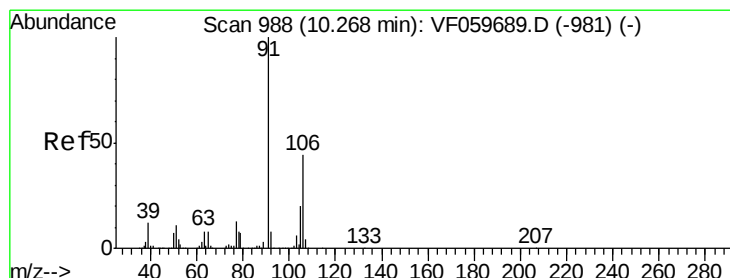
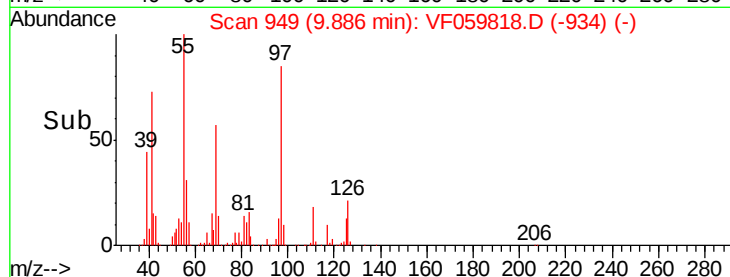
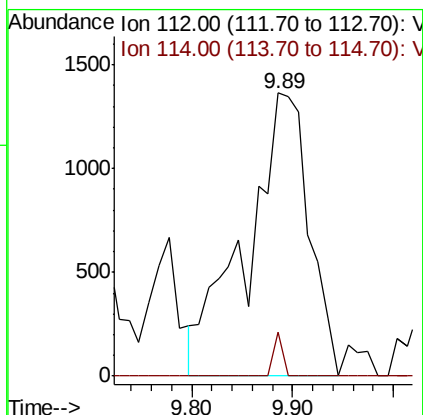
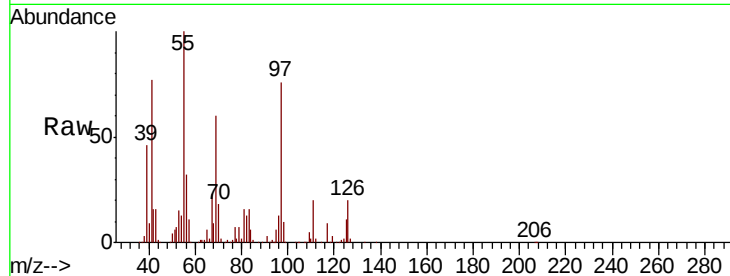




#65  
Chlorobenzene  
Concen: 4.754 ug/l  
RT: 9.89 min Scan# 949  
Delta R.T. -0.06 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

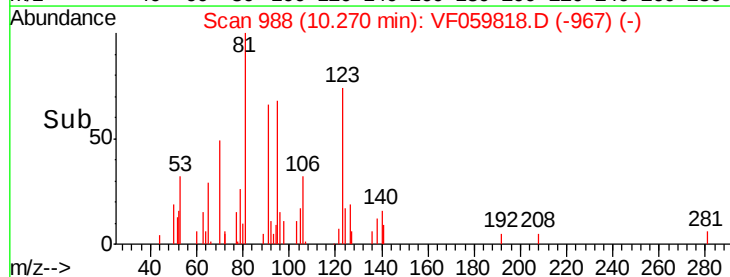
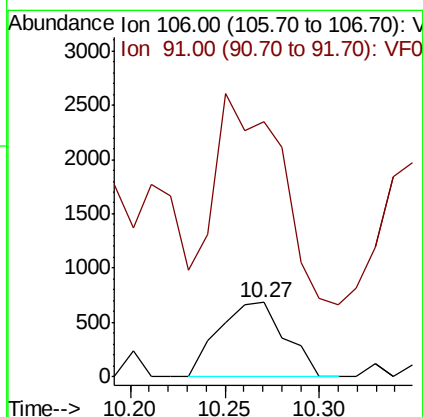
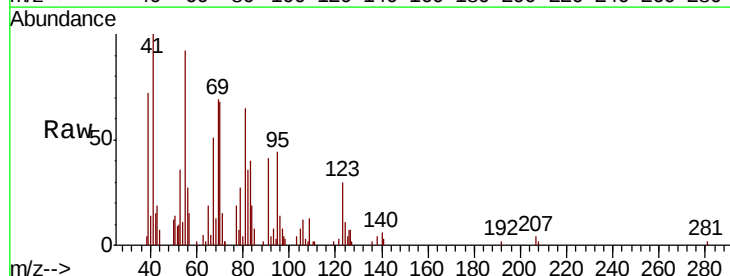
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

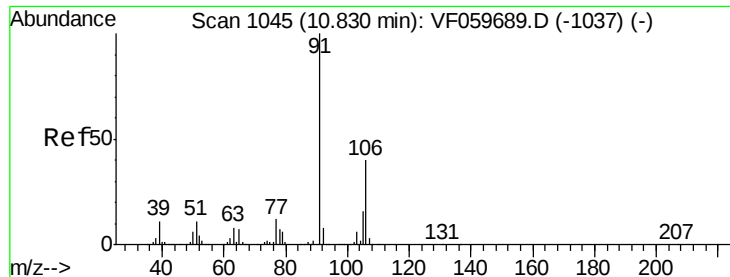
Tot Ion:112 Resp: 5890  
Ion Ratio Lower Upper  
112 100  
114 15.5 25.6 38.4#



#68  
m/p-Xylenes  
Concen: Below Cal  
RT: 10.27 min Scan# 988  
Delta R.T. 0.00 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion:106 Resp: 1667  
Ion Ratio Lower Upper  
106 100  
91 343.9 181.7 272.5#

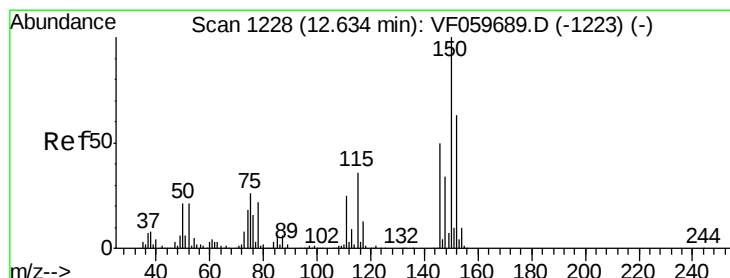
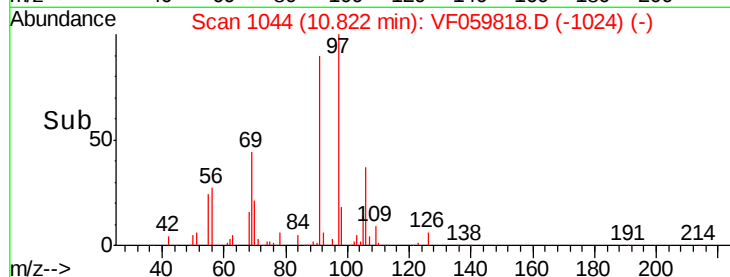
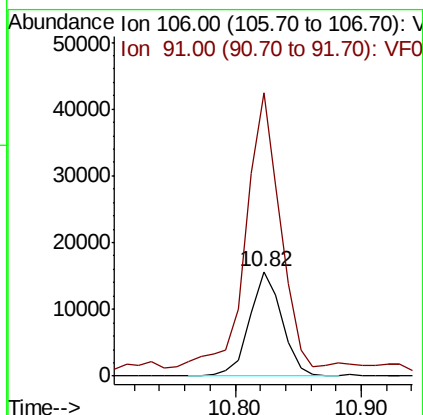
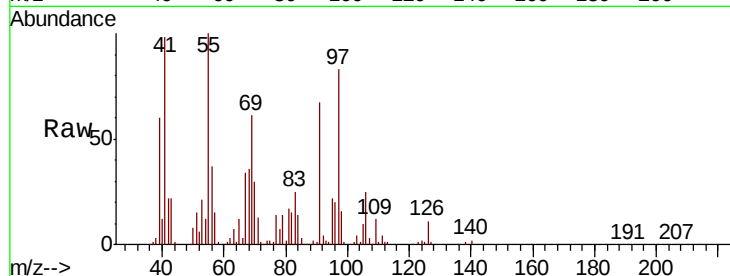




#69  
o-Xylene  
Concen: 35.543 ug/l  
RT: 10.82 min Scan# 1044  
Delta R.T. -0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

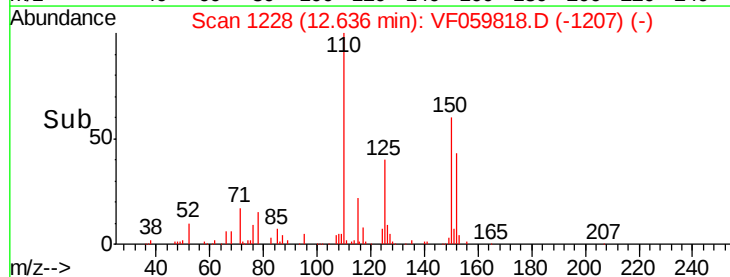
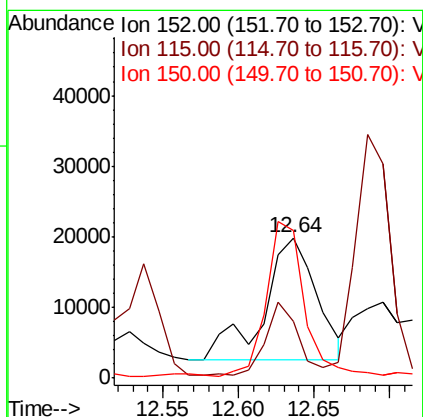
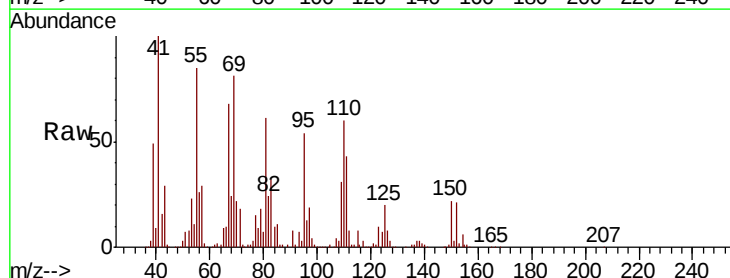
Instrument :  
MSVOA\_F  
ClientSampled :  
UST-S

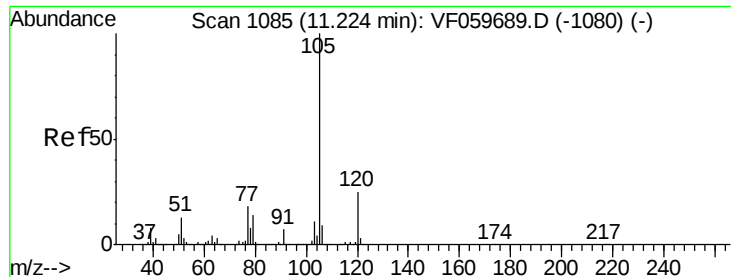
Tot Ion:106 Resp: 28075  
Ion Ratio Lower Upper  
106 100  
91 270.6 124.6 373.7



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.64 min Scan# 1228  
Delta R.T. 0.00 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion:152 Resp: 41698  
Ion Ratio Lower Upper  
152 100  
115 40.1 28.2 84.6  
150 105.4 0.0 316.2





#73

Isopropylbenzene

Concen: 1.583 ug/l

RT: 11.23 min Scan# 1085

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

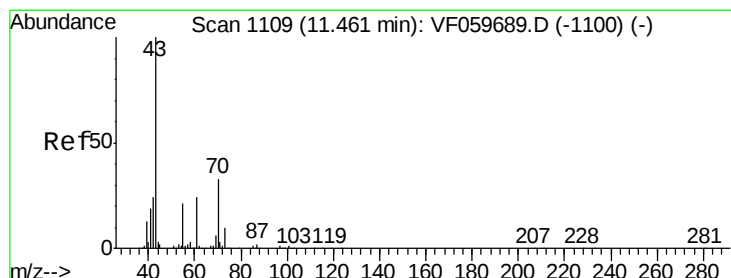
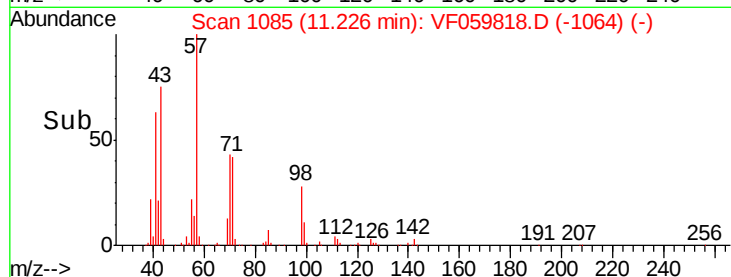
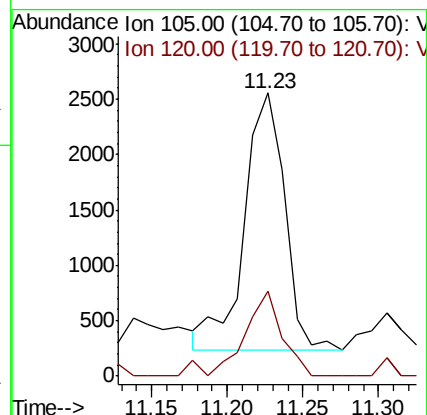
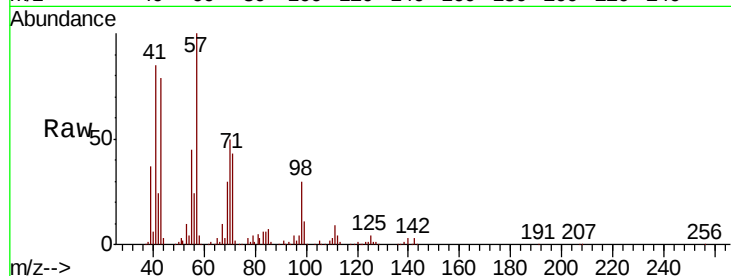
UST-S

Tot Ion:105 Resp: 4330

Ion Ratio Lower Upper

105 100

120 30.1 12.4 37.4



#74

N-ethyl acetate

Concen: 47.512 ug/l

RT: 11.48 min Scan# 1111

Delta R.T. 0.02 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Tgt Ion: 43 Resp: 32796

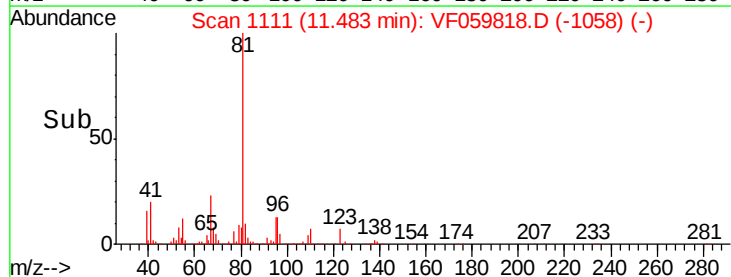
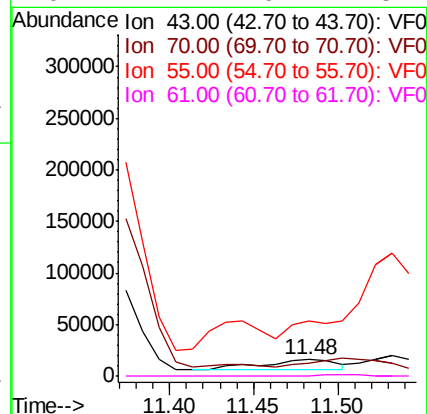
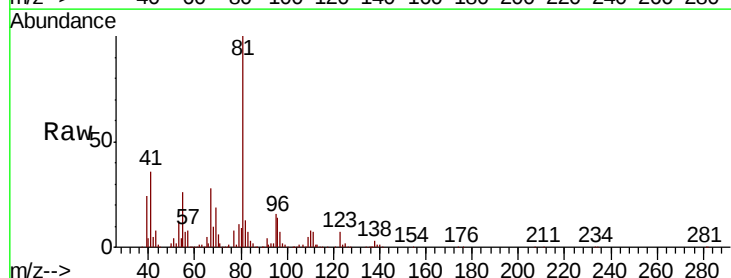
Ion Ratio Lower Upper

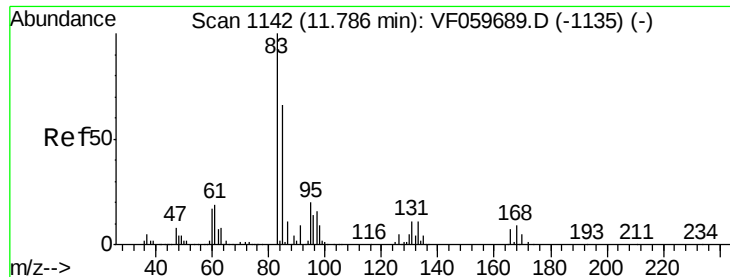
43 100

70 81.9 26.3 39.5#

55 343.2 16.6 25.0#

61 1.2 19.1 28.7#





#75

1,1,2,2-Tetrachloroethane

Concen: 225.723 ug/l

RT: 11.77 min Scan# 1140

Delta R.T. -0.02 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

UST-S

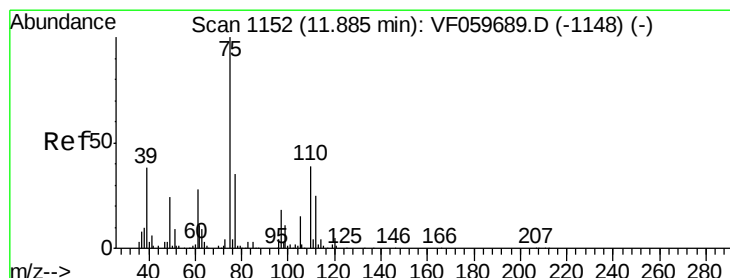
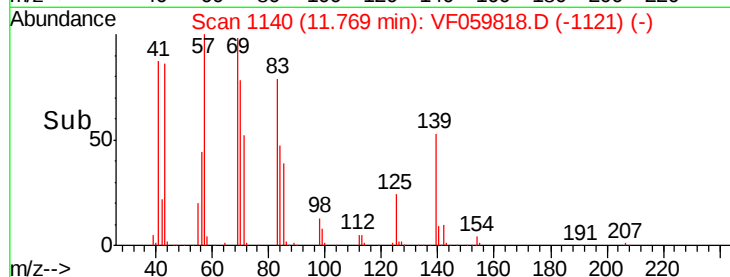
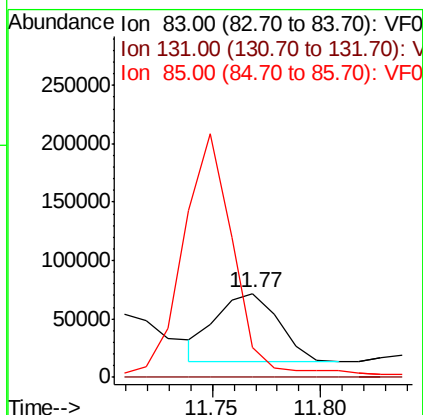
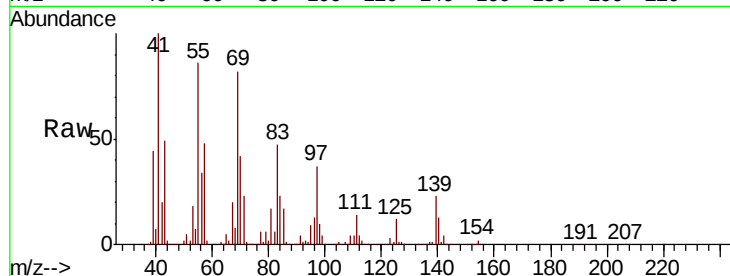
Tot Ion: 83 Resp: 116253

Ion Ratio Lower Upper

83 100

131 0.0 5.8 17.3#

85 35.8 32.8 98.3



#76

1,2,3-Trichloropropane

Concen: 9.440 ug/l

RT: 11.91 min Scan# 1154

Delta R.T. 0.02 min

Lab File: VF059818.D

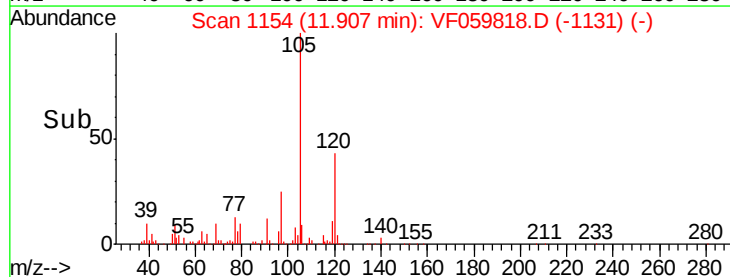
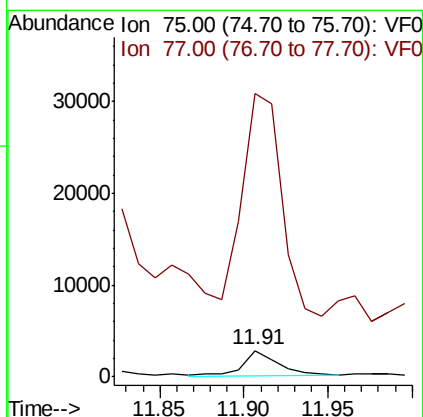
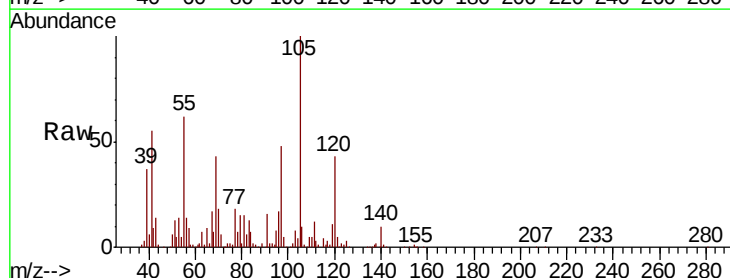
Acq: 2 Aug 2018 23:21

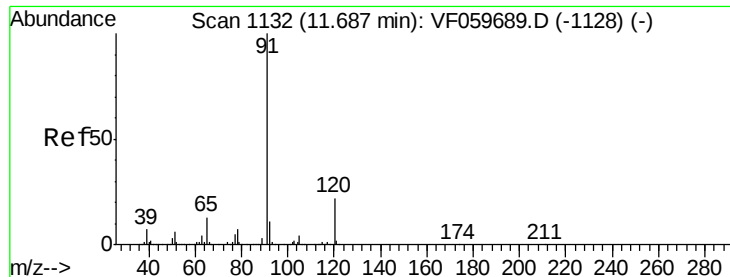
Tgt Ion: 75 Resp: 4134

Ion Ratio Lower Upper

75 100

77 1060.8 18.0 54.0#





#78

n-propylbenzene

Concen: Below Cal

RT: 11.69 min Scan# 1132

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampled :

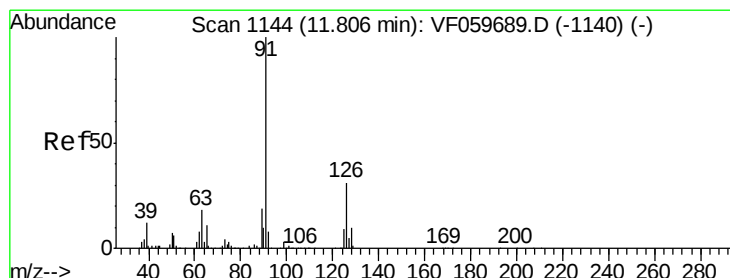
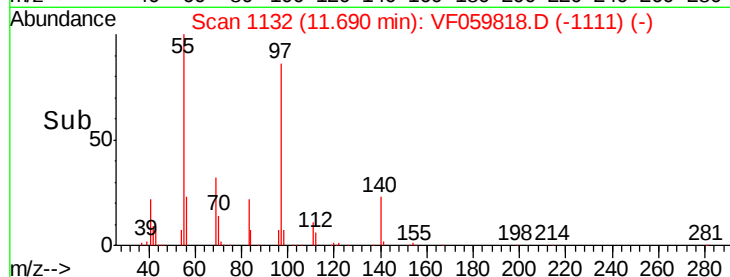
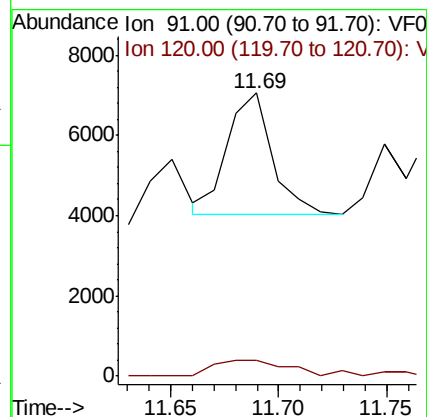
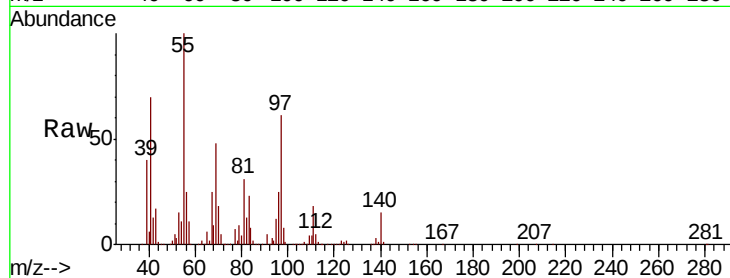
UST-S

Tot Ion: 91 Resp: 4349

Ion Ratio Lower Upper

91 100

120 5.7 11.0 33.0#



#79

2-Chlorotoluene

Concen: Below Cal

RT: 11.65 min Scan# 1128

Delta R.T. -0.15 min

Lab File: VF059818.D

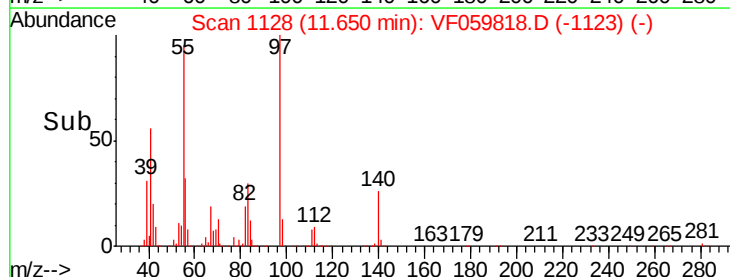
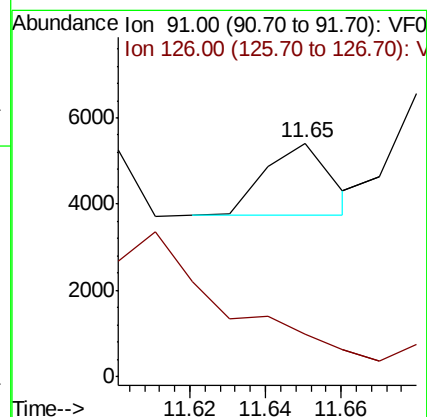
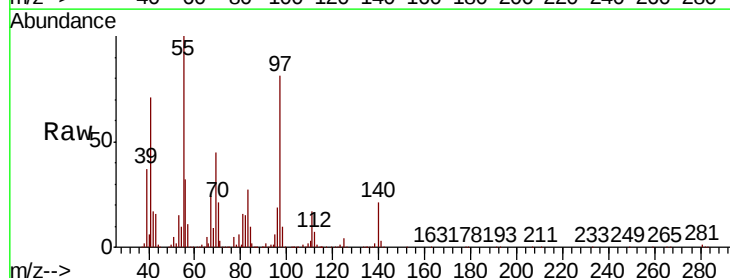
Acq: 2 Aug 2018 23:21

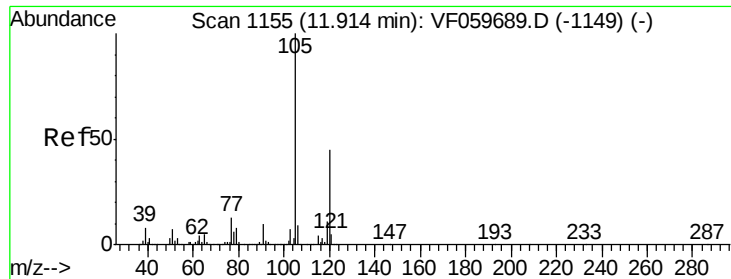
Tgt Ion: 91 Resp: 2037

Ion Ratio Lower Upper

91 100

126 18.2 15.4 46.2

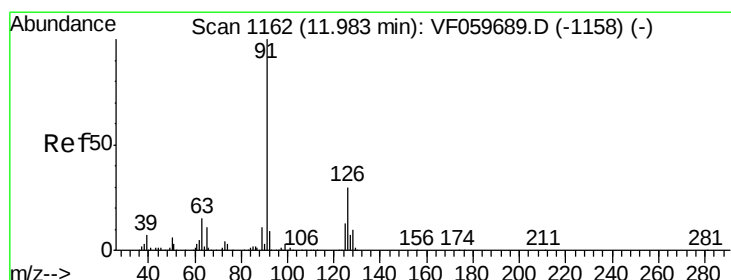
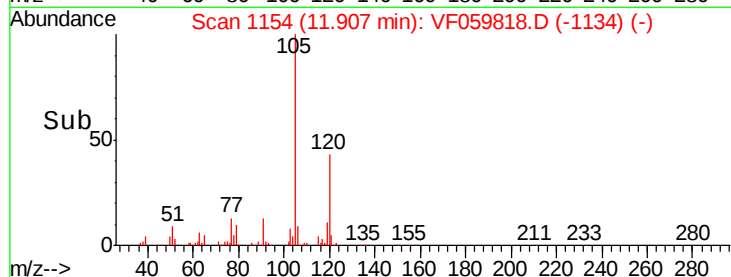
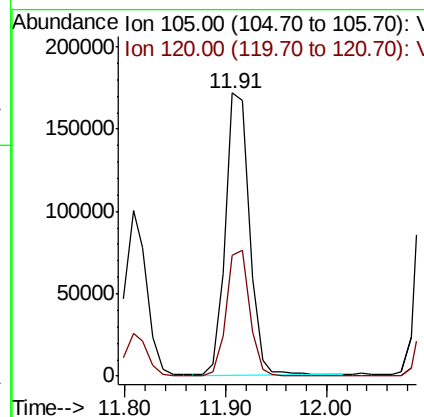
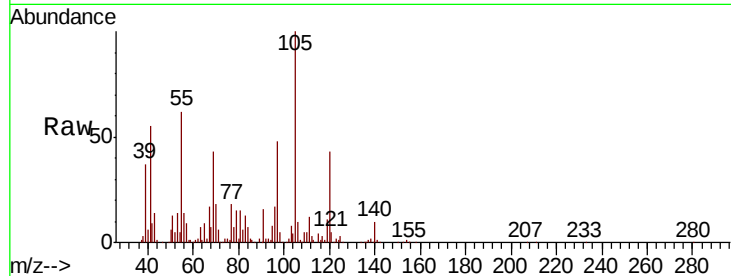




#80  
 1,3,5-Trimethylbenzene  
 Concen: 139.273 ug/l  
 RT: 11.91 min Scan# 1154  
 Delta R.T. -0.01 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

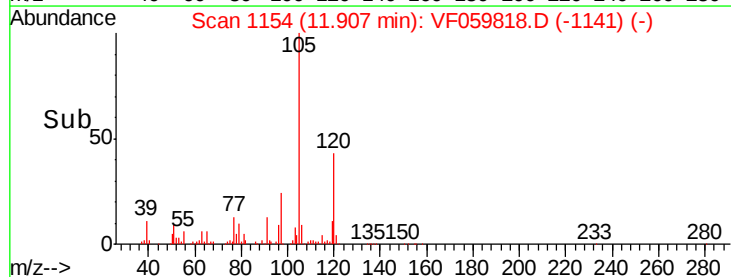
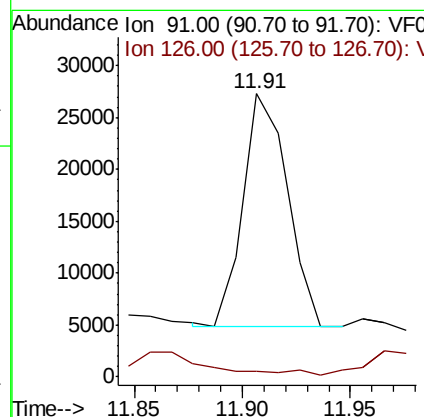
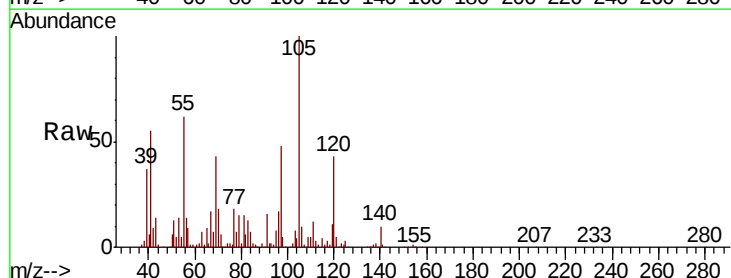
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

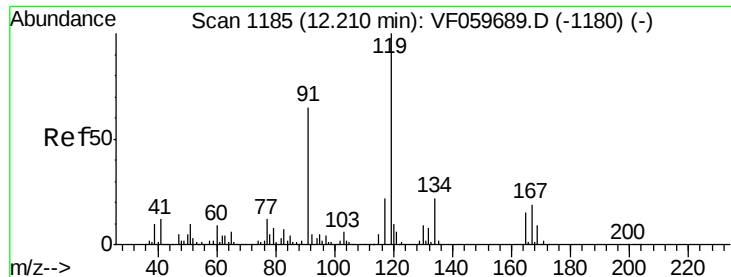
Tot Ion:105 Resp: 284426  
 Ion Ratio Lower Upper  
 105 100  
 120 42.7 22.7 68.0



#82  
 4-Chlorotoluene  
 Concen: 14.063 ug/l  
 RT: 11.91 min Scan# 1154  
 Delta R.T. -0.08 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

Tgt Ion: 91 Resp: 31953  
 Ion Ratio Lower Upper  
 91 100  
 126 1.9 15.2 45.6#

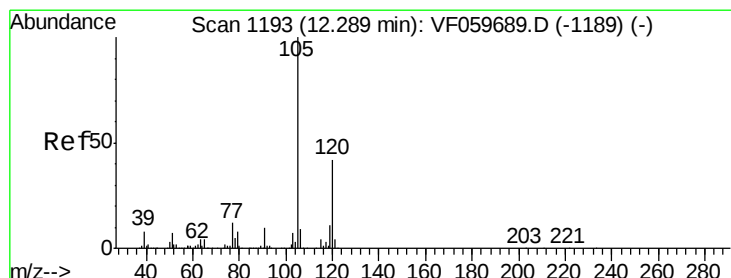
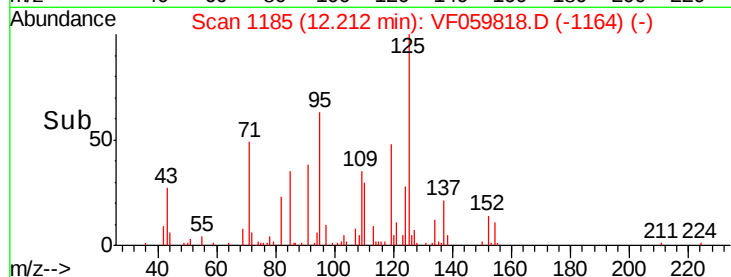
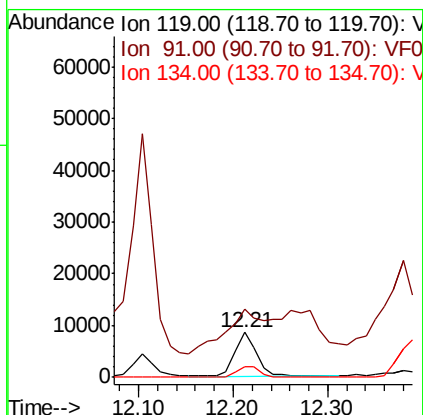
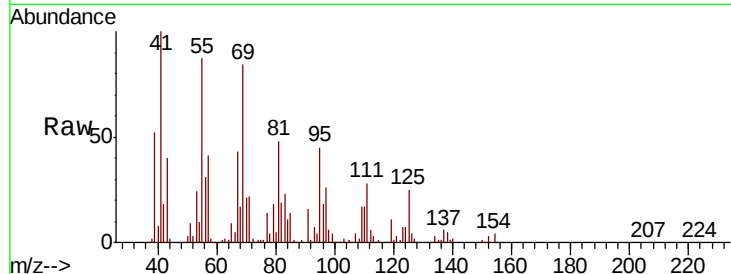




#83  
 tert-Butylbenzene  
 Concen: 5.647 ug/l  
 RT: 12.21 min Scan# 1185  
 Delta R.T. 0.00 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

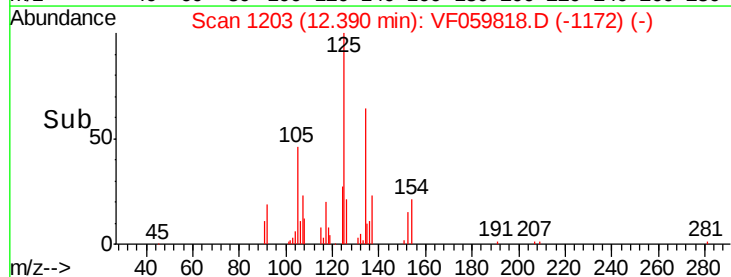
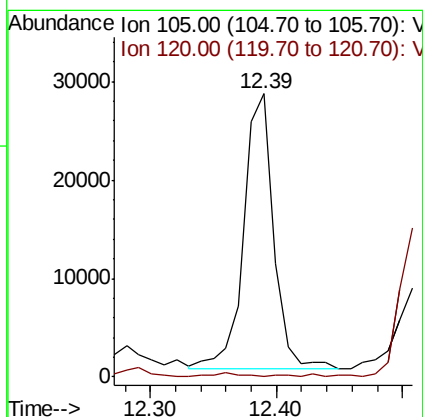
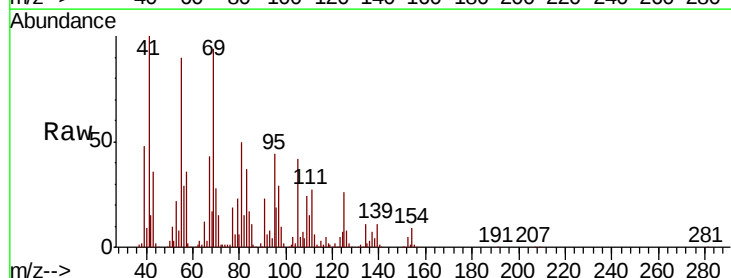
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

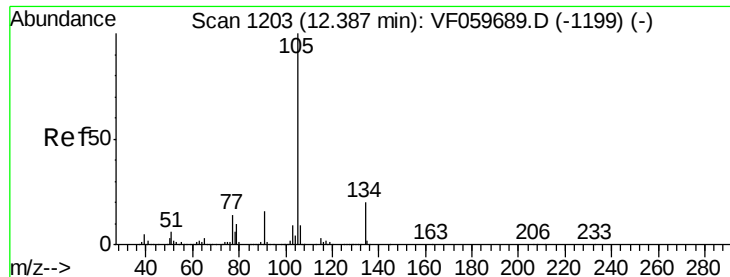
Tot Ion:119 Resp: 13870  
 Ion Ratio Lower Upper  
 119 100  
 91 152.0 32.8 98.4#  
 134 24.7 10.9 32.7



#84  
 1,2,4-Trimethylbenzene  
 Concen: 18.050 ug/l  
 RT: 12.39 min Scan# 1203  
 Delta R.T. 0.10 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

Tgt Ion:105 Resp: 46123  
 Ion Ratio Lower Upper  
 105 100  
 120 0.4 21.1 63.3#





#85

sec-Butylbenzene

Concen: 12.599 ug/l

RT: 12.39 min Scan# 1203

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampled :

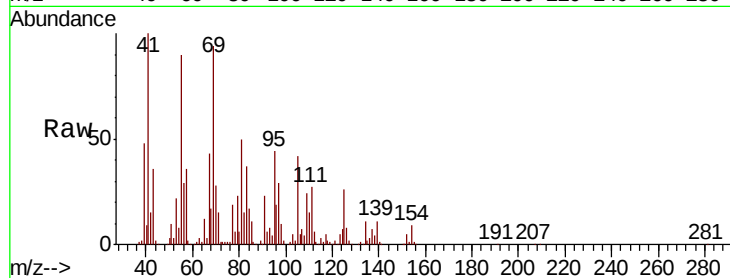
UST-S

Tot Ion:105 Resp: 46474

Ion Ratio Lower Upper

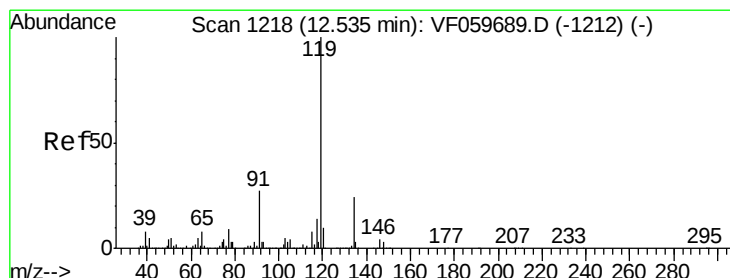
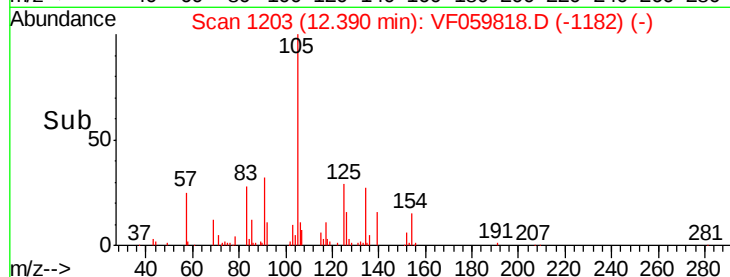
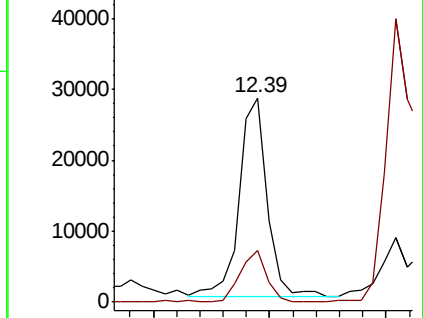
105 100

134 25.2 9.8 29.3



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V



#86

p-Isopropyltoluene

Concen: 91.342 ug/l

RT: 12.51 min Scan# 1215

Delta R.T. -0.03 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

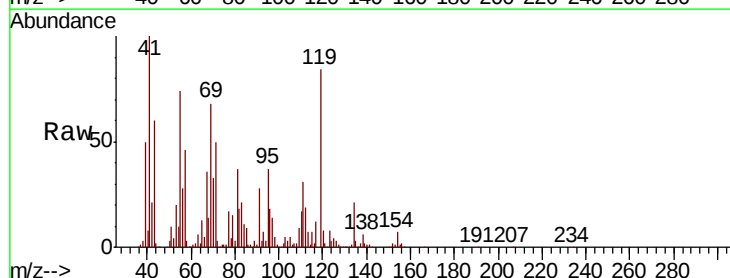
Tgt Ion:119 Resp: 211272

Ion Ratio Lower Upper

119 100

134 25.1 12.2 36.6

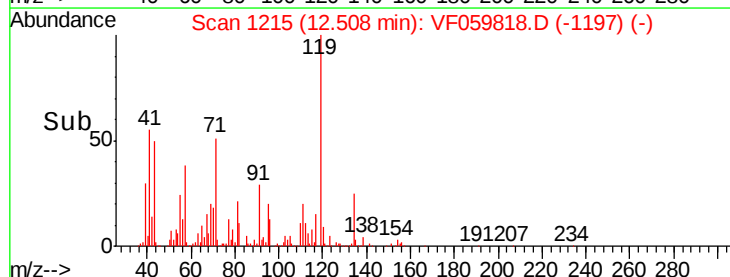
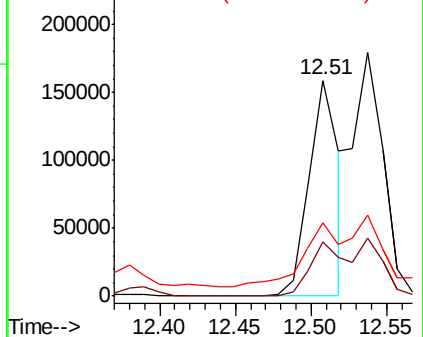
91 34.0 13.4 40.2

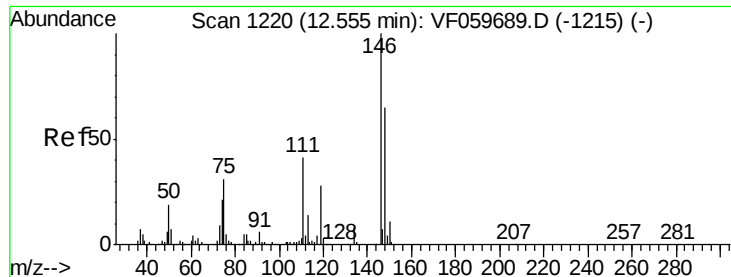


Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): VF0





#87

1,3-Dichlorobenzene

Concen: Below Cal

RT: 12.66 min Scan# 1230

Delta R.T. 0.10 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleId :

UST-S

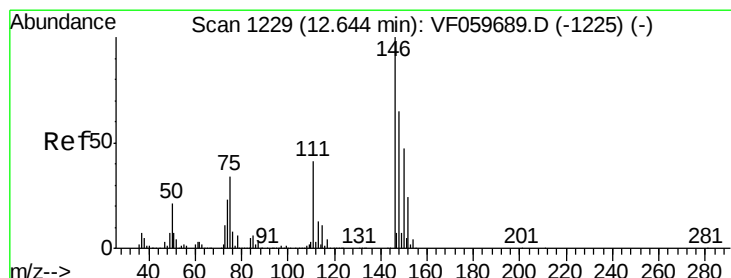
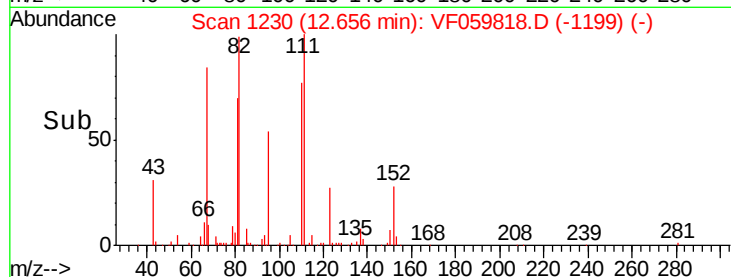
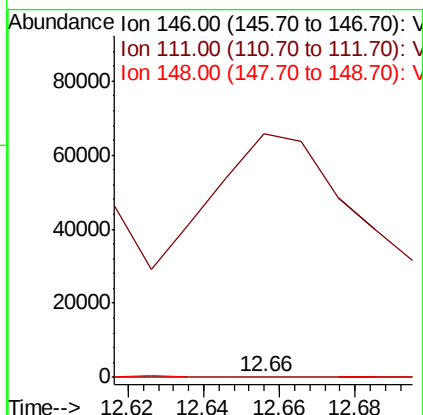
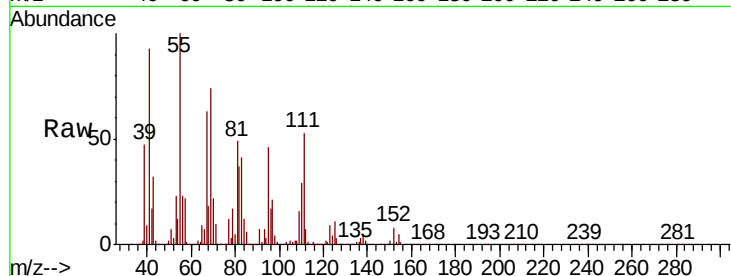
Tot Ion:146 Resp: 66

Ion Ratio Lower Upper

146 100

111 58707.1 20.7 62.1#

148 0.0 32.3 96.8#



#88

1,4-Dichlorobenzene

Concen: Below Cal

RT: 12.66 min Scan# 1230

Delta R.T. 0.01 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

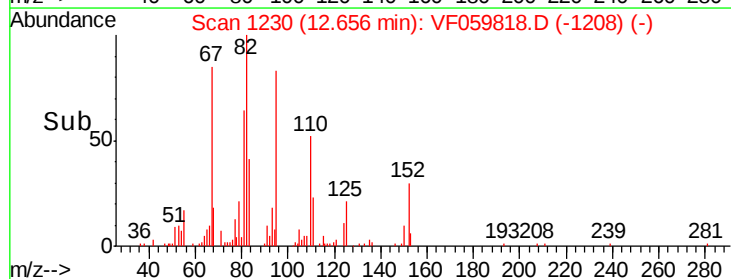
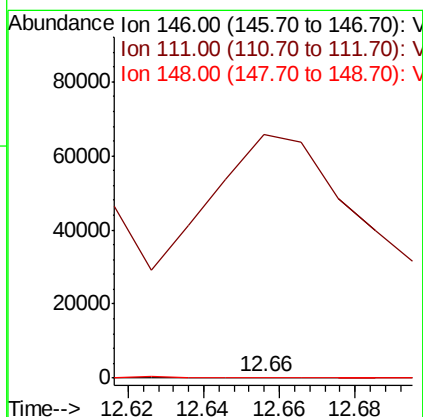
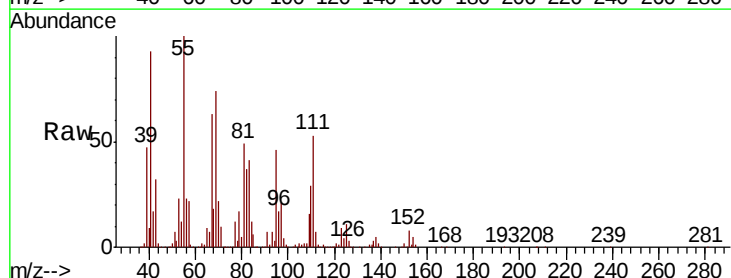
Tgt Ion:146 Resp: 66

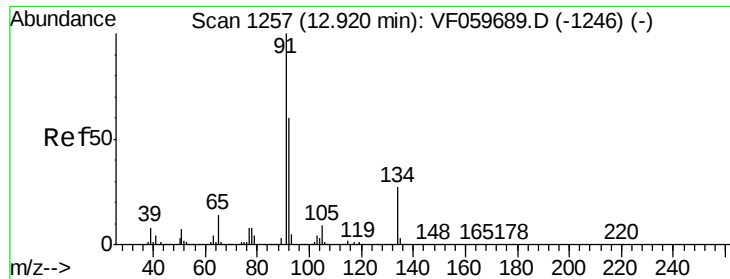
Ion Ratio Lower Upper

146 100

111 58707.1 20.8 62.2#

148 0.0 32.3 96.9#

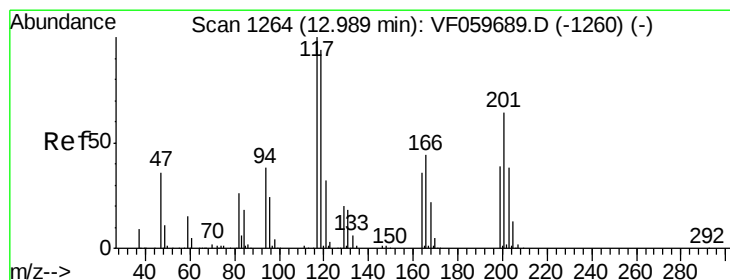
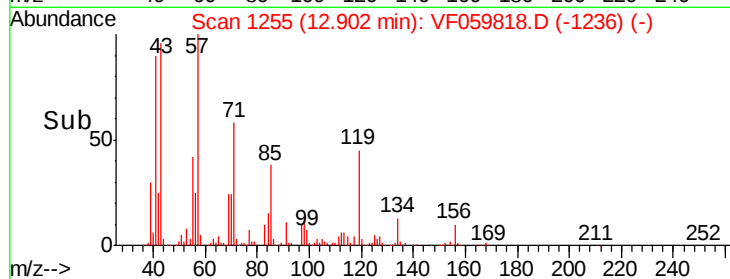
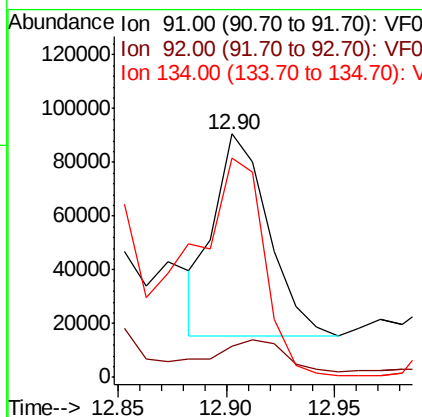
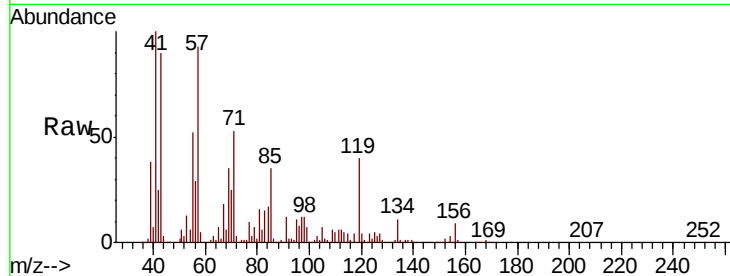




#89  
n-Butylbenzene  
Concen: 57.473 ug/l  
RT: 12.90 min Scan# 1255  
Delta R.T. -0.02 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

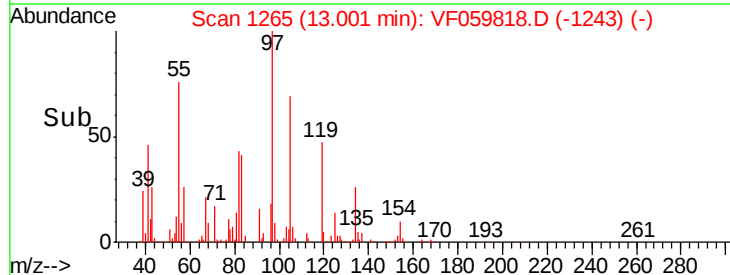
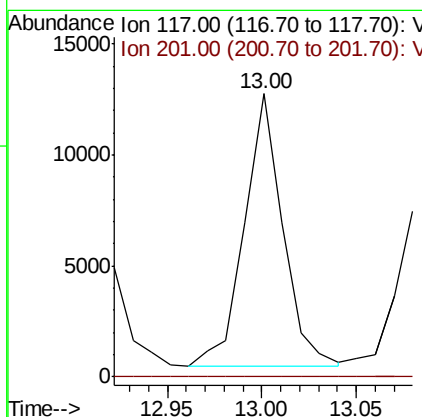
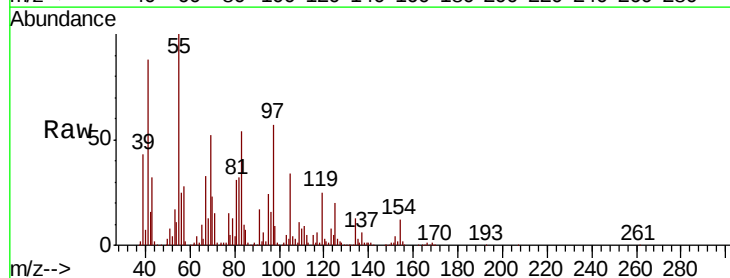
Instrument :  
MSVOA\_F  
ClientSampleId :  
UST-S

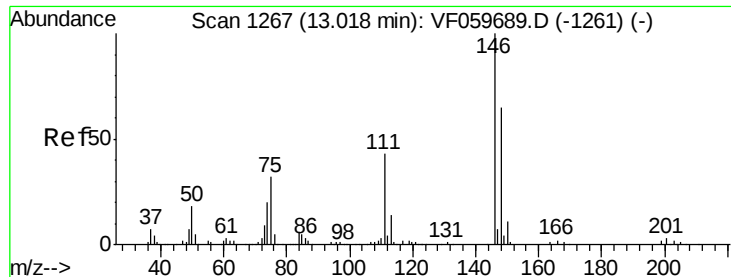
Tot Ion: 91 Resp: 130915  
Ion Ratio Lower Upper  
91 100  
92 12.7 30.1 90.3#  
134 90.2 13.7 41.0#



#90  
Hexachloroethane  
Concen: 24.959 ug/l  
RT: 13.00 min Scan# 1265  
Delta R.T. 0.01 min  
Lab File: VF059818.D  
Acq: 2 Aug 2018 23:21

Tgt Ion: 117 Resp: 17224  
Ion Ratio Lower Upper  
117 100  
201 0.0 31.9 95.5#





#91

1,2-Dichlorobenzene

Concen: Below Cal

RT: 12.96 min Scan# 1261

Delta R.T. -0.06 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

Instrument :

MSVOA\_F

ClientSampleID :

UST-S

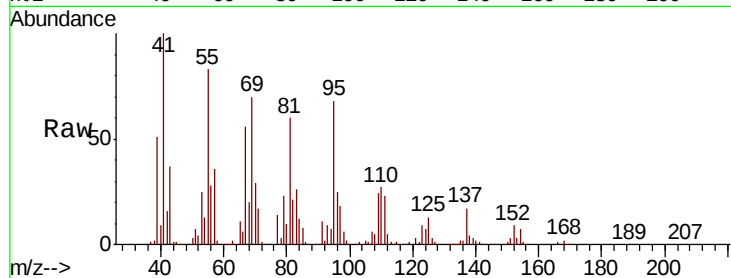
Tot Ion:146 Resp: 204

Ion Ratio Lower Upper

146 100

111 18414.7 21.6 65.0#

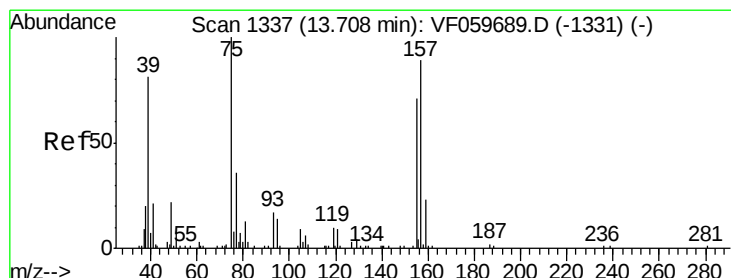
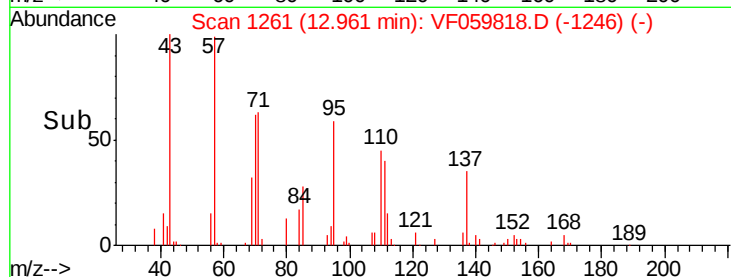
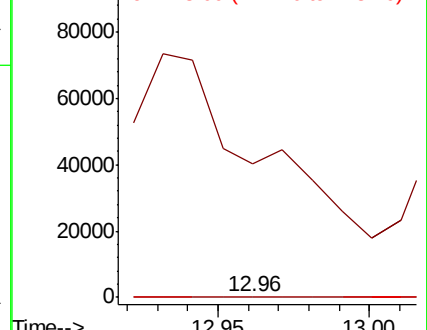
148 0.0 32.3 96.9#



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#92

1,2-Dibromo-3-Chloropropane

Concen: 47.283 ug/l

RT: 13.71 min Scan# 1337

Delta R.T. 0.00 min

Lab File: VF059818.D

Acq: 2 Aug 2018 23:21

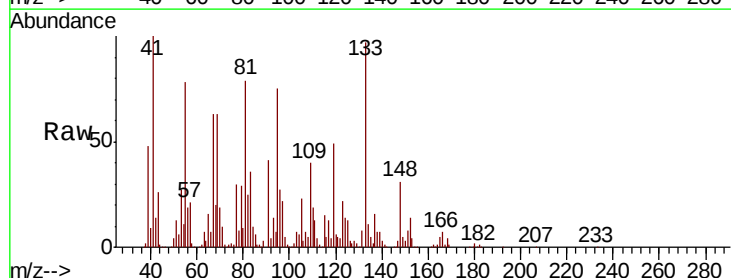
Tgt Ion: 75 Resp: 5953

Ion Ratio Lower Upper

75 100

155 21.9 35.4 106.2#

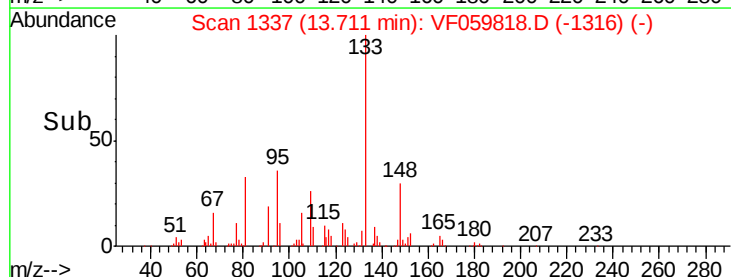
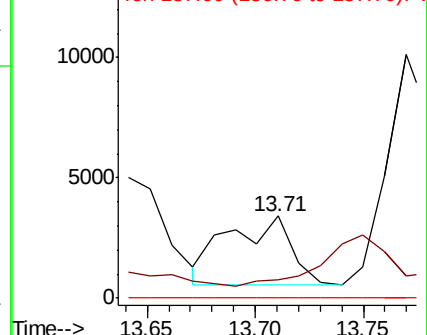
157 0.0 44.4 133.2#

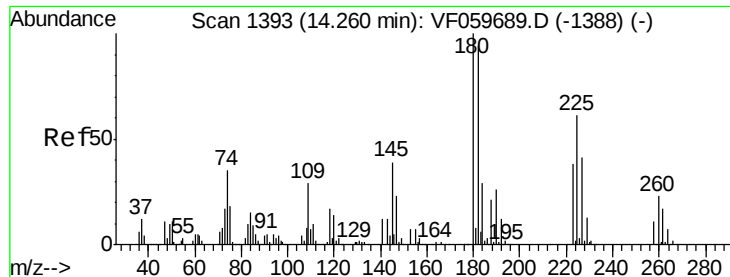


Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

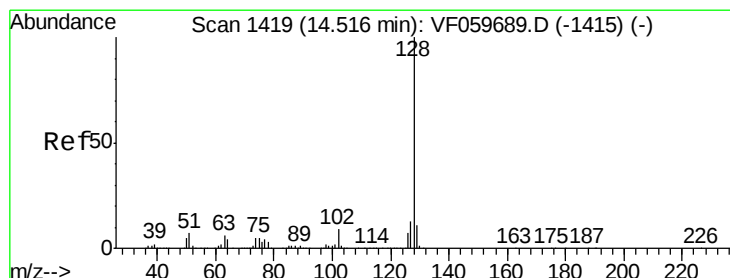
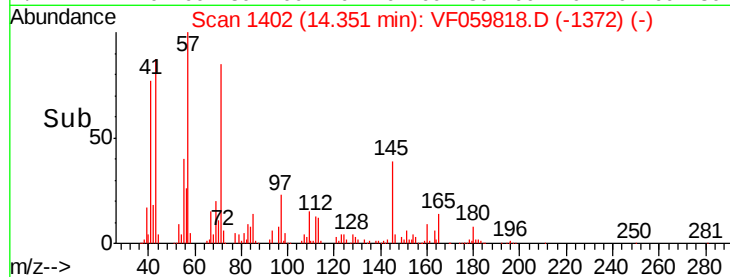
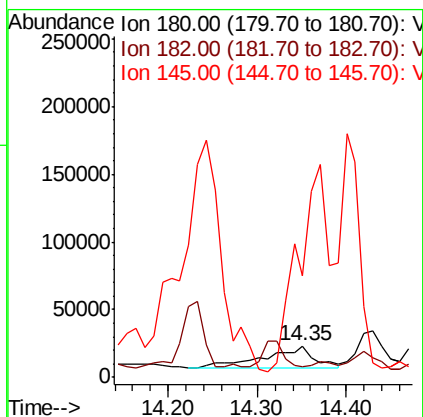
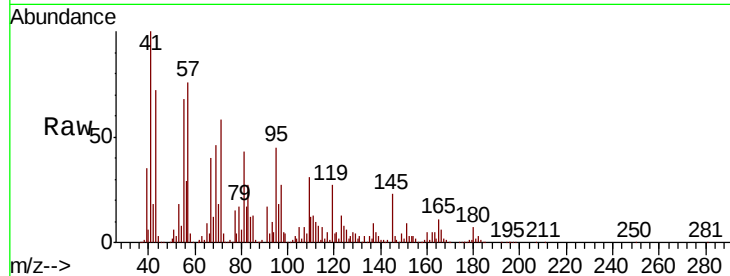




#93  
 1,2,4-Trichlorobenzene  
 Concen: 76.468 ug/l  
 RT: 14.35 min Scan# 1402  
 Delta R.T. 0.09 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

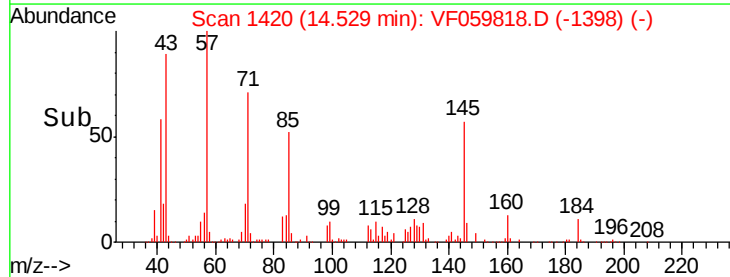
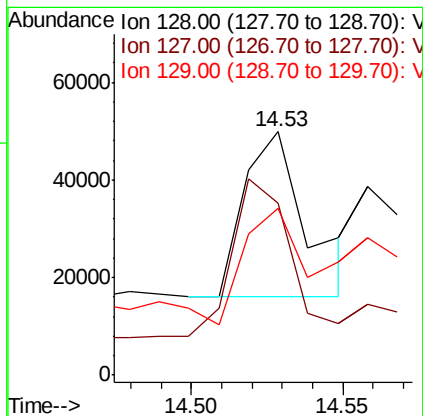
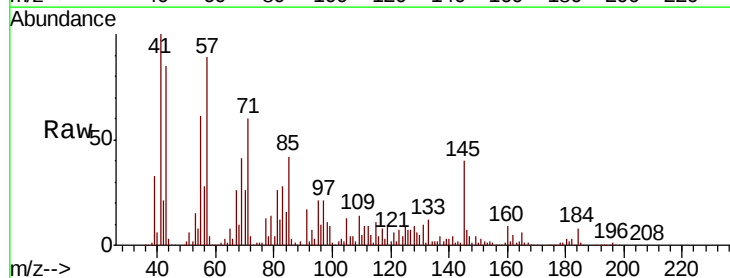
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

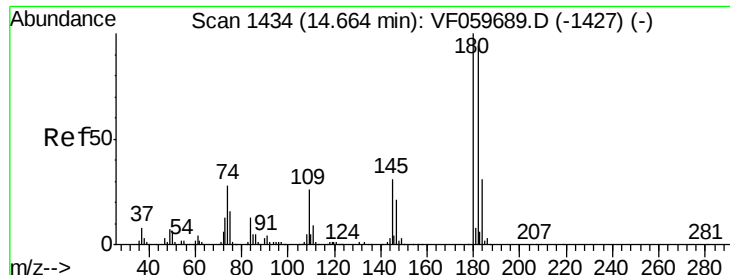
Tot Ion:180 Resp: 67151  
 Ion Ratio Lower Upper  
 180 100  
 182 35.8 47.2 141.6#  
 145 322.9 19.3 57.9#



#95  
 Naphthalene  
 Concen: 26.867 ug/l  
 RT: 14.53 min Scan# 1420  
 Delta R.T. 0.01 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

Tgt Ion:128 Resp: 48301  
 Ion Ratio Lower Upper  
 128 100  
 127 70.7 10.0 15.0#  
 129 68.8 8.6 13.0#





#96  
 1,2,3-Trichlorobenzene  
 Concen: 78.154 ug/l  
 RT: 14.71 min Scan# 1438  
 Delta R.T. 0.04 min  
 Lab File: VF059818.D  
 Acq: 2 Aug 2018 23:21

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 UST-S

Tot Ion:180 Resp: 77661  
 Ion Ratio Lower Upper  
 180 100  
 182 24.7 47.2 141.6#  
 145 103.6 15.6 46.7#

