

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU073018\  
 Data File : VU025724.D  
 Acq On : 30 Jul 2018 15:51  
 Operator : MD/SY  
 Sample : J4177-02  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SITE1-IDW-DRUM1-072518

Quant Time: Jul 31 03:37:36 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U072718W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 28 02:19:50 2018  
 Response via : Initial Calibration

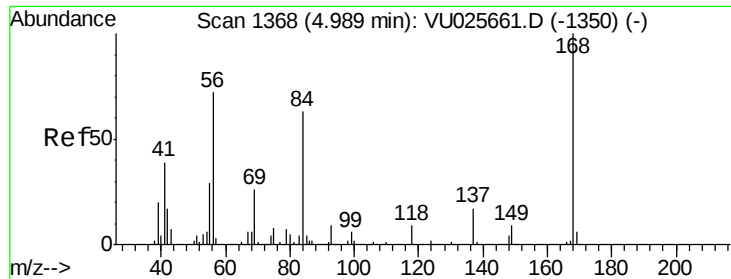
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.99  | 168  | 170327   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 272557   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 274489   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.49 | 152  | 166065   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.31  | 65   | 137125   | 51.67 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.34% |          |
| 35) Dibromofluoromethane    | 4.89  | 113  | 114112   | 48.14 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.28%  |          |
| 50) Toluene-d8              | 7.57  | 98   | 401457   | 48.39 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.78%  |          |
| 62) 4-Bromofluorobenzene    | 10.31 | 95   | 156021   | 48.46 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.92%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 10) Methyl Iodide              | 2.42  | 142  | 121      | 8.65      | ug/l # | 39     |
| 11) Tert butyl alcohol         | 2.83  | 59   | 1423     | 2.45      | ug/l # | 73     |
| 13) Acrolein                   | 2.19  | 56   | 40       | Below Cal | #      | 1      |
| 16) Acetone                    | 2.32  | 43   | 60277    | 46.59     | ug/l   | 97     |
| 18) Methyl Acetate             | 2.62  | 43   | 3956     | 1.27      | ug/l # | 87     |
| 20) Methylene Chloride         | 2.71  | 84   | 44598    | 19.45     | ug/l   | 97     |
| 25) 2-Butanone                 | 4.28  | 43   | 1932     | 1.10      | ug/l   | 95     |
| 29) Tetrahydrofuran            | 4.66  | 42   | 666      | 0.63      | ug/l # | 68     |
| 31) Cyclohexane                | 4.99  | 56   | 3235     | Below Cal | #      | 15     |
| 36) 1,1-Dichloropropene        | 4.99  | 75   | 12499    | 3.92      | ug/l # | 45     |
| 38) Carbon Tetrachloride       | 4.99  | 117  | 17119    | 4.74      | ug/l # | 16     |
| 43) Isopropyl Acetate          | 5.55  | 43   | 112703   | 20.65     | ug/l   | 99     |
| 48) Methyl methacrylate        | 6.71  | 41   | 14293    | 5.34      | ug/l # | 45     |
| 51) 4-Methyl-2-Pentanone       | 7.46  | 43   | 1112     | 0.33      | ug/l # | 84     |
| 54) cis-1,3-Dichloropropene    | 7.42  | 75   | 1003     | 0.26      | ug/l # | 77     |
| 56) Ethyl methacrylate         | 7.77  | 69   | 1786     | 0.52      | ug/l # | 76     |
| 59) 2-Hexanone                 | 8.42  | 43   | 9981     | 3.73      | ug/l # | 54     |
| 76) 1,2,3-Trichloropropane     | 10.31 | 75   | 81021    | 22.60     | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 10.31 | 75   | 81021    | 61.25     | ug/l # | 100    |
| 95) Naphthalene                | 13.76 | 128  | 2150     | 1.42      | ug/l # | 91     |

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





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 4.99 min Scan# 1368

Delta R.T. 0.00 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

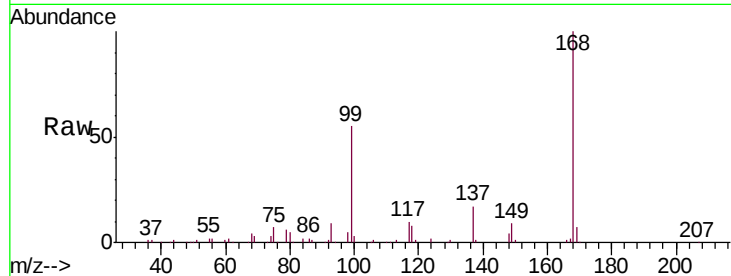
SITE1-IDW-DRUM1-072518

Tot Ion:168 Resp: 170327

Ion Ratio Lower Upper

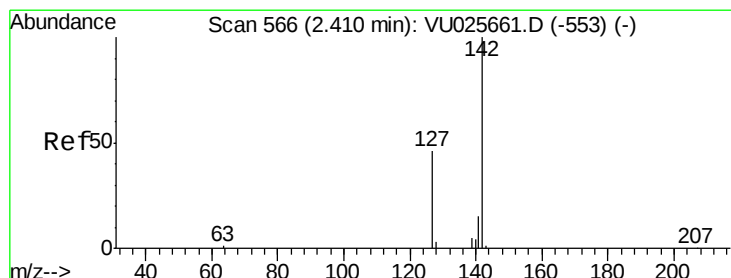
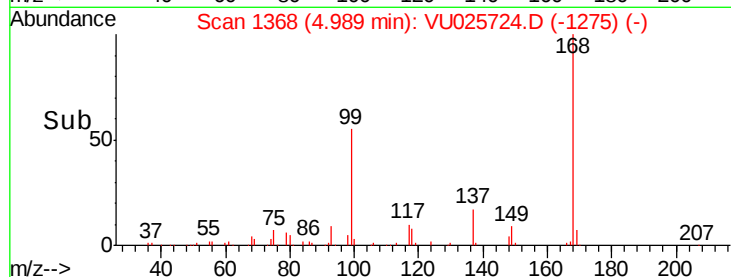
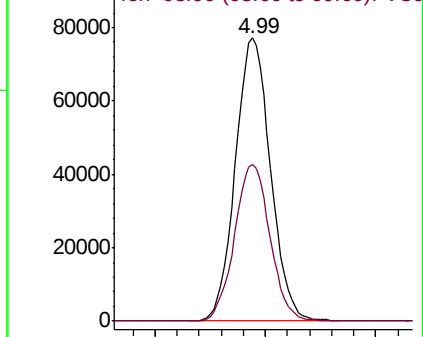
168 100

99 55.5 42.8 64.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VU0



#10

Methyl Iodide

Concen: 8.65 ug/l

RT: 2.42 min Scan# 569

Delta R.T. 0.01 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

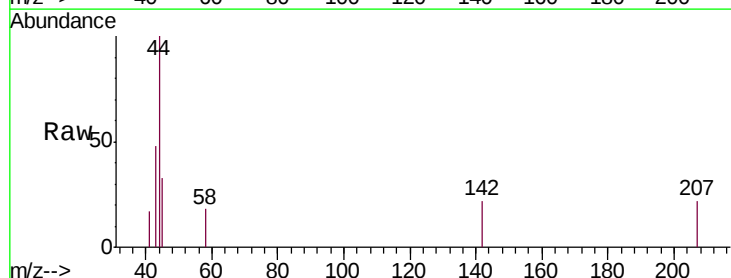
Tgt Ion:142 Resp: 121

Ion Ratio Lower Upper

142 100

127 0.0 36.5 54.7#

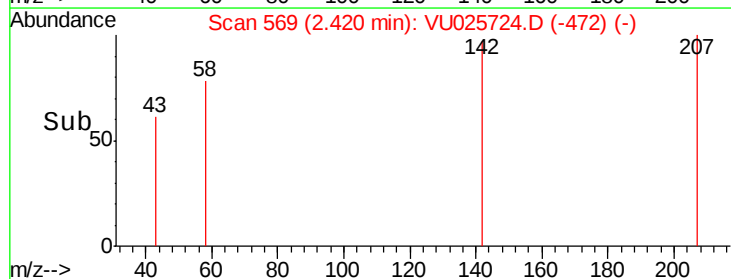
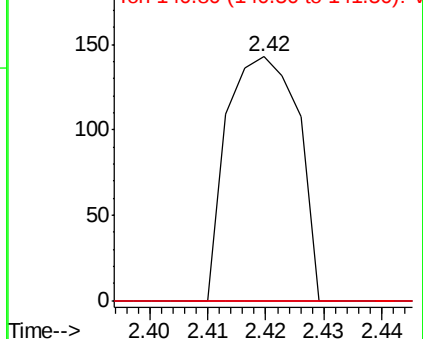
141 0.0 11.4 17.2#

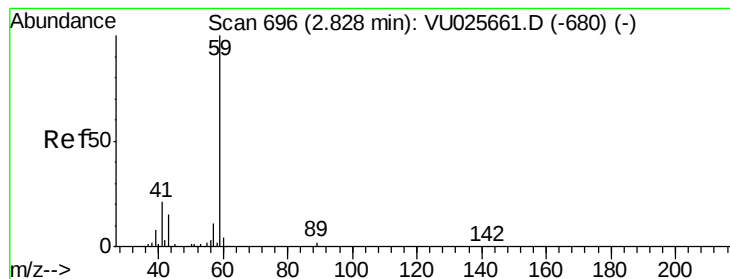


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



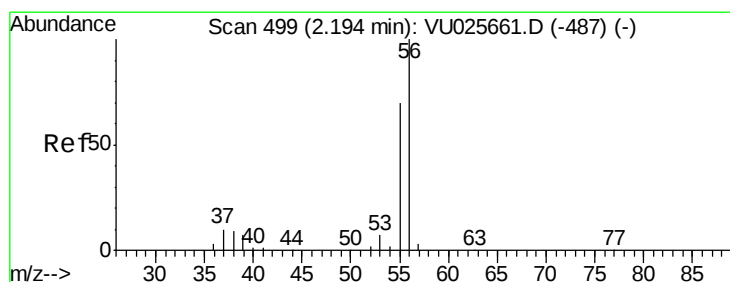
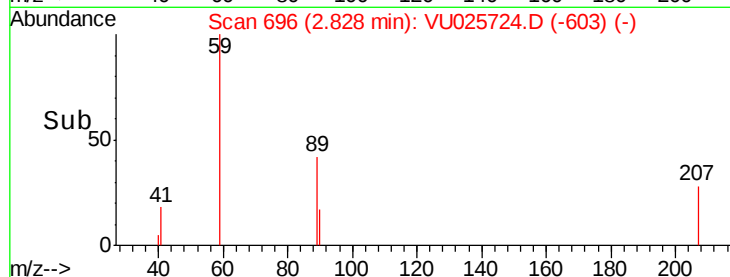
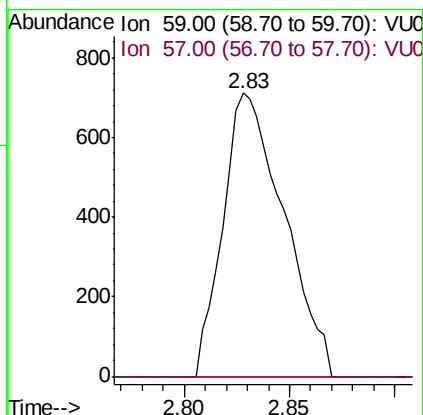
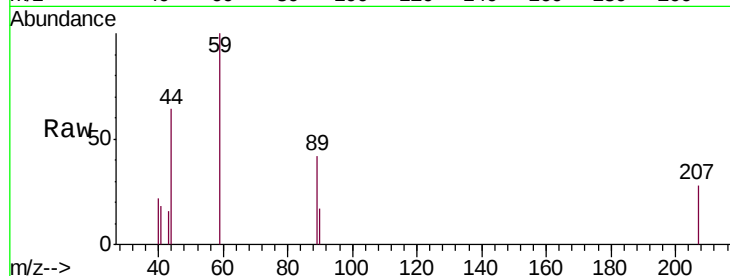


#11

Tert butyl alcohol  
 Concen: 2.45 ug/l  
 RT: 2.83 min Scan# 696  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SITE1-IDW-DRUM1-072518

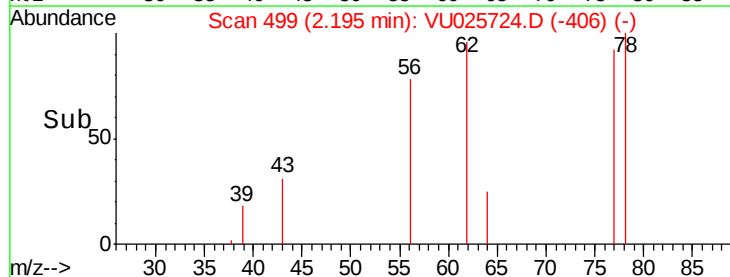
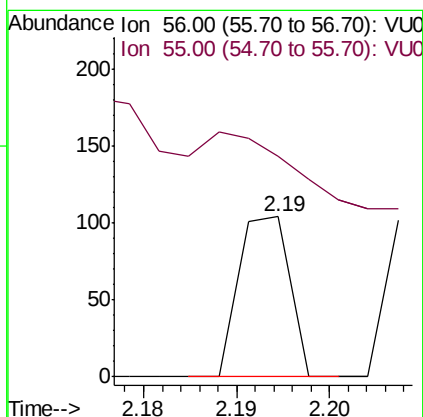
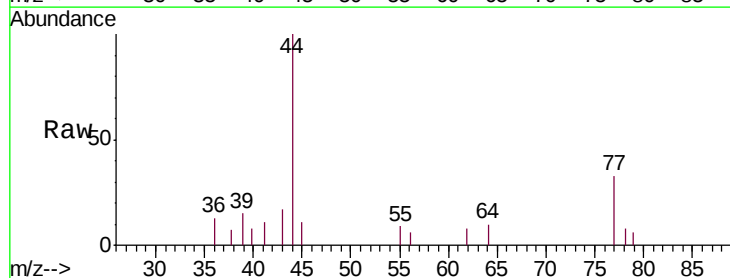
Tot Ion: 59 Resp: 1423  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.2 12.2#

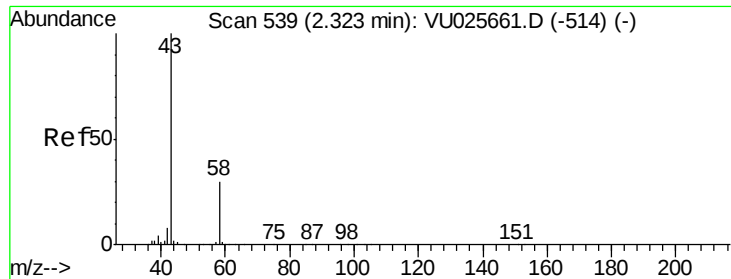


#13

Acrolein  
 Concen: Below Cal  
 RT: 2.19 min Scan# 499  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

Tgt Ion: 56 Resp: 40  
 Ion Ratio Lower Upper  
 56 100  
 55 607.5 57.2 85.8#





#16

Acetone

Concen: 46.59 ug/l

RT: 2.32 min Scan# 539

Delta R.T. 0.00 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

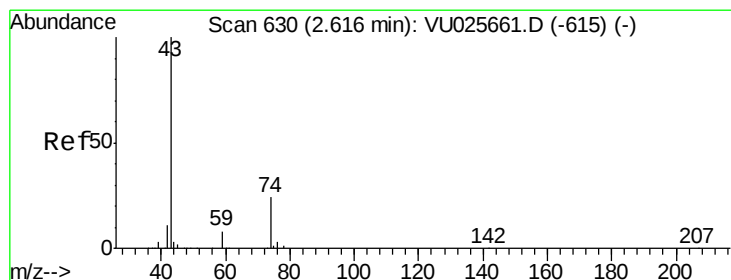
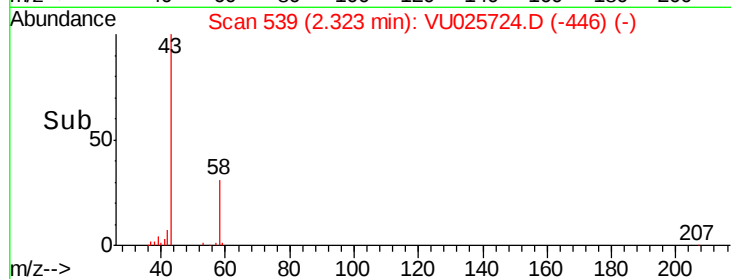
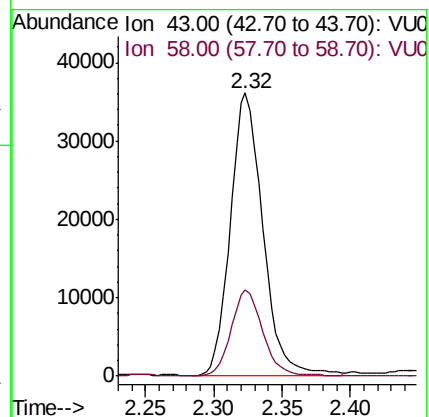
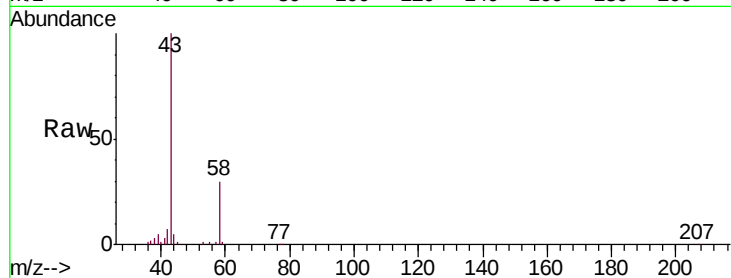
SITE1-IDW-DRUM1-072518

Tot Ion: 43 Resp: 60277

Ion Ratio Lower Upper

43 100

58 30.3 23.1 34.7



#18

Methyl Acetate

Concen: 1.27 ug/l

RT: 2.62 min Scan# 631

Delta R.T. 0.00 min

Lab File: VU025724.D

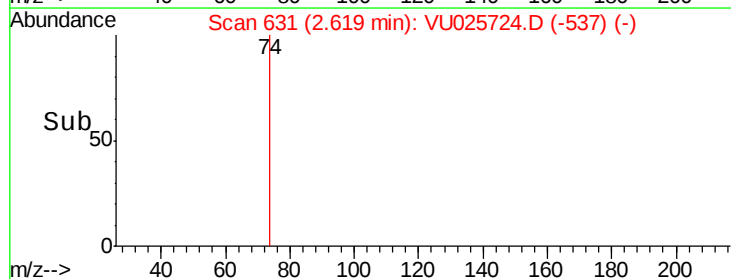
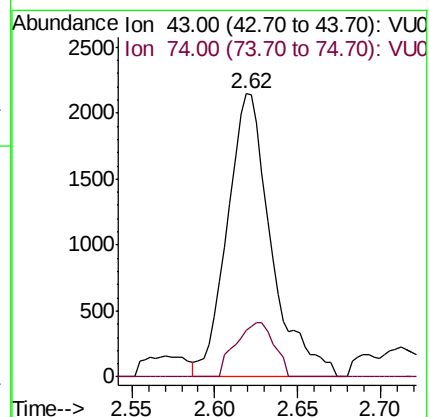
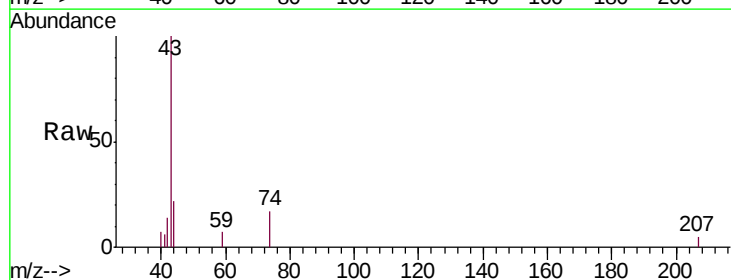
Acq: 30 Jul 2018 15:51

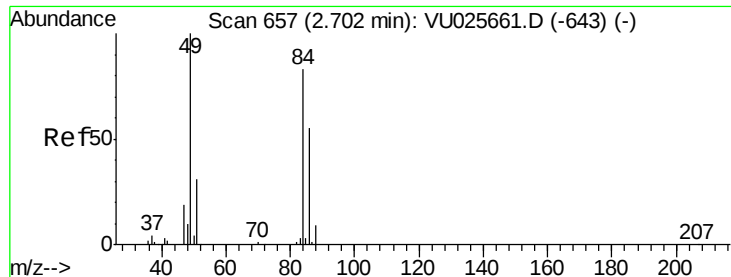
Tgt Ion: 43 Resp: 3956

Ion Ratio Lower Upper

43 100

74 16.8 18.5 27.7#





#20

Methvlene Chloride

Concen: 19.45 ug/l

RT: 2.71 min Scan# 658

Delta R.T. 0.00 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

SITE1-IDW-DRUM1-072518

Tot Ion: 84 Resp: 44598

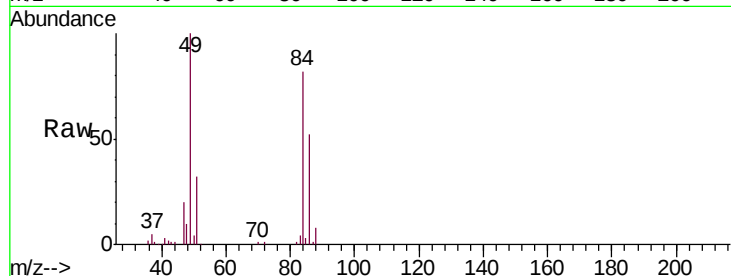
Ion Ratio Lower Upper

84 100

49 121.8 101.8 152.6

51 39.2 30.8 46.2

86 63.9 51.9 77.9

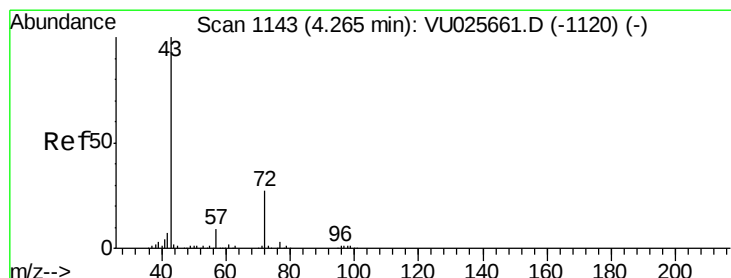
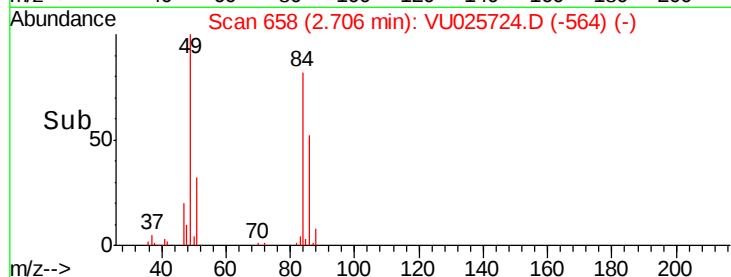
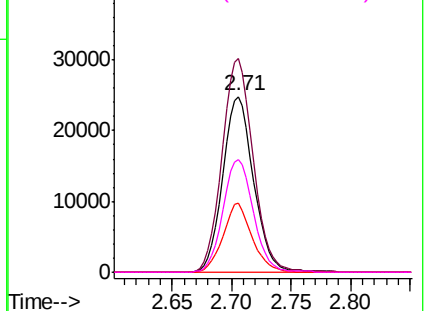


Abundance Ion 83.90 (83.60 to 84.60): VU0

Ion 48.90 (48.60 to 49.60): VU0

Ion 50.90 (50.60 to 51.60): VU0

Ion 85.90 (85.60 to 86.60): VU0



#25

2-Butanone

Concen: 1.10 ug/l

RT: 4.28 min Scan# 1147

Delta R.T. 0.01 min

Lab File: VU025724.D

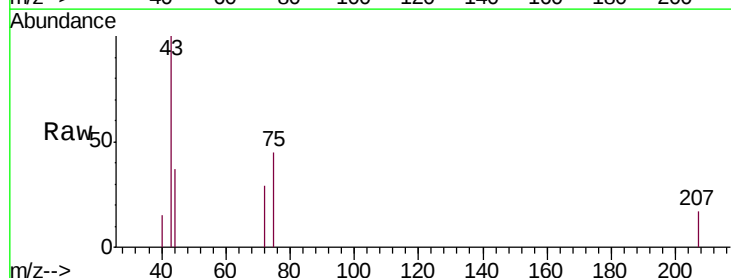
Acq: 30 Jul 2018 15:51

Tgt Ion: 43 Resp: 1932

Ion Ratio Lower Upper

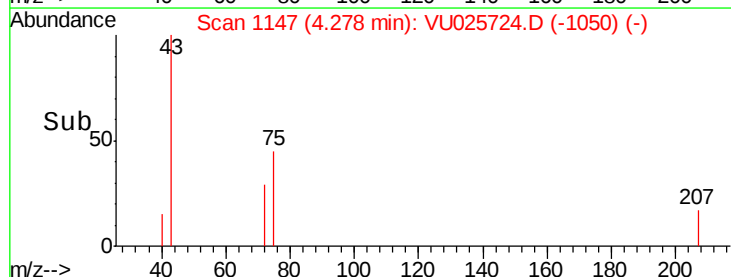
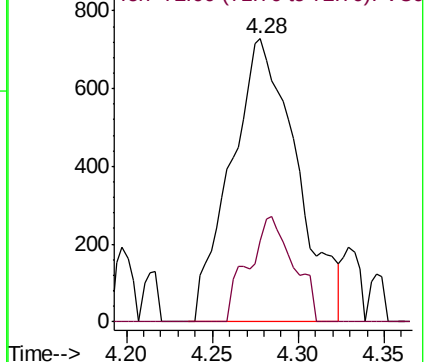
43 100

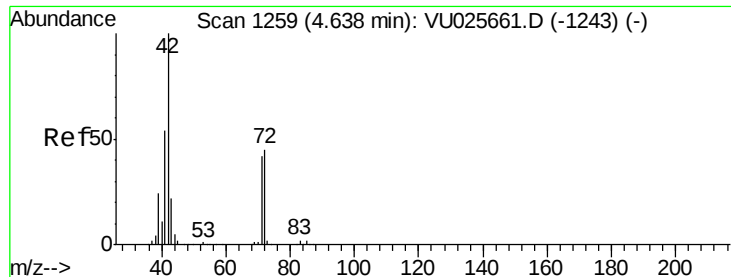
72 28.6 21.0 31.4



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 72.00 (71.70 to 72.70): VU0





#29

Tetrahydrofuran

Concen: 0.63 ug/l

RT: 4.66 min Scan# 1266

Delta R.T. 0.02 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

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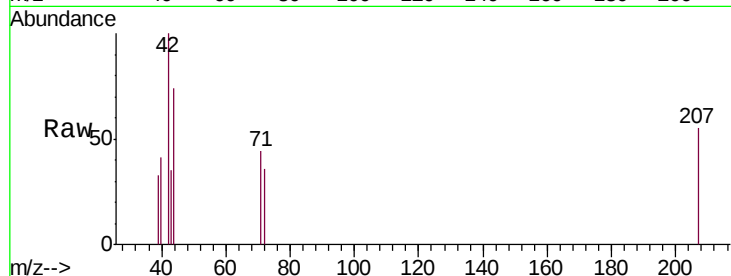
Tot Ion: 42 Resp: 666

Ion Ratio Lower Upper

42 100

72 15.5 36.7 55.1#

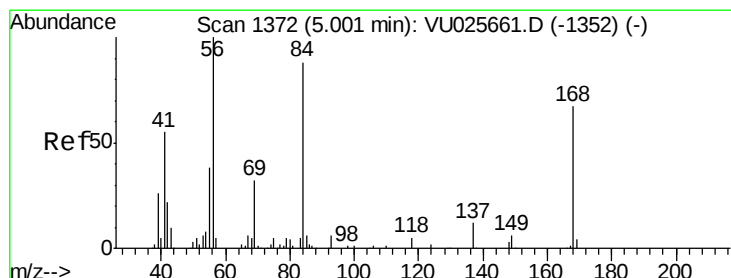
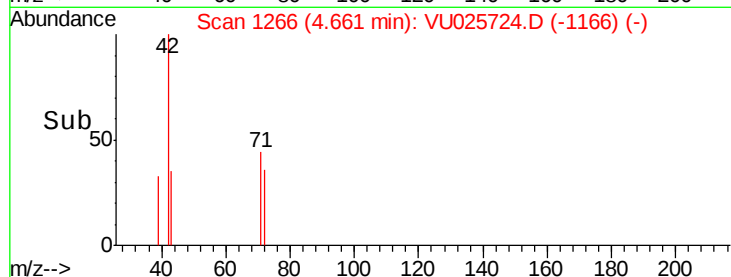
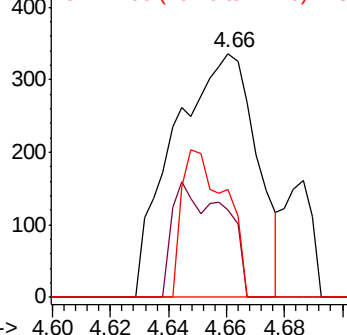
71 32.0 33.9 50.9#



Abundance Ion 42.00 (41.70 to 42.70): VU0

Ion 72.00 (71.70 to 72.70): VU0

Ion 71.00 (70.70 to 71.70): VU0



#31

Cyclohexane

Concen: Below Cal

RT: 4.99 min Scan# 1368

Delta R.T. -0.01 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

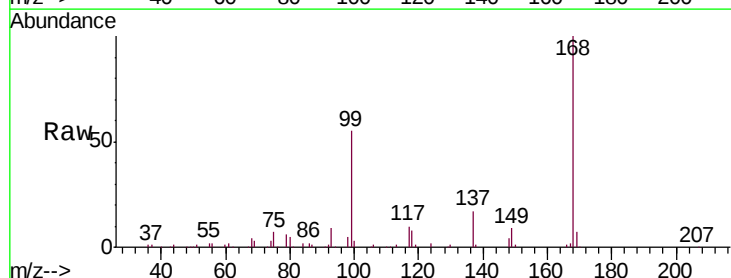
Tgt Ion: 56 Resp: 3235

Ion Ratio Lower Upper

56 100

69 157.3 26.8 40.2#

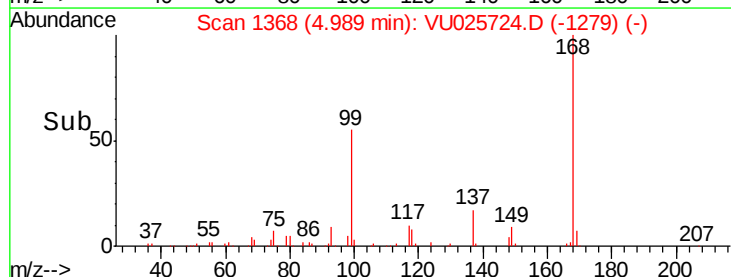
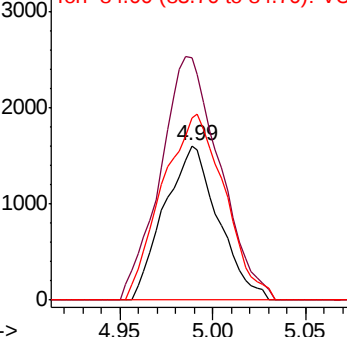
84 118.1 69.7 104.5#

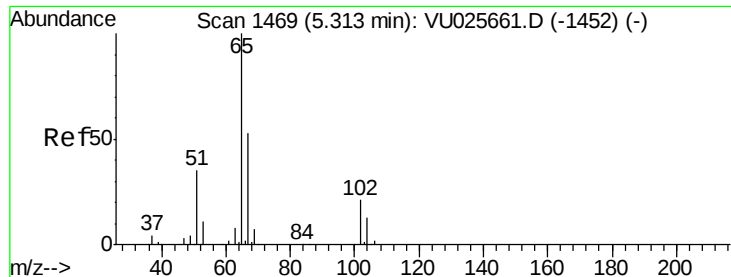


Abundance Ion 56.00 (55.70 to 56.70): VU0

Ion 69.00 (68.70 to 69.70): VU0

Ion 84.00 (83.70 to 84.70): VU0

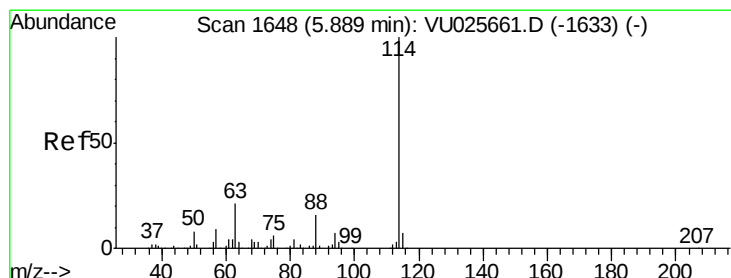
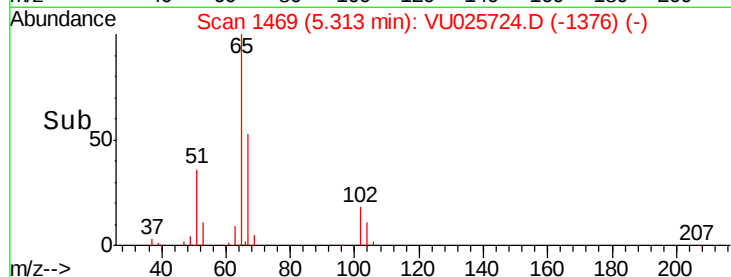
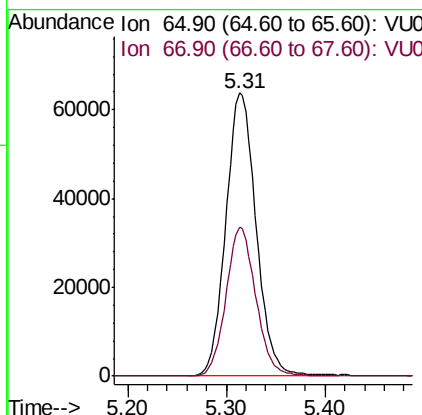
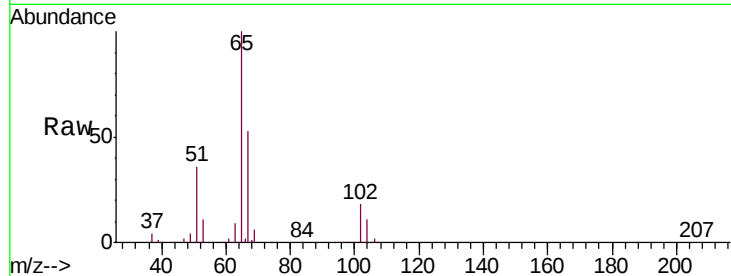




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.67 ug/l  
 RT: 5.31 min Scan# 1469  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

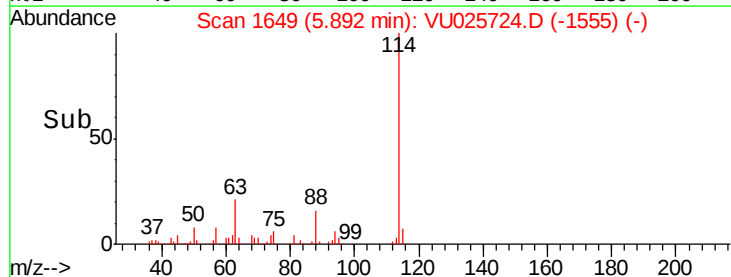
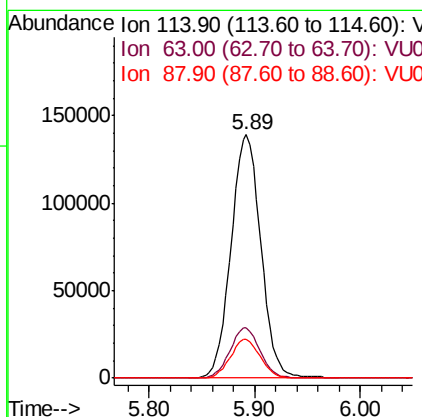
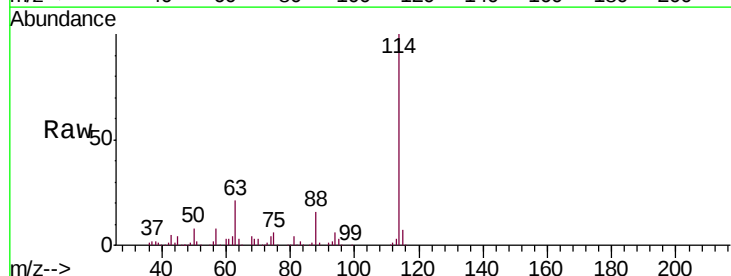
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SITE1-IDW-DRUM1-072518

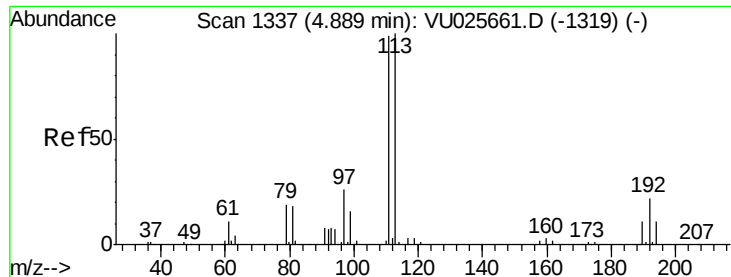
Tot Ion: 65 Resp: 137125  
 Ion Ratio Lower Upper  
 65 100  
 67 52.0 0.0 103.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 5.89 min Scan# 1649  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

Tgt Ion: 114 Resp: 272557  
 Ion Ratio Lower Upper  
 114 100  
 63 20.6 0.0 41.6  
 88 16.2 0.0 32.4

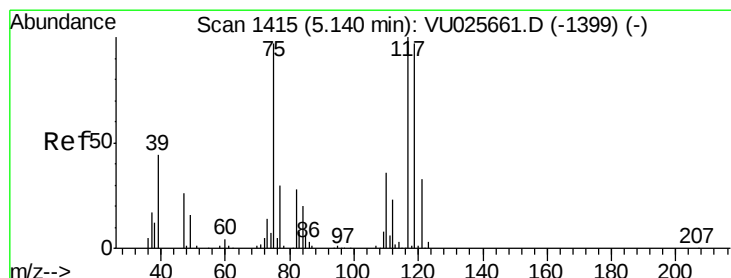
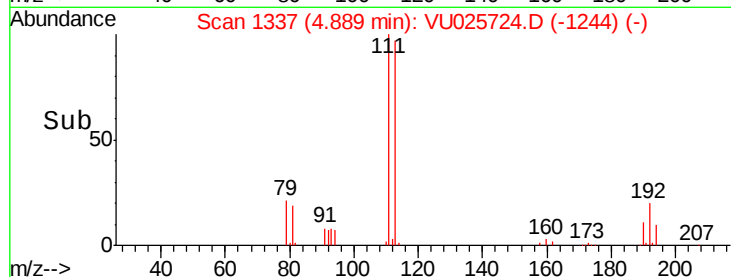
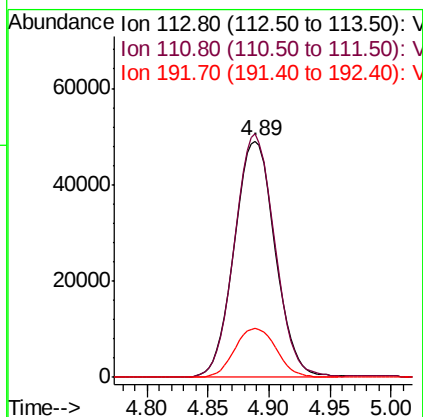
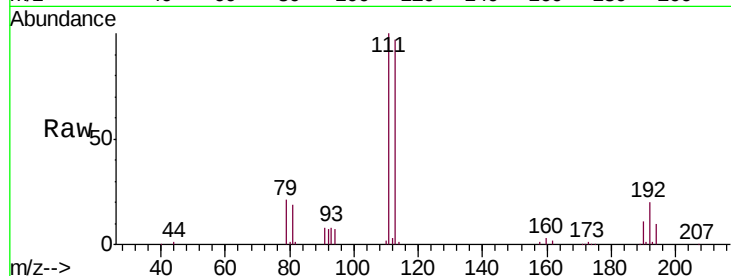




#35  
 Dibromofluoromethane  
 Concen: 48.14 ug/l  
 RT: 4.89 min Scan# 1337  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

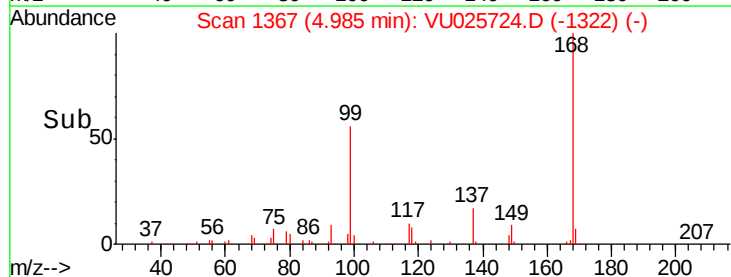
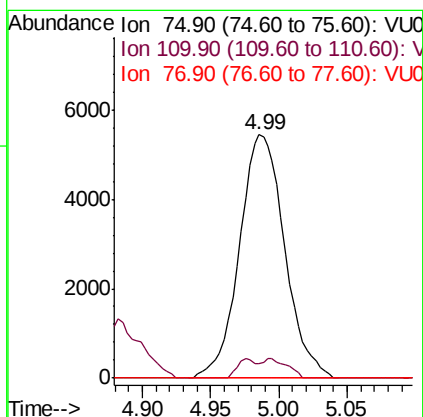
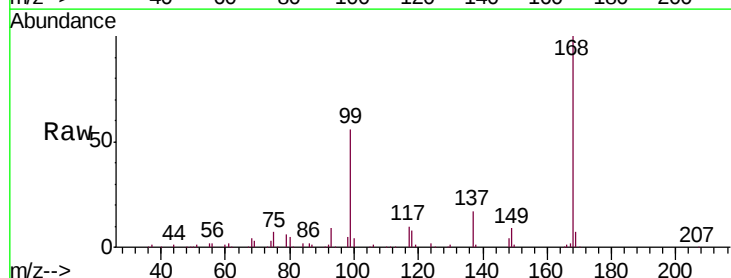
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SITE1-IDW-DRUM1-072518

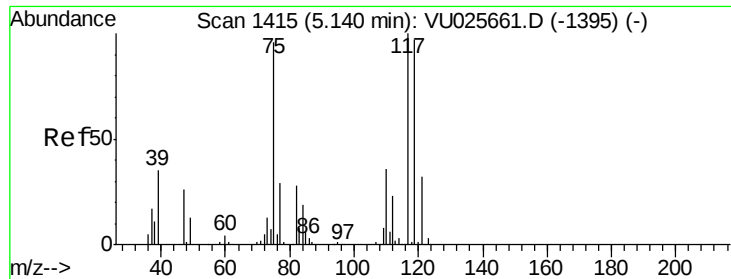
Tot Ion:113 Resp: 114112  
 Ion Ratio Lower Upper  
 113 100  
 111 101.3 81.7 122.5  
 192 21.1 17.1 25.7



#36  
 1,1-Dichloropropene  
 Concen: 3.92 ug/l  
 RT: 4.99 min Scan# 1367  
 Delta R.T. -0.15 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

Tgt Ion: 75 Resp: 12499  
 Ion Ratio Lower Upper  
 75 100  
 110 3.5 17.6 52.9#  
 77 0.0 24.4 36.6#

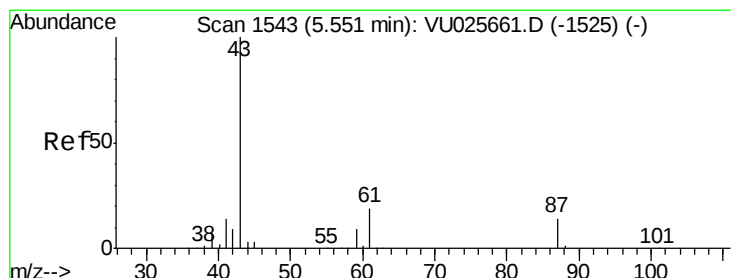
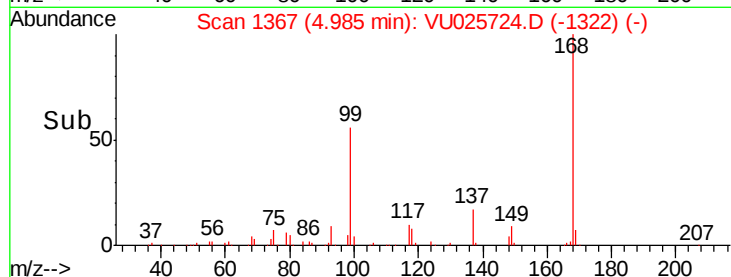
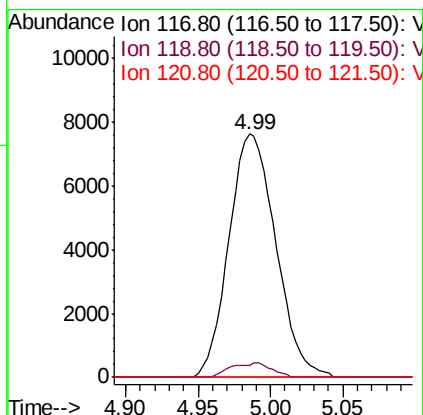
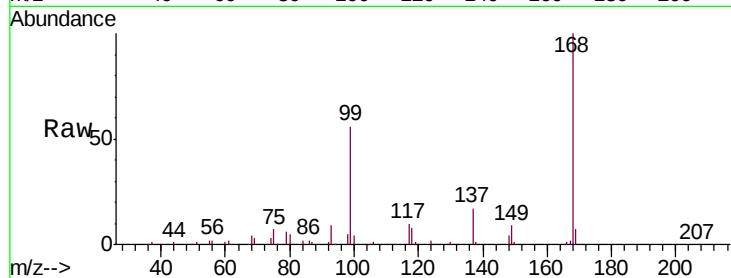




#38  
Carbon Tetrachloride  
Concen: 4.74 ug/l  
RT: 4.99 min Scan# 1367  
Delta R.T. -0.15 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

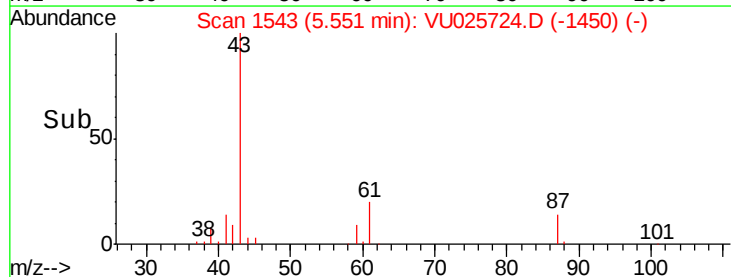
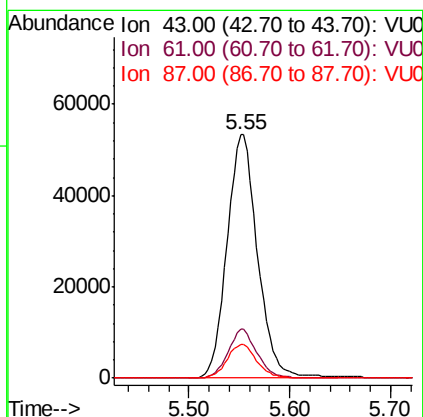
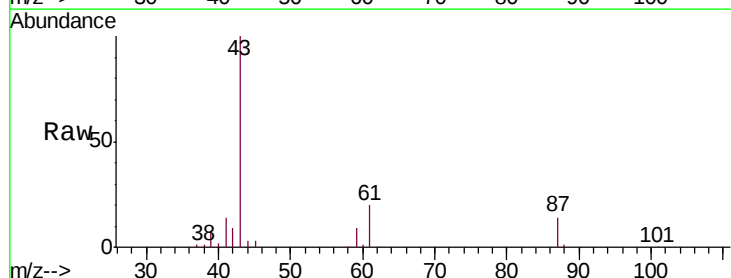
Instrument :  
MSVOA\_U  
ClientSampleId :  
SITE1-IDW-DRUM1-072518

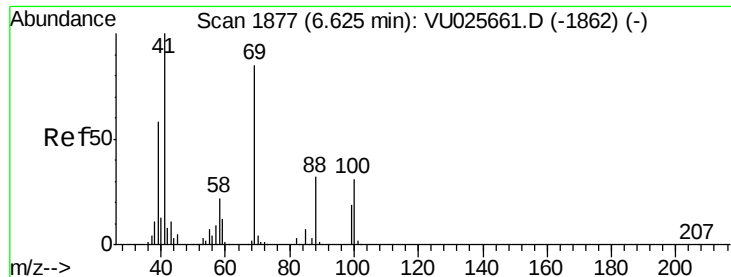
Tot Ion:117 Resp: 17119  
Ion Ratio Lower Upper  
117 100  
119 5.0 75.7 113.5#  
121 0.0 24.6 36.8#



#43  
Isopropyl Acetate  
Concen: 20.65 ug/l  
RT: 5.55 min Scan# 1543  
Delta R.T. 0.00 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

Tgt Ion: 43 Resp: 112703  
Ion Ratio Lower Upper  
43 100  
61 19.0 15.5 23.3  
87 13.5 10.6 16.0

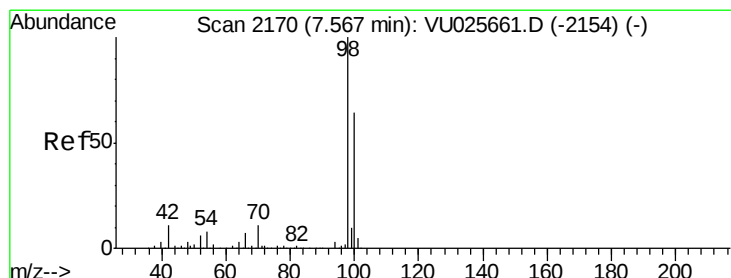
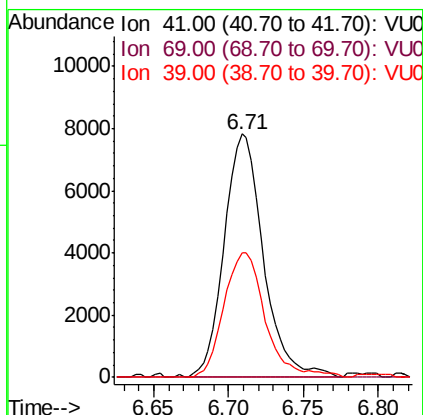
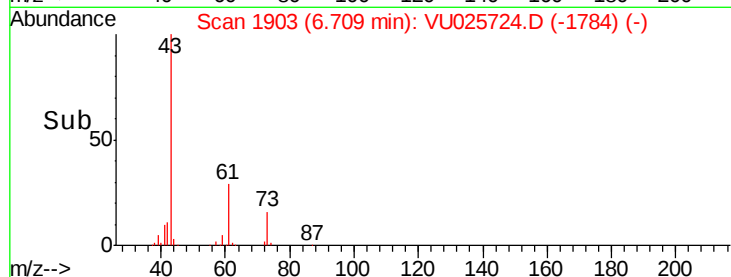
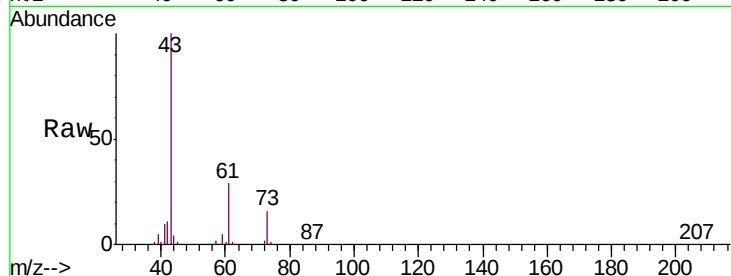




#48  
Methyl methacrylate  
Concen: 5.34 ug/l  
RT: 6.71 min Scan# 1903  
Delta R.T. 0.08 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

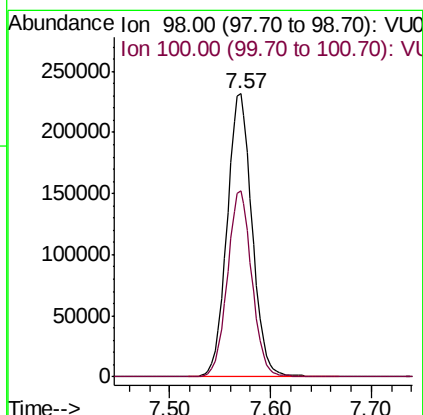
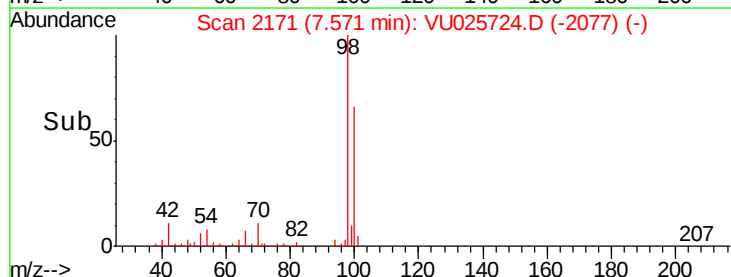
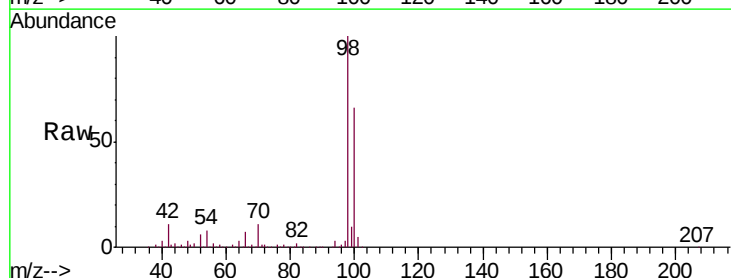
Instrument :  
MSVOA\_U  
ClientSampleId :  
SITE1-IDW-DRUM1-072518

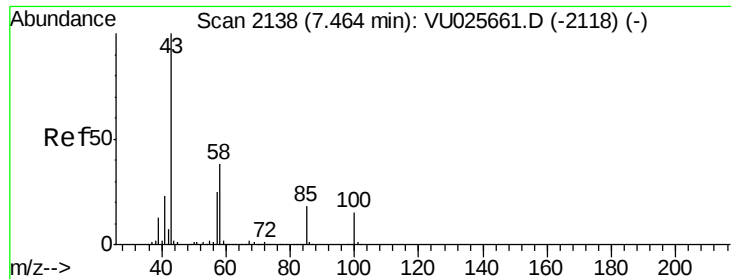
Tot Ion: 41 Resp: 14293  
Ion Ratio Lower Upper  
41 100  
69 0.0 65.0 97.4#  
39 54.1 46.4 69.6



#50  
Toluene-d8  
Concen: 48.39 ug/l  
RT: 7.57 min Scan# 2171  
Delta R.T. 0.00 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

Tgt Ion: 98 Resp: 401457  
Ion Ratio Lower Upper  
98 100  
100 64.3 51.1 76.7

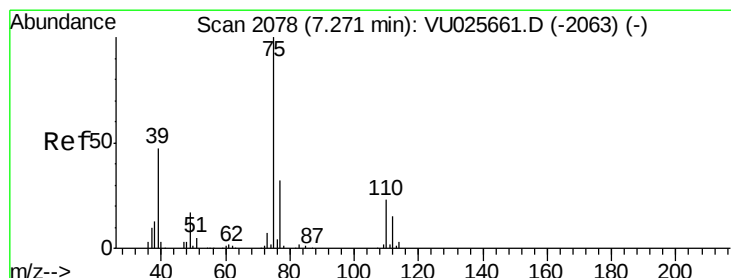
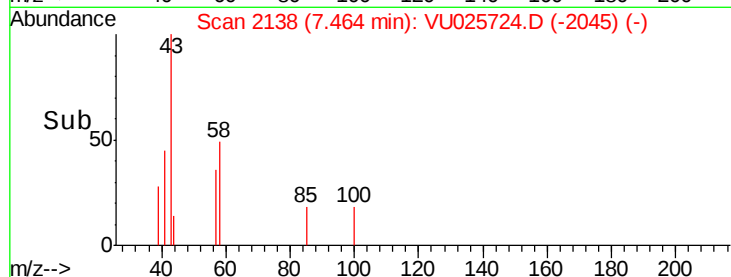
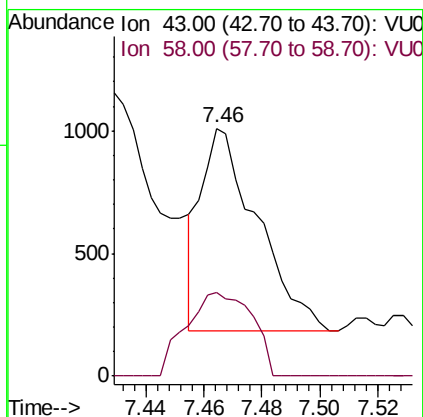
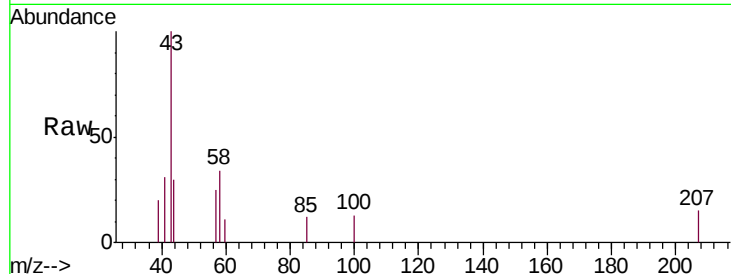




#51  
 4-Methyl-2-Pentanone  
 Concen: 0.33 ug/l  
 RT: 7.46 min Scan# 2138  
 Delta R.T. 0.00 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

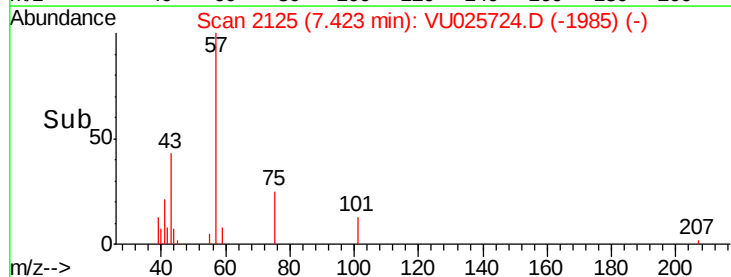
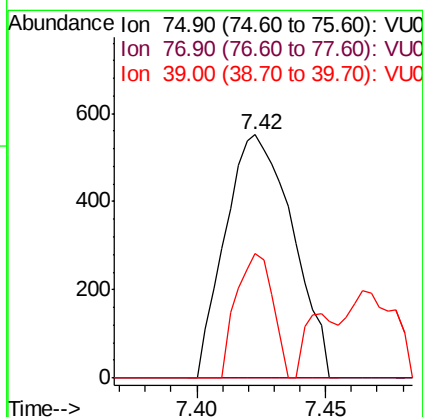
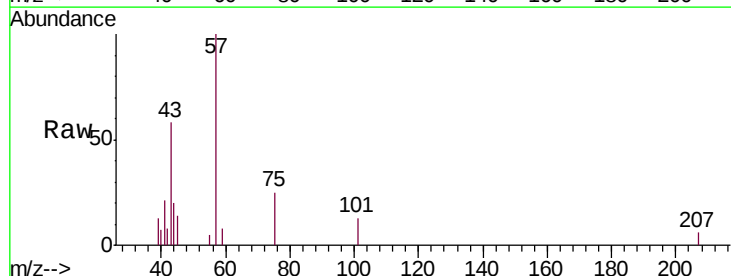
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SITE1-IDW-DRUM1-072518

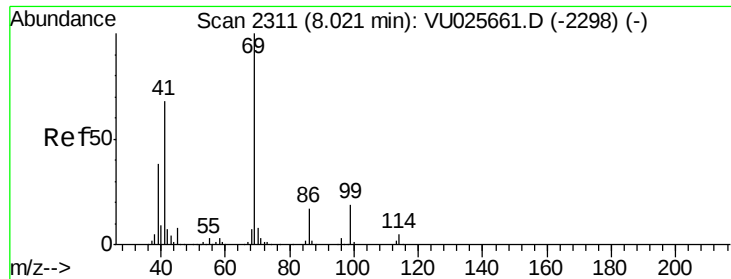
Tot Ion: 43 Resp: 1112  
 Ion Ratio Lower Upper  
 43 100  
 58 48.5 31.0 46.4#



#54  
 cis-1,3-Dichloropropene  
 Concen: 0.26 ug/l  
 RT: 7.42 min Scan# 2125  
 Delta R.T. 0.15 min  
 Lab File: VU025724.D  
 Acq: 30 Jul 2018 15:51

Tgt Ion: 75 Resp: 1003  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.6 38.4#  
 39 51.1 40.0 60.0





#56

Ethyl methacrylate

Concen: 0.52 ug/l

RT: 7.77 min Scan# 2232

Delta R.T. -0.25 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

SITE1-IDW-DRUM1-072518

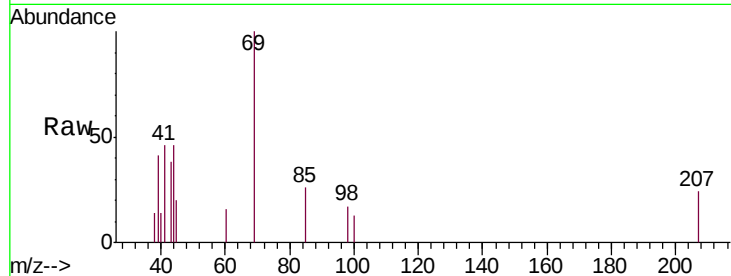
Tot Ion: 69 Resp: 1786

Ion Ratio Lower Upper

69 100

41 40.3 54.8 82.2#

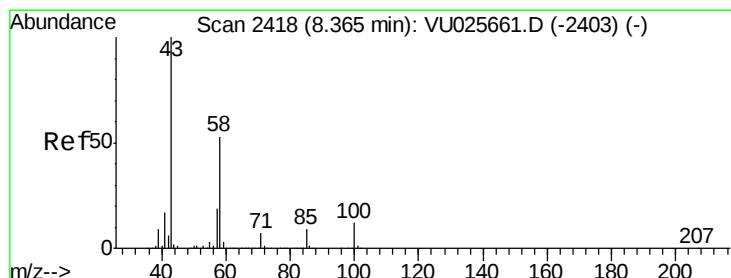
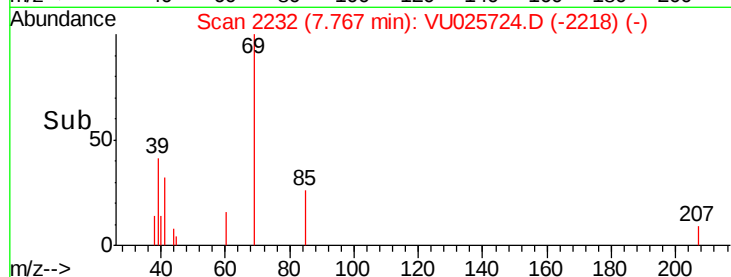
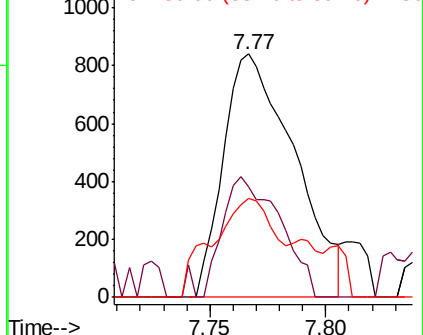
39 35.8 31.1 46.7



Abundance Ion 69.00 (68.70 to 69.70): VU025724.D (-2232) (-)

Ion 41.00 (40.70 to 41.70): VU025724.D (-2232) (-)

Ion 39.00 (38.70 to 39.70): VU025724.D (-2232) (-)



#59

2-Hexanone

Concen: 3.73 ug/l

RT: 8.42 min Scan# 2435

Delta R.T. 0.05 min

Lab File: VU025724.D

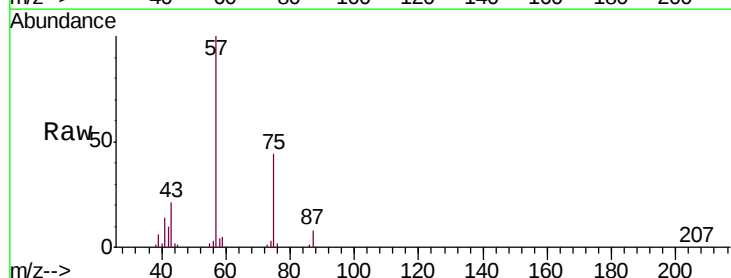
Acq: 30 Jul 2018 15:51

Tgt Ion: 43 Resp: 9981

Ion Ratio Lower Upper

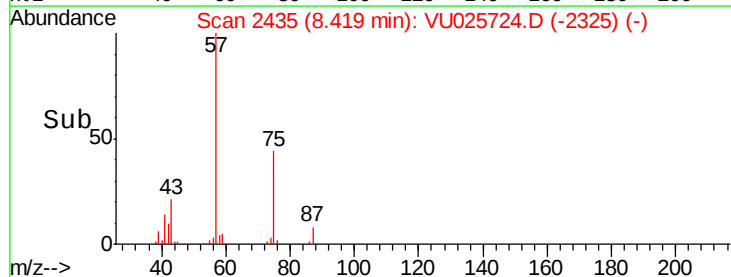
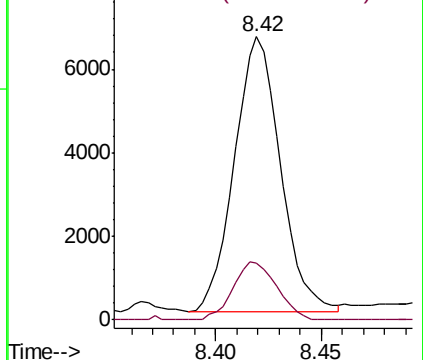
43 100

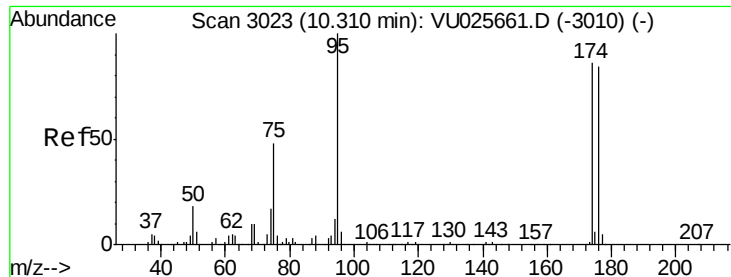
58 20.1 26.2 78.5#



Abundance Ion 43.00 (42.70 to 43.70): VU025724.D (-2435) (-)

Ion 58.00 (57.70 to 58.70): VU025724.D (-2435) (-)

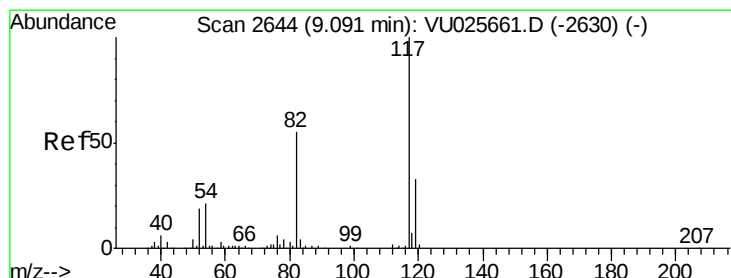
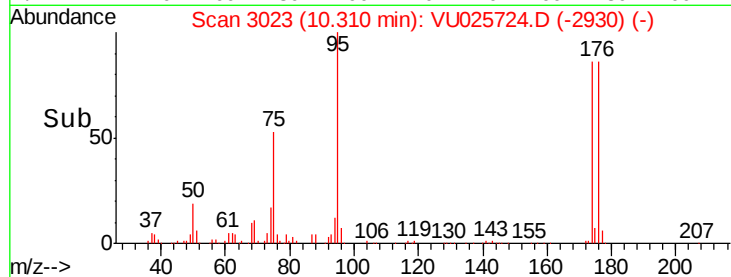
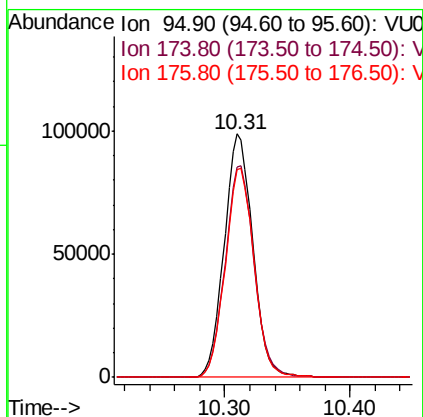
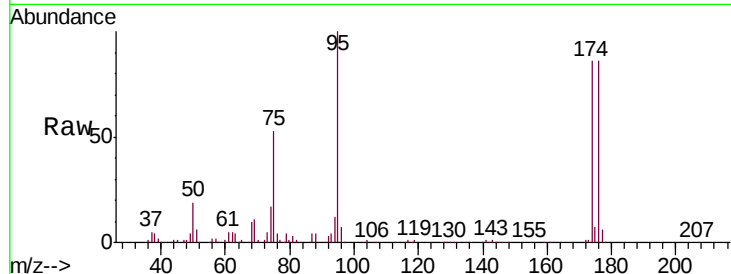




#62  
4-Bromofluorobenzene  
Concen: 48.46 ug/l  
RT: 10.31 min Scan# 3023  
Delta R.T. 0.00 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

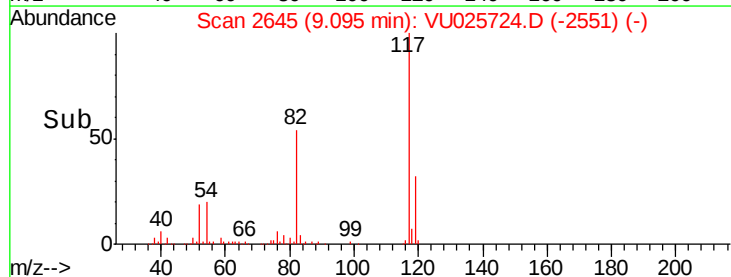
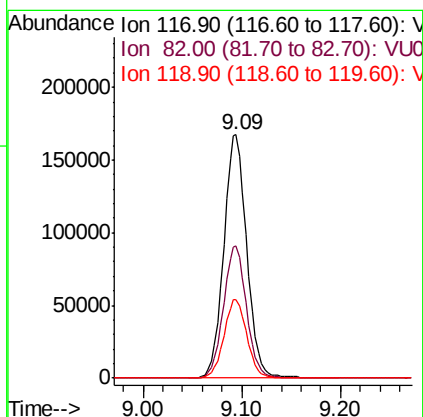
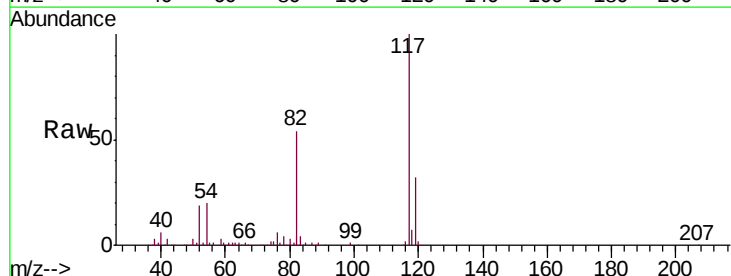
Instrument :  
MSVOA\_U  
ClientSampleId :  
SITE1-IDW-DRUM1-072518

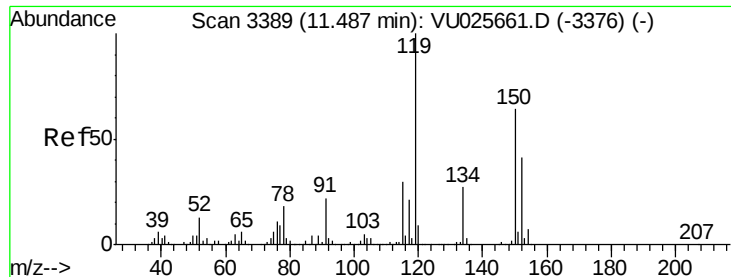
Tot Ion: 95 Resp: 156021  
Ion Ratio Lower Upper  
95 100  
174 87.9 0.0 172.2  
176 86.7 0.0 162.6



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 9.09 min Scan# 2645  
Delta R.T. 0.00 min  
Lab File: VU025724.D  
Acq: 30 Jul 2018 15:51

Tgt Ion: 117 Resp: 274489  
Ion Ratio Lower Upper  
117 100  
82 54.3 46.0 69.0  
119 32.5 26.0 39.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 11.49 min Scan# 3389

Delta R.T. 0.00 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

SITE1-IDW-DRUM1-072518

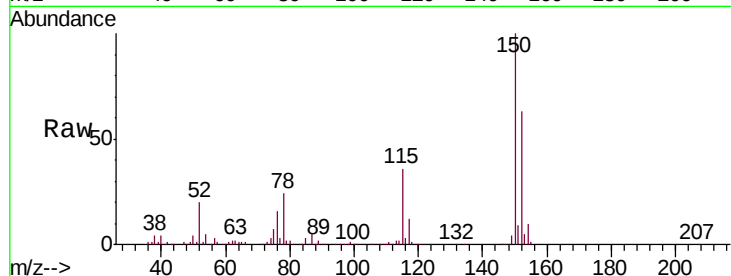
Tot Ion:152 Resp: 166065

Ion Ratio Lower Upper

152 100

115 57.4 40.1 120.3

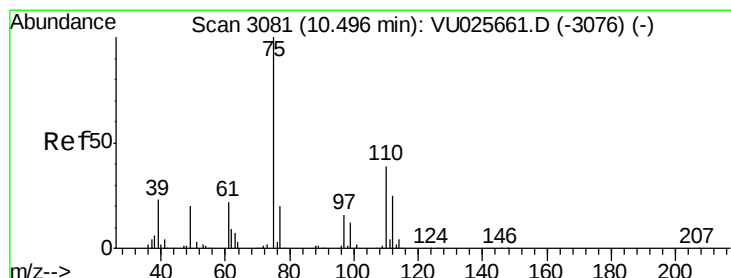
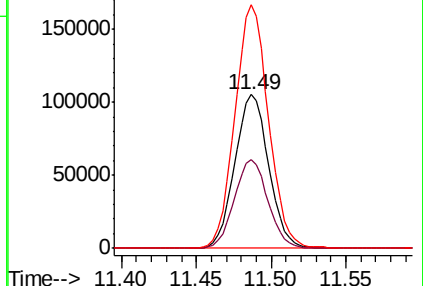
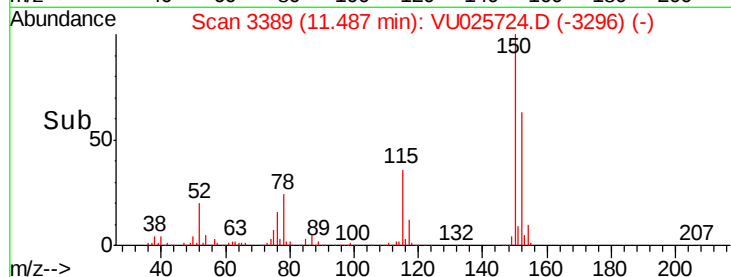
150 156.6 0.0 351.4



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: 22.60 ug/l

RT: 10.31 min Scan# 3023

Delta R.T. -0.19 min

Lab File: VU025724.D

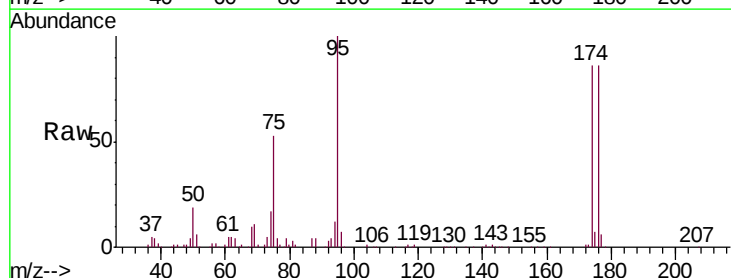
Acq: 30 Jul 2018 15:51

Tgt Ion: 75 Resp: 81021

Ion Ratio Lower Upper

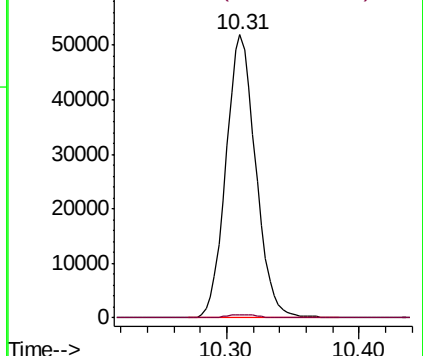
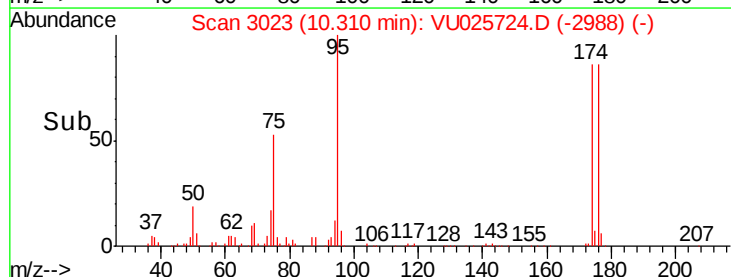
75 100

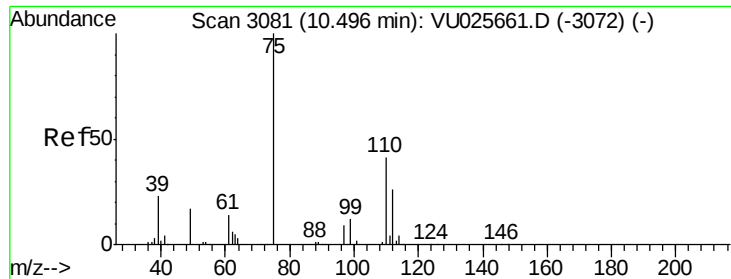
77 1.2 20.4 61.3#



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 77.00 (76.70 to 77.70): VU0





#81

trans-1,4-Dichloro-2-butene

Concen: 61.25 ug/l

RT: 10.31 min Scan# 3023

Delta R.T. -0.19 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

Instrument :

MSVOA\_U

ClientSampleId :

SITE1-IDW-DRUM1-072518

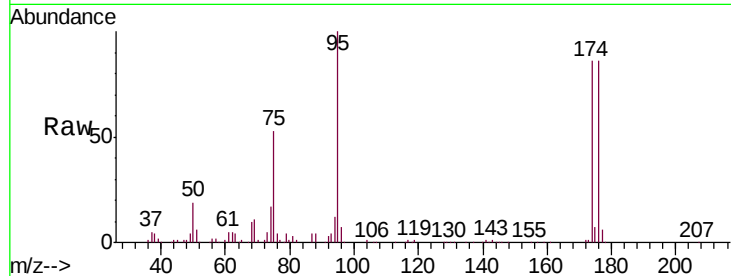
Tot Ion: 75 Resp: 81021

Ion Ratio Lower Upper

75 100

53 0.0 0.0 0.0

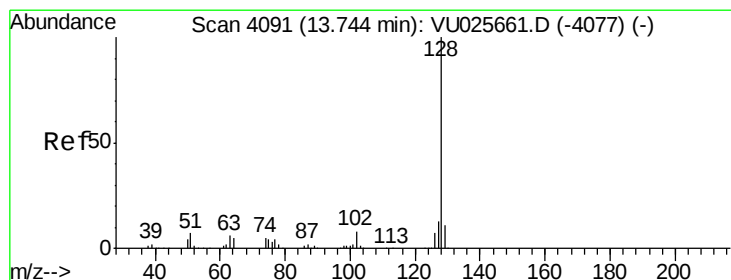
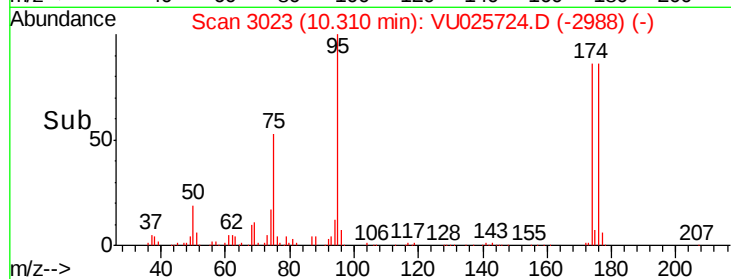
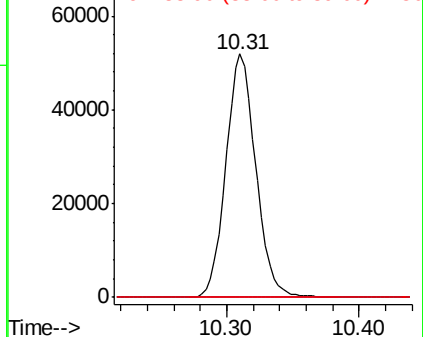
89 0.0 0.0 0.0



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 53.00 (52.70 to 53.70): VU0

Ion 88.90 (88.60 to 89.60): VU0



#95

Naphthalene

Concen: 1.42 ug/l

RT: 13.76 min Scan# 4095

Delta R.T. 0.01 min

Lab File: VU025724.D

Acq: 30 Jul 2018 15:51

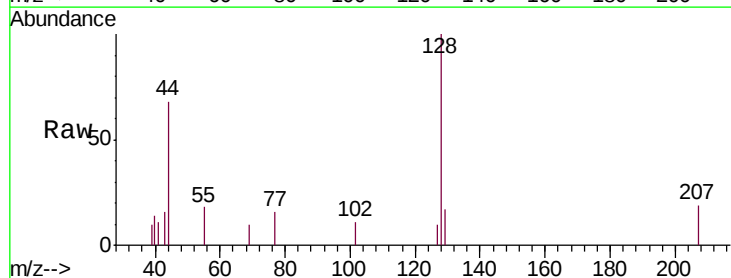
Tgt Ion: 128 Resp: 2150

Ion Ratio Lower Upper

128 100

127 7.7 10.5 15.7#

129 9.4 8.3 12.5



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

