

Data File : VU034238.D  
Acq On : 03 Sep 2019 19:41  
Operator : JC/SP  
Sample : K4546-33  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 28 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

Quant Time: Sep 04 04:28:09 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U082919W.M  
Quant Title : SW846 8260  
QLast Update : Thu Aug 29 04:11:12 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.96  | 168  | 441970   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.87  | 114  | 712920   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.07  | 117  | 708725   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.46 | 152  | 347107   | 50.00 | ug/l  | 0.00     |

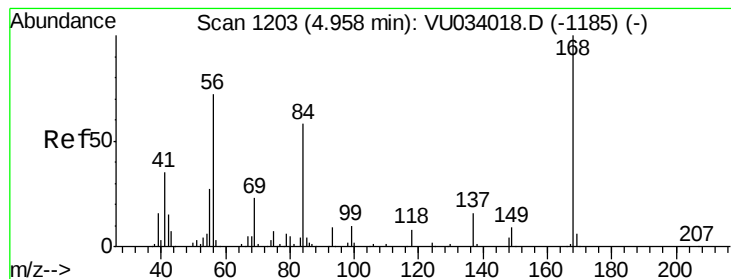
|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 5.29   | 65  | 274450   | 48.46 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 96.92% |      |
| 35) Dibromofluoromethane    | 4.86   | 113 | 232141   | 46.95 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 93.90% |      |
| 50) Toluene-d8              | 7.55   | 98  | 914334   | 49.38 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.76% |      |
| 62) 4-Bromofluorobenzene    | 10.29  | 95  | 323088   | 44.86 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 89.72% |      |

|                                |       |     |        |           |        |     |
|--------------------------------|-------|-----|--------|-----------|--------|-----|
| Target Compounds               |       |     | Qvalue |           |        |     |
| 3) Chloromethane               | 1.33  | 50  | 447    | Below Cal |        | 94  |
| 5) Bromomethane                | 1.63  | 94  | 636    | Below Cal | #      | 79  |
| 11) Tert butyl alcohol         | 2.83  | 59  | 5129   | 3.927     | ug/l # | 73  |
| 13) Acrolein                   | 2.19  | 56  | 253    | 0.461     | ug/l # | 14  |
| 16) Acetone                    | 2.31  | 43  | 9840   | 3.405     | ug/l # | 86  |
| 18) Methyl Acetate             | 2.61  | 43  | 2575   | 0.345     | ug/l # | 90  |
| 20) Methylene Chloride         | 2.69  | 84  | 5665   | 1.036     | ug/l   | 93  |
| 31) Cyclohexane                | 4.96  | 56  | 7578   | 0.896     | ug/l # | 1   |
| 36) 1,1-Dichloropropene        | 4.96  | 75  | 30316  | 4.496     | ug/l # | 49  |
| 38) Carbon Tetrachloride       | 4.96  | 117 | 40538  | 6.228     | ug/l # | 15  |
| 43) Isopropyl Acetate          | 5.53  | 43  | 74540  | 6.488     | ug/l   | 98  |
| 48) Methyl methacrylate        | 6.53  | 41  | 4307   | 0.777     | ug/l # | 14  |
| 49) 1,4-Dioxane                | 6.68  | 88  | 69     | 0.497     | ug/l # | 1   |
| 51) 4-Methyl-2-Pentanone       | 7.40  | 43  | 64660  | 8.150     | ug/l # | 48  |
| 54) cis-1,3-Dichloropropene    | 7.40  | 75  | 33616  | 3.917     | ug/l # | 61  |
| 56) Ethyl methacrylate         | 7.94  | 69  | 114    | 0.984     | ug/l # | 27  |
| 57) 1,3-Dichloropropane        | 8.40  | 76  | 6044   | 0.670     | ug/l # | 42  |
| 59) 2-Hexanone                 | 8.40  | 43  | 77581  | 12.953    | ug/l # | 53  |
| 74) N-amyl acetate             | 9.92  | 43  | 2207   | 0.225     | ug/l # | 43  |
| 76) 1,2,3-Trichloropropane     | 10.29 | 75  | 155965 | 19.936    | ug/l # | 37  |
| 81) trans-1,4-Dichloro-2-buten | 10.29 | 75  | 155965 | 67.130    | ug/l # | 100 |

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

Quant Time: Sep 04 04:28:09 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U082919W.M  
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Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.96 min Scan# 1204

Delta R.T. 0.00 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

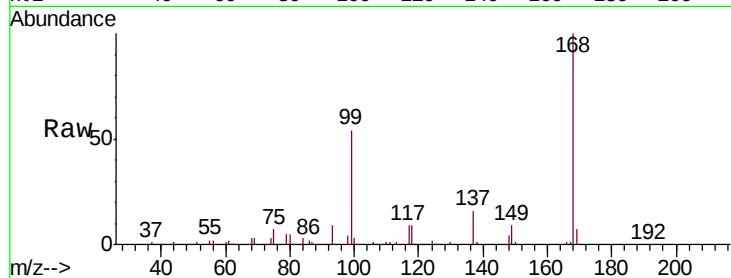
T3-S-B1-(0)

Tgt Ion:168 Resp: 441970

Ion Ratio Lower Upper

168 100

99 53.9 42.3 63.5



Abundance Ion 167.90 (167.60 to 168.60): VU034018.D (-1185) (-)

Ion 98.90 (98.60 to 99.60): VU034018.D (-1185) (-)

4.96

200000

150000

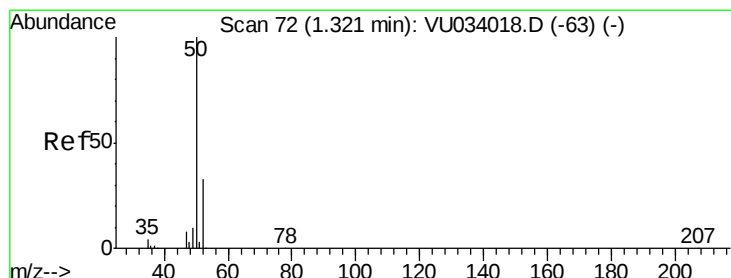
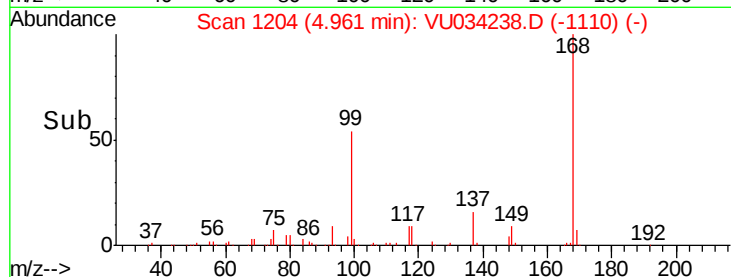
100000

50000

0

4.90 5.00 5.10

Time-->



#3

Chloromethane

Concen: Below Cal

RT: 1.33 min Scan# 74

Delta R.T. 0.01 min

Lab File: VU034238.D

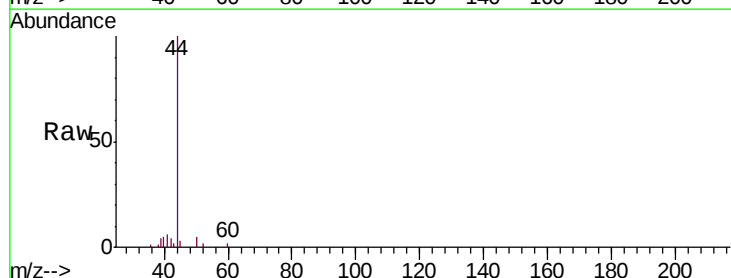
Acq: 03 Sep 2019 19:41

Tgt Ion: 50 Resp: 447

Ion Ratio Lower Upper

50 100

52 29.2 26.2 39.4



Abundance Ion 49.90 (49.60 to 50.60): VU034018.D (-63) (-)

Ion 51.90 (51.60 to 52.60): VU034018.D (-63) (-)

1.33

500

400

300

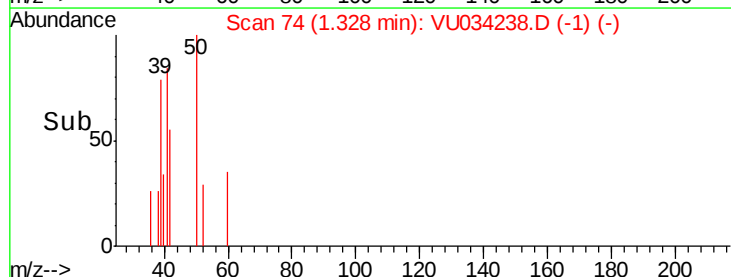
200

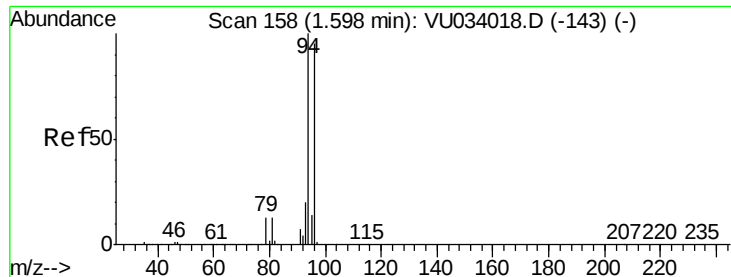
100

0

1.30 1.32 1.34 1.36

Time-->





#5

Bromomethane

Concen: Below Cal

RT: 1.63 min Scan# 168

Delta R.T. 0.03 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

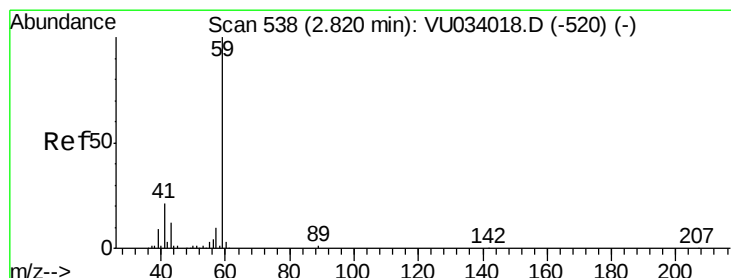
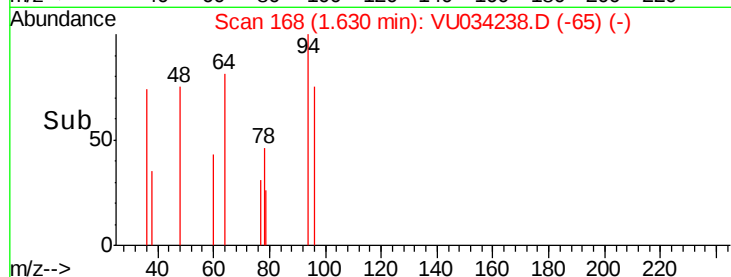
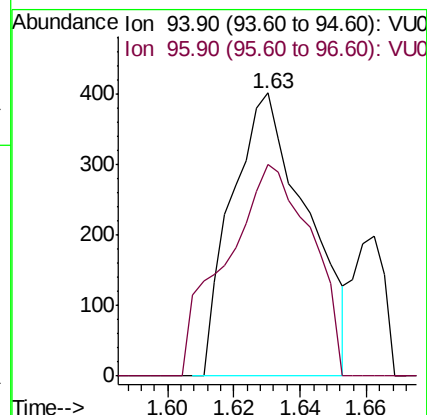
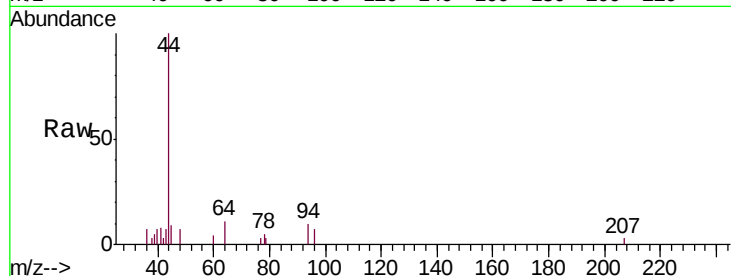
T3-S-B1-(0)

Tgt Ion: 94 Resp: 636

Ion Ratio Lower Upper

94 100

96 74.9 76.3 114.5#



#11

Tert butyl alcohol

Concen: 3.927 ug/l

RT: 2.83 min Scan# 540

Delta R.T. 0.01 min

Lab File: VU034238.D

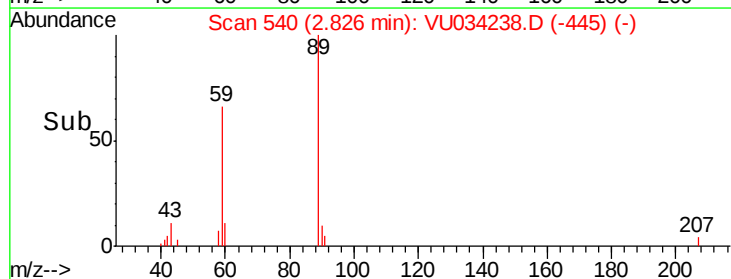
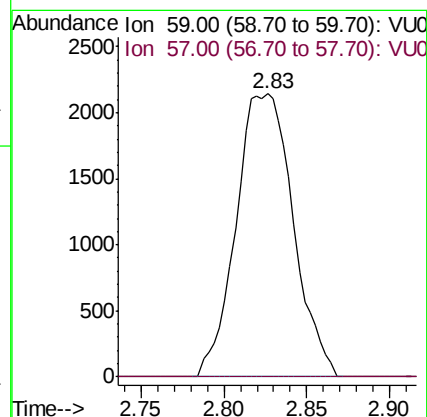
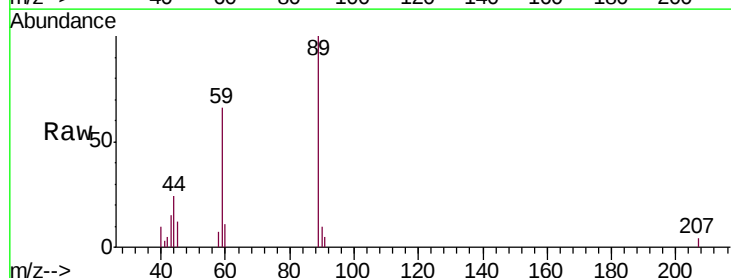
Acq: 03 Sep 2019 19:41

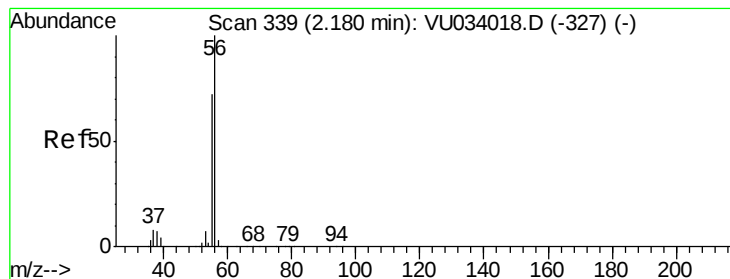
Tgt Ion: 59 Resp: 5129

Ion Ratio Lower Upper

59 100

57 0.0 8.0 12.0#





#13

Acrolein

Concen: 0.461 ug/l

RT: 2.19 min Scan# 343

Delta R.T. 0.01 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

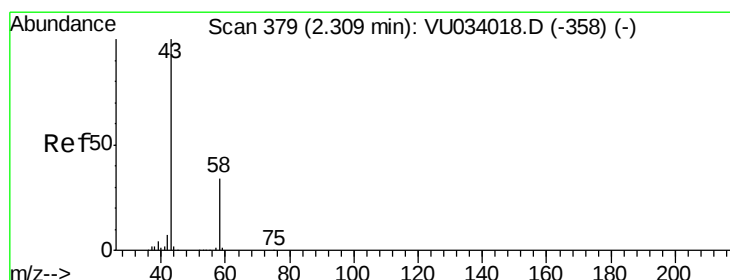
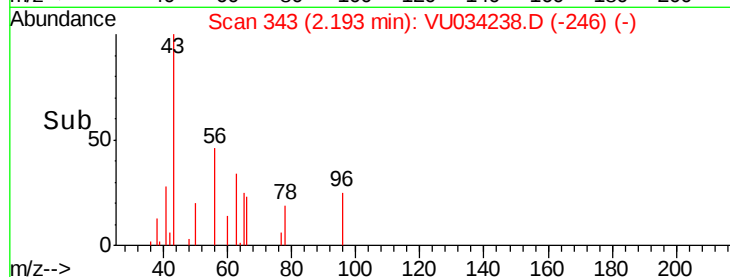
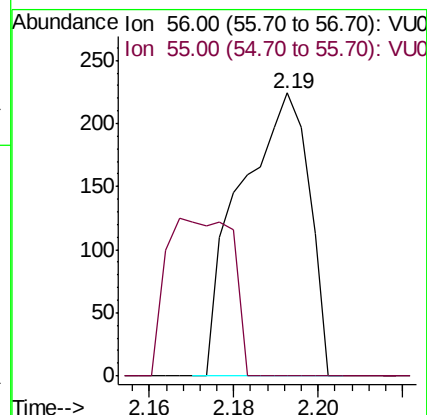
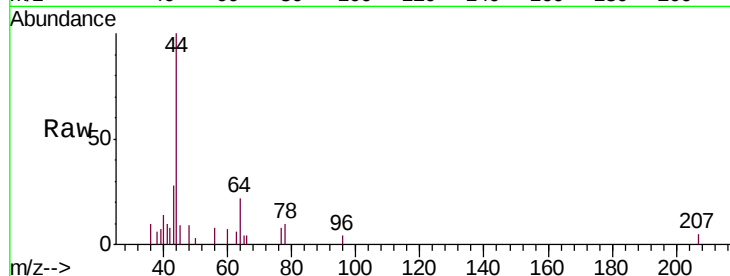
T3-S-B1-(0)

Tgt Ion: 56 Resp: 253

Ion Ratio Lower Upper

56 100

55 0.0 57.1 85.7#



#16

Acetone

Concen: 3.405 ug/l

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VU034238.D

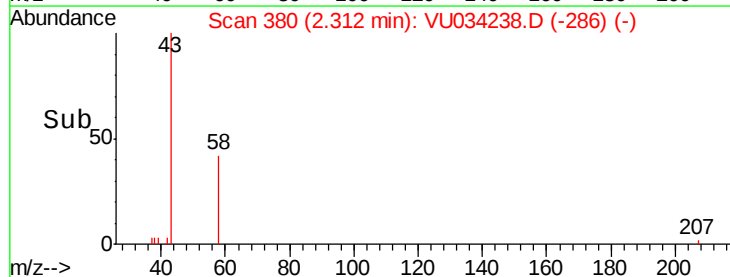
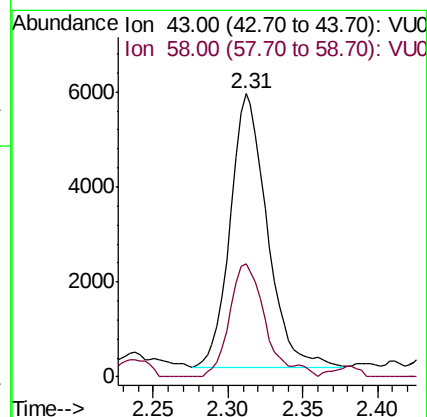
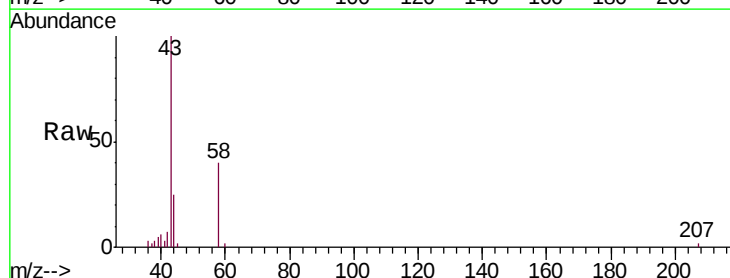
Acq: 03 Sep 2019 19:41

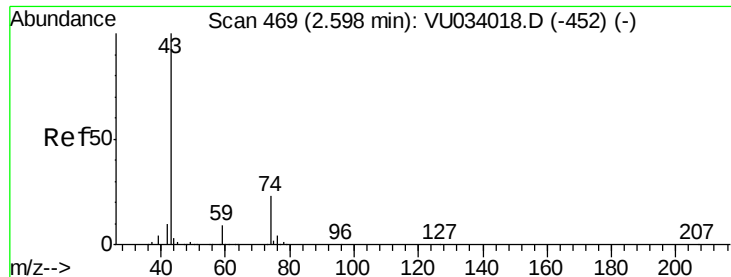
Tgt Ion: 43 Resp: 9840

Ion Ratio Lower Upper

43 100

58 41.5 26.8 40.2#

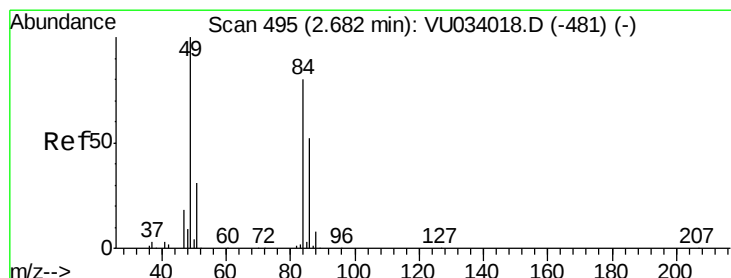
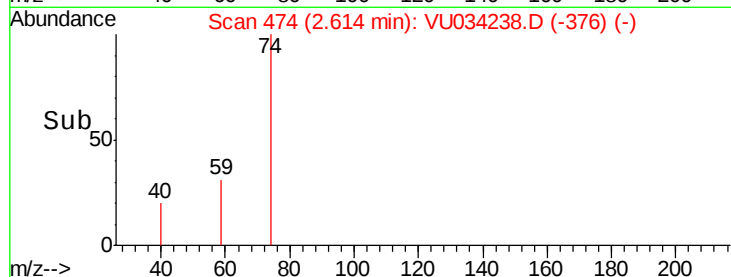
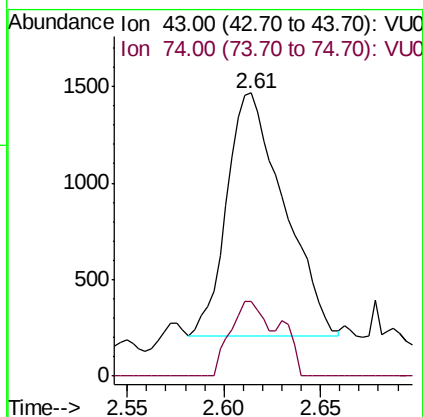
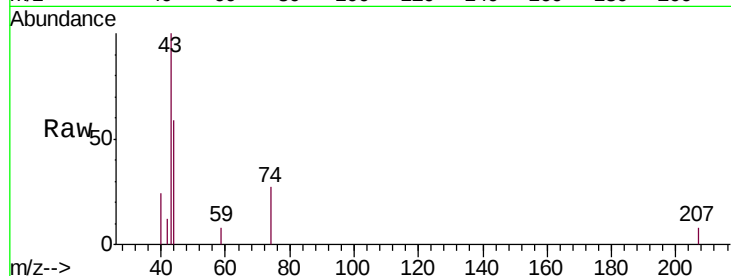




#18  
Methyl Acetate  
Concen: 0.345 ug/l  
RT: 2.61 min Scan# 474  
Delta R.T. 0.02 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

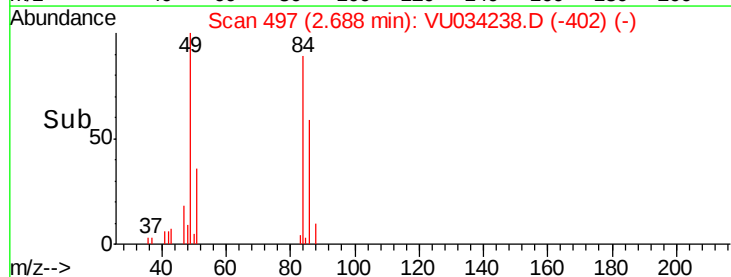
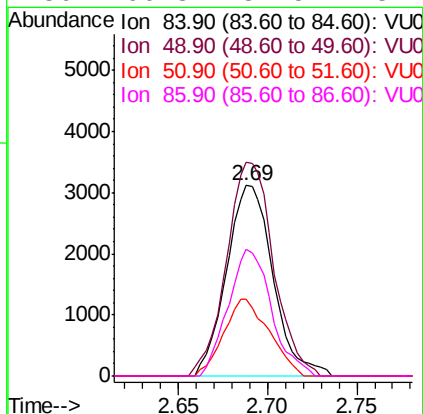
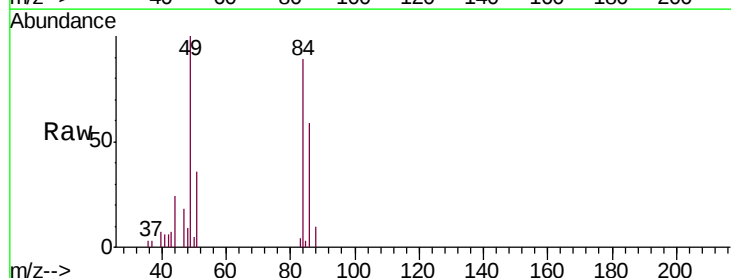
Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

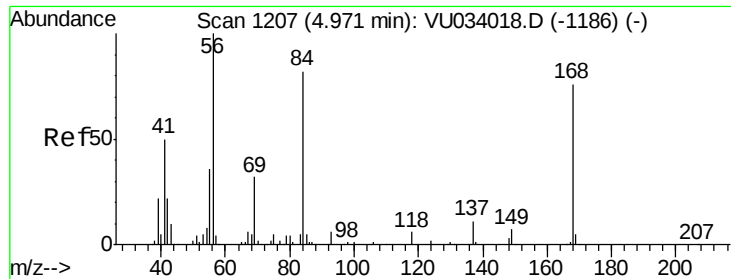
Tgt Ion: 43 Resp: 2575  
Ion Ratio Lower Upper  
43 100  
74 19.0 19.2 28.8#



#20  
Methylene Chloride  
Concen: 1.036 ug/l  
RT: 2.69 min Scan# 497  
Delta R.T. 0.01 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Tgt Ion: 84 Resp: 5665  
Ion Ratio Lower Upper  
84 100  
49 112.2 100.2 150.4  
51 40.5 30.8 46.2  
86 66.3 52.5 78.7

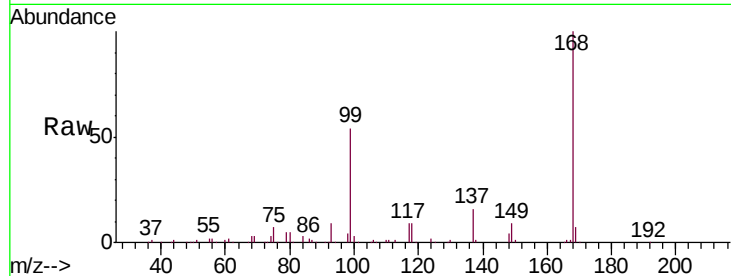




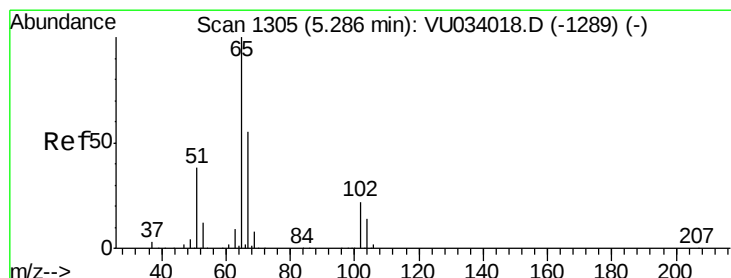
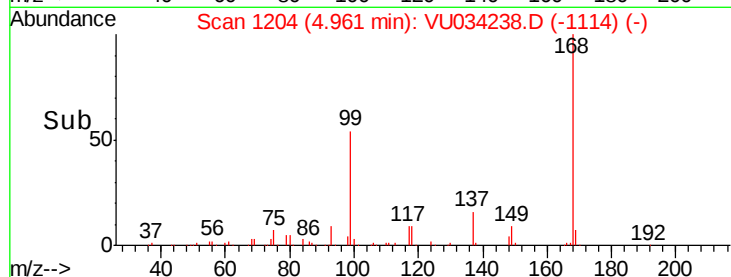
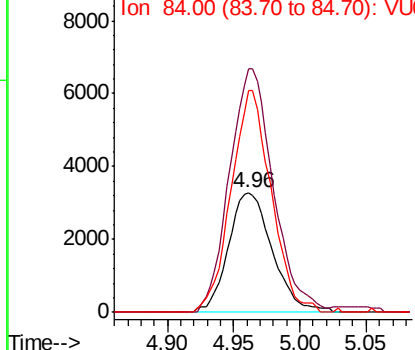
#31  
Cyclohexane  
Concen: 0.896 ug/l  
RT: 4.96 min Scan# 1204  
Delta R.T. -0.01 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

Tgt Ion: 56 Resp: 7578  
Ion Ratio Lower Upper  
56 100  
69 202.9 25.4 38.0#  
84 184.8 65.8 98.8#

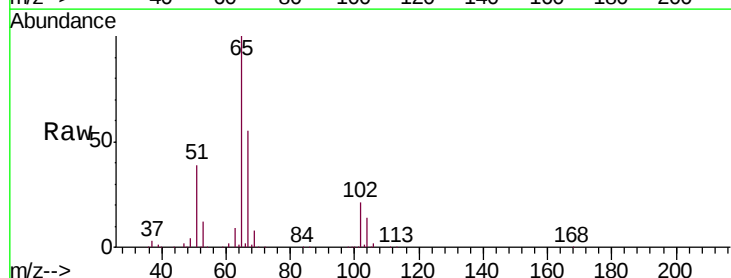


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

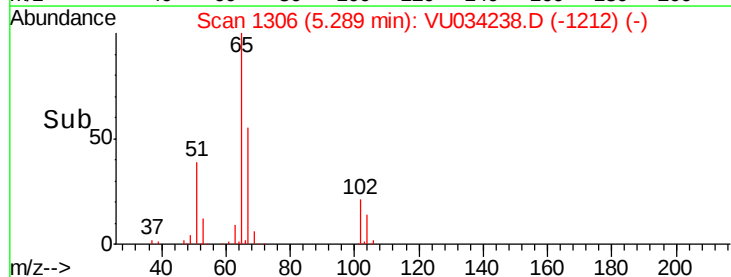
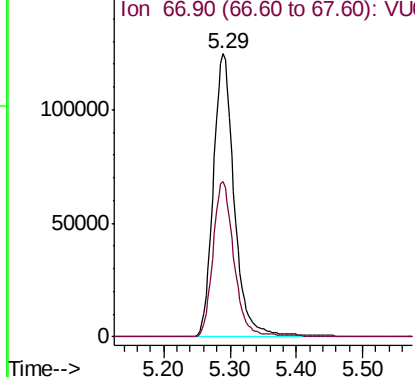


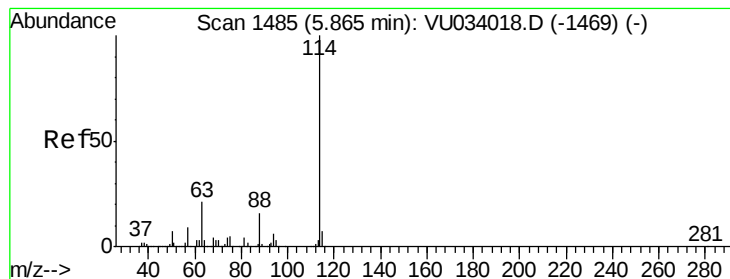
#33  
1,2-Dichloroethane-d4  
Concen: 48.462 ug/l  
RT: 5.29 min Scan# 1306  
Delta R.T. 0.00 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Tgt Ion: 65 Resp: 274450  
Ion Ratio Lower Upper  
65 100  
67 54.5 0.0 110.6



Abundance Ion 64.90 (64.60 to 65.60): VU0  
Ion 66.90 (66.60 to 67.60): VU0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.87 min Scan# 1486

Delta R.T. 0.00 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

T3-S-B1-(0)

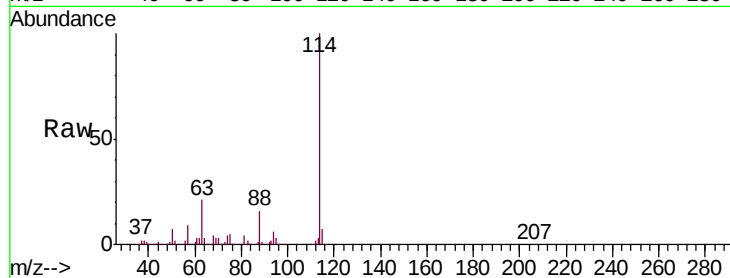
Tgt Ion:114 Resp: 712920

Ion Ratio Lower Upper

114 100

63 20.8 0.0 42.0

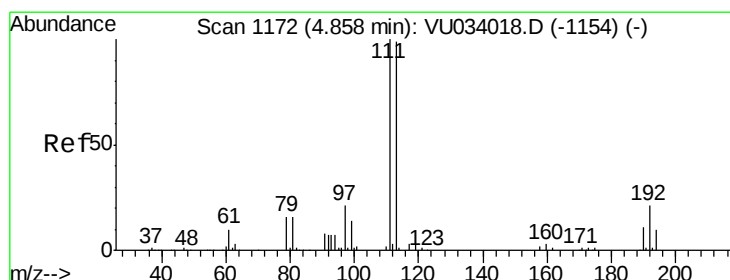
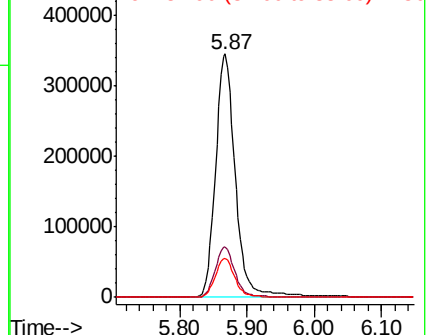
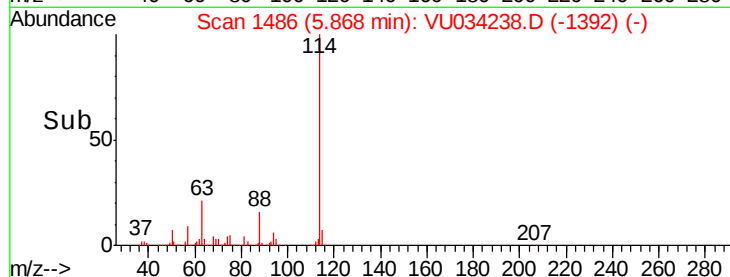
88 16.1 0.0 32.0



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VU0

Ion 87.90 (87.60 to 88.60): VU0



#35

Dibromofluoromethane

Concen: 46.947 ug/l

RT: 4.86 min Scan# 1173

Delta R.T. 0.00 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

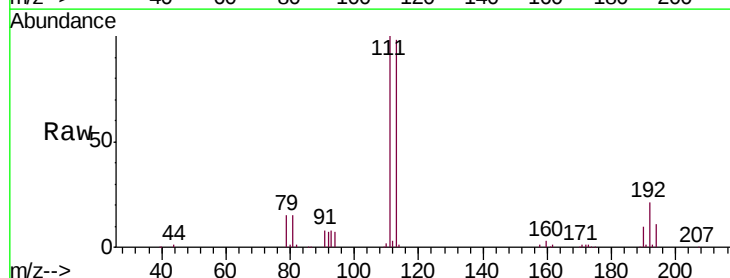
Tgt Ion:113 Resp: 232141

Ion Ratio Lower Upper

113 100

111 102.1 81.7 122.5

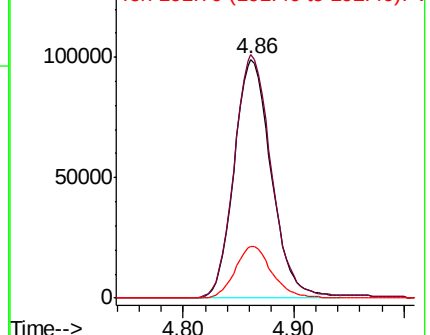
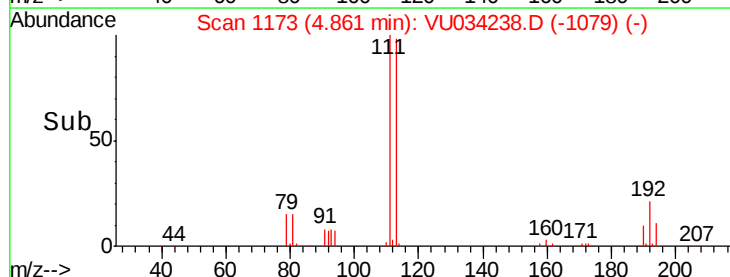
192 21.5 17.1 25.7

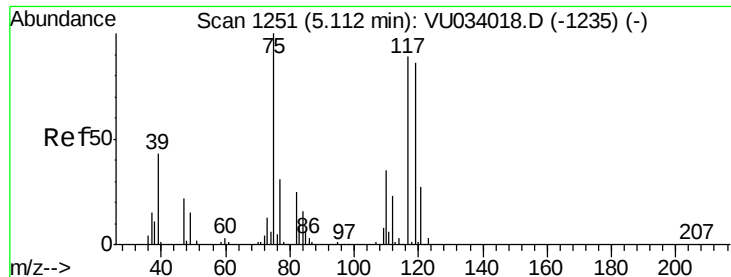


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

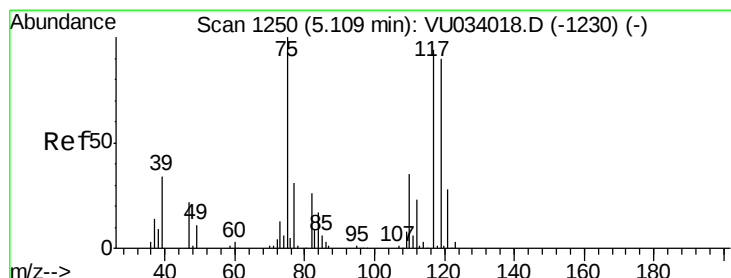
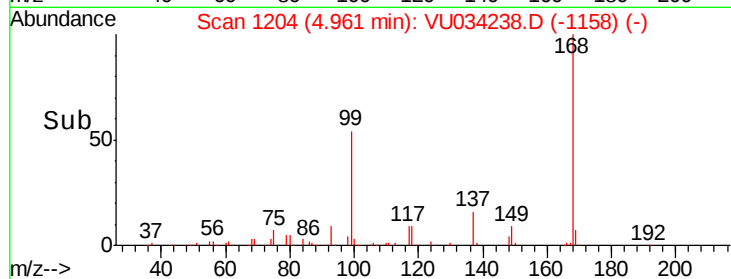
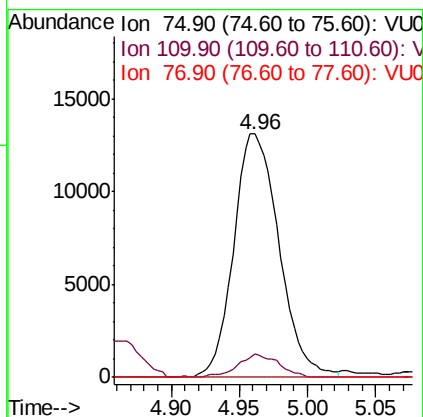
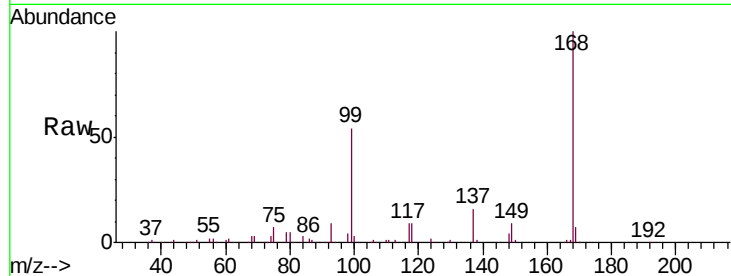




#36  
 1,1-Dichloropropene  
 Concen: 4.496 ug/l  
 RT: 4.96 min Scan# 1204  
 Delta R.T. -0.15 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

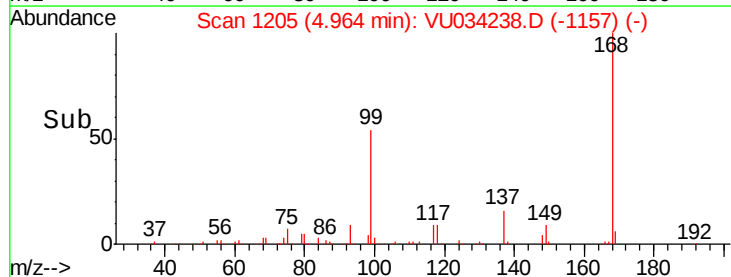
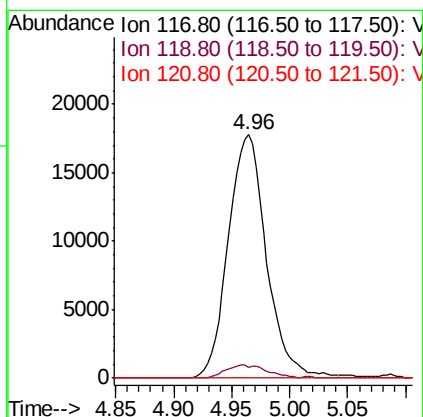
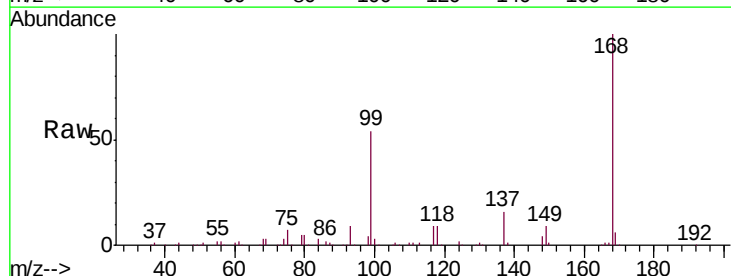
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T3-S-B1-(0)

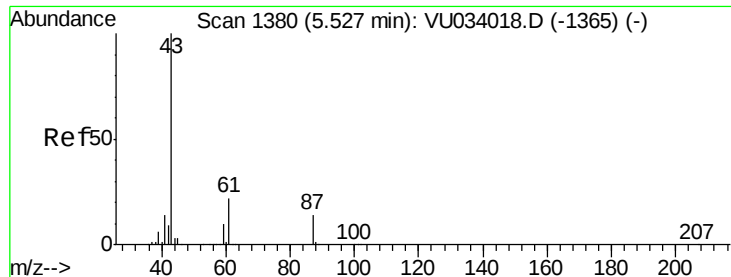
Tgt Ion: 75 Resp: 30316  
 Ion Ratio Lower Upper  
 75 100  
 110 8.6 17.8 53.5#  
 77 0.0 25.0 37.4#



#38  
 Carbon Tetrachloride  
 Concen: 6.228 ug/l  
 RT: 4.96 min Scan# 1205  
 Delta R.T. -0.14 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

Tgt Ion: 117 Resp: 40538  
 Ion Ratio Lower Upper  
 117 100  
 119 4.6 77.0 115.4#  
 121 0.0 23.9 35.9#

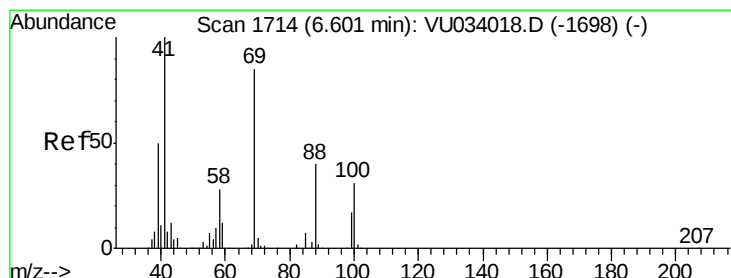
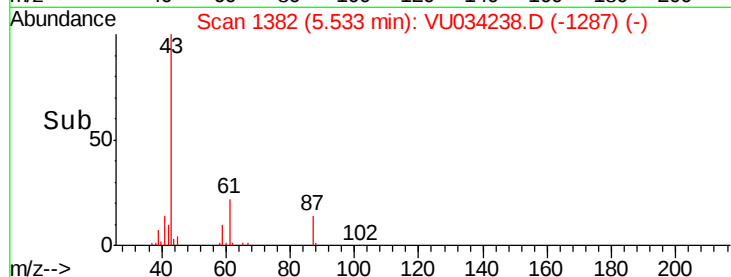
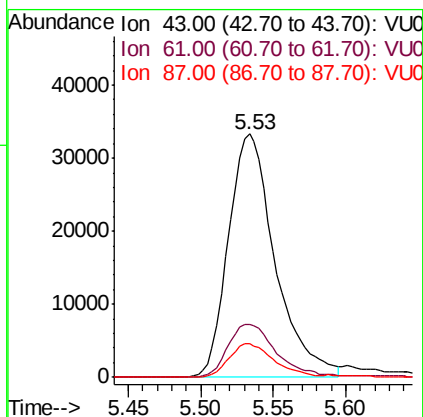
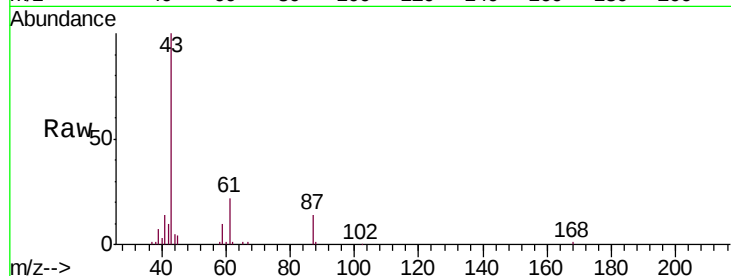




#43  
Isopropyl Acetate  
Concen: 6.488 ug/l  
RT: 5.53 min Scan# 1382  
Delta R.T. 0.01 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

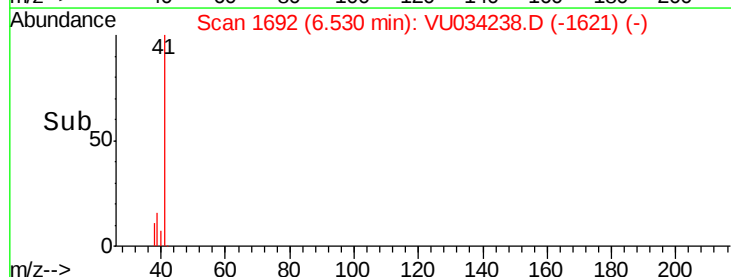
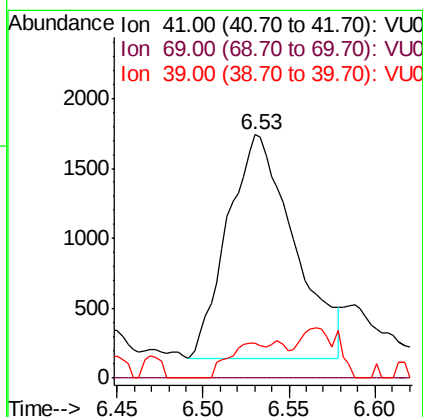
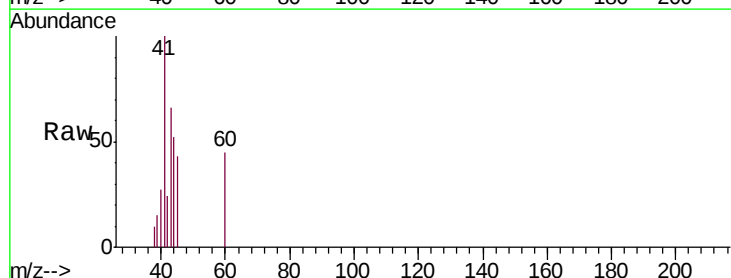
Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

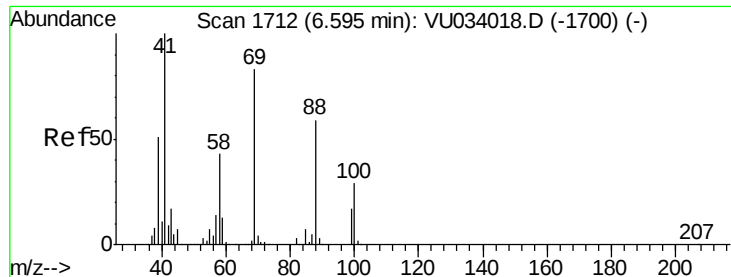
Tgt Ion: 43 Resp: 74540  
Ion Ratio Lower Upper  
43 100  
61 22.6 17.2 25.8  
87 13.4 10.8 16.2



#48  
Methyl methacrylate  
Concen: 0.777 ug/l  
RT: 6.53 min Scan# 1692  
Delta R.T. -0.07 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Tgt Ion: 41 Resp: 4307  
Ion Ratio Lower Upper  
41 100  
69 0.0 69.5 104.3#  
39 0.0 40.3 60.5#





#49

1,4-Dioxane

Concen: 0.497 ug/l

RT: 6.68 min Scan# 1739

Delta R.T. 0.09 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

T3-S-B1-(0)

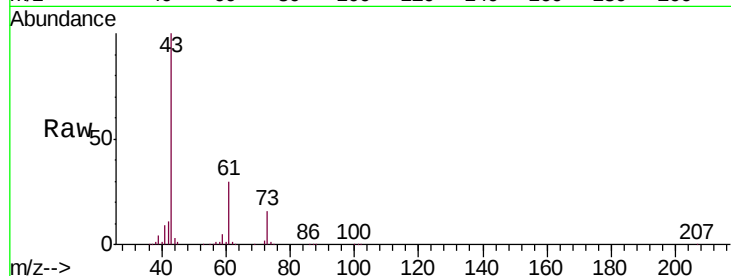
Tgt Ion: 88 Resp: 69

Ion Ratio Lower Upper

88 100

43 2004727.5 24.8 37.2#

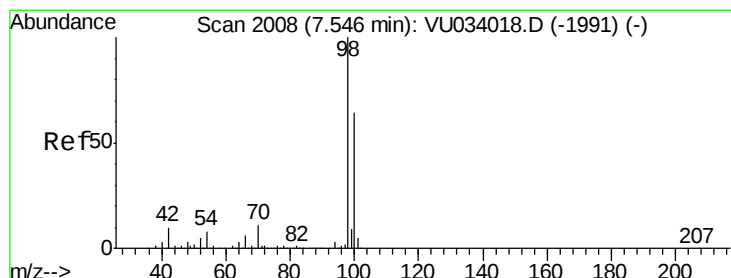
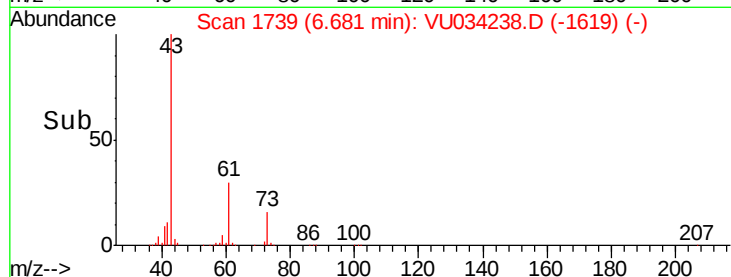
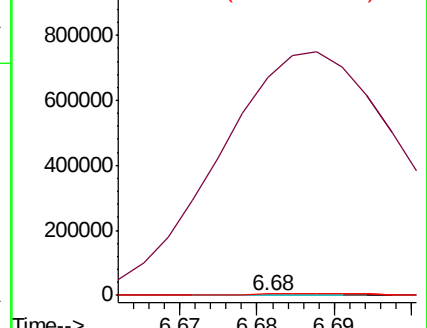
58 10966.7 59.3 88.9#



Abundance Ion 88.00 (87.70 to 88.70): VU034238.D (-1739) (-)

Ion 43.00 (42.70 to 43.70): VU034238.D (-1739) (-)

Ion 58.00 (57.70 to 58.70): VU034238.D (-1739) (-)



#50

Toluene-d8

Concen: 49.383 ug/l

RT: 7.55 min Scan# 2008

Delta R.T. -0.00 min

Lab File: VU034238.D

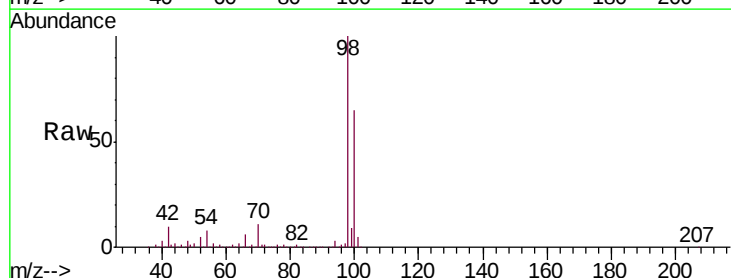
Acq: 03 Sep 2019 19:41

Tgt Ion: 98 Resp: 914334

Ion Ratio Lower Upper

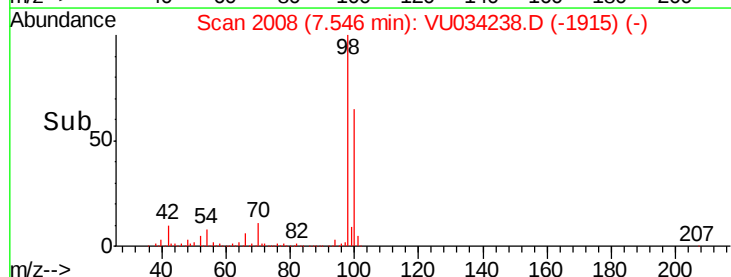
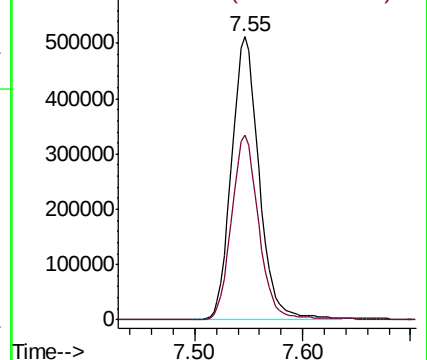
98 100

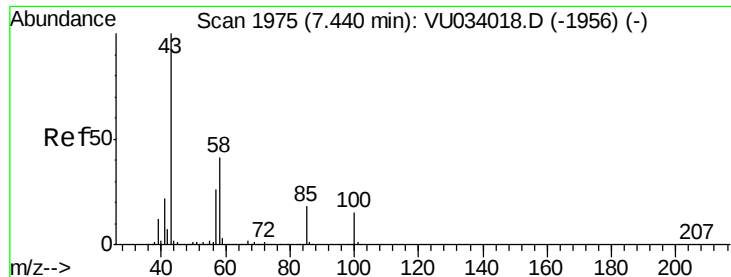
100 65.1 50.3 75.5



Abundance Ion 98.00 (97.70 to 98.70): VU034238.D (-2008) (-)

Ion 100.00 (99.70 to 100.70): VU034238.D (-2008) (-)

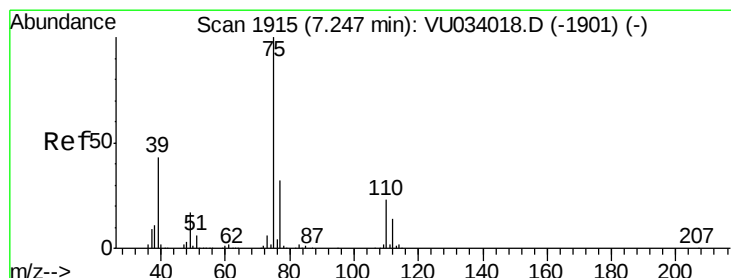
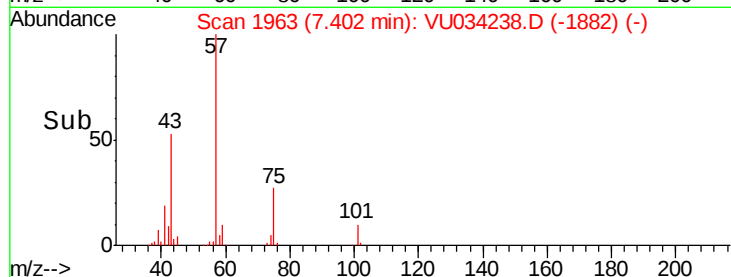
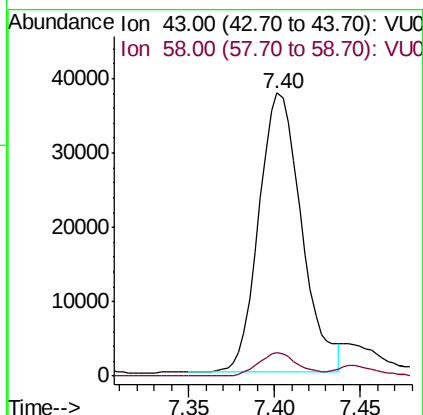
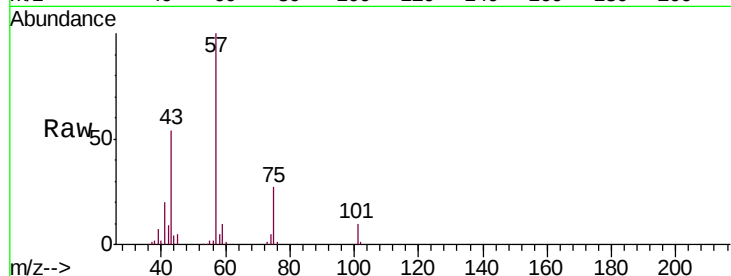




#51  
 4-Methyl-2-Pentanone  
 Concen: 8.150 ug/l  
 RT: 7.40 min Scan# 1963  
 Delta R.T. -0.04 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

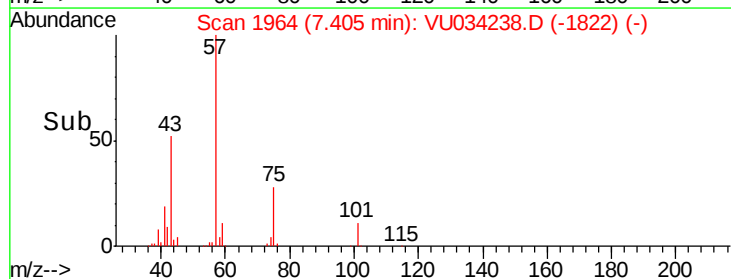
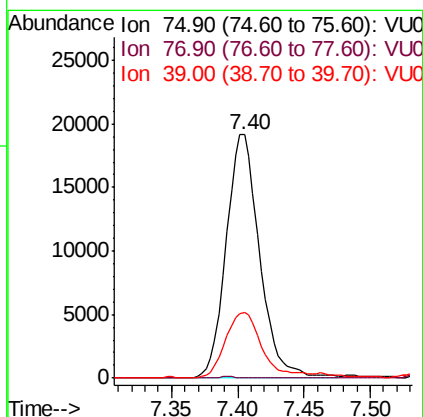
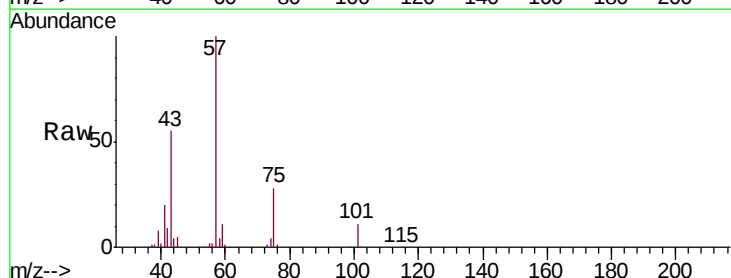
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T3-S-B1-(0)

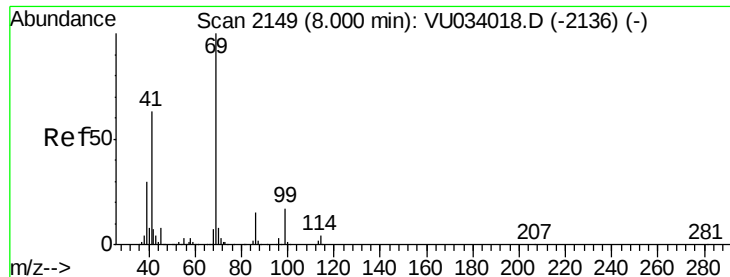
Tgt Ion: 43 Resp: 64660  
 Ion Ratio Lower Upper  
 43 100  
 58 7.9 32.2 48.4#



#54  
 cis-1,3-Dichloropropene  
 Concen: 3.917 ug/l  
 RT: 7.40 min Scan# 1964  
 Delta R.T. 0.16 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

Tgt Ion: 75 Resp: 33616  
 Ion Ratio Lower Upper  
 75 100  
 77 0.0 25.2 37.8#  
 39 27.0 34.6 51.8#

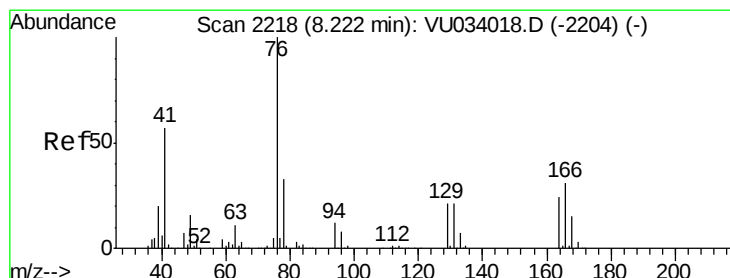
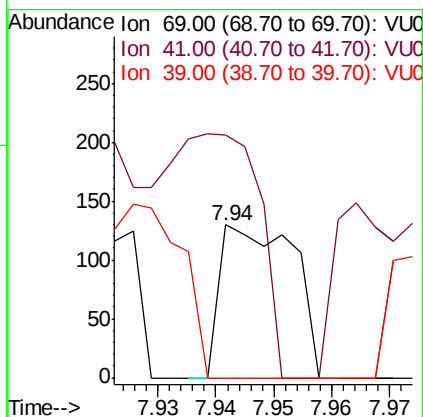
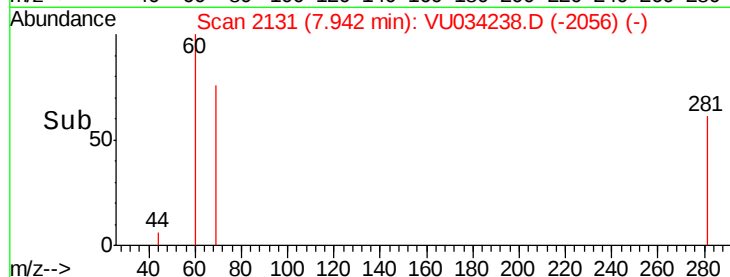
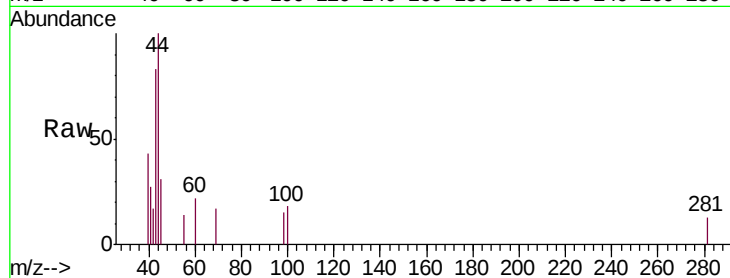




#56  
Ethyl methacrylate  
Concen: 0.984 ug/l  
RT: 7.94 min Scan# 2131  
Delta R.T. -0.06 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

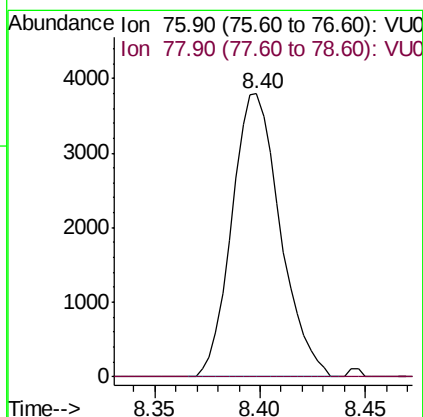
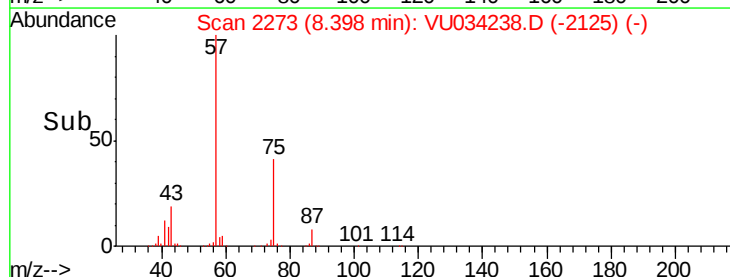
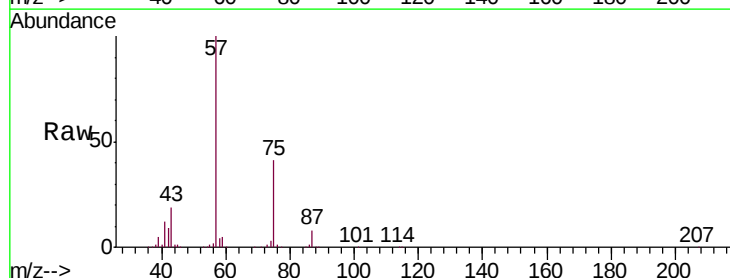
Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

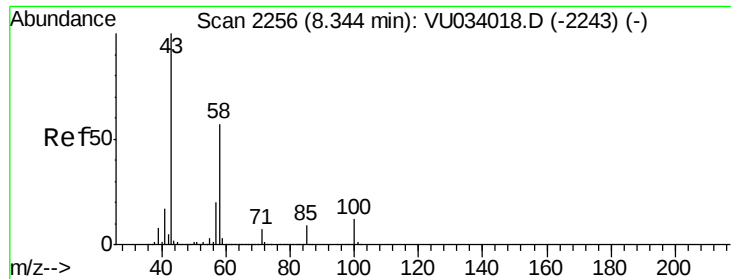
Tgt Ion: 69 Resp: 114  
Ion Ratio Lower Upper  
69 100  
41 0.0 50.7 76.1#  
39 0.0 24.2 36.2#



#57  
1,3-Dichloropropane  
Concen: 0.670 ug/l  
RT: 8.40 min Scan# 2273  
Delta R.T. 0.18 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Tgt Ion: 76 Resp: 6044  
Ion Ratio Lower Upper  
76 100  
78 0.0 26.2 39.4#

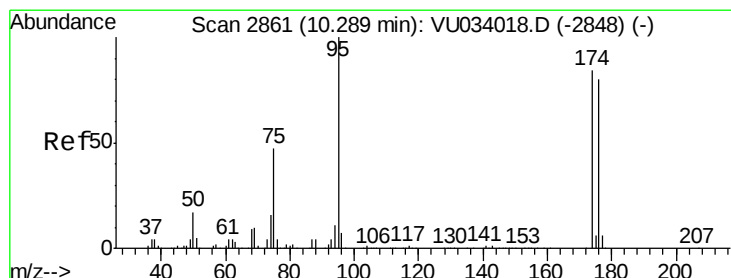
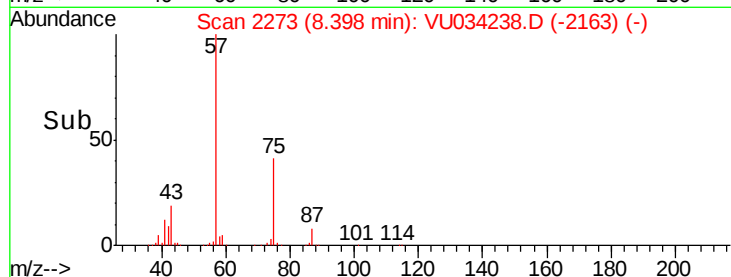
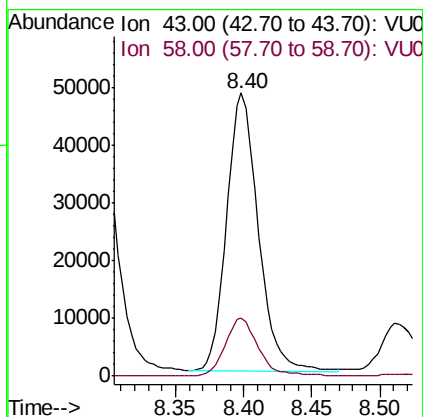
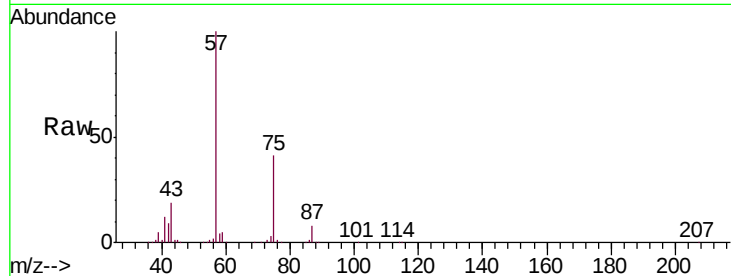




#59  
2-Hexanone  
Concen: 12.953 ug/l  
RT: 8.40 min Scan# 2273  
Delta R.T. 0.05 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

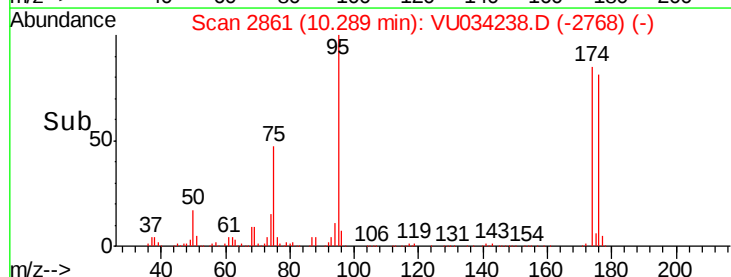
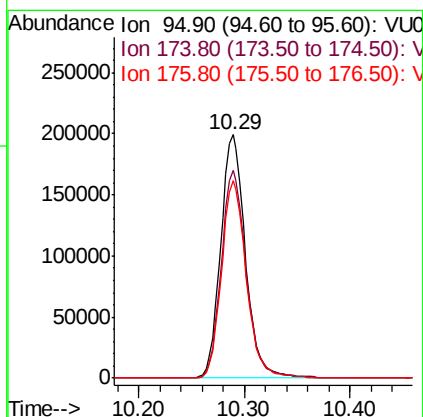
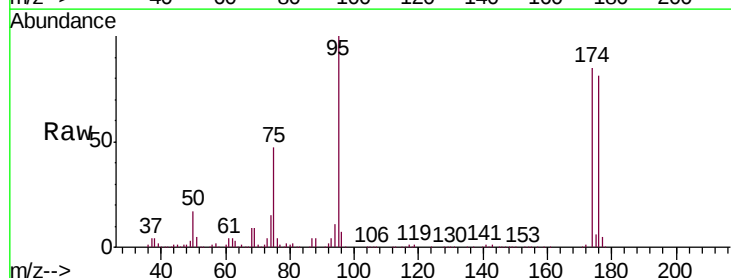
Instrument :  
MSVOA\_U  
ClientSampleId :  
T3-S-B1-(0)

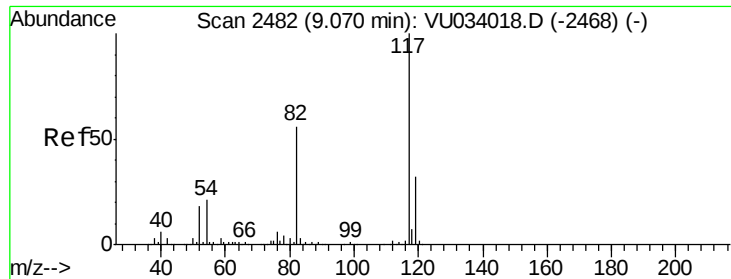
Tgt Ion: 43 Resp: 77581  
Ion Ratio Lower Upper  
43 100  
58 22.0 28.4 85.3#



#62  
4-Bromofluorobenzene  
Concen: 44.860 ug/l  
RT: 10.29 min Scan# 2861  
Delta R.T. -0.00 min  
Lab File: VU034238.D  
Acq: 03 Sep 2019 19:41

Tgt Ion: 95 Resp: 323088  
Ion Ratio Lower Upper  
95 100  
174 86.3 0.0 168.8  
176 81.3 0.0 161.8

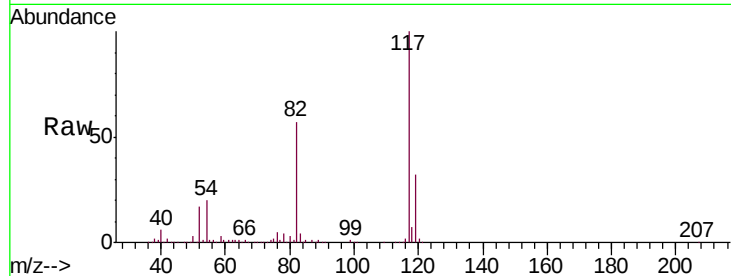




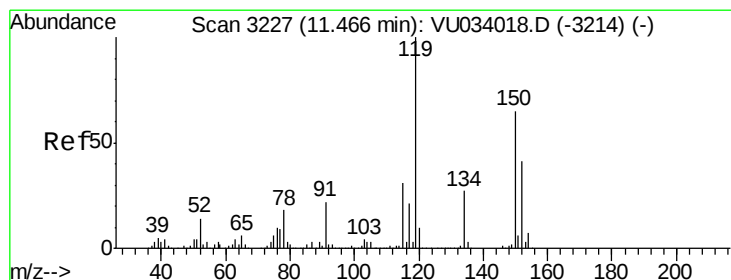
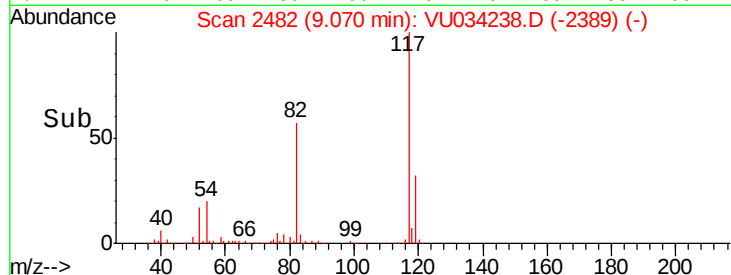
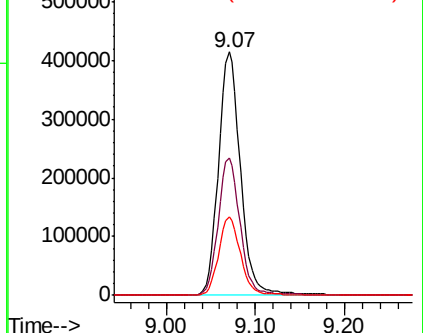
#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 9.07 min Scan# 2482  
 Delta R.T. -0.00 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 T3-S-B1-(0)

Tgt Ion:117 Resp: 708725  
 Ion Ratio Lower Upper  
 117 100  
 82 56.5 45.1 67.7  
 119 32.2 25.4 38.0

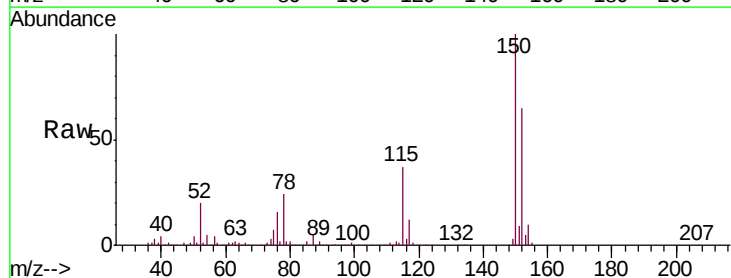


Abundance Ion 116.90 (116.60 to 117.60): V  
 Ion 82.00 (81.70 to 82.70): VU034018.D (-2468) (-)  
 Ion 118.90 (118.60 to 119.60): V

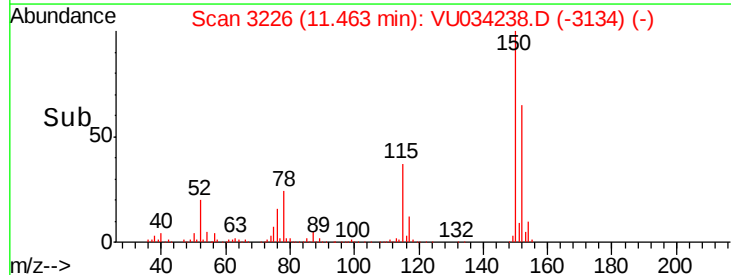
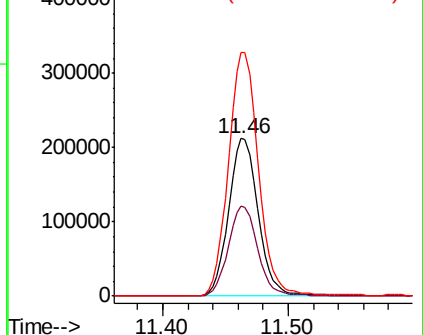


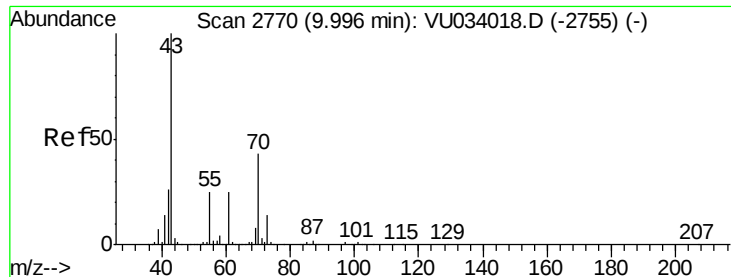
#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 11.46 min Scan# 3226  
 Delta R.T. -0.00 min  
 Lab File: VU034238.D  
 Acq: 03 Sep 2019 19:41

Tgt Ion:152 Resp: 347107  
 Ion Ratio Lower Upper  
 152 100  
 115 57.0 41.1 123.3  
 150 157.6 0.0 348.8



Abundance Ion 151.90 (151.60 to 152.60): V  
 Ion 114.90 (114.60 to 115.60): VU034018.D (-3214) (-)  
 Ion 149.90 (149.60 to 150.60): V





#74

N-ethyl acetate

Concen: 0.225 ug/l

RT: 9.92 min Scan# 2747

Delta R.T. -0.07 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

T3-S-B1-(0)

Tgt Ion: 43 Resp: 2207

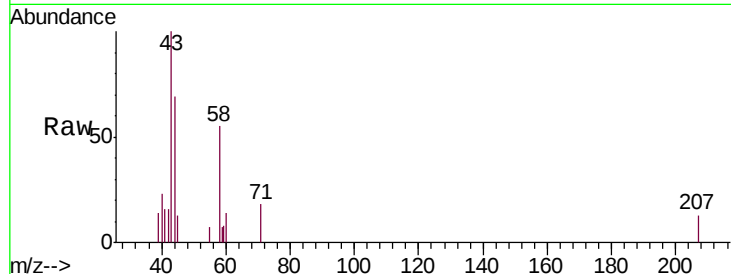
Ion Ratio Lower Upper

43 100

70 0.0 35.2 52.8#

55 2.7 20.5 30.7#

61 0.0 20.0 30.0#



Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 70.00 (69.70 to 70.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

2000

1500

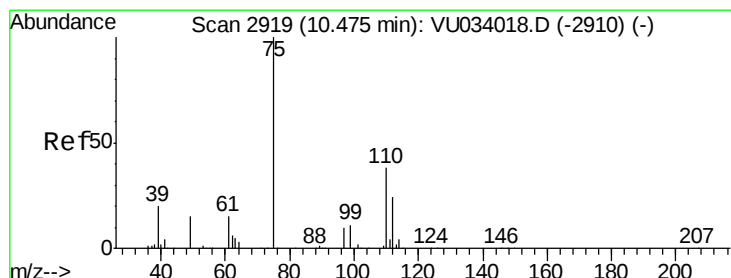
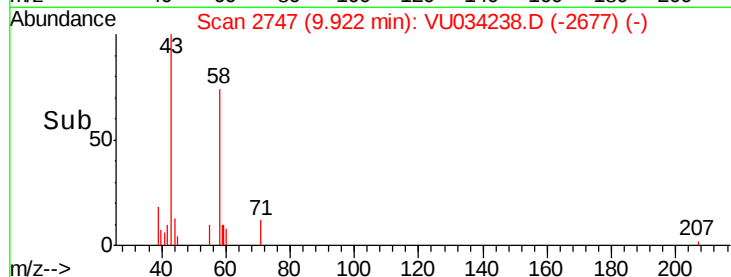
1000

500

0

9.90 9.92 9.95

Time-->



#76

1,2,3-Trichloropropane

Concen: 19.936 ug/l

RT: 10.29 min Scan# 2861

Delta R.T. -0.19 min

Lab File: VU034238.D

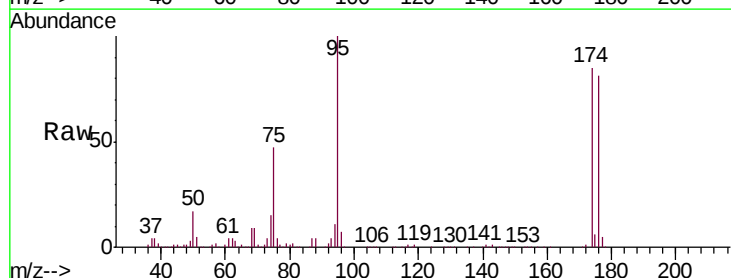
Acq: 03 Sep 2019 19:41

Tgt Ion: 75 Resp: 155965

Ion Ratio Lower Upper

75 100

77 1.2 20.1 60.2#



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 77.00 (76.70 to 77.70): VU0

100000

80000

60000

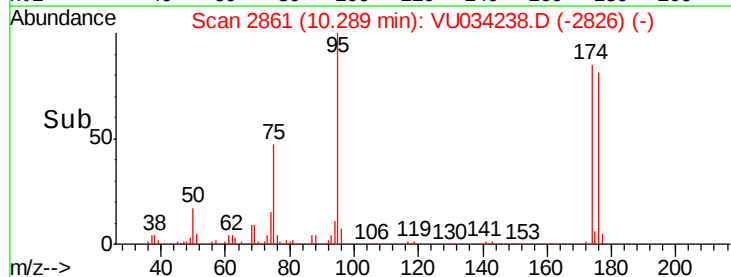
40000

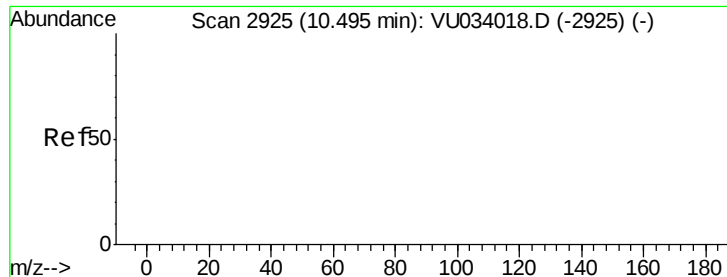
20000

0

10.20 10.29 10.40

Time-->





#81

trans-1,4-Dichloro-2-butene

Concen: 67.130 ug/l

RT: 10.29 min Scan# 2861

Delta R.T. -0.21 min

Lab File: VU034238.D

Acq: 03 Sep 2019 19:41

Instrument :

MSVOA\_U

ClientSampleId :

T3-S-B1-(0)

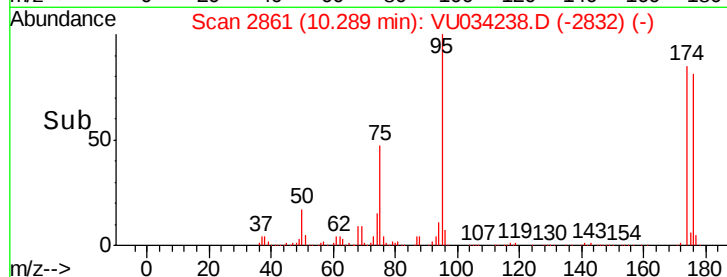
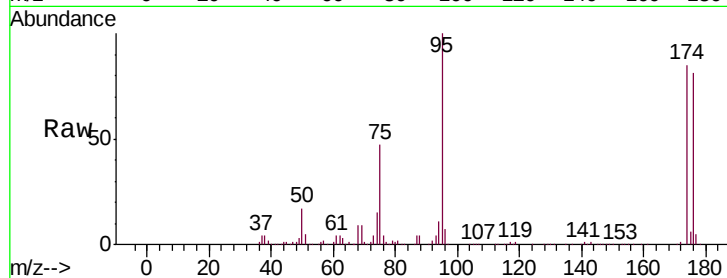
Tgt Ion: 75 Resp: 155965

Ion Ratio Lower Upper

75 100

53 0.2 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

