

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX101718\  
 Data File : VX005405.D  
 Acq On : 17 Oct 2018 22:27  
 Operator : JC/MD  
 Sample : J5569-07  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RLF-SW-3

Quant Time: Oct 18 11:03:24 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X101218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Oct 12 11:28:43 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 312651   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 447940   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 385596   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 187001   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 166490   | 47.98 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.96%  |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 139691   | 47.08 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.16%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 512330   | 50.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.60% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 170814   | 44.64 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 89.28%  |          |

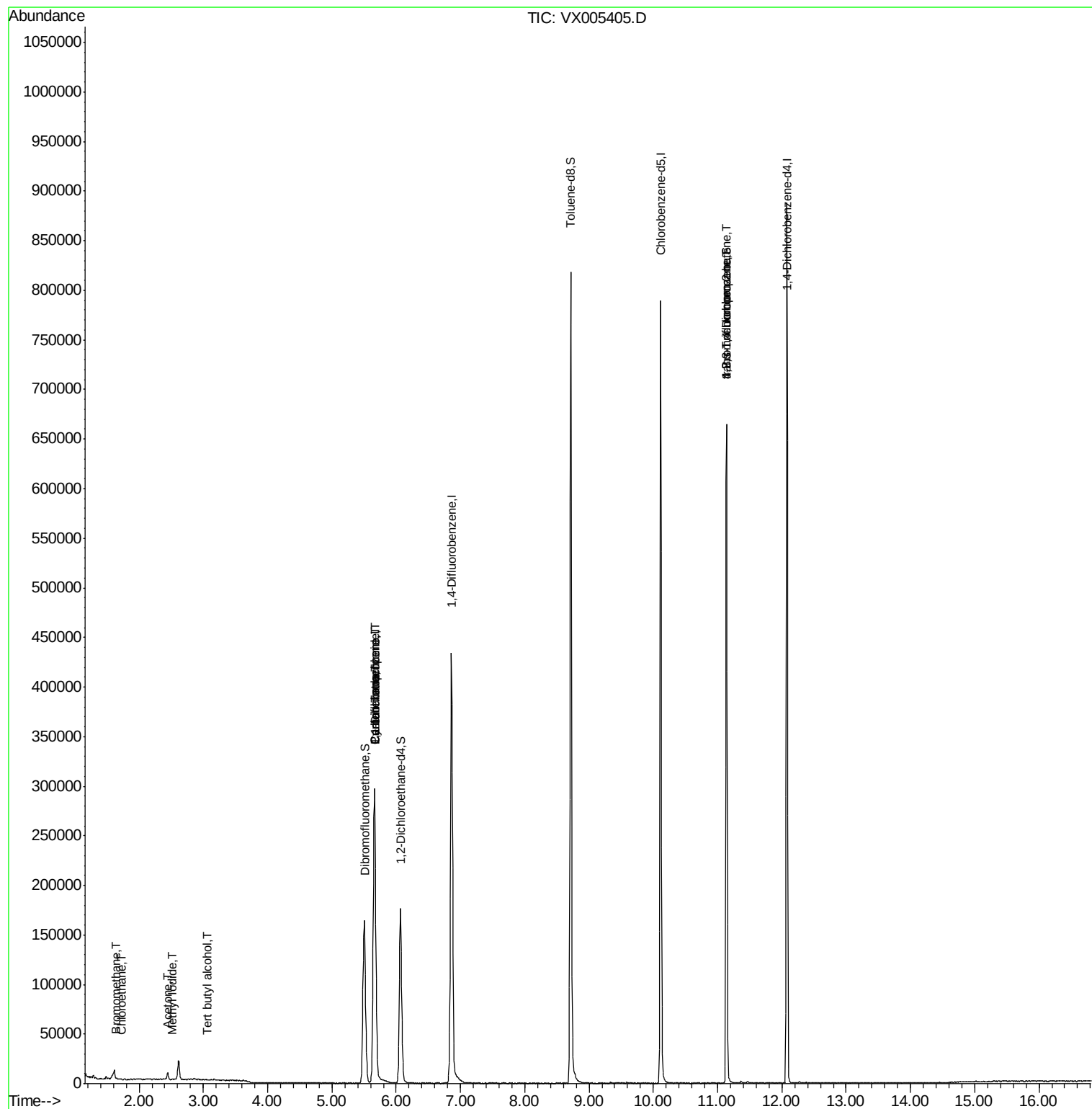
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 411      | 0.785     | ug/l # | 77     |
| 6) Chloroethane                | 1.72  | 64   | 94       | 0.375     | ug/l # | 49     |
| 10) Methyl Iodide              | 2.51  | 142  | 301      | 2.583     | ug/l # | 63     |
| 11) Tert butyl alcohol         | 3.06  | 59   | 511      | 0.522     | ug/l # | 72     |
| 13) Acrolein                   | 2.31  | 56   | 95       | Below Cal | #      | 14     |
| 16) Acetone                    | 2.45  | 43   | 7578     | 3.777     | ug/l   | 95     |
| 20) Methylene Chloride         | 2.85  | 84   | 533      | Below Cal | #      | 76     |
| 31) Cyclohexane                | 5.66  | 56   | 5213     | 1.093     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 19987    | 4.607     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 28496    | 6.537     | ug/l # | 14     |
| 44) Trichloroethene            | 7.22  | 130  | 27       | Below Cal |        | 4      |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 82692    | 22.797    | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 82692    | 69.269    | ug/l # | 10     |

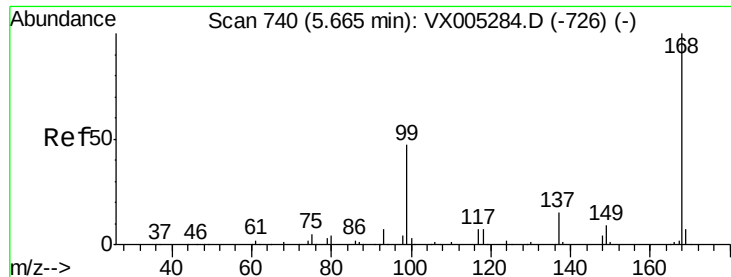
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_X  
ClientSampleId :  
RLF-SW-3

Quant Time: Oct 18 11:03:24 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X101218W.M  
Quant Title : SW846 8260  
QLast Update : Fri Oct 12 11:28:43 2018  
Response via : Initial Calibration

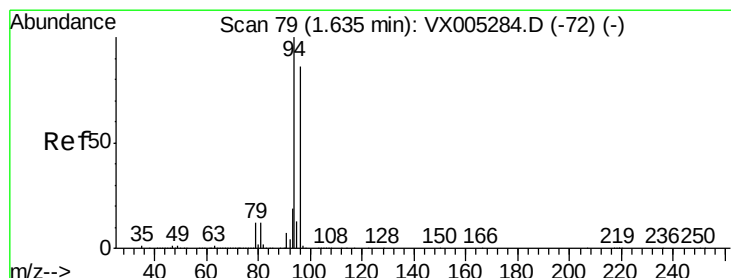
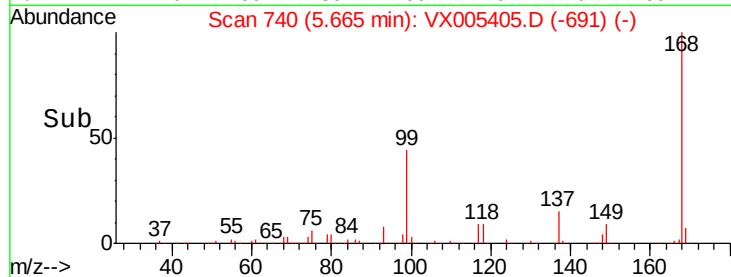
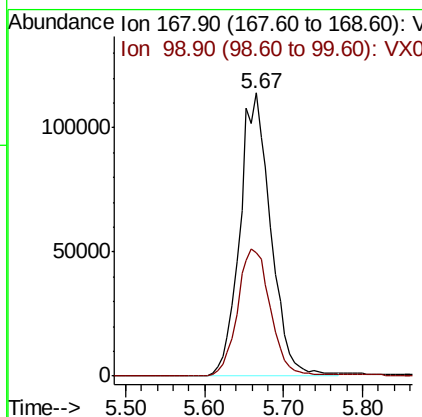
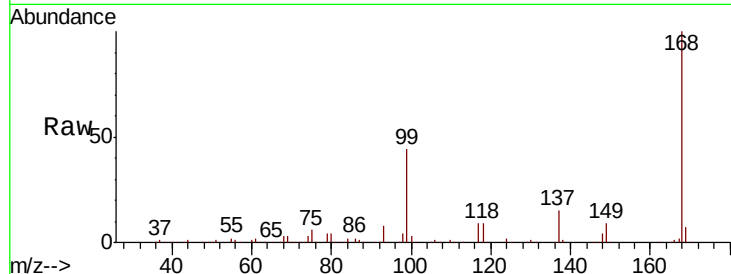




#1  
Pentafluorobenzene  
Concen: 50.000 ug/l  
RT: 5.67 min Scan# 740  
Delta R.T. -0.00 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

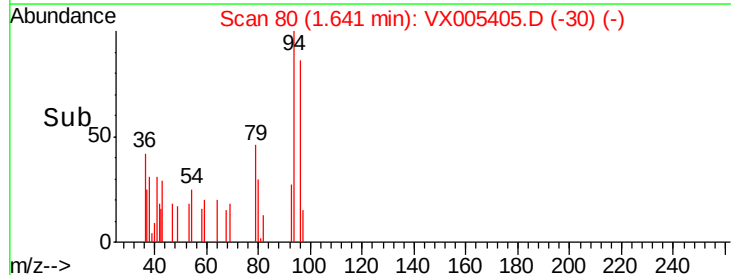
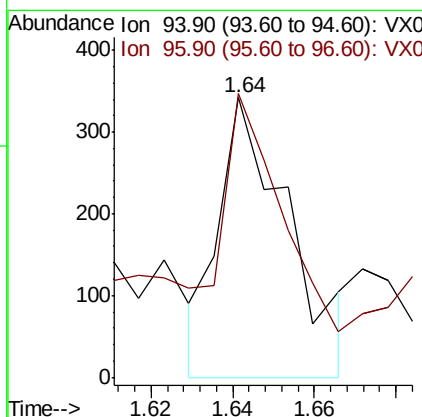
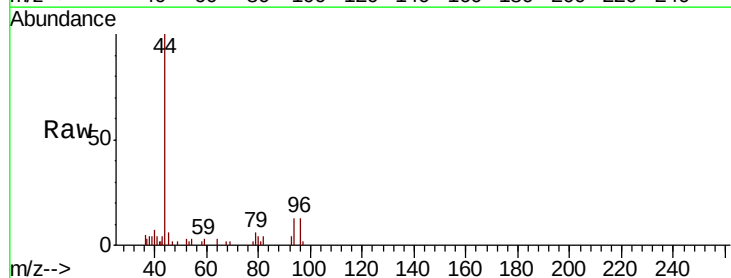
Instrument :  
MSVOA\_X  
ClientSampleId :  
RLF-SW-3

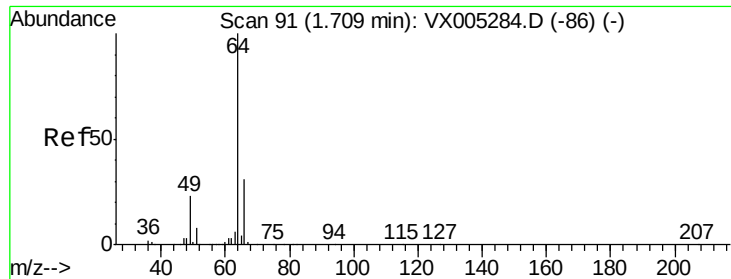
Tot Ion:168 Resp: 312651  
Ion Ratio Lower Upper  
168 100  
99 43.7 39.9 59.9



#5  
Bromomethane  
Concen: 0.785 ug/l  
RT: 1.64 min Scan# 80  
Delta R.T. 0.01 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

Tgt Ion: 94 Resp: 411  
Ion Ratio Lower Upper  
94 100  
96 115.5 74.5 111.7#





#6

Chloroethane

Concen: 0.375 ug/l

RT: 1.72 min Scan# 93

Delta R.T. 0.01 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

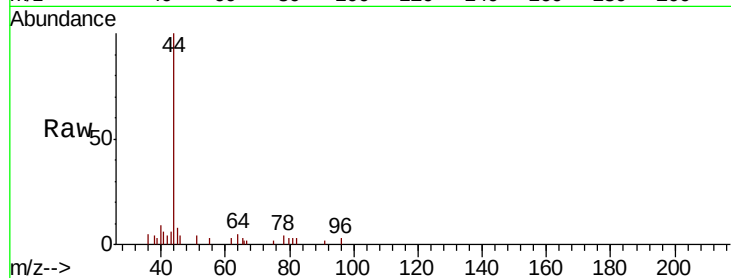
RLF-SW-3

Tot Ion: 64 Resp: 94

Ion Ratio Lower Upper

64 100

66 2.9 24.6 36.8#

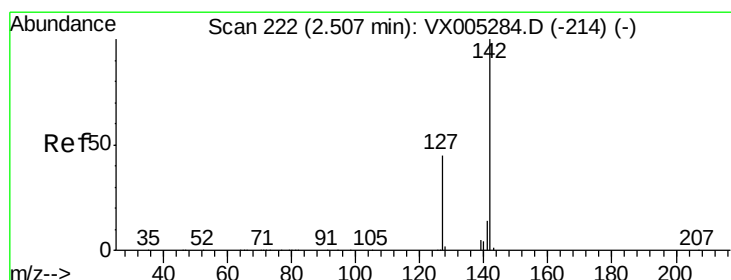
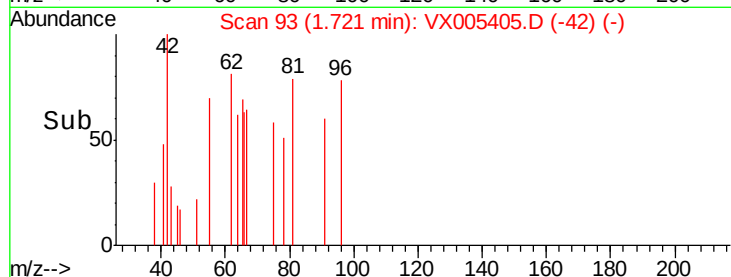
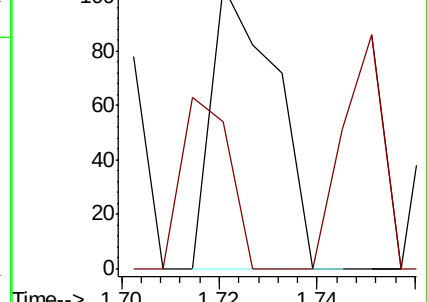


Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.72

1.74



#10

Methyl Iodide

Concen: 2.583 ug/l

RT: 2.51 min Scan# 222

Delta R.T. 0.00 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

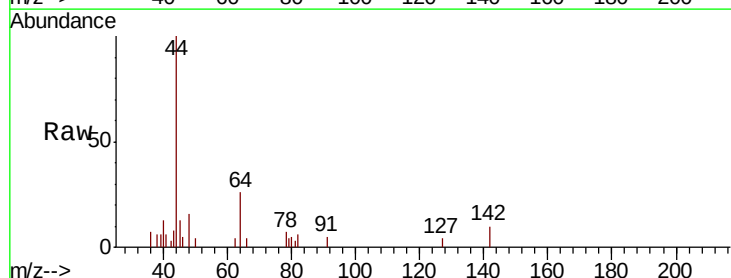
Tgt Ion: 142 Resp: 301

Ion Ratio Lower Upper

142 100

127 17.9 33.8 50.6#

141 0.0 11.4 17.0#



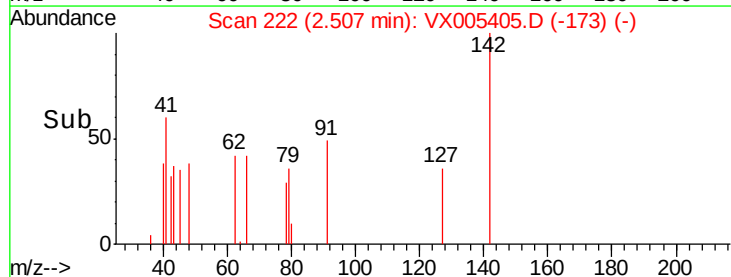
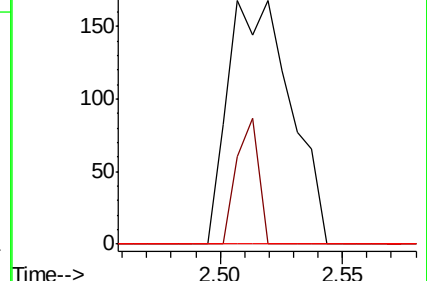
Abundance Ion 141.80 (141.50 to 142.50): V

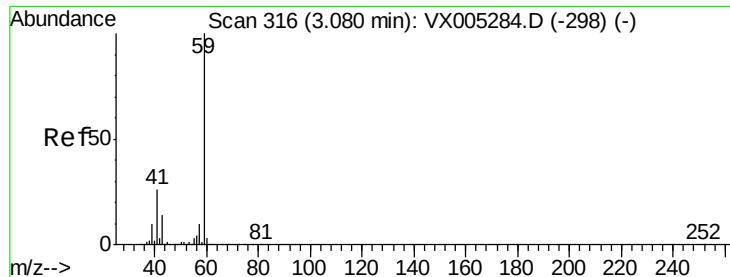
Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

2.51

2.55



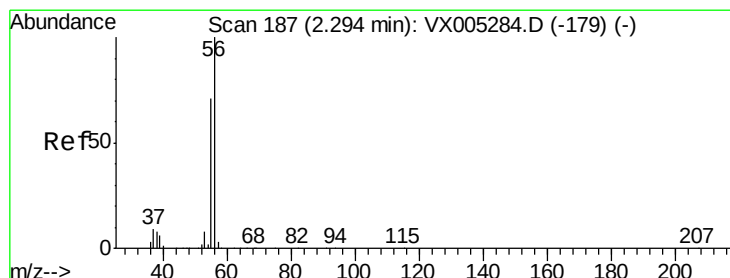
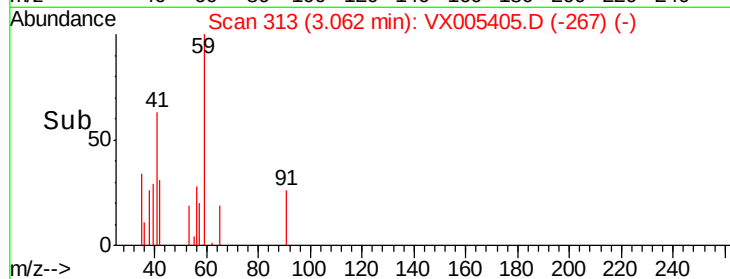
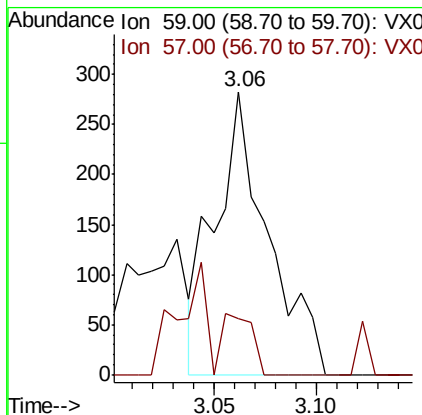
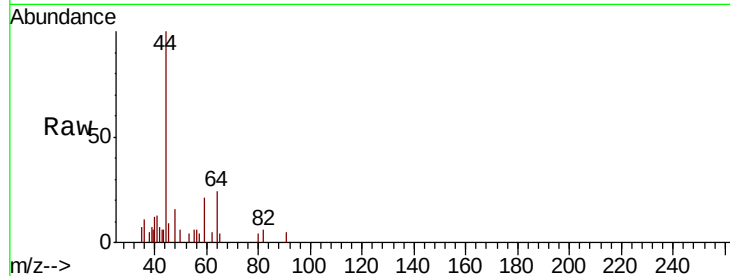


#11

Tert butyl alcohol  
 Concen: 0.522 ug/l  
 RT: 3.06 min Scan# 313  
 Delta R.T. -0.02 min  
 Lab File: VX005405.D  
 Acq: 17 Oct 2018 22:27

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RLF-SW-3

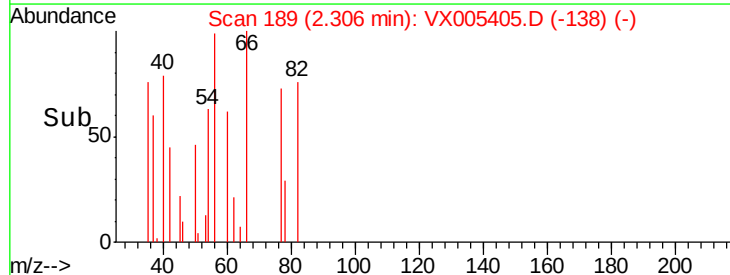
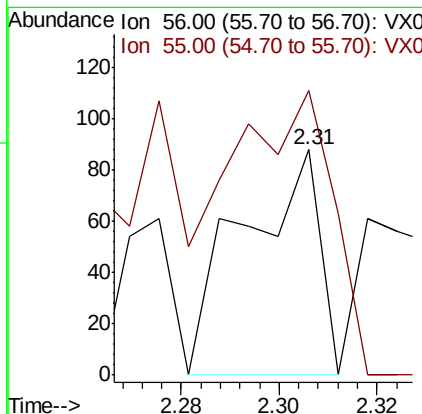
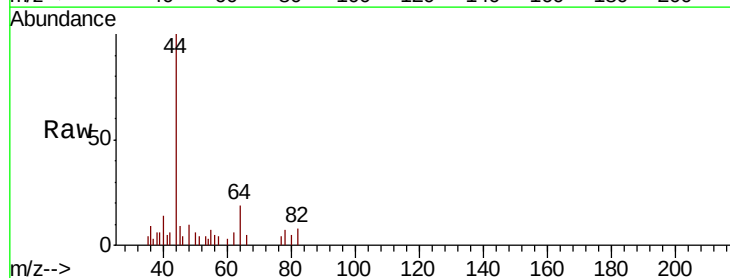
Tot Ion: 59 Resp: 511  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.2 12.4#

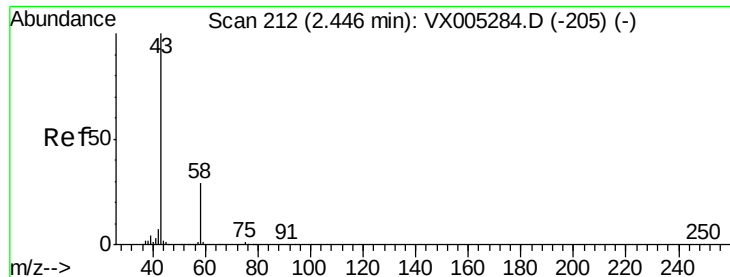


#13

Acrolein  
 Concen: Below Cal  
 RT: 2.31 min Scan# 189  
 Delta R.T. 0.01 min  
 Lab File: VX005405.D  
 Acq: 17 Oct 2018 22:27

Tgt Ion: 56 Resp: 95  
 Ion Ratio Lower Upper  
 56 100  
 55 137.9 54.7 82.1#





#16

Acetone

Concen: 3.777 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

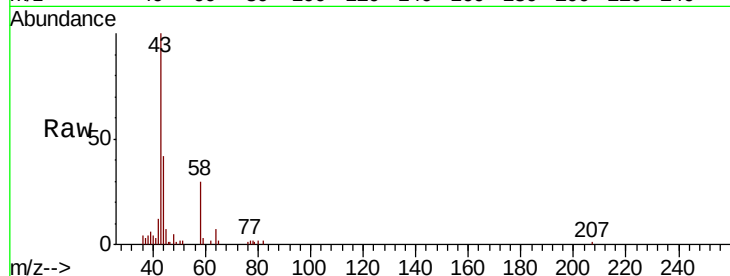
RLF-SW-3

Tot Ion: 43 Resp: 7578

Ion Ratio Lower Upper

43 100

58 30.3 26.2 39.4



Abundance Ion 43.00 (42.70 to 43.70): VX005284.D (-205) (-)

Ion 58.00 (57.70 to 58.70): VX005284.D (-205) (-)

2.45

4000

3000

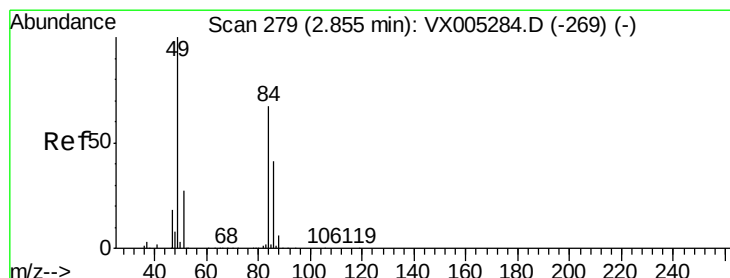
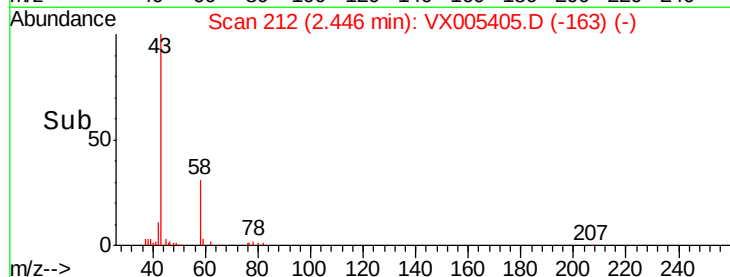
2000

1000

0

Time-->

2.35 2.40 2.45 2.50 2.55



#20

Methylene Chloride

Concen: Below Cal

RT: 2.85 min Scan# 279

Delta R.T. 0.00 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Tgt Ion: 84 Resp: 533

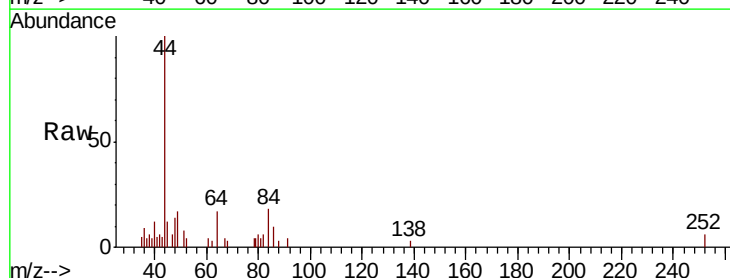
Ion Ratio Lower Upper

84 100

49 93.6 101.2 151.8#

51 19.7 29.5 44.3#

86 57.0 52.3 78.5



Abundance Ion 83.90 (83.60 to 84.60): VX005284.D (-269) (-)

Ion 48.90 (48.60 to 49.60): VX005284.D (-269) (-)

Ion 50.90 (50.60 to 51.60): VX005284.D (-269) (-)

Ion 85.90 (85.60 to 86.60): VX005284.D (-269) (-)

2.85

500

400

300

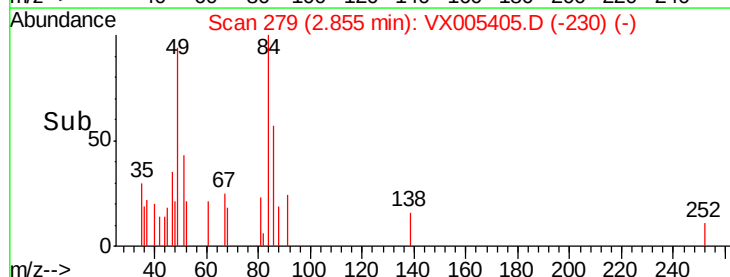
200

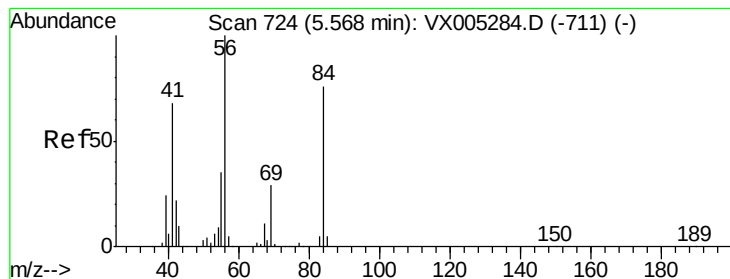
100

0

Time-->

2.80 2.85 2.90





#31

Cyclohexane

Concen: 1.093 ug/l

RT: 5.66 min Scan# 739

Delta R.T. 0.09 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

RLF-SW-3

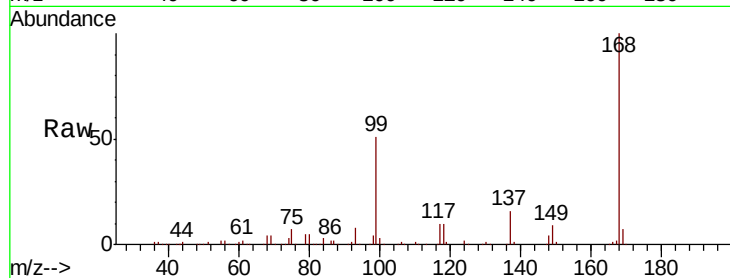
Tot Ion: 56 Resp: 5213

Ion Ratio Lower Upper

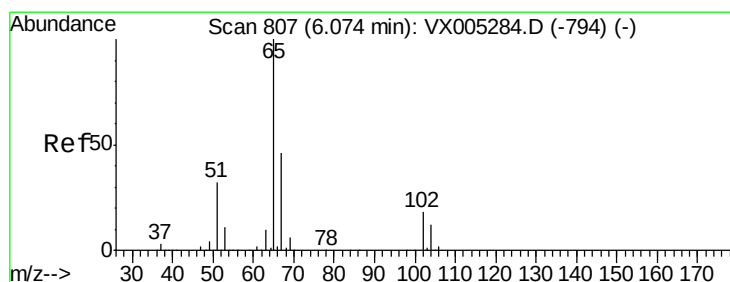
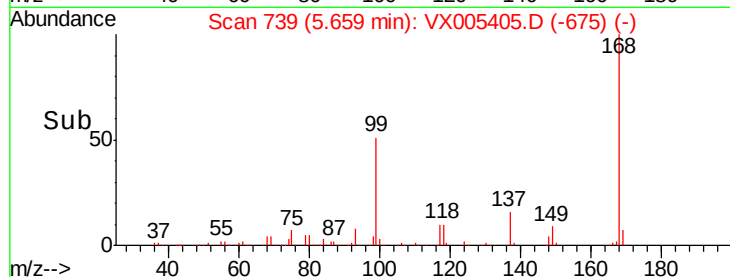
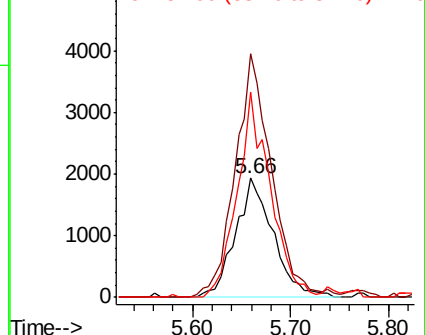
56 100

69 204.1 25.4 38.2#

84 172.2 71.4 107.2#



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



#33

1,2-Dichloroethane-d4

Concen: 47.980 ug/l

RT: 6.07 min Scan# 806

Delta R.T. -0.01 min

Lab File: VX005405.D

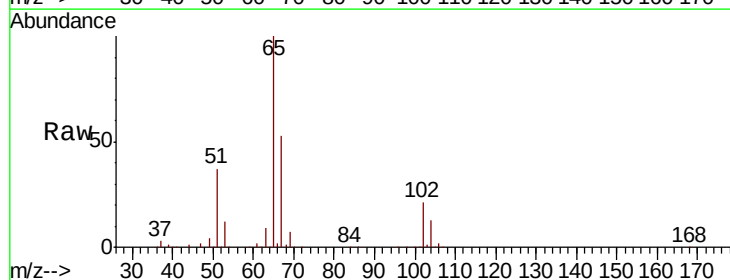
Acq: 17 Oct 2018 22:27

Tgt Ion: 65 Resp: 166490

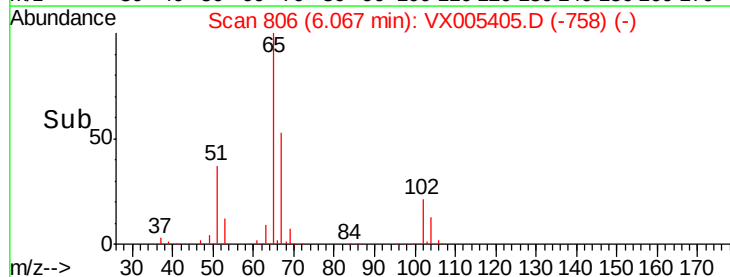
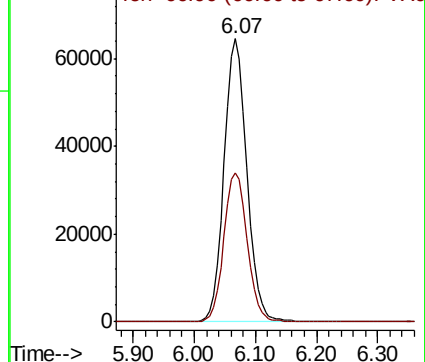
Ion Ratio Lower Upper

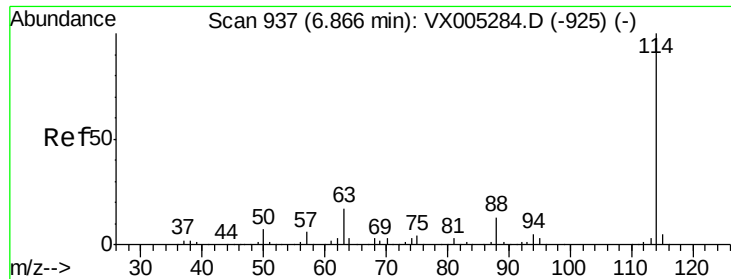
65 100

67 54.0 0.0 106.8



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

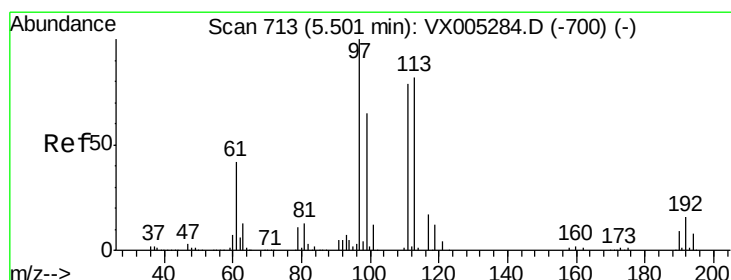
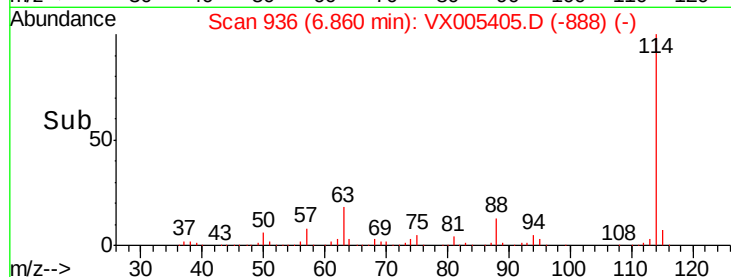
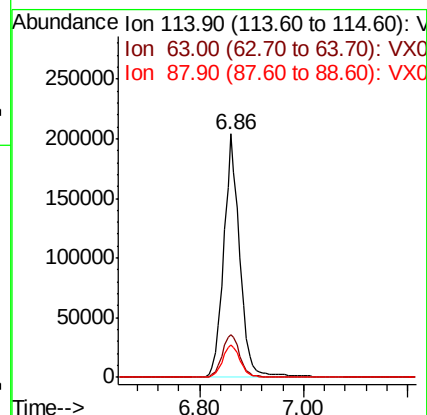
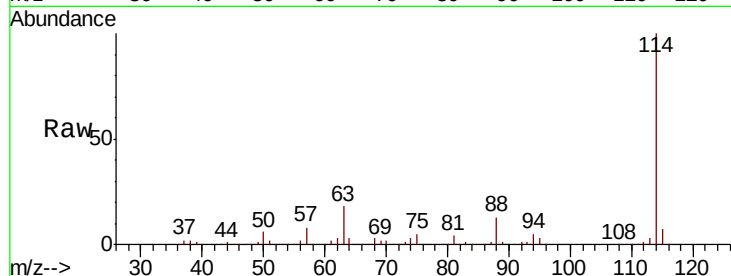




#34  
1,4-Difluorobenzene  
Concen: 50.000 ug/l  
RT: 6.86 min Scan# 936  
Delta R.T. -0.01 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

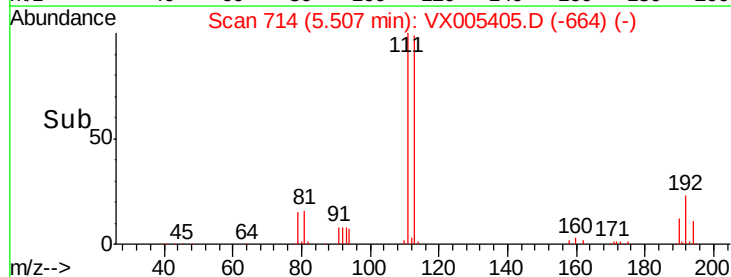
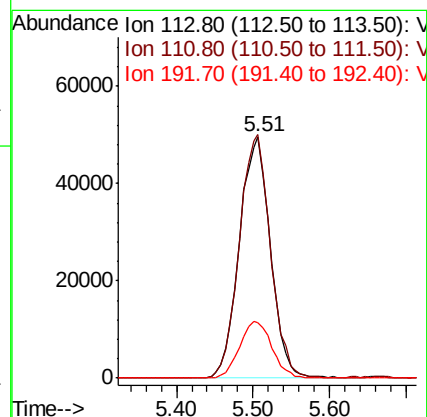
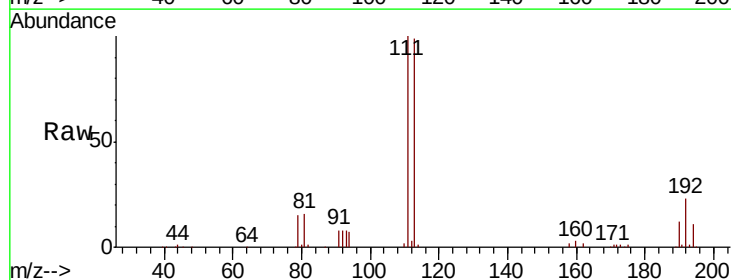
Instrument :  
MSVOA\_X  
ClientSampled :  
RLF-SW-3

Tot Ion:114 Resp: 447940  
Ion Ratio Lower Upper  
114 100  
63 17.6 0.0 39.0  
88 13.3 0.0 30.4

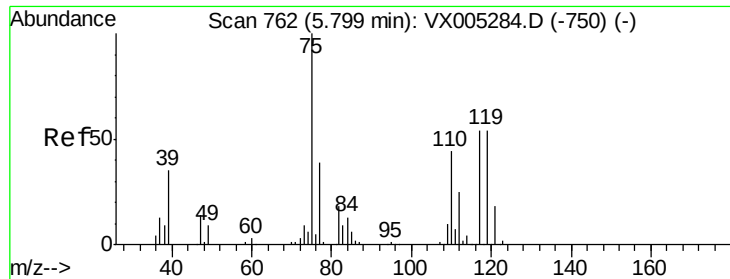


#35  
Dibromofluoromethane  
Concen: 47.084 ug/l  
RT: 5.51 min Scan# 714  
Delta R.T. 0.01 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

Tgt Ion:113 Resp: 139691  
Ion Ratio Lower Upper  
113 100  
111 101.2 82.4 123.6  
192 24.4 19.4 29.2



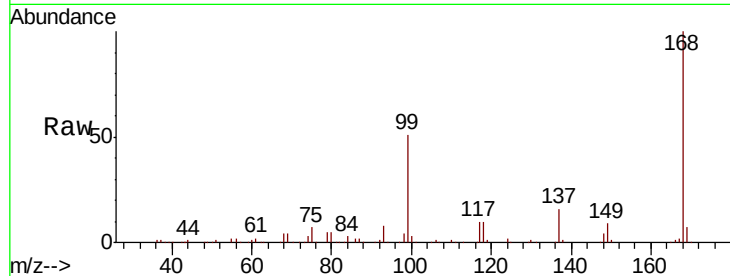




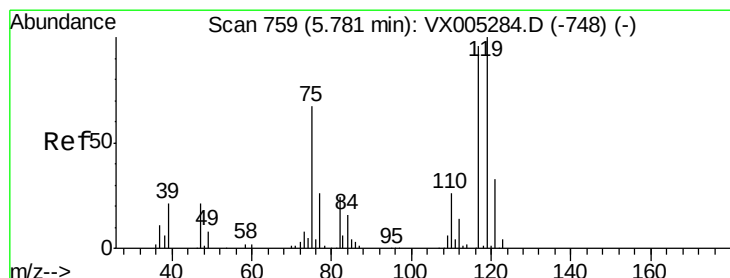
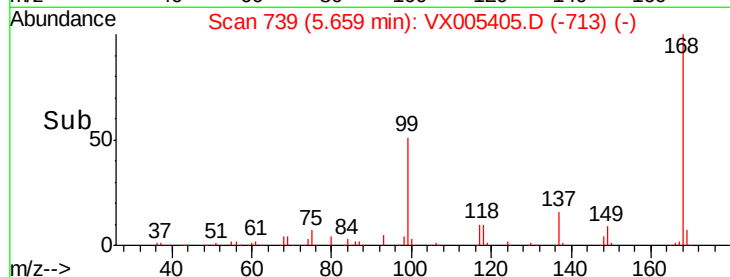
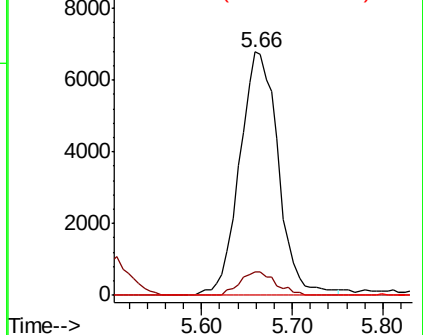
#36  
 1,1-Dichloropropene  
 Concen: 4.607 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.14 min  
 Lab File: VX005405.D  
 Acq: 17 Oct 2018 22:27

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 RLF-SW-3

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.8   | 18.0  | 54.0# |
| 77      | 0.0   | 24.6  | 36.8# |

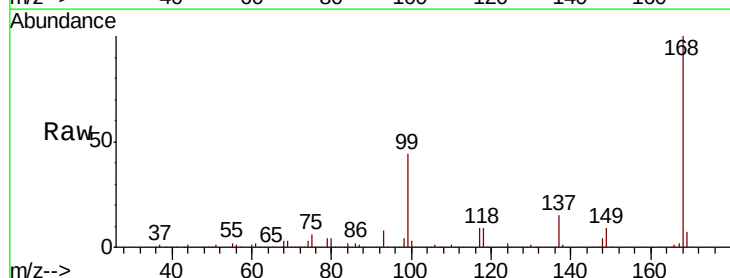


Abundance Ion 74.90 (74.60 to 75.60): VX0  
 Ion 109.90 (109.60 to 110.60): V  
 Ion 76.90 (76.60 to 77.60): VX0

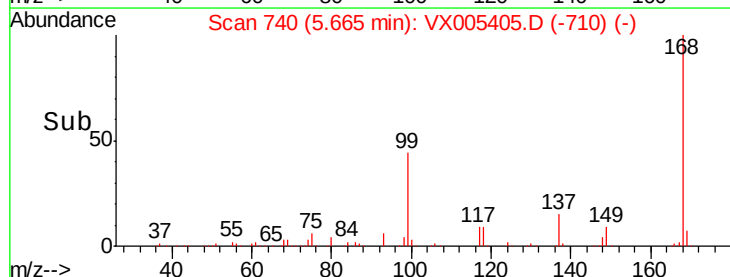
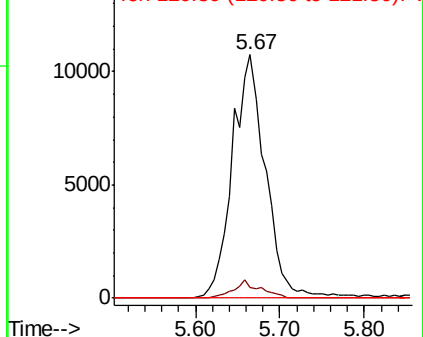


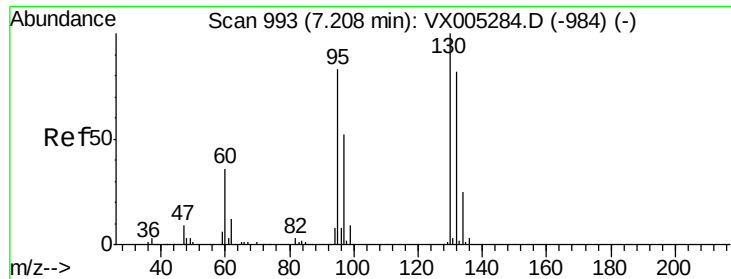
#38  
 Carbon Tetrachloride  
 Concen: 6.537 ug/l  
 RT: 5.67 min Scan# 740  
 Delta R.T. -0.12 min  
 Lab File: VX005405.D  
 Acq: 17 Oct 2018 22:27

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 4.5   | 78.8  | 118.2# |
| 121     | 0.0   | 24.9  | 37.3#  |



Abundance Ion 116.80 (116.50 to 117.50): V  
 Ion 118.80 (118.50 to 119.50): V  
 Ion 120.80 (120.50 to 121.50): V





#44

Trichloroethene

Concen: Below Cal

RT: 7.22 min Scan# 995

Delta R.T. 0.01 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

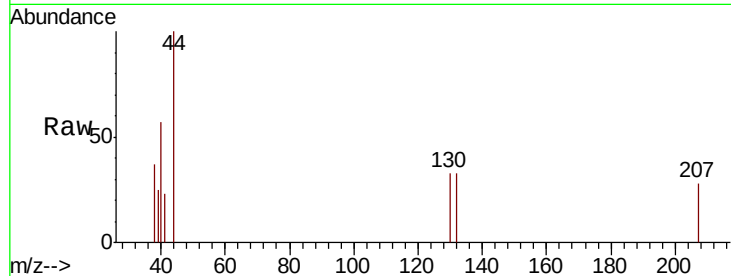
RLF-SW-3

Tot Ion:130 Resp: 27

Ion Ratio Lower Upper

130 100

95 0.0 0.0 181.6



Abundance Ion 129.80 (129.50 to 130.50): V

Ion 94.90 (94.60 to 95.60): VX0

7.22

60

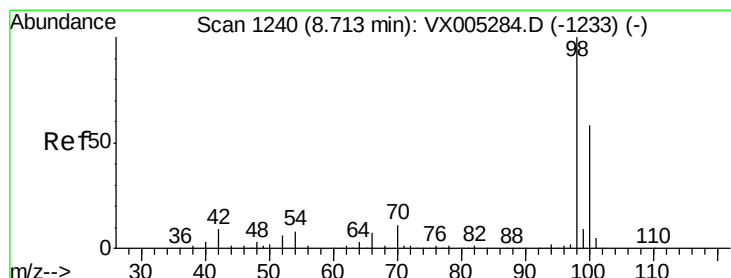
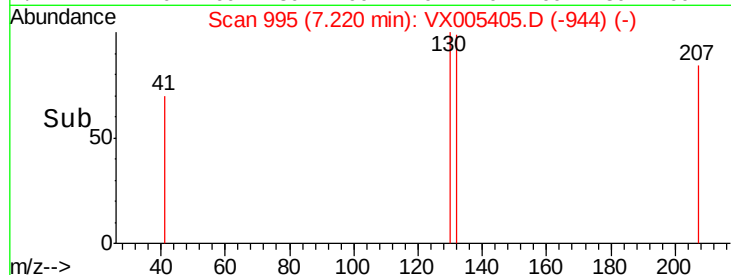
40

20

0

7.20 7.21 7.22 7.23 7.24

Time-->



#50

Toluene-d8

Concen: 50.301 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. -0.00 min

Lab File: VX005405.D

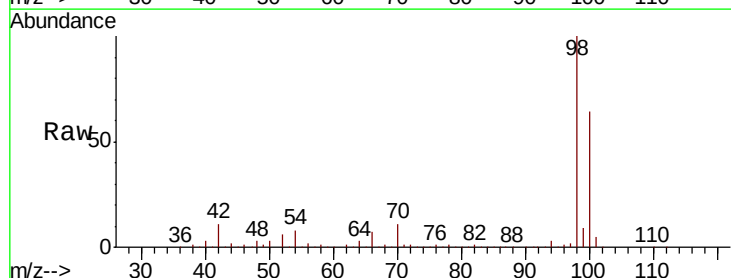
Acq: 17 Oct 2018 22:27

Tgt Ion: 98 Resp: 512330

Ion Ratio Lower Upper

98 100

100 63.8 52.9 79.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V

8.71

300000

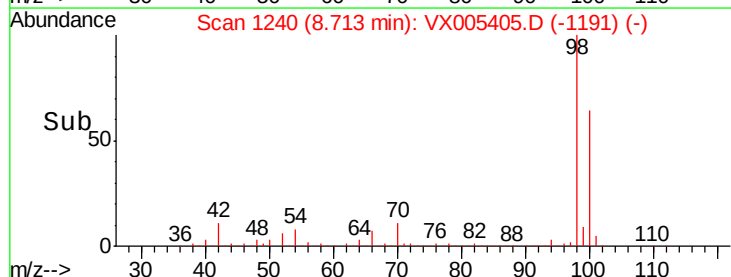
200000

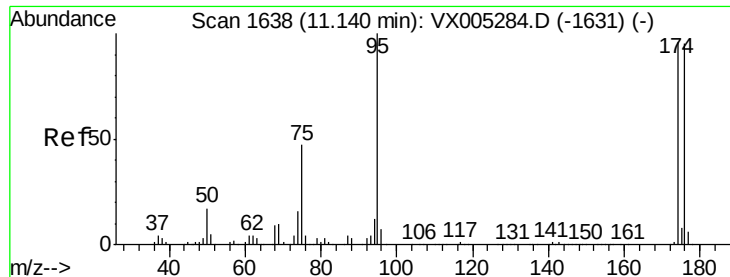
100000

0

8.60 8.70 8.80 8.90

Time-->

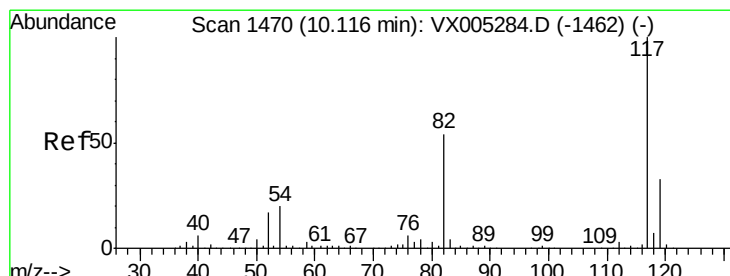
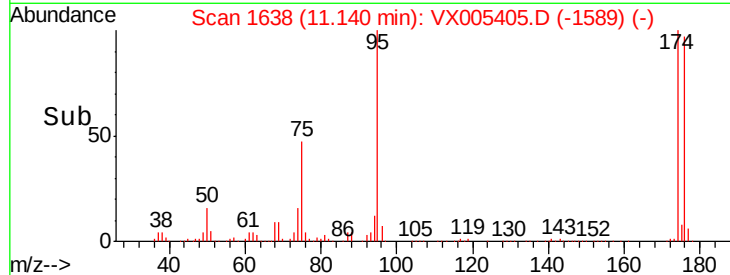
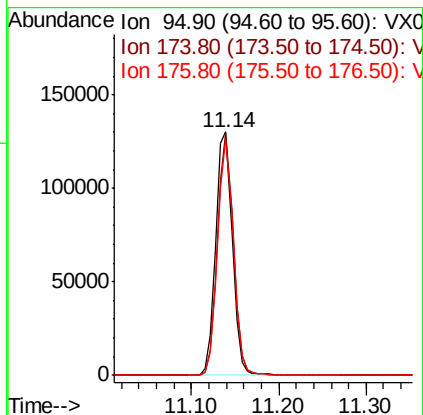
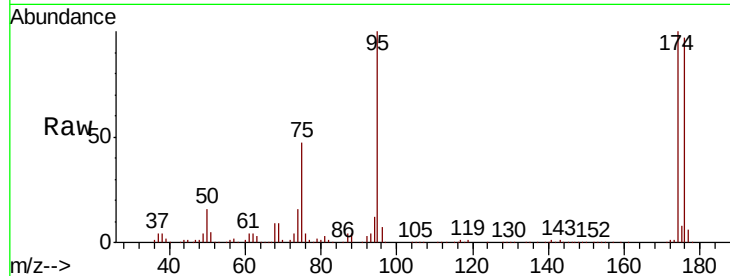




#62  
4-Bromofluorobenzene  
Concen: 44.643 ug/l  
RT: 11.14 min Scan# 1638  
Delta R.T. -0.00 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

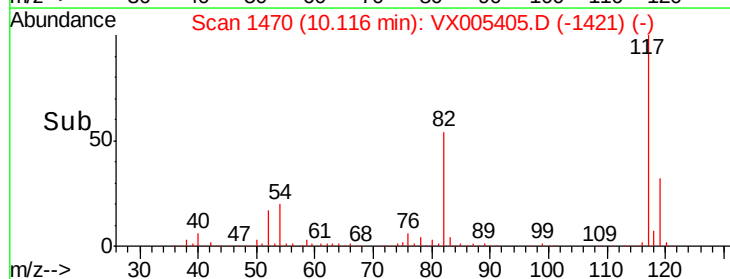
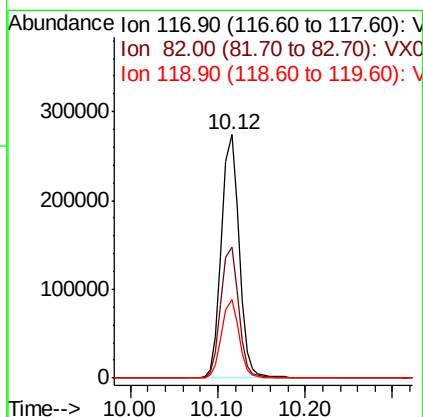
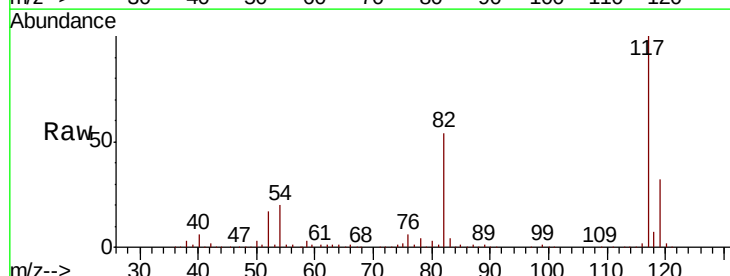
Instrument :  
MSVOA\_X  
ClientSampleId :  
RLF-SW-3

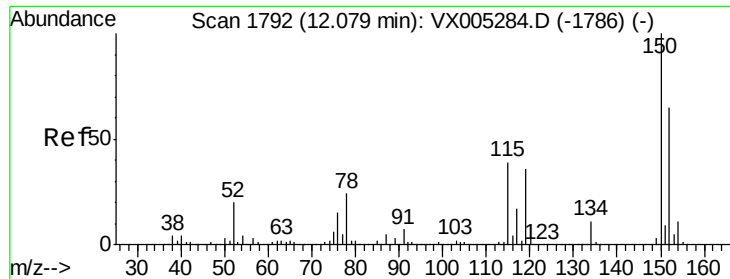
Tot Ion: 95 Resp: 170814  
Ion Ratio Lower Upper  
95 100  
174 94.9 0.0 185.2  
176 92.1 0.0 178.6



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.12 min Scan# 1470  
Delta R.T. -0.00 min  
Lab File: VX005405.D  
Acq: 17 Oct 2018 22:27

Tgt Ion: 117 Resp: 385596  
Ion Ratio Lower Upper  
117 100  
82 54.0 47.8 71.6  
119 32.4 29.3 43.9





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.08 min Scan# 1792

Delta R.T. -0.00 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

RLF-SW-3

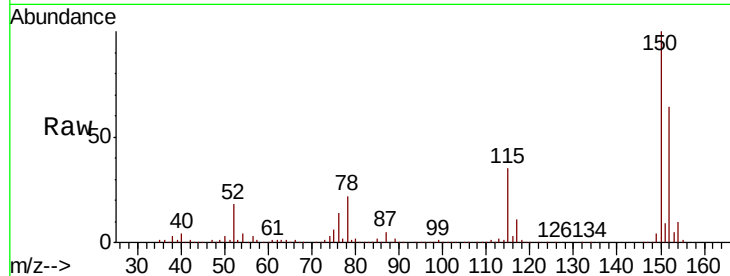
Tot Ion:152 Resp: 187001

Ion Ratio Lower Upper

152 100

115 54.4 39.0 117.0

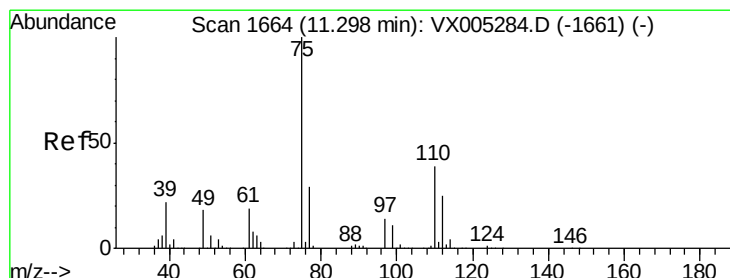
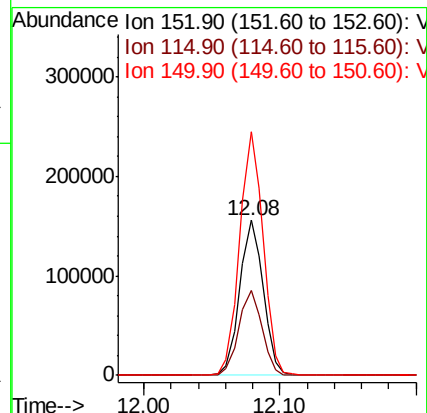
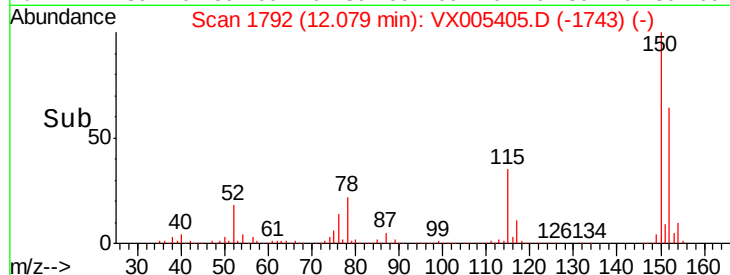
150 157.6 0.0 351.0



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 22.797 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX005405.D

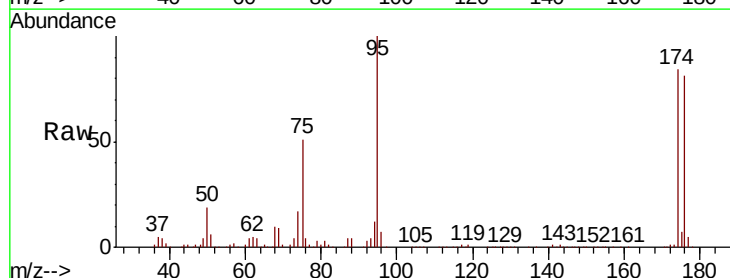
Acq: 17 Oct 2018 22:27

Tgt Ion: 75 Resp: 82692

Ion Ratio Lower Upper

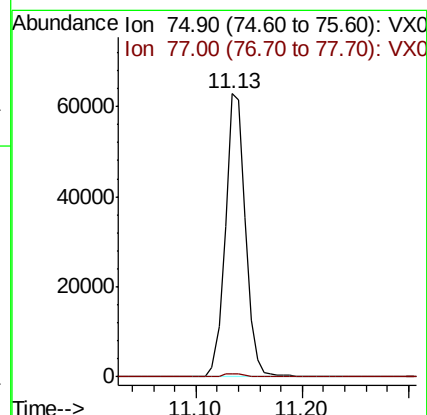
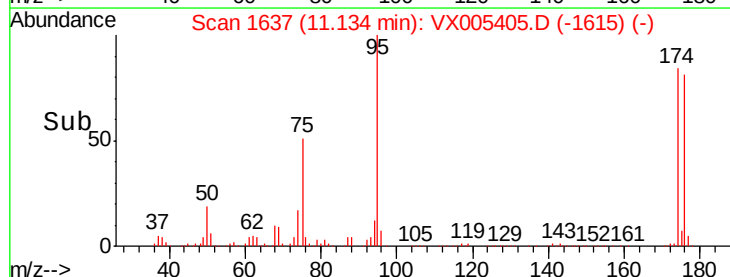
75 100

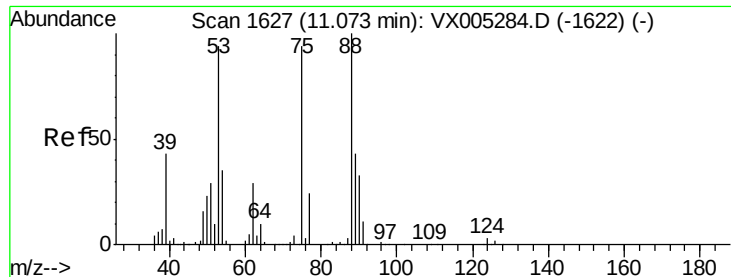
77 1.3 20.2 60.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0





#81

trans-1,4-Dichloro-2-butene

Concen: 69.269 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX005405.D

Acq: 17 Oct 2018 22:27

Instrument :

MSVOA\_X

ClientSampleId :

RLF-SW-3

Tot Ion: 75 Resp: 82692

Ion Ratio Lower Upper

75 100

53 0.2 80.1 120.1#

89 0.0 37.2 55.8#

