

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL120718\  
 Data File : VL032925.D  
 Acq On : 7 Dec 2018 6:48  
 Operator : SY/AP  
 Sample : VSTDIC0.03  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

Quant Time: Dec 07 07:26:07 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL120718AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_L Fri Dec 07 05:41:55 2018  
 QLast Update : Fri Dec 07 05:41:55 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.76  | 49   | 1237249  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.29  | 114  | 2872198  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 2741725  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 2034272  | 10.16    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 101.60% |

| Target Compounds             | R.T. | QIon | Response | Conc  | Units  | Qvalue |
|------------------------------|------|------|----------|-------|--------|--------|
| 2) Dichlorodifluoromethane   | 3.08 | 85   | 8317     | 0.049 | ppbv   | 89     |
| 3) Chlorodifluoromethane     | 3.02 | 51   | 4794     | 0.050 | ppbv   | 92     |
| 4) Chloromethane             | 3.18 | 50   | 7977     | 0.140 | ppbv   | 88     |
| 6) Bromomethane              | 3.52 | 94   | 1752     | 0.048 | ppbv # | 72     |
| 9) Propene                   | 3.04 | 41   | 1285     | 0.033 | ppbv # | 15     |
| 11) Trichlorofluoromethane   | 4.01 | 101  | 7826     | 0.047 | ppbv   | 96     |
| 15) Acetone                  | 3.94 | 43   | 9087     | 0.082 | ppbv   | 96     |
| 16) 1,3-Butadiene            | 3.36 | 39   | 2013     | 0.046 | ppbv   | 96     |
| 20) Methylene Chloride       | 4.41 | 84   | 7576     | 0.122 | ppbv   | 89     |
| 22) trans-1,2-Dichloroethene | 4.97 | 96   | 2109     | 0.031 | ppbv # | 54     |
| 24) 1,1-Dichloroethane       | 5.09 | 63   | 6849     | 0.043 | ppbv # | 87     |
| 26) Hexane                   | 5.79 | 57   | 4520     | 0.037 | ppbv # | 52     |
| 39) 1,2-Dichloropropane      | 7.29 | 63   | 712852   | 8.643 | ppbv # | 21     |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 879

Delta R.T. -0.01 min

Lab File: VL032925.D

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Instrument :

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ClientSampleId :

VSTDIC0.03

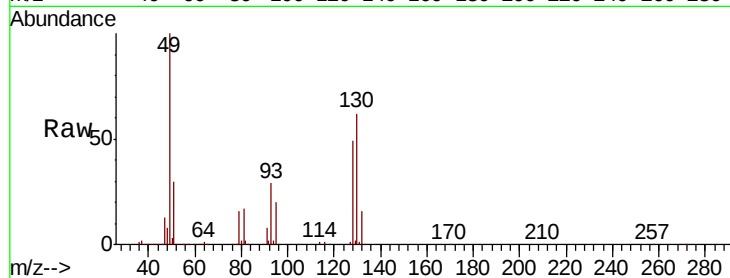
Tgt Ion: 49 Resp: 1237249

Ion Ratio Lower Upper

49 100

128 52.4 26.3 78.8

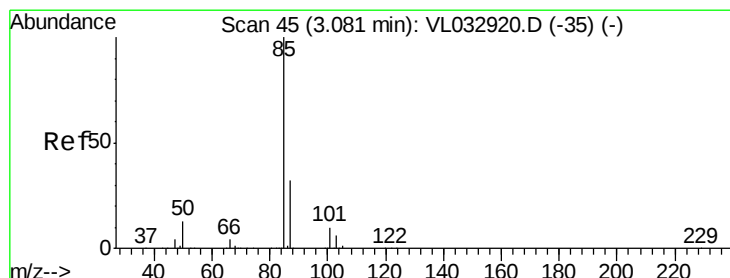
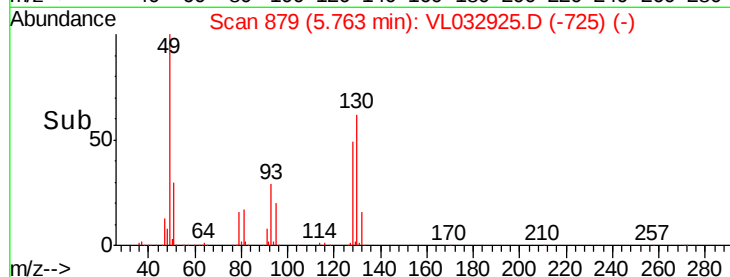
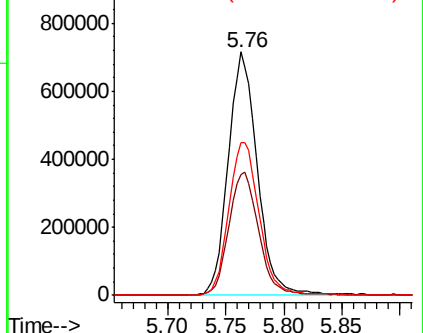
130 66.2 33.9 101.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.049 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL032925.D

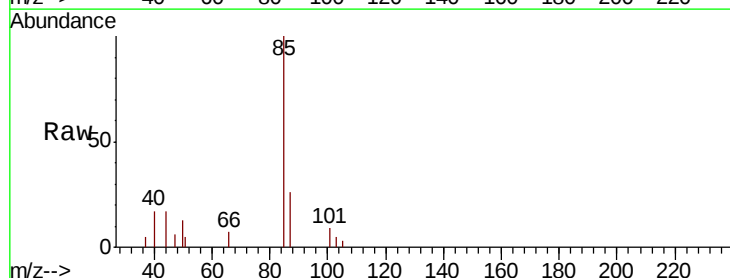
Acq: 7 Dec 2018 6:48

Tgt Ion: 85 Resp: 8317

Ion Ratio Lower Upper

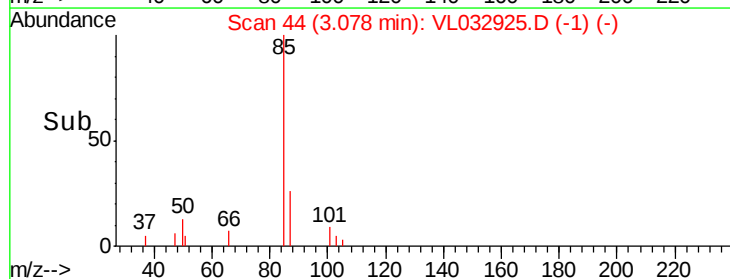
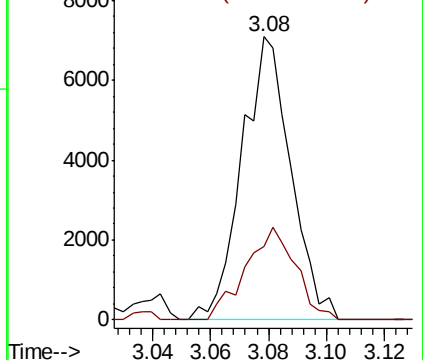
85 100

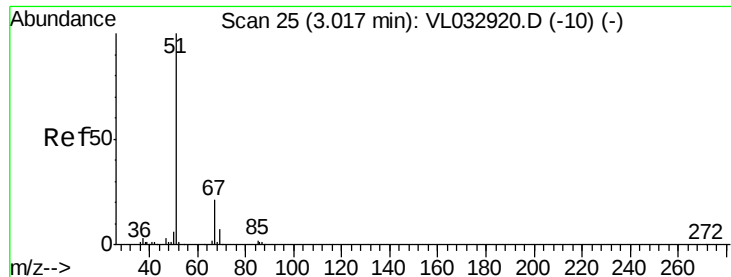
87 25.8 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

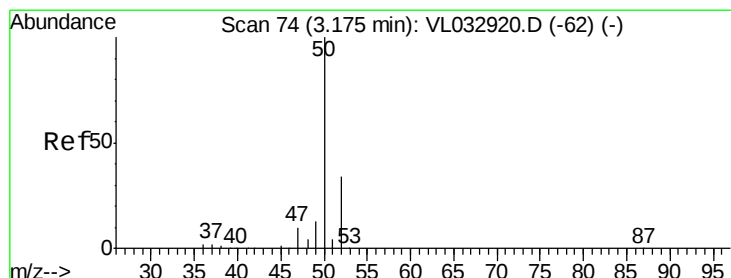
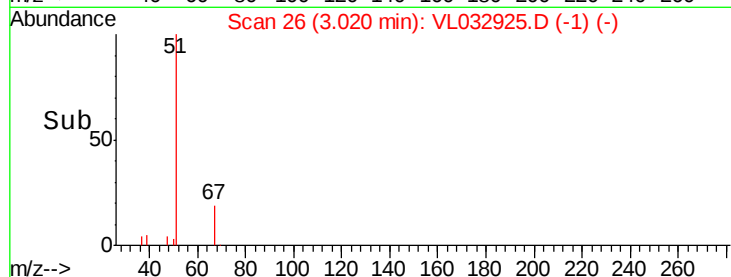
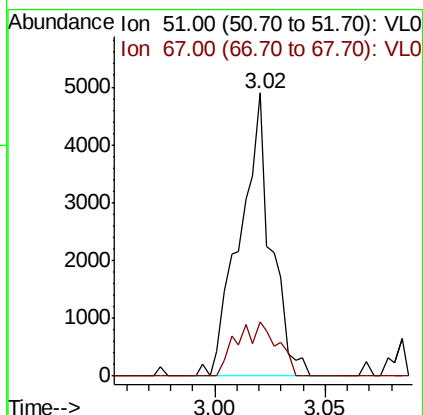
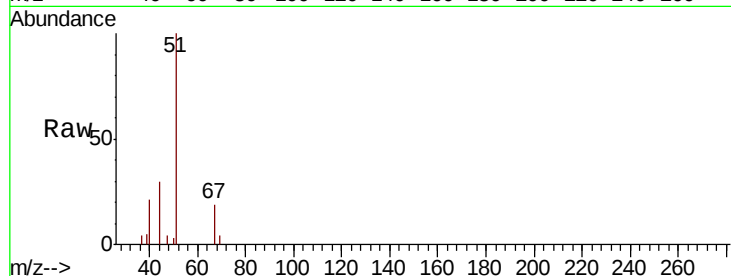




#3  
 Chlorodifluoromethane  
 Concen: 0.050 ppbv  
 RT: 3.02 min Scan# 26  
 Delta R.T. 0.00 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

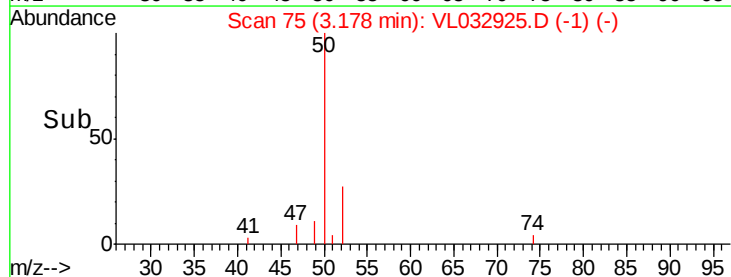
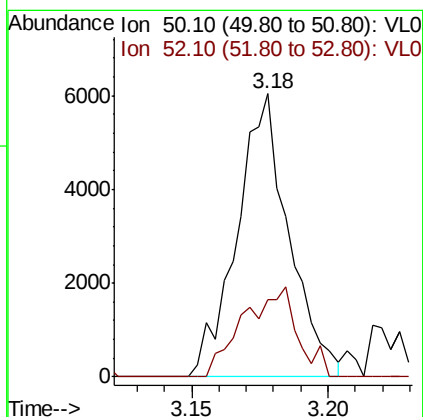
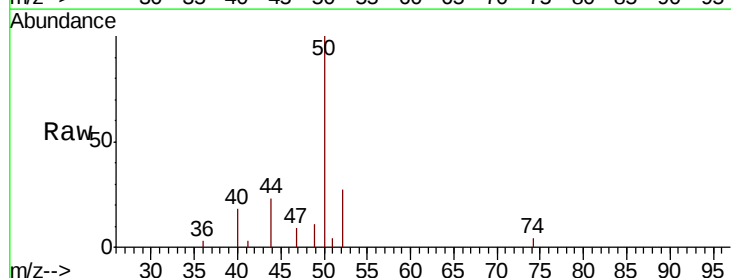
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

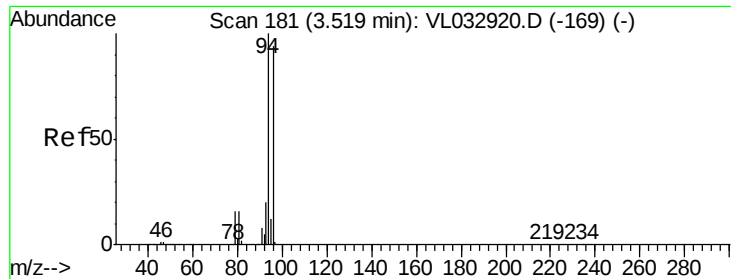
Tgt Ion: 51 Resp: 4794  
 Ion Ratio Lower Upper  
 51 100  
 67 24.9 16.8 25.2



#4  
 Chloromethane  
 Concen: 0.140 ppbv  
 RT: 3.18 min Scan# 75  
 Delta R.T. 0.00 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

Tgt Ion: 50 Resp: 7977  
 Ion Ratio Lower Upper  
 50 100  
 52 27.4 27.3 40.9





#6

Bromomethane

Concen: 0.048 ppbv

RT: 3.52 min Scan# 181

Delta R.T. 0.00 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

Instrument :

MSVOA\_L

ClientSampleId :

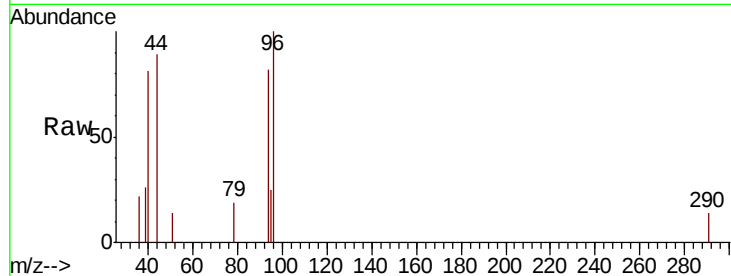
VSTDIC0.03

Tgt Ion: 94 Resp: 1752

Ion Ratio Lower Upper

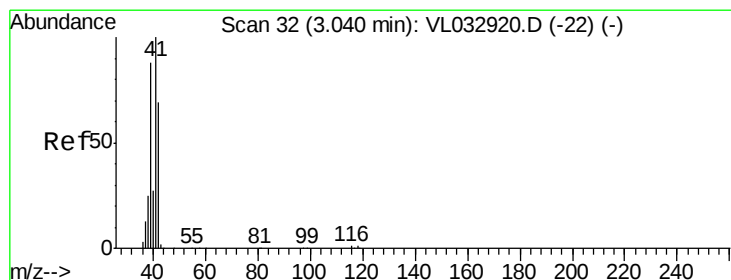
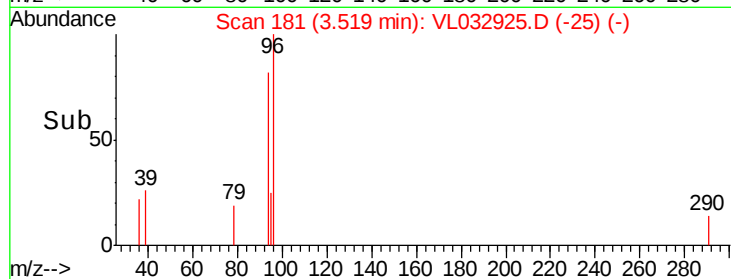
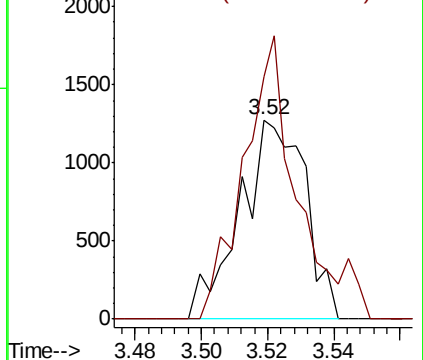
94 100

96 121.5 75.5 113.3#



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0



#9

Propene

Concen: 0.033 ppbv

RT: 3.04 min Scan# 31

Delta R.T. -0.00 min

Lab File: VL032925.D

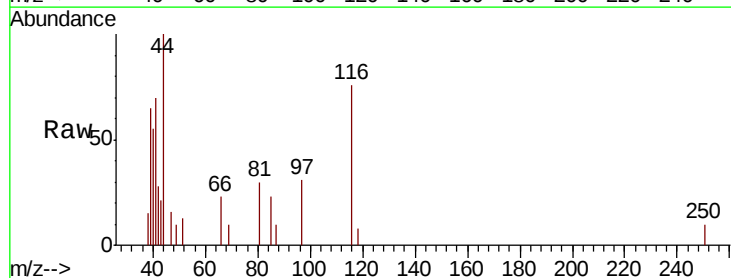
Acq: 7 Dec 2018 6:48

Tgt Ion: 41 Resp: 1285

Ion Ratio Lower Upper

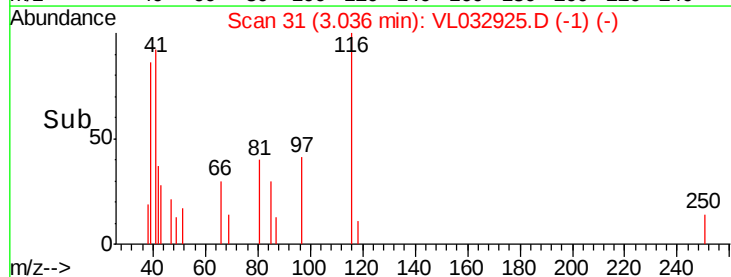
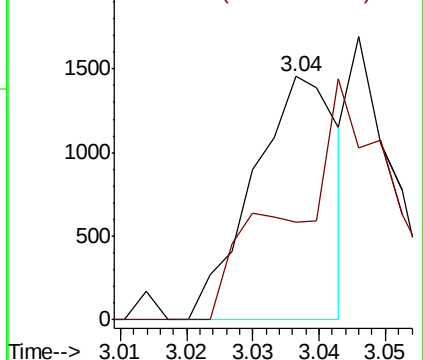
41 100

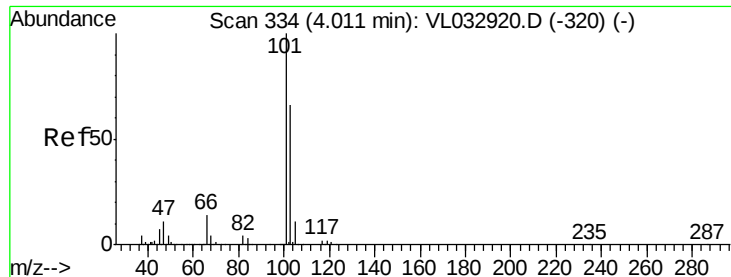
42 0.0 56.2 84.2#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

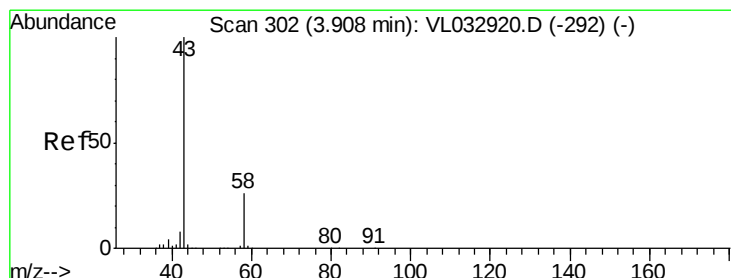
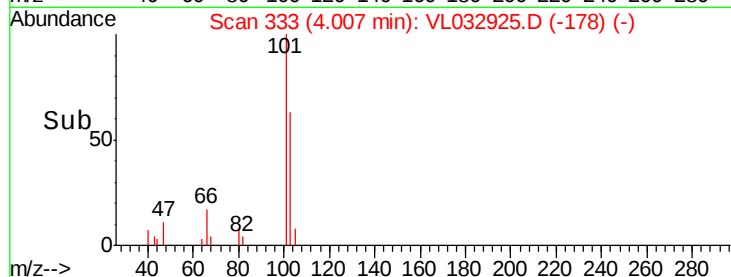
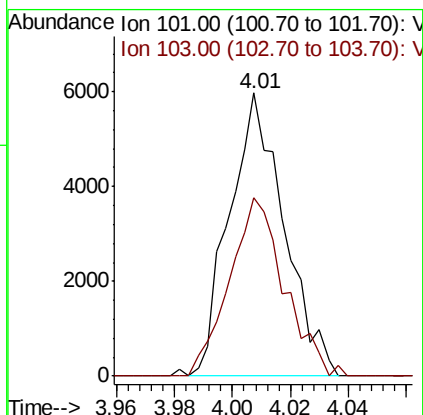
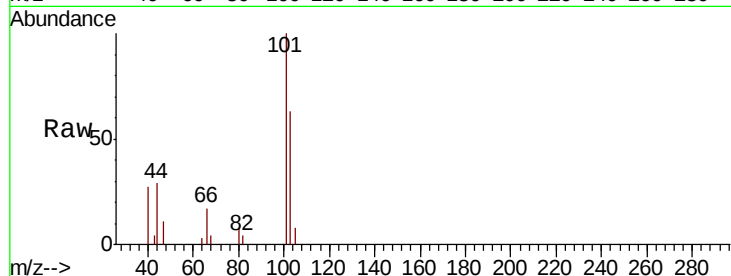




#11  
 Trichlorofluoromethane  
 Concen: 0.047 ppbv  
 RT: 4.01 min Scan# 333  
 Delta R.T. -0.00 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

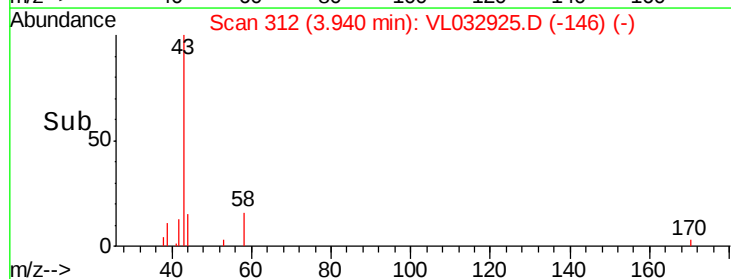
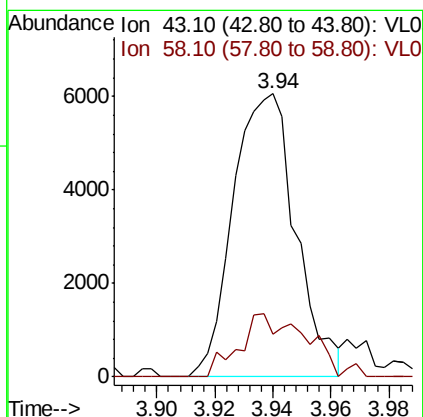
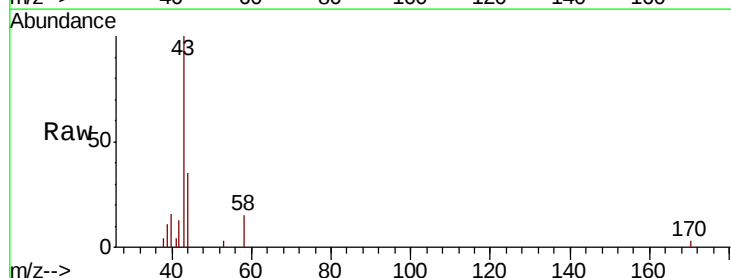
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

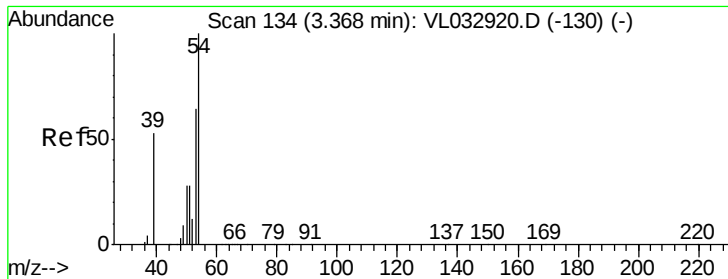
Tgt Ion:101 Resp: 7826  
 Ion Ratio Lower Upper  
 101 100  
 103 63.0 52.7 79.1



#15  
 Acetone  
 Concen: 0.082 ppbv  
 RT: 3.94 min Scan# 312  
 Delta R.T. 0.03 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

Tgt Ion: 43 Resp: 9087  
 Ion Ratio Lower Upper  
 43 100  
 58 23.8 20.6 30.8

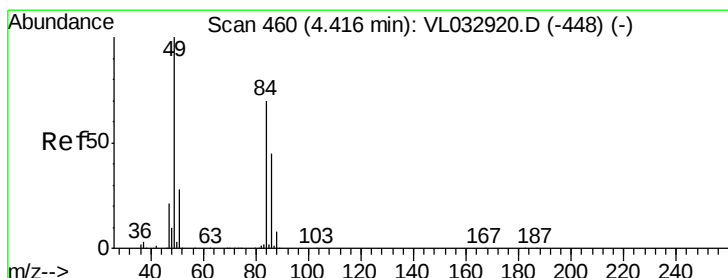
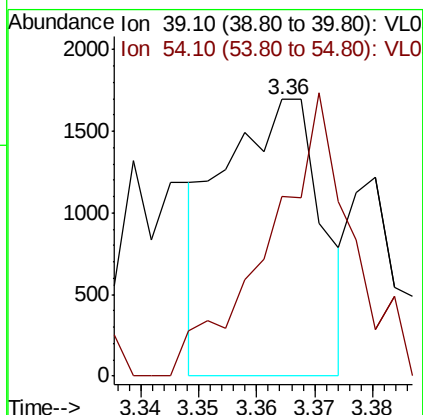
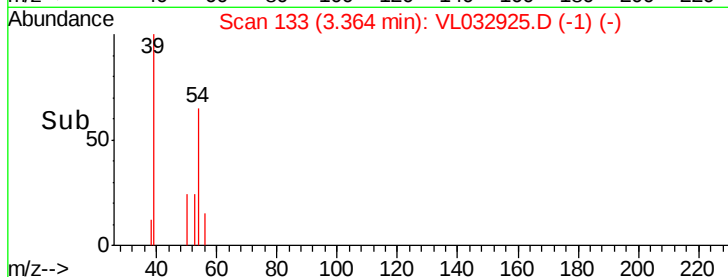
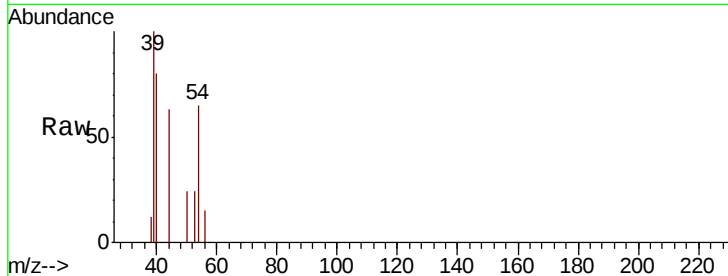




#16  
 1,3-Butadiene  
 Concen: 0.046 ppbv  
 RT: 3.36 min Scan# 133  
 Delta R.T. -0.00 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

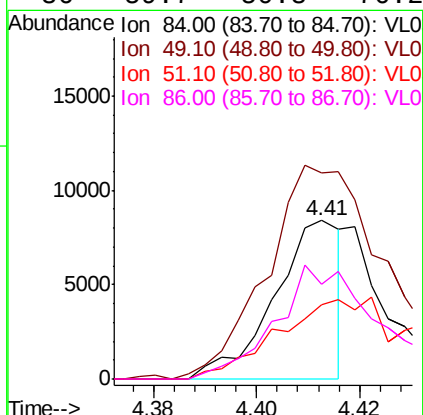
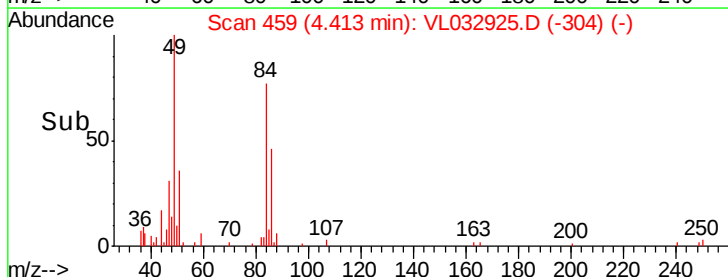
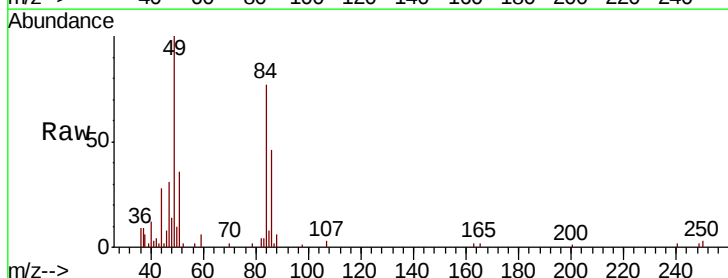
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 VSTDIC0.03

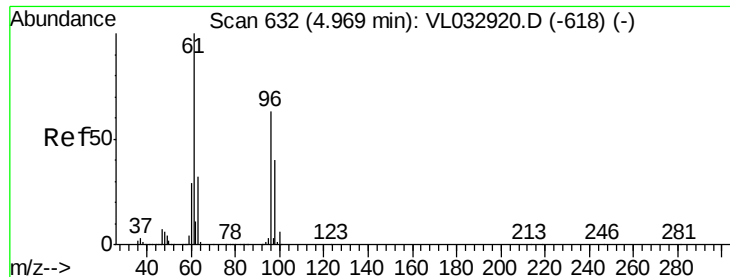
Tgt Ion: 39 Resp: 2013  
 Ion Ratio Lower Upper  
 39 100  
 54 87.0 72.7 109.1



#20  
 Methylene Chloride  
 Concen: 0.122 ppbv  
 RT: 4.41 min Scan# 459  
 Delta R.T. -0.00 min  
 Lab File: VL032925.D  
 Acq: 7 Dec 2018 6:48

Tgt Ion: 84 Resp: 7576  
 Ion Ratio Lower Upper  
 84 100  
 49 126.8 113.8 170.8  
 51 47.1 31.8 47.8  
 86 59.7 50.8 76.2





#22

trans-1,2-Dichloroethene

Concen: 0.031 ppbv

RT: 4.97 min Scan# 631

Delta R.T. -0.00 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

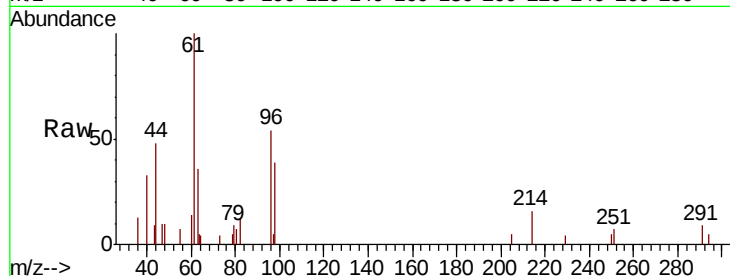
Tgt Ion: 96 Resp: 2109

Ion Ratio Lower Upper

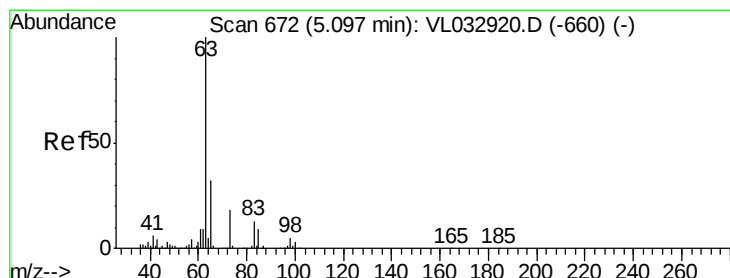
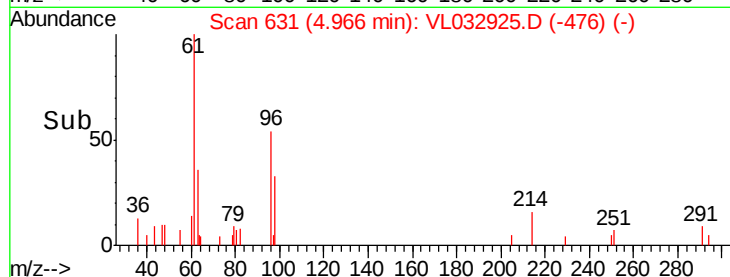
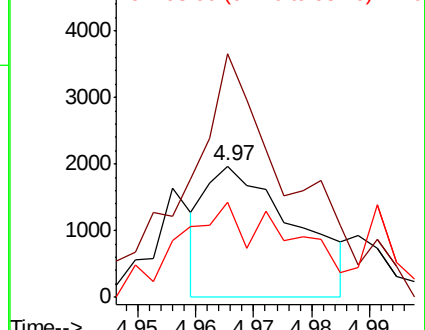
96 100

61 225.0 127.1 190.7#

98 92.1 51.3 76.9#



Abundance Ion 96.00 (95.70 to 96.70): VL0  
Ion 61.10 (60.80 to 61.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0



#24

1,1-Dichloroethane

Concen: 0.043 ppbv

RT: 5.09 min Scan# 670

Delta R.T. -0.01 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

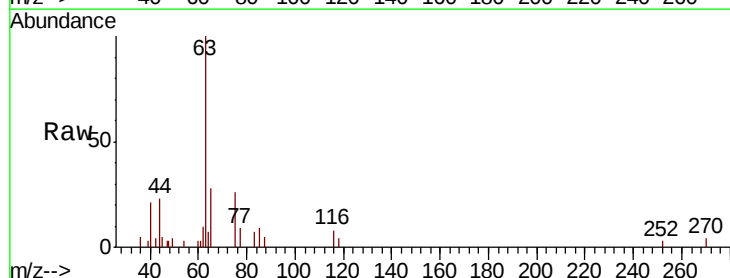
Tgt Ion: 63 Resp: 6849

Ion Ratio Lower Upper

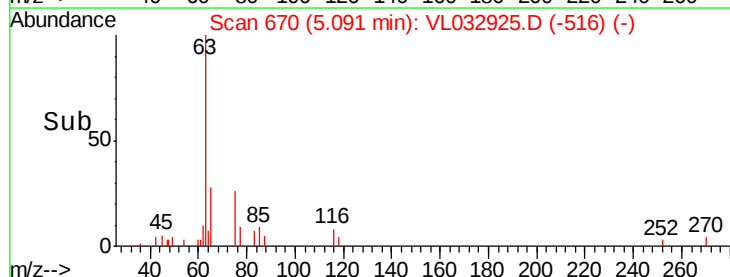
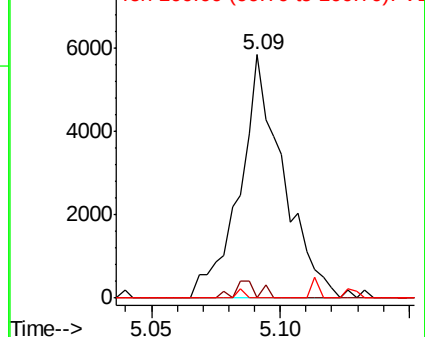
63 100

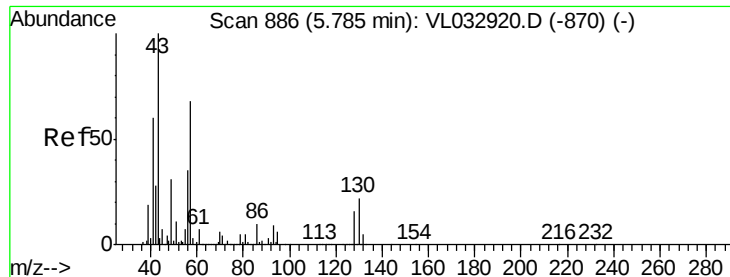
98 0.0 2.5 7.5#

100 0.0 1.4 4.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 98.00 (97.70 to 98.70): VL0  
Ion 100.00 (99.70 to 100.70): VL0

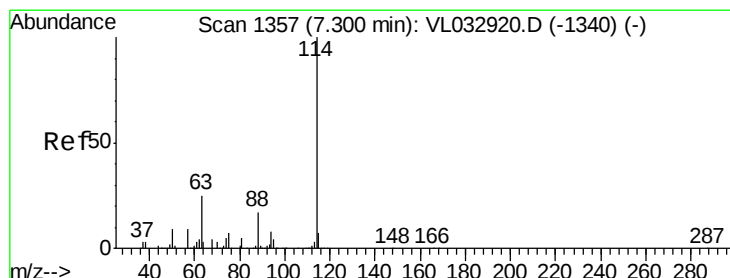
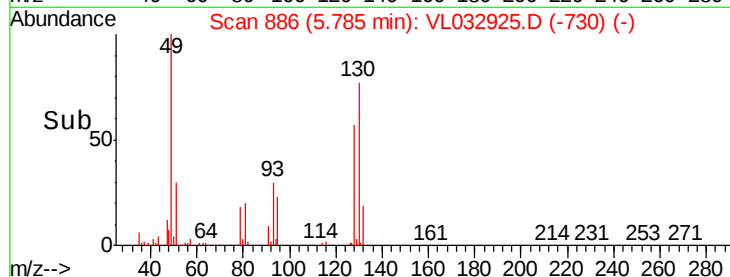
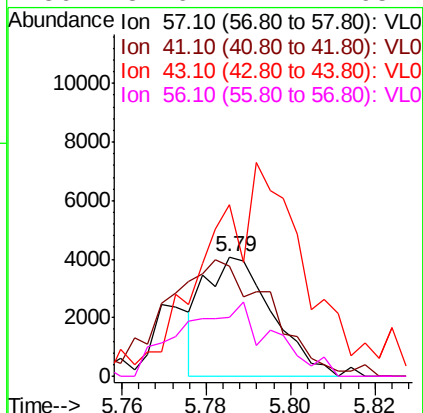
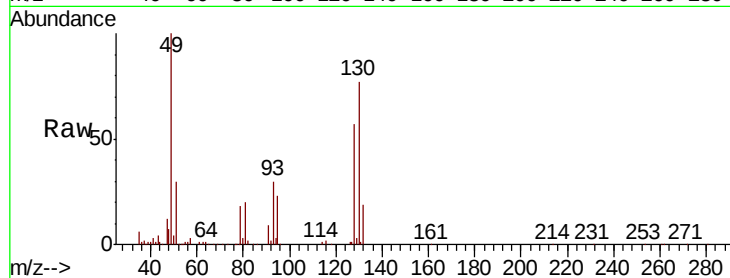




#26  
Hexane  
Concen: 0.037 ppbv  
RT: 5.79 min Scan# 886  
Delta R.T. 0.00 min  
Lab File: VL032925.D  
Acq: 7 Dec 2018 6:48

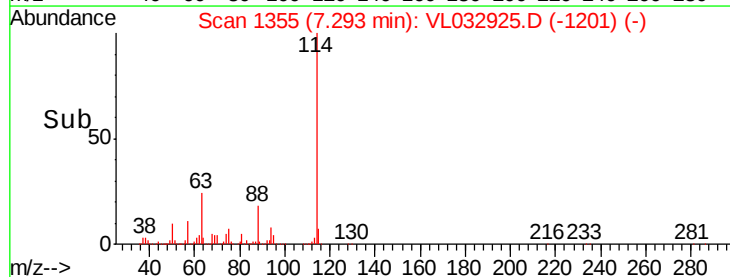
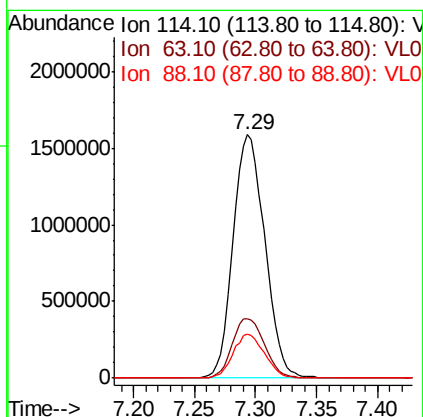
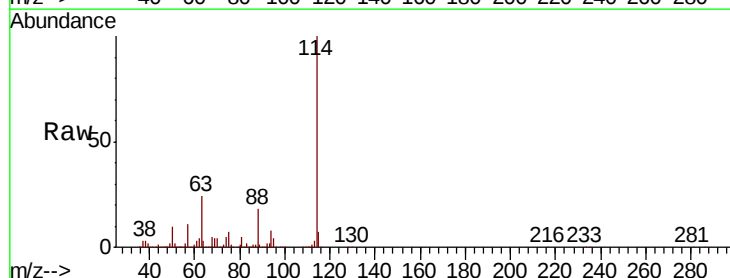
Instrument :  
MSVOA\_L  
ClientSampleId :  
VSTDIC0.03

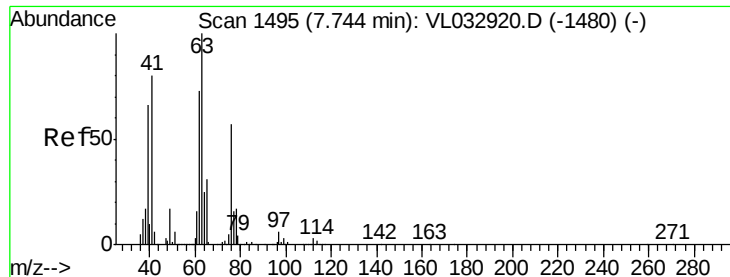
Tgt Ion: 57 Resp: 4520  
Ion Ratio Lower Upper  
57 100  
41 157.8 72.2 108.2#  
43 276.9 171.9 257.9#  
56 84.6 42.2 63.2#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.29 min Scan# 1355  
Delta R.T. -0.01 min  
Lab File: VL032925.D  
Acq: 7 Dec 2018 6:48

Tgt Ion: 114 Resp: 2872198  
Ion Ratio Lower Upper  
114 100  
63 25.1 20.1 30.1  
88 17.9 14.2 21.4





#39

1,2-Dichloropropane

Concen: 8.643 ppbv

RT: 7.29 min Scan# 1355

Delta R.T. -0.45 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

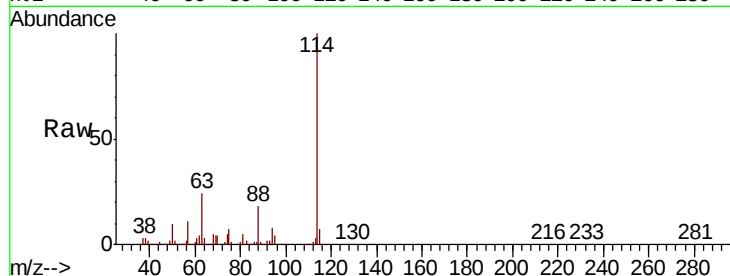
Tgt Ion: 63 Resp: 712852

Ion Ratio Lower Upper

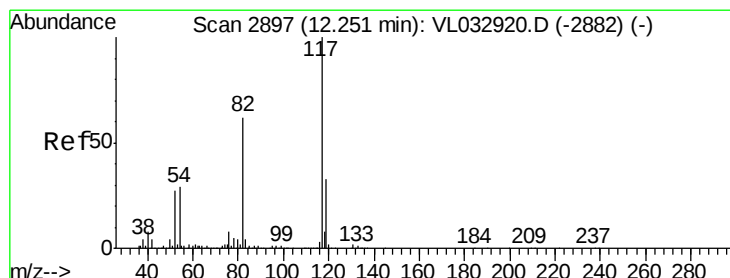
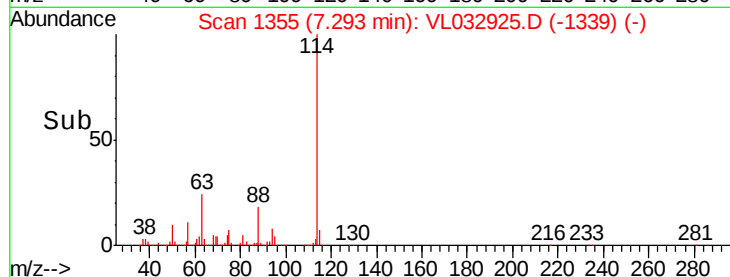
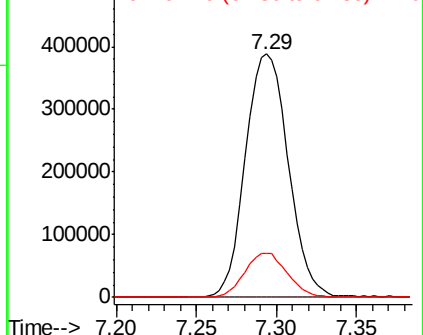
63 100

41 0.0 63.9 95.9#

62 18.2 58.8 88.2#



Abundance Ion 63.10 (62.80 to 63.80): VL0  
Ion 41.10 (40.80 to 41.80): VL0  
Ion 62.10 (61.80 to 62.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2896

Delta R.T. -0.00 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

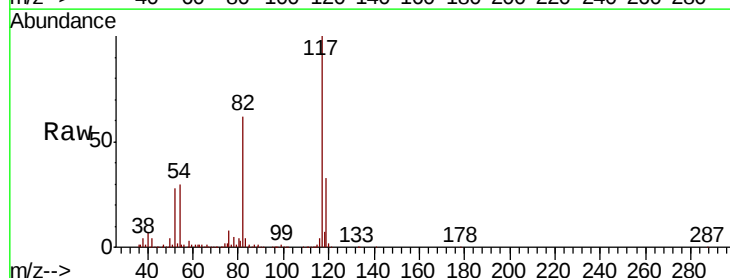
Tgt Ion: 117 Resp: 2741725

Ion Ratio Lower Upper

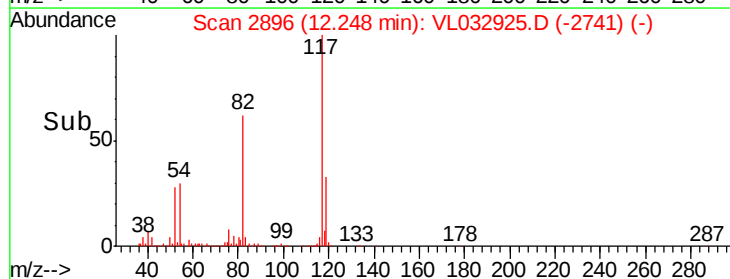
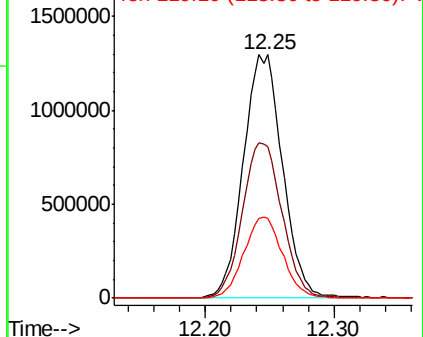
117 100

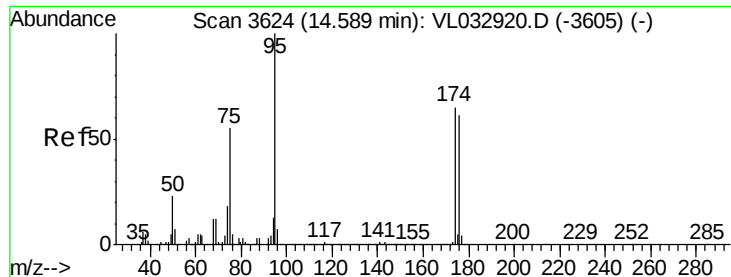
82 65.0 47.8 71.8

119 33.1 43.1 64.7#



Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.160 ppbv

RT: 14.58 min Scan# 3622

Delta R.T. -0.01 min

Lab File: VL032925.D

Acq: 7 Dec 2018 6:48

Instrument :

MSVOA\_L

ClientSampleId :

VSTDIC0.03

Tgt Ion: 95 Resp: 2034272

Ion Ratio Lower Upper

95 100

174 65.5 51.4 77.0

175 4.7 3.8 5.6

