

Data File : VL032816.D  
Acq On : 27 Nov 2018 20:50  
Operator : SY/AP  
Sample : J6046-1DL 10X  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
EP2-SV-01DL

Quant Time: Nov 28 03:15:58 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL111418AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_LWed Nov 14 07:00:23 2018  
QLast Update : Wed Nov 14 07:00:23 2018  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1279200  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3250365  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3017464  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |        |
|-----------------------------|--------|-------|----------|----------|------|--------|
| 68) 1-Bromo-4-Fluorobenzene | 14.59  | 95    | 2234227  | 9.90     | ppbv | 0.00   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 99.00% |

| Target Compounds           |       |     |        |              | Qvalue |
|----------------------------|-------|-----|--------|--------------|--------|
| 2) Dichlorodifluoromethane | 3.08  | 85  | 12243  | 0.067 ppbv   | 91     |
| 3) Chlorodifluoromethane   | 3.02  | 51  | 55054  | 0.543 ppbv # | 91     |
| 9) Propene                 | 3.05  | 41  | 66861  | 1.647 ppbv   | 96     |
| 11) Trichlorofluoromethane | 4.02  | 101 | 24791  | 0.143 ppbv   | 93     |
| 13) Ethanol                | 3.66  | 45  | 132713 | 9.984 ppbv   | 94     |
| 15) Acetone                | 3.92  | 43  | 246147 | 2.107 ppbv # | 70     |
| 16) 1,3-Butadiene          | 3.35  | 39  | 51387  | 1.136 ppbv # | 15     |
| 19) Isopropyl Alcohol      | 4.05  | 45  | 134715 | 1.731 ppbv # | 94     |
| 20) Methylene Chloride     | 4.42  | 84  | 27992  | 0.463 ppbv   | 96     |
| 23) Vinyl Acetate          | 5.34  | 43  | 814268 | 3.824 ppbv # | 88     |
| 25) Ethyl Acetate          | 5.78  | 43  | 10366  | 0.038 ppbv # | 78     |
| 26) Hexane                 | 5.79  | 57  | 3914   | 0.032 ppbv # | 1      |
| 34) 2-Butanone             | 5.34  | 43  | 814268 | 4.830 ppbv   | 98     |
| 39) 1,2-Dichloropropane    | 7.30  | 63  | 797994 | 8.092 ppbv # | 23     |
| 41) Tetrahydrofuran        | 6.17  | 42  | 68094  | 0.704 ppbv   | 95     |
| 52) Tetrachloroethene      | 11.39 | 164 | 29148  | 0.324 ppbv   | 86     |
| 53) Toluene                | 9.96  | 91  | 39806  | 0.147 ppbv # | 49     |

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

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ALS Vial : 1 Sample Multiplier: 1

**Instrument :**  
MSVOA\_L  
**ClientSampleId :**  
EP2-SV-01DL

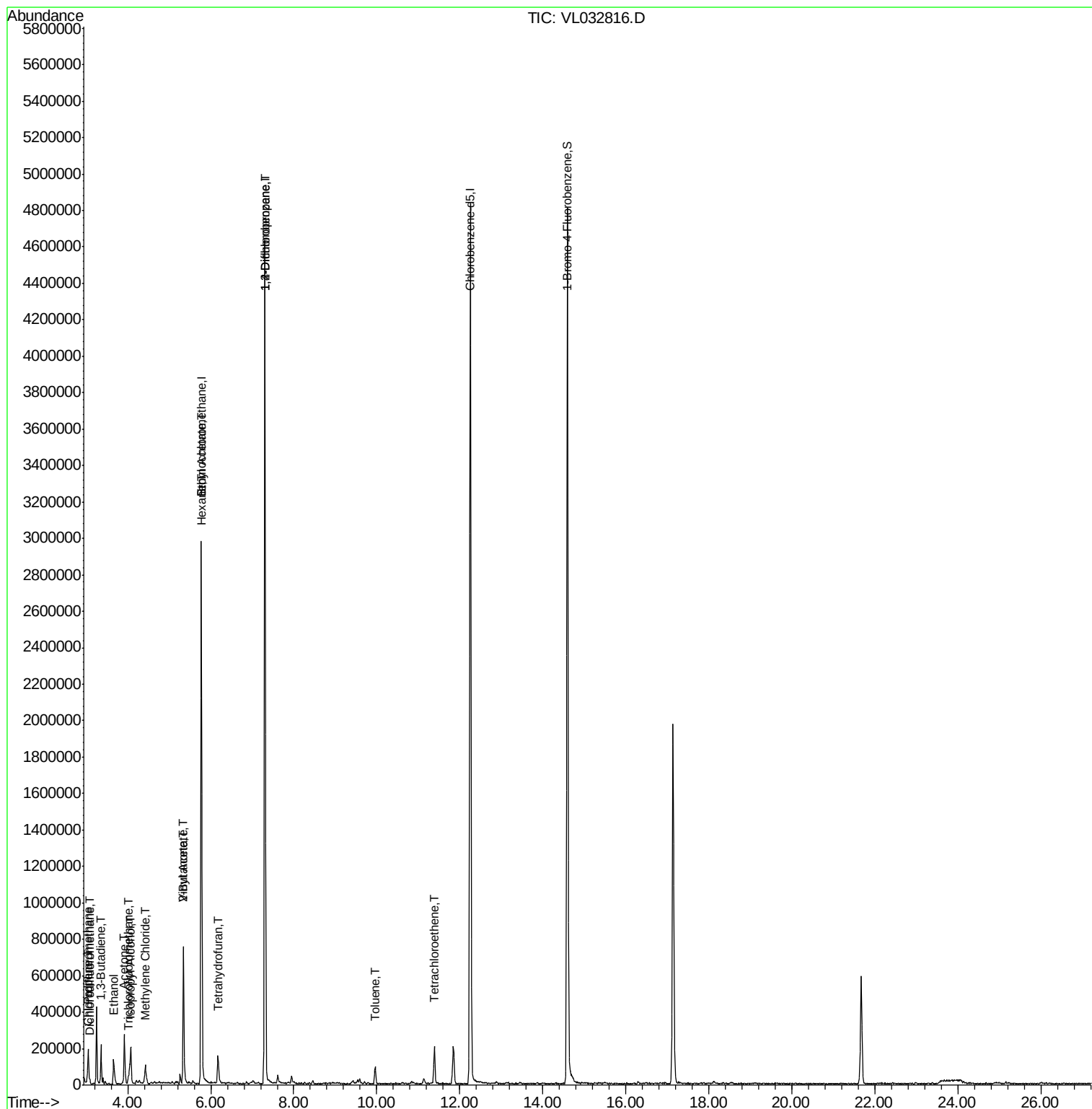
Quant Time: Nov 28 03:15:58 2018

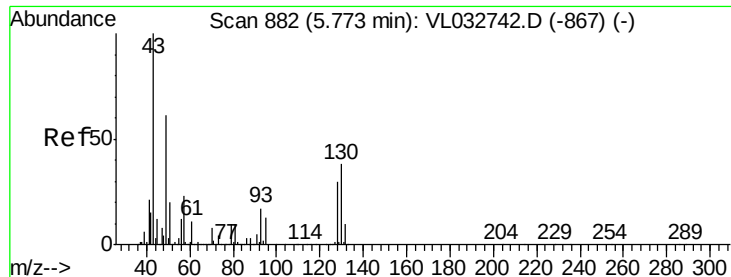
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A\_L\METHODS\VL111418AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LWed Nov 14 07:00:23 2018

QLast Update : Wed Nov 14 07:00:23 2018

Response via : Initial Calibration

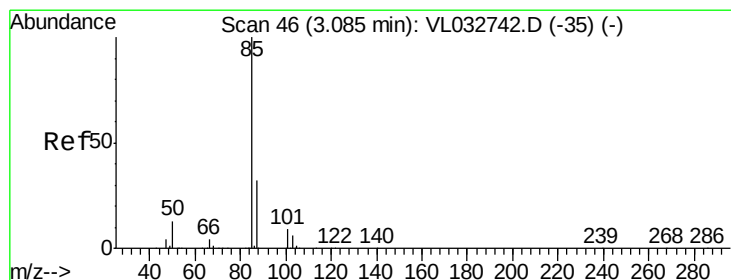
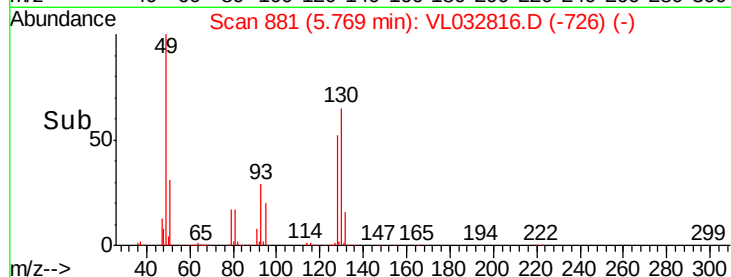
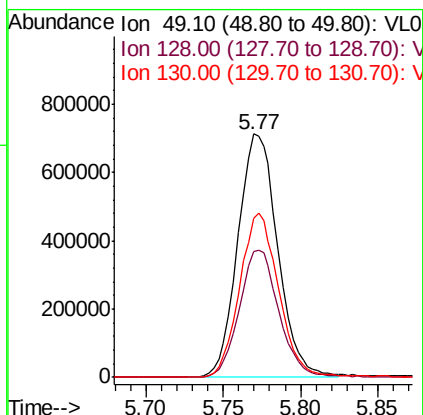
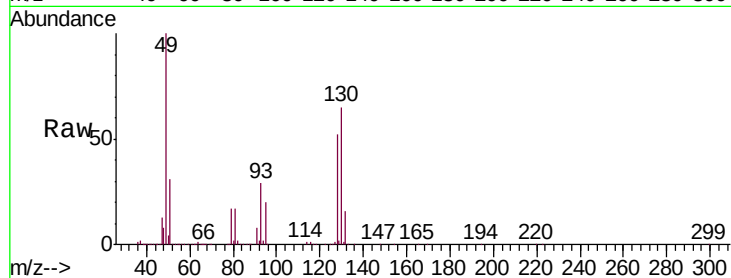




#1  
 Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.77 min Scan# 881  
 Delta R.T. -0.00 min  
 Lab File: VL032816.D  
 Acq: 27 Nov 2018 20:50

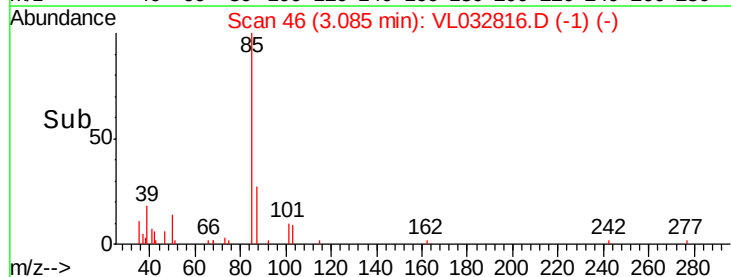
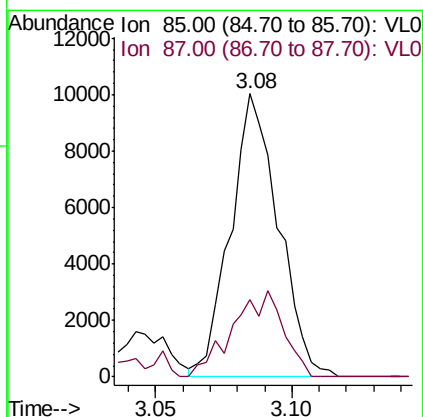
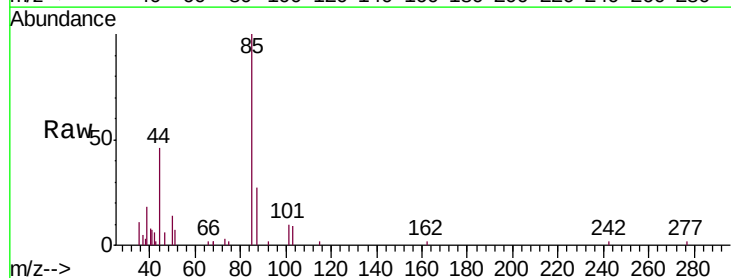
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 EP2-SV-01DL

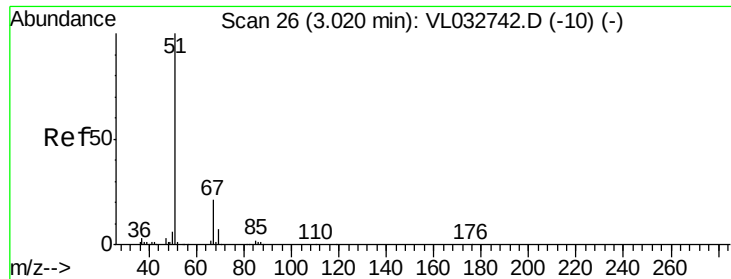
Tgt Ion: 49 Resp: 1279200  
 Ion Ratio Lower Upper  
 49 100  
 128 52.2 24.9 74.6  
 130 66.7 31.4 94.2



#2  
 Dichlorodifluoromethane  
 Concen: 0.067 ppbv  
 RT: 3.08 min Scan# 46  
 Delta R.T. 0.00 min  
 Lab File: VL032816.D  
 Acq: 27 Nov 2018 20:50

Tgt Ion: 85 Resp: 12243  
 Ion Ratio Lower Upper  
 85 100  
 87 27.3 26.0 39.0





#3

Chlorodifluoromethane

Concen: 0.543 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

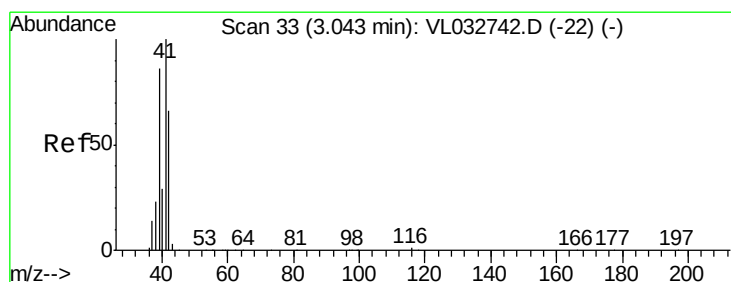
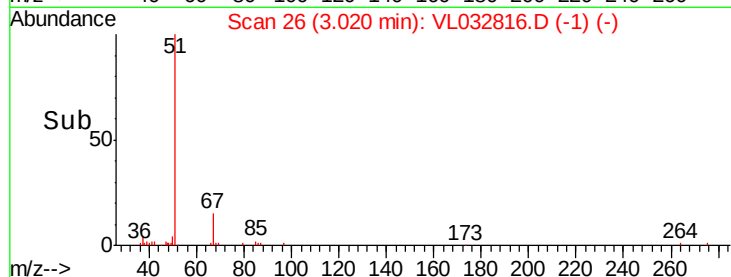
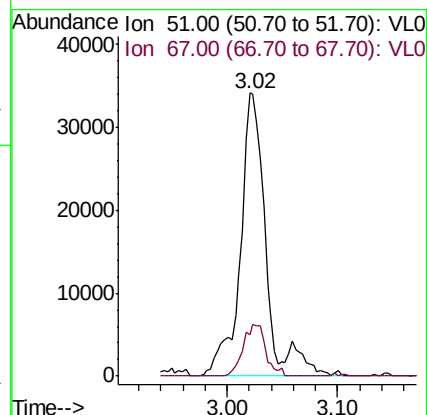
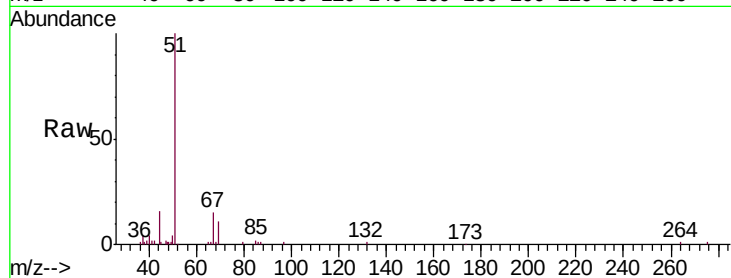
EP2-SV-01DL

Tgt Ion: 51 Resp: 55054

Ion Ratio Lower Upper

51 100

67 16.0 16.1 24.1#



#9

Propene

Concen: 1.647 ppbv

RT: 3.05 min Scan# 34

Delta R.T. 0.00 min

Lab File: VL032816.D

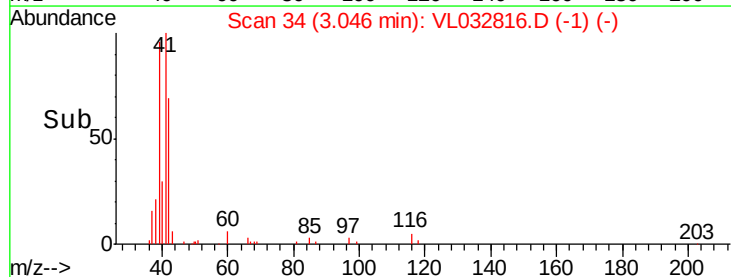
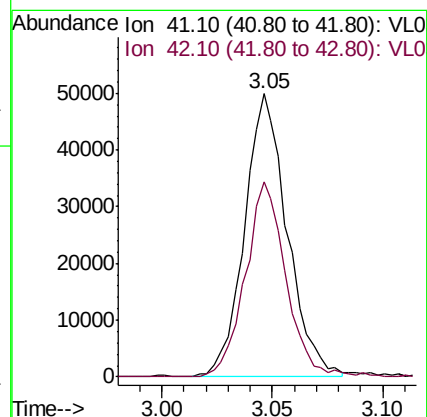
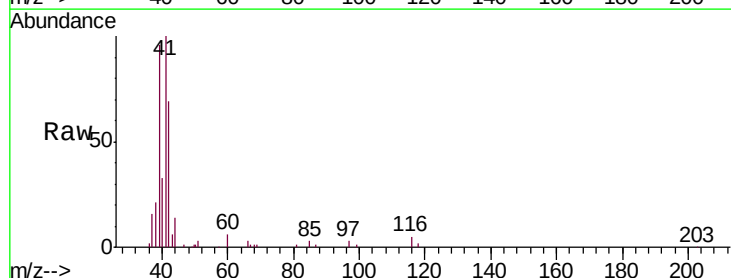
Acq: 27 Nov 2018 20:50

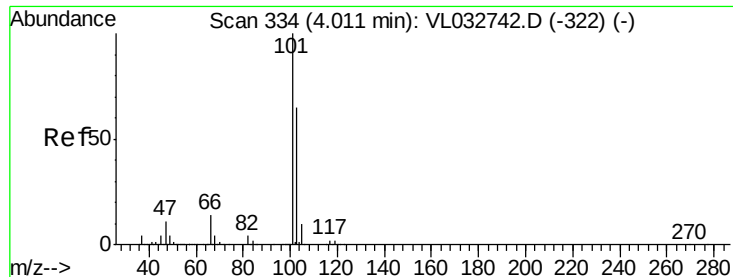
Tgt Ion: 41 Resp: 66861

Ion Ratio Lower Upper

41 100

42 65.9 55.0 82.6





#11

Trichlorofluoromethane

Concen: 0.143 ppbv

RT: 4.02 min Scan# 336

Delta R.T. 0.01 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

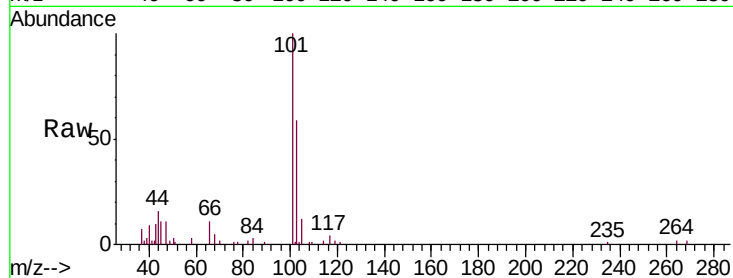
EP2-SV-01DL

Tgt Ion: 101 Resp: 24791

Ion Ratio Lower Upper

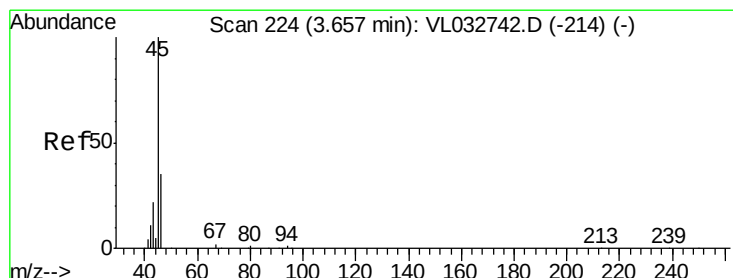
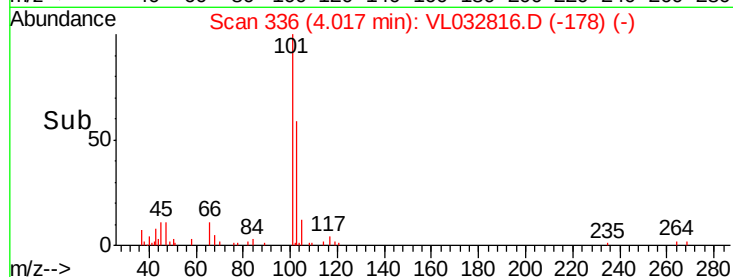
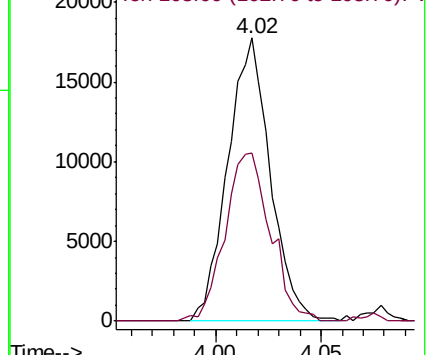
101 100

103 59.4 51.6 77.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 9.984 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.00 min

Lab File: VL032816.D

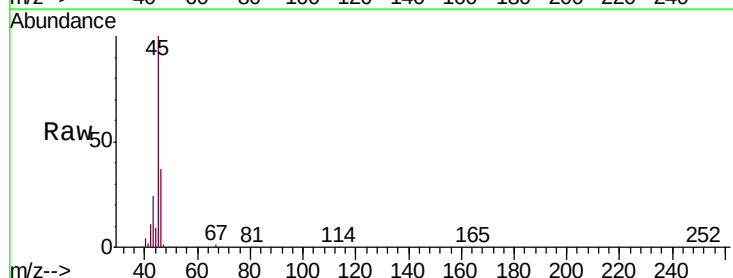
Acq: 27 Nov 2018 20:50

Tgt Ion: 45 Resp: 132713

Ion Ratio Lower Upper

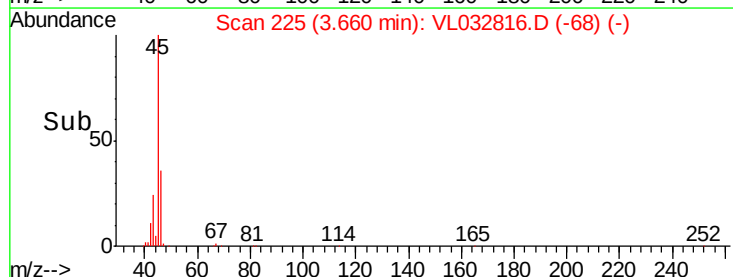
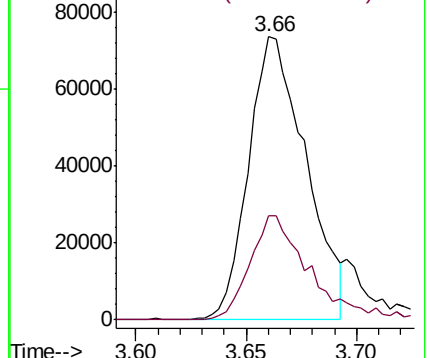
45 100

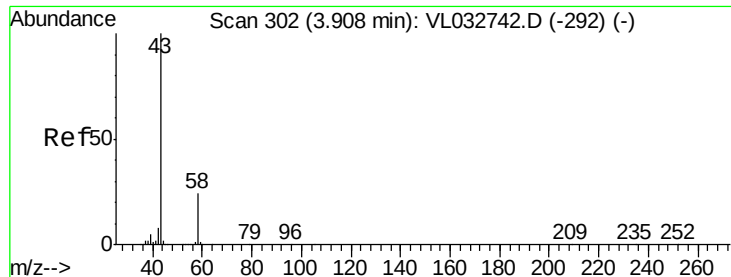
46 39.7 14.5 57.9



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 2.107 ppbv

RT: 3.92 min Scan# 305

Delta R.T. 0.01 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

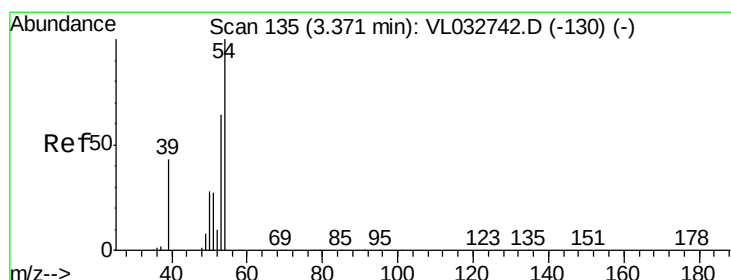
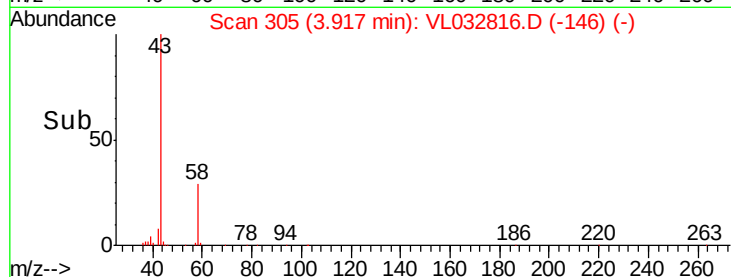
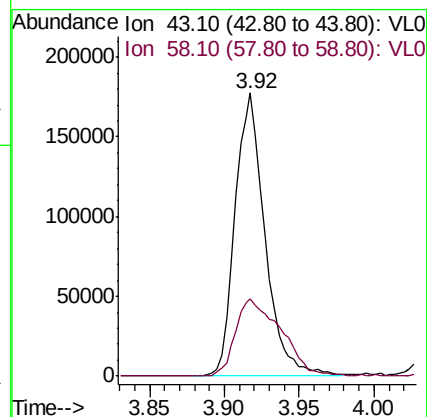
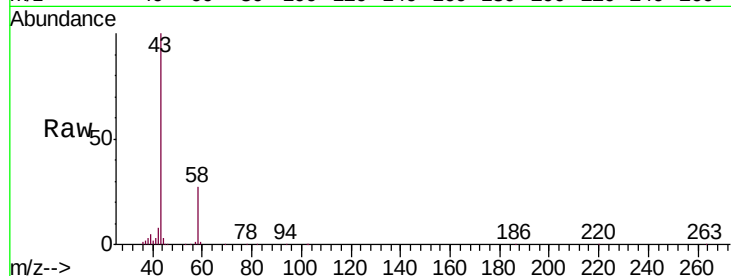
EP2-SV-01DL

Tgt Ion: 43 Resp: 246147

Ion Ratio Lower Upper

43 100

58 41.8 21.1 31.7#



#16

1,3-Butadiene

Concen: 1.136 ppbv

RT: 3.35 min Scan# 130

Delta R.T. -0.02 min

Lab File: VL032816.D

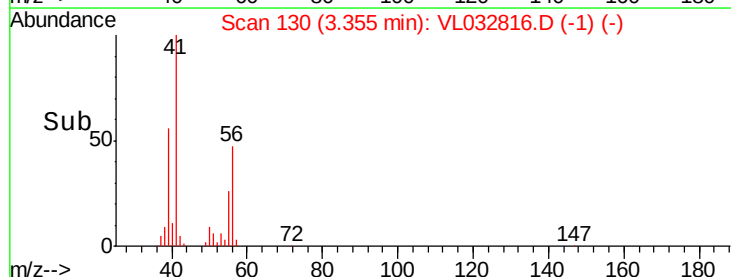
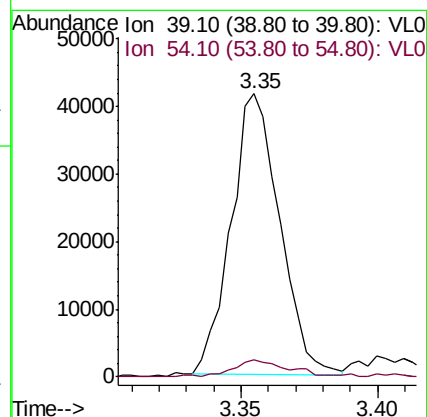
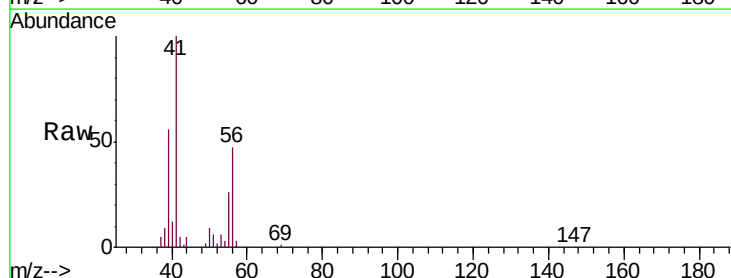
Acq: 27 Nov 2018 20:50

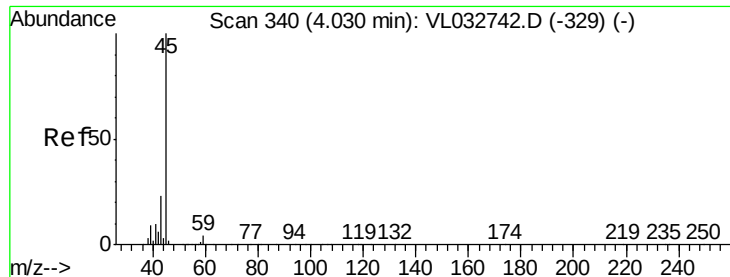
Tgt Ion: 39 Resp: 51387

Ion Ratio Lower Upper

39 100

54 7.8 68.9 103.3#





#19

Isopropyl Alcohol

Concen: 1.731 ppbv

RT: 4.05 min Scan# 346

Delta R.T. 0.02 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

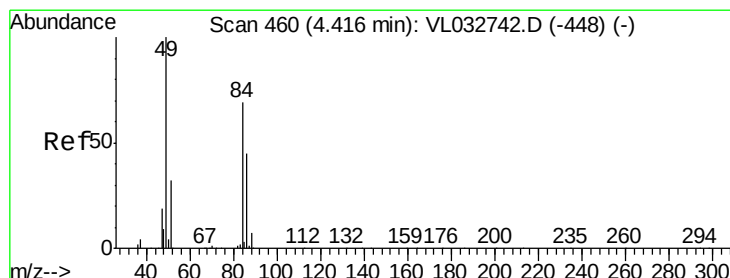
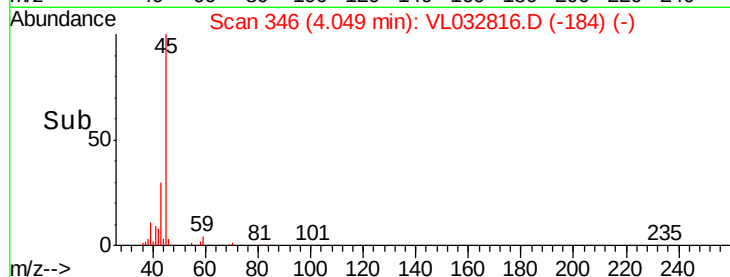
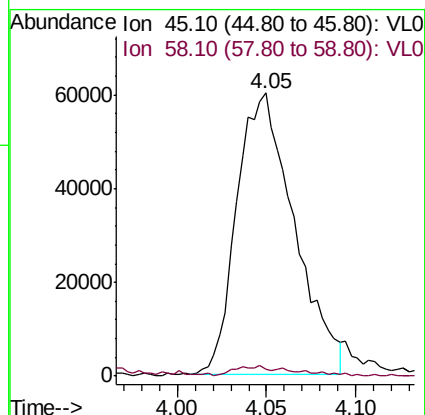
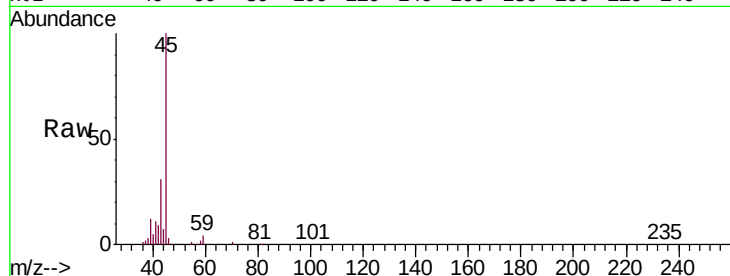
EP2-SV-01DL

Tgt Ion: 45 Resp: 134715

Ion Ratio Lower Upper

45 100

58 3.8 1.4 2.0#



#20

Methylene Chloride

Concen: 0.463 ppbv

RT: 4.42 min Scan# 462

Delta R.T. 0.01 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Tgt Ion: 84 Resp: 27992

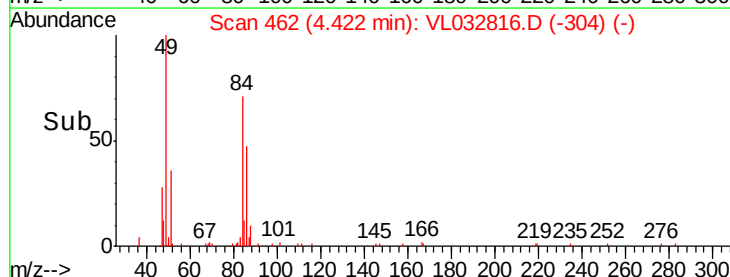
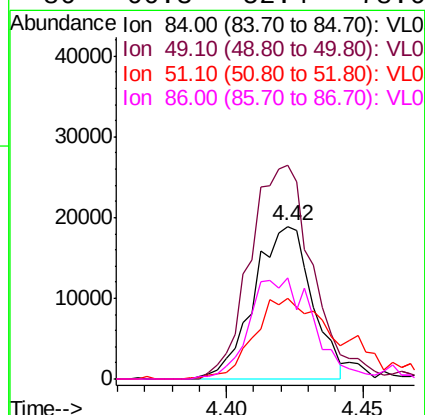
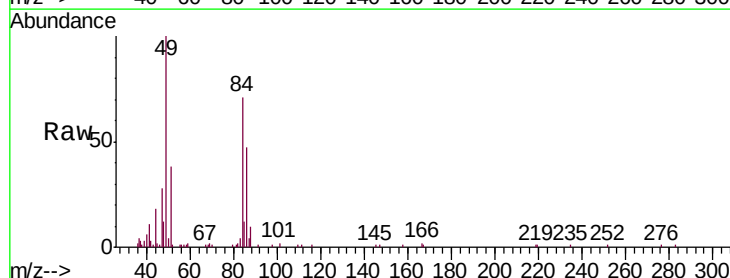
Ion Ratio Lower Upper

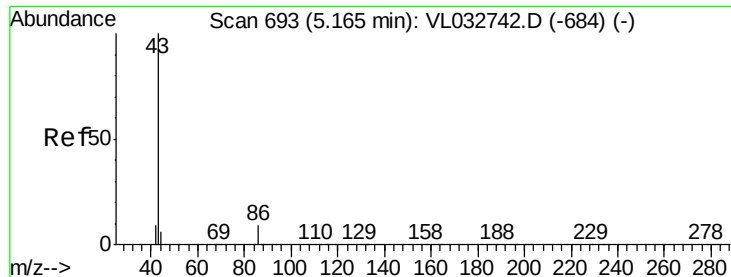
84 100

49 139.9 115.8 173.6

51 51.6 36.9 55.3

86 66.3 52.4 78.6





#23

Vinyl Acetate

Concen: 3.824 ppbv

RT: 5.34 min Scan# 748

Delta R.T. 0.18 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

EP2-SV-01DL

Tgt Ion: 43 Resp: 814268

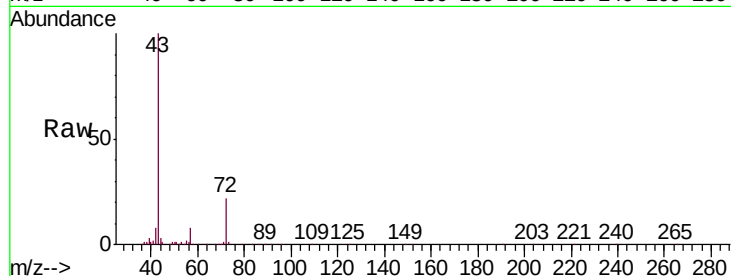
Ion Ratio Lower Upper

43 100

86 0.0 6.2 9.4#

42 7.7 7.8 11.6#

44 2.4 4.4 6.6#

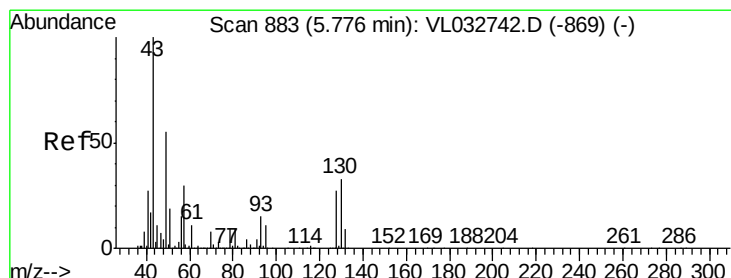
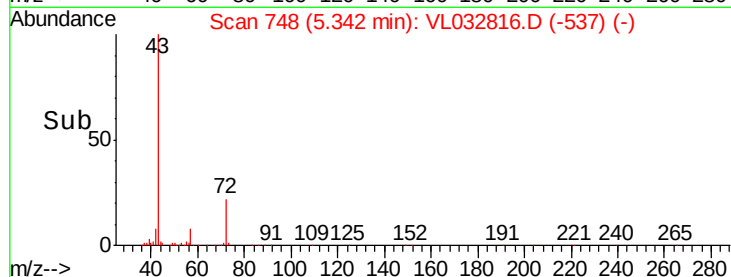
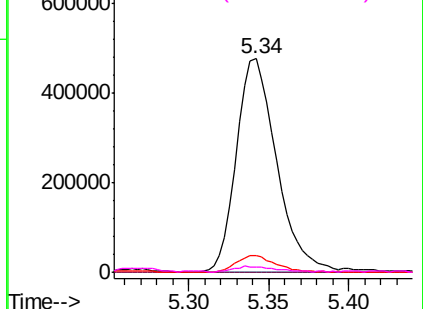


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 0.038 ppbv

RT: 5.78 min Scan# 885

Delta R.T. 0.01 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Tgt Ion: 43 Resp: 10366

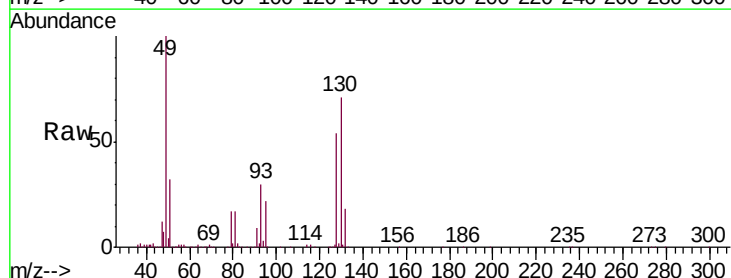
Ion Ratio Lower Upper

43 100

45 22.3 7.9 11.9#

61 17.7 7.8 11.6#

70 9.7 5.8 8.6#

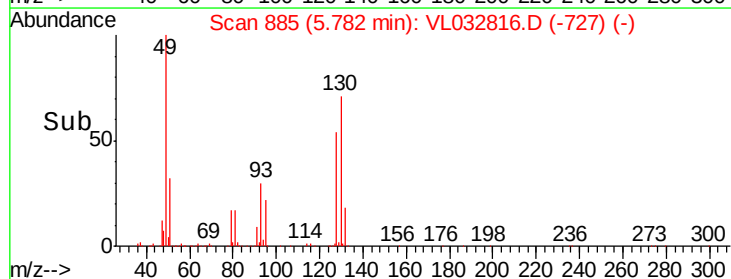
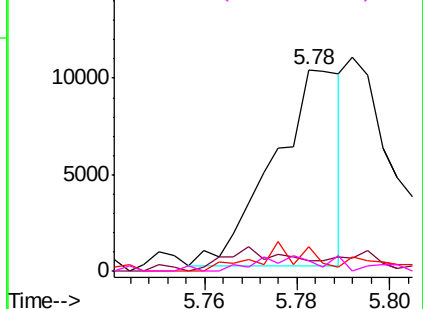


Abundance Ion 43.10 (42.80 to 43.80): VL0

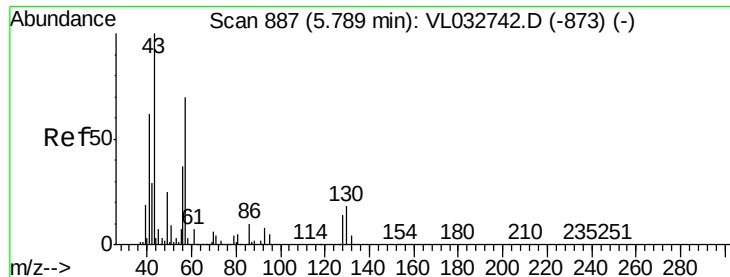
Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0







#26

Hexane

Concen: 0.032 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

EP2-SV-01DL

Tgt Ion: 57 Resp: 3914

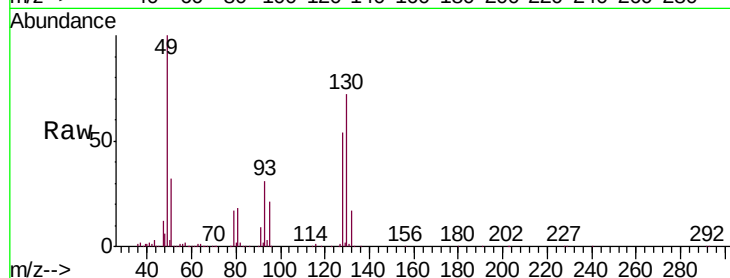
Ion Ratio Lower Upper

57 100

41 0.0 70.3 105.5#

43 0.0 174.0 261.0#

56 0.0 42.3 63.5#

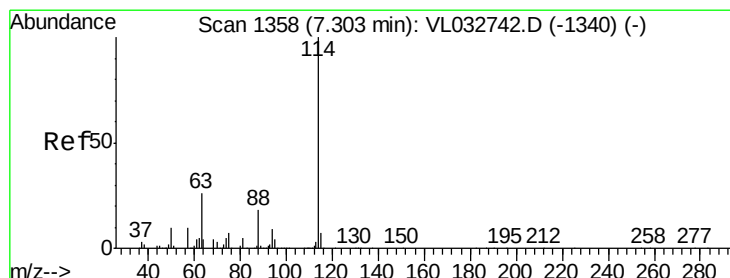
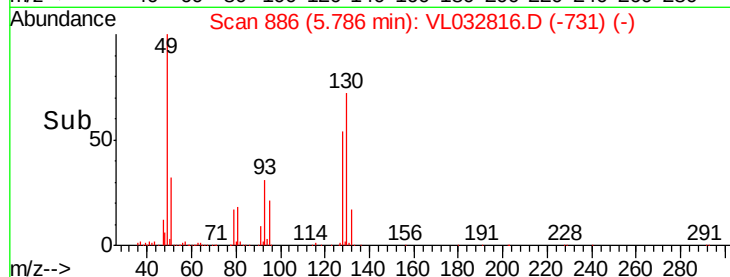
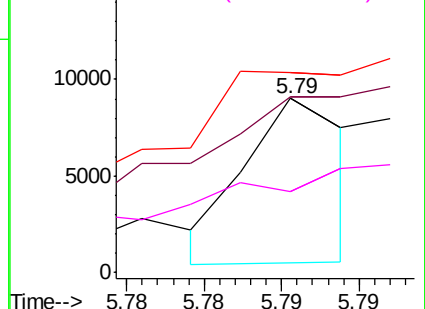


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1358

Delta R.T. 0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

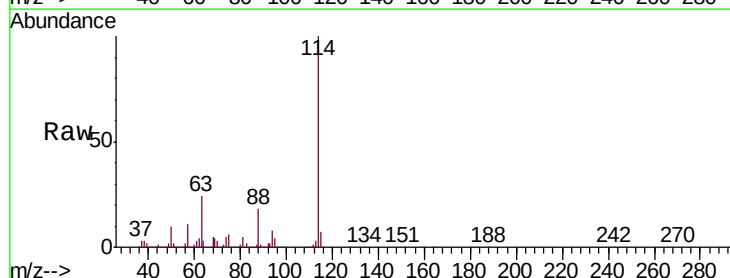
Tgt Ion: 114 Resp: 3250365

Ion Ratio Lower Upper

114 100

63 24.7 20.9 31.3

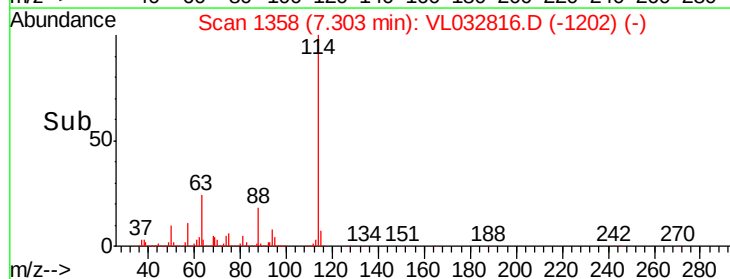
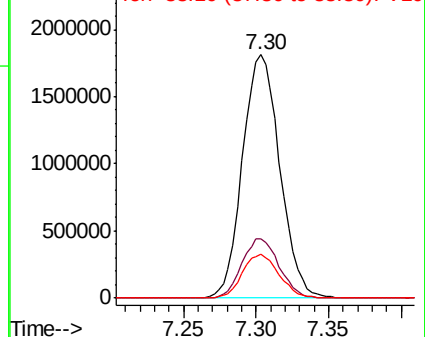
88 17.8 14.4 21.6

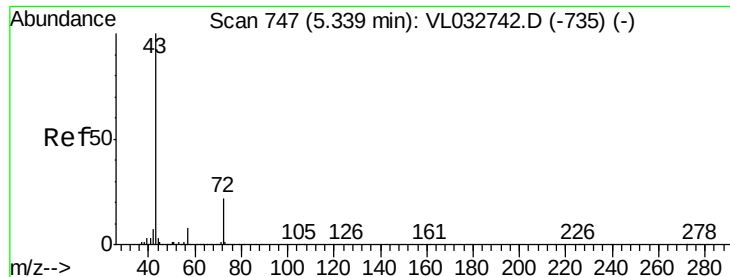


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

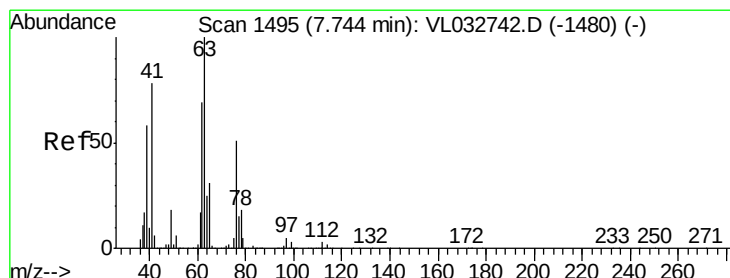
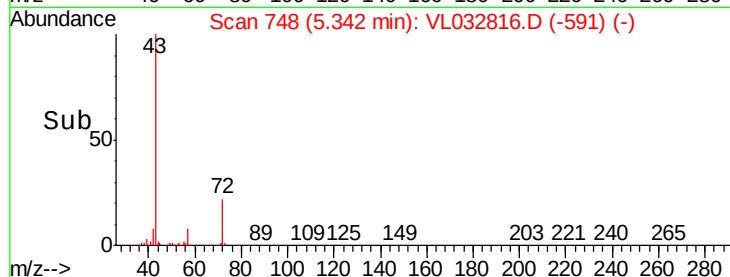
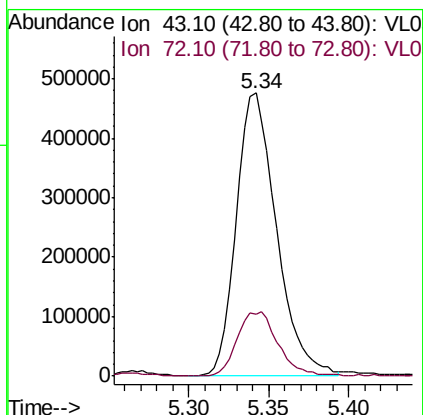
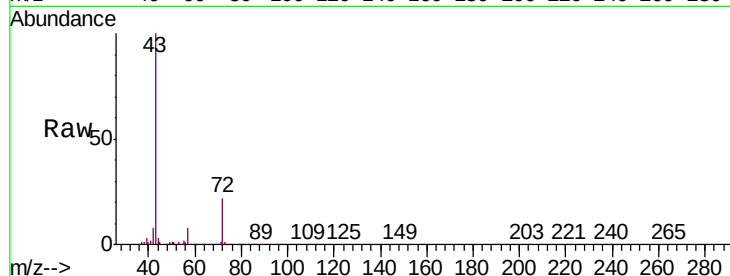




#34  
 2-Butanone  
 Concen: 4.830 ppbv  
 RT: 5.34 min Scan# 748  
 Delta R.T. 0.00 min  
 Lab File: VL032816.D  
 Acq: 27 Nov 2018 20:50

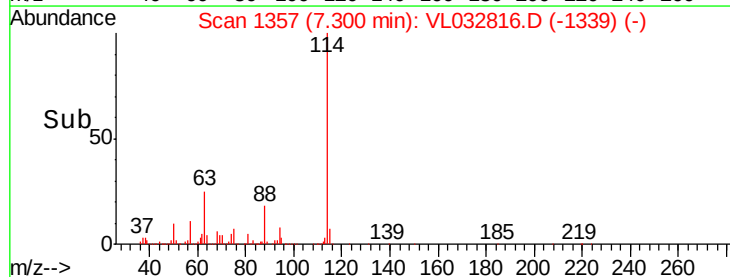
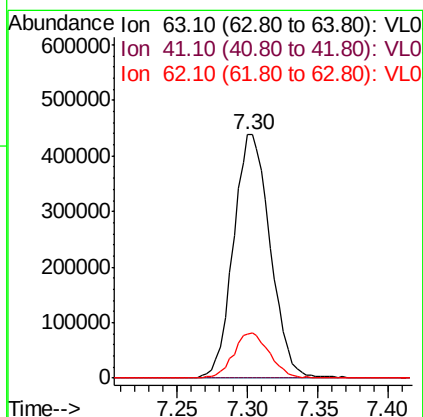
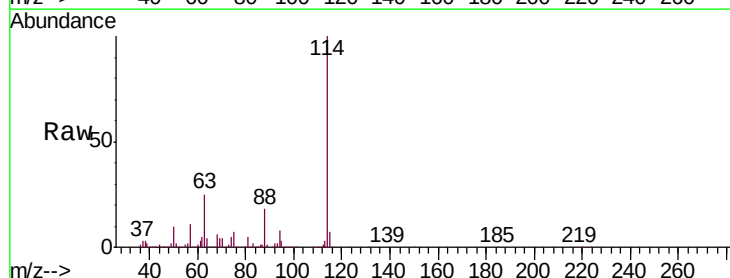
Instrument :  
 MSVOA\_L  
 ClientSampleID :  
 EP2-SV-01DL

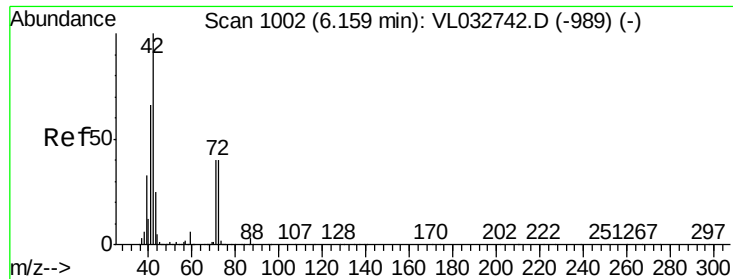
Tgt Ion: 43 Resp: 814268  
 Ion Ratio Lower Upper  
 43 100  
 72 23.8 18.4 27.6



#39  
 1,2-Dichloropropane  
 Concen: 8.092 ppbv  
 RT: 7.30 min Scan# 1357  
 Delta R.T. -0.44 min  
 Lab File: VL032816.D  
 Acq: 27 Nov 2018 20:50

Tgt Ion: 63 Resp: 797994  
 Ion Ratio Lower Upper  
 63 100  
 41 0.2 62.0 93.0#  
 62 18.2 55.4 83.2#

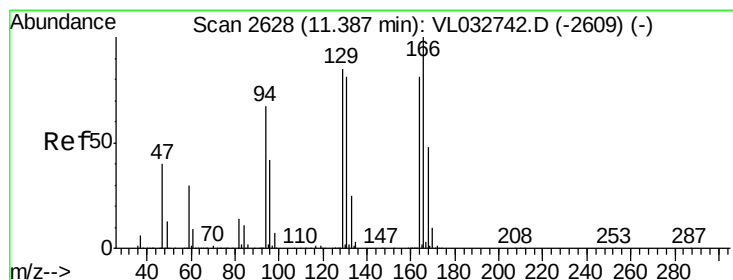
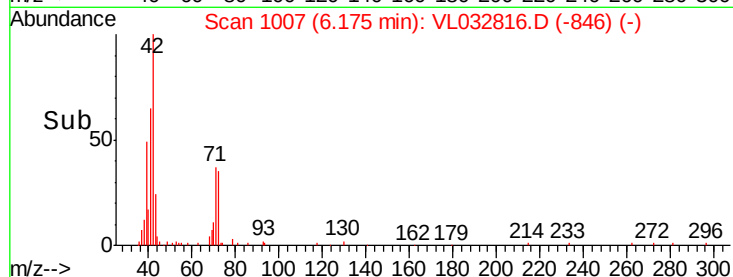
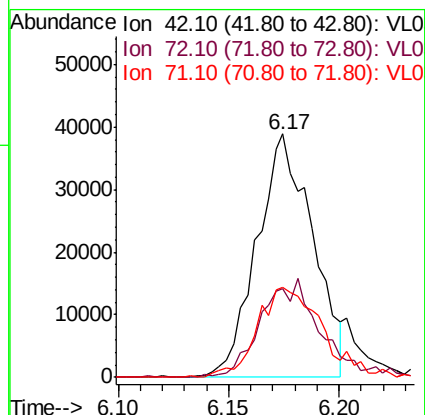
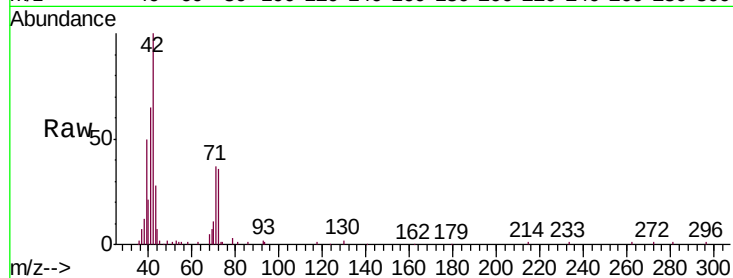




#41  
Tetrahydrofuran  
Concen: 0.704 ppbv  
RT: 6.17 min Scan# 1007  
Delta R.T. 0.02 min  
Lab File: VL032816.D  
Acq: 27 Nov 2018 20:50

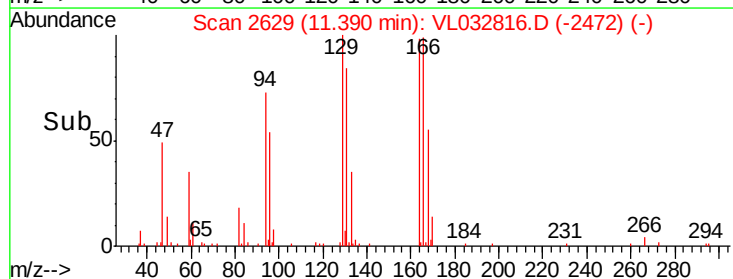
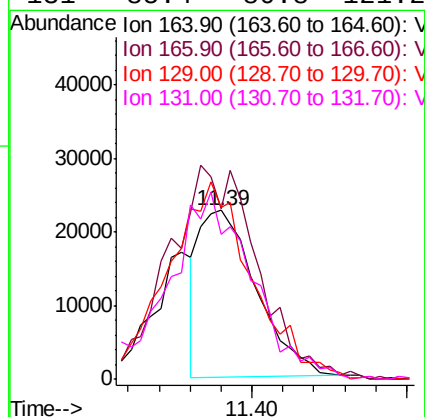
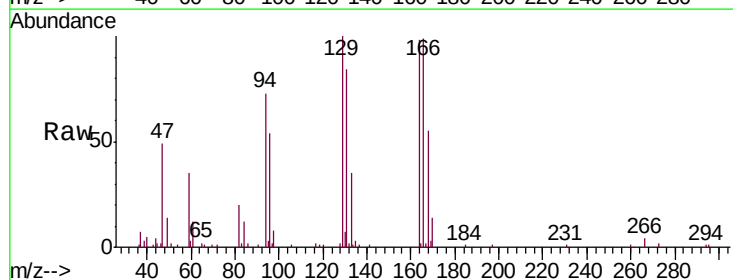
Instrument :  
MSVOA\_L  
ClientSampleId :  
EP2-SV-01DL

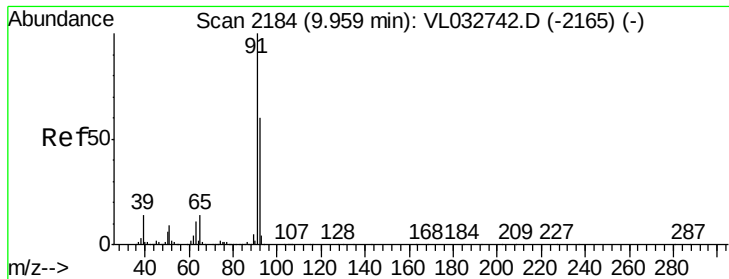
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 68094 |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 44.0  | 32.4  | 48.6  |
| 71       | 42.8  | 31.6  | 47.4  |



#52  
Tetrachloroethene  
Concen: 0.324 ppbv  
RT: 11.39 min Scan# 2629  
Delta R.T. 0.00 min  
Lab File: VL032816.D  
Acq: 27 Nov 2018 20:50

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 29148 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 166      | 100.3 | 99.3  | 148.9 |
| 129      | 100.0 | 83.9  | 125.9 |
| 131      | 85.4  | 80.8  | 121.2 |





#53

Toluene

Concen: 0.147 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. 0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

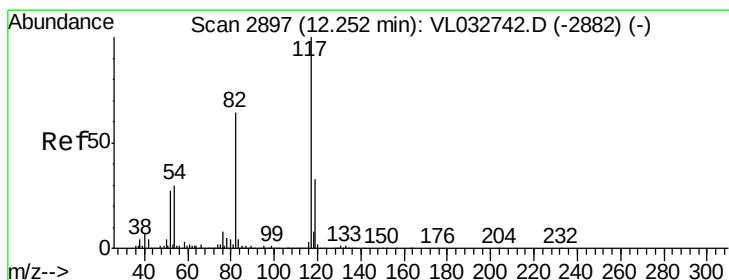
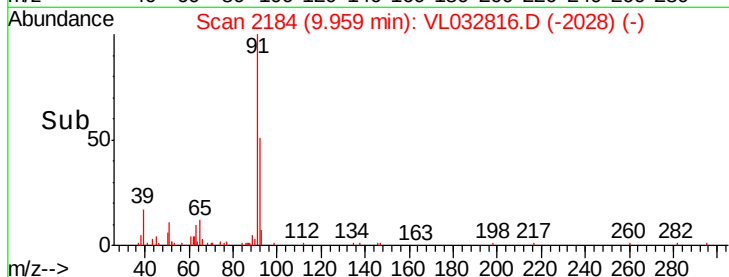
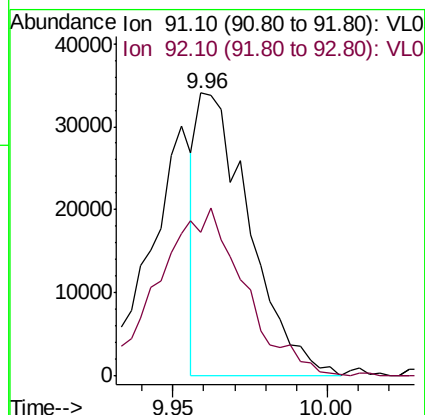
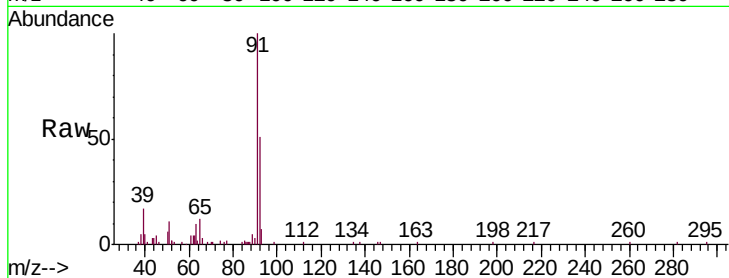
EP2-SV-01DL

Tgt Ion: 91 Resp: 39806

Ion Ratio Lower Upper

91 100

92 98.7 47.9 71.9#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2897

Delta R.T. 0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

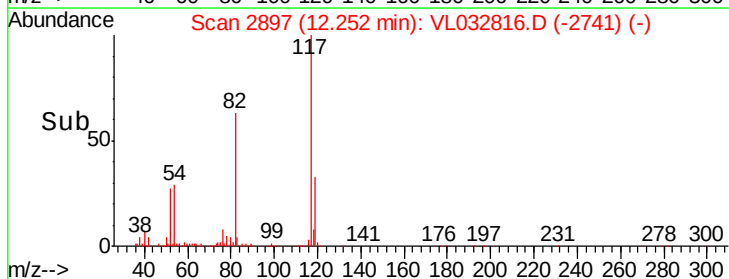
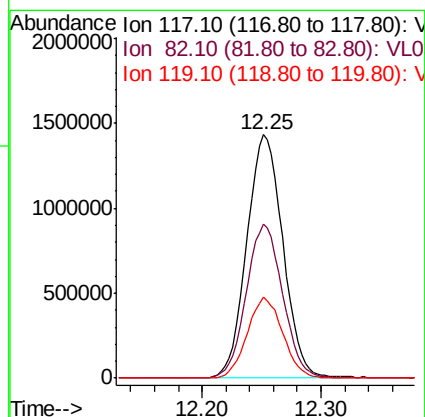
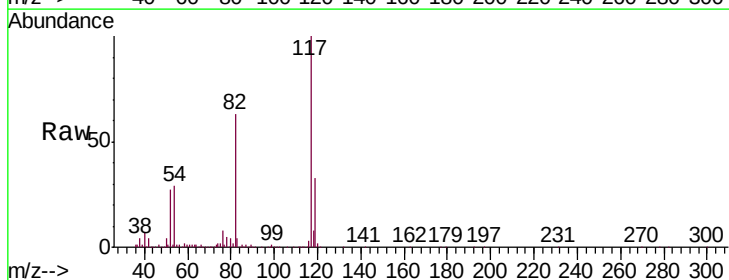
Tgt Ion: 117 Resp: 3017464

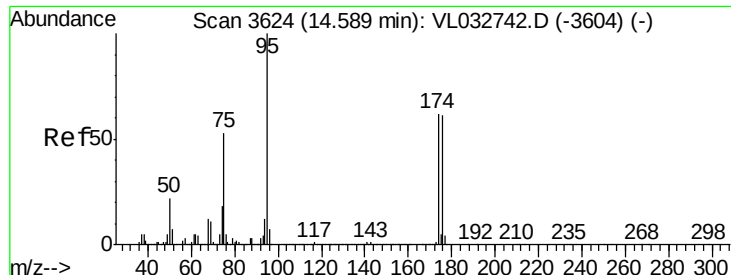
Ion Ratio Lower Upper

117 100

82 64.0 51.0 76.6

119 33.1 28.0 42.0





#68

1-Bromo-4-Fluorobenzene

Concen: 9.900 ppbv

RT: 14.59 min Scan# 3624

Delta R.T. 0.00 min

Lab File: VL032816.D

Acq: 27 Nov 2018 20:50

Instrument :

MSVOA\_L

ClientSampleId :

EP2-SV-01DL

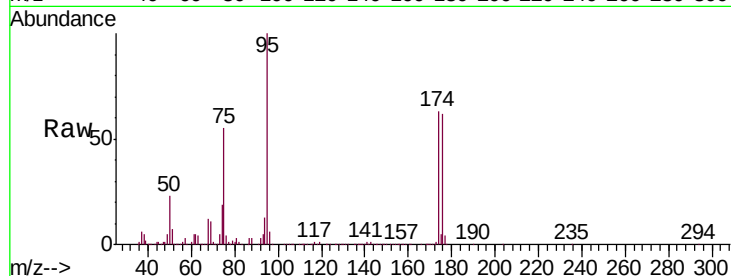
Tgt Ion: 95 Resp: 2234227

Ion Ratio Lower Upper

95 100

174 65.4 50.7 76.1

175 4.9 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

