

Data File : VL032937.D  
Acq On : 7 Dec 2018 16:33  
Operator : SY/AP  
Sample : J6262-02  
Misc : 400ml/MSVOA\_L  
ALS Vial : 1 Sample Multiplier: 1

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

Quant Time: Dec 08 02:00:33 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL120718AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
QLast Update : Fri Dec 07 09:35:17 2018  
Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.77  | 49   | 1229728  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.30  | 114  | 3256281  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.25 | 117  | 3098625  | 10.00 | ppbv  | 0.00     |

System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.58  | 95    | 2472176  | 10.80    | ppbv | 0.00    |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 108.00% |

| Target Compounds               |       |     |          |         | Qvalue     |
|--------------------------------|-------|-----|----------|---------|------------|
| 2) Dichlorodifluoromethane     | 3.08  | 85  | 30244    | 0.184   | ppbv 99    |
| 3) Chlorodifluoromethane       | 3.02  | 51  | 1457859  | 15.654  | ppbv 98    |
| 4) Chloromethane               | 3.17  | 50  | 36505    | 0.673   | ppbv 99    |
| 5) Vinyl Chloride              | 3.29  | 62  | 2761     | 0.050   | ppbv # 67  |
| 9) Propene                     | 3.04  | 41  | 215142   | 5.842   | ppbv 84    |
| 10) Heptane                    | 8.25  | 43  | 80216    | 0.580   | ppbv 91    |
| 11) Trichlorofluoromethane     | 4.01  | 101 | 50280    | 0.325   | ppbv 96    |
| 12) 1,1,2-Trichlorotrifluoroet | 4.56  | 101 | 7590     | 0.058   | ppbv # 60  |
| 13) Ethanol                    | 3.68  | 45  | 8659400  | 682.954 | ppbv 96    |
| 15) Acetone                    | 3.90  | 43  | 5029194  | 47.647  | ppbv 96    |
| 16) 1,3-Butadiene              | 3.35  | 39  | 47931    | 1.145   | ppbv # 65  |
| 17) tert-Butyl alcohol         | 4.38  | 59  | 78966    | 2.938   | ppbv # 98  |
| 19) Isopropyl Alcohol          | 4.06  | 45  | 13228476 | 199.566 | ppbv # 97  |
| 20) Methylene Chloride         | 4.42  | 84  | 98991    | 1.919   | ppbv 91    |
| 21) Allyl Chloride             | 4.19  | 41  | 9176273  | 106.678 | ppbv # 50  |
| 22) trans-1,2-Dichloroethene   | 4.97  | 96  | 4466     | 0.070   | ppbv # 86  |
| 23) Vinyl Acetate              | 5.15  | 43  | 262562   | 1.469   | ppbv # 19  |
| 25) Ethyl Acetate              | 5.76  | 43  | 8735545  | 35.035  | ppbv # 87  |
| 26) Hexane                     | 5.79  | 57  | 265800   | 2.309   | ppbv # 1   |
| 27) Carbon Disulfide           | 4.63  | 76  | 18994    | 0.132   | ppbv # 70  |
| 28) Methyl tert-Butyl Ether    | 5.12  | 73  | 11033    | 0.064   | ppbv # 72  |
| 29) Chloroform                 | 5.86  | 83  | 246945   | 1.202   | ppbv 91    |
| 30) Cyclohexane                | 7.26  | 84  | 18523    | 0.194   | ppbv # 26  |
| 31) cis-1,2-Dichloroethene     | 5.65  | 61  | 78252    | 0.741   | ppbv 95    |
| 34) 2-Butanone                 | 5.34  | 43  | 267239   | 1.884   | ppbv 98    |
| 35) Carbon Tetrachloride       | 7.15  | 117 | 8479     | 0.033   | ppbv 91    |
| 36) Benzene                    | 7.01  | 78  | 572139   | 2.389   | ppbv 99    |
| 38) Trichloroethene            | 7.97  | 130 | 152597   | 1.531   | ppbv 94    |
| 39) 1,2-Dichloropropane        | 7.30  | 63  | 793674   | 8.738   | ppbv # 21  |
| 41) Tetrahydrofuran            | 6.16  | 42  | 52772    | 0.598   | ppbv # 92  |
| 42) Bromodichloromethane       | 7.93  | 83  | 16239    | 0.072   | ppbv # 93  |
| 43) Methyl Methacrylate        | 8.15  | 69  | 22787    | 0.257   | ppbv # 72  |
| 44) 2,2,4-Trimethylpentane     | 7.99  | 57  | 250318   | 0.616   | ppbv # 85  |
| 50) 4-Methyl-2-Pentanone       | 8.88  | 43  | 8045     | 0.035   | ppbv # 39  |
| 51) 2-Hexanone                 | 10.29 | 43  | 4644     | 0.030   | ppbv # 30  |
| 52) Tetrachloroethene          | 11.38 | 164 | 602632   | 6.917   | ppbv 99    |
| 53) Toluene                    | 9.95  | 91  | 1087790  | 4.282   | ppbv 99    |
| 58) Ethyl Benzene              | 12.88 | 91  | 66331    | 0.201   | ppbv 94    |
| 59) m/p-Xylene                 | 13.16 | 91  | 46718    | 0.156   | ppbv # 100 |
| 60) o-Xylene                   | 13.86 | 91  | 120600   | 0.398   | ppbv 99    |
| 61) Styrene                    | 13.70 | 104 | 61985    | 0.308   | ppbv 96    |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL120718\  
Quantitation Report (Not Reviewed)

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Operator : SY/AP  
Sample : J6262-02  
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IA2

Quant Time: Dec 08 02:00:33 2018  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL120718AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Dec 07 09:35:17 2018  
QLast Update : Fri Dec 07 09:35:17 2018  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 64) n-propylbenzene        | 15.73 | 120  | 7447     | 0.068 | ppbv # | 1        |
| 66) Benzyl Chloride        | 16.93 | 91   | 23029    | 0.106 | ppbv # | 67       |
| 69) p-Isopropyltoluene     | 17.82 | 119  | 275848   | 0.590 | ppbv   | 96       |
| 71) 2-Chlorotoluene        | 15.94 | 91   | 17984    | 0.057 | ppbv   | 91       |
| 72) 4-Ethyltoluene         | 16.00 | 105  | 59524    | 0.176 | ppbv # | 93       |
| 73) 1,3,5-Trimethylbenzene | 16.16 | 105  | 72220    | 0.219 | ppbv   | 87       |
| 74) 1,2,4-Trimethylbenzene | 16.93 | 105  | 217960   | 0.585 | ppbv # | 66       |
| 76) 1,4-Dichlorobenzene    | 17.31 | 146  | 24644    | 0.120 | ppbv # | 51       |
| 79) Naphthalene            | 22.42 | 128  | 12390    | 0.052 | ppbv # | 91       |
| 80) Naphthalene,2-methyl-  | 25.12 | 142  | 1874     | 0.036 | ppbv # | 84       |

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

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ALS Vial : 1 Sample Multiplier: 1

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MSVOA\_L  
**ClientSampleId :**  
IA2

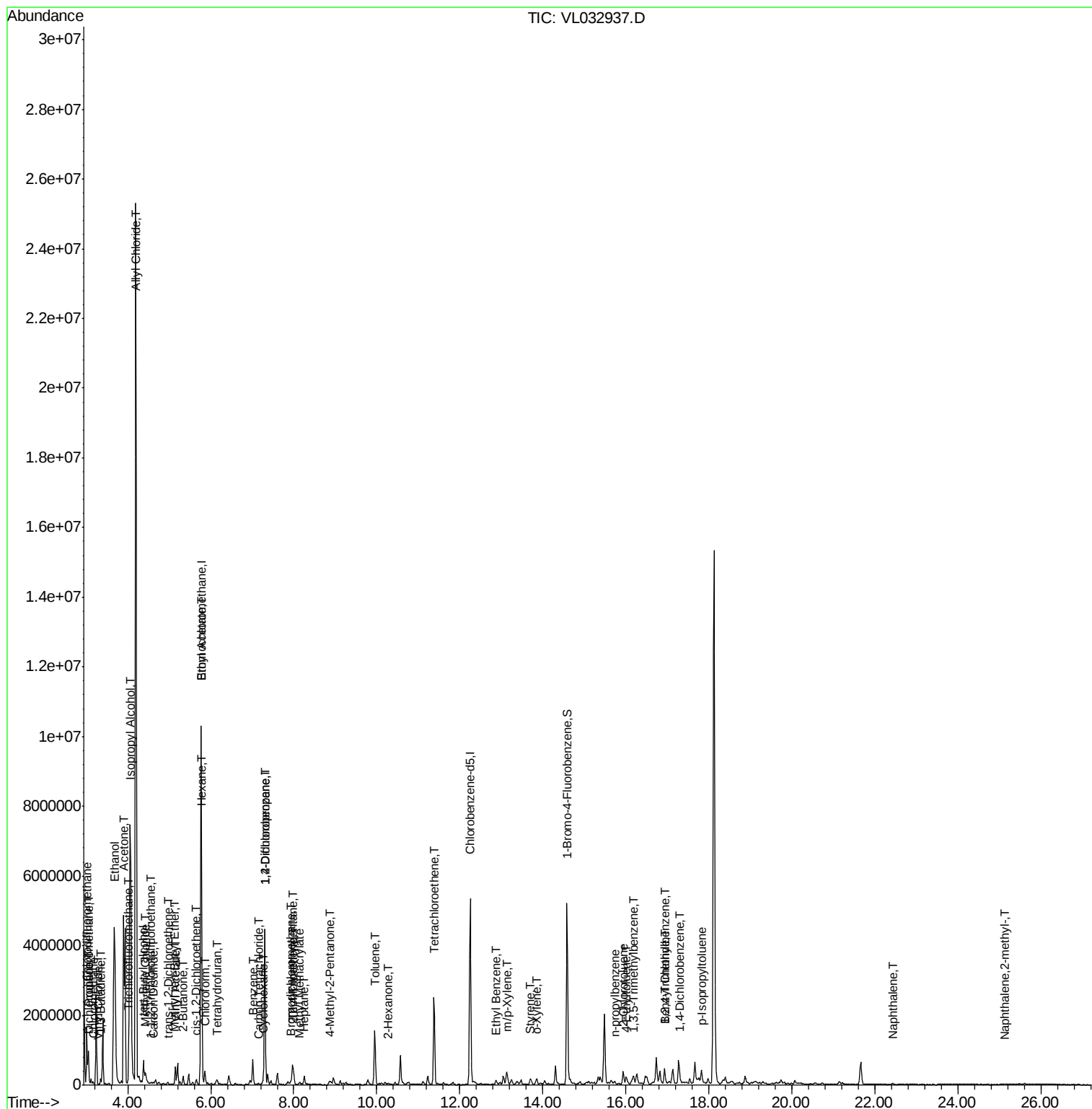
Quant Time: Dec 08 02:00:33 2018

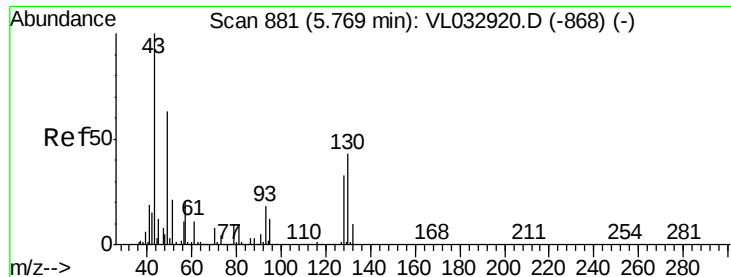
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Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA\_LFri Dec 07 09:35:17 2018

QLast Update : Fri Dec 07 09:35:17 2018

Response via : Initial Calibration

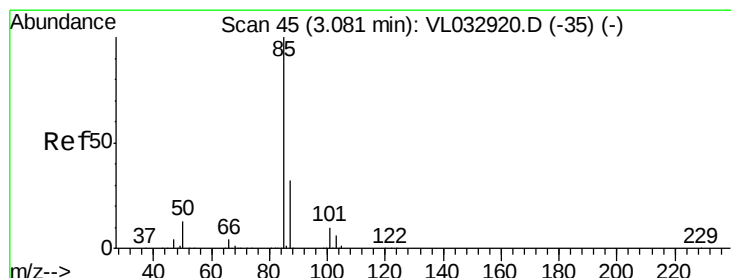
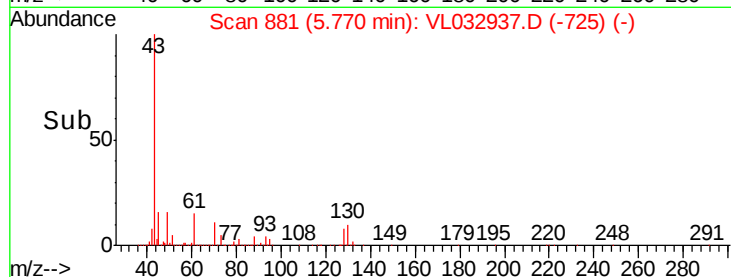
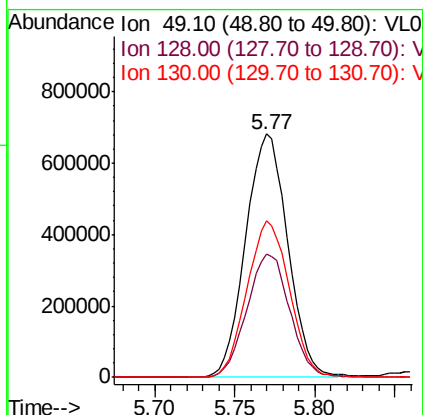
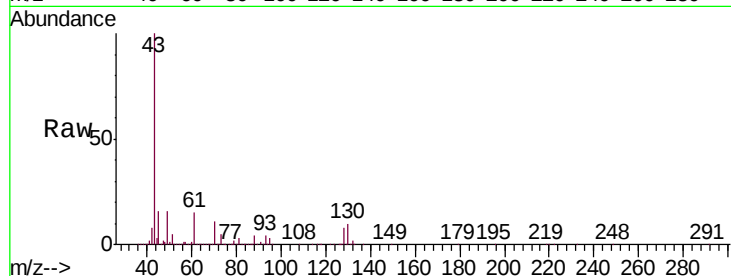




#1  
 Bromochloromethane  
 Concen: 10.000 ppbv  
 RT: 5.77 min Scan# 881  
 Delta R.T. 0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

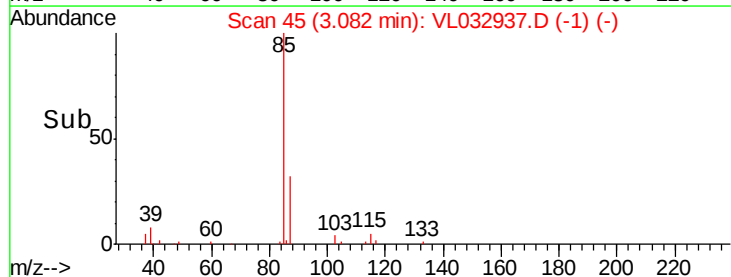
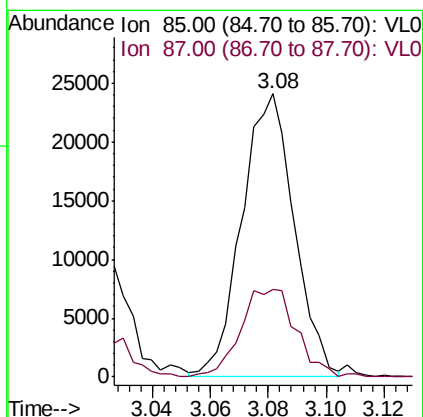
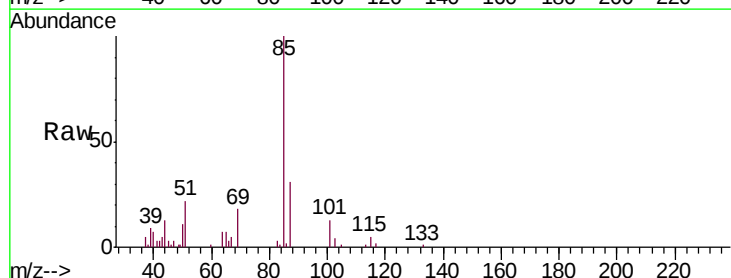
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

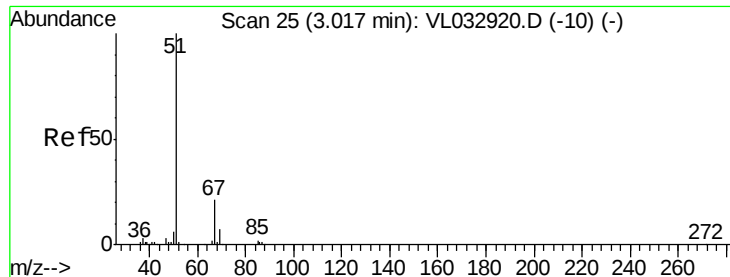
Tgt Ion: 49 Resp: 1229728  
 Ion Ratio Lower Upper  
 49 100  
 128 51.4 26.3 78.8  
 130 65.2 33.9 101.7



#2  
 Dichlorodifluoromethane  
 Concen: 0.184 ppbv  
 RT: 3.08 min Scan# 45  
 Delta R.T. 0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion: 85 Resp: 30244  
 Ion Ratio Lower Upper  
 85 100  
 87 31.5 25.7 38.5





#3

Chlorodifluoromethane

Concen: 15.654 ppbv

RT: 3.02 min Scan# 25

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

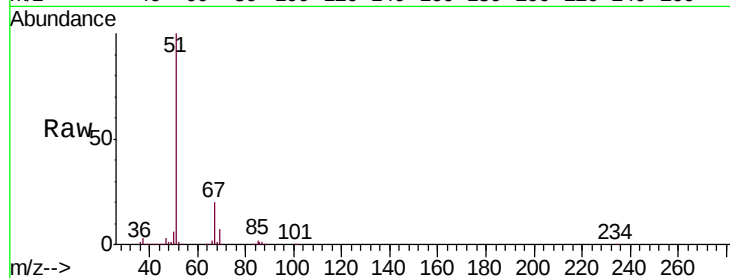
IA2

Tgt Ion: 51 Resp: 1457859

Ion Ratio Lower Upper

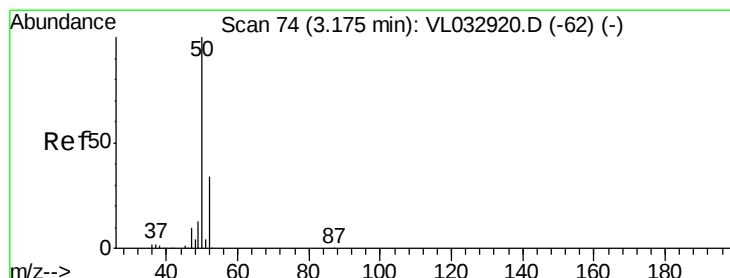
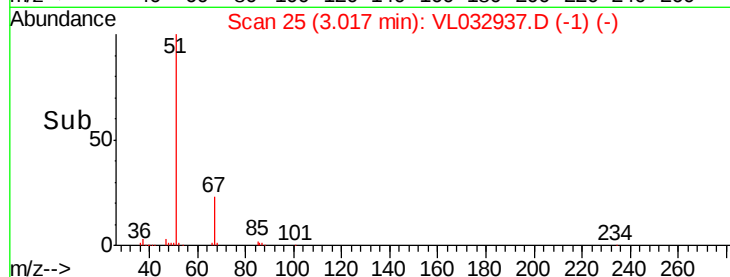
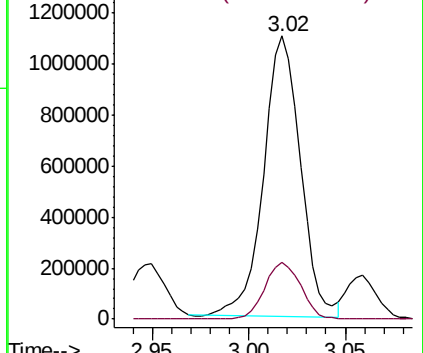
51 100

67 19.9 16.8 25.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.673 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL032937.D

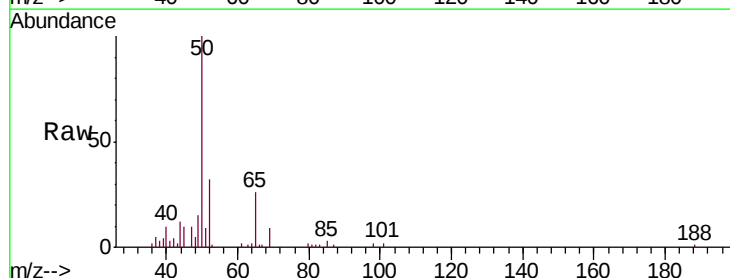
Acq: 7 Dec 2018 16:33

Tgt Ion: 50 Resp: 36505

Ion Ratio Lower Upper

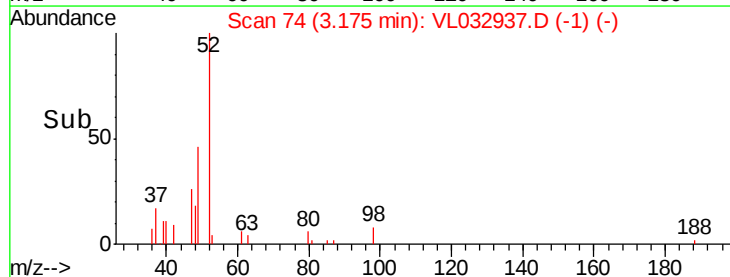
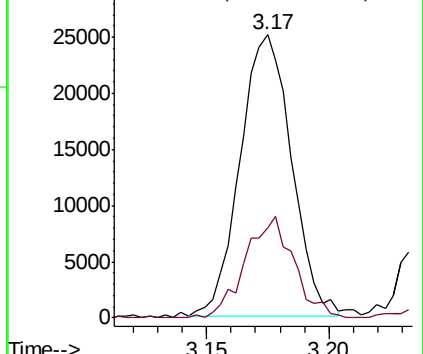
50 100

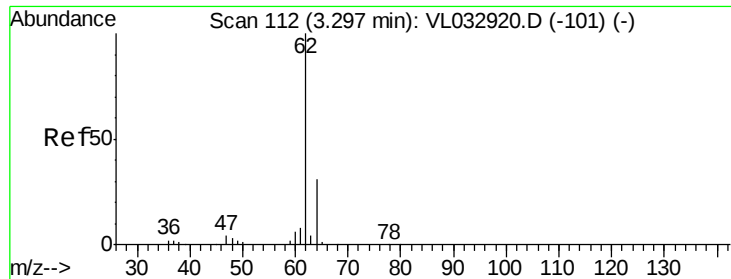
52 33.3 27.3 40.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.050 ppbv

RT: 3.29 min Scan# 111

Delta R.T. -0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

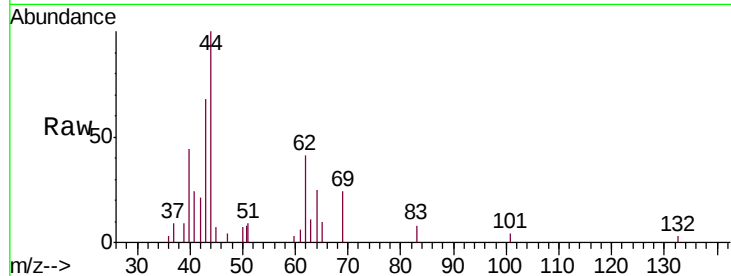
IA2

Tgt Ion: 62 Resp: 2761

Ion Ratio Lower Upper

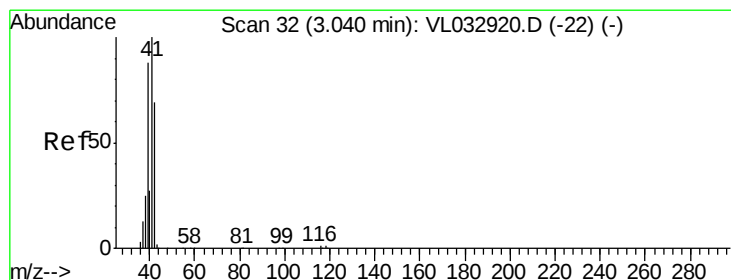
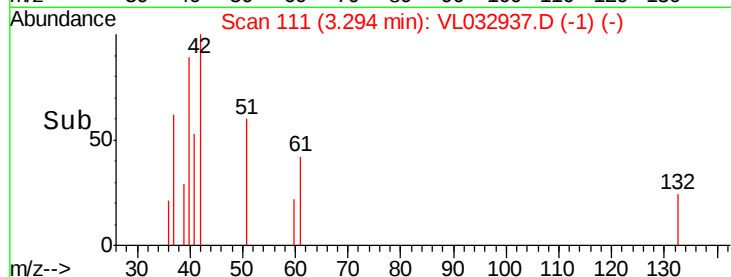
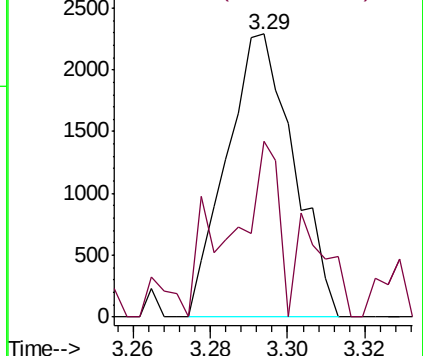
62 100

64 49.2 24.8 37.2#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#9

Propene

Concen: 5.842 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.00 min

Lab File: VL032937.D

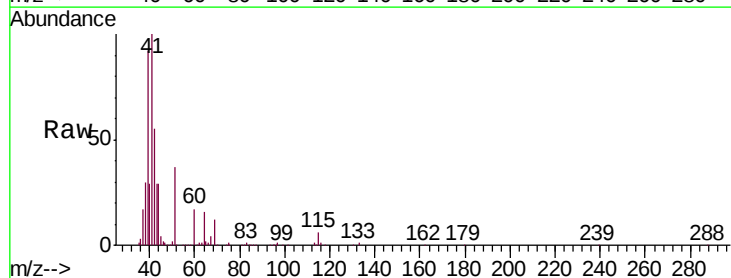
Acq: 7 Dec 2018 16:33

Tgt Ion: 41 Resp: 215142

Ion Ratio Lower Upper

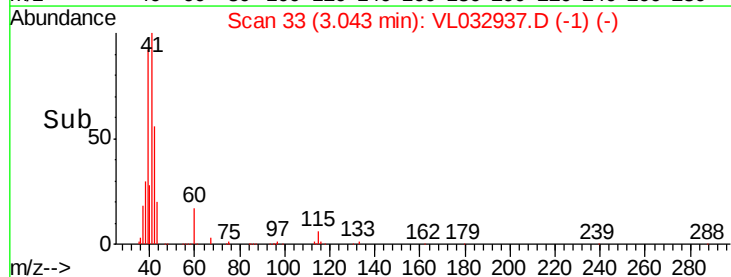
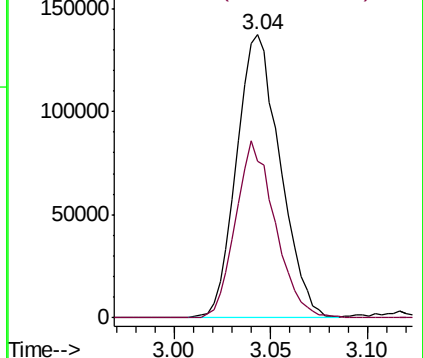
41 100

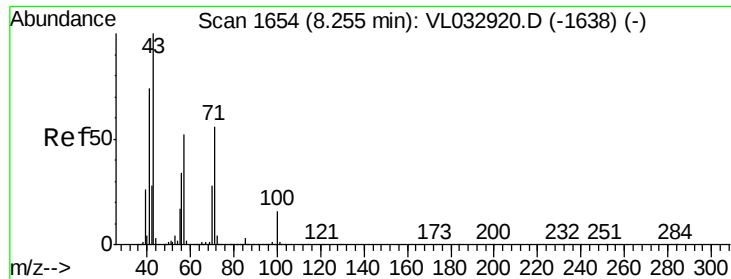
42 57.1 56.2 84.2



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

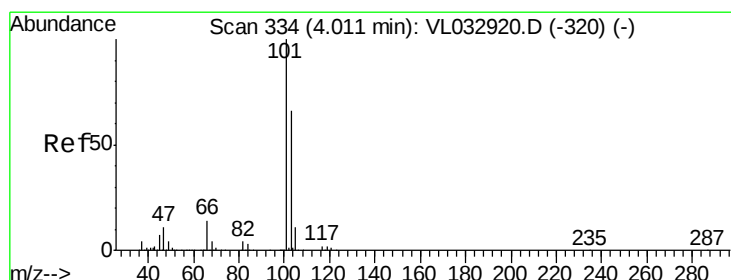
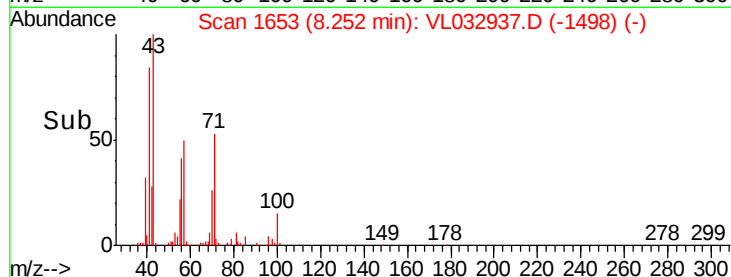
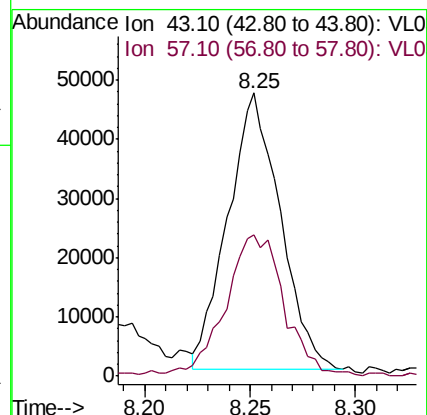
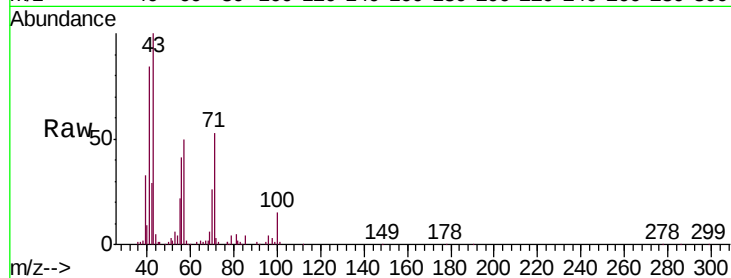




#10  
 Heptane  
 Concen: 0.580 ppbv  
 RT: 8.25 min Scan# 1653  
 Delta R.T. -0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

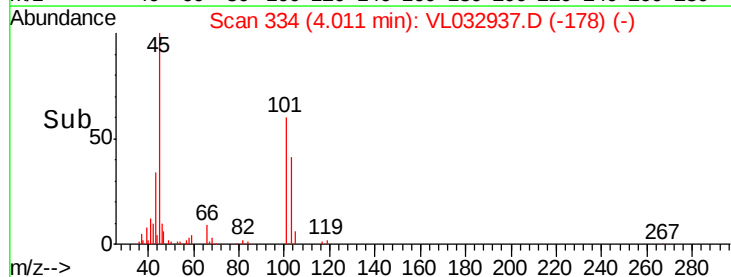
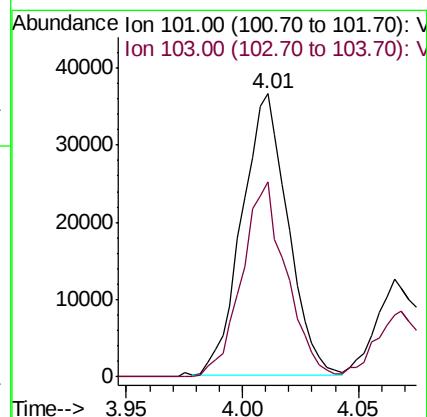
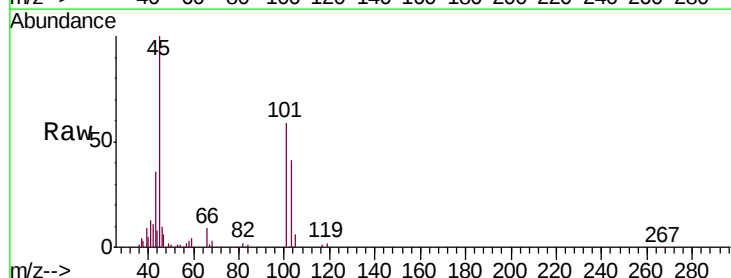
Instrument :  
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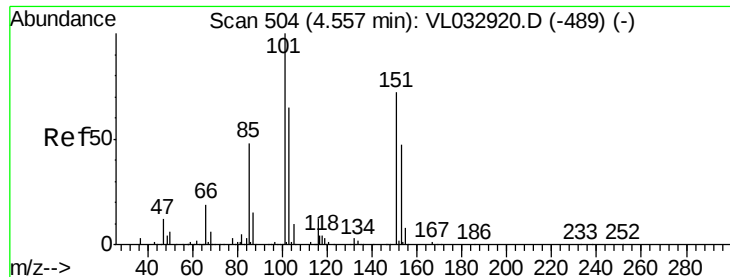
Tgt Ion: 43 Resp: 80216  
 Ion Ratio Lower Upper  
 43 100  
 57 58.4 41.8 62.6



#11  
 Trichlorofluoromethane  
 Concen: 0.325 ppbv  
 RT: 4.01 min Scan# 334  
 Delta R.T. 0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion: 101 Resp: 50280  
 Ion Ratio Lower Upper  
 101 100  
 103 69.4 52.7 79.1





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.058 ppbv

RT: 4.56 min Scan# 504

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

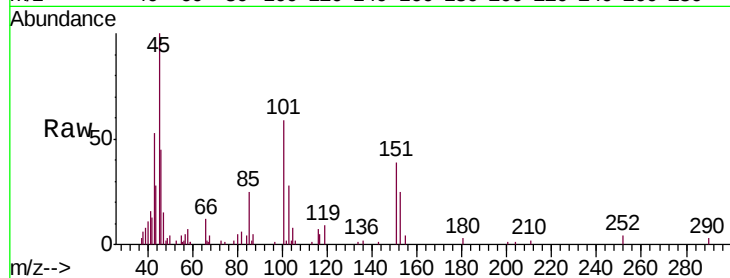
IA2

Tgt Ion:101 Resp: 7590

Ion Ratio Lower Upper

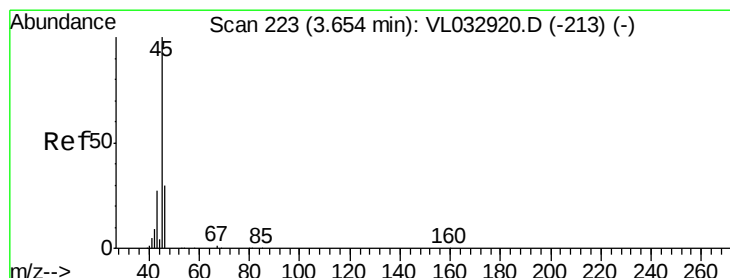
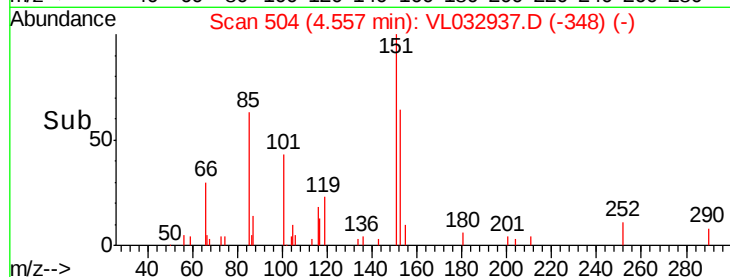
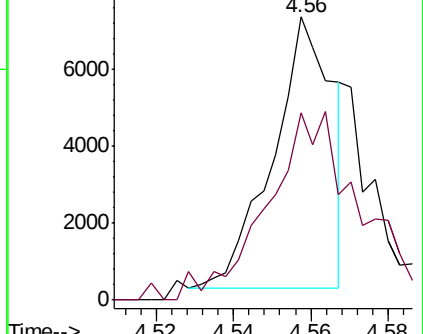
101 100

151 108.0 59.3 88.9#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 682.954 ppbv

RT: 3.68 min Scan# 230

Delta R.T. 0.02 min

Lab File: VL032937.D

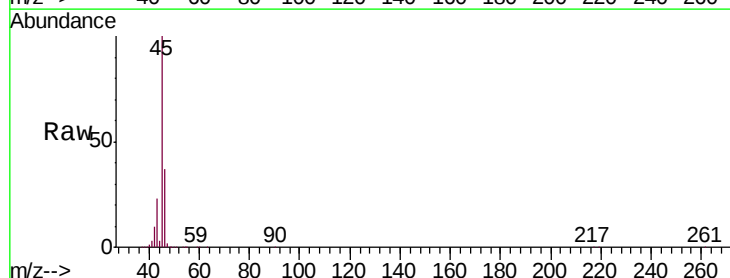
Acq: 7 Dec 2018 16:33

Tgt Ion: 45 Resp: 8659400

Ion Ratio Lower Upper

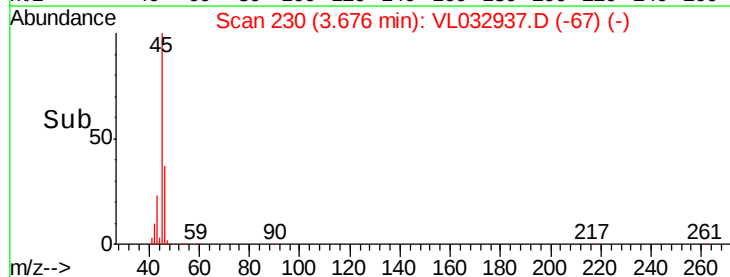
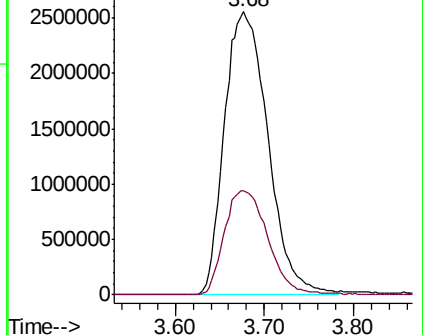
45 100

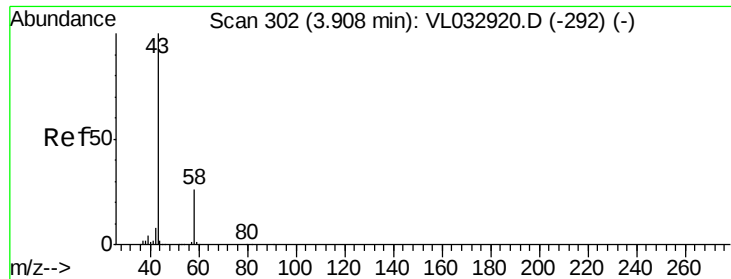
46 37.1 13.8 55.4



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 47.647 ppbv

RT: 3.90 min Scan# 299

Delta R.T. -0.01 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

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ClientSampleId :

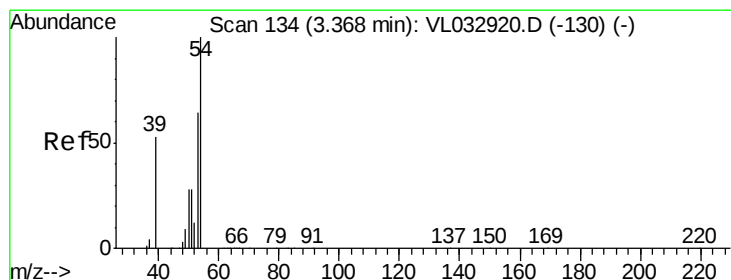
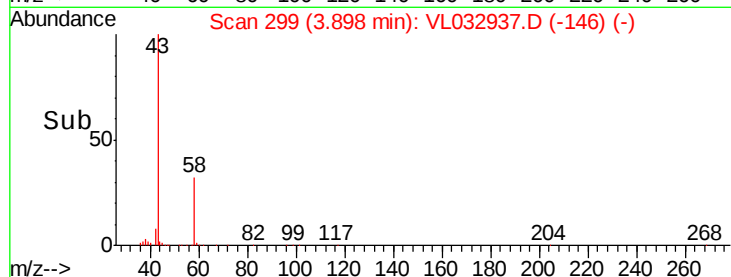
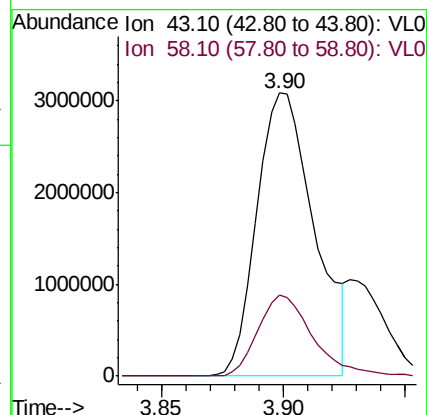
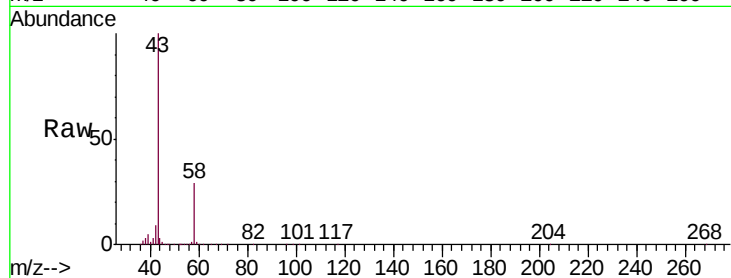
IA2

Tgt Ion: 43 Resp: 5029194

Ion Ratio Lower Upper

43 100

58 27.8 20.6 30.8



#16

1,3-Butadiene

Concen: 1.145 ppbv

RT: 3.35 min Scan# 127

Delta R.T. -0.02 min

Lab File: VL032937.D

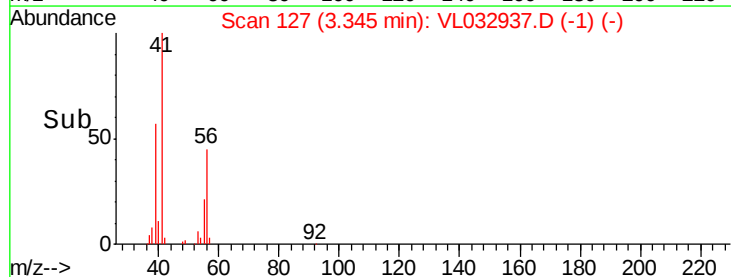
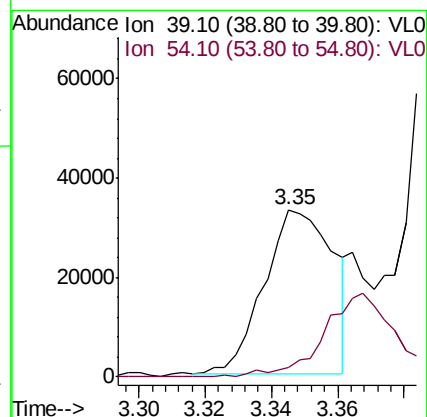
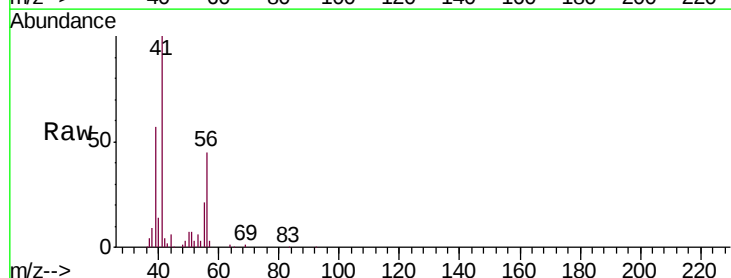
Acq: 7 Dec 2018 16:33

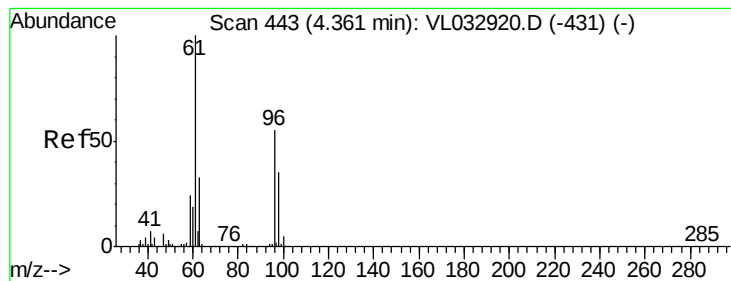
Tgt Ion: 39 Resp: 47931

Ion Ratio Lower Upper

39 100

54 57.7 72.7 109.1#



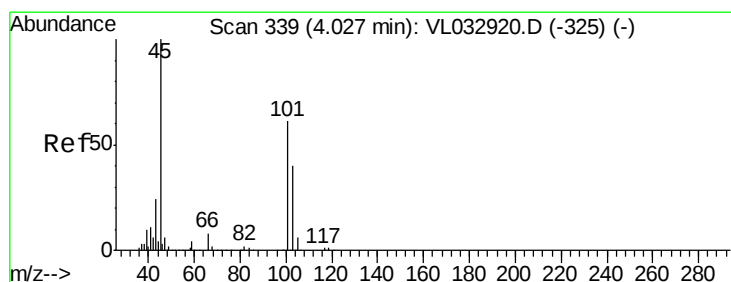
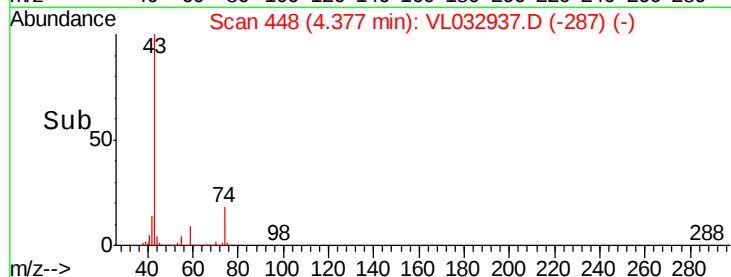
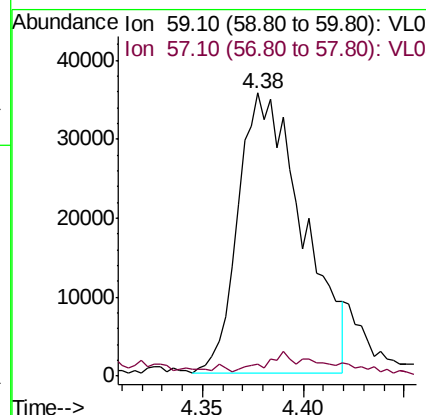
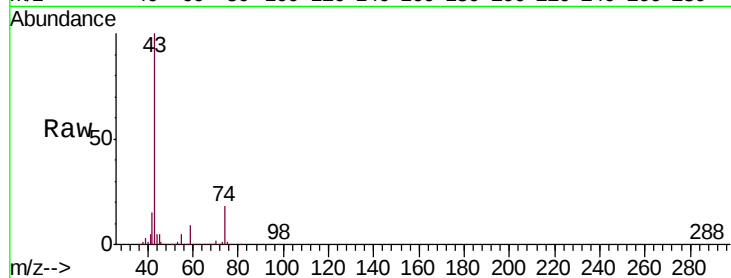


#17

tert-Butyl alcohol  
 Concen: 2.938 ppbv  
 RT: 4.38 min Scan# 448  
 Delta R.T. 0.02 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

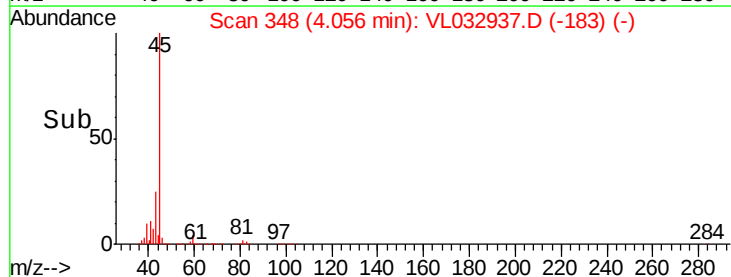
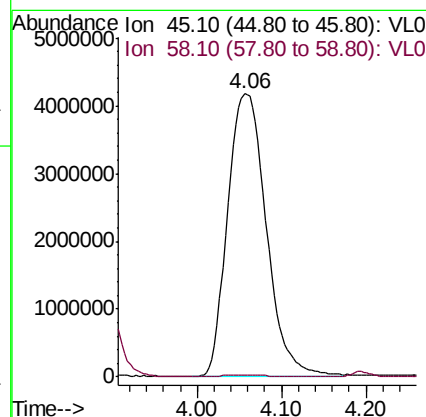
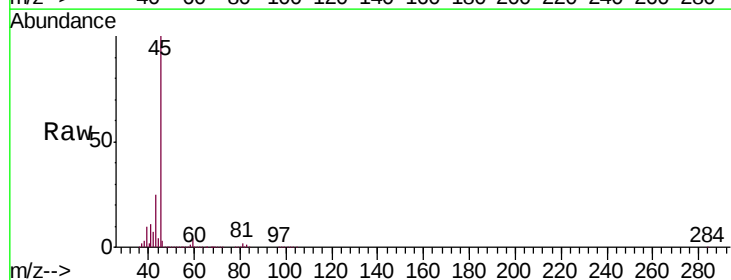
Tgt Ion: 59 Resp: 78966  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 0.6 1.0#

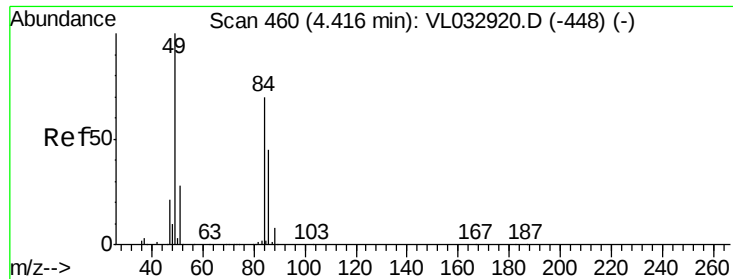


#19

Isopropyl Alcohol  
 Concen: 199.566 ppbv  
 RT: 4.06 min Scan# 348  
 Delta R.T. 0.03 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion: 45 Resp: 13228476  
 Ion Ratio Lower Upper  
 45 100  
 58 0.9 1.4 2.2#

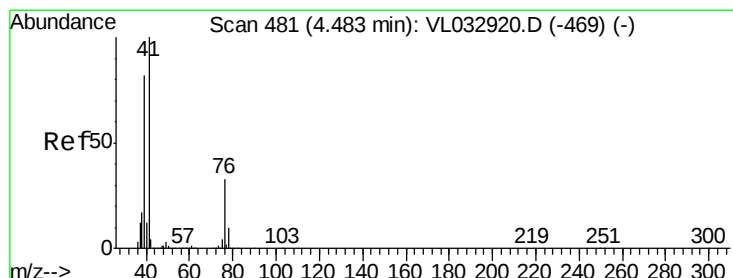
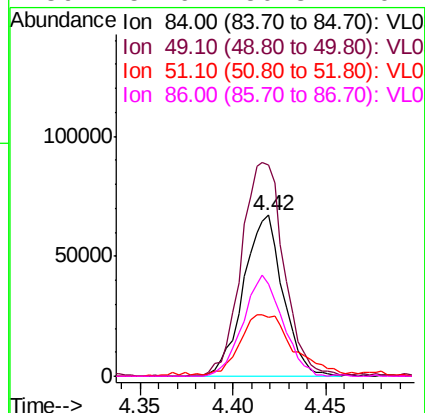
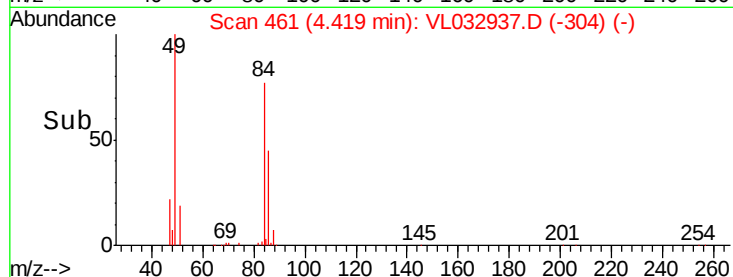
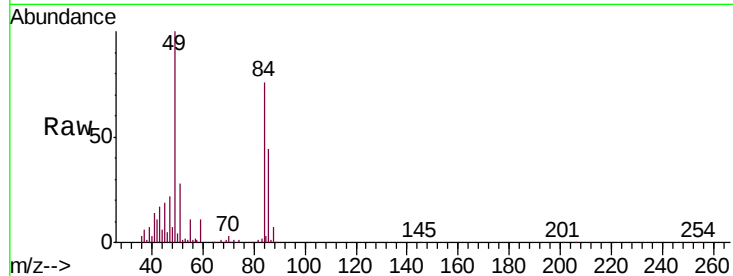




#20  
Methylene Chloride  
Concen: 1.919 ppbv  
RT: 4.42 min Scan# 461  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

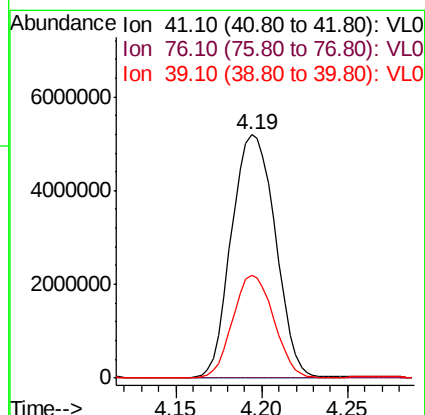
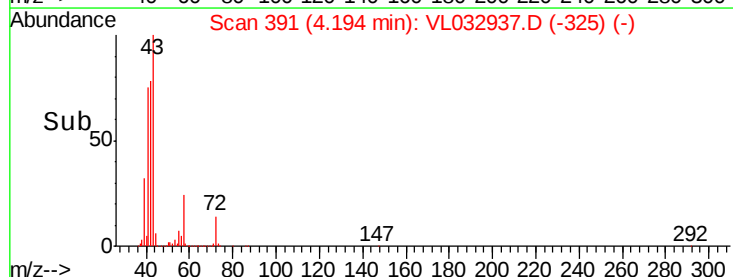
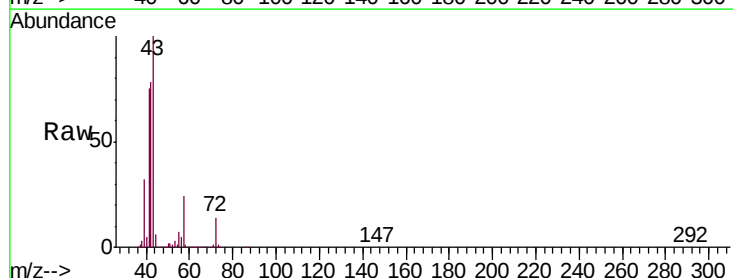
Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

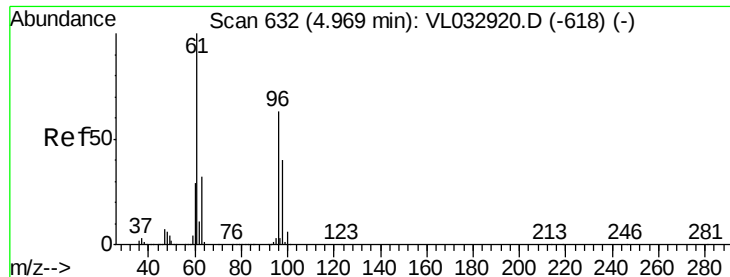
Tgt Ion: 84 Resp: 98991  
Ion Ratio Lower Upper  
84 100  
49 130.1 113.8 170.8  
51 35.3 31.8 47.8  
86 57.6 50.8 76.2



#21  
Allyl Chloride  
Concen: 106.678 ppbv  
RT: 4.19 min Scan# 391  
Delta R.T. -0.29 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 41 Resp: 9176273  
Ion Ratio Lower Upper  
41 100  
76 0.0 25.2 37.8#  
39 39.9 65.2 97.8#





#22

trans-1,2-Dichloroethene

Concen: 0.070 ppbv

RT: 4.97 min Scan# 632

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

IA2

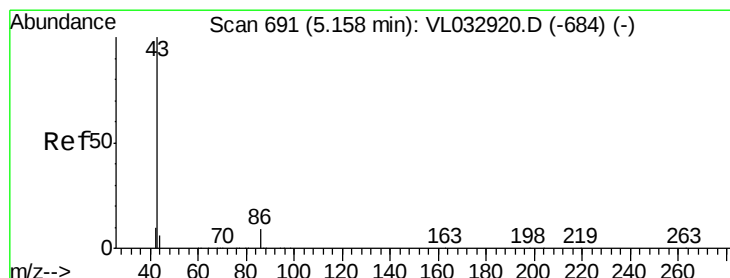
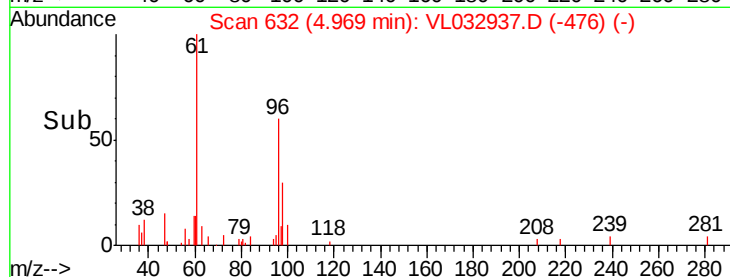
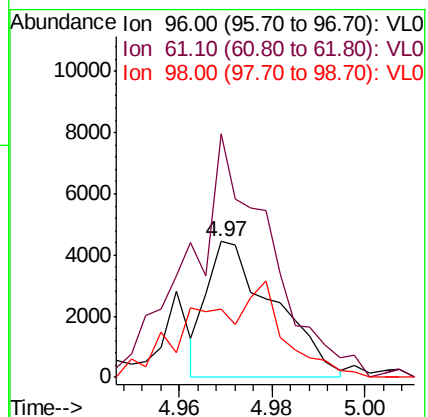
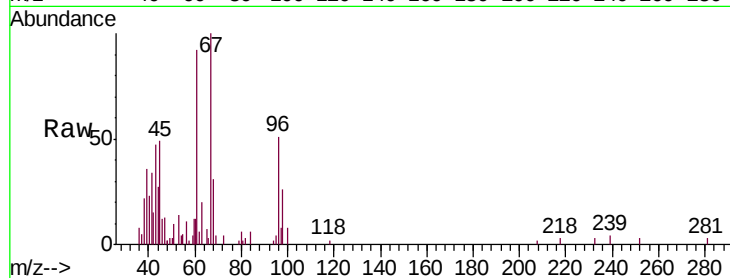
Tgt Ion: 96 Resp: 4466

Ion Ratio Lower Upper

96 100

61 173.4 127.1 190.7

98 46.9 51.3 76.9#



#23

Vinyl Acetate

Concen: 1.469 ppbv

RT: 5.15 min Scan# 688

Delta R.T. -0.01 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Tgt Ion: 43 Resp: 262562

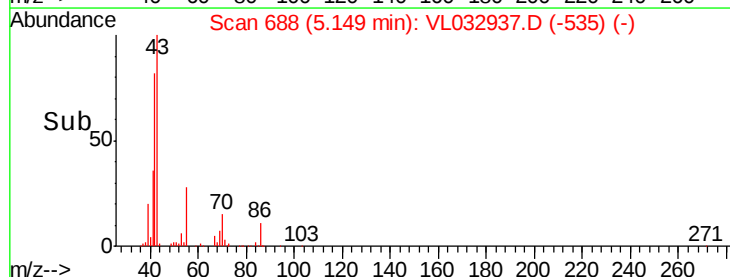
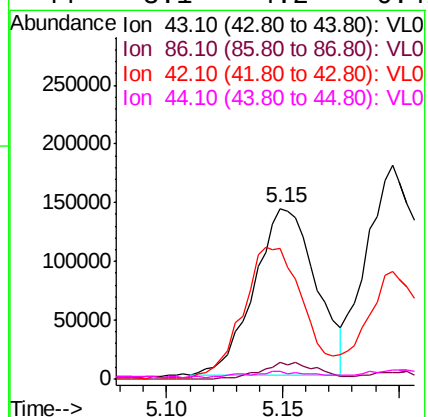
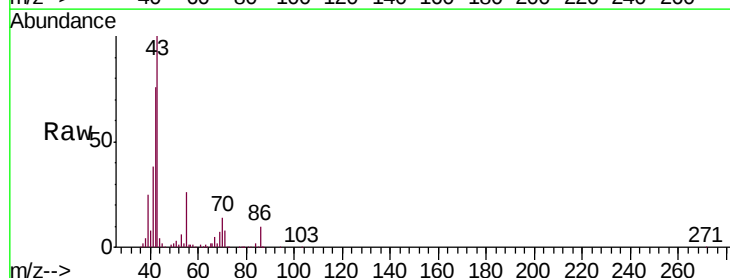
Ion Ratio Lower Upper

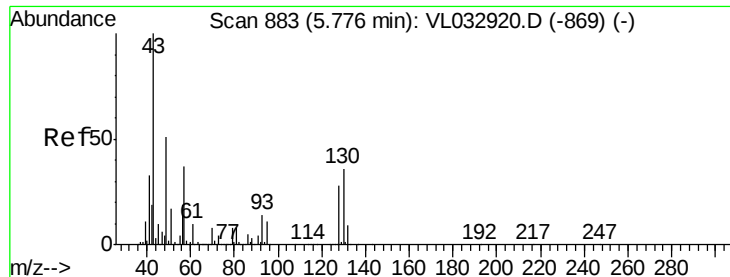
43 100

86 10.5 6.6 9.8#

42 77.0 8.3 12.5#

44 3.1 4.2 6.4#

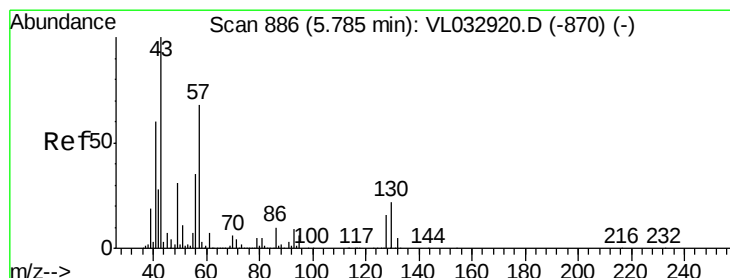
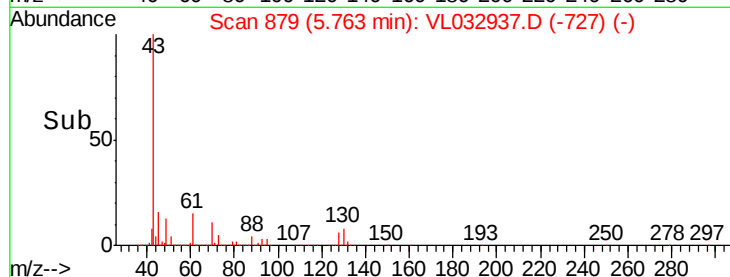
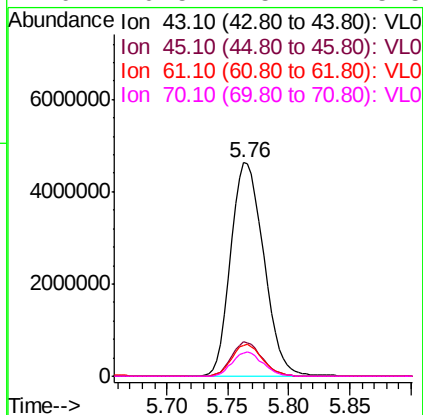
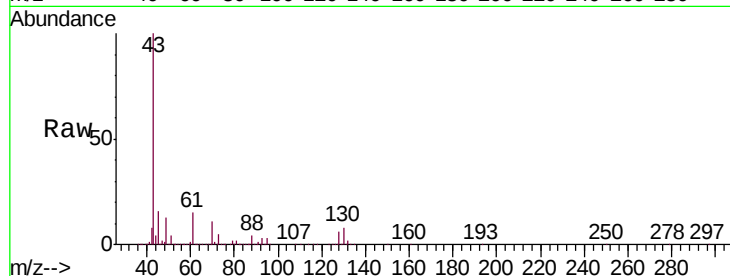




#25  
Ethyl Acetate  
Concen: 35.035 ppbv  
RT: 5.76 min Scan# 879  
Delta R.T. -0.01 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

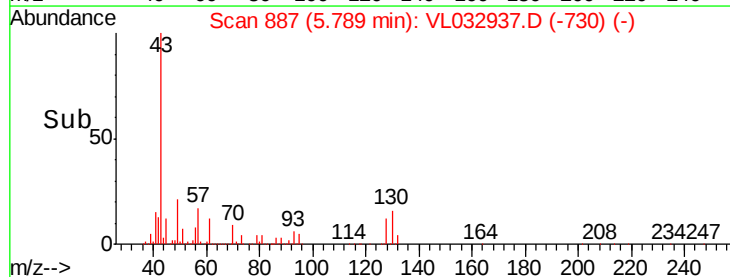
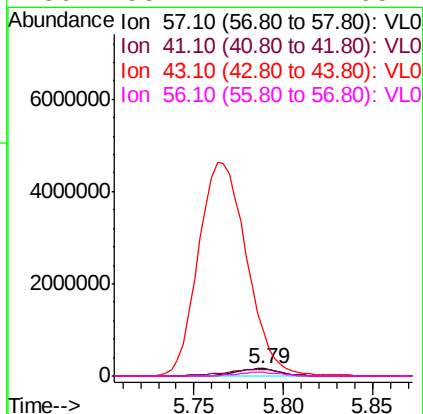
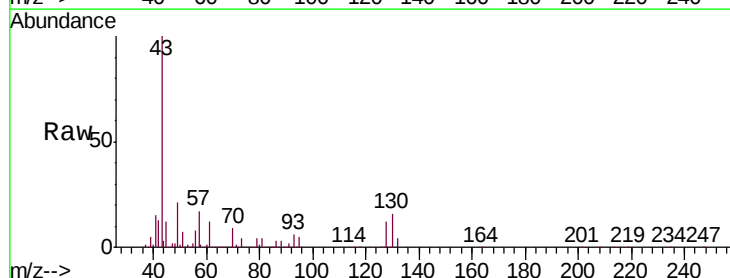
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

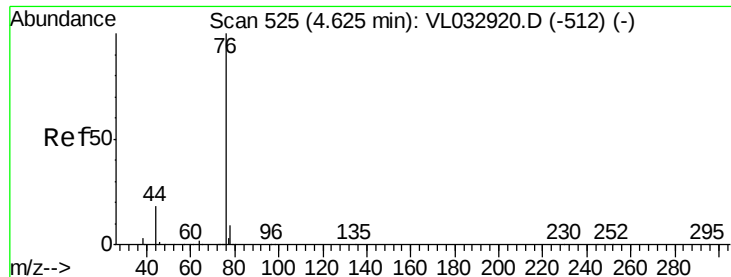
Tgt Ion: 43 Resp: 8735545  
Ion Ratio Lower Upper  
43 100  
45 14.9 7.8 11.6#  
61 13.9 7.4 11.2#  
70 10.5 5.7 8.5#



#26  
Hexane  
Concen: 2.309 ppbv  
RT: 5.79 min Scan# 887  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 57 Resp: 265800  
Ion Ratio Lower Upper  
57 100  
41 120.1 72.2 108.2#  
43 3296.4 171.9 257.9#  
56 53.1 42.2 63.2





#27

Carbon Disulfide

Concen: 0.132 ppbv

RT: 4.63 min Scan# 526

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

IA2

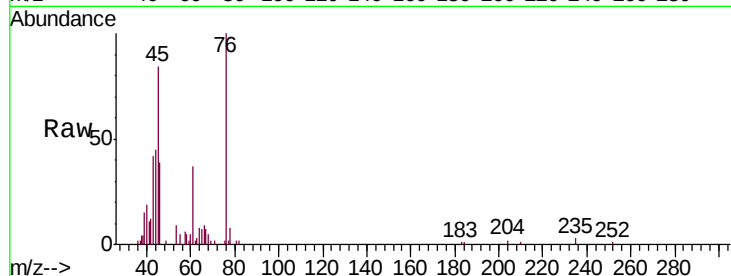
Tgt Ion: 76 Resp: 18994

Ion Ratio Lower Upper

76 100

44 0.0 14.7 22.1#

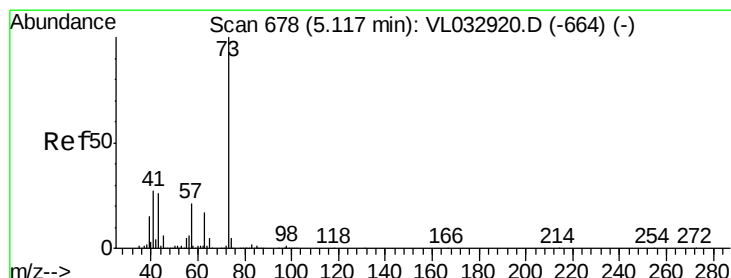
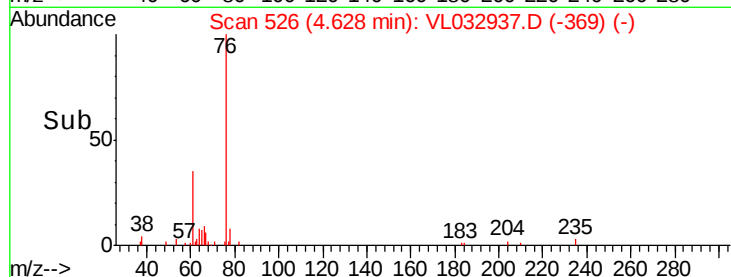
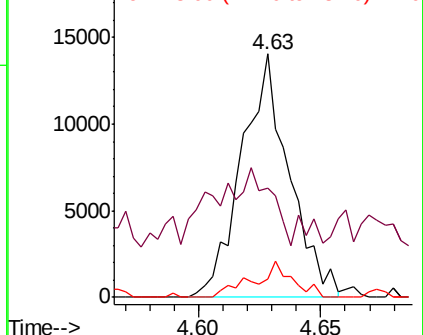
78 12.1 7.4 11.2#



Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0



#28

Methyl tert-Butyl Ether

Concen: 0.064 ppbv

RT: 5.12 min Scan# 680

Delta R.T. 0.01 min

Lab File: VL032937.D

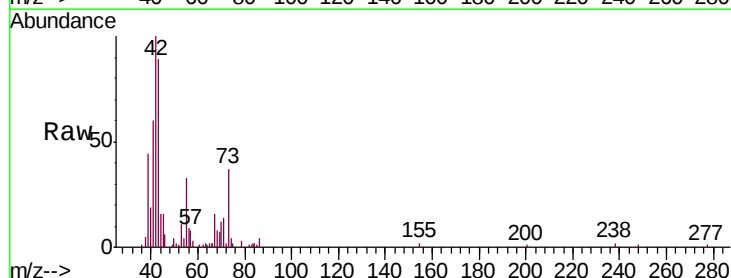
Acq: 7 Dec 2018 16:33

Tgt Ion: 73 Resp: 11033

Ion Ratio Lower Upper

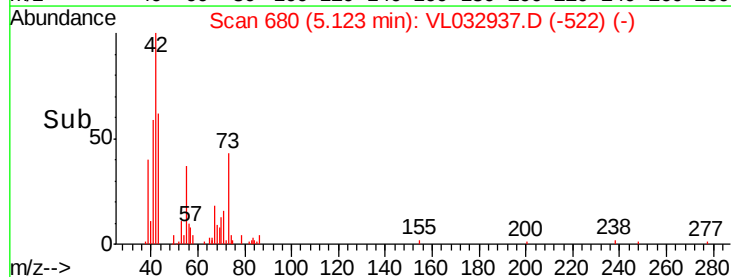
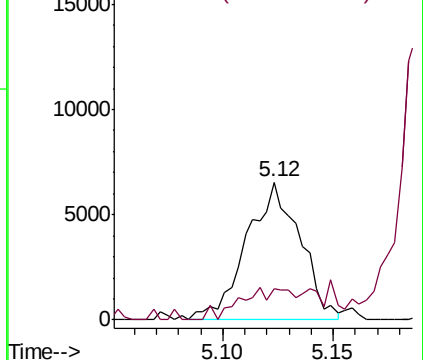
73 100

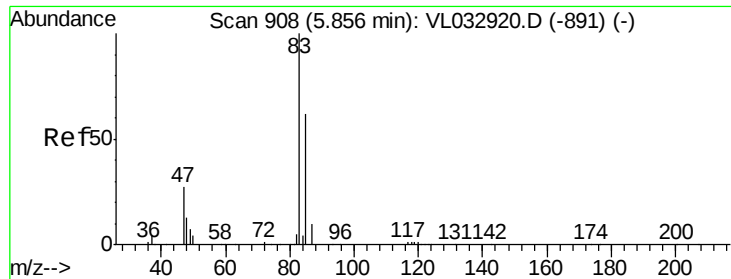
57 34.9 17.4 26.0#



Abundance Ion 73.10 (72.80 to 73.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

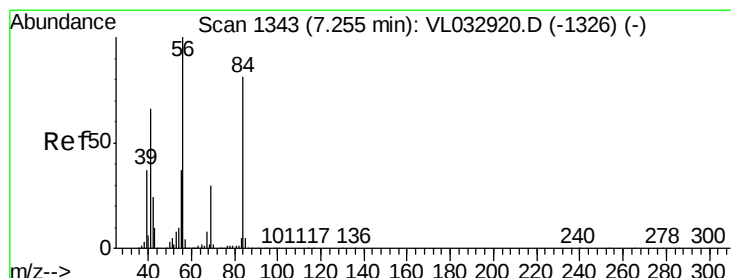
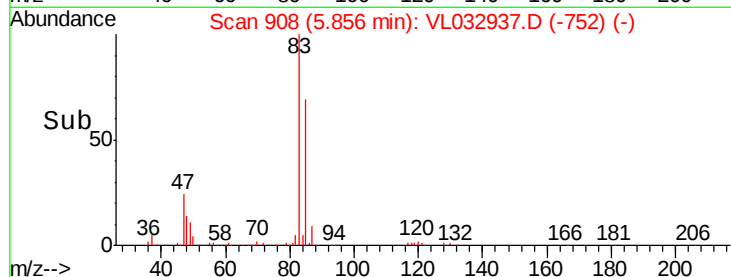
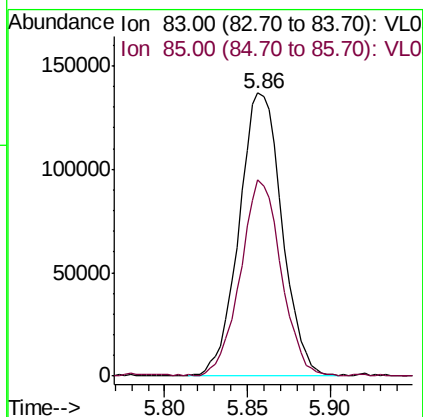
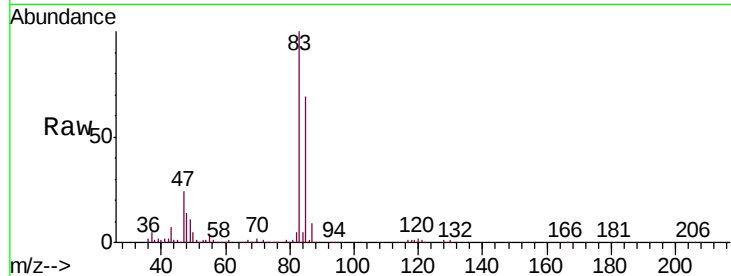




#29  
Chloroform  
Concen: 1.202 ppbv  
RT: 5.86 min Scan# 908  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

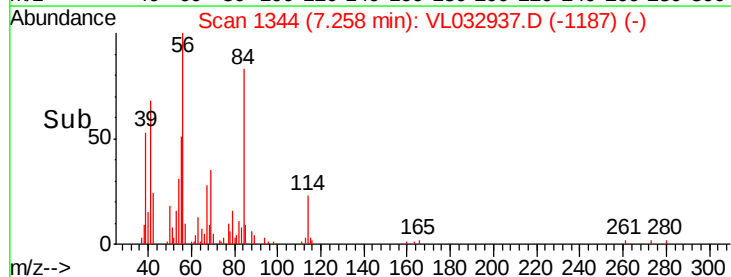
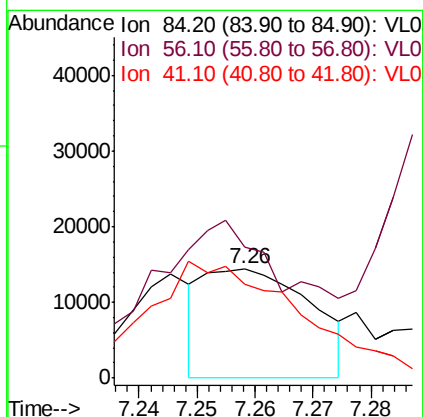
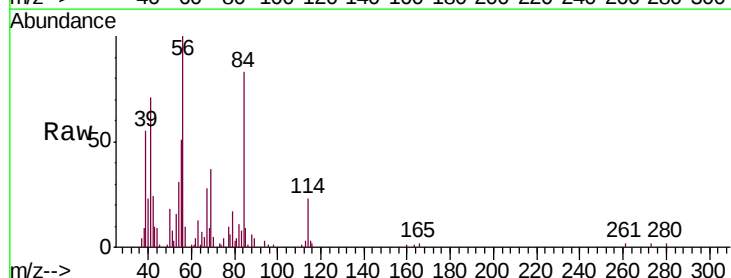
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

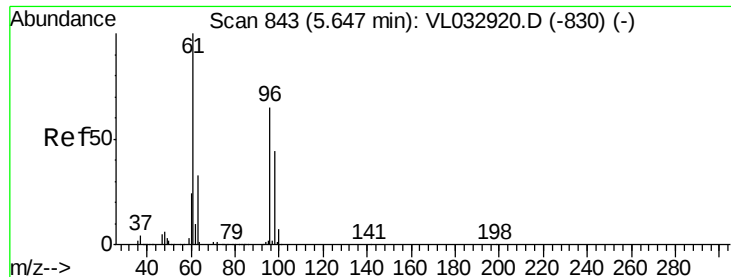
Tgt Ion: 83 Resp: 246945  
Ion Ratio Lower Upper  
83 100  
85 69.0 49.8 74.8



#30  
Cyclohexane  
Concen: 0.194 ppbv  
RT: 7.26 min Scan# 1344  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 84 Resp: 18523  
Ion Ratio Lower Upper  
84 100  
56 200.7 102.5 153.7#  
41 0.0 64.1 96.1#



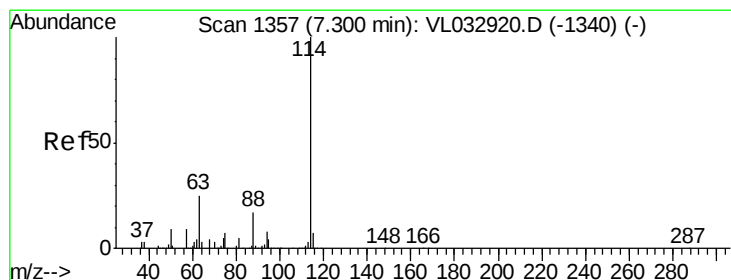
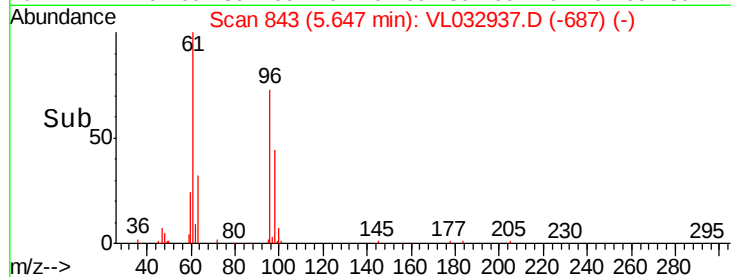
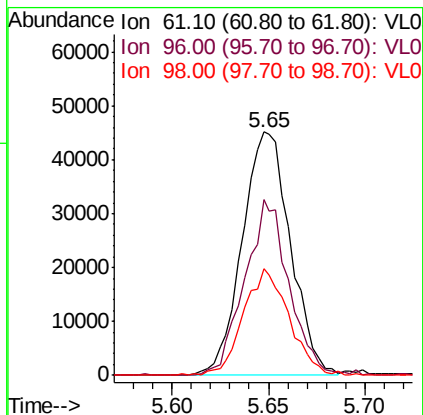
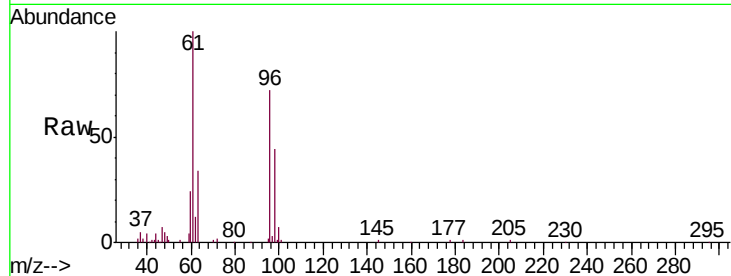


#31

cis-1,2-Dichloroethene  
Concen: 0.741 ppbv  
RT: 5.65 min Scan# 843  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

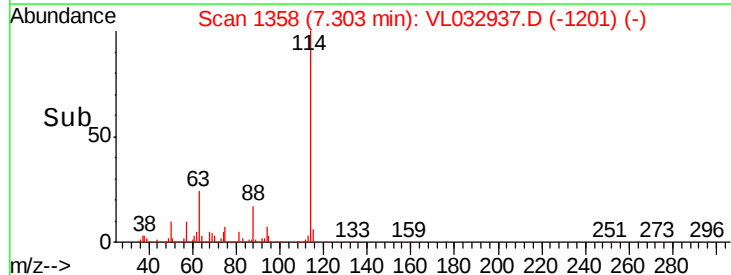
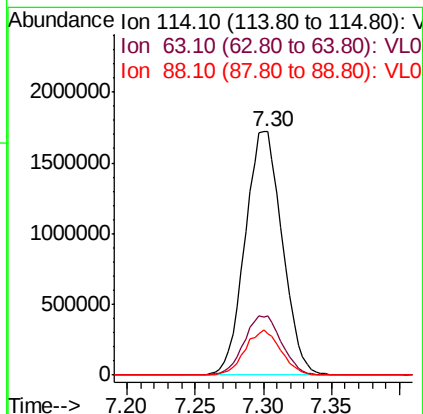
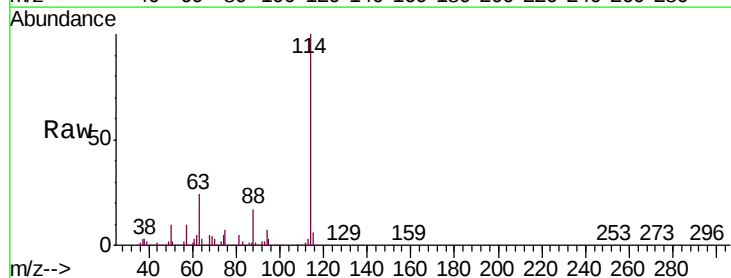
Tgt Ion: 61 Resp: 78252  
Ion Ratio Lower Upper  
61 100  
96 72.0 51.9 77.9  
98 43.6 35.0 52.4

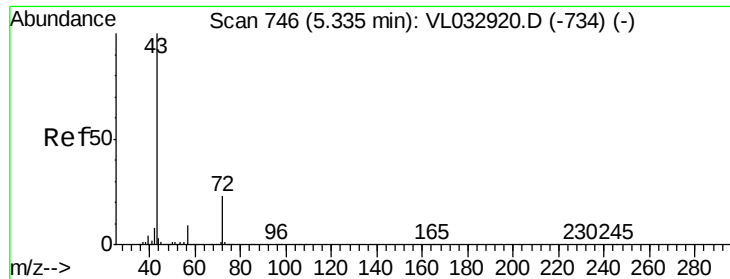


#33

1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.30 min Scan# 1358  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 114 Resp: 3256281  
Ion Ratio Lower Upper  
114 100  
63 24.7 20.1 30.1  
88 17.8 14.2 21.4

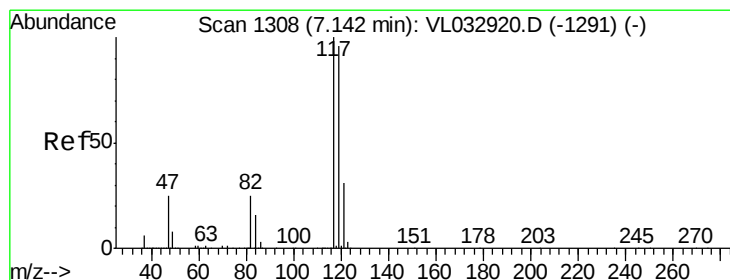
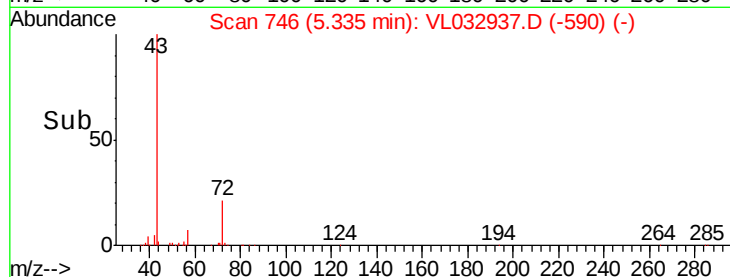
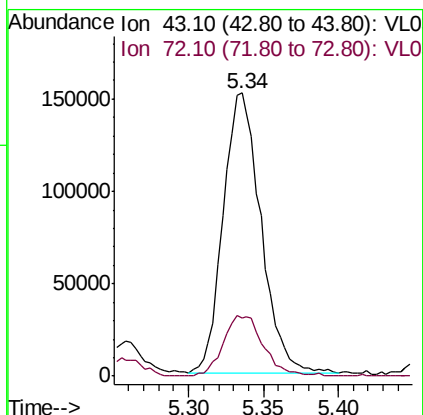
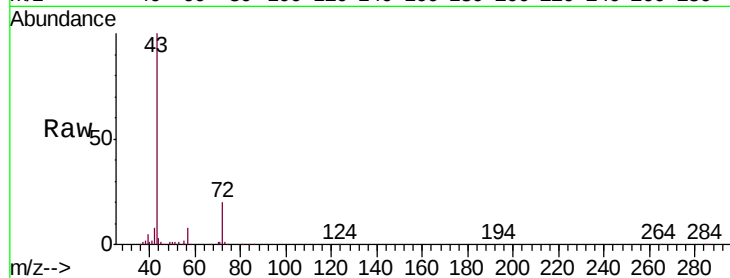




#34  
2-Butanone  
Concen: 1.884 ppbv  
RT: 5.34 min Scan# 746  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

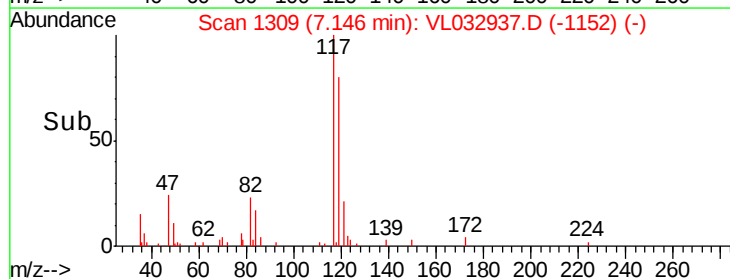
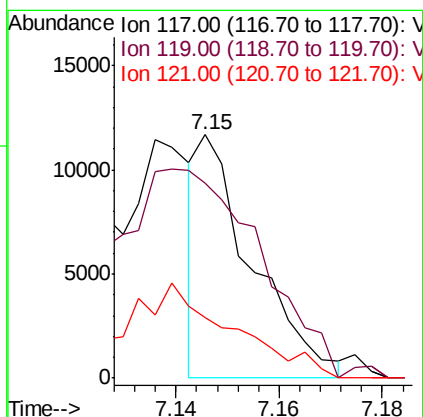
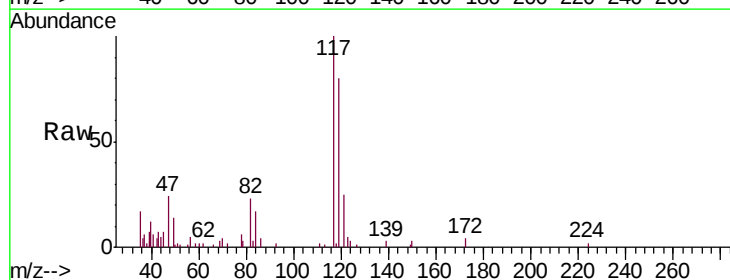
Instrument :  
MSVOA\_L  
ClientSampled :  
IA2

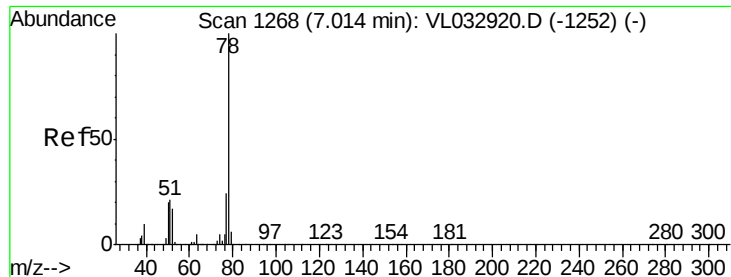
Tgt Ion: 43 Resp: 267239  
Ion Ratio Lower Upper  
43 100  
72 22.4 18.8 28.2



#35  
Carbon Tetrachloride  
Concen: 0.033 ppbv  
RT: 7.15 min Scan# 1309  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 117 Resp: 8479  
Ion Ratio Lower Upper  
117 100  
119 85.9 76.5 114.7  
121 26.5 24.5 36.7

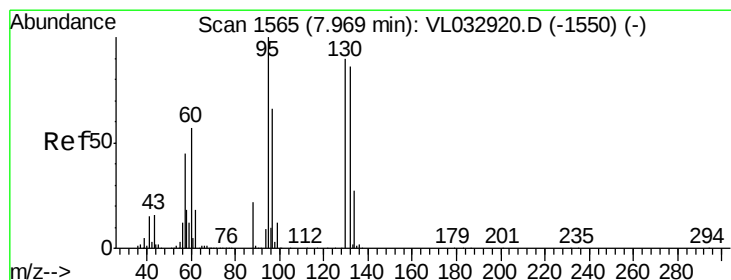
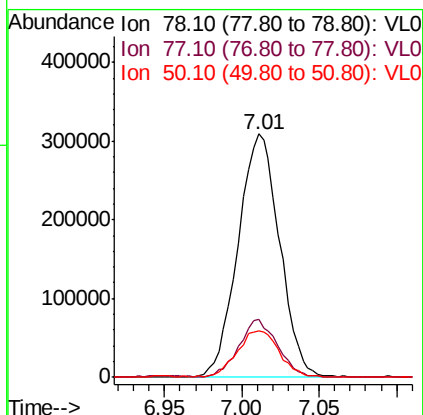
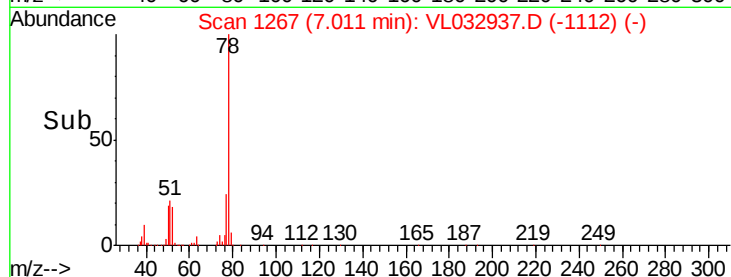
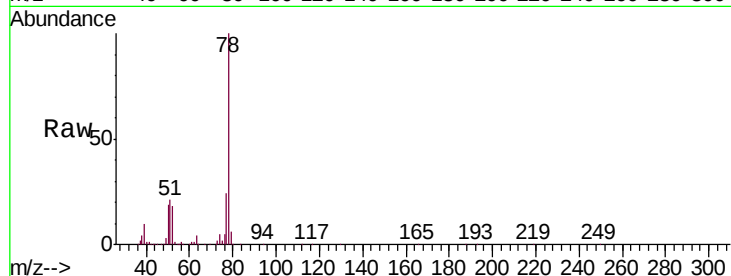




#36  
Benzene  
Concen: 2.389 ppbv  
RT: 7.01 min Scan# 1267  
Delta R.T. -0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

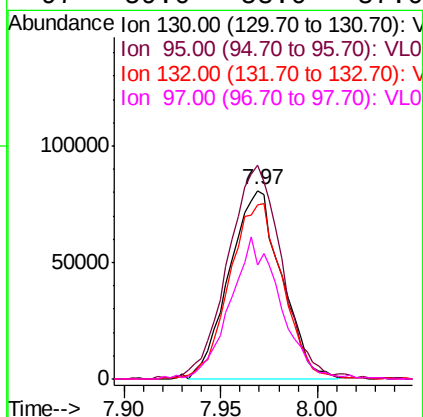
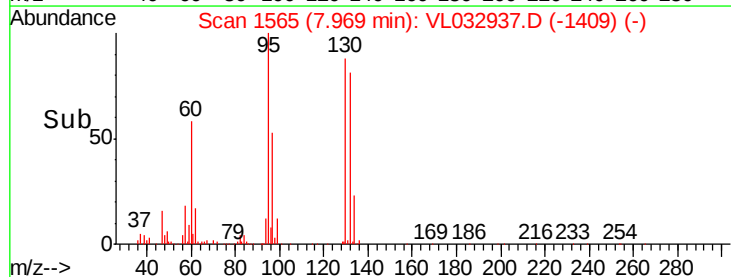
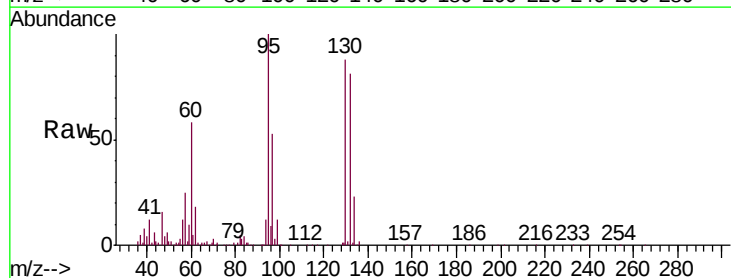
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

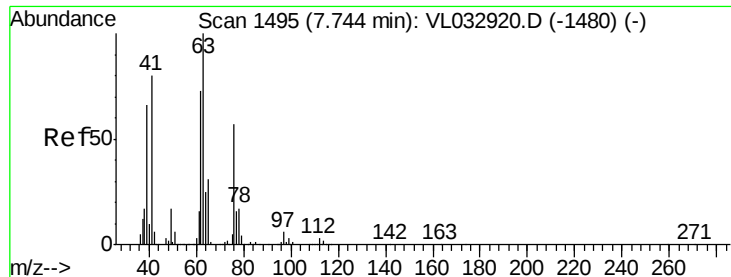
Tgt Ion: 78 Resp: 572139  
Ion Ratio Lower Upper  
78 100  
77 23.8 18.9 28.3  
50 19.0 16.1 24.1



#38  
Trichloroethene  
Concen: 1.531 ppbv  
RT: 7.97 min Scan# 1565  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 130 Resp: 152597  
Ion Ratio Lower Upper  
130 100  
95 110.3 88.6 132.8  
132 90.7 76.1 114.1  
97 59.0 58.0 87.0





#39

1,2-Dichloropropane

Concen: 8.738 ppbv

RT: 7.30 min Scan# 1356

Delta R.T. -0.45 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampled :

IA2

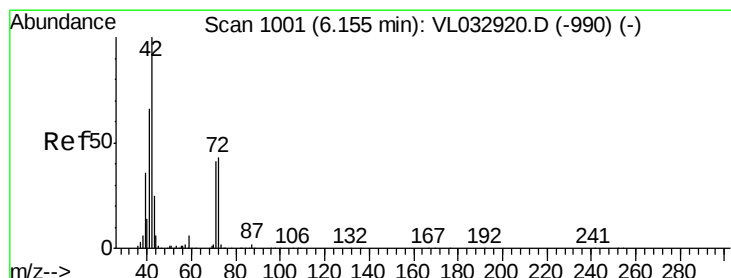
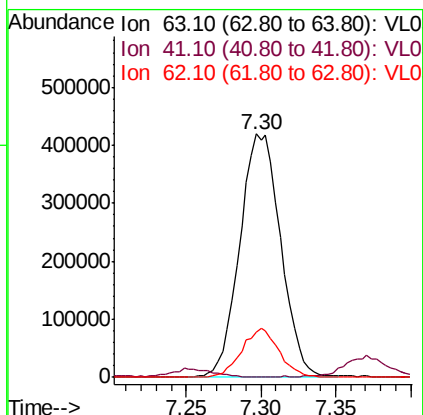
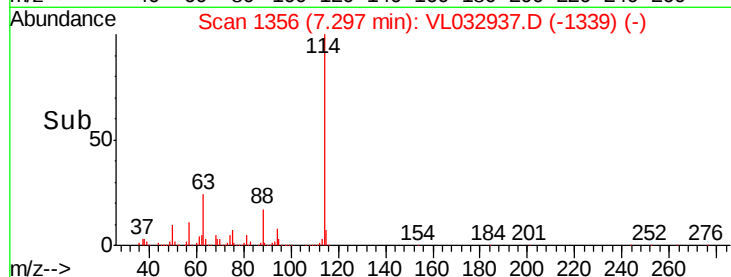
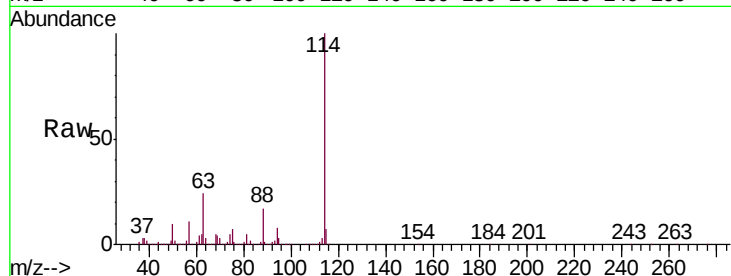
Tgt Ion: 63 Resp: 793674

Ion Ratio Lower Upper

63 100

41 0.0 63.9 95.9#

62 18.3 58.8 88.2#



#41

Tetrahydrofuran

Concen: 0.598 ppbv

RT: 6.16 min Scan# 1001

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

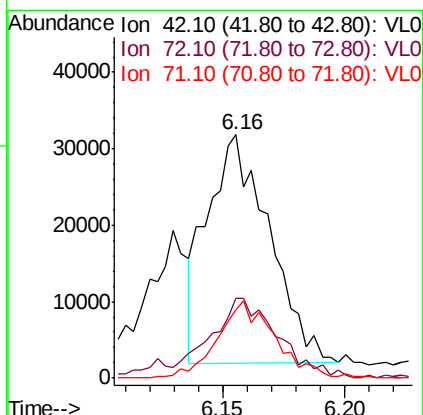
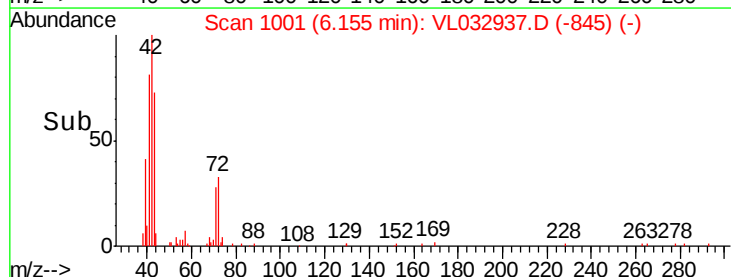
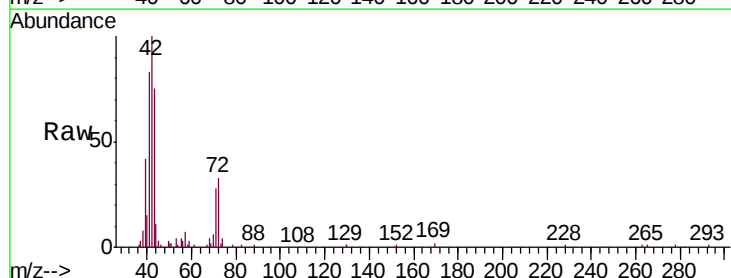
Tgt Ion: 42 Resp: 52772

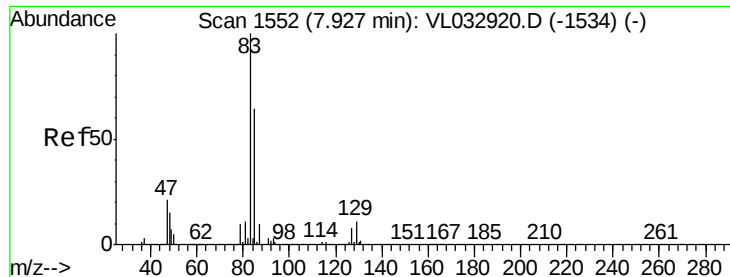
Ion Ratio Lower Upper

42 100

72 42.4 32.9 49.3

71 31.5 32.0 48.0#





#42

Bromodichloromethane

Concen: 0.072 ppbv

RT: 7.93 min Scan# 1552

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

IA2

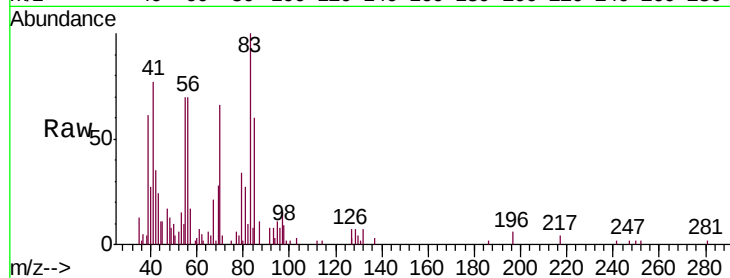
Tgt Ion: 83 Resp: 16239

Ion Ratio Lower Upper

83 100

85 57.9 50.9 76.3

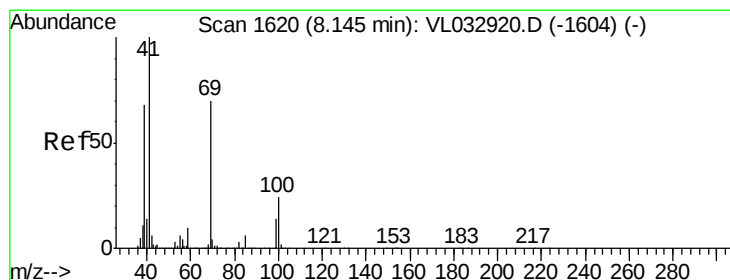
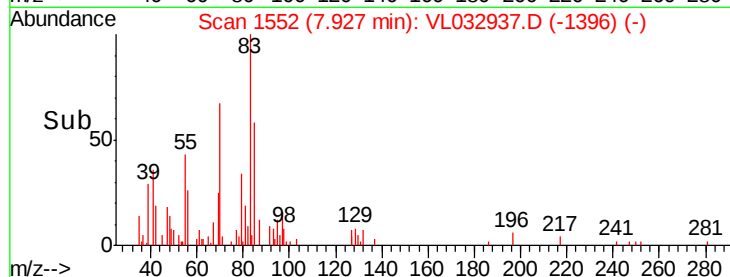
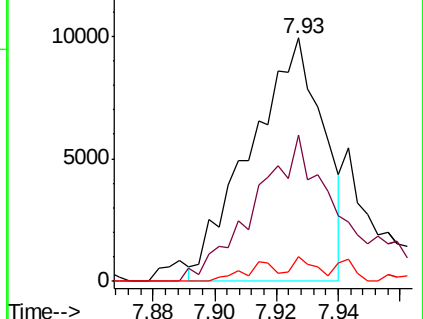
127 10.8 6.7 10.1#



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): VL0



#43

Methyl Methacrylate

Concen: 0.257 ppbv

RT: 8.15 min Scan# 1620

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

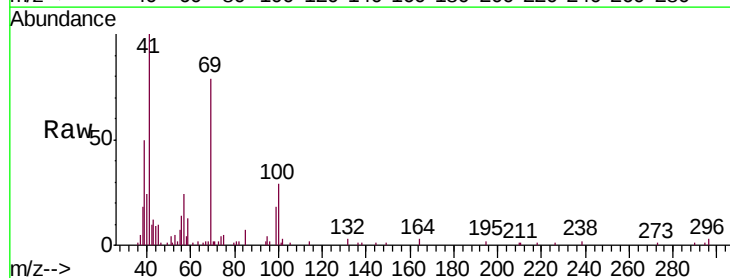
Tgt Ion: 69 Resp: 22787

Ion Ratio Lower Upper

69 100

41 187.2 116.6 175.0#

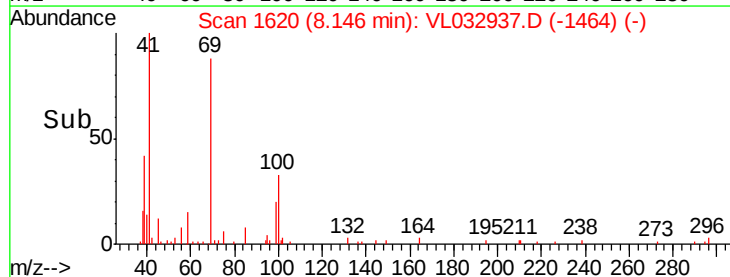
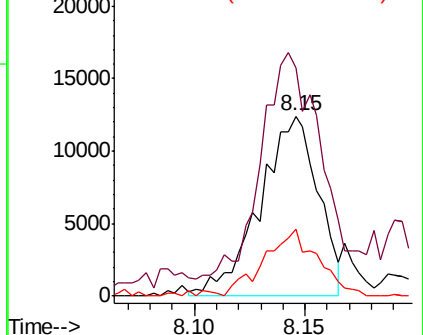
100 35.3 26.5 39.7

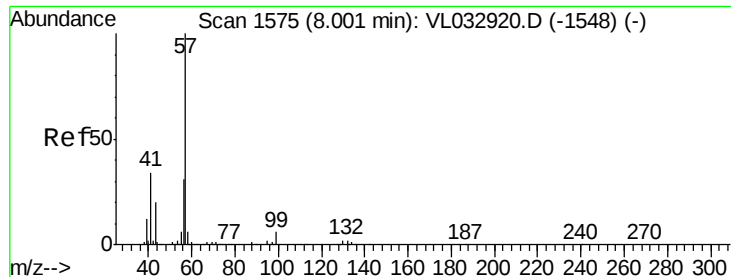


Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0

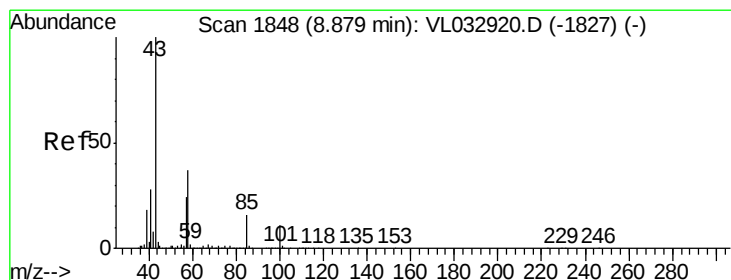
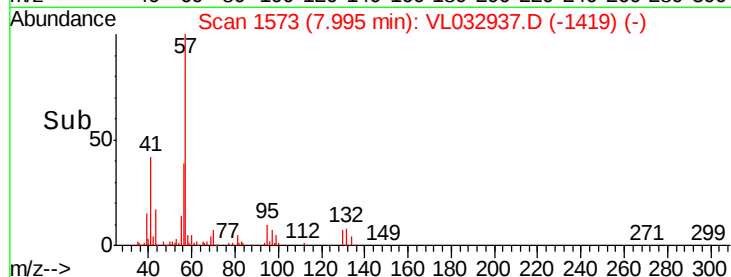
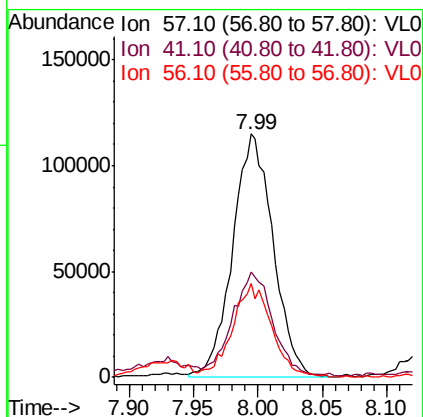
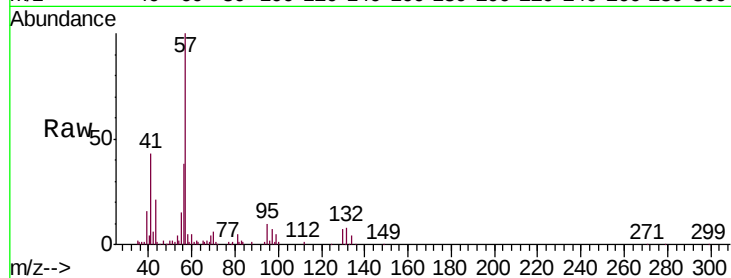




#44  
 2,2,4-Trimethylpentane  
 Concen: 0.616 ppbv  
 RT: 7.99 min Scan# 1573  
 Delta R.T. -0.01 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

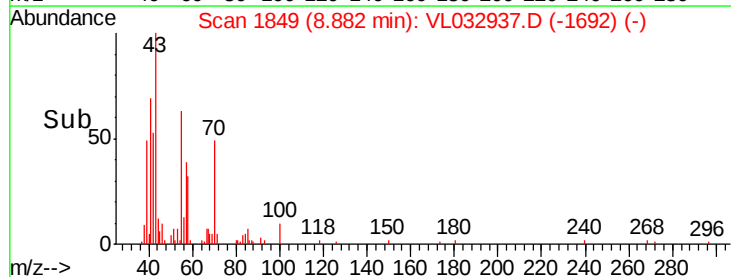
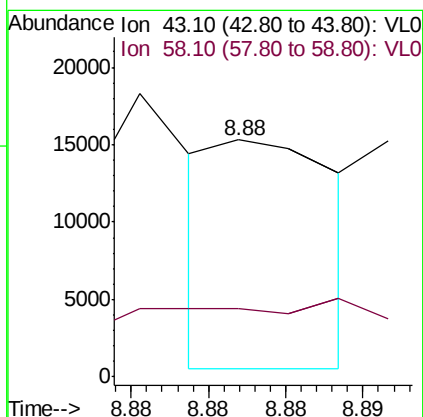
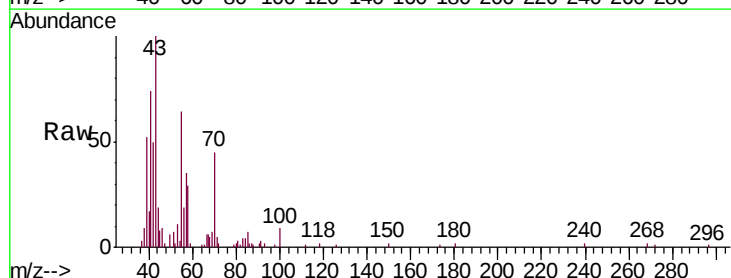
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

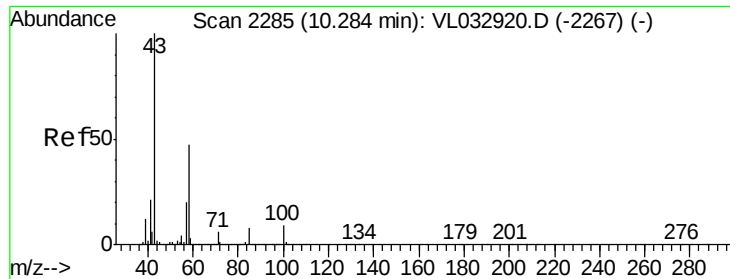
Tgt Ion: 57 Resp: 250318  
 Ion Ratio Lower Upper  
 57 100  
 41 43.8 27.0 40.4#  
 56 36.9 24.6 37.0



#50  
 4-Methyl-2-Pentanone  
 Concen: 0.035 ppbv  
 RT: 8.88 min Scan# 1849  
 Delta R.T. 0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion: 43 Resp: 8045  
 Ion Ratio Lower Upper  
 43 100  
 58 0.0 29.0 43.4#





#51

2-Hexanone

Concen: 0.030 ppbv

RT: 10.29 min Scan# 2286

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

IA2

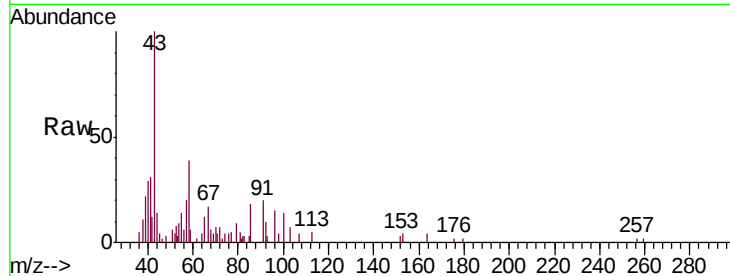
Tgt Ion: 43 Resp: 4644

Ion Ratio Lower Upper

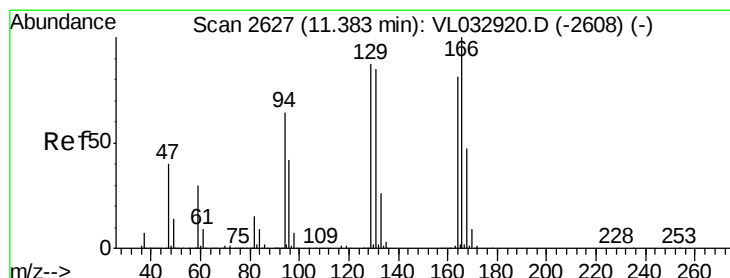
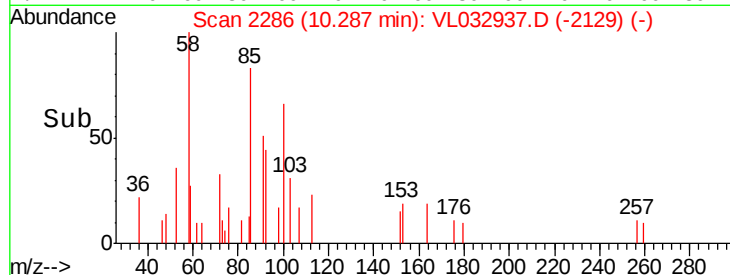
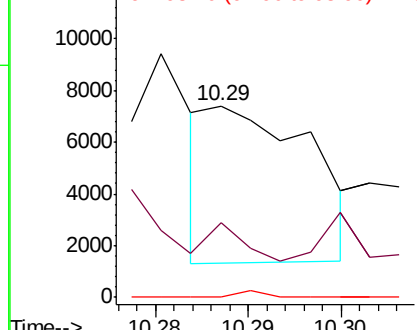
43 100

58 0.0 38.1 57.1#

98 0.0 0.4 0.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0  
Ion 58.10 (57.80 to 58.80): VL0  
Ion 98.20 (97.90 to 98.90): VL0



#52

Tetrachloroethene

Concen: 6.917 ppbv

RT: 11.38 min Scan# 2626

Delta R.T. -0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Tgt Ion: 164 Resp: 602632

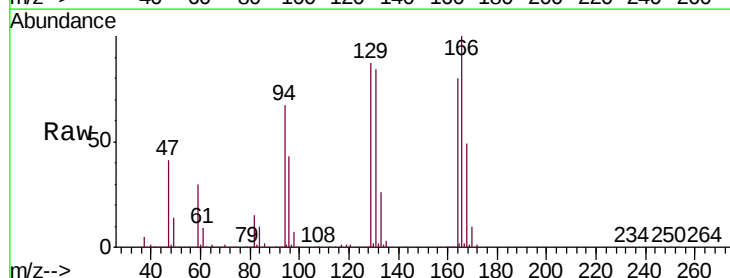
Ion Ratio Lower Upper

164 100

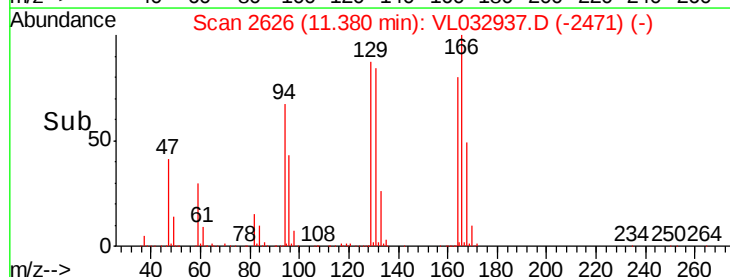
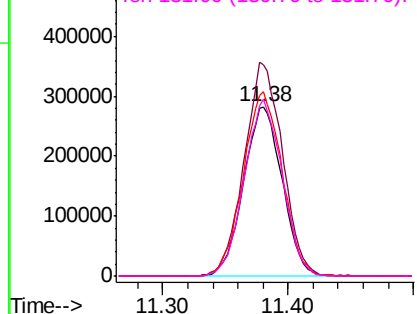
166 125.2 98.8 148.2

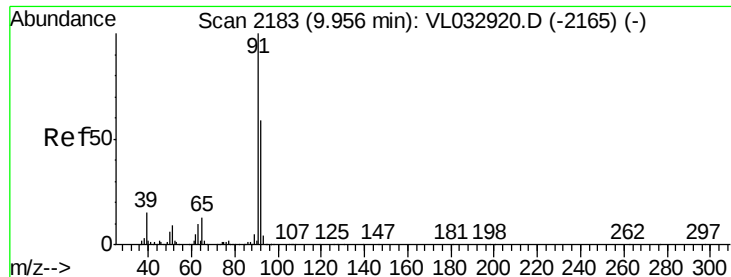
129 108.9 85.5 128.3

131 104.7 84.4 126.6



Abundance Ion 163.90 (163.60 to 164.60): V  
Ion 165.90 (165.60 to 166.60): V  
Ion 129.00 (128.70 to 129.70): V  
Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 4.282 ppbv

RT: 9.95 min Scan# 2182

Delta R.T. -0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

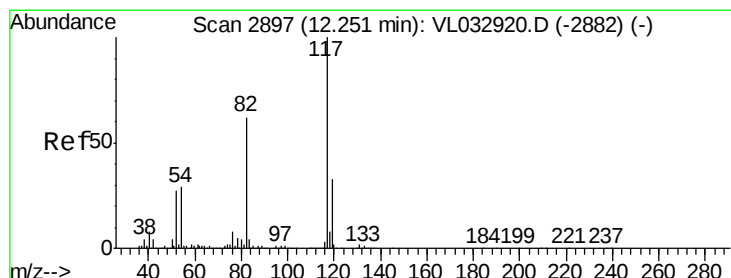
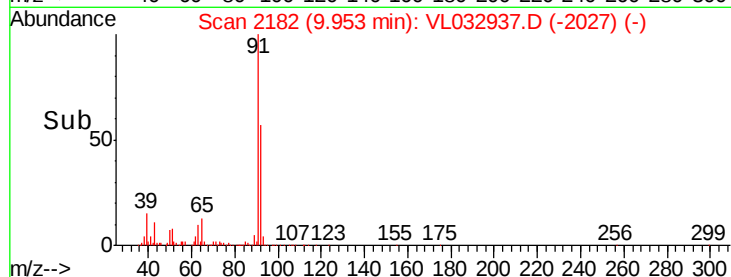
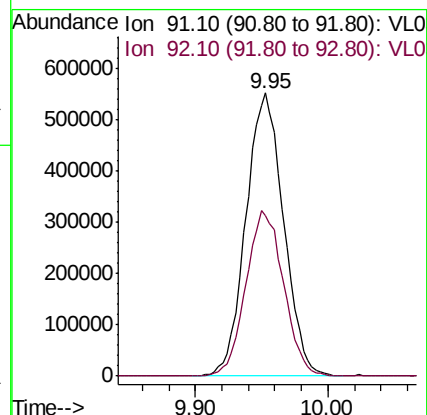
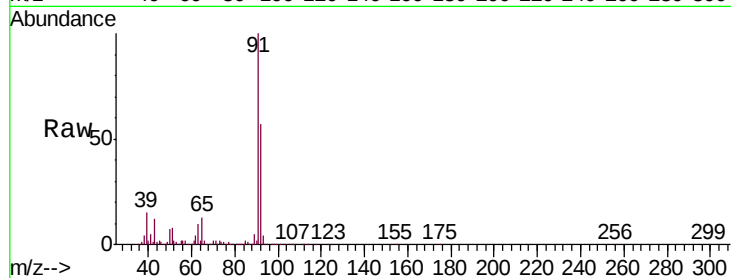
IA2

Tgt Ion: 91 Resp: 1087790

Ion Ratio Lower Upper

91 100

92 58.6 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2896

Delta R.T. -0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

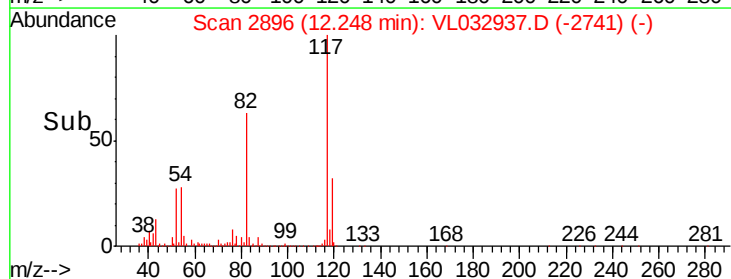
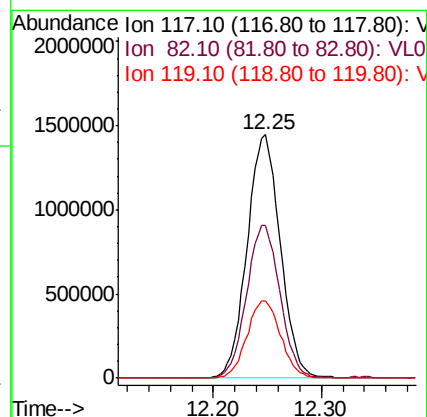
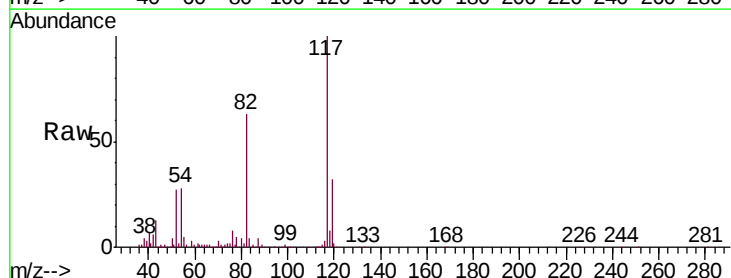
Tgt Ion: 117 Resp: 3098625

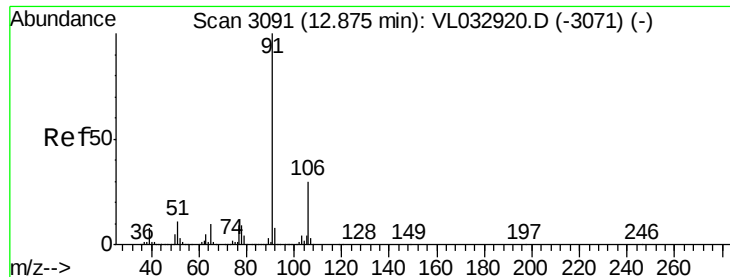
Ion Ratio Lower Upper

117 100

82 63.2 47.8 71.8

119 32.3 43.1 64.7#





#58

Ethyl Benzene

Concen: 0.201 ppbv

RT: 12.88 min Scan# 3091

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

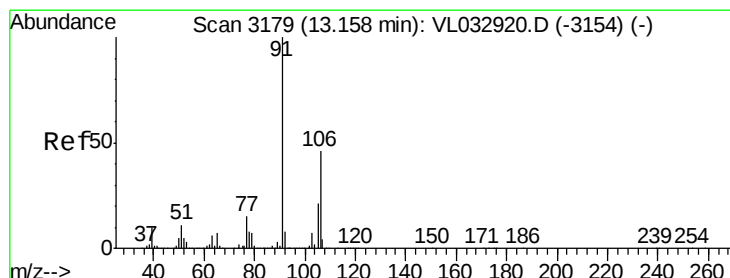
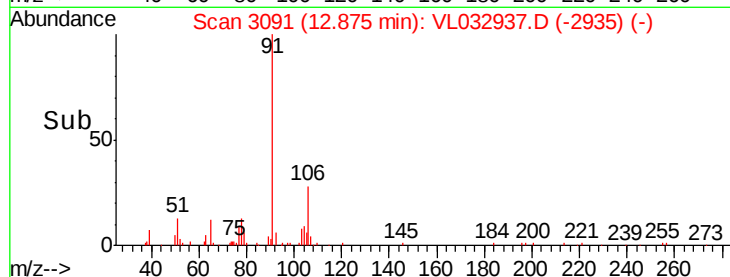
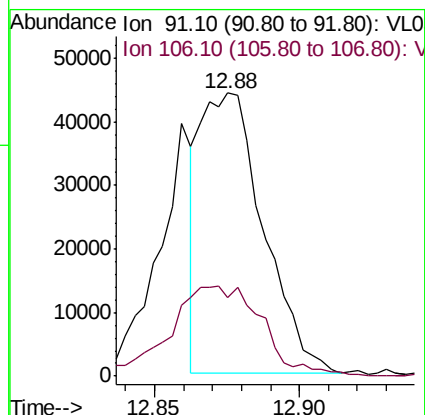
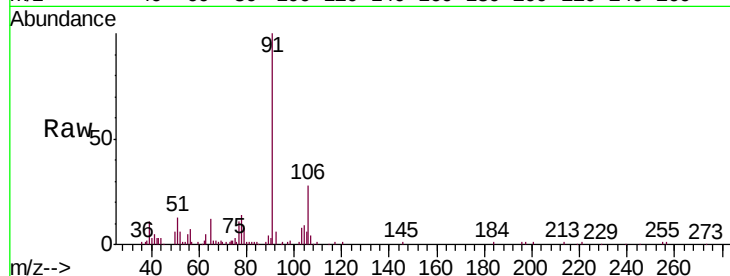
IA2

Tgt Ion: 91 Resp: 66331

Ion Ratio Lower Upper

91 100

106 26.7 23.9 35.9



#59

m/p-Xylene

Concen: 0.156 ppbv

RT: 13.16 min Scan# 3179

Delta R.T. 0.00 min

Lab File: VL032937.D

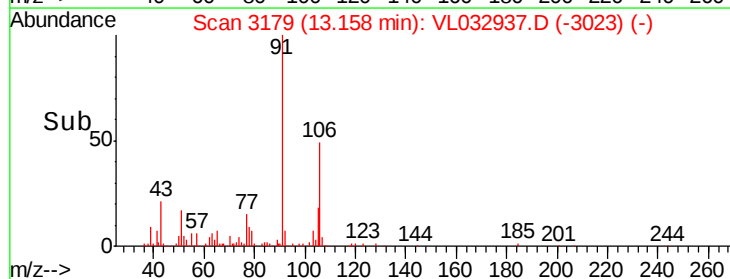
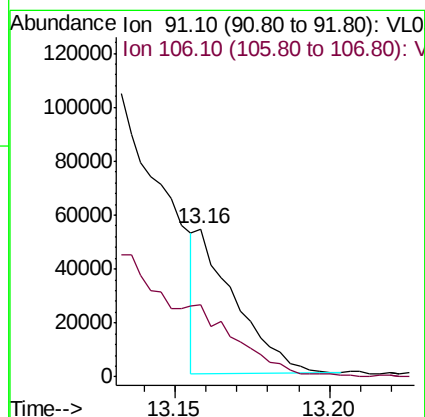
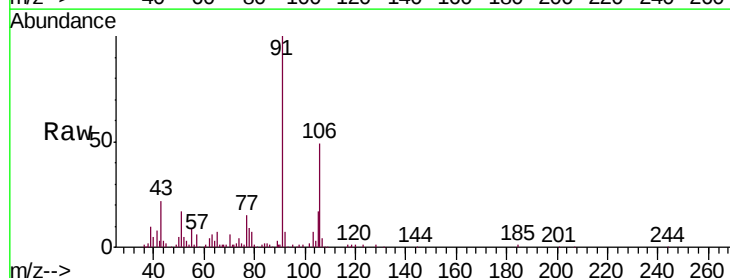
Acq: 7 Dec 2018 16:33

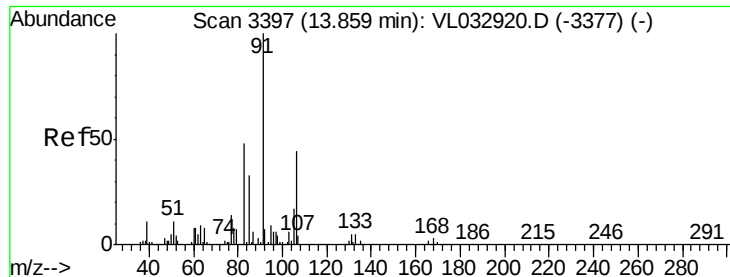
Tgt Ion: 91 Resp: 46718

Ion Ratio Lower Upper

91 100

106 0.0 0.0 0.0

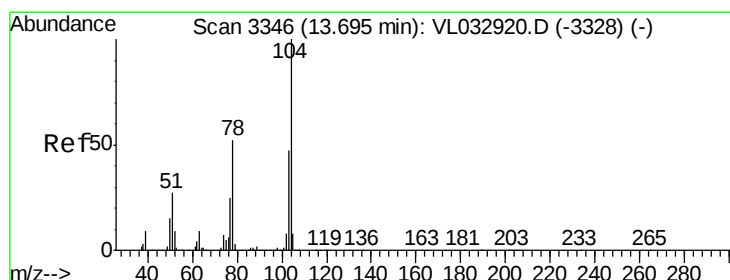
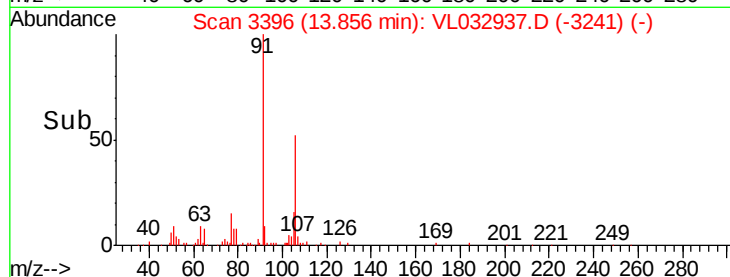
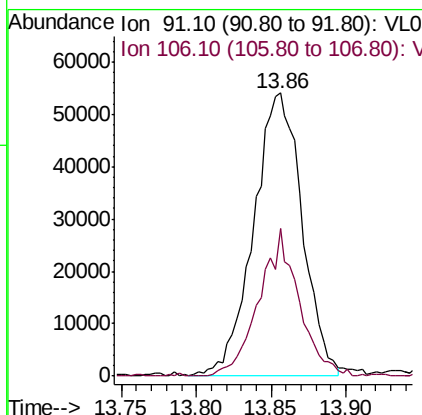
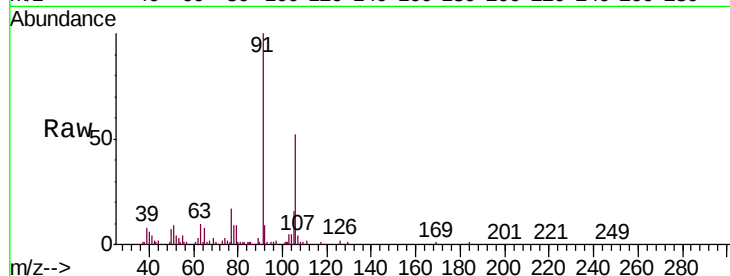




#60  
o-Xylene  
Concen: 0.398 ppbv  
RT: 13.86 min Scan# 3396  
Delta R.T. -0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

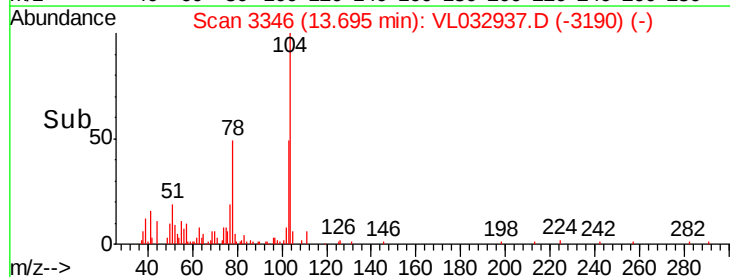
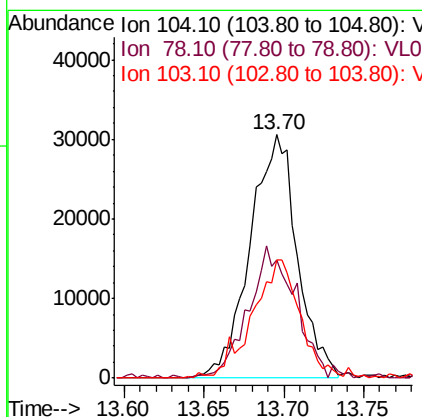
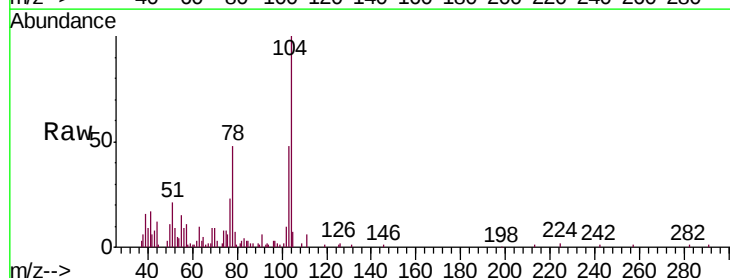
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

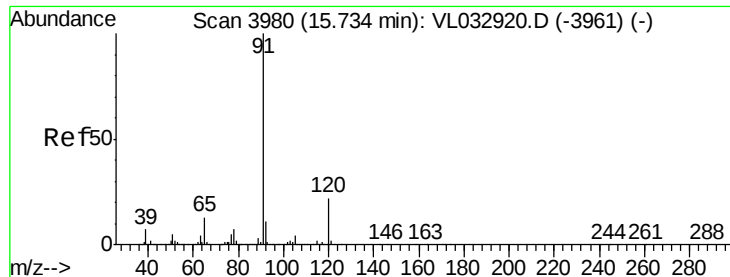
Tgt Ion: 91 Resp: 120600  
Ion Ratio Lower Upper  
91 100  
106 43.2 21.9 65.8



#61  
Styrene  
Concen: 0.308 ppbv  
RT: 13.70 min Scan# 3346  
Delta R.T. 0.00 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 104 Resp: 61985  
Ion Ratio Lower Upper  
104 100  
78 55.5 42.0 63.0  
103 49.7 38.3 57.5





#64

n-propylbenzene

Concen: 0.068 ppbv

RT: 15.73 min Scan# 3980

Delta R.T. 0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampled :

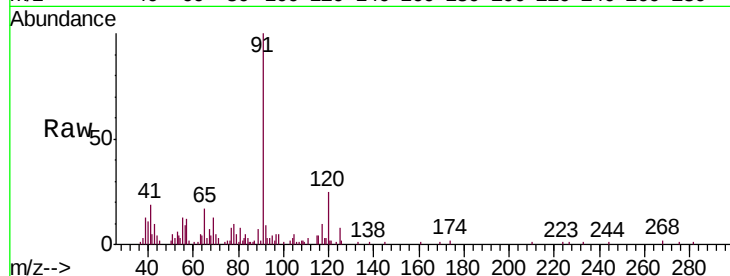
IA2

Tgt Ion:120 Resp: 7447

Ion Ratio Lower Upper

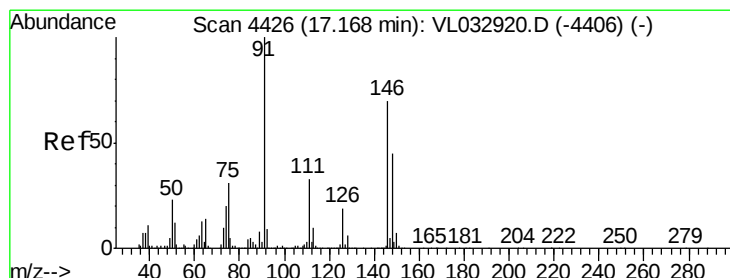
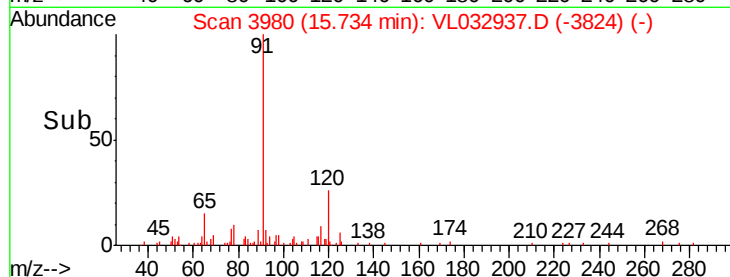
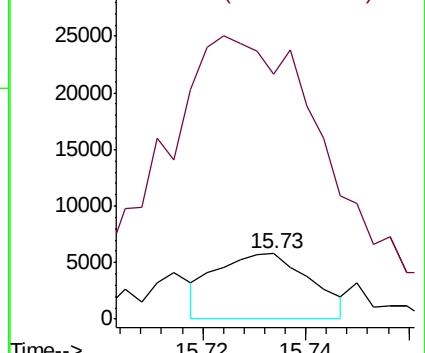
120 100

91 820.8 380.4 570.6#



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#66

Benzyl Chloride

Concen: 0.106 ppbv

RT: 16.93 min Scan# 4353

Delta R.T. -0.23 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

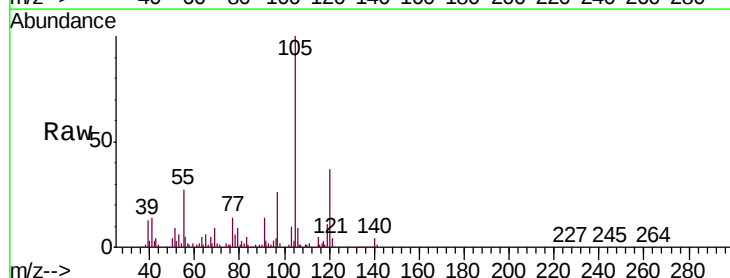
Tgt Ion: 91 Resp: 23029

Ion Ratio Lower Upper

91 100

126 0.6 14.1 21.1#

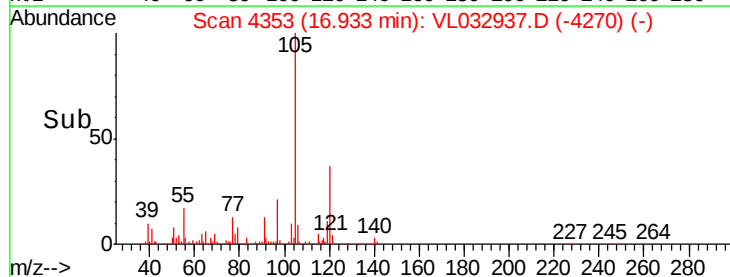
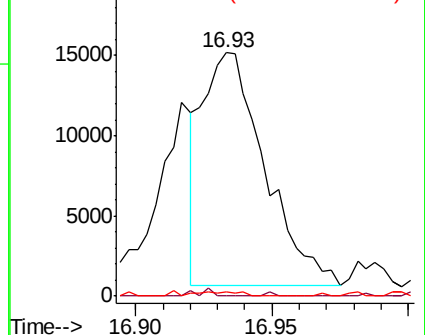
128 1.0 4.5 6.7#

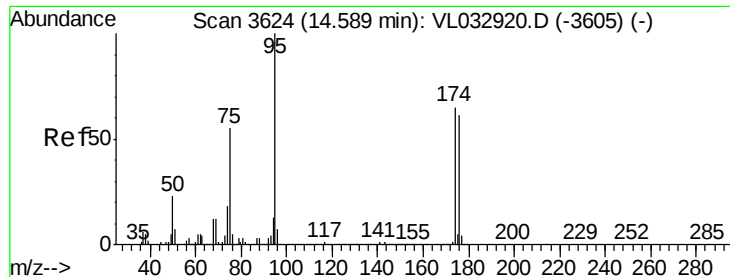


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V

Ion 128.10 (127.80 to 128.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.799 ppbv

RT: 14.58 min Scan# 3622

Delta R.T. -0.01 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampled :

IA2

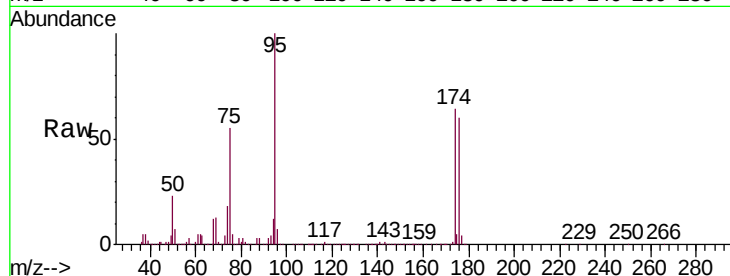
Tgt Ion: 95 Resp: 2472176

Ion Ratio Lower Upper

95 100

174 65.2 51.4 77.0

175 4.9 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL032937.D (-3605) (-)

Ion 174.00 (173.70 to 174.70): VL032937.D (-3605) (-)

Ion 175.00 (174.70 to 175.70): VL032937.D (-3605) (-)

1500000

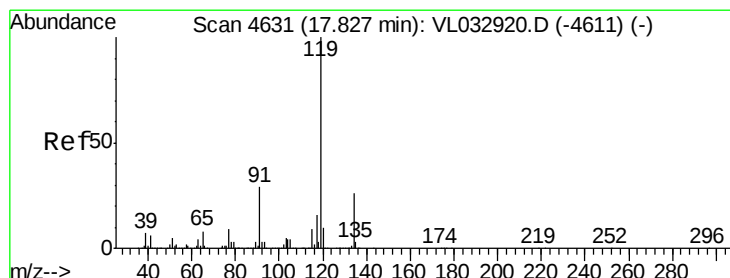
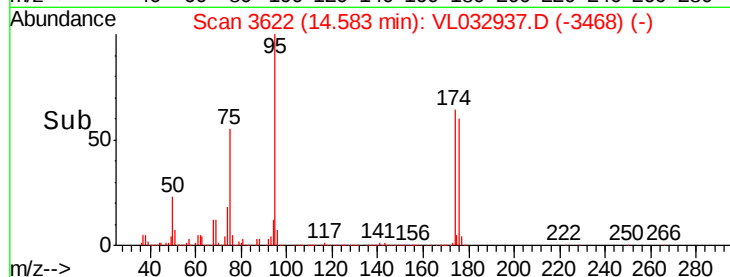
1000000

500000

0

14.50 14.60

Time-->



#69

p-Isopropyltoluene

Concen: 0.590 ppbv

RT: 17.82 min Scan# 4630

Delta R.T. -0.00 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

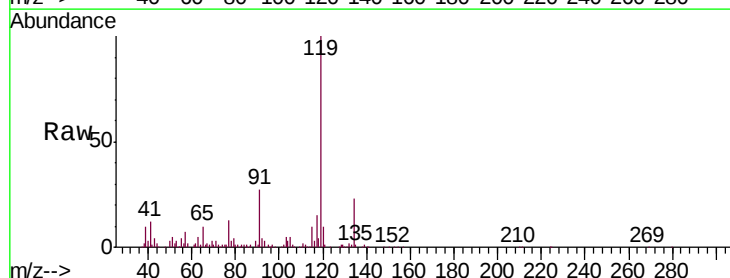
Tgt Ion: 119 Resp: 275848

Ion Ratio Lower Upper

119 100

134 26.7 20.2 30.2

91 31.0 22.9 34.3



Abundance Ion 119.10 (118.80 to 119.80): VL032937.D (-4611) (-)

Ion 134.20 (133.90 to 134.90): VL032937.D (-4611) (-)

Ion 91.10 (90.80 to 91.80): VL032937.D (-4611) (-)

150000

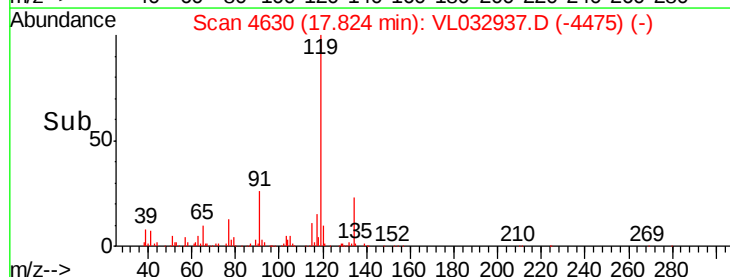
100000

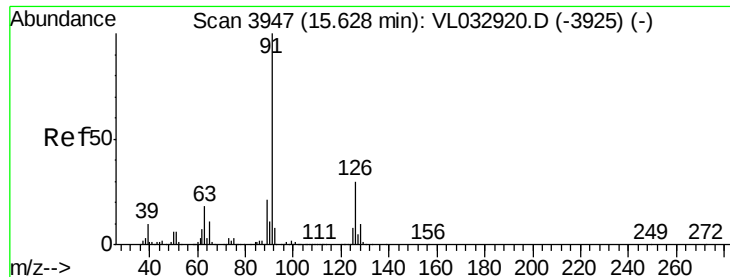
50000

0

17.80 17.90

Time-->

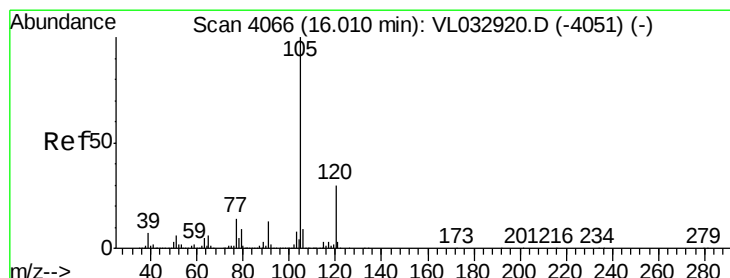
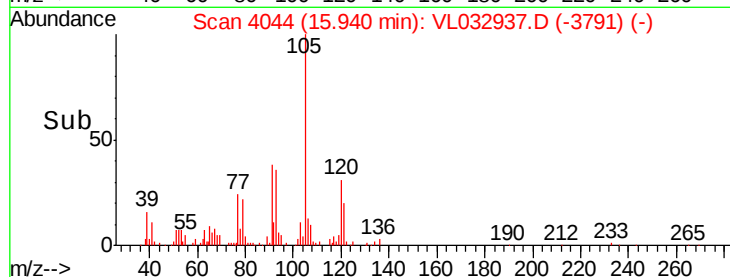
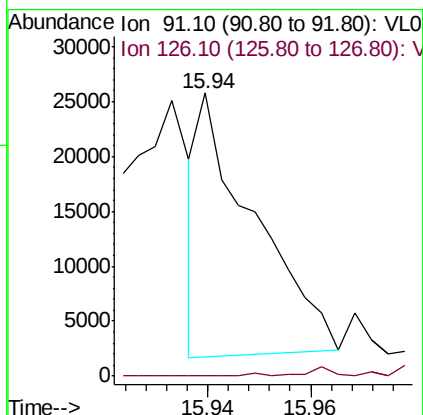
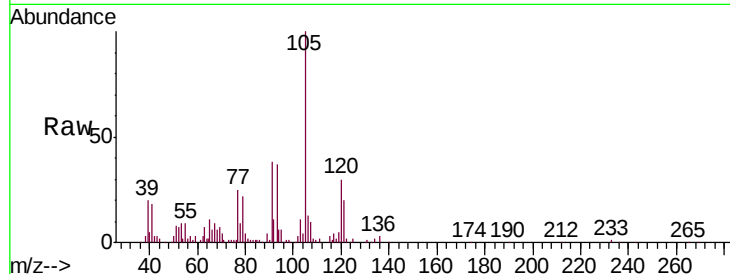




#71  
2-Chlorotoluene  
Concen: 0.057 ppbv  
RT: 15.94 min Scan# 4044  
Delta R.T. 0.31 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

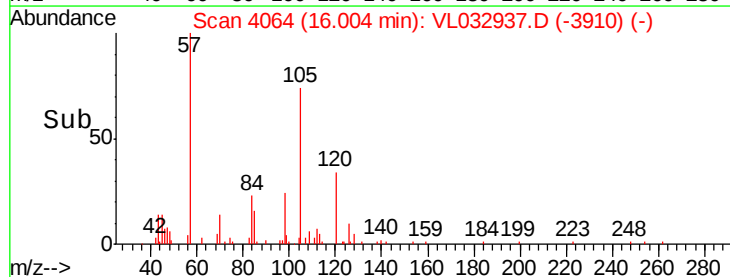
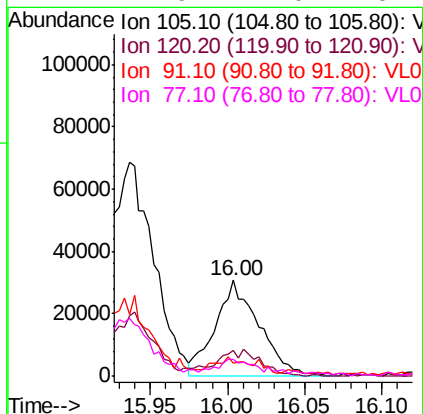
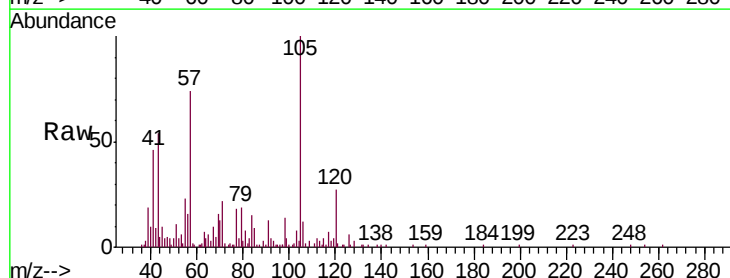
Instrument :  
MSVOA\_L  
ClientSampleId :  
IA2

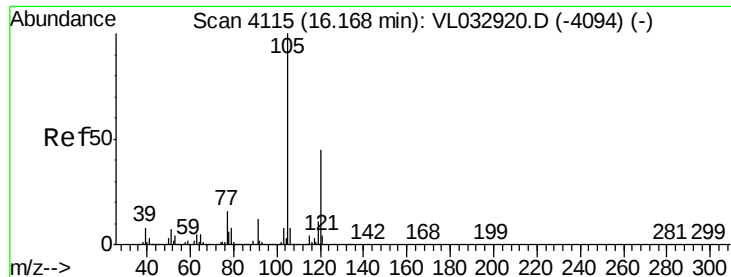
Tgt Ion: 91 Resp: 17984  
Ion Ratio Lower Upper  
91 100  
126 35.5 12.3 49.3



#72  
4-Ethyltoluene  
Concen: 0.176 ppbv  
RT: 16.00 min Scan# 4064  
Delta R.T. -0.01 min  
Lab File: VL032937.D  
Acq: 7 Dec 2018 16:33

Tgt Ion: 105 Resp: 59524  
Ion Ratio Lower Upper  
105 100  
120 30.5 23.0 34.4  
91 18.2 10.4 15.6#  
77 17.9 11.0 16.4#

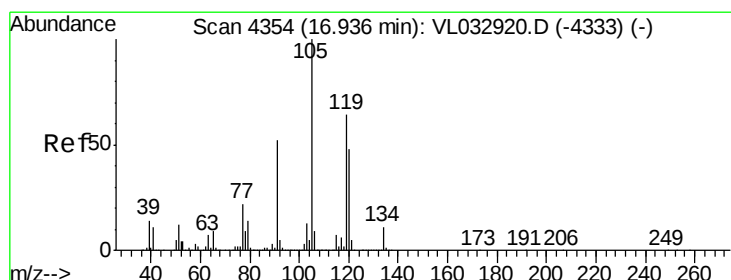
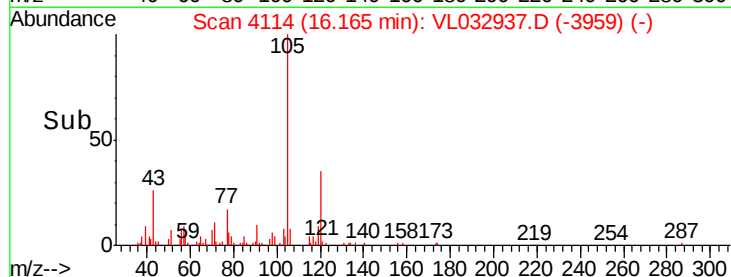
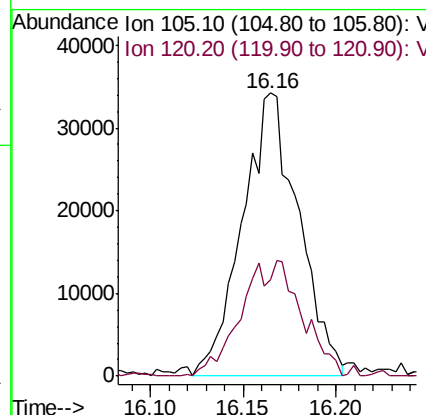
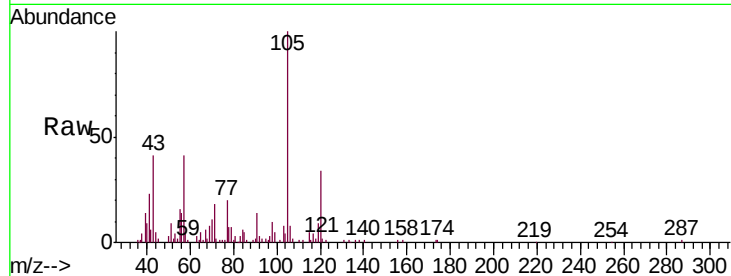




#73  
 1,3,5-Trimethylbenzene  
 Concen: 0.219 ppbv  
 RT: 16.16 min Scan# 4114  
 Delta R.T. -0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

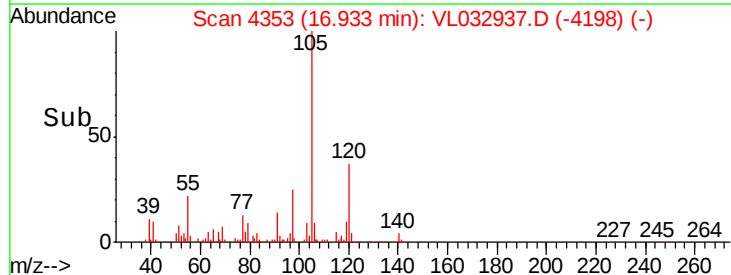
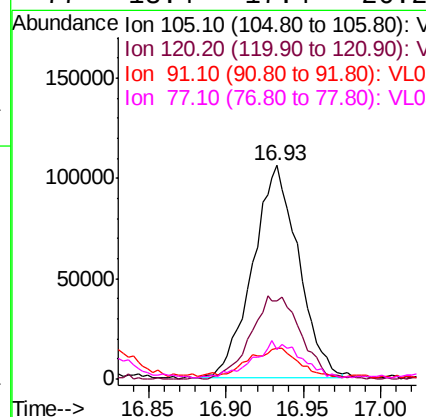
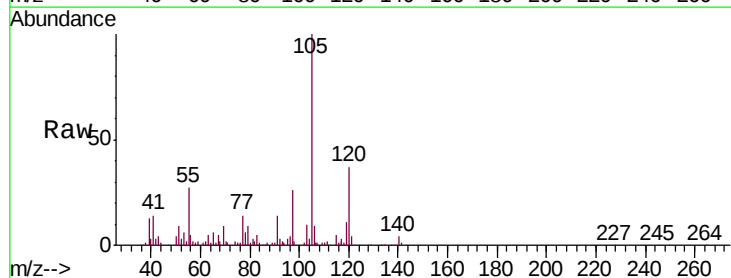
Instrument :  
 MSVOA\_L  
 ClientSampled :  
 IA2

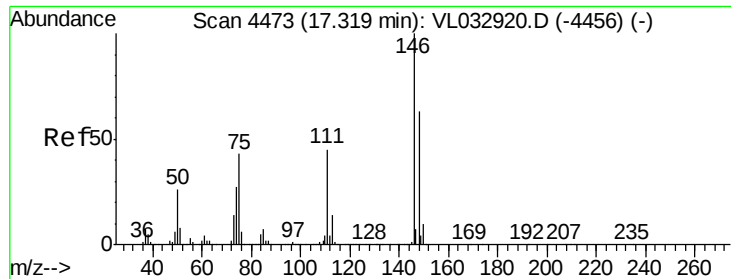
Tgt Ion:105 Resp: 72220  
 Ion Ratio Lower Upper  
 105 100  
 120 36.5 36.0 54.0



#74  
 1,2,4-Trimethylbenzene  
 Concen: 0.585 ppbv  
 RT: 16.93 min Scan# 4353  
 Delta R.T. -0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion:105 Resp: 217960  
 Ion Ratio Lower Upper  
 105 100  
 120 36.2 38.6 58.0#  
 91 13.7 41.7 62.5#  
 77 13.4 17.4 26.2#

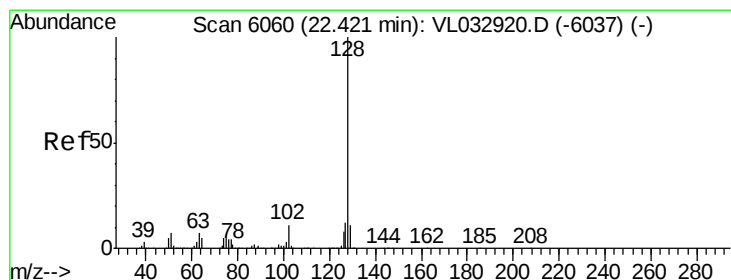
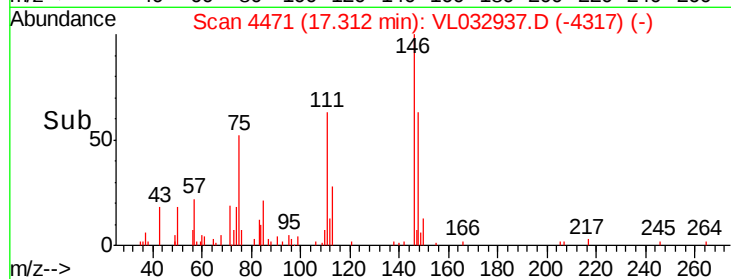
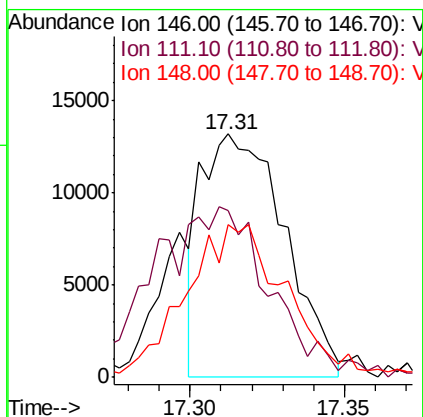
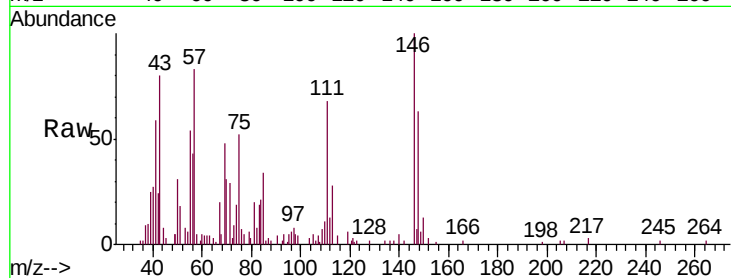




#76  
 1,4-Dichlorobenzene  
 Concen: 0.120 ppbv  
 RT: 17.31 min Scan# 4471  
 Delta R.T. -0.01 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

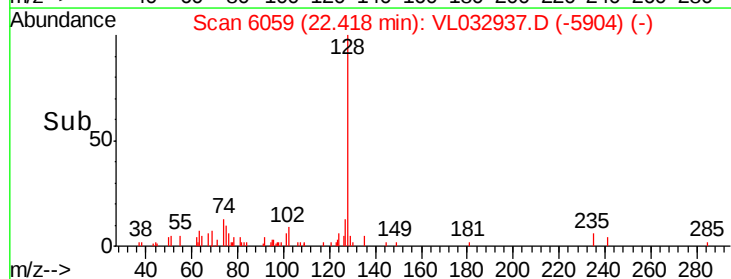
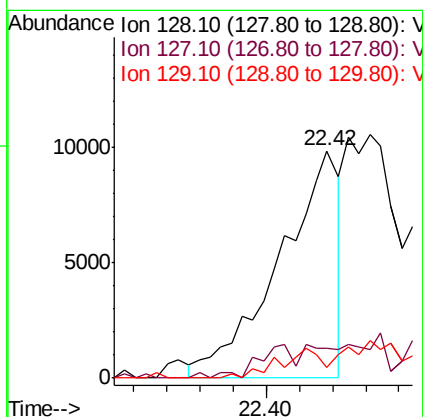
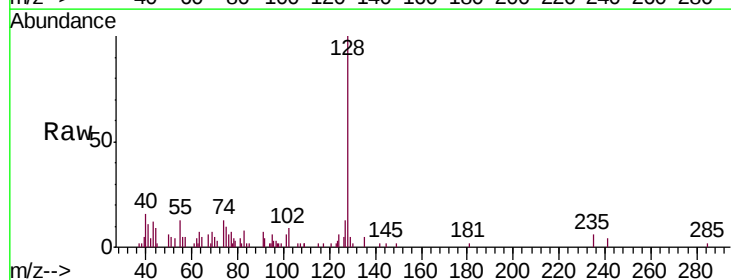
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IA2

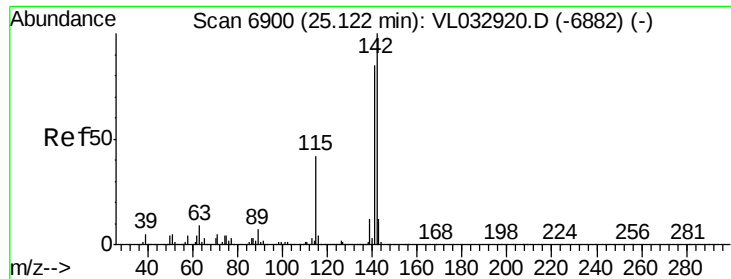
Tgt Ion:146 Resp: 24644  
 Ion Ratio Lower Upper  
 146 100  
 111 105.9 22.8 68.4#  
 148 78.5 32.0 96.2



#79  
 Naphthalene  
 Concen: 0.052 ppbv  
 RT: 22.42 min Scan# 6059  
 Delta R.T. -0.00 min  
 Lab File: VL032937.D  
 Acq: 7 Dec 2018 16:33

Tgt Ion:128 Resp: 12390  
 Ion Ratio Lower Upper  
 128 100  
 127 13.3 9.9 14.9  
 129 4.7 8.6 13.0#





#80

Naphthalene, 2-methyl-

Concen: 0.036 ppbv

RT: 25.12 min Scan# 6898

Delta R.T. -0.01 min

Lab File: VL032937.D

Acq: 7 Dec 2018 16:33

Instrument :

MSVOA\_L

ClientSampleId :

IA2

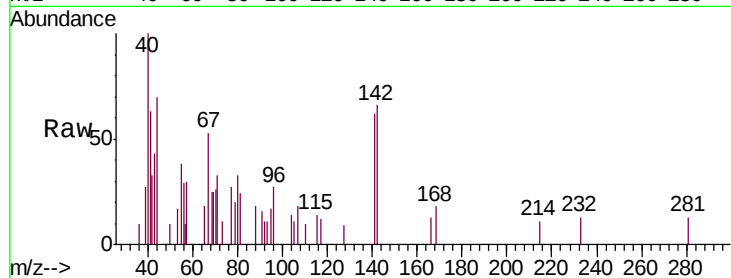
Tgt Ion:142 Resp: 1874

Ion Ratio Lower Upper

142 100

141 103.0 68.2 102.2#

115 37.8 35.1 52.7



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

