

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_L\DATA\VL091018\  
 Data File : VL032496.D  
 Acq On : 11 Sep 2018 2:41  
 Operator : SY/AP  
 Sample : 4820-06  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 253-BERRY

Quant Time: Sep 11 05:31:00 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL083118AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 31 21:33:46 2018  
 QLast Update : Fri Aug 31 21:33:46 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.82  | 49   | 1349623  | 10.00 | ppbv  | 0.00     |
| 33) 1,4-Difluorobenzene | 7.35  | 114  | 3225875  | 10.00 | ppbv  | 0.00     |
| 55) Chlorobenzene-d5    | 12.29 | 117  | 3189907  | 10.00 | ppbv  | 0.00     |

## System Monitoring Compounds

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 68) 1-Bromo-4-Fluorobenzene | 14.62  | 95    | 2458567  | 10.38    | ppbv | -0.01   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 103.80% |

## Target Compounds

|                                |       |     |          |         |        | Qvalue |
|--------------------------------|-------|-----|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane     | 3.10  | 85  | 49954    | 0.289   | ppbv   | 94     |
| 3) Chlorodifluoromethane       | 3.01  | 51  | 94079    | 0.770   | ppbv # | 78     |
| 4) Chloromethane               | 3.20  | 50  | 76499    | 1.034   | ppbv   | 96     |
| 7) Chloroethane                | 3.63  | 64  | 9055     | 0.358   | ppbv # | 87     |
| 9) Propene                     | 3.06  | 41  | 3614971  | 73.354  | ppbv   | 96     |
| 10) Heptane                    | 8.29  | 43  | 205688   | 1.163   | ppbv   | 100    |
| 11) Trichlorofluoromethane     | 4.04  | 101 | 66447    | 0.427   | ppbv   | 92     |
| 12) 1,1,2-Trichlorotrifluoroet | 4.60  | 101 | 5906     | 0.056   | ppbv # | 43     |
| 13) Ethanol                    | 3.70  | 45  | 503008   | 32.744  | ppbv   | 98     |
| 15) Acetone                    | 3.94  | 43  | 7338455  | 60.381  | ppbv # | 60     |
| 16) 1,3-Butadiene              | 3.42  | 39  | 242103   | 4.233   | ppbv # | 1      |
| 17) tert-Butyl alcohol         | 4.41  | 59  | 210608   | 11.260  | ppbv # | 100    |
| 19) Isopropyl Alcohol          | 4.08  | 45  | 33208    | 0.417   | ppbv # | 93     |
| 20) Methylene Chloride         | 4.45  | 84  | 498307   | 10.753  | ppbv   | 94     |
| 21) Allyl Chloride             | 4.51  | 41  | 21236    | 0.263   | ppbv # | 23     |
| 23) Vinyl Acetate              | 5.23  | 43  | 388933   | 1.931   | ppbv # | 57     |
| 25) Ethyl Acetate              | 5.82  | 43  | 572505   | 1.995   | ppbv # | 79     |
| 26) Hexane                     | 5.82  | 57  | 745743   | 5.803   | ppbv # | 9      |
| 27) Carbon Disulfide           | 4.66  | 76  | 201970   | 1.702   | ppbv # | 93     |
| 28) Methyl tert-Butyl Ether    | 5.29  | 73  | 11988    | 0.076   | ppbv # | 1      |
| 29) Chloroform                 | 5.91  | 83  | 864716   | 4.413   | ppbv   | 98     |
| 30) Cyclohexane                | 7.29  | 84  | 44092    | 0.469   | ppbv # | 1      |
| 34) 2-Butanone                 | 5.38  | 43  | 27802710 | 129.754 | ppbv # | 66     |
| 36) Benzene                    | 7.06  | 78  | 955410   | 3.480   | ppbv   | 98     |
| 38) Trichloroethene            | 8.02  | 130 | 4571     | 0.044   | ppbv # | 39     |
| 39) 1,2-Dichloropropane        | 7.35  | 63  | 844367   | 7.189   | ppbv # | 28     |
| 41) Tetrahydrofuran            | 6.25  | 42  | 8361     | 0.072   | ppbv # | 57     |
| 42) Bromodichloromethane       | 7.97  | 83  | 22893    | 0.099   | ppbv # | 31     |
| 43) Methyl Methacrylate        | 8.23  | 69  | 55263    | 0.475   | ppbv # | 36     |
| 44) 2,2,4-Trimethylpentane     | 8.04  | 57  | 41015    | 0.077   | ppbv # | 43     |
| 50) 4-Methyl-2-Pentanone       | 8.92  | 43  | 13375    | 0.041   | ppbv # | 34     |
| 51) 2-Hexanone                 | 10.31 | 43  | 13058094 | 62.807  | ppbv # | 95     |
| 52) Tetrachloroethene          | 11.42 | 164 | 164696   | 1.935   | ppbv   | 97     |
| 53) Toluene                    | 10.00 | 91  | 853766   | 2.975   | ppbv   | 100    |
| 58) Ethyl Benzene              | 12.91 | 91  | 280892   | 0.736   | ppbv   | 96     |
| 59) m/p-Xylene                 | 13.17 | 91  | 808492   | 2.376   | ppbv   | 99     |
| 60) o-Xylene                   | 13.89 | 91  | 390843   | 1.169   | ppbv   | 98     |
| 61) Styrene                    | 13.73 | 104 | 412060   | 1.904   | ppbv   | 98     |
| 62) Isopropylbenzene           | 14.88 | 105 | 372794   | 0.793   | ppbv   | 98     |
| 64) n-propylbenzene            | 15.77 | 120 | 17509    | 0.143   | ppbv # | 1      |
| 65) tert-Butylbenzene          | 16.97 | 119 | 46433    | 0.115   | ppbv # | 44     |

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 Acq On : 11 Sep 2018 2:41  
 Operator : SY/AP  
 Sample : 4820-06  
 Misc : 400ml/MSVOA\_L  
 ALS Vial : 1 Sample Multiplier: 1

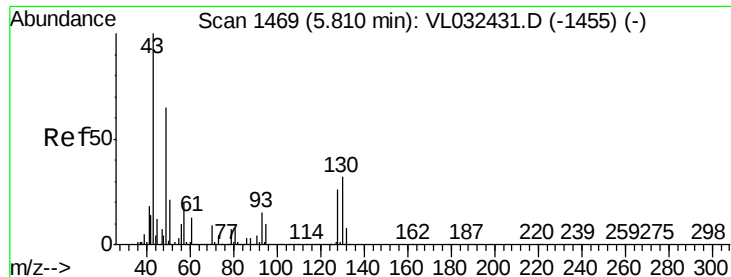
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 253-BERRY

Quant Time: Sep 11 05:31:00 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_L\METHODS\VL083118AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Fri Aug 31 21:33:46 2018  
 QLast Update : Fri Aug 31 21:33:46 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|----------------------------|-------|------|----------|-------|--------|----------|
| 67) sec-Butylbenzene       | 17.82 | 105  | 152319   | 0.250 | ppbv   | 95       |
| 69) p-Isopropyltoluene     | 17.87 | 119  | 70431    | 0.149 | ppbv # | 61       |
| 70) n-Butylbenzene         | 18.77 | 91   | 18206    | 0.034 | ppbv # | 30       |
| 71) 2-Chlorotoluene        | 15.77 | 91   | 144333   | 0.402 | ppbv # | 49       |
| 72) 4-Ethyltoluene         | 16.05 | 105  | 154502   | 0.423 | ppbv # | 95       |
| 73) 1,3,5-Trimethylbenzene | 16.21 | 105  | 77929    | 0.213 | ppbv   | 86       |
| 74) 1,2,4-Trimethylbenzene | 16.97 | 105  | 521056   | 1.303 | ppbv # | 69       |
| 79) Naphthalene            | 22.45 | 128  | 16816    | 0.052 | ppbv   | 96       |
| 80) Naphthalene,2-methyl-  | 25.15 | 142  | 4665     | 0.054 | ppbv # | 54       |

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.82 min Scan# 896

Delta R.T. 0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

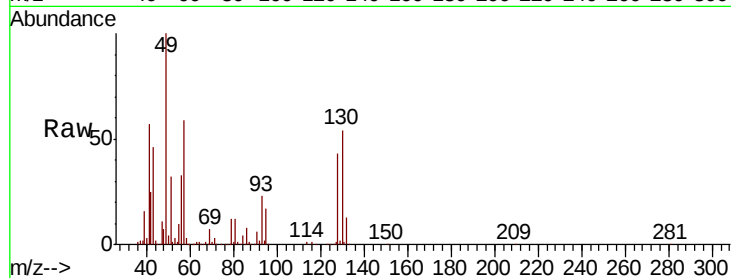
Tgt Ion: 49 Resp: 1349623

Ion Ratio Lower Upper

49 100

128 41.9 20.7 62.1

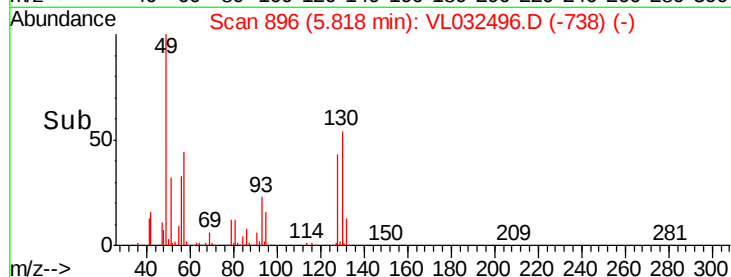
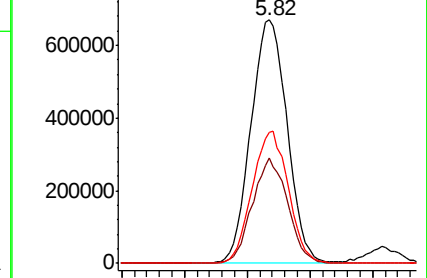
130 54.2 26.6 79.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.289 ppbv

RT: 3.10 min Scan# 51

Delta R.T. -0.01 min

Lab File: VL032496.D

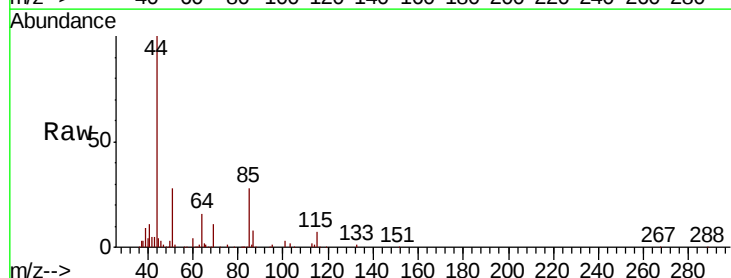
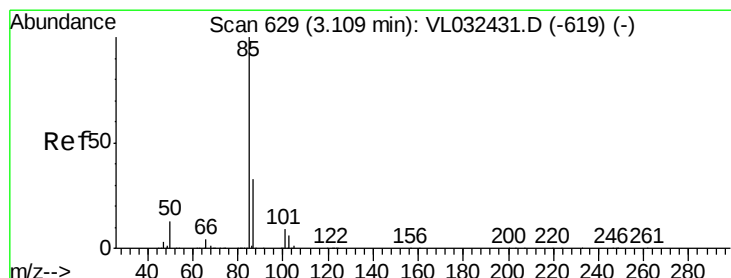
Acq: 11 Sep 2018 2:41

Tgt Ion: 85 Resp: 49954

Ion Ratio Lower Upper

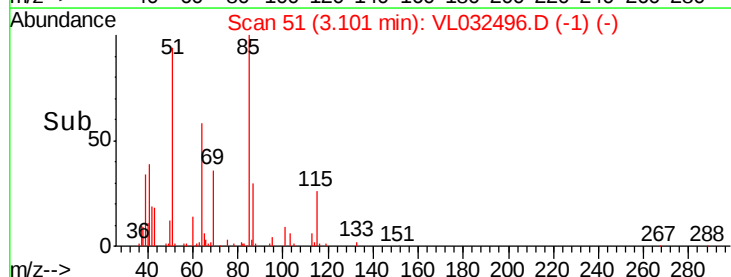
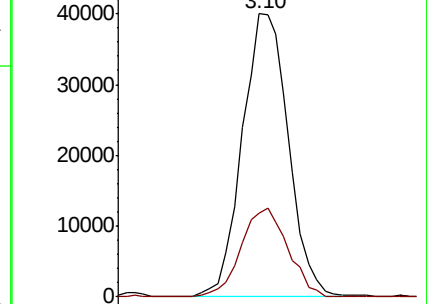
85 100

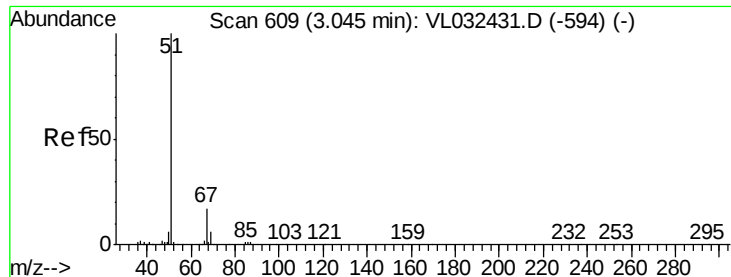
87 29.5 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

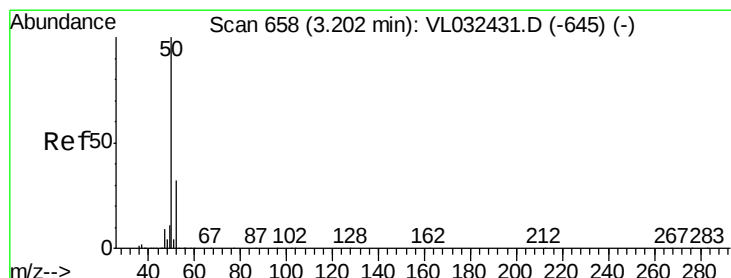
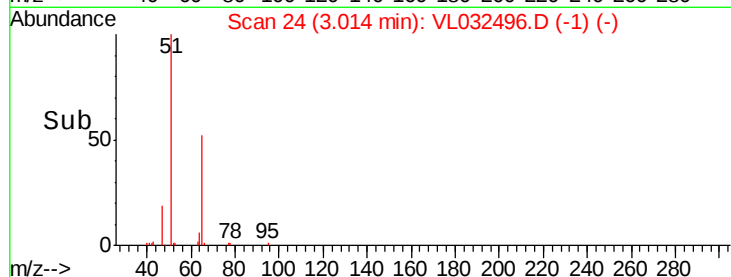
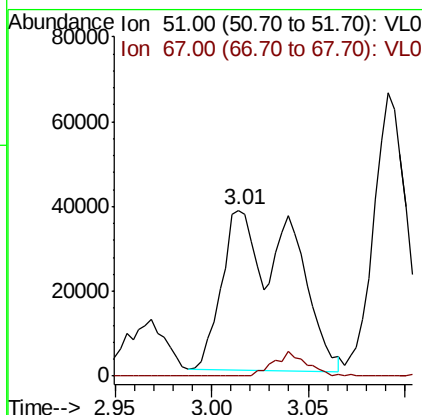
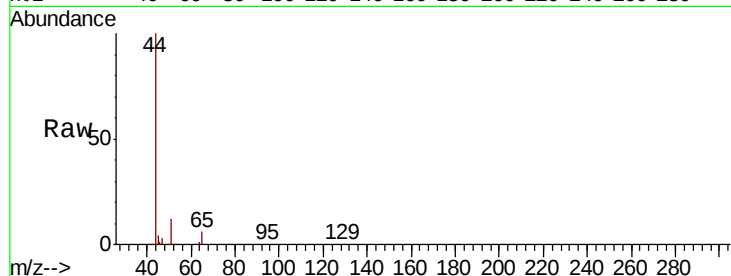




#3  
 Chlorodifluoromethane  
 Concen: 0.770 ppbv  
 RT: 3.01 min Scan# 24  
 Delta R.T. -0.03 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

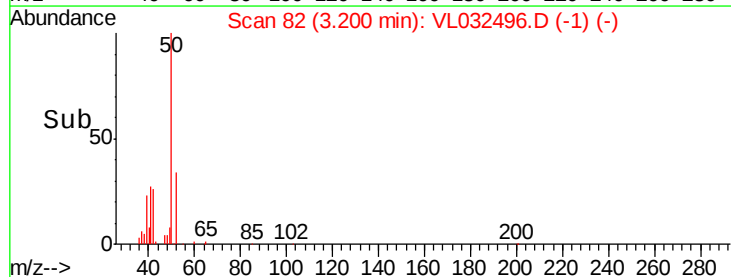
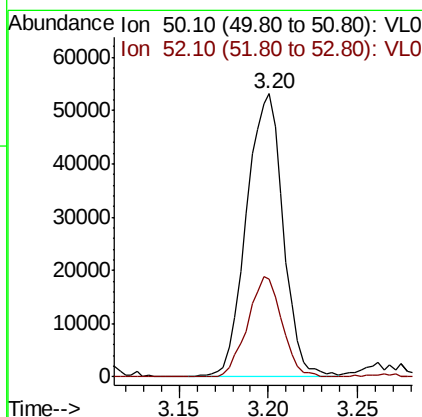
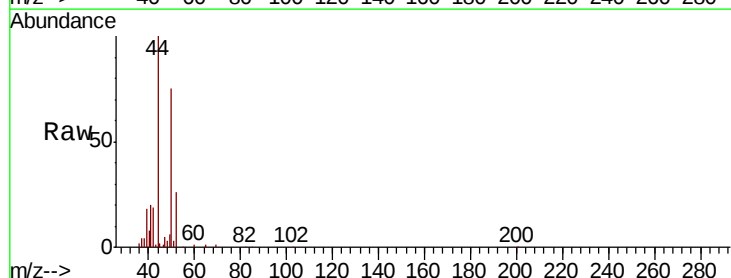
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 253-BERRY

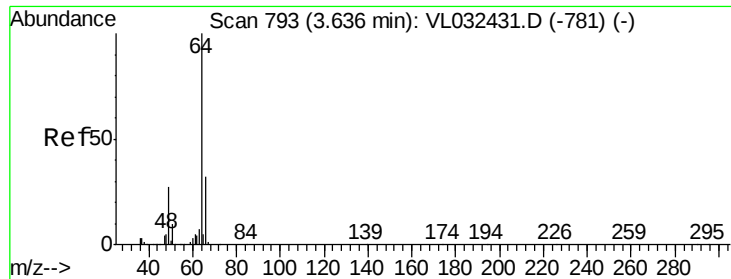
Tgt Ion: 51 Resp: 94079  
 Ion Ratio Lower Upper  
 51 100  
 67 7.5 13.8 20.8#



#4  
 Chloromethane  
 Concen: 1.034 ppbv  
 RT: 3.20 min Scan# 82  
 Delta R.T. -0.00 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

Tgt Ion: 50 Resp: 76499  
 Ion Ratio Lower Upper  
 50 100  
 52 34.4 25.6 38.4





#7

Chloroethane

Concen: 0.358 ppbv

RT: 3.63 min Scan# 217

Delta R.T. -0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

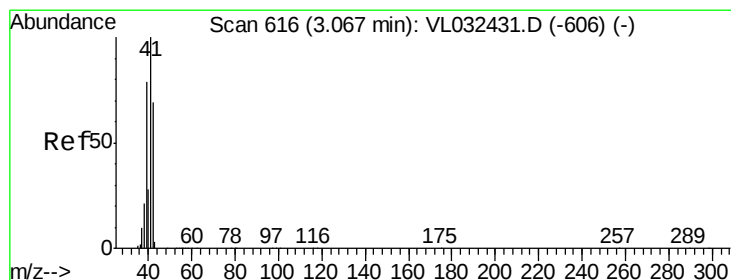
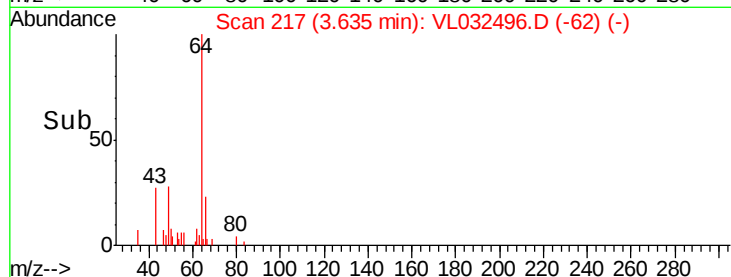
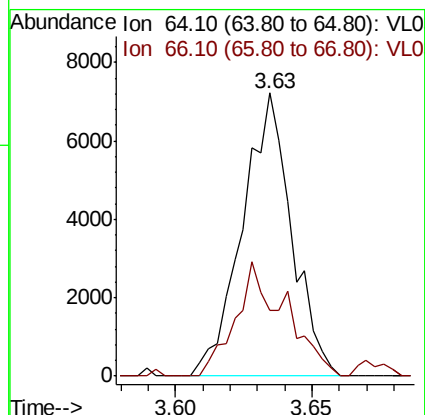
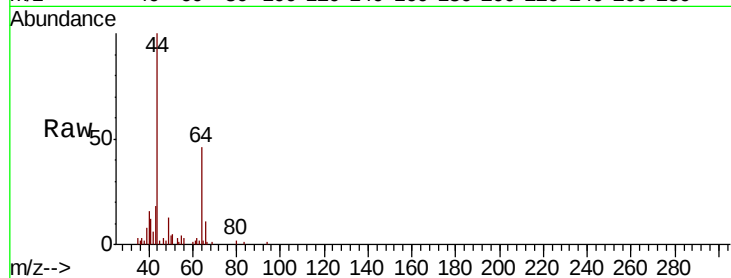
253-BERRY

Tgt Ion: 64 Resp: 9055

Ion Ratio Lower Upper

64 100

66 25.1 25.8 38.6#



#9

Propene

Concen: 73.354 ppbv

RT: 3.06 min Scan# 39

Delta R.T. -0.01 min

Lab File: VL032496.D

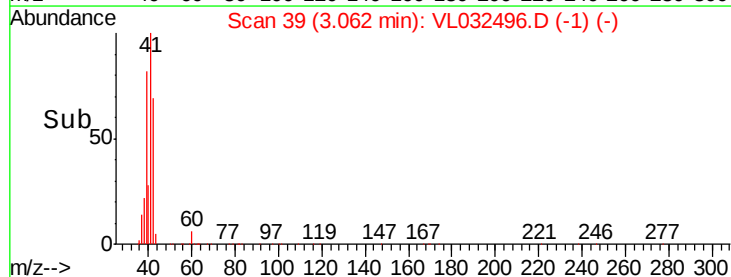
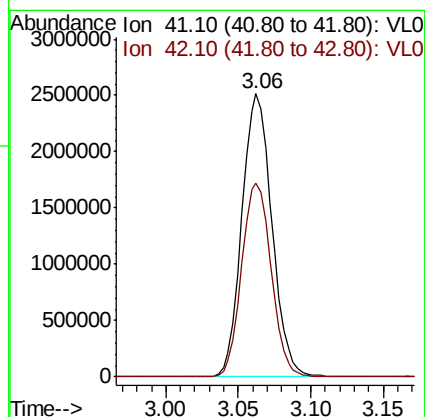
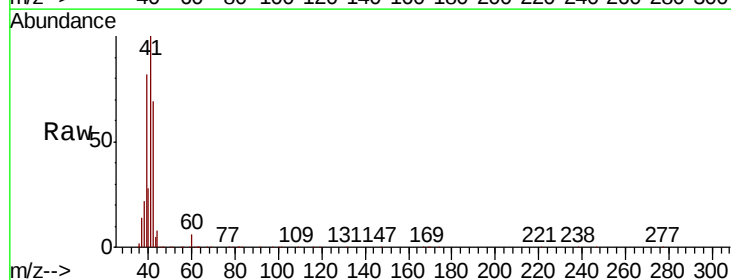
Acq: 11 Sep 2018 2:41

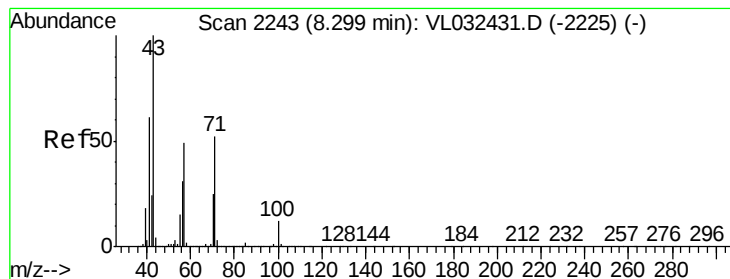
Tgt Ion: 41 Resp: 3614971

Ion Ratio Lower Upper

41 100

42 67.8 56.6 84.8





#10

Heptane

Concen: 1.163 ppbv

RT: 8.29 min Scan# 1665

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

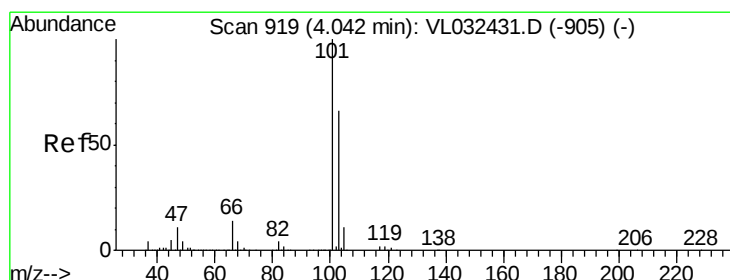
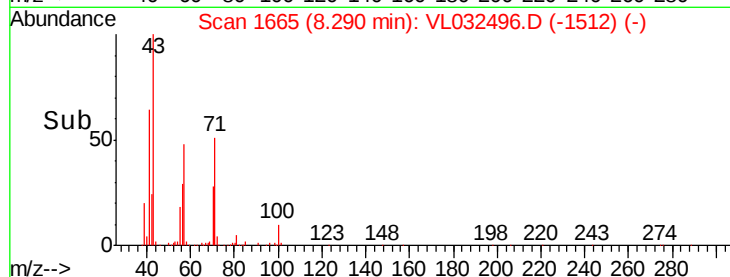
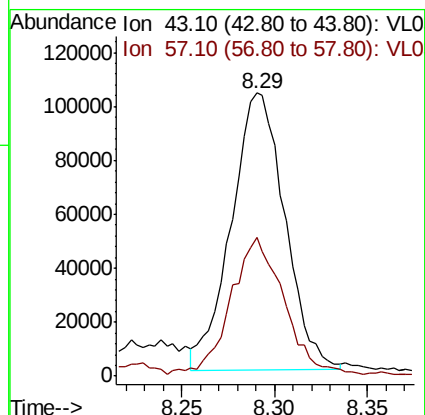
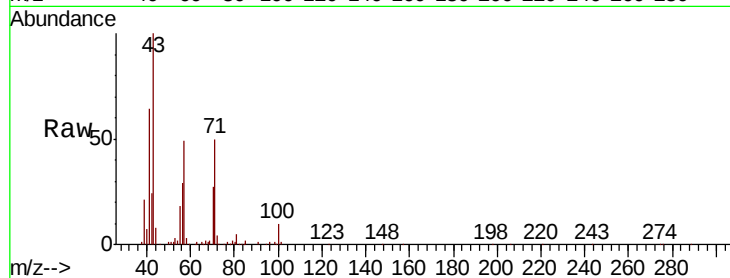
253-BERRY

Tgt Ion: 43 Resp: 205688

Ion Ratio Lower Upper

43 100

57 49.4 39.6 59.4



#11

Trichlorofluoromethane

Concen: 0.427 ppbv

RT: 4.04 min Scan# 343

Delta R.T. -0.00 min

Lab File: VL032496.D

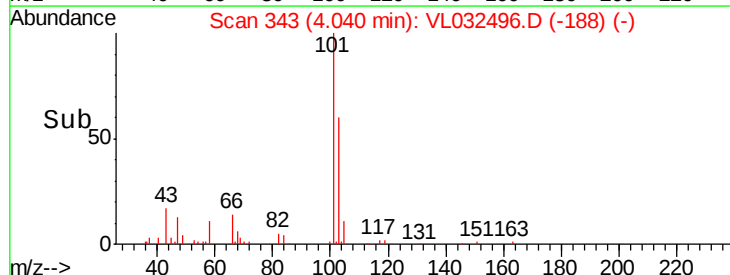
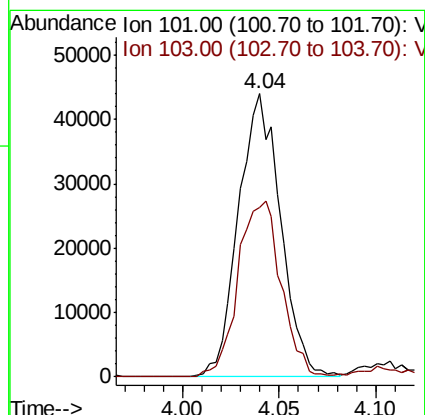
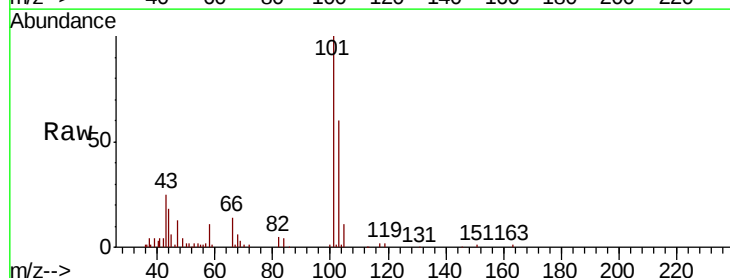
Acq: 11 Sep 2018 2:41

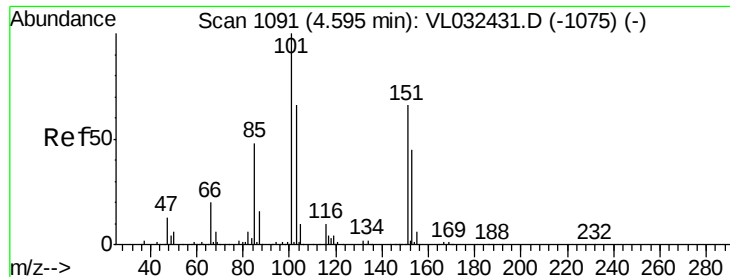
Tgt Ion: 101 Resp: 66447

Ion Ratio Lower Upper

101 100

103 60.0 52.8 79.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.056 ppbv

RT: 4.60 min Scan# 517

Delta R.T. 0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

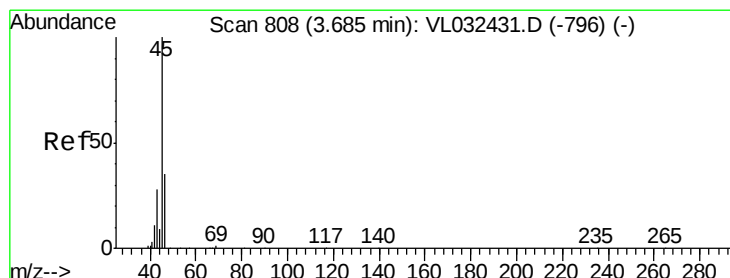
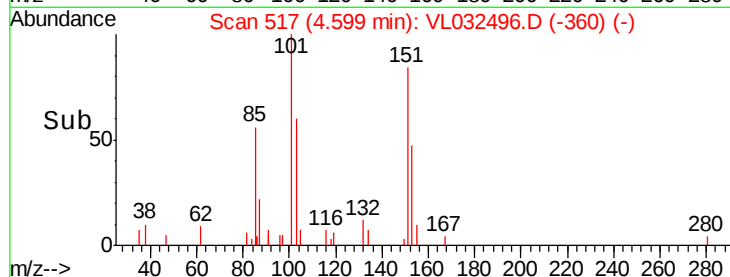
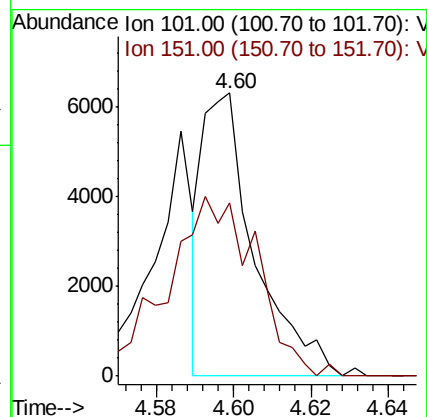
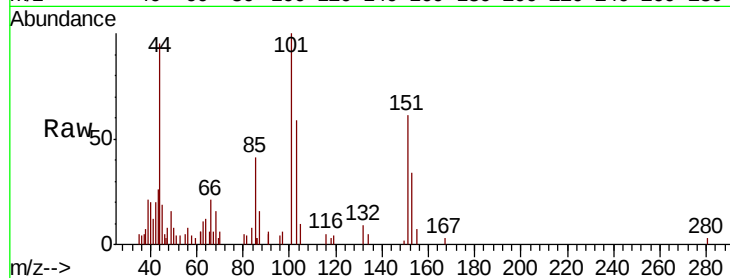
253-BERRY

Tgt Ion:101 Resp: 5906

Ion Ratio Lower Upper

101 100

151 111.1 52.6 78.8#



#13

Ethanol

Concen: 32.744 ppbv

RT: 3.70 min Scan# 237

Delta R.T. 0.01 min

Lab File: VL032496.D

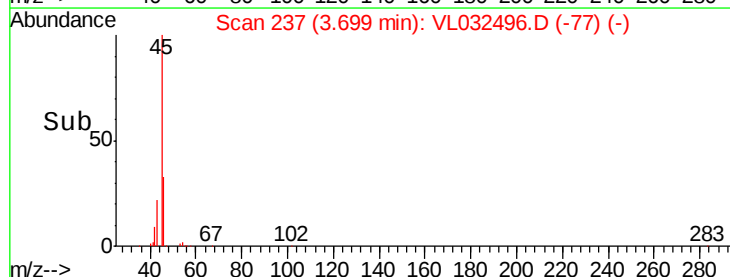
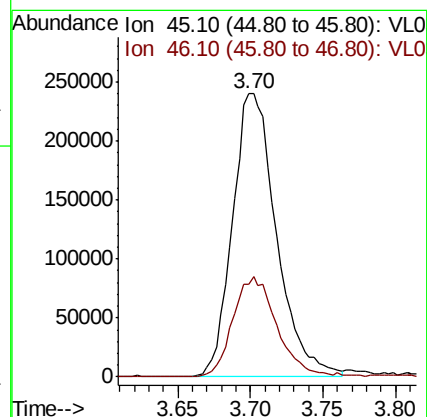
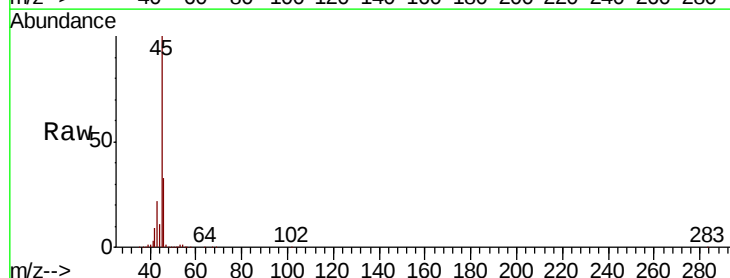
Acq: 11 Sep 2018 2:41

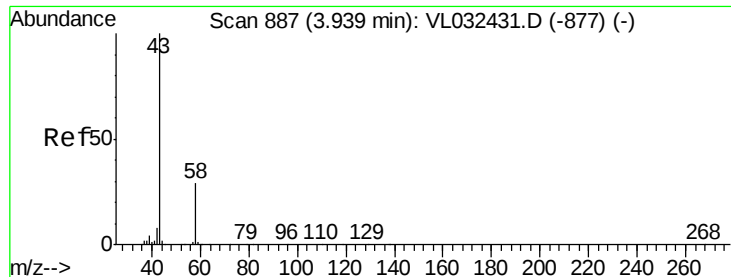
Tgt Ion: 45 Resp: 503008

Ion Ratio Lower Upper

45 100

46 36.5 14.2 56.8





#15

Acetone

Concen: 60.381 ppbv

RT: 3.94 min Scan# 311

Delta R.T. -0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

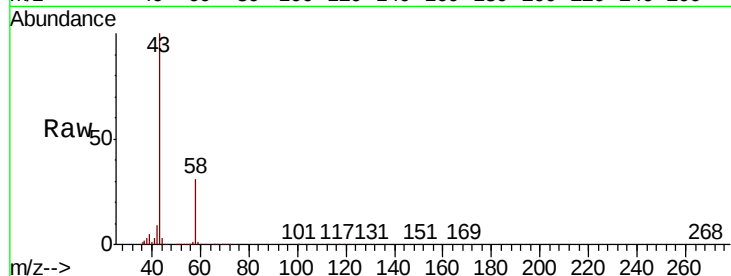
253-BERRY

Tgt Ion: 43 Resp: 7338455

Ion Ratio Lower Upper

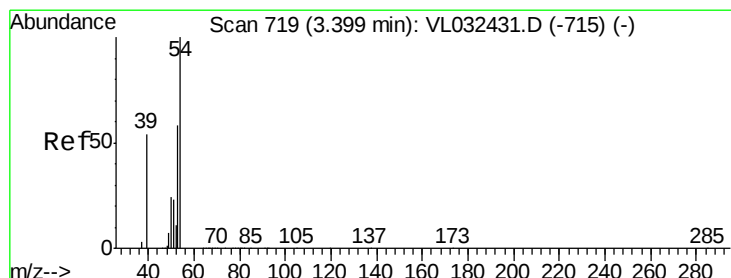
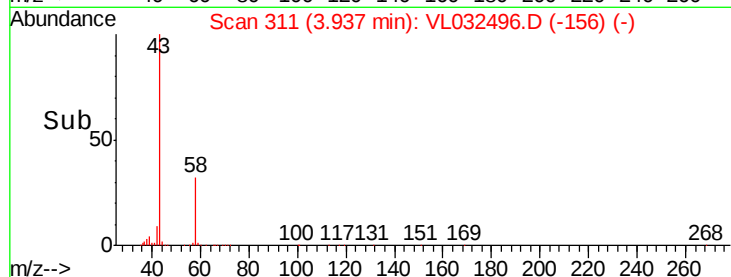
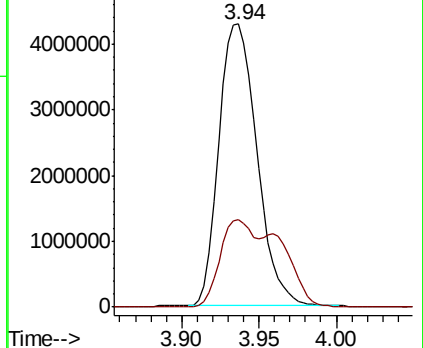
43 100

58 49.5 22.6 33.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 4.233 ppbv

RT: 3.42 min Scan# 151

Delta R.T. 0.02 min

Lab File: VL032496.D

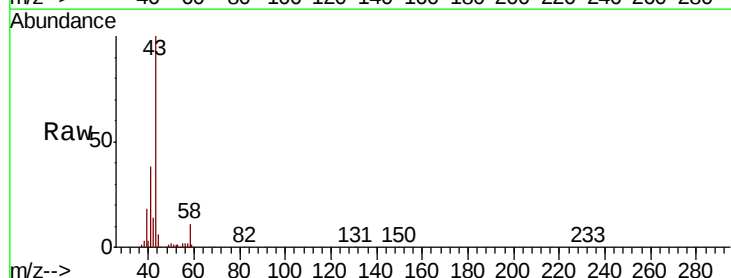
Acq: 11 Sep 2018 2:41

Tgt Ion: 39 Resp: 242103

Ion Ratio Lower Upper

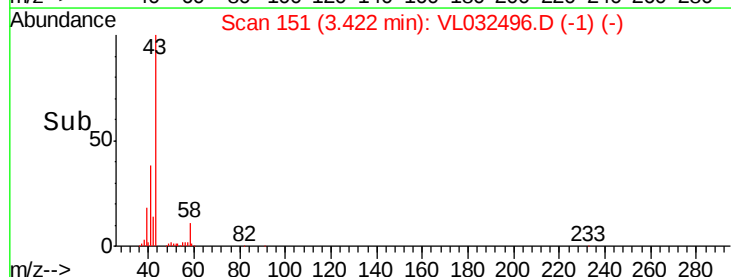
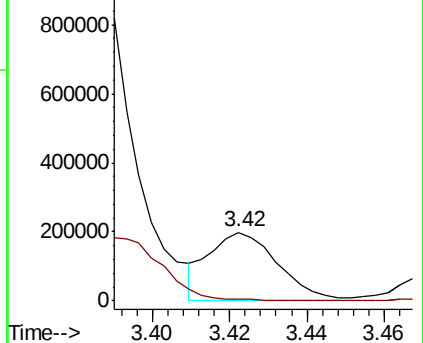
39 100

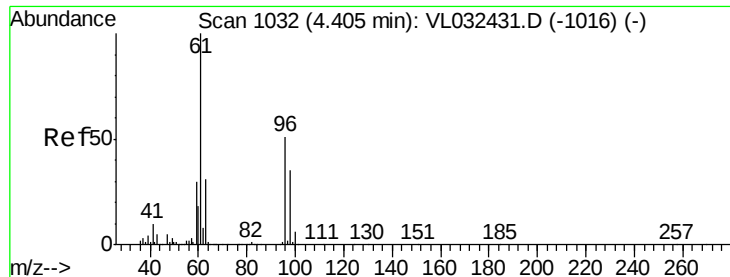
54 0.0 80.8 121.2#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

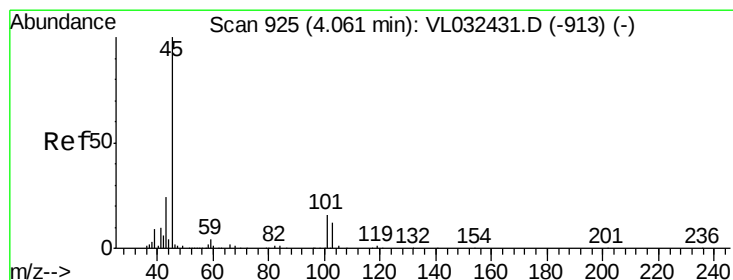
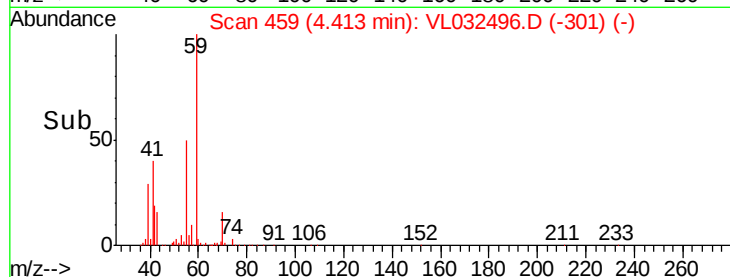
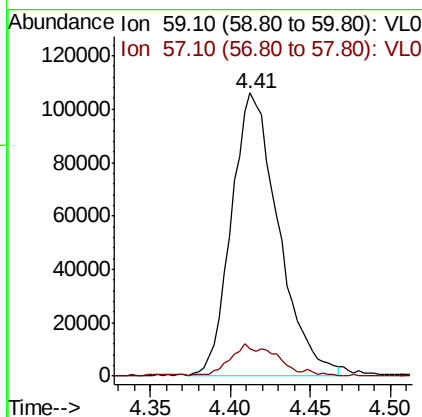
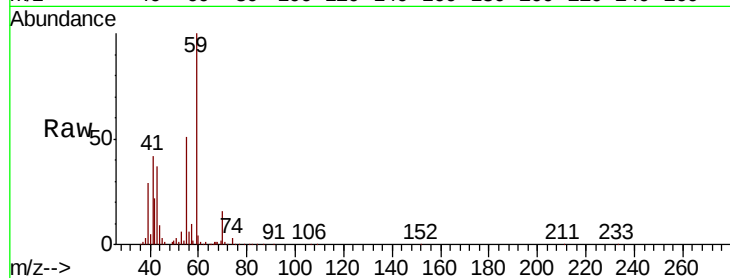




#17  
 tert-Butyl alcohol  
 Concen: 11.260 ppbv  
 RT: 4.41 min Scan# 459  
 Delta R.T. 0.01 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

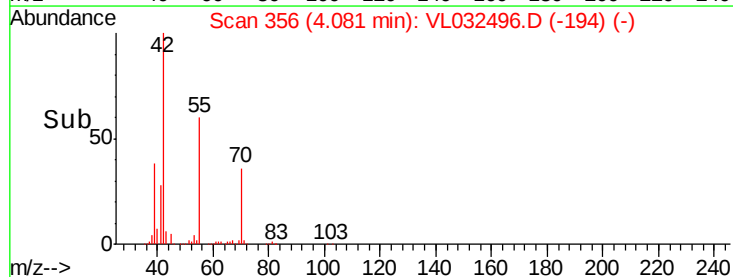
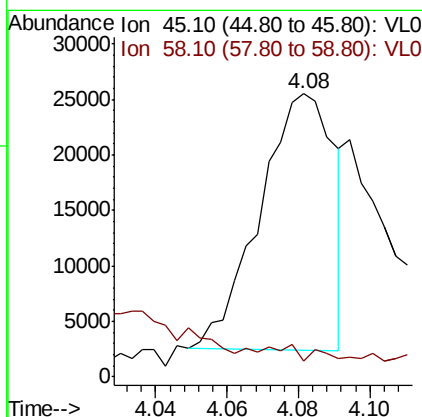
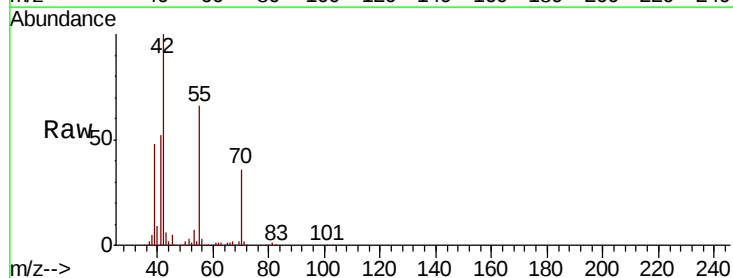
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 253-BERRY

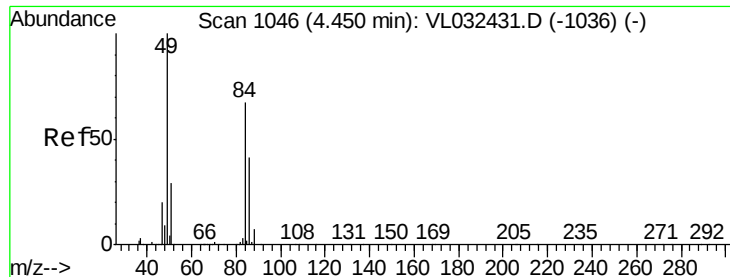
Tgt Ion: 59 Resp: 210608  
 Ion Ratio Lower Upper  
 59 100  
 57 12.7 0.0 0.0#



#19  
 Isopropyl Alcohol  
 Concen: 0.417 ppbv  
 RT: 4.08 min Scan# 356  
 Delta R.T. 0.02 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

Tgt Ion: 45 Resp: 33208  
 Ion Ratio Lower Upper  
 45 100  
 58 0.0 2.0 3.0#

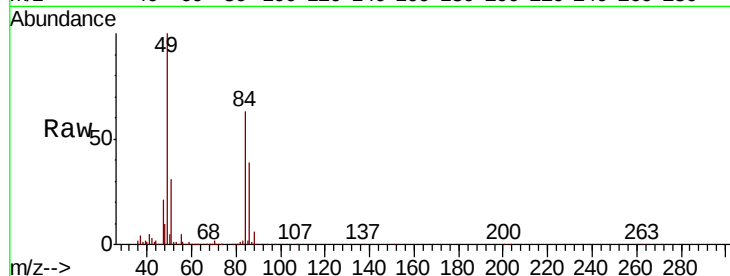




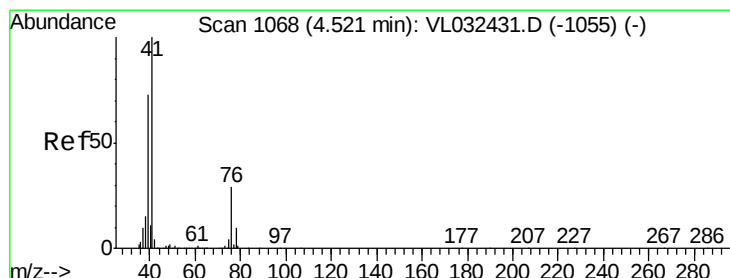
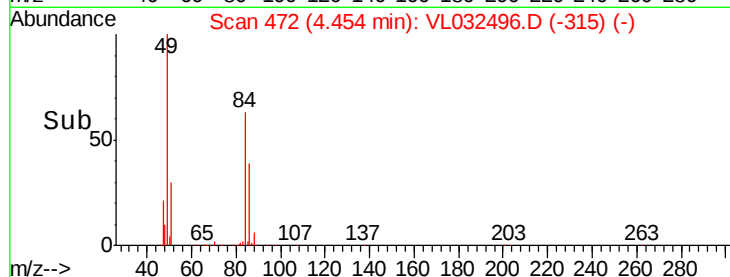
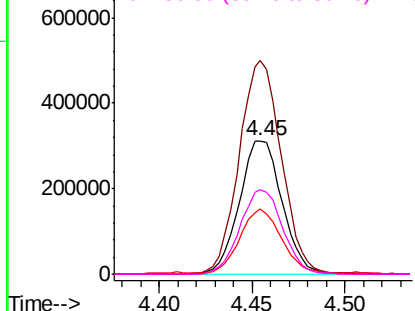
#20  
Methylene Chloride  
Concen: 10.753 ppbv  
RT: 4.45 min Scan# 472  
Delta R.T. 0.00 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 84    | Resp: | 498307 |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 159.7 | 119.1 | 178.7  |
| 51       | 48.0  | 35.2  | 52.8   |
| 86       | 62.8  | 49.4  | 74.2   |

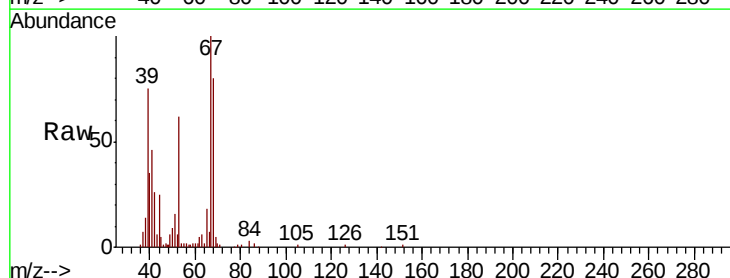


Abundance Ion 84.00 (83.70 to 84.70): VL0  
Ion 49.10 (48.80 to 49.80): VL0  
Ion 51.10 (50.80 to 51.80): VL0  
Ion 86.00 (85.70 to 86.70): VL0

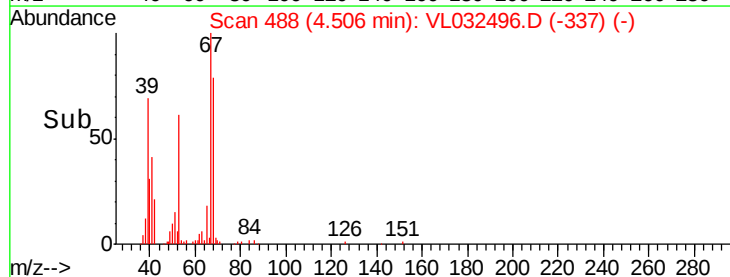
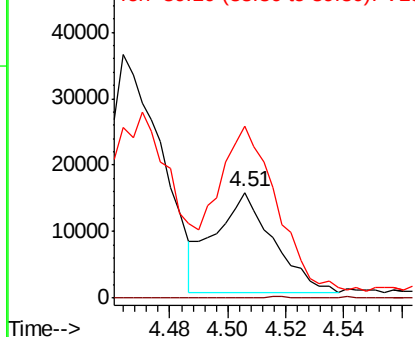


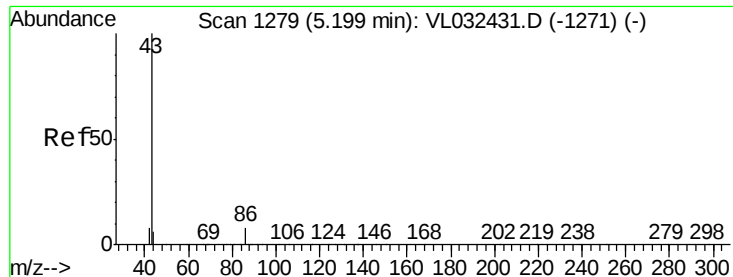
#21  
Allyl Chloride  
Concen: 0.263 ppbv  
RT: 4.51 min Scan# 488  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 21236 |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 76       | 0.0   | 23.6  | 35.4# |
| 39       | 0.0   | 57.7  | 86.5# |



Abundance Ion 41.10 (40.80 to 41.80): VL0  
Ion 76.10 (75.80 to 76.80): VL0  
Ion 39.10 (38.80 to 39.80): VL0

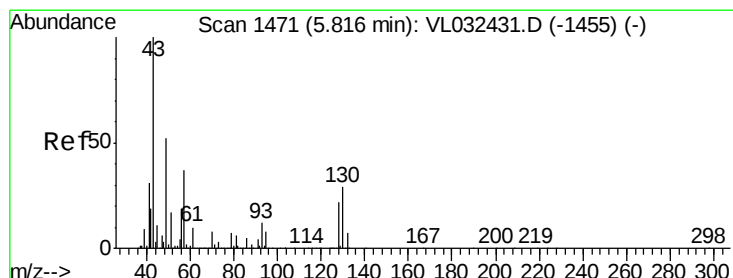
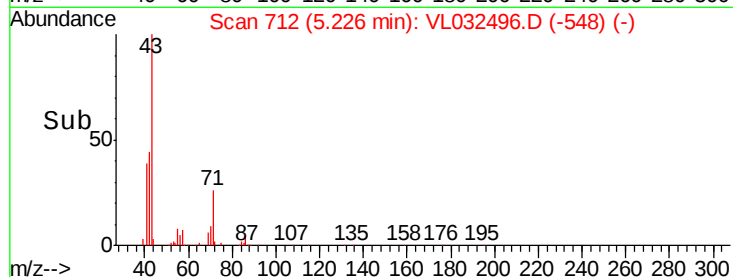
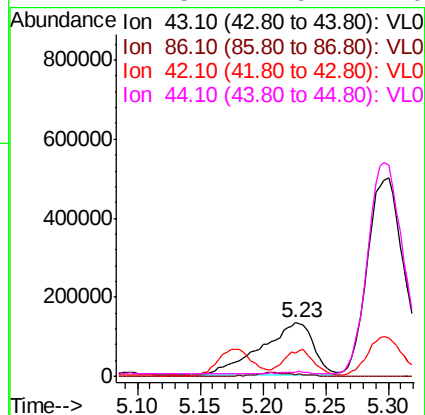
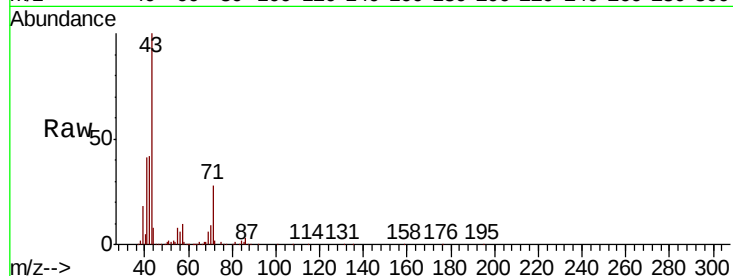




#23  
 Vinyl Acetate  
 Concen: 1.931 ppbv  
 RT: 5.23 min Scan# 712  
 Delta R.T. 0.03 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

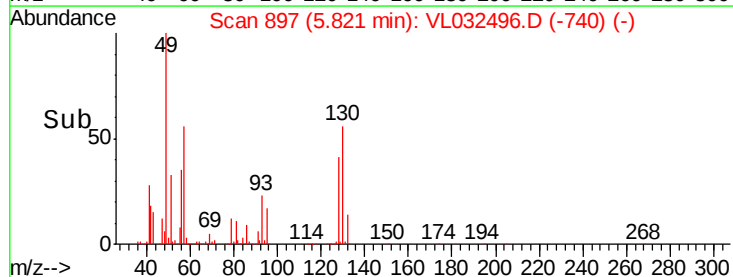
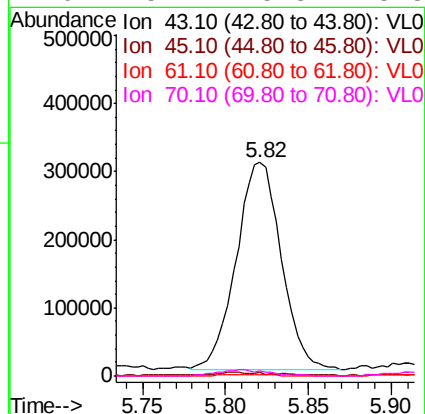
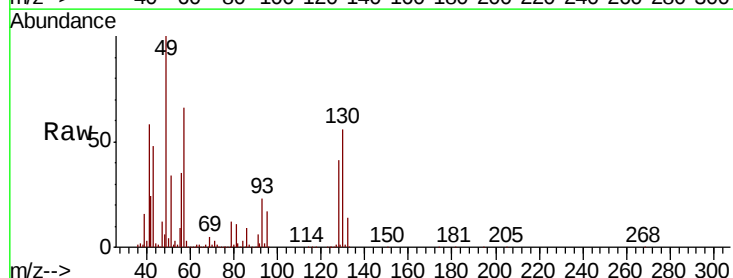
Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 253-BERRY

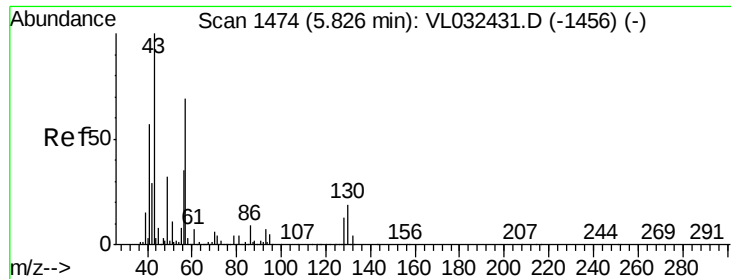
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 388933 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 86       | 3.5   | 5.9   | 8.9#   |
| 42       | 42.0  | 6.9   | 10.3#  |
| 44       | 2.5   | 4.6   | 7.0#   |



#25  
 Ethyl Acetate  
 Concen: 1.995 ppbv  
 RT: 5.82 min Scan# 897  
 Delta R.T. 0.00 min  
 Lab File: VL032496.D  
 Acq: 11 Sep 2018 2:41

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 43    | Resp: | 572505 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 45       | 0.0   | 8.0   | 12.0#  |
| 61       | 0.9   | 7.6   | 11.4#  |
| 70       | 3.4   | 5.8   | 8.8#   |

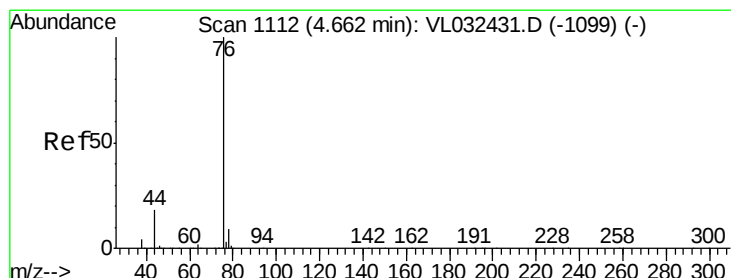
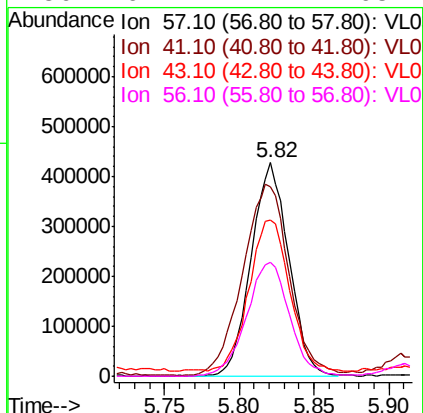
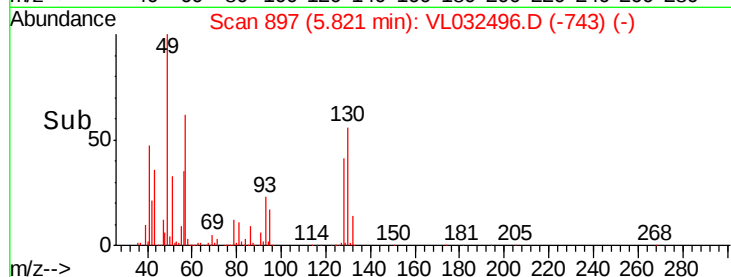
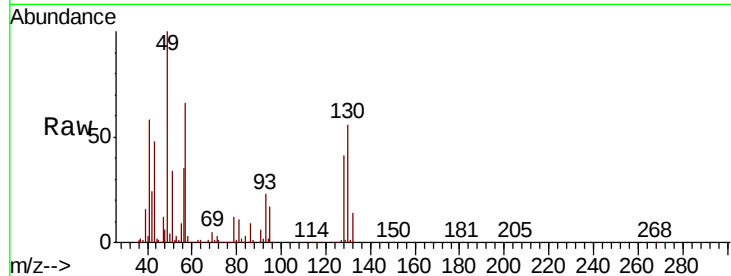




#26  
Hexane  
Concen: 5.803 ppbv  
RT: 5.82 min Scan# 897  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

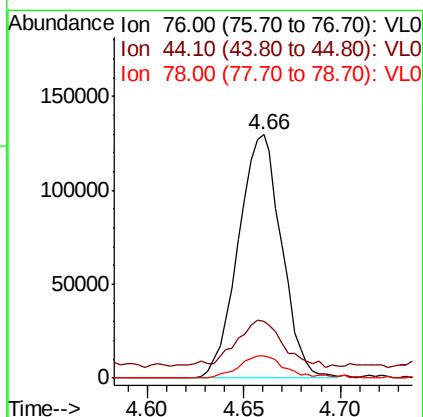
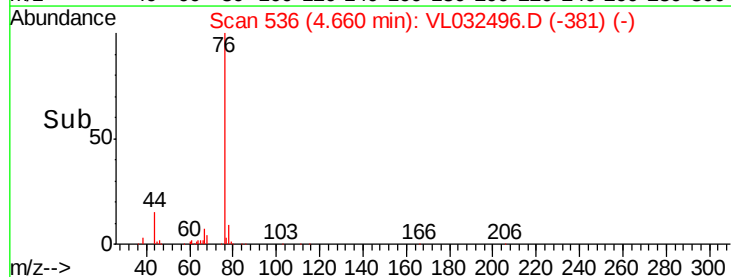
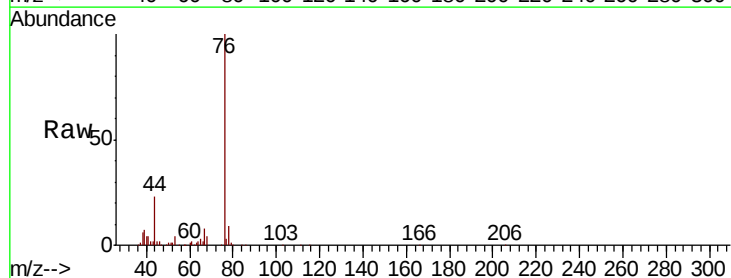
Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

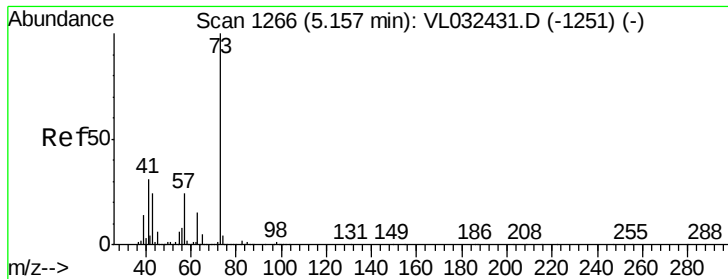
Tgt Ion: 57 Resp: 745743  
Ion Ratio Lower Upper  
57 100  
41 111.3 69.0 103.4#  
43 0.0 172.1 258.1#  
56 61.1 42.2 63.2



#27  
Carbon Disulfide  
Concen: 1.702 ppbv  
RT: 4.66 min Scan# 536  
Delta R.T. -0.00 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion: 76 Resp: 201970  
Ion Ratio Lower Upper  
76 100  
44 21.5 14.0 21.0#  
78 10.2 7.5 11.3





#28

Methyl tert-Butyl Ether

Concen: 0.076 ppbv

RT: 5.29 min Scan# 732

Delta R.T. 0.13 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

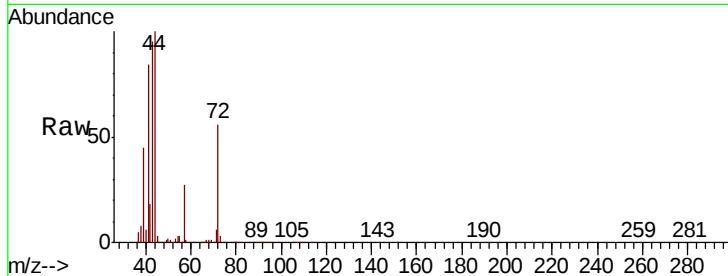
253-BERRY

Tgt Ion: 73 Resp: 11988

Ion Ratio Lower Upper

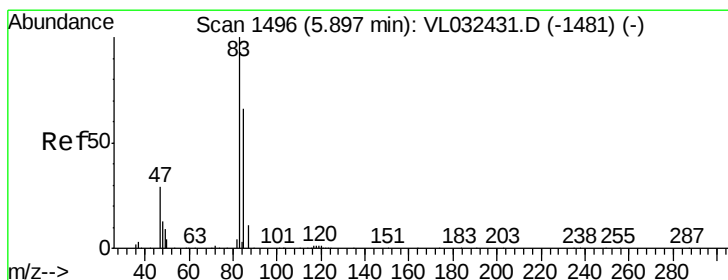
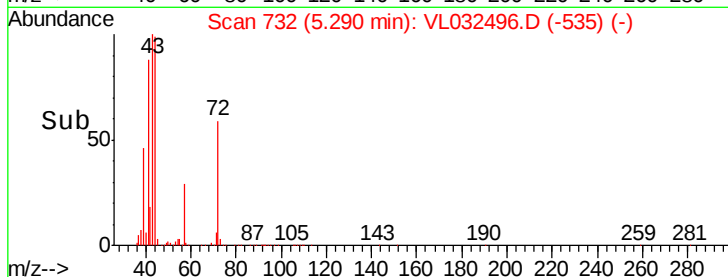
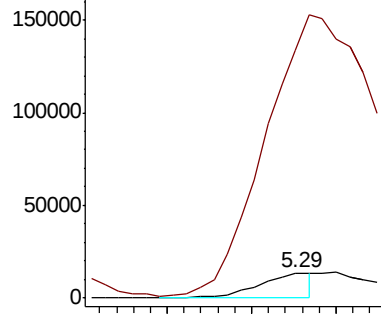
73 100

57 2443.6 19.3 28.9#



Abundance Ion 73.10 (72.80 to 73.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#29

Chloroform

Concen: 4.413 ppbv

RT: 5.91 min Scan# 924

Delta R.T. 0.01 min

Lab File: VL032496.D

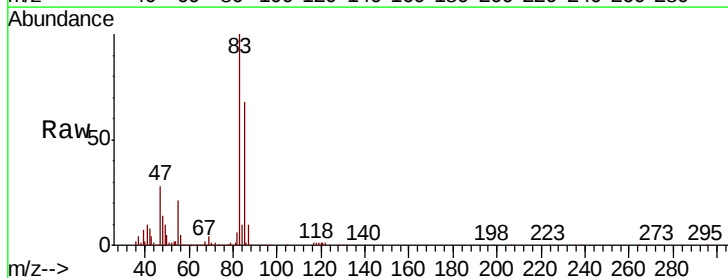
Acq: 11 Sep 2018 2:41

Tgt Ion: 83 Resp: 864716

Ion Ratio Lower Upper

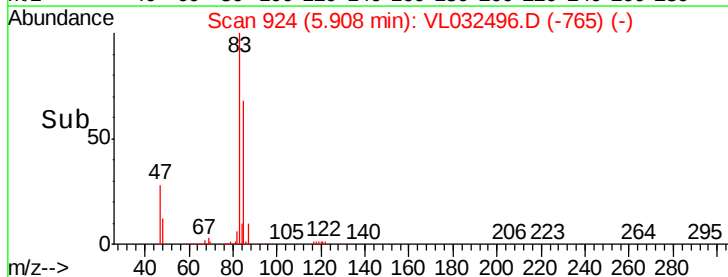
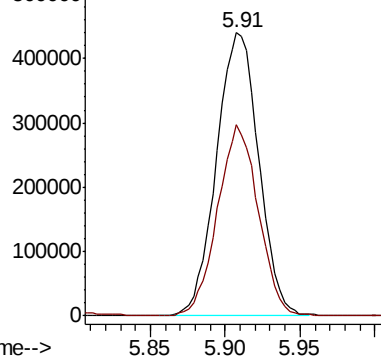
83 100

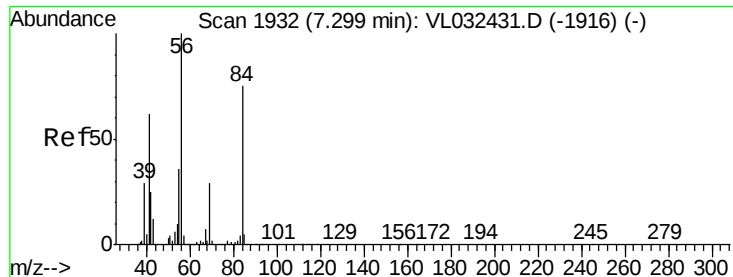
85 67.5 52.5 78.7



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

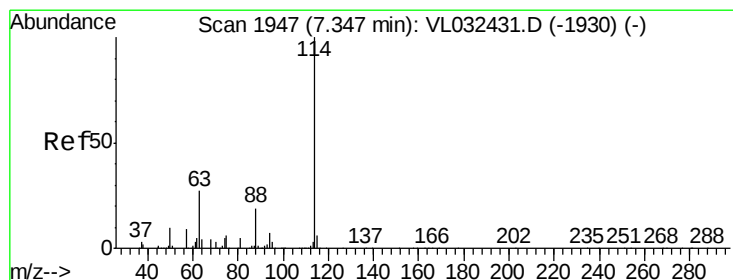
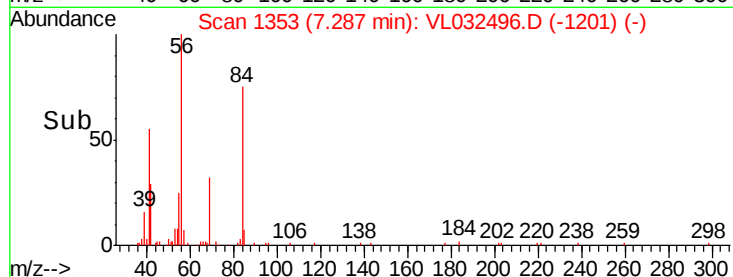
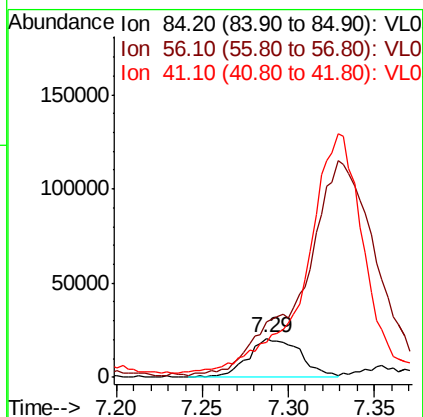
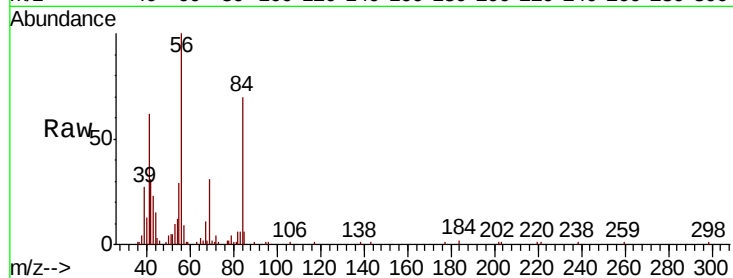




#30  
Cyclohexane  
Concen: 0.469 ppbv  
RT: 7.29 min Scan# 1353  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

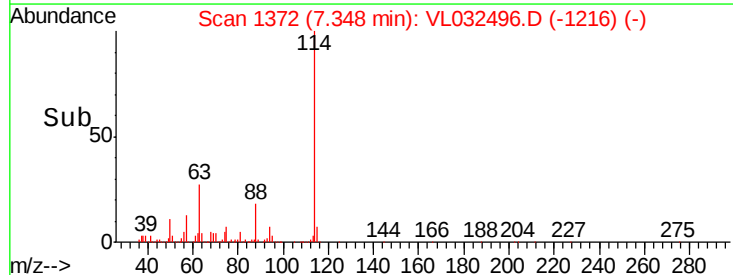
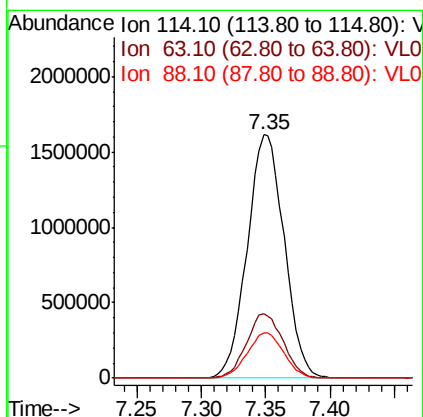
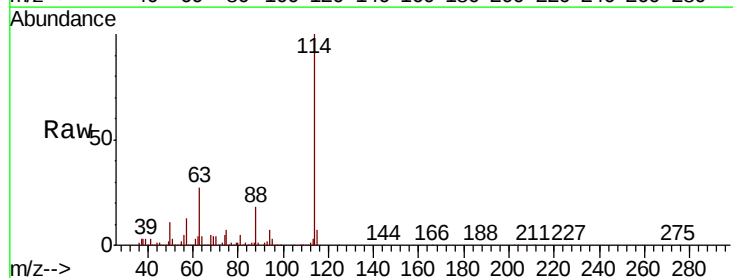
Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

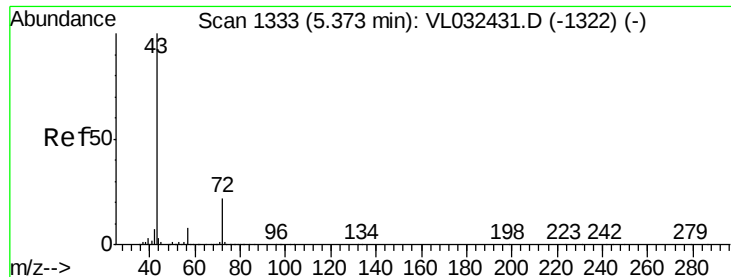
Tgt Ion: 84 Resp: 44092  
Ion Ratio Lower Upper  
84 100  
56 0.0 113.5 170.3#  
41 0.0 68.1 102.1#



#33  
1,4-Difluorobenzene  
Concen: 10.000 ppbv  
RT: 7.35 min Scan# 1372  
Delta R.T. 0.00 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion: 114 Resp: 3225875  
Ion Ratio Lower Upper  
114 100  
63 26.3 22.2 33.4  
88 18.5 15.0 22.4

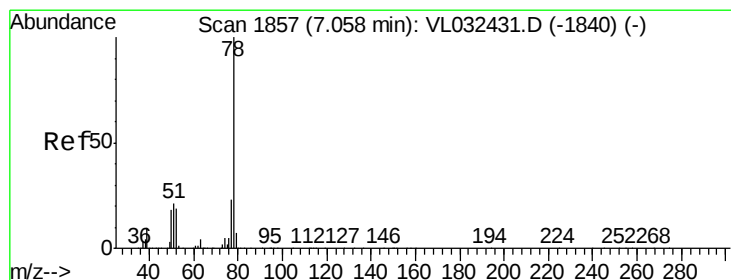
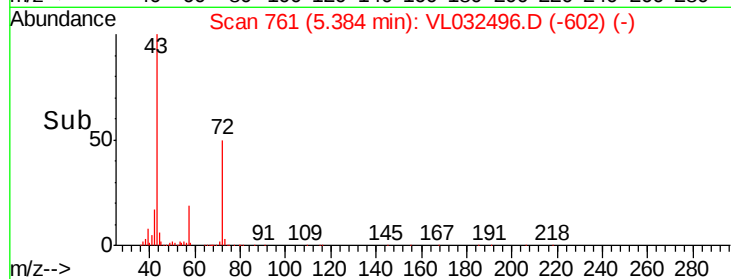
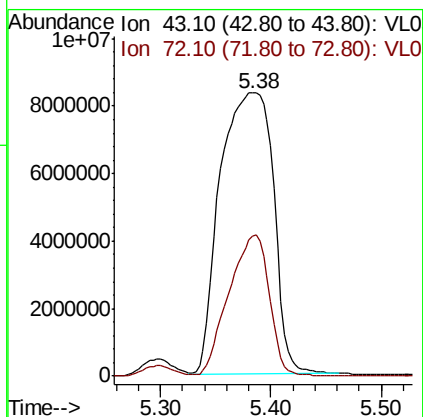
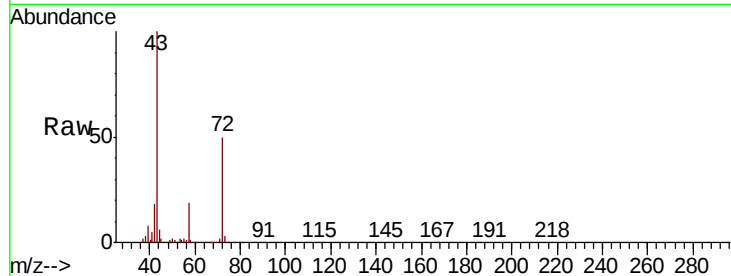




#34  
2-Butanone  
Concen: 129.754 ppbv  
RT: 5.38 min Scan# 761  
Delta R.T. 0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

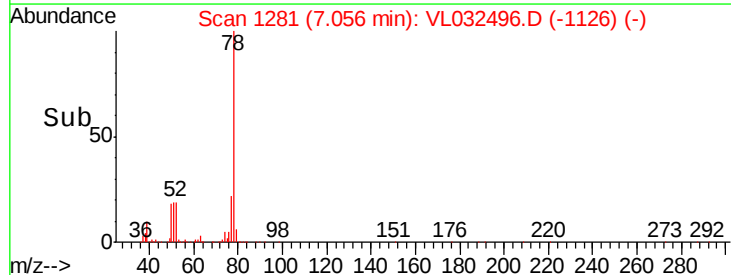
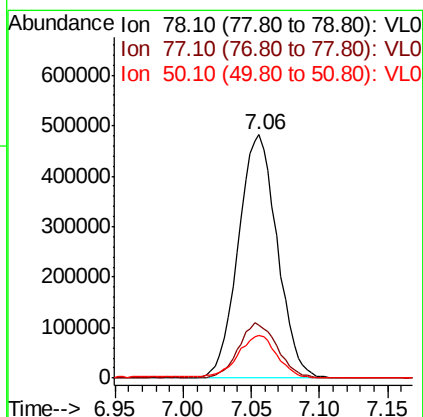
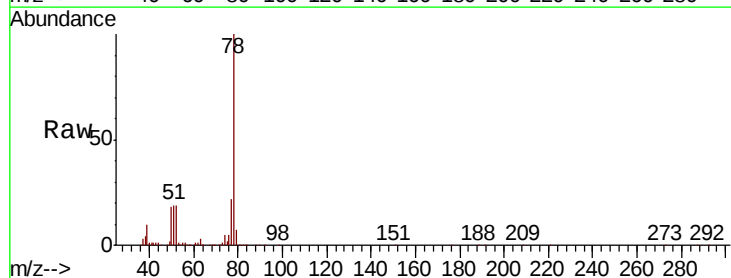
Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

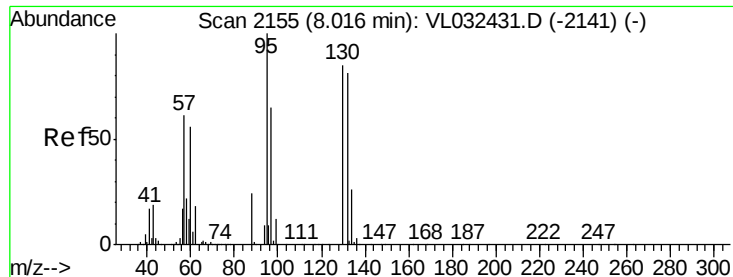
Tgt Ion: 43 Resp: 27802710  
Ion Ratio Lower Upper  
43 100  
72 38.5 17.8 26.6#



#36  
Benzene  
Concen: 3.480 ppbv  
RT: 7.06 min Scan# 1281  
Delta R.T. -0.00 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion: 78 Resp: 955410  
Ion Ratio Lower Upper  
78 100  
77 21.9 18.4 27.6  
50 17.5 14.4 21.6





#38

Trichloroethene

Concen: 0.044 ppbv

RT: 8.02 min Scan# 1580

Delta R.T. 0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

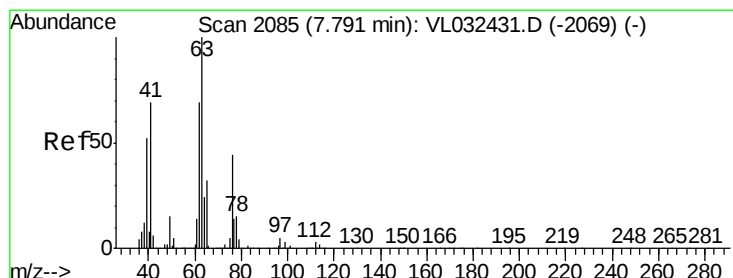
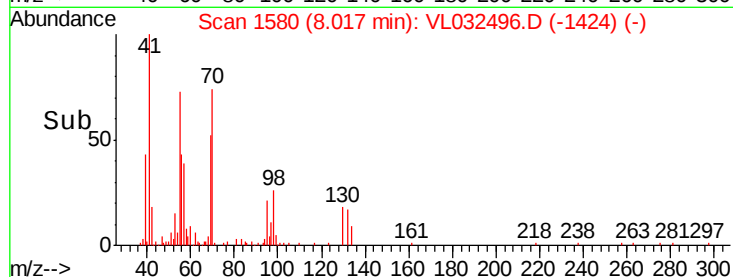
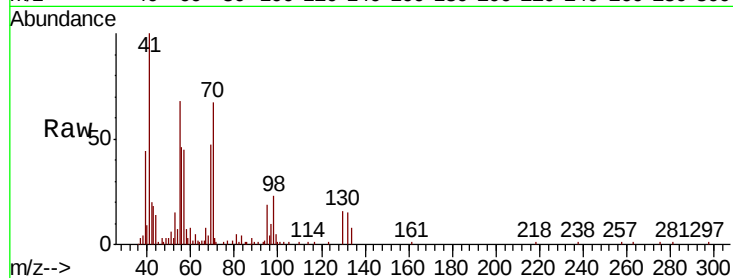
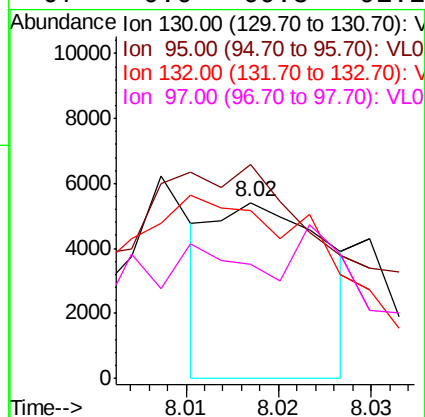
Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 130   | Resp: | 4571   |
| Ion      | Ratio | Lower | Upper  |
| 130      | 100   |       |        |
| 95       | 186.1 | 94.2  | 141.4# |
| 132      | 132.2 | 76.2  | 114.4# |
| 97       | 0.0   | 60.8  | 91.2#  |



#39

1,2-Dichloropropane

Concen: 7.189 ppbv

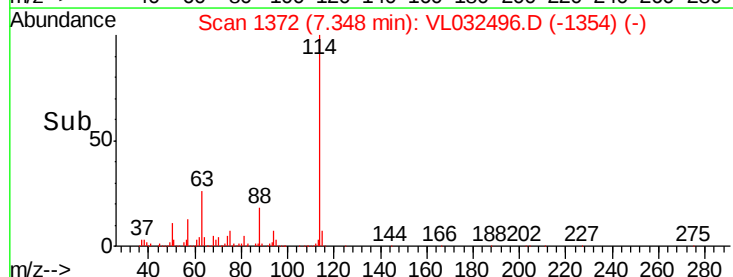
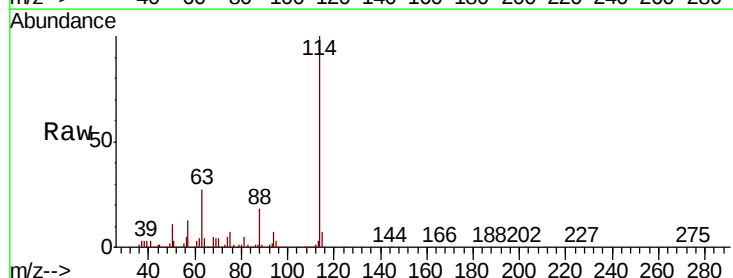
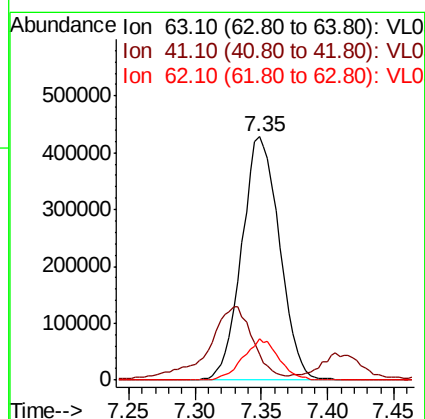
RT: 7.35 min Scan# 1372

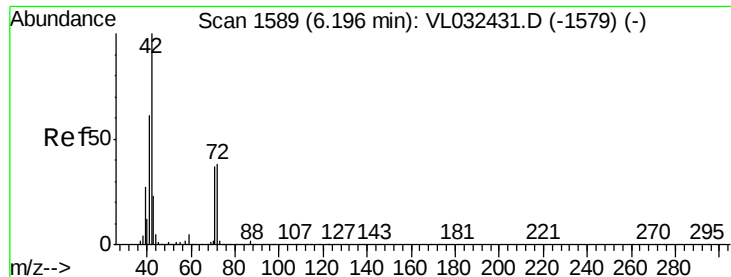
Delta R.T. -0.44 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 63    | Resp: | 844367 |
| Ion      | Ratio | Lower | Upper  |
| 63       | 100   |       |        |
| 41       | 4.6   | 55.4  | 83.0#  |
| 62       | 16.8  | 55.4  | 83.0#  |





#41

Tetrahydrofuran

Concen: 0.072 ppbv

RT: 6.25 min Scan# 1031

Delta R.T. 0.06 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampled :

253-BERRY

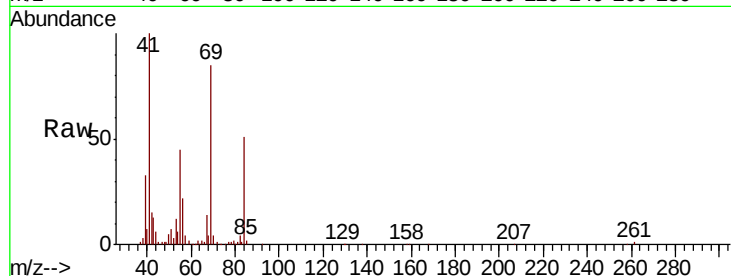
Tgt Ion: 42 Resp: 8361

Ion Ratio Lower Upper

42 100

72 67.0 29.5 44.3#

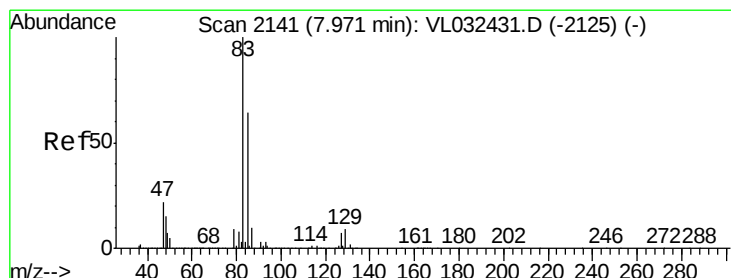
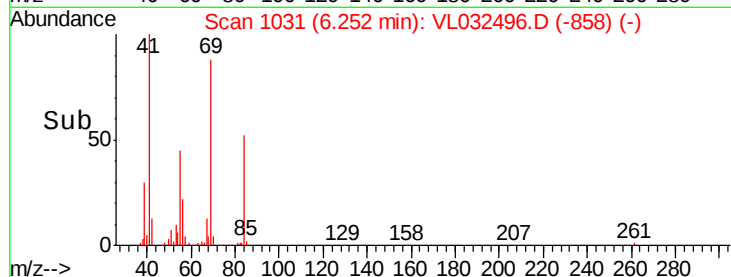
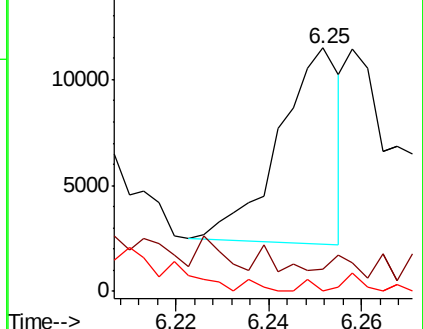
71 55.4 28.3 42.5#



Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#42

Bromodichloromethane

Concen: 0.099 ppbv

RT: 7.97 min Scan# 1566

Delta R.T. 0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

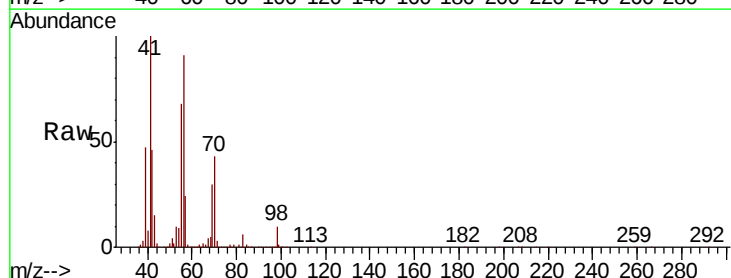
Tgt Ion: 83 Resp: 22893

Ion Ratio Lower Upper

83 100

85 5.5 51.1 76.7#

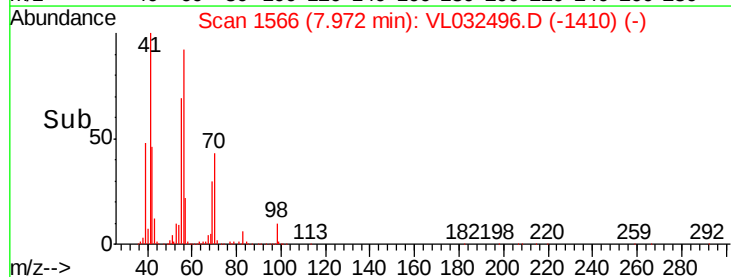
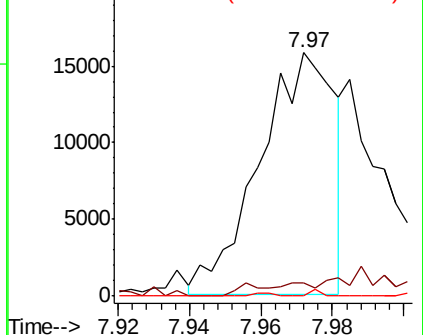
127 0.0 5.8 8.8#

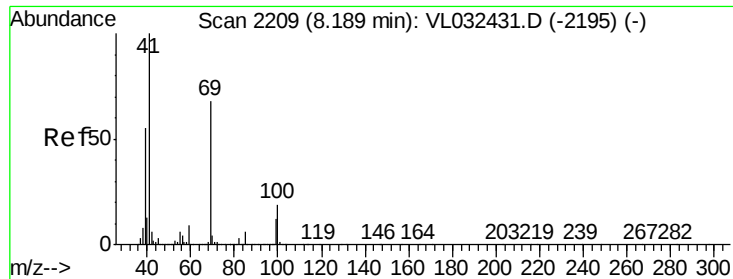


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

Ion 126.90 (126.60 to 127.60): V





#43

Methyl Methacrylate

Concen: 0.475 ppbv

RT: 8.23 min Scan# 1645

Delta R.T. 0.04 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

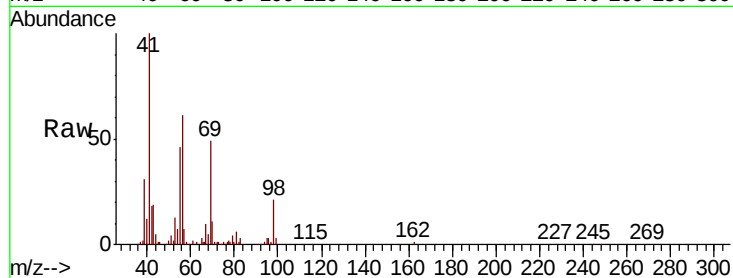
Tgt Ion: 69 Resp: 55263

Ion Ratio Lower Upper

69 100

41 230.1 117.1 175.7#

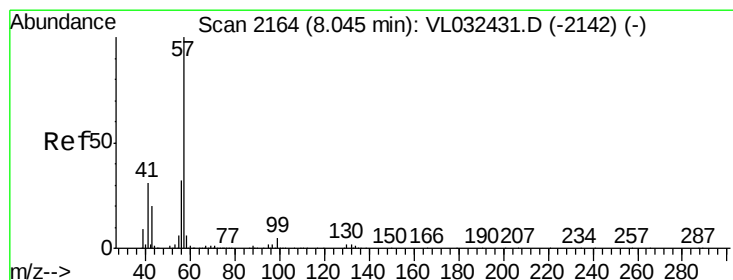
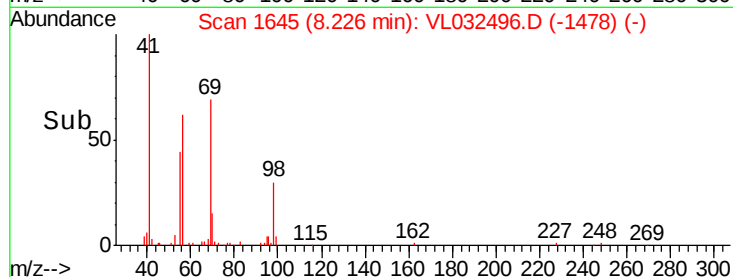
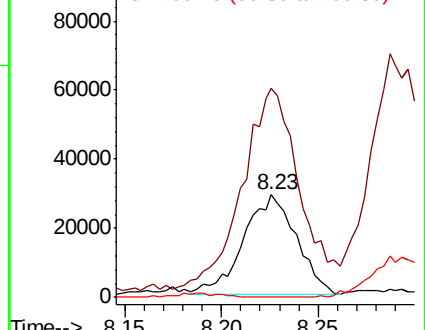
100 3.6 23.4 35.2#



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: 0.077 ppbv

RT: 8.04 min Scan# 1586

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

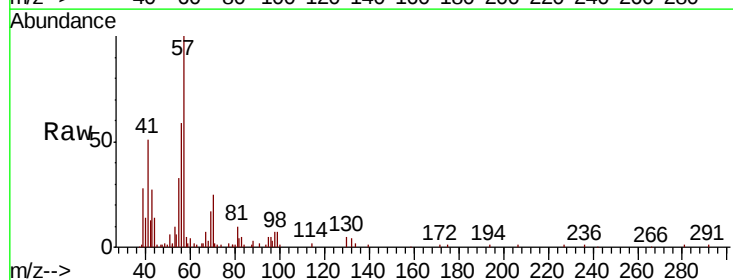
Tgt Ion: 57 Resp: 41015

Ion Ratio Lower Upper

57 100

41 0.0 24.4 36.6#

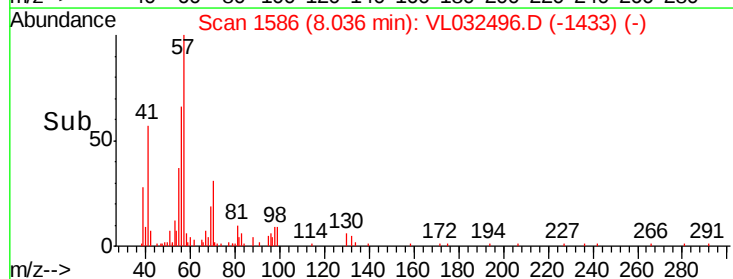
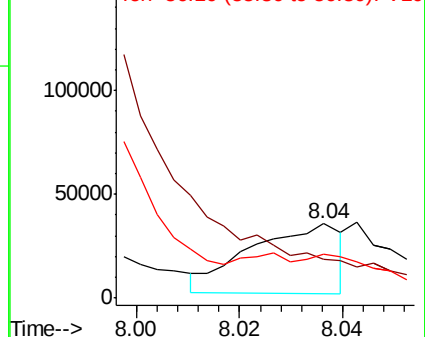
56 0.0 25.7 38.5#

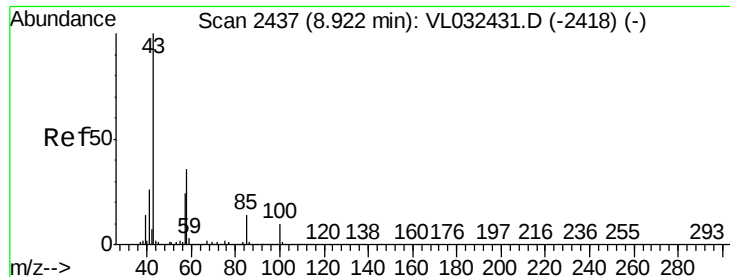


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0

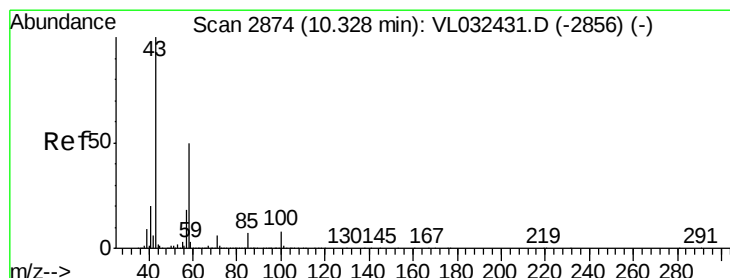
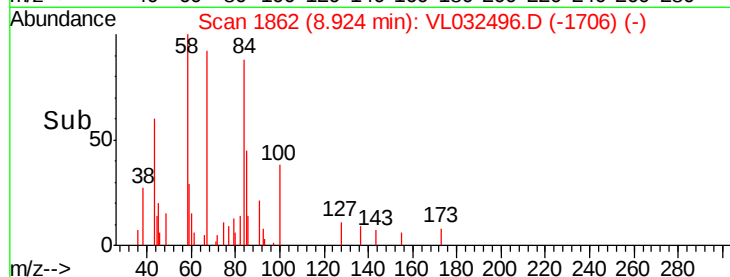
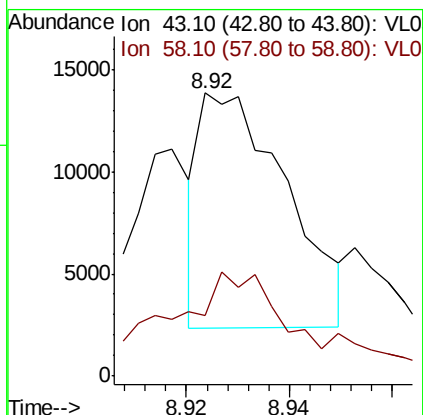
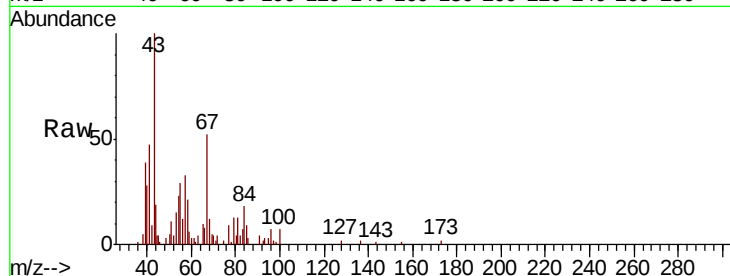




#50  
4-Methyl-2-Pentanone  
Concen: 0.041 ppbv  
RT: 8.92 min Scan# 1862  
Delta R.T. 0.00 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

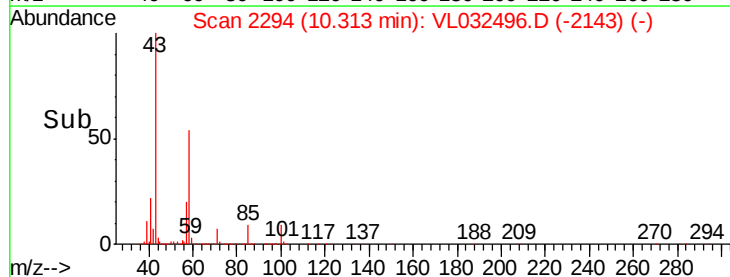
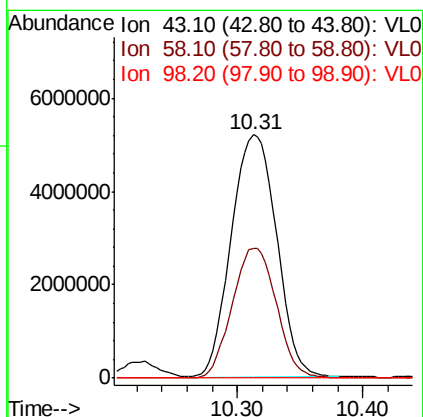
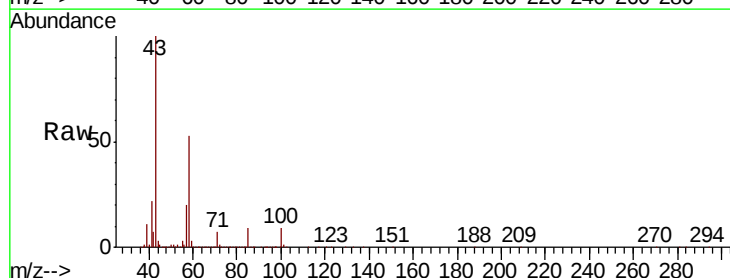
Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

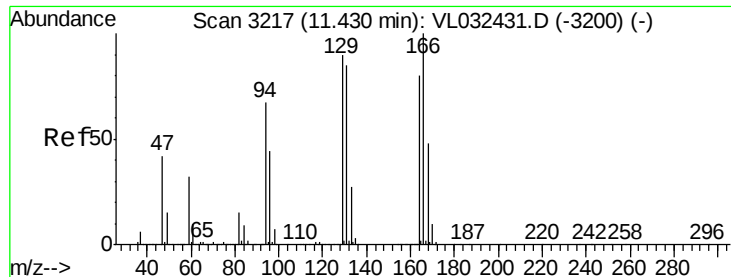
Tgt Ion: 43 Resp: 13375  
Ion Ratio Lower Upper  
43 100  
58 75.3 29.0 43.4#



#51  
2-Hexanone  
Concen: 62.807 ppbv  
RT: 10.31 min Scan# 2294  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion: 43 Resp: 13058094  
Ion Ratio Lower Upper  
43 100  
58 52.2 39.2 58.8  
98 0.1 0.4 0.6#





#52

Tetrachloroethene

Concen: 1.935 ppbv

RT: 11.42 min Scan# 2639

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

Tgt Ion: 164 Resp: 164696

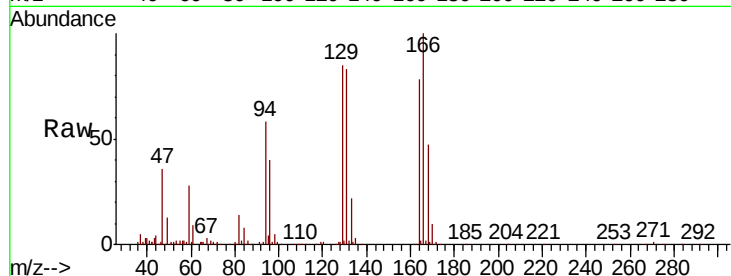
Ion Ratio Lower Upper

164 100

166 126.9 100.6 150.8

129 107.4 89.9 134.9

131 104.8 85.9 128.9

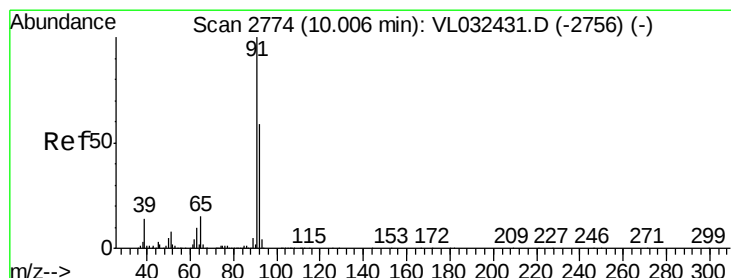
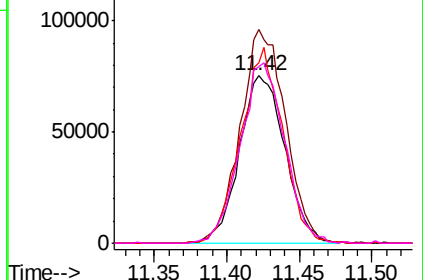
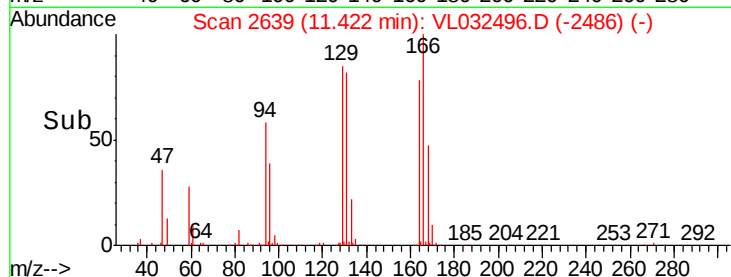


Abundance Ion 163.90 (163.60 to 164.60): V

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: 2.975 ppbv

RT: 10.00 min Scan# 2196

Delta R.T. -0.01 min

Lab File: VL032496.D

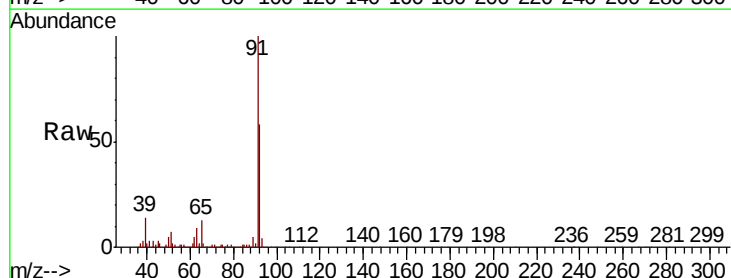
Acq: 11 Sep 2018 2:41

Tgt Ion: 91 Resp: 853766

Ion Ratio Lower Upper

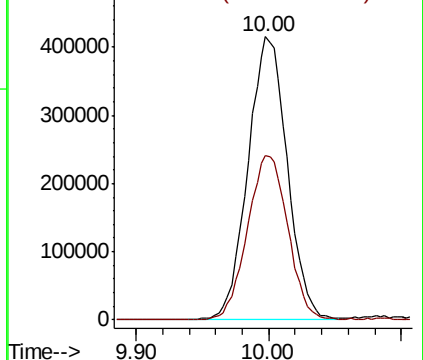
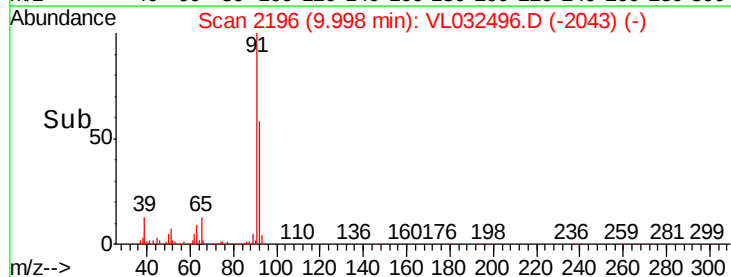
91 100

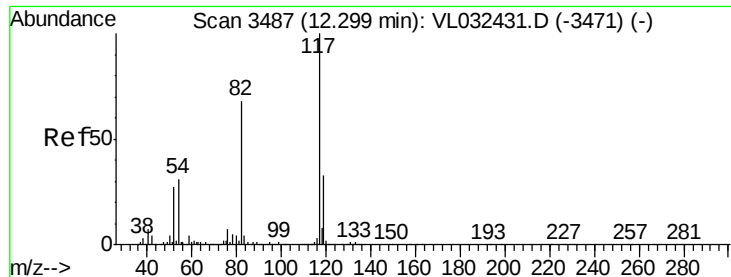
92 60.0 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

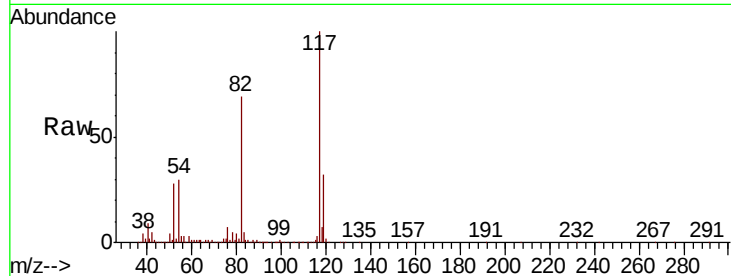




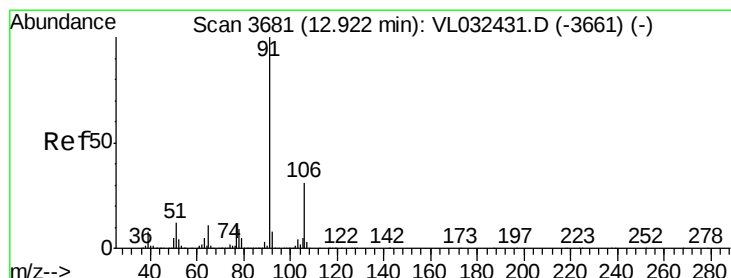
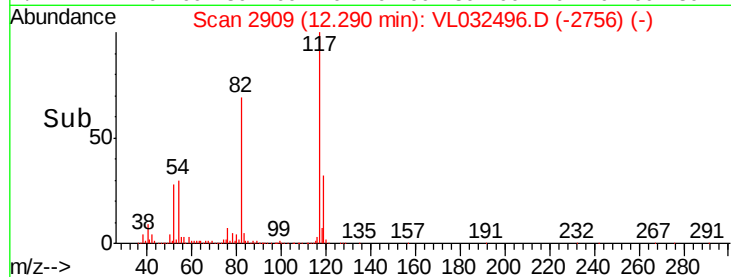
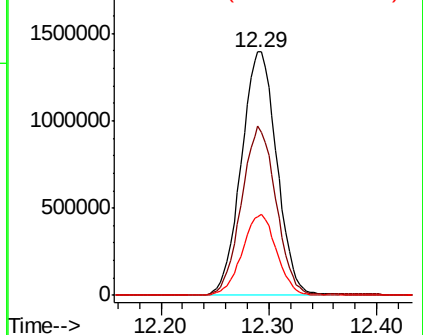
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.29 min Scan# 2909  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

Tgt Ion: 117 Resp: 3189907  
Ion Ratio Lower Upper  
117 100  
82 67.6 53.0 79.6  
119 32.4 45.9 68.9#

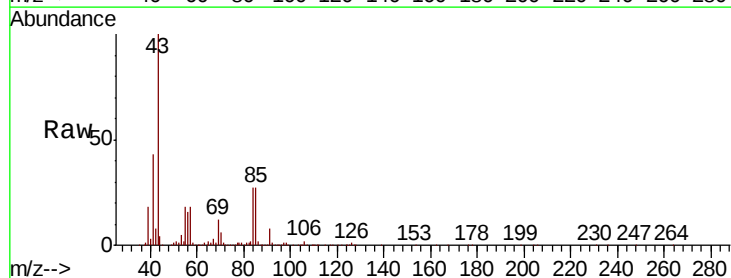


Abundance Ion 117.10 (116.80 to 117.80): V  
Ion 82.10 (81.80 to 82.80): VL0  
Ion 119.10 (118.80 to 119.80): V

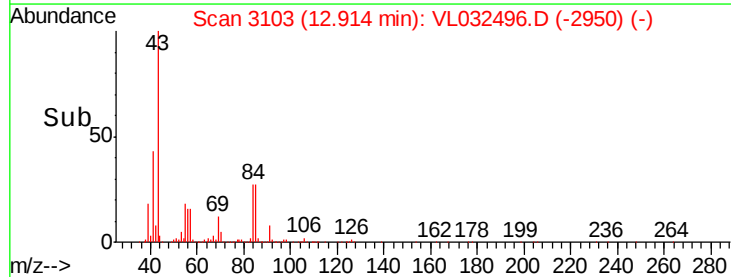
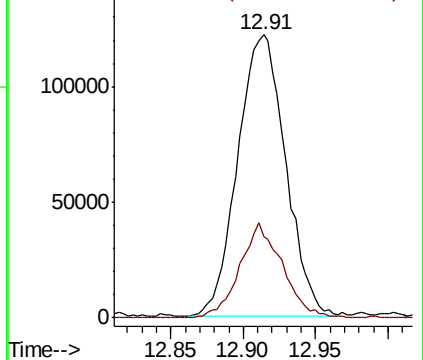


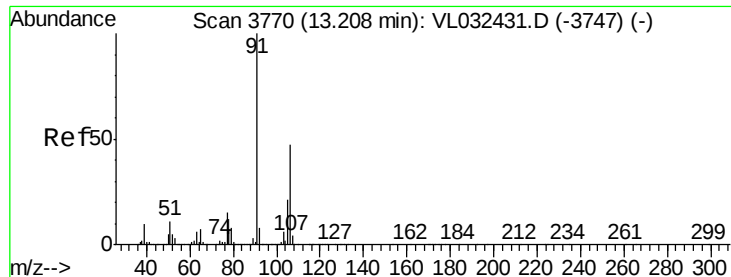
#58  
Ethyl Benzene  
Concen: 0.736 ppbv  
RT: 12.91 min Scan# 3103  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion: 91 Resp: 280892  
Ion Ratio Lower Upper  
91 100  
106 28.7 24.8 37.2



Abundance Ion 91.10 (90.80 to 91.80): VL0  
Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 2.376 ppbv

RT: 13.17 min Scan# 3182

Delta R.T. -0.04 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

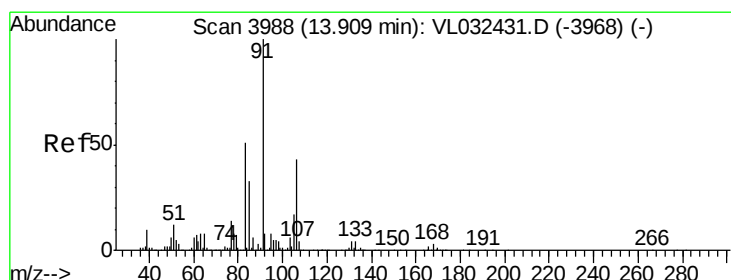
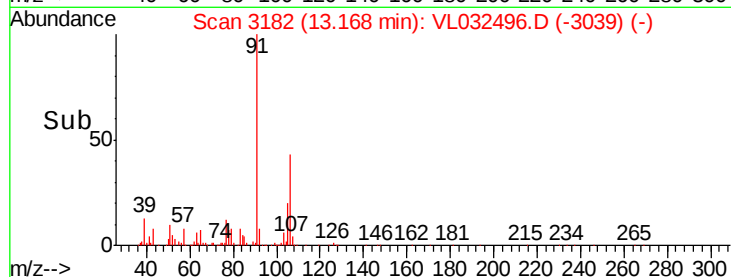
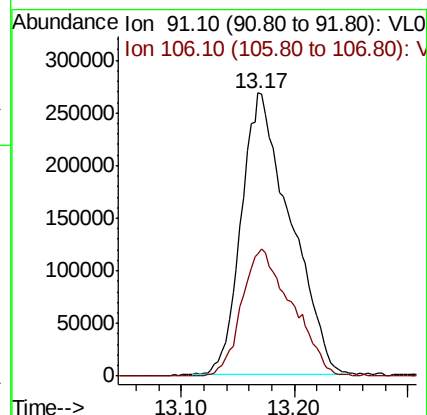
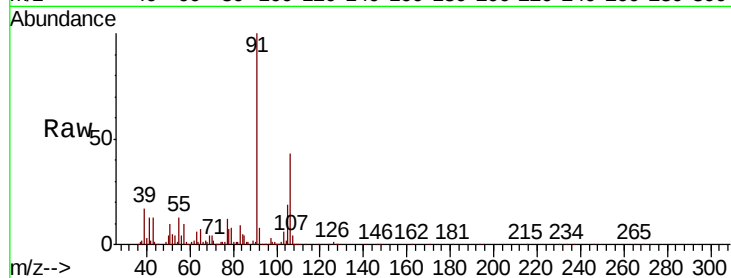
253-BERRY

Tgt Ion: 91 Resp: 808492

Ion Ratio Lower Upper

91 100

106 46.3 36.6 55.0



#60

o-Xylene

Concen: 1.169 ppbv

RT: 13.89 min Scan# 3408

Delta R.T. -0.01 min

Lab File: VL032496.D

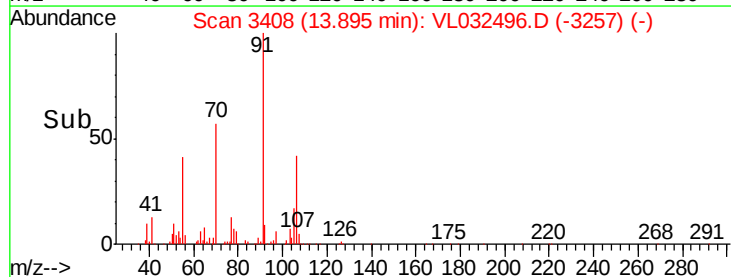
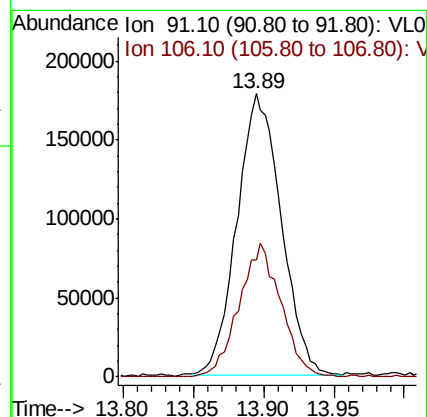
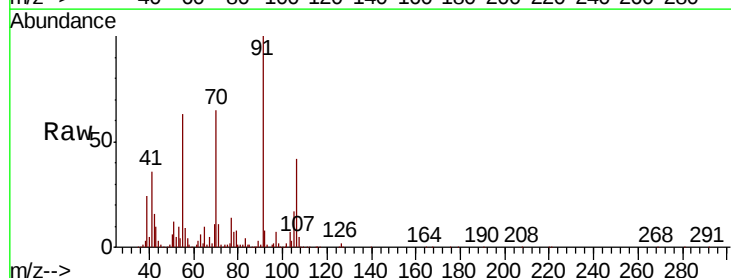
Acq: 11 Sep 2018 2:41

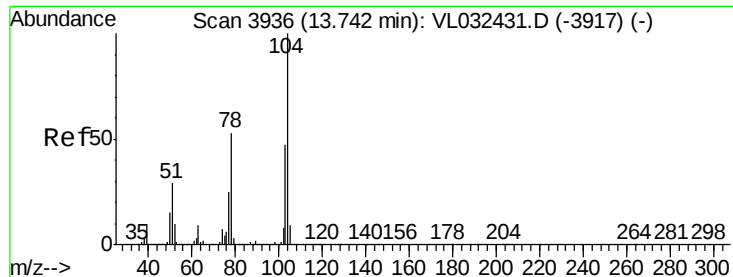
Tgt Ion: 91 Resp: 390843

Ion Ratio Lower Upper

91 100

106 45.2 21.9 65.7





#61

Styrene

Concen: 1.904 ppbv

RT: 13.73 min Scan# 3357

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

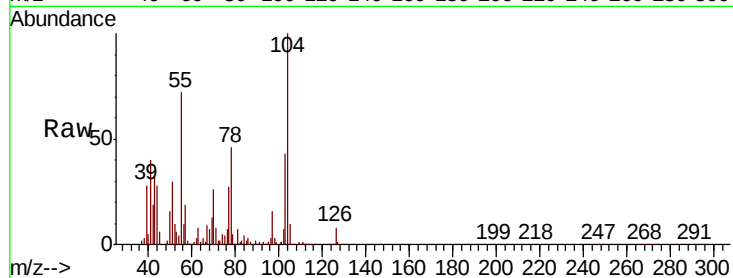
Tgt Ion:104 Resp: 412060

Ion Ratio Lower Upper

104 100

78 50.4 41.8 62.8

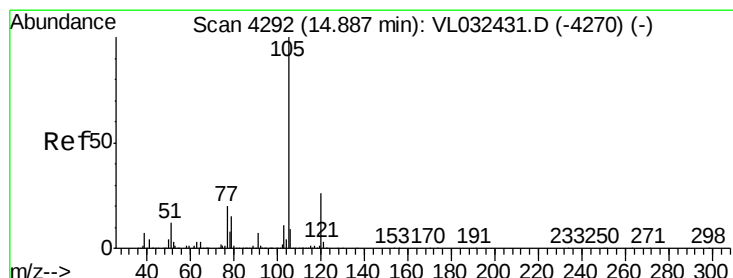
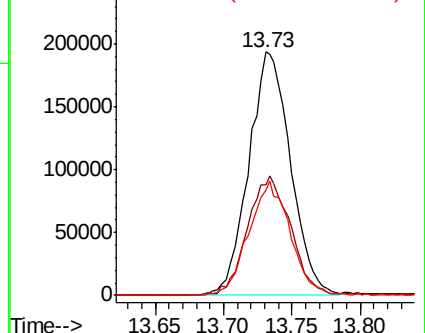
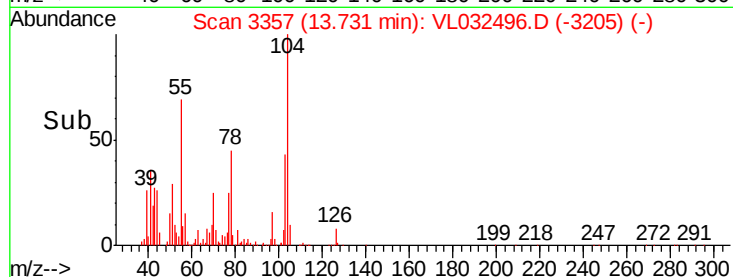
103 46.4 38.0 57.0



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 0.793 ppbv

RT: 14.88 min Scan# 3713

Delta R.T. -0.01 min

Lab File: VL032496.D

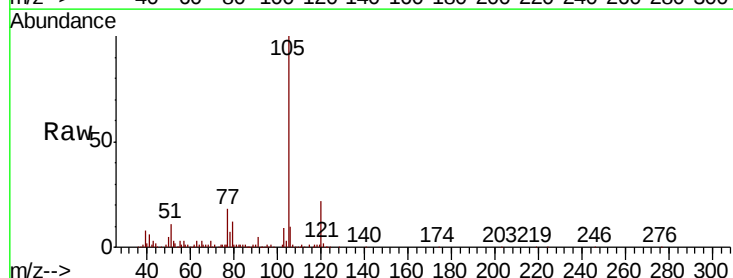
Acq: 11 Sep 2018 2:41

Tgt Ion:105 Resp: 372794

Ion Ratio Lower Upper

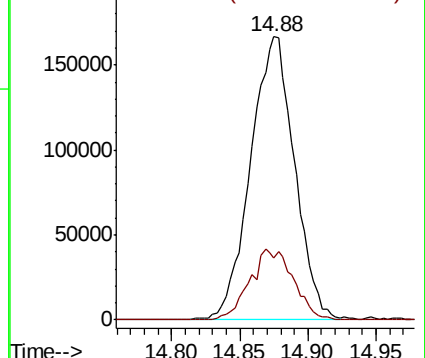
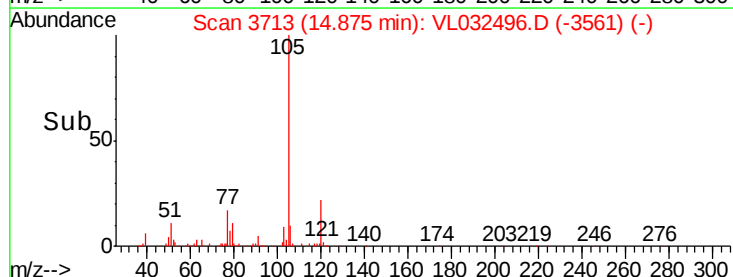
105 100

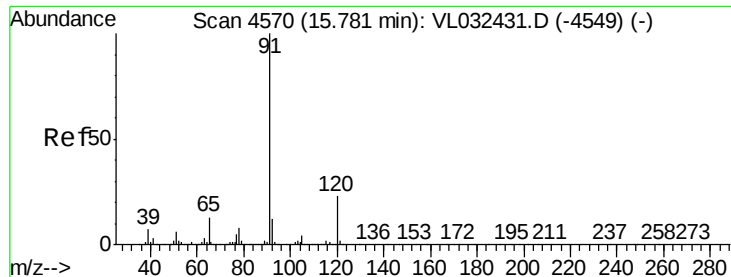
120 24.9 20.6 31.0



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

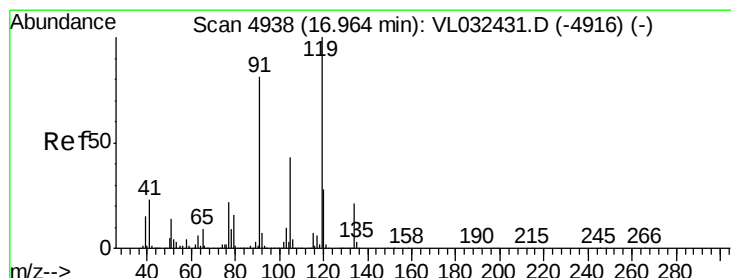
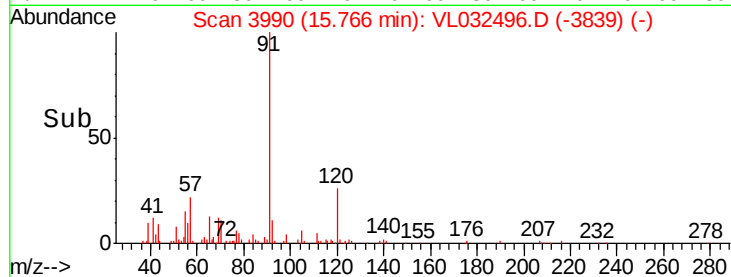
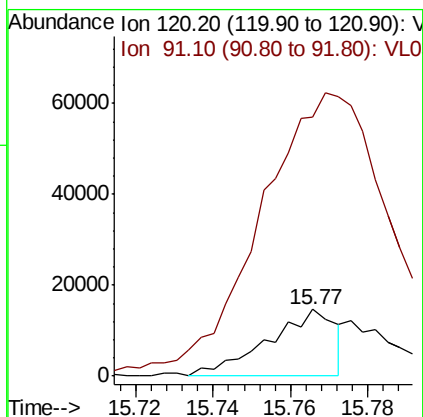
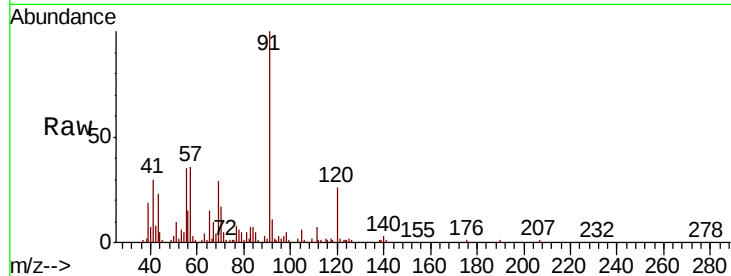




#64  
n-propylbenzene  
Concen: 0.143 ppbv  
RT: 15.77 min Scan# 3990  
Delta R.T. -0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

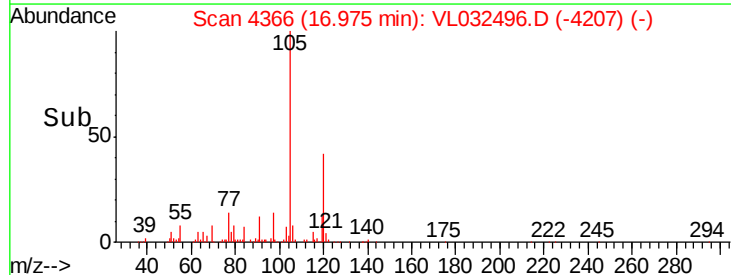
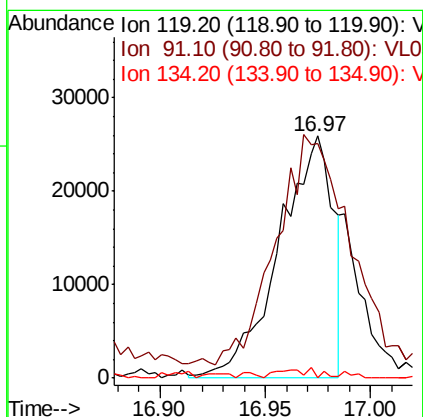
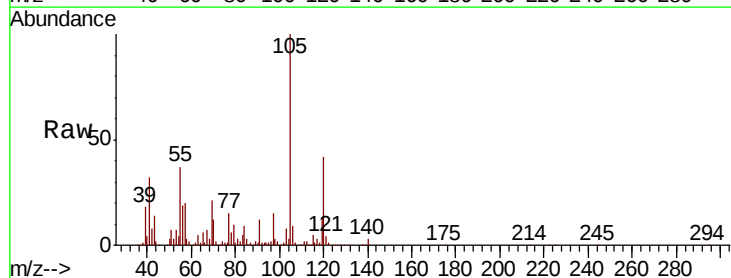
Instrument :  
MSVOA\_L  
ClientSampleId :  
253-BERRY

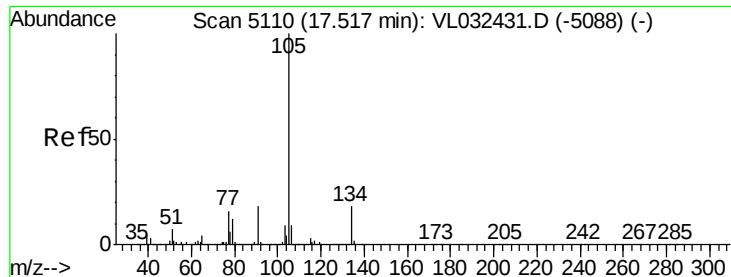
Tgt Ion:120 Resp: 17509  
Ion Ratio Lower Upper  
120 100  
91 830.1 381.8 572.6#



#65  
tert-Butylbenzene  
Concen: 0.115 ppbv  
RT: 16.97 min Scan# 4366  
Delta R.T. 0.01 min  
Lab File: VL032496.D  
Acq: 11 Sep 2018 2:41

Tgt Ion:119 Resp: 46433  
Ion Ratio Lower Upper  
119 100  
91 137.5 66.5 99.7#  
134 3.2 16.0 24.0#





#67

sec-Butylbenzene

Concen: 0.250 ppbv

RT: 17.82 min Scan# 4629

Delta R.T. 0.30 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

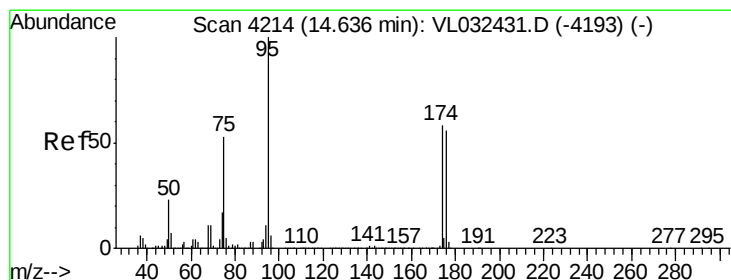
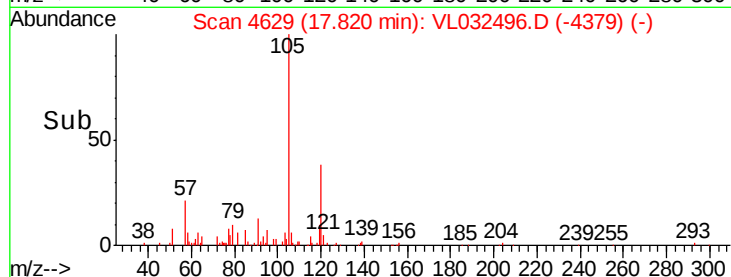
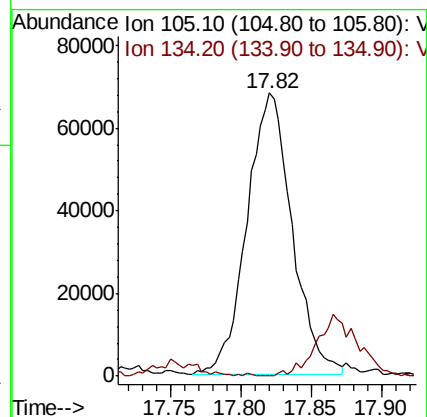
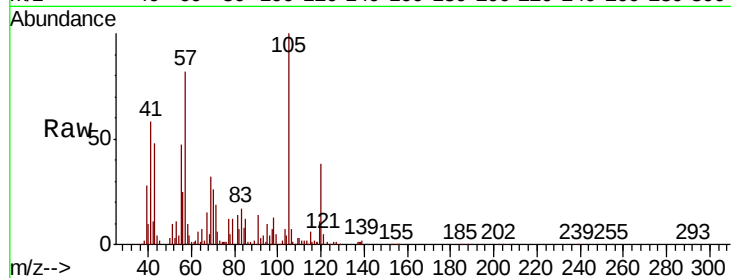
253-BERRY

Tgt Ion: 105 Resp: 152319

Ion Ratio Lower Upper

105 100

134 20.2 14.4 21.6



#68

1-Bromo-4-Fluorobenzene

Concen: 10.381 ppbv

RT: 14.62 min Scan# 3635

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

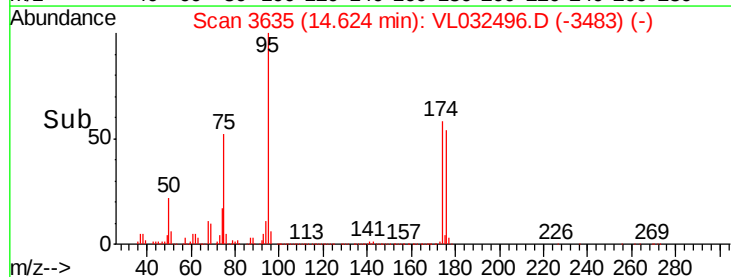
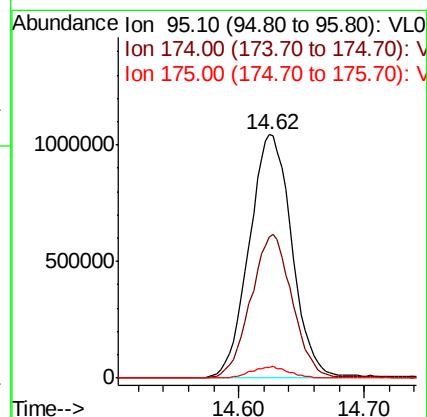
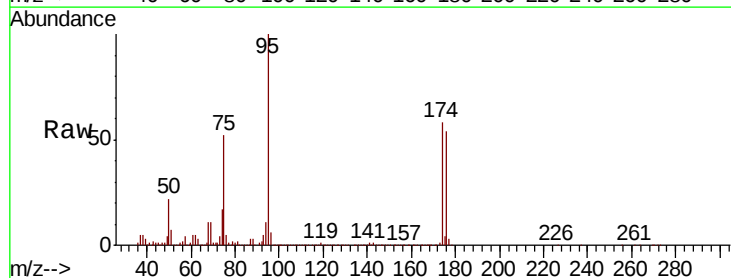
Tgt Ion: 95 Resp: 2458567

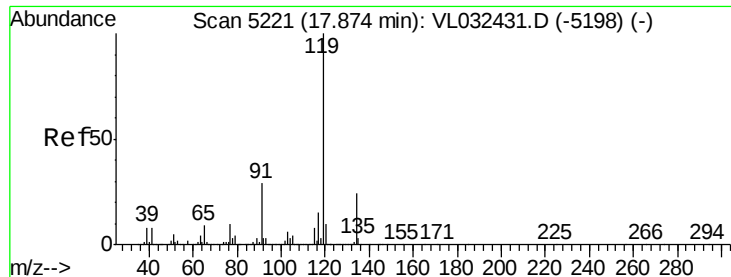
Ion Ratio Lower Upper

95 100

174 58.3 46.3 69.5

175 4.3 3.4 5.0





#69

p-Isopropyltoluene

Concen: 0.149 ppbv

RT: 17.87 min Scan# 4643

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

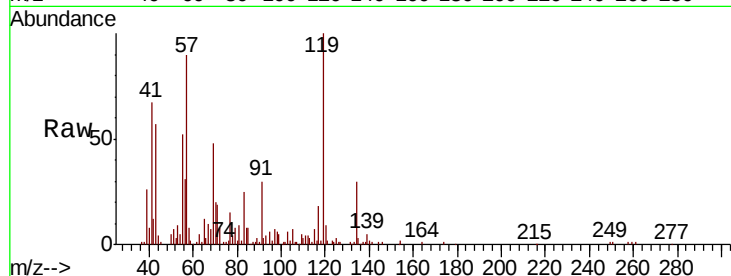
Tgt Ion: 119 Resp: 70431

Ion Ratio Lower Upper

119 100

134 43.7 20.4 30.6#

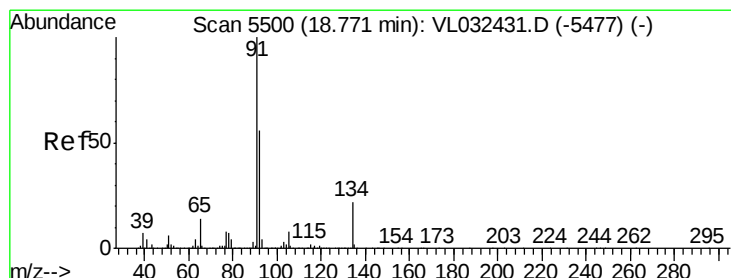
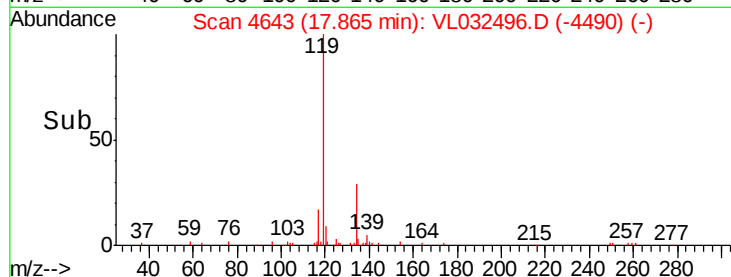
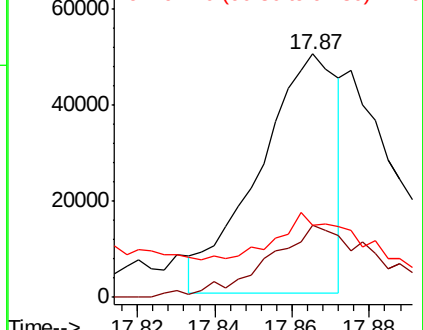
91 51.6 23.4 35.2#



Abundance Ion 119.10 (118.80 to 119.80): V

Ion 134.20 (133.90 to 134.90): V

Ion 91.10 (90.80 to 91.80): V



#70

n-Butylbenzene

Concen: 0.034 ppbv

RT: 18.77 min Scan# 4924

Delta R.T. -0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

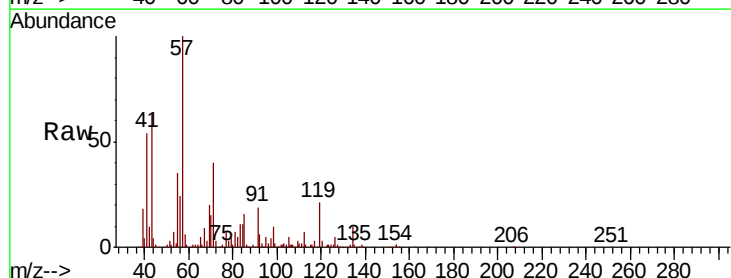
Tgt Ion: 91 Resp: 18206

Ion Ratio Lower Upper

91 100

92 111.8 43.8 65.8#

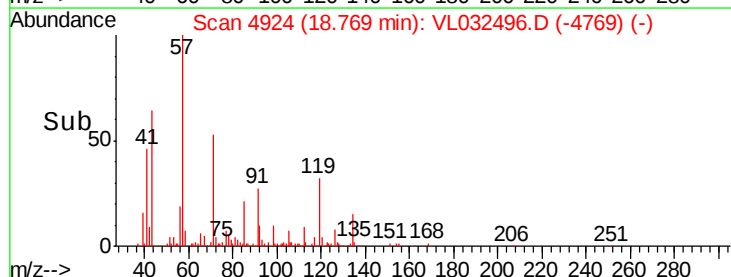
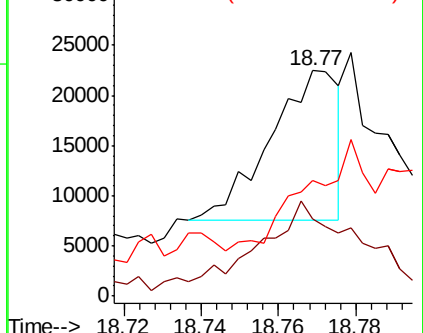
134 0.0 17.4 26.0#

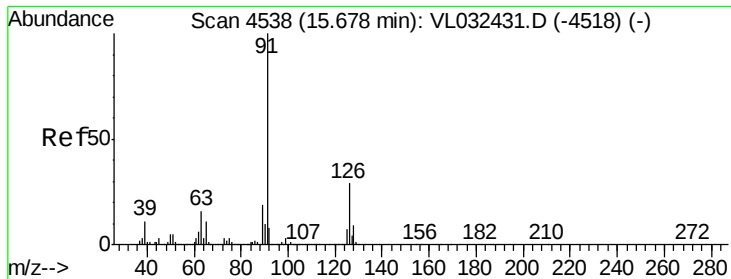


Abundance Ion 91.10 (90.80 to 91.80): V

Ion 92.10 (91.80 to 92.80): V

Ion 134.20 (133.90 to 134.90): V





#71

2-Chlorotoluene

Concen: 0.402 ppbv

RT: 15.77 min Scan# 3991

Delta R.T. 0.09 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

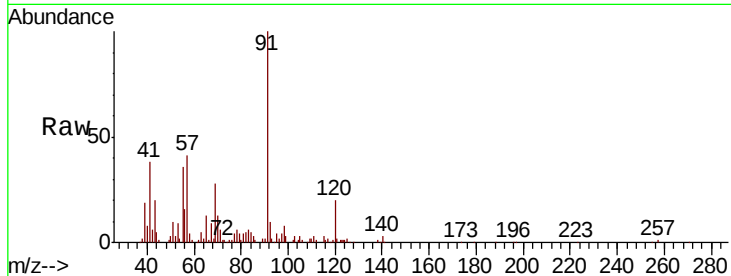
253-BERRY

Tgt Ion: 91 Resp: 144333

Ion Ratio Lower Upper

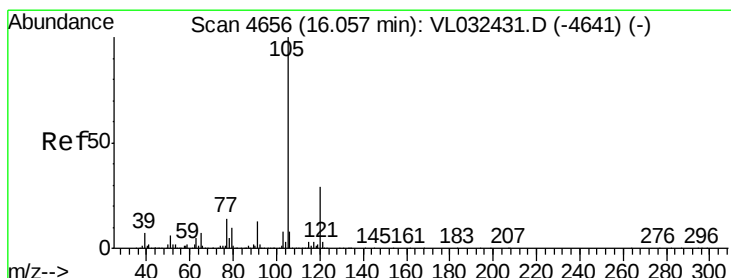
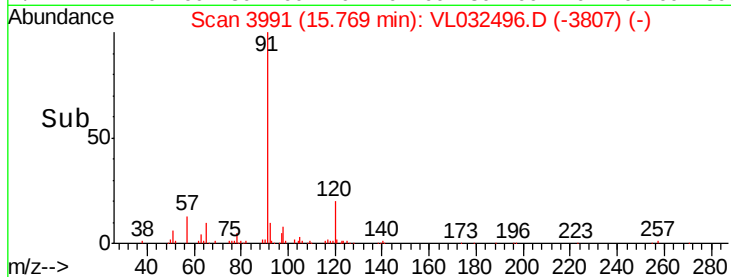
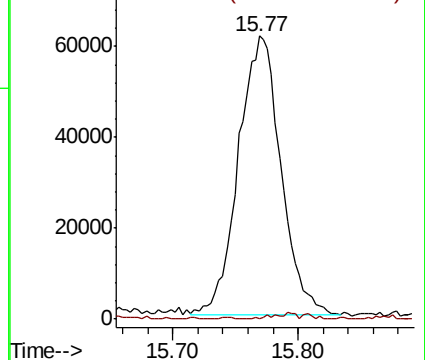
91 100

126 2.0 11.9 47.7#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 126.10 (125.80 to 126.80): V



#72

4-Ethyltoluene

Concen: 0.423 ppbv

RT: 16.05 min Scan# 4077

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Tgt Ion: 105 Resp: 154502

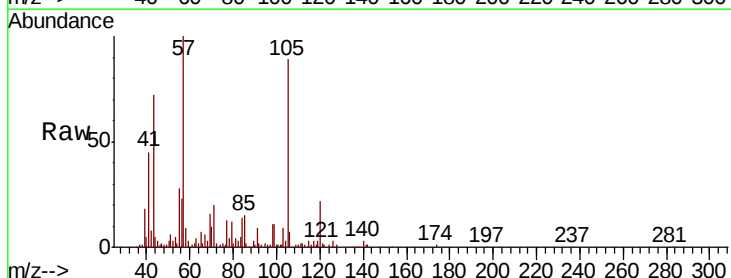
Ion Ratio Lower Upper

105 100

120 28.7 23.5 35.3

91 14.2 10.2 15.2

77 19.9 11.1 16.7#

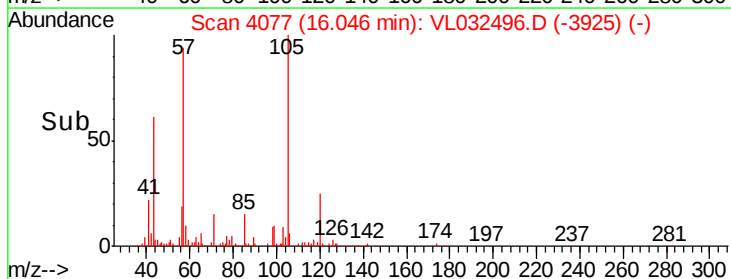
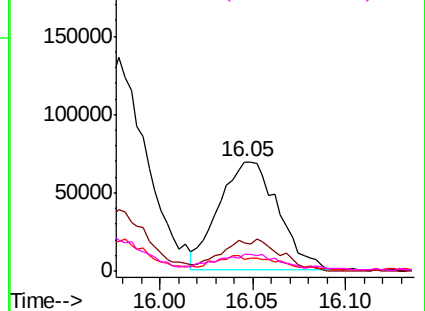


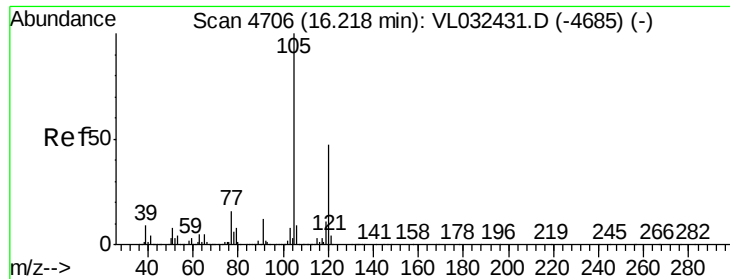
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 0.213 ppbv

RT: 16.21 min Scan# 4128

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

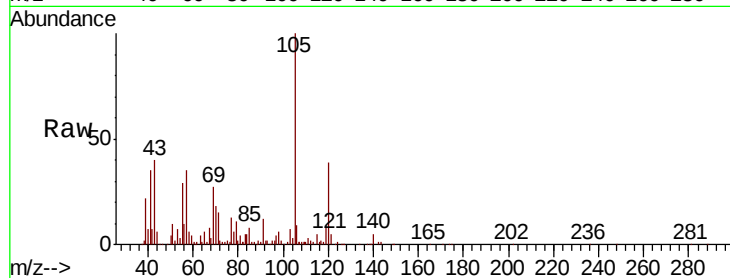
253-BERRY

Tgt Ion:105 Resp: 77929

Ion Ratio Lower Upper

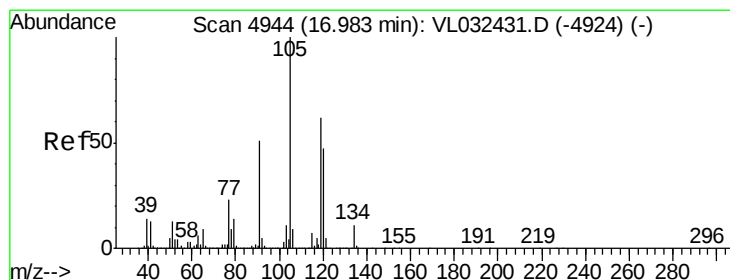
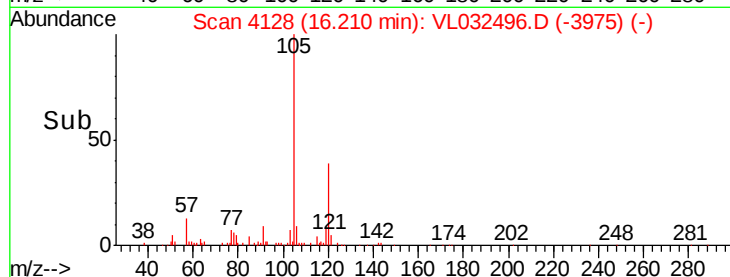
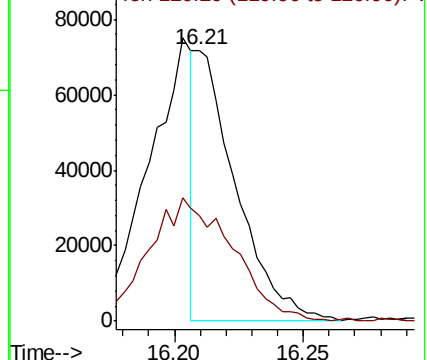
105 100

120 38.3 37.9 56.9



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 1.303 ppbv

RT: 16.97 min Scan# 4366

Delta R.T. -0.01 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Tgt Ion:105 Resp: 521056

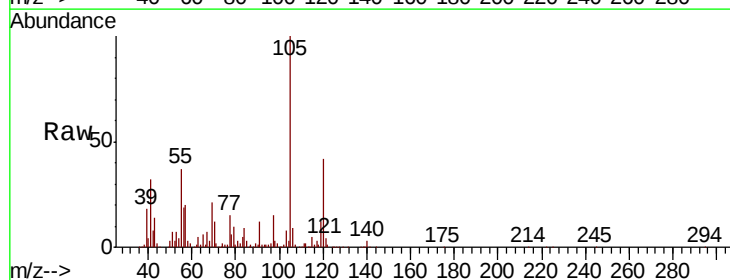
Ion Ratio Lower Upper

105 100

120 41.9 37.8 56.8

91 11.1 41.4 62.0#

77 14.6 18.6 28.0#

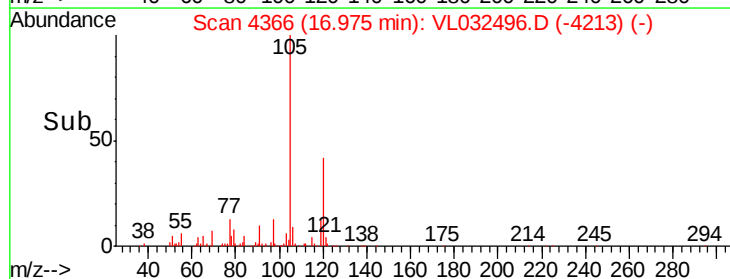
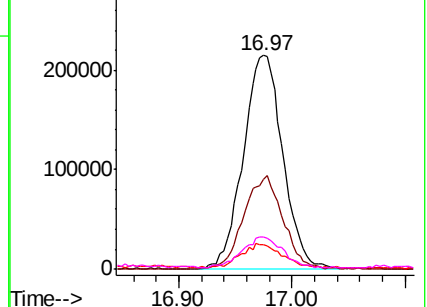


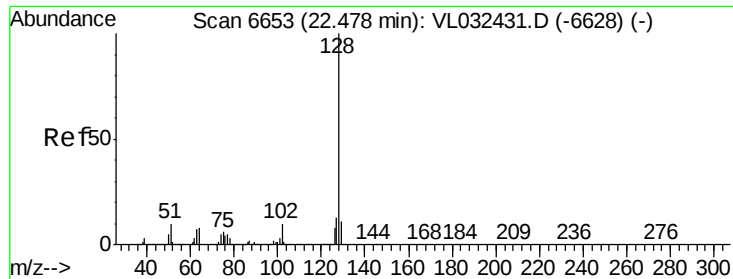
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#79

Naphthalene

Concen: 0.052 ppbv

RT: 22.45 min Scan# 6070

Delta R.T. -0.02 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

Instrument :

MSVOA\_L

ClientSampleId :

253-BERRY

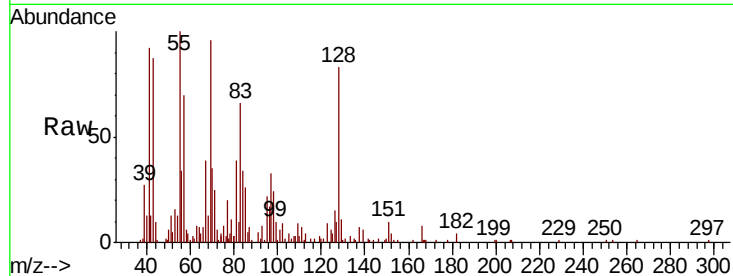
Tgt Ion:128 Resp: 16816

Ion Ratio Lower Upper

128 100

127 11.1 10.2 15.2

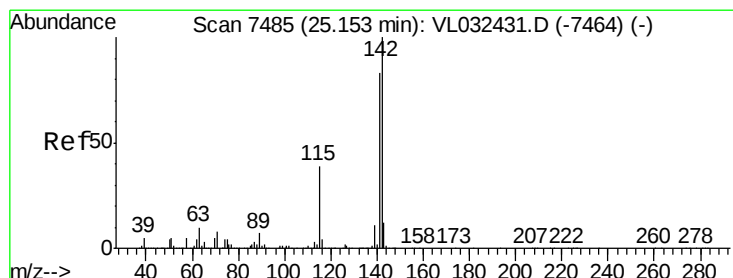
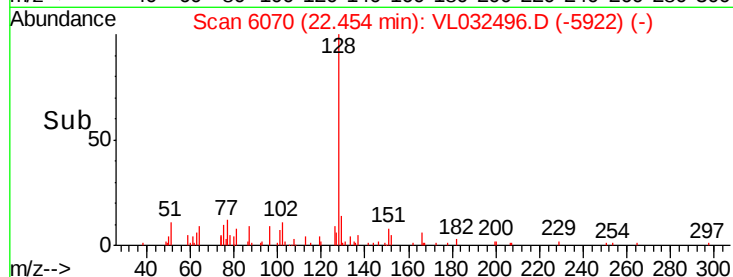
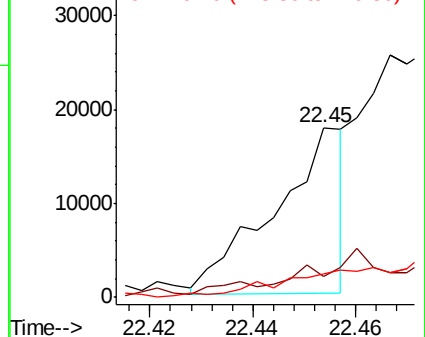
129 11.8 8.5 12.7



Abundance Ion 128.10 (127.80 to 128.80): V

Ion 127.10 (126.80 to 127.80): V

Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.054 ppbv

RT: 25.15 min Scan# 6909

Delta R.T. -0.00 min

Lab File: VL032496.D

Acq: 11 Sep 2018 2:41

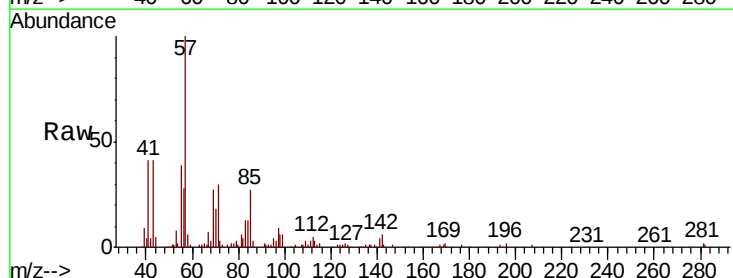
Tgt Ion:142 Resp: 4665

Ion Ratio Lower Upper

142 100

141 126.8 67.0 100.6#

115 65.2 31.3 46.9#



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

