

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032921\  
 Data File : VL036543.D  
 Acq On : 29 Mar 2021 17:29  
 Operator : SY/AP  
 Sample : M1760-07  
 Misc : 400mL/MSVOA L  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IAS-6-CR-104

Manual Integrations  
 APPROVED

MMDadoda  
 3/30/2021 7:44:10 PM

Quant Time: Mar 30 11:26:03 2021  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M  
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Mar 25 2021  
 QLast Update : Thu Mar 25 09:42:40 2021  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.66  | 49   | 1498234  | 10.00 | ppbv  | -0.01    |
| 33) 1,4-Difluorobenzene | 7.17  | 114  | 3465086  | 10.00 | ppbv  | -0.01    |
| 55) Chlorobenzene-d5    | 12.08 | 117  | 3127745  | 10.00 | ppbv  | -0.01    |

|                             |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds |        |       |          |          |      |         |
| 68) 1-Bromo-4-Fluorobenzene | 14.41  | 95    | 2596240  | 10.41    | ppbv | -0.01   |
| Spiked Amount               | 10.000 | Range | 65 - 135 | Recovery | =    | 104.10% |

| Target Compounds           | R.T.  | QIon | Response | Conc    | Units  | Ovalue |
|----------------------------|-------|------|----------|---------|--------|--------|
| 2) Dichlorodifluoromethane | 3.04  | 85   | 55072    | 0.225   | ppbv   | 91     |
| 3) Chlorodifluoromethane   | 2.98  | 51   | 83919m   | 0.300   | ppbv   |        |
| 4) Chloromethane           | 3.13  | 50   | 105769   | 1.070   | ppbv   | 99     |
| 9) Propene                 | 3.02  | 41   | 91842m   | 1.029   | ppbv   |        |
| 10) Heptane                | 8.11  | 43   | 32054    | 0.141   | ppbv   | 86     |
| 11) Trichlorofluoromethane | 3.94  | 101  | 53120m   | 0.213   | ppbv   |        |
| 13) Ethanol                | 3.61  | 45   | 1817253  | 171.005 | ppbv   | 94     |
| 15) Acetone                | 3.84  | 43   | 1511968  | 10.253  | ppbv   | 98     |
| 19) Isopropyl Alcohol      | 3.97  | 45   | 921681   | 11.362  | ppbv   | 98     |
| 20) Methylene Chloride     | 4.34  | 84   | 328716   | 4.761   | ppbv   | 99     |
| 26) Hexane                 | 5.68  | 57   | 1067956  | 6.564   | ppbv # | 48     |
| 34) 2-Butanone             | 5.24  | 43   | 156799m  | 0.927   | ppbv   |        |
| 35) Carbon Tetrachloride   | 7.02  | 117  | 16514m   | 0.062   | ppbv   |        |
| 36) Benzene                | 6.88  | 78   | 85430    | 0.267   | ppbv   | 96     |
| 50) 4-Methyl-2-Pentanone   | 8.75  | 43   | 35878m   | 0.147   | ppbv   |        |
| 53) Toluene                | 9.80  | 91   | 543243   | 1.596   | ppbv   | 98     |
| 58) Ethyl Benzene          | 12.70 | 91   | 44729m   | 0.098   | ppbv   |        |
| 59) m/p-Xylene             | 12.96 | 91   | 139967m  | 0.353   | ppbv   |        |
| 60) o-Xylene               | 13.68 | 91   | 51443m   | 0.134   | ppbv   |        |

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

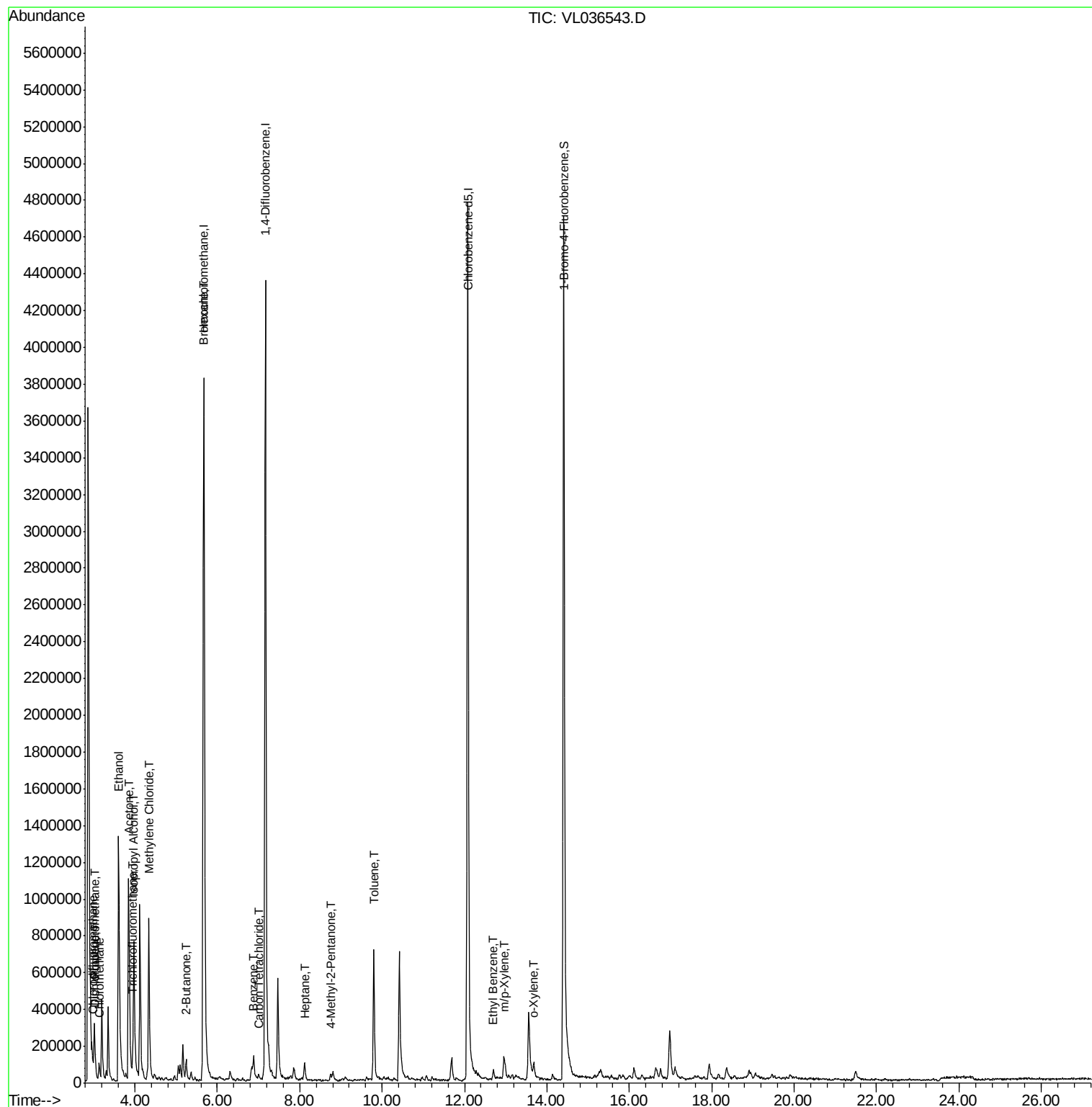
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032921\  
Data File : VL036543.D  
Acq On : 29 Mar 2021 17:29  
Operator : SY/AP  
Sample : M1760-07  
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MSVOA\_L  
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IAS-6-CR-104

Manual Integrations  
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Quant Time: Mar 30 11:26:03 2021  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M  
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA\_L Thu Mar  
QLast Update : Thu Mar 25 09:42:40 2021  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.01 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion: 49 Resp: 1498234

Ion Ratio Lower Upper

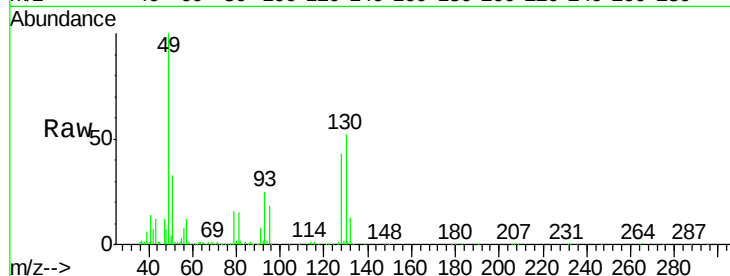
49 100

128 44.8 23.5 70.6

130 57.1 29.1 87.4

Manual Integrations  
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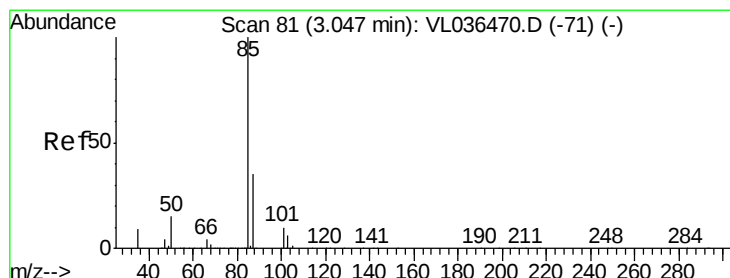
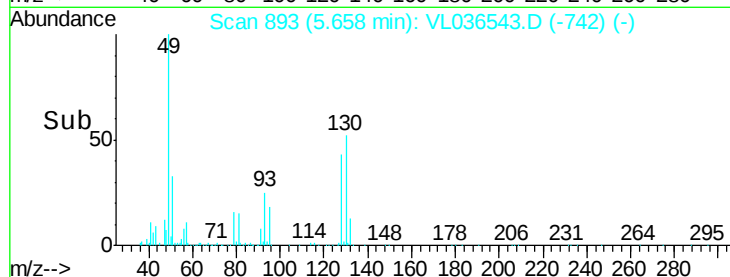
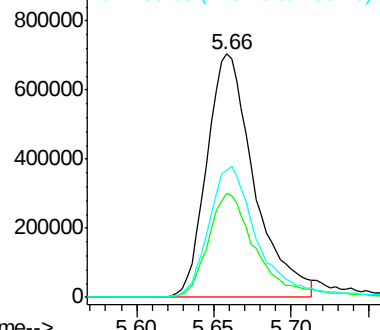
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.225 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL036543.D

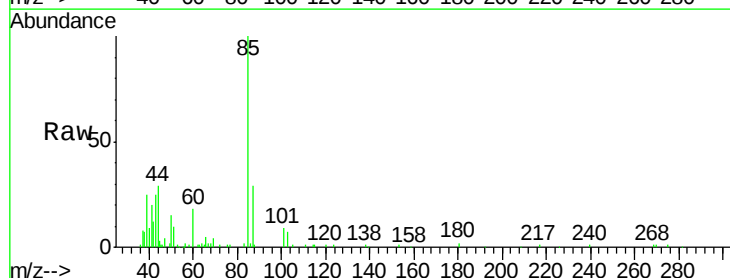
Acq: 29 Mar 2021 17:29

Tgt Ion: 85 Resp: 55072

Ion Ratio Lower Upper

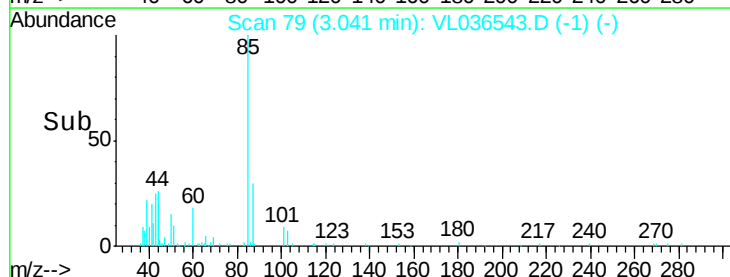
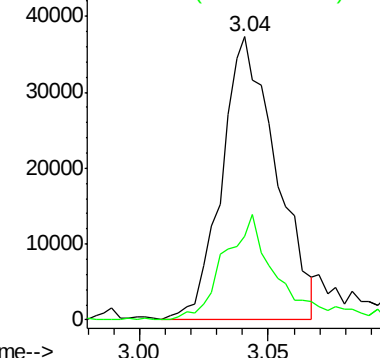
85 100

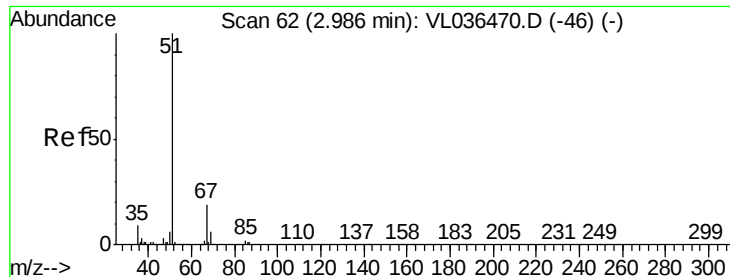
87 29.4 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.300 ppbv

RT: 2.98 min Scan# 60

Delta R.T. -0.01 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion: 51 Resp: 83919

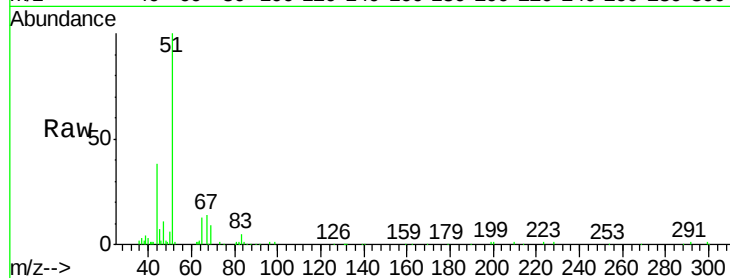
Ion Ratio Lower Upper

51 100

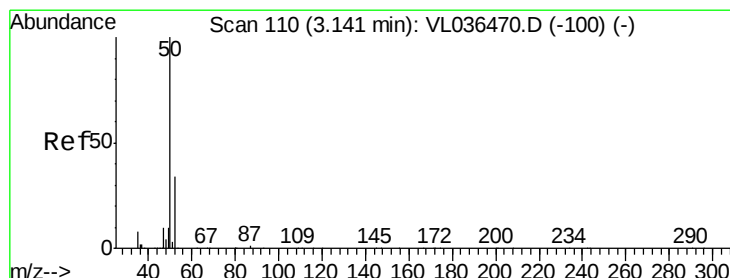
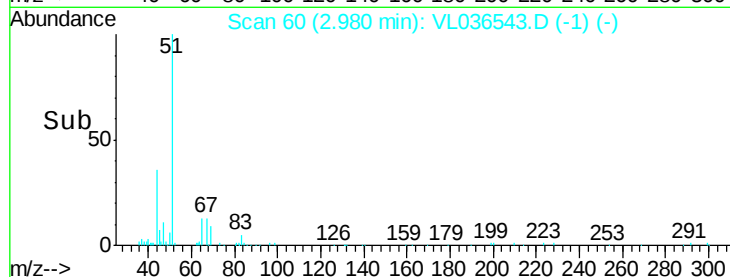
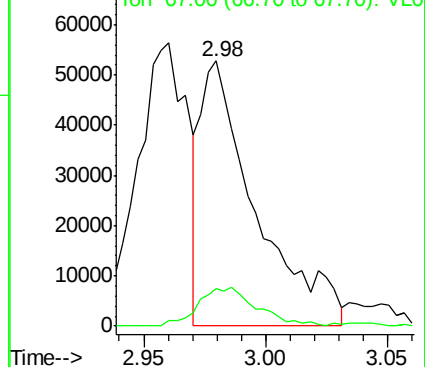
67 16.8 14.7 22.1

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Abundance Ion 51.00 (50.70 to 51.70): VL0  
Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 1.070 ppbv

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036543.D

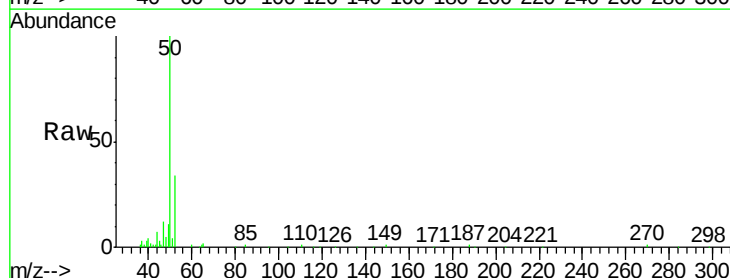
Acq: 29 Mar 2021 17:29

Tgt Ion: 50 Resp: 105769

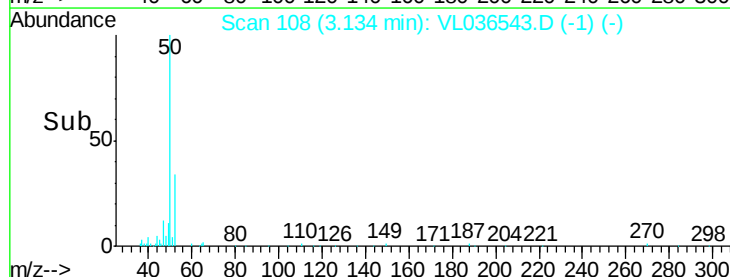
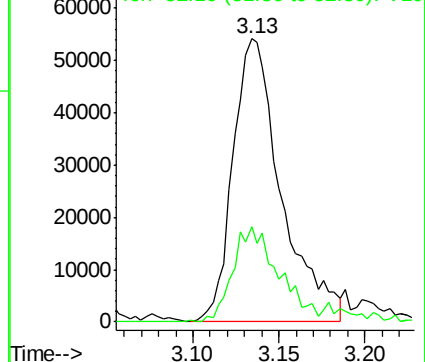
Ion Ratio Lower Upper

50 100

52 33.3 27.0 40.6



Abundance Ion 50.10 (49.80 to 50.80): VL0  
Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.029 ppbv m

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion: 41 Resp: 91842

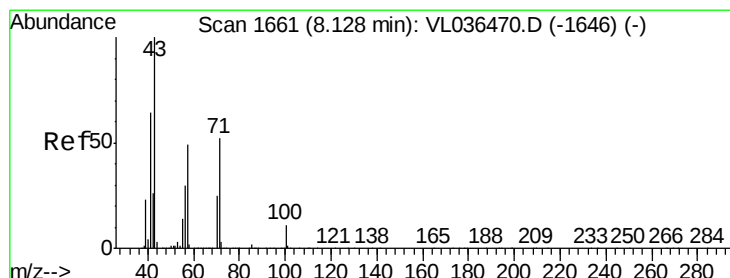
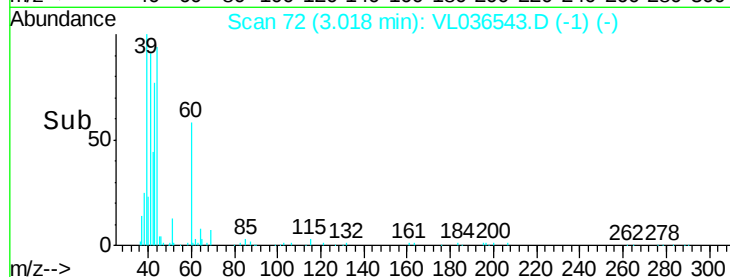
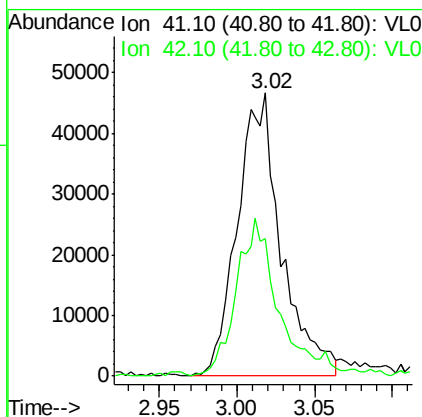
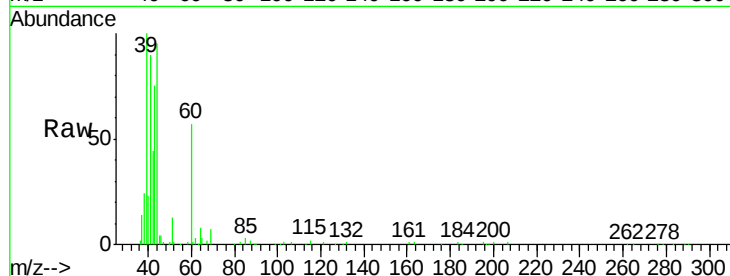
Ion Ratio Lower Upper

41 100

42 55.5 57.0 85.4#

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#10

Heptane

Concen: 0.141 ppbv

RT: 8.11 min Scan# 1656

Delta R.T. -0.02 min

Lab File: VL036543.D

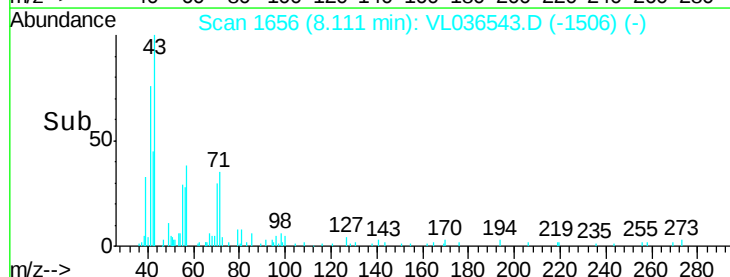
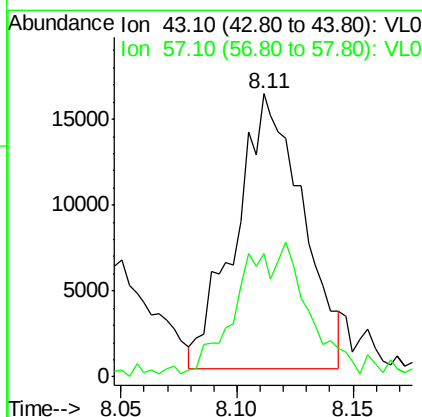
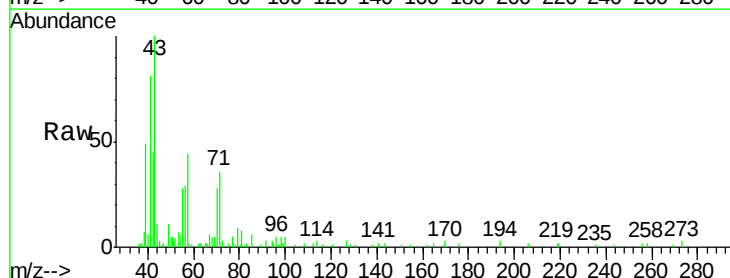
Acq: 29 Mar 2021 17:29

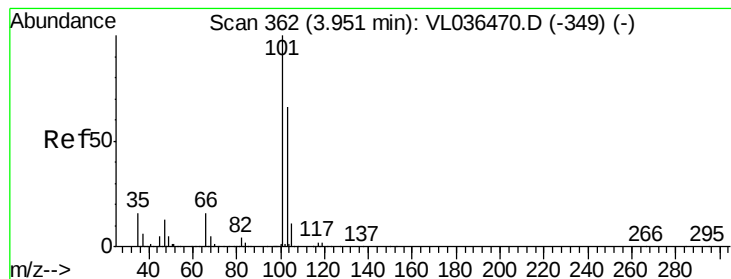
Tgt Ion: 43 Resp: 32054

Ion Ratio Lower Upper

43 100

57 58.1 39.0 58.6





#11

Trichlorofluoromethane

Concen: 0.213 ppbv m

RT: 3.94 min Scan# 359

Delta R.T. -0.01 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion:101 Resp: 53120

Ion Ratio Lower Upper

101 100

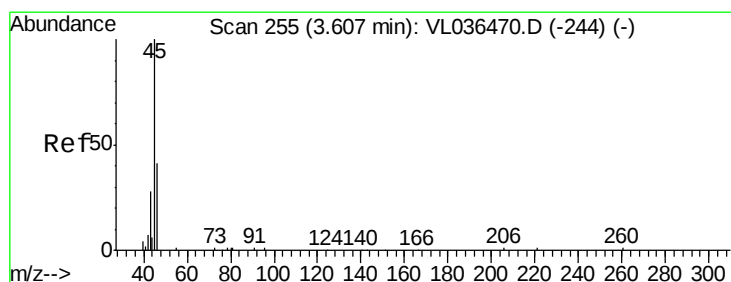
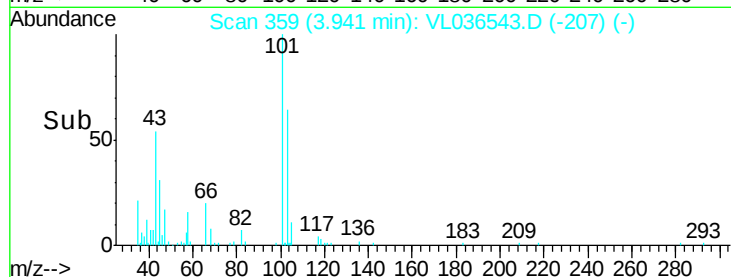
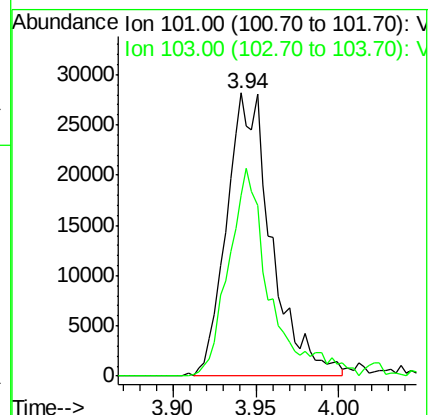
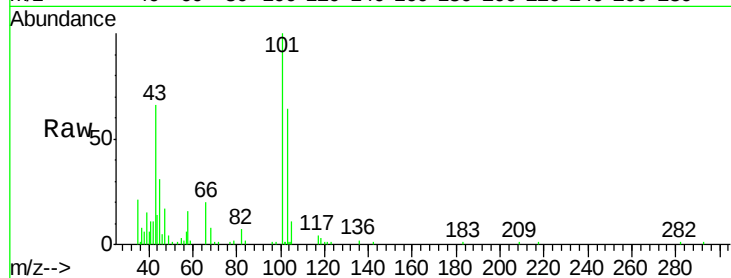
103 63.8 52.5 78.7

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#13

Ethanol

Concen: 171.005 ppbv

RT: 3.61 min Scan# 255

Delta R.T. -0.00 min

Lab File: VL036543.D

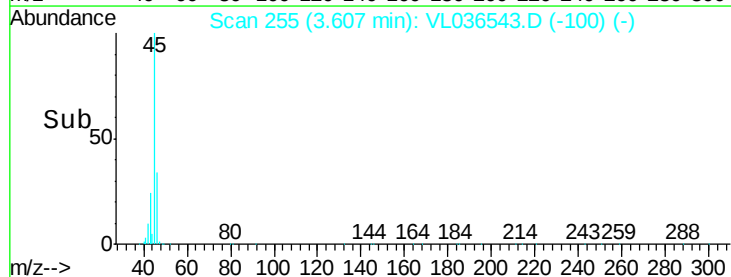
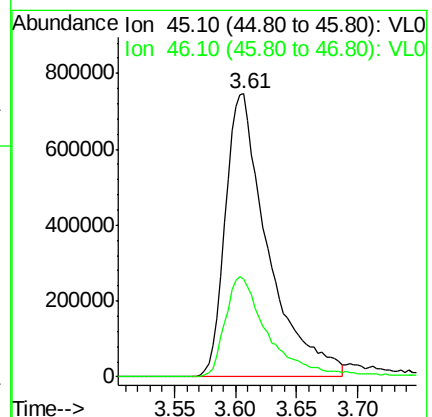
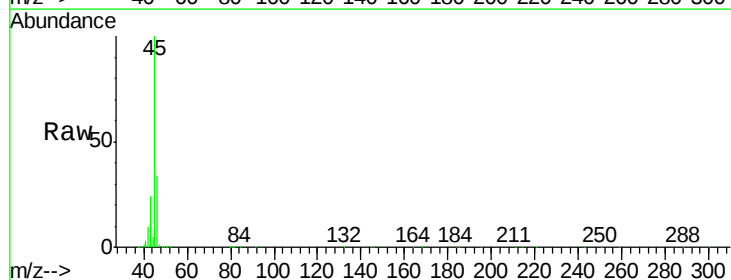
Acq: 29 Mar 2021 17:29

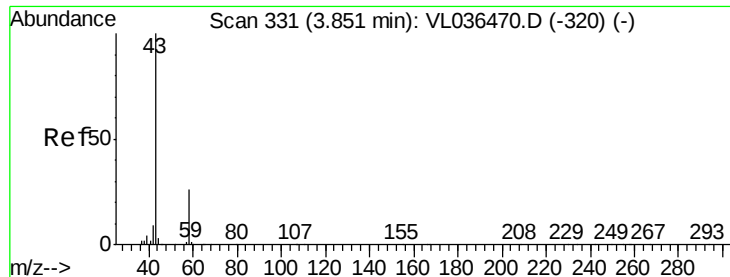
Tgt Ion: 45 Resp: 1817253

Ion Ratio Lower Upper

45 100

46 37.5 16.6 66.2





#15

Acetone

Concen: 10.253 ppbv

RT: 3.84 min Scan# 328

Delta R.T. -0.01 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion: 43 Resp: 1511968

Ion Ratio Lower Upper

43 100

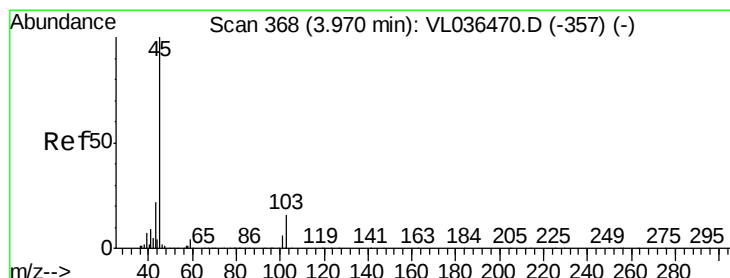
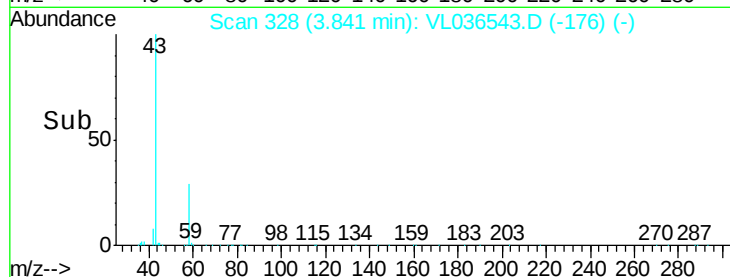
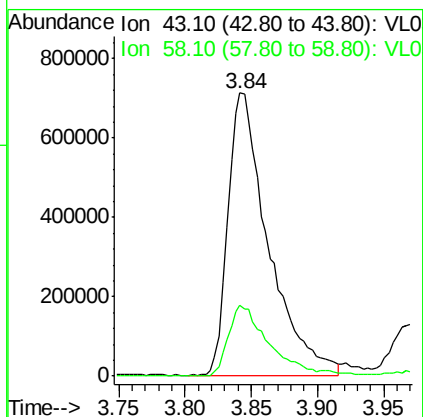
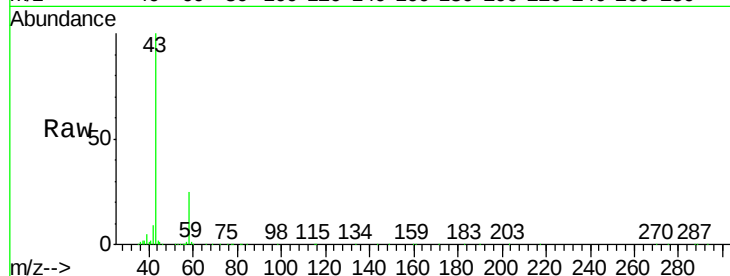
58 25.7 21.2 31.8

Manual Integrations

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3/30/2021 7:44:10 PM



#19

Isopropyl Alcohol

Concen: 11.362 ppbv

RT: 3.97 min Scan# 368

Delta R.T. -0.00 min

Lab File: VL036543.D

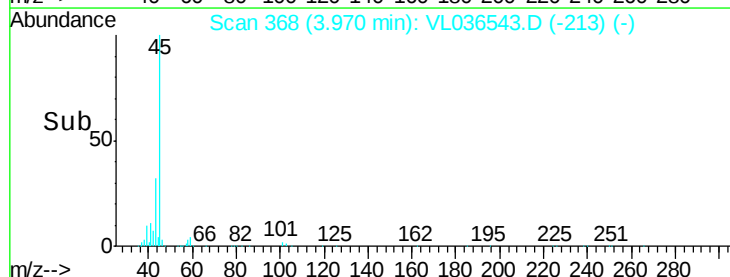
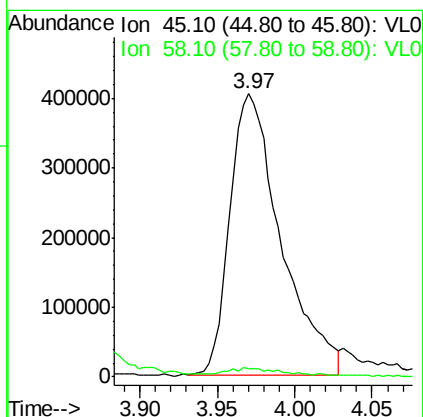
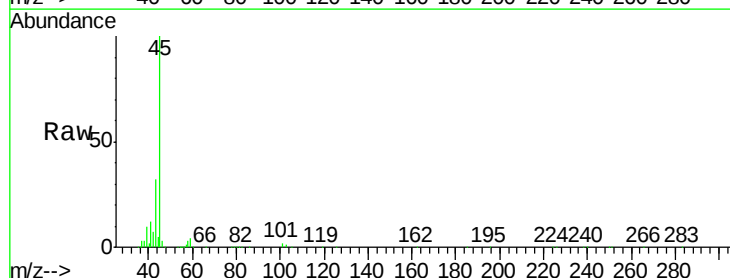
Acq: 29 Mar 2021 17:29

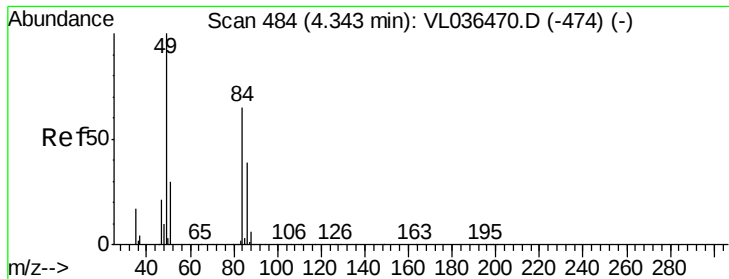
Tgt Ion: 45 Resp: 921681

Ion Ratio Lower Upper

45 100

58 4.1 2.9 4.3





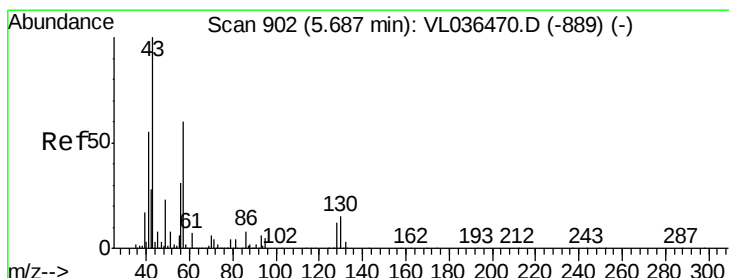
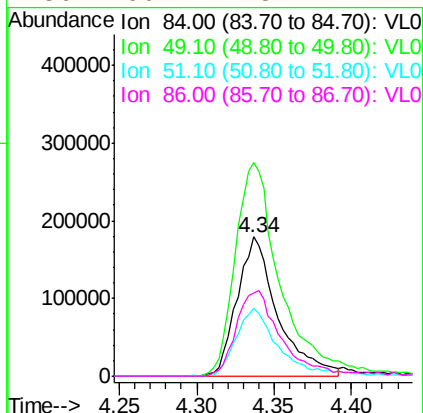
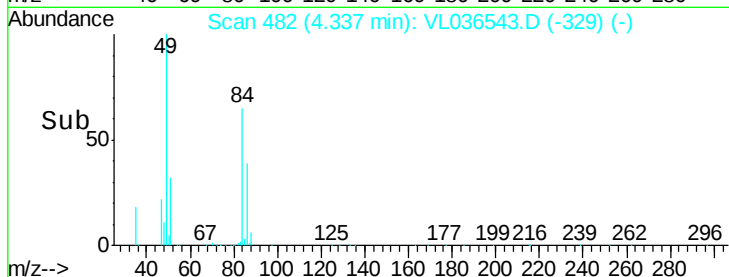
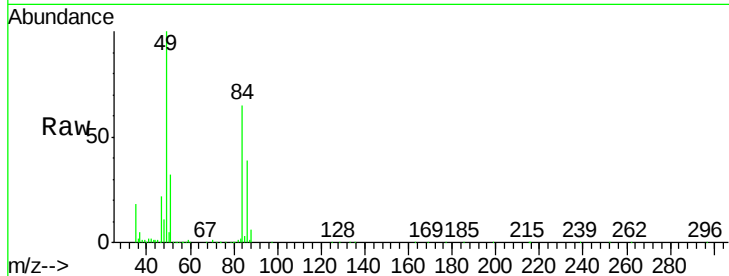
#20  
Methvlene Chloride  
Concen: 4.761 ppbv  
RT: 4.34 min Scan# 482  
Delta R.T. -0.01 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

Instrument :  
MSVOA\_L  
ClientSampleId :  
IAS-6-CR-104

| Tot Ion | 84    | Resp  | 328716 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 84      | 100   |       |        |
| 49      | 153.5 | 122.9 | 184.3  |
| 51      | 49.1  | 36.9  | 55.3   |
| 86      | 60.1  | 48.2  | 72.4   |

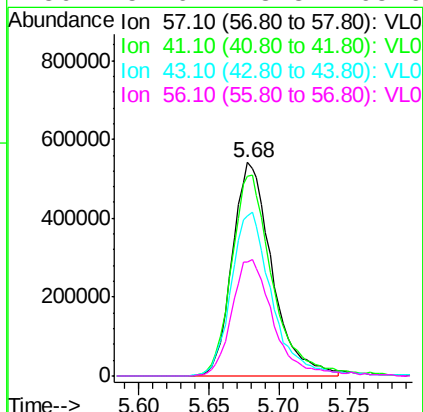
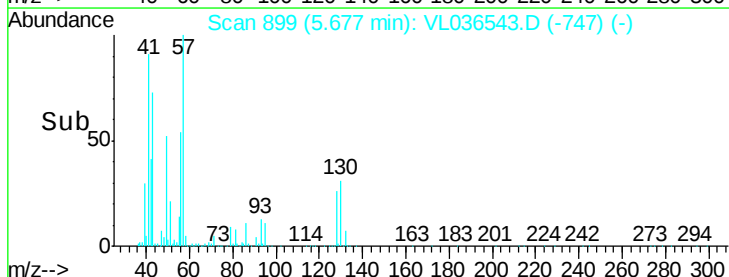
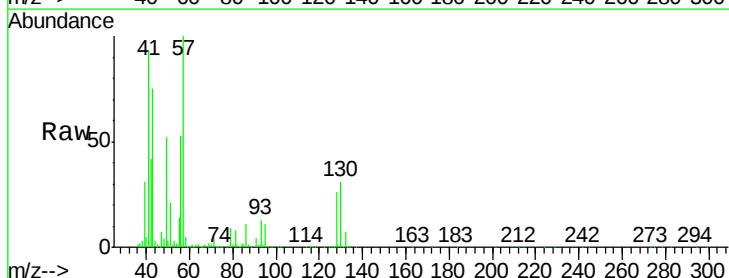
Manual Integrations  
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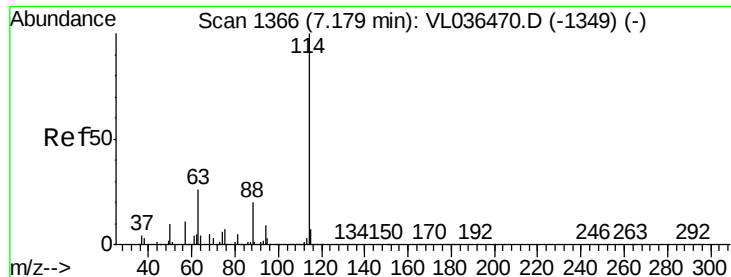
MMDadoda  
3/30/2021 7:44:10 PM



#26  
Hexane  
Concen: 6.564 ppbv  
RT: 5.68 min Scan# 899  
Delta R.T. -0.01 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

| Tgt Ion | 57    | Resp  | 1067956 |
|---------|-------|-------|---------|
| Ion     | Ratio | Lower | Upper   |
| 57      | 100   |       |         |
| 41      | 98.7  | 77.2  | 115.8   |
| 43      | 79.3  | 173.8 | 260.6#  |
| 56      | 57.6  | 43.8  | 65.6    |





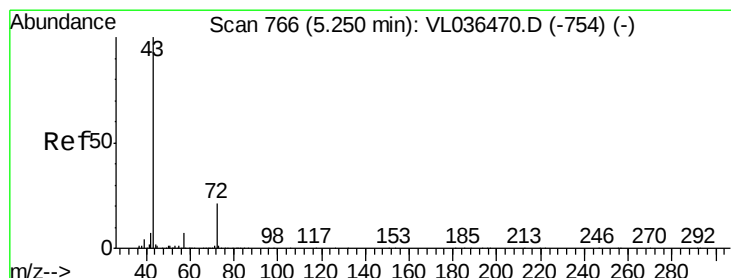
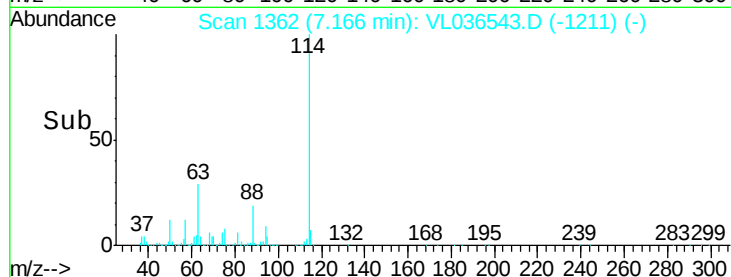
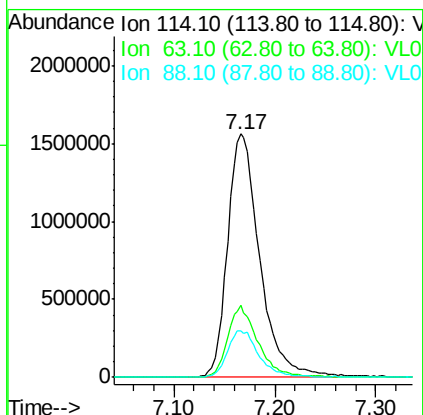
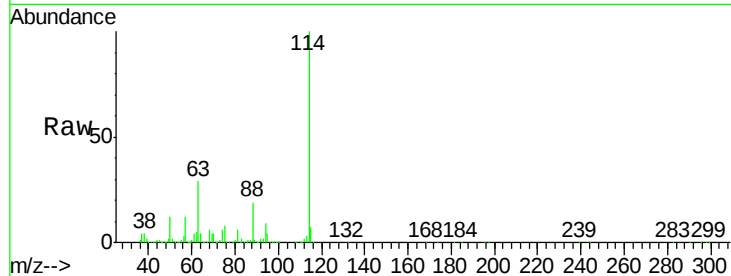
#33  
 1,4-Difluorobenzene  
 Concen: 10.000 ppbv  
 RT: 7.17 min Scan# 1362  
 Delta R.T. -0.01 min  
 Lab File: VL036543.D  
 Acq: 29 Mar 2021 17:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IAS-6-CR-104

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 28.3  | 22.4  | 33.6  |
| 88      | 19.2  | 15.4  | 23.0  |

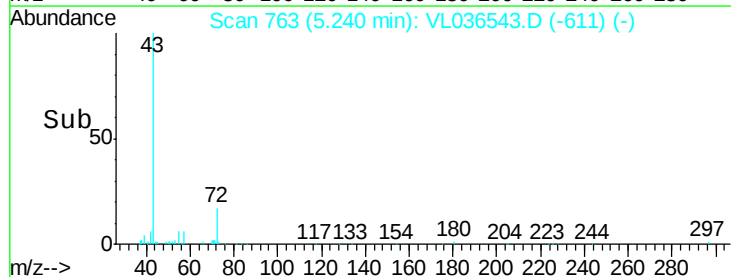
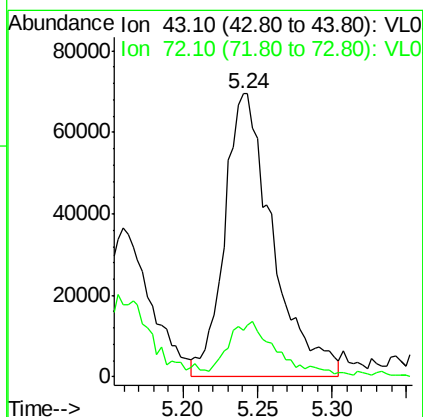
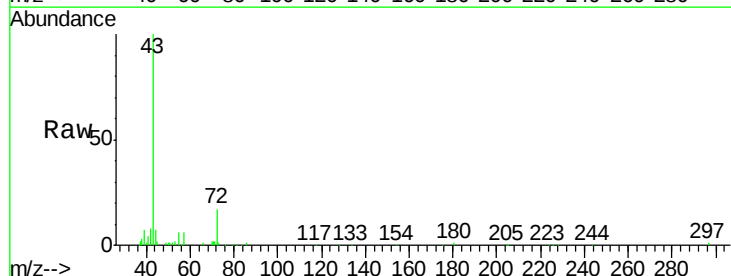
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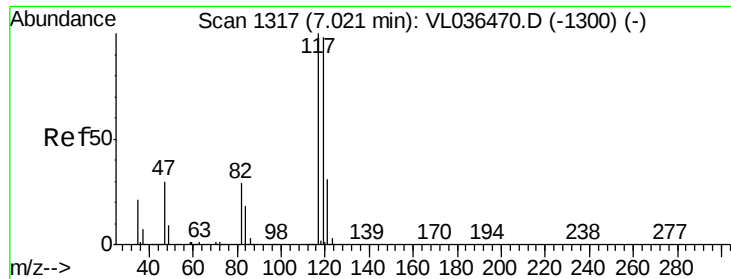
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 3/30/2021 7:44:10 PM



#34  
 2-Butanone  
 Concen: 0.927 ppbv m  
 RT: 5.24 min Scan# 763  
 Delta R.T. -0.01 min  
 Lab File: VL036543.D  
 Acq: 29 Mar 2021 17:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 20.0  | 17.0  | 25.6  |





#35

Carbon Tetrachloride

Concen: 0.062 ppbv m

RT: 7.02 min Scan# 1316

Delta R.T. -0.00 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

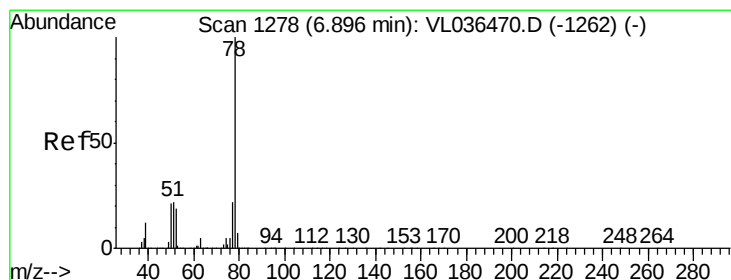
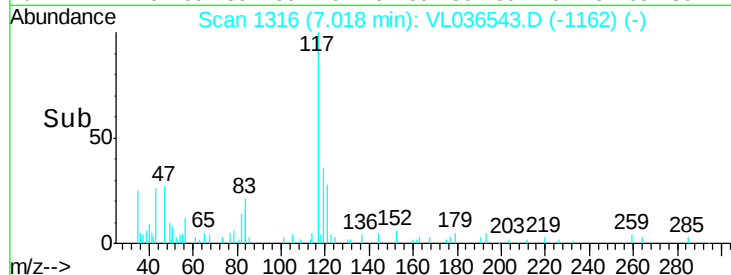
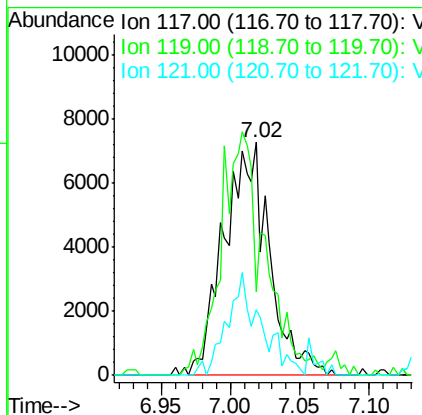
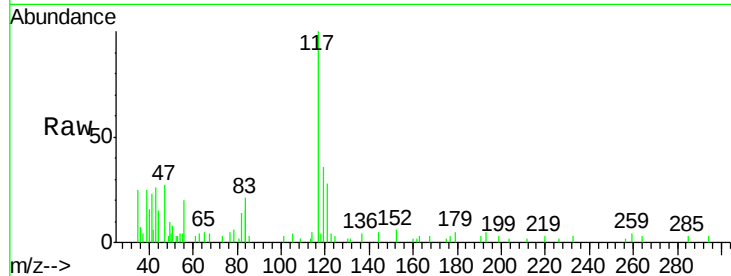
ClientSampleId :

IAS-6-CR-104

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 117   | Resp: | 16514  |
| Ion      | Ratio | Lower | Upper  |
| 117      | 100   |       |        |
| 119      | 35.6  | 78.2  | 117.2# |
| 121      | 28.3  | 24.5  | 36.7   |

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3/30/2021 7:44:10 PM



#36

Benzene

Concen: 0.267 ppbv

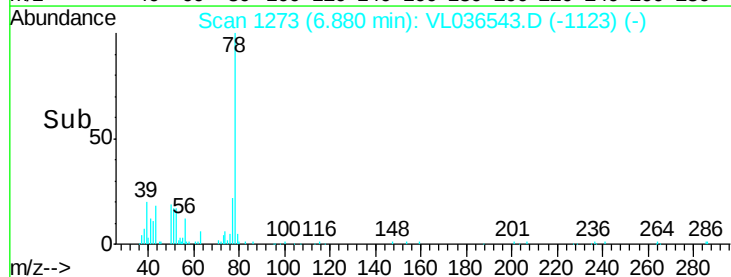
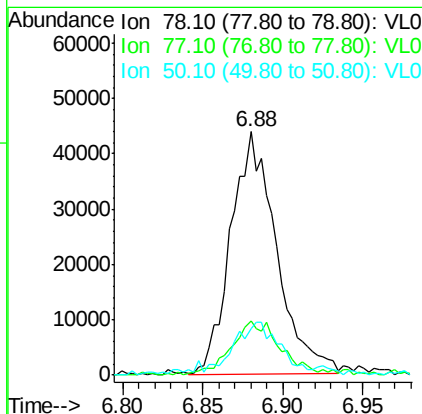
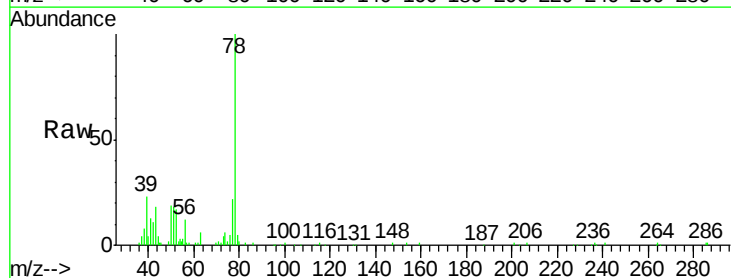
RT: 6.88 min Scan# 1273

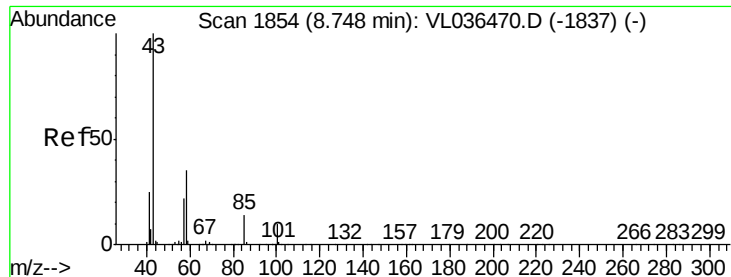
Delta R.T. -0.02 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 78    | Resp: | 85430 |
| Ion      | Ratio | Lower | Upper |
| 78       | 100   |       |       |
| 77       | 22.2  | 18.0  | 27.0  |
| 50       | 17.3  | 16.5  | 24.7  |





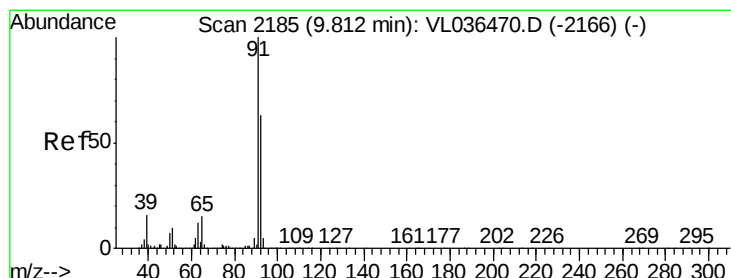
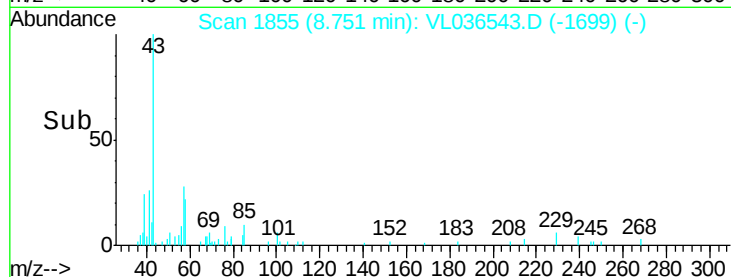
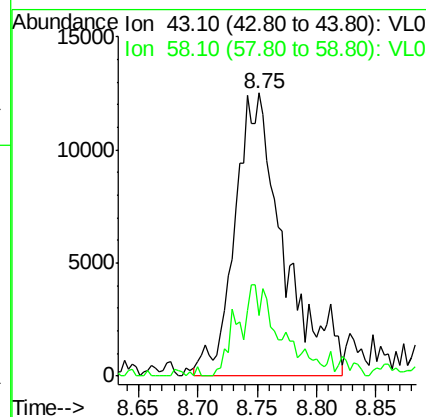
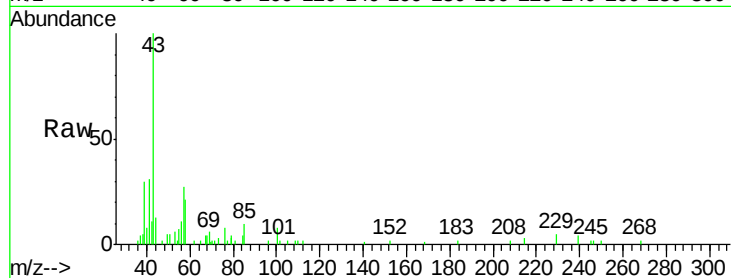
#50  
4-Methyl-2-Pentanone  
Concen: 0.147 ppbv m  
RT: 8.75 min Scan# 1855  
Delta R.T. 0.00 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

Instrument :  
MSVOA\_L  
ClientSampleId :  
IAS-6-CR-104

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 0.0   | 28.2  | 42.2# |

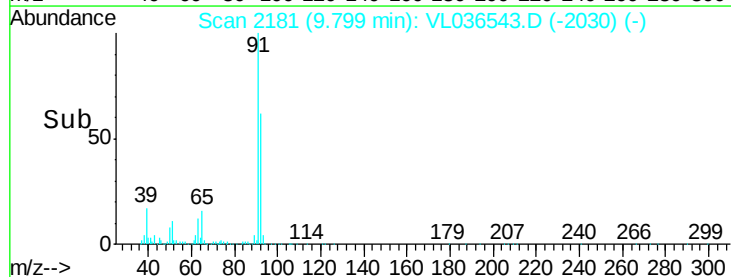
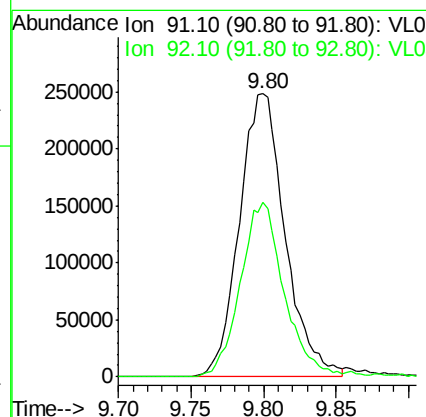
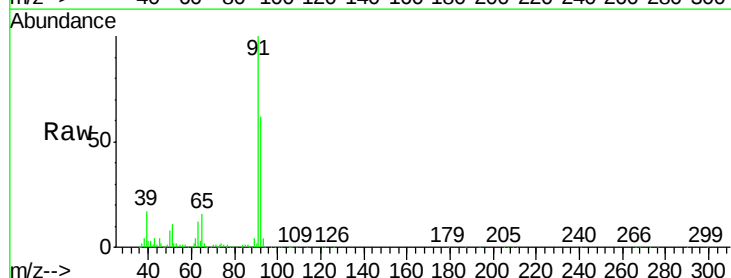
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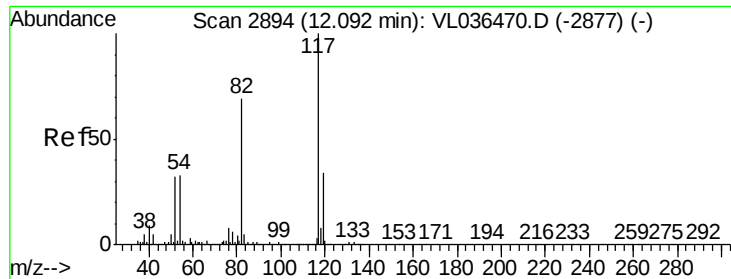
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3/30/2021 7:44:10 PM



#53  
Toluene  
Concen: 1.596 ppbv  
RT: 9.80 min Scan# 2181  
Delta R.T. -0.01 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 59.6  | 48.8  | 73.2  |





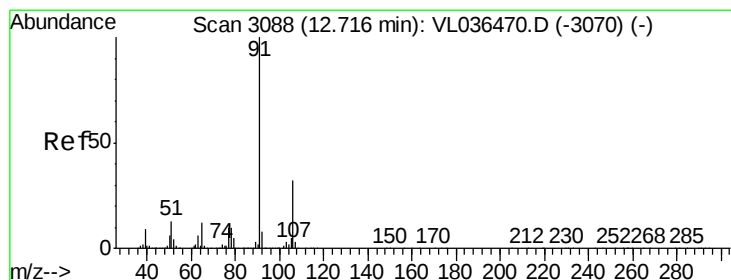
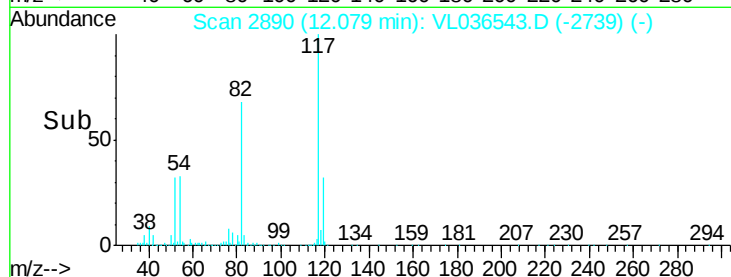
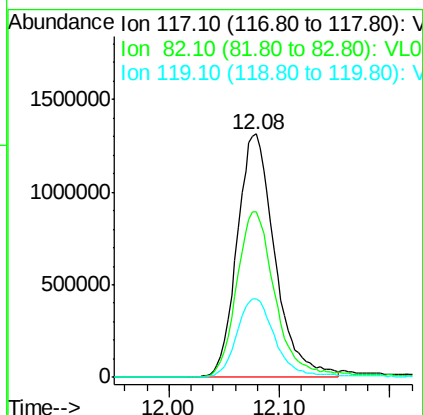
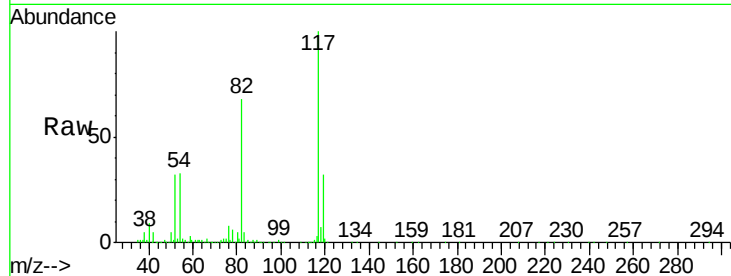
#55  
Chlorobenzene-d5  
Concen: 10.000 ppbv  
RT: 12.08 min Scan# 2890  
Delta R.T. -0.01 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

Instrument :  
MSVOA\_L  
ClientSampleId :  
IAS-6-CR-104

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 71.4  | 57.4  | 86.0  |
| 119     | 33.4  | 47.4  | 71.0# |

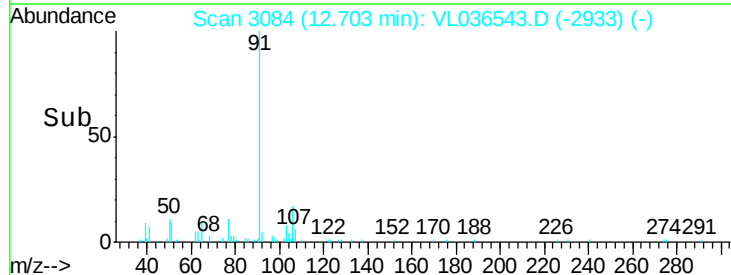
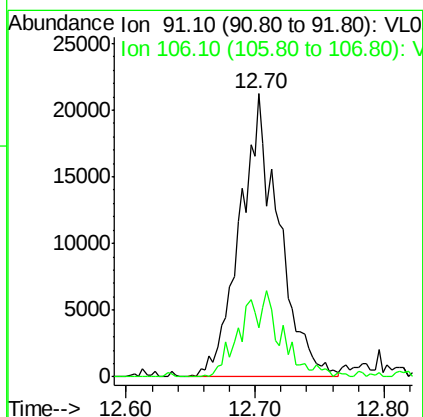
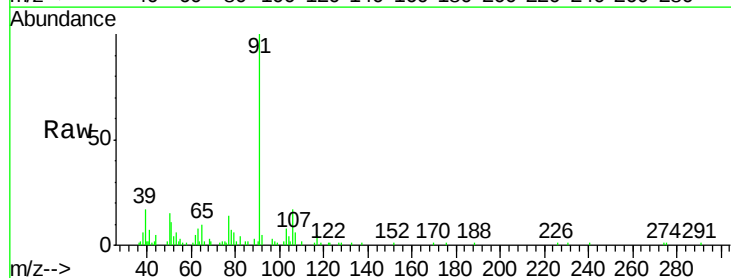
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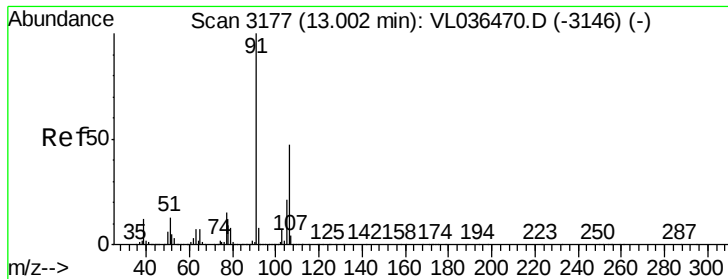
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#58  
Ethyl Benzene  
Concen: 0.098 ppbv m  
RT: 12.70 min Scan# 3084  
Delta R.T. -0.01 min  
Lab File: VL036543.D  
Acq: 29 Mar 2021 17:29

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 106     | 17.4  | 25.3  | 37.9# |





#59

m/p-Xylene

Concen: 0.353 ppbv m

RT: 12.96 min Scan# 3164

Delta R.T. -0.04 min

Lab File: VL036543.D

Acq: 29 Mar 2021 17:29

Instrument :

MSVOA\_L

ClientSampleId :

IAS-6-CR-104

Tot Ion: 91 Resp: 139967

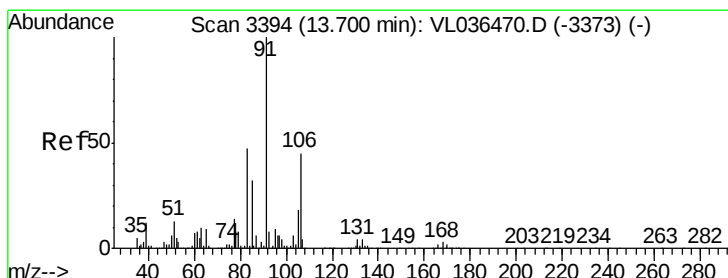
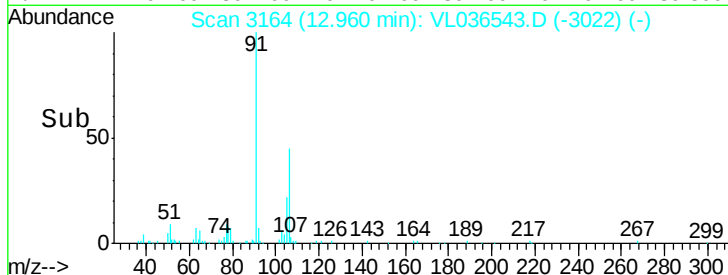
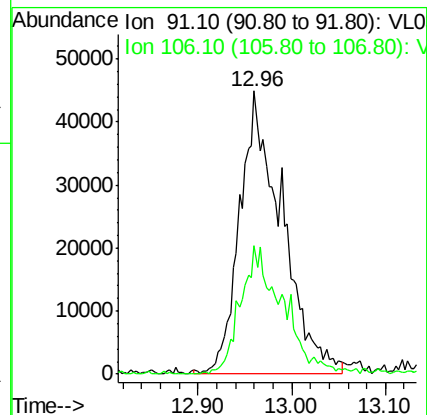
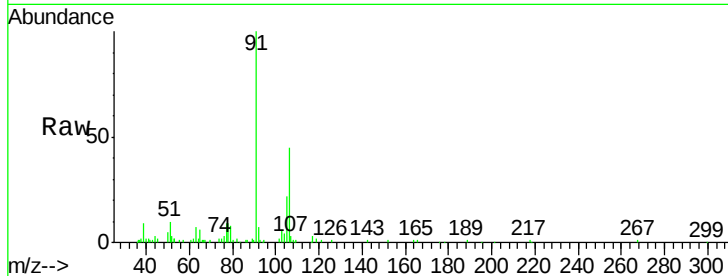
Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

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3/30/2021 7:44:10 PM



#60

o-Xylene

Concen: 0.134 ppbv m

RT: 13.68 min Scan# 3389

Delta R.T. -0.02 min

Lab File: VL036543.D

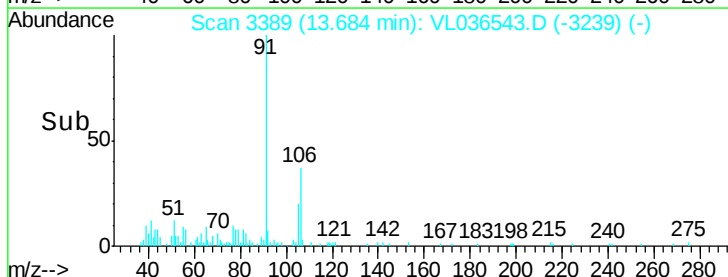
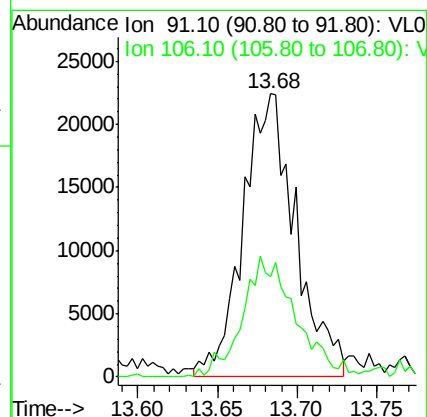
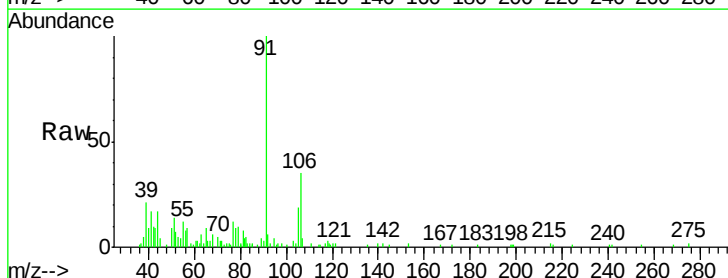
Acq: 29 Mar 2021 17:29

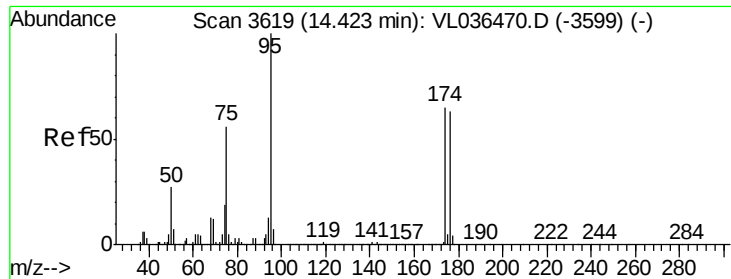
Tgt Ion: 91 Resp: 51443

Ion Ratio Lower Upper

91 100

106 0.0 22.3 66.9#





#68  
 1-Bromo-4-Fluorobenzene  
 Concen: 10.415 ppbv  
 RT: 14.41 min Scan# 3615  
 Delta R.T. -0.01 min  
 Lab File: VL036543.D  
 Acq: 29 Mar 2021 17:29

Instrument :  
 MSVOA\_L  
 ClientSampleId :  
 IAS-6-CR-104

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 95      | 100   |       |       |
| 174     | 63.6  | 51.0  | 76.6  |
| 175     | 4.6   | 3.9   | 5.9   |

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