

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL022720\
 Data File : VL034729.D
 Acq On : 28 Feb 2020 4:34
 Operator : SY/AP
 Sample : L1661-05DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Feb 28 07:14:54 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Feb 28 01:15:02 2020
 QLast Update : Fri Feb 28 01:15:02 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1112113	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2300664	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	2283480	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	1907687	10.19	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.90%

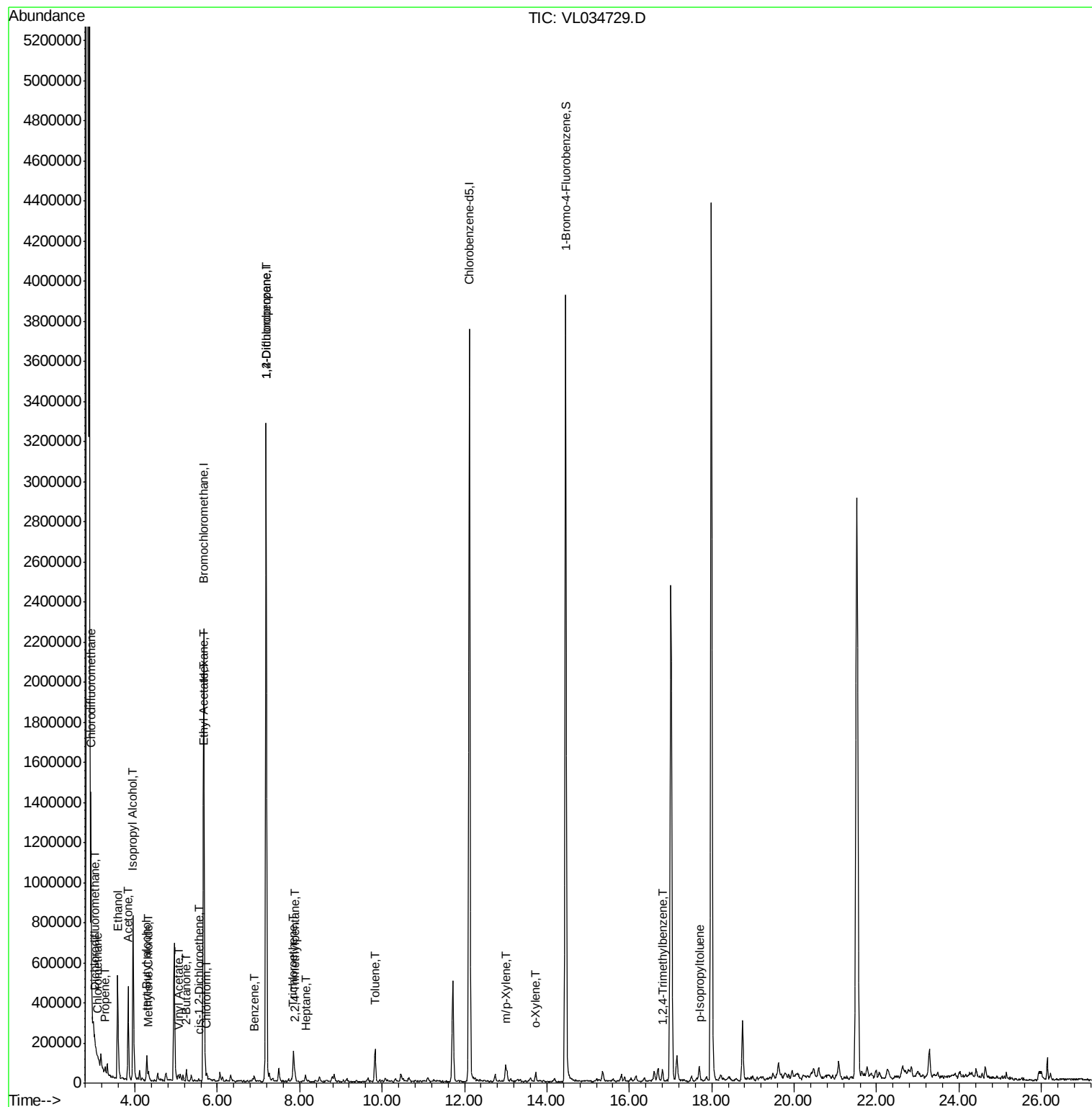
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	11993	0.068	ppbv #	87
3) Chlorodifluoromethane	2.93	51	613939	5.115	ppbv #	58
4) Chloromethane	3.11	50	3880	0.058	ppbv #	84
9) Propene	3.28	41	1509	0.030	ppbv	90
10) Heptane	8.14	43	10498	0.081	ppbv	98
13) Ethanol	3.58	45	511588	32.280	ppbv	96
15) Acetone	3.84	43	435014	3.433	ppbv	99
17) tert-Butyl alcohol	4.29	59	103073	1.061	ppbv	96
19) Isopropyl Alcohol	3.95	45	881352	11.676	ppbv #	98
20) Methylene Chloride	4.33	84	4179	0.089	ppbv #	87
23) Vinyl Acetate	5.05	43	9614	0.056	ppbv #	45
25) Ethyl Acetate	5.69	43	13917	0.062	ppbv #	89
26) Hexane	5.68	57	13922	0.135	ppbv #	65
29) Chloroform	5.75	83	11769	0.071	ppbv #	83
31) cis-1,2-Dichloroethene	5.54	61	2461	0.024	ppbv	86
34) 2-Butanone	5.25	43	56752	0.392	ppbv	99
36) Benzene	6.90	78	4899	0.025	ppbv #	90
38) Trichloroethene	7.85	130	11895	0.155	ppbv #	77
39) 1,2-Dichloropropane	7.18	63	647591	8.192	ppbv #	23
44) 2,2,4-Trimethylpentane	7.88	57	31237	0.090	ppbv #	73
53) Toluene	9.83	91	71097	0.336	ppbv #	50
59) m/p-Xylene	13.02	91	25412	0.105	ppbv #	32
60) o-Xylene	13.73	91	10560	0.044	ppbv #	32
69) p-Isopropyltoluene	17.70	119	15571	0.044	ppbv #	46
74) 1,2,4-Trimethylbenzene	16.80	105	23443	0.083	ppbv #	67

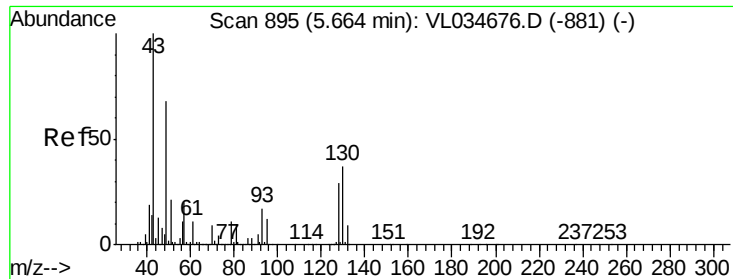
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Feb 28 07:14:54 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Feb 28 01:15:02 2020
QLast Update : Fri Feb 28 01:15:02 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :
MSVOA_L
ClientSampled :

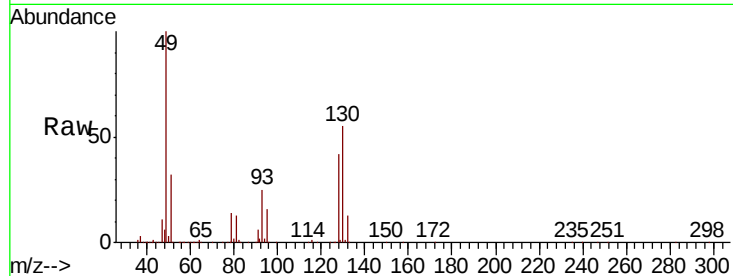
Tot Ion: 49 Resp: 1112113

Ion Ratio Lower Upper

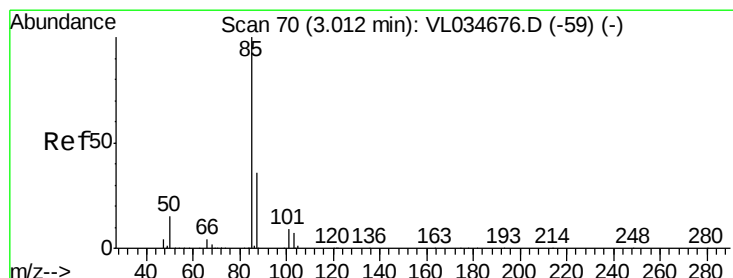
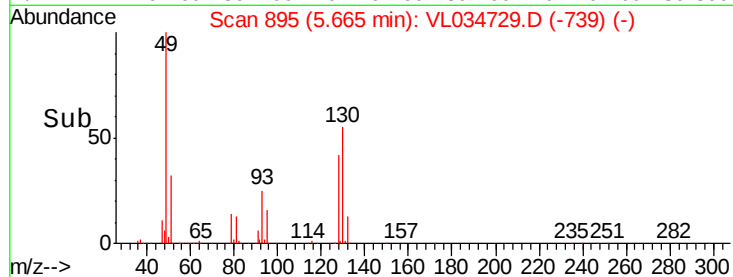
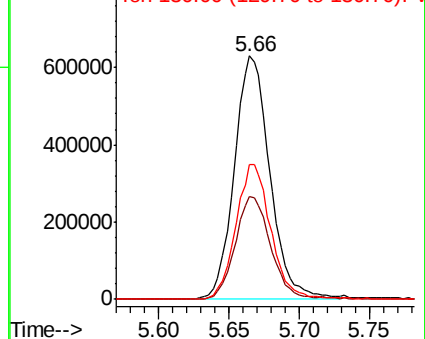
49 100

128 42.6 21.6 65.0

130 55.2 27.7 83.1



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: 0.068 ppbv

RT: 3.02 min Scan# 71

Delta R.T. 0.00 min

Lab File: VL034729.D

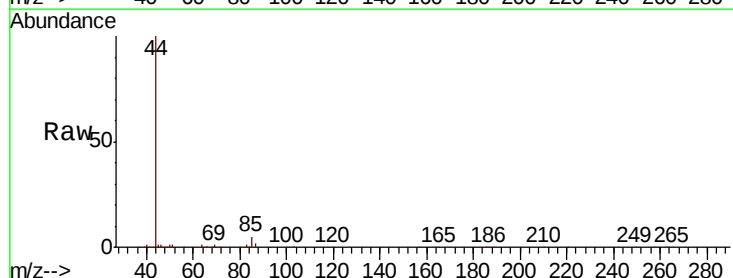
Acq: 28 Feb 2020 4:34

Tgt Ion: 85 Resp: 11993

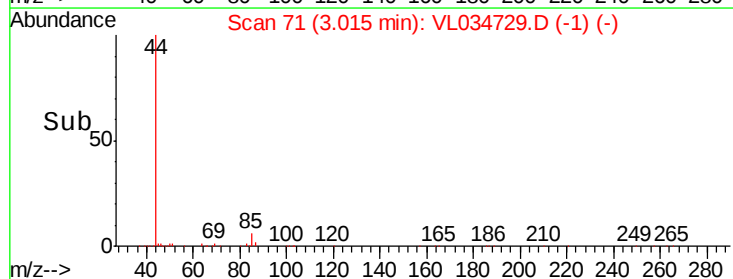
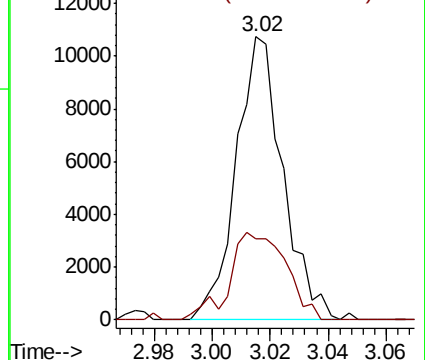
Ion Ratio Lower Upper

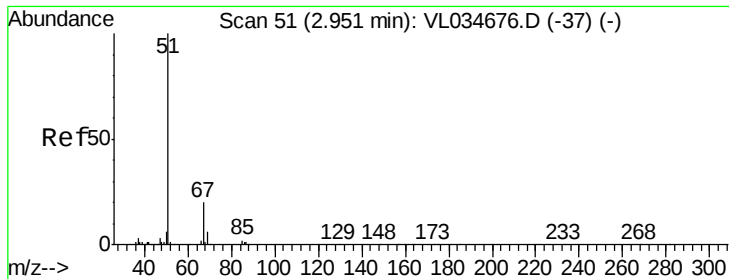
85 100

87 28.6 29.2 43.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0
Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 5.115 ppbv

RT: 2.93 min Scan# 45

Delta R.T. -0.02 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

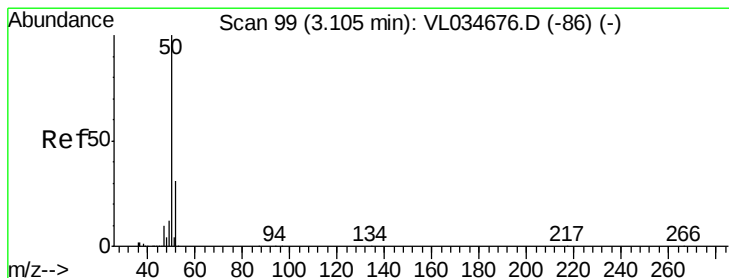
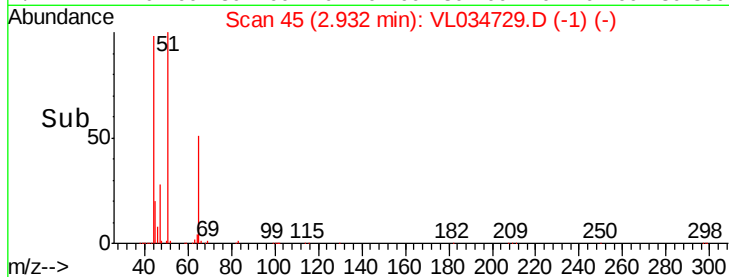
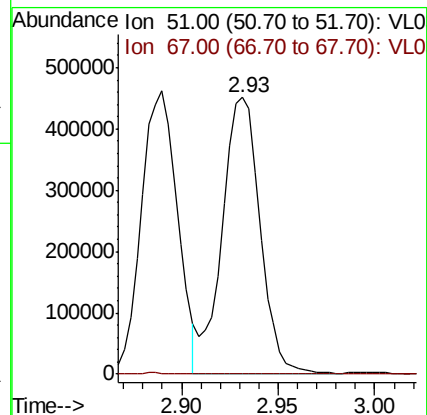
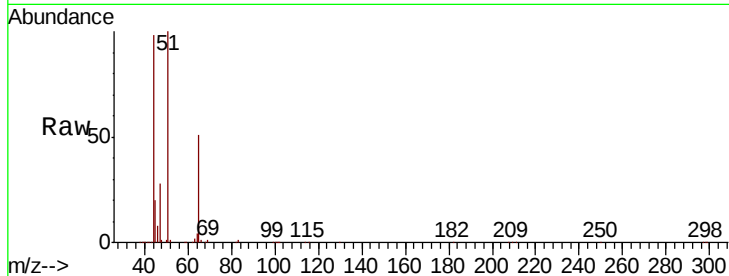
ClientSampleId :

Tot Ion: 51 Resp: 613939

Ion Ratio Lower Upper

51 100

67 0.3 15.5 23.3#



#4

Chloromethane

Concen: 0.058 ppbv

RT: 3.11 min Scan# 101

Delta R.T. 0.01 min

Lab File: VL034729.D

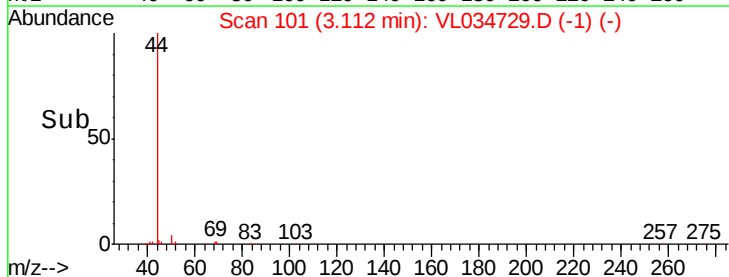
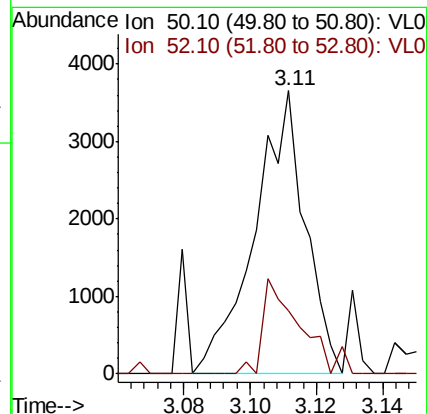
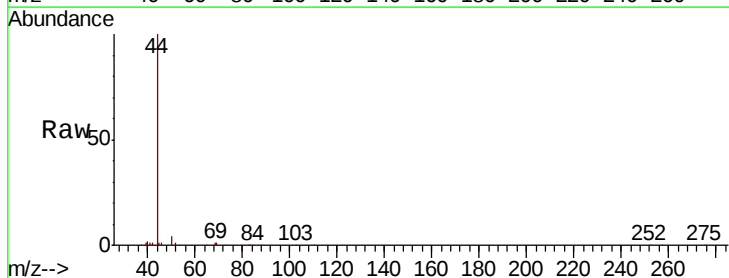
Acq: 28 Feb 2020 4:34

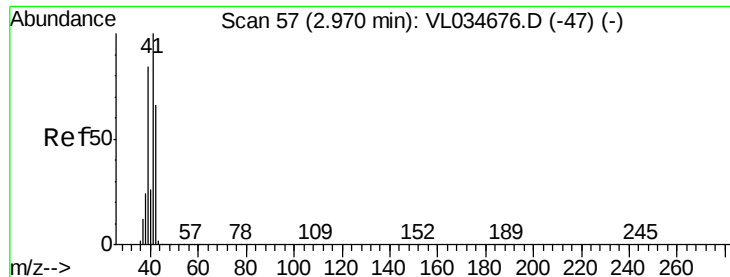
Tgt Ion: 50 Resp: 3880

Ion Ratio Lower Upper

50 100

52 22.1 25.0 37.4#





#9

Propene

Concen: 0.030 ppbv

RT: 3.28 min Scan# 152

Delta R.T. 0.31 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

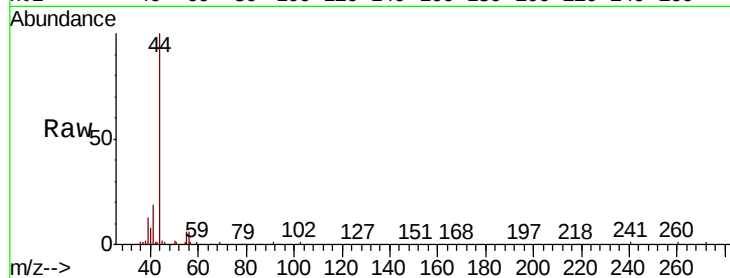
ClientSampleId :

Tot Ion: 41 Resp: 1509

Ion Ratio Lower Upper

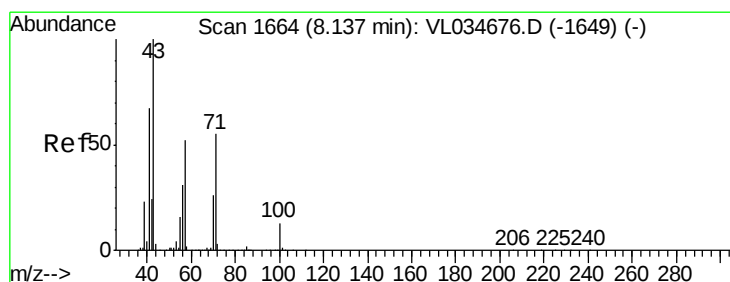
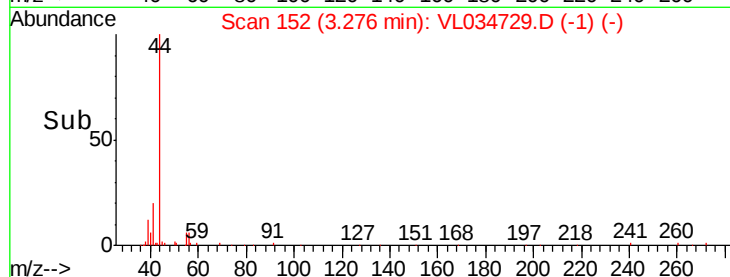
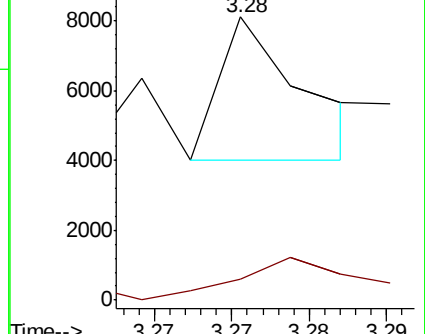
41 100

42 60.7 54.9 82.3



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.081 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. 0.00 min

Lab File: VL034729.D

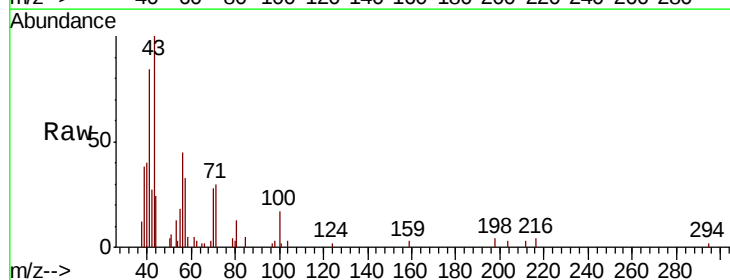
Acq: 28 Feb 2020 4:34

Tgt Ion: 43 Resp: 10498

Ion Ratio Lower Upper

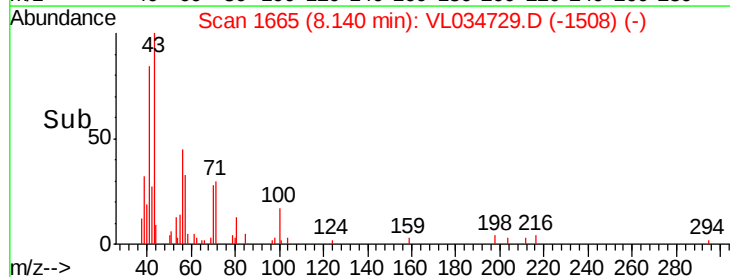
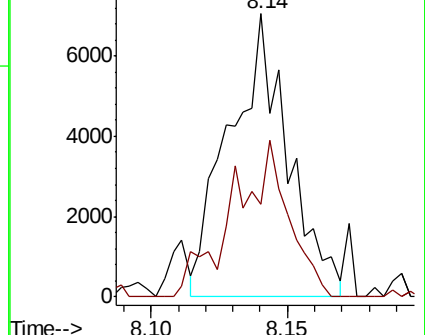
43 100

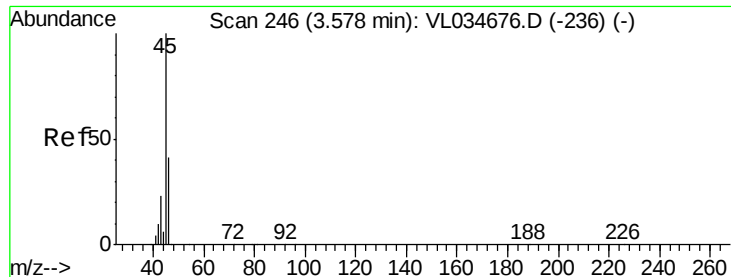
57 52.7 41.0 61.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#13

Ethanol

Concen: 32.280 ppbv

RT: 3.58 min Scan# 247

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

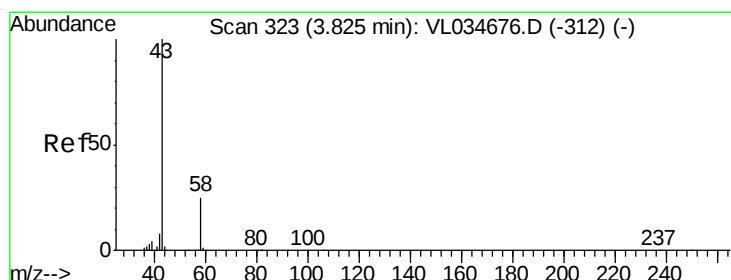
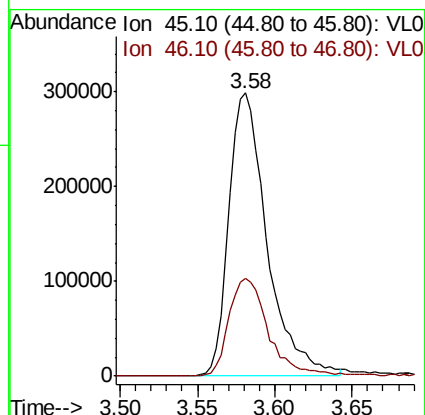
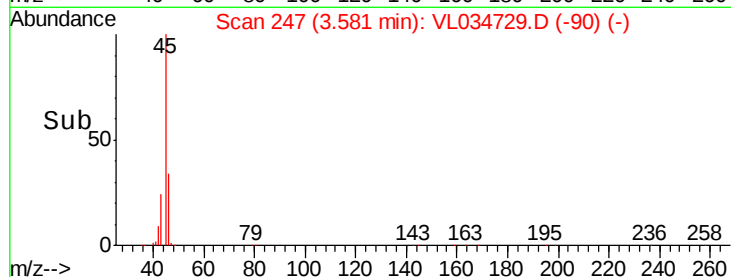
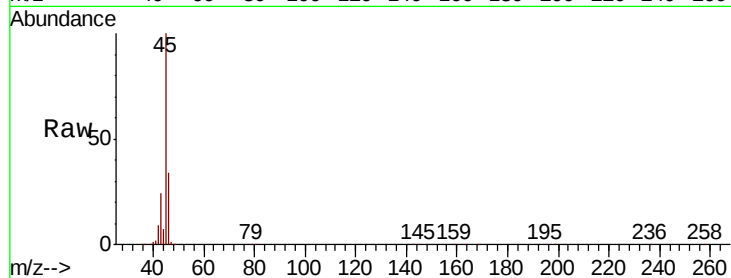
ClientSampleId :

Tot Ion: 45 Resp: 511588

Ion Ratio Lower Upper

45 100

46 35.9 15.4 61.4



#15

Acetone

Concen: 3.433 ppbv

RT: 3.84 min Scan# 326

Delta R.T. 0.01 min

Lab File: VL034729.D

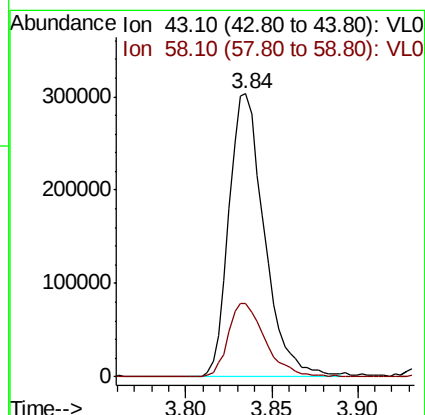
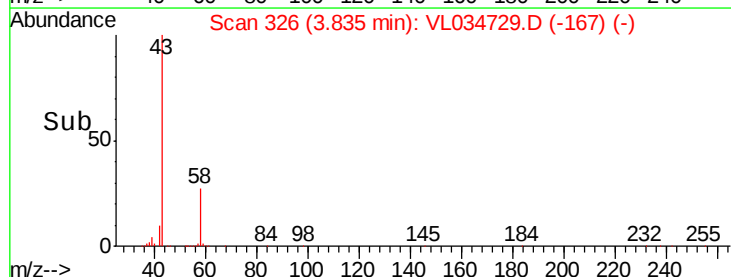
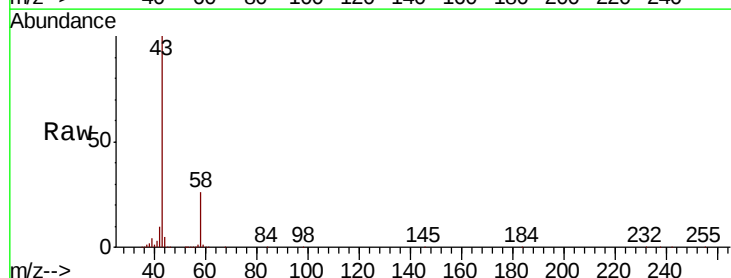
Acq: 28 Feb 2020 4:34

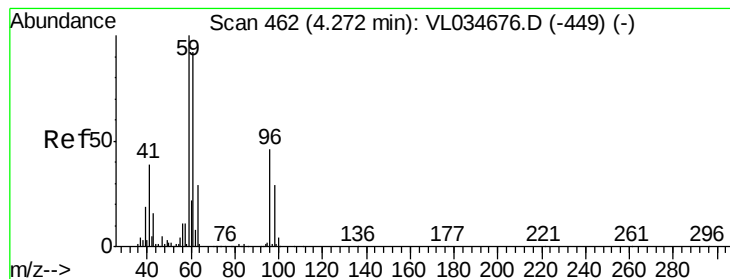
Tgt Ion: 43 Resp: 435014

Ion Ratio Lower Upper

43 100

58 27.2 21.4 32.0



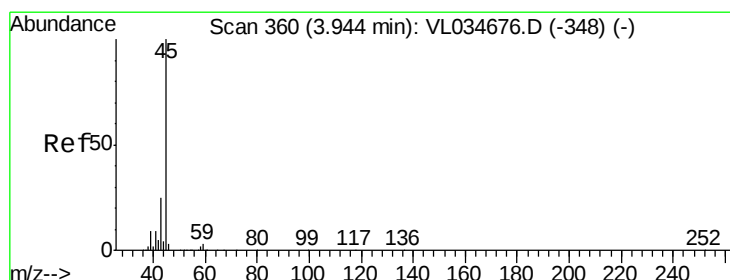
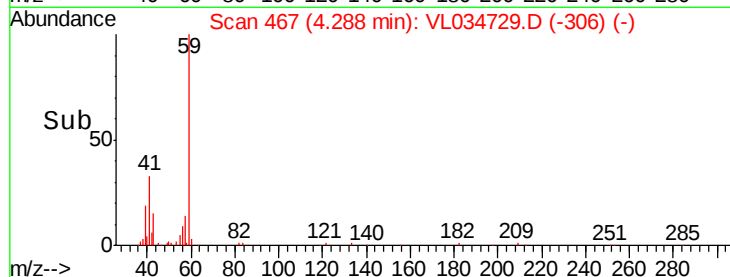
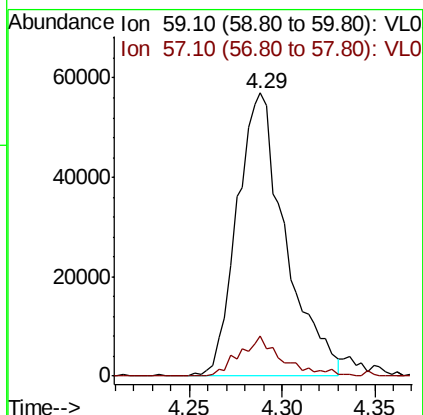
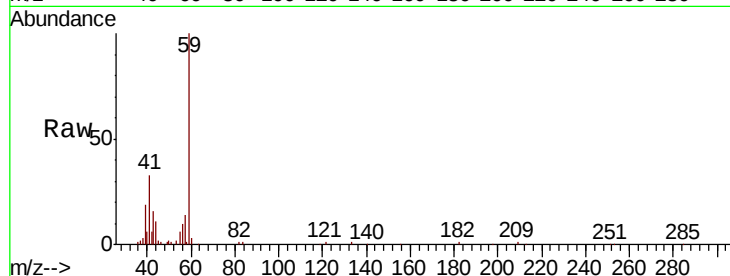


#17

tert-Butyl alcohol
 Concen: 1.061 ppbv
 RT: 4.29 min Scan# 467
 Delta R.T. 0.02 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Instrument :
 MSVOA_L
 ClientSampleId :

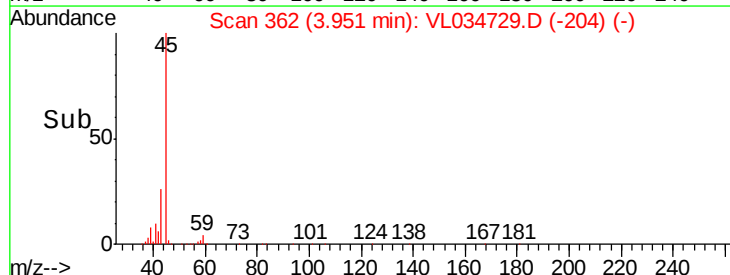
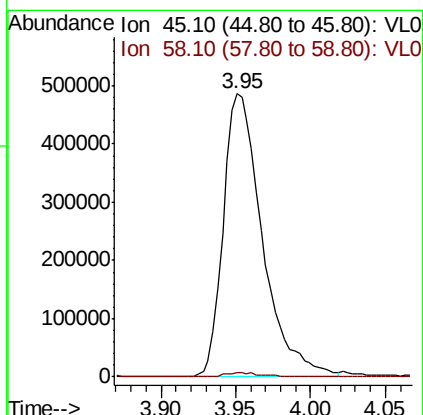
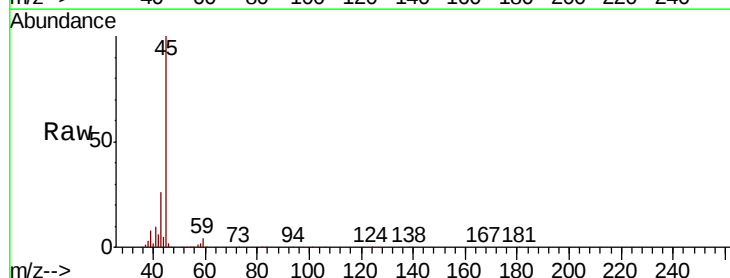
Tot Ion: 59 Resp: 103073
 Ion Ratio Lower Upper
 59 100
 57 12.4 8.8 13.2

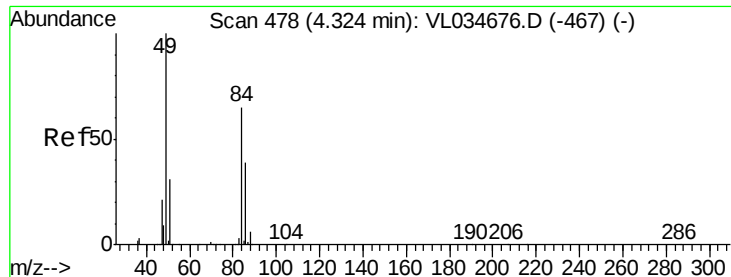


#19

Isopropyl Alcohol
 Concen: 11.676 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T. 0.01 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Tgt Ion: 45 Resp: 881352
 Ion Ratio Lower Upper
 45 100
 58 1.7 1.8 2.6#

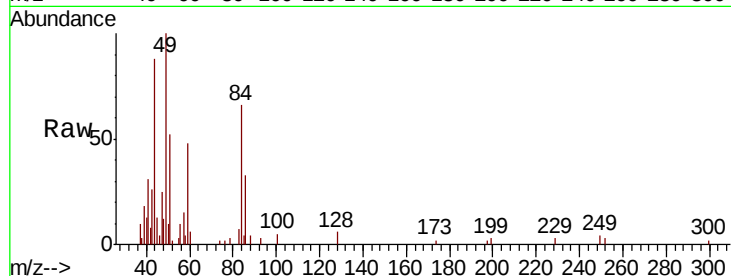




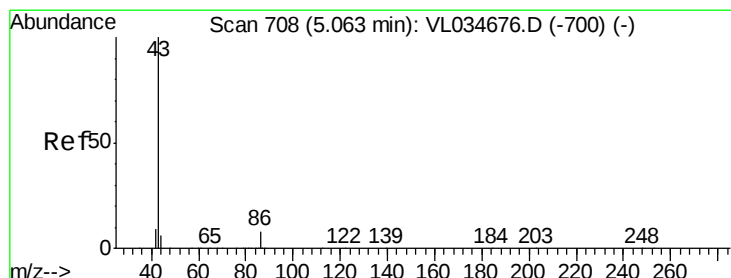
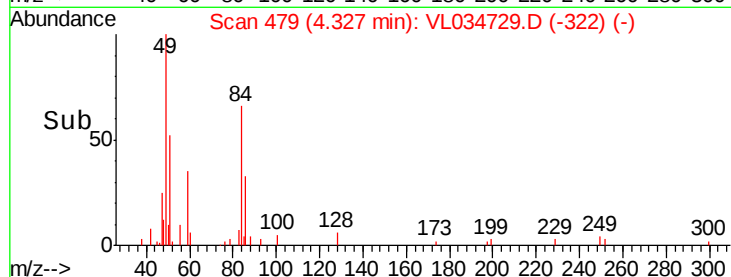
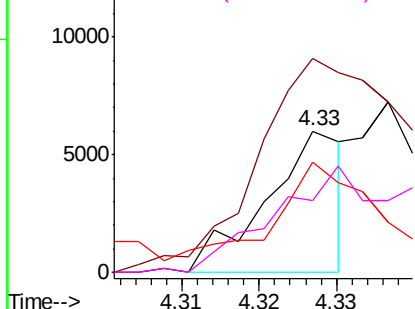
#20
Methylene Chloride
Concen: 0.089 ppbv
RT: 4.33 min Scan# 479
Delta R.T. 0.00 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 84 Resp: 4179
Ion Ratio Lower Upper
84 100
49 140.4 122.8 184.2
51 62.5 38.6 58.0#
86 50.6 47.7 71.5

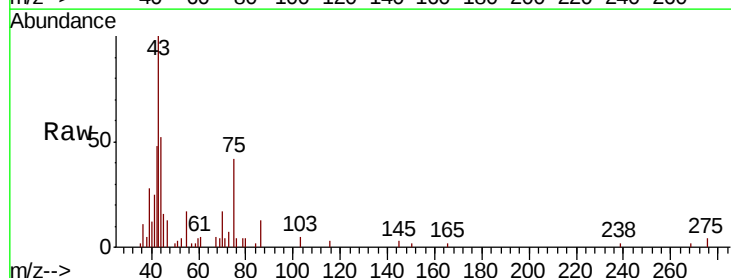


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

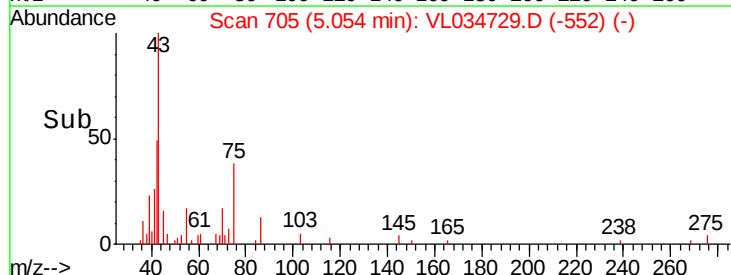
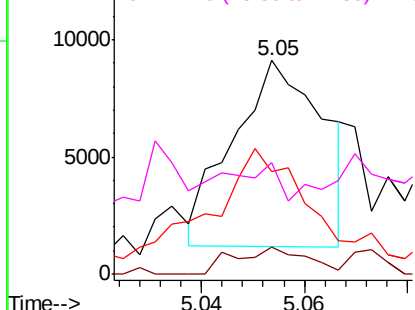


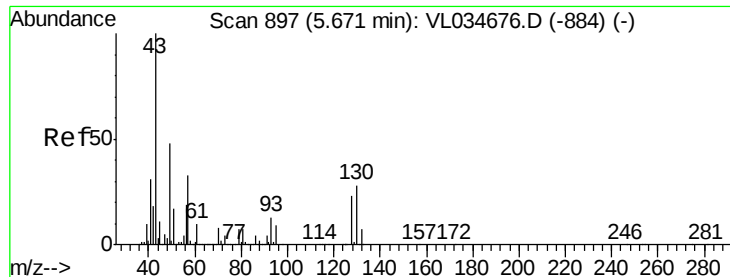
#23
Vinyl Acetate
Concen: 0.056 ppbv
RT: 5.05 min Scan# 705
Delta R.T. -0.01 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

Tgt Ion: 43 Resp: 9614
Ion Ratio Lower Upper
43 100
86 16.4 6.0 9.0#
42 42.1 8.0 12.0#
44 17.9 4.5 6.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0

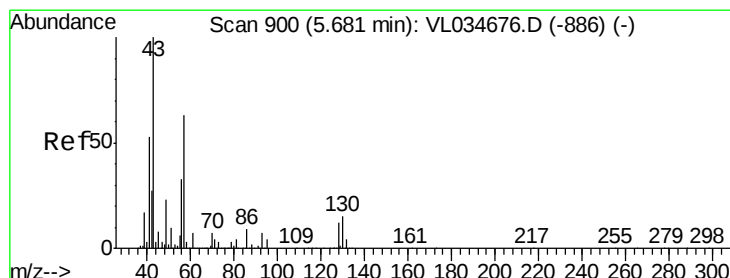
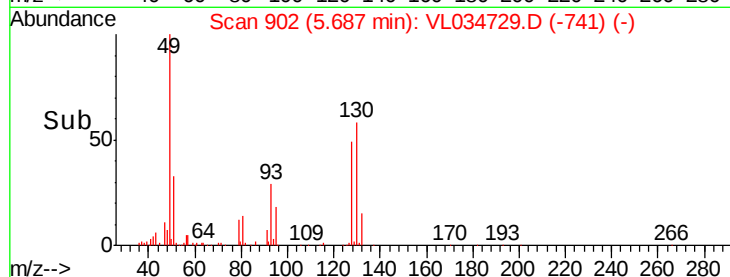
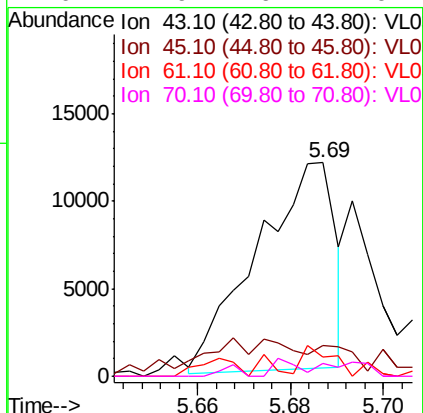
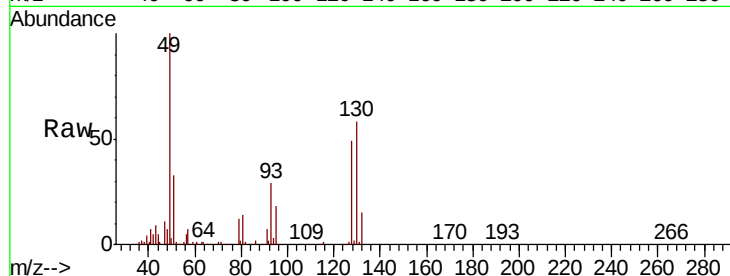




#25
Ethyl Acetate
Concen: 0.062 ppbv
RT: 5.69 min Scan# 902
Delta R.T. 0.02 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

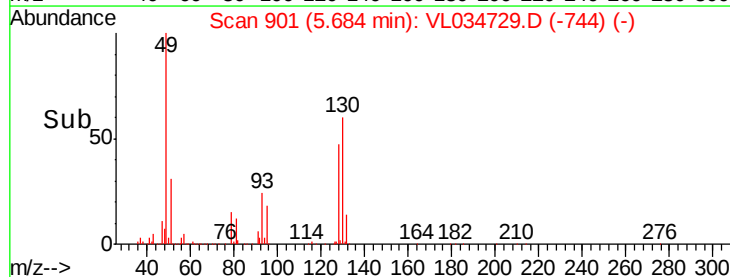
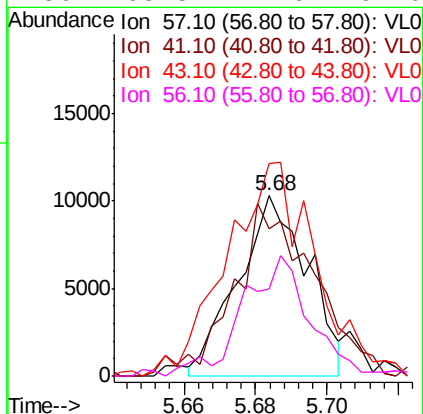
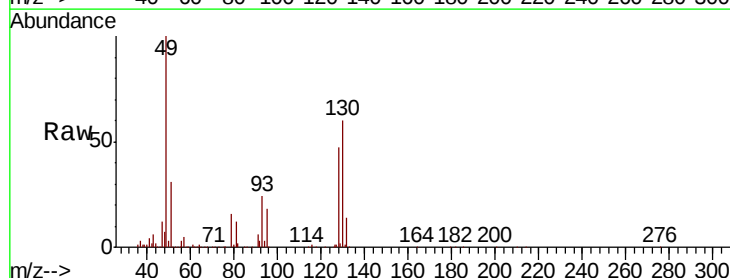
Instrument :
MSVOA_L
ClientSampleId :

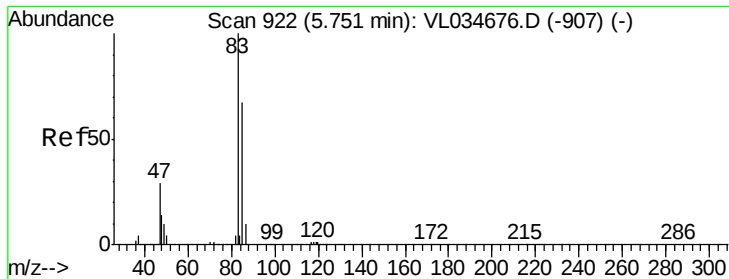
Tot Ion:	43	Resp:	13917
Ion	Ratio	Lower	Upper
43	100		
45	0.0	8.2	12.4#
61	9.7	7.8	11.6
70	7.9	6.1	9.1



#26
Hexane
Concen: 0.135 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.00 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

Tgt Ion:	57	Resp:	13922
Ion	Ratio	Lower	Upper
57	100		
41	112.0	70.3	105.5#
43	151.5	177.0	265.4#
56	65.5	42.6	64.0#

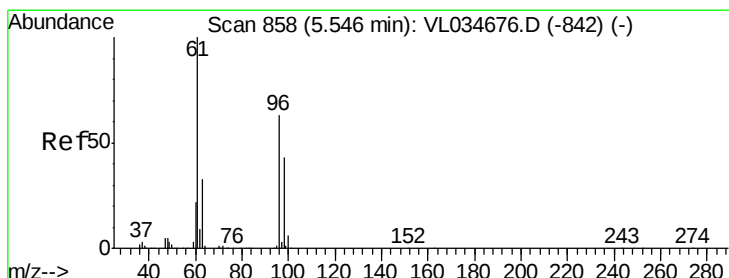
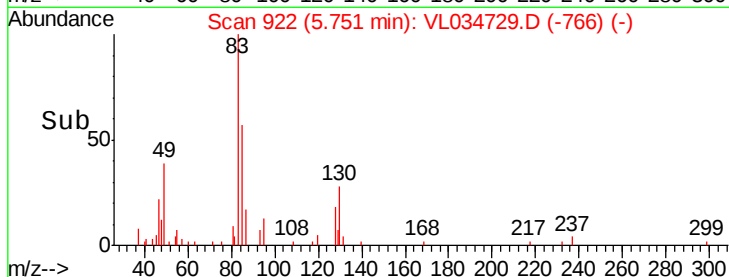
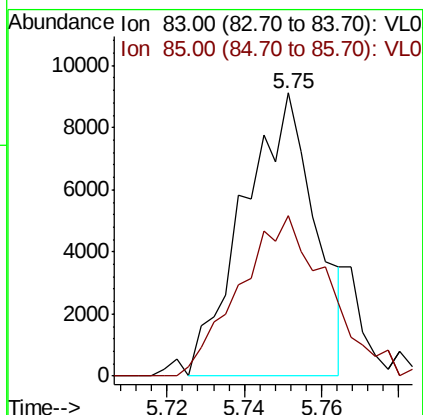
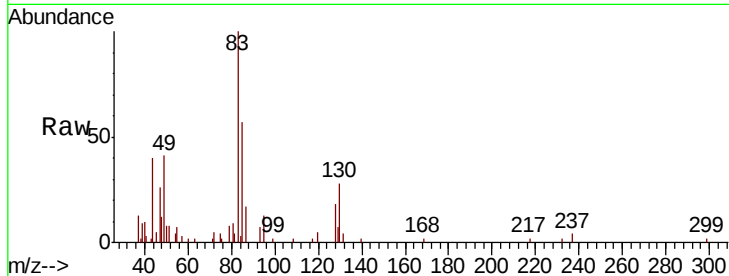




#29
Chloroform
Concen: 0.071 ppbv
RT: 5.75 min Scan# 922
Delta R.T. 0.00 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

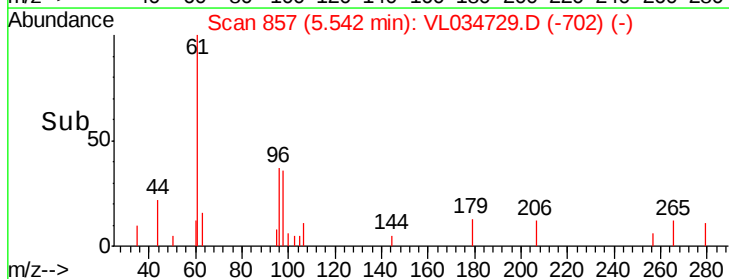
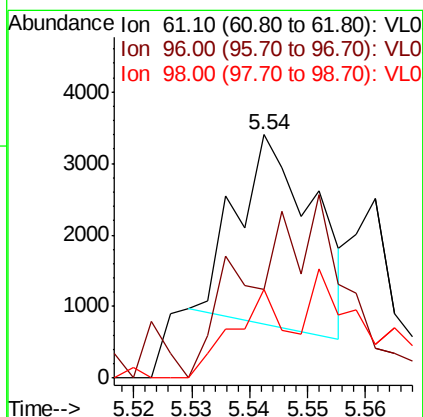
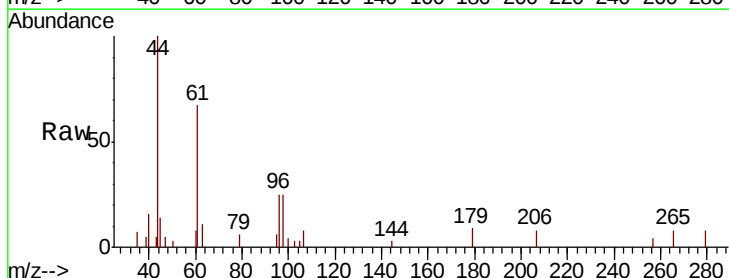
Instrument :
MSVOA_L
ClientSampleId :

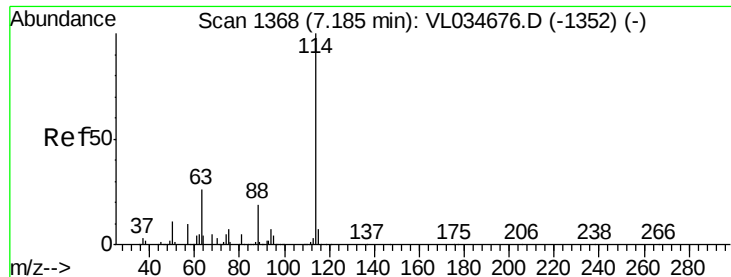
Tot Ion: 83 Resp: 11769
Ion Ratio Lower Upper
83 100
85 53.6 53.9 80.9#



#31
cis-1,2-Dichloroethene
Concen: 0.024 ppbv
RT: 5.54 min Scan# 857
Delta R.T. -0.00 min
Lab File: VL034729.D
Acq: 28 Feb 2020 4:34

Tgt Ion: 61 Resp: 2461
Ion Ratio Lower Upper
61 100
96 51.1 50.2 75.2
98 50.9 34.3 51.5

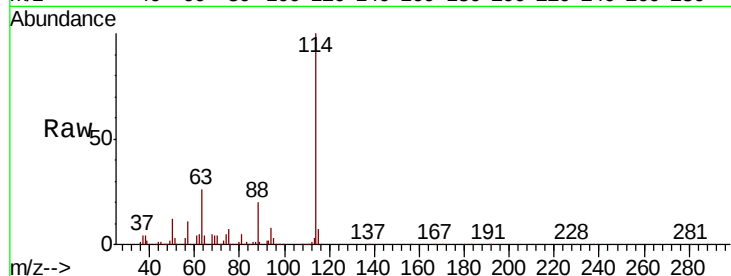




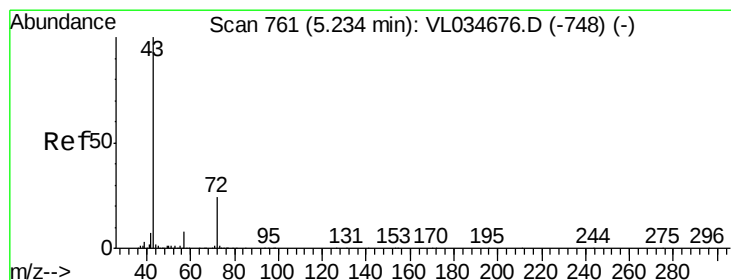
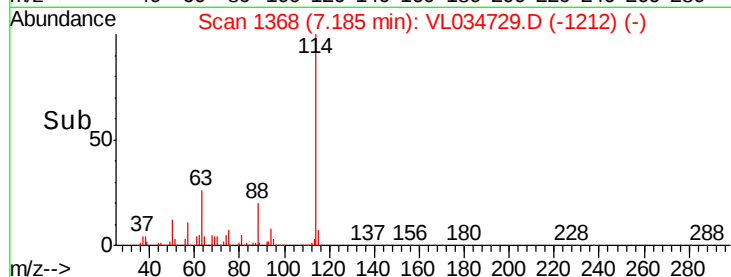
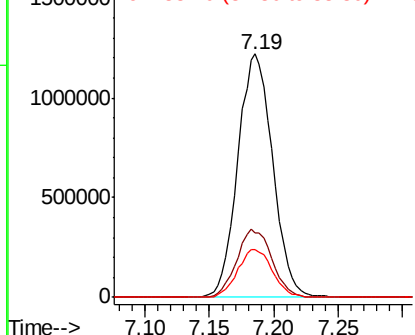
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1368
 Delta R.T. 0.00 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 2300664
 Ion Ratio Lower Upper
 114 100
 63 28.2 22.9 34.3
 88 19.7 15.8 23.6

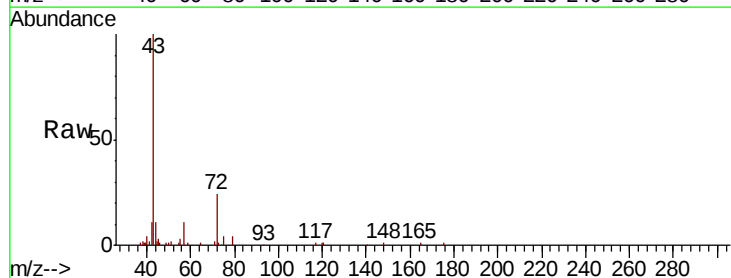


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

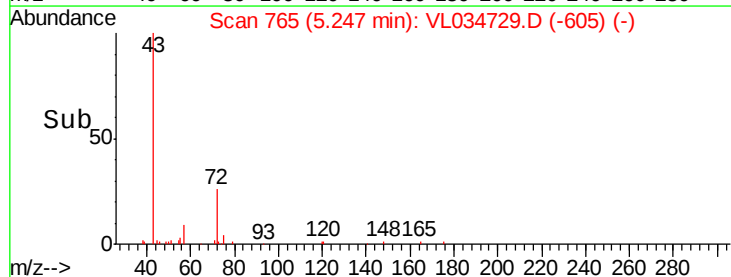
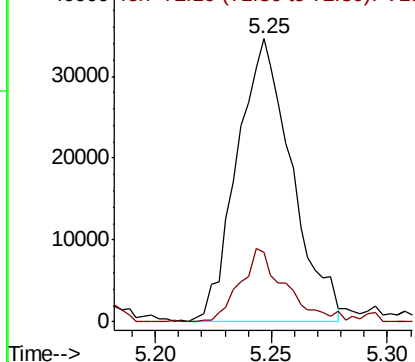


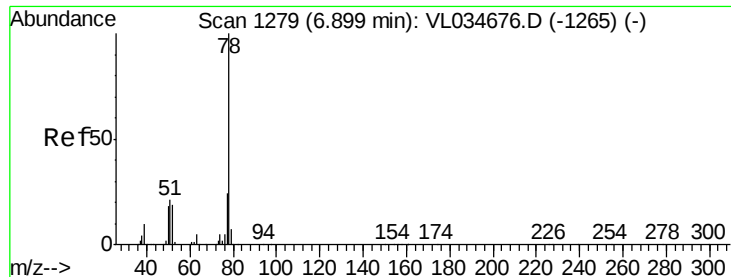
#34
 2-Butanone
 Concen: 0.392 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. 0.01 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Tgt Ion: 43 Resp: 56752
 Ion Ratio Lower Upper
 43 100
 72 22.3 18.2 27.2



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.025 ppbv

RT: 6.90 min Scan# 1280

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

ClientSampleId :

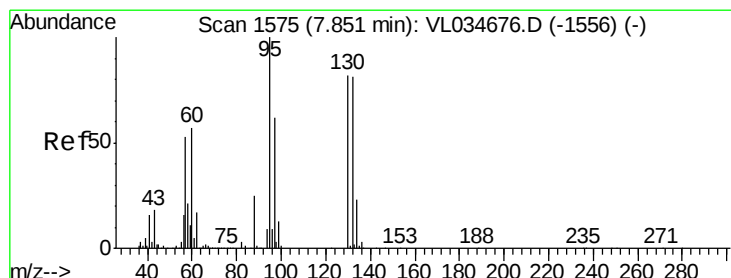
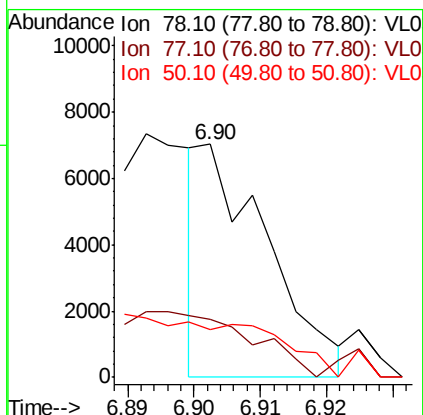
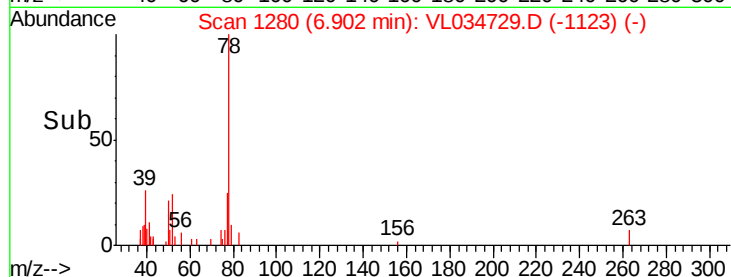
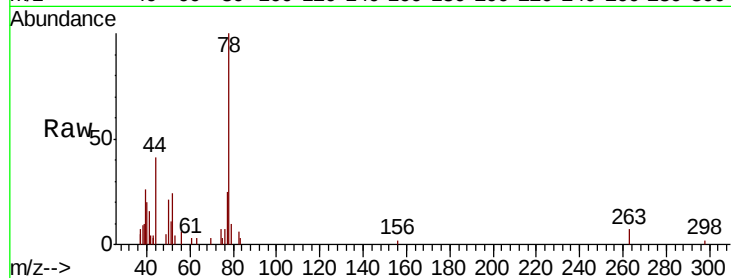
Tot Ion: 78 Resp: 4899

Ion Ratio Lower Upper

78 100

77 20.5 19.5 29.3

50 23.9 14.6 21.8#



#38

Trichloroethene

Concen: 0.155 ppbv

RT: 7.85 min Scan# 1575

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Tgt Ion: 130 Resp: 11895

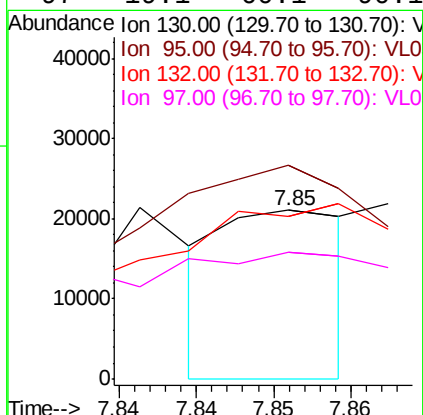
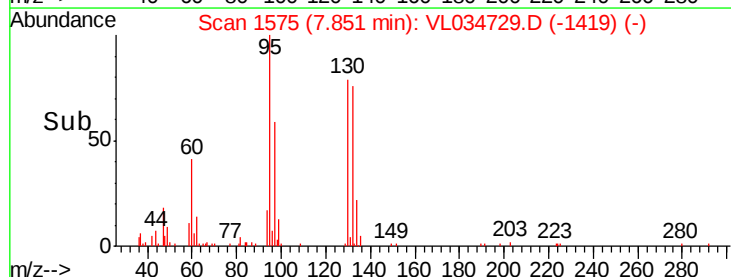
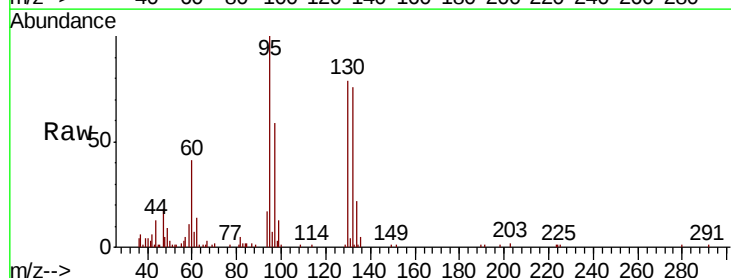
Ion Ratio Lower Upper

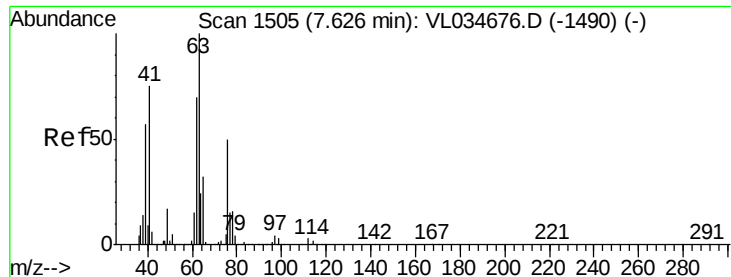
130 100

95 108.3 97.1 145.7

132 103.2 78.3 117.5

97 19.1 60.1 90.1#





#39

1,2-Dichloropropane

Concen: 8.192 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.44 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

ClientSampleId :

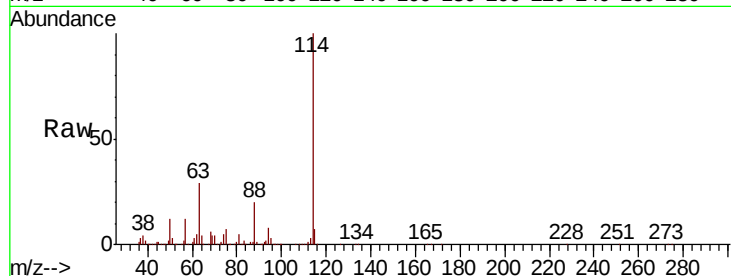
Tot Ion: 63 Resp: 647591

Ion Ratio Lower Upper

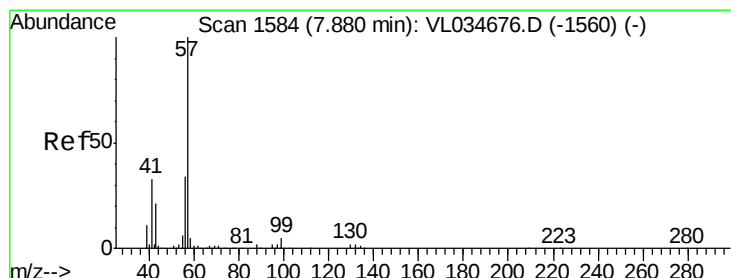
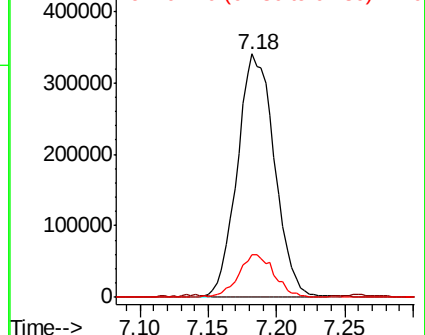
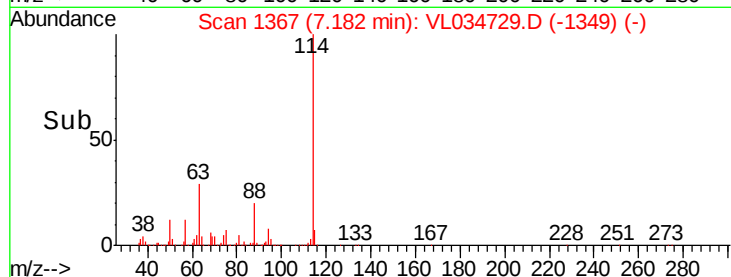
63 100

41 0.0 60.2 90.4#

62 17.6 56.3 84.5#



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



#44

2,2,4-Trimethylpentane

Concen: 0.090 ppbv

RT: 7.88 min Scan# 1585

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

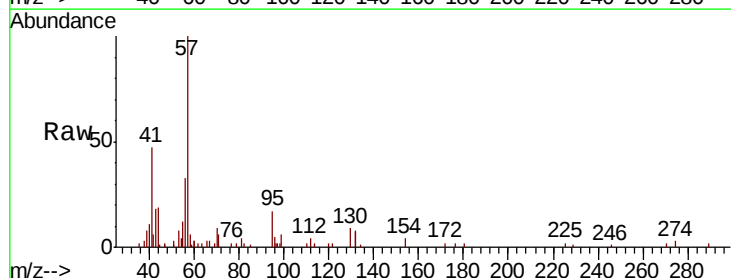
Tgt Ion: 57 Resp: 31237

Ion Ratio Lower Upper

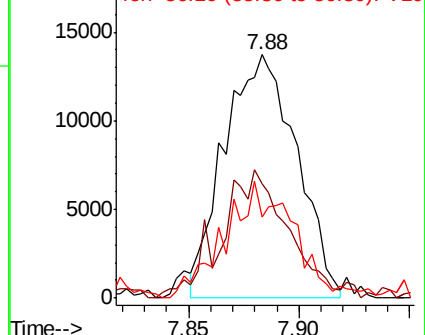
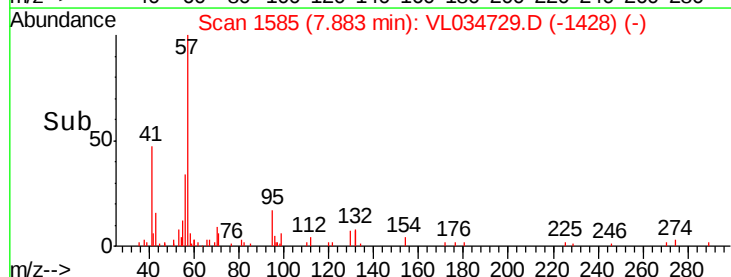
57 100

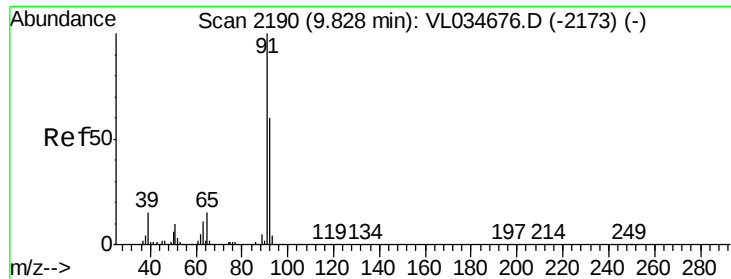
41 49.2 26.0 39.0#

56 45.7 25.6 38.4#



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





#53

Toluene

Concen: 0.336 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

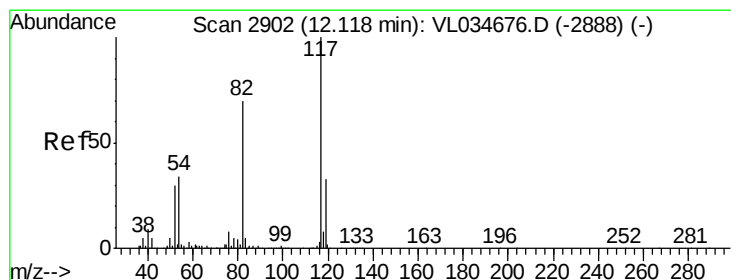
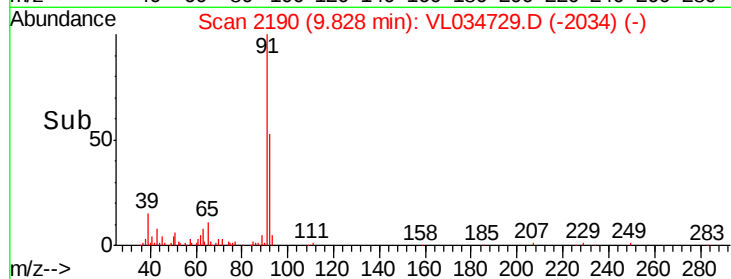
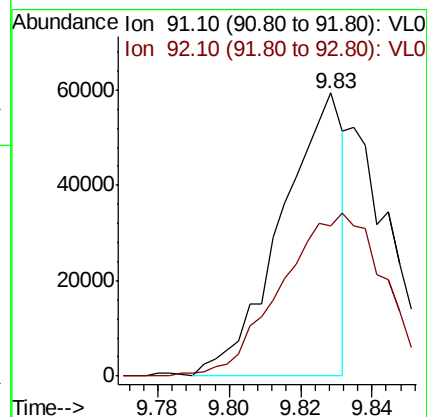
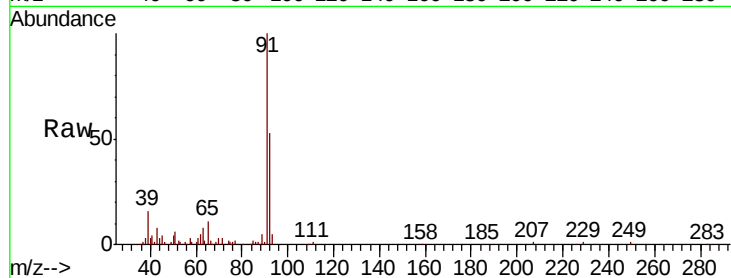
ClientSampleId :

Tot Ion: 91 Resp: 71097

Ion Ratio Lower Upper

91 100

92 98.6 48.5 72.7#



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2902

Delta R.T. 0.00 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

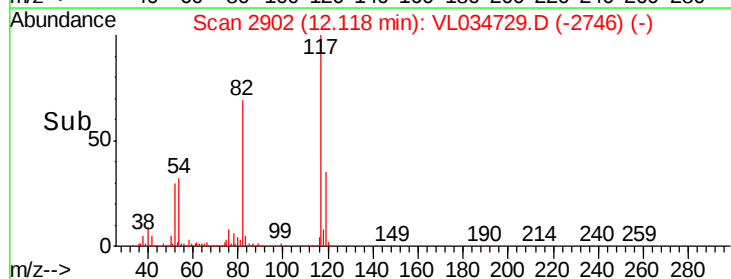
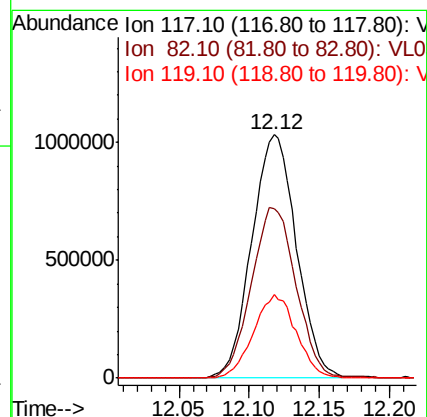
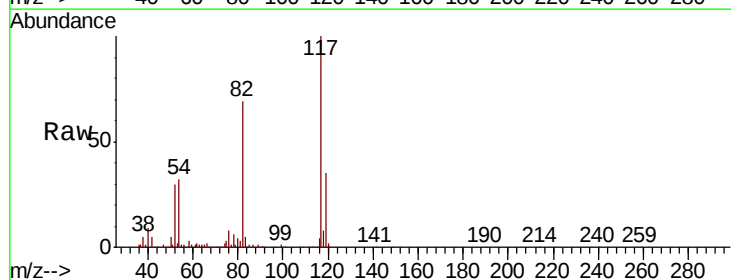
Tgt Ion: 117 Resp: 2283480

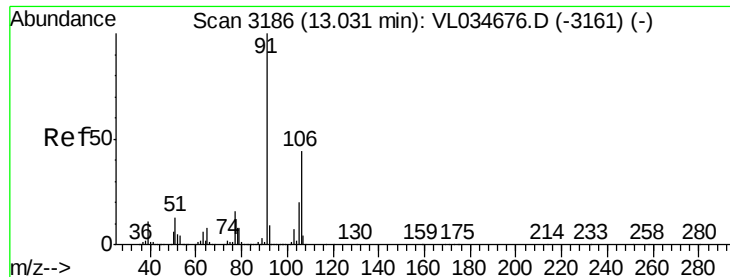
Ion Ratio Lower Upper

117 100

82 70.8 54.1 81.1

119 33.1 27.6 41.4





#59

m/p-Xylene

Concen: 0.105 ppbv

RT: 13.02 min Scan# 3182

Delta R.T. -0.01 min

Lab File: VL034729.D

Acq: 28 Feb 2020 4:34

Instrument :

MSVOA_L

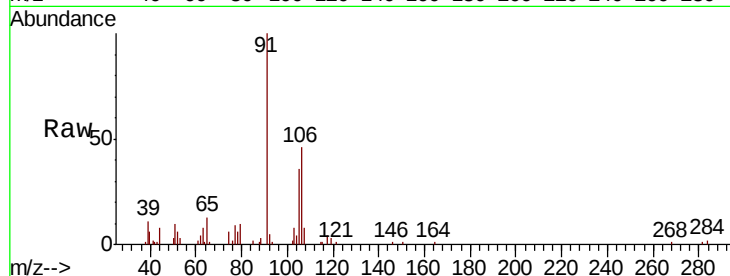
ClientSampled :

Tot Ion: 91 Resp: 25412

Ion Ratio Lower Upper

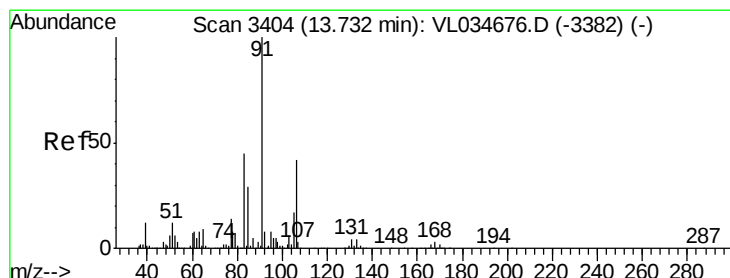
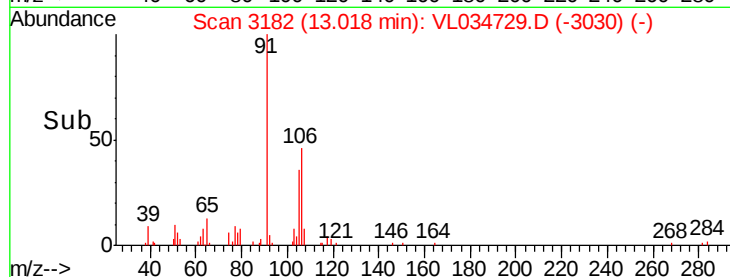
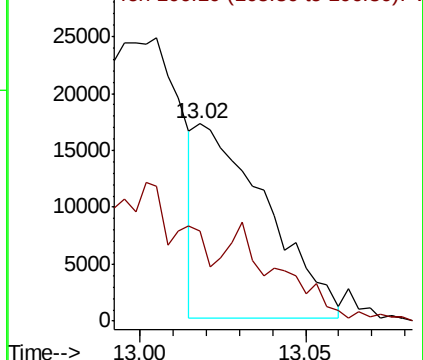
91 100

106 0.0 35.6 53.4#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.044 ppbv

RT: 13.73 min Scan# 3405

Delta R.T. 0.00 min

Lab File: VL034729.D

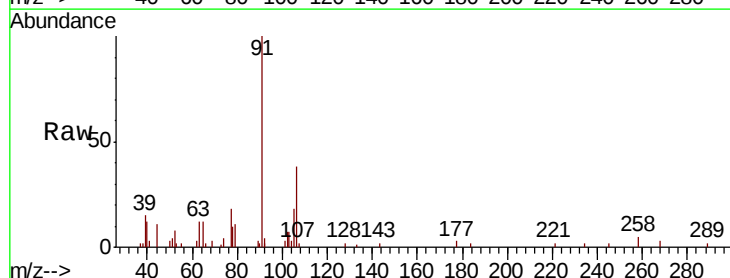
Acq: 28 Feb 2020 4:34

Tgt Ion: 91 Resp: 10560

Ion Ratio Lower Upper

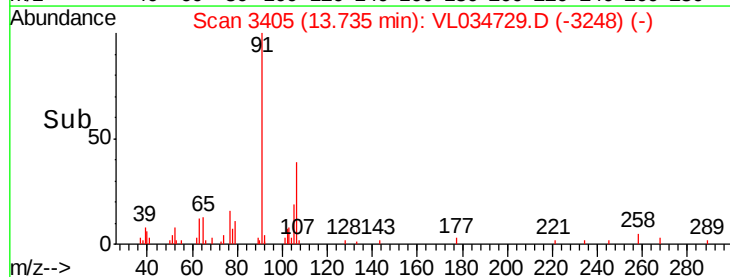
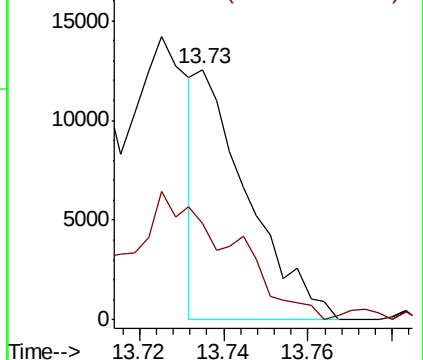
91 100

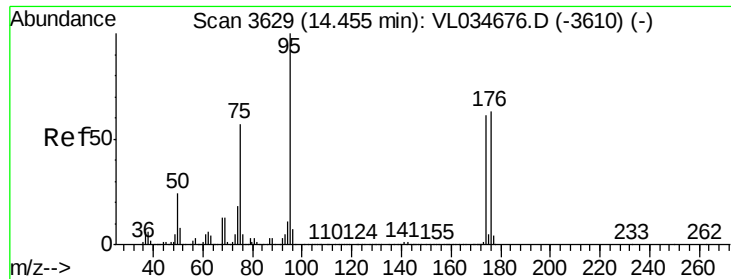
106 0.0 21.9 65.5#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

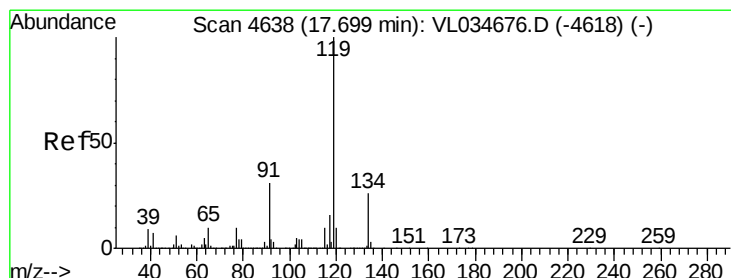
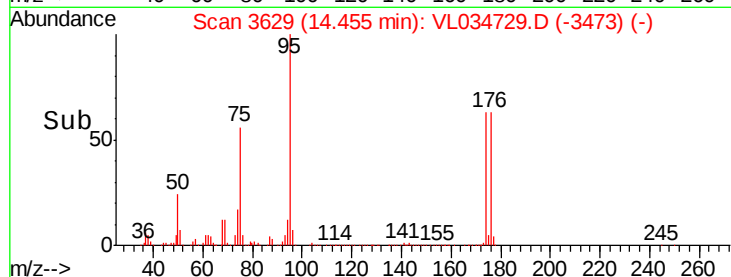
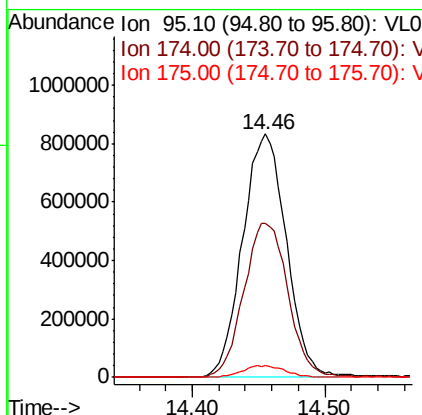
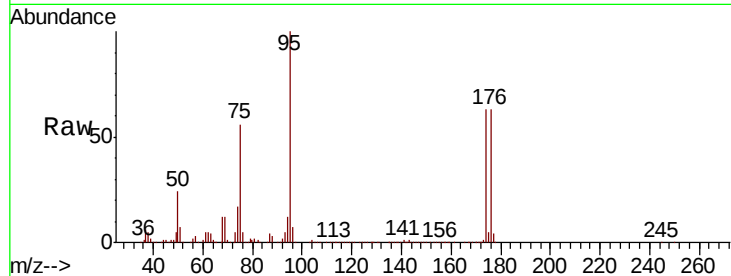




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.189 ppbv
 RT: 14.46 min Scan# 3629
 Delta R.T. 0.00 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

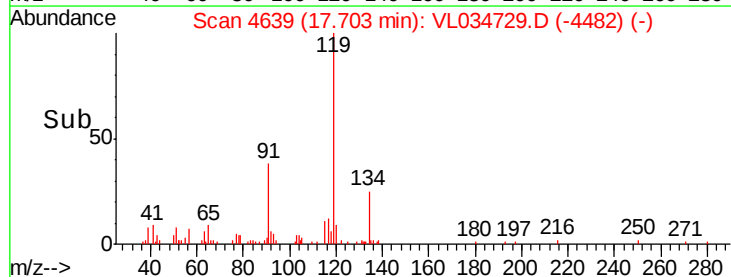
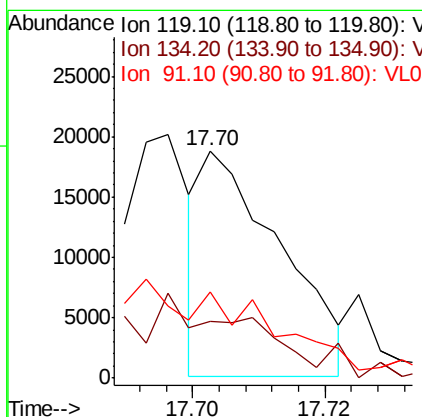
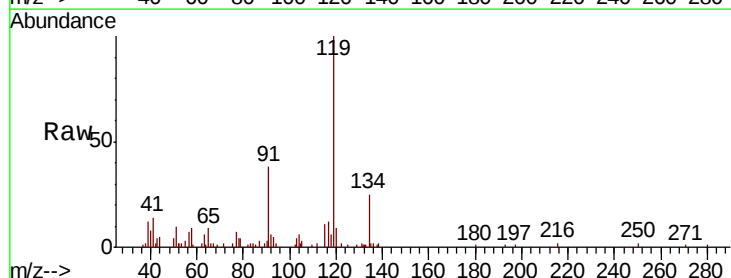
Instrument :
 MSVOA_L
 ClientSampleId :

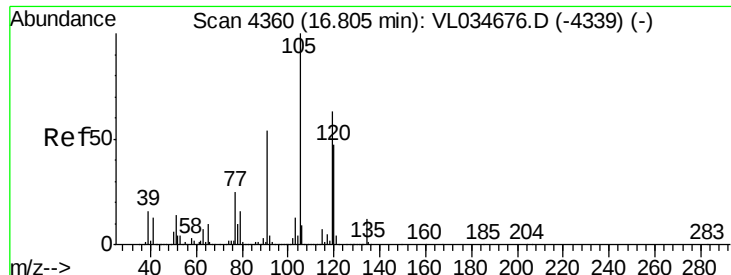
Tot Ion: 95 Resp: 1907687
 Ion Ratio Lower Upper
 95 100
 174 64.7 50.7 76.1
 175 5.0 3.9 5.9



#69
 p-Isopropyltoluene
 Concen: 0.044 ppbv
 RT: 17.70 min Scan# 4639
 Delta R.T. 0.00 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Tgt Ion: 119 Resp: 15571
 Ion Ratio Lower Upper
 119 100
 134 0.0 20.6 31.0#
 91 0.0 25.3 37.9#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.083 ppbv
 RT: 16.80 min Scan# 4359
 Delta R.T. -0.00 min
 Lab File: VL034729.D
 Acq: 28 Feb 2020 4:34

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	23443
Ion	Ratio	Lower	Upper
105	100		
120	55.8	37.9	56.9
91	10.8	43.9	65.9#
77	19.8	20.3	30.5#

