

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122320\
 Data File : VL036204.D
 Acq On : 23 Dec 2020 22:51
 Operator : SY/AP
 Sample : L5196-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IIA1

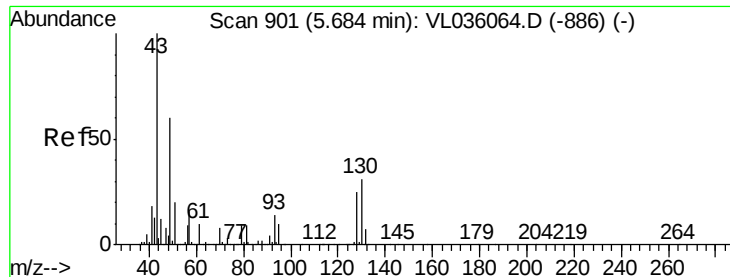
Quant Time: Dec 24 05:27:23 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
 QLast Update : Mon Dec 07 16:56:49 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1298160	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.15	114	2560199	10.00	ppbv	-0.05
55) Chlorobenzene-d5	12.07	117	2254282	10.00	ppbv	-0.05

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2023886	11.31	ppbv	-0.05
Spiked Amount	10.000	Range	65 - 135	Recovery	=	113.10%

Target Compounds					Ovalue
3) Chlorodifluoromethane	2.97	51	152735	1.031 ppbv	92
4) Chloromethane	3.12	50	24866	0.342 ppbv	89
9) Propene	3.18	41	126867	1.710 ppbv	97
11) Trichlorofluoromethane	3.93	101	65842	0.370 ppbv	86
13) Ethanol	3.59	45	379505	37.103 ppbv	91
15) Acetone	3.83	43	976477	6.259 ppbv #	86
16) 1,3-Butadiene	3.30	39	6701	0.085 ppbv #	11
19) Isopropyl Alcohol	3.95	45	149879	1.572 ppbv #	100
20) Methylene Chloride	4.32	84	213195	3.335 ppbv	86
23) Vinyl Acetate	5.04	43	12217	0.059 ppbv #	9
25) Ethyl Acetate	5.66	43	530300	1.701 ppbv #	79
26) Hexane	5.66	57	706728	5.038 ppbv #	39
29) Chloroform	5.73	83	5889	0.032 ppbv #	7
30) Cyclohexane	7.10	84	3828	0.037 ppbv #	1
34) 2-Butanone	5.23	43	38234	0.225 ppbv #	66
36) Benzene	6.86	78	56998	0.263 ppbv	96
39) 1,2-Dichloropropane	7.15	63	849257	9.911 ppbv #	26
41) Tetrahydrofuran	6.29	42	3391	0.034 ppbv #	43
44) 2,2,4-Trimethylpentane	7.84	57	70236	0.179 ppbv #	40
53) Toluene	9.78	91	294243	1.208 ppbv	99
58) Ethyl Benzene	12.69	91	14243	0.046 ppbv	97
59) m/p-Xylene	12.98	91	29463	0.113 ppbv #	34
60) o-Xylene	13.67	91	16043	0.065 ppbv #	33
74) 1,2,4-Trimethylbenzene	16.75	105	29524	0.116 ppbv #	65

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.04 min

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IIA1

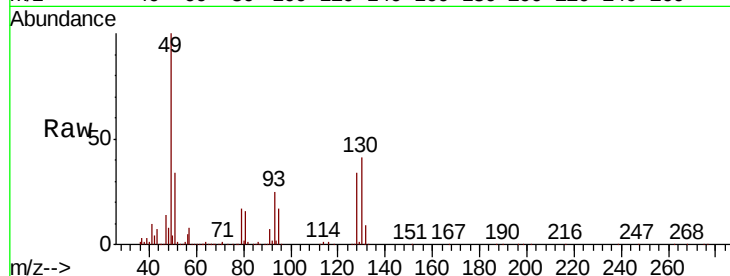
Tot Ion: 49 Resp: 1298160

Ion Ratio Lower Upper

49 100

128 36.0 21.1 63.1

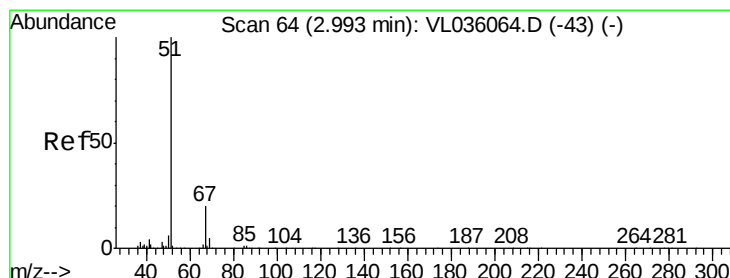
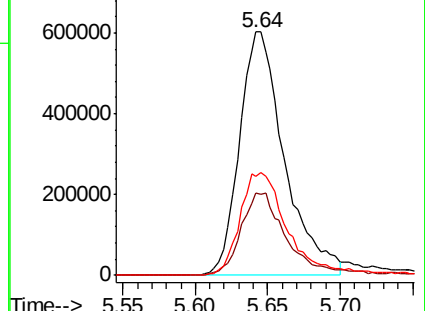
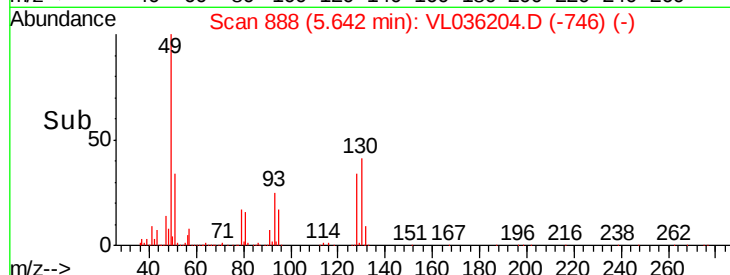
130 46.5 27.1 81.3



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



#3

Chlorodifluoromethane

Concen: 1.031 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.02 min

Lab File: VL036204.D

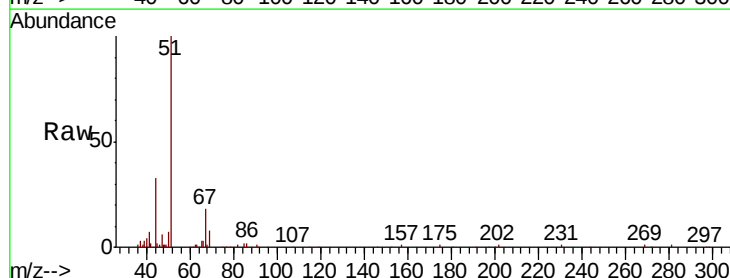
Acq: 23 Dec 2020 22:51

Tgt Ion: 51 Resp: 152735

Ion Ratio Lower Upper

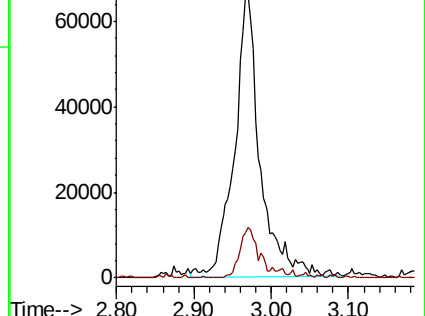
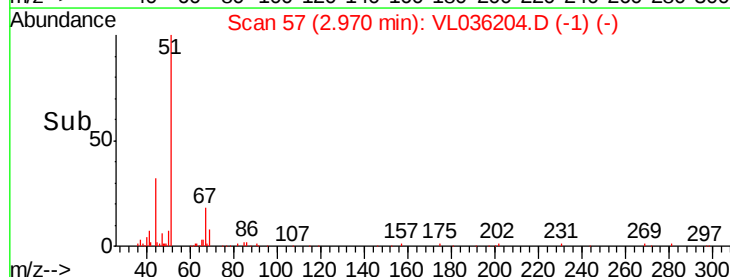
51 100

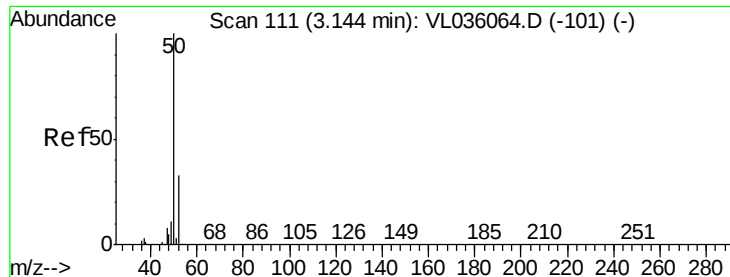
67 14.4 14.3 21.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.342 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.02 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

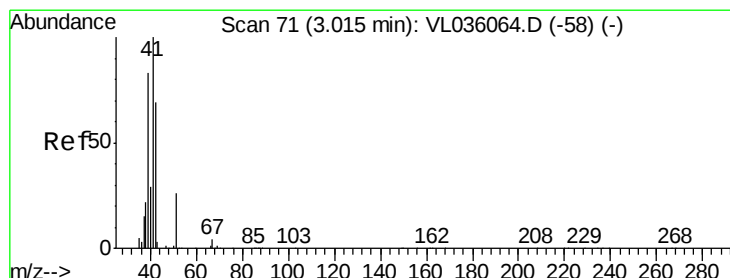
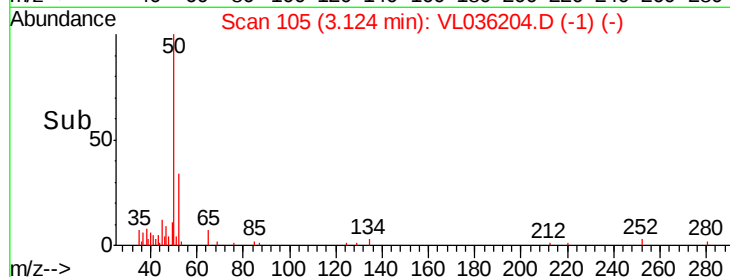
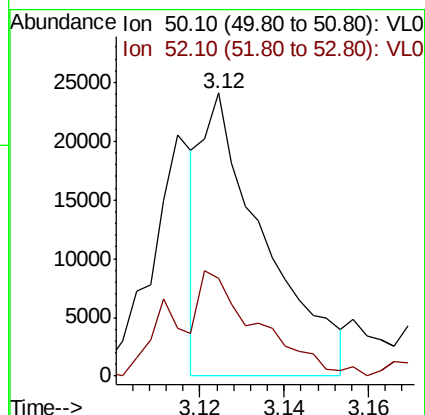
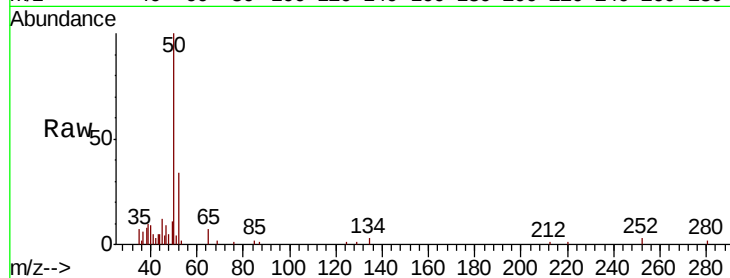
IIA1

Tot Ion: 50 Resp: 24866

Ion Ratio Lower Upper

50 100

52 38.8 26.1 39.1



#9

Propene

Concen: 1.710 ppbv

RT: 3.18 min Scan# 123

Delta R.T. 0.17 min

Lab File: VL036204.D

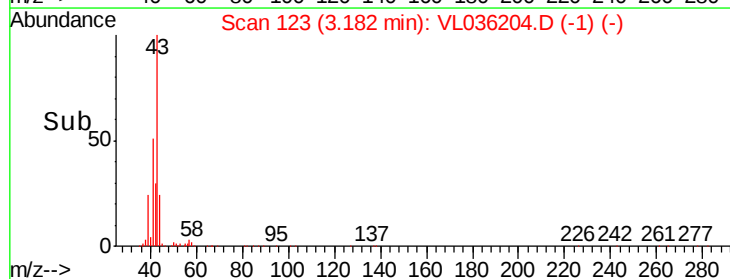
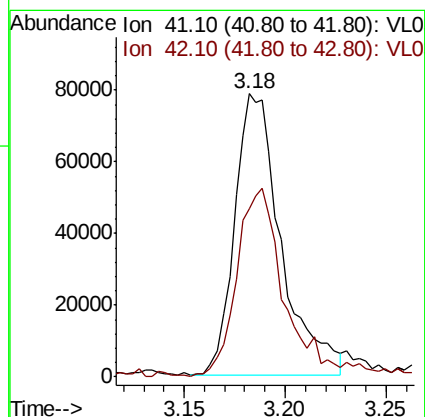
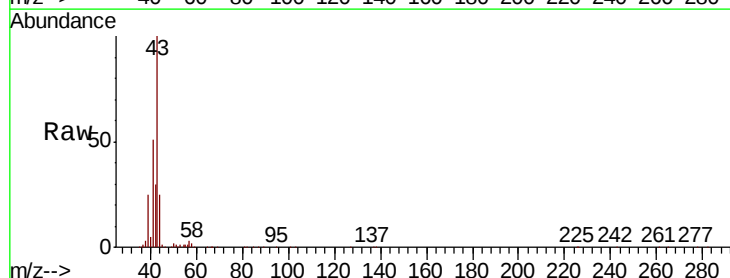
Acq: 23 Dec 2020 22:51

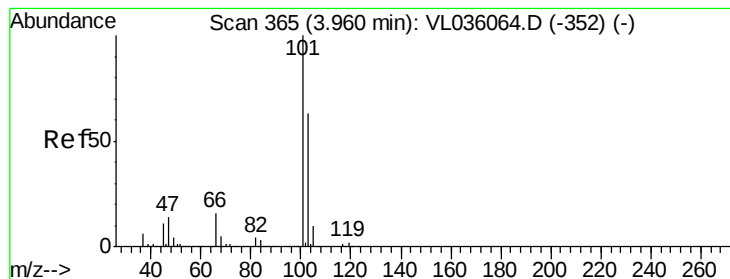
Tgt Ion: 41 Resp: 126867

Ion Ratio Lower Upper

41 100

42 69.1 57.0 85.6





#11

Trichlorofluoromethane

Concen: 0.370 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.03 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

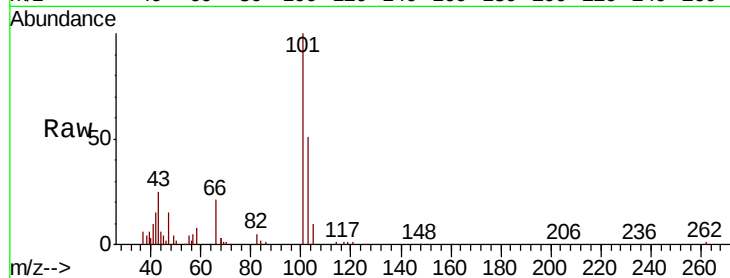
IIA1

Tot Ion:101 Resp: 65842

Ion Ratio Lower Upper

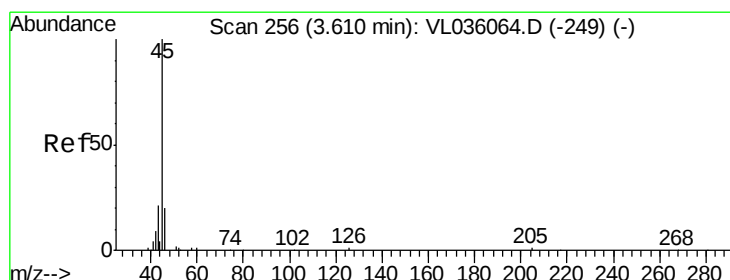
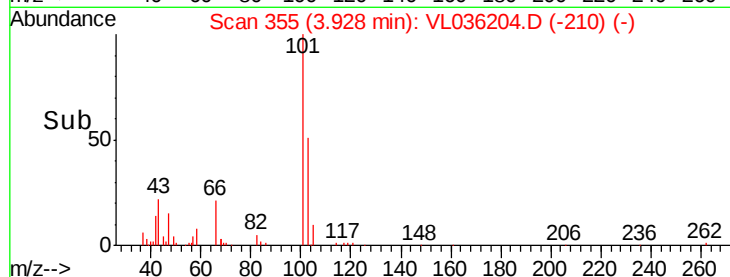
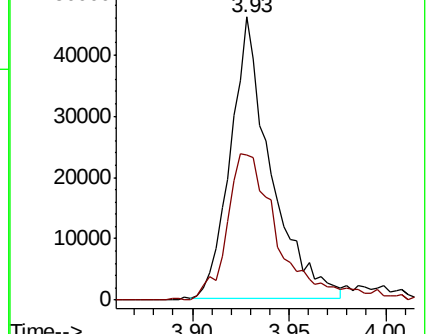
101 100

103 51.7 50.3 75.5



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 37.103 ppbv

RT: 3.59 min Scan# 249

Delta R.T. -0.02 min

Lab File: VL036204.D

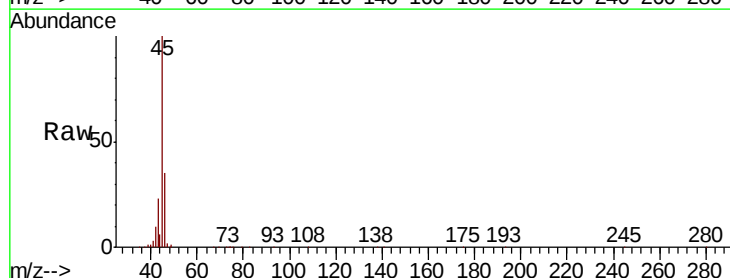
Acq: 23 Dec 2020 22:51

Tgt Ion: 45 Resp: 379505

Ion Ratio Lower Upper

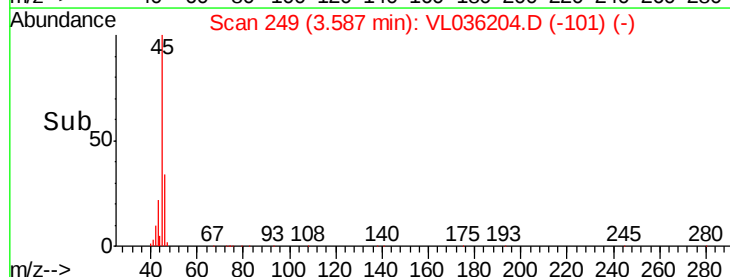
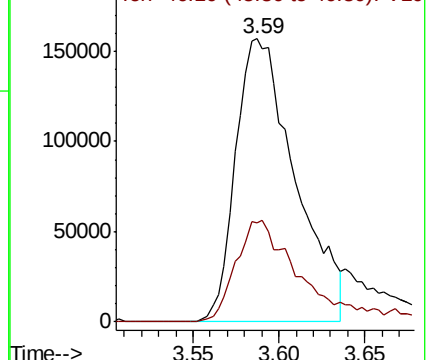
45 100

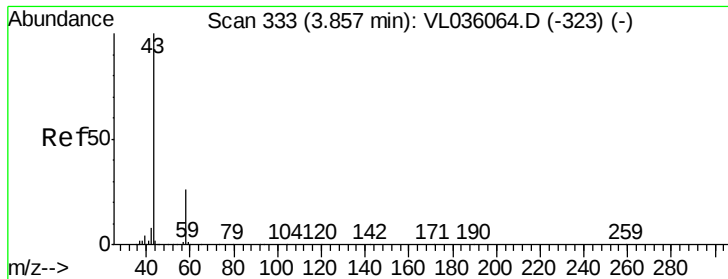
46 41.4 19.0 75.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 6.259 ppbv

RT: 3.83 min Scan# 325

Delta R.T. -0.03 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

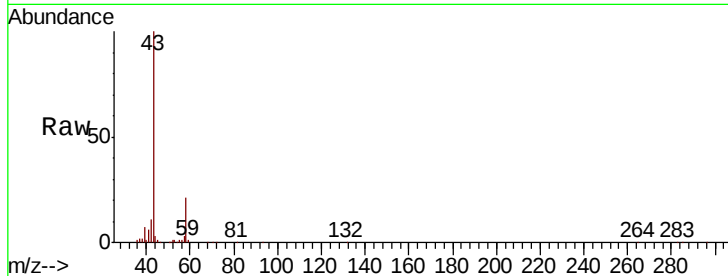
IIA1

Tot Ion: 43 Resp: 976477

Ion Ratio Lower Upper

43 100

58 19.1 20.9 31.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.83

400000

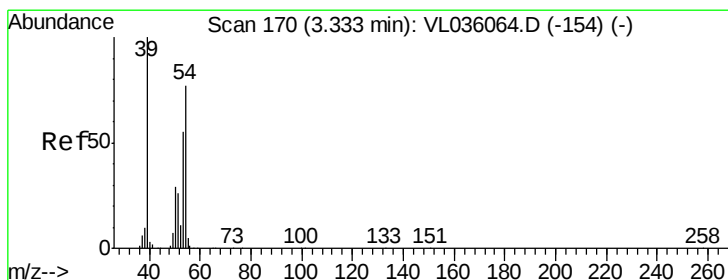
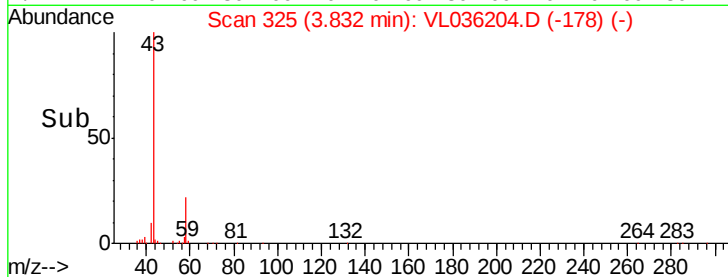
300000

200000

100000

0

Time--> 3.75 3.80 3.85 3.90



#16

1,3-Butadiene

Concen: 0.085 ppbv

RT: 3.30 min Scan# 161

Delta R.T. -0.03 min

Lab File: VL036204.D

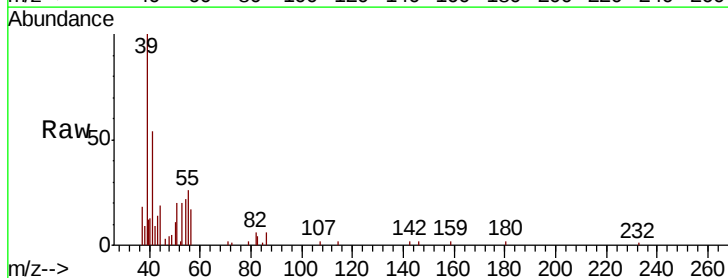
Acq: 23 Dec 2020 22:51

Tgt Ion: 39 Resp: 6701

Ion Ratio Lower Upper

39 100

54 0.0 62.1 93.1#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

20000

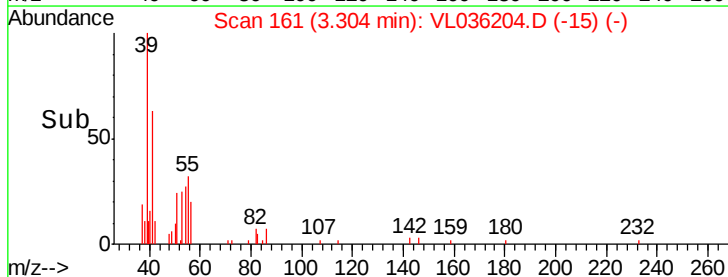
15000

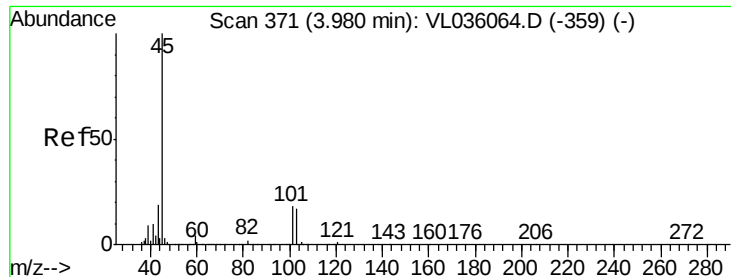
10000

5000

0

Time--> 3.29 3.30 3.31





#19

Isopropyl Alcohol

Concen: 1.572 ppbv

RT: 3.95 min Scan# 363

Delta R.T. -0.03 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

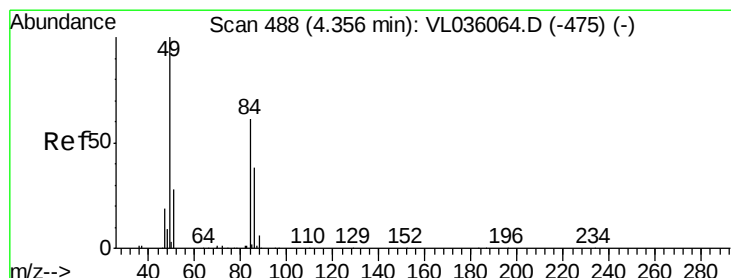
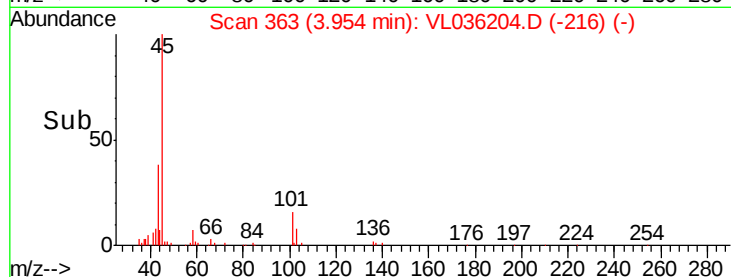
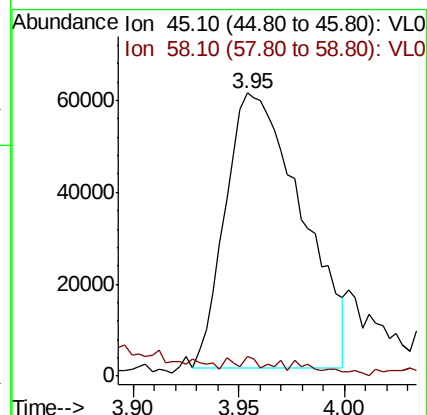
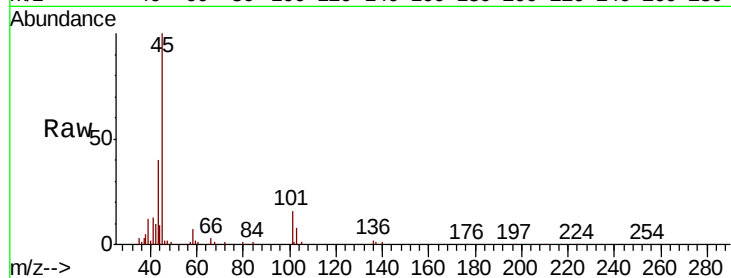
IIA1

Tot Ion: 45 Resp: 149879

Ion Ratio Lower Upper

45 100

58 4.5 0.0 0.0#



#20

Methylene Chloride

Concen: 3.335 ppbv

RT: 4.32 min Scan# 478

Delta R.T. -0.03 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Tgt Ion: 84 Resp: 213195

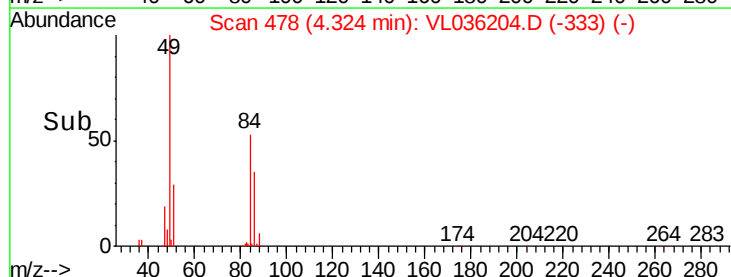
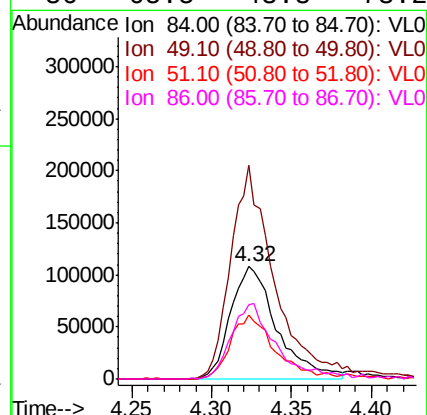
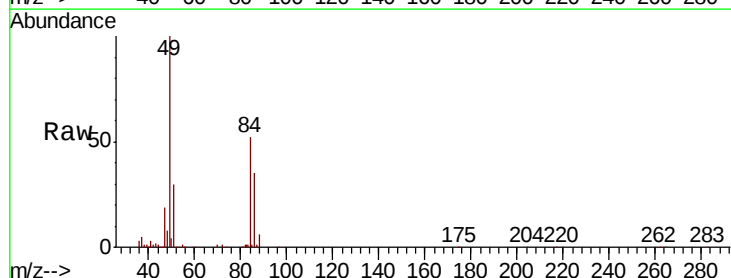
Ion Ratio Lower Upper

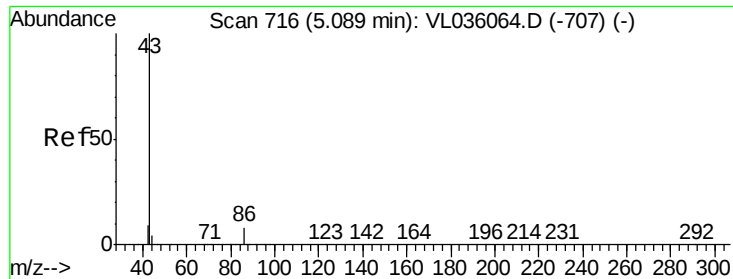
84 100

49 190.3 133.0 199.4

51 57.0 38.9 58.3

86 65.5 48.8 73.2

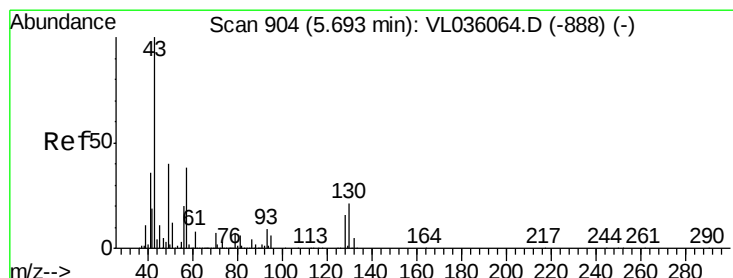
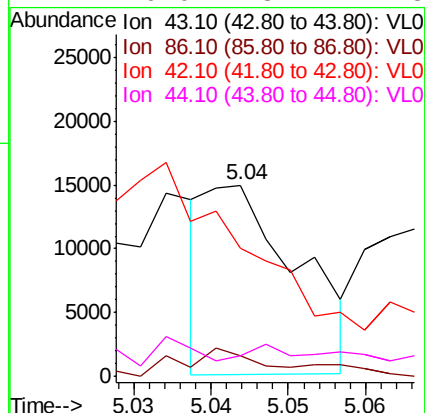
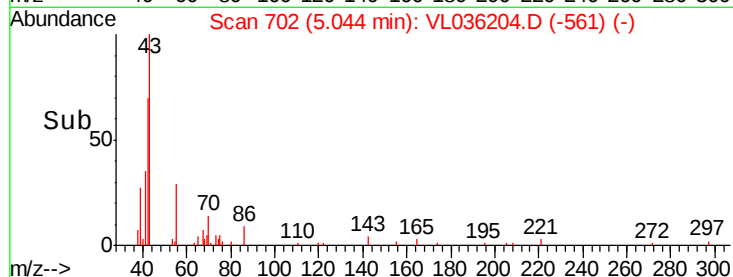
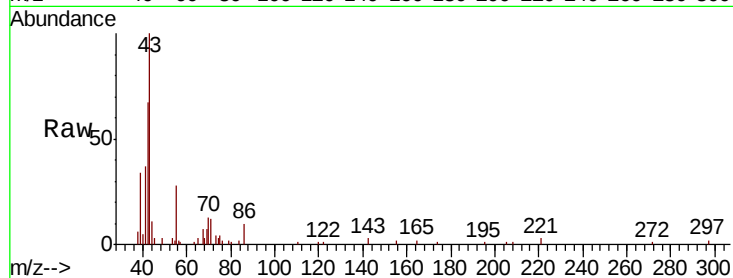




#23
 Vinyl Acetate
 Concen: 0.059 ppbv
 RT: 5.04 min Scan# 702
 Delta R.T. -0.05 min
 Lab File: VL036204.D
 Acq: 23 Dec 2020 22:51

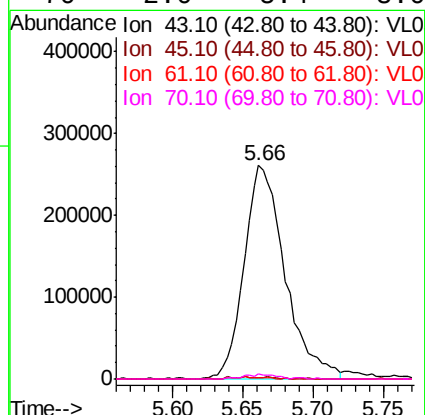
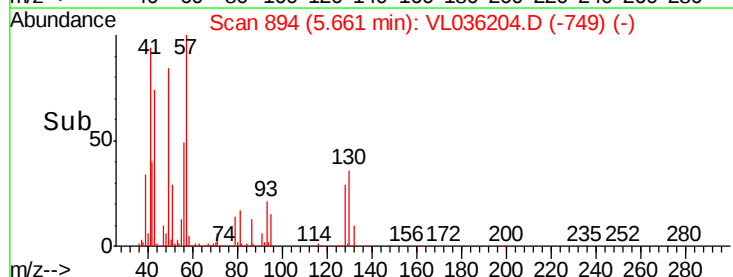
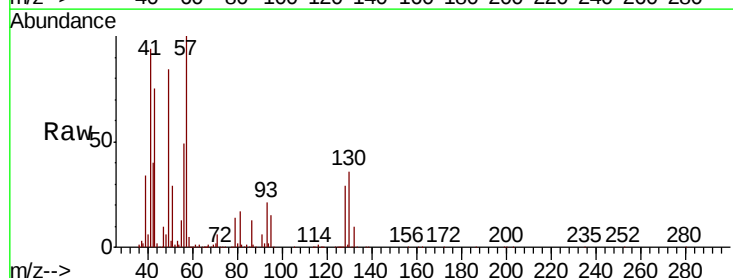
Instrument :
 MSVOA_L
 ClientSampleId :
 IIA1

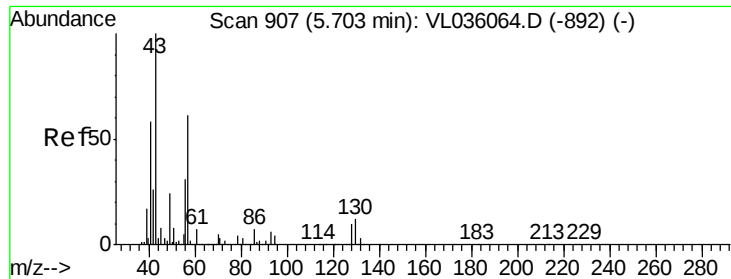
Tot Ion:	43	Resp:	12217
Ion	Ratio	Lower	Upper
43	100		
86	12.7	5.0	7.4#
42	72.0	7.8	11.6#
44	0.0	3.2	4.8#



#25
 Ethyl Acetate
 Concen: 1.701 ppbv
 RT: 5.66 min Scan# 894
 Delta R.T. -0.03 min
 Lab File: VL036204.D
 Acq: 23 Dec 2020 22:51

Tgt Ion:	43	Resp:	530300
Ion	Ratio	Lower	Upper
43	100		
45	1.0	8.2	12.4#
61	0.8	7.4	11.2#
70	2.0	5.4	8.0#

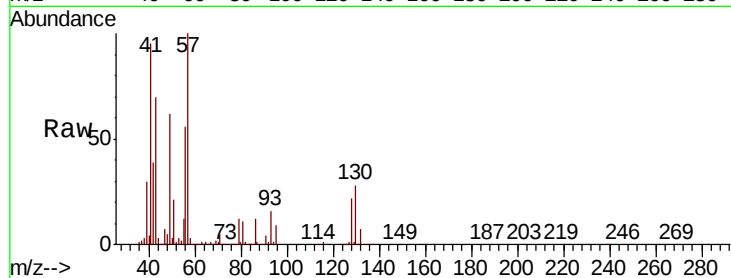




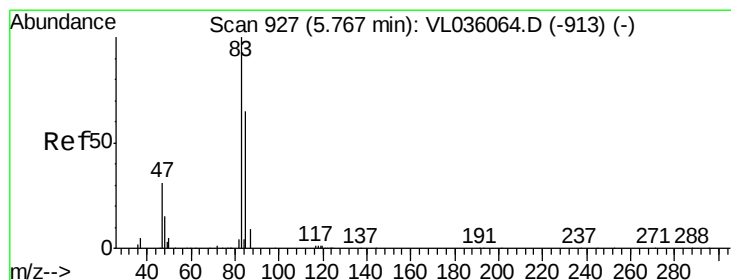
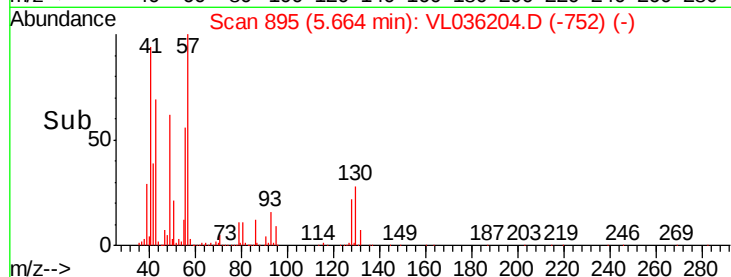
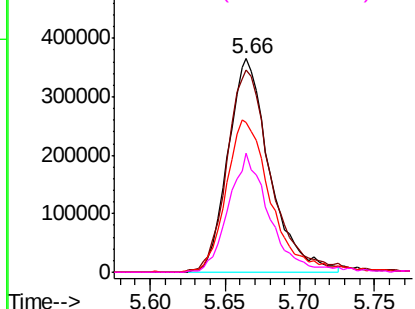
#26
Hexane
Concen: 5.038 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.04 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Instrument :
MSVOA_L
ClientSampleId :
IIA1

Tot Ion: 57 Resp: 706728
Ion Ratio Lower Upper
57 100
41 102.8 82.9 124.3
43 78.4 199.9 299.9#
56 55.7 43.1 64.7

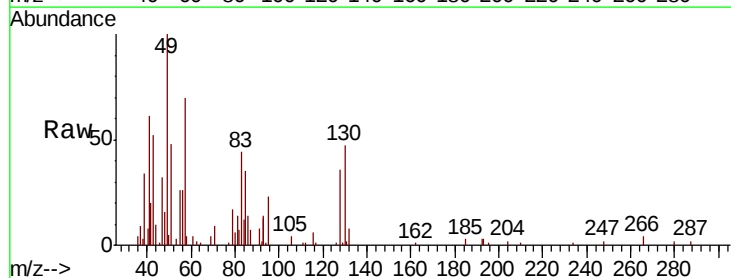


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

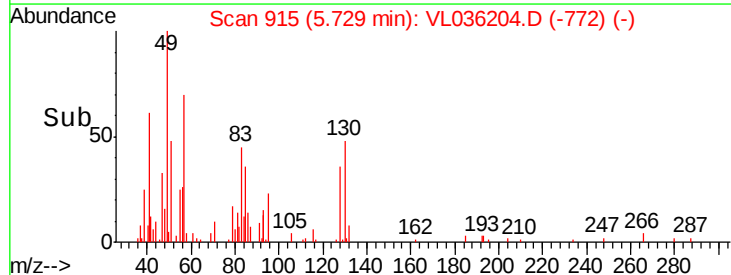
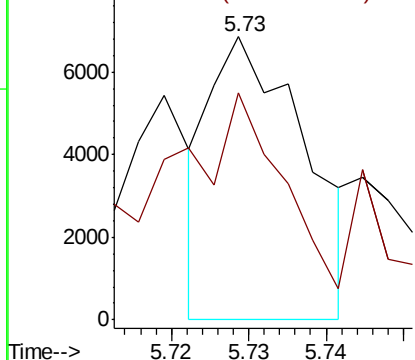


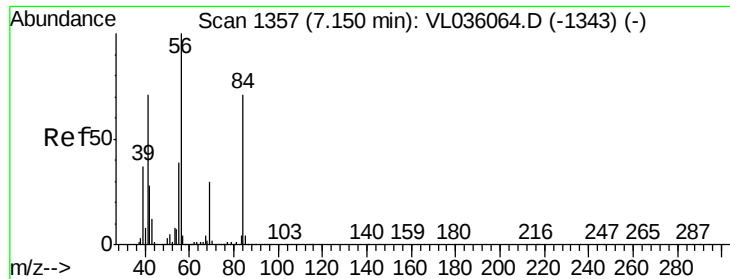
#29
Chloroform
Concen: 0.032 ppbv
RT: 5.73 min Scan# 915
Delta R.T. -0.04 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Tgt Ion: 83 Resp: 5889
Ion Ratio Lower Upper
83 100
85 137.6 51.8 77.6#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

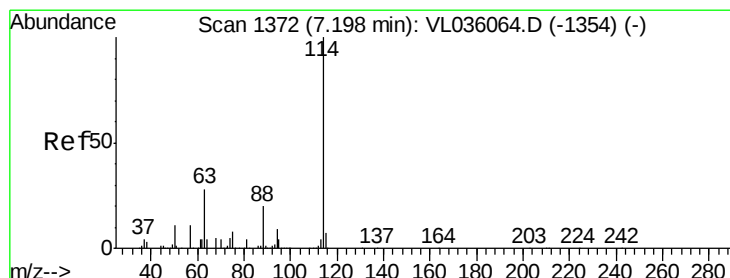
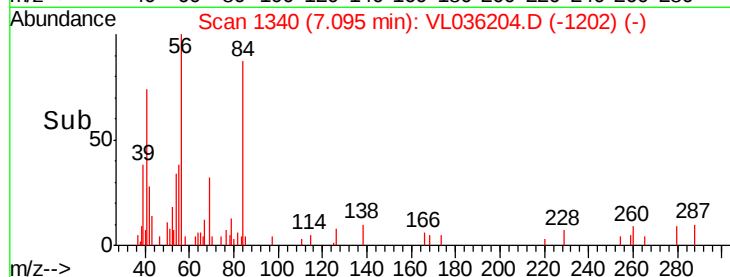
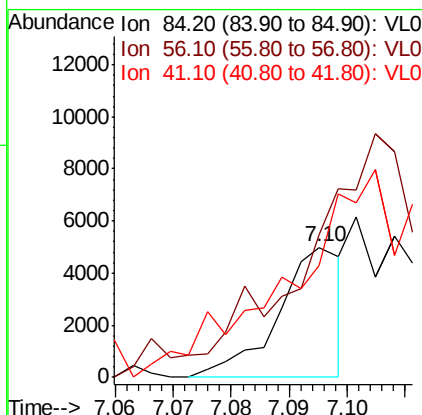
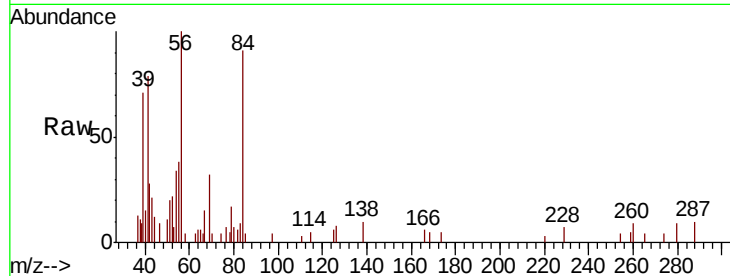




#30
Cyclohexane
Concen: 0.037 ppbv
RT: 7.10 min Scan# 1340
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

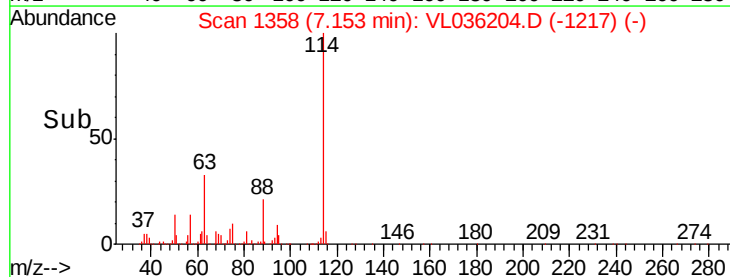
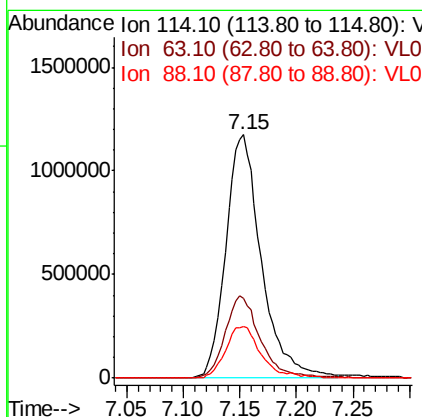
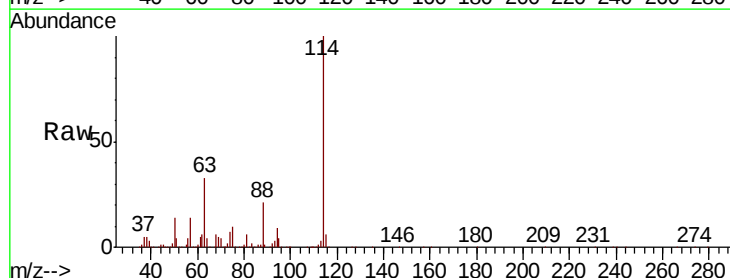
Instrument :
MSVOA_L
ClientSampleId :
IIA1

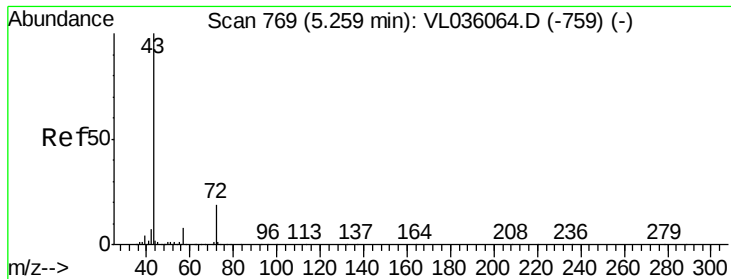
Tot Ion: 84 Resp: 3828
Ion Ratio Lower Upper
84 100
56 0.0 128.0 192.0#
41 0.0 81.3 121.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.15 min Scan# 1358
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Tgt Ion: 114 Resp: 2560199
Ion Ratio Lower Upper
114 100
63 33.8 23.6 35.4
88 21.7 15.8 23.6

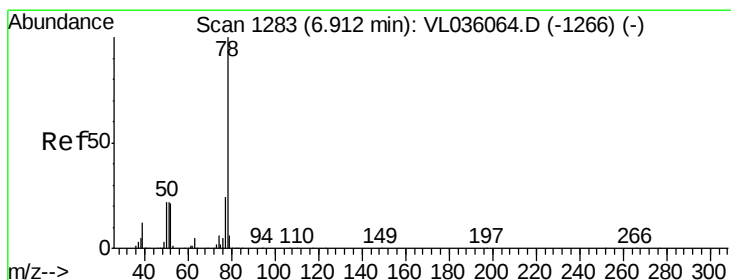
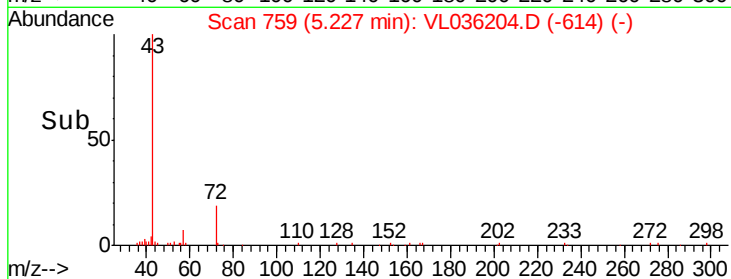
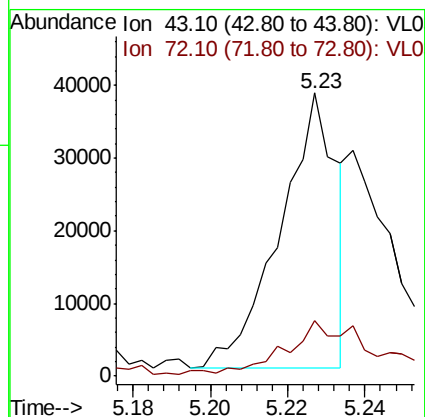
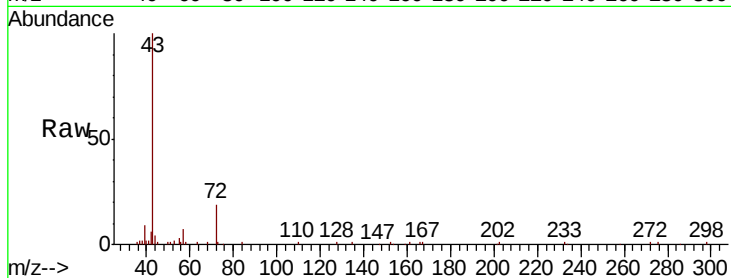




#34
2-Butanone
Concen: 0.225 ppbv
RT: 5.23 min Scan# 759
Delta R.T. -0.03 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

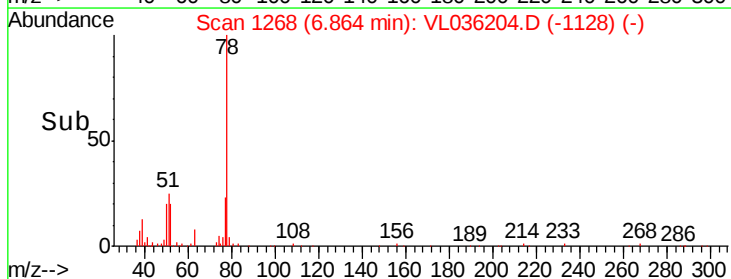
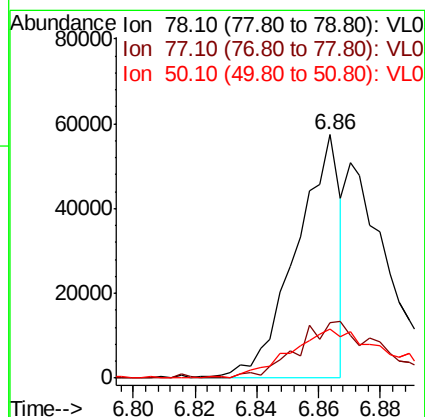
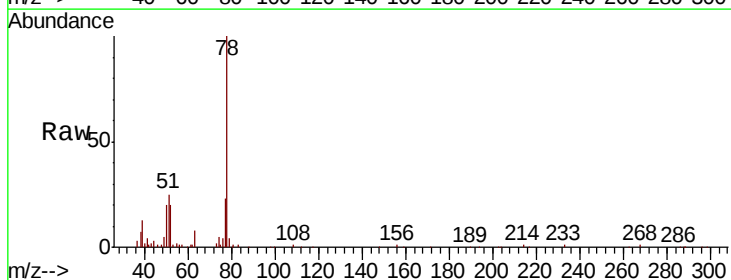
Instrument :
MSVOA_L
ClientSampleId :
IIA1

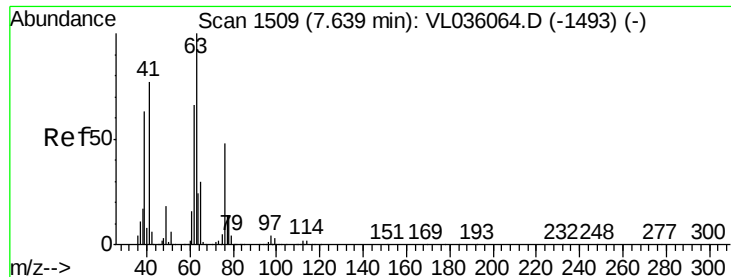
Tot Ion: 43 Resp: 38234
Ion Ratio Lower Upper
43 100
72 36.3 16.5 24.7#



#36
Benzene
Concen: 0.263 ppbv
RT: 6.86 min Scan# 1268
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Tgt Ion: 78 Resp: 56998
Ion Ratio Lower Upper
78 100
77 22.2 19.4 29.2
50 20.3 17.8 26.8





#39

1,2-Dichloropropane

Concen: 9.911 ppbv

RT: 7.15 min Scan# 1357

Delta R.T. -0.49 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

IIA1

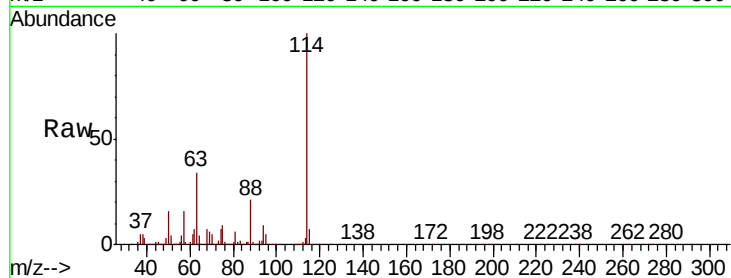
Tot Ion: 63 Resp: 849257

Ion Ratio Lower Upper

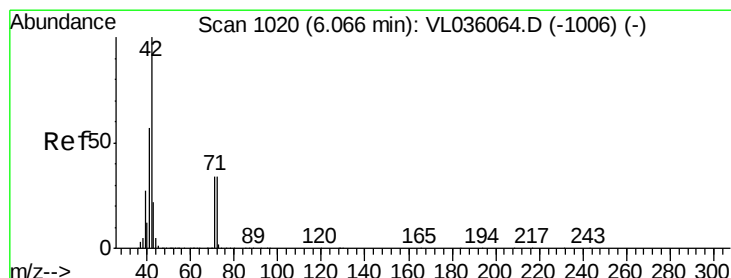
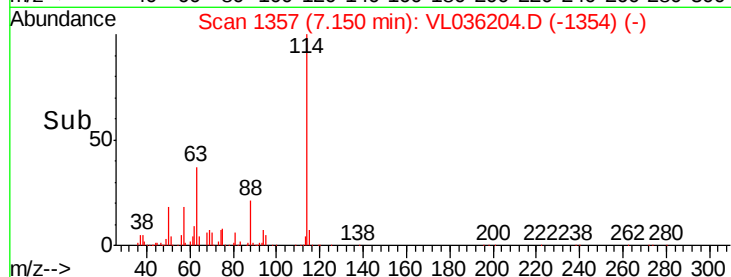
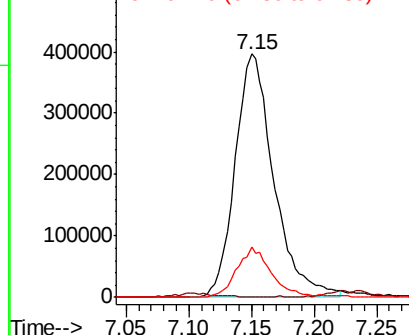
63 100

41 0.0 61.9 92.9#

62 20.5 52.5 78.7#



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



#41

Tetrahydrofuran

Concen: 0.034 ppbv

RT: 6.29 min Scan# 1089

Delta R.T. 0.22 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

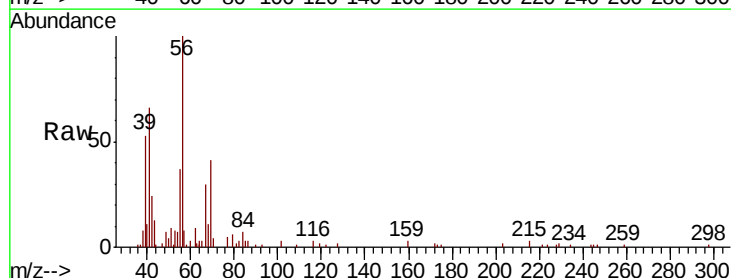
Tgt Ion: 42 Resp: 3391

Ion Ratio Lower Upper

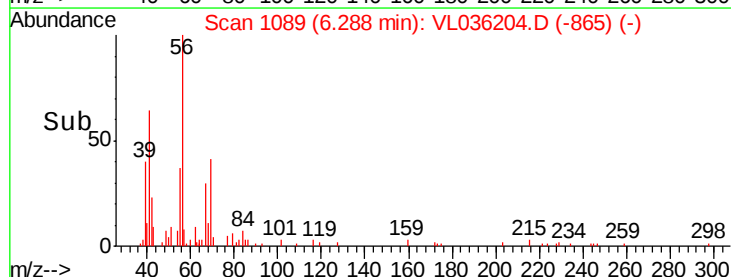
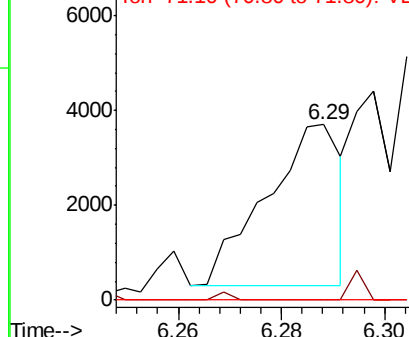
42 100

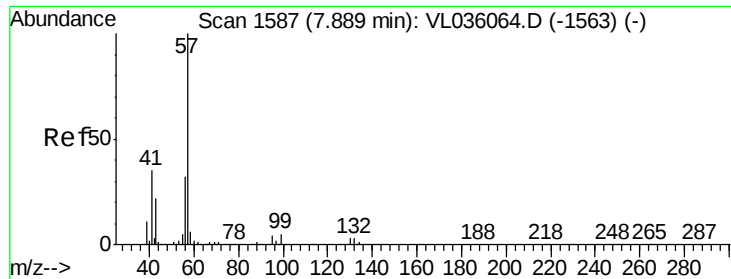
72 3.5 28.3 42.5#

71 0.0 27.3 40.9#



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





#44

2,2,4-Trimethylpentane

Concen: 0.179 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. -0.05 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

IIA1

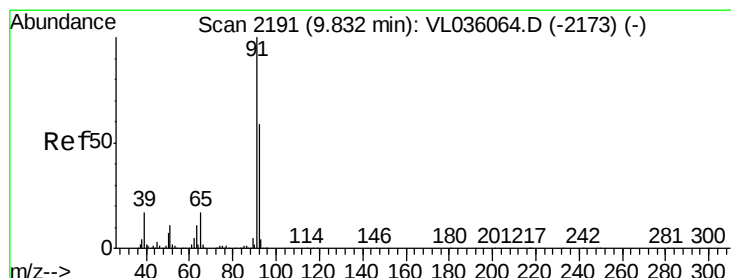
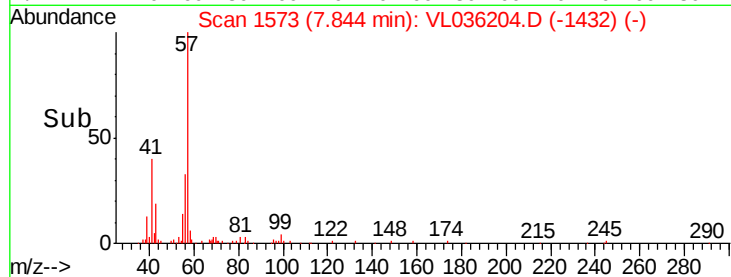
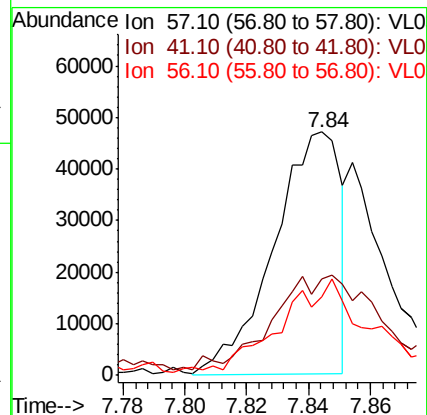
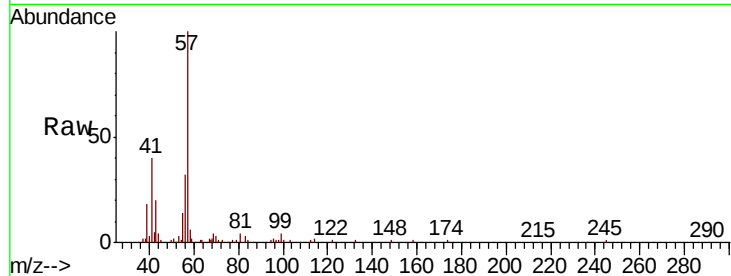
Tot Ion: 57 Resp: 70236

Ion Ratio Lower Upper

57 100

41 76.9 28.9 43.3#

56 59.5 25.3 37.9#



#53

Toluene

Concen: 1.208 ppbv

RT: 9.78 min Scan# 2175

Delta R.T. -0.05 min

Lab File: VL036204.D

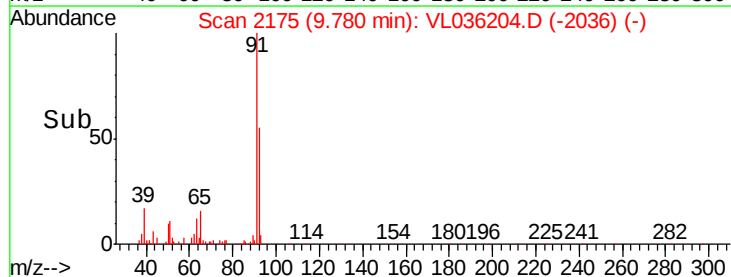
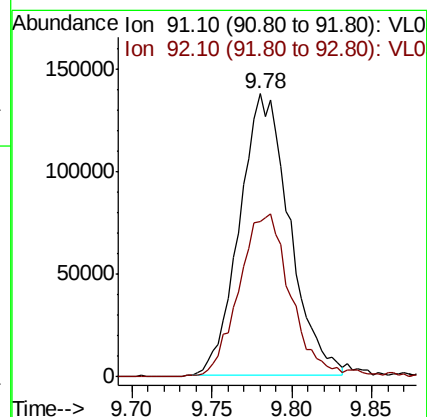
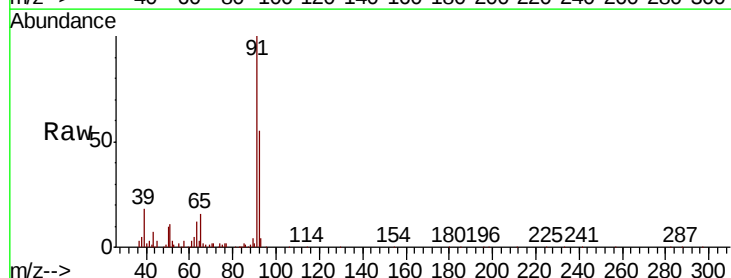
Acq: 23 Dec 2020 22:51

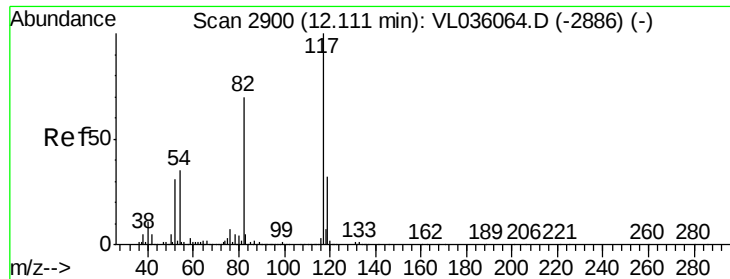
Tgt Ion: 91 Resp: 294243

Ion Ratio Lower Upper

91 100

92 60.9 48.2 72.2

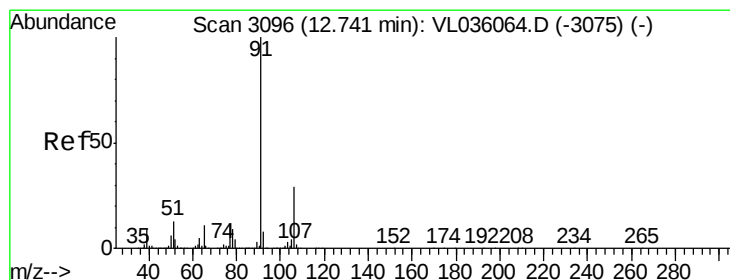
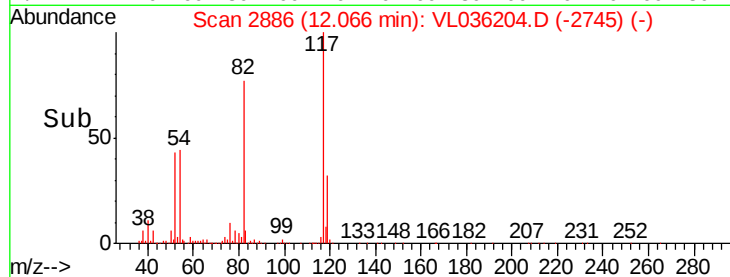
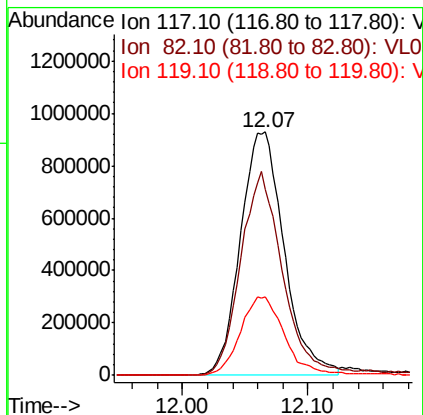
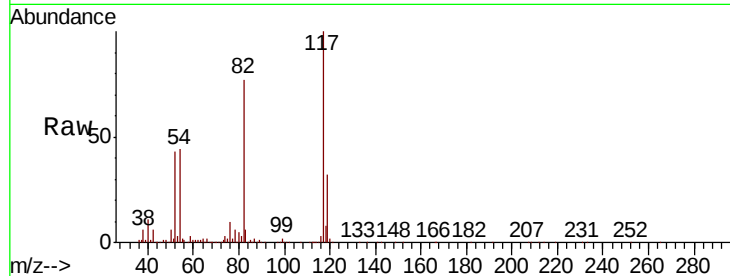




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.07 min Scan# 2886
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

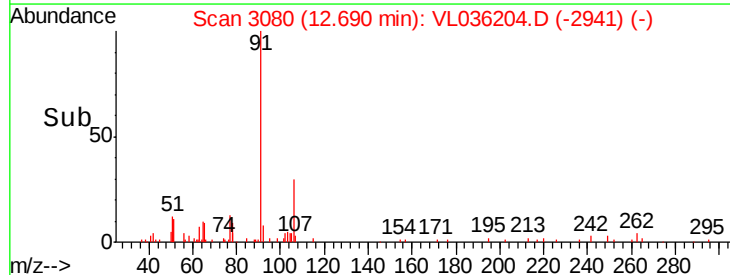
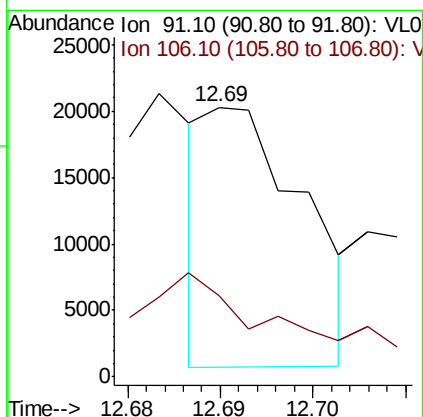
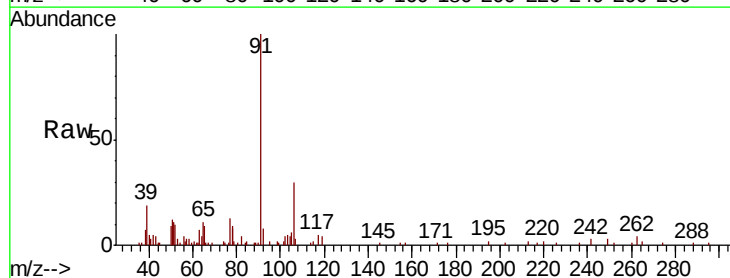
Instrument :
MSVOA_L
ClientSampleId :
IIA1

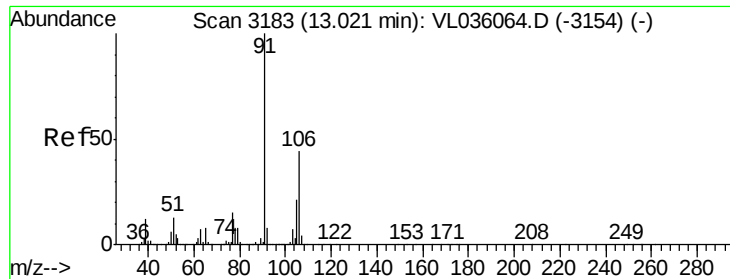
Tot Ion:117 Resp: 2254282
Ion Ratio Lower Upper
117 100
82 83.3 0.0 0.0#
119 33.0 0.0 0.0#



#58
Ethyl Benzene
Concen: 0.046 ppbv
RT: 12.69 min Scan# 3080
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Tgt Ion: 91 Resp: 14243
Ion Ratio Lower Upper
91 100
106 30.4 23.0 34.4

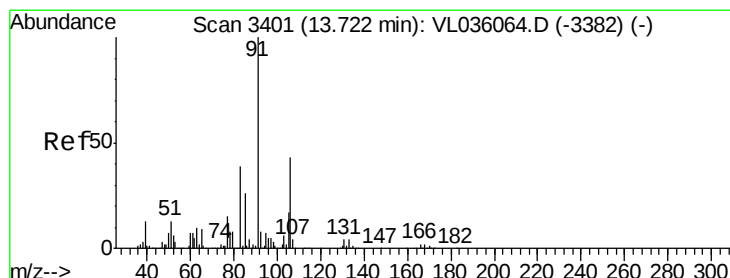
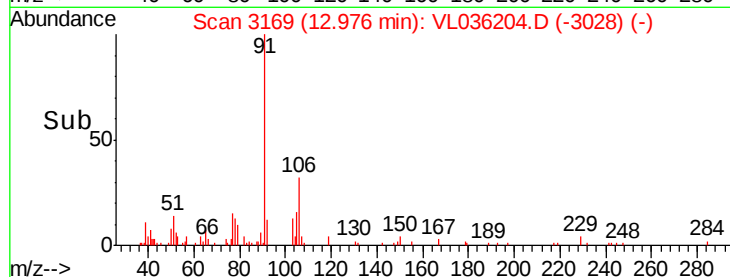
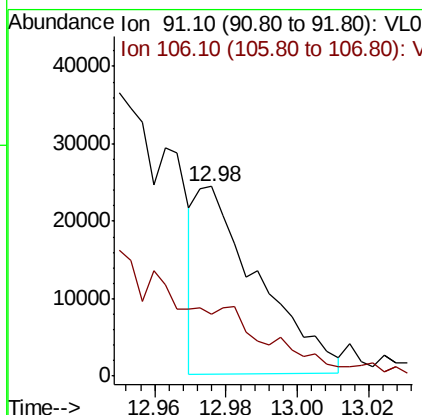
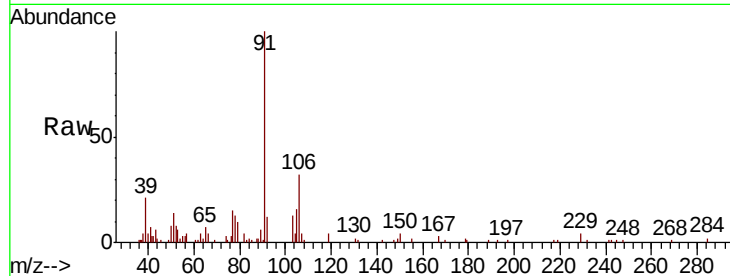




#59
m/p-Xylene
Concen: 0.113 ppbv
RT: 12.98 min Scan# 3169
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

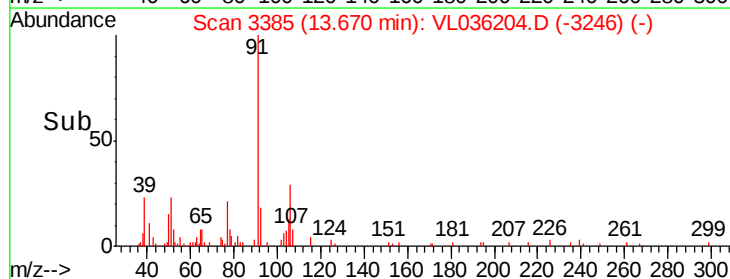
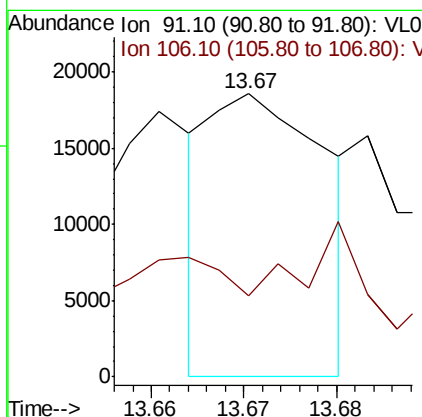
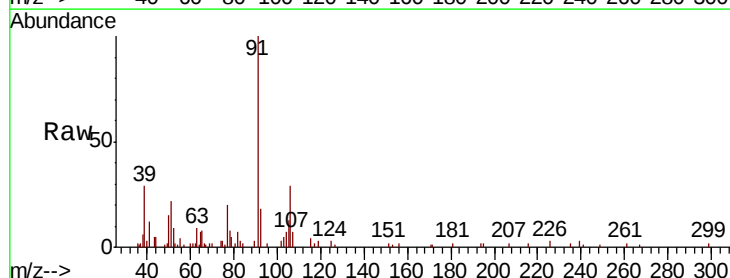
Instrument :
MSVOA_L
ClientSampleId :
IIA1

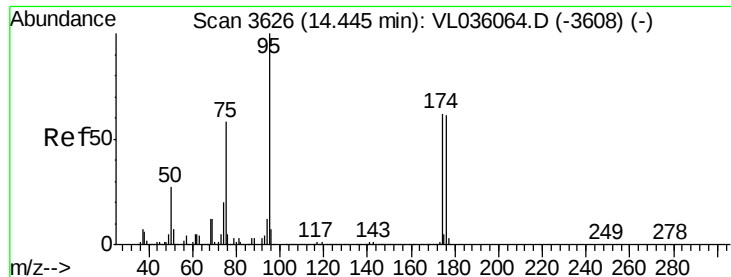
Tot Ion: 91 Resp: 29463
Ion Ratio Lower Upper
91 100
106 0.0 33.6 50.4#



#60
o-Xylene
Concen: 0.065 ppbv
RT: 13.67 min Scan# 3385
Delta R.T. -0.05 min
Lab File: VL036204.D
Acq: 23 Dec 2020 22:51

Tgt Ion: 91 Resp: 16043
Ion Ratio Lower Upper
91 100
106 0.0 21.6 64.6#





#68

1-Bromo-4-Fluorobenzene

Concen: 11.307 ppbv

RT: 14.39 min Scan# 3610

Delta R.T. -0.05 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Instrument :

MSVOA_L

ClientSampleId :

IIA1

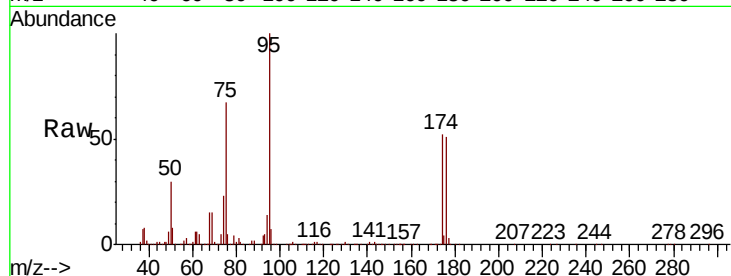
Tot Ion: 95 Resp: 2023886

Ion Ratio Lower Upper

95 100

174 52.7 50.7 76.1

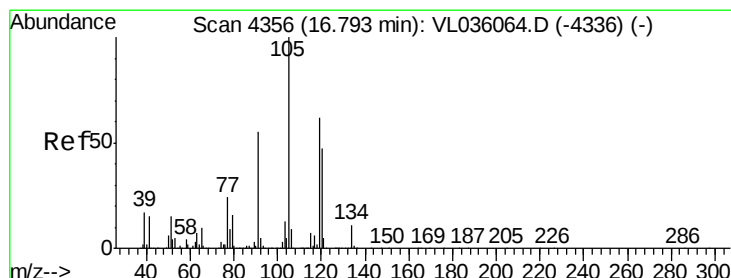
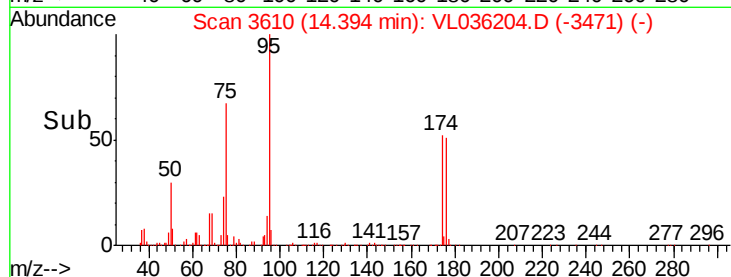
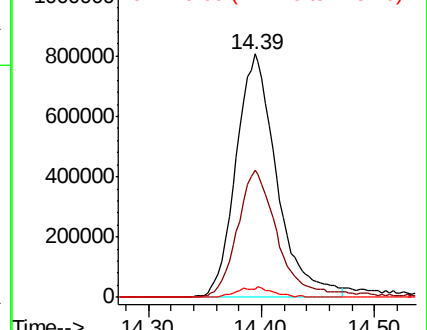
175 3.9 4.0 6.0#



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.116 ppbv

RT: 16.75 min Scan# 4342

Delta R.T. -0.05 min

Lab File: VL036204.D

Acq: 23 Dec 2020 22:51

Tgt Ion:105 Resp: 29524

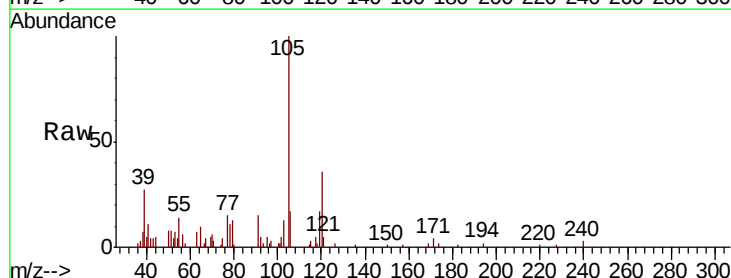
Ion Ratio Lower Upper

105 100

120 36.7 37.4 56.0#

91 14.7 45.6 68.4#

77 13.0 19.4 29.2#



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

