

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090320\
 Data File : VL035538.D
 Acq On : 3 Sep 2020 19:52
 Operator : SY/AP
 Sample : L3898-03DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-3DL

Quant Time: Sep 04 06:47:30 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Aug 27 06:46:28 2020
 QLast Update : Thu Aug 27 06:46:28 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.69	49	1068669	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	4538143	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	4531063	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.46	95	3282104	10.20	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.00%

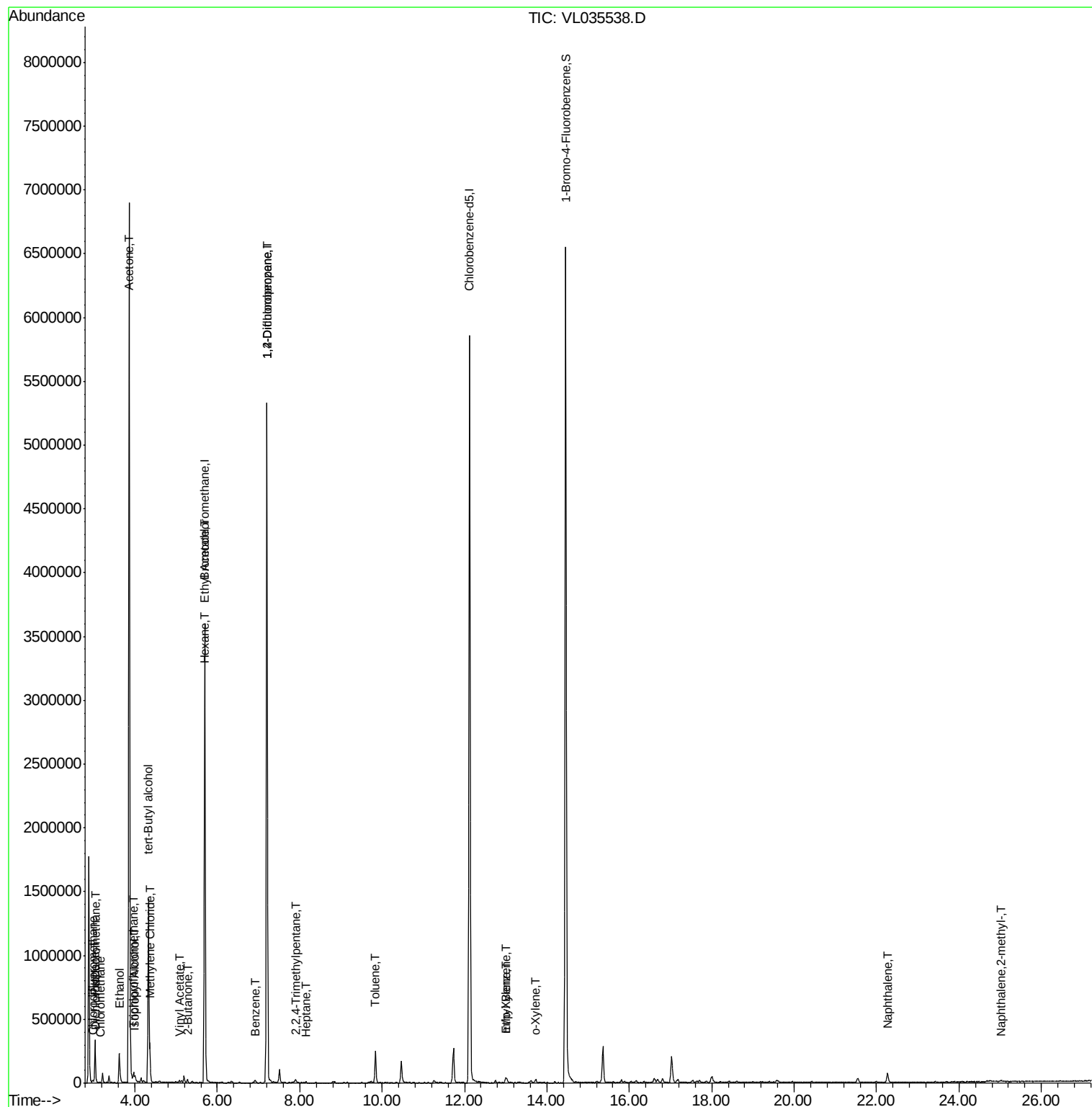
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	15042	0.081 ppbv	100
3) Chlorodifluoromethane	2.97	51	20701	0.175 ppbv #	73
4) Chloromethane	3.15	50	2971	0.047 ppbv	96
9) Propene	3.03	41	68125	1.495 ppbv #	64
10) Heptane	8.15	43	4163	0.034 ppbv	96
11) Trichlorofluoromethane	3.96	101	40706	0.151 ppbv	92
13) Ethanol	3.62	45	253485	22.437 ppbv	97
15) Acetone	3.86	43	6719247	57.008 ppbv #	84
17) tert-Butyl alcohol	4.33	59	157879	1.100 ppbv #	78
19) Isopropyl Alcohol	3.99	45	18818	0.268 ppbv #	93
20) Methylene Chloride	4.37	84	123634	1.408 ppbv	98
23) Vinyl Acetate	5.09	43	13388	0.088 ppbv #	83
25) Ethyl Acetate	5.71	43	25232	0.121 ppbv #	92
26) Hexane	5.71	57	58162	0.493 ppbv #	56
34) 2-Butanone	5.27	43	12371	0.092 ppbv #	29
36) Benzene	6.92	78	14706	0.050 ppbv #	91
39) 1,2-Dichloropropane	7.20	63	829100	8.355 ppbv #	32
44) 2,2,4-Trimethylpentane	7.90	57	16107	0.042 ppbv #	59
53) Toluene	9.84	91	209694	0.568 ppbv	98
58) Ethyl Benzene	13.02	91	18187	0.039 ppbv	99
59) m/p-Xylene	13.02	91	18187	0.047 ppbv #	24
60) o-Xylene	13.73	91	12806	0.033 ppbv	63
79) Naphthalene	22.26	128	107971	0.192 ppbv #	89
80) Naphthalene, 2-methyl-	25.03	142	7664	0.040 ppbv	95

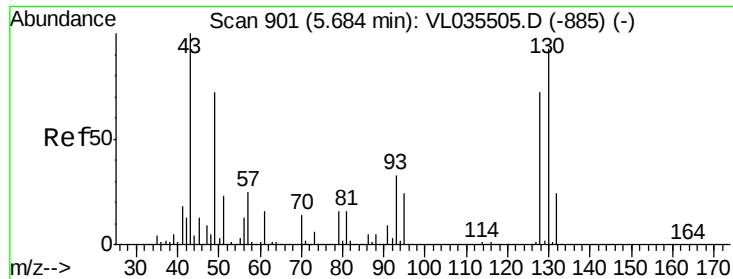
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

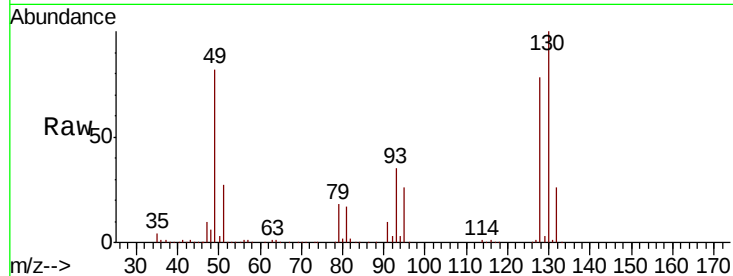
Tot Ion: 49 Resp: 1068669

Ion Ratio Lower Upper

49 100

128 96.4 50.0 150.1

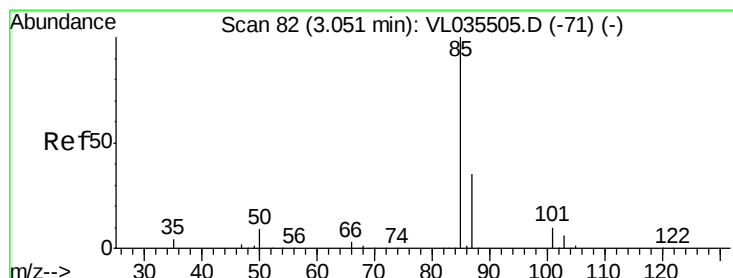
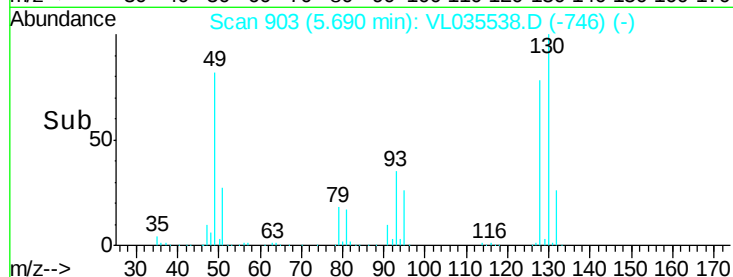
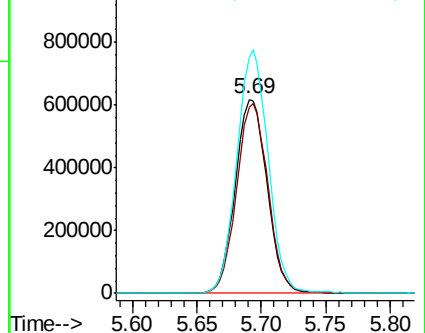
130 123.8 64.4 193.2



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: 0.081 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL035538.D

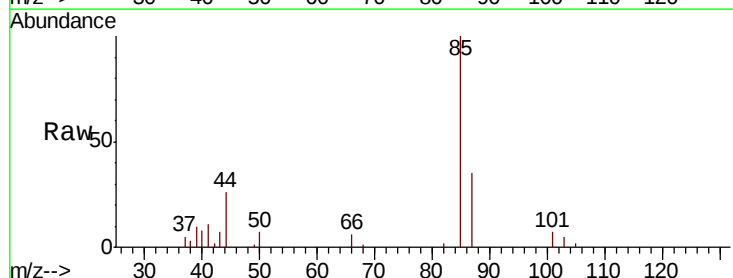
Acq: 3 Sep 2020 19:52

Tgt Ion: 85 Resp: 15042

Ion Ratio Lower Upper

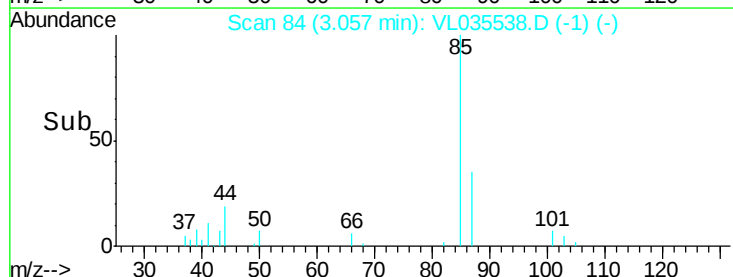
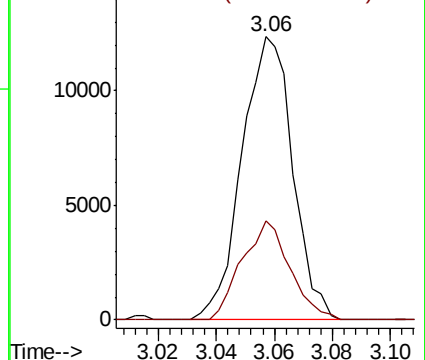
85 100

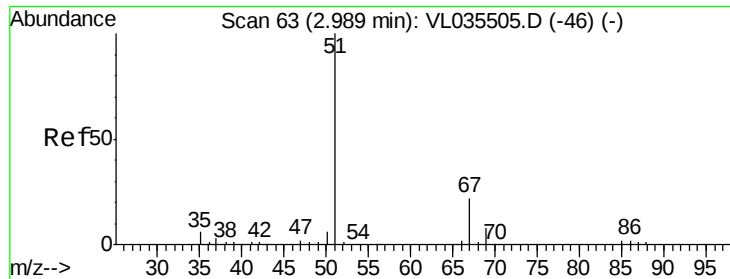
87 34.9 28.0 42.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.175 ppbv

RT: 2.97 min Scan# 58

Delta R.T. -0.02 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampled :

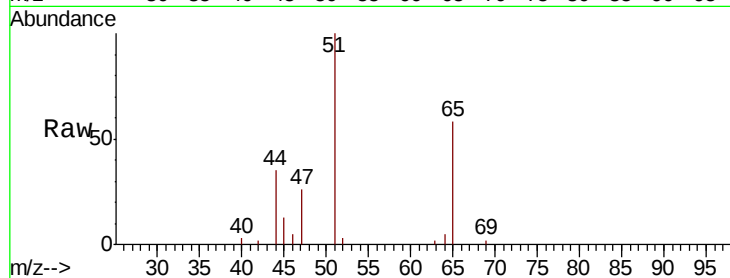
IA-3DL

Tot Ion: 51 Resp: 20701

Ion Ratio Lower Upper

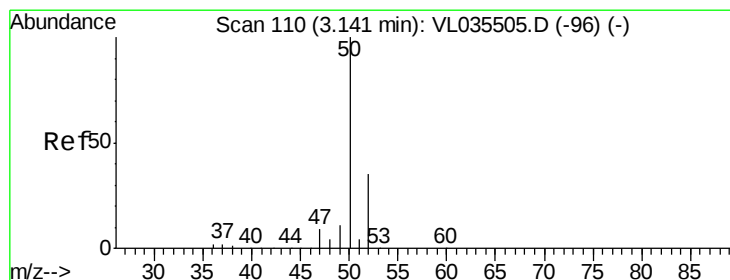
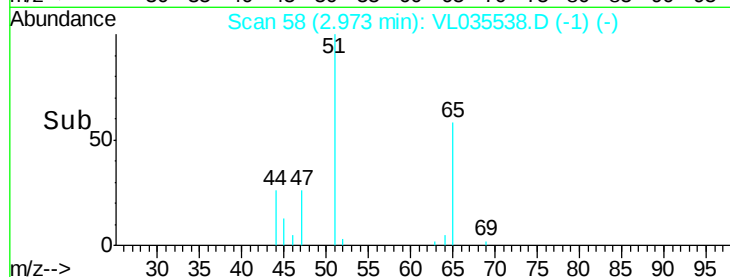
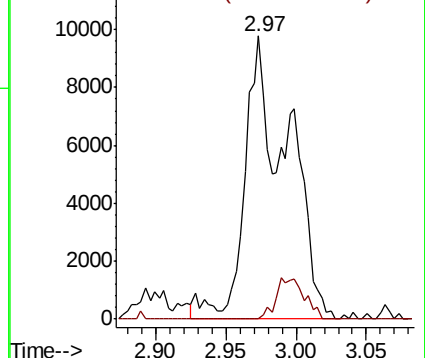
51 100

67 9.5 17.8 26.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.047 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.01 min

Lab File: VL035538.D

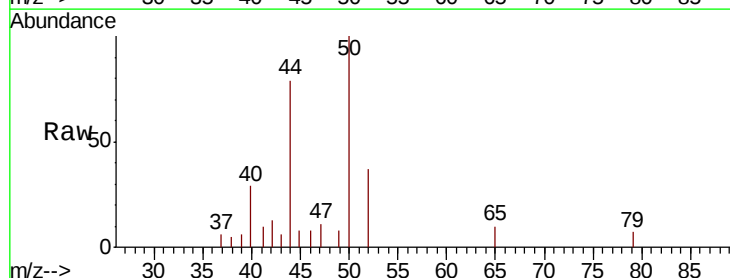
Acq: 3 Sep 2020 19:52

Tgt Ion: 50 Resp: 2971

Ion Ratio Lower Upper

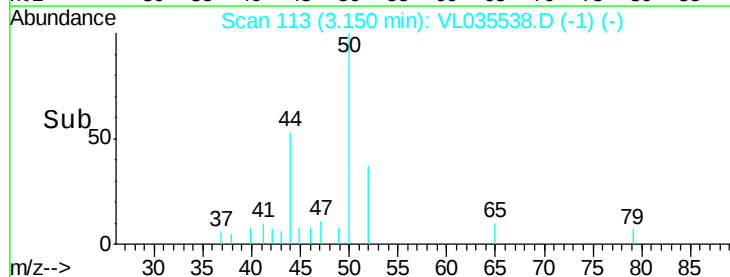
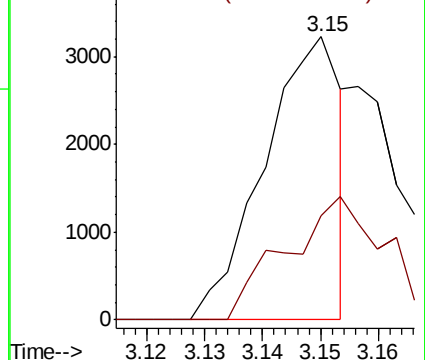
50 100

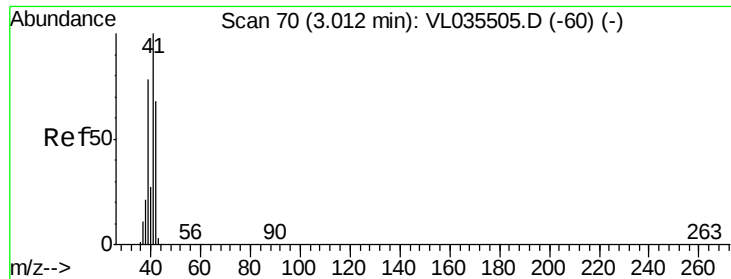
52 36.8 27.7 41.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.495 ppbv

RT: 3.03 min Scan# 77

Delta R.T. 0.02 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampled :

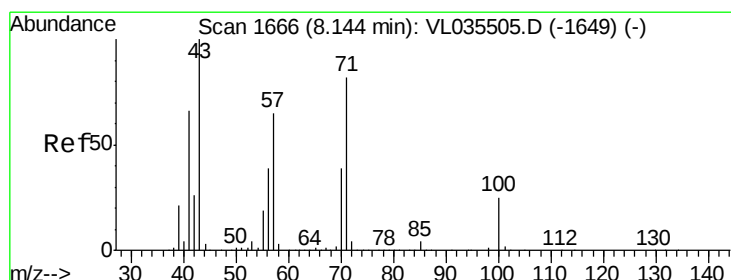
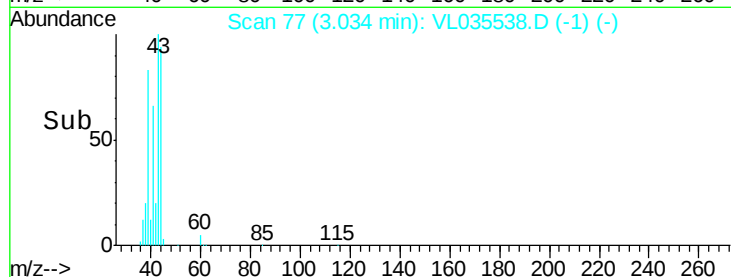
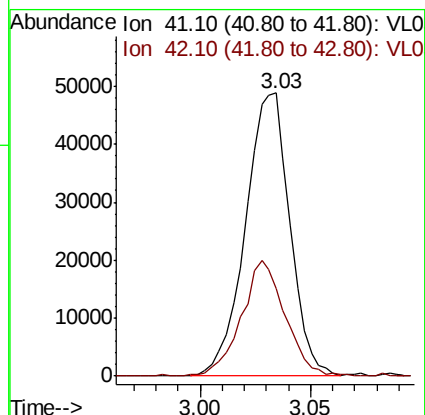
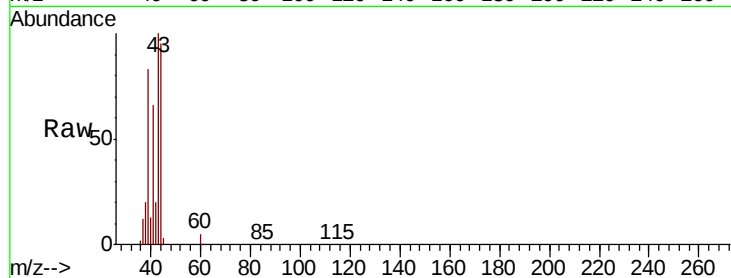
IA-3DL

Tot Ion: 41 Resp: 68125

Ion Ratio Lower Upper

41 100

42 40.4 56.3 84.5#



#10

Heptane

Concen: 0.034 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. 0.01 min

Lab File: VL035538.D

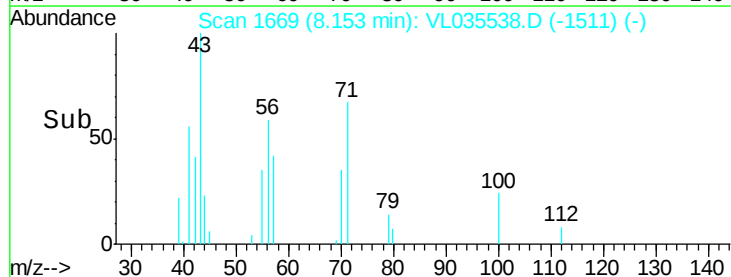
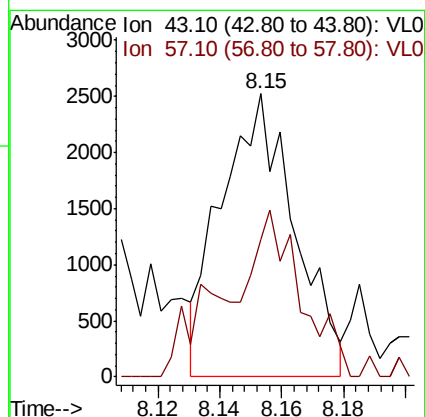
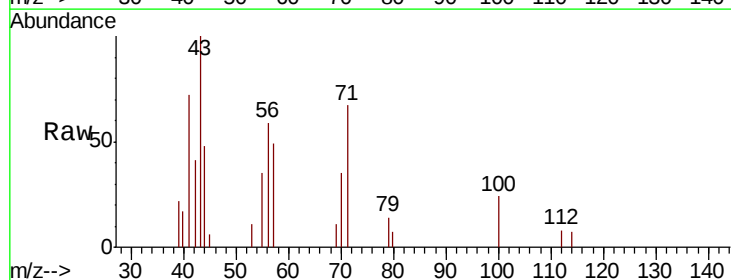
Acq: 3 Sep 2020 19:52

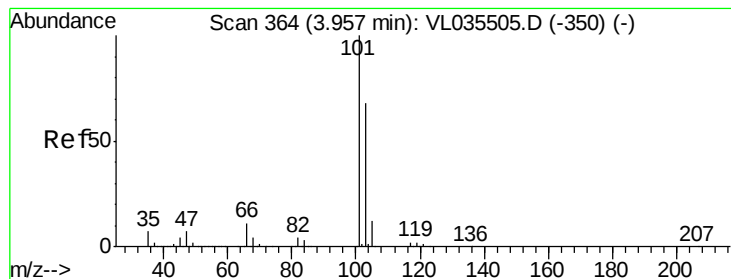
Tgt Ion: 43 Resp: 4163

Ion Ratio Lower Upper

43 100

57 60.9 51.4 77.0





#11

Trichlorofluoromethane

Concen: 0.151 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

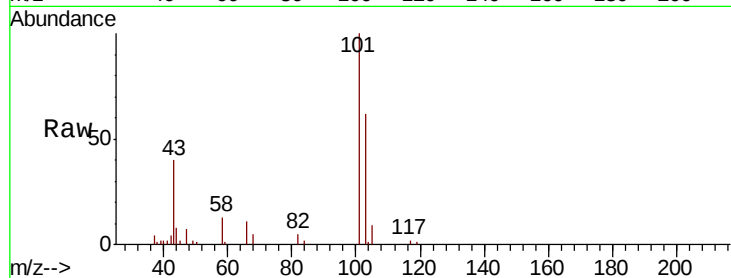
IA-3DL

Tot Ion:101 Resp: 40706

Ion Ratio Lower Upper

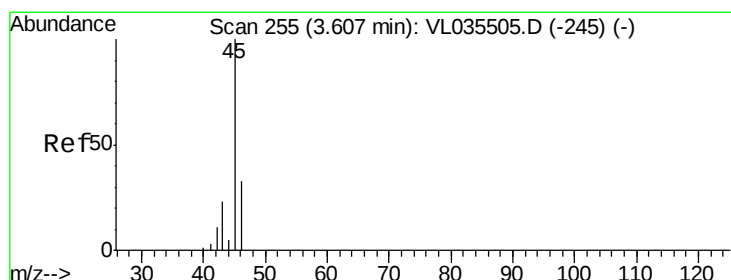
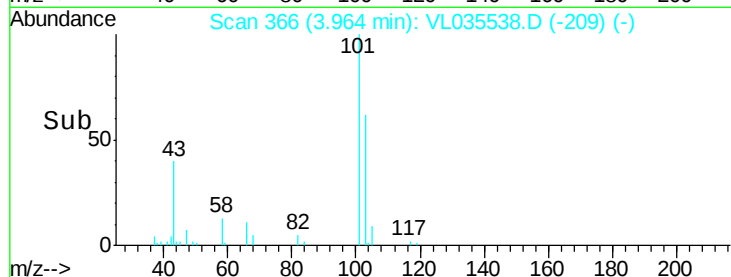
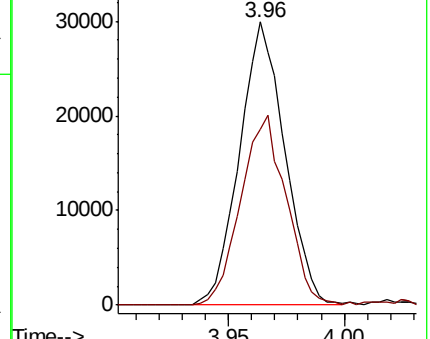
101 100

103 61.9 54.5 81.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 22.437 ppbv

RT: 3.62 min Scan# 259

Delta R.T. 0.01 min

Lab File: VL035538.D

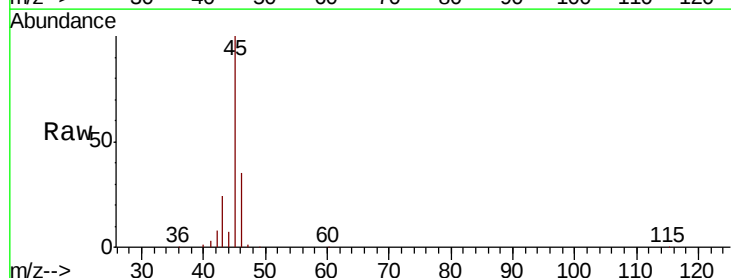
Acq: 3 Sep 2020 19:52

Tgt Ion: 45 Resp: 253485

Ion Ratio Lower Upper

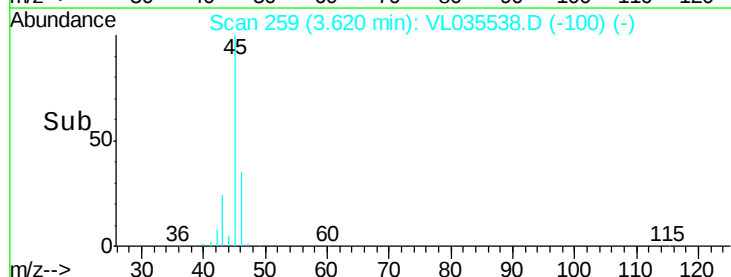
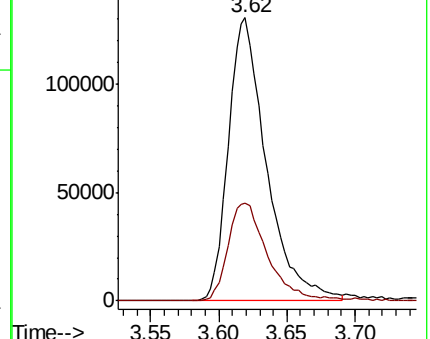
45 100

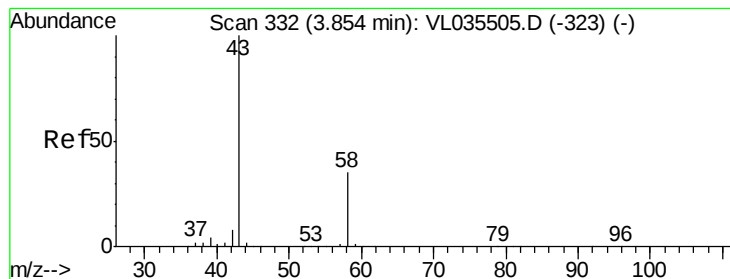
46 36.4 15.2 60.6



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 57.008 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.00 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampled :

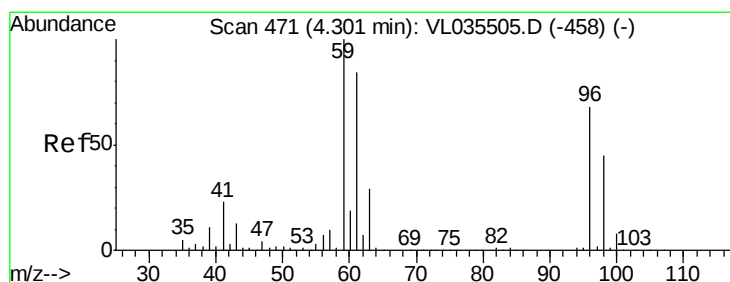
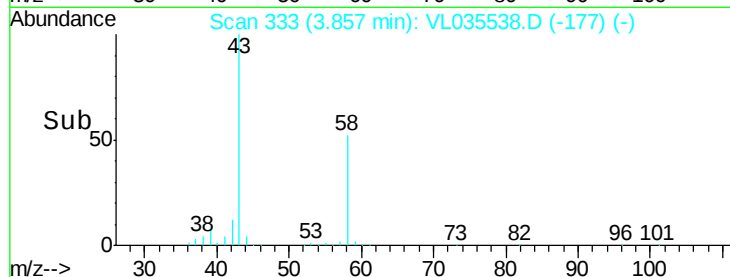
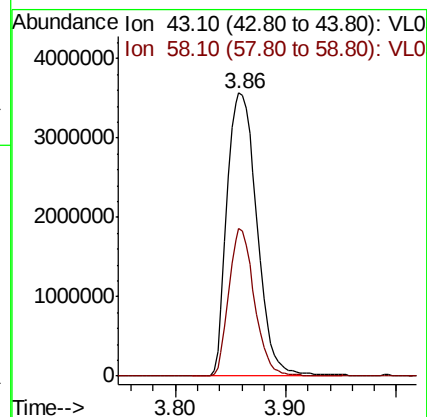
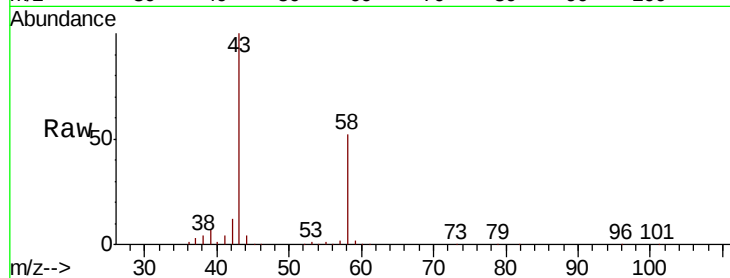
IA-3DL

Tot Ion: 43 Resp: 6719247

Ion Ratio Lower Upper

43 100

58 44.7 28.4 42.6#



#17

tert-Butyl alcohol

Concen: 1.100 ppbv

RT: 4.33 min Scan# 479

Delta R.T. 0.03 min

Lab File: VL035538.D

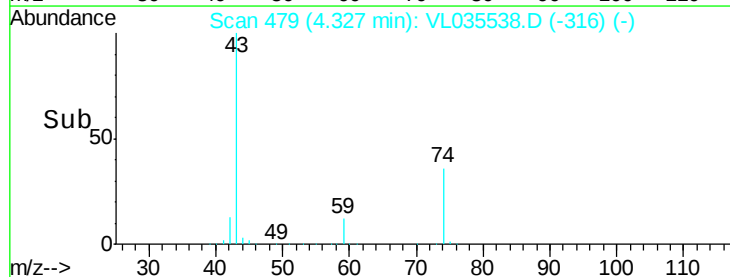
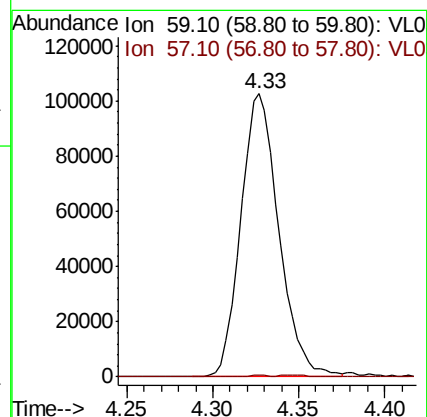
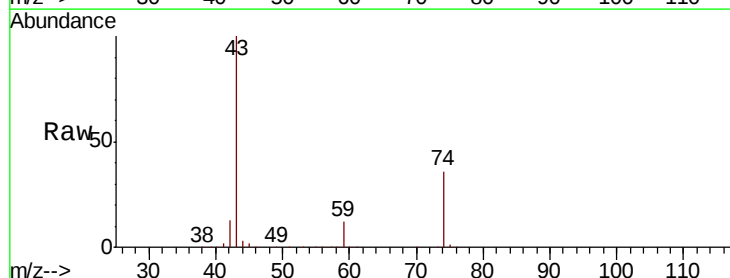
Acq: 3 Sep 2020 19:52

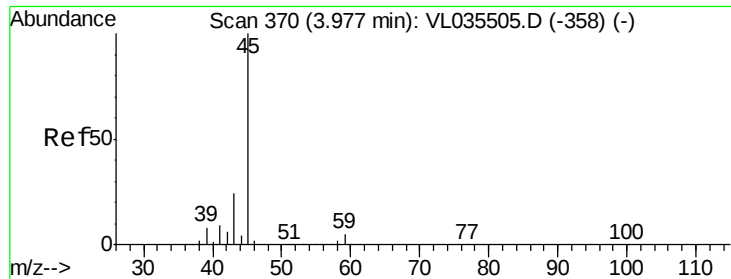
Tgt Ion: 59 Resp: 157879

Ion Ratio Lower Upper

59 100

57 2.2 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 0.268 ppbv

RT: 3.99 min Scan# 374

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

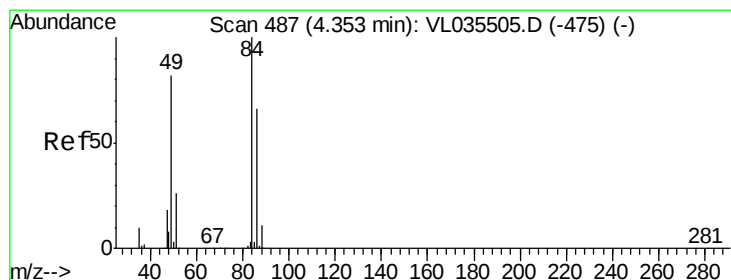
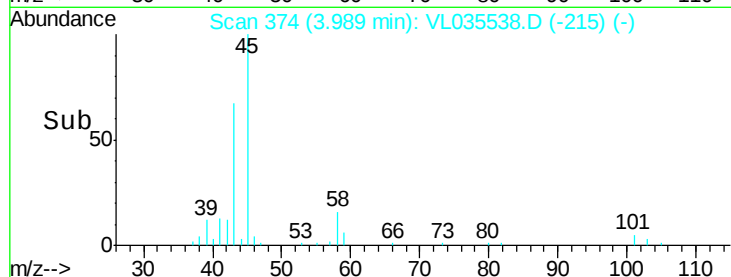
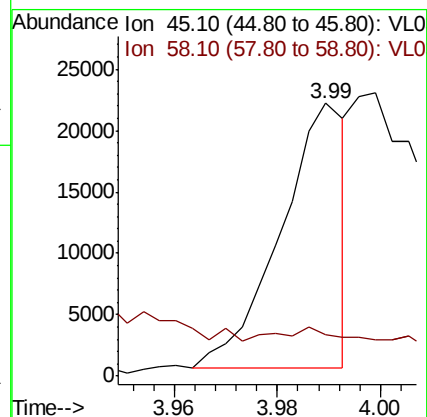
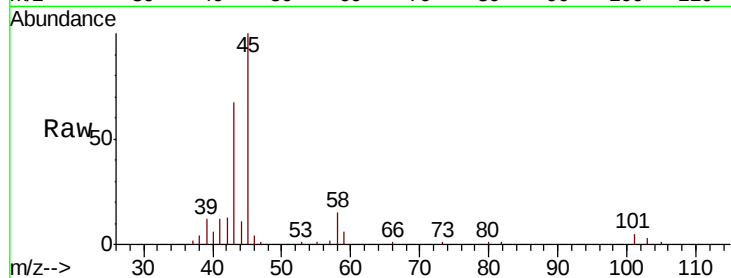
IA-3DL

Tot Ion: 45 Resp: 18818

Ion Ratio Lower Upper

45 100

58 0.0 2.0 3.0#



#20

Methylene Chloride

Concen: 1.408 ppbv

RT: 4.37 min Scan# 491

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Tgt Ion: 84 Resp: 123634

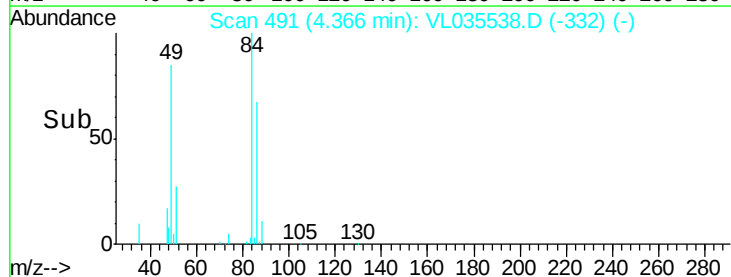
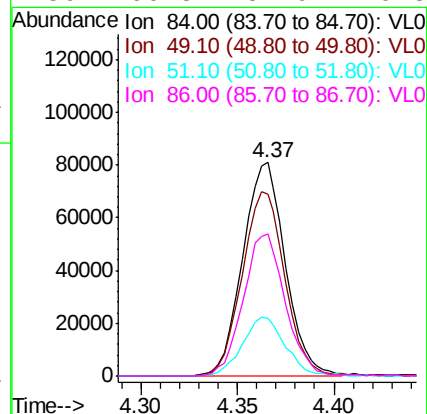
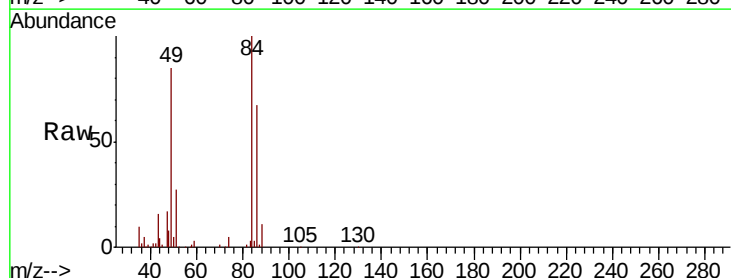
Ion Ratio Lower Upper

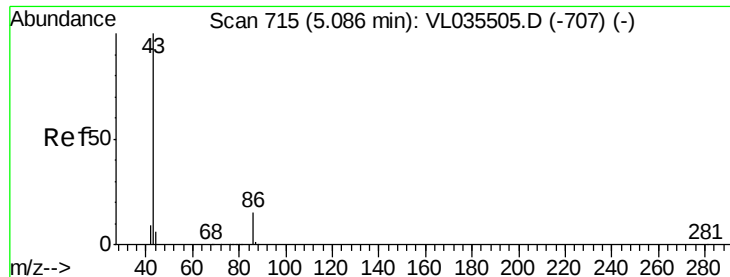
84 100

49 84.5 65.4 98.0

51 26.9 21.5 32.3

86 66.8 52.9 79.3





#23

Vinyl Acetate

Concen: 0.088 ppbv

RT: 5.09 min Scan# 716

Delta R.T. 0.00 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

Tot Ion: 43 Resp: 13388

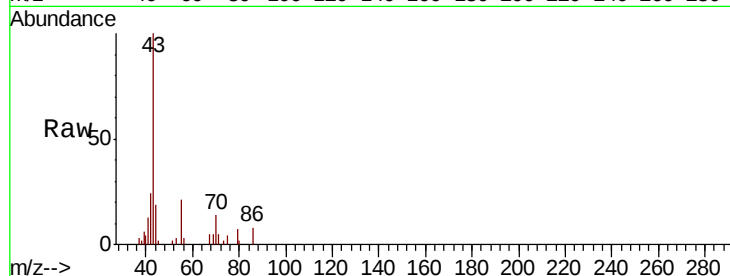
Ion Ratio Lower Upper

43 100

86 9.3 10.6 16.0#

42 19.4 7.5 11.3#

44 0.2 4.4 6.6#

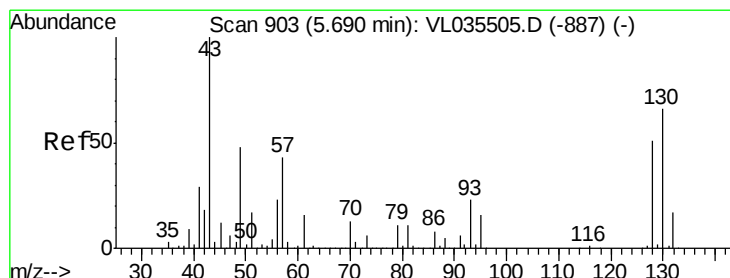
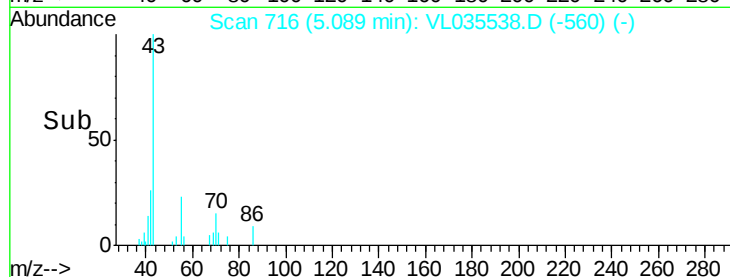
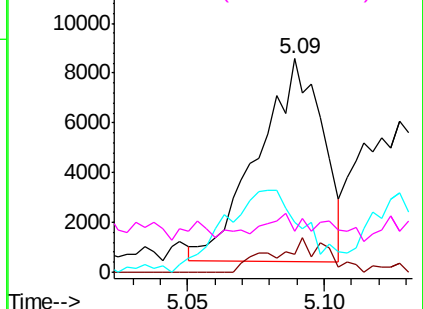


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.121 ppbv

RT: 5.71 min Scan# 908

Delta R.T. 0.02 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Tgt Ion: 43 Resp: 25232

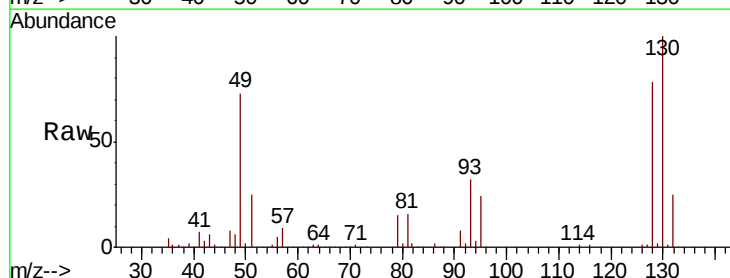
Ion Ratio Lower Upper

43 100

45 10.9 8.4 12.6

61 7.4 10.6 16.0#

70 9.7 9.4 14.2

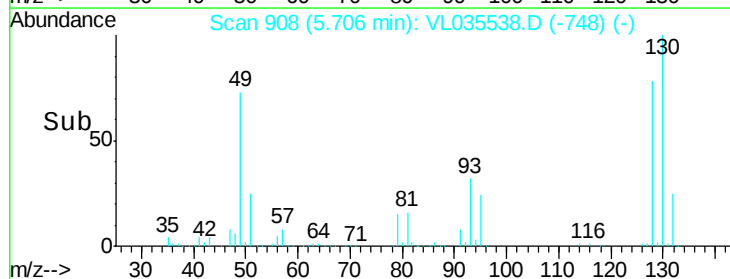
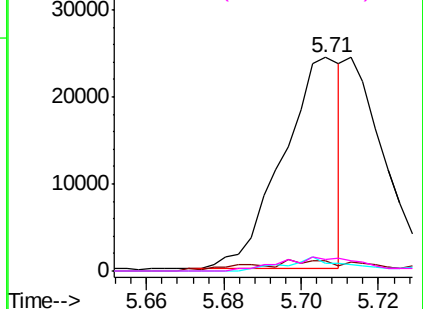


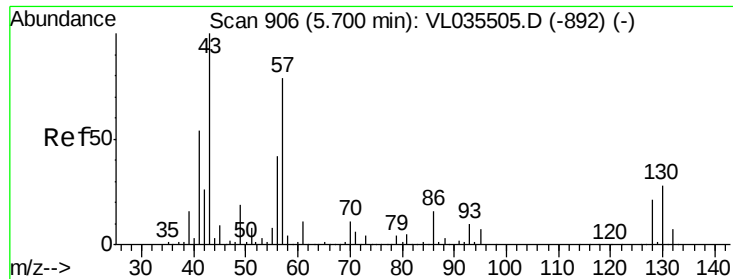
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

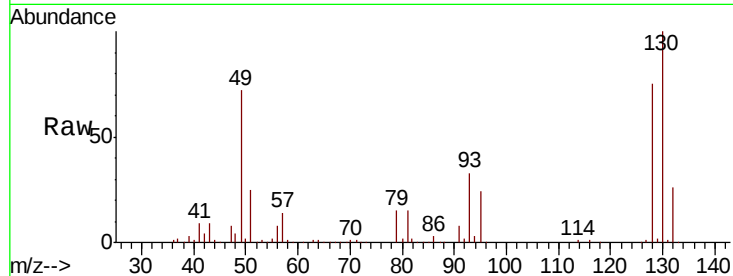




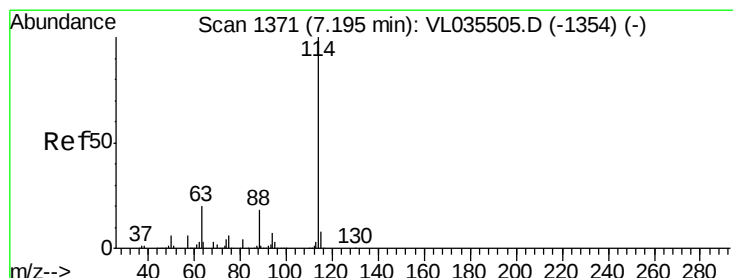
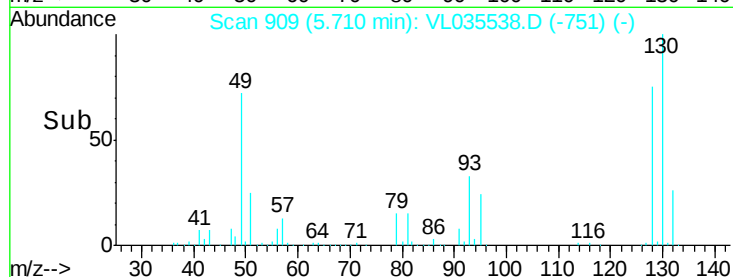
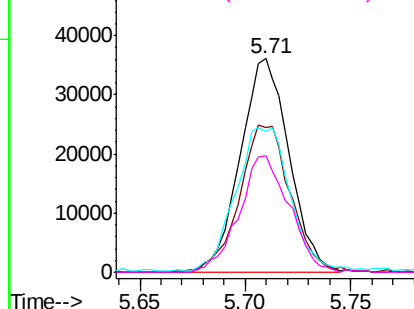
#26
Hexane
Concen: 0.493 ppbv
RT: 5.71 min Scan# 909
Delta R.T. 0.01 min
Lab File: VL035538.D
Acq: 3 Sep 2020 19:52

Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

Tot Ion: 57 Resp: 58162
Ion Ratio Lower Upper
57 100
41 72.4 55.9 83.9
43 77.0 141.8 212.8#
56 56.0 41.8 62.8

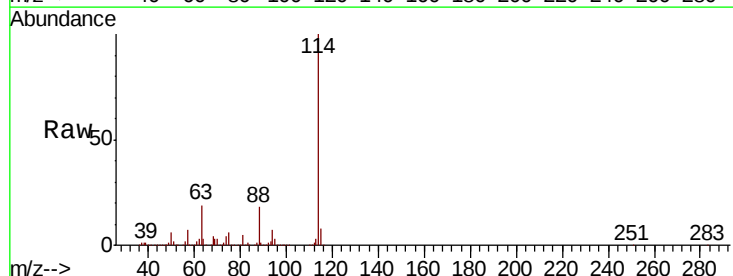


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

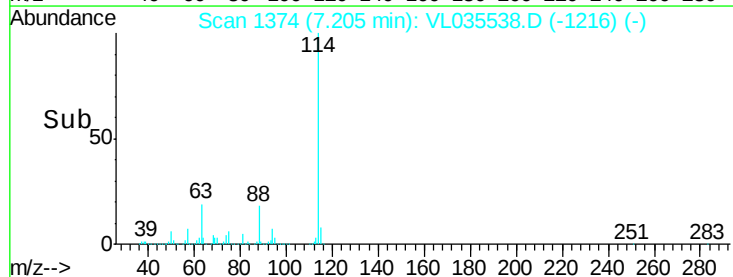
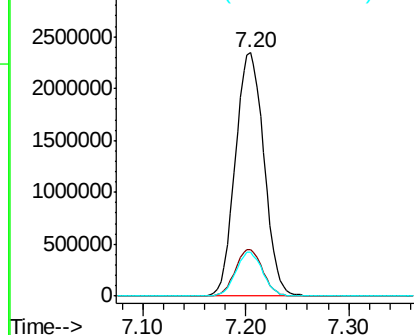


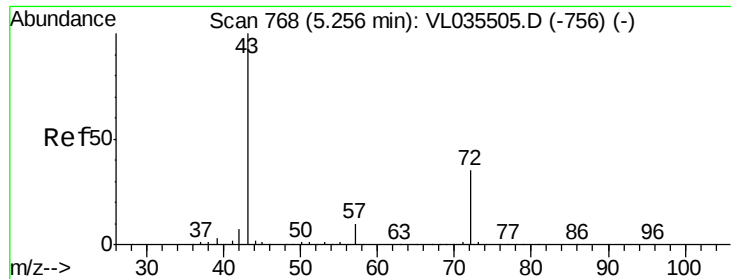
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1374
Delta R.T. 0.01 min
Lab File: VL035538.D
Acq: 3 Sep 2020 19:52

Tgt Ion: 114 Resp: 4538143
Ion Ratio Lower Upper
114 100
63 18.3 14.7 22.1
88 16.9 13.4 20.2



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





#34

2-Butanone

Concen: 0.092 ppbv

RT: 5.27 min Scan# 772

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

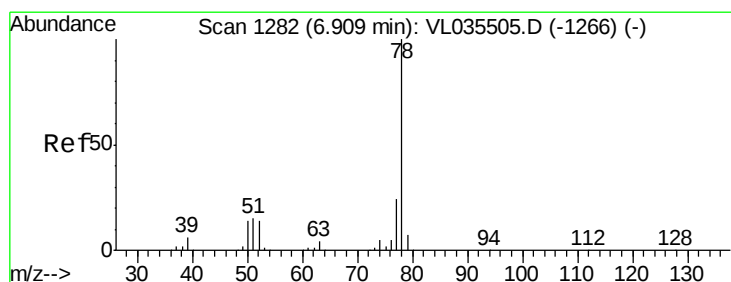
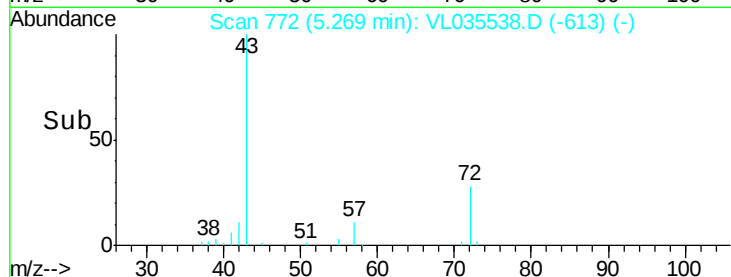
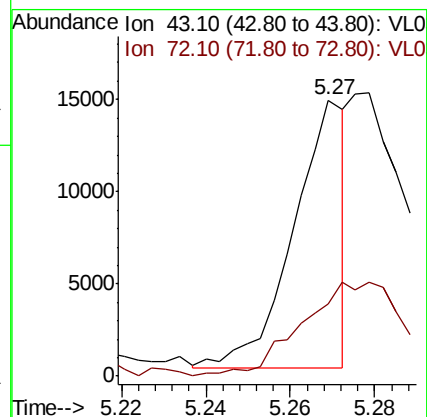
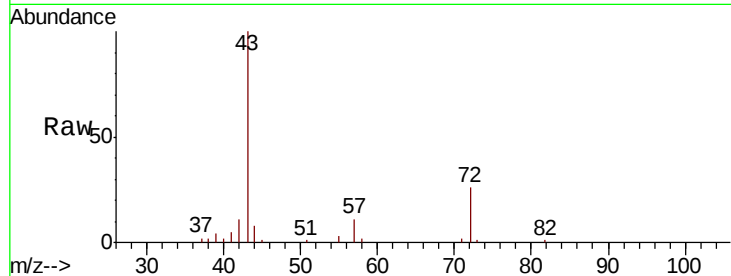
IA-3DL

Tot Ion: 43 Resp: 12371

Ion Ratio Lower Upper

43 100

72 75.5 27.7 41.5#



#36

Benzene

Concen: 0.050 ppbv

RT: 6.92 min Scan# 1284

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

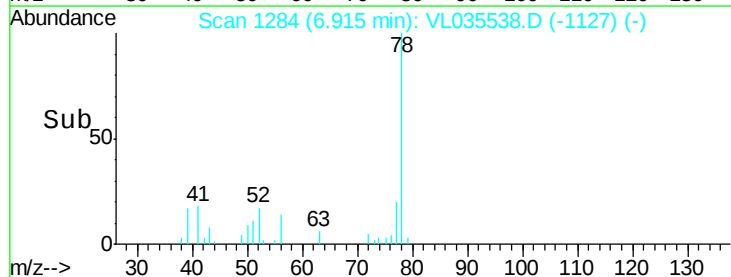
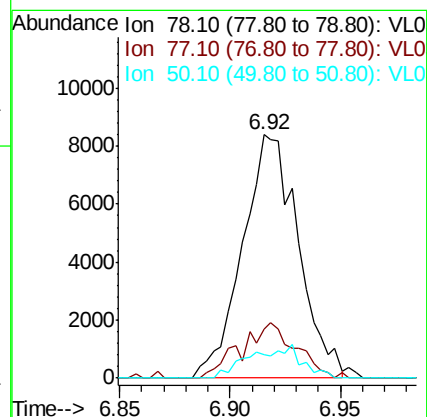
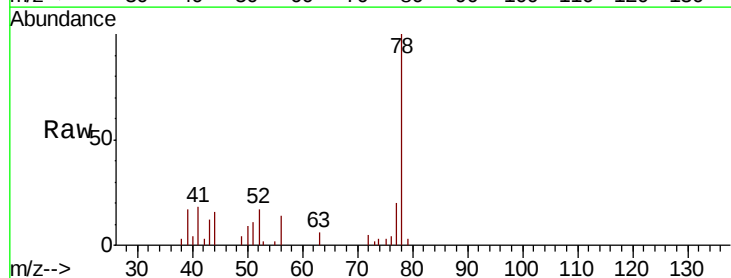
Tgt Ion: 78 Resp: 14706

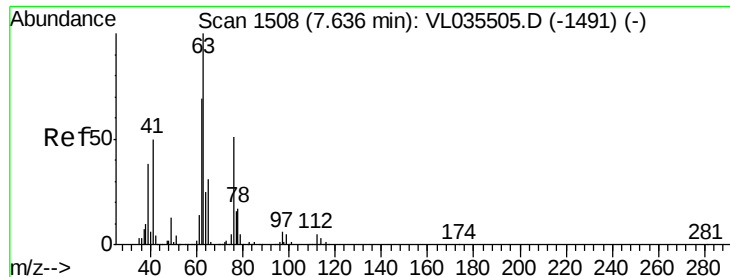
Ion Ratio Lower Upper

78 100

77 20.3 19.3 28.9

50 9.4 11.0 16.6#





#39

1,2-Dichloropropane

Concen: 8.355 ppbv

RT: 7.20 min Scan# 1373

Delta R.T. -0.43 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

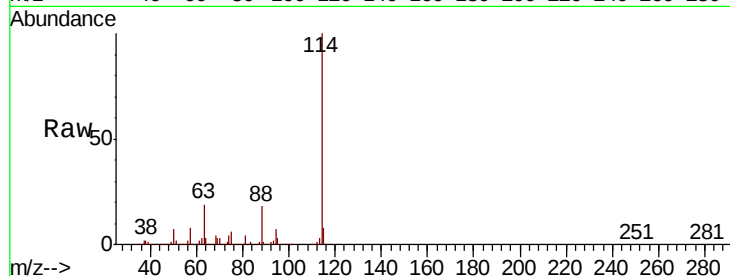
Tot Ion: 63 Resp: 829100

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

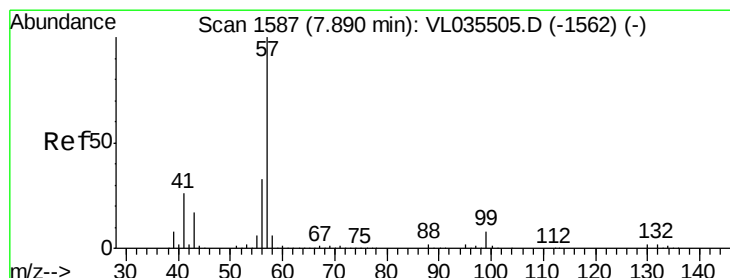
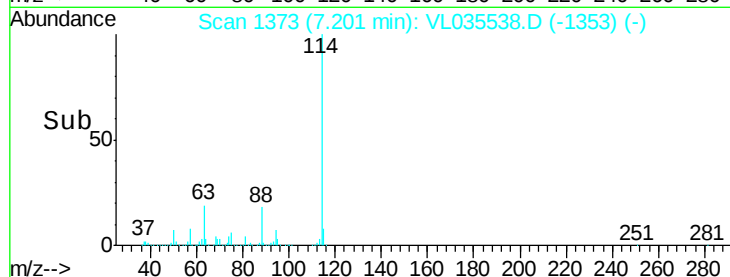
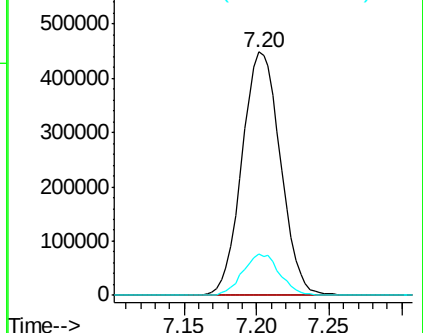
62 17.1 55.4 83.0#



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: 0.042 ppbv

RT: 7.90 min Scan# 1589

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

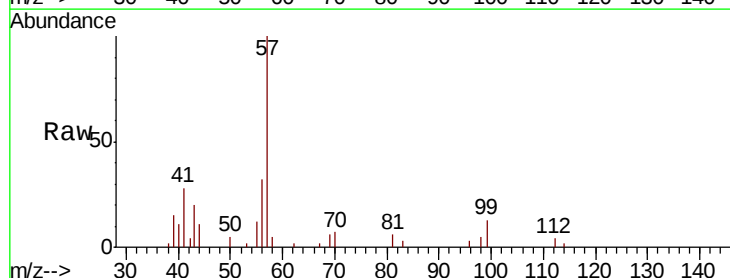
Tgt Ion: 57 Resp: 16107

Ion Ratio Lower Upper

57 100

41 54.9 20.5 30.7#

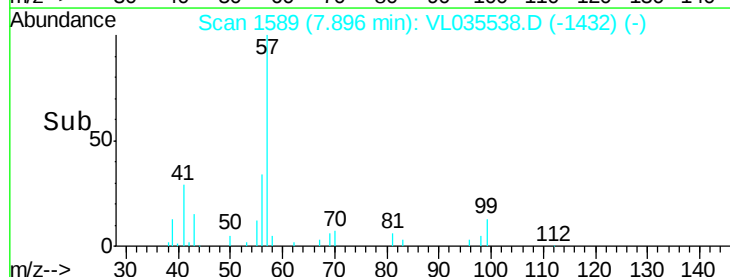
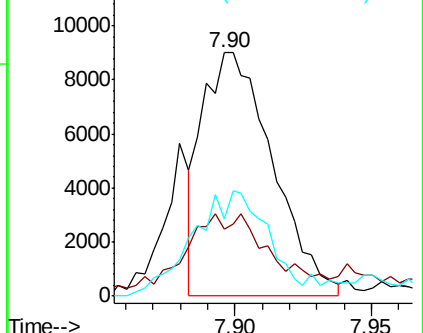
56 47.1 25.3 37.9#

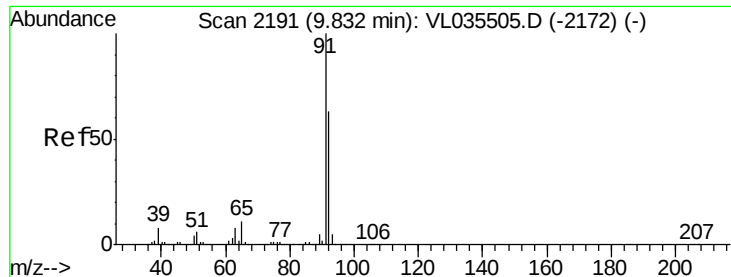


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.568 ppbv

RT: 9.84 min Scan# 2194

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

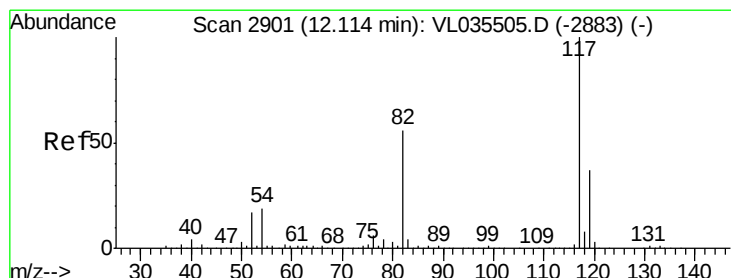
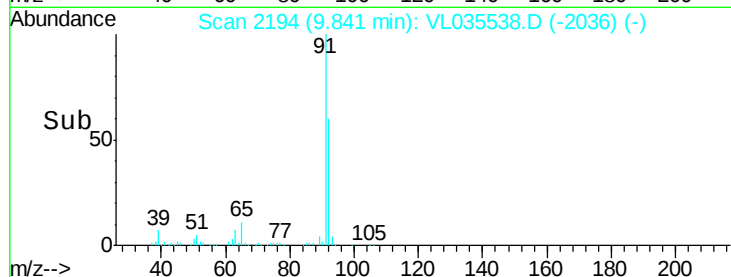
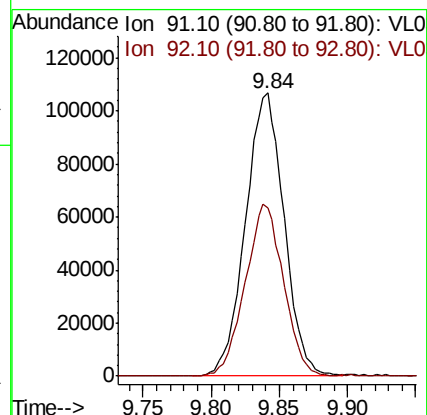
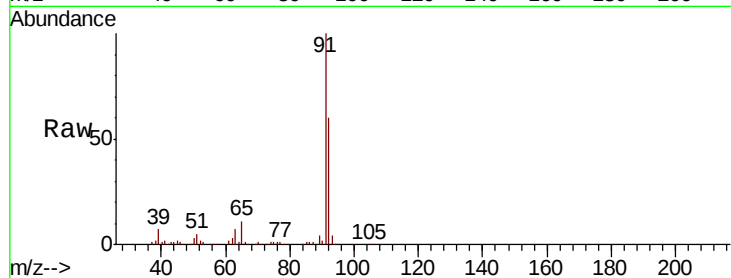
IA-3DL

Tot Ion: 91 Resp: 209694

Ion Ratio Lower Upper

91 100

92 60.6 49.8 74.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.12 min Scan# 2903

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

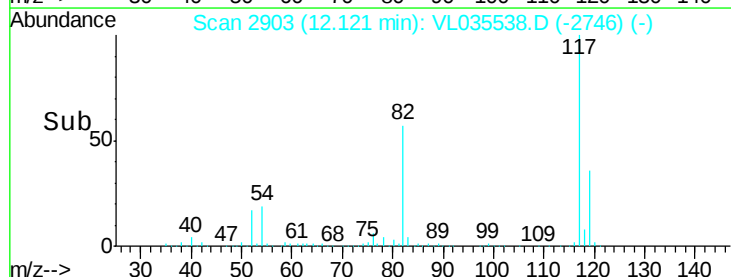
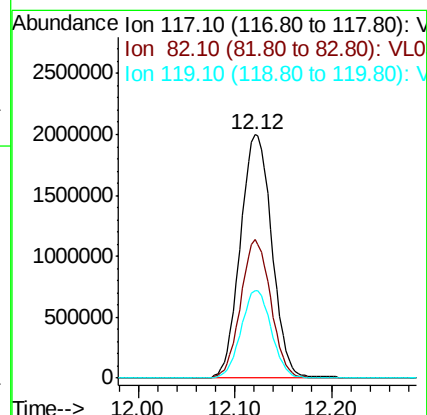
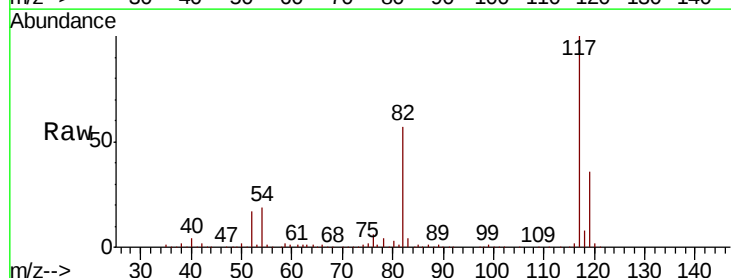
Tgt Ion: 117 Resp: 4531063

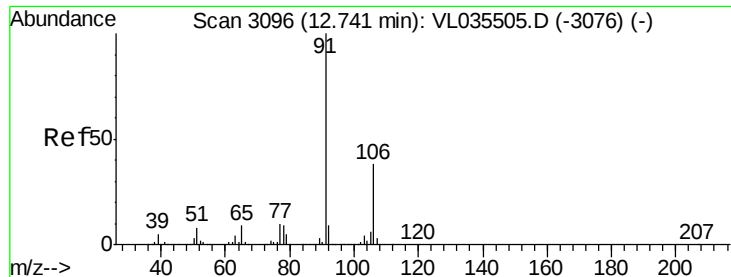
Ion Ratio Lower Upper

117 100

82 54.7 41.6 62.4

119 34.9 29.3 43.9





#58

Ethyl Benzene

Concen: 0.039 ppbv

RT: 13.02 min Scan# 3183

Delta R.T. 0.28 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

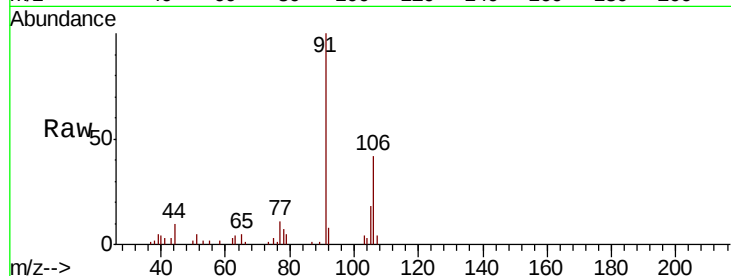
IA-3DL

Tot Ion: 91 Resp: 18187

Ion Ratio Lower Upper

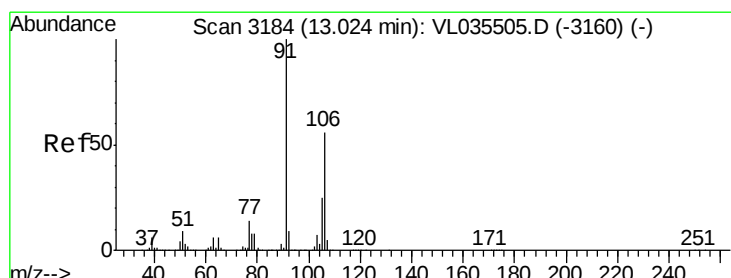
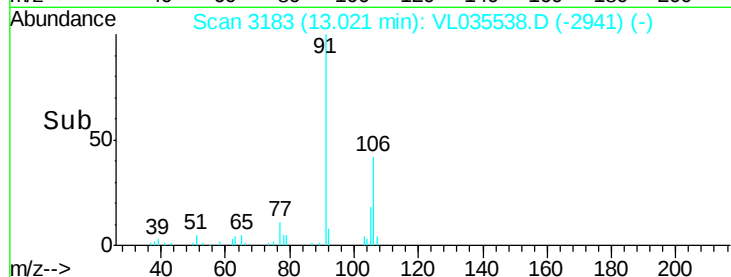
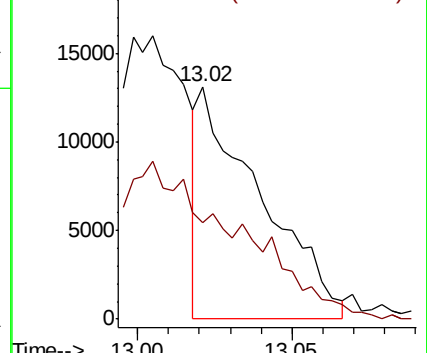
91 100

106 38.7 30.3 45.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.047 ppbv

RT: 13.02 min Scan# 3183

Delta R.T. -0.00 min

Lab File: VL035538.D

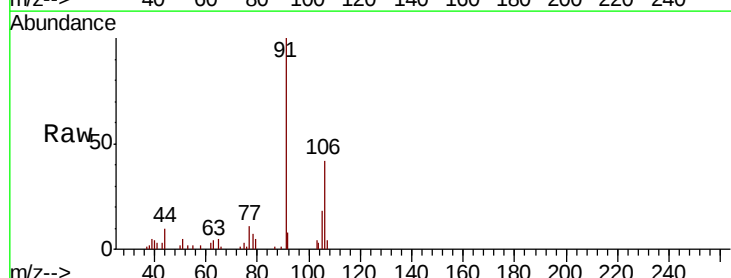
Acq: 3 Sep 2020 19:52

Tgt Ion: 91 Resp: 18187

Ion Ratio Lower Upper

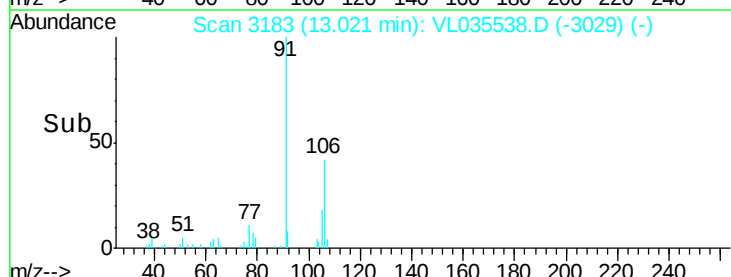
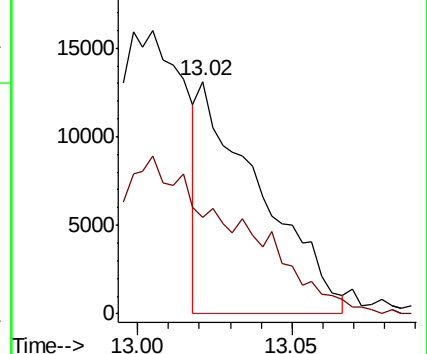
91 100

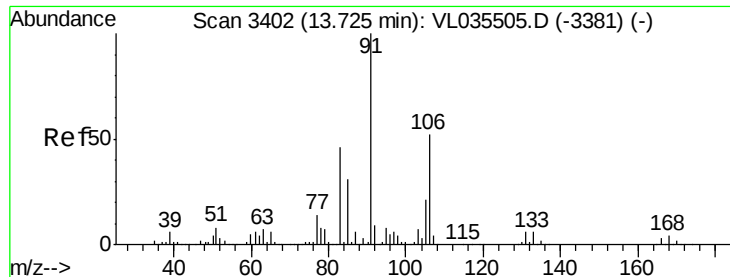
106 0.0 43.4 65.2#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

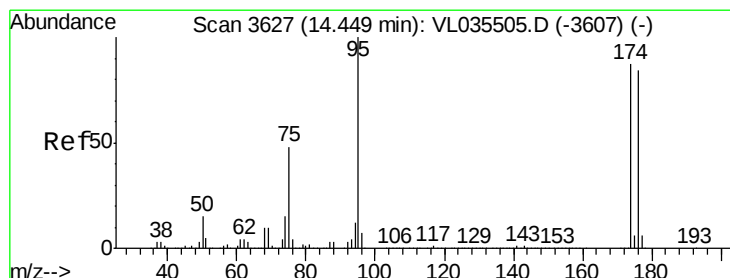
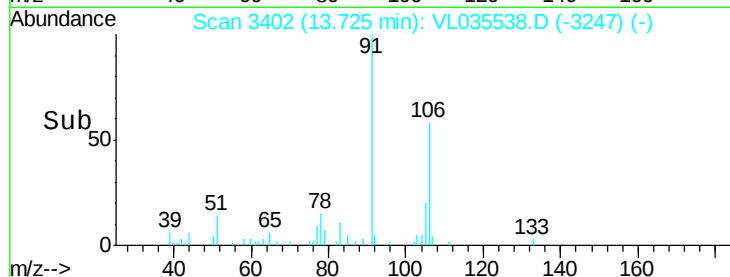
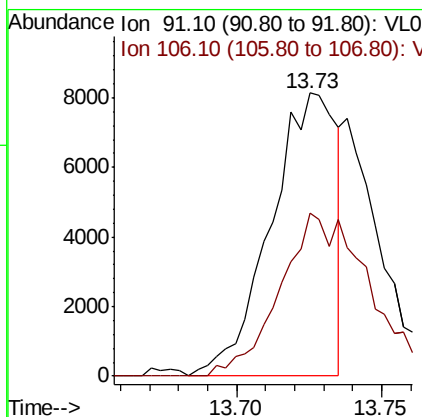
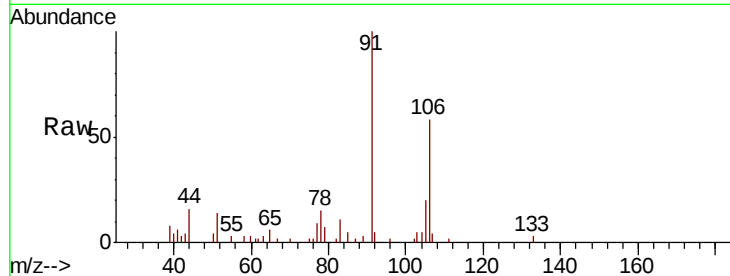




#60
o-Xylene
Concen: 0.033 ppbv
RT: 13.73 min Scan# 3402
Delta R.T. -0.00 min
Lab File: VL035538.D
Acq: 3 Sep 2020 19:52

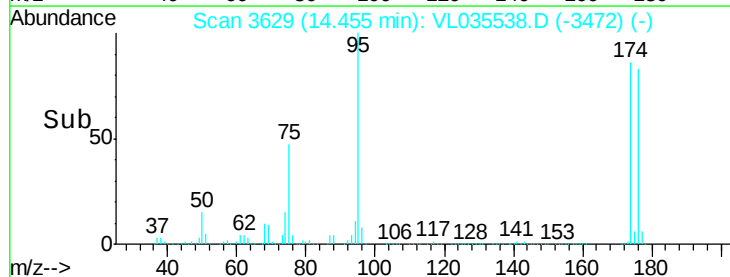
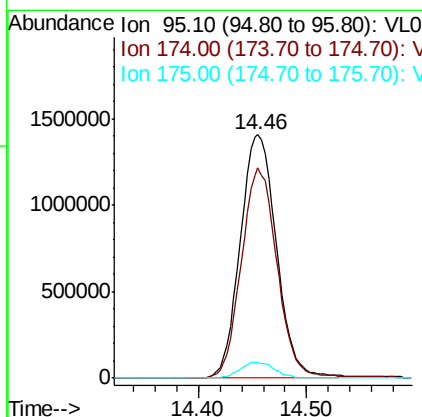
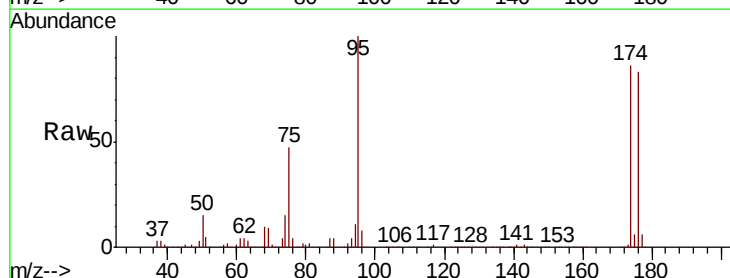
Instrument :
MSVOA_L
ClientSampleId :
IA-3DL

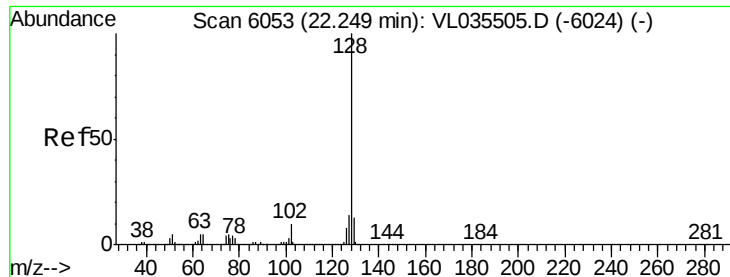
Tot Ion: 91 Resp: 12806
Ion Ratio Lower Upper
91 100
106 77.3 25.8 77.4



#68
1-Bromo-4-Fluorobenzene
Concen: 10.200 ppbv
RT: 14.46 min Scan# 3629
Delta R.T. 0.01 min
Lab File: VL035538.D
Acq: 3 Sep 2020 19:52

Tgt Ion: 95 Resp: 3282104
Ion Ratio Lower Upper
95 100
174 86.1 69.6 104.4
175 6.3 5.1 7.7





#79

Naphthalene

Concen: 0.192 ppbv

RT: 22.26 min Scan# 6057

Delta R.T. 0.01 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

Instrument :

MSVOA_L

ClientSampleId :

IA-3DL

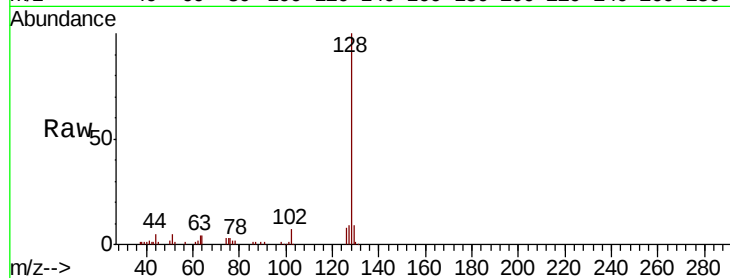
Tot Ion:128 Resp: 107971

Ion Ratio Lower Upper

128 100

127 9.5 11.4 17.2#

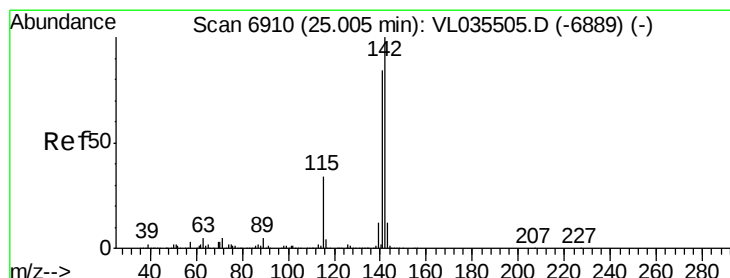
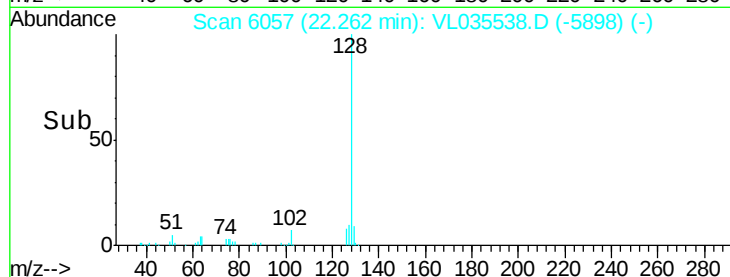
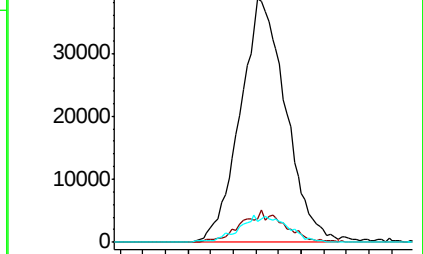
129 8.8 10.5 15.7#



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: 0.040 ppbv

RT: 25.03 min Scan# 6917

Delta R.T. 0.02 min

Lab File: VL035538.D

Acq: 3 Sep 2020 19:52

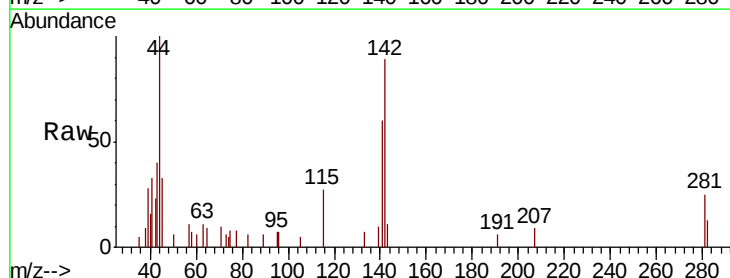
Tgt Ion:142 Resp: 7664

Ion Ratio Lower Upper

142 100

141 78.5 67.6 101.4

115 32.8 25.8 38.8



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

