

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091620\
 Data File : VL035639.D
 Acq On : 16 Sep 2020 21:45
 Operator : SY/AP
 Sample : L4036-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 DB-IA-Y02

Quant Time: Sep 17 07:09:12 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL082720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
 QLast Update : Mon Sep 14 15:19:50 2020
 Response via : Initial Calibration

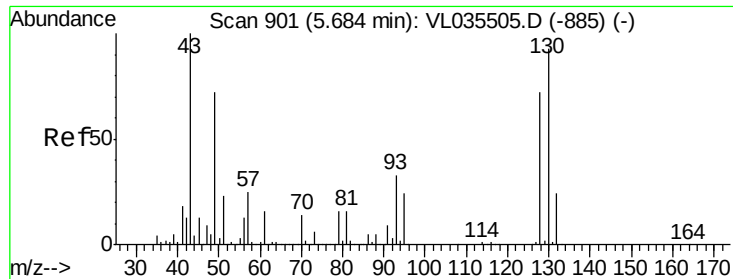
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1016466	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	4013696	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	4067364	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3065707	10.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	46179	0.262	ppbv	92
3) Chlorodifluoromethane	2.95	51	97505	0.867	ppbv #	70
4) Chloromethane	3.13	50	30881	0.513	ppbv	95
9) Propene	3.01	41	14102	0.325	ppbv #	77
10) Heptane	8.13	43	26580	0.228	ppbv	98
11) Trichlorofluoromethane	3.94	101	69111	0.269	ppbv	93
12) 1,1,2-Trichlorotrifluoroet	4.48	101	15251	0.079	ppbv	96
13) Ethanol	3.60	45	213247	19.845	ppbv	96
15) Acetone	3.84	43	406702	3.628	ppbv	99
19) Isopropyl Alcohol	3.97	45	155114	2.319	ppbv #	91
20) Methylene Chloride	4.34	84	402840	4.825	ppbv	97
21) Allyl Chloride	4.34	41	6155	0.117	ppbv #	22
23) Vinyl Acetate	5.06	43	22539	0.157	ppbv #	69
25) Ethyl Acetate	5.68	43	218679	1.104	ppbv #	75
26) Hexane	5.68	57	358599	3.196	ppbv #	50
27) Carbon Disulfide	4.54	76	5034	0.031	ppbv #	55
29) Chloroform	5.74	83	16953	0.074	ppbv	93
34) 2-Butanone	5.25	43	31940	0.268	ppbv	96
35) Carbon Tetrachloride	7.01	117	14292	0.071	ppbv	85
36) Benzene	6.89	78	30436	0.117	ppbv	94
39) 1,2-Dichloropropane	7.17	63	756882	8.624	ppbv #	32
44) 2,2,4-Trimethylpentane	7.87	57	11124	0.033	ppbv #	15
53) Toluene	9.81	91	225301	0.690	ppbv	97
59) m/p-Xylene	12.99	91	15798	0.045	ppbv #	24

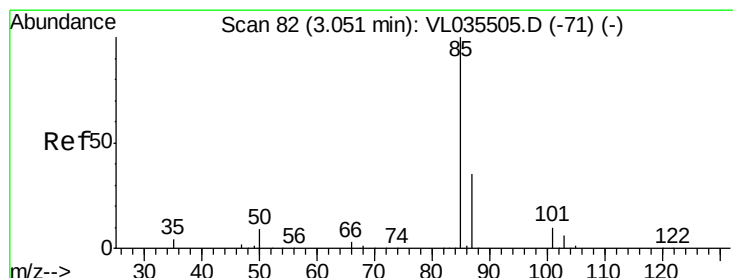
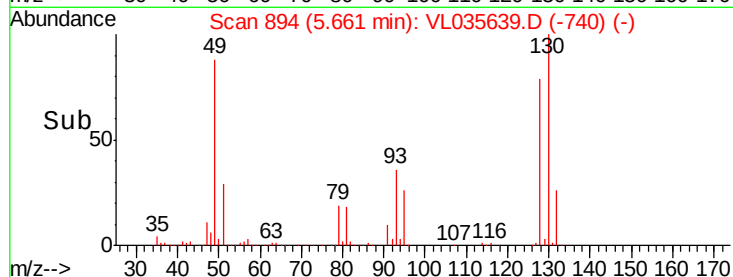
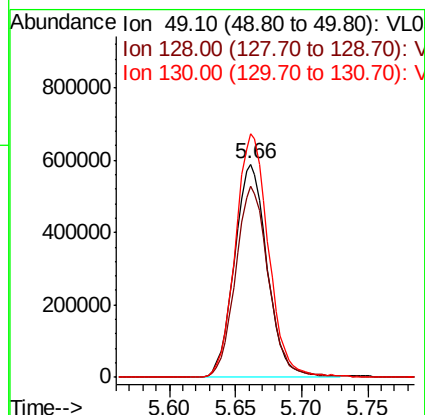
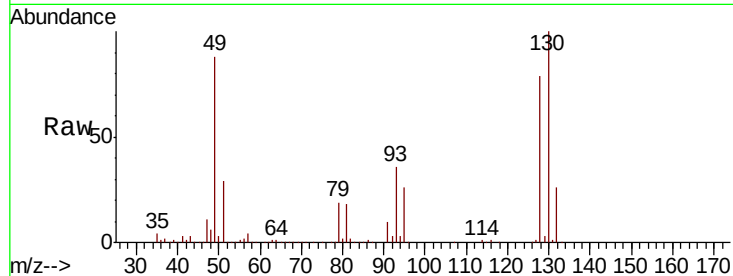
(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.00 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

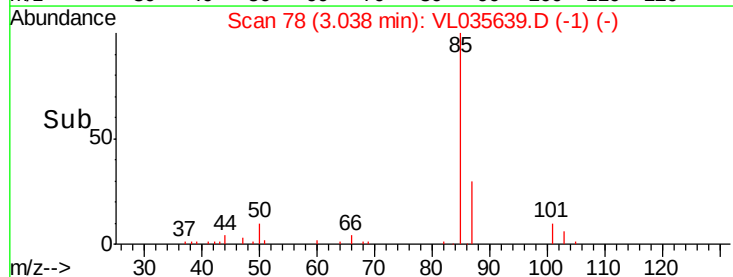
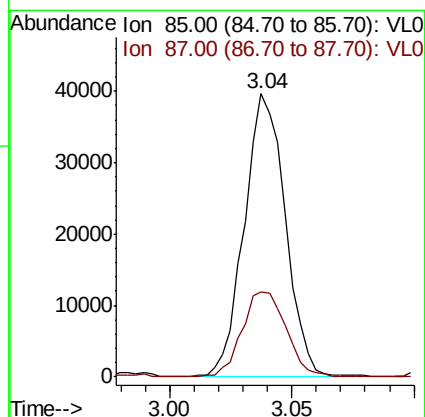
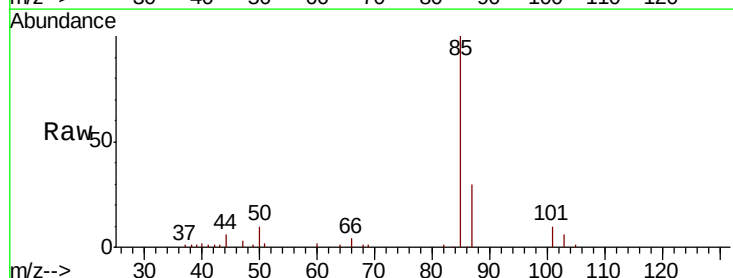
Instrument :
MSVOA_L
ClientSampleId :
DB-IA-Y02

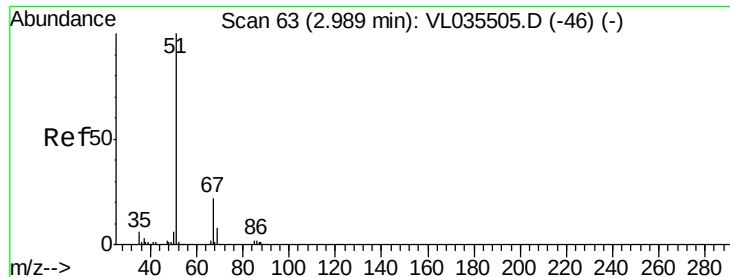
Tot Ion: 49 Resp: 1016466
Ion Ratio Lower Upper
49 100
128 90.3 50.0 150.1
130 116.0 64.4 193.2



#2
Dichlorodifluoromethane
Concen: 0.262 ppbv
RT: 3.04 min Scan# 78
Delta R.T. 0.00 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

Tgt Ion: 85 Resp: 46179
Ion Ratio Lower Upper
85 100
87 30.1 28.0 42.0





#3

Chlorodifluoromethane

Concen: 0.867 ppbv

RT: 2.95 min Scan# 52

Delta R.T. -0.02 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

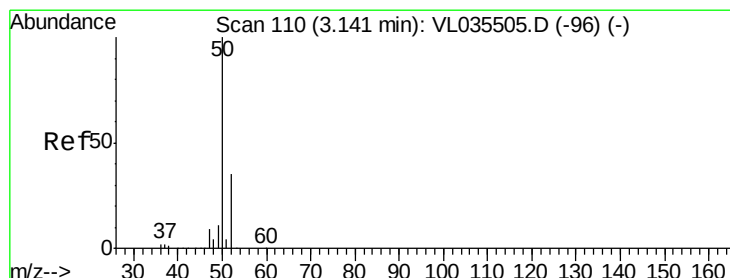
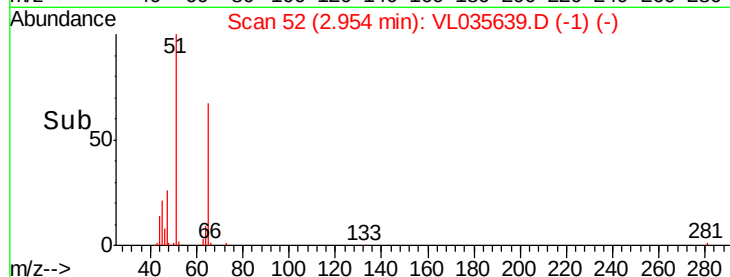
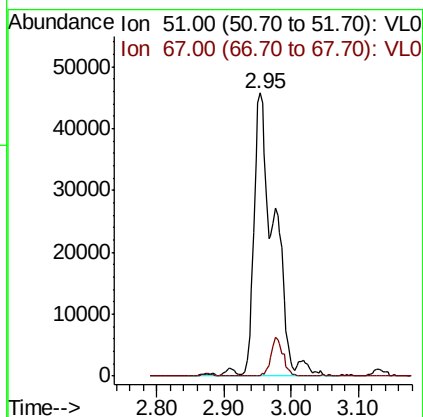
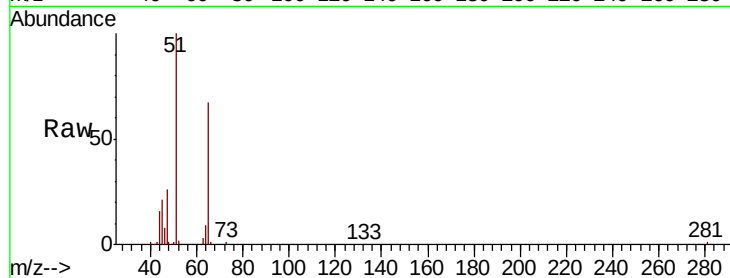
DB-IA-Y02

Tot Ion: 51 Resp: 97505

Ion Ratio Lower Upper

51 100

67 7.9 17.8 26.8#



#4

Chloromethane

Concen: 0.513 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL035639.D

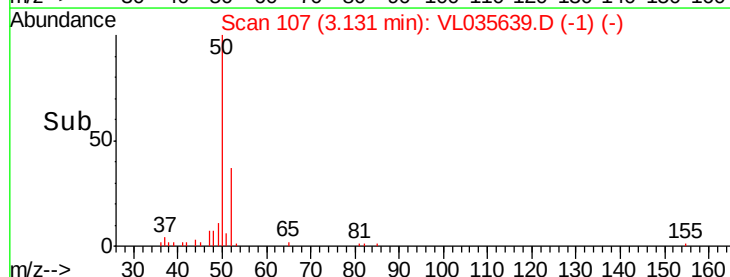
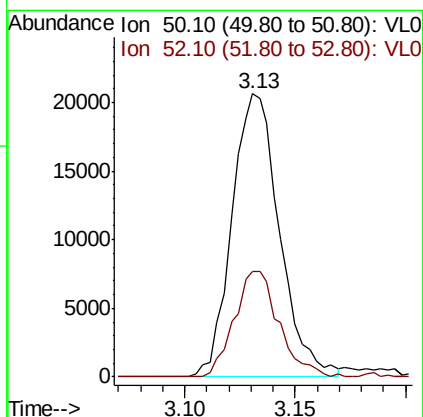
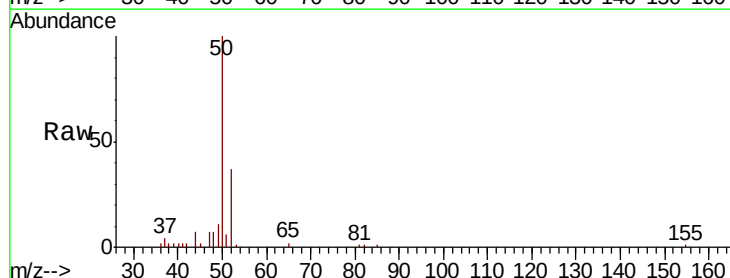
Acq: 16 Sep 2020 21:45

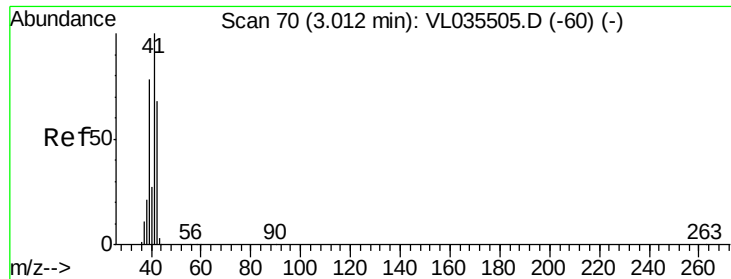
Tgt Ion: 50 Resp: 30881

Ion Ratio Lower Upper

50 100

52 37.5 27.7 41.5





#9

Propene

Concen: 0.325 ppbv

RT: 3.01 min Scan# 70

Delta R.T. 0.02 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

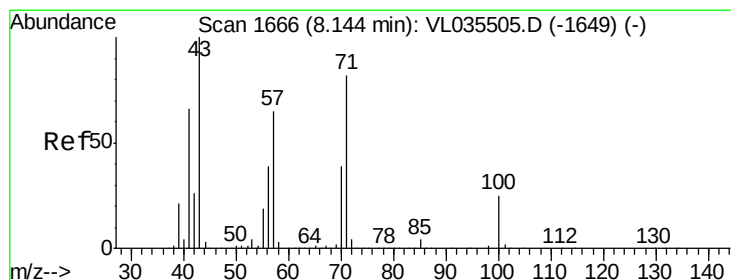
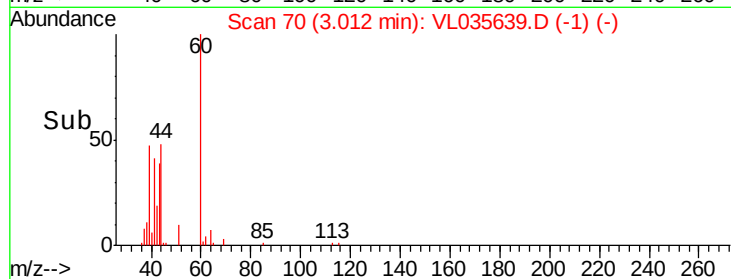
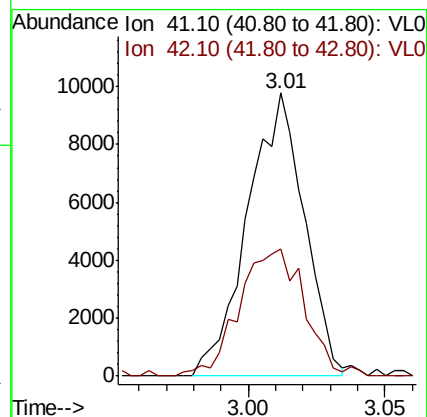
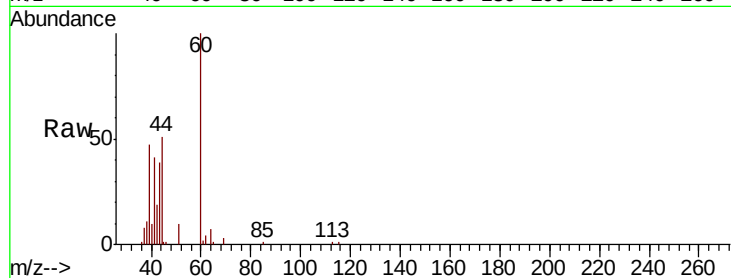
DB-IA-Y02

Tot Ion: 41 Resp: 14102

Ion Ratio Lower Upper

41 100

42 51.9 56.3 84.5#



#10

Heptane

Concen: 0.228 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL035639.D

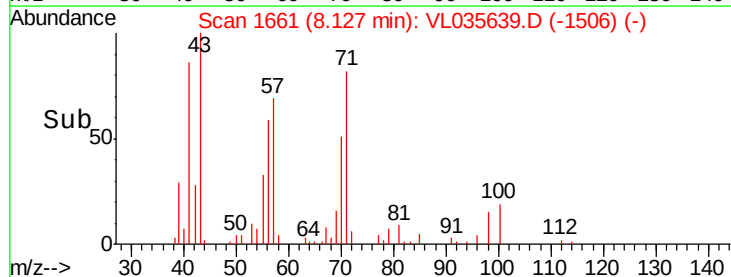
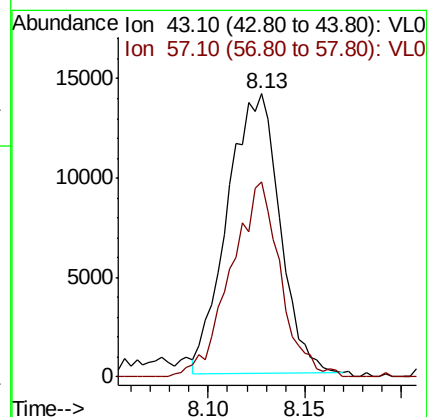
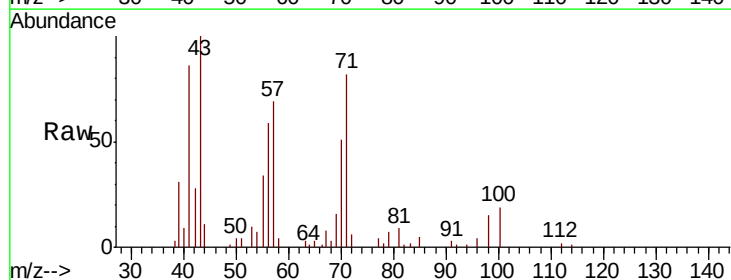
Acq: 16 Sep 2020 21:45

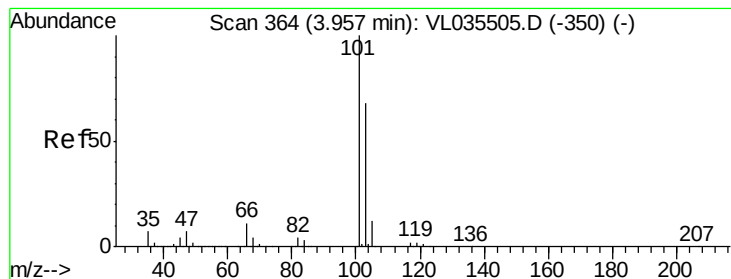
Tgt Ion: 43 Resp: 26580

Ion Ratio Lower Upper

43 100

57 65.9 51.4 77.0





#11

Trichlorofluoromethane

Concen: 0.269 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

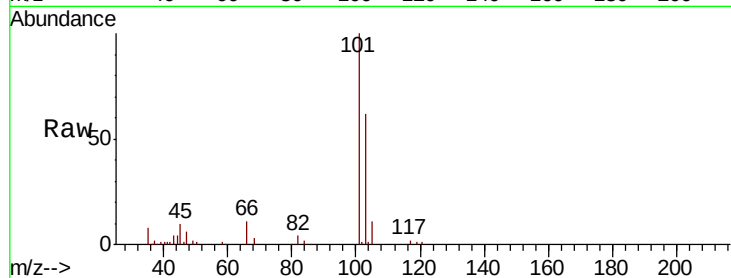
DB-IA-Y02

Tot Ion:101 Resp: 69111

Ion Ratio Lower Upper

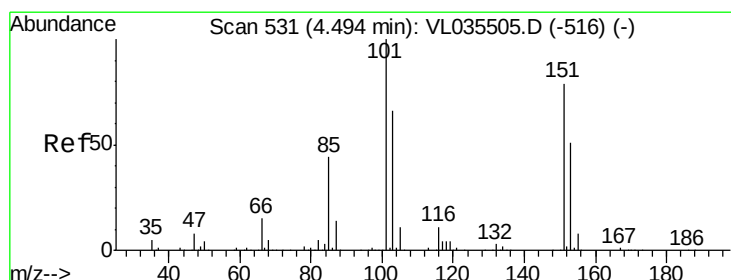
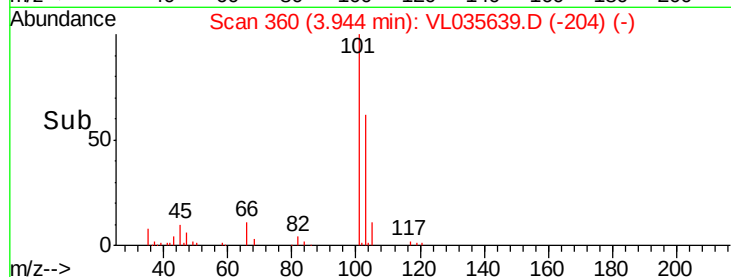
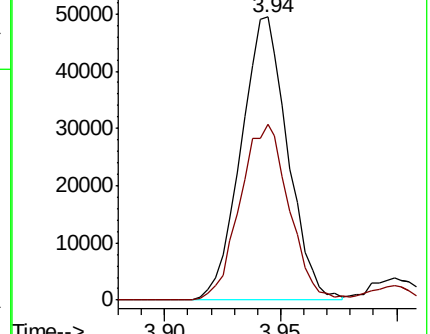
101 100

103 62.3 54.5 81.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.079 ppbv

RT: 4.48 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL035639.D

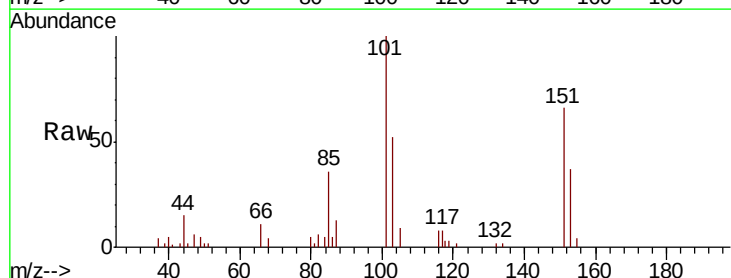
Acq: 16 Sep 2020 21:45

Tgt Ion:101 Resp: 15251

Ion Ratio Lower Upper

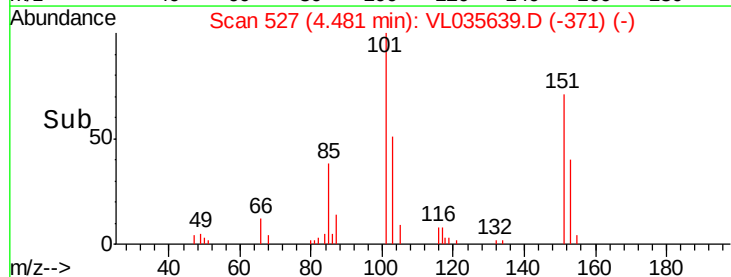
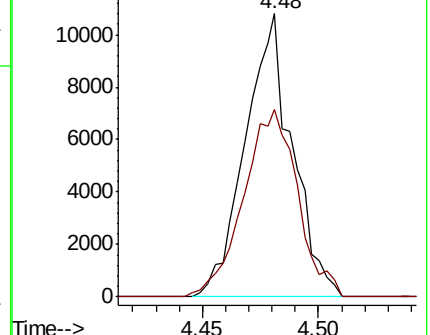
101 100

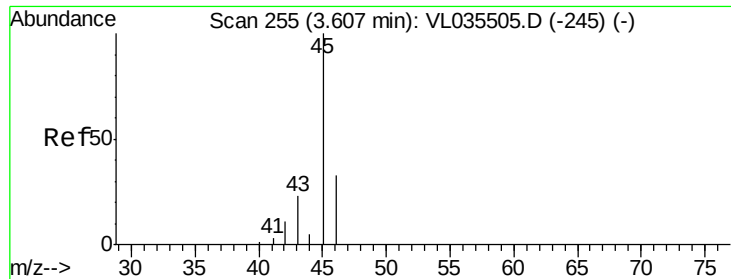
151 75.6 63.5 95.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

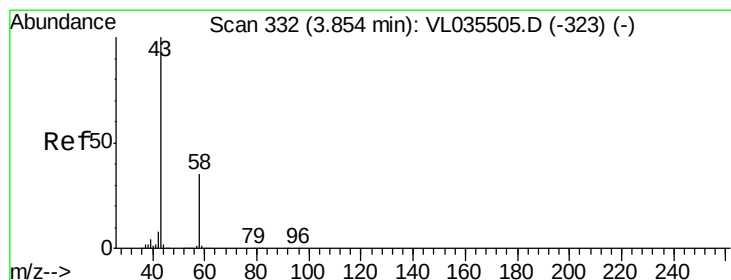
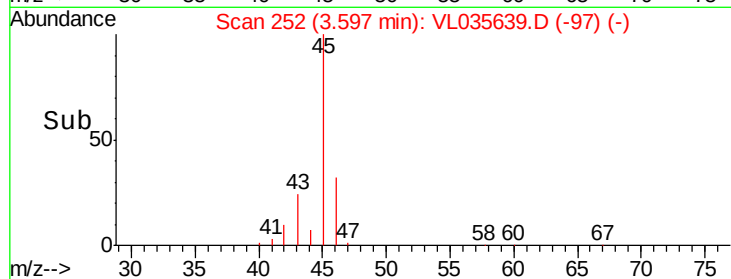
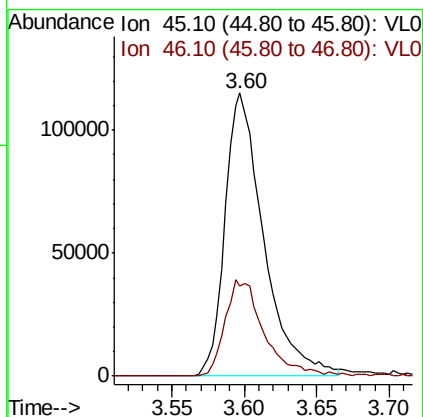
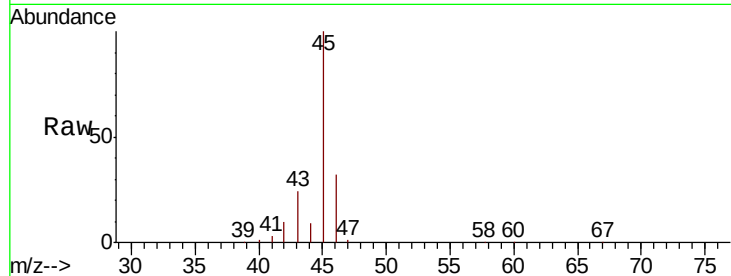




#13
Ethanol
Concen: 19.845 ppbv
RT: 3.60 min Scan# 252
Delta R.T. -0.00 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

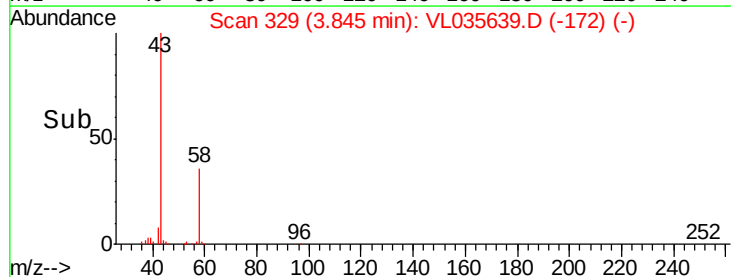
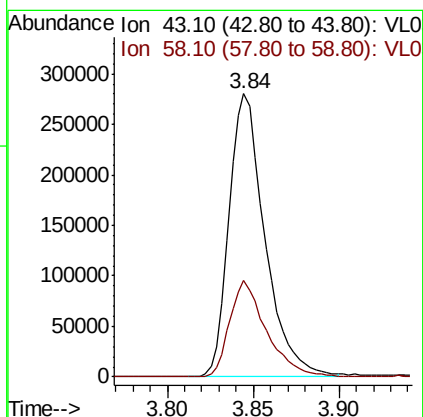
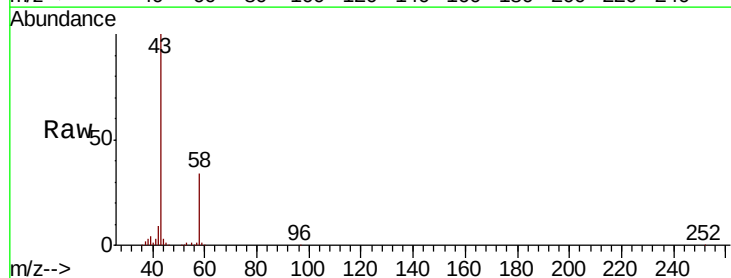
Instrument :
MSVOA_L
ClientSampleId :
DB-IA-Y02

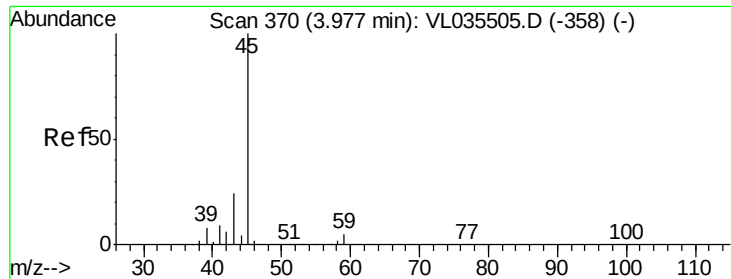
Tot Ion: 45 Resp: 213247
Ion Ratio Lower Upper
45 100
46 35.3 15.2 60.6



#15
Acetone
Concen: 3.628 ppbv
RT: 3.84 min Scan# 329
Delta R.T. 0.01 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

Tgt Ion: 43 Resp: 406702
Ion Ratio Lower Upper
43 100
58 34.8 28.4 42.6





#19

Isopropyl Alcohol

Concen: 2.319 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.01 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

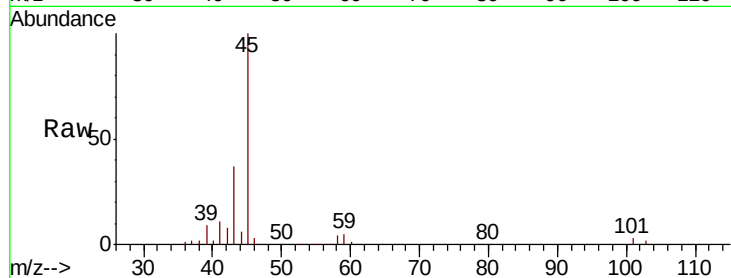
DB-IA-Y02

Tot Ion: 45 Resp: 155114

Ion Ratio Lower Upper

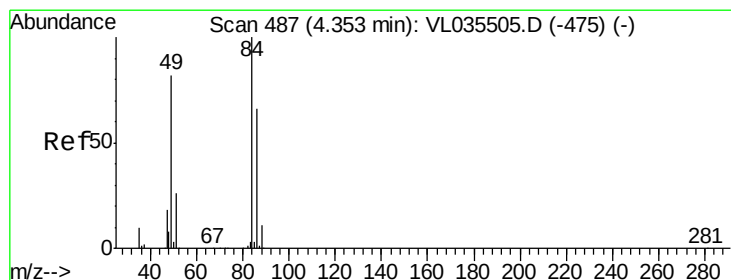
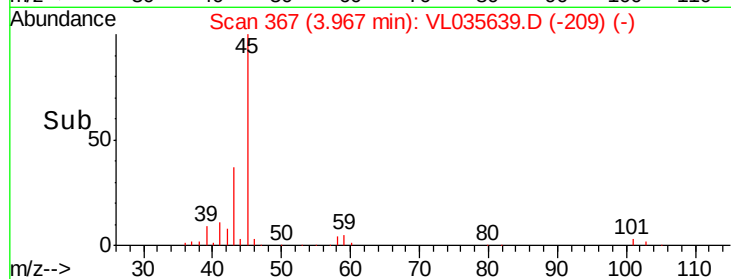
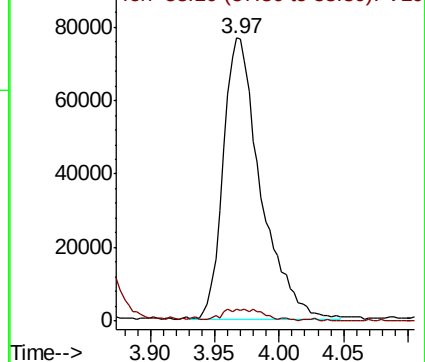
45 100

58 5.5 2.0 3.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 4.825 ppbv

RT: 4.34 min Scan# 482

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Tgt Ion: 84 Resp: 402840

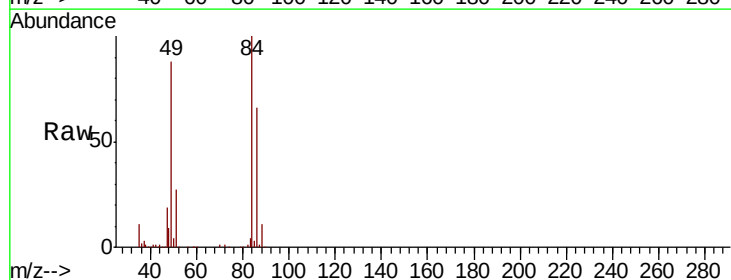
Ion Ratio Lower Upper

84 100

49 87.8 65.4 98.0

51 27.0 21.5 32.3

86 66.5 52.9 79.3

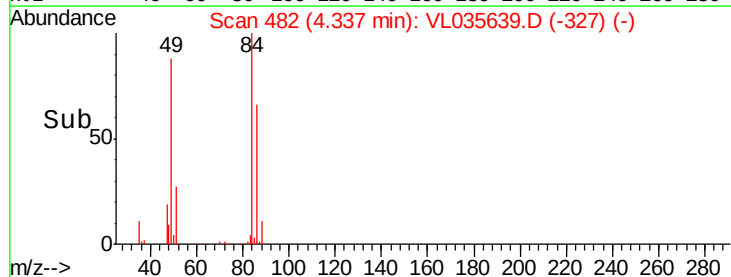
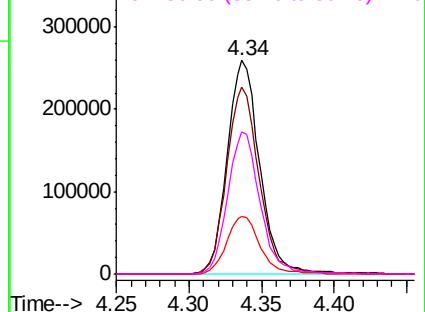


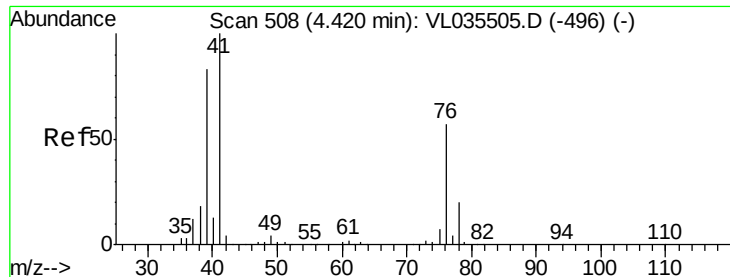
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#21

Allvl Chloride

Concen: 0.117 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.06 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y02

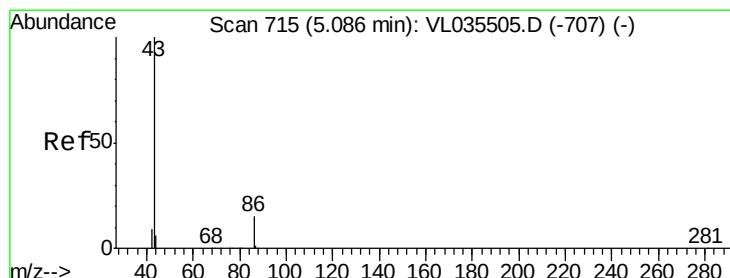
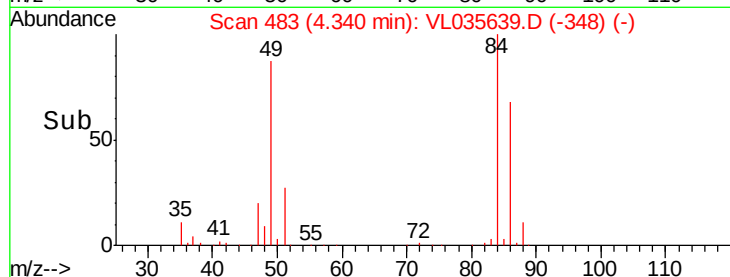
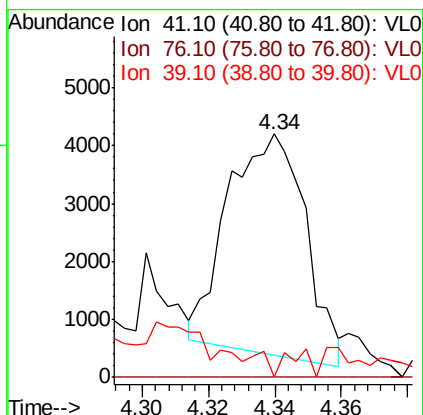
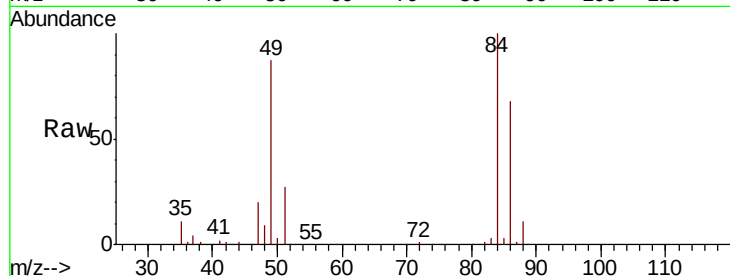
Tot Ion: 41 Resp: 6155

Ion Ratio Lower Upper

41 100

76 0.0 46.2 69.2#

39 13.6 67.8 101.6#



#23

Vinyl Acetate

Concen: 0.157 ppbv

RT: 5.06 min Scan# 706

Delta R.T. -0.01 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Tgt Ion: 43 Resp: 22539

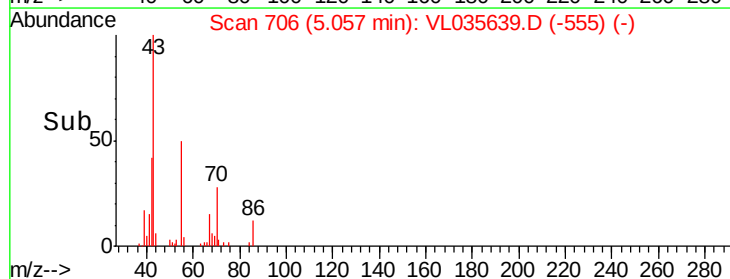
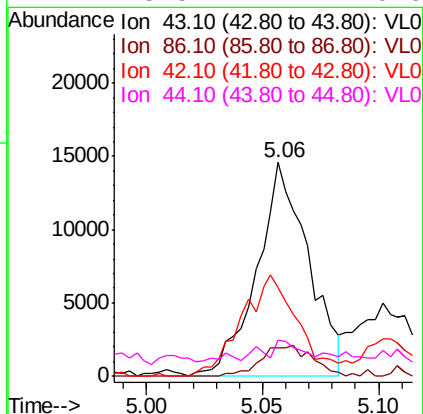
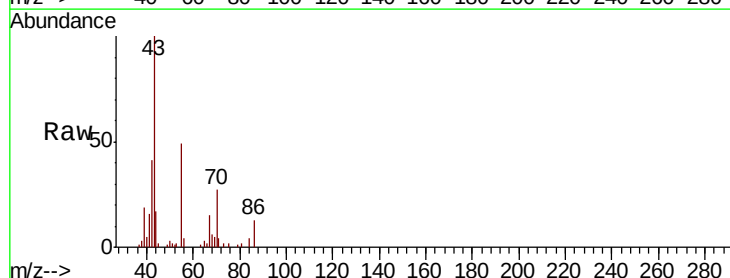
Ion Ratio Lower Upper

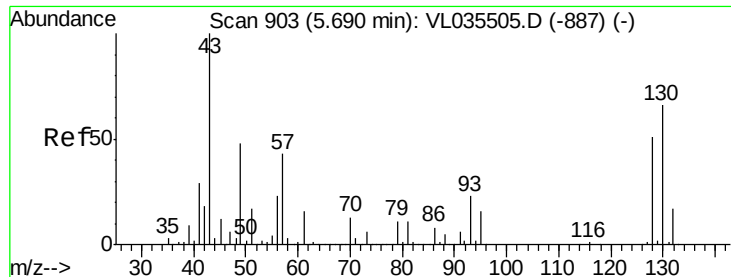
43 100

86 13.0 10.6 16.0

42 41.5 7.5 11.3#

44 8.5 4.4 6.6#





#25

Ethyl Acetate

Concen: 1.104 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.01 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y02

Tot Ion: 43 Resp: 218679

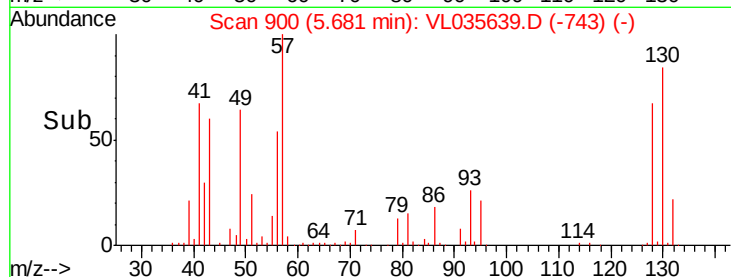
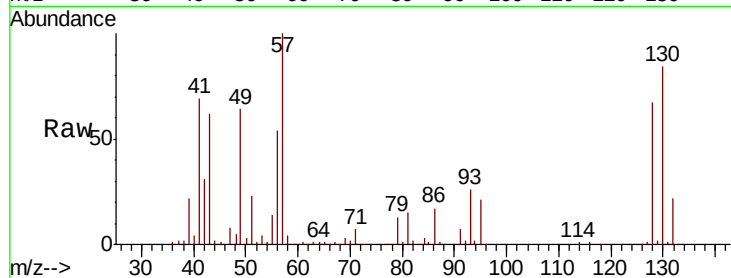
Ion Ratio Lower Upper

43 100

45 2.1 8.4 12.6#

61 1.7 10.6 16.0#

70 3.3 9.4 14.2#



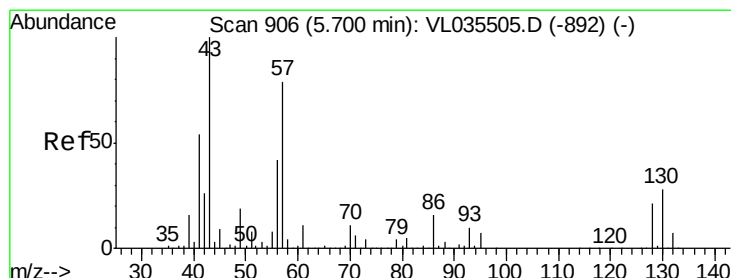
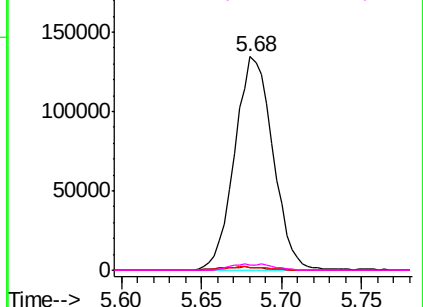
Abundance

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: 3.196 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Tgt Ion: 57 Resp: 358599

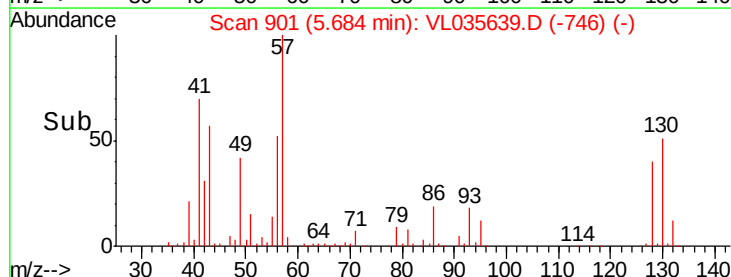
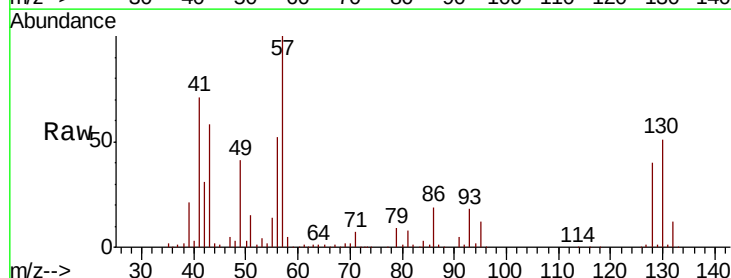
Ion Ratio Lower Upper

57 100

41 71.7 55.9 83.9

43 61.3 141.8 212.8#

56 54.5 41.8 62.8



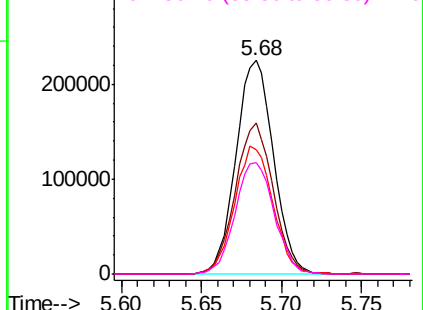
Abundance

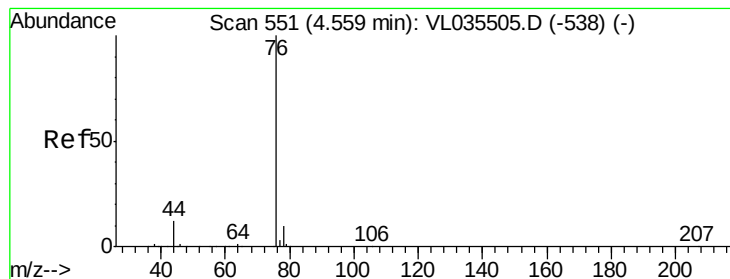
Ion 57.10 (56.80 to 57.80): VL0

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





#27

Carbon Disulfide

Concen: 0.031 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y02

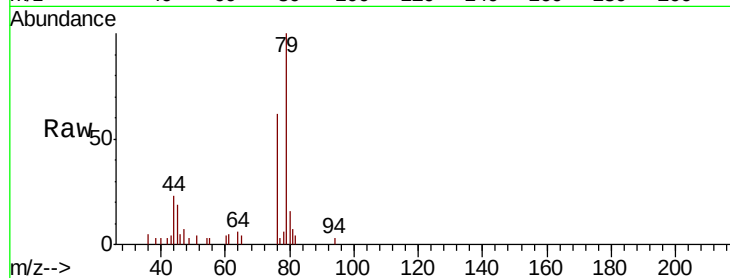
Tot Ion: 76 Resp: 5034

Ion Ratio Lower Upper

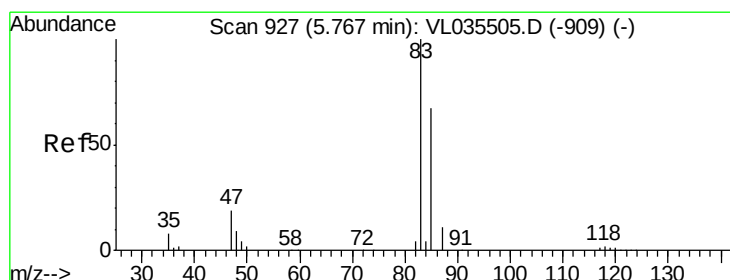
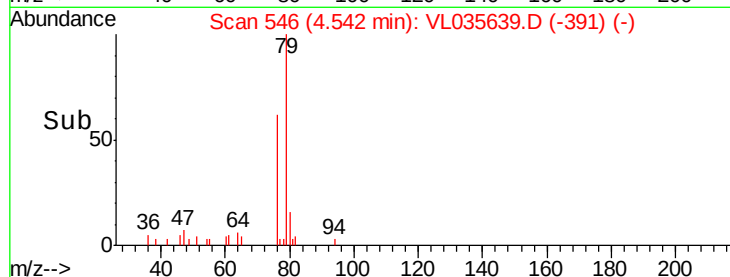
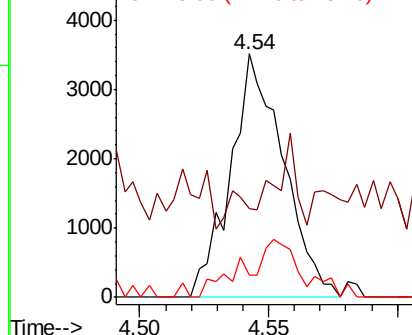
76 100

44 28.8 9.3 13.9#

78 26.0 7.8 11.6#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.074 ppbv

RT: 5.74 min Scan# 920

Delta R.T. -0.00 min

Lab File: VL035639.D

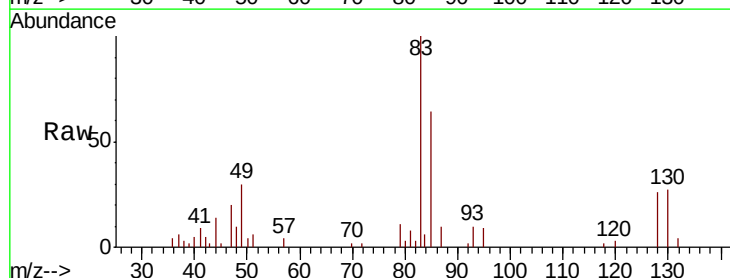
Acq: 16 Sep 2020 21:45

Tgt Ion: 83 Resp: 16953

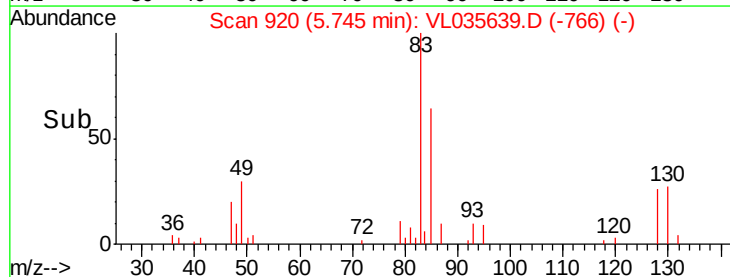
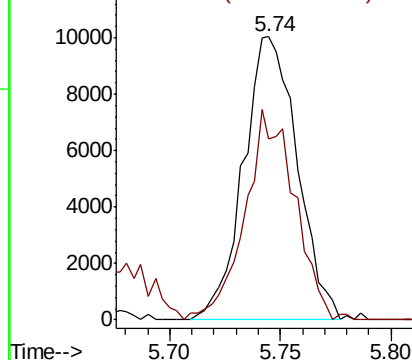
Ion Ratio Lower Upper

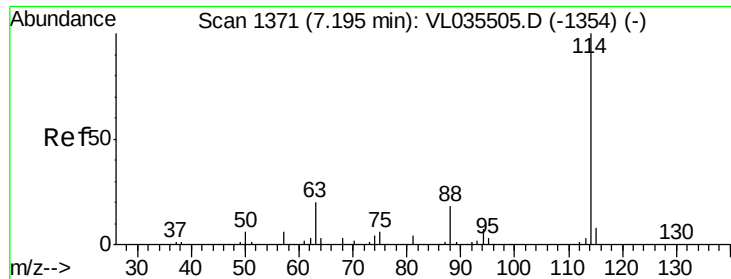
83 100

85 62.1 53.9 80.9



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

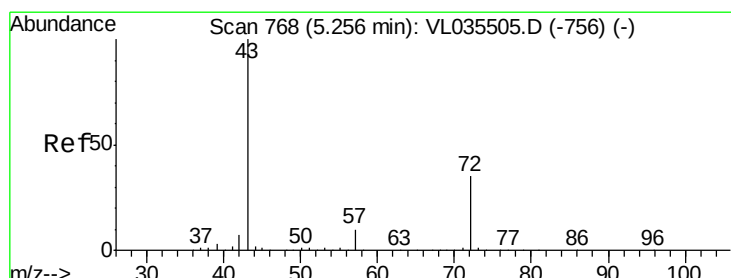
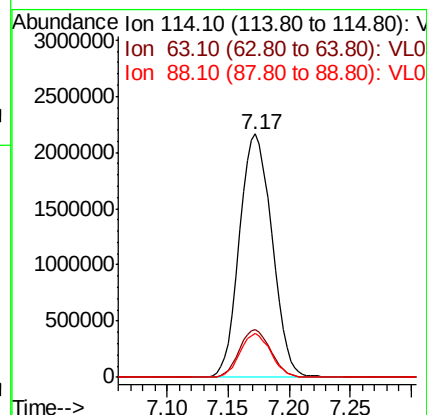
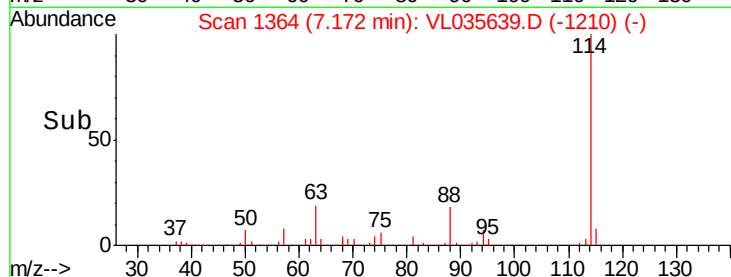
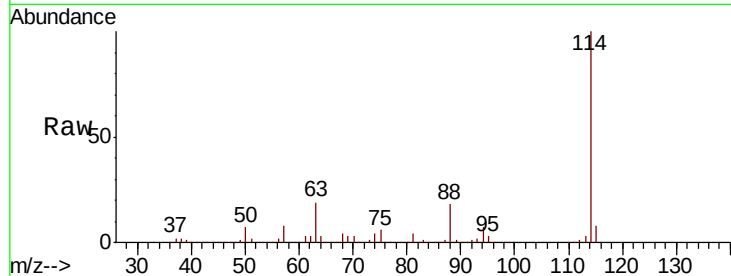




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1364
 Delta R.T. -0.00 min
 Lab File: VL035639.D
 Acq: 16 Sep 2020 21:45

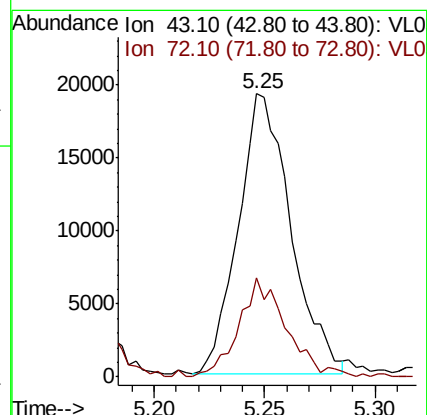
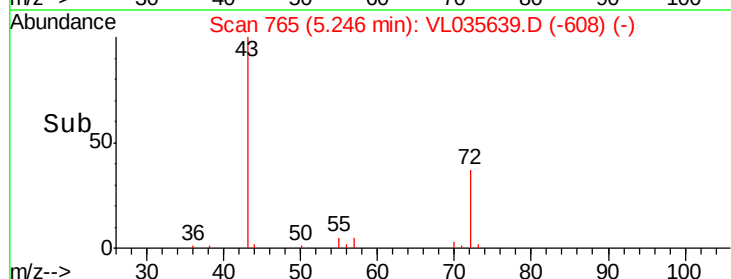
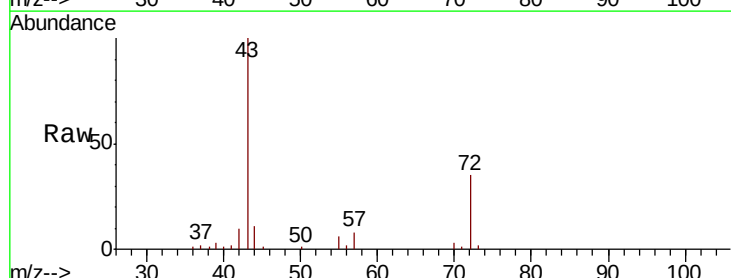
Instrument :
 MSVOA_L
 ClientSampleID :
 DB-IA-Y02

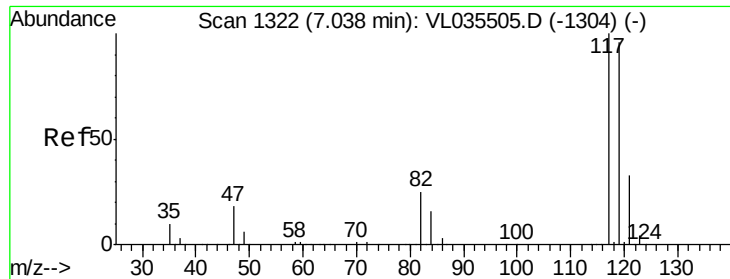
Tot Ion:114 Resp: 4013696
 Ion Ratio Lower Upper
 114 100
 63 19.0 14.7 22.1
 88 17.0 13.4 20.2



#34
 2-Butanone
 Concen: 0.268 ppbv
 RT: 5.25 min Scan# 765
 Delta R.T. 0.01 min
 Lab File: VL035639.D
 Acq: 16 Sep 2020 21:45

Tgt Ion: 43 Resp: 31940
 Ion Ratio Lower Upper
 43 100
 72 32.3 27.7 41.5





#35

Carbon Tetrachloride

Concen: 0.071 ppbv

RT: 7.01 min Scan# 1314

Delta R.T. -0.01 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y02

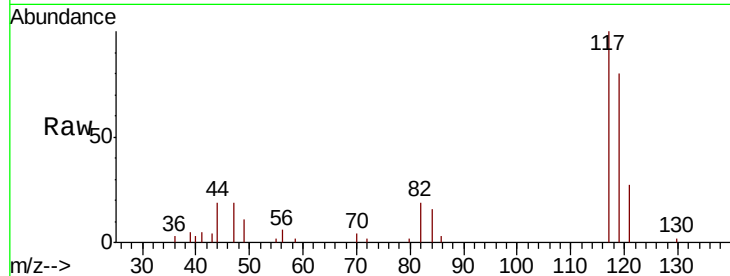
Tot Ion:117 Resp: 14292

Ion Ratio Lower Upper

117 100

119 79.8 77.2 115.8

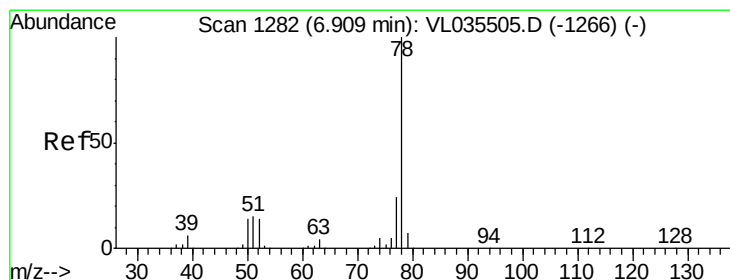
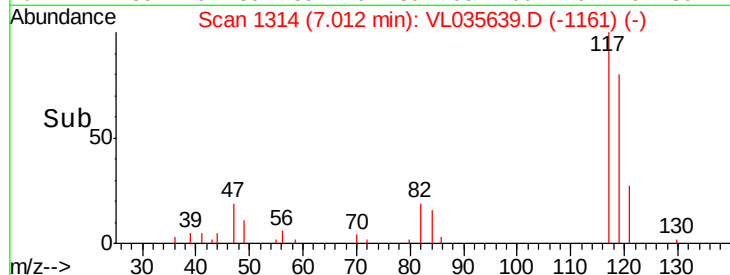
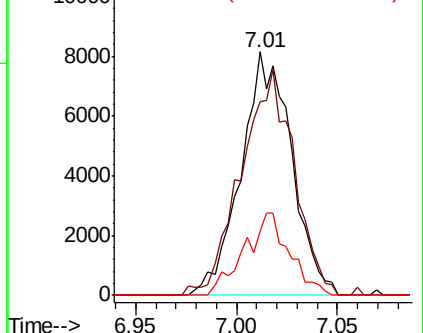
121 26.5 26.1 39.1



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.117 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

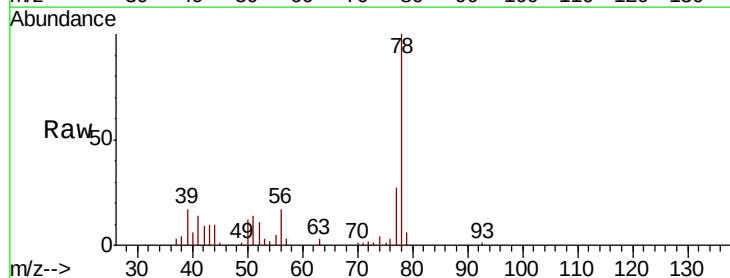
Tgt Ion: 78 Resp: 30436

Ion Ratio Lower Upper

78 100

77 26.9 19.3 28.9

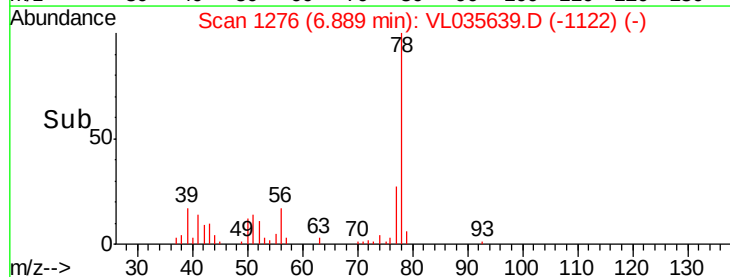
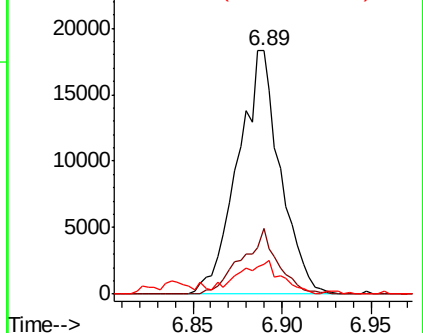
50 11.3 11.0 16.6

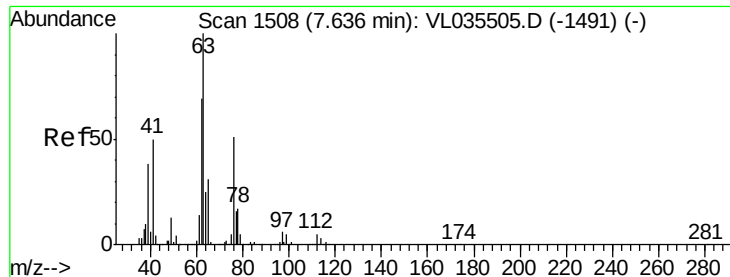


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 8.624 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.44 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

DB-IA-Y02

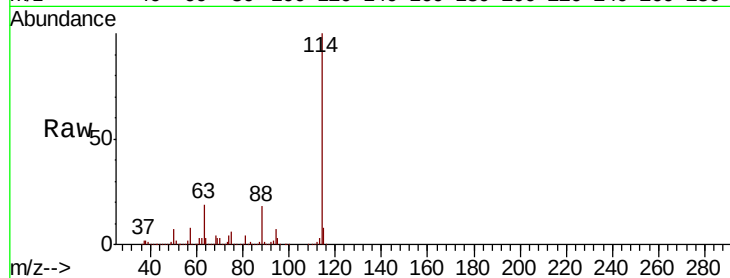
Tot Ion: 63 Resp: 756882

Ion Ratio Lower Upper

63 100

41 0.0 40.0 60.0#

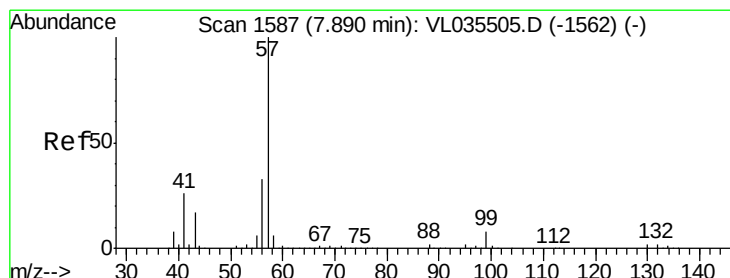
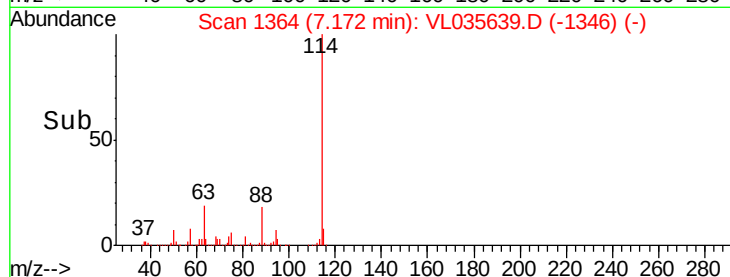
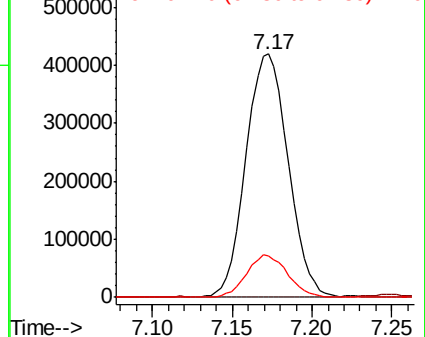
62 17.0 55.4 83.0#



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: 0.033 ppbv

RT: 7.87 min Scan# 1581

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

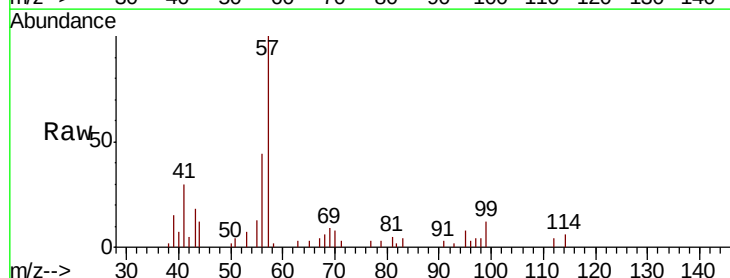
Tgt Ion: 57 Resp: 11124

Ion Ratio Lower Upper

57 100

41 76.1 20.5 30.7#

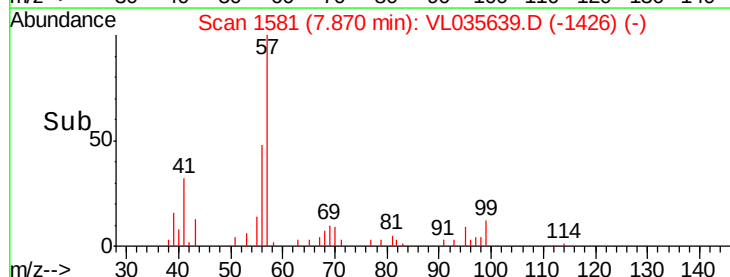
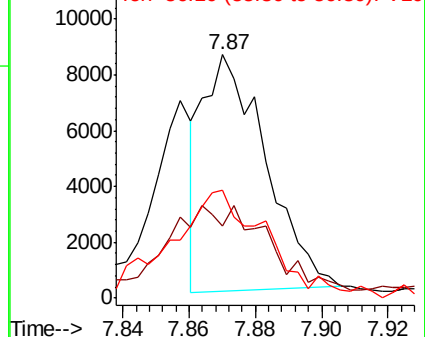
56 72.5 25.3 37.9#

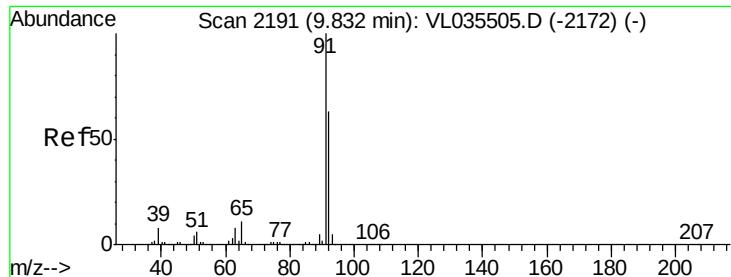


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.690 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.01 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

Instrument :

MSVOA_L

ClientSampleId :

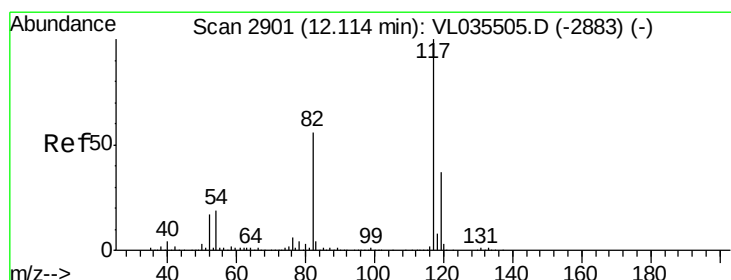
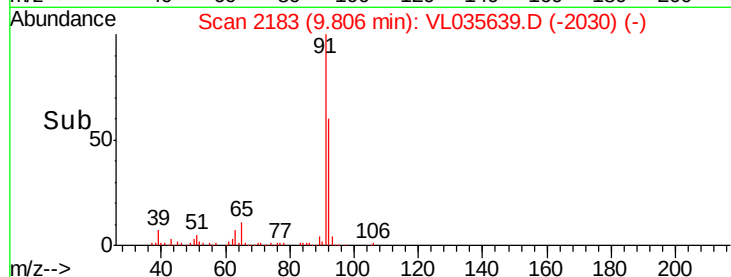
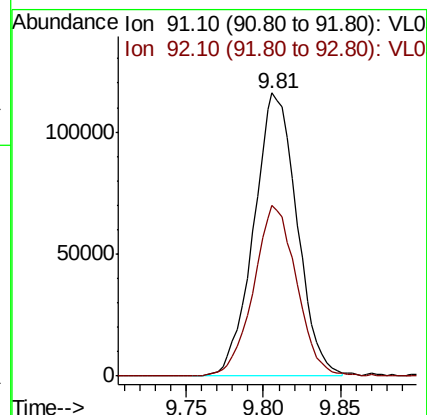
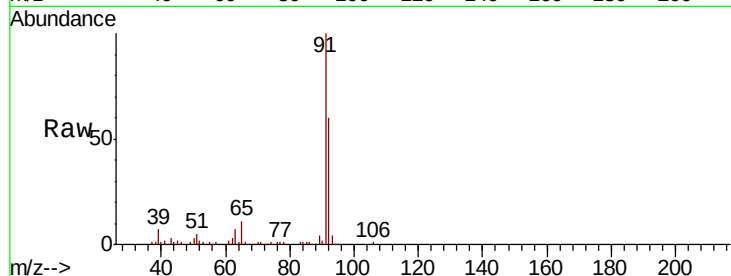
DB-IA-Y02

Tot Ion: 91 Resp: 225301

Ion Ratio Lower Upper

91 100

92 60.1 49.8 74.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.00 min

Lab File: VL035639.D

Acq: 16 Sep 2020 21:45

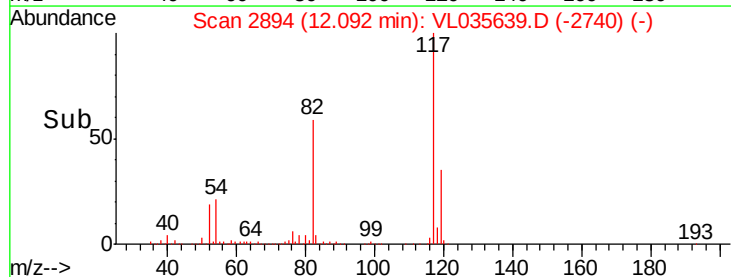
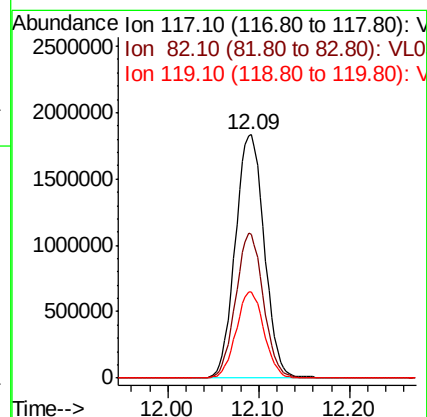
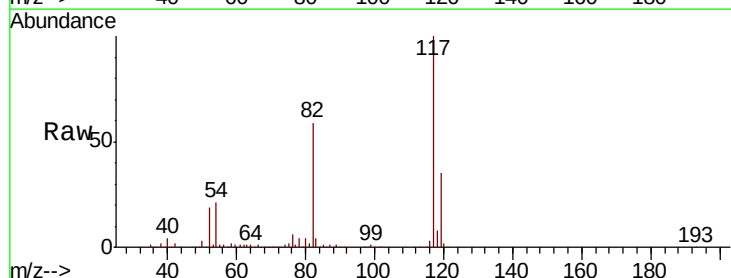
Tgt Ion: 117 Resp: 4067364

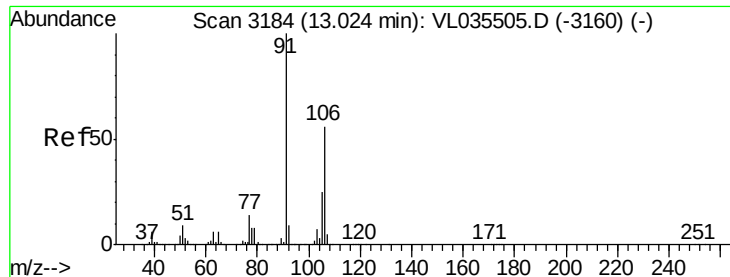
Ion Ratio Lower Upper

117 100

82 57.1 41.6 62.4

119 34.3 29.3 43.9

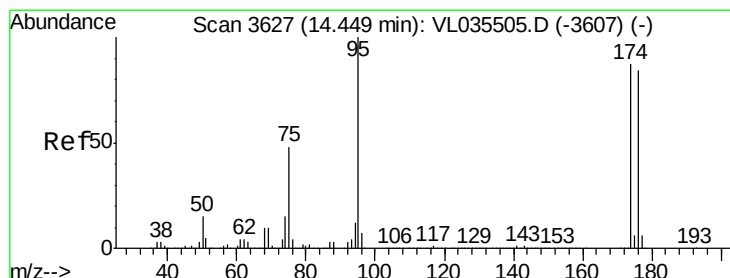
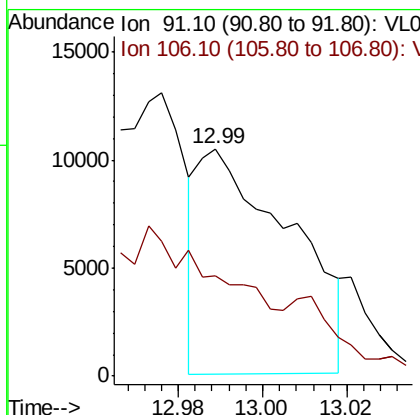
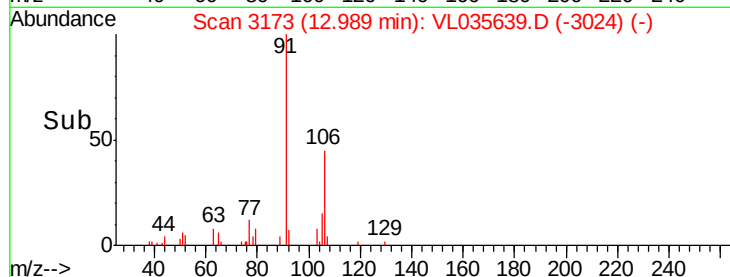
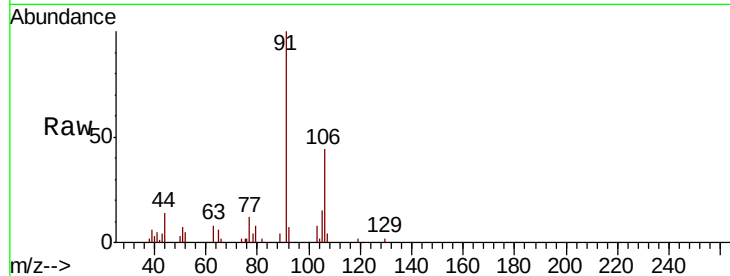




#59
m/p-Xylene
Concen: 0.045 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. -0.02 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

Instrument :
MSVOA_L
ClientSampleId :
DB-IA-Y02

Tot Ion: 91 Resp: 15798
Ion Ratio Lower Upper
91 100
106 0.0 43.4 65.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.614 ppbv
RT: 14.42 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL035639.D
Acq: 16 Sep 2020 21:45

Tgt Ion: 95 Resp: 3065707
Ion Ratio Lower Upper
95 100
174 78.7 69.6 104.4
175 5.6 5.1 7.7

