

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL081820\
 Data File : VL035449.D
 Acq On : 18 Aug 2020 19:49
 Operator : SY/AP
 Sample : L3725-02DUPDL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 19 02:44:37 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Aug 17 19:28:30 2020
 QLast Update : Mon Aug 17 19:28:30 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1137605	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	5241632	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	5140736	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.45	95	3727767	10.36	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.60%

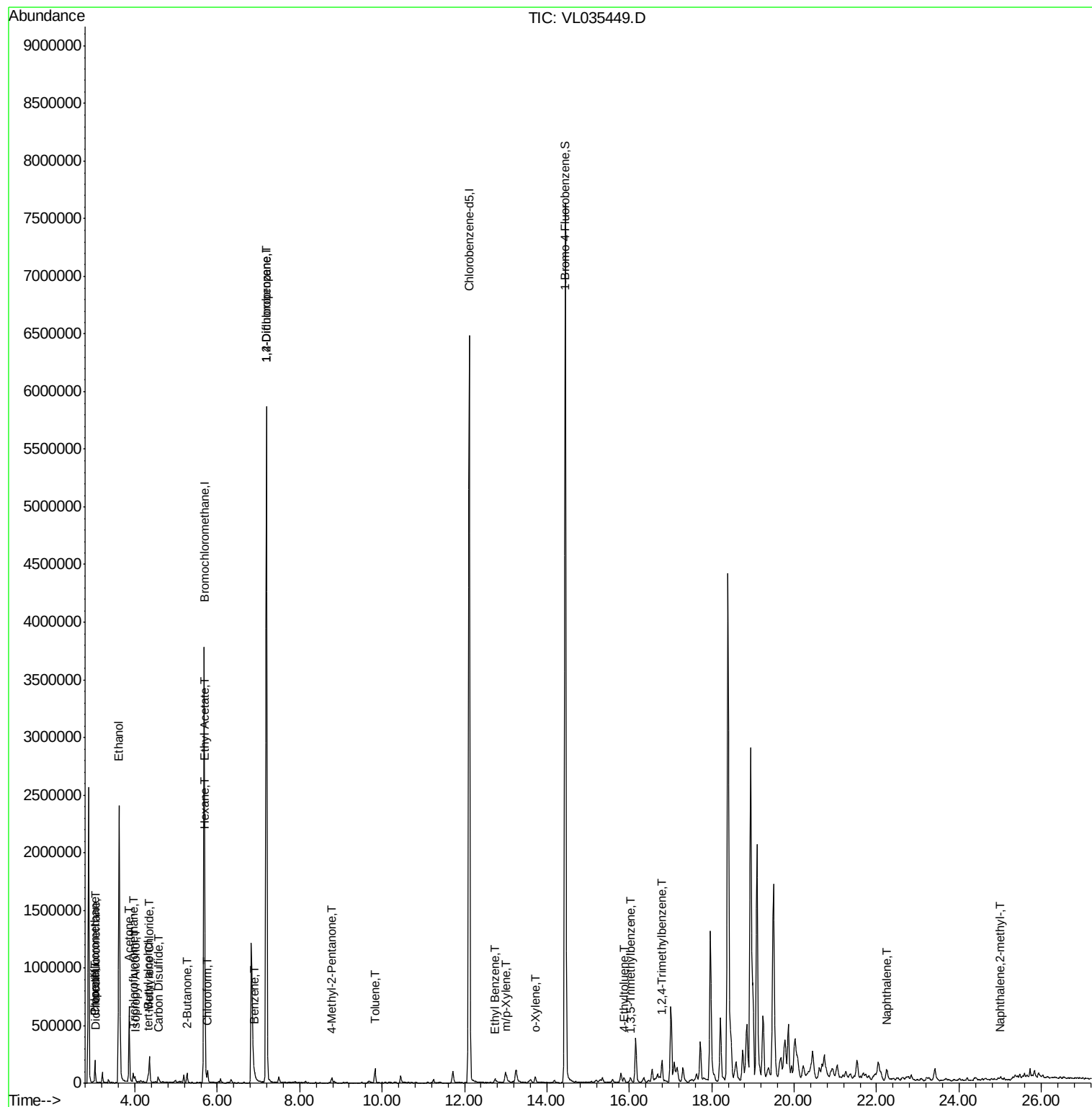
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	14133	0.067 ppbv	95
3) Chlorodifluoromethane	3.03	51	67393	0.472 ppbv #	68
9) Propene	3.02	41	7808	0.136 ppbv #	75
11) Trichlorofluoromethane	3.96	101	47519	0.144 ppbv	97
13) Ethanol	3.61	45	2986506	142.179 ppbv	97
15) Acetone	3.86	43	563490	4.303 ppbv #	81
17) tert-Butyl alcohol	4.32	59	60033	0.355 ppbv	99
19) Isopropyl Alcohol	4.00	45	47793	0.530 ppbv #	1
20) Methylene Chloride	4.35	84	100099	0.947 ppbv #	63
25) Ethyl Acetate	5.70	43	27402	0.108 ppbv #	81
26) Hexane	5.70	57	47116	0.328 ppbv #	32
27) Carbon Disulfide	4.56	76	62439	0.300 ppbv #	91
29) Chloroform	5.76	83	64037	0.222 ppbv	93
34) 2-Butanone	5.26	43	76881	0.439 ppbv #	70
36) Benzene	6.90	78	13259	0.034 ppbv	96
39) 1,2-Dichloropropane	7.19	63	908681	7.167 ppbv #	23
50) 4-Methyl-2-Pentanone	8.77	43	16894	0.067 ppbv #	39
53) Toluene	9.83	91	113084	0.228 ppbv	95
58) Ethyl Benzene	12.73	91	29336	0.047 ppbv	92
59) m/p-Xylene	13.02	91	22783	0.043 ppbv #	33
60) o-Xylene	13.72	91	24138	0.047 ppbv #	40
72) 4-Ethyltoluene	15.87	105	21659	0.032 ppbv #	60
73) 1,3,5-Trimethylbenzene	16.02	105	34210	0.055 ppbv	99
74) 1,2,4-Trimethylbenzene	16.80	105	65177	0.096 ppbv #	71
79) Naphthalene	22.25	128	74145	0.078 ppbv	99
80) Naphthalene, 2-methyl-	25.01	142	18353	0.047 ppbv	98

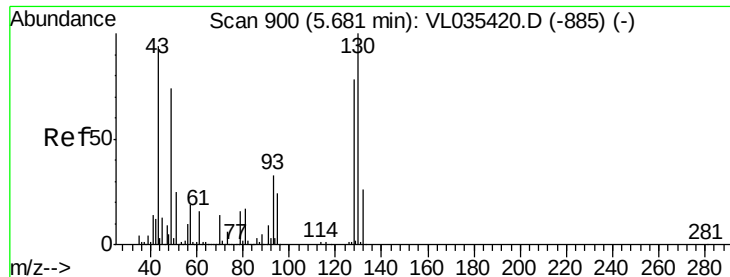
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. 0.00 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

ClientSampleId :

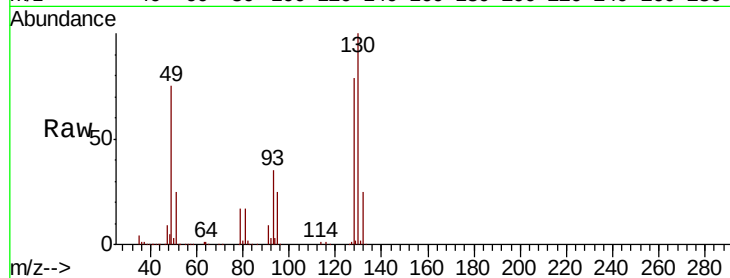
Tot Ion: 49 Resp: 1137605

Ion Ratio Lower Upper

49 100

128 104.5 20.9 62.7#

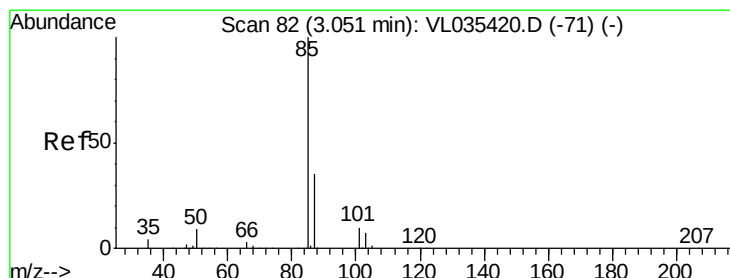
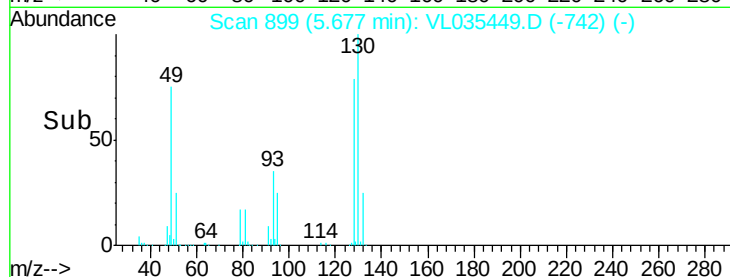
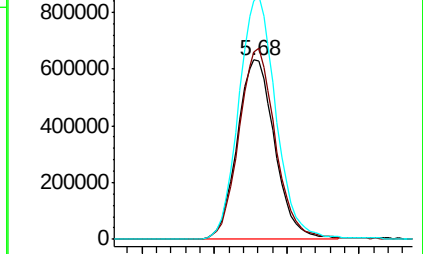
130 135.6 26.7 80.1#



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: 0.067 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL035449.D

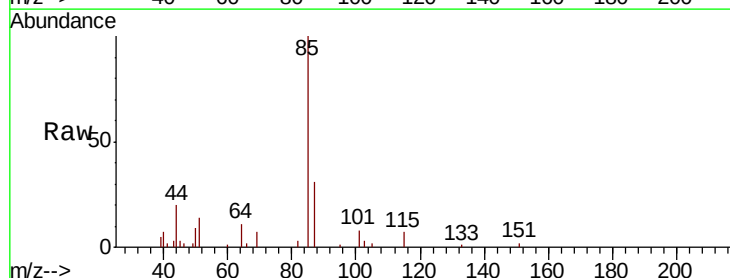
Acq: 18 Aug 2020 19:49

Tgt Ion: 85 Resp: 14133

Ion Ratio Lower Upper

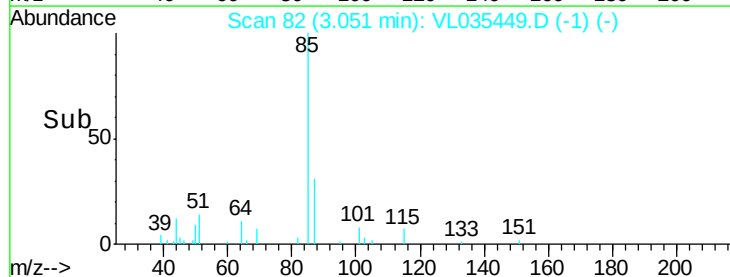
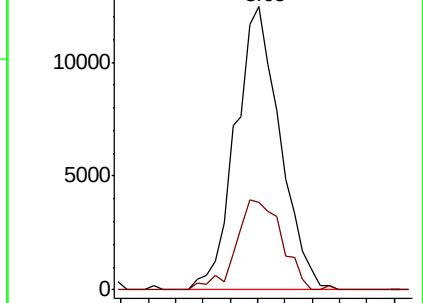
85 100

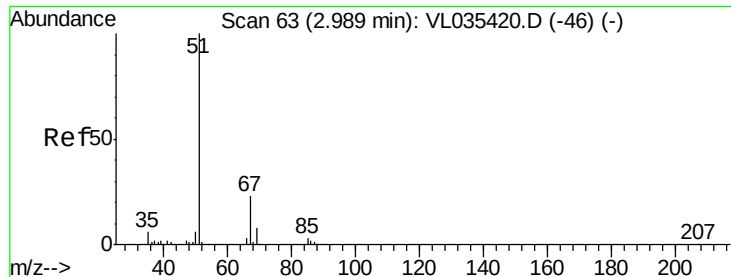
87 30.9 27.1 40.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.472 ppbv

RT: 3.03 min Scan# 75

Delta R.T. 0.05 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

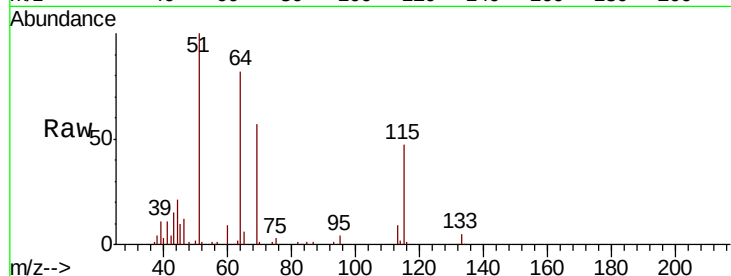
ClientSampleId :

Tot Ion: 51 Resp: 67393

Ion Ratio Lower Upper

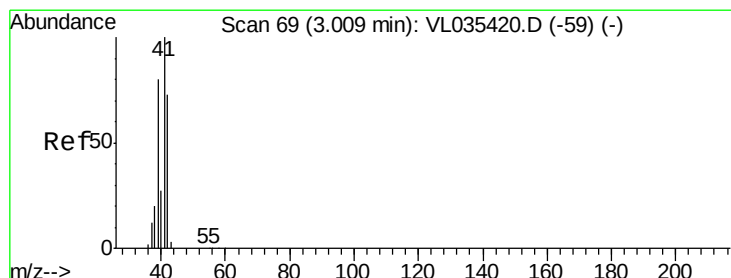
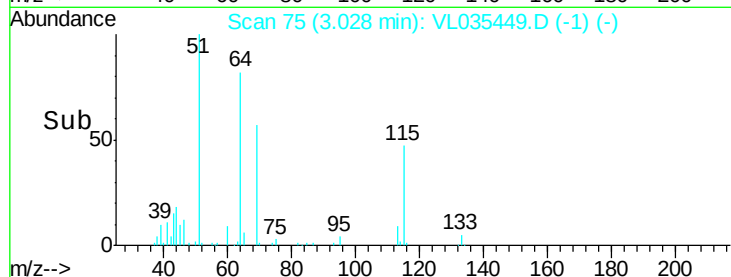
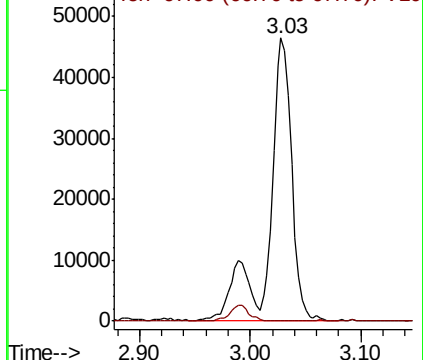
51 100

67 4.6 15.0 22.6#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#9

Propene

Concen: 0.136 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.02 min

Lab File: VL035449.D

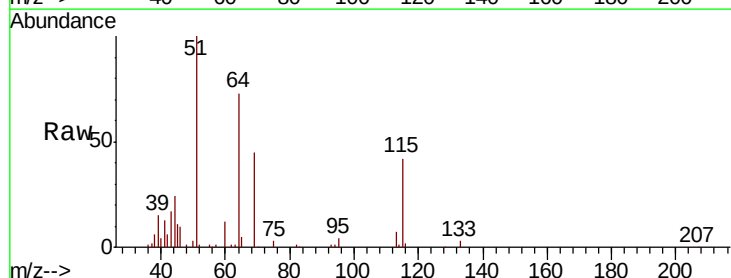
Acq: 18 Aug 2020 19:49

Tgt Ion: 41 Resp: 7808

Ion Ratio Lower Upper

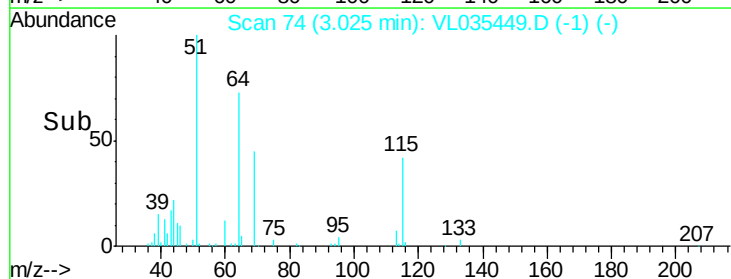
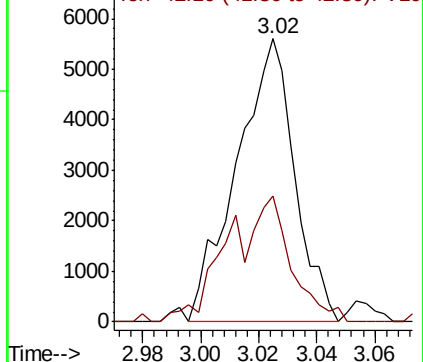
41 100

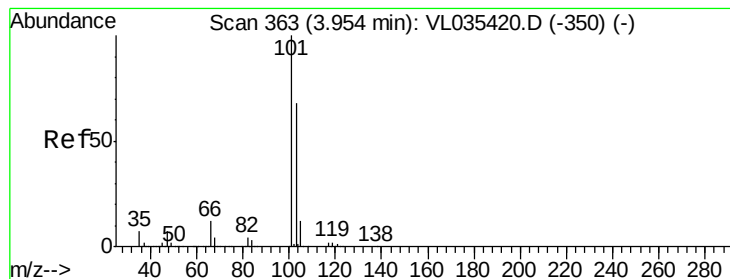
42 48.9 55.5 83.3#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0





#11

Trichlorofluoromethane

Concen: 0.144 ppbv

RT: 3.96 min Scan# 364

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

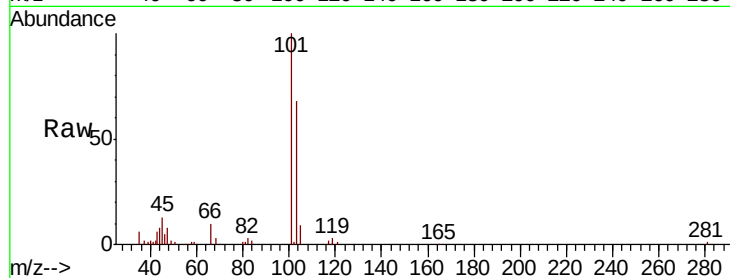
ClientSampleId :

Tot Ion:101 Resp: 47519

Ion Ratio Lower Upper

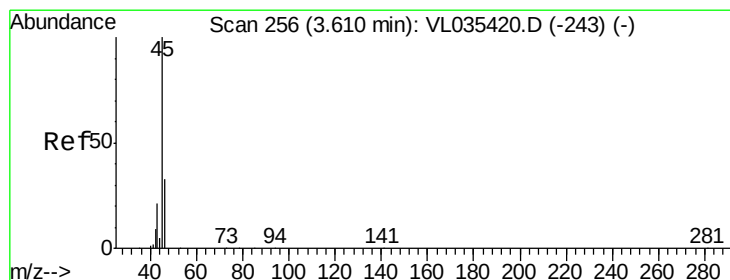
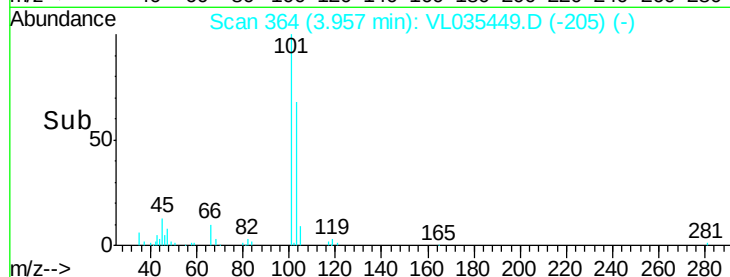
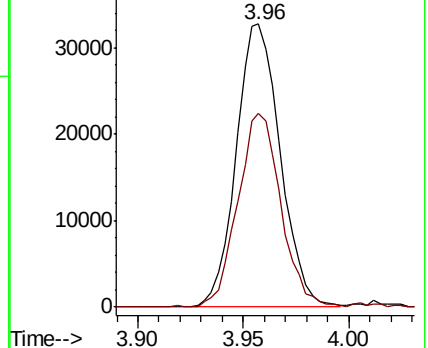
101 100

103 68.2 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#13

Ethanol

Concen: 142.179 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL035449.D

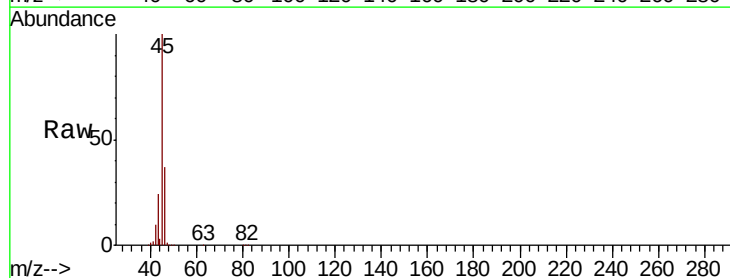
Acq: 18 Aug 2020 19:49

Tgt Ion: 45 Resp: 2986506

Ion Ratio Lower Upper

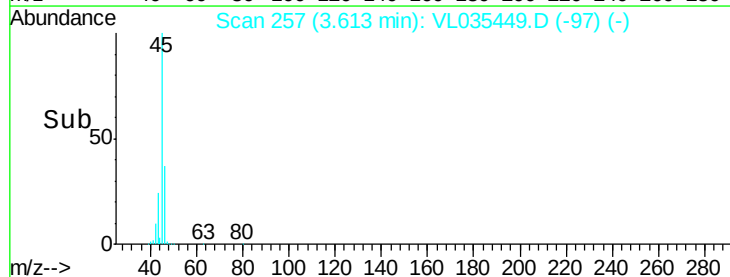
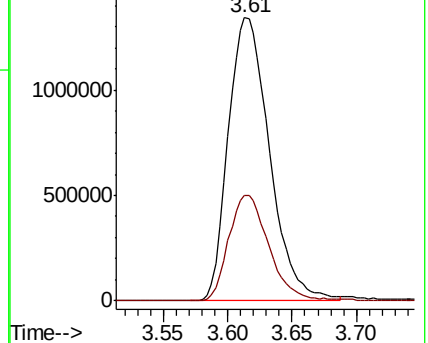
45 100

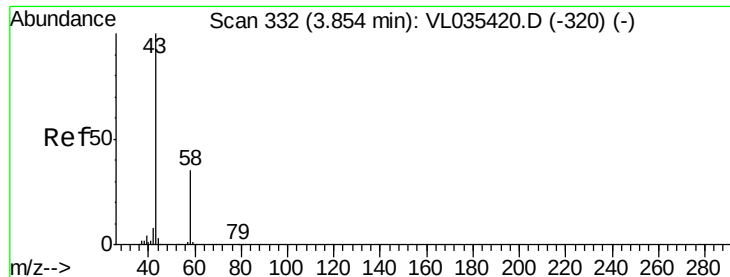
46 37.0 14.2 56.6



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 4.303 ppbv

RT: 3.86 min Scan# 333

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

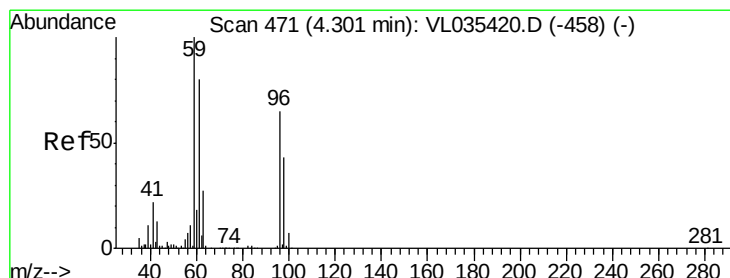
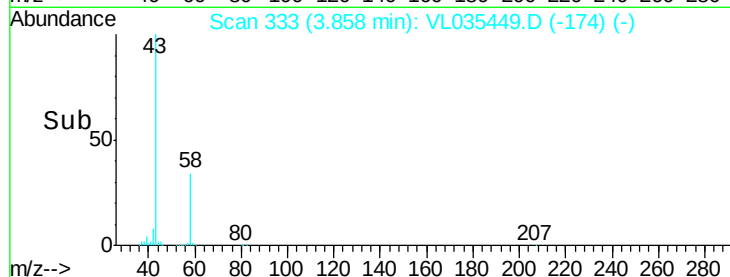
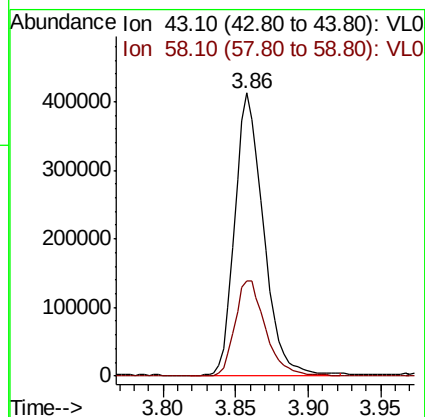
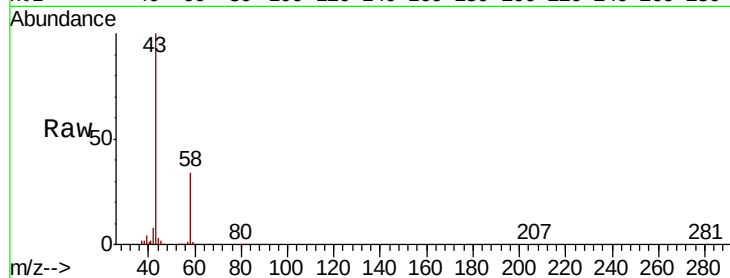
ClientSampleId :

Tot Ion: 43 Resp: 563490

Ion Ratio Lower Upper

43 100

58 36.2 21.0 31.6#



#17

tert-Butyl alcohol

Concen: 0.355 ppbv

RT: 4.32 min Scan# 477

Delta R.T. 0.03 min

Lab File: VL035449.D

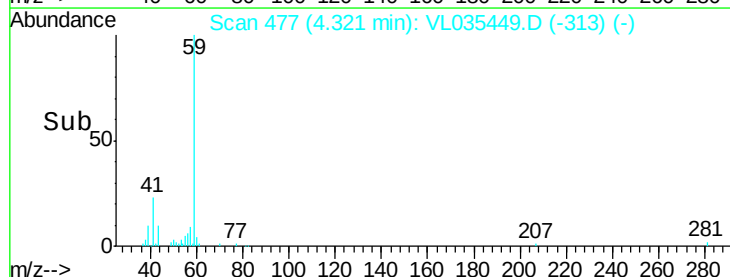
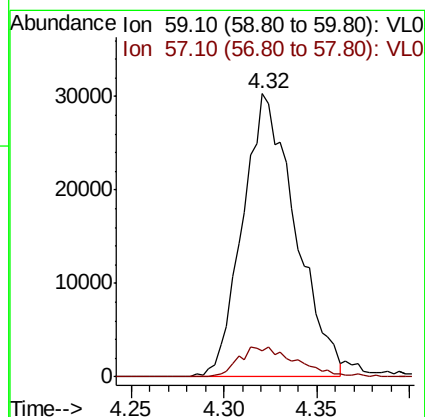
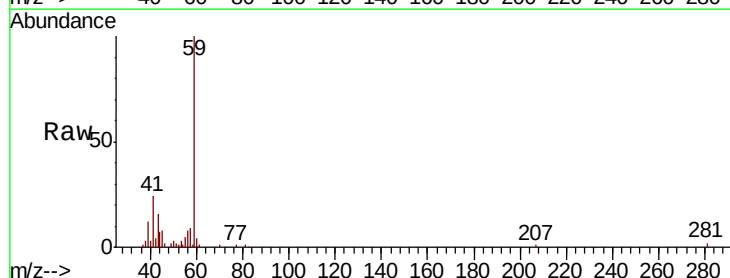
Acq: 18 Aug 2020 19:49

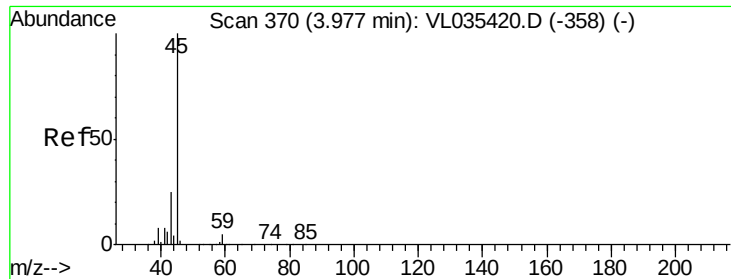
Tgt Ion: 59 Resp: 60033

Ion Ratio Lower Upper

59 100

57 11.5 8.9 13.3





#19

Isopropyl Alcohol

Concen: 0.530 ppbv

RT: 4.00 min Scan# 377

Delta R.T. 0.03 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

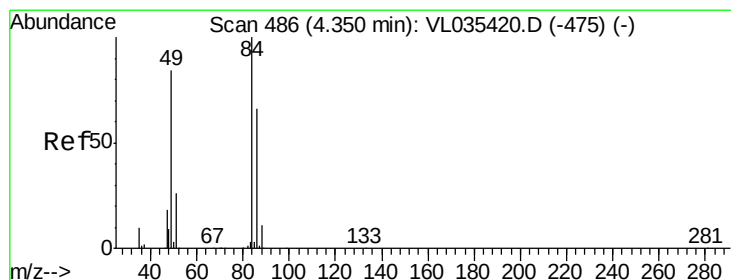
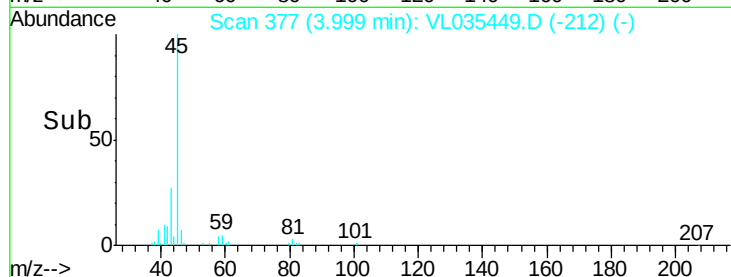
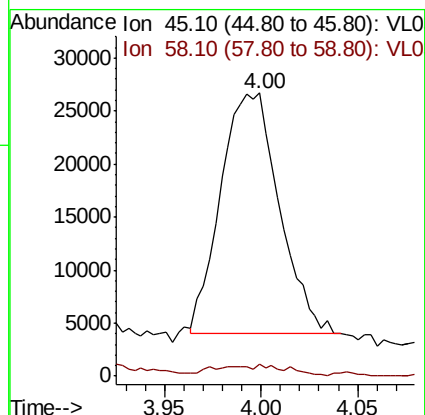
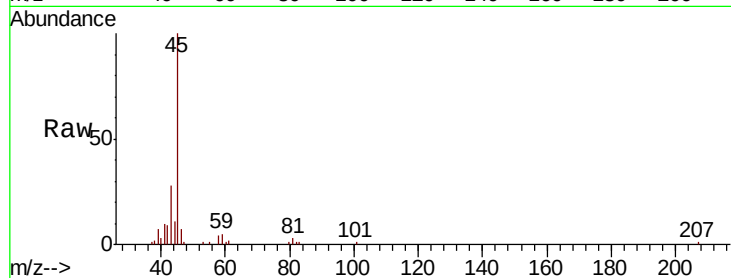
ClientSampleId :

Tot Ion: 45 Resp: 47793

Ion Ratio Lower Upper

45 100

58 427.4 1.0 1.6#



#20

Methylene Chloride

Concen: 0.947 ppbv

RT: 4.35 min Scan# 487

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Tgt Ion: 84 Resp: 100099

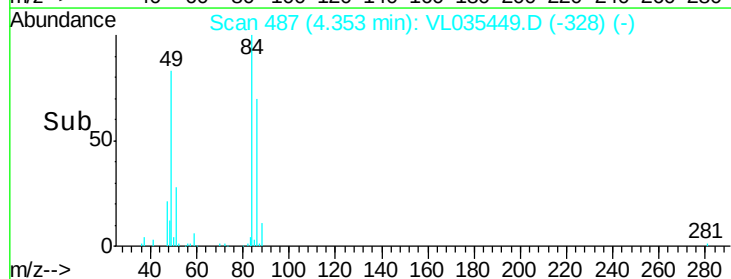
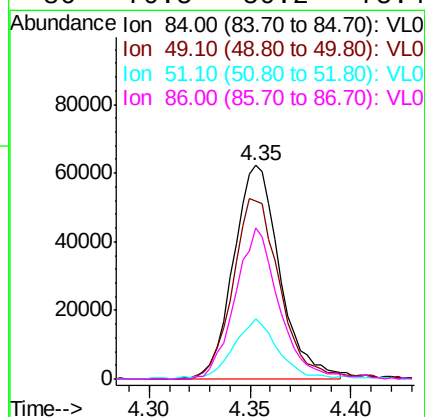
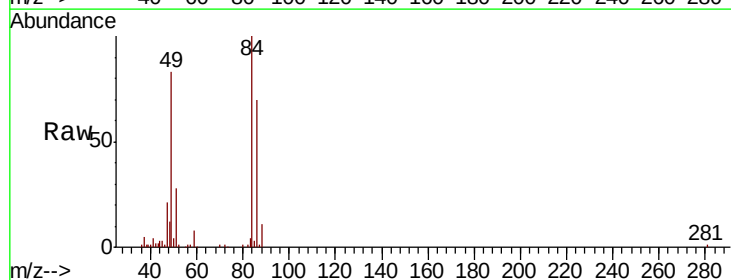
Ion Ratio Lower Upper

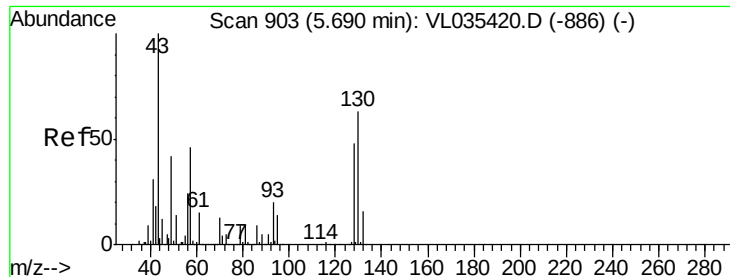
84 100

49 82.5 118.6 177.8#

51 27.4 36.4 54.6#

86 70.5 50.2 75.4





#25

Ethyl Acetate

Concen: 0.108 ppbv

RT: 5.70 min Scan# 906

Delta R.T. 0.02 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 43 Resp: 27402

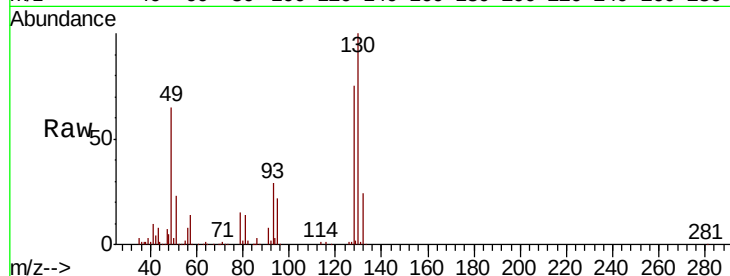
Ion Ratio Lower Upper

43 100

45 3.6 8.3 12.5#

61 0.7 7.6 11.4#

70 2.4 6.0 9.0#



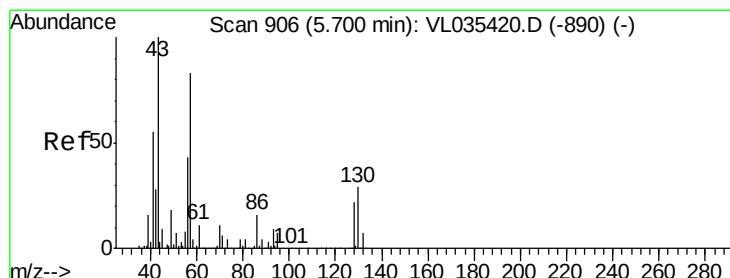
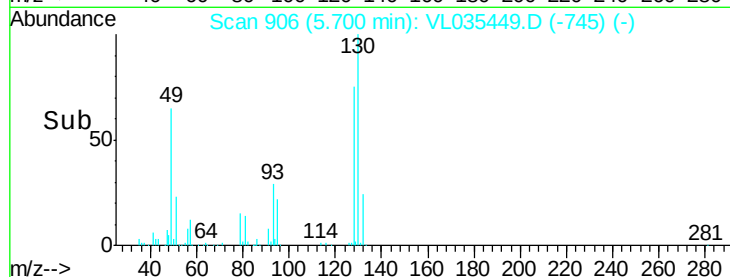
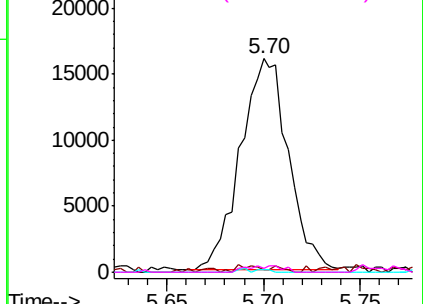
Abundance

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: 0.328 ppbv

RT: 5.70 min Scan# 907

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Tgt Ion: 57 Resp: 47116

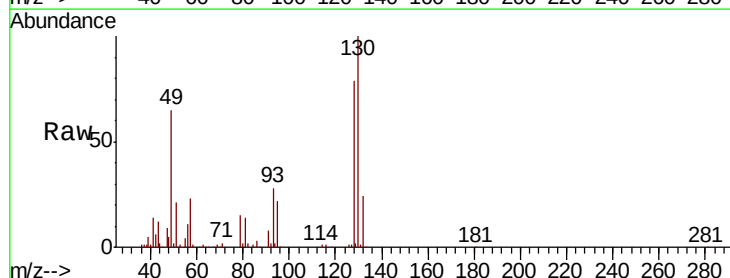
Ion Ratio Lower Upper

57 100

41 69.3 75.5 113.3#

43 61.6 181.7 272.5#

56 53.4 42.4 63.6



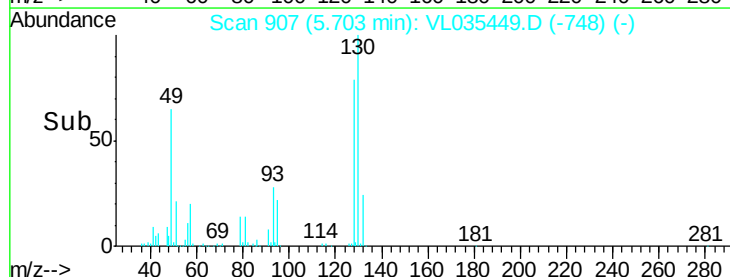
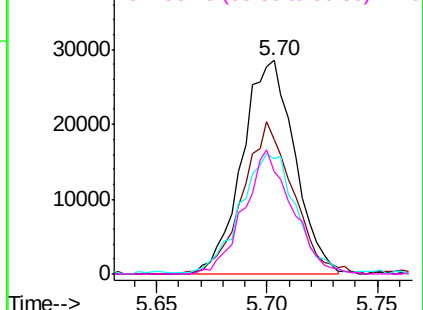
Abundance

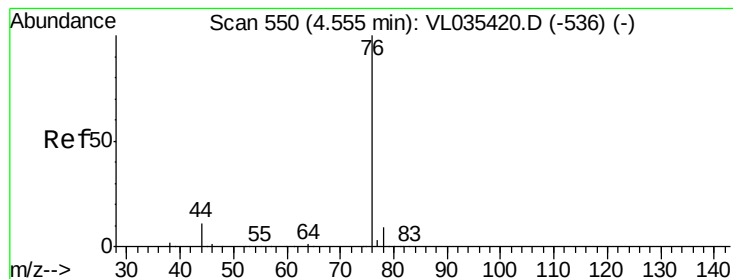
Ion 57.10 (56.80 to 57.80): VL0

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: 0.300 ppbv

RT: 4.56 min Scan# 552

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

ClientSampleId :

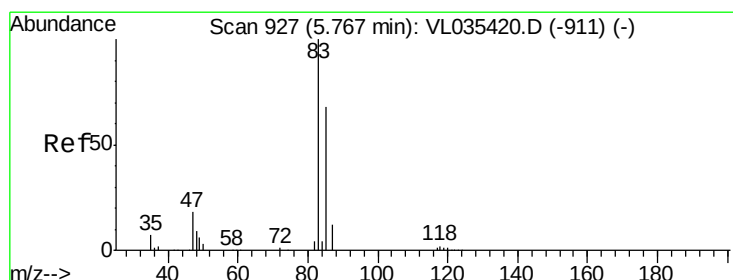
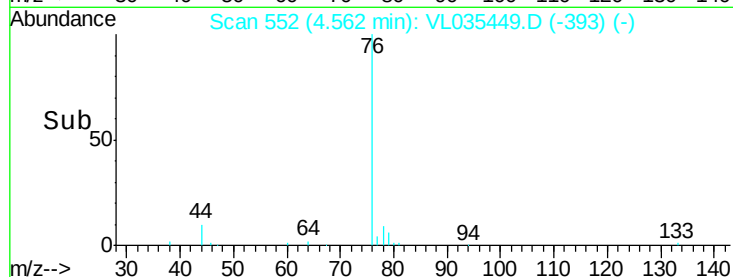
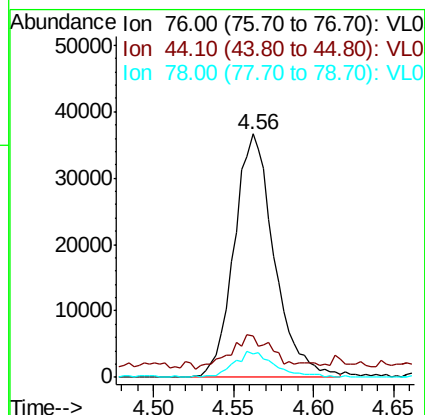
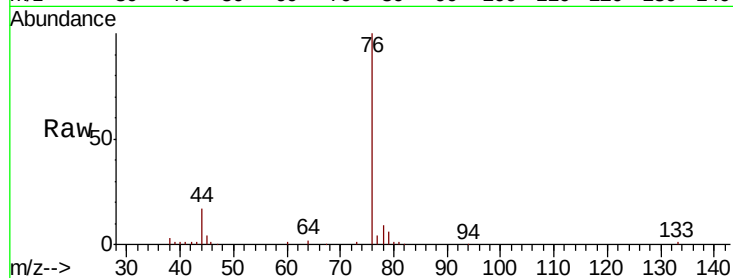
Tot Ion: 76 Resp: 62439

Ion Ratio Lower Upper

76 100

44 16.3 16.8 25.2#

78 11.1 7.3 10.9#



#29

Chloroform

Concen: 0.222 ppbv

RT: 5.76 min Scan# 926

Delta R.T. 0.00 min

Lab File: VL035449.D

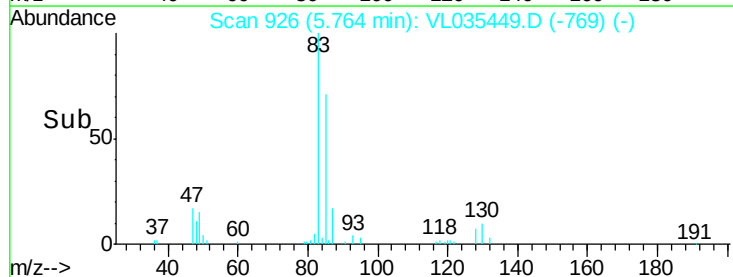
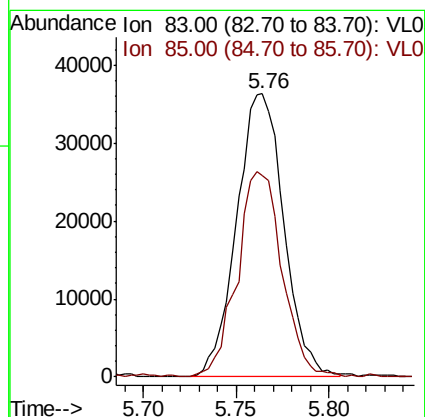
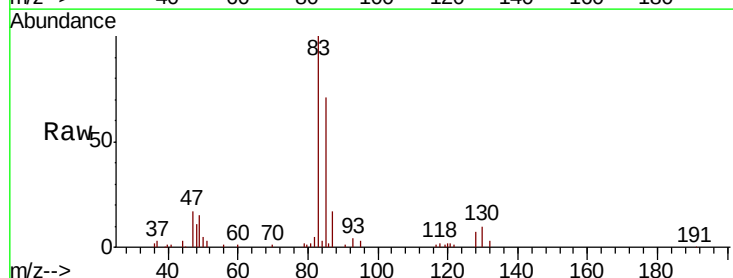
Acq: 18 Aug 2020 19:49

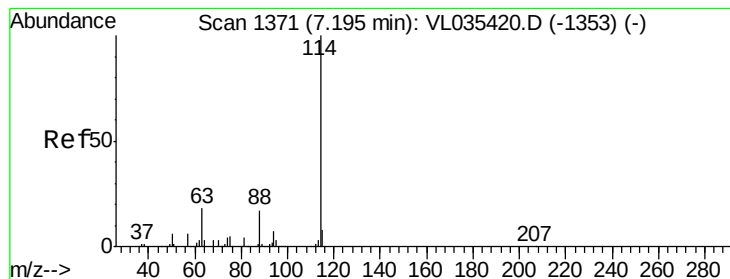
Tgt Ion: 83 Resp: 64037

Ion Ratio Lower Upper

83 100

85 71.3 52.7 79.1





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.19 min Scan# 1370

Delta R.T. 0.00 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

ClientSampleId :

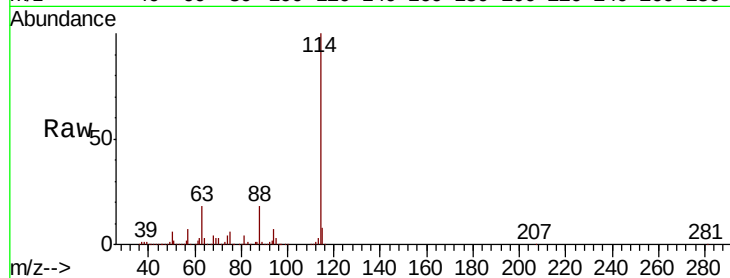
Tot Ion:114 Resp: 5241632

Ion Ratio Lower Upper

114 100

63 17.4 23.1 34.7#

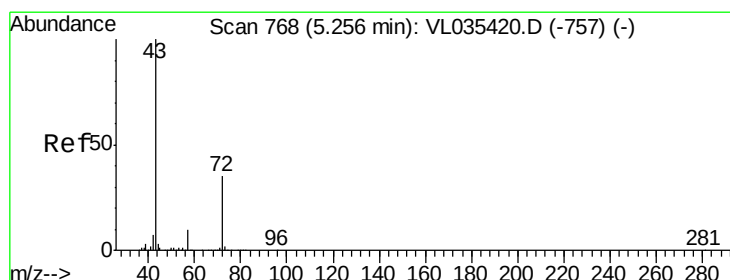
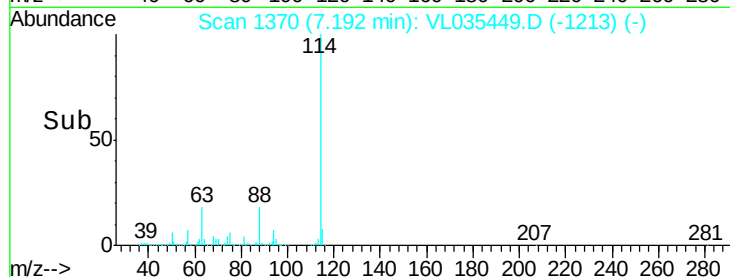
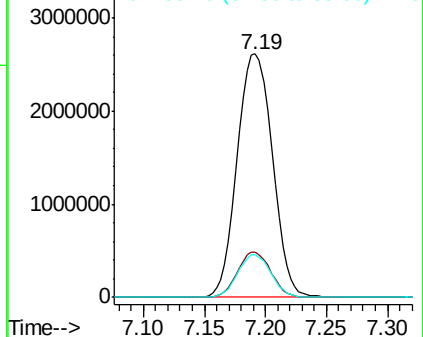
88 16.6 15.9 23.9



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: 0.439 ppbv

RT: 5.26 min Scan# 770

Delta R.T. 0.01 min

Lab File: VL035449.D

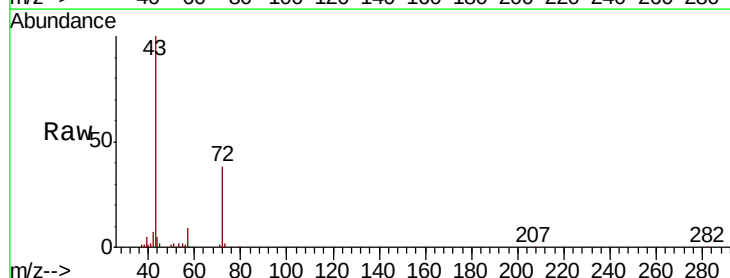
Acq: 18 Aug 2020 19:49

Tgt Ion: 43 Resp: 76881

Ion Ratio Lower Upper

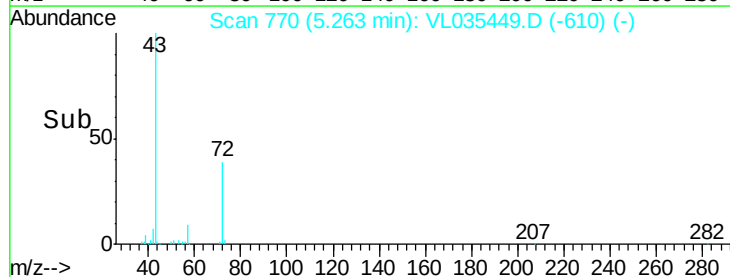
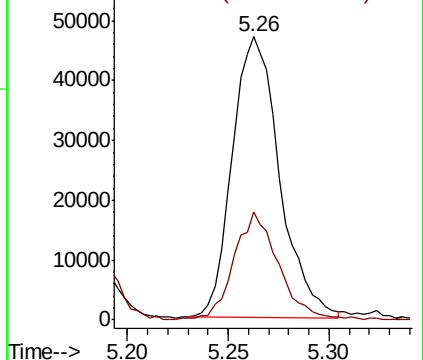
43 100

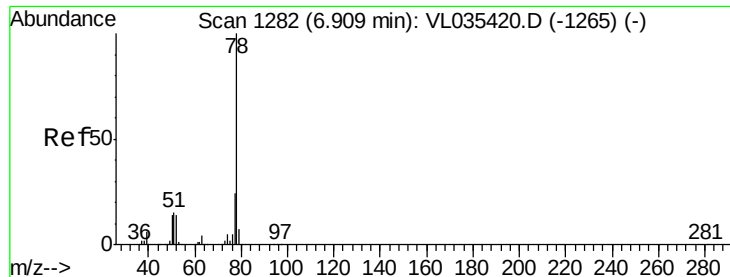
72 36.5 17.6 26.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

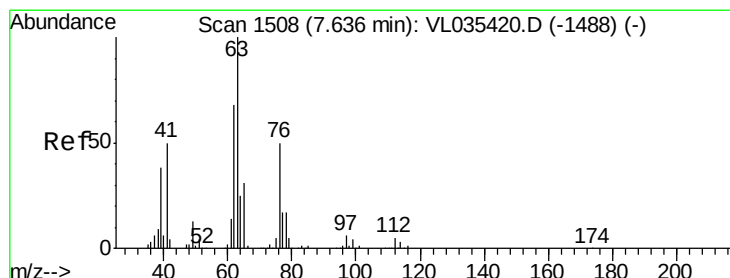
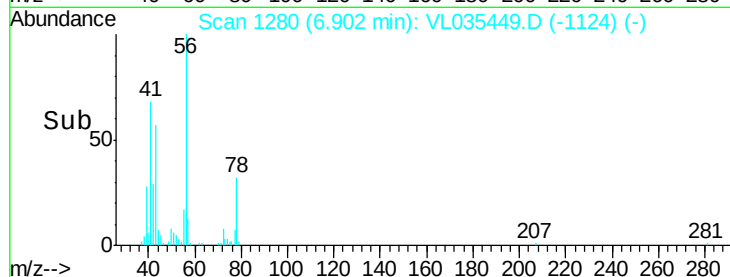
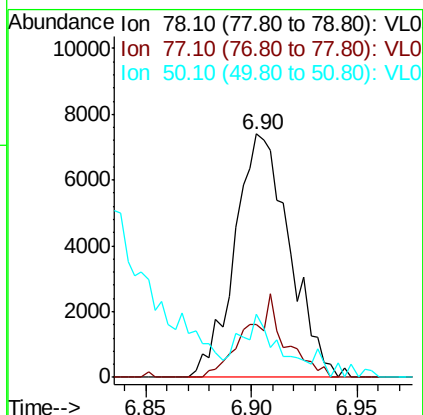
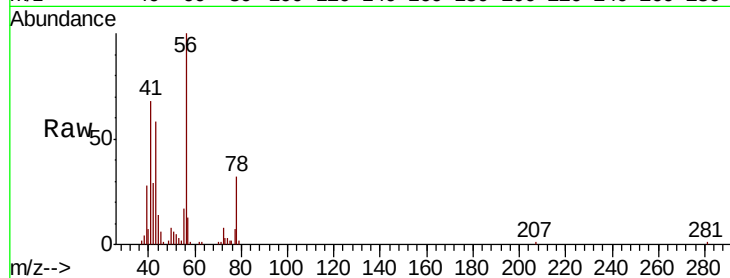




#36
Benzene
Concen: 0.034 ppbv
RT: 6.90 min Scan# 1280
Delta R.T. 0.00 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

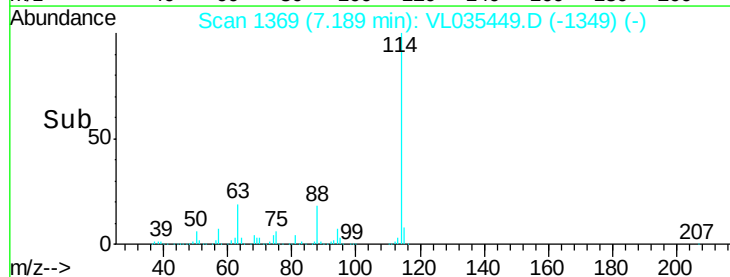
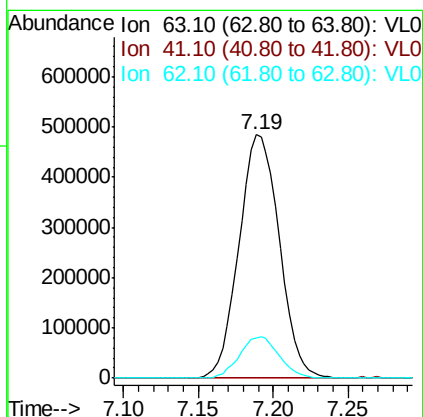
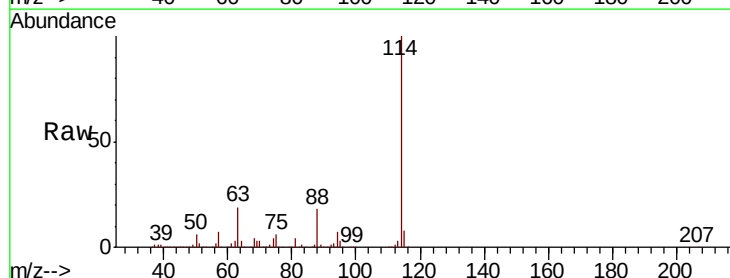
Instrument :
MSVOA_L
ClientSampled :

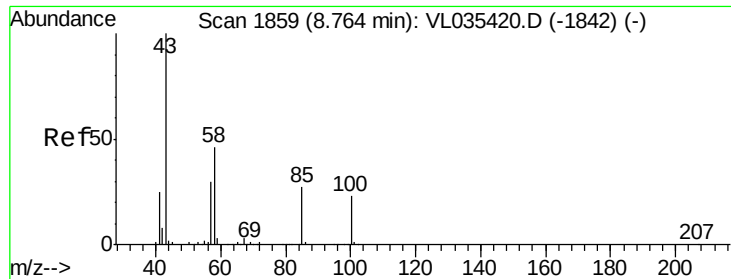
Tot Ion: 78 Resp: 13259
Ion Ratio Lower Upper
78 100
77 21.6 19.6 29.4
50 19.9 16.3 24.5



#39
1,2-Dichloropropane
Concen: 7.167 ppbv
RT: 7.19 min Scan# 1369
Delta R.T. -0.44 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

Tgt Ion: 63 Resp: 908681
Ion Ratio Lower Upper
63 100
41 0.0 61.1 91.7#
62 16.7 55.3 82.9#





#50

4-Methyl-2-Pentanone

Concen: 0.067 ppbv

RT: 8.77 min Scan# 1862

Delta R.T. 0.02 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

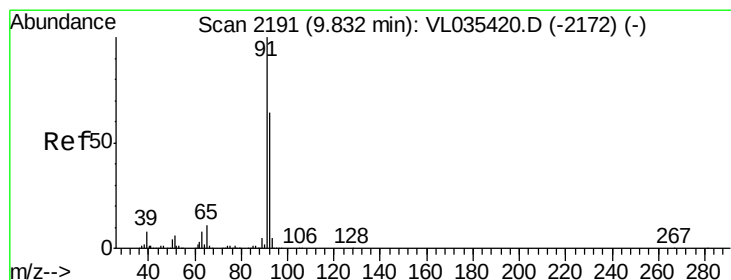
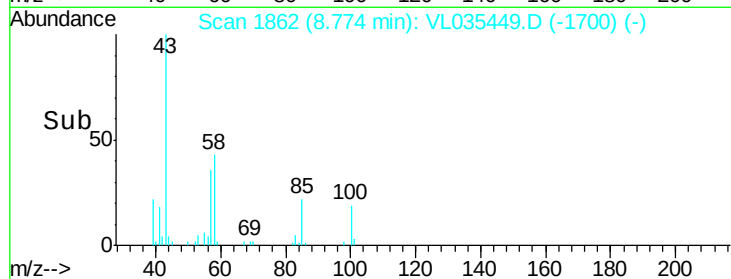
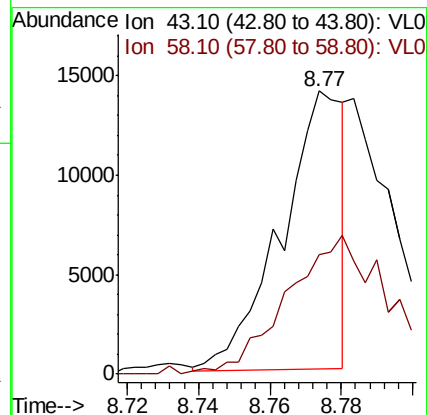
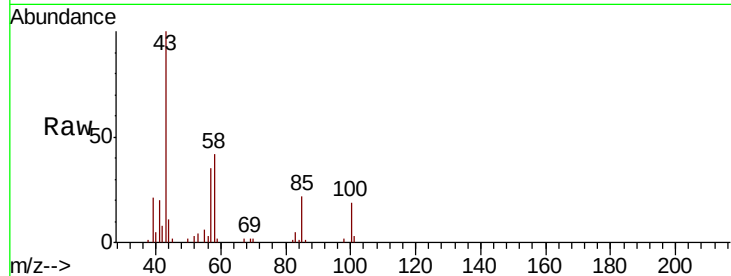
ClientSampleId :

Tot Ion: 43 Resp: 16894

Ion Ratio Lower Upper

43 100

58 0.0 28.7 43.1#



#53

Toluene

Concen: 0.228 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. 0.01 min

Lab File: VL035449.D

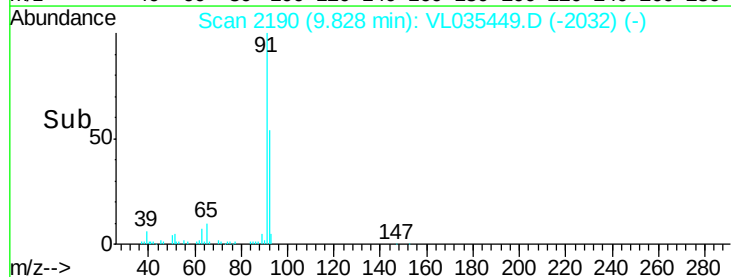
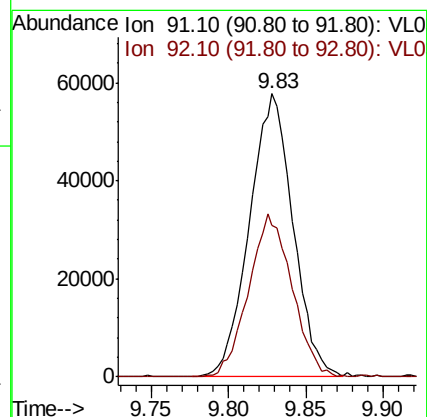
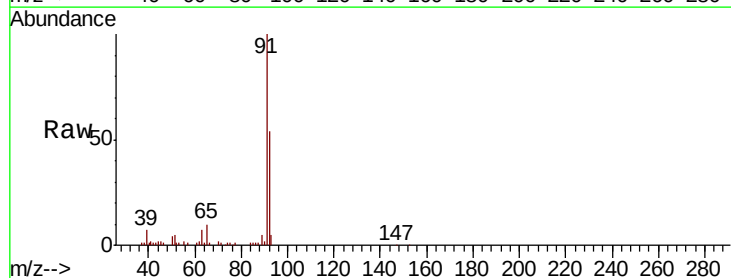
Acq: 18 Aug 2020 19:49

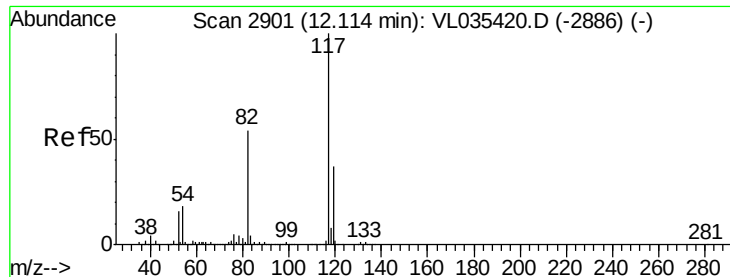
Tgt Ion: 91 Resp: 113084

Ion Ratio Lower Upper

91 100

92 57.4 49.1 73.7

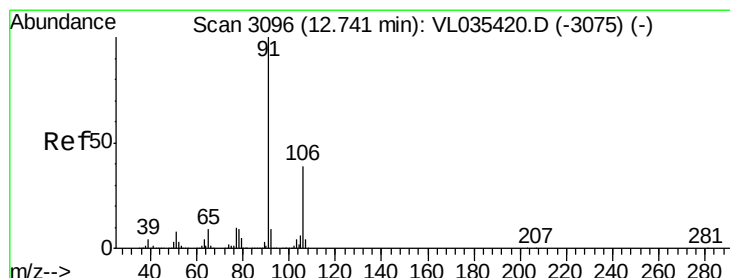
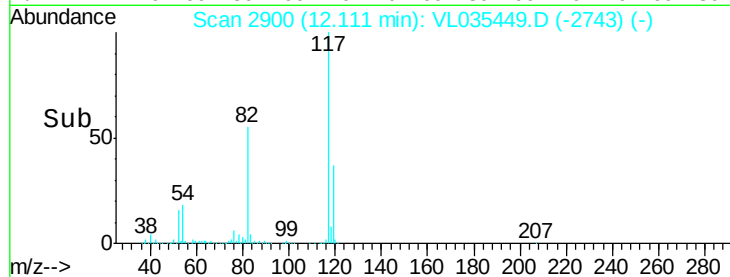
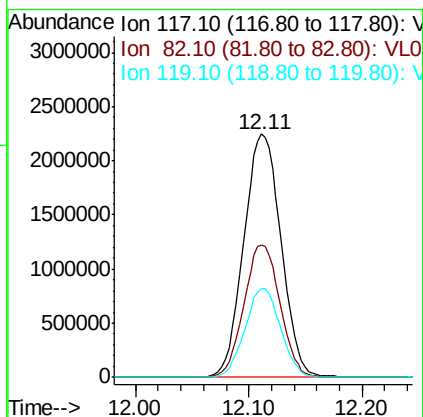
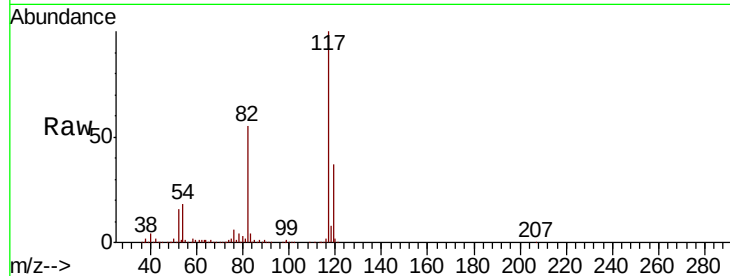




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2900
Delta R.T. 0.00 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

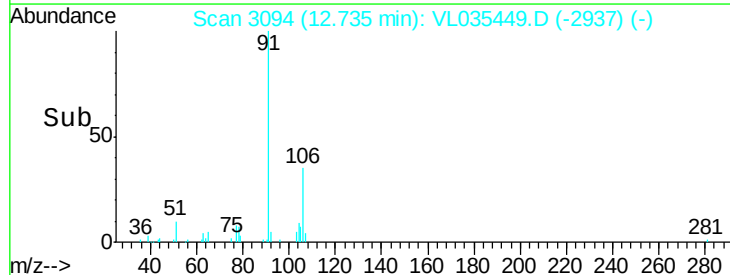
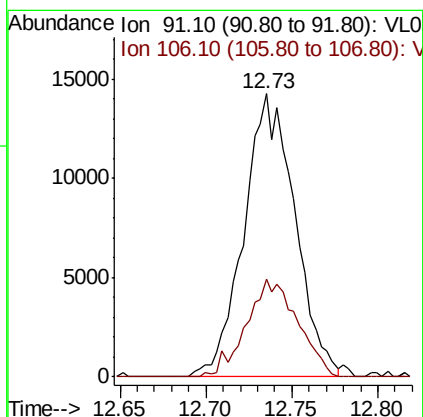
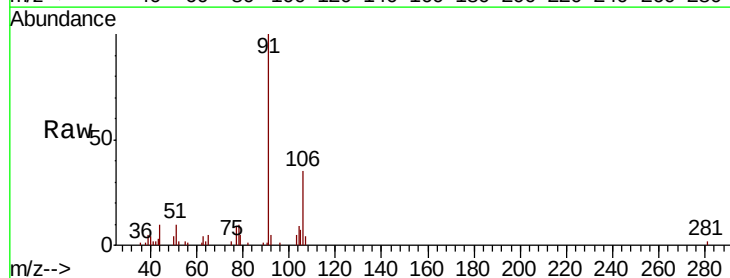
Instrument :
MSVOA_L
ClientSampled :

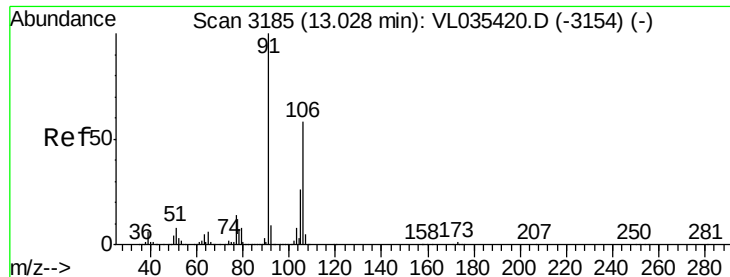
Tot Ion:117 Resp: 5140736
Ion Ratio Lower Upper
117 100
82 53.1 57.4 86.0#
119 35.4 28.4 42.6



#58
Ethyl Benzene
Concen: 0.047 ppbv
RT: 12.73 min Scan# 3094
Delta R.T. 0.00 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

Tgt Ion: 91 Resp: 29336
Ion Ratio Lower Upper
91 100
106 34.6 24.1 36.1

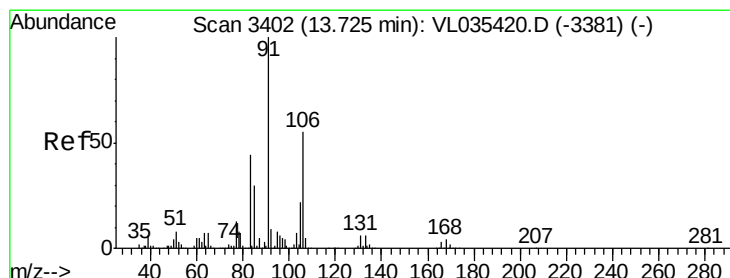
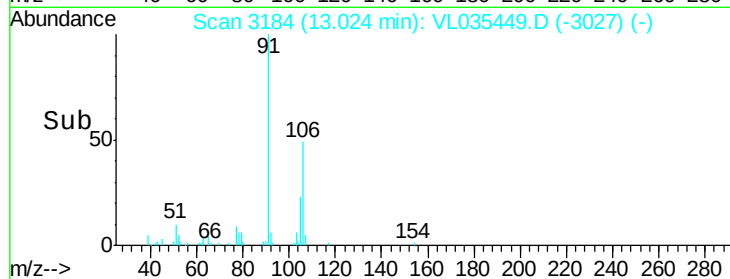
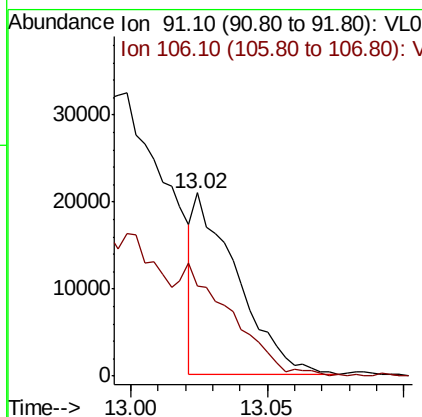
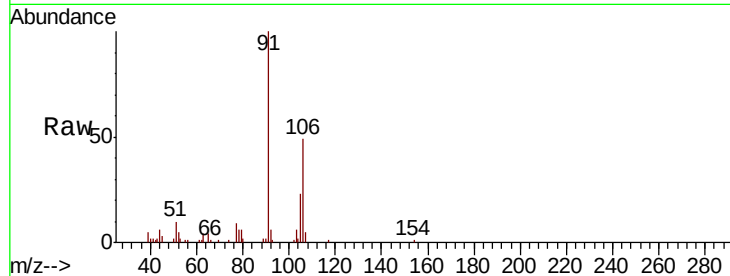




#59
m/p-Xylene
Concen: 0.043 ppbv
RT: 13.02 min Scan# 3184
Delta R.T. 0.00 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

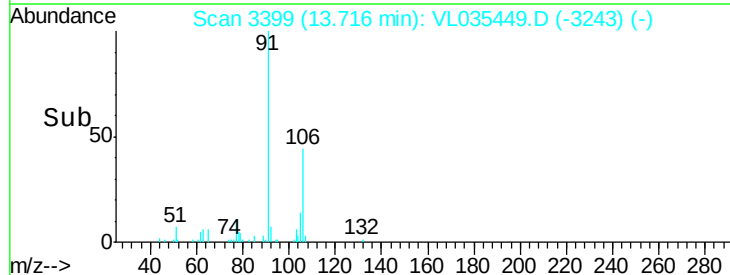
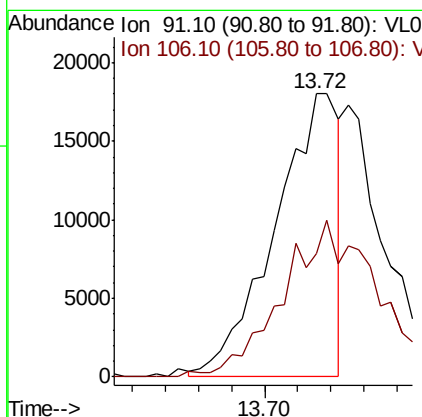
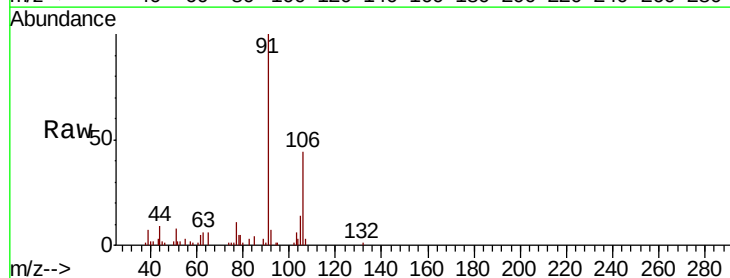
Instrument :
MSVOA_L
ClientSampleId :

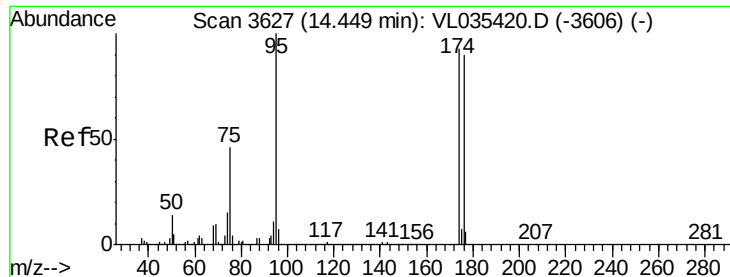
Tot Ion: 91 Resp: 22783
Ion Ratio Lower Upper
91 100
106 0.0 34.0 51.0#



#60
o-Xylene
Concen: 0.047 ppbv
RT: 13.72 min Scan# 3399
Delta R.T. 0.00 min
Lab File: VL035449.D
Acq: 18 Aug 2020 19:49

Tgt Ion: 91 Resp: 24138
Ion Ratio Lower Upper
91 100
106 81.9 21.8 65.3#





#68

1-Bromo-4-Fluorobenzene

Concen: 10.358 ppbv

RT: 14.45 min Scan# 3626

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

ClientSampleId :

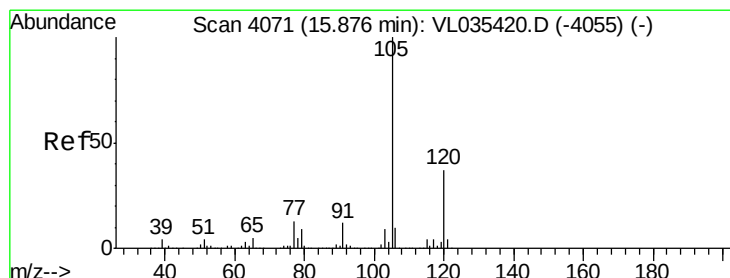
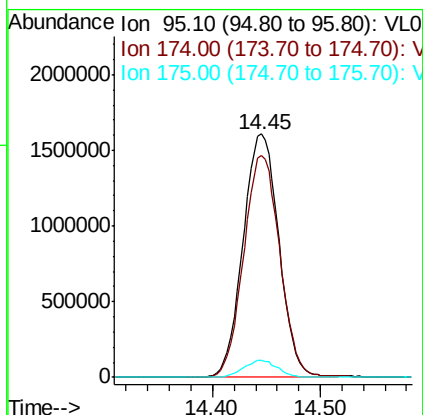
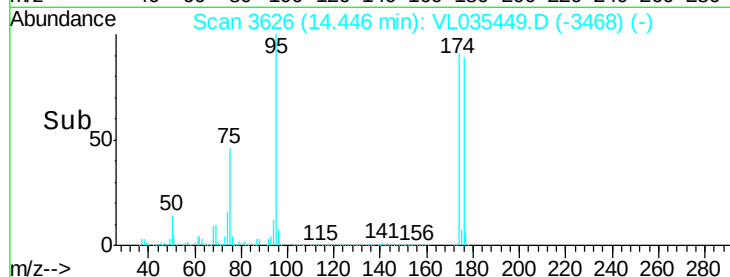
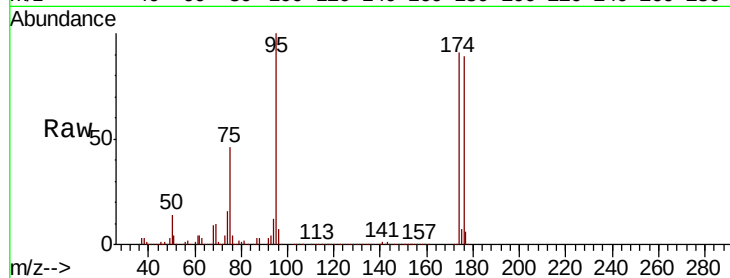
Tot Ion: 95 Resp: 3727767

Ion Ratio Lower Upper

95 100

174 92.3 44.0 66.0#

175 6.7 3.2 4.8#



#72

4-Ethyltoluene

Concen: 0.032 ppbv

RT: 15.87 min Scan# 4068

Delta R.T. 0.00 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Tgt Ion: 105 Resp: 21659

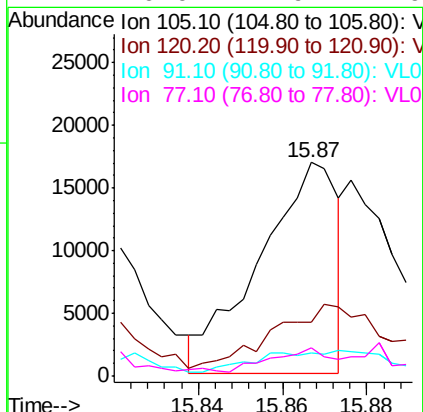
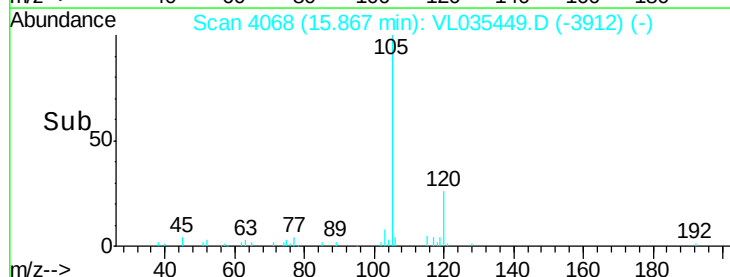
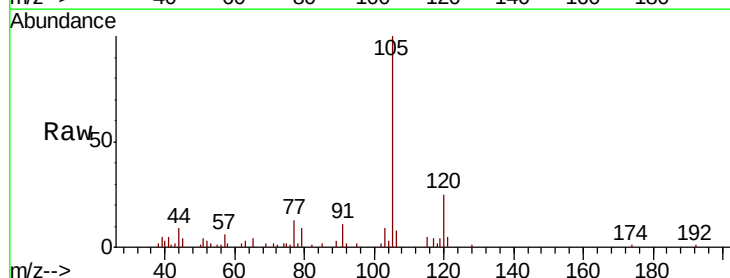
Ion Ratio Lower Upper

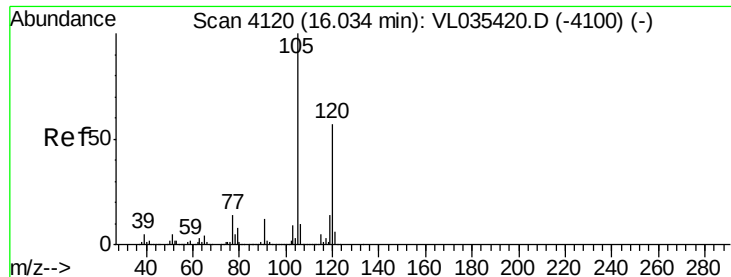
105 100

120 52.6 22.7 34.1#

91 0.0 10.8 16.2#

77 0.0 11.9 17.9#





#73

1,3,5-Trimethylbenzene

Concen: 0.055 ppbv

RT: 16.02 min Scan# 4117

Delta R.T. -0.00 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

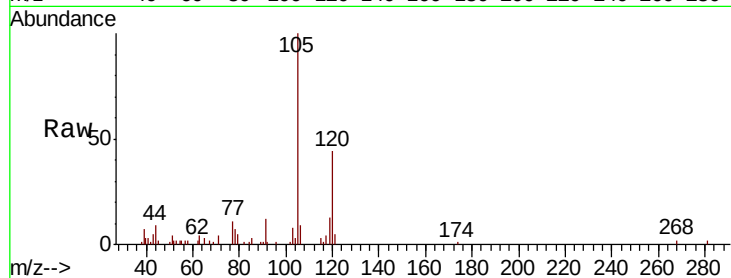
ClientSampleId :

Tot Ion:105 Resp: 34210

Ion Ratio Lower Upper

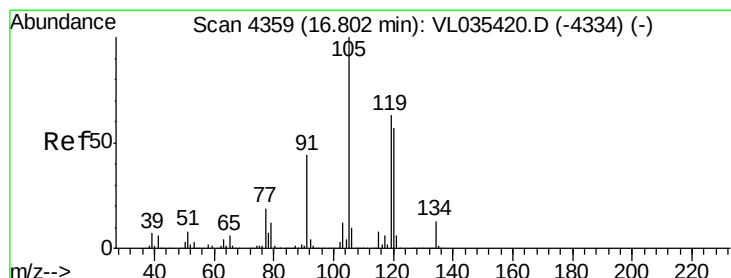
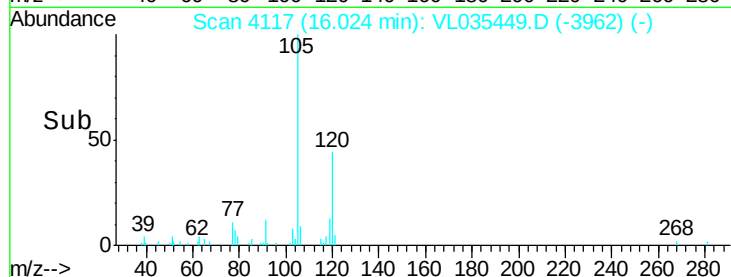
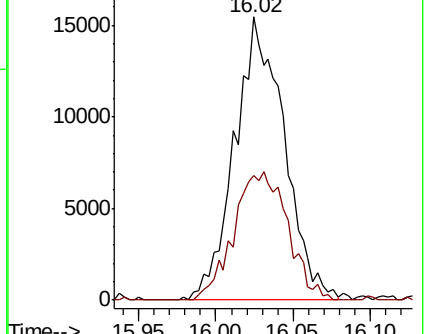
105 100

120 44.1 35.6 53.4



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.096 ppbv

RT: 16.80 min Scan# 4358

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Tgt Ion:105 Resp: 65177

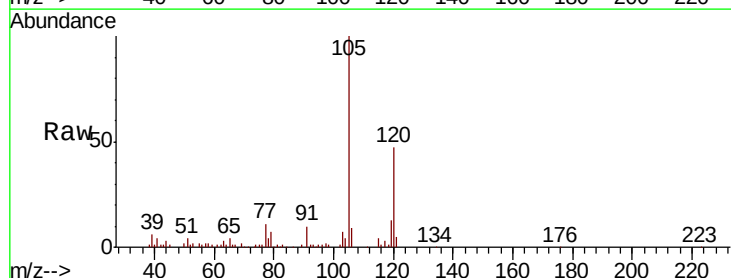
Ion Ratio Lower Upper

105 100

120 47.0 37.8 56.8

91 9.2 40.0 60.0#

77 11.5 18.8 28.2#

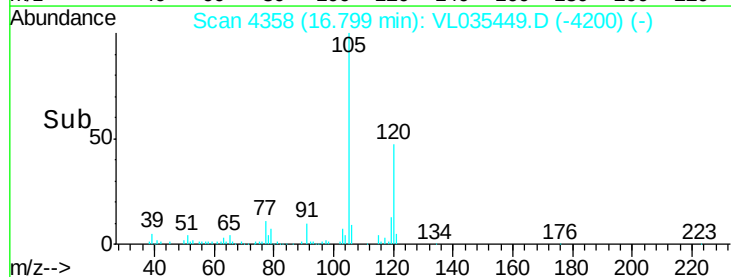
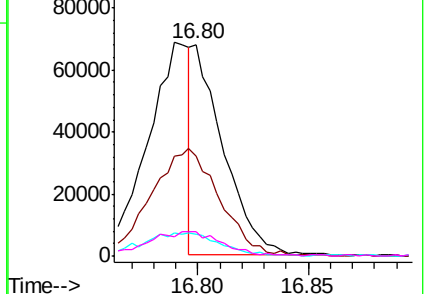


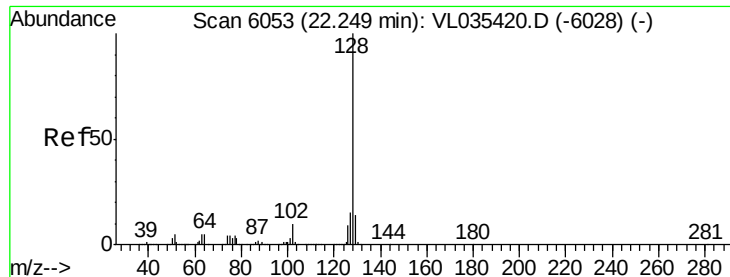
Abundance Ion 105.10 (104.80 to 105.80): V

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





#79

Naphthalene

Concen: 0.078 ppbv

RT: 22.25 min Scan# 6053

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

Instrument :

MSVOA_L

ClientSampleId :

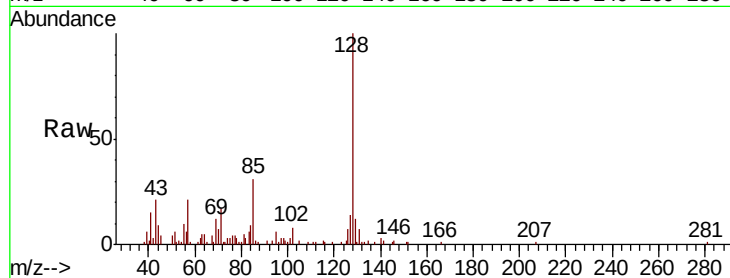
Tot Ion:128 Resp: 74145

Ion Ratio Lower Upper

128 100

127 13.9 11.4 17.0

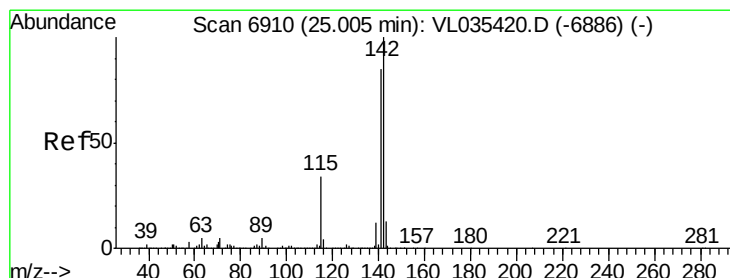
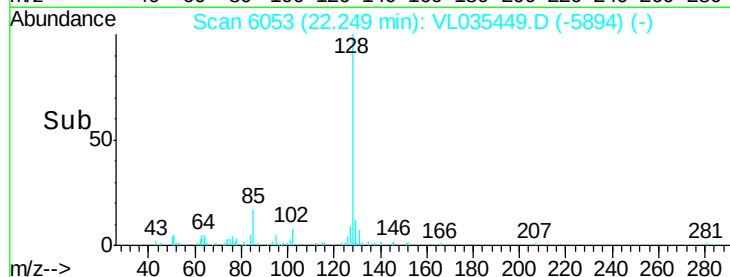
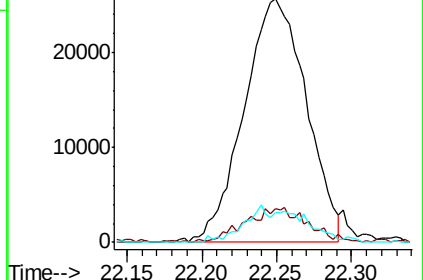
129 12.0 9.5 14.3



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: 0.047 ppbv

RT: 25.01 min Scan# 6911

Delta R.T. 0.01 min

Lab File: VL035449.D

Acq: 18 Aug 2020 19:49

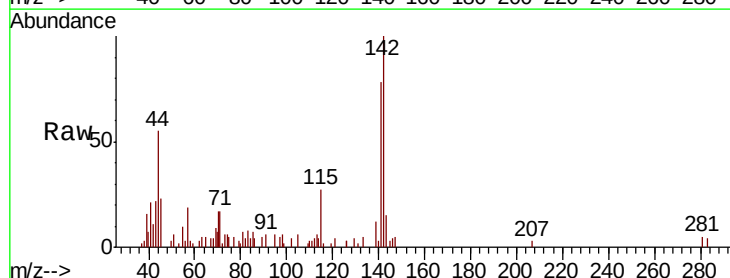
Tgt Ion:142 Resp: 18353

Ion Ratio Lower Upper

142 100

141 83.1 67.1 100.7

115 41.8 36.1 54.1



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

