

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX011620\
 Data File : VX014640.D
 Acq On : 16 Jan 2020 15:57
 Operator : JC/SP
 Sample : L1160-01
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 400115760.2

Quant Time: Jan 17 05:56:57 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X011520W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Jan 15 12:41:12 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.01	128	71197	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.85	114	391396	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	344800	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.06	65	151065	30.19	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	100.63%
60) 4-Bromofluorobenzene	11.13	95	159013	28.82	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	96.07%
63) Toluene-d8	8.71	98	467626	30.03	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	100.10%

Target Compounds

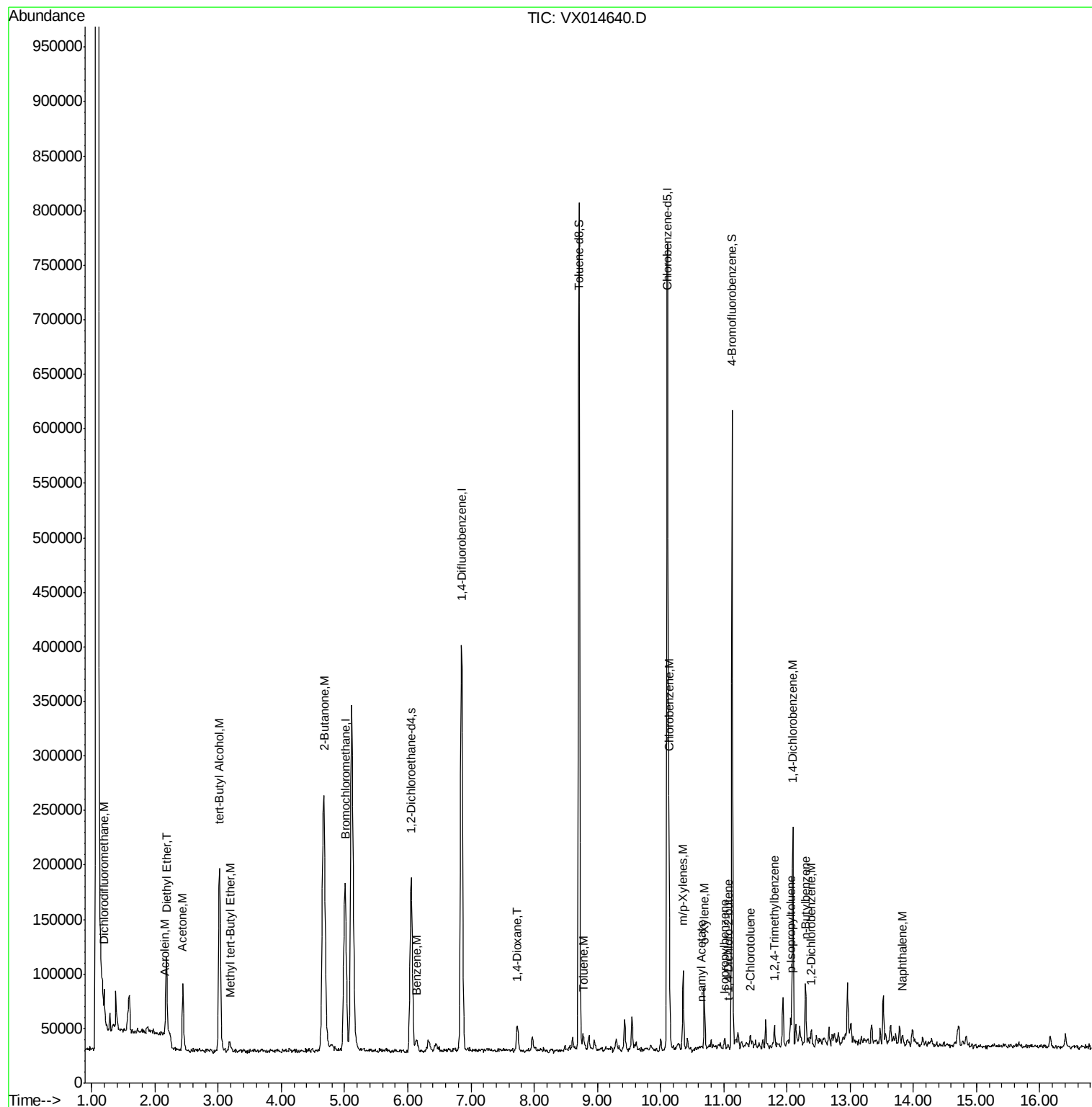
					Ovalue
2) Dichlorodifluoromethane	1.19	85	1068	0.217 ug/l	79
8) Diethyl Ether	2.18	74	24334	8.318 ug/l	98
13) Acrolein	2.16	56	305	0.408 ug/l	94
15) Acetone	2.43	58	1634	2.001 ug/l	91
23) tert-Butyl Alcohol	3.02	59	202020	200.510 ug/l #	100
24) Methyl tert-Butyl Ether	3.19	73	8163	0.622 ug/l	99
30) 2-Butanone	4.67	43	14790	4.067 ug/l #	81
34) Benzene	6.14	78	12075	0.681 ug/l	96
45) 1,4-Dioxane	7.73	88	18095	170.356 ug/l	96
47) n-amyl Acetate	10.64	43	1969	0.221 ug/l	96
62) Toluene	8.78	91	4899	0.268 ug/l	89
64) Chlorobenzene	10.14	112	86207	7.549 ug/l	95
67) m/p-Xylenes	10.36	106	14657	1.920 ug/l	99
68) o-Xylene	10.70	106	13469	1.812 ug/l	97
70) Isopropylbenzene	11.01	105	4926	0.253 ug/l	91
75) 2-Chlorotoluene	11.42	91	5437	0.408 ug/l	100
77) t-1,4-Dichloro-2-butene	11.06	75	466	0.216 ug/l #	43
80) 1,2,4-Trimethylbenzene	11.80	105	9608	0.594 ug/l	93
82) p-Isopropyltoluene	12.06	119	4676	0.273 ug/l	91
84) 1,4-Dichlorobenzene	12.09	146	66468	7.439 ug/l	98
85) n-Butylbenzene	12.29	91	4017	0.268 ug/l	53
87) 1,2-Dichlorobenzene	12.39	146	4697	0.517 ug/l	99
91) Naphthalene	13.83	128	4632	0.256 ug/l #	90

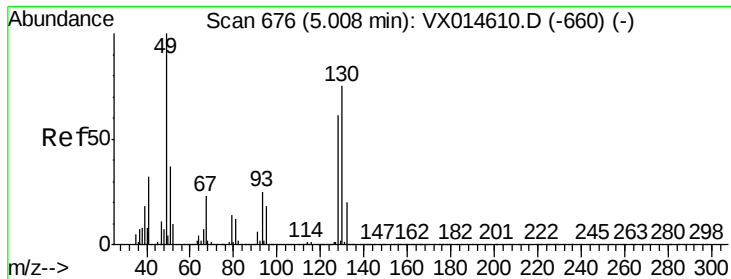
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Jan 17 05:56:57 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X011520W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Jan 15 12:41:12 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.01 min Scan# 676

Delta R.T. 0.01 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

400115760.2

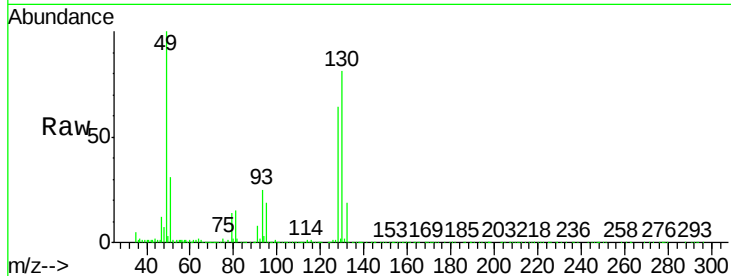
Tot Ion:128 Resp: 71197

Ion Ratio Lower Upper

128 100

49 158.2 0.0 405.0

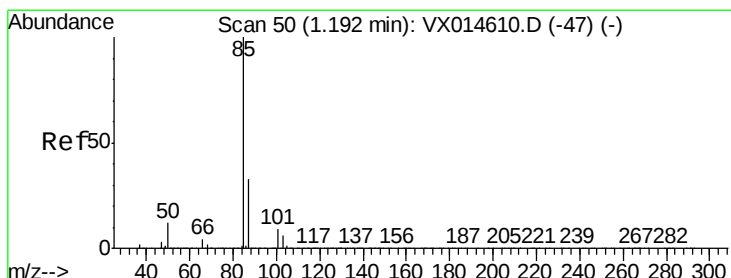
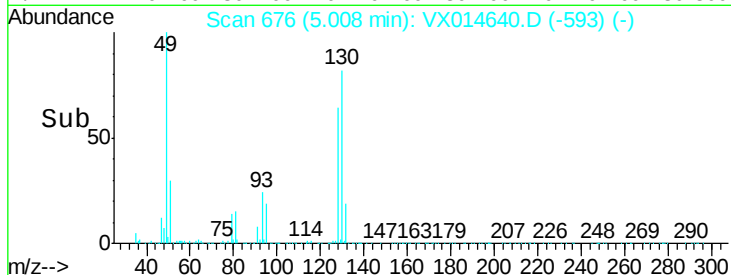
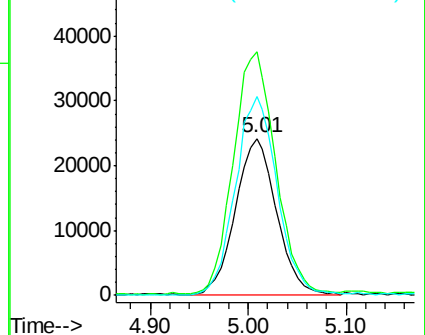
130 127.4 0.0 321.5



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.217 ug/l

RT: 1.19 min Scan# 50

Delta R.T. 0.00 min

Lab File: VX014640.D

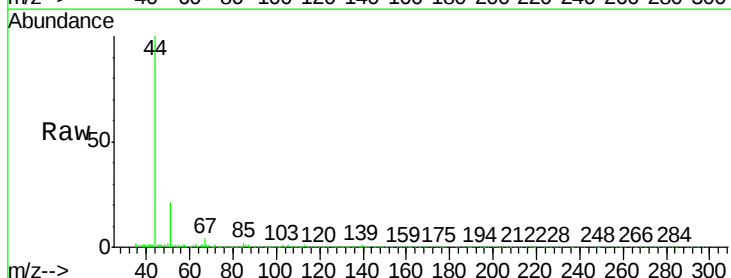
Acq: 16 Jan 2020 15:57

Tgt Ion: 85 Resp: 1068

Ion Ratio Lower Upper

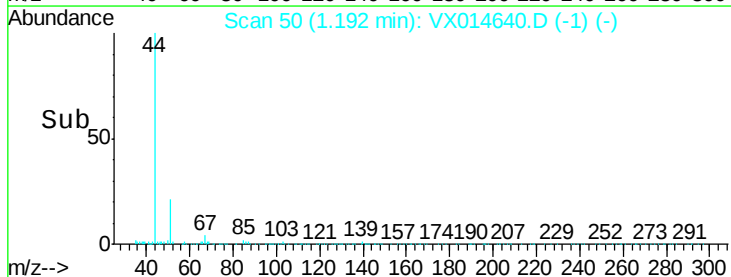
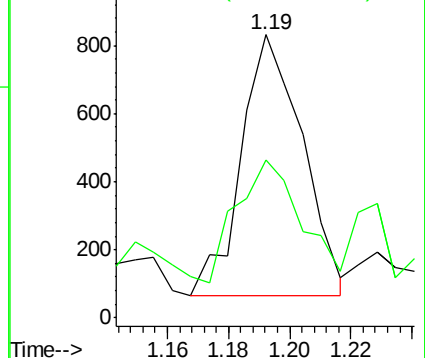
85 100

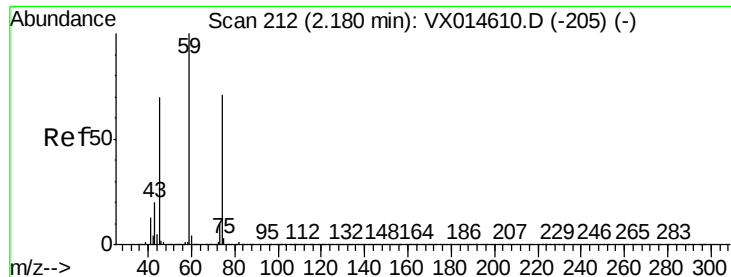
87 44.3 16.3 48.9



Abundance Ion 85.00 (84.70 to 85.70): VX0

Ion 87.00 (86.70 to 87.70): VX0





#8

Diethyl Ether

Concen: 8.318 ug/l

RT: 2.18 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

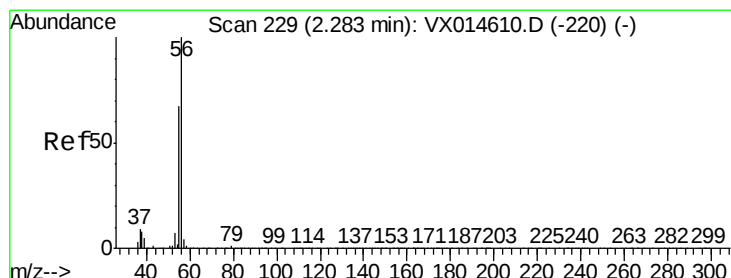
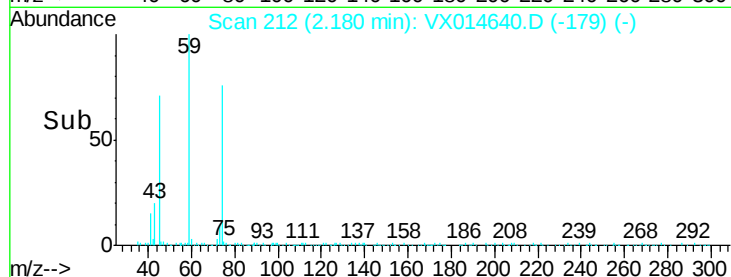
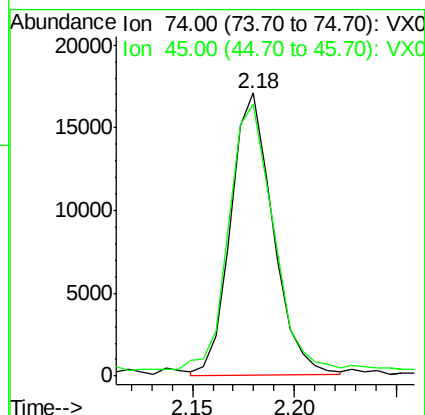
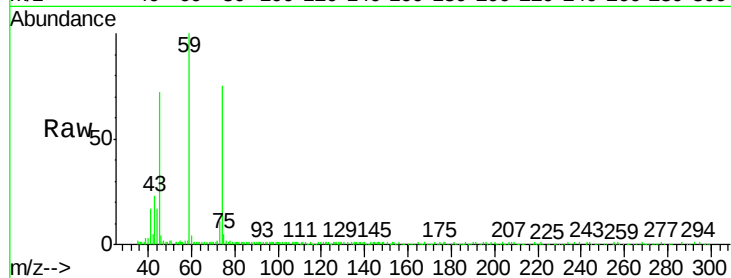
400115760.2

Tot Ion: 74 Resp: 24334

Ion Ratio Lower Upper

74 100

45 100.7 20.6 185.0



#13

Acrolein

Concen: 0.408 ug/l

RT: 2.16 min Scan# 208

Delta R.T. -0.13 min

Lab File: VX014640.D

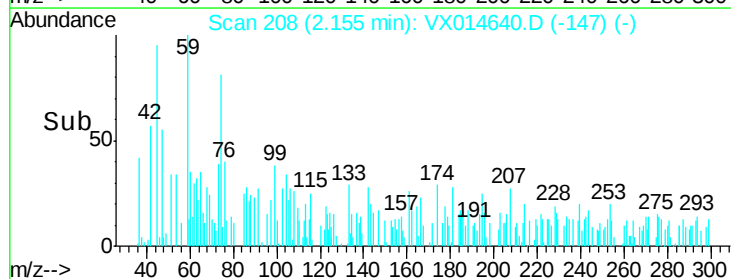
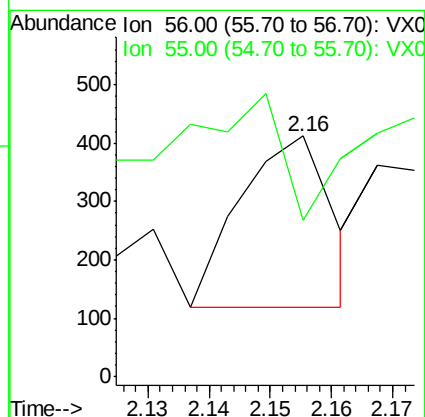
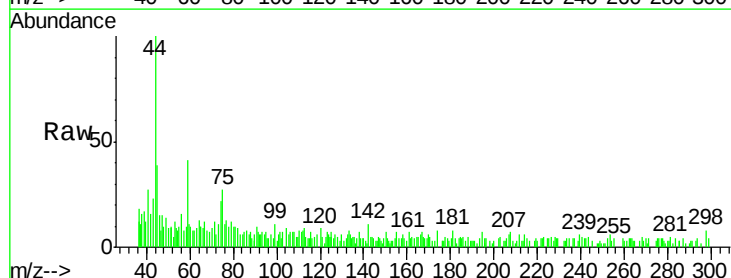
Acq: 16 Jan 2020 15:57

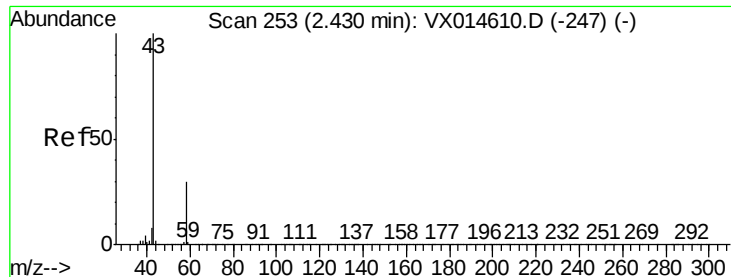
Tgt Ion: 56 Resp: 305

Ion Ratio Lower Upper

56 100

55 63.6 54.9 82.3





#15

Acetone

Concen: 2.001 ug/l

RT: 2.43 min Scan# 253

Delta R.T. -0.01 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampled :

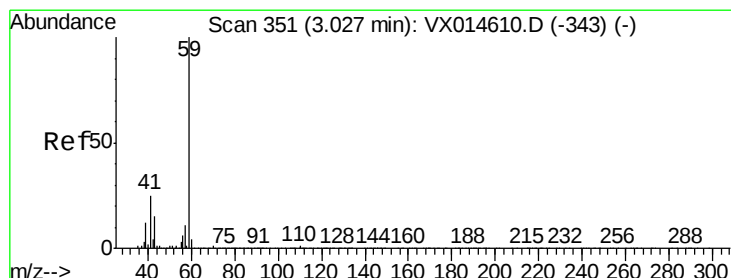
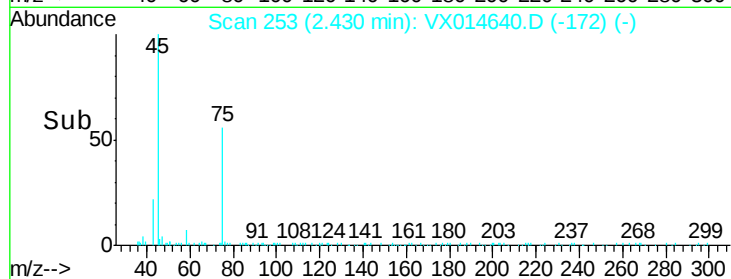
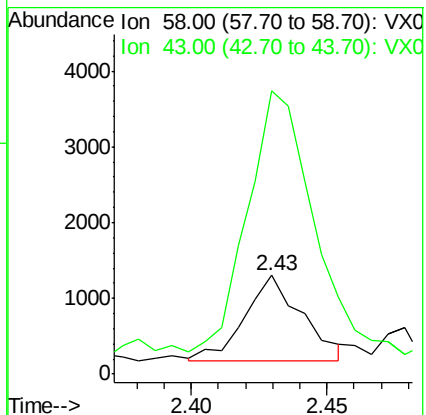
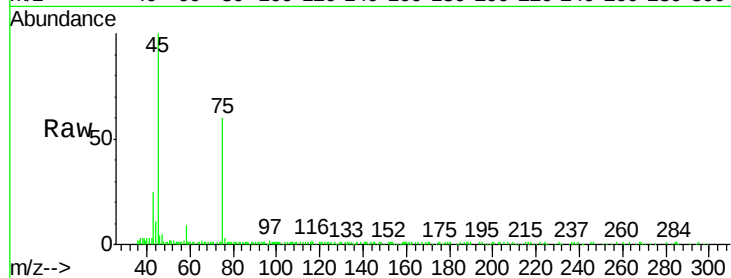
400115760.2

Tot Ion: 58 Resp: 1634

Ion Ratio Lower Upper

58 100

43 313.0 236.3 354.5



#23

tert-Butyl Alcohol

Concen: 200.510 ug/l

RT: 3.02 min Scan# 350

Delta R.T. -0.02 min

Lab File: VX014640.D

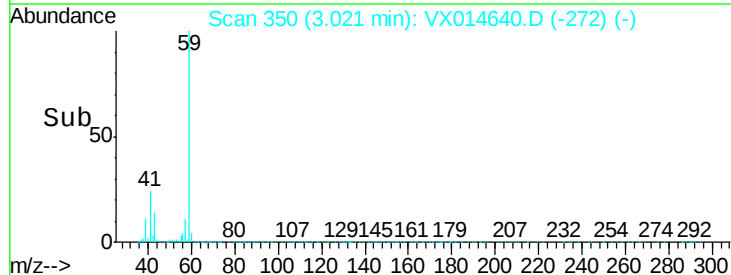
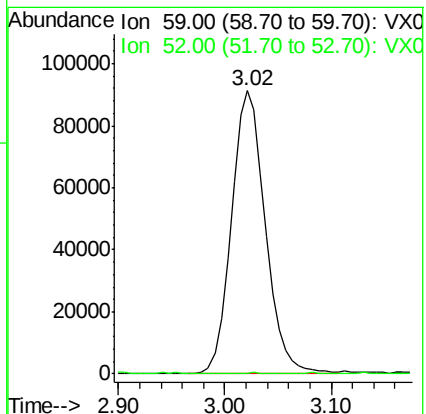
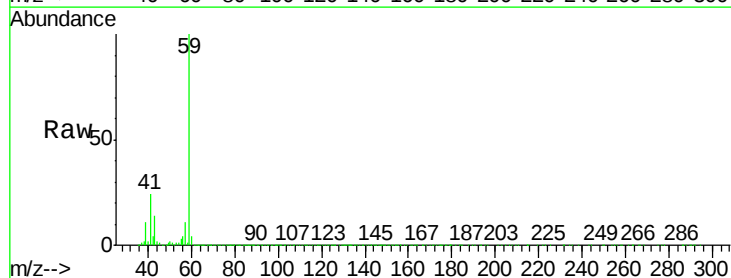
Acq: 16 Jan 2020 15:57

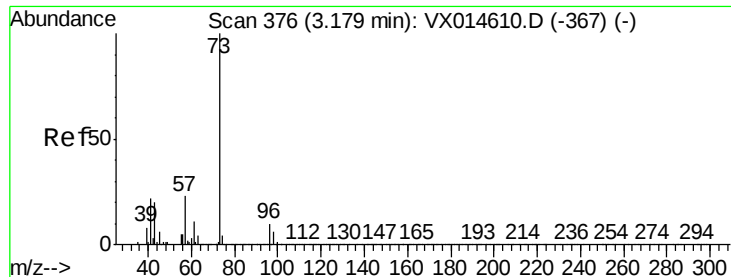
Tgt Ion: 59 Resp: 202020

Ion Ratio Lower Upper

59 100

52 0.1 0.2 0.2#



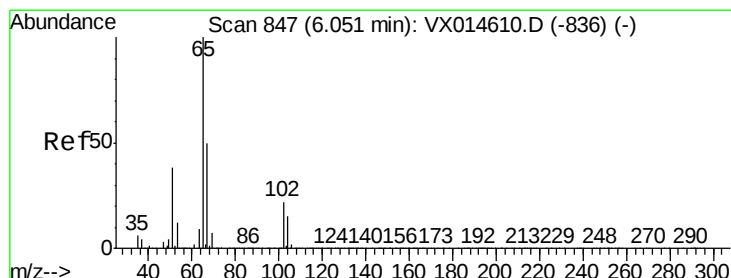
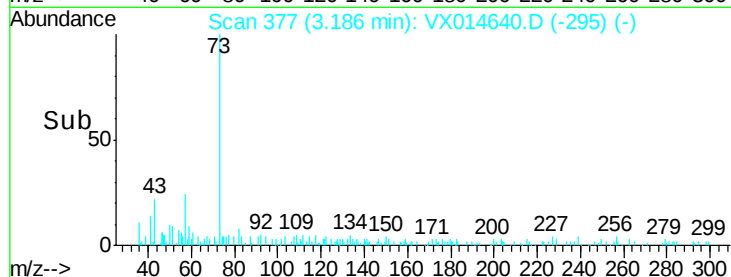
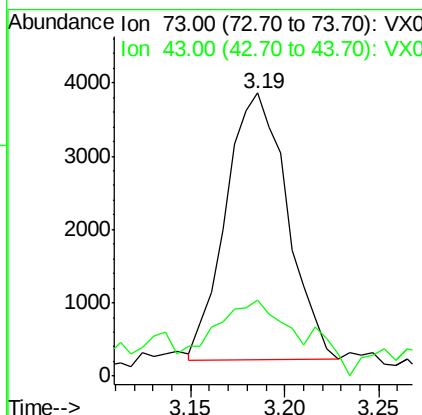
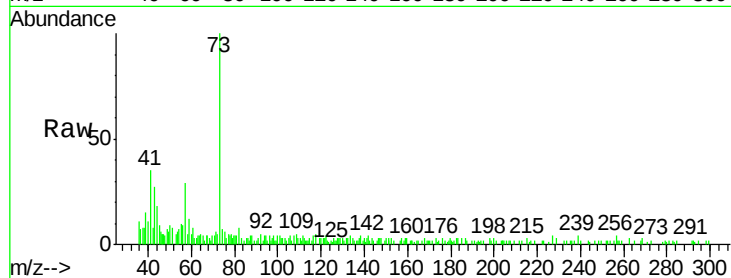


#24

Methyl tert-Butyl Ether
 Concen: 0.622 ug/l
 RT: 3.19 min Scan# 377
 Delta R.T. 0.00 min
 Lab File: VX014640.D
 Acq: 16 Jan 2020 15:57

Instrument :
 MSVOA_X
 ClientSampleId :
 400115760.2

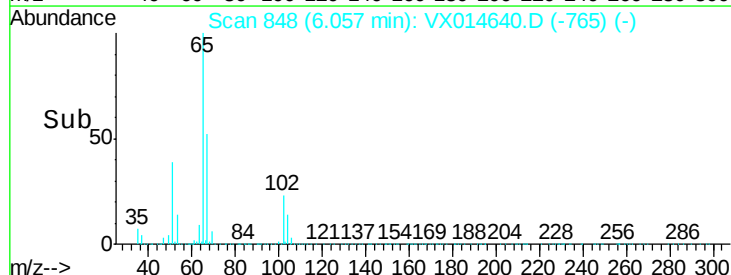
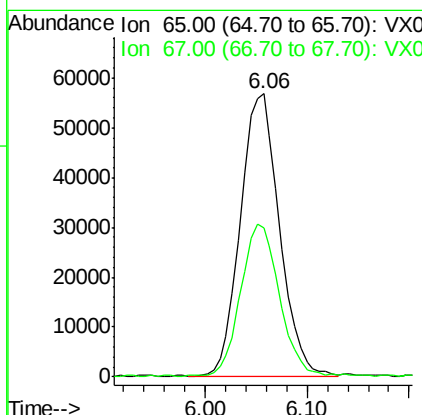
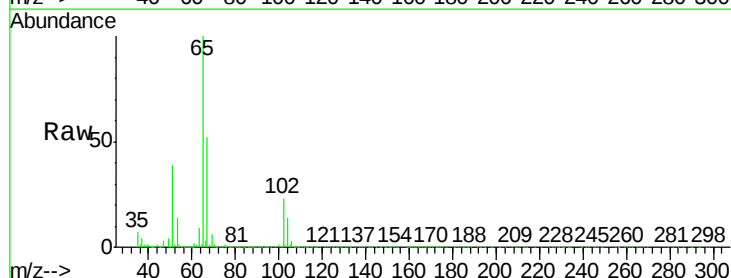
Tot Ion: 73 Resp: 8163
 Ion Ratio Lower Upper
 73 100
 43 21.3 16.6 25.0

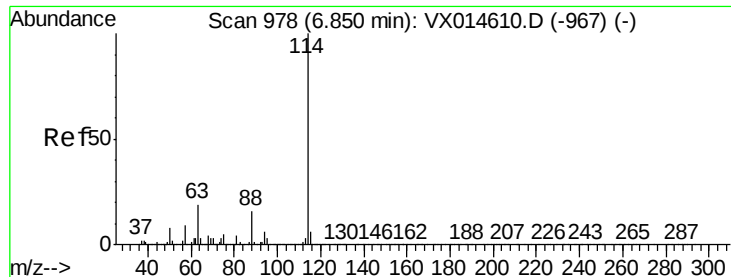


#27

1,2-Dichloroethane-d4
 Concen: 30.187 ug/l
 RT: 6.06 min Scan# 848
 Delta R.T. 0.01 min
 Lab File: VX014640.D
 Acq: 16 Jan 2020 15:57

Tgt Ion: 65 Resp: 151065
 Ion Ratio Lower Upper
 65 100
 67 53.2 43.1 64.7





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

400115760.2

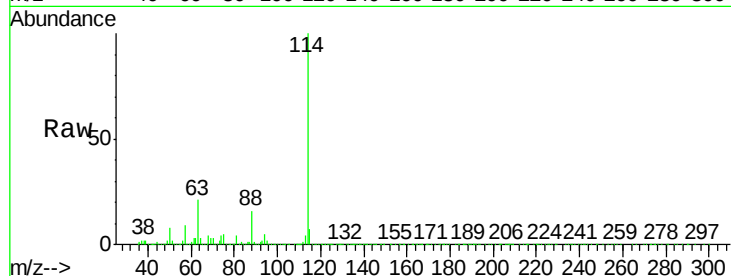
Tot Ion:114 Resp: 391396

Ion Ratio Lower Upper

114 100

63 20.1 16.1 24.1

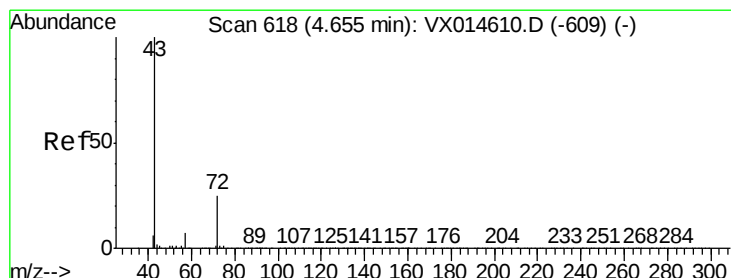
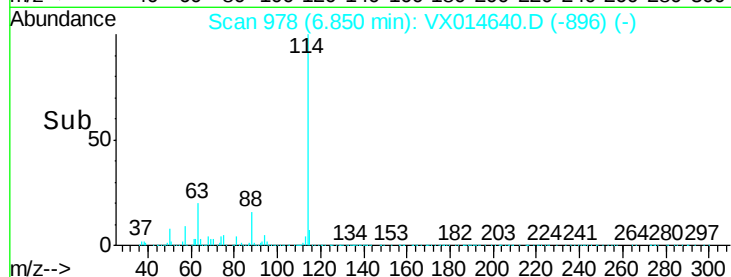
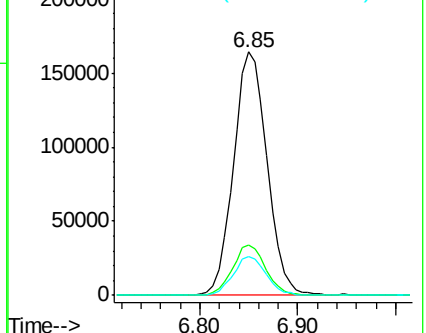
88 15.4 12.5 18.7



Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 88.00 (87.70 to 88.70): VX0



#30

2-Butanone

Concen: 4.067 ug/l

RT: 4.67 min Scan# 620

Delta R.T. 0.01 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

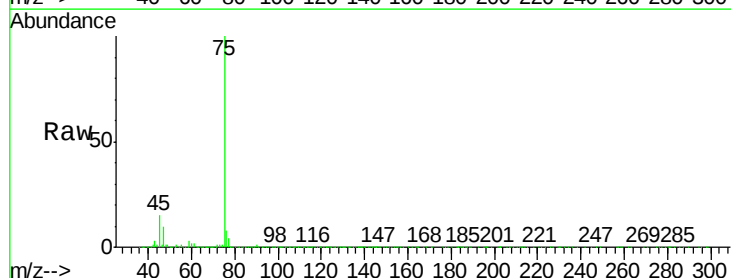
Tgt Ion: 43 Resp: 14790

Ion Ratio Lower Upper

43 100

57 6.6 6.2 9.2

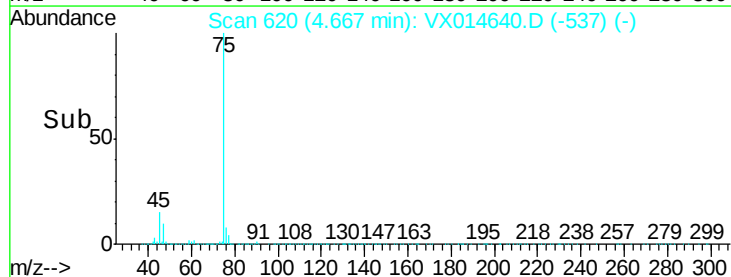
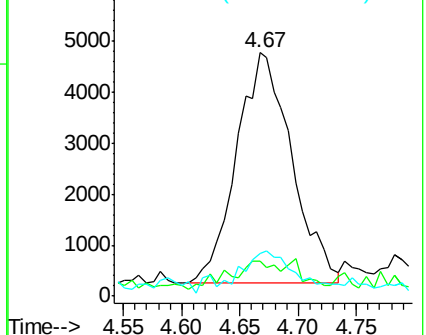
72 13.2 20.3 30.5#

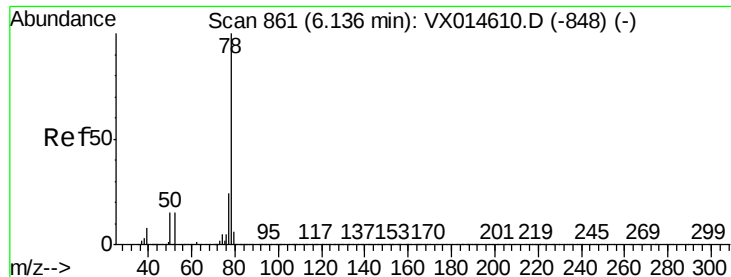


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

Ion 72.00 (71.70 to 72.70): VX0





#34

Benzene

Concen: 0.681 ug/l

RT: 6.14 min Scan# 862

Delta R.T. 0.01 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

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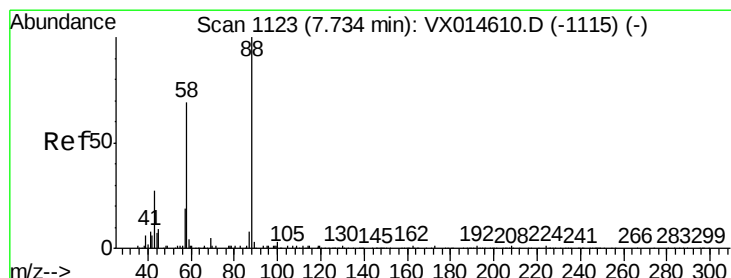
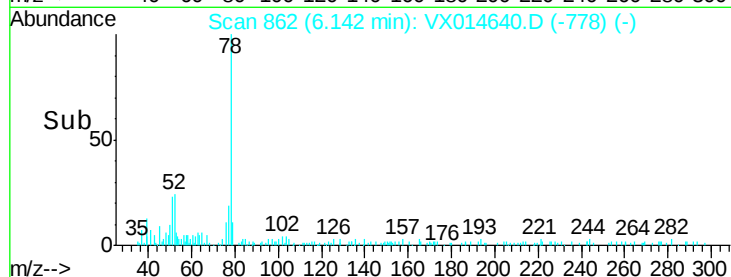
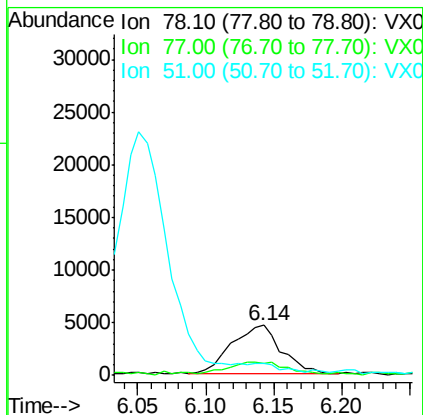
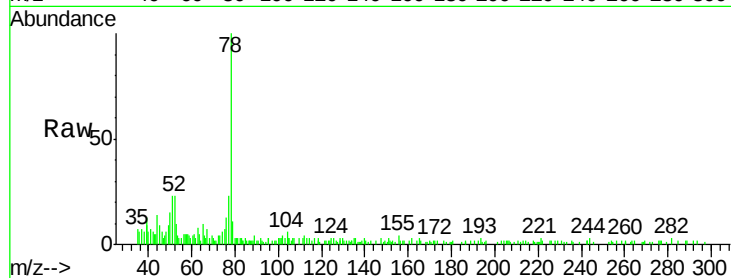
Tot Ion: 78 Resp: 12075

Ion Ratio Lower Upper

78 100

77 19.3 18.2 27.2

51 15.7 12.4 18.6



#45

1,4-Dioxane

Concen: 170.356 ug/l

RT: 7.73 min Scan# 1123

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

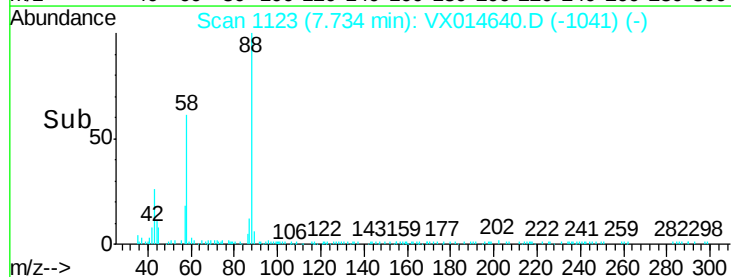
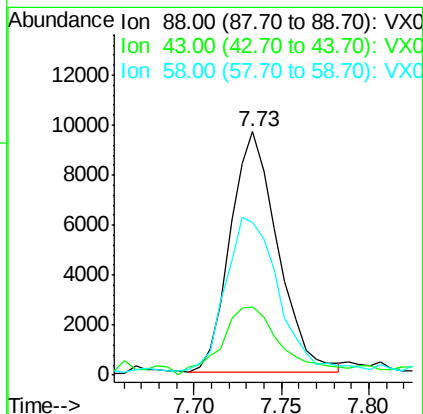
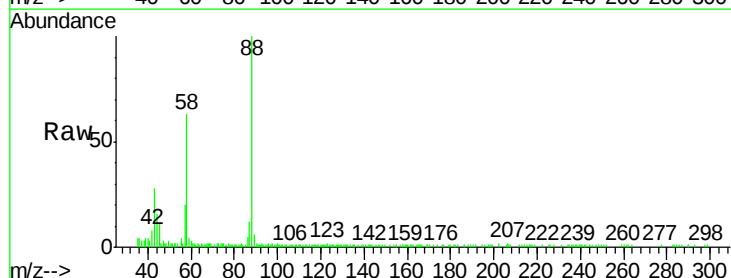
Tgt Ion: 88 Resp: 18095

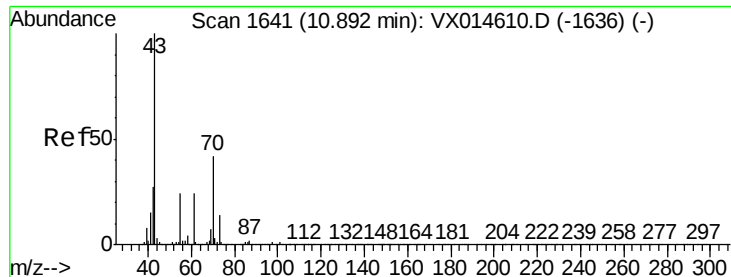
Ion Ratio Lower Upper

88 100

43 36.3 25.4 38.2

58 69.2 56.5 84.7





#47

n-amvl Acetate

Concen: 0.221 ug/l

RT: 10.64 min Scan# 1600

Delta R.T. -0.25 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampled :

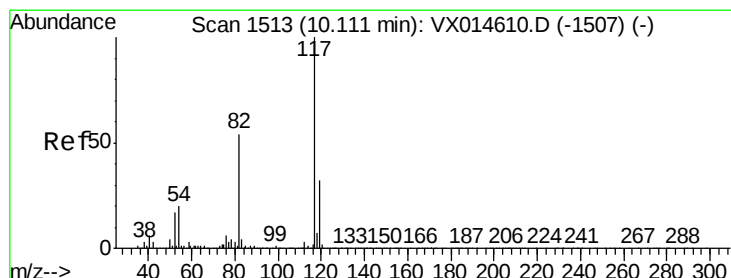
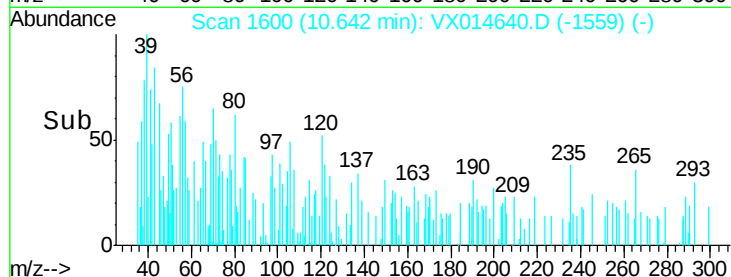
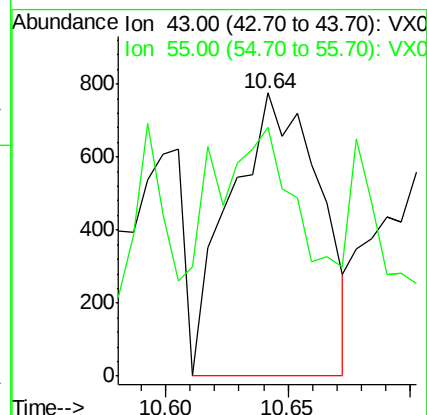
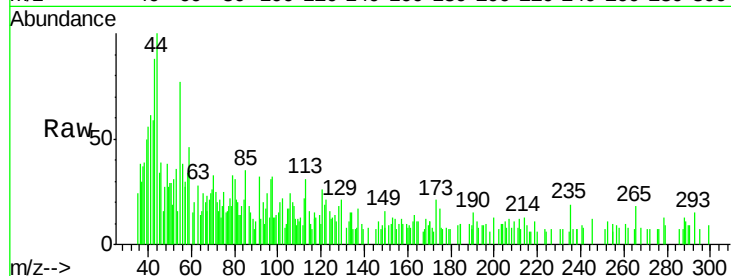
400115760.2

Tot Ion: 43 Resp: 1969

Ion Ratio Lower Upper

43 100

55 26.5 19.4 29.2



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

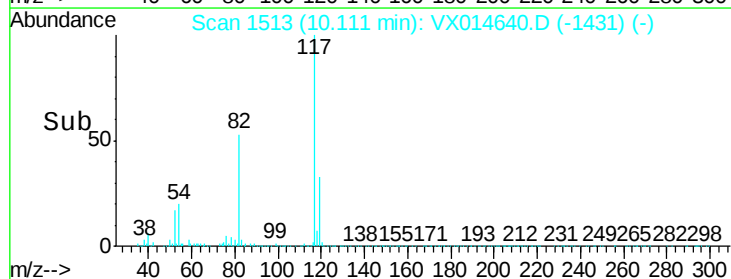
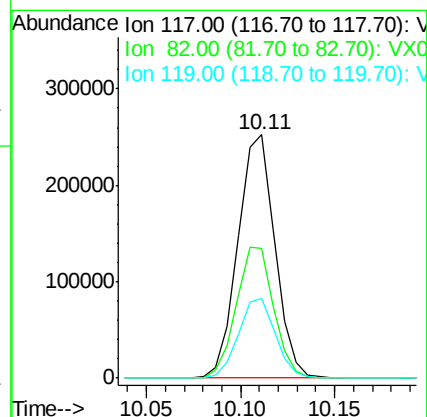
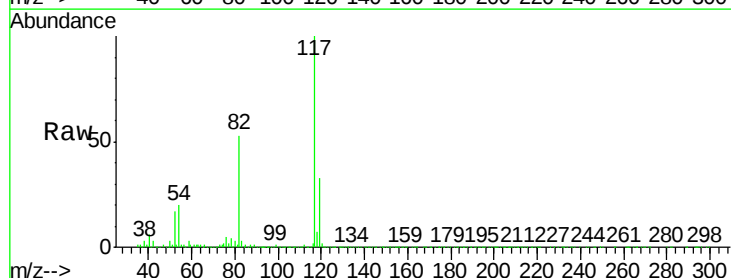
Tgt Ion: 117 Resp: 344800

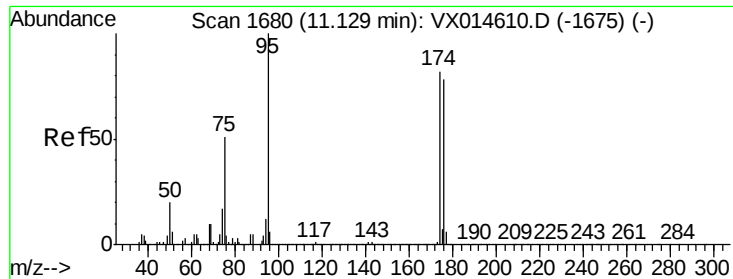
Ion Ratio Lower Upper

117 100

82 54.3 43.8 65.6

119 32.7 25.8 38.6

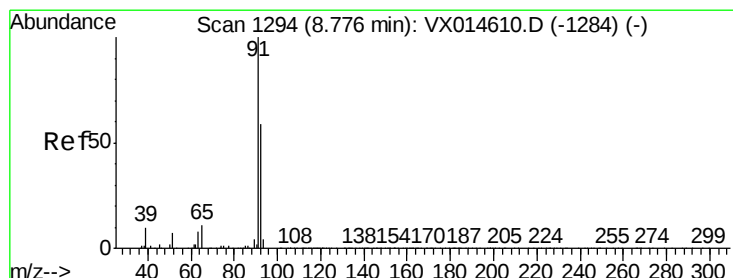
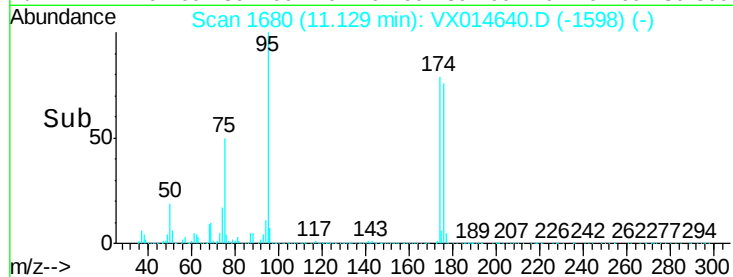
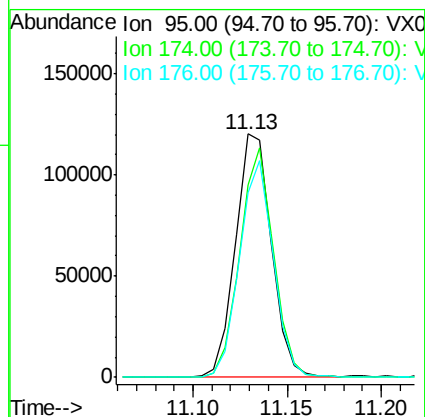
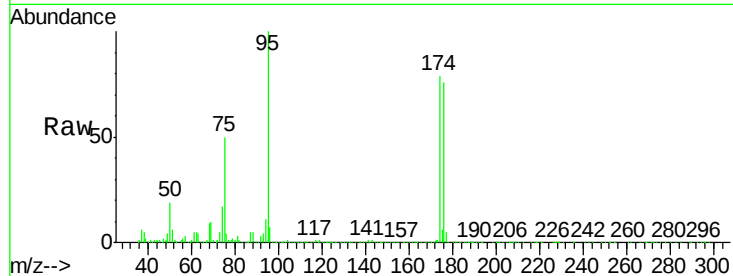




#60
4-Bromofluorobenzene
Concen: 28.820 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. 0.00 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

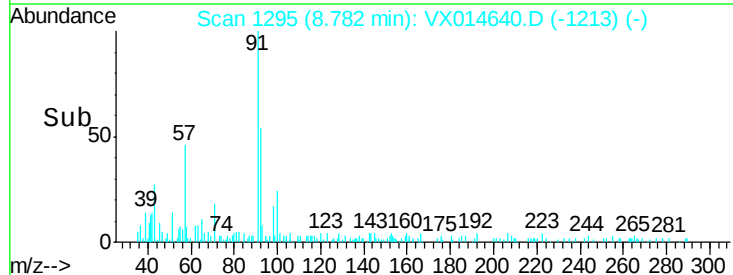
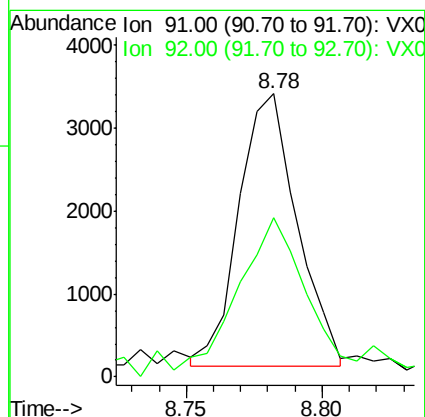
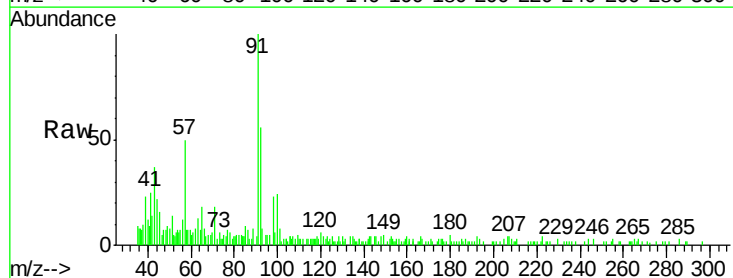
Instrument :
MSVOA_X
ClientSampleId :
400115760.2

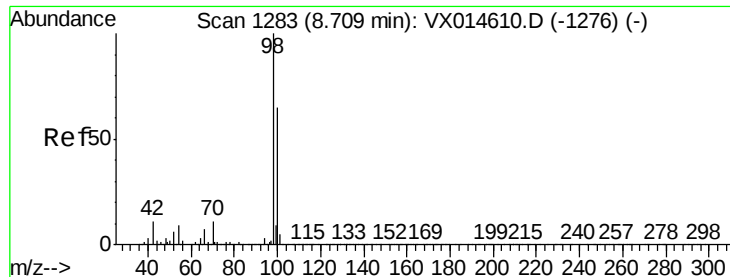
Tot Ion	Ratio	Lower	Upper
95	100		
174	88.6	70.2	105.2
176	83.8	68.3	102.5



#62
Toluene
Concen: 0.268 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

Tgt Ion	Ratio	Lower	Upper
91	100		
92	66.2	46.4	69.6





#63

Toluene-d8

Concen: 30.025 ug/l

RT: 8.71 min Scan# 1283

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

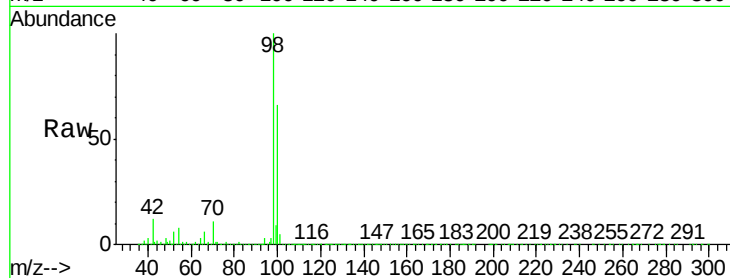
400115760.2

Tot Ion: 98 Resp: 467626

Ion Ratio Lower Upper

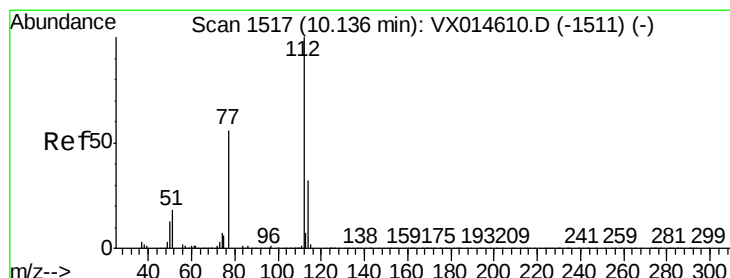
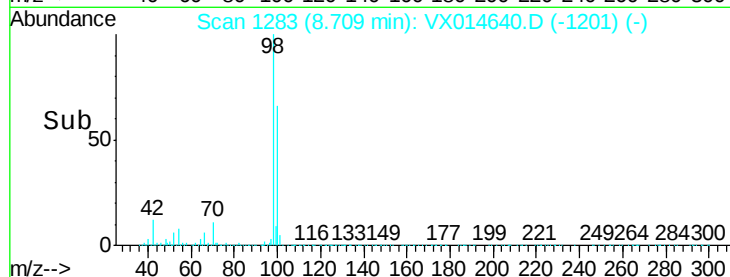
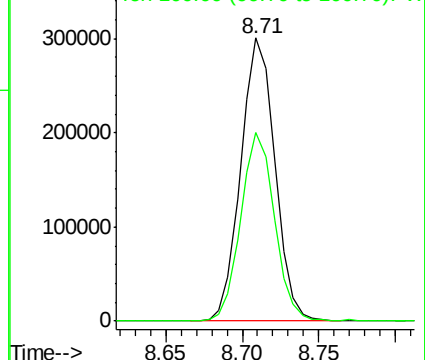
98 100

100 65.3 52.2 78.2



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V



#64

Chlorobenzene

Concen: 7.549 ug/l

RT: 10.14 min Scan# 1517

Delta R.T. 0.00 min

Lab File: VX014640.D

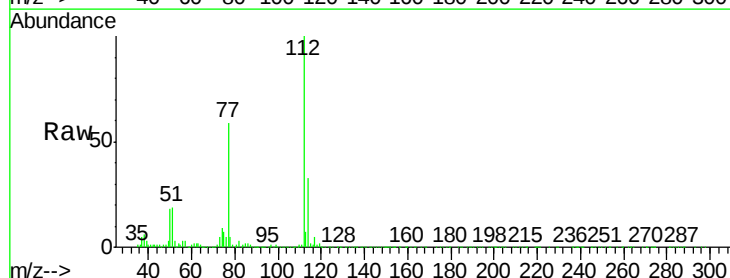
Acq: 16 Jan 2020 15:57

Tgt Ion: 112 Resp: 86207

Ion Ratio Lower Upper

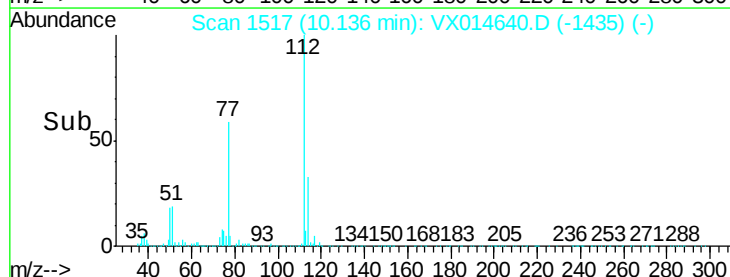
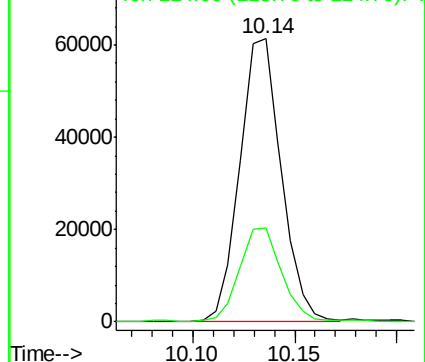
112 100

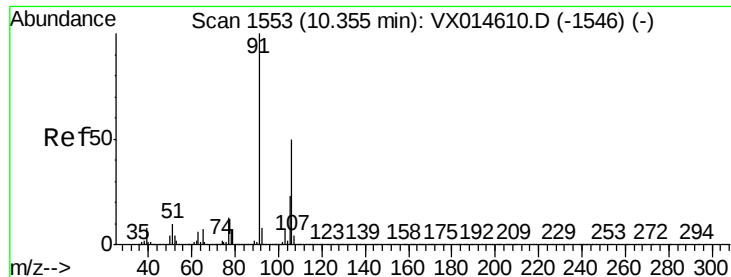
114 33.0 24.4 36.6



Abundance Ion 112.00 (111.70 to 112.70): V

Ion 114.00 (113.70 to 114.70): V





#67

m/p-Xylenes

Concen: 1.920 ug/l

RT: 10.36 min Scan# 1553

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

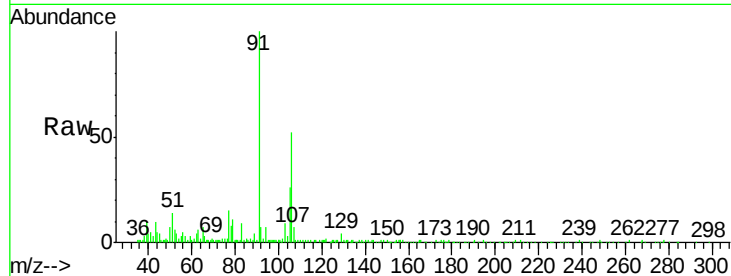
400115760.2

Tot Ion:106 Resp: 14657

Ion Ratio Lower Upper

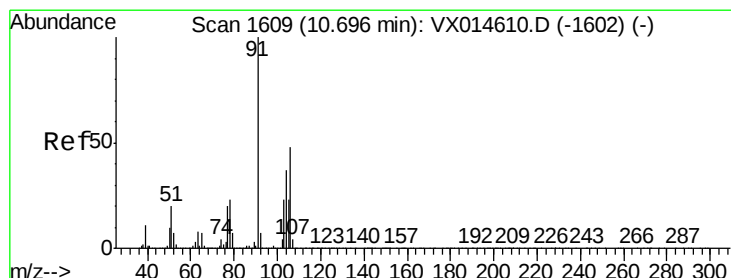
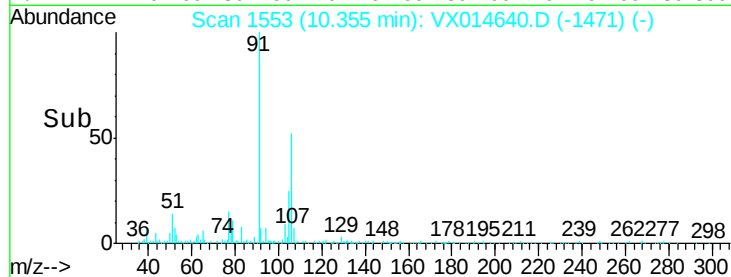
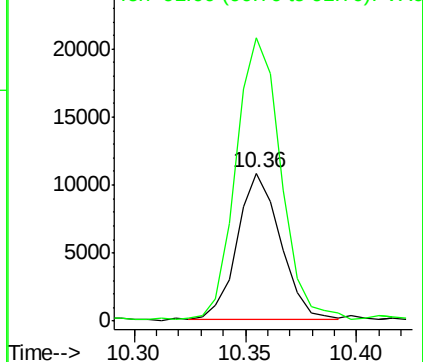
106 100

91 198.1 159.3 238.9



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0



#68

o-Xylene

Concen: 1.812 ug/l

RT: 10.70 min Scan# 1609

Delta R.T. 0.00 min

Lab File: VX014640.D

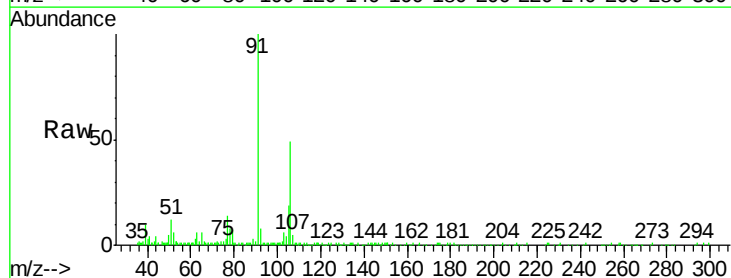
Acq: 16 Jan 2020 15:57

Tgt Ion:106 Resp: 13469

Ion Ratio Lower Upper

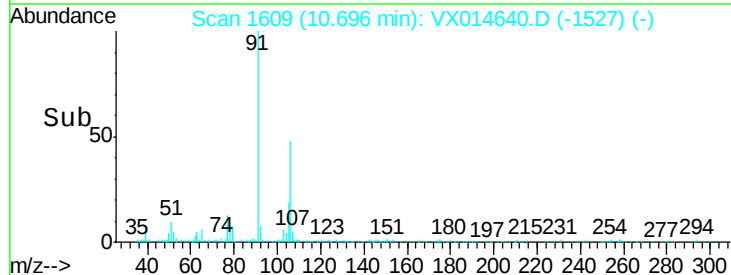
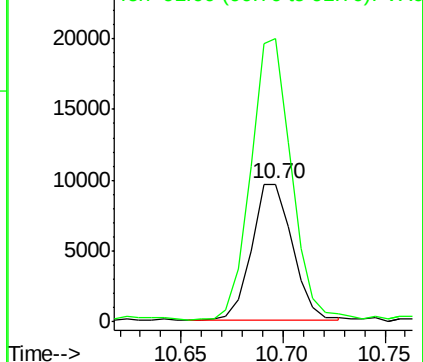
106 100

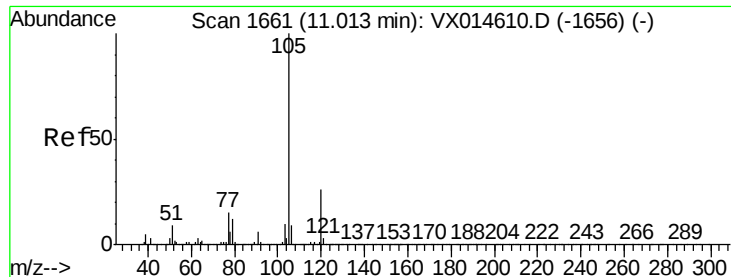
91 204.6 104.8 314.6



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0





#70

Isopropylbenzene

Concen: 0.253 ug/l

RT: 11.01 min Scan# 1661

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

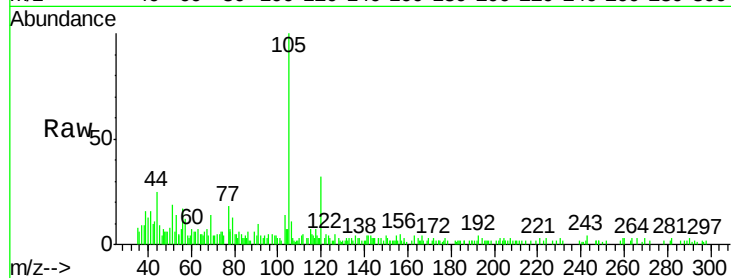
400115760.2

Tot Ion: 105 Resp: 4926

Ion Ratio Lower Upper

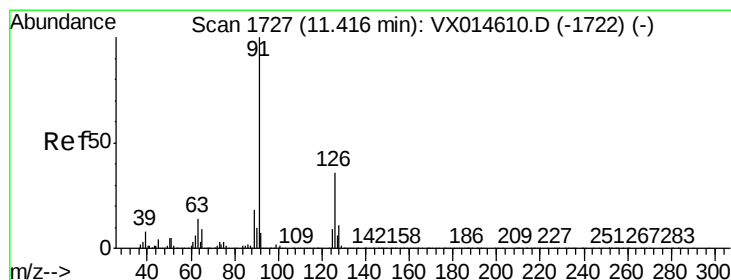
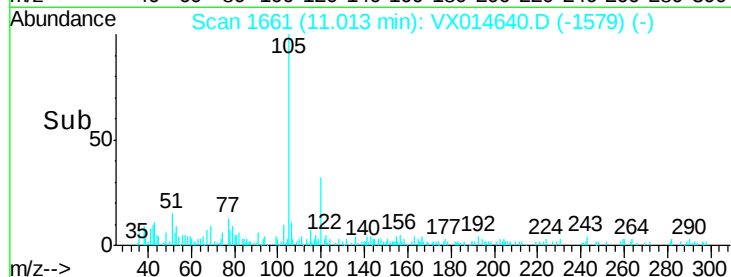
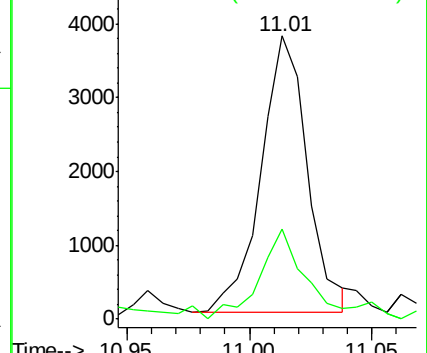
105 100

120 31.7 19.1 35.5



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#75

2-Chlorotoluene

Concen: 0.408 ug/l

RT: 11.42 min Scan# 1727

Delta R.T. 0.00 min

Lab File: VX014640.D

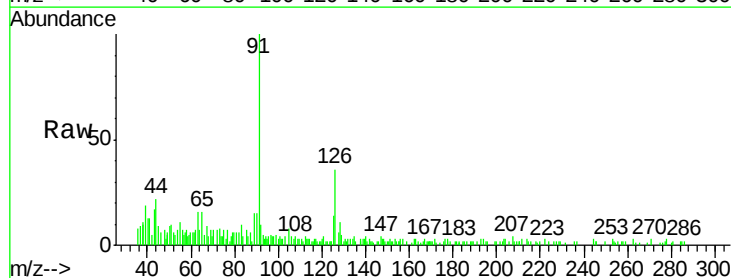
Acq: 16 Jan 2020 15:57

Tgt Ion: 91 Resp: 5437

Ion Ratio Lower Upper

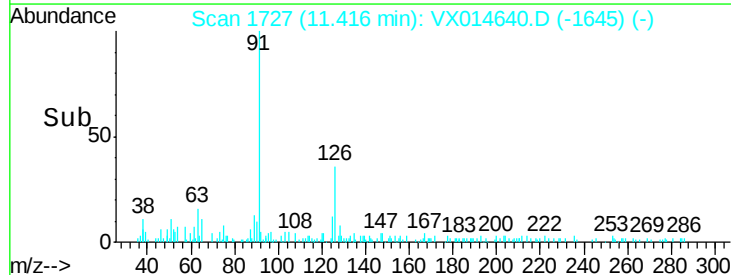
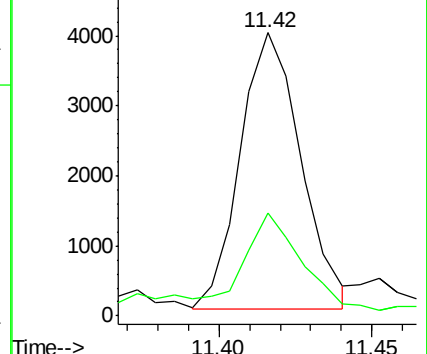
91 100

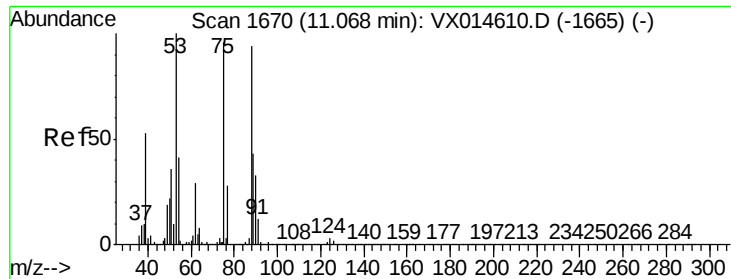
126 35.1 0.0 70.8



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 126.00 (125.70 to 126.70): V

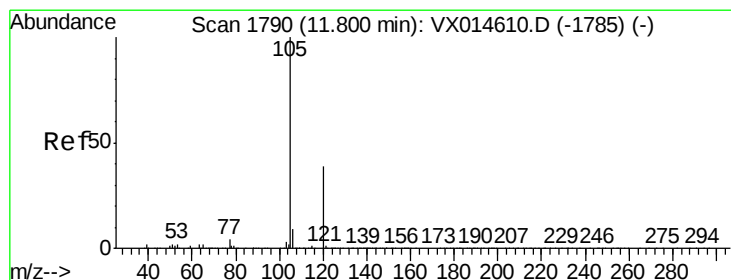
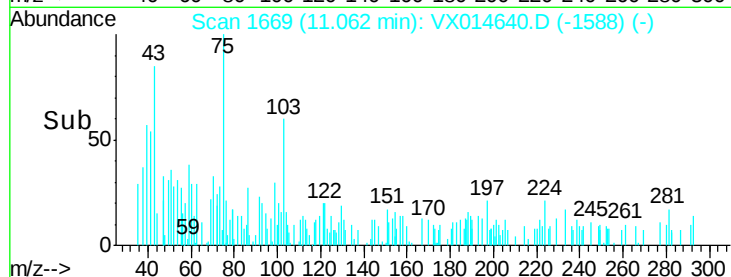
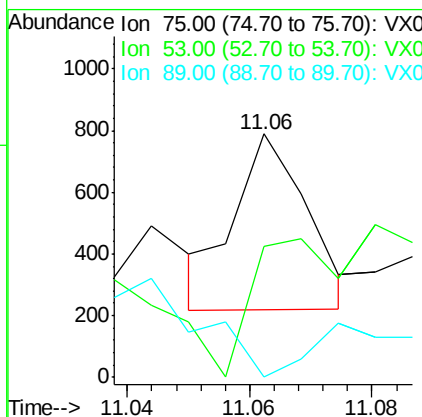
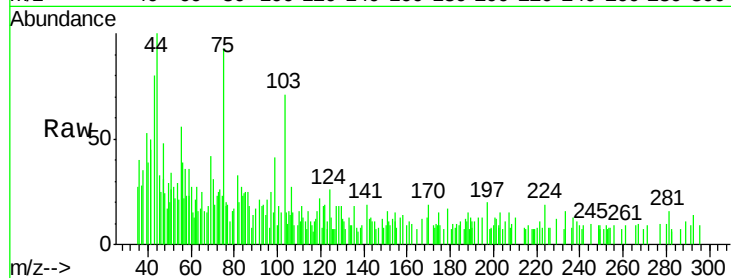




#77
 t-1,4-Dichloro-2-butene
 Concen: 0.216 ug/l
 RT: 11.06 min Scan# 1669
 Delta R.T. -0.01 min
 Lab File: VX014640.D
 Acq: 16 Jan 2020 15:57

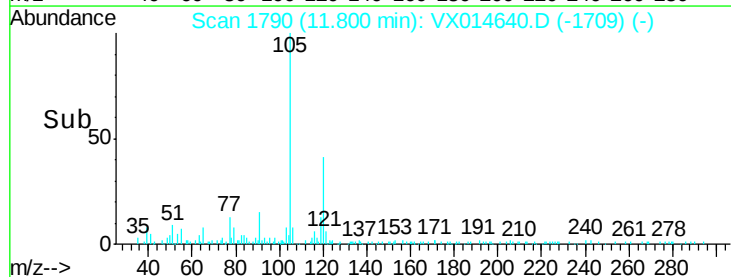
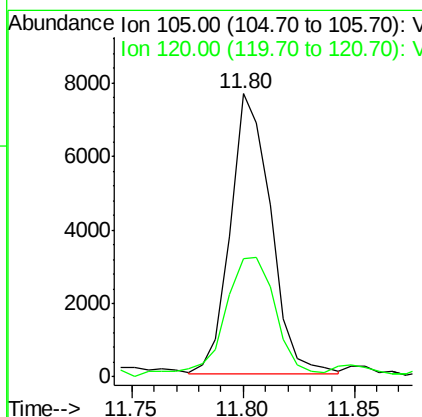
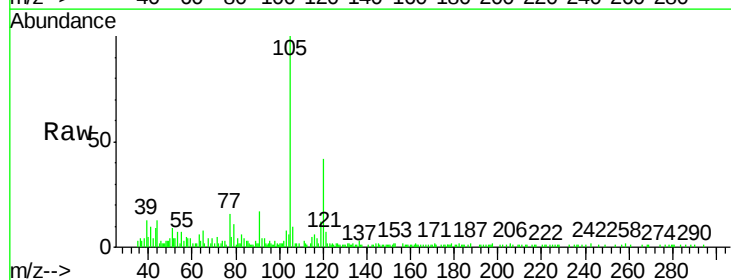
Instrument :
 MSVOA_X
 ClientSampleId :
 400115760.2

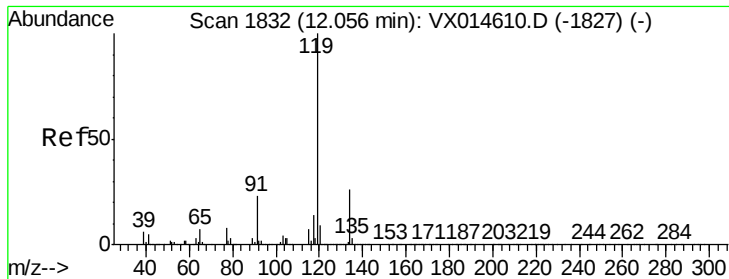
Tot Ion: 75 Resp: 466
 Ion Ratio Lower Upper
 75 100
 53 53.6 54.4 163.1#
 89 0.0 21.9 65.5#



#80
 1,2,4-Trimethylbenzene
 Concen: 0.594 ug/l
 RT: 11.80 min Scan# 1790
 Delta R.T. -0.01 min
 Lab File: VX014640.D
 Acq: 16 Jan 2020 15:57

Tgt Ion: 105 Resp: 9608
 Ion Ratio Lower Upper
 105 100
 120 50.5 0.0 92.0

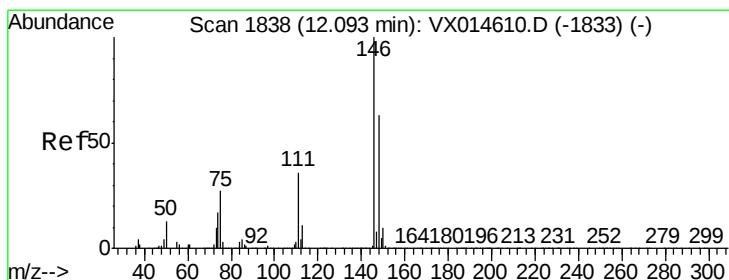
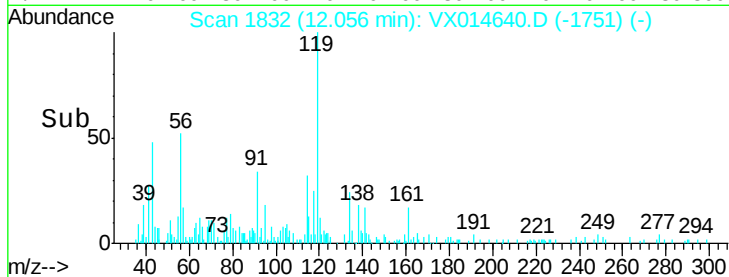
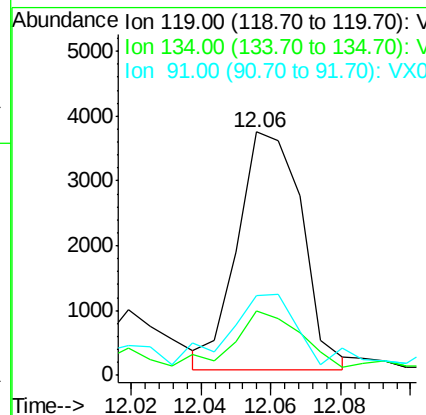
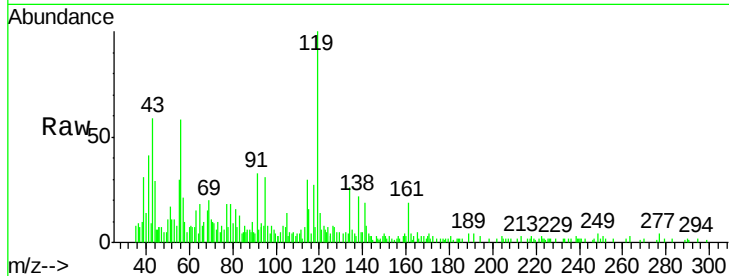




#82
p-Isopropyltoluene
Concen: 0.273 ug/l
RT: 12.06 min Scan# 1832
Delta R.T. -0.01 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

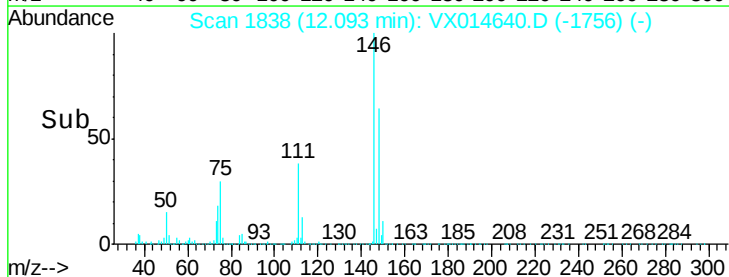
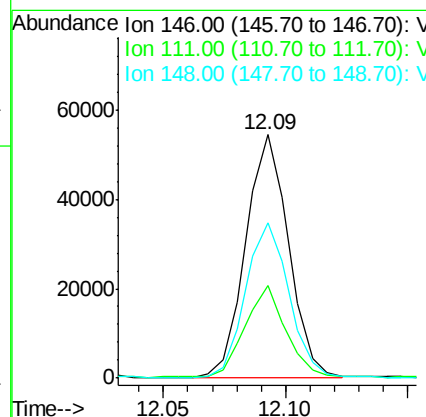
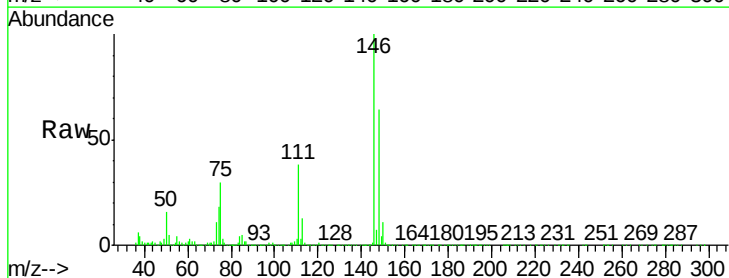
Instrument :
MSVOA_X
ClientSampleId :
400115760.2

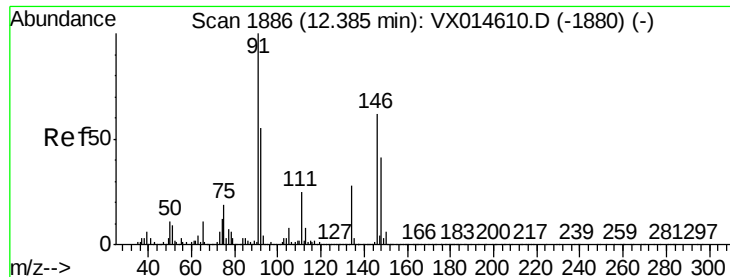
Tot Ion	Ratio	Lower	Upper
119	100		
134	25.3	0.0	53.8
91	30.1	0.0	45.0



#84
1,4-Dichlorobenzene
Concen: 7.439 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

Tgt Ion	Ratio	Lower	Upper
146	100		
111	35.8	18.4	55.4
148	65.2	32.0	96.0

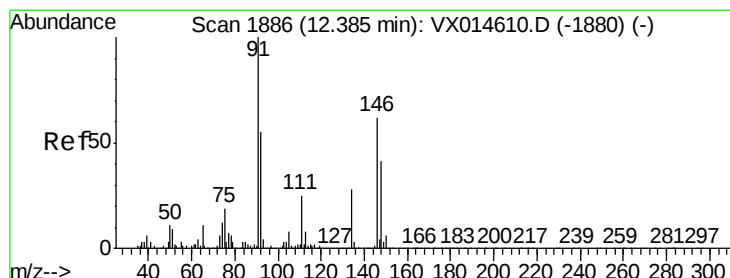
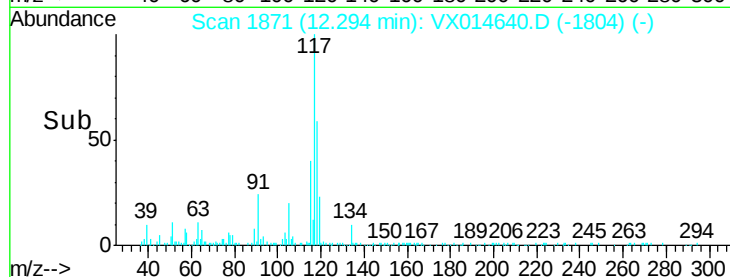
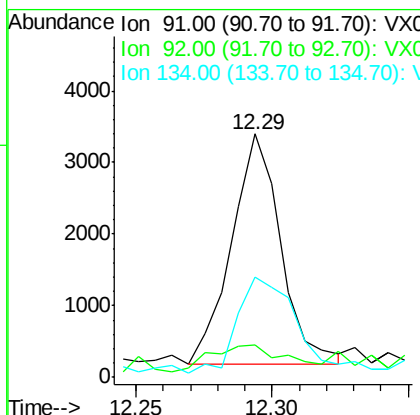
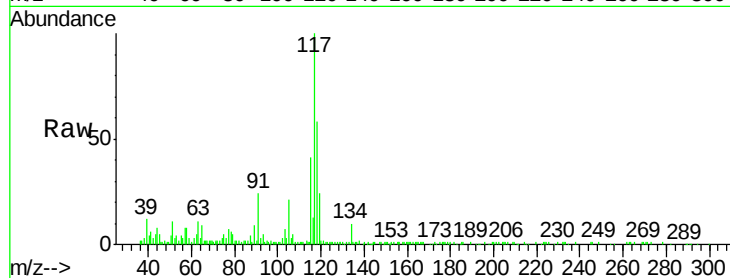




#85
n-Butylbenzene
Concen: 0.268 ug/l
RT: 12.29 min Scan# 1871
Delta R.T. -0.09 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

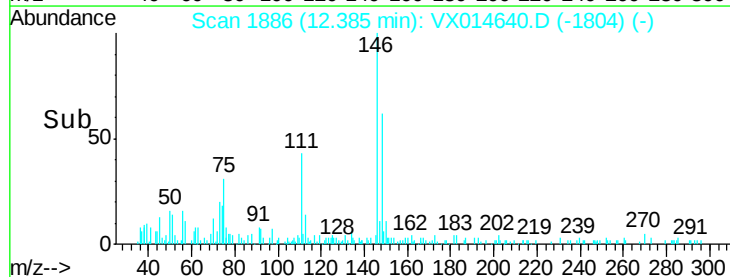
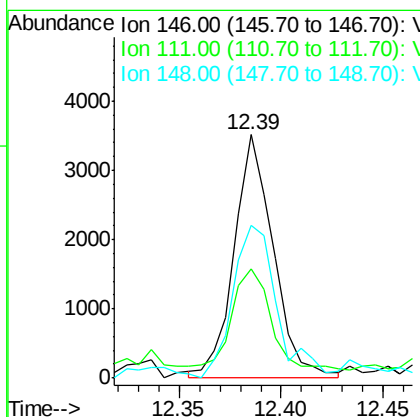
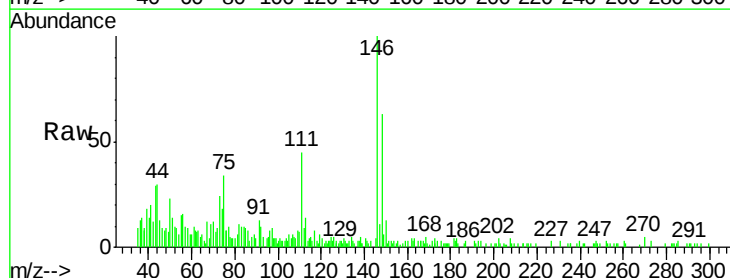
Instrument :
MSVOA_X
ClientSampleId :
400115760.2

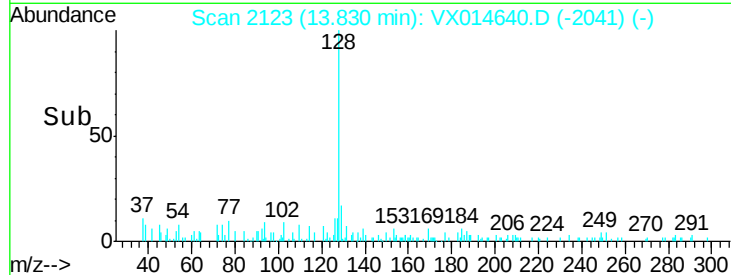
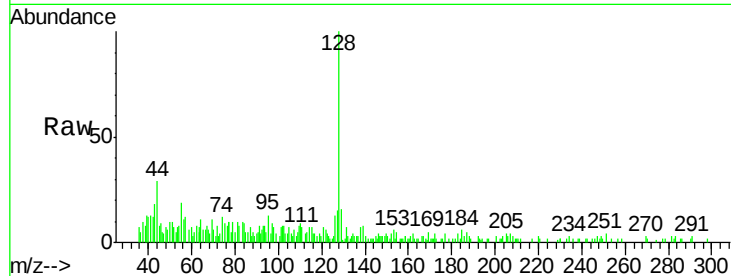
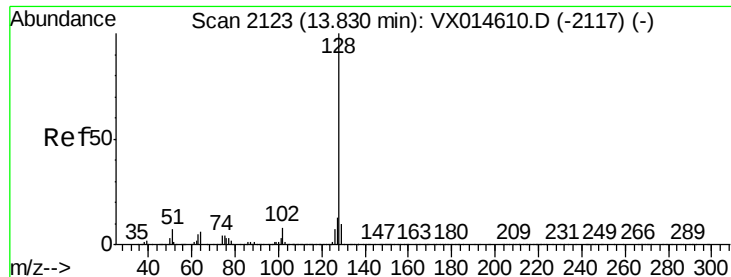
Tot Ion: 91 Resp: 4017
Ion Ratio Lower Upper
91 100
92 18.2 0.0 109.0
134 48.0 0.0 54.0



#87
1,2-Dichlorobenzene
Concen: 0.517 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014640.D
Acq: 16 Jan 2020 15:57

Tgt Ion: 146 Resp: 4697
Ion Ratio Lower Upper
146 100
111 39.3 20.1 60.2
148 63.7 32.0 96.2





#91

Naphthalene

Concen: 0.256 ug/l

RT: 13.83 min Scan# 2123

Delta R.T. 0.00 min

Lab File: VX014640.D

Acq: 16 Jan 2020 15:57

Instrument :

MSVOA_X

ClientSampleId :

400115760.2

Tot Ion:128 Resp: 4632

Ion Ratio Lower Upper

128 100

127 16.8 10.4 15.6#

129 7.5 8.9 13.3#

