

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX020819\
 Data File : VX007453.D
 Acq On : 08 Feb 2019 20:09
 Operator : JC/SP
 Sample : K1451-02
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :

Quant Time: Feb 08 23:01:51 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X012519W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Mon Jan 28 10:35:22 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.02	128	73384	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.86	114	404366	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	362983	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.07	65	149015	30.93	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	103.10%
60) 4-Bromofluorobenzene	11.13	95	164299	29.33	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	97.77%
63) Toluene-d8	8.71	98	487531	29.80	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	99.33%

Target Compounds

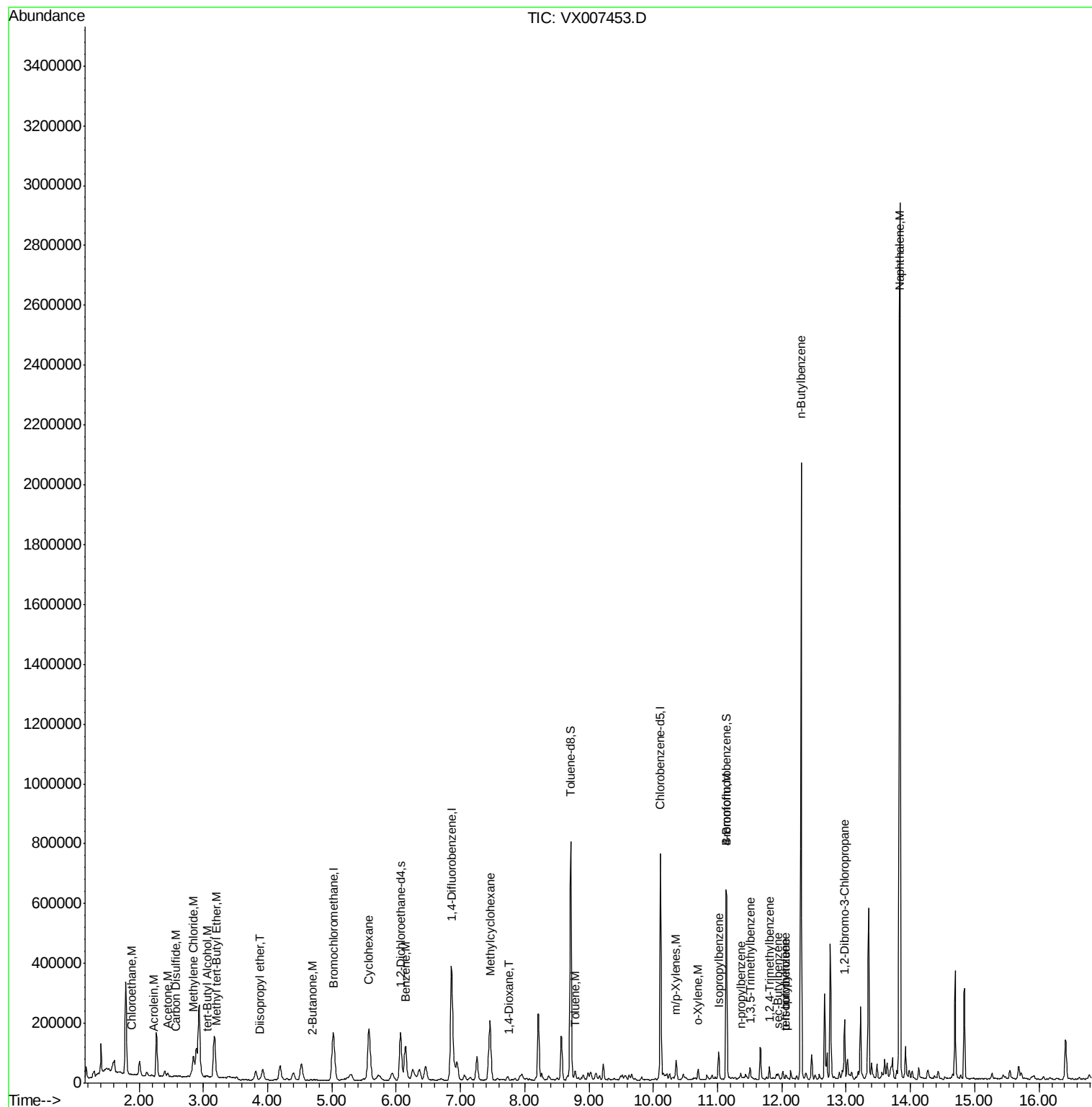
					Ovalue
6) Chloroethane	1.89	64	1046	0.371	ug/l 98
13) Acrolein	2.23	56	284	0.608	ug/l 91
15) Acetone	2.45	58	3622	5.277	ug/l 95
16) Carbon Disulfide	2.57	76	2572	0.282	ug/l # 63
18) Methylene Chloride	2.85	84	1362	0.312	ug/l # 40
20) Diisopropyl ether	3.87	45	2818	0.230	ug/l # 48
23) tert-Butyl Alcohol	3.06	59	4450	4.385	ug/l # 98
24) Methyl tert-Butyl Ether	3.21	73	4482	0.338	ug/l # 60
26) Cyclohexane	5.58	56	114172	19.360	ug/l # 99
30) 2-Butanone	4.70	43	1537	0.488	ug/l # 40
34) Benzene	6.15	78	141799	8.721	ug/l 97
38) Methylcyclohexane	7.46	83	88643	13.269	ug/l 91
45) 1,4-Dioxane	7.76	88	50	0.450	ug/l # 1
56) Bromoform	11.14	173	1672	0.494	ug/l # 1
62) Toluene	8.78	91	19493	1.067	ug/l 99
67) m/p-Xylenes	10.35	106	15075	1.928	ug/l 97
68) o-Xylene	10.69	106	7234	0.945	ug/l 88
70) Isopropylbenzene	11.02	105	44758	2.208	ug/l 99
74) n-propylbenzene	11.36	91	9424	0.413	ug/l 95
76) 1,3,5-Trimethylbenzene	11.51	105	14469	0.855	ug/l 94
79) tert-butylbenzene	12.06	119	5286	0.289	ug/l 98
80) 1,2,4-Trimethylbenzene	11.80	105	18826	1.099	ug/l 98
81) sec-Butylbenzene	11.94	105	8891	0.436	ug/l 99
82) p-Isopropyltoluene	12.06	119	5286	0.289	ug/l 98
85) n-Butylbenzene	12.30	91	126041	8.022	ug/l 50
88) 1,2-Dibromo-3-Chloropropan	12.97	75	644	0.487	ug/l # 1
91) Naphthalene	13.83	128	1852016	89.727	ug/l 99

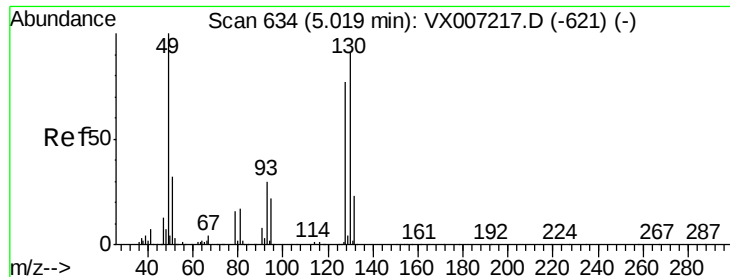
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX020819\
Data File : VX007453.D
Acq On : 08 Feb 2019 20:09
Operator : JC/SP
Sample : K1451-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :

Quant Time: Feb 08 23:01:51 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X012519W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Mon Jan 28 10:35:22 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.02 min Scan# 634

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampleId :

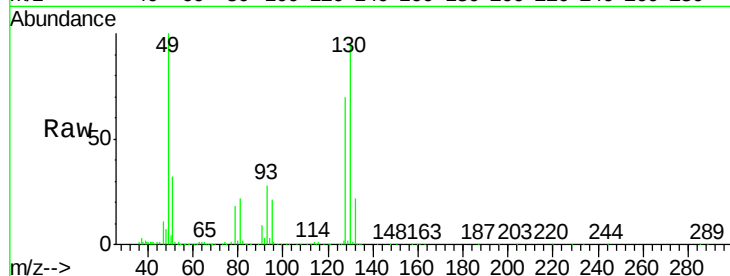
Tot Ion:128 Resp: 73384

Ion Ratio Lower Upper

128 100

49 141.5 0.0 345.5

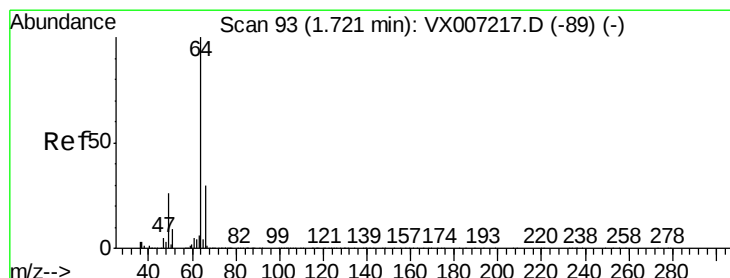
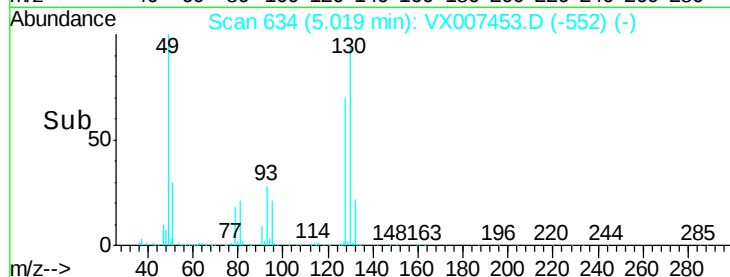
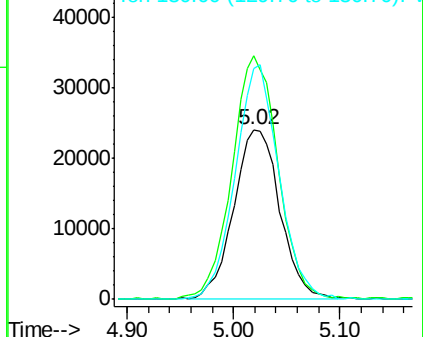
130 130.9 0.0 320.0



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



#6

Chloroethane

Concen: 0.371 ug/l

RT: 1.89 min Scan# 120

Delta R.T. 0.16 min

Lab File: VX007453.D

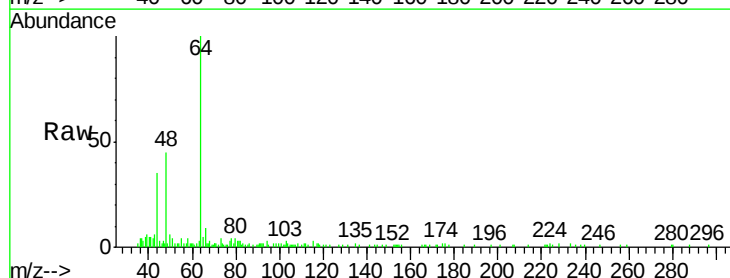
Acq: 08 Feb 2019 20:09

Tgt Ion: 64 Resp: 1046

Ion Ratio Lower Upper

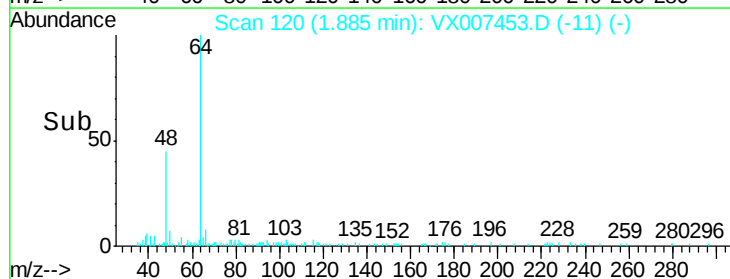
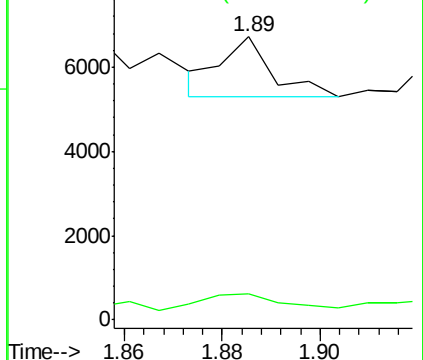
64 100

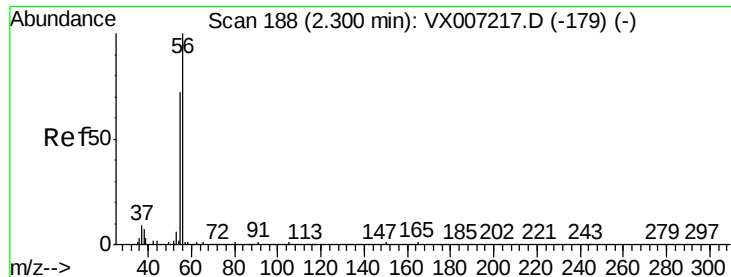
66 31.0 24.2 36.2



Abundance Ion 64.00 (63.70 to 64.70): VX0

Ion 66.00 (65.70 to 66.70): VX0





#13

Acrolein

Concen: 0.608 ug/l

RT: 2.23 min Scan# 177

Delta R.T. -0.07 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

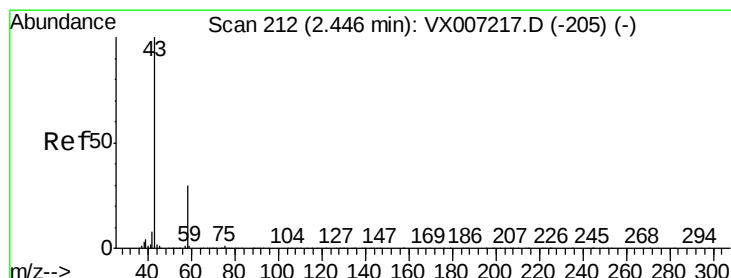
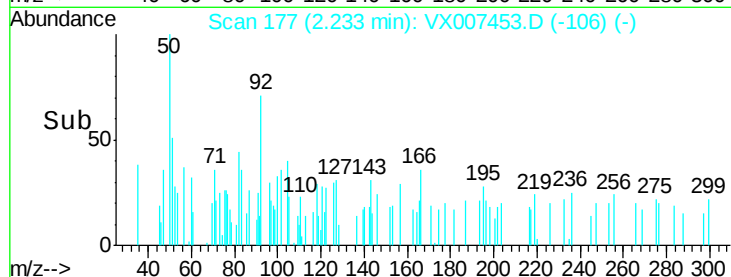
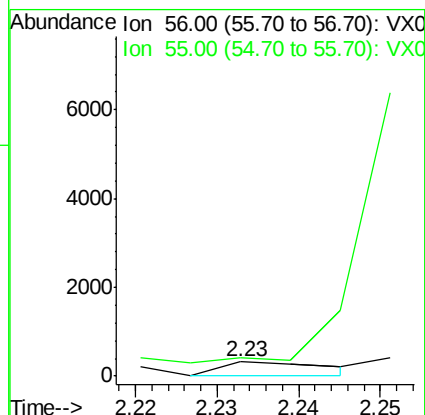
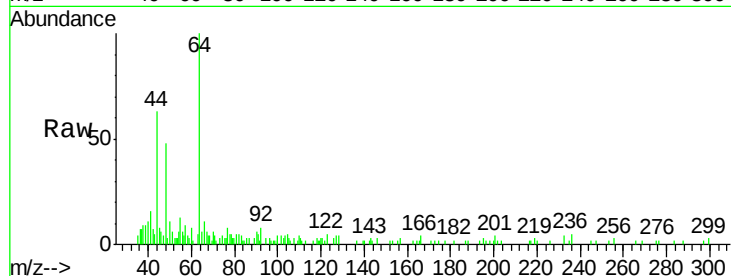
ClientSampled :

Tot Ion: 56 Resp: 284

Ion Ratio Lower Upper

56 100

55 81.0 58.6 87.8



#15

Acetone

Concen: 5.277 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.00 min

Lab File: VX007453.D

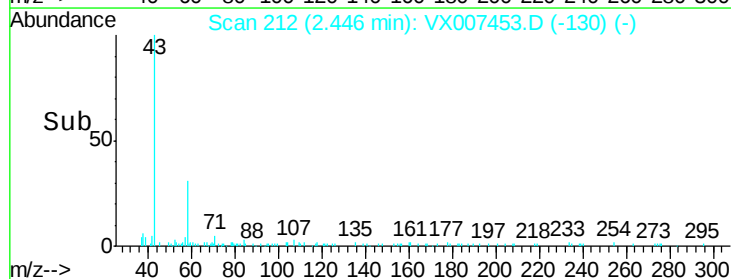
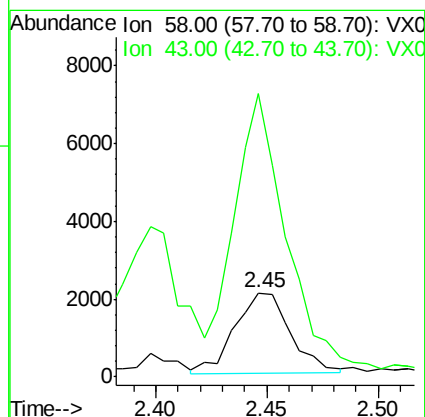
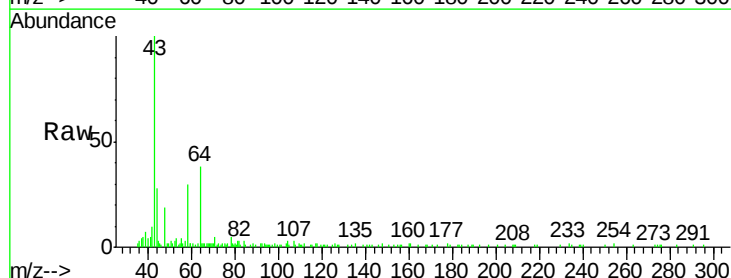
Acq: 08 Feb 2019 20:09

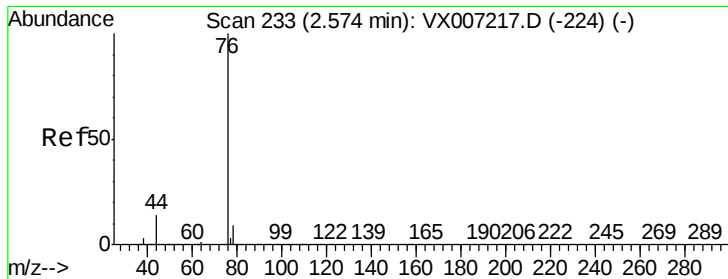
Tgt Ion: 58 Resp: 3622

Ion Ratio Lower Upper

58 100

43 341.9 265.9 398.9

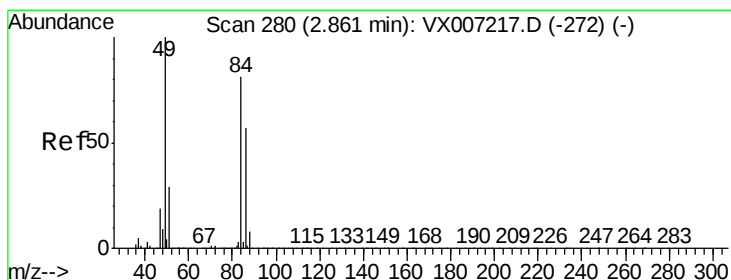
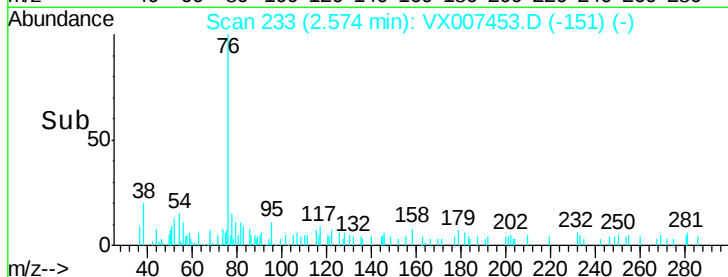
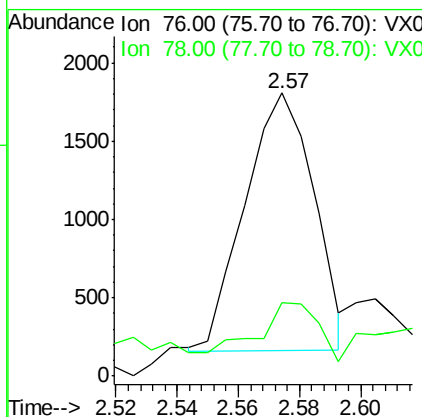
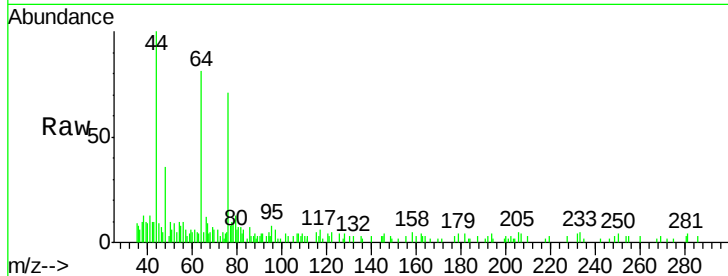




#16
Carbon Disulfide
Concen: 0.282 ug/l
RT: 2.57 min Scan# 233
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

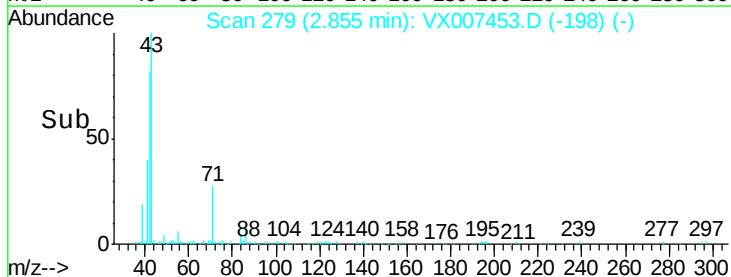
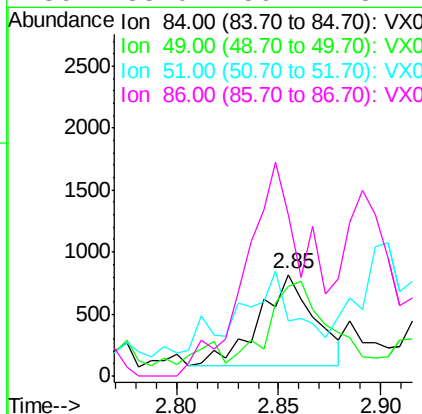
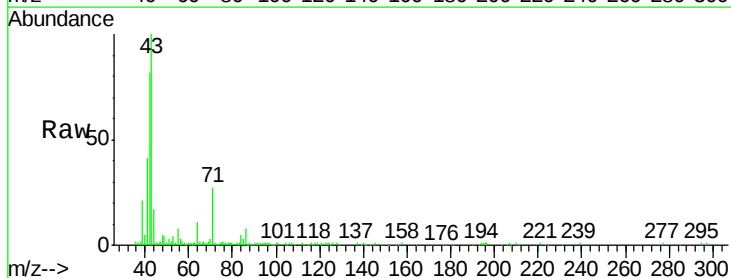
Instrument :
MSVOA_X
ClientSampleId :

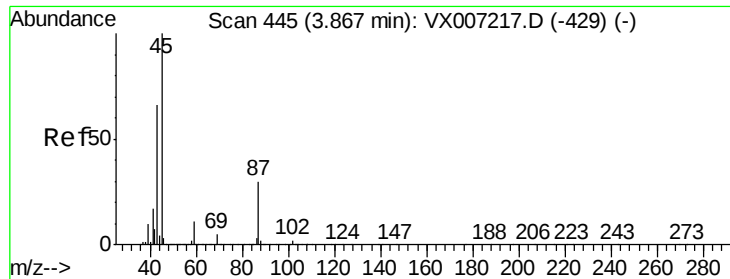
Tot Ion: 76 Resp: 2572
Ion Ratio Lower Upper
76 100
78 23.0 7.7 11.5#



#18
Methylene Chloride
Concen: 0.312 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion: 84 Resp: 1362
Ion Ratio Lower Upper
84 100
49 85.8 98.4 147.6#
51 35.8 28.9 43.3
86 183.0 56.1 84.1#

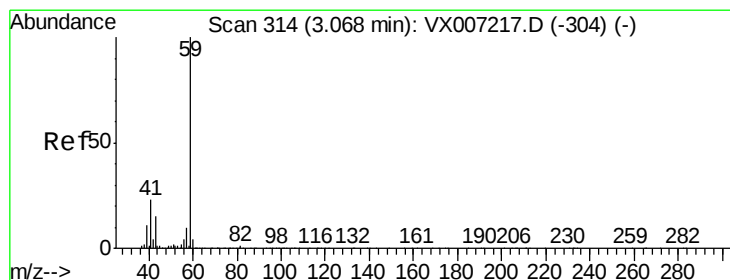
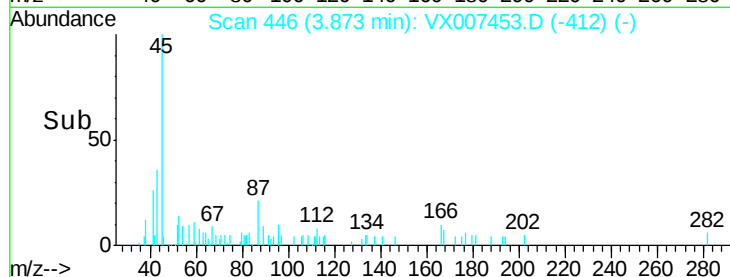
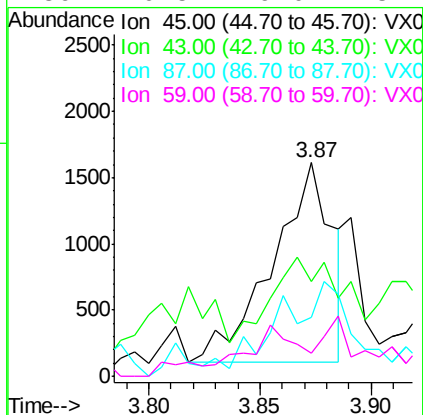
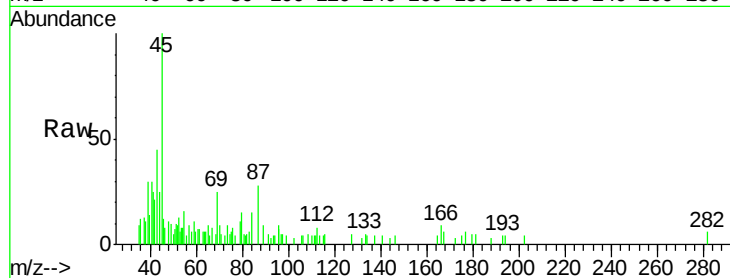




#20
Diisopropyl ether
Concen: 0.230 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

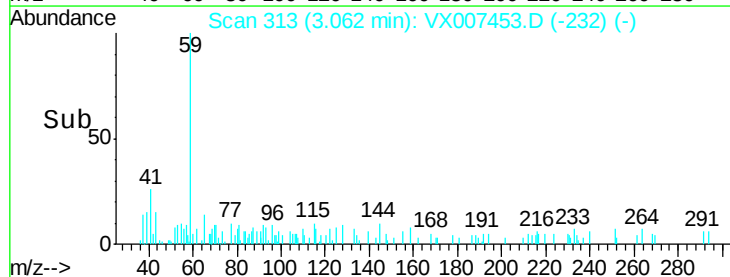
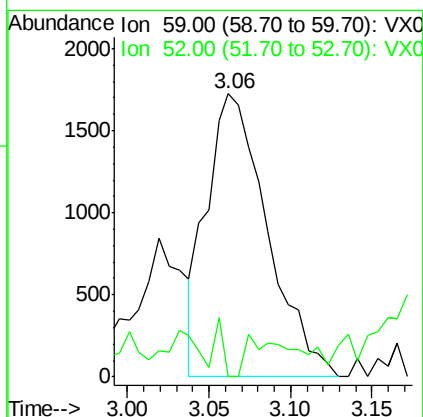
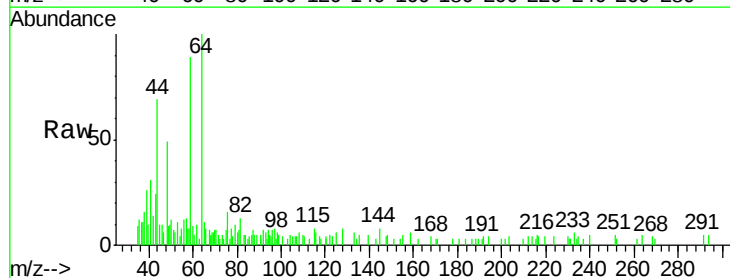
Instrument :
MSVOA_X
ClientSampled :

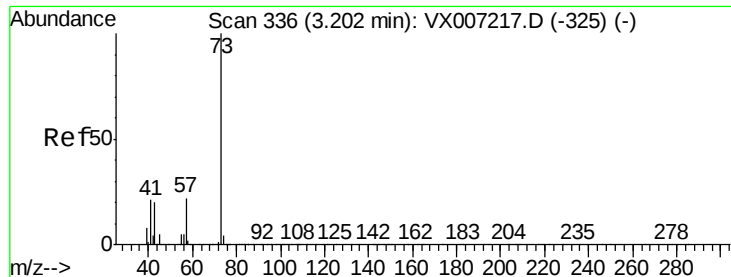
Tot Ion	45	Resp:	2818
Ion	Ratio	Lower	Upper
45	100		
43	8.4	53.1	79.7#
87	15.9	23.7	35.5#
59	10.5	9.0	13.4



#23
tert-Butyl Alcohol
Concen: 4.385 ug/l
RT: 3.06 min Scan# 313
Delta R.T. -0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion	59	Resp:	4450
Ion	Ratio	Lower	Upper
59	100		
52	3.0	0.2	0.2#



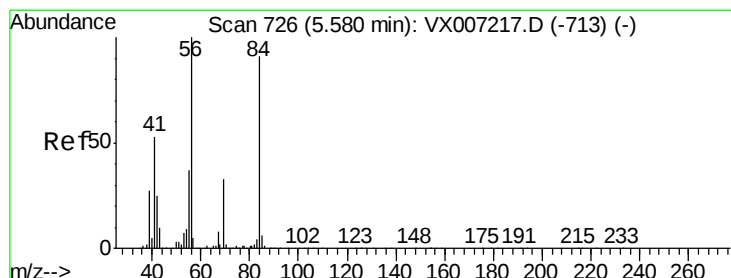
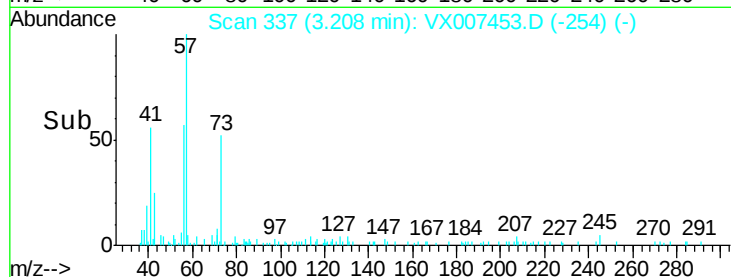
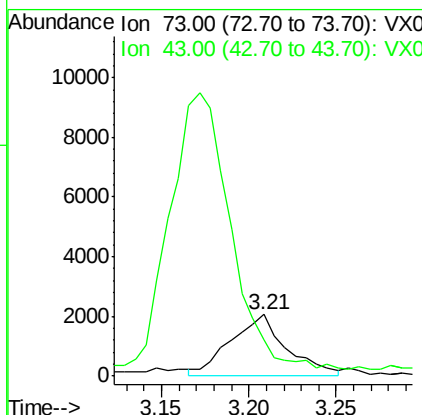
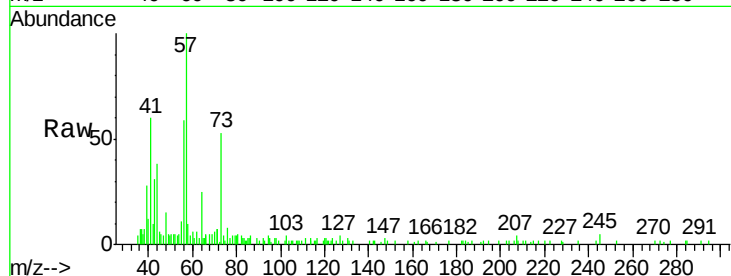


#24

Methyl tert-Butyl Ether
 Concen: 0.338 ug/l
 RT: 3.21 min Scan# 337
 Delta R.T. 0.01 min
 Lab File: VX007453.D
 Acq: 08 Feb 2019 20:09

Instrument :
 MSVOA_X
 ClientSampled :

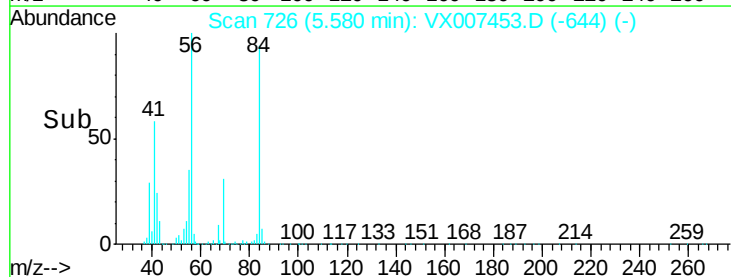
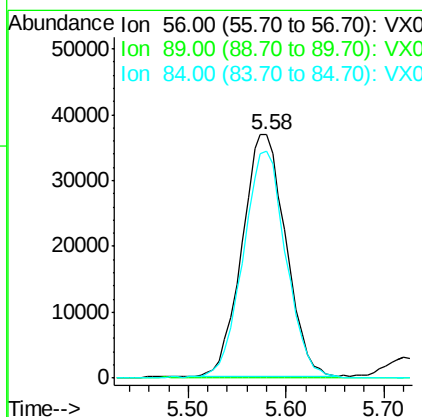
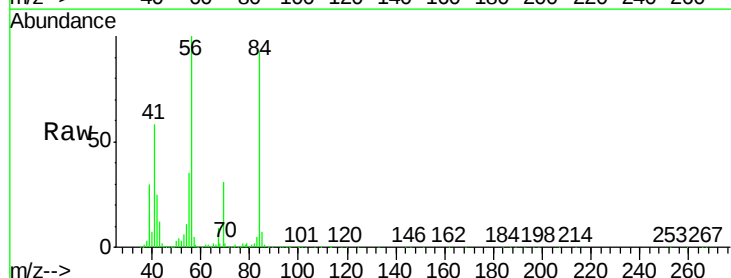
Tot Ion: 73 Resp: 4482
 Ion Ratio Lower Upper
 73 100
 43 1.7 16.2 24.4#

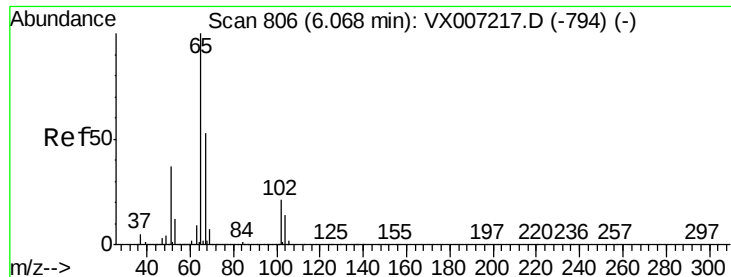


#26

Cyclohexane
 Concen: 19.360 ug/l
 RT: 5.58 min Scan# 726
 Delta R.T. -0.00 min
 Lab File: VX007453.D
 Acq: 08 Feb 2019 20:09

Tgt Ion: 56 Resp: 114172
 Ion Ratio Lower Upper
 56 100
 89 0.1 0.1 0.1#
 84 91.9 74.2 111.2





#27

1,2-Dichloroethane-d4

Concen: 30.935 ug/l

RT: 6.07 min Scan# 806

Delta R.T. 0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

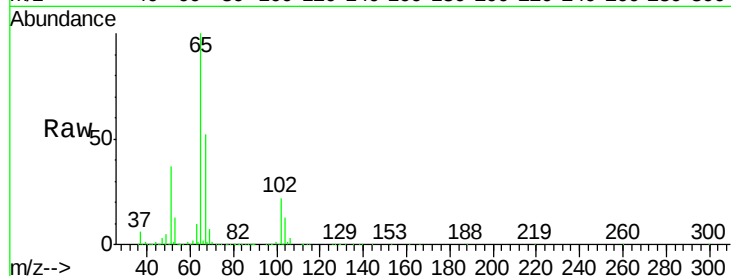
ClientSampleId :

Tot Ion: 65 Resp: 149015

Ion Ratio Lower Upper

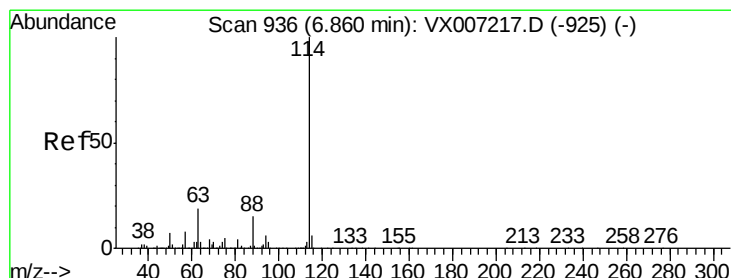
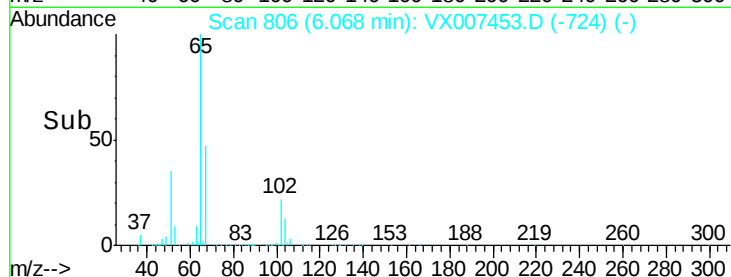
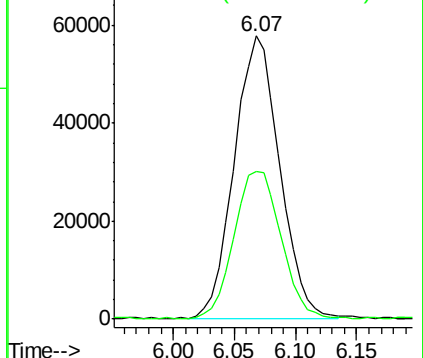
65 100

67 53.9 42.0 63.0



Abundance Ion 65.00 (64.70 to 65.70): VX0

Ion 67.00 (66.70 to 67.70): VX0



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

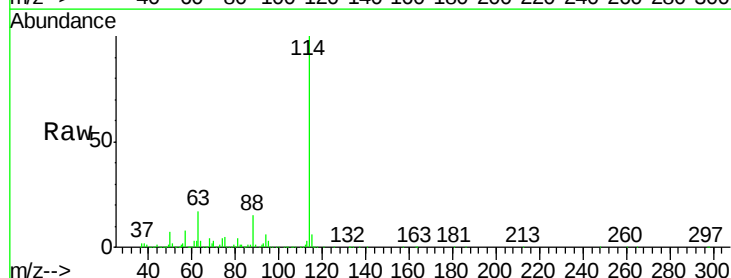
Tgt Ion: 114 Resp: 404366

Ion Ratio Lower Upper

114 100

63 18.3 14.6 21.8

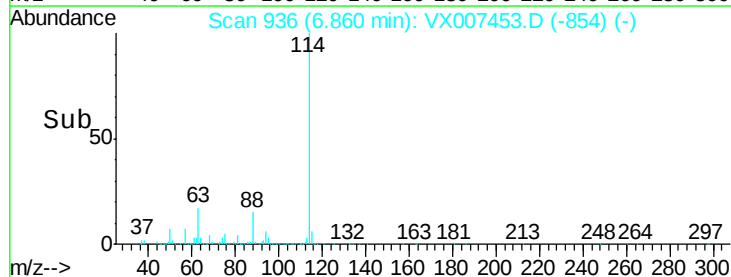
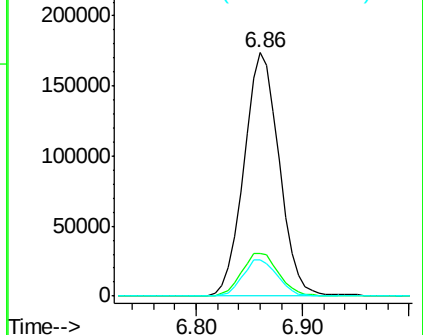
88 14.9 11.8 17.6

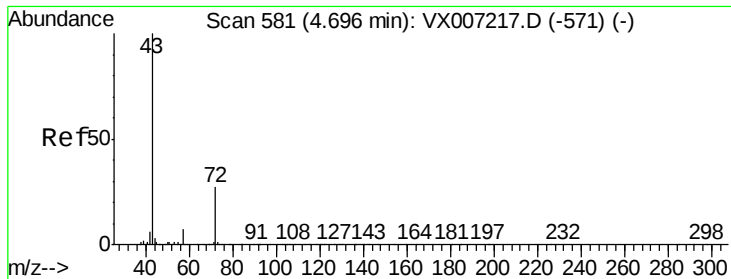


Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 88.00 (87.70 to 88.70): VX0

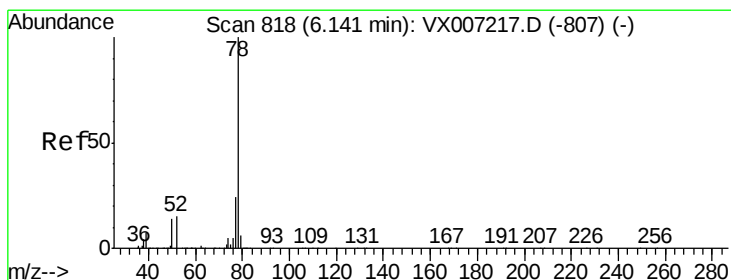
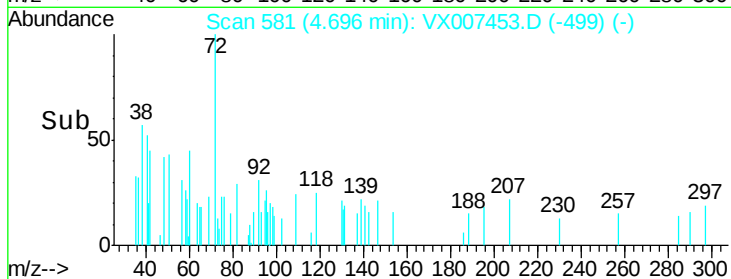
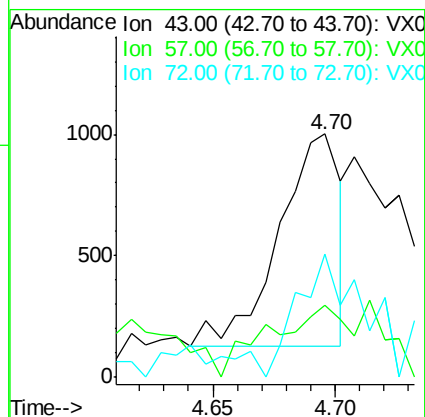
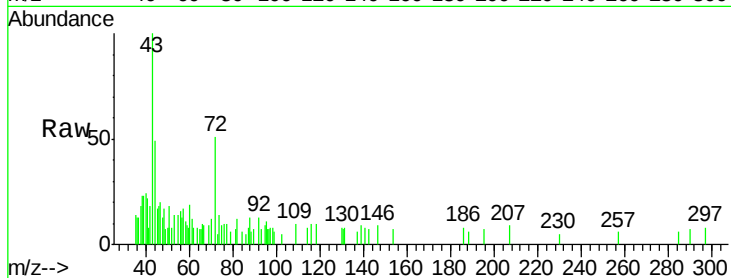




#30
2-Butanone
Concen: 0.488 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

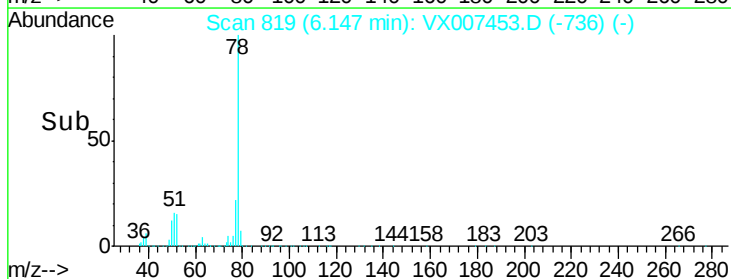
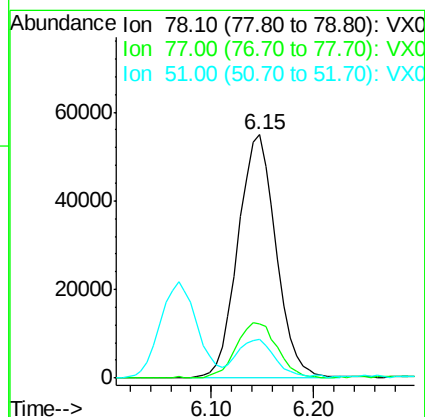
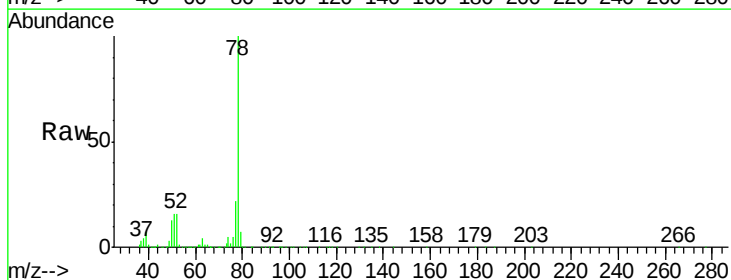
Instrument :
MSVOA_X
ClientSampled :

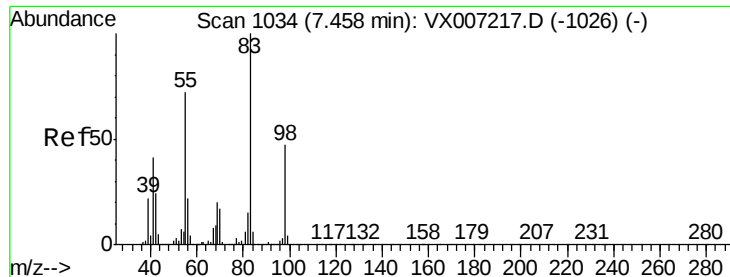
Tot Ion: 43 Resp: 1537
Ion Ratio Lower Upper
43 100
57 16.7 3.3 4.9#
72 60.4 22.0 33.0#



#34
Benzene
Concen: 8.721 ug/l
RT: 6.15 min Scan# 819
Delta R.T. 0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion: 78 Resp: 141799
Ion Ratio Lower Upper
78 100
77 21.5 19.1 28.7
51 15.4 12.4 18.6

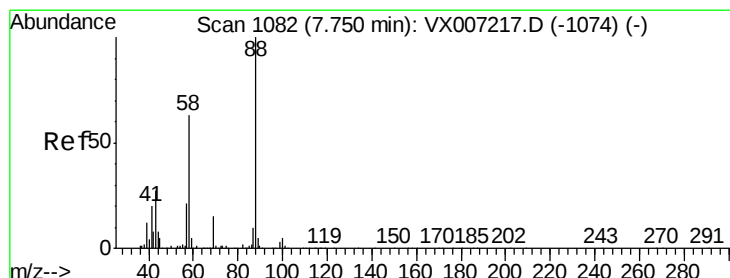
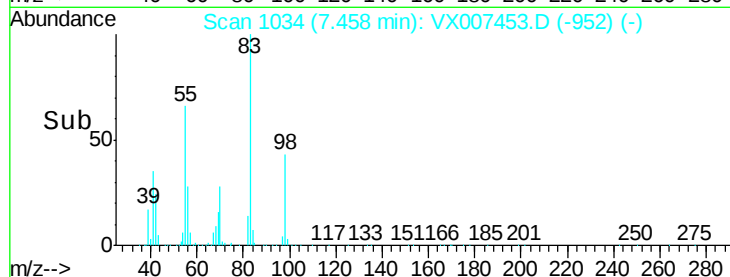
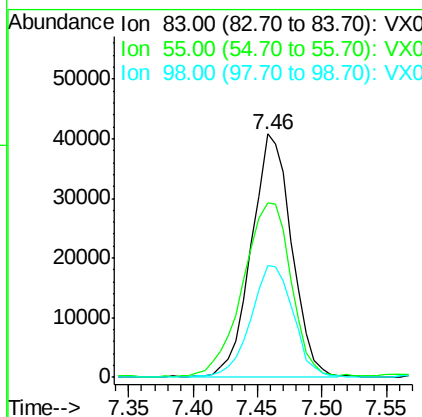
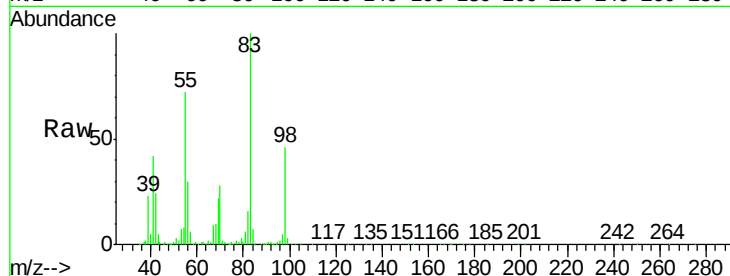




#38
Methylcyclohexane
Concen: 13.269 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

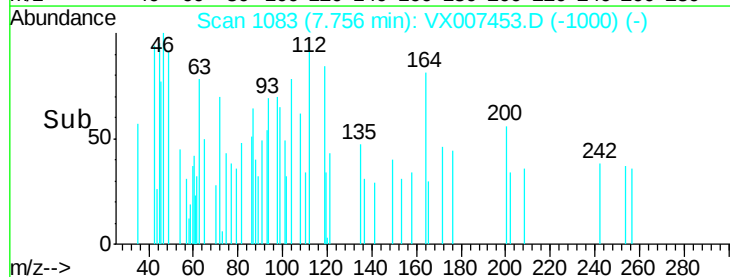
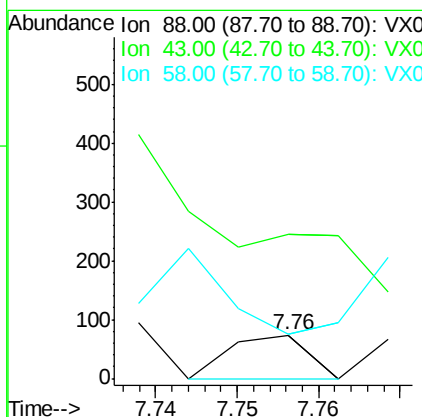
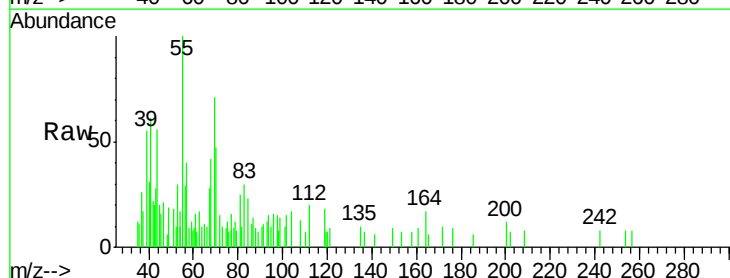
Instrument :
MSVOA_X
ClientSampled :

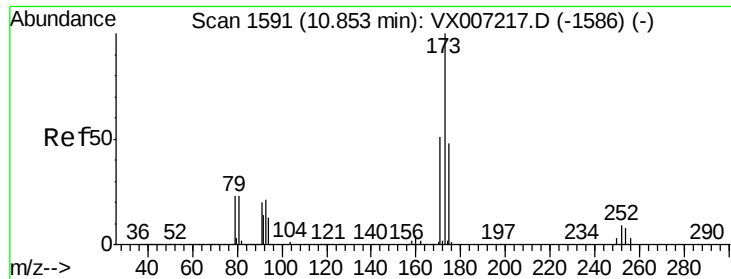
Tot Ion: 83 Resp: 88643
Ion Ratio Lower Upper
83 100
55 85.2 36.6 109.8
98 48.5 24.1 72.4



#45
1,4-Dioxane
Concen: 0.450 ug/l
RT: 7.76 min Scan# 1083
Delta R.T. 0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion: 88 Resp: 50
Ion Ratio Lower Upper
88 100
43 196.0 23.5 35.3#
58 206.0 51.6 77.4#





#56

Bromoform

Concen: 0.494 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. 0.29 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampleId :

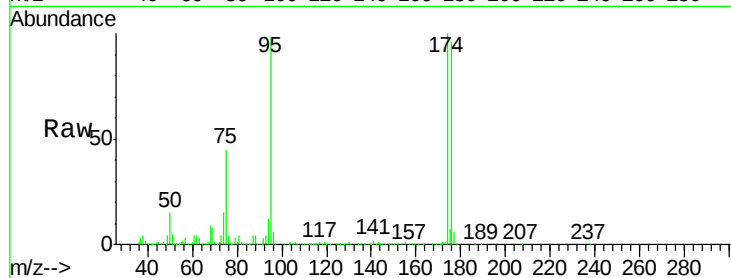
Tot Ion:173 Resp: 1672

Ion Ratio Lower Upper

173 100

175 690.6 38.9 58.3#

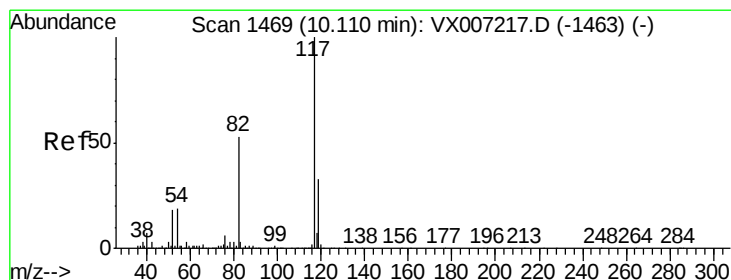
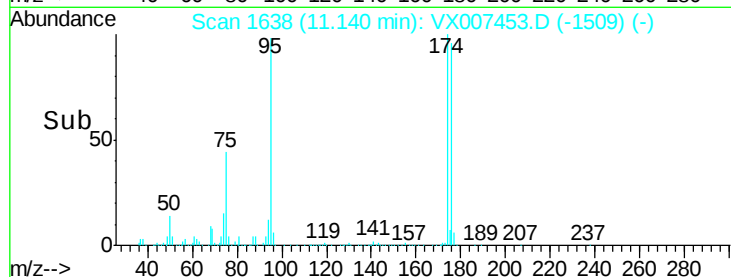
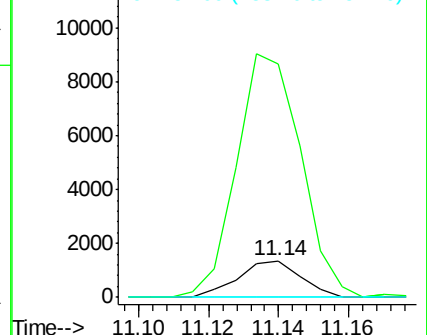
254 3.5 8.5 12.7#



Abundance Ion 173.00 (172.70 to 173.70): V

Ion 175.00 (174.70 to 175.70): V

Ion 254.00 (253.70 to 254.70): V



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

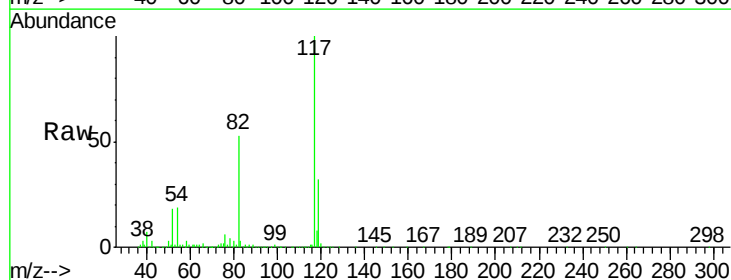
Tgt Ion:117 Resp: 362983

Ion Ratio Lower Upper

117 100

82 51.2 41.4 62.0

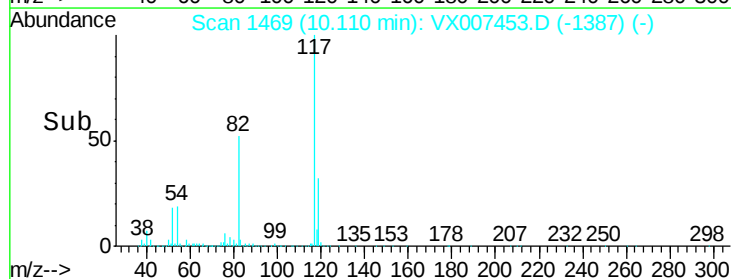
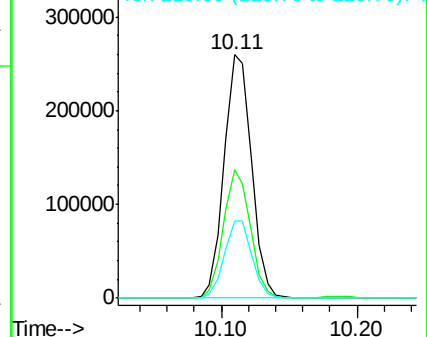
119 32.0 25.7 38.5

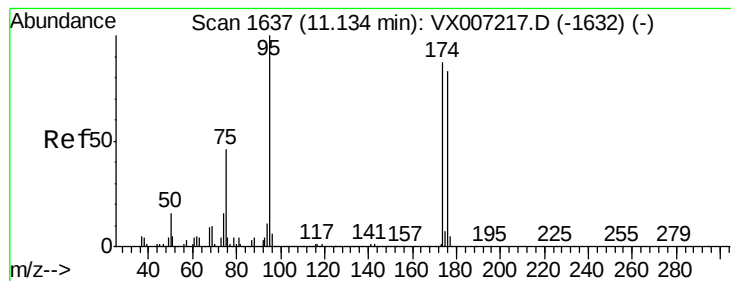


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 119.00 (118.70 to 119.70): V





#60

4-Bromofluorobenzene

Concen: 29.327 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampleId :

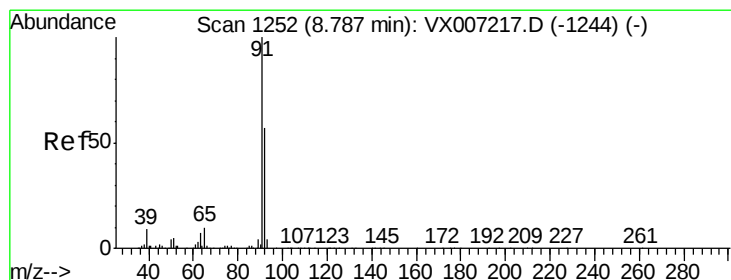
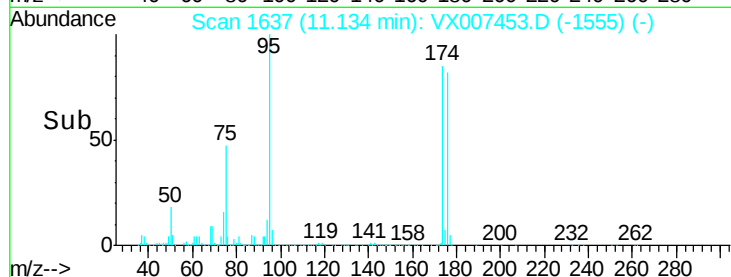
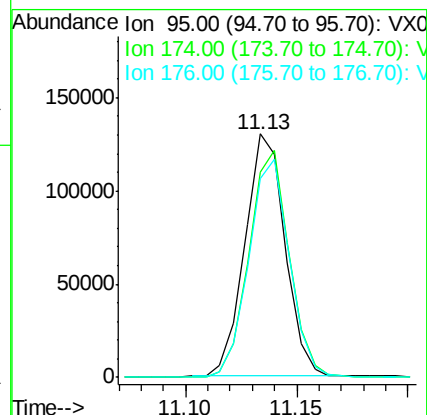
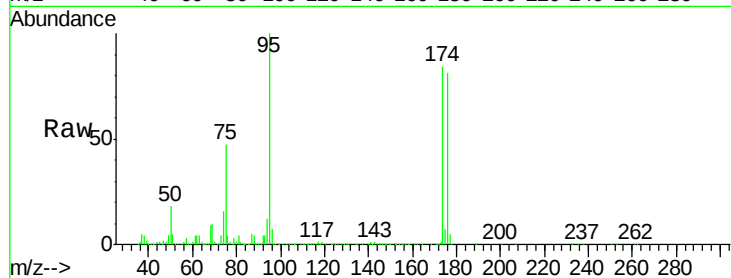
Tot Ion: 95 Resp: 164299

Ion Ratio Lower Upper

95 100

174 93.6 74.8 112.2

176 90.9 72.5 108.7



#62

Toluene

Concen: 1.067 ug/l

RT: 8.78 min Scan# 1251

Delta R.T. -0.01 min

Lab File: VX007453.D

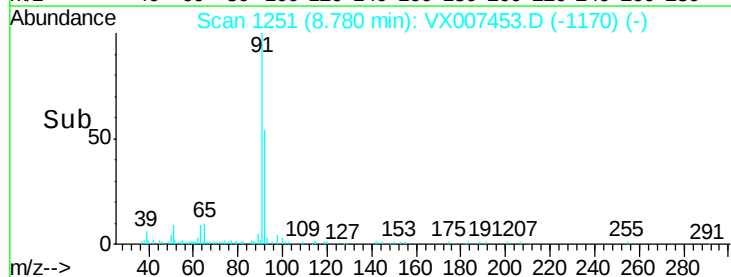
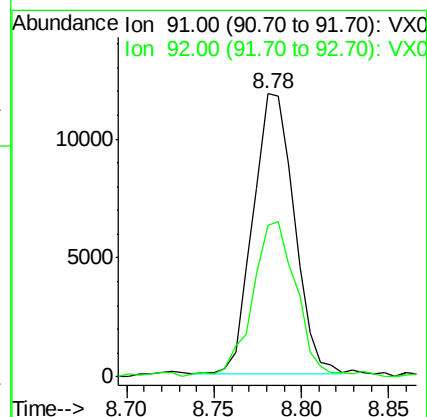
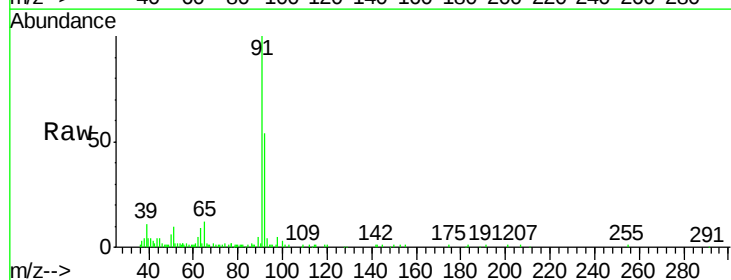
Acq: 08 Feb 2019 20:09

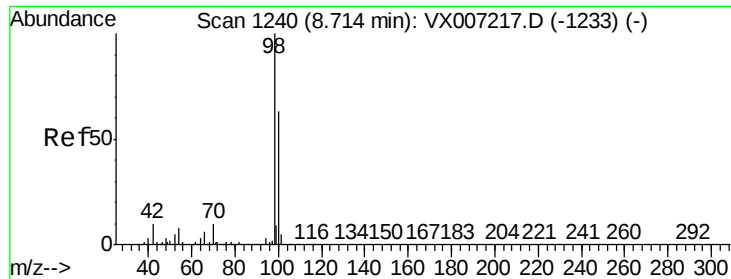
Tgt Ion: 91 Resp: 19493

Ion Ratio Lower Upper

91 100

92 56.5 46.0 69.0

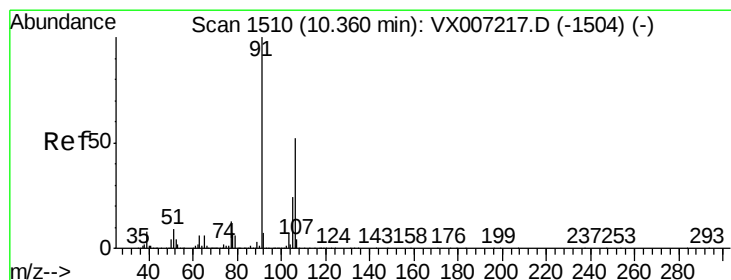
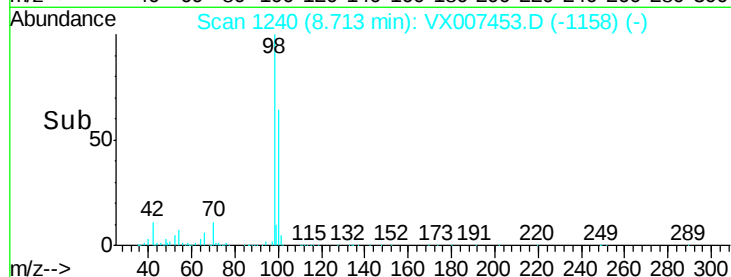
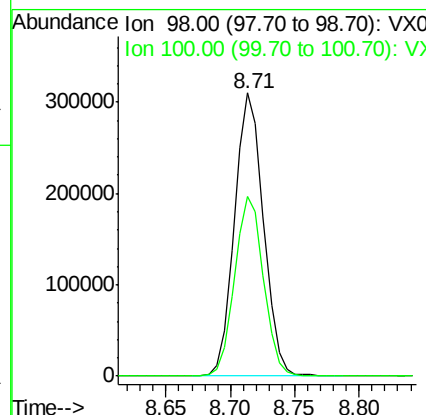
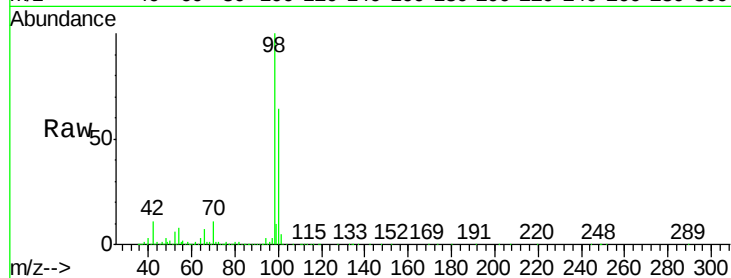




#63
Toluene-d8
Concen: 29.798 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

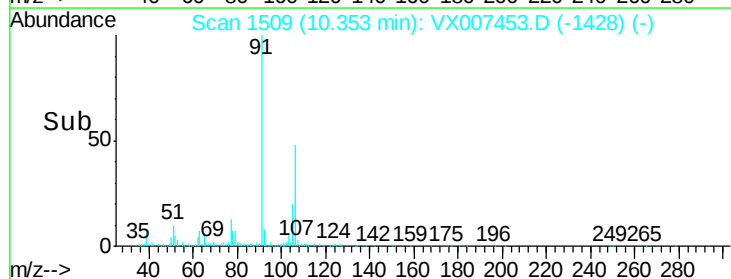
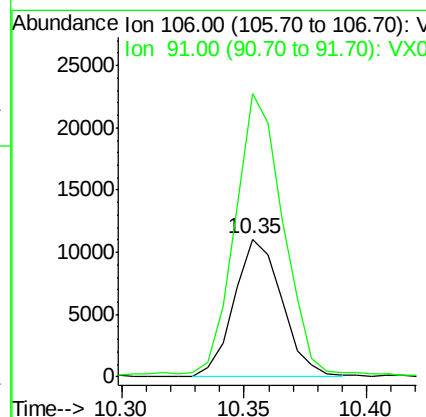
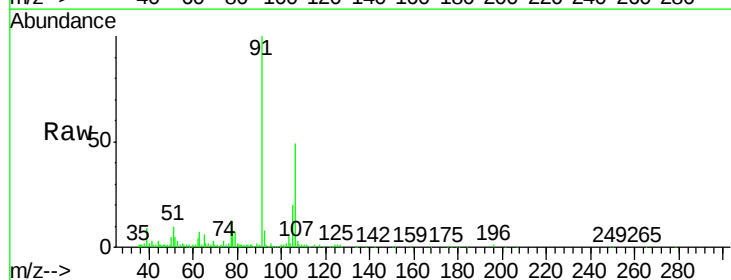
Instrument :
MSVOA_X
ClientSampleId :

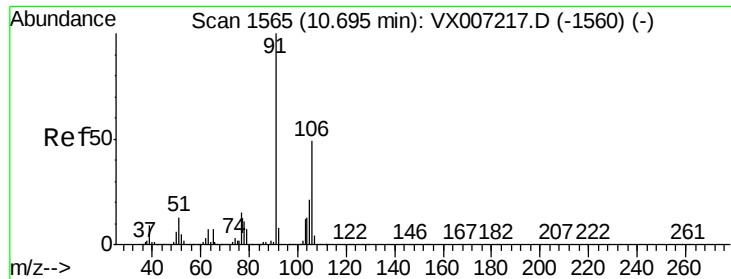
Tot Ion: 98 Resp: 487531
Ion Ratio Lower Upper
98 100
100 63.0 49.9 74.9



#67
m/p-Xylenes
Concen: 1.928 ug/l
RT: 10.35 min Scan# 1509
Delta R.T. -0.01 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion: 106 Resp: 15075
Ion Ratio Lower Upper
106 100
91 201.3 157.6 236.4

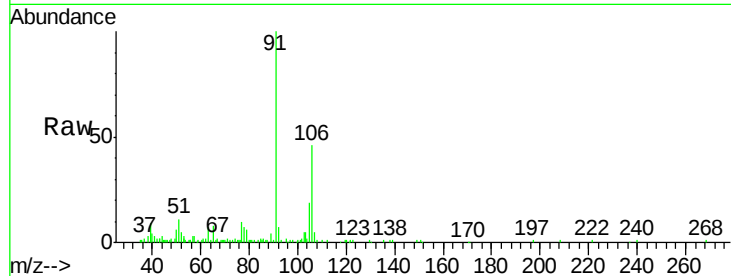




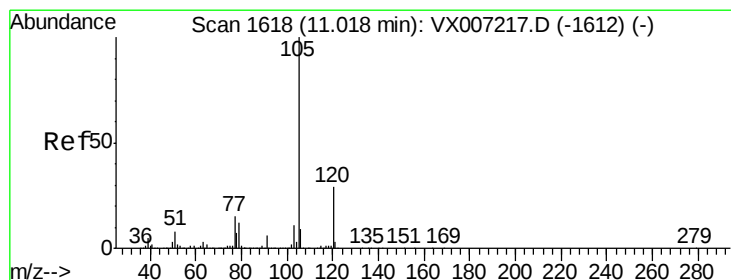
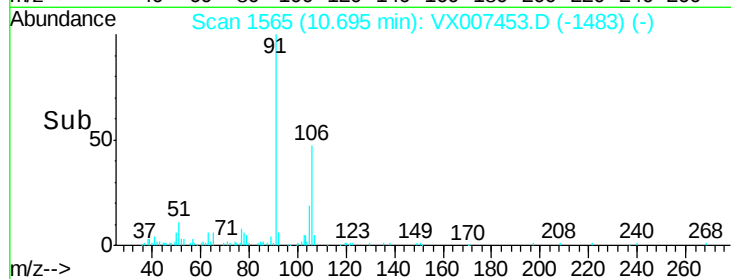
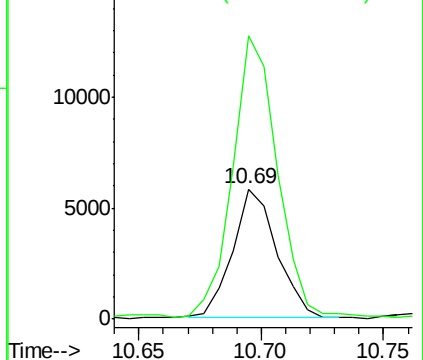
#68
o-Xylene
Concen: 0.945 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Instrument :
MSVOA_X
ClientSampled :

Tot Ion:106 Resp: 7234
Ion Ratio Lower Upper
106 100
91 225.6 103.6 310.8

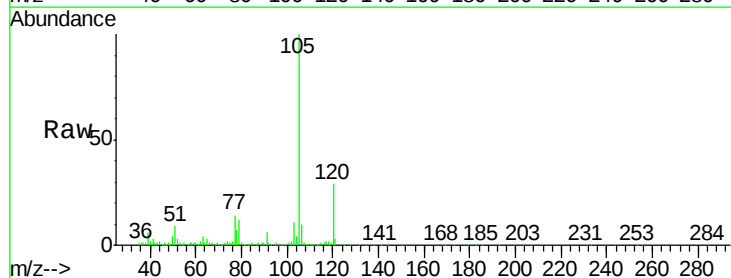


Abundance Ion 106.00 (105.70 to 106.70): V
Ion 91.00 (90.70 to 91.70): VX0

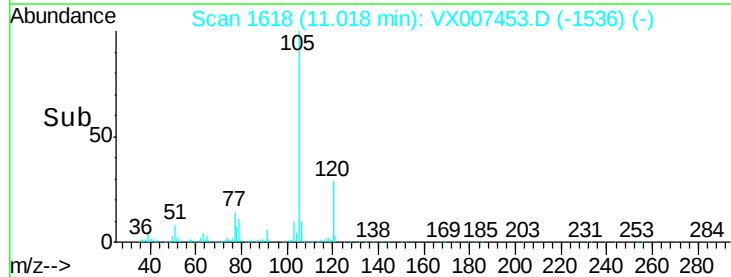
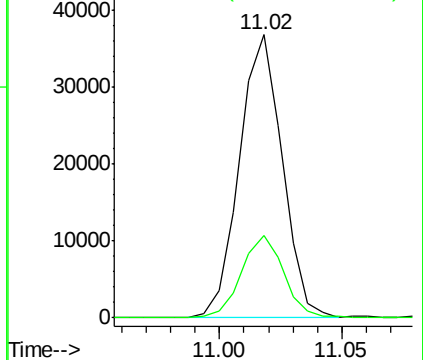


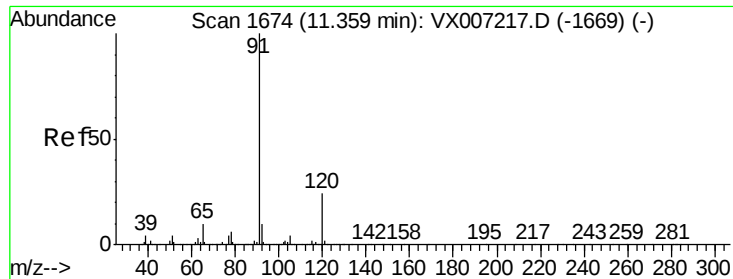
#70
Isopropylbenzene
Concen: 2.208 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX007453.D
Acq: 08 Feb 2019 20:09

Tgt Ion:105 Resp: 44758
Ion Ratio Lower Upper
105 100
120 29.0 19.9 36.9



Abundance Ion 105.00 (104.70 to 105.70): V
Ion 120.00 (119.70 to 120.70): V





#74

n-propylbenzene

Concen: 0.413 ug/l

RT: 11.36 min Scan# 1674

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

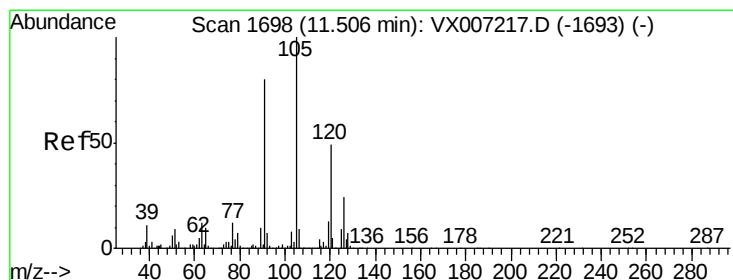
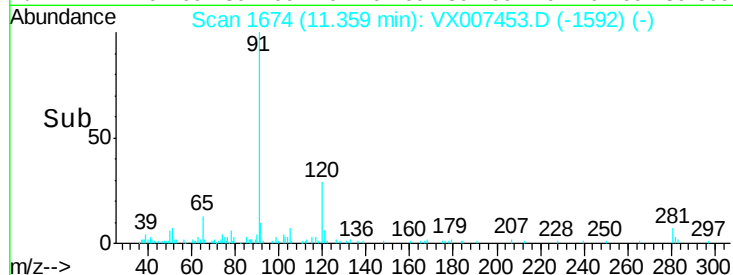
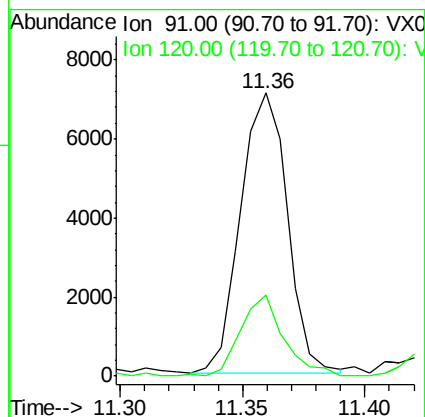
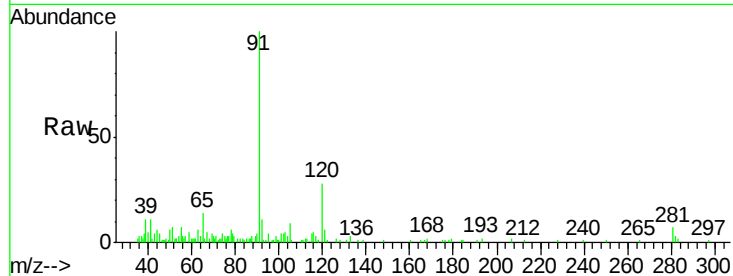
ClientSampled :

Tot Ion: 91 Resp: 9424

Ion Ratio Lower Upper

91 100

120 26.7 0.0 48.0



#76

1,3,5-Trimethylbenzene

Concen: 0.855 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. -0.00 min

Lab File: VX007453.D

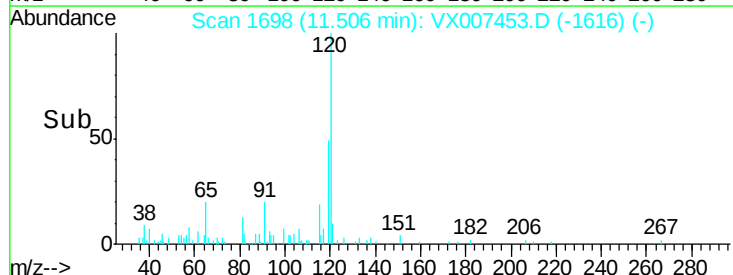
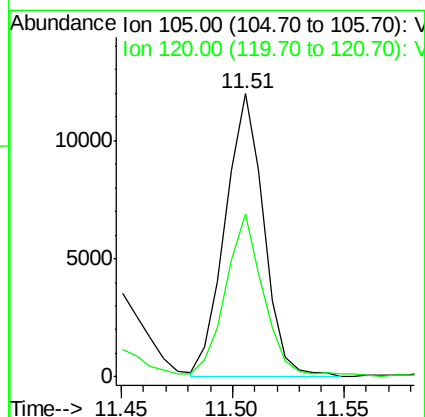
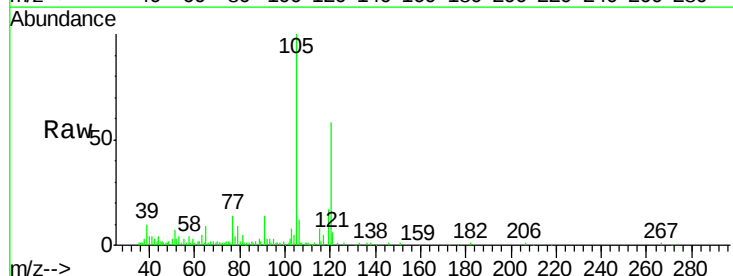
Acq: 08 Feb 2019 20:09

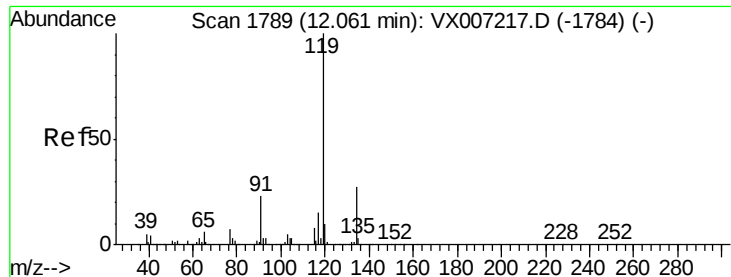
Tgt Ion: 105 Resp: 14469

Ion Ratio Lower Upper

105 100

120 54.1 0.0 99.8





#79

tert-butylbenzene

Concen: 0.289 ug/l

RT: 12.06 min Scan# 1789

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampled :

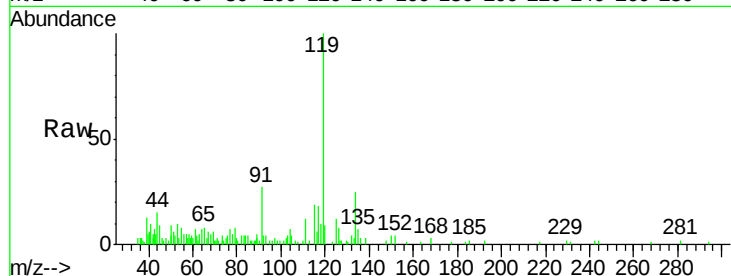
Tot Ion:119 Resp: 5286

Ion Ratio Lower Upper

119 100

91 22.0 0.0 45.0

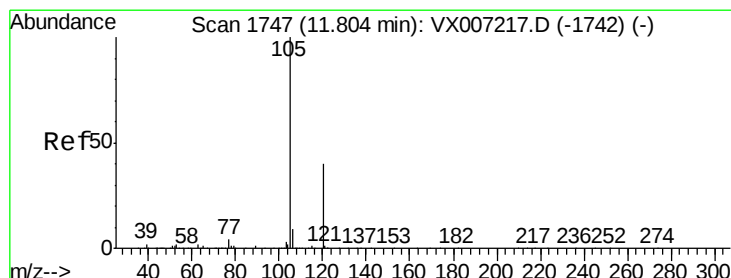
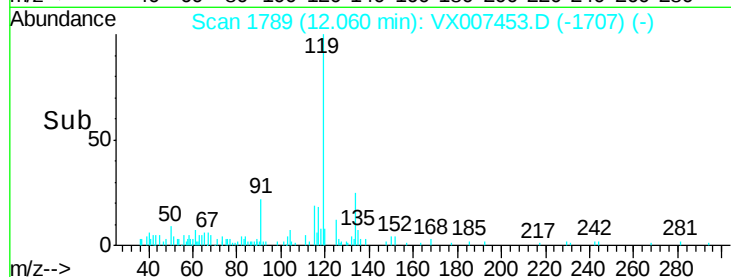
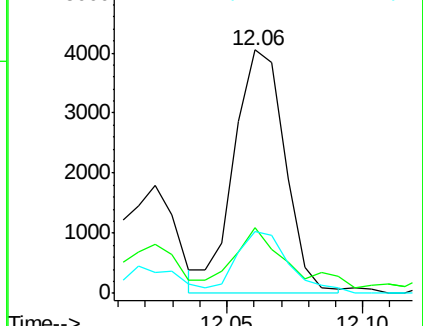
134 26.1 0.0 55.8



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 91.00 (90.70 to 91.70): VX0

Ion 134.00 (133.70 to 134.70): V



#80

1,2,4-Trimethylbenzene

Concen: 1.099 ug/l

RT: 11.80 min Scan# 1747

Delta R.T. -0.00 min

Lab File: VX007453.D

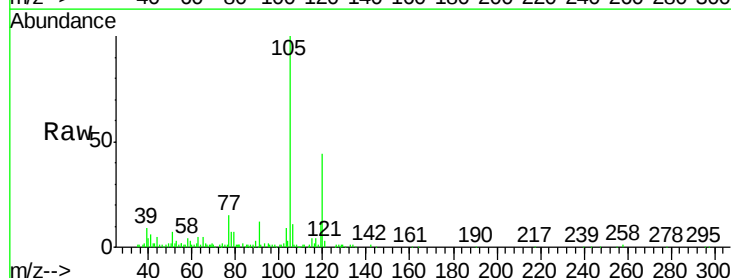
Acq: 08 Feb 2019 20:09

Tgt Ion:105 Resp: 18826

Ion Ratio Lower Upper

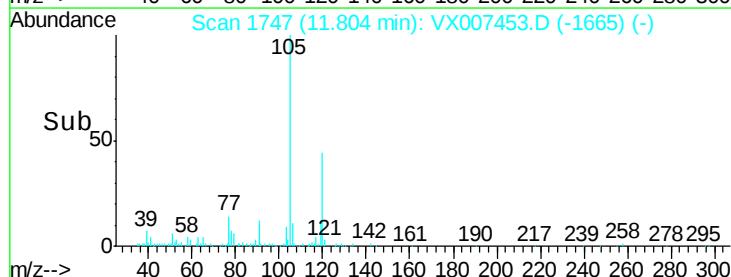
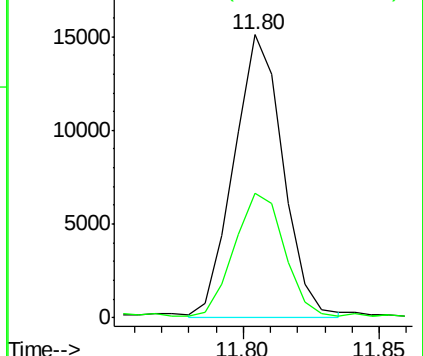
105 100

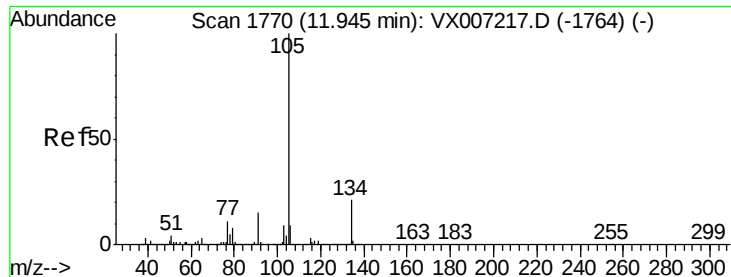
120 45.5 0.0 94.4



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V





#81

sec-Butylbenzene

Concen: 0.436 ug/l

RT: 11.94 min Scan# 1769

Delta R.T. -0.01 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

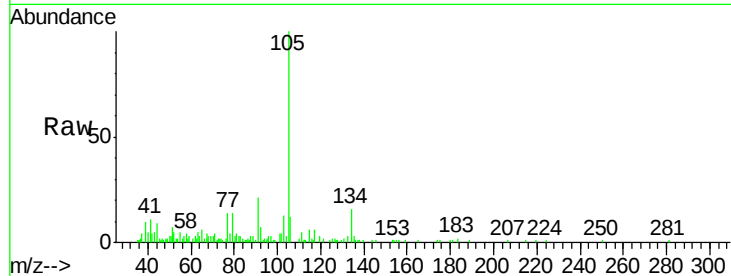
ClientSampleId :

Tot Ion:105 Resp: 8891

Ion Ratio Lower Upper

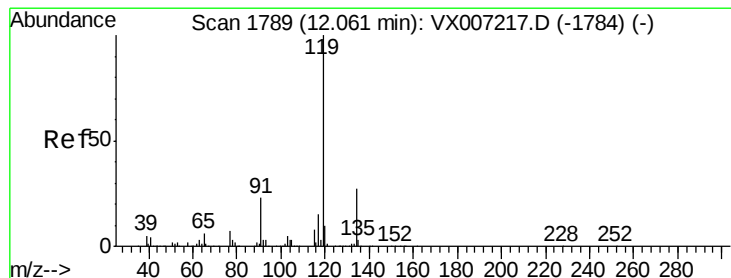
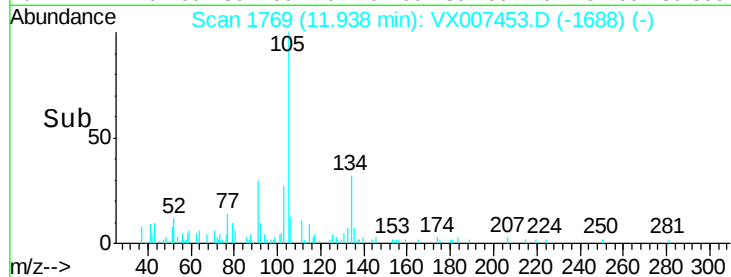
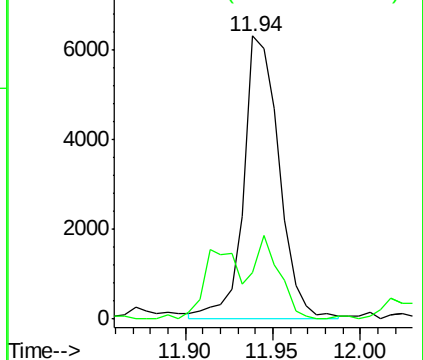
105 100

134 21.6 0.0 42.2



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V



#82

p-Isopropyltoluene

Concen: 0.289 ug/l

RT: 12.06 min Scan# 1789

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

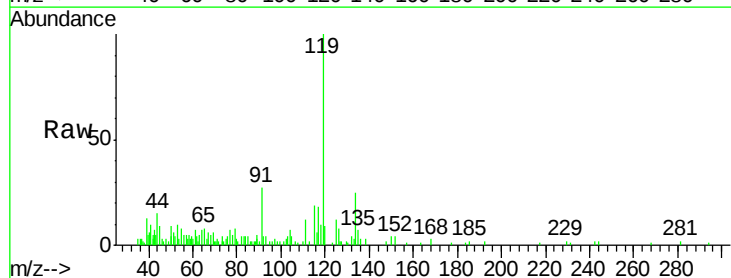
Tgt Ion:119 Resp: 5286

Ion Ratio Lower Upper

119 100

134 26.1 0.0 55.8

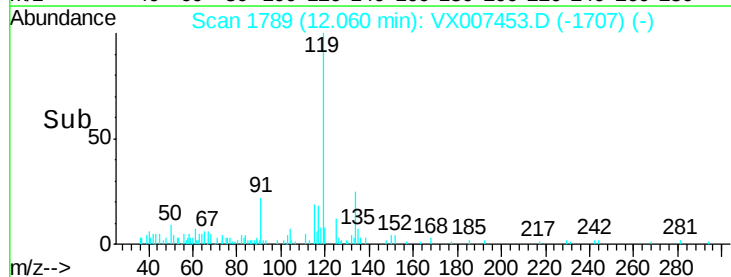
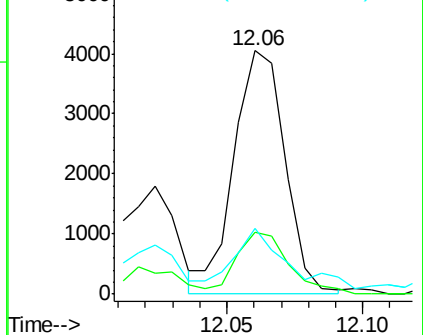
91 22.0 0.0 45.0

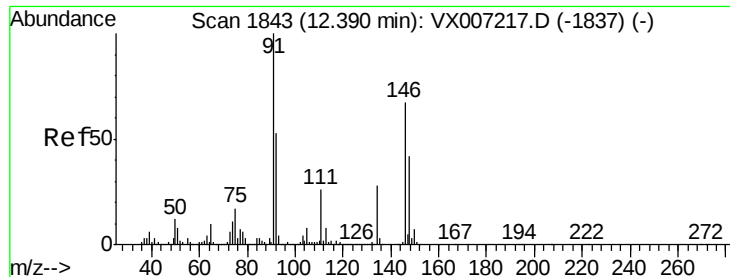


Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): V





#85

n-Butylbenzene

Concen: 8.022 ug/l

RT: 12.30 min Scan# 1828

Delta R.T. -0.09 min

Lab File: VX007453.D

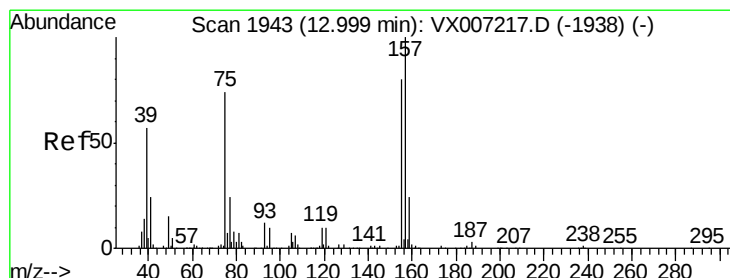
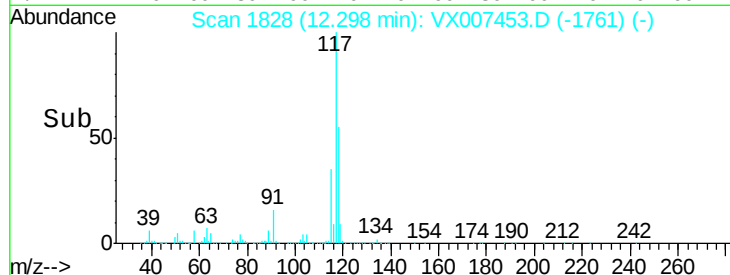
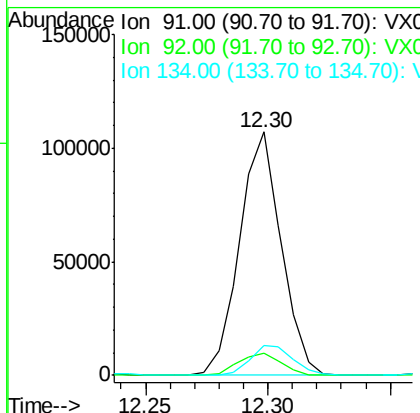
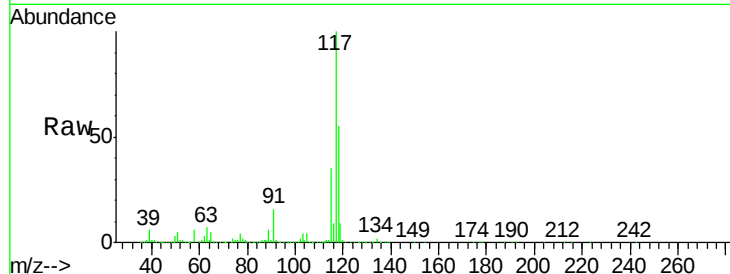
Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampled :

Tot Ion:	91	Resp:	126041
Ion	Ratio	Lower	Upper
91	100		
92	9.6	0.0	106.2
134	12.8	0.0	55.4



#88

1,2-Dibromo-3-Chloropropane

Concen: 0.487 ug/l

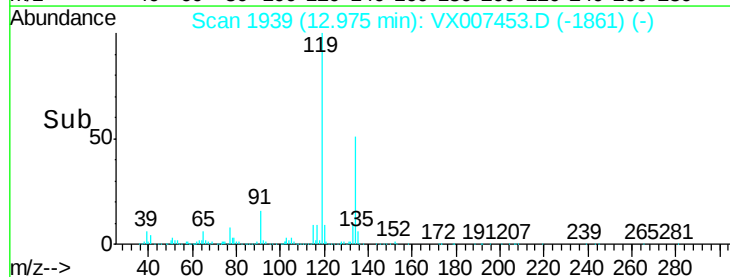
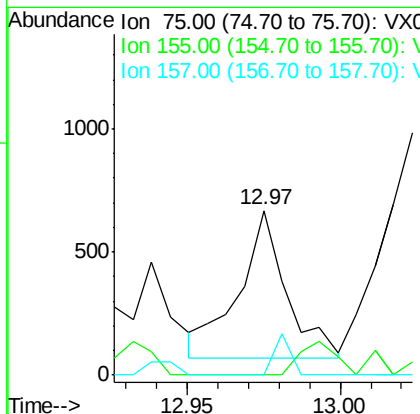
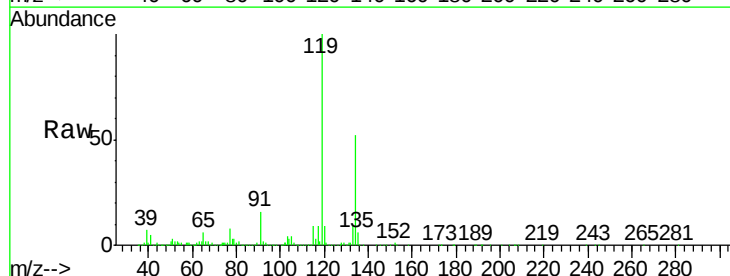
RT: 12.97 min Scan# 1939

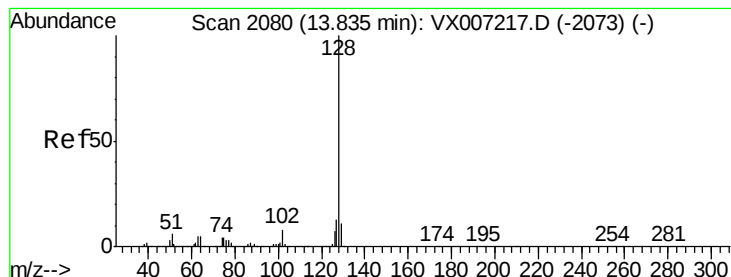
Delta R.T. -0.02 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Tgt Ion:	75	Resp:	644
Ion	Ratio	Lower	Upper
75	100		
155	17.4	82.8	124.2#
157	0.0	106.9	160.3#





#91

Naphthalene

Concen: 89.727 ug/l

RT: 13.83 min Scan# 2080

Delta R.T. -0.00 min

Lab File: VX007453.D

Acq: 08 Feb 2019 20:09

Instrument :

MSVOA_X

ClientSampleId :

Tot Ion:128 Resp: 1852016

Ion Ratio Lower Upper

128 100

127 13.0 10.6 16.0

129 10.8 8.9 13.3

