

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VO051619\
 Data File : VX009619.D
 Acq On : 16 May 2019 19:52
 Operator : JC/SP
 Sample : K2637-04
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 27 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 HR-06-051519-B

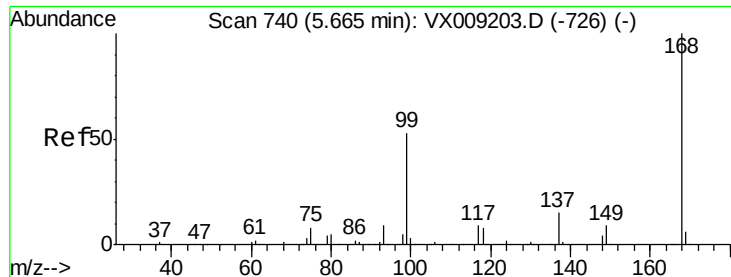
Quant Time: May 17 06:40:54 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X042919W.M
 Quant Title : SW846 8260
 QLast Update : Thu May 09 07:31:15 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	165591	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	268170	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	236909	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	97742	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	6.06	65	112246	49.66	ug/l	0.00
Spiked Amount			Recovery	=	99.32%	
35) Dibromofluoromethane	5.50	113	82292	48.81	ug/l	0.00
Spiked Amount			Recovery	=	97.62%	
50) Toluene-d8	8.71	98	340242	49.99	ug/l	0.00
Spiked Amount			Recovery	=	99.98%	
62) 4-Bromofluorobenzene	11.13	95	111362	45.03	ug/l	0.00
Spiked Amount			Recovery	=	90.06%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Tert butyl alcohol	3.03	59	420	0.803	ug/l #	73
13) Acrolein	2.31	56	216	0.456	ug/l #	33
16) Acetone	2.45	43	16648	13.716	ug/l	97
18) Methyl Acetate	2.78	43	6667	2.310	ug/l	99
20) Methylene Chloride	2.86	84	3991	2.031	ug/l	97
25) 2-Butanone	4.69	43	2989	1.585	ug/l #	52
28) Bromochloromethane	5.09	49	39	Below Cal	#	20
29) Tetrahydrofuran	5.15	42	1634	1.346	ug/l	94
30) Chloroform	5.21	83	1086	0.334	ug/l	86
36) 1,1-Dichloropropene	5.66	75	13194	5.294	ug/l #	51
38) Carbon Tetrachloride	5.66	117	15524	6.856	ug/l #	15
43) Isopropyl Acetate	6.45	43	11881	2.139	ug/l	96
48) Methyl methacrylate	7.68	41	7600	2.758	ug/l #	19
49) 1,4-Dioxane	7.63	88	19	0.340	ug/l #	20
51) 4-Methyl-2-Pentanone	8.62	43	88070	24.260	ug/l #	51
54) cis-1,3-Dichloropropene	8.62	75	37423	11.838	ug/l #	60
57) 1,3-Dichloropropane	9.54	76	8285	2.461	ug/l #	44
59) 2-Hexanone	9.44	43	12581	4.413	ug/l #	26
74) N-amyl acetate	10.69	43	12635	3.049	ug/l #	57
76) 1,2,3-Trichloropropane	11.13	75	56646	24.984	ug/l #	34
80) 1,3,5-Trimethylbenzene	11.51	105	2471	0.413	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.13	75	56646	63.926	ug/l #	10
84) 1,2,4-Trimethylbenzene	11.80	105	1672	0.278	ug/l	95
92) 1,2-Dibromo-3-Chloropropan	12.98	75	124	0.209	ug/l #	2
95) Naphthalene	13.83	128	3467	0.486	ug/l #	90

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. 0.00 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

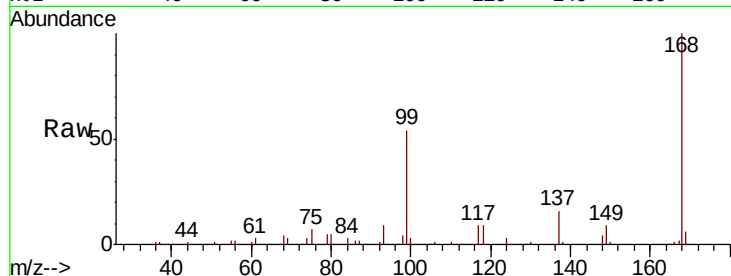
HR-06-051519-B

Tot Ion:168 Resp: 165591

Ion Ratio Lower Upper

168 100

99 54.1 42.3 63.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

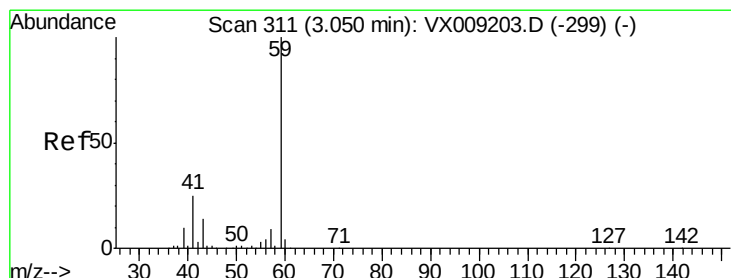
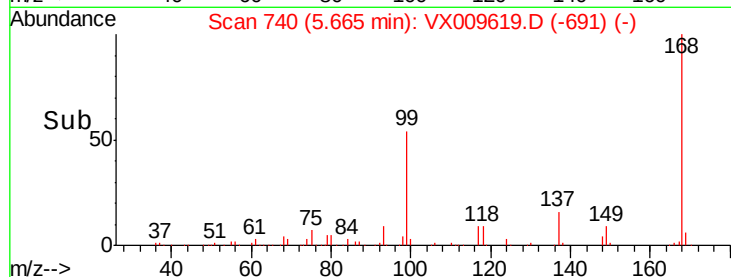
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#11

Tert butyl alcohol

Concen: 0.803 ug/l

RT: 3.03 min Scan# 308

Delta R.T. -0.02 min

Lab File: VX009619.D

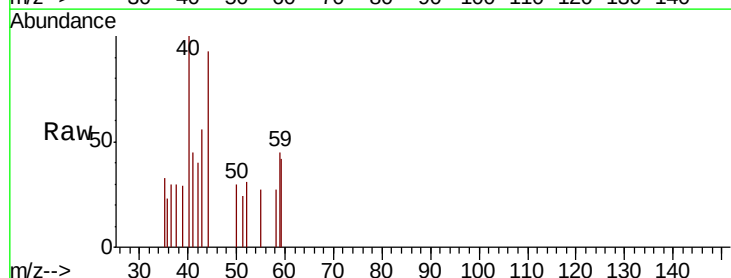
Acq: 16 May 2019 19:52

Tgt Ion: 59 Resp: 420

Ion Ratio Lower Upper

59 100

57 0.0 8.2 12.2#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

3.03

200

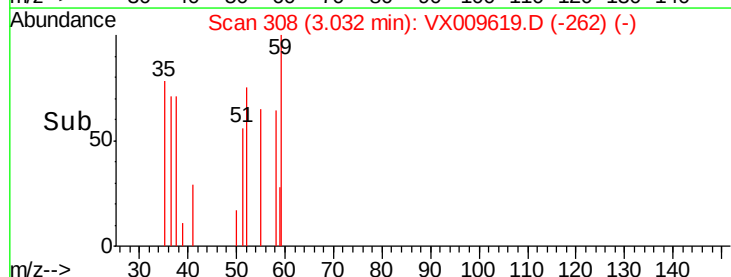
150

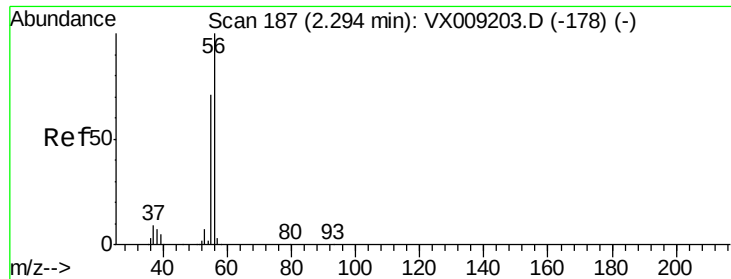
100

50

0

Time--> 3.00 3.05 3.10





#13

Acrolein

Concen: 0.456 ug/l

RT: 2.31 min Scan# 190

Delta R.T. 0.02 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

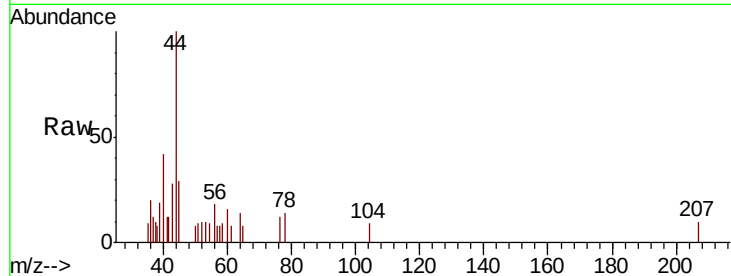
HR-06-051519-B

Tot Ion: 56 Resp: 216

Ion Ratio Lower Upper

56 100

55 15.3 56.6 85.0#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0

2.31

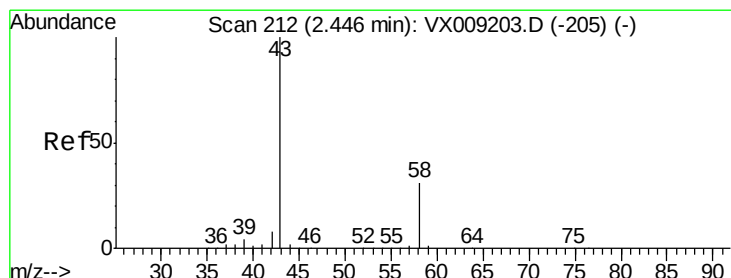
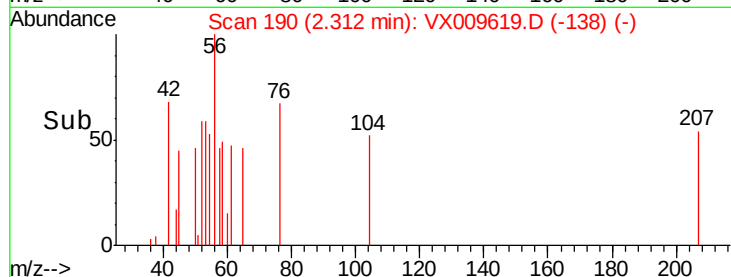
100

50

0

2.30 2.35

Time-->



#16

Acetone

Concen: 13.716 ug/l

RT: 2.45 min Scan# 212

Delta R.T. 0.00 min

Lab File: VX009619.D

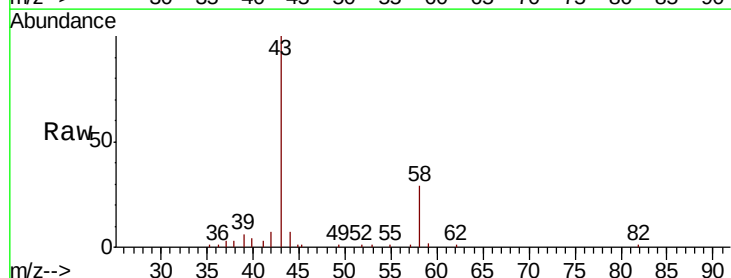
Acq: 16 May 2019 19:52

Tgt Ion: 43 Resp: 16648

Ion Ratio Lower Upper

43 100

58 29.4 24.9 37.3



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

10000

8000

6000

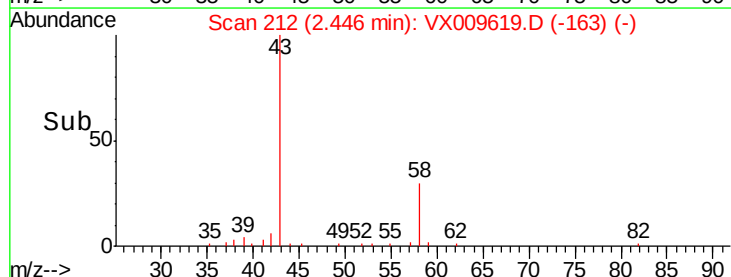
4000

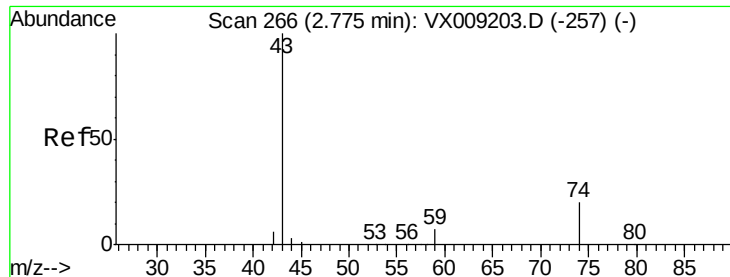
2000

0

2.40 2.50

Time-->

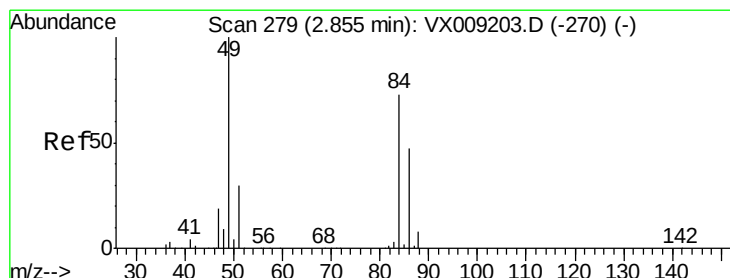
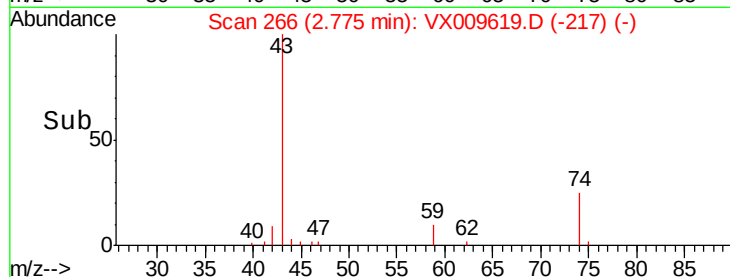
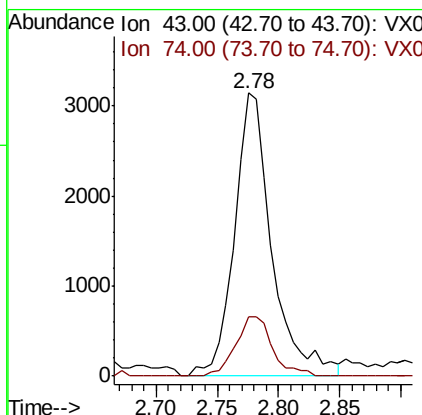
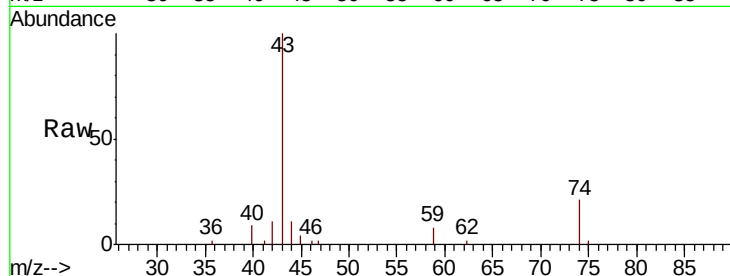




#18
Methvl Acetate
Concen: 2.310 ug/l
RT: 2.78 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

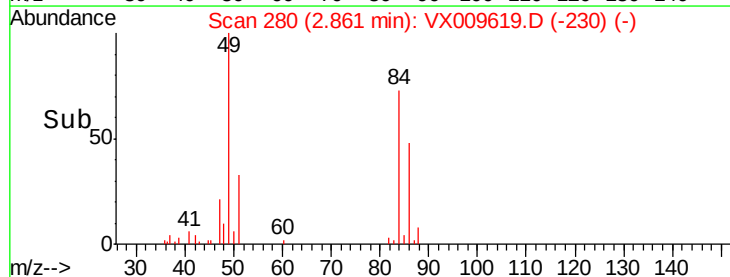
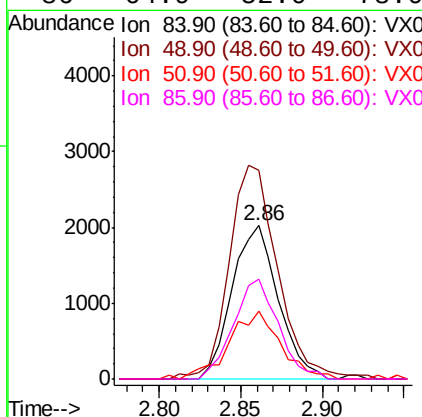
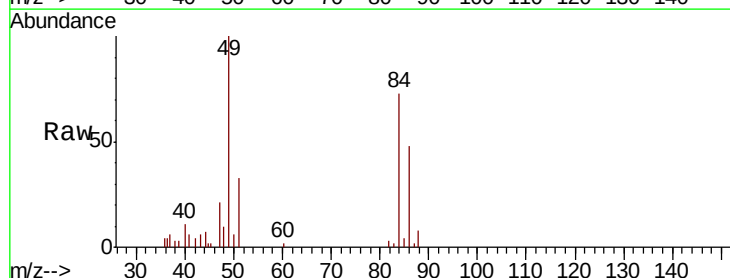
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

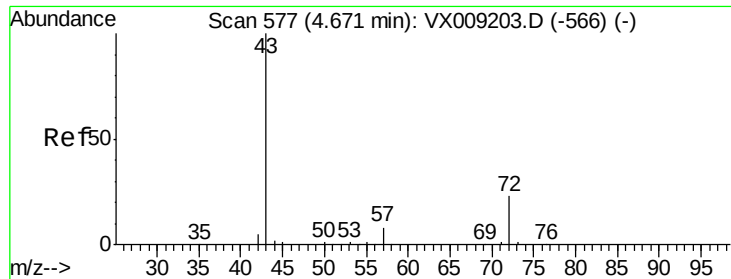
Tot Ion: 43 Resp: 6667
Ion Ratio Lower Upper
43 100
74 20.7 16.2 24.4



#20
Methylene Chloride
Concen: 2.031 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.01 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion: 84 Resp: 3991
Ion Ratio Lower Upper
84 100
49 133.9 109.9 164.9
51 44.5 32.7 49.1
86 64.9 52.0 78.0





#25

2-Butanone

Concen: 1.585 ug/l

RT: 4.69 min Scan# 580

Delta R.T. 0.02 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

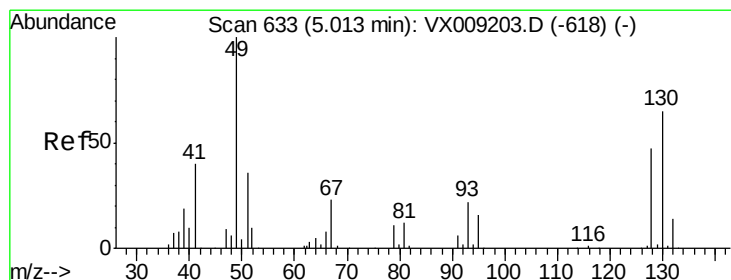
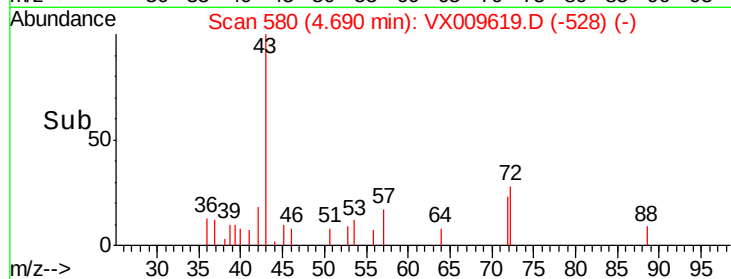
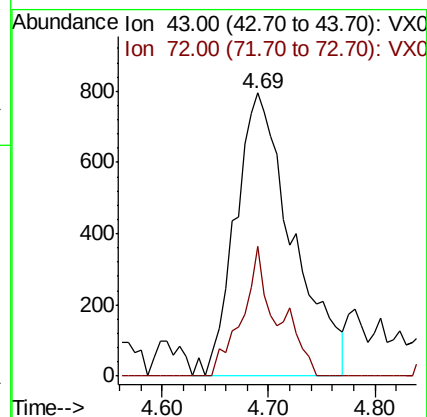
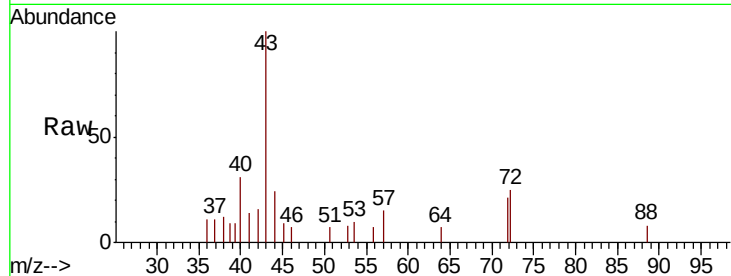
HR-06-051519-B

Tot Ion: 43 Resp: 2989

Ion Ratio Lower Upper

43 100

72 45.9 18.2 27.2#



#28

Bromochloromethane

Concen: Below Cal

RT: 5.09 min Scan# 645

Delta R.T. 0.07 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

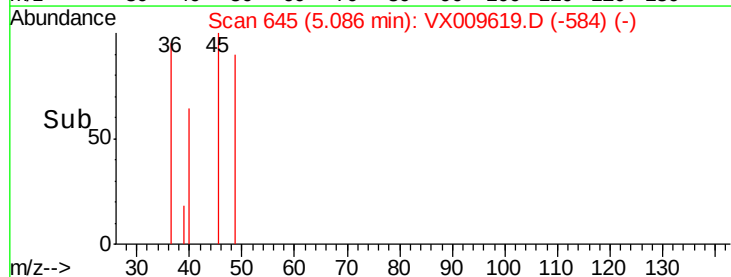
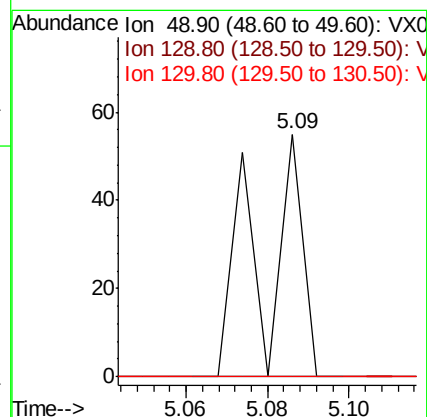
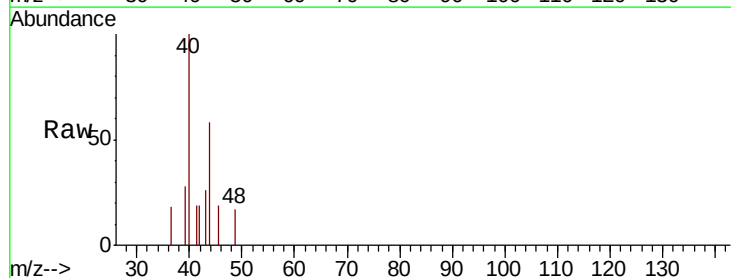
Tgt Ion: 49 Resp: 39

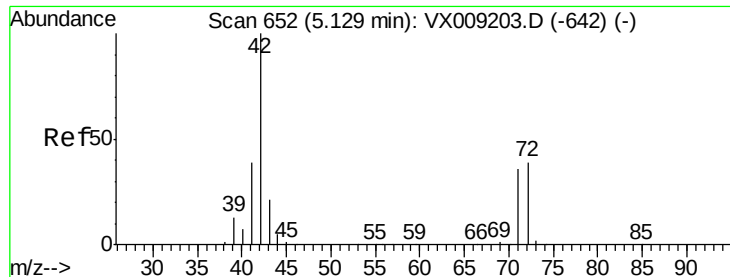
Ion Ratio Lower Upper

49 100

129 0.0 0.0 3.8

130 0.0 51.2 76.8#





#29

Tetrahydrofuran

Concen: 1.346 ug/l

RT: 5.15 min Scan# 655

Delta R.T. 0.02 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

HR-06-051519-B

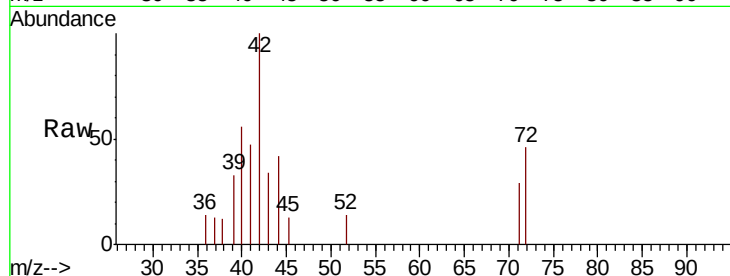
Tot Ion: 42 Resp: 1634

Ion Ratio Lower Upper

42 100

72 35.5 30.4 45.6

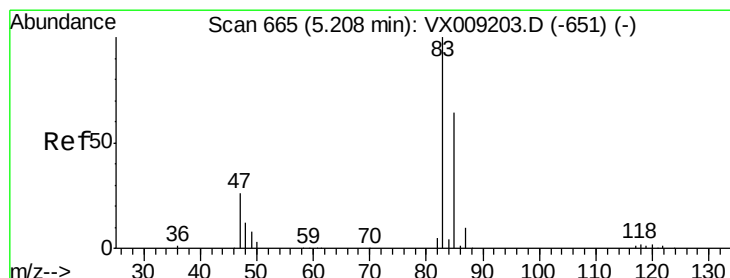
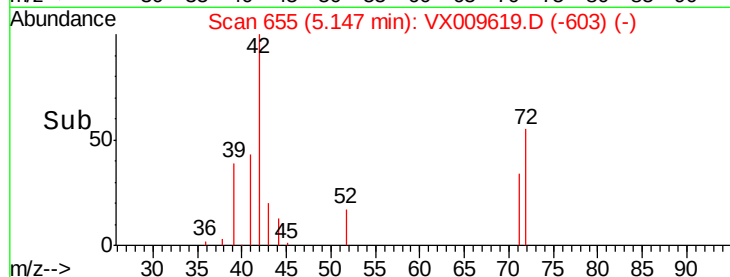
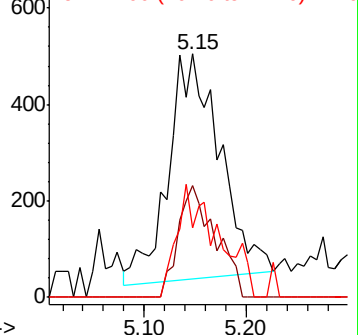
71 40.0 28.6 43.0



Abundance Ion 42.00 (41.70 to 42.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

Ion 71.00 (70.70 to 71.70): VX0



#30

Chloroform

Concen: 0.334 ug/l

RT: 5.21 min Scan# 666

Delta R.T. 0.01 min

Lab File: VX009619.D

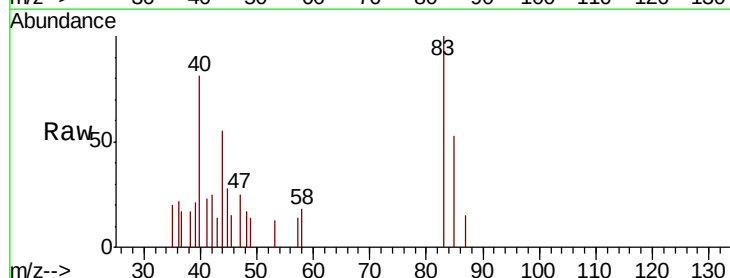
Acq: 16 May 2019 19:52

Tgt Ion: 83 Resp: 1086

Ion Ratio Lower Upper

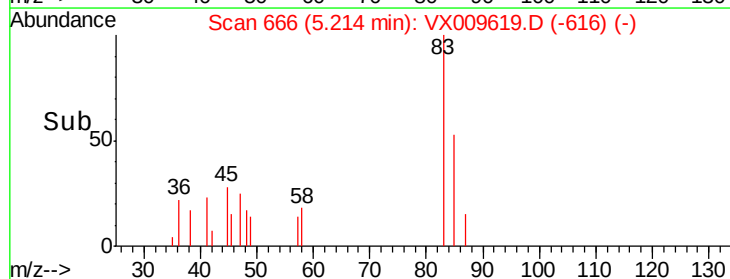
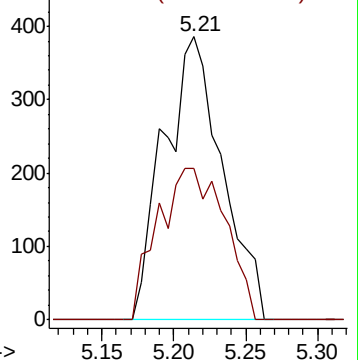
83 100

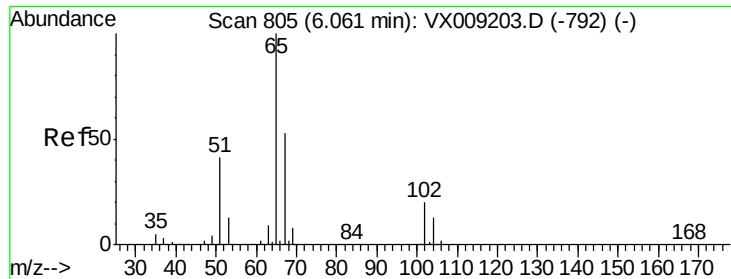
85 53.4 51.5 77.3



Abundance Ion 82.90 (82.60 to 83.60): VX0

Ion 84.90 (84.60 to 85.60): VX0

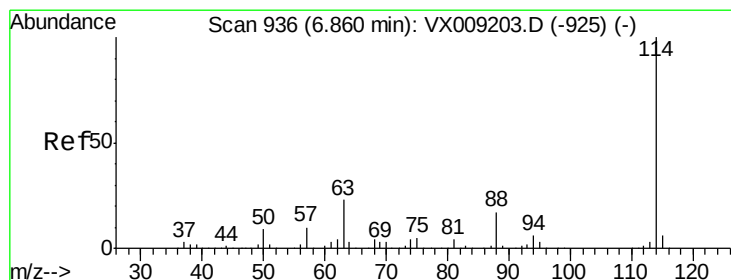
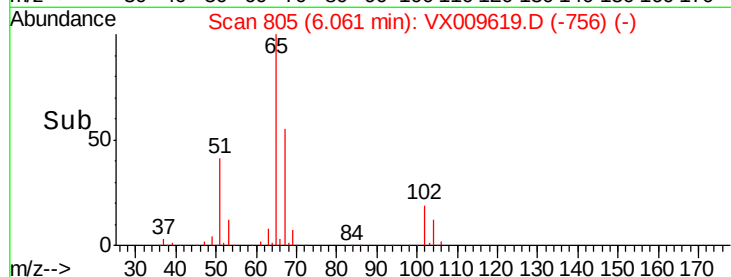
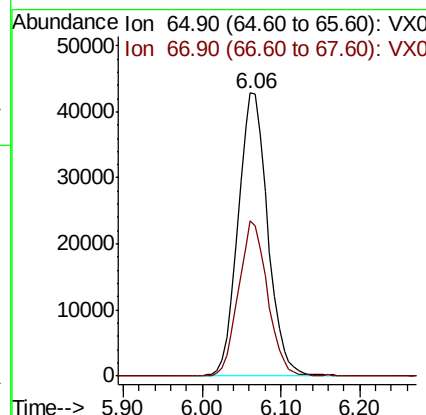
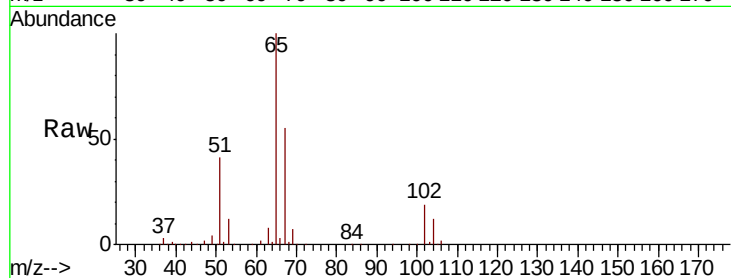




#33
 1,2-Dichloroethane-d4
 Concen: 49.655 ug/l
 RT: 6.06 min Scan# 805
 Delta R.T. 0.00 min
 Lab File: VX009619.D
 Acq: 16 May 2019 19:52

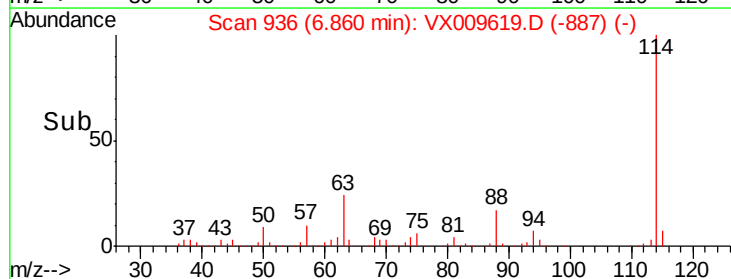
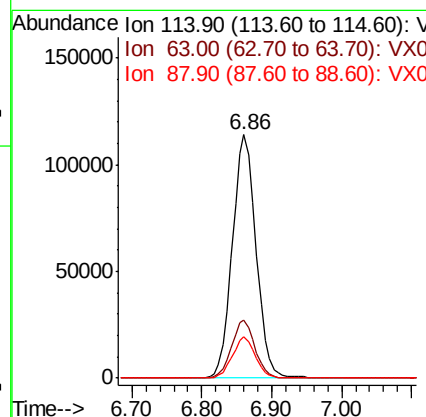
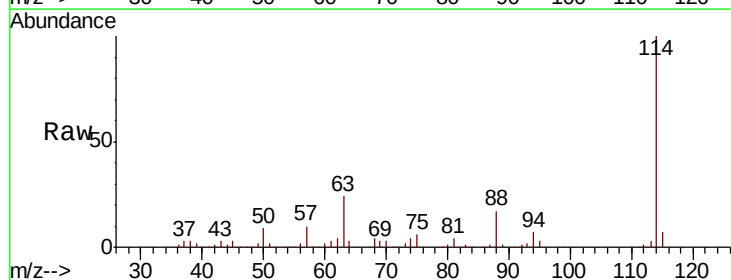
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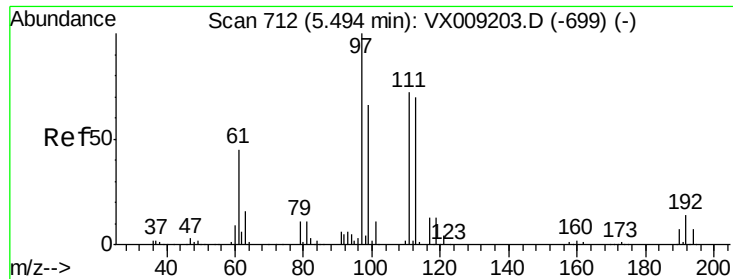
Tot Ion: 65 Resp: 112246
 Ion Ratio Lower Upper
 65 100
 67 53.7 0.0 106.6



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 6.86 min Scan# 936
 Delta R.T. 0.00 min
 Lab File: VX009619.D
 Acq: 16 May 2019 19:52

Tgt Ion: 114 Resp: 268170
 Ion Ratio Lower Upper
 114 100
 63 23.8 0.0 45.6
 88 16.9 0.0 33.2





#35

Dibromofluoromethane

Concen: 48.814 ug/l

RT: 5.50 min Scan# 713

Delta R.T. 0.01 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

HR-06-051519-B

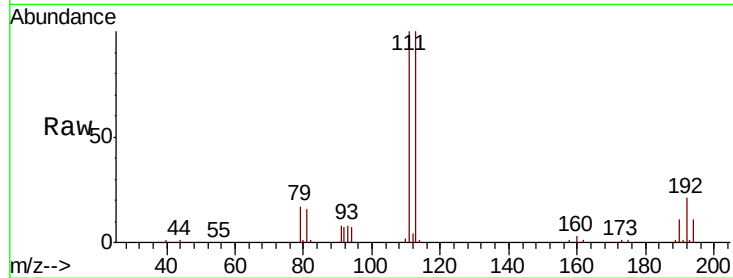
Tot Ion:113 Resp: 82292

Ion Ratio Lower Upper

113 100

111 102.4 82.8 124.2

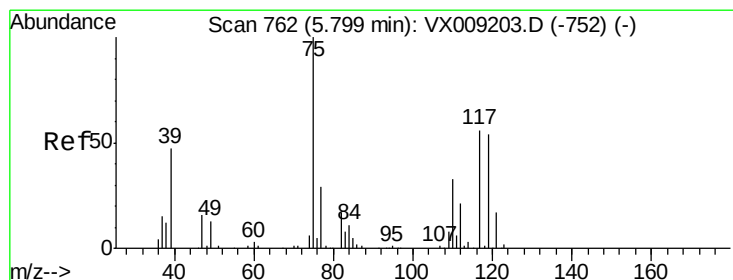
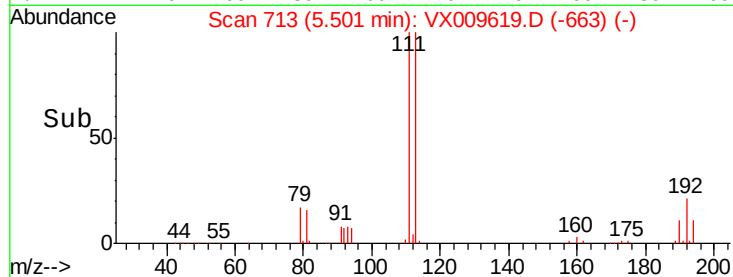
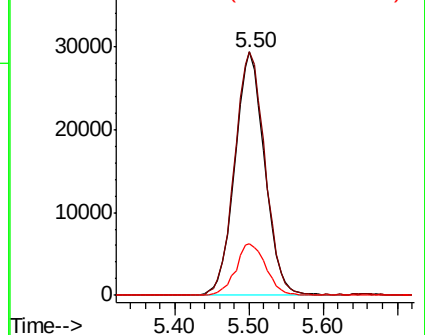
192 21.4 17.0 25.6



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 5.294 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.14 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

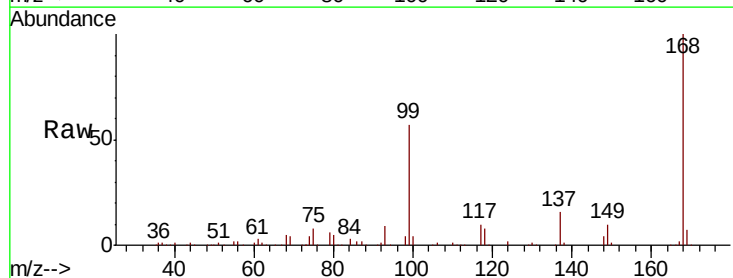
Tgt Ion: 75 Resp: 13194

Ion Ratio Lower Upper

75 100

110 9.4 16.9 50.6#

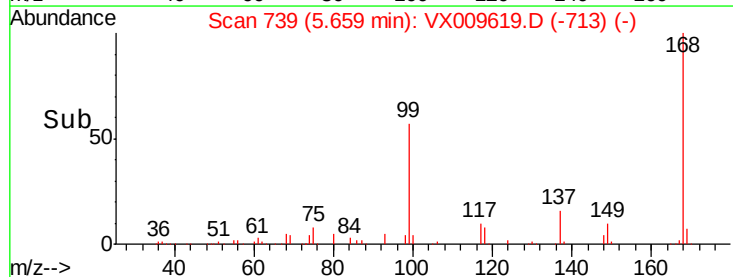
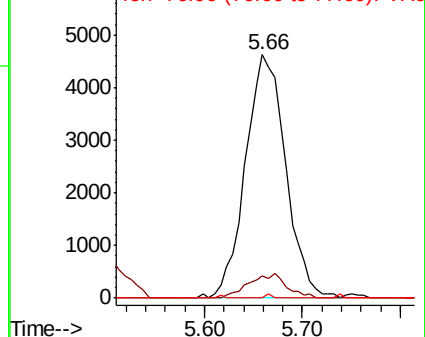
77 0.2 24.8 37.2#

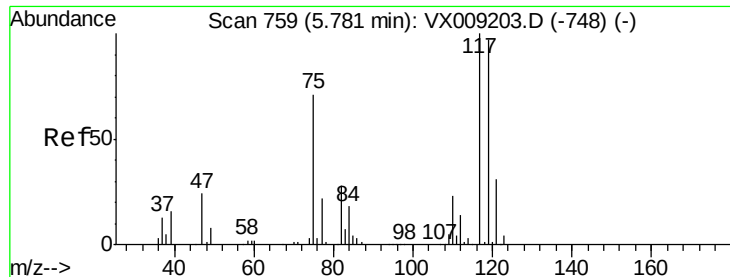


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.856 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

HR-06-051519-B

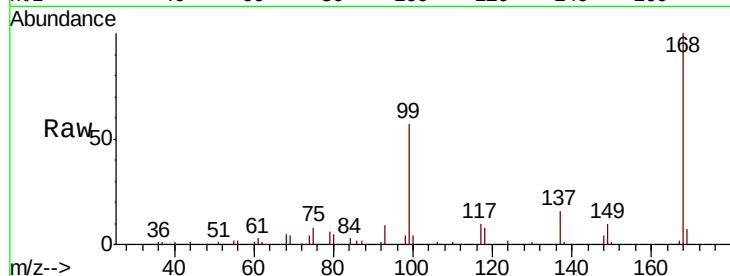
Tot Ion:117 Resp: 15524

Ion Ratio Lower Upper

117 100

119 4.4 77.5 116.3#

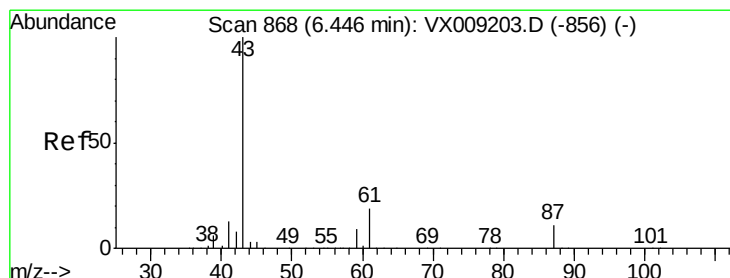
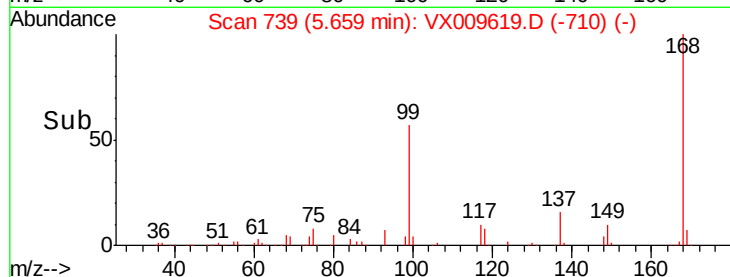
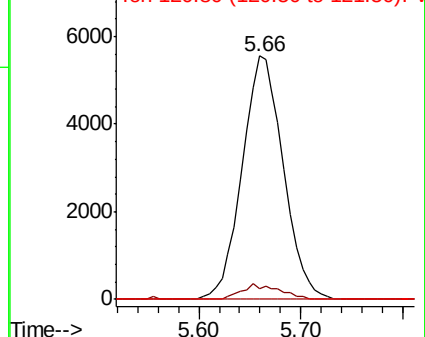
121 0.0 24.7 37.1#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#43

Isopropyl Acetate

Concen: 2.139 ug/l

RT: 6.45 min Scan# 868

Delta R.T. 0.00 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

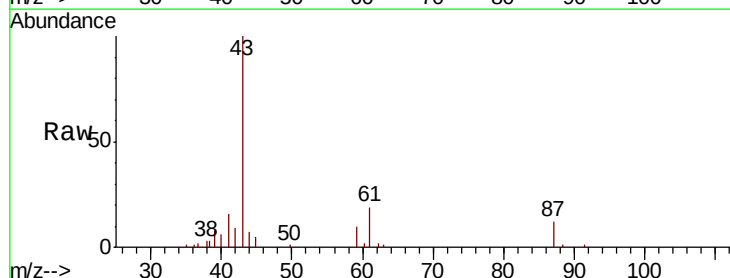
Tgt Ion: 43 Resp: 11881

Ion Ratio Lower Upper

43 100

61 21.4 15.1 22.7

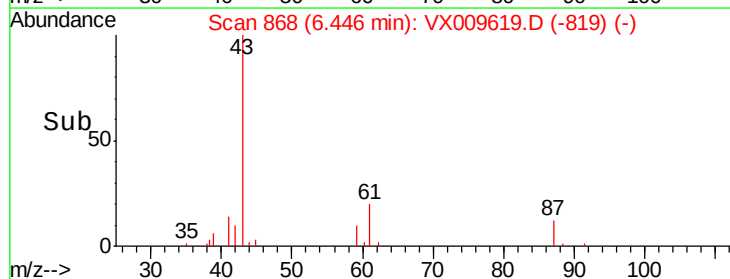
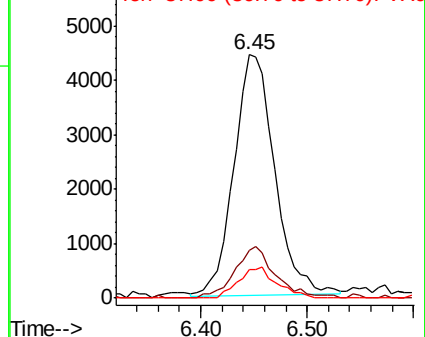
87 11.9 9.0 13.6

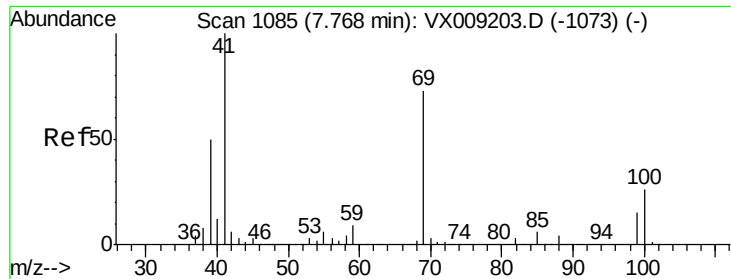


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0

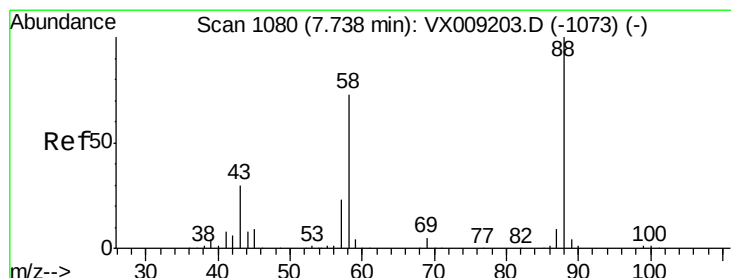
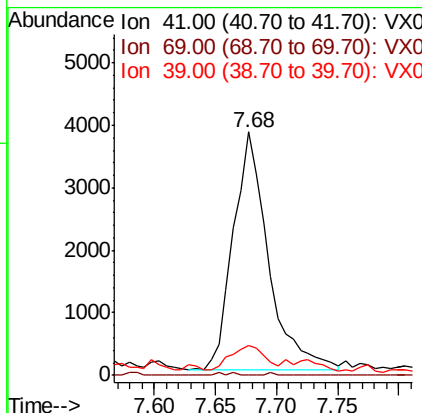
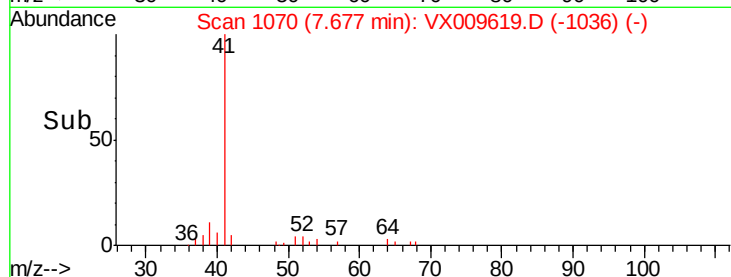
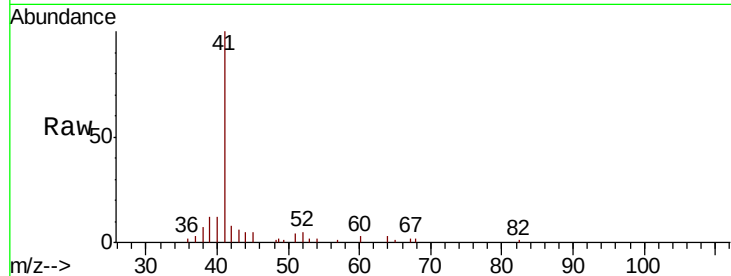




#48
Methvl methacrylate
Concen: 2.758 ug/l
RT: 7.68 min Scan# 1070
Delta R.T. -0.09 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

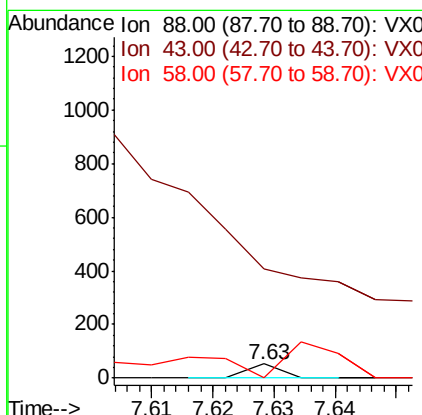
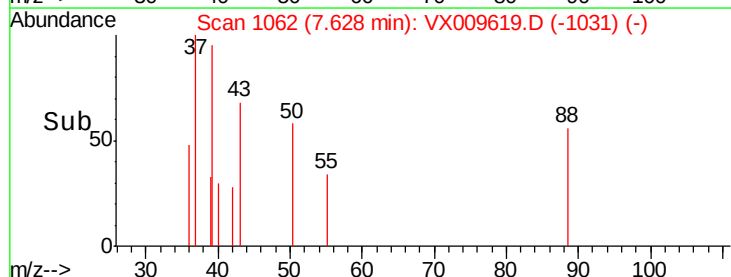
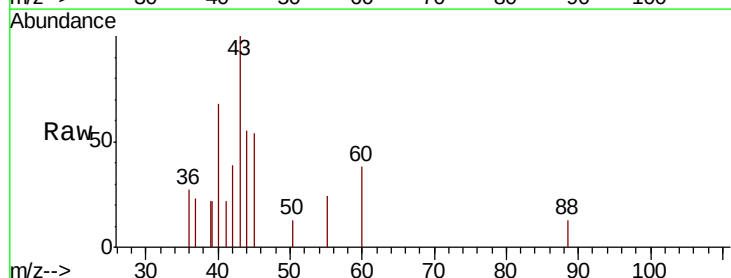
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

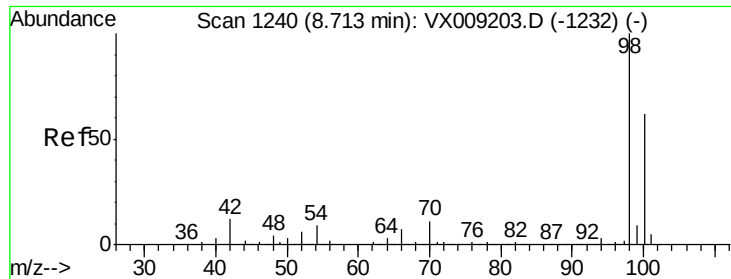
Tot Ion: 41 Resp: 7600
Ion Ratio Lower Upper
41 100
69 0.3 59.1 88.7#
39 0.0 40.4 60.6#



#49
1,4-Dioxane
Concen: 0.340 ug/l
RT: 7.63 min Scan# 1062
Delta R.T. -0.11 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion: 88 Resp: 19
Ion Ratio Lower Upper
88 100
43 0.0 28.6 42.8#
58 0.0 61.7 92.5#

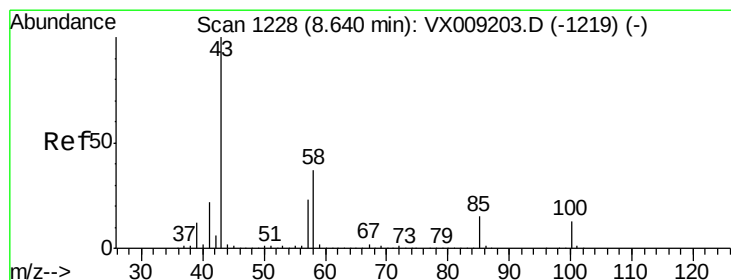
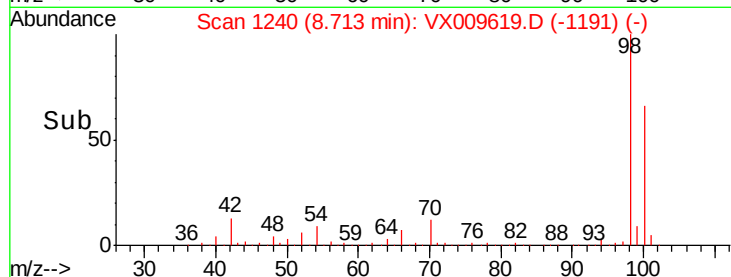
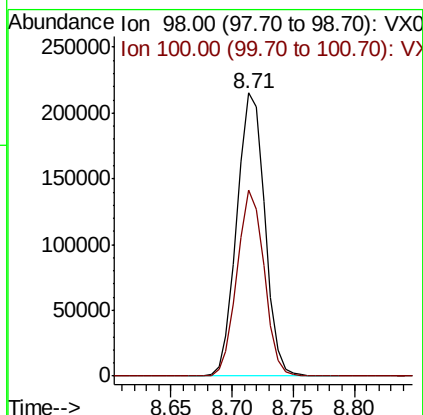
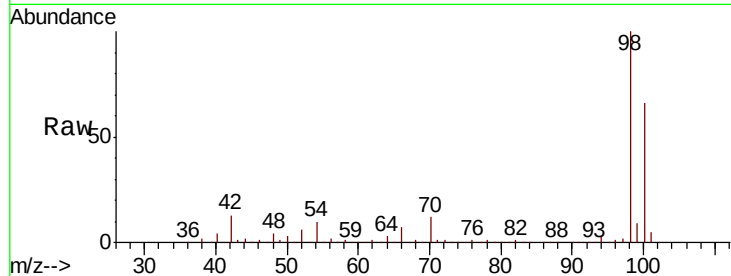




#50
Toluene-d8
Concen: 49.991 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

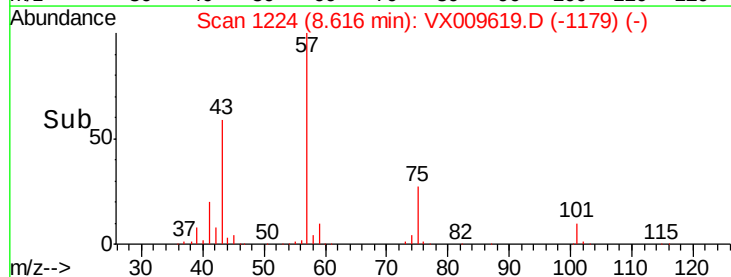
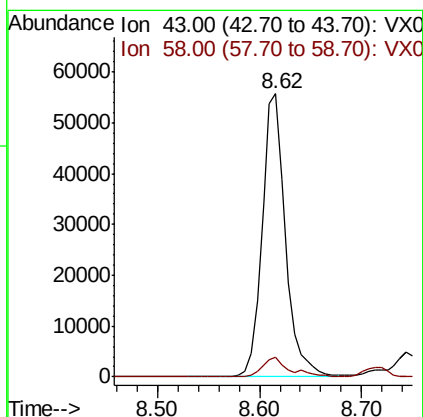
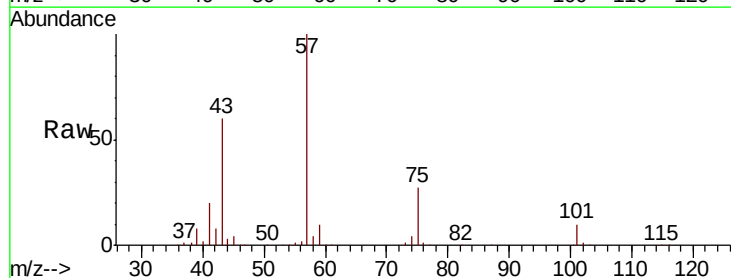
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

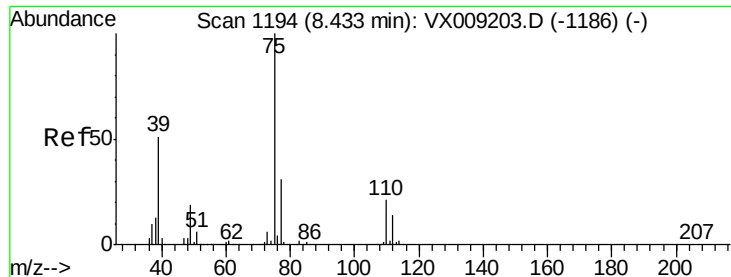
Tot Ion: 98 Resp: 340242
Ion Ratio Lower Upper
98 100
100 63.9 51.2 76.8



#51
4-Methyl-2-Pentanone
Concen: 24.260 ug/l
RT: 8.62 min Scan# 1224
Delta R.T. -0.02 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion: 43 Resp: 88070
Ion Ratio Lower Upper
43 100
58 7.9 29.5 44.3#





#54

cis-1,3-Dichloropropene

Concen: 11.838 ug/l

RT: 8.62 min Scan# 1224

Delta R.T. 0.18 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

HR-06-051519-B

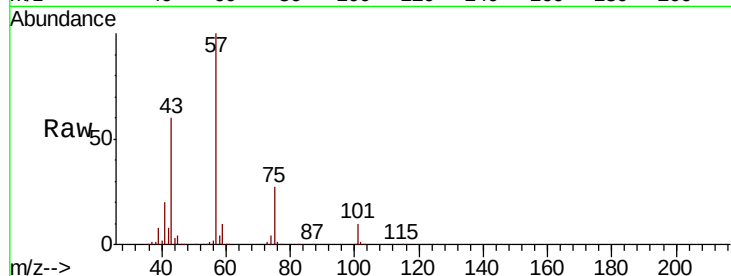
Tot Ion: 75 Resp: 37423

Ion Ratio Lower Upper

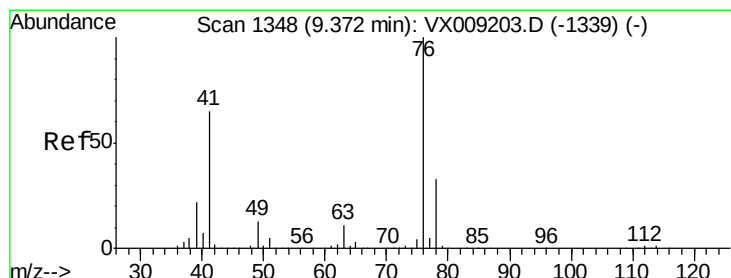
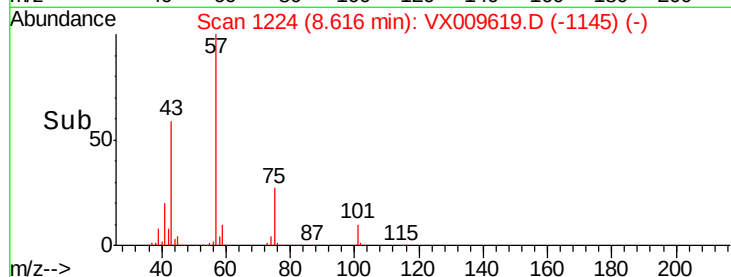
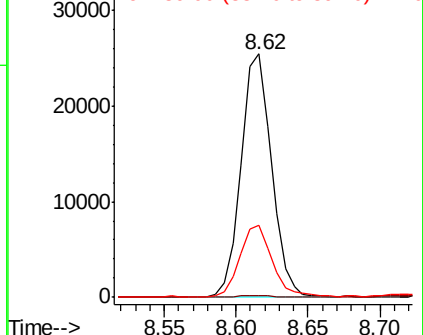
75 100

77 0.7 24.6 36.8#

39 29.5 40.6 60.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0
Ion 76.90 (76.60 to 77.60): VX0
Ion 39.00 (38.70 to 39.70): VX0



#57

1,3-Dichloropropane

Concen: 2.461 ug/l

RT: 9.54 min Scan# 1376

Delta R.T. 0.17 min

Lab File: VX009619.D

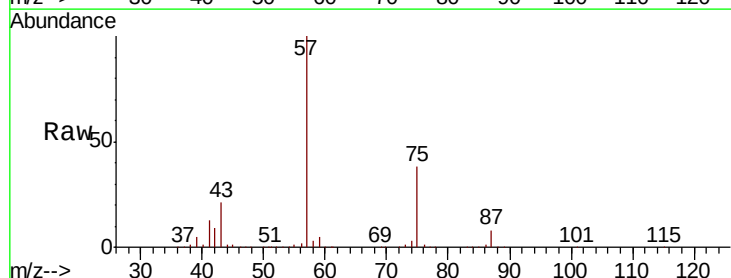
Acq: 16 May 2019 19:52

Tgt Ion: 76 Resp: 8285

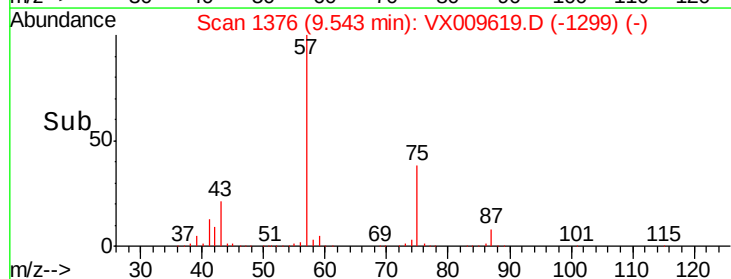
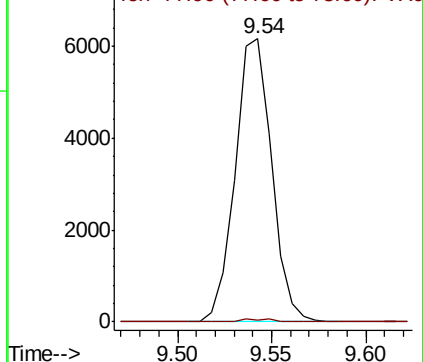
Ion Ratio Lower Upper

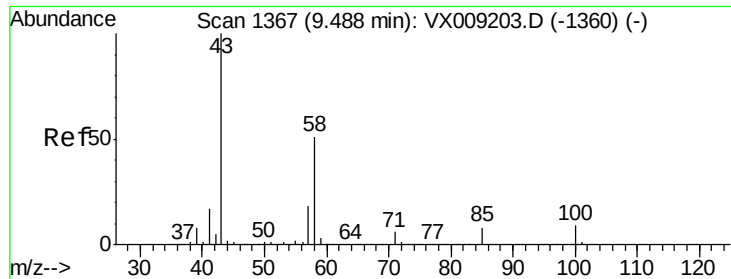
76 100

78 0.8 25.5 38.3#



Abundance Ion 75.90 (75.60 to 76.60): VX0
Ion 77.90 (77.60 to 78.60): VX0

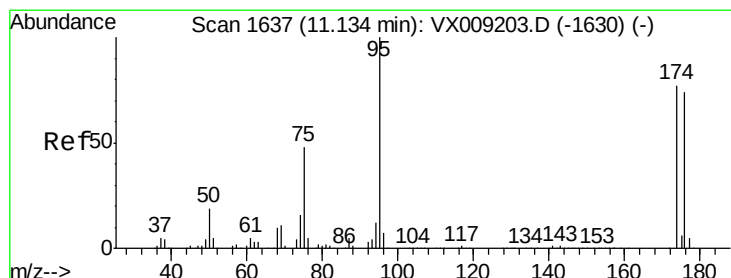
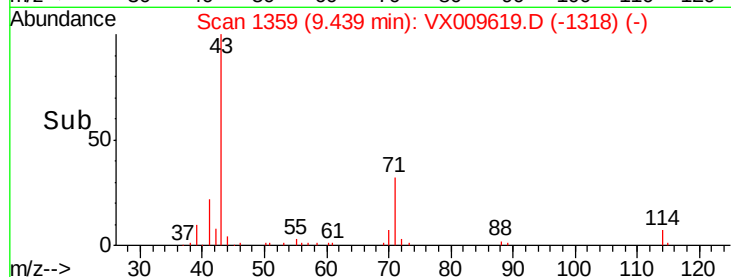
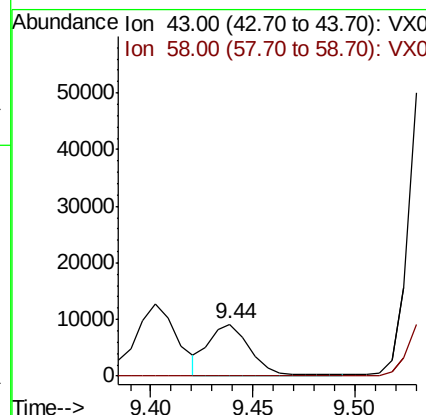
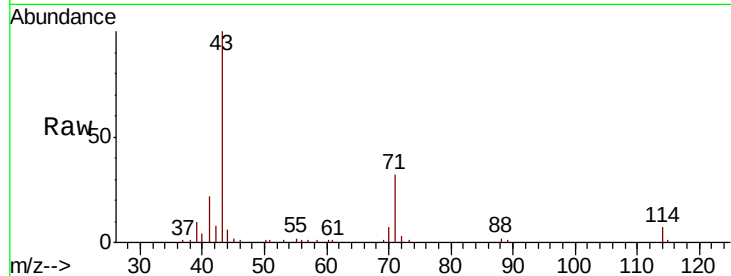




#59
2-Hexanone
Concen: 4.413 ug/l
RT: 9.44 min Scan# 1359
Delta R.T. -0.05 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

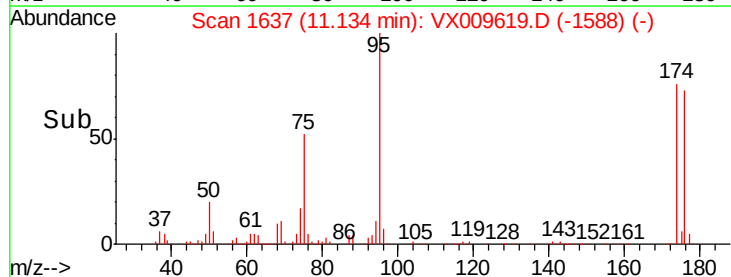
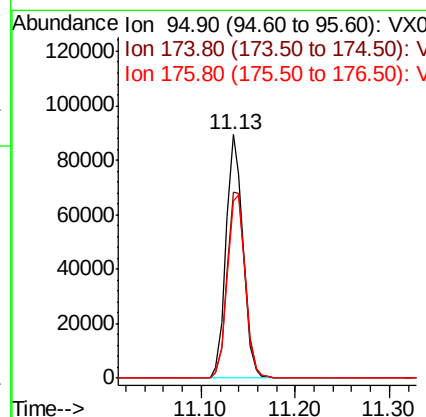
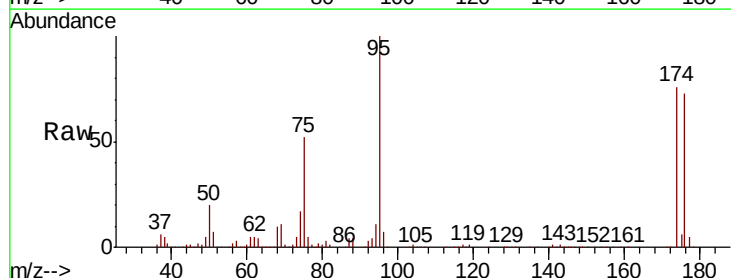
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

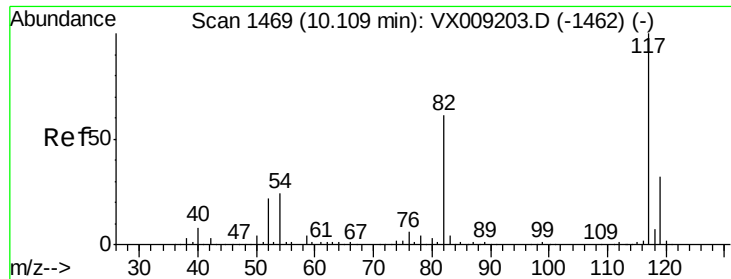
Tot Ion: 43 Resp: 12581
Ion Ratio Lower Upper
43 100
58 0.0 25.9 77.7#



#62
4-Bromofluorobenzene
Concen: 45.030 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion: 95 Resp: 111362
Ion Ratio Lower Upper
95 100
174 81.6 0.0 161.6
176 79.1 0.0 159.2

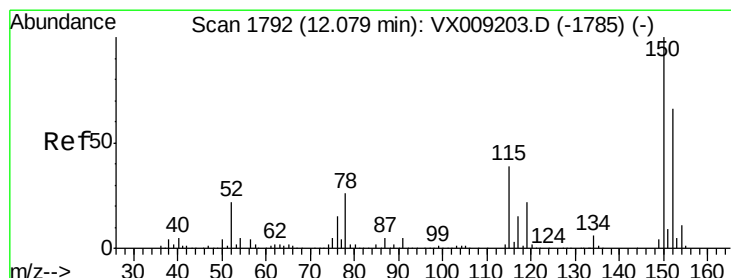
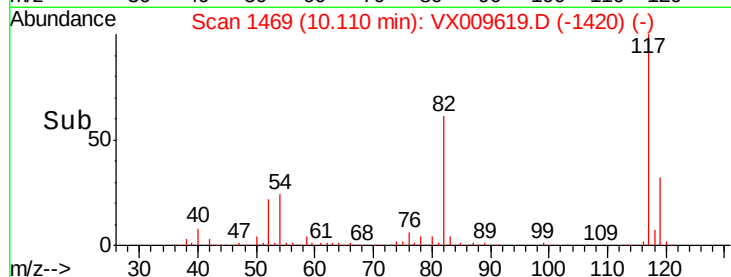
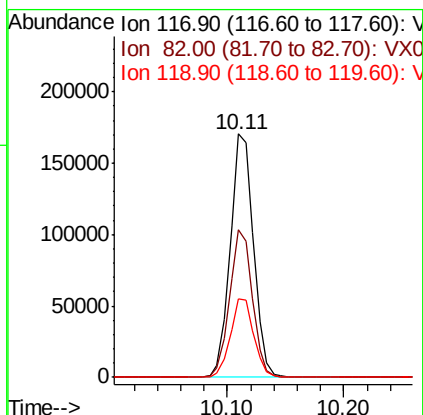
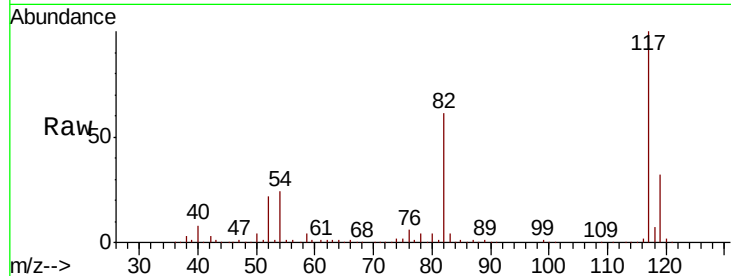




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

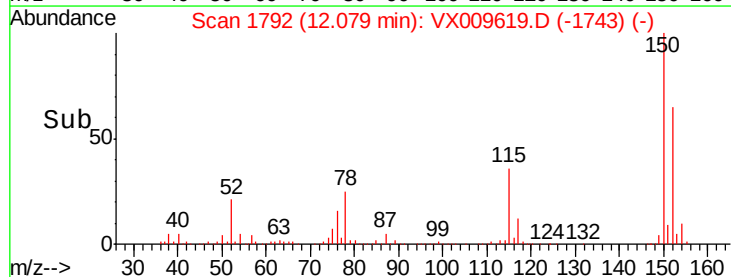
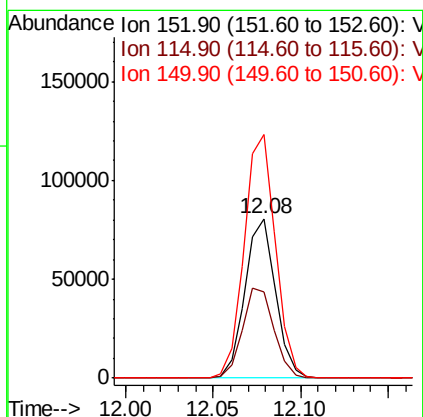
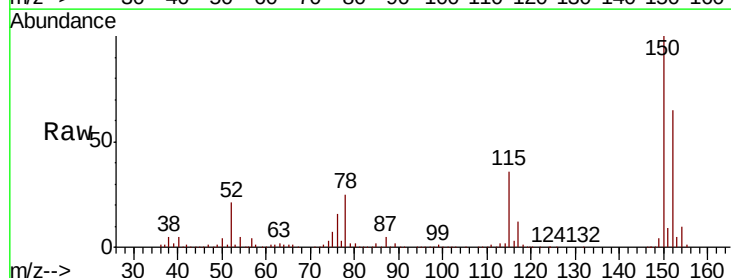
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

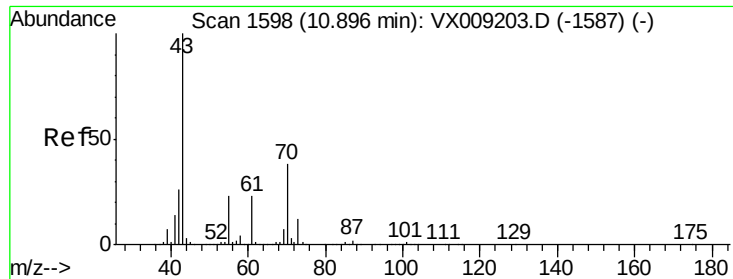
Tot Ion:117 Resp: 236909
Ion Ratio Lower Upper
117 100
82 60.5 48.8 73.2
119 32.2 25.8 38.6



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion:152 Resp: 97742
Ion Ratio Lower Upper
152 100
115 58.8 41.2 123.6
150 157.0 0.0 346.4

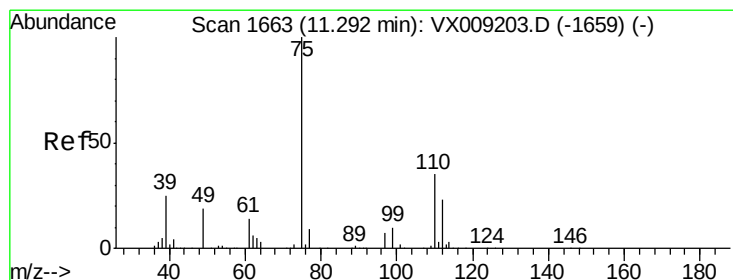
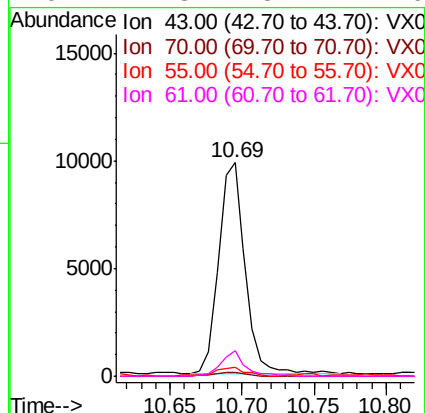
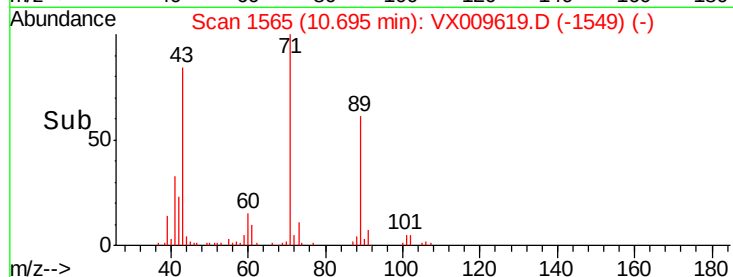
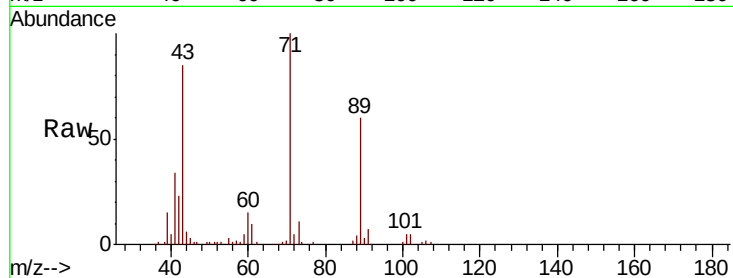




#74
N-amyl acetate
Concen: 3.049 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.20 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

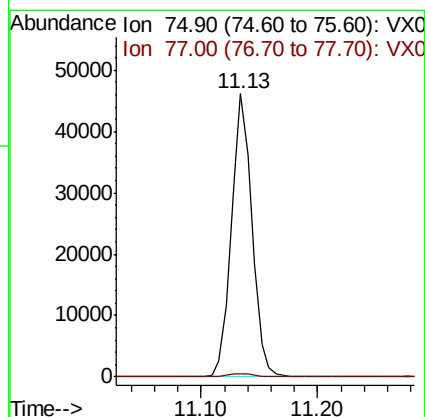
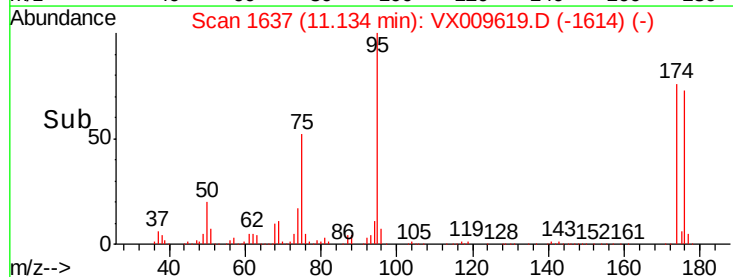
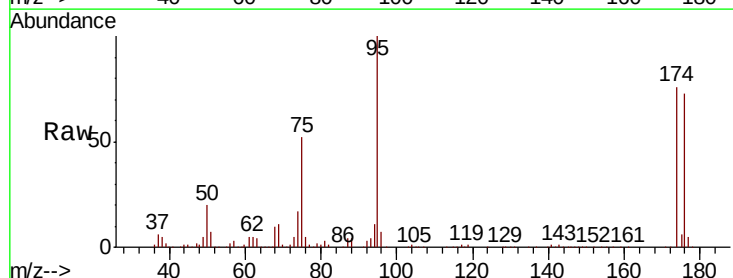
Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

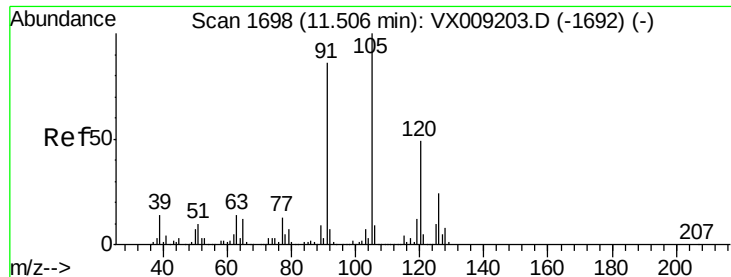
Tot Ion: 43 Resp: 12635
Ion Ratio Lower Upper
43 100
70 2.3 30.0 45.0#
55 5.2 17.9 26.9#
61 11.3 18.4 27.6#



#76
1,2,3-Trichloropropane
Concen: 24.984 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.16 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Tgt Ion: 75 Resp: 56646
Ion Ratio Lower Upper
75 100
77 1.4 22.1 66.1#





#80

1,3,5-Trimethylbenzene

Concen: 0.413 ug/l

RT: 11.51 min Scan# 1698

Delta R.T. 0.00 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

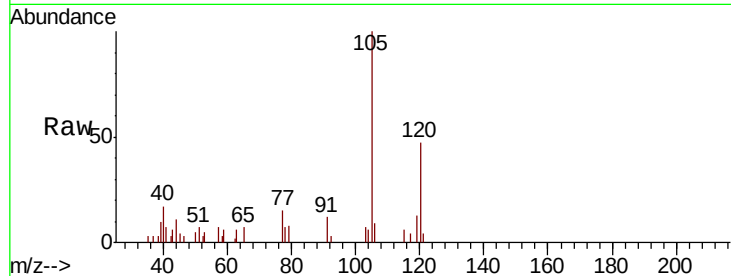
HR-06-051519-B

Tot Ion:105 Resp: 2471

Ion Ratio Lower Upper

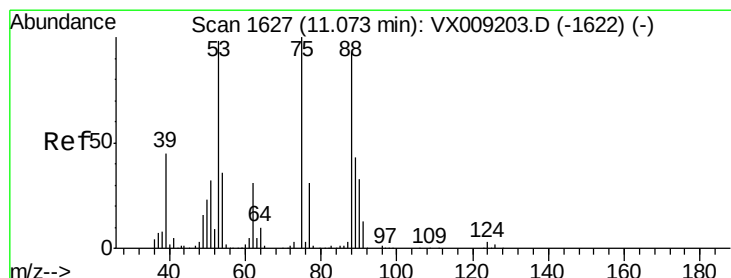
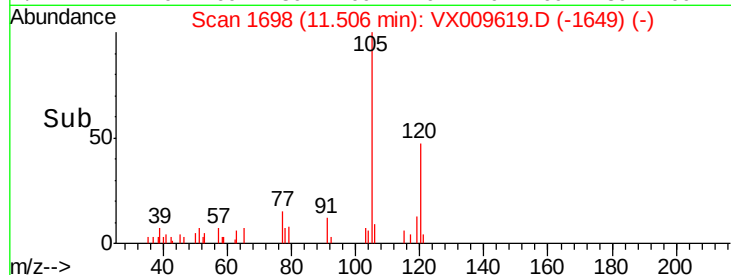
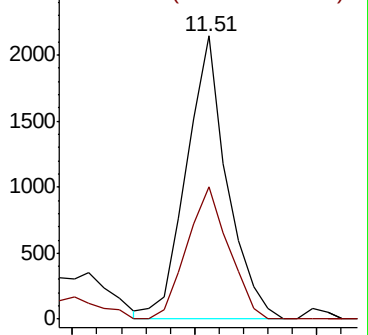
105 100

120 47.9 24.3 72.9



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#81

trans-1,4-Dichloro-2-butene

Concen: 63.926 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

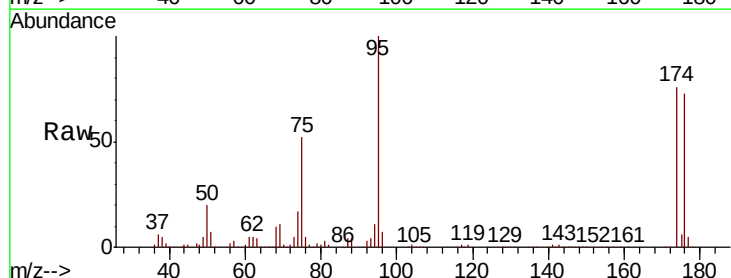
Tgt Ion: 75 Resp: 56646

Ion Ratio Lower Upper

75 100

53 0.1 79.0 118.6#

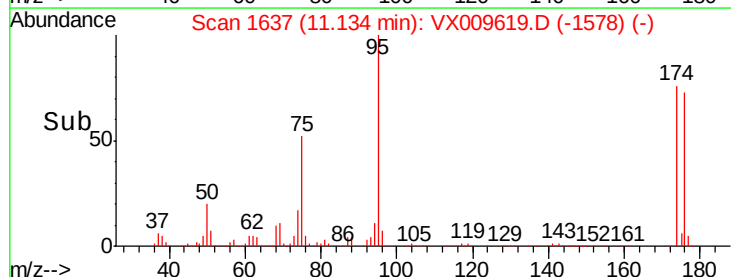
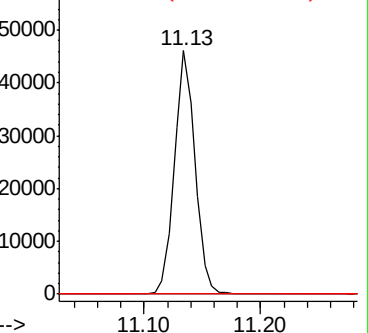
89 0.0 34.7 52.1#

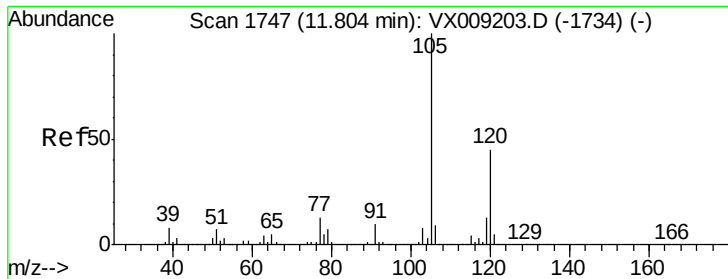


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0





#84

1,2,4-Trimethylbenzene

Concen: 0.278 ug/l

RT: 11.80 min Scan# 1747

Delta R.T. 0.00 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

Instrument :

MSVOA_X

ClientSampleId :

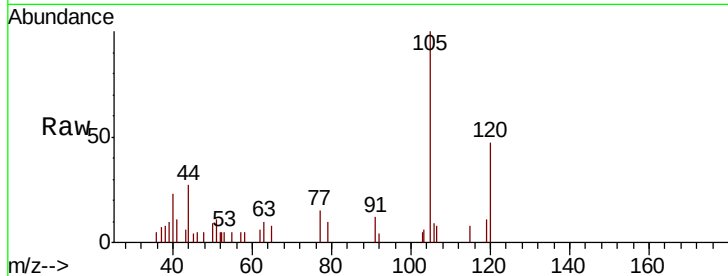
HR-06-051519-B

Tot Ion:105 Resp: 1672

Ion Ratio Lower Upper

105 100

120 40.6 22.0 66.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

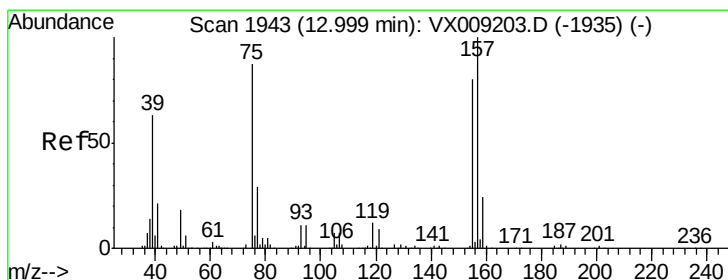
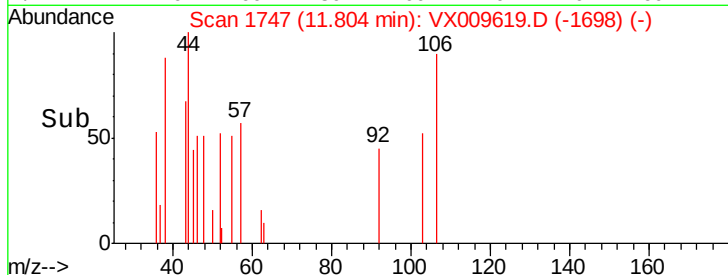
11.80

1000

500

0

Time--> 11.75 11.80 11.85



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.209 ug/l

RT: 12.98 min Scan# 1940

Delta R.T. -0.02 min

Lab File: VX009619.D

Acq: 16 May 2019 19:52

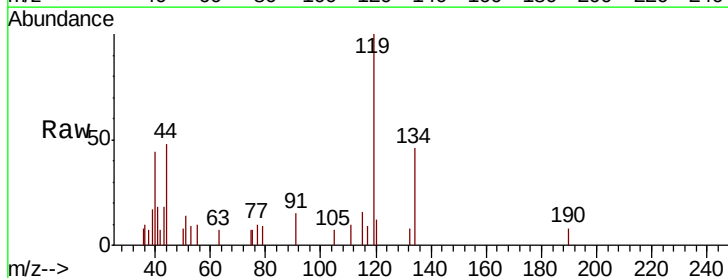
Tgt Ion: 75 Resp: 124

Ion Ratio Lower Upper

75 100

155 0.0 42.0 126.0#

157 0.0 53.2 159.6#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

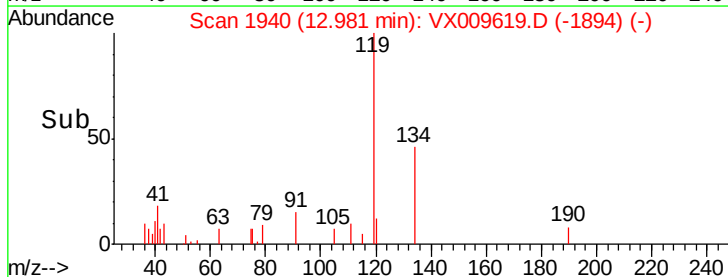
12.98

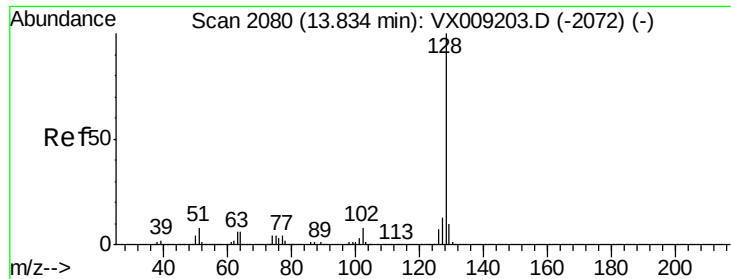
100

50

0

Time--> 12.94 12.96 12.98 13.00





#95
Naphthalene
Concen: 0.486 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX009619.D
Acq: 16 May 2019 19:52

Instrument :
MSVOA_X
ClientSampleId :
HR-06-051519-B

Tot Ion:128 Resp: 3467
Ion Ratio Lower Upper
128 100
127 17.0 10.4 15.6#
129 14.2 8.6 13.0#

