

Data Path : Z:\VOASRV\HPCHEM1\MSVOA N\DATA\VN032519\
 Data File : VN054671.D
 Acq On : 25 Mar 2019 14:33
 Operator : JC/SP
 Sample : K2050-09
 Misc : 5.00mL/MSVOA N/WATER
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 CS-3

Quant Time: Mar 26 01:25:44 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N032019W.M
 Quant Title : SW846 8260
 QLast Update : Fri Mar 22 02:09:07 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.67	168	565934	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.59	114	921582	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	772538	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.34	152	279698	50.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
33) 1,2-Dichloroethane-d4	8.03	65	378784	53.81	ug/l	0.00
Spiked Amount			Recovery	=	107.62%	
35) Dibromofluoromethane	7.59	113	293845	49.49	ug/l	0.00
Spiked Amount			Recovery	=	98.98%	
50) Toluene-d8	10.09	98	1105283	49.52	ug/l	0.00
Spiked Amount			Recovery	=	99.04%	
62) 4-Bromofluorobenzene	12.40	95	340321	44.81	ug/l	0.00
Spiked Amount			Recovery	=	89.62%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Diethyl Ether	3.42	74	747	0.216	ug/l	93
11) Tert butyl alcohol	4.81	59	184	0.432	ug/l #	70
13) Acrolein	3.60	56	334	0.568	ug/l	92
16) Acetone	3.82	43	18728	8.849	ug/l #	81
17) Carbon Disulfide	4.04	76	5082	0.347	ug/l	96
18) Methyl Acetate	4.33	43	2675	0.567	ug/l #	57
20) Methylene Chloride	4.55	84	18806	3.014	ug/l #	81
25) 2-Butanone	6.86	43	6272	2.313	ug/l #	82
29) Tetrahydrofuran	7.24	42	2286	1.299	ug/l #	55
31) Cyclohexane	7.66	56	12726	Below Cal	#	26
36) 1,1-Dichloropropene	7.66	75	42936	4.983	ug/l #	48
38) Carbon Tetrachloride	7.66	117	53883	6.435	ug/l #	16
43) Isopropyl Acetate	8.18	43	12314	1.190	ug/l #	93
48) Methyl methacrylate	9.18	41	5975	1.064	ug/l #	11
51) 4-Methyl-2-Pentanone	9.99	43	4357	0.760	ug/l #	86
53) t-1,3-Dichloropropene	10.54	75	30	2.235	ug/l #	42
54) cis-1,3-Dichloropropene	9.91	75	33386	3.554	ug/l #	74
57) 1,3-Dichloropropane	10.76	76	3394	0.358	ug/l #	43
59) 2-Hexanone	10.77	43	57249	15.279	ug/l #	49
71) Bromoform	12.38	173	350	2.306	ug/l #	28
76) 1,2,3-Trichloropropane	12.40	75	173497	39.090	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.40	75	173497	129.381	ug/l #	11
94) Hexachlorobutadiene	15.00	225	30	Below Cal	#	19
95) Naphthalene	15.14	128	2005	0.201	ug/l #	84

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

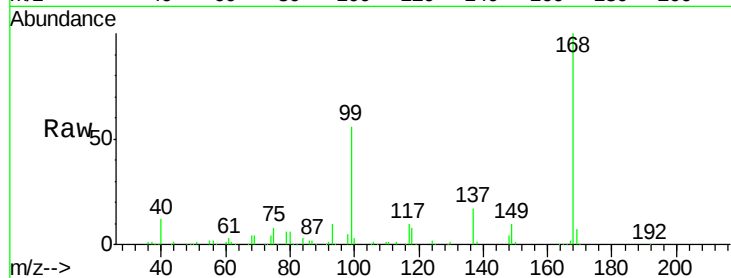
CS-3

Tot Ion:168 Resp: 565934

Ion Ratio Lower Upper

168 100

99 56.2 37.1 55.7#



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.67

250000

200000

150000

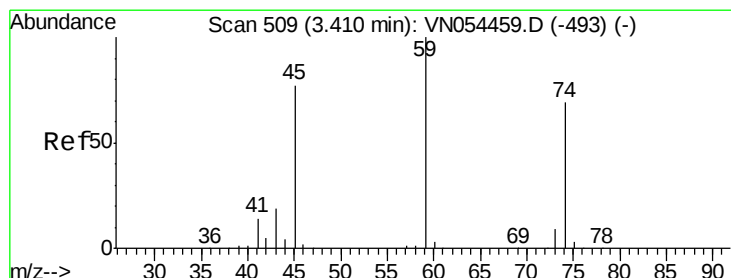
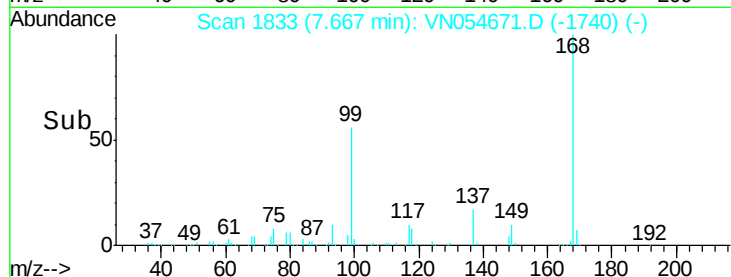
100000

50000

0

7.60 7.70 7.80

Time-->



#8

Diethyl Ether

Concen: 0.216 ug/l

RT: 3.42 min Scan# 512

Delta R.T. 0.01 min

Lab File: VN054671.D

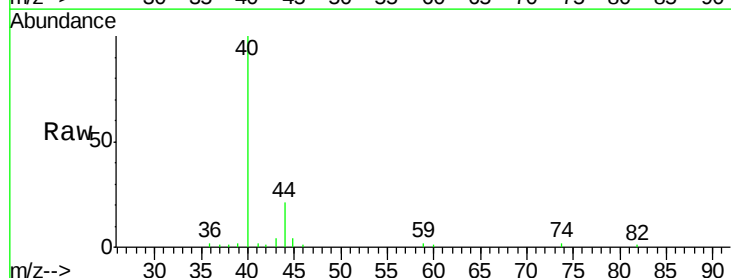
Acq: 25 Mar 2019 14:33

Tgt Ion: 74 Resp: 747

Ion Ratio Lower Upper

74 100

45 93.0 43.1 129.4



Abundance Ion 74.00 (73.70 to 74.70): VN

Ion 45.00 (44.70 to 45.70): VN

800

600

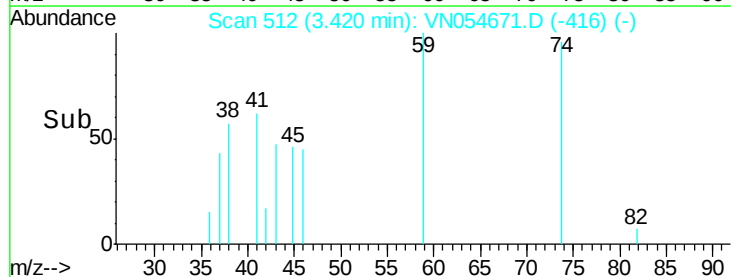
400

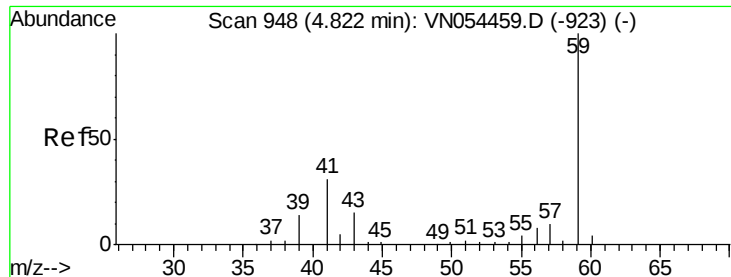
200

0

3.38 3.40 3.42 3.44 3.46

Time-->

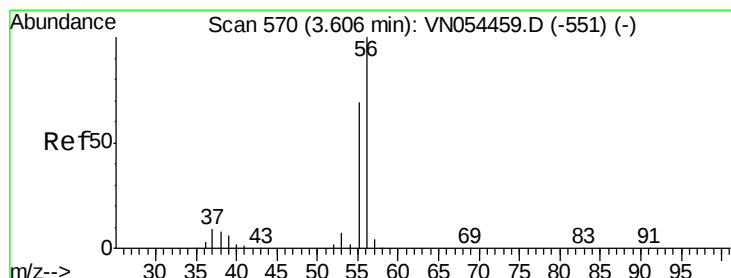
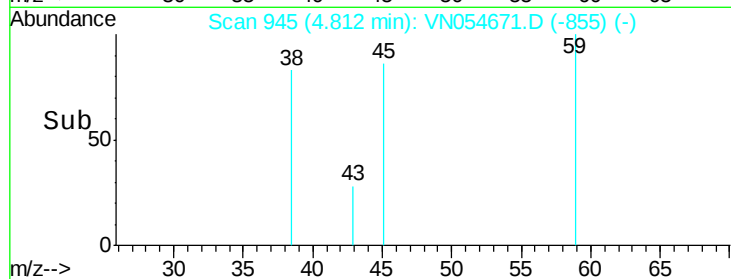
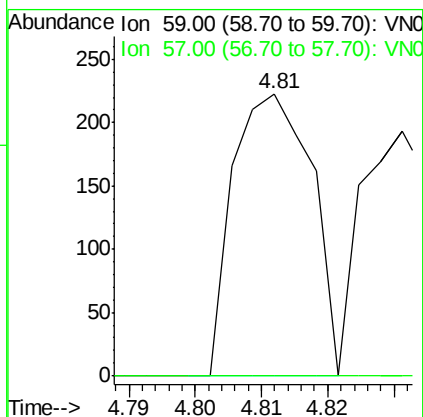
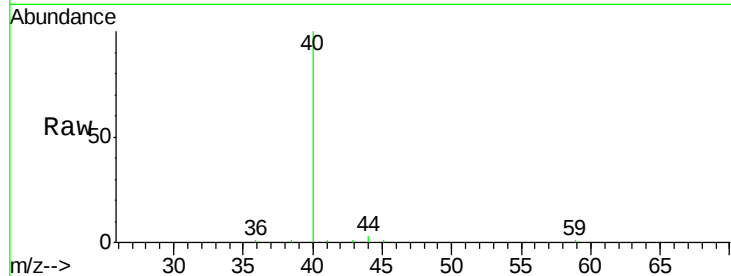




#11
Tert butyl alcohol
Concen: 0.432 ug/l
RT: 4.81 min Scan# 945
Delta R.T. -0.01 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

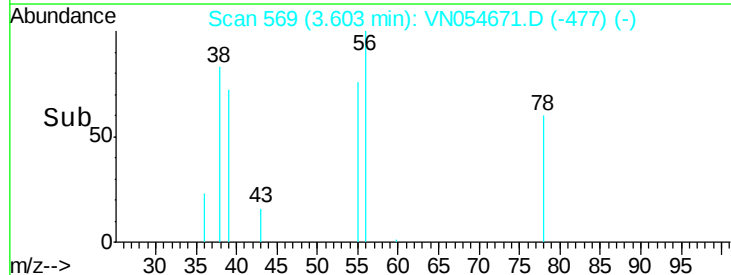
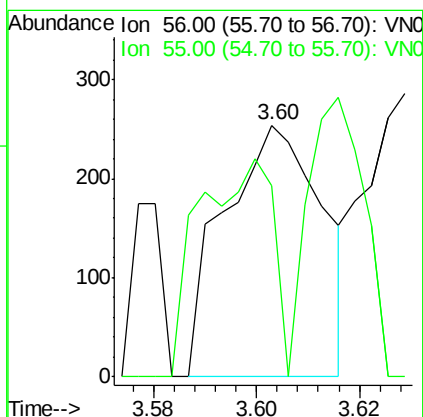
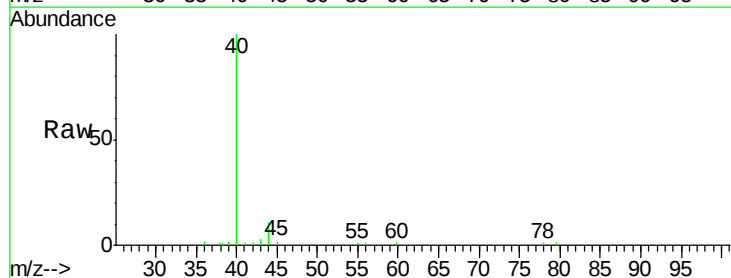
Instrument :
MSVOA_N
ClientSampled :
CS-3

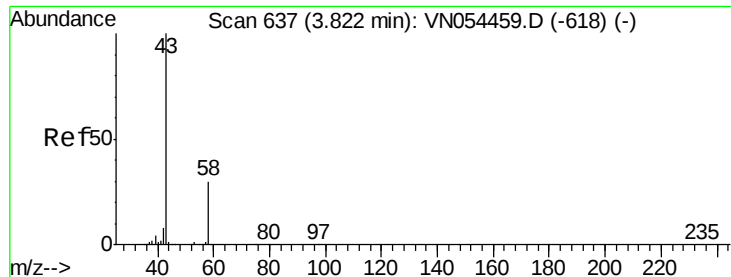
Tot Ion: 59 Resp: 184
Ion Ratio Lower Upper
59 100
57 0.0 9.0 13.6#



#13
Acrolein
Concen: 0.568 ug/l
RT: 3.60 min Scan# 569
Delta R.T. -0.00 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

Tgt Ion: 56 Resp: 334
Ion Ratio Lower Upper
56 100
55 64.7 56.7 85.1





#16

Acetone

Concen: 8.849 ug/l

RT: 3.82 min Scan# 637

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

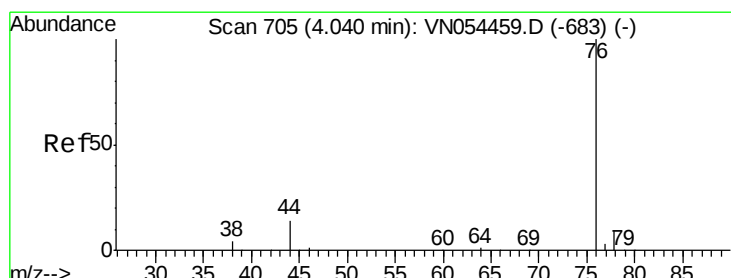
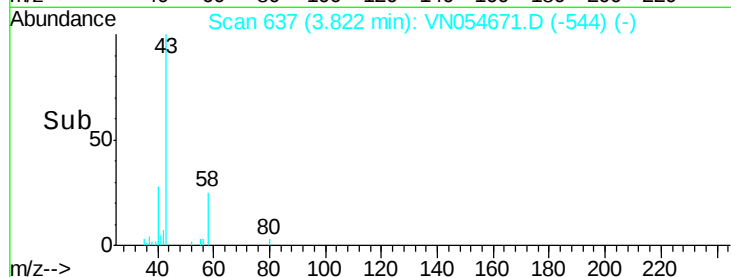
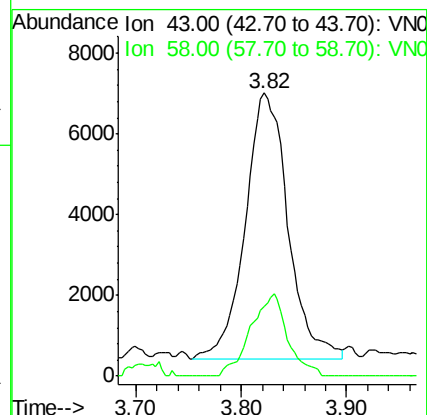
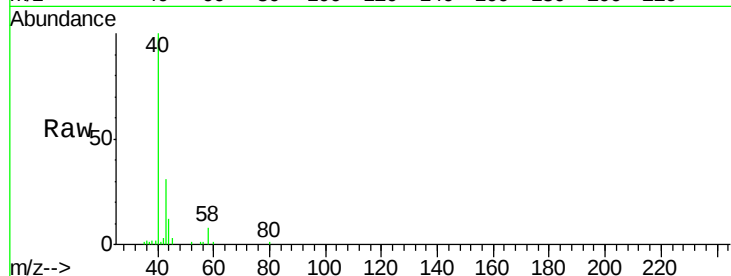
CS-3

Tot Ion: 43 Resp: 18728

Ion Ratio Lower Upper

43 100

58 26.0 29.9 44.9#



#17

Carbon Disulfide

Concen: 0.347 ug/l

RT: 4.04 min Scan# 706

Delta R.T. 0.00 min

Lab File: VN054671.D

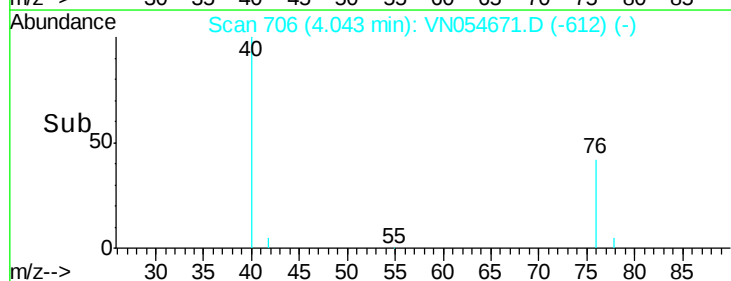
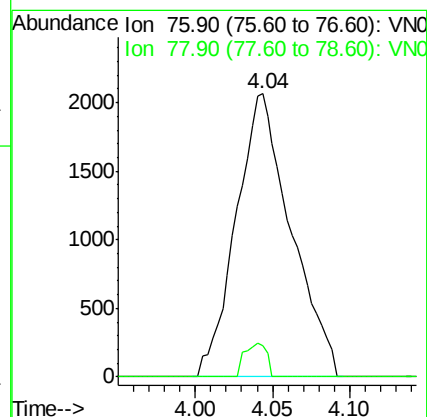
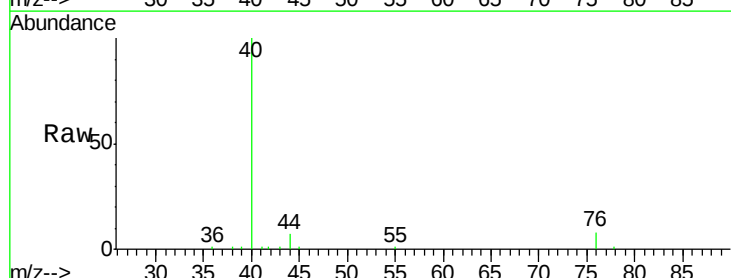
Acq: 25 Mar 2019 14:33

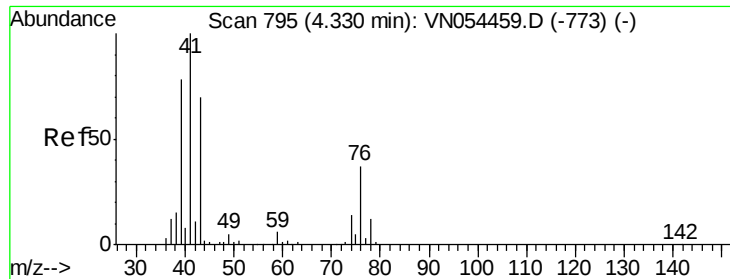
Tgt Ion: 76 Resp: 5082

Ion Ratio Lower Upper

76 100

78 11.0 7.5 11.3

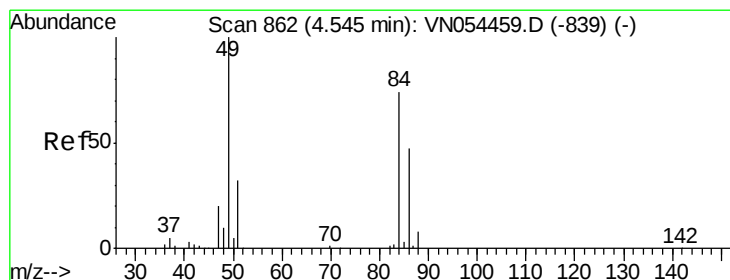
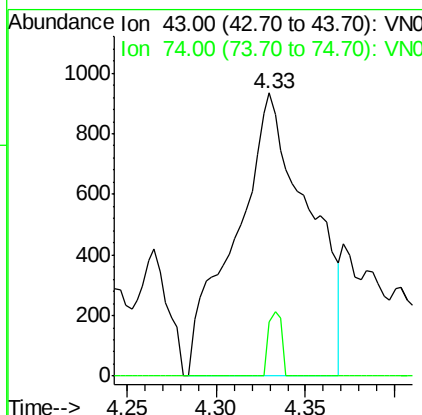
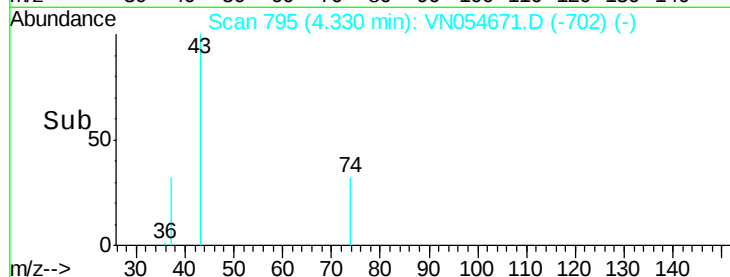
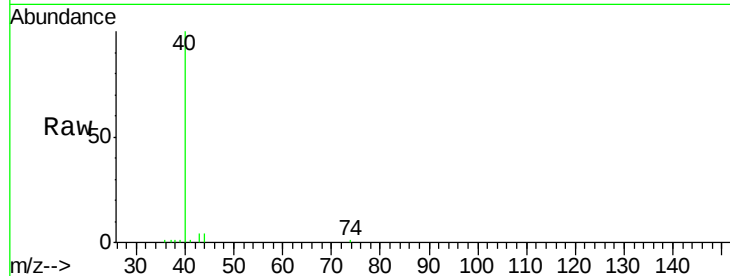




#18
Methvl Acetate
Concen: 0.567 ug/l
RT: 4.33 min Scan# 795
Delta R.T. 0.00 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

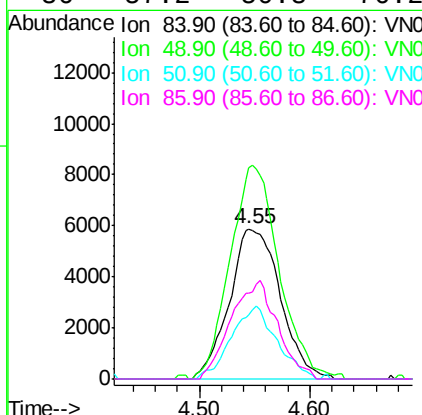
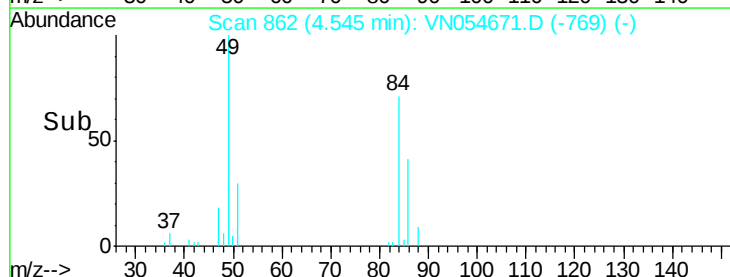
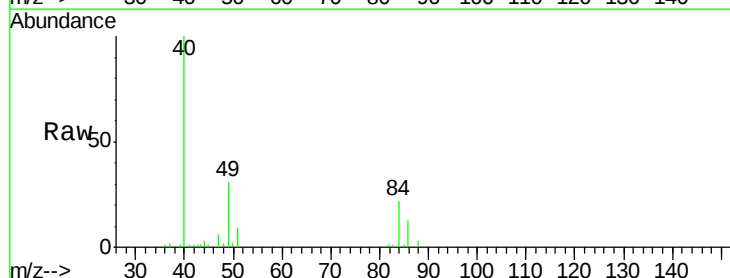
Instrument :
MSVOA_N
ClientSampled :
CS-3

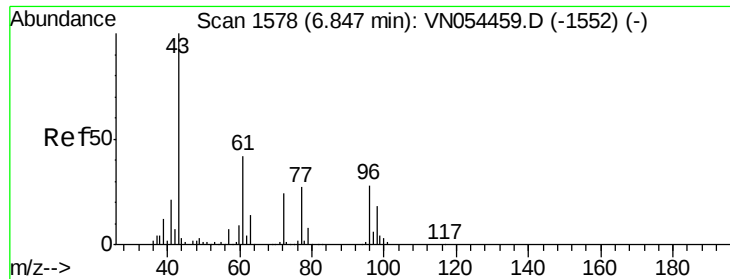
Tot Ion: 43 Resp: 2675
Ion Ratio Lower Upper
43 100
74 4.2 20.8 31.2#



#20
Methylene Chloride
Concen: 3.014 ug/l
RT: 4.55 min Scan# 862
Delta R.T. 0.00 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

Tgt Ion: 84 Resp: 18806
Ion Ratio Lower Upper
84 100
49 140.9 89.7 134.5#
51 42.3 28.2 42.4
86 57.2 50.8 76.2

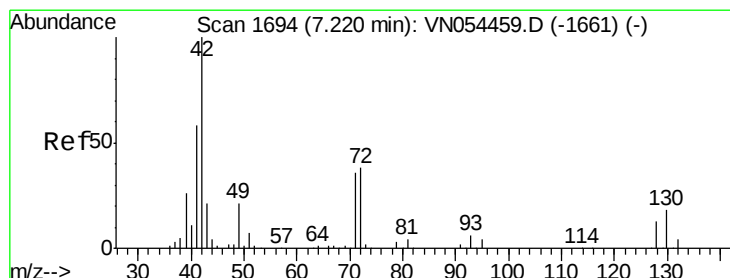
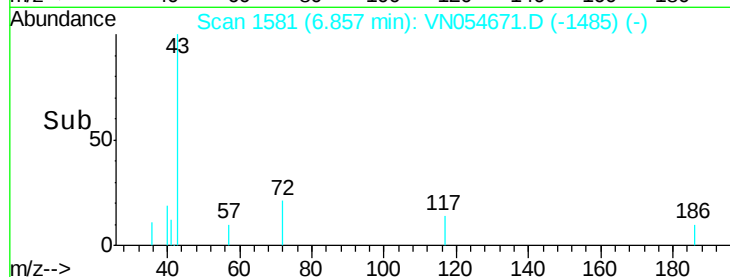
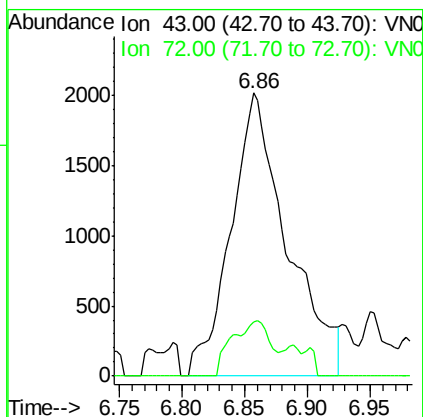
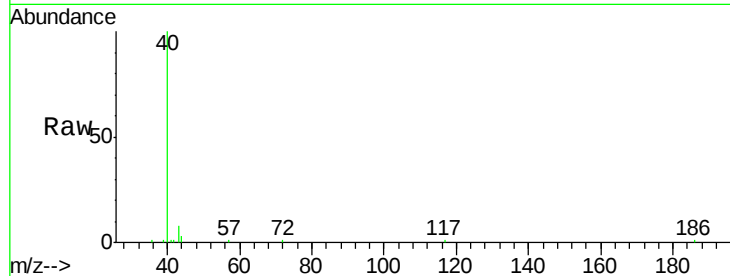




#25
2-Butanone
Concen: 2.313 ug/l
RT: 6.86 min Scan# 1581
Delta R.T. 0.01 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

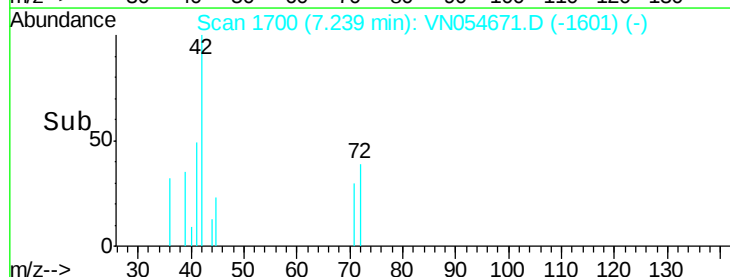
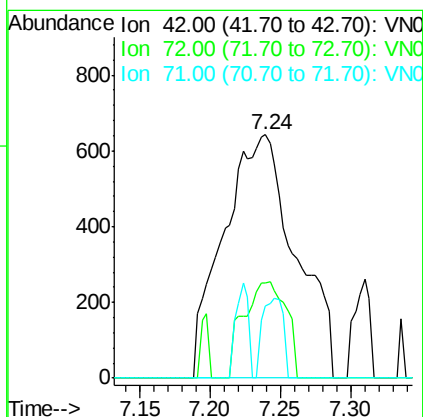
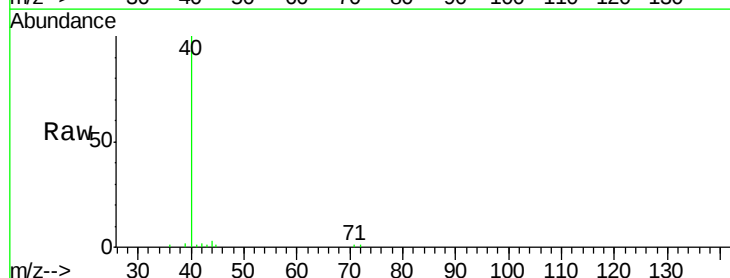
Instrument :
MSVOA_N
ClientSampled :
CS-3

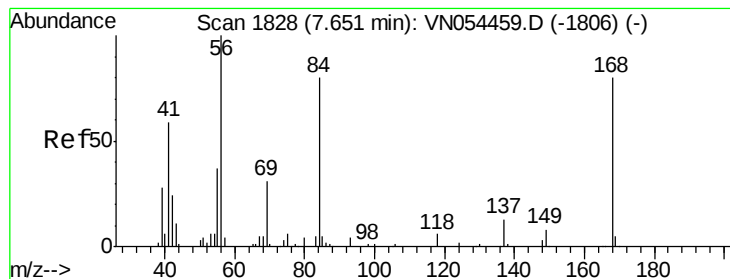
Tot Ion: 43 Resp: 6272
Ion Ratio Lower Upper
43 100
72 19.2 23.0 34.6#



#29
Tetrahydrofuran
Concen: 1.299 ug/l
RT: 7.24 min Scan# 1700
Delta R.T. 0.02 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

Tgt Ion: 42 Resp: 2286
Ion Ratio Lower Upper
42 100
72 23.6 37.8 56.6#
71 9.5 36.2 54.2#





#31

Cyclohexane

Concen: Below Cal

RT: 7.66 min Scan# 1832

Delta R.T. 0.01 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

CS-3

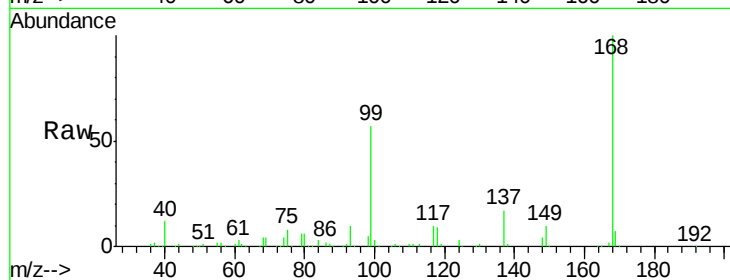
Tot Ion: 56 Resp: 12726

Ion Ratio Lower Upper

56 100

69 160.4 27.8 41.6#

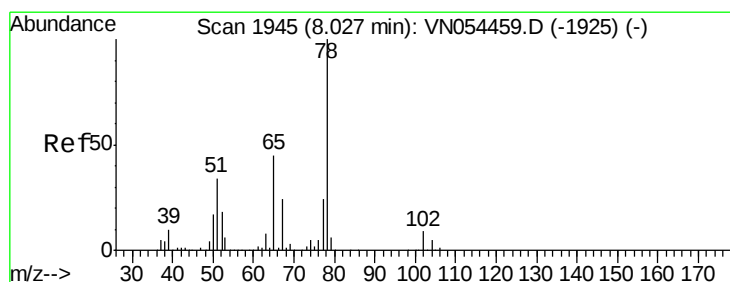
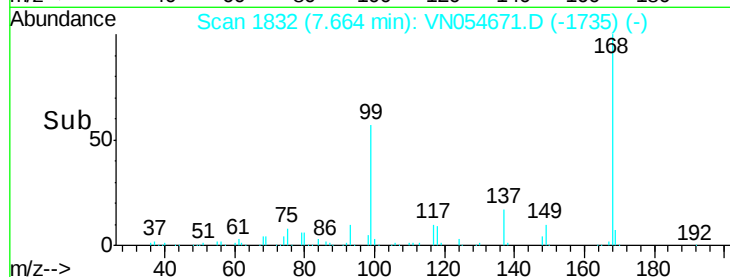
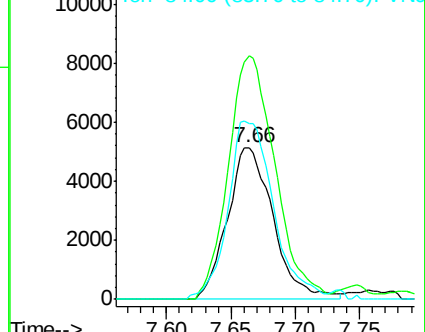
84 112.9 74.6 111.8#



Abundance Ion 56.00 (55.70 to 56.70): VN0

Ion 69.00 (68.70 to 69.70): VN0

Ion 84.00 (83.70 to 84.70): VN0



#33

1,2-Dichloroethane-d4

Concen: 53.810 ug/l

RT: 8.03 min Scan# 1945

Delta R.T. 0.00 min

Lab File: VN054671.D

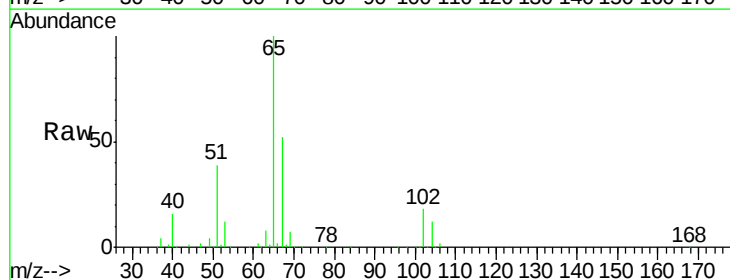
Acq: 25 Mar 2019 14:33

Tgt Ion: 65 Resp: 378784

Ion Ratio Lower Upper

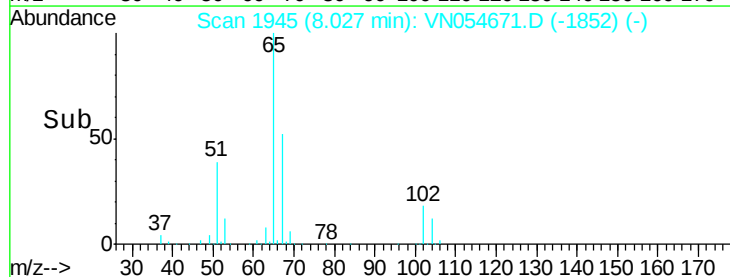
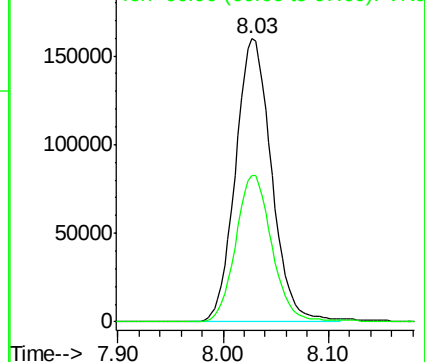
65 100

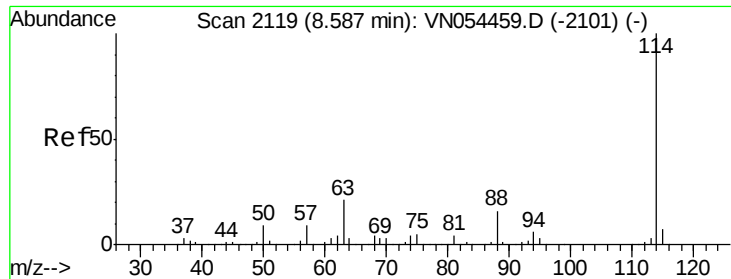
67 52.2 0.0 104.6



Abundance Ion 64.90 (64.60 to 65.60): VN0

Ion 66.90 (66.60 to 67.60): VN0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.59 min Scan# 2119

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

CS-3

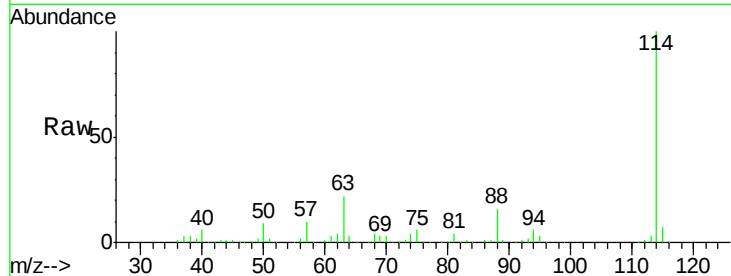
Tot Ion:114 Resp: 921582

Ion Ratio Lower Upper

114 100

63 22.3 0.0 35.2

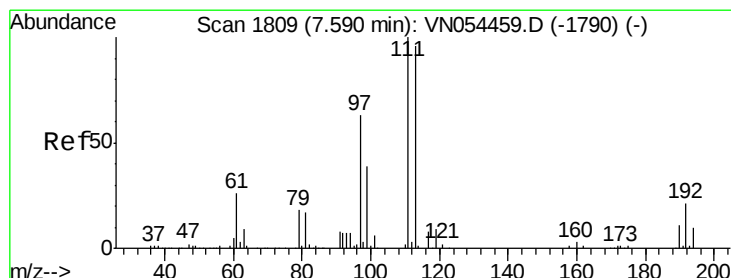
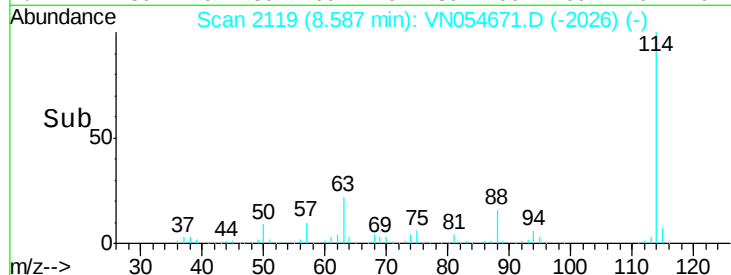
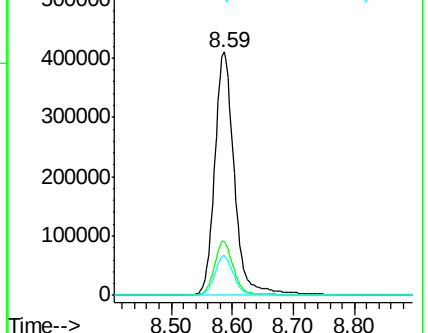
88 16.2 0.0 30.2



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VN

Ion 87.90 (87.60 to 88.60): VN



#35

Dibromofluoromethane

Concen: 49.492 ug/l

RT: 7.59 min Scan# 1809

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

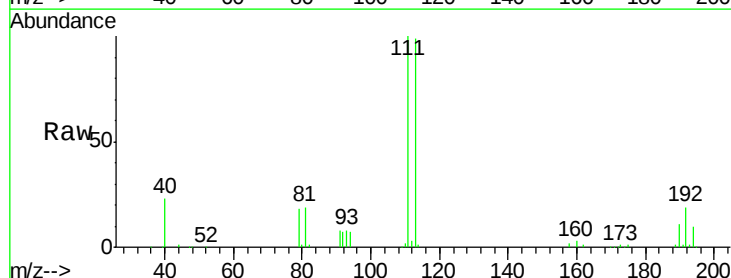
Tgt Ion:113 Resp: 293845

Ion Ratio Lower Upper

113 100

111 102.2 82.2 123.4

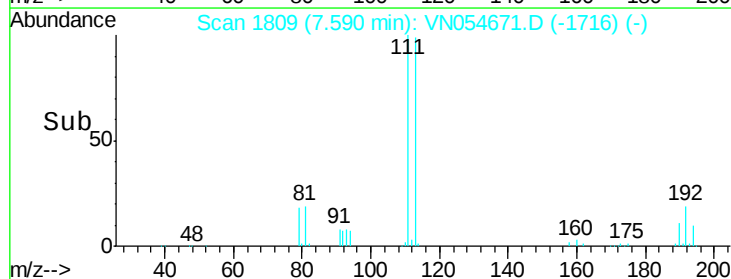
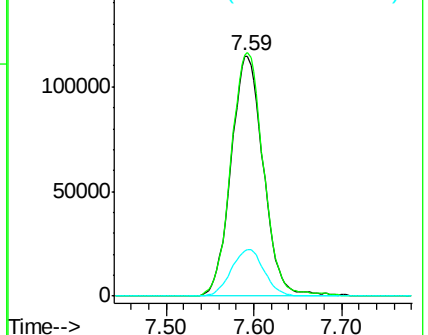
192 19.8 19.2 28.8

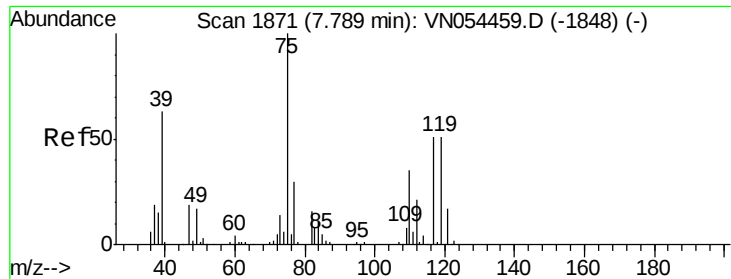


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

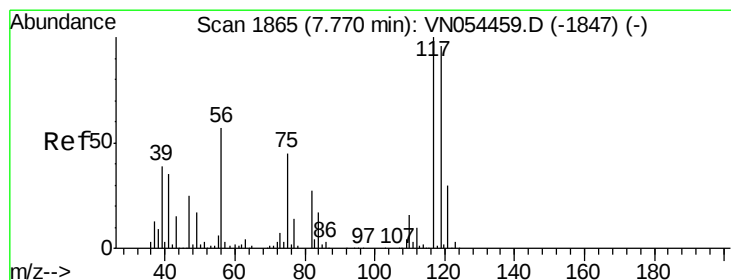
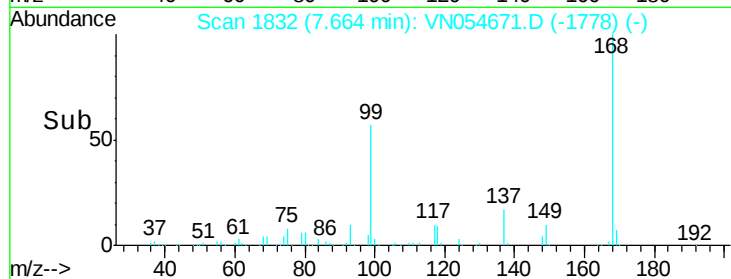
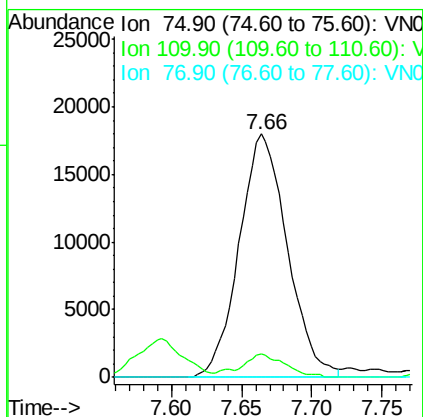
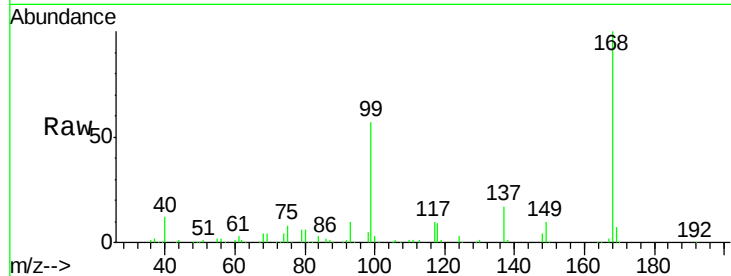




#36
 1,1-Dichloropropene
 Concen: 4.983 ug/l
 RT: 7.66 min Scan# 1832
 Delta R.T. -0.13 min
 Lab File: VN054671.D
 Acq: 25 Mar 2019 14:33

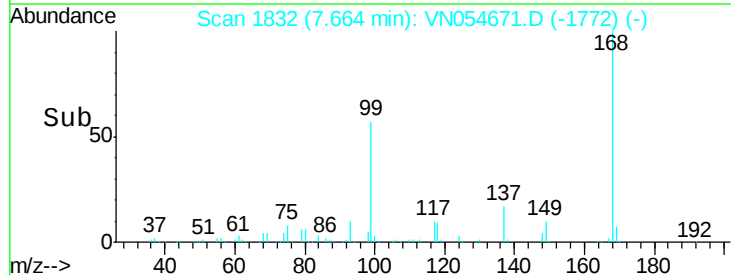
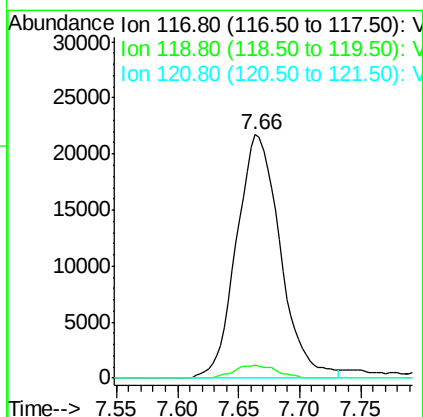
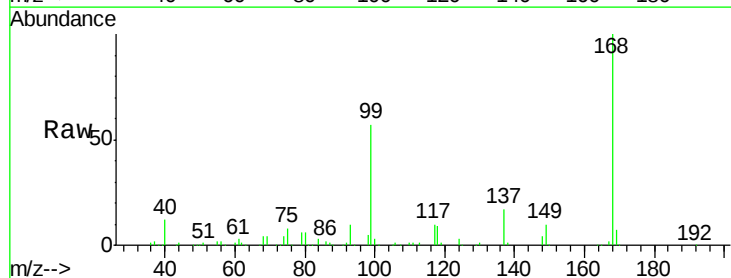
Instrument :
 MSVOA_N
 ClientSampleId :
 CS-3

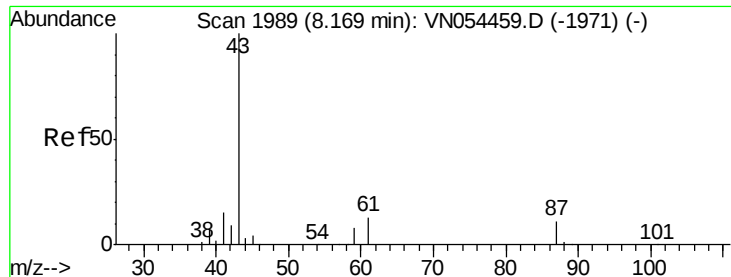
Tot Ion	75	110	77	Resp	Lower	Upper
42936	100	8.9	0.0		19.1	57.5#
					25.0	37.4#



#38
 Carbon Tetrachloride
 Concen: 6.435 ug/l
 RT: 7.66 min Scan# 1832
 Delta R.T. -0.11 min
 Lab File: VN054671.D
 Acq: 25 Mar 2019 14:33

Tgt Ion	117	119	121	Resp	Lower	Upper
53883	100	5.2	0.0		76.3	114.5#
					24.6	36.8#





#43

Isopropyl Acetate

Concen: 1.190 ug/l

RT: 8.18 min Scan# 1991

Delta R.T. 0.01 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

CS-3

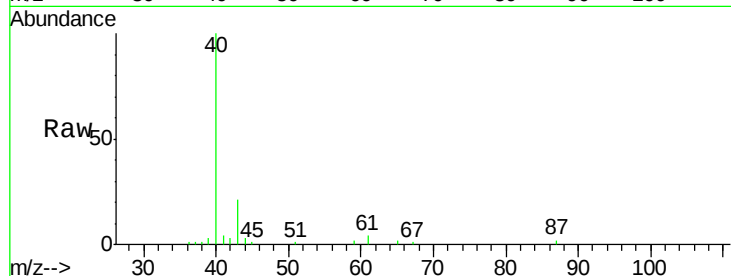
Tot Ion: 43 Resp: 12314

Ion Ratio Lower Upper

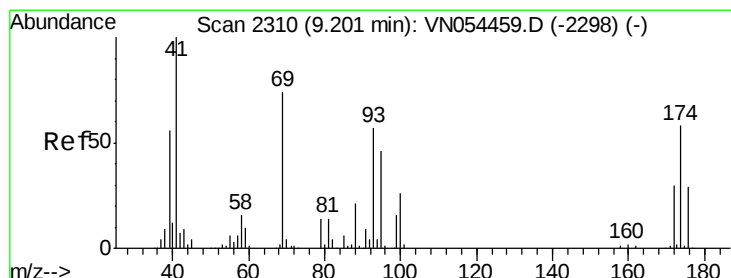
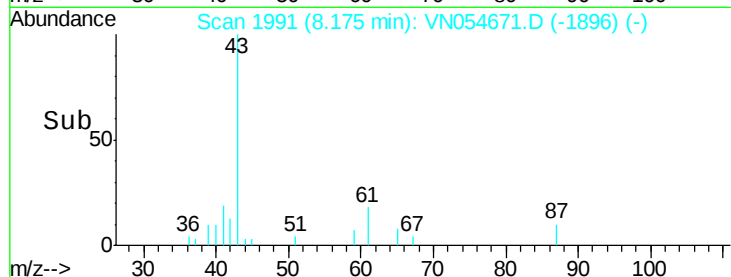
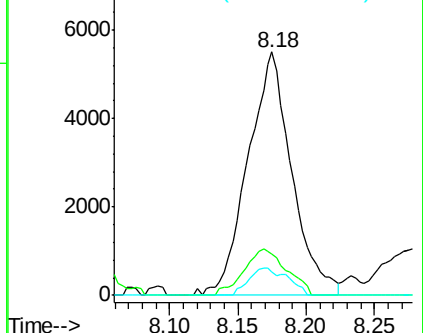
43 100

61 18.6 15.8 23.8

87 9.8 12.0 18.0#



Abundance Ion 43.00 (42.70 to 43.70): VNO
Ion 61.00 (60.70 to 61.70): VNO
Ion 87.00 (86.70 to 87.70): VNO



#48

Methyl methacrylate

Concen: 1.064 ug/l

RT: 9.18 min Scan# 2305

Delta R.T. -0.02 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

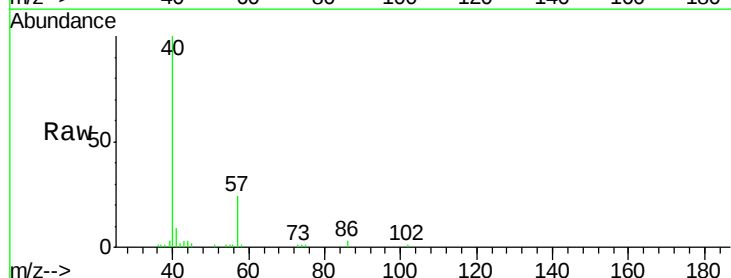
Tgt Ion: 41 Resp: 5975

Ion Ratio Lower Upper

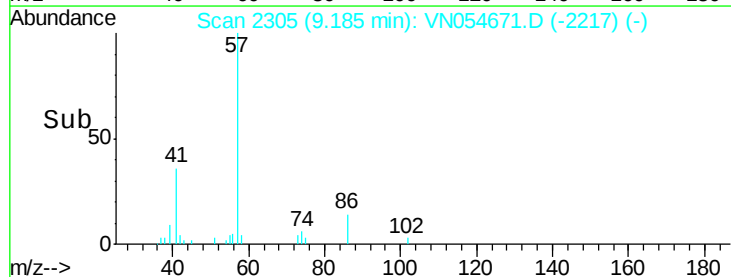
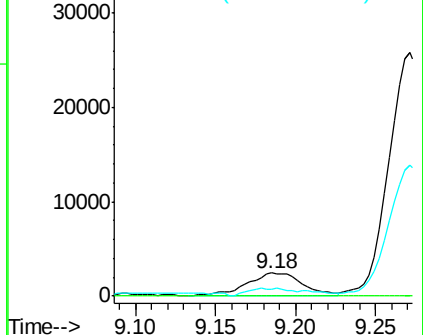
41 100

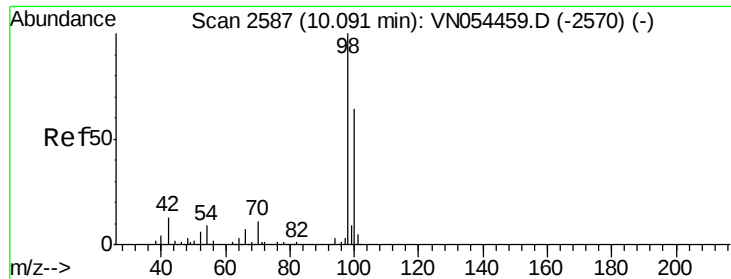
69 0.0 72.6 108.8#

39 0.0 47.5 71.3#



Abundance Ion 41.00 (40.70 to 41.70): VNO
Ion 69.00 (68.70 to 69.70): VNO
Ion 39.00 (38.70 to 39.70): VNO

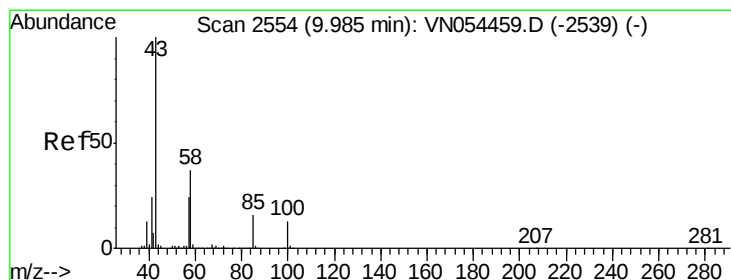
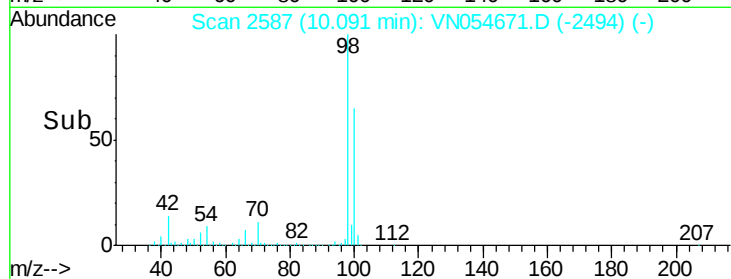
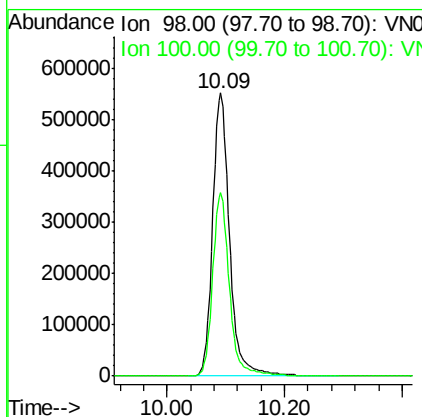
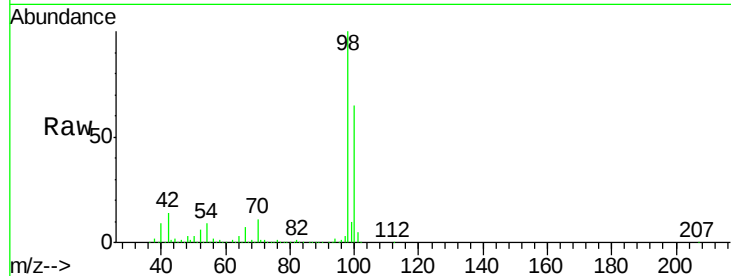




#50
Toluene-d8
Concen: 49.519 ug/l
RT: 10.09 min Scan# 2587
Delta R.T. 0.00 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

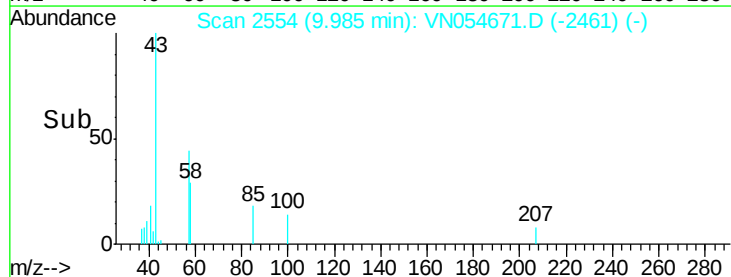
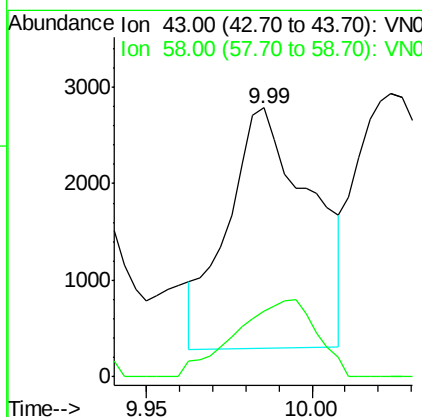
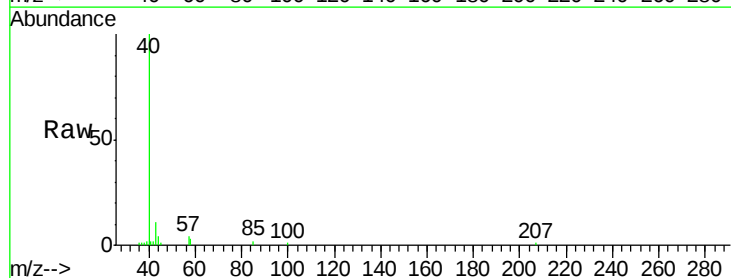
Instrument :
MSVOA_N
ClientSampled :
CS-3

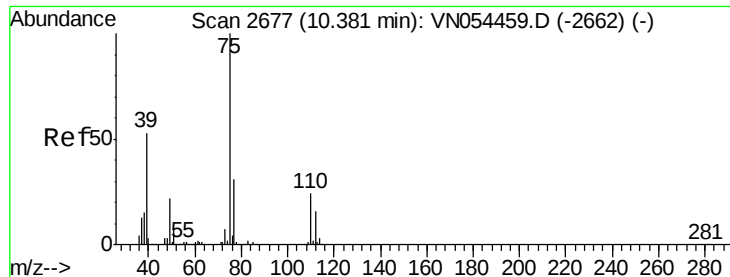
Tot Ion: 98 Resp: 1105283
Ion Ratio Lower Upper
98 100
100 64.3 51.2 76.8



#51
4-Methyl-2-Pentanone
Concen: 0.760 ug/l
RT: 9.99 min Scan# 2554
Delta R.T. 0.00 min
Lab File: VN054671.D
Acq: 25 Mar 2019 14:33

Tgt Ion: 43 Resp: 4357
Ion Ratio Lower Upper
43 100
58 31.1 31.8 47.6#





#53

t-1,3-Dichloropropene

Concen: 2.235 ug/l

RT: 10.54 min Scan# 2726

Delta R.T. 0.16 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampleId :

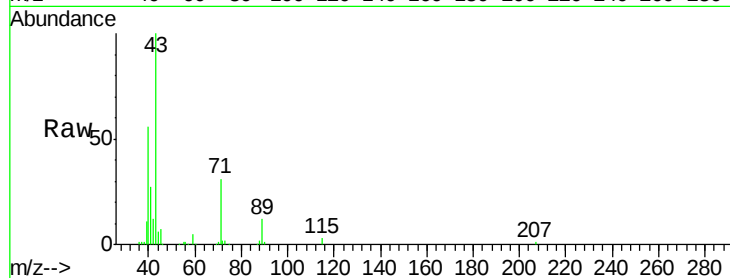
CS-3

Tot Ion: 75 Resp: 30

Ion Ratio Lower Upper

75 100

77 0.0 25.8 38.8#



Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 76.90 (76.60 to 77.60): VNO

10.54

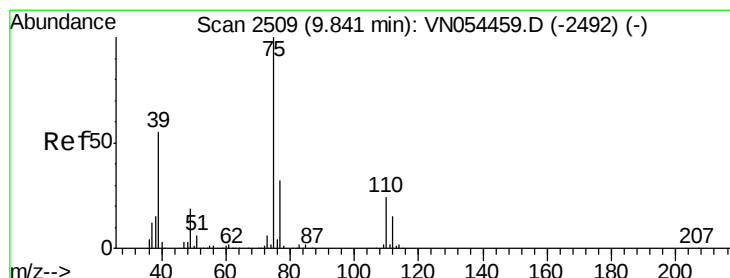
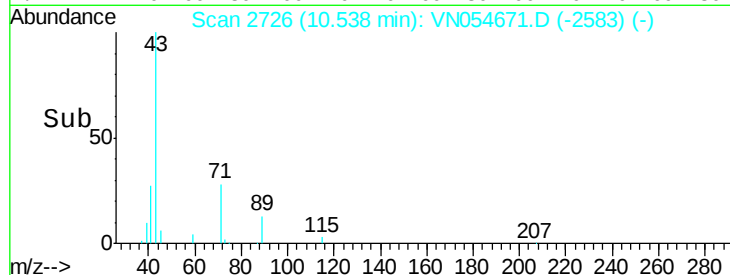
150

100

50

0

Time-->



#54

cis-1,3-Dichloropropene

Concen: 3.554 ug/l

RT: 9.91 min Scan# 2530

Delta R.T. 0.07 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

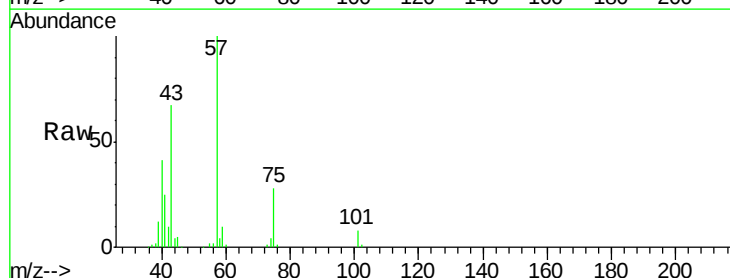
Tgt Ion: 75 Resp: 33386

Ion Ratio Lower Upper

75 100

77 0.0 25.4 38.0#

39 42.9 37.2 55.8



Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 76.90 (76.60 to 77.60): VNO

Ion 39.00 (38.70 to 39.70): VNO

25000

20000

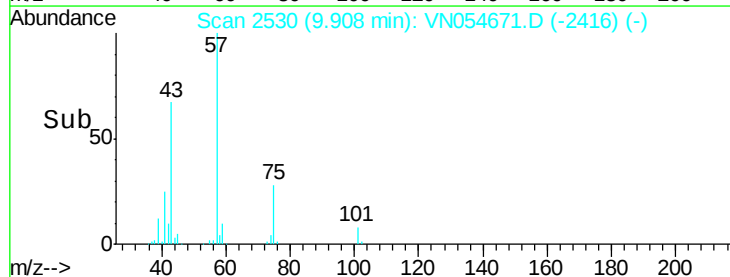
15000

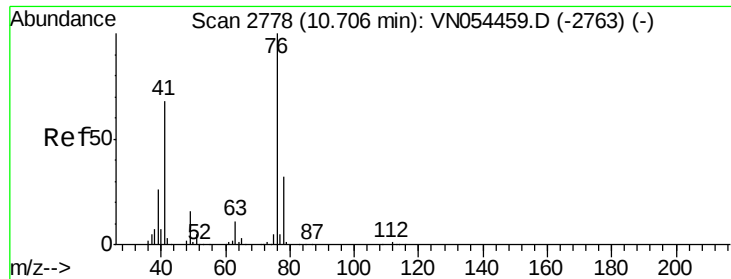
10000

5000

0

Time-->





#57

1,3-Dichloropropane

Concen: 0.358 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.06 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

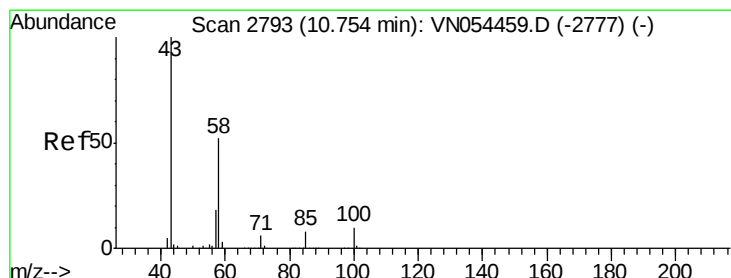
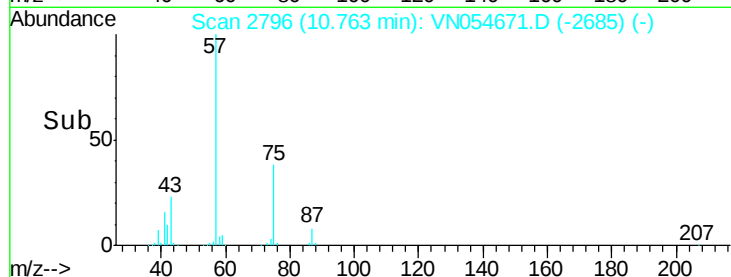
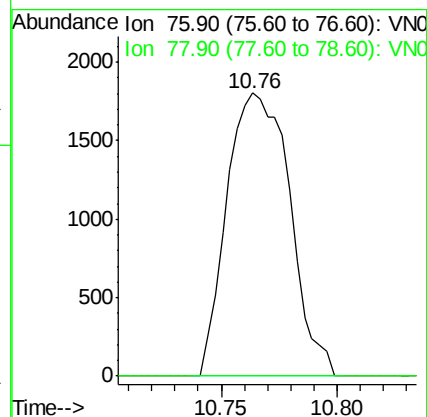
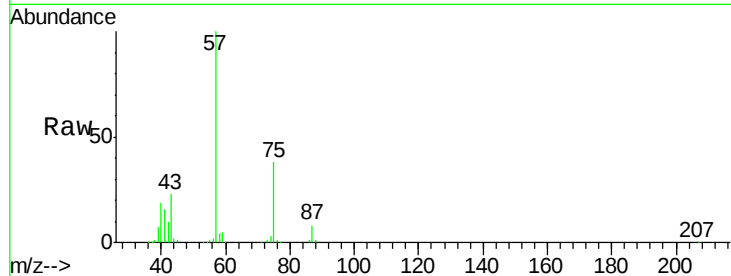
CS-3

Tot Ion: 76 Resp: 3394

Ion Ratio Lower Upper

76 100

78 0.0 25.7 38.5#



#59

2-Hexanone

Concen: 15.279 ug/l

RT: 10.77 min Scan# 2797

Delta R.T. 0.01 min

Lab File: VN054671.D

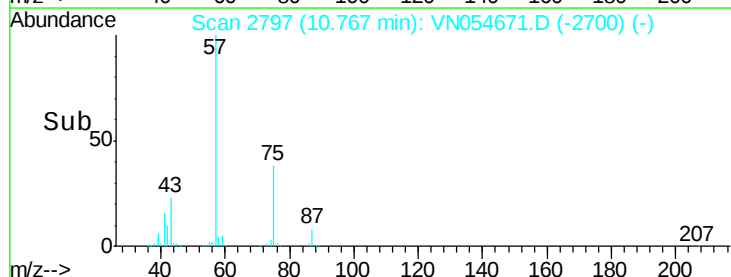
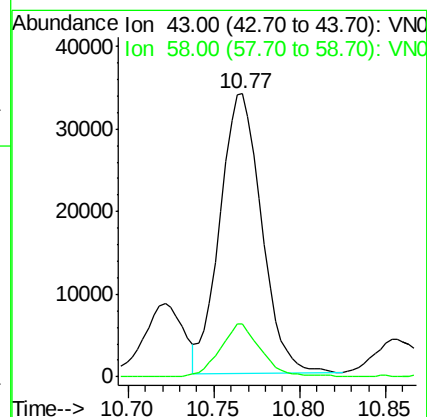
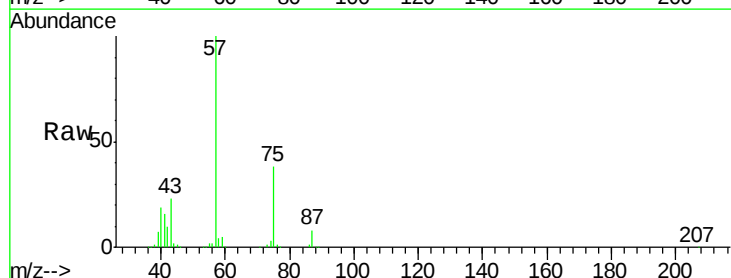
Acq: 25 Mar 2019 14:33

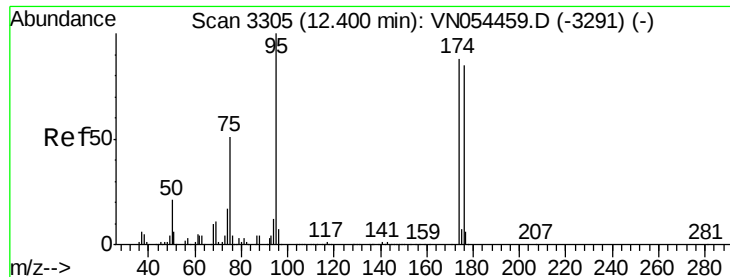
Tgt Ion: 43 Resp: 57249

Ion Ratio Lower Upper

43 100

58 18.6 28.0 83.9#





#62

4-Bromofluorobenzene

Concen: 44.807 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

CS-3

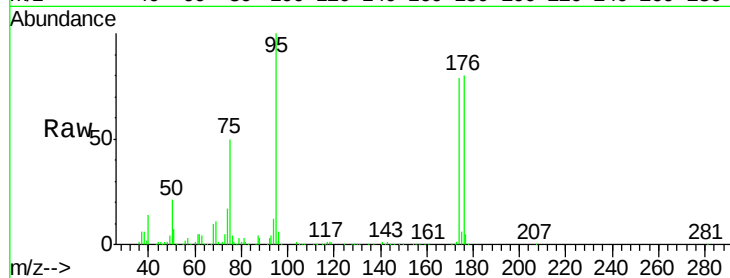
Tot Ion: 95 Resp: 340321

Ion Ratio Lower Upper

95 100

174 83.2 0.0 191.0

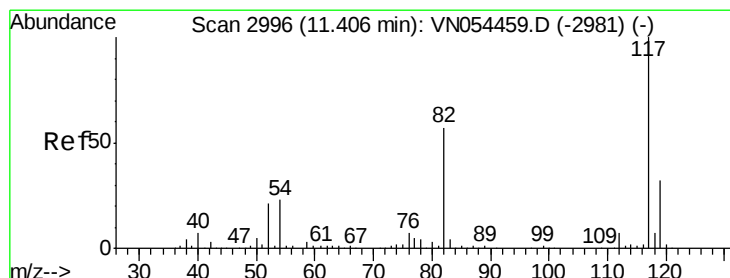
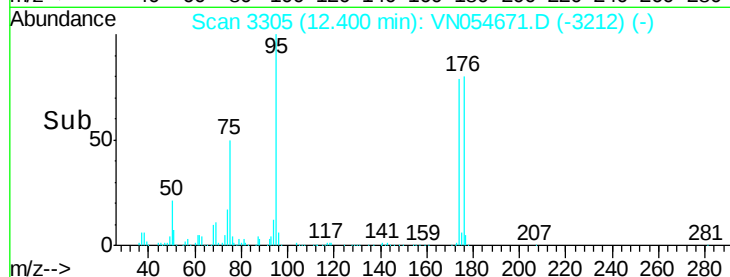
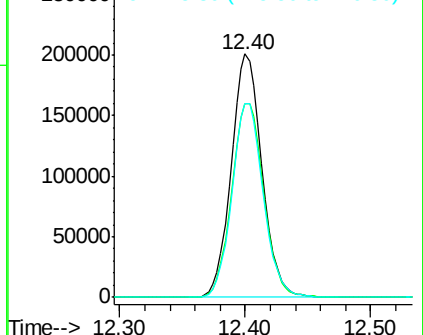
176 81.3 0.0 187.4



Abundance Ion 94.90 (94.60 to 95.60): VN0

Ion 173.80 (173.50 to 174.50): VN0

Ion 175.80 (175.50 to 176.50): VN0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

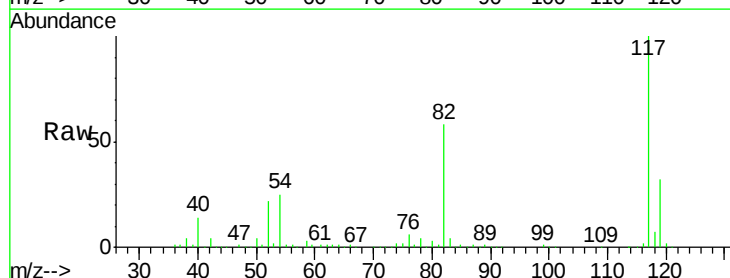
Tgt Ion: 117 Resp: 772538

Ion Ratio Lower Upper

117 100

82 57.9 40.0 60.0

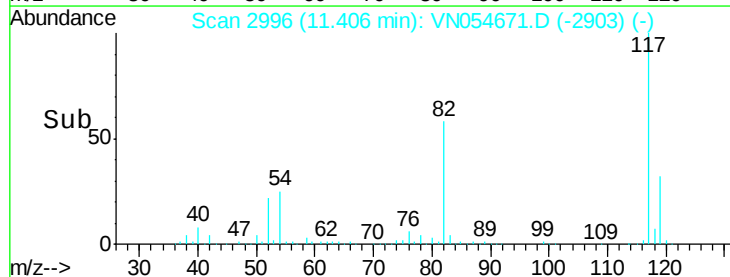
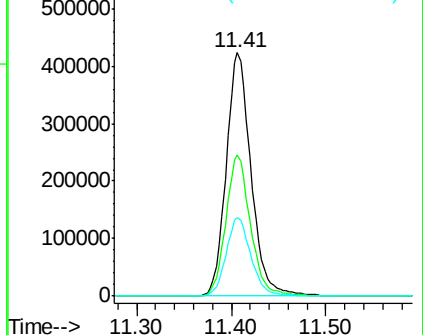
119 32.4 25.8 38.6

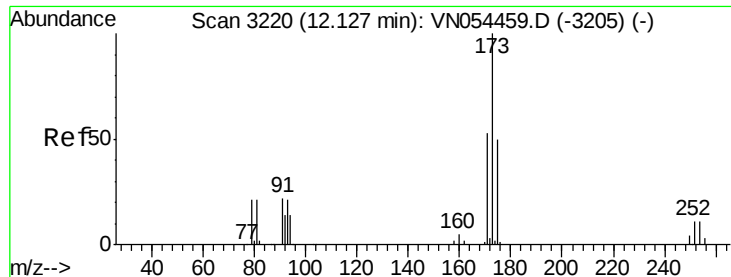


Abundance Ion 116.90 (116.60 to 117.60): VN0

Ion 82.00 (81.70 to 82.70): VN0

Ion 118.90 (118.60 to 119.60): VN0





#71

Bromoform

Concen: 2.306 ug/l

RT: 12.38 min Scan# 3300

Delta R.T. 0.26 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampleId :

CS-3

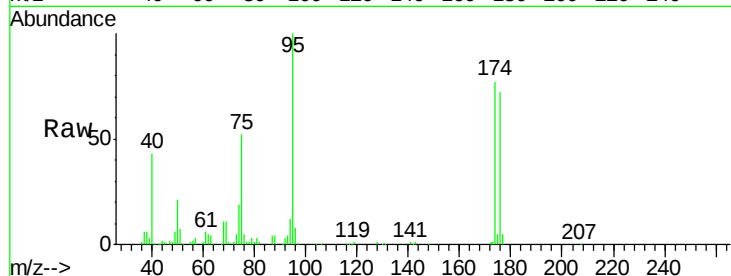
Tot Ion:173 Resp: 350

Ion Ratio Lower Upper

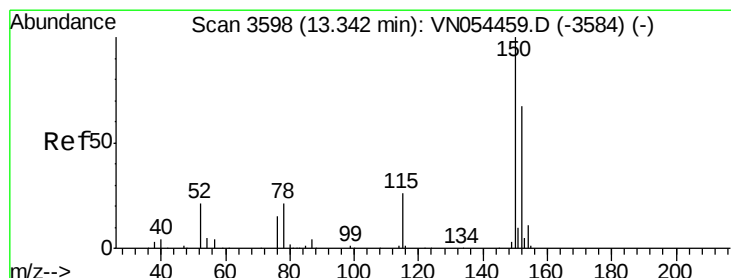
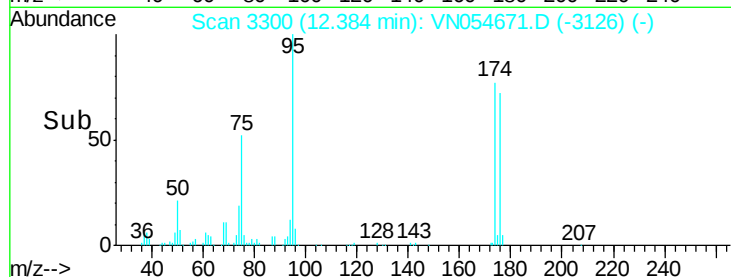
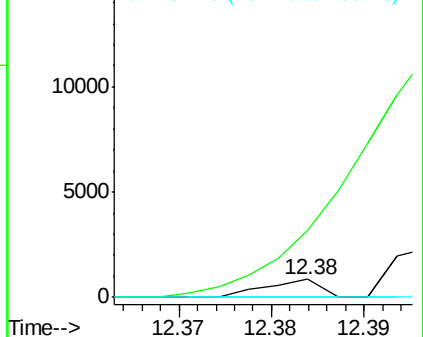
173 100

175 0.0 24.4 73.2#

254 0.0 0.1 0.1#



Abundance Ion 172.70 (172.40 to 173.40): V
Ion 174.70 (174.40 to 175.40): V
Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3598

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

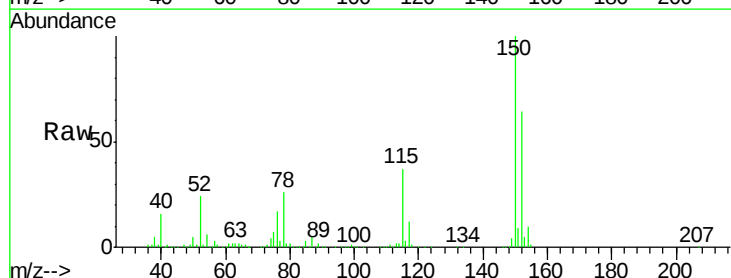
Tgt Ion:152 Resp: 279698

Ion Ratio Lower Upper

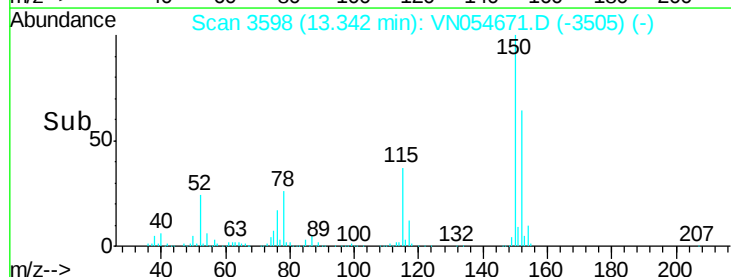
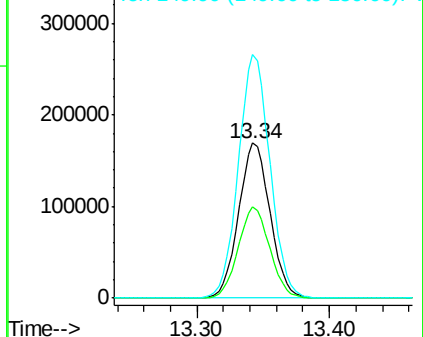
152 100

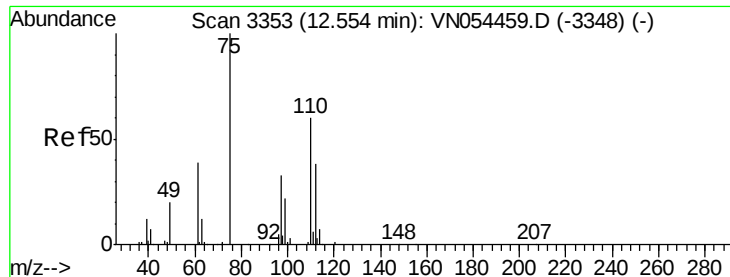
115 58.8 27.2 81.6

150 157.2 0.0 349.2



Abundance Ion 151.90 (151.60 to 152.60): V
Ion 114.90 (114.60 to 115.60): V
Ion 149.90 (149.60 to 150.60): V





#76

1,2,3-Trichloropropane

Concen: 39.090 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampleId :

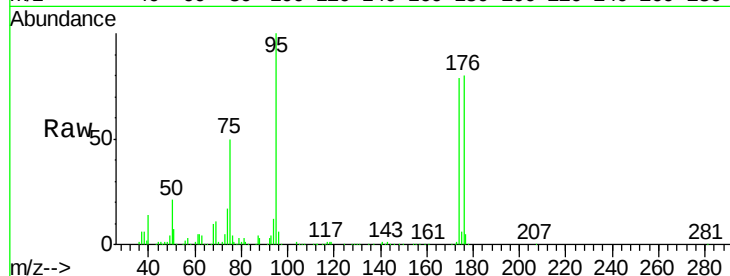
CS-3

Tot Ion: 75 Resp: 173497

Ion Ratio Lower Upper

75 100

77 1.2 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 77.00 (76.70 to 77.70): VNO

120000

100000

80000

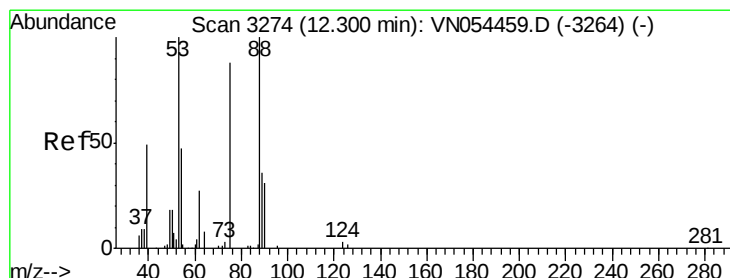
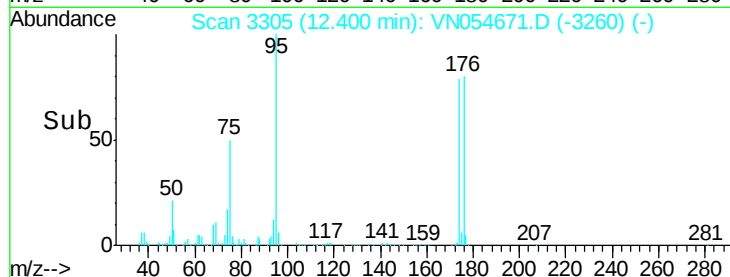
60000

40000

20000

0

Time--> 12.30 12.40 12.50



#81

trans-1,4-Dichloro-2-butene

Concen: 129.381 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.10 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

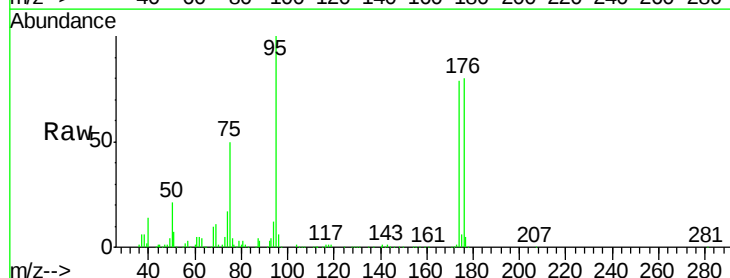
Tgt Ion: 75 Resp: 173497

Ion Ratio Lower Upper

75 100

53 0.0 76.2 114.2#

89 0.0 39.2 58.8#



Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 53.00 (52.70 to 53.70): VNO

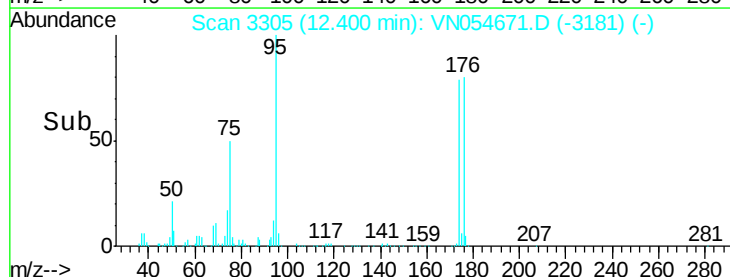
Ion 88.90 (88.60 to 89.60): VNO

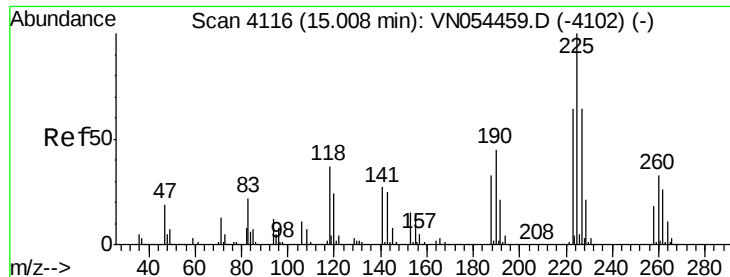
100000

50000

0

Time--> 12.30 12.40 12.50





#94

Hexachlorobutadiene

Concen: Below Cal

RT: 15.00 min Scan# 4115

Delta R.T. -0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

Instrument :

MSVOA_N

ClientSampled :

CS-3

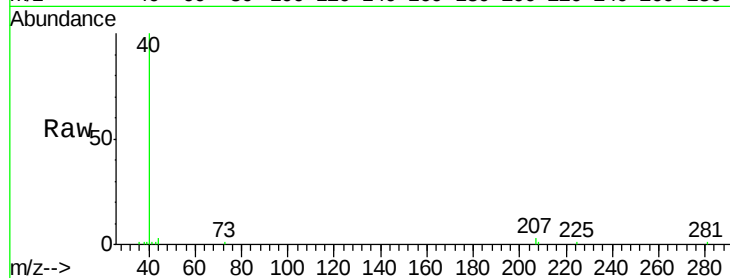
Tot Ion:225 Resp: 30

Ion Ratio Lower Upper

225 100

223 0.0 31.1 93.5#

227 0.0 31.9 95.9#



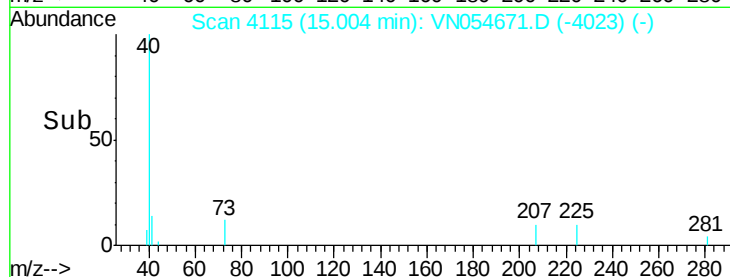
Abundance Ion 224.70 (224.40 to 225.40): V

Ion 222.70 (222.40 to 223.40): V

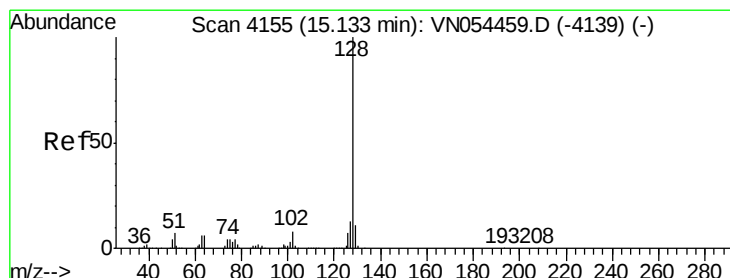
Ion 226.70 (226.40 to 227.40): V

15.00

15.01



Time-->



#95

Naphthalene

Concen: 0.201 ug/l

RT: 15.14 min Scan# 4156

Delta R.T. 0.00 min

Lab File: VN054671.D

Acq: 25 Mar 2019 14:33

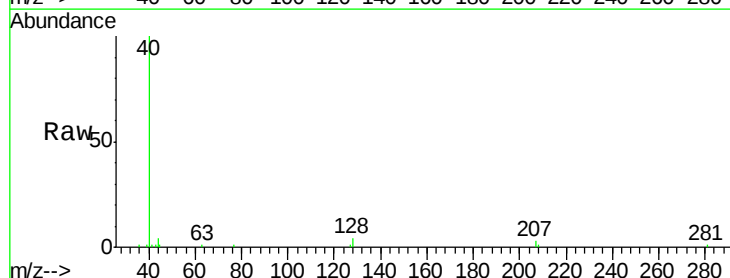
Tgt Ion:128 Resp: 2005

Ion Ratio Lower Upper

128 100

127 10.7 10.1 15.1

129 0.0 8.7 13.1#



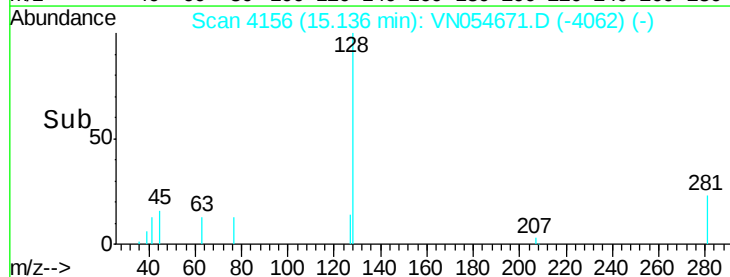
Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

15.14

15.15



Time-->