

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN090319\
 Data File : VN057672.D
 Acq On : 3 Sep 2019 19:20
 Operator : JC/SP
 Sample : K4651-02
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 TT-006-IDW/GW-20190830

Quant Time: Sep 04 02:14:03 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\624N090319W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Sep 04 02:08:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	7.18	128	57649	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	8.58	114	347496	30.00	ug/l	0.00
57) Chlorobenzene-d5	11.41	117	263401	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	8.01	65	185118	30.21	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	100.70%
60) 4-Bromofluorobenzene	12.40	95	103345	22.97	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	76.57%
63) Toluene-d8	10.09	98	423772	33.41	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	111.37%

Target Compounds

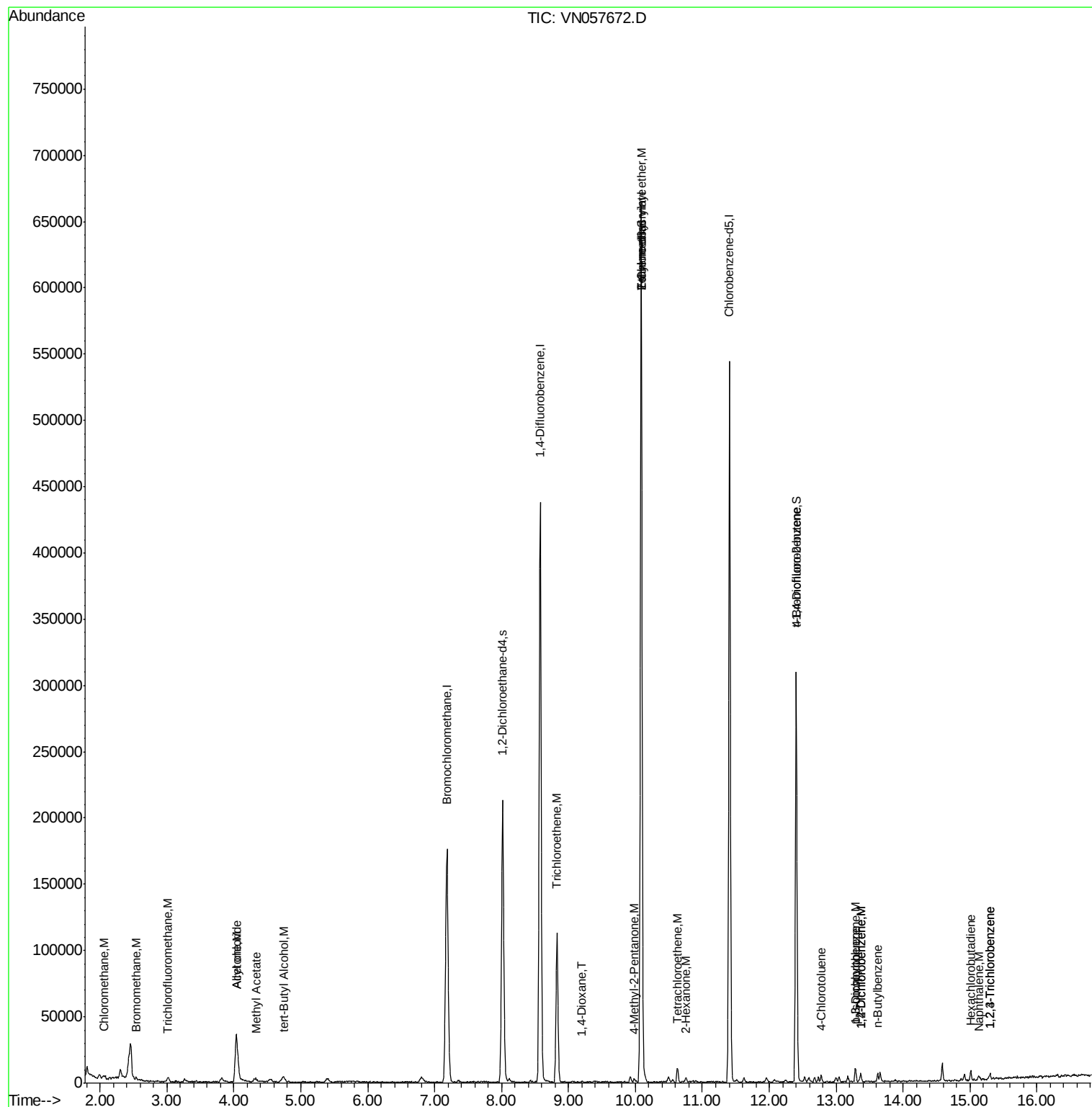
					Qvalue	
3) Chloromethane	2.05	50	1493	0.341	ug/l	# 84
5) Bromomethane	2.54	94	518	0.226	ug/l	# 59
7) Trichlorofluoromethane	3.01	101	3133	0.457	ug/l	94
12) Methyl Acetate	4.33	43	2181	0.449	ug/l	97
15) Acetone	4.03	58	268	0.541	ug/l	95
17) Allyl chloride	4.03	41	6379	0.918	ug/l	87
23) tert-Butyl Alcohol	4.73	59	3776	5.876	ug/l	# 100
37) Trichloroethene	8.83	130	34192	9.034	ug/l	96
45) 1,4-Dioxane	9.19	88	167	2.578	ug/l	# 41
51) Ethyl methacrylate	10.09	69	2017	0.325	ug/l	89
55) 2-Chloroethyl vinyl ether	10.08	63	417	0.212	ug/l	# 1
58) 4-Methyl-2-Pentanone	9.98	43	1818	0.391	ug/l	# 71
59) 2-Hexanone	10.75	43	2873	0.872	ug/l	# 70
61) Tetrachloroethene	10.63	164	2210	0.731	ug/l	# 81
77) t-1,4-Dichloro-2-butene	12.40	75	60591	50.658	ug/l	# 1
78) 4-Chlorotoluene	12.78	91	2625	0.252	ug/l	86
82) p-Isopropyltoluene	13.29	119	2681	0.217	ug/l	96
83) 1,3-Dichlorobenzene	13.29	146	2481	0.494	ug/l	95
84) 1,4-Dichlorobenzene	13.37	146	2372	0.500	ug/l	92
85) n-Butylbenzene	13.62	91	3885	0.358	ug/l	87
87) 1,2-Dichlorobenzene	13.37	146	2372	0.512	ug/l	91
89) 1,2,4-Trichlorobenzene	15.30	180	1328	0.827	ug/l	92
90) Hexachlorobutadiene	15.01	225	1284	0.721	ug/l	83
91) Naphthalene	15.13	128	2867	0.687	ug/l	# 82
92) 1,2,3-Trichlorobenzene	15.30	180	1328	0.851	ug/l	93

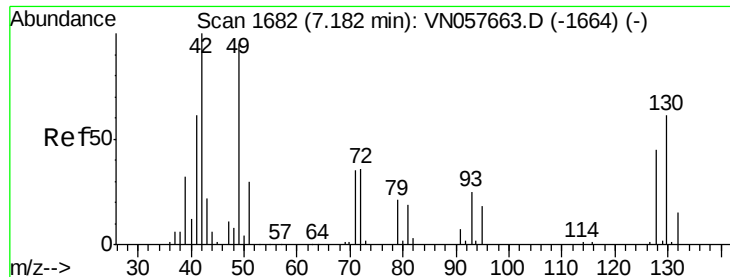
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Sep 04 02:14:03 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_N\METHODS\624N090319W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Sep 04 02:08:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 7.18 min Scan# 1683

Delta R.T. 0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

Instrument :

MSVOA_N

ClientSampleId :

TT-006-IDW/GW-20190830

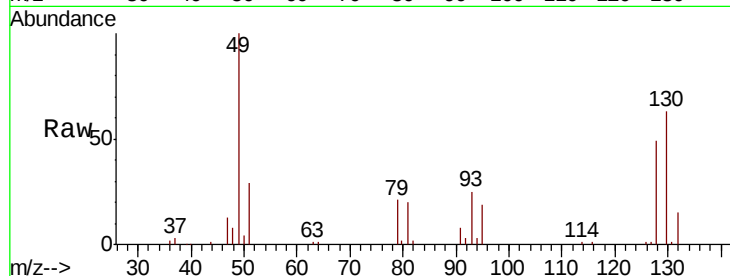
Tgt Ion:128 Resp: 57649

Ion Ratio Lower Upper

128 100

49 207.3 0.0 544.5

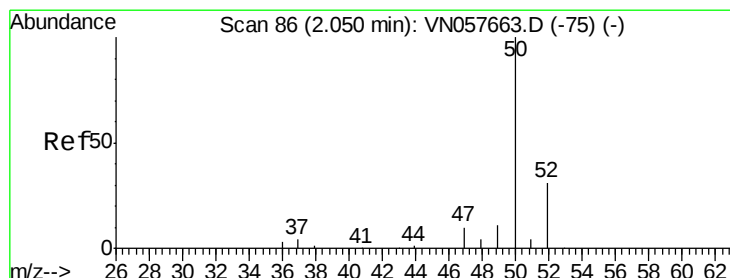
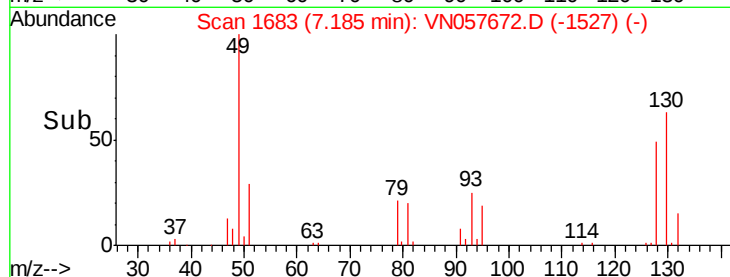
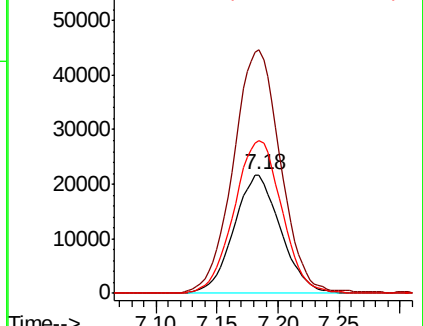
130 131.8 0.0 324.7



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VN0

Ion 130.00 (129.70 to 130.70): V



#3

Chloromethane

Concen: 0.341 ug/l

RT: 2.05 min Scan# 86

Delta R.T. -0.00 min

Lab File: VN057672.D

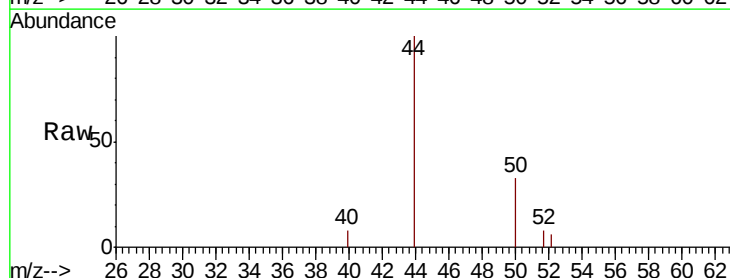
Acq: 3 Sep 2019 19:20

Tgt Ion: 50 Resp: 1493

Ion Ratio Lower Upper

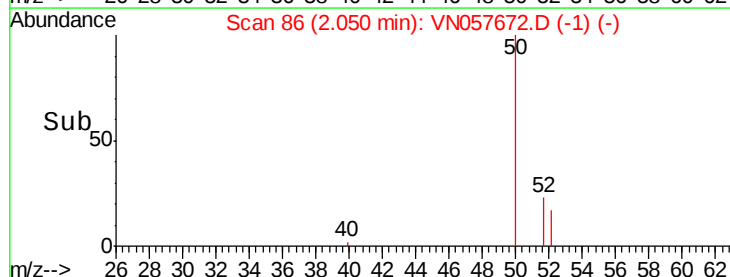
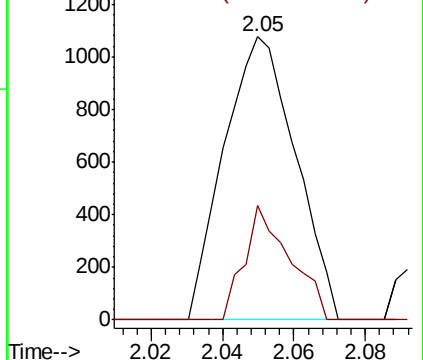
50 100

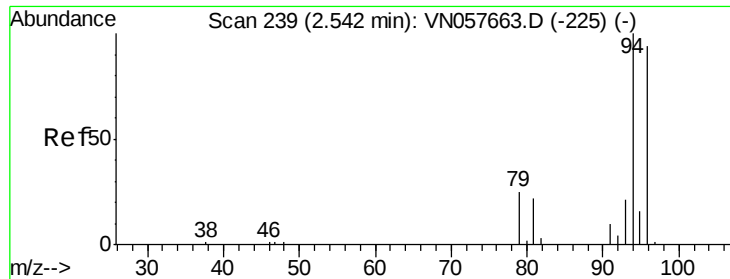
52 40.2 25.2 37.8#



Abundance Ion 50.00 (49.70 to 50.70): VN0

Ion 52.00 (51.70 to 52.70): VN0

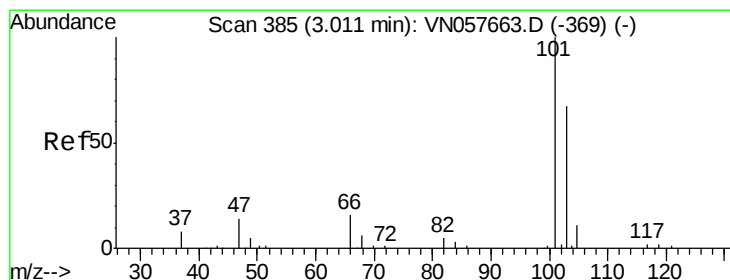
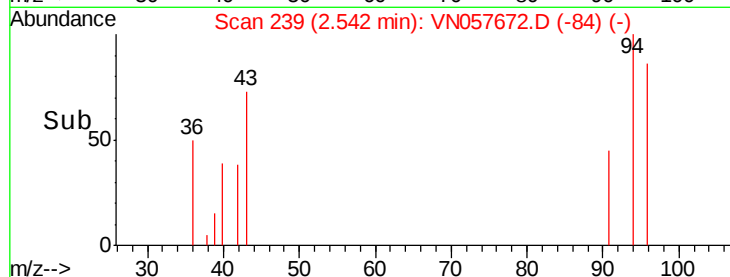
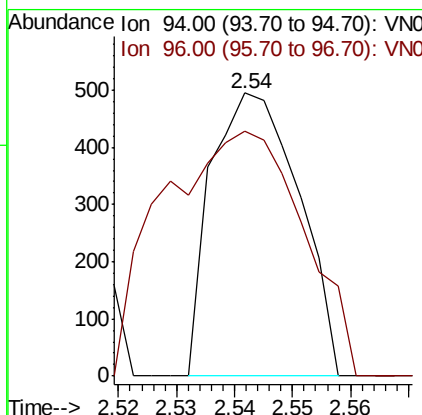
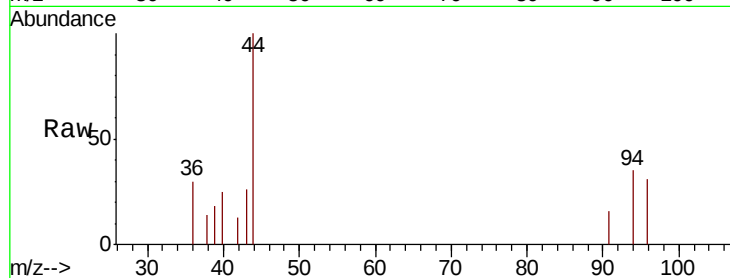




#5
Bromomethane
Concen: 0.226 ug/l
RT: 2.54 min Scan# 239
Delta R.T. -0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

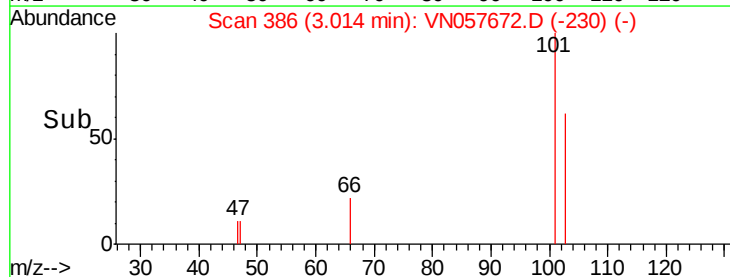
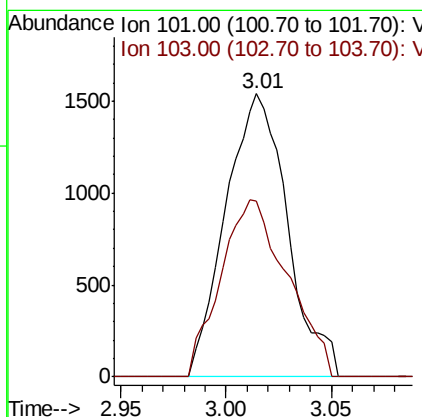
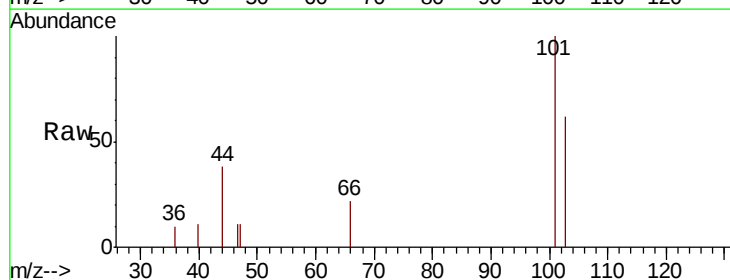
Instrument :
MSVOA_N
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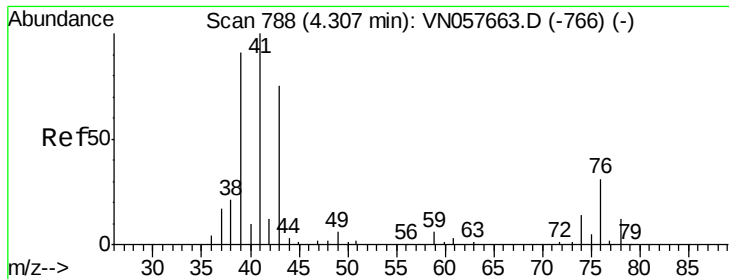
Tgt Ion: 94 Resp: 518
Ion Ratio Lower Upper
94 100
96 54.7 75.6 113.4#



#7
Trichlorofluoromethane
Concen: 0.457 ug/l
RT: 3.01 min Scan# 386
Delta R.T. 0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion: 101 Resp: 3133
Ion Ratio Lower Upper
101 100
103 62.2 53.6 80.4

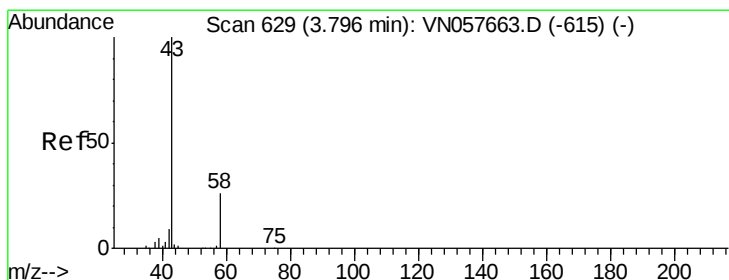
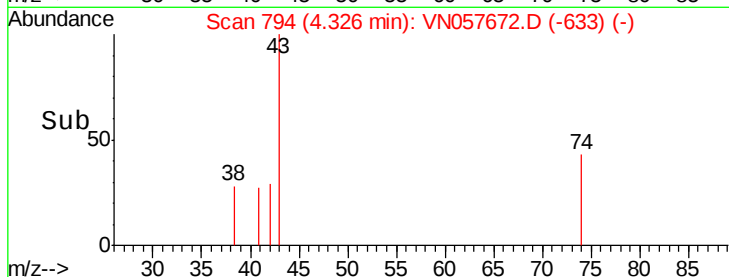
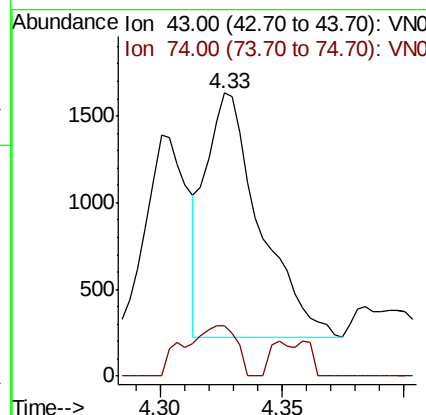
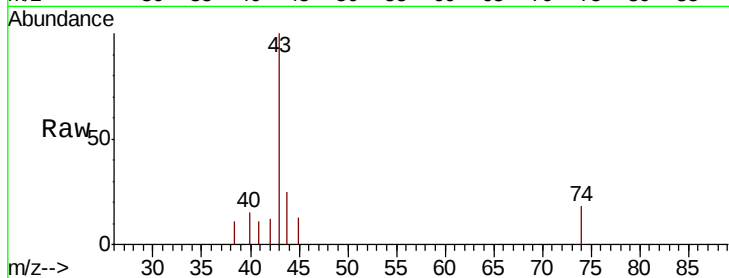




#12
Methyl Acetate
Concen: 0.449 ug/l
RT: 4.33 min Scan# 794
Delta R.T. 0.02 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

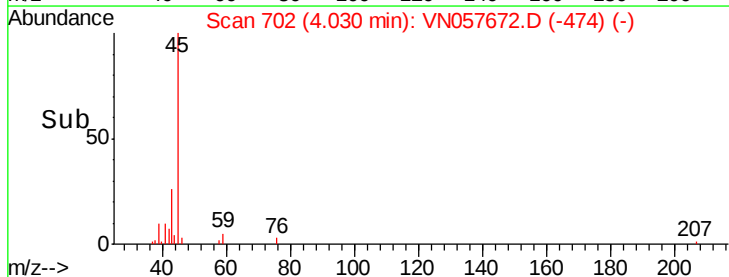
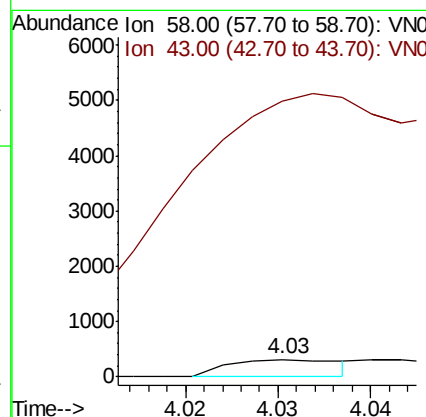
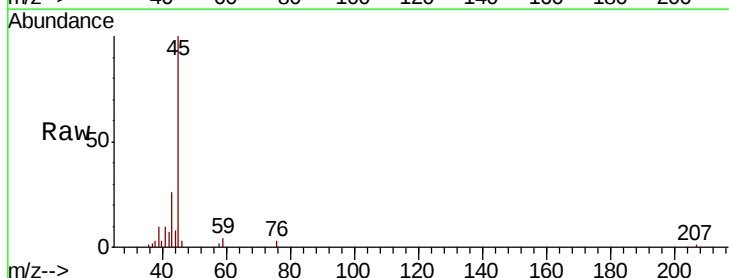
Instrument :
MSVOA_N
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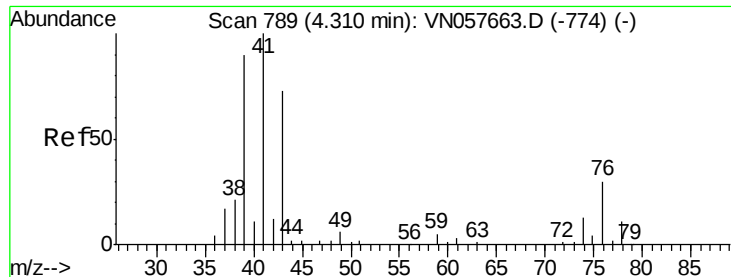
Tgt Ion: 43 Resp: 2181
Ion Ratio Lower Upper
43 100
74 19.8 14.6 22.0



#15
Acetone
Concen: 0.541 ug/l
RT: 4.03 min Scan# 702
Delta R.T. 0.23 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion: 58 Resp: 268
Ion Ratio Lower Upper
58 100
43 397.2 308.8 463.2

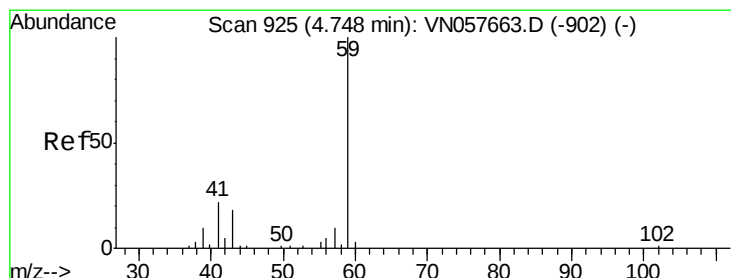
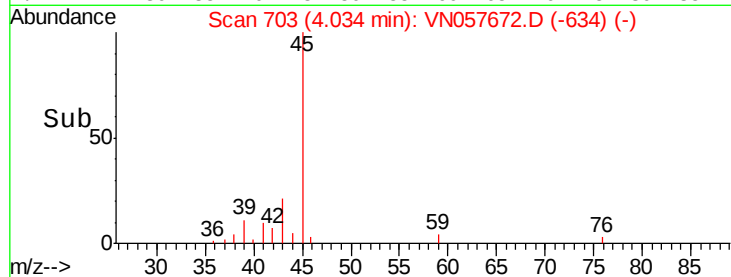
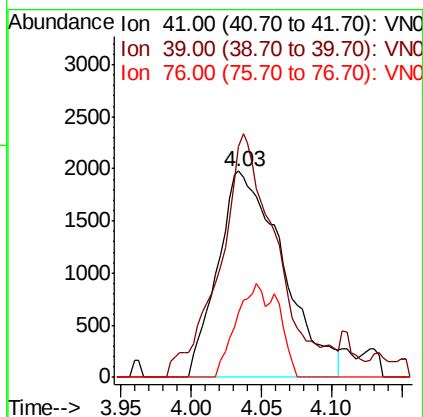
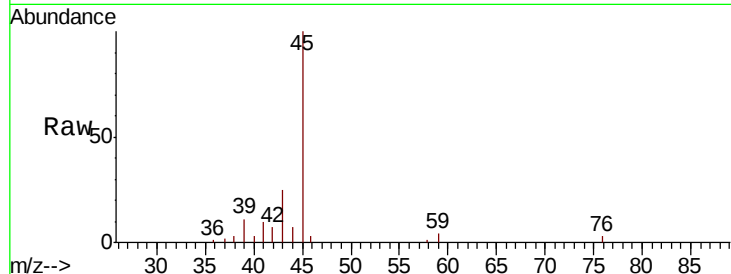




#17
 Allyl chloride
 Concen: 0.918 ug/l
 RT: 4.03 min Scan# 703
 Delta R.T. -0.28 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

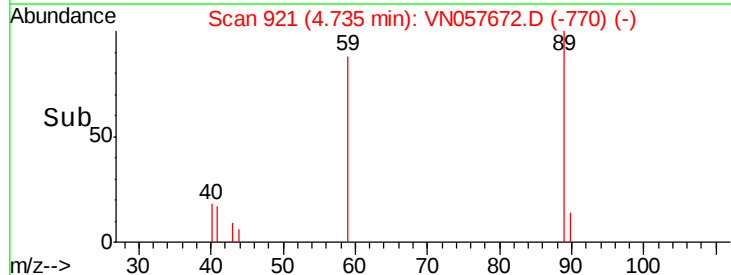
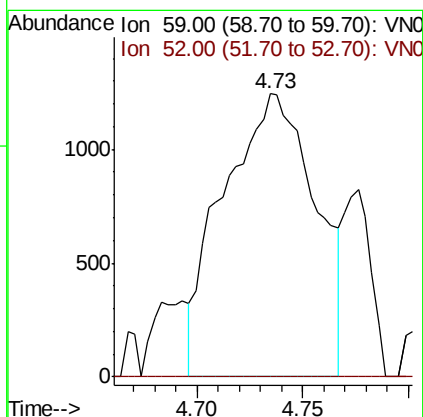
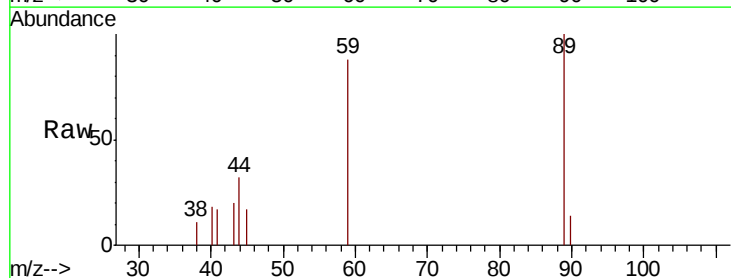
Instrument :
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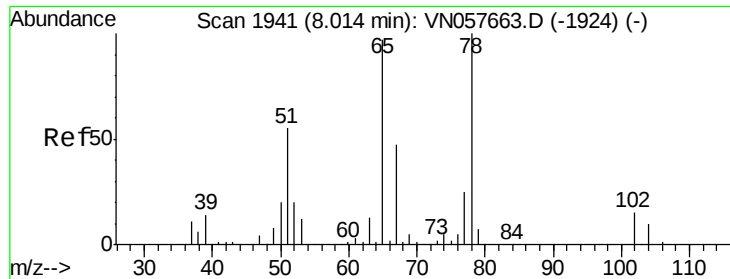
Tgt Ion: 41 Resp: 6379
 Ion Ratio Lower Upper
 41 100
 39 100.0 43.0 128.8
 76 31.0 14.2 42.8



#23
 tert-Butyl Alcohol
 Concen: 5.876 ug/l
 RT: 4.73 min Scan# 921
 Delta R.T. -0.01 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

Tgt Ion: 59 Resp: 3776
 Ion Ratio Lower Upper
 59 100
 52 0.0 0.0 0.0

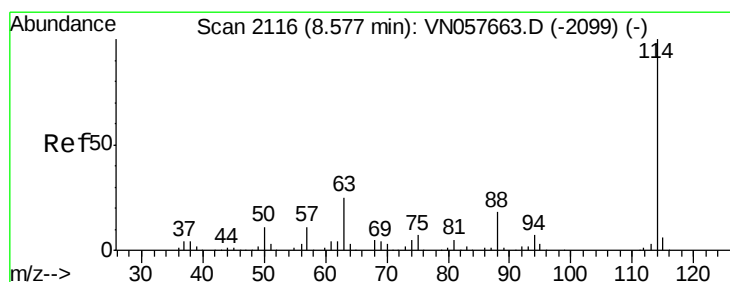
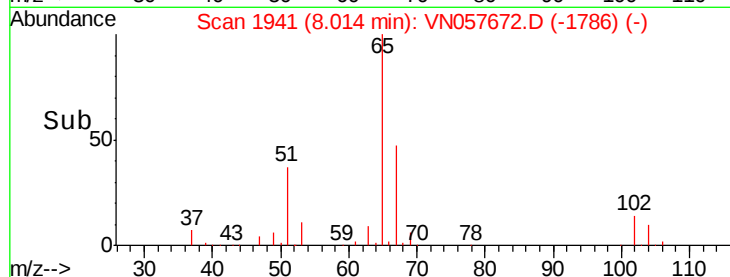
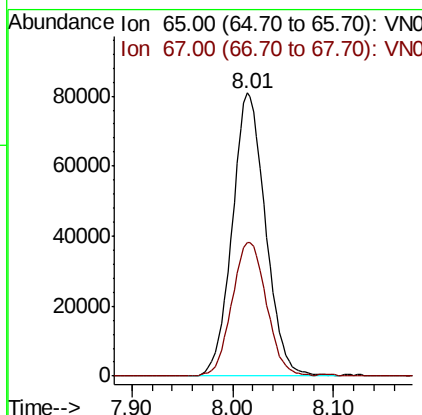
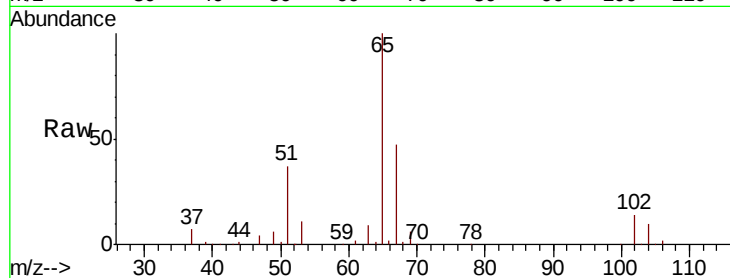




#27
 1,2-Dichloroethane-d4
 Concen: 30.207 ug/l
 RT: 8.01 min Scan# 1941
 Delta R.T. -0.00 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

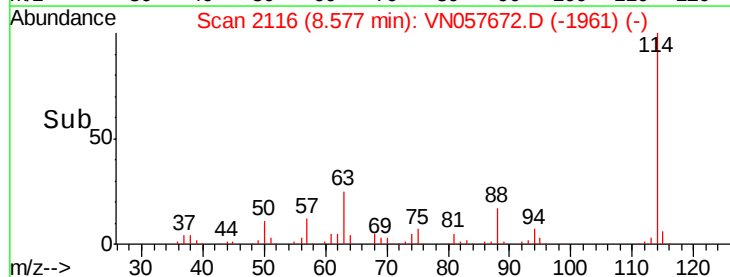
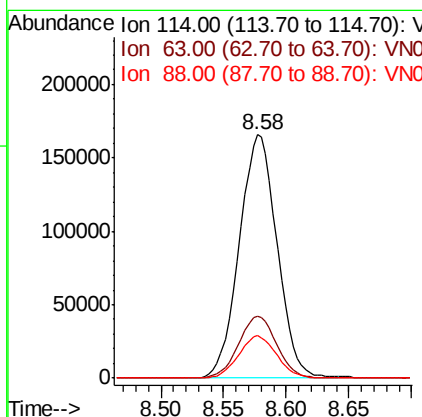
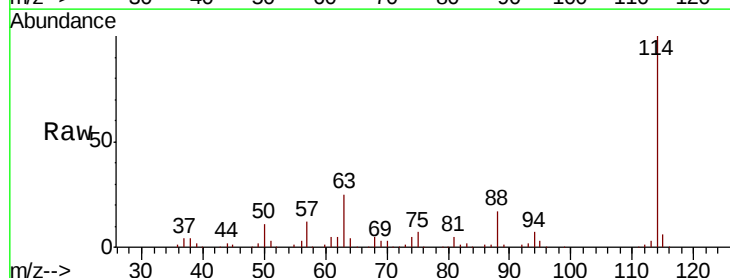
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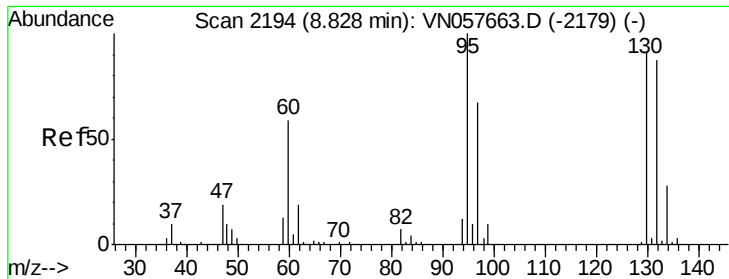
Tgt Ion: 65 Resp: 185118
 Ion Ratio Lower Upper
 65 100
 67 48.9 38.6 57.8



#28
 1,4-Difluorobenzene
 Concen: 30.000 ug/l
 RT: 8.58 min Scan# 2116
 Delta R.T. -0.00 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

Tgt Ion: 114 Resp: 347496
 Ion Ratio Lower Upper
 114 100
 63 25.5 20.6 30.8
 88 17.3 14.3 21.5





#37

Trichloroethene

Concen: 9.034 ug/l

RT: 8.83 min Scan# 2195

Delta R.T. 0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

Instrument :

MSVOA_N

ClientSampleId :

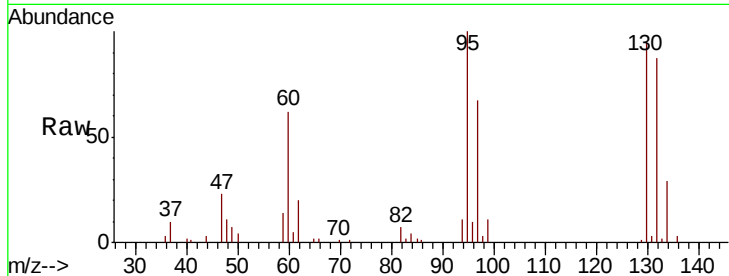
TT-006-IDW/GW-20190830

Tgt Ion:130 Resp: 34192

Ion Ratio Lower Upper

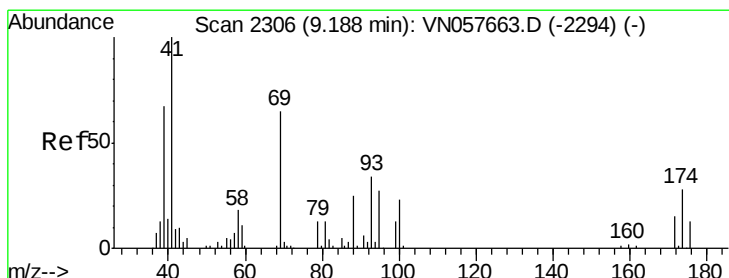
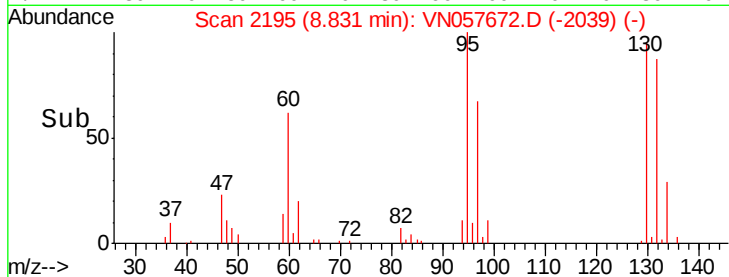
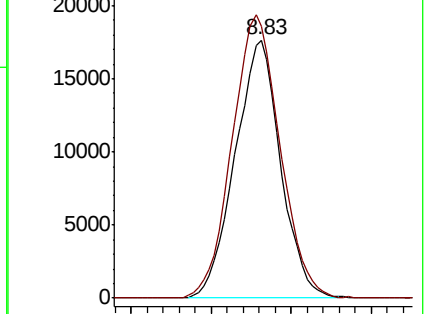
130 100

95 105.5 87.5 131.3



Abundance Ion 129.90 (129.60 to 130.60): V

Ion 94.90 (94.60 to 95.60): VN



#45

1,4-Dioxane

Concen: 2.578 ug/l

RT: 9.19 min Scan# 2308

Delta R.T. 0.01 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

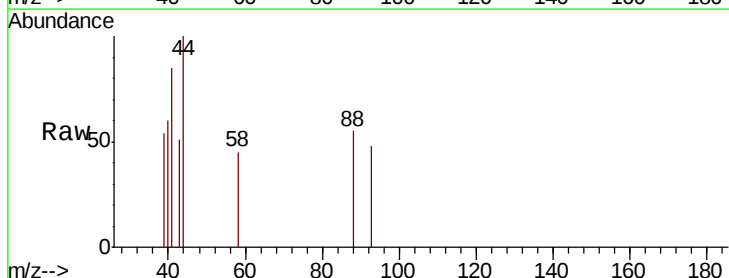
Tgt Ion: 88 Resp: 167

Ion Ratio Lower Upper

88 100

43 92.2 31.0 46.4#

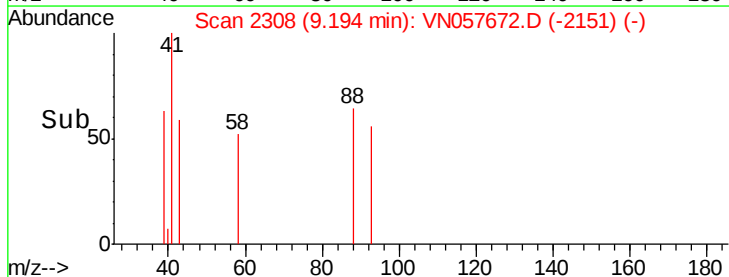
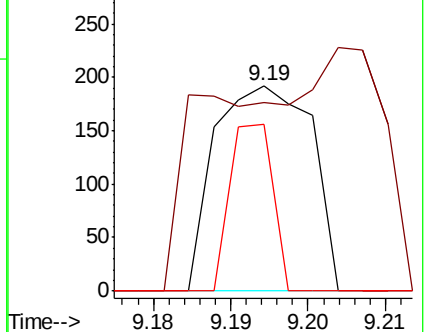
58 35.9 58.2 87.2#

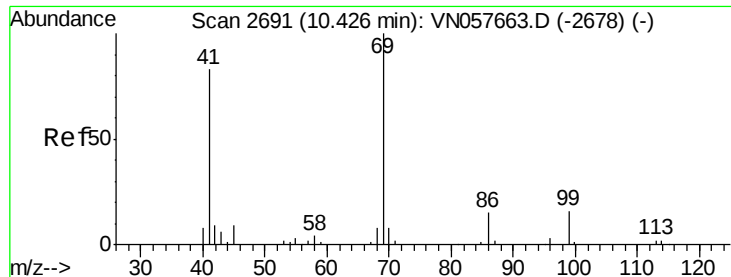


Abundance Ion 88.00 (87.70 to 88.70): VN

Ion 43.00 (42.70 to 43.70): VN

Ion 58.00 (57.70 to 58.70): VN





#51

Ethyl methacrylate

Concen: 0.325 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. -0.33 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

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ClientSampleId :

TT-006-IDW/GW-20190830

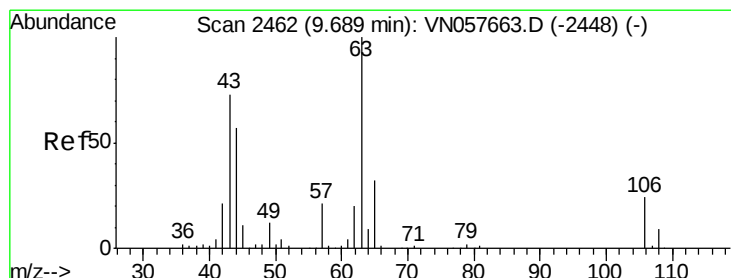
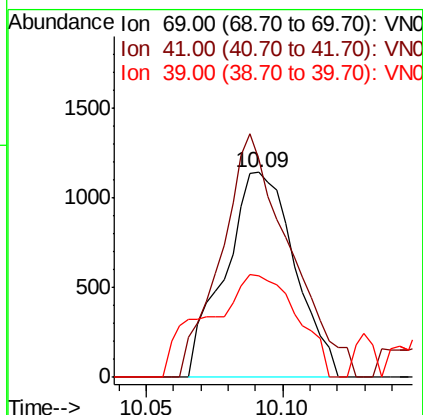
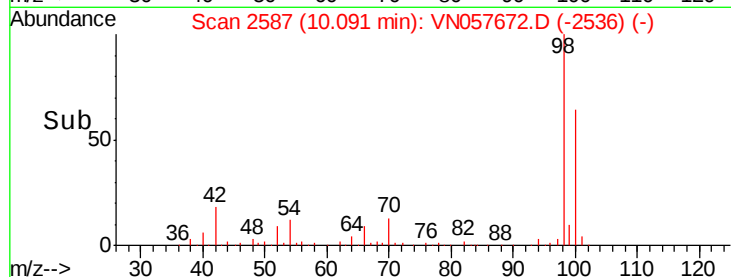
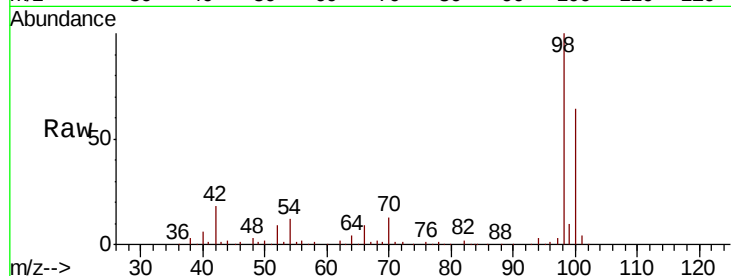
Tgt Ion: 69 Resp: 2017

Ion Ratio Lower Upper

69 100

41 91.9 41.5 124.5

39 49.7 29.6 88.9



#55

2-Chloroethyl vinyl ether

Concen: 0.212 ug/l

RT: 10.08 min Scan# 2584

Delta R.T. 0.39 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

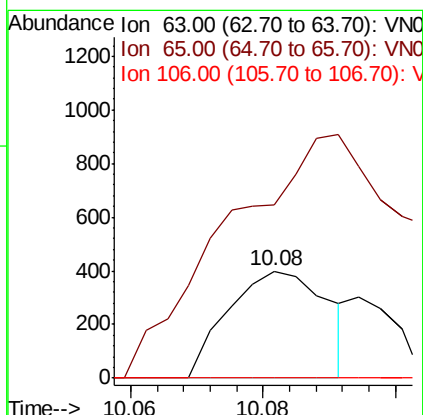
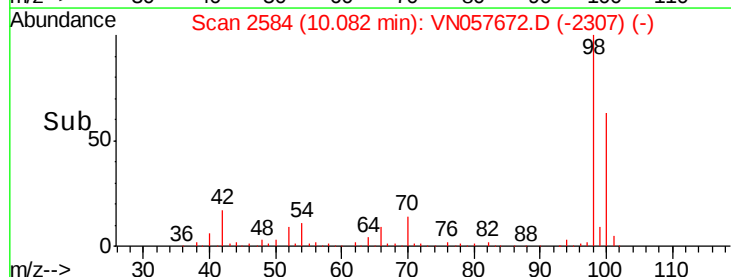
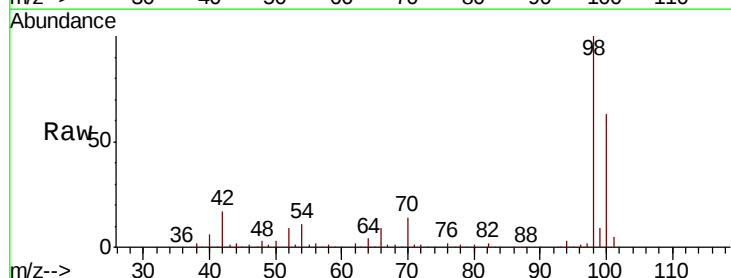
Tgt Ion: 63 Resp: 417

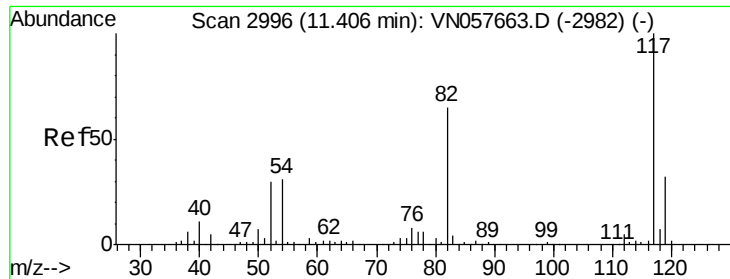
Ion Ratio Lower Upper

63 100

65 274.8 25.6 38.4#

106 0.0 19.5 29.3#

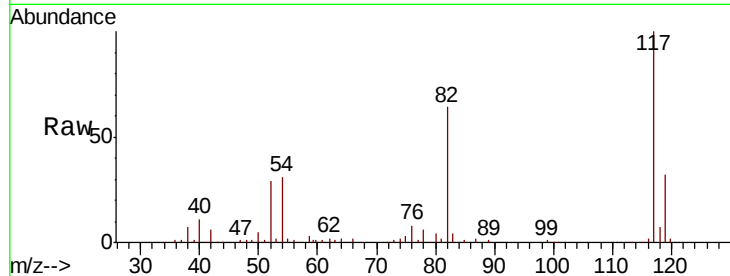




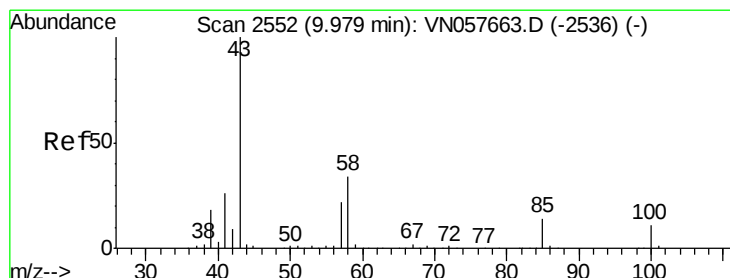
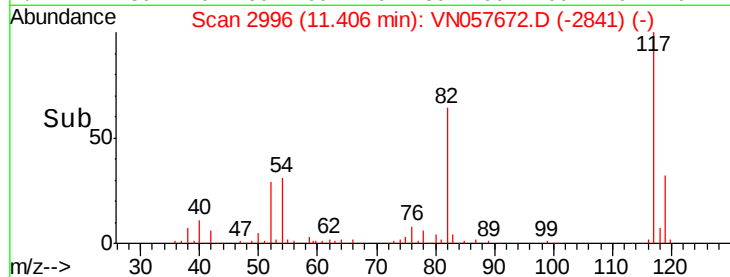
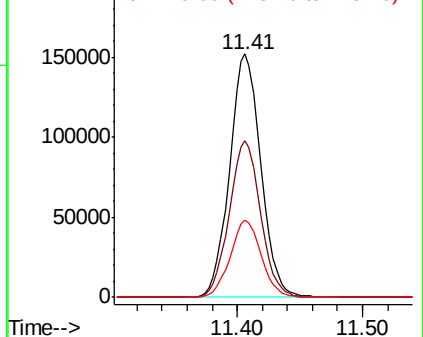
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.41 min Scan# 2996
Delta R.T. -0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Instrument :
MSVOA_N
ClientSampleId :
TT-006-IDW/GW-20190830

Tgt Ion: 117 Resp: 263401
Ion Ratio Lower Upper
117 100
82 64.3 51.2 76.8
119 31.5 25.8 38.6

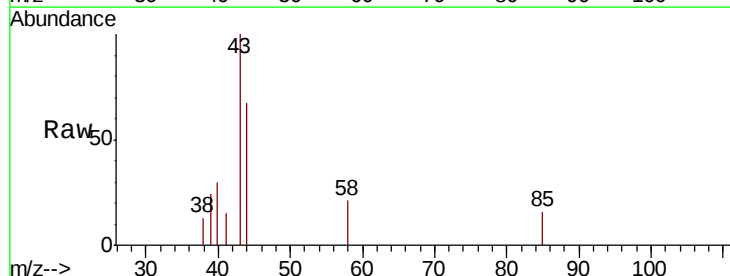


Abundance Ion 117.00 (116.70 to 117.70): V
Ion 82.00 (81.70 to 82.70): V
Ion 119.00 (118.70 to 119.70): V

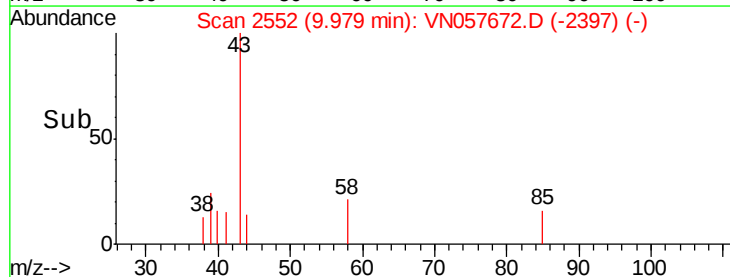
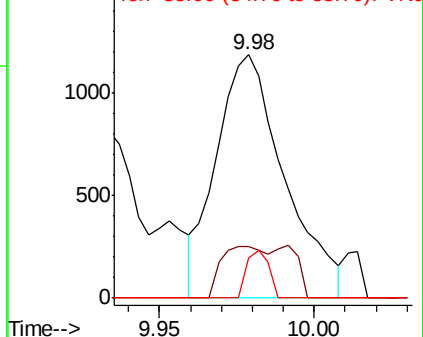


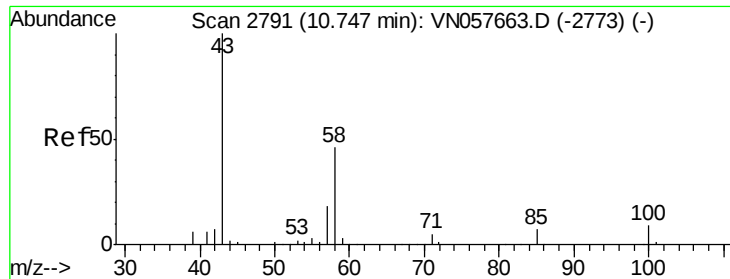
#58
4-Methyl-2-Pentanone
Concen: 0.391 ug/l
RT: 9.98 min Scan# 2552
Delta R.T. -0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion: 43 Resp: 1818
Ion Ratio Lower Upper
43 100
58 14.5 26.7 40.1#
85 6.4 11.2 16.8#



Abundance Ion 43.00 (42.70 to 43.70): V
Ion 58.00 (57.70 to 58.70): V
Ion 85.00 (84.70 to 85.70): V

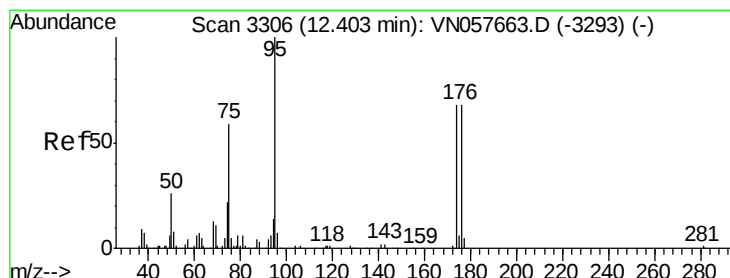
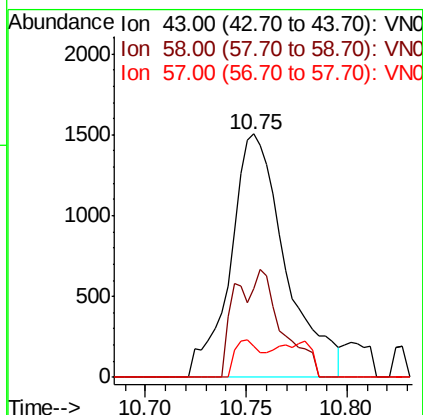
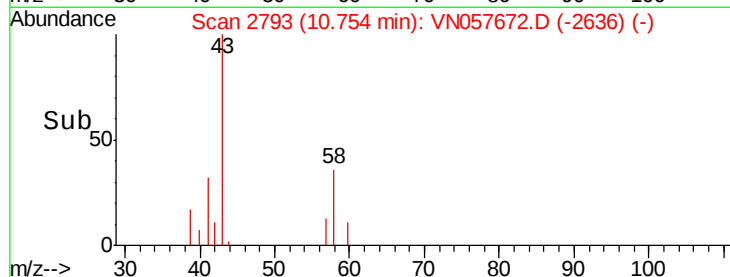
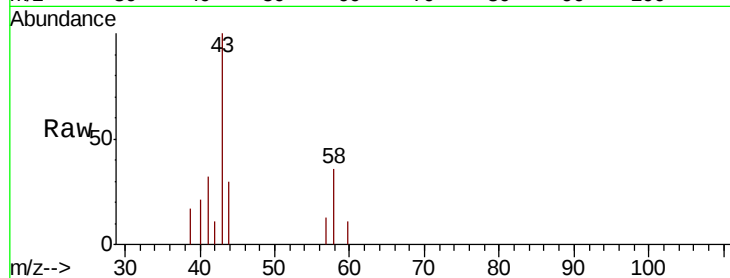




#59
2-Hexanone
Concen: 0.872 ug/l
RT: 10.75 min Scan# 2793
Delta R.T. 0.01 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

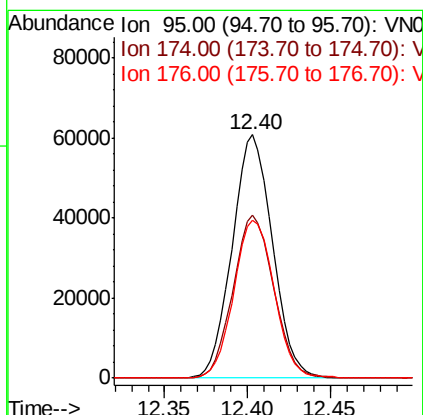
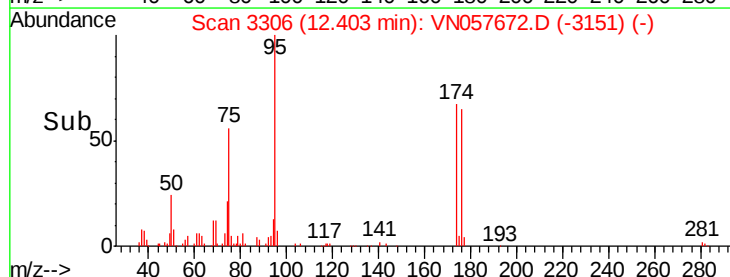
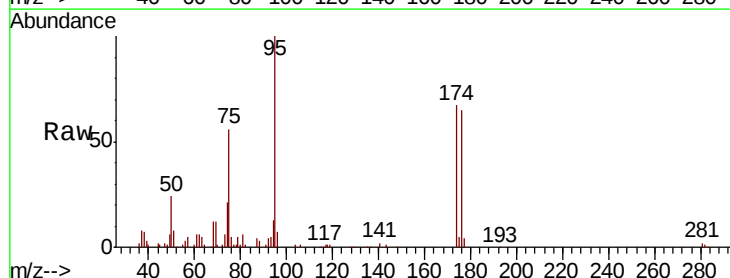
Instrument :
MSVOA_N
ClientSampleId :
TT-006-IDW/GW-20190830

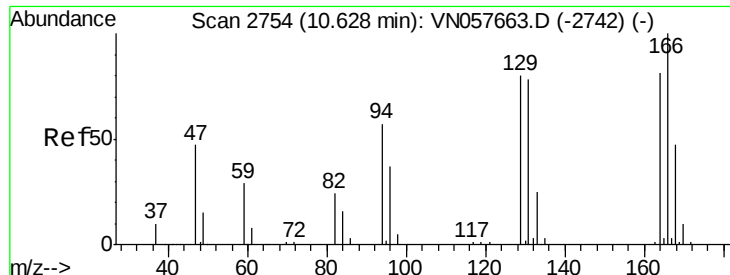
Tgt Ion: 43 Resp: 2873
Ion Ratio Lower Upper
43 100
58 23.9 36.1 54.1#
57 7.6 14.1 21.1#



#60
4-Bromofluorobenzene
Concen: 22.965 ug/l
RT: 12.40 min Scan# 3306
Delta R.T. -0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion: 95 Resp: 103345
Ion Ratio Lower Upper
95 100
174 67.3 55.0 82.6
176 65.1 53.7 80.5





#61

Tetrachloroethene

Concen: 0.731 ug/l

RT: 10.63 min Scan# 2754

Delta R.T. -0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

Instrument :

MSVOA_N

ClientSampleId :

TT-006-IDW/GW-20190830

Tgt Ion:164 Resp: 2210

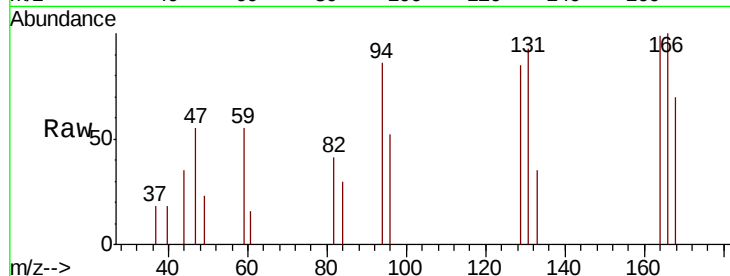
Ion Ratio Lower Upper

164 100

166 84.1 99.4 149.2#

129 85.4 78.8 118.2

131 93.5 78.2 117.2



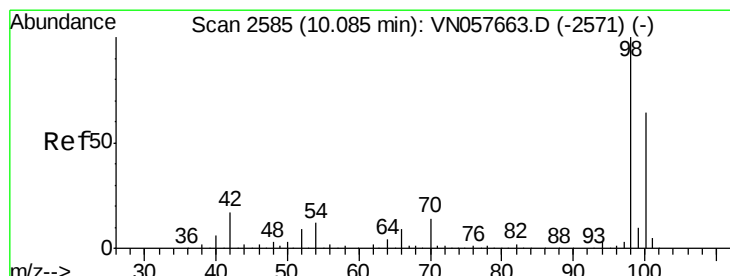
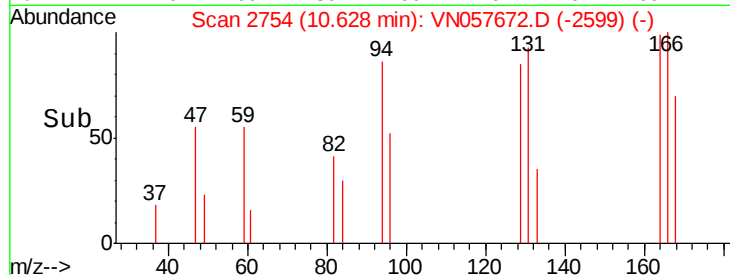
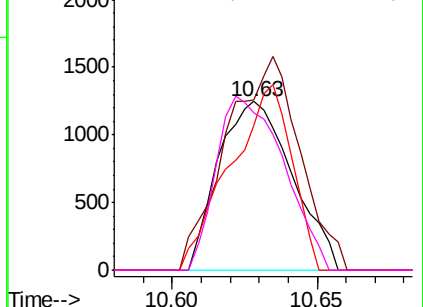
Abundance

Ion 163.85 (163.55 to 164.55): V

Ion 165.80 (165.50 to 166.50): V

Ion 128.90 (128.60 to 129.60): V

Ion 130.90 (130.60 to 131.60): V



#63

Toluene-d8

Concen: 33.411 ug/l

RT: 10.09 min Scan# 2586

Delta R.T. 0.00 min

Lab File: VN057672.D

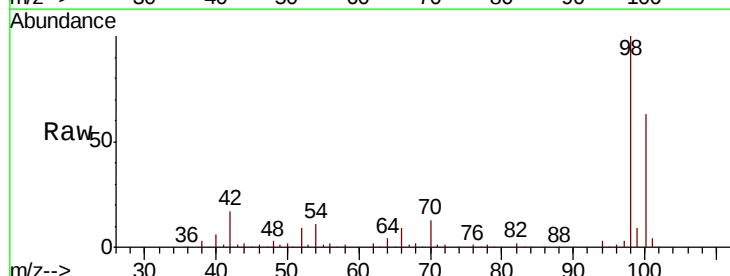
Acq: 3 Sep 2019 19:20

Tgt Ion: 98 Resp: 423772

Ion Ratio Lower Upper

98 100

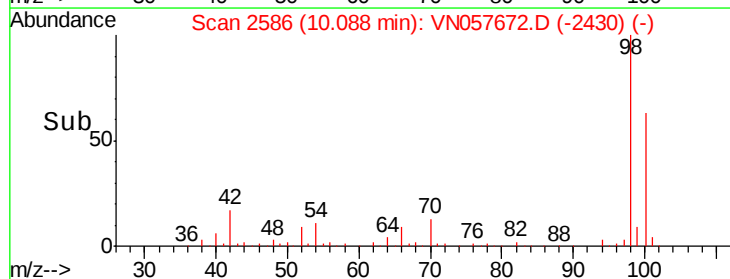
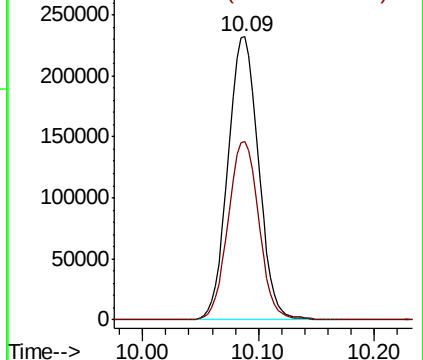
100 63.3 51.0 76.6

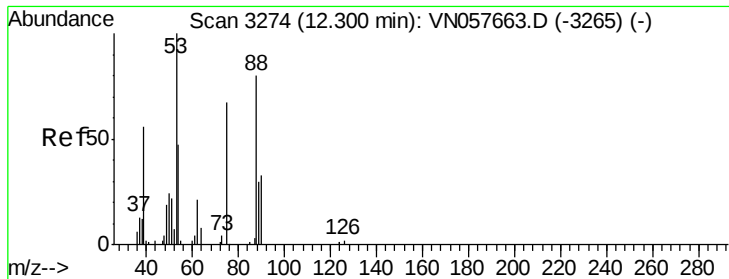


Abundance

Ion 98.00 (97.70 to 98.70): VN

Ion 100.00 (99.70 to 100.70): VN

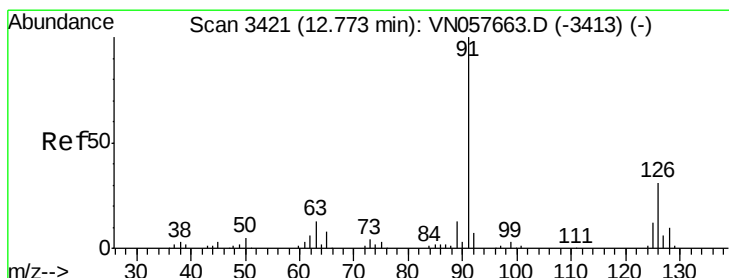
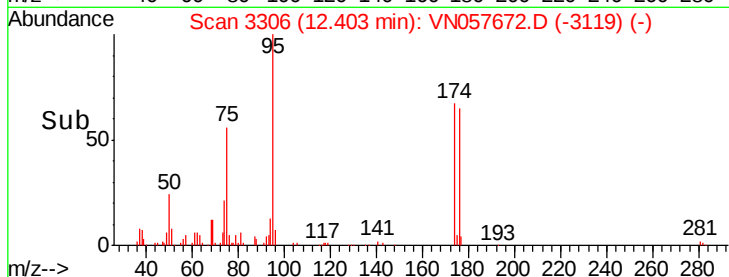
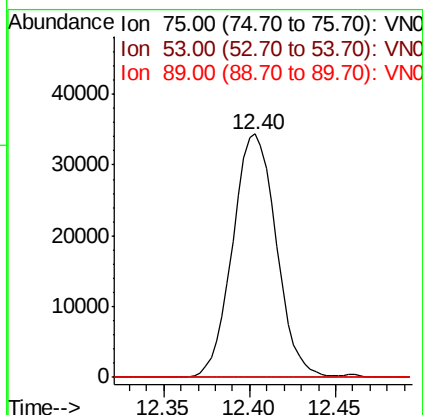
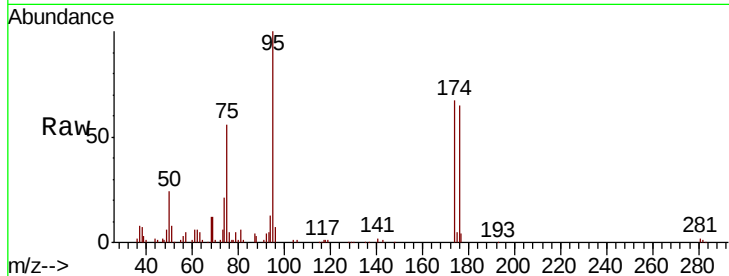




#77
t-1,4-Dichloro-2-butene
Concen: 50.658 ug/l
RT: 12.40 min Scan# 3306
Delta R.T. 0.10 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

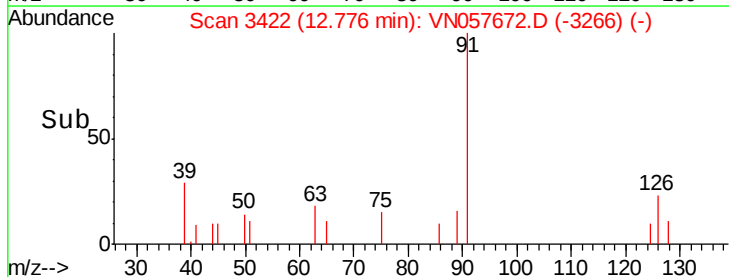
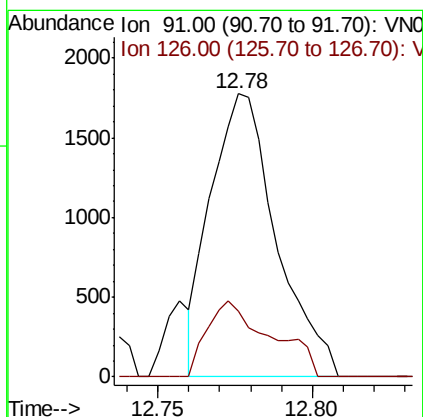
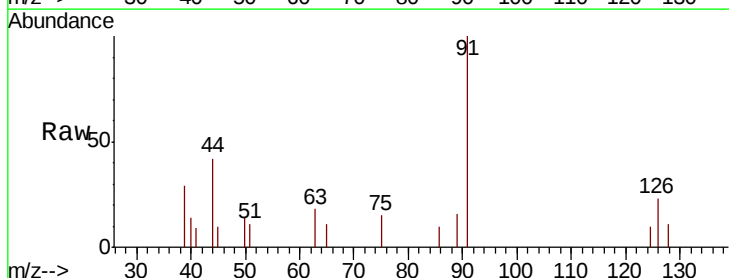
Instrument :
MSVOA_N
ClientSampleId :
TT-006-IDW/GW-20190830

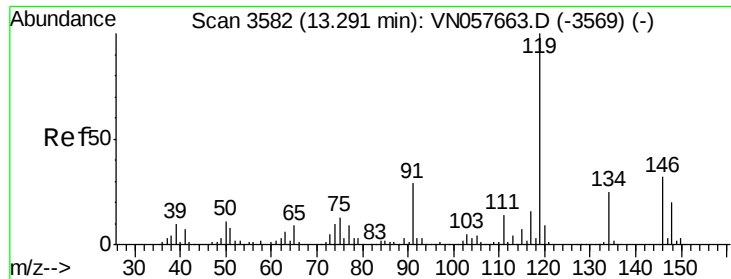
Tgt Ion: 75 Resp: 60591
Ion Ratio Lower Upper
75 100
53 0.0 74.2 222.6#
89 0.0 23.3 69.9#



#78
4-Chlorotoluene
Concen: 0.252 ug/l
RT: 12.78 min Scan# 3422
Delta R.T. 0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion: 91 Resp: 2625
Ion Ratio Lower Upper
91 100
126 21.5 0.0 57.8

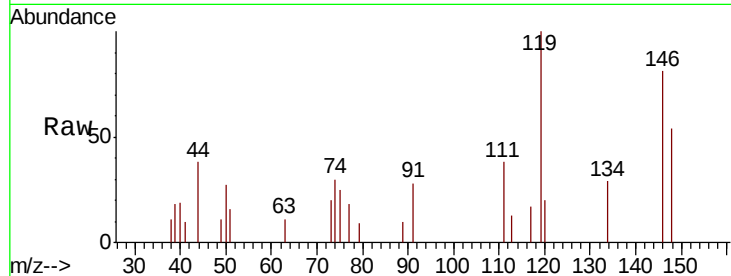




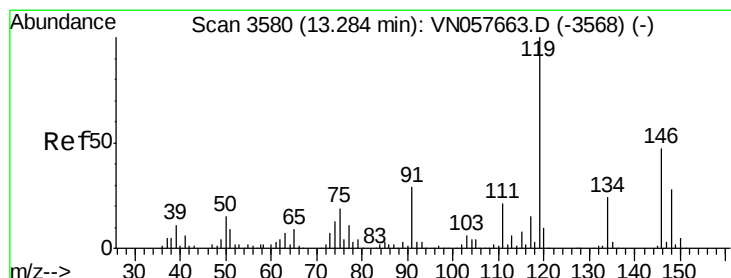
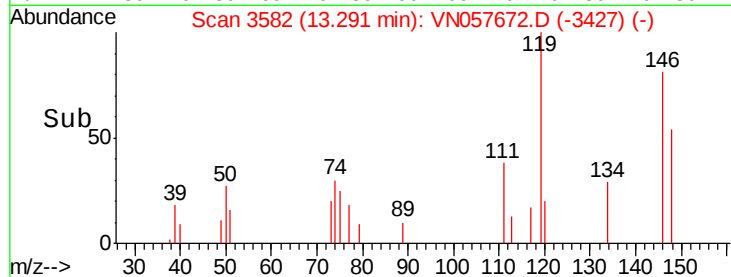
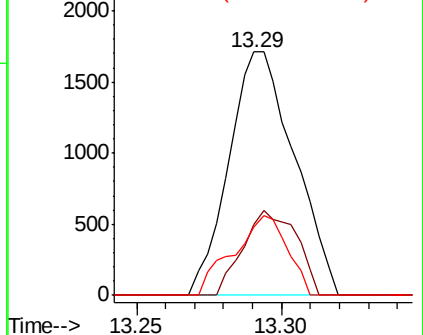
#82
p-Isopropyltoluene
Concen: 0.217 ug/l
RT: 13.29 min Scan# 3582
Delta R.T. -0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Instrument :
MSVOA_N
ClientSampleId :
TT-006-IDW/GW-20190830

Tgt Ion:119 Resp: 2681
Ion Ratio Lower Upper
119 100
134 28.3 0.0 49.6
91 27.1 0.0 56.2

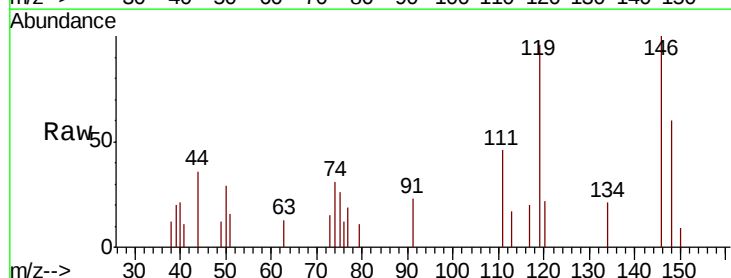


Abundance Ion 119.00 (118.70 to 119.70): V
Ion 134.00 (133.70 to 134.70): V
Ion 91.00 (90.70 to 91.70): V

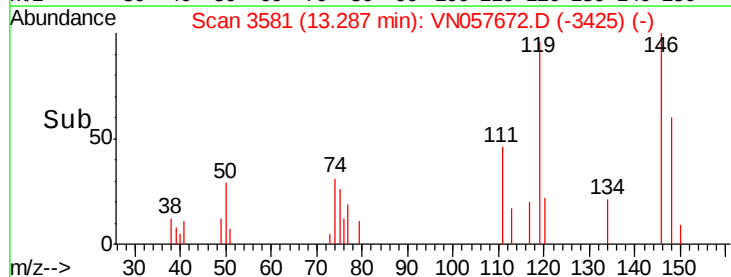
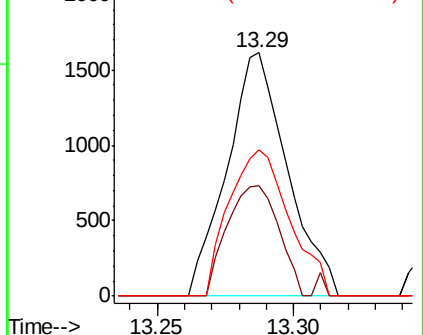


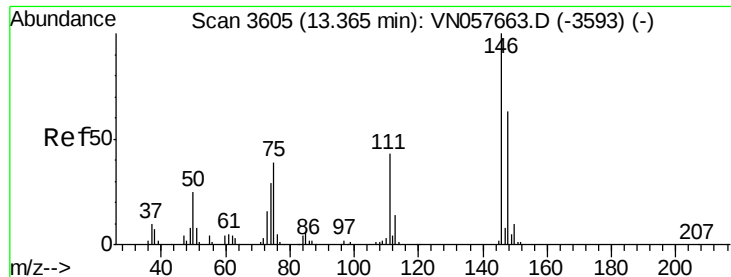
#83
1,3-Dichlorobenzene
Concen: 0.494 ug/l
RT: 13.29 min Scan# 3581
Delta R.T. 0.00 min
Lab File: VN057672.D
Acq: 3 Sep 2019 19:20

Tgt Ion:146 Resp: 2481
Ion Ratio Lower Upper
146 100
111 38.9 22.1 66.3
148 60.2 31.3 93.9



Abundance Ion 146.00 (145.70 to 146.70): V
Ion 111.00 (110.70 to 111.70): V
Ion 148.00 (147.70 to 148.70): V





#84

1,4-Dichlorobenzene

Concen: 0.500 ug/l

RT: 13.37 min Scan# 3606

Delta R.T. 0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

Instrument :

MSVOA_N

ClientSampleId :

TT-006-IDW/GW-20190830

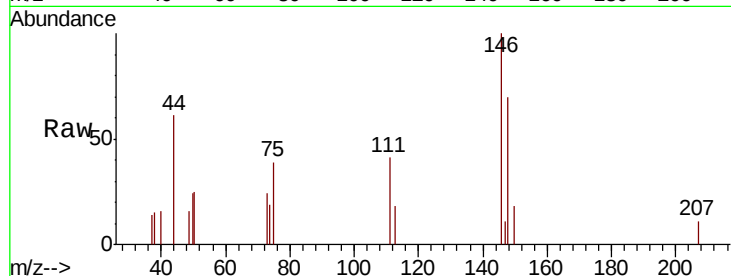
Tgt Ion:146 Resp: 2372

Ion Ratio Lower Upper

146 100

111 32.3 21.3 63.9

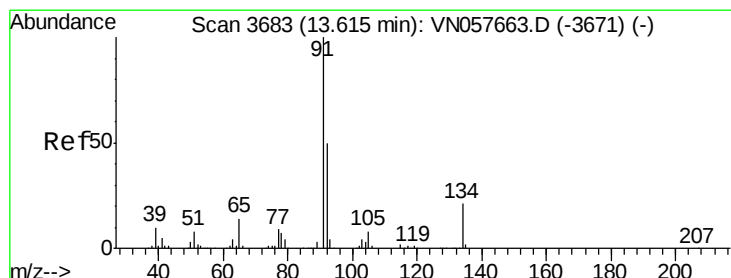
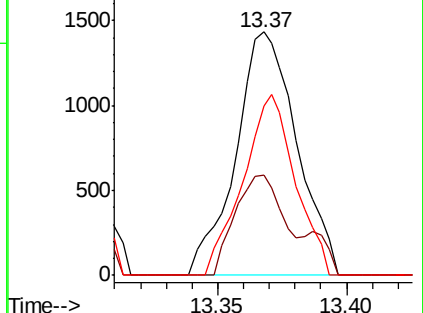
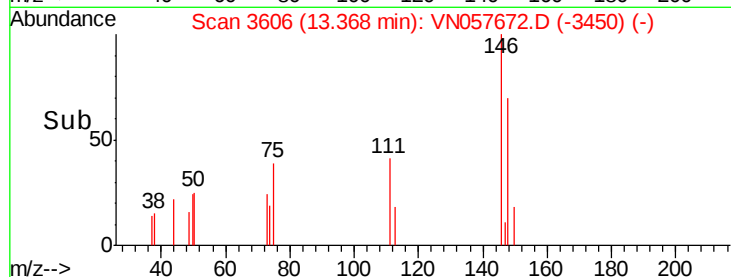
148 63.5 31.0 93.0



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#85

n-Butylbenzene

Concen: 0.358 ug/l

RT: 13.62 min Scan# 3685

Delta R.T. 0.01 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

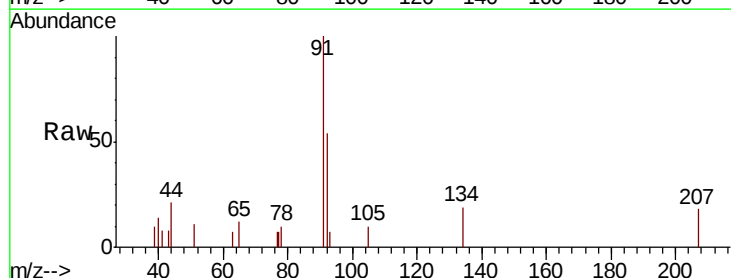
Tgt Ion: 91 Resp: 3885

Ion Ratio Lower Upper

91 100

92 56.8 0.0 100.2

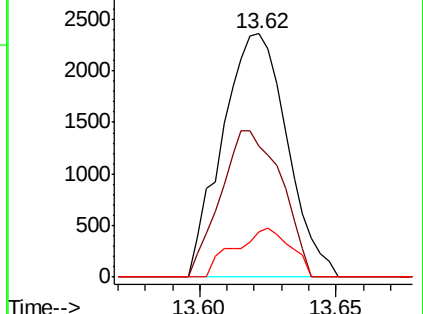
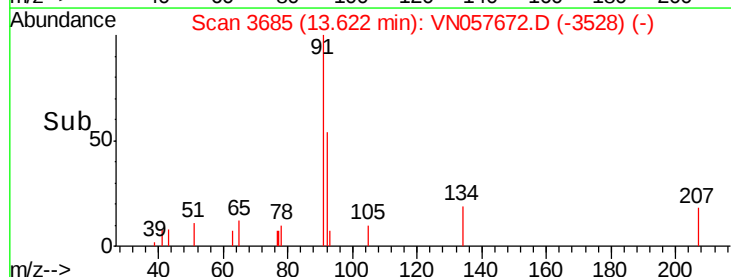
134 12.2 0.0 43.8

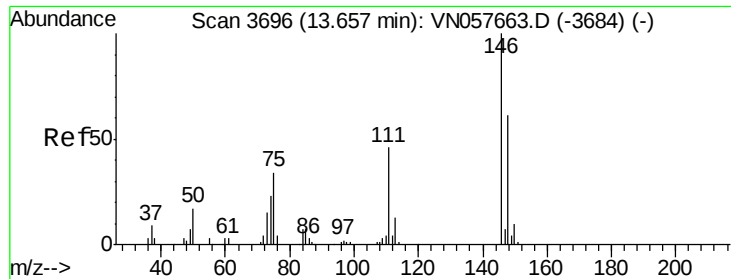


Abundance Ion 91.00 (90.70 to 91.70): V

Ion 92.00 (91.70 to 92.70): V

Ion 134.00 (133.70 to 134.70): V

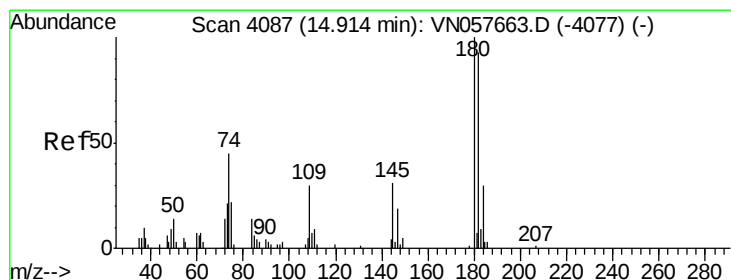
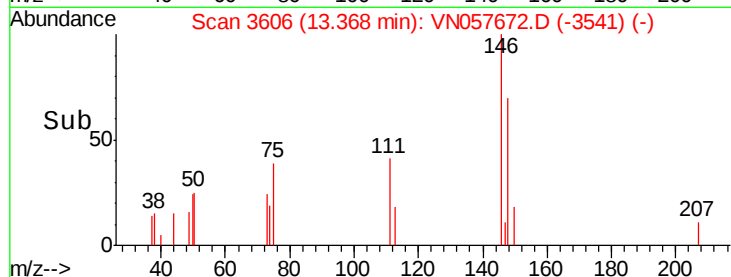
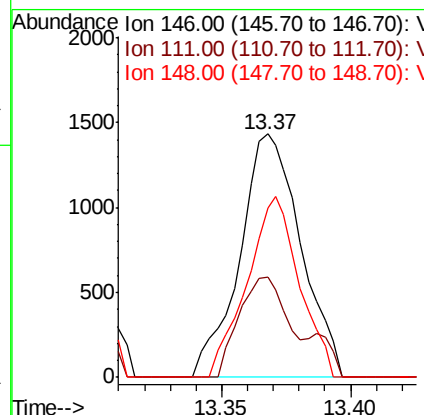
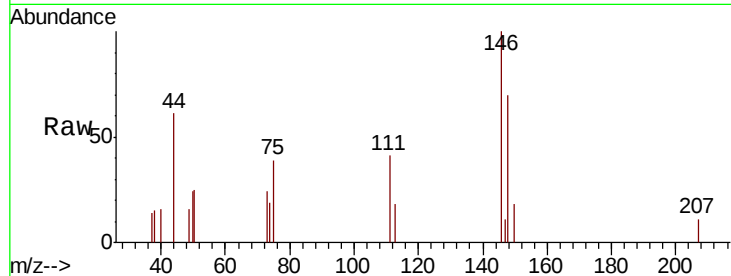




#87
 1,2-Dichlorobenzene
 Concen: 0.512 ug/l
 RT: 13.37 min Scan# 3606
 Delta R.T. -0.29 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

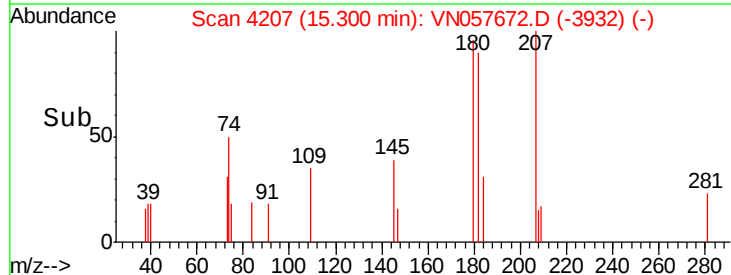
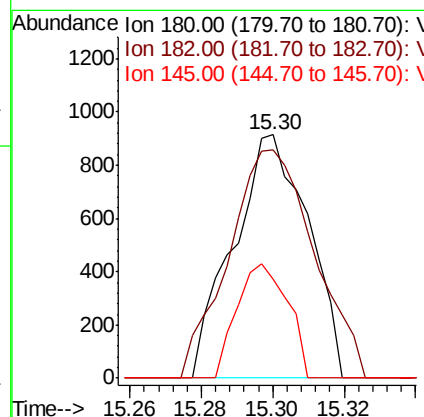
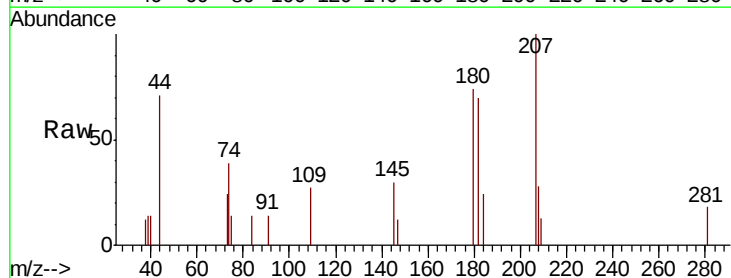
Instrument :
 MSVOA_N
 ClientSampleId :
 TT-006-IDW/GW-20190830

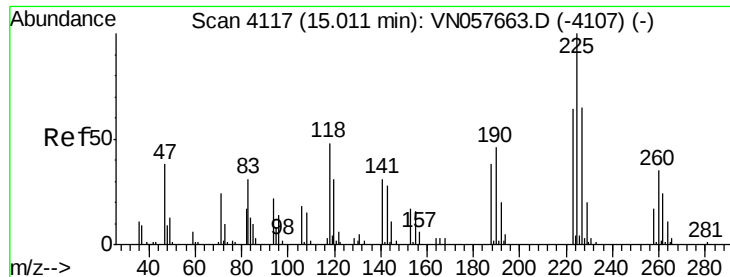
Tgt Ion:146 Resp: 2372
 Ion Ratio Lower Upper
 146 100
 111 32.3 22.6 67.7
 148 63.5 31.3 93.9



#89
 1,2,4-Trichlorobenzene
 Concen: 0.827 ug/l
 RT: 15.30 min Scan# 4207
 Delta R.T. 0.39 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

Tgt Ion:180 Resp: 1328
 Ion Ratio Lower Upper
 180 100
 182 106.9 77.4 116.2
 145 31.8 25.1 37.7





#90

Hexachlorobutadiene

Concen: 0.721 ug/l

RT: 15.01 min Scan# 4116

Delta R.T. -0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

Instrument :

MSVOA_N

ClientSampleId :

TT-006-IDW/GW-20190830

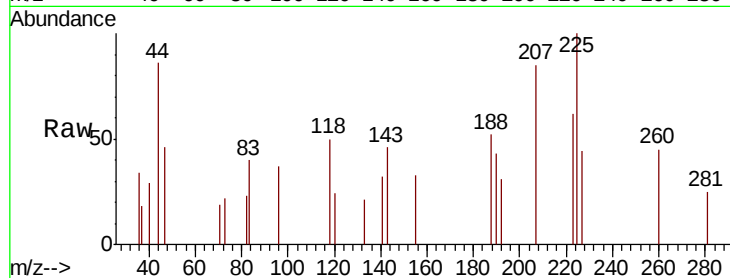
Tgt Ion:225 Resp: 1284

Ion Ratio Lower Upper

225 100

223 65.0 0.0 131.0

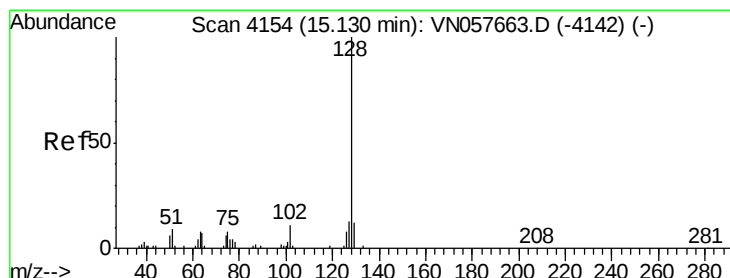
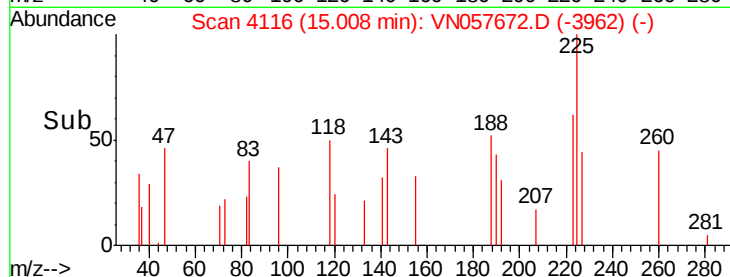
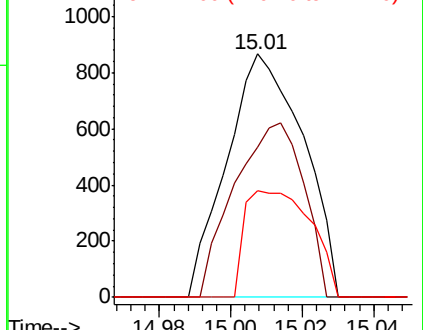
227 37.9 0.0 128.6



Abundance Ion 225.00 (224.70 to 225.70): V

Ion 223.00 (222.70 to 223.70): V

Ion 227.00 (226.70 to 227.70): V



#91

Naphthalene

Concen: 0.687 ug/l

RT: 15.13 min Scan# 4155

Delta R.T. 0.00 min

Lab File: VN057672.D

Acq: 3 Sep 2019 19:20

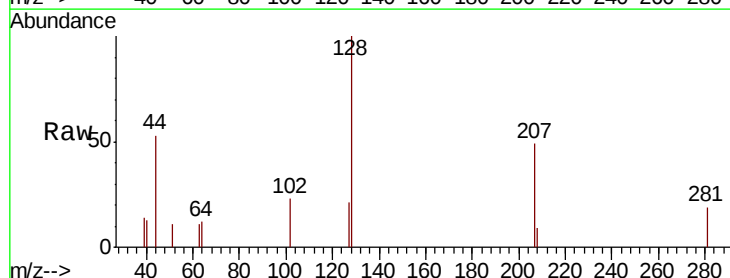
Tgt Ion:128 Resp: 2867

Ion Ratio Lower Upper

128 100

127 7.5 10.3 15.5#

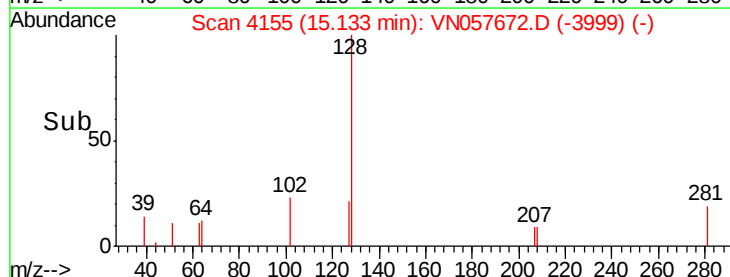
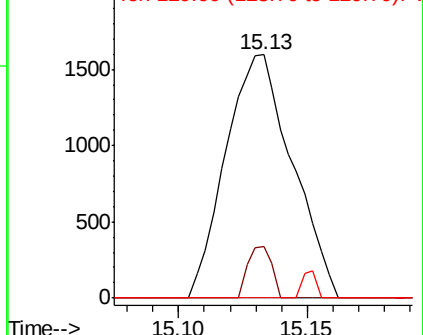
129 2.3 9.1 13.7#

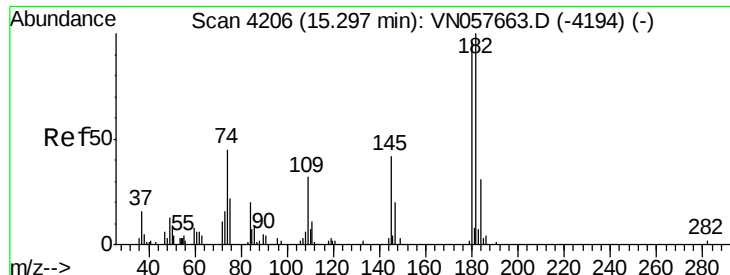


Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

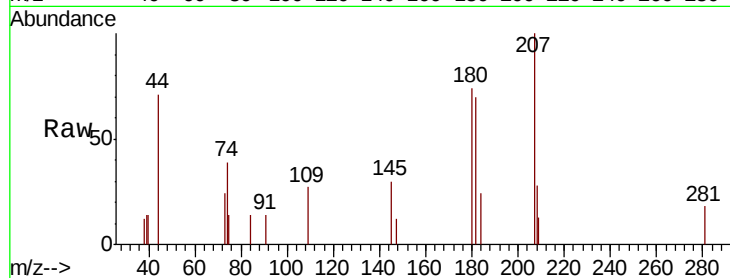




#92
 1,2,3-Trichlorobenzene
 Concen: 0.851 ug/l
 RT: 15.30 min Scan# 4207
 Delta R.T. 0.00 min
 Lab File: VN057672.D
 Acq: 3 Sep 2019 19:20

Instrument :
 MSVOA_N
 ClientSampleId :
 TT-006-IDW/GW-20190830

Tgt Ion	Ratio	Lower	Upper
180	100		
182	106.9	0.0	199.4
145	31.8	0.0	73.2



Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

