

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_N\DATA\VN083119\
 Data File : VN057607.D
 Acq On : 30 Aug 2019 23:26
 Operator : JC/SP
 Sample : K4517-34
 Misc : 5.00mL/MSVOA_N/WATER
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 T4-S-E-(0)

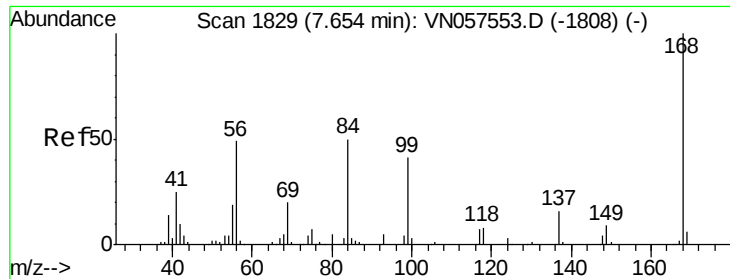
Quant Time: Aug 31 00:52:12 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_N\METHODS\82N082919W.M
 Quant Title : SW846 8260
 QLast Update : Fri Aug 30 11:59:03 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	7.65	168	600090	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	8.58	114	947118	50.00	ug/l	0.00
63) Chlorobenzene-d5	11.41	117	824167	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.35	152	231548	50.00	ug/l	0.00

System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.01	65	371813	37.86	ug/l	0.00
Spiked Amount	50.000		Recovery	=	75.72%	
35) Dibromofluoromethane	7.58	113	288272	34.05	ug/l	0.00
Spiked Amount	50.000		Recovery	=	68.10%	
50) Toluene-d8	10.09	98	1156616	38.63	ug/l	0.00
Spiked Amount	50.000		Recovery	=	77.26%	
62) 4-Bromofluorobenzene	12.40	95	318518	31.69	ug/l	0.00
Spiked Amount	50.000		Recovery	=	63.38%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
8) Diethyl Ether	3.40	74	1454	0.212	ug/l	94
13) Acrolein	3.59	56	379	0.457	ug/l	83
16) Acetone	3.81	43	14311	3.605	ug/l	90
18) Methyl Acetate	4.32	43	16108	0.398	ug/l #	85
20) Methylene Chloride	4.52	84	10021	1.362	ug/l #	74
25) 2-Butanone	6.84	43	2113	0.674	ug/l #	53
31) Cyclohexane	7.65	56	12194	1.069	ug/l #	3
36) 1,1-Dichloropropene	7.65	75	44541	4.347	ug/l #	52
38) Carbon Tetrachloride	7.65	117	58533	4.885	ug/l #	15
41) Methacrylonitrile	7.16	41	169	1.320	ug/l #	31
43) Isopropyl Acetate	8.16	43	61970	4.891	ug/l #	93
48) Methyl methacrylate	9.18	41	3718	0.621	ug/l #	15
49) 1,4-Dioxane	9.27	88	129	1.181	ug/l #	1
51) 4-Methyl-2-Pentanone	9.98	43	4836	0.714	ug/l	98
54) cis-1,3-Dichloropropene	9.90	75	38076	3.069	ug/l #	61
57) 1,3-Dichloropropane	10.76	76	4775	0.382	ug/l #	43
59) 2-Hexanone	10.76	43	62051	13.272	ug/l #	57
73) Isopropylbenzene	12.40	105	599	Below Cal	#	50
74) N-amyl acetate	12.03	43	1749	Below Cal	#	55
75) 1,1,2,2-Tetrachloroethane	12.40	83	293	Below Cal	#	1
76) 1,2,3-Trichloropropane	12.40	75	173193	40.006	ug/l #	100
81) trans-1,4-Dichloro-2-buten	12.40	75	173193	112.470	ug/l #	8
83) tert-Butylbenzene	13.01	119	68	Below Cal	#	22
93) 1,2,4-Trichlorobenzene	14.91	180	36	3.793	ug/l #	1

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



#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.65 min Scan# 1829

Delta R.T. 0.00 min

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ClientSampleId :

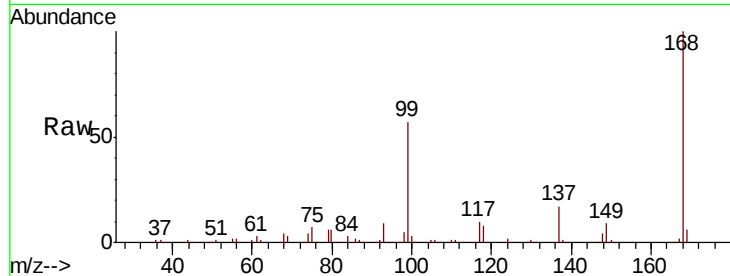
T4-S-E(0)

Tgt Ion:168 Resp: 600090

Ion Ratio Lower Upper

168 100

99 57.1 50.6 76.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VN

7.65

250000

200000

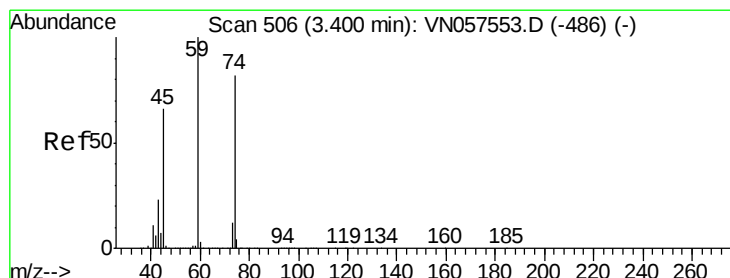
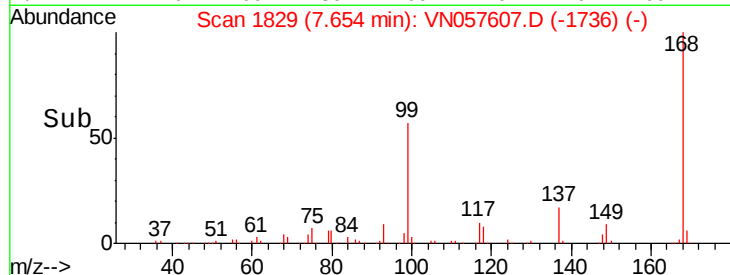
150000

100000

50000

0

Time-->



#8

Diethyl Ether

Concen: 0.212 ug/l

RT: 3.40 min Scan# 507

Delta R.T. 0.00 min

Lab File: VN057607.D

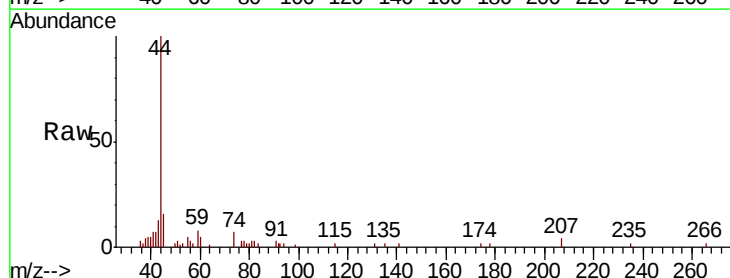
Acq: 30 Aug 2019 23:26

Tgt Ion: 74 Resp: 1454

Ion Ratio Lower Upper

74 100

45 109.4 57.9 173.6



Abundance Ion 74.00 (73.70 to 74.70): VN

Ion 45.00 (44.70 to 45.70): VN

2000

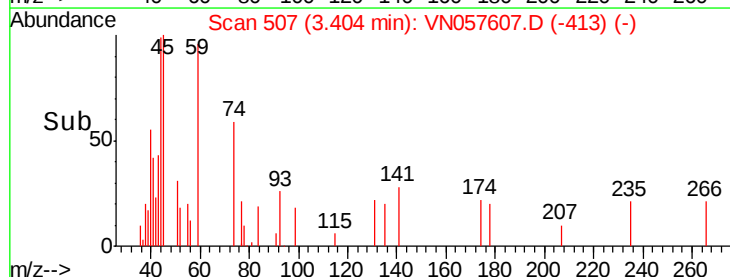
1500

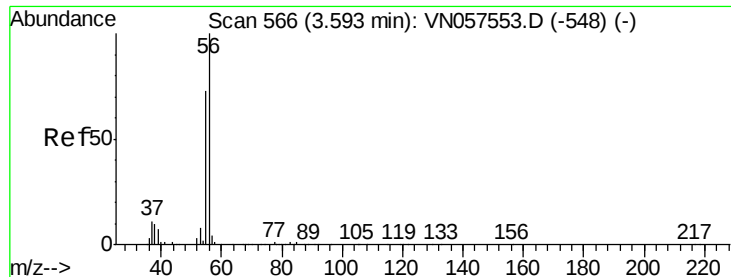
1000

500

0

Time-->





#13

Acrolein

Concen: 0.457 ug/l

RT: 3.59 min Scan# 566

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampleId :

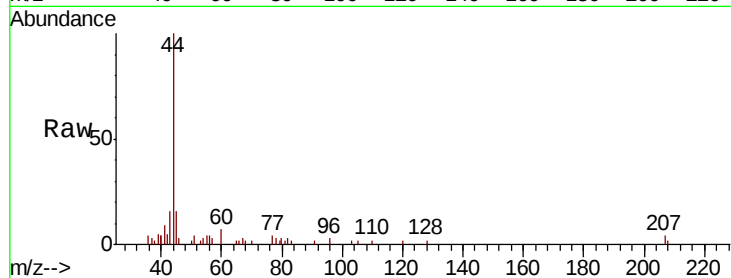
T4-S-E(0)

Tgt Ion: 56 Resp: 379

Ion Ratio Lower Upper

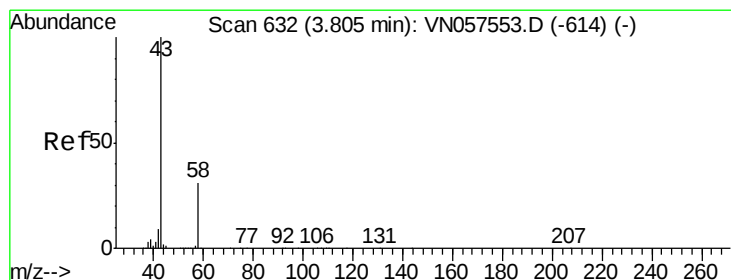
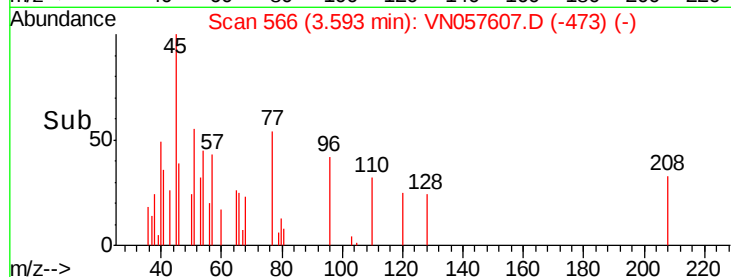
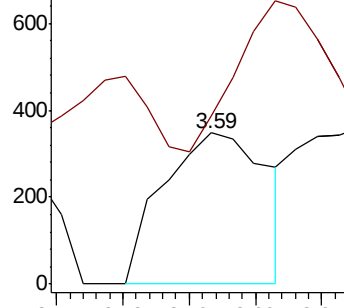
56 100

55 87.9 59.0 88.4



Abundance Ion 56.00 (55.70 to 56.70): VN0

Ion 55.00 (54.70 to 55.70): VN0



#16

Acetone

Concen: 3.605 ug/l

RT: 3.81 min Scan# 632

Delta R.T. 0.00 min

Lab File: VN057607.D

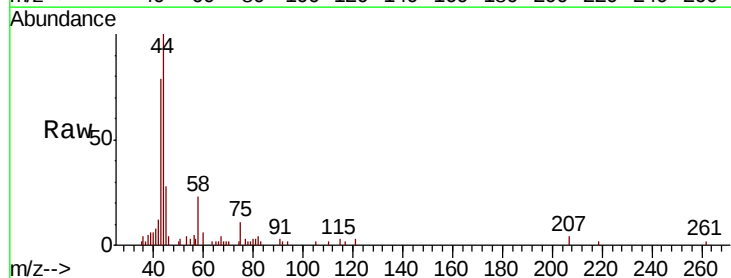
Acq: 30 Aug 2019 23:26

Tgt Ion: 43 Resp: 14311

Ion Ratio Lower Upper

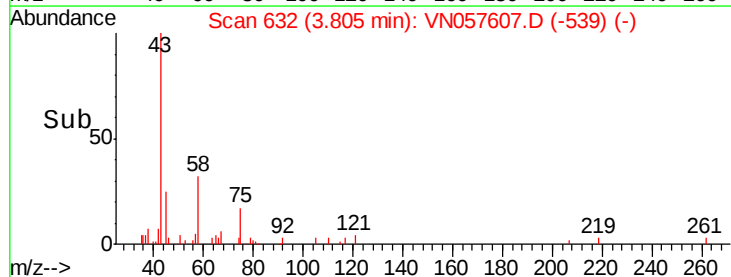
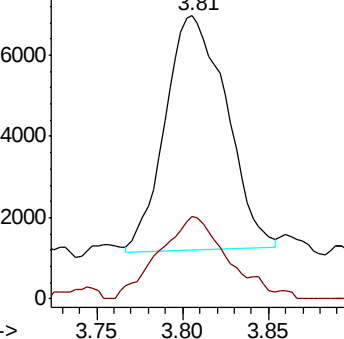
43 100

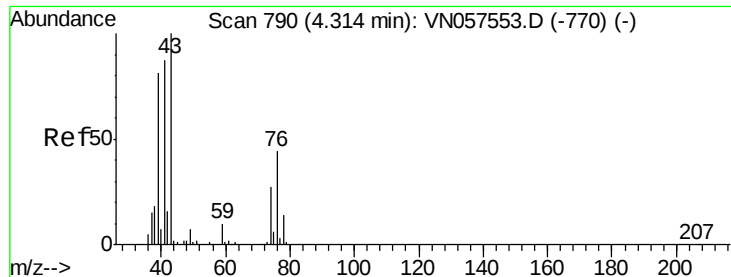
58 32.6 22.1 33.1



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0

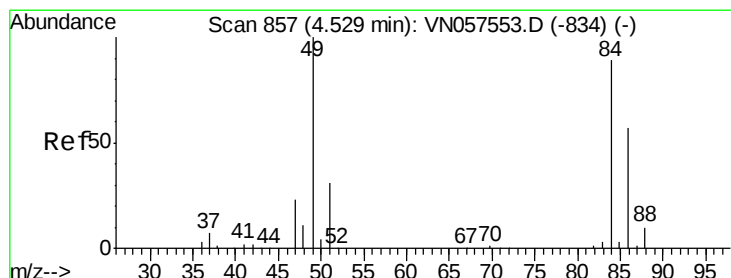
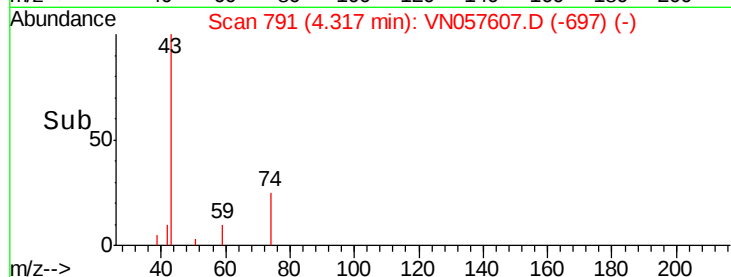
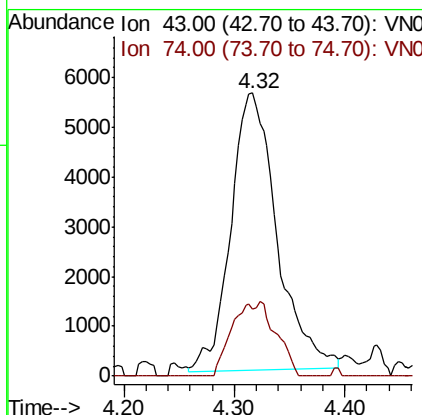
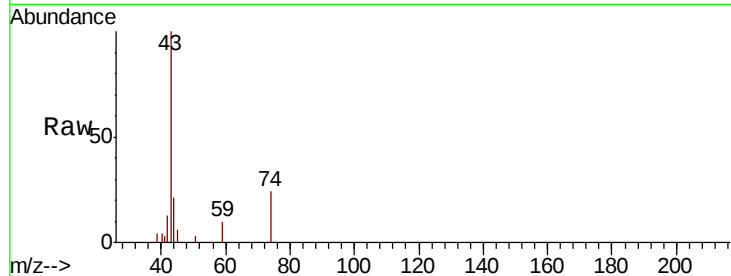




#18
Methyl Acetate
Concen: 0.398 ug/l
RT: 4.32 min Scan# 791
Delta R.T. 0.00 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

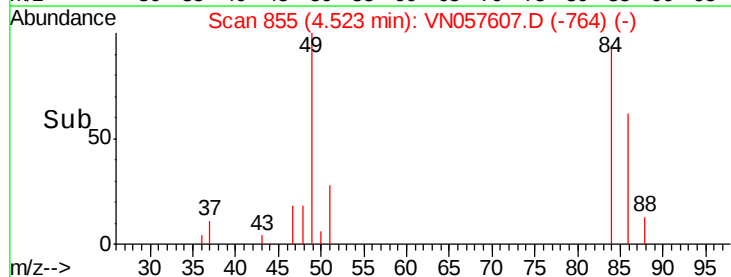
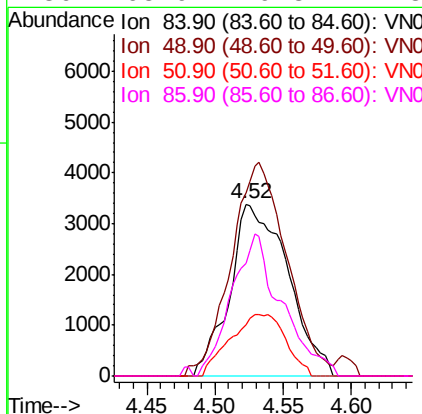
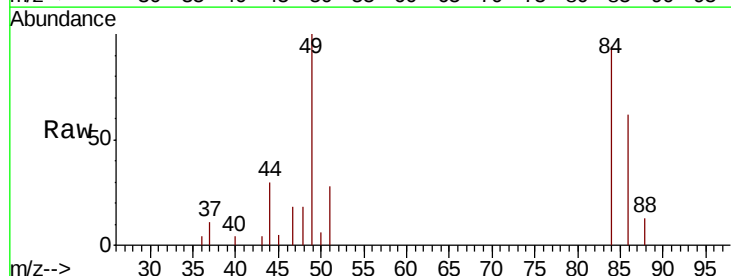
Instrument :
MSVOA_N
ClientSampleId :
T4-S-E(0)

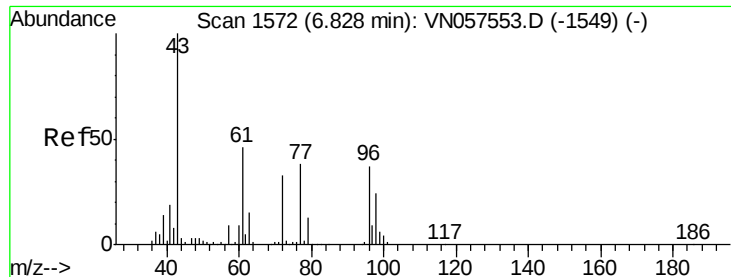
Tgt Ion: 43 Resp: 16108
Ion Ratio Lower Upper
43 100
74 12.9 15.9 23.9#



#20
Methylene Chloride
Concen: 1.362 ug/l
RT: 4.52 min Scan# 855
Delta R.T. -0.01 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

Tgt Ion: 84 Resp: 10021
Ion Ratio Lower Upper
84 100
49 100.6 117.0 175.4#
51 29.9 35.5 53.3#
86 65.9 49.8 74.8

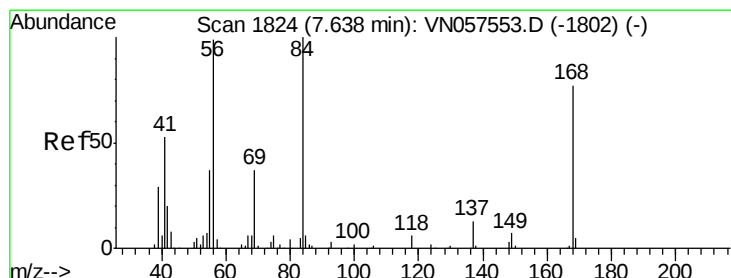
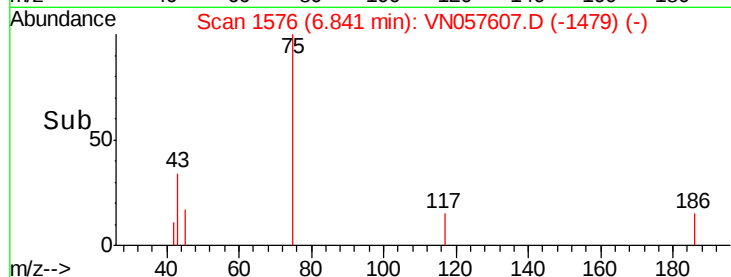
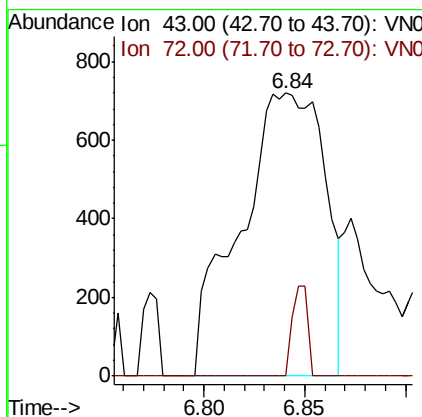
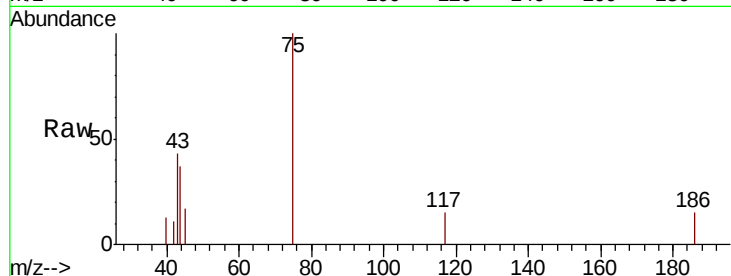




#25
2-Butanone
Concen: 0.674 ug/l
RT: 6.84 min Scan# 1576
Delta R.T. 0.01 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

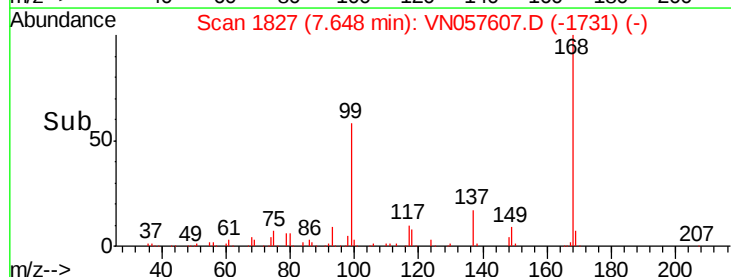
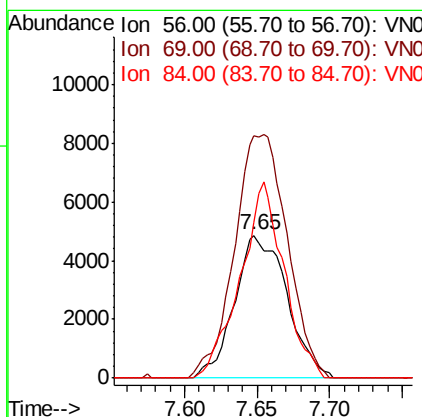
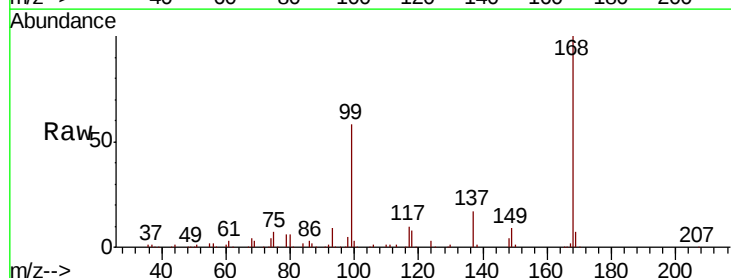
Instrument :
MSVOA_N
ClientSampleId :
T4-S-E(0)

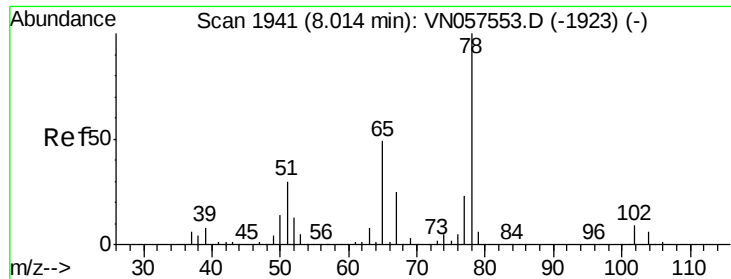
Tgt Ion: 43 Resp: 2113
Ion Ratio Lower Upper
43 100
72 0.0 17.8 26.8#



#31
Cyclohexane
Concen: 1.069 ug/l
RT: 7.65 min Scan# 1827
Delta R.T. 0.01 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

Tgt Ion: 56 Resp: 12194
Ion Ratio Lower Upper
56 100
69 169.5 25.0 37.6#
84 108.7 62.5 93.7#

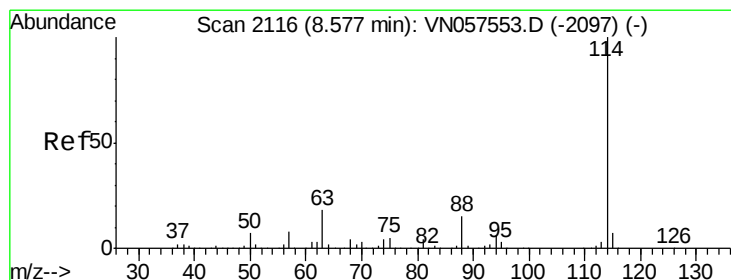
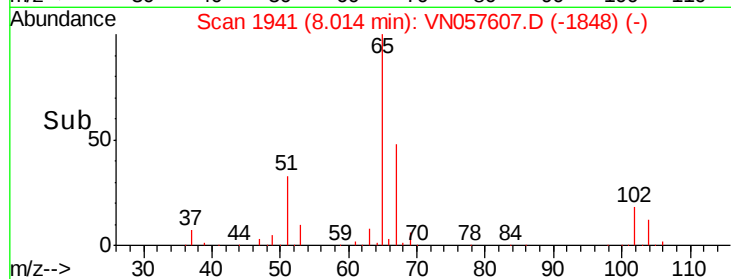
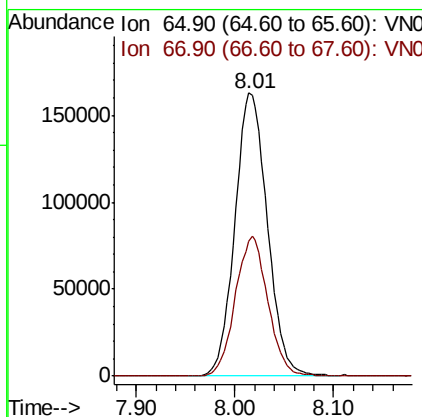
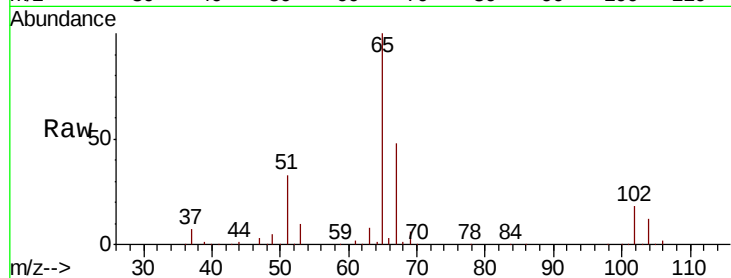




#33
 1,2-Dichloroethane-d4
 Concen: 37.855 ug/l
 RT: 8.01 min Scan# 1941
 Delta R.T. 0.00 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

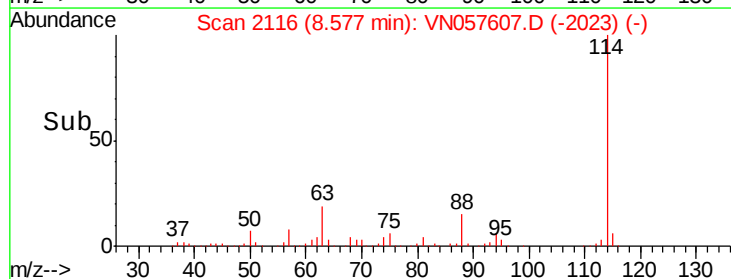
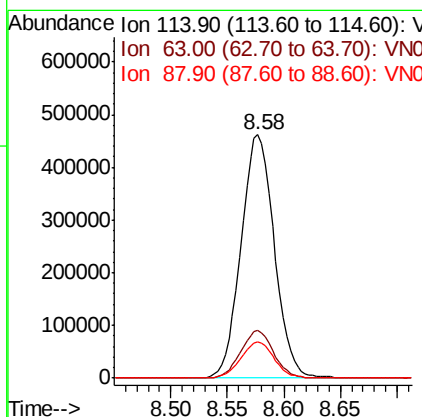
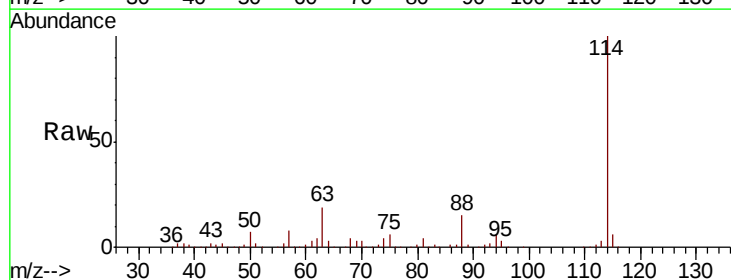
Instrument :
 MSVOA_N
 ClientSampleId :
 T4-S-E(0)

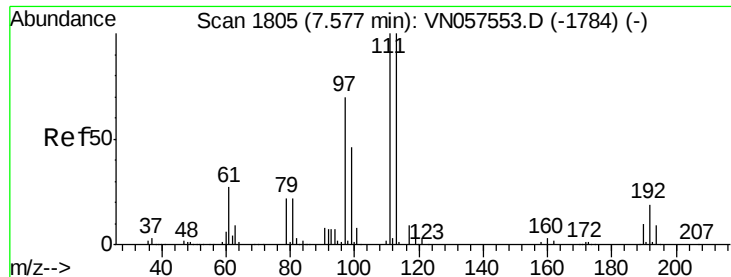
Tgt Ion: 65 Resp: 371813
 Ion Ratio Lower Upper
 65 100
 67 49.6 0.0 103.8



#34
 1,4-Difluorobenzene
 Concen: 50.000 ug/l
 RT: 8.58 min Scan# 2116
 Delta R.T. 0.00 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

Tgt Ion: 114 Resp: 947118
 Ion Ratio Lower Upper
 114 100
 63 19.5 0.0 50.2
 88 14.7 0.0 34.6





#35

Dibromofluoromethane

Concen: 34.053 ug/l

RT: 7.58 min Scan# 1806

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :
MSVOA_N
ClientSampleId :
T4-S-E-(0)

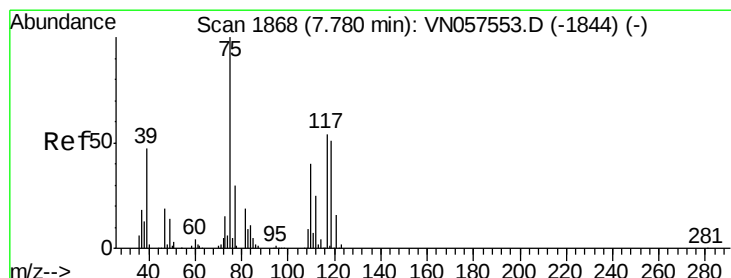
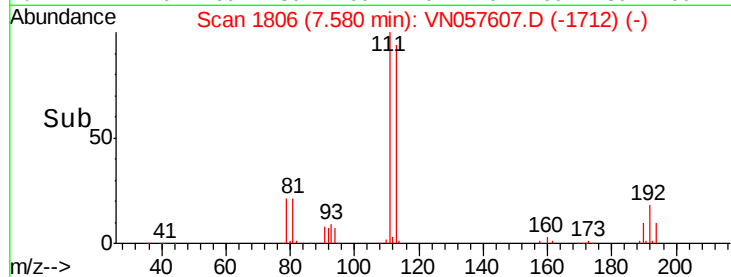
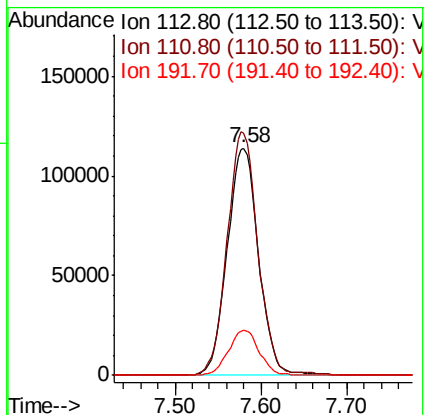
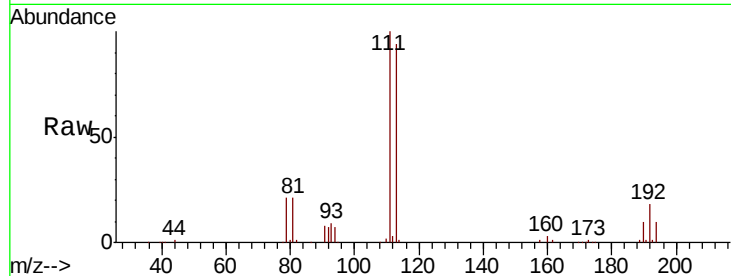
Tgt Ion:113 Resp: 288272

Ion Ratio Lower Upper

113 100

111 104.5 83.8 125.6

192 19.6 13.5 20.3



#36

1,1-Dichloropropene

Concen: 4.347 ug/l

RT: 7.65 min Scan# 1829

Delta R.T. -0.13 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

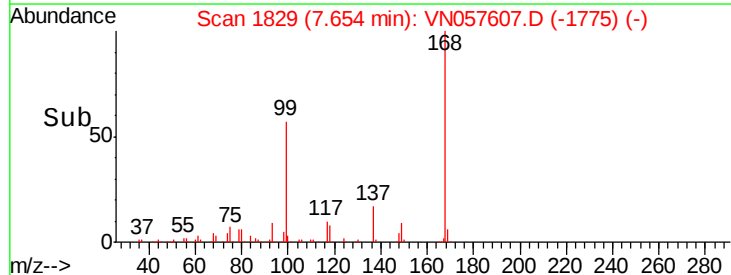
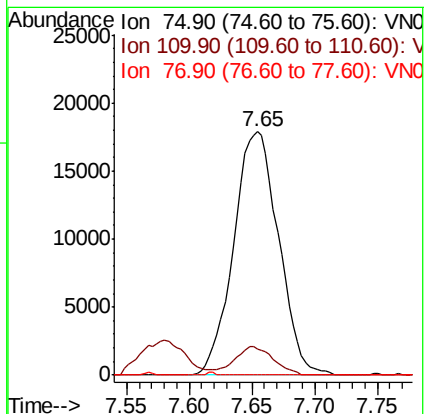
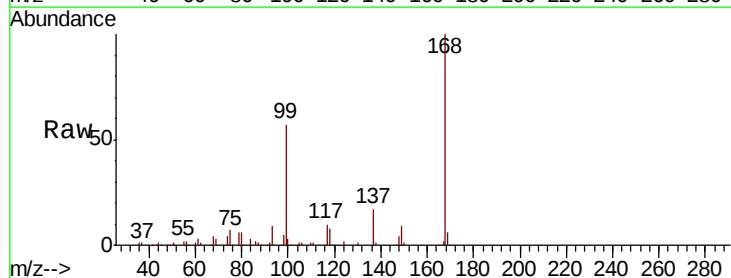
Tgt Ion: 75 Resp: 44541

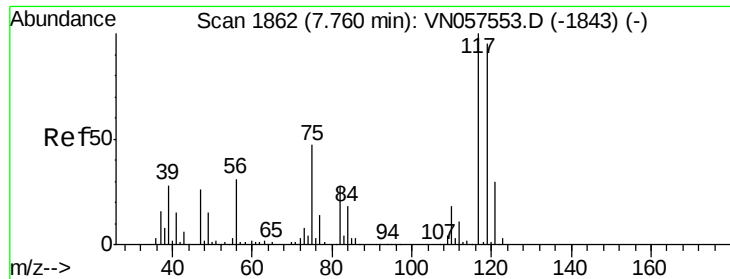
Ion Ratio Lower Upper

75 100

110 9.8 16.1 48.3#

77 0.0 24.8 37.2#





#38

Carbon Tetrachloride

Concen: 4.885 ug/l

RT: 7.65 min Scan# 1829

Delta R.T. -0.11 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampleId :

T4-S-E(0)

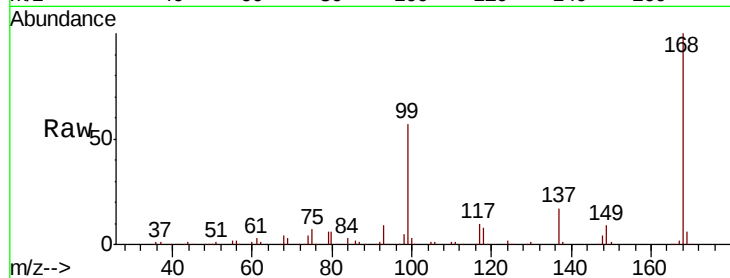
Tgt Ion: 117 Resp: 58533

Ion Ratio Lower Upper

117 100

119 4.0 76.2 114.4#

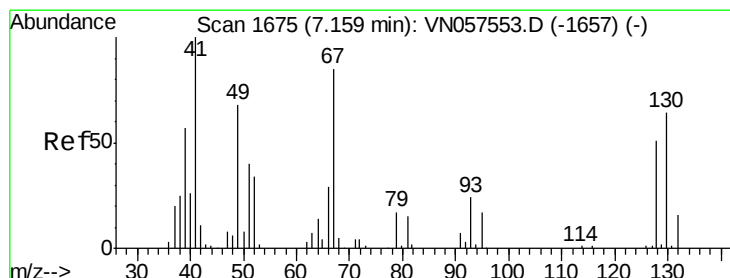
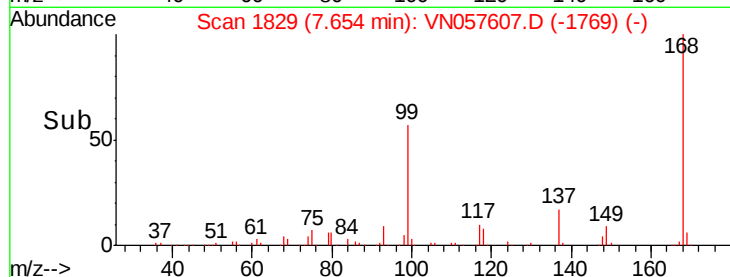
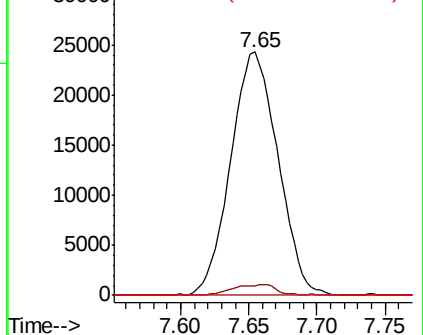
121 0.0 23.8 35.6#



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



#41

Methacrylonitrile

Concen: 1.320 ug/l

RT: 7.16 min Scan# 1675

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Tgt Ion: 41 Resp: 169

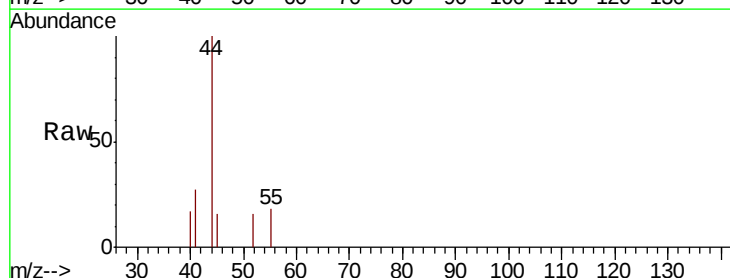
Ion Ratio Lower Upper

41 100

39 17.8 53.6 80.4#

67 0.0 65.4 98.2#

52 18.3 29.8 44.6#

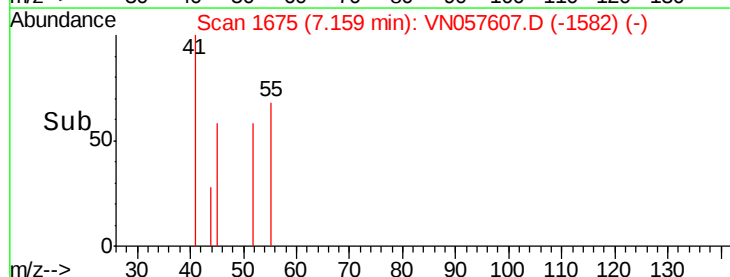
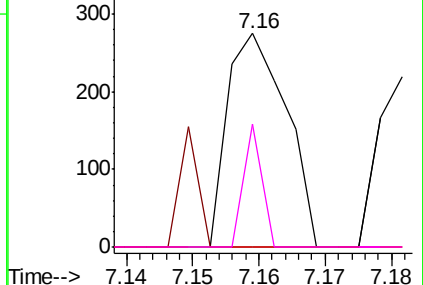


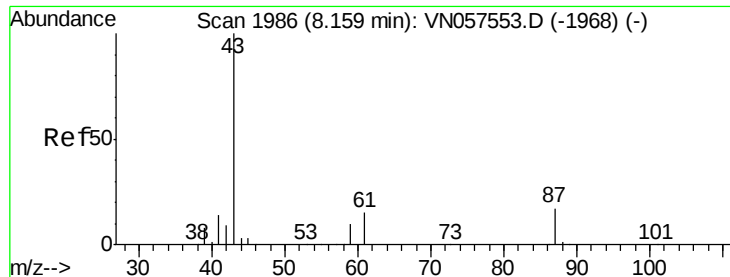
Abundance Ion 41.00 (40.70 to 41.70): V

Ion 39.00 (38.70 to 39.70): V

Ion 67.00 (66.70 to 67.70): V

Ion 52.00 (51.70 to 52.70): V





#43

Isopropyl Acetate

Concen: 4.891 ug/l

RT: 8.16 min Scan# 1987

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampleId :

T4-S-E(0)

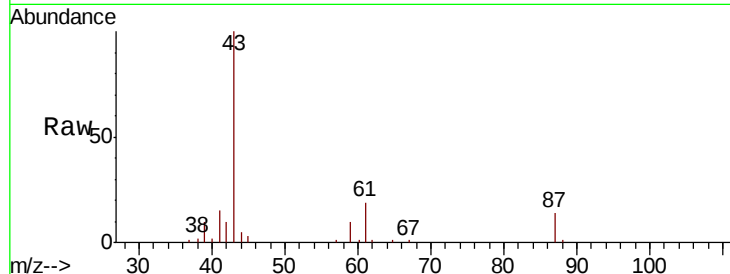
Tgt Ion: 43 Resp: 61970

Ion Ratio Lower Upper

43 100

61 20.4 14.5 21.7

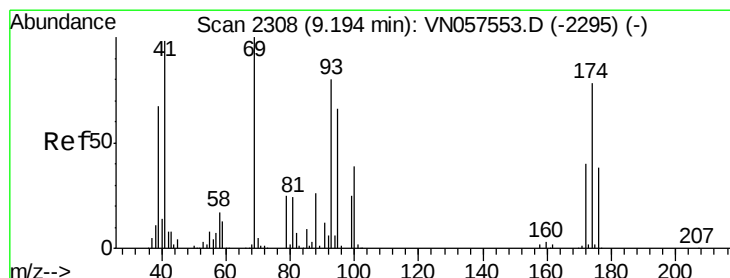
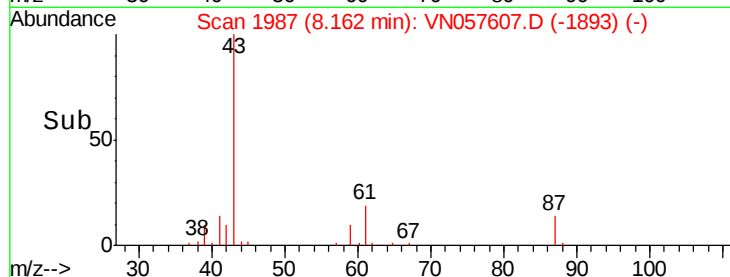
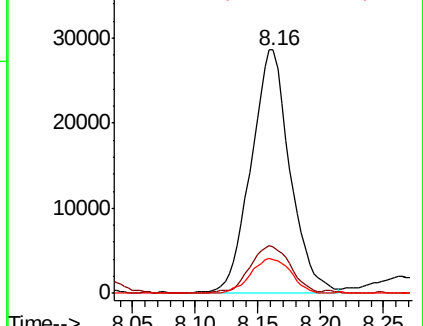
87 14.8 8.6 12.8#



Abundance Ion 43.00 (42.70 to 43.70): VN0

Ion 61.00 (60.70 to 61.70): VN0

Ion 87.00 (86.70 to 87.70): VN0



#48

Methyl methacrylate

Concen: 0.621 ug/l

RT: 9.18 min Scan# 2302

Delta R.T. -0.02 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

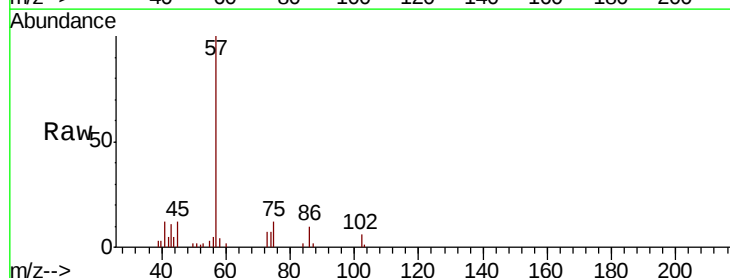
Tgt Ion: 41 Resp: 3718

Ion Ratio Lower Upper

41 100

69 0.0 59.3 88.9#

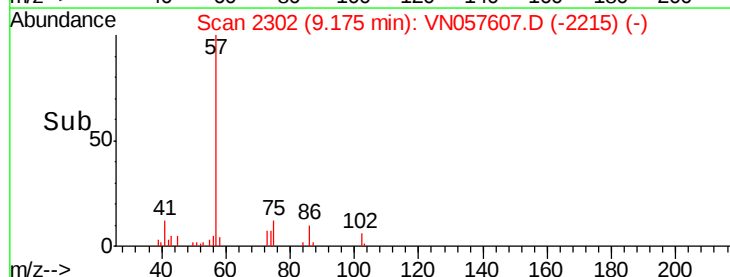
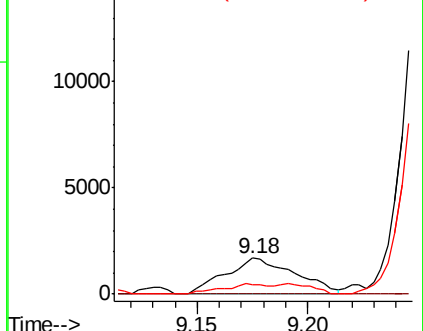
39 0.0 50.6 75.8#

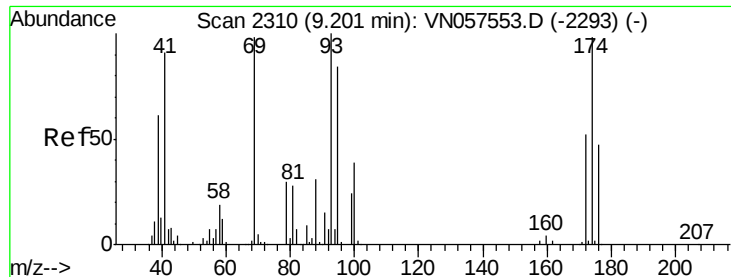


Abundance Ion 41.00 (40.70 to 41.70): VN0

Ion 69.00 (68.70 to 69.70): VN0

Ion 39.00 (38.70 to 39.70): VN0

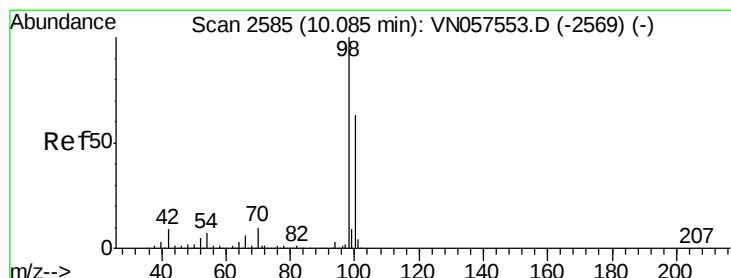
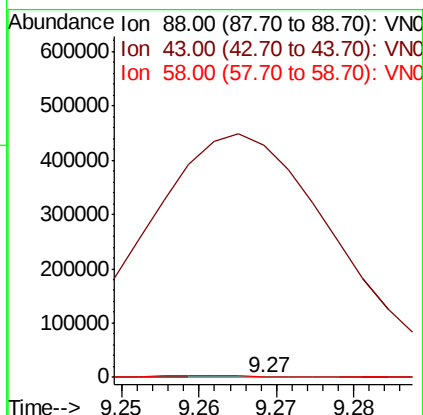
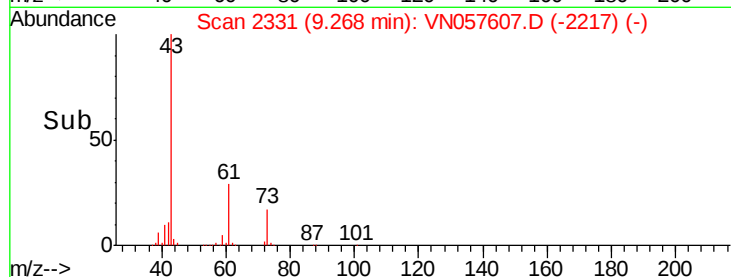
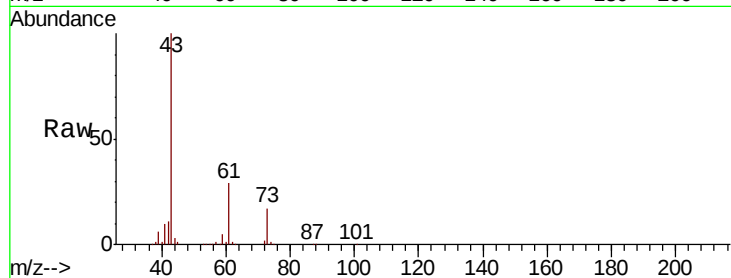




#49
 1,4-Dioxane
 Concen: 1.181 ug/l
 RT: 9.27 min Scan# 2331
 Delta R.T. 0.07 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

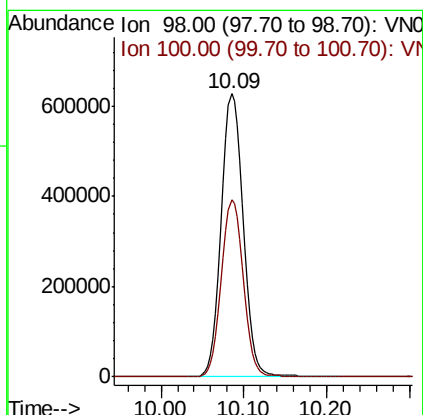
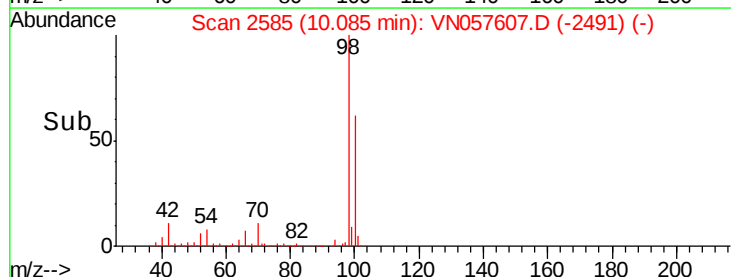
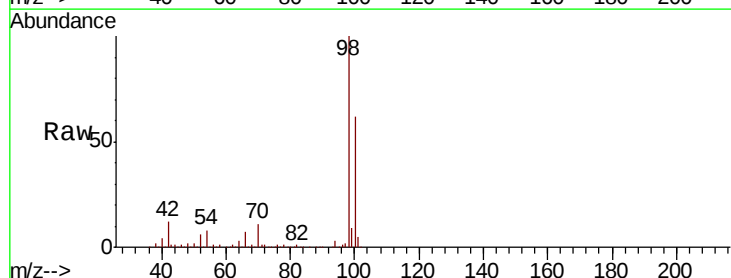
Instrument :
 MSVOA_N
 ClientSampled :
 T4-S-E-(0)

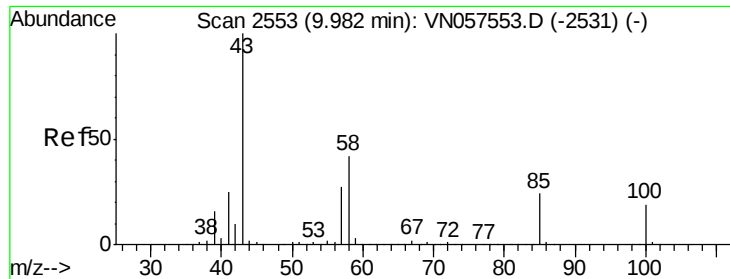
Tgt Ion: 88 Resp: 129
 Ion Ratio Lower Upper
 88 100
 43 637209.3 31.0 46.6#
 58 3064.3 64.5 96.7#



#50
 Toluene-d8
 Concen: 38.627 ug/l
 RT: 10.09 min Scan# 2585
 Delta R.T. 0.00 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

Tgt Ion: 98 Resp: 1156616
 Ion Ratio Lower Upper
 98 100
 100 62.5 50.4 75.6





#51

4-Methyl-2-Pentanone

Concen: 0.714 ug/l

RT: 9.98 min Scan# 2553

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampleId :

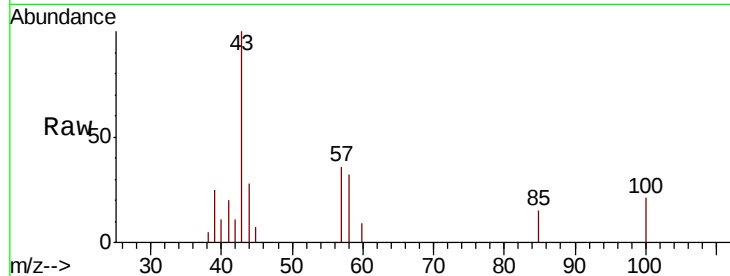
T4-S-E(0)

Tgt Ion: 43 Resp: 4836

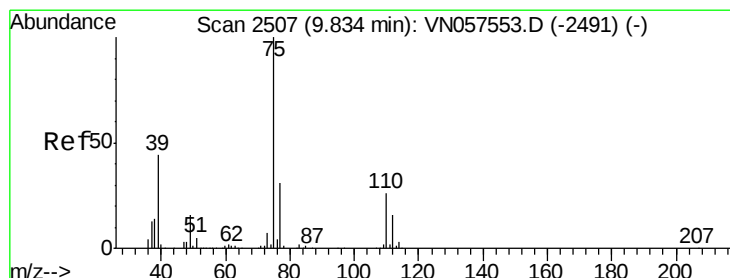
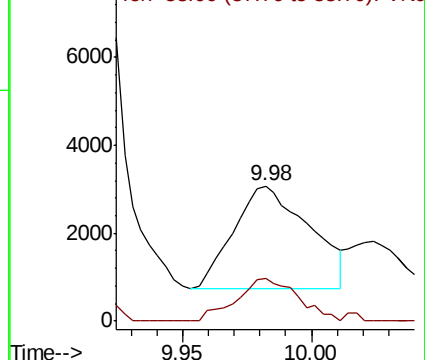
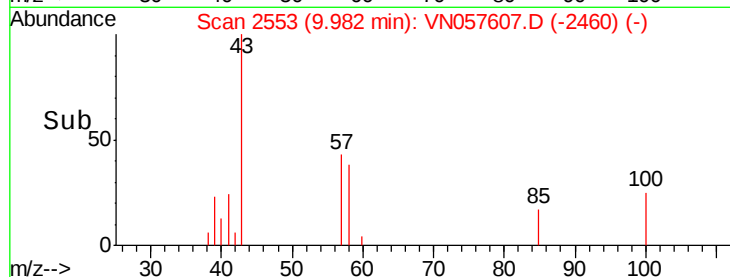
Ion Ratio Lower Upper

43 100

58 33.8 27.9 41.9



Abundance Ion 43.00 (42.70 to 43.70): VN057607.D (-2460) (-)



#54

cis-1,3-Dichloropropene

Concen: 3.069 ug/l

RT: 9.90 min Scan# 2528

Delta R.T. 0.07 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

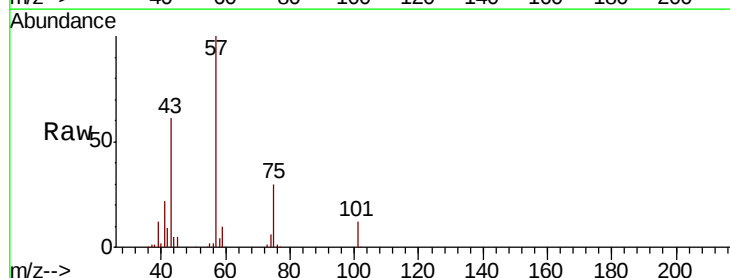
Tgt Ion: 75 Resp: 38076

Ion Ratio Lower Upper

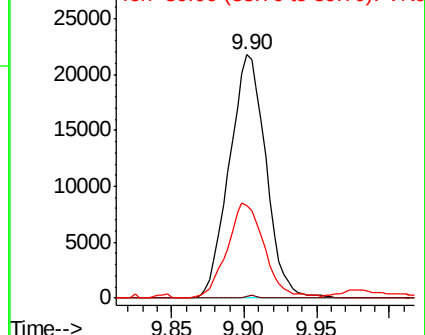
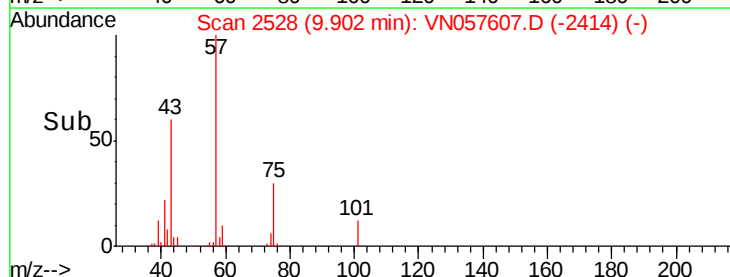
75 100

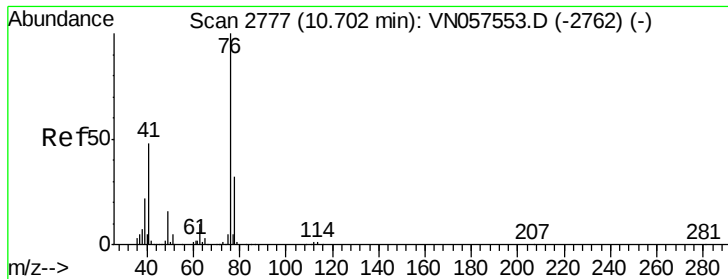
77 0.9 25.0 37.6#

39 38.2 49.2 73.8#



Abundance Ion 74.90 (74.60 to 75.60): VN057607.D (-2414) (-)

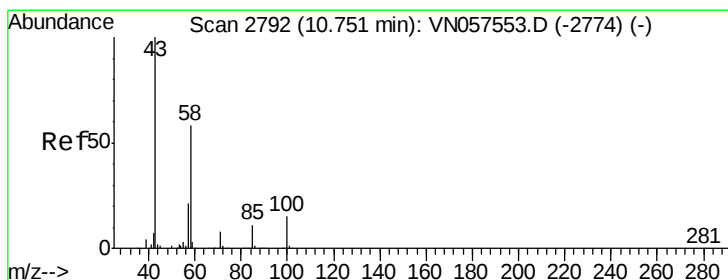
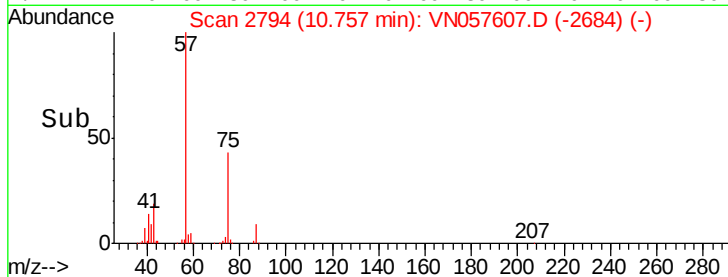
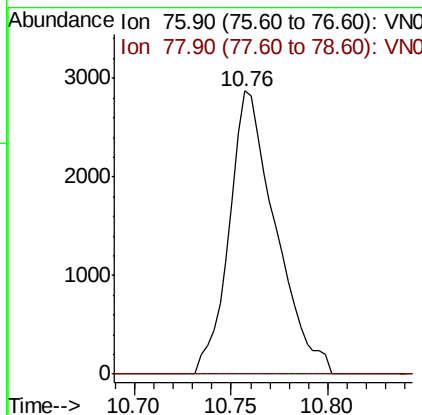
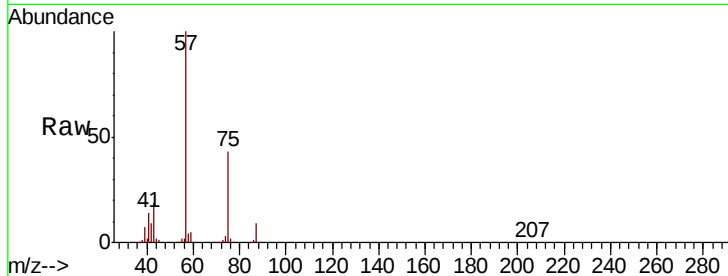




#57
 1,3-Dichloropropane
 Concen: 0.382 ug/l
 RT: 10.76 min Scan# 2794
 Delta R.T. 0.05 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

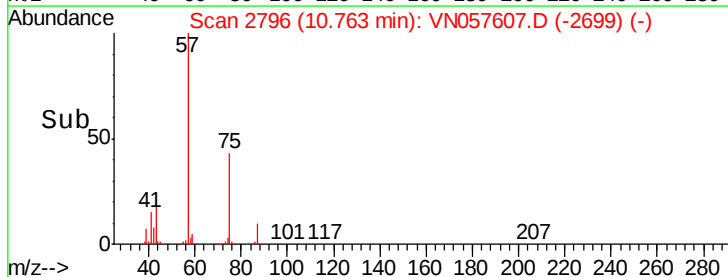
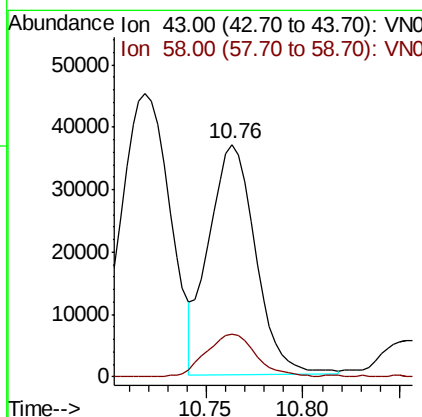
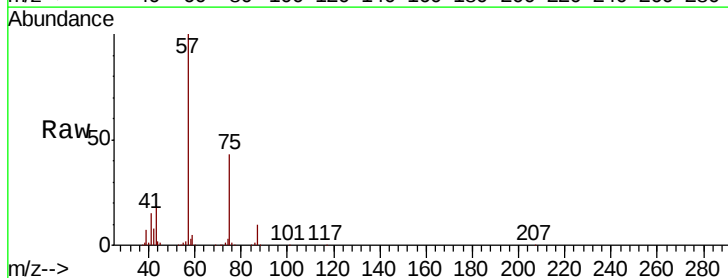
Instrument :
 MSVOA_N
 ClientSampleId :
 T4-S-E(0)

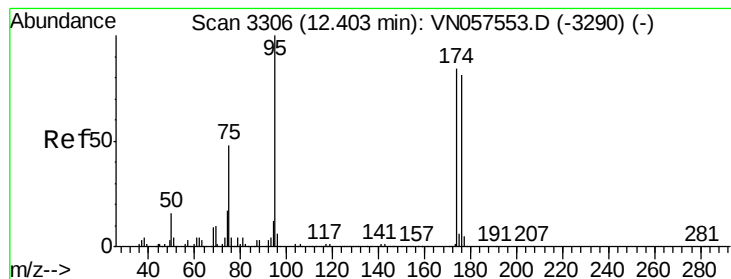
Tgt Ion: 76 Resp: 4775
 Ion Ratio Lower Upper
 76 100
 78 0.0 25.5 38.3#



#59
 2-Hexanone
 Concen: 13.272 ug/l
 RT: 10.76 min Scan# 2796
 Delta R.T. 0.01 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

Tgt Ion: 43 Resp: 62051
 Ion Ratio Lower Upper
 43 100
 58 19.9 24.6 73.6#





#62

4-Bromofluorobenzene

Concen: 31.689 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampleId :

T4-S-E-(0)

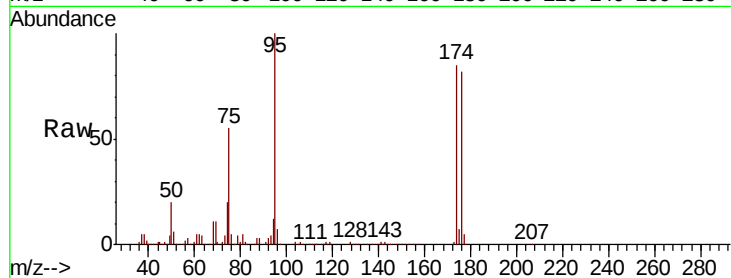
Tgt Ion: 95 Resp: 318518

Ion Ratio Lower Upper

95 100

174 83.7 0.0 133.0

176 83.1 0.0 130.8



Abundance Ion 94.90 (94.60 to 95.60): VN057553.D (-3290) (-)

Ion 173.80 (173.50 to 174.50): VN057553.D (-3290) (-)

Ion 175.80 (175.50 to 176.50): VN057553.D (-3290) (-)

12.40

200000

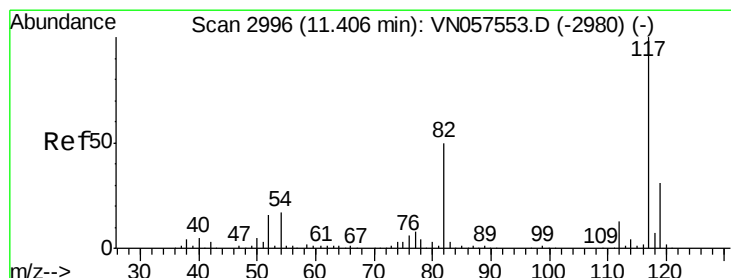
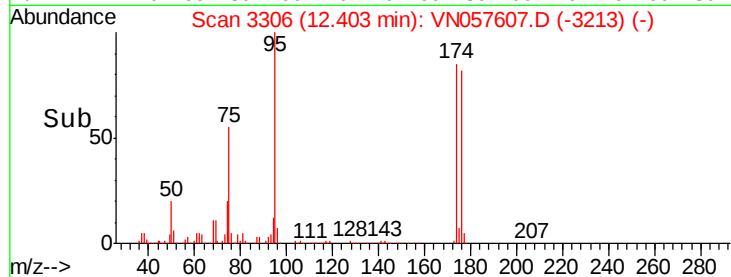
150000

100000

50000

0

Time--> 12.30 12.40 12.50



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

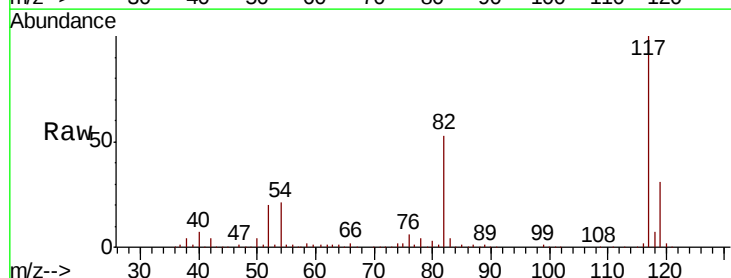
Tgt Ion: 117 Resp: 824167

Ion Ratio Lower Upper

117 100

82 53.4 50.6 75.8

119 30.7 24.6 36.8



Abundance Ion 116.90 (116.60 to 117.60): VN057553.D (-2980) (-)

Ion 82.00 (81.70 to 82.70): VN057553.D (-2980) (-)

Ion 118.90 (118.60 to 119.60): VN057553.D (-2980) (-)

11.41

600000

500000

400000

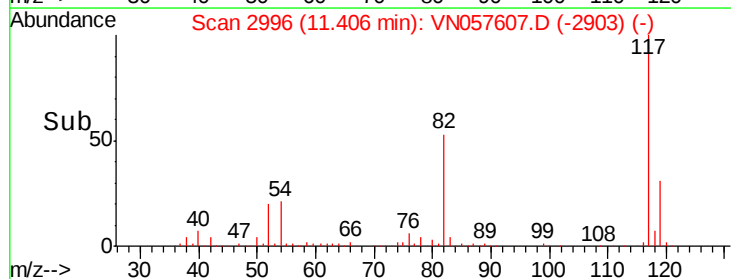
300000

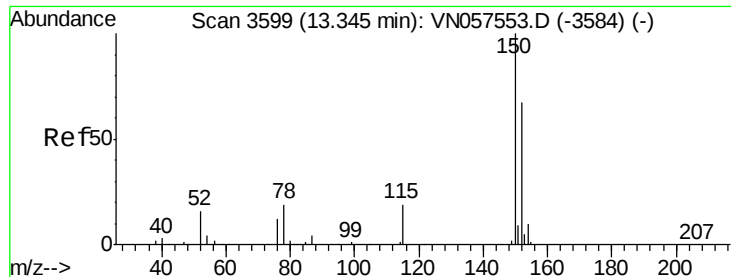
200000

100000

0

Time--> 11.30 11.40 11.50 11.60





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.35 min Scan# 3600

Delta R.T. 0.00 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampled :

T4-S-E(0)

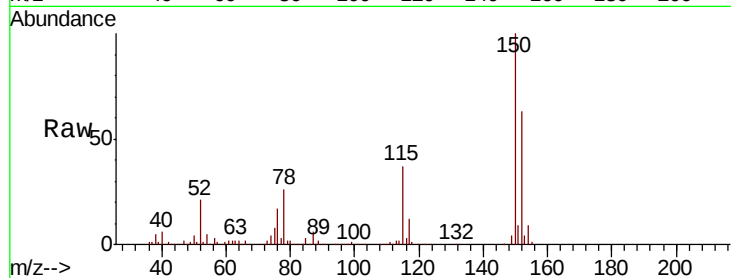
Tgt Ion:152 Resp: 231548

Ion Ratio Lower Upper

152 100

115 59.3 32.0 96.0

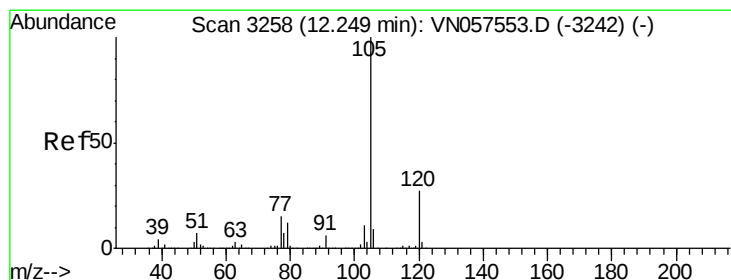
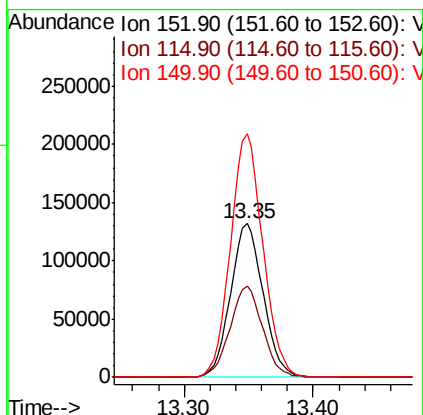
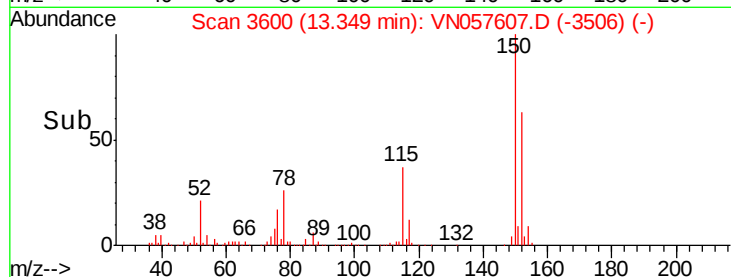
150 157.5 0.0 346.6



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



#73

Isopropylbenzene

Concen: Below Cal

RT: 12.40 min Scan# 3306

Delta R.T. 0.16 min

Lab File: VN057607.D

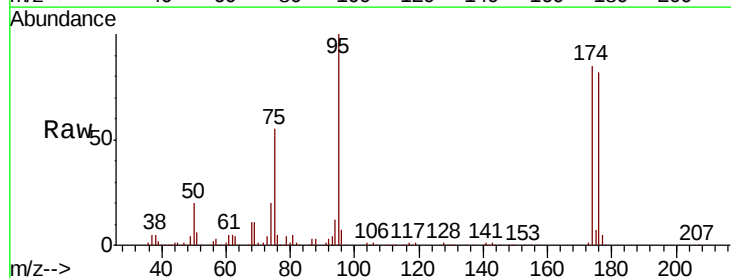
Acq: 30 Aug 2019 23:26

Tgt Ion:105 Resp: 599

Ion Ratio Lower Upper

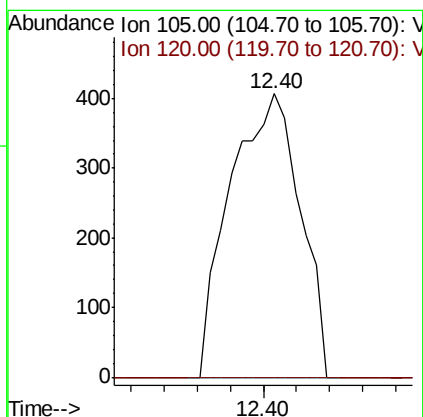
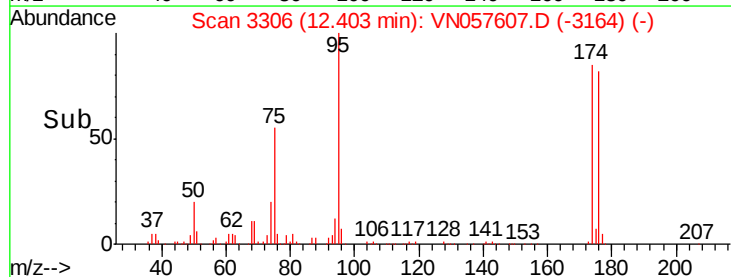
105 100

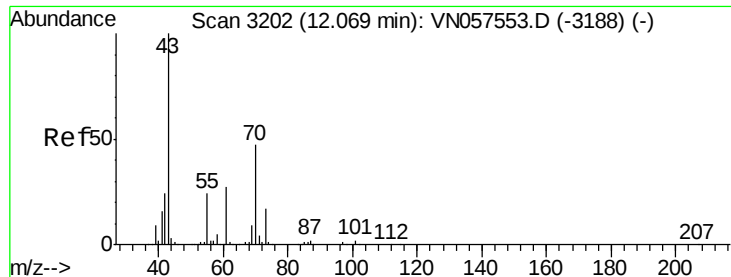
120 0.0 12.7 38.0#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

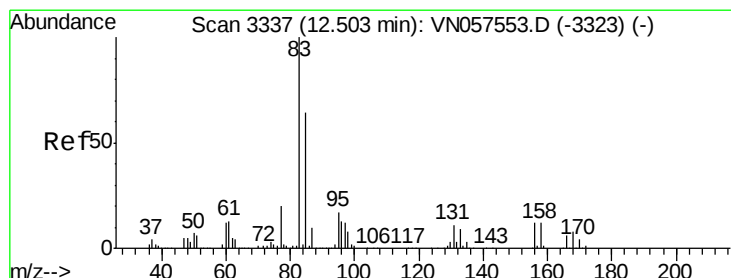
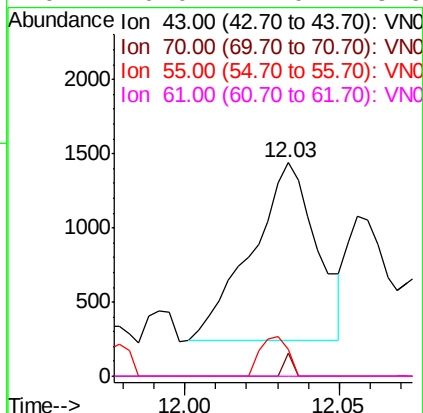
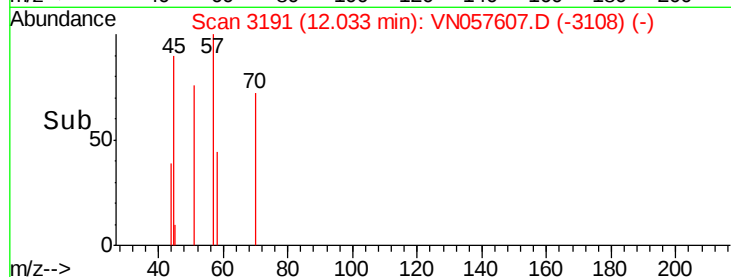
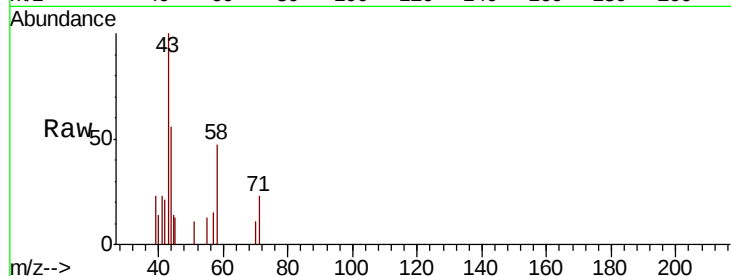




#74
N-ethyl acetate
Concen: Below Cal
RT: 12.03 min Scan# 3191
Delta R.T. -0.03 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

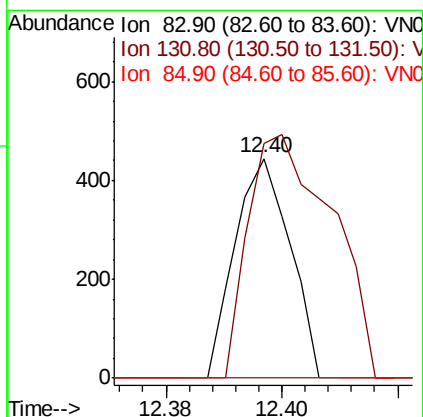
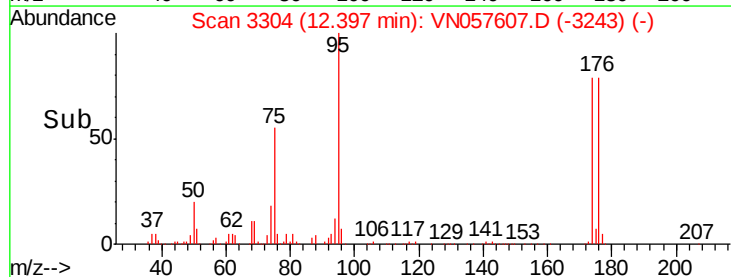
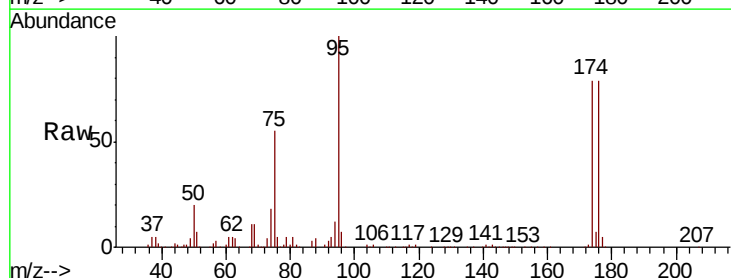
Instrument :
MSVOA_N
ClientSampled :
T4-S-E(0)

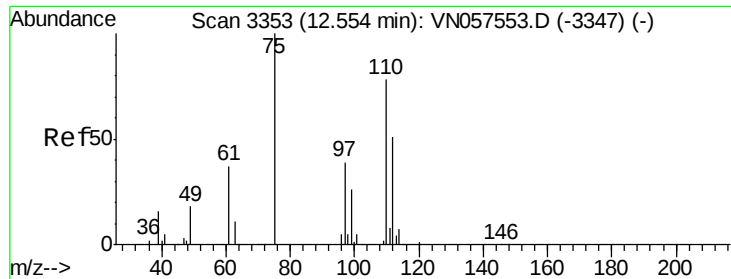
Tgt Ion: 43 Resp: 1749
Ion Ratio Lower Upper
43 100
70 1.7 27.8 41.6#
55 9.7 17.0 25.4#
61 0.0 17.0 25.6#



#75
1,1,2,2-Tetrachloroethane
Concen: Below Cal
RT: 12.40 min Scan# 3304
Delta R.T. -0.11 min
Lab File: VN057607.D
Acq: 30 Aug 2019 23:26

Tgt Ion: 83 Resp: 293
Ion Ratio Lower Upper
83 100
131 168.6 4.3 13.1#
85 0.0 32.3 96.8#





#76

1,2,3-Trichloropropane

Concen: 40.006 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. -0.15 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

Instrument :

MSVOA_N

ClientSampled :

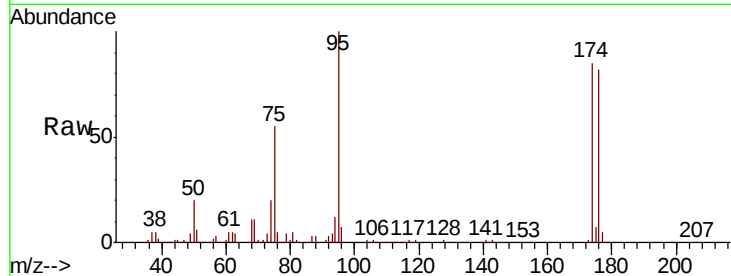
T4-S-E(0)

Tgt Ion: 75 Resp: 173193

Ion Ratio Lower Upper

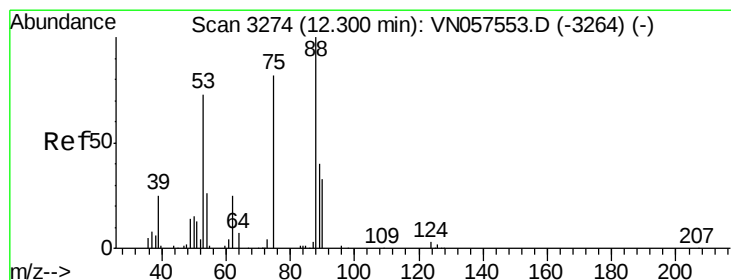
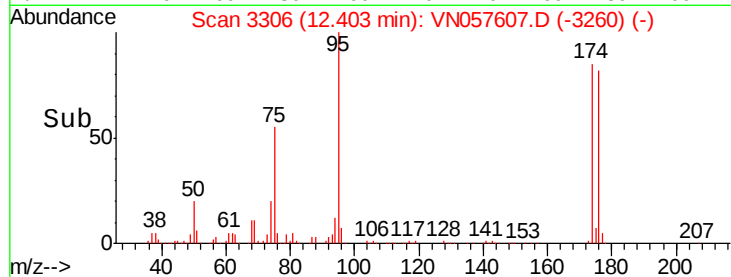
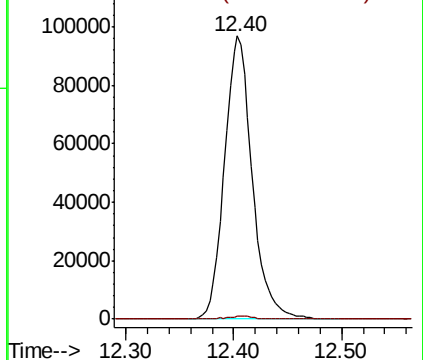
75 100

77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 77.00 (76.70 to 77.70): VN0



#81

trans-1,4-Dichloro-2-butene

Concen: 112.470 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.10 min

Lab File: VN057607.D

Acq: 30 Aug 2019 23:26

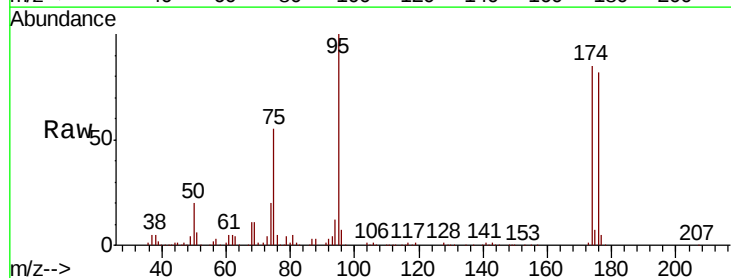
Tgt Ion: 75 Resp: 173193

Ion Ratio Lower Upper

75 100

53 0.0 82.7 124.1#

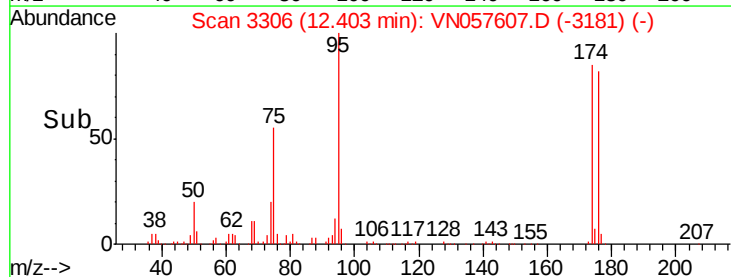
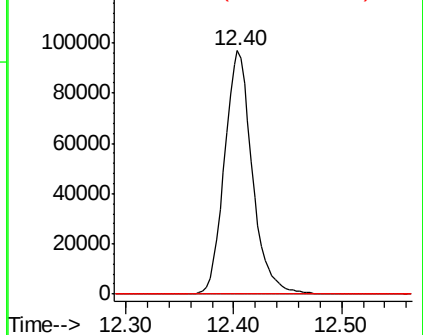
89 0.0 35.8 53.8#

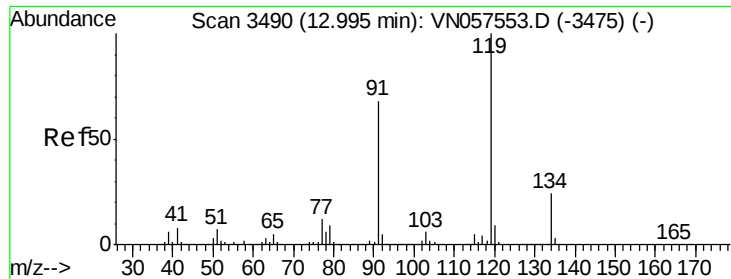


Abundance Ion 74.90 (74.60 to 75.60): VN0

Ion 53.00 (52.70 to 53.70): VN0

Ion 88.90 (88.60 to 89.60): VN0

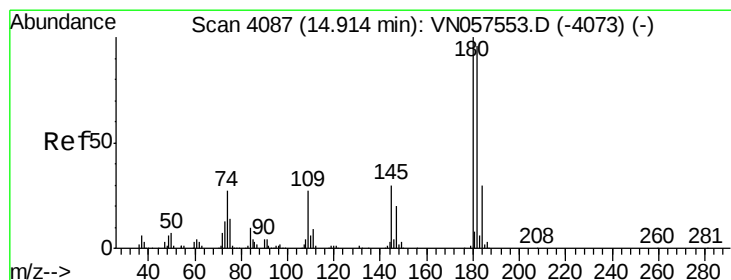
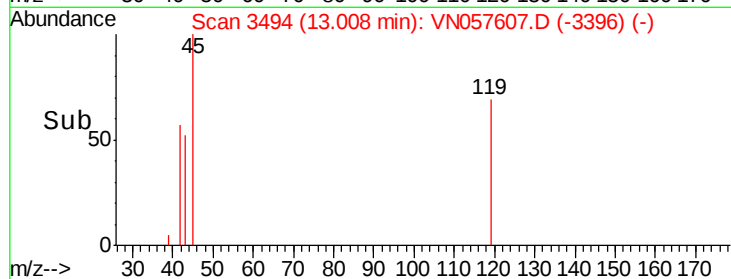
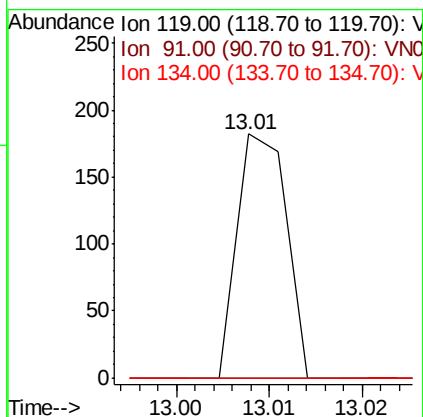
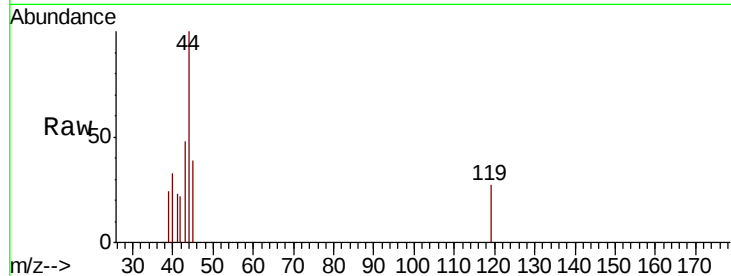




#83
 tert-Butylbenzene
 Concen: Below Cal
 RT: 13.01 min Scan# 3494
 Delta R.T. 0.01 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

Instrument :
 MSVOA_N
 ClientSampleId :
 T4-S-E-(0)

Tgt Ion	Ratio	Lower	Upper
119	100		
91	0.0	37.0	111.0#
134	0.0	12.2	36.6#



#93
 1,2,4-Trichlorobenzene
 Concen: 3.793 ug/l
 RT: 14.91 min Scan# 4087
 Delta R.T. 0.00 min
 Lab File: VN057607.D
 Acq: 30 Aug 2019 23:26

Tgt Ion	Ratio	Lower	Upper
180	100		
182	269.4	46.7	140.1#
145	0.0	15.6	46.8#

