

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN042123\
 Data File : VN077423.D
 Acq On : 21 Apr 2023 13:08
 Operator : JC\MD
 Sample : 02429-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 230419084-02-VOA

Quant Time: Apr 22 02:40:05 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N040723W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Apr 07 13:04:49 2023
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

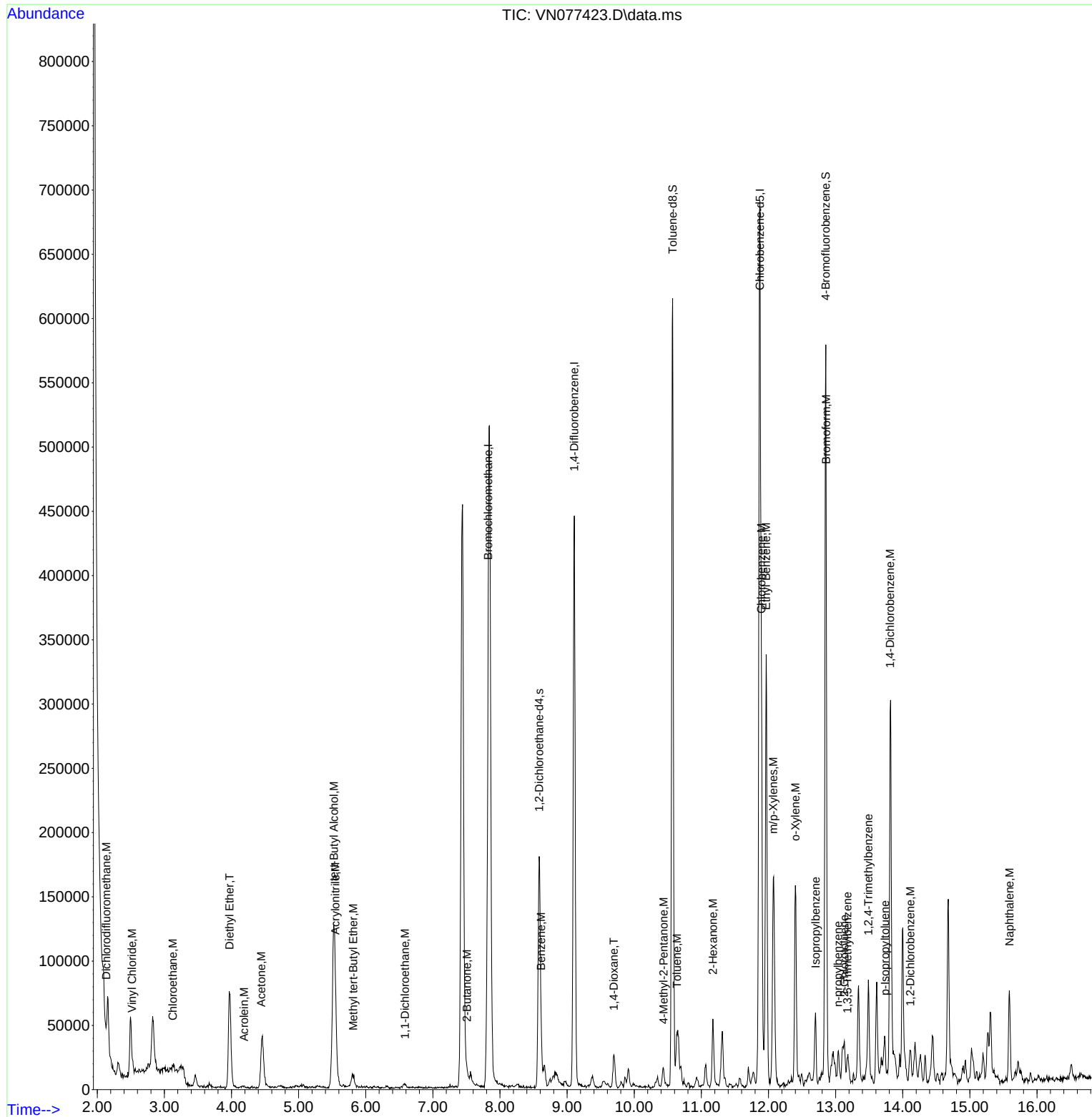
Internal Standards						
1) Bromochloromethane	7.825	128	55611	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.107	114	394683	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.872	117	404993	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.584	65	139273	29.530	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.433%		
60) 4-Bromofluorobenzene	12.854	95	193505	27.632	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	92.100%		
63) Toluene-d8	10.572	98	425579	29.892	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	99.633%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.137	85	1461	0.276	ug/l	87
4) Vinyl Chloride	2.519	62	2645	0.263	ug/l	96
6) Chloroethane	3.125	64	2209	0.328	ug/l #	72
8) Diethyl Ether	3.972	74	52718	13.204	ug/l	94
13) Acrolein	4.190	56	468	0.432	ug/l #	53
14) Acrylonitrile	5.548	53	672	0.225	ug/l #	49
15) Acetone	4.443	58	2294	2.119	ug/l #	1
21) 1,1-Dichloroethane	6.584	63	2603	0.228	ug/l #	81
23) tert-Butyl Alcohol	5.525	59	257395	193.976	ug/l	100
24) Methyl tert-Butyl Ether	5.813	73	5914	0.280	ug/l #	75
30) 2-Butanone	7.507	43	2164	0.535	ug/l	93
34) Benzene	8.613	78	27373	1.035	ug/l #	80
45) 1,4-Dioxane	9.695	88	22465	159.043	ug/l #	75
56) Bromoform	12.860	173	1408	0.289	ug/l #	1
58) 4-Methyl-2-Pentanone	10.436	43	7191	0.948	ug/l #	41
59) 2-Hexanone	11.172	43	35803	6.108	ug/l #	29
62) Toluene	10.636	91	23154	0.819	ug/l	98
64) Chlorobenzene	11.895	112	163762	9.539	ug/l	100
66) Ethyl Benzene	11.966	91	236224	7.546	ug/l	98
67) m/p-Xylenes	12.072	106	60101	4.898	ug/l	99
68) o-Xylene	12.401	106	45796	3.731	ug/l	100
70) Isopropylbenzene	12.701	105	34938	1.121	ug/l	95
74) n-propylbenzene	13.036	91	18813	0.546	ug/l	96
75) 2-Chlorotoluene	13.130	91	13816	0.669	ug/l	94
76) 1,3,5-Trimethylbenzene	13.177	105	10543	0.416	ug/l	90
80) 1,2,4-Trimethylbenzene	13.489	105	45511	1.841	ug/l	97
82) p-Isopropyltoluene	13.736	119	13679	0.542	ug/l	93
84) 1,4-Dichlorobenzene	13.813	146	111481	9.575	ug/l	99
87) 1,2-Dichlorobenzene	14.113	146	9009	0.766	ug/l	95
91) Naphthalene	15.589	128	60406	3.418	ug/l	98

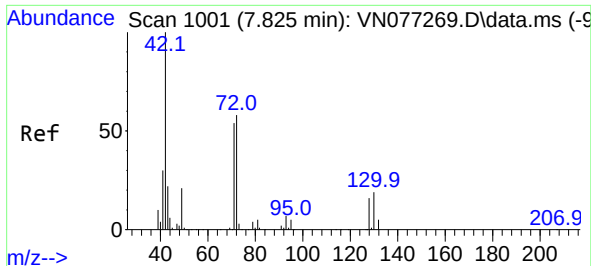
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN042123\
Data File : VN077423.D
Acq On : 21 Apr 2023 13:08
Operator : JC\MD
Sample : 02429-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

Quant Time: Apr 22 02:40:05 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N040723W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Apr 07 13:04:49 2023
Response via : Initial Calibration

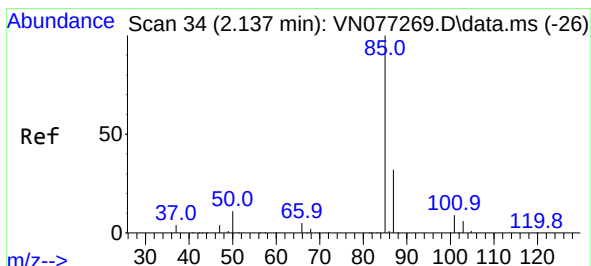
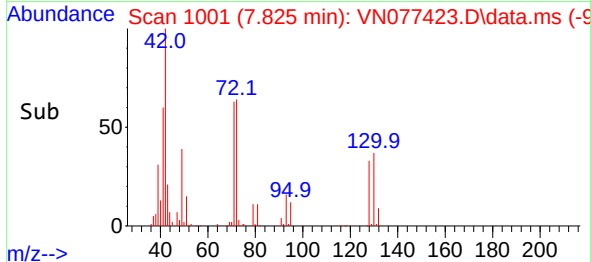
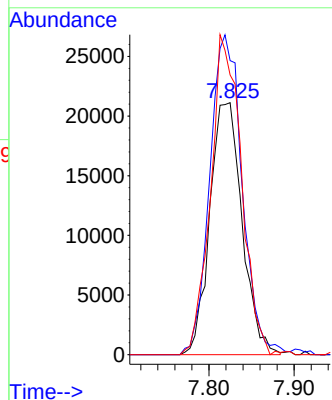
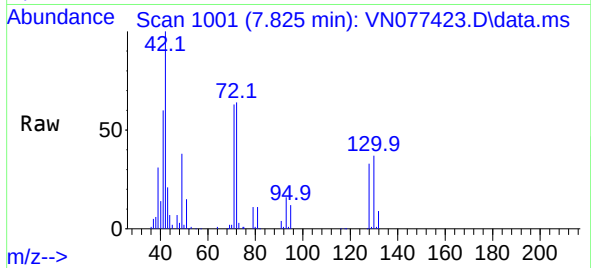




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.825 min Scan# 10
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

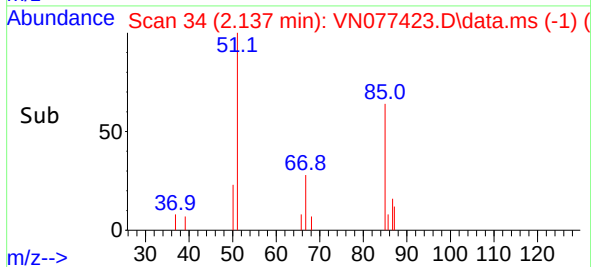
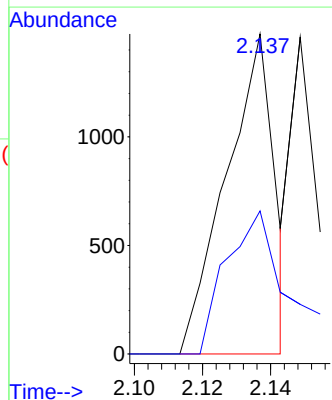
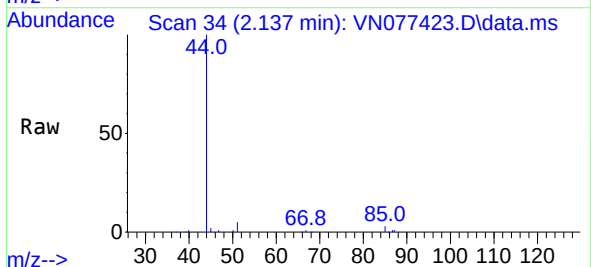
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

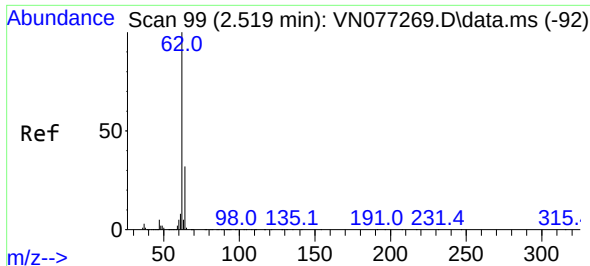
Tgt Ion:128 Resp: 55611
Ion Ratio Lower Upper
128 100
49 126.2 0.0 379.5
130 120.3 0.0 322.8



#2
Dichlorodifluoromethane
Concen: 0.276 ug/l
RT: 2.137 min Scan# 34
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 85 Resp: 1461
Ion Ratio Lower Upper
85 100
87 39.5 16.2 48.6

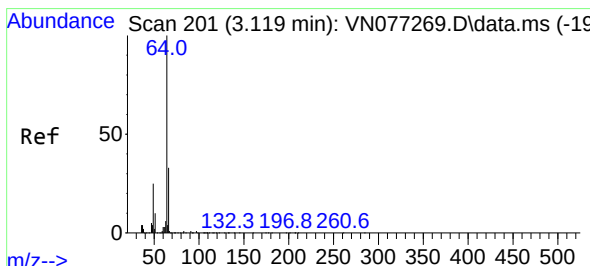
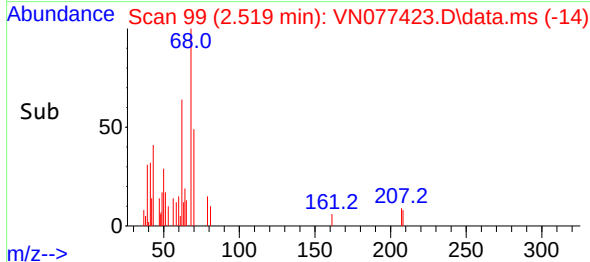
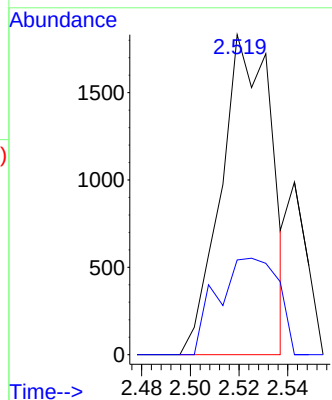
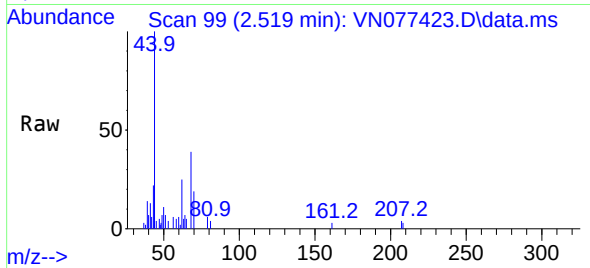




#4
 Vinyl Chloride
 Concen: 0.263 ug/l
 RT: 2.519 min Scan# 99
 Delta R.T. 0.000 min
 Lab File: VN077423.D
 Acq: 21 Apr 2023 13:08

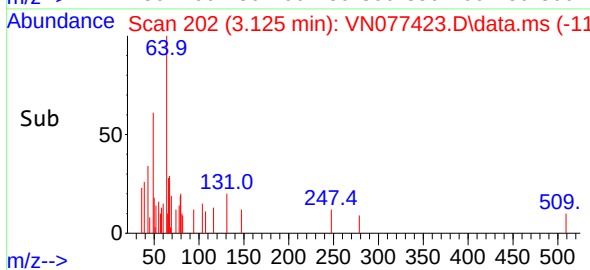
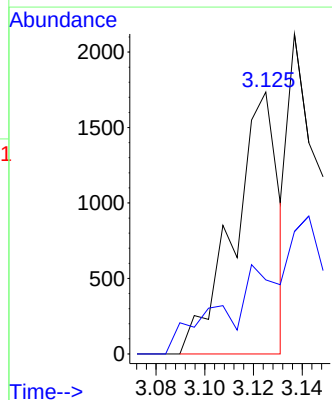
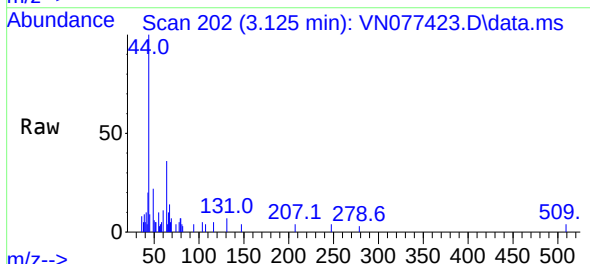
Instrument :
 MSVOA_N
 ClientSampleId :
 230419084-02-VOA

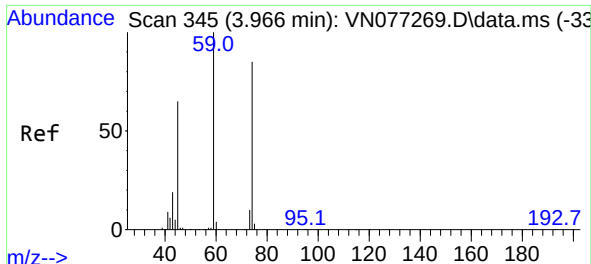
Tgt Ion: 62 Resp: 2645
 Ion Ratio Lower Upper
 62 100
 64 29.6 25.4 38.0



#6
 Chloroethane
 Concen: 0.328 ug/l
 RT: 3.125 min Scan# 202
 Delta R.T. 0.006 min
 Lab File: VN077423.D
 Acq: 21 Apr 2023 13:08

Tgt Ion: 64 Resp: 2209
 Ion Ratio Lower Upper
 64 100
 66 16.4 25.7 38.5





#8

Diethyl Ether

Concen: 13.204 ug/l

RT: 3.972 min Scan# 34

Delta R.T. 0.006 min

Lab File: VN077423.D

Acq: 21 Apr 2023 13:08

Instrument :

MSVOA_N

ClientSampleId :

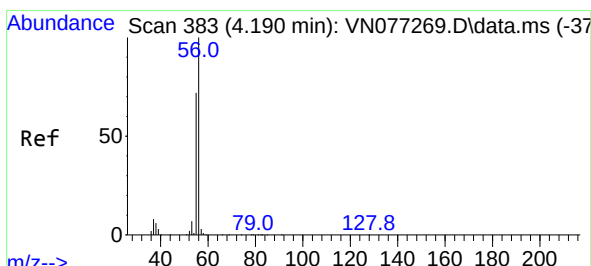
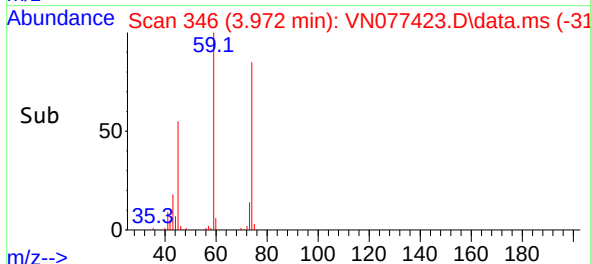
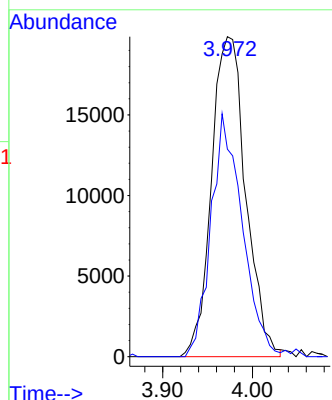
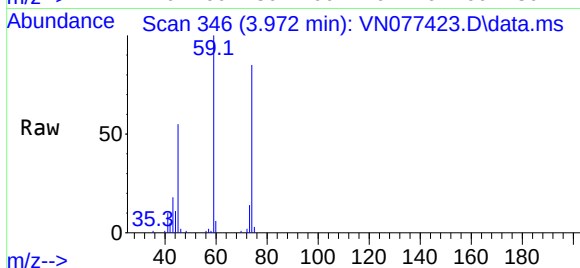
230419084-02-VOA

Tgt Ion: 74 Resp: 52718

Ion Ratio Lower Upper

74 100

45 69.0 14.8 133.6



#13

Acrolein

Concen: 0.432 ug/l

RT: 4.190 min Scan# 383

Delta R.T. -0.000 min

Lab File: VN077423.D

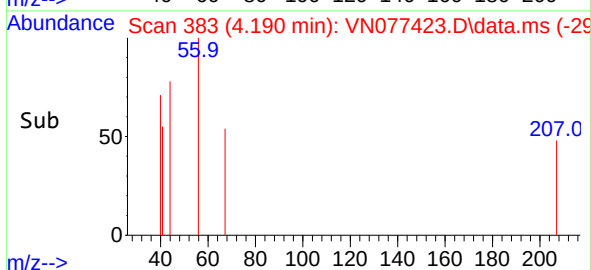
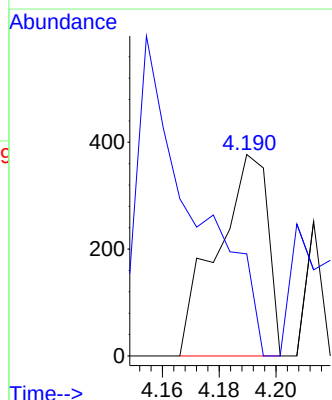
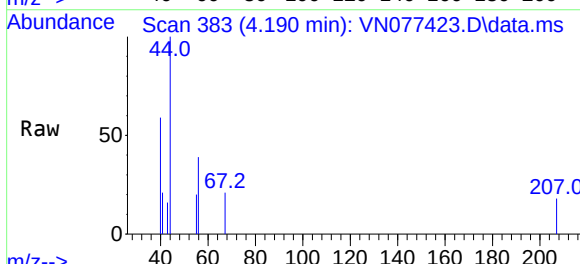
Acq: 21 Apr 2023 13:08

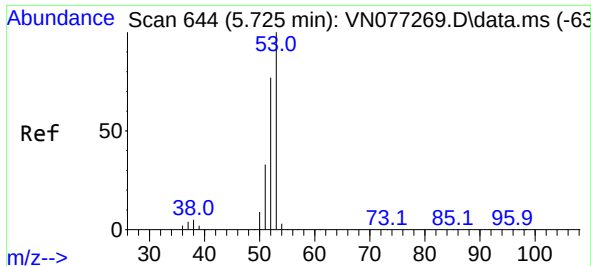
Tgt Ion: 56 Resp: 468

Ion Ratio Lower Upper

56 100

55 30.8 55.2 82.8#

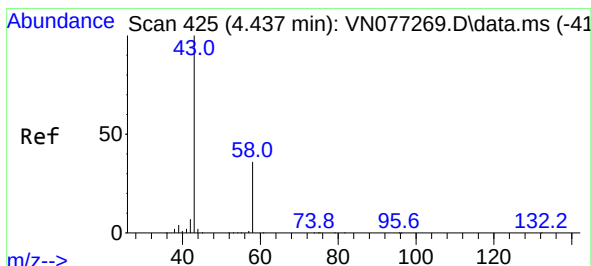
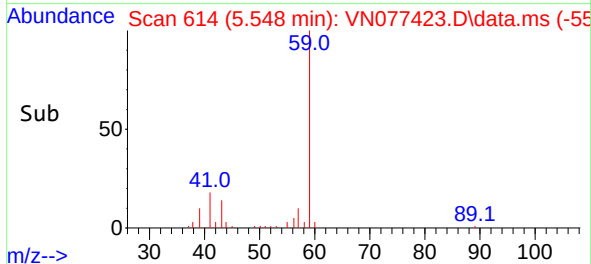
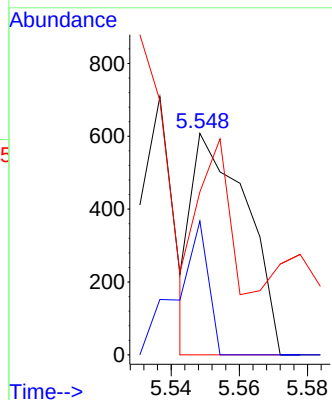
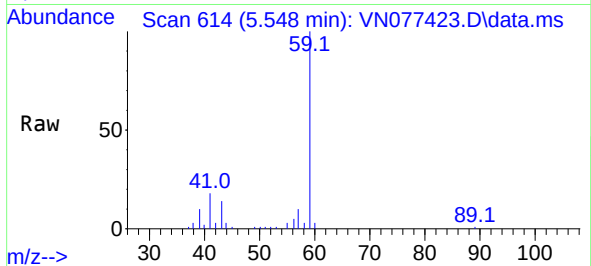




#14
Acrylonitrile
Concen: 0.225 ug/l
RT: 5.548 min Scan# 61
Delta R.T. -0.177 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

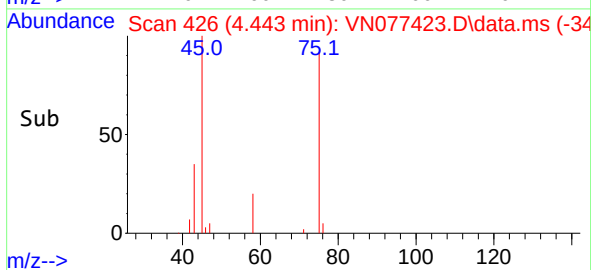
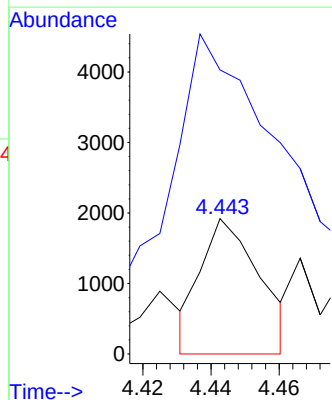
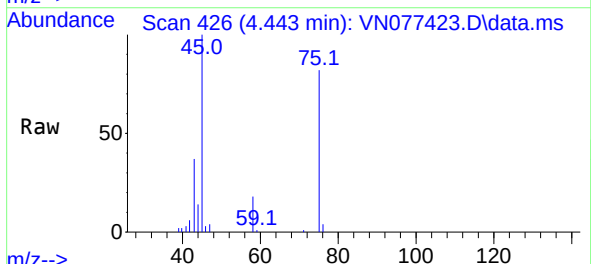
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

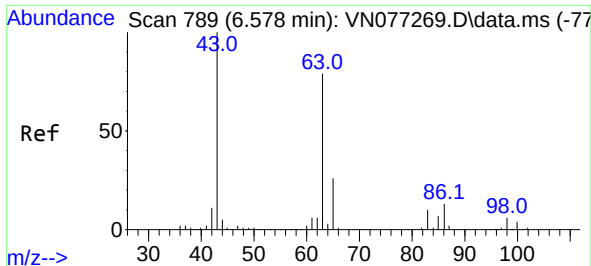
Tgt Ion: 53 Resp: 672
Ion Ratio Lower Upper
53 100
52 35.1 41.0 123.0#
51 63.2 17.7 53.1#



#15
Acetone
Concen: 2.119 ug/l
RT: 4.443 min Scan# 426
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 58 Resp: 2294
Ion Ratio Lower Upper
58 100
43 89.2 220.9 331.3#

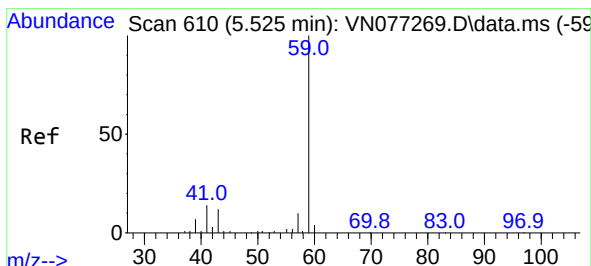
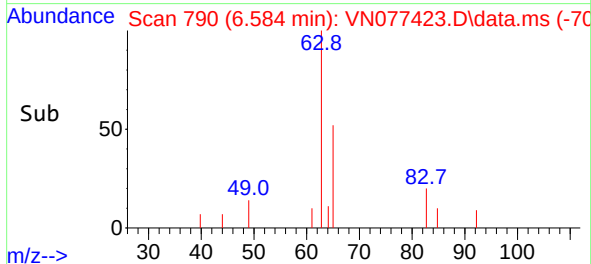
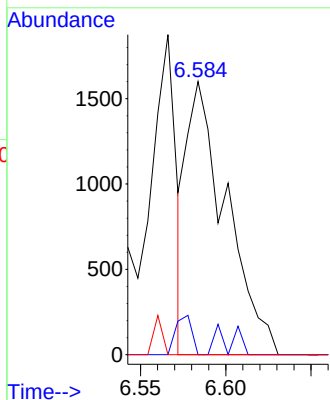
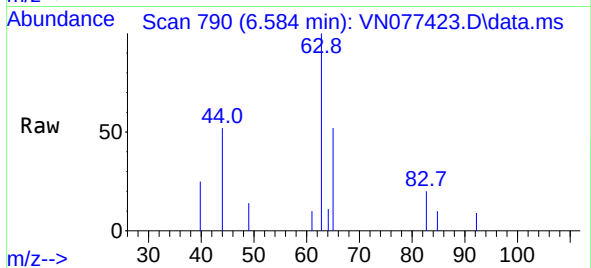




#21
1,1-Dichloroethane
Concen: 0.228 ug/l
RT: 6.584 min Scan# 79
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

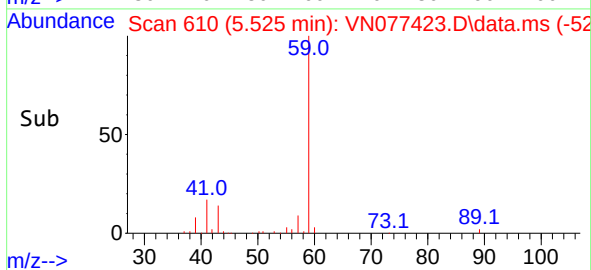
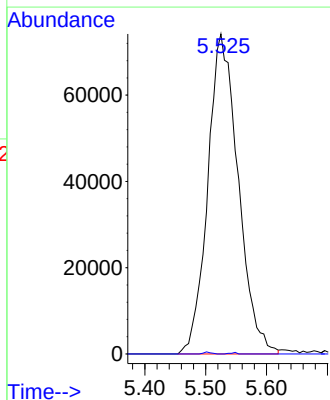
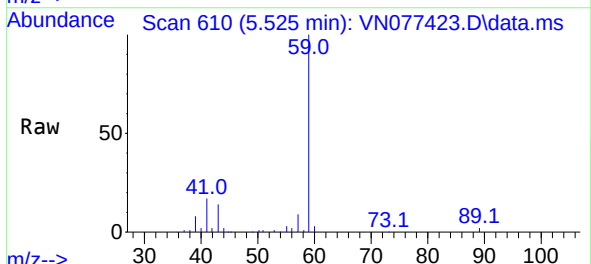
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

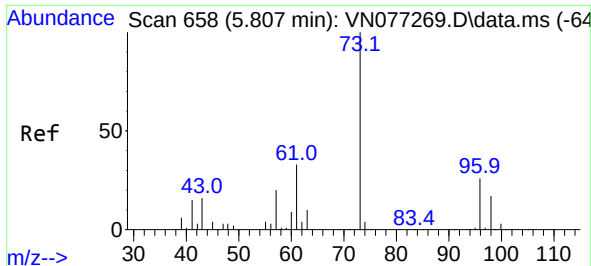
Tgt Ion: 63 Resp: 2603
Ion Ratio Lower Upper
63 100
98 0.0 3.9 11.7#
100 0.0 2.3 6.8#



#23
tert-Butyl Alcohol
Concen: 193.976 ug/l
RT: 5.525 min Scan# 610
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 59 Resp: 257395
Ion Ratio Lower Upper
59 100
52 0.1 0.1 0.1

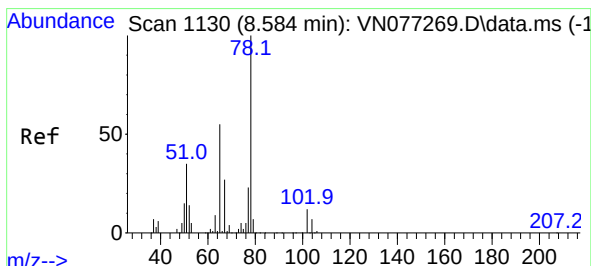
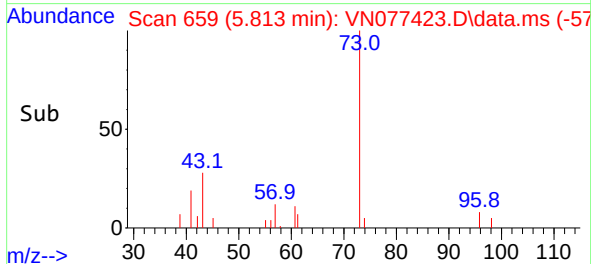
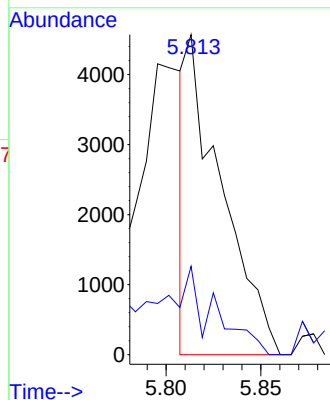
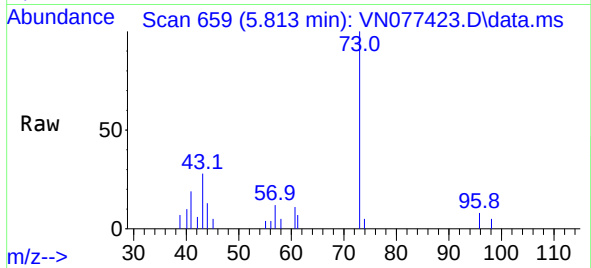




#24
Methyl tert-Butyl Ether
Concen: 0.280 ug/l
RT: 5.813 min Scan# 61
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

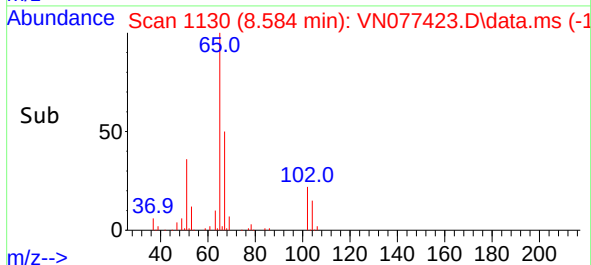
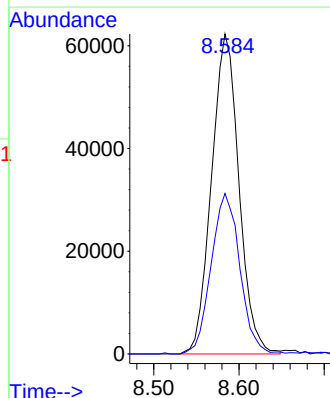
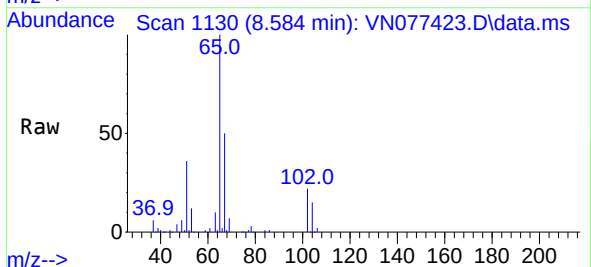
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

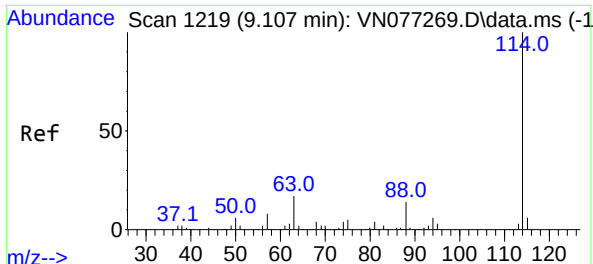
Tgt Ion: 73 Resp: 5914
Ion Ratio Lower Upper
73 100
43 6.1 13.5 20.3#



#27
1,2-Dichloroethane-d4
Concen: 29.530 ug/l
RT: 8.584 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 65 Resp: 139273
Ion Ratio Lower Upper
65 100
67 52.2 41.8 62.6

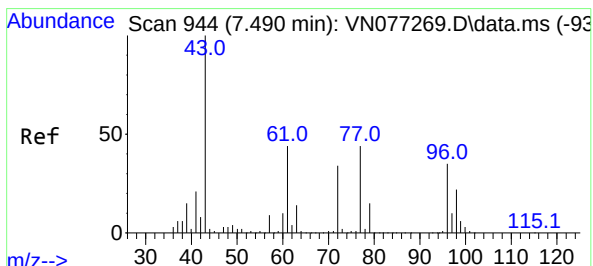
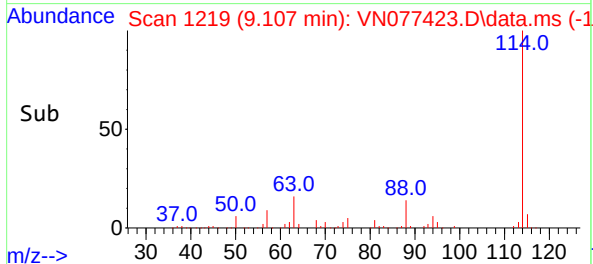
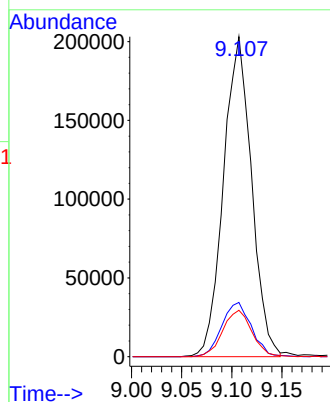
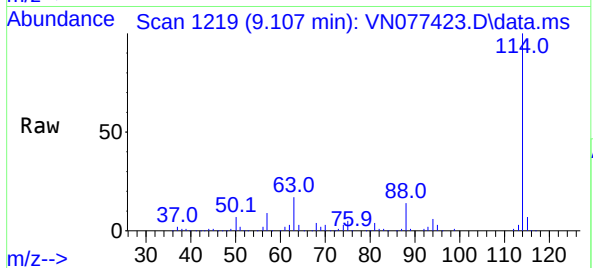




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 9.107 min Scan# 114
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

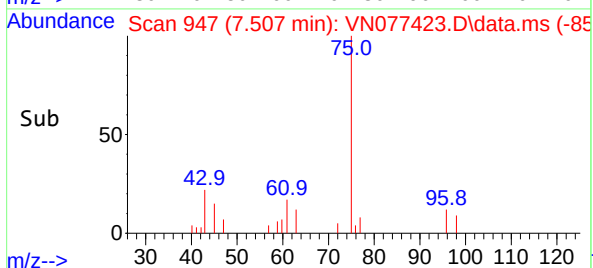
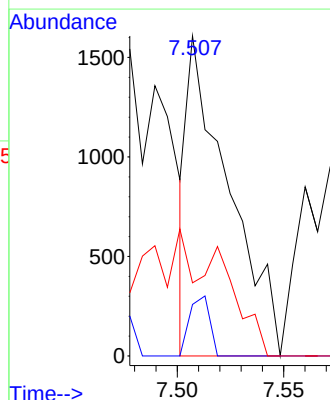
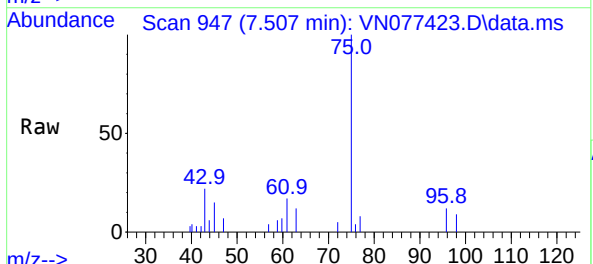
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

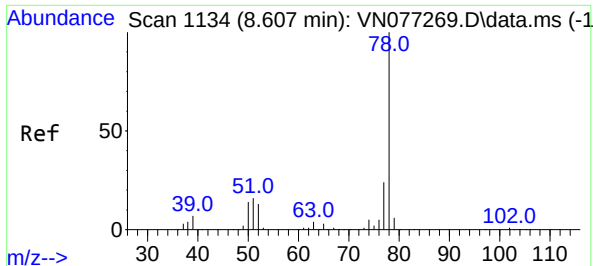
Tgt Ion:114 Resp: 394683
Ion Ratio Lower Upper
114 100
63 17.9 15.0 22.4
88 15.1 11.9 17.9



#30
2-Butanone
Concen: 0.535 ug/l
RT: 7.507 min Scan# 947
Delta R.T. 0.017 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 43 Resp: 2164
Ion Ratio Lower Upper
43 100
57 9.1 7.5 11.3
72 28.3 26.9 40.3

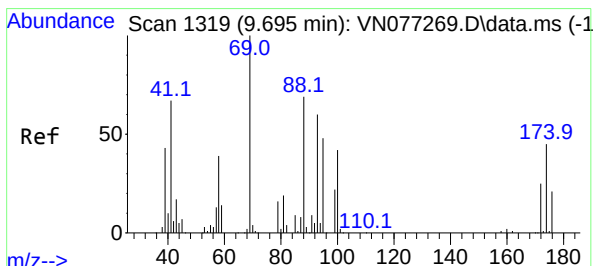
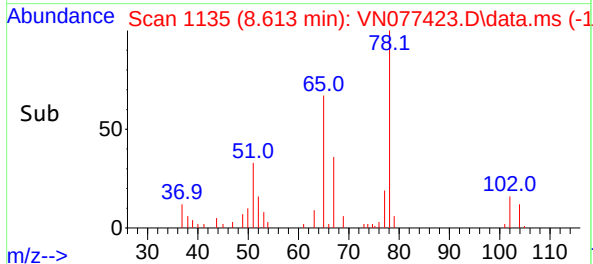
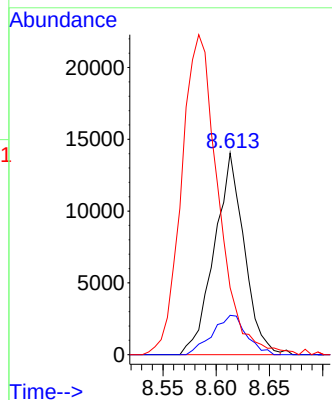
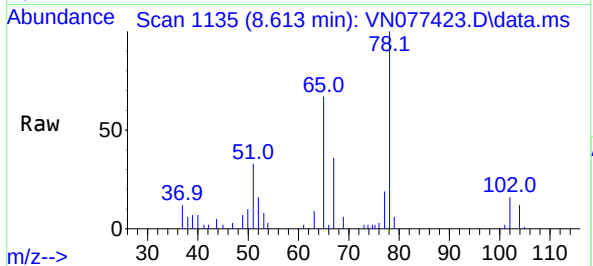




#34
Benzene
Concen: 1.035 ug/l
RT: 8.613 min Scan# 1134
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

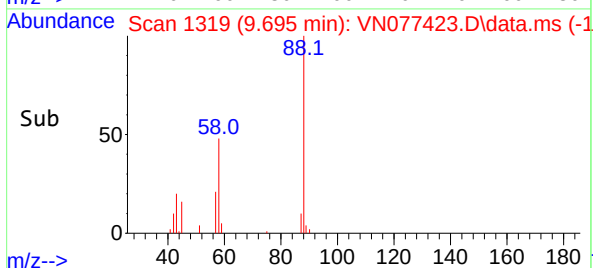
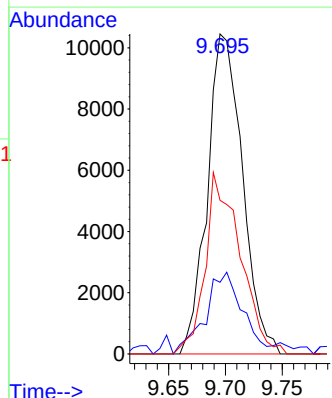
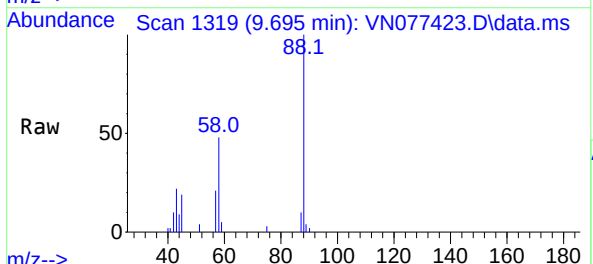
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

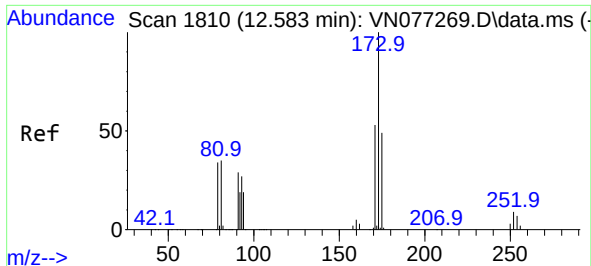
Tgt Ion: 78 Resp: 27373
Ion Ratio Lower Upper
78 100
77 19.5 19.4 29.0
51 31.0 12.6 19.0#



#45
1,4-Dioxane
Concen: 159.043 ug/l
RT: 9.695 min Scan# 1319
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 88 Resp: 22465
Ion Ratio Lower Upper
88 100
43 21.5 17.4 26.0
58 34.5 48.2 72.4#

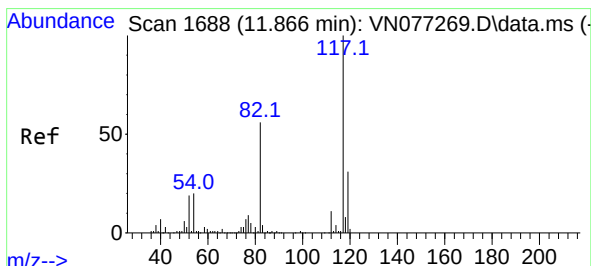
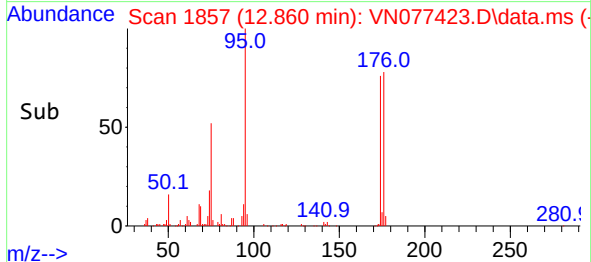
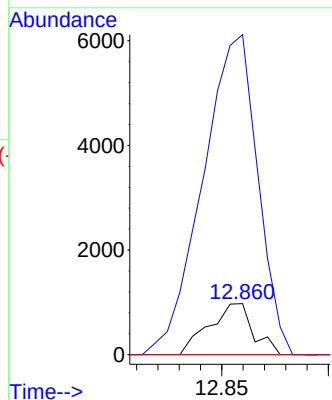
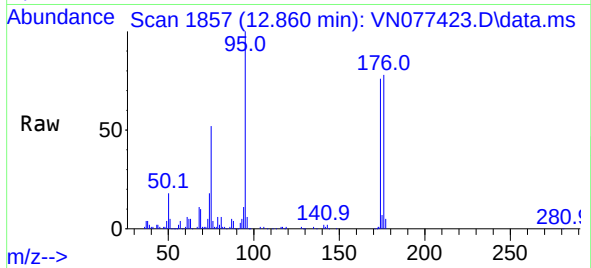




#56
Bromoform
Concen: 0.289 ug/l
RT: 12.860 min Scan# 1857
Delta R.T. 0.277 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

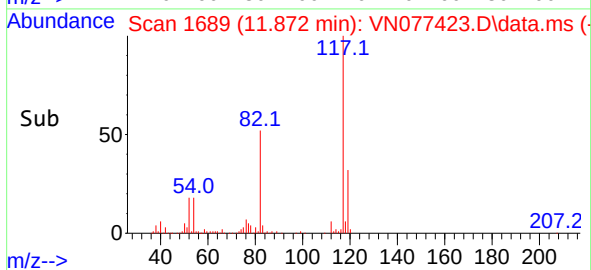
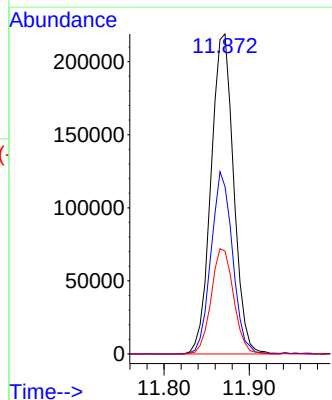
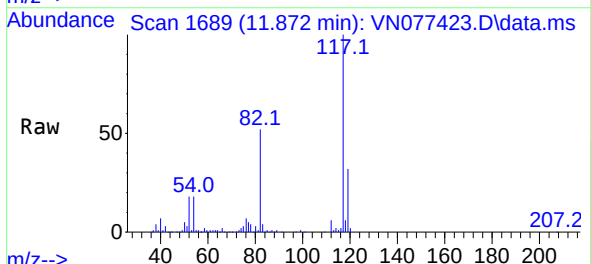
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

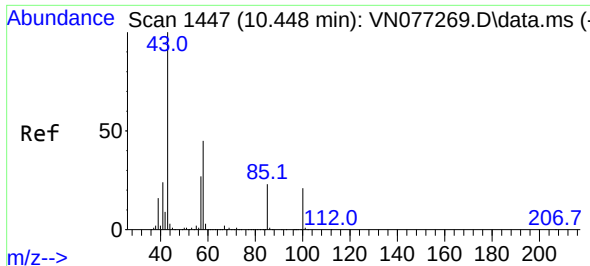
Tgt Ion:173 Resp: 1408
Ion Ratio Lower Upper
173 100
175 780.3 38.2 57.2#
254 0.0 6.0 9.0#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.872 min Scan# 1689
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:117 Resp: 404993
Ion Ratio Lower Upper
117 100
82 54.3 43.8 65.8
119 32.6 25.4 38.0

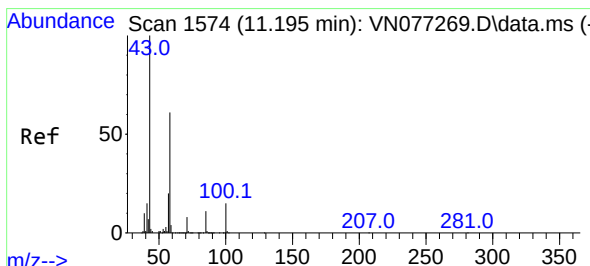
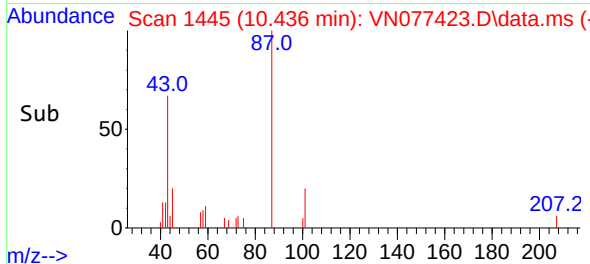
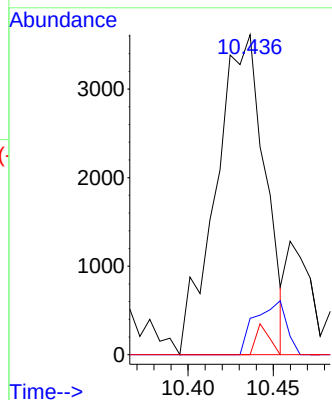
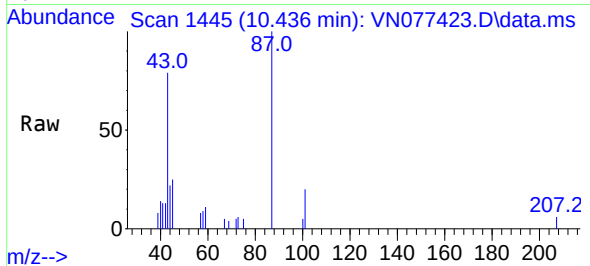




#58
4-Methyl-2-Pentanone
Concen: 0.948 ug/l
RT: 10.436 min Scan# 1445
Delta R.T. -0.012 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

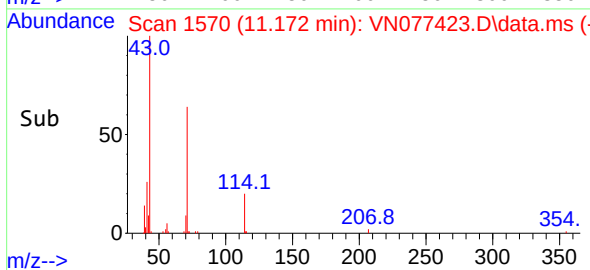
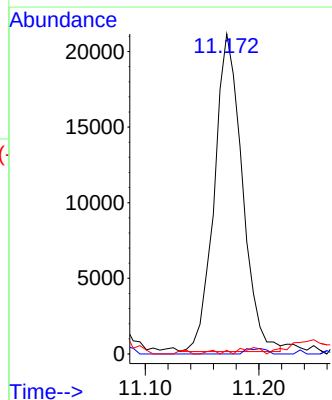
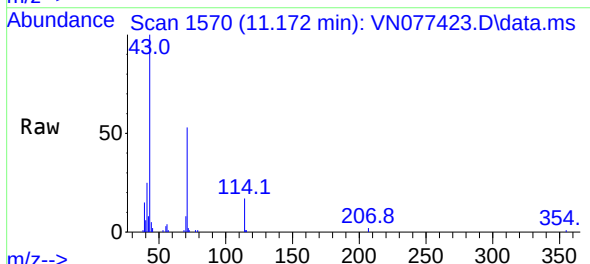
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

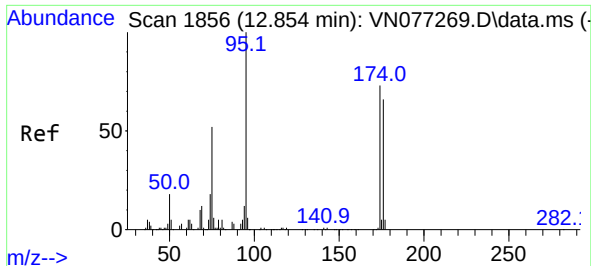
Tgt Ion: 43 Resp: 7191
Ion Ratio Lower Upper
43 100
58 0.0 34.7 52.1#
85 2.6 17.8 26.8#



#59
2-Hexanone
Concen: 6.108 ug/l
RT: 11.172 min Scan# 1570
Delta R.T. -0.024 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 43 Resp: 35803
Ion Ratio Lower Upper
43 100
58 0.0 48.6 73.0#
57 0.2 16.7 25.1#

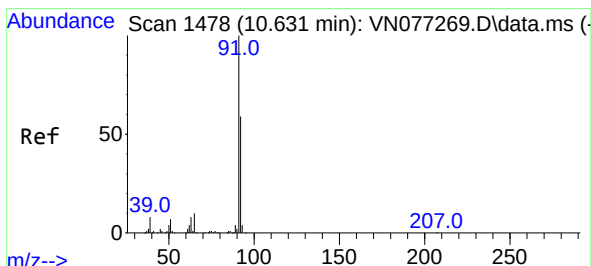
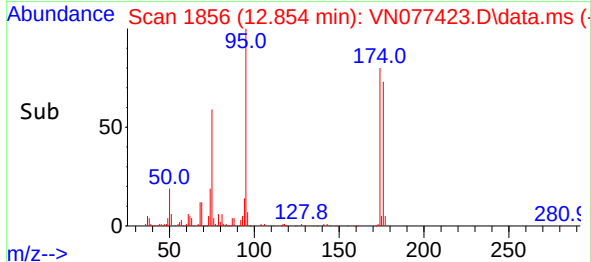
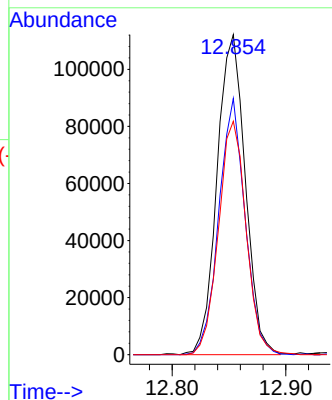
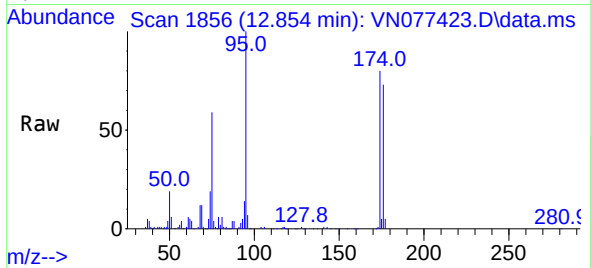




#60
4-Bromofluorobenzene
Concen: 27.632 ug/l
RT: 12.854 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

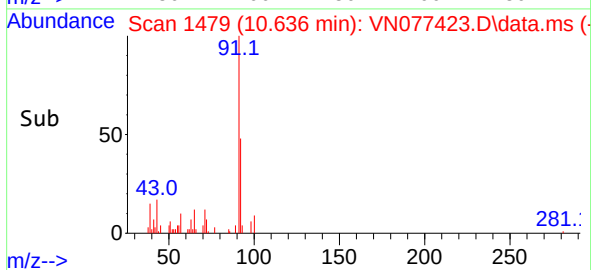
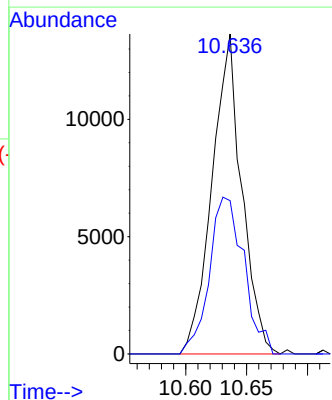
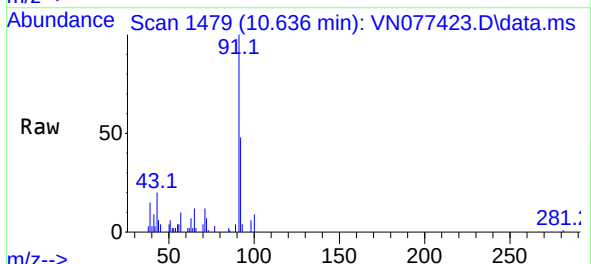
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

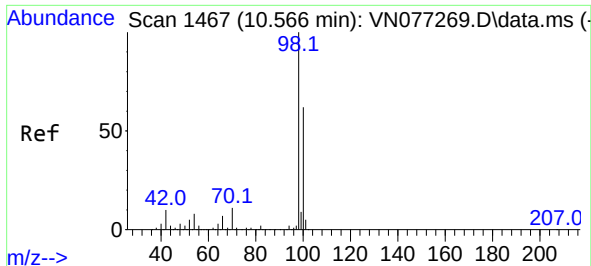
Tgt Ion: 95 Resp: 193505
Ion Ratio Lower Upper
95 100
174 74.5 57.8 86.8
176 71.4 54.6 81.8



#62
Toluene
Concen: 0.819 ug/l
RT: 10.636 min Scan# 1479
Delta R.T. 0.005 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 91 Resp: 23154
Ion Ratio Lower Upper
91 100
92 56.9 46.6 70.0

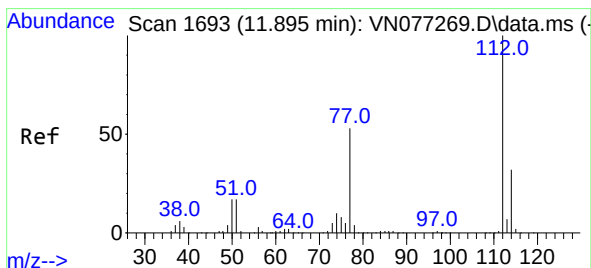
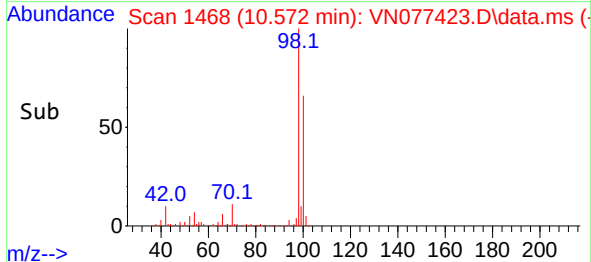
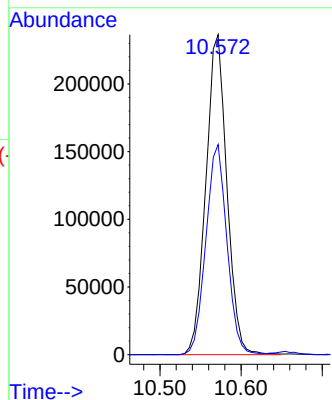
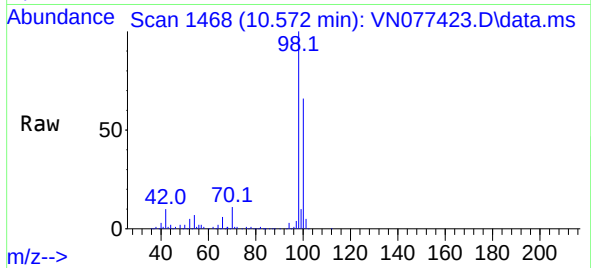




#63
Toluene-d8
Concen: 29.892 ug/l
RT: 10.572 min Scan# 1468
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

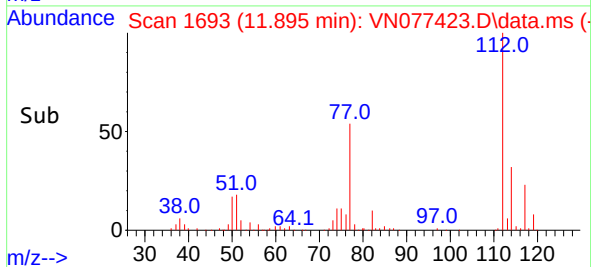
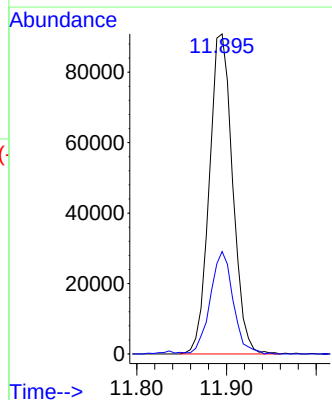
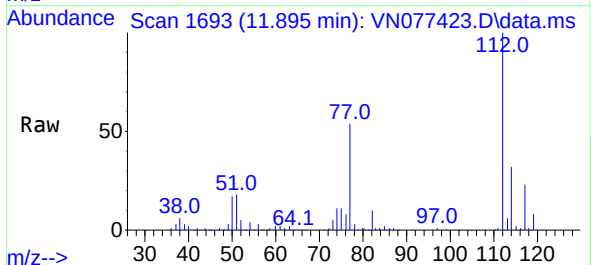
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

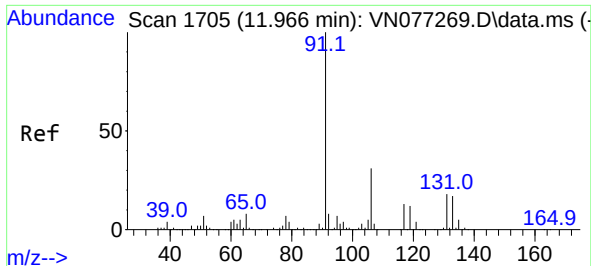
Tgt Ion: 98 Resp: 425579
Ion Ratio Lower Upper
98 100
100 65.6 51.4 77.2



#64
Chlorobenzene
Concen: 9.539 ug/l
RT: 11.895 min Scan# 1693
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 112 Resp: 163762
Ion Ratio Lower Upper
112 100
114 32.0 25.6 38.4

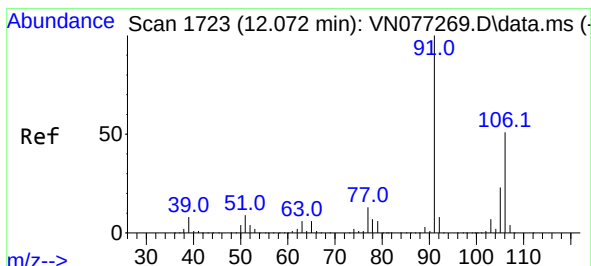
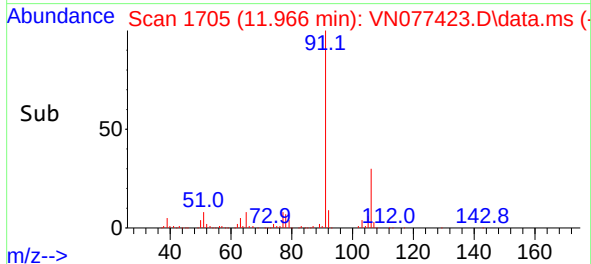
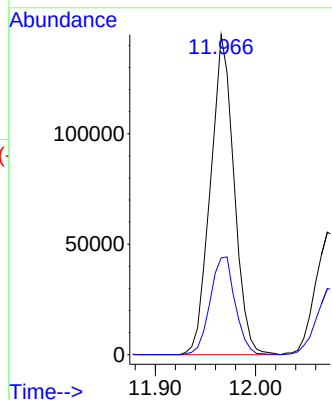
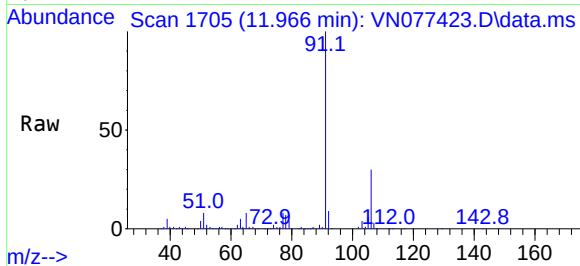




#66
Ethyl Benzene
Concen: 7.546 ug/l
RT: 11.966 min Scan# 1705
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

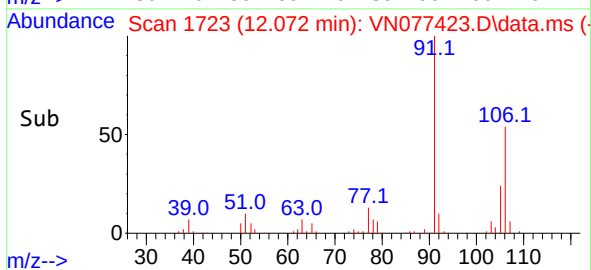
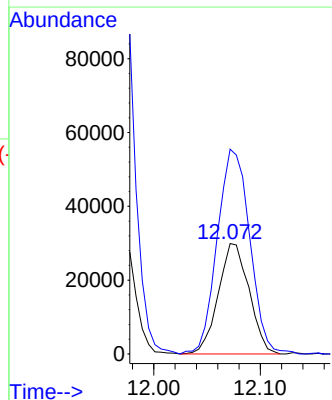
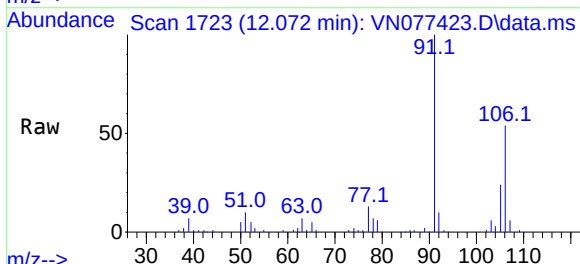
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

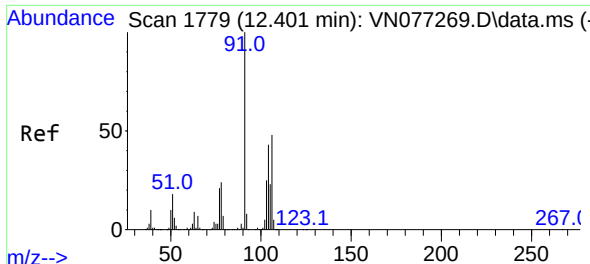
Tgt Ion: 91 Resp: 236224
Ion Ratio Lower Upper
91 100
106 30.2 25.0 37.6



#67
m/p-Xylenes
Concen: 4.898 ug/l
RT: 12.072 min Scan# 1723
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:106 Resp: 60101
Ion Ratio Lower Upper
106 100
91 195.8 158.0 237.0

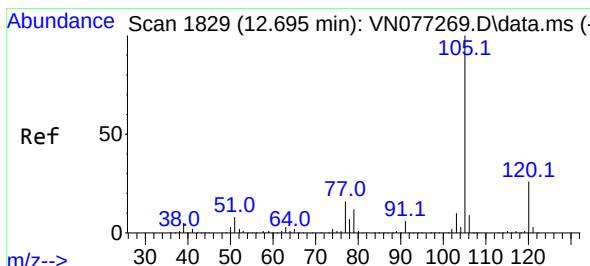
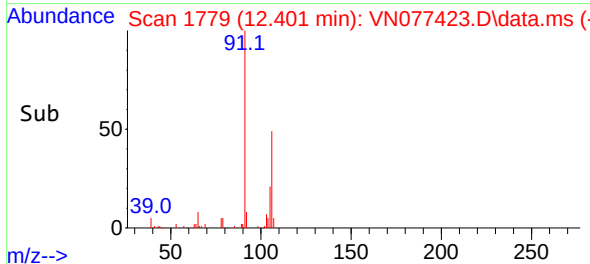
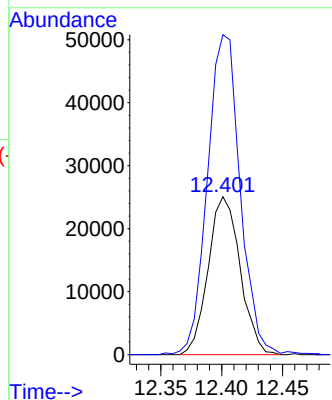
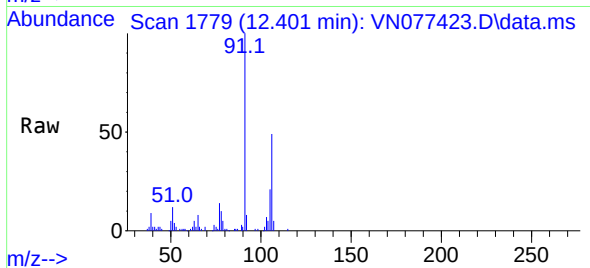




#68
o-Xylene
Concen: 3.731 ug/l
RT: 12.401 min Scan# 1779
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

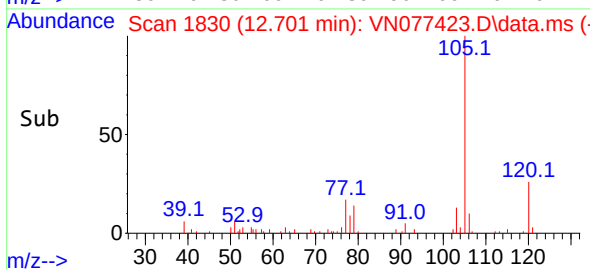
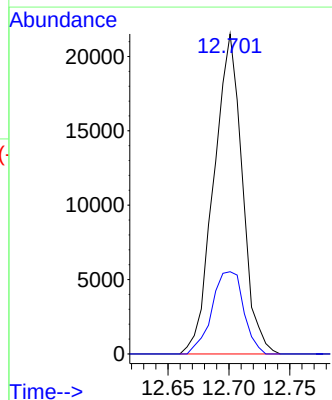
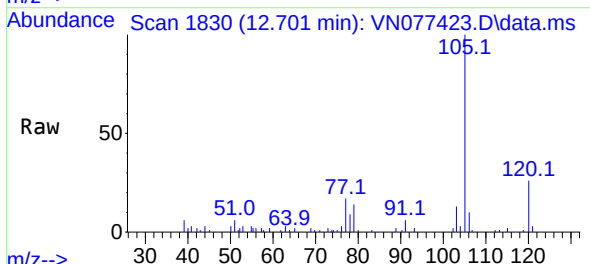
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

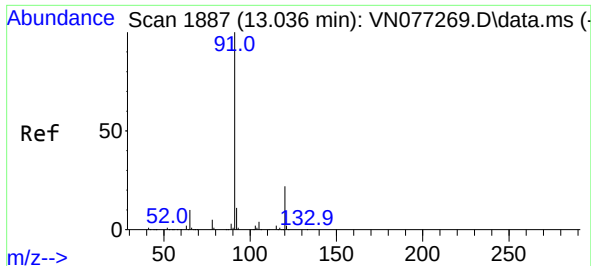
Tgt Ion:106 Resp: 45796
Ion Ratio Lower Upper
106 100
91 207.0 103.6 310.8



#70
Isopropylbenzene
Concen: 1.121 ug/l
RT: 12.701 min Scan# 1830
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:105 Resp: 34938
Ion Ratio Lower Upper
105 100
120 28.6 18.3 34.1

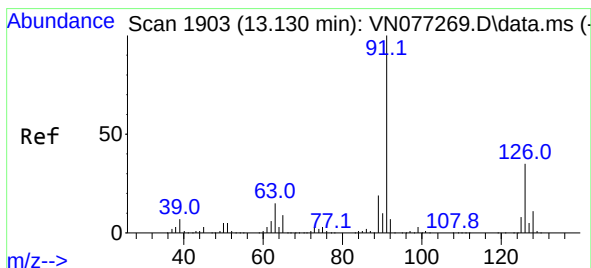
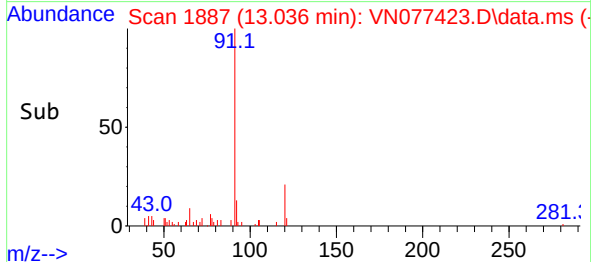
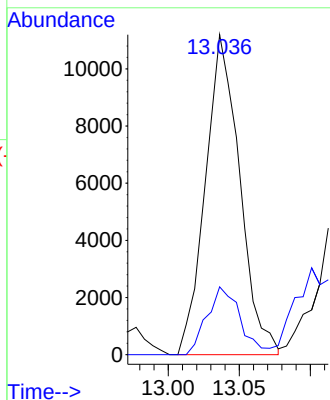
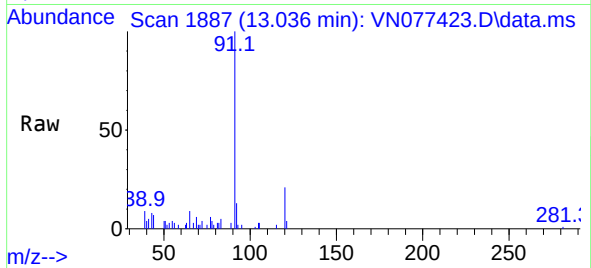




#74
n-propylbenzene
Concen: 0.546 ug/l
RT: 13.036 min Scan# 1887
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

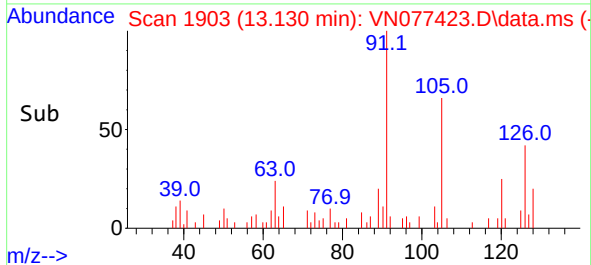
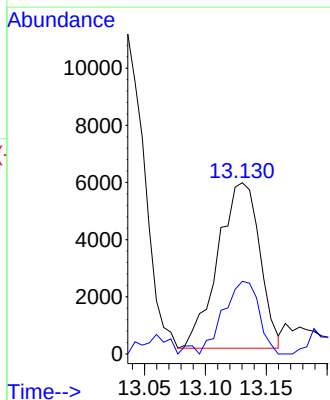
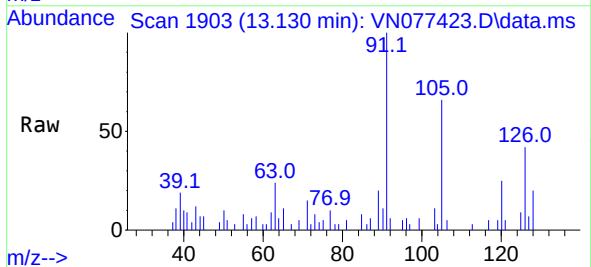
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

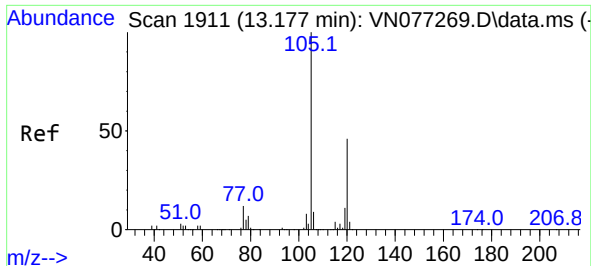
Tgt Ion: 91 Resp: 18813
Ion Ratio Lower Upper
91 100
120 20.6 0.0 45.6



#75
2-Chlorotoluene
Concen: 0.669 ug/l
RT: 13.130 min Scan# 1903
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion: 91 Resp: 13816
Ion Ratio Lower Upper
91 100
126 36.9 0.0 67.0

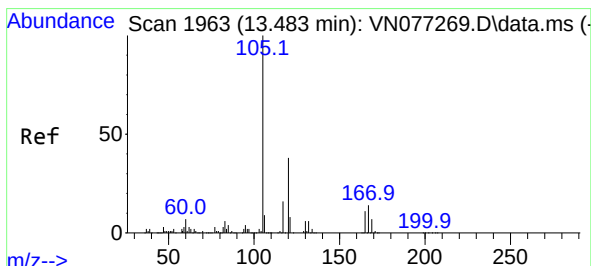
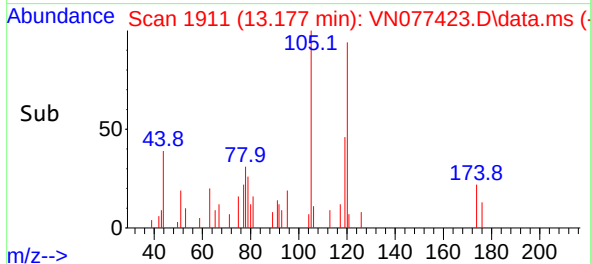
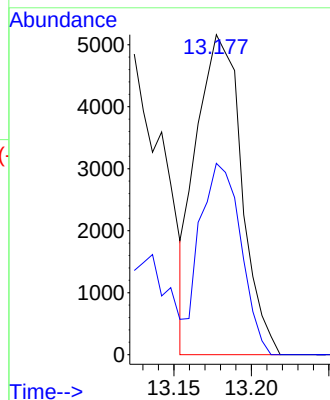
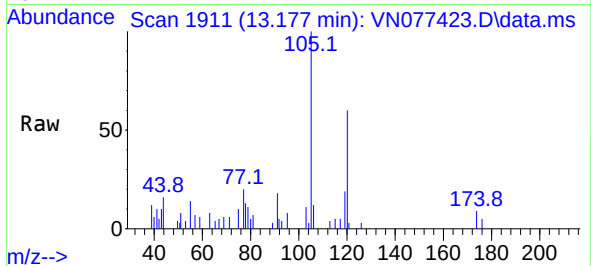




#76
1,3,5-Trimethylbenzene
Concen: 0.416 ug/l
RT: 13.177 min Scan# 1911
Delta R.T. 0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

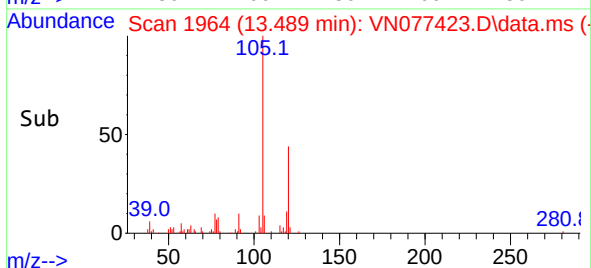
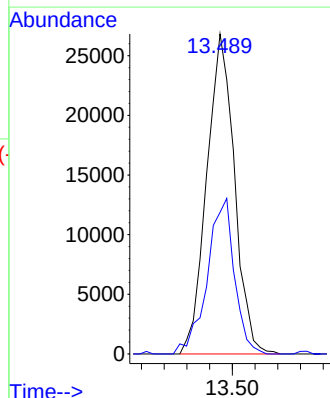
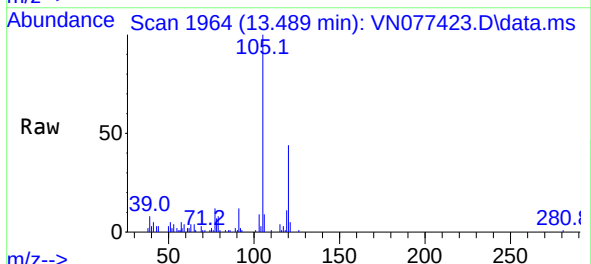
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

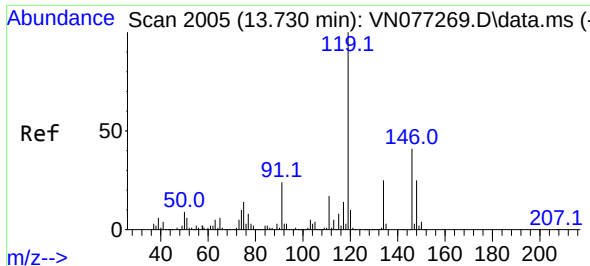
Tgt Ion:105 Resp: 10543
Ion Ratio Lower Upper
105 100
120 54.2 0.0 94.4



#80
1,2,4-Trimethylbenzene
Concen: 1.841 ug/l
RT: 13.489 min Scan# 1964
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:105 Resp: 45511
Ion Ratio Lower Upper
105 100
120 47.4 0.0 91.0

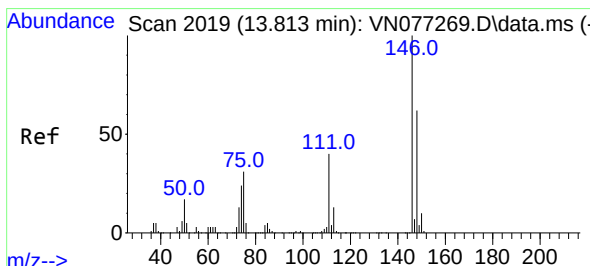
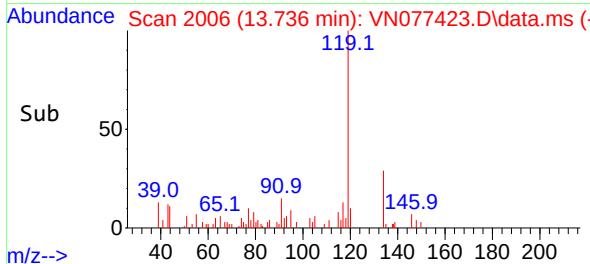
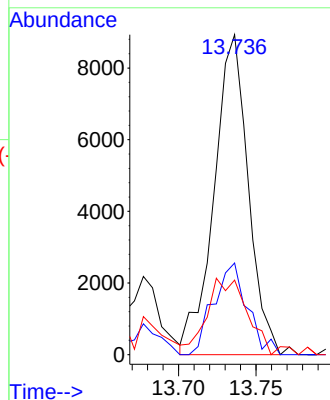
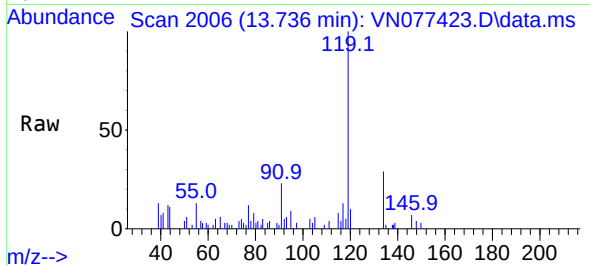




#82
p-Isopropyltoluene
Concen: 0.542 ug/l
RT: 13.736 min Scan# 2005
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

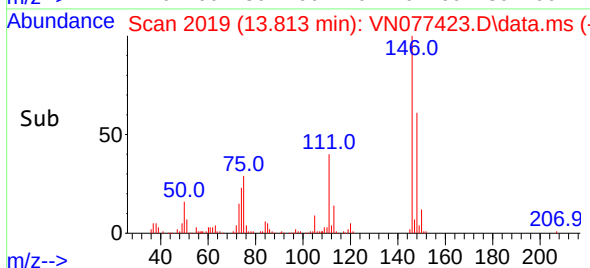
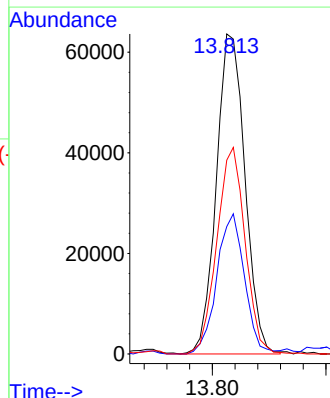
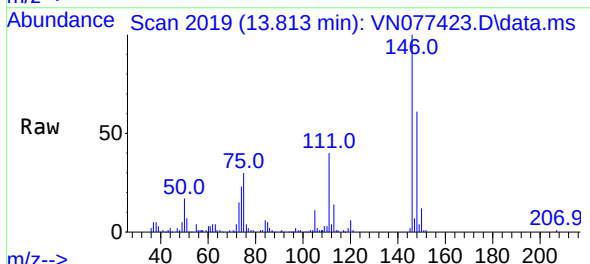
Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

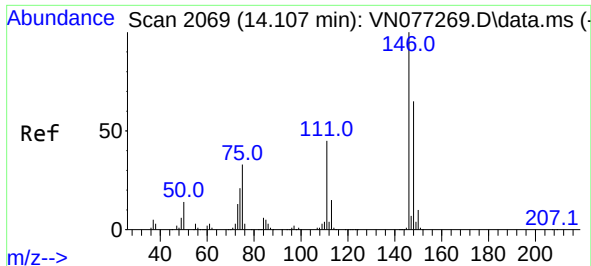
Tgt Ion:	119	Resp:	13679
Ion Ratio	Lower	Upper	
119	100		
134	28.4	0.0	51.0
91	27.9	0.0	48.0



#84
1,4-Dichlorobenzene
Concen: 9.575 ug/l
RT: 13.813 min Scan# 2019
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:	146	Resp:	111481
Ion Ratio	Lower	Upper	
146	100		
111	42.2	20.3	61.0
148	63.6	31.6	94.7

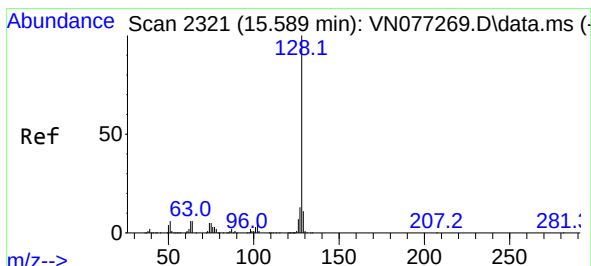
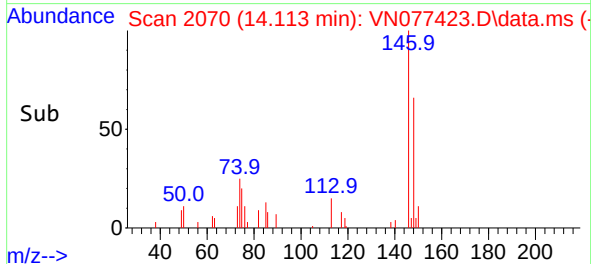
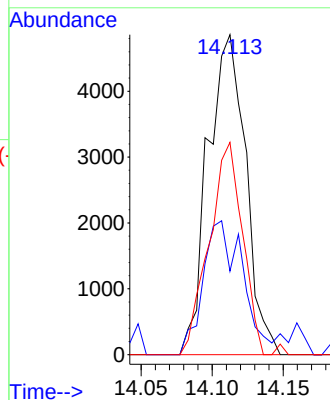
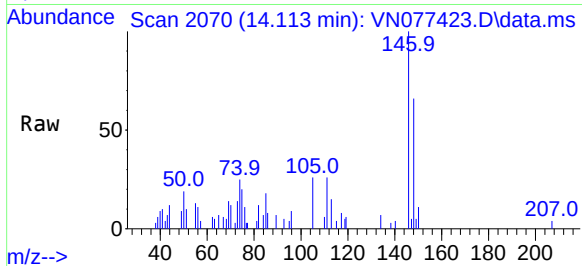




#87
1,2-Dichlorobenzene
Concen: 0.766 ug/l
RT: 14.113 min Scan# 2069
Delta R.T. 0.006 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Instrument :
MSVOA_N
ClientSampleId :
230419084-02-VOA

Tgt Ion:	146	Resp:	9009
Ion Ratio	Lower	Upper	
146	100		
111	43.5	22.1	66.5
148	58.3	31.9	95.7



#91
Naphthalene
Concen: 3.418 ug/l
RT: 15.589 min Scan# 2321
Delta R.T. -0.000 min
Lab File: VN077423.D
Acq: 21 Apr 2023 13:08

Tgt Ion:	128	Resp:	60406
Ion Ratio	Lower	Upper	
128	100		
127	12.2	10.2	15.2
129	11.9	8.9	13.3

