

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN090624\
 Data File : VN083698.D
 Acq On : 06 Sep 2024 16:00
 Operator : JC\MD
 Sample : VV0906WBL01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Sep 06 23:48:20 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N090624W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Sep 06 23:42:47 2024
 Response via : Initial Calibration

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

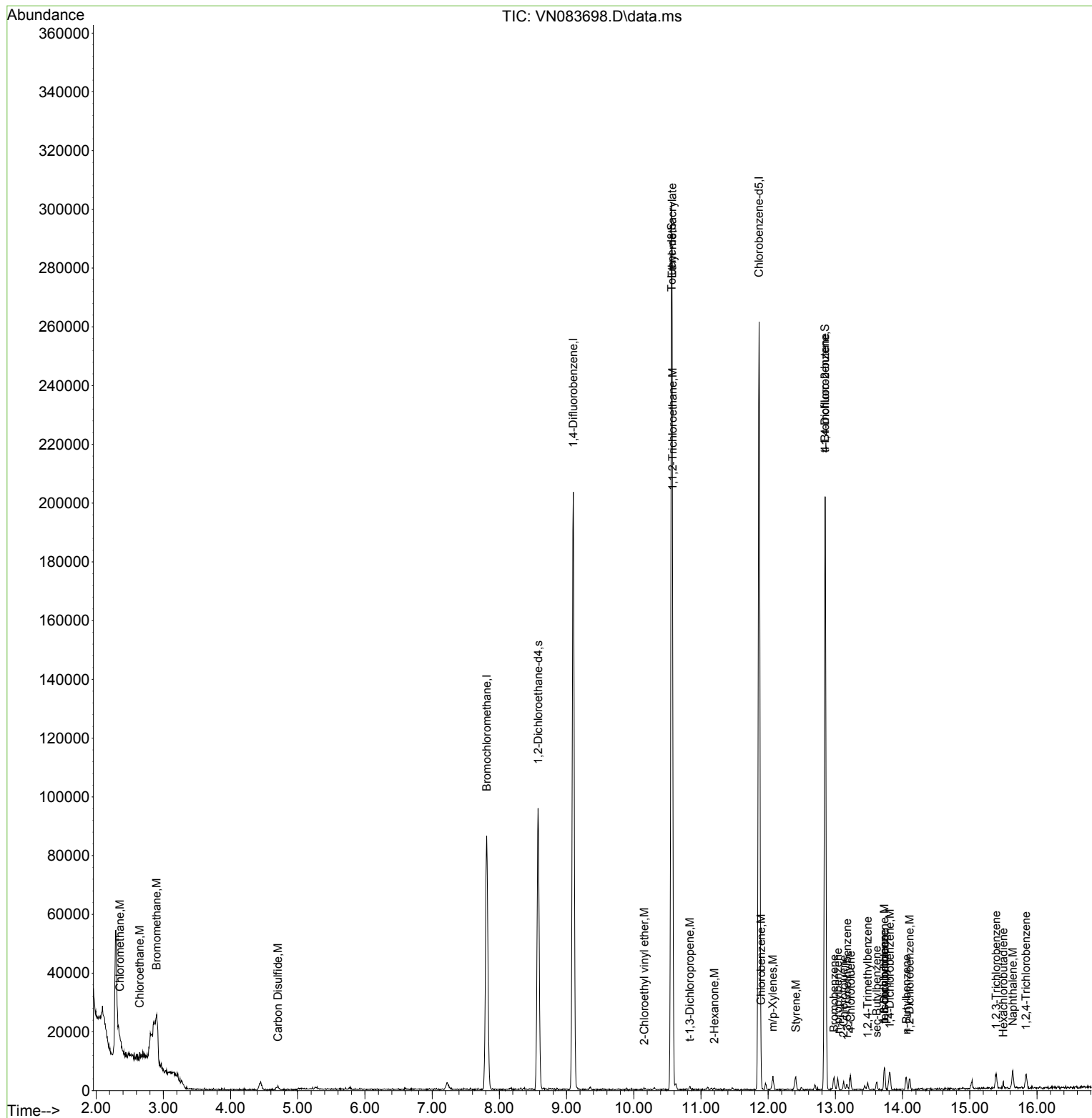
Internal Standards						
1) Bromochloromethane	7.812	128	30123	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	168318	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	142649	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	81056	29.438	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.133%		
60) 4-Bromofluorobenzene	12.847	95	68924	28.035	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	93.433%		
63) Toluene-d8	10.565	98	198851	30.105	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	100.367%		
Target Compounds						Qvalue
3) Chloromethane	2.353	50	710	0.339	ug/l	95
5) Bromomethane	2.901	94	406	0.337	ug/l	87
6) Chloroethane	2.648	64	546	0.378	ug/l	90
16) Carbon Disulfide	4.706	76	1365	0.258	ug/l #	78
48) t-1,3-Dichloropropene	10.835	75	828	0.263	ug/l #	78
50) 1,1,2-Trichloroethane	10.576	97	6026	3.359	ug/l #	1
51) Ethyl methacrylate	10.571	69	691	0.225	ug/l #	58
55) 2-Chloroethyl vinyl ether	10.159	63	342	0.280	ug/l #	43
59) 2-Hexanone	11.200	43	535	0.313	ug/l #	57
64) Chlorobenzene	11.894	112	1830	0.360	ug/l #	81
67) m/p-Xylenes	12.070	106	1500	0.437	ug/l	88
69) Styrene	12.412	104	2251	0.401	ug/l	90
73) Bromobenzene	12.982	156	1030	0.512	ug/l	90
74) n-propylbenzene	13.035	91	3674	0.358	ug/l	94
75) 2-Chlorotoluene	13.123	91	2029	0.317	ug/l	92
76) 1,3,5-Trimethylbenzene	13.176	105	1590	0.217	ug/l	92
77) t-1,4-Dichloro-2-butene	12.847	75	37951	42.794	ug/l #	12
78) 4-Chlorotoluene	13.229	91	1868	0.288	ug/l	48
79) tert-butylbenzene	13.729	119	2013	0.315	ug/l	60
80) 1,2,4-Trimethylbenzene	13.482	105	1709	0.231	ug/l	95
81) sec-Butylbenzene	13.617	105	2273	0.260	ug/l	82
82) p-Isopropyltoluene	13.729	119	2013	0.274	ug/l	97
83) 1,3-Dichlorobenzene	13.729	146	2395	0.618	ug/l	78
84) 1,4-Dichlorobenzene	13.812	146	3380	0.873	ug/l	88
85) n-Butylbenzene	14.059	91	2936	0.452	ug/l	92
87) 1,2-Dichlorobenzene	14.106	146	2002	0.533	ug/l	98
89) 1,2,4-Trichlorobenzene	15.835	180	1386	0.673	ug/l #	26
90) Hexachlorobutadiene	15.500	225	528	0.619	ug/l	53
91) Naphthalene	15.641	128	6463	0.960	ug/l	98
92) 1,2,3-Trichlorobenzene	15.394	180	2069	1.005	ug/l	88

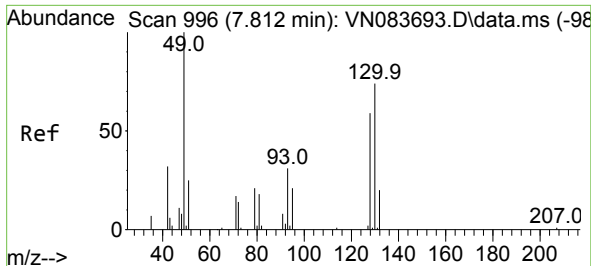
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Sep 06 23:42:47 2024
Response via : Initial Calibration

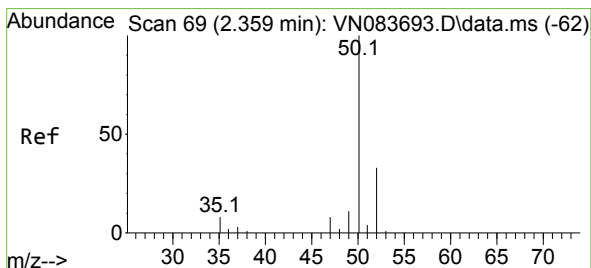
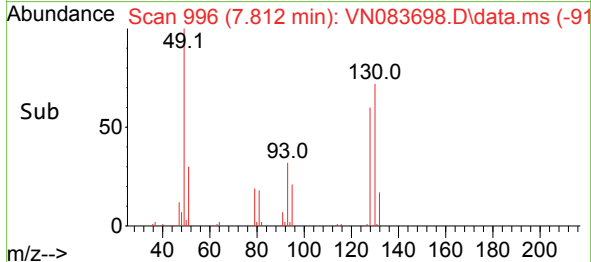
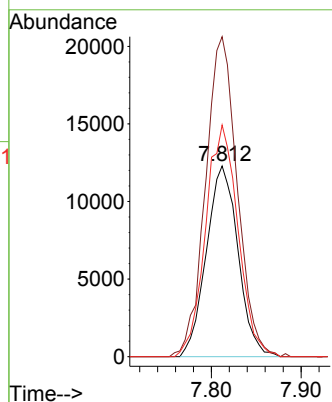
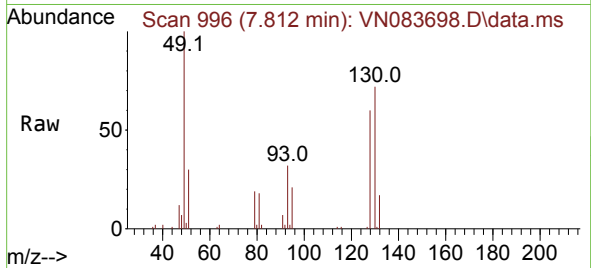




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 996
Delta R.T. -0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

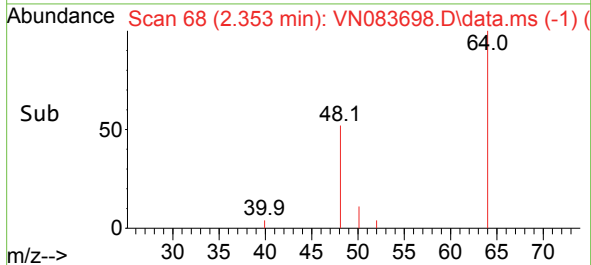
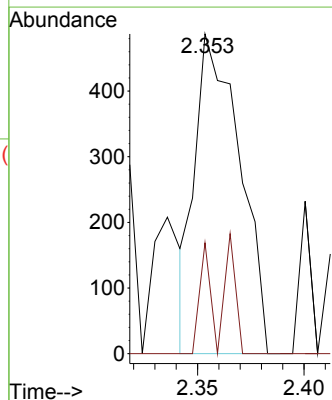
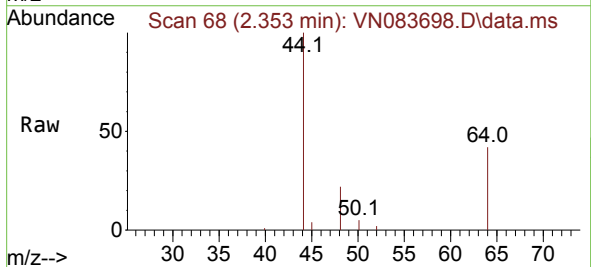
Instrument :
MSVOA_N
ClientSampleId :

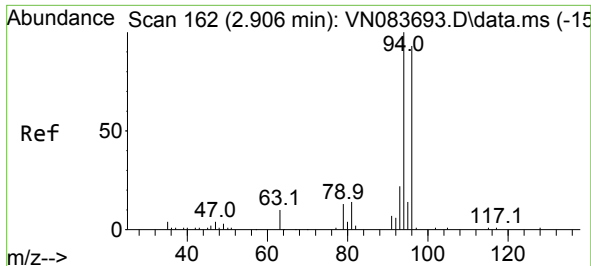
Tgt Ion:128 Resp: 30123
Ion Ratio Lower Upper
128 100
49 167.9 0.0 403.7
130 124.4 0.0 323.3



#3
Chloromethane
Concen: 0.339 ug/l
RT: 2.353 min Scan# 68
Delta R.T. -0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

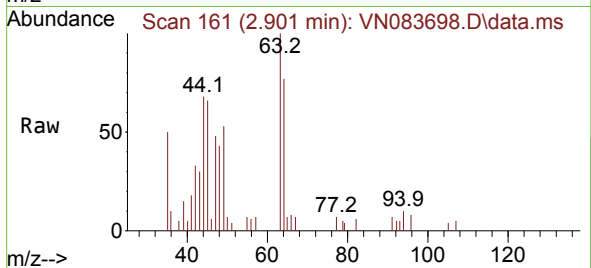
Tgt Ion: 50 Resp: 710
Ion Ratio Lower Upper
50 100
52 34.7 25.4 38.0



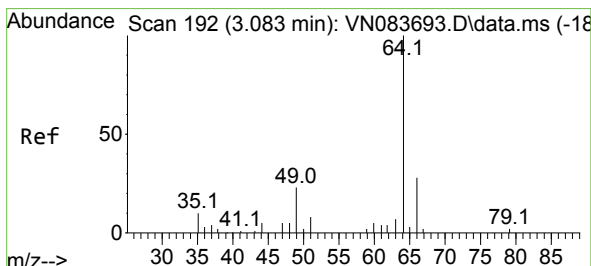
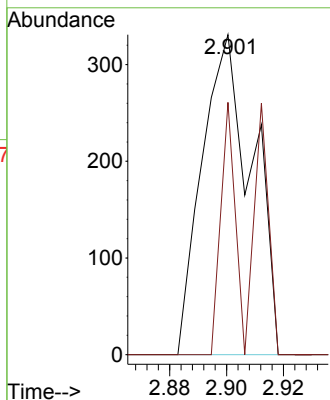
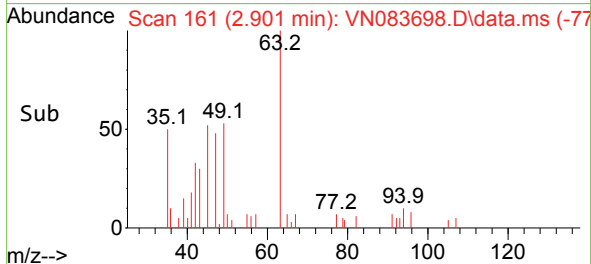


#5
Bromomethane
Concen: 0.337 ug/l
RT: 2.901 min Scan# 115
Delta R.T. -0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Instrument :
MSVOA_N
ClientSampleId :

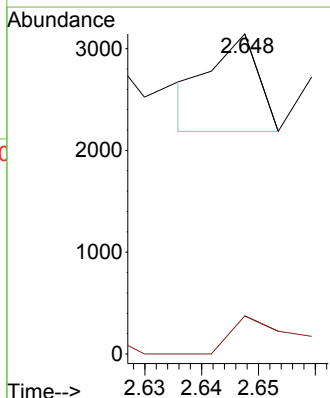
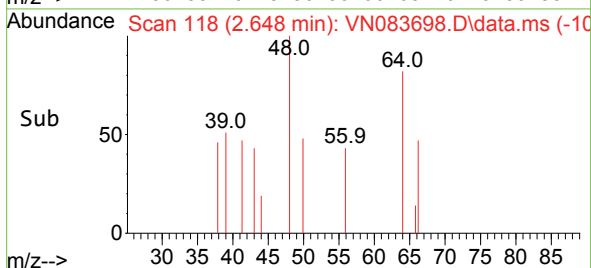
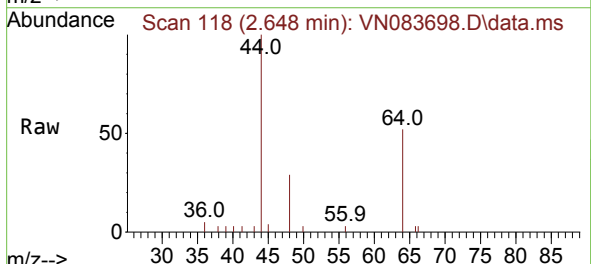


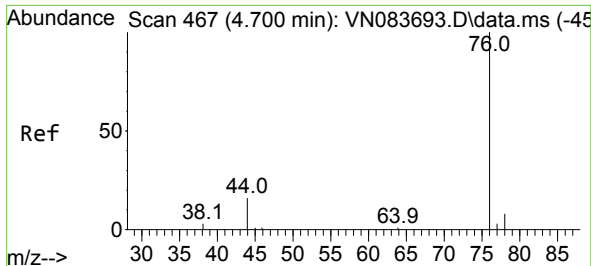
Tgt Ion: 94 Resp: 406
Ion Ratio Lower Upper
94 100
96 78.9 72.8 109.2



#6
Chloroethane
Concen: 0.378 ug/l
RT: 2.648 min Scan# 118
Delta R.T. -0.435 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 64 Resp: 546
Ion Ratio Lower Upper
64 100
66 39.2 26.7 40.1

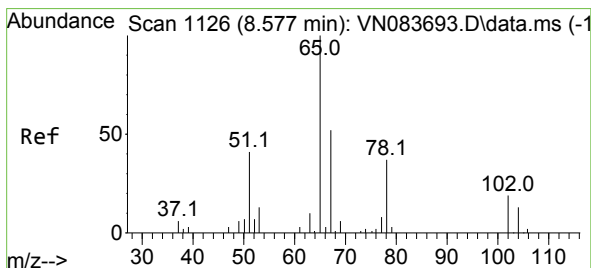
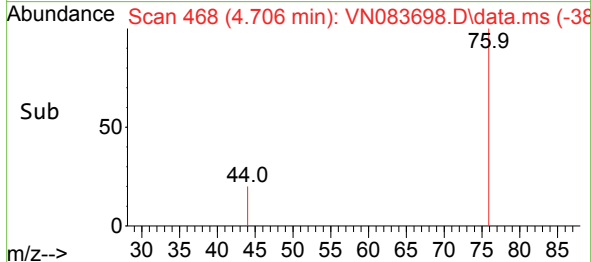
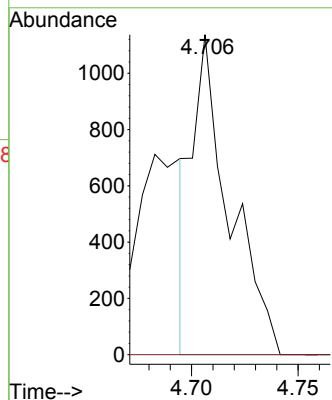
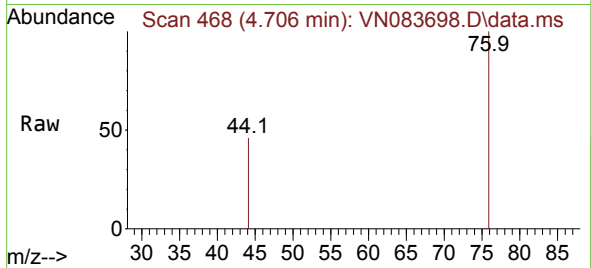




#16
Carbon Disulfide
Concen: 0.258 ug/l
RT: 4.706 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

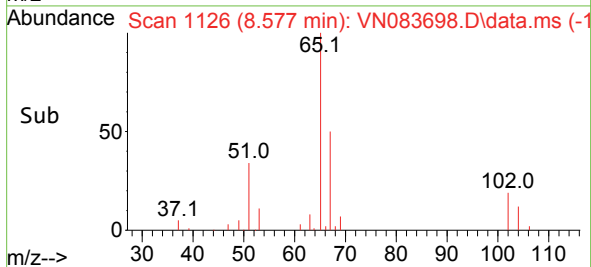
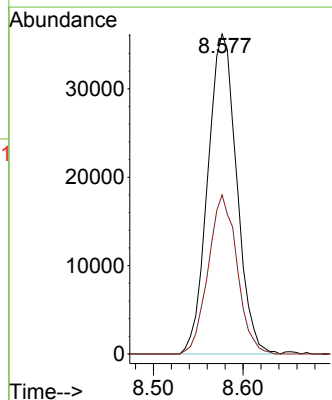
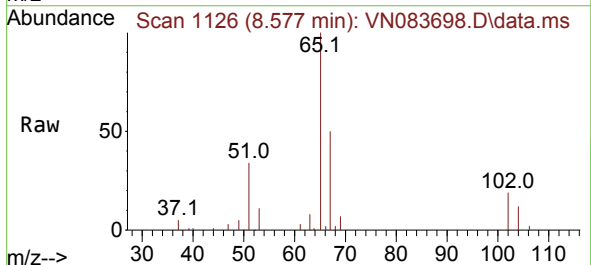
Instrument :
MSVOA_N
ClientSampleId :

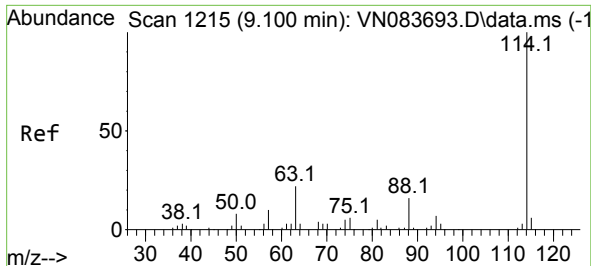
Tgt Ion: 76 Resp: 1365
Ion Ratio Lower Upper
76 100
78 0.0 6.3 9.5#



#27
1,2-Dichloroethane-d4
Concen: 29.438 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 65 Resp: 81056
Ion Ratio Lower Upper
65 100
67 49.5 43.2 64.8





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 114

Delta R.T. 0.000 min

Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

Instrument :

MSVOA_N

ClientSampleId :

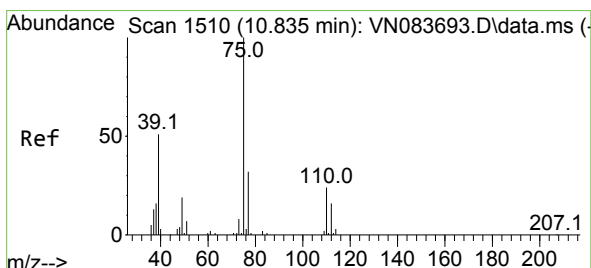
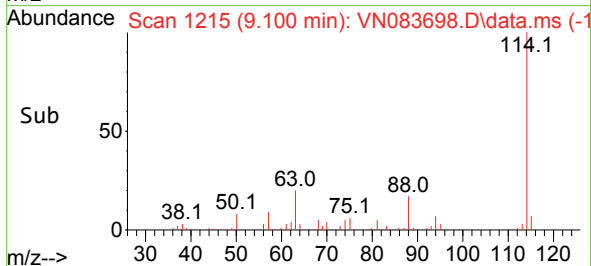
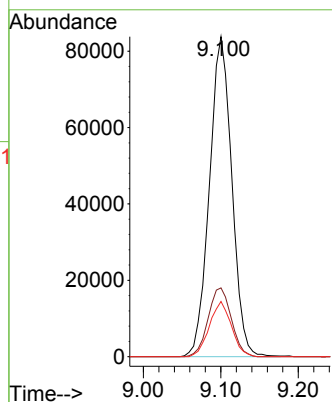
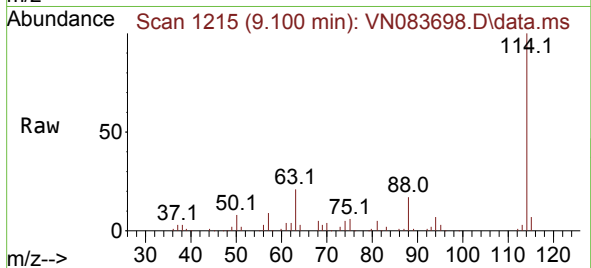
Tgt Ion:114 Resp: 168318

Ion Ratio Lower Upper

114 100

63 22.2 15.9 23.9

88 16.9 12.7 19.1



#48

t-1,3-Dichloropropene

Concen: 0.263 ug/l

RT: 10.835 min Scan# 1510

Delta R.T. 0.000 min

Lab File: VN083698.D

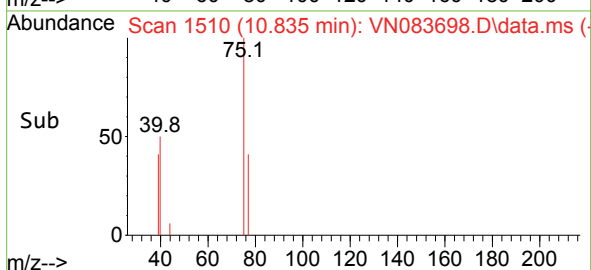
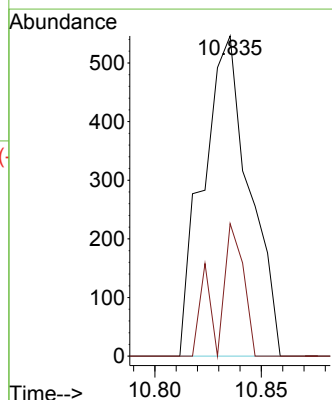
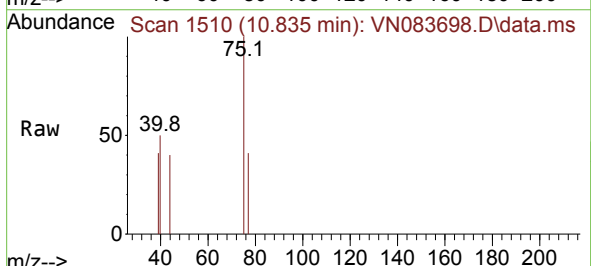
Acq: 06 Sep 2024 16:00

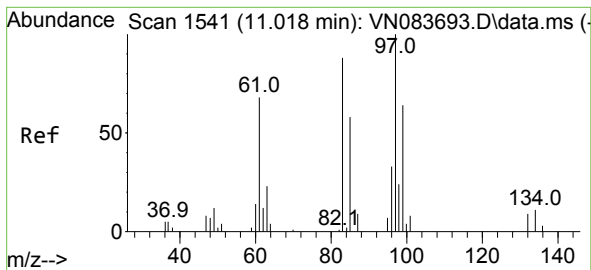
Tgt Ion: 75 Resp: 828

Ion Ratio Lower Upper

75 100

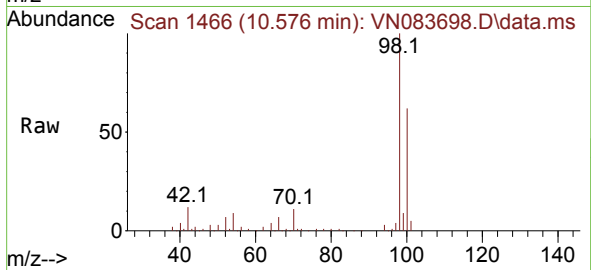
77 41.4 23.8 35.6#



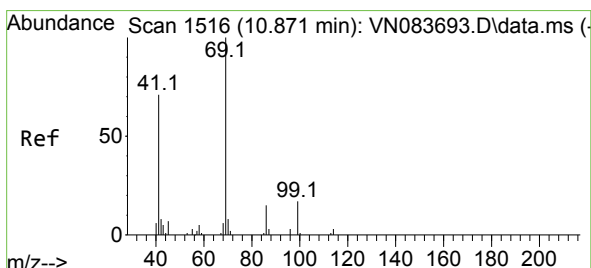
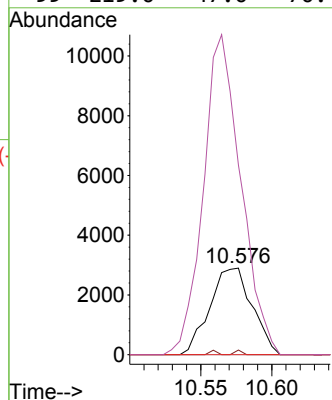
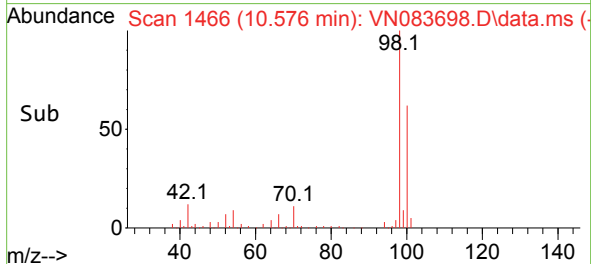


#50
1,1,2-Trichloroethane
Concen: 3.359 ug/l
RT: 10.576 min Scan# 1466
Delta R.T. -0.441 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Instrument :
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ClientSampleId :

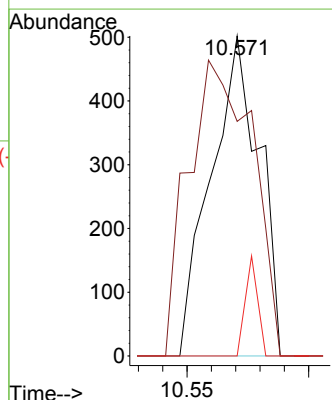
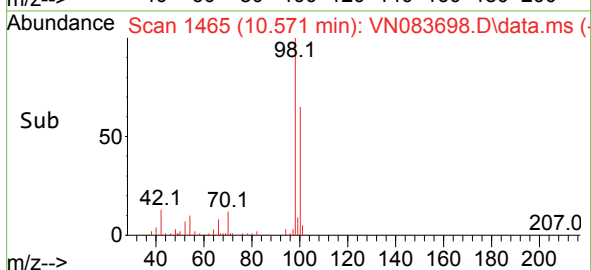
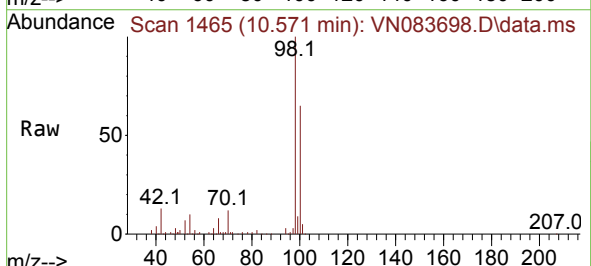


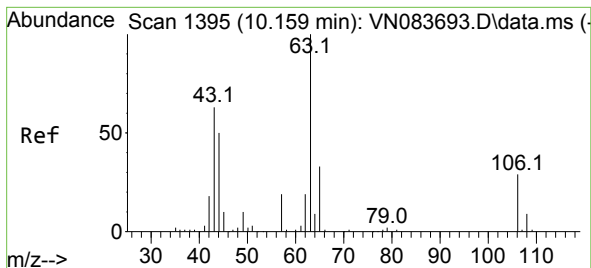
Tgt Ion: 97	Resp: 6026
Ion Ratio	Lower Upper
97 100	
83 5.3	68.1 102.1#
85 0.0	41.8 62.6#
99 219.0	47.0 70.4#



#51
Ethyl methacrylate
Concen: 0.225 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.300 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 69	Resp: 691		
Ion Ratio	Lower	Upper	
69 100			
41 73.3	25.5	76.5	
39 0.0	16.0	47.9#	

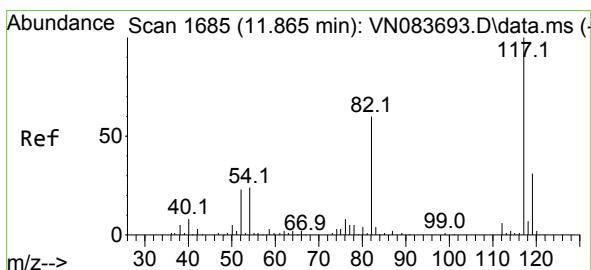
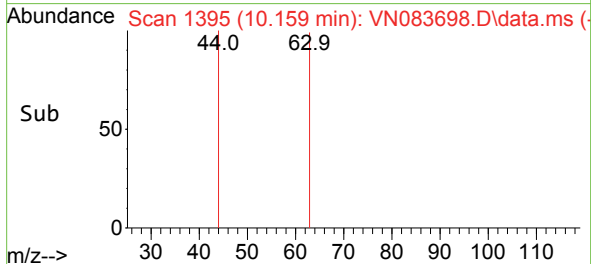
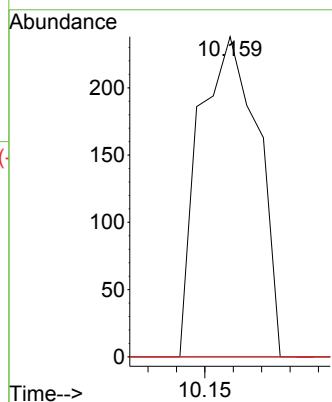
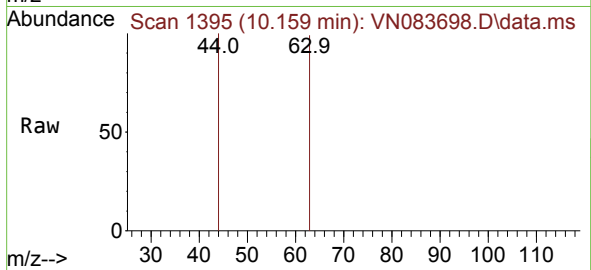




#55
2-Chloroethyl vinyl ether
Concen: 0.280 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

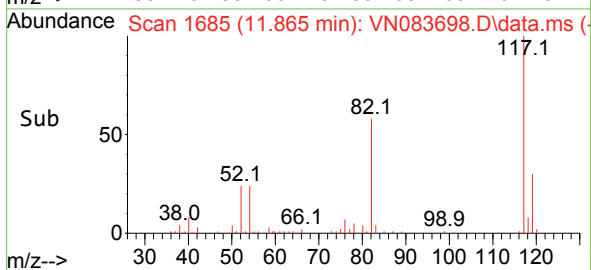
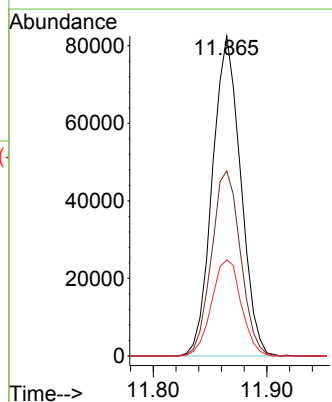
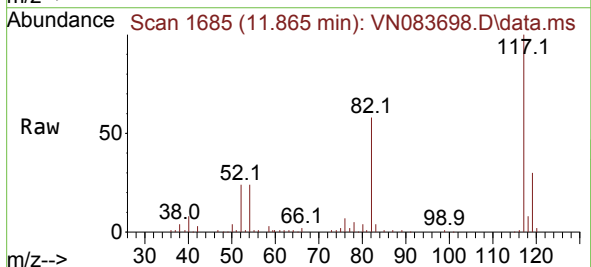
Instrument :
MSVOA_N
ClientSampleId :

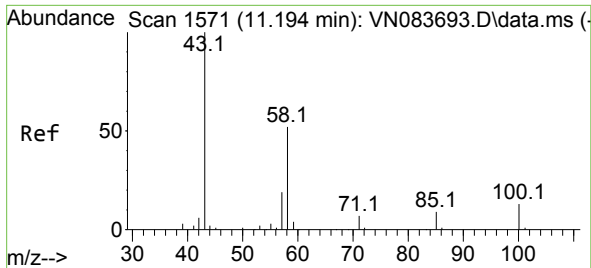
Tgt Ion: 63 Resp: 342
Ion Ratio Lower Upper
63 100
65 0.0 26.2 39.2#
106 0.0 23.8 35.8#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

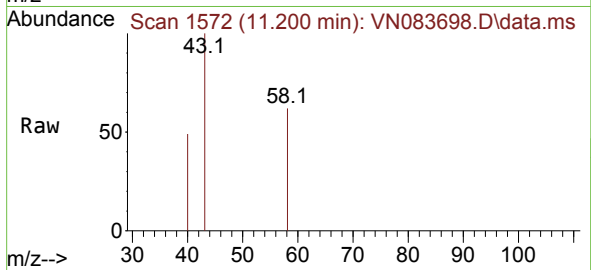
Tgt Ion: 117 Resp: 142649
Ion Ratio Lower Upper
117 100
82 59.3 46.6 69.8
119 31.5 25.4 38.2



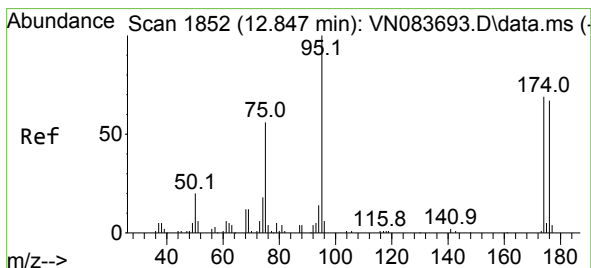
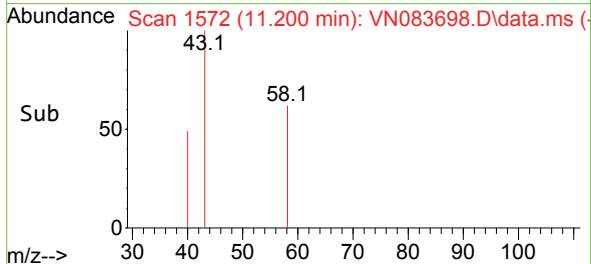
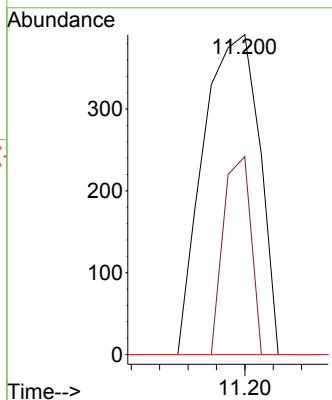


#59
2-Hexanone
Concen: 0.313 ug/l
RT: 11.200 min Scan# 1572
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Instrument :
MSVOA_N
ClientSampleId :

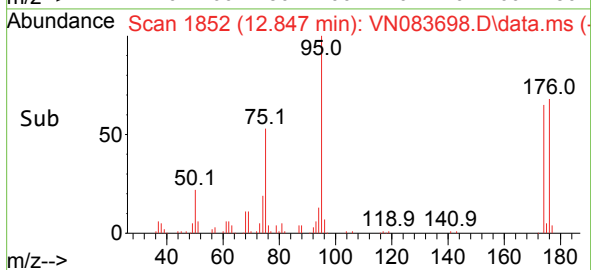
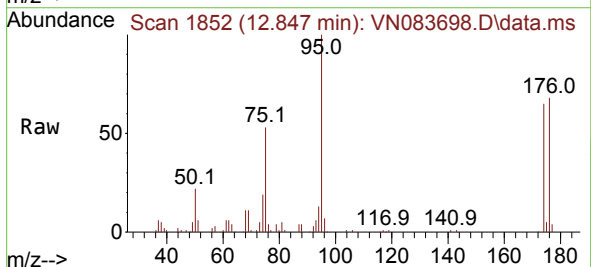
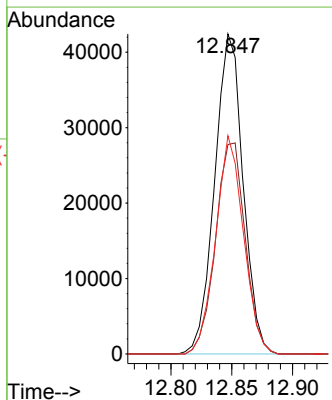


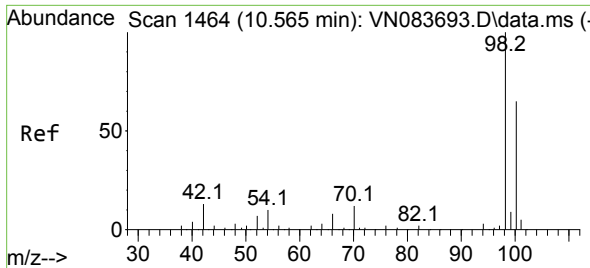
Tgt Ion: 43 Resp: 535
Ion Ratio Lower Upper
43 100
58 30.5 50.4 75.6#
57 0.0 18.6 27.8#



#60
4-Bromofluorobenzene
Concen: 28.035 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 95 Resp: 68924
Ion Ratio Lower Upper
95 100
174 68.9 60.5 90.7
176 67.0 57.8 86.6

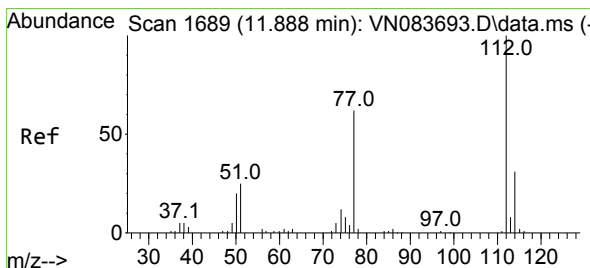
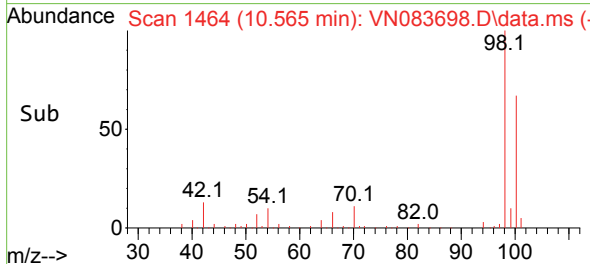
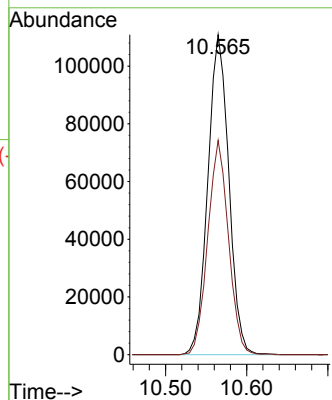
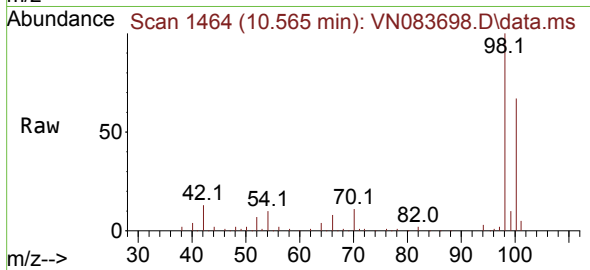




#63
Toluene-d8
Concen: 30.105 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

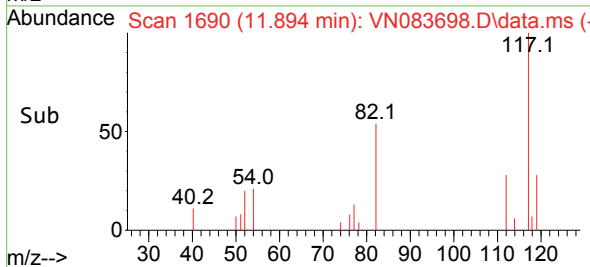
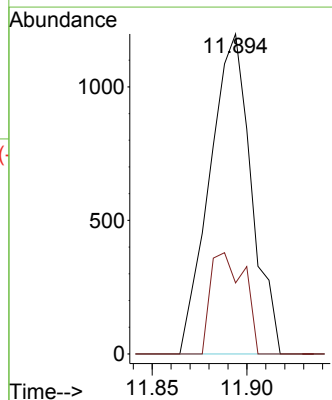
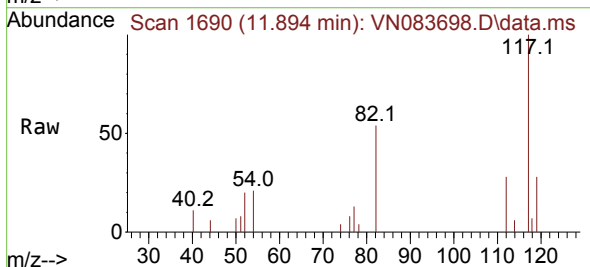
Instrument :
MSVOA_N
ClientSampleId :

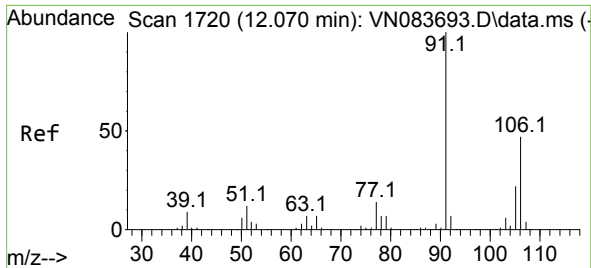
Tgt Ion: 98 Resp: 198851
Ion Ratio Lower Upper
98 100
100 66.0 52.7 79.1



#64
Chlorobenzene
Concen: 0.360 ug/l
RT: 11.894 min Scan# 1690
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 112 Resp: 1830
Ion Ratio Lower Upper
112 100
114 22.2 26.6 39.8#

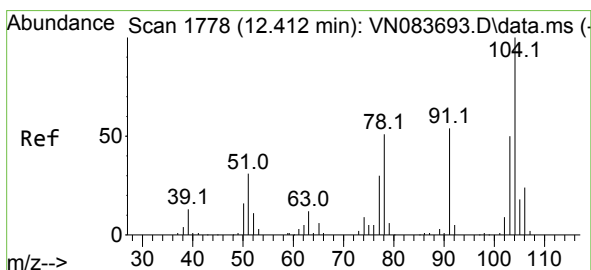
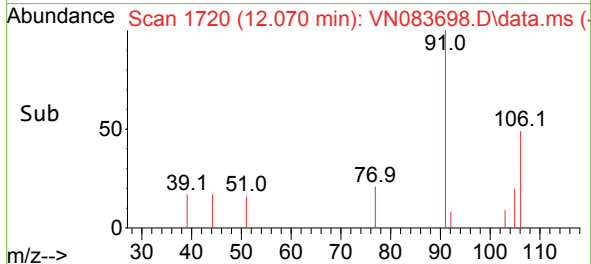
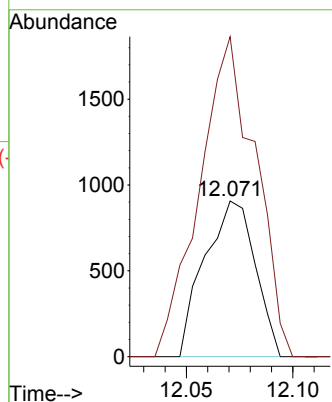
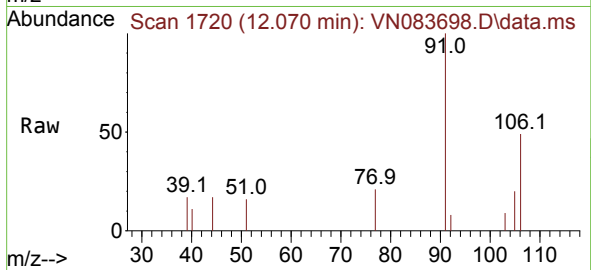




#67
m/p-Xylenes
Concen: 0.437 ug/l
RT: 12.070 min Scan# 1720
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

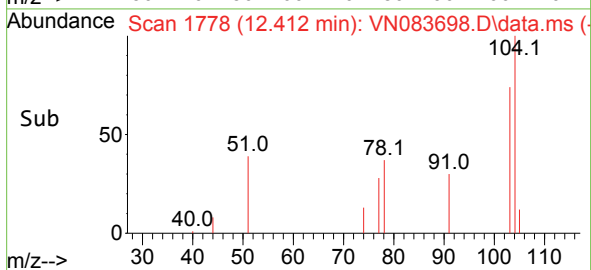
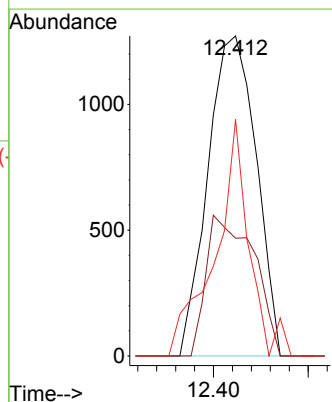
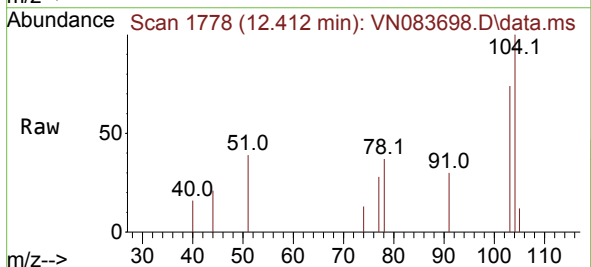
Instrument :
MSVOA_N
ClientSampleId :

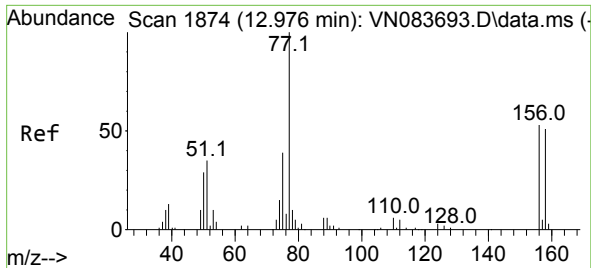
Tgt Ion:106 Resp: 1500
Ion Ratio Lower Upper
106 100
91 227.4 166.6 249.8



#69
Styrene
Concen: 0.401 ug/l
RT: 12.412 min Scan# 1778
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

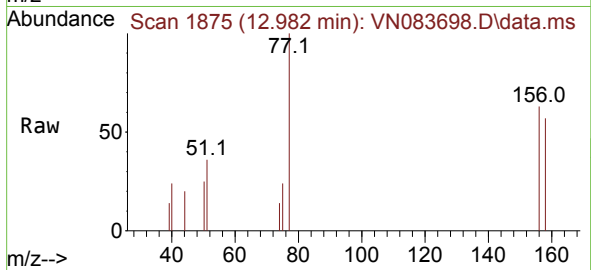
Tgt Ion:104 Resp: 2251
Ion Ratio Lower Upper
104 100
78 43.5 42.6 64.0
103 49.6 43.7 65.5



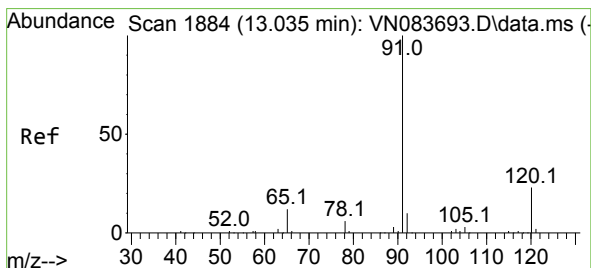
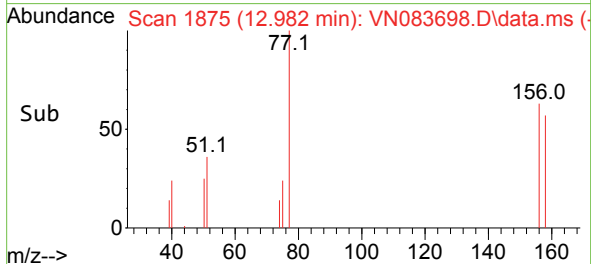
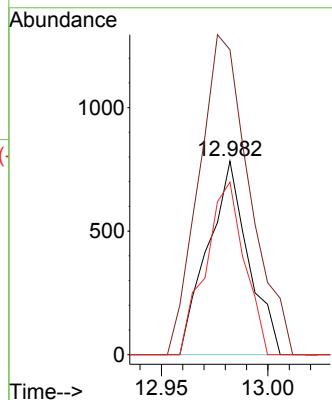


#73
Bromobenzene
Concen: 0.512 ug/l
RT: 12.982 min Scan# 1875
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Instrument :
MSVOA_N
ClientSampleId :

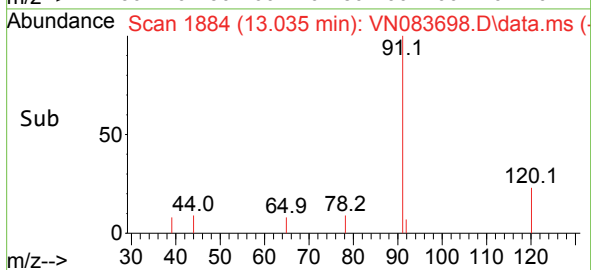
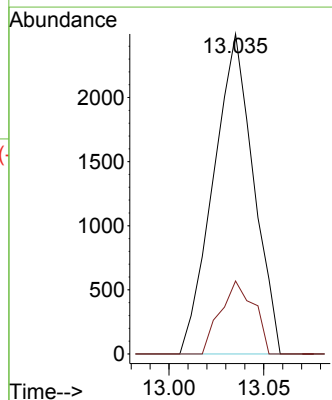
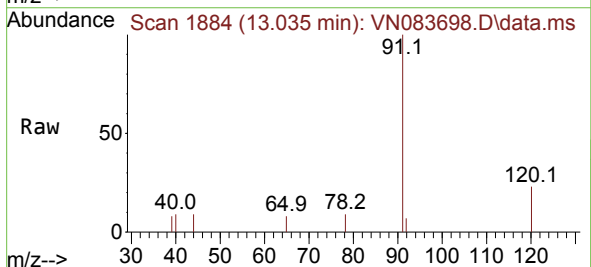


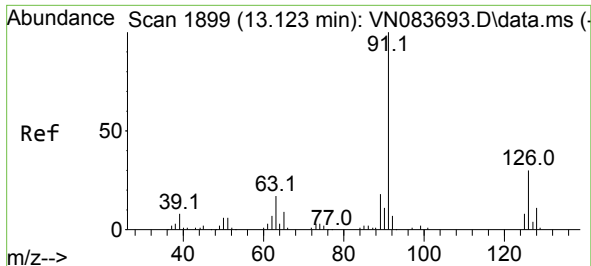
Tgt Ion:156 Resp: 1030
Ion Ratio Lower Upper
156 100
77 207.8 0.0 437.6
158 85.9 0.0 203.8



#74
n-propylbenzene
Concen: 0.358 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 91 Resp: 3674
Ion Ratio Lower Upper
91 100
120 19.1 0.0 43.8

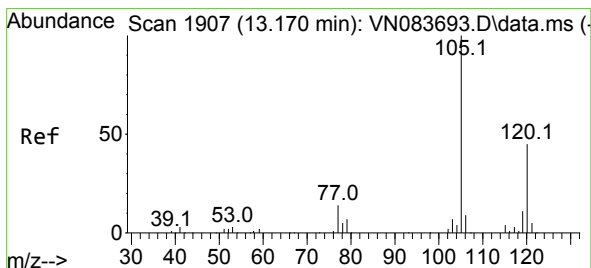
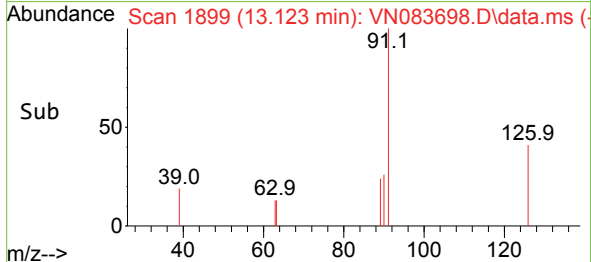
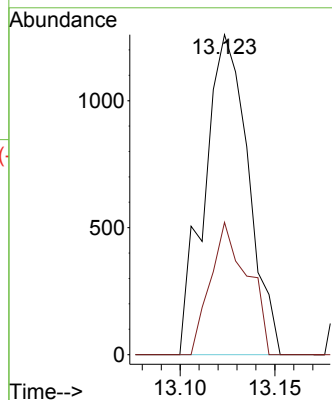
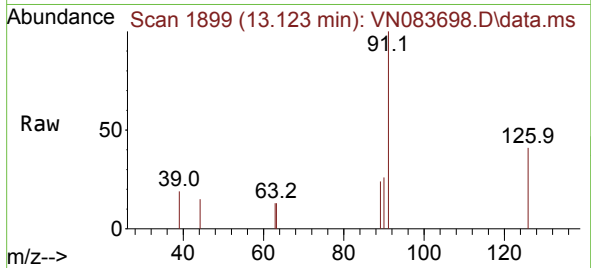




#75
2-Chlorotoluene
Concen: 0.317 ug/l
RT: 13.123 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

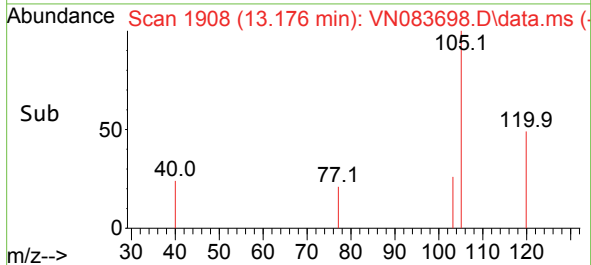
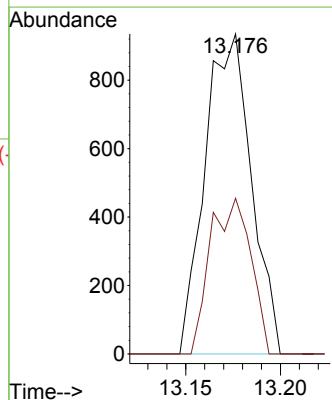
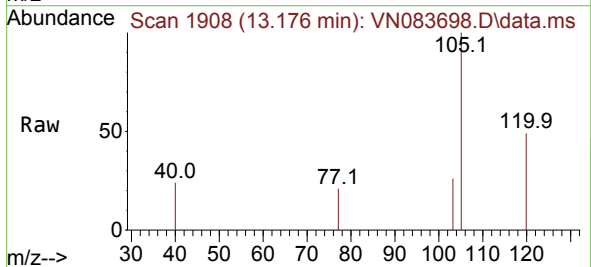
Instrument :
MSVOA_N
ClientSampleId :

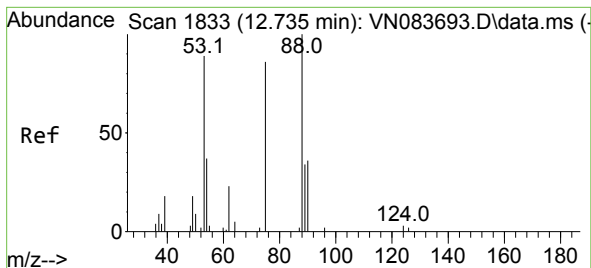
Tgt Ion: 91 Resp: 2029
Ion Ratio Lower Upper
91 100
126 35.0 0.0 61.2



#76
1,3,5-Trimethylbenzene
Concen: 0.217 ug/l
RT: 13.176 min Scan# 1908
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion: 105 Resp: 1590
Ion Ratio Lower Upper
105 100
120 42.6 0.0 95.8





#77

t-1,4-Dichloro-2-butene

Concen: 42.794 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.112 min

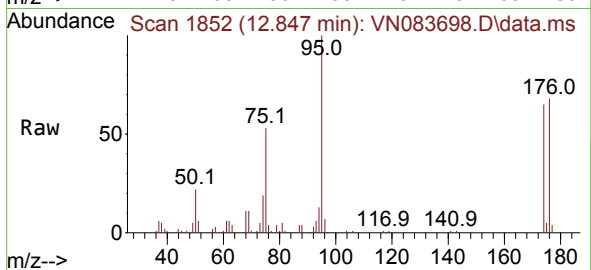
Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

Instrument :

MSVOA_N

ClientSampleId :



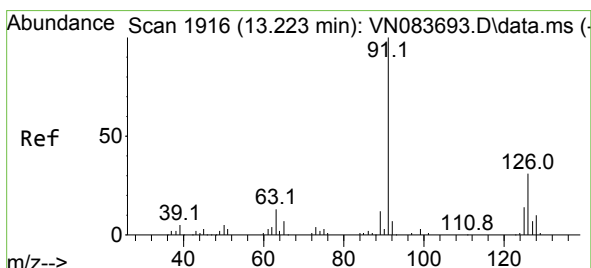
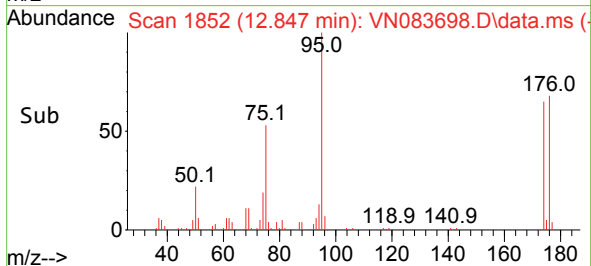
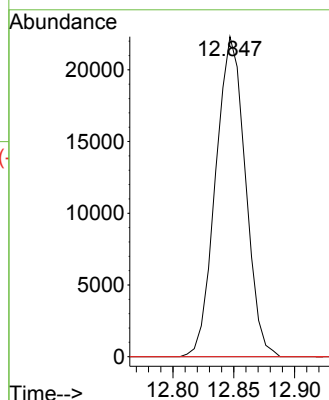
Tgt Ion: 75 Resp: 37951

Ion Ratio Lower Upper

75 100

53 0.0 45.9 137.7#

89 0.0 25.9 77.7#



#78

4-Chlorotoluene

Concen: 0.288 ug/l

RT: 13.229 min Scan# 1917

Delta R.T. 0.006 min

Lab File: VN083698.D

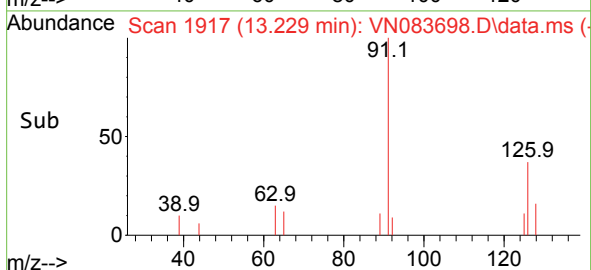
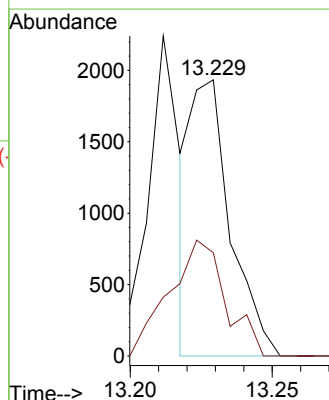
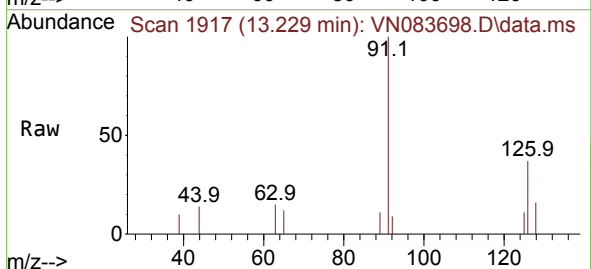
Acq: 06 Sep 2024 16:00

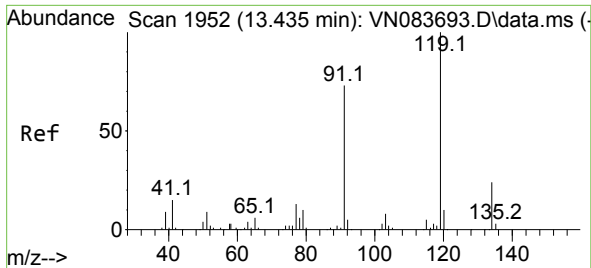
Tgt Ion: 91 Resp: 1868

Ion Ratio Lower Upper

91 100

126 60.1 0.0 62.8

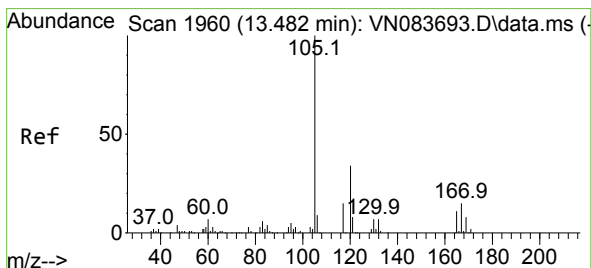
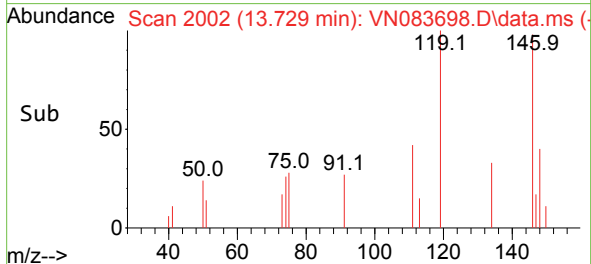
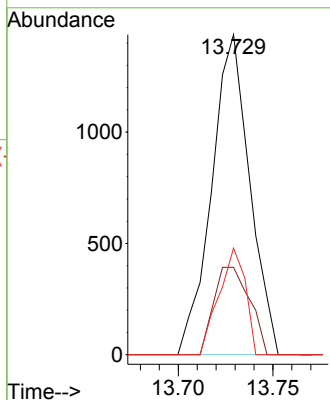
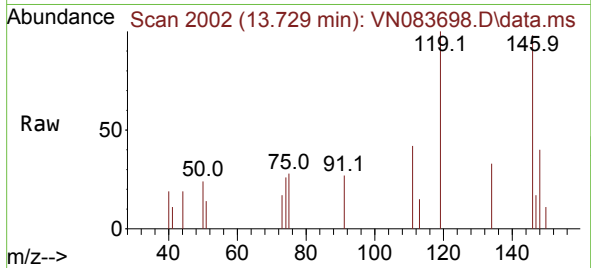




#79
tert-butylbenzene
Concen: 0.315 ug/l
RT: 13.729 min Scan# 2013
Delta R.T. 0.294 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

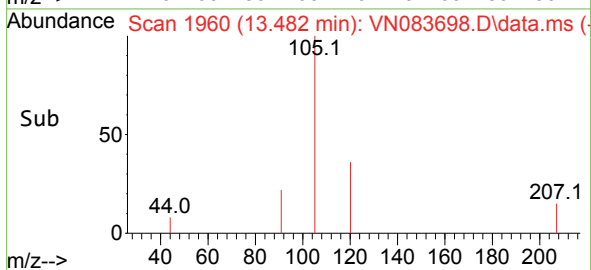
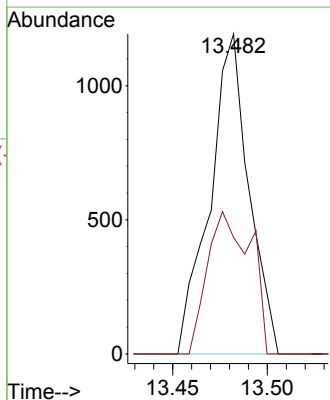
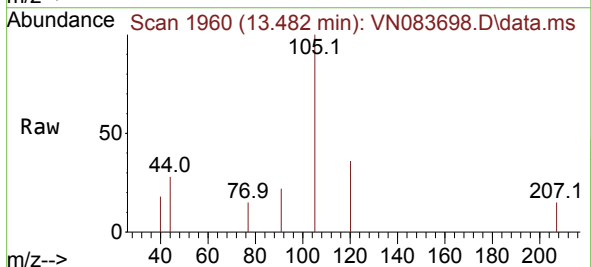
Instrument :
MSVOA_N
ClientSampleId :

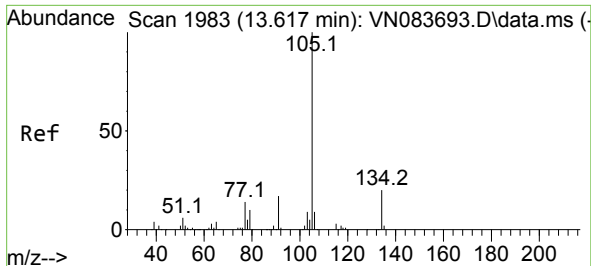
Tgt Ion:	119	Resp:	2013
Ion	Ratio	Lower	Upper
119	100		
91	25.7	0.0	138.8
134	23.0	0.0	48.6



#80
1,2,4-Trimethylbenzene
Concen: 0.231 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion:	105	Resp:	1709
Ion	Ratio	Lower	Upper
105	100		
120	39.9	0.0	86.8

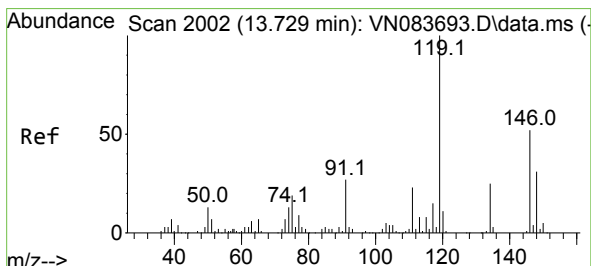
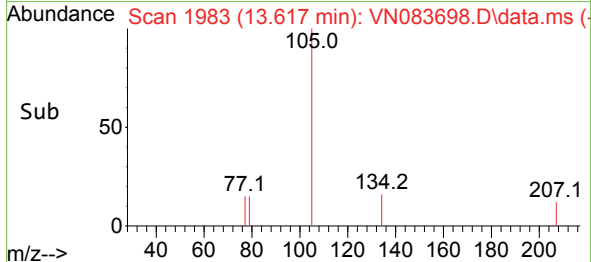
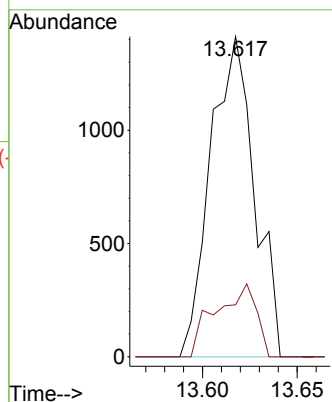
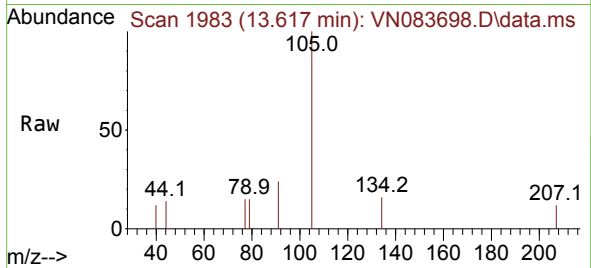




#81
 sec-Butylbenzene
 Concen: 0.260 ug/l
 RT: 13.617 min Scan# 1983
 Delta R.T. 0.000 min
 Lab File: VN083698.D
 Acq: 06 Sep 2024 16:00

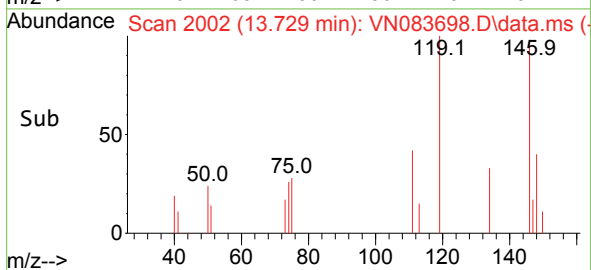
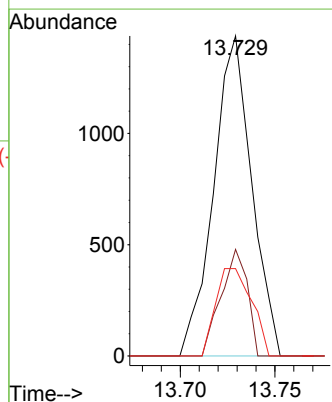
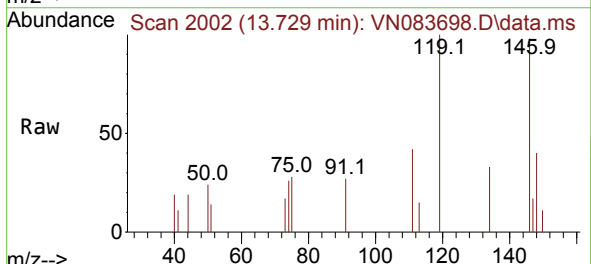
Instrument :
 MSVOA_N
 ClientSampleId :

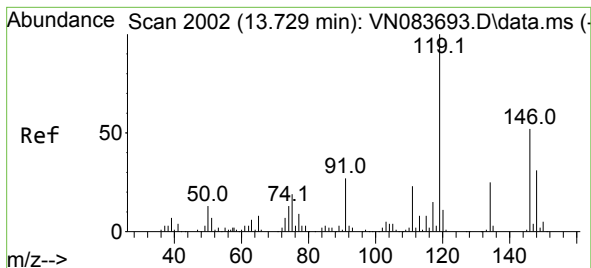
Tgt Ion:105 Resp: 2273
 Ion Ratio Lower Upper
 105 100
 134 11.5 0.0 39.0



#82
 p-Isopropyltoluene
 Concen: 0.274 ug/l
 RT: 13.729 min Scan# 2002
 Delta R.T. 0.000 min
 Lab File: VN083698.D
 Acq: 06 Sep 2024 16:00

Tgt Ion:119 Resp: 2013
 Ion Ratio Lower Upper
 119 100
 134 23.0 0.0 49.2
 91 25.7 0.0 48.8





#83

1,3-Dichlorobenzene

Concen: 0.618 ug/l

RT: 13.729 min Scan# 2002

Delta R.T. 0.000 min

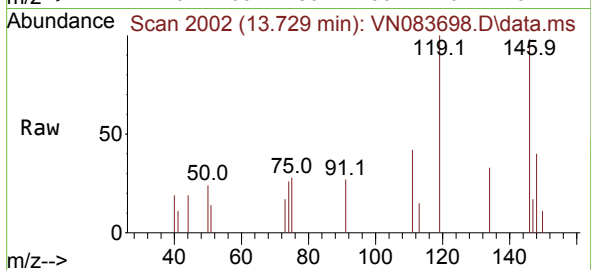
Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

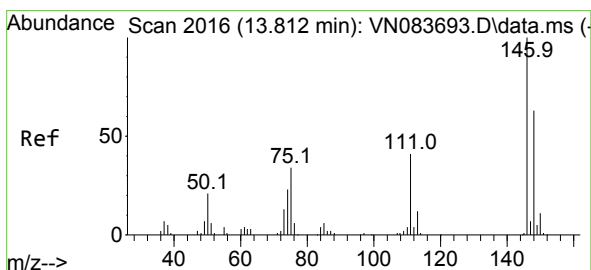
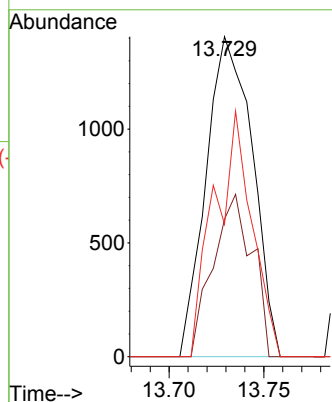
Instrument :

MSVOA_N

ClientSampleId :



Tgt Ion:	146	Resp:	2395
Ion	Ratio	Lower	Upper
146	100		
111	43.0	22.4	67.0
148	35.9	32.1	96.5



#84

1,4-Dichlorobenzene

Concen: 0.873 ug/l

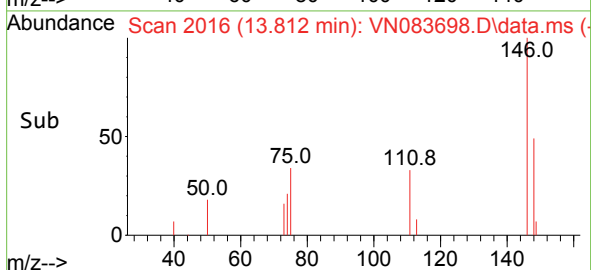
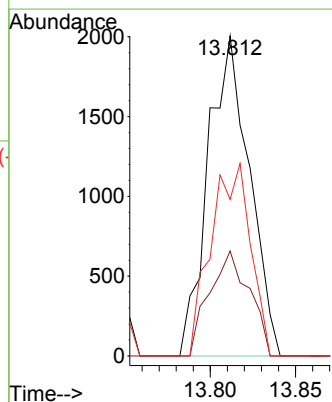
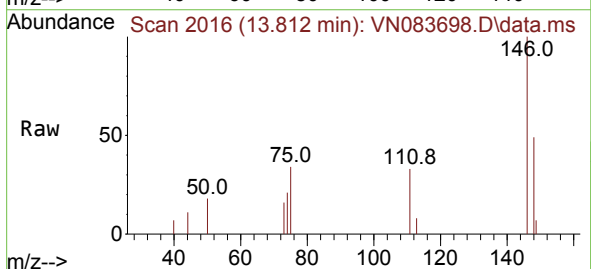
RT: 13.812 min Scan# 2016

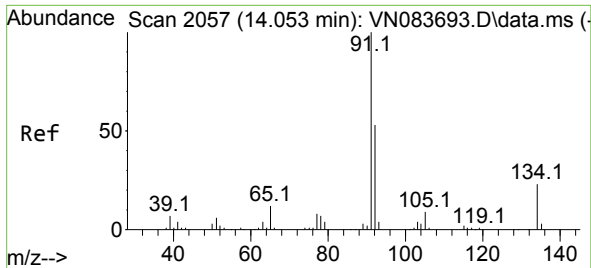
Delta R.T. 0.000 min

Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

Tgt Ion:	146	Resp:	3380
Ion	Ratio	Lower	Upper
146	100		
111	31.7	21.3	63.9
148	57.7	31.9	95.5

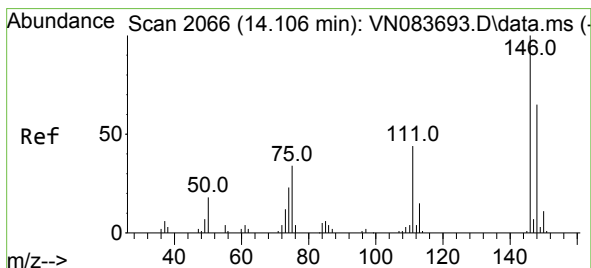
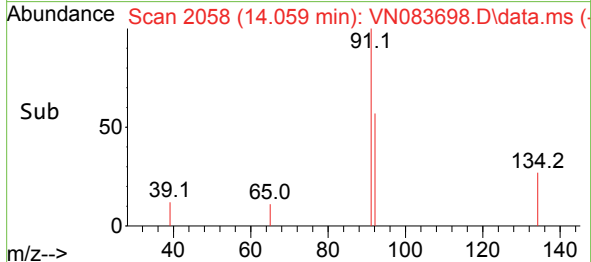
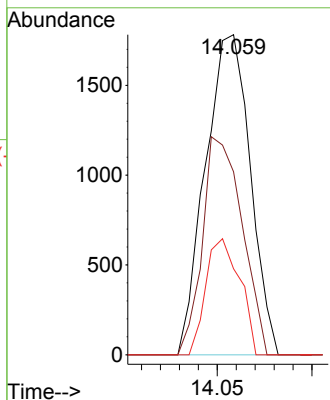
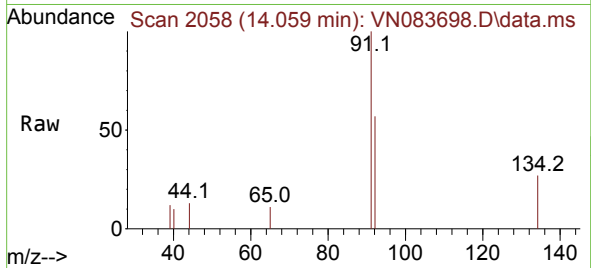




#85
n-Butylbenzene
Concen: 0.452 ug/l
RT: 14.059 min Scan# 2057
Delta R.T. 0.006 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

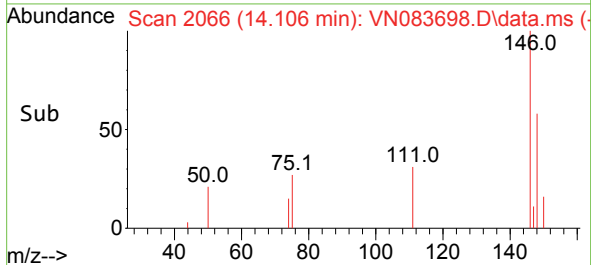
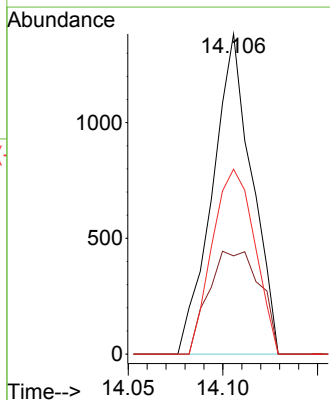
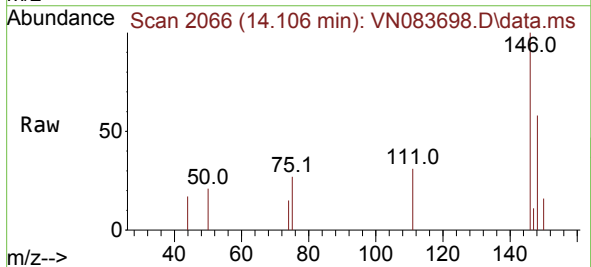
Instrument :
MSVOA_N
ClientSampleId :

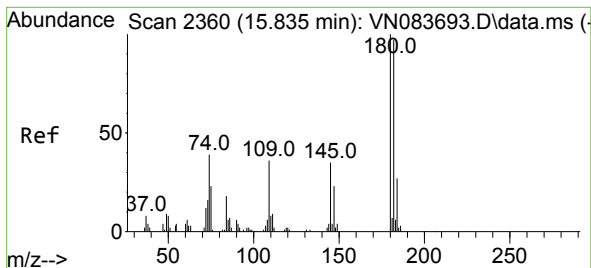
Tgt Ion: 91 Resp: 2936
Ion Ratio Lower Upper
91 100
92 60.2 0.0 105.0
134 27.4 0.0 51.8



#87
1,2-Dichlorobenzene
Concen: 0.533 ug/l
RT: 14.106 min Scan# 2066
Delta R.T. 0.000 min
Lab File: VN083698.D
Acq: 06 Sep 2024 16:00

Tgt Ion:146 Resp: 2002
Ion Ratio Lower Upper
146 100
111 41.9 22.6 67.8
148 62.2 31.3 93.8





#89

1,2,4-Trichlorobenzene

Concen: 0.673 ug/l

RT: 15.835 min Scan# 21

Delta R.T. 0.000 min

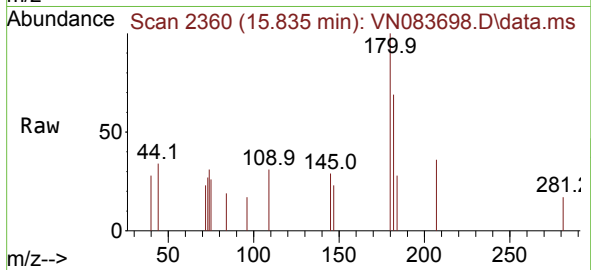
Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

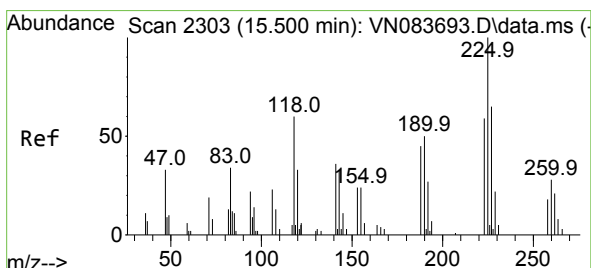
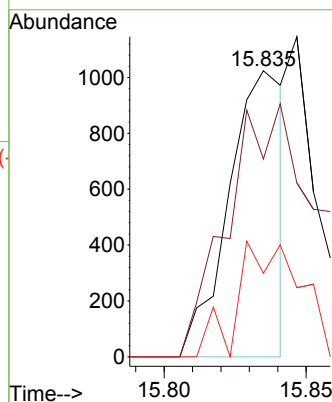
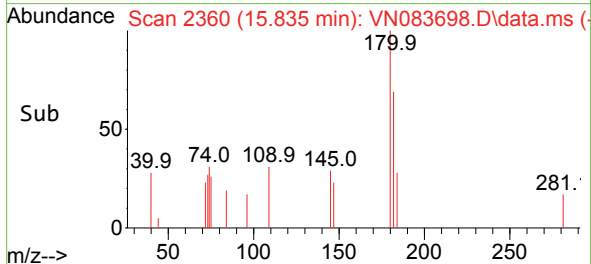
Instrument :

MSVOA_N

ClientSampleId :



Tgt Ion:180	Resp:	1386
Ion	Ratio	Lower Upper
180	100	
182	0.0	76.4 114.6#
145	41.3	28.4 42.6



#90

Hexachlorobutadiene

Concen: 0.619 ug/l

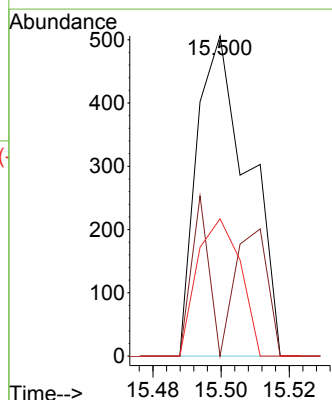
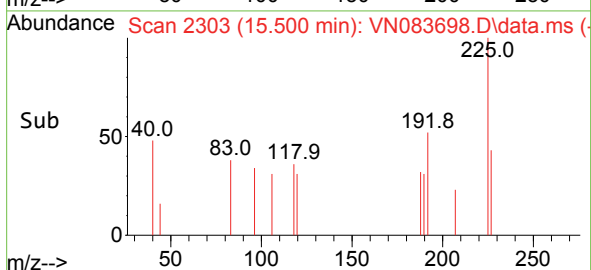
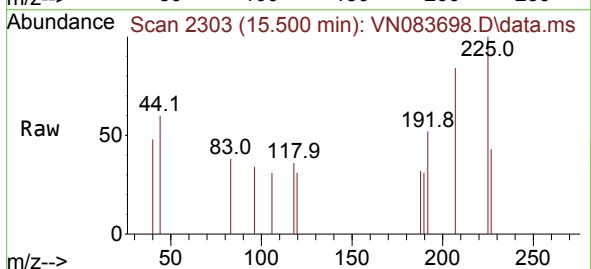
RT: 15.500 min Scan# 2303

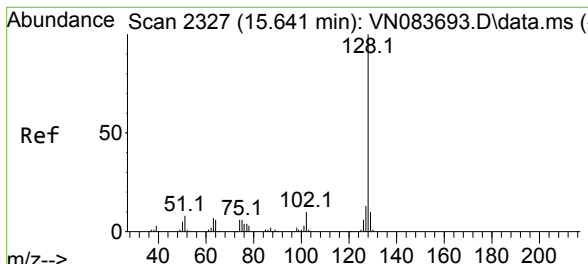
Delta R.T. 0.000 min

Lab File: VN083698.D

Acq: 06 Sep 2024 16:00

Tgt Ion:225	Resp:	528
Ion	Ratio	Lower Upper
225	100	
223	16.9	0.0 126.6
227	36.2	0.0 126.6

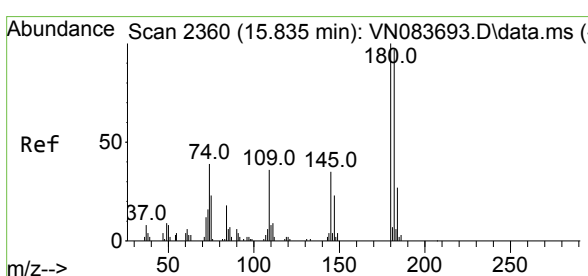
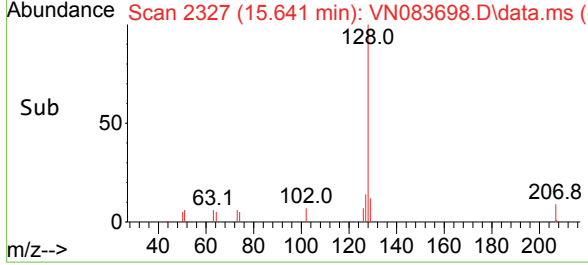
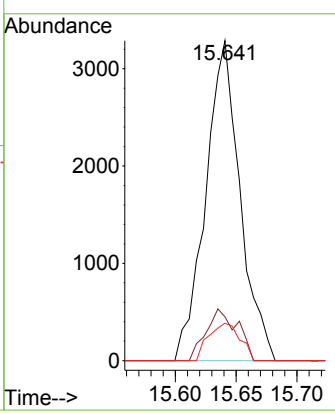
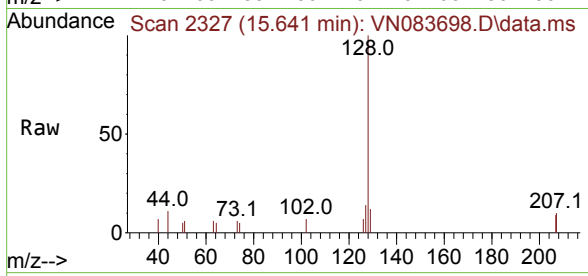




#91
 Naphthalene
 Concen: 0.960 ug/l
 RT: 15.641 min Scan# 21
 Delta R.T. 0.000 min
 Lab File: VN083698.D
 Acq: 06 Sep 2024 16:00

Instrument :
 MSVOA_N
 ClientSampleId :

Tgt Ion:	128	Resp:	6463
Ion Ratio	Lower	Upper	
128	100		
127	14.8	10.6	16.0
129	10.6	8.6	13.0



#92
 1,2,3-Trichlorobenzene
 Concen: 1.005 ug/l
 RT: 15.394 min Scan# 2285
 Delta R.T. -0.441 min
 Lab File: VN083698.D
 Acq: 06 Sep 2024 16:00

Tgt Ion:	180	Resp:	2069
Ion Ratio	Lower	Upper	
180	100		
182	98.4	0.0	191.0
145	14.6	0.0	71.0

