

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN103125\
 Data File : VN088191.D
 Acq On : 31 Oct 2025 16:05
 Operator : JC\MD
 Sample : Q3503-03
 Misc : 4.00g/10mL/100uL/5.00mL/MSVOA_N/MEOH
 ALS Vial : 20 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 323

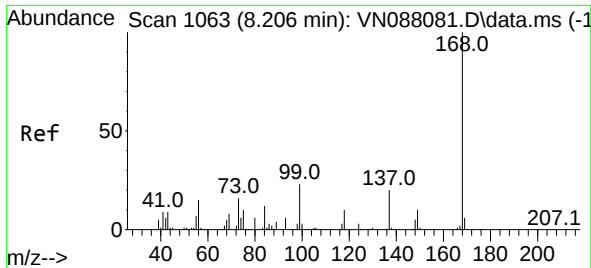
Quant Time: Nov 01 00:36:25 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N102325W.M
 Quant Title : SW846 8260
 QLast Update : Sat Oct 25 00:15:22 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.200	168	252174	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.076	114	564064	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	516136	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	236349	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	255327	58.553	ug/l	0.00
Spiked Amount	50.000	Range	74 - 125	Recovery	=	117.100%
35) Dibromofluoromethane	8.147	113	187779	49.554	ug/l	0.00
Spiked Amount	50.000	Range	75 - 124	Recovery	=	99.100%
50) Toluene-d8	10.541	98	720085	49.317	ug/l	0.00
Spiked Amount	50.000	Range	86 - 113	Recovery	=	98.640%
62) 4-Bromofluorobenzene	12.829	95	257419	49.920	ug/l	0.00
Spiked Amount	50.000	Range	77 - 121	Recovery	=	99.840%
Target Compounds						
					Qvalue	
10) Methyl Iodide	4.553	142	1002	4.521	ug/l #	67
11) Tert butyl alcohol	5.535	59	174	0.232	ug/l #	71
13) Acrolein	4.177	56	297	0.351	ug/l #	20
16) Acetone	4.441	43	6349	2.898	ug/l	96
18) Methyl Acetate	5.018	43	4510	1.006	ug/l #	54
20) Methylene Chloride	5.253	84	3613	1.816	ug/l #	73
25) 2-Butanone	7.477	43	1299	0.450	ug/l	95
31) Cyclohexane	8.206	56	9554	1.565	ug/l #	35
36) 1,1-Dichloropropene	8.200	75	24923	4.504	ug/l #	50
38) Carbon Tetrachloride	8.206	117	30570	5.349	ug/l #	13
39) Methylcyclohexane	9.582	83	1815	0.255	ug/l #	66
51) 4-Methyl-2-Pentanone	10.429	43	1539	0.237	ug/l #	67
52) Toluene	10.612	92	5523	0.532	ug/l	98
67) Ethyl Benzene	11.941	91	15039	0.731	ug/l	99
68) m/p-Xylenes	12.047	106	24096	3.126	ug/l	97
69) o-Xylene	12.370	106	4969	0.680	ug/l	36
74) N-amyl acetate	12.529	43	5460	1.055	ug/l #	1
75) 1,1,2,2-Tetrachloroethane	12.929	83	1257	0.221	ug/l #	8
76) 1,2,3-Trichloropropane	12.829	75	156720	29.003	ug/l #	1
78) n-propylbenzene	13.017	91	5021	0.226	ug/l	79
80) 1,3,5-Trimethylbenzene	13.076	105	5708	0.377	ug/l	91
81) trans-1,4-Dichloro-2-b...	12.829	75	156720	80.903	ug/l #	1
86) p-Isopropyltoluene	13.694	119	13613	0.854	ug/l #	68
89) n-Butylbenzene	14.029	91	4785	0.303	ug/l #	83
90) Hexachloroethane	14.317	117	661	0.214	ug/l #	22
95) Naphthalene	15.623	128	7795	0.497	ug/l #	84
96) 1,2,3-Trichlorobenzene	15.829	180	1173	0.267	ug/l #	67

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

Quant Time: Nov 01 00:36:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N102325W.M
Quant Title : SW846 8260
QLast Update : Sat Oct 25 00:15:22 2025
Response via : Initial Calibration

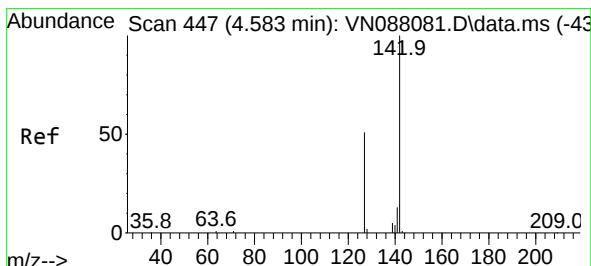
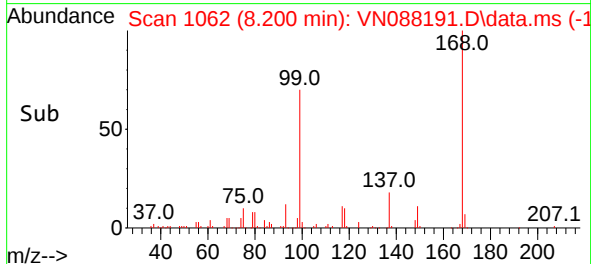
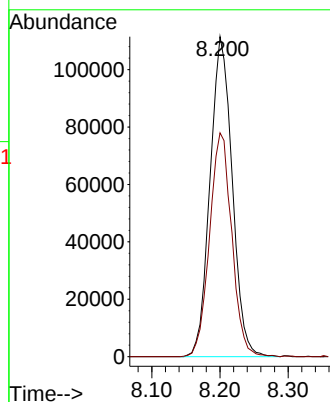
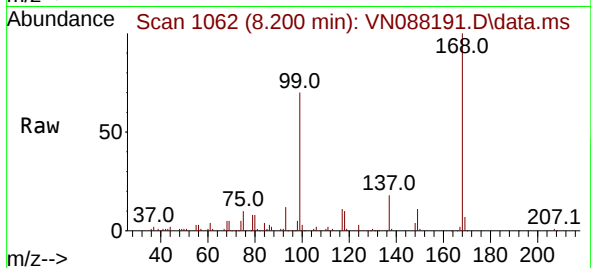




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.200 min Scan# 1063
Delta R.T. -0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

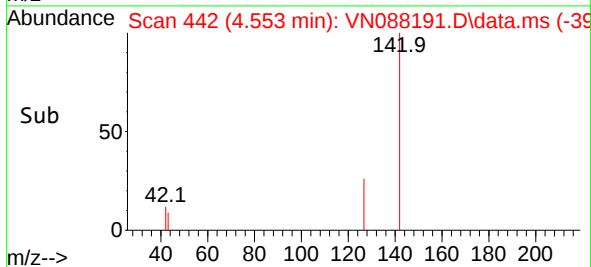
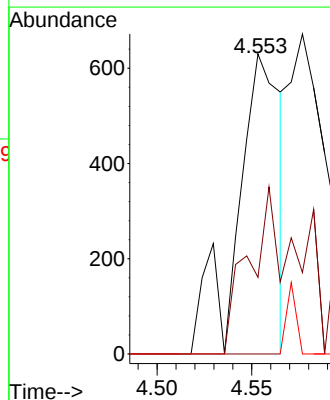
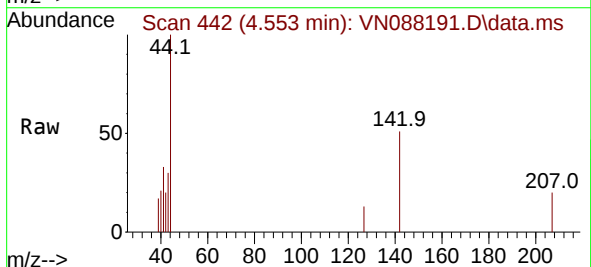
Instrument :
MSVOA_N
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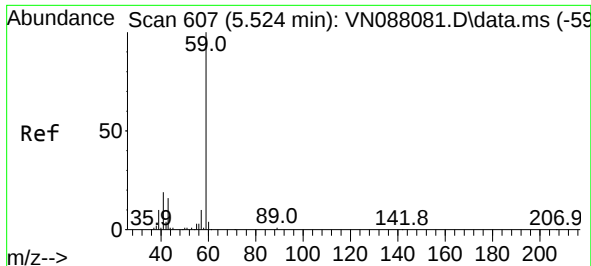
Tgt Ion:168 Resp: 252174
Ion Ratio Lower Upper
168 100
99 69.9 57.2 85.8



#10
Methyl Iodide
Concen: 4.521 ug/l
RT: 4.553 min Scan# 442
Delta R.T. -0.024 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion:142 Resp: 1002
Ion Ratio Lower Upper
142 100
127 25.6 38.0 57.0#
141 0.0 12.0 18.0#

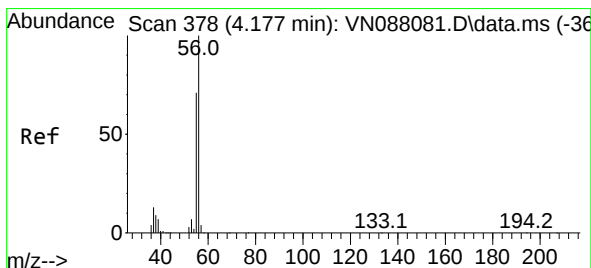
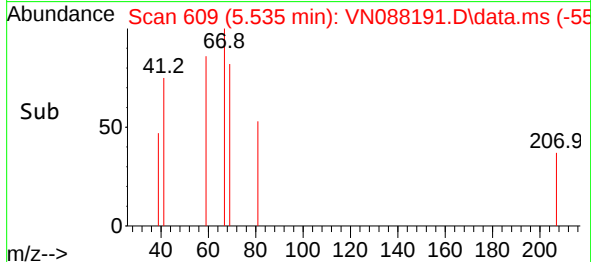
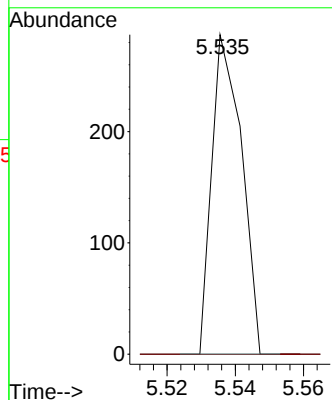
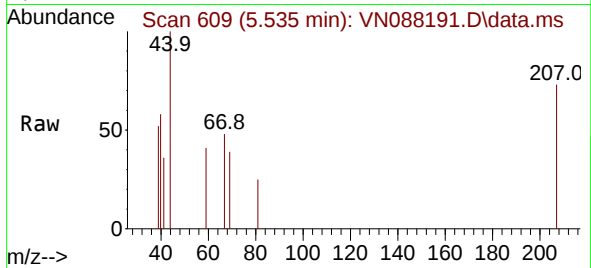




#11
Tert butyl alcohol
Concen: 0.232 ug/l
RT: 5.535 min Scan# 609
Delta R.T. 0.017 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

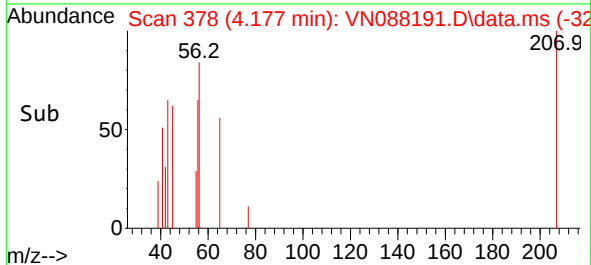
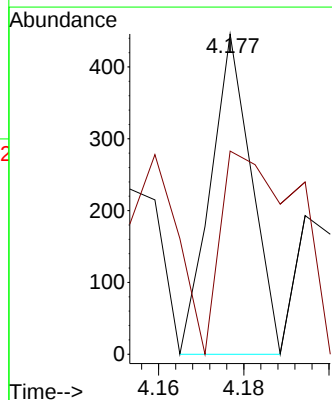
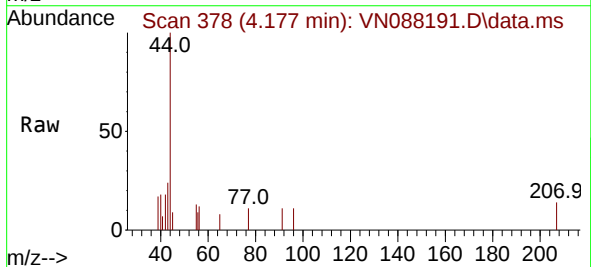
Instrument :
MSVOA_N
ClientSampleId :
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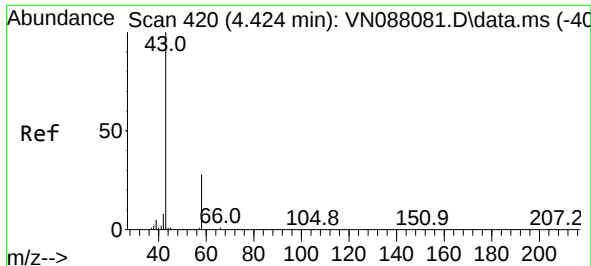
Tgt Ion: 59 Resp: 174
Ion Ratio Lower Upper
59 100
57 0.0 9.0 13.4#



#13
Acrolein
Concen: 0.351 ug/l
RT: 4.177 min Scan# 378
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 56 Resp: 297
Ion Ratio Lower Upper
56 100
55 137.7 57.3 85.9#

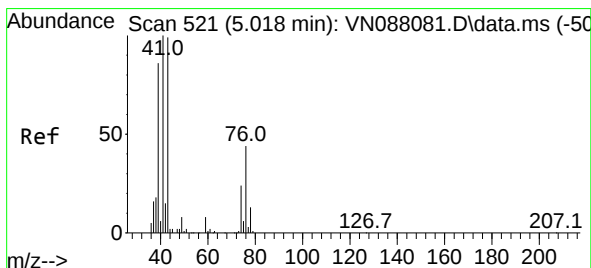
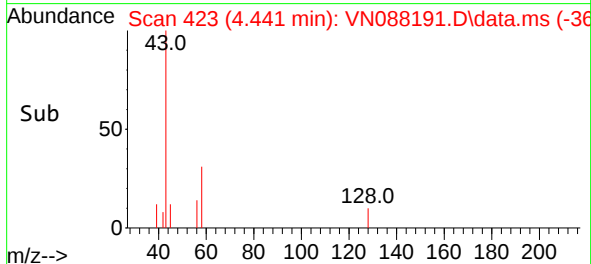
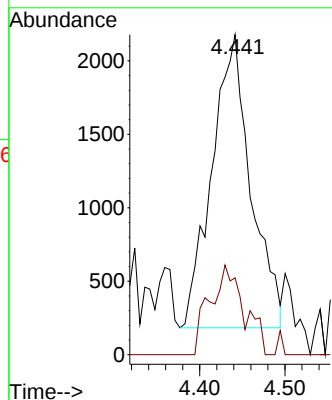
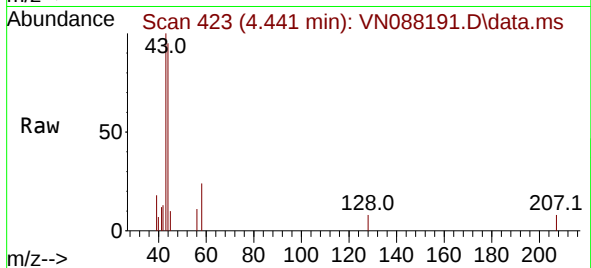




#16
Acetone
Concen: 2.898 ug/l
RT: 4.441 min Scan# 41
Delta R.T. 0.017 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

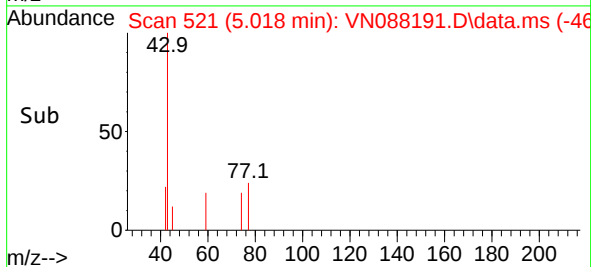
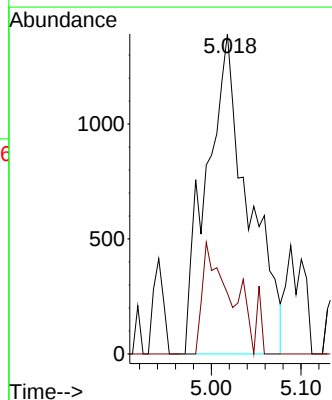
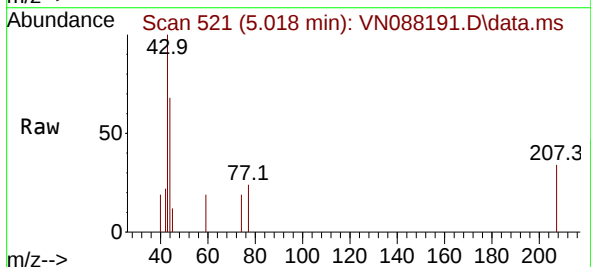
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ClientSampleId :
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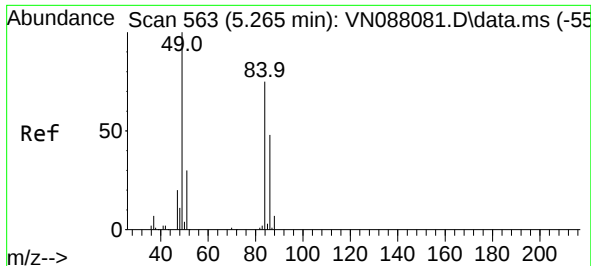
Tgt Ion: 43 Resp: 6349
Ion Ratio Lower Upper
43 100
58 26.2 22.6 33.8



#18
Methyl Acetate
Concen: 1.006 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 43 Resp: 4510
Ion Ratio Lower Upper
43 100
74 0.0 17.6 26.4#

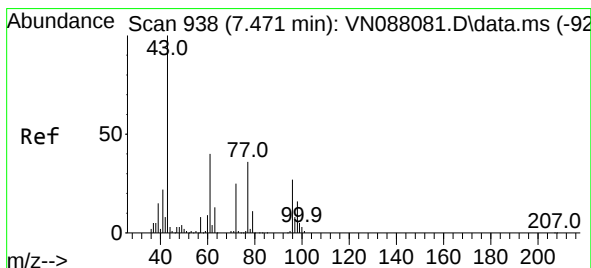
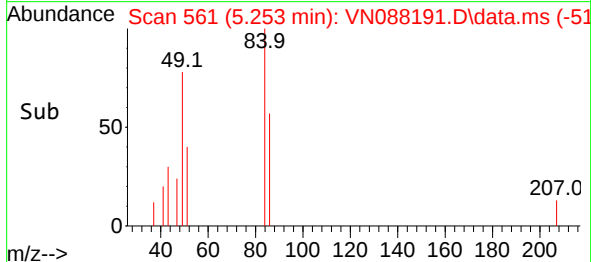
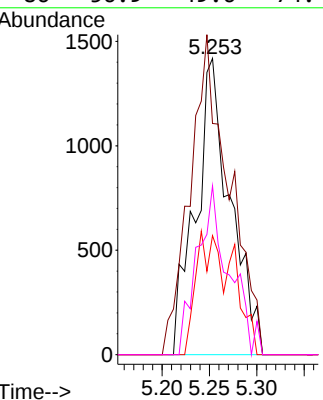
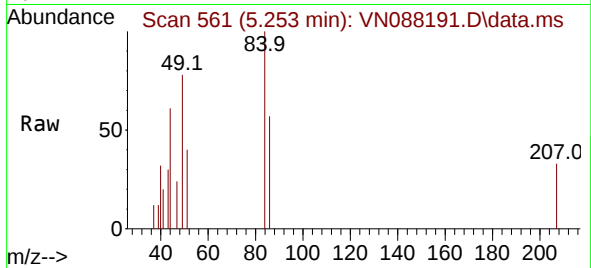




#20
Methylene Chloride
Concen: 1.816 ug/l
RT: 5.253 min Scan# 51
Delta R.T. -0.012 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

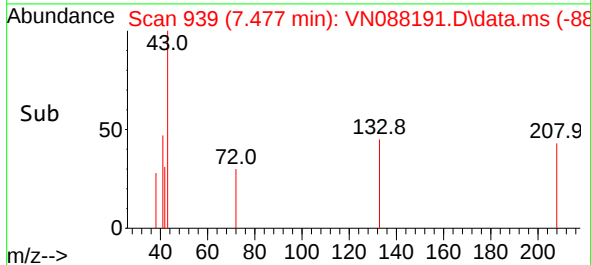
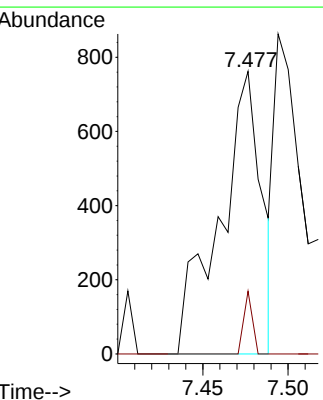
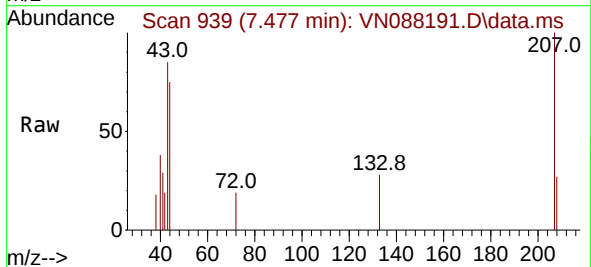
Instrument :
MSVOA_N
ClientSampleId :
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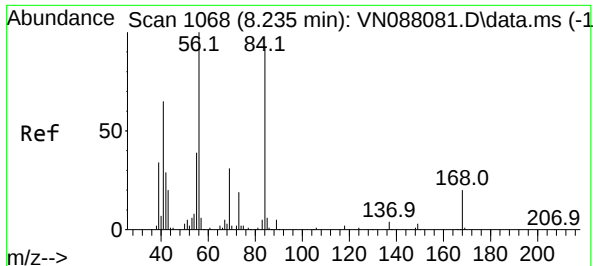
Tgt Ion:	84	Resp:	3613
Ion	Ratio	Lower	Upper
84	100		
49	78.0	103.4	155.2#
51	40.2	33.8	50.8
86	56.9	49.6	74.4



#25
2-Butanone
Concen: 0.450 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.012 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion:	43	Resp:	1299
Ion	Ratio	Lower	Upper
43	100		
72	22.2	19.9	29.9

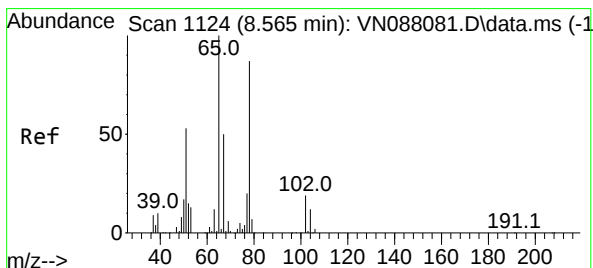
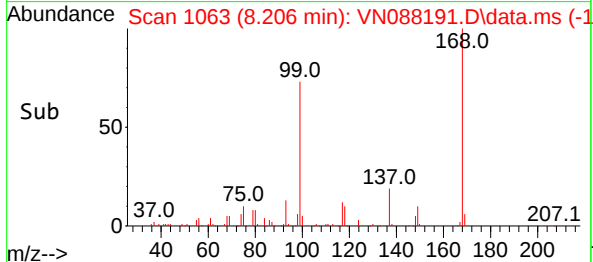
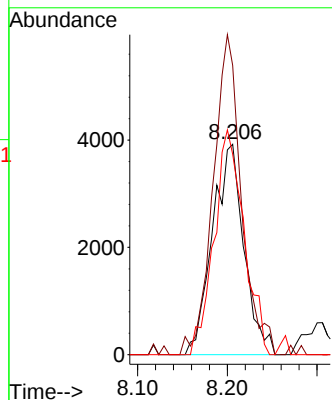
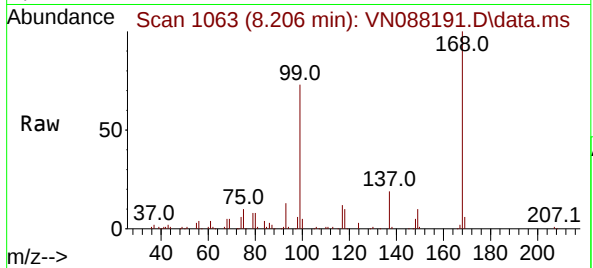




#31
Cyclohexane
Concen: 1.565 ug/l
RT: 8.206 min Scan# 1063
Delta R.T. -0.030 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

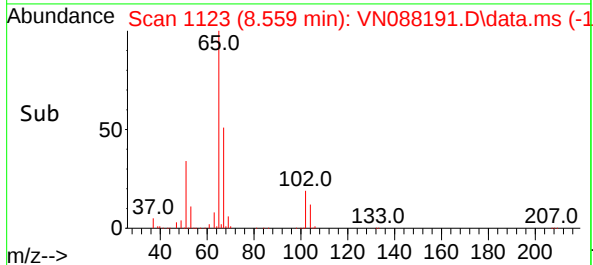
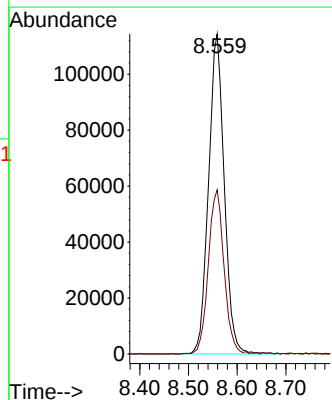
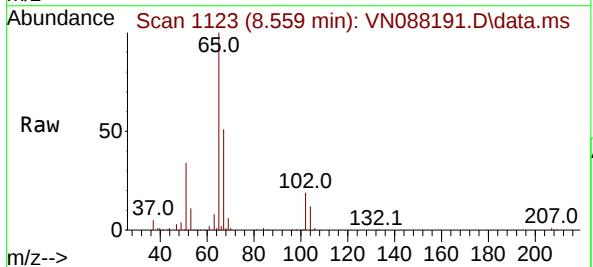
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MSVOA_N
ClientSampleId :
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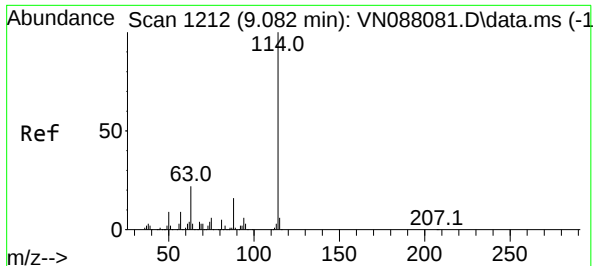
Tgt Ion: 56 Resp: 9554
Ion Ratio Lower Upper
56 100
69 137.4 23.7 35.5#
84 95.3 64.7 97.1



#33
1,2-Dichloroethane-d4
Concen: 58.553 ug/l
RT: 8.559 min Scan# 1123
Delta R.T. -0.000 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 65 Resp: 255327
Ion Ratio Lower Upper
65 100
67 51.4 0.0 100.0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.076 min Scan# 11

Delta R.T. -0.006 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

Instrument :

MSVOA_N

ClientSampleId :

323

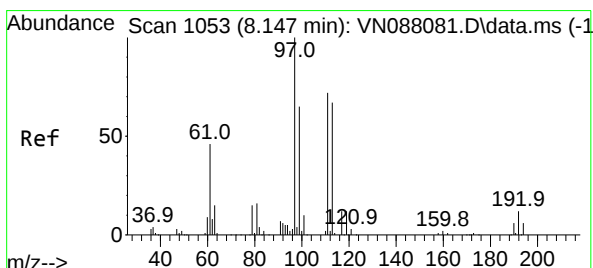
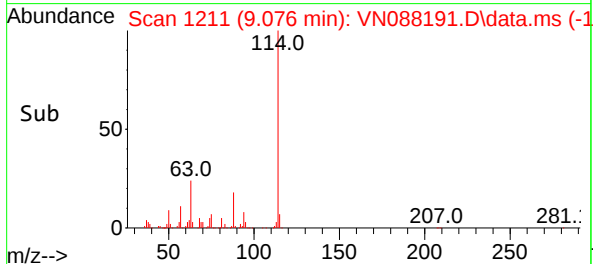
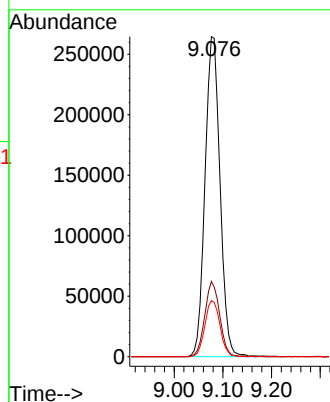
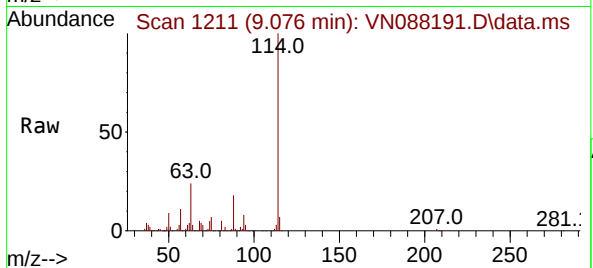
Tgt Ion:114 Resp: 564064

Ion Ratio Lower Upper

114 100

63 23.5 0.0 45.2

88 17.5 0.0 33.4



#35

Dibromofluoromethane

Concen: 49.554 ug/l

RT: 8.147 min Scan# 1053

Delta R.T. -0.006 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

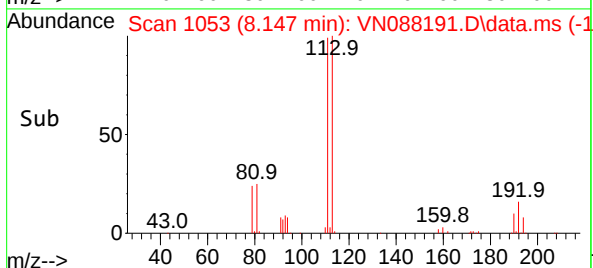
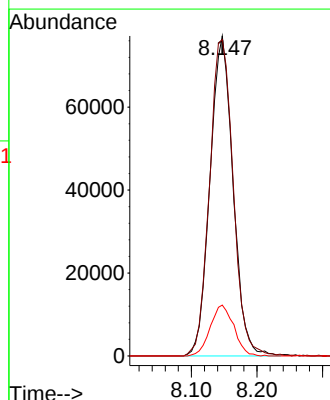
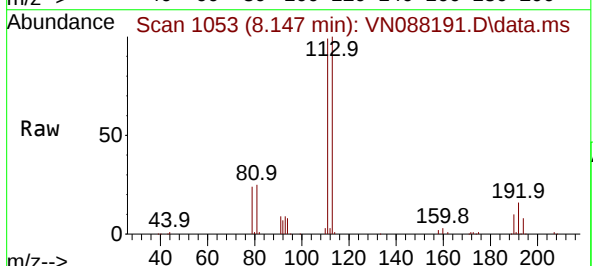
Tgt Ion:113 Resp: 187779

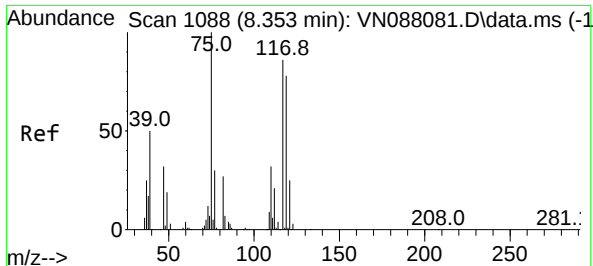
Ion Ratio Lower Upper

113 100

111 101.9 82.8 124.2

192 16.4 12.8 19.2





#36

1,1-Dichloropropene

Concen: 4.504 ug/l

RT: 8.200 min Scan# 1062

Delta R.T. -0.153 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

Instrument :

MSVOA_N

ClientSampleId :

323

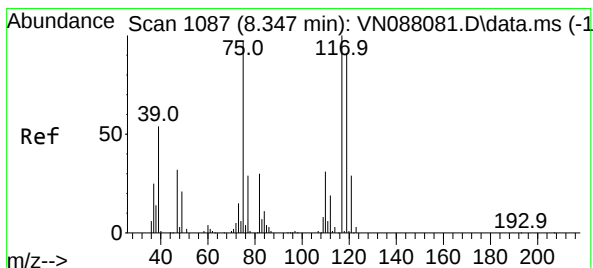
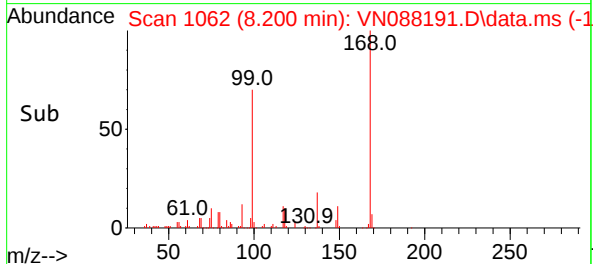
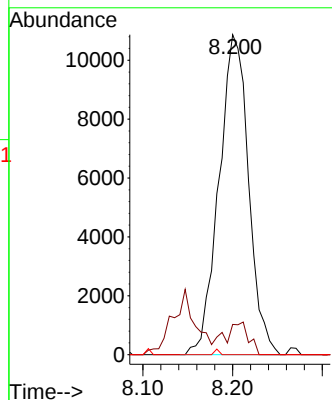
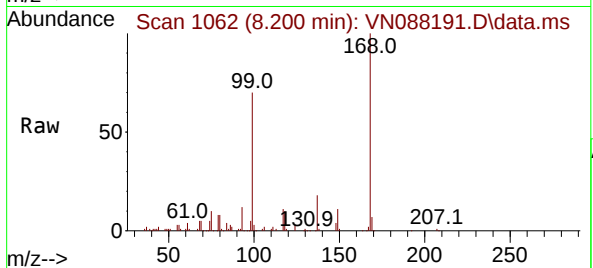
Tgt Ion: 75 Resp: 24923

Ion Ratio Lower Upper

75 100

110 7.4 15.9 47.6#

77 0.0 24.4 36.6#



#38

Carbon Tetrachloride

Concen: 5.349 ug/l

RT: 8.206 min Scan# 1063

Delta R.T. -0.136 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

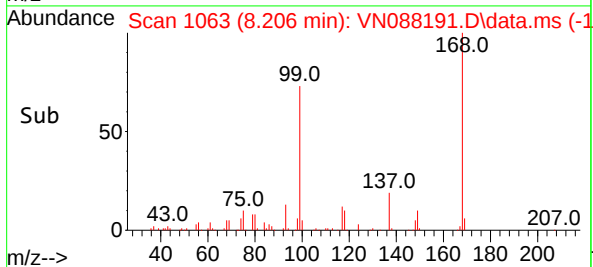
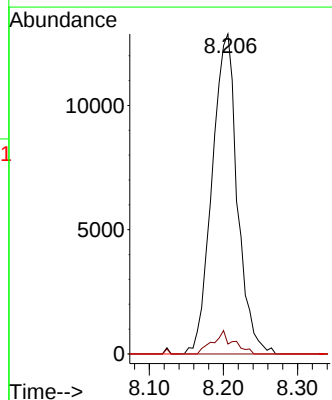
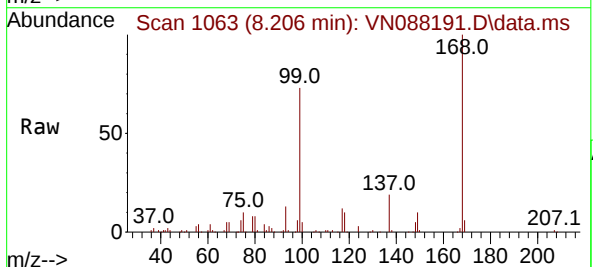
Tgt Ion: 117 Resp: 30570

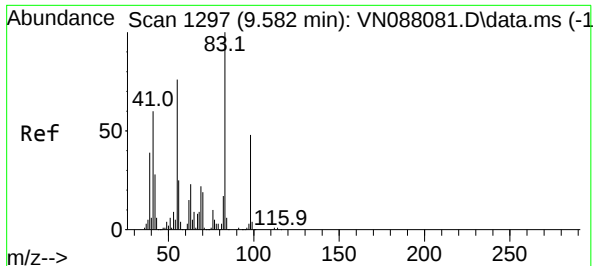
Ion Ratio Lower Upper

117 100

119 3.1 79.0 118.6#

121 0.0 25.0 37.6#





#39

Methylcyclohexane

Concen: 0.255 ug/l

RT: 9.582 min Scan# 11

Delta R.T. -0.000 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

Instrument :

MSVOA_N

ClientSampleId :

323

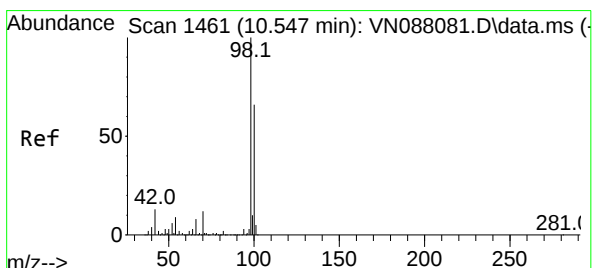
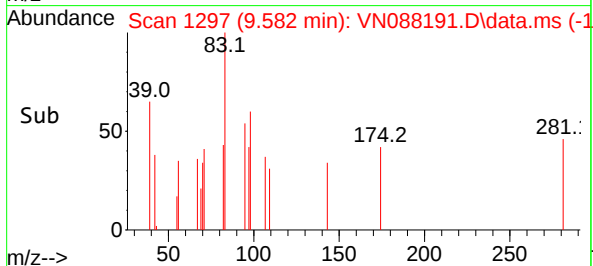
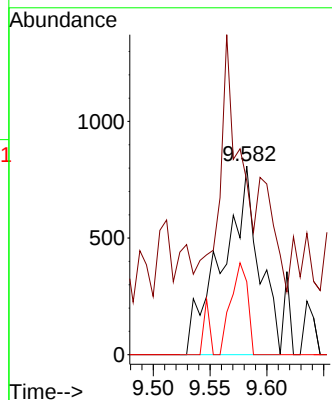
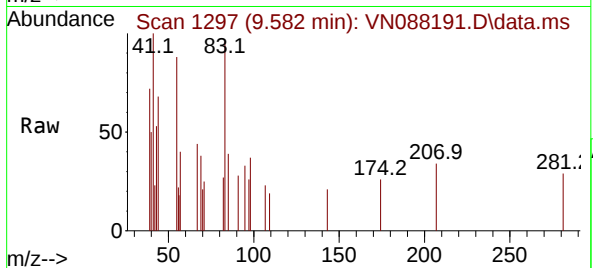
Tgt Ion: 83 Resp: 1815

Ion Ratio Lower Upper

83 100

55 39.3 64.6 96.8#

98 38.7 38.4 57.6



#50

Toluene-d8

Concen: 49.317 ug/l

RT: 10.541 min Scan# 1460

Delta R.T. -0.006 min

Lab File: VN088191.D

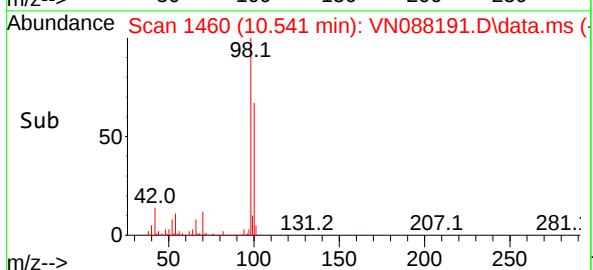
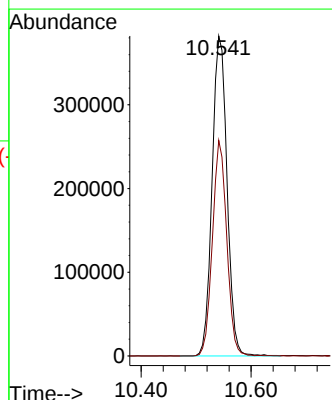
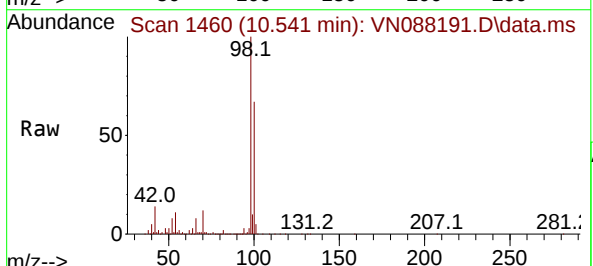
Acq: 31 Oct 2025 16:05

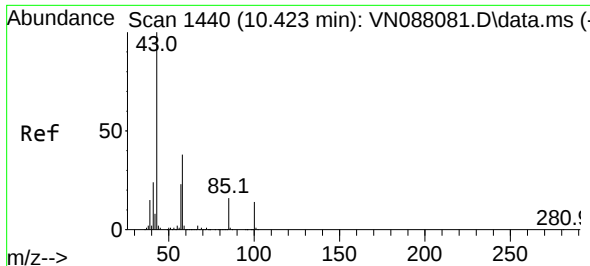
Tgt Ion: 98 Resp: 720085

Ion Ratio Lower Upper

98 100

100 64.8 52.8 79.2

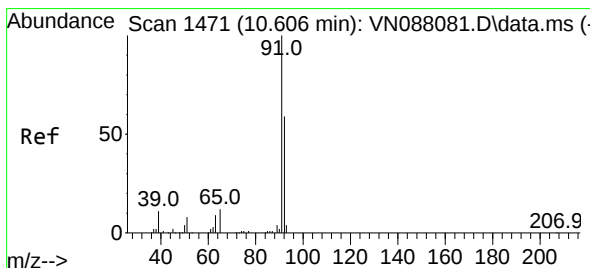
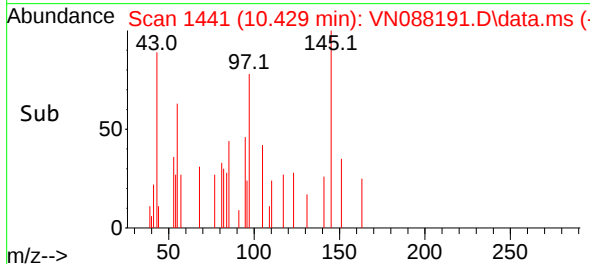
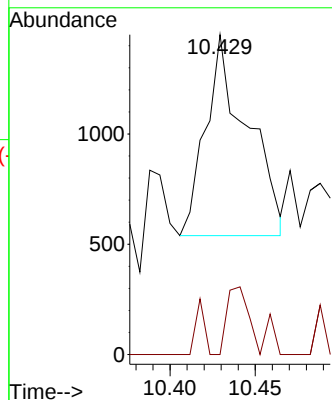
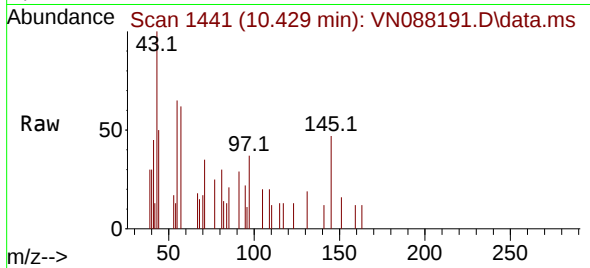




#51
4-Methyl-2-Pentanone
Concen: 0.237 ug/l
RT: 10.429 min Scan# 1440
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

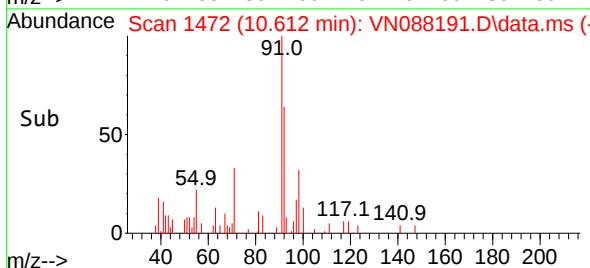
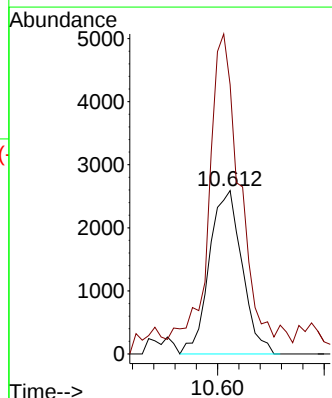
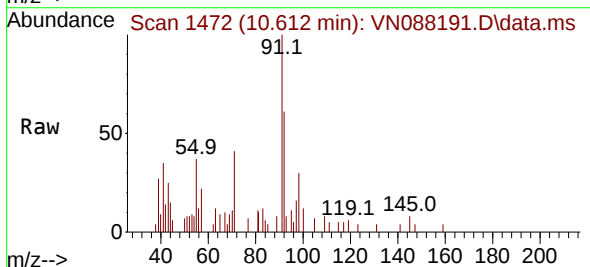
Instrument :
MSVOA_N
ClientSampleId :
323

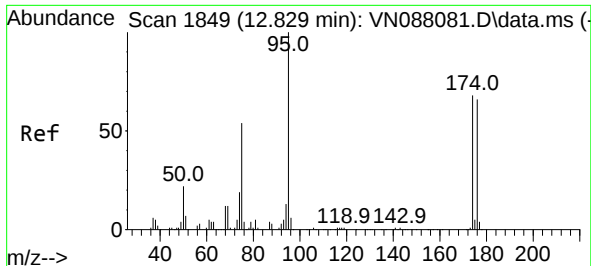
Tgt Ion: 43 Resp: 1539
Ion Ratio Lower Upper
43 100
58 17.5 29.6 44.4#



#52
Toluene
Concen: 0.532 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 92 Resp: 5523
Ion Ratio Lower Upper
92 100
91 178.2 140.4 210.6

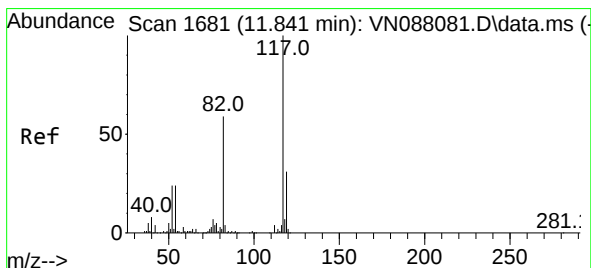
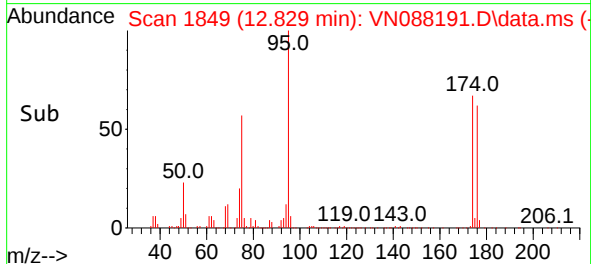
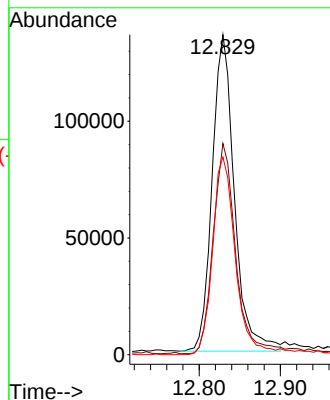
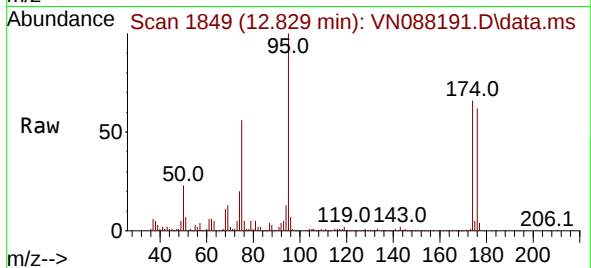




#62
4-Bromofluorobenzene
Concen: 49.920 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

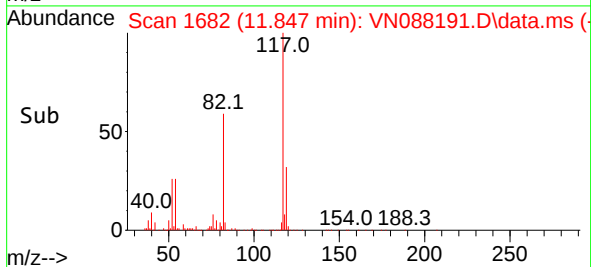
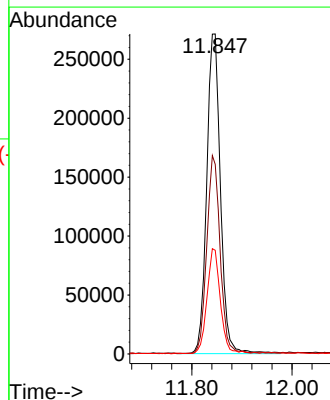
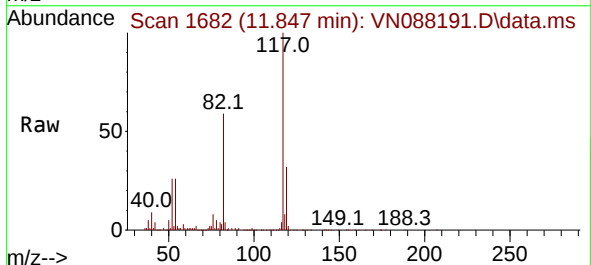
Instrument :
MSVOA_N
ClientSampleId :
323

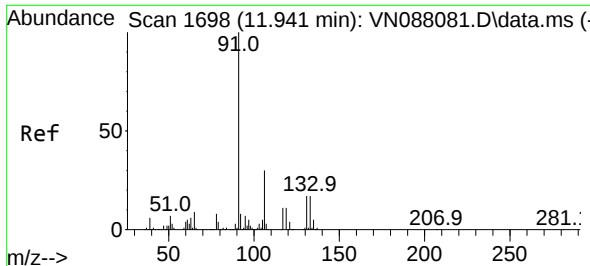
Tgt Ion: 95 Resp: 257419
Ion Ratio Lower Upper
95 100
174 69.6 0.0 138.4
176 66.1 0.0 132.6



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 117 Resp: 516136
Ion Ratio Lower Upper
117 100
82 59.1 47.4 71.2
119 32.3 24.3 36.5

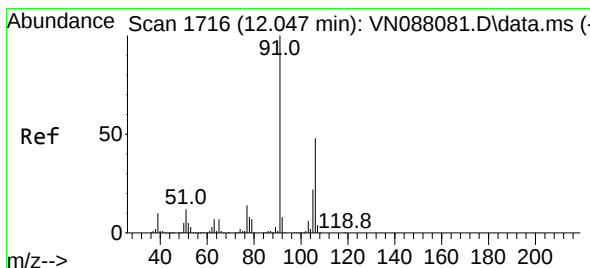
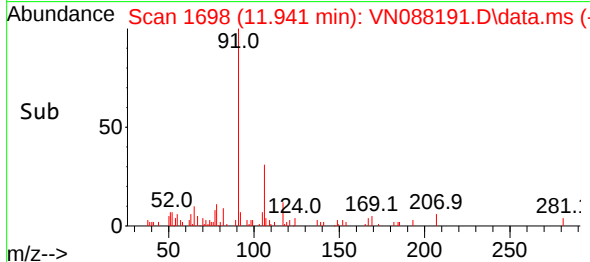
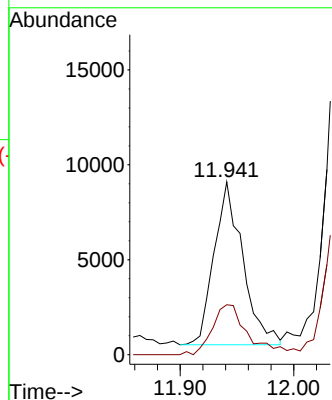
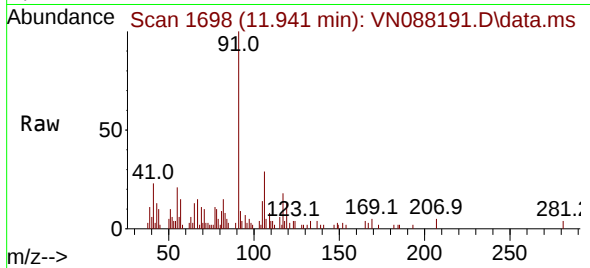




#67
Ethyl Benzene
Concen: 0.731 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. -0.000 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

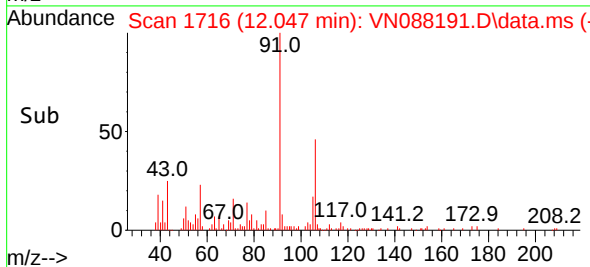
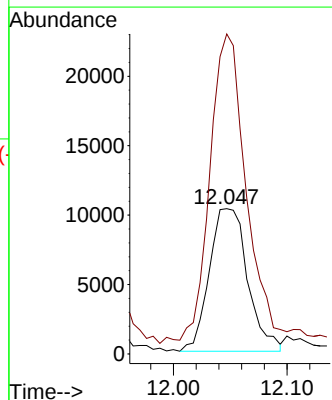
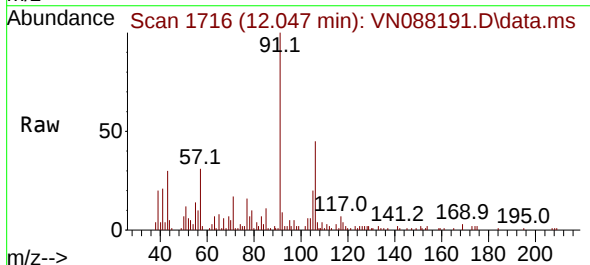
Instrument :
MSVOA_N
ClientSampleId :
323

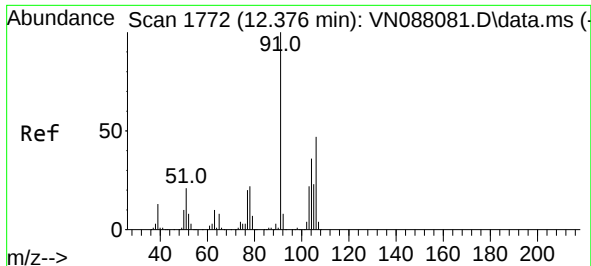
Tgt Ion: 91 Resp: 15039
Ion Ratio Lower Upper
91 100
106 30.7 24.1 36.1



#68
m/p-Xylenes
Concen: 3.126 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion:106 Resp: 24096
Ion Ratio Lower Upper
106 100
91 206.7 169.3 253.9

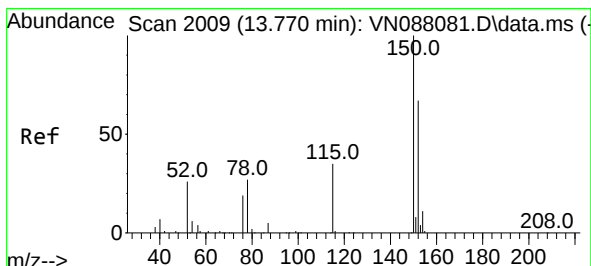
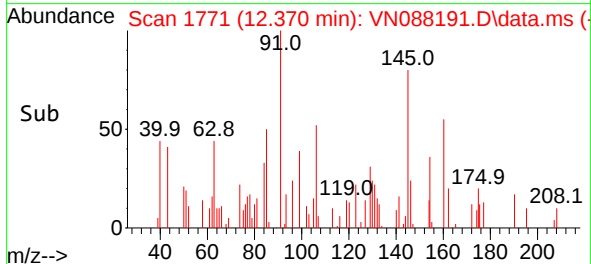
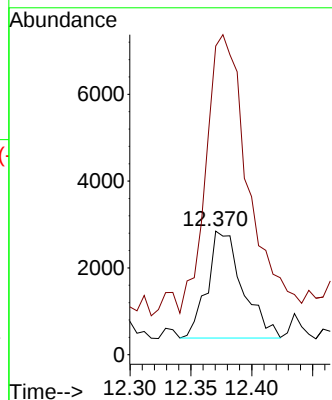
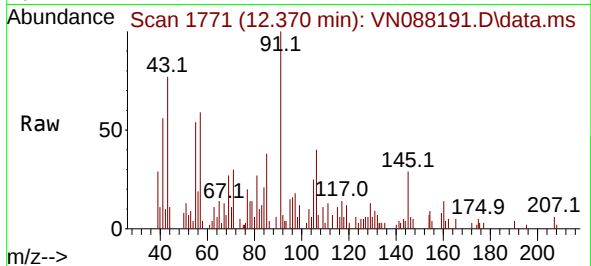




#69
o-Xylene
Concen: 0.680 ug/l
RT: 12.370 min Scan# 11
Delta R.T. -0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

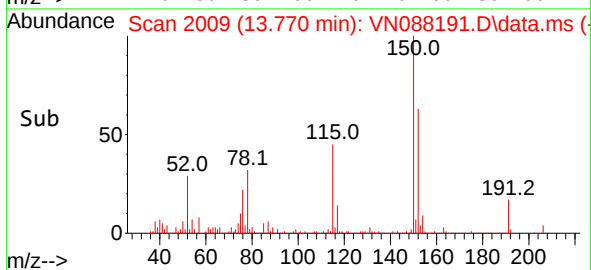
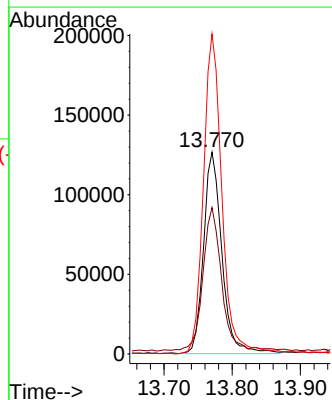
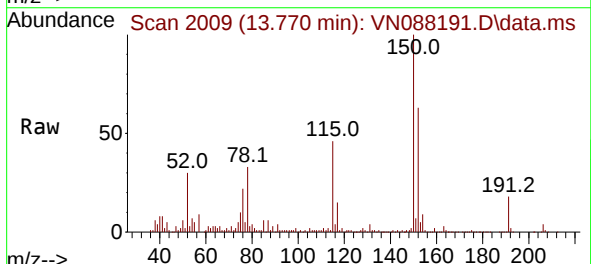
Instrument :
MSVOA_N
ClientSampleId :
323

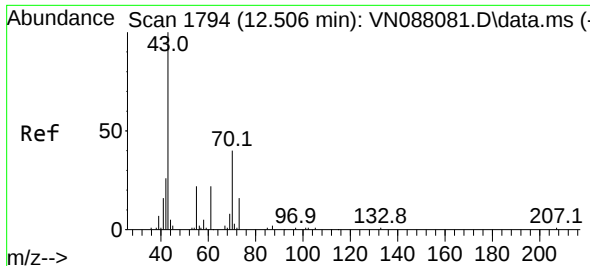
Tgt Ion:106 Resp: 4969
Ion Ratio Lower Upper
106 100
91 325.7 111.4 334.2



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.006 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion:152 Resp: 236349
Ion Ratio Lower Upper
152 100
115 73.8 32.3 96.8
150 160.5 0.0 351.0

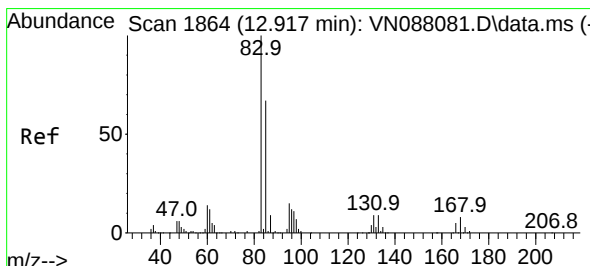
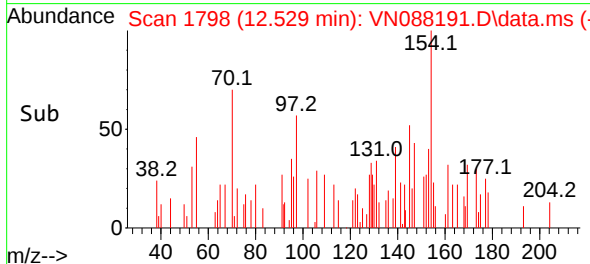
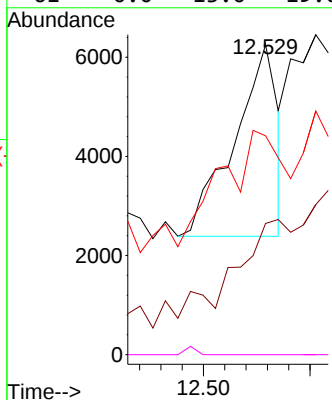
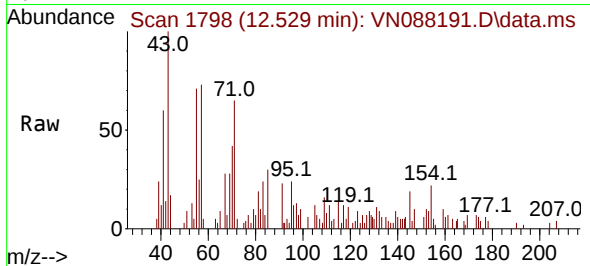




#74
N-amy1 acetate
Concen: 1.055 ug/l
RT: 12.529 min Scan# 1798
Delta R.T. 0.029 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

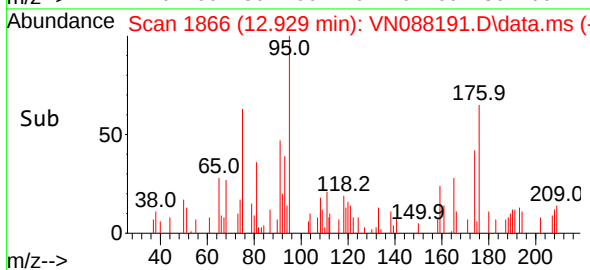
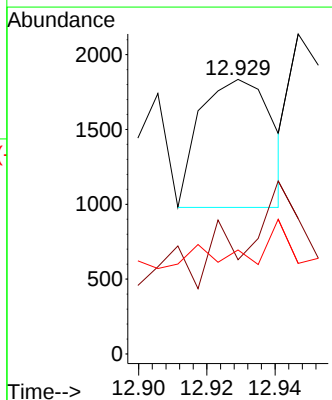
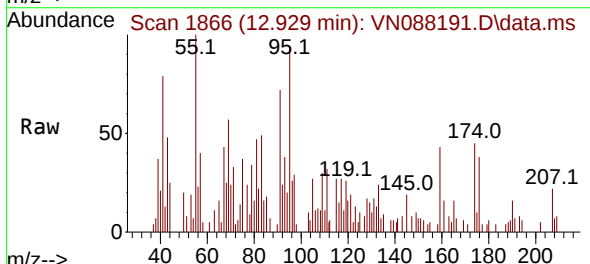
Instrument :
MSVOA_N
ClientSampleId :
323

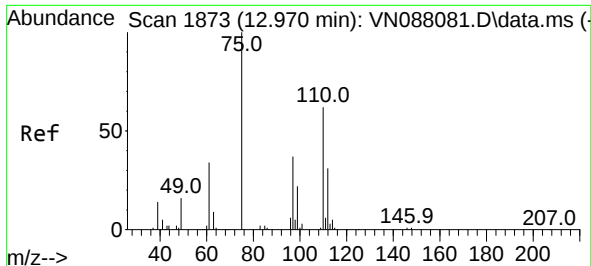
Tgt Ion:	43	Resp:	5460
Ion	Ratio	Lower	Upper
43	100		
70	82.3	27.6	41.4#
55	100.8	13.0	19.6#
61	0.0	13.0	19.6#



#75
1,1,2,2-Tetrachloroethane
Concen: 0.221 ug/l
RT: 12.929 min Scan# 1866
Delta R.T. 0.012 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion:	83	Resp:	1257
Ion	Ratio	Lower	Upper
83	100		
131	66.8	4.8	14.4#
85	0.0	32.1	96.3#

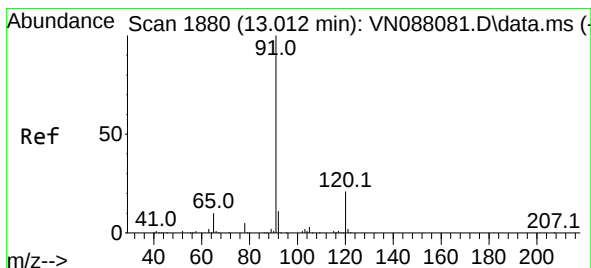
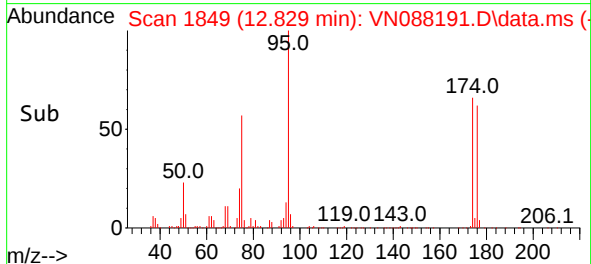
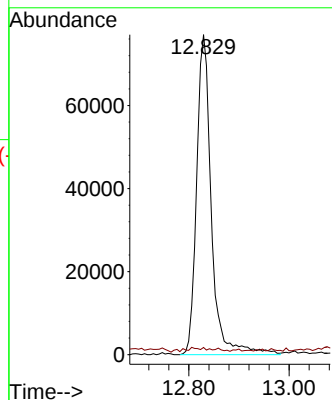
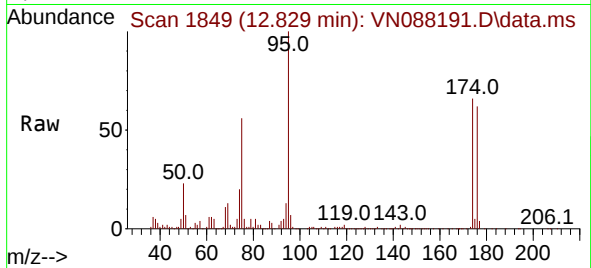




#76
1,2,3-Trichloropropane
Concen: 29.003 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.141 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

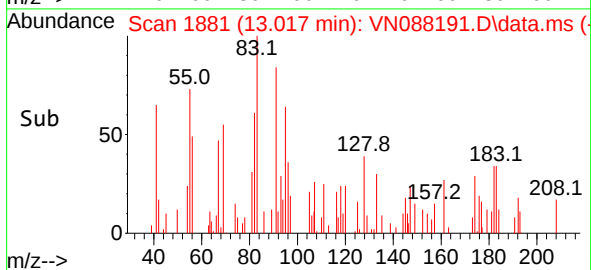
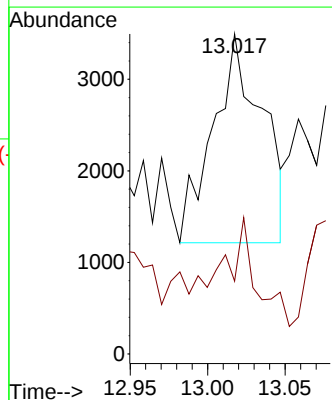
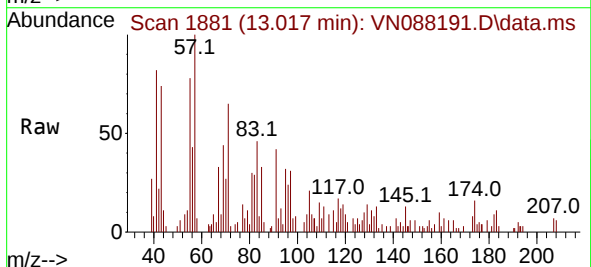
Instrument :
MSVOA_N
ClientSampleId :
323

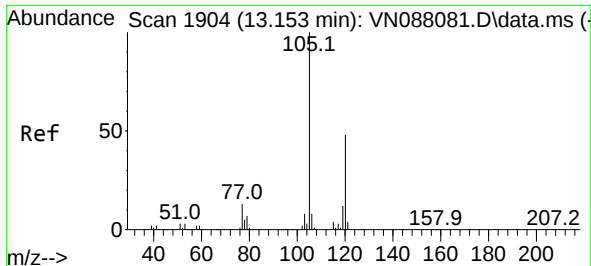
Tgt Ion: 75 Resp: 156720
Ion Ratio Lower Upper
75 100
77 0.0 89.1 267.4#



#78
n-propylbenzene
Concen: 0.226 ug/l
RT: 13.017 min Scan# 1881
Delta R.T. 0.005 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 91 Resp: 5021
Ion Ratio Lower Upper
91 100
120 31.4 10.7 32.1

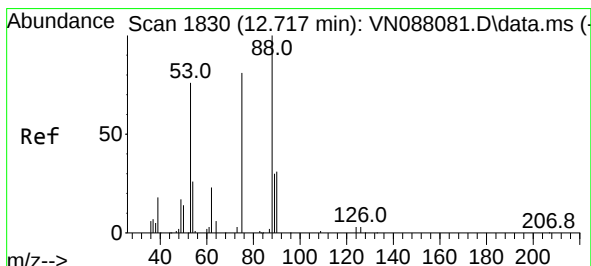
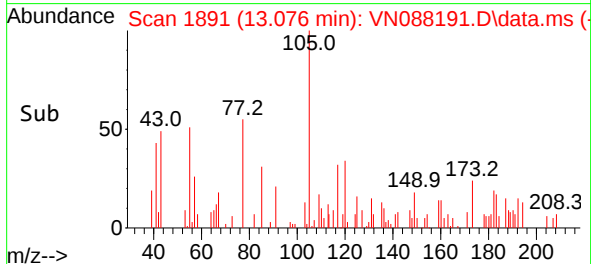
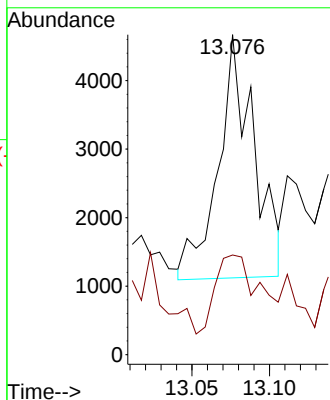
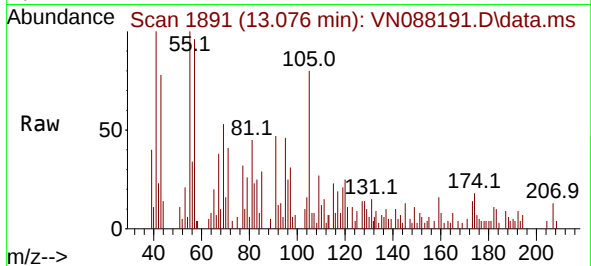




#80
1,3,5-Trimethylbenzene
Concen: 0.377 ug/l
RT: 13.076 min Scan# 1891
Delta R.T. -0.077 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

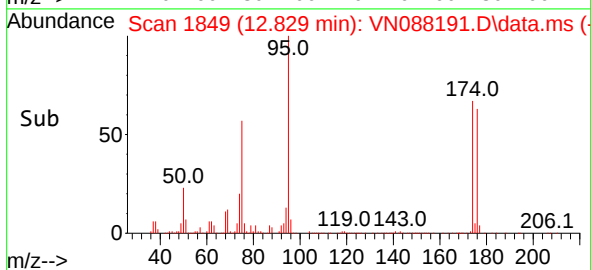
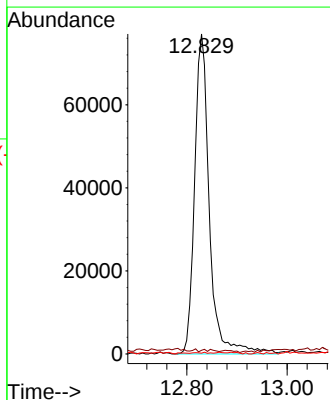
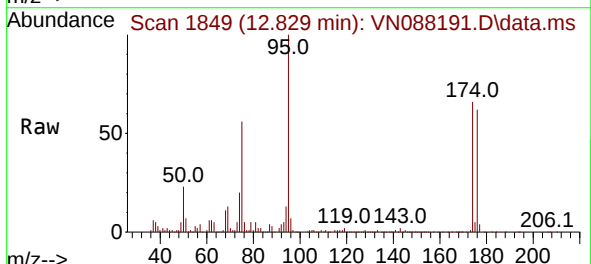
Instrument :
MSVOA_N
ClientSampleId :
323

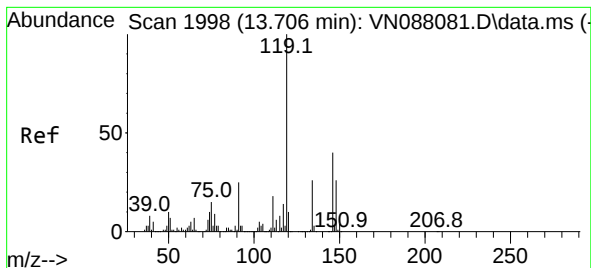
Tgt Ion:105 Resp: 5708
Ion Ratio Lower Upper
105 100
120 40.3 23.2 69.6



#81
trans-1,4-Dichloro-2-butene
Concen: 80.903 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.112 min
Lab File: VN088191.D
Acq: 31 Oct 2025 16:05

Tgt Ion: 75 Resp: 156720
Ion Ratio Lower Upper
75 100
53 0.2 101.8 152.6#
89 0.0 35.6 53.4#





#86

p-Isopropyltoluene

Concen: 0.854 ug/l

RT: 13.694 min Scan# 1996

Delta R.T. -0.012 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

Instrument :

MSVOA_N

ClientSampleId :

323

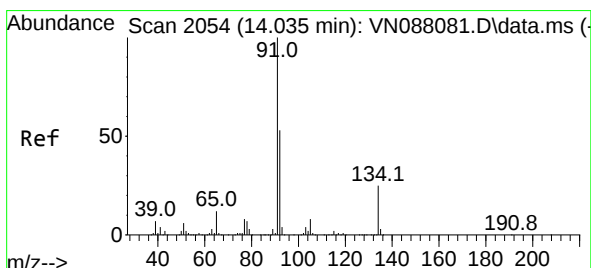
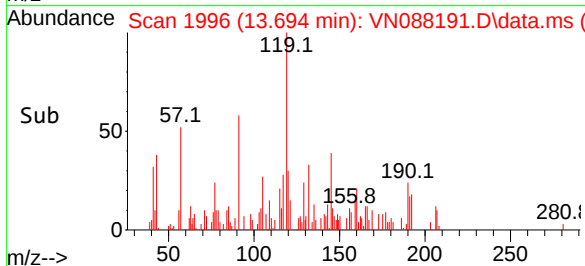
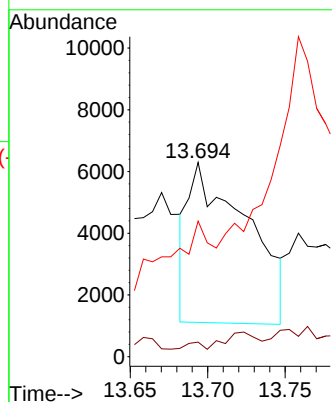
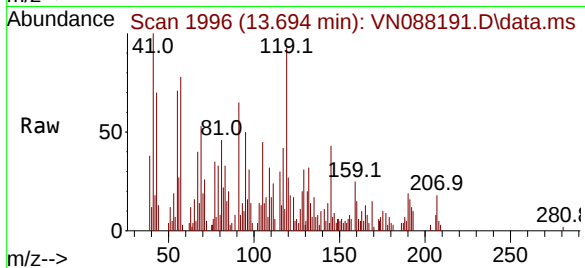
Tgt Ion:119 Resp: 13613

Ion Ratio Lower Upper

119 100

134 1.2 12.7 38.0#

91 32.9 12.5 37.5



#89

n-Butylbenzene

Concen: 0.303 ug/l

RT: 14.029 min Scan# 2053

Delta R.T. -0.000 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

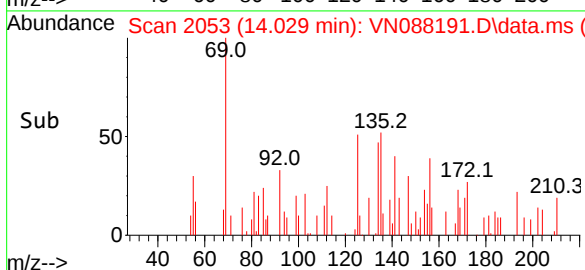
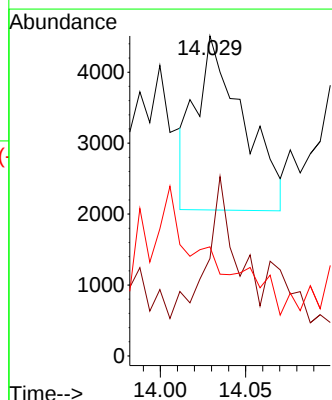
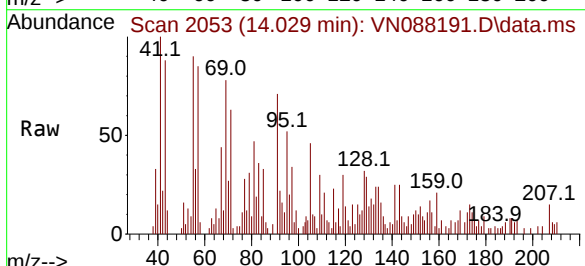
Tgt Ion: 91 Resp: 4785

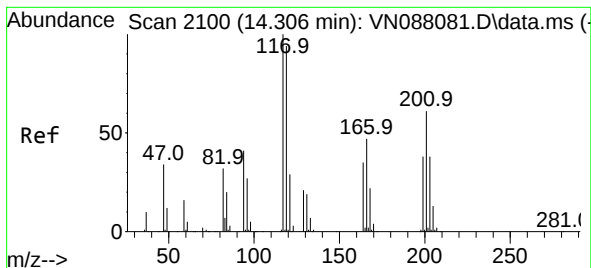
Ion Ratio Lower Upper

91 100

92 49.2 25.9 77.8

134 0.0 11.7 35.0#





#90

Hexachloroethane

Concen: 0.214 ug/l

RT: 14.317 min Scan# 2100

Delta R.T. 0.006 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

Instrument :

MSVOA_N

ClientSampleId :

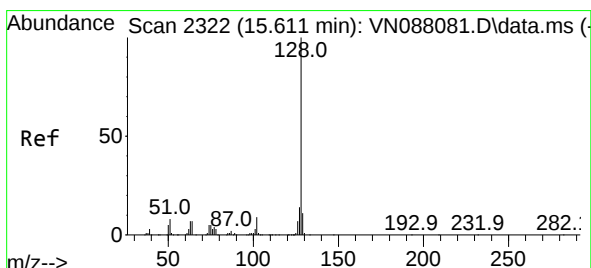
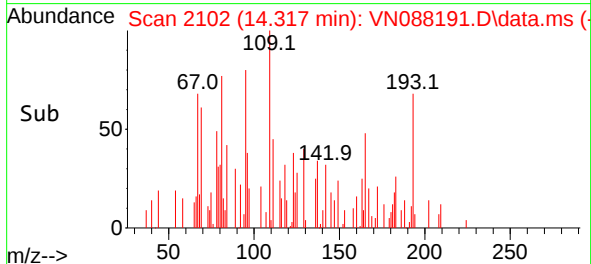
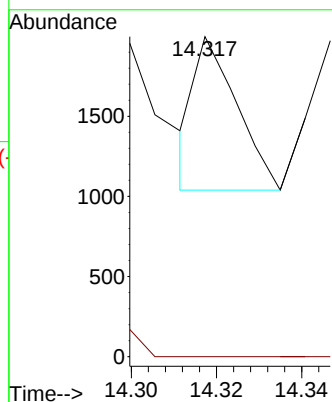
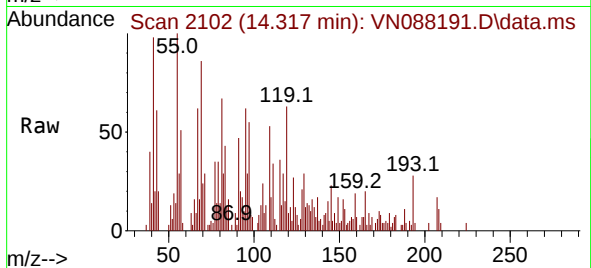
323

Tgt Ion:117 Resp: 661

Ion Ratio Lower Upper

117 100

201 0.0 29.1 87.4#



#95

Naphthalene

Concen: 0.497 ug/l

RT: 15.623 min Scan# 2324

Delta R.T. 0.012 min

Lab File: VN088191.D

Acq: 31 Oct 2025 16:05

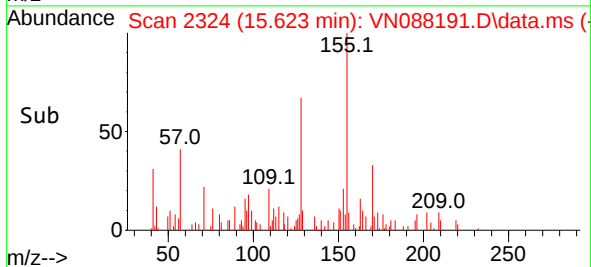
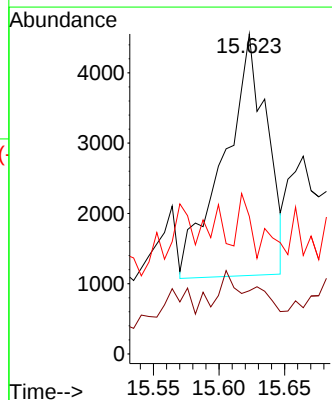
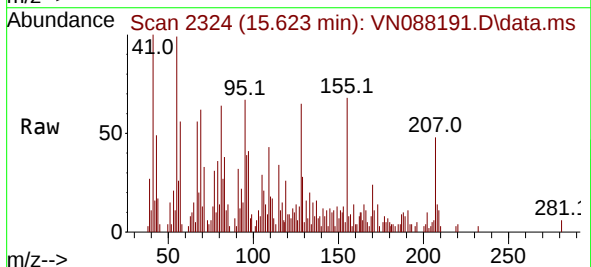
Tgt Ion:128 Resp: 7795

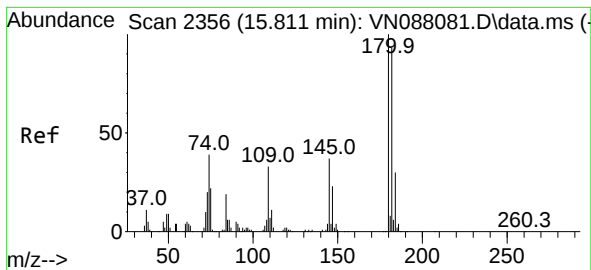
Ion Ratio Lower Upper

128 100

127 5.2 10.6 15.8#

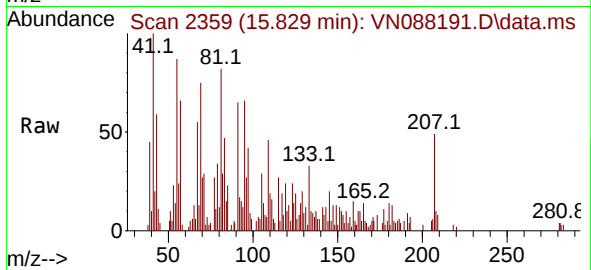
129 6.9 8.6 12.8#





#96
 1,2,3-Trichlorobenzene
 Concen: 0.267 ug/l
 RT: 15.829 min Scan# 21
 Delta R.T. 0.017 min
 Lab File: VN088191.D
 Acq: 31 Oct 2025 16:05

Instrument :
 MSVOA_N
 ClientSampleId :
 323



Tgt Ion:180 Resp: 1173
 Ion Ratio Lower Upper
 180 100
 182 71.9 46.8 140.3
 145 0.0 17.3 52.0#

