

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY060925\
 Data File : VY022625.D
 Acq On : 09 Jun 2025 13:13
 Operator : SY/MD
 Sample : Q2223-03
 Misc : 5.25g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 HR-04-06042025

Quant Time: Jun 10 01:28:26 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y060225S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jun 03 03:22:04 2025
 Response via : Initial Calibration

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

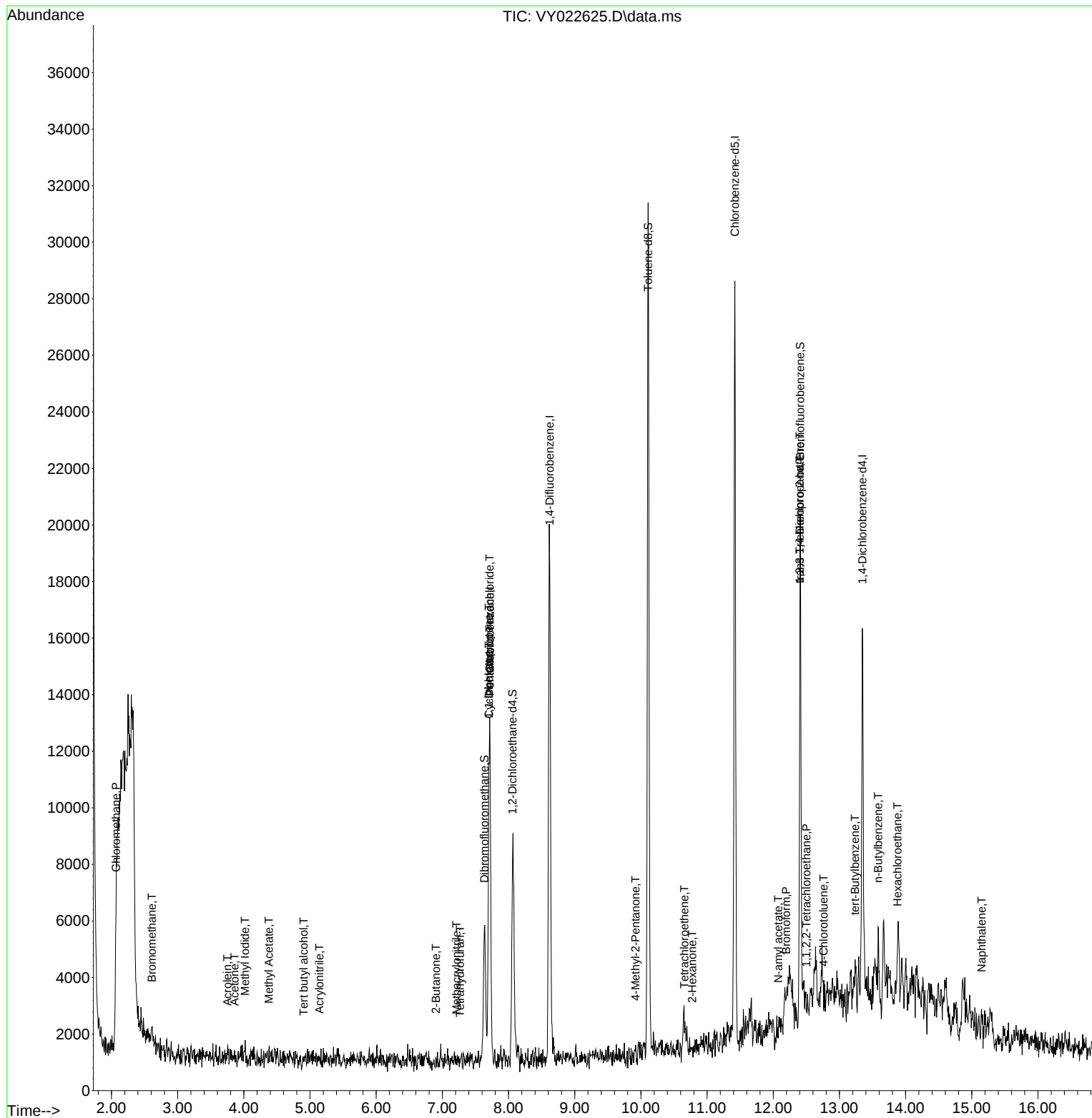
Internal Standards						
1) Pentafluorobenzene	7.719	168	9216	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.622	114	16041	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.420	117	12637	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.347	152	2892	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	5996	58.171	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 116.340%			
35) Dibromofluoromethane	7.634	113	3385	35.354	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 70.700%			
50) Toluene-d8	10.109	98	18773	48.525	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 97.040%			
62) 4-Bromofluorobenzene	12.408	95	4447	38.579	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 77.160%			
Target Compounds						Qvalue
3) Chloromethane	2.068	50	525	2.154	ug/l	94
5) Bromomethane	2.611	94	351	1.295	ug/l	86
10) Methyl Iodide	4.019	142	297	2.714	ug/l #	83
11) Tert butyl alcohol	4.903	59	22	2.988	ug/l #	73
13) Acrolein	3.751	56	19	2.071	ug/l #	14
15) Acrylonitrile	5.141	53	35	1.529	ug/l #	66
16) Acetone	3.860	43	174	8.312	ug/l #	45
18) Methyl Acetate	4.379	43	78	1.258	ug/l #	51
25) 2-Butanone	6.903	43	110	3.643	ug/l #	46
29) Tetrahydrofuran	7.268	42	21	1.078	ug/l #	31
31) Cyclohexane	7.701	56	245	1.237	ug/l #	45
36) 1,1-Dichloropropene	7.701	75	886	5.702	ug/l #	44
38) Carbon Tetrachloride	7.713	117	1077	6.756	ug/l #	13
41) Methacrylonitrile	7.213	41	110	2.718	ug/l #	20
51) 4-Methyl-2-Pentanone	9.920	43	130	1.742	ug/l	97
59) 2-Hexanone	10.774	43	109	2.184	ug/l #	24
64) Tetrachloroethene	10.658	164	235	2.162	ug/l #	41
71) Bromoform	12.194	173	57	1.137	ug/l #	29
74) N-amyl acetate	12.078	43	263	4.390	ug/l #	54
75) 1,1,2,2-Tetrachloroethane	12.499	83	192	4.927	ug/l #	25
76) 1,2,3-Trichloropropane	12.402	75	2787	84.236	ug/l #	100
81) trans-1,4-Dichloro-2-b...	12.402	75	2787	203.425	ug/l #	10
82) 4-Chlorotoluene	12.761	91	395	2.491	ug/l #	41
83) tert-Butylbenzene	13.237	119	281	1.680	ug/l	83
89) n-Butylbenzene	13.584	91	221	1.103	ug/l #	1
90) Hexachloroethane	13.877	117	121	2.943	ug/l #	16
95) Naphthalene	15.151	128	226	2.505	ug/l #	69

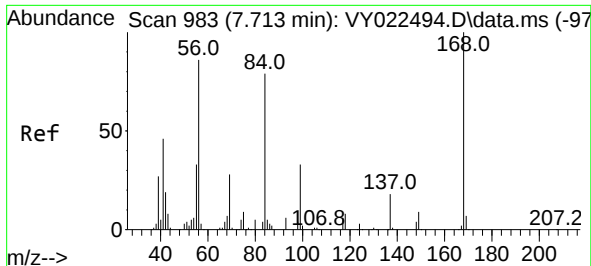
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY060925\
Data File : VY022625.D
Acq On : 09 Jun 2025 13:13
Operator : SY/MD
Sample : Q2223-03
Misc : 5.25g/5.0mL/MSVOA_Y/SOIL/A
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

Quant Time: Jun 10 01:28:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y060225S.M
Quant Title : SW846 8260
QLast Update : Tue Jun 03 03:22:04 2025
Response via : Initial Calibration

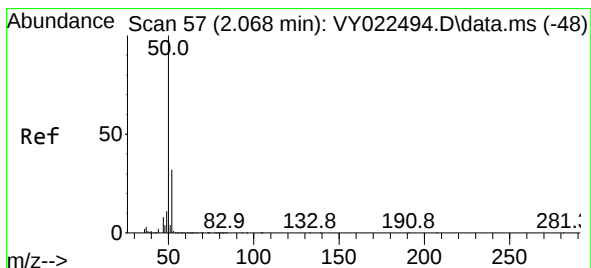
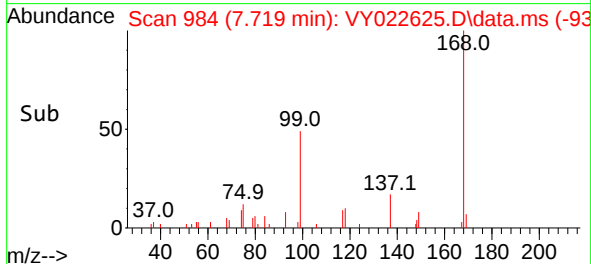
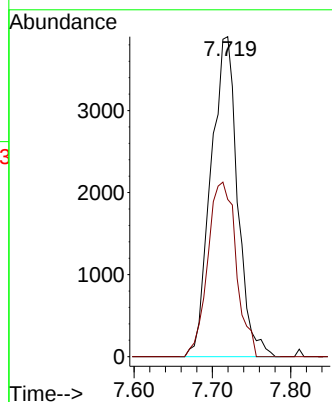
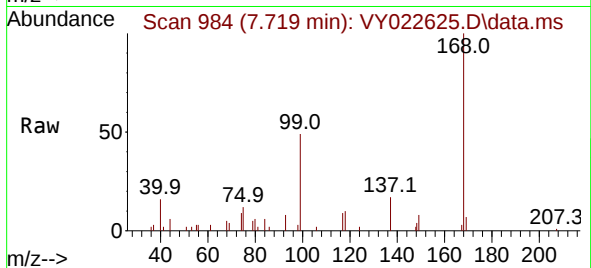




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.719 min Scan# 984
Delta R.T. 0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

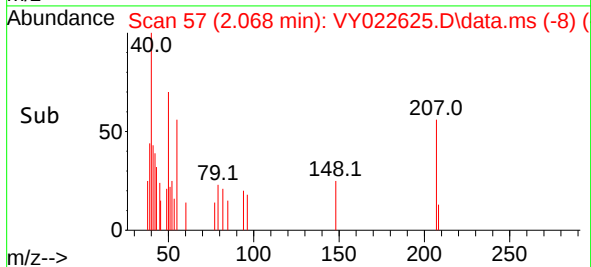
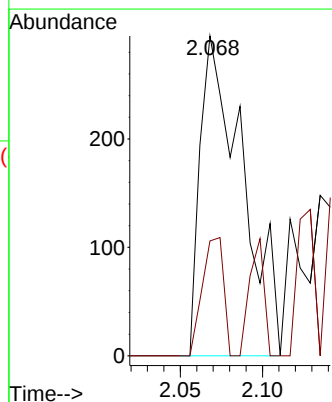
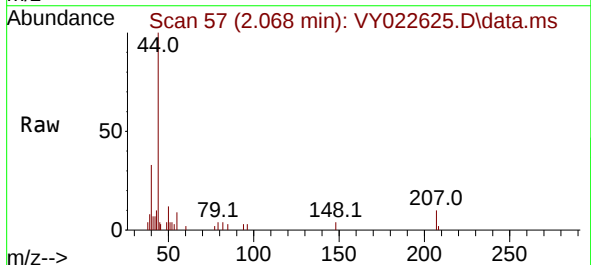
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

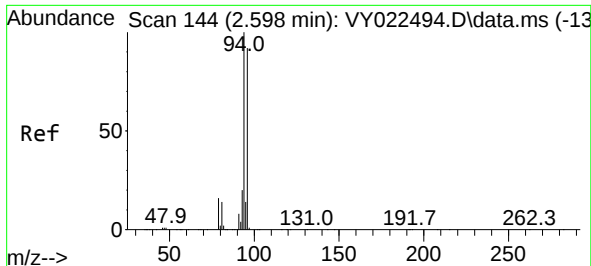
Tgt Ion:168 Resp: 9216
Ion Ratio Lower Upper
168 100
99 49.1 44.3 66.5



#3
Chloromethane
Concen: 2.154 ug/l
RT: 2.068 min Scan# 57
Delta R.T. -0.000 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 50 Resp: 525
Ion Ratio Lower Upper
50 100
52 35.9 26.0 39.0

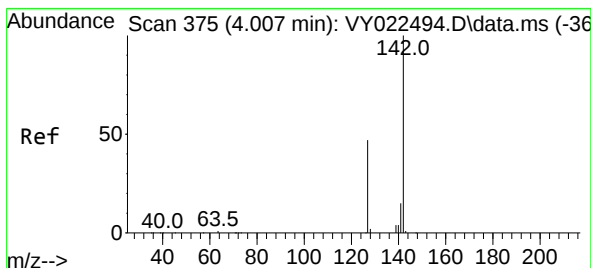
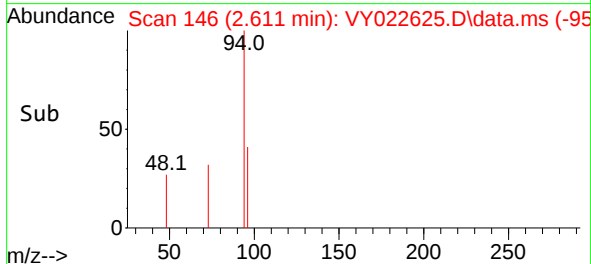
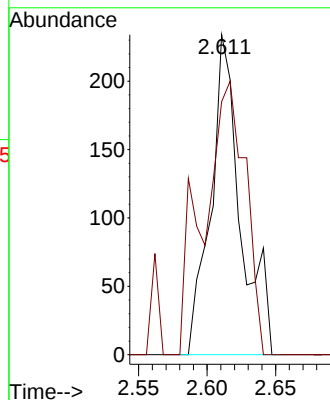
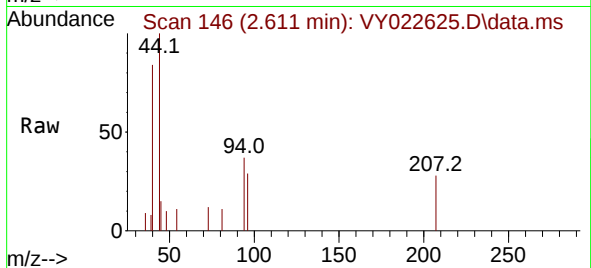




#5
Bromomethane
Concen: 1.295 ug/l
RT: 2.611 min Scan# 144
Delta R.T. 0.012 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

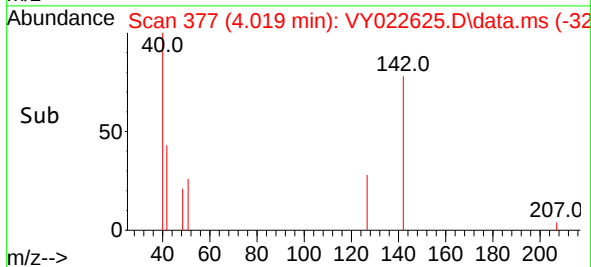
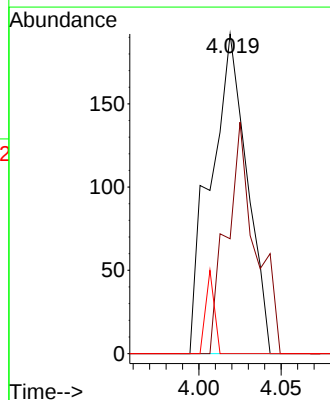
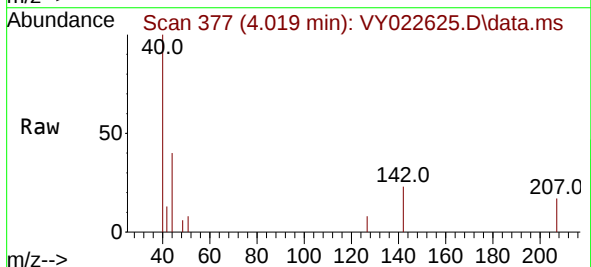
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

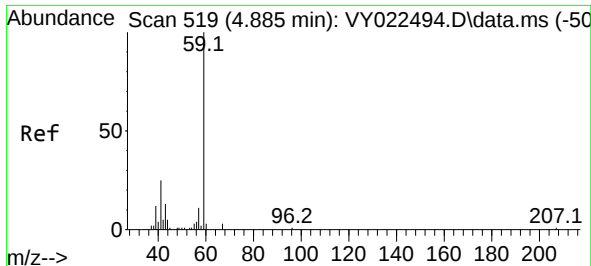
Tgt Ion: 94 Resp: 351
Ion Ratio Lower Upper
94 100
96 79.1 74.0 111.0



#10
Methyl Iodide
Concen: 2.714 ug/l
RT: 4.019 min Scan# 377
Delta R.T. 0.012 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 142 Resp: 297
Ion Ratio Lower Upper
142 100
127 56.9 37.1 55.7#
141 6.1 11.4 17.2#





#11

Tert butyl alcohol

Concen: 2.988 ug/l

RT: 4.903 min Scan# 51

Delta R.T. 0.018 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Instrument :

MSVOA_Y

ClientSampleId :

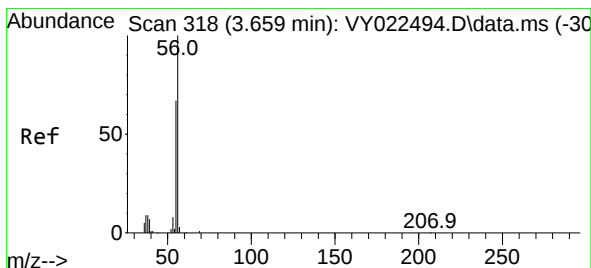
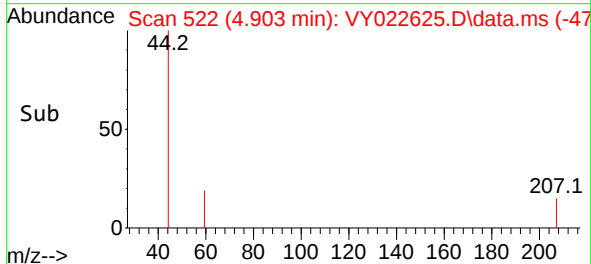
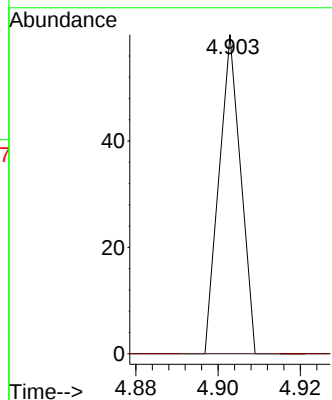
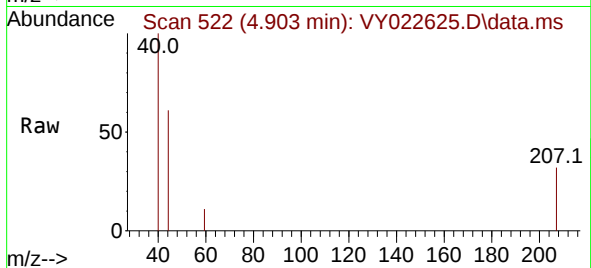
HR-04-06042025

Tgt Ion: 59 Resp: 22

Ion Ratio Lower Upper

59 100

57 0.0 8.0 12.0#



#13

Acrolein

Concen: 2.071 ug/l

RT: 3.751 min Scan# 333

Delta R.T. 0.091 min

Lab File: VY022625.D

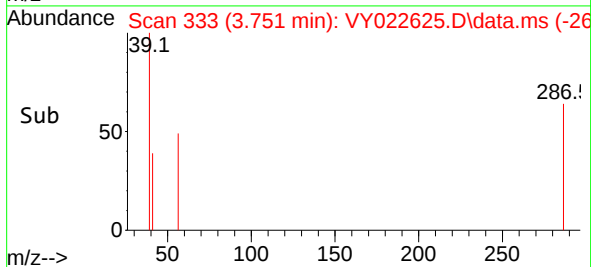
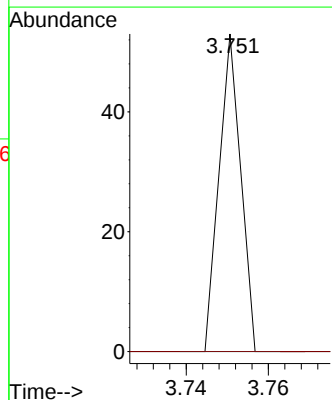
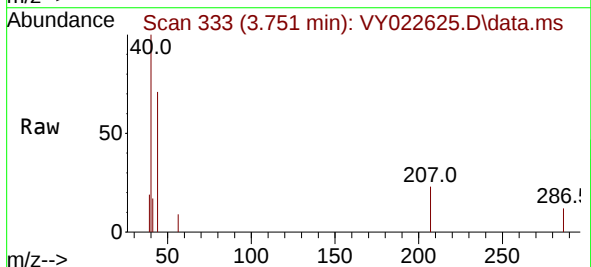
Acq: 09 Jun 2025 13:13

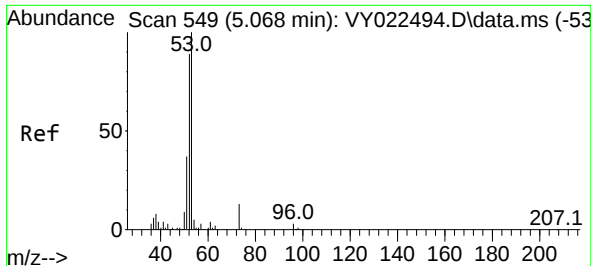
Tgt Ion: 56 Resp: 19

Ion Ratio Lower Upper

56 100

55 0.0 57.0 85.6#

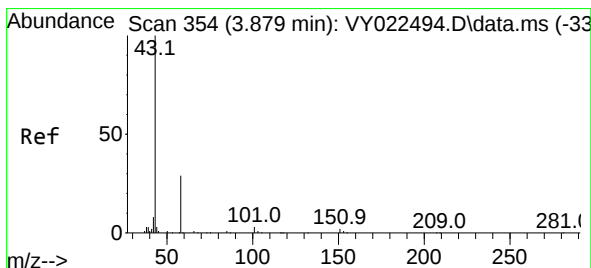
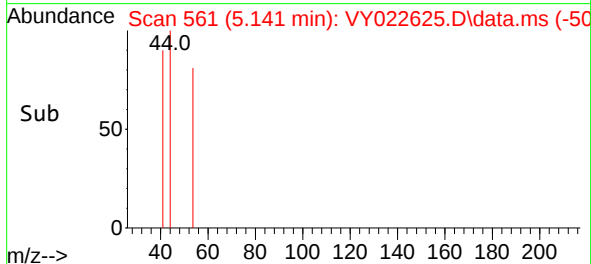
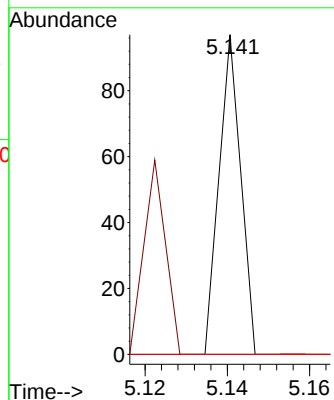
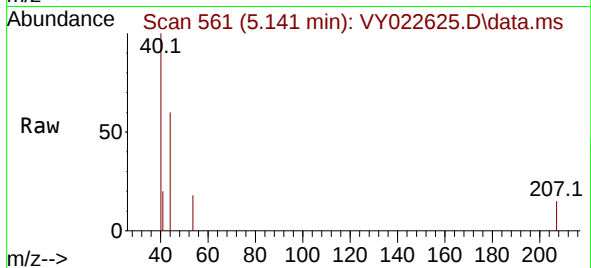




#15
Acrylonitrile
Concen: 1.529 ug/l
RT: 5.141 min Scan# 501
Delta R.T. 0.073 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

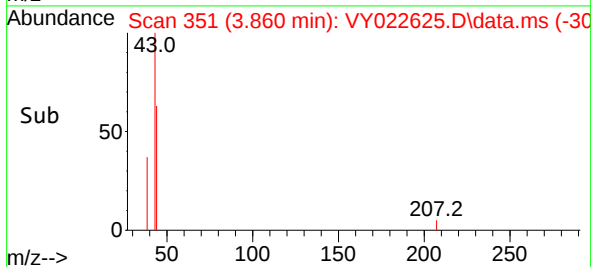
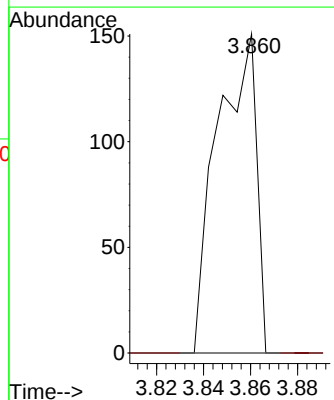
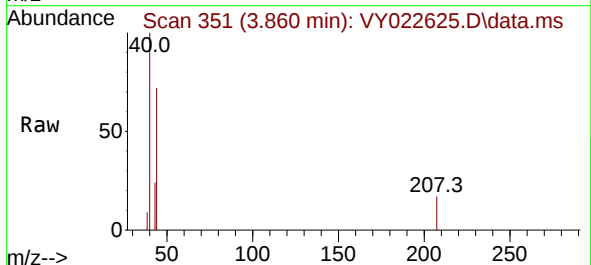
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

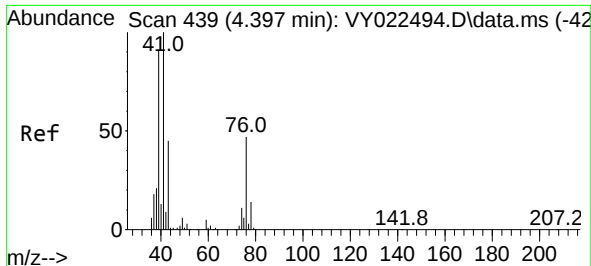
Tgt Ion: 53 Resp: 35
Ion Ratio Lower Upper
53 100
52 62.9 65.7 98.5#
51 0.0 30.1 45.1#



#16
Acetone
Concen: 8.312 ug/l
RT: 3.860 min Scan# 351
Delta R.T. -0.018 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 43 Resp: 174
Ion Ratio Lower Upper
43 100
58 0.0 24.0 36.0#

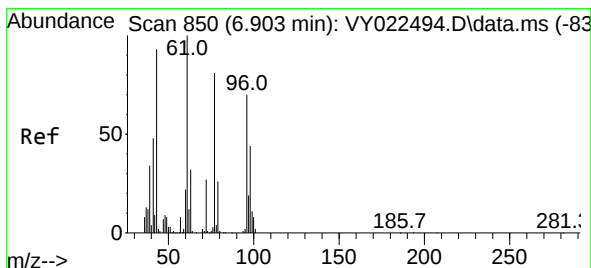
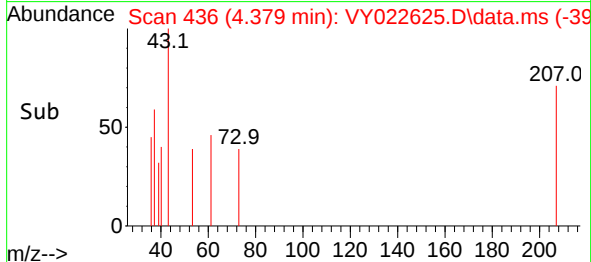
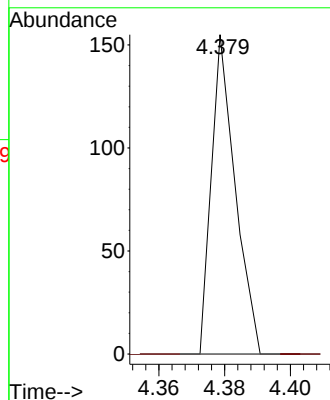
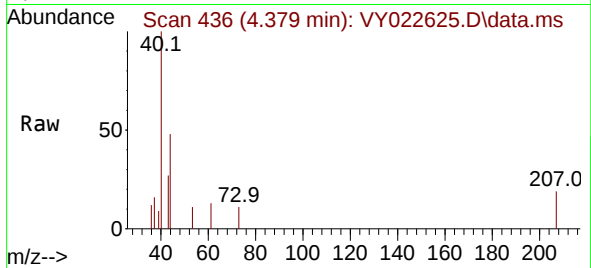




#18
Methyl Acetate
Concen: 1.258 ug/l
RT: 4.379 min Scan# 41
Delta R.T. -0.018 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

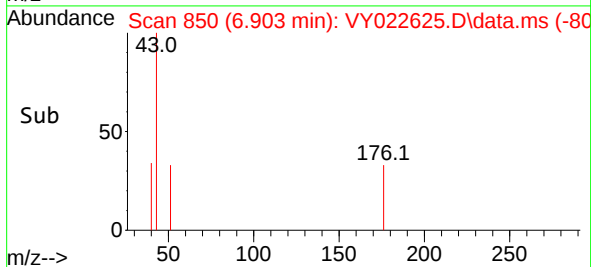
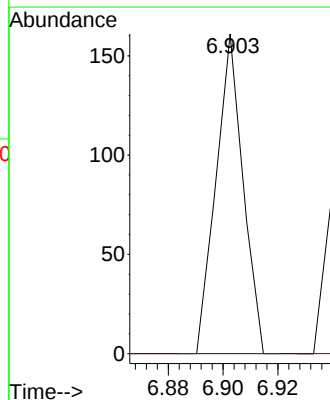
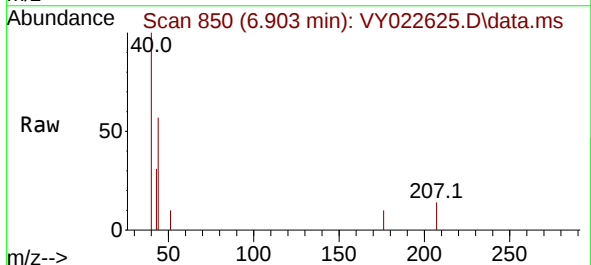
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

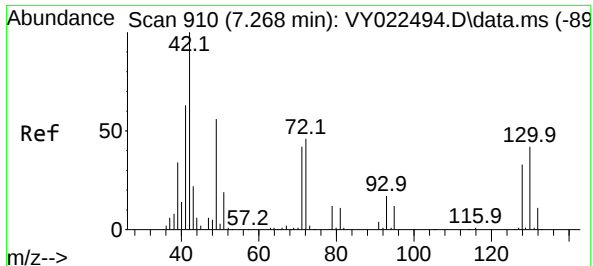
Tgt Ion: 43 Resp: 78
Ion Ratio Lower Upper
43 100
74 0.0 19.8 29.6#



#25
2-Butanone
Concen: 3.643 ug/l
RT: 6.903 min Scan# 850
Delta R.T. -0.000 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 43 Resp: 110
Ion Ratio Lower Upper
43 100
72 0.0 22.9 34.3#





#29

Tetrahydrofuran

Concen: 1.078 ug/l

RT: 7.268 min Scan# 910

Delta R.T. -0.000 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Instrument :

MSVOA_Y

ClientSampleId :

HR-04-06042025

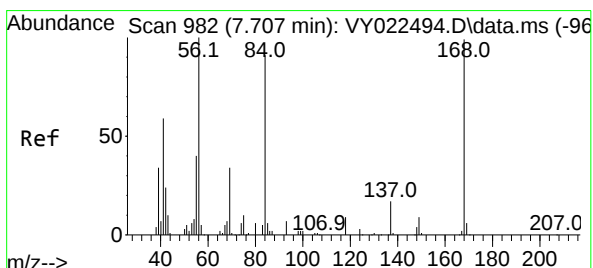
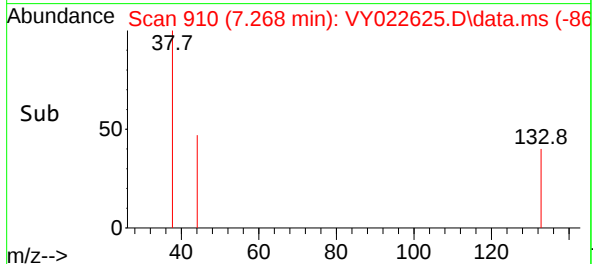
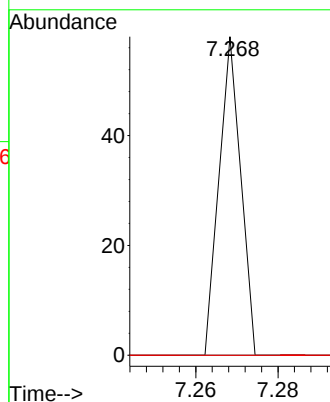
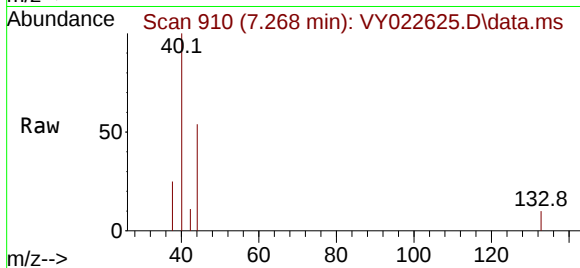
Tgt Ion: 42 Resp: 21

Ion Ratio Lower Upper

42 100

72 0.0 37.4 56.2#

71 0.0 34.2 51.2#



#31

Cyclohexane

Concen: 1.237 ug/l

RT: 7.701 min Scan# 981

Delta R.T. -0.006 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

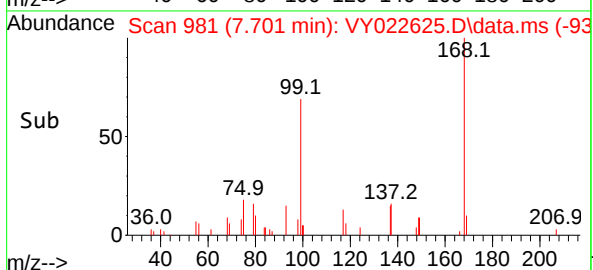
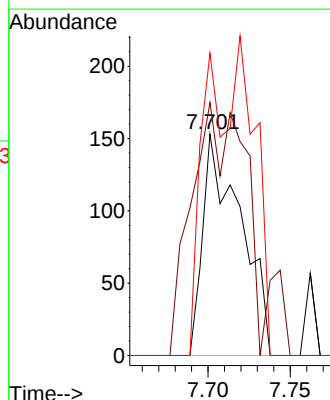
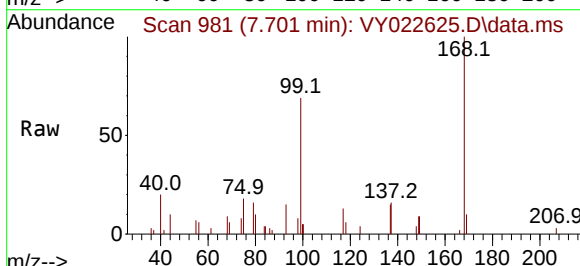
Tgt Ion: 56 Resp: 245

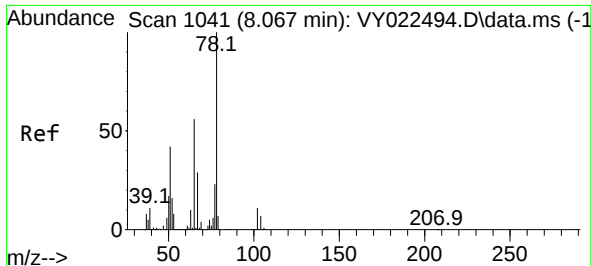
Ion Ratio Lower Upper

56 100

69 75.8 27.0 40.6#

84 136.6 72.6 109.0#





#33

1,2-Dichloroethane-d4

Concen: 58.171 ug/l

RT: 8.061 min Scan# 1040

Delta R.T. -0.006 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Instrument :

MSVOA_Y

ClientSampleId :

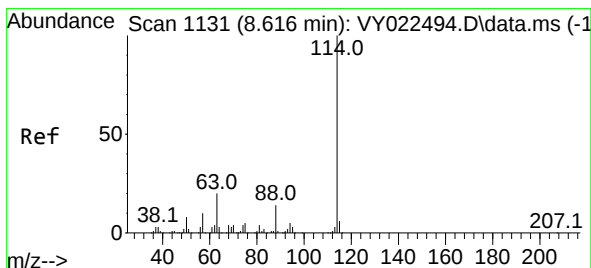
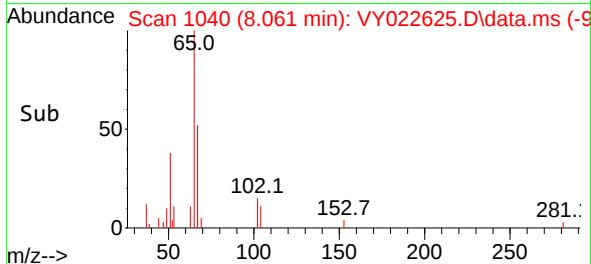
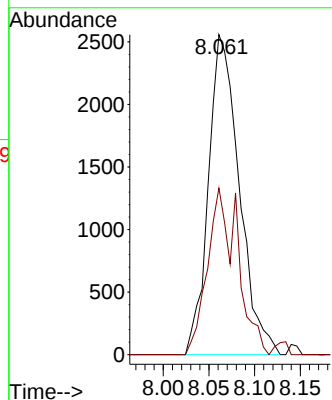
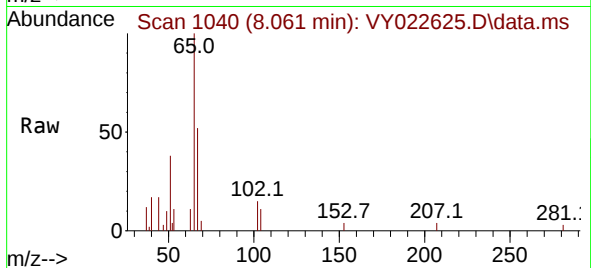
HR-04-06042025

Tgt Ion: 65 Resp: 5996

Ion Ratio Lower Upper

65 100

67 51.0 0.0 103.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.622 min Scan# 1132

Delta R.T. 0.006 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

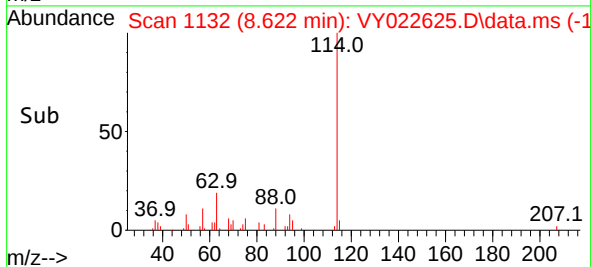
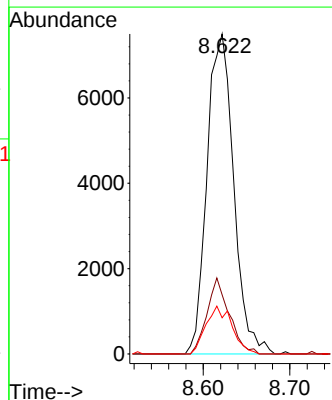
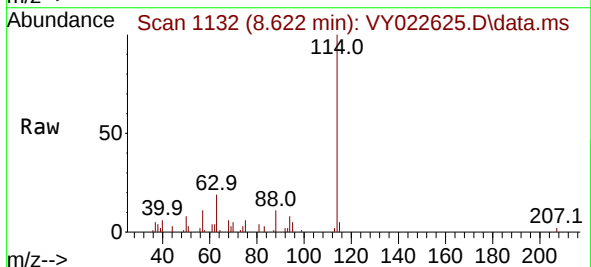
Tgt Ion: 114 Resp: 16041

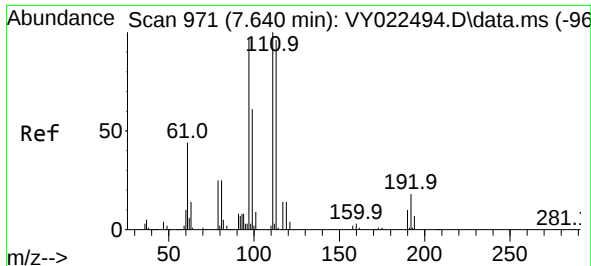
Ion Ratio Lower Upper

114 100

63 18.5 0.0 40.8

88 11.3 0.0 27.8

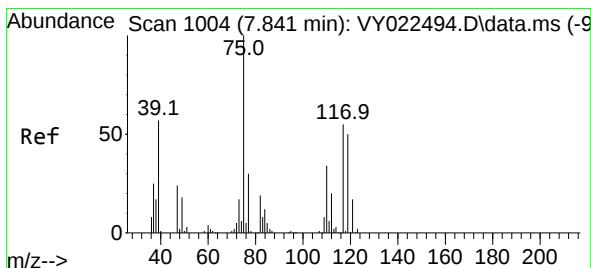
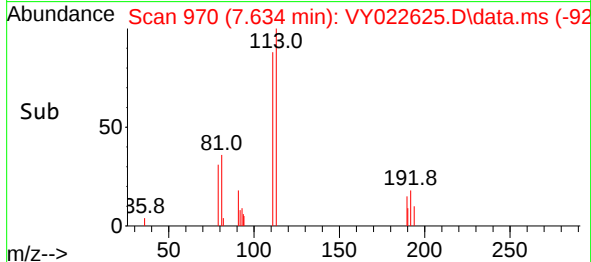
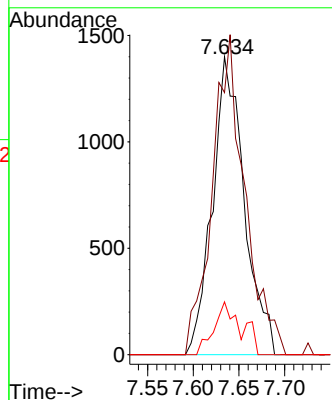
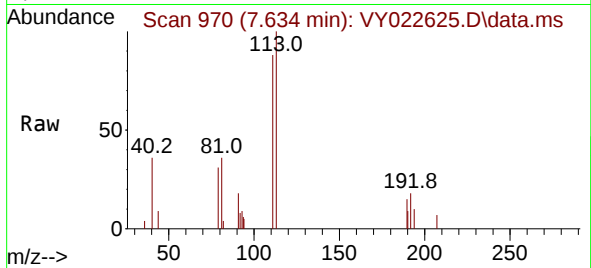




#35
Dibromofluoromethane
Concen: 35.354 ug/l
RT: 7.634 min Scan# 91
Delta R.T. -0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

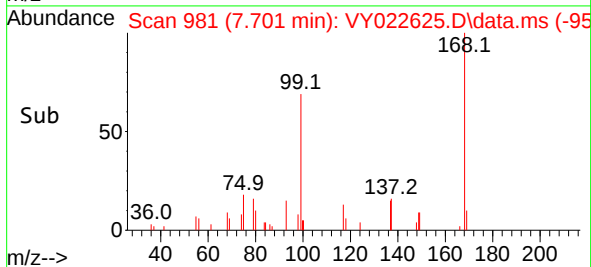
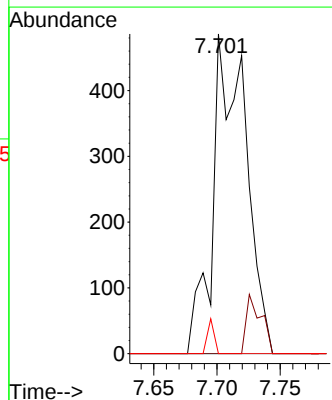
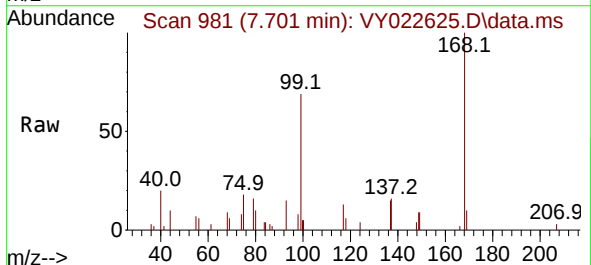
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

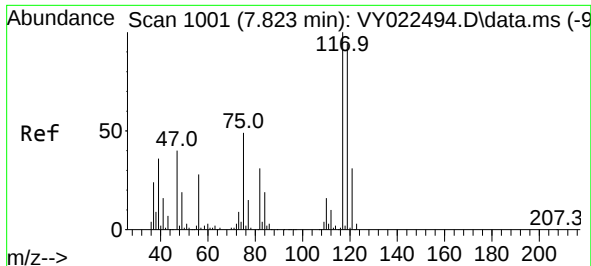
Tgt Ion:113 Resp: 3385
Ion Ratio Lower Upper
113 100
111 110.2 81.1 121.7
192 15.1 14.2 21.2



#36
1,1-Dichloropropene
Concen: 5.702 ug/l
RT: 7.701 min Scan# 981
Delta R.T. -0.140 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 75 Resp: 886
Ion Ratio Lower Upper
75 100
110 0.0 16.9 50.7#
77 2.1 24.8 37.2#

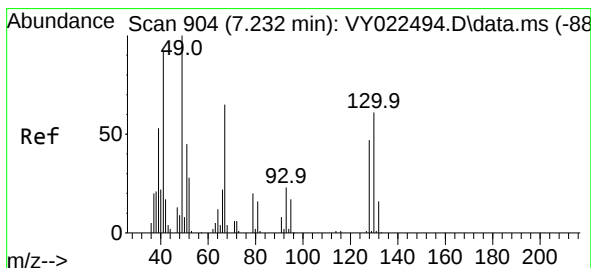
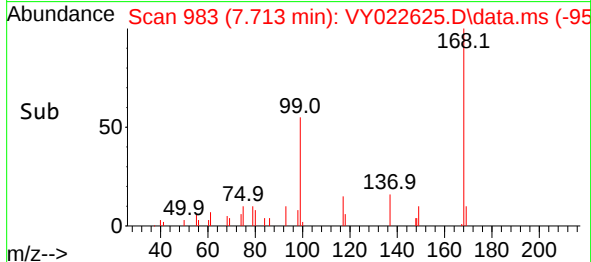
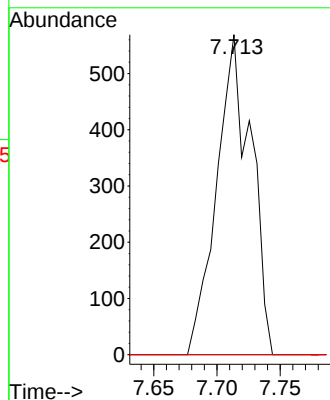
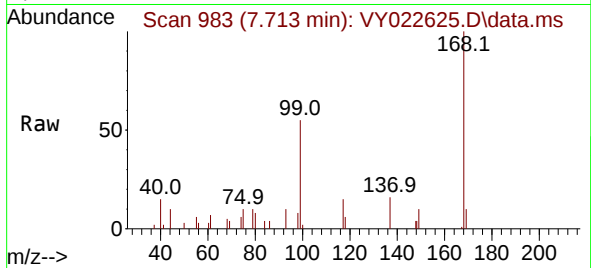




#38
Carbon Tetrachloride
Concen: 6.756 ug/l
RT: 7.713 min Scan# 901
Delta R.T. -0.110 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

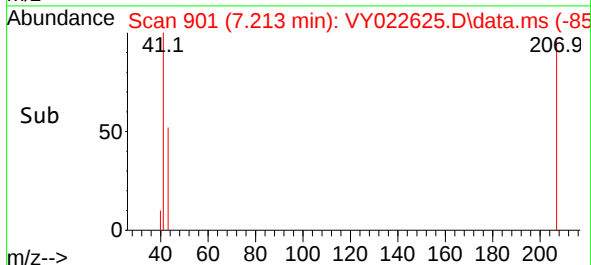
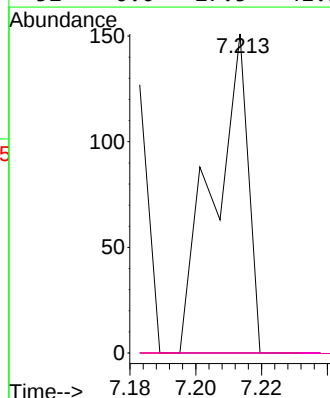
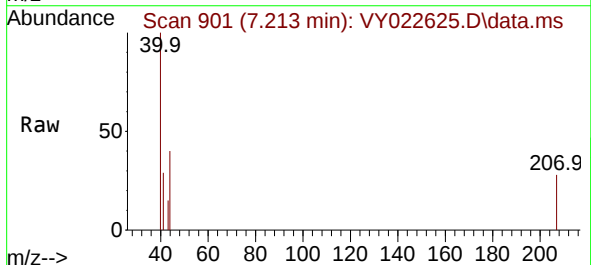
Instrument : MSVOA_Y
ClientSampleId : HR-04-06042025

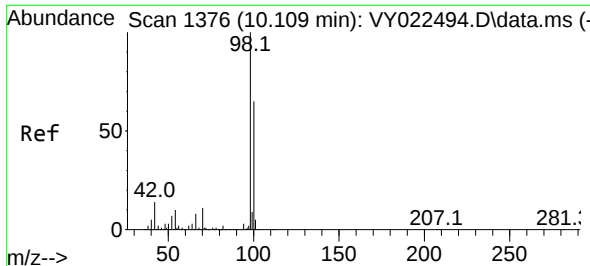
Tgt Ion: 117 Resp: 1077
Ion Ratio Lower Upper
117 100
119 0.0 75.0 112.6#
121 0.0 25.0 37.4#



#41
Methacrylonitrile
Concen: 2.718 ug/l
RT: 7.213 min Scan# 901
Delta R.T. -0.018 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 41 Resp: 110
Ion Ratio Lower Upper
41 100
39 0.0 46.6 69.8#
67 0.0 63.3 94.9#
52 0.0 27.5 41.3#

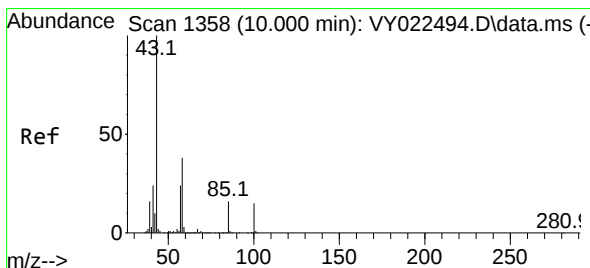
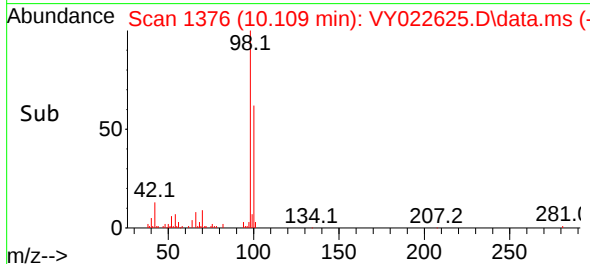
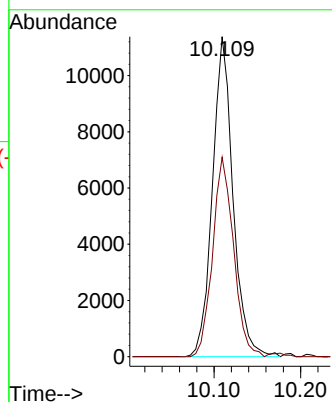
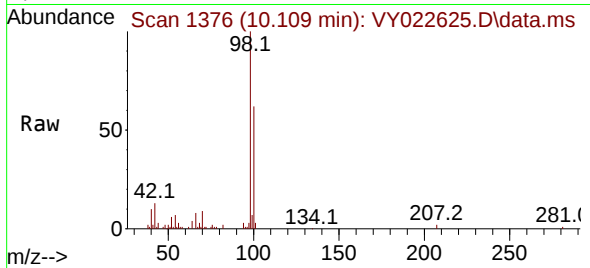




#50
Toluene-d8
Concen: 48.525 ug/l
RT: 10.109 min Scan# 1376
Delta R.T. -0.000 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

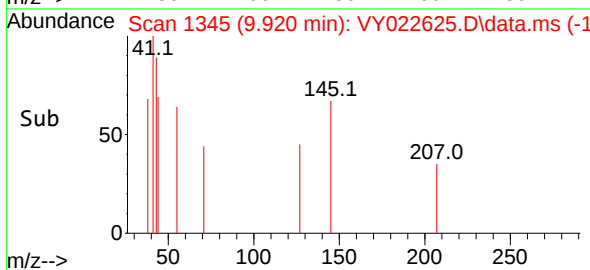
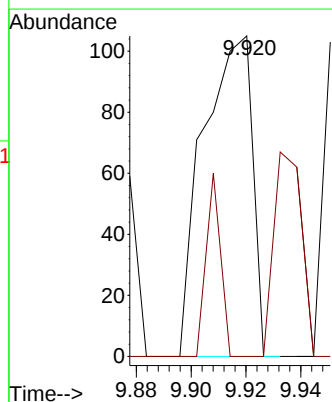
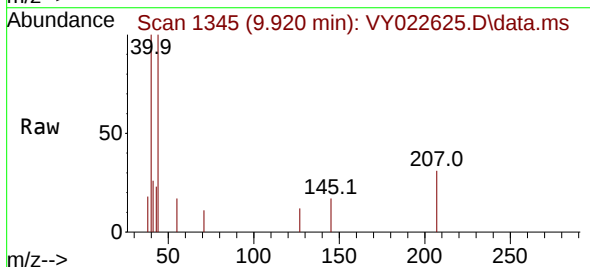
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

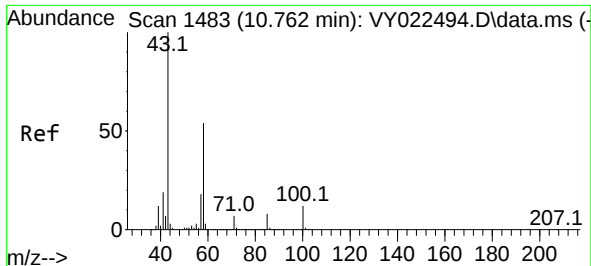
Tgt Ion: 98 Resp: 18773
Ion Ratio Lower Upper
98 100
100 63.5 51.4 77.0



#51
4-Methyl-2-Pentanone
Concen: 1.742 ug/l
RT: 9.920 min Scan# 1345
Delta R.T. -0.079 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 43 Resp: 130
Ion Ratio Lower Upper
43 100
58 36.2 30.4 45.6





#59

2-Hexanone

Concen: 2.184 ug/l

RT: 10.774 min Scan# 1485

Delta R.T. 0.012 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Instrument :

MSVOA_Y

ClientSampleId :

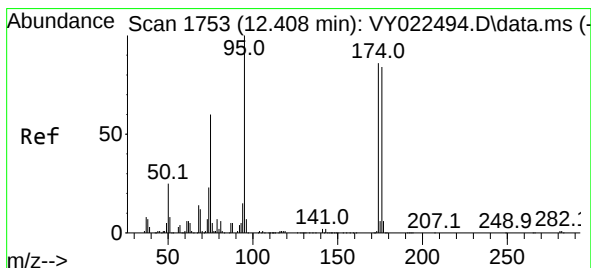
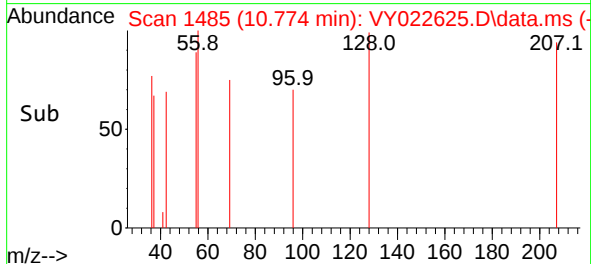
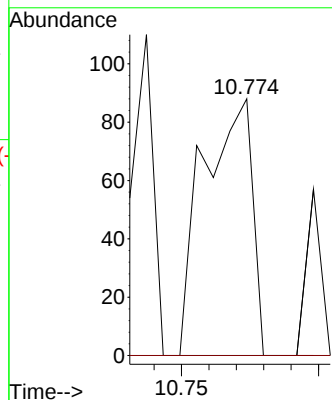
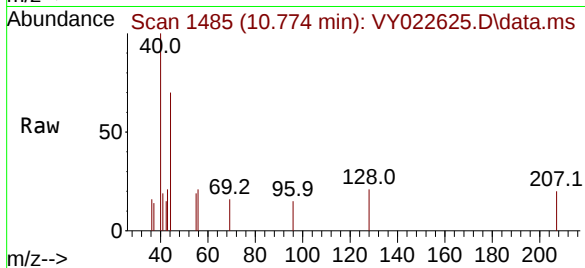
HR-04-06042025

Tgt Ion: 43 Resp: 109

Ion Ratio Lower Upper

43 100

58 0.0 27.3 81.8#



#62

4-Bromofluorobenzene

Concen: 38.579 ug/l

RT: 12.408 min Scan# 1753

Delta R.T. -0.000 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

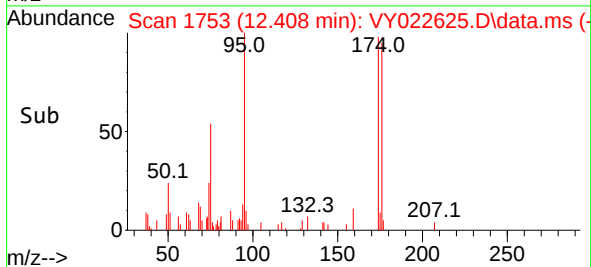
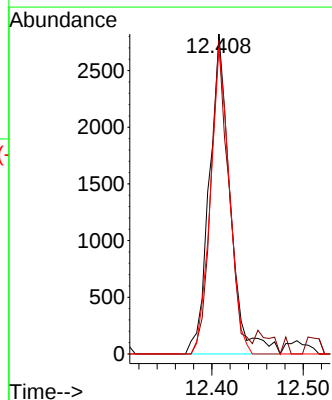
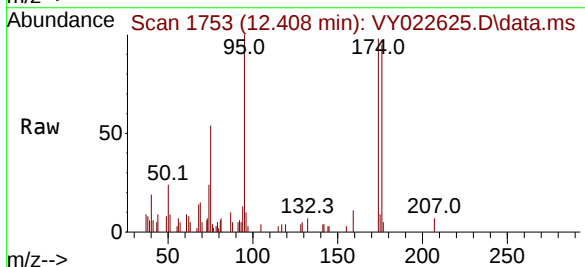
Tgt Ion: 95 Resp: 4447

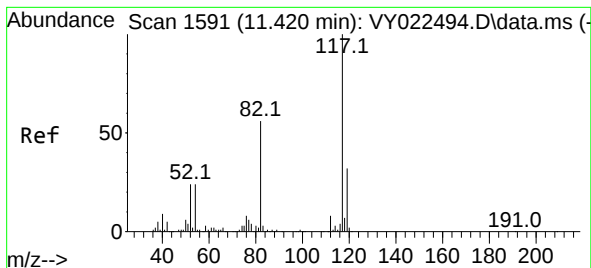
Ion Ratio Lower Upper

95 100

174 86.2 0.0 170.0

176 87.3 0.0 166.2





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.420 min Scan# 11

Delta R.T. -0.000 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

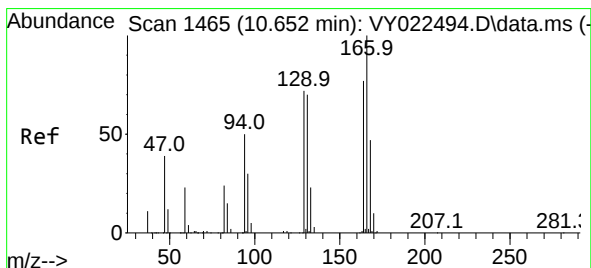
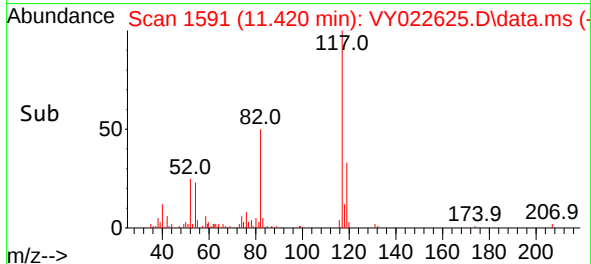
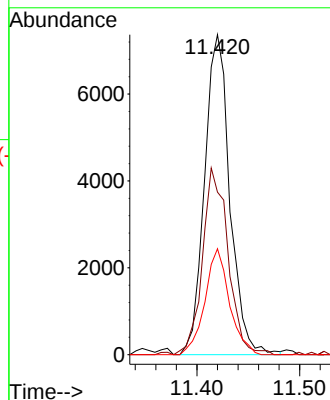
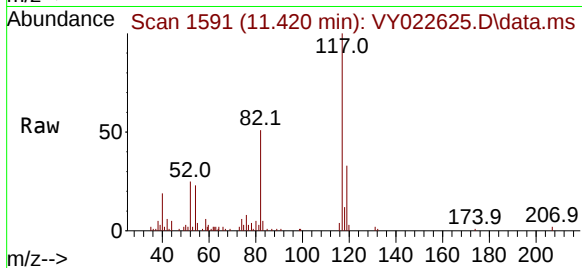
Instrument :

MSVOA_Y

ClientSampleId :

HR-04-06042025

Tgt Ion:117	Resp:	12637
Ion	Ratio	Lower Upper
117	100	
82	50.8	44.6 66.8
119	33.1	25.4 38.0



#64

Tetrachloroethene

Concen: 2.162 ug/l

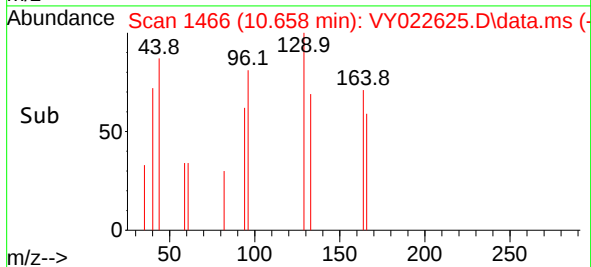
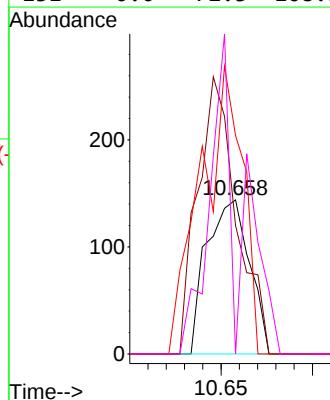
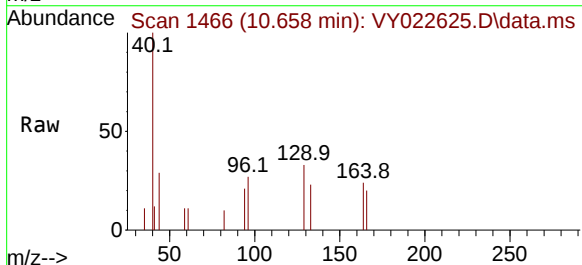
RT: 10.658 min Scan# 1466

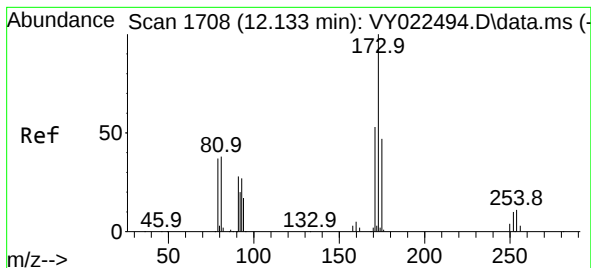
Delta R.T. 0.006 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Tgt Ion:164	Resp:	235
Ion	Ratio	Lower Upper
164	100	
166	83.3	104.0 156.0#
129	141.7	74.5 111.7#
131	0.0	72.3 108.5#





#71

Bromoform

Concen: 1.137 ug/l

RT: 12.194 min Scan# 1

Delta R.T. 0.061 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

Instrument :

MSVOA_Y

ClientSampleId :

HR-04-06042025

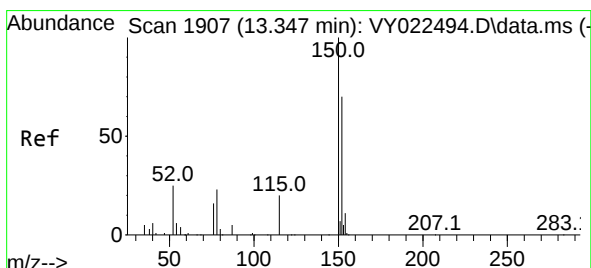
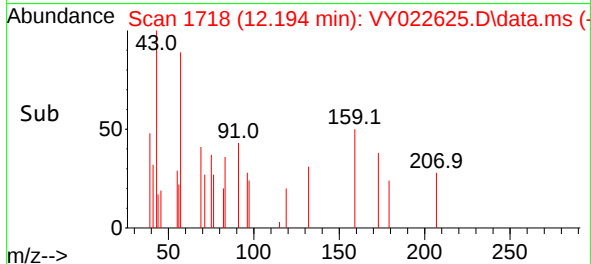
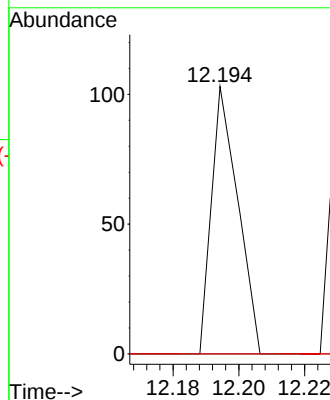
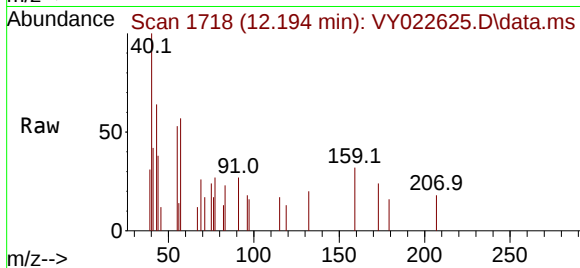
Tgt Ion:173 Resp: 57

Ion Ratio Lower Upper

173 100

175 0.0 23.8 71.5#

254 0.0 0.0 0.0



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.347 min Scan# 1907

Delta R.T. -0.000 min

Lab File: VY022625.D

Acq: 09 Jun 2025 13:13

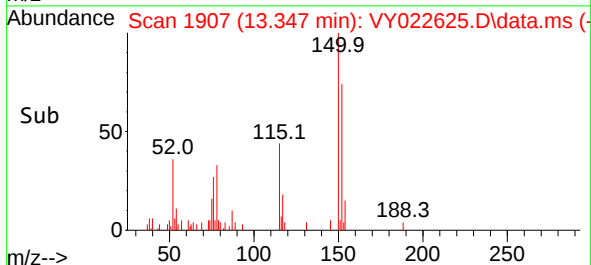
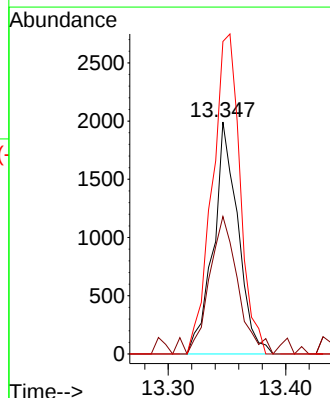
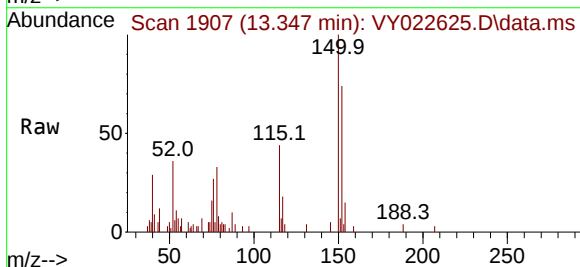
Tgt Ion:152 Resp: 2892

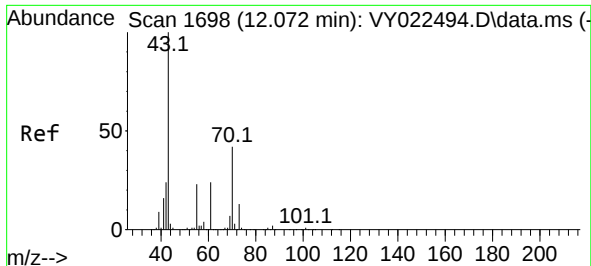
Ion Ratio Lower Upper

152 100

115 70.0 28.9 86.7

150 156.3 0.0 349.6

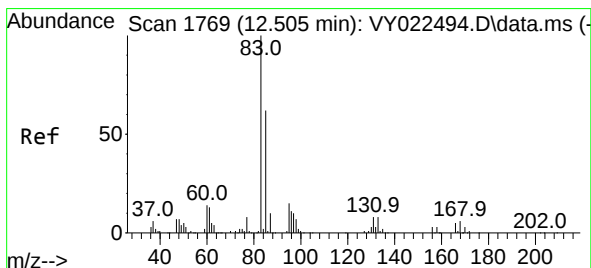
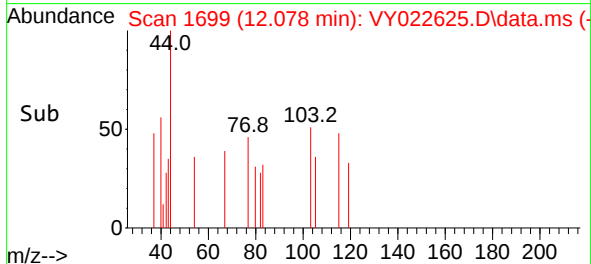
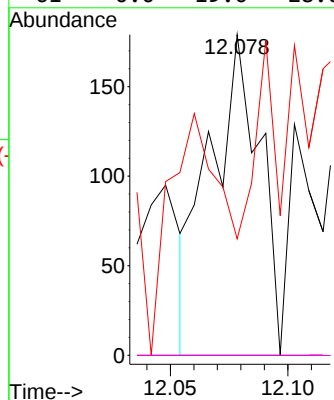
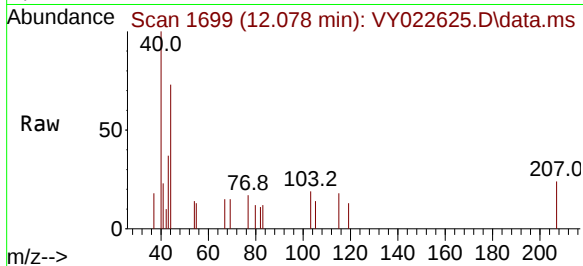




#74
N-amy1 acetate
Concen: 4.390 ug/l
RT: 12.078 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

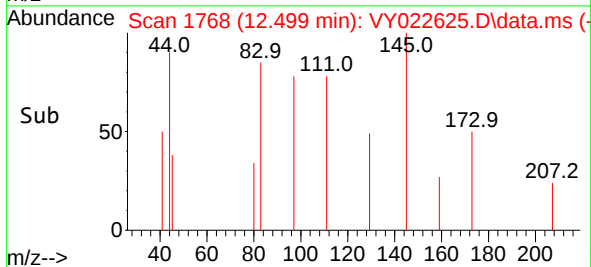
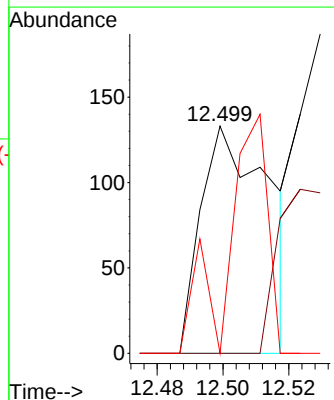
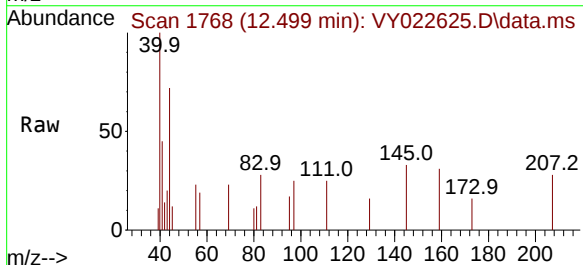
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

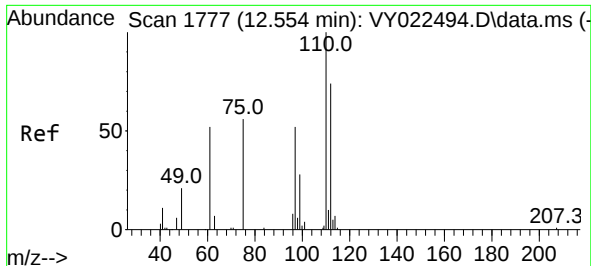
Tgt Ion: 43	Resp: 263
Ion Ratio	Lower Upper
43 100	
70 0.0	34.2 51.2#
55 21.7	18.2 27.4
61 0.0	19.0 28.6#



#75
1,1,2,2-Tetrachloroethane
Concen: 4.927 ug/l
RT: 12.499 min Scan# 1768
Delta R.T. -0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 83	Resp: 192
Ion Ratio	Lower Upper
83 100	
131 0.0	4.9 14.7#
85 0.0	32.6 97.8#

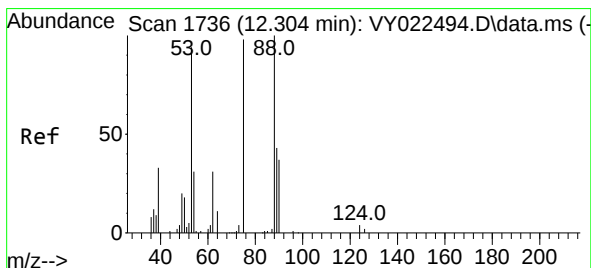
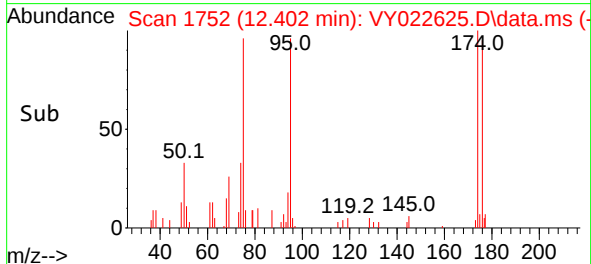
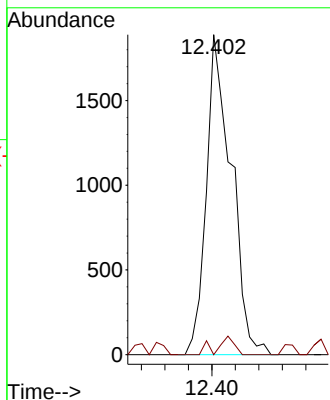
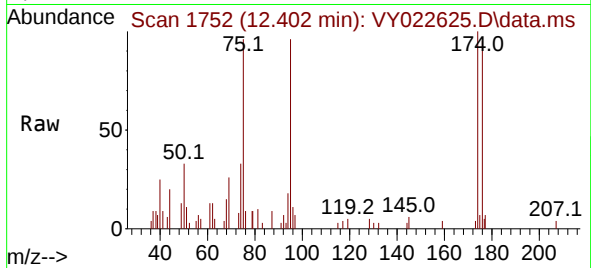




#76
1,2,3-Trichloropropane
Concen: 84.236 ug/l
RT: 12.402 min Scan# 1752
Delta R.T. -0.152 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

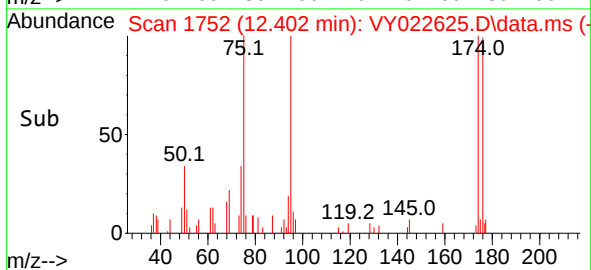
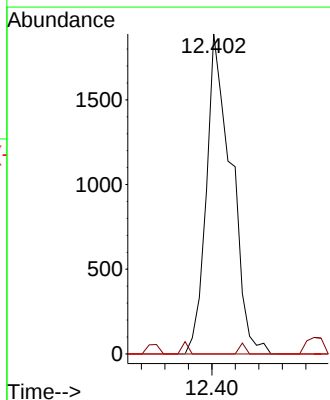
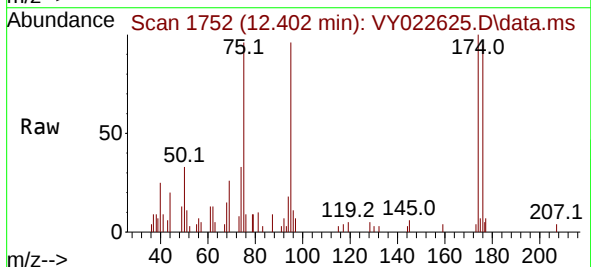
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

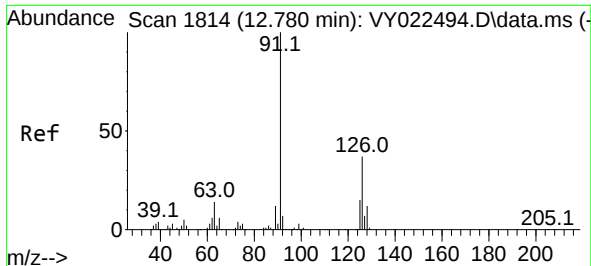
Tgt Ion: 75 Resp: 2787
Ion Ratio Lower Upper
75 100
77 4.0 0.0 0.0#



#81
trans-1,4-Dichloro-2-butene
Concen: 203.425 ug/l
RT: 12.402 min Scan# 1752
Delta R.T. 0.097 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 75 Resp: 2787
Ion Ratio Lower Upper
75 100
53 0.0 78.5 117.7#
89 0.0 35.7 53.5#

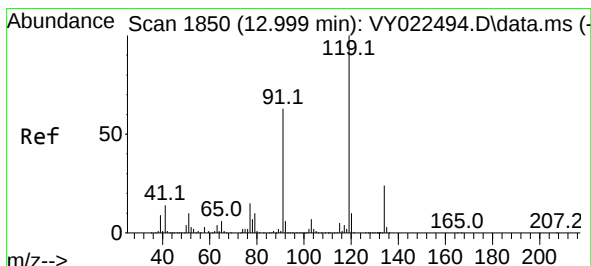
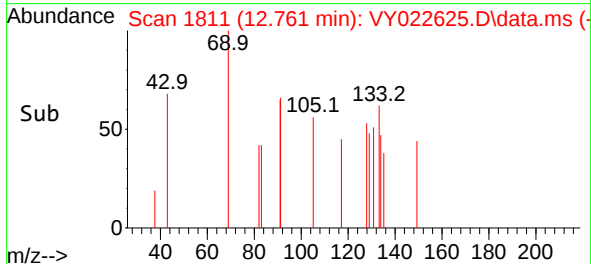
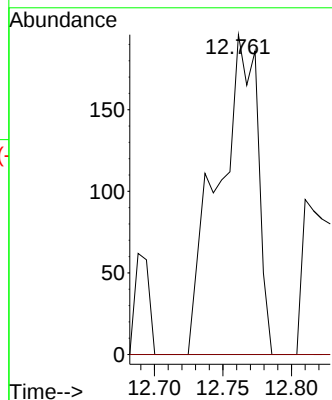
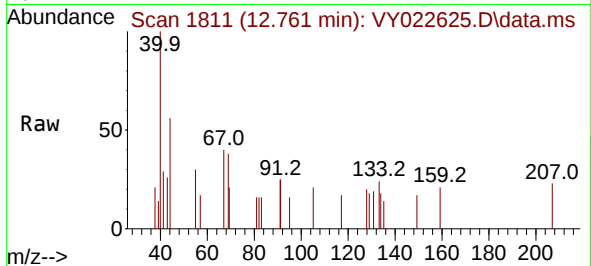




#82
4-Chlorotoluene
Concen: 2.491 ug/l
RT: 12.761 min Scan# 1811
Delta R.T. -0.018 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

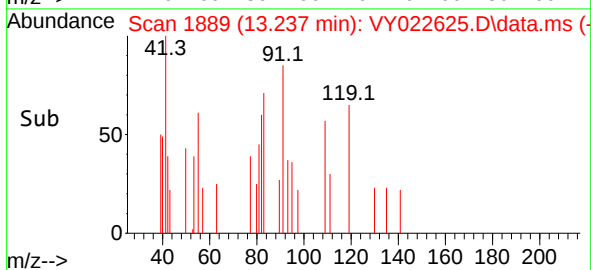
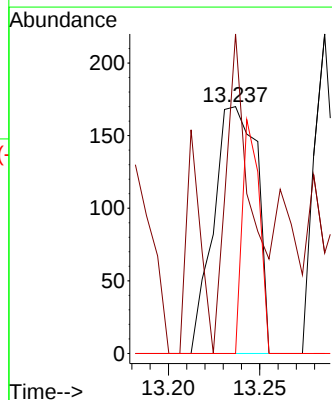
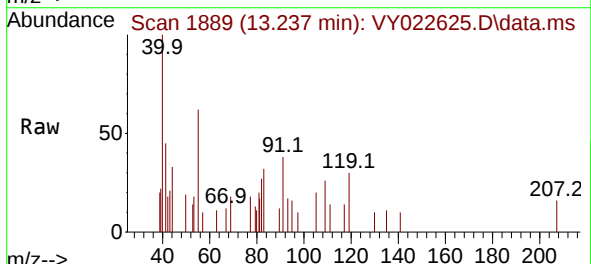
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

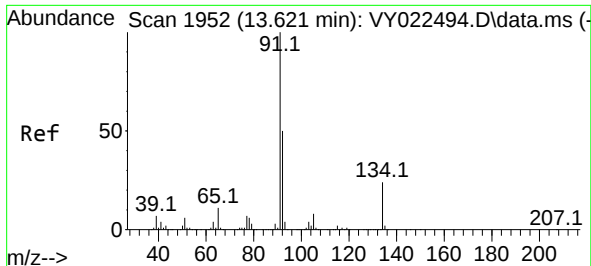
Tgt Ion: 91 Resp: 395
Ion Ratio Lower Upper
91 100
126 0.0 17.0 50.9#



#83
tert-Butylbenzene
Concen: 1.680 ug/l
RT: 13.237 min Scan# 1889
Delta R.T. 0.238 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Tgt Ion: 119 Resp: 281
Ion Ratio Lower Upper
119 100
91 76.2 32.1 96.3
134 37.4 13.0 38.9

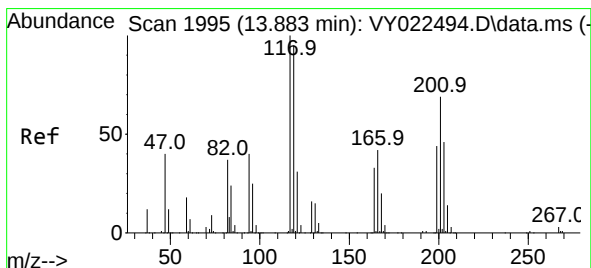
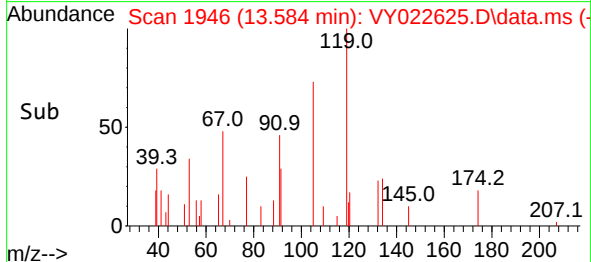
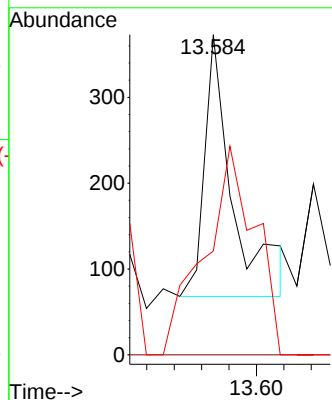
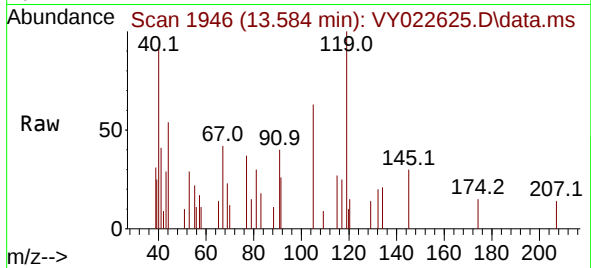




#89
n-Butylbenzene
Concen: 1.103 ug/l
RT: 13.584 min Scan# 1946
Delta R.T. -0.037 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

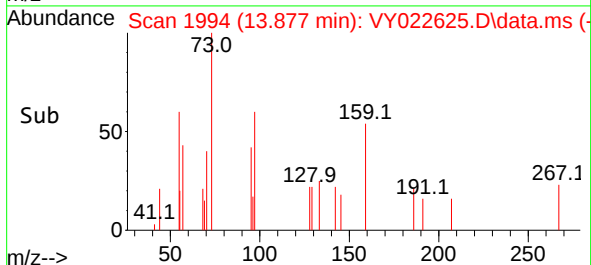
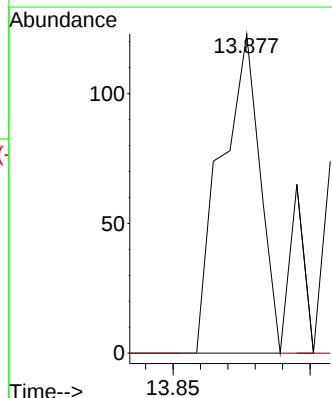
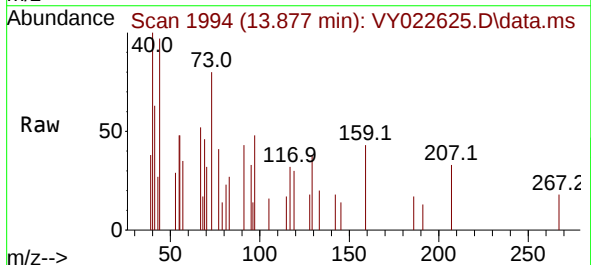
Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025

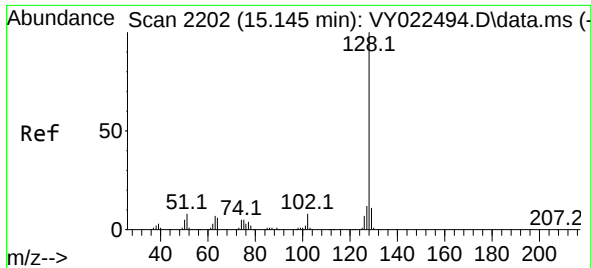
Tgt Ion: 91 Resp: 221
Ion Ratio Lower Upper
91 100
92 0.0 25.9 77.8#
134 140.7 12.0 36.1#



#90
Hexachloroethane
Concen: 2.943 ug/l
RT: 13.877 min Scan# 1994
Delta R.T. -0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

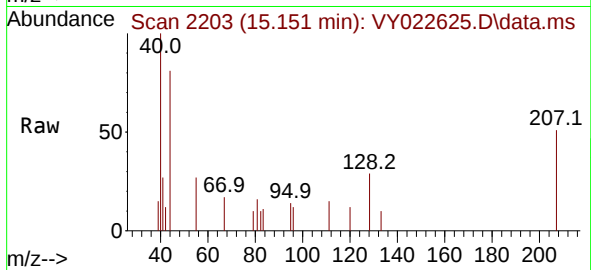
Tgt Ion: 117 Resp: 121
Ion Ratio Lower Upper
117 100
201 0.0 34.0 102.0#





#95
Naphthalene
Concen: 2.505 ug/l
RT: 15.151 min Scan# 21
Delta R.T. 0.006 min
Lab File: VY022625.D
Acq: 09 Jun 2025 13:13

Instrument :
MSVOA_Y
ClientSampleId :
HR-04-06042025



Tgt Ion:128 Resp: 226
Ion Ratio Lower Upper
128 100
127 0.0 10.4 15.6#
129 0.0 8.9 13.3#

