

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121222\
 Data File : VL039987.D
 Acq On : 12 Dec 2022 22:25
 Operator : SY/MD
 Sample : N5971-08
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Quant Time: Dec 13 07:10:25 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111822AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Dec 02 23:21:36 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	5.169	49	1099372	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	6.629	114	2805628	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.445	117	2562101	10.000	ppbv	0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.761	95	2111107	10.788	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	107.900%

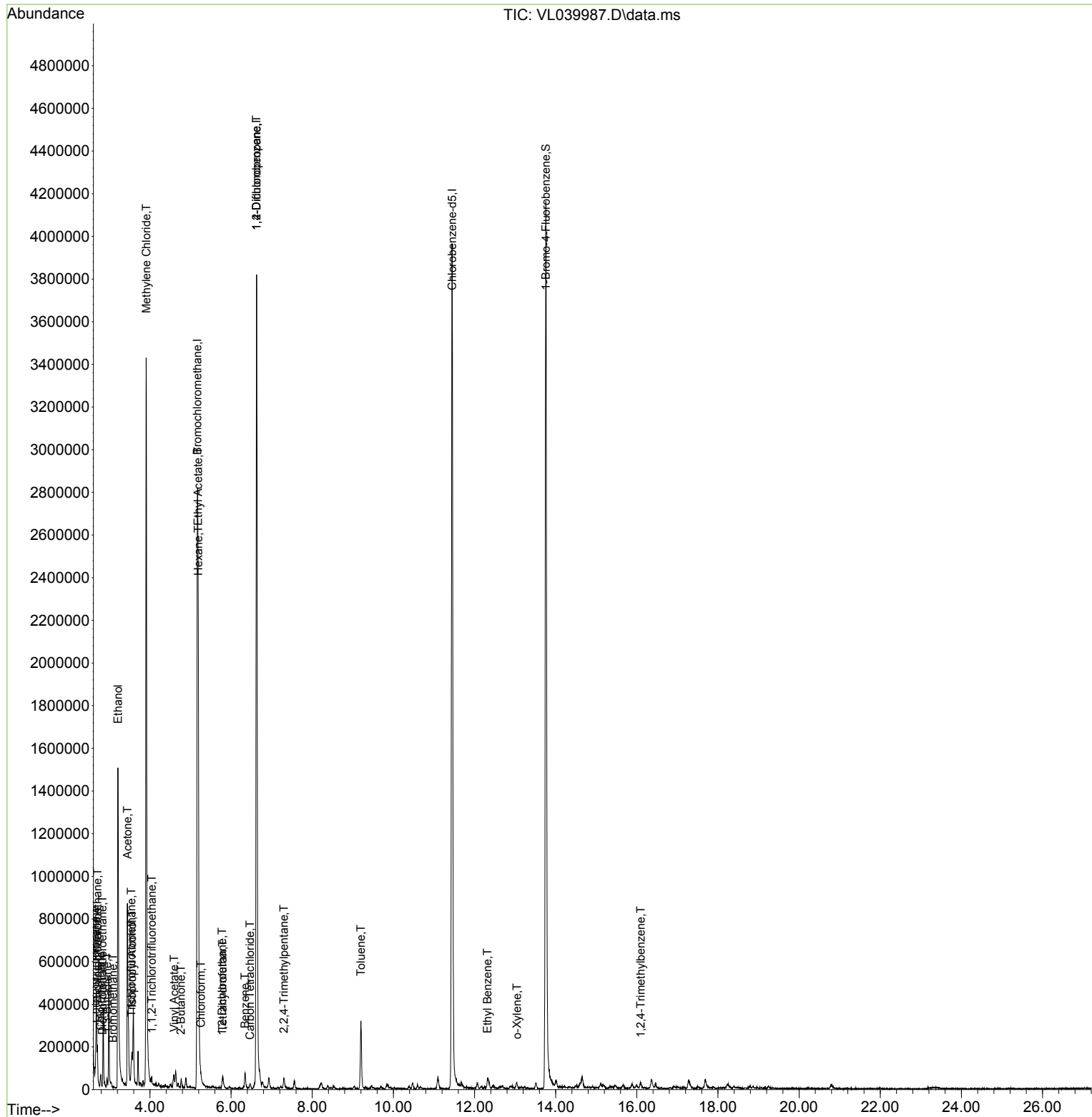
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.706	85	97224	0.617	ppbv	98
3) Chlorodifluoromethane	2.652	51	80118	0.528	ppbv	98
4) Chloromethane	2.790	50	43132	0.445	ppbv	93
6) Bromomethane	3.089	94	535	0.021	ppbv #	26
8) Dichlorotetrafluoroethane	2.832	85	3621	0.020	ppbv	93
9) Propene	2.674	41	134542	1.883	ppbv #	82
11) Trichlorofluoromethane	3.539	101	46074	0.240	ppbv	99
12) 1,1,2-Trichlorotrifluo...	4.047	101	5574	0.038	ppbv #	26
13) Ethanol	3.211	45	1581179	289.814	ppbv	100
15) Acetone	3.446	43	889535	6.100	ppbv	97
16) 1,3-Butadiene	2.941	39	11230	0.155	ppbv #	56
19) Isopropyl Alcohol	3.555	45	128418	1.627	ppbv #	38
20) Methylene Chloride	3.909	84	1189925	16.843	ppbv	95
23) Vinyl Acetate	4.597	43	42190	0.704	ppbv #	81
25) Ethyl Acetate	5.189	43	509425	1.903	ppbv #	76
26) Hexane	5.192	57	721998	6.173	ppbv #	38
29) Chloroform	5.256	83	6828	0.044	ppbv	85
34) 2-Butanone	4.767	43	40143	0.299	ppbv	91
35) Carbon Tetrachloride	6.465	117	5923	0.037	ppbv	83
36) Benzene	6.346	78	53484	0.224	ppbv	94
37) 1,2-Dichloroethane	5.780	62	7979	0.061	ppbv #	90
39) 1,2-Dichloropropane	6.629	63	718781	7.736	ppbv #	27
41) Tetrahydrofuran	5.790	42	4470	0.048	ppbv #	36
44) 2,2,4-Trimethylpentane	7.304	57	21162	0.053	ppbv #	24
53) Toluene	9.201	91	232424	0.856	ppbv	99
58) Ethyl Benzene	12.320	91	16429	0.047	ppbv	99
60) o-Xylene	13.047	91	6899	0.025	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.095	105	6454	0.021	ppbv #	64

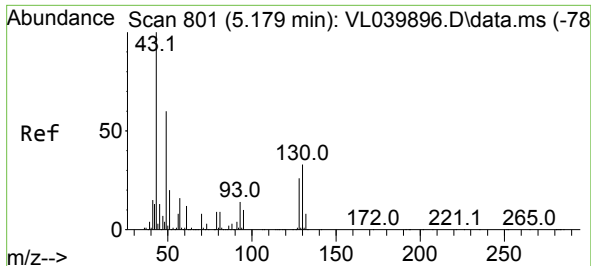
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Dec 13 07:10:25 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11822AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Fri Dec 02 23:21:36 2022
Response via : Initial Calibration

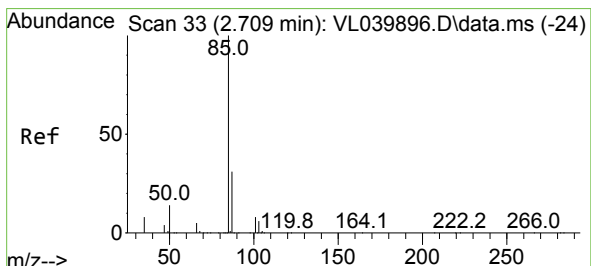
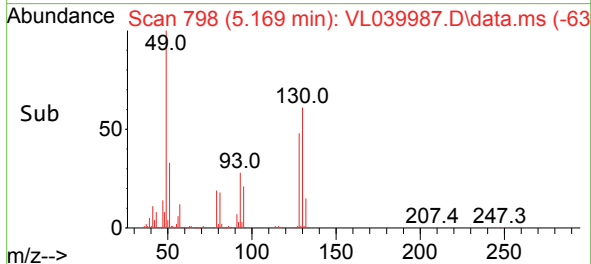
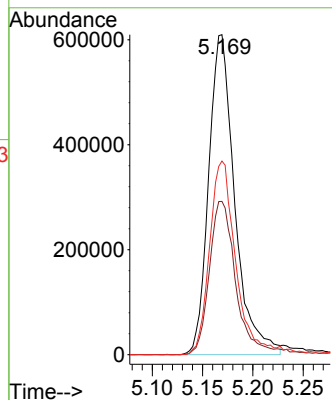
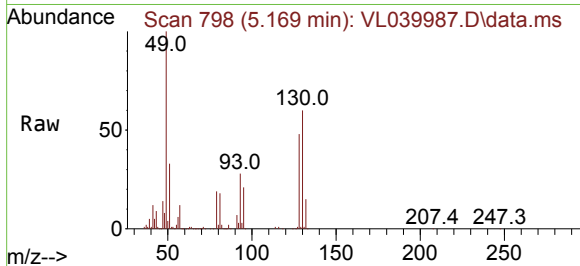




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.169 min Scan# 79
 Delta R.T. 0.013 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

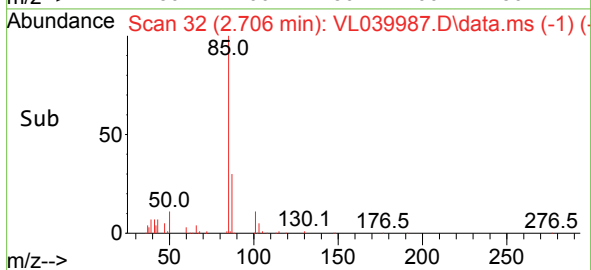
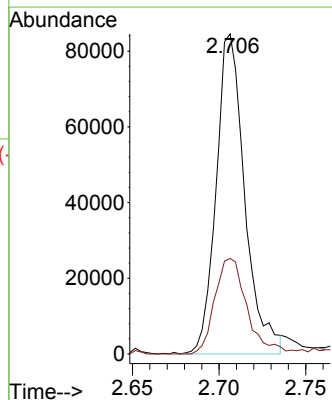
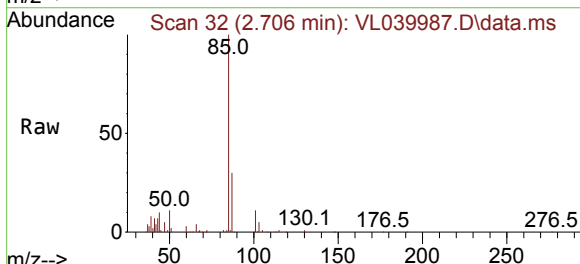
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

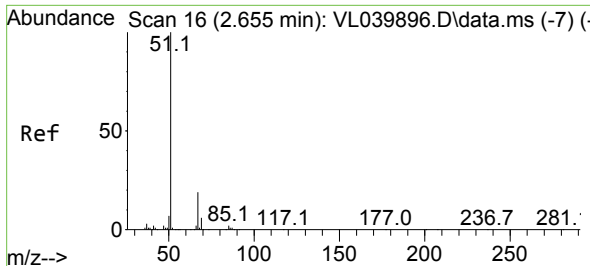
Tgt Ion: 49 Resp: 1099372
 Ion Ratio Lower Upper
 49 100
 128 49.8 22.1 66.3
 130 62.7 27.7 83.1



#2
 Dichlorodifluoromethane
 Concen: 0.617 ppbv
 RT: 2.706 min Scan# 32
 Delta R.T. 0.010 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

Tgt Ion: 85 Resp: 97224
 Ion Ratio Lower Upper
 85 100
 87 29.8 25.0 37.4

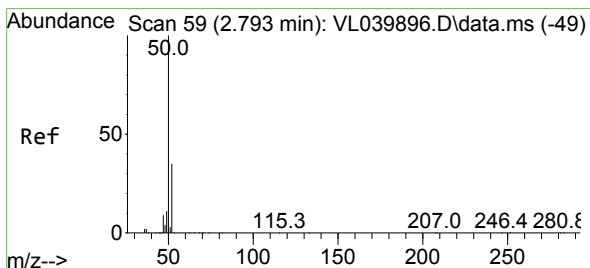
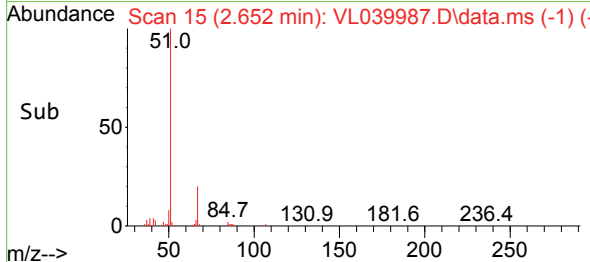
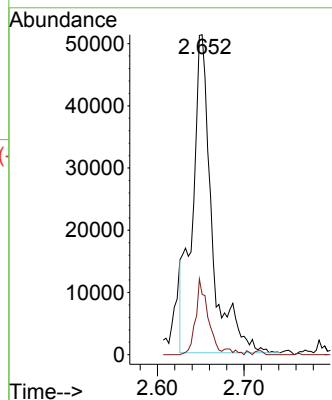
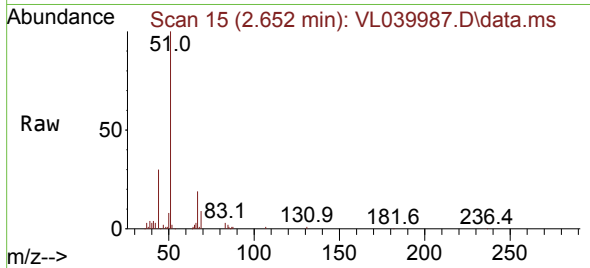




#3
Chlorodifluoromethane
Concen: 0.528 ppbv
RT: 2.652 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

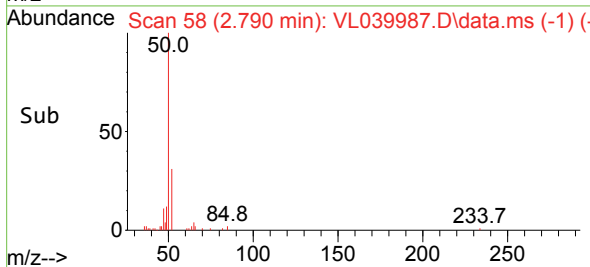
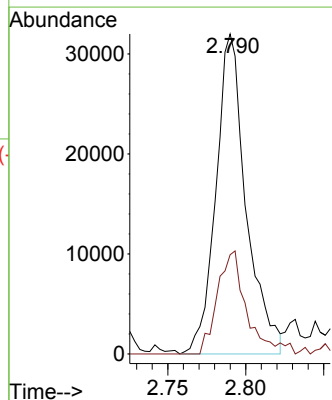
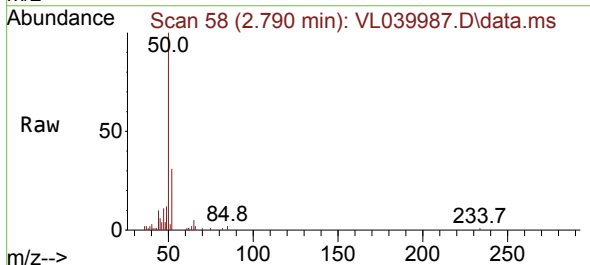
Instrument :
MSVOA_L
ClientSampleId :
IA-2

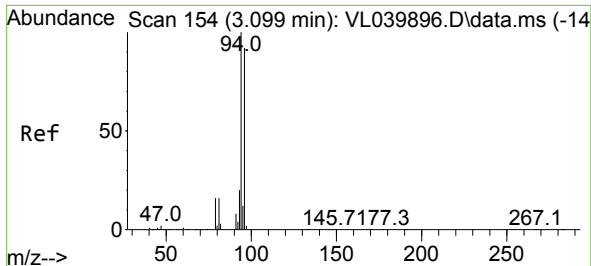
Tgt Ion: 51 Resp: 80118
Ion Ratio Lower Upper
51 100
67 16.8 14.2 21.4



#4
Chloromethane
Concen: 0.445 ppbv
RT: 2.790 min Scan# 58
Delta R.T. 0.010 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

Tgt Ion: 50 Resp: 43132
Ion Ratio Lower Upper
50 100
52 31.0 27.8 41.8

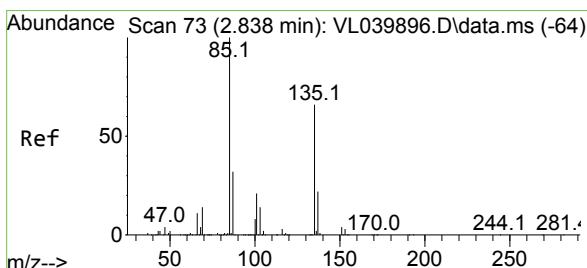
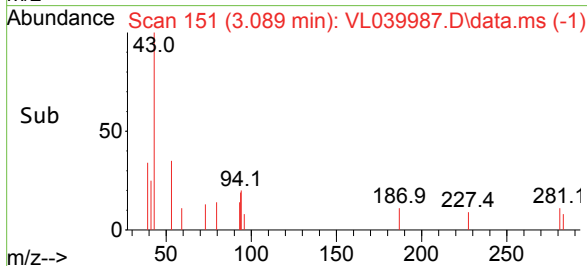
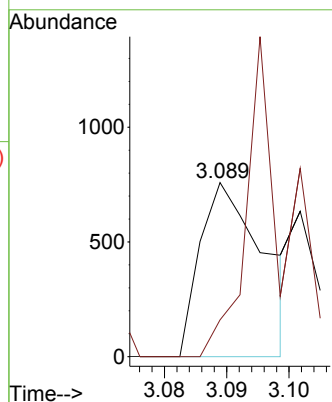
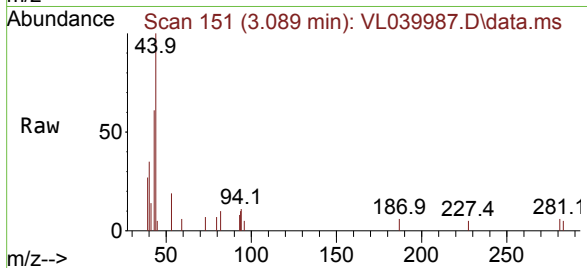




#6
Bromomethane
Concen: 0.021 ppbv
RT: 3.089 min Scan# 11
Delta R.T. 0.003 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

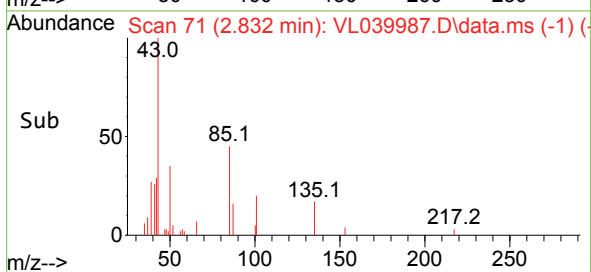
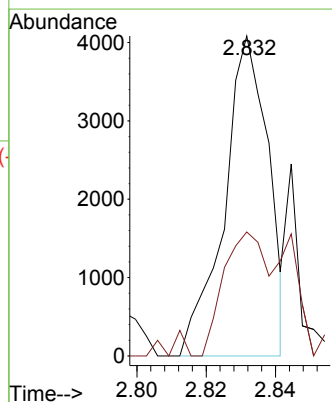
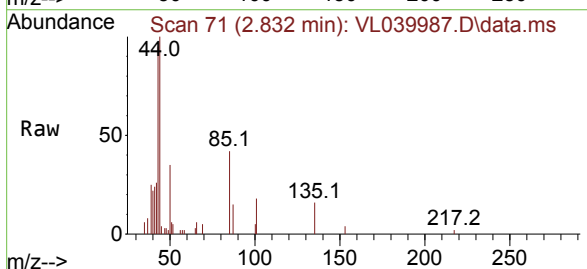
Instrument :
MSVOA_L
ClientSampleId :
IA-2

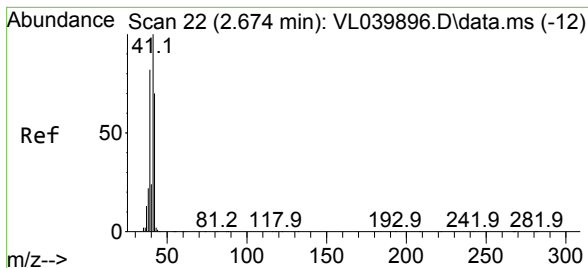
Tgt Ion: 94 Resp: 535
Ion Ratio Lower Upper
94 100
96 21.1 73.7 110.5#



#8
Dichlorotetrafluoroethane
Concen: 0.020 ppbv
RT: 2.832 min Scan# 71
Delta R.T. 0.007 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

Tgt Ion: 85 Resp: 3621
Ion Ratio Lower Upper
85 100
135 62.0 54.1 81.1





#9

Propene

Concen: 1.883 ppbv

RT: 2.674 min Scan# 21

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

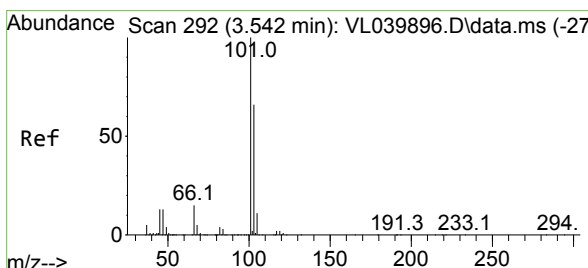
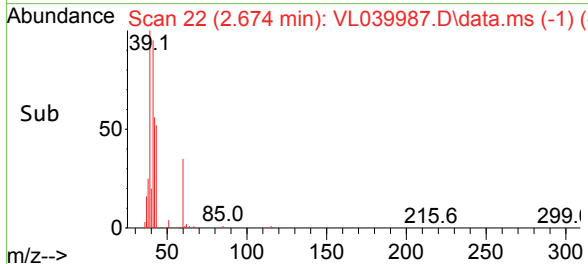
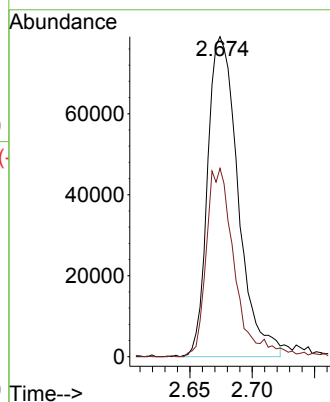
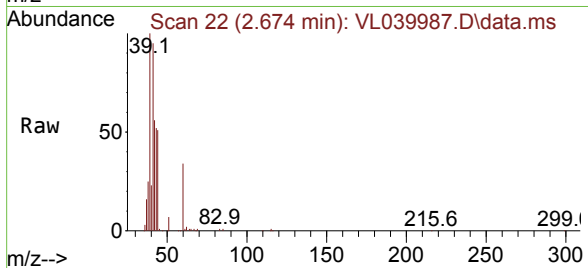
IA-2

Tgt Ion: 41 Resp: 134542

Ion Ratio Lower Upper

41 100

42 55.2 55.8 83.6#



#11

Trichlorofluoromethane

Concen: 0.240 ppbv

RT: 3.539 min Scan# 291

Delta R.T. 0.010 min

Lab File: VL039987.D

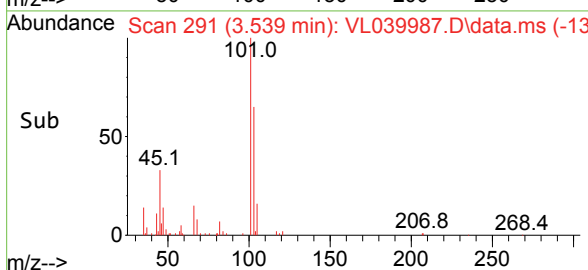
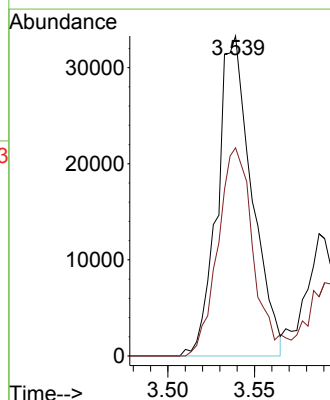
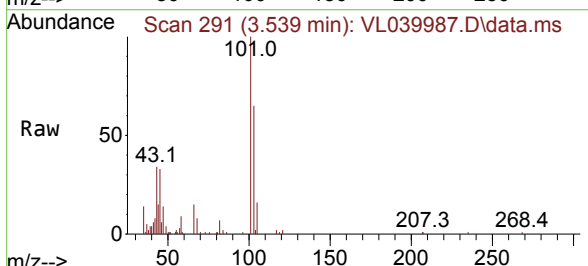
Acq: 12 Dec 2022 22:25

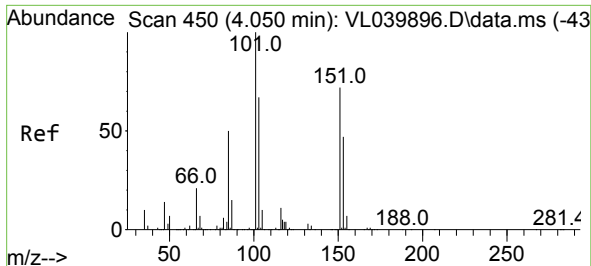
Tgt Ion:101 Resp: 46074

Ion Ratio Lower Upper

101 100

103 65.0 52.6 78.8

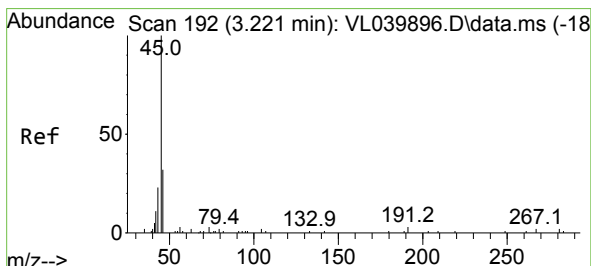
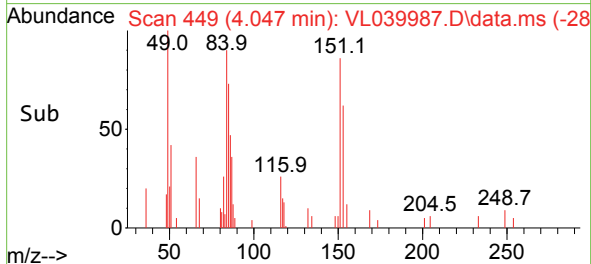
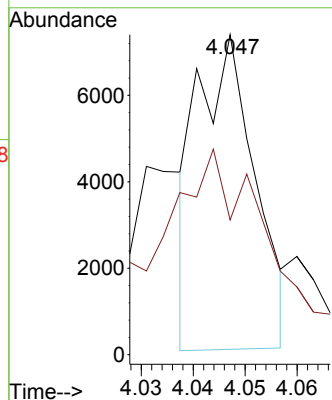
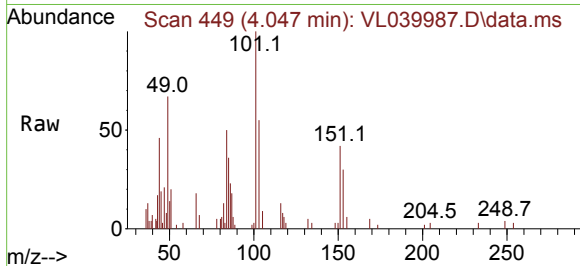




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.038 ppbv
 RT: 4.047 min Scan# 449
 Delta R.T. 0.016 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

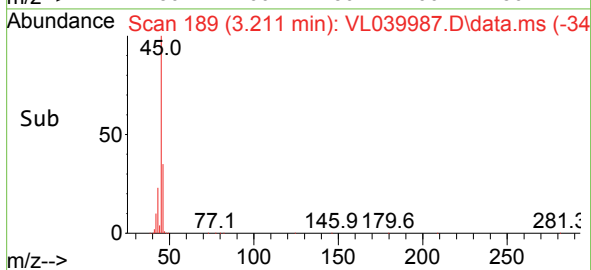
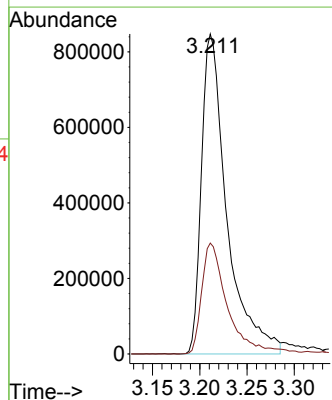
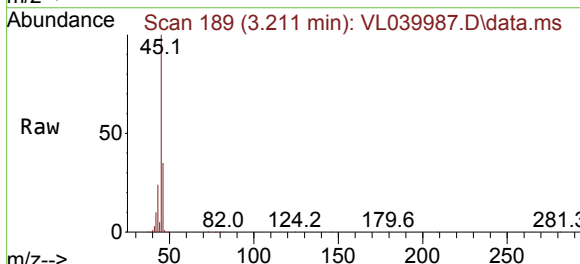
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

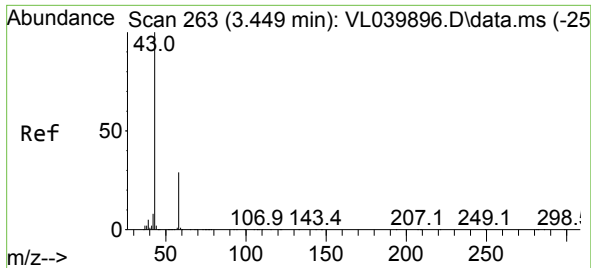
Tgt Ion:101 Resp: 5574
 Ion Ratio Lower Upper
 101 100
 151 137.0 59.6 89.4#



#13
 Ethanol
 Concen: 289.814 ppbv
 RT: 3.211 min Scan# 189
 Delta R.T. -0.003 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

Tgt Ion: 45 Resp: 1581179
 Ion Ratio Lower Upper
 45 100
 46 36.2 14.6 58.2





#15

Acetone

Concen: 6.100 ppbv

RT: 3.446 min Scan# 2

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

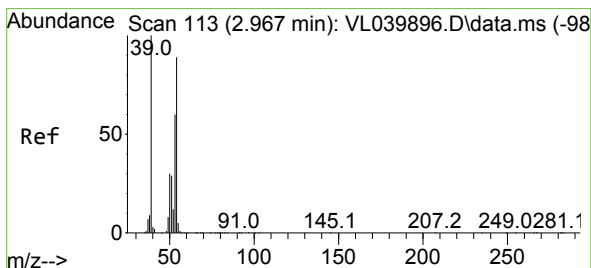
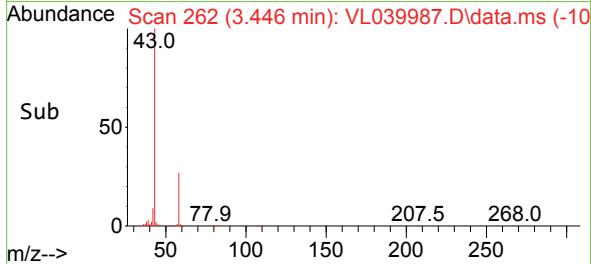
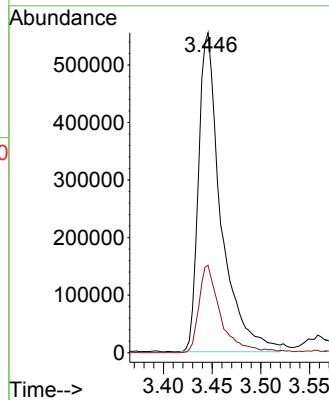
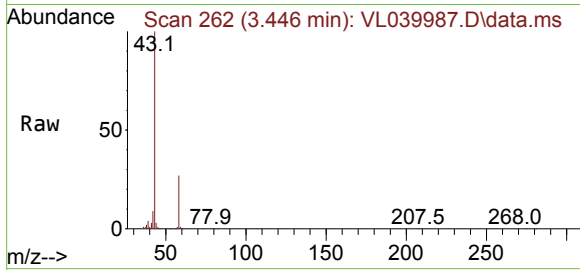
IA-2

Tgt Ion: 43 Resp: 889535

Ion Ratio Lower Upper

43 100

58 26.8 22.9 34.3



#16

1,3-Butadiene

Concen: 0.155 ppbv

RT: 2.941 min Scan# 105

Delta R.T. -0.010 min

Lab File: VL039987.D

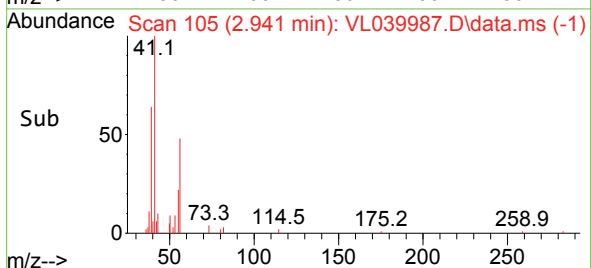
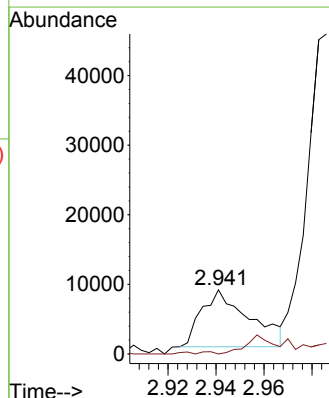
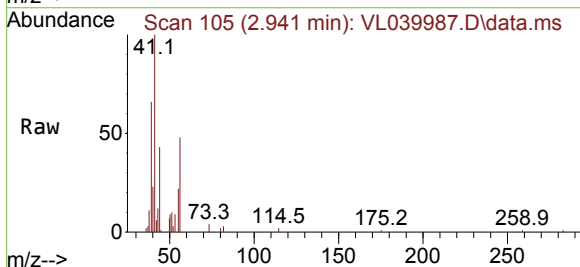
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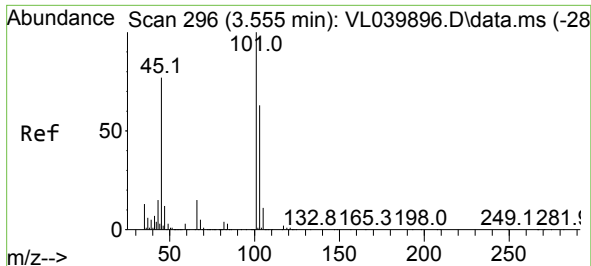
Tgt Ion: 39 Resp: 11230

Ion Ratio Lower Upper

39 100

54 43.4 66.6 99.8#





#19

Isopropyl Alcohol

Concen: 1.627 ppbv

RT: 3.555 min Scan# 296

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

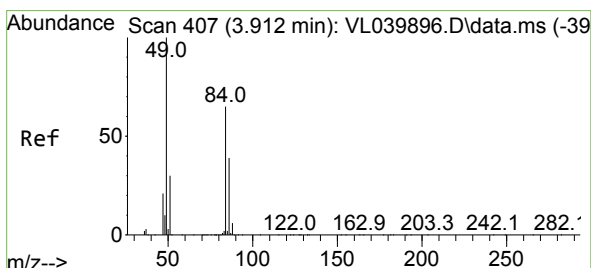
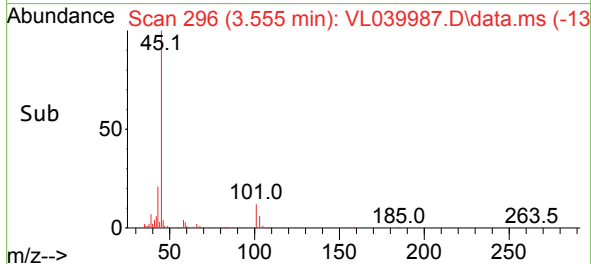
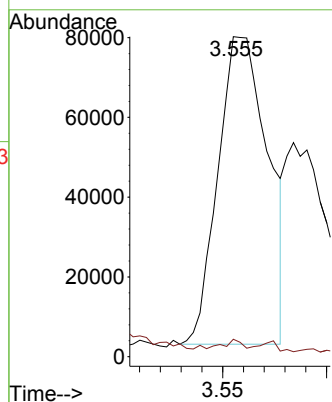
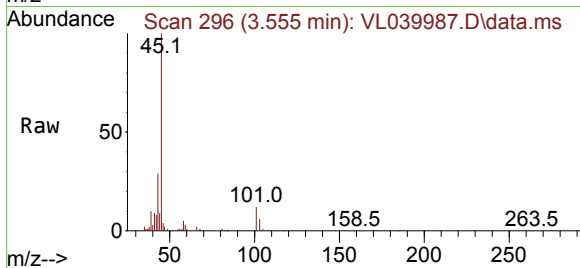
IA-2

Tgt Ion: 45 Resp: 128418

Ion Ratio Lower Upper

45 100

58 6.4 38.7 58.1#



#20

Methylene Chloride

Concen: 16.843 ppbv

RT: 3.909 min Scan# 406

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Tgt Ion: 84 Resp: 1189925

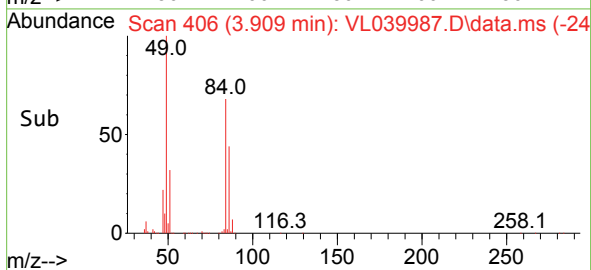
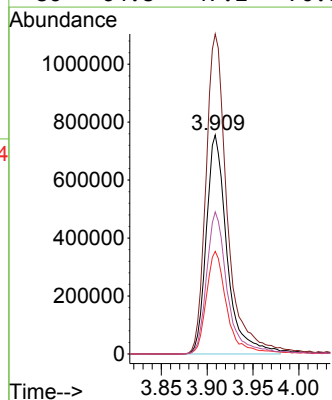
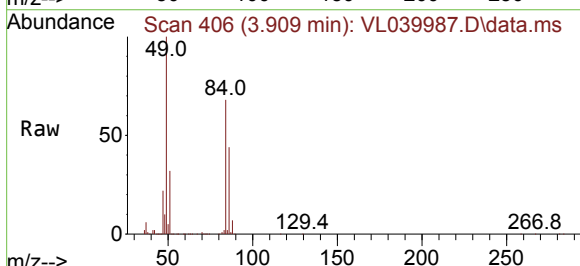
Ion Ratio Lower Upper

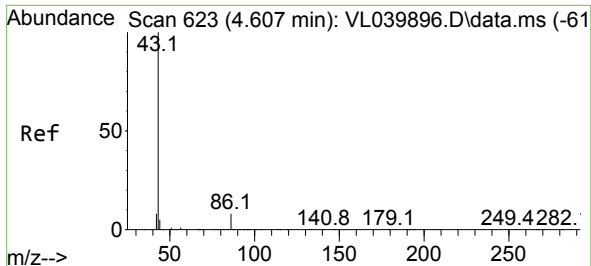
84 100

49 146.0 122.2 183.4

51 46.8 36.3 54.5

86 64.8 47.2 70.8

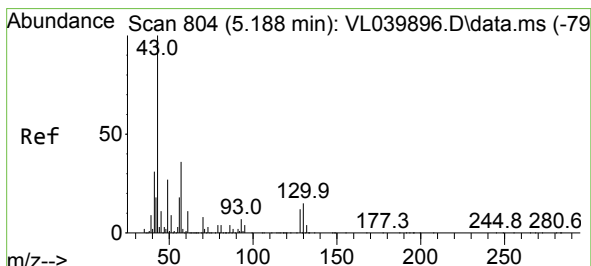
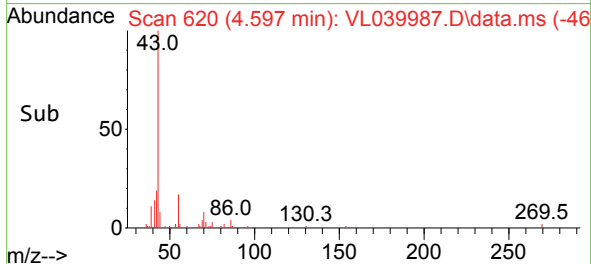
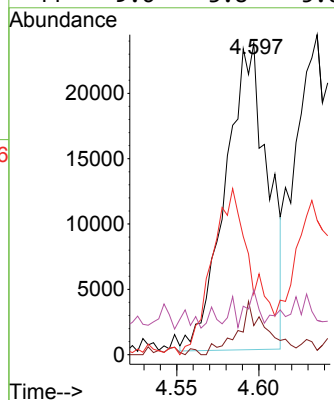
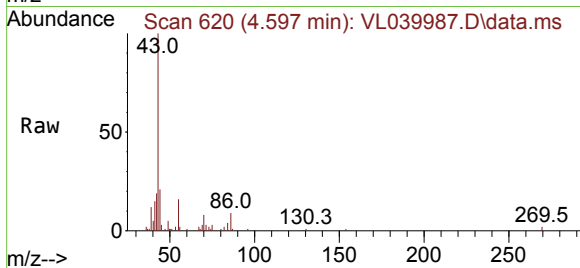




#23
 Vinyl Acetate
 Concen: 0.704 ppbv
 RT: 4.597 min Scan# 61
 Delta R.T. 0.003 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

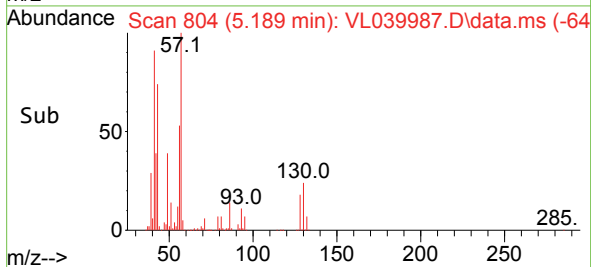
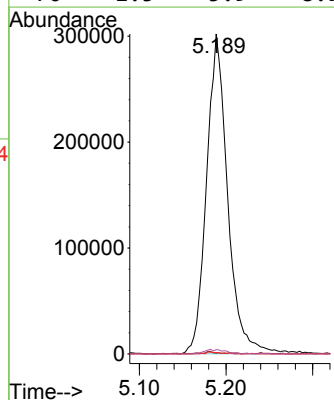
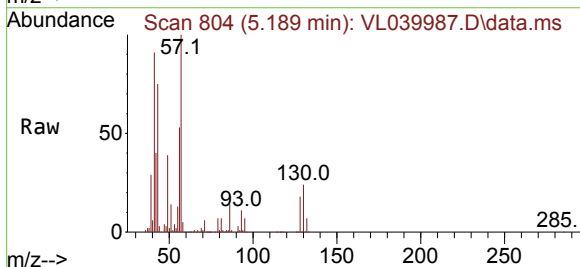
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

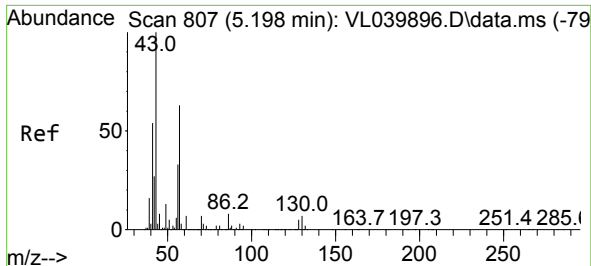
Tgt Ion: 43 Resp: 42190
 Ion Ratio Lower Upper
 43 100
 86 8.9 5.0 7.4#
 42 20.0 7.6 11.4#
 44 9.6 3.8 5.6#



#25
 Ethyl Acetate
 Concen: 1.903 ppbv
 RT: 5.189 min Scan# 804
 Delta R.T. 0.019 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

Tgt Ion: 43 Resp: 509425
 Ion Ratio Lower Upper
 43 100
 45 0.7 8.4 12.6#
 61 0.4 8.5 12.7#
 70 1.5 5.9 8.9#

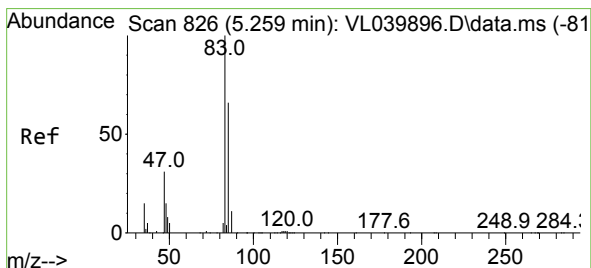
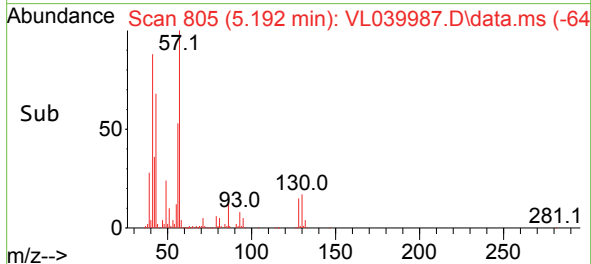
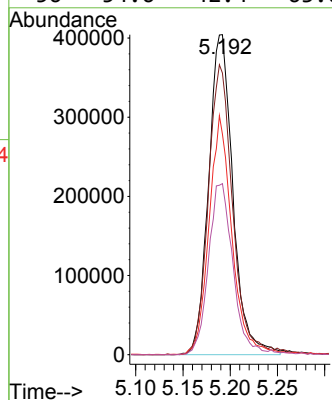
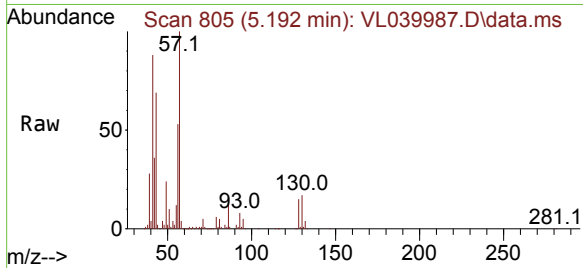




#26
Hexane
Concen: 6.173 ppbv
RT: 5.192 min Scan# 807
Delta R.T. 0.016 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

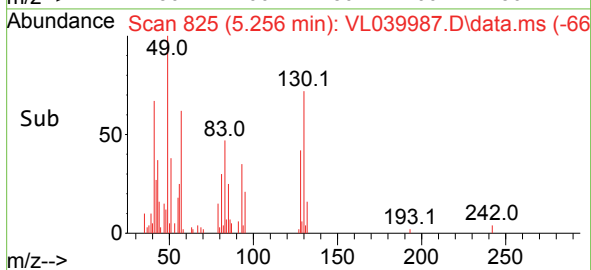
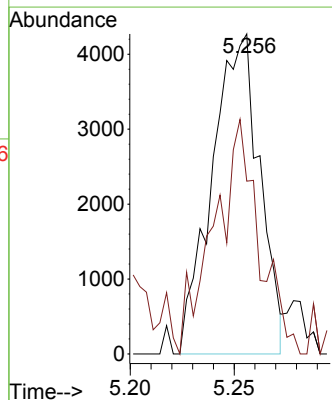
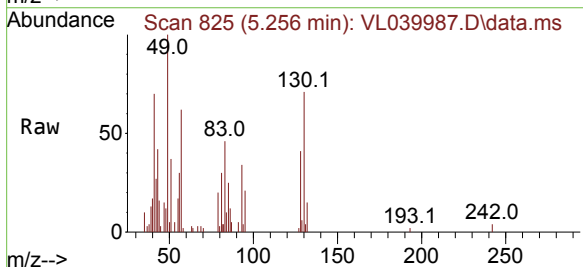
Instrument :
MSVOA_L
ClientSampleId :
IA-2

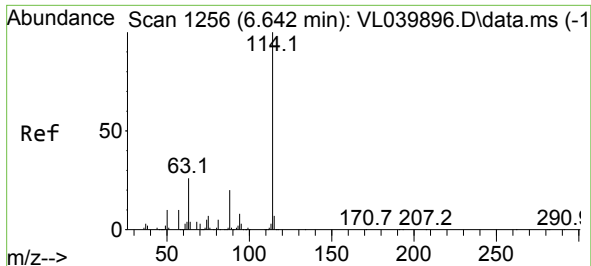
Tgt Ion: 57 Resp: 721998
Ion Ratio Lower Upper
57 100
41 92.6 72.3 108.5
43 71.1 188.7 283.1#
56 54.6 42.4 63.6



#29
Chloroform
Concen: 0.044 ppbv
RT: 5.256 min Scan# 825
Delta R.T. 0.019 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

Tgt Ion: 83 Resp: 6828
Ion Ratio Lower Upper
83 100
85 54.0 52.4 78.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.629 min Scan# 1

Delta R.T. 0.010 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

IA-2

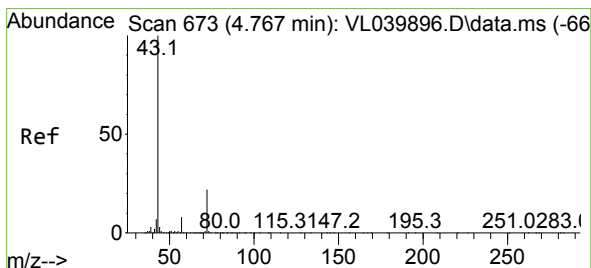
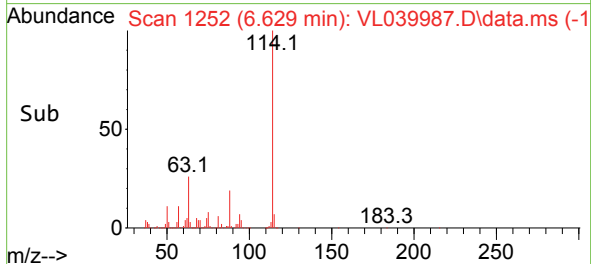
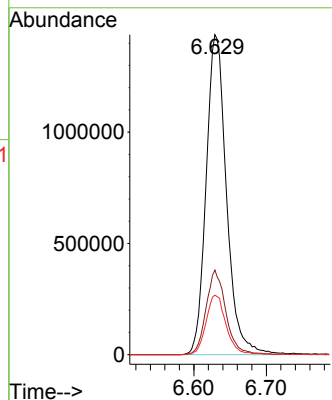
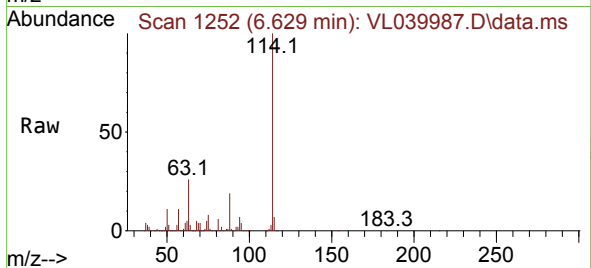
Tgt Ion:114 Resp: 2805628

Ion Ratio Lower Upper

114 100

63 25.8 21.4 32.0

88 18.5 15.3 22.9



#34

2-Butanone

Concen: 0.299 ppbv

RT: 4.767 min Scan# 673

Delta R.T. 0.016 min

Lab File: VL039987.D

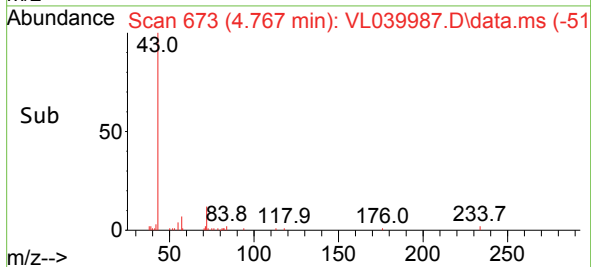
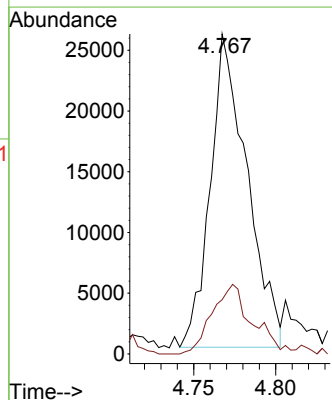
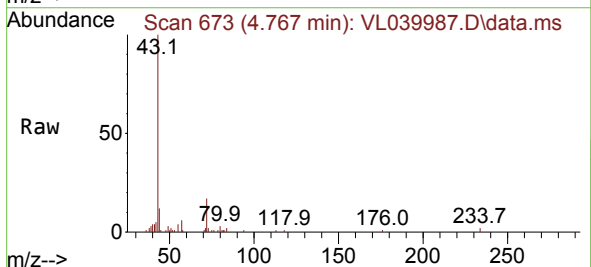
Acq: 12 Dec 2022 22:25

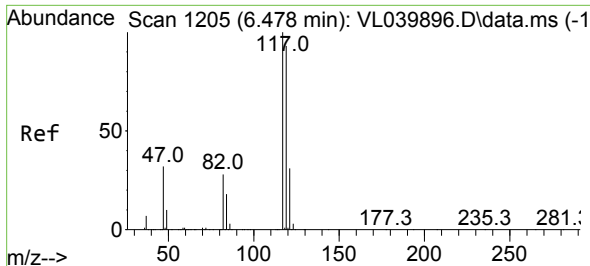
Tgt Ion: 43 Resp: 40143

Ion Ratio Lower Upper

43 100

72 26.1 17.4 26.2

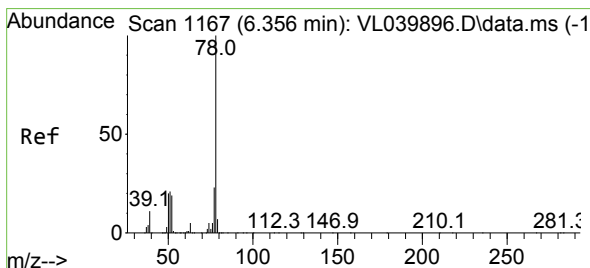
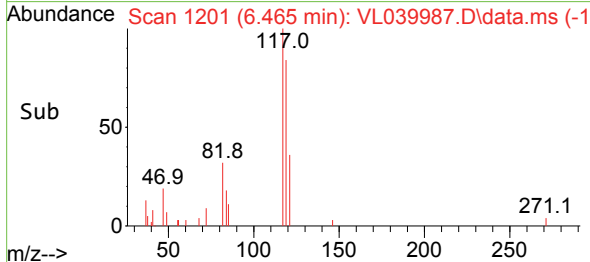
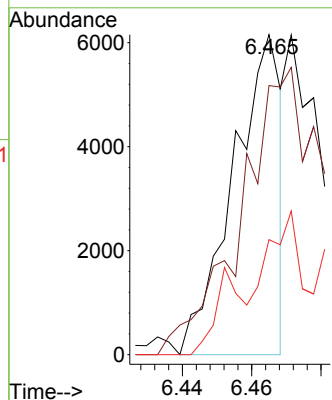
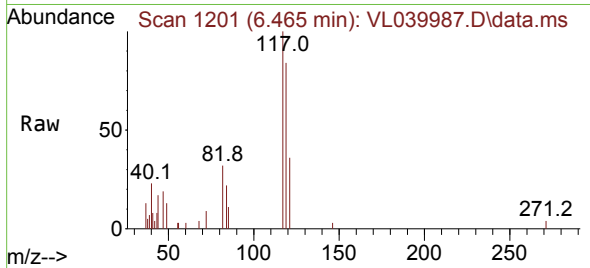




#35
Carbon Tetrachloride
Concen: 0.037 ppbv
RT: 6.465 min Scan# 1164
Delta R.T. 0.010 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

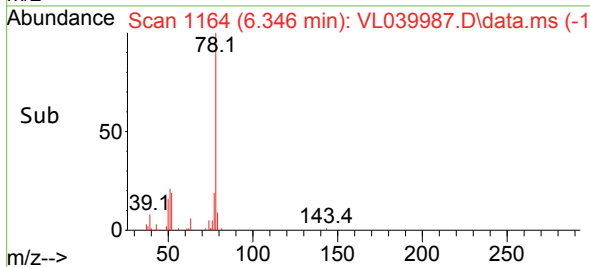
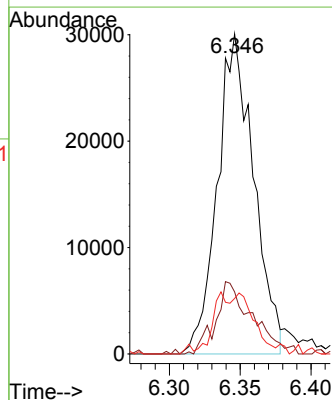
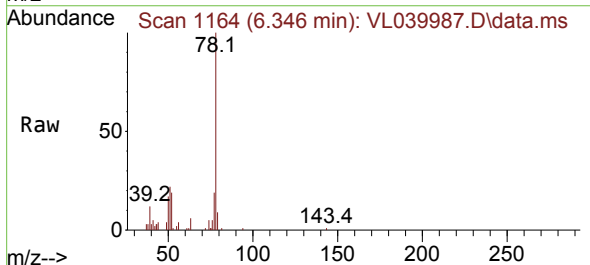
Instrument :
MSVOA_L
ClientSampleId :
IA-2

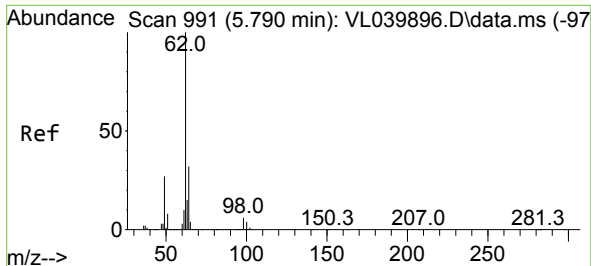
Tgt Ion:117 Resp: 5923
Ion Ratio Lower Upper
117 100
119 74.8 74.7 112.1
121 36.0 24.5 36.7



#36
Benzene
Concen: 0.224 ppbv
RT: 6.346 min Scan# 1164
Delta R.T. 0.013 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

Tgt Ion: 78 Resp: 53484
Ion Ratio Lower Upper
78 100
77 19.4 18.2 27.2
50 17.3 15.8 23.8





#37

1,2-Dichloroethane

Concen: 0.061 ppbv

RT: 5.780 min Scan# 91

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

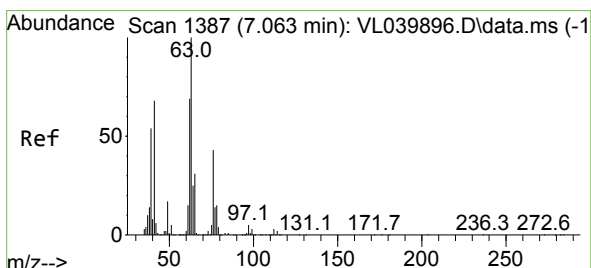
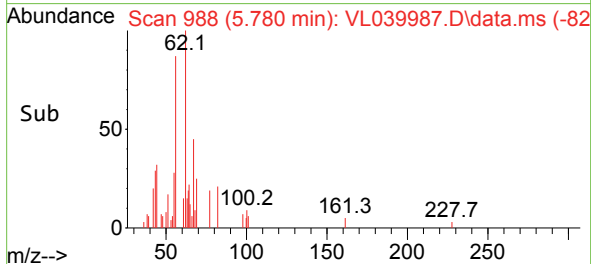
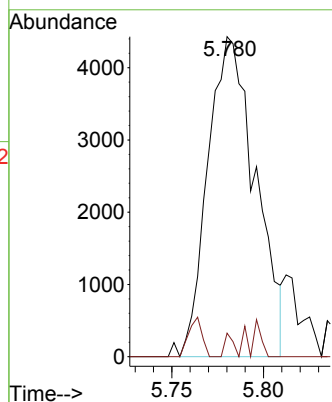
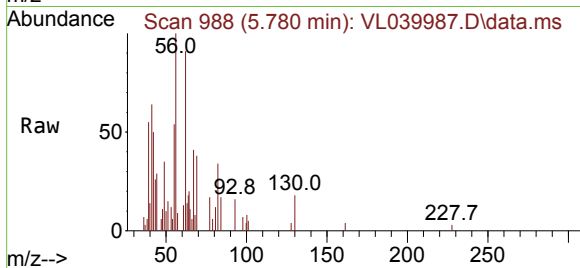
IA-2

Tgt Ion: 62 Resp: 7979

Ion Ratio Lower Upper

62 100

98 2.8 5.0 7.6#



#39

1,2-Dichloropropane

Concen: 7.736 ppbv

RT: 6.629 min Scan# 1252

Delta R.T. -0.405 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

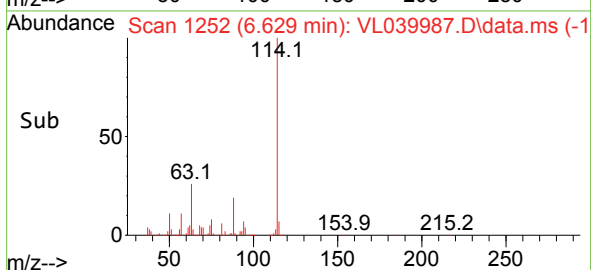
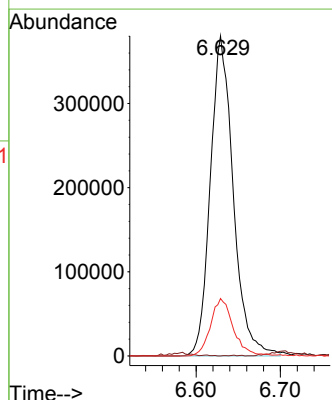
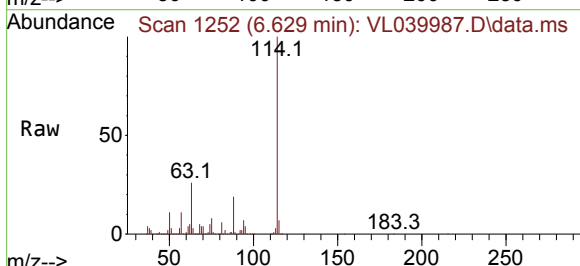
Tgt Ion: 63 Resp: 718781

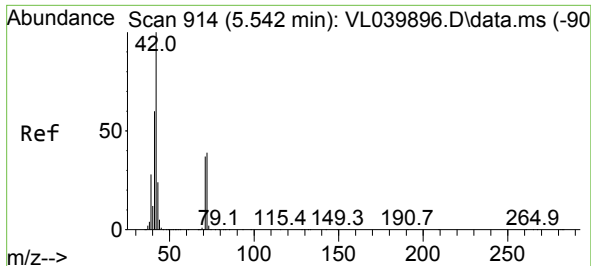
Ion Ratio Lower Upper

63 100

41 0.0 54.7 82.1#

62 17.9 55.0 82.6#





#41

Tetrahydrofuran

Concen: 0.048 ppbv

RT: 5.790 min Scan# 914

Delta R.T. 0.270 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

IA-2

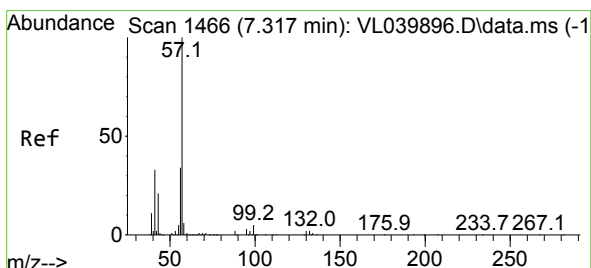
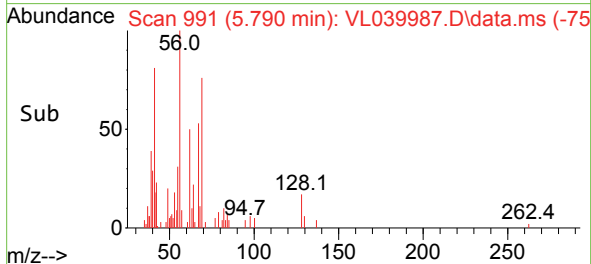
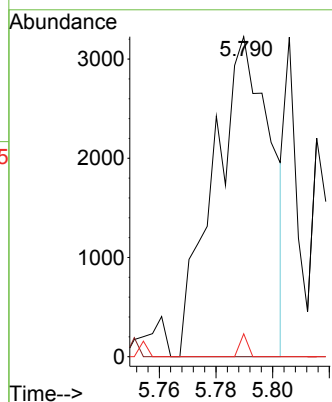
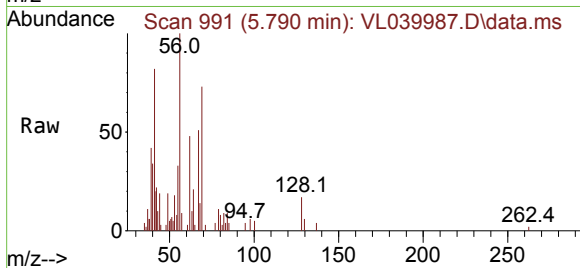
Tgt Ion: 42 Resp: 4470

Ion Ratio Lower Upper

42 100

72 0.0 31.6 47.4#

71 0.0 31.2 46.8#



#44

2,2,4-Trimethylpentane

Concen: 0.053 ppbv

RT: 7.304 min Scan# 1462

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

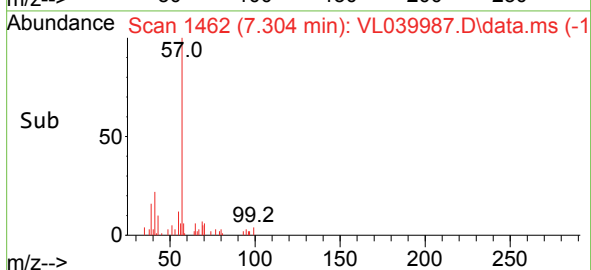
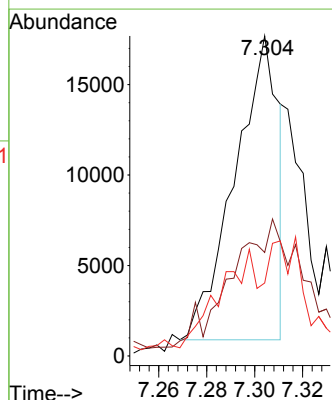
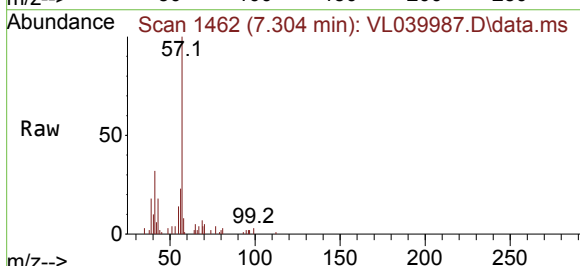
Tgt Ion: 57 Resp: 21162

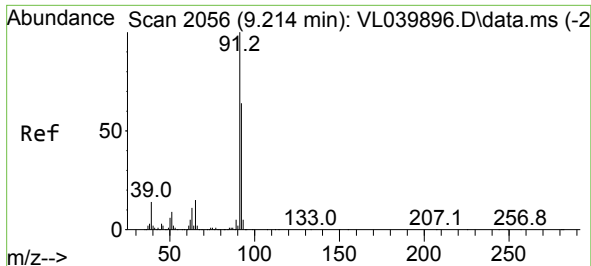
Ion Ratio Lower Upper

57 100

41 85.2 26.2 39.2#

56 0.0 25.5 38.3#





#53

Toluene

Concen: 0.856 ppbv

RT: 9.201 min Scan# 2056

Delta R.T. 0.016 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

Instrument :

MSVOA_L

ClientSampleId :

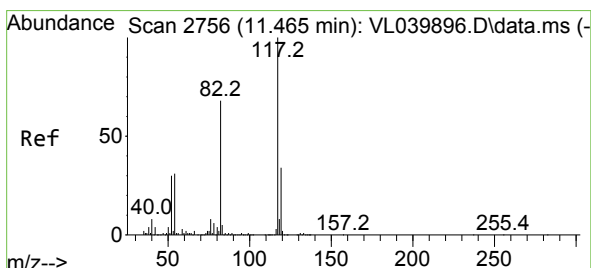
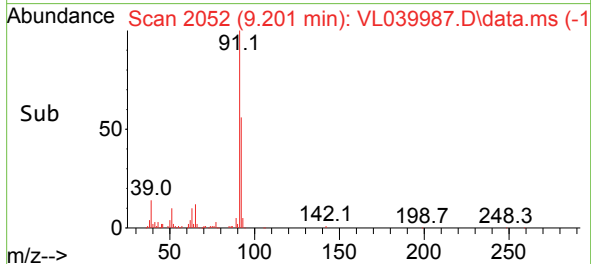
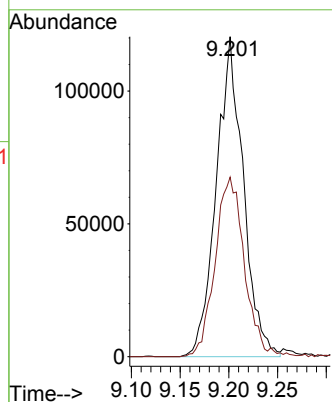
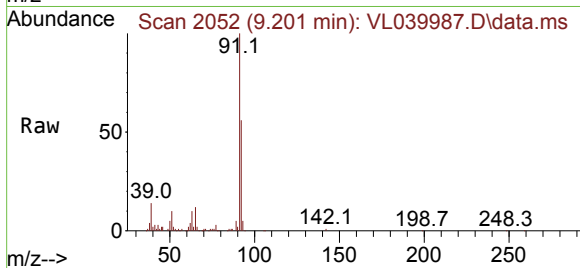
IA-2

Tgt Ion: 91 Resp: 232424

Ion Ratio Lower Upper

91 100

92 61.3 49.8 74.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.445 min Scan# 2750

Delta R.T. 0.013 min

Lab File: VL039987.D

Acq: 12 Dec 2022 22:25

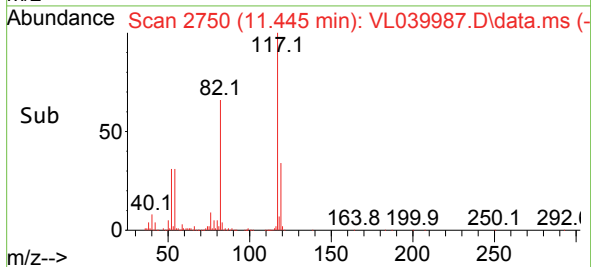
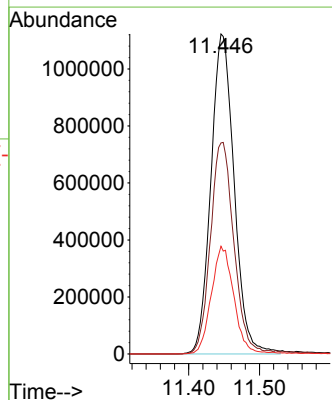
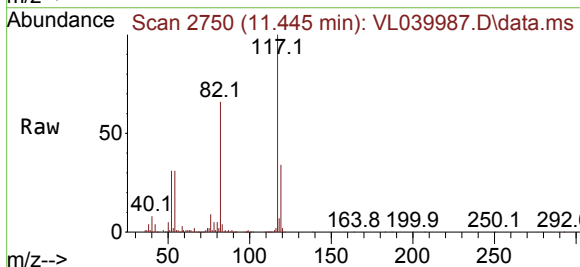
Tgt Ion: 117 Resp: 2562101

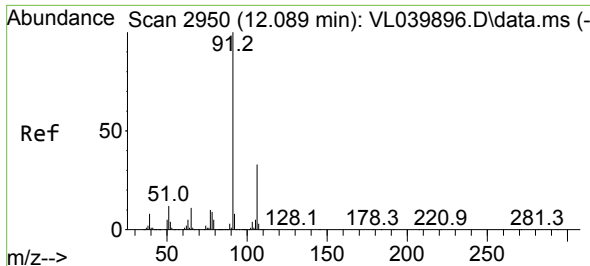
Ion Ratio Lower Upper

117 100

82 68.0 52.3 78.5

119 32.8 25.7 38.5

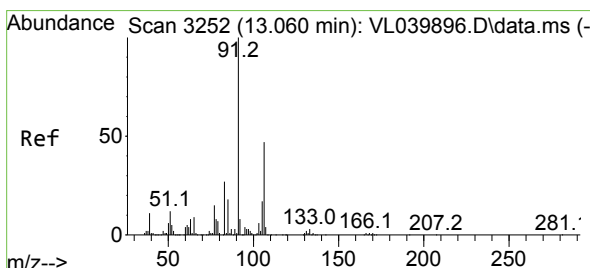
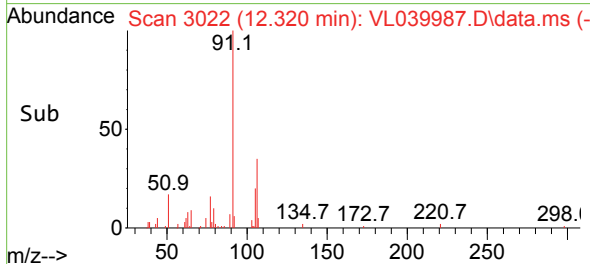
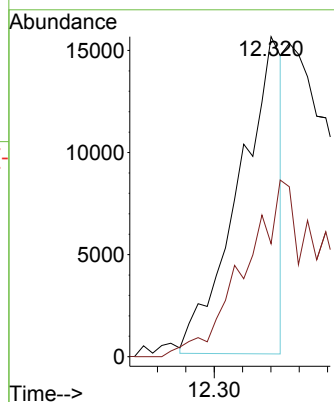
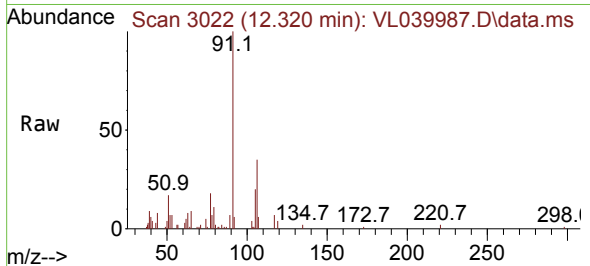




#58
Ethyl Benzene
Concen: 0.047 ppbv
RT: 12.320 min Scan# 30
Delta R.T. 0.264 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

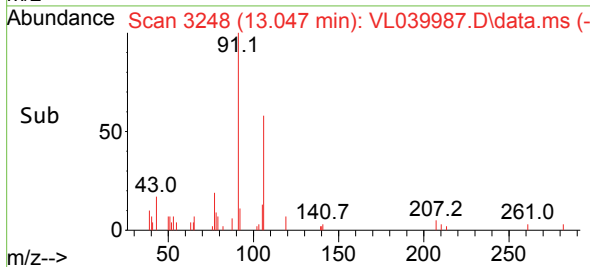
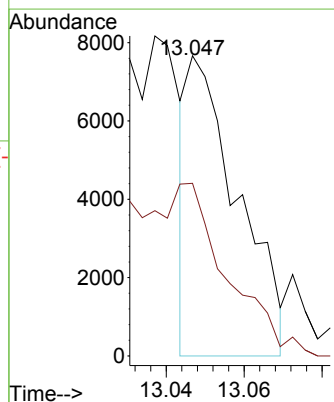
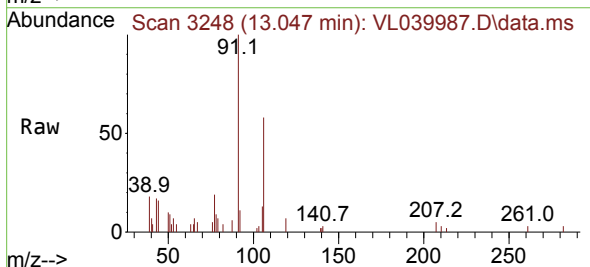
Instrument :
MSVOA_L
ClientSampleId :
IA-2

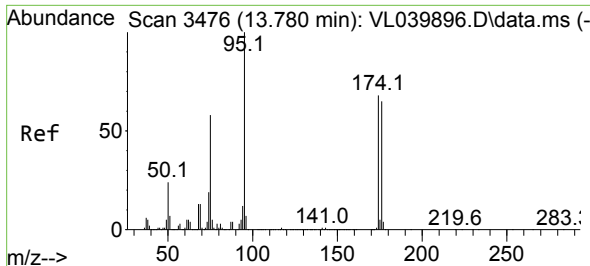
Tgt Ion: 91 Resp: 16429
Ion Ratio Lower Upper
91 100
106 33.2 26.1 39.1



#60
o-Xylene
Concen: 0.025 ppbv
RT: 13.047 min Scan# 3248
Delta R.T. 0.019 min
Lab File: VL039987.D
Acq: 12 Dec 2022 22:25

Tgt Ion: 91 Resp: 6899
Ion Ratio Lower Upper
91 100
106 134.4 23.2 69.6#

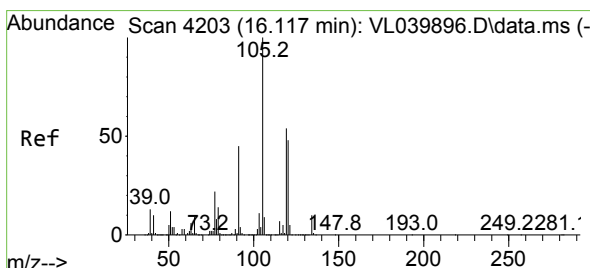
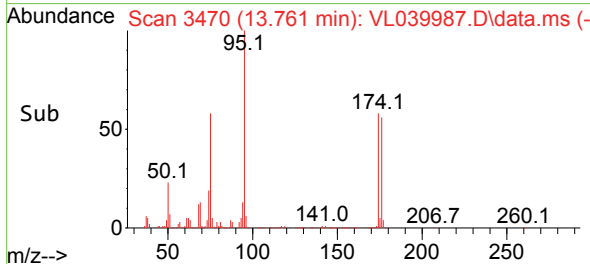
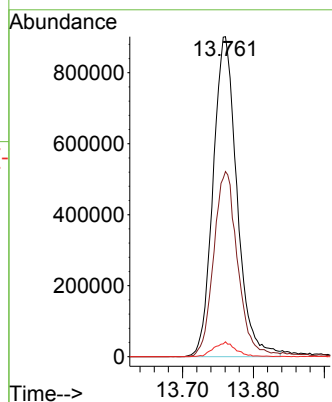
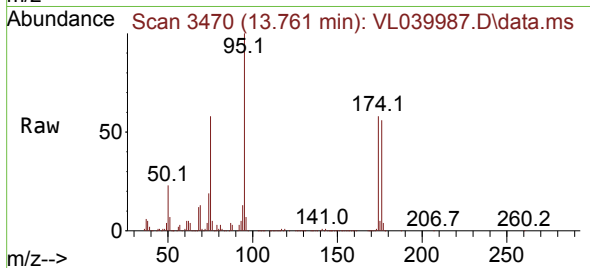




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.788 ppbv
 RT: 13.761 min Scan# 3476
 Delta R.T. 0.019 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-2

Tgt Ion: 95 Resp: 2111107
 Ion Ratio Lower Upper
 95 100
 174 59.8 53.7 80.5
 175 4.3 4.0 6.0



#74
 1,2,4-Trimethylbenzene
 Concen: 0.021 ppbv
 RT: 16.095 min Scan# 4196
 Delta R.T. 0.019 min
 Lab File: VL039987.D
 Acq: 12 Dec 2022 22:25

Tgt Ion: 105 Resp: 6454
 Ion Ratio Lower Upper
 105 100
 120 39.5 38.7 58.1
 91 8.2 36.4 54.6#
 77 0.0 17.4 26.0#

