

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL021524\
 Data File : VL041073.D
 Acq On : 15 Feb 2024 16:11
 Operator : SY/MD
 Sample : P1490-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: Feb 16 04:10:02 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Feb 16 04:05:22 2024
 Response via : Initial Calibration

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

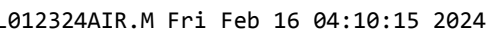
Internal Standards						
1) Bromochloromethane	5.192	49	1285777	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	6.655	114	3152700	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.484	117	2538642	10.000	ppbv	0.03

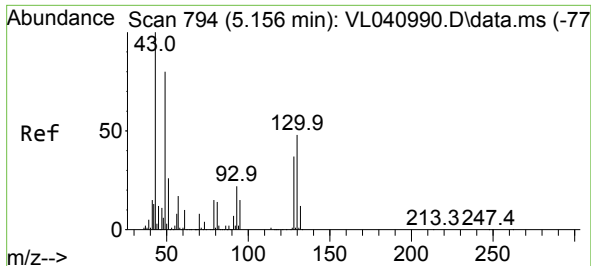
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.786	95	2136343	11.141	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	111.400%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.713	85	27350	0.096	ppbv	94
3) Chlorodifluoromethane	2.655	51	149311	0.690	ppbv	94
4) Chloromethane	2.797	50	2969	0.037	ppbv #	61
9) Propene	2.681	41	18347	0.259	ppbv	89
10) Heptane	7.594	43	3547	0.020	ppbv #	28
11) Trichlorofluoromethane	3.555	101	7018	0.031	ppbv	98
13) Ethanol	3.224	45	790	0.047	ppbv #	35
15) Acetone	3.475	43	270467	1.645	ppbv #	79
16) 1,3-Butadiene	2.973	39	2646	0.034	ppbv #	10
20) Methylene Chloride	3.932	84	100858	1.594	ppbv	95
23) Vinyl Acetate	4.719	43	20037	0.118	ppbv #	13
25) Ethyl Acetate	5.214	43	102328	0.343	ppbv #	85
26) Hexane	5.214	57	122369	0.963	ppbv #	43
29) Chloroform	5.276	83	93432	0.415	ppbv	91
34) 2-Butanone	4.793	43	395223	2.631	ppbv	98
36) Benzene	6.372	78	17756	0.068	ppbv	97
38) Trichloroethene	7.292	130	39579	0.379	ppbv	94
39) 1,2-Dichloropropane	6.652	63	790571	7.707	ppbv #	24
51) 2-Hexanone	9.571	43	75543	0.396	ppbv #	98
52) Tetrachloroethene	10.697	164	40280216	465.838	ppbv	86
53) Toluene	9.224	91	153202	0.537	ppbv	98
58) Ethyl Benzene	12.098	91	78732	0.231	ppbv	91
59) m/p-Xylene	12.356	91	268553	0.904	ppbv	100
60) o-Xylene	13.073	91	102410	0.359	ppbv	99
64) n-propylbenzene	14.934	120	3499	0.033	ppbv #	1
72) 4-Ethyltoluene	15.204	105	23315	0.073	ppbv #	38
73) 1,3,5-Trimethylbenzene	15.352	105	48043	0.170	ppbv	87
74) 1,2,4-Trimethylbenzene	16.111	105	242602	0.757	ppbv #	59

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

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Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Feb 16 04:05:22 2024
Response via : Initial Calibration

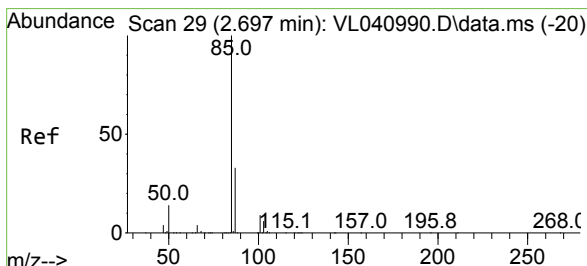
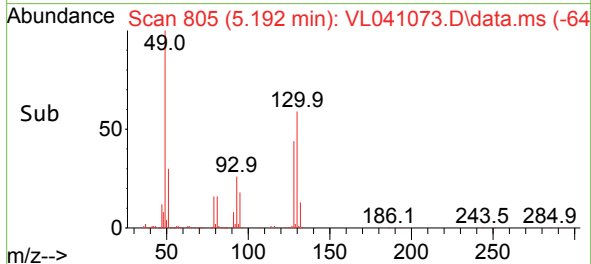
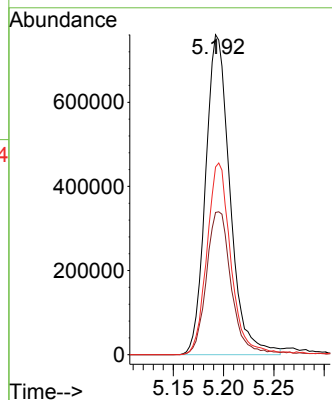
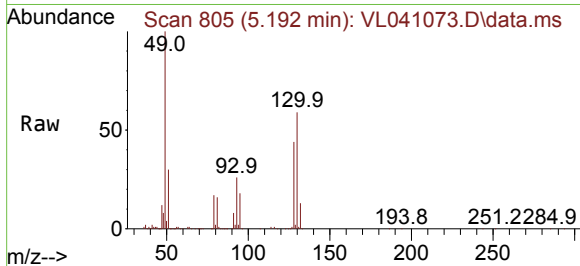




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.192 min Scan# 80
 Delta R.T. 0.016 min
 Lab File: VL041073.D
 Acq: 15 Feb 2024 16:11

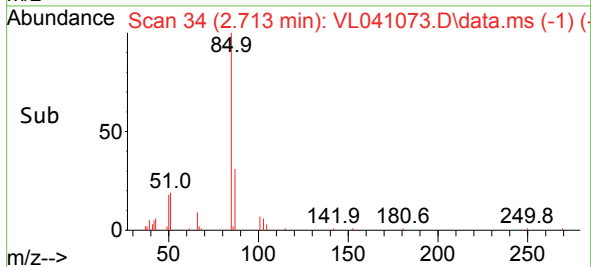
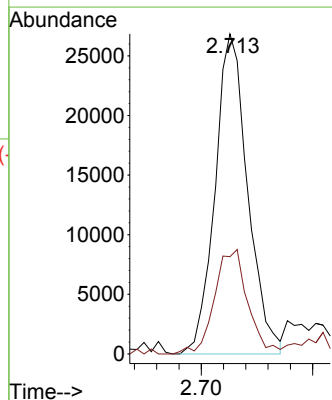
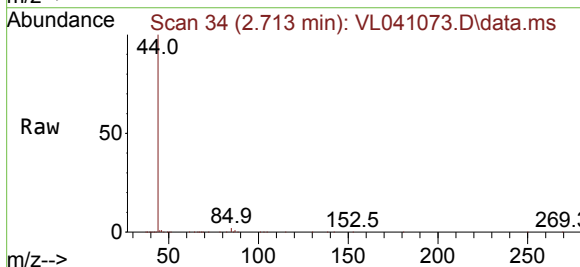
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

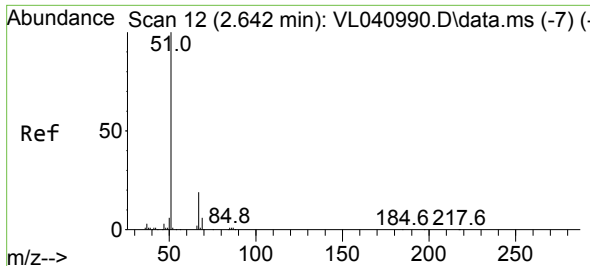
Tgt Ion: 49 Resp: 1285777
 Ion Ratio Lower Upper
 49 100
 128 46.3 23.9 71.7
 130 59.7 31.1 93.5



#2
 Dichlorodifluoromethane
 Concen: 0.096 ppbv
 RT: 2.713 min Scan# 34
 Delta R.T. 0.007 min
 Lab File: VL041073.D
 Acq: 15 Feb 2024 16:11

Tgt Ion: 85 Resp: 27350
 Ion Ratio Lower Upper
 85 100
 87 29.6 26.3 39.5

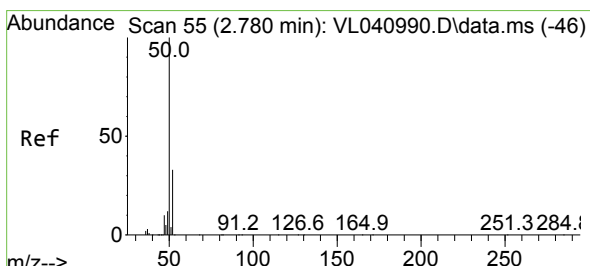
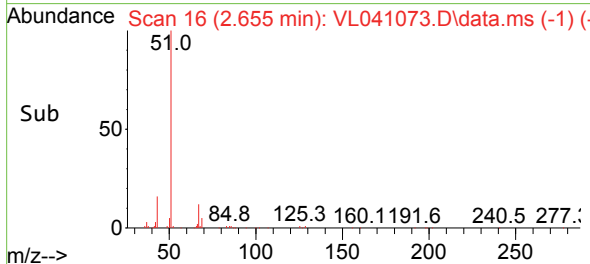
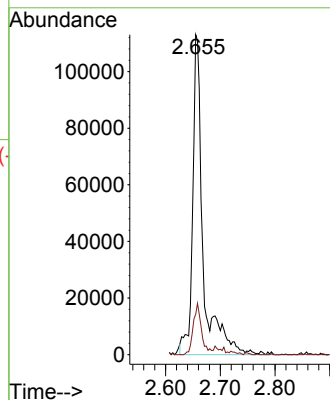
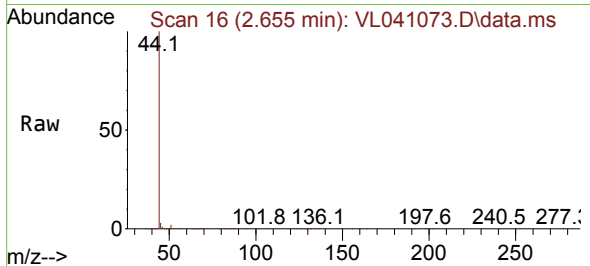




#3
Chlorodifluoromethane
Concen: 0.690 ppbv
RT: 2.655 min Scan# 1
Delta R.T. 0.003 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

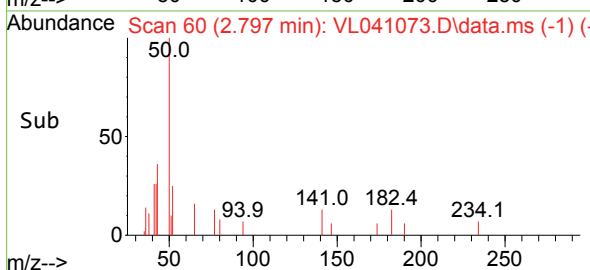
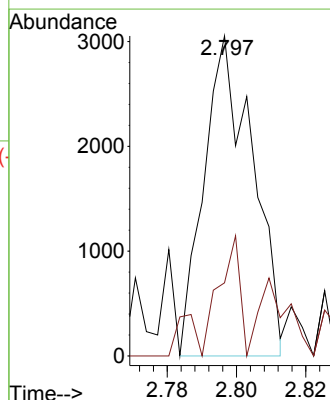
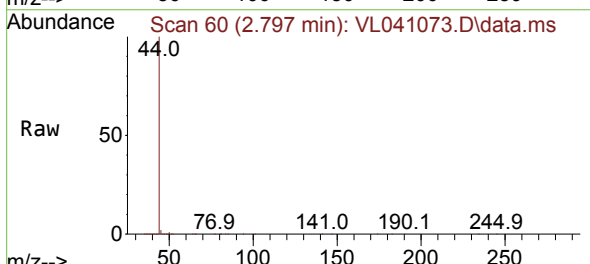
Instrument :
MSVOA_L
ClientSampleId :
SV1

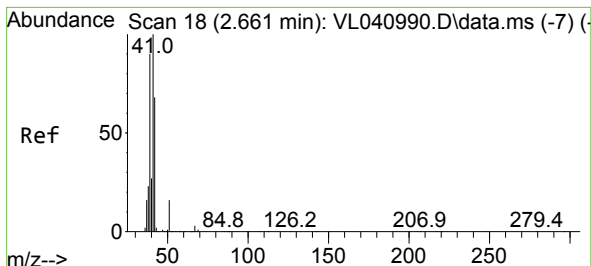
Tgt Ion: 51 Resp: 149311
Ion Ratio Lower Upper
51 100
67 16.0 14.8 22.2



#4
Chloromethane
Concen: 0.037 ppbv
RT: 2.797 min Scan# 60
Delta R.T. 0.007 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 50 Resp: 2969
Ion Ratio Lower Upper
50 100
52 10.9 26.2 39.4#





#9

Propene

Concen: 0.259 ppbv

RT: 2.681 min Scan# 24

Delta R.T. 0.010 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

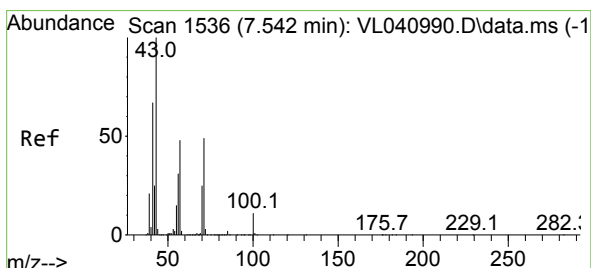
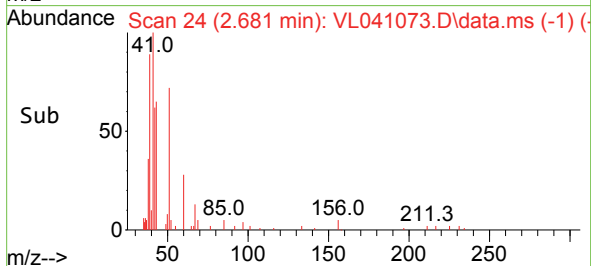
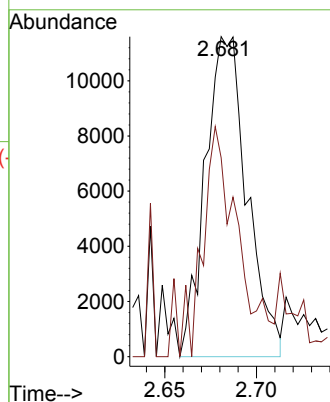
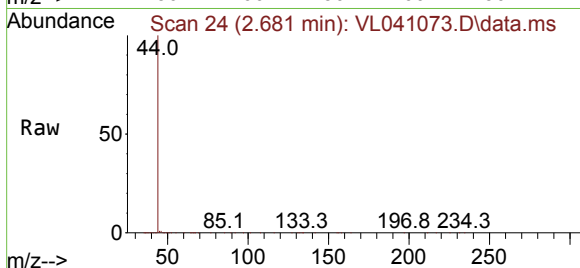
SV1

Tgt Ion: 41 Resp: 18347

Ion Ratio Lower Upper

41 100

42 83.0 59.0 88.4



#10

Heptane

Concen: 0.020 ppbv

RT: 7.594 min Scan# 1552

Delta R.T. 0.029 min

Lab File: VL041073.D

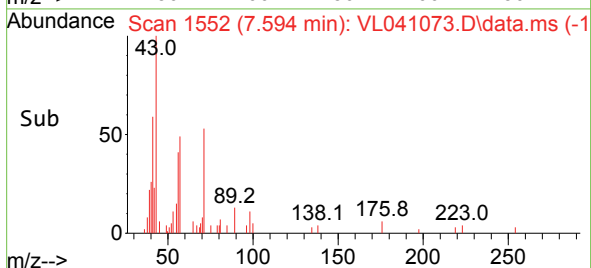
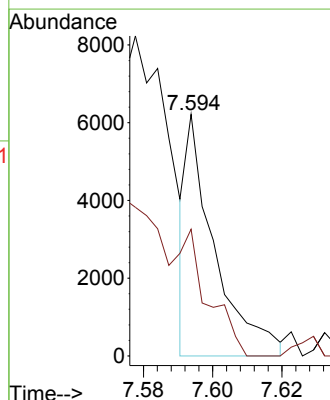
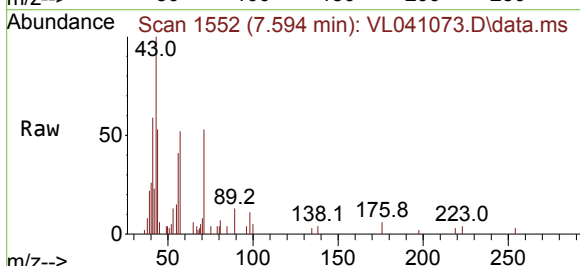
Acq: 15 Feb 2024 16:11

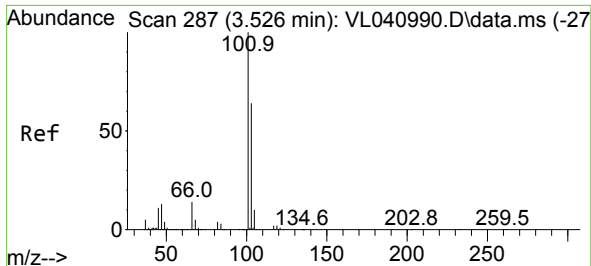
Tgt Ion: 43 Resp: 3547

Ion Ratio Lower Upper

43 100

57 0.0 39.4 59.2#

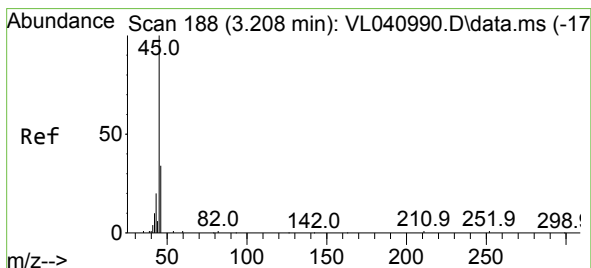
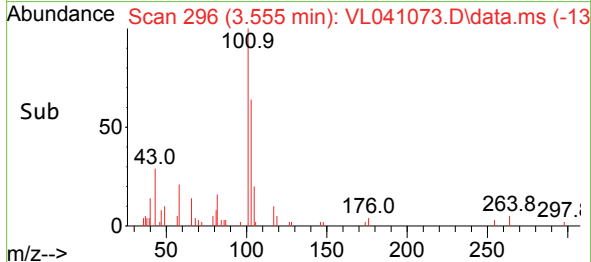
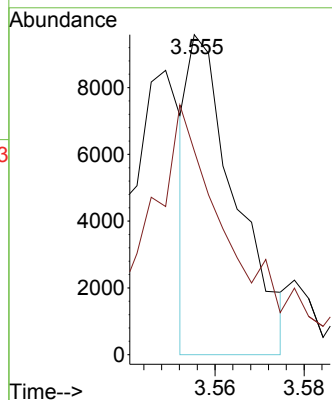
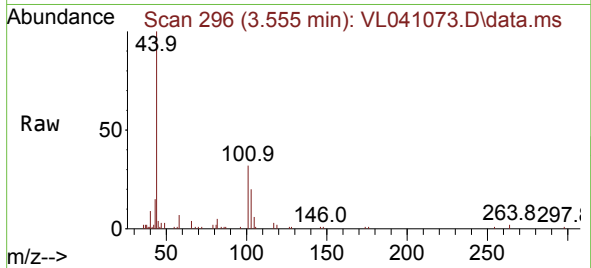




#11
Trichlorofluoromethane
Concen: 0.031 ppbv
RT: 3.555 min Scan# 24
Delta R.T. 0.013 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

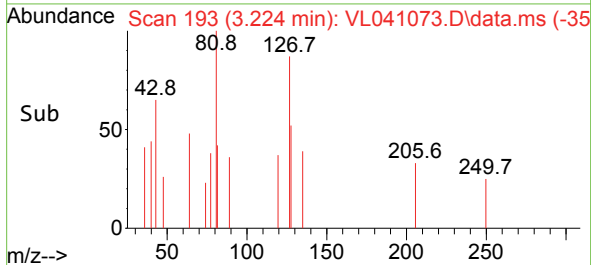
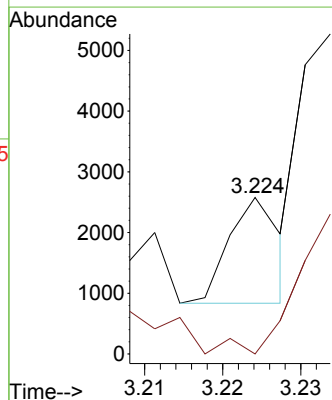
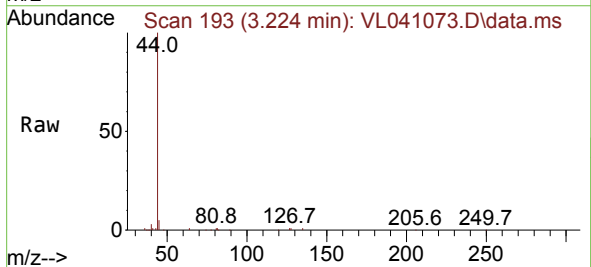
Instrument :
MSVOA_L
ClientSampleId :
SV1

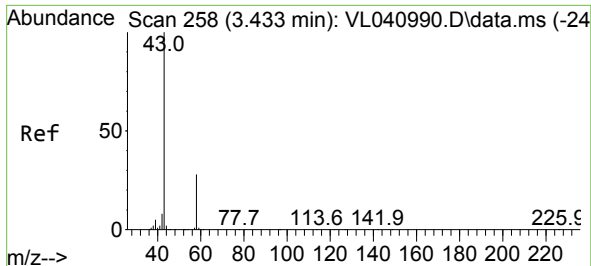
Tgt Ion:101 Resp: 7018
Ion Ratio Lower Upper
101 100
103 62.8 51.4 77.2



#13
Ethanol
Concen: 0.047 ppbv
RT: 3.224 min Scan# 193
Delta R.T. 0.007 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 45 Resp: 790
Ion Ratio Lower Upper
45 100
46 0.0 16.2 64.8#





#15

Acetone

Concen: 1.645 ppbv

RT: 3.475 min Scan# 21

Delta R.T. 0.029 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

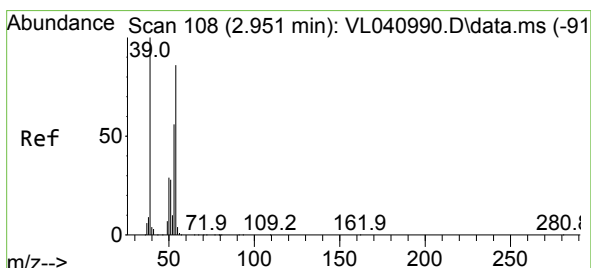
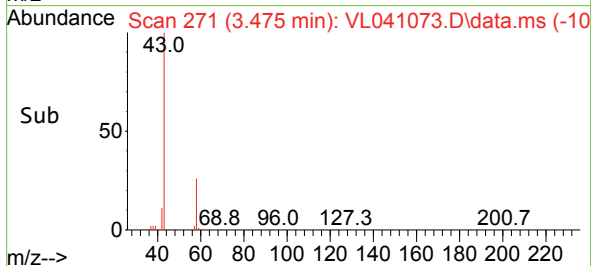
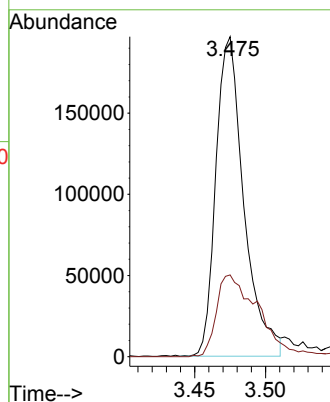
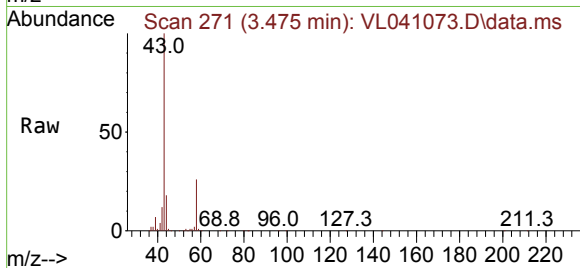
SV1

Tgt Ion: 43 Resp: 270467

Ion Ratio Lower Upper

43 100

58 38.8 22.2 33.2#



#16

1,3-Butadiene

Concen: 0.034 ppbv

RT: 2.973 min Scan# 115

Delta R.T. 0.010 min

Lab File: VL041073.D

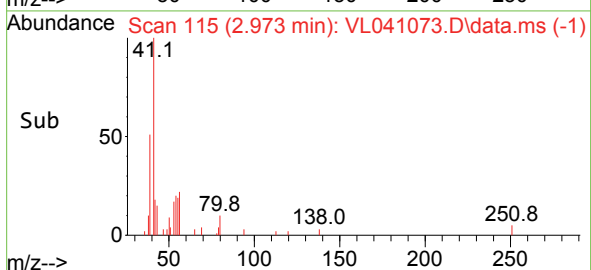
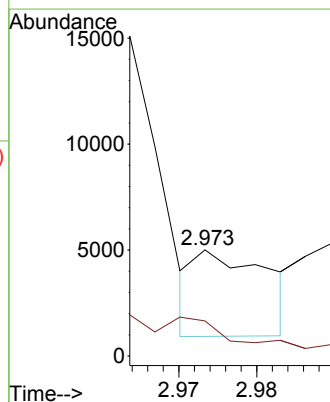
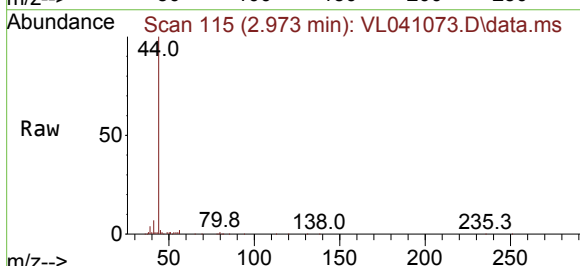
Acq: 15 Feb 2024 16:11

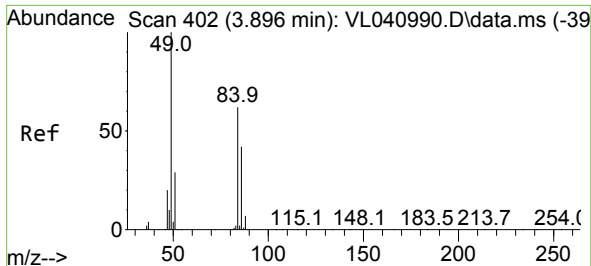
Tgt Ion: 39 Resp: 2646

Ion Ratio Lower Upper

39 100

54 0.0 62.7 94.1#

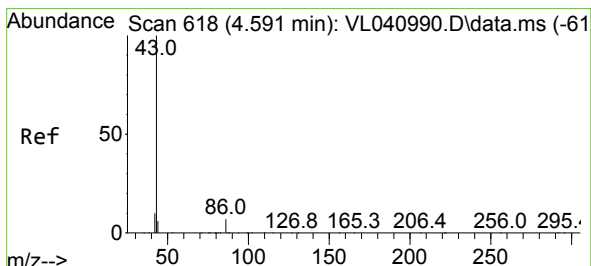
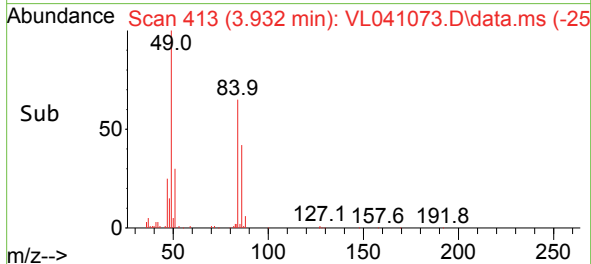
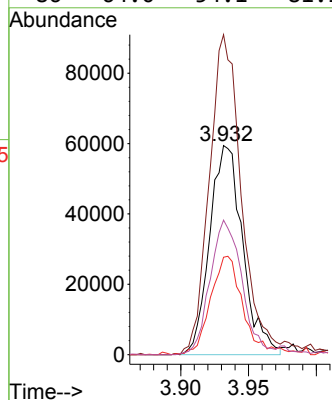
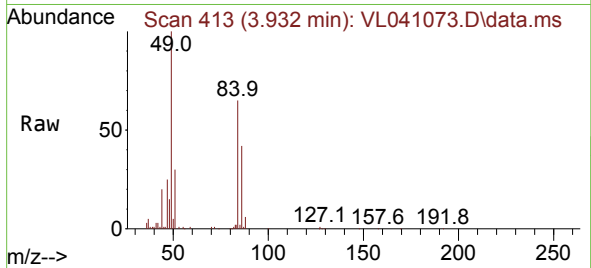




#20
Methylene Chloride
Concen: 1.594 ppbv
RT: 3.932 min Scan# 413
Delta R.T. 0.019 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

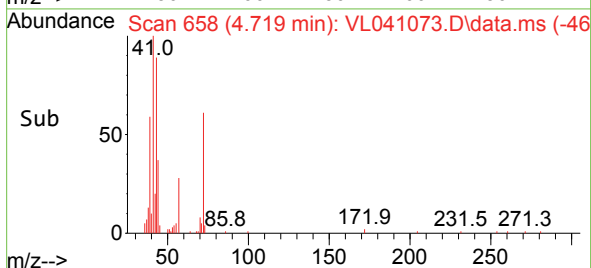
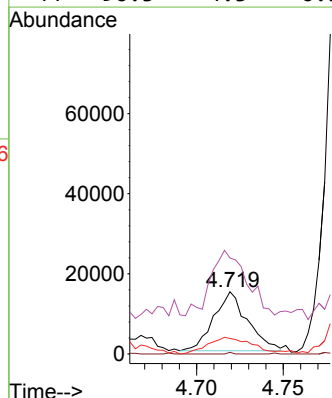
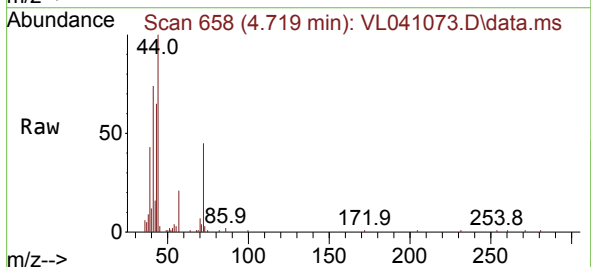
Instrument :
MSVOA_L
ClientSampleId :
SV1

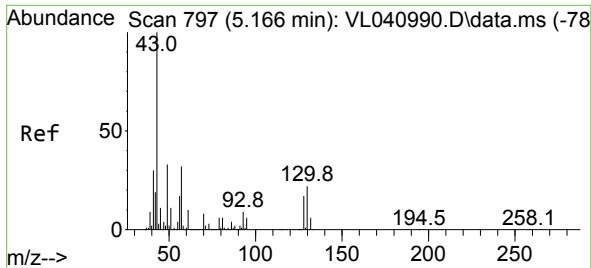
Tgt Ion: 84 Resp: 100858
Ion Ratio Lower Upper
84 100
49 152.6 128.1 192.1
51 46.1 36.5 54.7
86 64.0 54.1 81.1



#23
Vinyl Acetate
Concen: 0.118 ppbv
RT: 4.719 min Scan# 658
Delta R.T. 0.113 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 43 Resp: 20037
Ion Ratio Lower Upper
43 100
86 2.8 5.4 8.0#
42 26.4 8.6 13.0#
44 96.3 4.3 6.5#

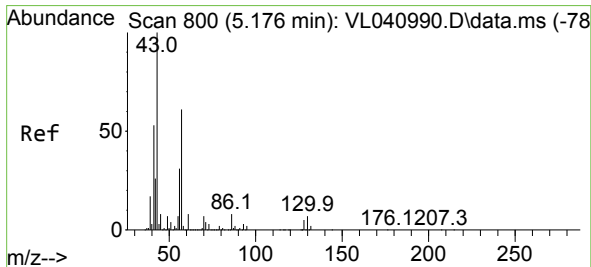
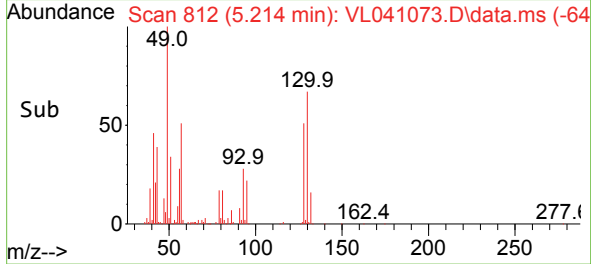
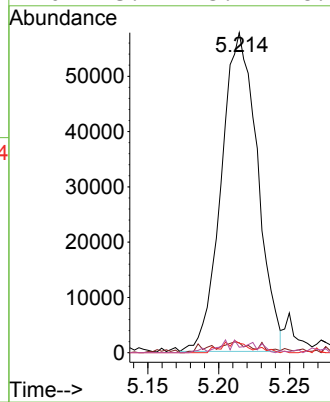
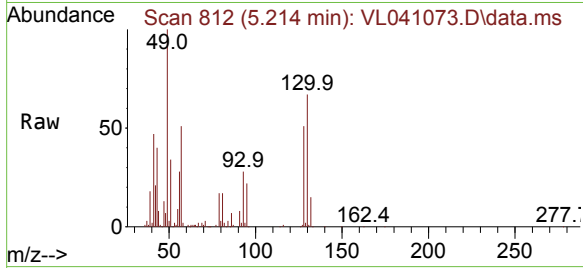




#25
Ethyl Acetate
Concen: 0.343 ppbv
RT: 5.214 min Scan# 812
Delta R.T. 0.029 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

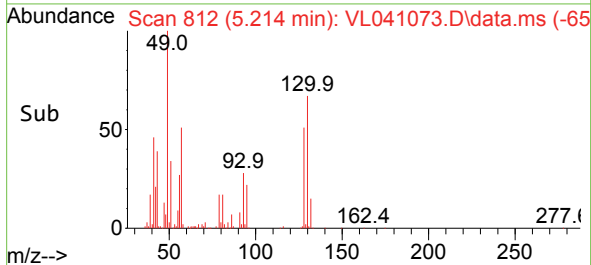
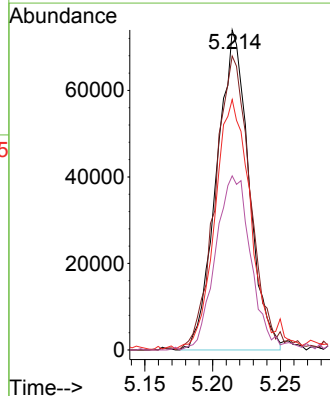
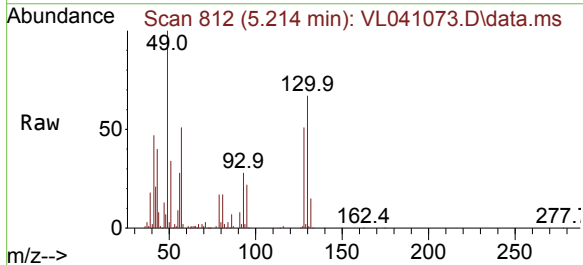
Instrument :
MSVOA_L
ClientSampleId :
SV1

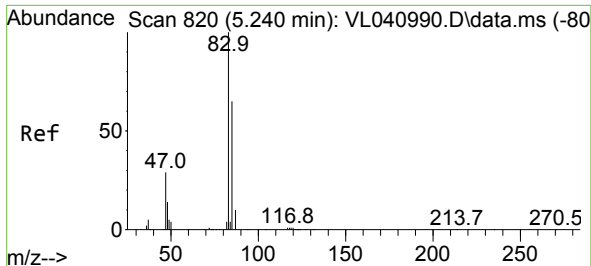
Tgt Ion: 43 Resp: 102328
Ion Ratio Lower Upper
43 100
45 5.0 8.2 12.4#
61 2.9 7.9 11.9#
70 3.7 5.4 8.2#



#26
Hexane
Concen: 0.963 ppbv
RT: 5.214 min Scan# 812
Delta R.T. 0.019 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 57 Resp: 122369
Ion Ratio Lower Upper
57 100
41 101.3 74.4 111.6
43 92.4 190.6 285.8#
56 62.1 43.0 64.4





#29

Chloroform

Concen: 0.415 ppbv

RT: 5.276 min Scan# 81

Delta R.T. 0.019 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

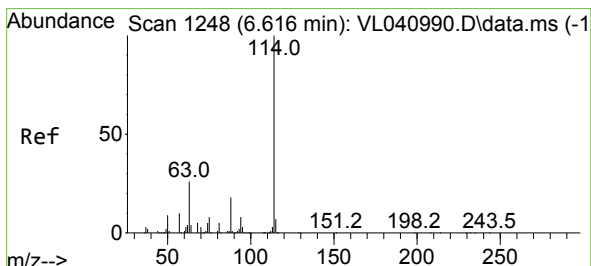
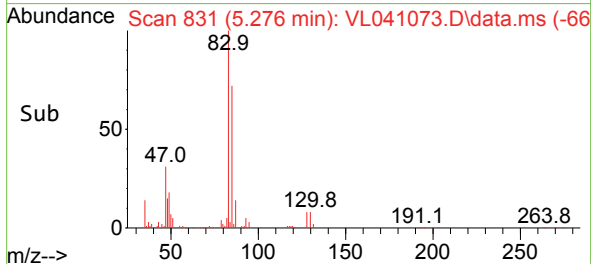
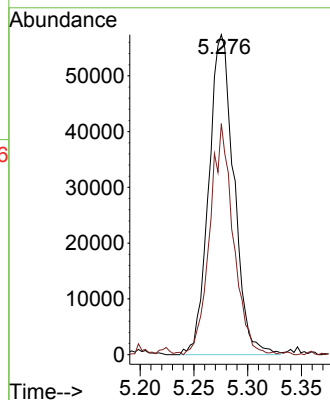
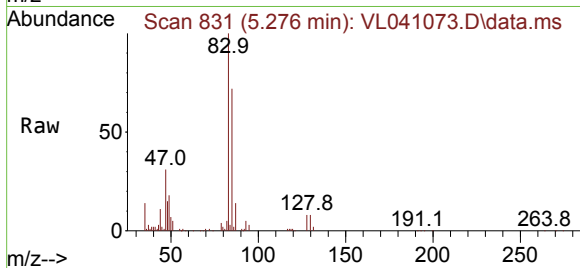
SV1

Tgt Ion: 83 Resp: 93432

Ion Ratio Lower Upper

83 100

85 71.6 51.6 77.4



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.655 min Scan# 1260

Delta R.T. 0.016 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

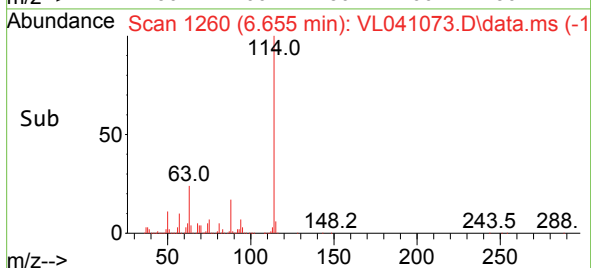
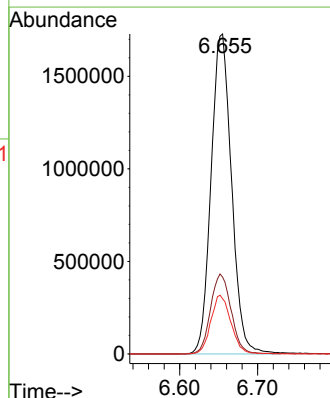
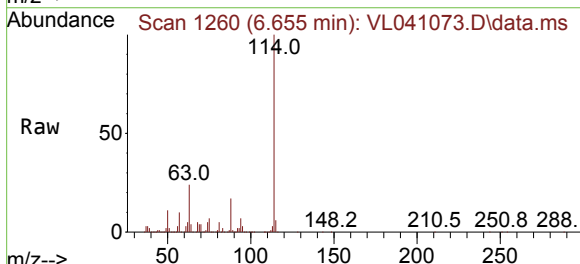
Tgt Ion:114 Resp: 3152700

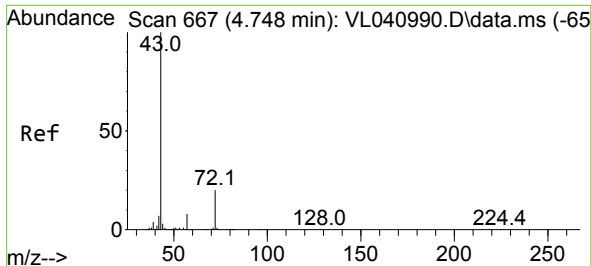
Ion Ratio Lower Upper

114 100

63 25.3 20.8 31.2

88 18.1 14.3 21.5

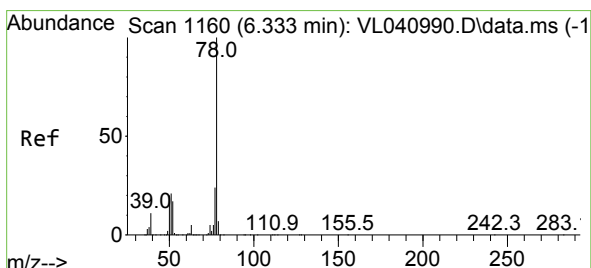
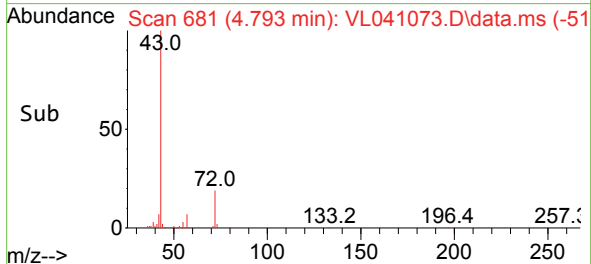
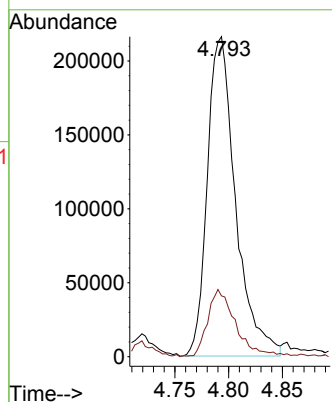
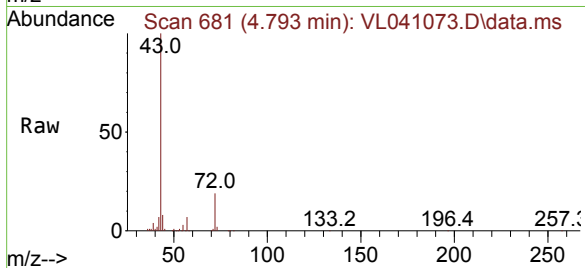




#34
2-Butanone
Concen: 2.631 ppbv
RT: 4.793 min Scan# 61
Delta R.T. 0.026 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

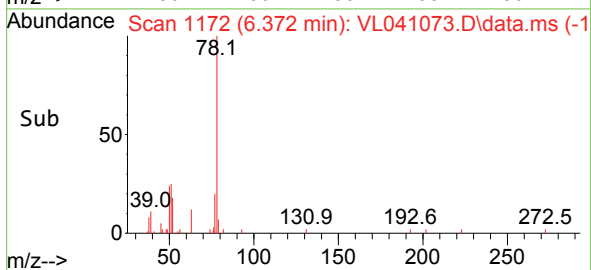
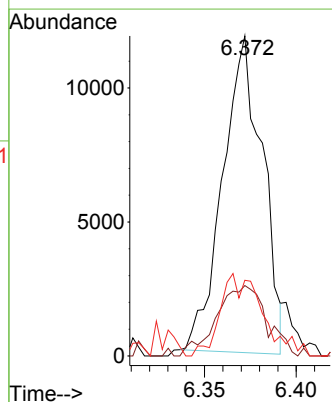
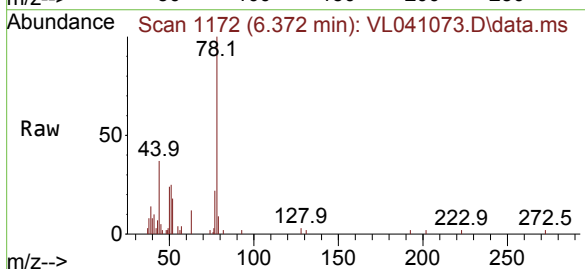
Instrument :
MSVOA_L
ClientSampleId :
SV1

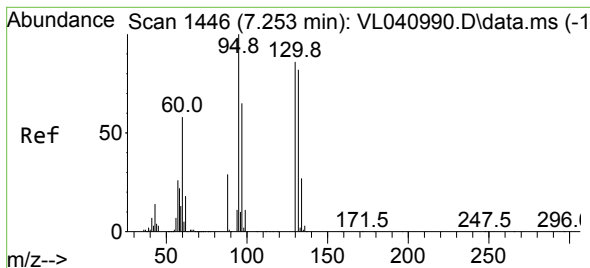
Tgt Ion: 43 Resp: 395223
Ion Ratio Lower Upper
43 100
72 21.0 17.5 26.3



#36
Benzene
Concen: 0.068 ppbv
RT: 6.372 min Scan# 1172
Delta R.T. 0.016 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 78 Resp: 17756
Ion Ratio Lower Upper
78 100
77 22.4 19.0 28.4
50 21.2 15.8 23.6





#38

Trichloroethene

Concen: 0.379 ppbv

RT: 7.292 min Scan# 1446

Delta R.T. 0.016 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion:130 Resp: 39579

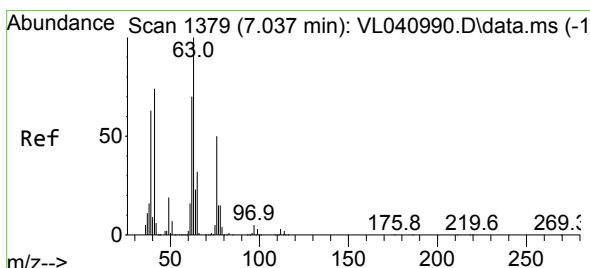
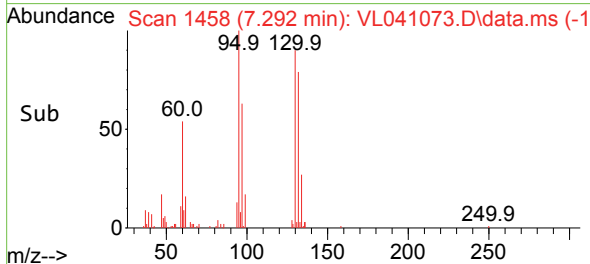
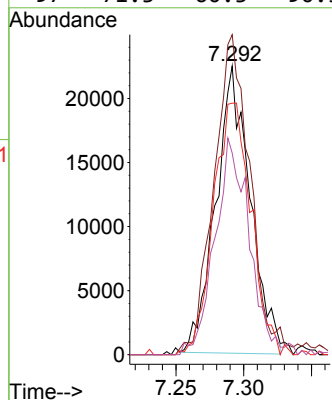
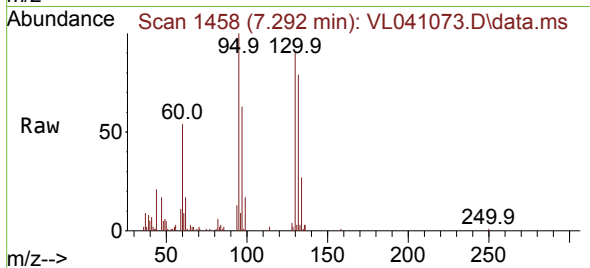
Ion Ratio Lower Upper

130 100

95 109.6 92.9 139.3

132 87.9 76.2 114.2

97 71.3 60.3 90.5



#39

1,2-Dichloropropane

Concen: 7.707 ppbv

RT: 6.652 min Scan# 1259

Delta R.T. -0.405 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

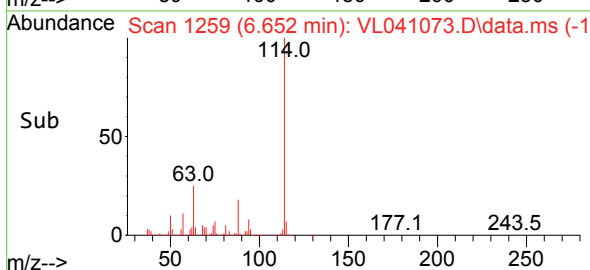
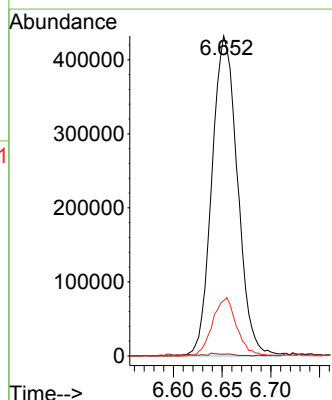
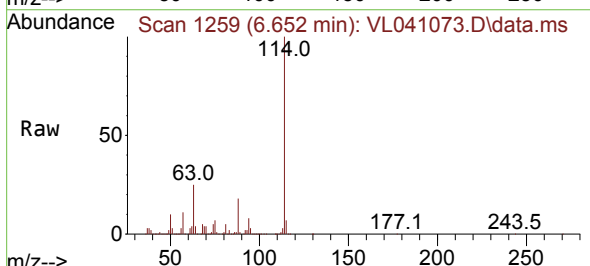
Tgt Ion: 63 Resp: 790571

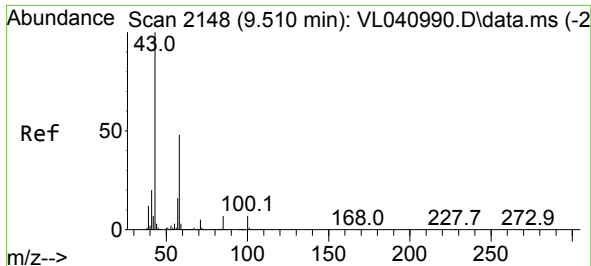
Ion Ratio Lower Upper

63 100

41 0.4 59.6 89.4#

62 17.3 55.6 83.4#

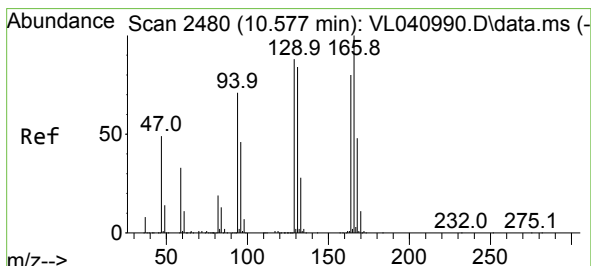
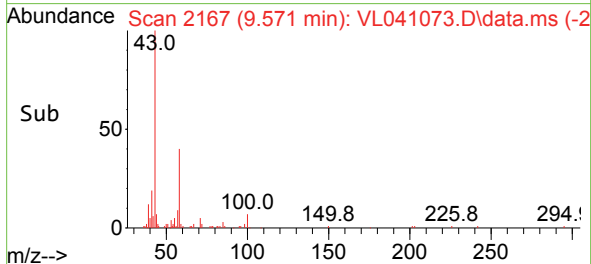
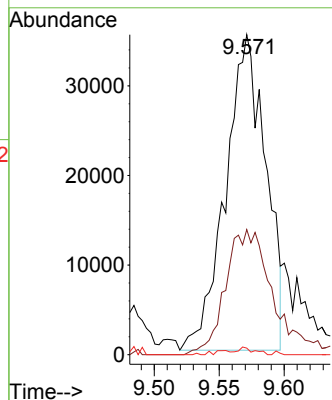
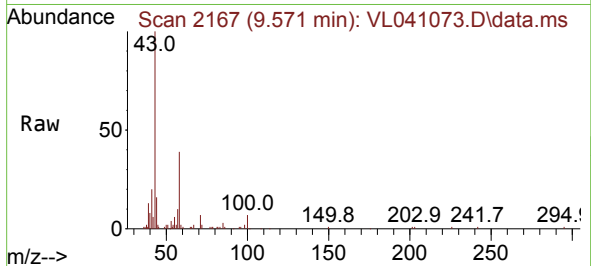




#51
2-Hexanone
Concen: 0.396 ppbv
RT: 9.571 min Scan# 2148
Delta R.T. 0.032 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

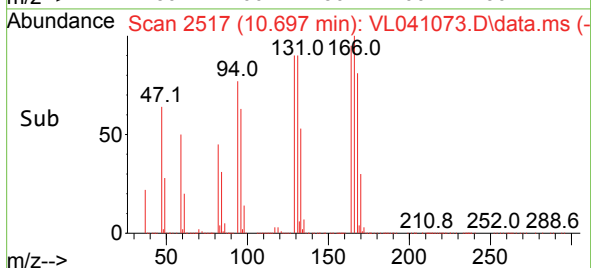
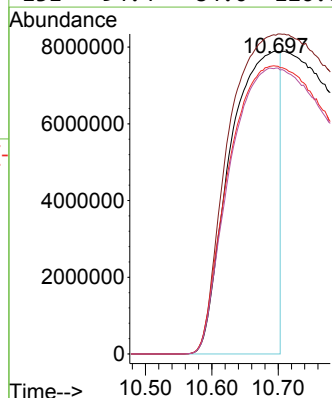
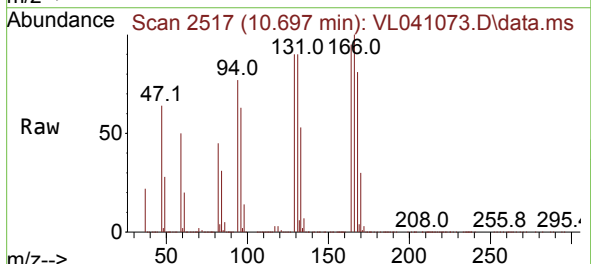
Instrument :
MSVOA_L
ClientSampleId :
SV1

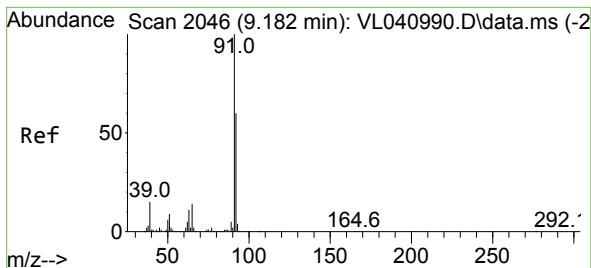
Tgt Ion: 43 Resp: 75543
Ion Ratio Lower Upper
43 100
58 47.1 36.8 55.2
98 1.7 0.3 0.5#



#52
Tetrachloroethene
Concen: 465.838 ppbv
RT: 10.697 min Scan# 2517
Delta R.T. 0.097 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 164 Resp: 40280216
Ion Ratio Lower Upper
164 100
166 105.3 100.2 150.2
129 95.1 87.9 131.9
131 94.4 84.0 126.0





#53

Toluene

Concen: 0.537 ppbv

RT: 9.224 min Scan# 2046

Delta R.T. 0.019 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

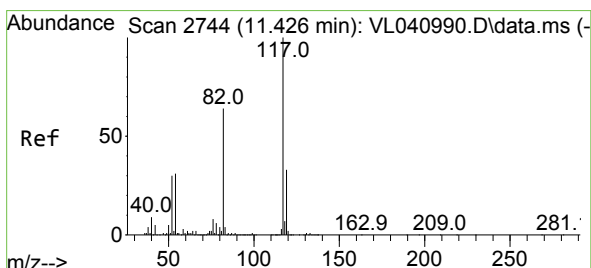
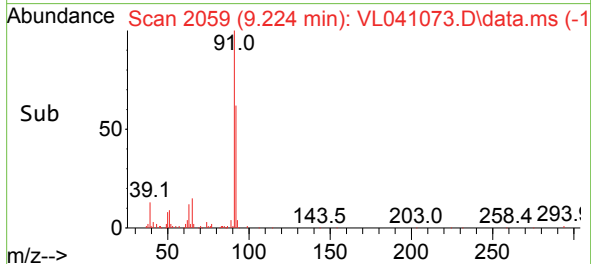
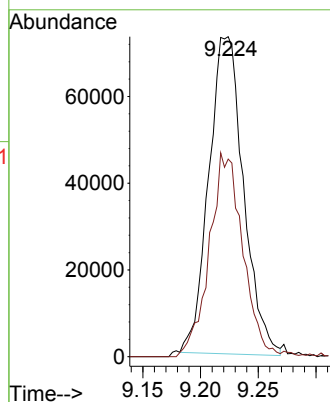
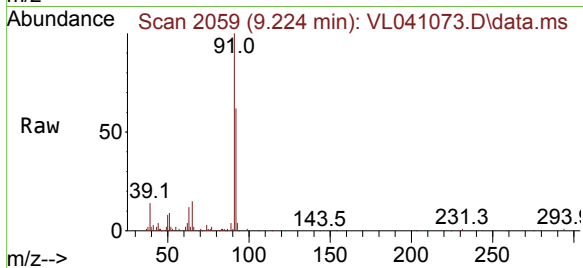
SV1

Tgt Ion: 91 Resp: 153202

Ion Ratio Lower Upper

91 100

92 62.2 48.6 72.8



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.484 min Scan# 2762

Delta R.T. 0.032 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

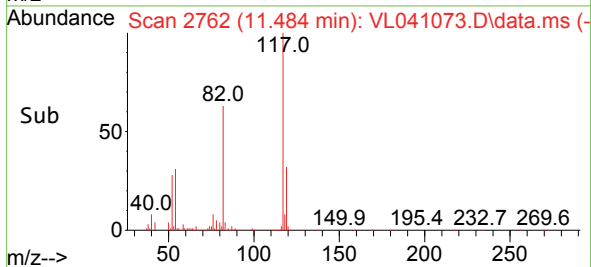
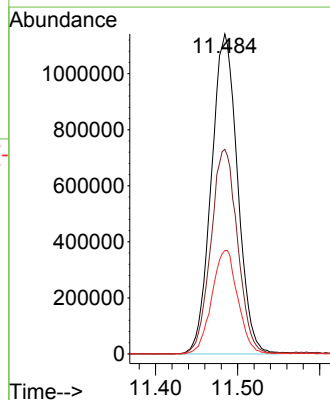
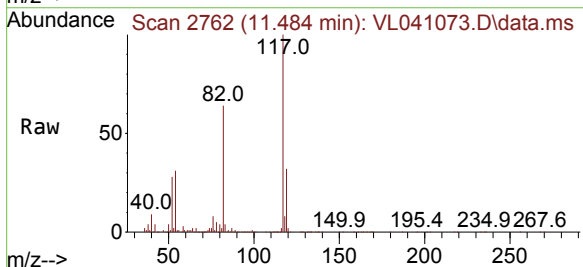
Tgt Ion: 117 Resp: 2538642

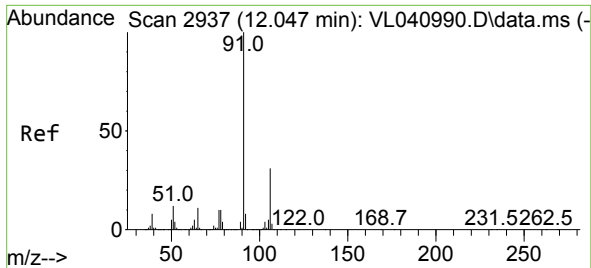
Ion Ratio Lower Upper

117 100

82 65.0 51.7 77.5

119 32.2 23.8 35.6

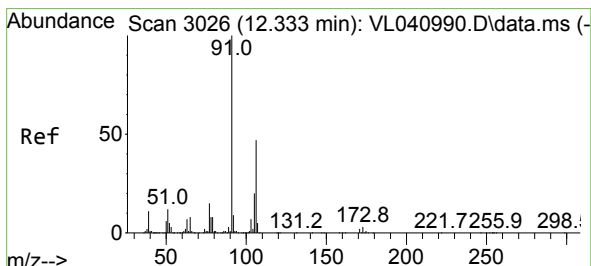
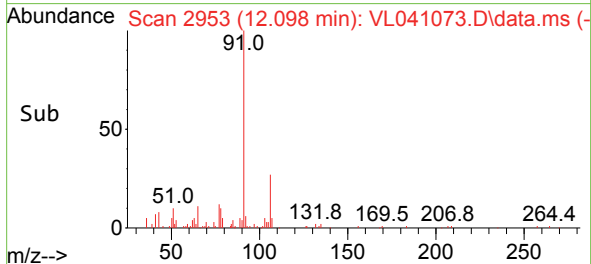
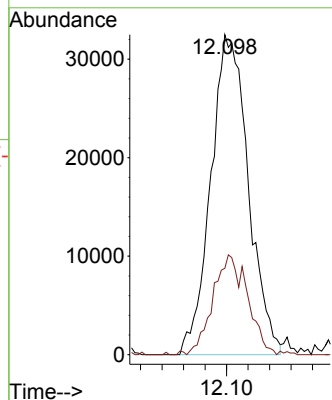
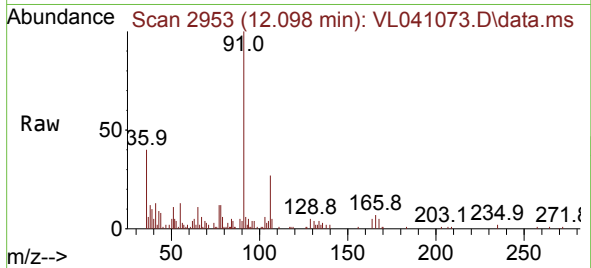




#58
Ethyl Benzene
Concen: 0.231 ppbv
RT: 12.098 min Scan# 2937
Delta R.T. 0.023 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

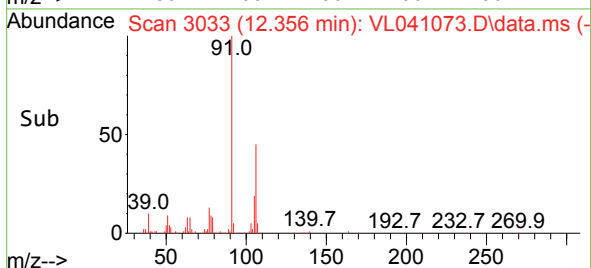
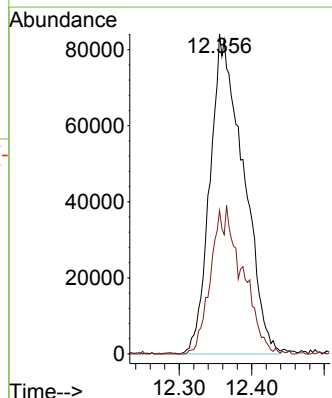
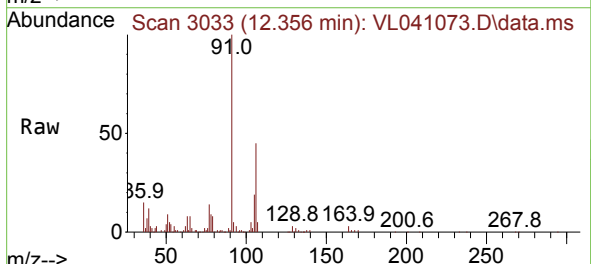
Instrument :
MSVOA_L
ClientSampleId :
SV1

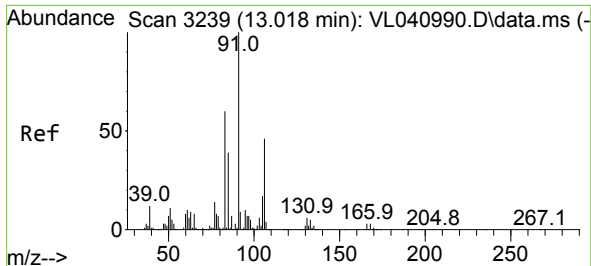
Tgt Ion: 91 Resp: 78732
Ion Ratio Lower Upper
91 100
106 26.2 24.8 37.2



#59
m/p-Xylene
Concen: 0.904 ppbv
RT: 12.356 min Scan# 3033
Delta R.T. -0.003 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 91 Resp: 268553
Ion Ratio Lower Upper
91 100
106 43.8 34.9 52.3

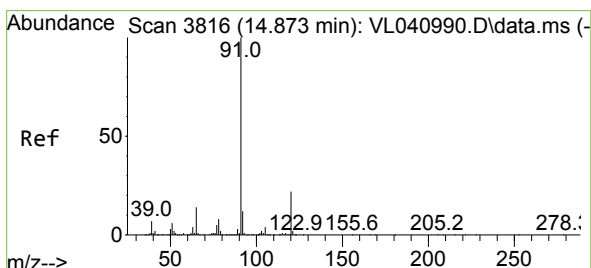
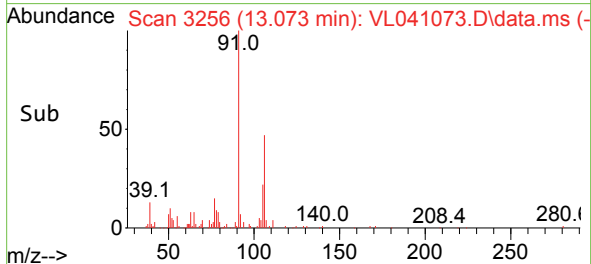
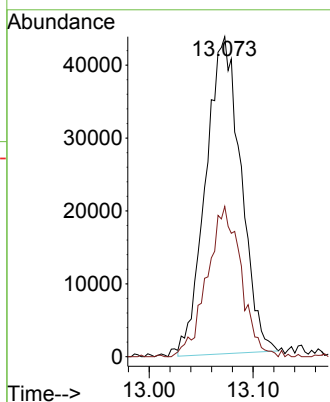
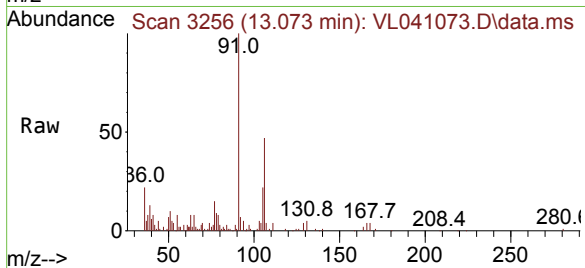




#60
o-Xylene
Concen: 0.359 ppbv
RT: 13.073 min Scan# 31
Delta R.T. 0.029 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

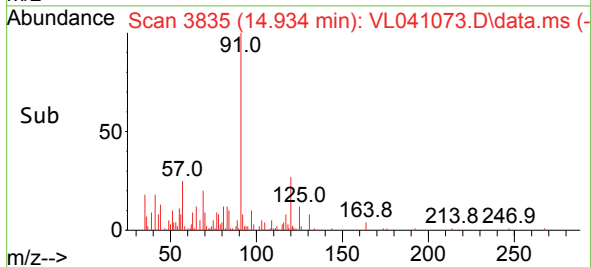
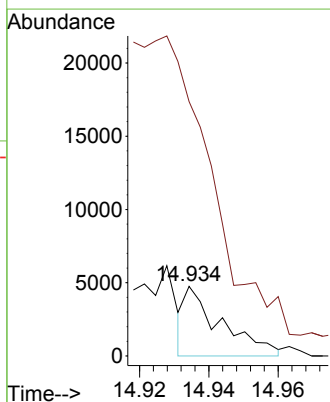
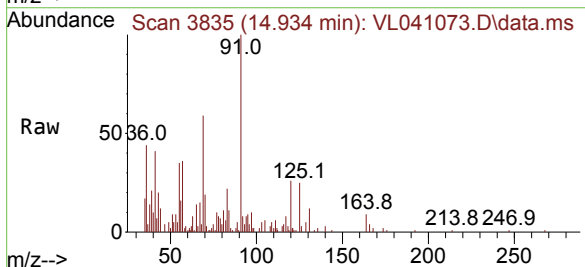
Instrument :
MSVOA_L
ClientSampleId :
SV1

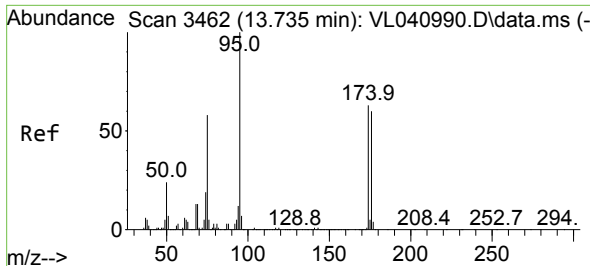
Tgt Ion: 91 Resp: 102410
Ion Ratio Lower Upper
91 100
106 45.9 22.6 67.7



#64
n-propylbenzene
Concen: 0.033 ppbv
RT: 14.934 min Scan# 3835
Delta R.T. 0.029 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 120 Resp: 3499
Ion Ratio Lower Upper
120 100
91 0.0 390.6 585.8#

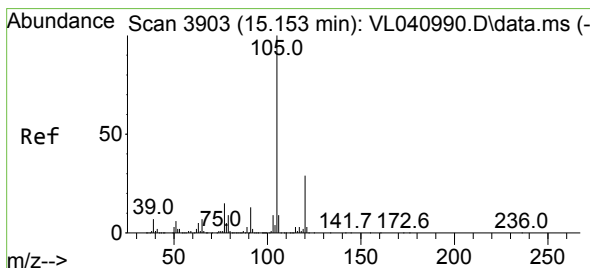
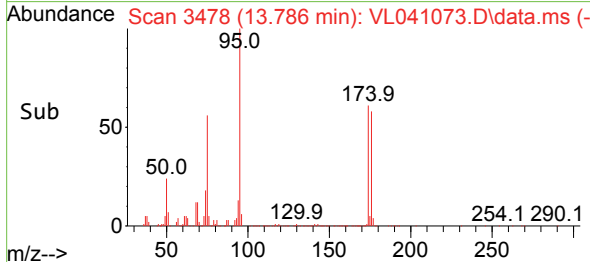
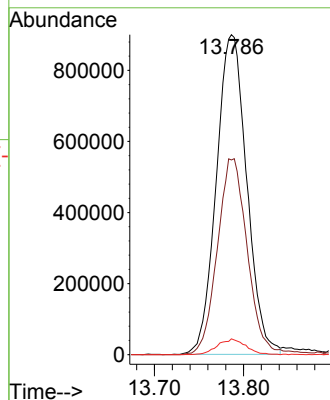
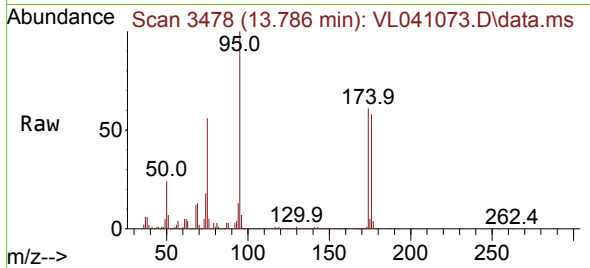




#68
1-Bromo-4-Fluorobenzene
Concen: 11.141 ppbv
RT: 13.786 min Scan# 3462
Delta R.T. 0.026 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

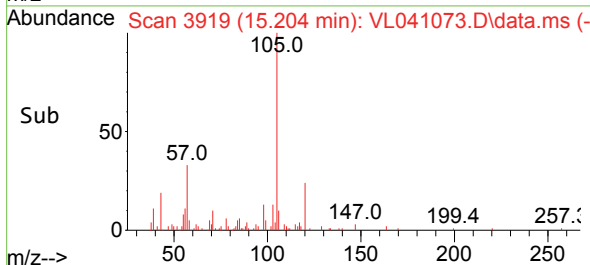
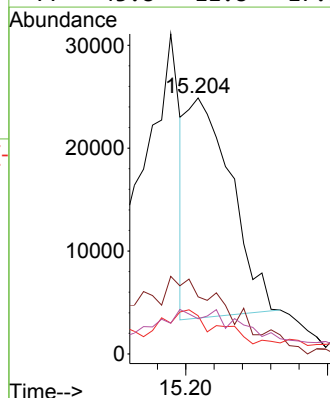
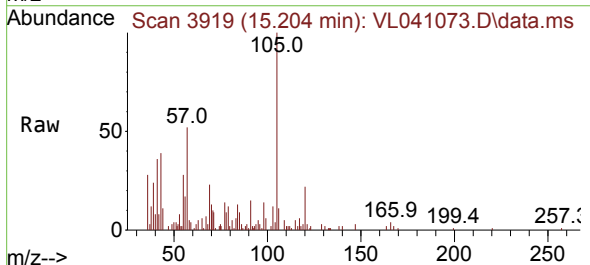
Instrument :
MSVOA_L
ClientSampleId :
SV1

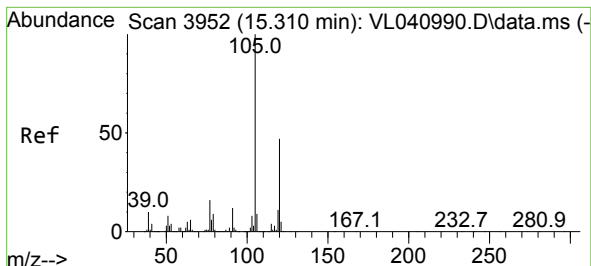
Tgt Ion: 95 Resp: 2136343
Ion Ratio Lower Upper
95 100
174 61.4 49.1 73.7
175 4.7 3.7 5.5



#72
4-Ethyltoluene
Concen: 0.073 ppbv
RT: 15.204 min Scan# 3919
Delta R.T. 0.026 min
Lab File: VL041073.D
Acq: 15 Feb 2024 16:11

Tgt Ion: 105 Resp: 23315
Ion Ratio Lower Upper
105 100
120 0.0 24.3 36.5#
91 40.1 11.0 16.4#
77 43.8 11.8 17.8#





#73

1,3,5-Trimethylbenzene

Concen: 0.170 ppbv

RT: 15.352 min Scan# 3952

Delta R.T. 0.016 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Instrument :

MSVOA_L

ClientSampleId :

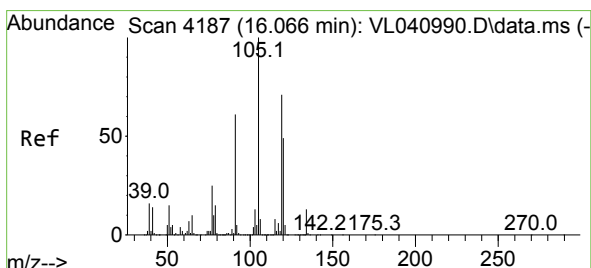
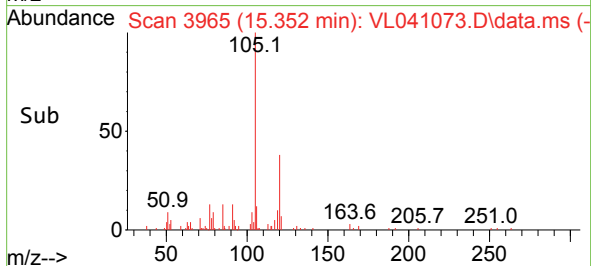
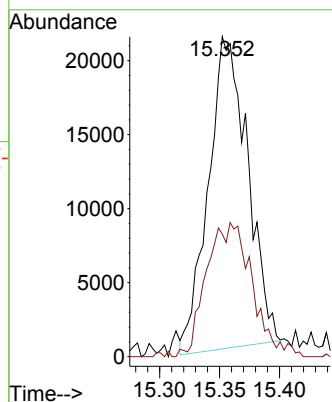
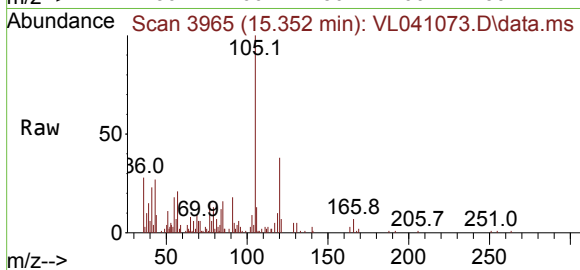
SV1

Tgt Ion:105 Resp: 48043

Ion Ratio Lower Upper

105 100

120 37.9 37.2 55.8



#74

1,2,4-Trimethylbenzene

Concen: 0.757 ppbv

RT: 16.111 min Scan# 4201

Delta R.T. 0.013 min

Lab File: VL041073.D

Acq: 15 Feb 2024 16:11

Tgt Ion:105 Resp: 242602

Ion Ratio Lower Upper

105 100

120 36.5 39.3 58.9#

91 10.6 48.7 73.1#

77 13.3 19.8 29.8#

