

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL121922\
 Data File : VL040045.D
 Acq On : 20 Dec 2022 2:02
 Operator : SY/MD
 Sample : N6059-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Quant Time: Dec 20 05:19:02 2022
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Dec 20 04:50:21 2022
 Response via : Initial Calibration

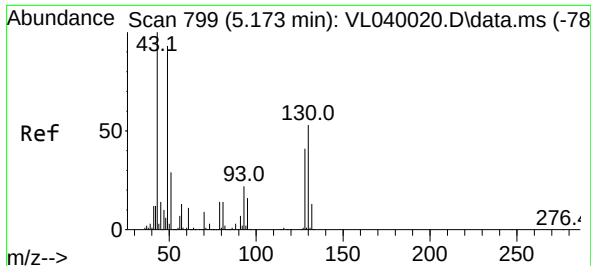
Compound		R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards							
1) Bromochloromethane		5.169	49	1001457	10.000	ppbv	0.00
33) 1,4-Difluorobenzene		6.629	114	2764229	10.000	ppbv	0.00
55) Chlorobenzene-d5		11.446	117	2463926	10.000	ppbv	0.00
System Monitoring Compounds							
68) 1-Bromo-4-Fluorobenzene		13.754	95	1905916	10.126	ppbv	0.00
Spiked Amount 10.000		Range	65 - 135	Recovery	=	101.300%	
Target Compounds							
							Qvalue
3) Chlorodifluoromethane		2.658	51	6804	0.046	ppbv	95
7) Chloroethane		3.176	64	1345	0.048	ppbv #	72
9) Propene		2.674	41	35859	0.572	ppbv	87
10) Heptane		7.562	43	12811	0.084	ppbv #	26
11) Trichlorofluoromethane		3.536	101	9698	0.048	ppbv	84
13) Ethanol		3.218	45	65464	11.092	ppbv	89
15) Acetone		3.446	43	690410	4.457	ppbv	95
16) 1,3-Butadiene		2.944	39	30126	0.447	ppbv #	23
17) tert-Butyl alcohol		3.864	59	38351	0.251	ppbv #	94
19) Isopropyl Alcohol		3.555	45	205708	2.694	ppbv #	97
20) Methylene Chloride		3.909	84	249630	3.791	ppbv	98
21) Allyl Chloride		3.909	41	10330	0.111	ppbv #	28
23) Vinyl Acetate		4.604	43	266660	5.429	ppbv #	97
25) Ethyl Acetate		5.189	43	387027	1.443	ppbv #	77
26) Hexane		5.189	57	558466	4.953	ppbv #	33
27) Carbon Disulfide		4.099	76	5217	0.037	ppbv #	1
29) Chloroform		5.250	83	128959	0.749	ppbv	97
34) 2-Butanone		4.771	43	105378	0.703	ppbv	92
36) Benzene		6.343	78	11324	0.046	ppbv #	79
39) 1,2-Dichloropropane		6.629	63	668553	7.225	ppbv #	23
41) Tetrahydrofuran		5.552	42	6558	0.070	ppbv #	79
44) 2,2,4-Trimethylpentane		7.298	57	14274	0.035	ppbv #	42
51) 2-Hexanone		9.536	43	16692	0.088	ppbv #	28
52) Tetrachloroethene		10.590	164	75437	0.899	ppbv	95
53) Toluene		9.195	91	154163	0.564	ppbv	100
58) Ethyl Benzene		12.069	91	30510	0.087	ppbv	89
59) m/p-Xylene		12.359	91	11598	0.038	ppbv #	32
60) o-Xylene		13.040	91	9717	0.033	ppbv #	1
65) tert-Butylbenzene		16.082	119	12033	0.033	ppbv #	1
72) 4-Ethyltoluene		15.175	105	15241	0.047	ppbv #	54
73) 1,3,5-Trimethylbenzene		15.333	105	38918	0.133	ppbv #	77
74) 1,2,4-Trimethylbenzene		16.089	105	177047	0.549	ppbv #	64

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

Quant Time: Dec 20 05:19:02 2022
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL121922AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Tue Dec 20 04:50:21 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.169 min Scan# 79

Delta R.T. -0.004 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

SV2

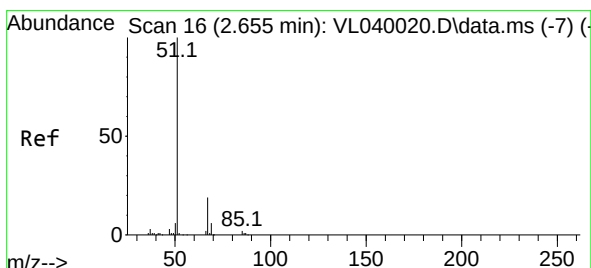
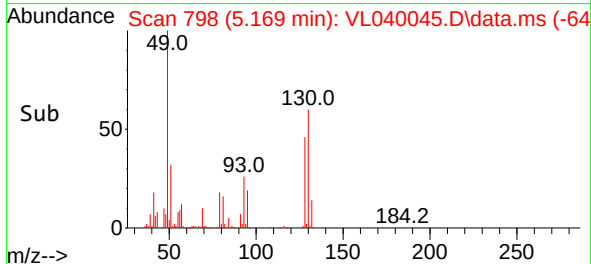
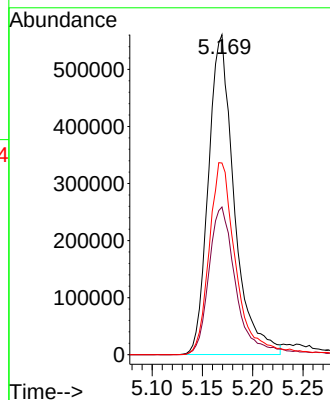
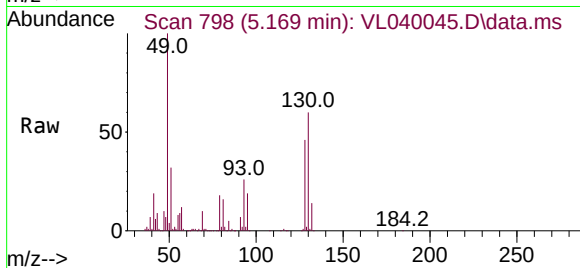
Tgt Ion: 49 Resp: 1001457

Ion Ratio Lower Upper

49 100

128 49.8 22.4 67.3

130 64.0 28.9 86.8



#3

Chlorodifluoromethane

Concen: 0.046 ppbv

RT: 2.658 min Scan# 17

Delta R.T. 0.003 min

Lab File: VL040045.D

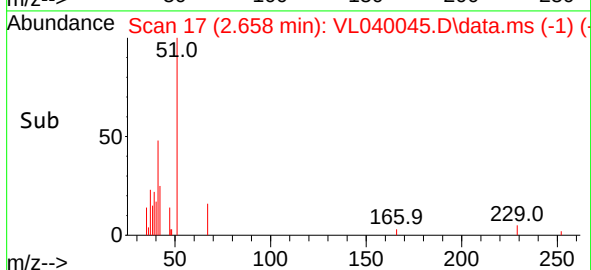
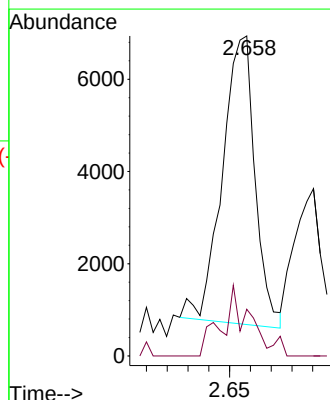
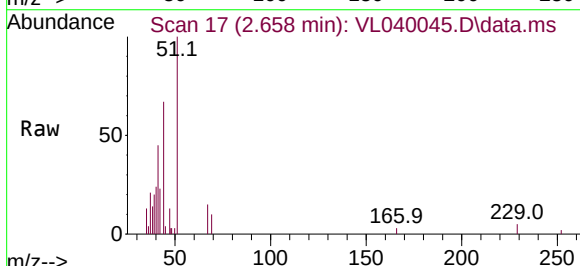
Acq: 20 Dec 2022 2:02

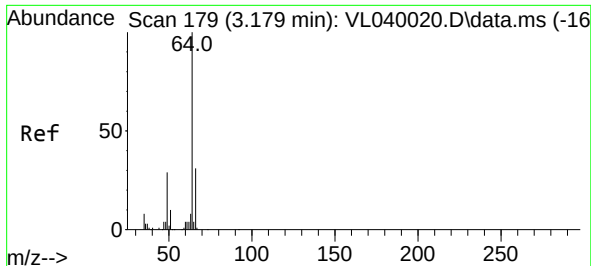
Tgt Ion: 51 Resp: 6804

Ion Ratio Lower Upper

51 100

67 21.6 15.3 22.9

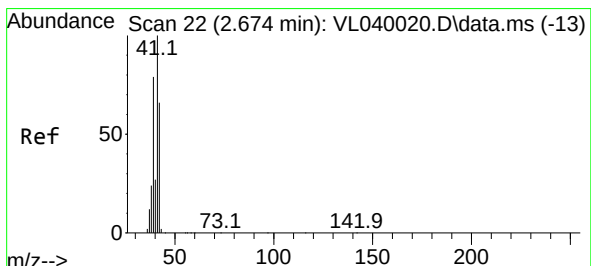
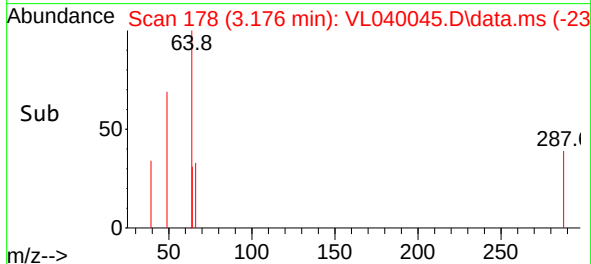
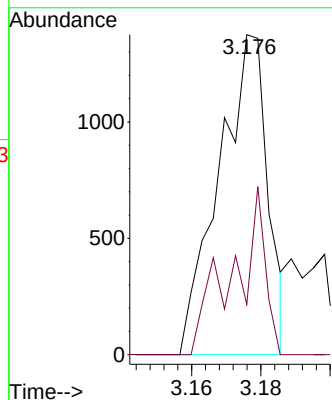
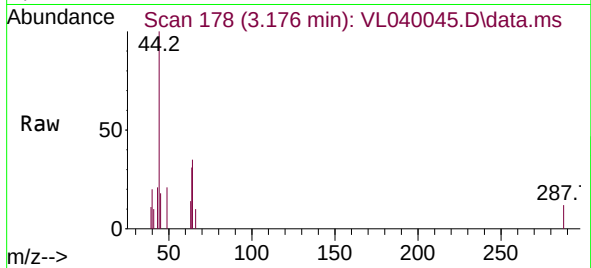




#7
Chloroethane
Concen: 0.048 ppbv
RT: 3.176 min Scan# 11
Delta R.T. -0.003 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

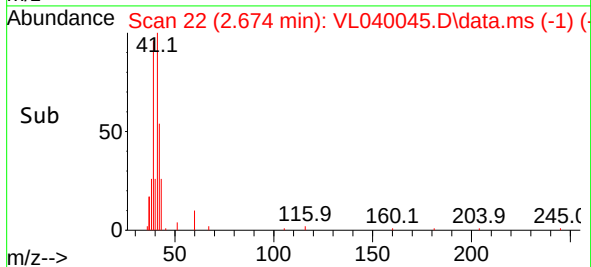
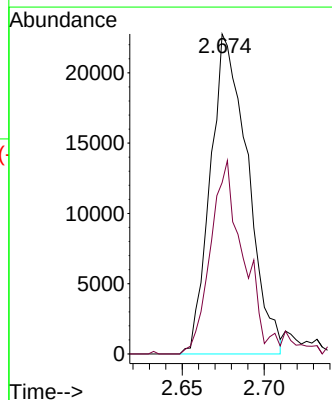
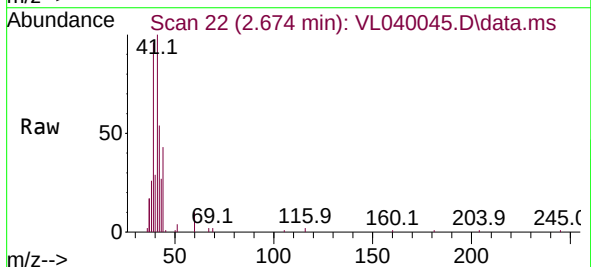
Instrument :
MSVOA_L
ClientSampleId :
SV2

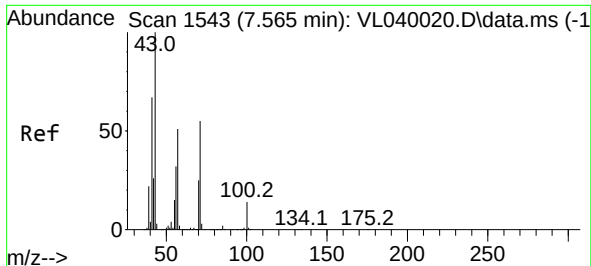
Tgt Ion: 64 Resp: 1345
Ion Ratio Lower Upper
64 100
66 15.7 24.6 37.0#



#9
Propene
Concen: 0.572 ppbv
RT: 2.674 min Scan# 22
Delta R.T. 0.000 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 41 Resp: 35859
Ion Ratio Lower Upper
41 100
42 57.7 54.8 82.2

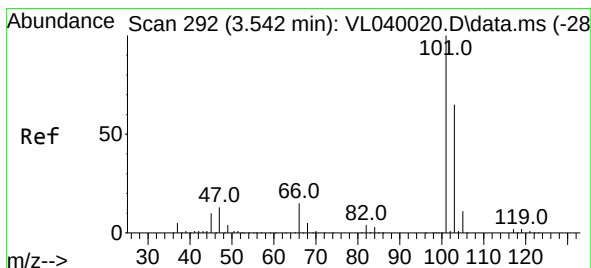
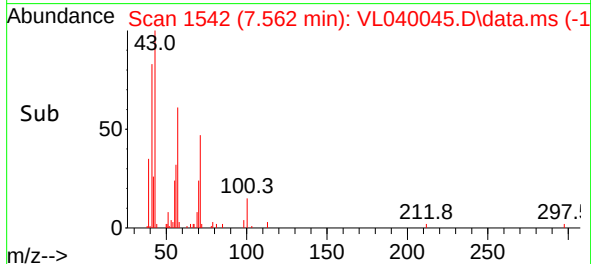
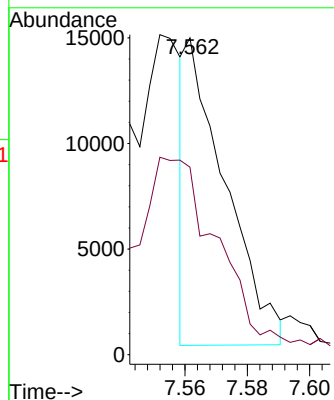
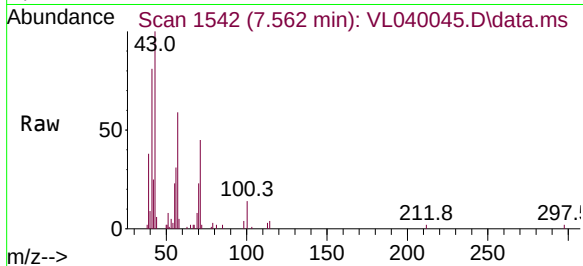




#10
 Heptane
 Concen: 0.084 ppbv
 RT: 7.562 min Scan# 11
 Delta R.T. -0.003 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

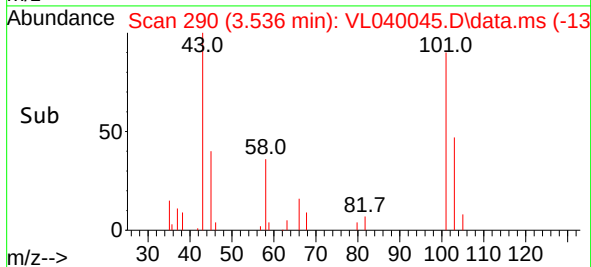
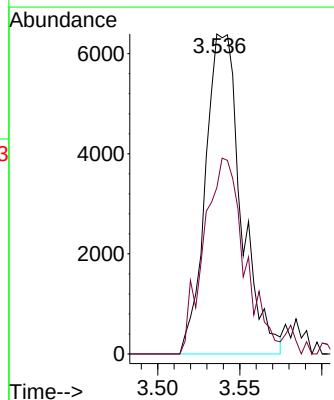
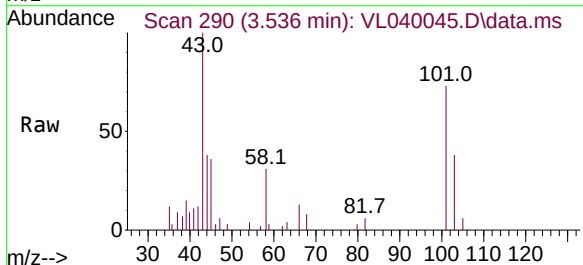
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

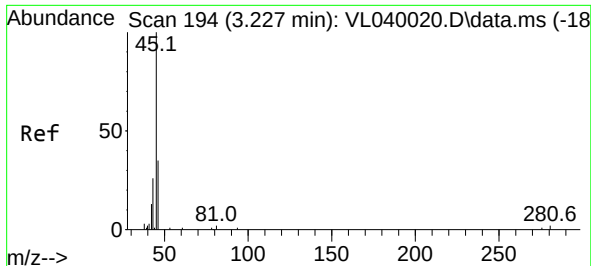
Tgt Ion: 43 Resp: 12811
 Ion Ratio Lower Upper
 43 100
 57 0.0 41.2 61.8#



#11
 Trichlorofluoromethane
 Concen: 0.048 ppbv
 RT: 3.536 min Scan# 290
 Delta R.T. -0.006 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

Tgt Ion: 101 Resp: 9698
 Ion Ratio Lower Upper
 101 100
 103 52.0 51.7 77.5

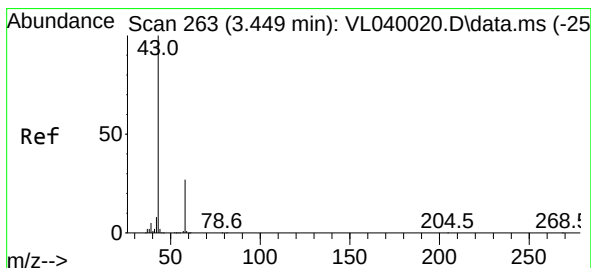
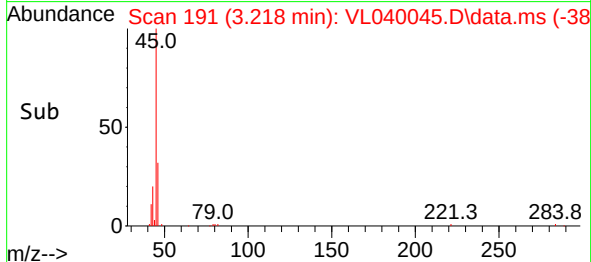
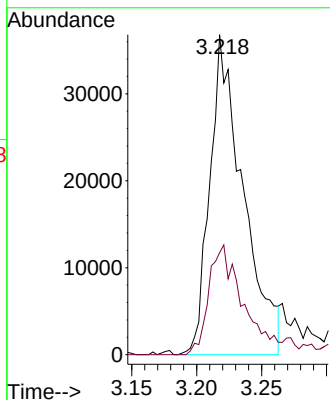
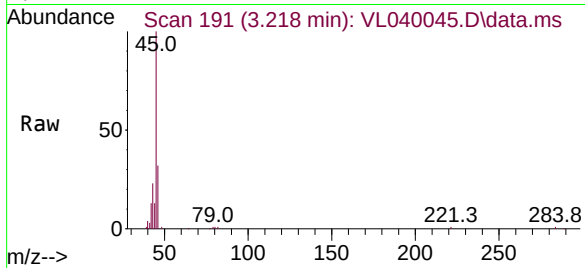




#13
Ethanol
Concen: 11.092 ppbv
RT: 3.218 min Scan# 194
Delta R.T. -0.010 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

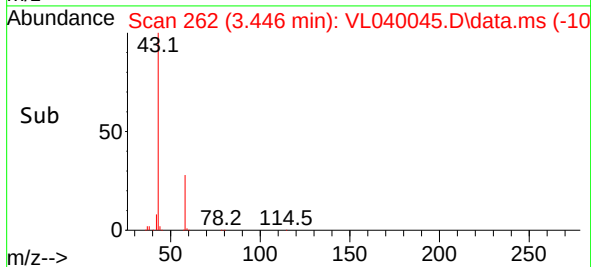
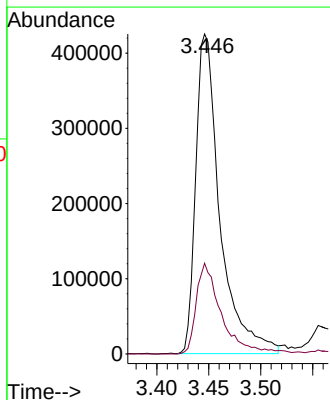
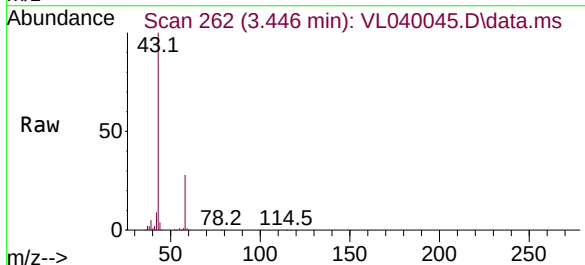
Instrument :
MSVOA_L
ClientSampleId :
SV2

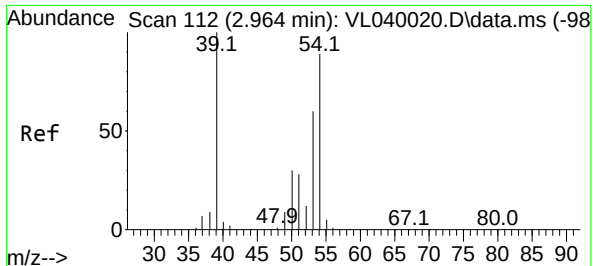
Tgt Ion: 45 Resp: 65464
Ion Ratio Lower Upper
45 100
46 40.8 13.7 54.7



#15
Acetone
Concen: 4.457 ppbv
RT: 3.446 min Scan# 262
Delta R.T. -0.003 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 43 Resp: 690410
Ion Ratio Lower Upper
43 100
58 29.8 21.8 32.8





#16

1,3-Butadiene

Concen: 0.447 ppbv

RT: 2.944 min Scan# 112

Delta R.T. -0.019 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

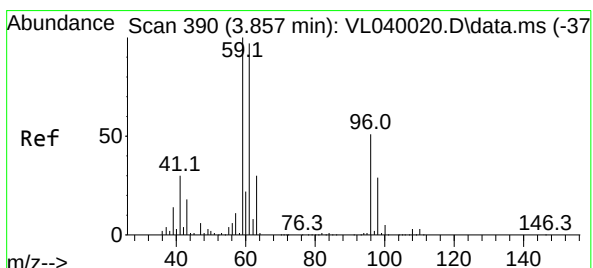
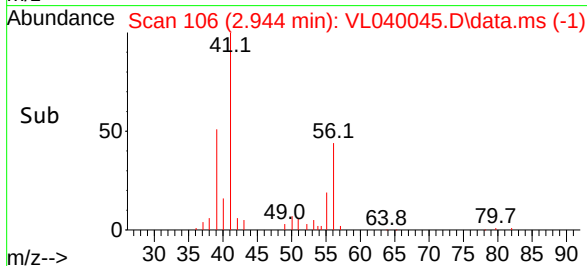
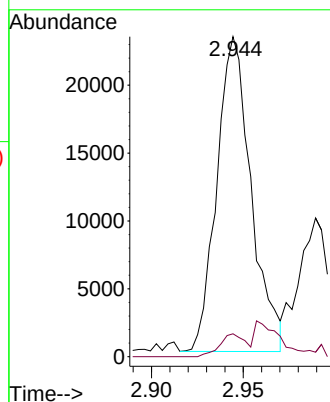
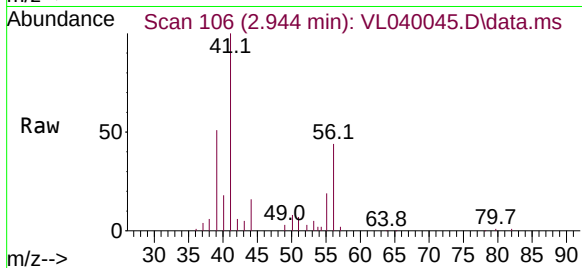
SV2

Tgt Ion: 39 Resp: 30126

Ion Ratio Lower Upper

39 100

54 14.9 68.3 102.5#



#17

tert-Butyl alcohol

Concen: 0.251 ppbv

RT: 3.864 min Scan# 392

Delta R.T. 0.006 min

Lab File: VL040045.D

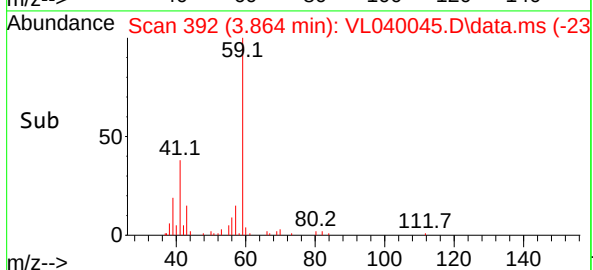
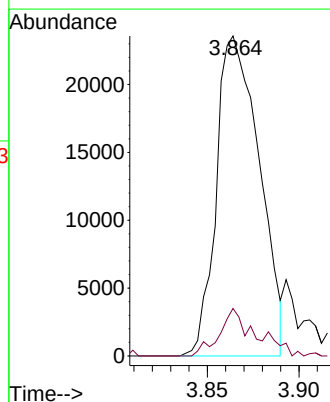
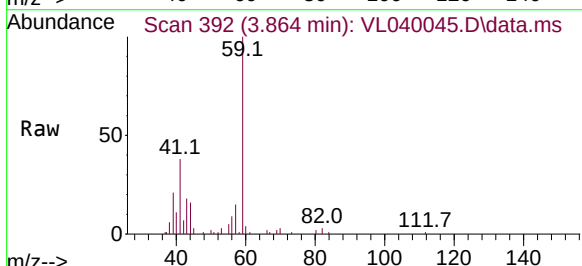
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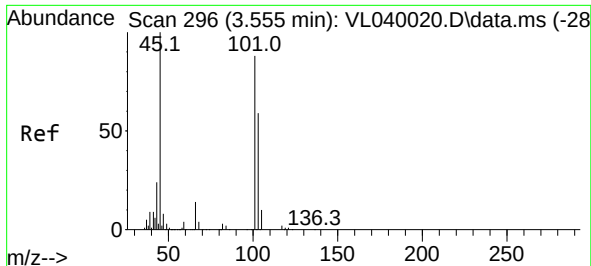
Tgt Ion: 59 Resp: 38351

Ion Ratio Lower Upper

59 100

57 12.8 8.4 12.6#

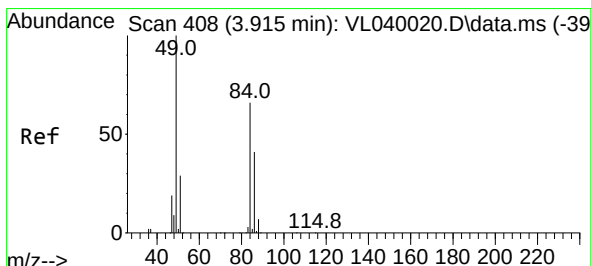
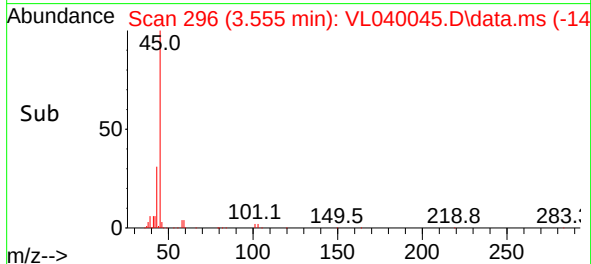
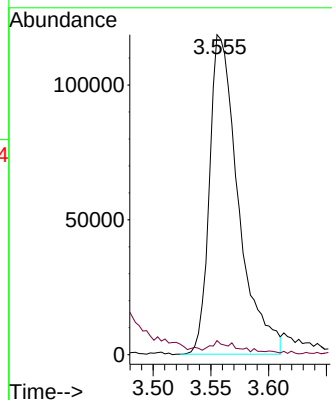
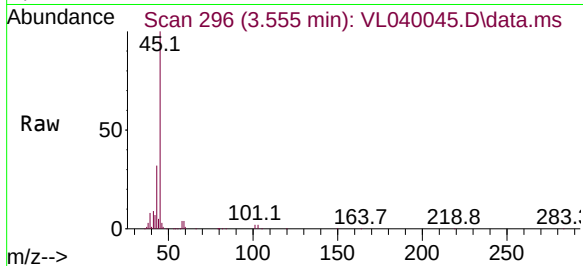




#19
Isopropyl Alcohol
Concen: 2.694 ppbv
RT: 3.555 min Scan# 296
Delta R.T. 0.000 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

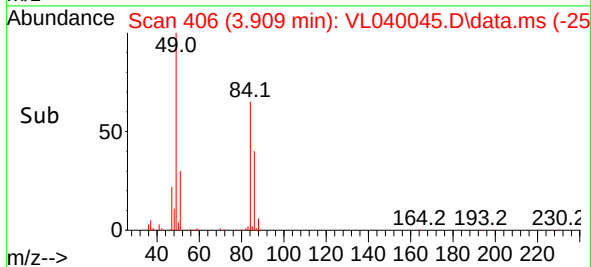
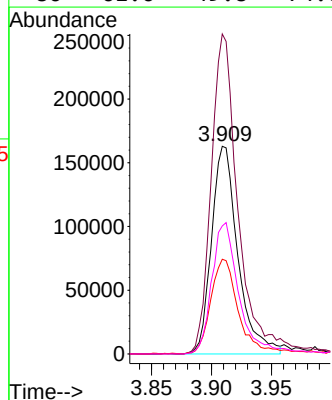
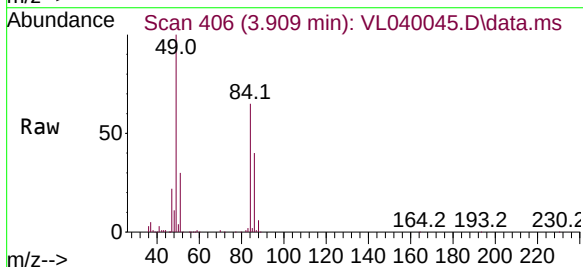
Instrument :
MSVOA_L
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SV2

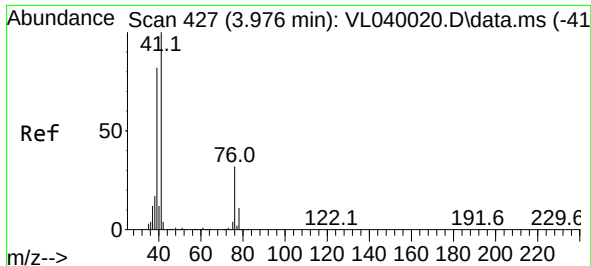
Tgt Ion: 45 Resp: 205708
Ion Ratio Lower Upper
45 100
58 3.2 1.7 2.5#



#20
Methylene Chloride
Concen: 3.791 ppbv
RT: 3.909 min Scan# 406
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 84 Resp: 249630
Ion Ratio Lower Upper
84 100
49 153.9 120.5 180.7
51 45.4 35.2 52.8
86 61.6 49.8 74.6





#21

Allyl Chloride

Concen: 0.111 ppbv

RT: 3.909 min Scan# 406

Delta R.T. -0.067 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

SV2

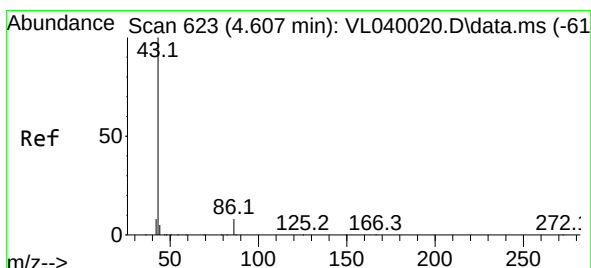
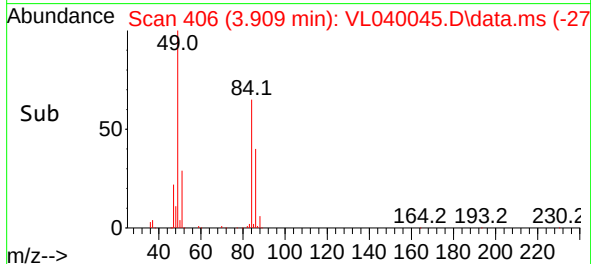
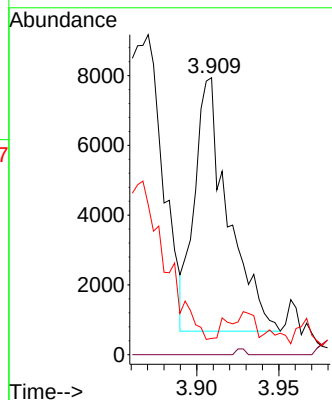
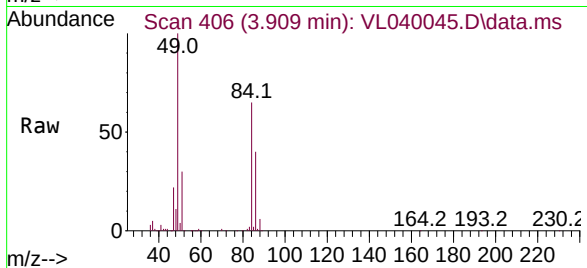
Tgt Ion: 41 Resp: 10330

Ion Ratio Lower Upper

41 100

76 0.0 25.9 38.9#

39 13.0 66.0 99.0#



#23

Vinyl Acetate

Concen: 5.429 ppbv

RT: 4.604 min Scan# 622

Delta R.T. -0.003 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Tgt Ion: 43 Resp: 266660

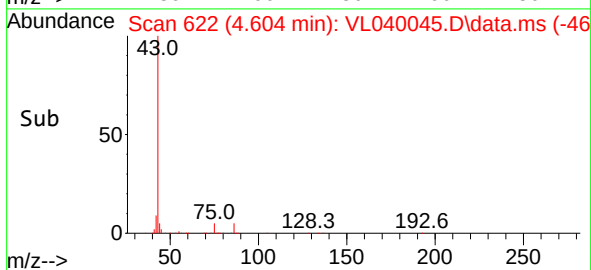
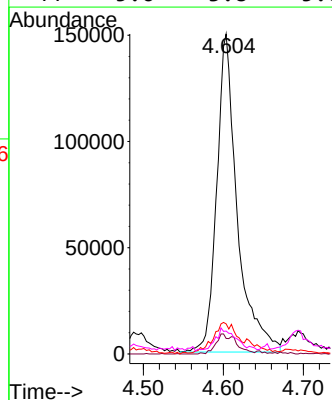
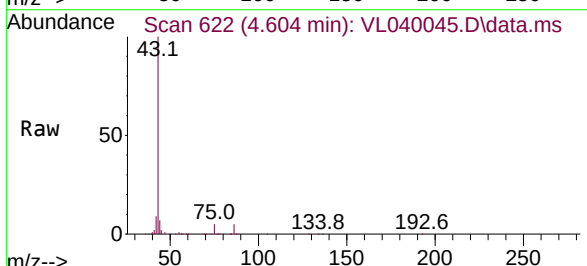
Ion Ratio Lower Upper

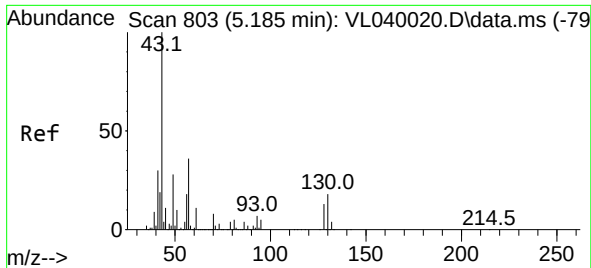
43 100

86 4.9 5.3 7.9#

42 9.5 7.4 11.0

44 5.6 3.8 5.6#

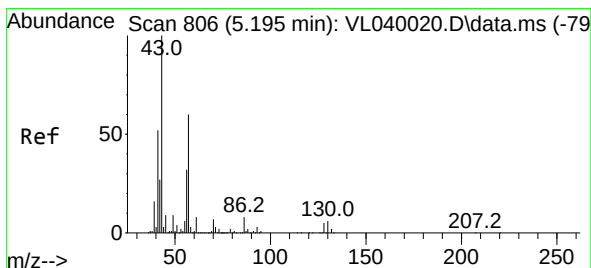
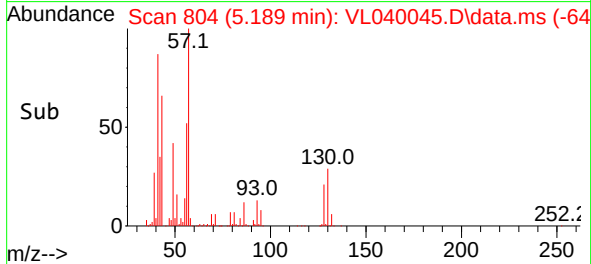
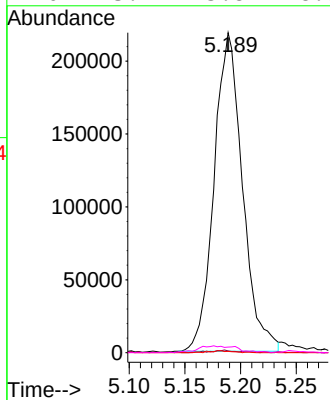
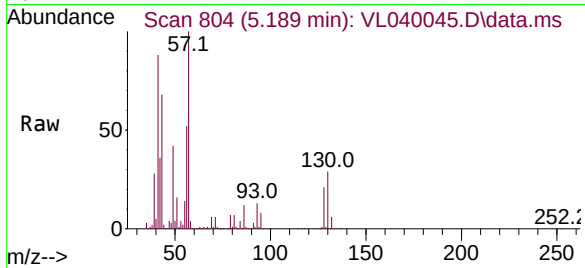




#25
Ethyl Acetate
Concen: 1.443 ppbv
RT: 5.189 min Scan# 803
Delta R.T. 0.003 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

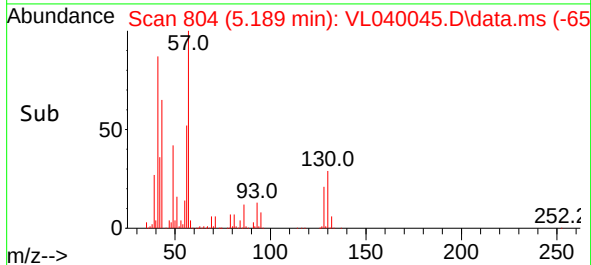
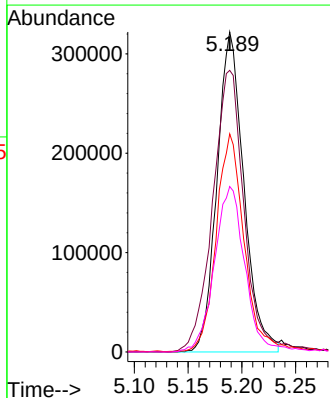
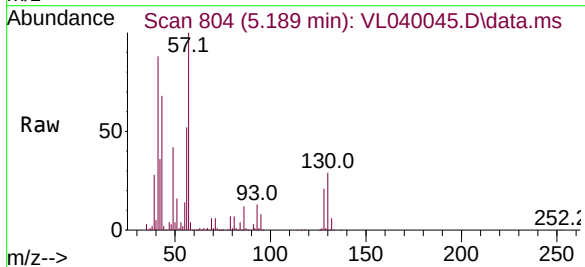
Instrument :
MSVOA_1
ClientSampleId :
SV2

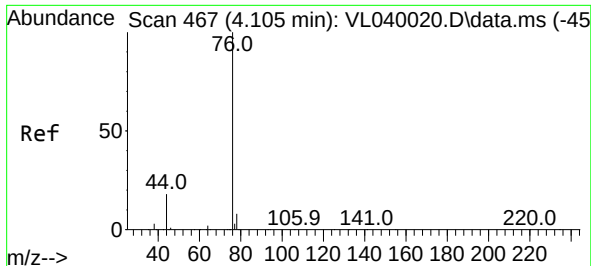
Tgt Ion: 43 Resp: 387027
Ion Ratio Lower Upper
43 100
45 0.8 8.6 12.8#
61 0.5 8.5 12.7#
70 3.1 5.8 8.8#



#26
Hexane
Concen: 4.953 ppbv
RT: 5.189 min Scan# 804
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 57 Resp: 558466
Ion Ratio Lower Upper
57 100
41 104.3 72.1 108.1
43 71.7 192.1 288.1#
56 59.4 42.5 63.7

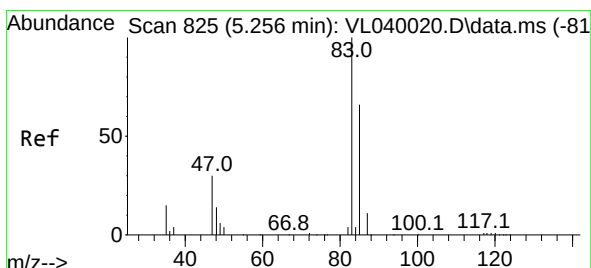
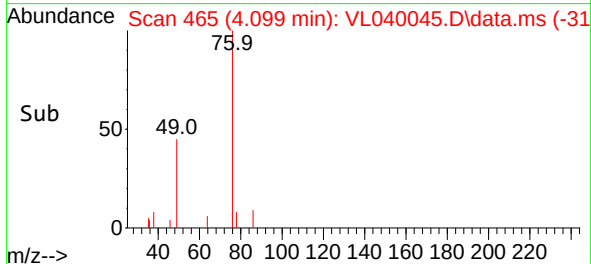
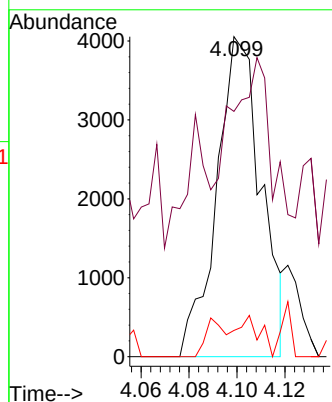
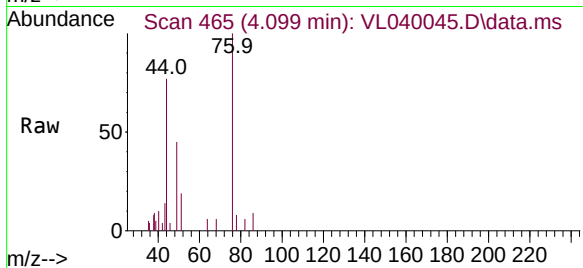




#27
Carbon Disulfide
Concen: 0.037 ppbv
RT: 4.099 min Scan# 41
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

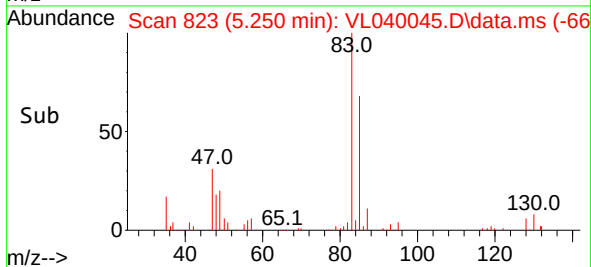
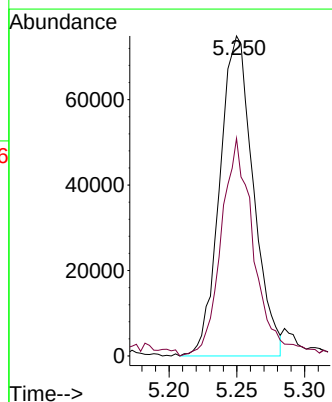
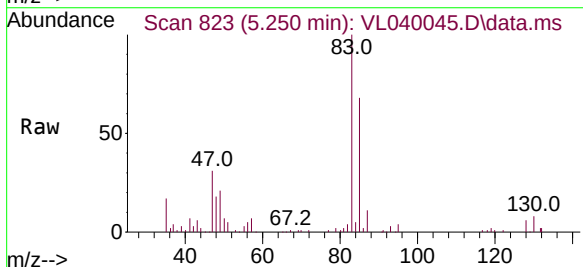
Instrument :
MSVOA_L
ClientSampleId :
SV2

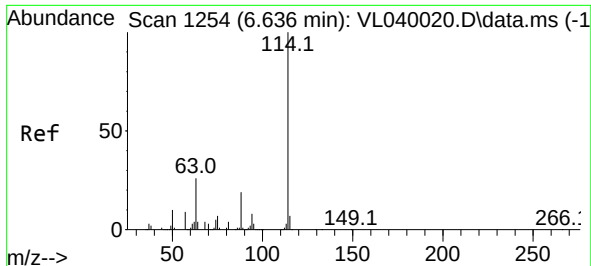
Tgt Ion: 76 Resp: 5217
Ion Ratio Lower Upper
76 100
44 110.4 15.3 22.9#
78 3.0 7.8 11.6#



#29
Chloroform
Concen: 0.749 ppbv
RT: 5.250 min Scan# 823
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 83 Resp: 128959
Ion Ratio Lower Upper
83 100
85 68.0 52.4 78.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.629 min Scan# 11

Delta R.T. -0.006 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

SV2

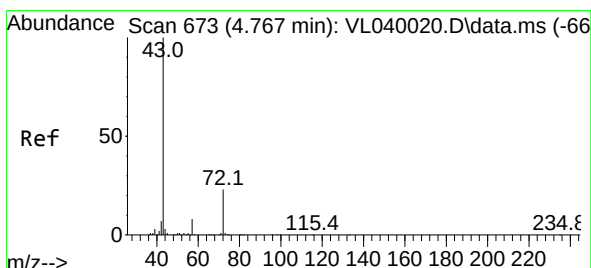
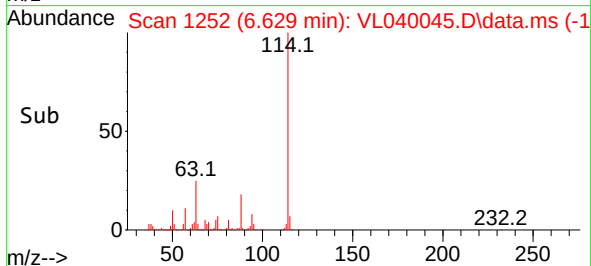
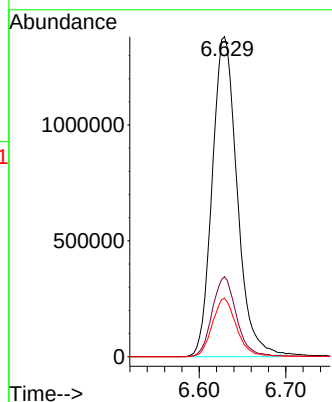
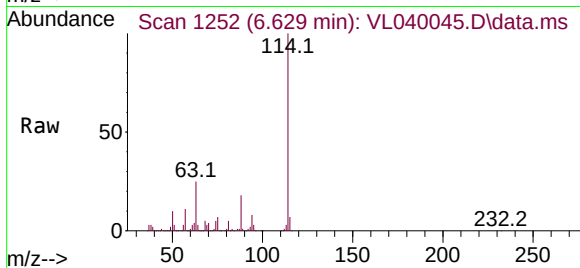
Tgt Ion:114 Resp: 2764229

Ion Ratio Lower Upper

114 100

63 24.6 20.2 30.2

88 17.9 14.6 21.8



#34

2-Butanone

Concen: 0.703 ppbv

RT: 4.771 min Scan# 674

Delta R.T. 0.003 min

Lab File: VL040045.D

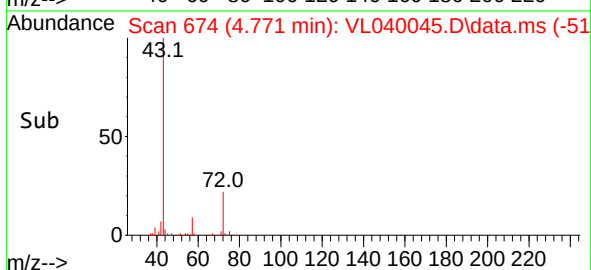
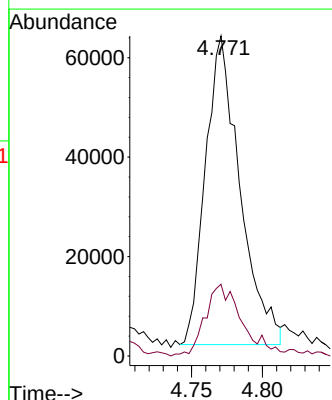
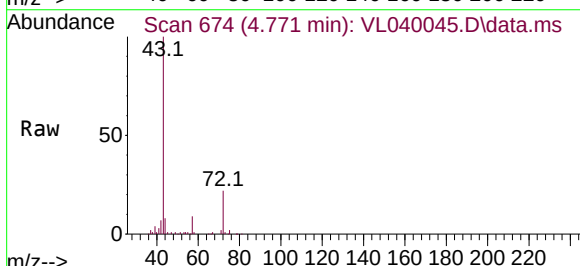
Acq: 20 Dec 2022 2:02

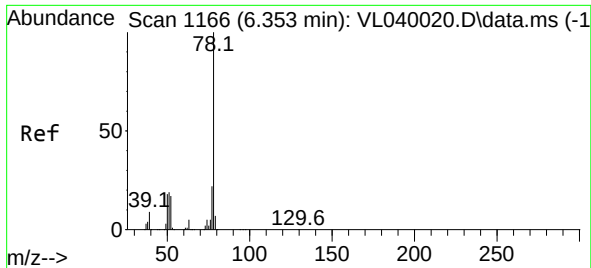
Tgt Ion: 43 Resp: 105378

Ion Ratio Lower Upper

43 100

72 26.3 18.0 27.0





#36

Benzene

Concen: 0.046 ppbv

RT: 6.343 min Scan# 1166

Delta R.T. -0.010 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

SV2

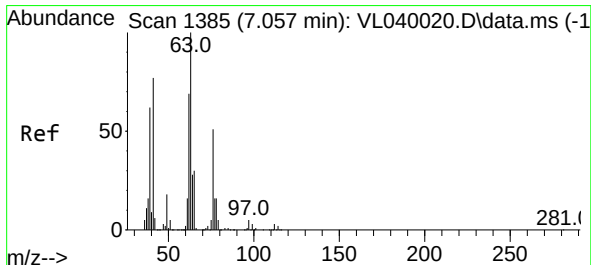
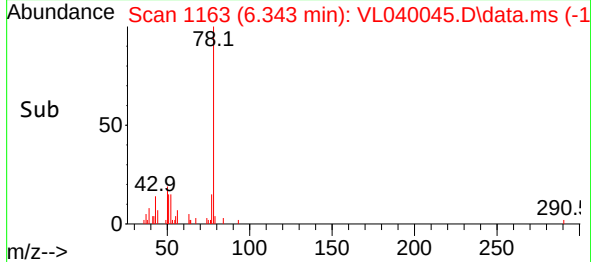
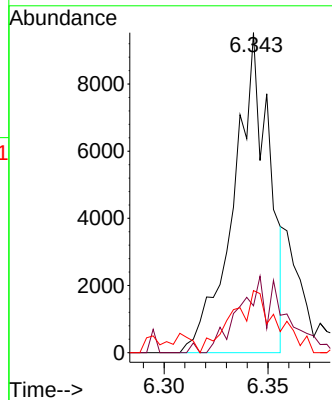
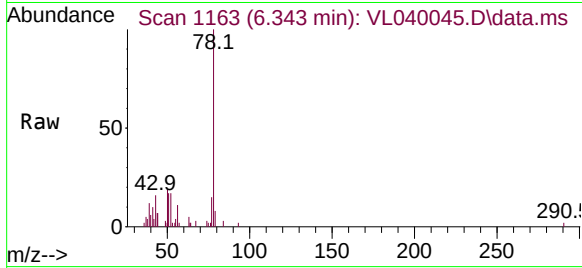
Tgt Ion: 78 Resp: 11324

Ion Ratio Lower Upper

78 100

77 14.6 17.5 26.3#

50 30.2 14.2 21.2#



#39

1,2-Dichloropropane

Concen: 7.225 ppbv

RT: 6.629 min Scan# 1252

Delta R.T. -0.428 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

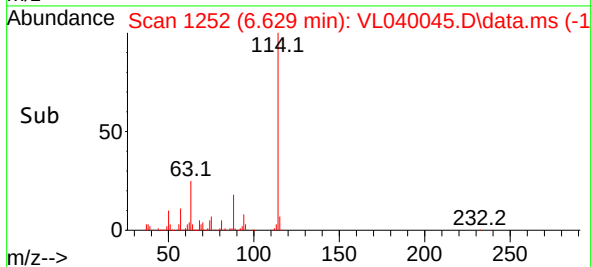
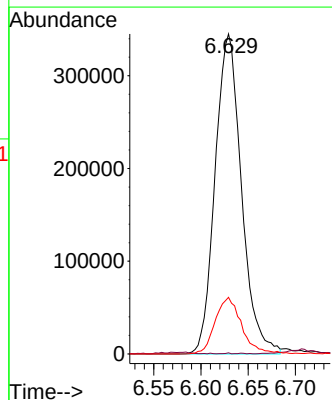
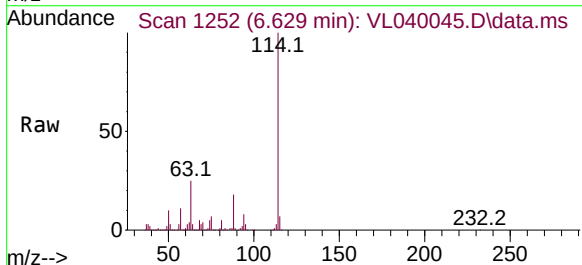
Tgt Ion: 63 Resp: 668553

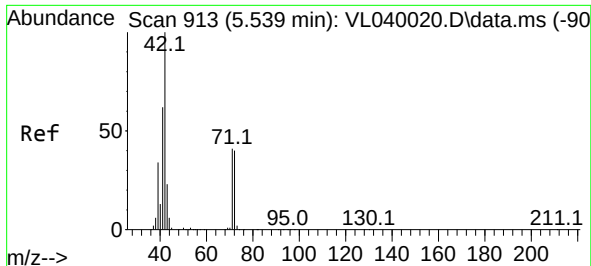
Ion Ratio Lower Upper

63 100

41 0.0 61.4 92.0#

62 17.7 55.4 83.2#





#41

Tetrahydrofuran

Concen: 0.070 ppbv

RT: 5.552 min Scan# 913

Delta R.T. 0.013 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

SV2

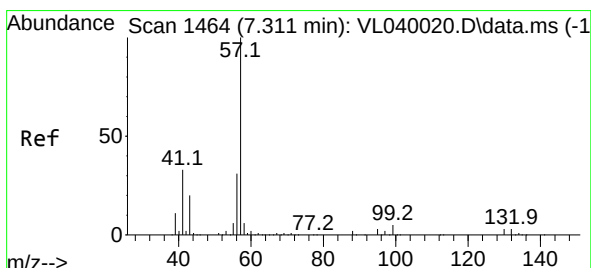
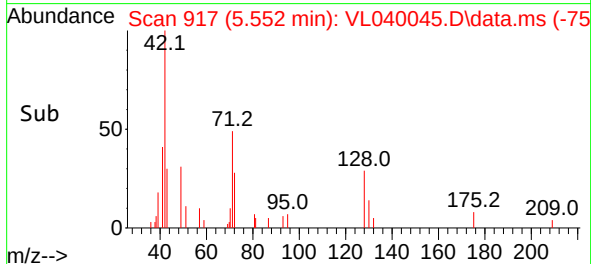
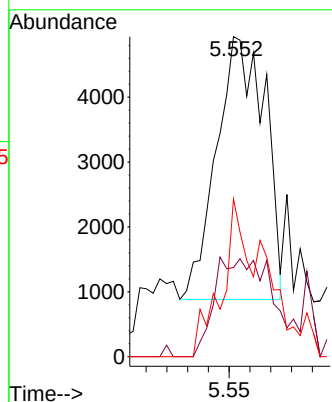
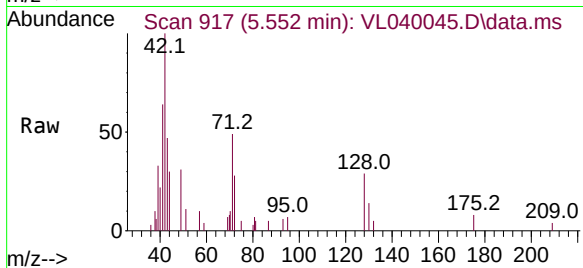
Tgt Ion: 42 Resp: 6558

Ion Ratio Lower Upper

42 100

72 53.1 32.9 49.3#

71 54.8 32.2 48.2#



#44

2,2,4-Trimethylpentane

Concen: 0.035 ppbv

RT: 7.298 min Scan# 1460

Delta R.T. -0.013 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

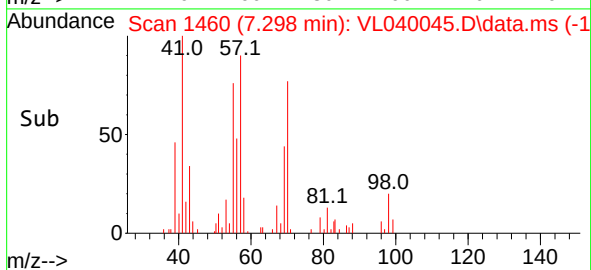
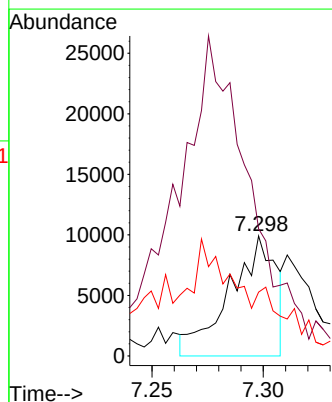
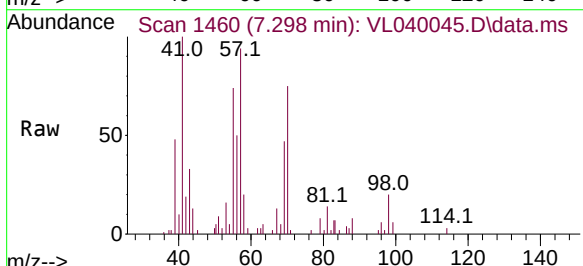
Tgt Ion: 57 Resp: 14274

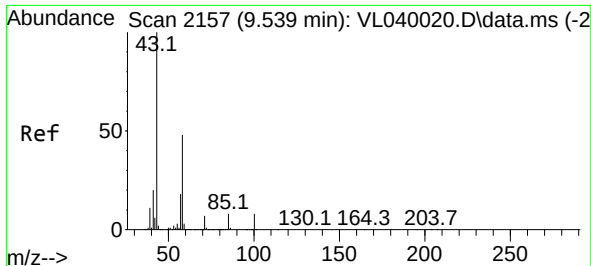
Ion Ratio Lower Upper

57 100

41 0.0 26.2 39.4#

56 0.0 25.1 37.7#

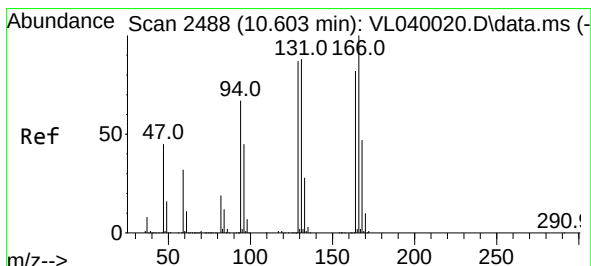
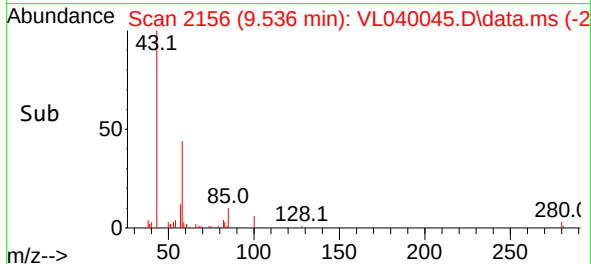
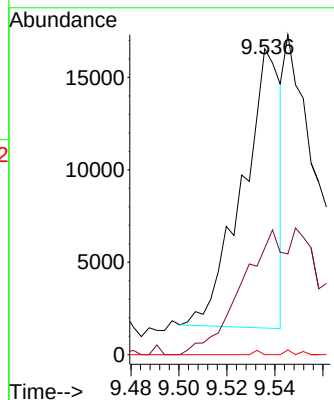
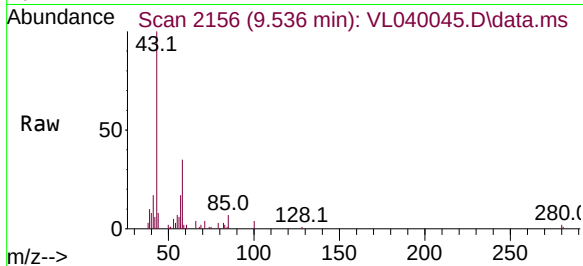




#51
2-Hexanone
Concen: 0.088 ppbv
RT: 9.536 min Scan# 2156
Delta R.T. -0.003 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

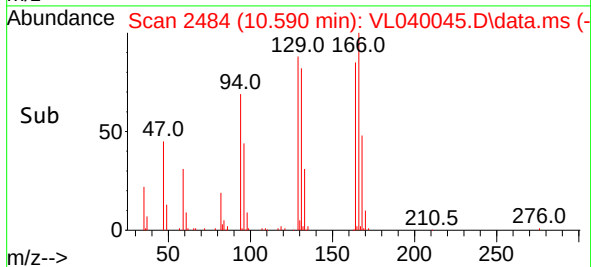
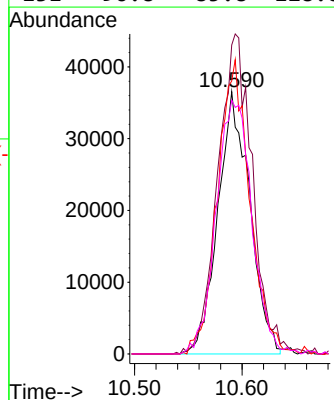
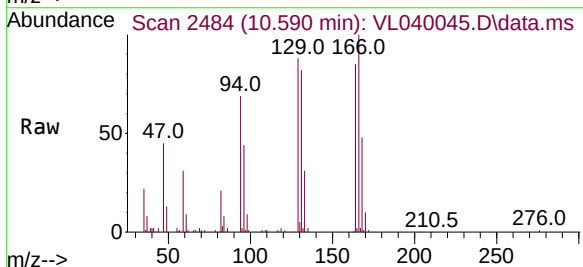
Instrument :
MSVOA_L
ClientSampleId :
SV2

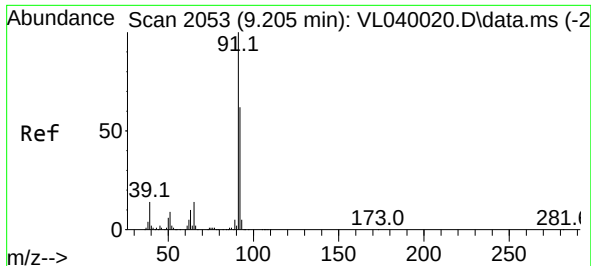
Tgt Ion: 43 Resp: 16692
Ion Ratio Lower Upper
43 100
58 0.0 39.4 59.2#
98 0.0 0.2 0.4#



#52
Tetrachloroethene
Concen: 0.899 ppbv
RT: 10.590 min Scan# 2484
Delta R.T. -0.013 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 164 Resp: 75437
Ion Ratio Lower Upper
164 100
166 117.8 97.4 146.0
129 104.1 84.3 126.5
131 96.8 85.8 128.8

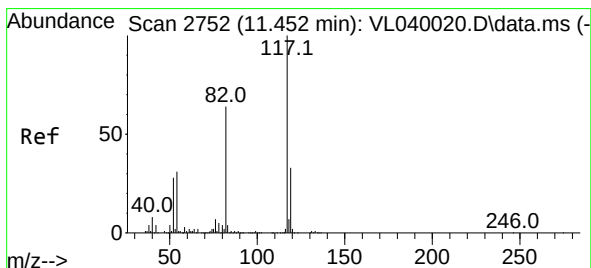
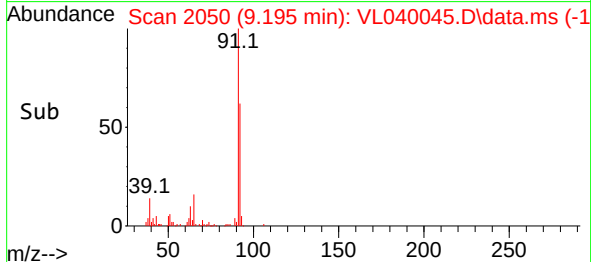
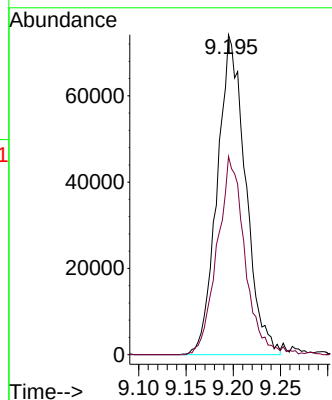
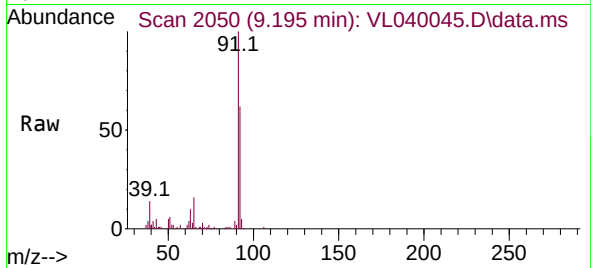




#53
Toluene
Concen: 0.564 ppbv
RT: 9.195 min Scan# 2053
Delta R.T. -0.010 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

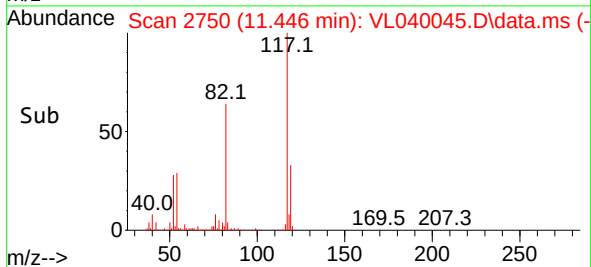
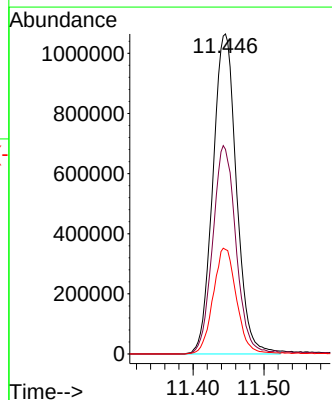
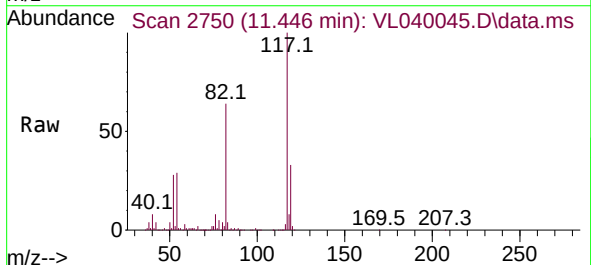
Instrument :
MSVOA_L
ClientSampleId :
SV2

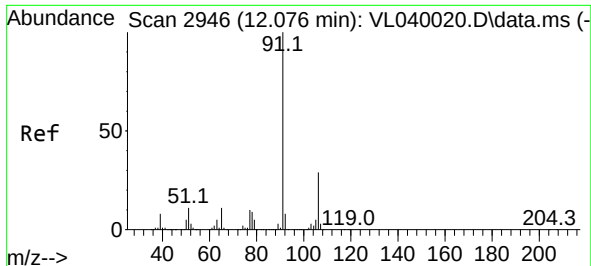
Tgt Ion: 91 Resp: 154163
Ion Ratio Lower Upper
91 100
92 61.0 48.7 73.1



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.446 min Scan# 2750
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 117 Resp: 2463926
Ion Ratio Lower Upper
117 100
82 65.0 51.2 76.8
119 32.7 23.2 34.8





#58

Ethyl Benzene

Concen: 0.087 ppbv

RT: 12.069 min Scan# 2944

Delta R.T. -0.006 min

Lab File: VL040045.D

Acq: 20 Dec 2022 2:02

Instrument :

MSVOA_L

ClientSampleId :

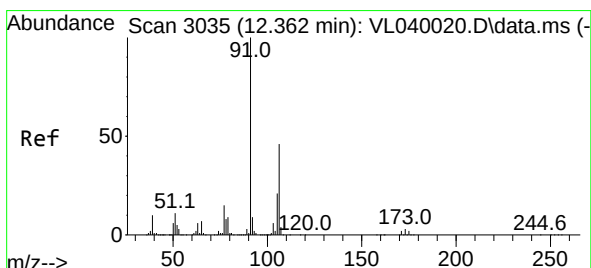
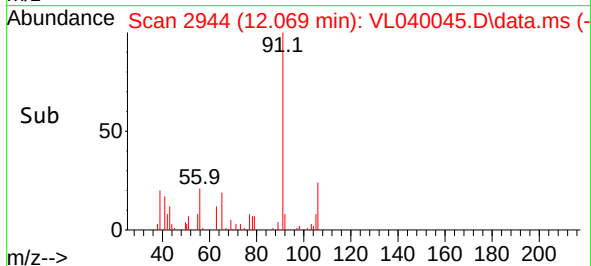
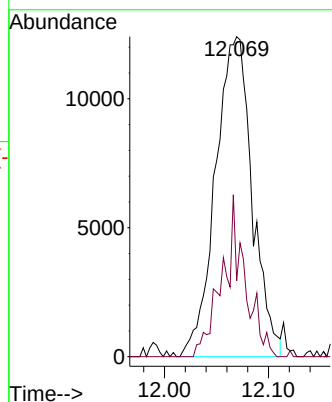
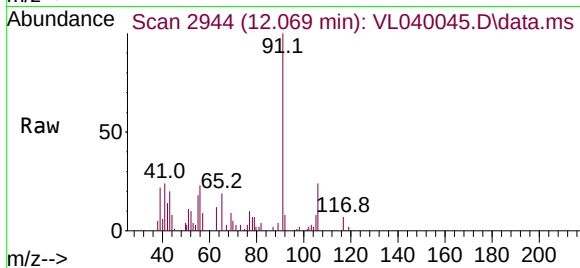
SV2

Tgt Ion: 91 Resp: 30510

Ion Ratio Lower Upper

91 100

106 23.7 23.5 35.3



#59

m/p-Xylene

Concen: 0.038 ppbv

RT: 12.359 min Scan# 3034

Delta R.T. -0.003 min

Lab File: VL040045.D

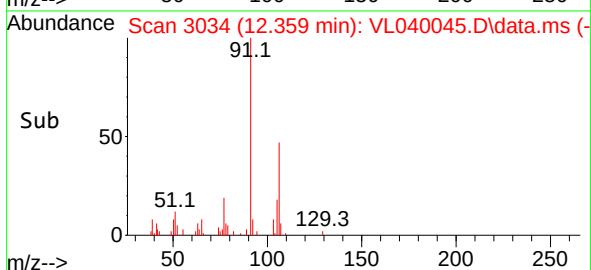
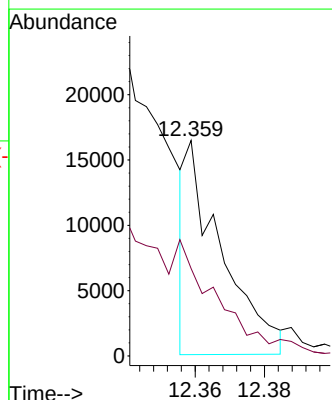
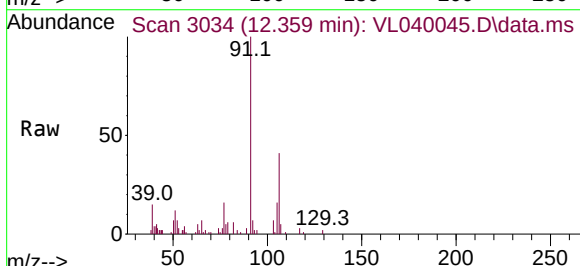
Acq: 20 Dec 2022 2:02

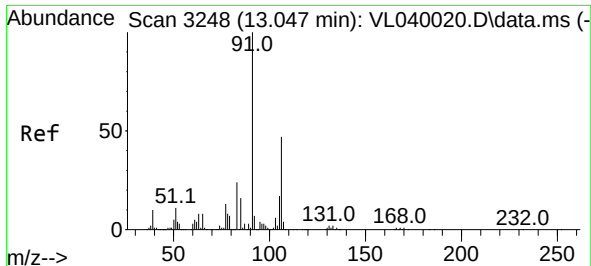
Tgt Ion: 91 Resp: 11598

Ion Ratio Lower Upper

91 100

106 0.0 35.5 53.3#

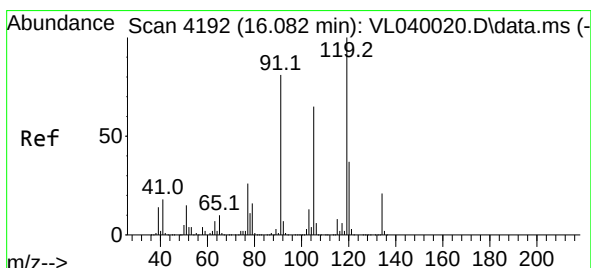
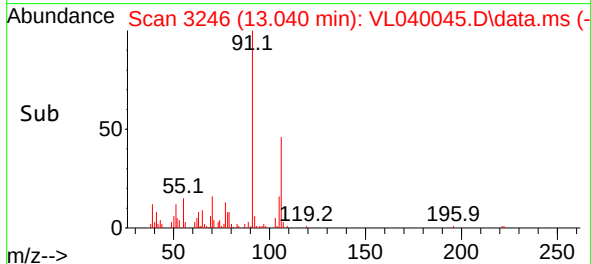
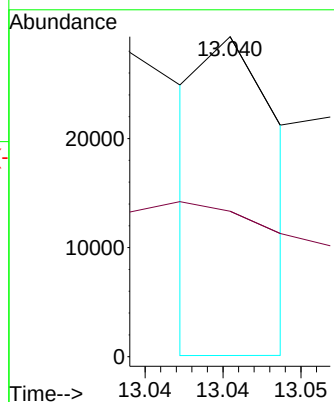
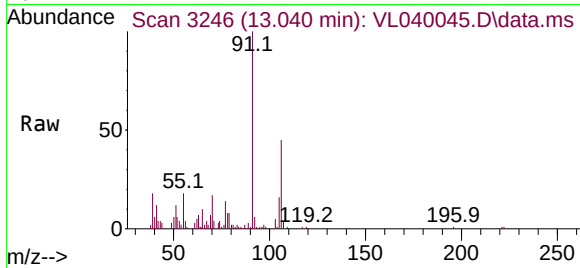




#60
o-Xylene
Concen: 0.033 ppbv
RT: 13.040 min Scan# 31
Delta R.T. -0.006 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

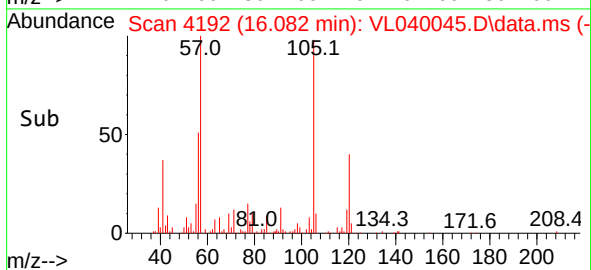
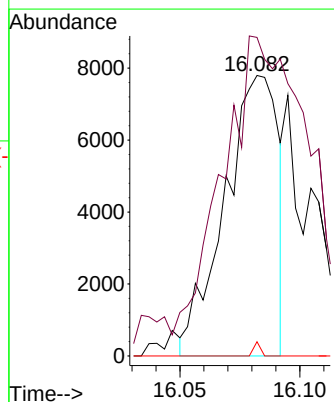
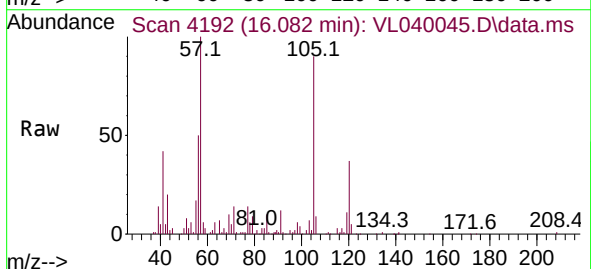
Instrument :
MSVOA_L
ClientSampleId :
SV2

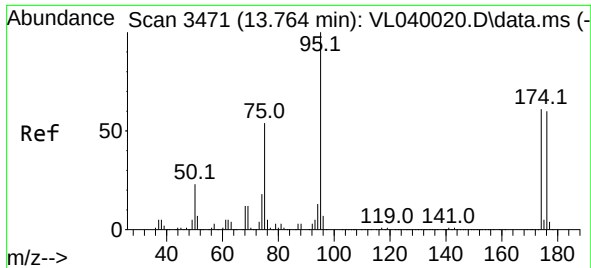
Tgt Ion: 91 Resp: 9717
Ion Ratio Lower Upper
91 100
106 308.3 22.4 67.0#



#65
tert-Butylbenzene
Concen: 0.033 ppbv
RT: 16.082 min Scan# 4192
Delta R.T. 0.000 min
Lab File: VL040045.D
Acq: 20 Dec 2022 2:02

Tgt Ion: 119 Resp: 12033
Ion Ratio Lower Upper
119 100
91 197.1 66.9 100.3#
134 0.0 15.8 23.6#

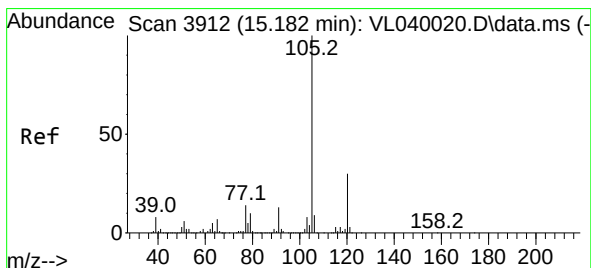
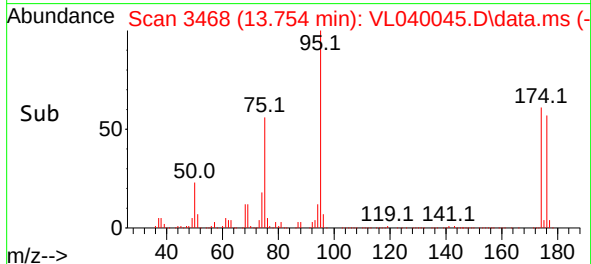
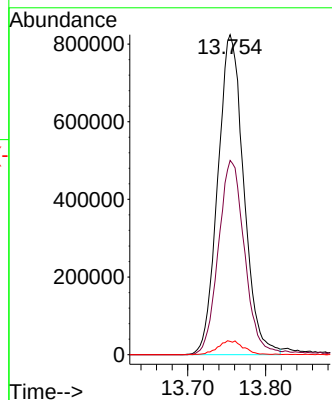
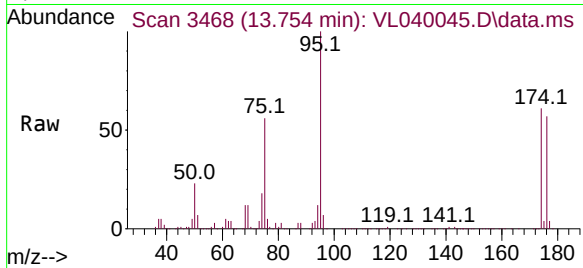




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.126 ppbv
 RT: 13.754 min Scan# 34
 Delta R.T. -0.010 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

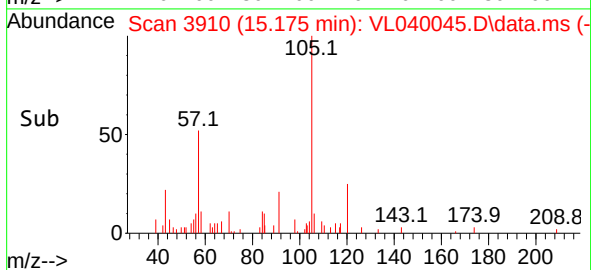
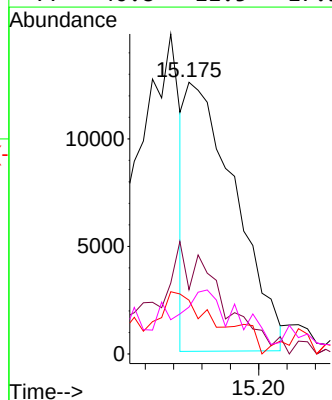
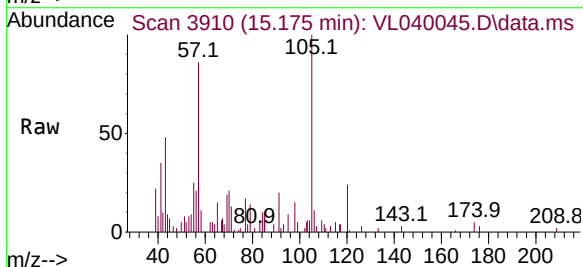
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

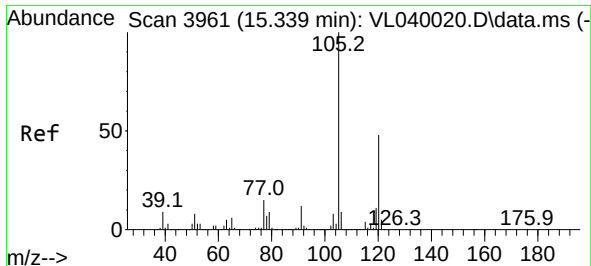
Tgt Ion: 95 Resp: 1905916
 Ion Ratio Lower Upper
 95 100
 174 62.4 48.6 73.0
 175 4.4 3.4 5.2



#72
 4-Ethyltoluene
 Concen: 0.047 ppbv
 RT: 15.175 min Scan# 3910
 Delta R.T. -0.006 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

Tgt Ion: 105 Resp: 15241
 Ion Ratio Lower Upper
 105 100
 120 52.3 23.5 35.3#
 91 0.0 10.5 15.7#
 77 40.8 11.5 17.3#

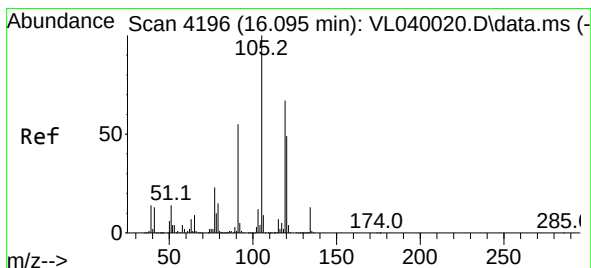
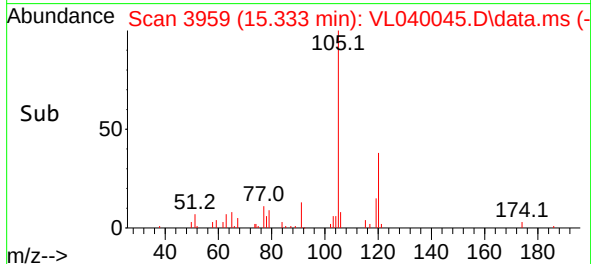
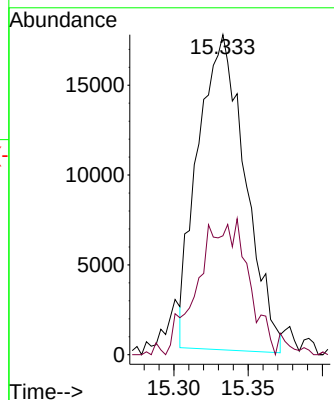
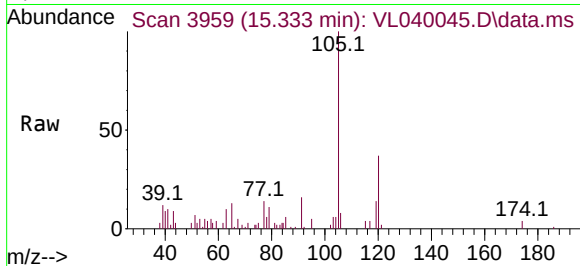




#73
 1,3,5-Trimethylbenzene
 Concen: 0.133 ppbv
 RT: 15.333 min Scan# 3959
 Delta R.T. -0.006 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

Instrument :
 MSVOA_1
 ClientSampleId :
 SV2

Tgt Ion:105 Resp: 38918
 Ion Ratio Lower Upper
 105 100
 120 32.5 38.4 57.6#



#74
 1,2,4-Trimethylbenzene
 Concen: 0.549 ppbv
 RT: 16.089 min Scan# 4194
 Delta R.T. -0.006 min
 Lab File: VL040045.D
 Acq: 20 Dec 2022 2:02

Tgt Ion:105 Resp: 177047
 Ion Ratio Lower Upper
 105 100
 120 38.3 39.3 58.9#
 91 10.6 44.2 66.4#
 77 13.7 18.8 28.2#

