

Data File : VL033304.D
Acq On : 13 Mar 2019 19:43
Operator : SY/AP
Sample : VSTDIC0.03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

Quant Time: Mar 13 20:25:50 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL031319AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Mar 13 17:31:13 2019
QLast Update : Wed Mar 13 17:31:13 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	759169	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1685236	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1889779	10.00	ppbv	0.00

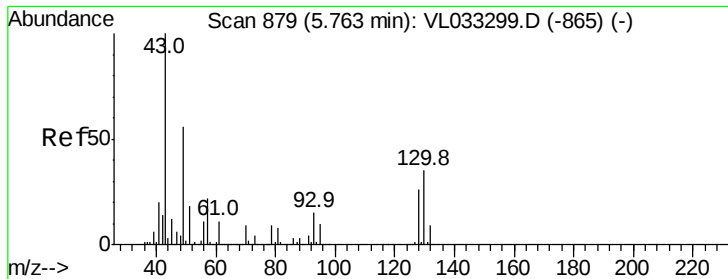
System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.57 95 1476872 10.12 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.20%

Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.08	85	7057	0.046 ppbv #	84
6) Bromomethane	3.52	94	1394	0.043 ppbv #	80
7) Chloroethane	3.60	64	609	0.032 ppbv	92
8) Dichlorotetrafluoroethane	3.22	85	5487	0.042 ppbv	95
9) Propene	3.04	41	2263	0.049 ppbv	92
11) Trichlorofluoromethane	4.00	101	6053	0.040 ppbv	84
12) 1,1,2-Trichlorotrifluoroet	4.55	101	2825	0.033 ppbv	84
17) tert-Butyl alcohol	4.39	59	353	0.023 ppbv #	74
19) Isopropyl Alcohol	4.05	45	3001	0.043 ppbv #	95
20) Methylene Chloride	4.40	84	2337	0.060 ppbv	91
21) Allyl Chloride	4.48	41	2164	0.037 ppbv #	73
23) Vinyl Acetate	5.16	43	3604	0.025 ppbv #	78
27) Carbon Disulfide	4.62	76	2801	0.031 ppbv #	73
29) Chloroform	5.84	83	2747	0.021 ppbv	97
35) Carbon Tetrachloride	7.13	117	2830	0.023 ppbv #	51
36) Benzene	7.00	78	3796	0.024 ppbv #	69
39) 1,2-Dichloropropane	7.29	63	457544	7.823 ppbv #	25
40) 1,4-Dioxane	8.05	88	588	0.027 ppbv #	29
43) Methyl Methacrylate	8.14	69	1247	0.021 ppbv #	54
44) 2,2,4-Trimethylpentane	7.99	57	6853	0.026 ppbv #	74
47) 1,1,2-Trichloroethane	9.61	97	1957	0.031 ppbv #	58
57) Chlorobenzene	12.29	112	4583	0.032 ppbv #	39

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

Instrument :
MSVOA_L
ClientSampleId :
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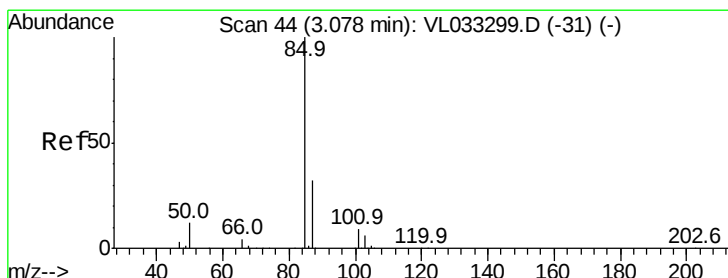
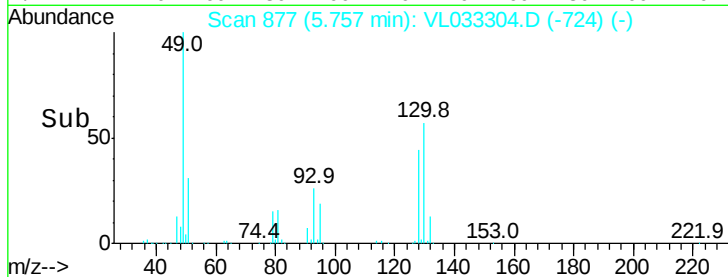
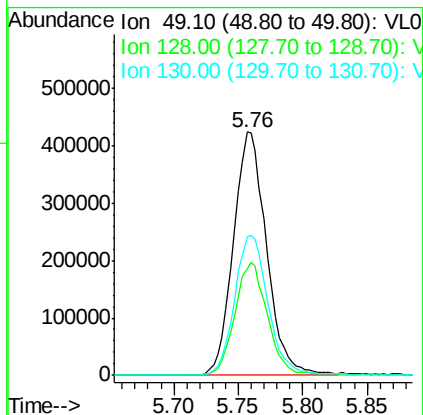
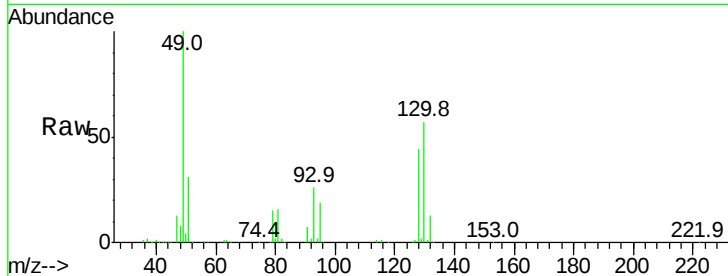
[illegible]



#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 877
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

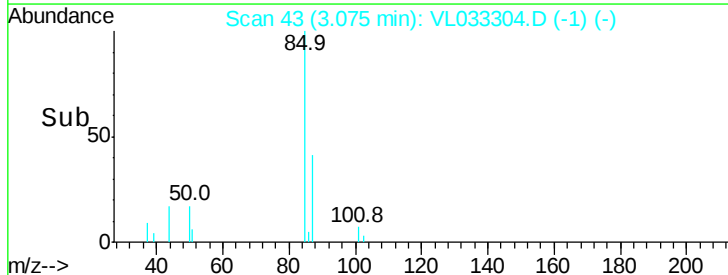
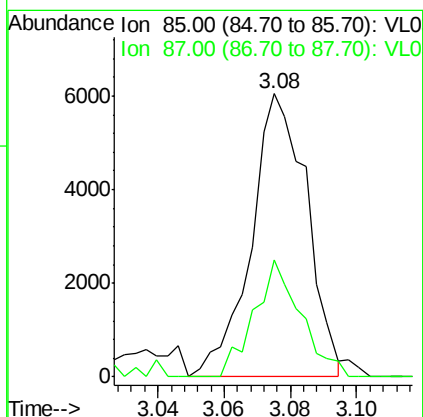
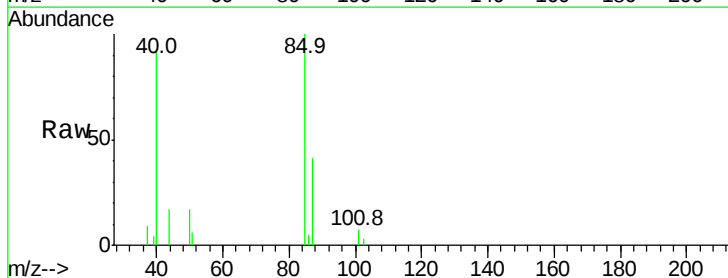
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

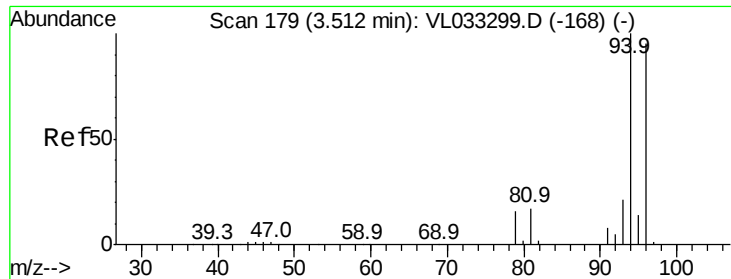
Tgt Ion: 49 Resp: 759169
Ion Ratio Lower Upper
49 100
128 45.9 23.4 70.3
130 58.8 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.046 ppbv
RT: 3.08 min Scan# 43
Delta R.T. -0.00 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 85 Resp: 7057
Ion Ratio Lower Upper
85 100
87 41.1 25.8 38.8#

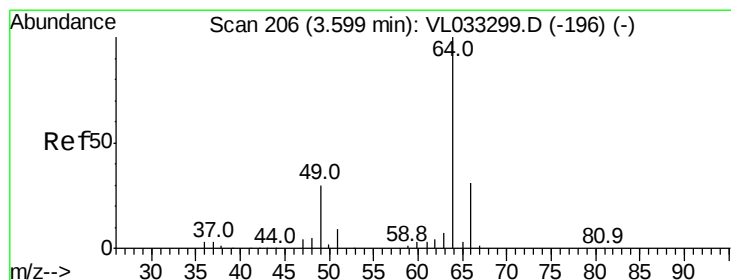
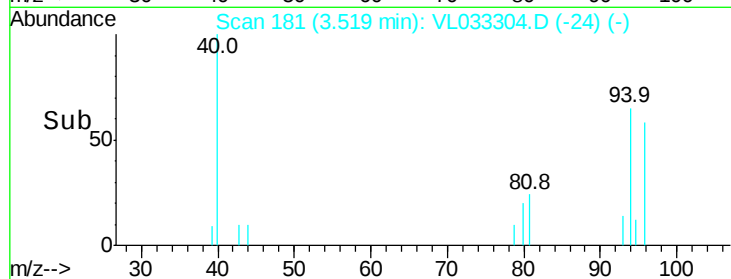
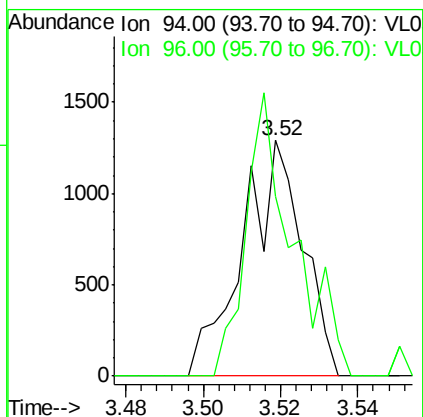
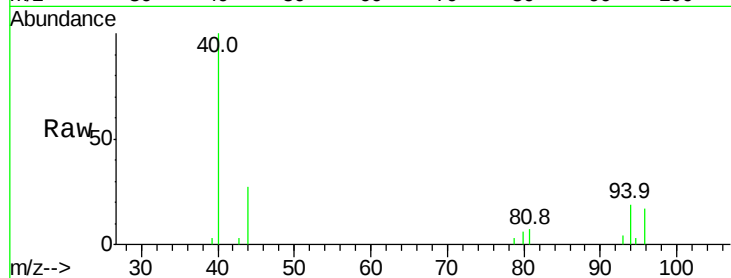




#6
Bromomethane
Concen: 0.043 ppbv
RT: 3.52 min Scan# 181
Delta R.T. 0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

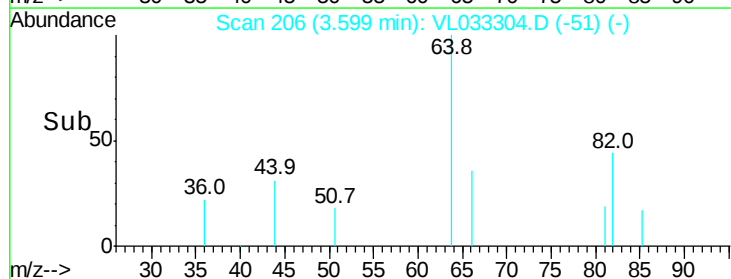
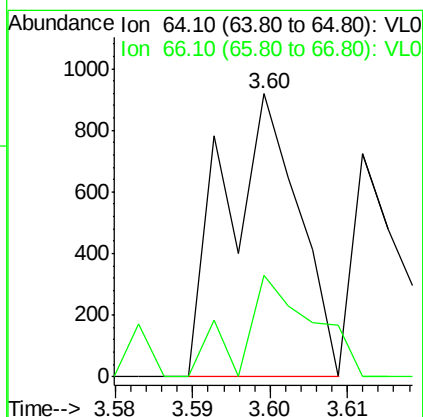
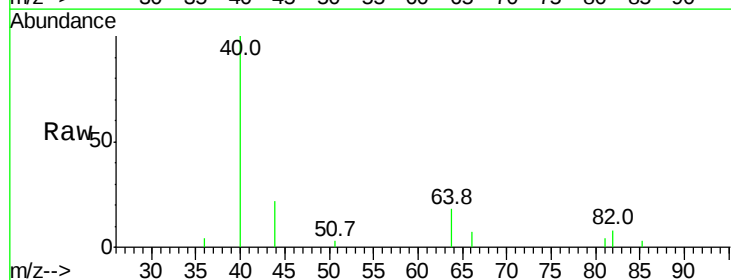
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

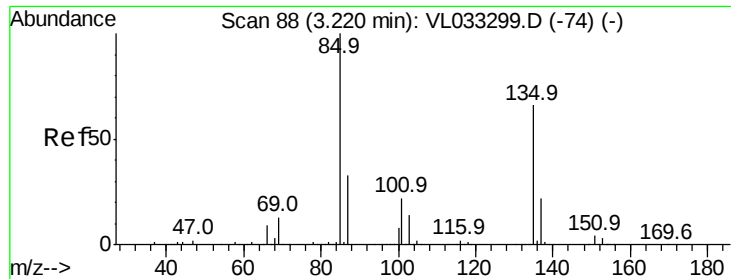
Tgt Ion: 94 Resp: 1394
Ion Ratio Lower Upper
94 100
96 76.2 76.2 114.4#



#7
Chloroethane
Concen: 0.032 ppbv
RT: 3.60 min Scan# 206
Delta R.T. -0.00 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 64 Resp: 609
Ion Ratio Lower Upper
64 100
66 35.7 24.9 37.3

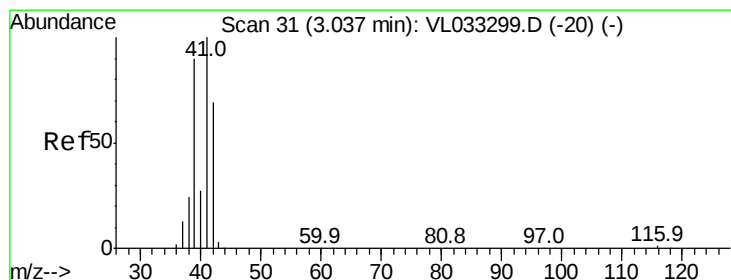
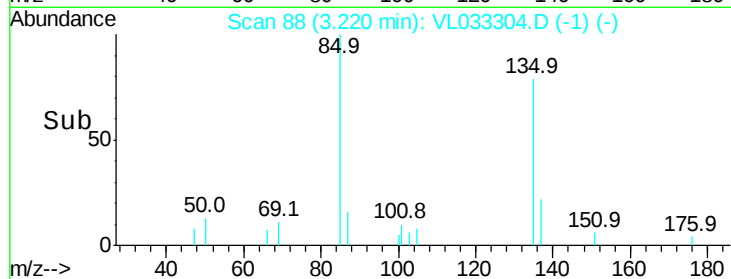
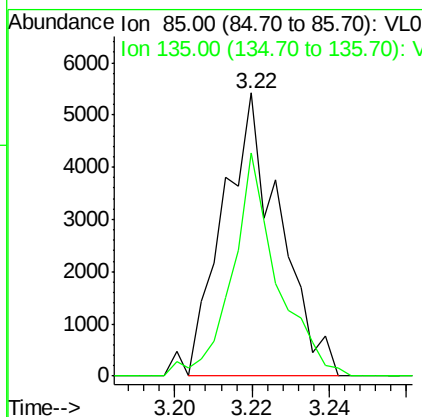
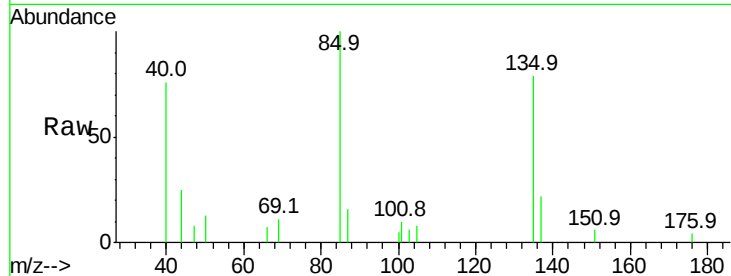




#8
Dichlorotetrafluoroethane
Concen: 0.042 ppbv
RT: 3.22 min Scan# 88
Delta R.T. -0.00 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

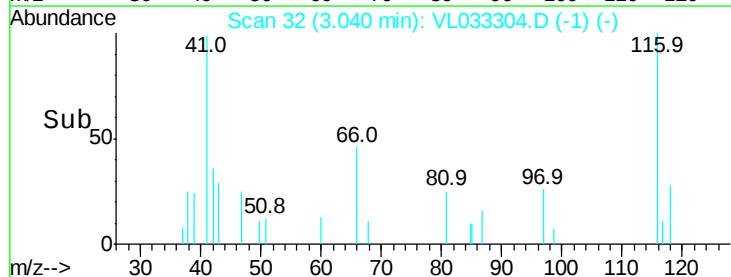
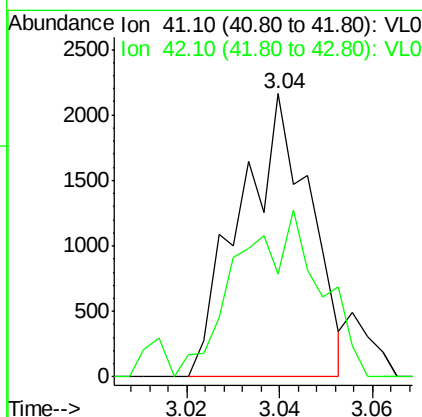
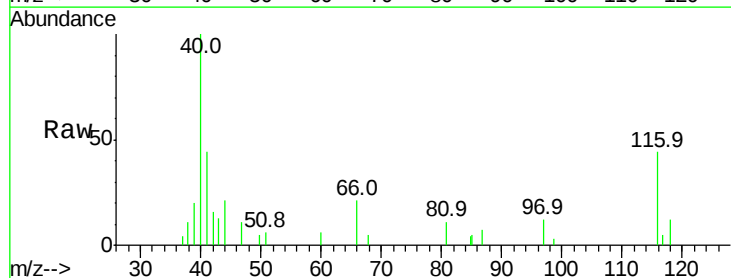
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

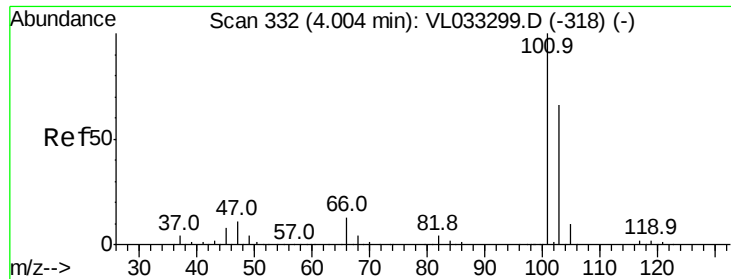
Tgt Ion: 85 Resp: 5487
Ion Ratio Lower Upper
85 100
135 62.4 52.9 79.3



#9
Propene
Concen: 0.049 ppbv
RT: 3.04 min Scan# 32
Delta R.T. 0.00 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 41 Resp: 2263
Ion Ratio Lower Upper
41 100
42 74.1 54.4 81.6

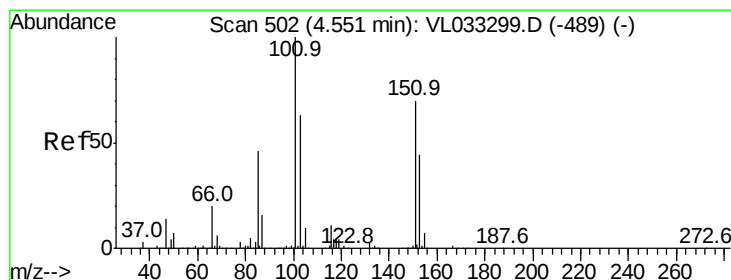
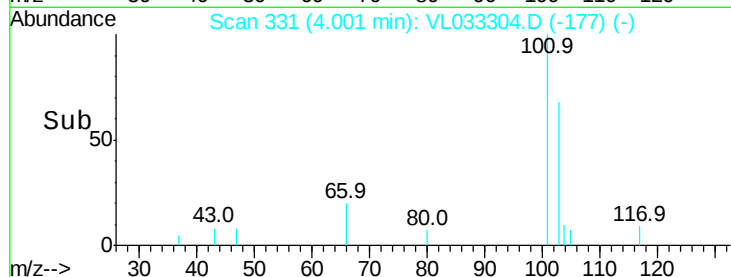
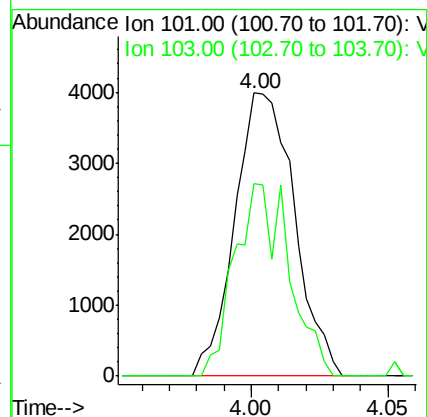
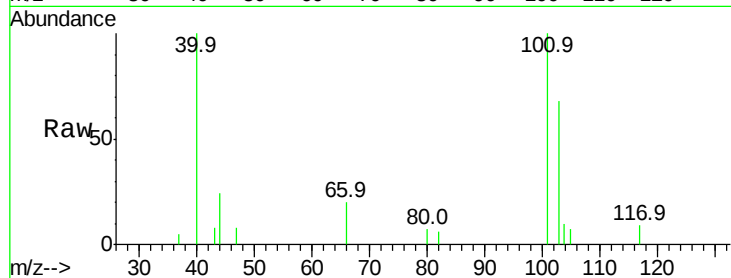




#11
 Trichlorofluoromethane
 Concen: 0.040 ppbv
 RT: 4.00 min Scan# 331
 Delta R.T. -0.00 min
 Lab File: VL033304.D
 Acq: 13 Mar 2019 19:43

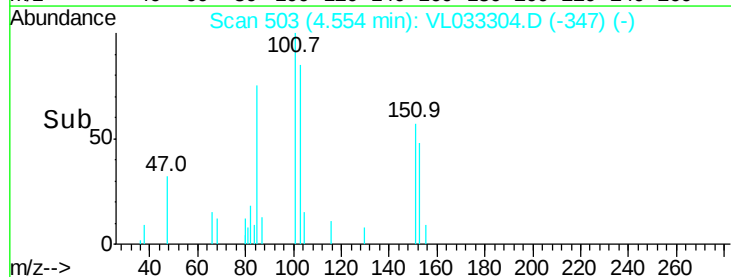
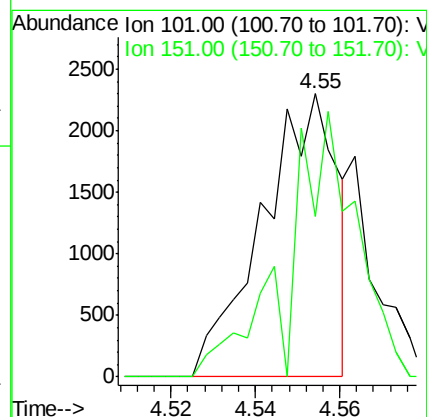
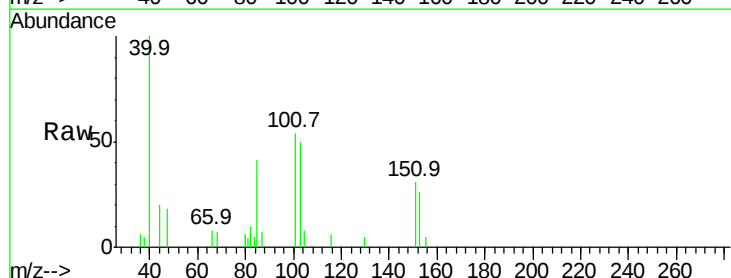
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

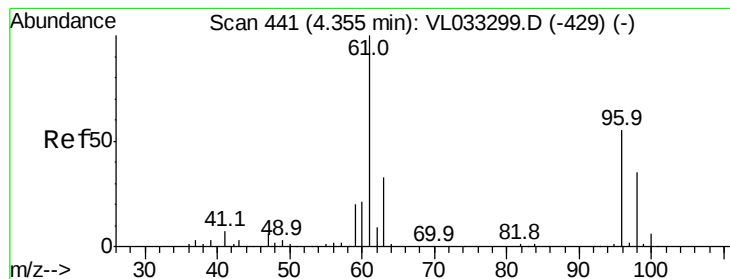
Tgt Ion:101 Resp: 6053
 Ion Ratio Lower Upper
 101 100
 103 78.0 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.033 ppbv
 RT: 4.55 min Scan# 503
 Delta R.T. 0.00 min
 Lab File: VL033304.D
 Acq: 13 Mar 2019 19:43

Tgt Ion:101 Resp: 2825
 Ion Ratio Lower Upper
 101 100
 151 85.1 57.2 85.8





#17

tert-Butyl alcohol

Concen: 0.023 ppbv

RT: 4.39 min Scan# 452

Delta R.T. 0.04 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Instrument :

MSVOA_L

ClientSampleId :

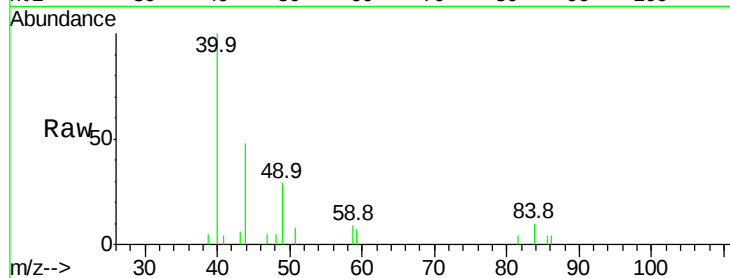
VSTDIC0.03

Tgt Ion: 59 Resp: 353

Ion Ratio Lower Upper

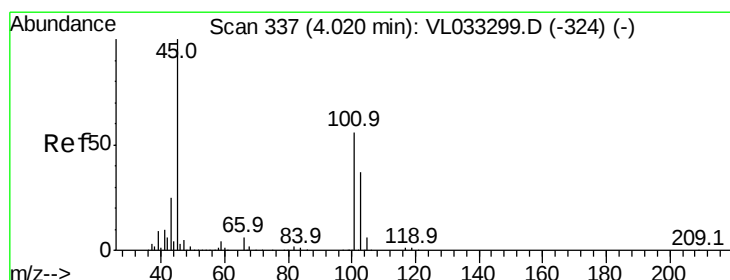
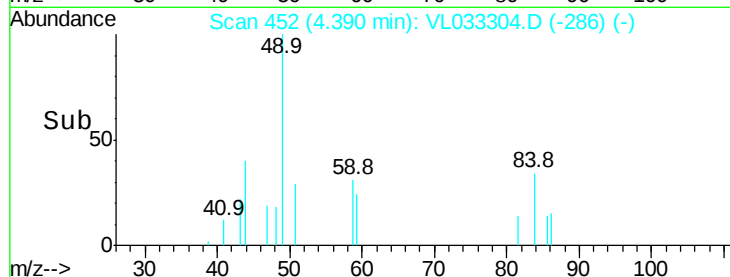
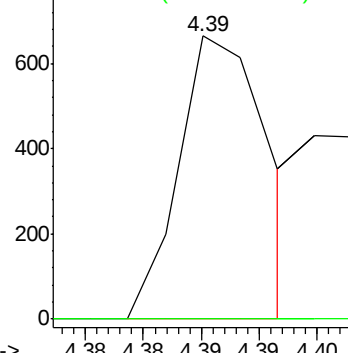
59 100

57 0.0 7.4 11.2#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0



#19

Isopropyl Alcohol

Concen: 0.043 ppbv

RT: 4.05 min Scan# 347

Delta R.T. 0.03 min

Lab File: VL033304.D

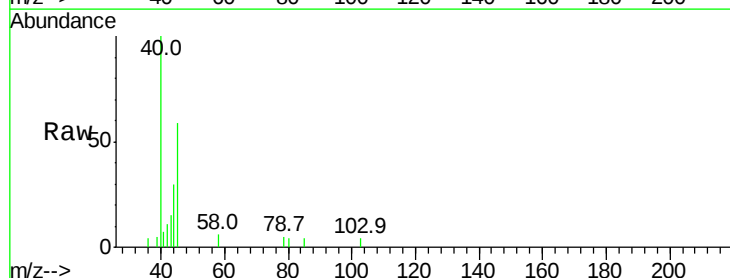
Acq: 13 Mar 2019 19:43

Tgt Ion: 45 Resp: 3001

Ion Ratio Lower Upper

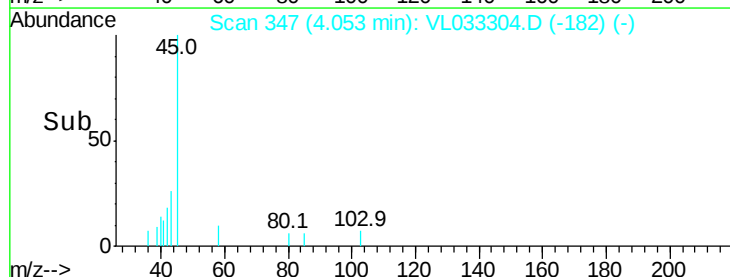
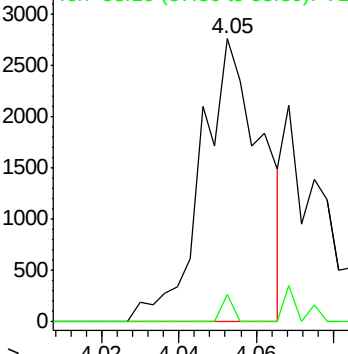
45 100

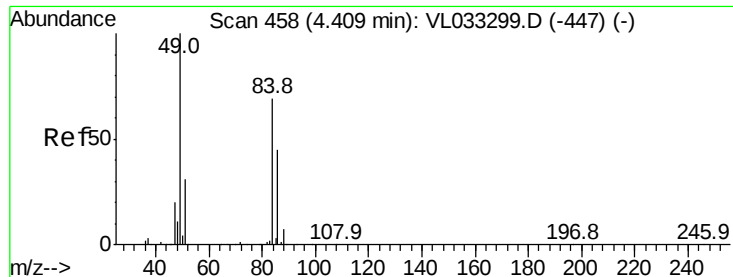
58 0.0 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

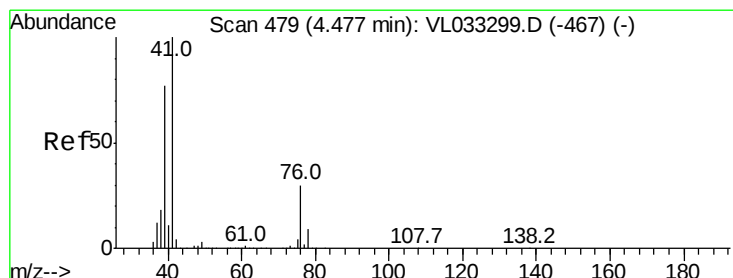
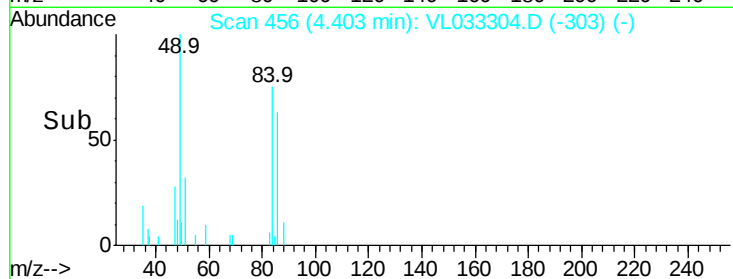
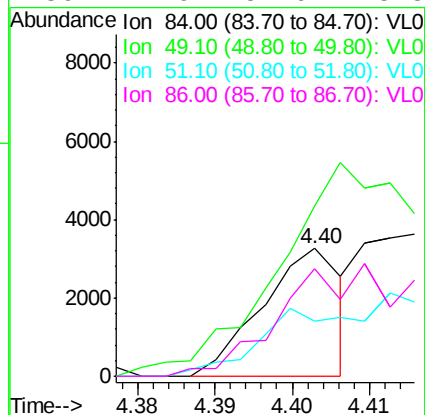
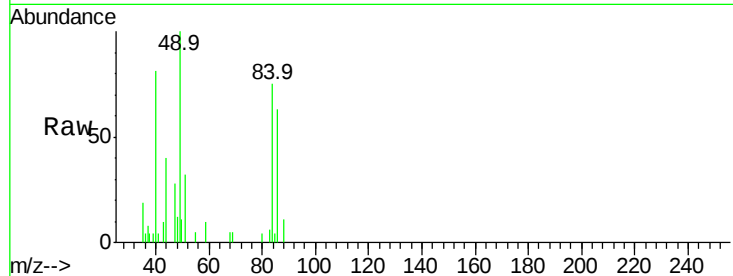




#20
Methylene Chloride
Concen: 0.060 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

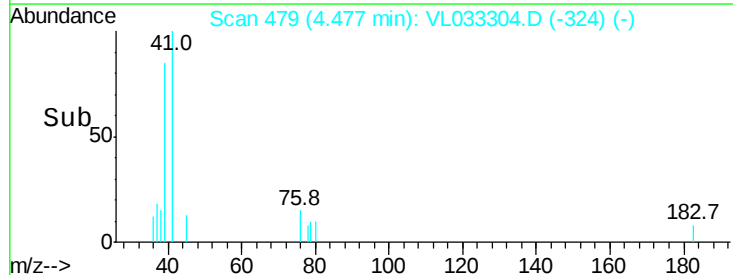
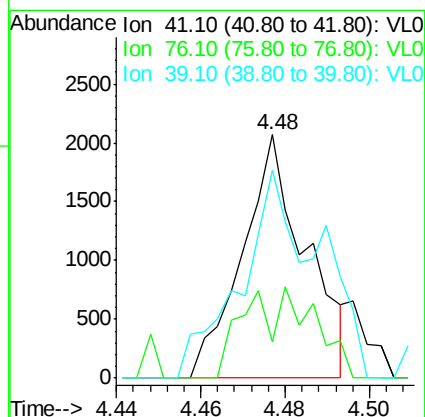
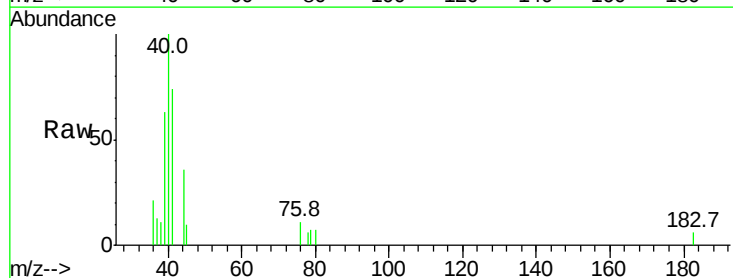
Instrument :
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VSTDIC0.03

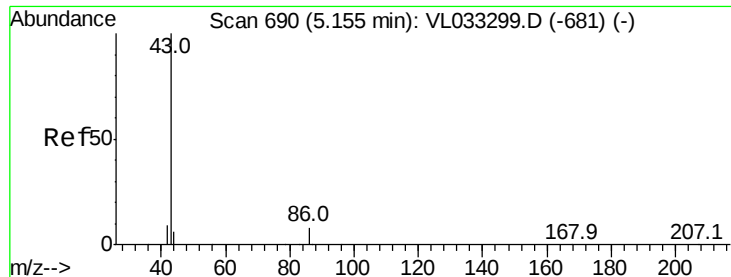
Tgt Ion: 84 Resp: 2337
Ion Ratio Lower Upper
84 100
49 136.3 115.4 173.2
51 37.8 35.7 53.5
86 77.9 52.6 78.8



#21
Allyl Chloride
Concen: 0.037 ppbv
RT: 4.48 min Scan# 479
Delta R.T. -0.00 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 41 Resp: 2164
Ion Ratio Lower Upper
41 100
76 40.3 24.3 36.5#
39 107.4 64.4 96.6#





#23

Vinyl Acetate

Concen: 0.025 ppbv

RT: 5.16 min Scan# 690

Delta R.T. -0.00 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

Tgt Ion: 43 Resp: 3604

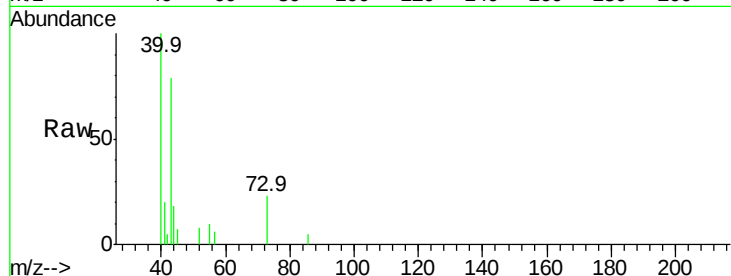
Ion Ratio Lower Upper

43 100

86 0.0 5.8 8.8#

42 0.0 7.8 11.8#

44 0.0 4.1 6.1#

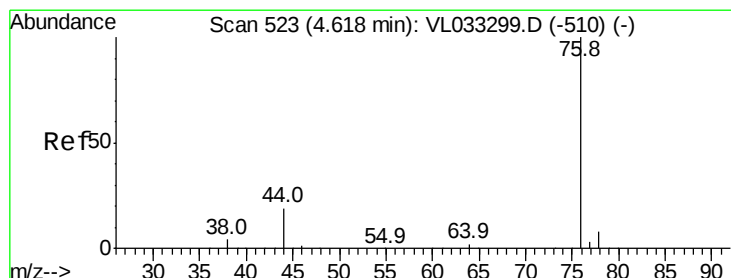
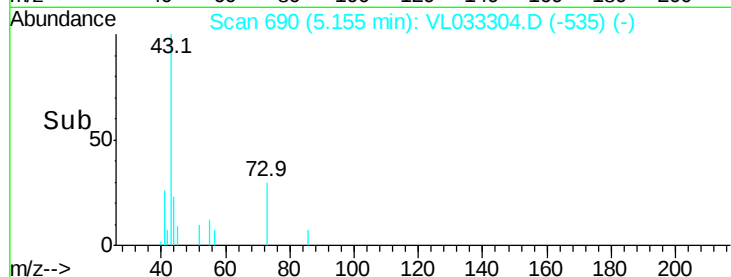
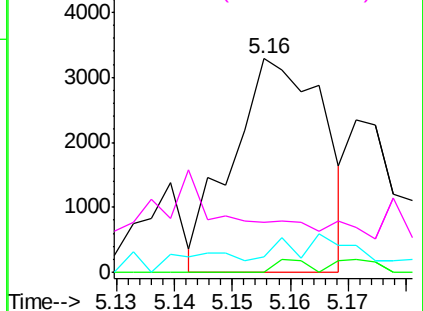


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#27

Carbon Disulfide

Concen: 0.031 ppbv

RT: 4.62 min Scan# 524

Delta R.T. 0.00 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

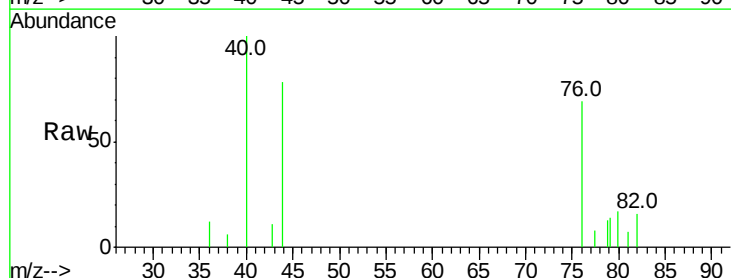
Tgt Ion: 76 Resp: 2801

Ion Ratio Lower Upper

76 100

44 33.1 14.7 22.1#

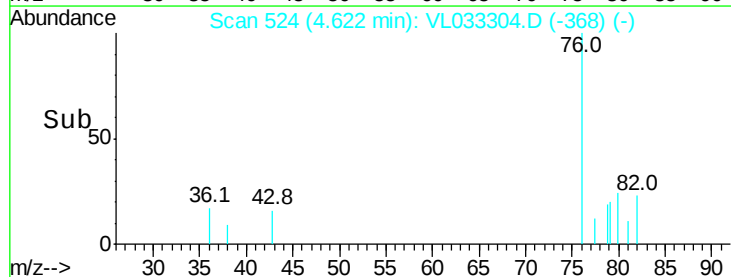
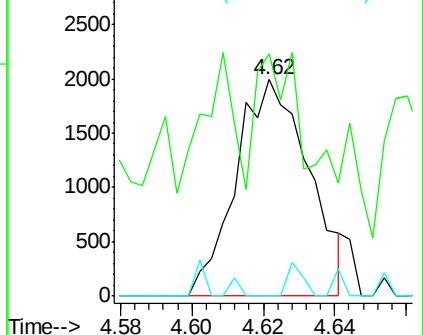
78 3.2 7.3 10.9#

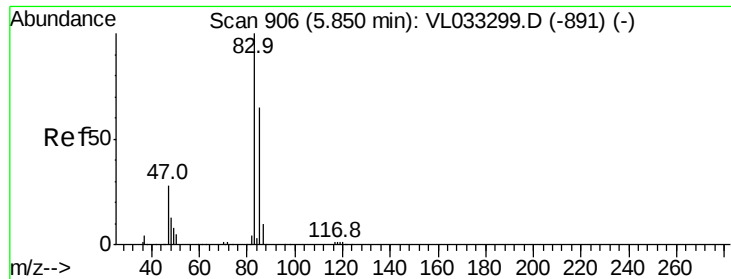


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0

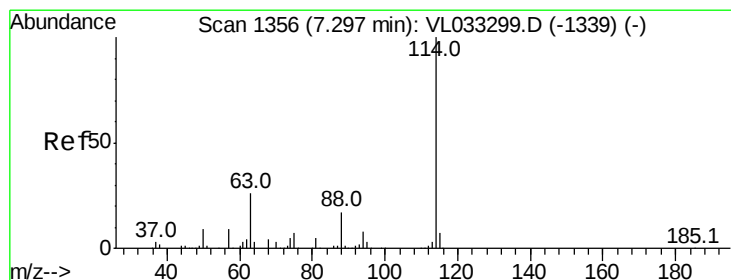
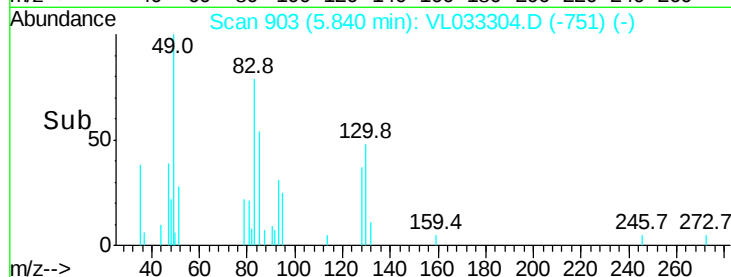
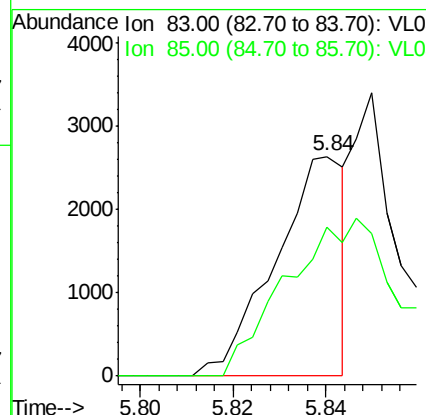
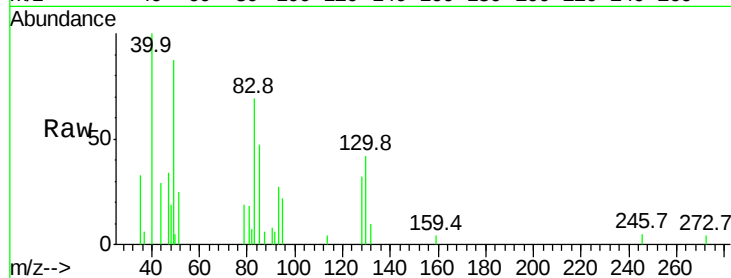




#29
Chloroform
Concen: 0.021 ppbv
RT: 5.84 min Scan# 903
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

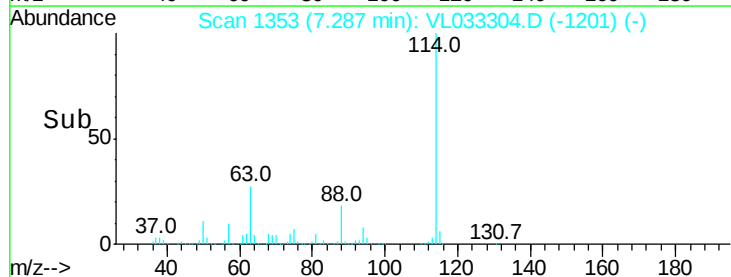
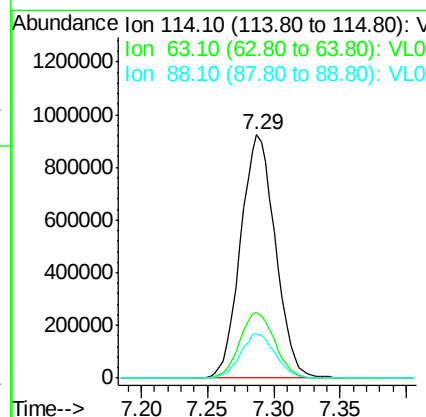
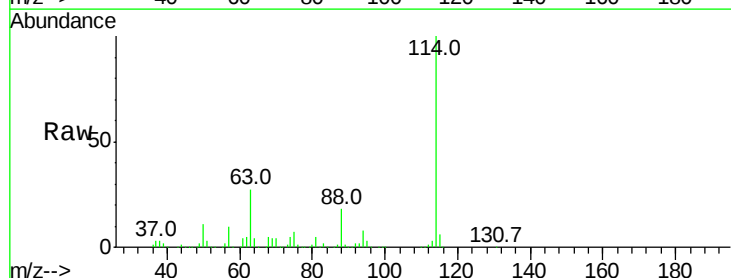
Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

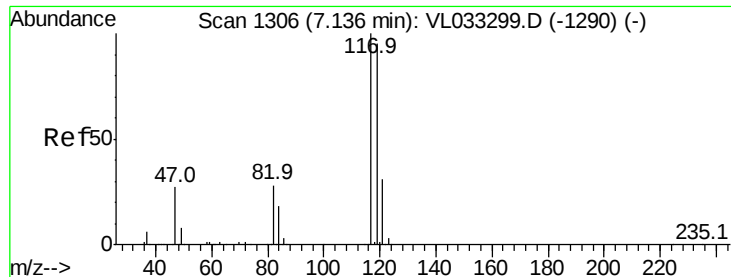
Tgt Ion: 83 Resp: 2747
Ion Ratio Lower Upper
83 100
85 68.0 52.2 78.4



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 114 Resp: 1685236
Ion Ratio Lower Upper
114 100
63 27.2 21.3 31.9
88 18.3 14.5 21.7





#35

Carbon Tetrachloride

Concen: 0.023 ppbv

RT: 7.13 min Scan# 1304

Delta R.T. -0.01 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

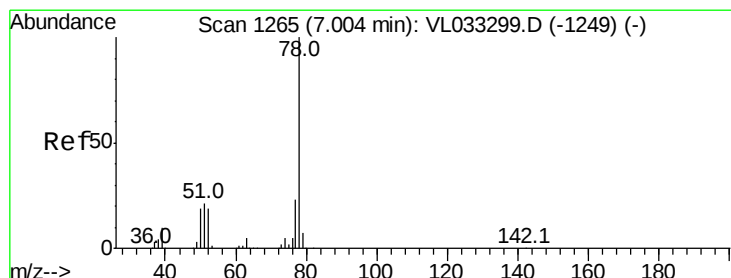
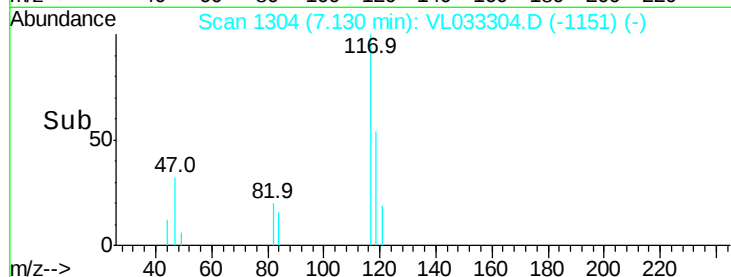
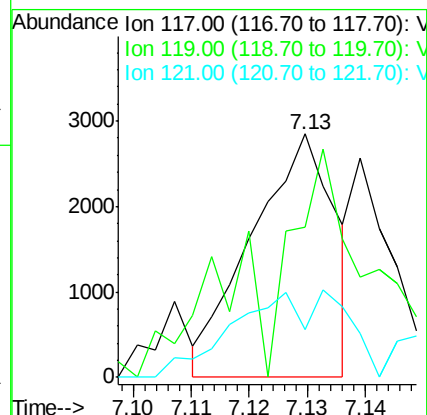
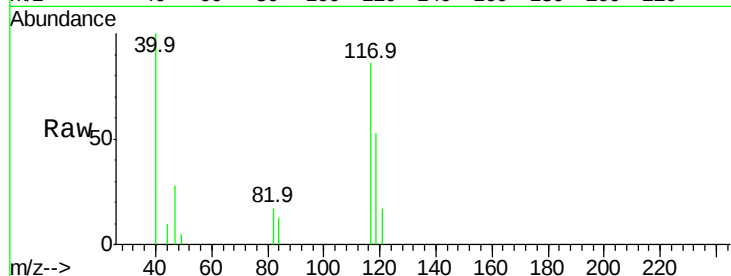
Tgt Ion:117 Resp: 2830

Ion Ratio Lower Upper

117 100

119 41.8 75.9 113.9#

121 14.0 25.2 37.8#



#36

Benzene

Concen: 0.024 ppbv

RT: 7.00 min Scan# 1263

Delta R.T. -0.01 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

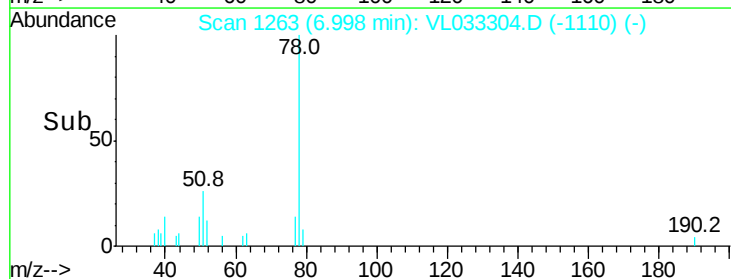
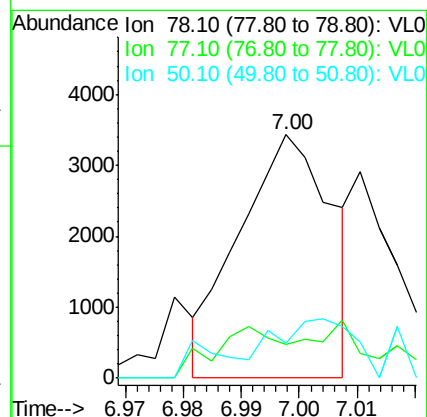
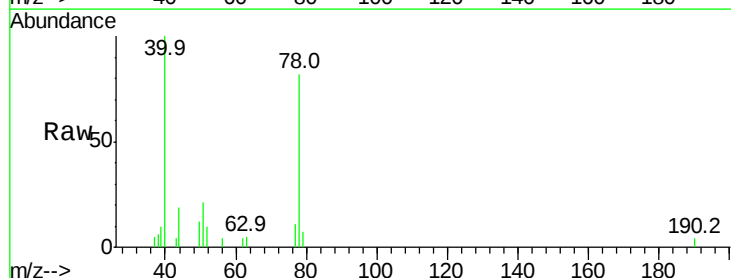
Tgt Ion: 78 Resp: 3796

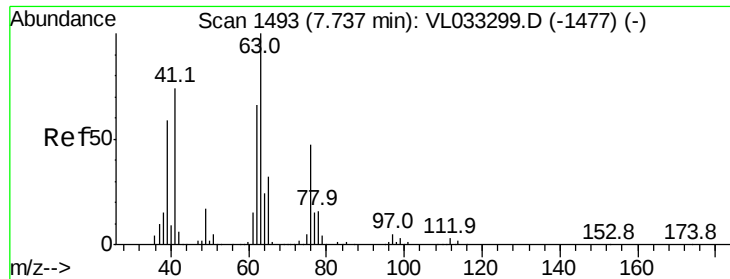
Ion Ratio Lower Upper

78 100

77 1.6 18.6 28.0#

50 25.4 15.2 22.8#





#39

1,2-Dichloropropane

Concen: 7.823 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.45 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

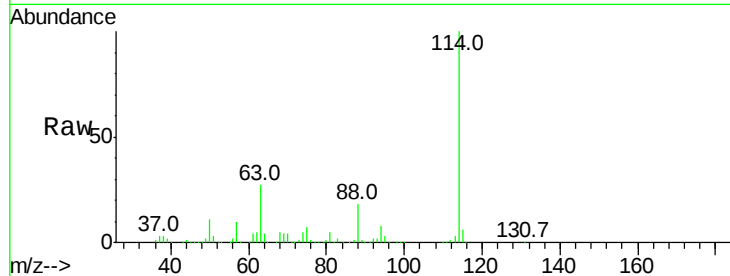
Tgt Ion: 63 Resp: 457544

Ion Ratio Lower Upper

63 100

41 0.0 59.0 88.4#

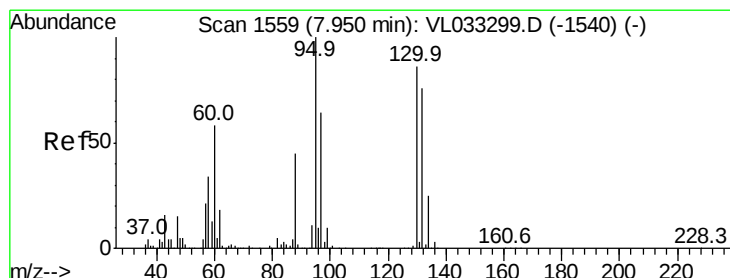
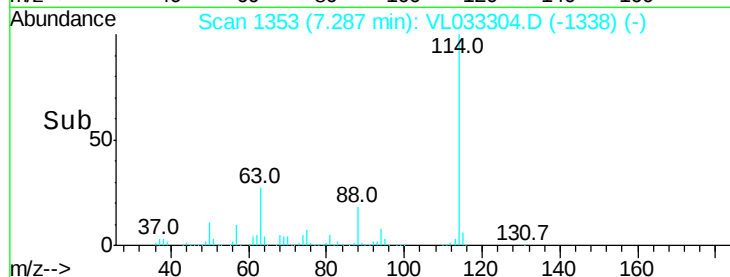
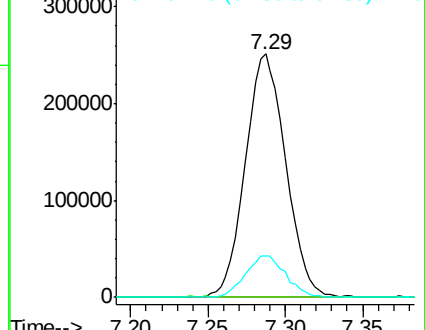
62 17.1 53.0 79.4#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#40

1,4-Dioxane

Concen: 0.027 ppbv

RT: 8.05 min Scan# 1591

Delta R.T. 0.10 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Tgt Ion: 88 Resp: 588

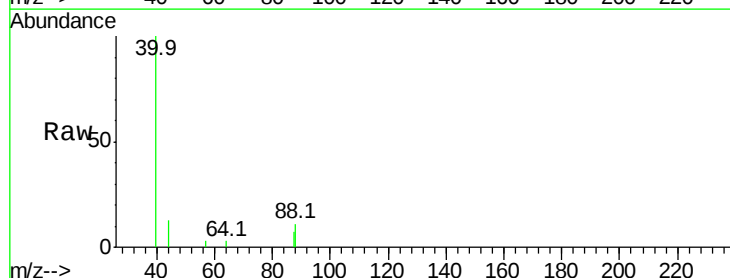
Ion Ratio Lower Upper

88 100

58 0.0 97.7 146.5#

43 309.4 199.4 299.2#

57 1453.4 875.6 1313.4#

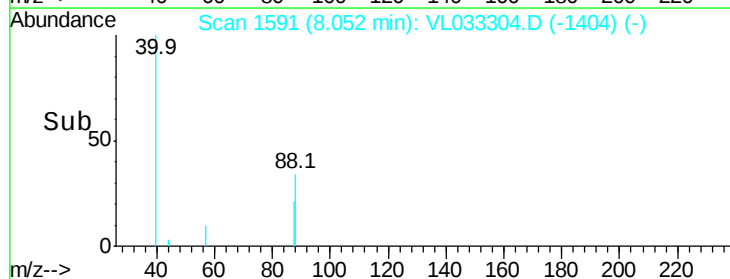
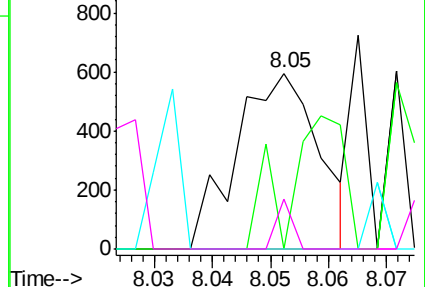


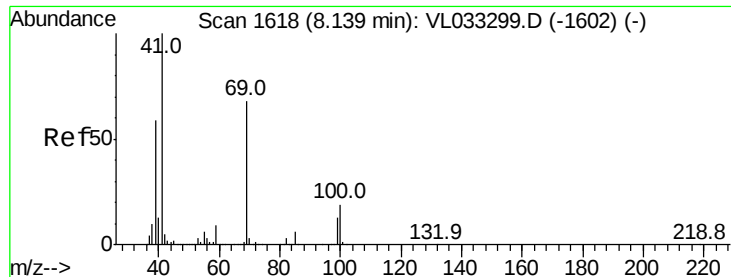
Abundance Ion 88.10 (87.80 to 88.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#43

Methyl Methacrylate

Concen: 0.021 ppbv

RT: 8.14 min Scan# 1619

Delta R.T. 0.00 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

Instrument :

MSVOA_L

ClientSampleId :

VSTDIC0.03

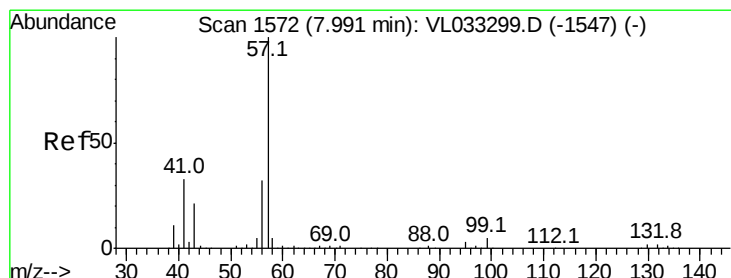
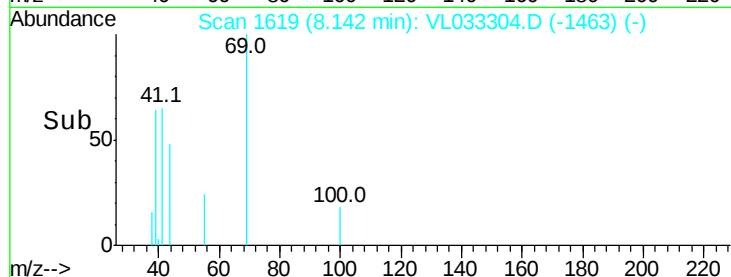
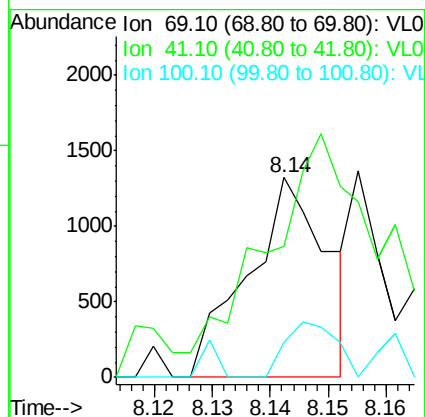
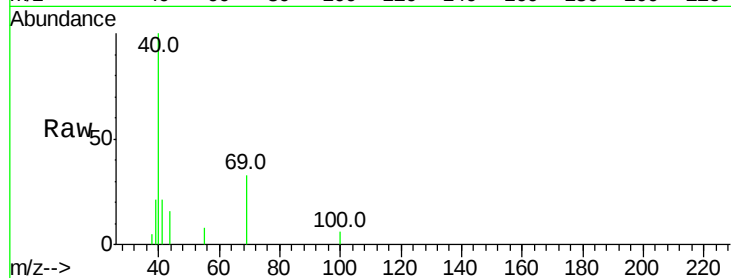
Tgt Ion: 69 Resp: 1247

Ion Ratio Lower Upper

69 100

41 213.6 117.0 175.4#

100 35.4 24.3 36.5



#44

2,2,4-Trimethylpentane

Concen: 0.026 ppbv

RT: 7.99 min Scan# 1571

Delta R.T. -0.00 min

Lab File: VL033304.D

Acq: 13 Mar 2019 19:43

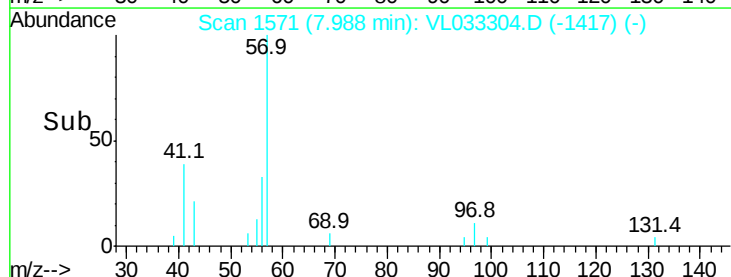
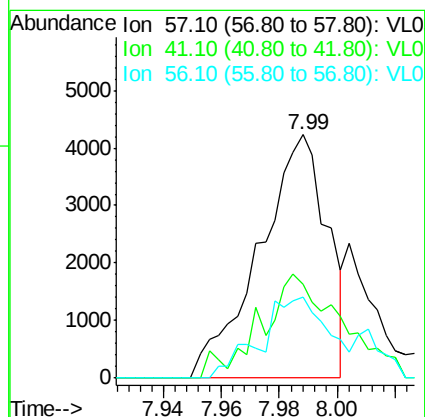
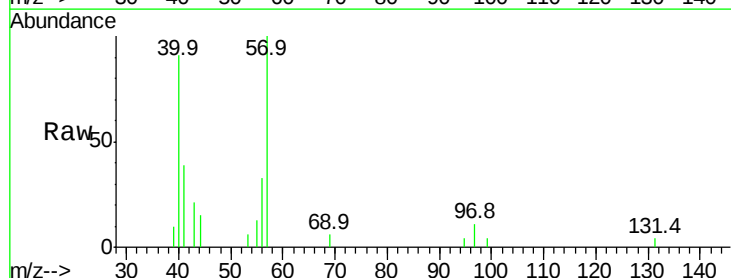
Tgt Ion: 57 Resp: 6853

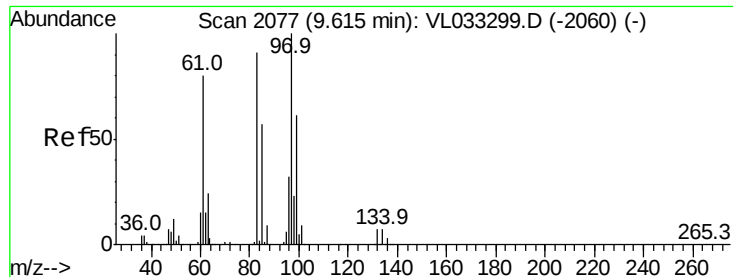
Ion Ratio Lower Upper

57 100

41 50.9 25.9 38.9#

56 41.4 24.6 36.8#

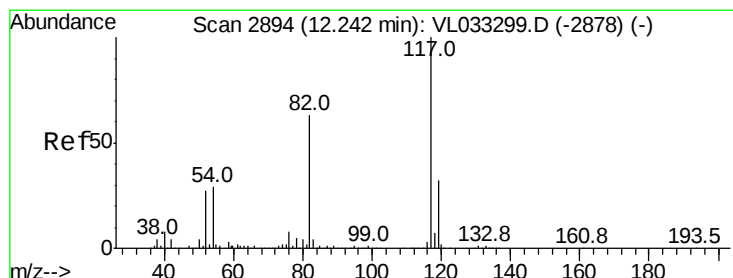
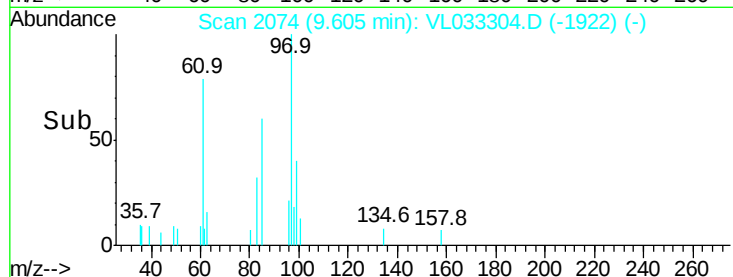
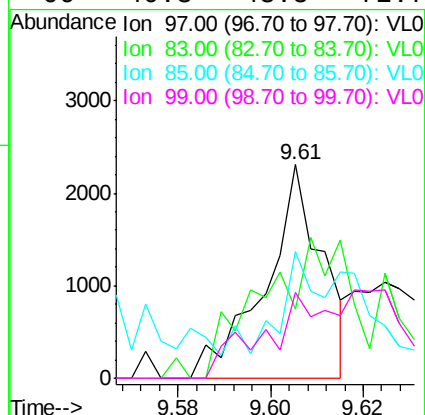
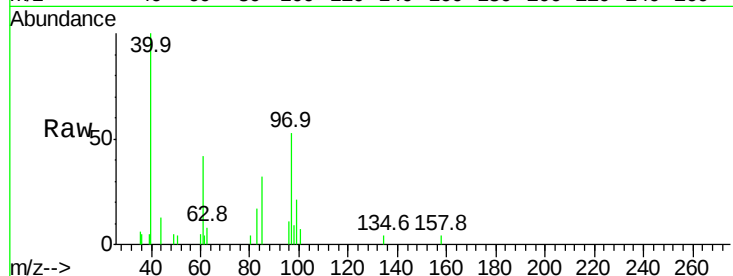




#47
 1,1,2-Trichloroethane
 Concen: 0.031 ppbv
 RT: 9.61 min Scan# 2074
 Delta R.T. -0.01 min
 Lab File: VL033304.D
 Acq: 13 Mar 2019 19:43

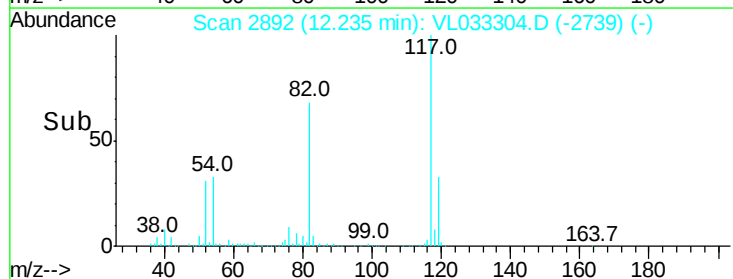
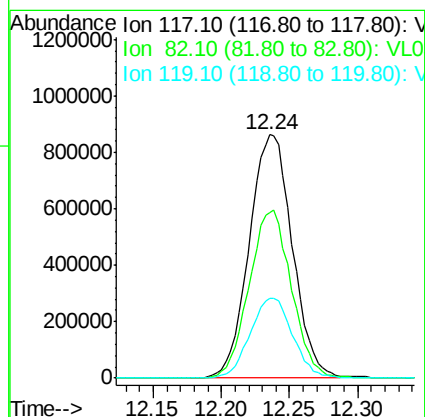
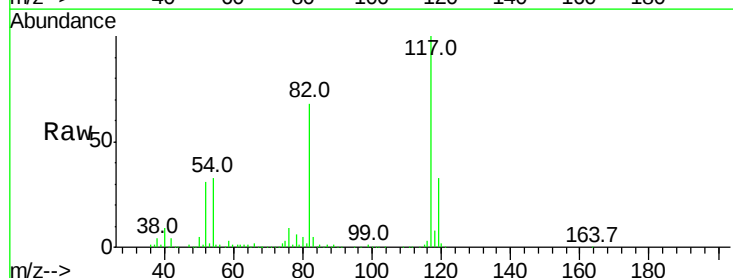
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.03

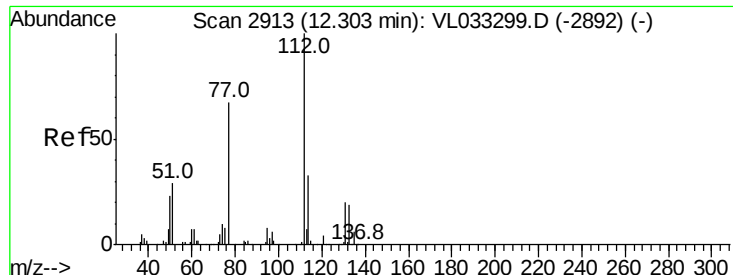
Tgt Ion: 97 Resp: 1957
 Ion Ratio Lower Upper
 97 100
 83 32.4 72.7 109.1#
 85 36.2 45.6 68.4#
 99 40.3 48.5 72.7#



#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.24 min Scan# 2892
 Delta R.T. -0.01 min
 Lab File: VL033304.D
 Acq: 13 Mar 2019 19:43

Tgt Ion: 117 Resp: 1889779
 Ion Ratio Lower Upper
 117 100
 82 68.0 51.3 76.9
 119 32.6 27.0 40.4

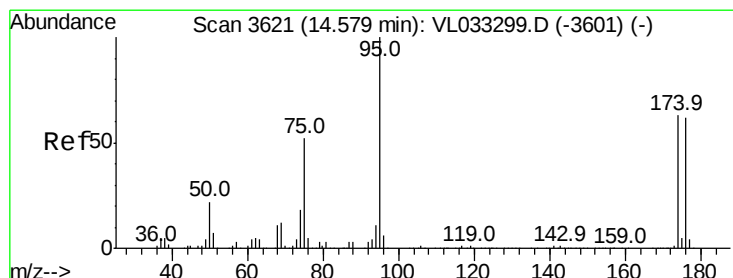
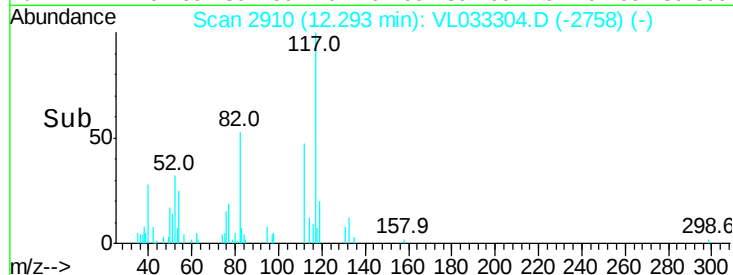
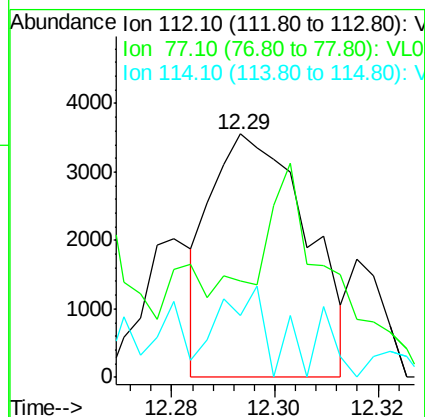
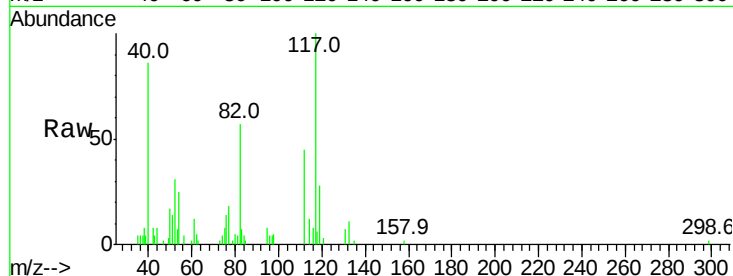




#57
Chlorobenzene
Concen: 0.032 ppbv
RT: 12.29 min Scan# 2910
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.03

Tgt Ion: 112 Resp: 4583
Ion Ratio Lower Upper
112 100
77 0.0 54.7 82.1#
114 26.1 29.6 36.2#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.120 ppbv
RT: 14.57 min Scan# 3619
Delta R.T. -0.01 min
Lab File: VL033304.D
Acq: 13 Mar 2019 19:43

Tgt Ion: 95 Resp: 1476872
Ion Ratio Lower Upper
95 100
174 64.7 51.9 77.9
175 4.7 3.9 5.9

