

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL092418\
 Data File : VL032526.D
 Acq On : 25 Sep 2018 2:20
 Operator : SY/AP
 Sample : J5039-01DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 INDOOR-AIRDUP

Quant Time: Sep 25 05:35:37 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL092418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Sep 25 05:17:15 2018
 QLast Update : Tue Sep 25 05:17:15 2018
 Response via : Initial Calibration

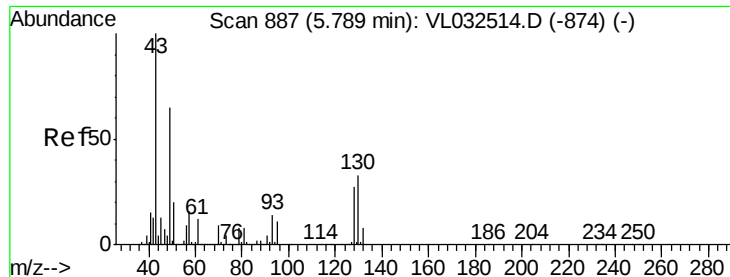
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.79	49	1436825	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	3099959	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.27	117	3069144	10.00	ppbv	-0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.61	95	2341702	10.12	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.20%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.09	85	83249	0.626	ppbv	93
3) Chlorodifluoromethane	3.03	51	77413	0.648	ppbv #	86
4) Chloromethane	3.19	50	45346	0.651	ppbv #	88
9) Propene	3.07	41	77696	1.499	ppbv #	72
11) Trichlorofluoromethane	4.03	101	41641	0.264	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.57	101	10405	0.081	ppbv	91
13) Ethanol	3.68	45	606903	38.947	ppbv	96
15) Acetone	3.92	43	3354663	26.599	ppbv	98
16) 1,3-Butadiene	3.38	39	1929	0.038	ppbv #	1
17) tert-Butyl alcohol	4.39	59	6079	0.384	ppbv #	100
19) Isopropyl Alcohol	4.06	45	380614	4.333	ppbv #	1
20) Methylene Chloride	4.43	84	437657	7.166	ppbv	97
23) Vinyl Acetate	5.17	43	78160	0.351	ppbv #	58
25) Ethyl Acetate	5.80	43	532759	1.741	ppbv #	83
26) Hexane	5.80	57	625514	4.525	ppbv #	50
29) Chloroform	5.87	83	61968	0.292	ppbv	94
34) 2-Butanone	5.36	43	133872	0.725	ppbv	97
36) Benzene	7.03	78	65340	0.261	ppbv	94
37) 1,2-Dichloroethane	6.43	62	5500	0.036	ppbv #	81
39) 1,2-Dichloropropane	7.32	63	838810	7.430	ppbv #	25
41) Tetrahydrofuran	5.80	42	246195	2.455	ppbv #	52
43) Methyl Methacrylate	8.16	69	8143	0.078	ppbv #	1
53) Toluene	9.98	91	740701	2.426	ppbv	99
72) 4-Ethyltoluene	16.03	105	25805	0.074	ppbv #	80
73) 1,3,5-Trimethylbenzene	16.19	105	18245	0.054	ppbv #	86
74) 1,2,4-Trimethylbenzene	16.96	105	119984	0.328	ppbv #	72
79) Naphthalene	22.44	128	31961	0.121	ppbv #	90
80) Naphthalene,2-methyl-	25.14	142	6558	0.106	ppbv	94

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 886

Delta R.T. -0.02 min

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INDOOR-AIRDUP

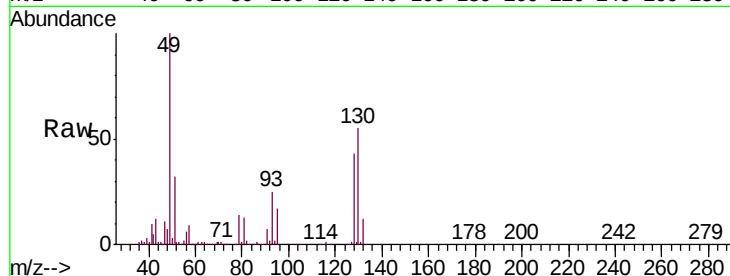
Tgt Ion: 49 Resp: 1436825

Ion Ratio Lower Upper

49 100

128 43.3 20.7 62.1

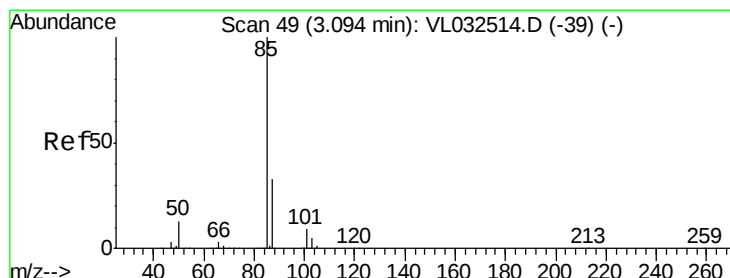
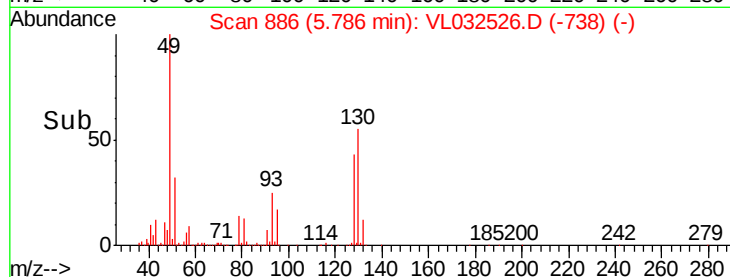
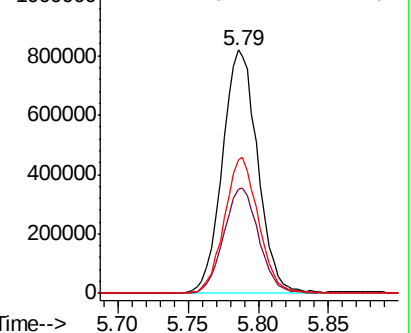
130 54.6 26.6 79.7



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.626 ppbv

RT: 3.09 min Scan# 49

Delta R.T. -0.01 min

Lab File: VL032526.D

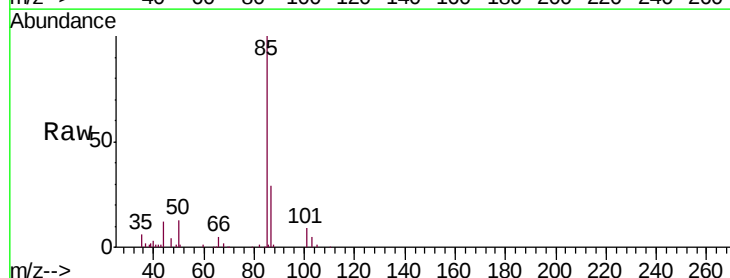
Acq: 25 Sep 2018 2:20

Tgt Ion: 85 Resp: 83249

Ion Ratio Lower Upper

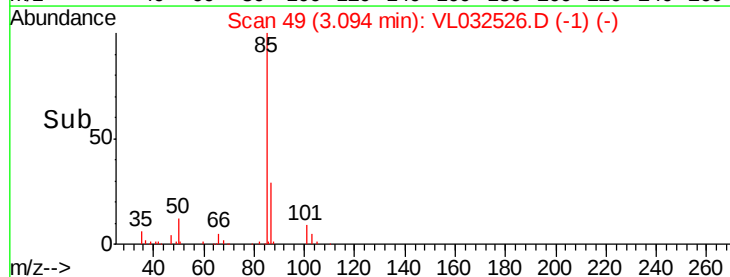
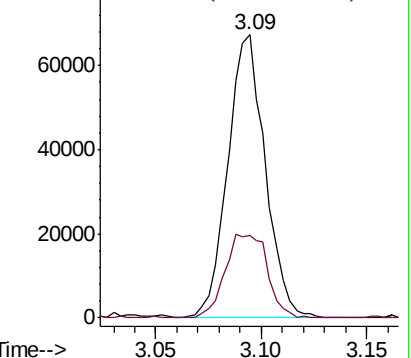
85 100

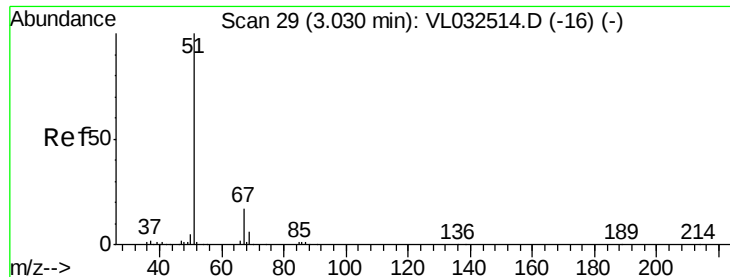
87 29.1 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

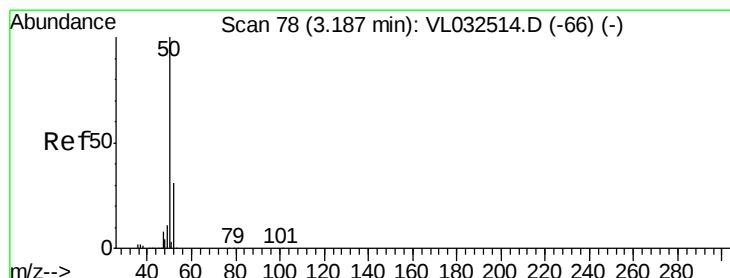
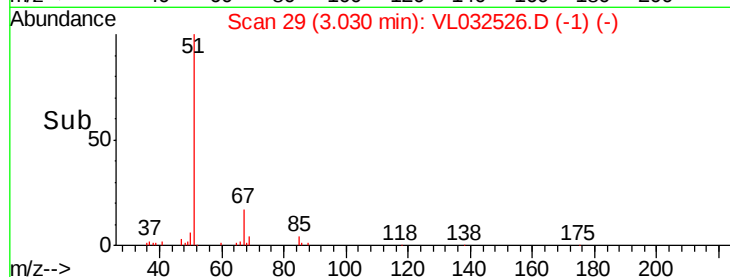
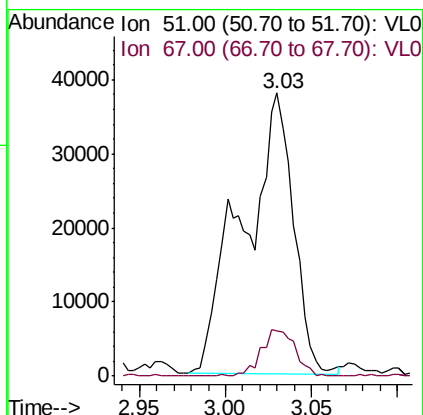
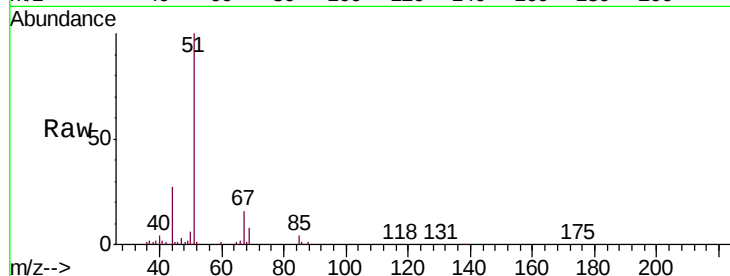




#3
 Chlorodifluoromethane
 Concen: 0.648 ppbv
 RT: 3.03 min Scan# 29
 Delta R.T. -0.01 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

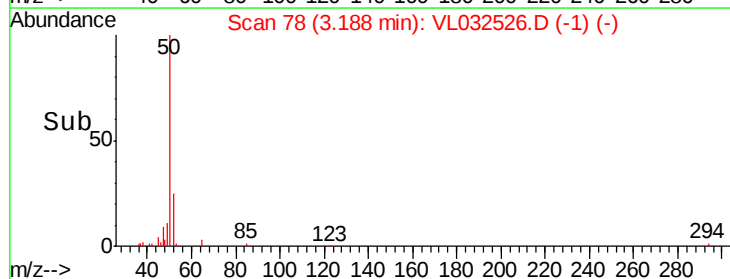
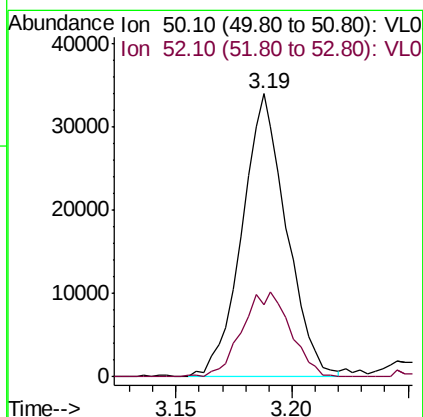
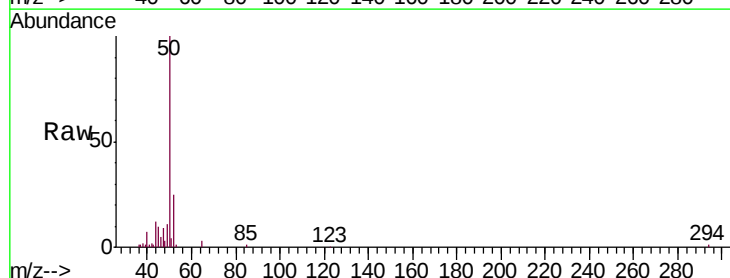
Instrument :
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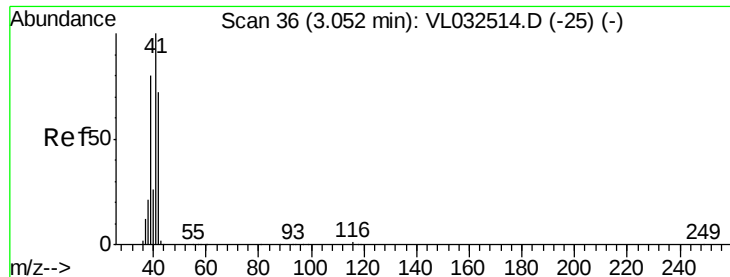
Tgt Ion: 51 Resp: 77413
 Ion Ratio Lower Upper
 51 100
 67 11.0 13.8 20.8#



#4
 Chloromethane
 Concen: 0.651 ppbv
 RT: 3.19 min Scan# 78
 Delta R.T. -0.01 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

Tgt Ion: 50 Resp: 45346
 Ion Ratio Lower Upper
 50 100
 52 25.4 25.6 38.4#





#9

Propene

Concen: 1.499 ppbv

RT: 3.07 min Scan# 40

Delta R.T. -0.00 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

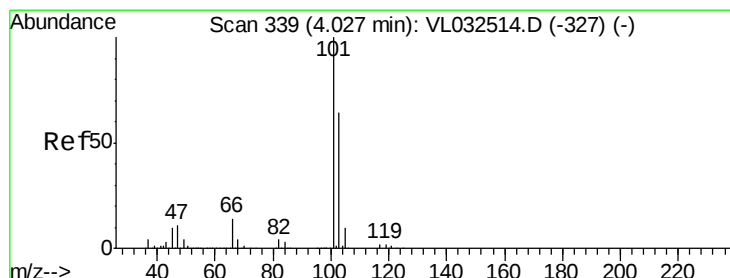
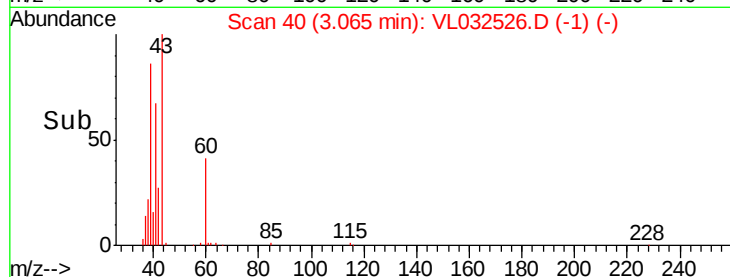
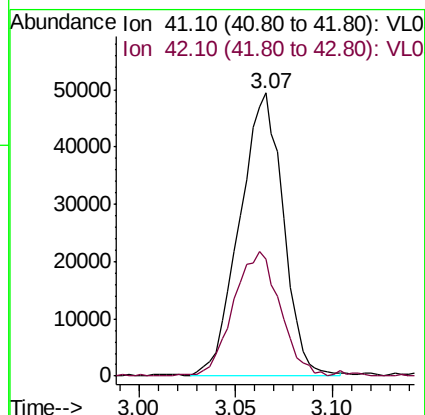
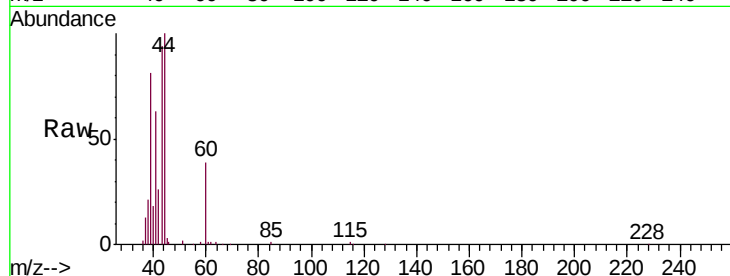
INDOOR-AIRDUP

Tgt Ion: 41 Resp: 77696

Ion Ratio Lower Upper

41 100

42 47.7 56.6 84.8#



#11

Trichlorofluoromethane

Concen: 0.264 ppbv

RT: 4.03 min Scan# 339

Delta R.T. -0.01 min

Lab File: VL032526.D

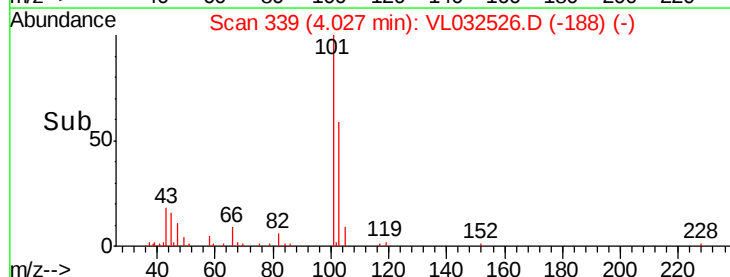
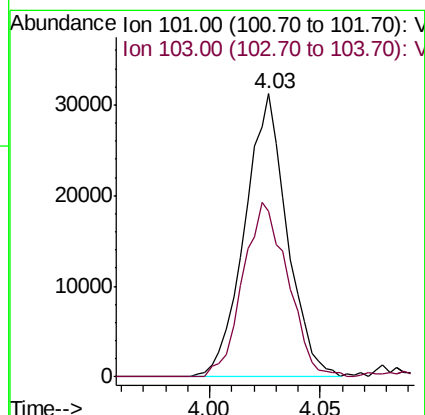
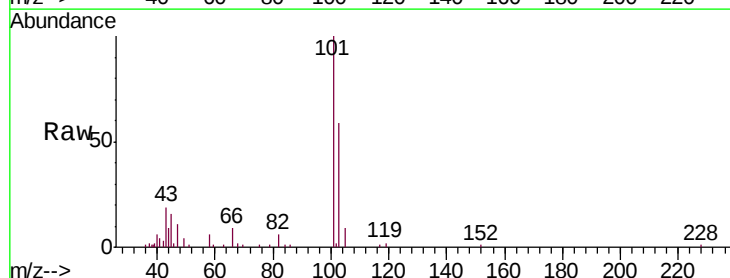
Acq: 25 Sep 2018 2:20

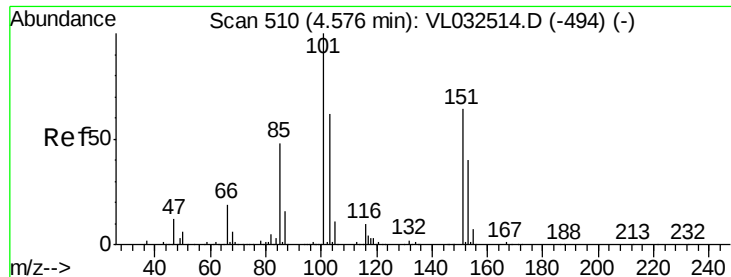
Tgt Ion: 101 Resp: 41641

Ion Ratio Lower Upper

101 100

103 58.5 52.8 79.2





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.081 ppbv

RT: 4.57 min Scan# 509

Delta R.T. -0.02 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

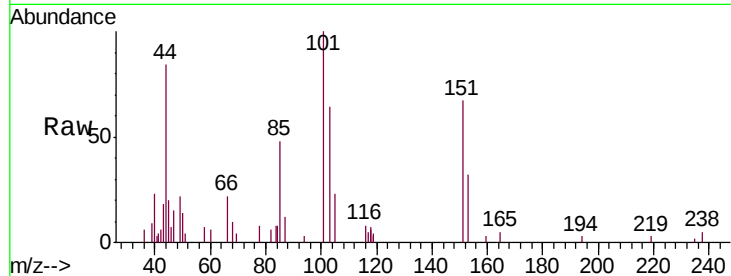
INDOOR-AIRDUP

Tgt Ion: 101 Resp: 10405

Ion Ratio Lower Upper

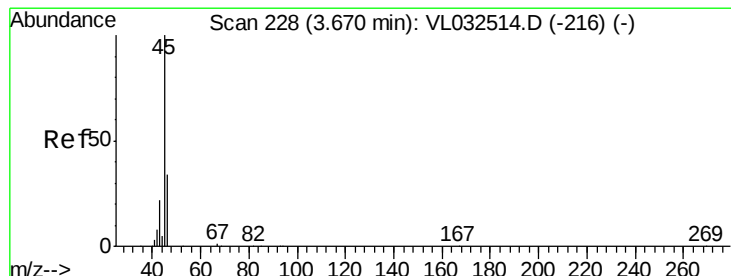
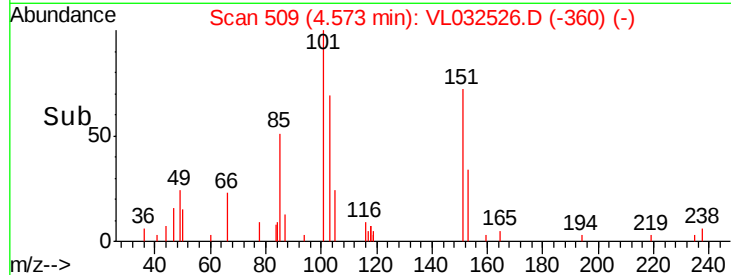
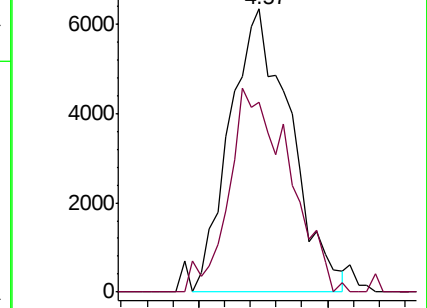
101 100

151 72.5 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 38.947 ppbv

RT: 3.68 min Scan# 230

Delta R.T. -0.01 min

Lab File: VL032526.D

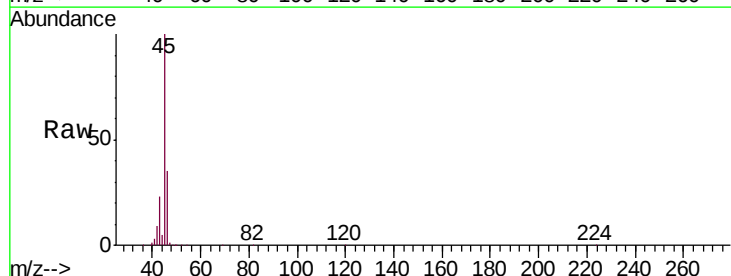
Acq: 25 Sep 2018 2:20

Tgt Ion: 45 Resp: 606903

Ion Ratio Lower Upper

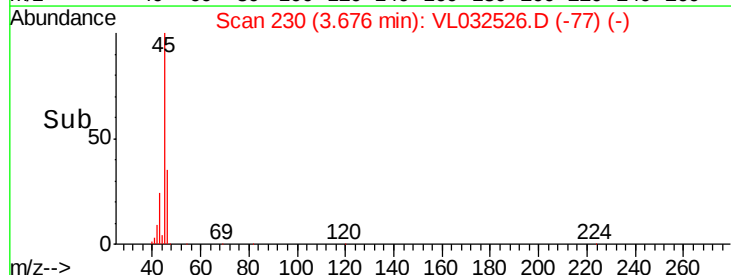
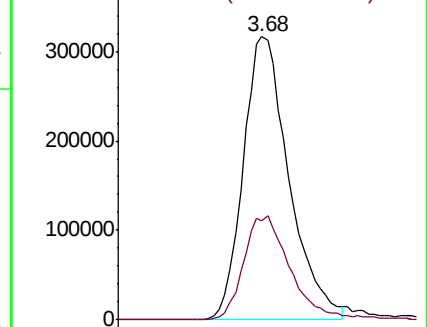
45 100

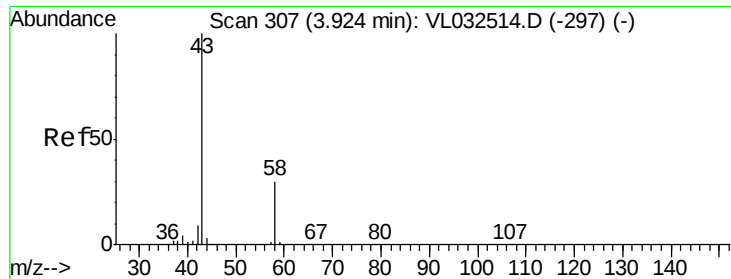
46 38.0 14.2 56.8



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 26.599 ppbv

RT: 3.92 min Scan# 305

Delta R.T. -0.02 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

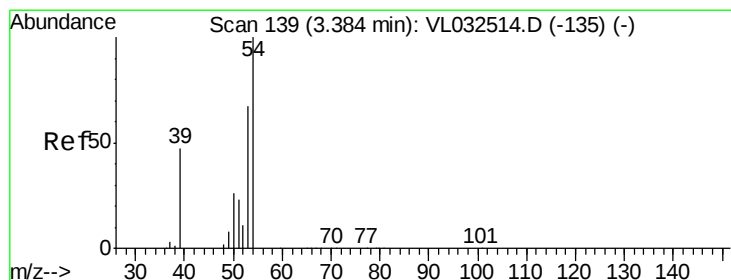
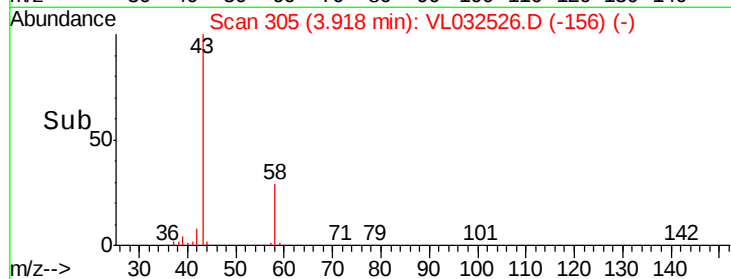
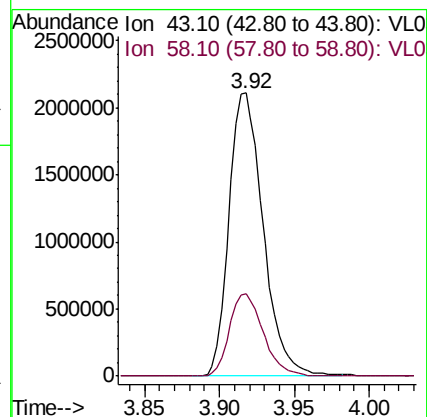
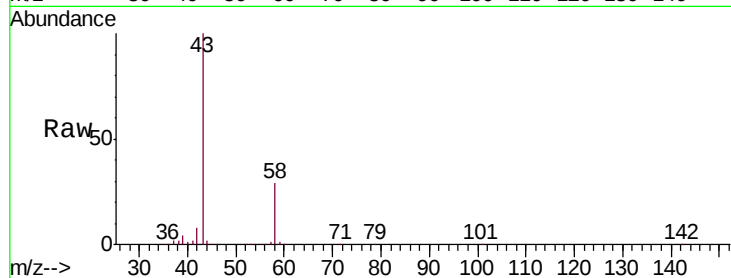
INDOOR-AIRDUP

Tgt Ion: 43 Resp: 3354663

Ion Ratio Lower Upper

43 100

58 29.0 22.6 33.8



#16

1,3-Butadiene

Concen: 0.038 ppbv

RT: 3.38 min Scan# 138

Delta R.T. -0.02 min

Lab File: VL032526.D

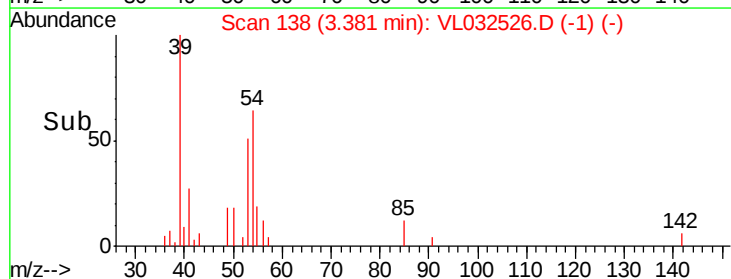
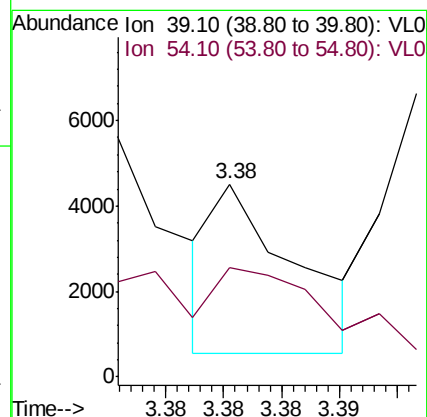
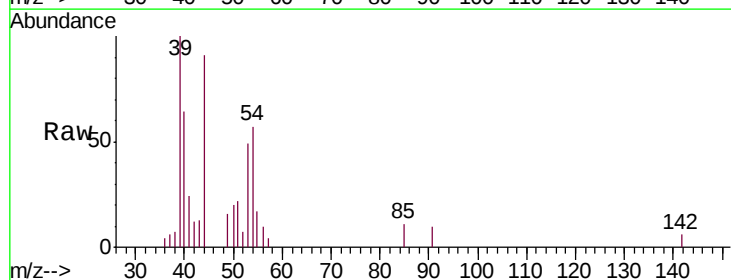
Acq: 25 Sep 2018 2:20

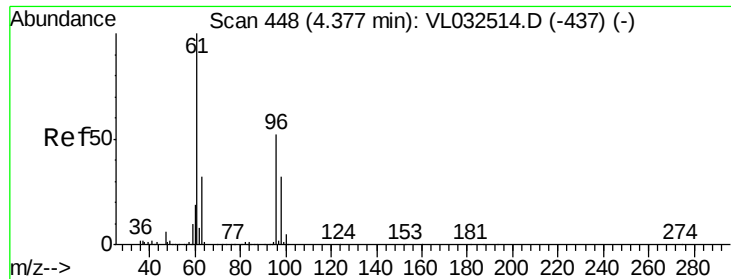
Tgt Ion: 39 Resp: 1929

Ion Ratio Lower Upper

39 100

54 271.2 80.8 121.2#



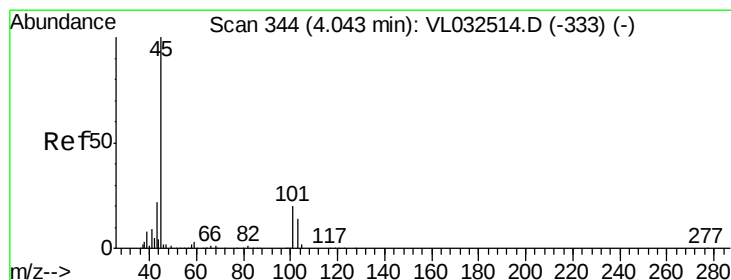
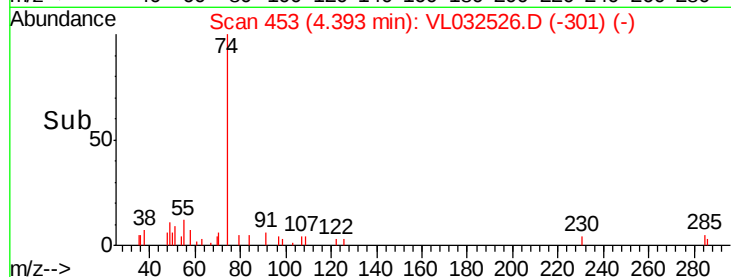
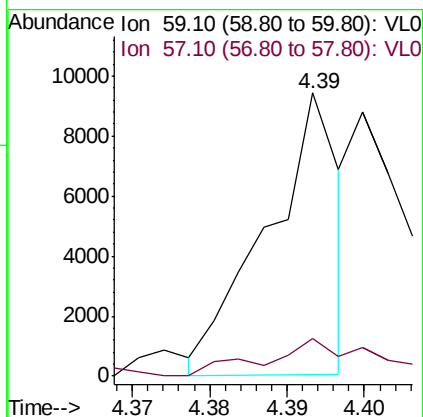
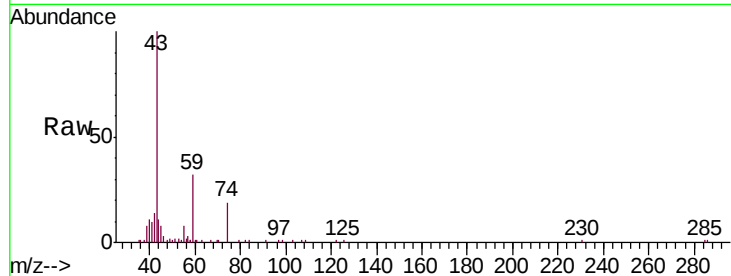


#17

tert-Butyl alcohol
Concen: 0.384 ppbv
RT: 4.39 min Scan# 453
Delta R.T. -0.01 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

Instrument :
MSVOA_L
ClientSampleId :
INDOOR-AIRDUP

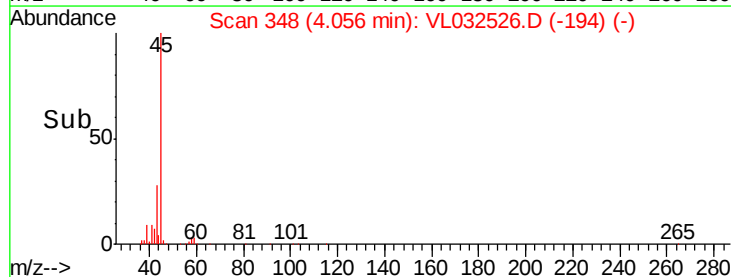
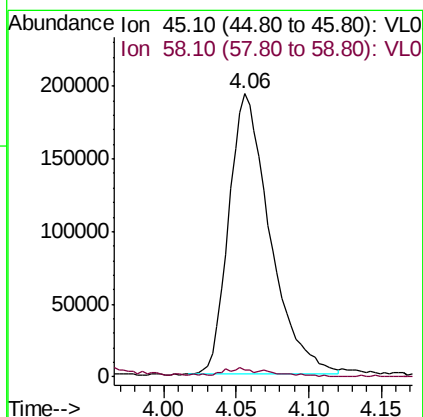
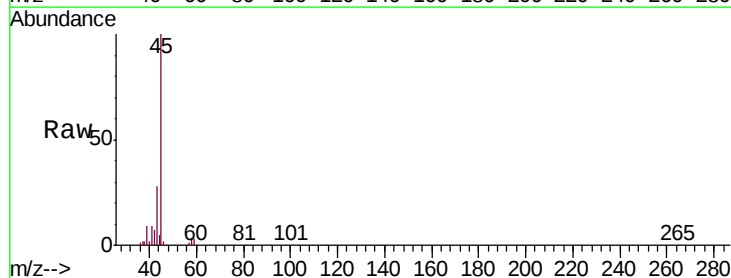
Tgt Ion: 59 Resp: 6079
Ion Ratio Lower Upper
59 100
57 0.0 0.0 0.0

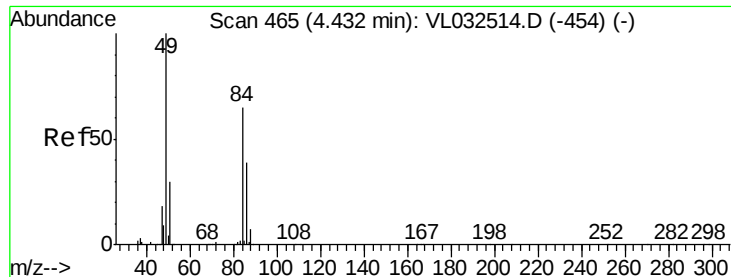


#19

Isopropyl Alcohol
Concen: 4.333 ppbv
RT: 4.06 min Scan# 348
Delta R.T. -0.01 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

Tgt Ion: 45 Resp: 380614
Ion Ratio Lower Upper
45 100
58 255.5 2.0 3.0#

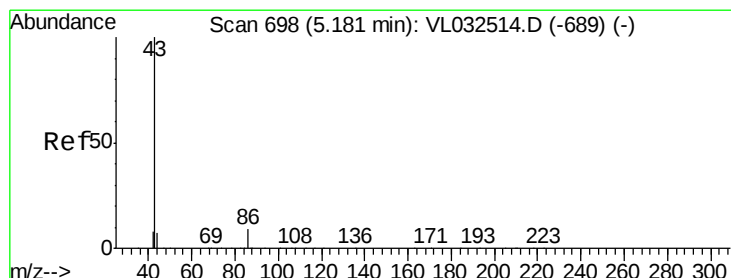
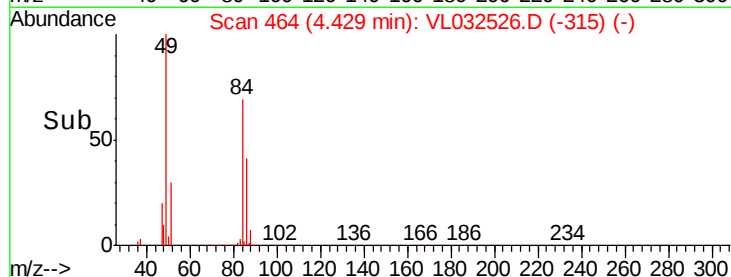
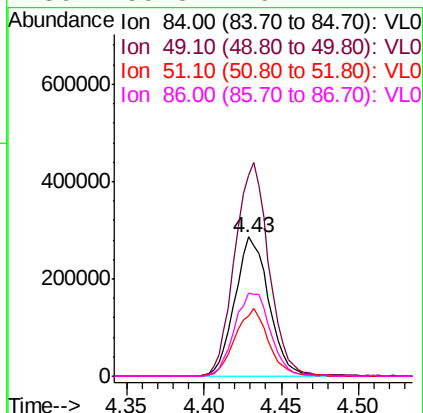
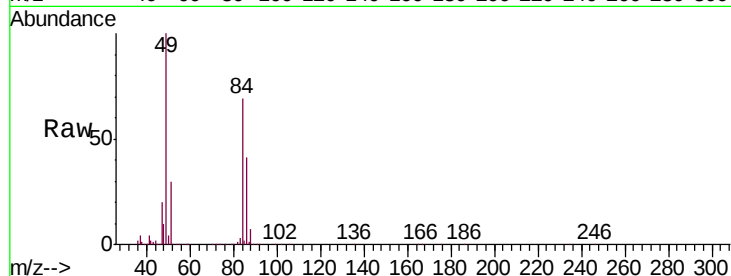




#20
Methylene Chloride
Concen: 7.166 ppbv
RT: 4.43 min Scan# 464
Delta R.T. -0.02 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

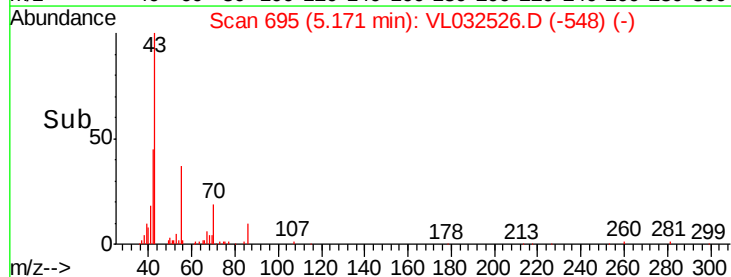
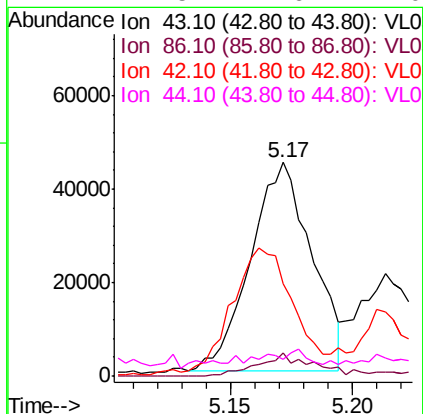
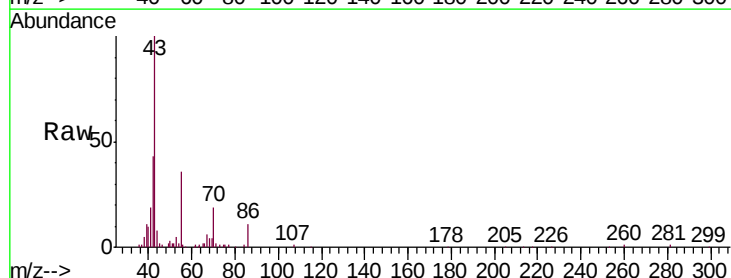
Instrument :
MSVOA_L
ClientSampleId :
INDOOR-AIRDUP

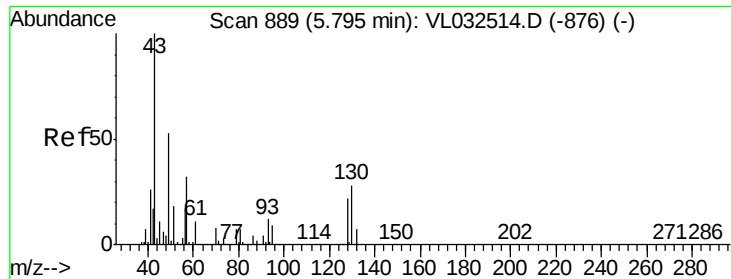
Tgt Ion:	84	Resp:	437657
Ion	Ratio	Lower	Upper
84	100		
49	144.4	119.1	178.7
51	43.3	35.2	52.8
86	59.3	49.4	74.2



#23
Vinyl Acetate
Concen: 0.351 ppbv
RT: 5.17 min Scan# 695
Delta R.T. -0.03 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

Tgt Ion:	43	Resp:	78160
Ion	Ratio	Lower	Upper
43	100		
86	10.9	5.9	8.9#
42	41.5	6.9	10.3#
44	2.5	4.6	7.0#

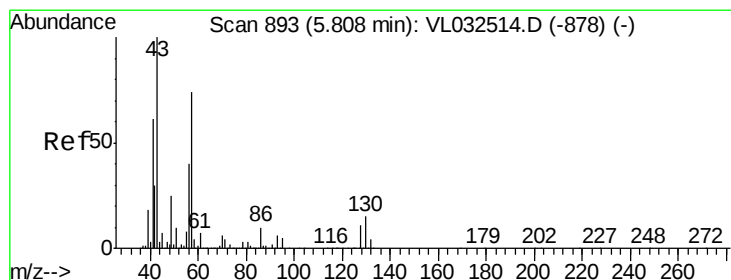
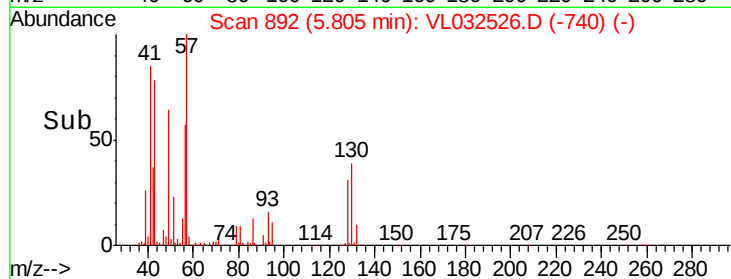
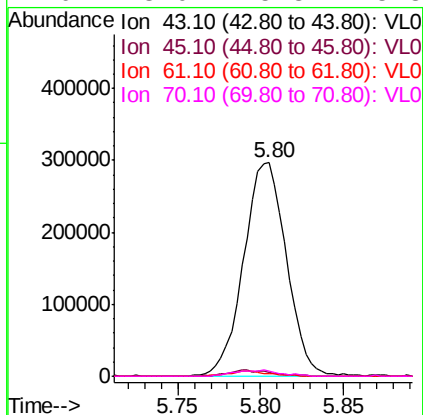
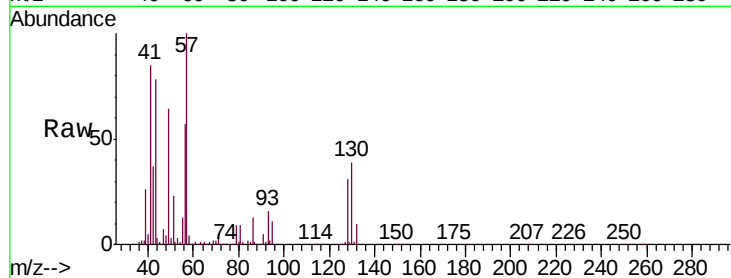




#25
Ethyl Acetate
Concen: 1.741 ppbv
RT: 5.80 min Scan# 892
Delta R.T. -0.01 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

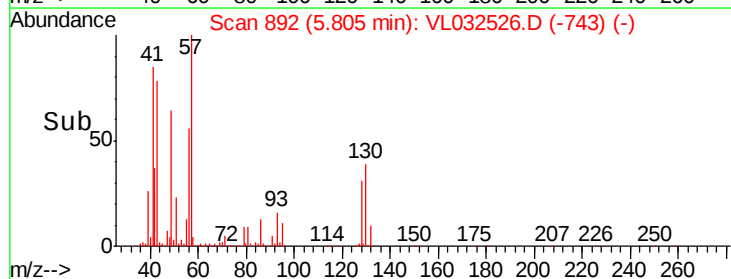
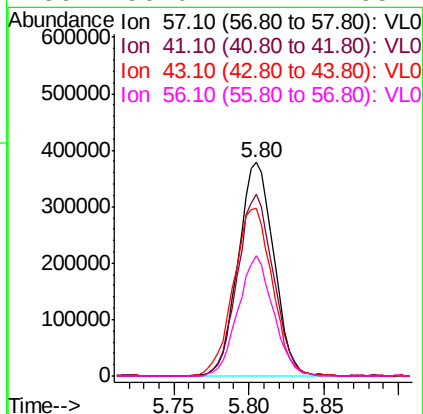
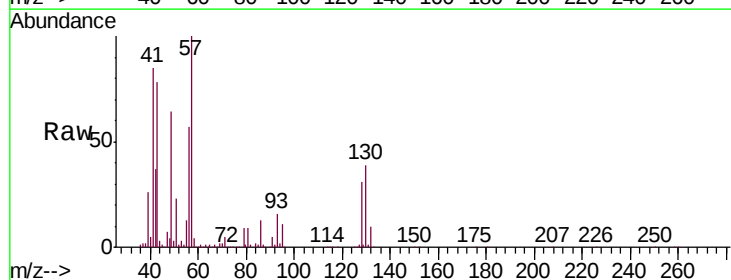
Instrument :
MSVOA_L
ClientSampleId :
INDOOR-AIRDUP

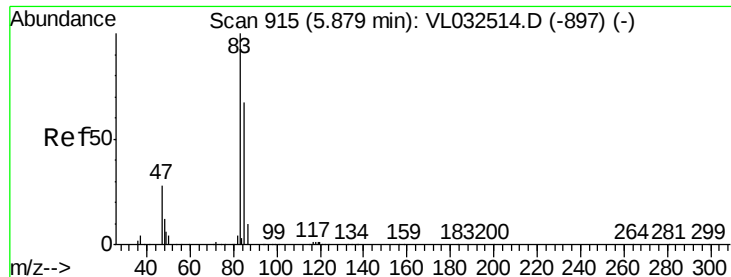
Tgt Ion:	43	Resp:	532759
Ion	Ratio	Lower	Upper
43	100		
45	3.2	8.0	12.0#
61	2.3	7.6	11.4#
70	3.0	5.8	8.8#



#26
Hexane
Concen: 4.525 ppbv
RT: 5.80 min Scan# 892
Delta R.T. -0.02 min
Lab File: VL032526.D
Acq: 25 Sep 2018 2:20

Tgt Ion:	57	Resp:	625514
Ion	Ratio	Lower	Upper
57	100		
41	86.9	69.0	103.4
43	85.7	172.1	258.1#
56	56.0	42.2	63.2





#29

Chloroform

Concen: 0.292 ppbv

RT: 5.87 min Scan# 913

Delta R.T. -0.02 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

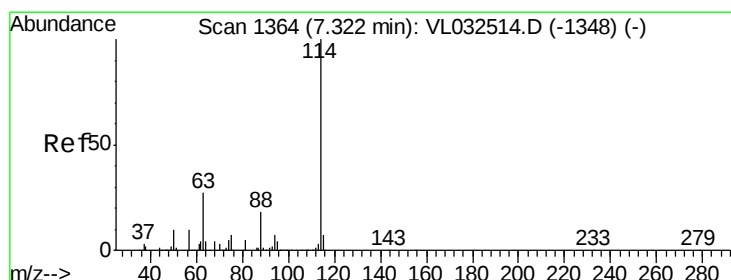
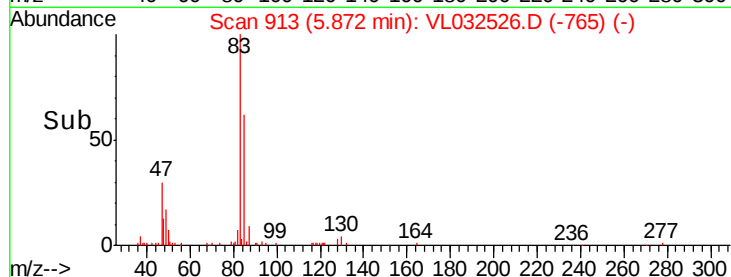
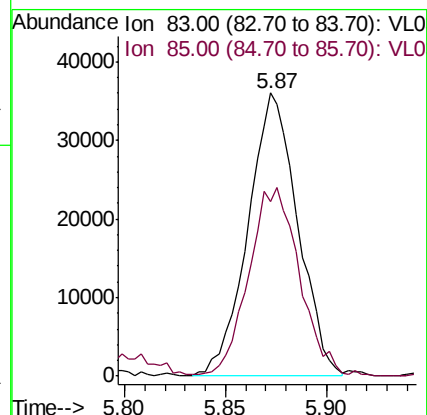
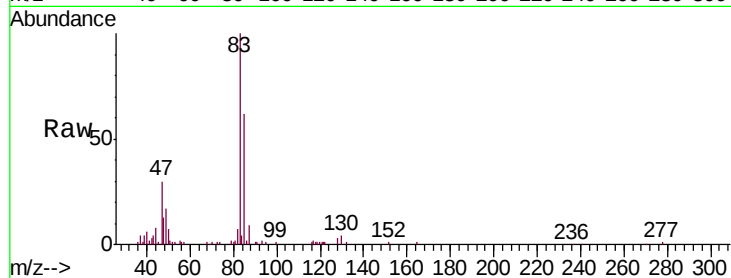
INDOOR-AIRDUP

Tgt Ion: 83 Resp: 61968

Ion Ratio Lower Upper

83 100

85 61.1 52.5 78.7



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.32 min Scan# 1363

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

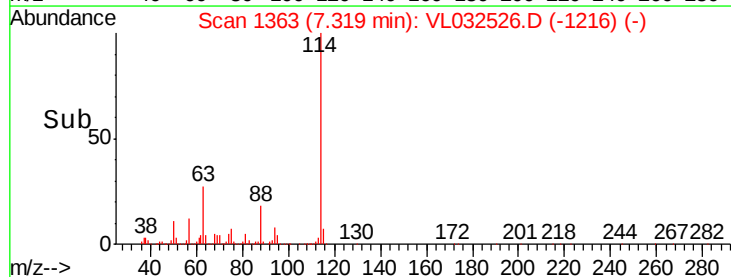
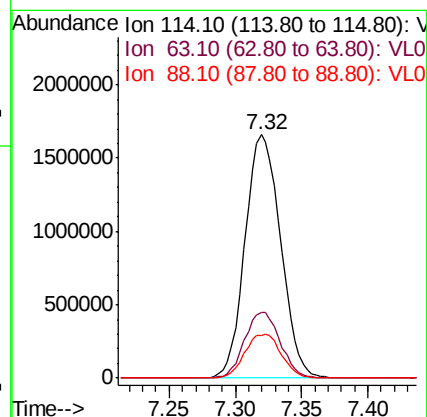
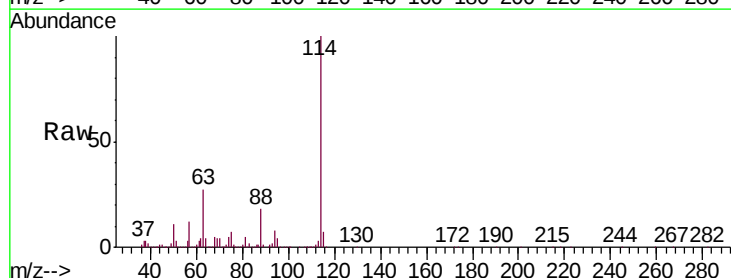
Tgt Ion: 114 Resp: 3099959

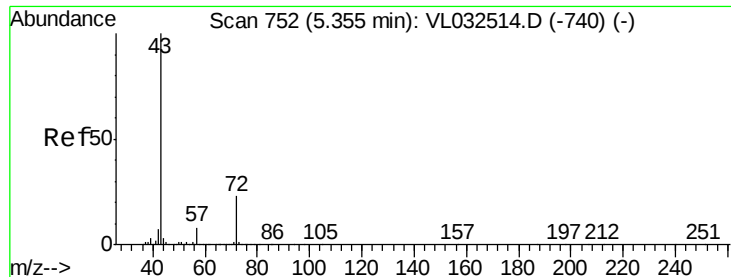
Ion Ratio Lower Upper

114 100

63 27.1 22.2 33.4

88 18.6 15.0 22.4

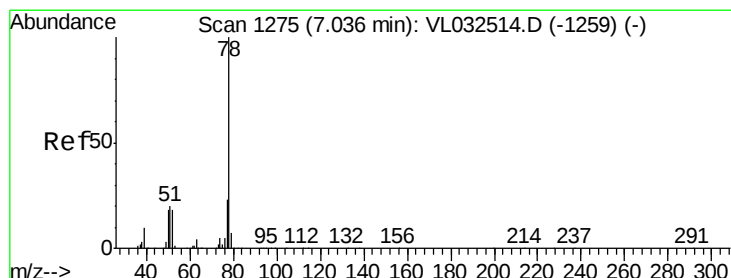
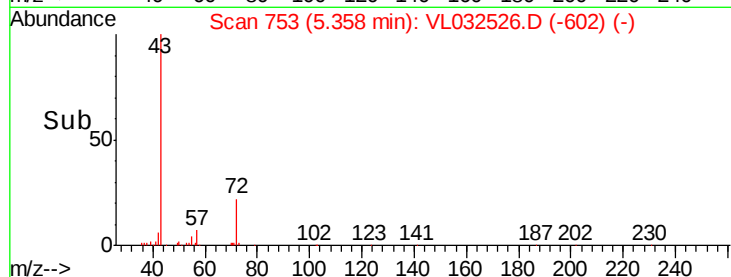
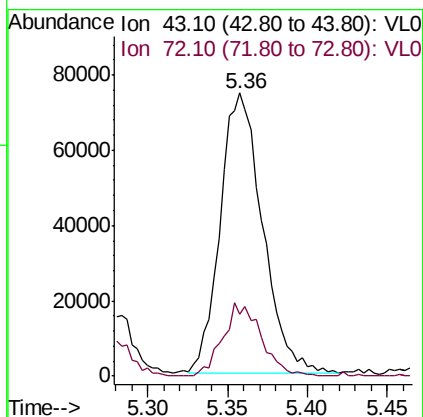
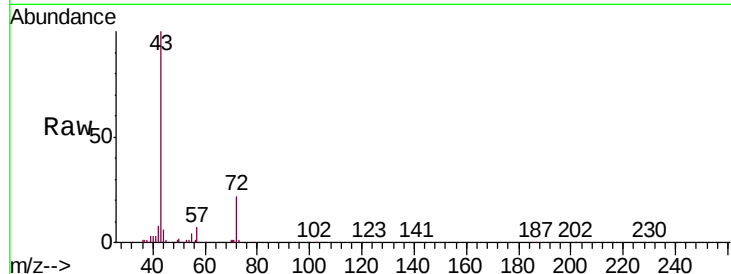




#34
 2-Butanone
 Concen: 0.725 ppbv
 RT: 5.36 min Scan# 753
 Delta R.T. -0.01 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

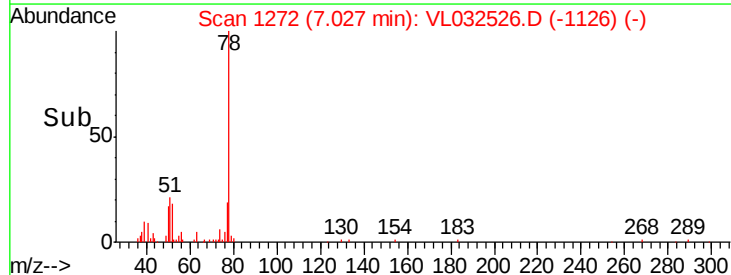
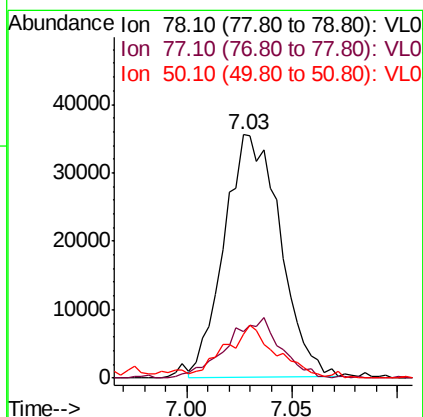
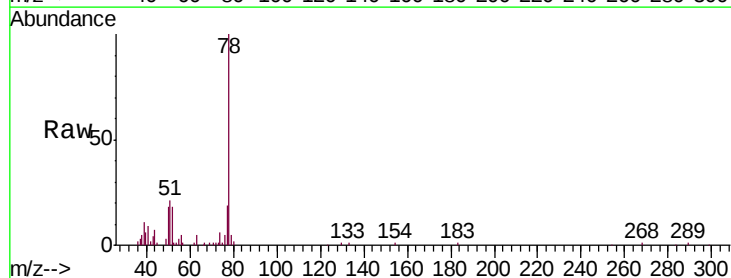
Instrument :
 MSVOA_L
 ClientSampleId :
 INDOOR-AIRDUP

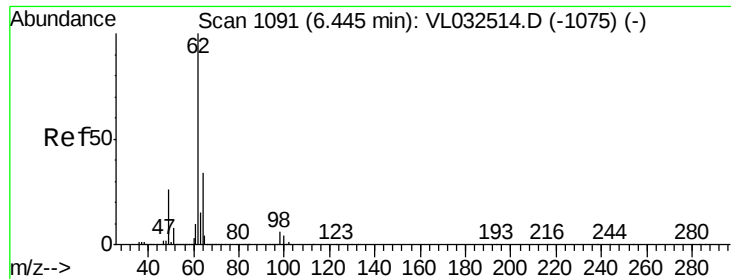
Tgt Ion: 43 Resp: 133872
 Ion Ratio Lower Upper
 43 100
 72 23.7 17.8 26.6



#36
 Benzene
 Concen: 0.261 ppbv
 RT: 7.03 min Scan# 1272
 Delta R.T. -0.03 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

Tgt Ion: 78 Resp: 65340
 Ion Ratio Lower Upper
 78 100
 77 18.6 18.4 27.6
 50 16.7 14.4 21.6





#37

1,2-Dichloroethane

Concen: 0.036 ppbv

RT: 6.43 min Scan# 1086

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

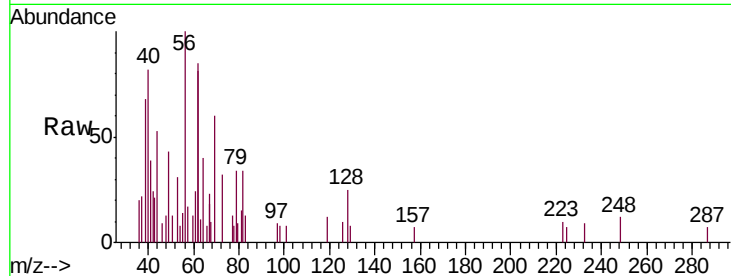
INDOOR-AIRDUP

Tgt Ion: 62 Resp: 5500

Ion Ratio Lower Upper

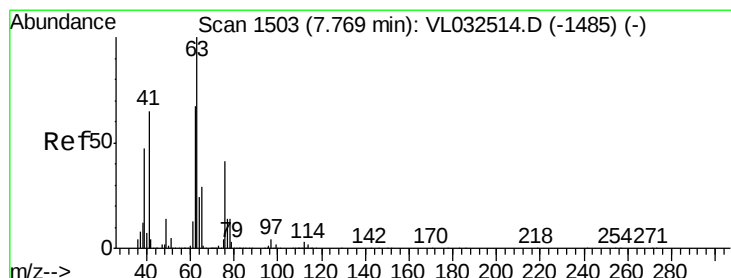
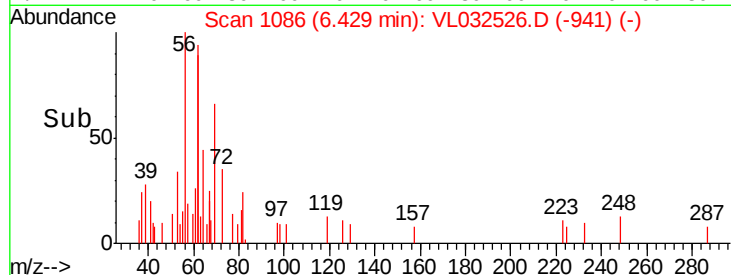
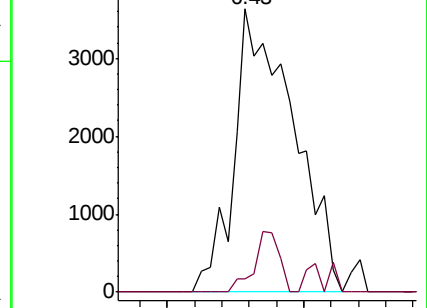
62 100

98 12.6 5.0 7.6#



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 98.00 (97.70 to 98.70): VL0



#39

1,2-Dichloropropane

Concen: 7.430 ppbv

RT: 7.32 min Scan# 1364

Delta R.T. -0.47 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

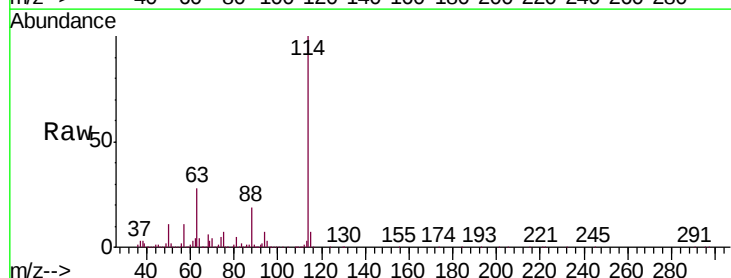
Tgt Ion: 63 Resp: 838810

Ion Ratio Lower Upper

63 100

41 0.0 55.4 83.0#

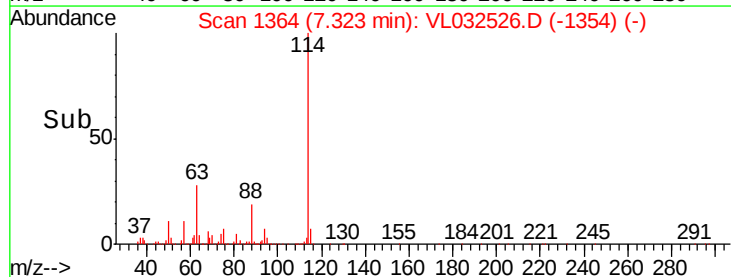
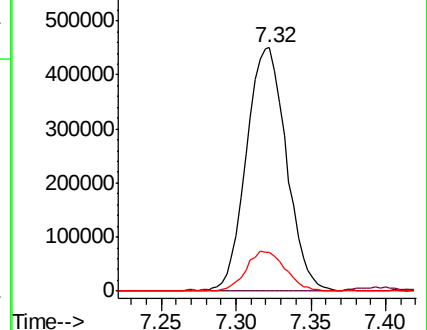
62 15.8 55.4 83.0#

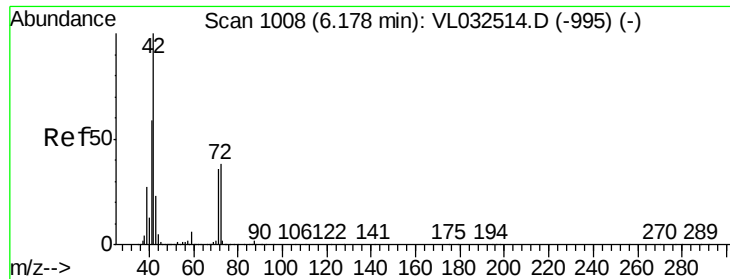


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 2.455 ppbv

RT: 5.80 min Scan# 892

Delta R.T. -0.39 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

INDOOR-AIRDUP

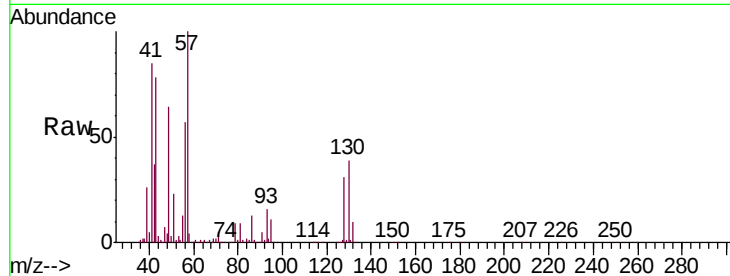
Tgt Ion: 42 Resp: 246195

Ion Ratio Lower Upper

42 100

72 1.1 29.5 44.3#

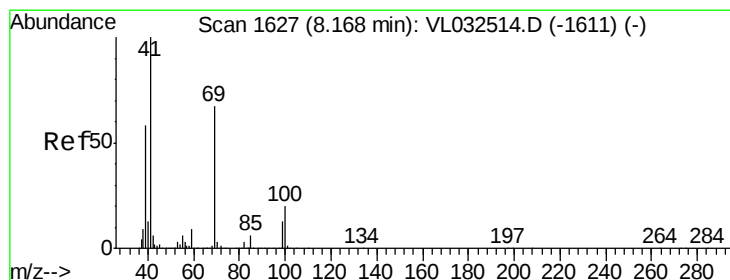
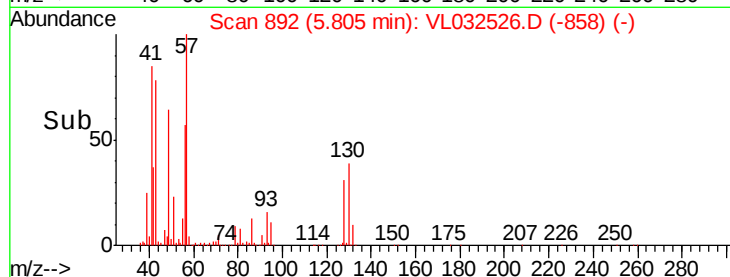
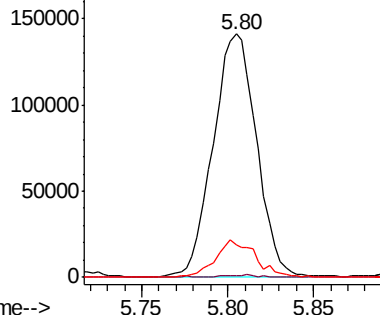
71 14.4 28.3 42.5#



Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

Ion 71.10 (70.80 to 71.80): VL0



#43

Methyl Methacrylate

Concen: 0.078 ppbv

RT: 8.16 min Scan# 1626

Delta R.T. -0.02 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

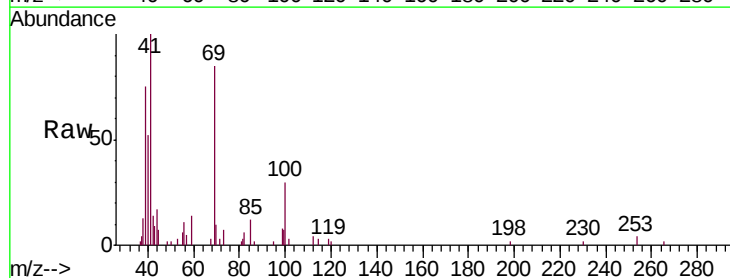
Tgt Ion: 69 Resp: 8143

Ion Ratio Lower Upper

69 100

41 0.0 117.1 175.7#

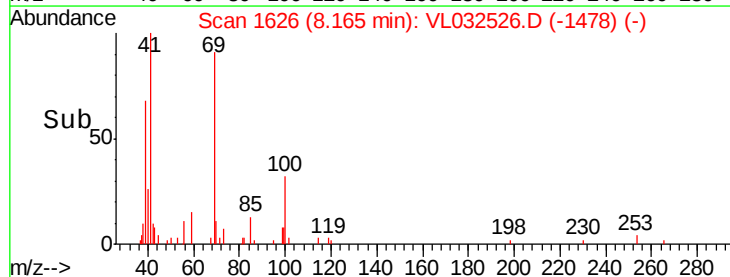
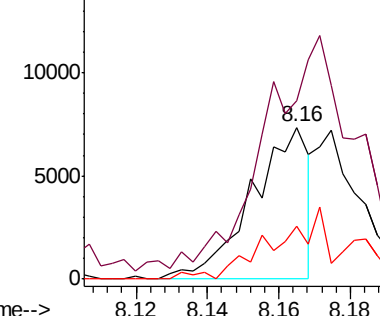
100 0.0 23.4 35.2#

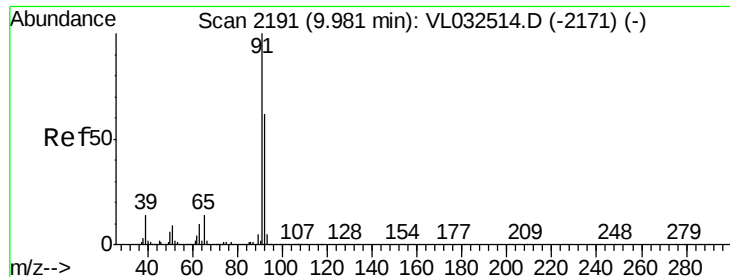


Abundance Ion 69.10 (68.80 to 69.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 100.10 (99.80 to 100.80): VL0





#53

Toluene

Concen: 2.426 ppbv

RT: 9.98 min Scan# 2190

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

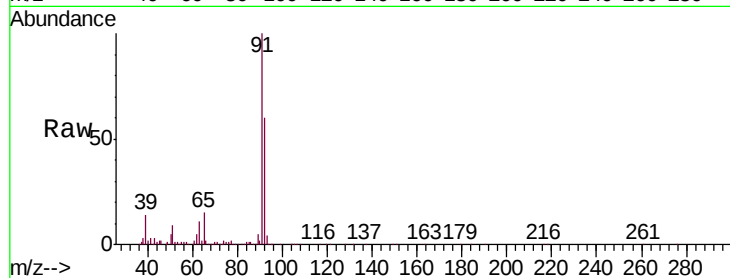
INDOOR-AIRDUP

Tgt Ion: 91 Resp: 740701

Ion Ratio Lower Upper

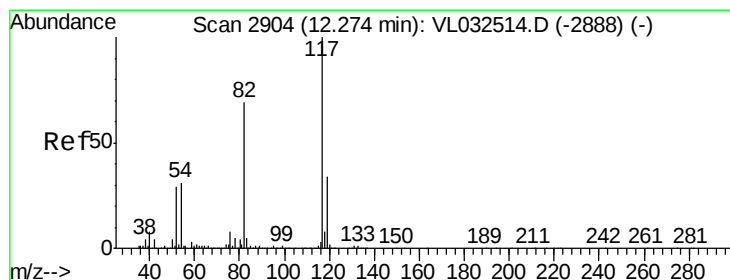
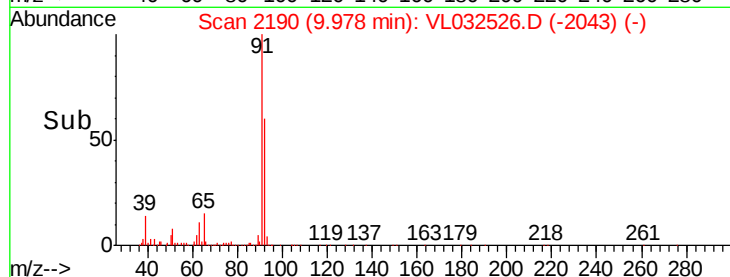
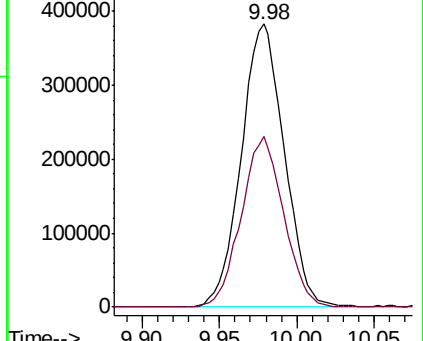
91 100

92 59.7 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.27 min Scan# 2903

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

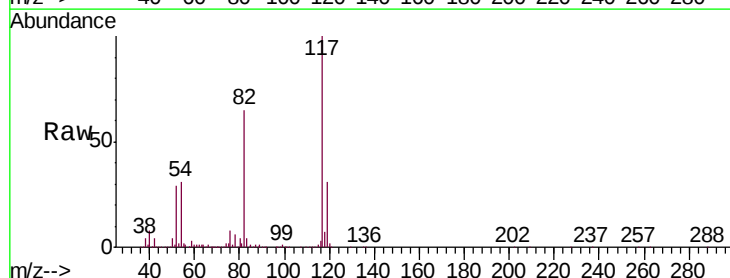
Tgt Ion: 117 Resp: 3069144

Ion Ratio Lower Upper

117 100

82 66.5 53.0 79.6

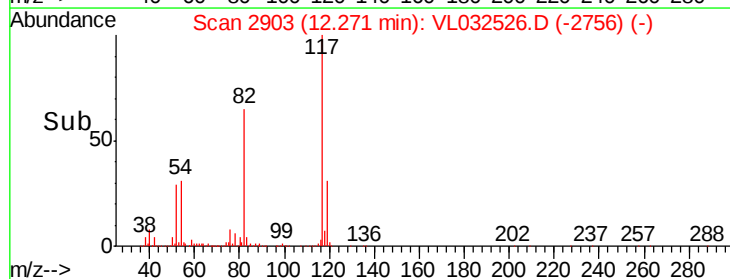
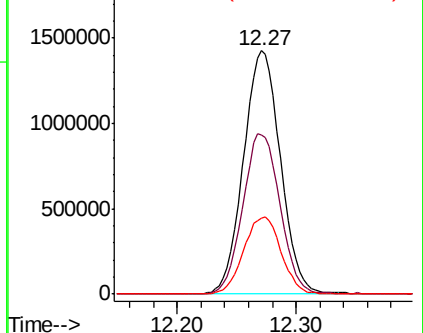
119 32.2 45.9 68.9#

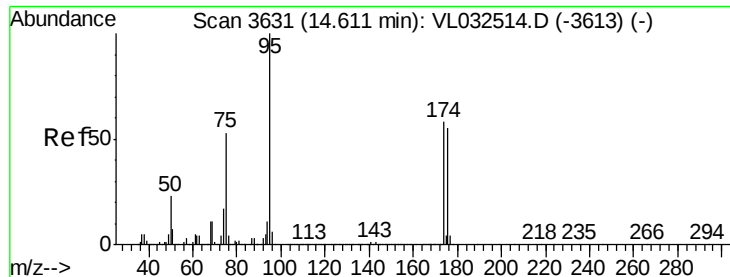


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

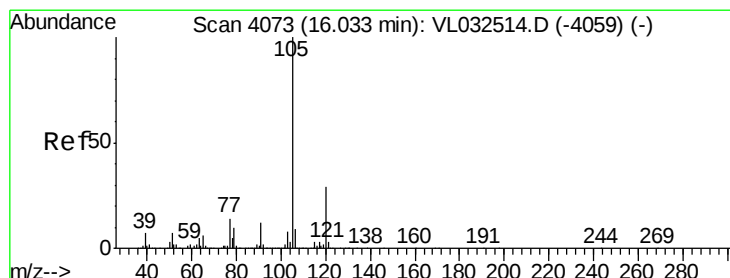
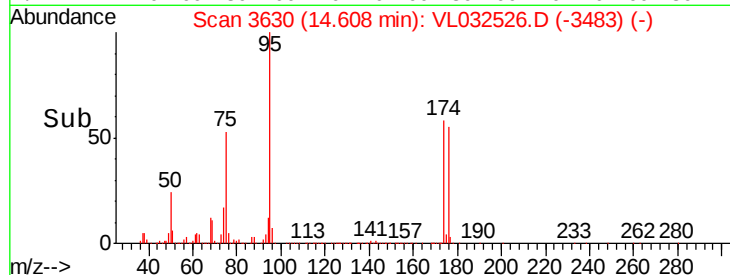
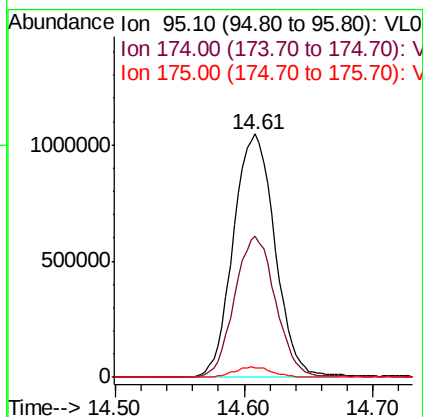
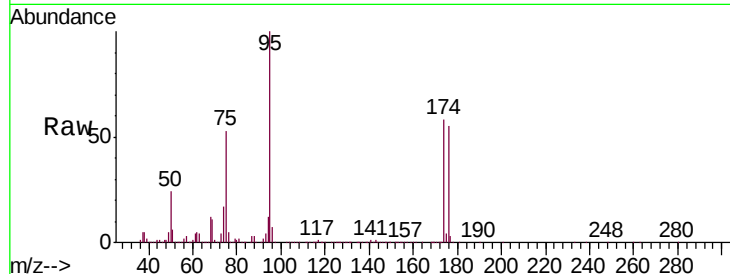




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.118 ppbv
 RT: 14.61 min Scan# 3630
 Delta R.T. -0.03 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

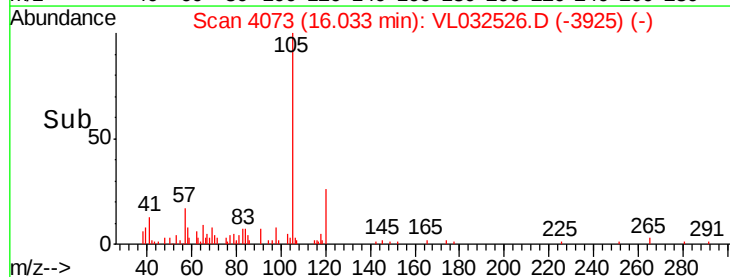
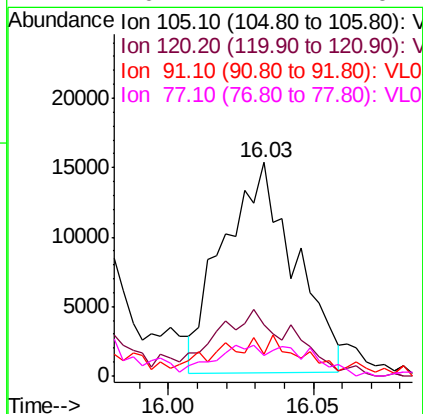
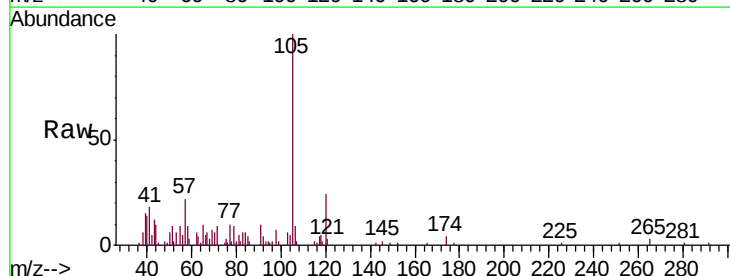
Instrument :
 MSVOA_L
 ClientSampleId :
 INDOOR-AIRDUP

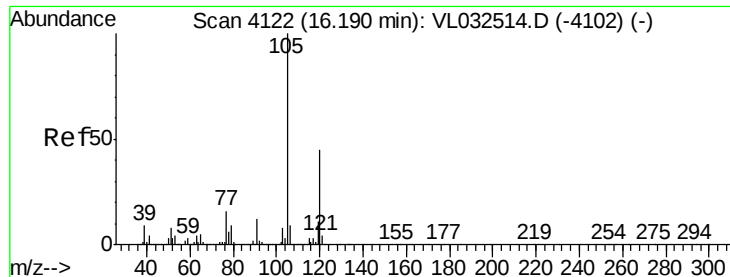
Tgt Ion: 95 Resp: 2341702
 Ion Ratio Lower Upper
 95 100
 174 57.6 46.3 69.5
 175 4.0 3.4 5.0



#72
 4-Ethyltoluene
 Concen: 0.074 ppbv
 RT: 16.03 min Scan# 4073
 Delta R.T. -0.02 min
 Lab File: VL032526.D
 Acq: 25 Sep 2018 2:20

Tgt Ion: 105 Resp: 25805
 Ion Ratio Lower Upper
 105 100
 120 37.9 23.5 35.3#
 91 25.5 10.2 15.2#
 77 20.4 11.1 16.7#





#73

1,3,5-Trimethylbenzene

Concen: 0.054 ppbv

RT: 16.19 min Scan# 4121

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

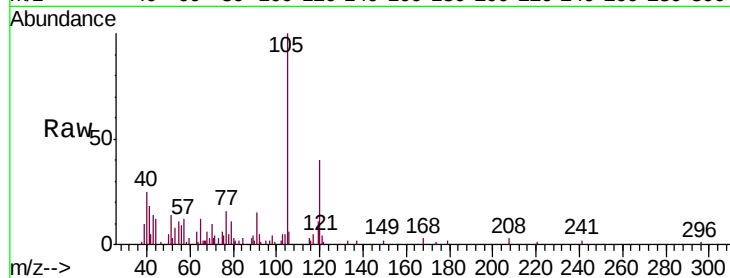
INDOOR-AIRDUP

Tgt Ion:105 Resp: 18245

Ion Ratio Lower Upper

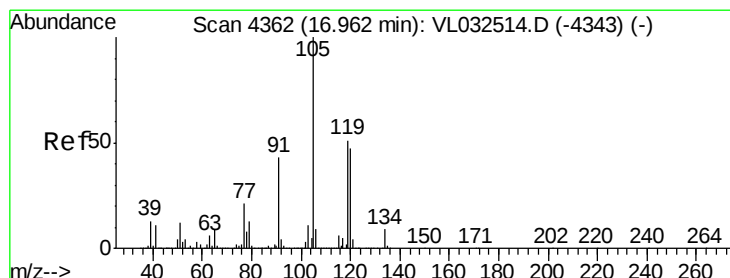
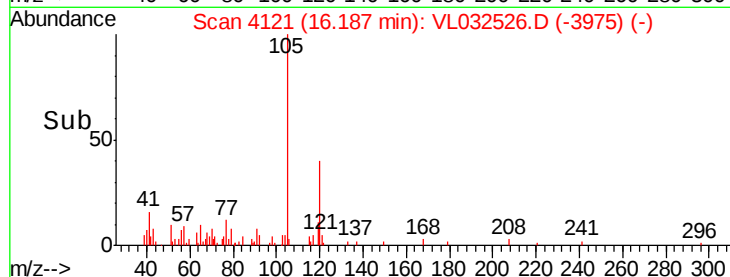
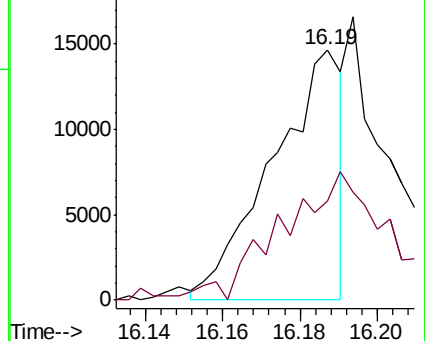
105 100

120 37.7 37.9 56.9#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.328 ppbv

RT: 16.96 min Scan# 4360

Delta R.T. -0.03 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Tgt Ion:105 Resp: 119984

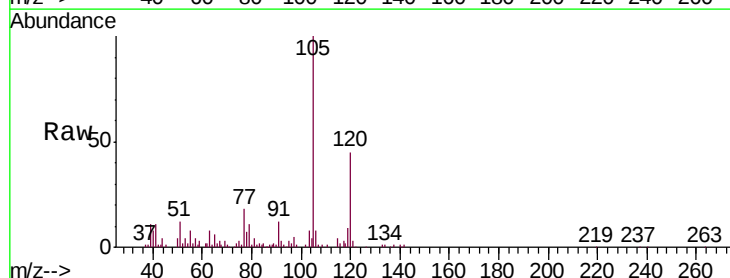
Ion Ratio Lower Upper

105 100

120 44.7 37.8 56.8

91 11.0 41.4 62.0#

77 17.4 18.6 28.0#

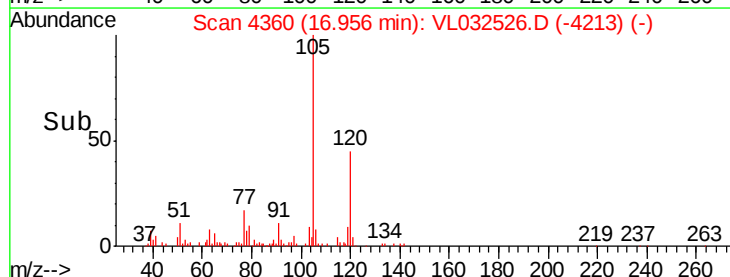
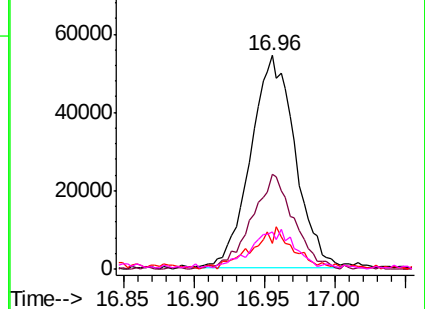


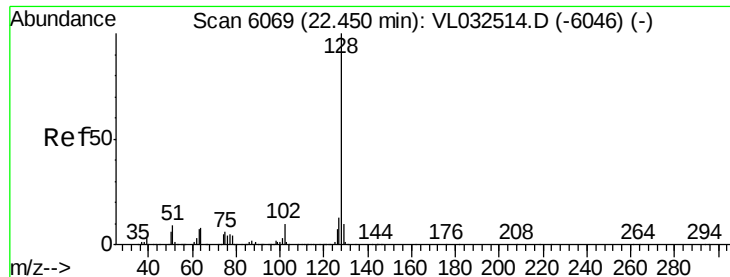
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#79

Naphthalene

Concen: 0.121 ppbv

RT: 22.44 min Scan# 6066

Delta R.T. -0.04 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

Instrument :

MSVOA_L

ClientSampleId :

INDOOR-AIRDUP

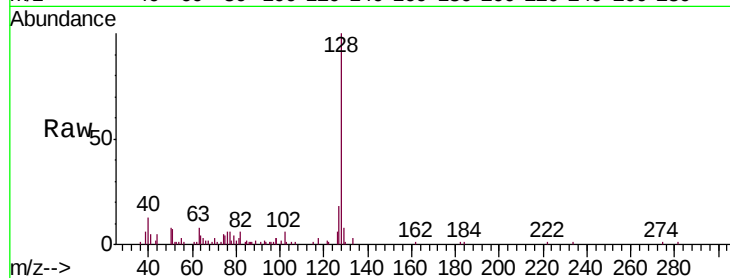
Tgt Ion:128 Resp: 31961

Ion Ratio Lower Upper

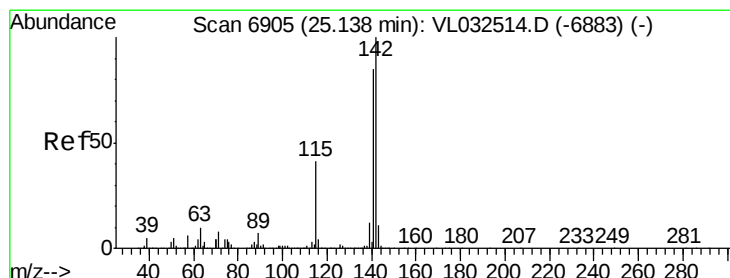
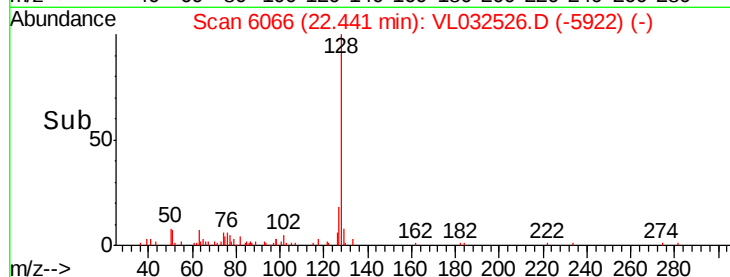
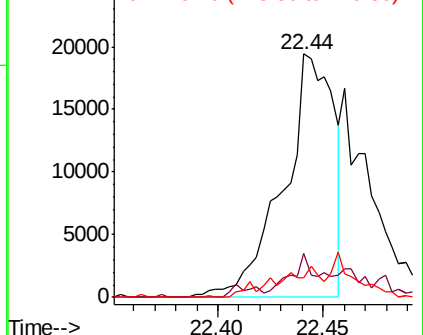
128 100

127 17.8 10.2 15.2#

129 8.0 8.5 12.7#



Abundance Ion 128.10 (127.80 to 128.80): V
Ion 127.10 (126.80 to 127.80): V
Ion 129.10 (128.80 to 129.80): V



#80

Naphthalene, 2-methyl-

Concen: 0.106 ppbv

RT: 25.14 min Scan# 6905

Delta R.T. -0.01 min

Lab File: VL032526.D

Acq: 25 Sep 2018 2:20

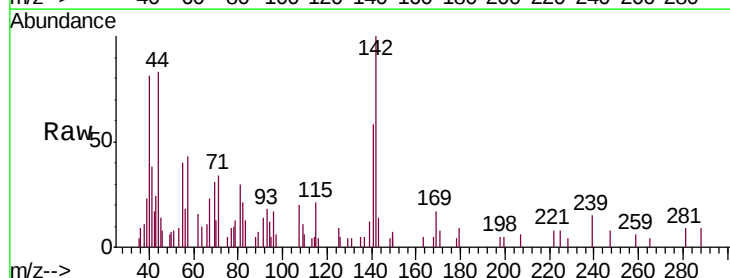
Tgt Ion:142 Resp: 6558

Ion Ratio Lower Upper

142 100

141 90.7 67.0 100.6

115 40.2 31.3 46.9



Abundance Ion 142.00 (141.70 to 142.70): V
Ion 141.00 (140.70 to 141.70): V
Ion 115.00 (114.70 to 115.70): V

