

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL032919\
 Data File : VL033527.D
 Acq On : 30 Mar 2019 7:35
 Operator : SY/AP
 Sample : K2042-16
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_V
 ClientSampleId :
 IAS-4-STORAGE-RM-BY-THE-CAFE

Quant Time: Mar 31 00:51:38 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 26 16:00:50 2019
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	749626	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1719839	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1721820	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1352657	10.02	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.08	85	52358	0.479	ppbv	98
3) Chlorodifluoromethane	2.99	51	504140	5.842	ppbv #	60
4) Chloromethane	3.17	50	29105	0.637	ppbv #	87
9) Propene	3.24	41	50321	1.388	ppbv	87
10) Heptane	8.25	43	6592	0.068	ppbv #	27
11) Trichlorofluoromethane	4.00	101	39701	0.295	ppbv	94
13) Ethanol	3.65	45	2049392	218.518	ppbv	65
15) Acetone	3.90	43	580056	6.435	ppbv	98
16) 1,3-Butadiene	3.34	39	8064	0.226	ppbv #	39
17) tert-Butyl alcohol	4.37	59	5487	0.331	ppbv #	73
19) Isopropyl Alcohol	4.03	45	664856	11.662	ppbv #	98
20) Methylene Chloride	4.41	84	298355	7.798	ppbv	94
23) Vinyl Acetate	5.15	43	11186	0.087	ppbv #	60
25) Ethyl Acetate	5.78	43	168819	1.009	ppbv #	82
26) Hexane	5.78	57	214062	2.879	ppbv #	41
34) 2-Butanone	5.34	43	31885	0.309	ppbv	97
35) Carbon Tetrachloride	7.13	117	6343	0.052	ppbv	89
36) Benzene	7.00	78	37172	0.258	ppbv	97
39) 1,2-Dichloropropane	7.29	63	460802	8.152	ppbv #	24
44) 2,2,4-Trimethylpentane	7.99	57	8702	0.035	ppbv #	1
53) Toluene	9.94	91	997759	5.950	ppbv	99
59) m/p-Xylene	13.15	91	13509	0.066	ppbv #	100
60) o-Xylene	13.85	91	6501	0.033	ppbv #	3
74) 1,2,4-Trimethylbenzene	16.93	105	26252	0.115	ppbv #	64

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

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IAS-4-STORAGE-RM-BY-THE-CAFE

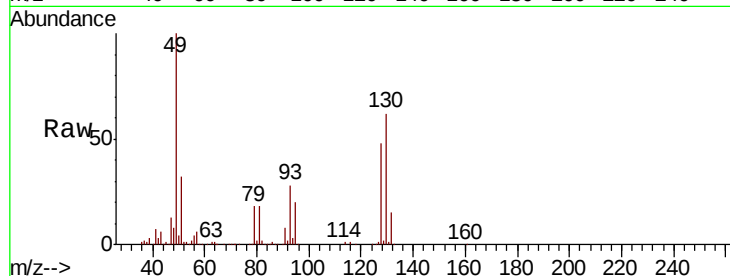
Tgt Ion: 49 Resp: 749626

Ion Ratio Lower Upper

49 100

128 48.5 24.0 72.0

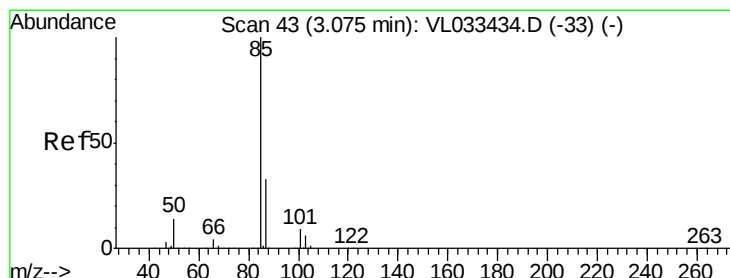
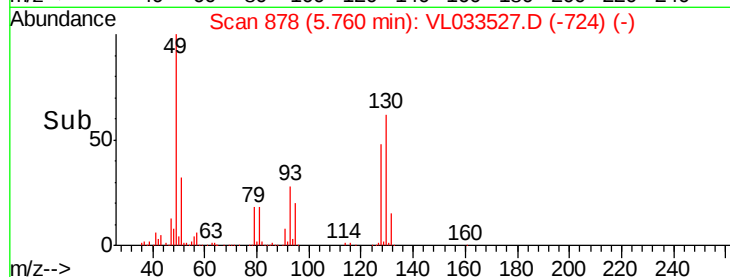
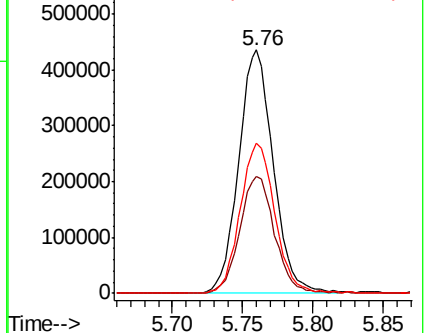
130 62.4 31.2 93.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.479 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.00 min

Lab File: VL033527.D

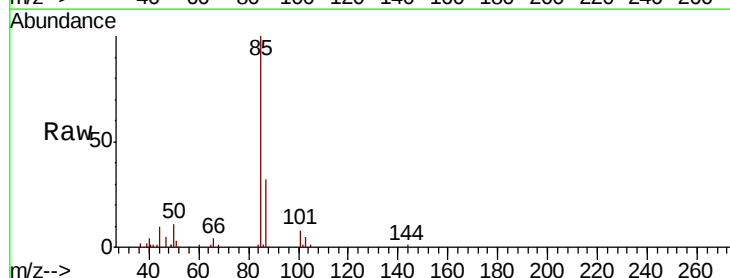
Acq: 30 Mar 2019 7:35

Tgt Ion: 85 Resp: 52358

Ion Ratio Lower Upper

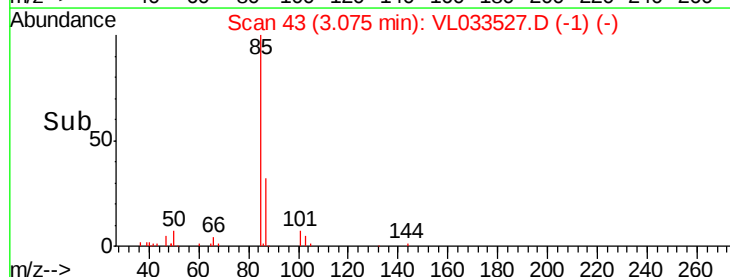
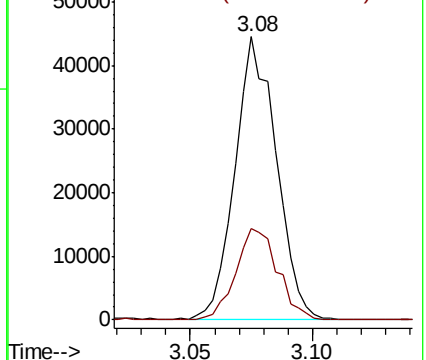
85 100

87 32.1 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

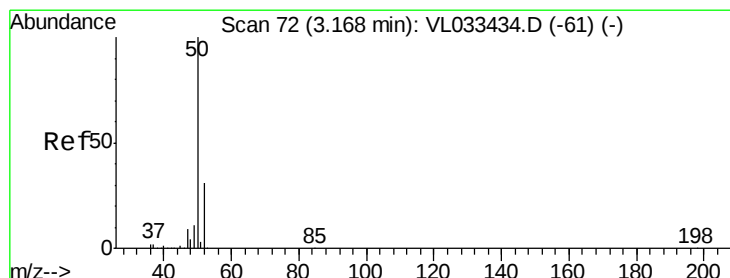
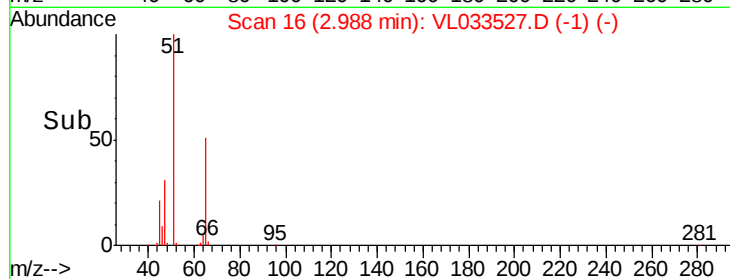
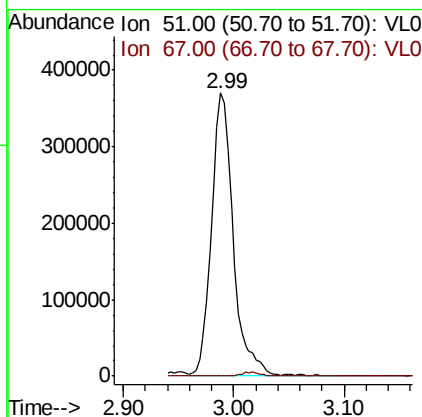
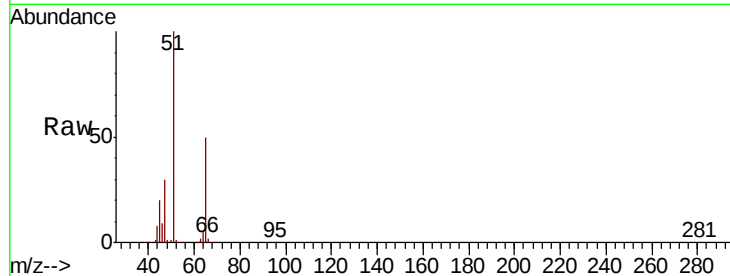




#3
 Chlorodifluoromethane
 Concen: 5.842 ppbv
 RT: 2.99 min Scan# 16
 Delta R.T. -0.03 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

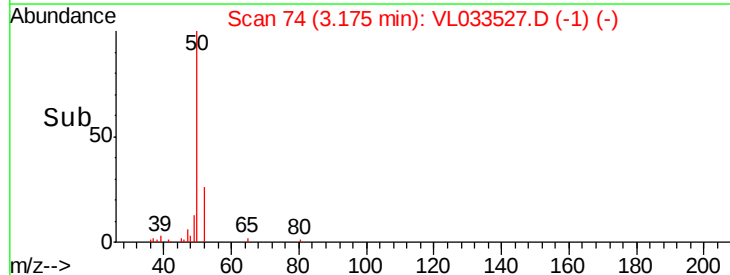
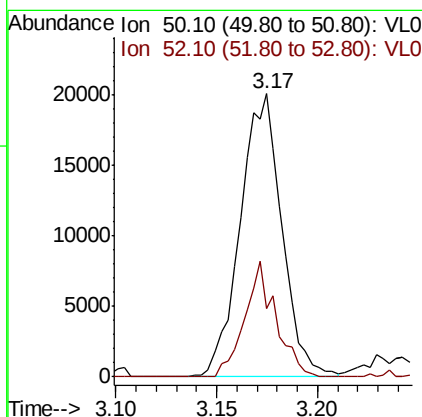
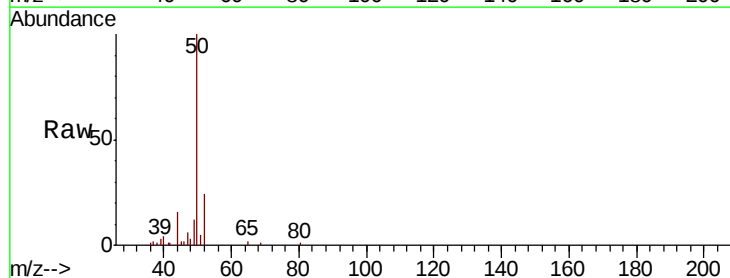
Instrument :
 MSVOA_V
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 IAS-4-STORAGE-RM-BY-THE-CAFE

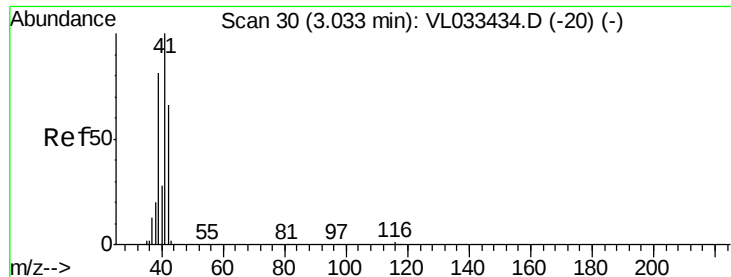
Tgt Ion: 51 Resp: 504140
 Ion Ratio Lower Upper
 51 100
 67 1.2 15.7 23.5#



#4
 Chloromethane
 Concen: 0.637 ppbv
 RT: 3.17 min Scan# 74
 Delta R.T. 0.01 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Tgt Ion: 50 Resp: 29105
 Ion Ratio Lower Upper
 50 100
 52 24.1 25.0 37.6#





#9

Propene

Concen: 1.388 ppbv

RT: 3.24 min Scan# 94

Delta R.T. 0.21 min

Lab File: VL033527.D

Acq: 30 Mar 2019 7:35

Instrument :

MSVOA_V

ClientSampleId :

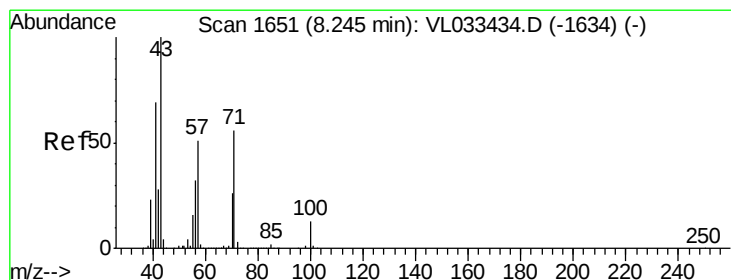
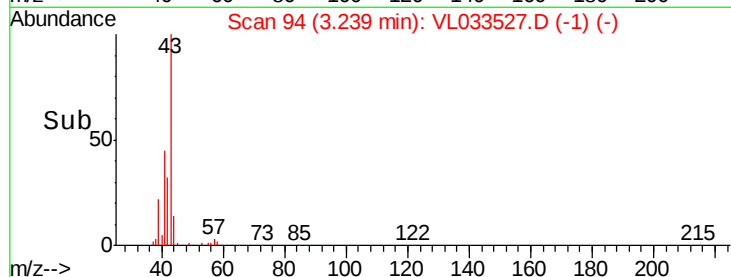
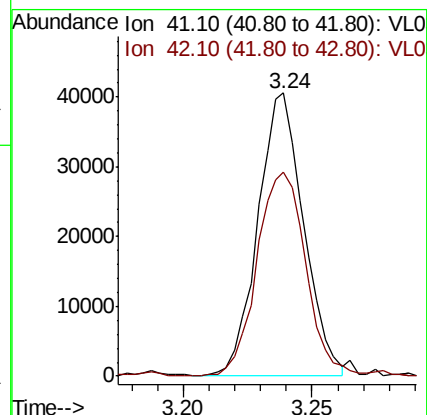
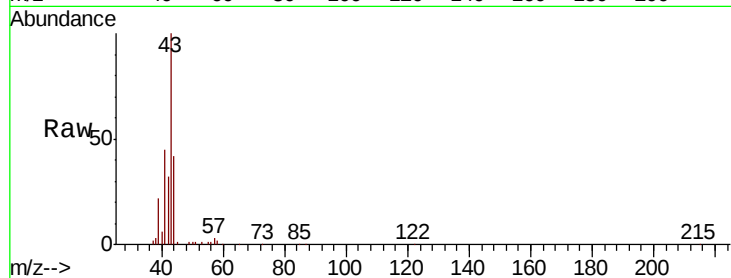
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 41 Resp: 50321

Ion Ratio Lower Upper

41 100

42 77.9 53.9 80.9



#10

Heptane

Concen: 0.068 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.00 min

Lab File: VL033527.D

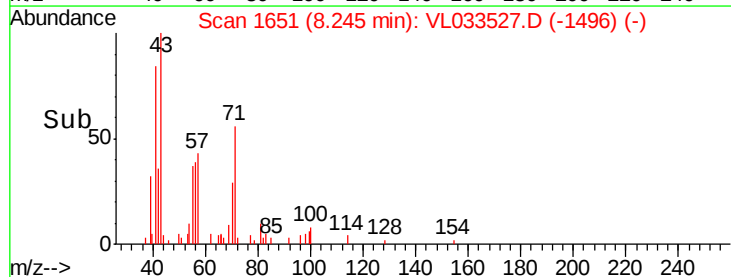
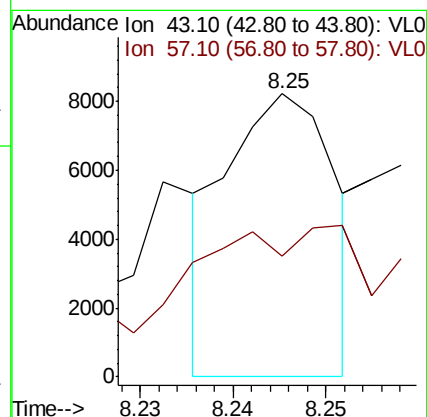
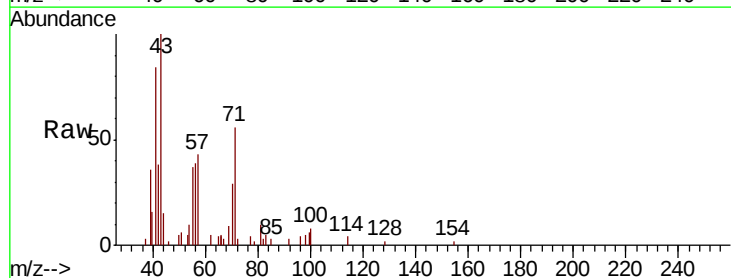
Acq: 30 Mar 2019 7:35

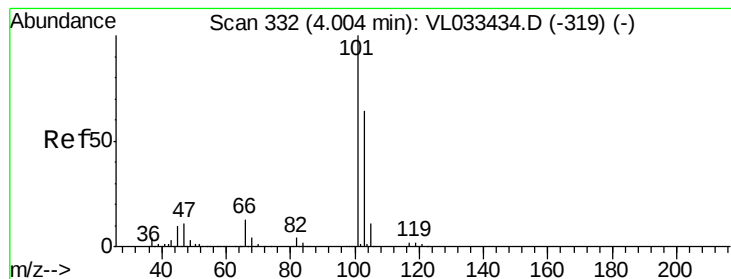
Tgt Ion: 43 Resp: 6592

Ion Ratio Lower Upper

43 100

57 0.0 40.6 60.8#





#11

Trichlorofluoromethane

Concen: 0.295 ppbv

RT: 4.00 min Scan# 332

Delta R.T. -0.00 min

Lab File: VL033527.D

Acq: 30 Mar 2019 7:35

Instrument :

MSVOA_V

ClientSampleId :

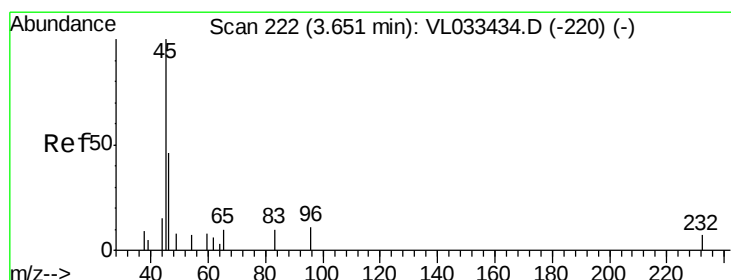
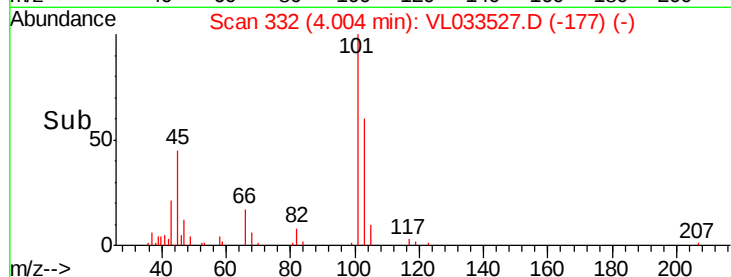
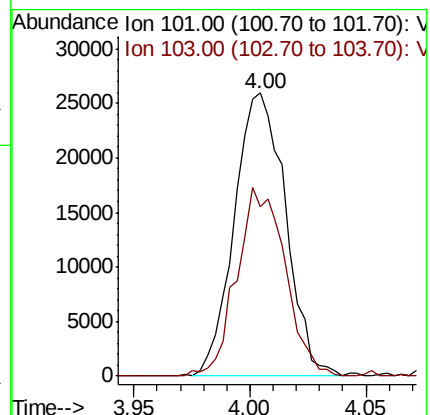
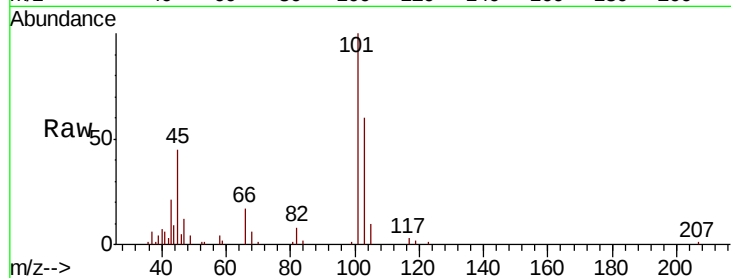
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 101 Resp: 39701

Ion Ratio Lower Upper

101 100

103 59.7 51.3 76.9



#13

Ethanol

Concen: 218.518 ppbv

RT: 3.65 min Scan# 223

Delta R.T. 0.00 min

Lab File: VL033527.D

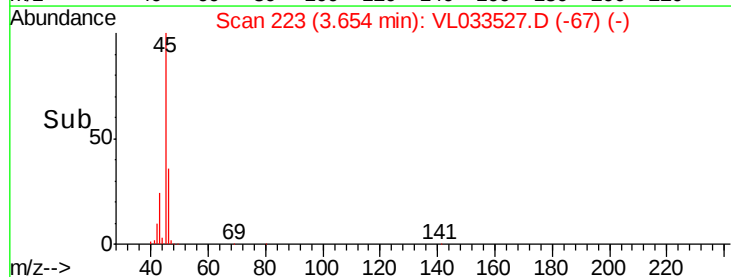
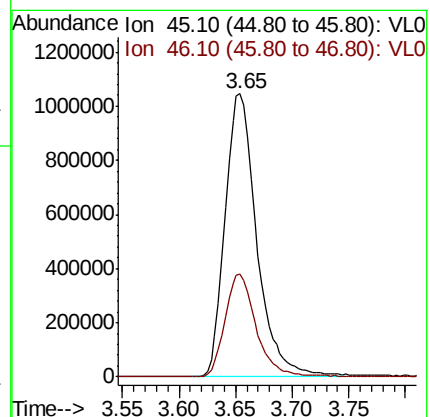
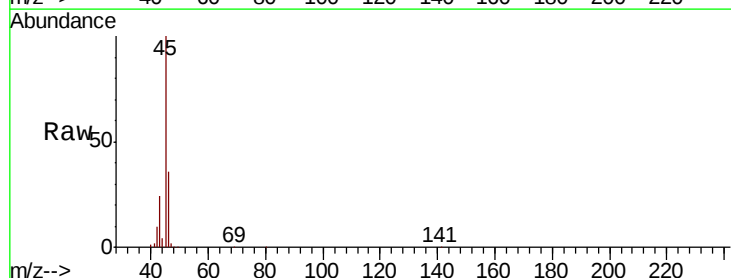
Acq: 30 Mar 2019 7:35

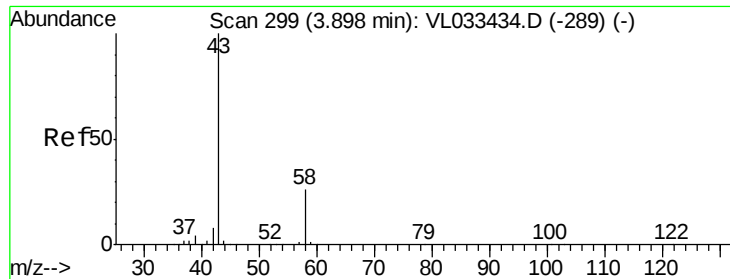
Tgt Ion: 45 Resp: 2049392

Ion Ratio Lower Upper

45 100

46 36.1 25.4 101.8





#15

Acetone

Concen: 6.435 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033527.D

Acq: 30 Mar 2019 7:35

Instrument :

MSVOA_V

ClientSampleId :

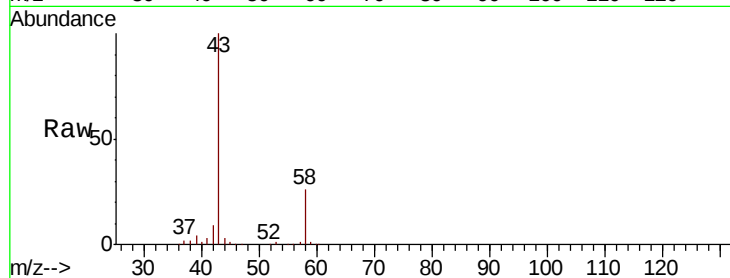
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 43 Resp: 580056

Ion Ratio Lower Upper

43 100

58 26.5 20.5 30.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.90

400000

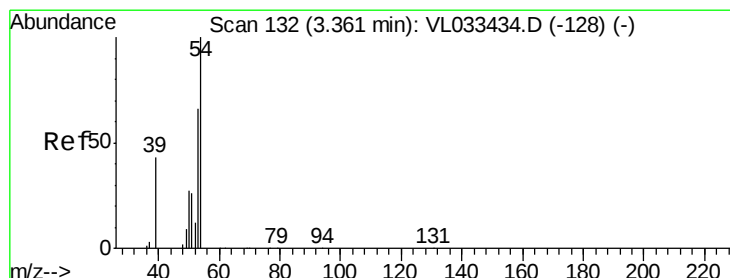
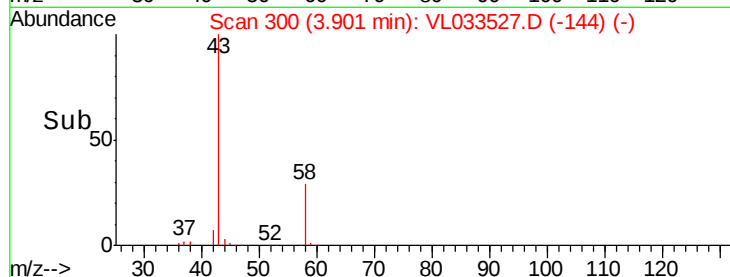
300000

200000

100000

0

Time-->



#16

1,3-Butadiene

Concen: 0.226 ppbv

RT: 3.34 min Scan# 126

Delta R.T. -0.02 min

Lab File: VL033527.D

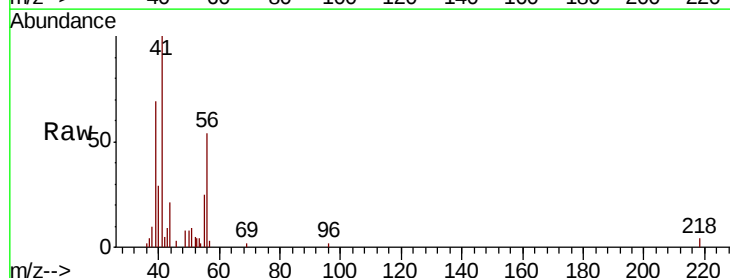
Acq: 30 Mar 2019 7:35

Tgt Ion: 39 Resp: 8064

Ion Ratio Lower Upper

39 100

54 30.6 69.4 104.2#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.34

8000

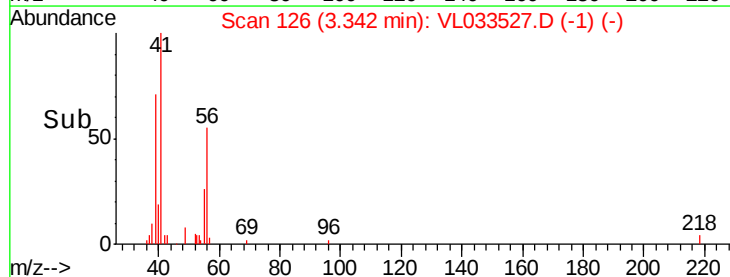
6000

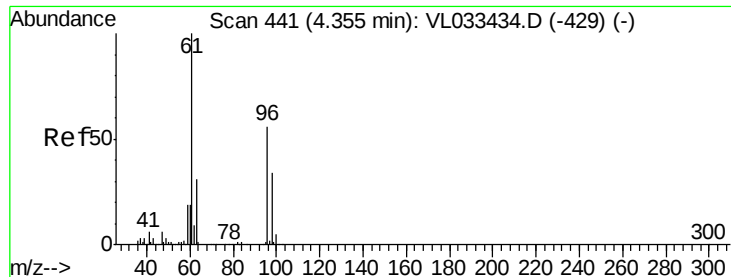
4000

2000

0

Time-->

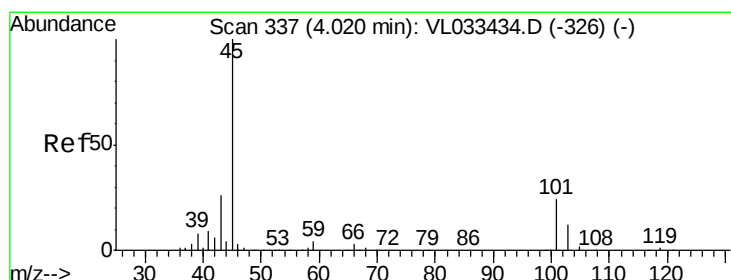
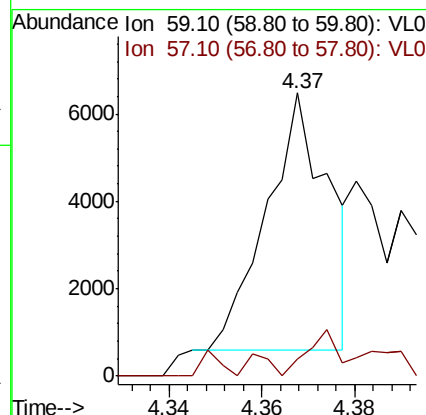
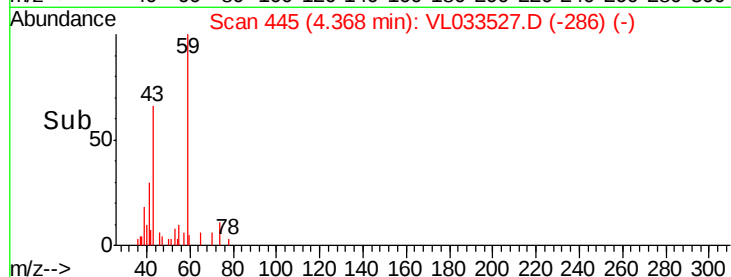
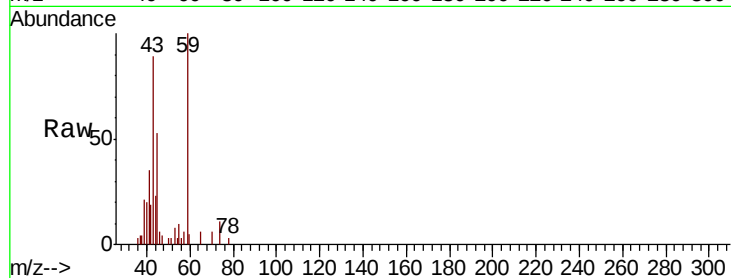




#17
 tert-Butyl alcohol
 Concen: 0.331 ppbv
 RT: 4.37 min Scan# 445
 Delta R.T. 0.01 min
 Lab File: VL033527.D
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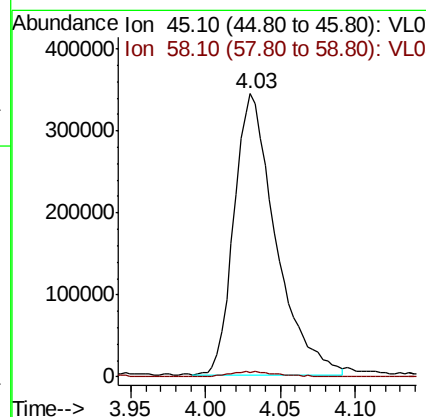
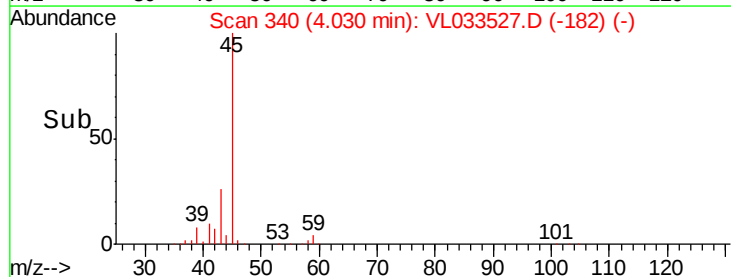
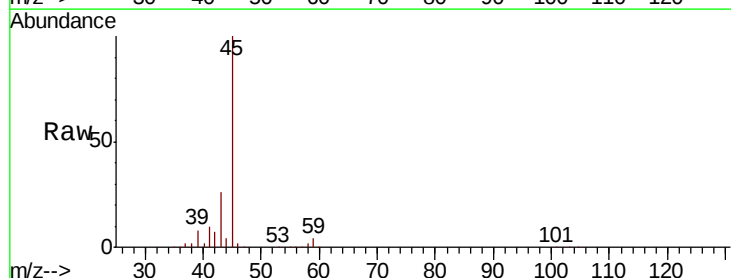
Instrument :
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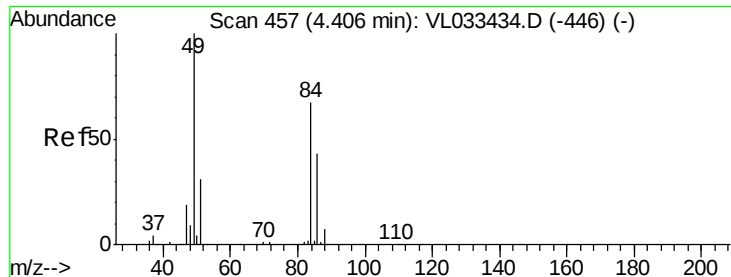
Tgt Ion: 59 Resp: 5487
 Ion Ratio Lower Upper
 59 100
 57 0.0 7.8 11.8#



#19
 Isopropyl Alcohol
 Concen: 11.662 ppbv
 RT: 4.03 min Scan# 340
 Delta R.T. 0.01 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Tgt Ion: 45 Resp: 664856
 Ion Ratio Lower Upper
 45 100
 58 2.5 1.4 2.2#

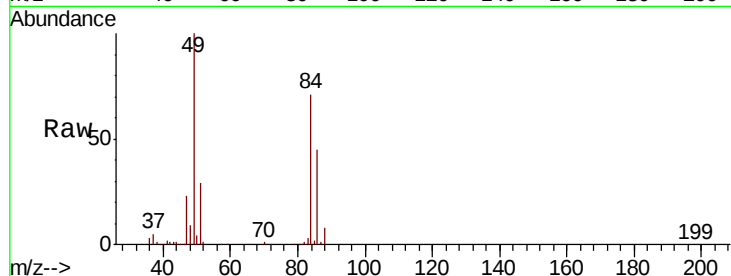




#20
Methylene Chloride
Concen: 7.798 ppbv
RT: 4.41 min Scan# 457
Delta R.T. -0.00 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Instrument :
MSVOA_V
ClientSampleId :
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion:	84	Resp:	298355
Ion	Ratio	Lower	Upper
84	100		
49	140.5	120.0	180.0
51	41.6	36.7	55.1
86	63.1	51.9	77.9



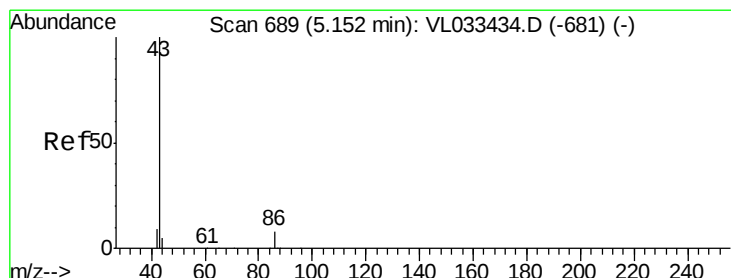
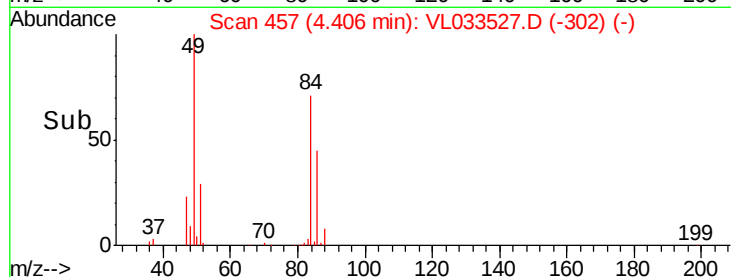
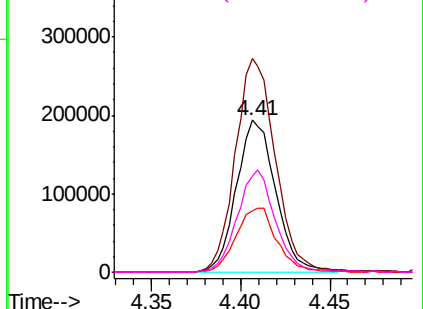
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

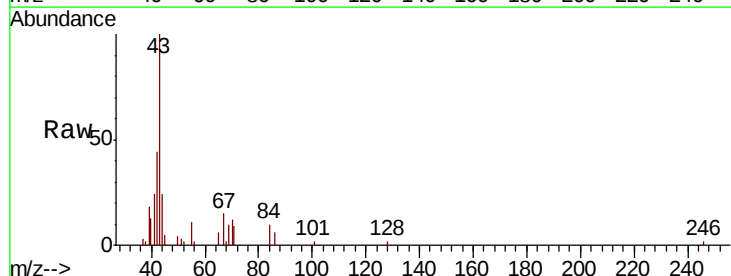
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#23
Vinyl Acetate
Concen: 0.087 ppbv
RT: 5.15 min Scan# 687
Delta R.T. -0.01 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Tgt Ion:	43	Resp:	11186
Ion	Ratio	Lower	Upper
43	100		
86	6.4	5.6	8.4
42	37.7	8.0	12.0#
44	12.7	3.9	5.9#



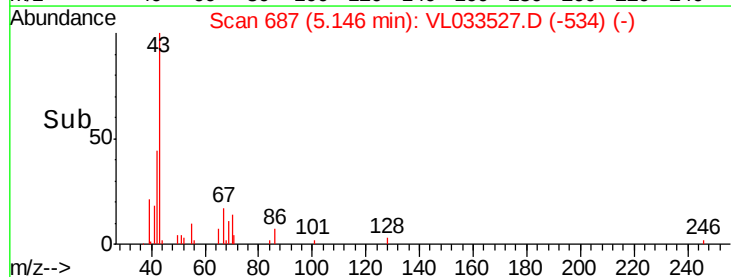
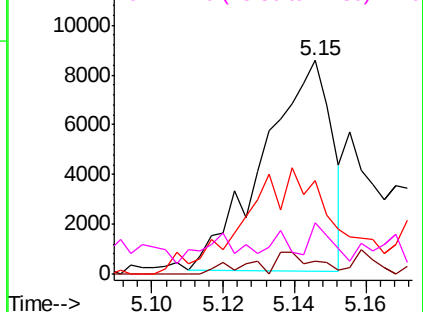
Abundance

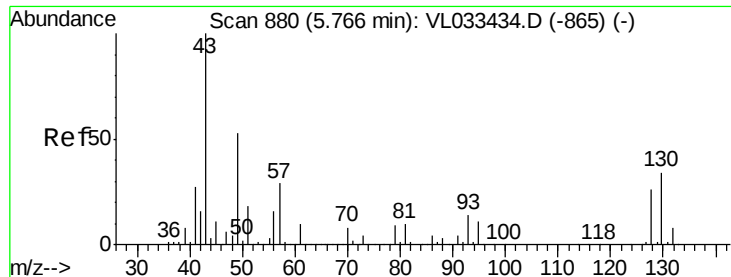
Ion 43.10 (42.80 to 43.80): VL0

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

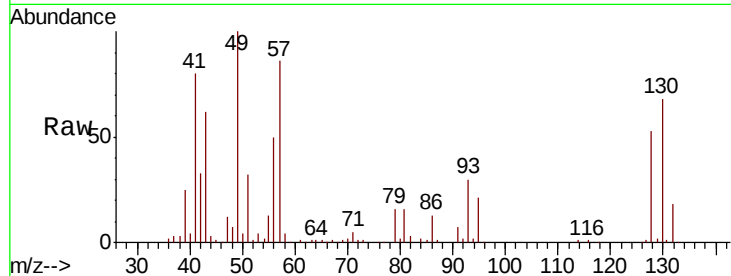




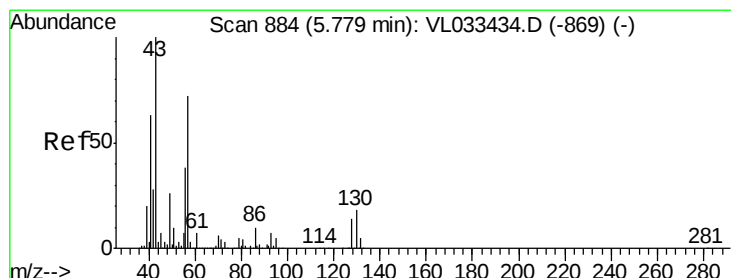
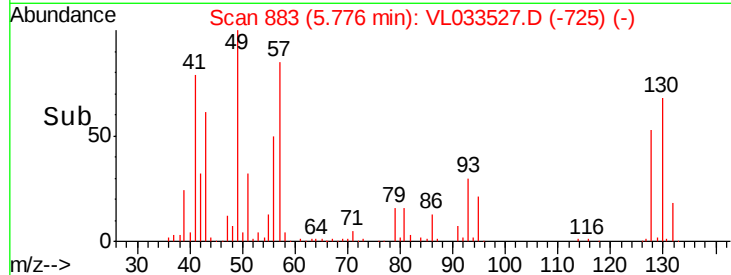
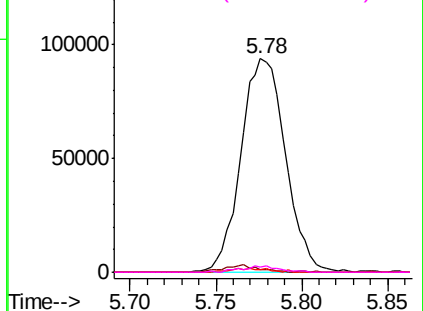
#25
Ethyl Acetate
Concen: 1.009 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.01 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Instrument :
MSVOA_V
ClientSampleId :
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 43 Resp: 168819
Ion Ratio Lower Upper
43 100
45 3.0 7.8 11.6#
61 1.5 7.3 10.9#
70 2.6 5.6 8.4#

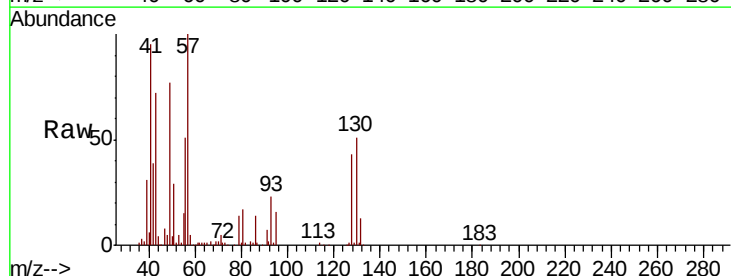


Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 45.10 (44.80 to 45.80): VL0
Ion 61.10 (60.80 to 61.80): VL0
Ion 70.10 (69.80 to 70.80): VL0

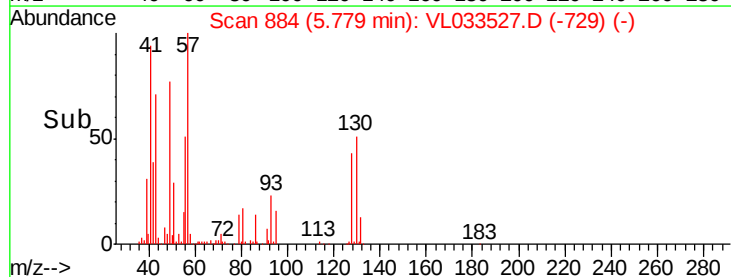
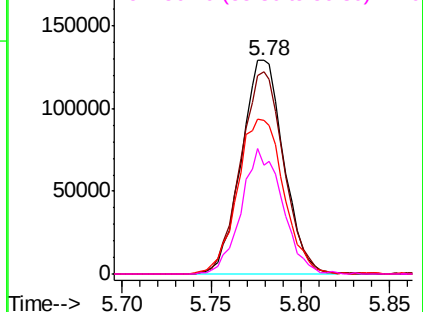


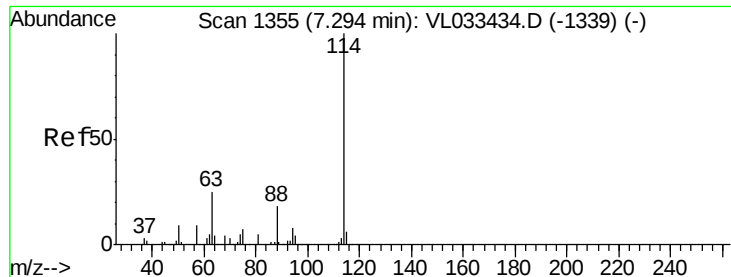
#26
Hexane
Concen: 2.879 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Tgt Ion: 57 Resp: 214062
Ion Ratio Lower Upper
57 100
41 97.0 70.7 106.1
43 79.3 182.6 274.0#
56 56.8 42.0 63.0



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

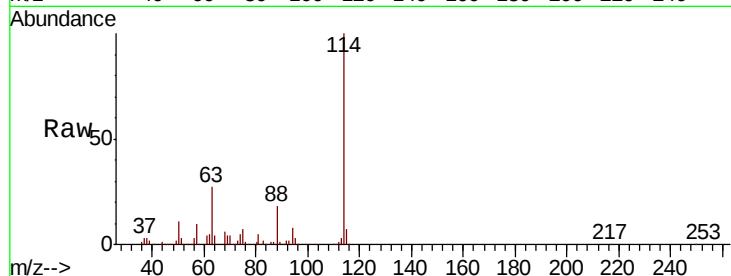




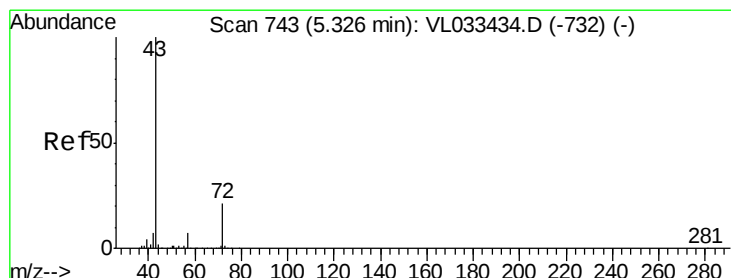
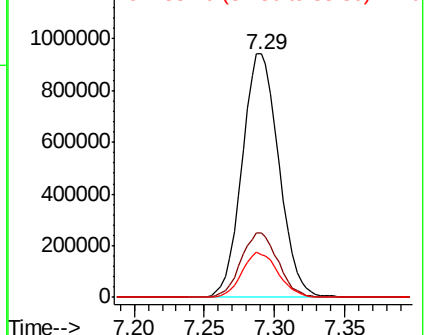
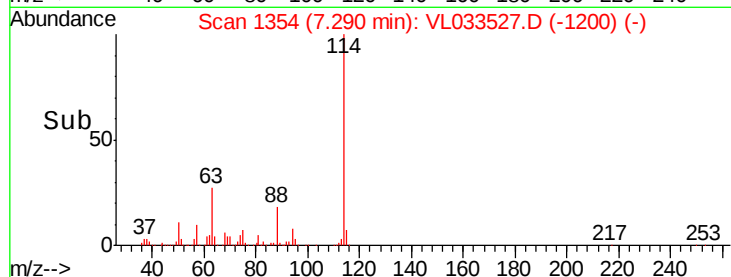
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.00 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Instrument :
 MSVOA_V
 ClientSampleId :
 IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion:114 Resp: 1719839
 Ion Ratio Lower Upper
 114 100
 63 27.0 21.5 32.3
 88 18.2 14.5 21.7

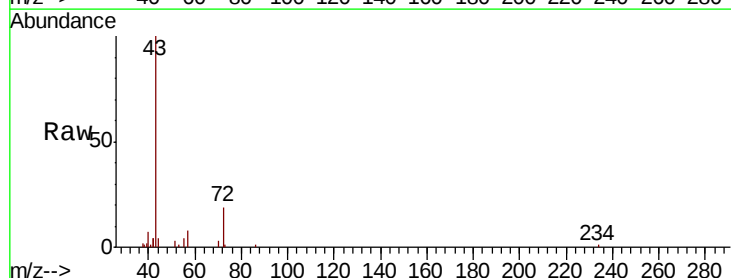


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

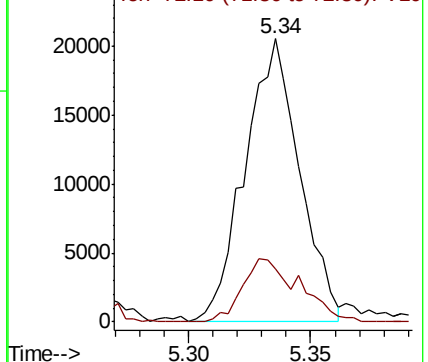
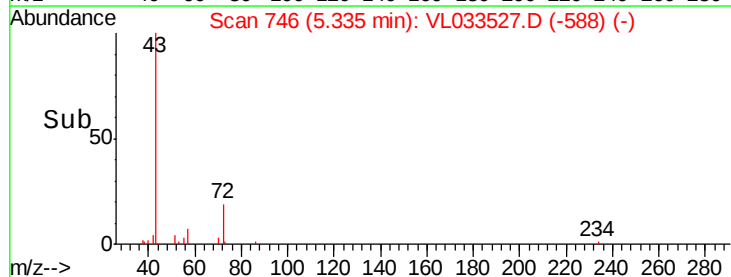


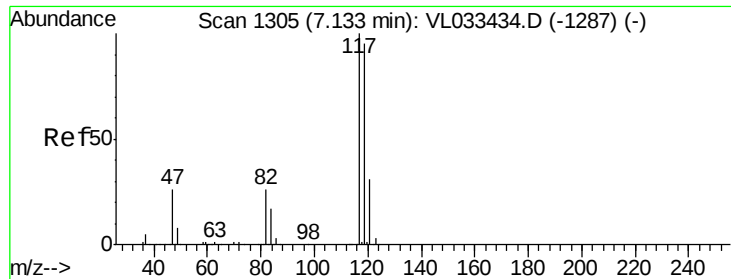
#34
 2-Butanone
 Concen: 0.309 ppbv
 RT: 5.34 min Scan# 746
 Delta R.T. 0.01 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Tgt Ion: 43 Resp: 31885
 Ion Ratio Lower Upper
 43 100
 72 23.3 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0

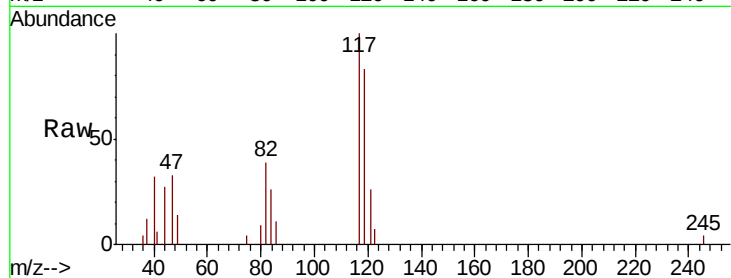




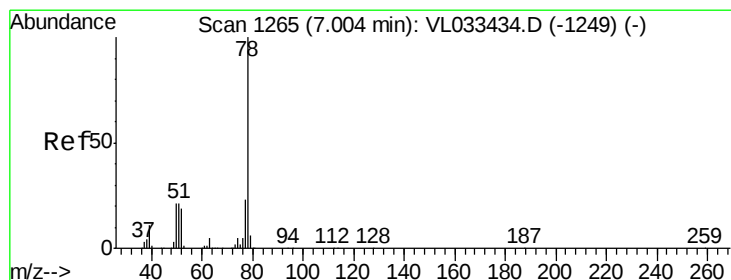
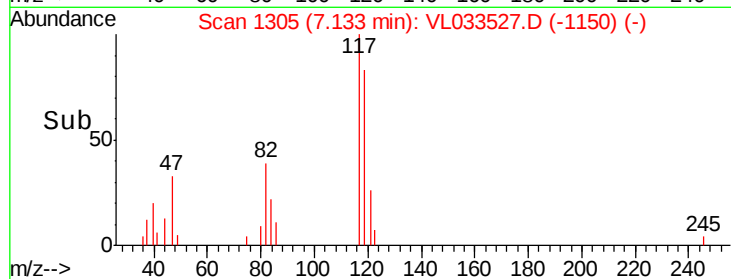
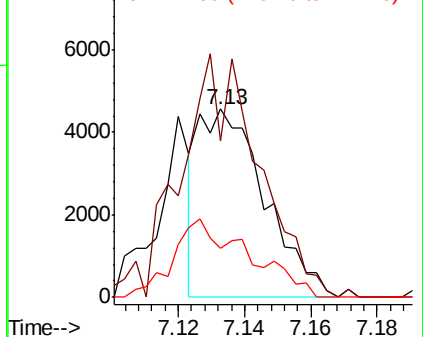
#35
Carbon Tetrachloride
Concen: 0.052 ppbv
RT: 7.13 min Scan# 1305
Delta R.T. -0.00 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Instrument :
MSVOA_V
ClientSampleId :
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion:117 Resp: 6343
Ion Ratio Lower Upper
117 100
119 82.8 75.8 113.8
121 26.3 24.7 37.1

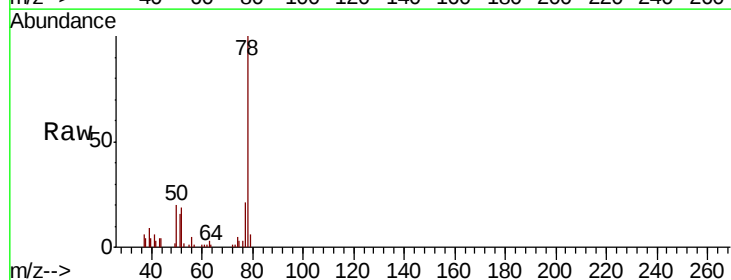


Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V

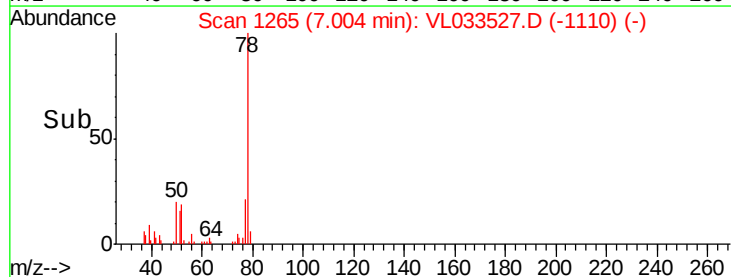
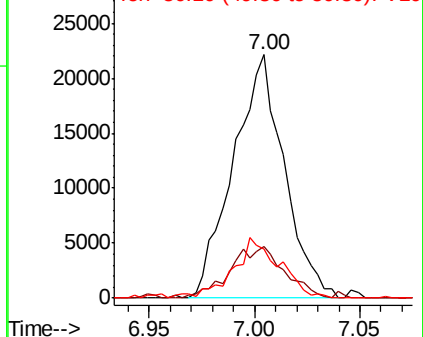


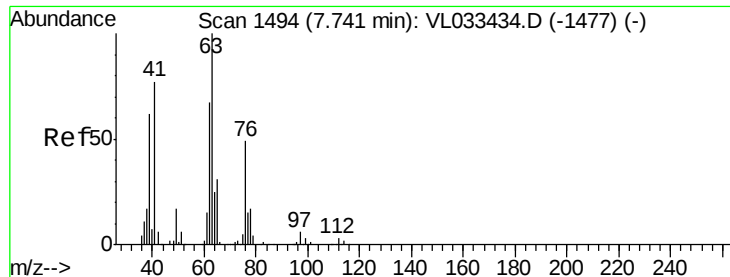
#36
Benzene
Concen: 0.258 ppbv
RT: 7.00 min Scan# 1265
Delta R.T. -0.00 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Tgt Ion: 78 Resp: 37172
Ion Ratio Lower Upper
78 100
77 20.1 18.1 27.1
50 20.3 16.7 25.1



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0

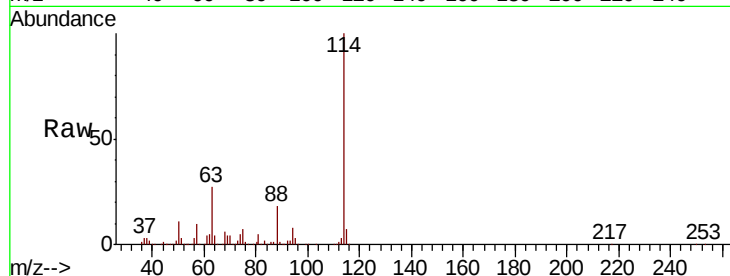




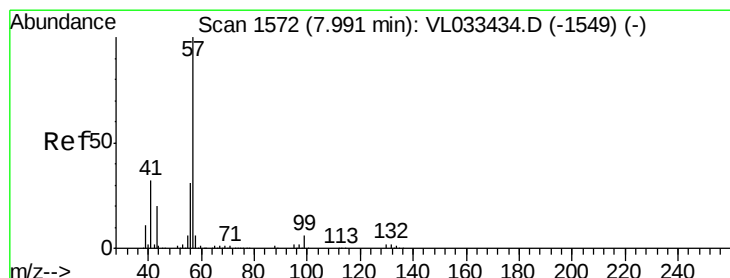
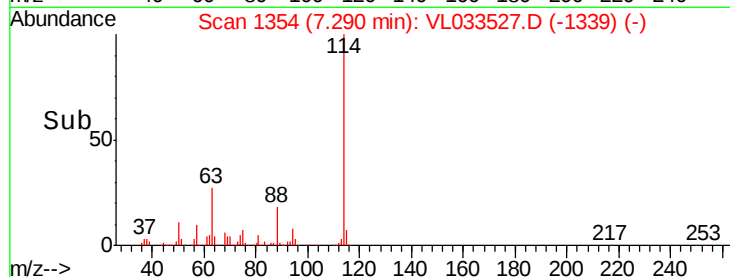
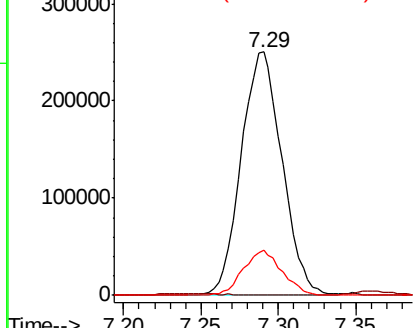
#39
 1,2-Dichloropropane
 Concen: 8.152 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.45 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Instrument :
 MSVOA_V
 ClientSampleId :
 IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 63 Resp: 460802
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.2 91.8#
 62 18.6 54.0 81.0#

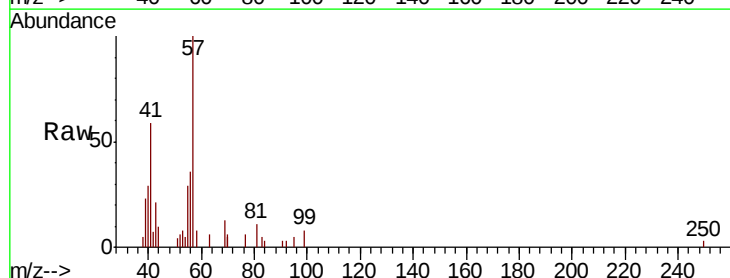


Abundance Ion 63.10 (62.80 to 63.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 62.10 (61.80 to 62.80): VL0

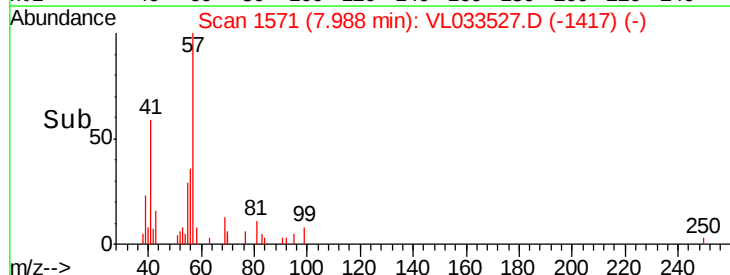
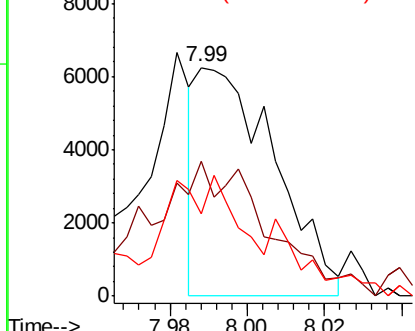


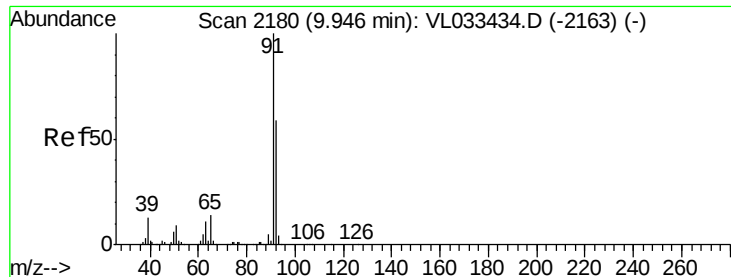
#44
 2,2,4-Trimethylpentane
 Concen: 0.035 ppbv
 RT: 7.99 min Scan# 1571
 Delta R.T. -0.00 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Tgt Ion: 57 Resp: 8702
 Ion Ratio Lower Upper
 57 100
 41 97.6 26.0 39.0#
 56 80.1 24.6 37.0#



Abundance Ion 57.10 (56.80 to 57.80): VL0
 Ion 41.10 (40.80 to 41.80): VL0
 Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 5.950 ppbv

RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033527.D

Acq: 30 Mar 2019 7:35

Instrument :

MSVOA_V

ClientSampleId :

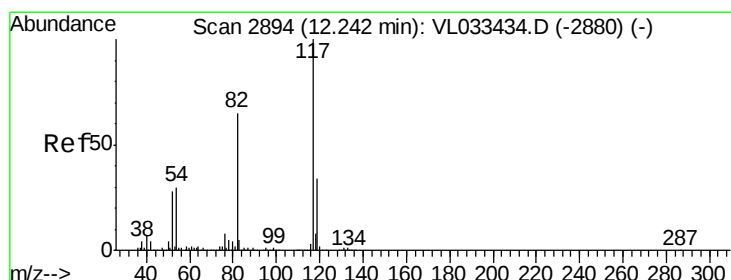
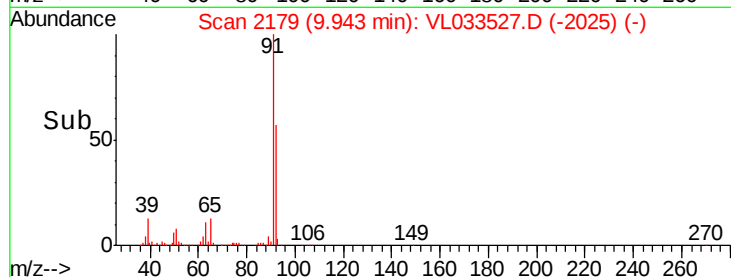
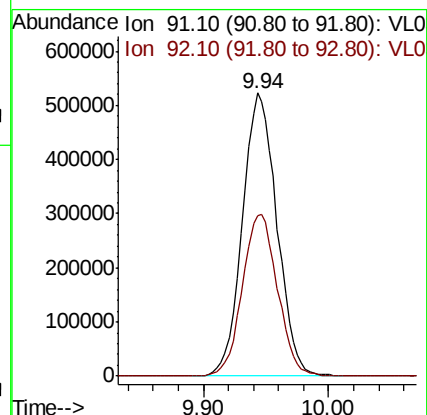
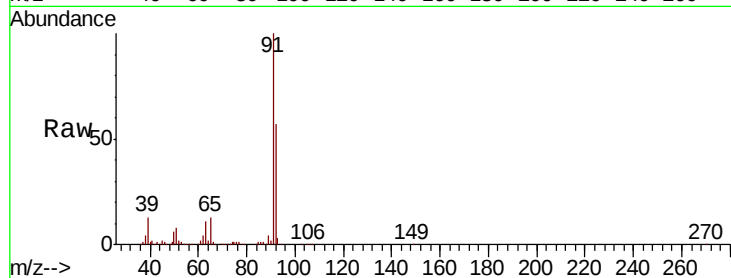
IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 91 Resp: 997759

Ion Ratio Lower Upper

91 100

92 58.5 47.4 71.0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.24 min Scan# 2893

Delta R.T. -0.00 min

Lab File: VL033527.D

Acq: 30 Mar 2019 7:35

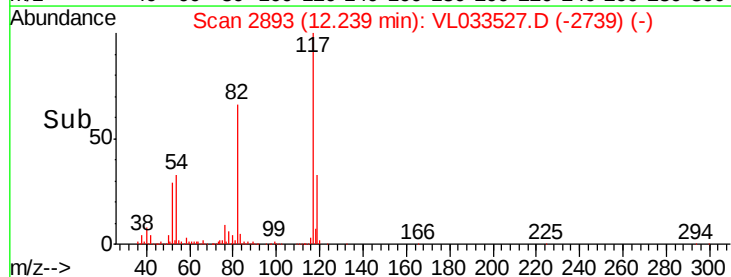
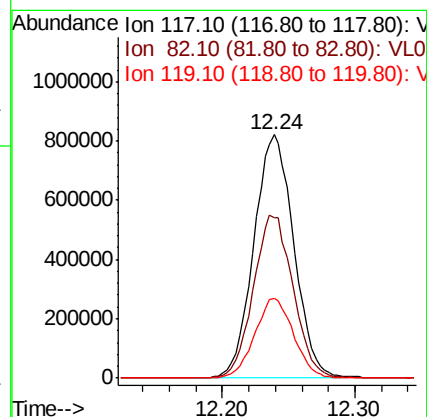
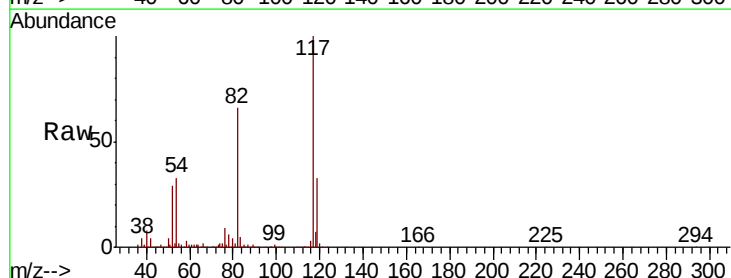
Tgt Ion: 117 Resp: 1721820

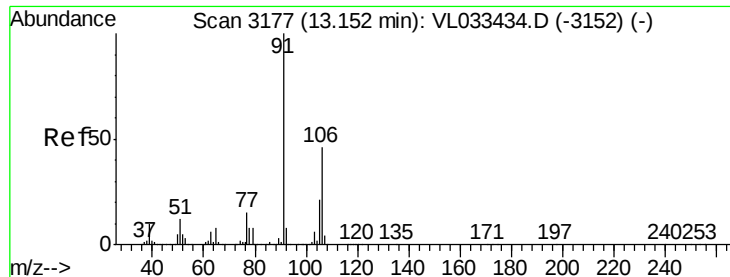
Ion Ratio Lower Upper

117 100

82 67.4 51.5 77.3

119 32.1 25.5 38.3

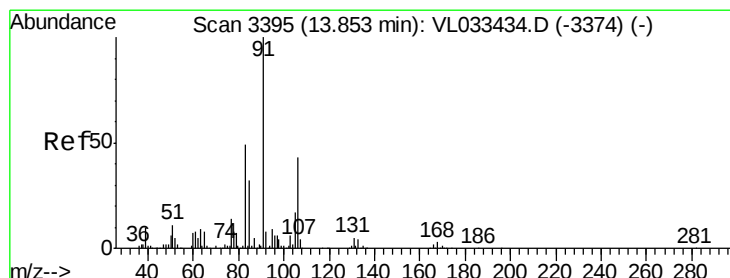
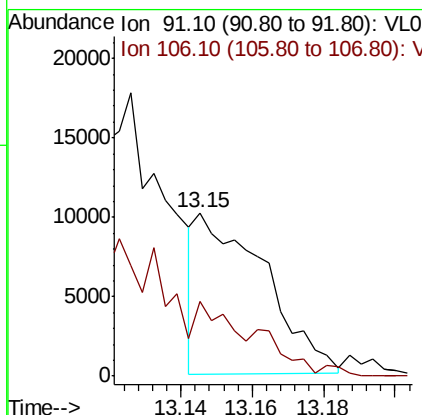
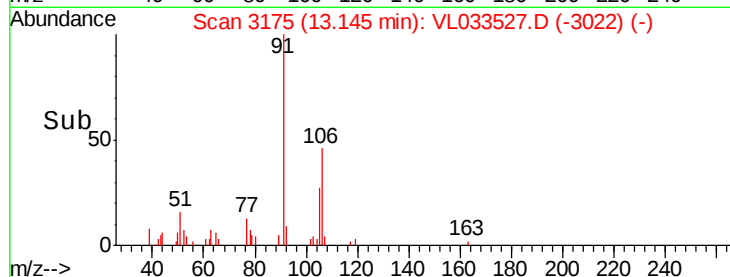
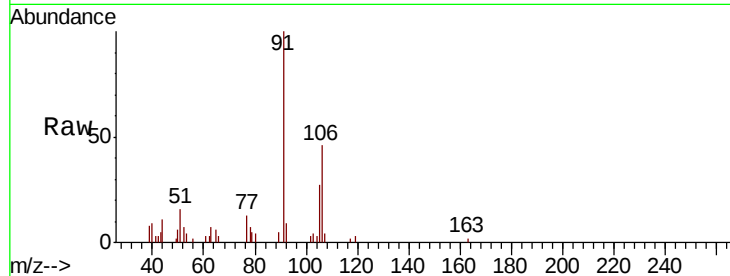




#59
m/p-Xylene
Concen: 0.066 ppbv
RT: 13.15 min Scan# 3175
Delta R.T. -0.01 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

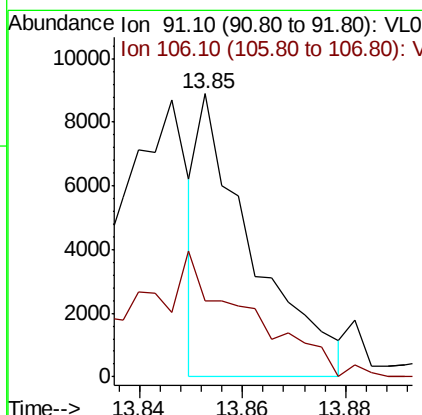
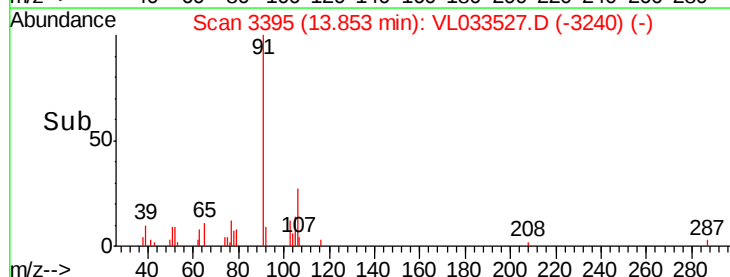
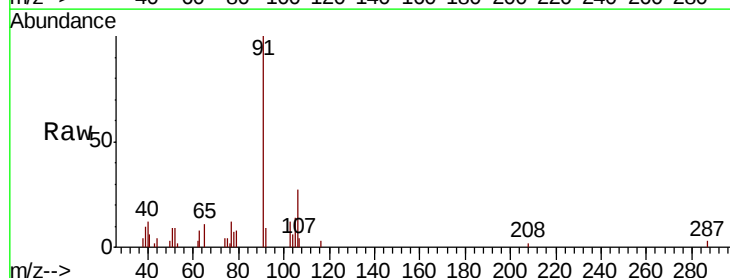
Instrument :
MSVOA_V
ClientSampleId :
IAS-4-STORAGE-RM-BY-THE-CAFE

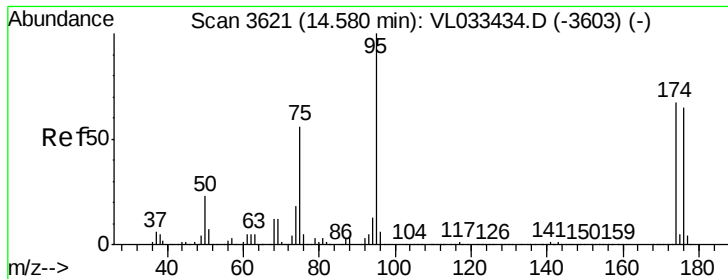
Tgt Ion: 91 Resp: 13509
Ion Ratio Lower Upper
91 100
106 0.0 0.0 0.0



#60
o-Xylene
Concen: 0.033 ppbv
RT: 13.85 min Scan# 3395
Delta R.T. -0.00 min
Lab File: VL033527.D
Acq: 30 Mar 2019 7:35

Tgt Ion: 91 Resp: 6501
Ion Ratio Lower Upper
91 100
106 105.0 21.4 64.3#

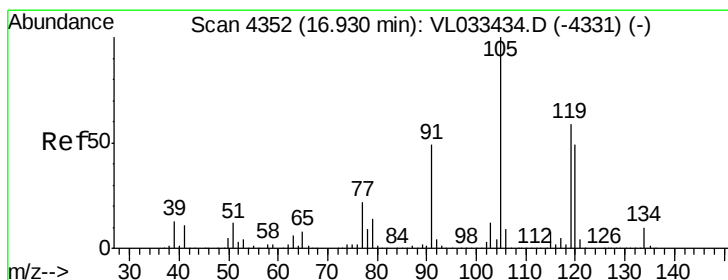
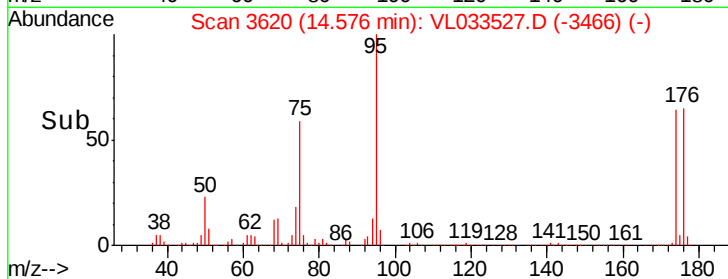
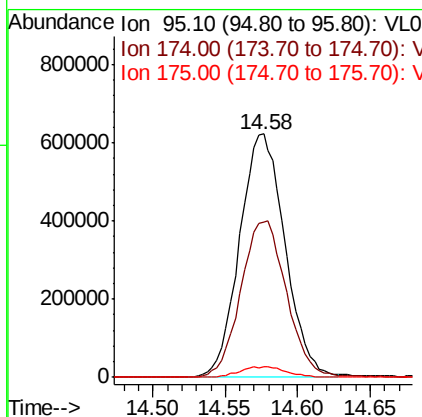
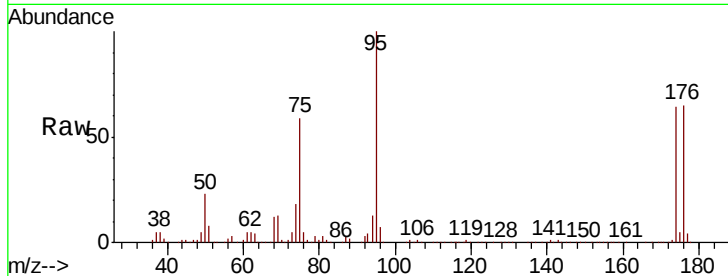




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.021 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. -0.00 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Instrument :
 MSVOA_V
 ClientSampleId :
 IAS-4-STORAGE-RM-BY-THE-CAFE

Tgt Ion: 95 Resp: 1352657
 Ion Ratio Lower Upper
 95 100
 174 65.4 52.9 79.3
 175 4.6 3.8 5.6



#74
 1,2,4-Trimethylbenzene
 Concen: 0.115 ppbv
 RT: 16.93 min Scan# 4351
 Delta R.T. -0.00 min
 Lab File: VL033527.D
 Acq: 30 Mar 2019 7:35

Tgt Ion: 105 Resp: 26252
 Ion Ratio Lower Upper
 105 100
 120 34.6 39.0 58.6#
 91 10.4 40.0 60.0#
 77 12.7 17.5 26.3#

