

Data File : VL032567.D
Acq On : 28 Sep 2018 2:44
Operator : SY/AP
Sample : J5094-03
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
PIA-1

Quant Time: Sep 28 04:29:33 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	1281071	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.32	114	2826474	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.27	117	2981187	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.61	95	2138102	9.51	ppbv	-0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.09	85	69001	0.582	ppbv	97
3) Chlorodifluoromethane	3.03	51	1077177	10.111	ppbv	98
4) Chloromethane	3.19	50	29671	0.478	ppbv	94
9) Propene	3.26	41	1383944	29.941	ppbv	96
10) Heptane	8.27	43	10938	0.065	ppbv #	28
11) Trichlorofluoromethane	4.03	101	39360	0.279	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.58	101	9662	0.084	ppbv	88
13) Ethanol	3.68	45	3866416	278.284	ppbv	97
15) Acetone	3.92	43	3553444	31.600	ppbv	99
16) 1,3-Butadiene	3.42	39	251954	5.525	ppbv #	2
19) Isopropyl Alcohol	4.06	45	115578	1.476	ppbv #	1
20) Methylene Chloride	4.44	84	111597	2.049	ppbv	97
23) Vinyl Acetate	5.17	43	89553	0.451	ppbv #	84
25) Ethyl Acetate	5.80	43	541026	1.983	ppbv #	94
26) Hexane	5.81	57	384857	3.123	ppbv #	70
29) Chloroform	5.88	83	28014	0.148	ppbv	86
31) cis-1,2-Dichloroethene	5.79	61	38174	0.325	ppbv #	32
34) 2-Butanone	5.36	43	54075	0.321	ppbv	97
35) Carbon Tetrachloride	7.16	117	8378	0.043	ppbv	85
36) Benzene	7.04	78	54502	0.239	ppbv	98
39) 1,2-Dichloropropane	7.32	63	769320	7.474	ppbv #	25
41) Tetrahydrofuran	6.15	42	4986	0.055	ppbv #	46
44) 2,2,4-Trimethylpentane	8.02	57	29350	0.066	ppbv #	26
50) 4-Methyl-2-Pentanone	8.92	43	8370	0.032	ppbv #	39
52) Tetrachloroethene	11.40	164	4615	0.058	ppbv #	75
53) Toluene	9.98	91	906744	3.257	ppbv	99
69) p-Isopropyltoluene	17.84	119	24620	0.056	ppbv #	47
70) n-Butylbenzene	18.90	91	42482	0.089	ppbv	88
72) 4-Ethyltoluene	16.03	105	16856	0.050	ppbv #	70
74) 1,2,4-Trimethylbenzene	16.96	105	46502	0.131	ppbv #	62

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

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PIA-1

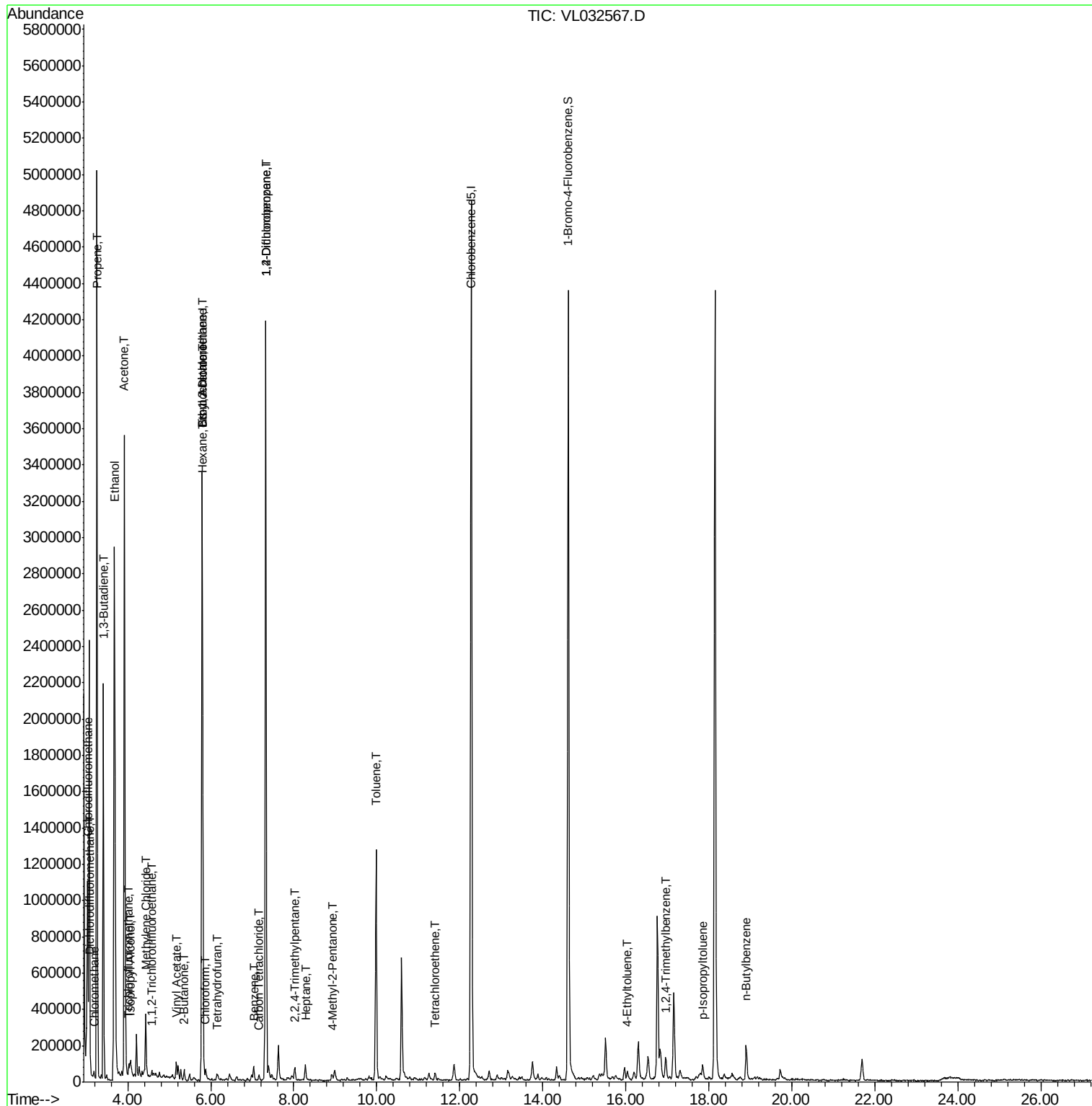
Quant Time: Sep 28 04:29:33 2018

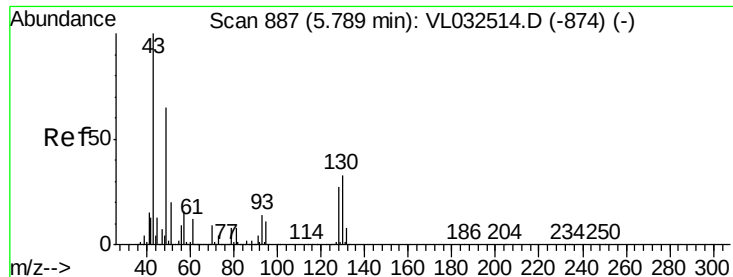
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL092418AIR.M

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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.79 min Scan# 887

Delta R.T. -0.02 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

PIA-1

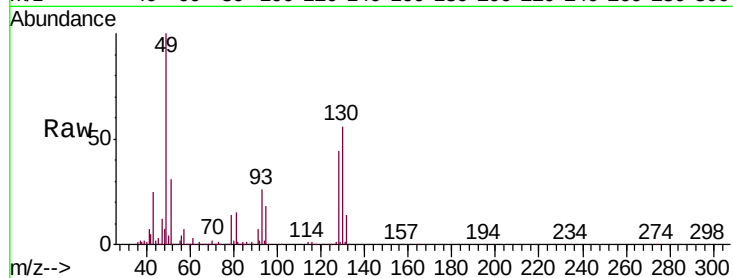
Tgt Ion: 49 Resp: 1281071

Ion Ratio Lower Upper

49 100

128 44.1 20.7 62.1

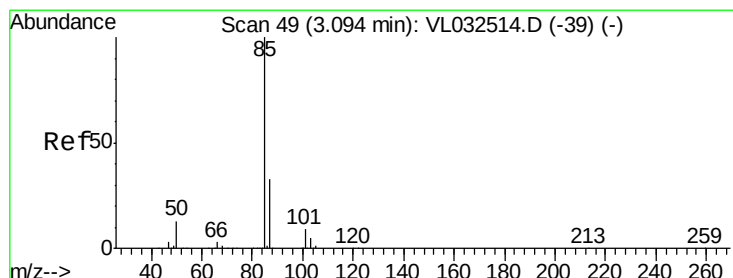
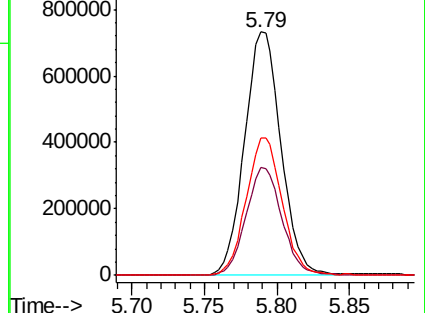
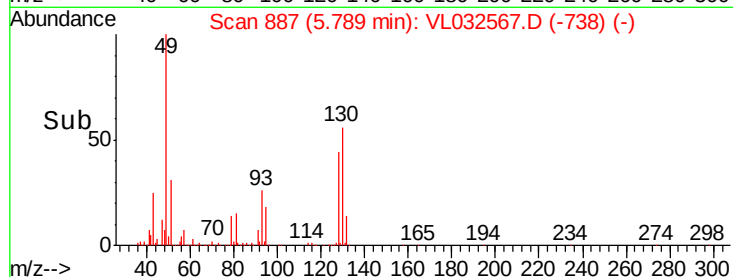
130 56.3 26.6 79.7



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: 0.582 ppbv

RT: 3.09 min Scan# 49

Delta R.T. -0.01 min

Lab File: VL032567.D

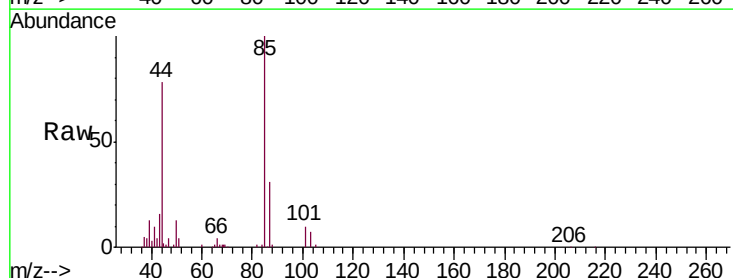
Acq: 28 Sep 2018 2:44

Tgt Ion: 85 Resp: 69001

Ion Ratio Lower Upper

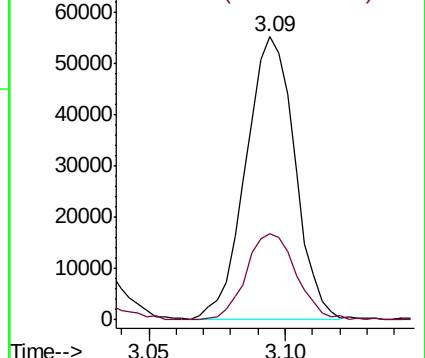
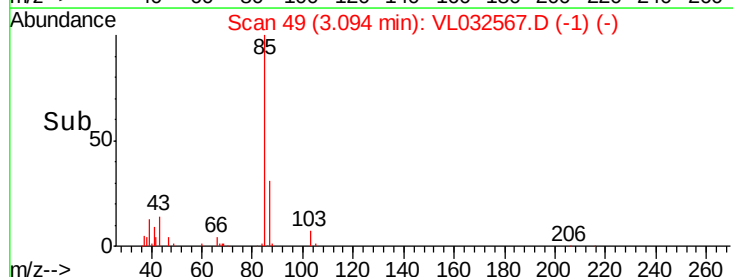
85 100

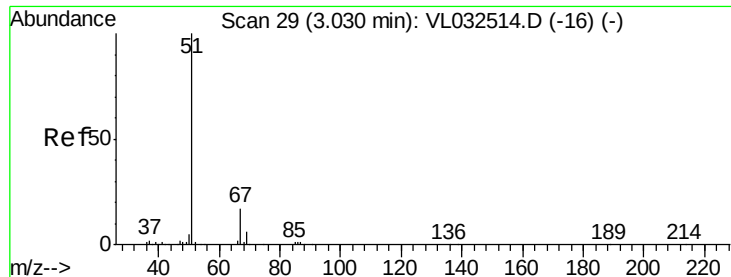
87 31.1 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 10.111 ppbv

RT: 3.03 min Scan# 30

Delta R.T. -0.01 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampled :

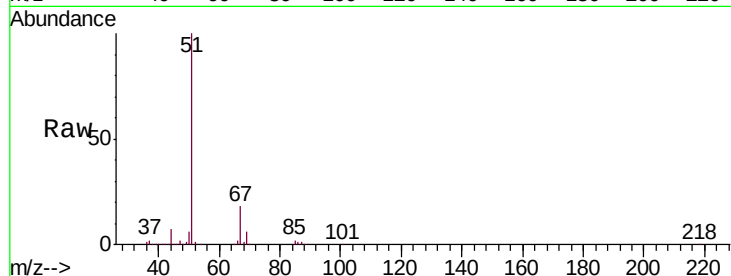
PIA-1

Tgt Ion: 51 Resp: 1077177

Ion Ratio Lower Upper

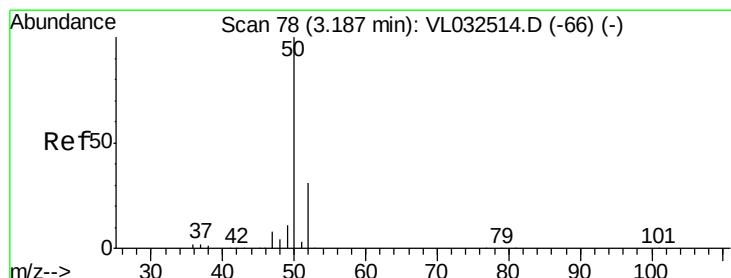
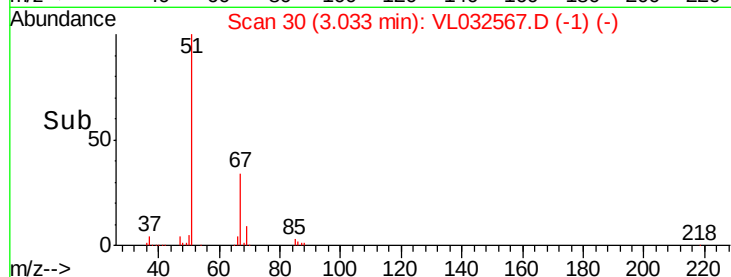
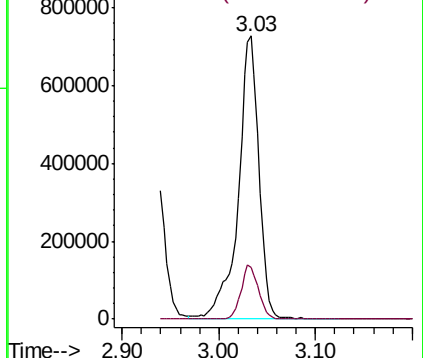
51 100

67 16.3 13.8 20.8



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.478 ppbv

RT: 3.19 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL032567.D

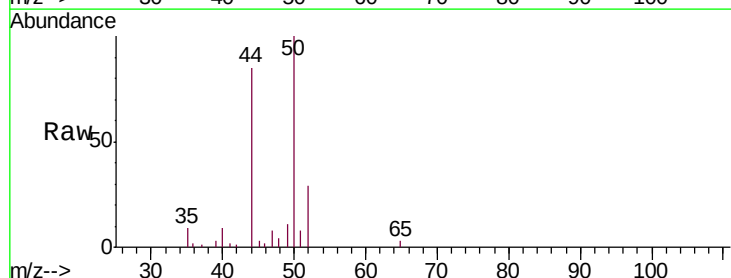
Acq: 28 Sep 2018 2:44

Tgt Ion: 50 Resp: 29671

Ion Ratio Lower Upper

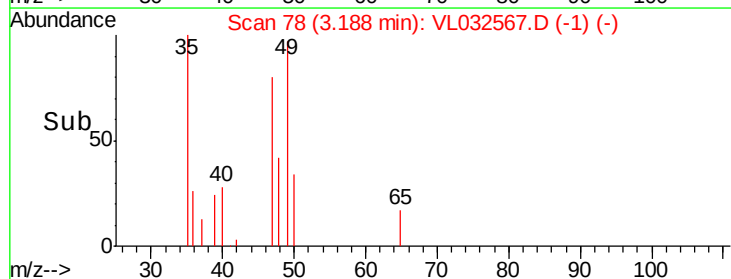
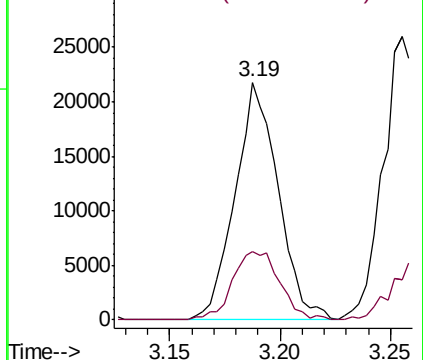
50 100

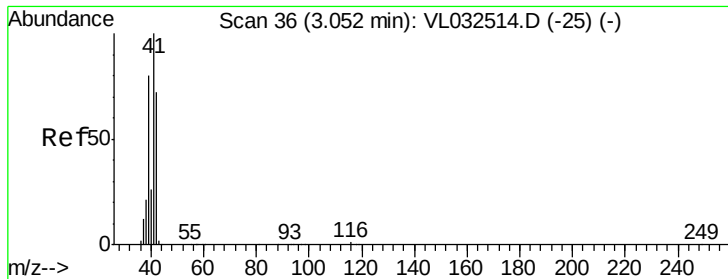
52 28.9 25.6 38.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 29.941 ppbv

RT: 3.26 min Scan# 99

Delta R.T. 0.19 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

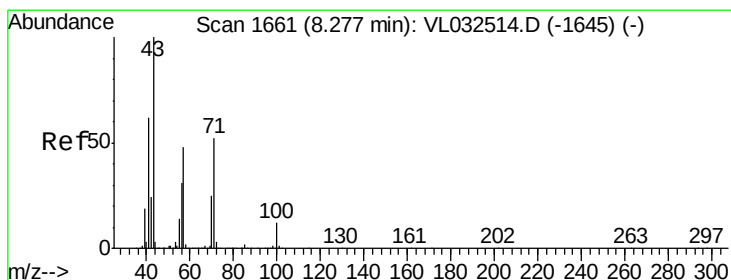
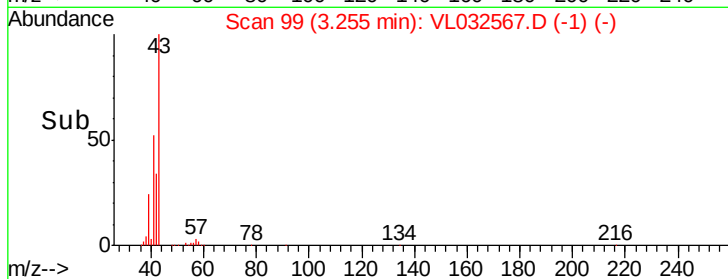
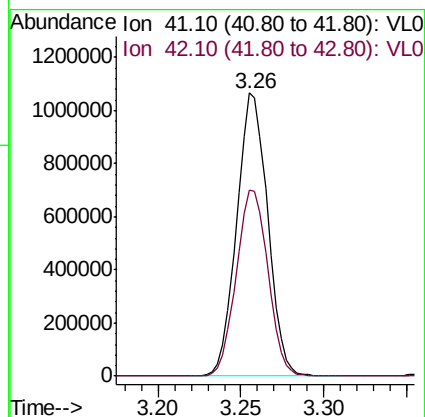
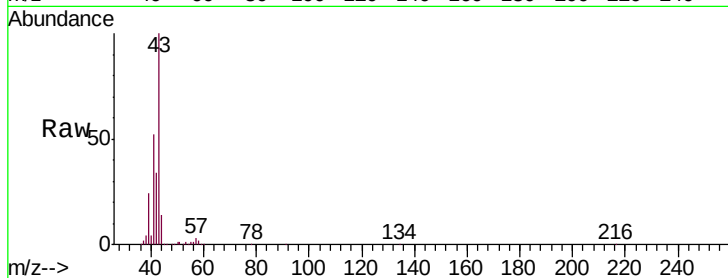
PIA-1

Tgt Ion: 41 Resp: 1383944

Ion Ratio Lower Upper

41 100

42 67.8 56.6 84.8



#10

Heptane

Concen: 0.065 ppbv

RT: 8.27 min Scan# 1660

Delta R.T. -0.02 min

Lab File: VL032567.D

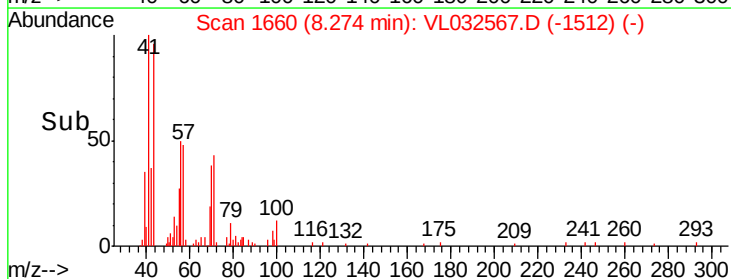
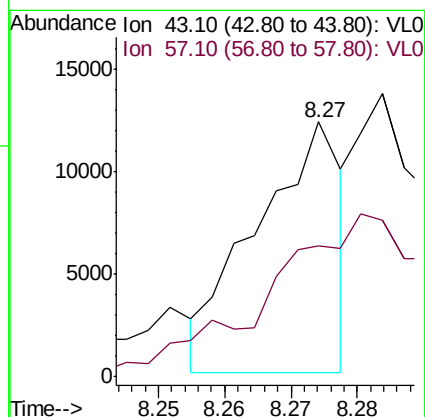
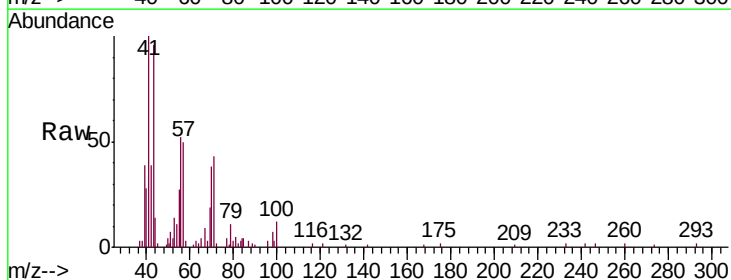
Acq: 28 Sep 2018 2:44

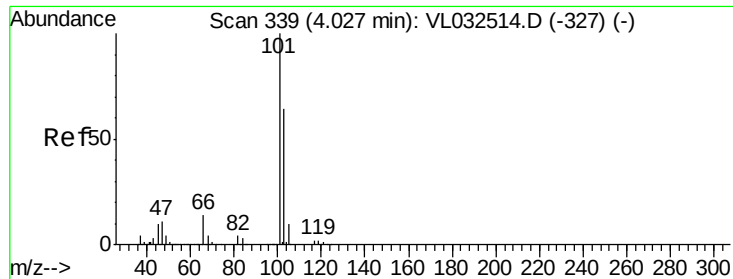
Tgt Ion: 43 Resp: 10938

Ion Ratio Lower Upper

43 100

57 0.0 39.6 59.4#

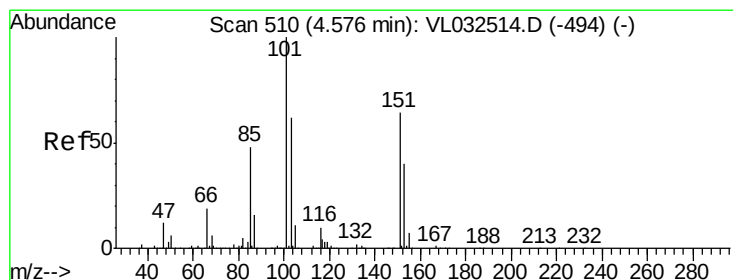
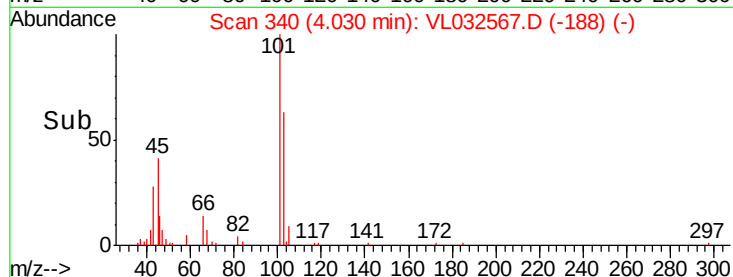
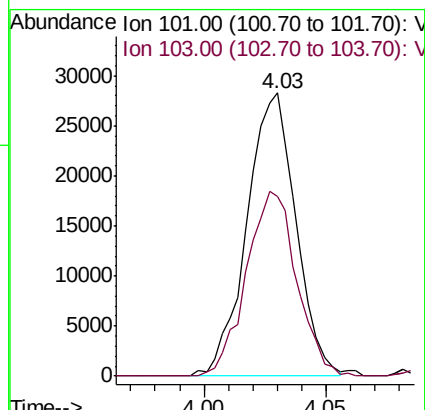
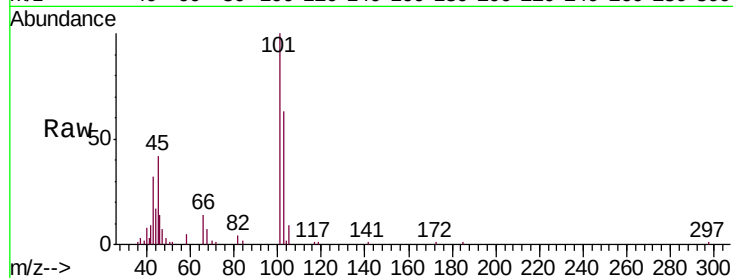




#11
 Trichlorofluoromethane
 Concen: 0.279 ppbv
 RT: 4.03 min Scan# 340
 Delta R.T. -0.01 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

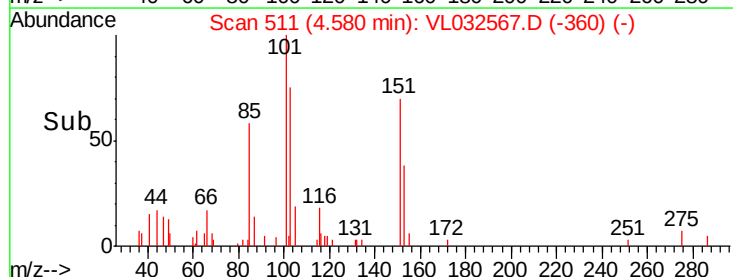
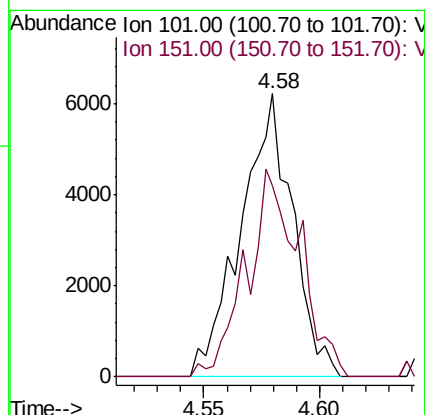
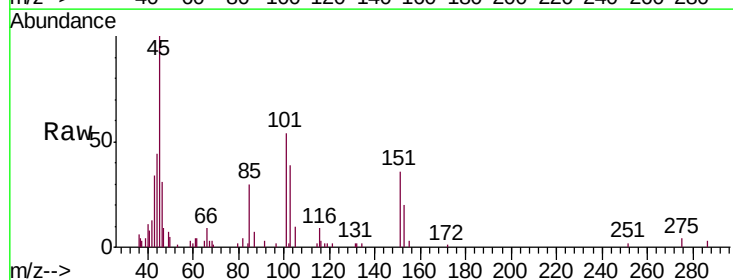
Instrument :
 MSVOA_L
 ClientSampleId :
 PIA-1

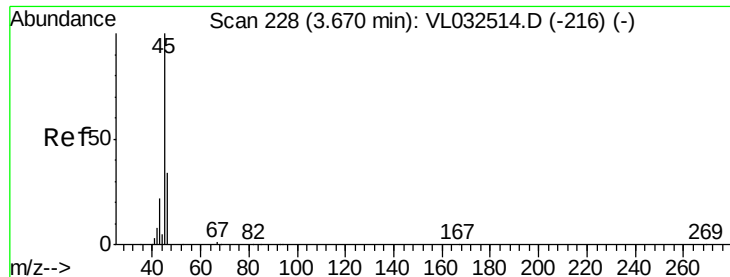
Tgt Ion:101 Resp: 39360
 Ion Ratio Lower Upper
 101 100
 103 63.4 52.8 79.2



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.084 ppbv
 RT: 4.58 min Scan# 511
 Delta R.T. -0.01 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

Tgt Ion:101 Resp: 9662
 Ion Ratio Lower Upper
 101 100
 151 75.3 52.6 78.8





#13

Ethanol

Concen: 278.284 ppbv

RT: 3.68 min Scan# 230

Delta R.T. -0.01 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

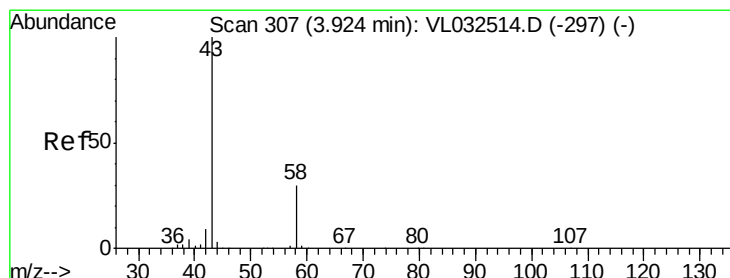
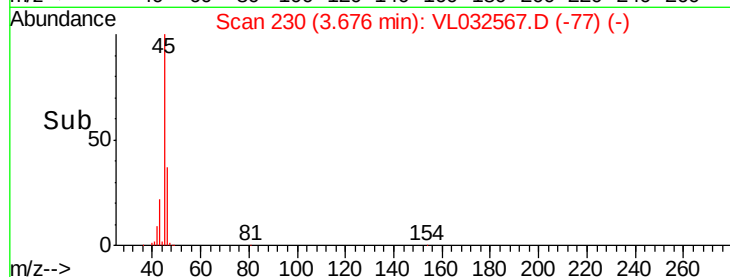
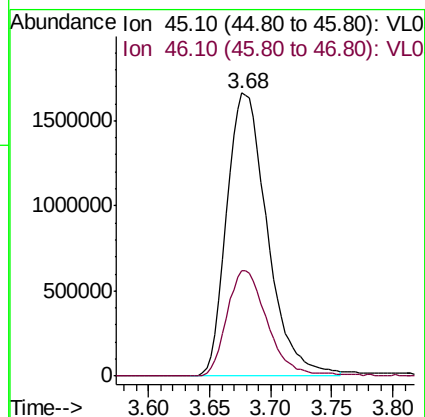
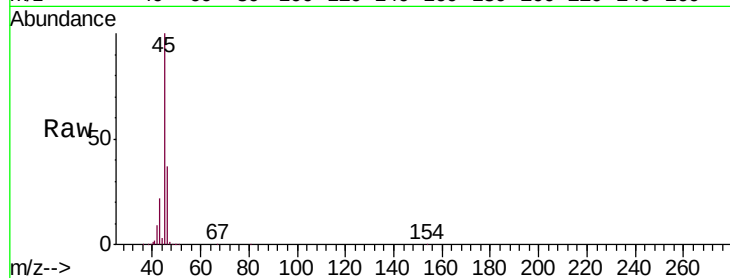
PIA-1

Tgt Ion: 45 Resp: 3866416

Ion Ratio Lower Upper

45 100

46 37.5 14.2 56.8



#15

Acetone

Concen: 31.600 ppbv

RT: 3.92 min Scan# 305

Delta R.T. -0.02 min

Lab File: VL032567.D

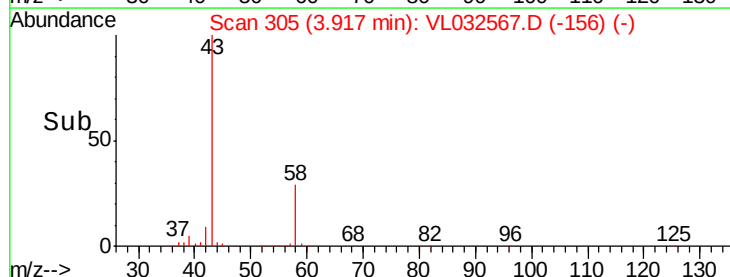
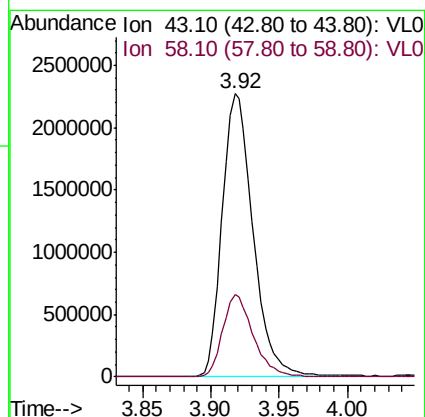
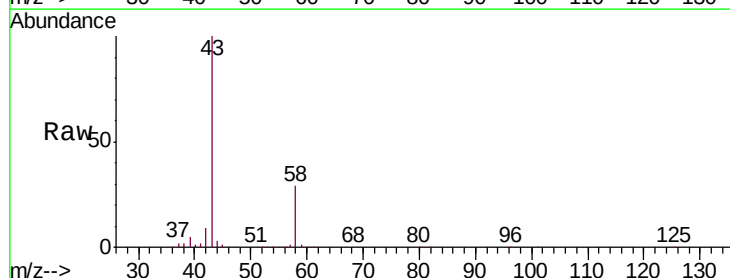
Acq: 28 Sep 2018 2:44

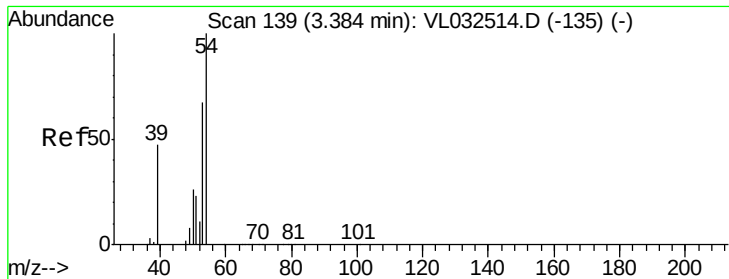
Tgt Ion: 43 Resp: 3553444

Ion Ratio Lower Upper

43 100

58 29.0 22.6 33.8





#16

1,3-Butadiene

Concen: 5.525 ppbv

RT: 3.42 min Scan# 149

Delta R.T. 0.02 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

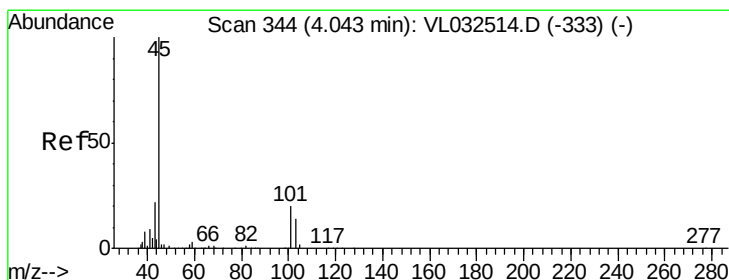
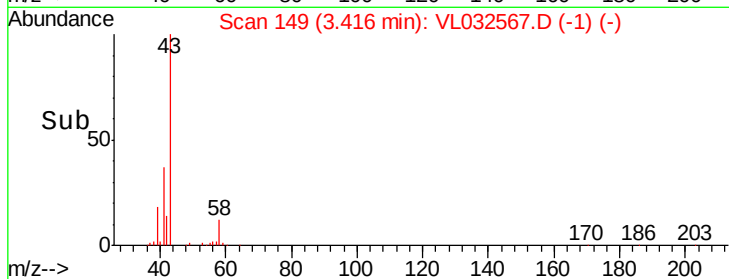
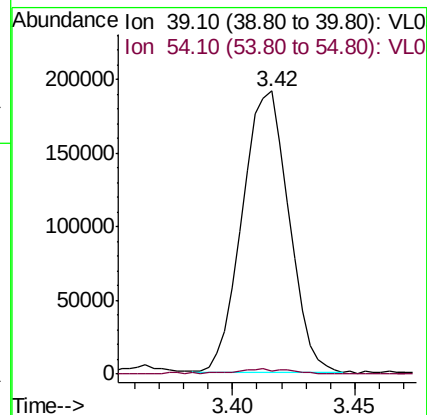
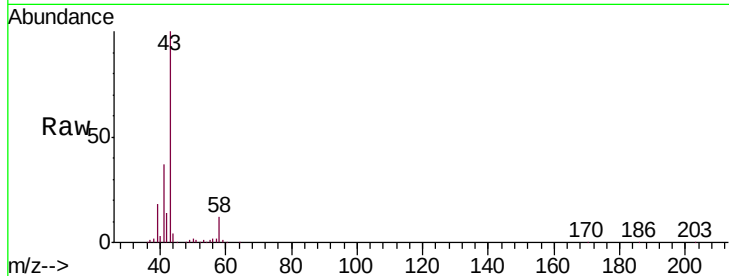
PIA-1

Tgt Ion: 39 Resp: 251954

Ion Ratio Lower Upper

39 100

54 2.8 80.8 121.2#



#19

Isopropyl Alcohol

Concen: 1.476 ppbv

RT: 4.06 min Scan# 350

Delta R.T. 0.00 min

Lab File: VL032567.D

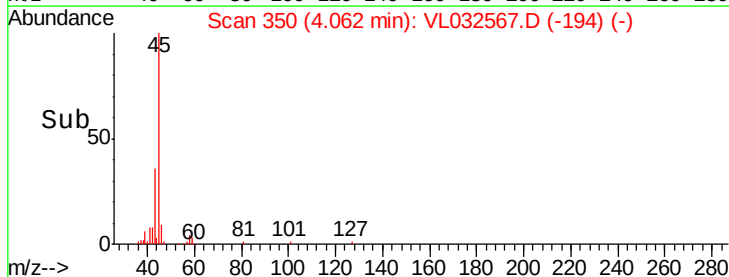
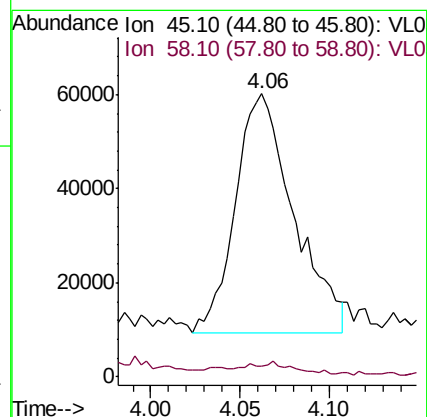
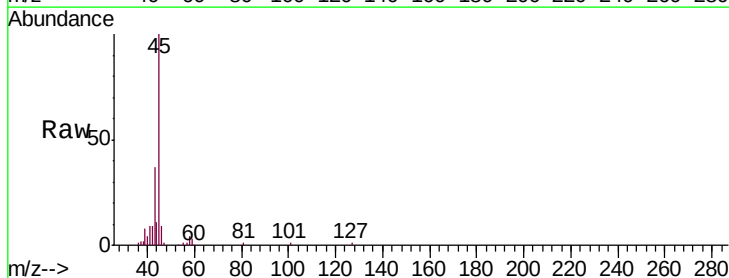
Acq: 28 Sep 2018 2:44

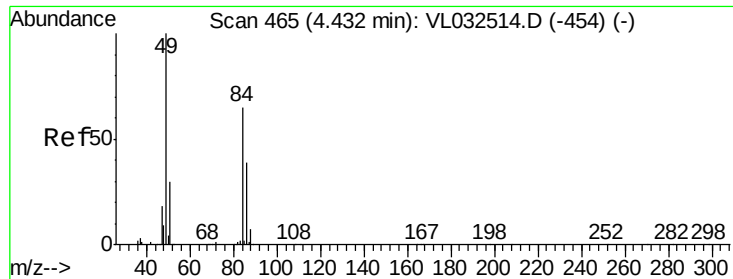
Tgt Ion: 45 Resp: 115578

Ion Ratio Lower Upper

45 100

58 890.7 2.0 3.0#

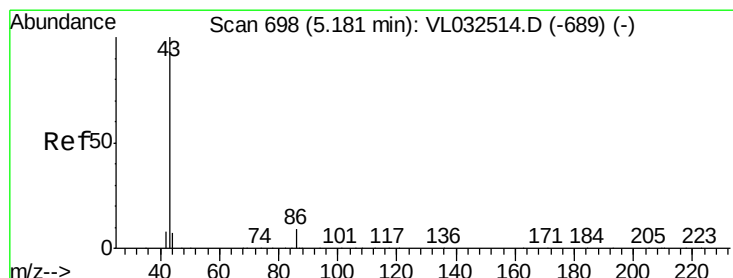
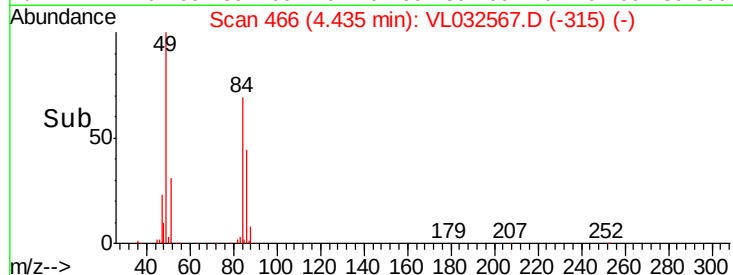
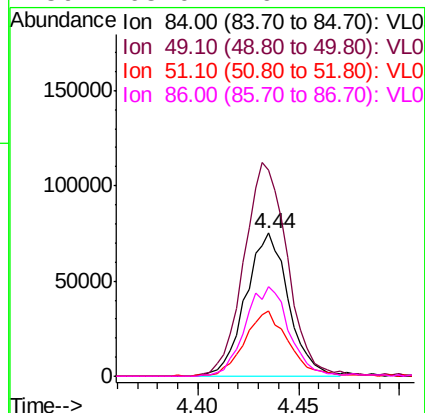
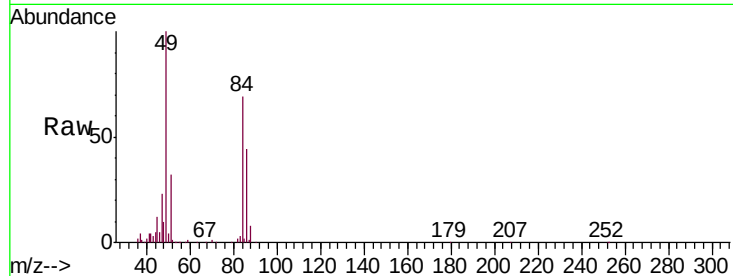




#20
Methylene Chloride
Concen: 2.049 ppbv
RT: 4.44 min Scan# 466
Delta R.T. -0.01 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

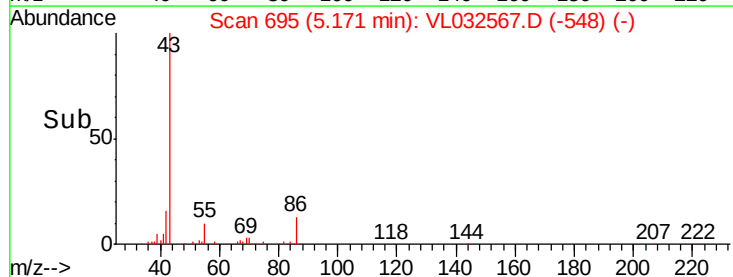
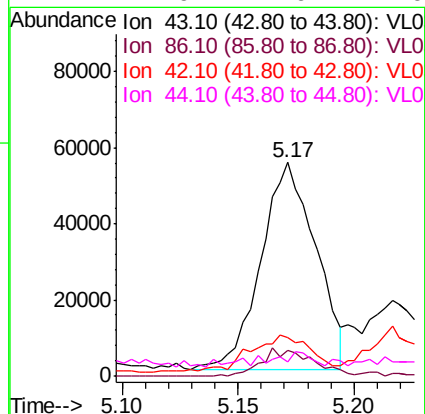
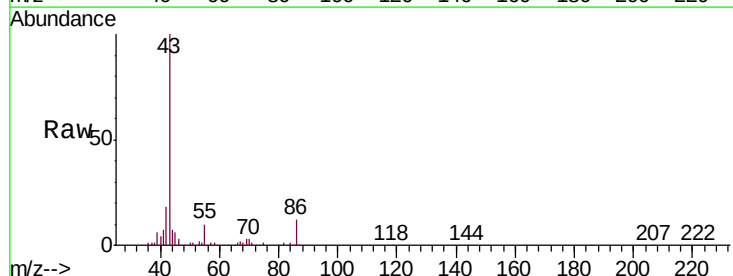
Instrument :
MSVOA_L
ClientSampleId :
PIA-1

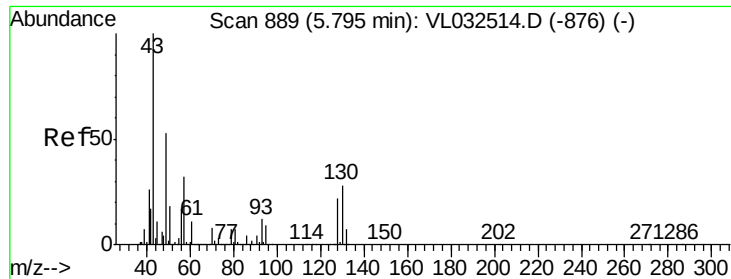
Tgt Ion:	84	Resp:	111597
Ion	Ratio	Lower	Upper
84	100		
49	144.2	119.1	178.7
51	45.7	35.2	52.8
86	63.0	49.4	74.2



#23
Vinyl Acetate
Concen: 0.451 ppbv
RT: 5.17 min Scan# 695
Delta R.T. -0.03 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Tgt Ion:	43	Resp:	89553
Ion	Ratio	Lower	Upper
43	100		
86	12.6	5.9	8.9#
42	15.4	6.9	10.3#
44	1.9	4.6	7.0#

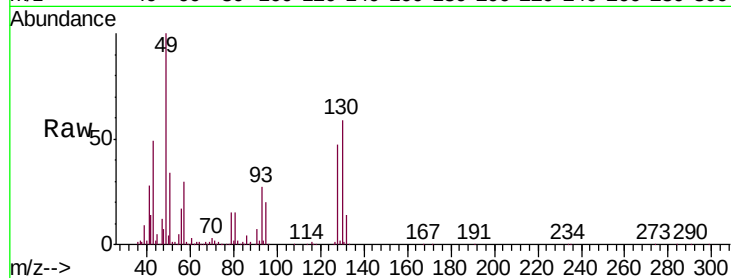




#25
Ethyl Acetate
Concen: 1.983 ppbv
RT: 5.80 min Scan# 890
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Instrument :
MSVOA_L
ClientSampleId :
PIA-1

Tgt Ion:	43	Resp:	541026
Ion	Ratio	Lower	Upper
43	100		
45	8.0	8.0	12.0#
61	7.2	7.6	11.4#
70	5.7	5.8	8.8#



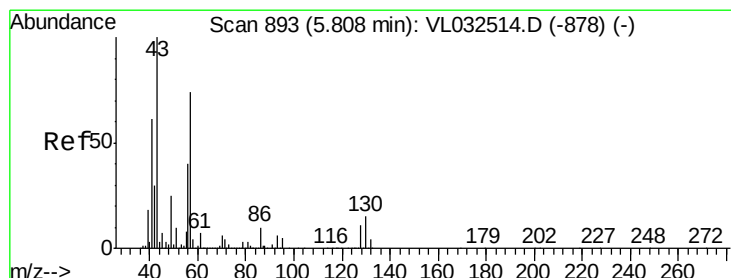
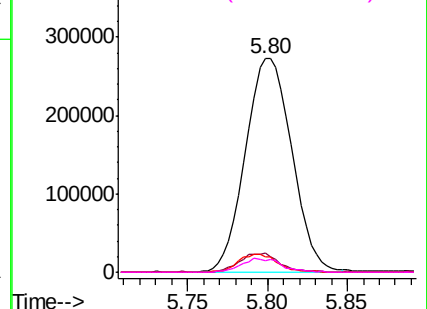
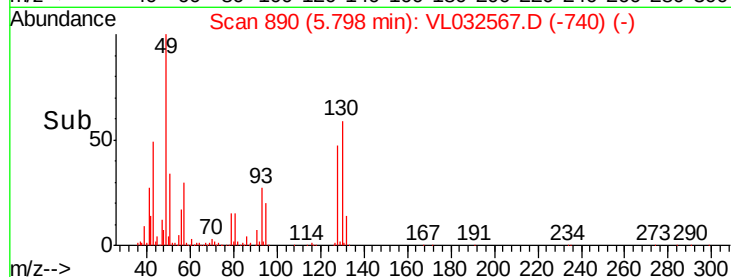
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

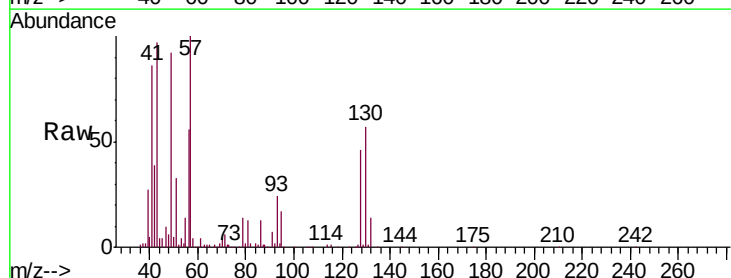
Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26
Hexane
Concen: 3.123 ppbv
RT: 5.81 min Scan# 893
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Tgt Ion:	57	Resp:	384857
Ion	Ratio	Lower	Upper
57	100		
41	90.3	69.0	103.4
43	141.3	172.1	258.1#
56	56.3	42.2	63.2



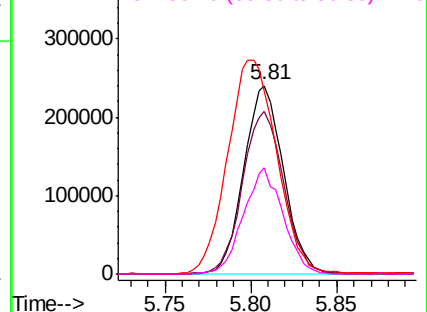
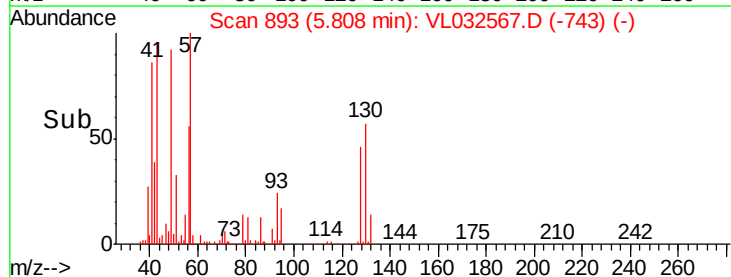
Abundance

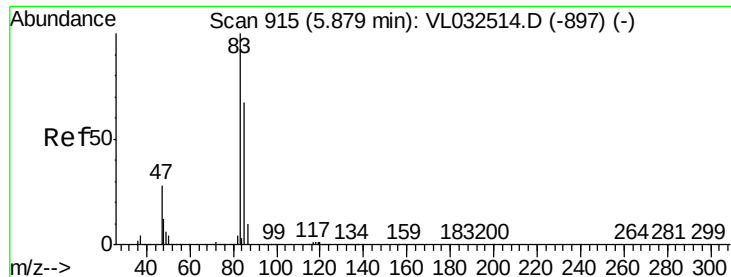
Ion 57.10 (56.80 to 57.80): VL0

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

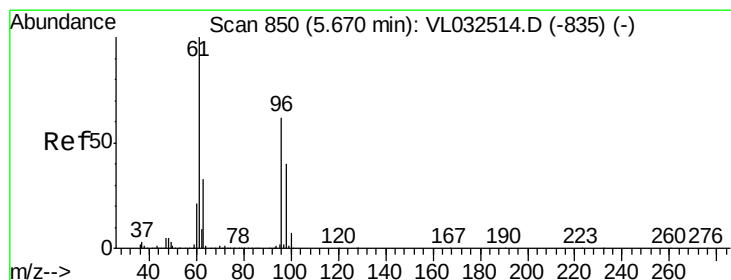
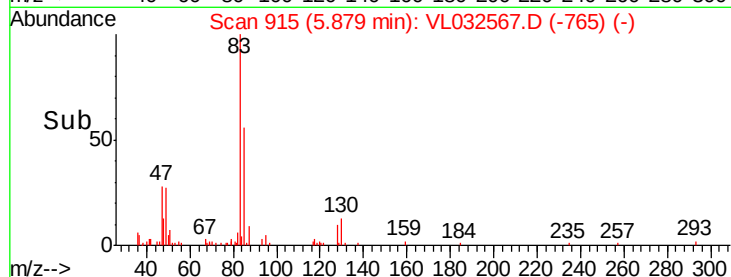
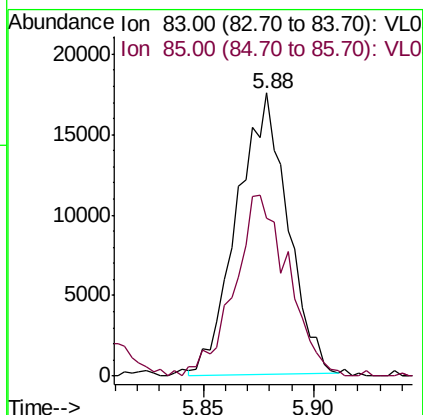
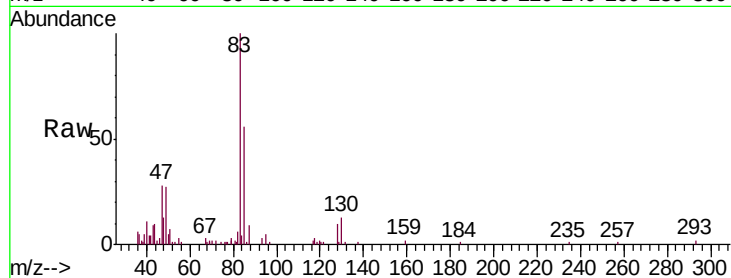




#29
Chloroform
Concen: 0.148 ppbv
RT: 5.88 min Scan# 915
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

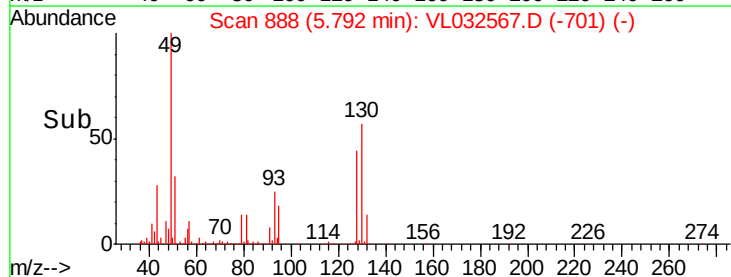
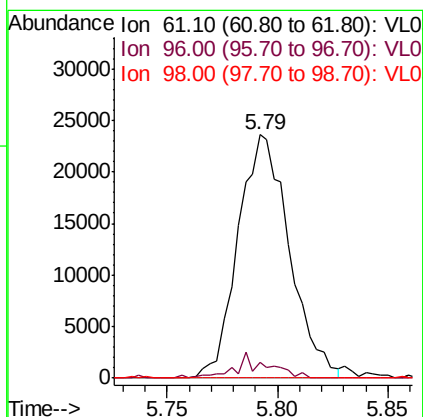
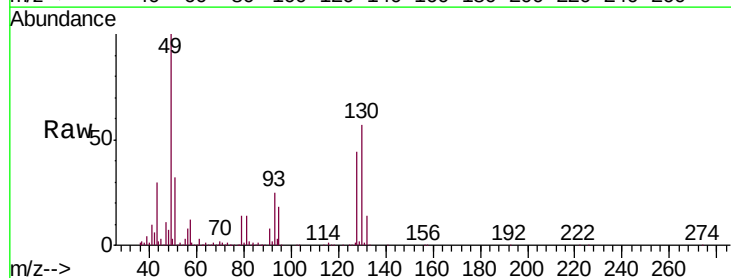
Instrument :
MSVOA_L
ClientSampleId :
PIA-1

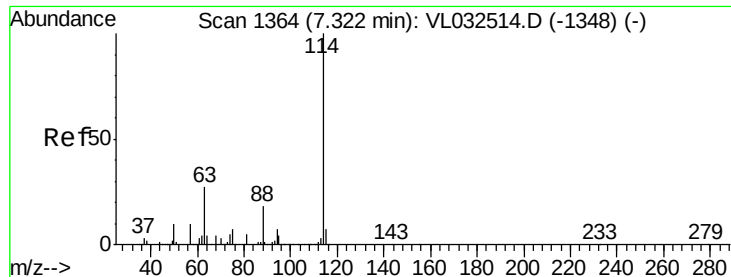
Tgt Ion: 83 Resp: 28014
Ion Ratio Lower Upper
83 100
85 54.4 52.5 78.7



#31
cis-1,2-Dichloroethene
Concen: 0.325 ppbv
RT: 5.79 min Scan# 888
Delta R.T. 0.10 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Tgt Ion: 61 Resp: 38174
Ion Ratio Lower Upper
61 100
96 6.7 49.2 73.8#
98 0.0 30.7 46.1#

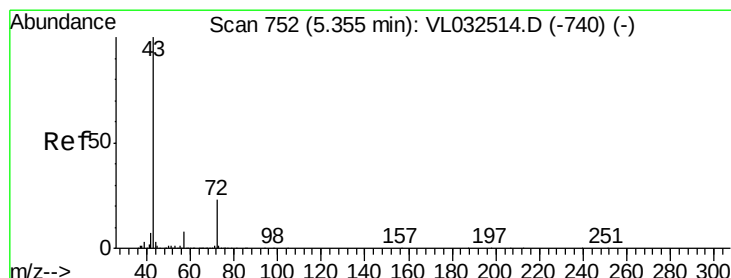
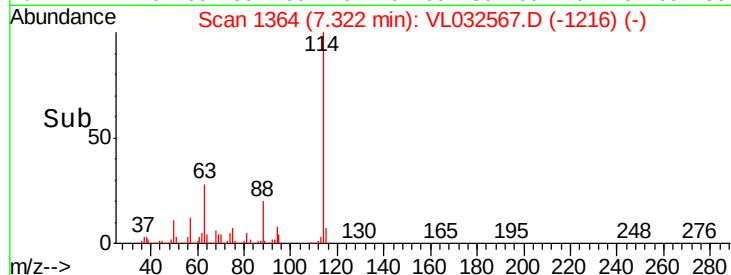
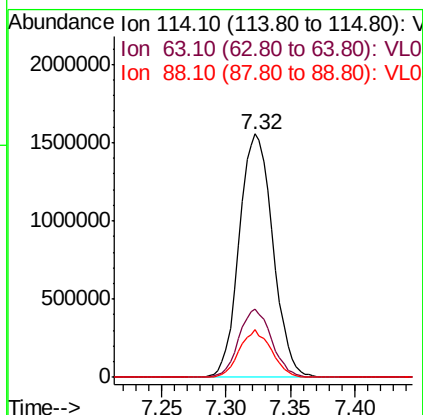
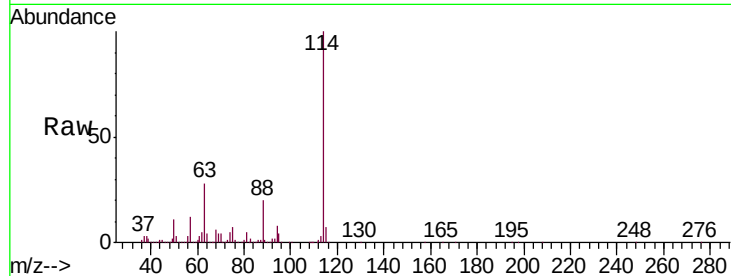




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.32 min Scan# 1364
 Delta R.T. -0.02 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

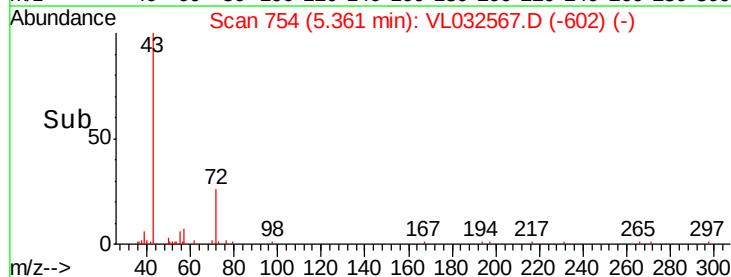
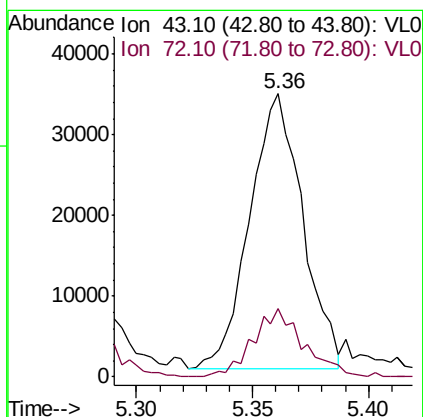
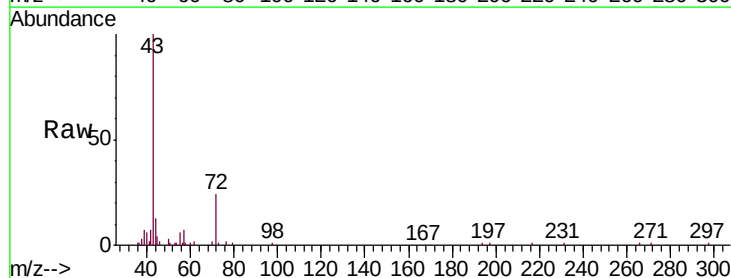
Instrument :
 MSVOA_L
 ClientSampleId :
 PIA-1

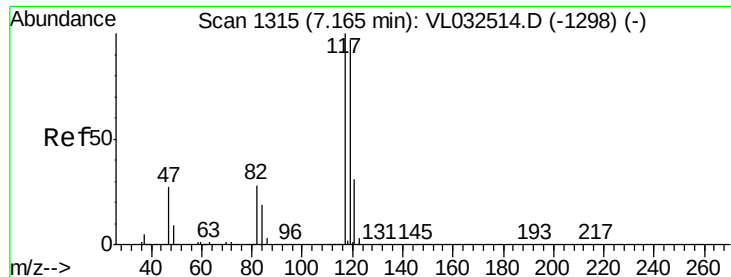
Tgt Ion: 114 Resp: 2826474
 Ion Ratio Lower Upper
 114 100
 63 27.3 22.2 33.4
 88 18.7 15.0 22.4



#34
 2-Butanone
 Concen: 0.321 ppbv
 RT: 5.36 min Scan# 754
 Delta R.T. -0.01 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

Tgt Ion: 43 Resp: 54075
 Ion Ratio Lower Upper
 43 100
 72 23.9 17.8 26.6

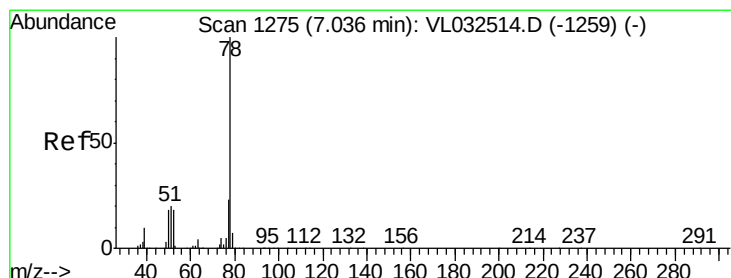
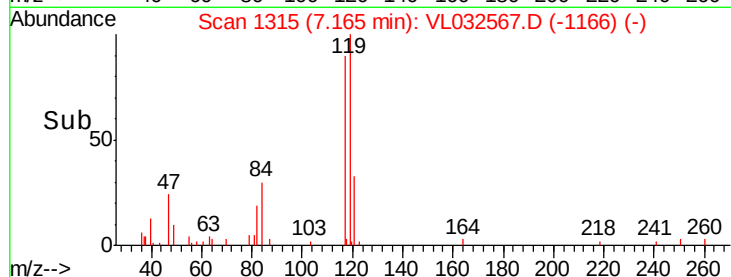
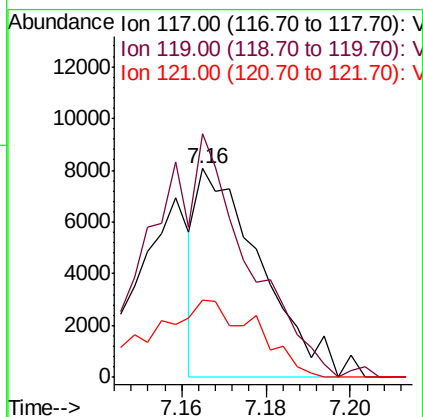
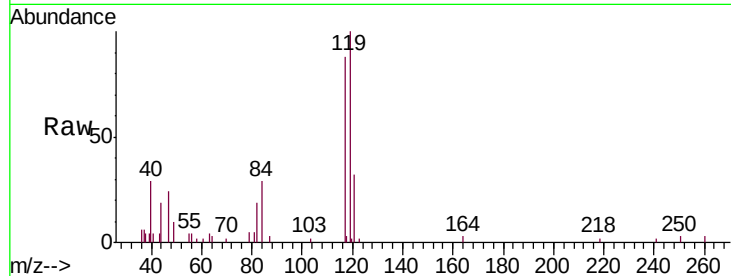




#35
Carbon Tetrachloride
Concen: 0.043 ppbv
RT: 7.16 min Scan# 1315
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

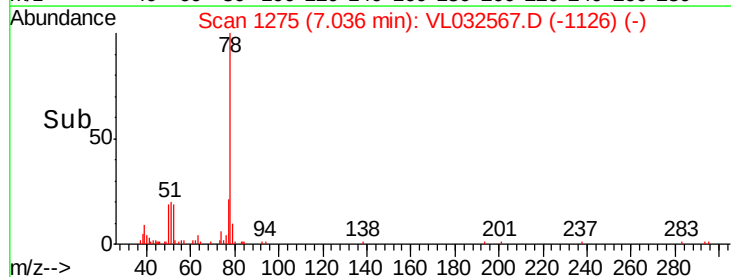
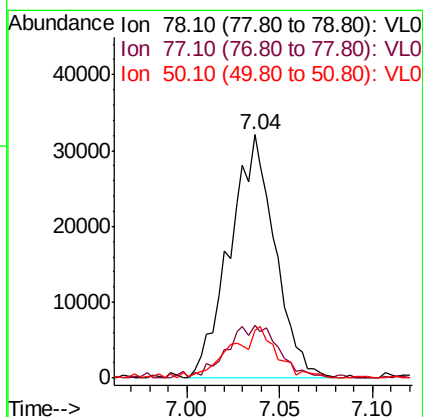
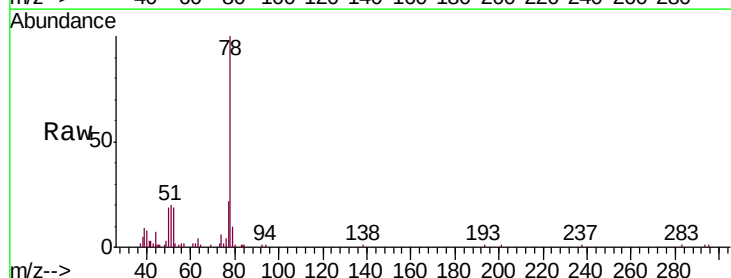
Instrument :
MSVOA_L
ClientSampleId :
PIA-1

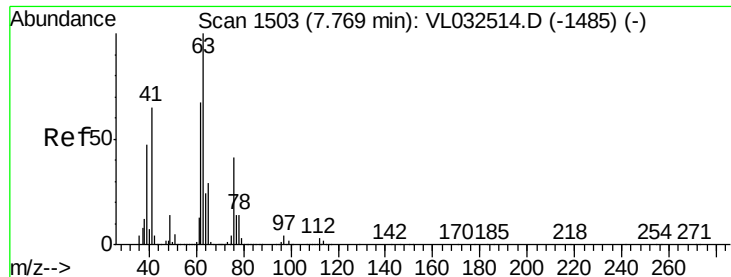
Tgt Ion: 117 Resp: 8378
Ion Ratio Lower Upper
117 100
119 112.4 76.6 115.0
121 35.4 24.6 36.8



#36
Benzene
Concen: 0.239 ppbv
RT: 7.04 min Scan# 1275
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Tgt Ion: 78 Resp: 54502
Ion Ratio Lower Upper
78 100
77 21.5 18.4 27.6
50 18.8 14.4 21.6





#39

1,2-Dichloropropane

Concen: 7.474 ppbv

RT: 7.32 min Scan# 1364

Delta R.T. -0.47 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

PIA-1

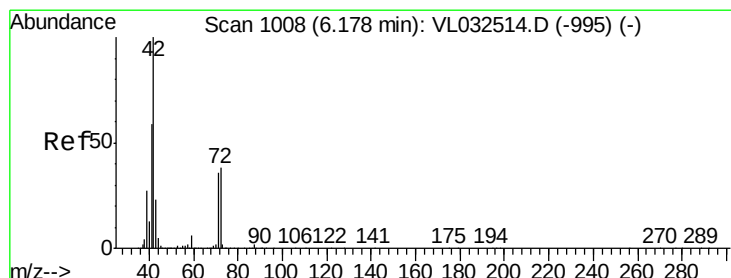
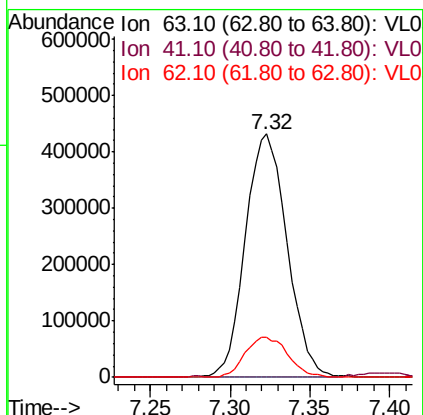
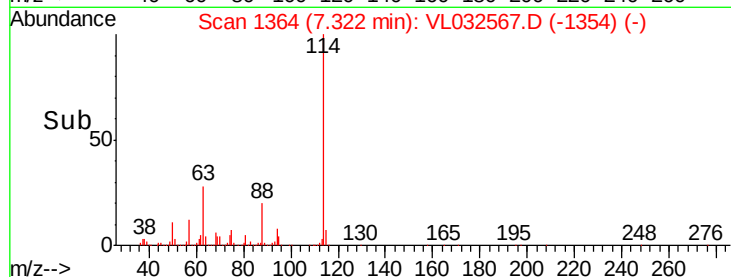
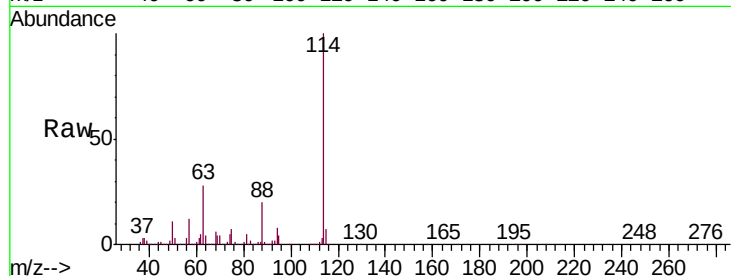
Tgt Ion: 63 Resp: 769320

Ion Ratio Lower Upper

63 100

41 0.0 55.4 83.0#

62 16.5 55.4 83.0#



#41

Tetrahydrofuran

Concen: 0.055 ppbv

RT: 6.15 min Scan# 999

Delta R.T. -0.05 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

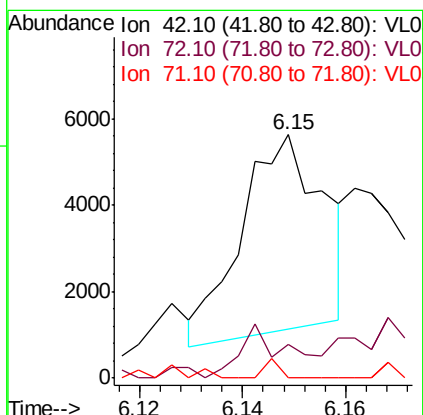
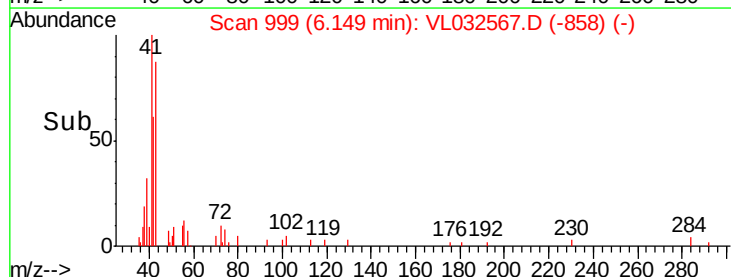
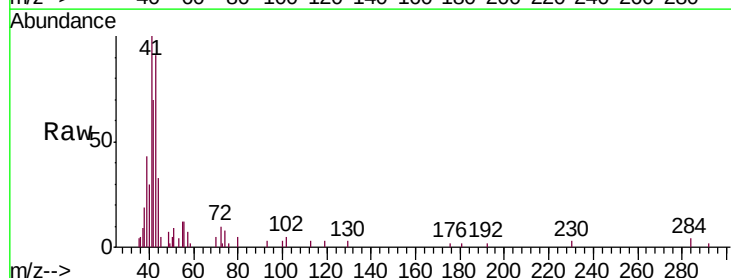
Tgt Ion: 42 Resp: 4986

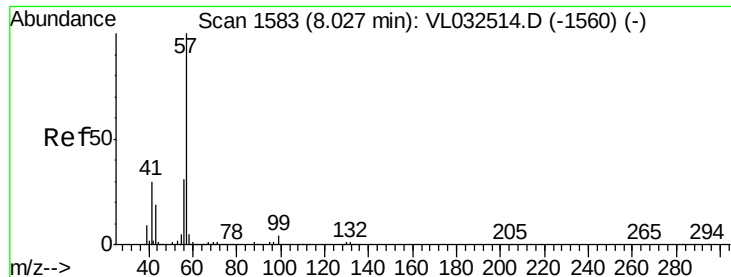
Ion Ratio Lower Upper

42 100

72 65.0 29.5 44.3#

71 0.0 28.3 42.5#

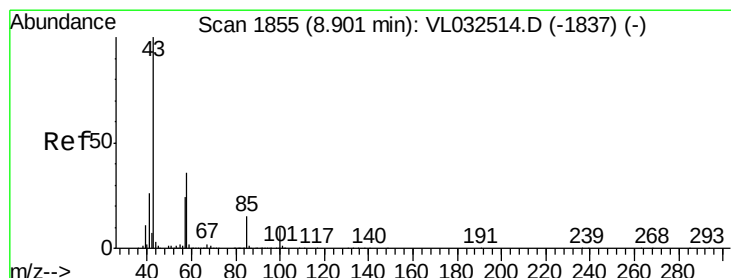
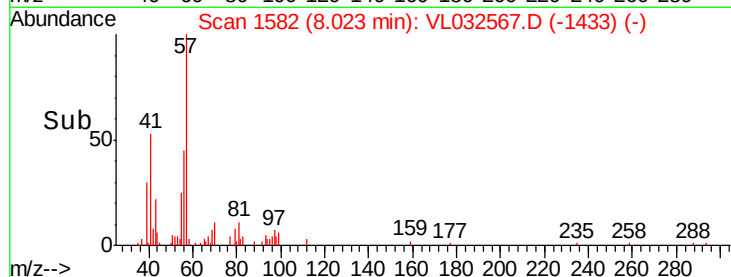
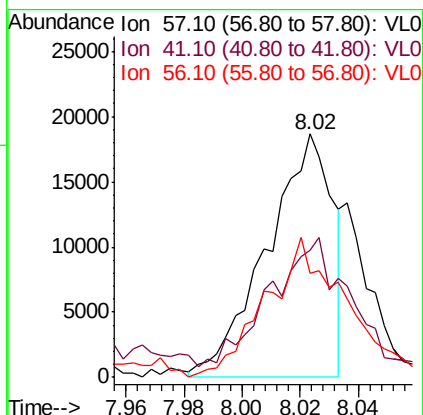
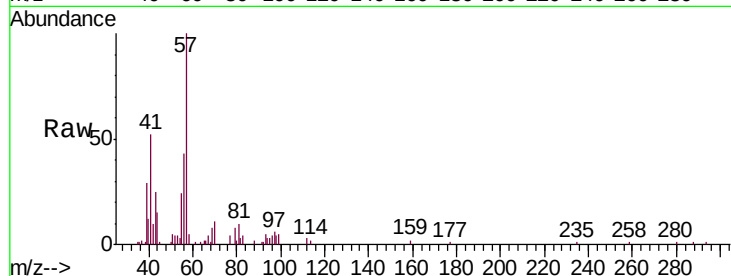




#44
 2,2,4-Trimethylpentane
 Concen: 0.066 ppbv
 RT: 8.02 min Scan# 1582
 Delta R.T. -0.02 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

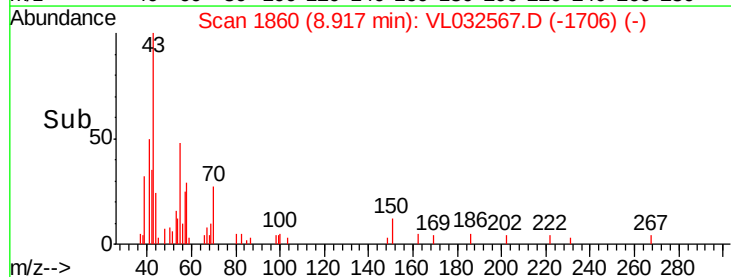
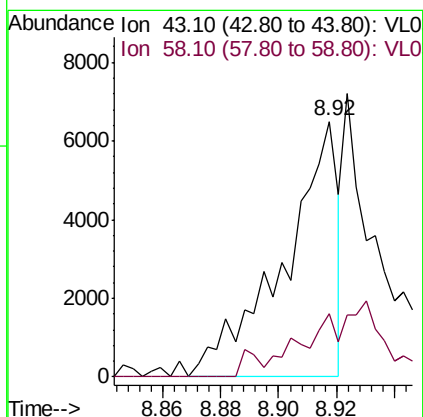
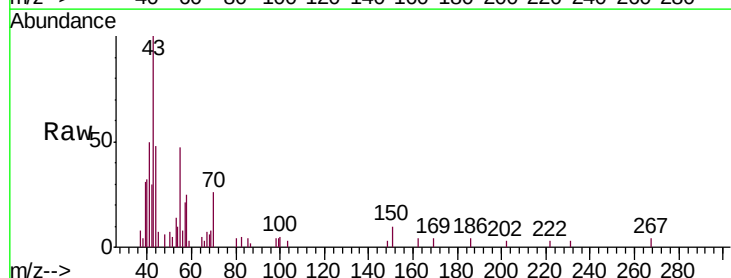
Instrument :
 MSVOA_L
 ClientSampleId :
 PIA-1

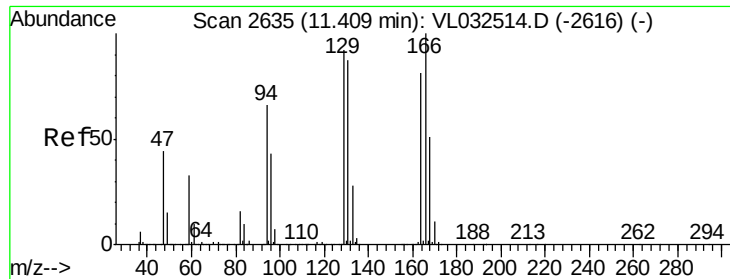
Tgt Ion: 57 Resp: 29350
 Ion Ratio Lower Upper
 57 100
 41 73.5 24.4 36.6#
 56 70.9 25.7 38.5#



#50
 4-Methyl-2-Pentanone
 Concen: 0.032 ppbv
 RT: 8.92 min Scan# 1860
 Delta R.T. -0.01 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

Tgt Ion: 43 Resp: 8370
 Ion Ratio Lower Upper
 43 100
 58 0.0 29.0 43.4#





#52

Tetrachloroethene

Concen: 0.058 ppbv

RT: 11.40 min Scan# 2633

Delta R.T. -0.03 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Instrument :

MSVOA_L

ClientSampleId :

PIA-1

Tgt Ion:164 Resp: 4615

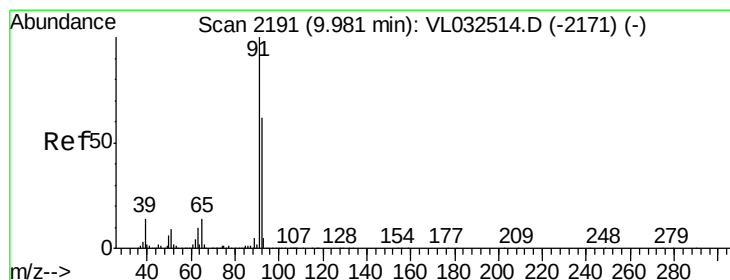
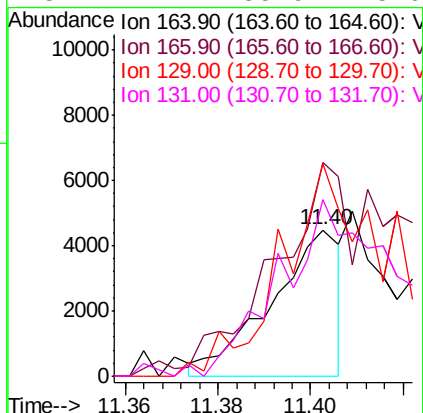
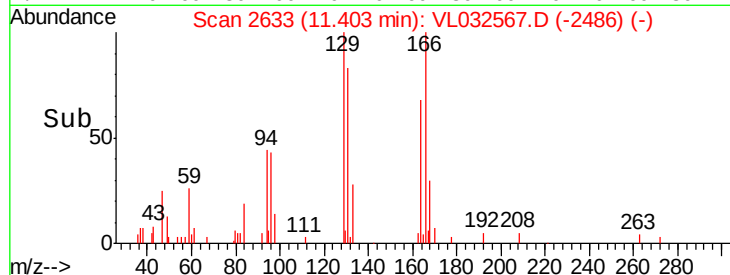
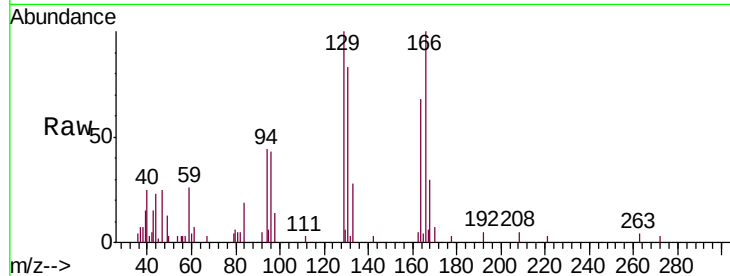
Ion Ratio Lower Upper

164 100

166 153.7 100.6 150.8#

129 150.1 89.9 134.9#

131 124.1 85.9 128.9



#53

Toluene

Concen: 3.257 ppbv

RT: 9.98 min Scan# 2190

Delta R.T. -0.03 min

Lab File: VL032567.D

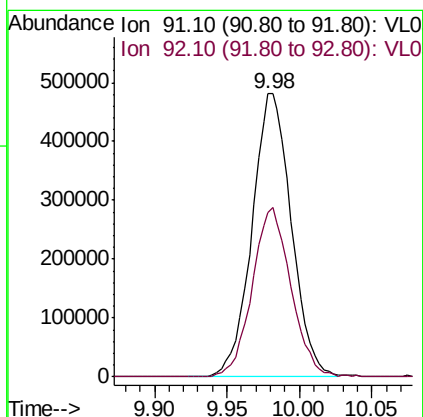
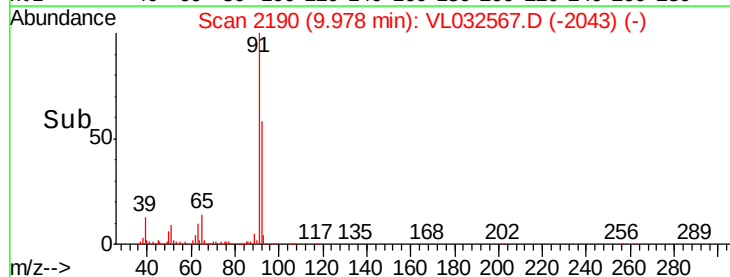
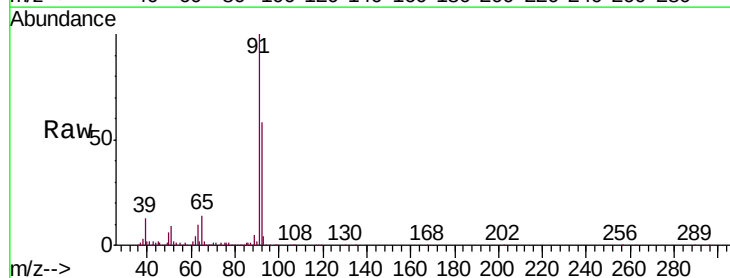
Acq: 28 Sep 2018 2:44

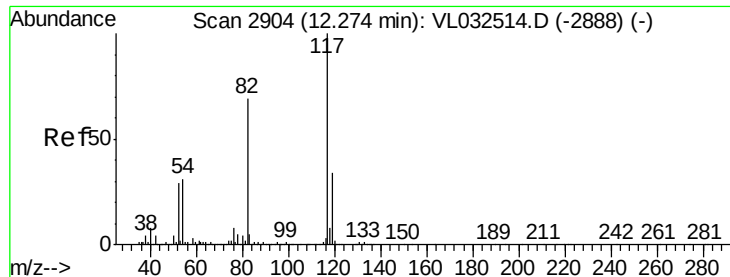
Tgt Ion: 91 Resp: 906744

Ion Ratio Lower Upper

91 100

92 59.3 48.1 72.1

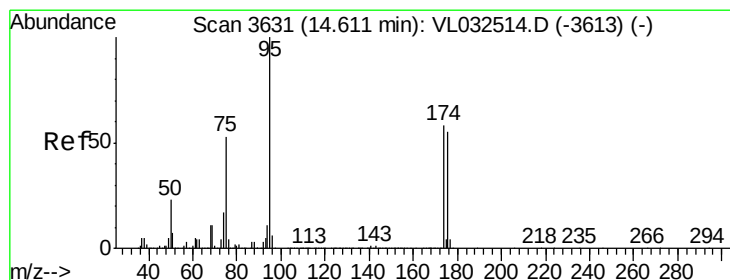
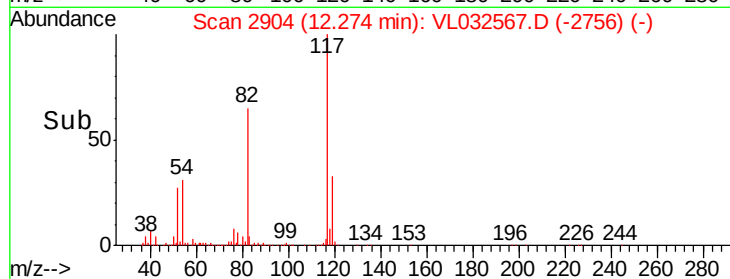
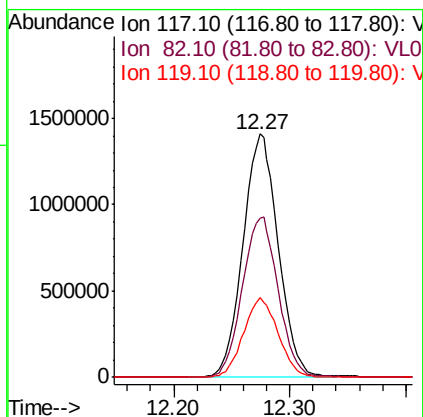
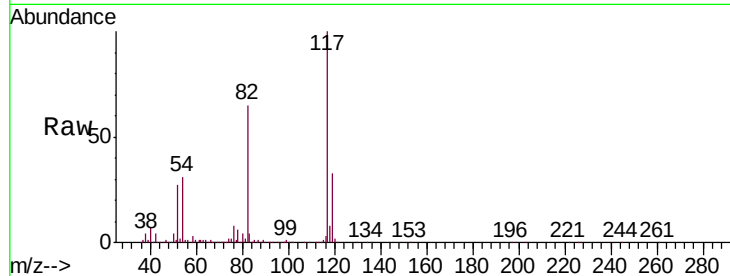




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.27 min Scan# 2904
Delta R.T. -0.02 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

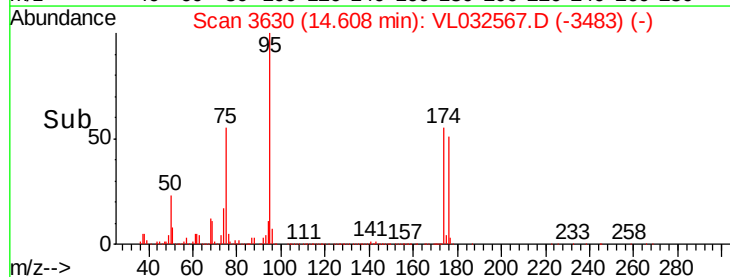
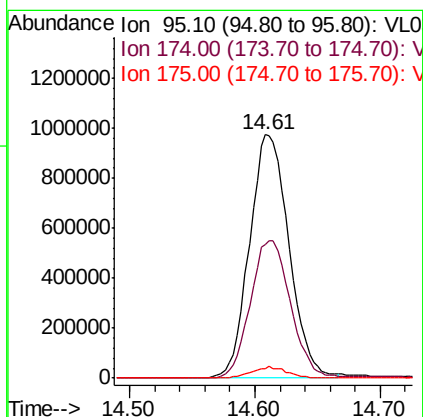
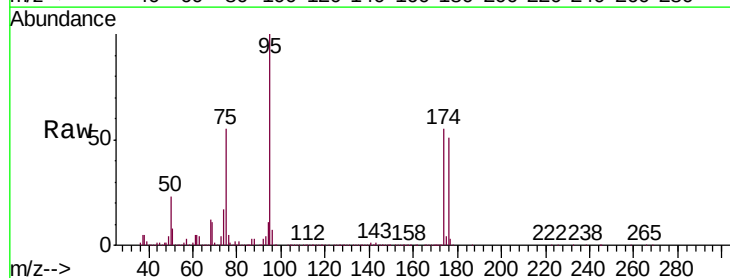
Instrument :
MSVOA_L
ClientSampleId :
PIA-1

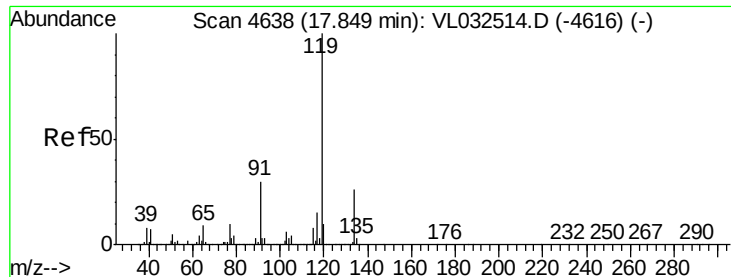
Tgt Ion: 117 Resp: 2981187
Ion Ratio Lower Upper
117 100
82 67.5 53.0 79.6
119 32.3 45.9 68.9#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.510 ppbv
RT: 14.61 min Scan# 3630
Delta R.T. -0.03 min
Lab File: VL032567.D
Acq: 28 Sep 2018 2:44

Tgt Ion: 95 Resp: 2138102
Ion Ratio Lower Upper
95 100
174 58.7 46.3 69.5
175 4.2 3.4 5.0

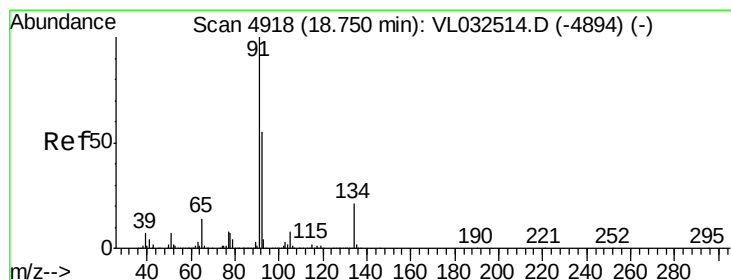
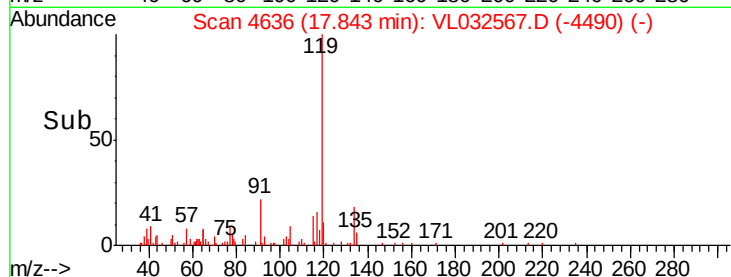
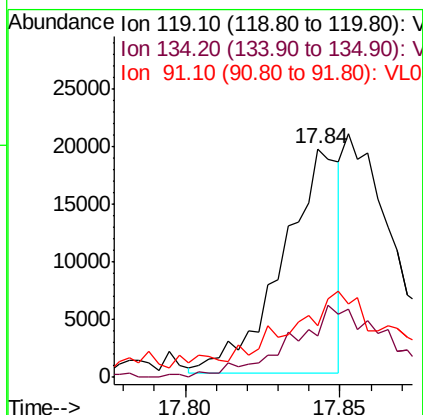
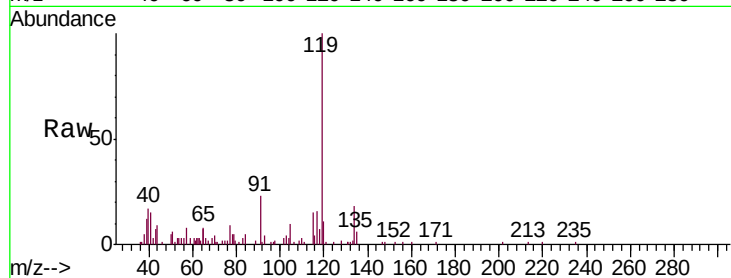




#69
 p-Isopropyltoluene
 Concen: 0.056 ppbv
 RT: 17.84 min Scan# 4636
 Delta R.T. -0.03 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

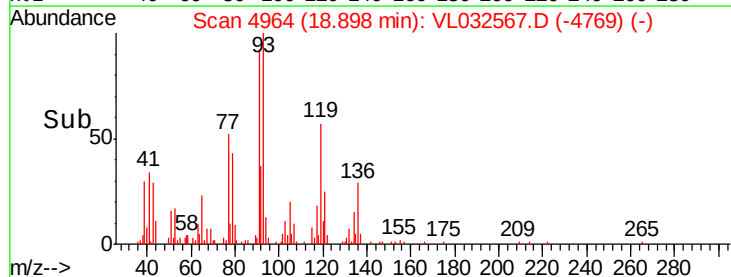
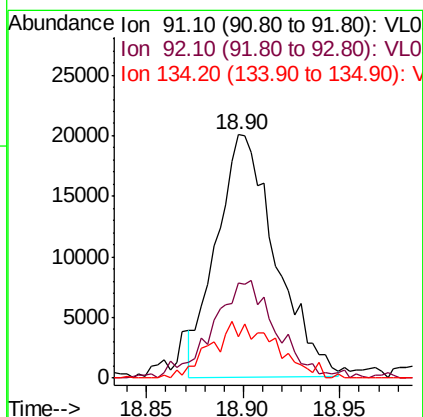
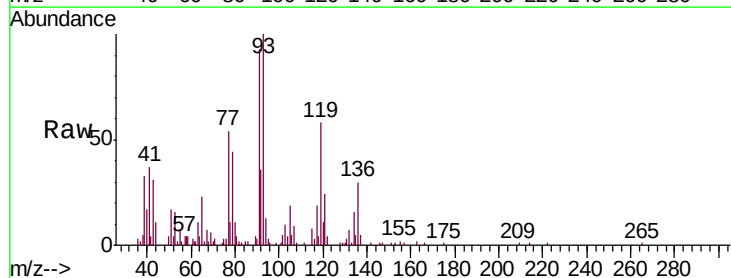
Instrument :
 MSVOA_L
 ClientSampleId :
 PIA-1

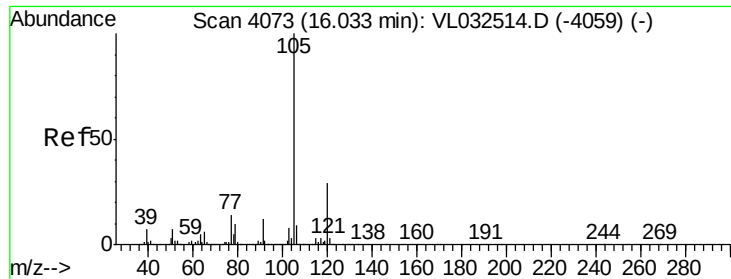
Tgt Ion	Ratio	Lower	Upper
119	100		
134	0.0	20.4	30.6#
91	0.0	23.4	35.2#



#70
 n-Butylbenzene
 Concen: 0.089 ppbv
 RT: 18.90 min Scan# 4964
 Delta R.T. 0.13 min
 Lab File: VL032567.D
 Acq: 28 Sep 2018 2:44

Tgt Ion	Ratio	Lower	Upper
91	100		
92	44.5	43.8	65.8
134	25.0	17.4	26.0





#72

4-Ethyltoluene

Concen: 0.050 ppbv

RT: 16.03 min Scan# 4073

Delta R.T. -0.02 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

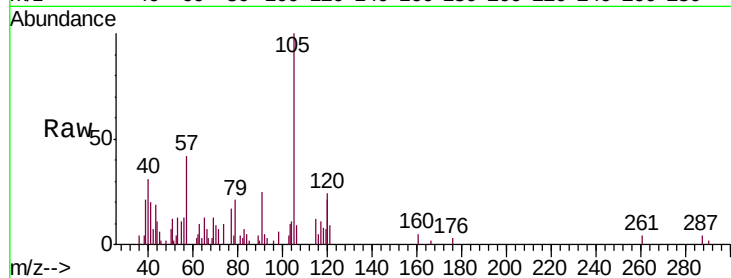
Instrument :

MSVOA_L

ClientSampled :

PIA-1

Tgt Ion:	105	Resp:	16856
Ion	Ratio	Lower	Upper
105	100		
120	38.2	23.5	35.3#
91	30.8	10.2	15.2#
77	31.5	11.1	16.7#



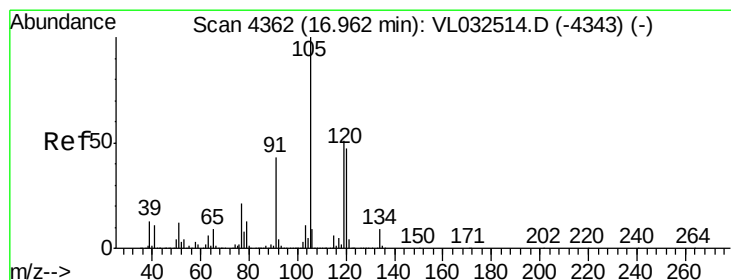
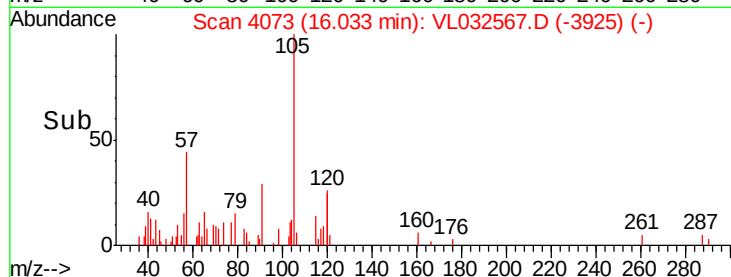
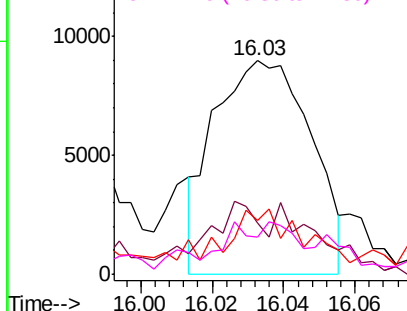
Abundance

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



#74

1,2,4-Trimethylbenzene

Concen: 0.131 ppbv

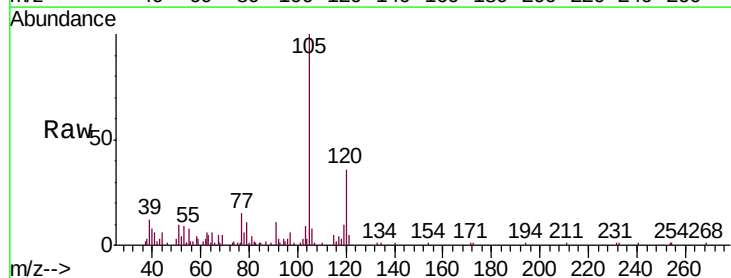
RT: 16.96 min Scan# 4360

Delta R.T. -0.03 min

Lab File: VL032567.D

Acq: 28 Sep 2018 2:44

Tgt Ion:	105	Resp:	46502
Ion	Ratio	Lower	Upper
105	100		
120	37.1	37.8	56.8#
91	6.9	41.4	62.0#
77	11.3	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

