

Data File : VL032387.D
Acq On : 16 Aug 2018 21:43
Operator : SY/AP
Sample : J4457-05DL 40X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SS09-MIVIDL

Quant Time: Aug 17 03:20:17 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL081518AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Aug 15 14:58:02 2018
QLast Update : Wed Aug 15 14:58:02 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.82	49	1865593	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.35	114	3708619	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.31	117	3568697	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.64 95 2772108 10.18 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 101.80%

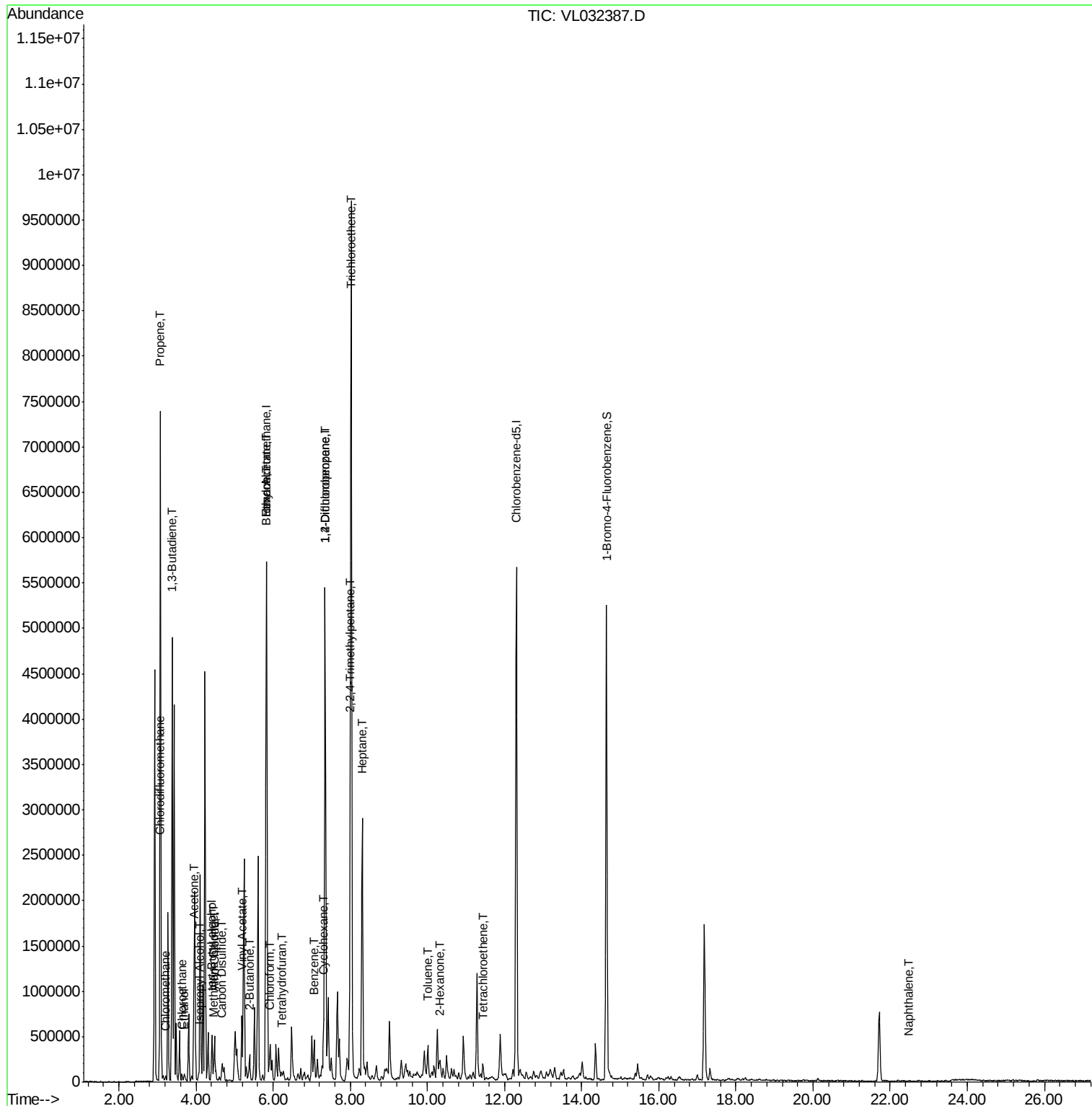
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.12	85	3465	Below Cal		90
3) Chlorodifluoromethane	3.05	51	5670	0.033 ppbv #		87
4) Chloromethane	3.21	50	30786	0.299 ppbv		94
7) Chloroethane	3.64	64	47889	1.393 ppbv		91
9) Propene	3.07	41	3313577	44.801 ppbv		93
10) Heptane	8.31	43	1360125	6.106 ppbv		98
13) Ethanol	3.69	45	80803	4.254 ppbv		99
15) Acetone	3.95	43	971688	5.482 ppbv		93
16) 1,3-Butadiene	3.38	39	1406755	19.223 ppbv #		10
17) tert-Butyl alcohol	4.41	59	216191	7.269 ppbv #		93
19) Isopropyl Alcohol	4.07	45	86840	0.728 ppbv #		95
20) Methylene Chloride	4.45	84	27141	0.405 ppbv #		87
21) Allyl Chloride	4.48	41	75722	0.677 ppbv #		19
23) Vinyl Acetate	5.19	43	119638	0.391 ppbv #		1
25) Ethyl Acetate	5.84	43	1344067	3.538 ppbv #		77
26) Hexane	5.84	57	1919220	11.333 ppbv #		42
27) Carbon Disulfide	4.67	76	160794	1.017 ppbv		95
29) Chloroform	5.90	83	61687	0.249 ppbv		99
30) Cyclohexane	7.31	84	207793	1.611 ppbv #		34
34) 2-Butanone	5.39	43	277535	1.100 ppbv		99
36) Benzene	7.06	78	356960	1.135 ppbv		96
38) Trichloroethene	8.02	130	3142347	28.494 ppbv		98
39) 1,2-Dichloropropane	7.35	63	1041392	7.929 ppbv #		26
41) Tetrahydrofuran	6.23	42	33682	0.249 ppbv #		61
44) 2,2,4-Trimethylpentane	7.99	57	81181	0.143 ppbv #		1
51) 2-Hexanone	10.33	43	17463	0.068 ppbv #		28
52) Tetrachloroethene	11.44	164	22383	0.241 ppbv		94
53) Toluene	10.01	91	284751	0.826 ppbv		99
79) Naphthalene	22.49	128	984	0.330 ppbv #		65

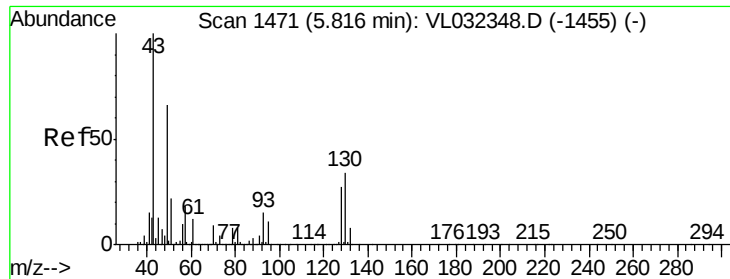
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.82 min Scan# 1471

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

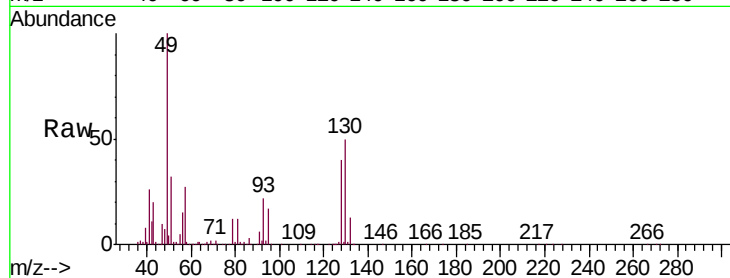
Tgt Ion: 49 Resp: 1865593

Ion Ratio Lower Upper

49 100

128 40.2 20.5 61.6

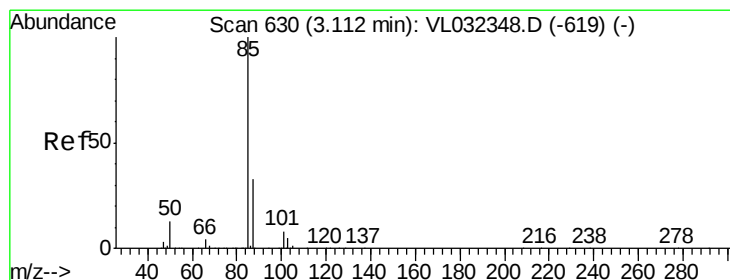
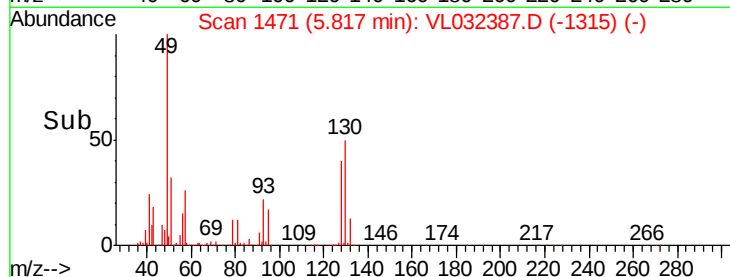
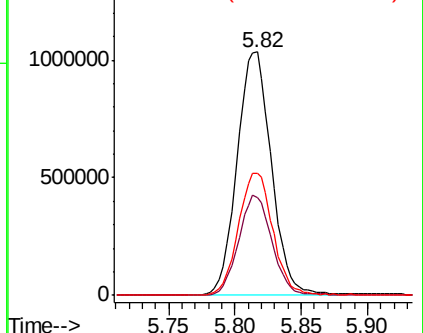
130 50.8 26.2 78.5



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: Below Cal

RT: 3.12 min Scan# 631

Delta R.T. 0.00 min

Lab File: VL032387.D

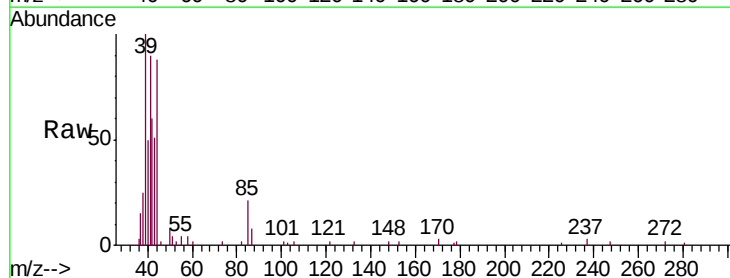
Acq: 16 Aug 2018 21:43

Tgt Ion: 85 Resp: 3465

Ion Ratio Lower Upper

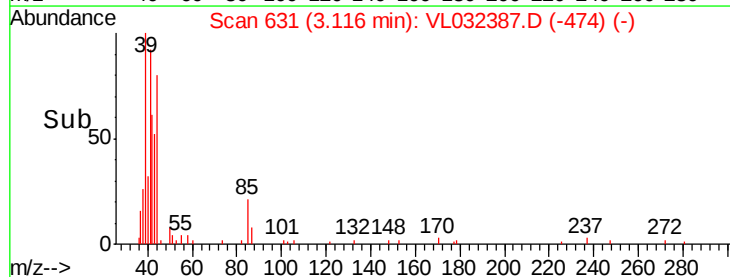
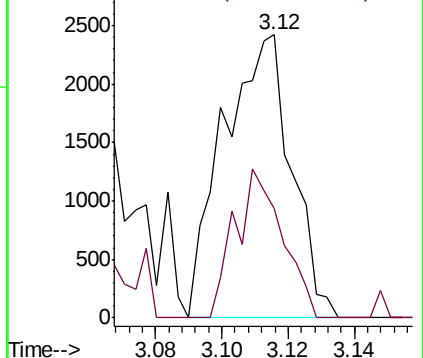
85 100

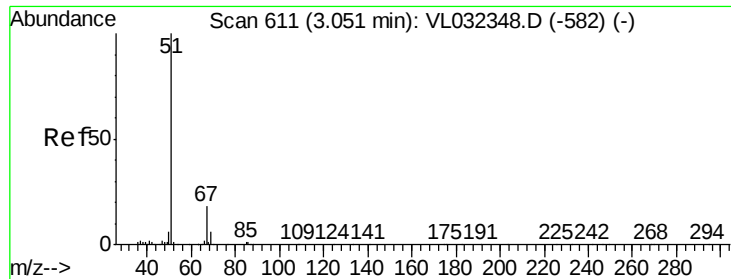
87 38.5 26.3 39.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

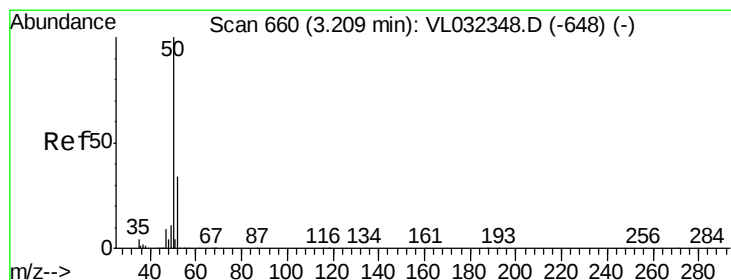
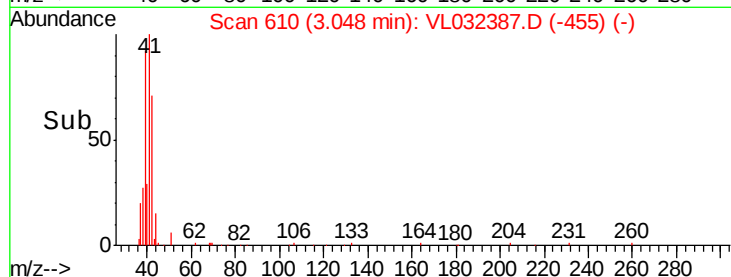
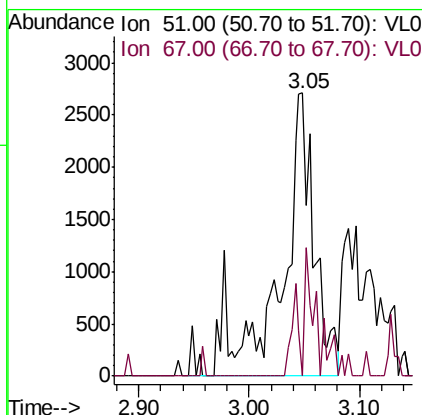
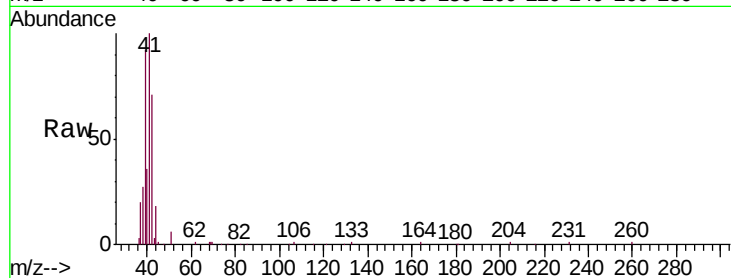




#3
 Chlorodifluoromethane
 Concen: 0.033 ppbv
 RT: 3.05 min Scan# 610
 Delta R.T. -0.00 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

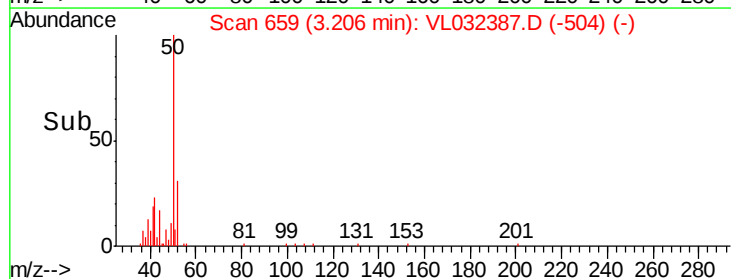
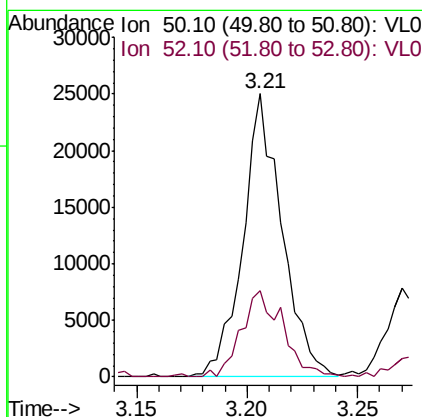
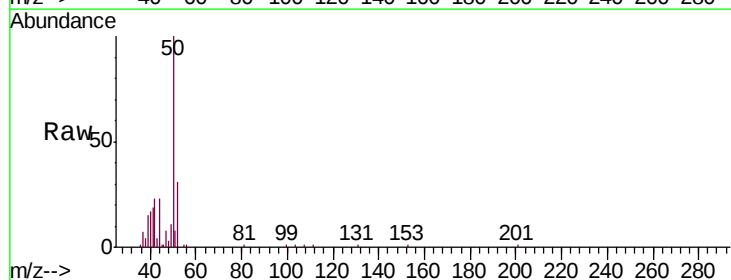
Instrument :
 MSVOA_L
 ClientSampleId :
 SS09-MIVIDL

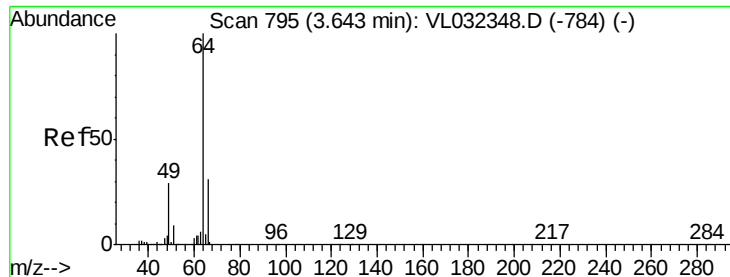
Tgt Ion: 51 Resp: 5670
 Ion Ratio Lower Upper
 51 100
 67 22.6 13.7 20.5#



#4
 Chloromethane
 Concen: 0.299 ppbv
 RT: 3.21 min Scan# 659
 Delta R.T. -0.00 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

Tgt Ion: 50 Resp: 30786
 Ion Ratio Lower Upper
 50 100
 52 29.9 26.8 40.2





#7

Chloroethane

Concen: 1.393 ppbv

RT: 3.64 min Scan# 795

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

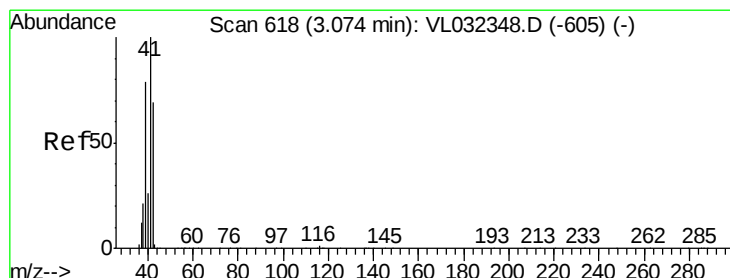
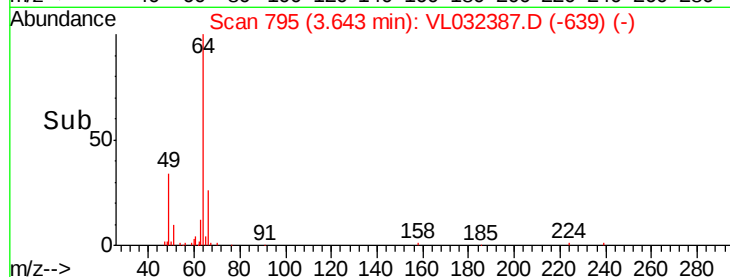
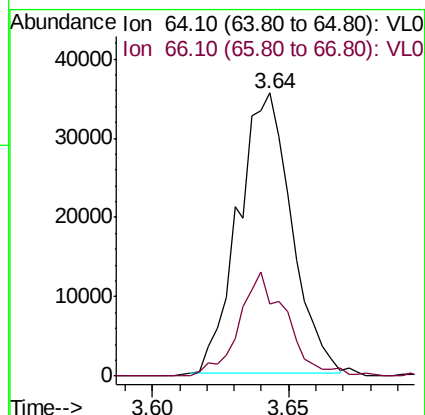
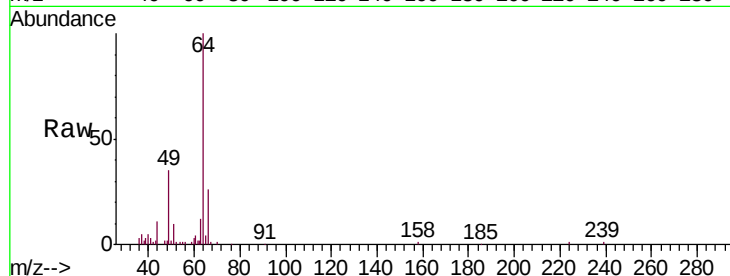
SS09-MIVIDL

Tgt Ion: 64 Resp: 47889

Ion Ratio Lower Upper

64 100

66 25.7 24.6 36.8



#9

Propene

Concen: 44.801 ppbv

RT: 3.07 min Scan# 617

Delta R.T. -0.00 min

Lab File: VL032387.D

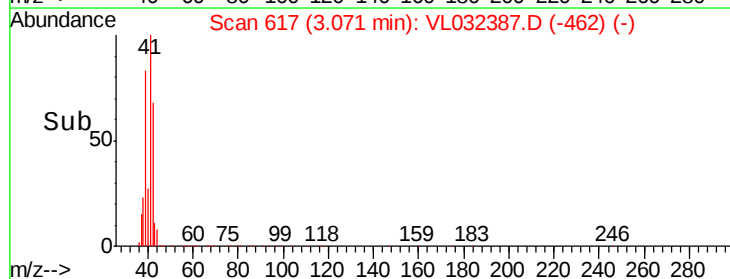
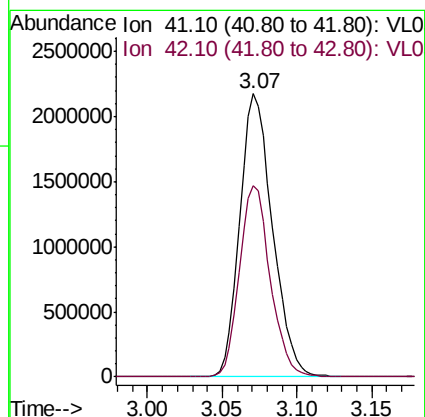
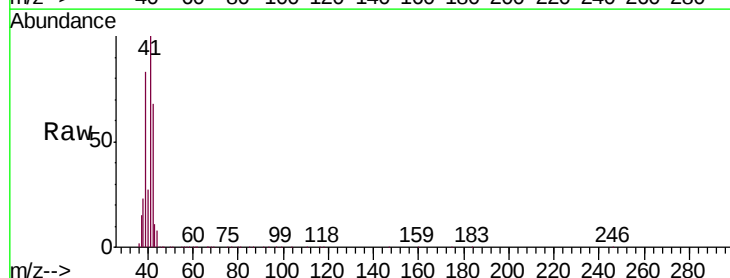
Acq: 16 Aug 2018 21:43

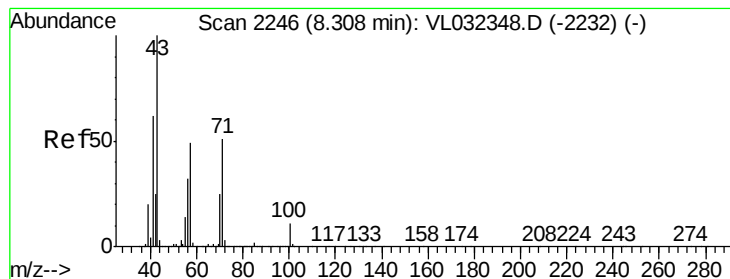
Tgt Ion: 41 Resp: 3313577

Ion Ratio Lower Upper

41 100

42 64.0 55.9 83.9





#10

Heptane

Concen: 6.106 ppbv

RT: 8.31 min Scan# 2247

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

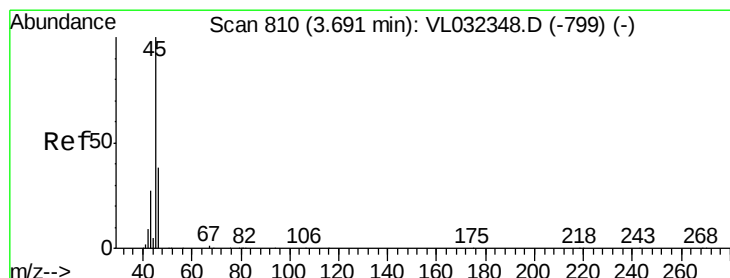
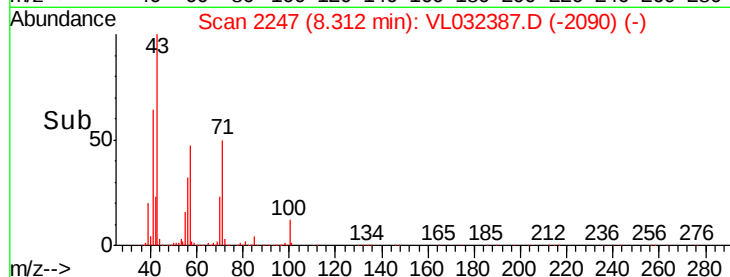
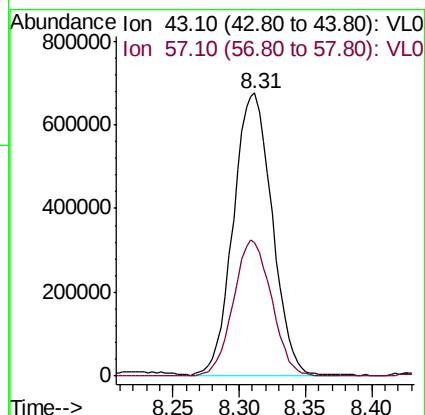
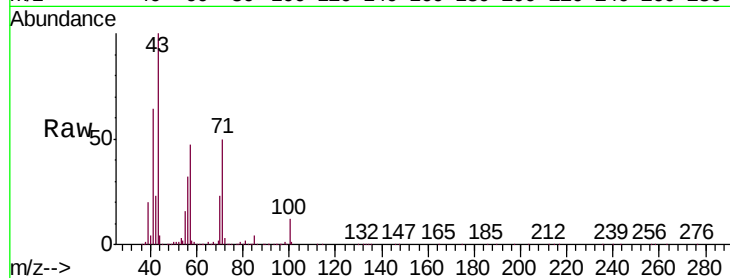
SS09-MIVIDL

Tgt Ion: 43 Resp: 1360125

Ion Ratio Lower Upper

43 100

57 48.0 39.5 59.3



#13

Ethanol

Concen: 4.254 ppbv

RT: 3.69 min Scan# 811

Delta R.T. 0.00 min

Lab File: VL032387.D

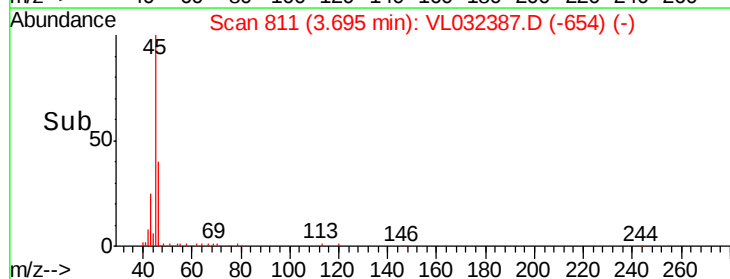
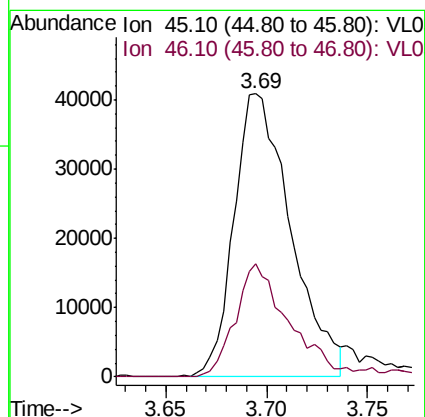
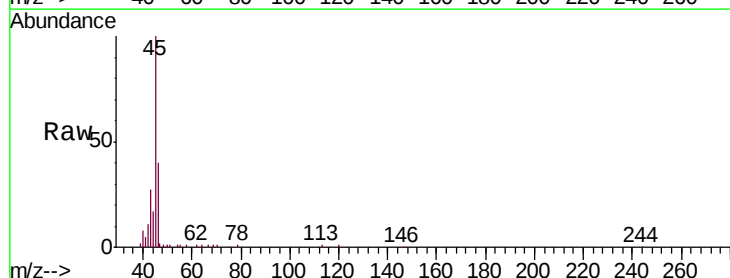
Acq: 16 Aug 2018 21:43

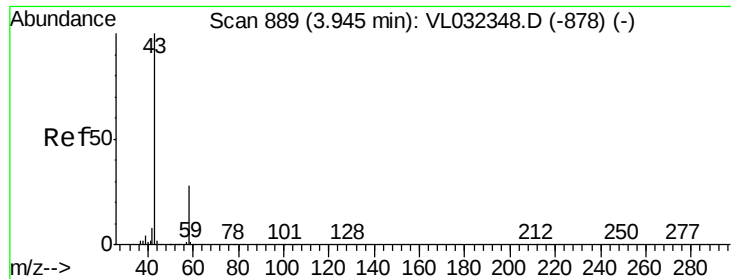
Tgt Ion: 45 Resp: 80803

Ion Ratio Lower Upper

45 100

46 38.4 15.6 62.4





#15

Acetone

Concen: 5.482 ppbv

RT: 3.95 min Scan# 889

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

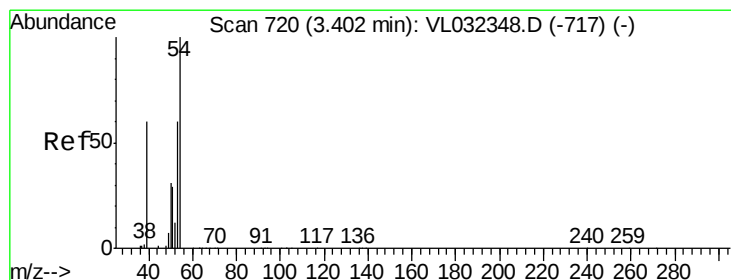
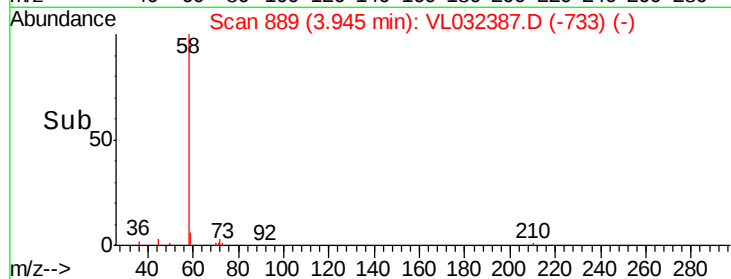
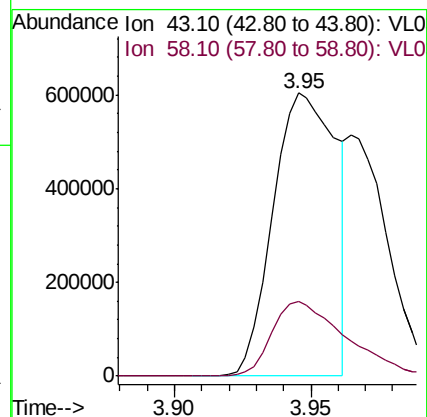
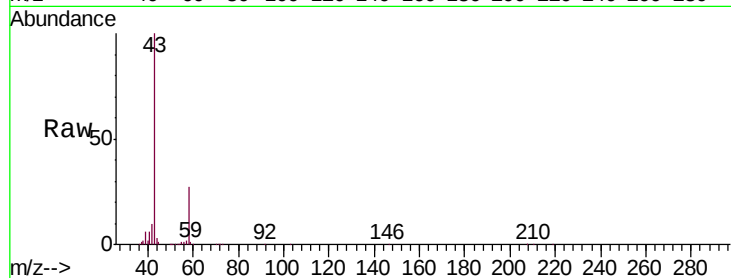
SS09-MIVIDL

Tgt Ion: 43 Resp: 971688

Ion Ratio Lower Upper

43 100

58 31.7 22.4 33.6



#16

1,3-Butadiene

Concen: 19.223 ppbv

RT: 3.38 min Scan# 713

Delta R.T. -0.02 min

Lab File: VL032387.D

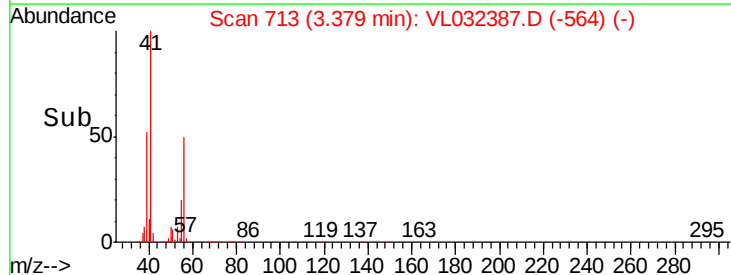
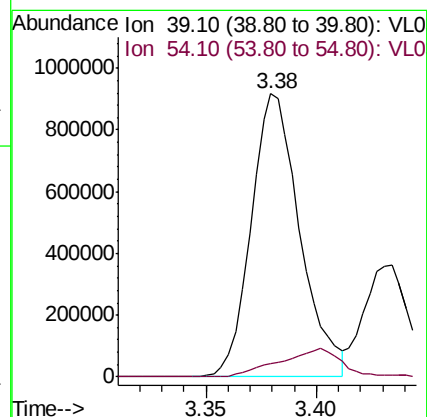
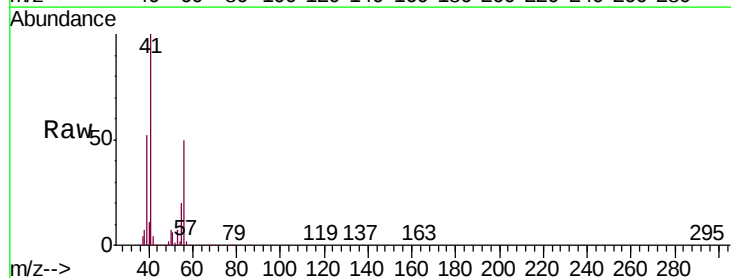
Acq: 16 Aug 2018 21:43

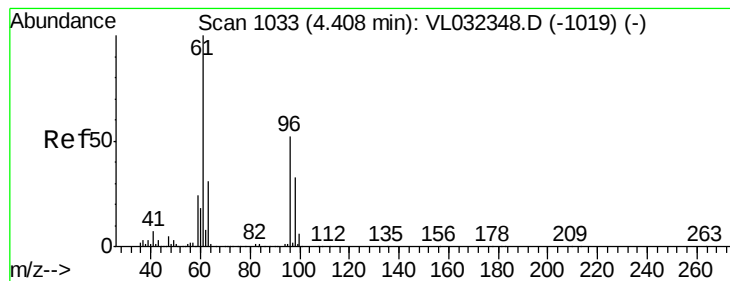
Tgt Ion: 39 Resp: 1406755

Ion Ratio Lower Upper

39 100

54 13.0 85.5 128.3#





#17

tert-Butyl alcohol

Concen: 7.269 ppbv

RT: 4.41 min Scan# 1033

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

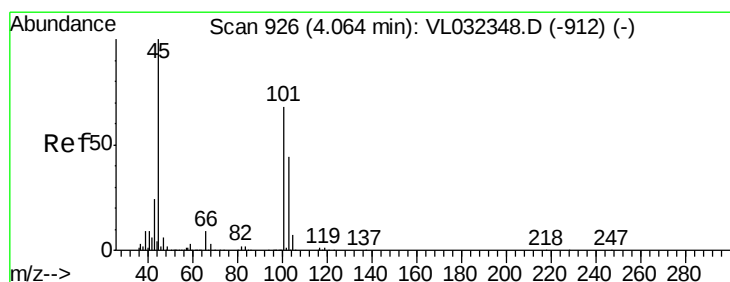
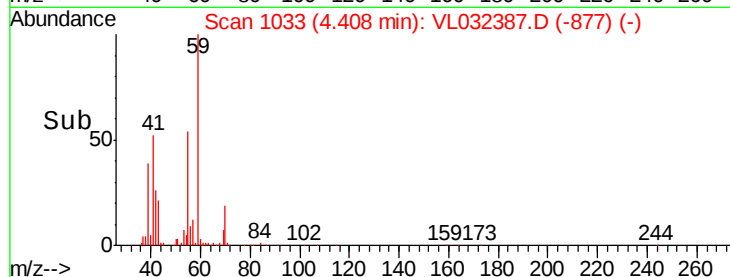
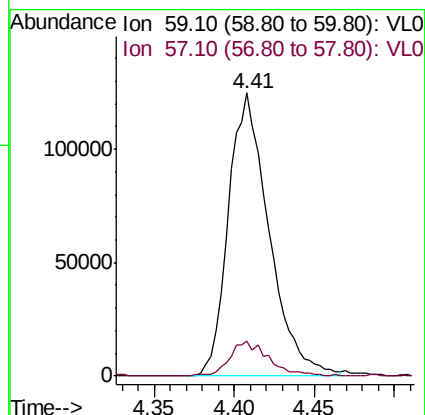
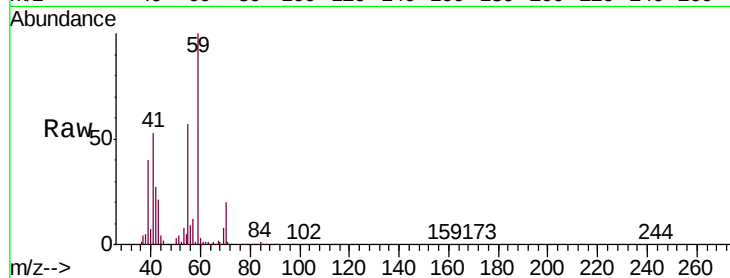
SS09-MIVIDL

Tgt Ion: 59 Resp: 216191

Ion Ratio Lower Upper

59 100

57 12.1 7.6 11.4#



#19

Isopropyl Alcohol

Concen: 0.728 ppbv

RT: 4.07 min Scan# 929

Delta R.T. 0.01 min

Lab File: VL032387.D

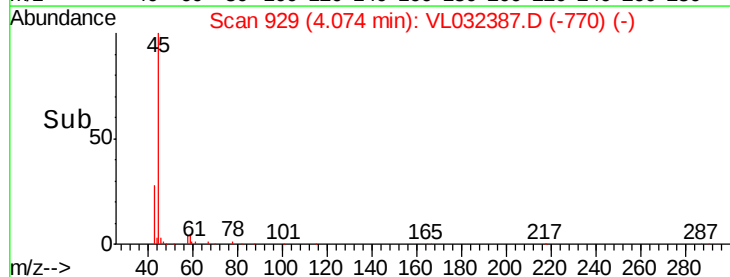
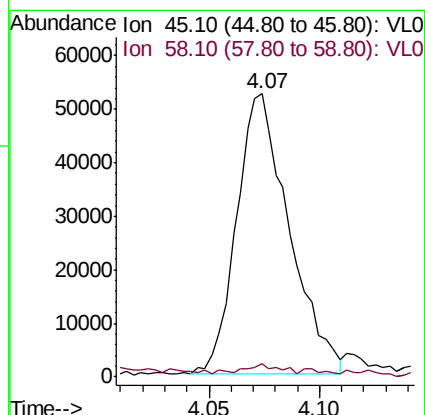
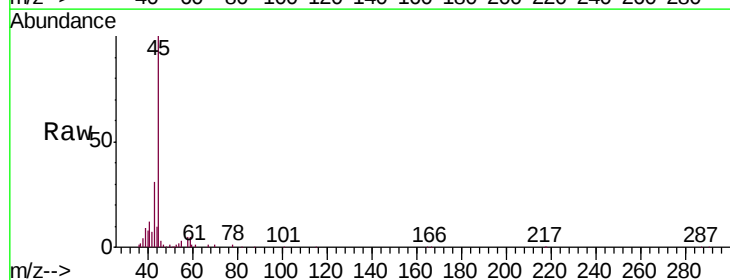
Acq: 16 Aug 2018 21:43

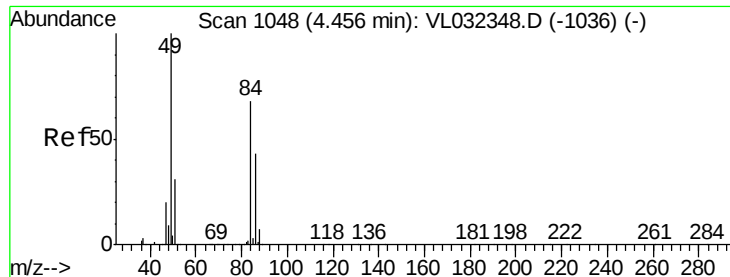
Tgt Ion: 45 Resp: 86840

Ion Ratio Lower Upper

45 100

58 0.0 1.4 2.0#





#20

Methylene Chloride

Concen: 0.405 ppbv

RT: 4.45 min Scan# 1047

Delta R.T. -0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

Tgt Ion: 84 Resp: 27141

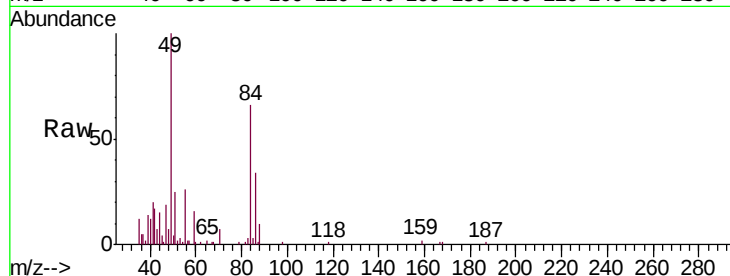
Ion Ratio Lower Upper

84 100

49 152.6 117.3 175.9

51 23.0 36.6 55.0#

86 50.7 49.8 74.8

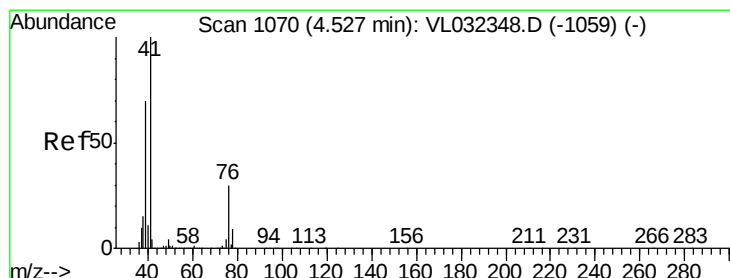
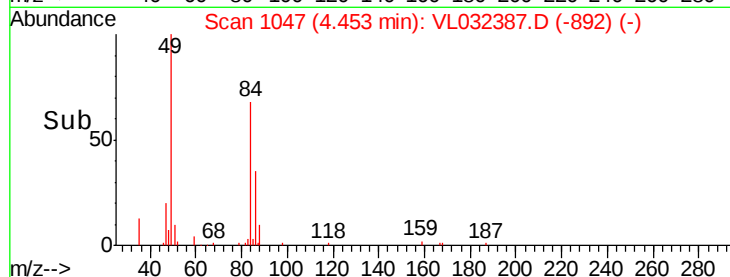
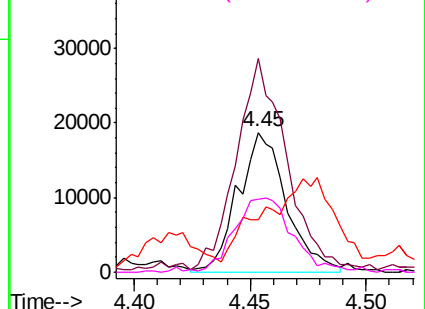


Abundance Ion 84.00 (83.70 to 84.70): VL0

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



#21

Allyl Chloride

Concen: 0.677 ppbv

RT: 4.48 min Scan# 1056

Delta R.T. -0.04 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

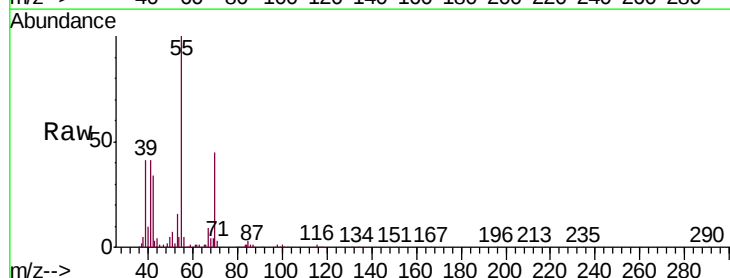
Tgt Ion: 41 Resp: 75722

Ion Ratio Lower Upper

41 100

76 0.0 22.9 34.3#

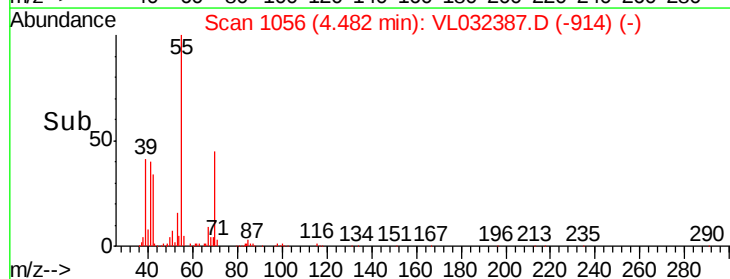
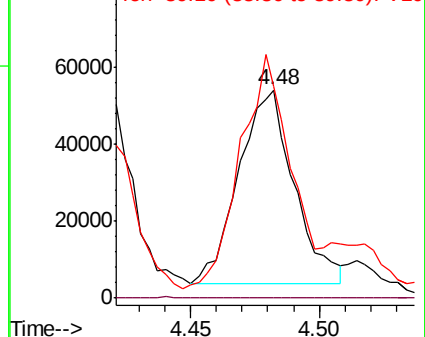
39 148.5 57.6 86.4#

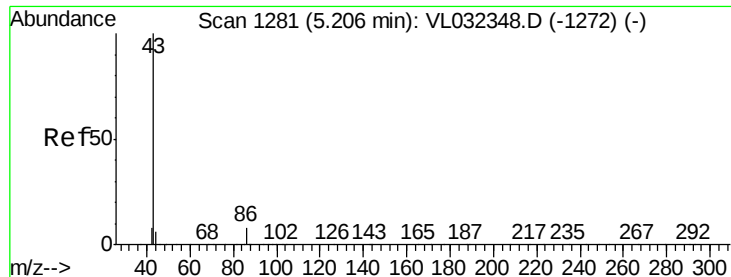


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.391 ppbv

RT: 5.19 min Scan# 1276

Delta R.T. -0.02 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

Tgt Ion: 43 Resp: 119638

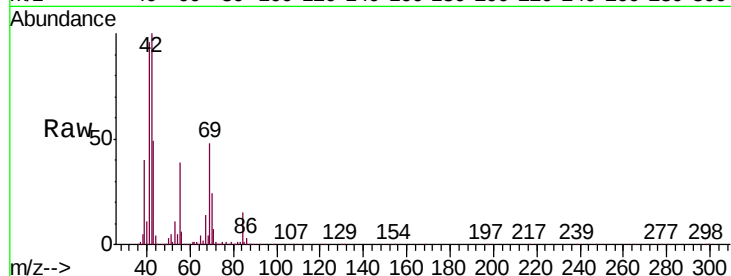
Ion Ratio Lower Upper

43 100

86 5.5 5.5 8.3#

42 206.2 7.0 10.6#

44 4.0 4.6 6.8#

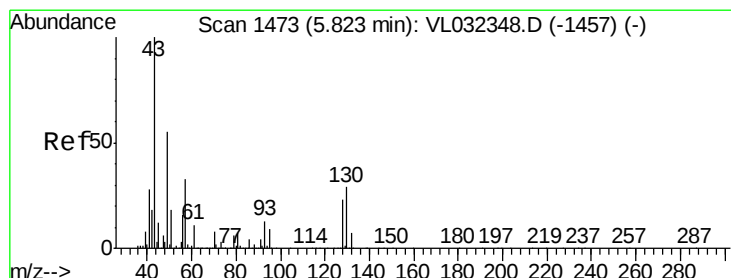
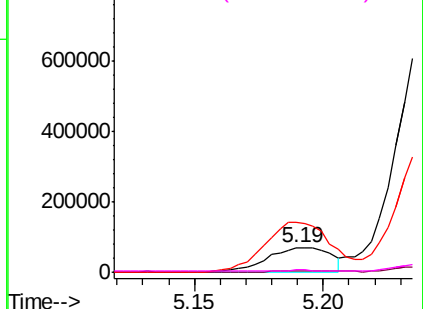
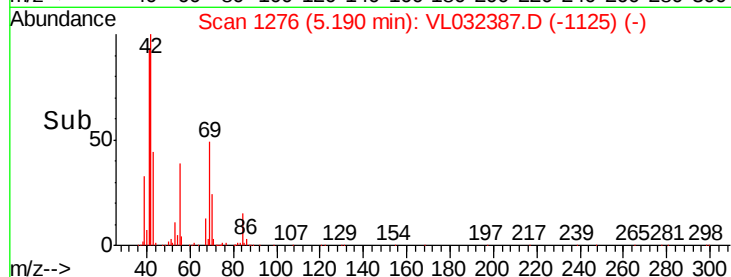


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 3.538 ppbv

RT: 5.84 min Scan# 1477

Delta R.T. 0.01 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Tgt Ion: 43 Resp: 1344067

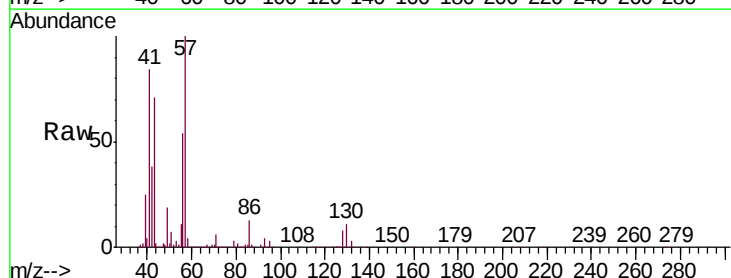
Ion Ratio Lower Upper

43 100

45 0.5 7.9 11.9#

61 0.3 7.4 11.2#

70 1.5 5.8 8.6#

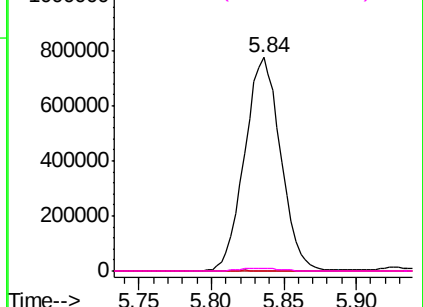
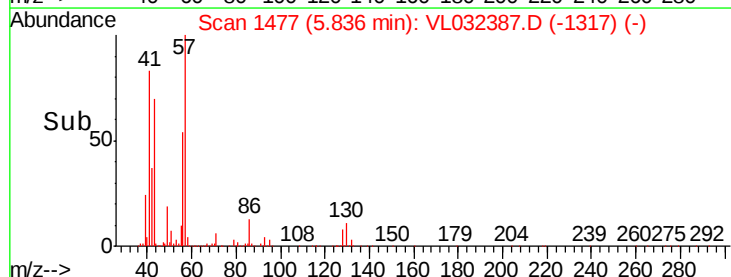


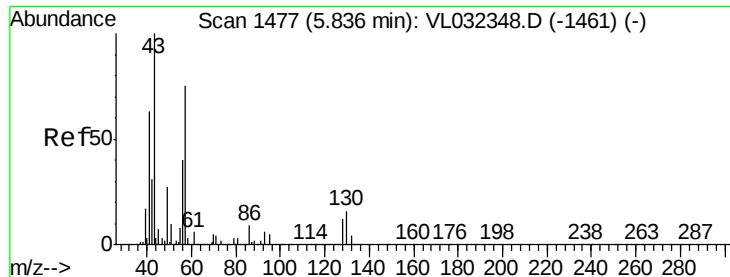
Abundance Ion 43.10 (42.80 to 43.80): VL0

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



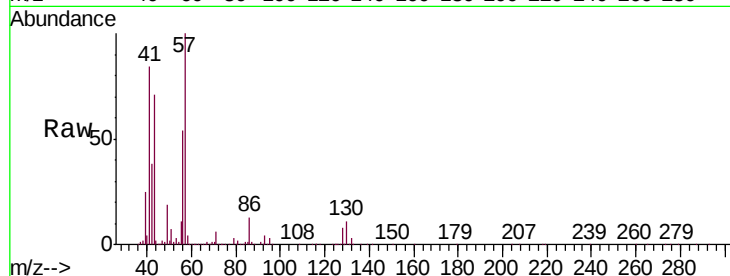


#26
Hexane
Concen: 11.333 ppbv
RT: 5.84 min Scan# 1477
Delta R.T. 0.00 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

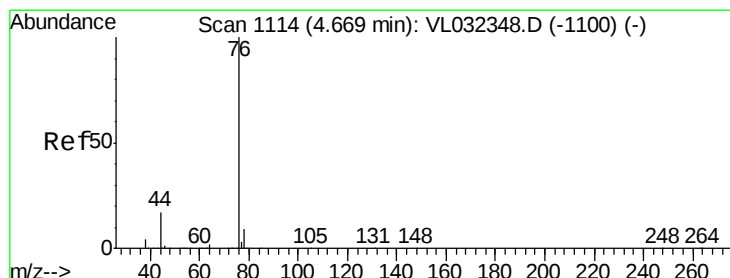
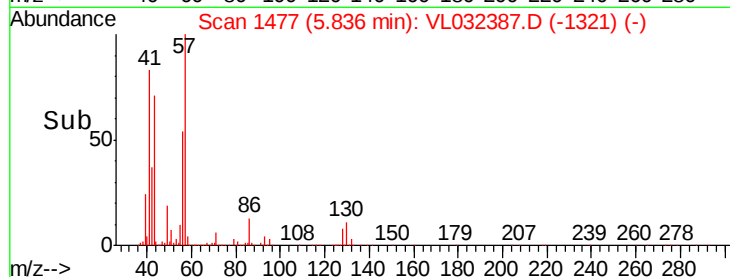
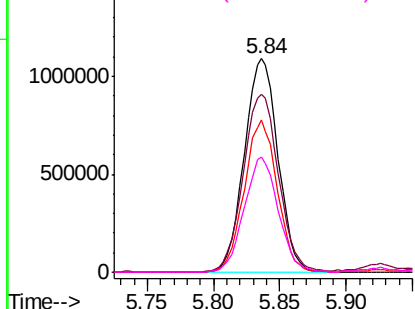
Instrument :
MSVOA_L
ClientSampleId :
SS09-MIVIDL

Tgt Ion: 57 Resp: 1919220

Ion	Ratio	Lower	Upper
57	100		
41	87.6	68.0	102.0
43	70.1	175.3	262.9#
56	54.9	42.0	63.0



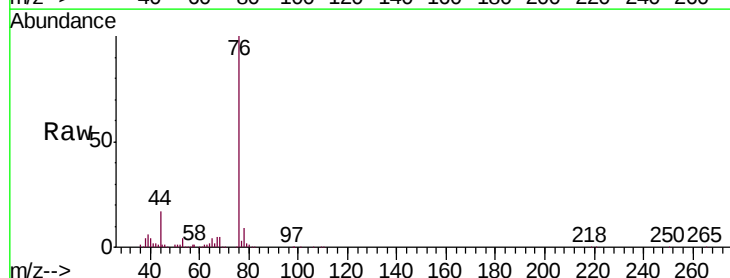
Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



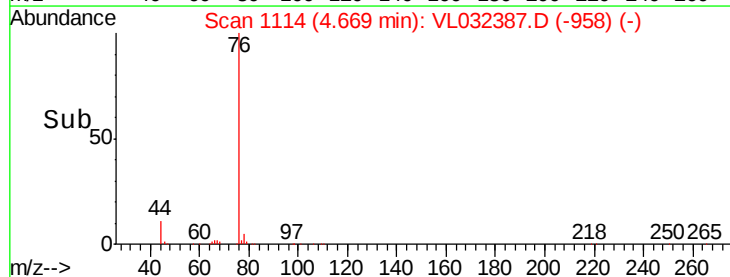
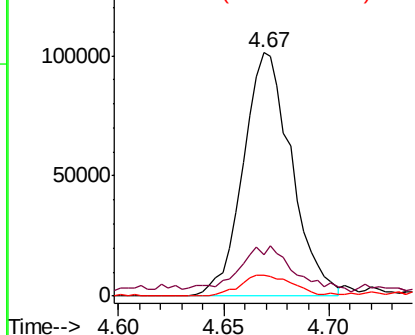
#27
Carbon Disulfide
Concen: 1.017 ppbv
RT: 4.67 min Scan# 1114
Delta R.T. 0.00 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

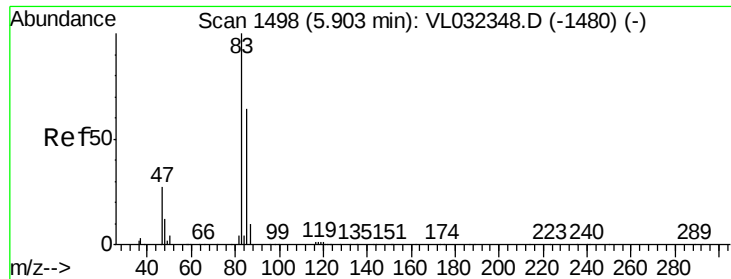
Tgt Ion: 76 Resp: 160794

Ion	Ratio	Lower	Upper
76	100		
44	21.0	14.4	21.6
78	9.7	7.4	11.0



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 0.249 ppbv

RT: 5.90 min Scan# 1498

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

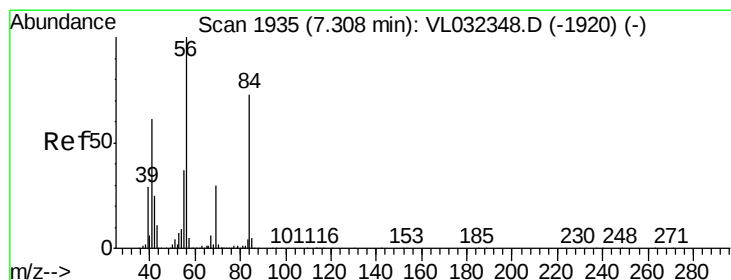
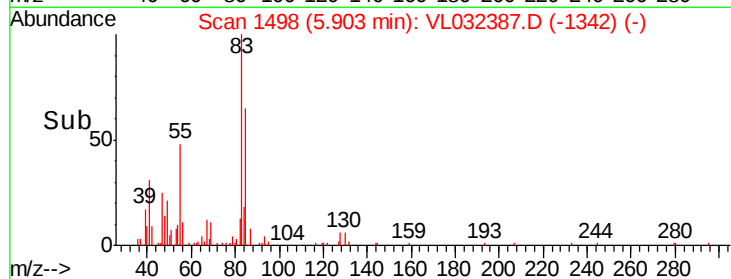
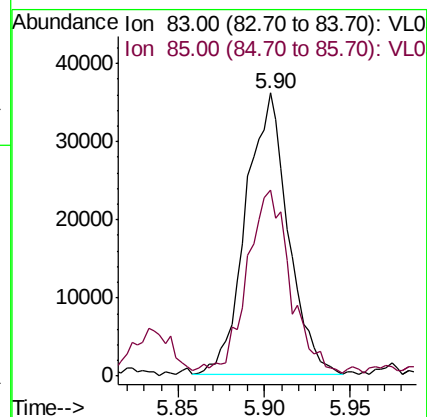
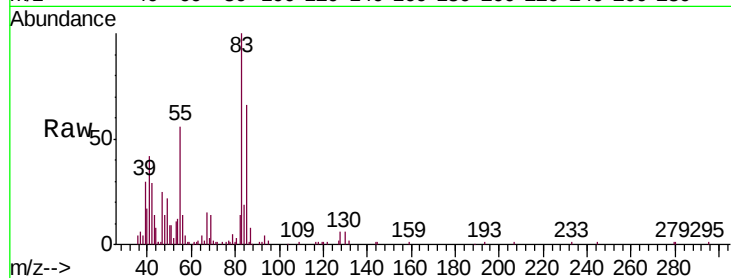
SS09-MIVIDL

Tgt Ion: 83 Resp: 61687

Ion Ratio Lower Upper

83 100

85 64.9 51.6 77.4



#30

Cyclohexane

Concen: 1.611 ppbv

RT: 7.31 min Scan# 1935

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

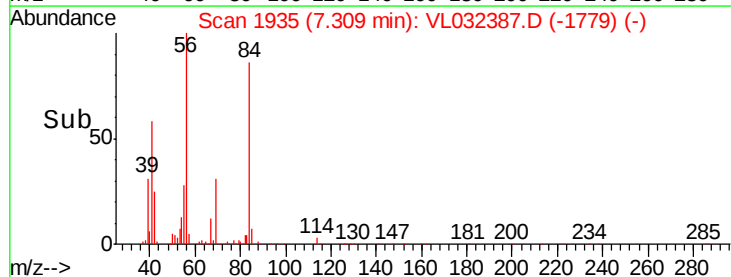
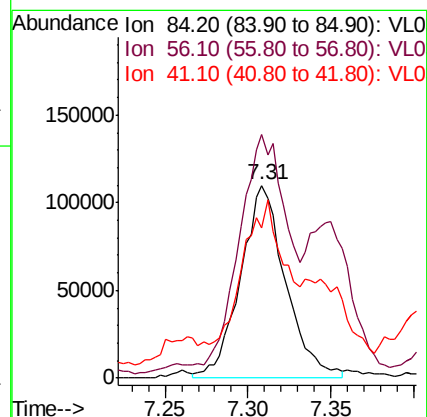
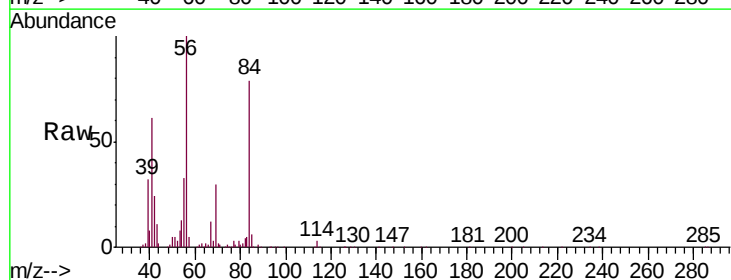
Tgt Ion: 84 Resp: 207793

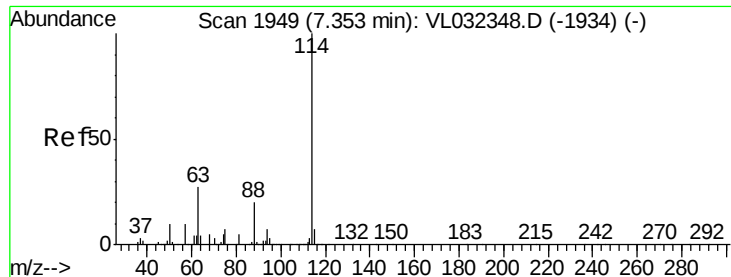
Ion Ratio Lower Upper

84 100

56 214.2 115.7 173.5#

41 160.7 67.9 101.9#

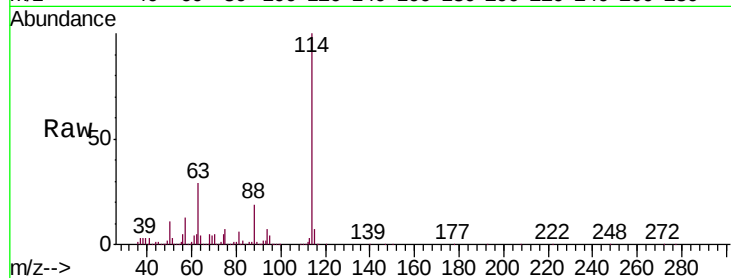




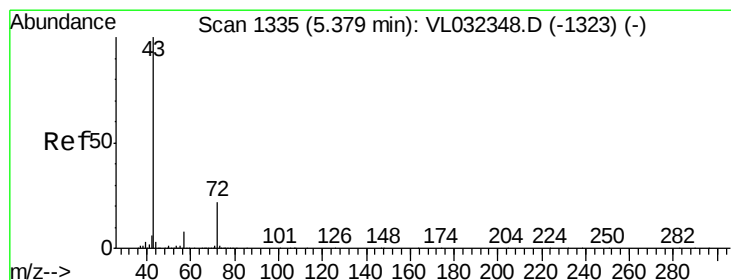
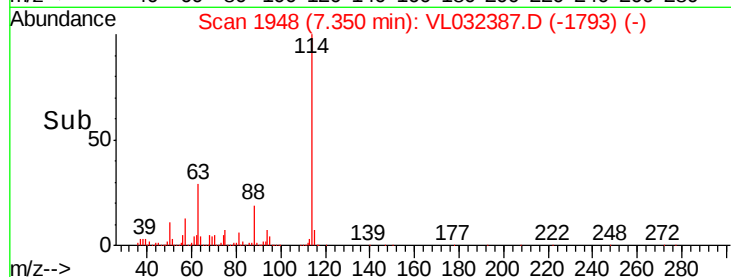
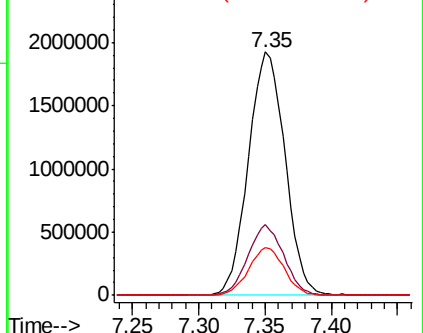
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.35 min Scan# 1948
 Delta R.T. -0.00 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

Instrument :
 MSVOA_L
 ClientSampleId :
 SS09-MIVIDL

Tgt Ion:114 Resp: 3708619
 Ion Ratio Lower Upper
 114 100
 63 28.5 22.0 33.0
 88 19.2 15.3 22.9

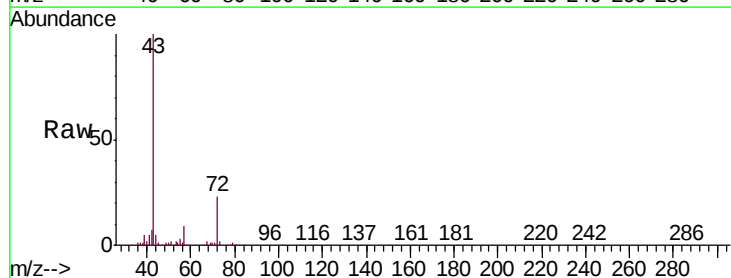


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

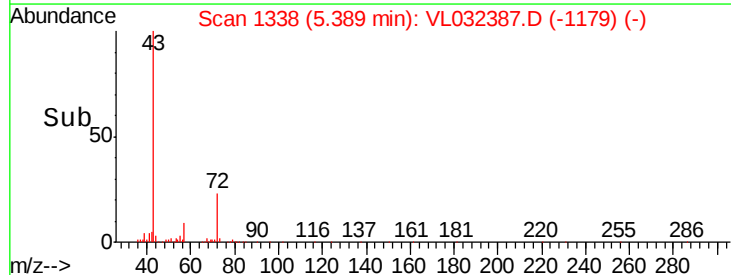
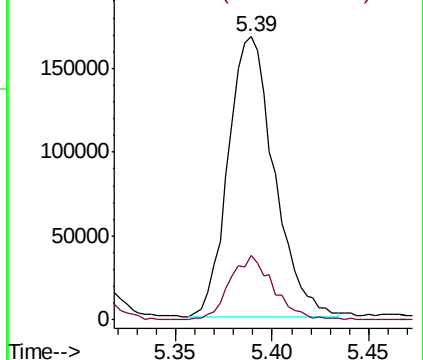


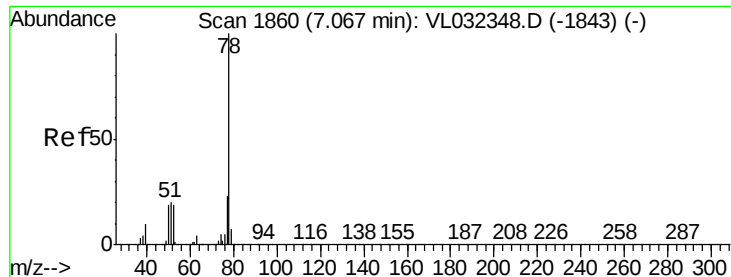
#34
 2-Butanone
 Concen: 1.100 ppbv
 RT: 5.39 min Scan# 1338
 Delta R.T. 0.01 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

Tgt Ion: 43 Resp: 277535
 Ion Ratio Lower Upper
 43 100
 72 22.0 17.9 26.9



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





#36

Benzene

Concen: 1.135 ppbv

RT: 7.06 min Scan# 1858

Delta R.T. -0.01 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

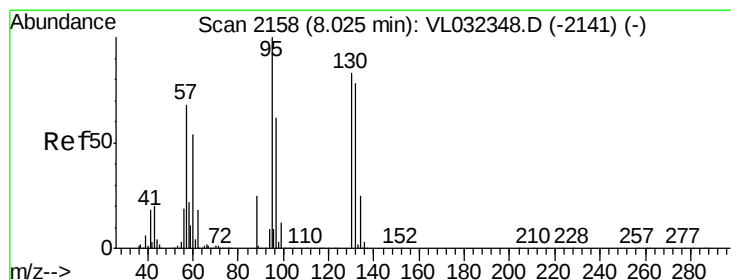
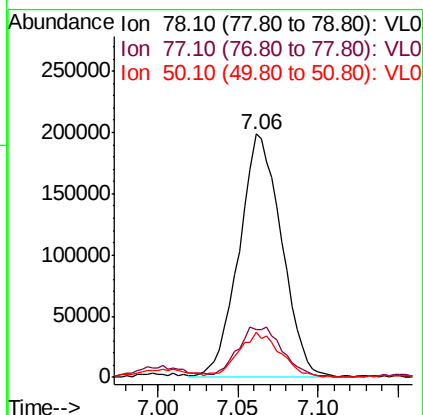
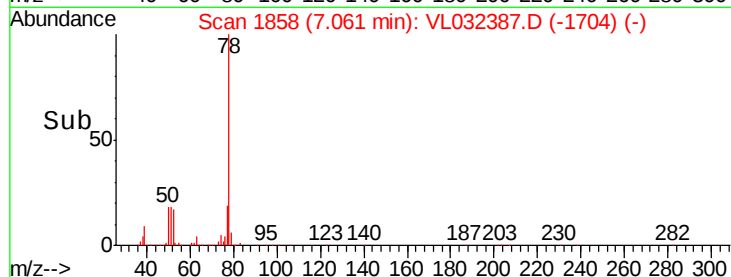
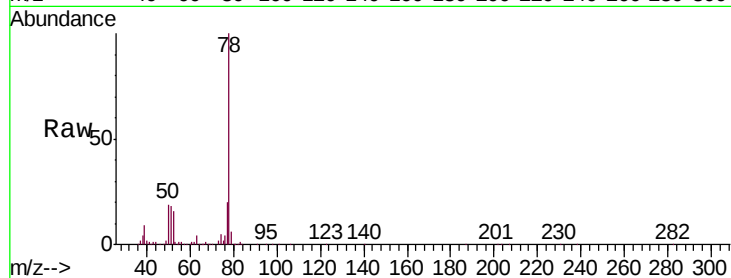
Tgt Ion: 78 Resp: 356960

Ion Ratio Lower Upper

78 100

77 19.5 18.0 27.0

50 18.3 15.1 22.7



#38

Trichloroethene

Concen: 28.494 ppbv

RT: 8.02 min Scan# 2156

Delta R.T. -0.01 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Tgt Ion: 130 Resp: 3142347

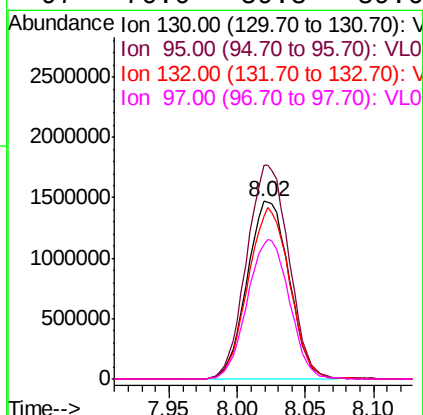
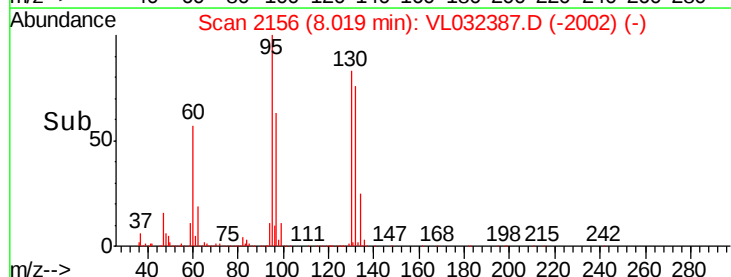
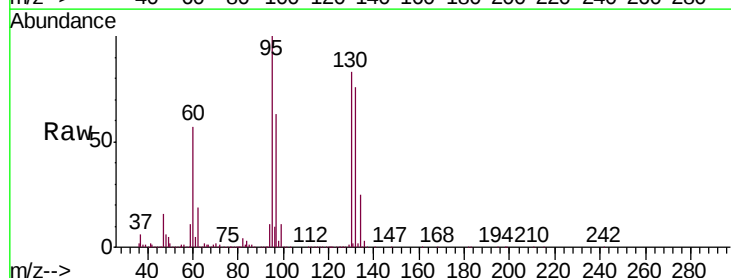
Ion Ratio Lower Upper

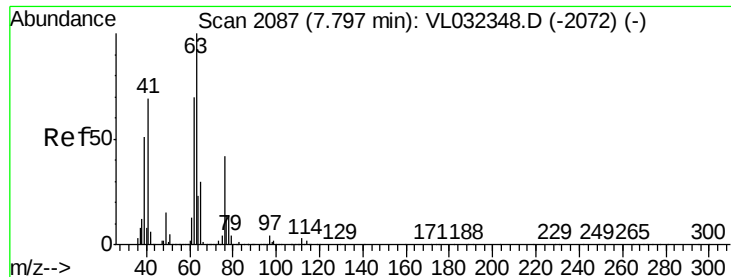
130 100

95 120.2 96.6 144.8

132 91.6 75.5 113.3

97 76.0 59.8 89.6



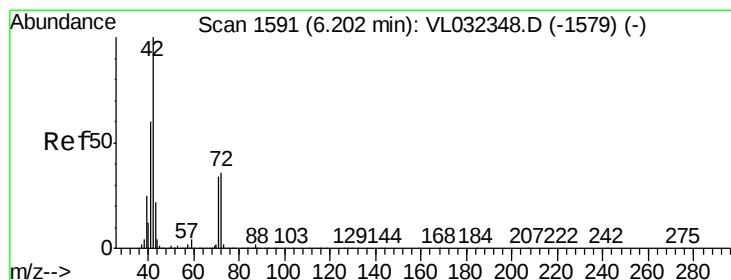
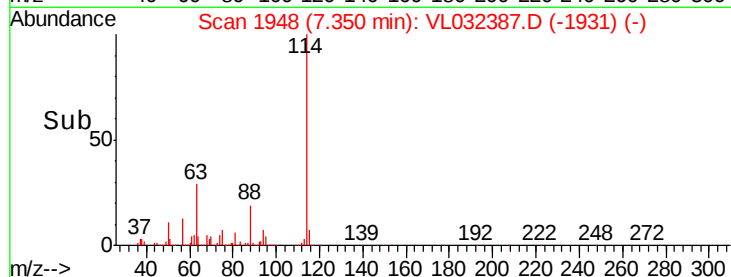
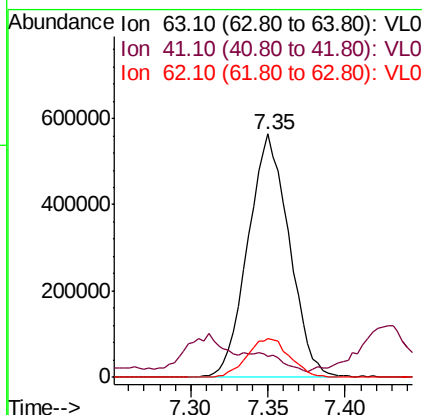
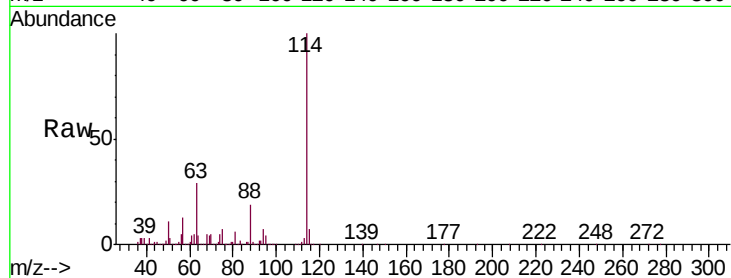


#39
 1,2-Dichloropropane
 Concen: 7.929 ppbv
 RT: 7.35 min Scan# 1948
 Delta R.T. -0.45 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

Instrument :
 MSVOA_L
 ClientSampleId :
 SS09-MIVIDL

Tgt Ion: 63 Resp: 1041392

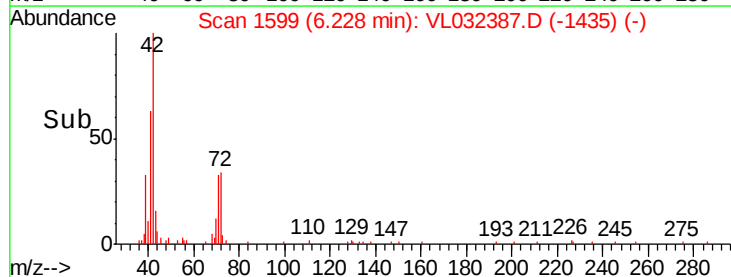
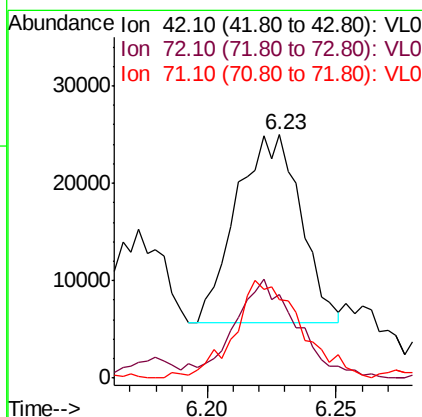
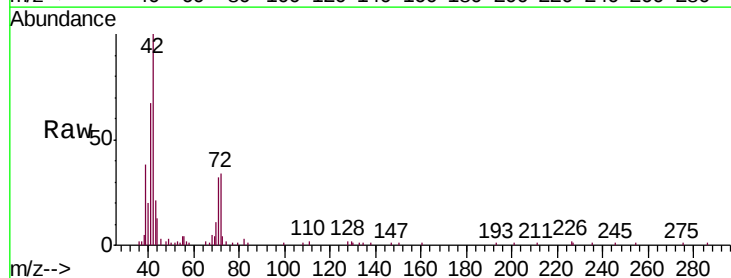
Ion	Ratio	Lower	Upper
63	100		
41	3.1	55.5	83.3#
62	15.7	56.3	84.5#

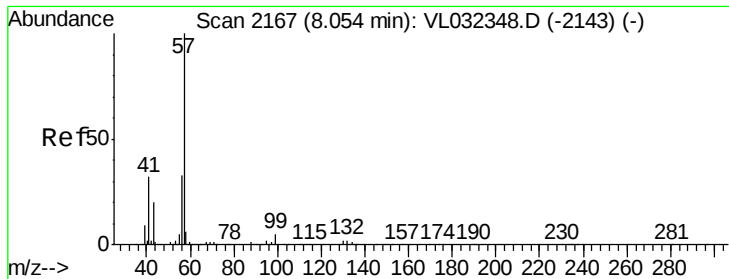


#41
 Tetrahydrofuran
 Concen: 0.249 ppbv
 RT: 6.23 min Scan# 1599
 Delta R.T. 0.03 min
 Lab File: VL032387.D
 Acq: 16 Aug 2018 21:43

Tgt Ion: 42 Resp: 33682

Ion	Ratio	Lower	Upper
42	100		
72	61.1	29.8	44.6#
71	56.9	28.2	42.2#

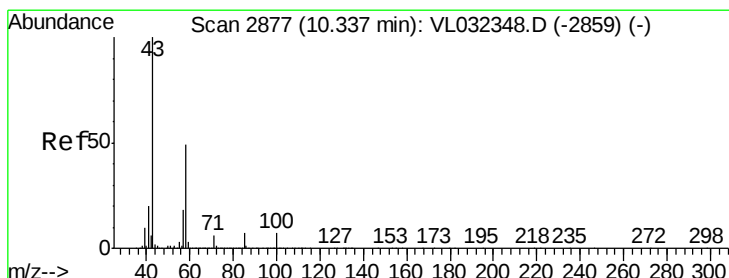
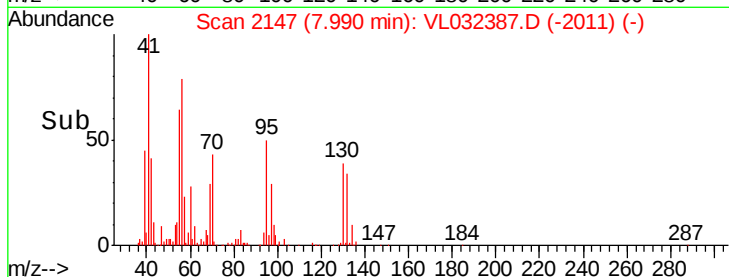
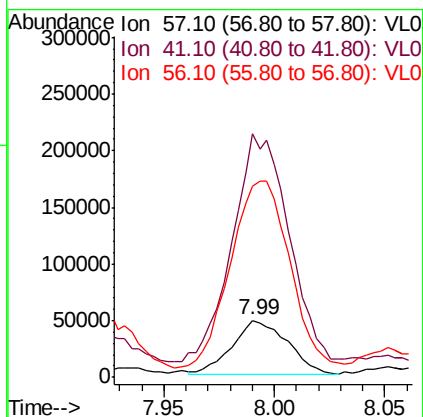
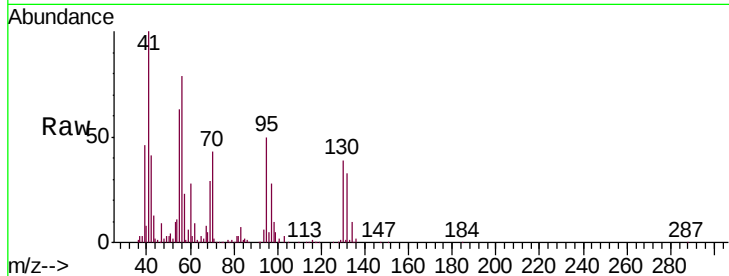




#44
2,2,4-Trimethylpentane
Concen: 0.143 ppbv
RT: 7.99 min Scan# 2147
Delta R.T. -0.06 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

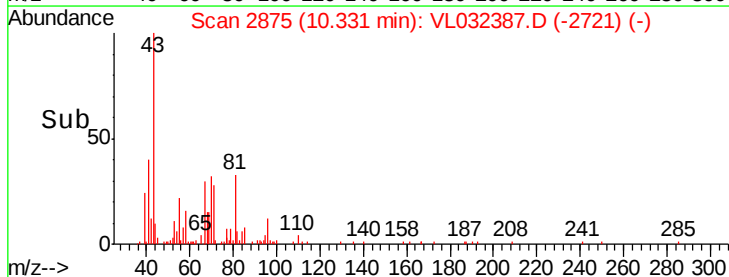
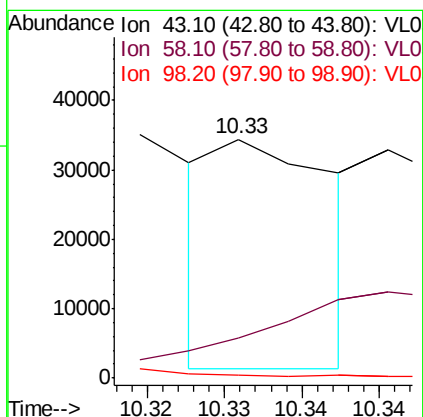
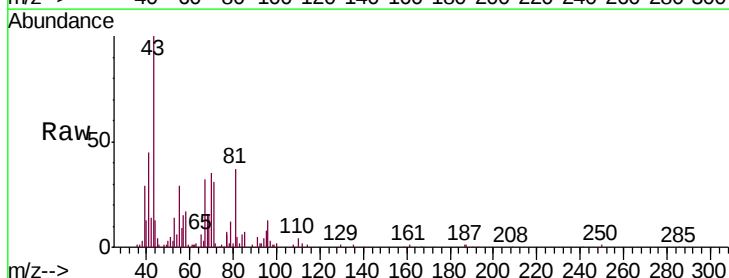
Instrument :
MSVOA_L
ClientSampleId :
SS09-MIVIDL

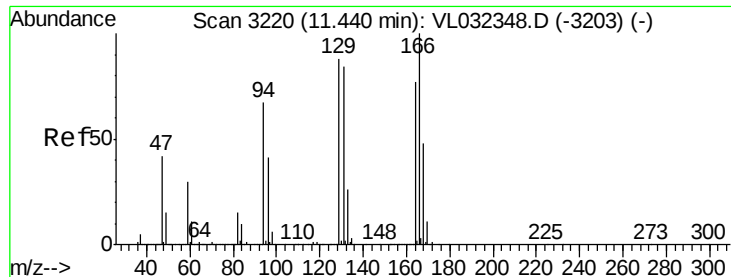
Tgt Ion: 57 Resp: 81181
Ion Ratio Lower Upper
57 100
41 564.9 24.3 36.5#
56 423.6 25.7 38.5#



#51
2-Hexanone
Concen: 0.068 ppbv
RT: 10.33 min Scan# 2875
Delta R.T. -0.01 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

Tgt Ion: 43 Resp: 17463
Ion Ratio Lower Upper
43 100
58 0.0 39.5 59.3#
98 0.0 0.3 0.5#





#52

Tetrachloroethene

Concen: 0.241 ppbv

RT: 11.44 min Scan# 3219

Delta R.T. -0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

Tgt Ion:164 Resp: 22383

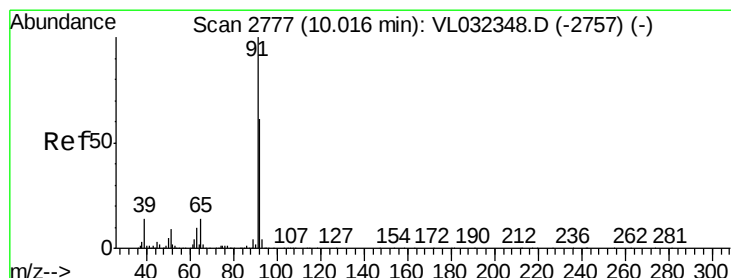
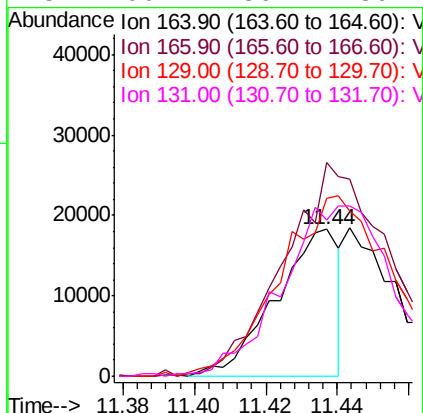
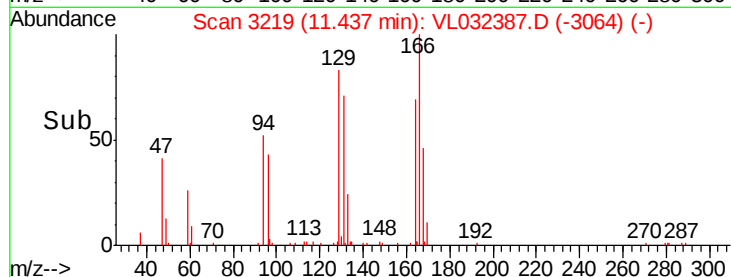
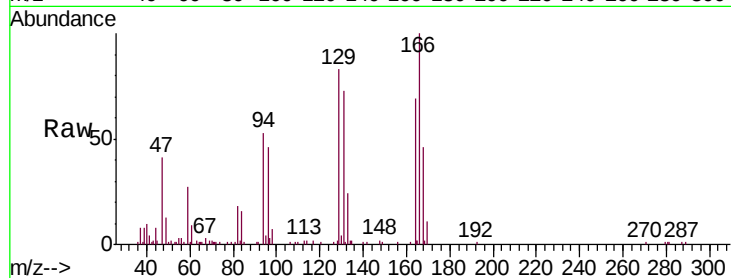
Ion Ratio Lower Upper

164 100

166 138.4 103.5 155.3

129 115.0 90.9 136.3

131 100.7 86.7 130.1



#53

Toluene

Concen: 0.826 ppbv

RT: 10.01 min Scan# 2775

Delta R.T. -0.01 min

Lab File: VL032387.D

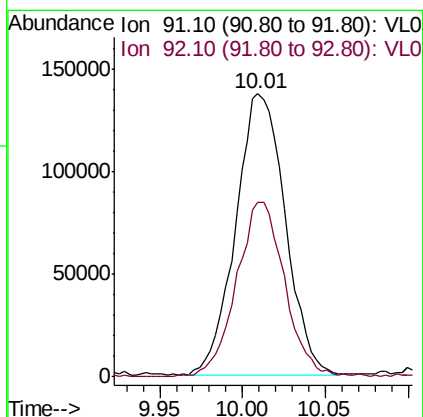
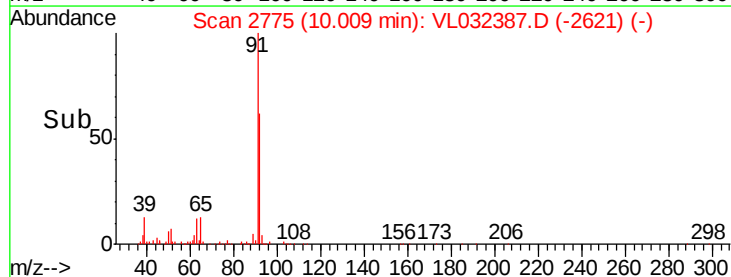
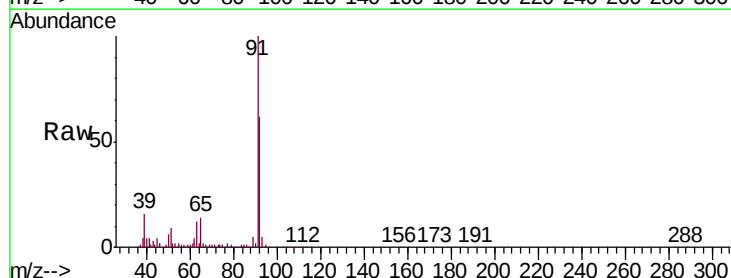
Acq: 16 Aug 2018 21:43

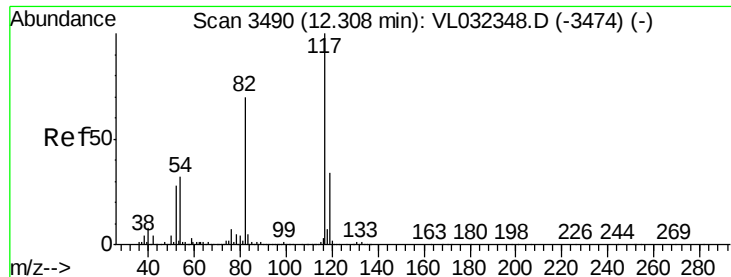
Tgt Ion: 91 Resp: 284751

Ion Ratio Lower Upper

91 100

92 61.5 48.7 73.1

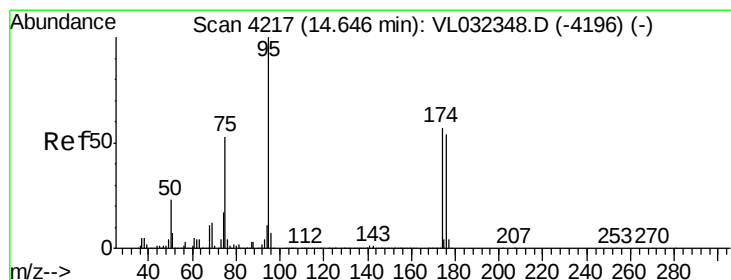
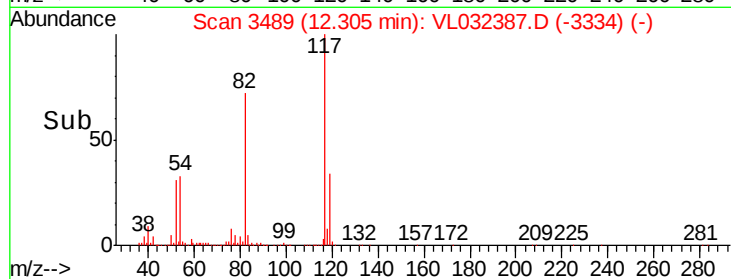
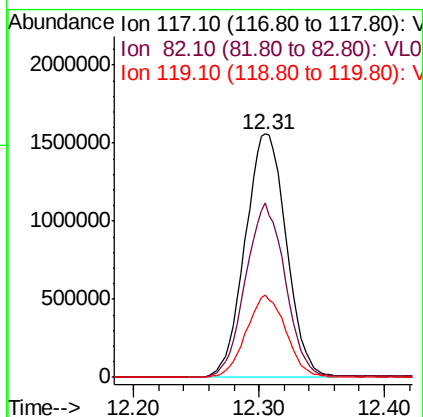
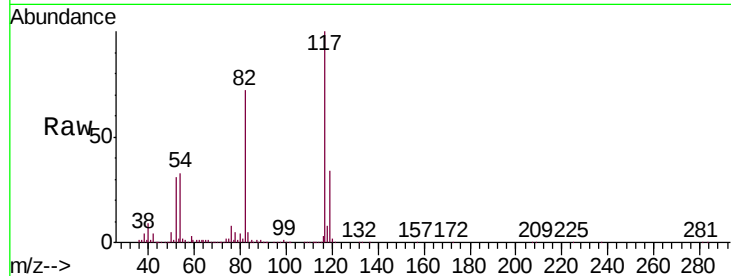




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.31 min Scan# 3489
Delta R.T. -0.00 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

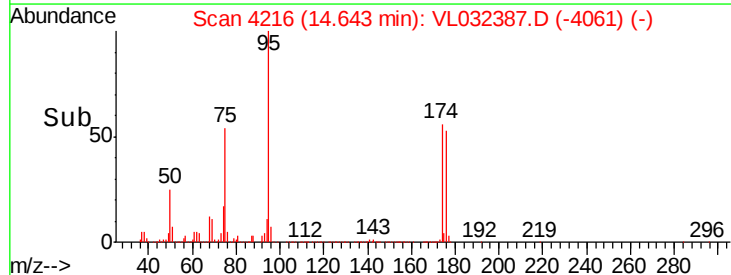
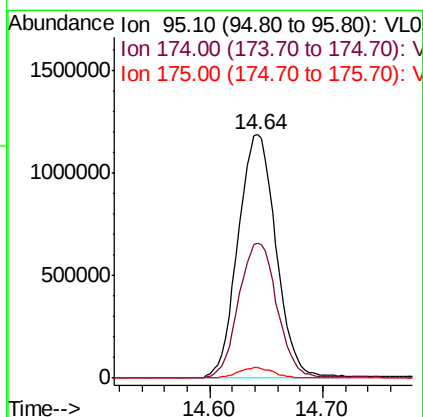
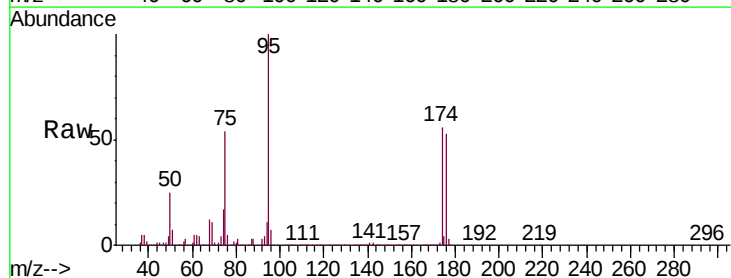
Instrument :
MSVOA_L
ClientSampleId :
SS09-MIVIDL

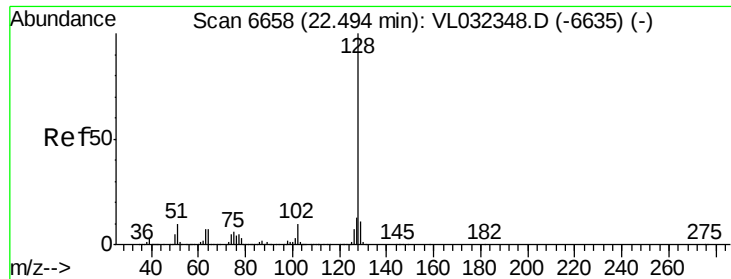
Tgt Ion:117 Resp: 3568697
Ion Ratio Lower Upper
117 100
82 68.8 55.1 82.7
119 32.7 46.0 69.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.182 ppbv
RT: 14.64 min Scan# 4216
Delta R.T. -0.00 min
Lab File: VL032387.D
Acq: 16 Aug 2018 21:43

Tgt Ion: 95 Resp: 2772108
Ion Ratio Lower Upper
95 100
174 57.1 46.2 69.4
175 4.2 3.4 5.0





#79

Naphthalene

Concen: 0.330 ppbv

RT: 22.49 min Scan# 6658

Delta R.T. 0.00 min

Lab File: VL032387.D

Acq: 16 Aug 2018 21:43

Instrument :

MSVOA_L

ClientSampleId :

SS09-MIVIDL

Tgt Ion:128 Resp: 984

Ion Ratio Lower Upper

128 100

127 0.0 10.3 15.5#

129 25.5 8.6 13.0#

