

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL072718\
 Data File : VL032325.D
 Acq On : 27 Jul 2018 19:11
 Operator : SY/AP
 Sample : J4131-03DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jul 27 23:19:40 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL072718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jul 27 07:05:37 2018
 QLast Update : Fri Jul 27 07:05:37 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.83	49	1809076	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.37	114	3857147	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.32	117	4384549	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.66	95	3497547	10.28	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.80%

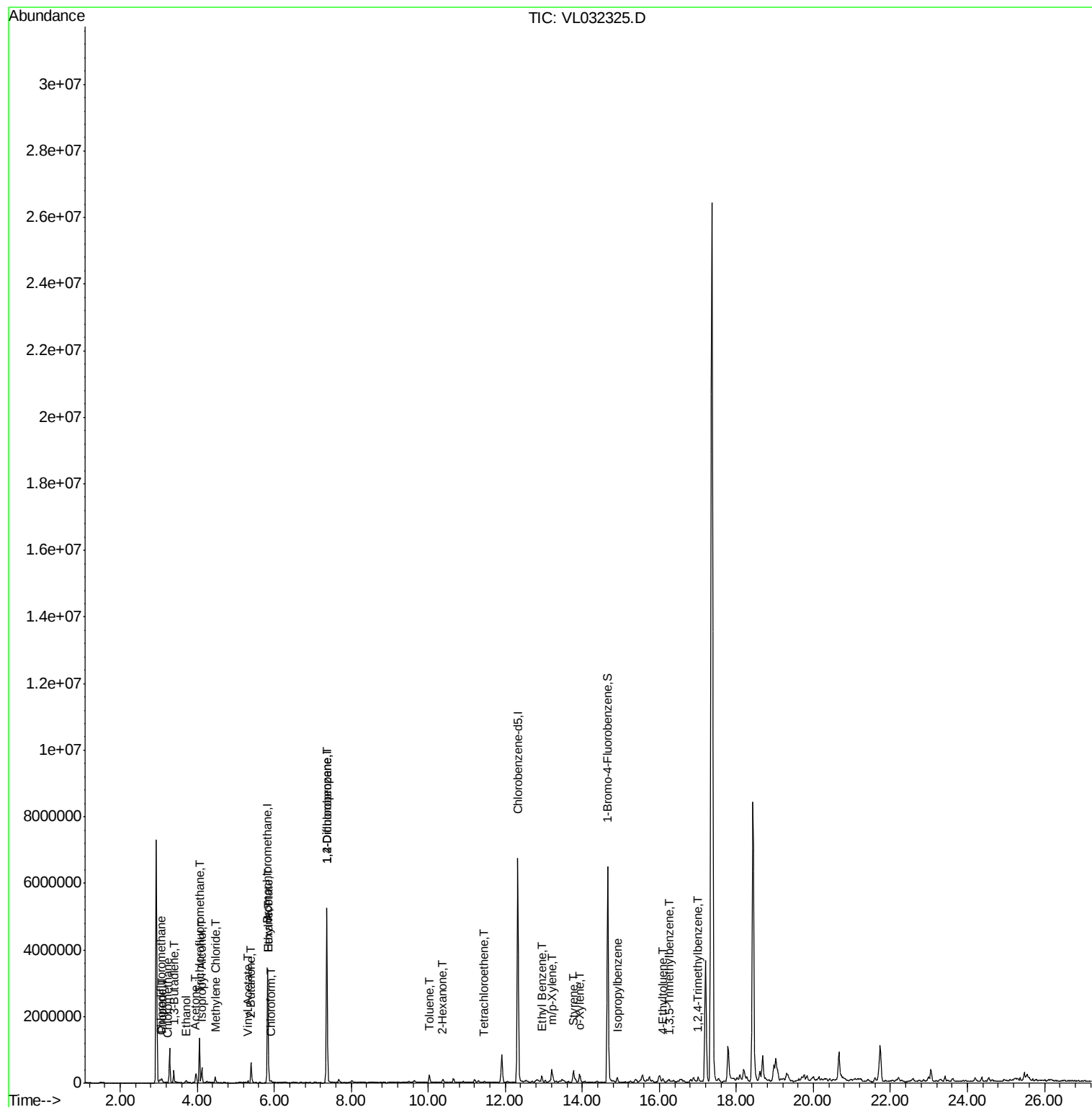
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.06	51	109654	0.606	ppbv #	85
4) Chloromethane	3.22	50	5466	0.050	ppbv #	80
9) Propene	3.08	41	45302	0.557	ppbv	97
11) Trichlorofluoromethane	4.06	101	899156	4.314	ppbv	99
13) Ethanol	3.71	45	38160	1.633	ppbv #	37
15) Acetone	3.96	43	272671	1.599	ppbv #	78
16) 1,3-Butadiene	3.39	39	91956	1.040	ppbv #	9
19) Isopropyl Alcohol	4.12	45	83573	0.735	ppbv #	95
20) Methylene Chloride	4.47	84	54298	0.792	ppbv	91
23) Vinyl Acetate	5.32	43	10084	0.033	ppbv #	17
25) Ethyl Acetate	5.85	43	32654	0.085	ppbv #	81
26) Hexane	5.85	57	49457	0.286	ppbv #	61
29) Chloroform	5.92	83	12527	0.050	ppbv	91
34) 2-Butanone	5.40	43	734155	2.941	ppbv	99
39) 1,2-Dichloropropane	7.37	63	1042669	6.096	ppbv #	26
51) 2-Hexanone	10.38	43	90495	0.270	ppbv #	98
52) Tetrachloroethene	11.45	164	4993	0.044	ppbv #	64
53) Toluene	10.03	91	174213	0.429	ppbv	100
58) Ethyl Benzene	12.95	91	67110	0.122	ppbv	96
59) m/p-Xylene	13.20	91	373466	0.798	ppbv	100
60) o-Xylene	13.94	91	87139	0.190	ppbv #	29
61) Styrene	13.77	104	200643	0.594	ppbv	100
62) Isopropylbenzene	14.92	105	48348	0.074	ppbv #	50
72) 4-Ethyltoluene	16.09	105	38821	0.075	ppbv #	90
73) 1,3,5-Trimethylbenzene	16.25	105	17725	0.035	ppbv	97
74) 1,2,4-Trimethylbenzene	17.01	105	65638	0.123	ppbv #	61

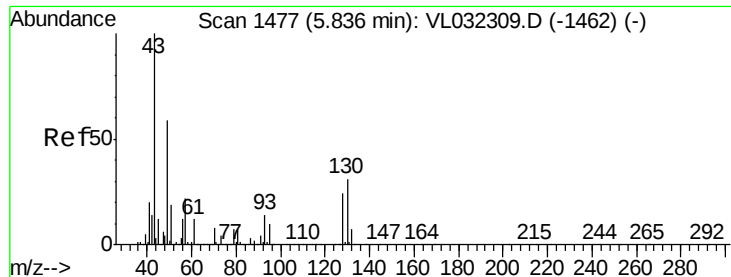
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Fri Jul 27 07:05:37 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.83 min Scan# 1475

Delta R.T. -0.01 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

ClientSampleId :

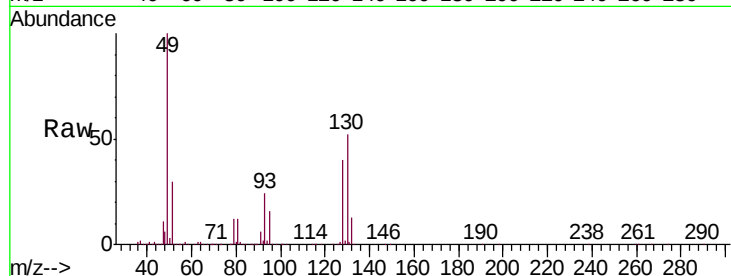
Tot Ion: 49 Resp: 1809076

Ion Ratio Lower Upper

49 100

128 40.7 20.2 60.6

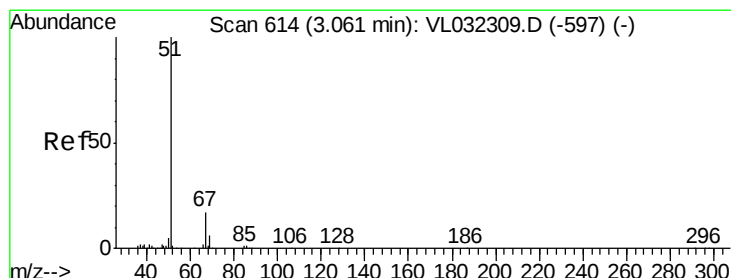
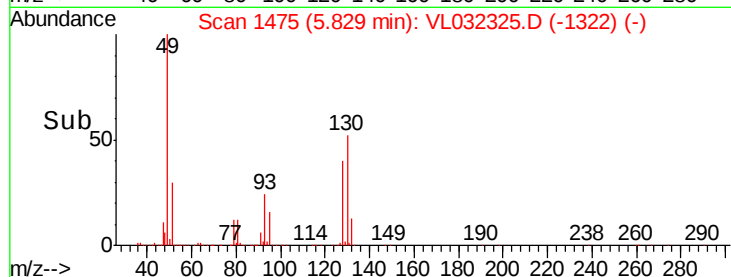
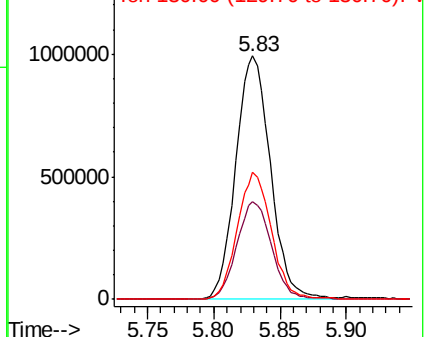
130 51.3 25.8 77.3



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



#3

Chlorodifluoromethane

Concen: 0.606 ppbv

RT: 3.06 min Scan# 613

Delta R.T. -0.00 min

Lab File: VL032325.D

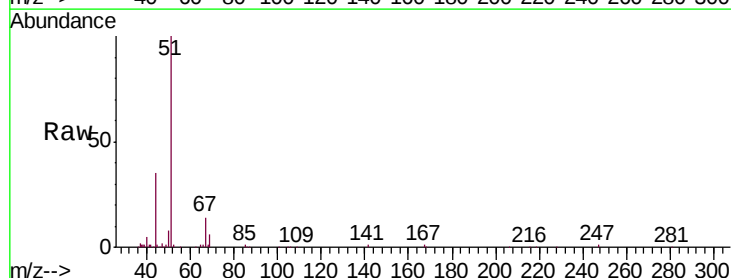
Acq: 27 Jul 2018 19:11

Tgt Ion: 51 Resp: 109654

Ion Ratio Lower Upper

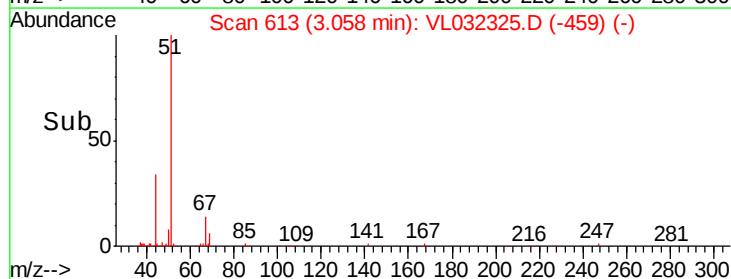
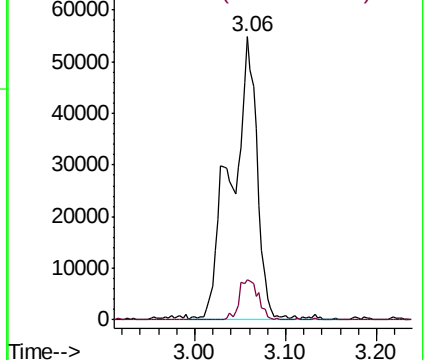
51 100

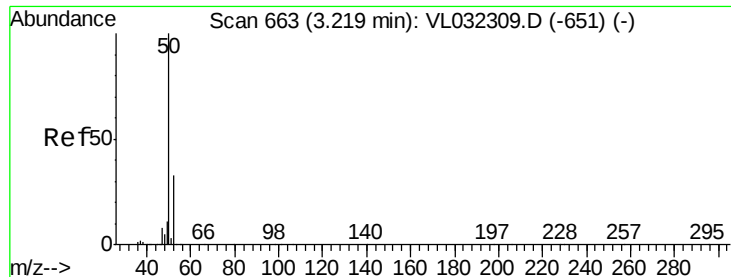
67 10.4 13.5 20.3#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.050 ppbv

RT: 3.22 min Scan# 662

Delta R.T. -0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

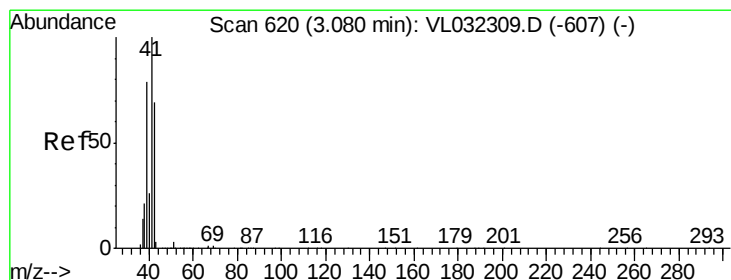
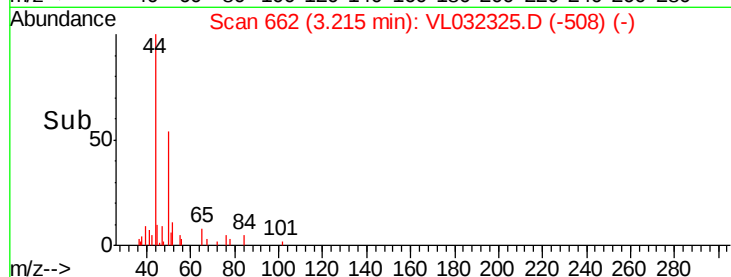
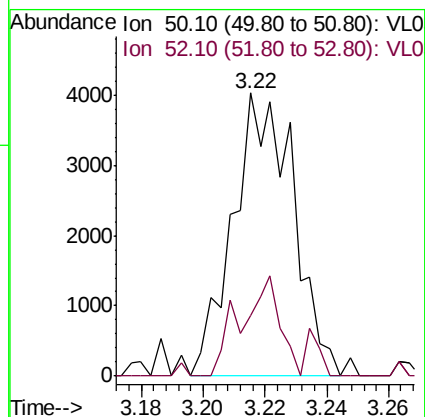
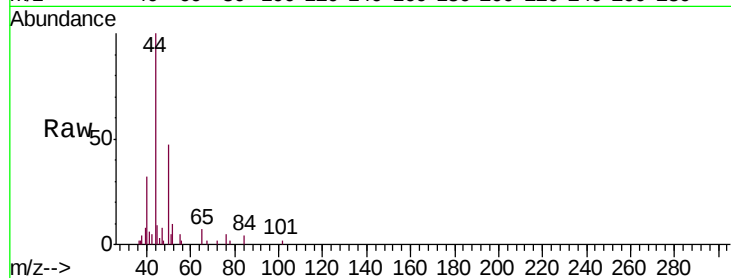
ClientSampleId :

Tot Ion: 50 Resp: 5466

Ion Ratio Lower Upper

50 100

52 21.4 26.2 39.4#



#9

Propene

Concen: 0.557 ppbv

RT: 3.08 min Scan# 621

Delta R.T. 0.00 min

Lab File: VL032325.D

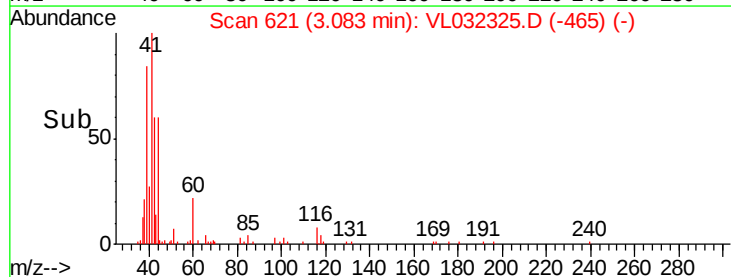
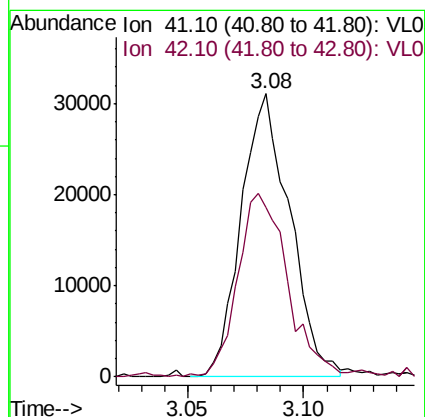
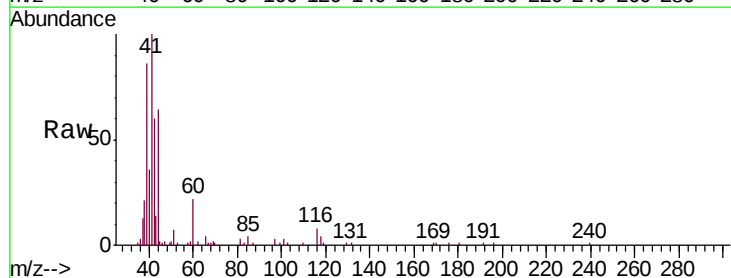
Acq: 27 Jul 2018 19:11

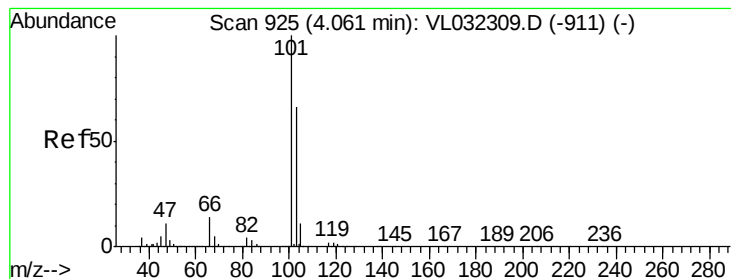
Tgt Ion: 41 Resp: 45302

Ion Ratio Lower Upper

41 100

42 68.7 56.8 85.2





#11

Trichlorofluoromethane

Concen: 4.314 ppbv

RT: 4.06 min Scan# 925

Delta R.T. -0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

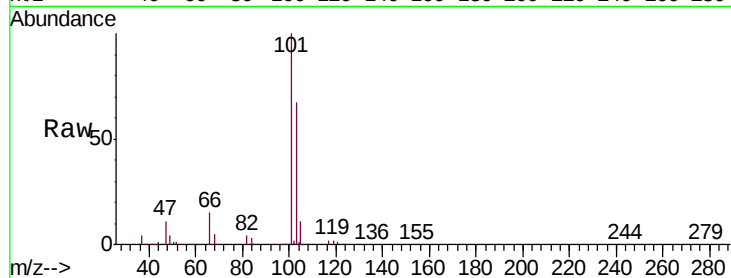
ClientSampleId :

Tot Ion:101 Resp: 899156

Ion Ratio Lower Upper

101 100

103 66.5 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V

4.06

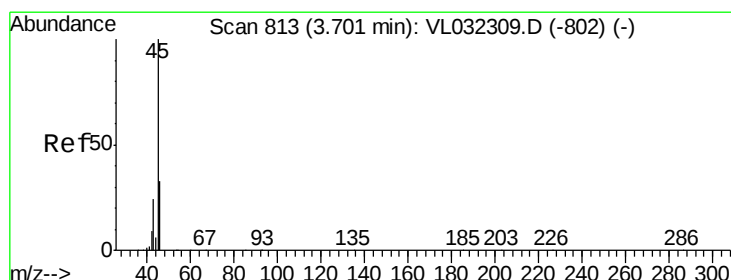
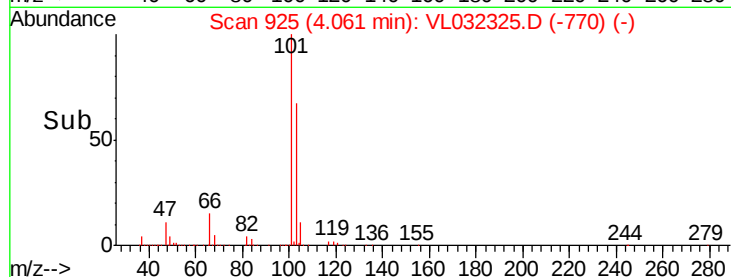
600000

400000

200000

0

Time-->



#13

Ethanol

Concen: 1.633 ppbv

RT: 3.71 min Scan# 815

Delta R.T. 0.01 min

Lab File: VL032325.D

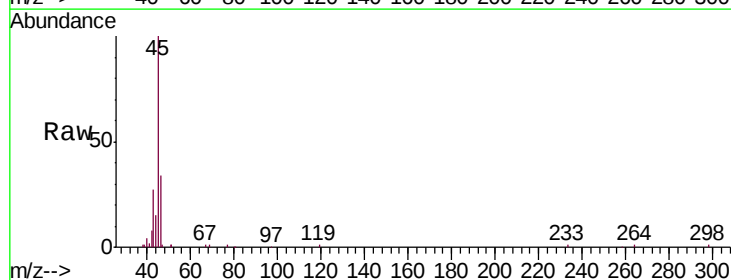
Acq: 27 Jul 2018 19:11

Tgt Ion: 45 Resp: 38160

Ion Ratio Lower Upper

45 100

46 0.0 15.2 60.6#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.71

40000

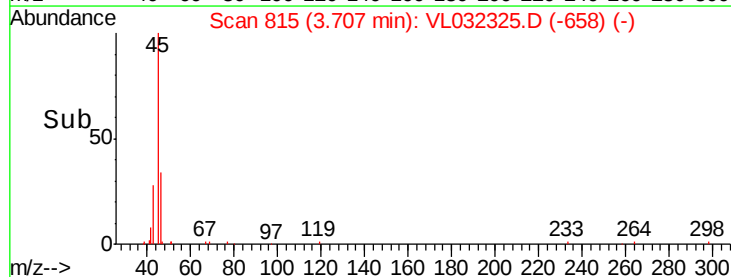
30000

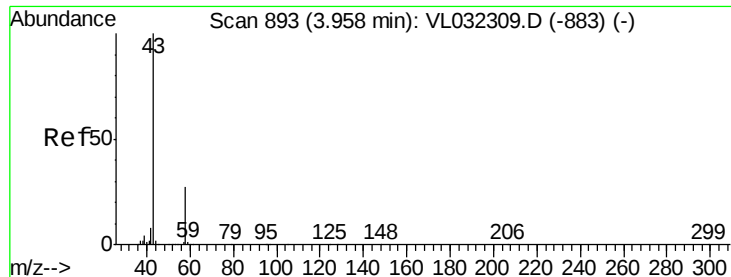
20000

10000

0

Time-->





#15

Acetone

Concen: 1.599 ppbv

RT: 3.96 min Scan# 894

Delta R.T. 0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

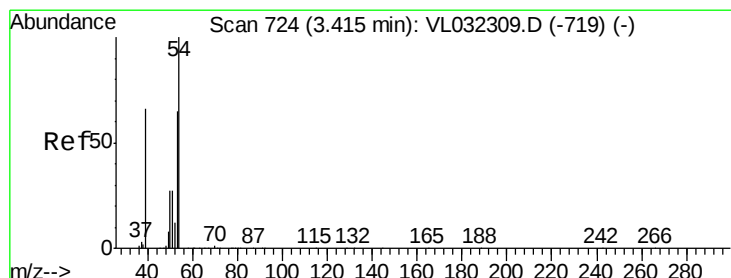
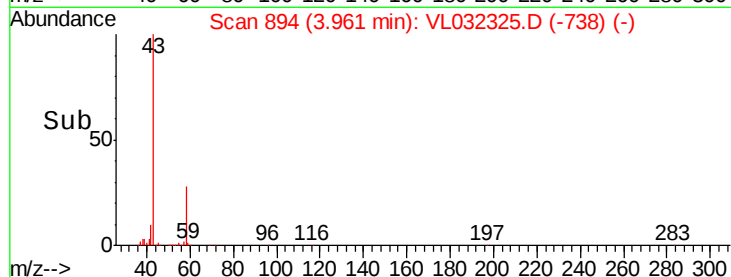
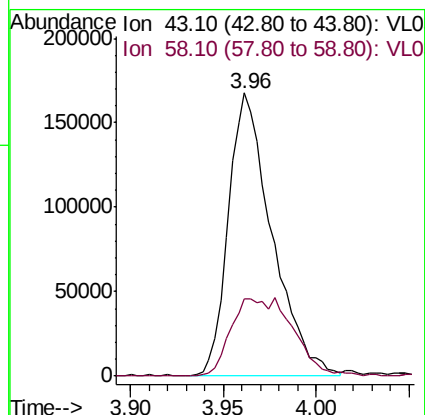
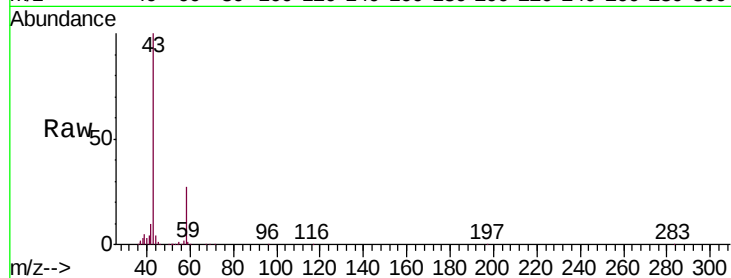
ClientSampleId :

Tot Ion: 43 Resp: 272671

Ion Ratio Lower Upper

43 100

58 39.9 22.5 33.7#



#16

1,3-Butadiene

Concen: 1.040 ppbv

RT: 3.39 min Scan# 717

Delta R.T. -0.02 min

Lab File: VL032325.D

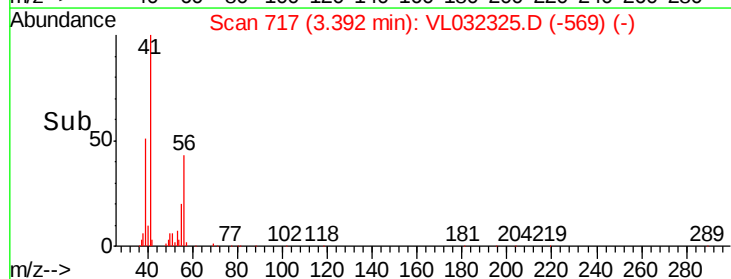
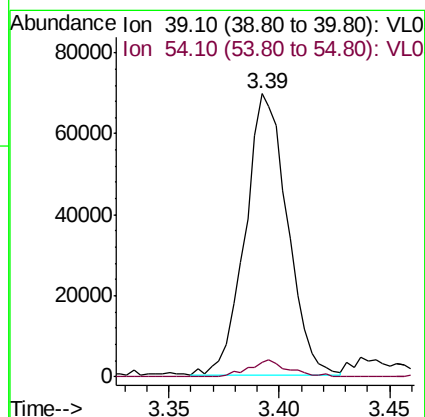
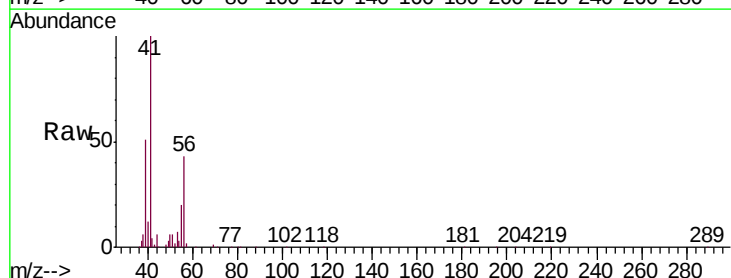
Acq: 27 Jul 2018 19:11

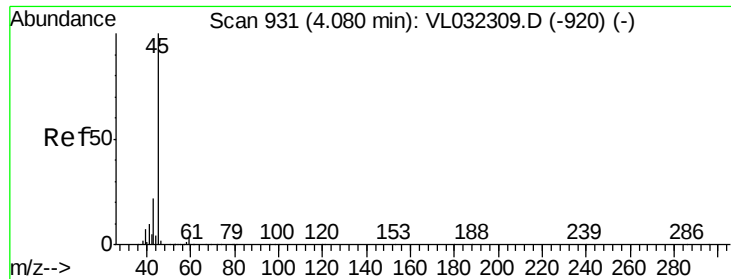
Tgt Ion: 39 Resp: 91956

Ion Ratio Lower Upper

39 100

54 5.6 74.3 111.5#





#19

Isopropyl Alcohol

Concen: 0.735 ppbv

RT: 4.12 min Scan# 942

Delta R.T. 0.04 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

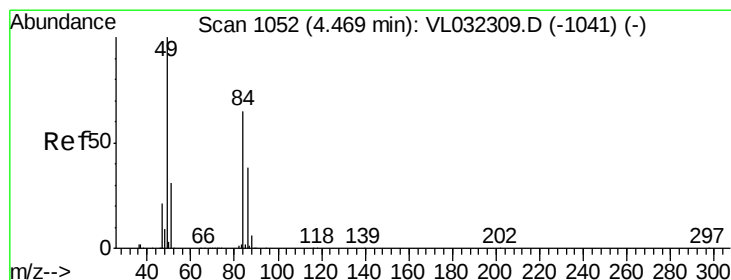
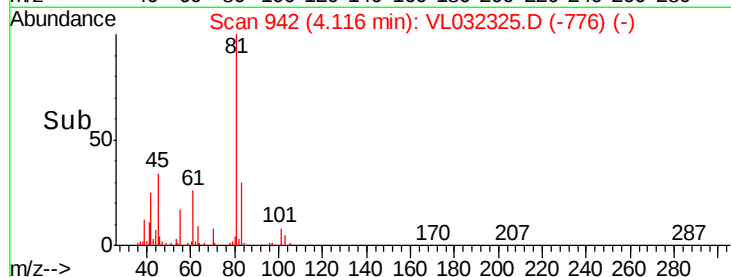
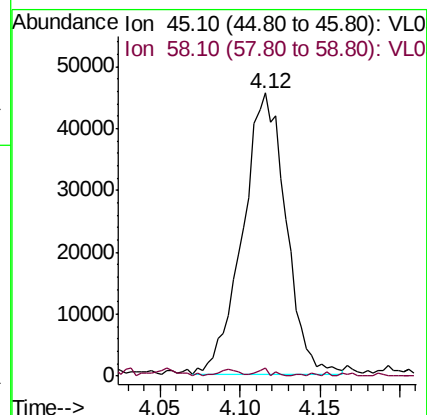
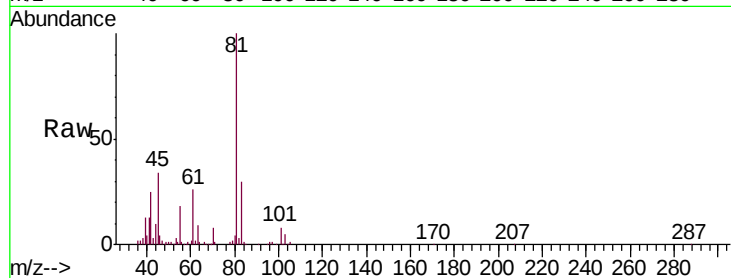
ClientSampled :

Tot Ion: 45 Resp: 83573

Ion Ratio Lower Upper

45 100

58 0.0 1.5 2.3#



#20

Methylene Chloride

Concen: 0.792 ppbv

RT: 4.47 min Scan# 1051

Delta R.T. -0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Tgt Ion: 84 Resp: 54298

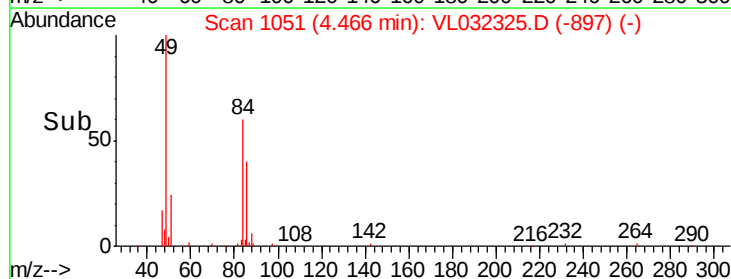
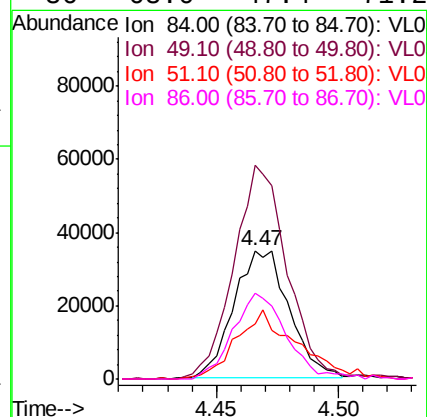
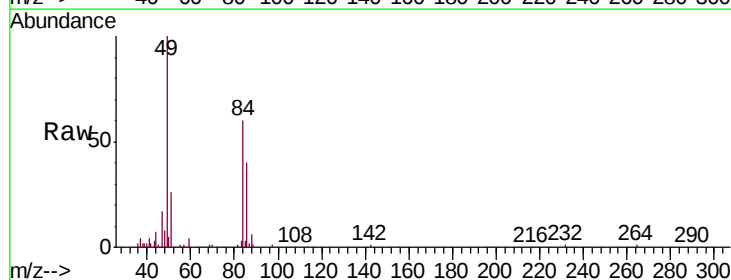
Ion Ratio Lower Upper

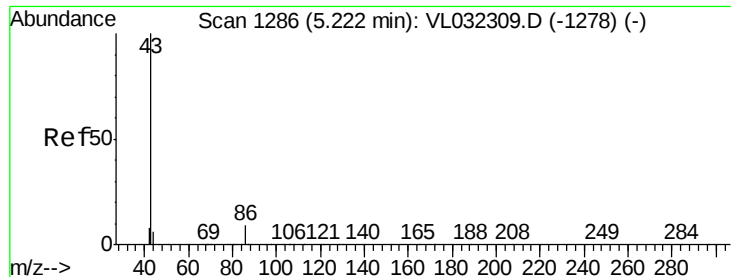
84 100

49 165.4 123.4 185.0

51 41.9 38.2 57.2

86 68.0 47.4 71.2

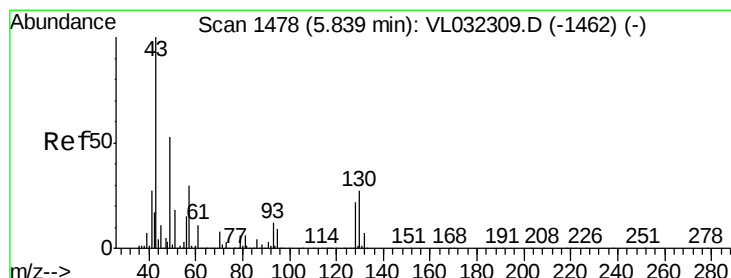
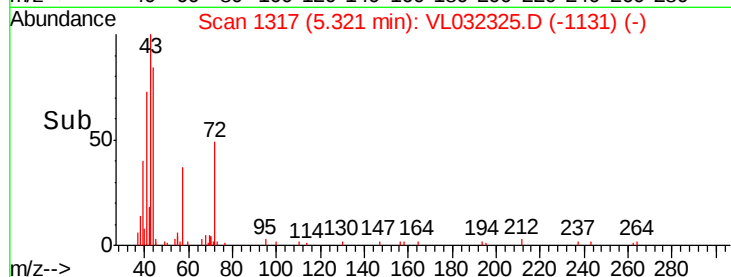
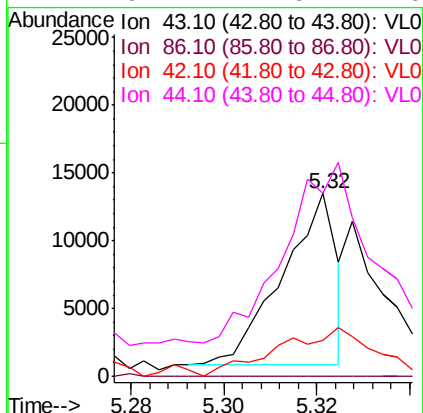
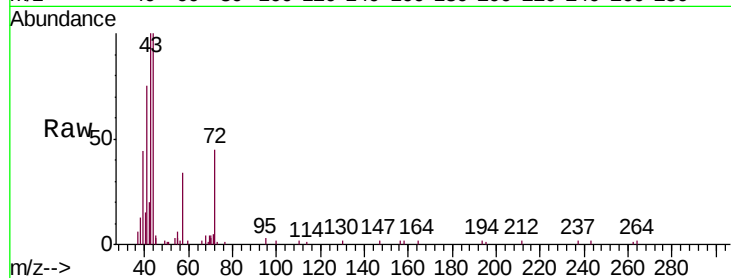




#23
 Vinyl Acetate
 Concen: 0.033 ppbv
 RT: 5.32 min Scan# 1317
 Delta R.T. 0.10 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

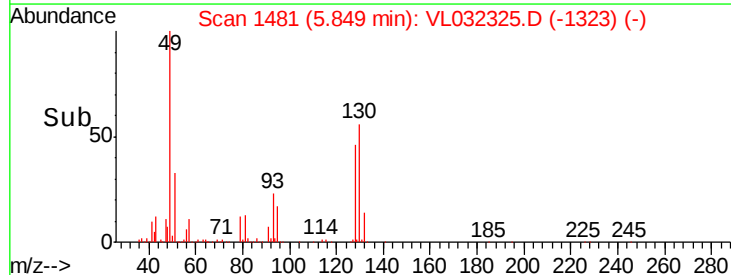
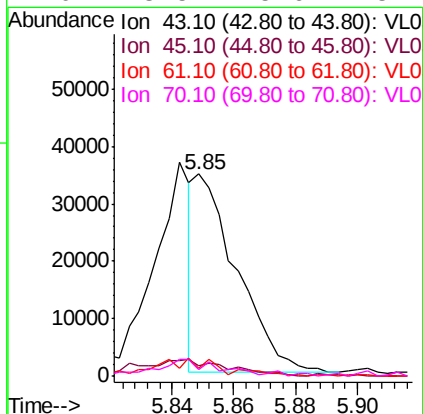
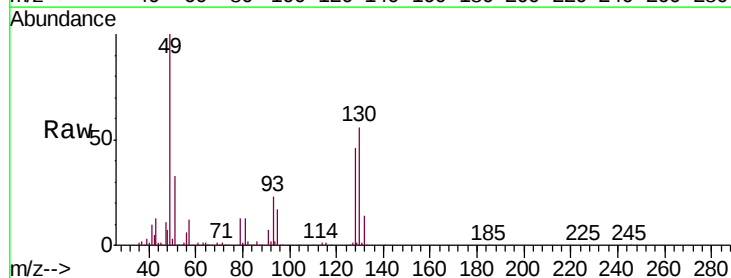
Instrument :
 MSVOA_L
 ClientSampleId :

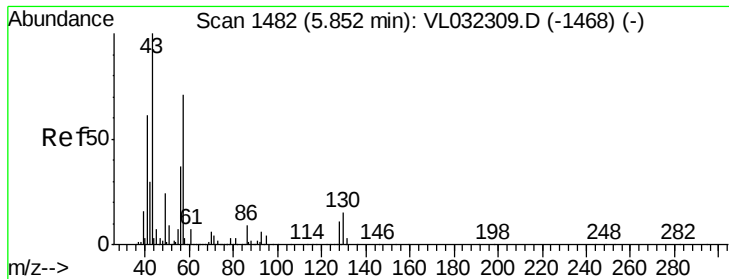
Tot Ion:	43	Resp:	10084
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.3	9.5#
42	17.0	7.0	10.4#
44	91.2	4.6	7.0#



#25
 Ethyl Acetate
 Concen: 0.085 ppbv
 RT: 5.85 min Scan# 1481
 Delta R.T. 0.01 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

Tgt Ion:	43	Resp:	32654
Ion	Ratio	Lower	Upper
43	100		
45	19.3	8.1	12.1#
61	13.8	7.4	11.0#
70	13.5	5.6	8.4#

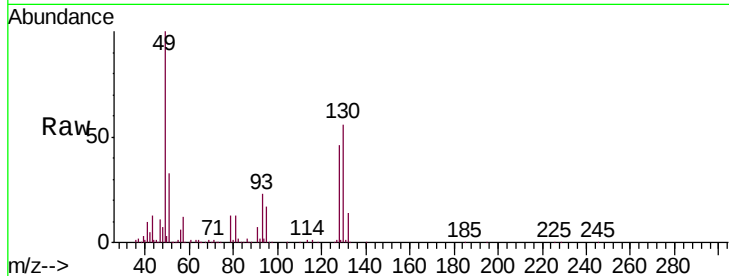




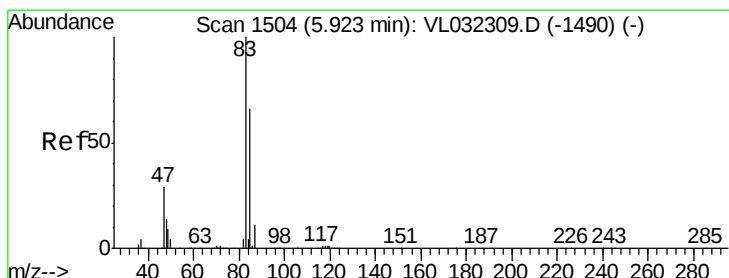
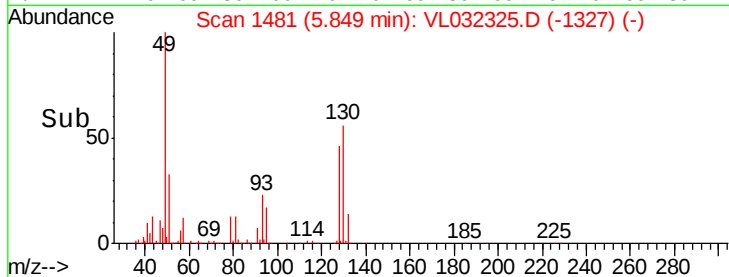
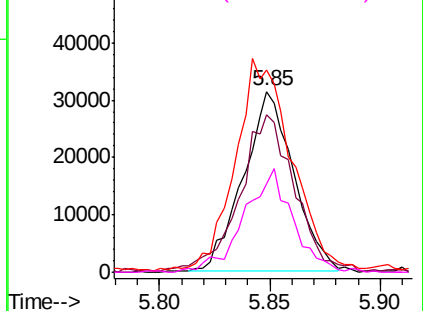
#26
Hexane
Concen: 0.286 ppbv
RT: 5.85 min Scan# 1481
Delta R.T. -0.00 min
Lab File: VL032325.D
Acq: 27 Jul 2018 19:11

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 57 Resp: 49457
Ion Ratio Lower Upper
57 100
41 97.9 68.1 102.1
43 130.7 177.4 266.2#
56 56.2 41.9 62.9

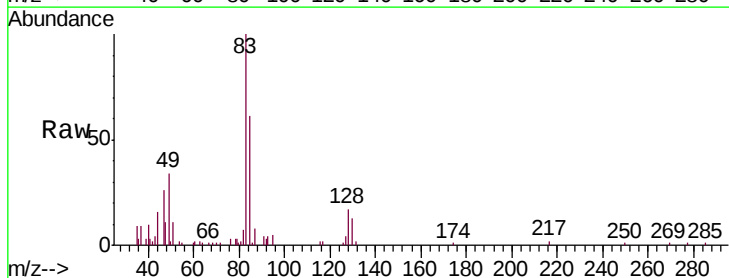


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

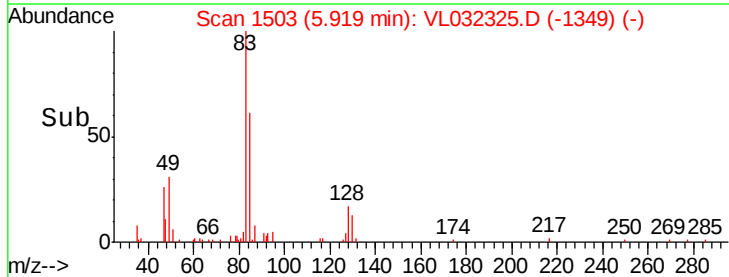
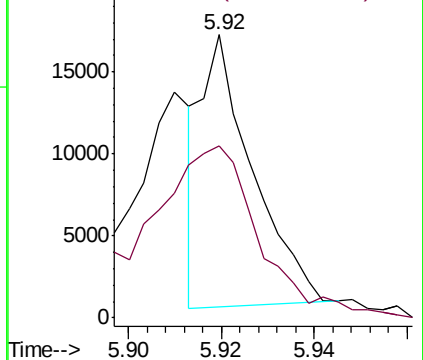


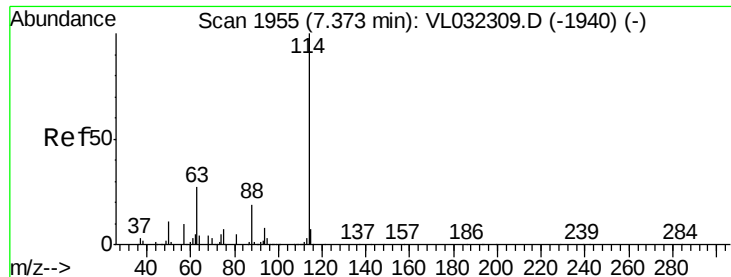
#29
Chloroform
Concen: 0.050 ppbv
RT: 5.92 min Scan# 1503
Delta R.T. -0.00 min
Lab File: VL032325.D
Acq: 27 Jul 2018 19:11

Tgt Ion: 83 Resp: 12527
Ion Ratio Lower Upper
83 100
85 59.0 52.9 79.3



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0

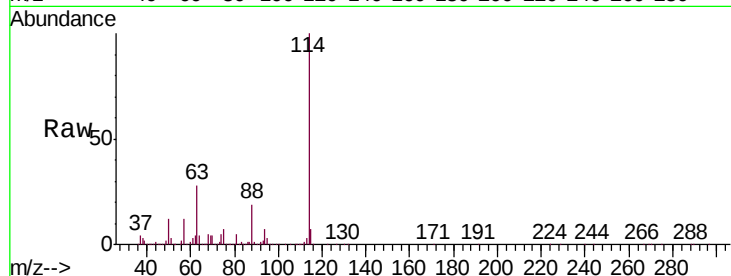




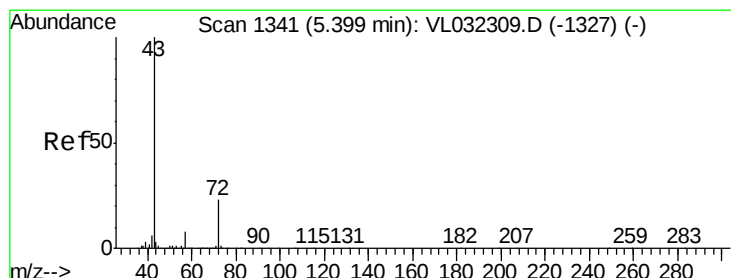
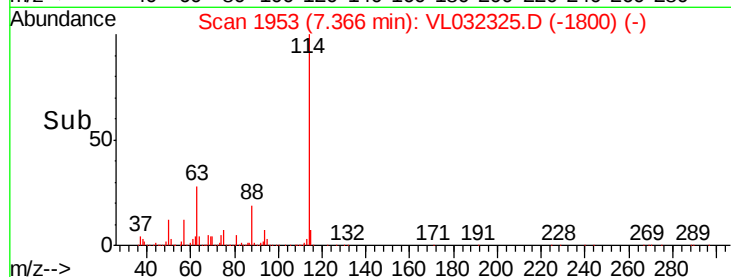
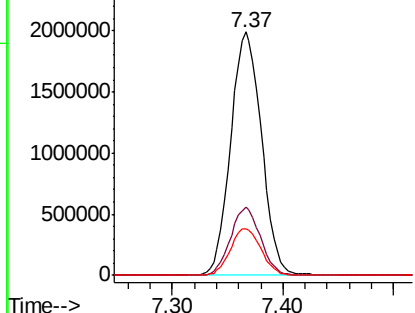
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.37 min Scan# 1953
 Delta R.T. -0.01 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3857147
 Ion Ratio Lower Upper
 114 100
 63 27.3 22.4 33.6
 88 19.2 15.3 22.9

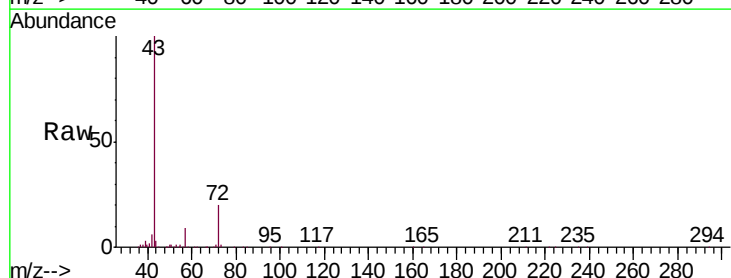


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

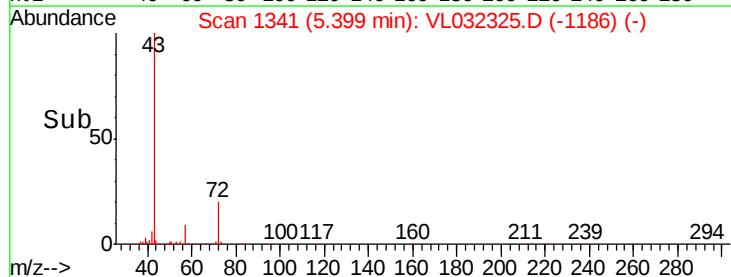
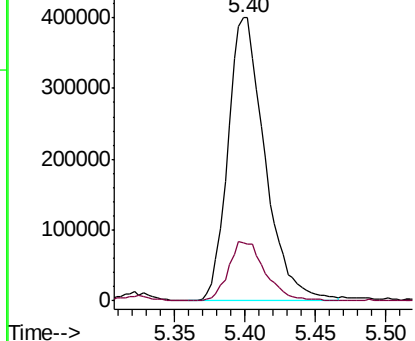


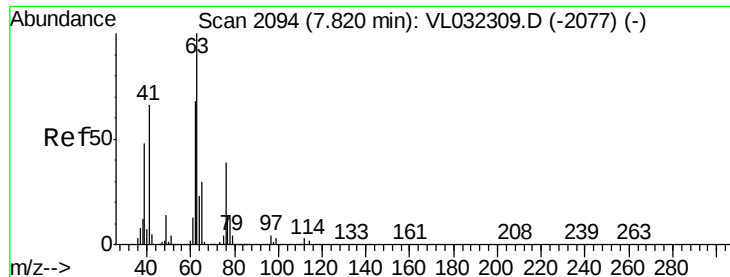
#34
 2-Butanone
 Concen: 2.941 ppbv
 RT: 5.40 min Scan# 1341
 Delta R.T. -0.00 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

Tgt Ion: 43 Resp: 734155
 Ion Ratio Lower Upper
 43 100
 72 21.2 17.4 26.2



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





#39

1,2-Dichloropropane

Concen: 6.096 ppbv

RT: 7.37 min Scan# 1953

Delta R.T. -0.45 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

ClientSampleId :

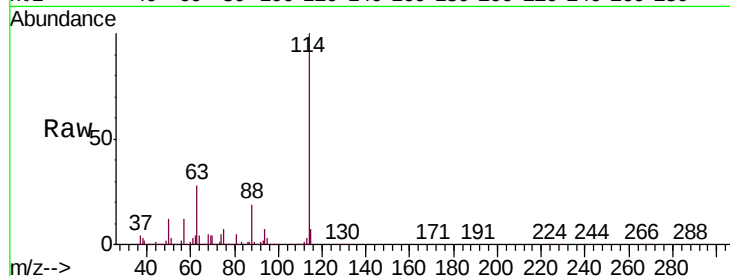
Tot Ion: 63 Resp: 1042669

Ion Ratio Lower Upper

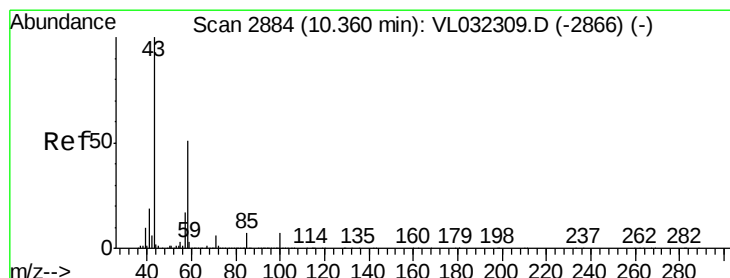
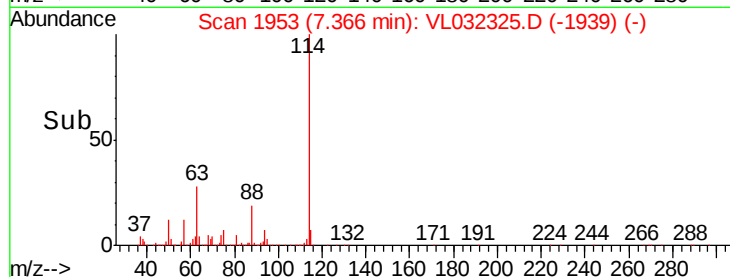
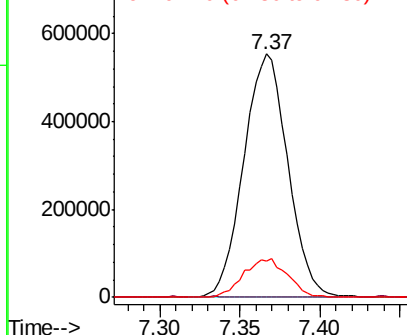
63 100

41 0.0 52.5 78.7#

62 15.0 54.6 81.8#



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



#51

2-Hexanone

Concen: 0.270 ppbv

RT: 10.38 min Scan# 2890

Delta R.T. 0.02 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

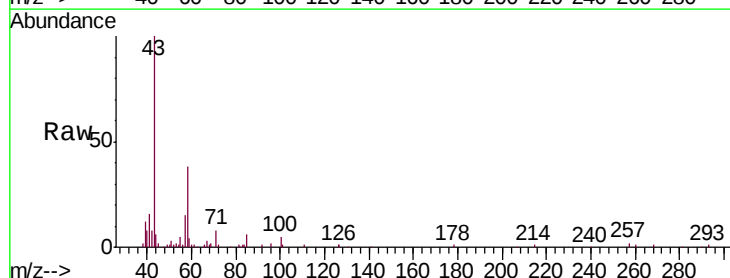
Tgt Ion: 43 Resp: 90495

Ion Ratio Lower Upper

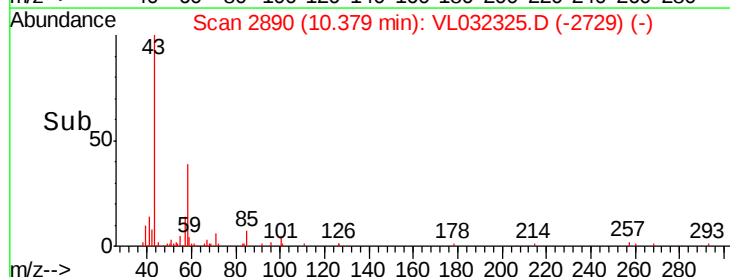
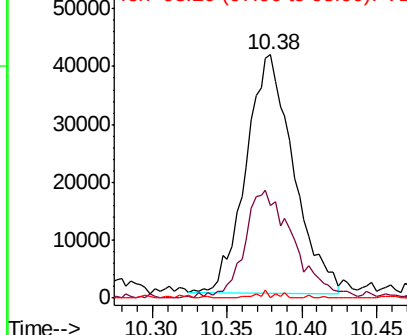
43 100

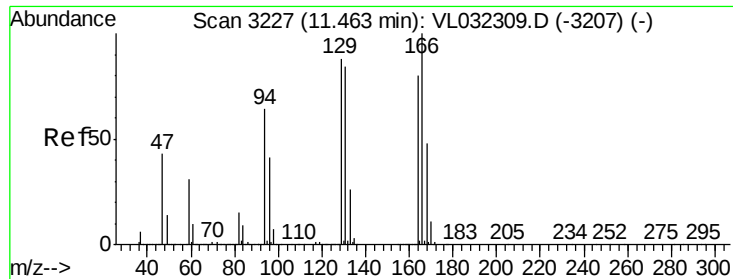
58 47.6 39.1 58.7

98 1.0 0.3 0.5#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 0.044 ppbv

RT: 11.45 min Scan# 3223

Delta R.T. -0.01 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:164 Resp: 4993

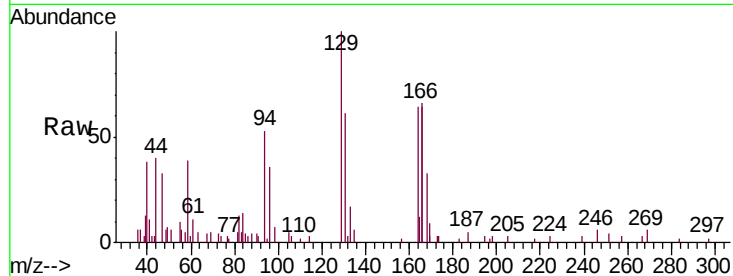
Ion Ratio Lower Upper

164 100

166 185.2 100.0 150.0#

129 145.3 87.9 131.9#

131 84.7 83.8 125.8

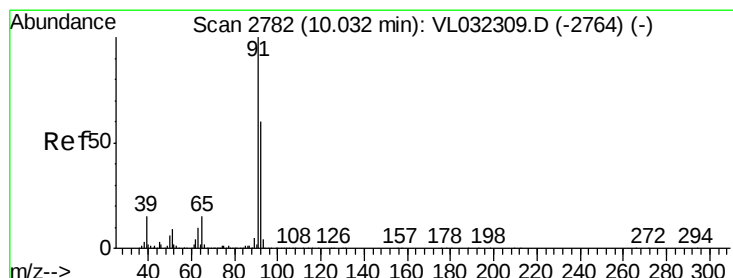
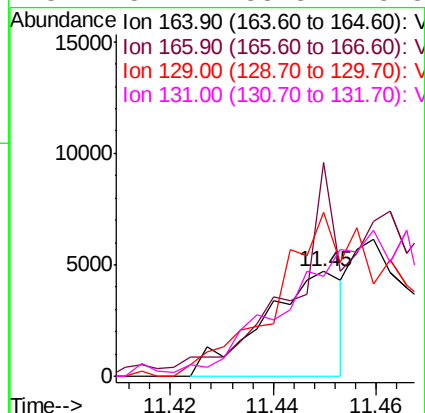
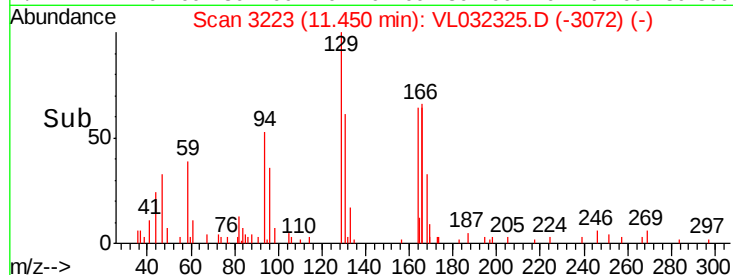


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.429 ppbv

RT: 10.03 min Scan# 2781

Delta R.T. -0.00 min

Lab File: VL032325.D

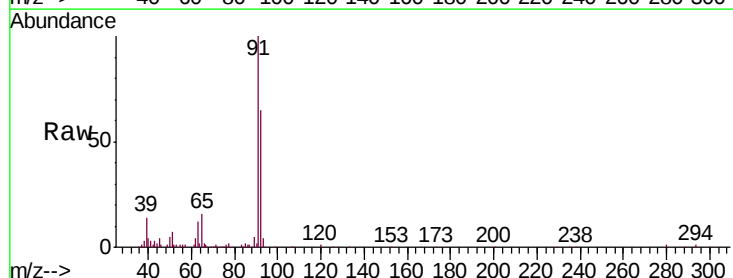
Acq: 27 Jul 2018 19:11

Tgt Ion: 91 Resp: 174213

Ion Ratio Lower Upper

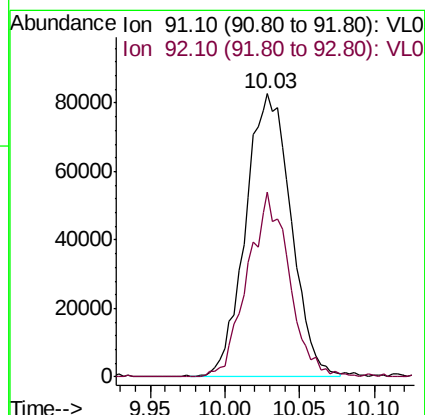
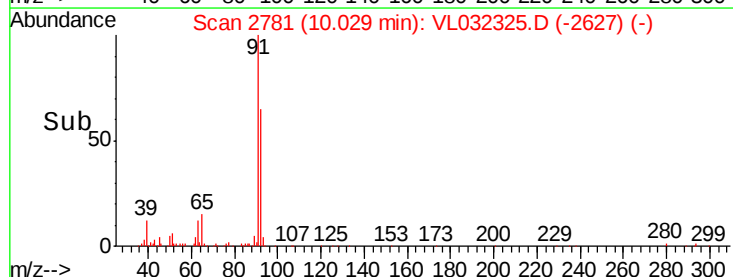
91 100

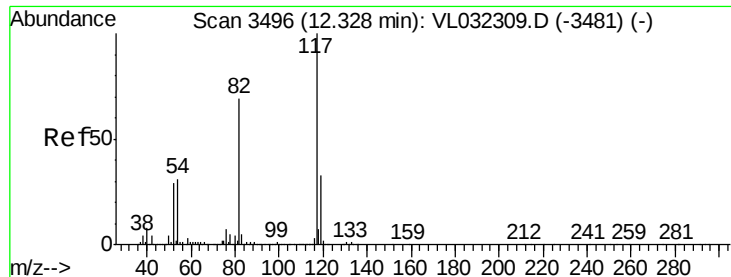
92 60.4 48.6 72.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.32 min Scan# 3495

Delta R.T. -0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

ClientSampleId :

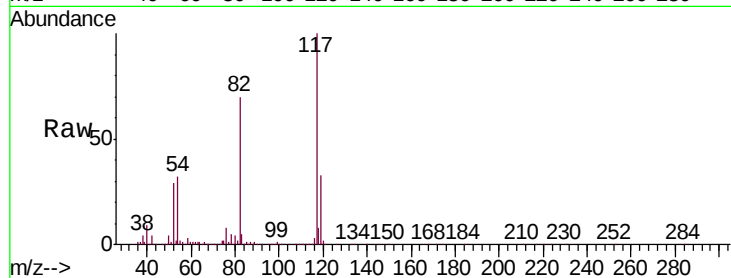
Tot Ion:117 Resp: 4384549

Ion Ratio Lower Upper

117 100

82 68.6 52.6 78.8

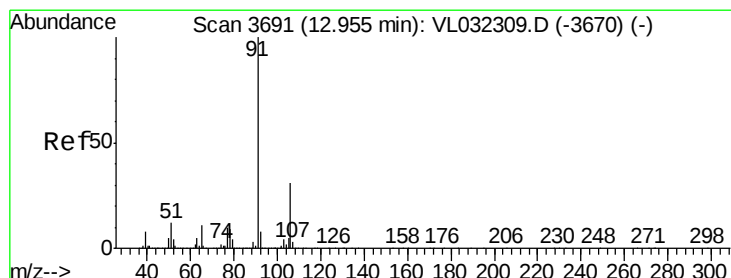
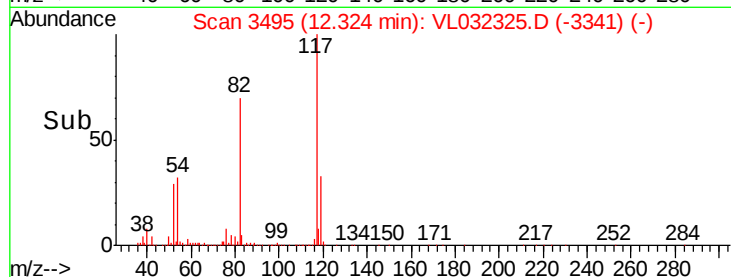
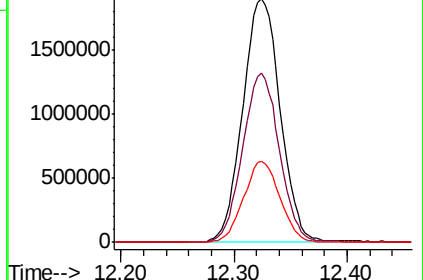
119 32.5 25.7 38.5



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.122 ppbv

RT: 12.95 min Scan# 3690

Delta R.T. -0.00 min

Lab File: VL032325.D

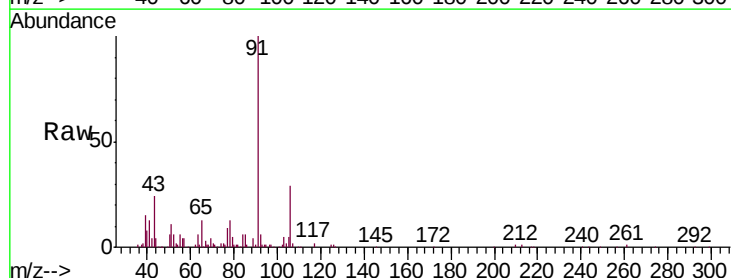
Acq: 27 Jul 2018 19:11

Tgt Ion: 91 Resp: 67110

Ion Ratio Lower Upper

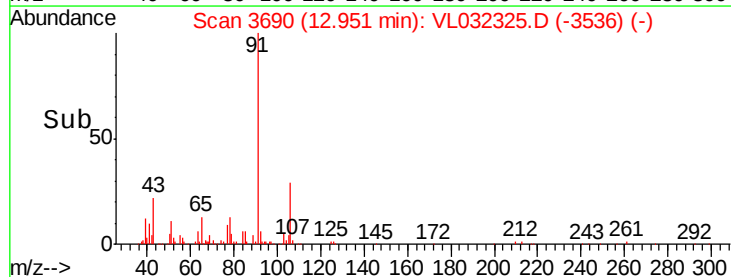
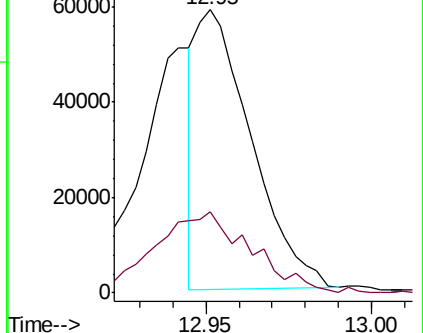
91 100

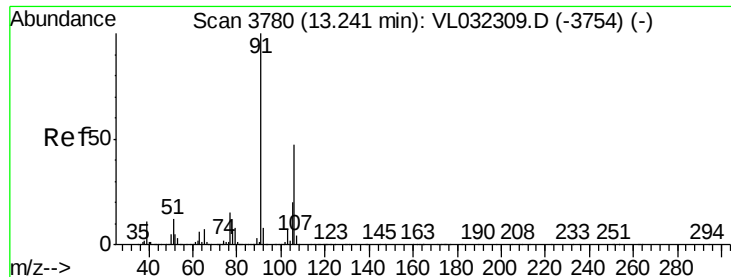
106 28.9 25.0 37.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

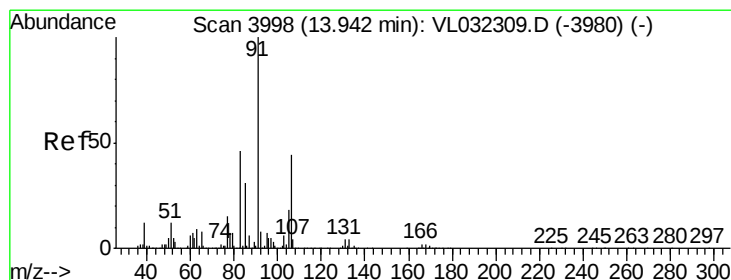
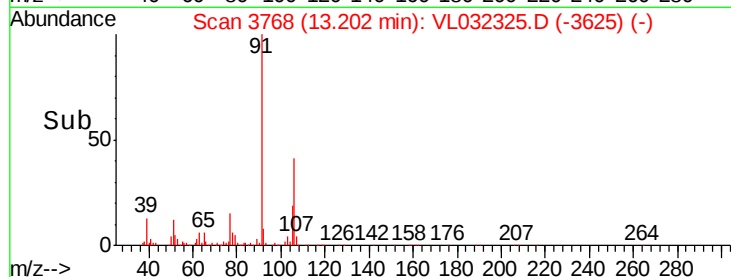
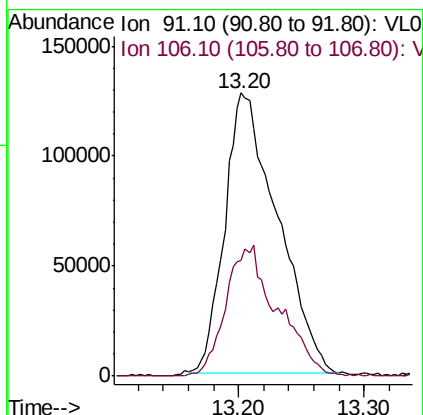
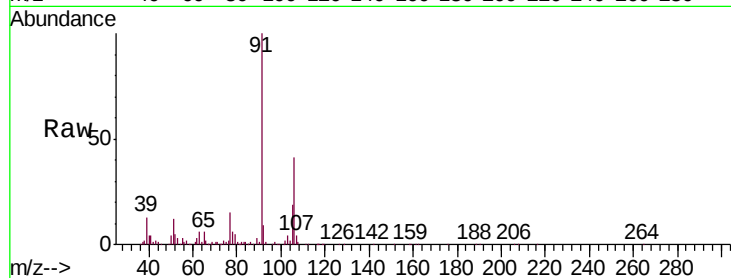




#59
m/p-Xylene
Concen: 0.798 ppbv
RT: 13.20 min Scan# 3768
Delta R.T. -0.04 min
Lab File: VL032325.D
Acq: 27 Jul 2018 19:11

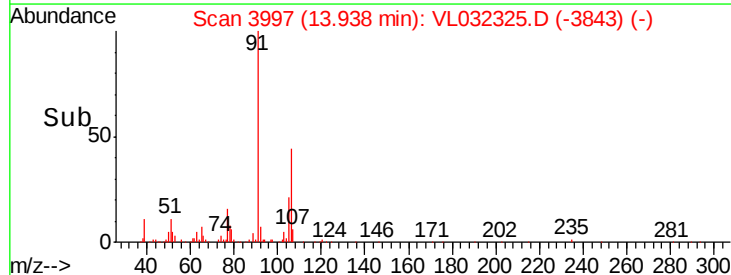
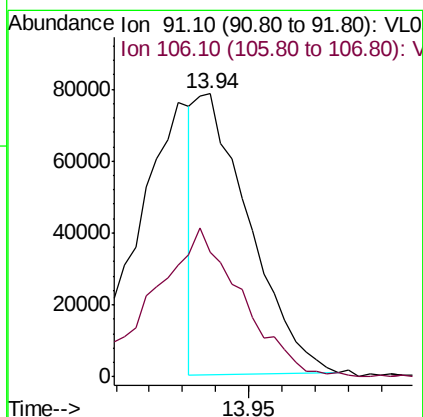
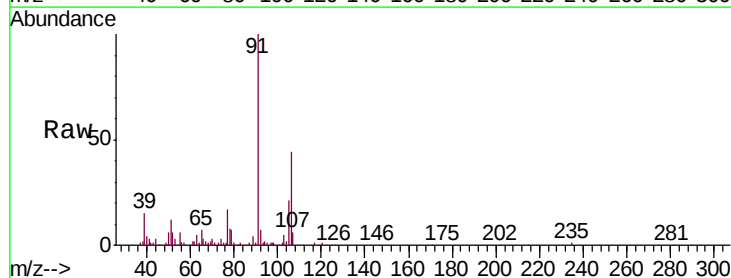
Instrument :
MSVOA_L
ClientSampled :

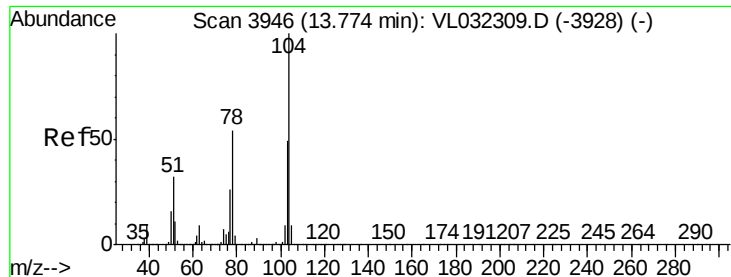
Tot Ion: 91 Resp: 373466
Ion Ratio Lower Upper
91 100
106 45.5 36.4 54.6



#60
o-Xylene
Concen: 0.190 ppbv
RT: 13.94 min Scan# 3997
Delta R.T. -0.00 min
Lab File: VL032325.D
Acq: 27 Jul 2018 19:11

Tgt Ion: 91 Resp: 87139
Ion Ratio Lower Upper
91 100
106 90.9 22.4 67.0#





#61

Stvrene

Concen: 0.594 ppbv

RT: 13.77 min Scan# 3944

Delta R.T. -0.01 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

ClientSampleId :

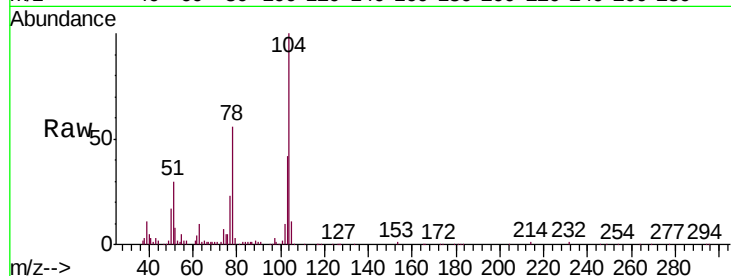
Tot Ion:104 Resp: 200643

Ion Ratio Lower Upper

104 100

78 53.2 42.6 63.8

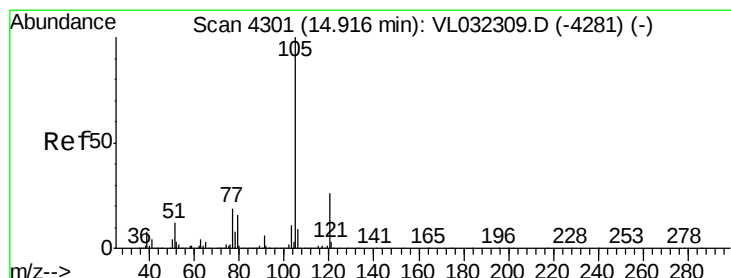
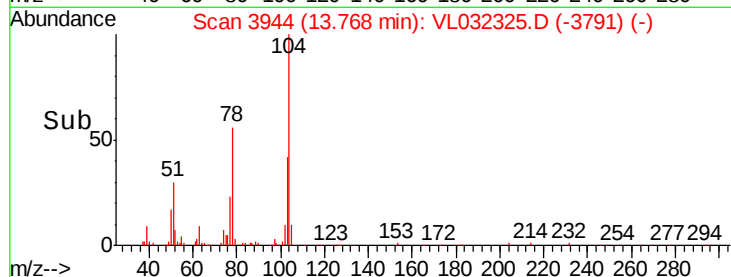
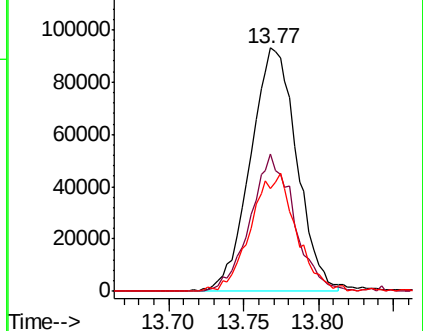
103 47.8 38.0 57.0



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#62

Isopropylbenzene

Concen: 0.074 ppbv

RT: 14.92 min Scan# 4301

Delta R.T. -0.00 min

Lab File: VL032325.D

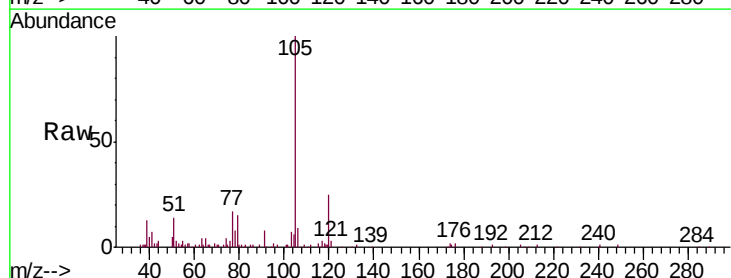
Acq: 27 Jul 2018 19:11

Tgt Ion:105 Resp: 48348

Ion Ratio Lower Upper

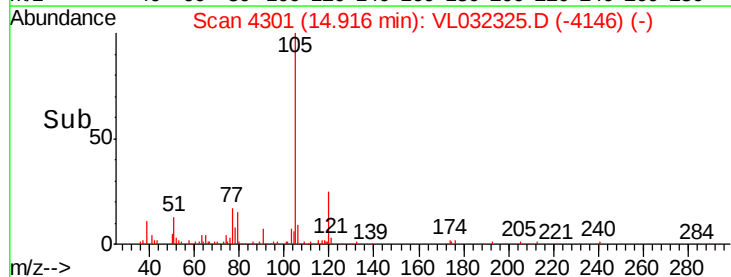
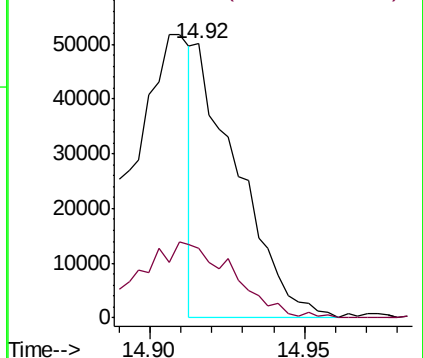
105 100

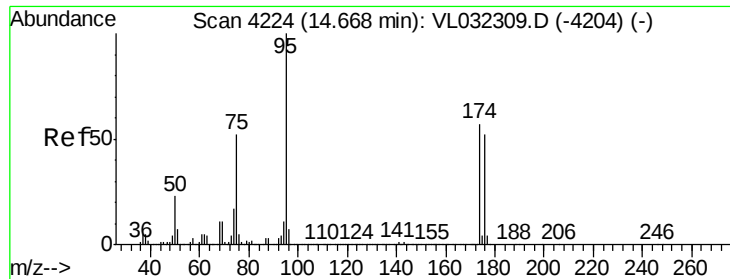
120 0.0 20.4 30.6#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

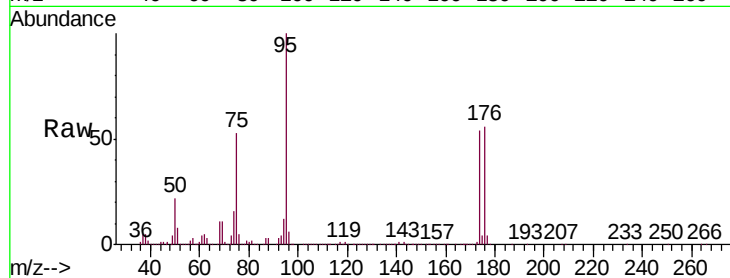




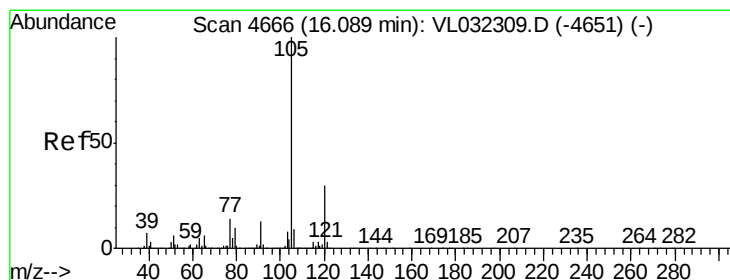
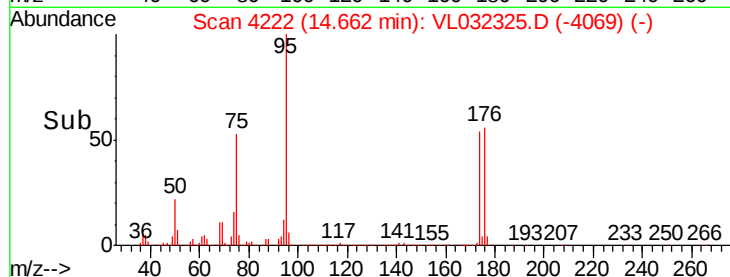
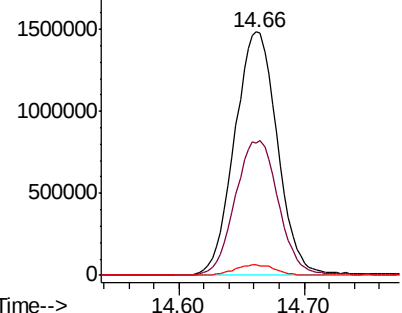
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.277 ppbv
 RT: 14.66 min Scan# 4222
 Delta R.T. -0.01 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion: 95 Resp: 3497547
 Ion Ratio Lower Upper
 95 100
 174 57.1 45.5 68.3
 175 4.3 3.3 4.9

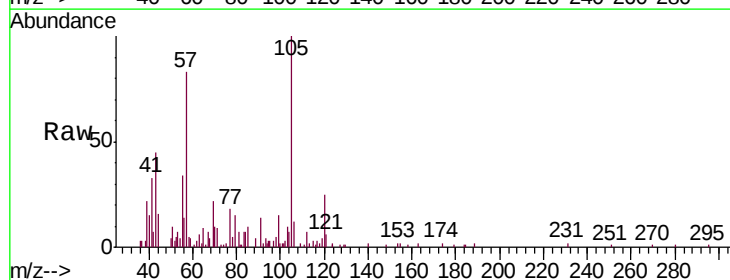


Abundance Ion 95.10 (94.80 to 95.80): VL0
 2000000 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V

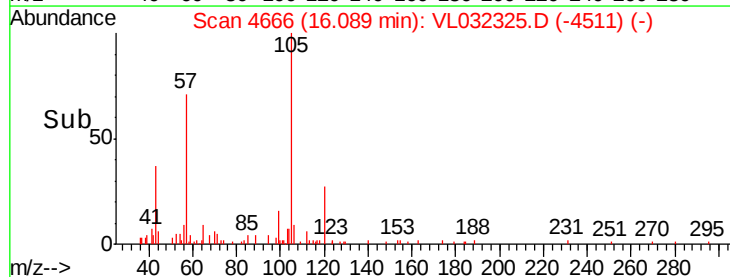
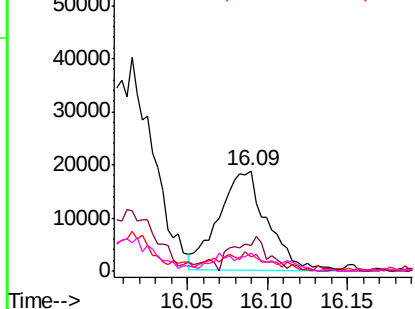


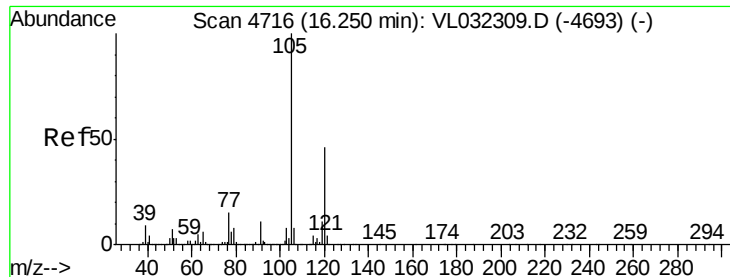
#72
 4-Ethyltoluene
 Concen: 0.075 ppbv
 RT: 16.09 min Scan# 4666
 Delta R.T. -0.00 min
 Lab File: VL032325.D
 Acq: 27 Jul 2018 19:11

Tgt Ion:105 Resp: 38821
 Ion Ratio Lower Upper
 105 100
 120 28.2 23.1 34.7
 91 22.7 10.0 15.0#
 77 20.6 11.5 17.3#



Abundance Ion 105.10 (104.80 to 105.80): V
 60000 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





#73

1,3,5-Trimethylbenzene

Concen: 0.035 ppbv

RT: 16.25 min Scan# 4715

Delta R.T. -0.00 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Instrument :

MSVOA_L

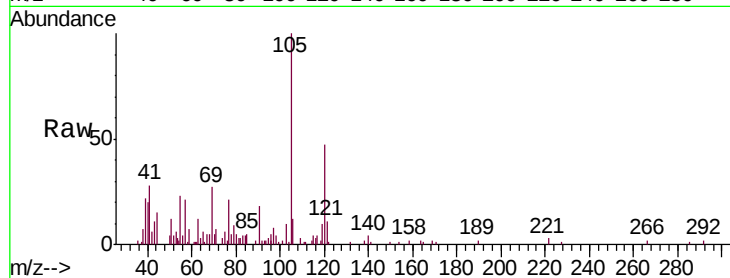
ClientSampleId :

Tot Ion:105 Resp: 17725

Ion Ratio Lower Upper

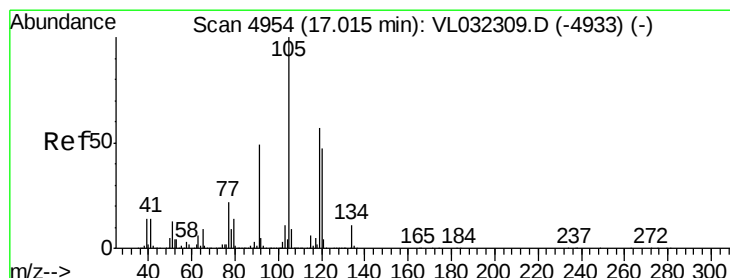
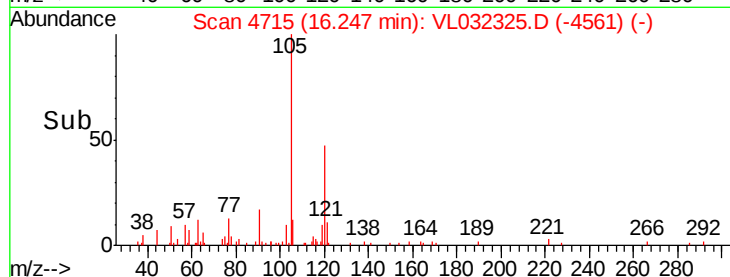
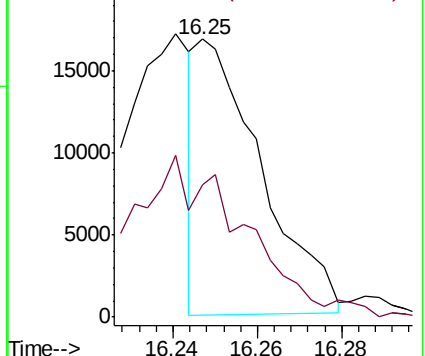
105 100

120 43.7 36.5 54.7



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.123 ppbv

RT: 17.01 min Scan# 4952

Delta R.T. -0.01 min

Lab File: VL032325.D

Acq: 27 Jul 2018 19:11

Tgt Ion:105 Resp: 65638

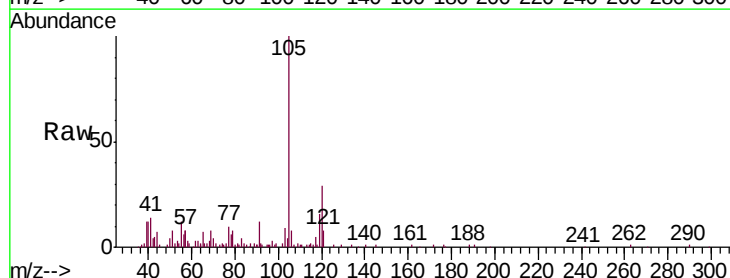
Ion Ratio Lower Upper

105 100

120 28.9 37.8 56.6#

91 10.5 39.4 59.0#

77 9.1 17.6 26.4#



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

