

Data File : VL033850.D
Acq On : 30 May 2019 00:54
Operator : SY/AP
Sample : K3067-04
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG-7-20190523-1

Quant Time: May 30 02:14:49 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 17 08:15:41 2019
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	729754	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1685984	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1741801	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1386820	9.82	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.20%

Target Compounds

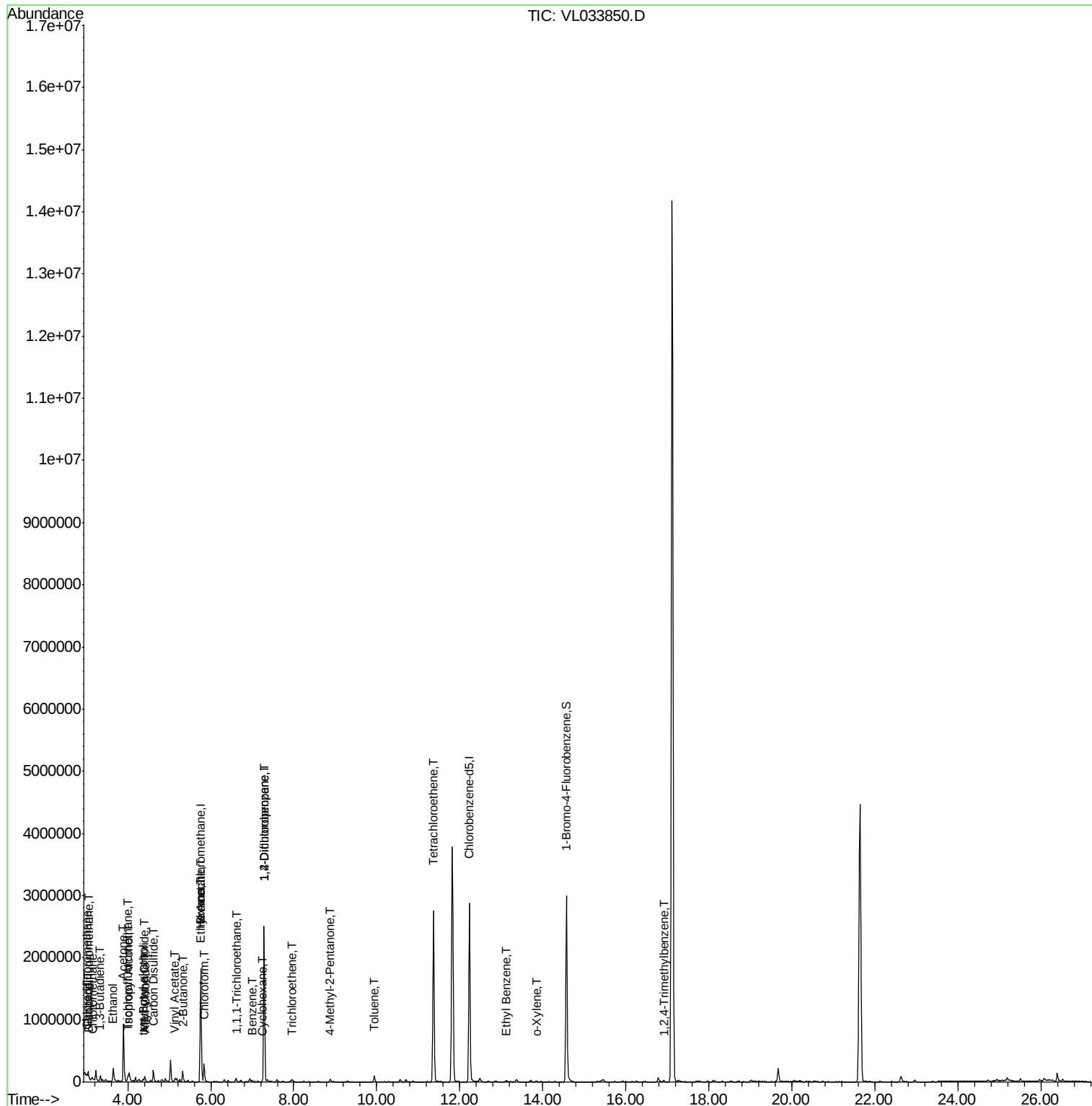
						Qvalue
2) Dichlorodifluoromethane	3.07	85	15700	0.102	ppbv	90
3) Chlorodifluoromethane	3.01	51	38641	0.462	ppbv #	89
4) Chloromethane	3.17	50	9475	0.198	ppbv	97
9) Propene	3.04	41	10112	0.284	ppbv #	77
11) Trichlorofluoromethane	4.00	101	54580	0.372	ppbv	91
13) Ethanol	3.65	45	199498	17.360	ppbv	100
15) Acetone	3.89	43	893928	8.829	ppbv	99
16) 1,3-Butadiene	3.34	39	23236	0.576	ppbv #	15
17) tert-Butyl alcohol	4.36	59	11861	0.145	ppbv #	65
19) Isopropyl Alcohol	4.03	45	135896	2.082	ppbv #	1
20) Methylene Chloride	4.41	84	27945	0.717	ppbv	88
21) Allyl Chloride	4.42	41	2145	0.034	ppbv #	14
23) Vinyl Acetate	5.14	43	35756	0.268	ppbv #	80
25) Ethyl Acetate	5.77	43	88973	0.500	ppbv #	82
26) Hexane	5.77	57	69256	0.906	ppbv #	1
27) Carbon Disulfide	4.62	76	204593	1.950	ppbv	98
29) Chloroform	5.84	83	197793	1.404	ppbv	97
30) Cyclohexane	7.23	84	2209	0.034	ppbv #	1
32) 1,1,1-Trichloroethane	6.61	97	34145	0.243	ppbv	98
34) 2-Butanone	5.33	43	179985	1.722	ppbv	98
36) Benzene	6.99	78	20692	0.135	ppbv #	91
38) Trichloroethene	7.95	130	5615	0.099	ppbv	85
39) 1,2-Dichloropropane	7.28	63	442123	7.732	ppbv #	23
50) 4-Methyl-2-Pentanone	8.87	43	13792	0.086	ppbv #	38
52) Tetrachloroethene	11.37	164	660021	12.243	ppbv	98
53) Toluene	9.94	91	64205	0.388	ppbv	98
58) Ethyl Benzene	13.11	91	9845	0.043	ppbv	96
60) o-Xylene	13.84	91	6257	0.031	ppbv #	38
74) 1,2,4-Trimethylbenzene	16.91	105	7961	0.032	ppbv #	70

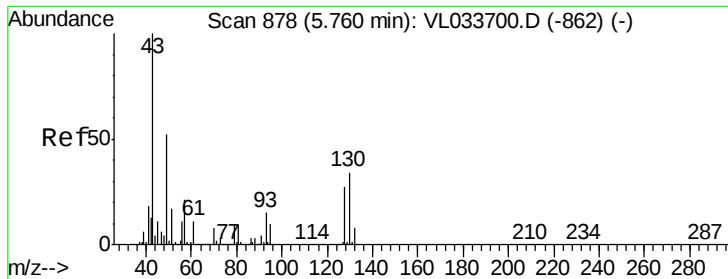
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 876

Delta R.T. -0.01 min

Lab File: VL033850.D

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ClientSampleId :

SG-7-20190523-1

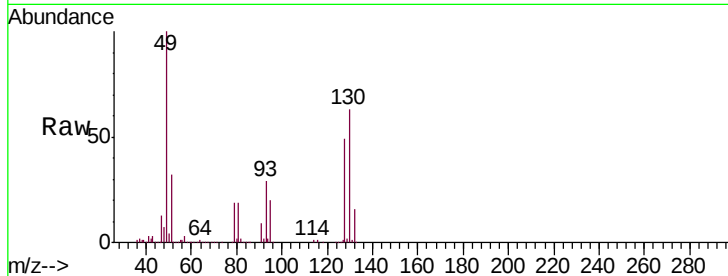
Tgt Ion: 49 Resp: 729754

Ion Ratio Lower Upper

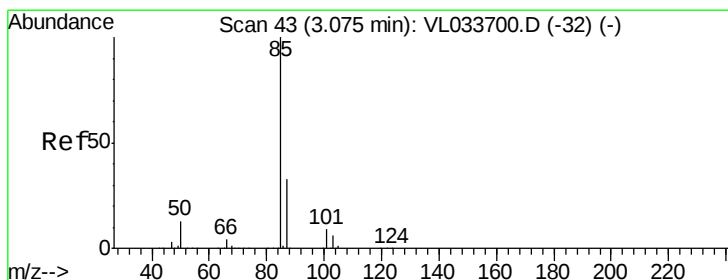
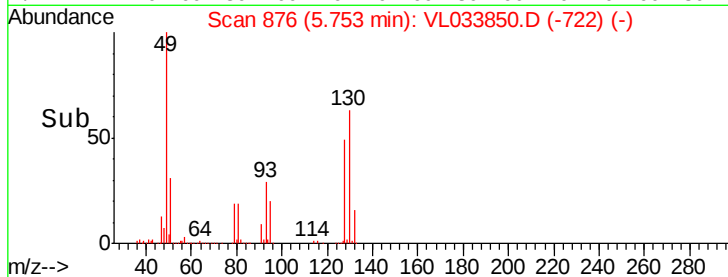
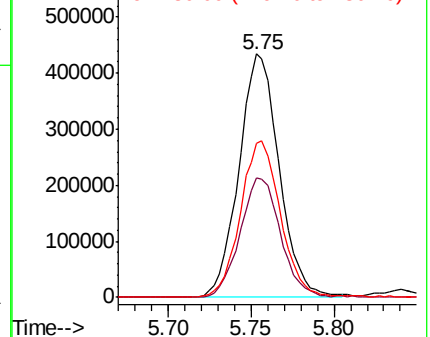
49 100

128 49.7 25.2 75.6

130 64.8 32.5 97.5



Abundance Ion 49.10 (48.80 to 49.80): VL0
Ion 128.00 (127.70 to 128.70): V
Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.102 ppbv

RT: 3.07 min Scan# 41

Delta R.T. -0.01 min

Lab File: VL033850.D

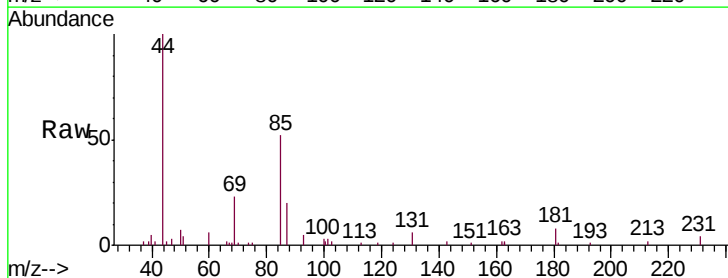
Acq: 30 May 2019 00:54

Tgt Ion: 85 Resp: 15700

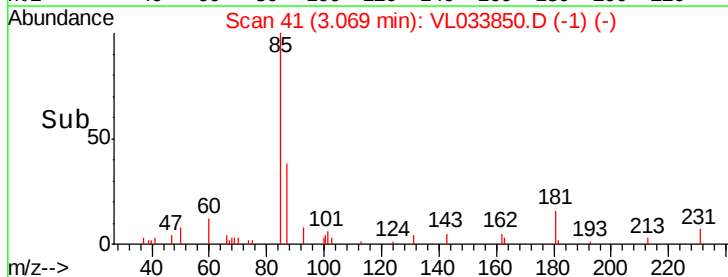
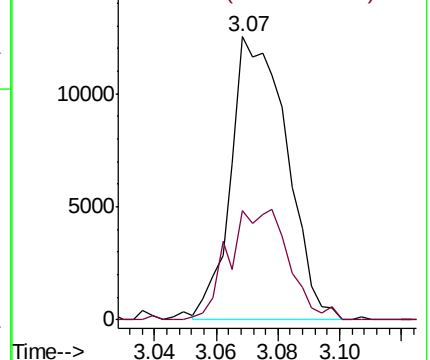
Ion Ratio Lower Upper

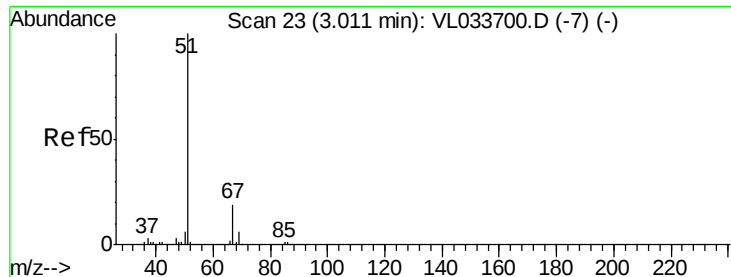
85 100

87 38.4 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: 0.462 ppbv

RT: 3.01 min Scan# 23

Delta R.T. 0.00 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

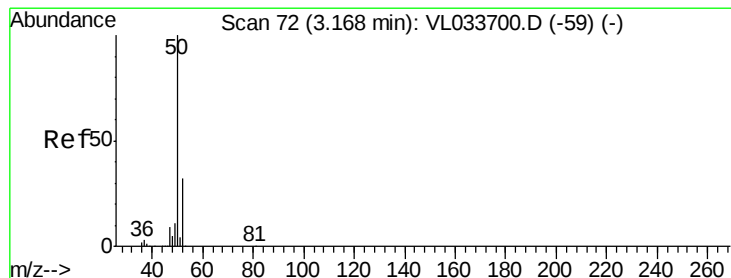
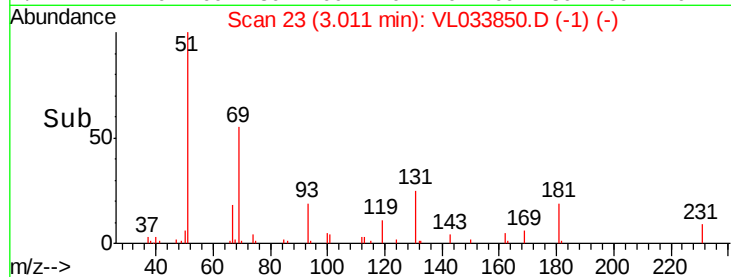
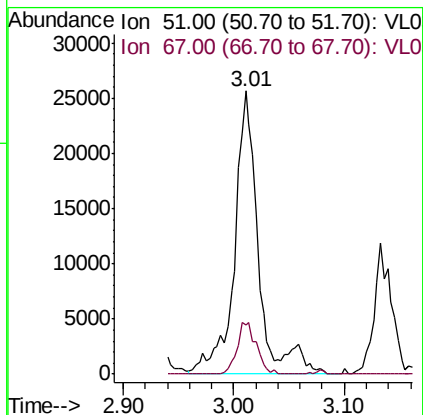
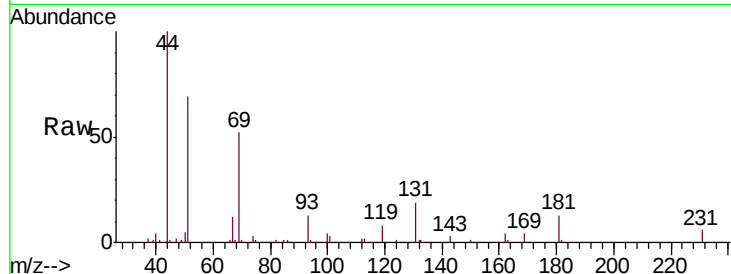
SG-7-20190523-1

Tgt Ion: 51 Resp: 38641

Ion Ratio Lower Upper

51 100

67 14.7 15.6 23.4#



#4

Chloromethane

Concen: 0.198 ppbv

RT: 3.17 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL033850.D

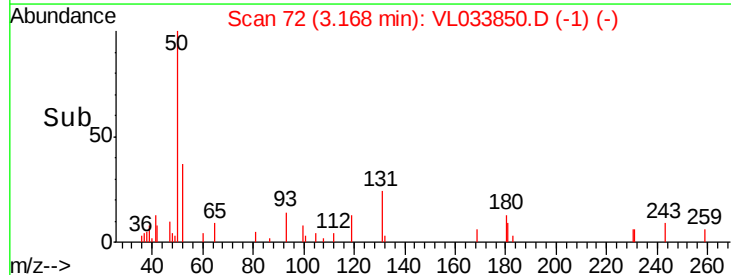
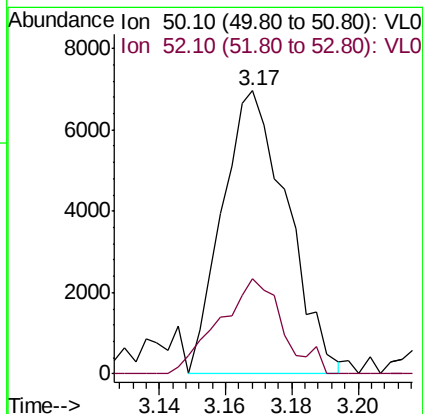
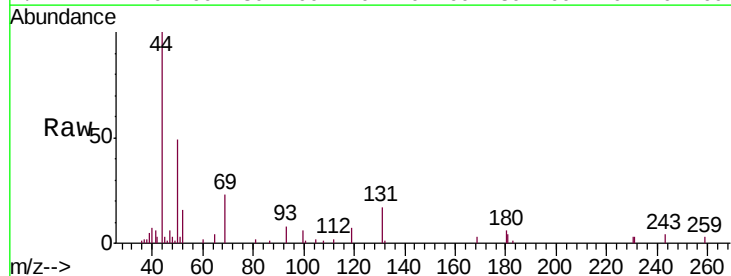
Acq: 30 May 2019 00:54

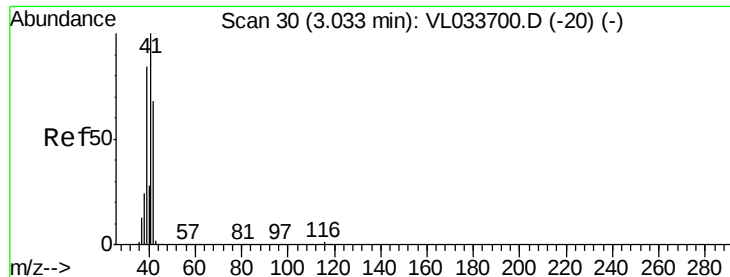
Tgt Ion: 50 Resp: 9475

Ion Ratio Lower Upper

50 100

52 33.8 25.7 38.5





#9

Propene

Concen: 0.284 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

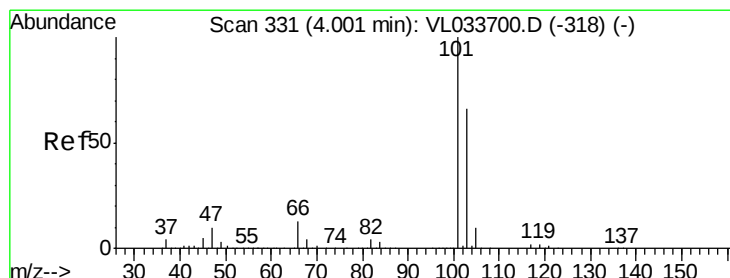
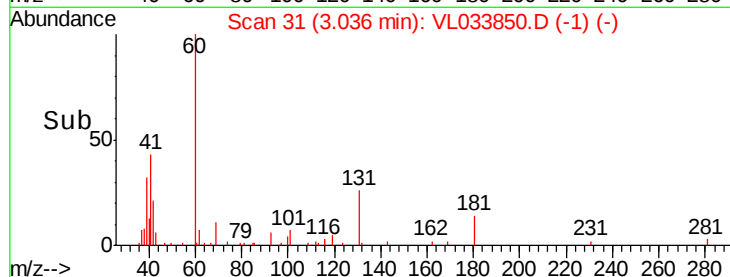
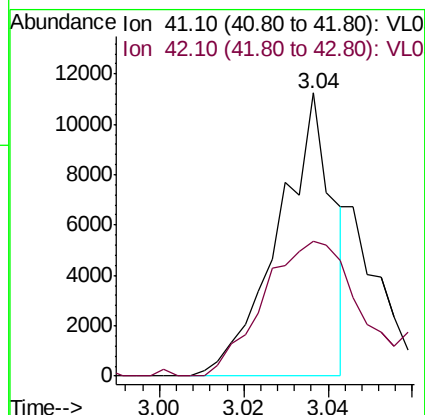
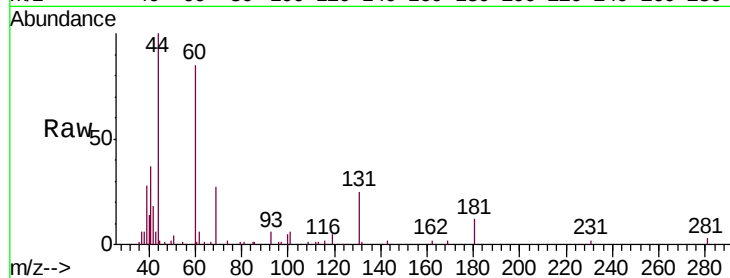
SG-7-20190523-1

Tgt Ion: 41 Resp: 10112

Ion Ratio Lower Upper

41 100

42 88.9 56.1 84.1#



#11

Trichlorofluoromethane

Concen: 0.372 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033850.D

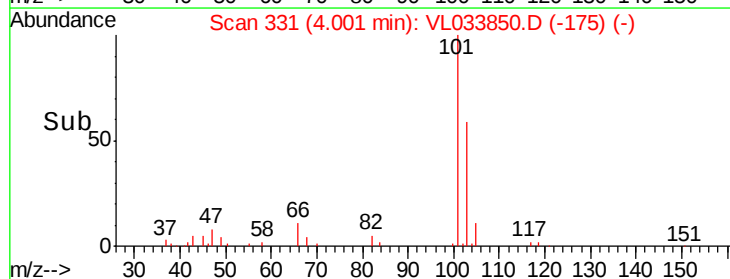
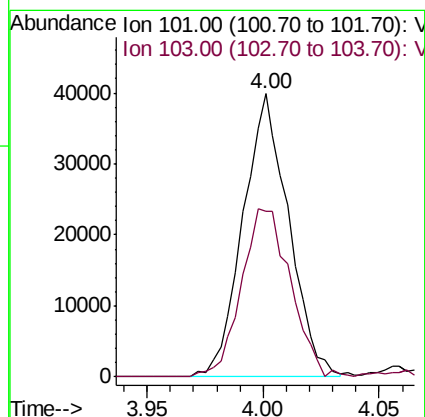
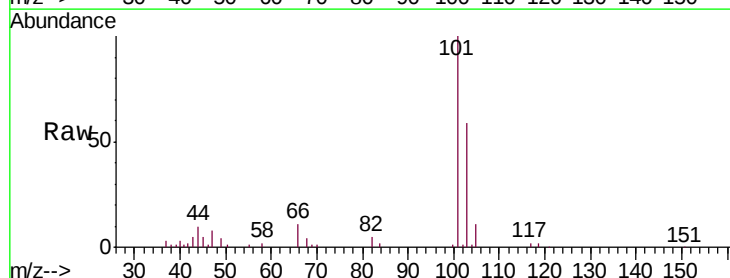
Acq: 30 May 2019 00:54

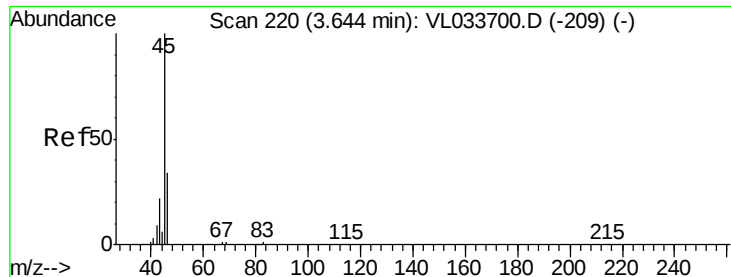
Tgt Ion: 101 Resp: 54580

Ion Ratio Lower Upper

101 100

103 58.5 52.6 78.8

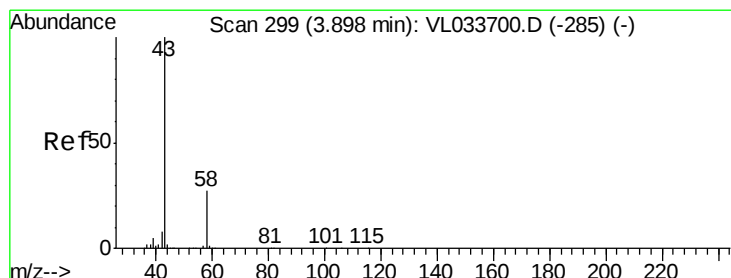
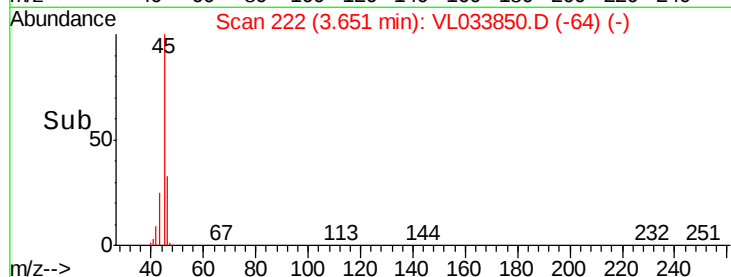
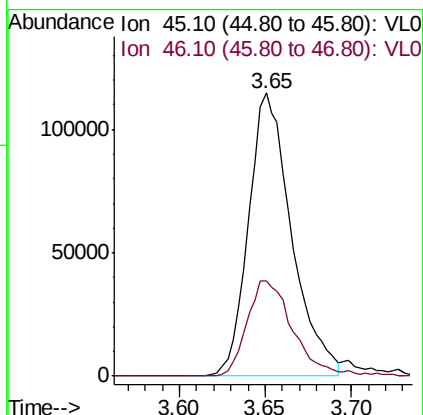
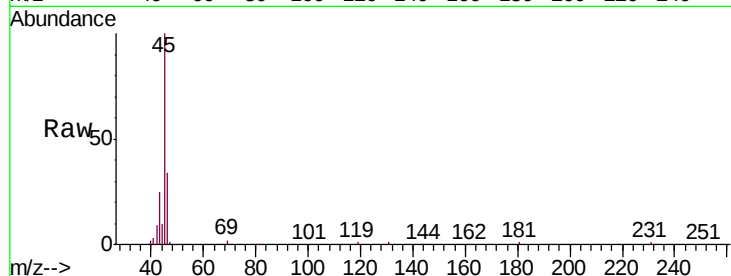




#13
Ethanol
Concen: 17.360 ppbv
RT: 3.65 min Scan# 222
Delta R.T. 0.01 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

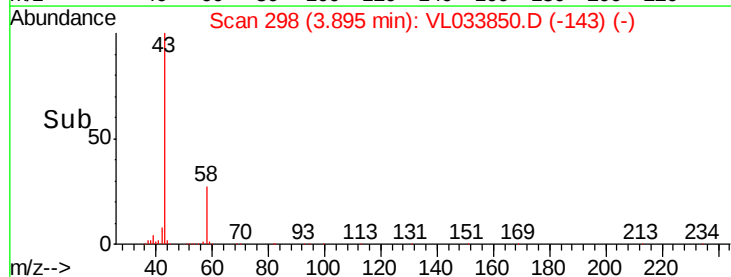
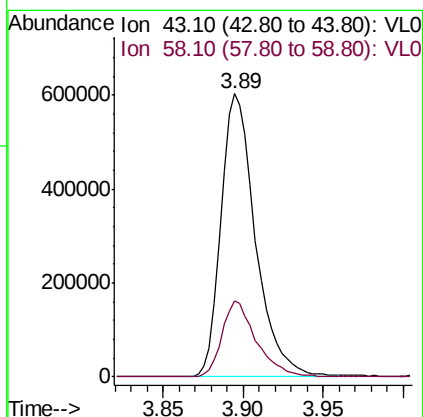
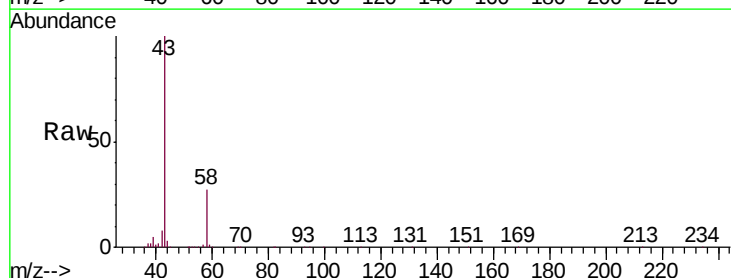
Instrument :
MSVOA_L
ClientSampleId :
SG-7-20190523-1

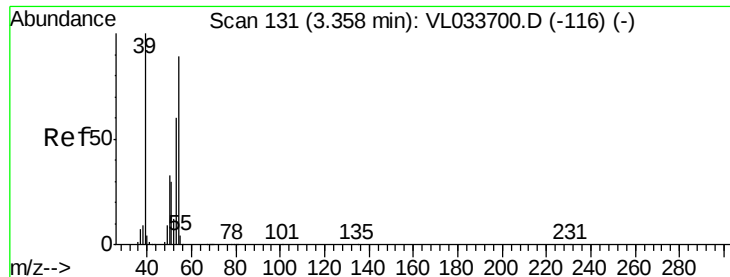
Tgt Ion: 45 Resp: 199498
Ion Ratio Lower Upper
45 100
46 36.8 14.8 59.0



#15
Acetone
Concen: 8.829 ppbv
RT: 3.89 min Scan# 298
Delta R.T. -0.00 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

Tgt Ion: 43 Resp: 893928
Ion Ratio Lower Upper
43 100
58 27.1 21.3 31.9

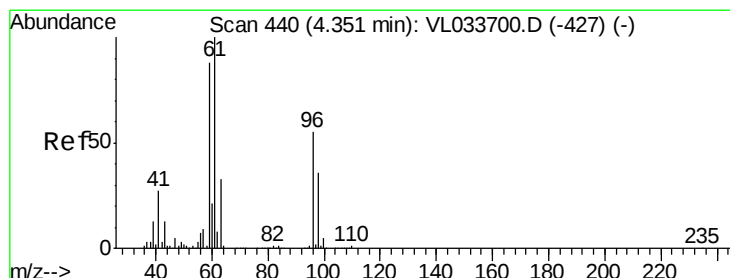
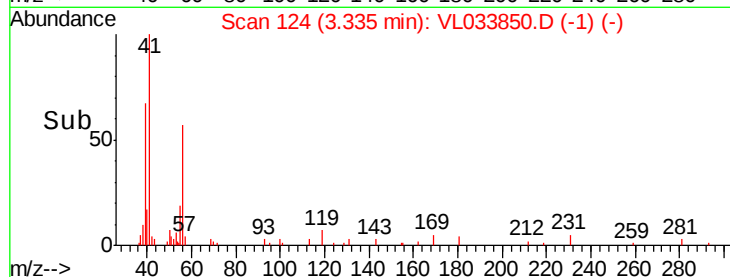
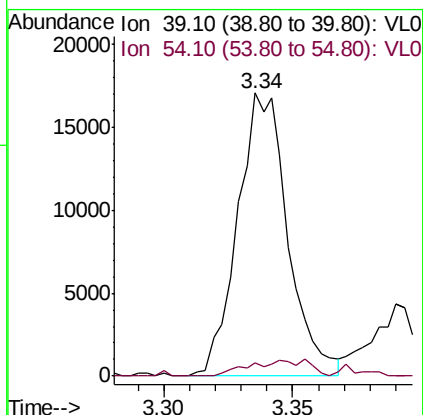
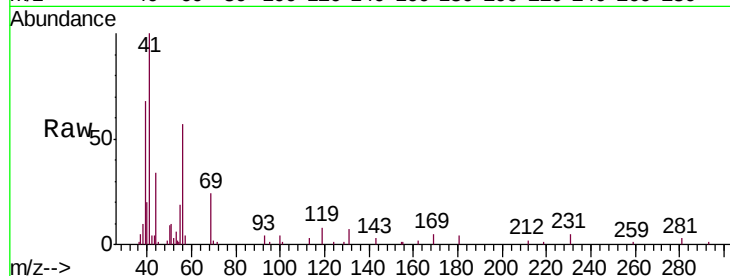




#16
 1,3-Butadiene
 Concen: 0.576 ppbv
 RT: 3.34 min Scan# 124
 Delta R.T. -0.02 min
 Lab File: VL033850.D
 Acq: 30 May 2019 00:54

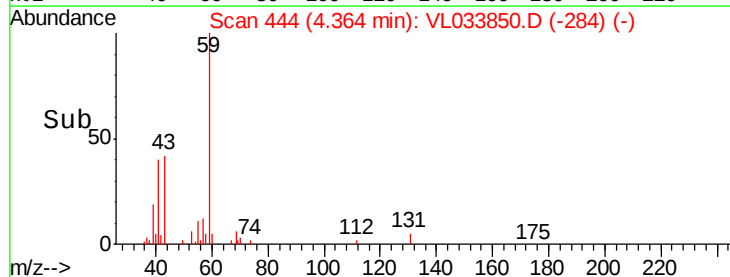
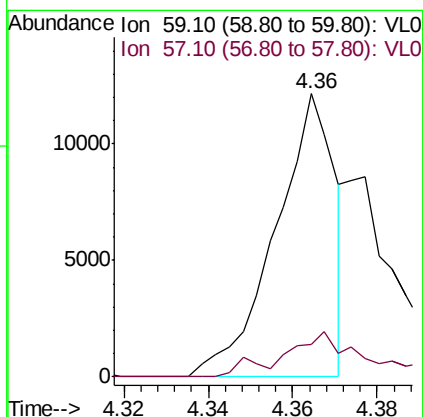
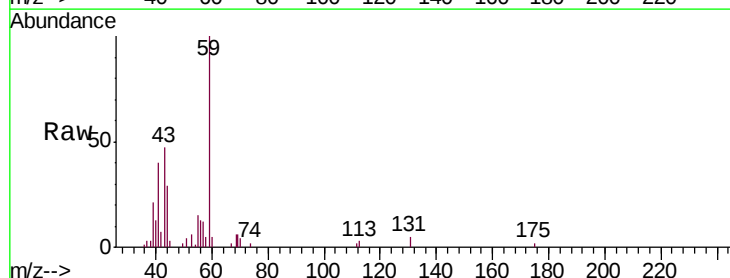
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-7-20190523-1

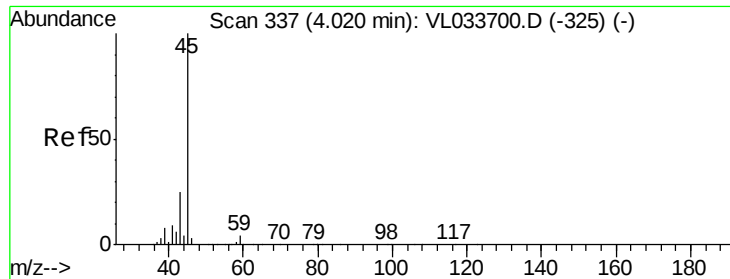
Tgt Ion: 39 Resp: 23236
 Ion Ratio Lower Upper
 39 100
 54 8.4 69.0 103.6#



#17
 tert-Butyl alcohol
 Concen: 0.145 ppbv
 RT: 4.36 min Scan# 444
 Delta R.T. 0.01 min
 Lab File: VL033850.D
 Acq: 30 May 2019 00:54

Tgt Ion: 59 Resp: 11861
 Ion Ratio Lower Upper
 59 100
 57 23.7 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 2.082 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

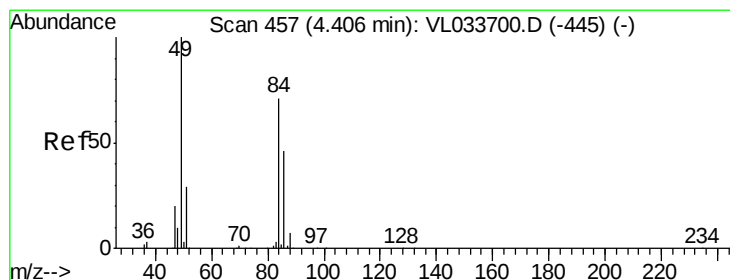
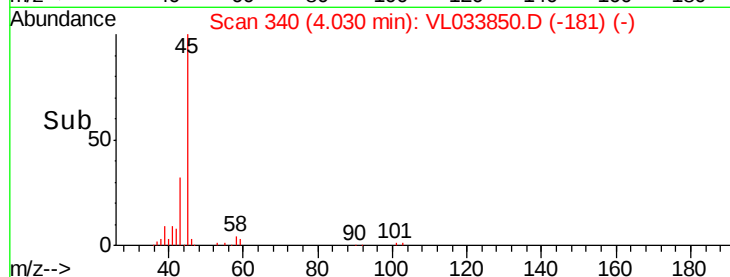
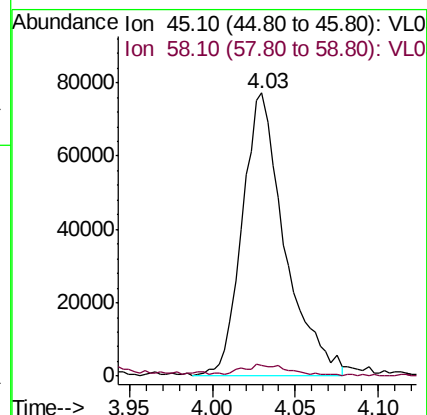
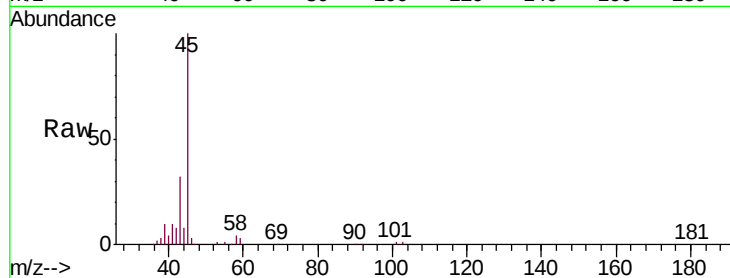
SG-7-20190523-1

Tgt Ion: 45 Resp: 135896

Ion Ratio Lower Upper

45 100

58 179.0 1.6 2.4#



#20

Methylene Chloride

Concen: 0.717 ppbv

RT: 4.41 min Scan# 457

Delta R.T. 0.00 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Tgt Ion: 84 Resp: 27945

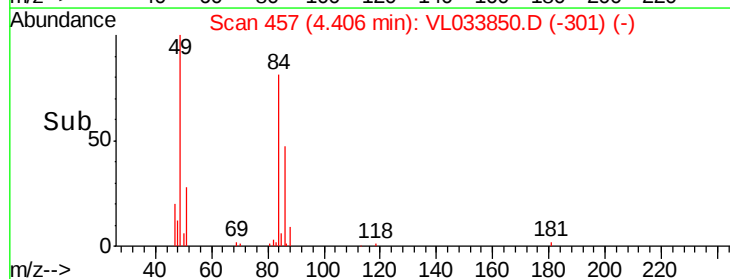
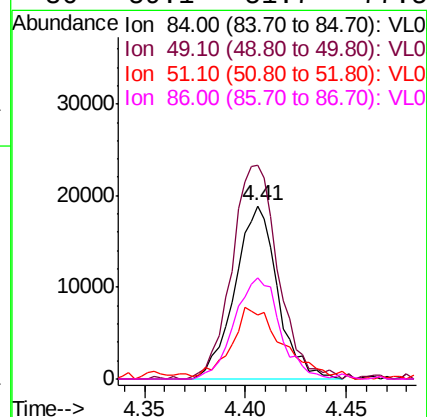
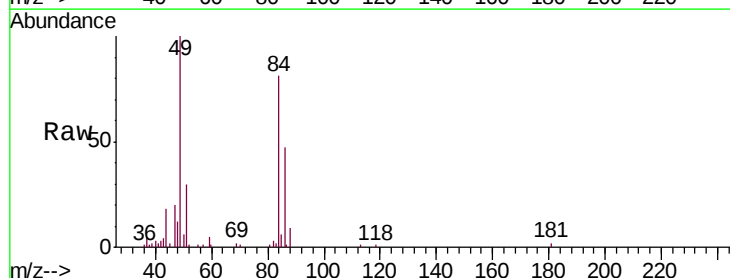
Ion Ratio Lower Upper

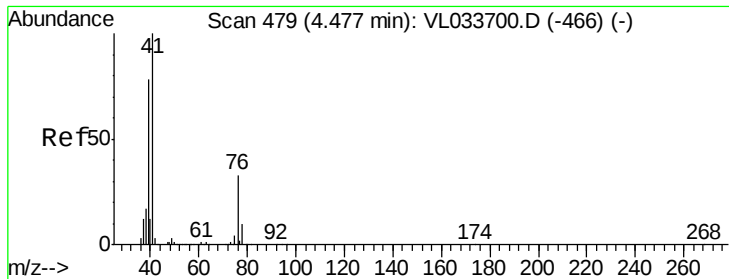
84 100

49 123.4 112.8 169.2

51 35.6 33.4 50.0

86 59.1 51.7 77.5





#21

Allyl Chloride

Concen: 0.034 ppbv

RT: 4.42 min Scan# 462

Delta R.T. -0.05 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

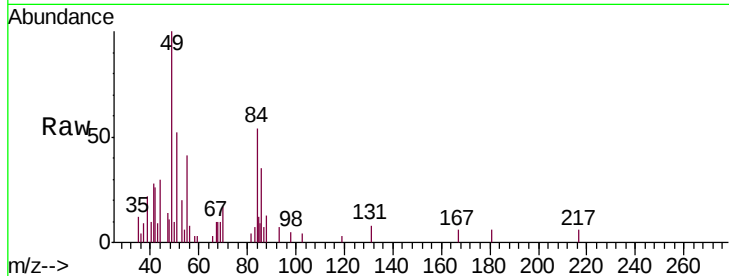
Tgt Ion: 41 Resp: 2145

Ion Ratio Lower Upper

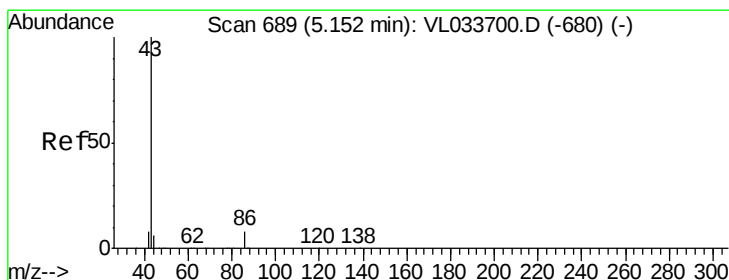
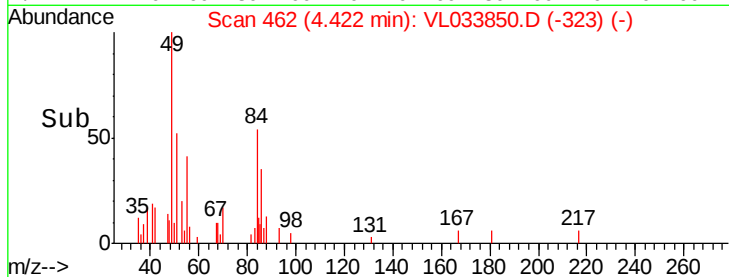
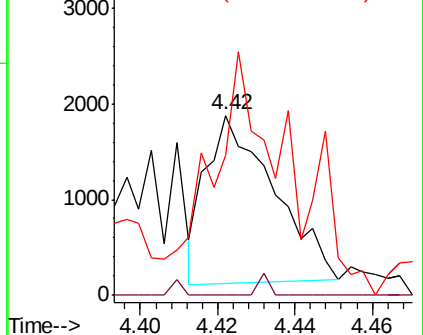
41 100

76 0.0 25.9 38.9#

39 166.9 64.6 97.0#



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: 0.268 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Tgt Ion: 43 Resp: 35756

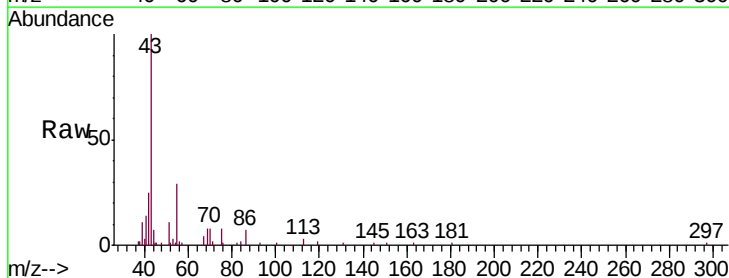
Ion Ratio Lower Upper

43 100

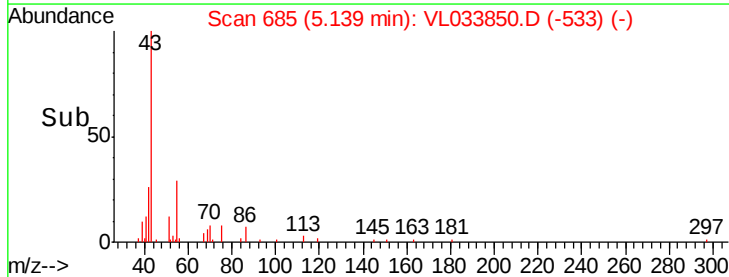
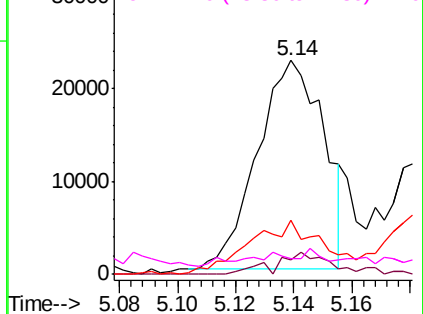
86 7.0 6.0 9.0

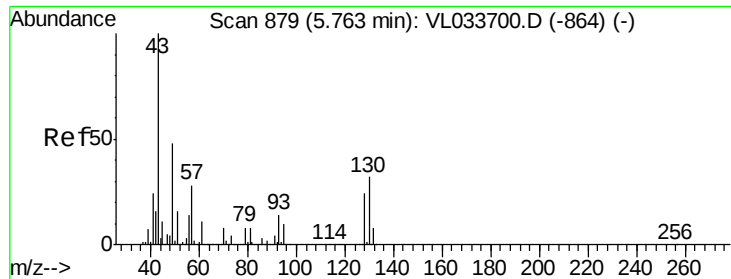
42 24.9 7.5 11.3#

44 3.1 4.4 6.6#



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: 0.500 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

Tgt Ion: 43 Resp: 88973

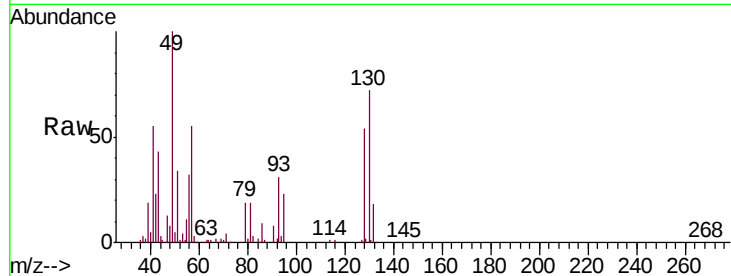
Ion Ratio Lower Upper

43 100

45 3.0 7.9 11.9#

61 2.0 7.7 11.5#

70 3.1 5.8 8.6#

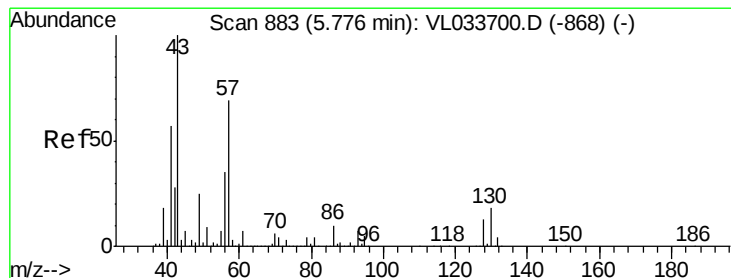
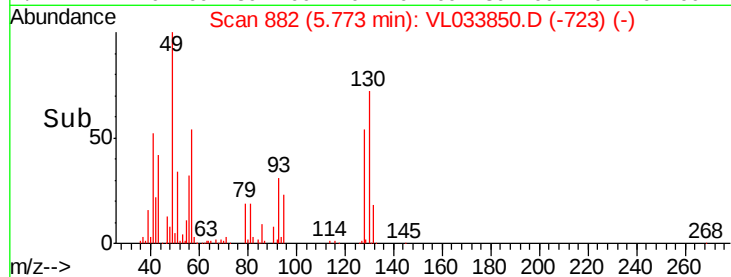
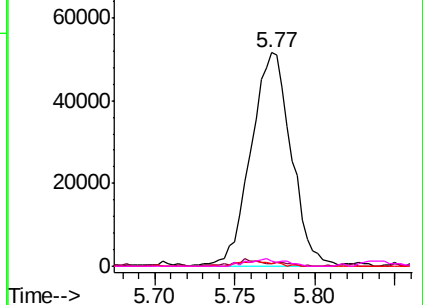


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.906 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Tgt Ion: 57 Resp: 69256

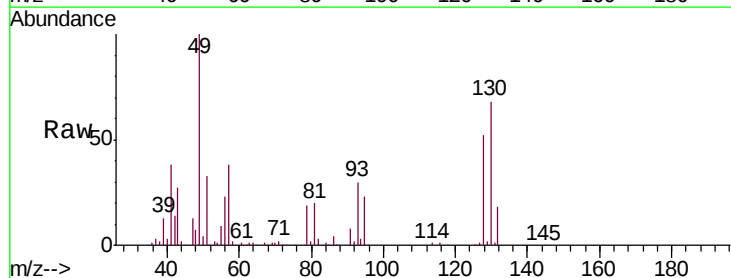
Ion Ratio Lower Upper

57 100

41 160.3 69.8 104.6#

43 0.0 181.8 272.6#

56 0.0 42.1 63.1#

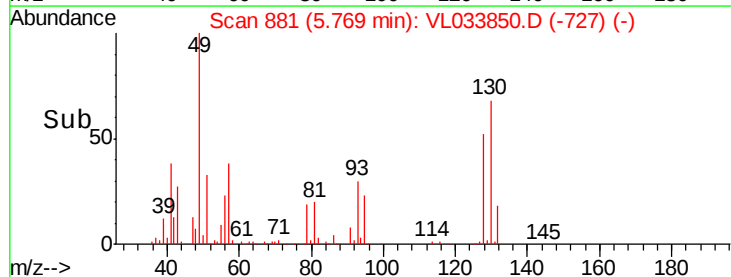
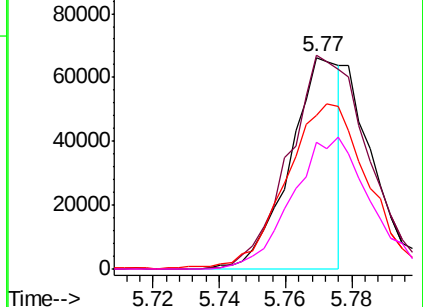


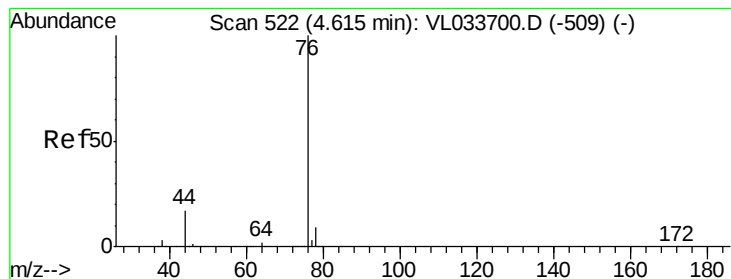
Abundance Ion 57.10 (56.80 to 57.80): VL0

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: 1.950 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

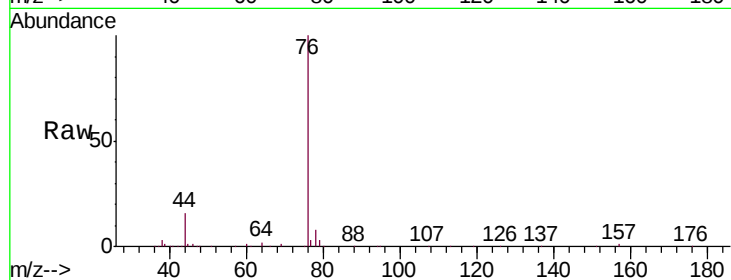
Tgt Ion: 76 Resp: 204593

Ion Ratio Lower Upper

76 100

44 18.8 13.8 20.8

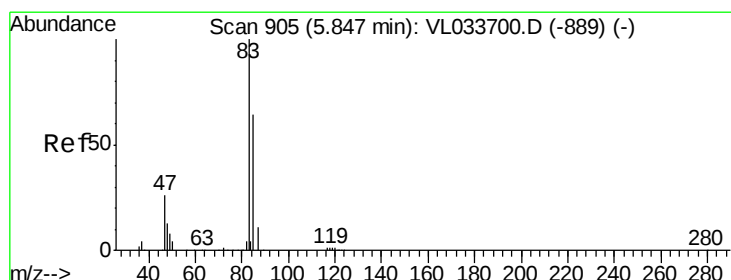
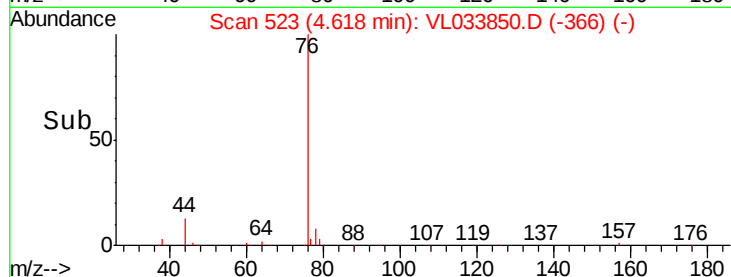
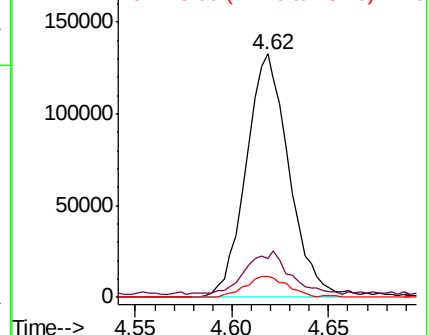
78 9.0 7.4 11.0



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: 1.404 ppbv

RT: 5.84 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL033850.D

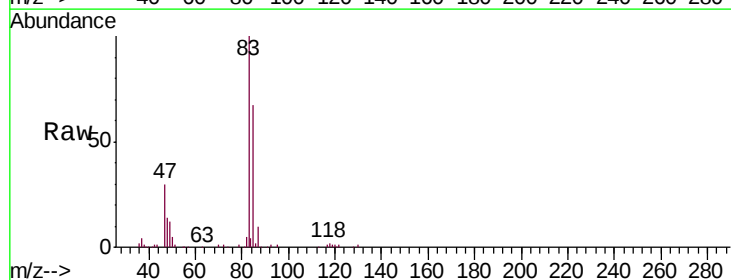
Acq: 30 May 2019 00:54

Tgt Ion: 83 Resp: 197793

Ion Ratio Lower Upper

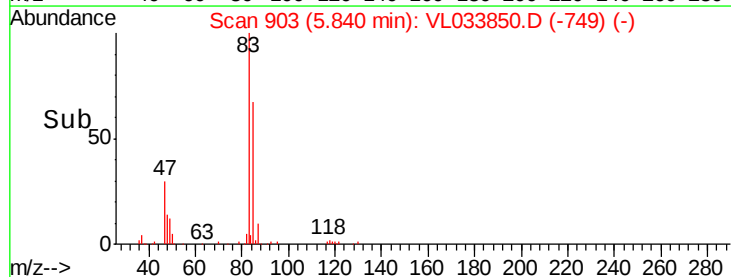
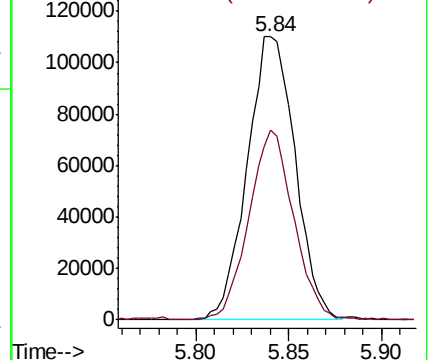
83 100

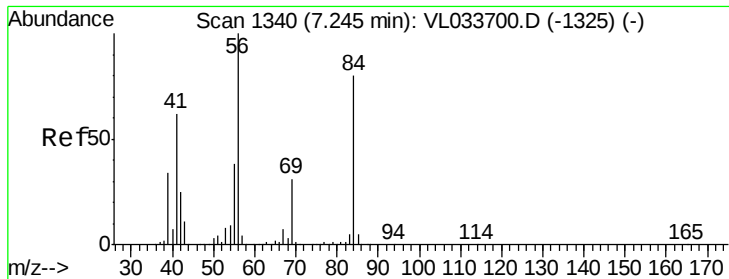
85 67.0 51.5 77.3



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

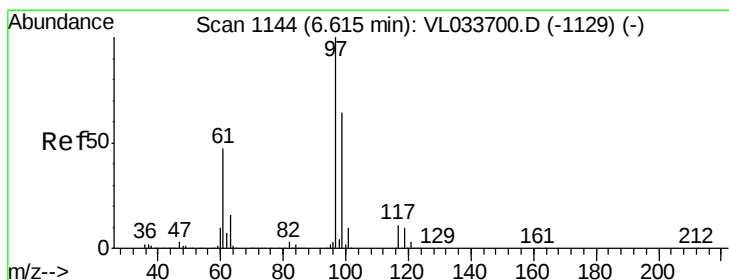
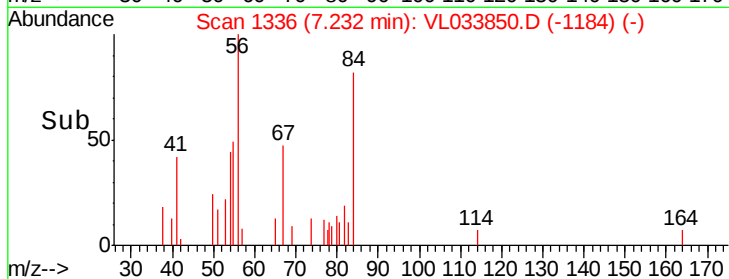
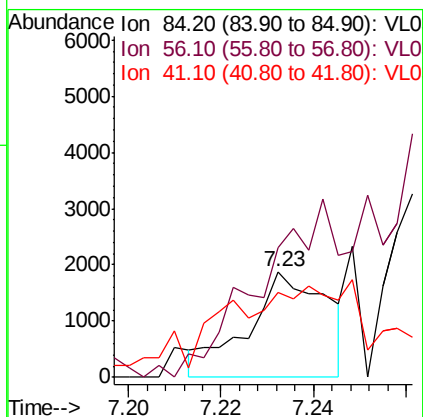
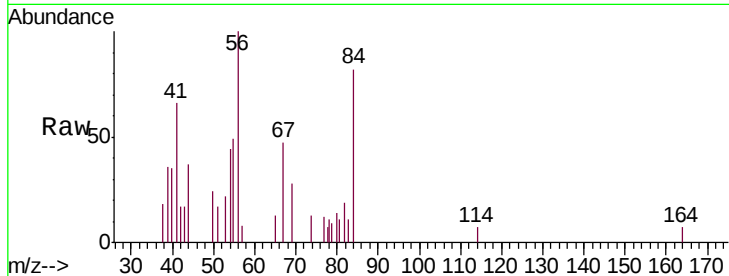




#30
Cyclohexane
Concen: 0.034 ppbv
RT: 7.23 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

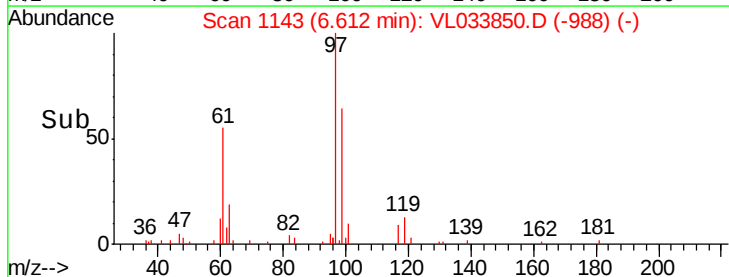
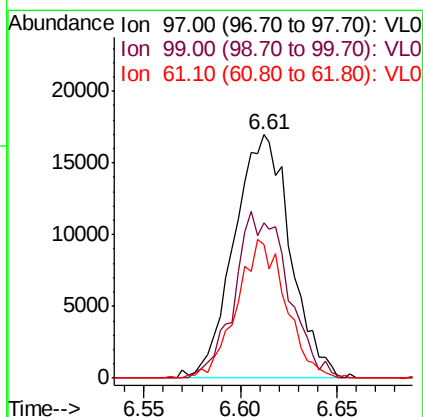
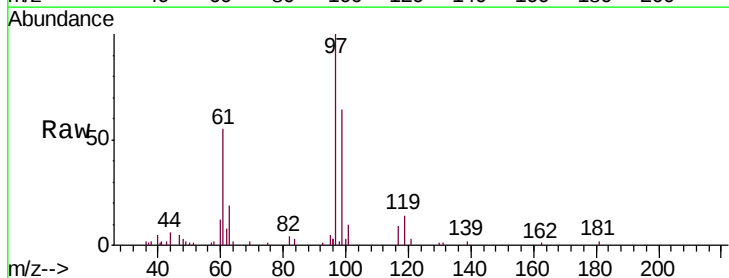
Instrument :
MSVOA_L
ClientSampleId :
SG-7-20190523-1

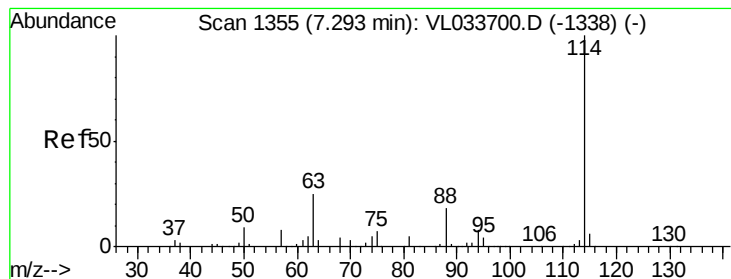
Tgt Ion: 84 Resp: 2209
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 0.0 66.0 99.0#



#32
1,1,1-Trichloroethane
Concen: 0.243 ppbv
RT: 6.61 min Scan# 1143
Delta R.T. -0.00 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

Tgt Ion: 97 Resp: 34145
Ion Ratio Lower Upper
97 100
99 65.0 51.5 77.3
61 49.9 37.8 56.8





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.28 min Scan# 1352

Delta R.T. -0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

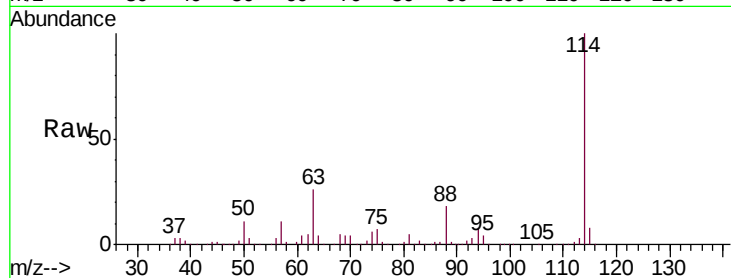
Tgt Ion:114 Resp: 1685984

Ion Ratio Lower Upper

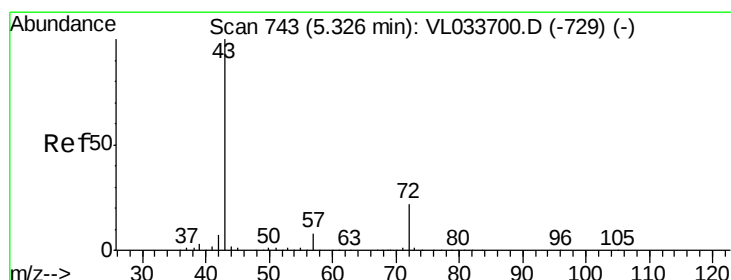
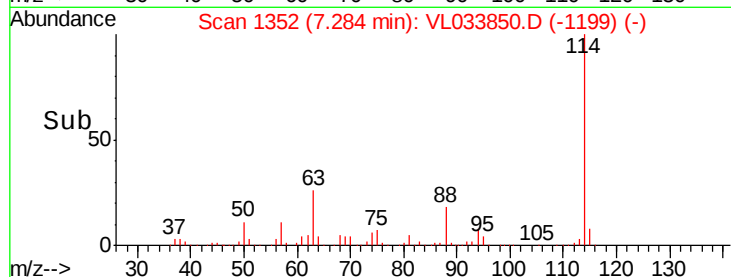
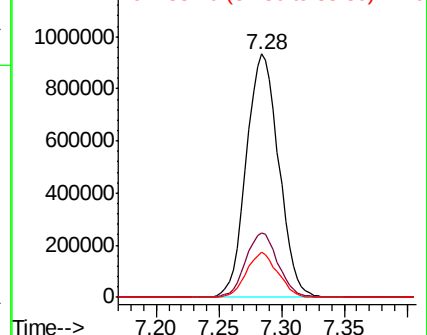
114 100

63 26.4 20.9 31.3

88 17.8 14.3 21.5



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: 1.722 ppbv

RT: 5.33 min Scan# 743

Delta R.T. 0.00 min

Lab File: VL033850.D

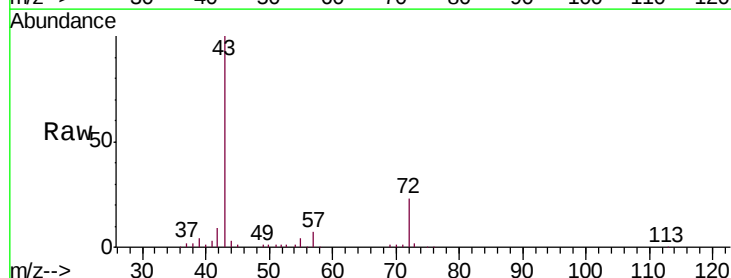
Acq: 30 May 2019 00:54

Tgt Ion: 43 Resp: 179985

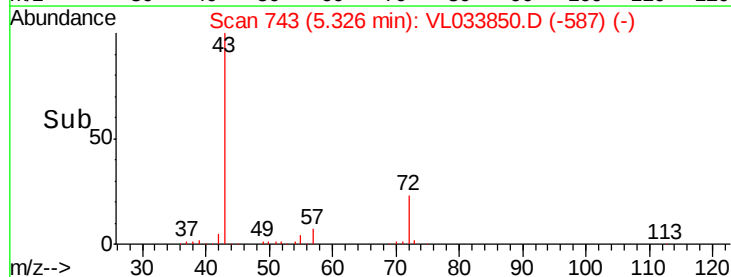
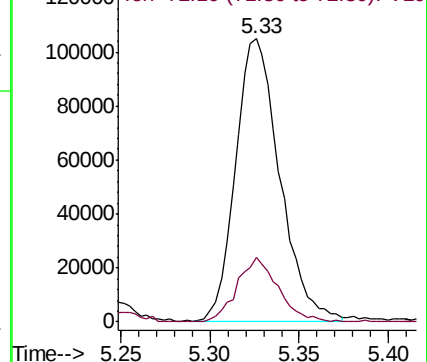
Ion Ratio Lower Upper

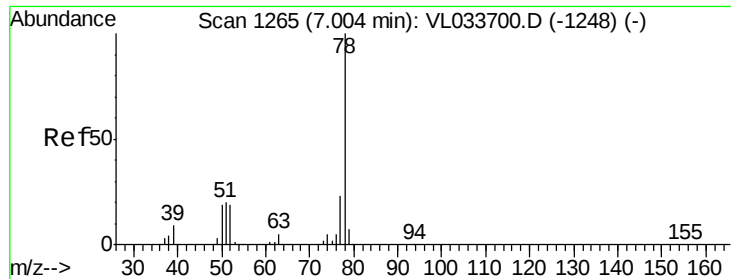
43 100

72 21.5 17.8 26.6



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





#36

Benzene

Concen: 0.135 ppbv

RT: 6.99 min Scan# 1262

Delta R.T. -0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

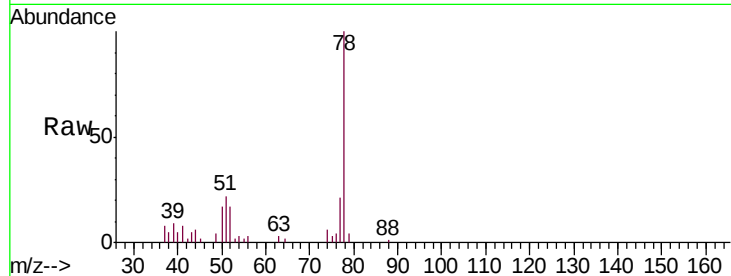
Tgt Ion: 78 Resp: 20692

Ion Ratio Lower Upper

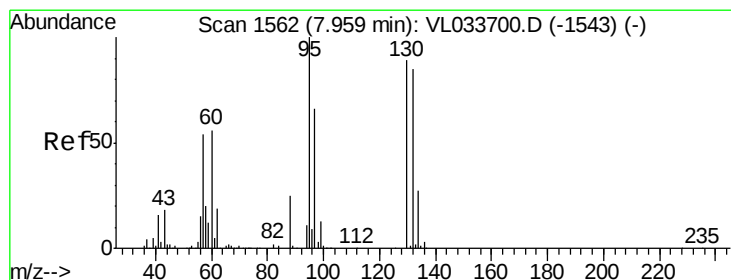
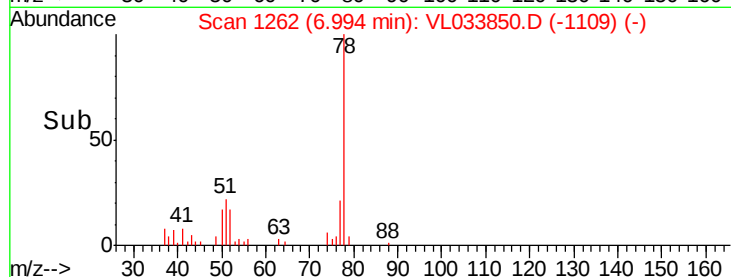
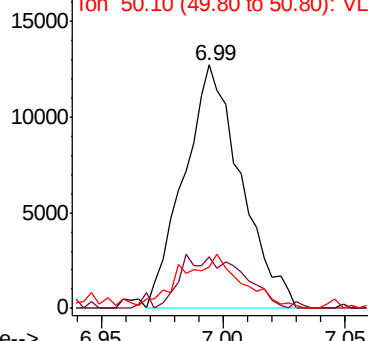
78 100

77 18.2 18.4 27.6#

50 15.6 15.5 23.3



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



#38

Trichloroethene

Concen: 0.099 ppbv

RT: 7.95 min Scan# 1560

Delta R.T. -0.01 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Tgt Ion: 130 Resp: 5615

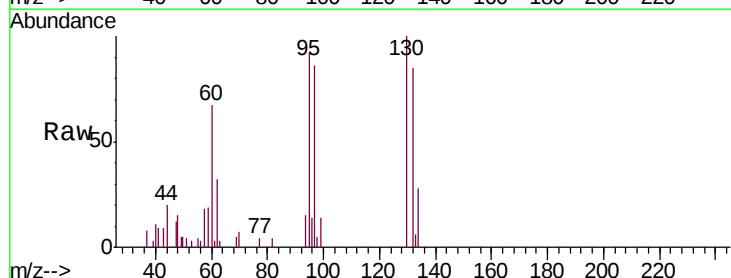
Ion Ratio Lower Upper

130 100

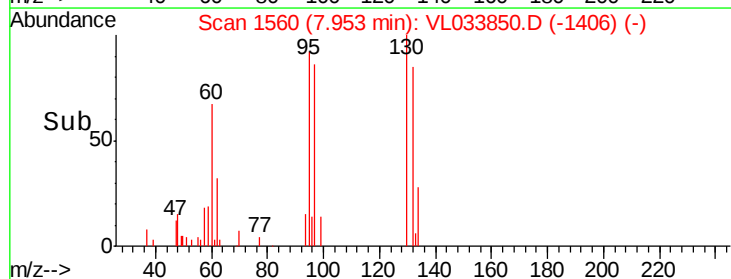
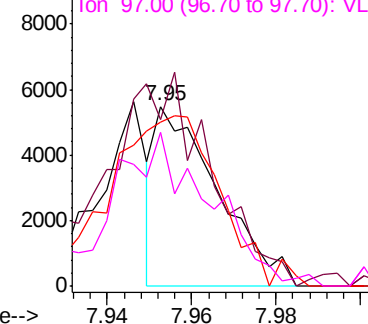
95 92.5 90.2 135.4

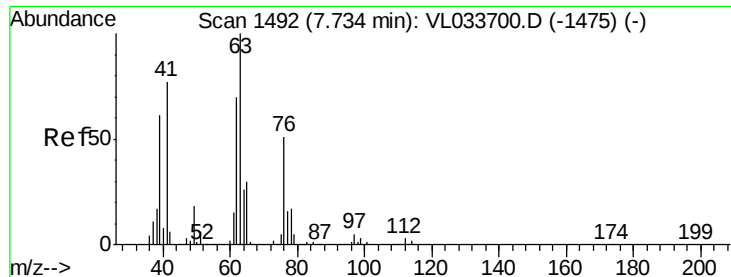
132 85.8 76.4 114.6

97 86.5 59.8 89.6



Abundance Ion 130.00 (129.70 to 130.70): V
Ion 95.00 (94.70 to 95.70): VL0
Ion 132.00 (131.70 to 132.70): V
Ion 97.00 (96.70 to 97.70): VL0

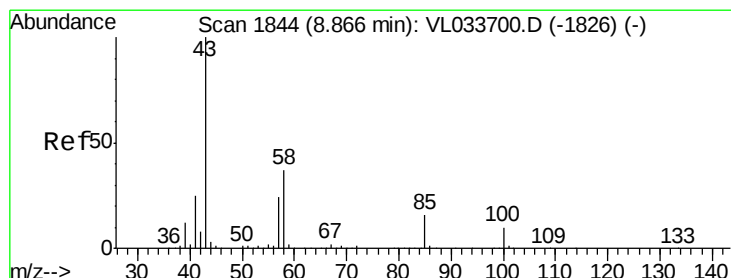
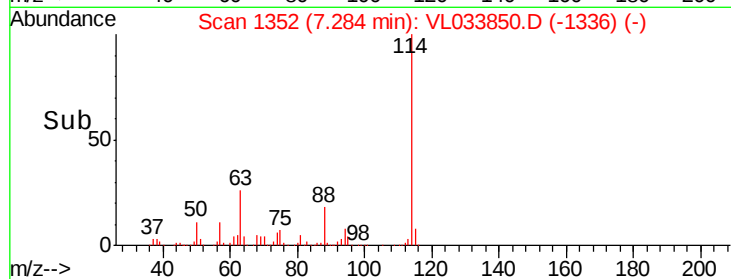
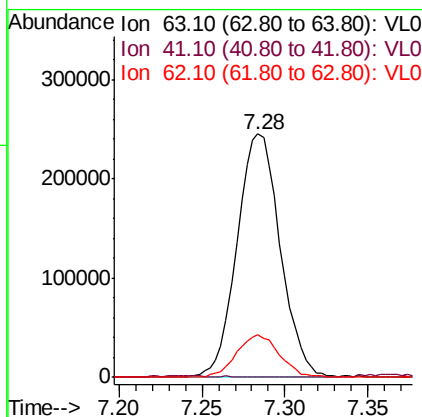
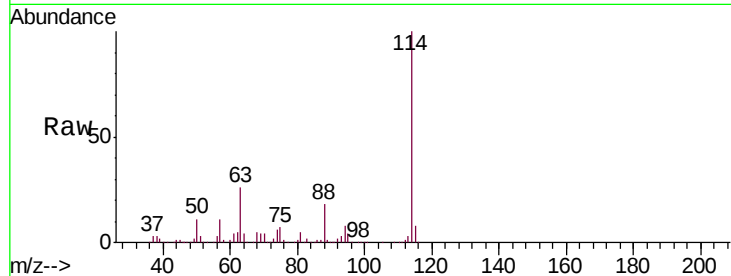




#39
 1,2-Dichloropropane
 Concen: 7.732 ppbv
 RT: 7.28 min Scan# 1352
 Delta R.T. -0.45 min
 Lab File: VL033850.D
 Acq: 30 May 2019 00:54

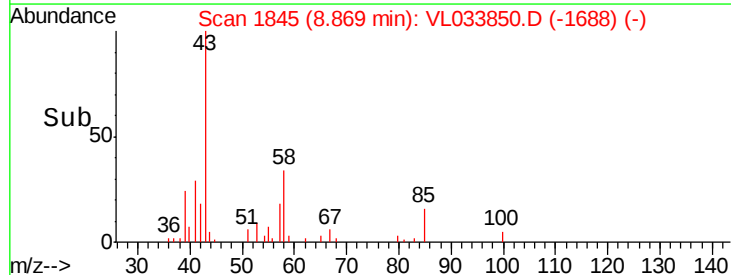
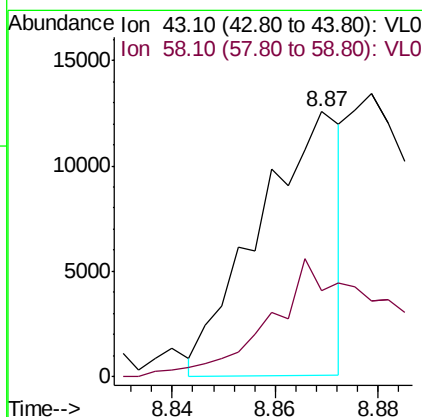
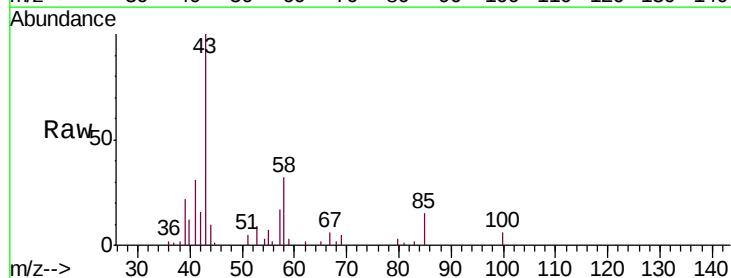
Instrument :
 MSVOA_L
 ClientSampleId :
 SG-7-20190523-1

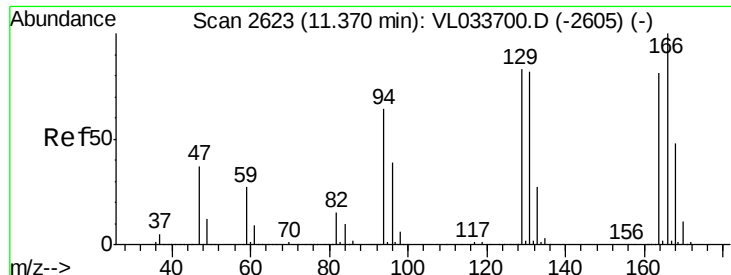
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	61.5	92.3#
62	17.6	56.2	84.4#



#50
 4-Methyl-2-Pentanone
 Concen: 0.086 ppbv
 RT: 8.87 min Scan# 1845
 Delta R.T. 0.00 min
 Lab File: VL033850.D
 Acq: 30 May 2019 00:54

Tgt Ion	Ratio	Lower	Upper
43	100		
58	72.1	28.6	43.0#





#52

Tetrachloroethene

Concen: 12.243 ppbv

RT: 11.37 min Scan# 2622

Delta R.T. -0.00 min

Lab File: VL033850.D

Acq: 30 May 2019 00:54

Instrument :

MSVOA_L

ClientSampleId :

SG-7-20190523-1

Tgt Ion:164 Resp: 660021

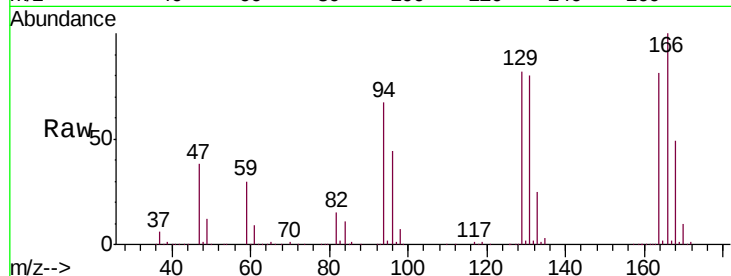
Ion Ratio Lower Upper

164 100

166 123.3 98.9 148.3

129 100.9 81.8 122.6

131 98.0 81.1 121.7

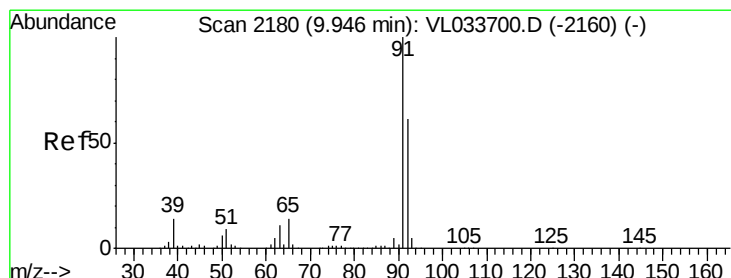
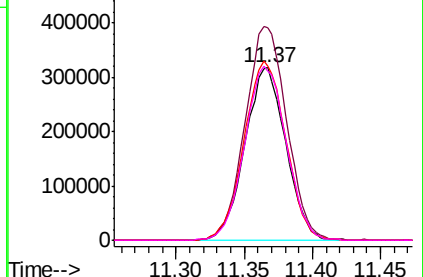
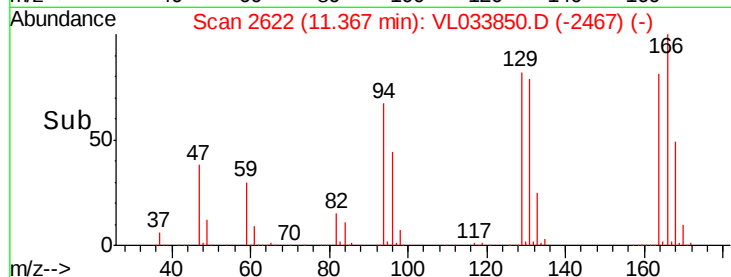


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.388 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. -0.01 min

Lab File: VL033850.D

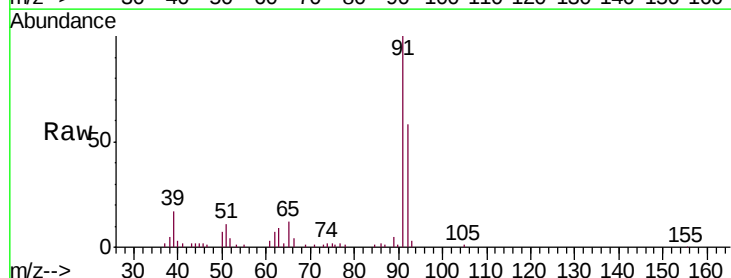
Acq: 30 May 2019 00:54

Tgt Ion: 91 Resp: 64205

Ion Ratio Lower Upper

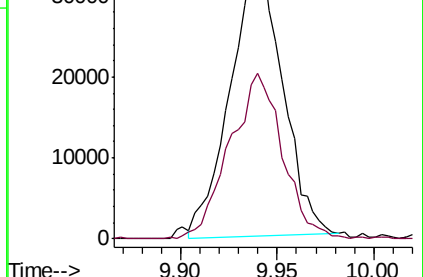
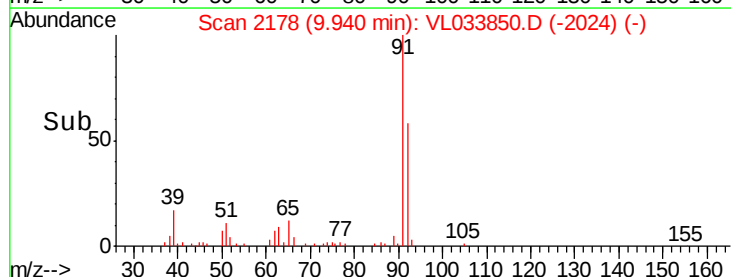
91 100

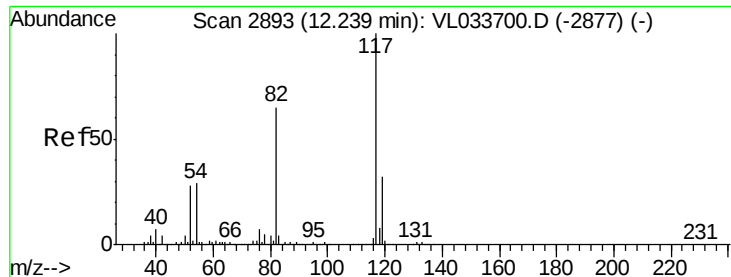
92 60.9 47.6 71.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

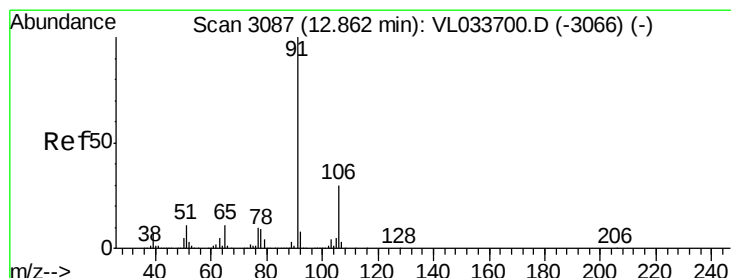
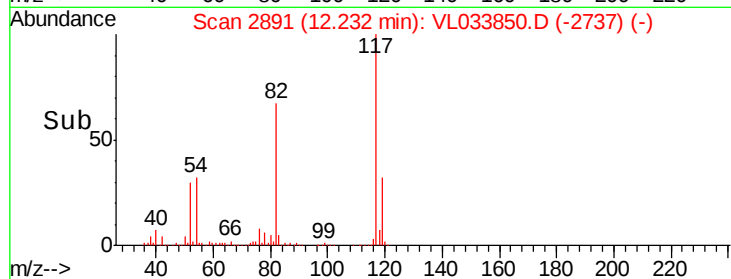
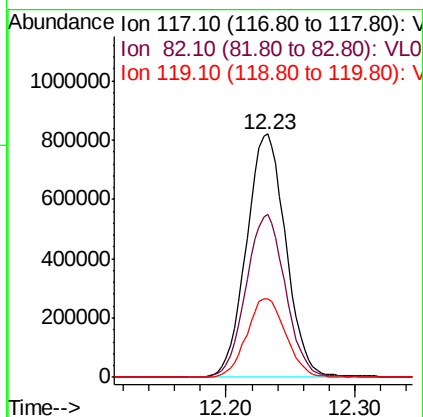
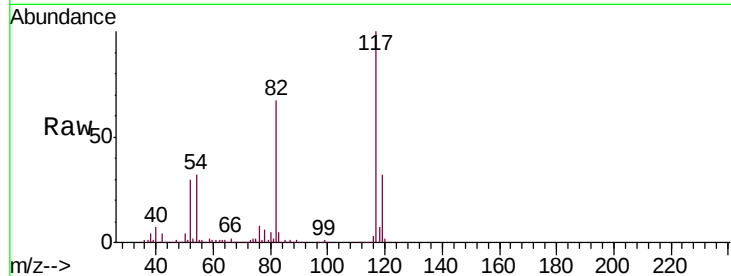




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

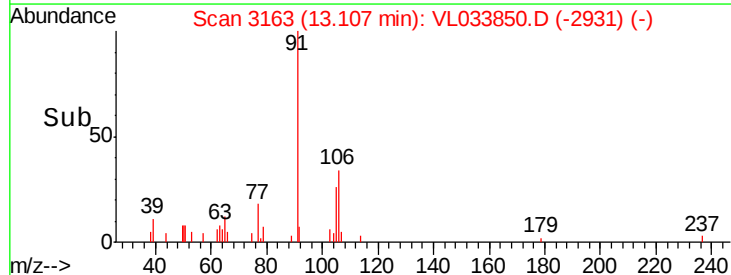
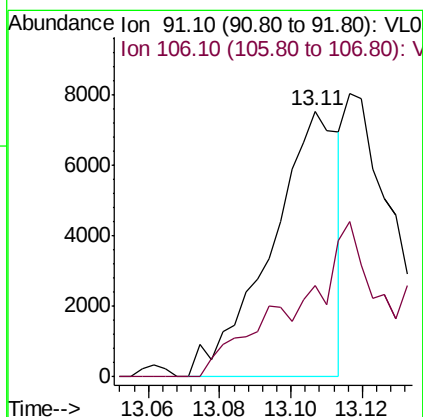
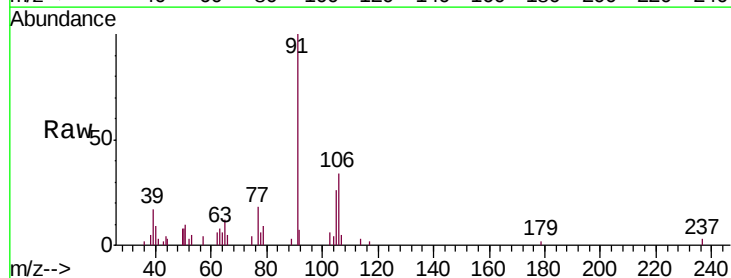
Instrument :
MSVOA_L
ClientSampleId :
SG-7-20190523-1

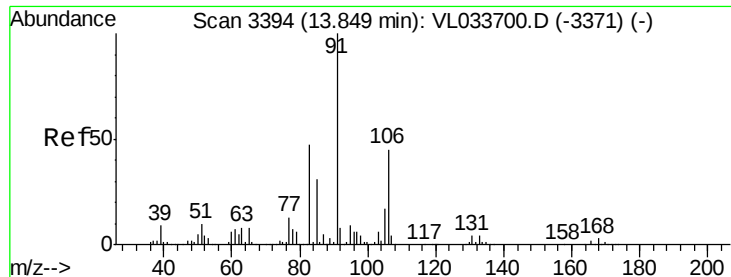
Tgt Ion: 117 Resp: 1741801
Ion Ratio Lower Upper
117 100
82 67.1 49.4 74.0
119 32.4 24.9 37.3



#58
Ethyl Benzene
Concen: 0.043 ppbv
RT: 13.11 min Scan# 3163
Delta R.T. 0.24 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

Tgt Ion: 91 Resp: 9845
Ion Ratio Lower Upper
91 100
106 32.0 23.9 35.9

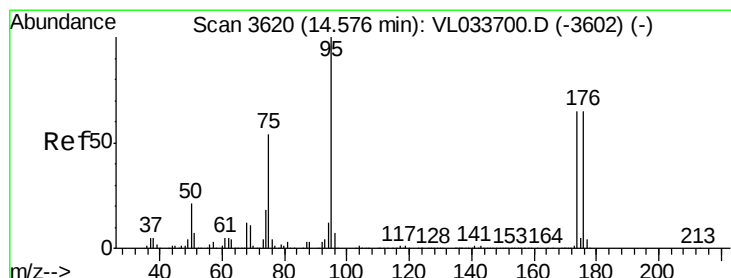
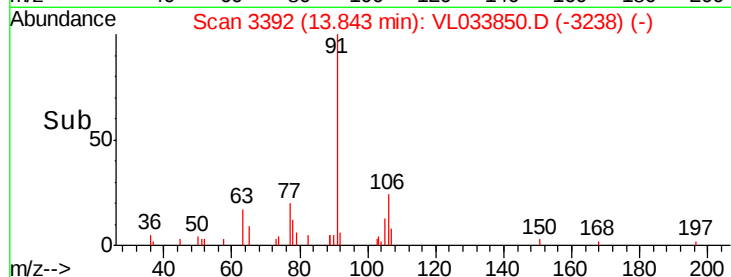
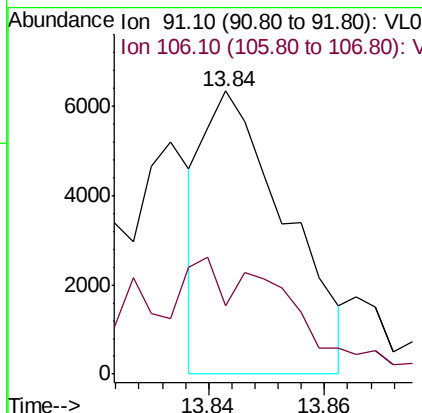
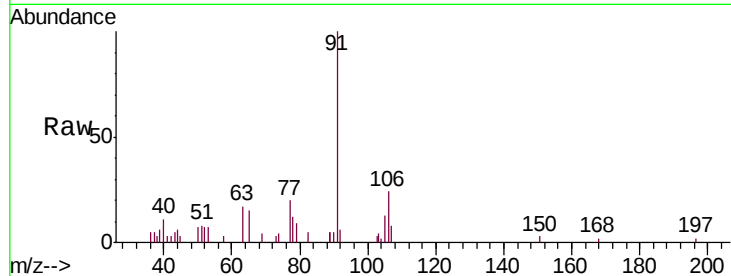




#60
o-Xylene
Concen: 0.031 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. -0.01 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

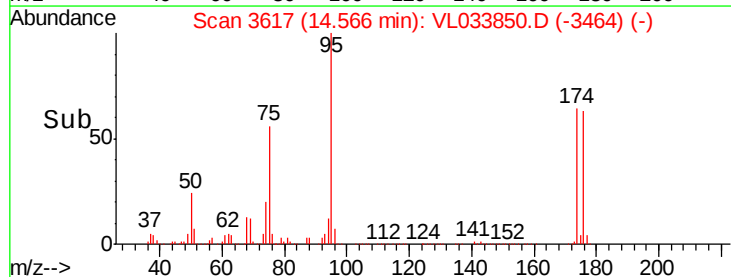
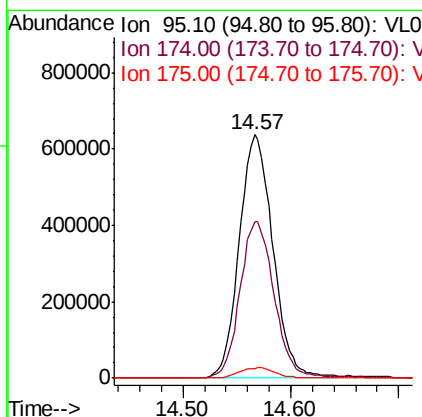
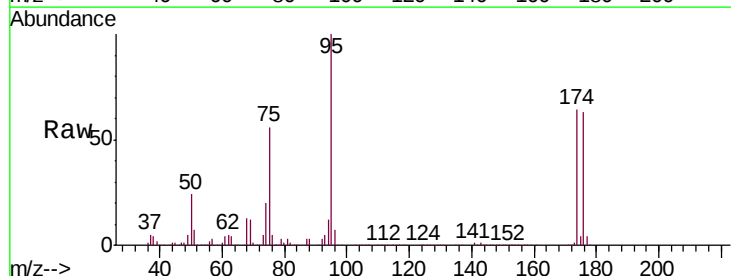
Instrument :
MSVOA_L
ClientSampleId :
SG-7-20190523-1

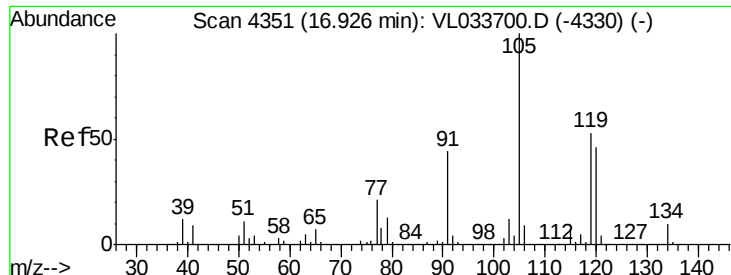
Tgt Ion: 91 Resp: 6257
Ion Ratio Lower Upper
91 100
106 83.0 21.6 64.8#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.821 ppbv
RT: 14.57 min Scan# 3617
Delta R.T. -0.01 min
Lab File: VL033850.D
Acq: 30 May 2019 00:54

Tgt Ion: 95 Resp: 1386820
Ion Ratio Lower Upper
95 100
174 66.0 53.9 80.9
175 4.6 3.8 5.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.032 ppbv
 RT: 16.91 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL033850.D
 Acq: 30 May 2019 00:54

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-7-20190523-1

Tgt Ion:	105	Resp:	7961
Ion	Ratio	Lower	Upper
105	100		
120	44.3	36.8	55.2
91	8.1	35.4	53.0#
77	4.5	16.8	25.2#

