

Data File : VL033762.D
Acq On : 23 May 2019 2:34
Operator : SY/AP
Sample : K2929-13 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
BPS1-SG-3004-25DL

Quant Time: May 23 04:27:51 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	889411	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1947624	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.23	117	2081595	10.00	ppbv	-0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.56	95	1757255	10.41	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.10%

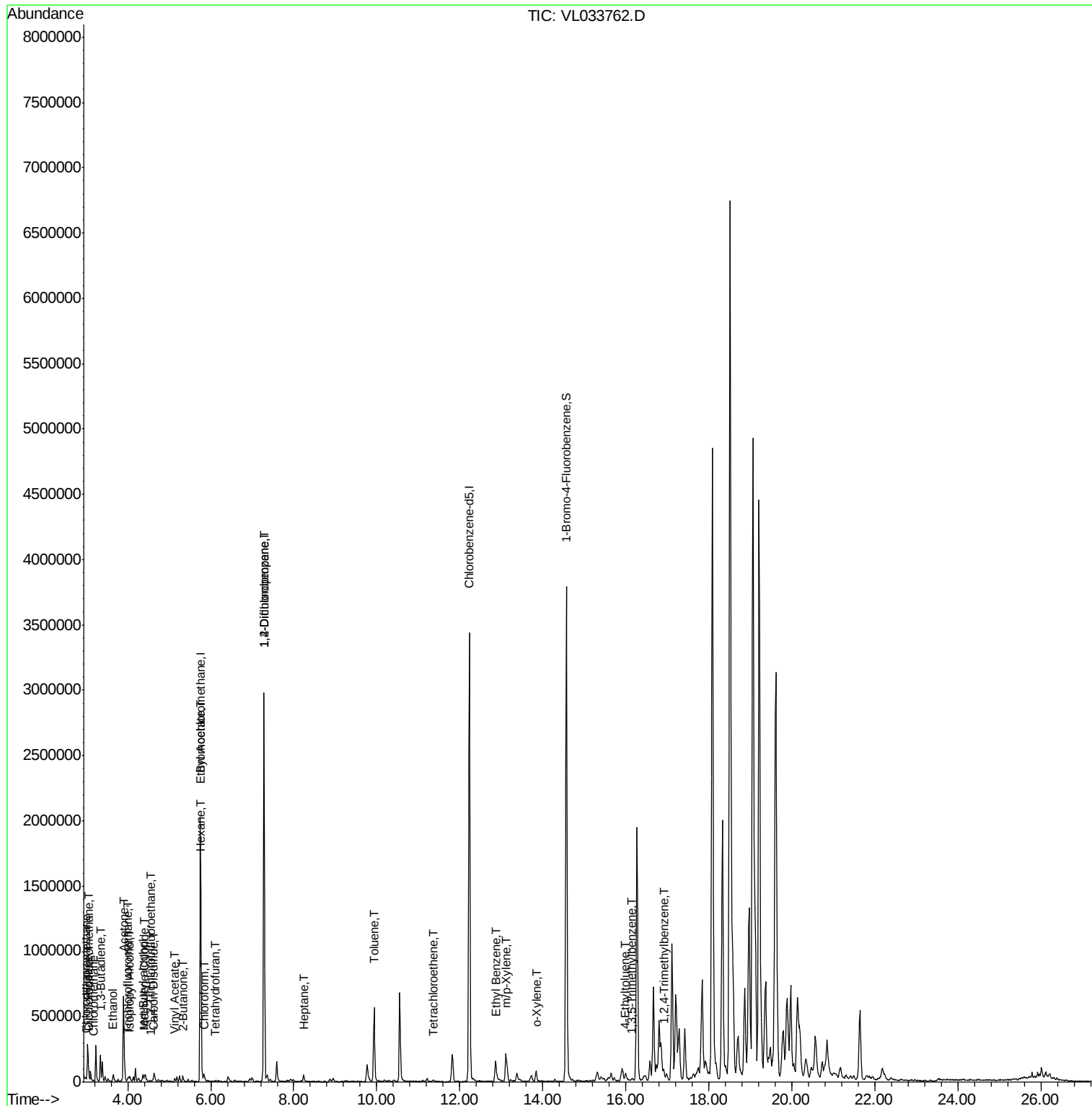
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.07	85	9775	0.052	ppbv #	87
3) Chlorodifluoromethane	2.98	51	8442	0.083	ppbv #	84
4) Chloromethane	3.17	50	1101	0.019	ppbv #	74
9) Propene	3.04	41	99474	2.296	ppbv	88
10) Heptane	8.24	43	5505	0.045	ppbv #	1
11) Trichlorofluoromethane	4.00	101	14761	0.083	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.55	101	1846	0.015	ppbv #	48
13) Ethanol	3.65	45	51530	3.679	ppbv	100
15) Acetone	3.90	43	663252	5.375	ppbv	98
16) 1,3-Butadiene	3.34	39	62441	1.271	ppbv #	28
17) tert-Butyl alcohol	4.36	59	22484	0.225	ppbv	99
19) Isopropyl Alcohol	4.03	45	28573	0.359	ppbv #	94
20) Methylene Chloride	4.40	84	13720	0.289	ppbv #	88
23) Vinyl Acetate	5.14	43	6822	0.042	ppbv #	40
25) Ethyl Acetate	5.77	43	60145	0.277	ppbv	98
26) Hexane	5.77	57	24508	0.263	ppbv #	77
27) Carbon Disulfide	4.62	76	17212	0.135	ppbv #	84
29) Chloroform	5.84	83	29483	0.172	ppbv #	80
34) 2-Butanone	5.33	43	42137	0.349	ppbv	96
39) 1,2-Dichloropropane	7.28	63	533030	8.070	ppbv #	24
41) Tetrahydrofuran	6.13	42	973	0.014	ppbv #	47
52) Tetrachloroethene	11.35	164	824	0.013	ppbv #	22
53) Toluene	9.93	91	415305	2.173	ppbv	99
58) Ethyl Benzene	12.86	91	54953	0.199	ppbv	96
59) m/p-Xylene	13.11	91	152111	0.631	ppbv #	74
60) o-Xylene	13.83	91	57220	0.236	ppbv	96
72) 4-Ethyltoluene	15.98	105	9399	0.034	ppbv #	56
73) 1,3,5-Trimethylbenzene	16.14	105	3177	0.012	ppbv #	66
74) 1,2,4-Trimethylbenzene	16.91	105	54190	0.184	ppbv #	72

(#) = 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: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

BPS1-SG-3004-25DL

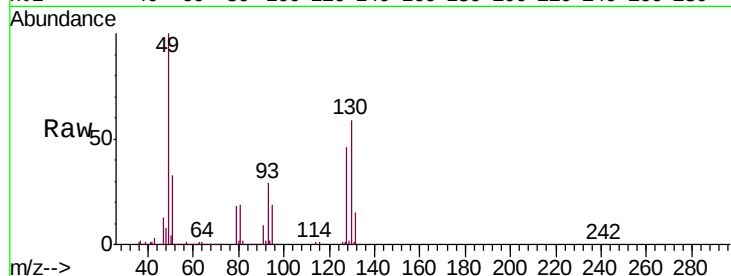
Tgt Ion: 49 Resp: 889411

Ion Ratio Lower Upper

49 100

128 46.3 25.2 75.6

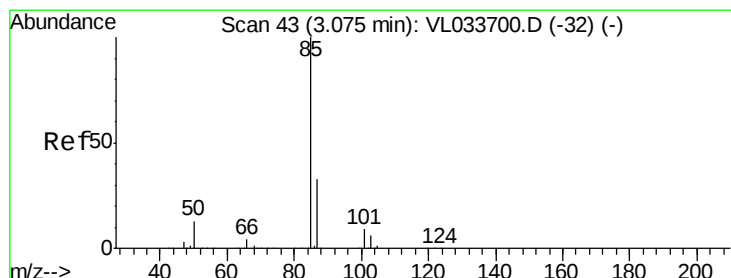
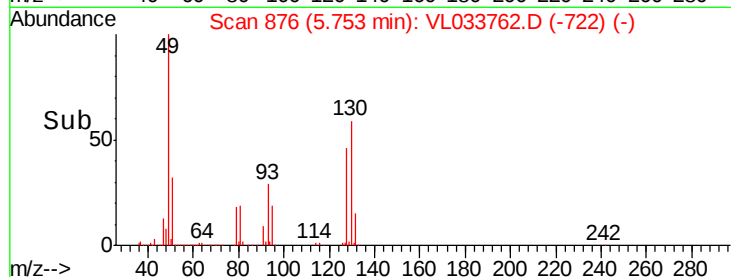
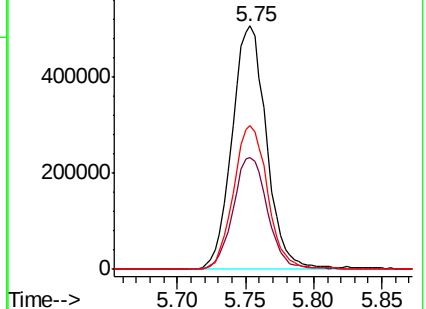
130 58.9 32.5 97.5



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: 0.052 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033762.D

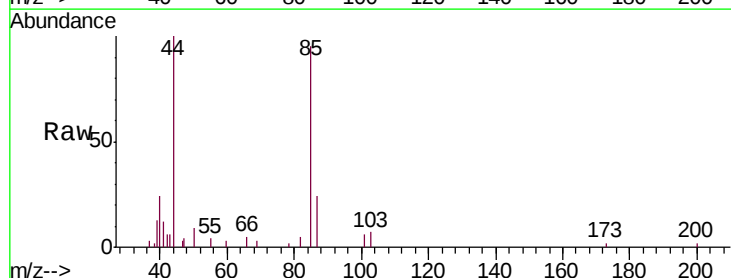
Acq: 23 May 2019 2:34

Tgt Ion: 85 Resp: 9775

Ion Ratio Lower Upper

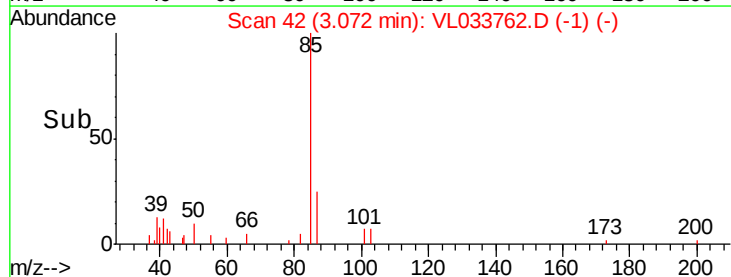
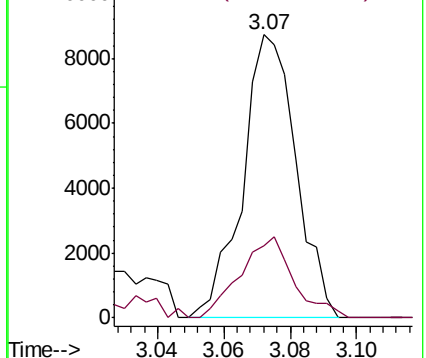
85 100

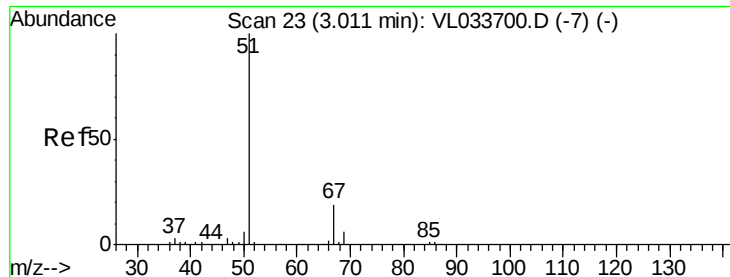
87 25.3 26.3 39.5#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.083 ppbv

RT: 2.98 min Scan# 14

Delta R.T. -0.03 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

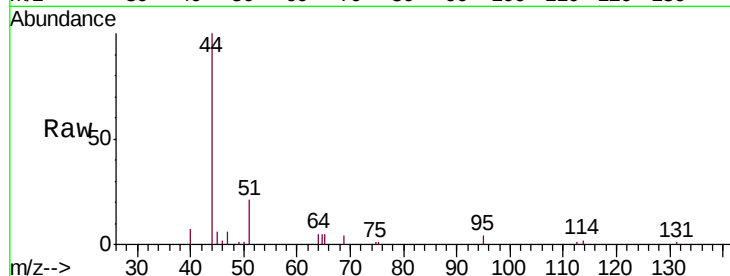
BPS1-SG-3004-25DL

Tgt Ion: 51 Resp: 8442

Ion Ratio Lower Upper

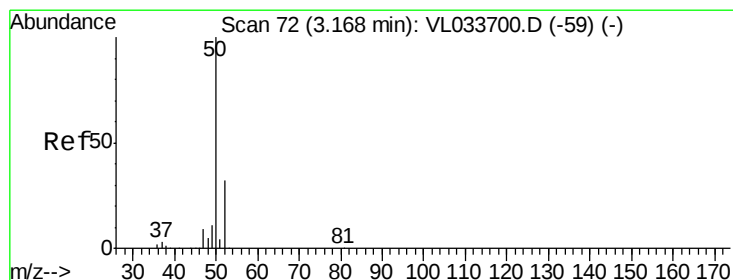
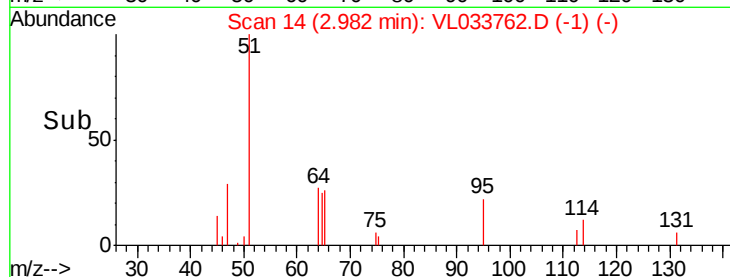
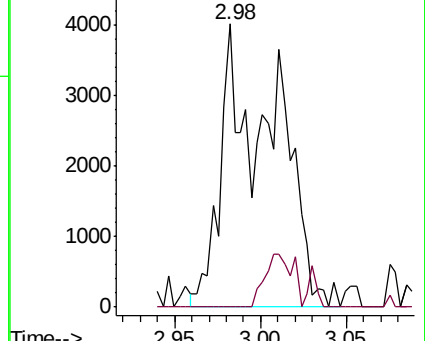
51 100

67 12.2 15.6 23.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.019 ppbv

RT: 3.17 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033762.D

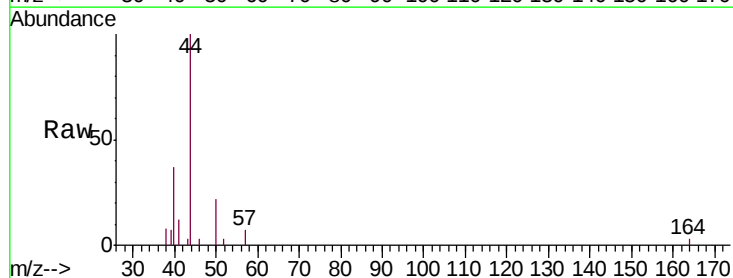
Acq: 23 May 2019 2:34

Tgt Ion: 50 Resp: 1101

Ion Ratio Lower Upper

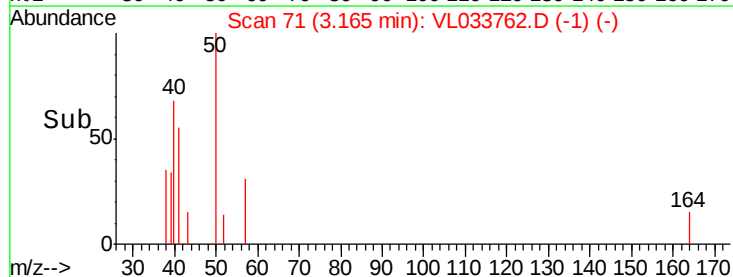
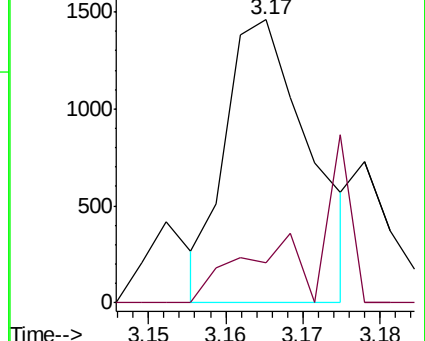
50 100

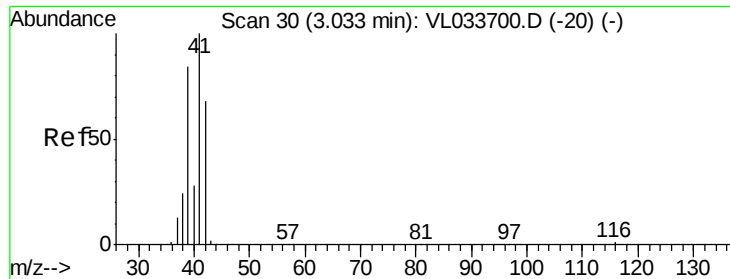
52 17.5 25.7 38.5#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.296 ppbv

RT: 3.04 min Scan# 31

Delta R.T. 0.00 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

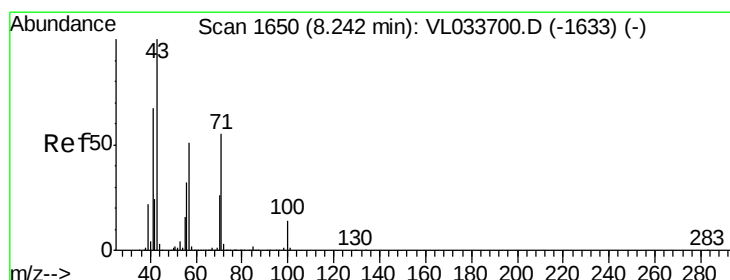
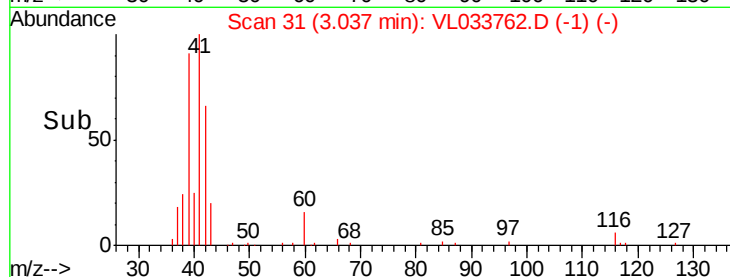
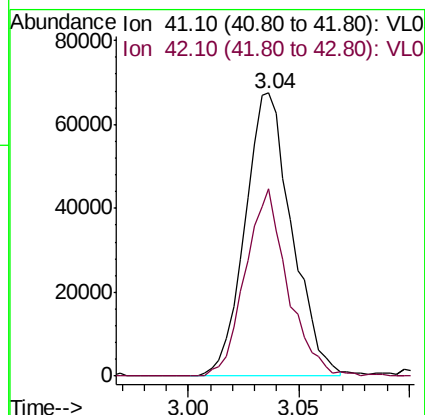
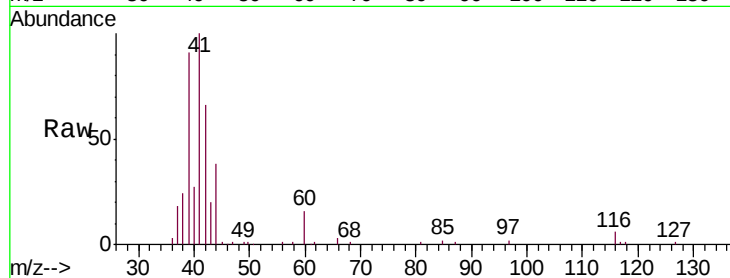
BPS1-SG-3004-25DL

Tgt Ion: 41 Resp: 99474

Ion Ratio Lower Upper

41 100

42 60.4 56.1 84.1



#10

Heptane

Concen: 0.045 ppbv

RT: 8.24 min Scan# 1648

Delta R.T. -0.01 min

Lab File: VL033762.D

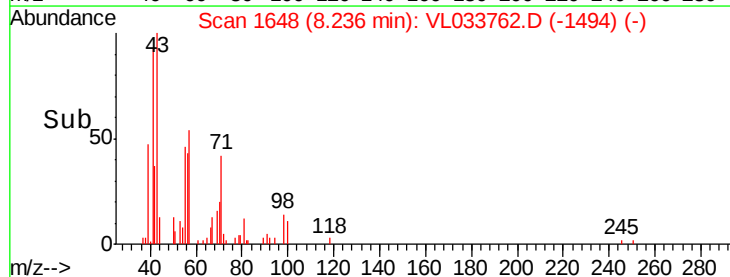
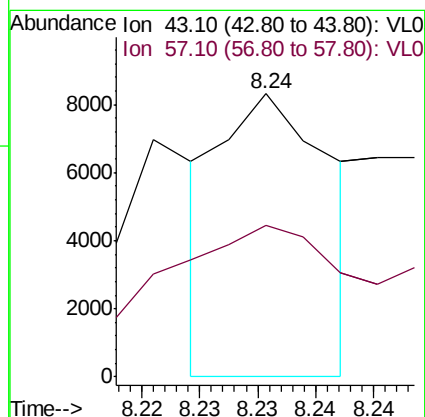
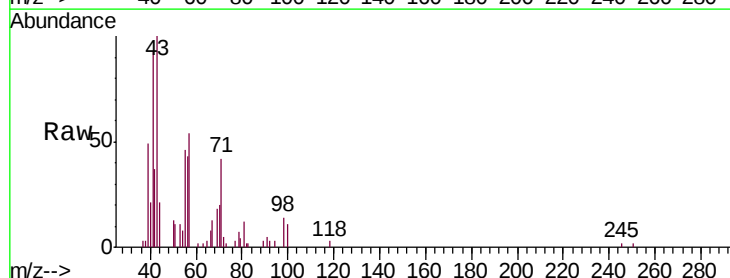
Acq: 23 May 2019 2:34

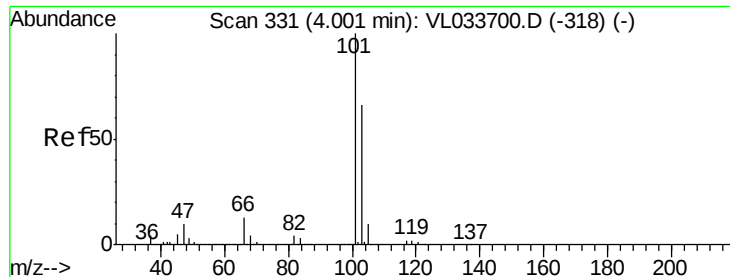
Tgt Ion: 43 Resp: 5505

Ion Ratio Lower Upper

43 100

57 155.1 41.4 62.0#

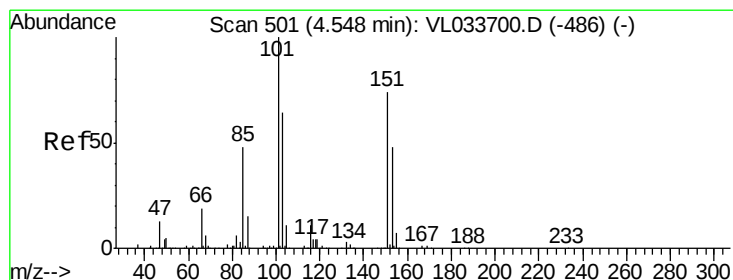
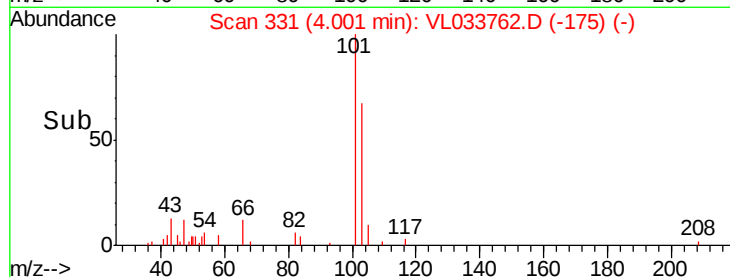
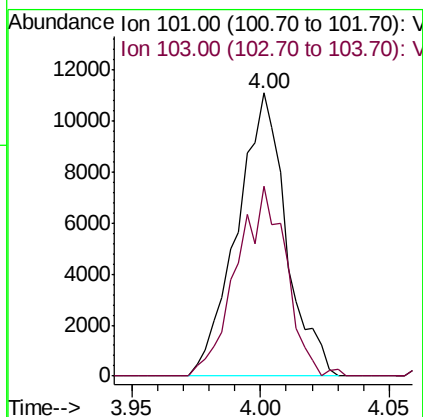
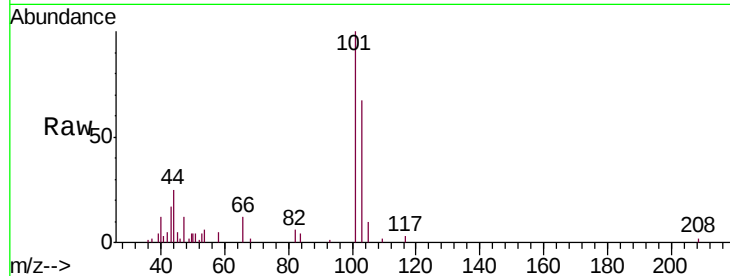




#11
 Trichlorofluoromethane
 Concen: 0.083 ppbv
 RT: 4.00 min Scan# 331
 Delta R.T. 0.00 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

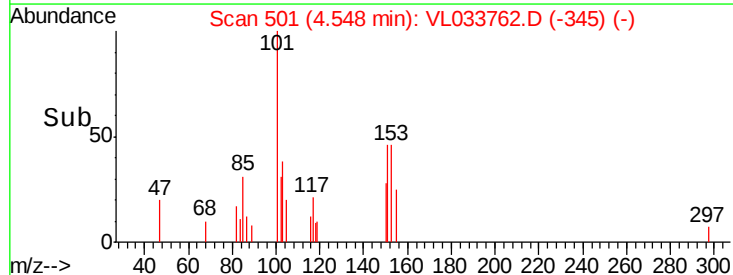
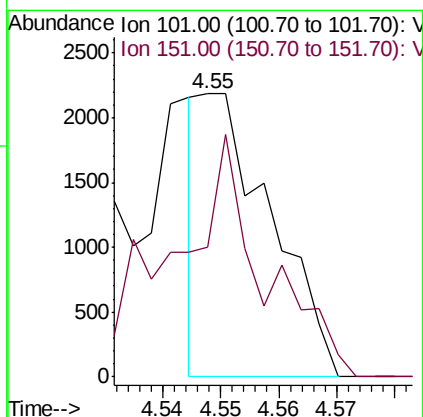
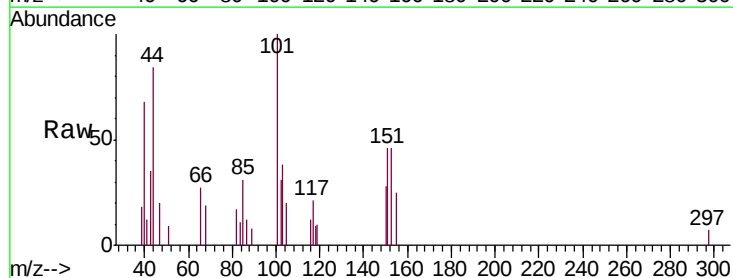
Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-SG-3004-25DL

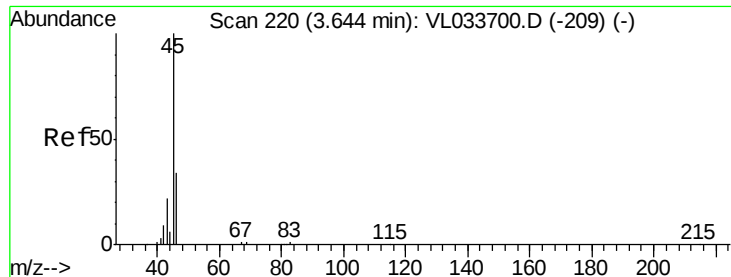
Tgt Ion:101 Resp: 14761
 Ion Ratio Lower Upper
 101 100
 103 66.9 52.6 78.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.015 ppbv
 RT: 4.55 min Scan# 501
 Delta R.T. 0.00 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

Tgt Ion:101 Resp: 1846
 Ion Ratio Lower Upper
 101 100
 151 116.2 58.2 87.4#

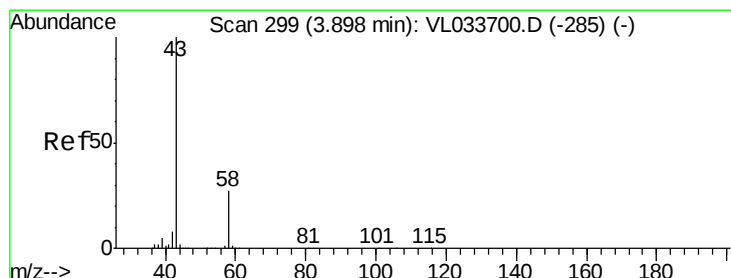
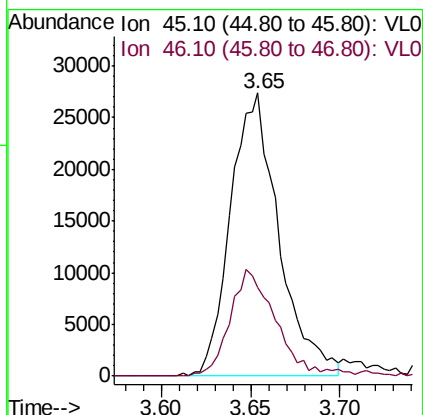
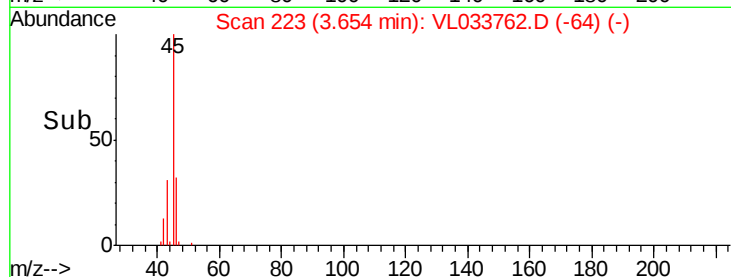
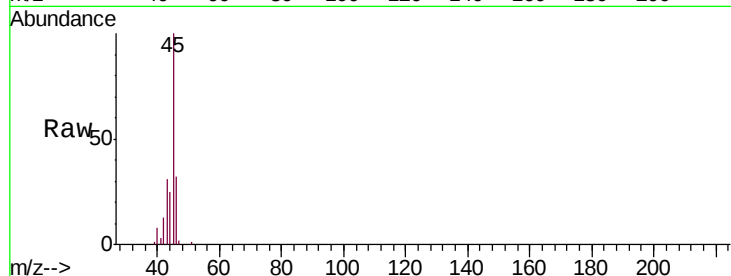




#13
Ethanol
Concen: 3.679 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.01 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

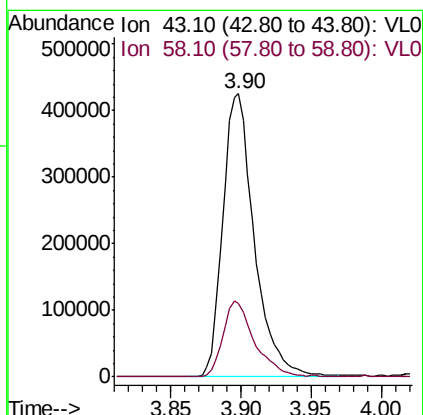
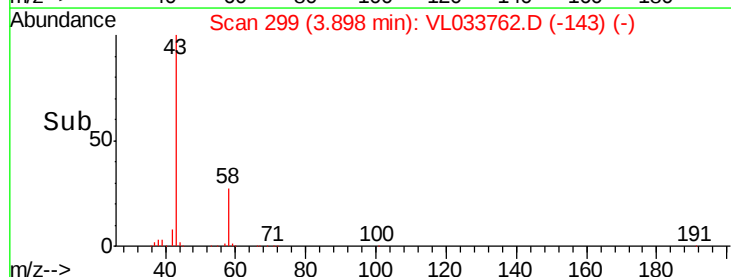
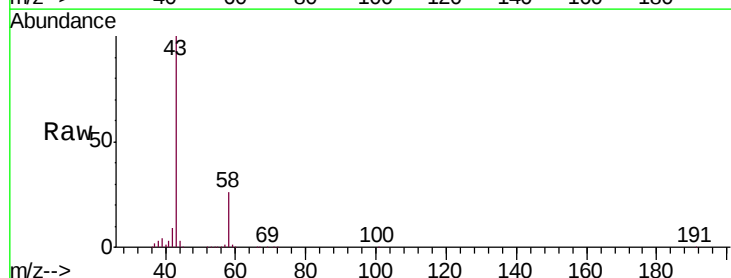
Instrument :
MSVOA_L
ClientSampleId :
BPS1-SG-3004-25DL

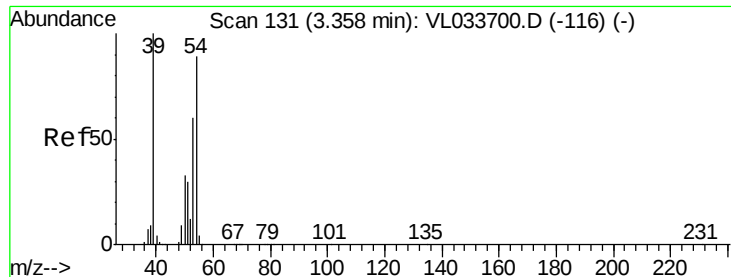
Tgt Ion: 45 Resp: 51530
Ion Ratio Lower Upper
45 100
46 36.7 14.8 59.0



#15
Acetone
Concen: 5.375 ppbv
RT: 3.90 min Scan# 299
Delta R.T. 0.00 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

Tgt Ion: 43 Resp: 663252
Ion Ratio Lower Upper
43 100
58 27.4 21.3 31.9

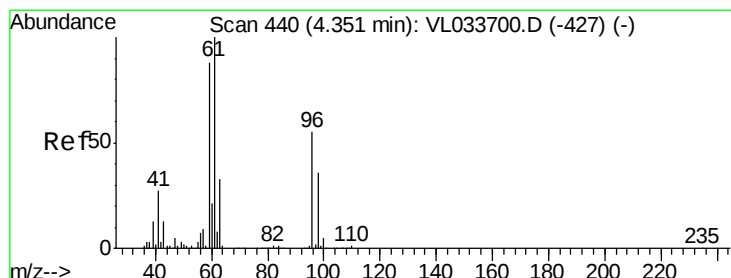
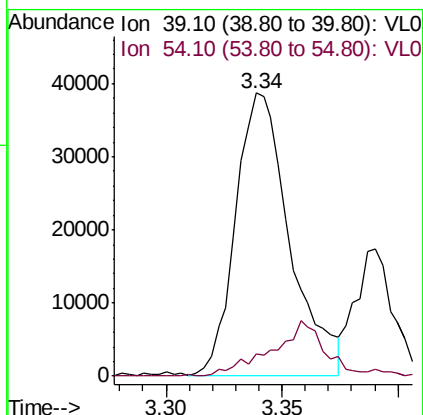
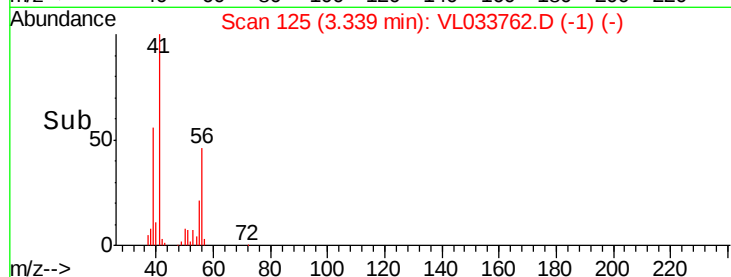
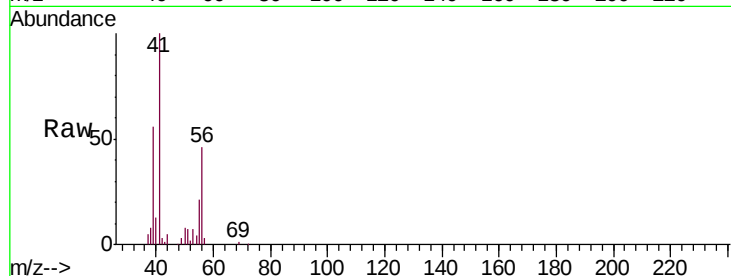




#16
 1,3-Butadiene
 Concen: 1.271 ppbv
 RT: 3.34 min Scan# 125
 Delta R.T. -0.02 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

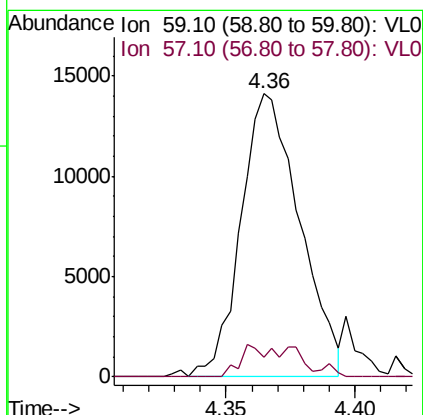
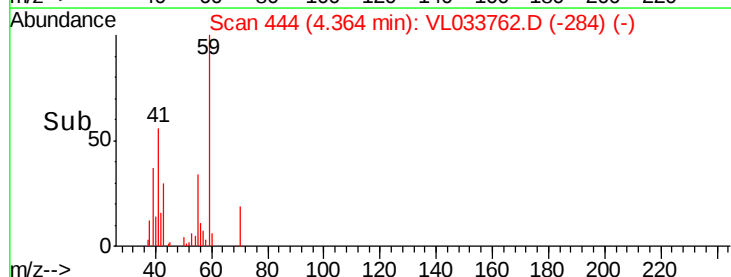
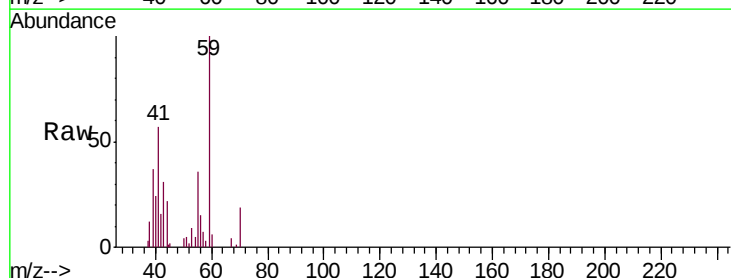
Instrument :
 MSVOA_L
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 BPS1-SG-3004-25DL

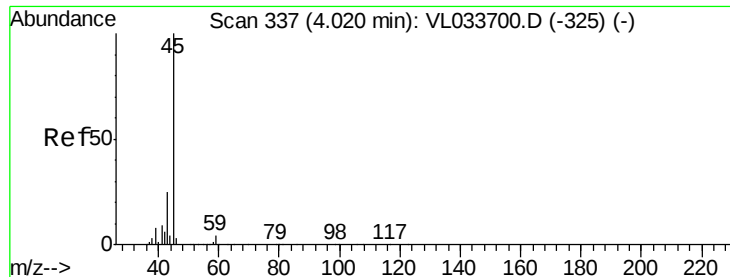
Tgt Ion: 39 Resp: 62441
 Ion Ratio Lower Upper
 39 100
 54 20.0 69.0 103.6#



#17
 tert-Butyl alcohol
 Concen: 0.225 ppbv
 RT: 4.36 min Scan# 444
 Delta R.T. 0.01 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

Tgt Ion: 59 Resp: 22484
 Ion Ratio Lower Upper
 59 100
 57 10.8 8.4 12.6





#19

Isopropyl Alcohol

Concen: 0.359 ppbv

RT: 4.03 min Scan# 340

Delta R.T. 0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

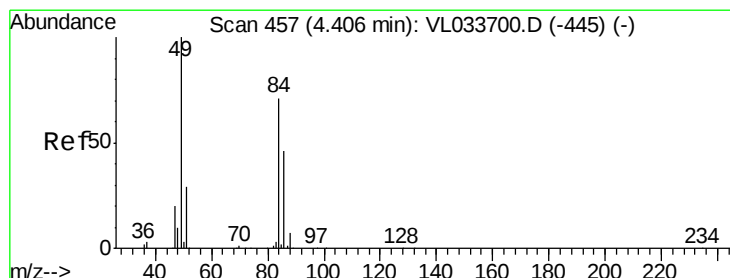
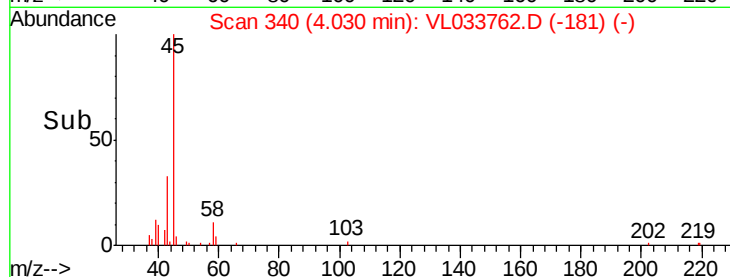
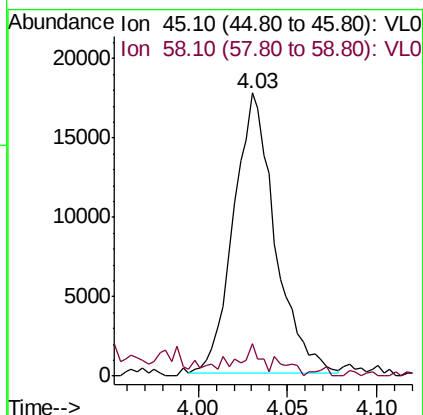
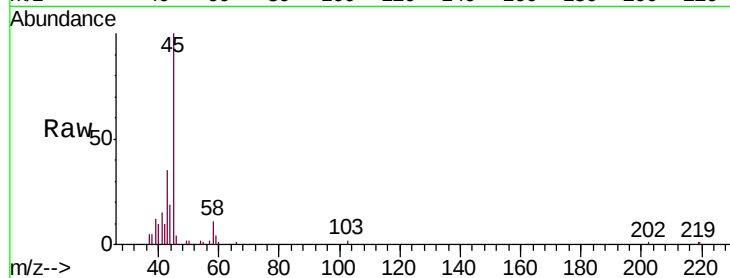
BPS1-SG-3004-25DL

Tgt Ion: 45 Resp: 28573

Ion Ratio Lower Upper

45 100

58 0.0 1.6 2.4#



#20

Methylene Chloride

Concen: 0.289 ppbv

RT: 4.40 min Scan# 456

Delta R.T. -0.00 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Tgt Ion: 84 Resp: 13720

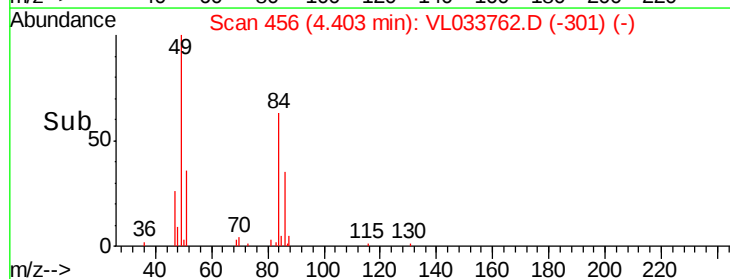
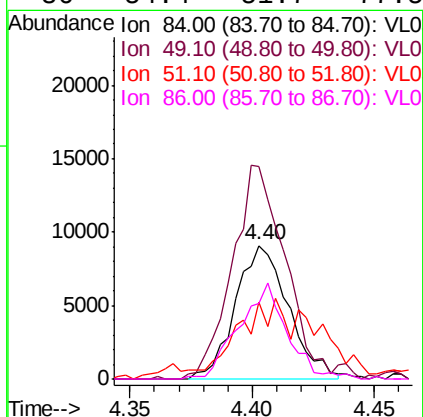
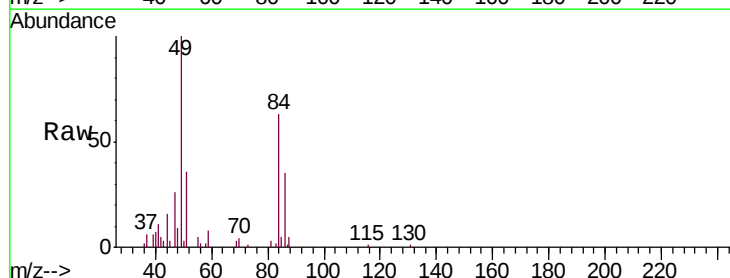
Ion Ratio Lower Upper

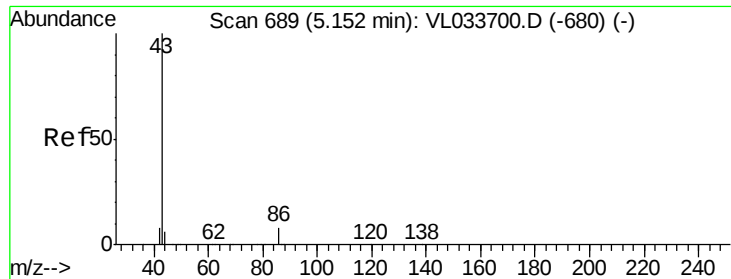
84 100

49 154.6 112.8 169.2

51 51.4 33.4 50.0#

86 54.4 51.7 77.5





#23

Vinyl Acetate

Concen: 0.042 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

BPS1-SG-3004-25DL

Tgt Ion: 43 Resp: 6822

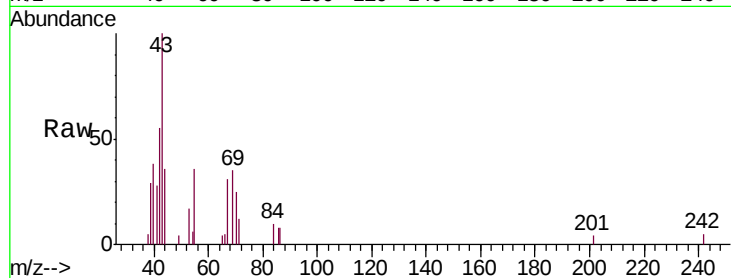
Ion Ratio Lower Upper

43 100

86 14.6 6.0 9.0#

42 51.1 7.5 11.3#

44 12.3 4.4 6.6#

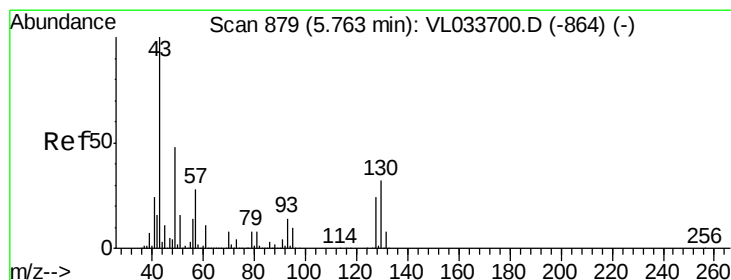
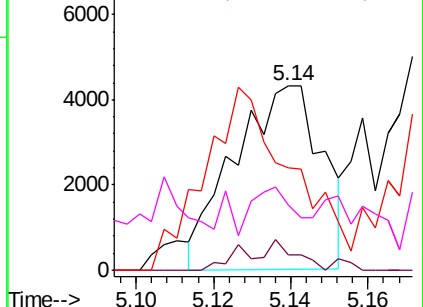
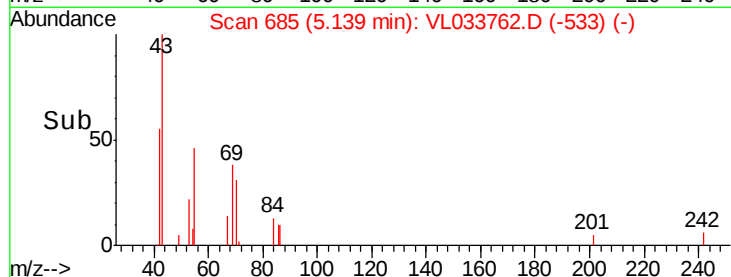


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.277 ppbv

RT: 5.77 min Scan# 880

Delta R.T. 0.00 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Tgt Ion: 43 Resp: 60145

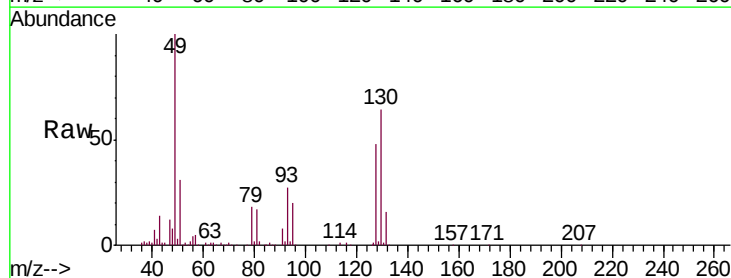
Ion Ratio Lower Upper

43 100

45 11.5 7.9 11.9

61 8.8 7.7 11.5

70 7.1 5.8 8.6

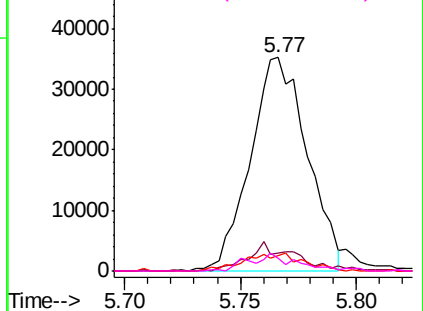
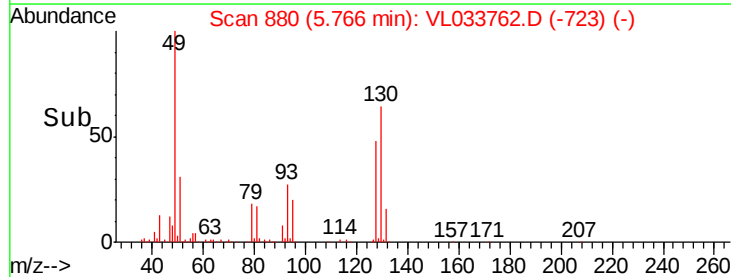


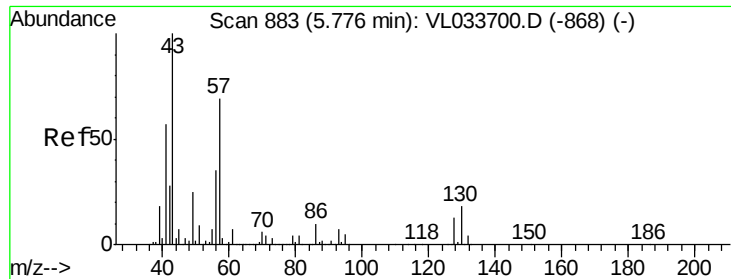
Abundance Ion 43.10 (42.80 to 43.80): VL0

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

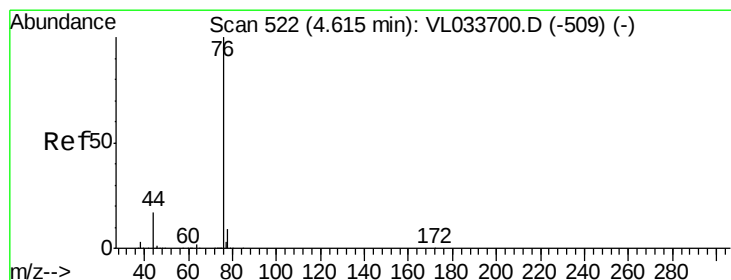
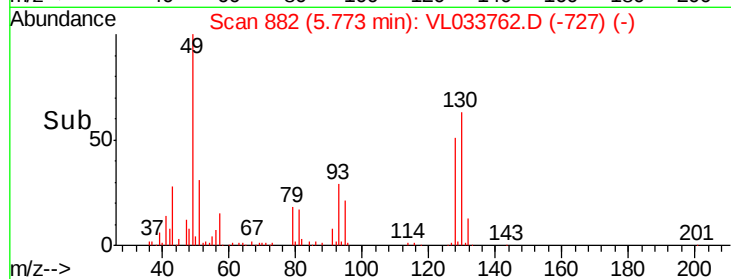
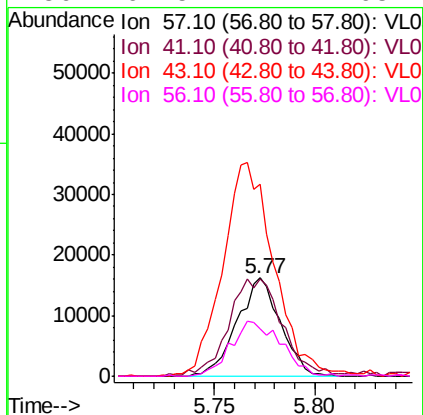
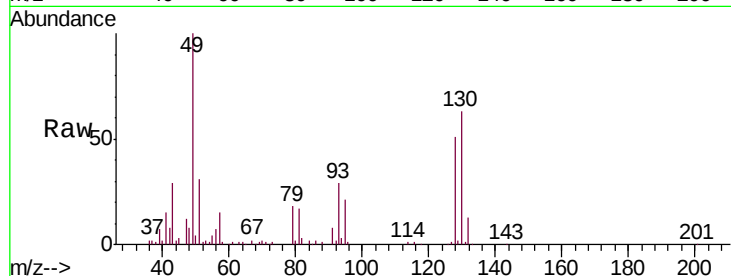




#26
Hexane
Concen: 0.263 ppbv
RT: 5.77 min Scan# 882
Delta R.T. -0.00 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

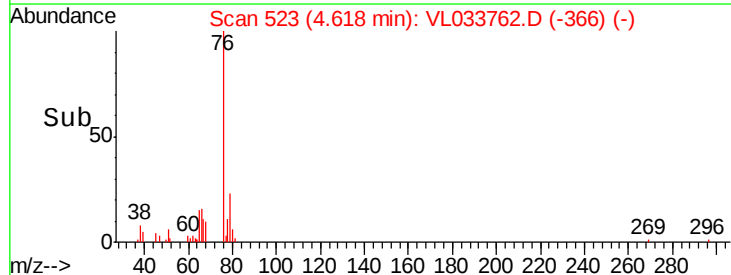
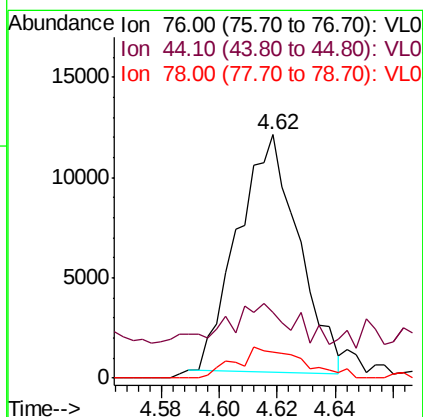
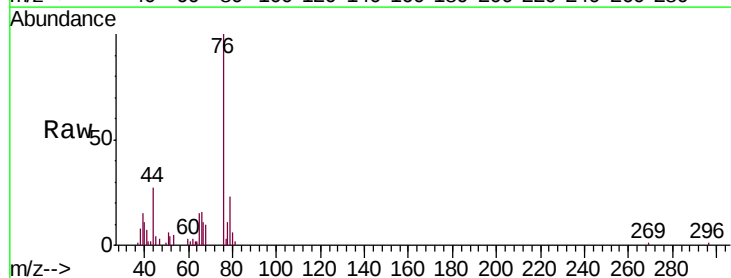
Instrument :
MSVOA_L
ClientSampleId :
BPS1-SG-3004-25DL

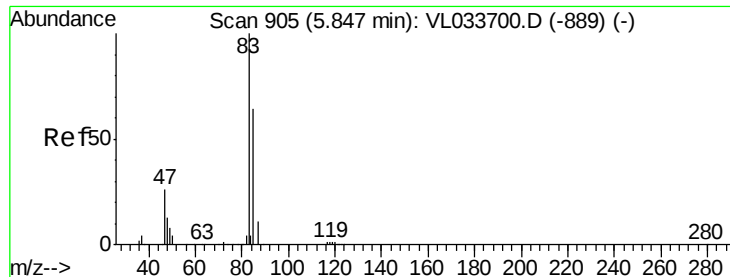
Tgt Ion: 57 Resp: 24508
Ion Ratio Lower Upper
57 100
41 123.4 69.8 104.6#
43 258.2 181.8 272.6
56 64.5 42.1 63.1#



#27
Carbon Disulfide
Concen: 0.135 ppbv
RT: 4.62 min Scan# 523
Delta R.T. 0.00 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

Tgt Ion: 76 Resp: 17212
Ion Ratio Lower Upper
76 100
44 24.8 13.8 20.8#
78 14.5 7.4 11.0#





#29

Chloroform

Concen: 0.172 ppbv

RT: 5.84 min Scan# 902

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

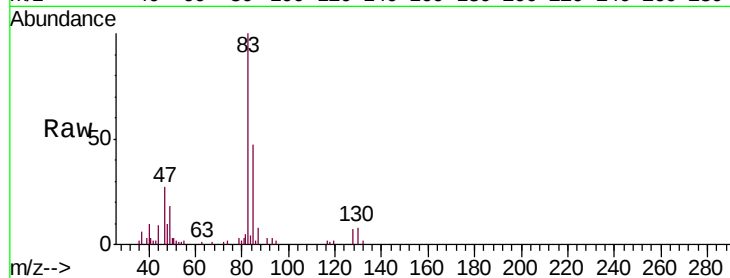
BPS1-SG-3004-25DL

Tgt Ion: 83 Resp: 29483

Ion Ratio Lower Upper

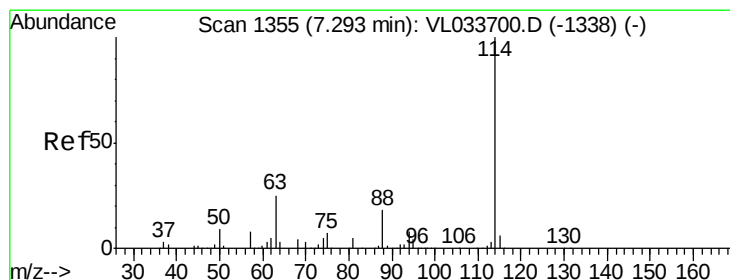
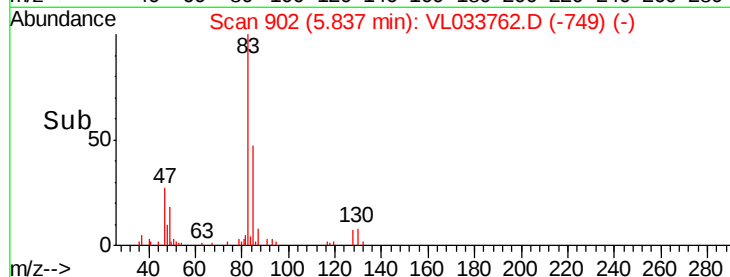
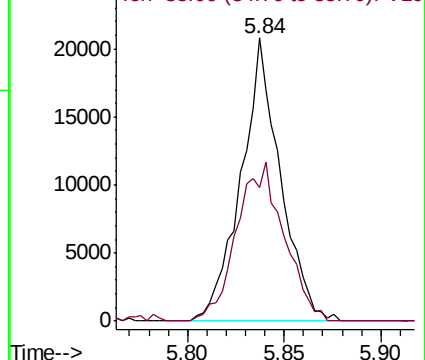
83 100

85 48.8 51.5 77.3#



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: 7.28 min Scan# 1351

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

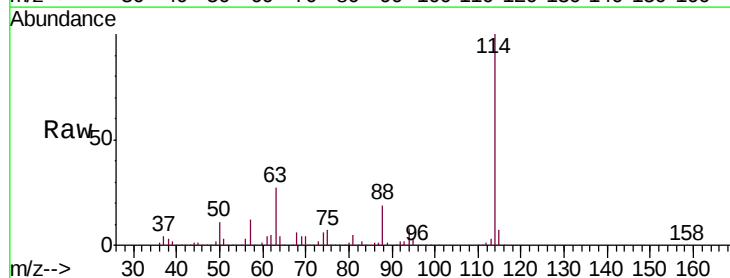
Tgt Ion: 114 Resp: 1947624

Ion Ratio Lower Upper

114 100

63 27.4 20.9 31.3

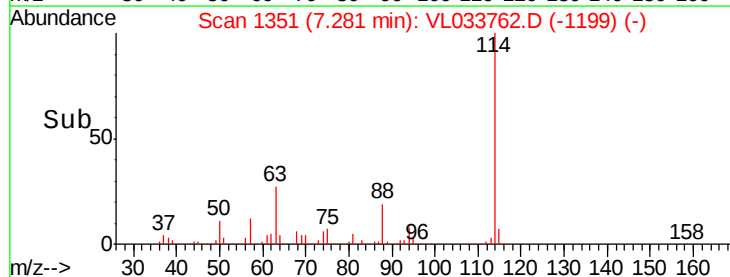
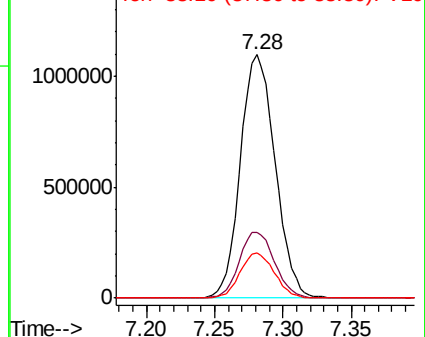
88 18.4 14.3 21.5

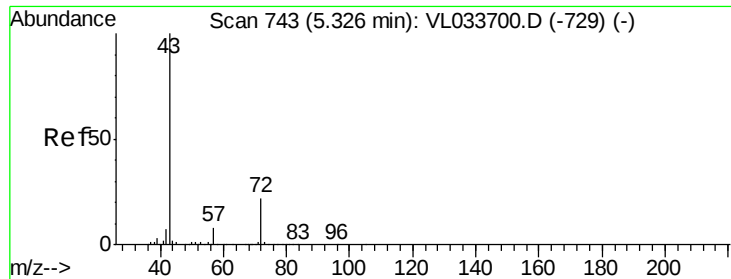


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0

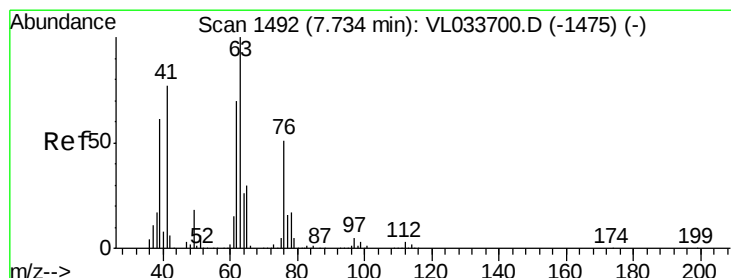
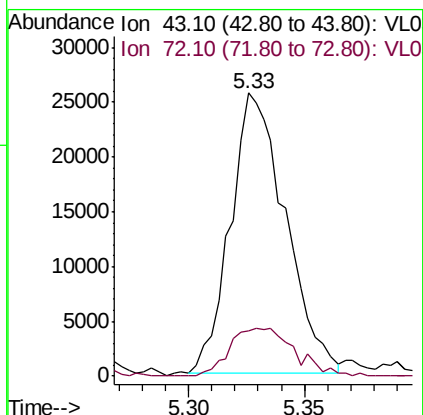
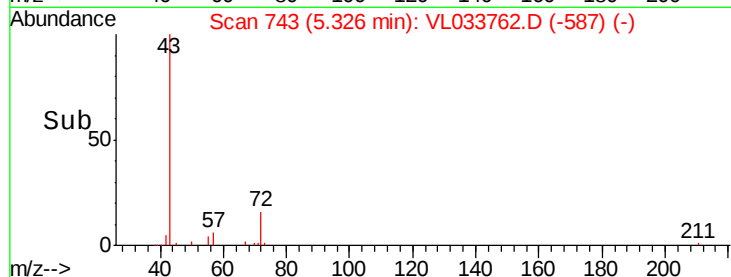
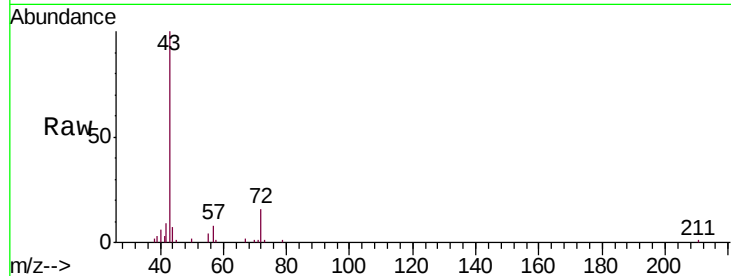




#34
 2-Butanone
 Concen: 0.349 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

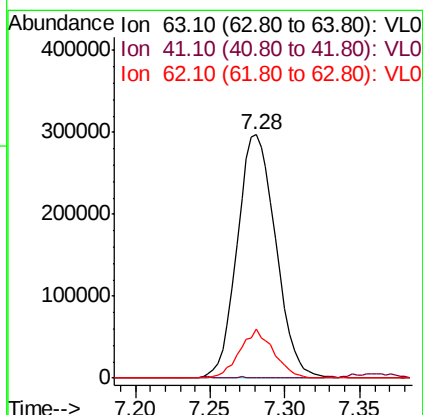
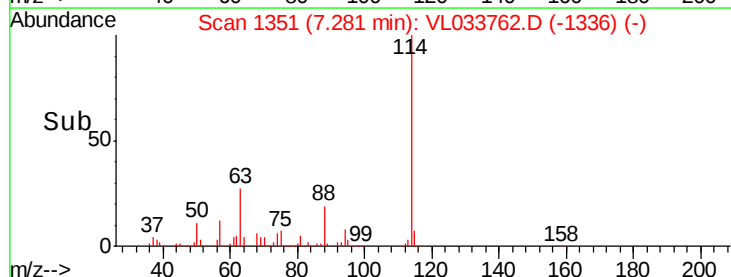
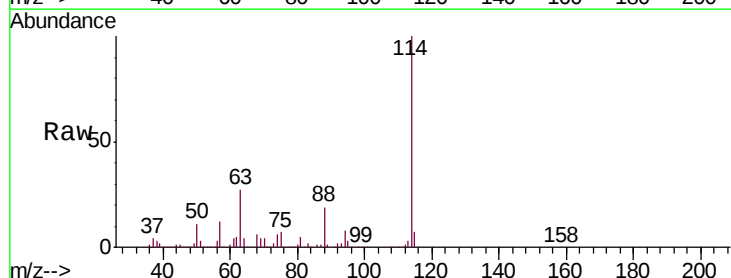
Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-SG-3004-25DL

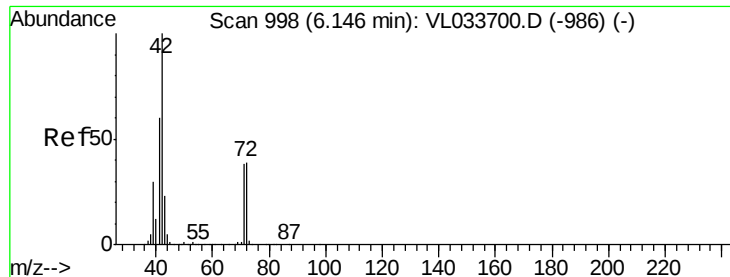
Tgt Ion: 43 Resp: 42137
 Ion Ratio Lower Upper
 43 100
 72 20.3 17.8 26.6



#39
 1,2-Dichloropropane
 Concen: 8.070 ppbv
 RT: 7.28 min Scan# 1351
 Delta R.T. -0.45 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

Tgt Ion: 63 Resp: 533030
 Ion Ratio Lower Upper
 63 100
 41 0.0 61.5 92.3#
 62 20.3 56.2 84.4#

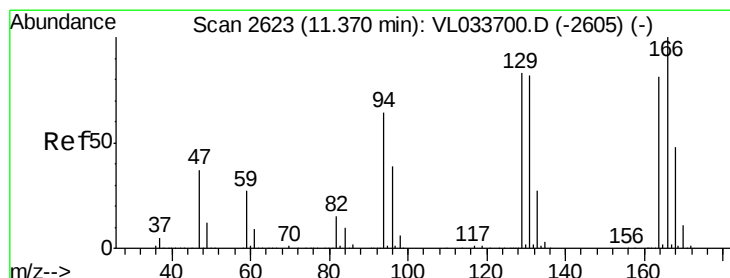
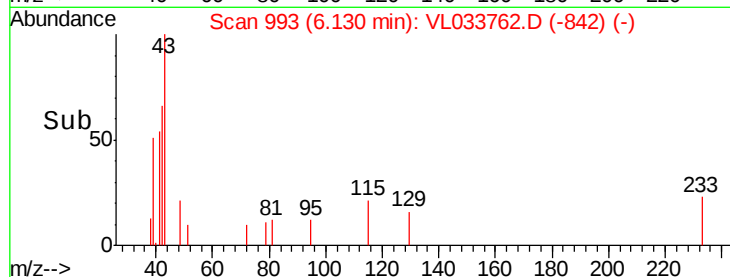
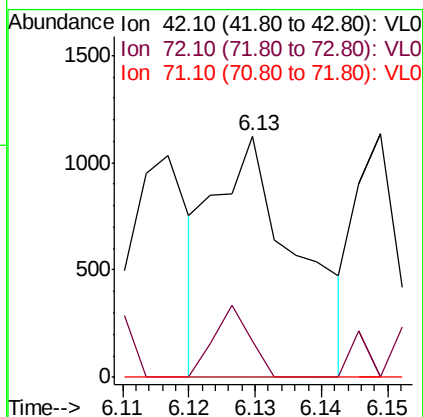
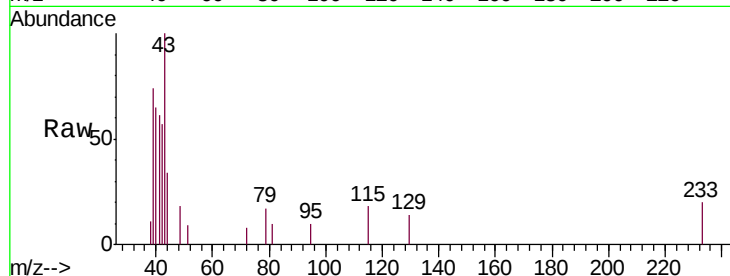




#41
Tetrahydrofuran
Concen: 0.014 ppbv
RT: 6.13 min Scan# 993
Delta R.T. -0.02 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

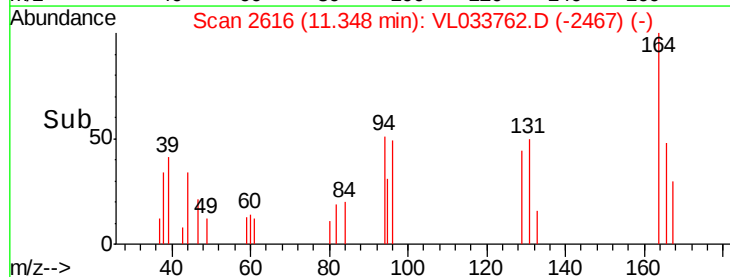
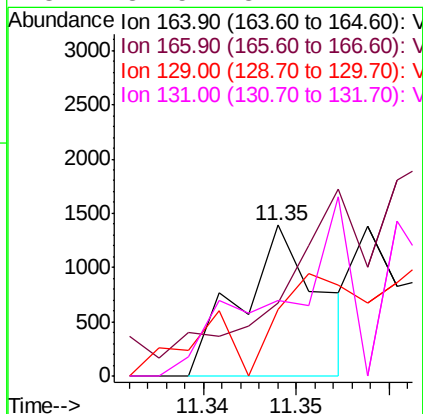
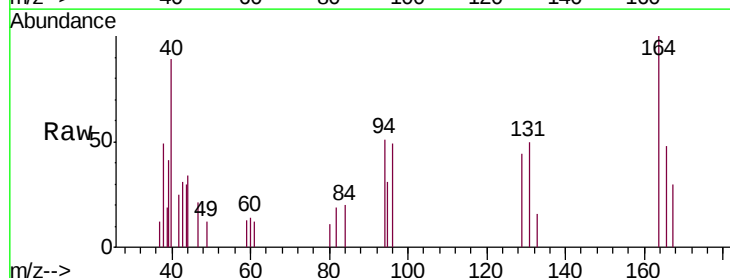
Instrument :
MSVOA_L
ClientSampleId :
BPS1-SG-3004-25DL

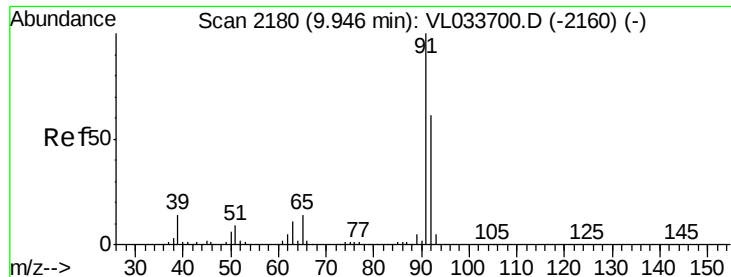
Tgt Ion: 42 Resp: 973
Ion Ratio Lower Upper
42 100
72 13.1 32.0 48.0#
71 0.0 30.4 45.6#



#52
Tetrachloroethene
Concen: 0.013 ppbv
RT: 11.35 min Scan# 2616
Delta R.T. -0.02 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

Tgt Ion: 164 Resp: 824
Ion Ratio Lower Upper
164 100
166 19.2 98.9 148.3#
129 26.8 81.8 122.6#
131 37.5 81.1 121.7#





#53

Toluene

Concen: 2.173 ppbv

RT: 9.93 min Scan# 2176

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

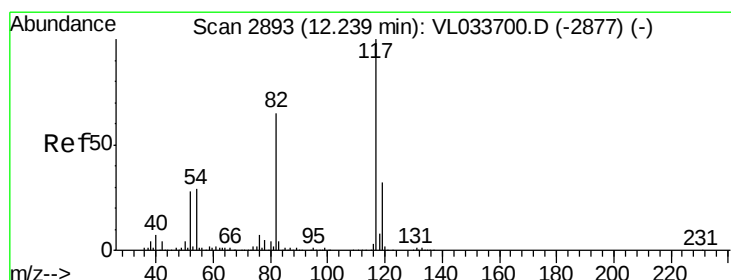
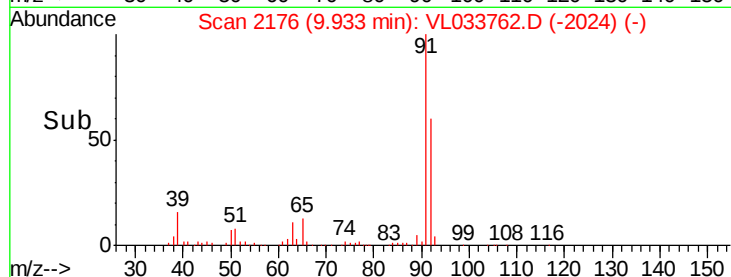
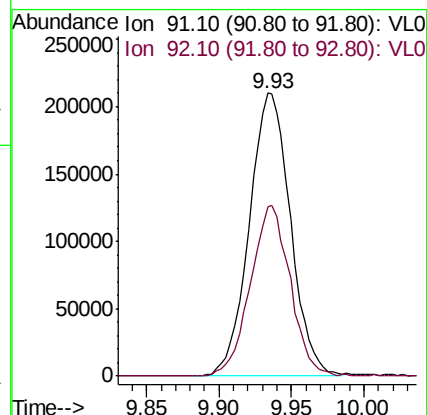
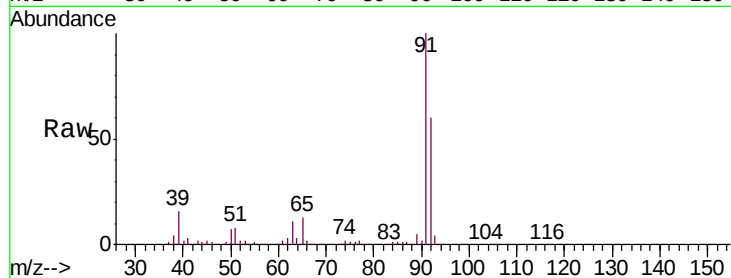
BPS1-SG-3004-25DL

Tgt Ion: 91 Resp: 415305

Ion Ratio Lower Upper

91 100

92 58.9 47.6 71.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2889

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

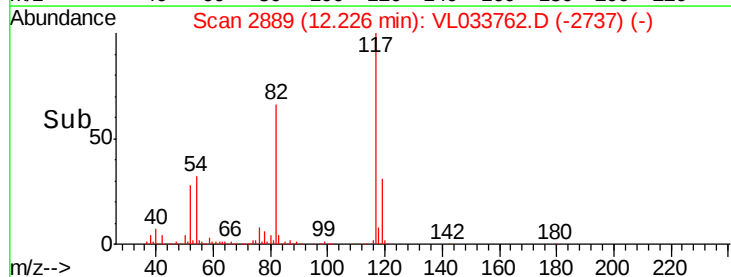
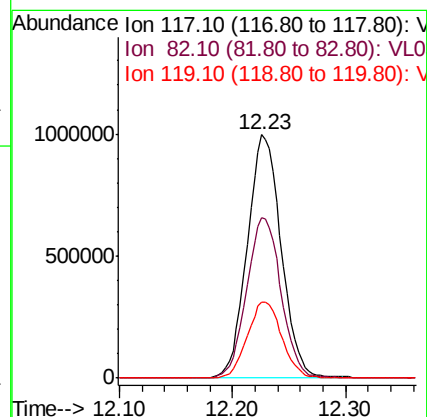
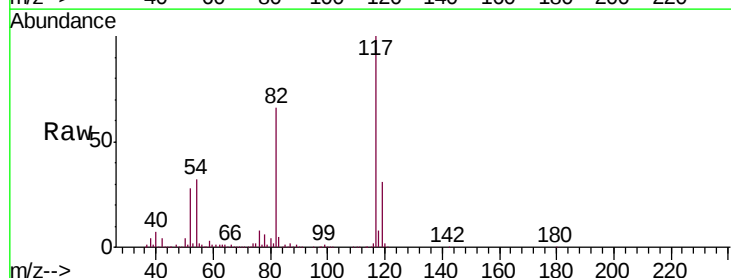
Tgt Ion: 117 Resp: 2081595

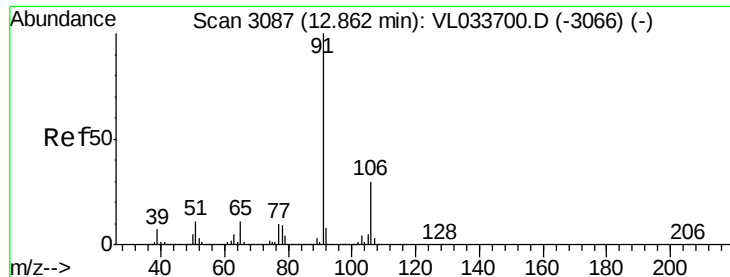
Ion Ratio Lower Upper

117 100

82 67.3 49.4 74.0

119 31.9 24.9 37.3





#58

Ethyl Benzene

Concen: 0.199 ppbv

RT: 12.86 min Scan# 3085

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

Instrument :

MSVOA_L

ClientSampleId :

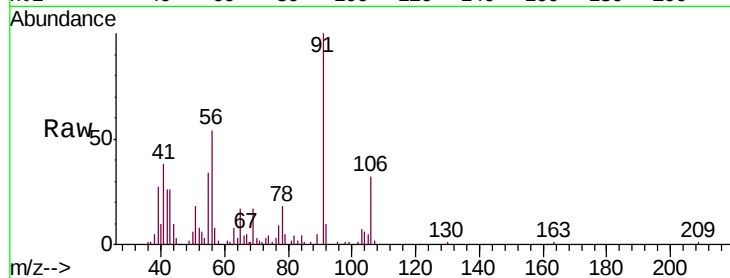
BPS1-SG-3004-25DL

Tgt Ion: 91 Resp: 54953

Ion Ratio Lower Upper

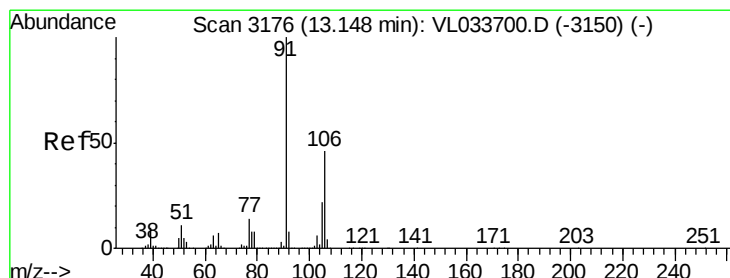
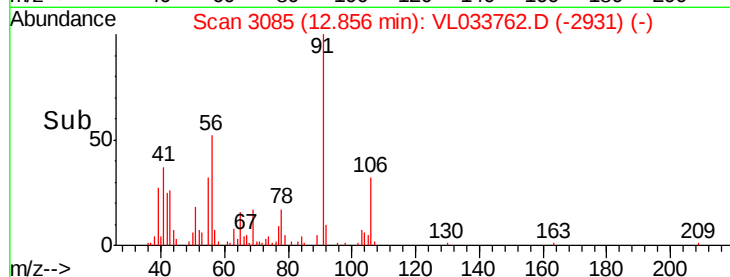
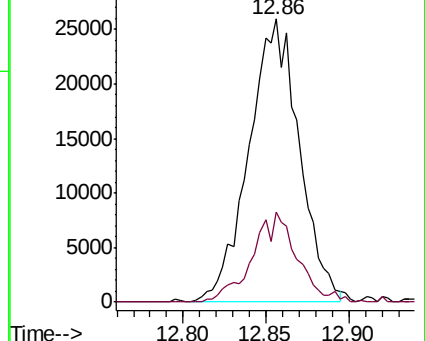
91 100

106 31.9 23.9 35.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.631 ppbv

RT: 13.11 min Scan# 3165

Delta R.T. -0.04 min

Lab File: VL033762.D

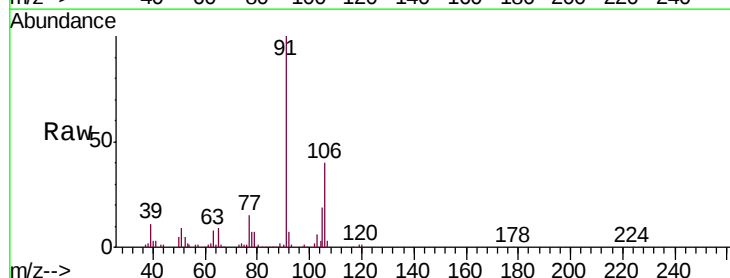
Acq: 23 May 2019 2:34

Tgt Ion: 91 Resp: 152111

Ion Ratio Lower Upper

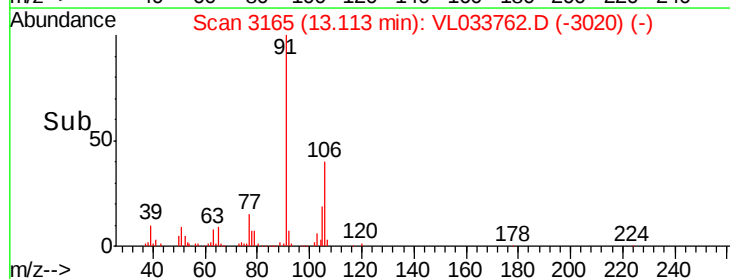
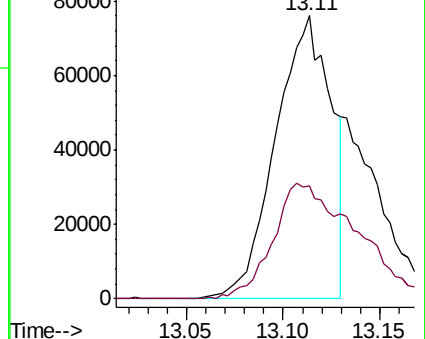
91 100

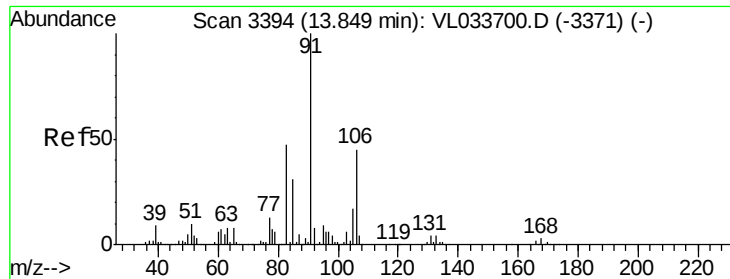
106 61.7 35.8 53.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

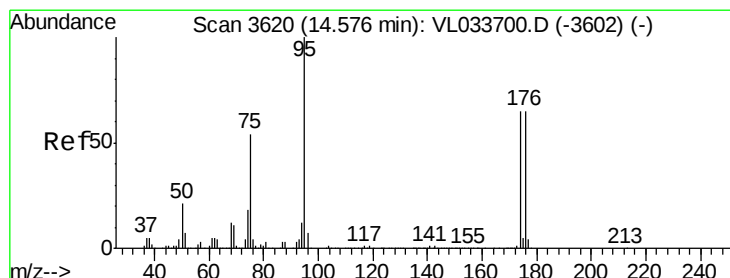
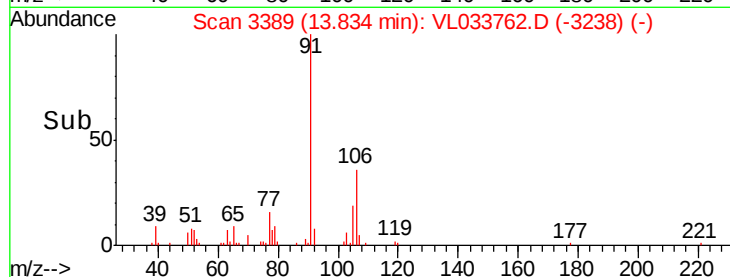
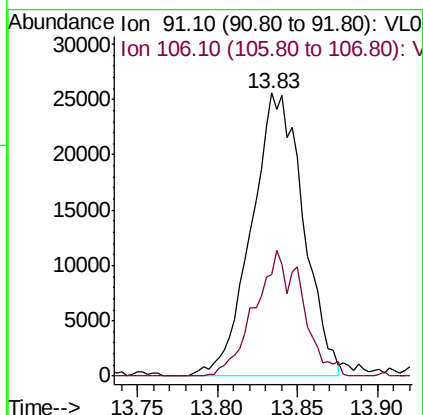
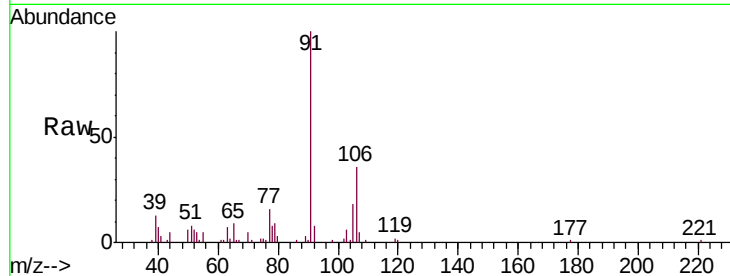




#60
o-Xylene
Concen: 0.236 ppbv
RT: 13.83 min Scan# 3389
Delta R.T. -0.02 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

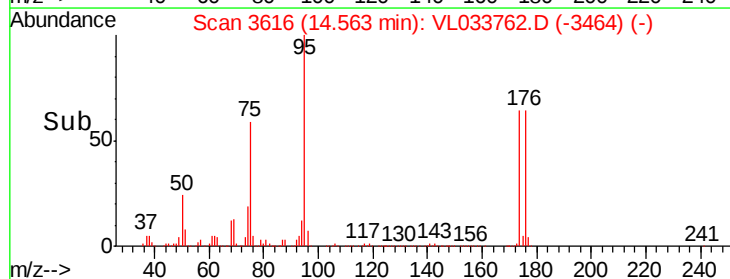
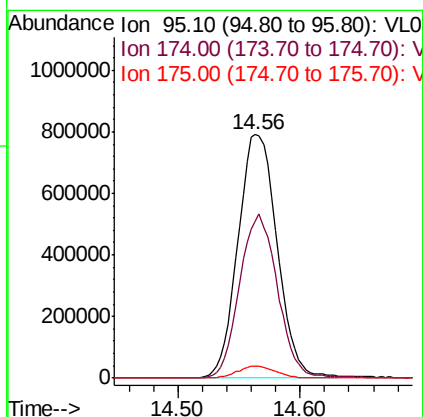
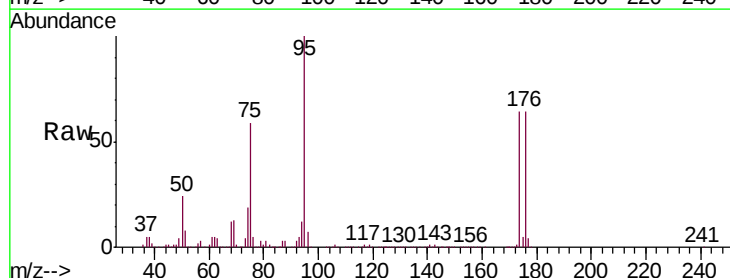
Instrument :
MSVOA_L
ClientSampleId :
BPS1-SG-3004-25DL

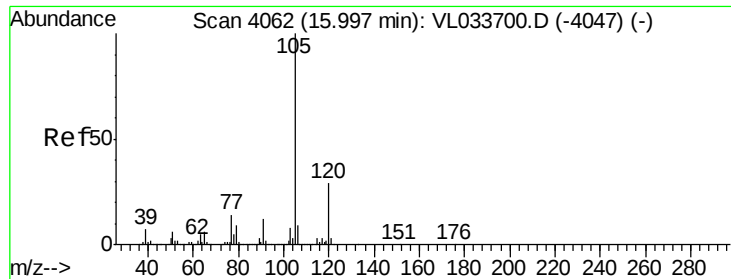
Tgt Ion: 91 Resp: 57220
Ion Ratio Lower Upper
91 100
106 40.6 21.6 64.8



#68
1-Bromo-4-Fluorobenzene
Concen: 10.413 ppbv
RT: 14.56 min Scan# 3616
Delta R.T. -0.01 min
Lab File: VL033762.D
Acq: 23 May 2019 2:34

Tgt Ion: 95 Resp: 1757255
Ion Ratio Lower Upper
95 100
174 65.6 53.9 80.9
175 4.8 3.8 5.8





#72

4-Ethyltoluene

Concen: 0.034 ppbv

RT: 15.98 min Scan# 4058

Delta R.T. -0.01 min

Lab File: VL033762.D

Acq: 23 May 2019 2:34

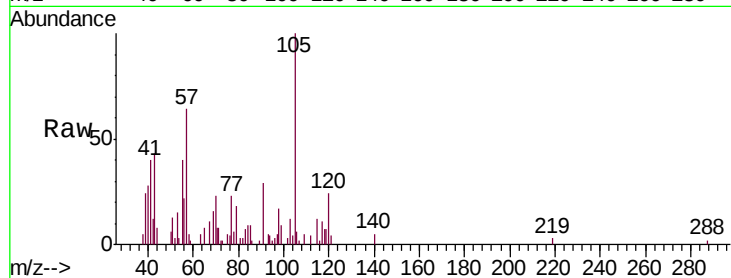
Instrument :

MSVOA_L

ClientSampleId :

BPS1-SG-3004-25DL

Tgt Ion:	105	Resp:	9399
Ion	Ratio	Lower	Upper
105	100		
120	0.0	23.1	34.7#
91	0.0	10.4	15.6#
77	0.0	11.0	16.6#

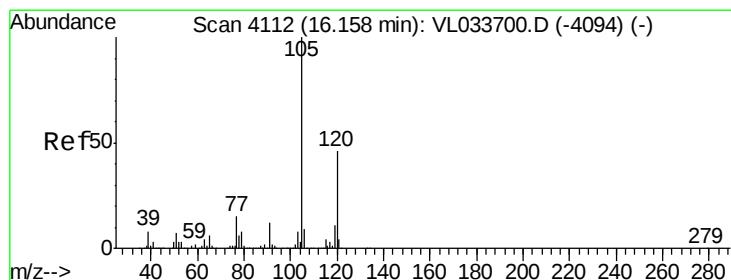
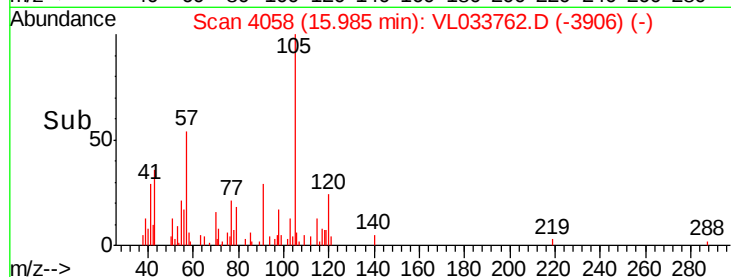
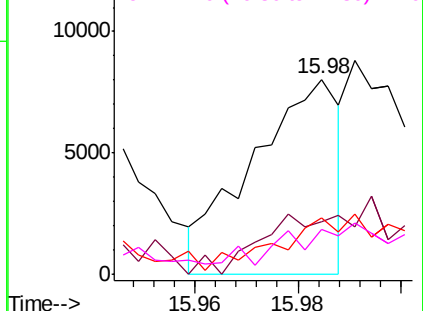


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.012 ppbv

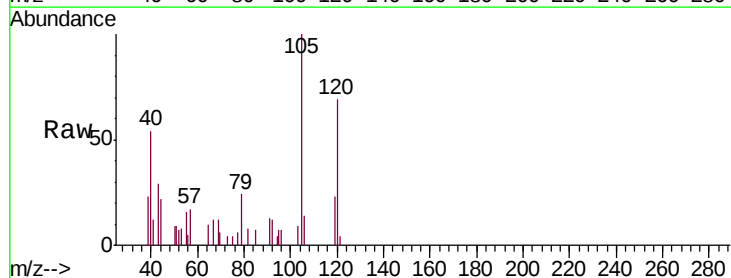
RT: 16.14 min Scan# 4105

Delta R.T. -0.02 min

Lab File: VL033762.D

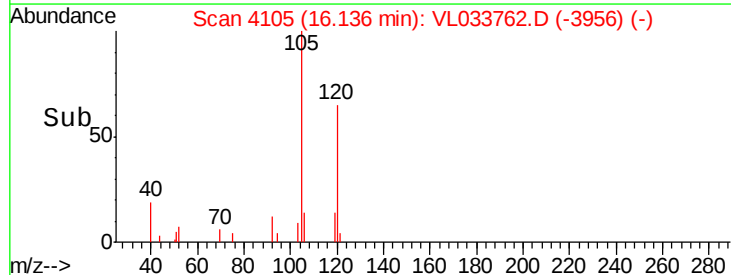
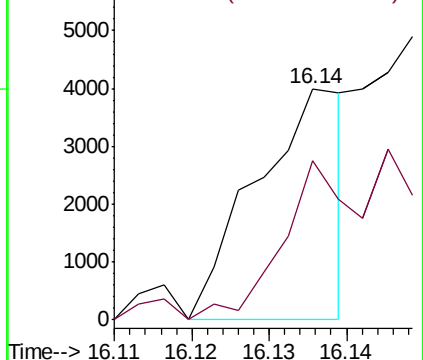
Acq: 23 May 2019 2:34

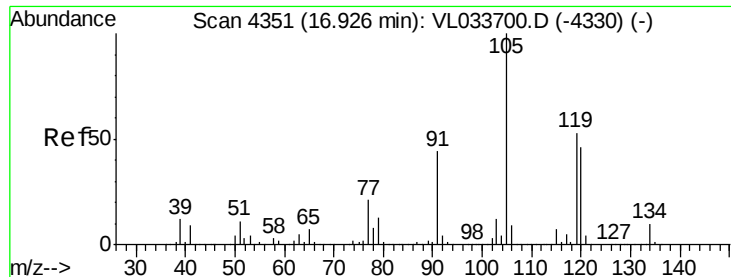
Tgt Ion:	105	Resp:	3177
Ion	Ratio	Lower	Upper
105	100		
120	69.0	37.0	55.4#



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: 0.184 ppbv
 RT: 16.91 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL033762.D
 Acq: 23 May 2019 2:34

Instrument :
 MSVOA_L
 ClientSampleId :
 BPS1-SG-3004-25DL

Tgt Ion:	105	Resp:	54190
Ion	Ratio	Lower	Upper
105	100		
120	37.2	36.8	55.2
91	12.3	35.4	53.0#
77	14.0	16.8	25.2#

