

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080118\
 Data File : VL032336.D
 Acq On : 1 Aug 2018 23:58
 Operator : SY/AP
 Sample : J4235-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Aug 02 00:48:47 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

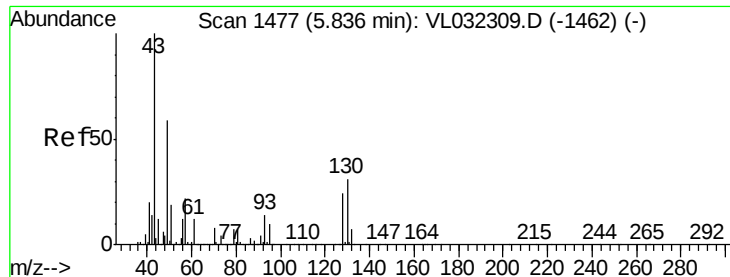
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.82	49	1739262	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.36	114	4203128	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.32	117	4161391	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.65	95	3351141	10.37	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.11	85	42080	0.201	ppbv	99
3) Chlorodifluoromethane	3.05	51	101626	0.584	ppbv	94
4) Chloromethane	3.21	50	61052	0.580	ppbv	97
9) Propene	3.08	41	63185	0.808	ppbv	89
10) Heptane	8.31	43	10807	0.039	ppbv #	1
11) Trichlorofluoromethane	4.06	101	52633	0.263	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.61	101	11020	0.081	ppbv	99
13) Ethanol	3.70	45	118422	5.270	ppbv	98
15) Acetone	3.95	43	853684	5.208	ppbv	97
17) tert-Butyl alcohol	4.42	59	3977	0.076	ppbv #	73
19) Isopropyl Alcohol	4.09	45	63900	0.584	ppbv #	95
20) Methylene Chloride	4.46	84	165161	2.507	ppbv	91
23) Vinyl Acetate	5.20	43	72865	0.248	ppbv #	49
25) Ethyl Acetate	5.84	43	586202	1.594	ppbv #	78
26) Hexane	5.84	57	793998	4.770	ppbv #	43
29) Chloroform	5.91	83	13189	0.054	ppbv #	80
30) Cyclohexane	7.31	84	5932	0.046	ppbv #	1
34) 2-Butanone	5.40	43	79897	0.294	ppbv	98
35) Carbon Tetrachloride	7.20	117	11272	0.047	ppbv	92
36) Benzene	7.07	78	75504	0.204	ppbv #	90
39) 1,2-Dichloropropane	7.36	63	1177627	6.318	ppbv #	26
41) Tetrahydrofuran	5.84	42	316548	2.057	ppbv #	52
44) 2,2,4-Trimethylpentane	8.07	57	107182	0.133	ppbv #	74
53) Toluene	10.02	91	190753	0.431	ppbv	98
58) Ethyl Benzene	12.94	91	21196	0.041	ppbv	100
59) m/p-Xylene	13.21	91	120503	0.271	ppbv #	31
60) o-Xylene	13.92	91	139637	0.321	ppbv	97
61) Styrene	13.76	104	18009	0.056	ppbv #	40
72) 4-Ethyltoluene	16.07	105	23060	0.047	ppbv #	29
73) 1,3,5-Trimethylbenzene	16.24	105	17650	0.037	ppbv	87
74) 1,2,4-Trimethylbenzene	17.01	105	124673	0.246	ppbv #	70

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.82 min Scan# 1473

Delta R.T. -0.01 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

Instrument :

MSVOA_L

ClientSampleId :

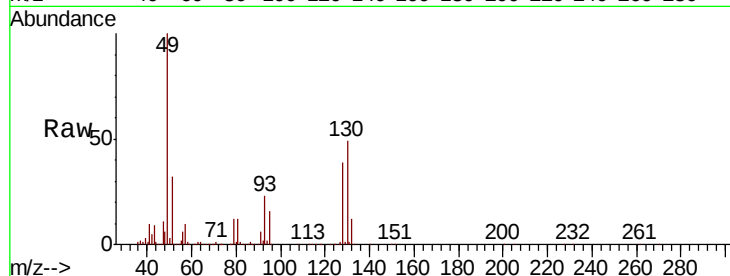
Tot Ion: 49 Resp: 1739262

Ion	Ratio	Lower	Upper
49	100		
128	39.2	20.2	60.6
130	51.2	25.8	77.3

49 100

128 39.2 20.2 60.6

130 51.2 25.8 77.3



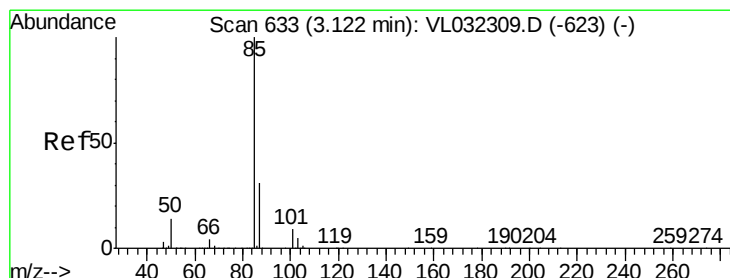
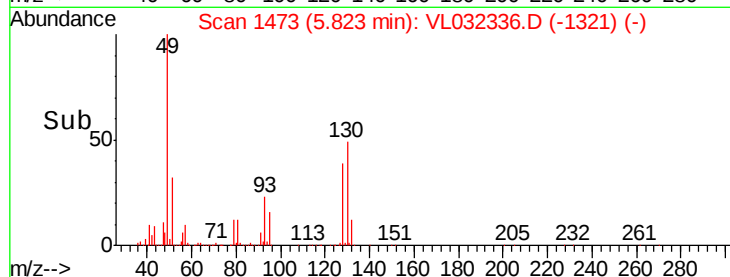
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

5.82

Time-->



#2

Dichlorodifluoromethane

Concen: 0.201 ppbv

RT: 3.11 min Scan# 630

Delta R.T. -0.01 min

Lab File: VL032336.D

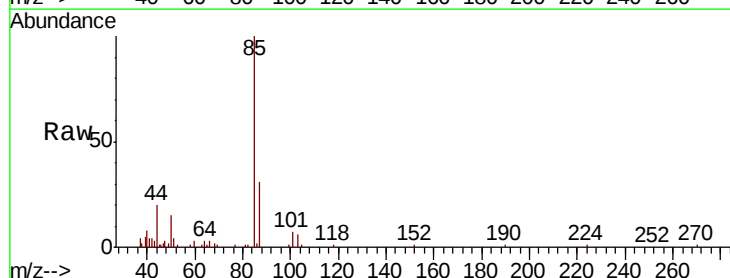
Acq: 1 Aug 2018 23:58

Tgt Ion: 85 Resp: 42080

Ion	Ratio	Lower	Upper
85	100		
87	30.8	25.2	37.8

85 100

87 30.8 25.2 37.8

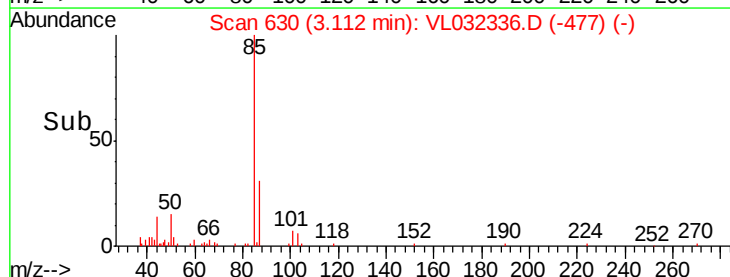


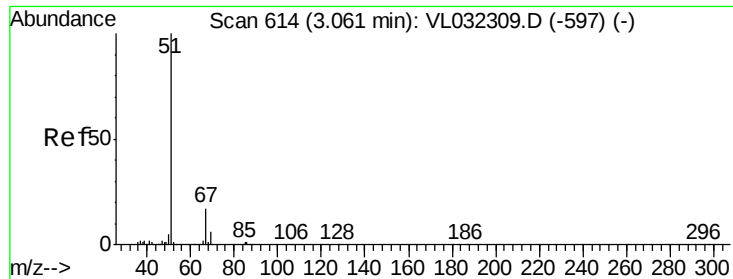
Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.11

Time-->

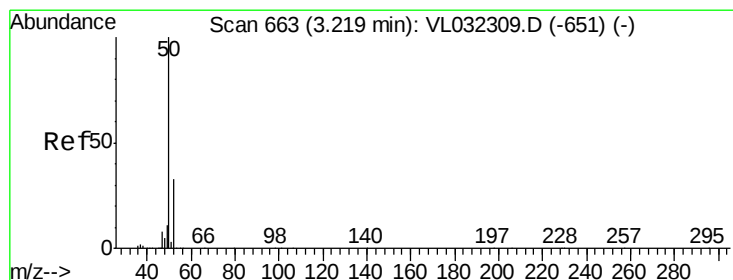
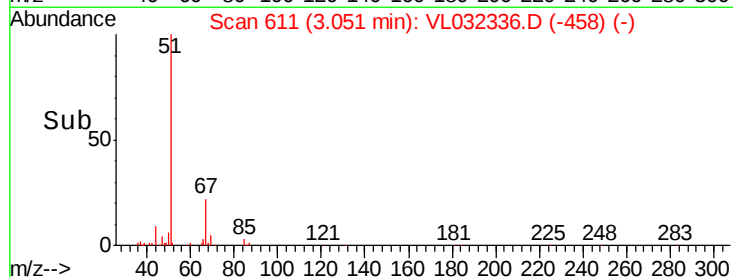
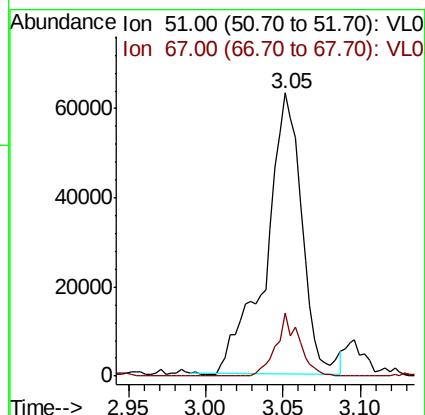
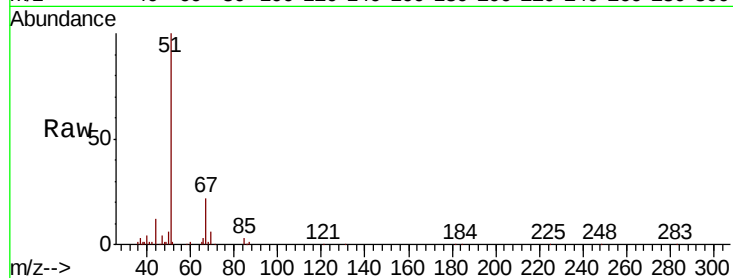




#3
Chlorodifluoromethane
Concen: 0.584 ppbv
RT: 3.05 min Scan# 611
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

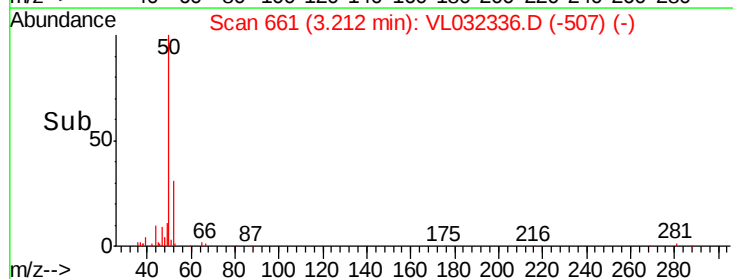
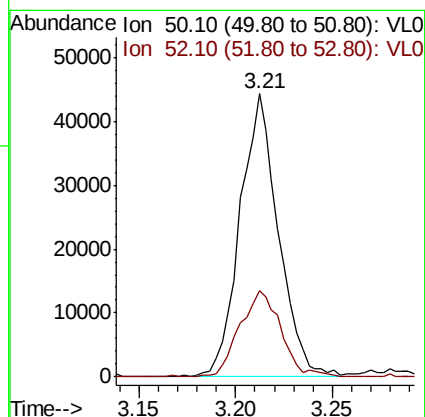
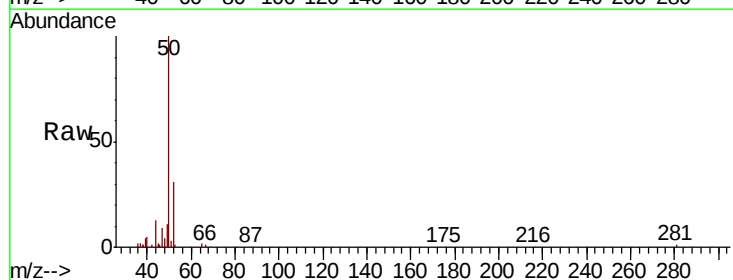
Instrument :
MSVOA_L
ClientSampleId :

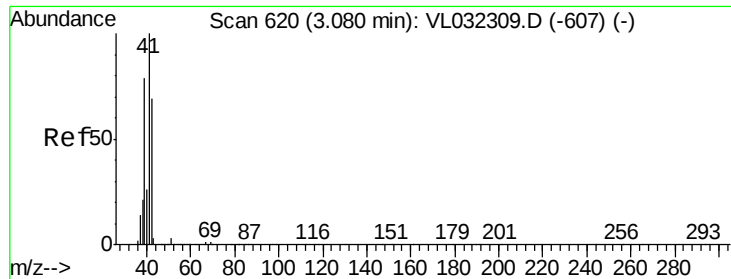
Tot Ion: 51 Resp: 101626
Ion Ratio Lower Upper
51 100
67 14.5 13.5 20.3



#4
Chloromethane
Concen: 0.580 ppbv
RT: 3.21 min Scan# 661
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 50 Resp: 61052
Ion Ratio Lower Upper
50 100
52 31.1 26.2 39.4





#9

Propene

Concen: 0.808 ppbv

RT: 3.08 min Scan# 620

Delta R.T. 0.00 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

Instrument :

MSVOA_L

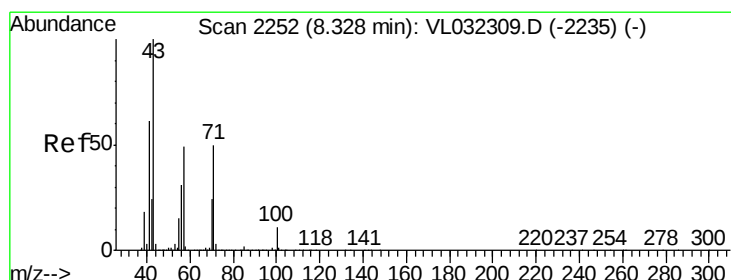
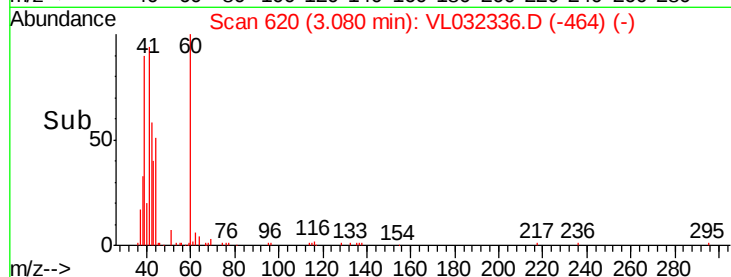
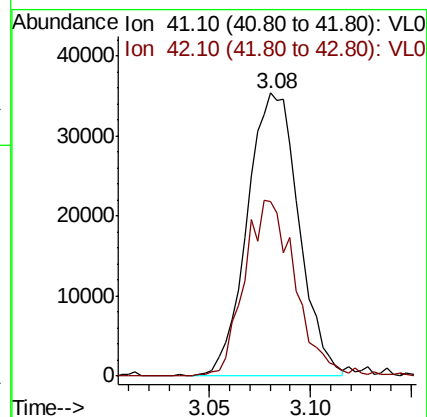
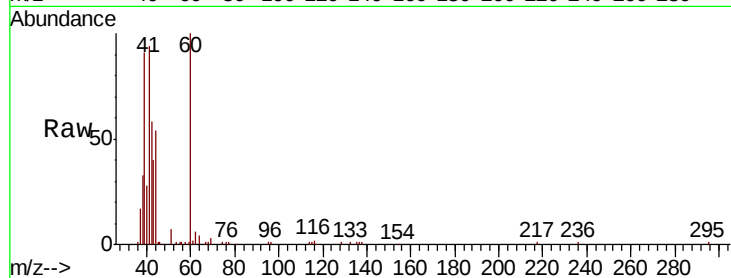
ClientSampleId :

Tot Ion: 41 Resp: 63185

Ion Ratio Lower Upper

41 100

42 61.5 56.8 85.2



#10

Heptane

Concen: 0.039 ppbv

RT: 8.31 min Scan# 2247

Delta R.T. -0.02 min

Lab File: VL032336.D

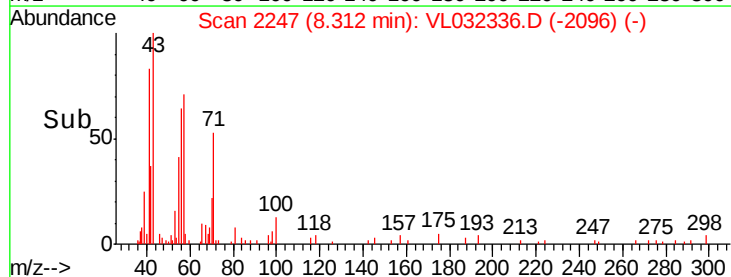
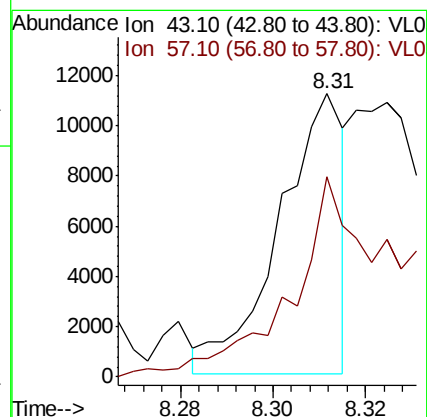
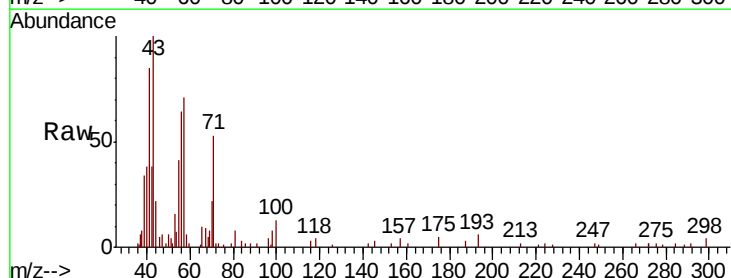
Acq: 1 Aug 2018 23:58

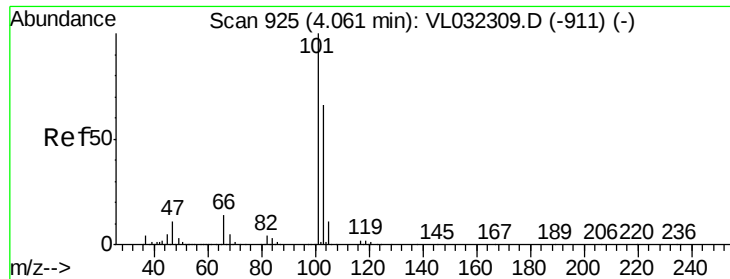
Tgt Ion: 43 Resp: 10807

Ion Ratio Lower Upper

43 100

57 127.0 39.0 58.4#





#11

Trichlorofluoromethane

Concen: 0.263 ppbv

RT: 4.06 min Scan# 924

Delta R.T. -0.00 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

Instrument :

MSVOA_L

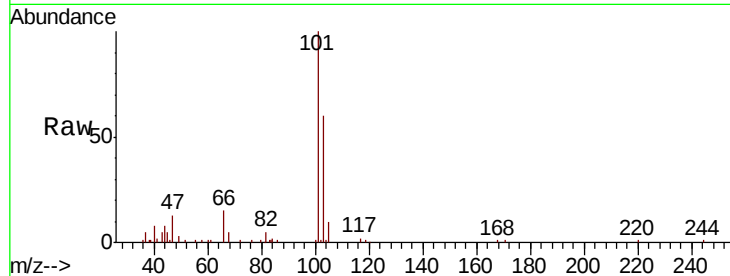
ClientSampleId :

Tot Ion:101 Resp: 52633

Ion Ratio Lower Upper

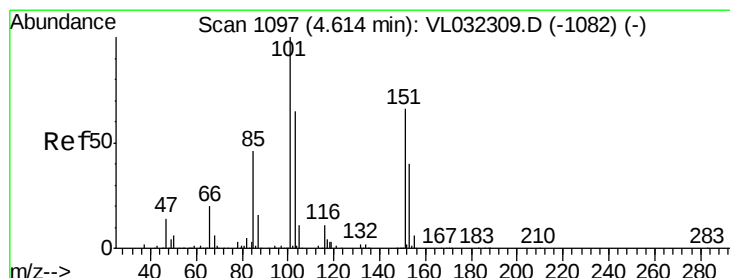
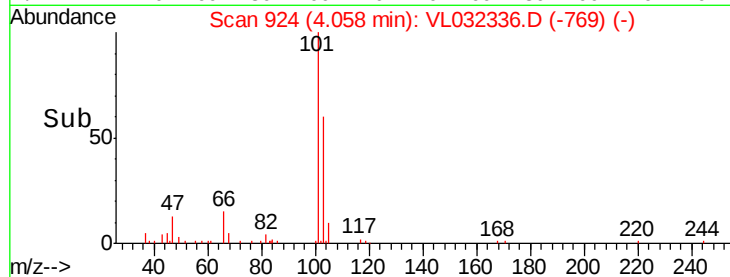
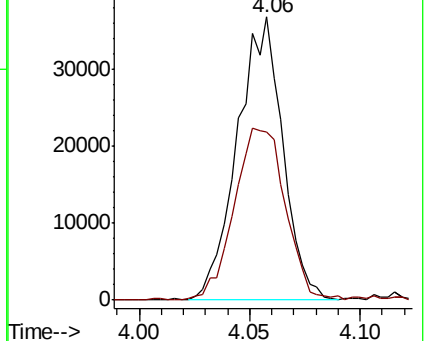
101 100

103 58.9 52.6 78.8



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.081 ppbv

RT: 4.61 min Scan# 1095

Delta R.T. -0.01 min

Lab File: VL032336.D

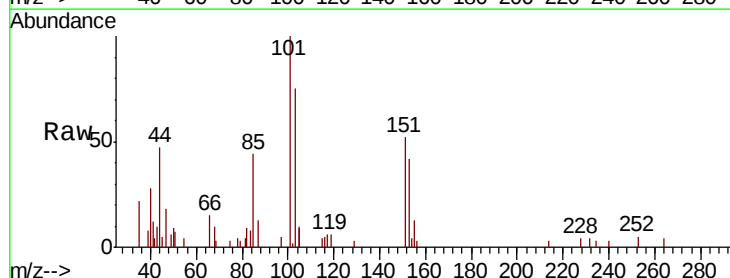
Acq: 1 Aug 2018 23:58

Tgt Ion:101 Resp: 11020

Ion Ratio Lower Upper

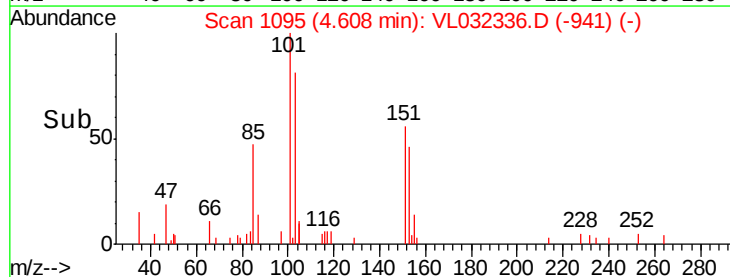
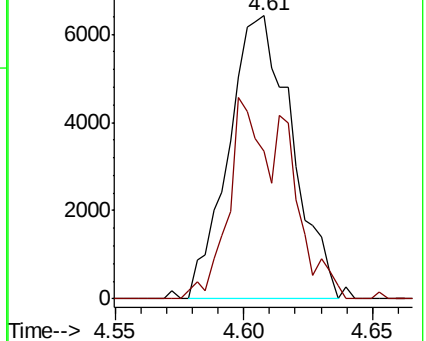
101 100

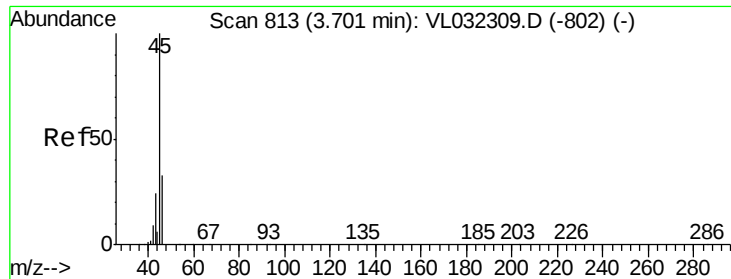
151 66.5 52.4 78.6



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

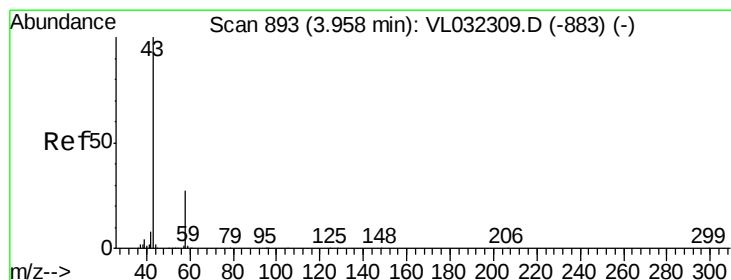
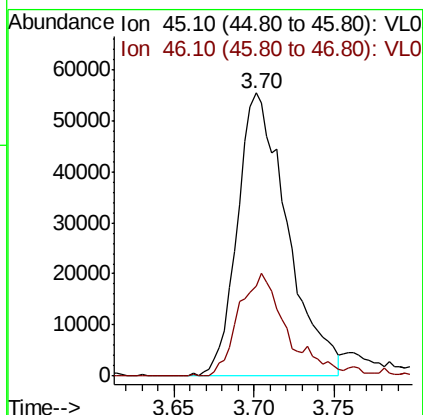
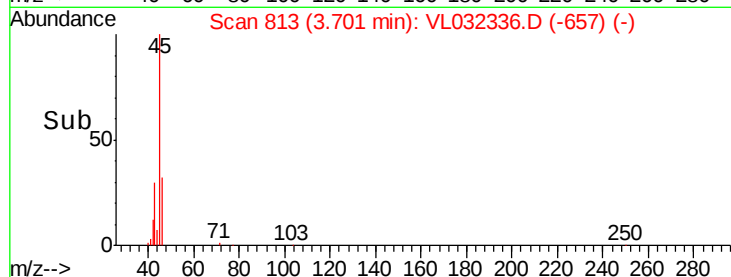
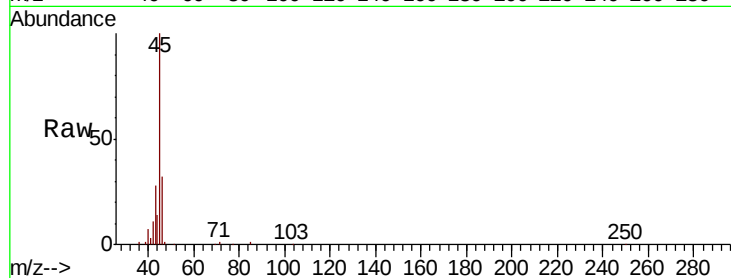




#13
Ethanol
Concen: 5.270 ppbv
RT: 3.70 min Scan# 813
Delta R.T. 0.00 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

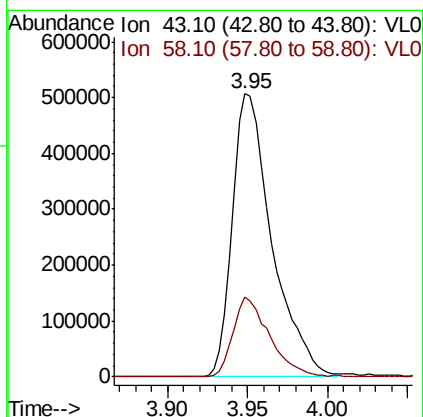
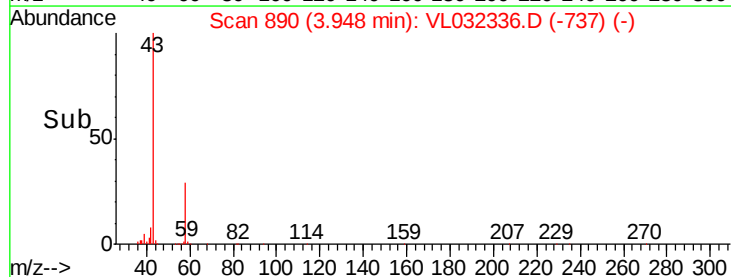
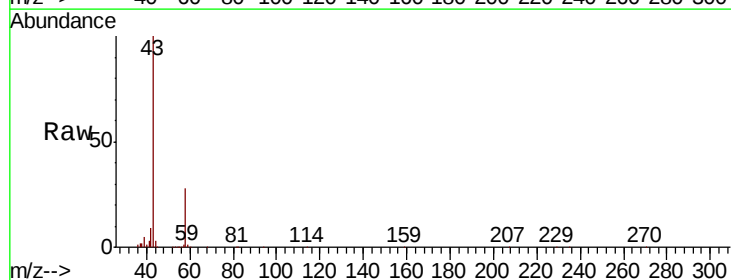
Instrument :
MSVOA_L
ClientSampled :

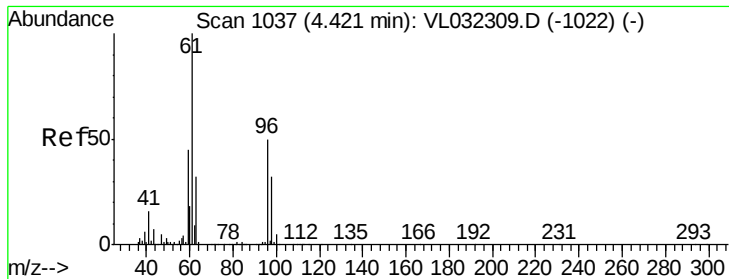
Tot Ion: 45 Resp: 118422
Ion Ratio Lower Upper
45 100
46 36.6 15.2 60.6



#15
Acetone
Concen: 5.208 ppbv
RT: 3.95 min Scan# 890
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 43 Resp: 853684
Ion Ratio Lower Upper
43 100
58 26.6 22.5 33.7

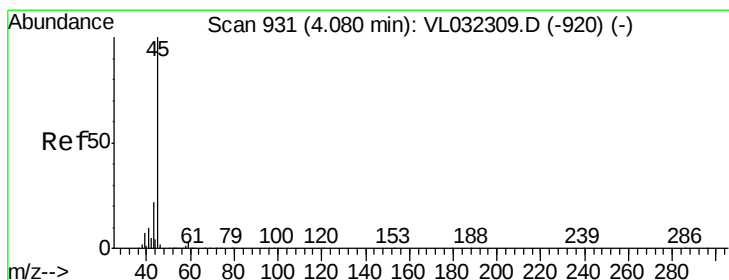
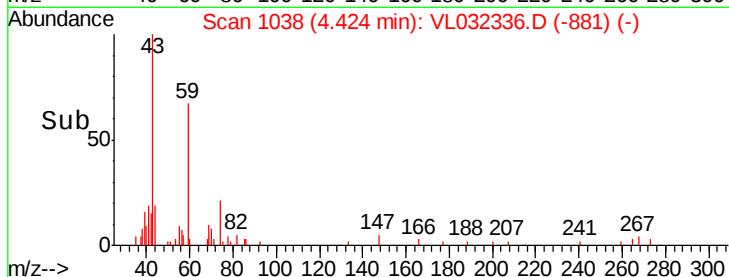
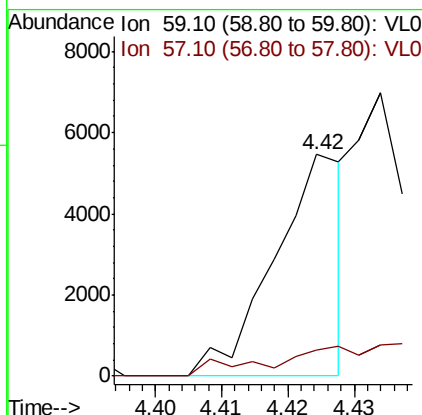
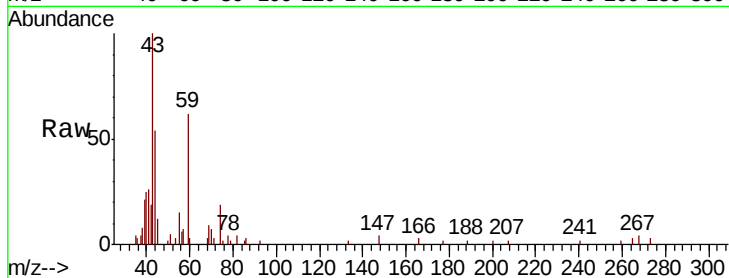




#17
tert-Butyl alcohol
Concen: 0.076 ppbv
RT: 4.42 min Scan# 1038
Delta R.T. 0.00 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

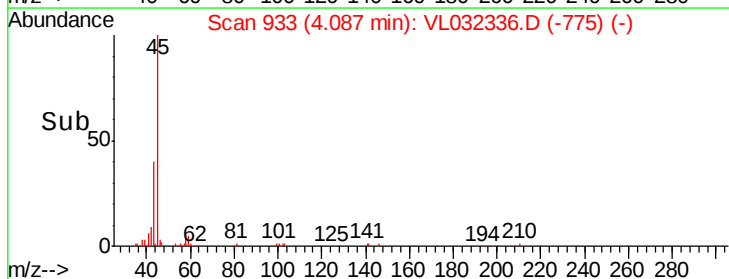
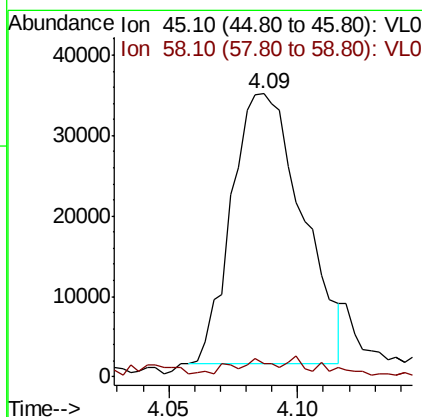
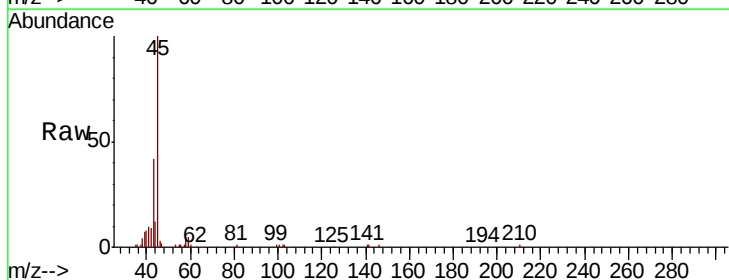
Instrument :
MSVOA_L
ClientSampleId :

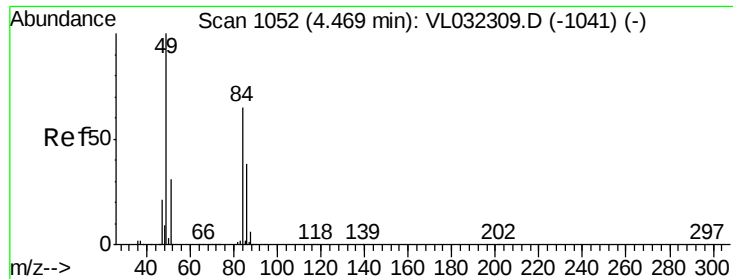
Tot Ion: 59 Resp: 3977
Ion Ratio Lower Upper
59 100
57 0.0 8.0 12.0#



#19
Isopropyl Alcohol
Concen: 0.584 ppbv
RT: 4.09 min Scan# 933
Delta R.T. 0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 45 Resp: 63900
Ion Ratio Lower Upper
45 100
58 0.0 1.5 2.3#

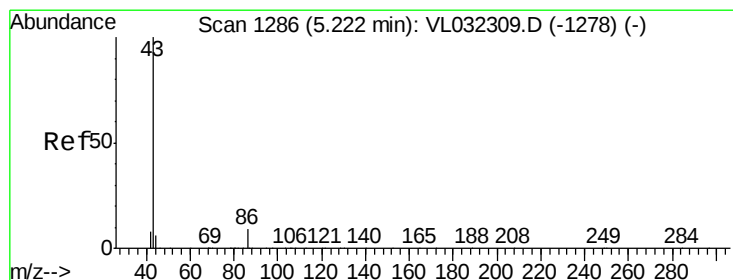
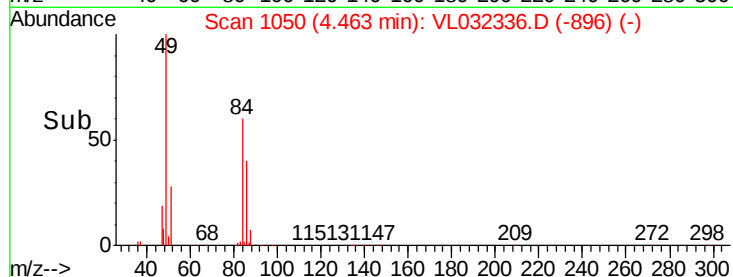
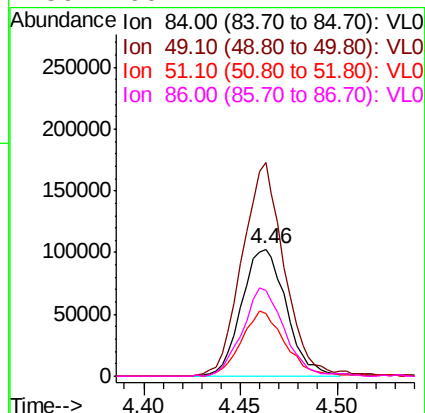
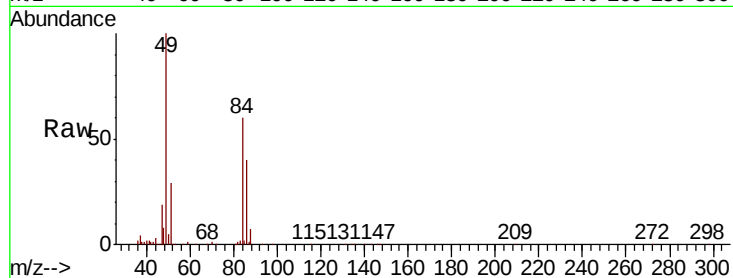




#20
Methvlene Chloride
Concen: 2.507 ppbv
RT: 4.46 min Scan# 1050
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

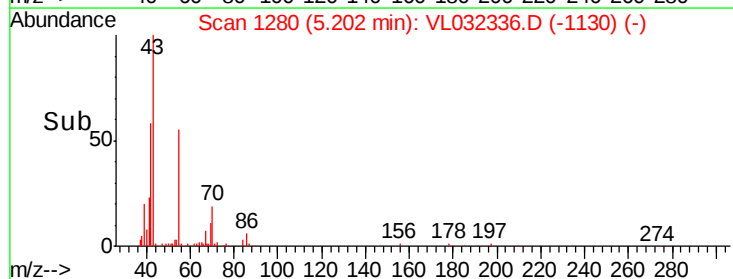
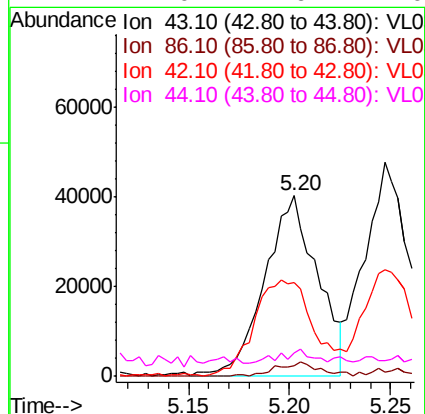
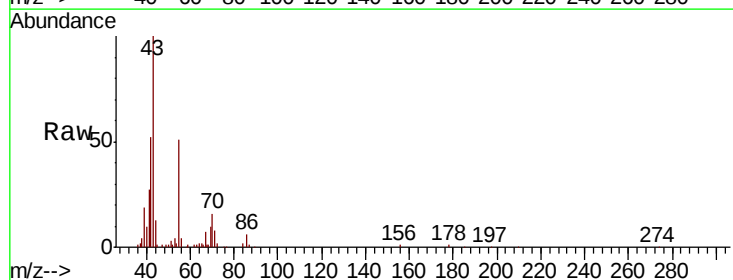
Instrument :
MSVOA_L
ClientSampleId :

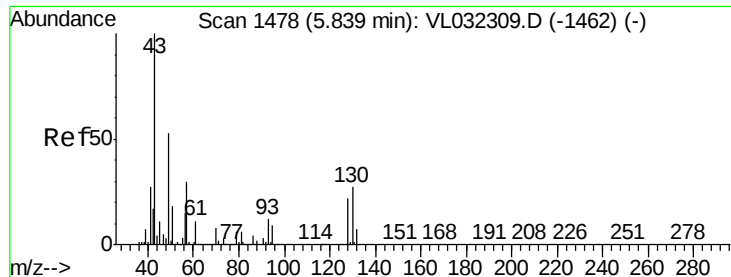
Tot Ion:	84	Resp:	165161
Ion	Ratio	Lower	Upper
84	100		
49	167.8	123.4	185.0
51	48.7	38.2	57.2
86	66.7	47.4	71.2



#23
Vinyl Acetate
Concen: 0.248 ppbv
RT: 5.20 min Scan# 1280
Delta R.T. -0.02 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion:	43	Resp:	72865
Ion	Ratio	Lower	Upper
43	100		
86	5.7	6.3	9.5#
42	50.7	7.0	10.4#
44	2.0	4.6	7.0#

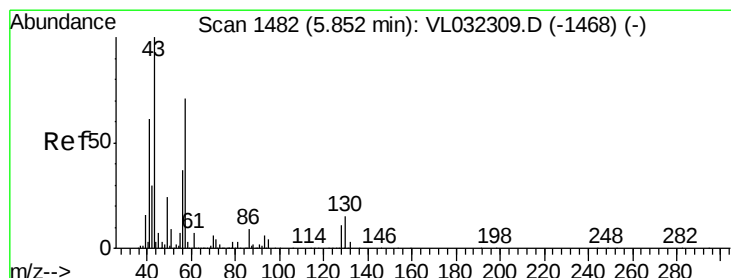
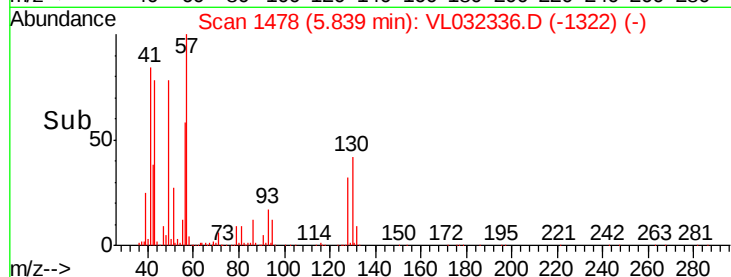
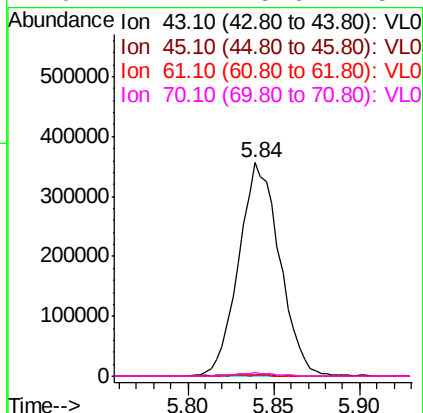
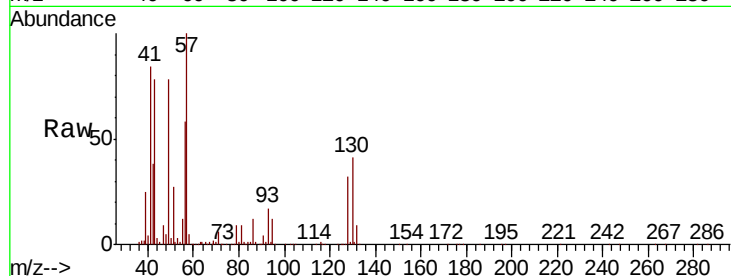




#25
Ethyl Acetate
Concen: 1.594 ppbv
RT: 5.84 min Scan# 1478
Delta R.T. 0.00 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

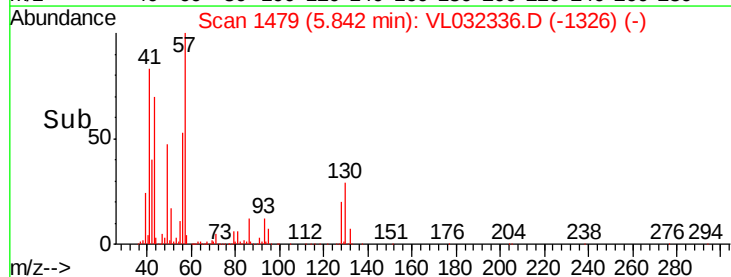
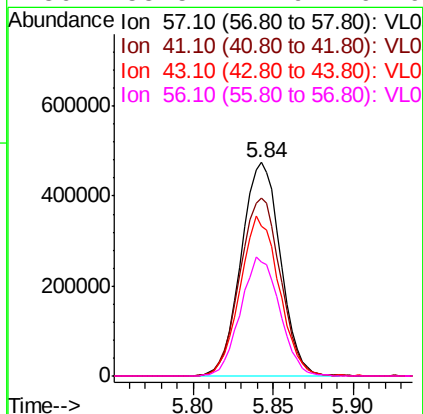
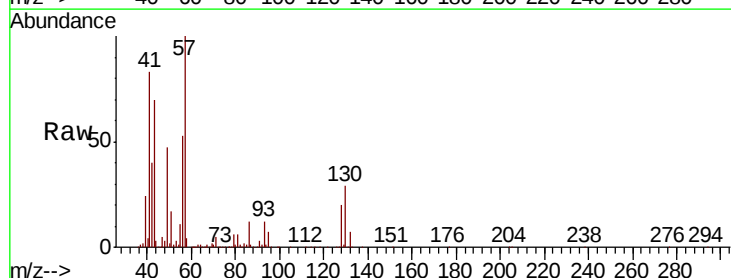
Instrument :
MSVOA_L
ClientSampleId :

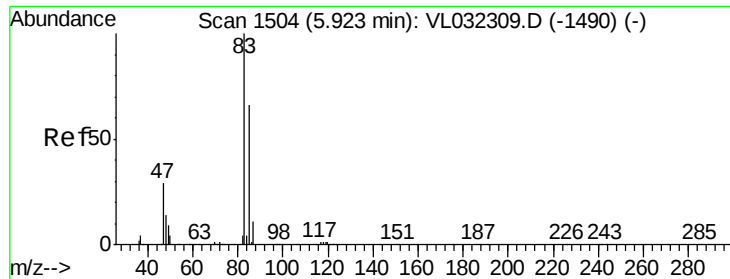
Tot Ion:	43	Resp:	586202
Ion	Ratio	Lower	Upper
43	100		
45	1.0	8.1	12.1#
61	0.6	7.4	11.0#
70	1.7	5.6	8.4#



#26
Hexane
Concen: 4.770 ppbv
RT: 5.84 min Scan# 1479
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion:	57	Resp:	793998
Ion	Ratio	Lower	Upper
57	100		
41	86.6	68.1	102.1
43	74.2	177.4	266.2#
56	55.5	41.9	62.9

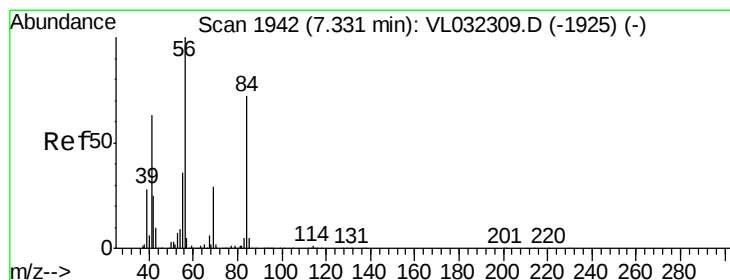
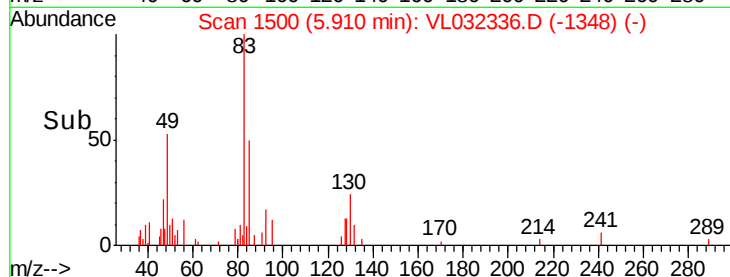
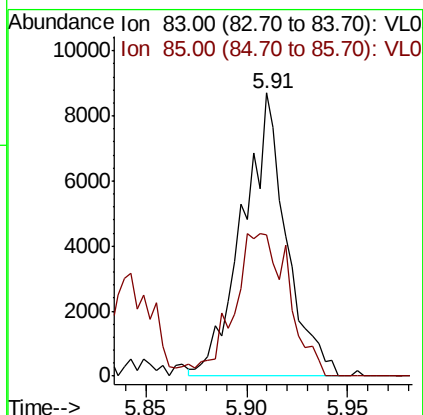
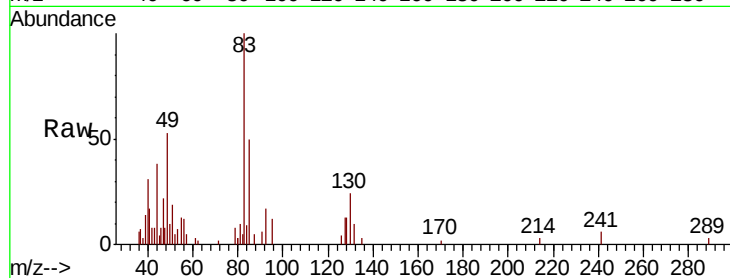




#29
Chloroform
Concen: 0.054 ppbv
RT: 5.91 min Scan# 1500
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

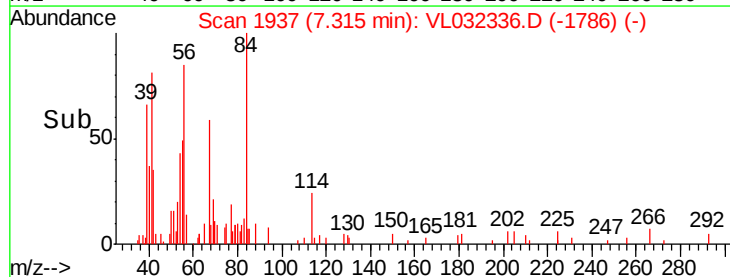
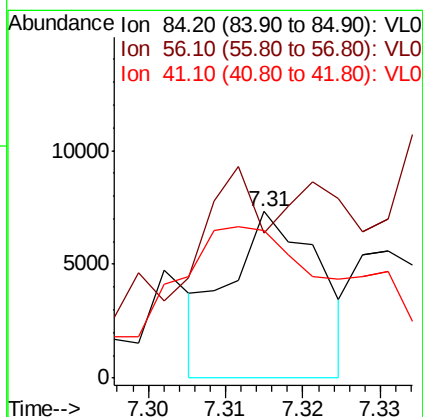
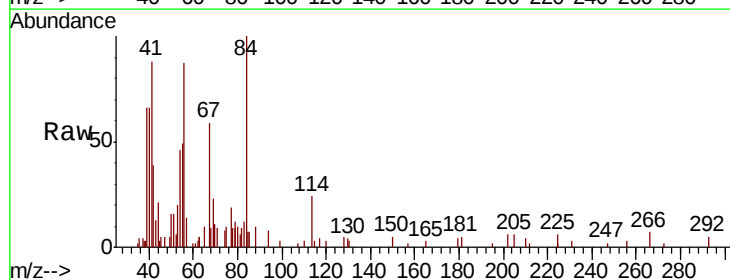
Instrument :
MSVOA_L
ClientSampled :

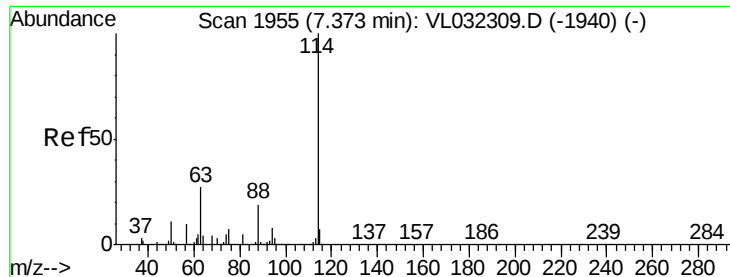
Tot Ion: 83 Resp: 13189
Ion Ratio Lower Upper
83 100
85 49.9 52.9 79.3#



#30
Cyclohexane
Concen: 0.046 ppbv
RT: 7.31 min Scan# 1937
Delta R.T. -0.02 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 84 Resp: 5932
Ion Ratio Lower Upper
84 100
56 0.0 116.8 175.2#
41 270.8 70.0 105.0#

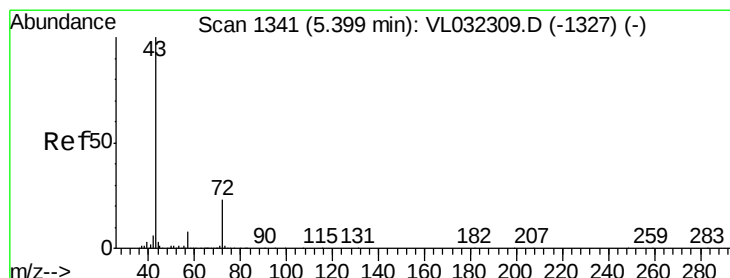
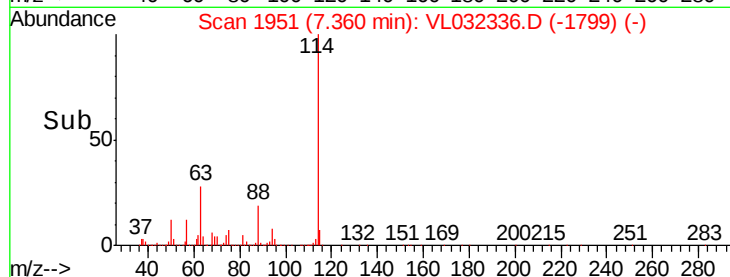
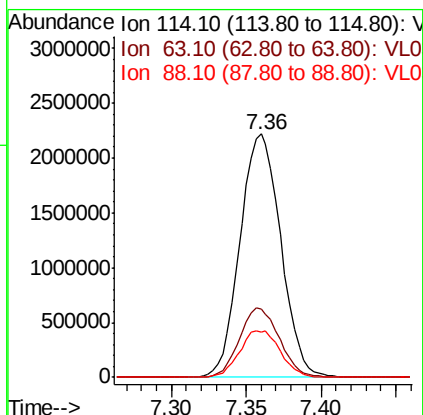
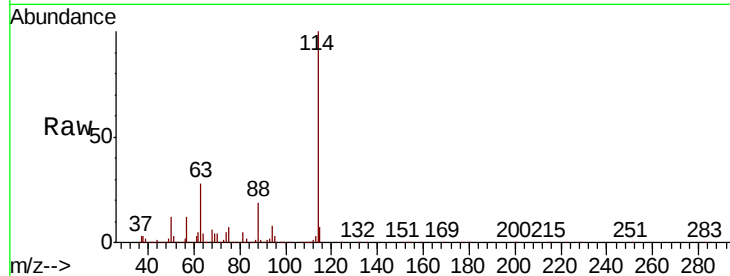




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.36 min Scan# 1951
 Delta R.T. -0.01 min
 Lab File: VL032336.D
 Acq: 1 Aug 2018 23:58

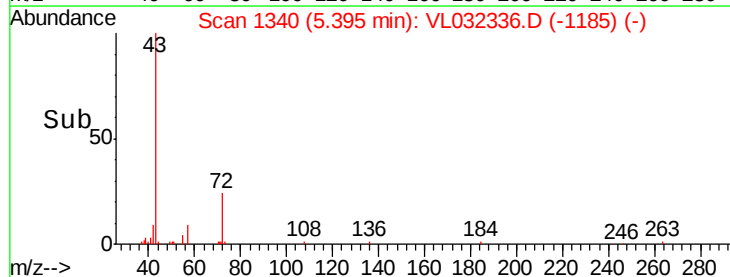
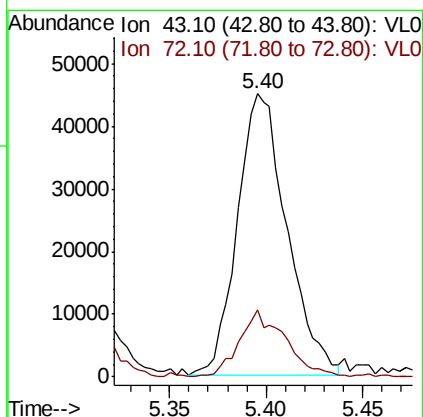
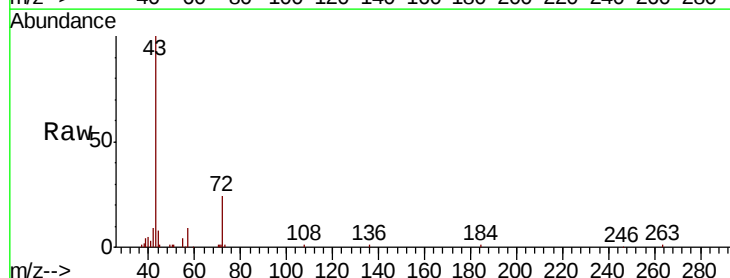
Instrument :
 MSVOA_L
 ClientSampled :

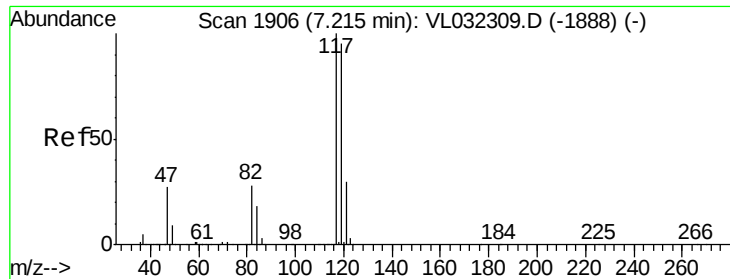
Tot Ion:114 Resp: 4203128
 Ion Ratio Lower Upper
 114 100
 63 28.1 22.4 33.6
 88 19.2 15.3 22.9



#34
 2-Butanone
 Concen: 0.294 ppbv
 RT: 5.40 min Scan# 1340
 Delta R.T. -0.00 min
 Lab File: VL032336.D
 Acq: 1 Aug 2018 23:58

Tgt Ion: 43 Resp: 79897
 Ion Ratio Lower Upper
 43 100
 72 22.7 17.4 26.2





#35

Carbon Tetrachloride

Concen: 0.047 ppbv

RT: 7.20 min Scan# 1902

Delta R.T. -0.01 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

Instrument :

MSVOA_L

ClientSampleId :

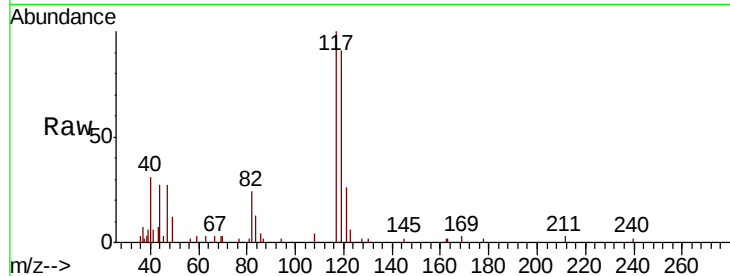
Tot Ion:117 Resp: 11272

Ion Ratio Lower Upper

117 100

119 87.0 76.1 114.1

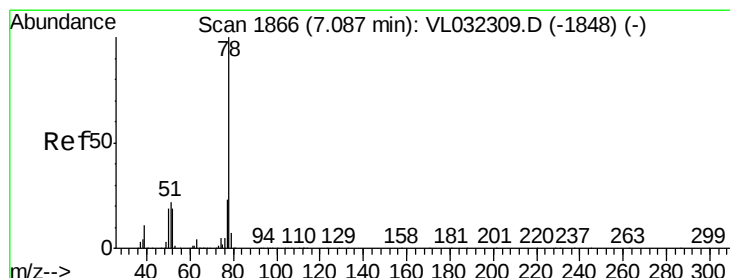
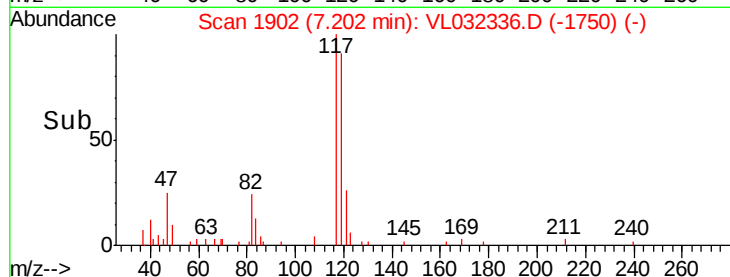
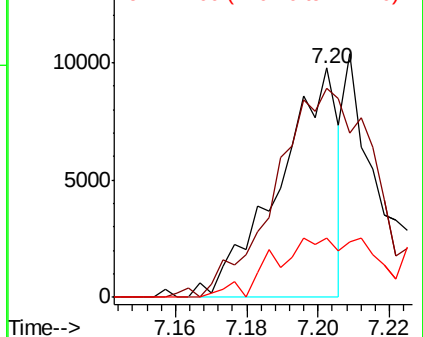
121 26.0 24.4 36.6



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.204 ppbv

RT: 7.07 min Scan# 1861

Delta R.T. -0.02 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

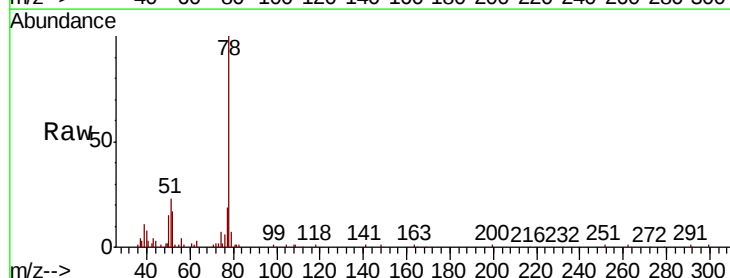
Tgt Ion: 78 Resp: 75504

Ion Ratio Lower Upper

78 100

77 18.5 18.4 27.6

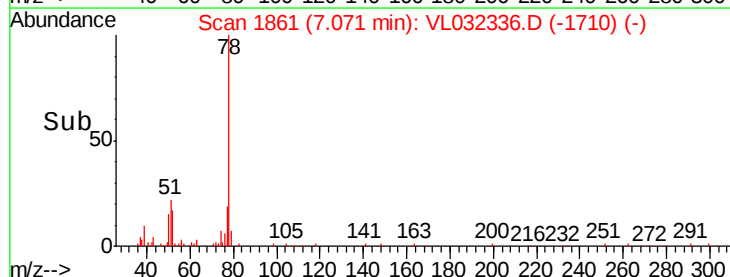
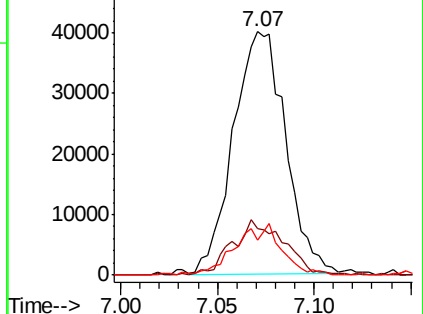
50 14.2 15.3 22.9#

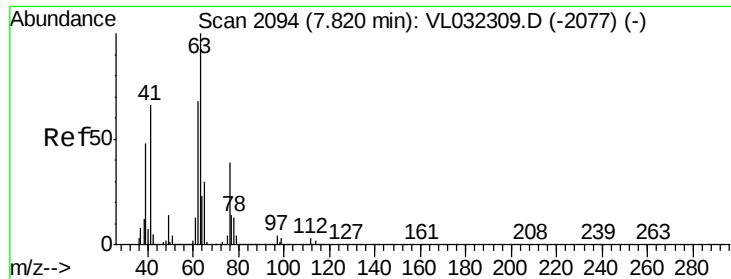


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 6.318 ppbv

RT: 7.36 min Scan# 1950

Delta R.T. -0.46 min

Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

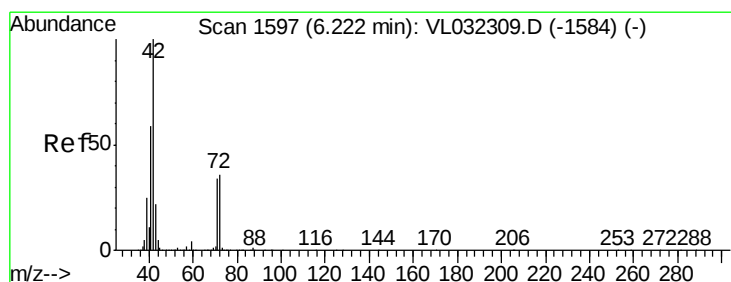
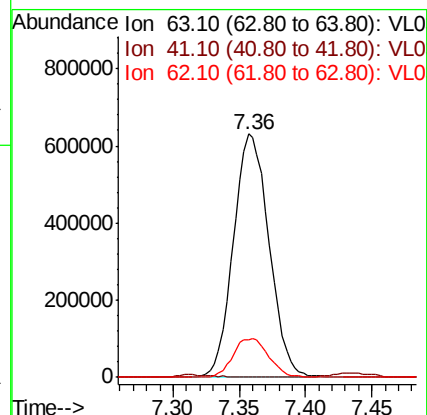
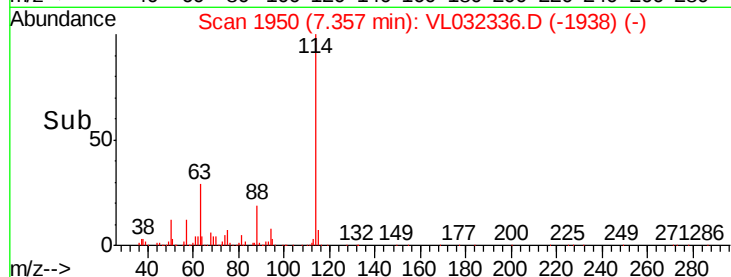
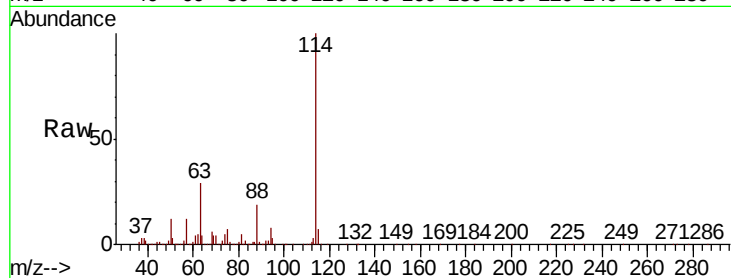
Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 63 Resp: 1177627

Ion	Ratio	Lower	Upper
63	100		
41	0.0	52.5	78.7#
62	15.5	54.6	81.8#



#41

Tetrahydrofuran

Concen: 2.057 ppbv

RT: 5.84 min Scan# 1479

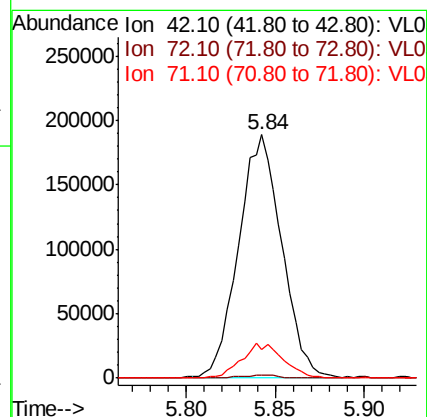
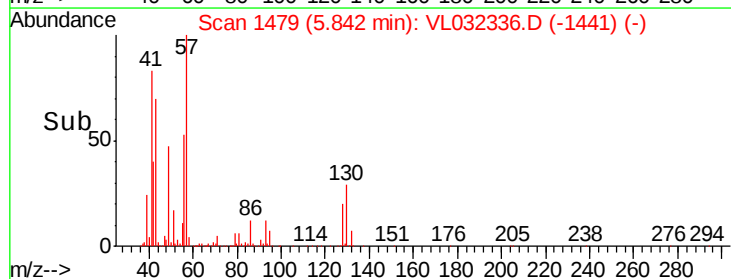
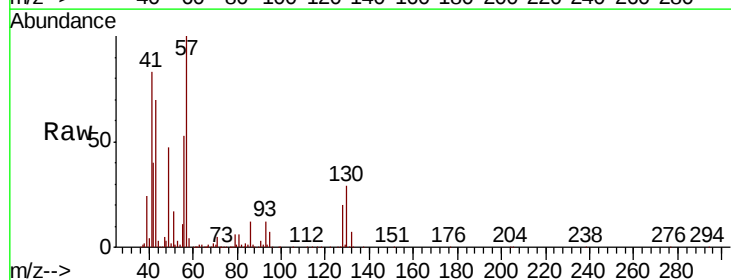
Delta R.T. -0.38 min

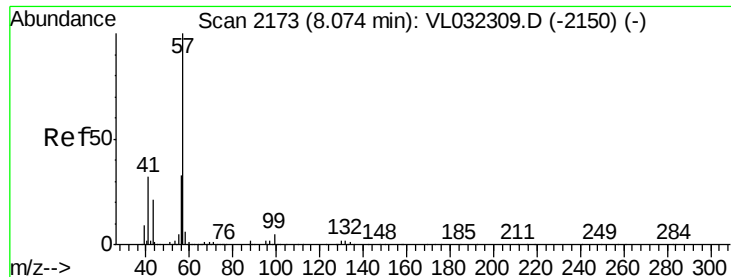
Lab File: VL032336.D

Acq: 1 Aug 2018 23:58

Tgt Ion: 42 Resp: 316548

Ion	Ratio	Lower	Upper
42	100		
72	1.1	28.6	42.8#
71	13.9	27.8	41.6#

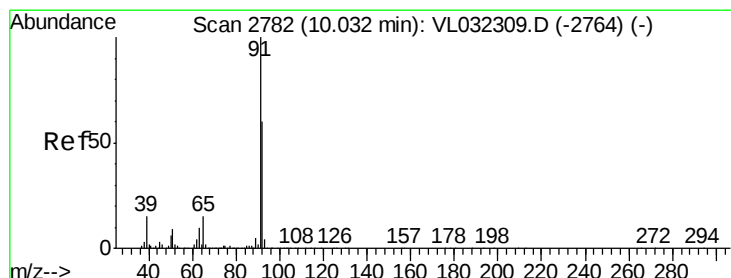
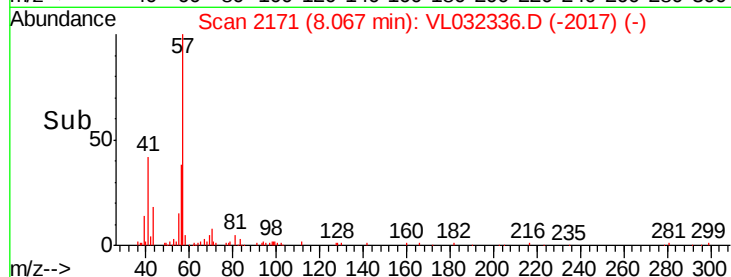
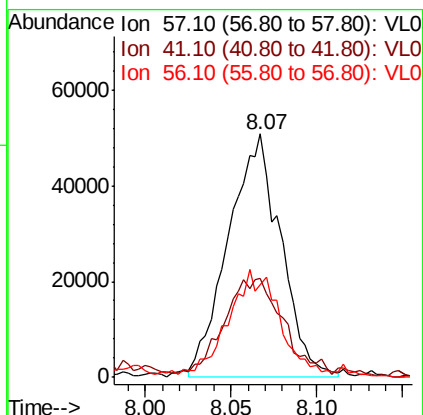
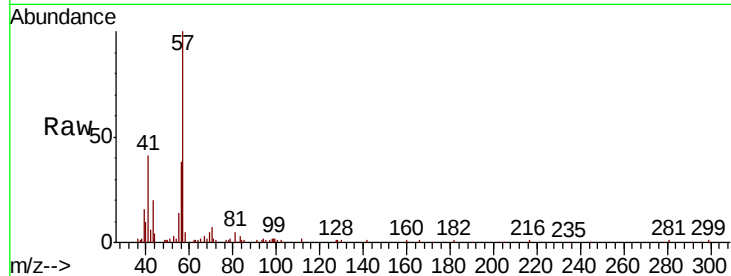




#44
 2,2,4-Trimethylpentane
 Concen: 0.133 ppbv
 RT: 8.07 min Scan# 2171
 Delta R.T. -0.01 min
 Lab File: VL032336.D
 Acq: 1 Aug 2018 23:58

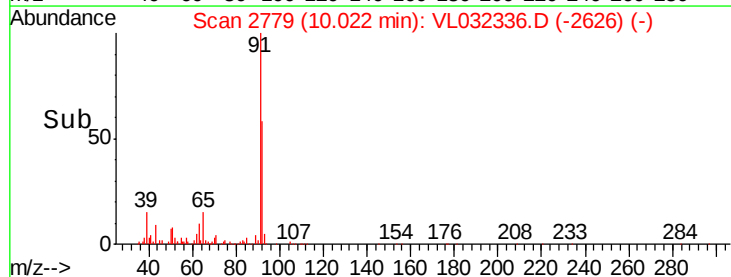
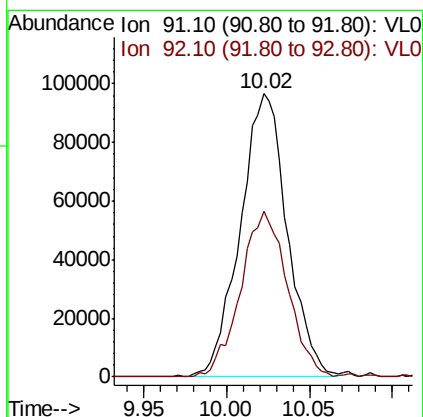
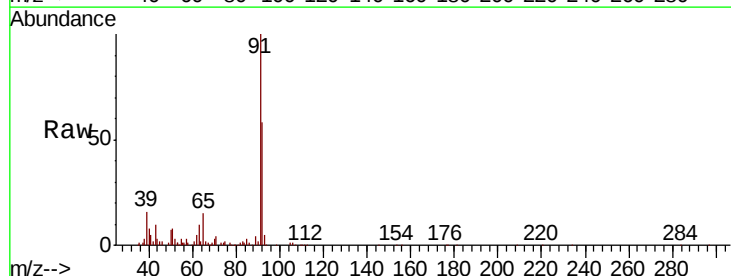
Instrument :
 MSVOA_L
 ClientSampleId :

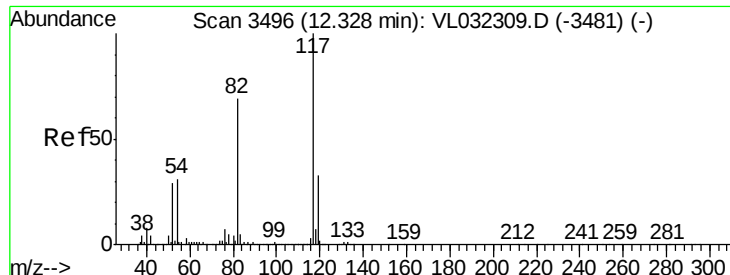
Tot Ion	57	Resp	107182
Ion Ratio	Lower	Upper	
57	100		
41	45.0	24.3	36.5#
56	45.6	25.4	38.2#



#53
 Toluene
 Concen: 0.431 ppbv
 RT: 10.02 min Scan# 2779
 Delta R.T. -0.01 min
 Lab File: VL032336.D
 Acq: 1 Aug 2018 23:58

Tgt Ion	91	Resp	190753
Ion Ratio	Lower	Upper	
91	100		
92	59.1	48.6	72.8

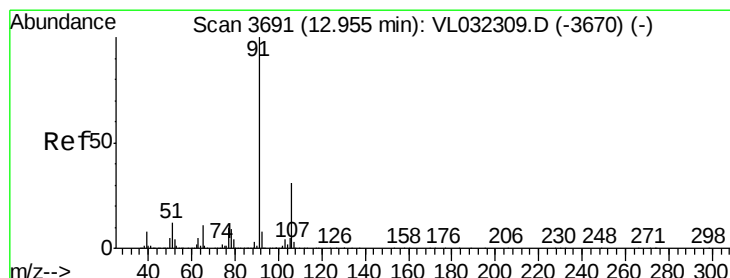
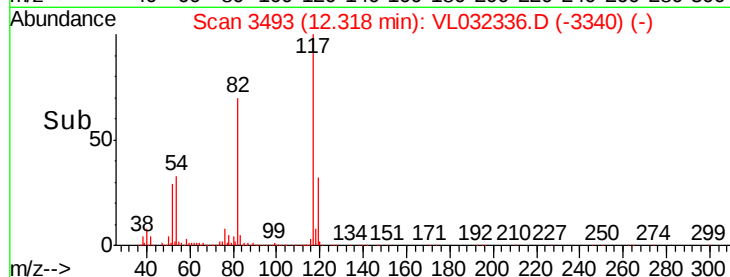
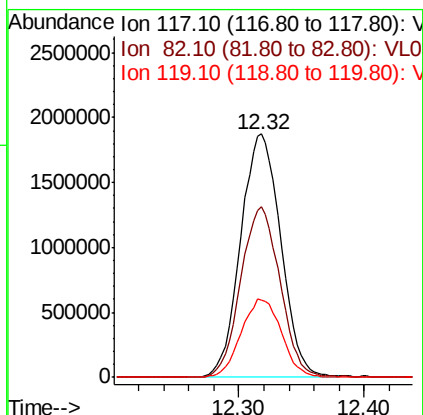
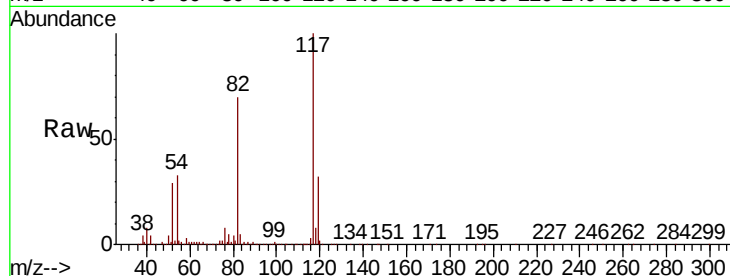




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.32 min Scan# 3493
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

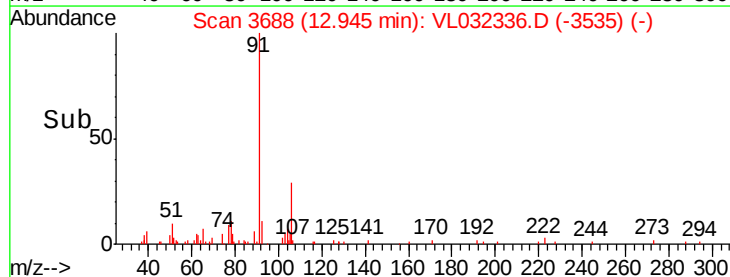
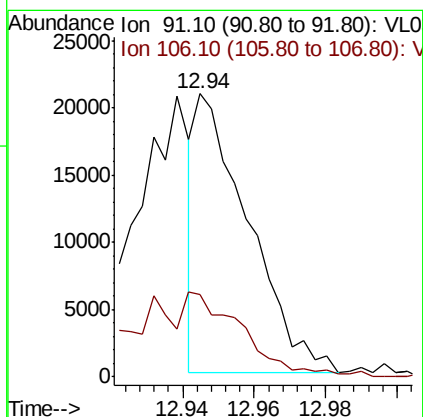
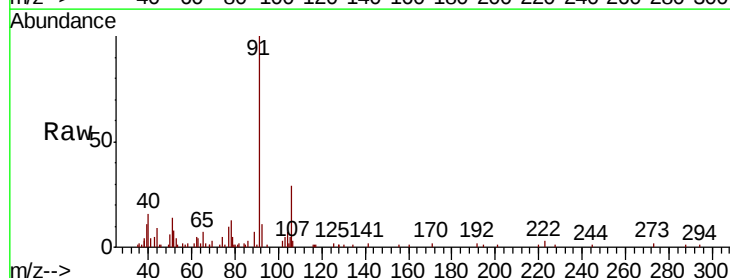
Instrument :
MSVOA_L
ClientSampleId :

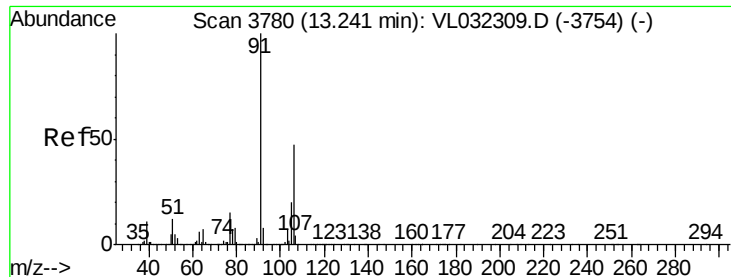
Tot Ion:117 Resp: 4161391
Ion Ratio Lower Upper
117 100
82 69.5 52.6 78.8
119 32.5 25.7 38.5



#58
Ethyl Benzene
Concen: 0.041 ppbv
RT: 12.94 min Scan# 3688
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 91 Resp: 21196
Ion Ratio Lower Upper
91 100
106 31.3 25.0 37.4

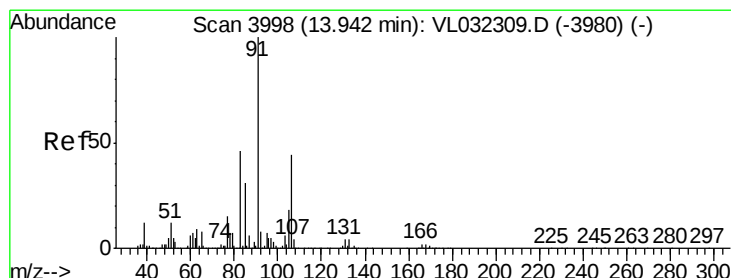
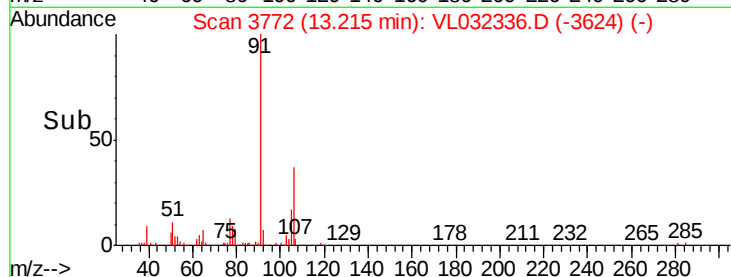
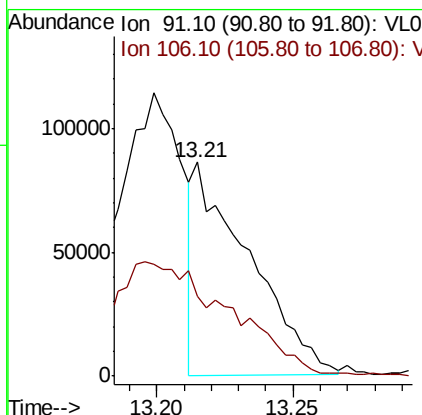
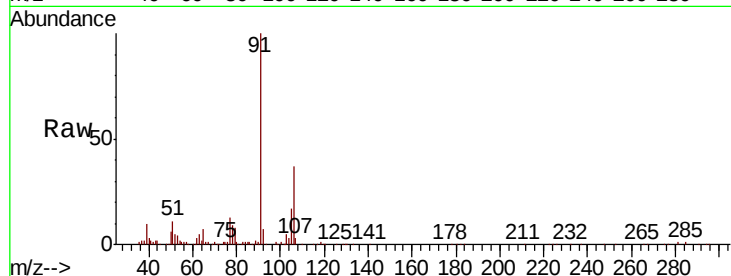




#59
m/p-Xylene
Concen: 0.271 ppbv
RT: 13.21 min Scan# 3772
Delta R.T. -0.03 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

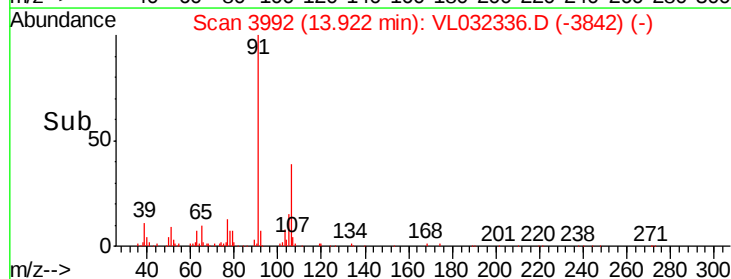
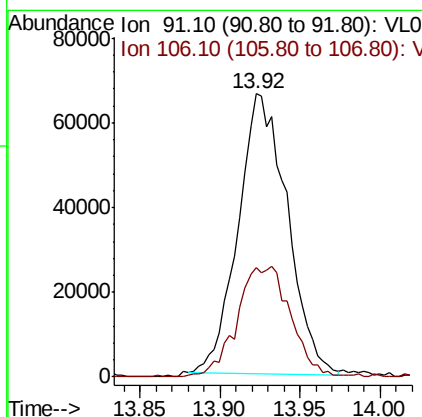
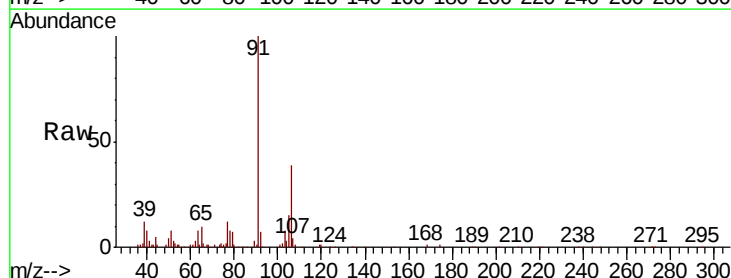
Instrument :
MSVOA_L
ClientSampled :

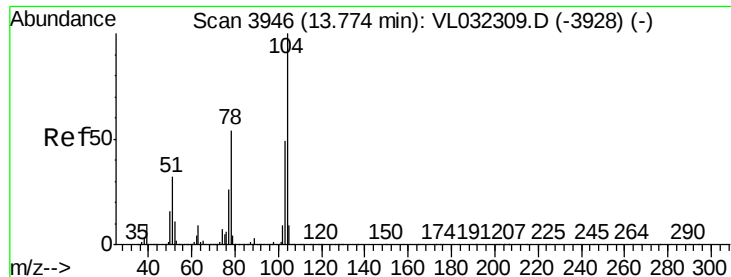
Tot Ion: 91 Resp: 120503
Ion Ratio Lower Upper
91 100
106 0.0 36.4 54.6#



#60
o-Xylene
Concen: 0.321 ppbv
RT: 13.92 min Scan# 3992
Delta R.T. -0.02 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 91 Resp: 139637
Ion Ratio Lower Upper
91 100
106 43.0 22.4 67.0

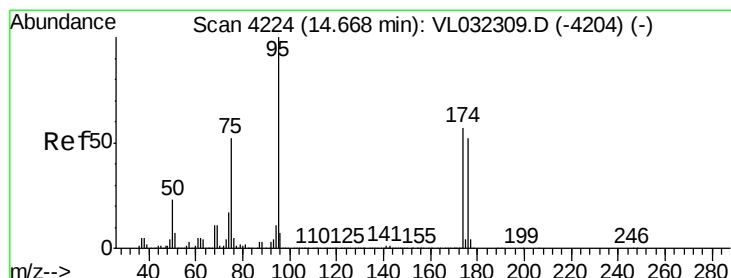
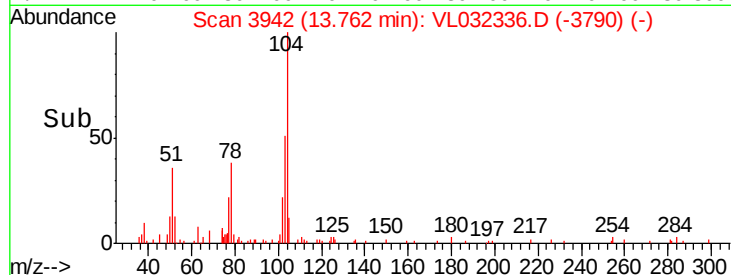
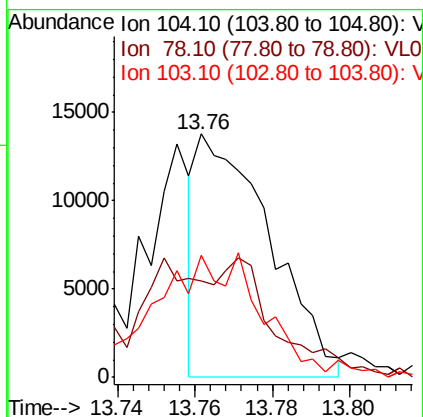
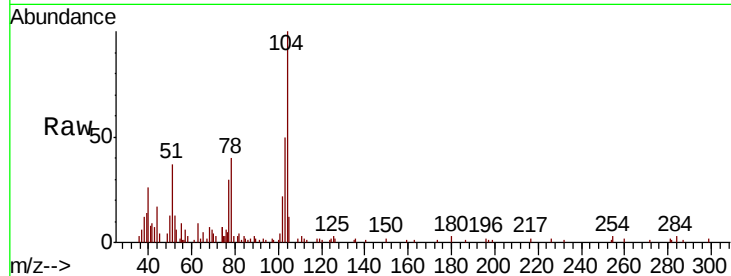




#61
Stvrene
Concen: 0.056 ppbv
RT: 13.76 min Scan# 3942
Delta R.T. -0.01 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

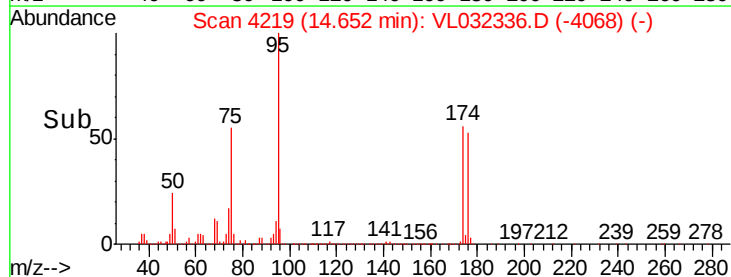
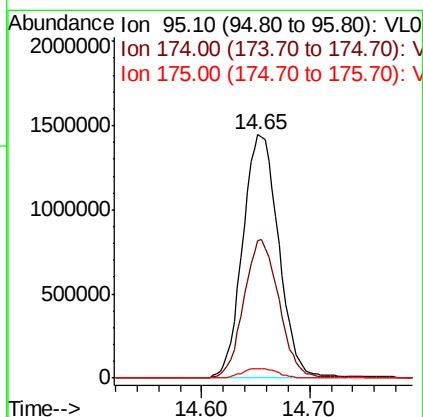
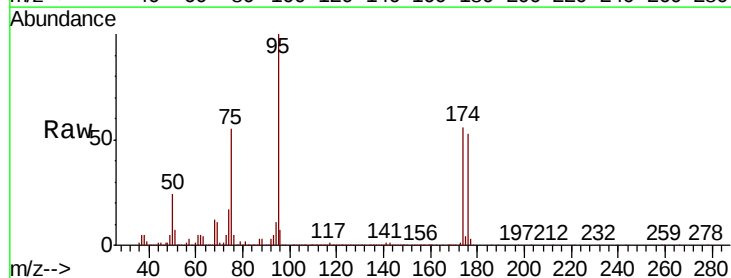
Instrument :
MSVOA_L
ClientSampleId :

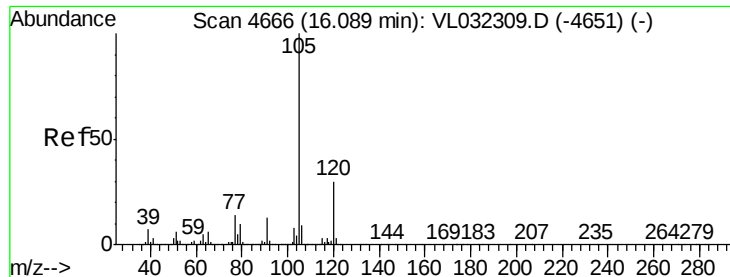
Tot Ion:104 Resp: 18009
Ion Ratio Lower Upper
104 100
78 0.0 42.6 63.8#
103 76.8 38.0 57.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.375 ppbv
RT: 14.65 min Scan# 4219
Delta R.T. -0.02 min
Lab File: VL032336.D
Acq: 1 Aug 2018 23:58

Tgt Ion: 95 Resp: 3351141
Ion Ratio Lower Upper
95 100
174 56.3 45.5 68.3
175 4.1 3.3 4.9





#72

4-Ethyltoluene

Concen: 0.047 ppbv

RT: 16.07 min Scan# 4661

Delta R.T. -0.02 min

Lab File: VL032336.D

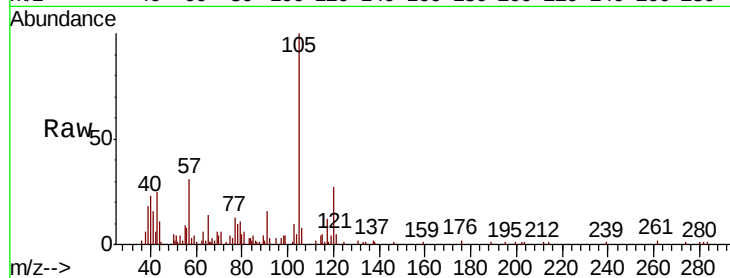
Acq: 1 Aug 2018 23:58

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion:	105	Resp:	23060
Ion	Ratio	Lower	Upper
105	100		
120	63.7	23.1	34.7#
91	41.8	10.0	15.0#
77	47.0	11.5	17.3#

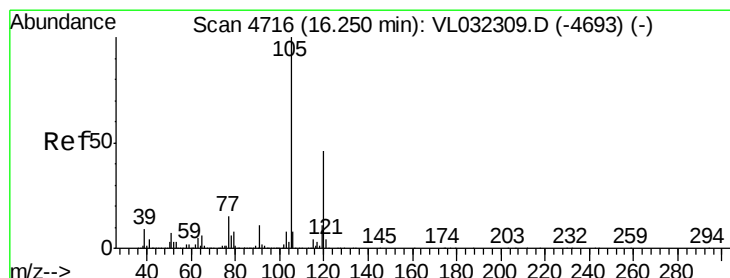
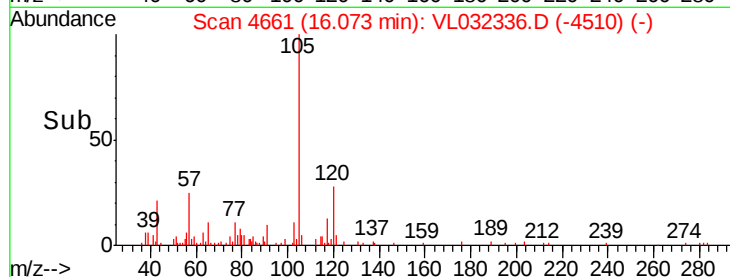
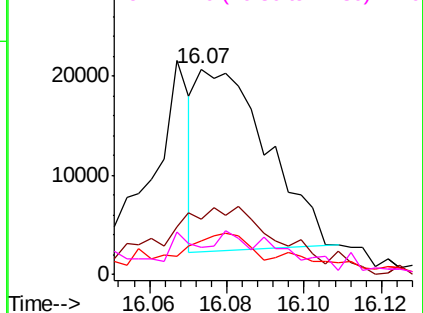


Abundance Ion 105.10 (104.80 to 105.80): V

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: 0.037 ppbv

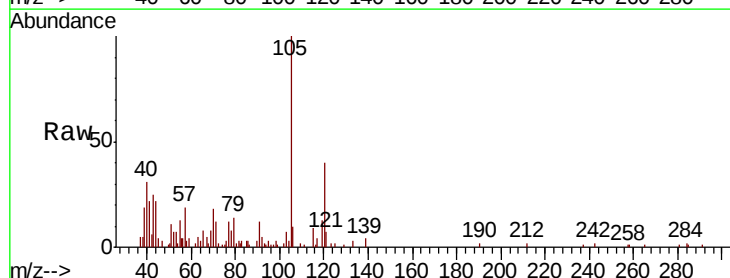
RT: 16.24 min Scan# 4712

Delta R.T. -0.01 min

Lab File: VL032336.D

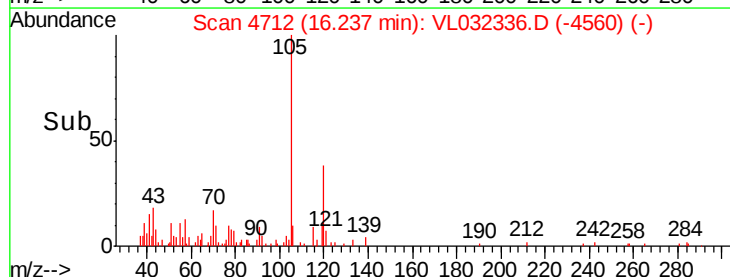
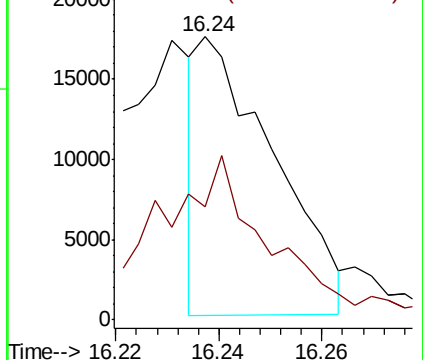
Acq: 1 Aug 2018 23:58

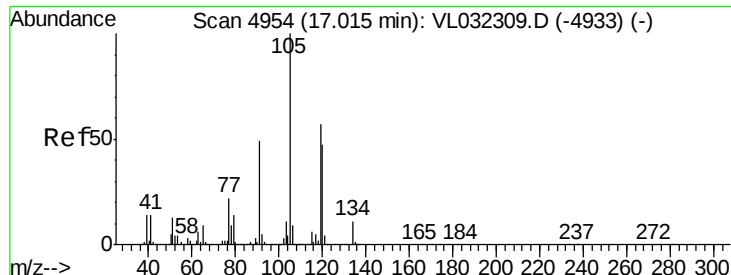
Tgt Ion:	105	Resp:	17650
Ion	Ratio	Lower	Upper
105	100		
120	37.0	36.5	54.7



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: 0.246 ppbv
 RT: 17.01 min Scan# 4951
 Delta R.T. -0.01 min
 Lab File: VL032336.D
 Acq: 1 Aug 2018 23:58

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	124673
Ion Ratio	Lower	Upper	
105	100		
120	38.3	37.8	56.6
91	13.0	39.4	59.0#
77	15.7	17.6	26.4#

