

Data File : VL034133.D
Acq On : 5 Sep 2019 12:51
Operator : SY/AP
Sample : K4612-01DL 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
AMBIENTDL

Quant Time: Sep 06 04:12:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL090519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LThu Sep 05 10:21:45 2019
QLast Update : Thu Sep 05 10:21:45 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.70	49	1063565	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.23	114	1961827	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.17	117	1959750	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.51	95	1668753	10.42	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.20%

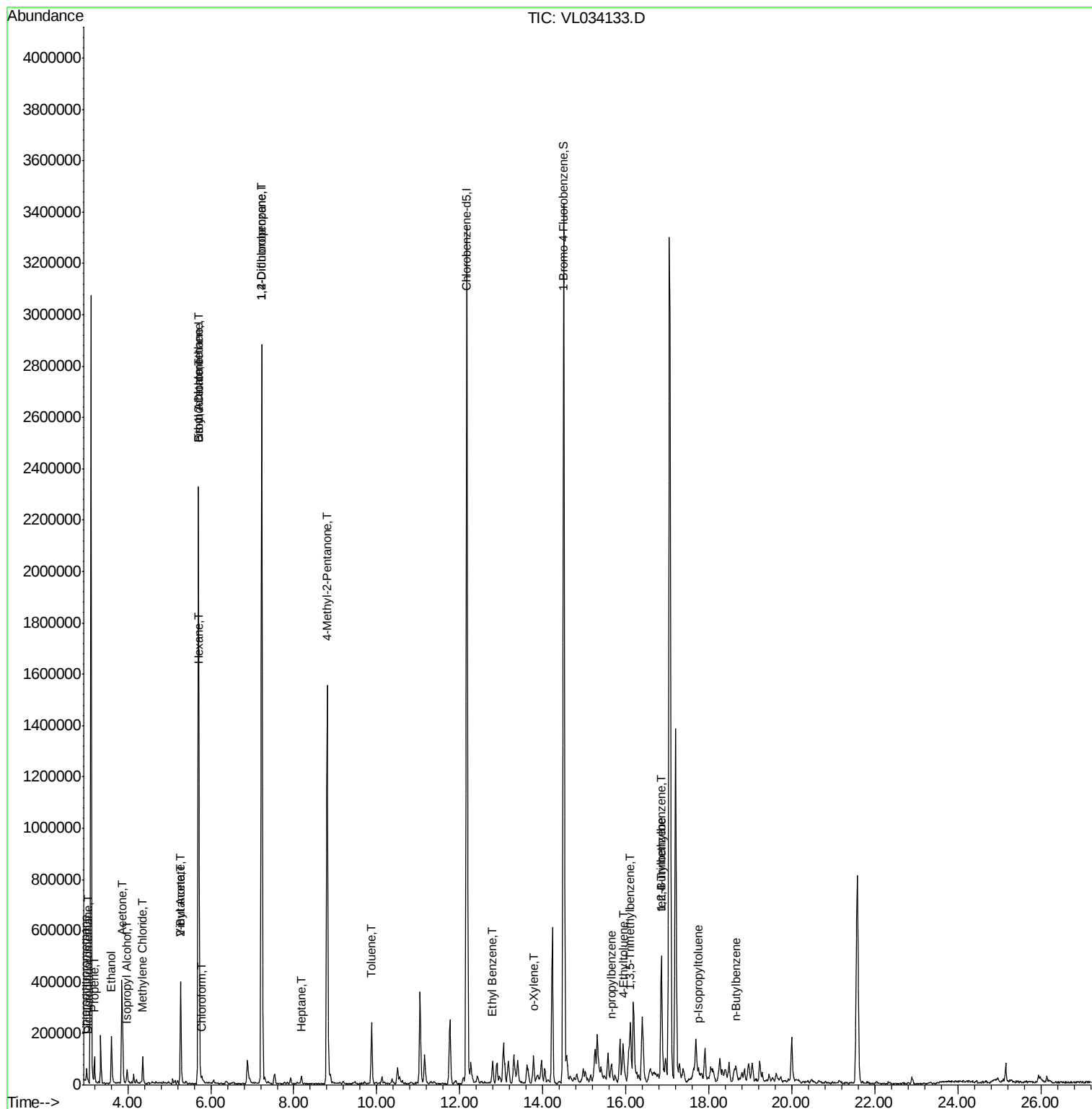
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	9048	0.052	ppbv #	67
3) Chlorodifluoromethane	2.98	51	5932	0.050	ppbv	98
9) Propene	3.20	41	22556	0.340	ppbv	93
10) Heptane	8.17	43	7067	0.041	ppbv #	16
13) Ethanol	3.61	45	182636	14.055	ppbv	98
15) Acetone	3.86	43	432960	3.378	ppbv	93
19) Isopropyl Alcohol	3.99	45	56867	0.657	ppbv #	1
20) Methylene Chloride	4.36	84	32435	0.765	ppbv	88
23) Vinyl Acetate	5.27	43	449301	2.066	ppbv #	87
25) Ethyl Acetate	5.71	43	406790	1.446	ppbv #	93
26) Hexane	5.72	57	45877	0.367	ppbv #	1
29) Chloroform	5.79	83	8053	0.048	ppbv	84
31) cis-1,2-Dichloroethene	5.71	61	43725	0.365	ppbv #	32
34) 2-Butanone	5.27	43	449301	2.382	ppbv	99
39) 1,2-Dichloropropane	7.23	63	603176	6.285	ppbv #	24
50) 4-Methyl-2-Pentanone	8.80	43	1355231	4.709	ppbv	98
53) Toluene	9.88	91	169495	0.683	ppbv	94
58) Ethyl Benzene	12.79	91	69839	0.217	ppbv	96
60) o-Xylene	13.78	91	76760	0.294	ppbv	96
64) n-propylbenzene	15.66	120	5554	0.065	ppbv #	1
65) tert-Butylbenzene	16.86	119	15789	0.054	ppbv #	1
69) p-Isopropyltoluene	17.75	119	16606	0.049	ppbv #	61
70) n-Butylbenzene	18.64	91	19114	0.050	ppbv #	66
72) 4-Ethyltoluene	15.93	105	40897	0.139	ppbv #	54
73) 1,3,5-Trimethylbenzene	16.08	105	37966	0.133	ppbv	98
74) 1,2,4-Trimethylbenzene	16.85	105	289675	0.983	ppbv #	71

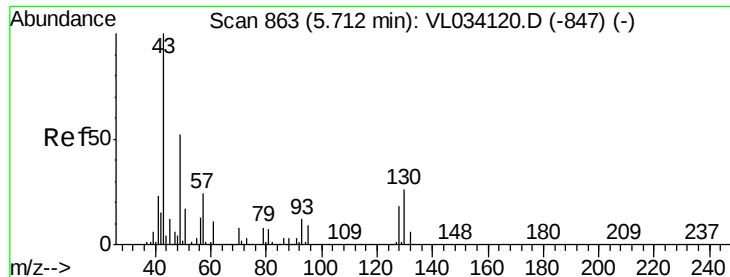
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.70 min Scan# 860

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

AMBIENTDL

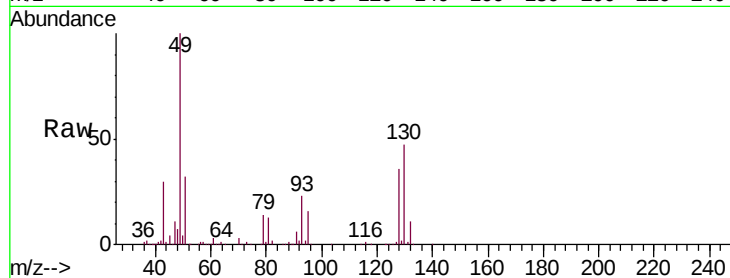
Tgt Ion: 49 Resp: 1063565

Ion Ratio Lower Upper

49 100

128 36.9 18.4 55.0

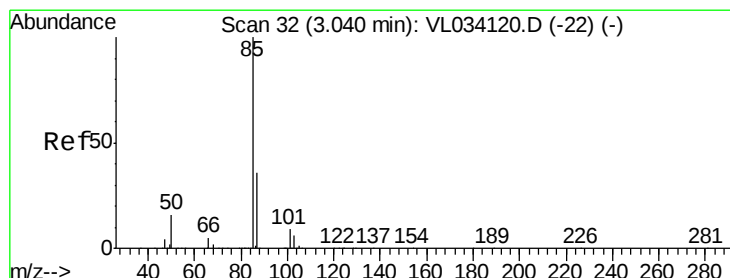
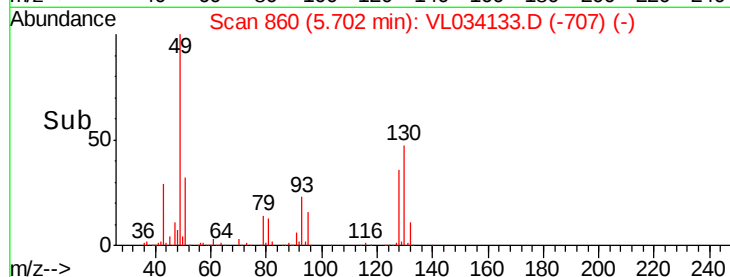
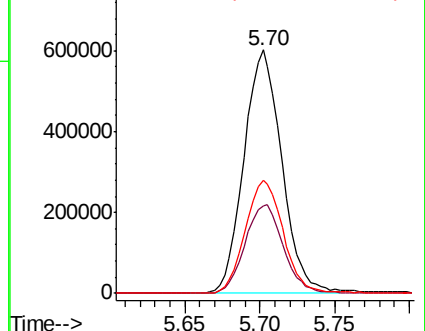
130 47.2 23.5 70.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.052 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.00 min

Lab File: VL034133.D

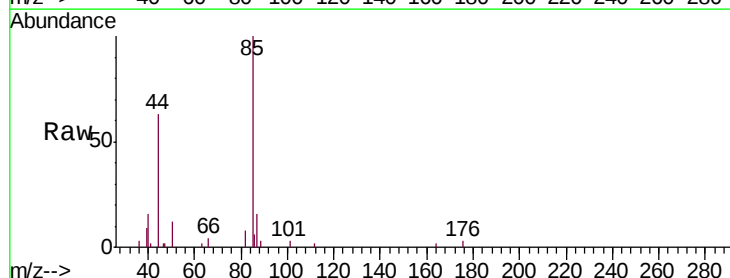
Acq: 5 Sep 2019 12:51

Tgt Ion: 85 Resp: 9048

Ion Ratio Lower Upper

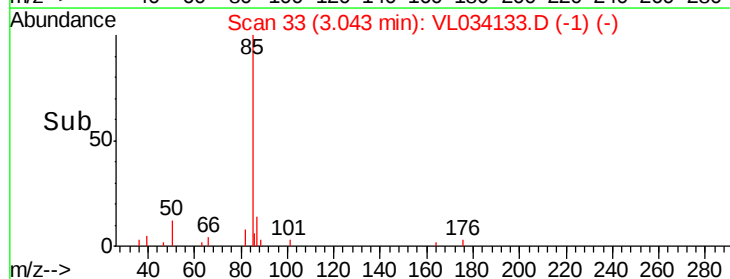
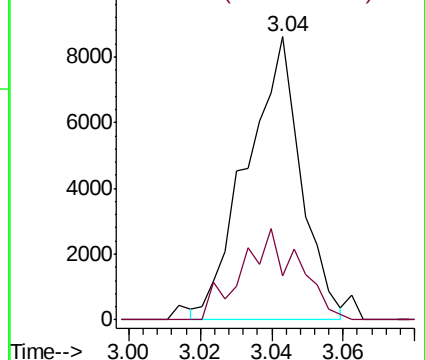
85 100

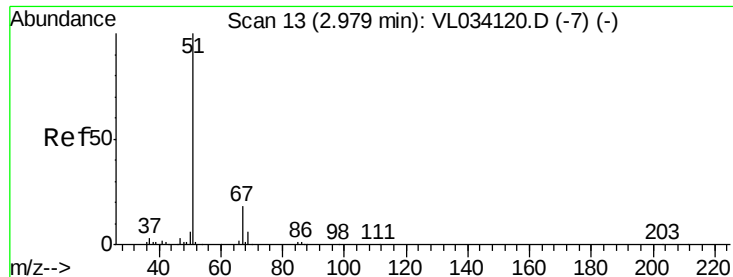
87 16.4 28.6 43.0#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.050 ppbv

RT: 2.98 min Scan# 12

Delta R.T. -0.00 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

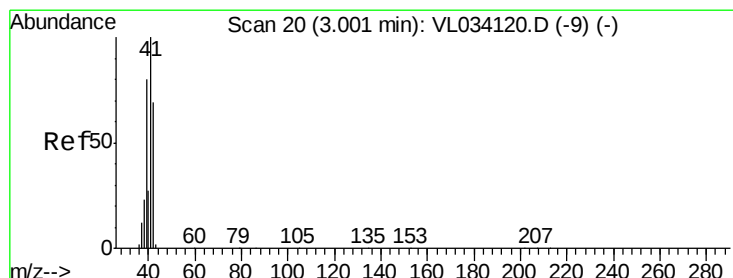
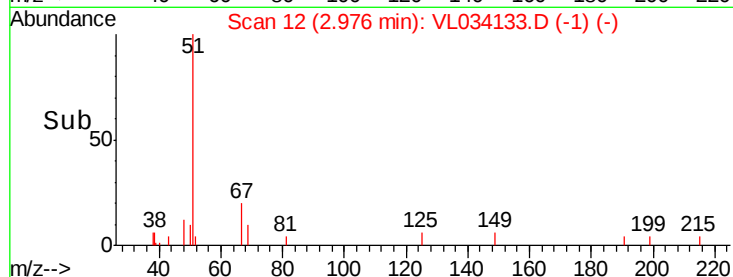
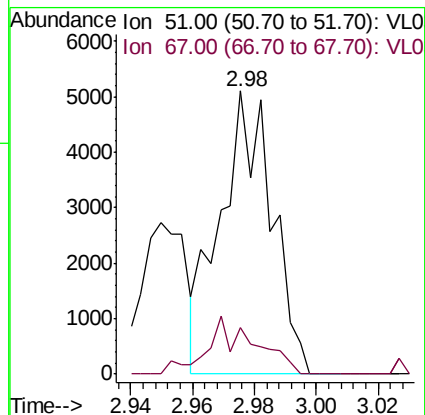
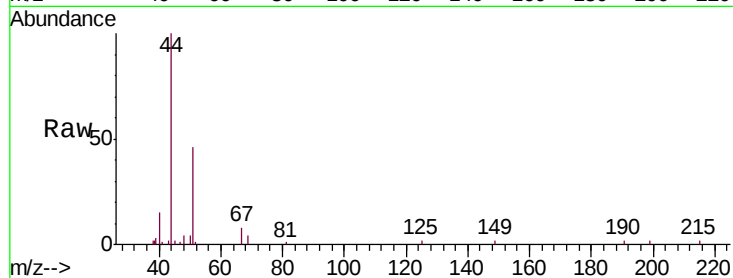
AMBIENTDL

Tgt Ion: 51 Resp: 5932

Ion Ratio Lower Upper

51 100

67 16.9 14.2 21.4



#9

Propene

Concen: 0.340 ppbv

RT: 3.20 min Scan# 81

Delta R.T. 0.20 min

Lab File: VL034133.D

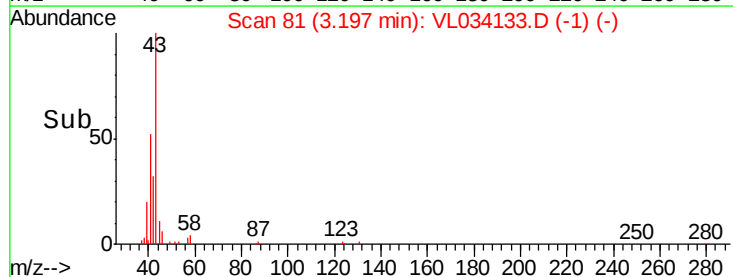
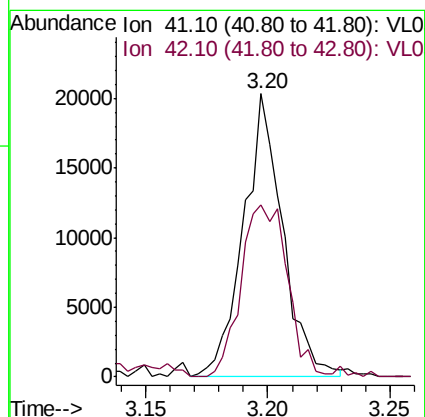
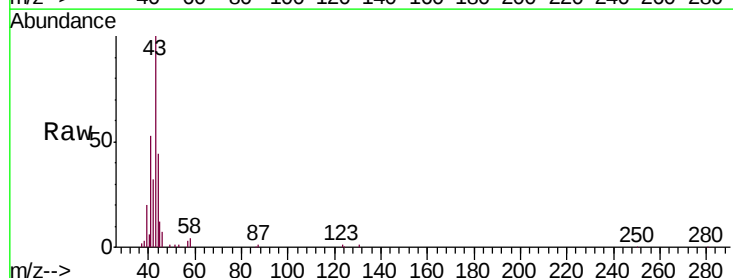
Acq: 5 Sep 2019 12:51

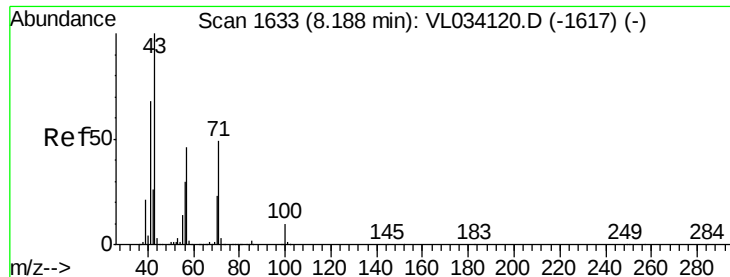
Tgt Ion: 41 Resp: 22556

Ion Ratio Lower Upper

41 100

42 73.6 54.6 81.8





#10

Heptane

Concen: 0.041 ppbv

RT: 8.17 min Scan# 1628

Delta R.T. -0.02 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

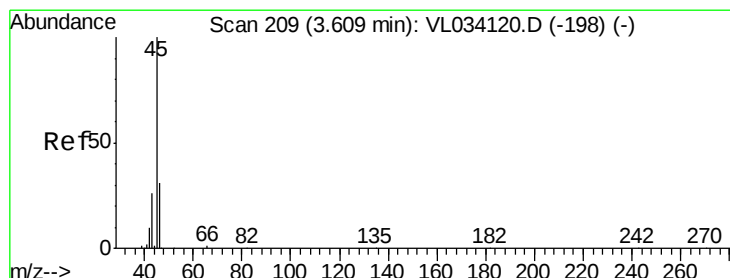
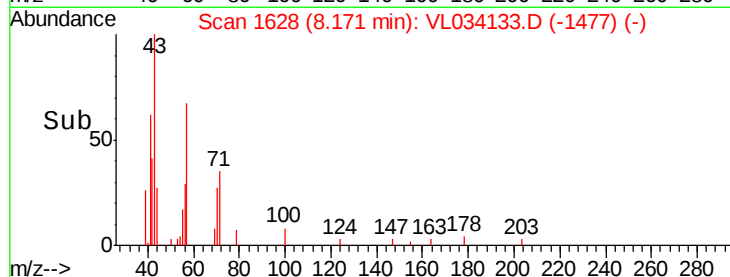
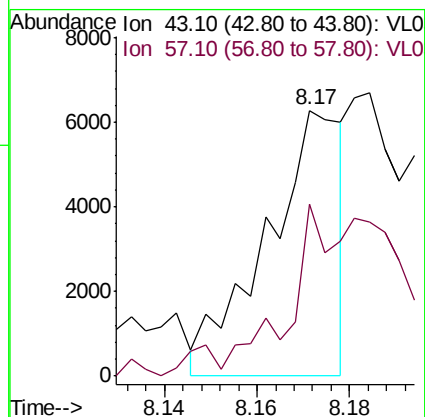
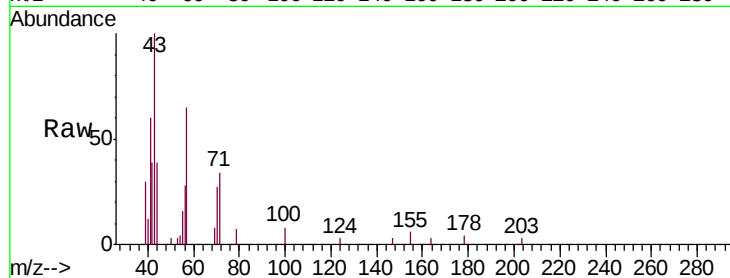
AMBIENTDL

Tgt Ion: 43 Resp: 7067

Ion Ratio Lower Upper

43 100

57 103.8 38.1 57.1#



#13

Ethanol

Concen: 14.055 ppbv

RT: 3.61 min Scan# 208

Delta R.T. -0.00 min

Lab File: VL034133.D

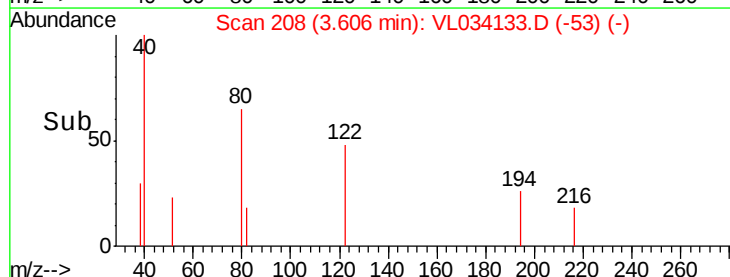
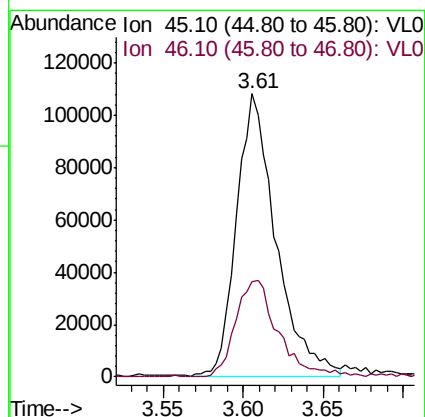
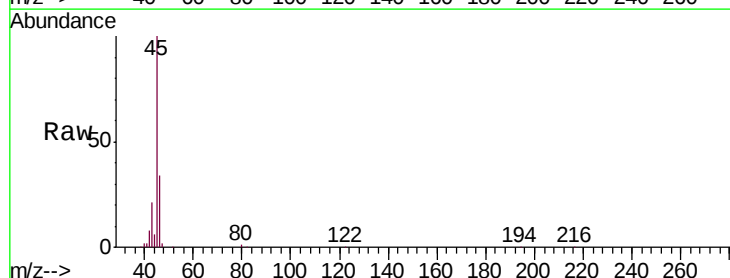
Acq: 5 Sep 2019 12:51

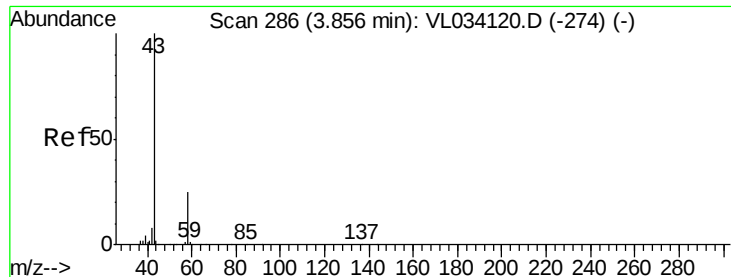
Tgt Ion: 45 Resp: 182636

Ion Ratio Lower Upper

45 100

46 36.0 15.0 60.0





#15

Acetone

Concen: 3.378 ppbv

RT: 3.86 min Scan# 286

Delta R.T. 0.00 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

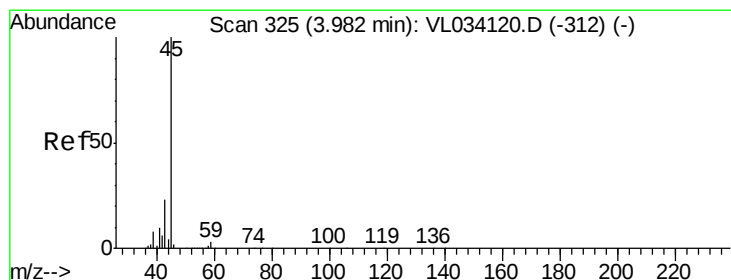
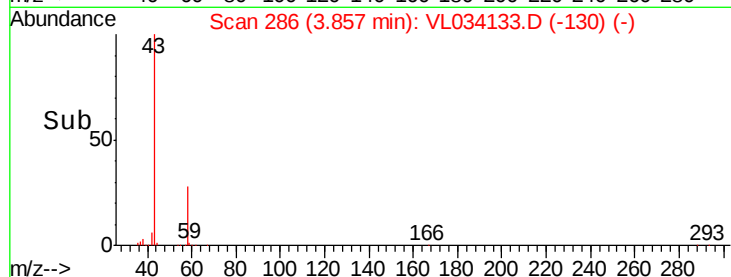
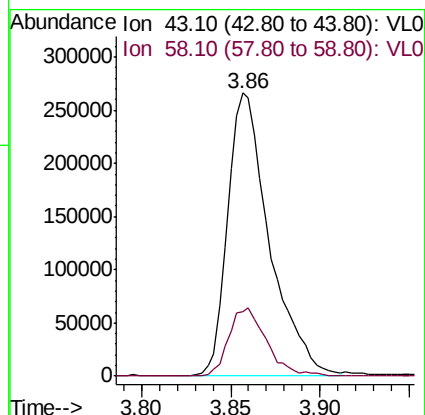
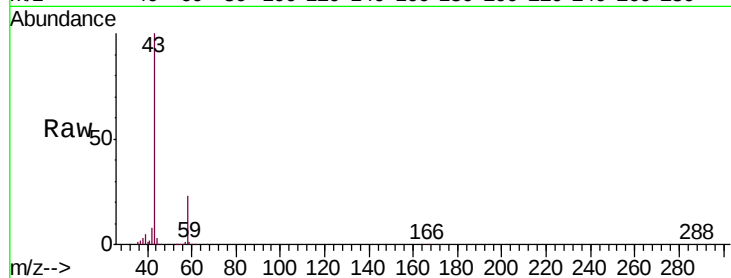
AMBIENTDL

Tgt Ion: 43 Resp: 432960

Ion Ratio Lower Upper

43 100

58 22.1 20.6 30.8



#19

Isopropyl Alcohol

Concen: 0.657 ppbv

RT: 3.99 min Scan# 326

Delta R.T. 0.00 min

Lab File: VL034133.D

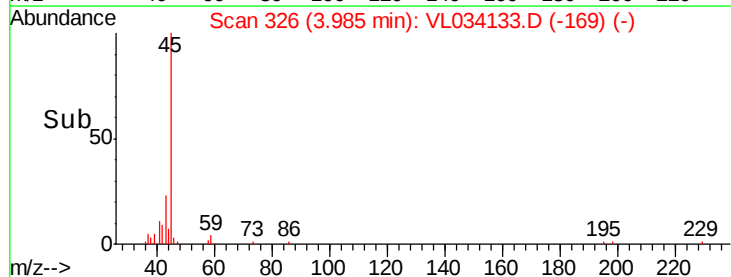
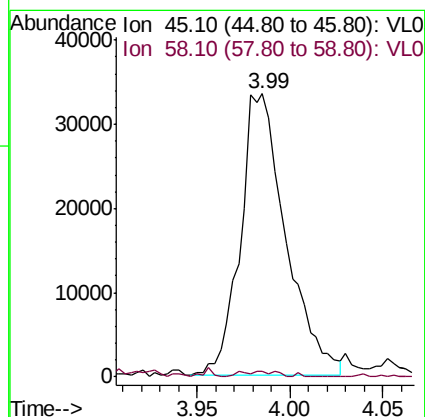
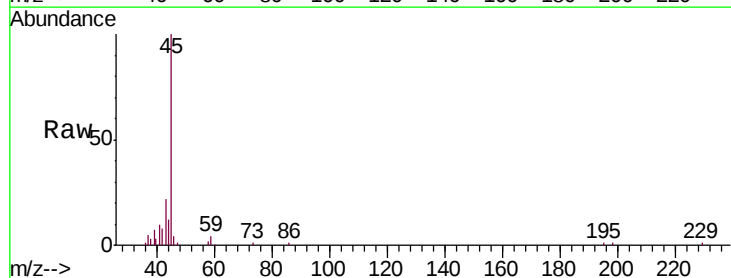
Acq: 5 Sep 2019 12:51

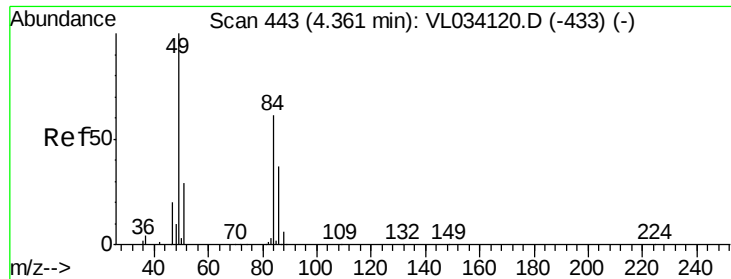
Tgt Ion: 45 Resp: 56867

Ion Ratio Lower Upper

45 100

58 168.4 1.0 1.6#

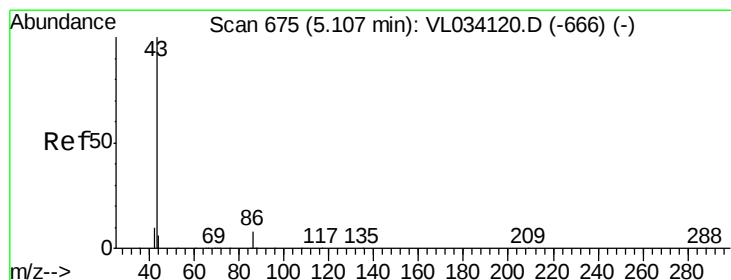
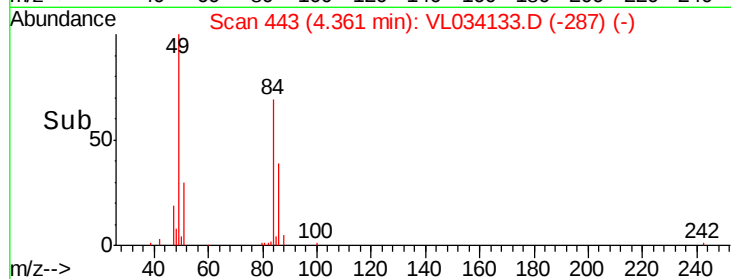
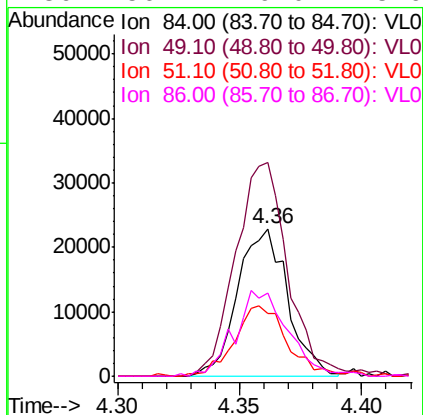
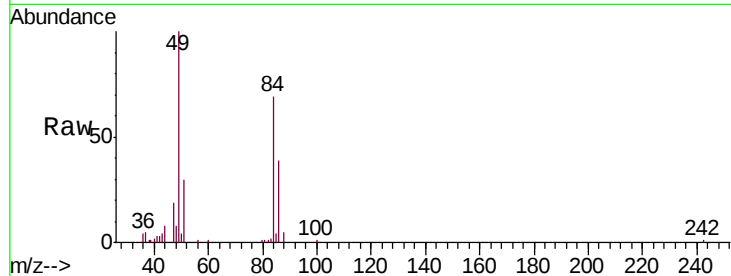




#20
Methylene Chloride
Concen: 0.765 ppbv
RT: 4.36 min Scan# 443
Delta R.T. 0.00 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

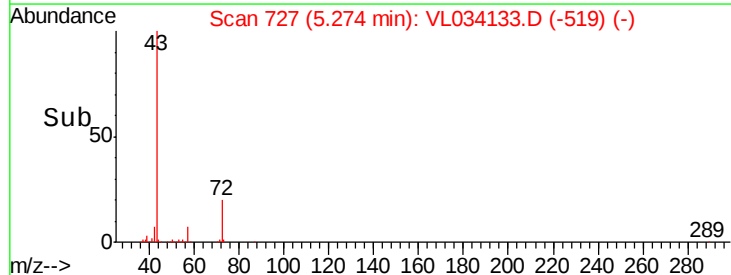
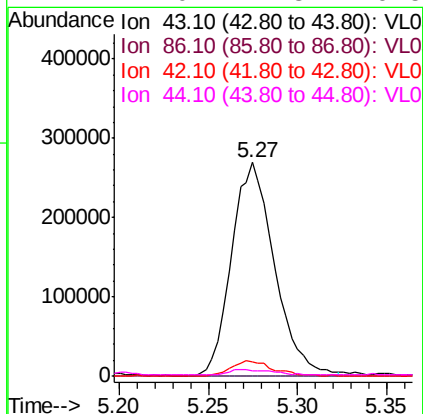
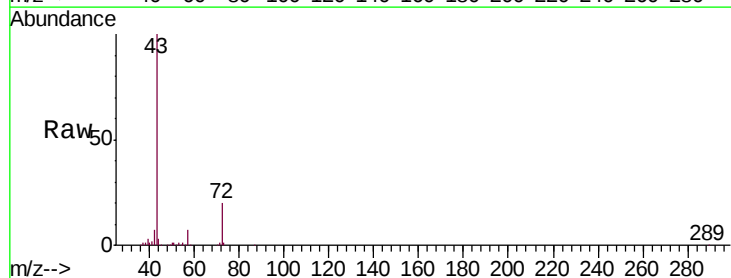
Instrument :
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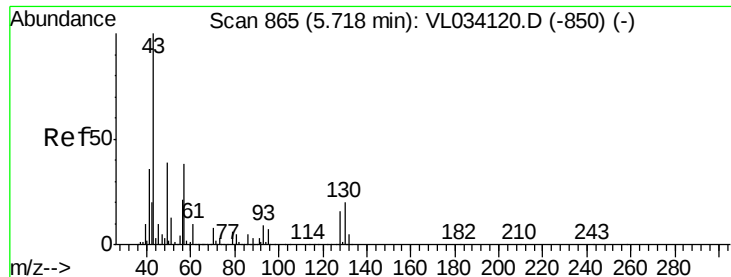
Tgt Ion:	84	Resp:	32435
Ion	Ratio	Lower	Upper
84	100		
49	144.8	131.0	196.6
51	41.6	38.1	57.1
86	56.4	49.0	73.6



#23
Vinyl Acetate
Concen: 2.066 ppbv
RT: 5.27 min Scan# 727
Delta R.T. 0.17 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

Tgt Ion:	43	Resp:	449301
Ion	Ratio	Lower	Upper
43	100		
86	0.1	5.5	8.3#
42	6.6	8.2	12.4#
44	2.0	4.3	6.5#

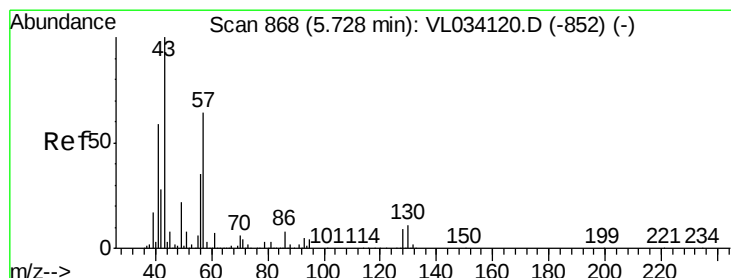
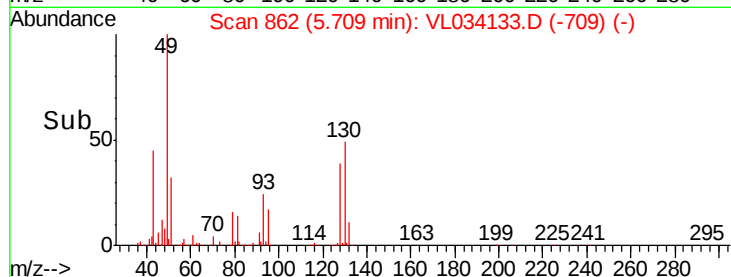
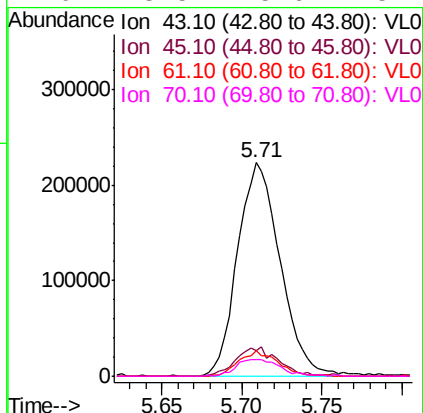
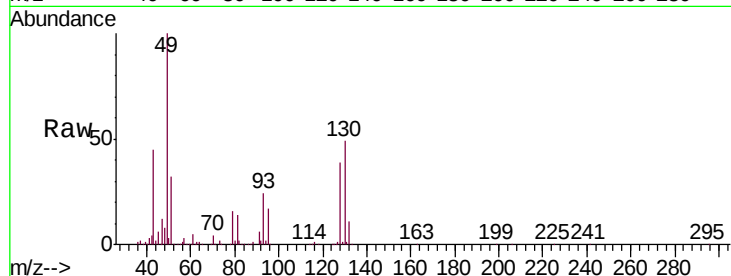




#25
Ethyl Acetate
Concen: 1.446 ppbv
RT: 5.71 min Scan# 862
Delta R.T. -0.01 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

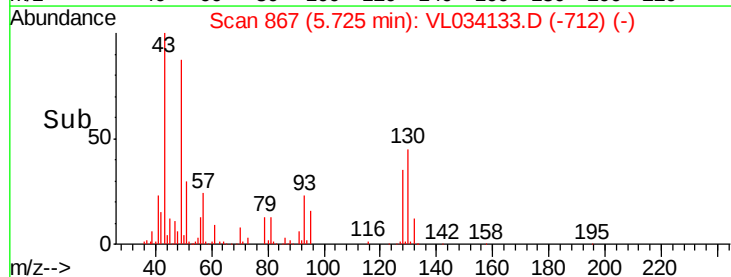
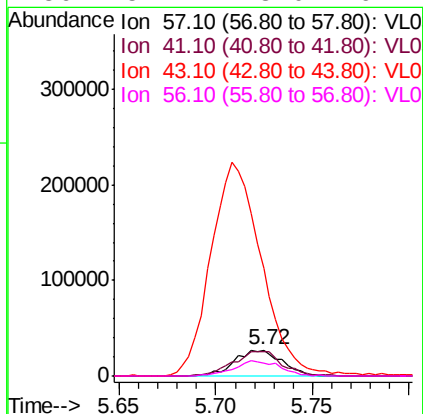
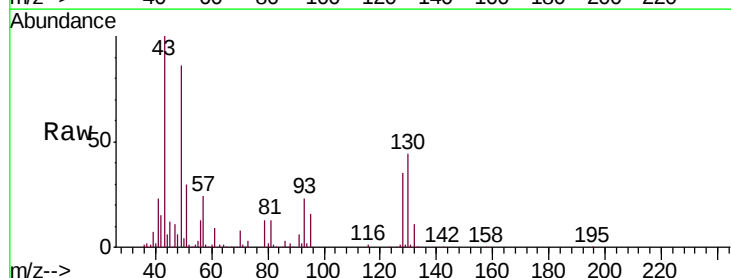
Instrument :
MSVOA_L
ClientSampleId :
AMBIENTDL

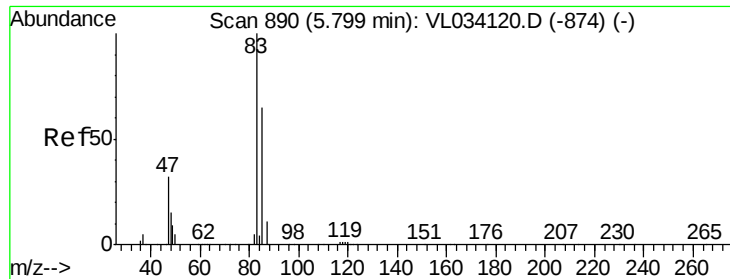
Tgt Ion:	43	Resp:	406790
Ion	Ratio	Lower	Upper
43	100		
45	13.8	8.2	12.4#
61	11.2	7.4	11.2#
70	8.5	5.6	8.4#



#26
Hexane
Concen: 0.367 ppbv
RT: 5.72 min Scan# 867
Delta R.T. -0.00 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

Tgt Ion:	57	Resp:	45877
Ion	Ratio	Lower	Upper
57	100		
41	101.4	76.6	115.0
43	901.9	189.2	283.8#
56	57.4	43.0	64.4





#29

Chloroform

Concen: 0.048 ppbv

RT: 5.79 min Scan# 887

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

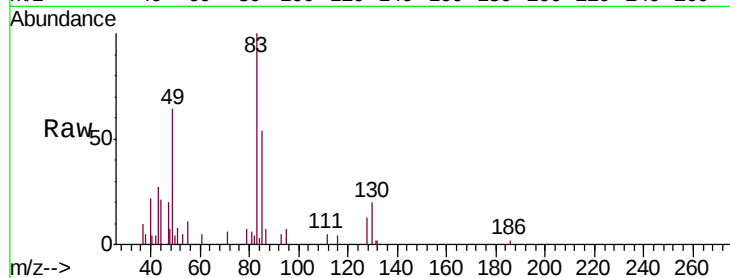
AMBIENTDL

Tgt Ion: 83 Resp: 8053

Ion Ratio Lower Upper

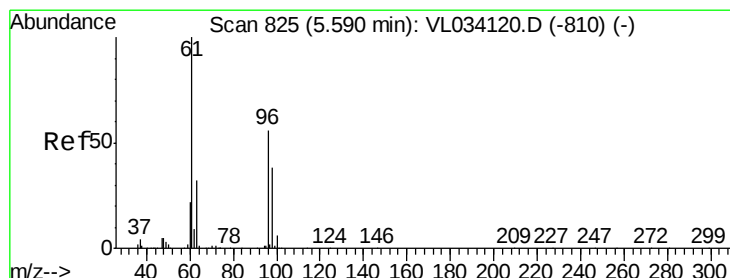
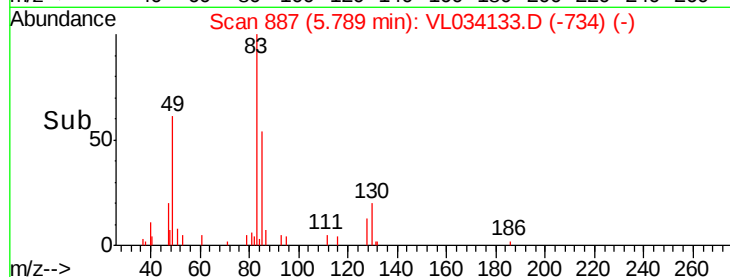
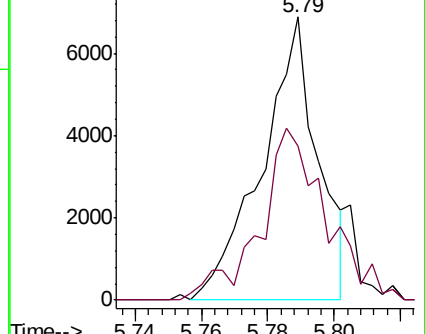
83 100

85 52.0 51.8 77.6



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#31

cis-1,2-Dichloroethene

Concen: 0.365 ppbv

RT: 5.71 min Scan# 862

Delta R.T. 0.12 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

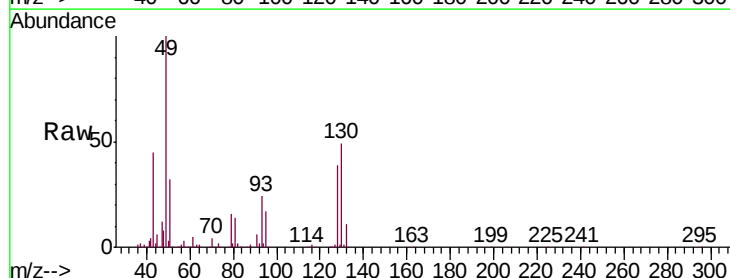
Tgt Ion: 61 Resp: 43725

Ion Ratio Lower Upper

61 100

96 3.7 44.4 66.6#

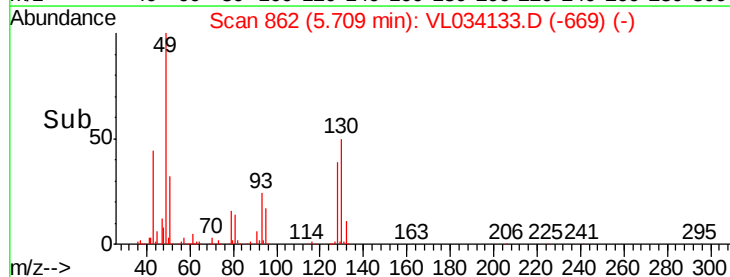
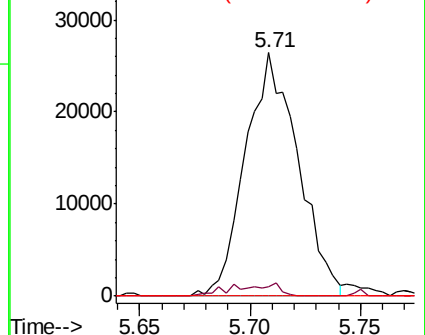
98 0.0 30.0 45.0#

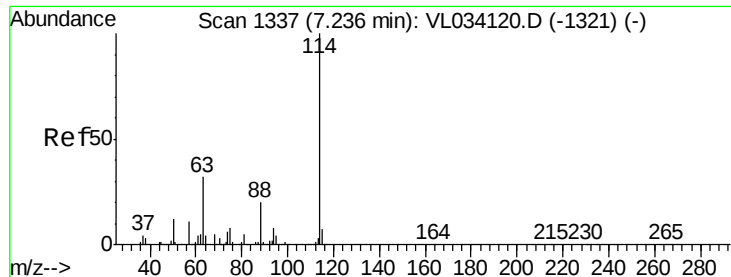


Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0

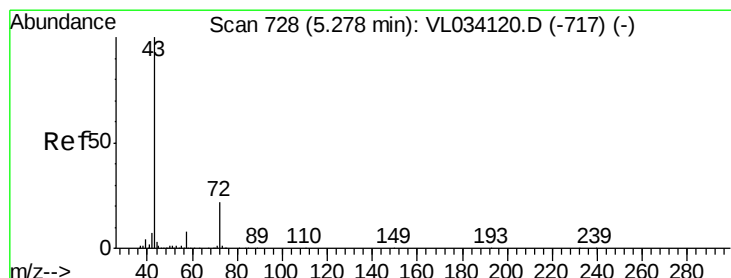
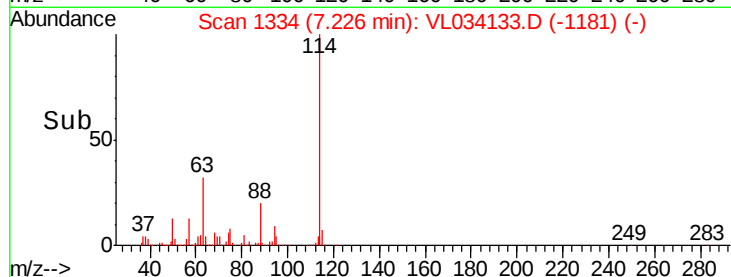
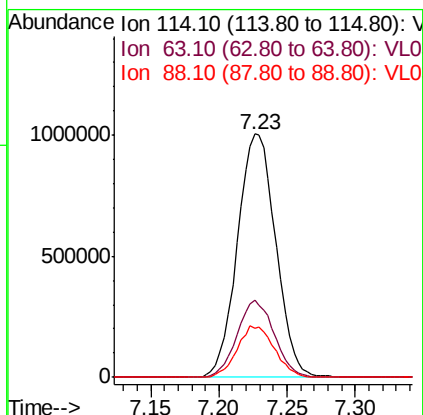
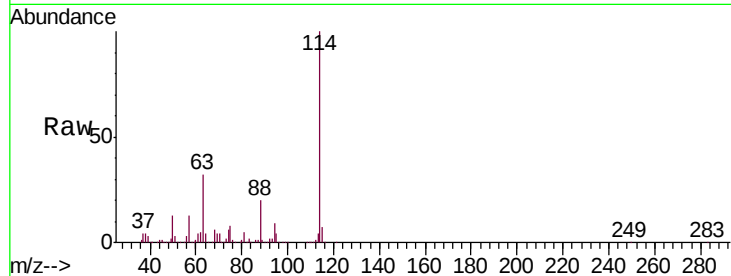




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.23 min Scan# 1334
 Delta R.T. -0.01 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

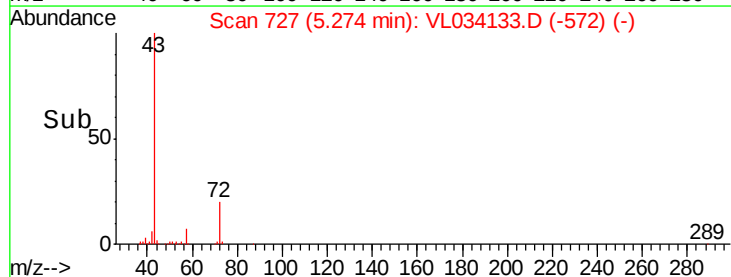
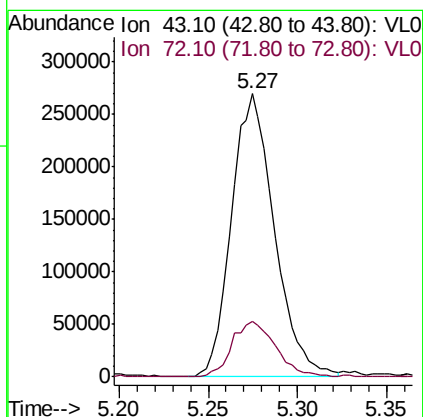
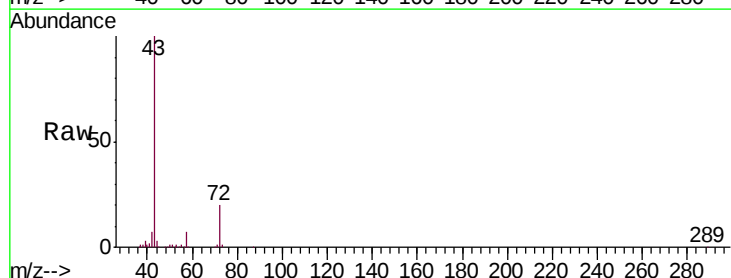
Instrument :
 MSVOA_L
 ClientSampleId :
 AMBIENTDL

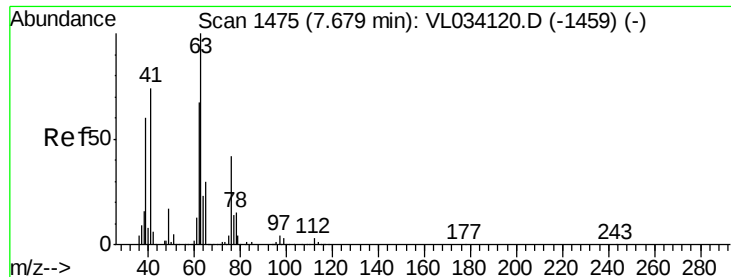
Tgt Ion: 114 Resp: 1961827
 Ion Ratio Lower Upper
 114 100
 63 30.8 25.5 38.3
 88 20.5 16.8 25.2



#34
 2-Butanone
 Concen: 2.382 ppbv
 RT: 5.27 min Scan# 727
 Delta R.T. -0.00 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

Tgt Ion: 43 Resp: 449301
 Ion Ratio Lower Upper
 43 100
 72 20.3 16.5 24.7

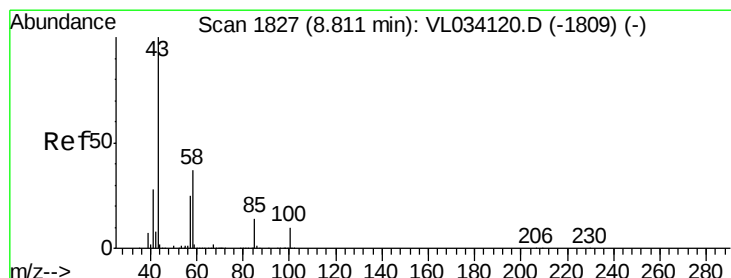
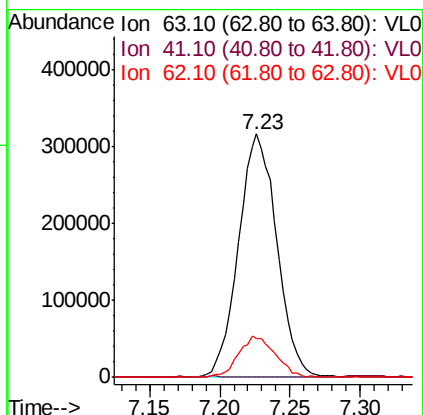
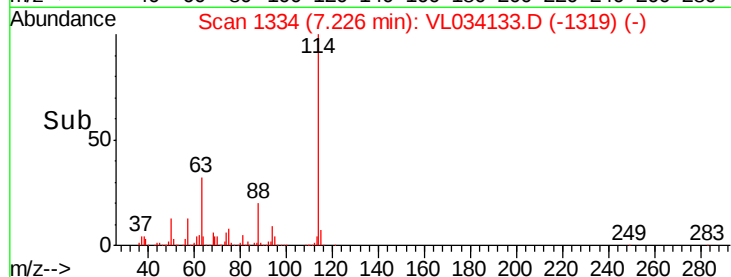
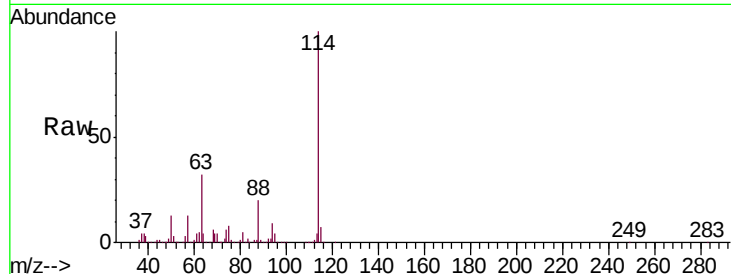




#39
 1,2-Dichloropropane
 Concen: 6.285 ppbv
 RT: 7.23 min Scan# 1334
 Delta R.T. -0.45 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

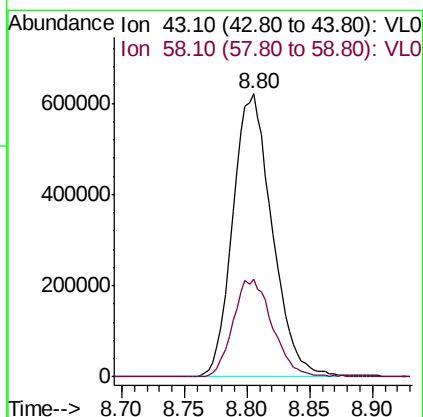
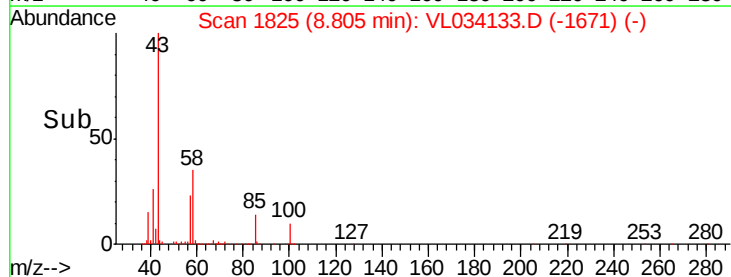
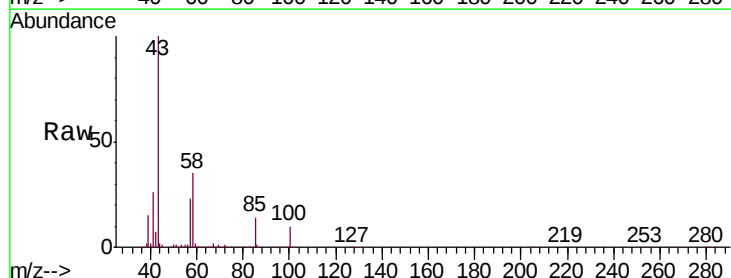
Instrument :
 MSVOA_L
 ClientSampleId :
 AMBIENTDL

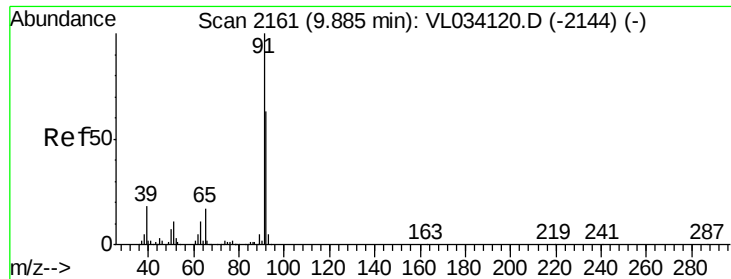
Tgt Ion: 63 Resp: 603176
 Ion Ratio Lower Upper
 63 100
 41 0.0 59.3 88.9#
 62 15.7 53.8 80.6#



#50
 4-Methyl-2-Pentanone
 Concen: 4.709 ppbv
 RT: 8.80 min Scan# 1825
 Delta R.T. -0.01 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

Tgt Ion: 43 Resp: 1355231
 Ion Ratio Lower Upper
 43 100
 58 34.6 28.5 42.7





#53

Toluene

Concen: 0.683 ppbv

RT: 9.88 min Scan# 2158

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

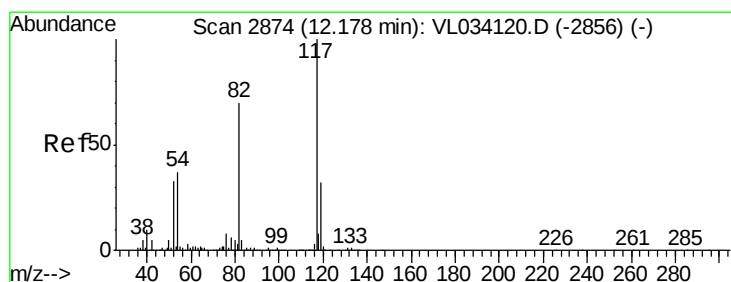
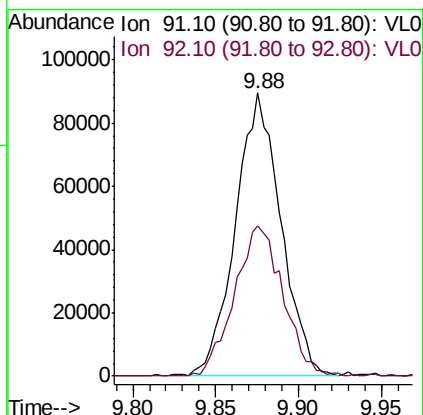
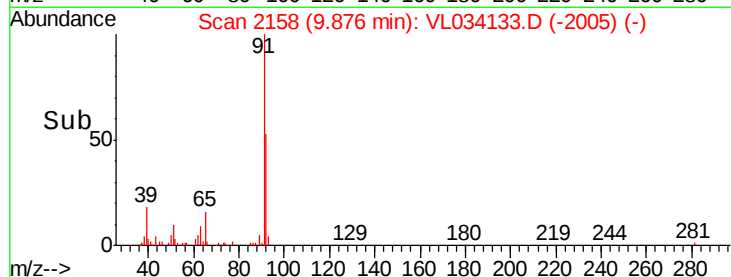
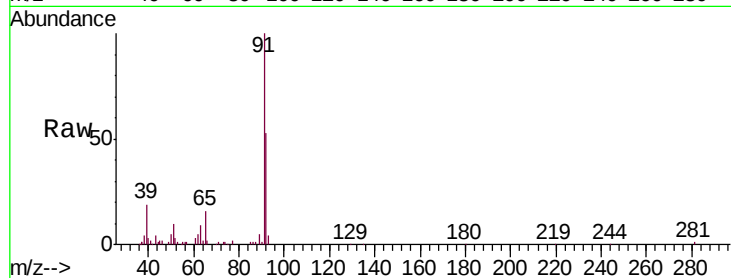
AMBIENTDL

Tgt Ion: 91 Resp: 169495

Ion Ratio Lower Upper

91 100

92 57.1 49.3 73.9



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.17 min Scan# 2871

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

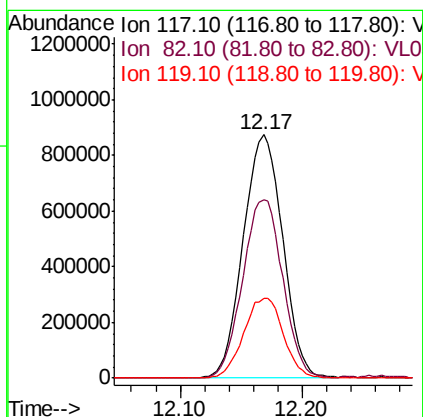
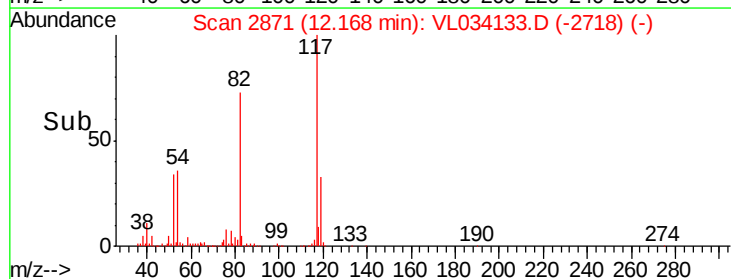
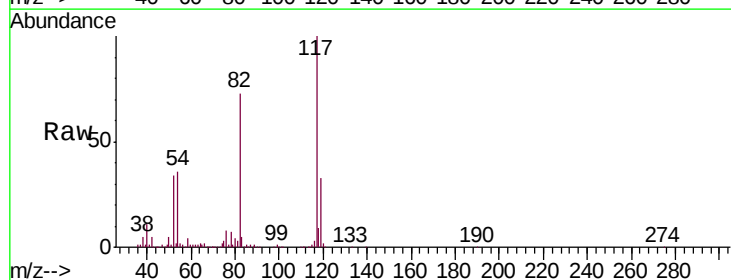
Tgt Ion: 117 Resp: 1959750

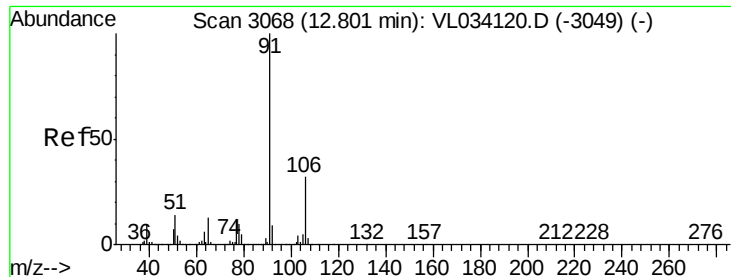
Ion Ratio Lower Upper

117 100

82 74.5 55.8 83.6

119 33.2 43.1 64.7#





#58

Ethyl Benzene

Concen: 0.217 ppbv

RT: 12.79 min Scan# 3065

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

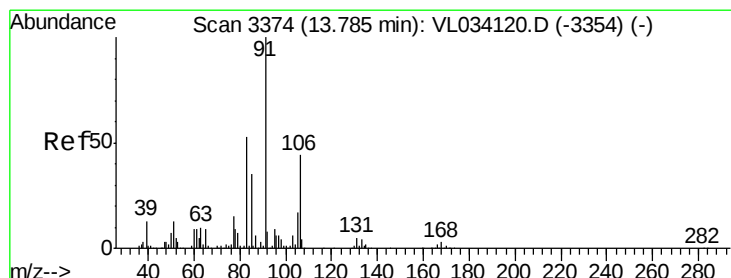
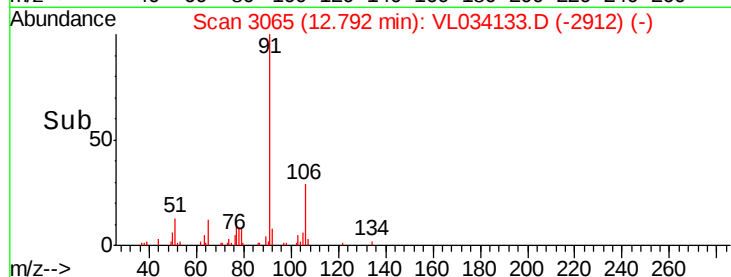
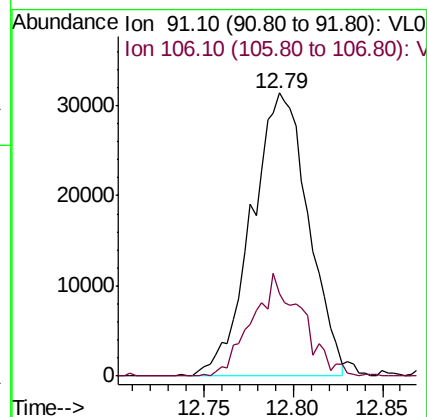
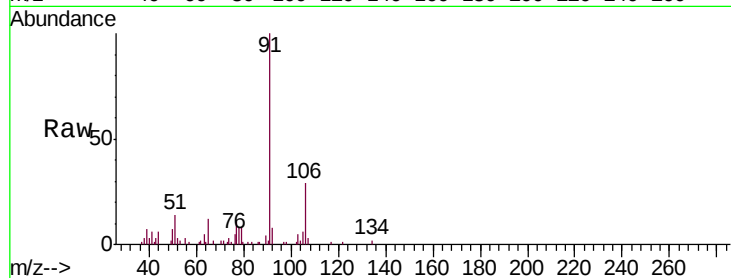
AMBIENTDL

Tgt Ion: 91 Resp: 69839

Ion Ratio Lower Upper

91 100

106 29.3 25.3 37.9



#60

o-Xylene

Concen: 0.294 ppbv

RT: 13.78 min Scan# 3373

Delta R.T. -0.00 min

Lab File: VL034133.D

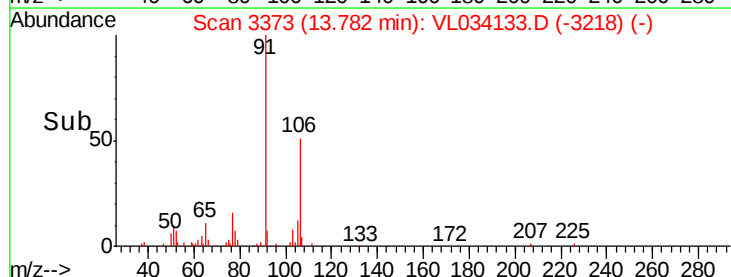
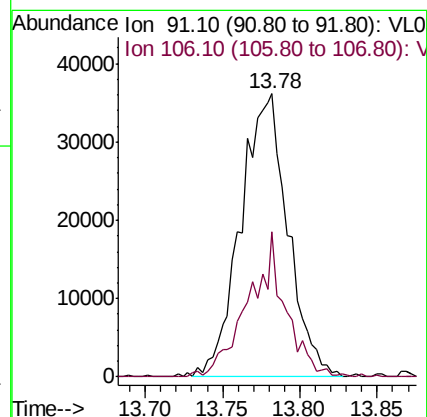
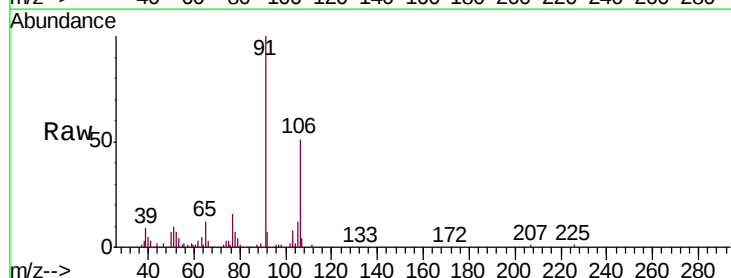
Acq: 5 Sep 2019 12:51

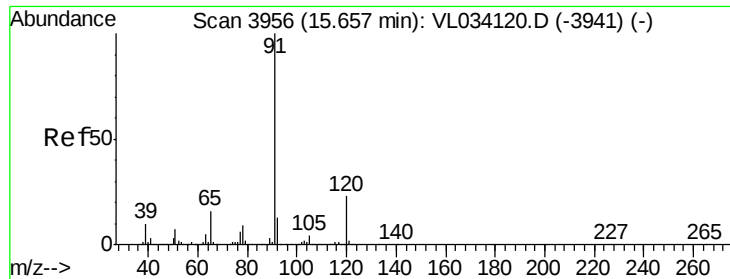
Tgt Ion: 91 Resp: 76760

Ion Ratio Lower Upper

91 100

106 40.2 21.4 64.3

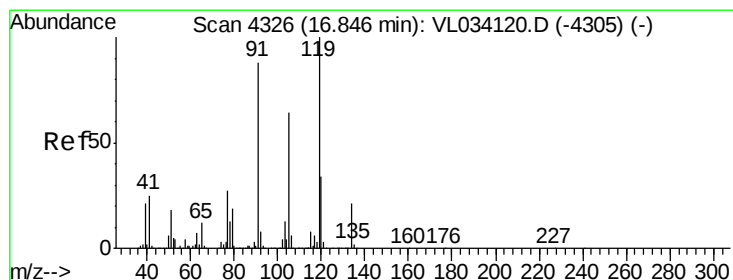
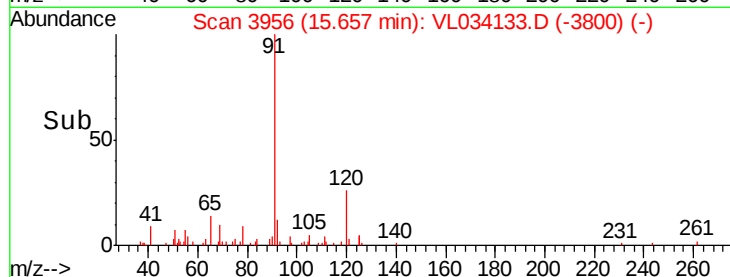
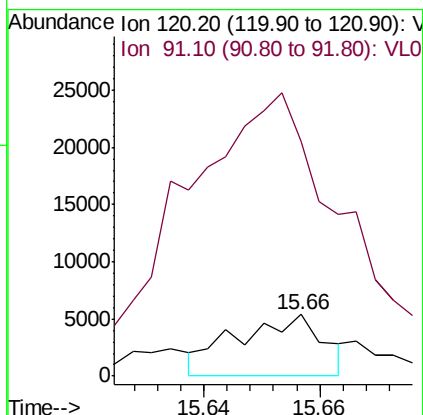
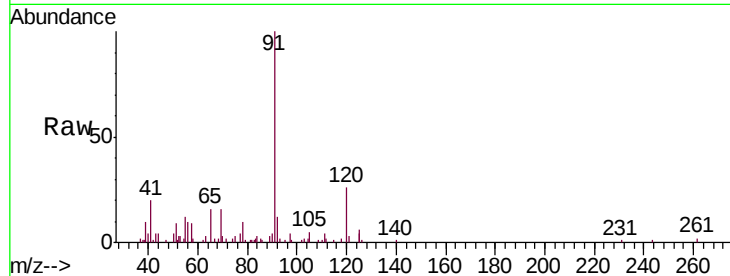




#64
n-propylbenzene
Concen: 0.065 ppbv
RT: 15.66 min Scan# 3956
Delta R.T. 0.00 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

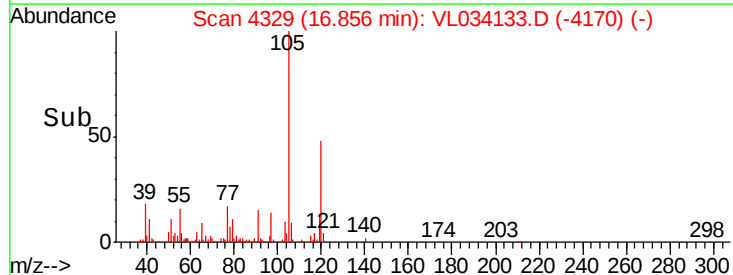
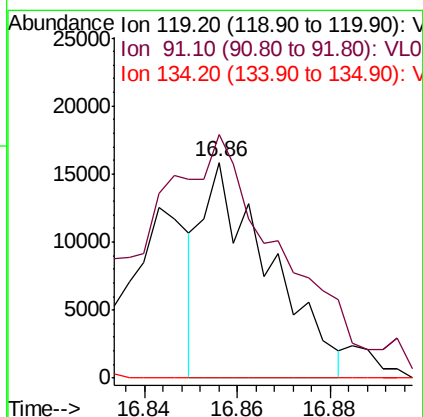
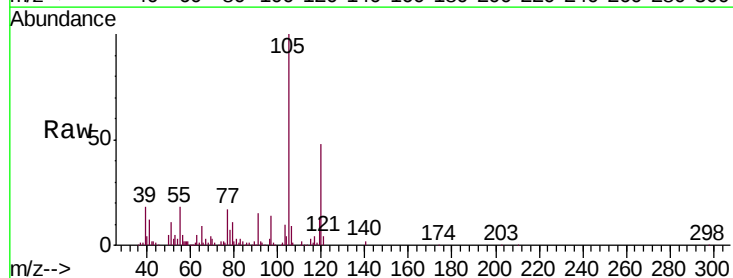
Instrument :
MSVOA_L
ClientSampled :
AMBIENTDL

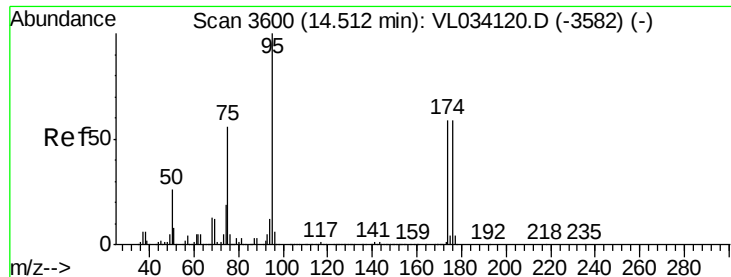
Tgt Ion:120 Resp: 5554
Ion Ratio Lower Upper
120 100
91 969.9 376.8 565.2#



#65
tert-Butylbenzene
Concen: 0.054 ppbv
RT: 16.86 min Scan# 4329
Delta R.T. 0.01 min
Lab File: VL034133.D
Acq: 5 Sep 2019 12:51

Tgt Ion:119 Resp: 15789
Ion Ratio Lower Upper
119 100
91 268.3 72.8 109.2#
134 0.0 15.8 23.8#

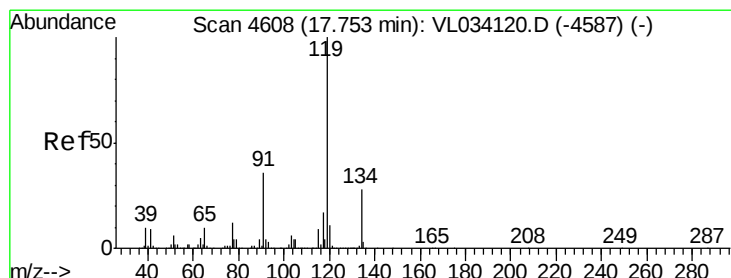
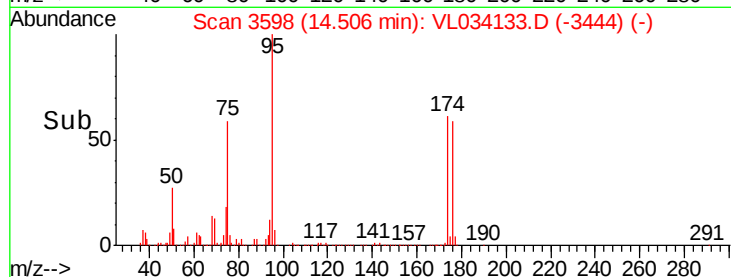
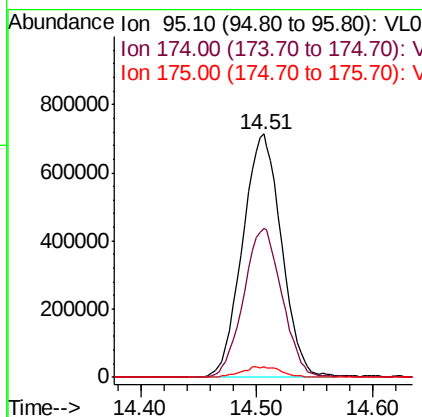
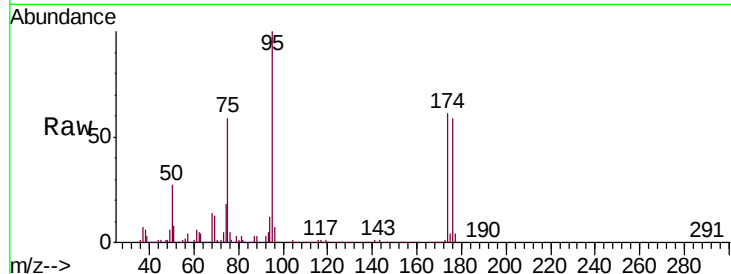




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.416 ppbv
 RT: 14.51 min Scan# 3598
 Delta R.T. -0.01 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

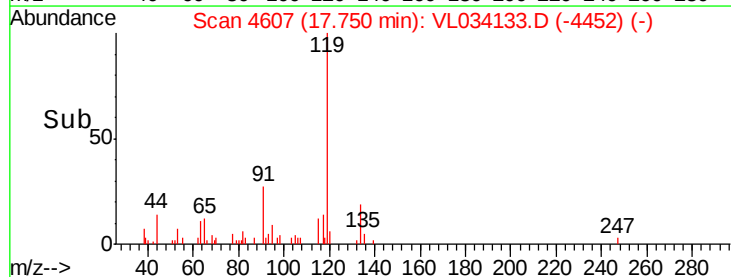
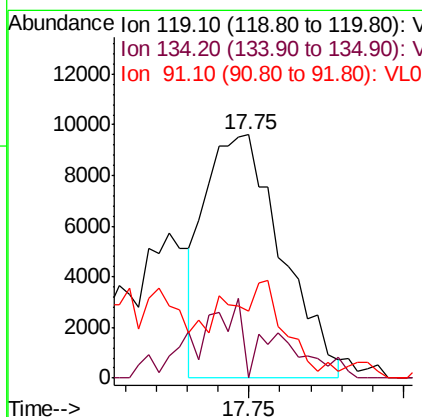
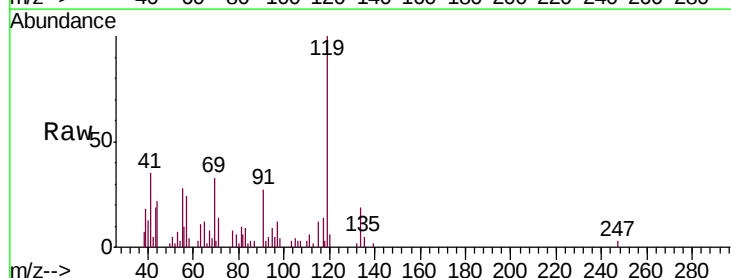
Instrument :
 MSVOA_L
 ClientSampleId :
 AMBIENTDL

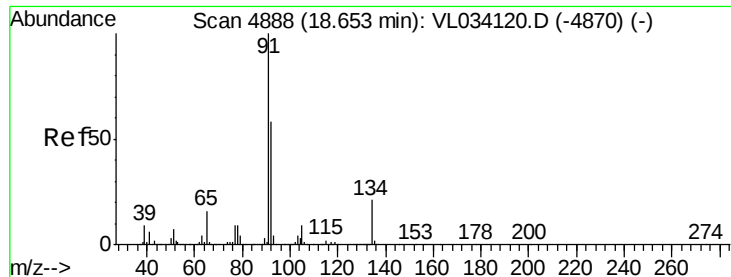
Tgt Ion: 95 Resp: 1668753
 Ion Ratio Lower Upper
 95 100
 174 60.6 48.1 72.1
 175 4.4 3.5 5.3



#69
 p-Isopropyltoluene
 Concen: 0.049 ppbv
 RT: 17.75 min Scan# 4607
 Delta R.T. -0.00 min
 Lab File: VL034133.D
 Acq: 5 Sep 2019 12:51

Tgt Ion: 119 Resp: 16606
 Ion Ratio Lower Upper
 119 100
 134 19.4 20.8 31.2#
 91 0.0 27.2 40.8#





#70

n-Butylbenzene

Concen: 0.050 ppbv

RT: 18.64 min Scan# 4885

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

AMBIENTDL

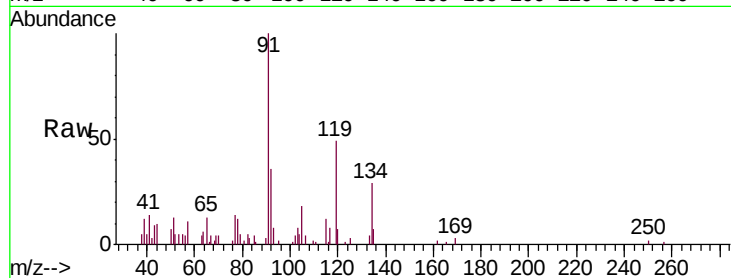
Tgt Ion: 91 Resp: 19114

Ion Ratio Lower Upper

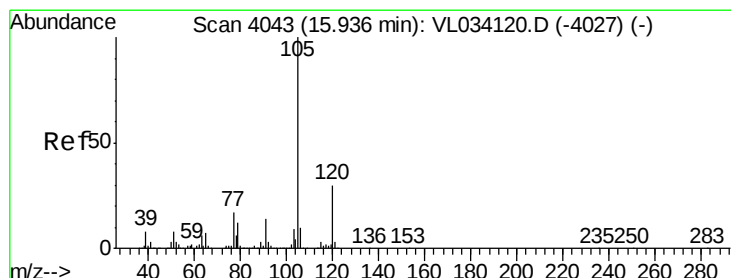
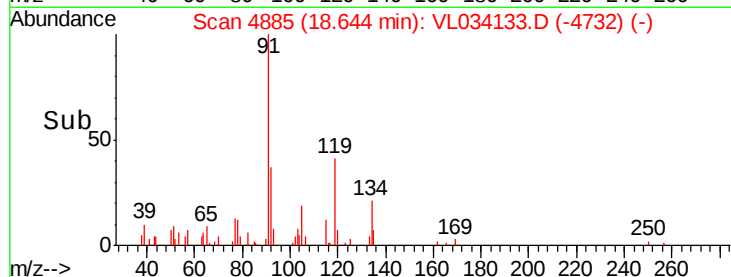
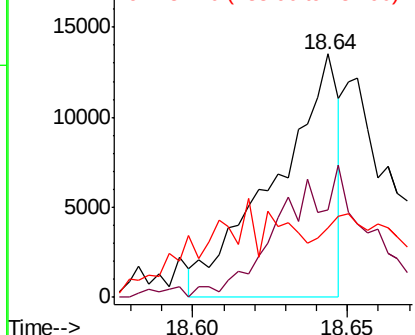
91 100

92 78.3 45.3 67.9#

134 0.0 17.4 26.0#



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0
Ion 134.20 (133.90 to 134.90): VL0



#72

4-Ethyltoluene

Concen: 0.139 ppbv

RT: 15.93 min Scan# 4040

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Tgt Ion: 105 Resp: 40897

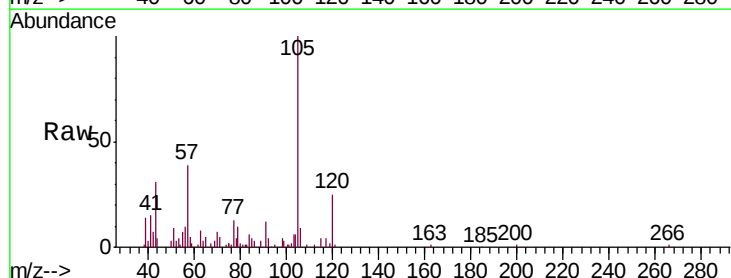
Ion Ratio Lower Upper

105 100

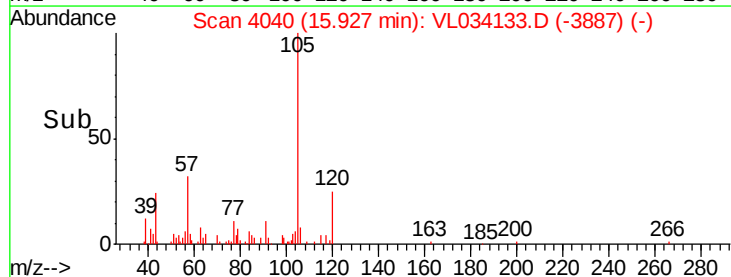
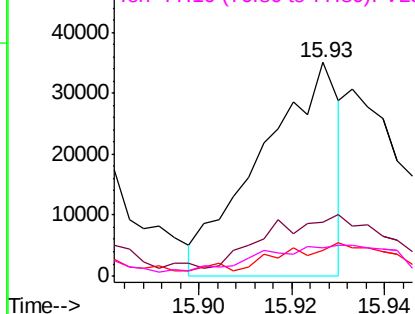
120 0.0 23.8 35.6#

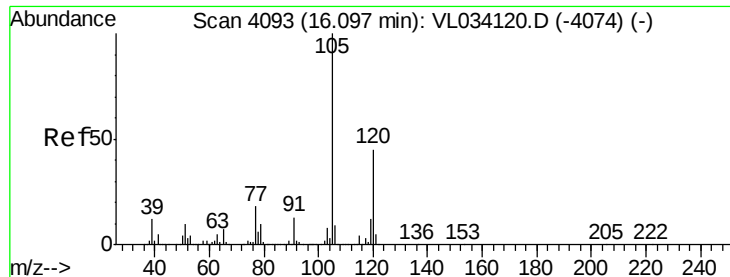
91 0.0 11.4 17.0#

77 0.0 12.6 18.8#



Abundance Ion 105.10 (104.80 to 105.80): VL0
Ion 120.20 (119.90 to 120.90): VL0
Ion 91.10 (90.80 to 91.80): VL0
Ion 77.10 (76.80 to 77.80): VL0





#73

1,3,5-Trimethylbenzene

Concen: 0.133 ppbv

RT: 16.08 min Scan# 4089

Delta R.T. -0.01 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Instrument :

MSVOA_L

ClientSampleId :

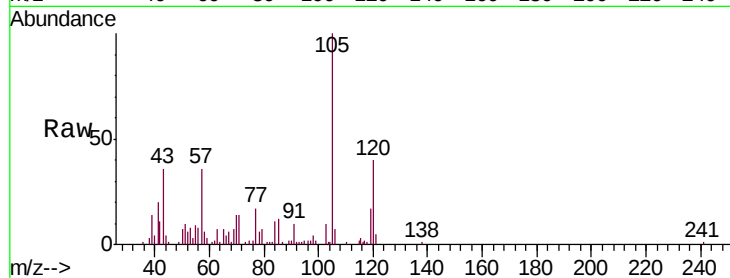
AMBIENTDL

Tgt Ion:105 Resp: 37966

Ion Ratio Lower Upper

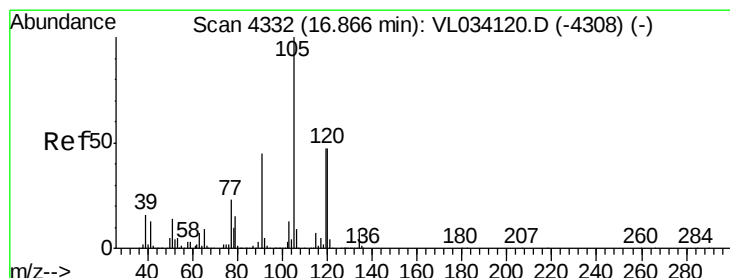
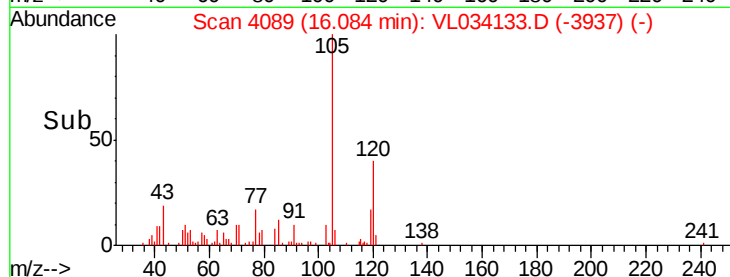
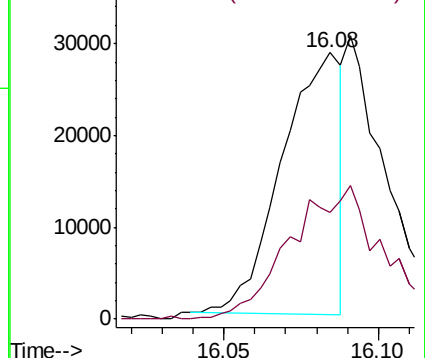
105 100

120 46.4 35.8 53.8



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: 0.983 ppbv

RT: 16.85 min Scan# 4327

Delta R.T. -0.02 min

Lab File: VL034133.D

Acq: 5 Sep 2019 12:51

Tgt Ion:105 Resp: 289675

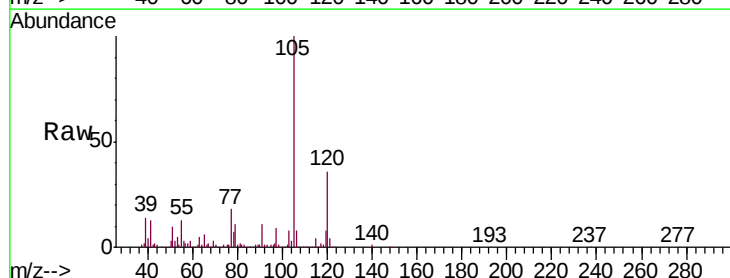
Ion Ratio Lower Upper

105 100

120 35.5 37.7 56.5#

91 11.8 36.2 54.2#

77 18.0 18.5 27.7#



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

