

Data File : VL034135.D
Acq On : 5 Sep 2019 14:11
Operator : SY/AP
Sample : K4612-02DL 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SOILDL

Quant Time: Sep 06 04:13:48 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	5.71	49	1013868	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.23	114	1883703	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.17	117	1860065	10.00	ppbv	0.00

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.51 95 1596859 10.50 ppbv 0.00
Spiked Amount 10.000 Range 65 - 135 Recovery = 105.00%

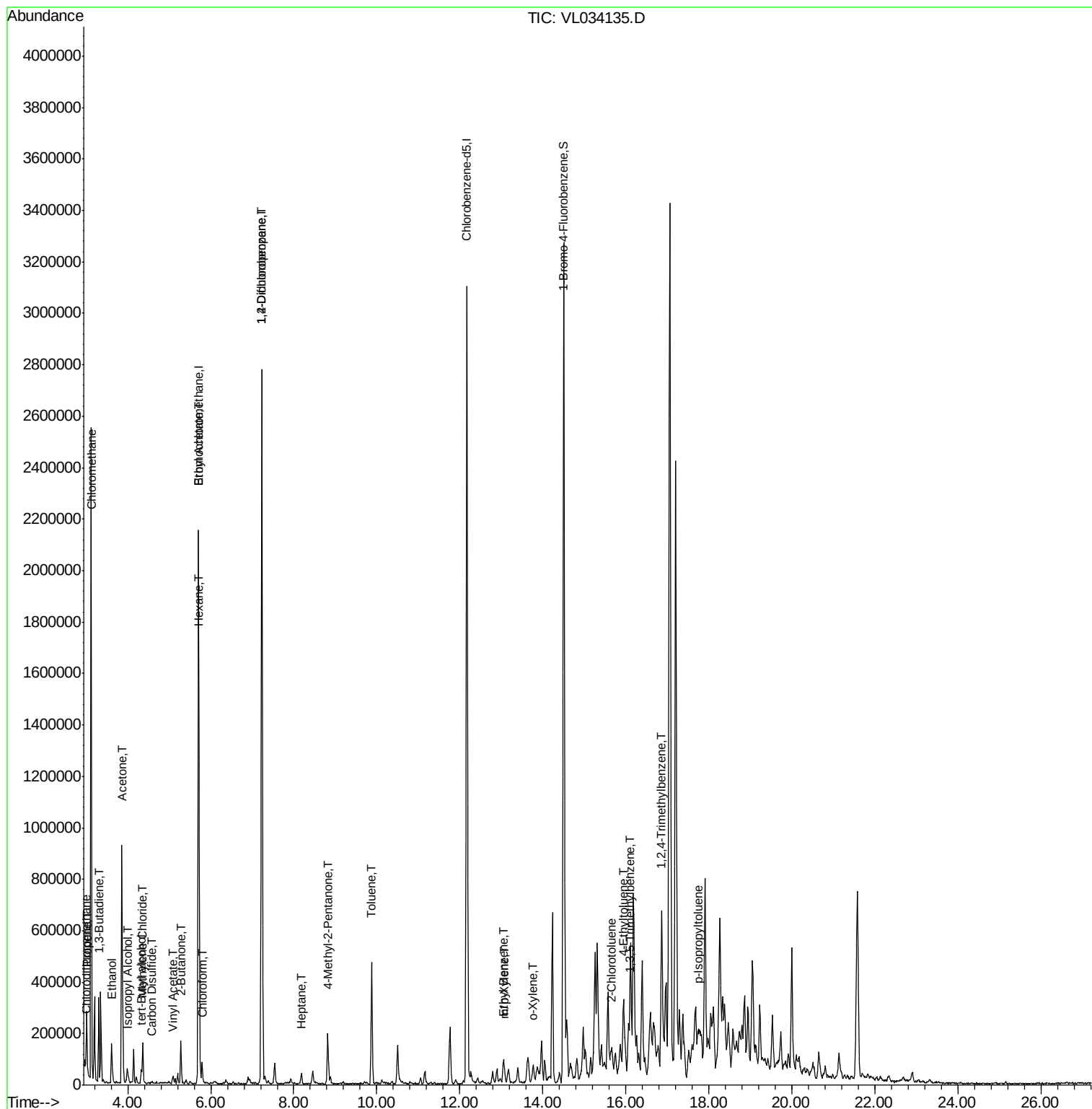
Target Compounds					Qvalue
3) Chlorodifluoromethane	2.98	51	14469	0.128 ppbv	96
4) Chloromethane	3.13	50	2541	0.036 ppbv #	76
9) Propene	3.01	41	67527	1.068 ppbv #	77
10) Heptane	8.18	43	20153	0.123 ppbv	99
13) Ethanol	3.61	45	158684	12.810 ppbv	99
15) Acetone	3.86	43	945039	7.734 ppbv	98
16) 1,3-Butadiene	3.30	39	86747	1.402 ppbv #	16
17) tert-Butyl alcohol	4.32	59	19814	0.223 ppbv #	70
19) Isopropyl Alcohol	4.01	45	4428	0.054 ppbv #	97
20) Methylene Chloride	4.36	84	43686	1.081 ppbv	94
23) Vinyl Acetate	5.10	43	7162	0.035 ppbv #	17
25) Ethyl Acetate	5.71	43	251983	0.939 ppbv #	95
26) Hexane	5.72	57	49393	0.414 ppbv #	1
27) Carbon Disulfide	4.57	76	5851	0.054 ppbv #	62
29) Chloroform	5.79	83	45527	0.283 ppbv	85
34) 2-Butanone	5.28	43	188159	1.039 ppbv	97
39) 1,2-Dichloropropane	7.23	63	569119	6.176 ppbv #	24
50) 4-Methyl-2-Pentanone	8.82	43	92662	0.335 ppbv #	58
53) Toluene	9.88	91	351867	1.478 ppbv	96
58) Ethyl Benzene	13.04	91	17298	0.057 ppbv	90
59) m/p-Xylene	13.07	91	21359	0.086 ppbv #	32
60) o-Xylene	13.78	91	23786	0.096 ppbv #	33
69) p-Isopropyltoluene	17.74	119	15164	0.047 ppbv #	44
71) 2-Chlorotoluene	15.66	91	10589	0.040 ppbv	87
72) 4-Ethyltoluene	15.93	105	25165	0.090 ppbv #	86
73) 1,3,5-Trimethylbenzene	16.08	105	12660	0.047 ppbv	90
74) 1,2,4-Trimethylbenzene	16.85	105	45292	0.162 ppbv #	65

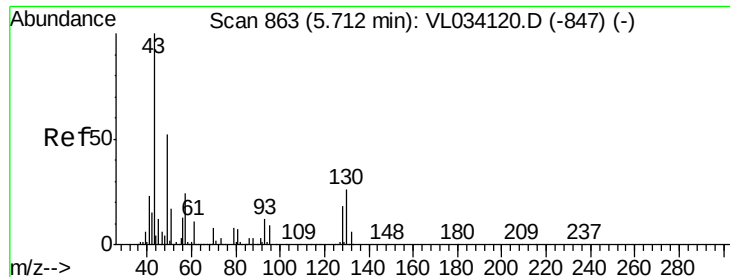
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.71 min Scan# 861

Delta R.T. -0.01 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

SOILDL

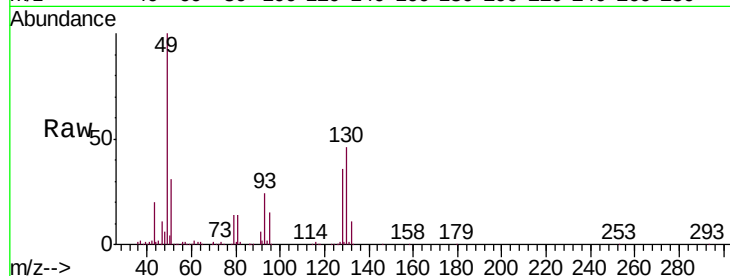
Tgt Ion: 49 Resp: 1013868

Ion Ratio Lower Upper

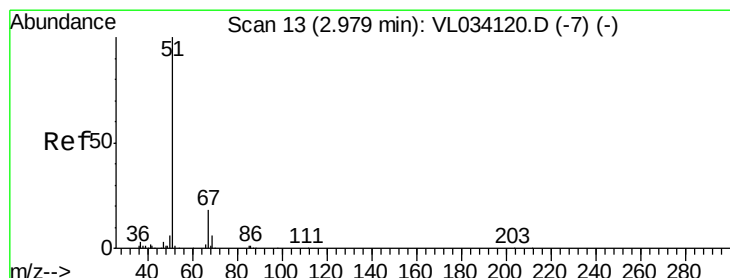
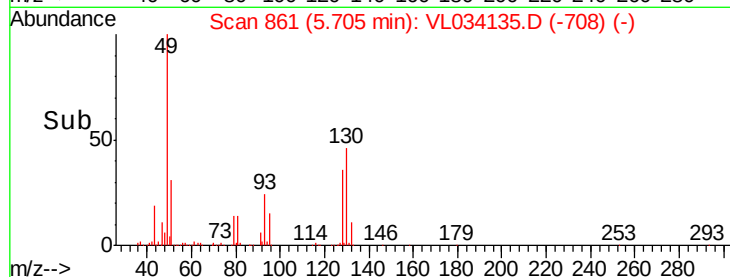
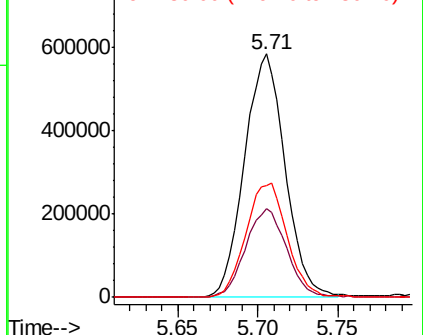
49 100

128 37.2 18.4 55.0

130 48.3 23.5 70.6



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



#3

Chlorodifluoromethane

Concen: 0.128 ppbv

RT: 2.98 min Scan# 14

Delta R.T. 0.00 min

Lab File: VL034135.D

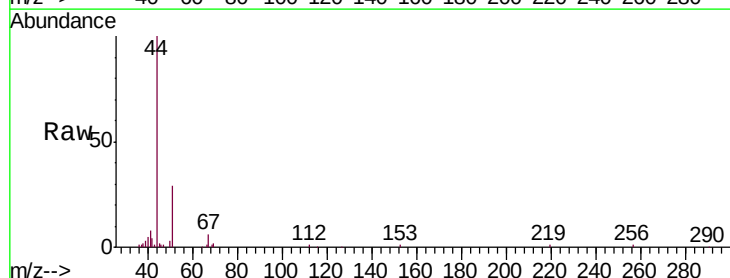
Acq: 5 Sep 2019 14:11

Tgt Ion: 51 Resp: 14469

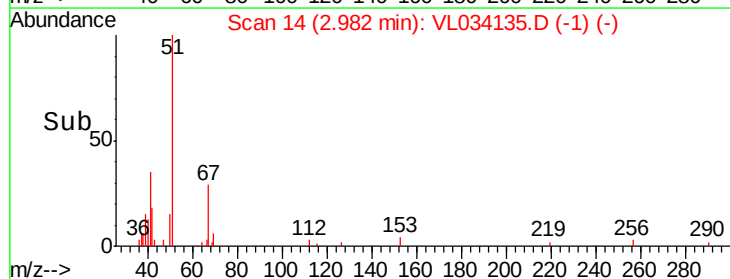
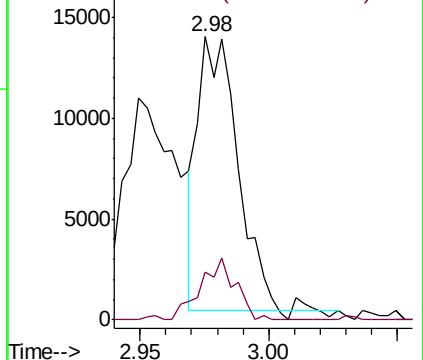
Ion Ratio Lower Upper

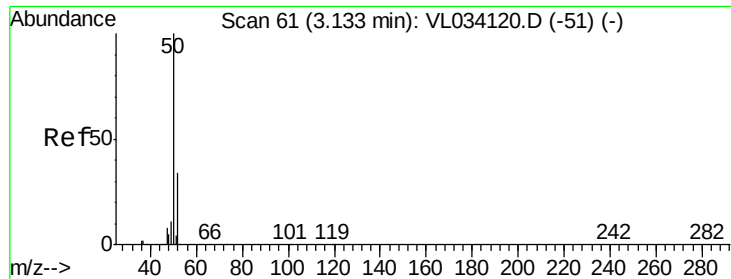
51 100

67 19.8 14.2 21.4



Abundance Ion 51.00 (50.70 to 51.70): VL0
Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.036 ppbv

RT: 3.13 min Scan# 60

Delta R.T. -0.00 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampled :

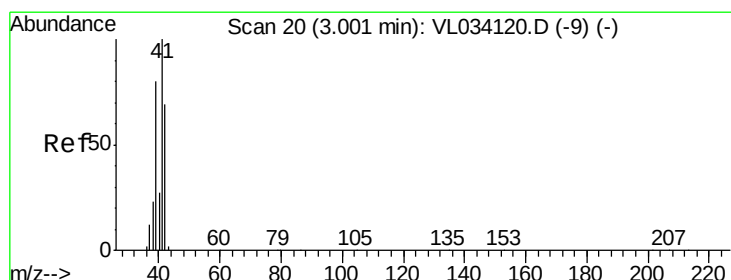
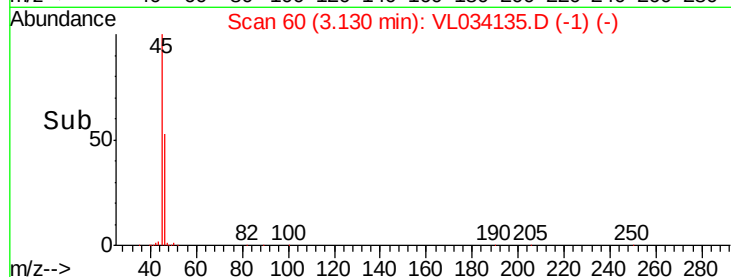
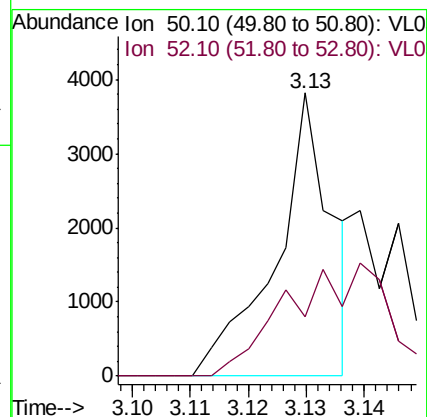
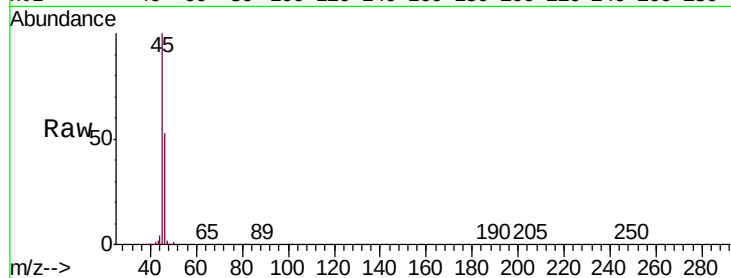
SOILD

Tgt Ion: 50 Resp: 2541

Ion Ratio Lower Upper

50 100

52 20.8 27.4 41.2#



#9

Propene

Concen: 1.068 ppbv

RT: 3.01 min Scan# 23

Delta R.T. 0.01 min

Lab File: VL034135.D

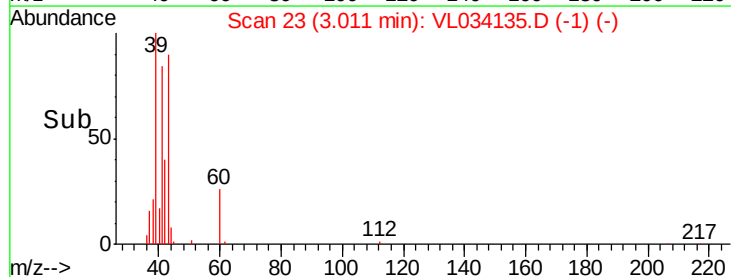
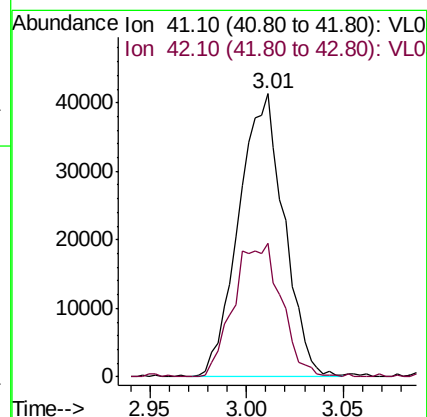
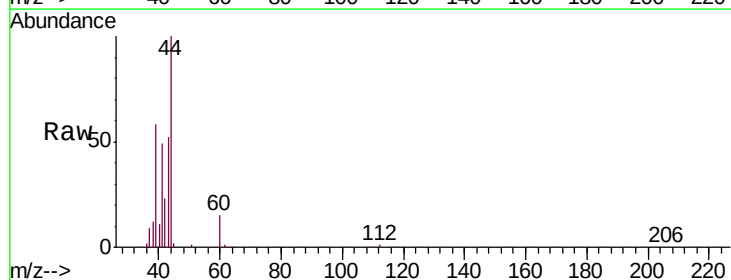
Acq: 5 Sep 2019 14:11

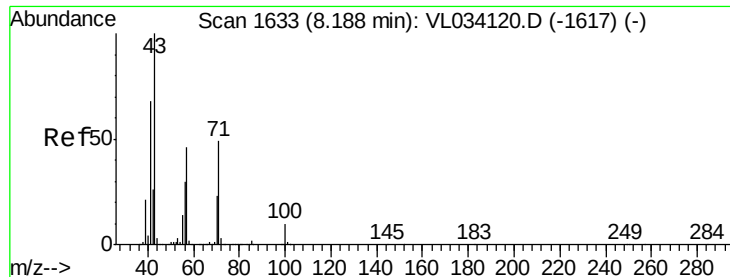
Tgt Ion: 41 Resp: 67527

Ion Ratio Lower Upper

41 100

42 49.5 54.6 81.8#

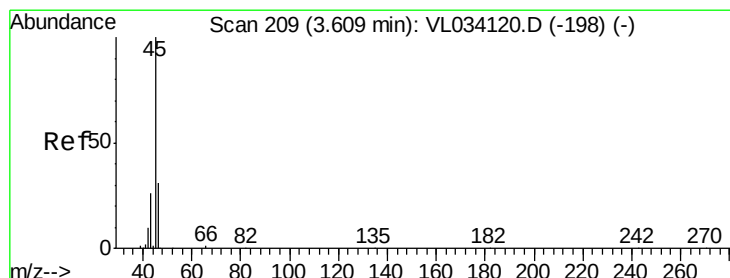
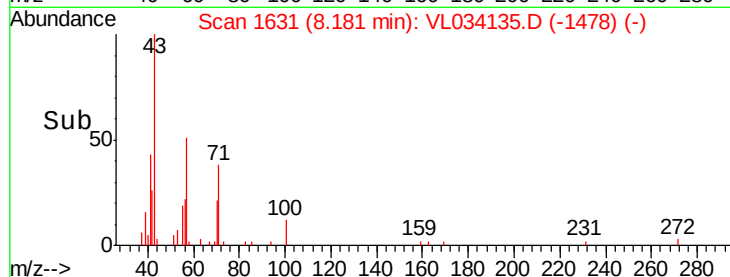
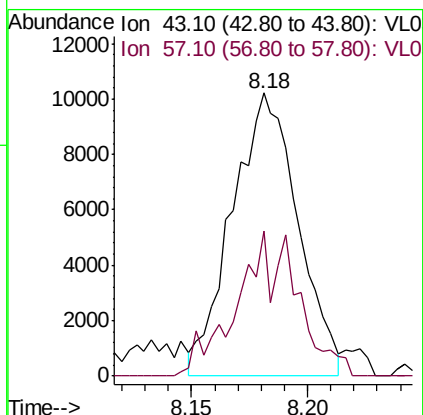
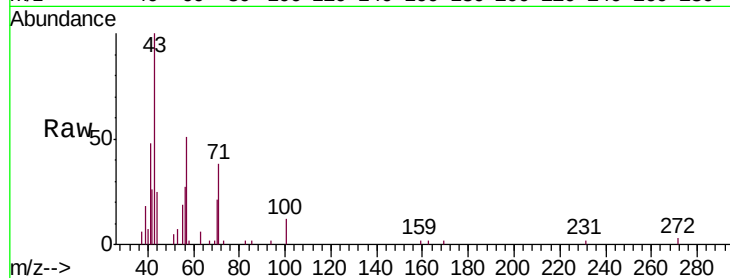




#10
Heptane
Concen: 0.123 ppbv
RT: 8.18 min Scan# 1631
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

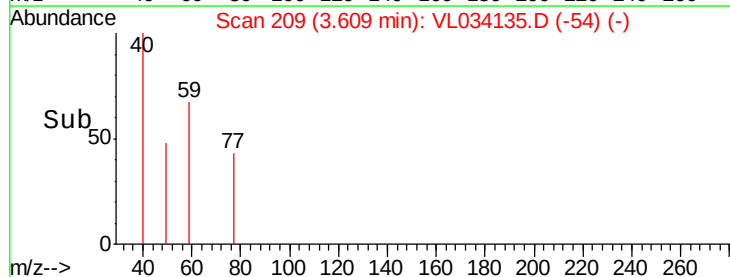
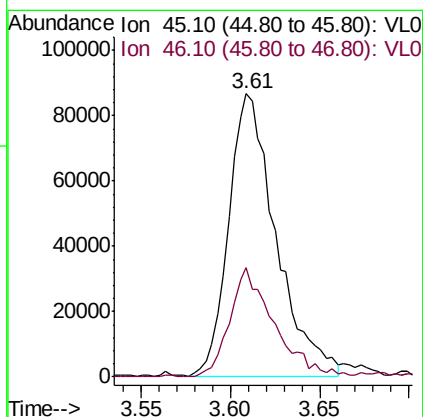
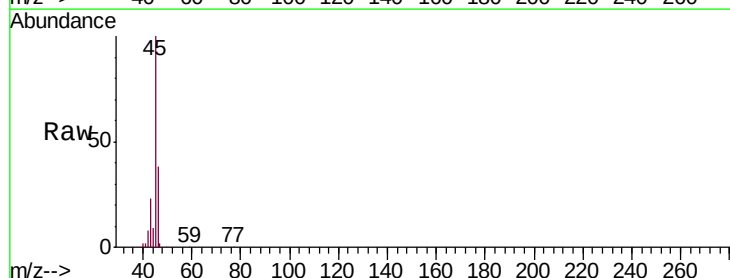
Instrument :
MSVOA_L
ClientSampleId :
SOILD_L

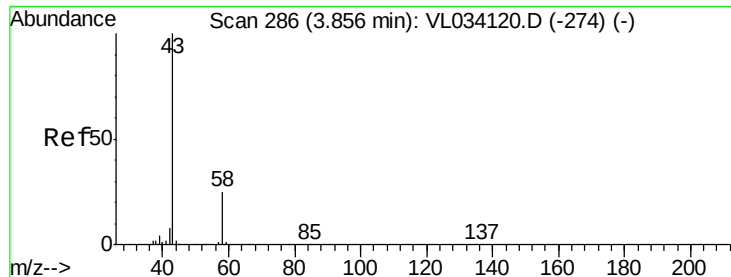
Tgt Ion: 43 Resp: 20153
Ion Ratio Lower Upper
43 100
57 46.9 38.1 57.1



#13
Ethanol
Concen: 12.810 ppbv
RT: 3.61 min Scan# 209
Delta R.T. -0.00 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 45 Resp: 158684
Ion Ratio Lower Upper
45 100
46 38.2 15.0 60.0





#15

Acetone

Concen: 7.734 ppbv

RT: 3.86 min Scan# 286

Delta R.T. -0.00 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

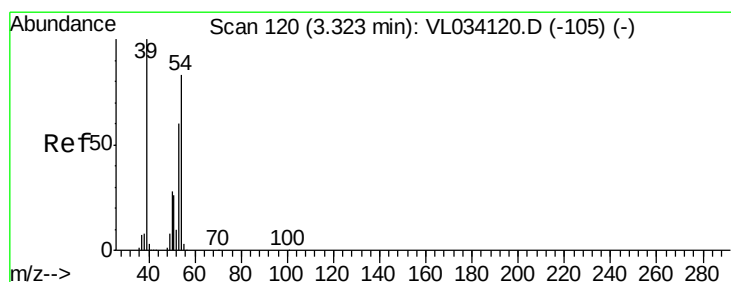
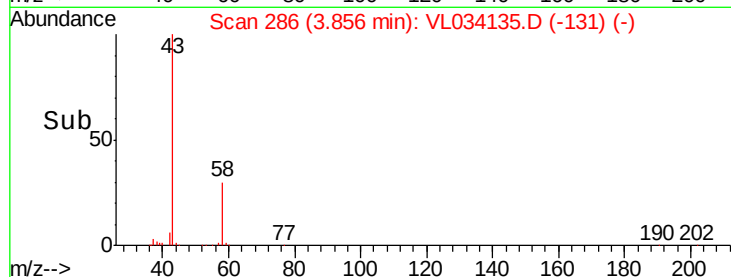
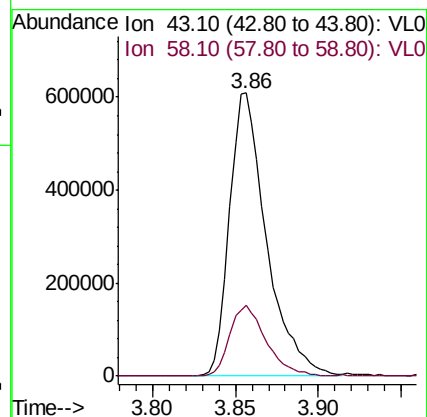
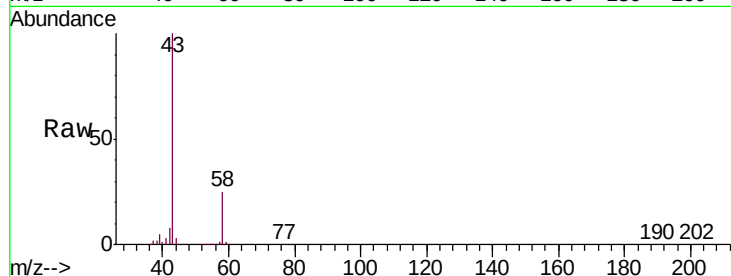
SOILDL

Tgt Ion: 43 Resp: 945039

Ion Ratio Lower Upper

43 100

58 24.6 20.6 30.8



#16

1,3-Butadiene

Concen: 1.402 ppbv

RT: 3.30 min Scan# 113

Delta R.T. -0.02 min

Lab File: VL034135.D

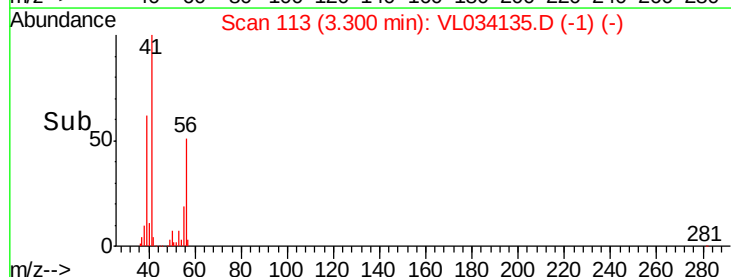
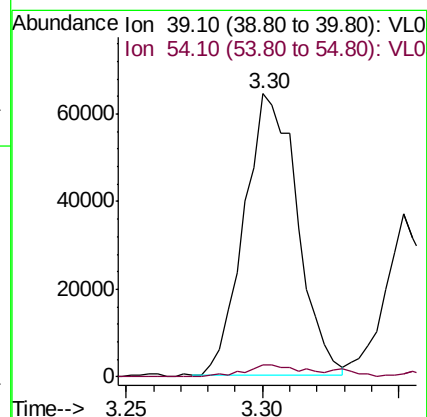
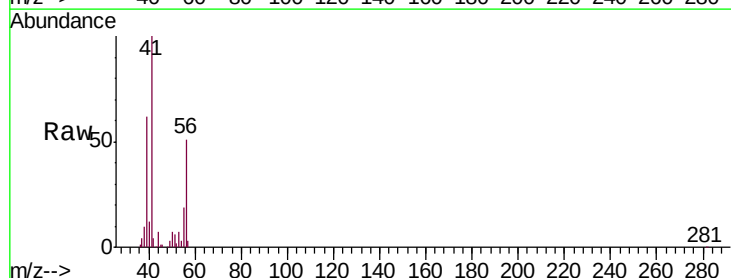
Acq: 5 Sep 2019 14:11

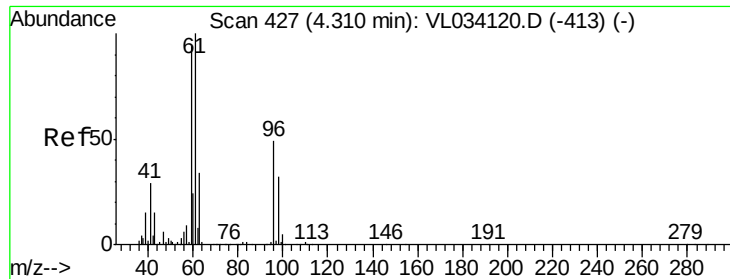
Tgt Ion: 39 Resp: 86747

Ion Ratio Lower Upper

39 100

54 5.9 63.5 95.3#

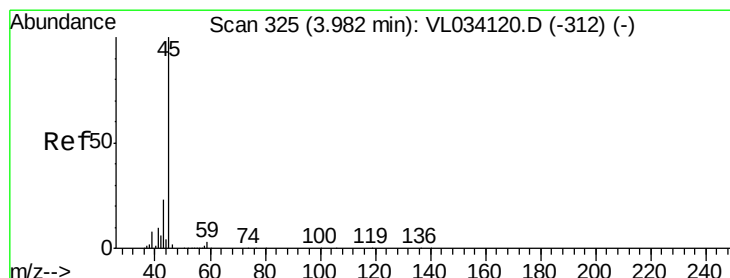
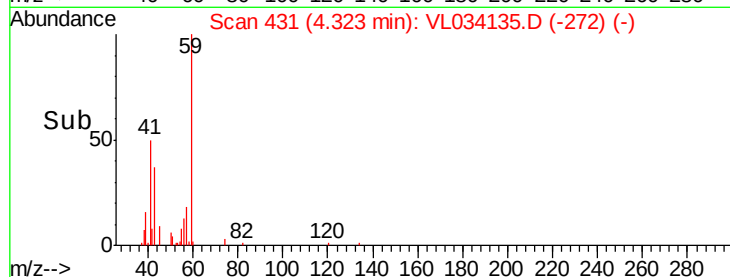
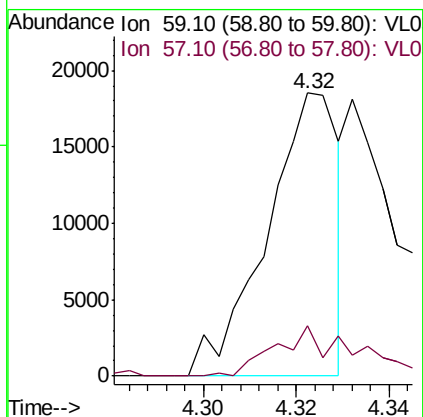
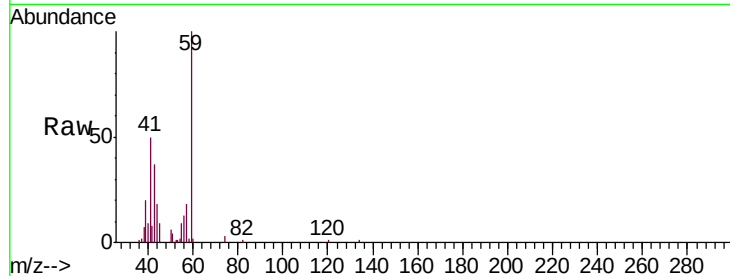




#17
 tert-Butyl alcohol
 Concen: 0.223 ppbv
 RT: 4.32 min Scan# 431
 Delta R.T. 0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

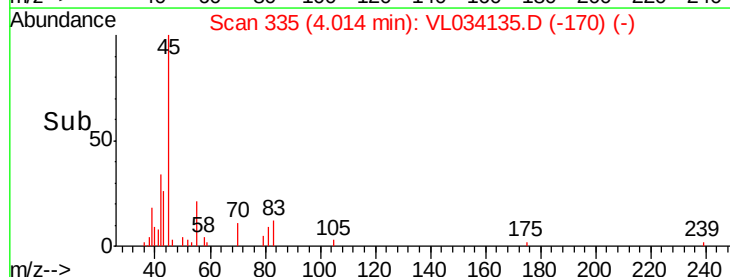
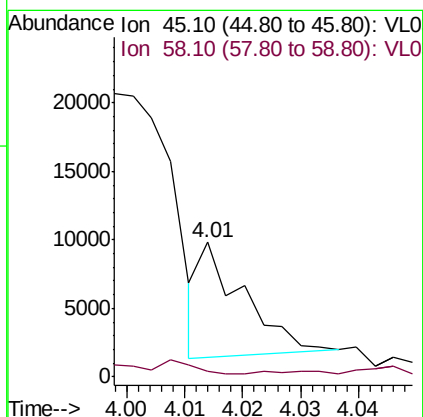
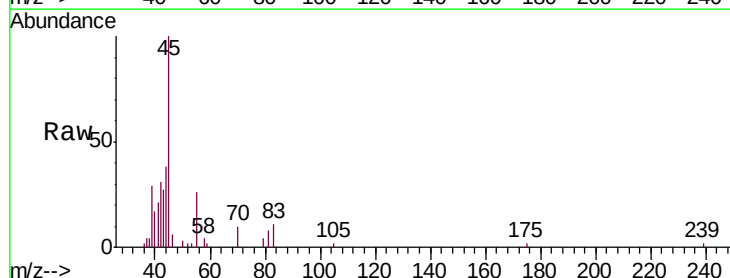
Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD

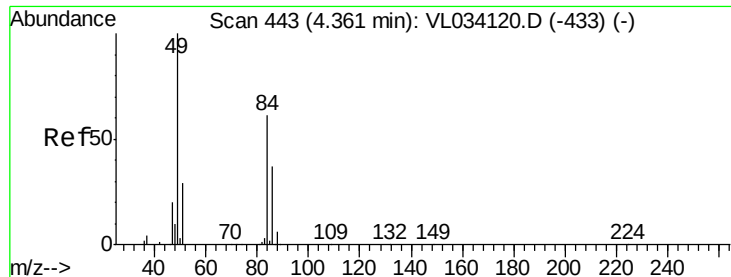
Tgt Ion: 59 Resp: 19814
 Ion Ratio Lower Upper
 59 100
 57 22.0 8.6 12.8#



#19
 Isopropyl Alcohol
 Concen: 0.054 ppbv
 RT: 4.01 min Scan# 335
 Delta R.T. 0.03 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion: 45 Resp: 4428
 Ion Ratio Lower Upper
 45 100
 58 0.0 1.0 1.6#

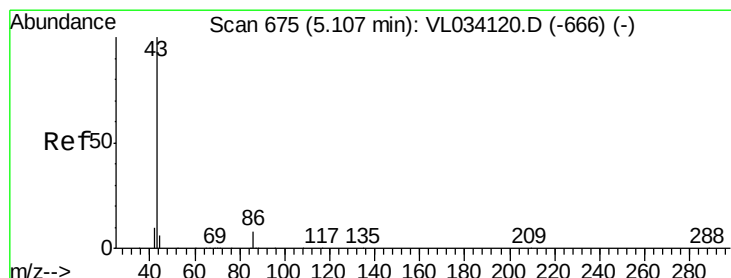
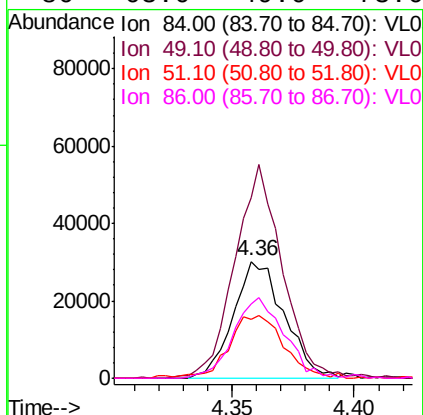
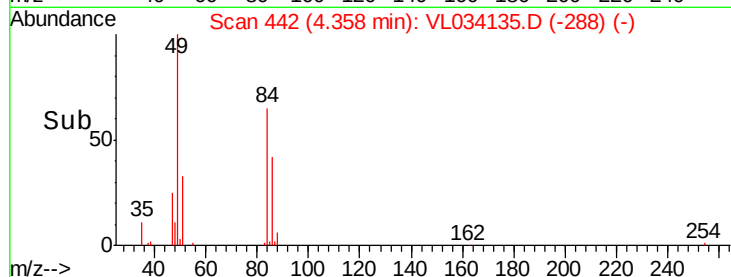
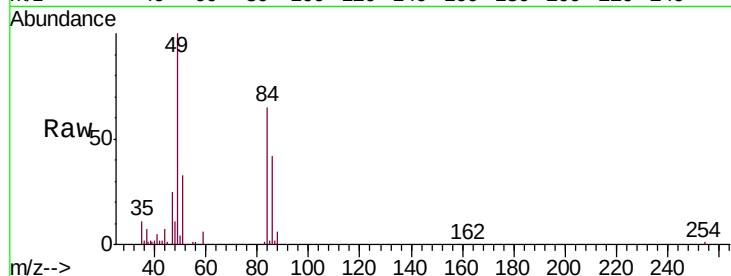




#20
Methylene Chloride
Concen: 1.081 ppbv
RT: 4.36 min Scan# 442
Delta R.T. -0.00 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

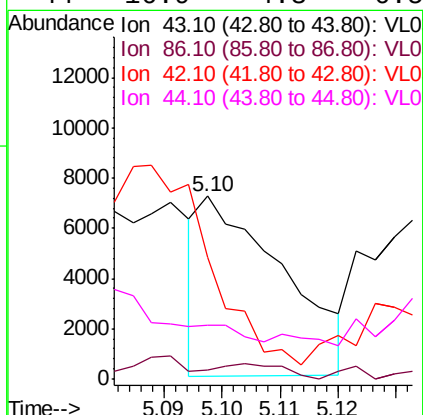
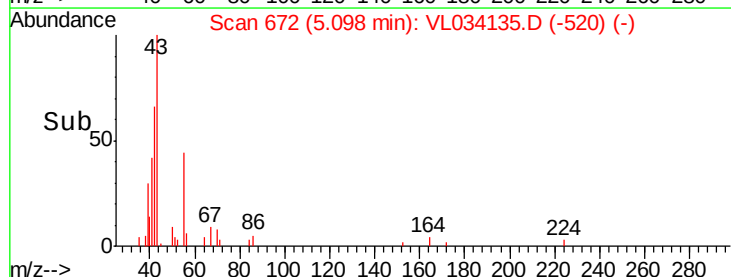
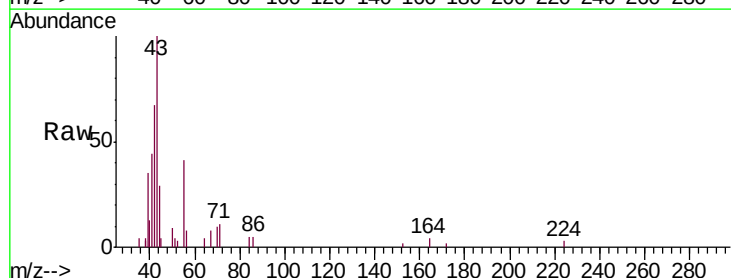
Instrument :
MSVOA_L
ClientSampleId :
SOILD_L

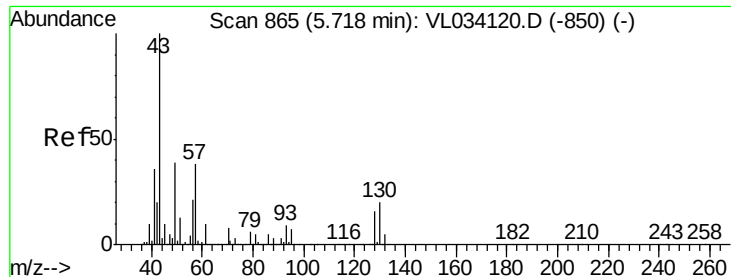
Tgt Ion:	84	Resp:	43686
Ion	Ratio	Lower	Upper
84	100		
49	151.2	131.0	196.6
51	46.4	38.1	57.1
86	63.0	49.0	73.6



#23
Vinyl Acetate
Concen: 0.035 ppbv
RT: 5.10 min Scan# 672
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion:	43	Resp:	7162
Ion	Ratio	Lower	Upper
43	100		
86	0.8	5.5	8.3#
42	67.0	8.2	12.4#
44	16.9	4.3	6.5#





#25

Ethyl Acetate

Concen: 0.939 ppbv

RT: 5.71 min Scan# 864

Delta R.T. -0.00 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

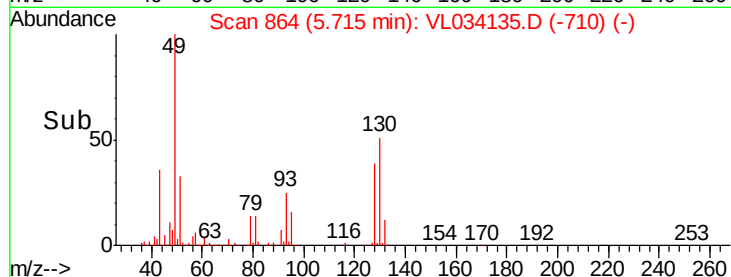
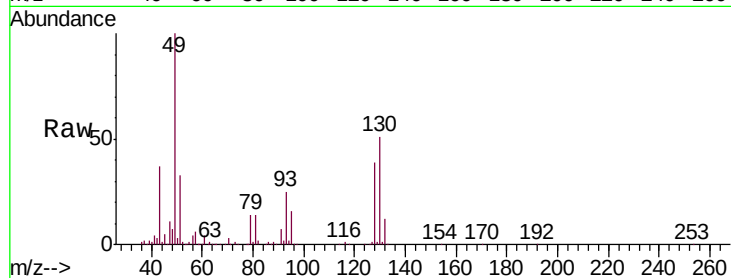
ClientSampleId :

SOILDL

Tgt Ion: 43 Resp: 251983

Ion Ratio Lower Upper

43	100		
45	13.4	8.2	12.4#
61	10.3	7.4	11.2
70	8.2	5.6	8.4



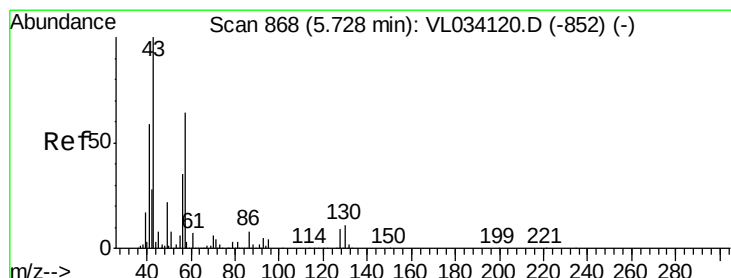
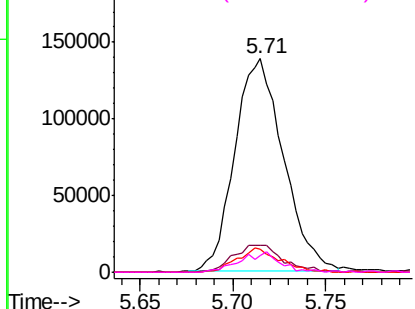
Abundance

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: 0.414 ppbv

RT: 5.72 min Scan# 867

Delta R.T. -0.00 min

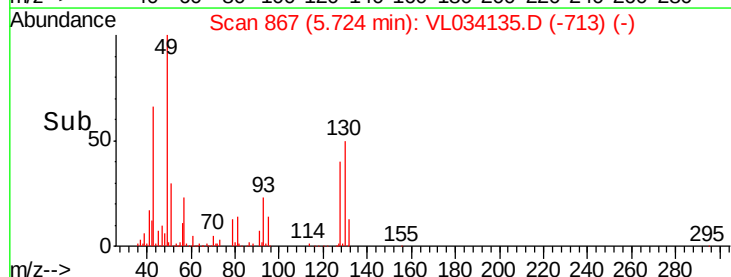
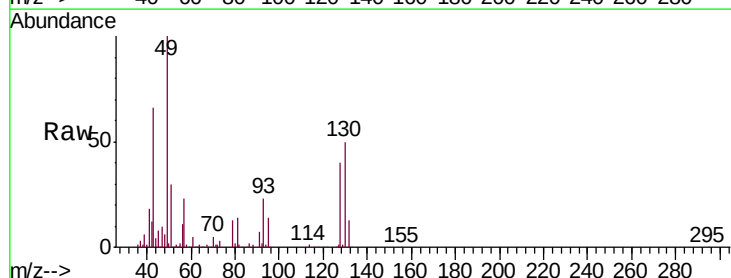
Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Tgt Ion: 57 Resp: 49393

Ion Ratio Lower Upper

57	100		
41	98.1	76.6	115.0
43	528.0	189.2	283.8#
56	56.1	43.0	64.4



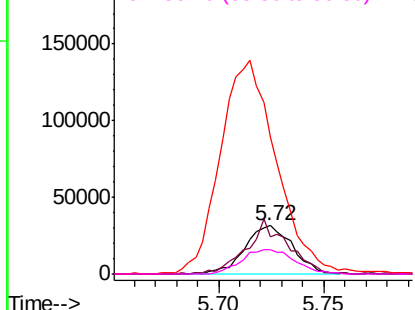
Abundance

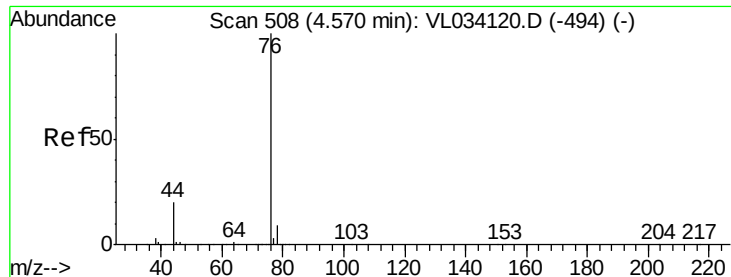
Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.054 ppbv

RT: 4.57 min Scan# 507

Delta R.T. -0.00 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

SOILDL

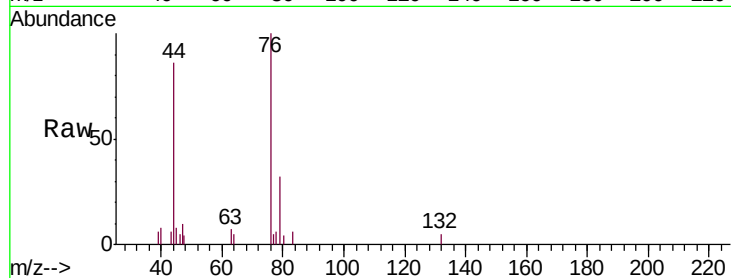
Tgt Ion: 76 Resp: 5851

Ion Ratio Lower Upper

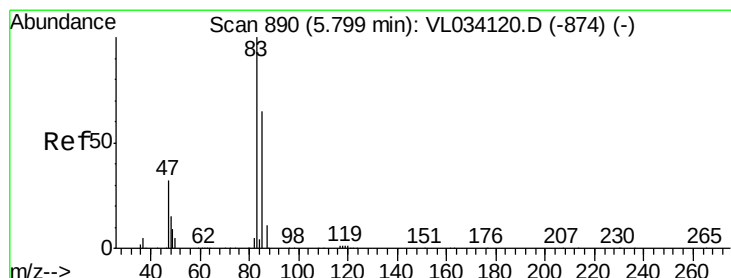
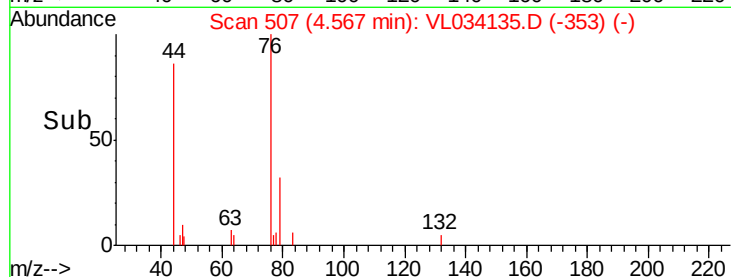
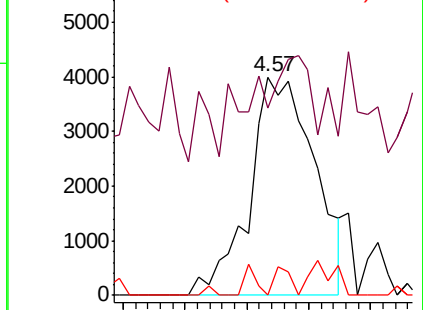
76 100

44 0.0 17.6 26.4#

78 3.0 7.3 10.9#



Abundance Ion 76.00 (75.70 to 76.70): VL0
Ion 44.10 (43.80 to 44.80): VL0
Ion 78.00 (77.70 to 78.70): VL0



#29

Chloroform

Concen: 0.283 ppbv

RT: 5.79 min Scan# 888

Delta R.T. -0.01 min

Lab File: VL034135.D

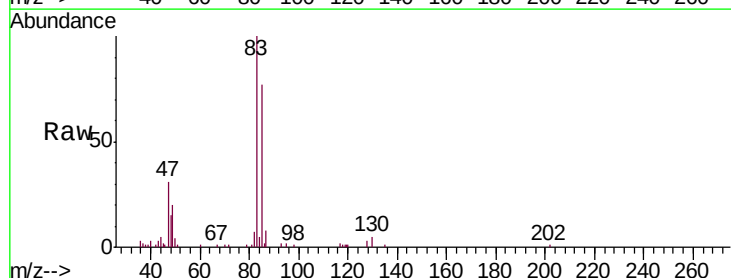
Acq: 5 Sep 2019 14:11

Tgt Ion: 83 Resp: 45527

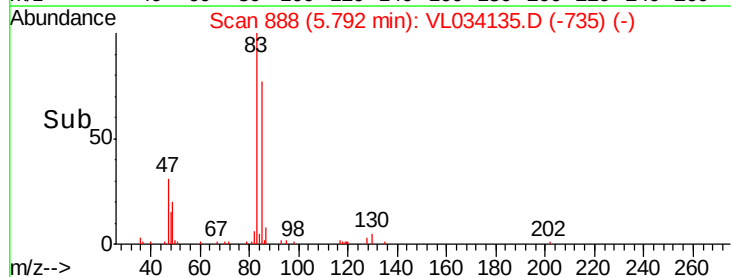
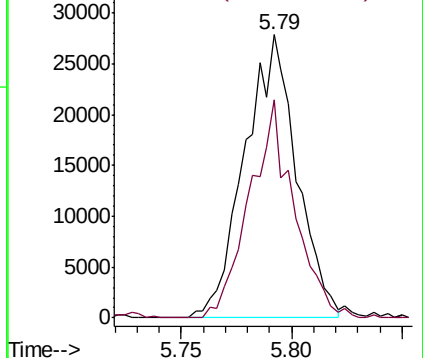
Ion Ratio Lower Upper

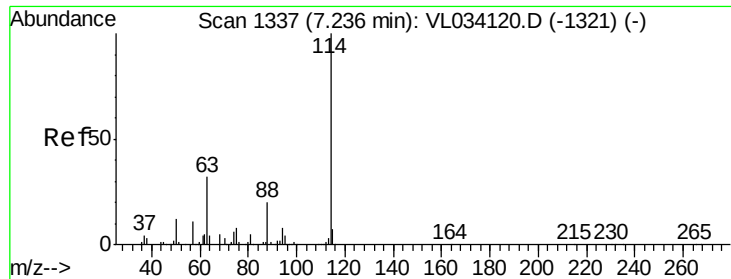
83 100

85 76.9 51.8 77.6



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

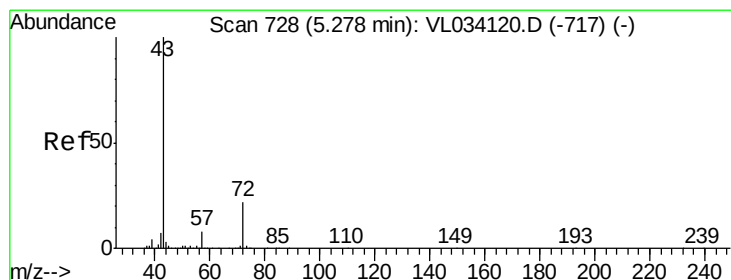
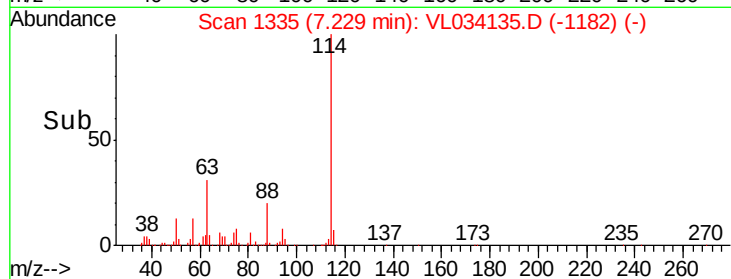
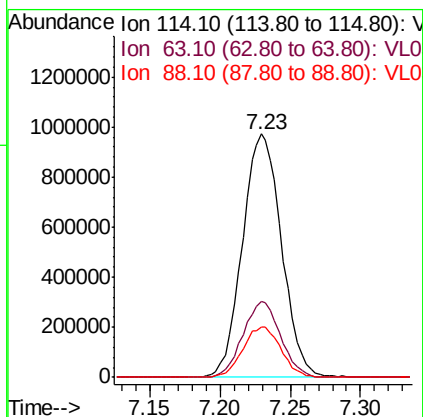
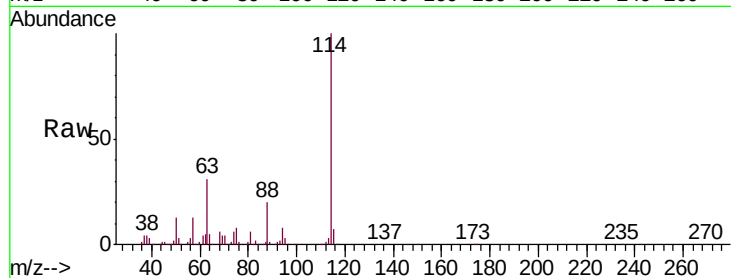




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.23 min Scan# 1335
 Delta R.T. -0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

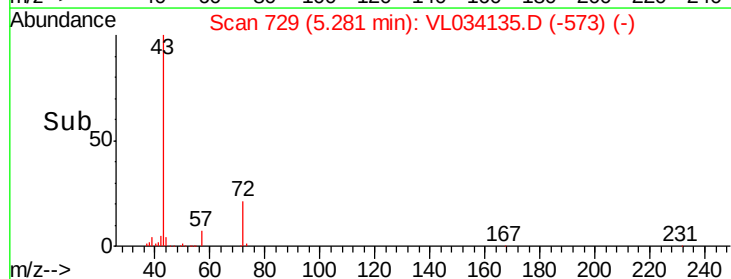
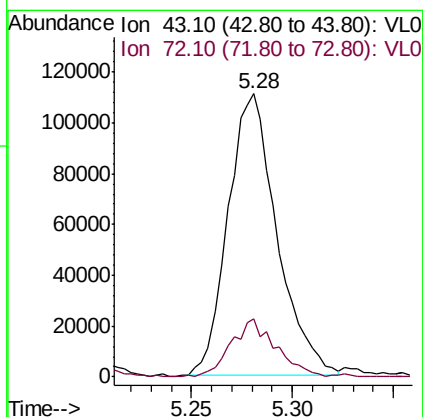
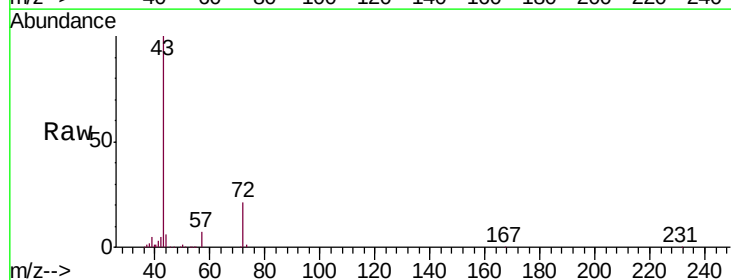
Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD

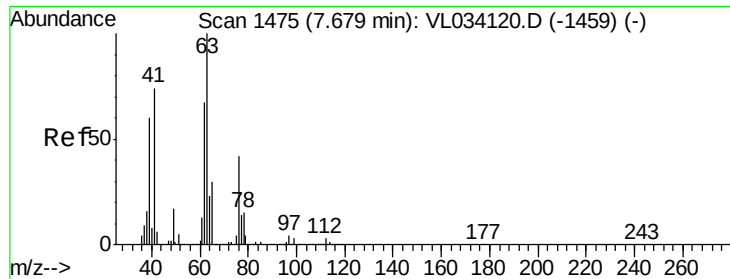
Tgt Ion:114 Resp: 1883703
 Ion Ratio Lower Upper
 114 100
 63 30.3 25.5 38.3
 88 20.3 16.8 25.2



#34
 2-Butanone
 Concen: 1.039 ppbv
 RT: 5.28 min Scan# 729
 Delta R.T. 0.00 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion: 43 Resp: 188159
 Ion Ratio Lower Upper
 43 100
 72 19.4 16.5 24.7

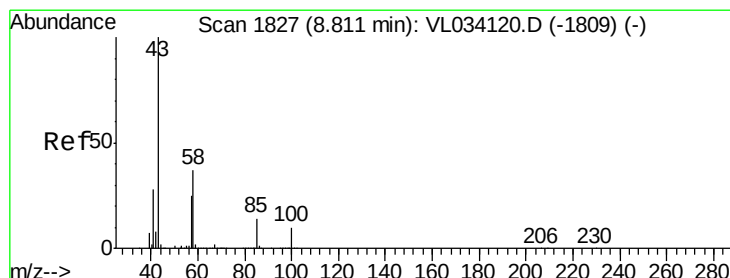
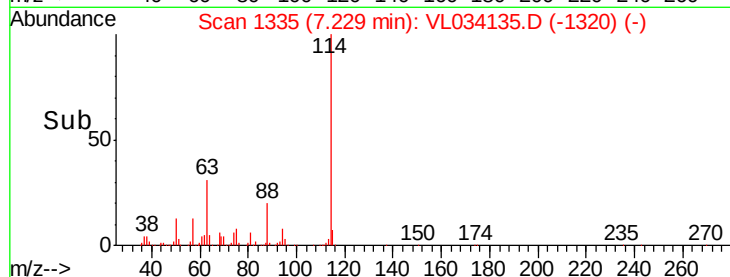
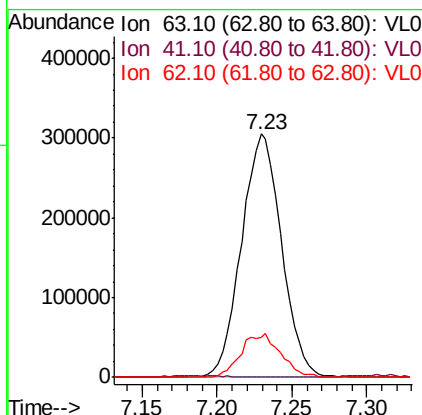
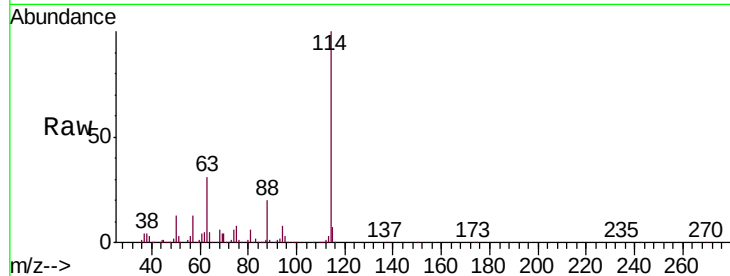




#39
 1,2-Dichloropropane
 Concen: 6.176 ppbv
 RT: 7.23 min Scan# 1335
 Delta R.T. -0.45 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

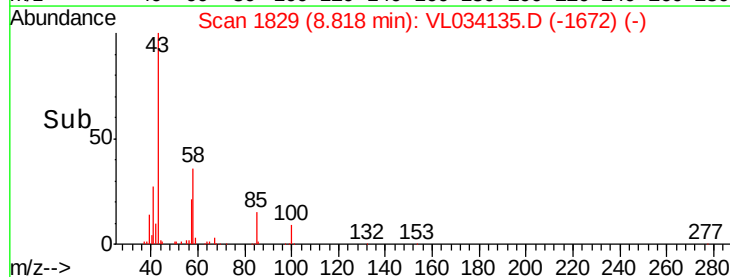
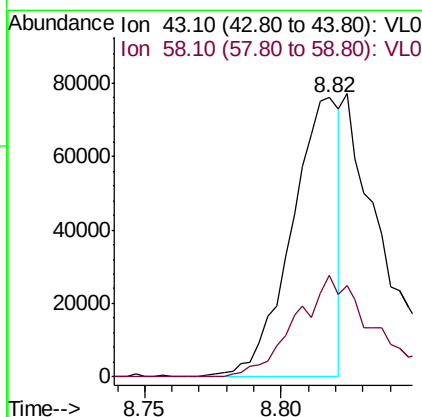
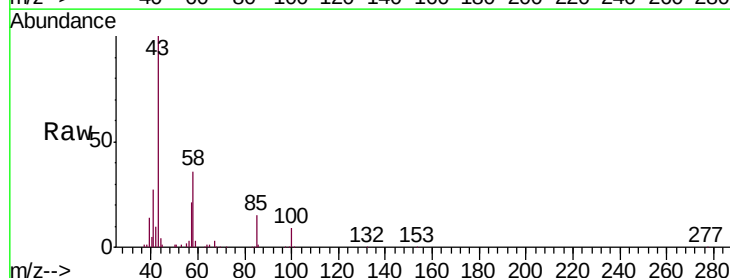
Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD

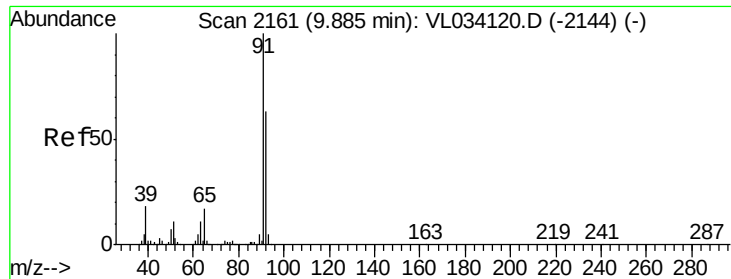
Tgt Ion	Ratio	Lower	Upper
63	100		
41	0.0	59.3	88.9#
62	16.6	53.8	80.6#



#50
 4-Methyl-2-Pentanone
 Concen: 0.335 ppbv
 RT: 8.82 min Scan# 1829
 Delta R.T. 0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion	Ratio	Lower	Upper
43	100		
58	59.9	28.5	42.7#





#53

Toluene

Concen: 1.478 ppbv

RT: 9.88 min Scan# 2159

Delta R.T. -0.01 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

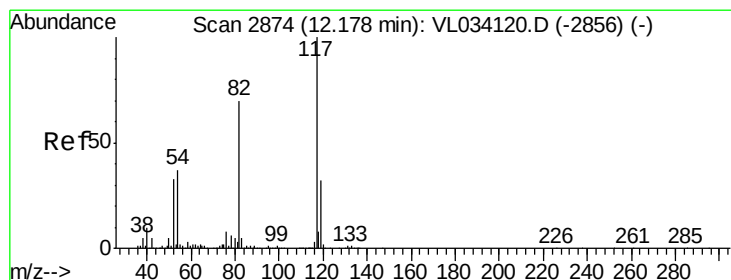
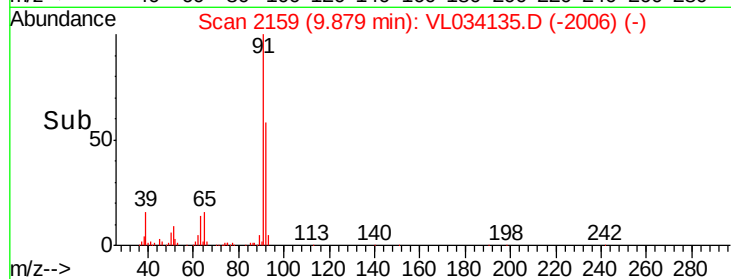
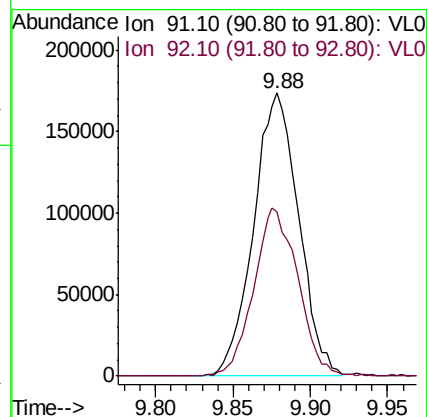
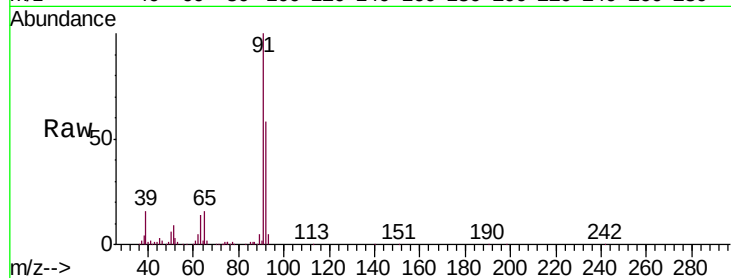
SOILD

Tgt Ion: 91 Resp: 351867

Ion Ratio Lower Upper

91 100

92 58.3 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: VL034135.D

Acq: 5 Sep 2019 14:11

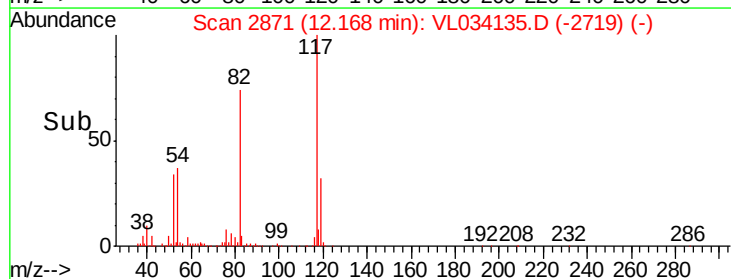
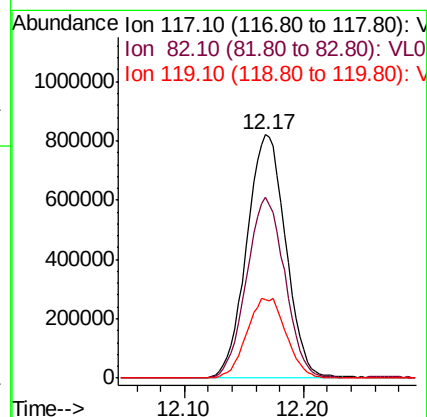
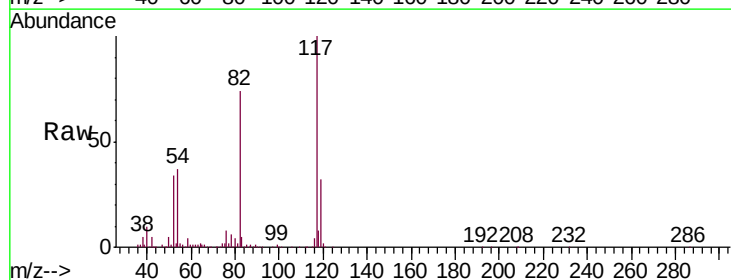
Tgt Ion: 117 Resp: 1860065

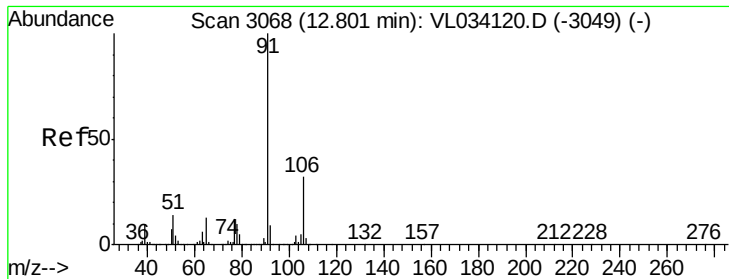
Ion Ratio Lower Upper

117 100

82 73.3 55.8 83.6

119 33.3 43.1 64.7#





#58

Ethyl Benzene

Concen: 0.057 ppbv

RT: 13.04 min Scan# 3141

Delta R.T. 0.23 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

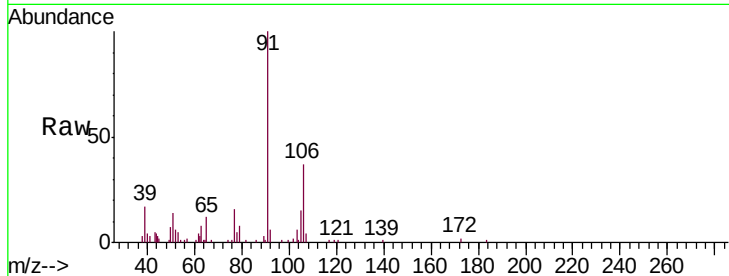
SOILDL

Tgt Ion: 91 Resp: 17298

Ion Ratio Lower Upper

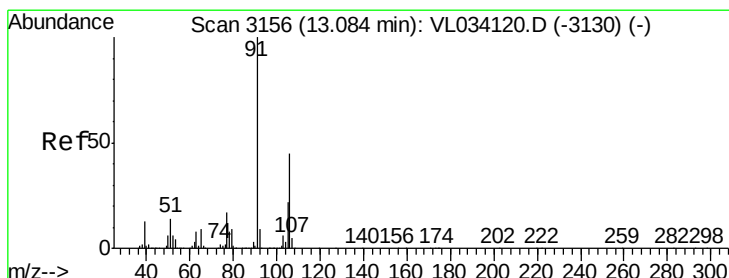
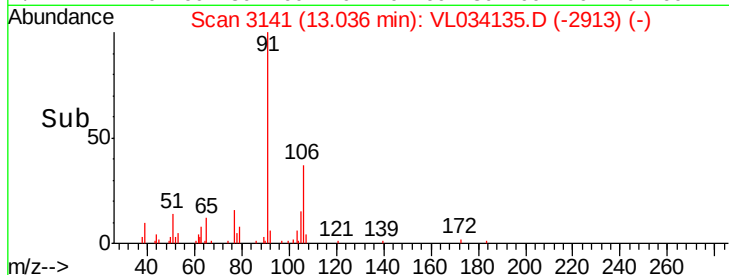
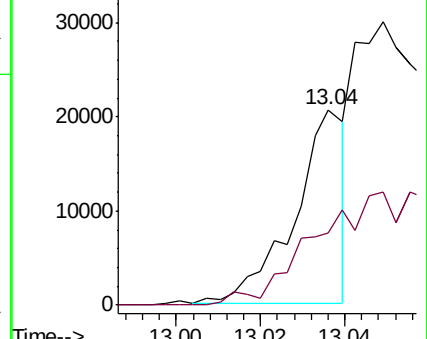
91 100

106 37.4 25.3 37.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.086 ppbv

RT: 13.07 min Scan# 3152

Delta R.T. -0.01 min

Lab File: VL034135.D

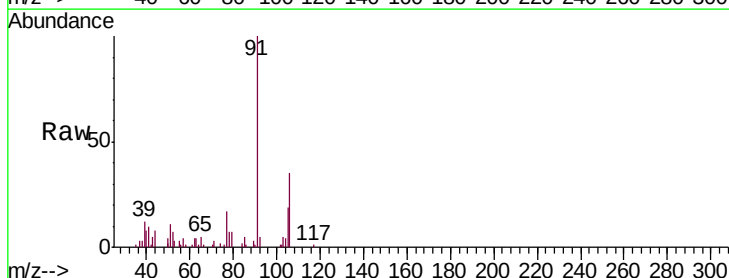
Acq: 5 Sep 2019 14:11

Tgt Ion: 91 Resp: 21359

Ion Ratio Lower Upper

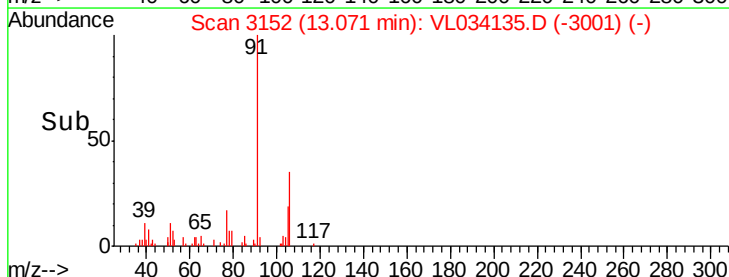
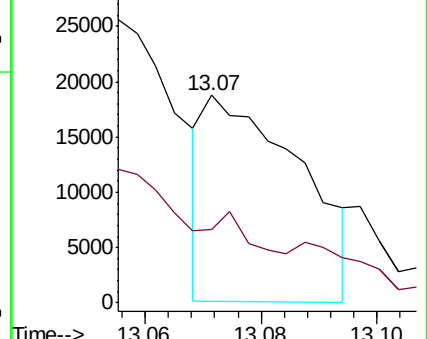
91 100

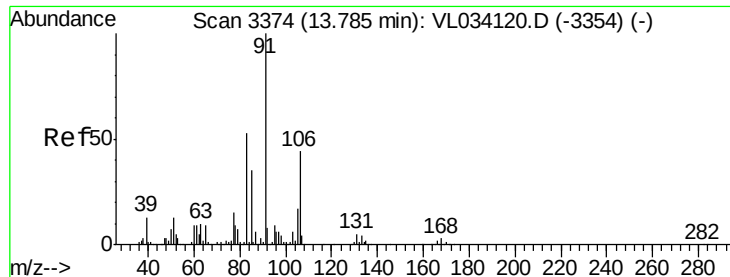
106 0.0 35.4 53.2#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

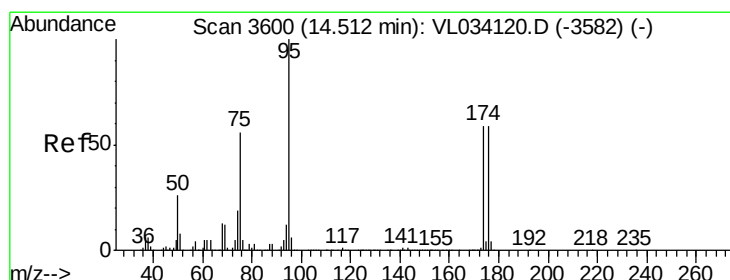
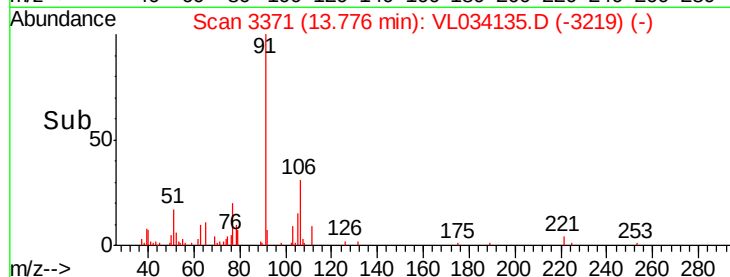
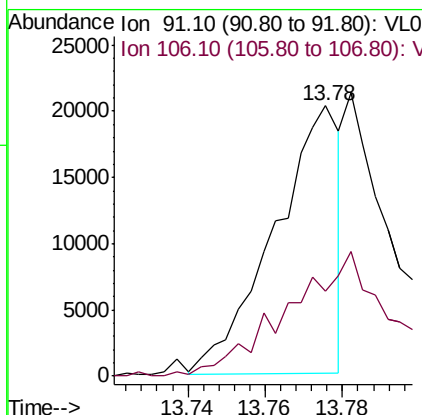
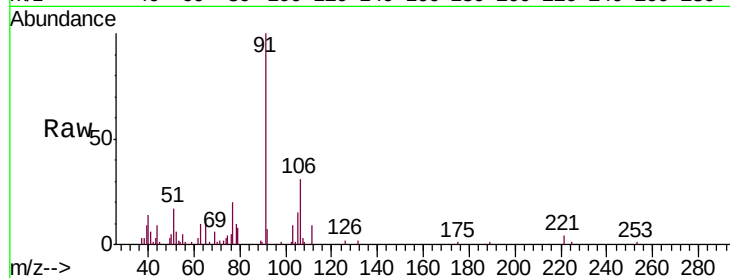




#60
o-Xylene
Concen: 0.096 ppbv
RT: 13.78 min Scan# 3371
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

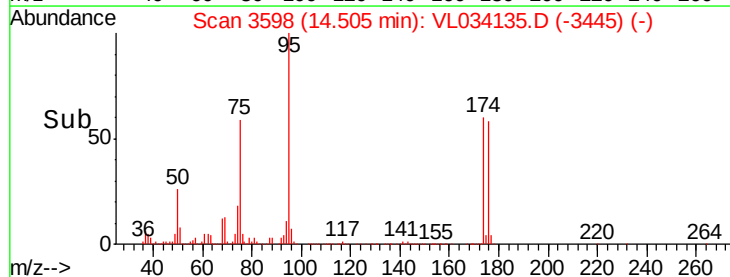
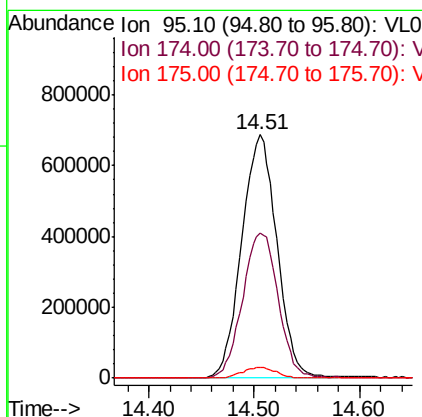
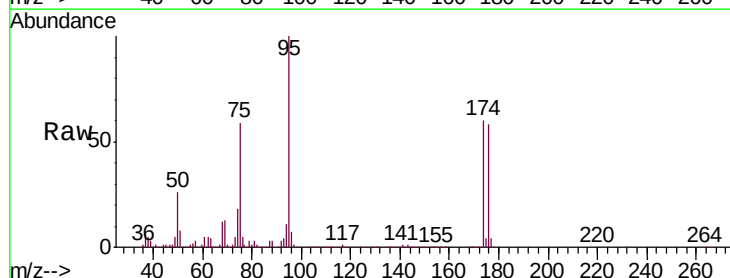
Instrument :
MSVOA_L
ClientSampleId :
SOILD_L

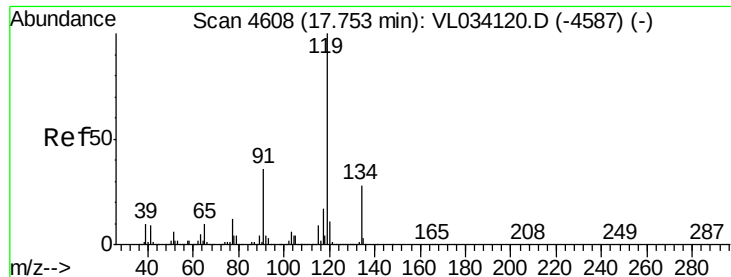
Tgt Ion: 91 Resp: 23786
Ion Ratio Lower Upper
91 100
106 0.0 21.4 64.3#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.501 ppbv
RT: 14.51 min Scan# 3598
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 95 Resp: 1596859
Ion Ratio Lower Upper
95 100
174 60.8 48.1 72.1
175 4.4 3.5 5.3

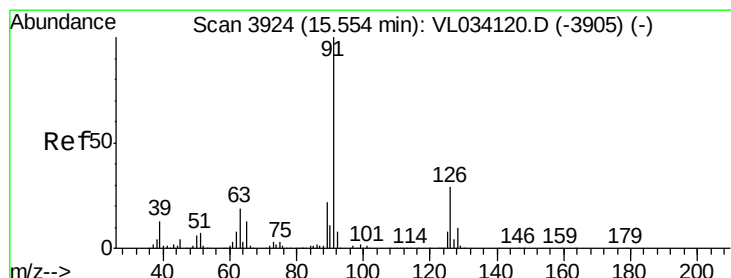
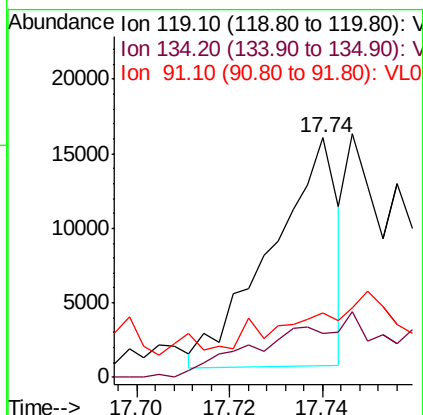
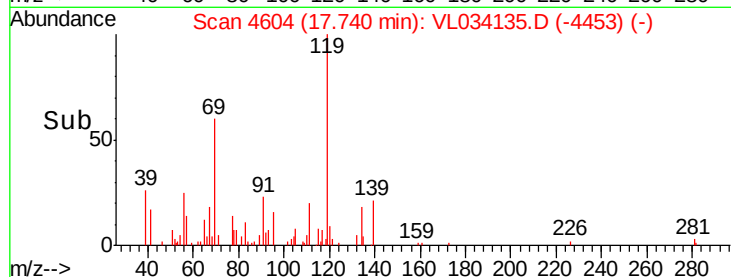
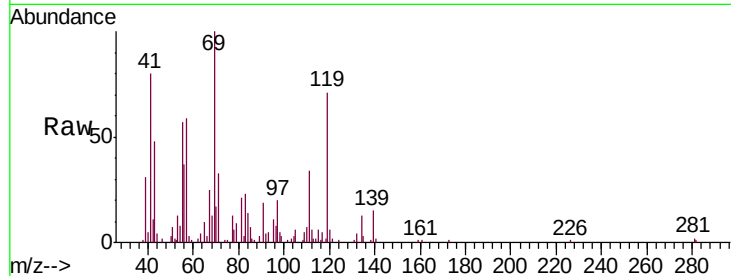




#69
p-Isopropyltoluene
Concen: 0.047 ppbv
RT: 17.74 min Scan# 4604
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

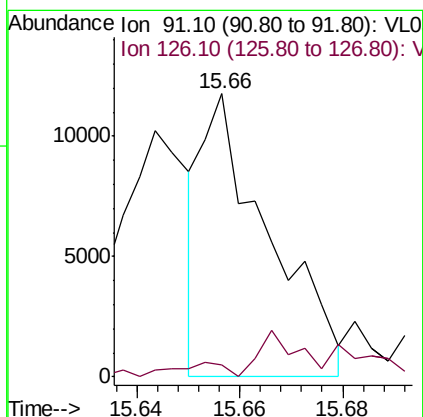
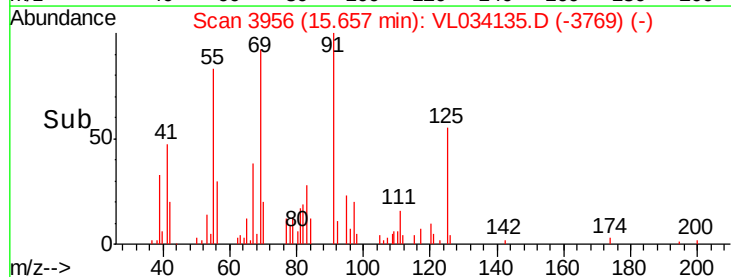
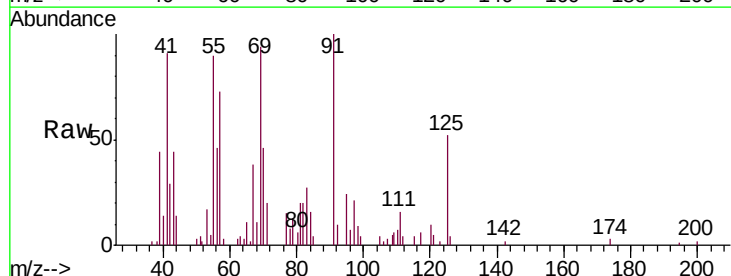
Instrument :
MSVOA_L
ClientSampleId :
SOILD_L

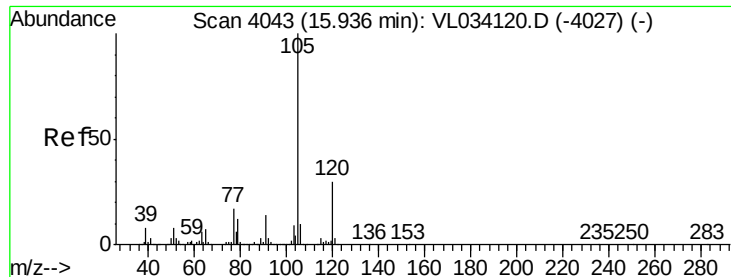
Tgt Ion: 119 Resp: 15164
Ion Ratio Lower Upper
119 100
134 0.0 20.8 31.2#
91 0.0 27.2 40.8#



#71
2-Chlorotoluene
Concen: 0.040 ppbv
RT: 15.66 min Scan# 3956
Delta R.T. 0.10 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 91 Resp: 10589
Ion Ratio Lower Upper
91 100
126 21.6 11.4 45.4





#72

4-Ethyltoluene

Concen: 0.090 ppbv

RT: 15.93 min Scan# 4041

Delta R.T. -0.01 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

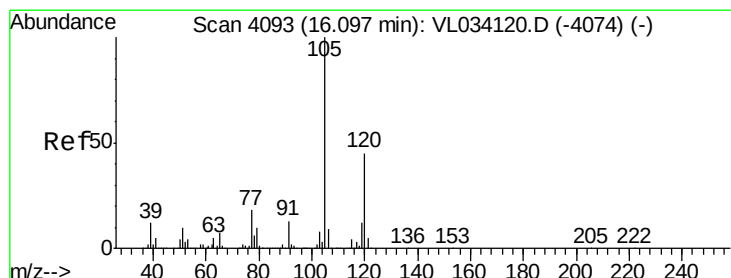
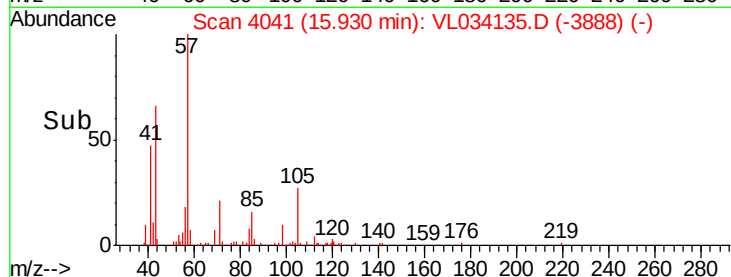
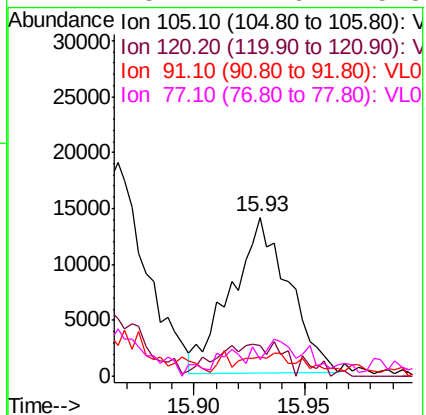
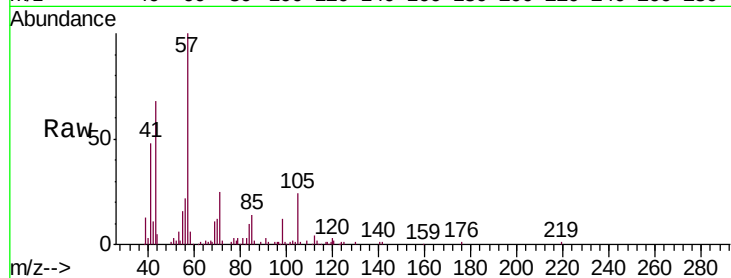
Instrument :

MSVOA_L

ClientSampled :

SOILDL

Tgt Ion:	105	Resp:	25165
Ion Ratio	Lower	Upper	
105	100		
120	27.5	23.8	35.6
91	21.3	11.4	17.0#
77	28.7	12.6	18.8#



#73

1,3,5-Trimethylbenzene

Concen: 0.047 ppbv

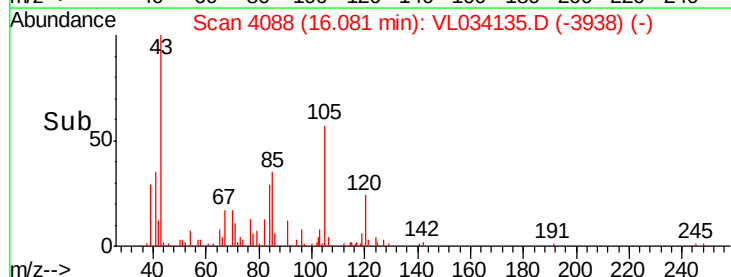
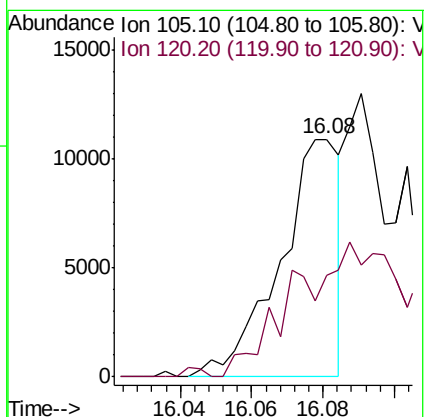
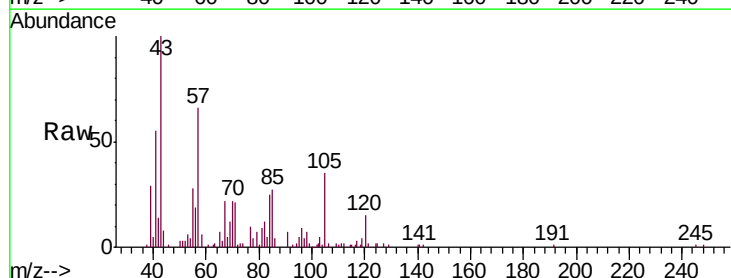
RT: 16.08 min Scan# 4088

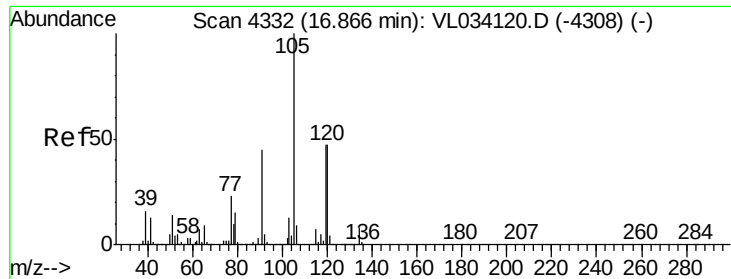
Delta R.T. -0.02 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Tgt Ion:	105	Resp:	12660
Ion Ratio	Lower	Upper	
105	100		
120	38.5	35.8	53.8





#74
 1,2,4-Trimethylbenzene
 Concen: 0.162 ppbv
 RT: 16.85 min Scan# 4327
 Delta R.T. -0.02 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD

Tgt Ion:	105	Resp:	45292
Ion	Ratio	Lower	Upper
105	100		
120	33.6	37.7	56.5#
91	4.0	36.2	54.2#
77	18.6	18.5	27.7

