

Data File : VL033896.D
Acq On : 7 Jun 2019 19:40
Operator : SY/AP
Sample : INST.ROOM
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
INST.ROOM

Quant Time: Jun 08 04:21:05 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL060719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jun 07 08:53:27 2019
QLast Update : Fri Jun 07 08:53:27 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.75	49	820268	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1823459	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1784134	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.56	95	1500095	10.24	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.40%

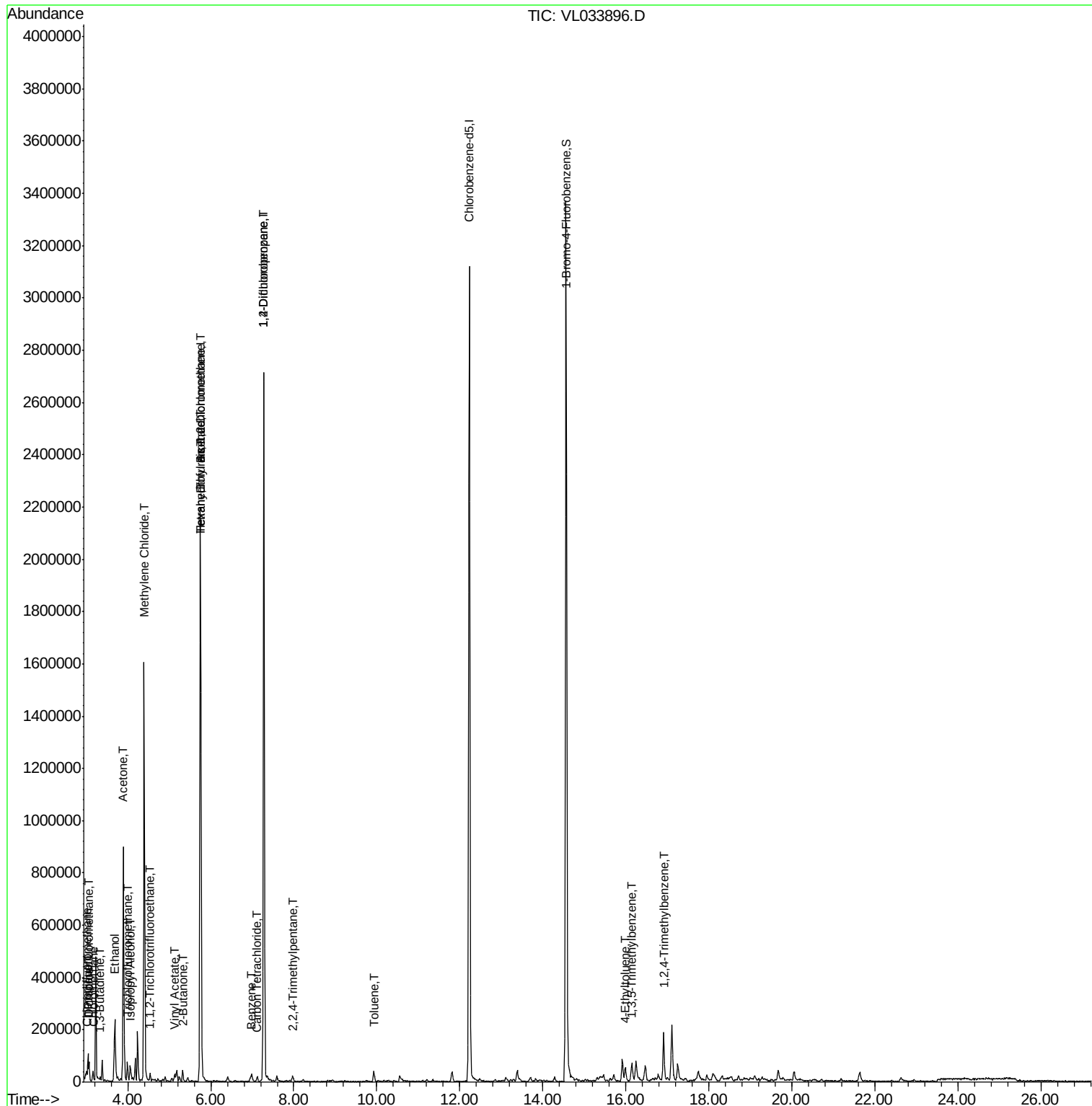
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.07	85	46111	0.346	ppbv	89
3) Chlorodifluoromethane	3.01	51	45380	0.470	ppbv #	88
4) Chloromethane	3.17	50	30690	0.557	ppbv	94
9) Propene	3.04	41	19185	0.531	ppbv	86
11) Trichlorofluoromethane	3.99	101	47641	0.277	ppbv	89
12) 1,1,2-Trichlorotrifluoroet	4.53	101	3718	0.032	ppbv #	13
13) Ethanol	3.69	45	285611	24.295	ppbv	94
15) Acetone	3.89	43	890817	7.446	ppbv	99
16) 1,3-Butadiene	3.34	39	1668	0.037	ppbv #	42
19) Isopropyl Alcohol	4.06	45	30747	0.450	ppbv #	1
20) Methylene Chloride	4.40	84	563593	12.081	ppbv	95
23) Vinyl Acetate	5.14	43	10777	0.078	ppbv #	82
25) Ethyl Acetate	5.76	43	218303	1.198	ppbv #	82
26) Hexane	5.77	57	250127	3.015	ppbv #	44
31) cis-1,2-Dichloroethene	5.75	61	2677	0.037	ppbv #	29
34) 2-Butanone	5.33	43	47605	0.463	ppbv	99
35) Carbon Tetrachloride	7.12	117	7656	0.054	ppbv #	86
36) Benzene	6.99	78	15985	0.115	ppbv #	92
39) 1,2-Dichloropropane	7.28	63	494929	9.206	ppbv #	27
41) Tetrahydrofuran	5.77	42	109231	2.092	ppbv #	47
44) 2,2,4-Trimethylpentane	7.97	57	11352	0.046	ppbv #	57
53) Toluene	9.93	91	15065	0.098	ppbv #	53
72) 4-Ethyltoluene	15.99	105	11295	0.053	ppbv #	14
73) 1,3,5-Trimethylbenzene	16.15	105	16837	0.080	ppbv	90
74) 1,2,4-Trimethylbenzene	16.91	105	114678	0.470	ppbv #	73

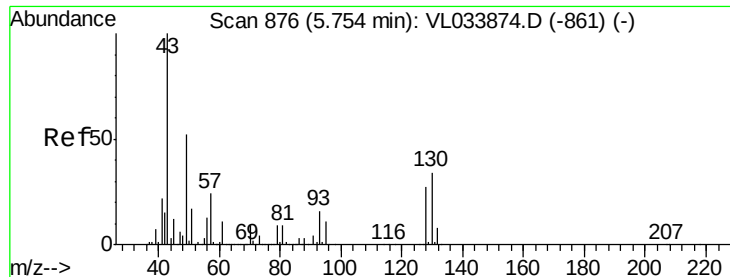
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.75 min Scan# 874

Delta R.T. -0.01 min

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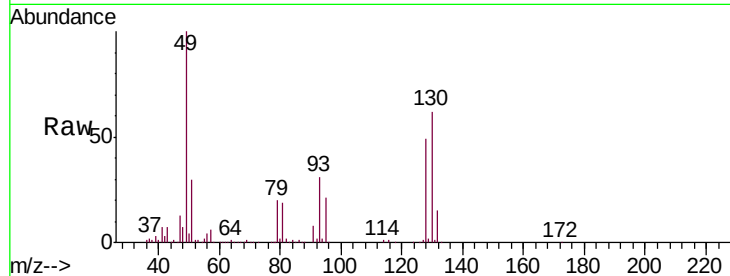
Tgt Ion: 49 Resp: 820268

Ion Ratio Lower Upper

49 100

128 49.7 25.5 76.5

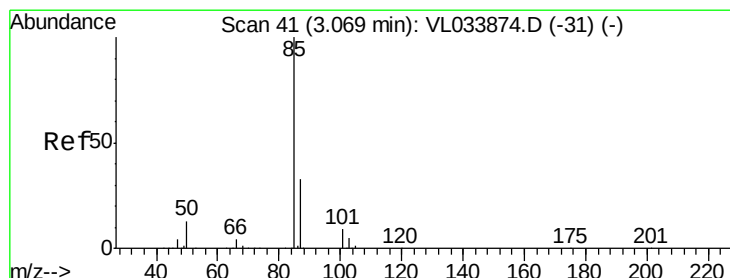
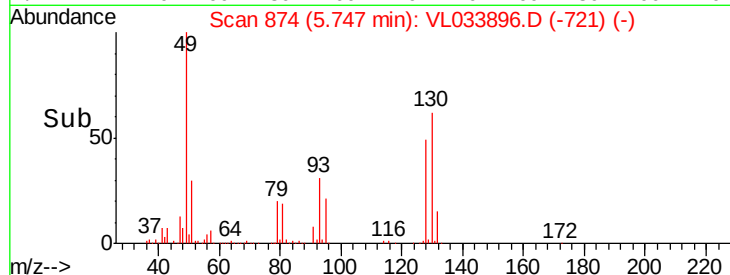
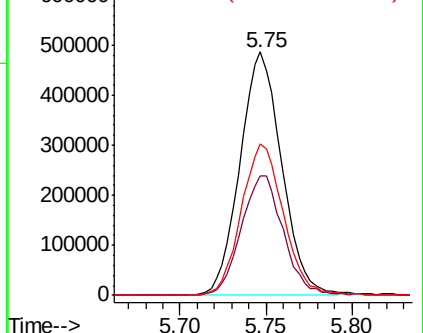
130 62.9 32.5 97.4



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: 0.346 ppbv

RT: 3.07 min Scan# 41

Delta R.T. -0.00 min

Lab File: VL033896.D

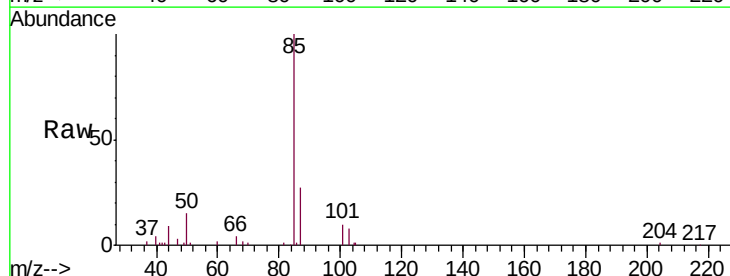
Acq: 7 Jun 2019 19:40

Tgt Ion: 85 Resp: 46111

Ion Ratio Lower Upper

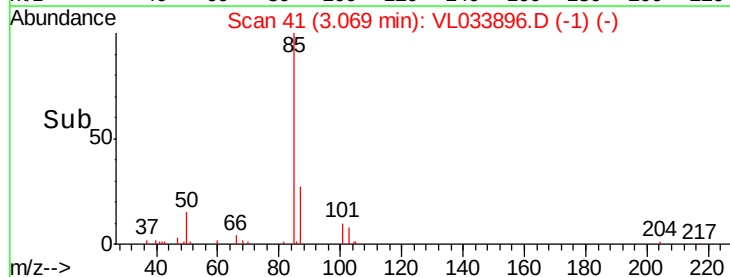
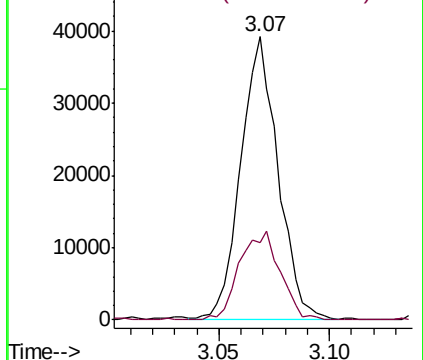
85 100

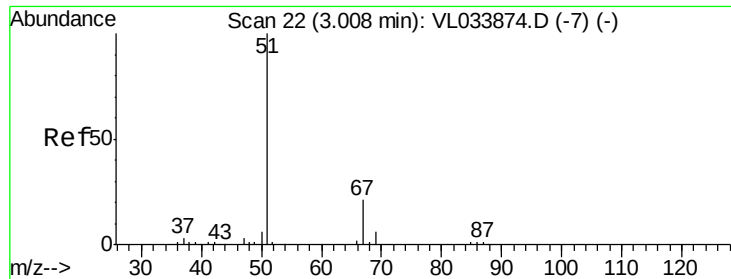
87 27.1 26.6 40.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

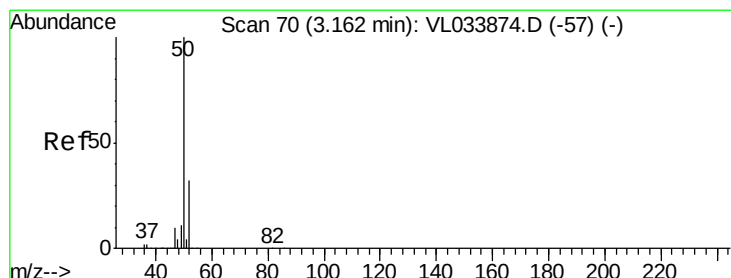
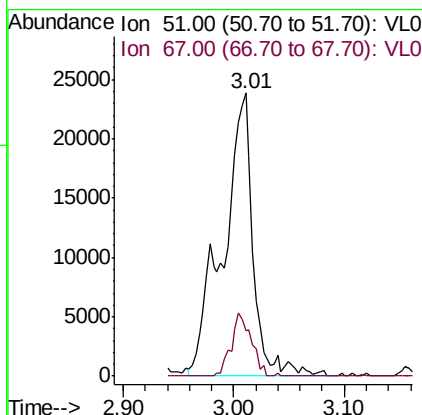
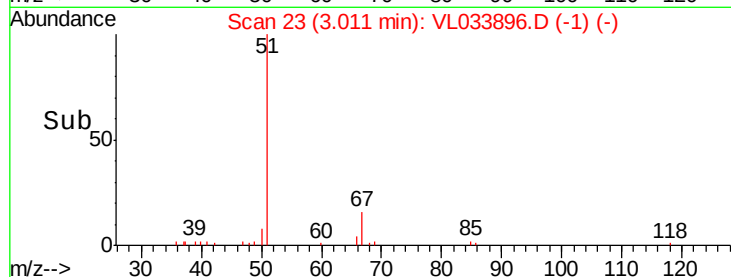
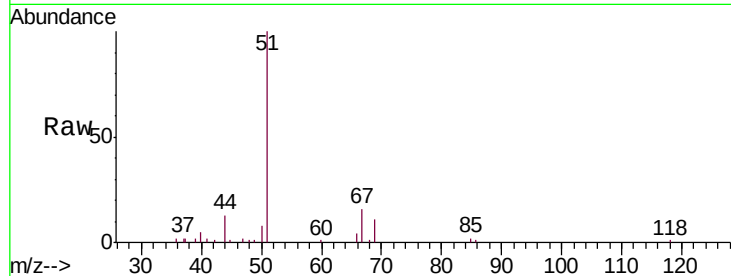




#3
 Chlorodifluoromethane
 Concen: 0.470 ppbv
 RT: 3.01 min Scan# 23
 Delta R.T. 0.00 min
 Lab File: VL033896.D
 Acq: 7 Jun 2019 19:40

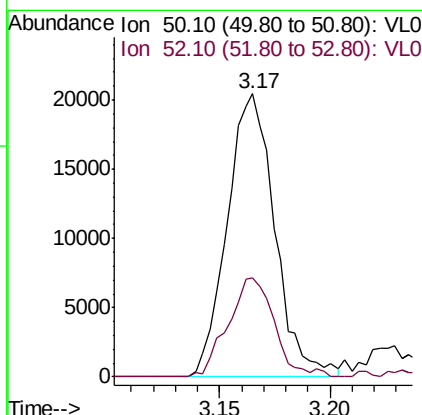
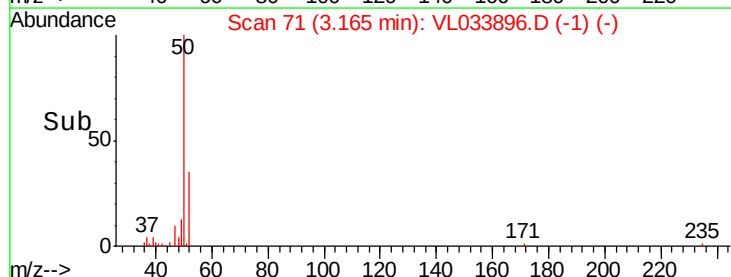
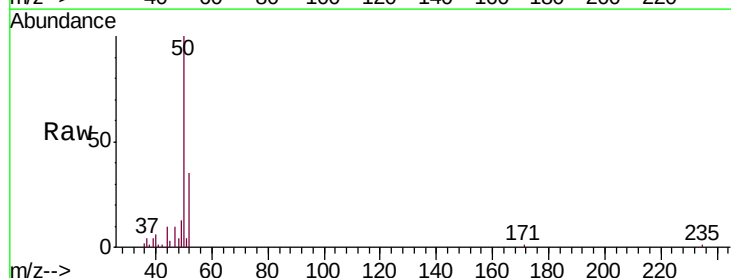
Instrument :
 MSVOA_L
 ClientSampleId :
 INST.ROOM

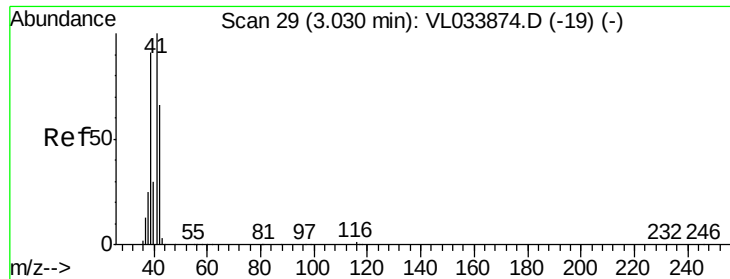
Tgt Ion: 51 Resp: 45380
 Ion Ratio Lower Upper
 51 100
 67 14.8 16.4 24.6#



#4
 Chloromethane
 Concen: 0.557 ppbv
 RT: 3.17 min Scan# 71
 Delta R.T. 0.00 min
 Lab File: VL033896.D
 Acq: 7 Jun 2019 19:40

Tgt Ion: 50 Resp: 30690
 Ion Ratio Lower Upper
 50 100
 52 35.0 25.4 38.0





#9

Propene

Concen: 0.531 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.01 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

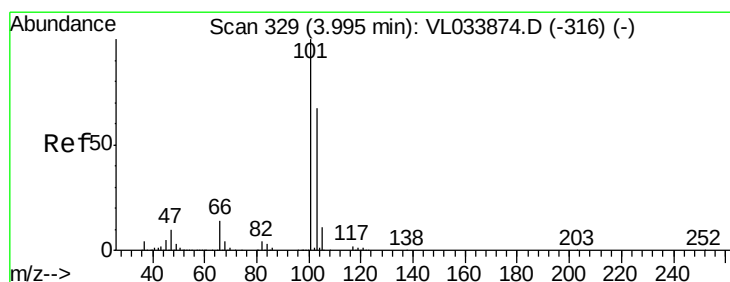
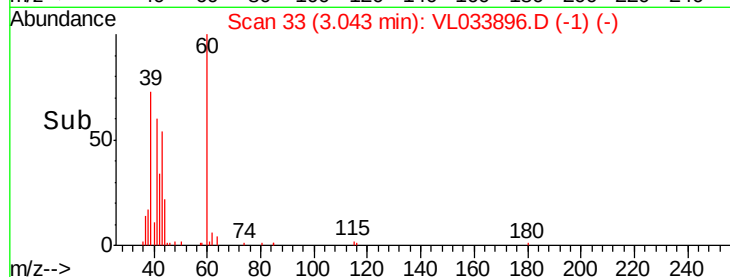
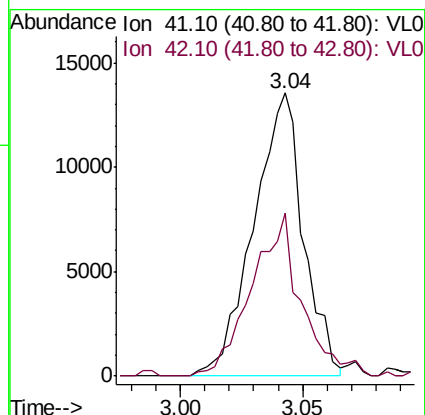
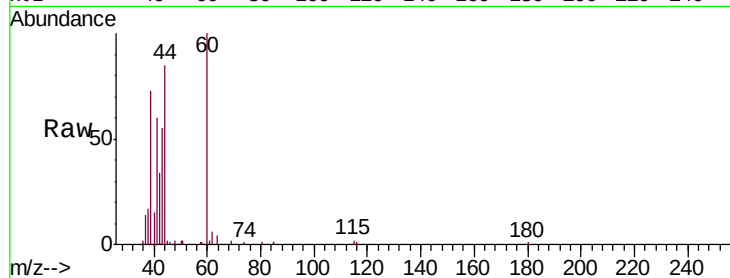
INST.ROOM

Tgt Ion: 41 Resp: 19185

Ion Ratio Lower Upper

41 100

42 58.5 56.3 84.5



#11

Trichlorofluoromethane

Concen: 0.277 ppbv

RT: 3.99 min Scan# 328

Delta R.T. -0.00 min

Lab File: VL033896.D

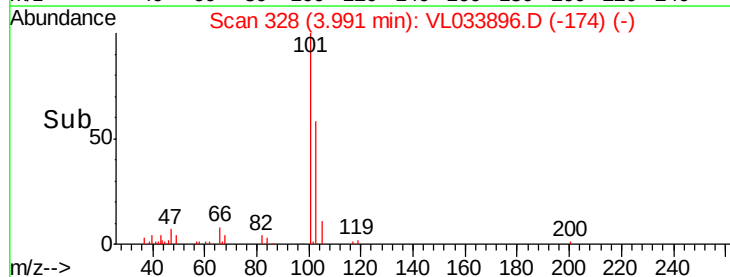
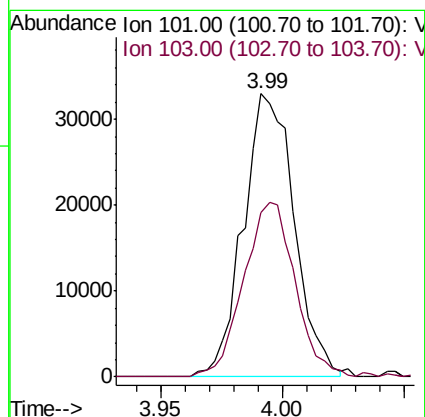
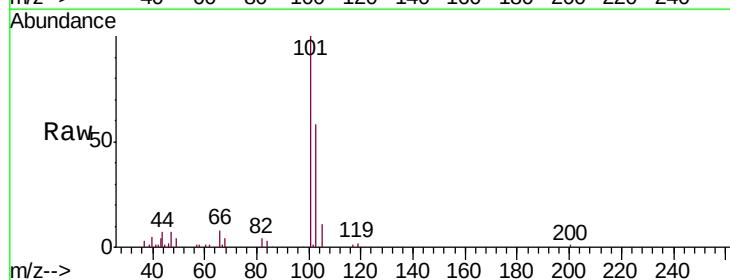
Acq: 7 Jun 2019 19:40

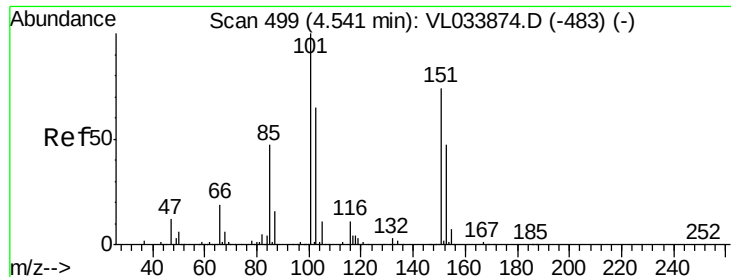
Tgt Ion: 101 Resp: 47641

Ion Ratio Lower Upper

101 100

103 58.1 53.6 80.4





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.032 ppbv

RT: 4.53 min Scan# 497

Delta R.T. -0.01 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

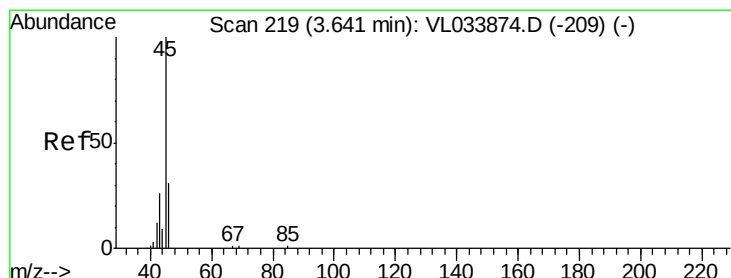
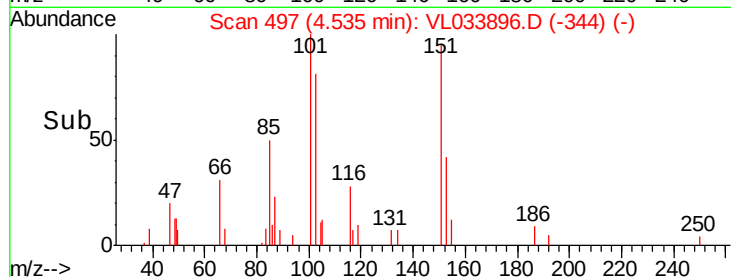
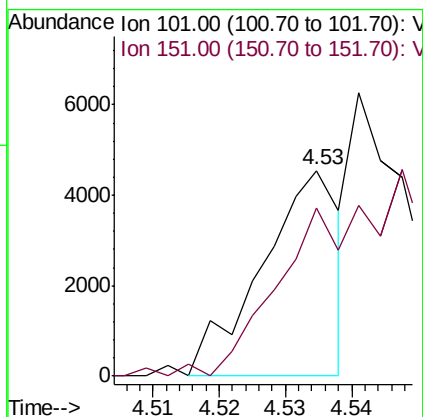
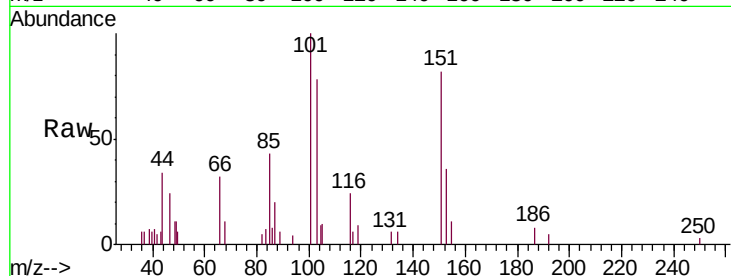
INST.ROOM

Tgt Ion:101 Resp: 3718

Ion Ratio Lower Upper

101 100

151 0.0 58.6 87.8#



#13

Ethanol

Concen: 24.295 ppbv

RT: 3.69 min Scan# 233

Delta R.T. 0.04 min

Lab File: VL033896.D

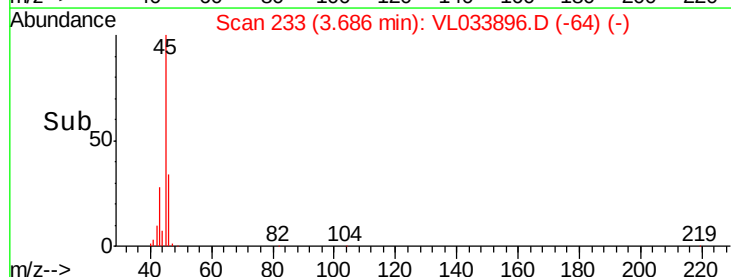
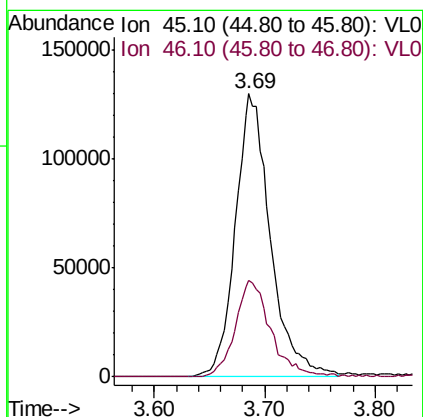
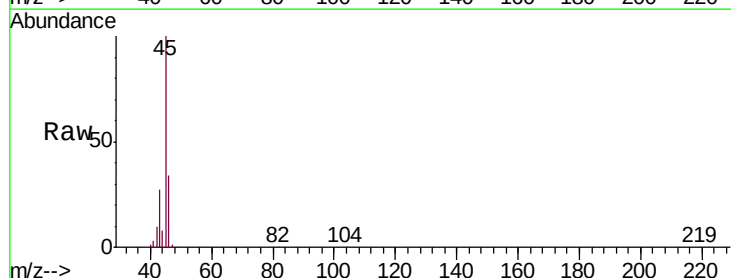
Acq: 7 Jun 2019 19:40

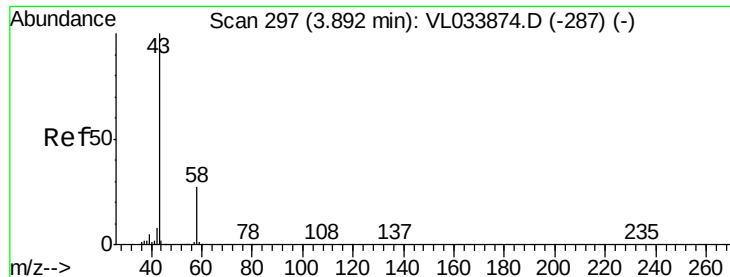
Tgt Ion: 45 Resp: 285611

Ion Ratio Lower Upper

45 100

46 34.7 15.3 61.1





#15

Acetone

Concen: 7.446 ppbv

RT: 3.89 min Scan# 296

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

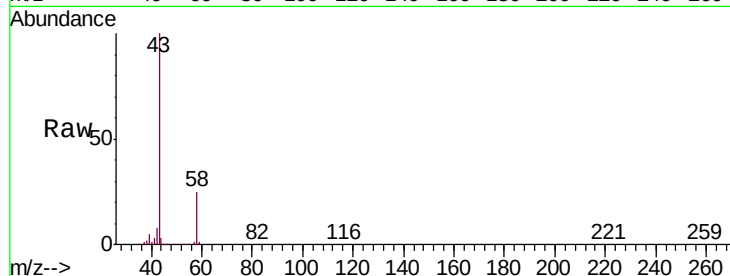
INST.ROOM

Tgt Ion: 43 Resp: 890817

Ion Ratio Lower Upper

43 100

58 26.2 21.3 31.9



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.89

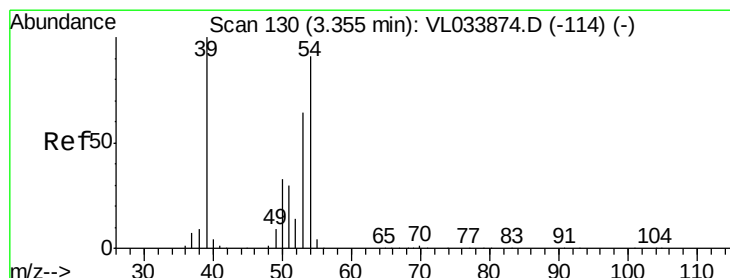
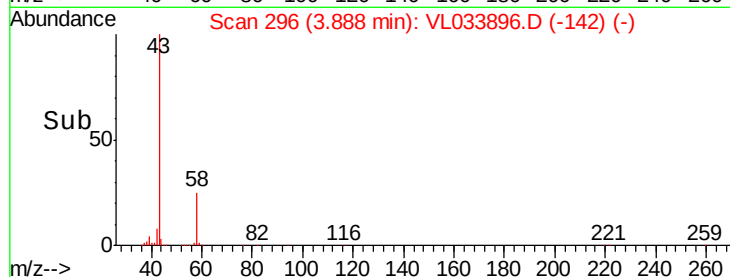
600000

400000

200000

0

Time-->



#16

1,3-Butadiene

Concen: 0.037 ppbv

RT: 3.34 min Scan# 125

Delta R.T. -0.02 min

Lab File: VL033896.D

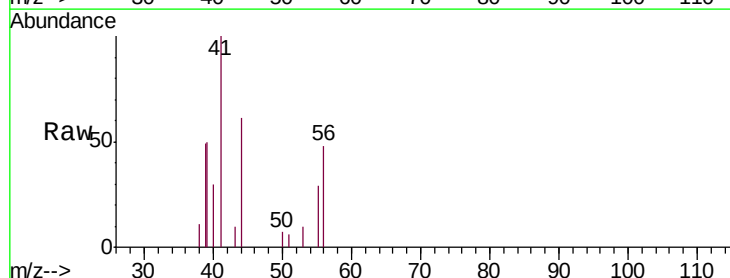
Acq: 7 Jun 2019 19:40

Tgt Ion: 39 Resp: 1668

Ion Ratio Lower Upper

39 100

54 33.0 68.6 103.0#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.34

4000

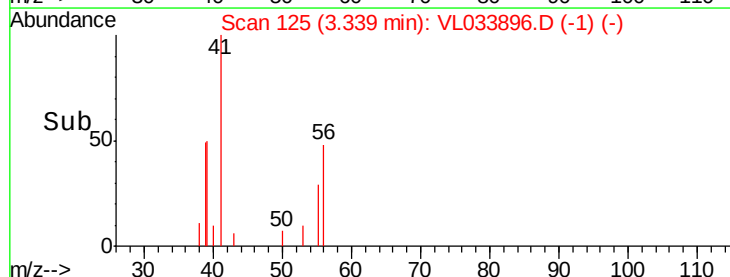
3000

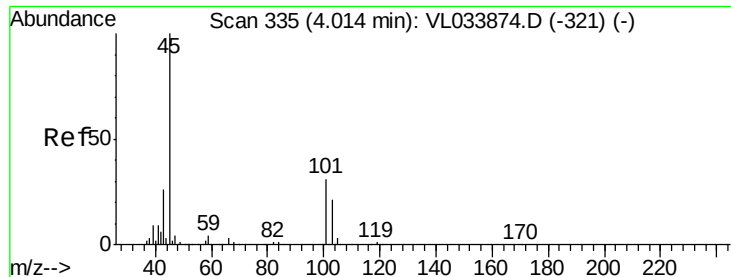
2000

1000

0

Time-->





#19

Isopropyl Alcohol

Concen: 0.450 ppbv

RT: 4.06 min Scan# 350

Delta R.T. 0.05 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

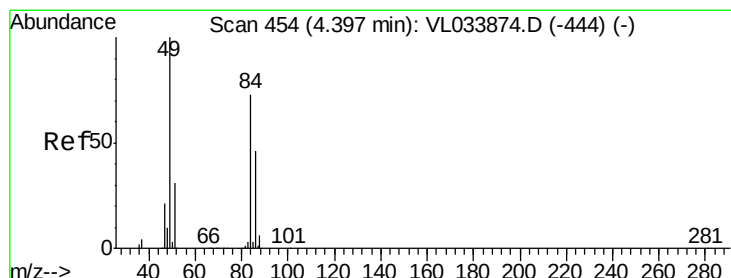
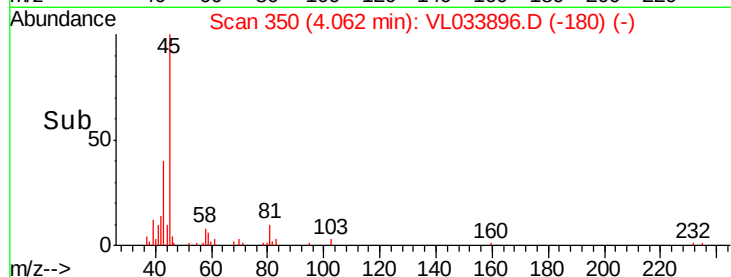
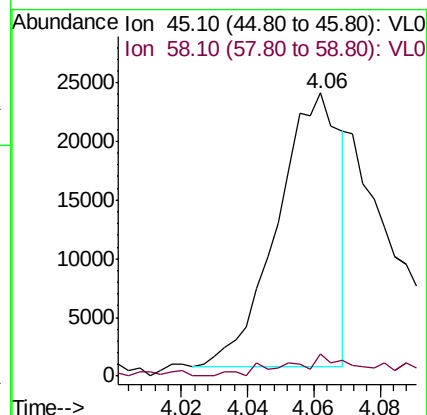
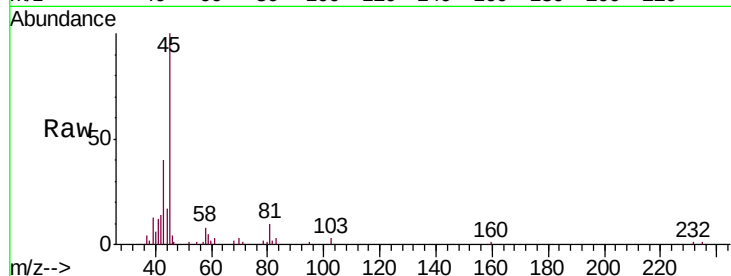
INST.ROOM

Tgt Ion: 45 Resp: 30747

Ion Ratio Lower Upper

45 100

58 753.2 1.8 2.6#



#20

Methylene Chloride

Concen: 12.081 ppbv

RT: 4.40 min Scan# 454

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Tgt Ion: 84 Resp: 563593

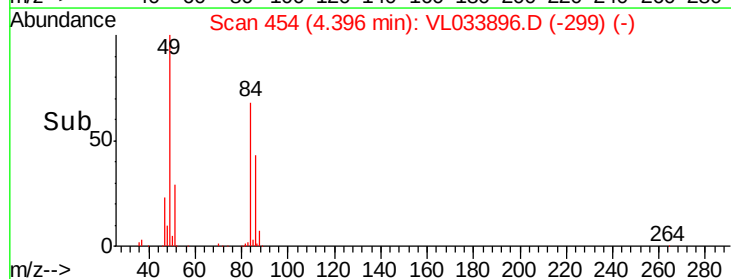
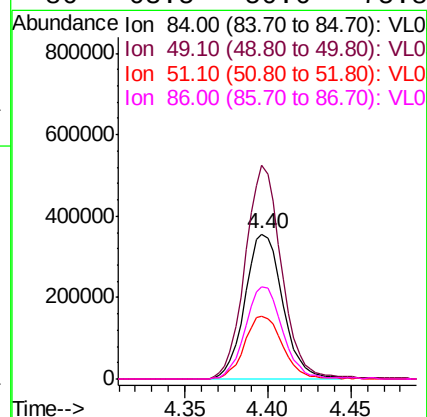
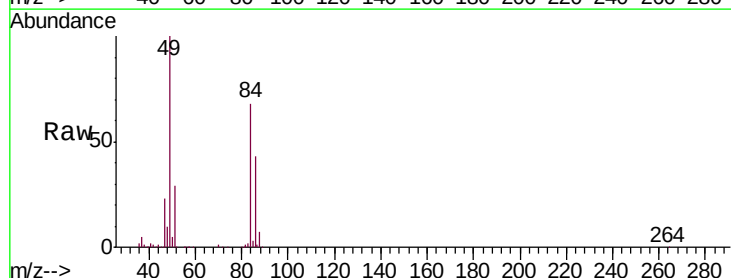
Ion Ratio Lower Upper

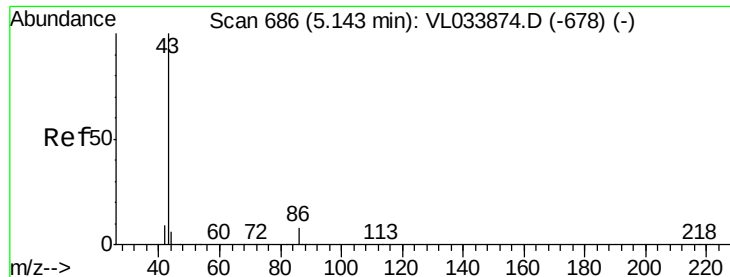
84 100

49 147.7 110.0 165.0

51 43.2 34.6 51.8

86 63.5 50.6 75.8





#23

Vinyl Acetate

Concen: 0.078 ppbv

RT: 5.14 min Scan# 685

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

Tgt Ion: 43 Resp: 10777

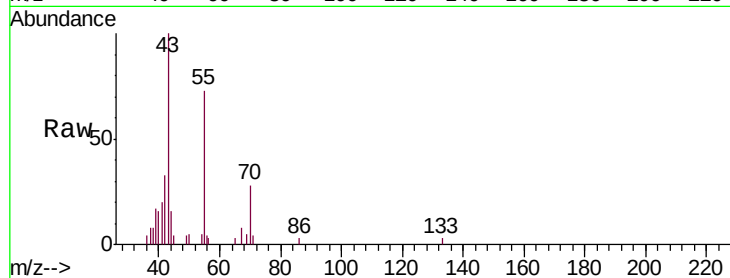
Ion Ratio Lower Upper

43 100

86 3.2 5.8 8.8#

42 18.3 7.8 11.8#

44 11.5 4.2 6.4#

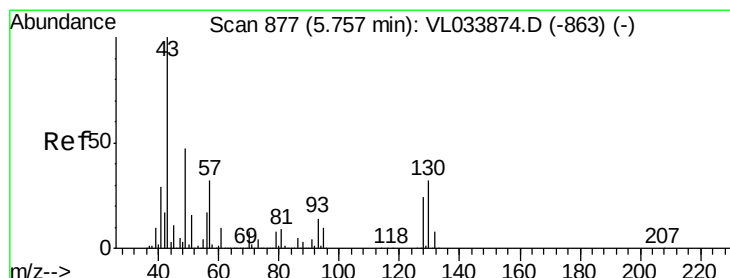
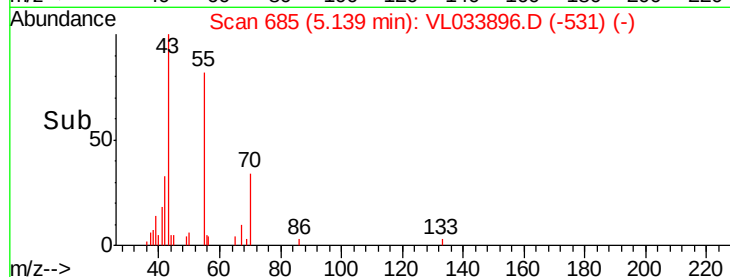
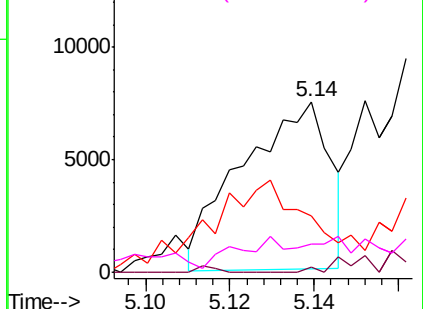


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#25

Ethyl Acetate

Concen: 1.198 ppbv

RT: 5.76 min Scan# 879

Delta R.T. 0.01 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Tgt Ion: 43 Resp: 218303

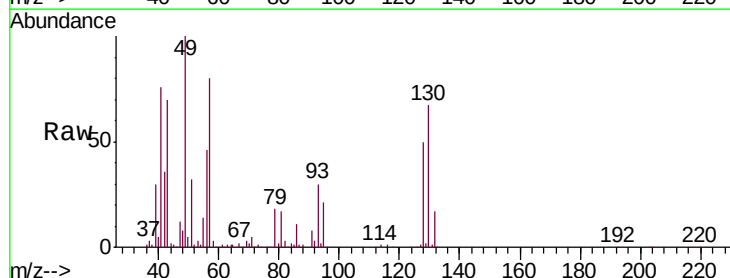
Ion Ratio Lower Upper

43 100

45 2.7 7.9 11.9#

61 2.4 7.8 11.6#

70 2.9 5.8 8.6#

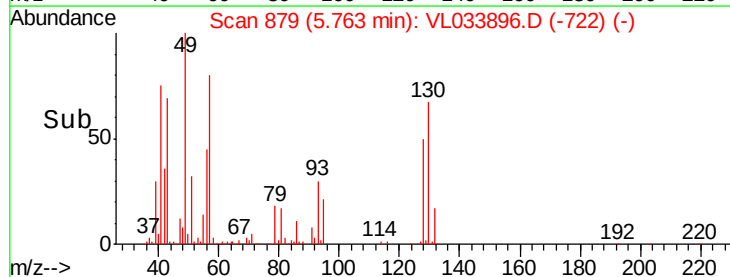
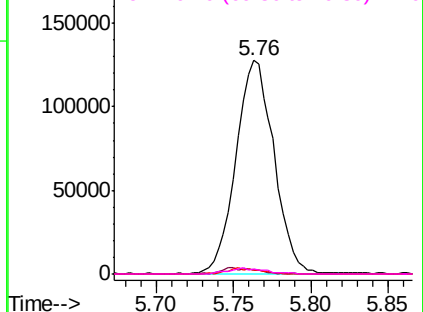


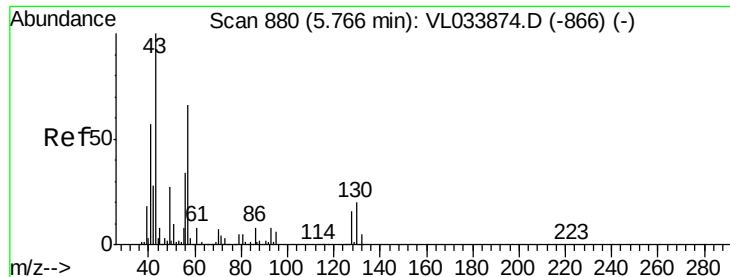
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0





#26

Hexane

Concen: 3.015 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

Tgt Ion: 57 Resp: 250127

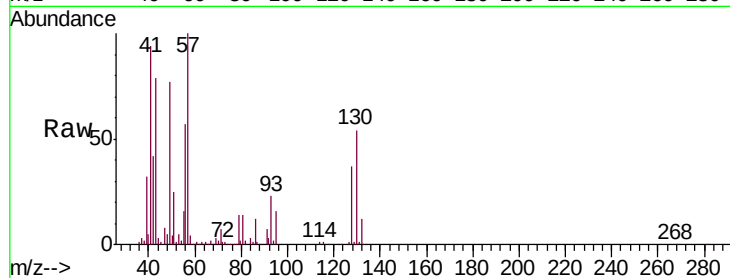
Ion Ratio Lower Upper

57 100

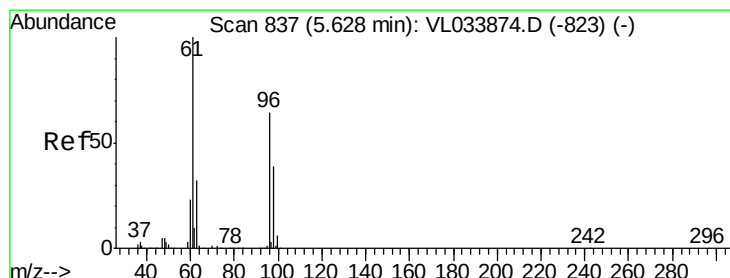
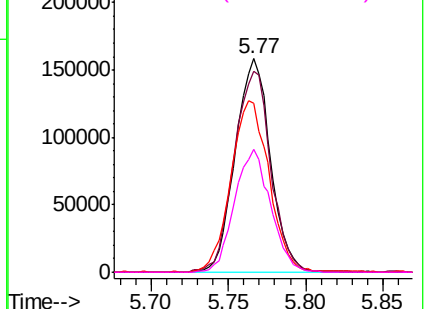
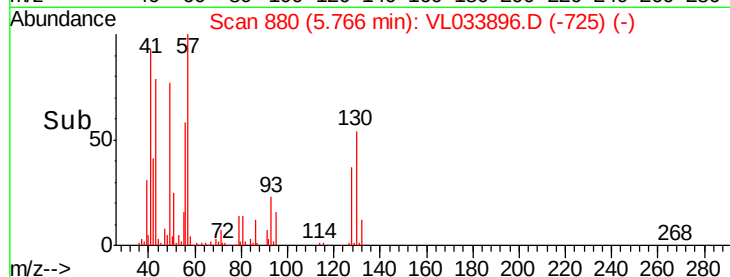
41 98.8 71.4 107.2

43 88.1 183.7 275.5#

56 59.1 42.7 64.1



Abundance Ion 57.10 (56.80 to 57.80): VL0
250000
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



#31

cis-1,2-Dichloroethene

Concen: 0.037 ppbv

RT: 5.75 min Scan# 876

Delta R.T. 0.13 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

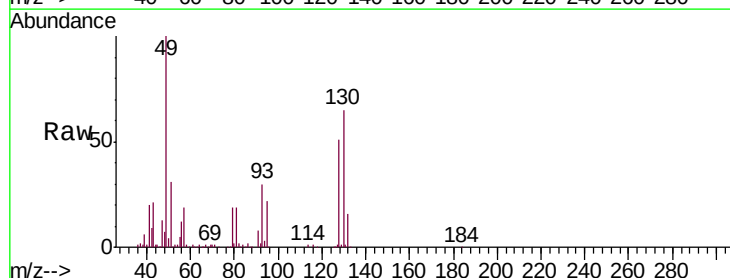
Tgt Ion: 61 Resp: 2677

Ion Ratio Lower Upper

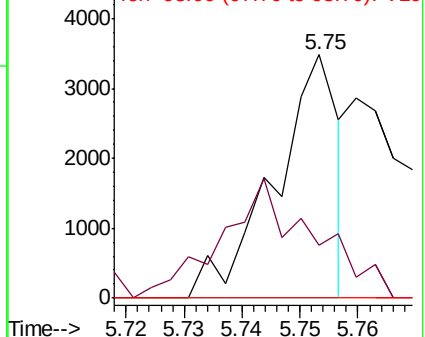
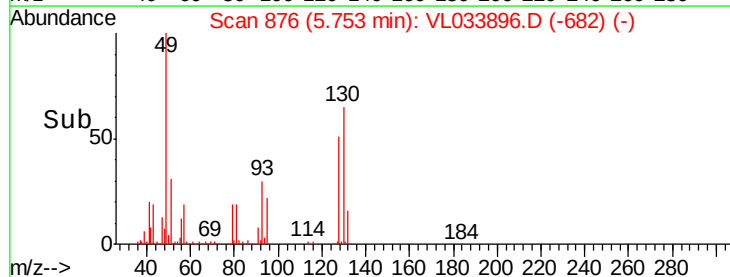
61 100

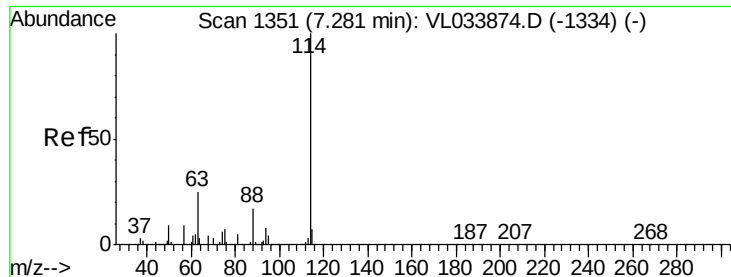
96 4.9 50.9 76.3#

98 0.0 31.4 47.2#



Abundance Ion 61.10 (60.80 to 61.80): VL0
4000
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0

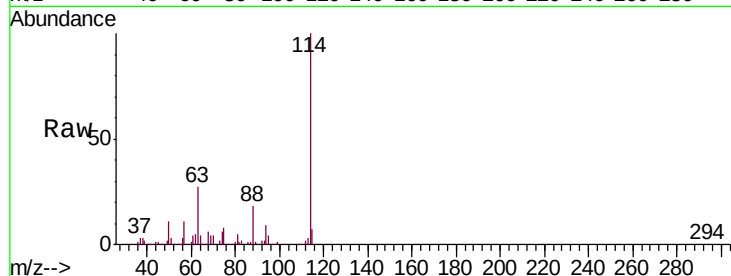




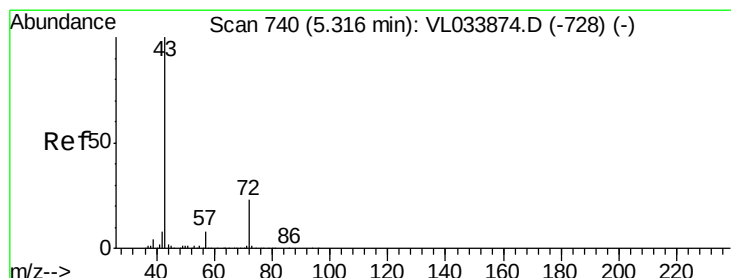
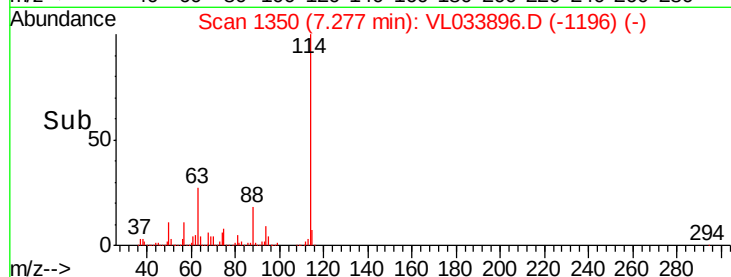
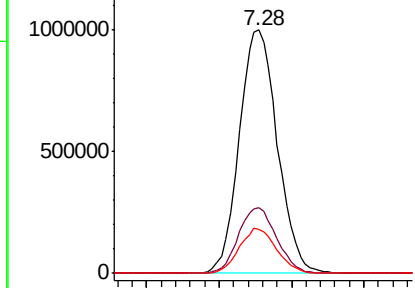
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.28 min Scan# 1350
 Delta R.T. -0.00 min
 Lab File: VL033896.D
 Acq: 7 Jun 2019 19:40

Instrument :
 MSVOA_L
 ClientSampleId :
 INST.ROOM

Tgt Ion:114 Resp: 1823459
 Ion Ratio Lower Upper
 114 100
 63 27.2 21.1 31.7
 88 18.0 14.2 21.4

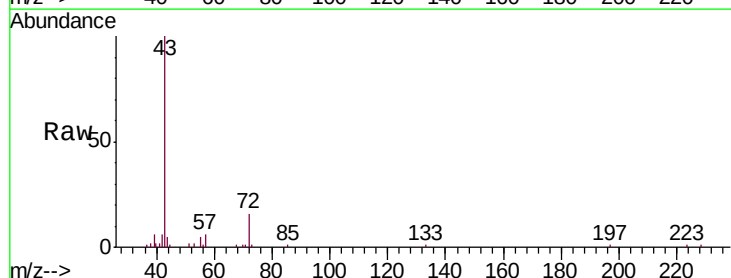


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

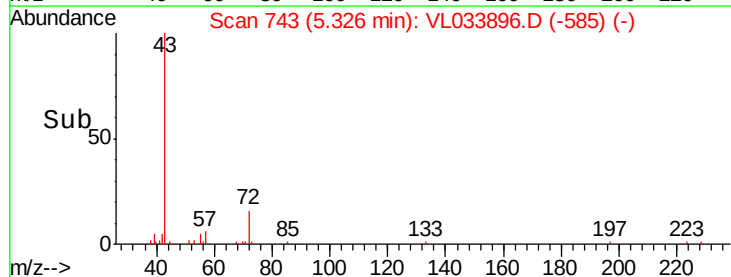
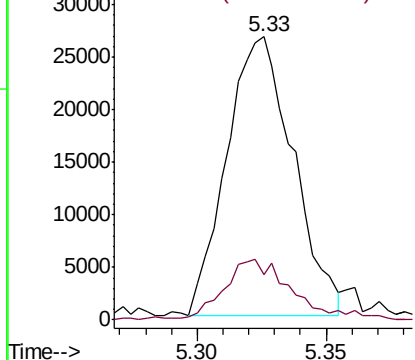


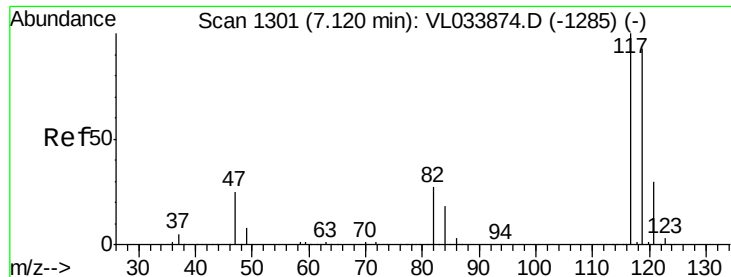
#34
 2-Butanone
 Concen: 0.463 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.01 min
 Lab File: VL033896.D
 Acq: 7 Jun 2019 19:40

Tgt Ion: 43 Resp: 47605
 Ion Ratio Lower Upper
 43 100
 72 22.8 17.9 26.9



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





#35

Carbon Tetrachloride

Concen: 0.054 ppbv

RT: 7.12 min Scan# 1300

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

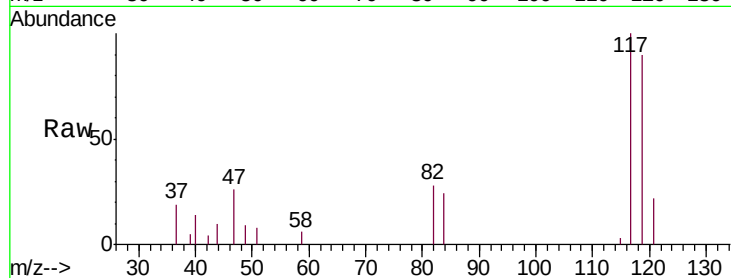
Tgt Ion:117 Resp: 7656

Ion Ratio Lower Upper

117 100

119 79.6 74.6 111.8

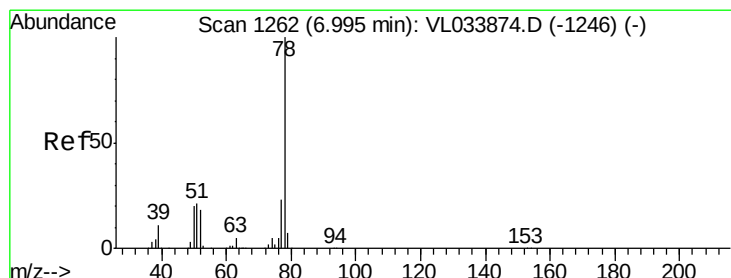
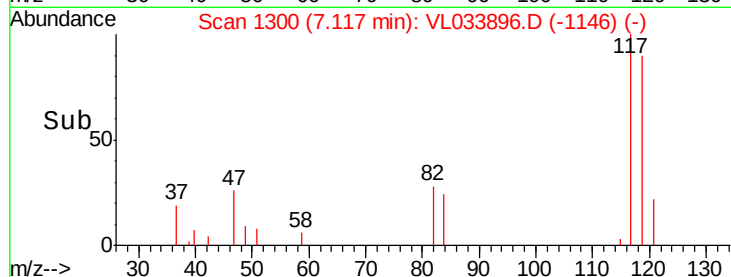
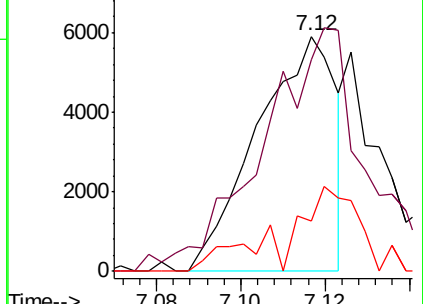
121 21.6 24.0 36.0#



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: 0.115 ppbv

RT: 6.99 min Scan# 1262

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

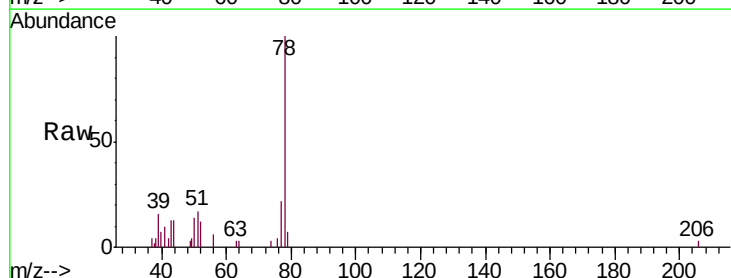
Tgt Ion: 78 Resp: 15985

Ion Ratio Lower Upper

78 100

77 23.5 18.2 27.2

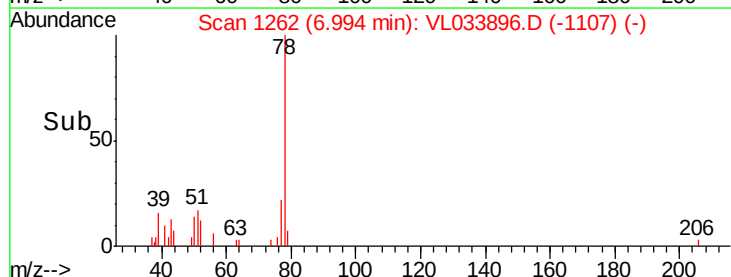
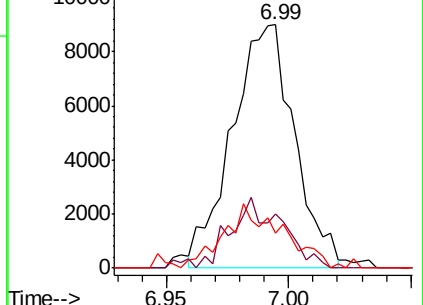
50 13.0 15.9 23.9#

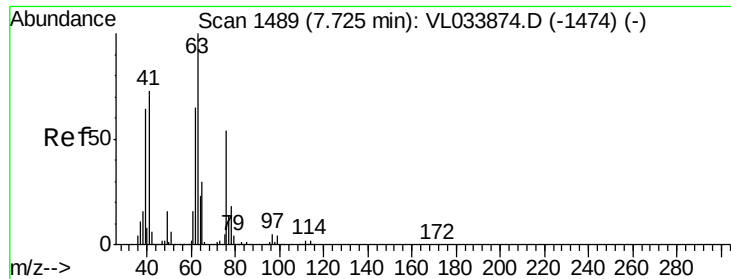


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#39

1,2-Dichloropropane

Concen: 9.206 ppbv

RT: 7.28 min Scan# 1350

Delta R.T. -0.45 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

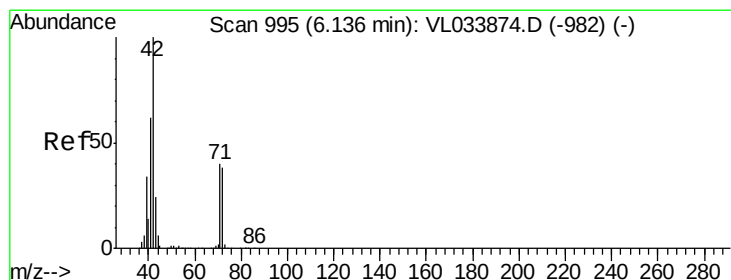
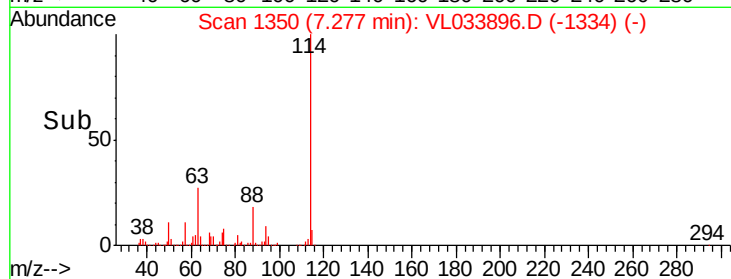
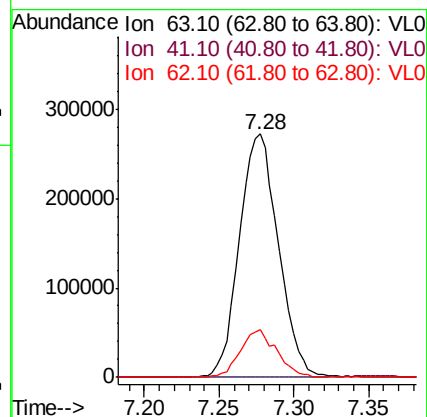
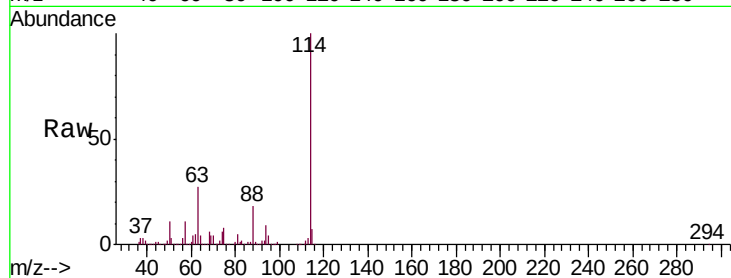
Tgt Ion: 63 Resp: 494929

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

62 19.6 51.9 77.9#



#41

Tetrahydrofuran

Concen: 2.092 ppbv

RT: 5.77 min Scan# 880

Delta R.T. -0.37 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

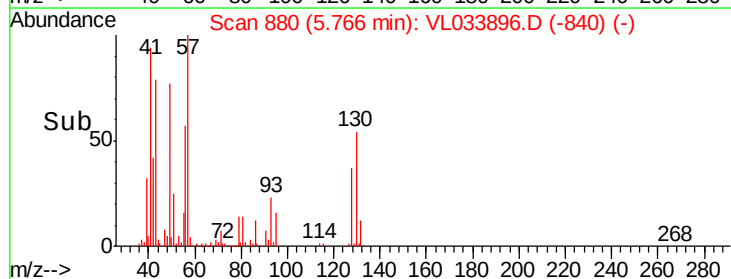
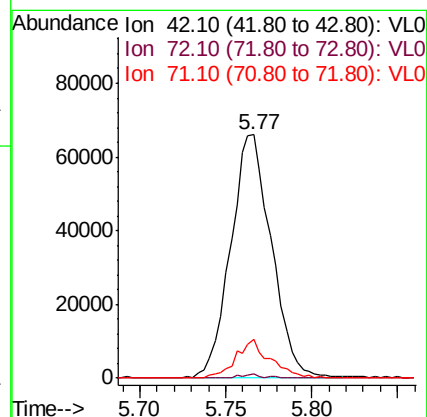
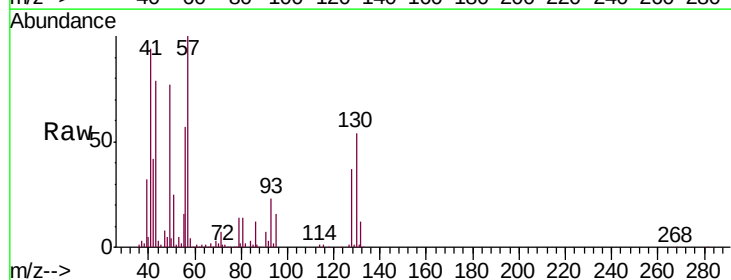
Tgt Ion: 42 Resp: 109231

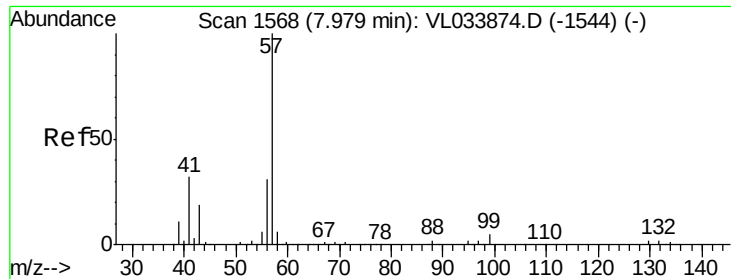
Ion Ratio Lower Upper

42 100

72 0.9 32.2 48.4#

71 13.5 31.7 47.5#





#44

2,2,4-Trimethylpentane

Concen: 0.046 ppbv

RT: 7.97 min Scan# 1566

Delta R.T. -0.01 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

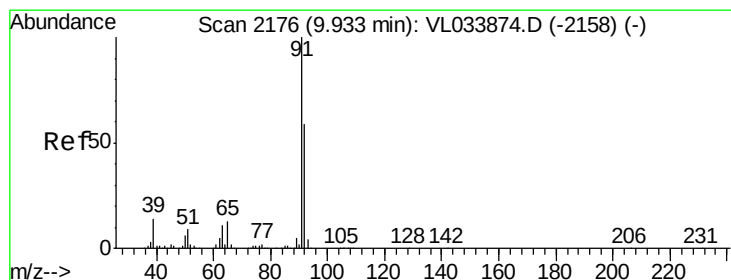
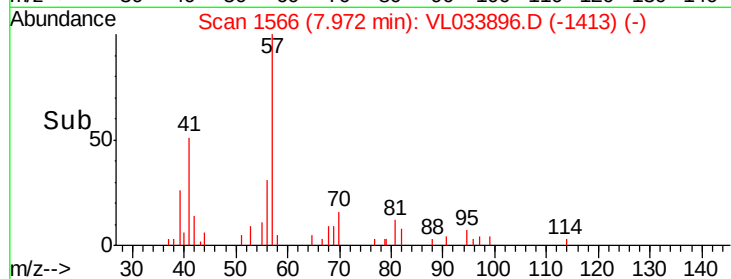
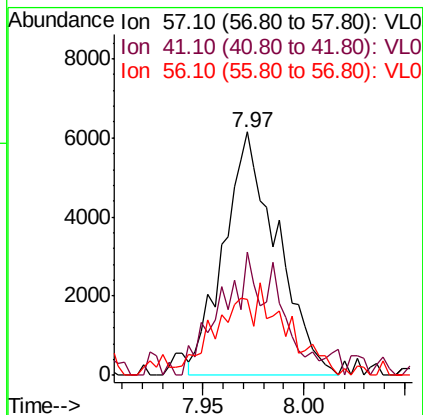
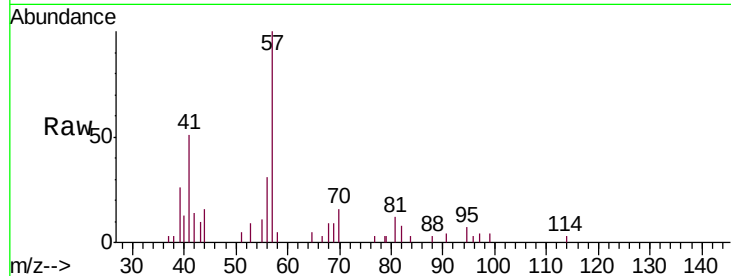
Tgt Ion: 57 Resp: 11352

Ion Ratio Lower Upper

57 100

41 62.1 26.1 39.1#

56 48.8 24.6 36.8#



#53

Toluene

Concen: 0.098 ppbv

RT: 9.93 min Scan# 2176

Delta R.T. -0.00 min

Lab File: VL033896.D

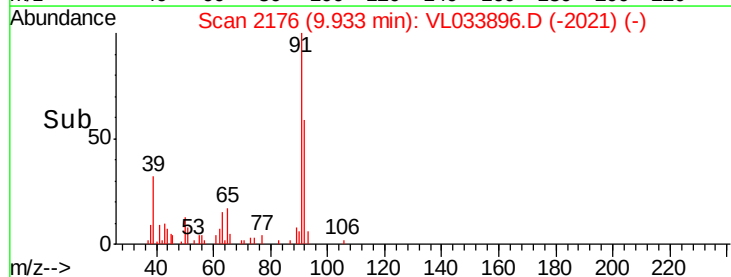
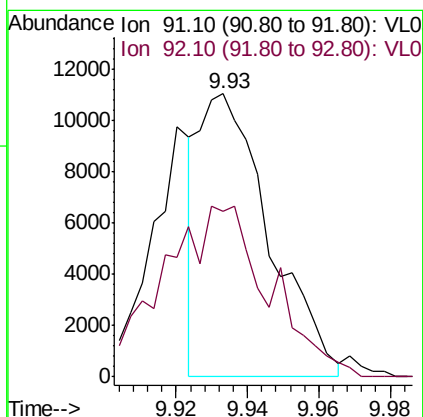
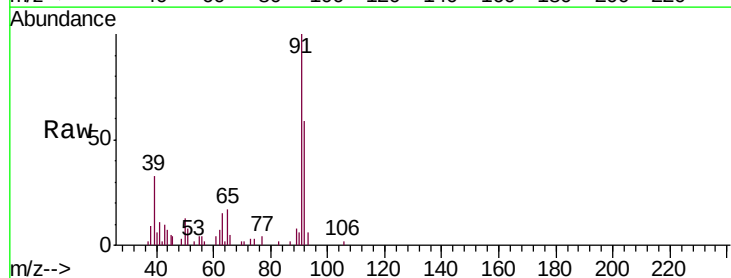
Acq: 7 Jun 2019 19:40

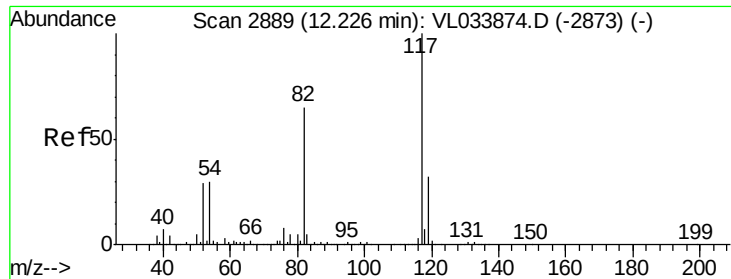
Tgt Ion: 91 Resp: 15065

Ion Ratio Lower Upper

91 100

92 93.9 47.0 70.6#

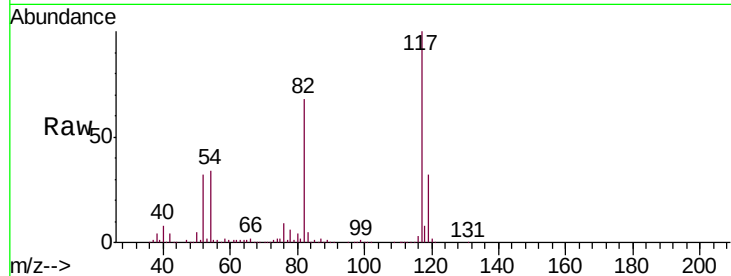




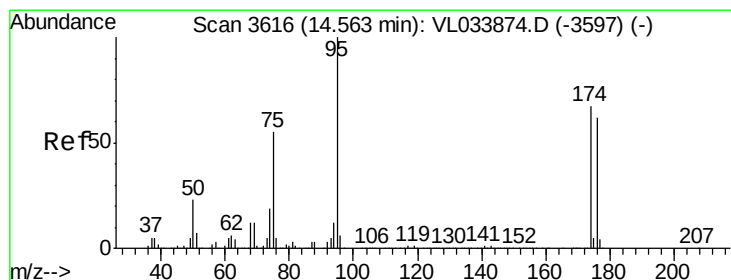
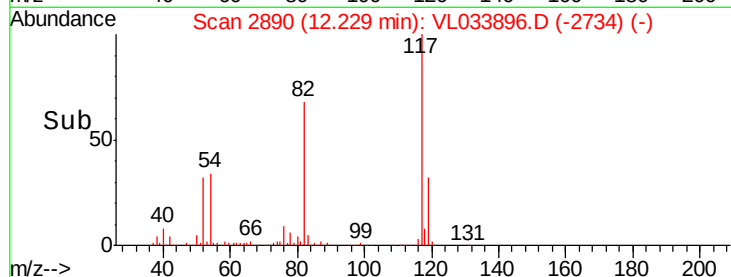
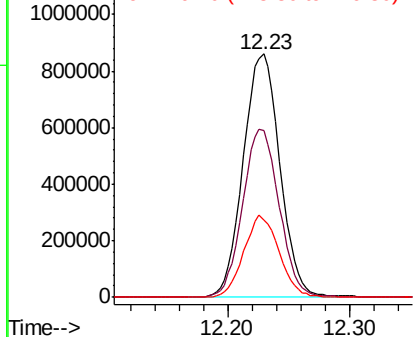
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2890
Delta R.T. 0.00 min
Lab File: VL033896.D
Acq: 7 Jun 2019 19:40

Instrument :
MSVOA_L
ClientSampleId :
INST.ROOM

Tgt Ion:117 Resp: 1784134
Ion Ratio Lower Upper
117 100
82 69.2 50.2 75.2
119 32.6 24.8 37.2

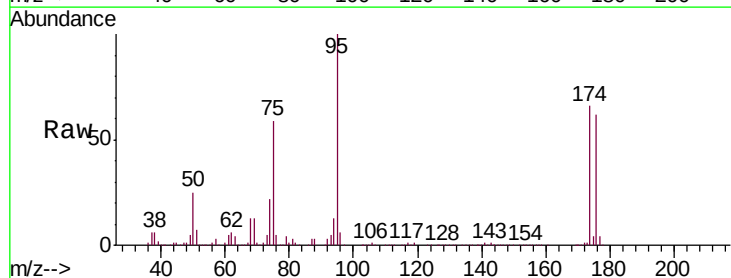


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V

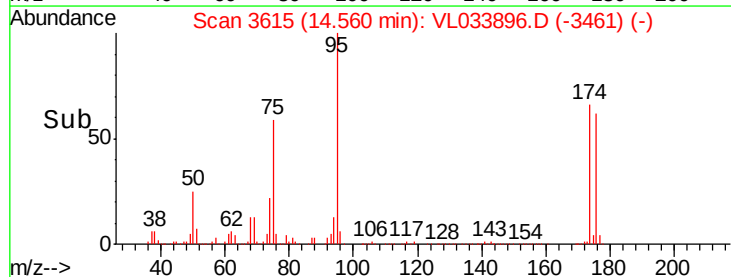
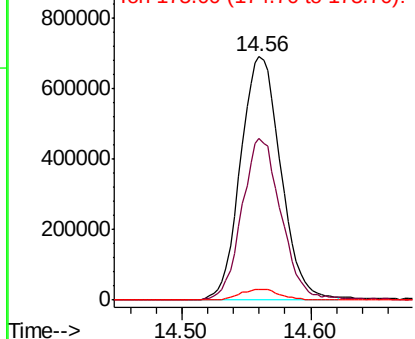


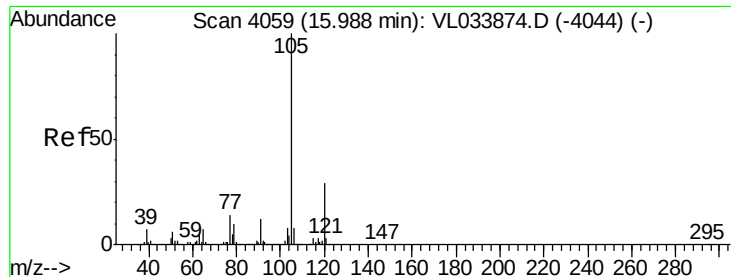
#68
1-Bromo-4-Fluorobenzene
Concen: 10.236 ppbv
RT: 14.56 min Scan# 3615
Delta R.T. -0.00 min
Lab File: VL033896.D
Acq: 7 Jun 2019 19:40

Tgt Ion: 95 Resp: 1500095
Ion Ratio Lower Upper
95 100
174 65.2 54.0 81.0
175 4.5 3.8 5.8



Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.053 ppbv

RT: 15.99 min Scan# 4059

Delta R.T. -0.00 min

Lab File: VL033896.D

Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM

Tgt Ion:105 Resp: 11295

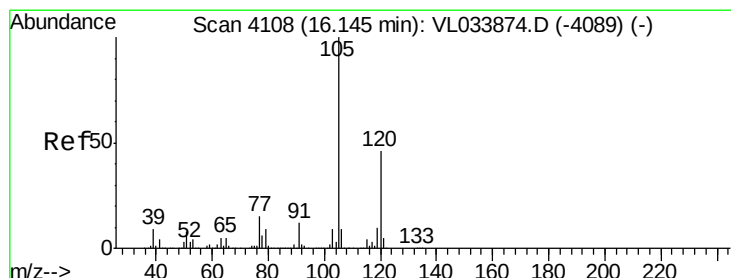
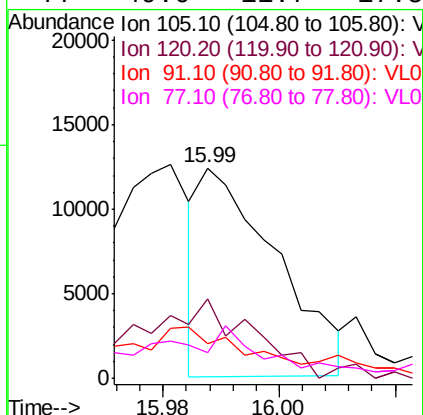
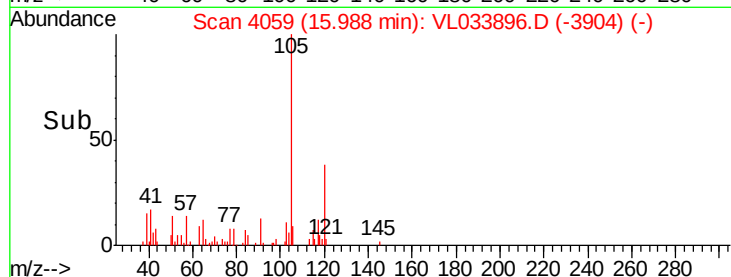
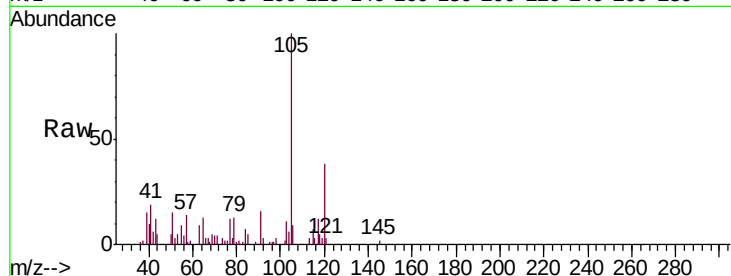
Ion Ratio Lower Upper

105 100

120 70.6 23.5 35.3#

91 57.2 10.4 15.6#

77 49.0 11.7 17.5#



#73

1,3,5-Trimethylbenzene

Concen: 0.080 ppbv

RT: 16.15 min Scan# 4108

Delta R.T. -0.00 min

Lab File: VL033896.D

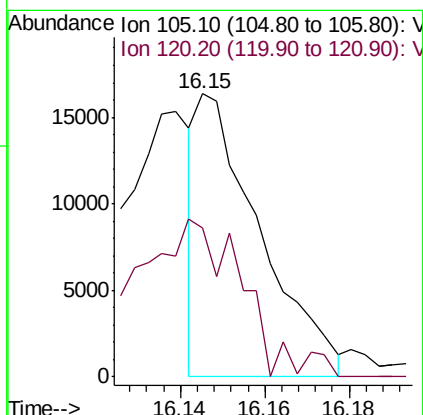
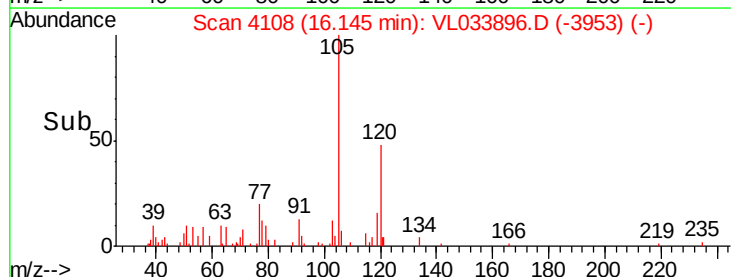
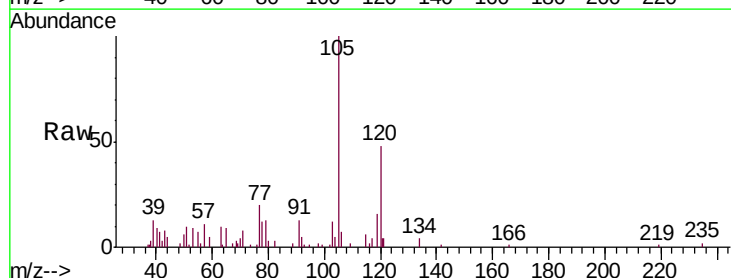
Acq: 7 Jun 2019 19:40

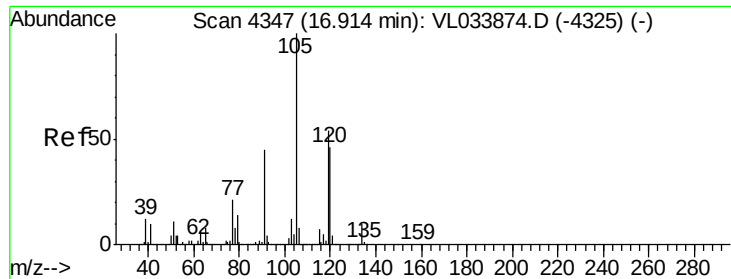
Tgt Ion:105 Resp: 16837

Ion Ratio Lower Upper

105 100

120 53.3 37.1 55.7





#74

1,2,4-Trimethylbenzene

Concen: 0.470 ppbv

RT: 16.91 min Scan# 4347

Delta R.T. -0.00 min

Lab File: VL033896.D

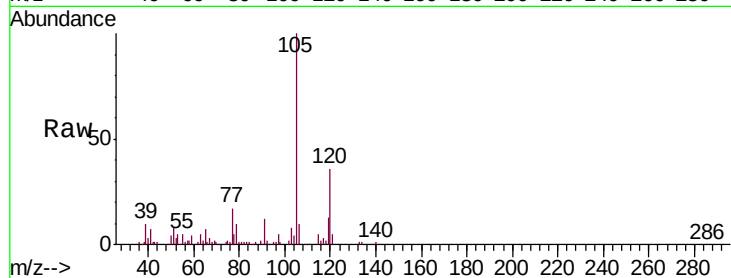
Acq: 7 Jun 2019 19:40

Instrument :

MSVOA_L

ClientSampleId :

INST.ROOM



Tgt Ion:105 Resp: 114678

Ion Ratio Lower Upper

105 100

120 35.6 36.7 55.1#

91 11.4 35.8 53.8#

77 21.8 16.9 25.3

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

