

Data File : VL036148.D
Acq On : 11 Dec 2020 4:09
Operator : SY/AP
Sample : L5005-02
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
48-2

Quant Time: Dec 11 07:12:15 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL120720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1303049	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.16	114	2613087	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.07	117	2322104	10.00	ppbv	-0.04

System Monitoring Compounds
68) 1-Bromo-4-Fluorobenzene 14.40 95 1995423 10.82 ppbv -0.04
Spiked Amount 10.000 Range 65 - 135 Recovery = 108.20%

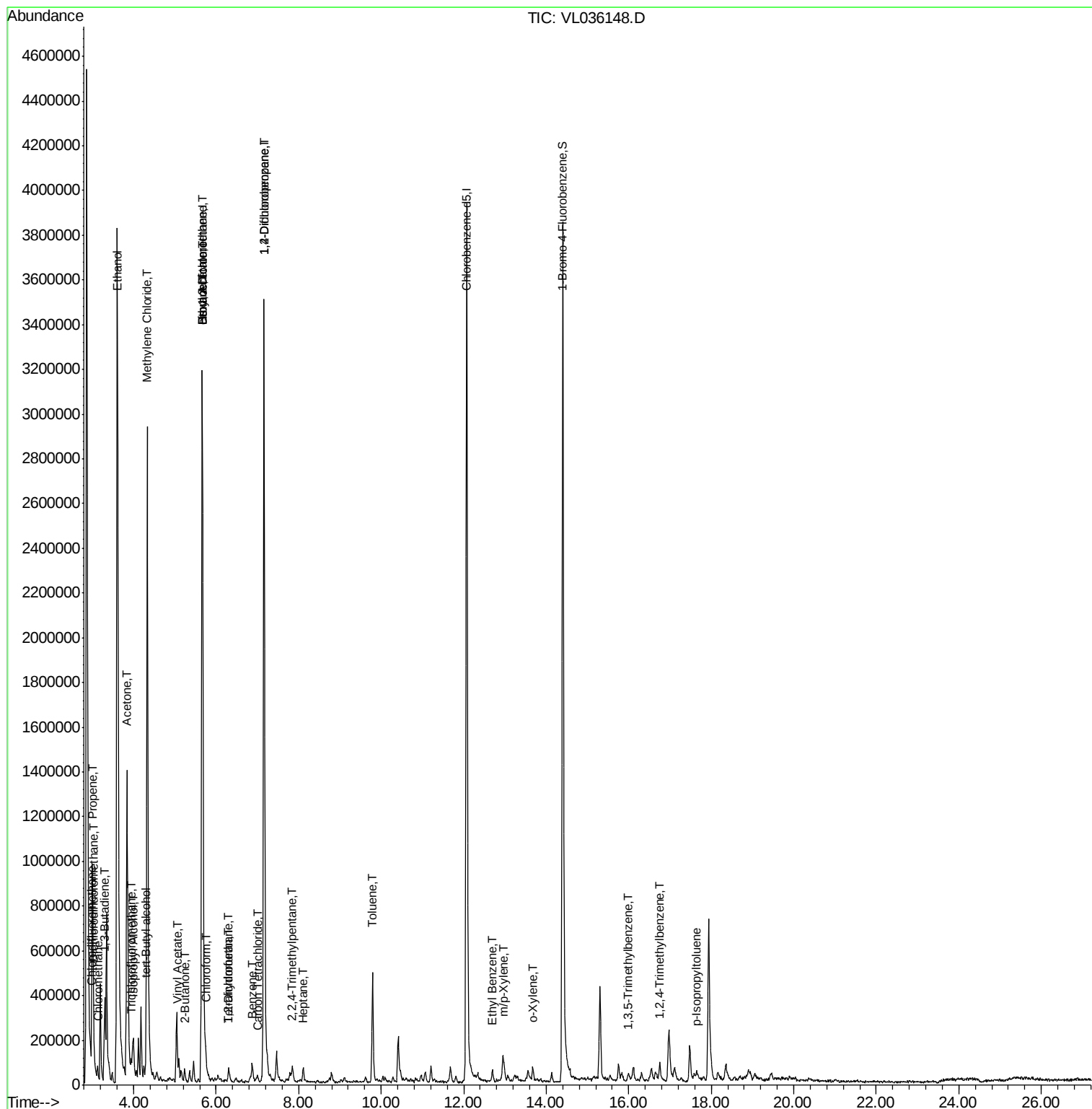
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.03	85	40530	0.267	ppbv	93
3) Chlorodifluoromethane	2.97	51	152925	1.029	ppbv #	84
4) Chloromethane	3.13	50	58172	0.797	ppbv	95
9) Propene	3.00	41	445432	5.981	ppbv	89
10) Heptane	8.10	43	12202	0.064	ppbv #	29
11) Trichlorofluoromethane	3.93	101	42386	0.237	ppbv #	82
13) Ethanol	3.60	45	6133122	597.368	ppbv	85
15) Acetone	3.84	43	1919111	12.254	ppbv	95
16) 1,3-Butadiene	3.29	39	179531	2.276	ppbv #	45
17) tert-Butyl alcohol	4.29	59	15048	0.099	ppbv #	35
19) Isopropyl Alcohol	3.97	45	182870	1.910	ppbv #	100
20) Methylene Chloride	4.33	84	1122094	17.485	ppbv	94
23) Vinyl Acetate	5.07	43	9073	0.044	ppbv #	1
25) Ethyl Acetate	5.66	43	1090598	3.486	ppbv #	94
26) Hexane	5.67	57	773298	5.492	ppbv #	64
29) Chloroform	5.75	83	8237	0.045	ppbv	98
31) cis-1,2-Dichloroethene	5.65	61	23379	0.183	ppbv #	31
34) 2-Butanone	5.24	43	69225	0.399	ppbv	94
35) Carbon Tetrachloride	7.00	117	7526	0.049	ppbv #	73
36) Benzene	6.88	78	64452	0.291	ppbv #	87
37) 1,2-Dichloroethane	6.29	62	7036	0.055	ppbv #	90
39) 1,2-Dichloropropane	7.16	63	816474	9.336	ppbv #	24
41) Tetrahydrofuran	6.30	42	4001	0.039	ppbv #	44
44) 2,2,4-Trimethylpentane	7.86	57	50268	0.125	ppbv #	69
53) Toluene	9.79	91	362167	1.456	ppbv	99
58) Ethyl Benzene	12.69	91	17308	0.054	ppbv	97
59) m/p-Xylene	12.98	91	18257	0.068	ppbv #	34
60) o-Xylene	13.68	91	17293	0.068	ppbv #	1
69) p-Isopropyltoluene	17.64	119	13950	0.041	ppbv #	18
73) 1,3,5-Trimethylbenzene	15.98	105	9265	0.035	ppbv	99
74) 1,2,4-Trimethylbenzene	16.74	105	12125	0.046	ppbv #	60

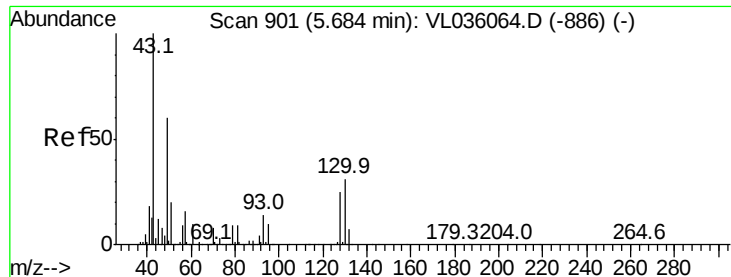
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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ClientSampled :
48-2

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QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 891

Delta R.T. -0.03 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampled :

48-2

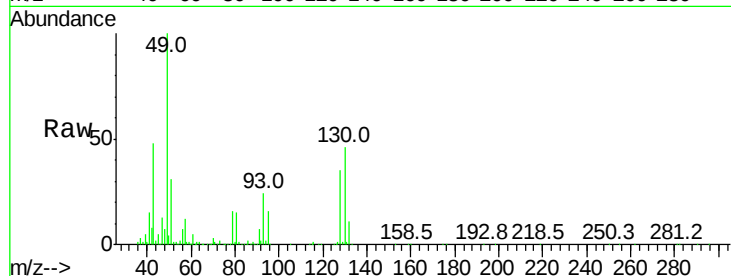
Tgt Ion: 49 Resp: 1303049

Ion Ratio Lower Upper

49 100

128 35.2 21.1 63.1

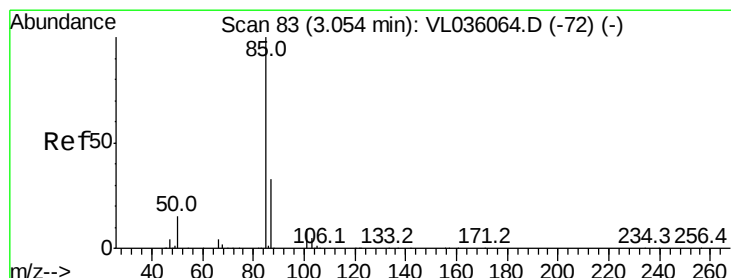
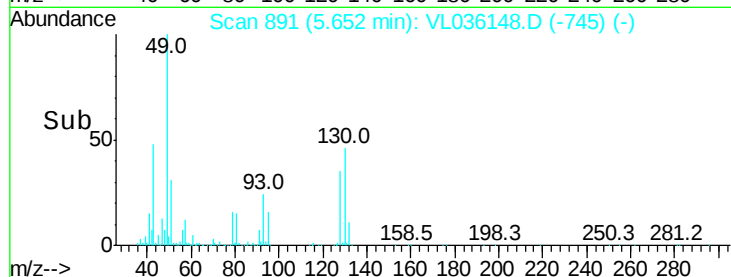
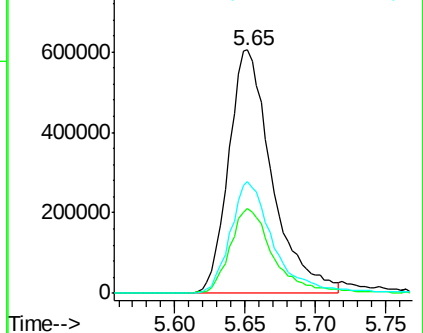
130 46.1 27.1 81.3



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: 0.267 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.02 min

Lab File: VL036148.D

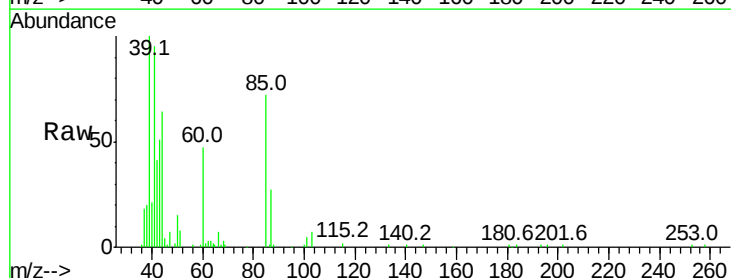
Acq: 11 Dec 2020 4:09

Tgt Ion: 85 Resp: 40530

Ion Ratio Lower Upper

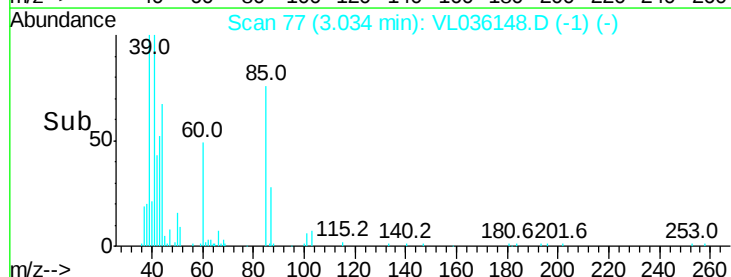
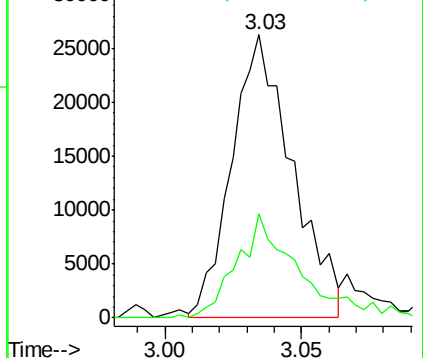
85 100

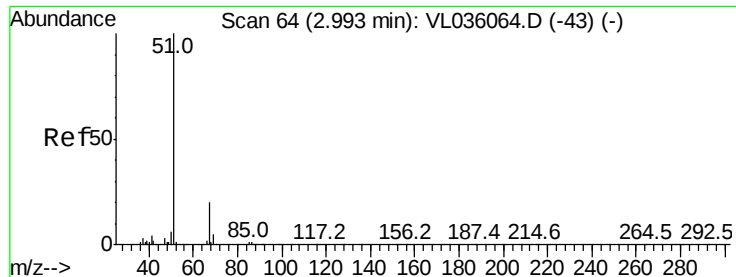
87 37.3 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.029 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.02 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

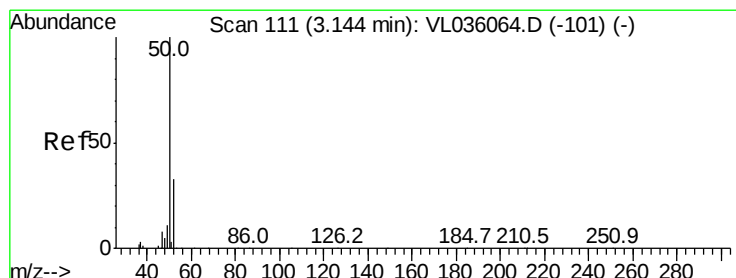
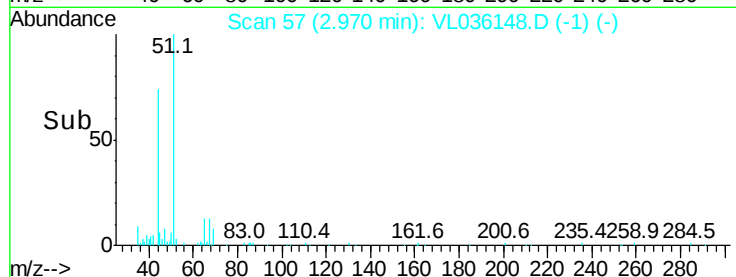
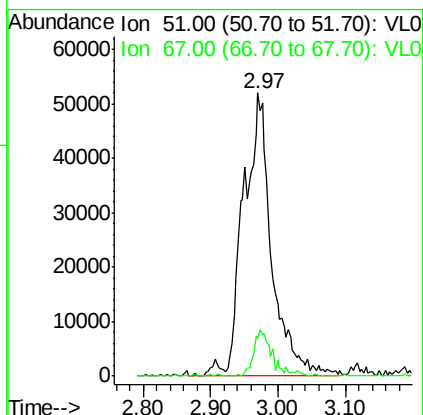
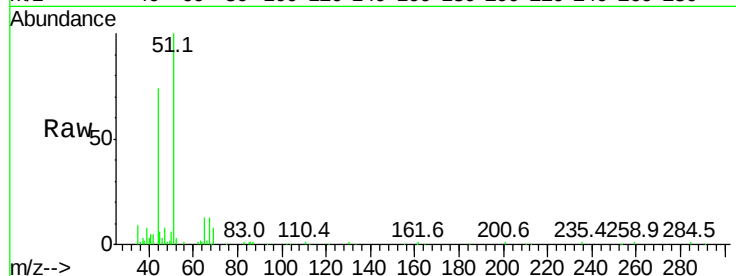
48-2

Tgt Ion: 51 Resp: 152925

Ion Ratio Lower Upper

51 100

67 10.8 14.3 21.5#



#4

Chloromethane

Concen: 0.797 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.02 min

Lab File: VL036148.D

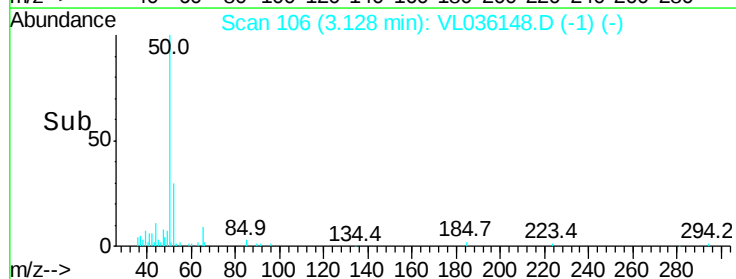
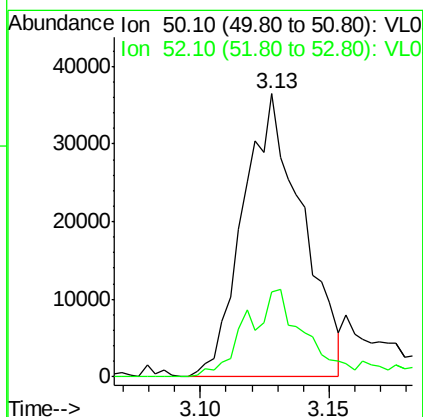
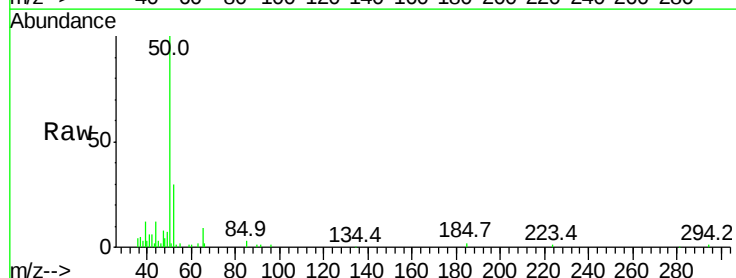
Acq: 11 Dec 2020 4:09

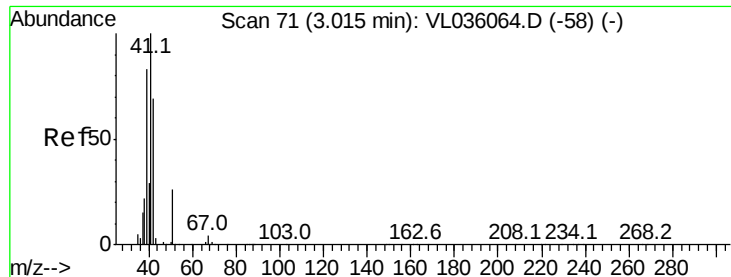
Tgt Ion: 50 Resp: 58172

Ion Ratio Lower Upper

50 100

52 29.9 26.1 39.1





#9

Propene

Concen: 5.981 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.02 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

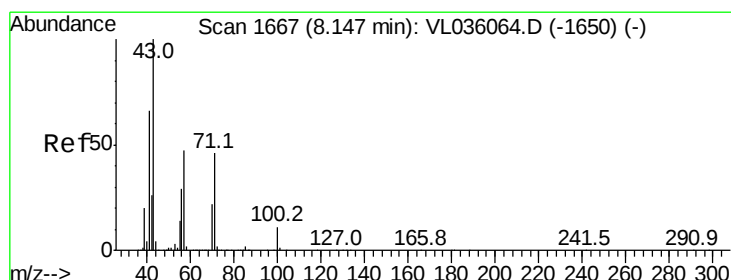
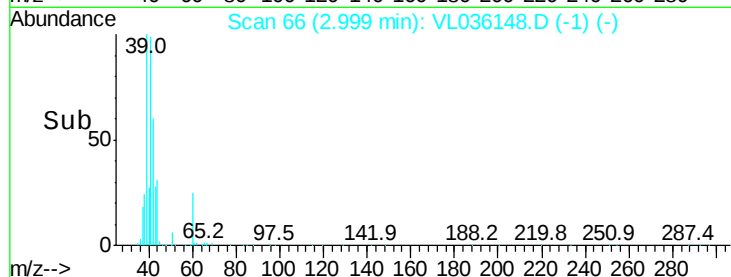
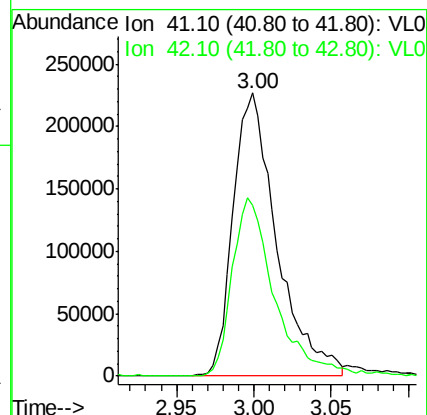
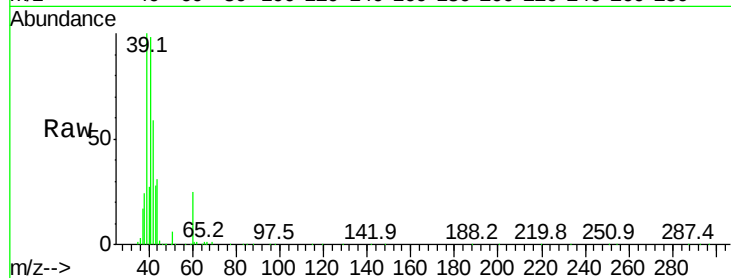
48-2

Tgt Ion: 41 Resp: 445432

Ion Ratio Lower Upper

41 100

42 62.0 57.0 85.6



#10

Heptane

Concen: 0.064 ppbv

RT: 8.10 min Scan# 1652

Delta R.T. -0.05 min

Lab File: VL036148.D

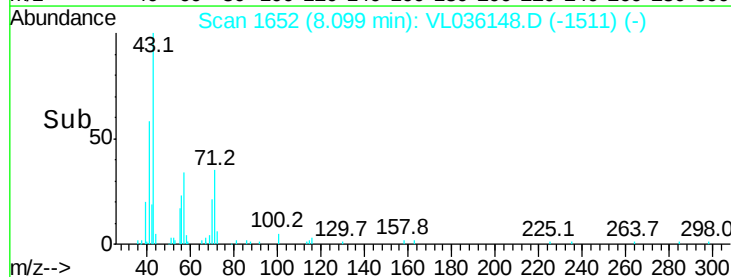
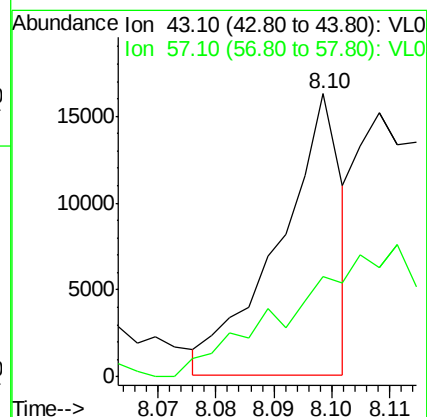
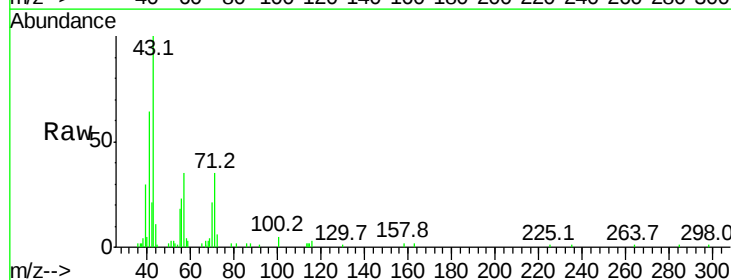
Acq: 11 Dec 2020 4:09

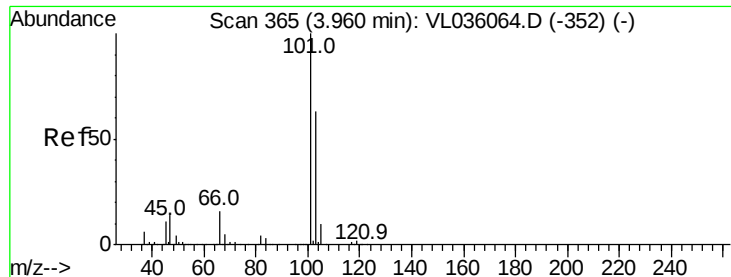
Tgt Ion: 43 Resp: 12202

Ion Ratio Lower Upper

43 100

57 0.0 37.9 56.9#

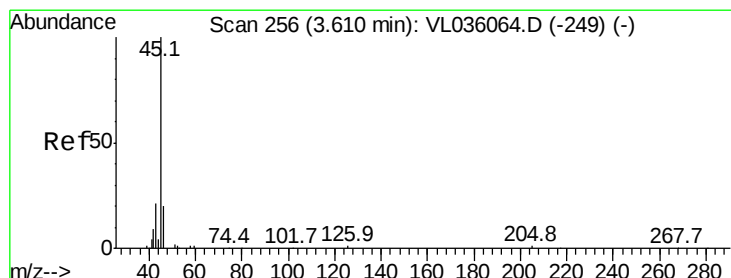
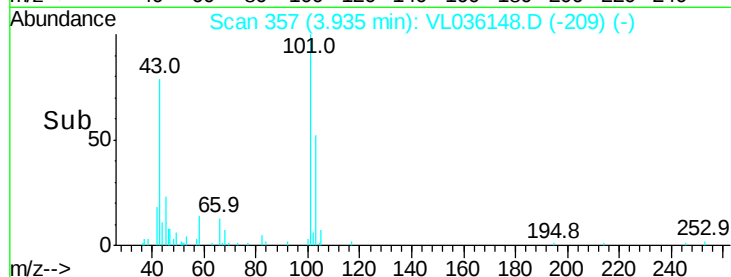
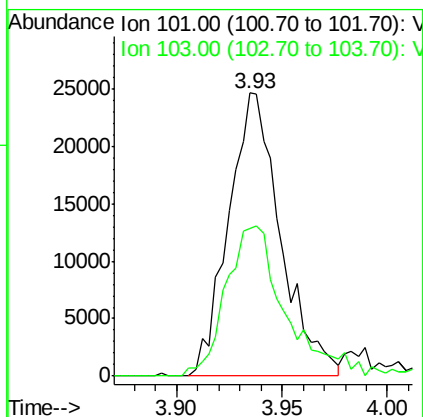
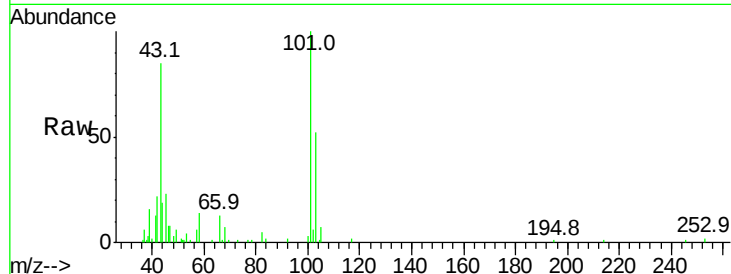




#11
 Trichlorofluoromethane
 Concen: 0.237 ppbv
 RT: 3.93 min Scan# 357
 Delta R.T. -0.03 min
 Lab File: VL036148.D
 Acq: 11 Dec 2020 4:09

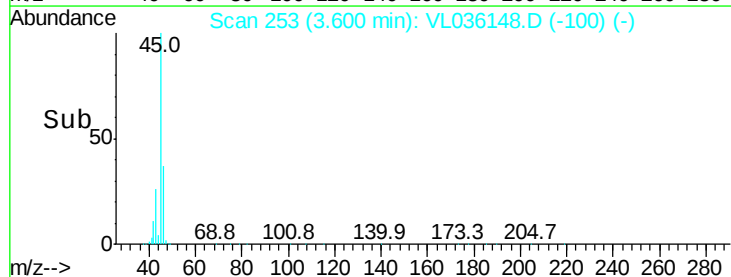
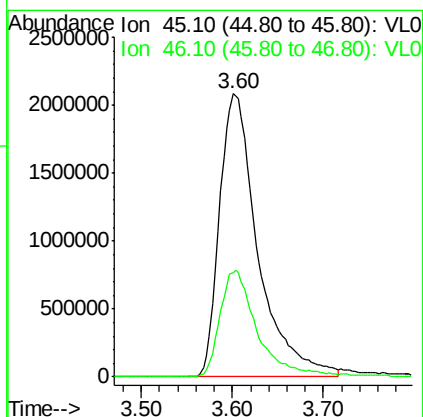
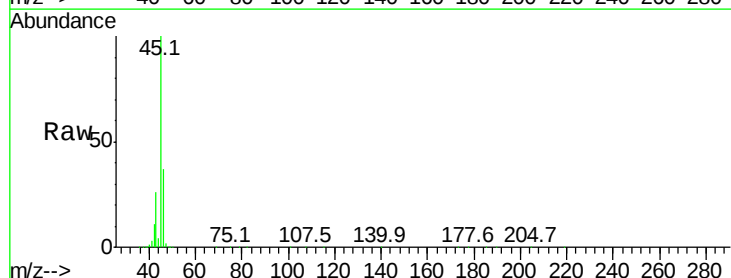
Instrument :
 MSVOA_L
 ClientSampled :
 48-2

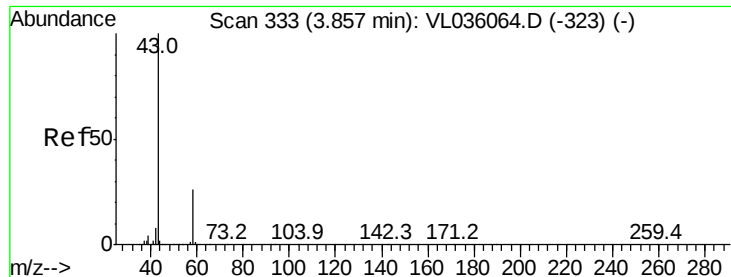
Tgt Ion: 101 Resp: 42386
 Ion Ratio Lower Upper
 101 100
 103 49.3 50.3 75.5#



#13
 Ethanol
 Concen: 597.368 ppbv
 RT: 3.60 min Scan# 253
 Delta R.T. -0.01 min
 Lab File: VL036148.D
 Acq: 11 Dec 2020 4:09

Tgt Ion: 45 Resp: 6133122
 Ion Ratio Lower Upper
 45 100
 46 37.3 19.0 75.8





#15

Acetone

Concen: 12.254 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.02 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampled :

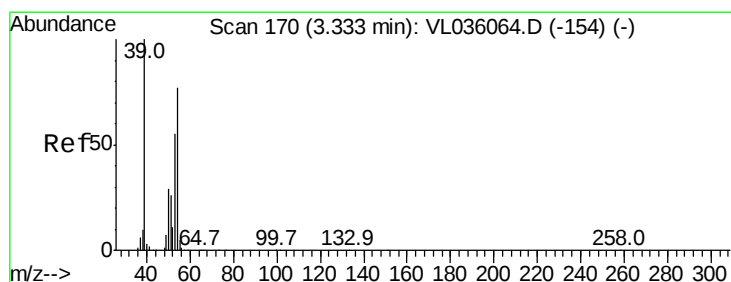
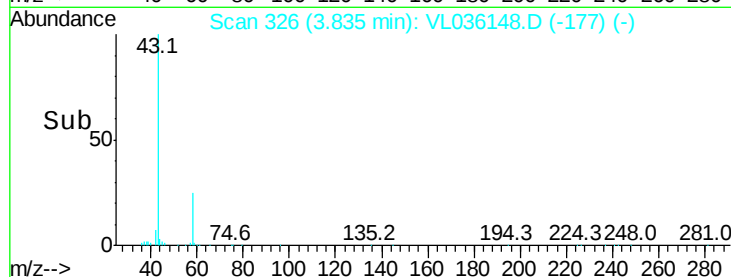
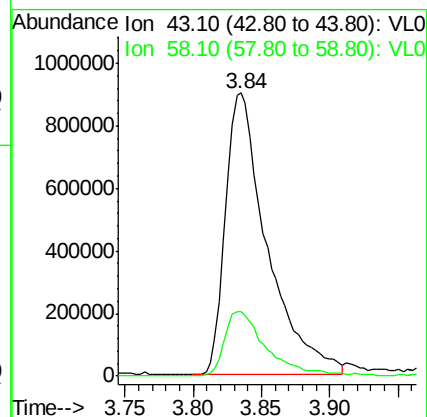
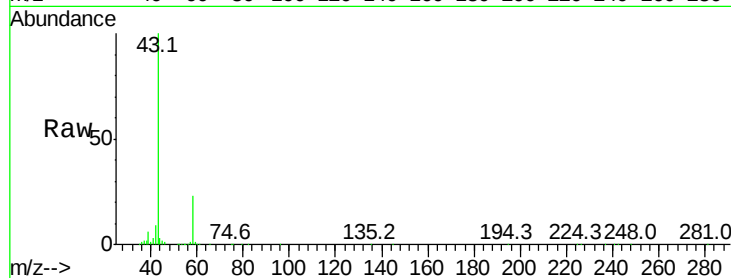
48-2

Tgt Ion: 43 Resp: 1919111

Ion Ratio Lower Upper

43 100

58 23.6 20.9 31.3



#16

1,3-Butadiene

Concen: 2.276 ppbv

RT: 3.29 min Scan# 158

Delta R.T. -0.04 min

Lab File: VL036148.D

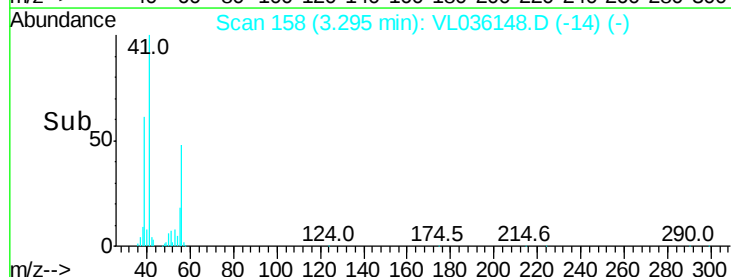
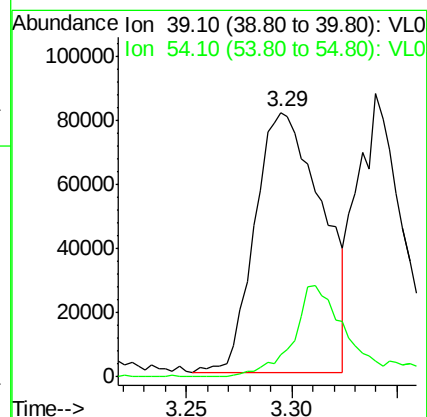
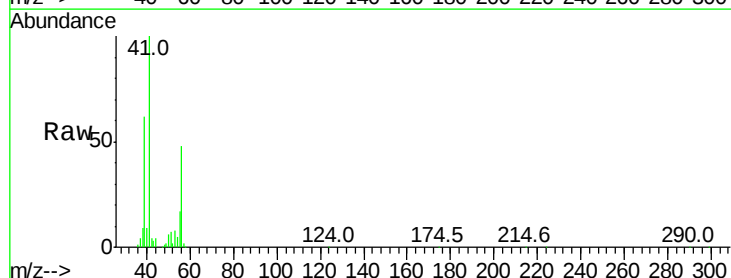
Acq: 11 Dec 2020 4:09

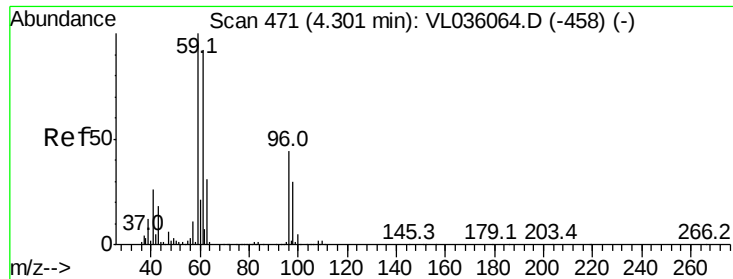
Tgt Ion: 39 Resp: 179531

Ion Ratio Lower Upper

39 100

54 29.8 62.1 93.1#





#17

tert-Butyl alcohol

Concen: 0.099 ppbv

RT: 4.29 min Scan# 469

Delta R.T. -0.01 min

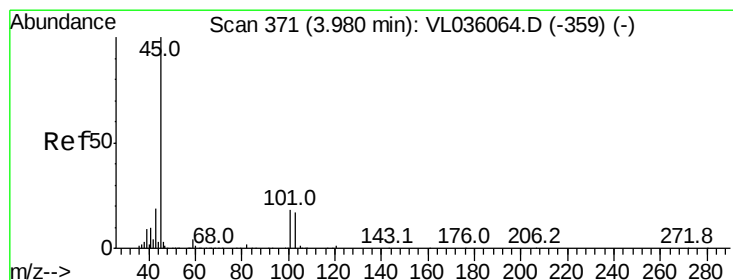
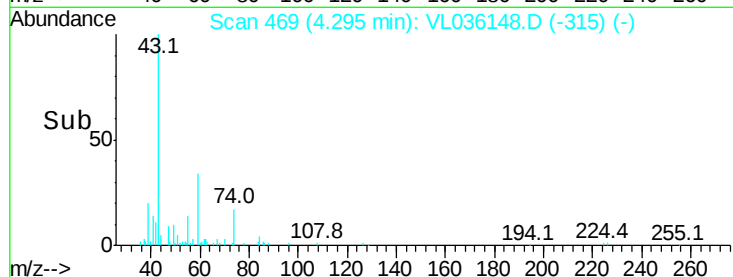
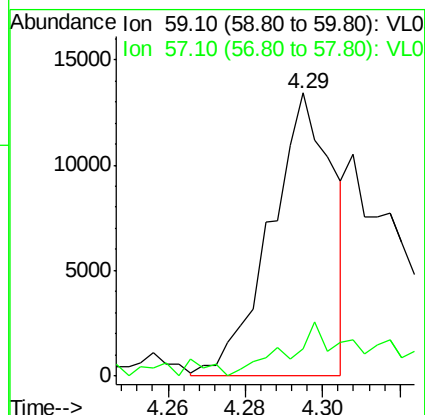
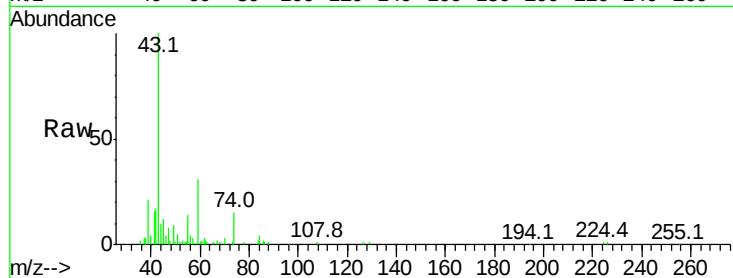
Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :
MSVOA_L
ClientSampled :
48-2

Tgt Ion: 59 Resp: 15048

Ion	Ratio	Lower	Upper
59	100		
57	35.5	8.7	13.1#



#19

Isopropyl Alcohol

Concen: 1.910 ppbv

RT: 3.97 min Scan# 368

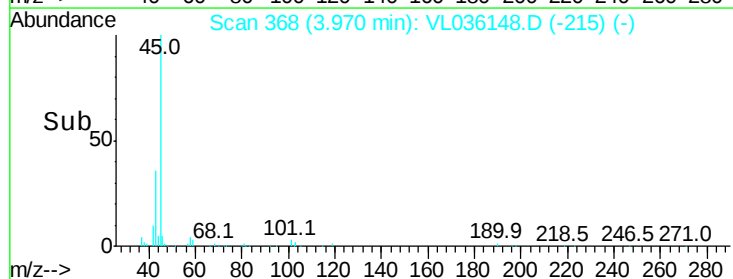
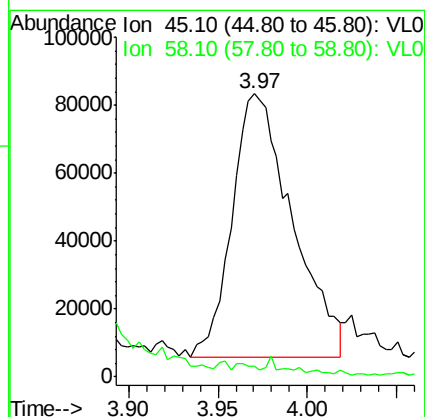
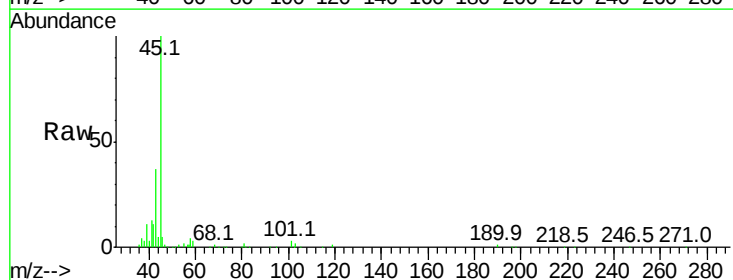
Delta R.T. -0.01 min

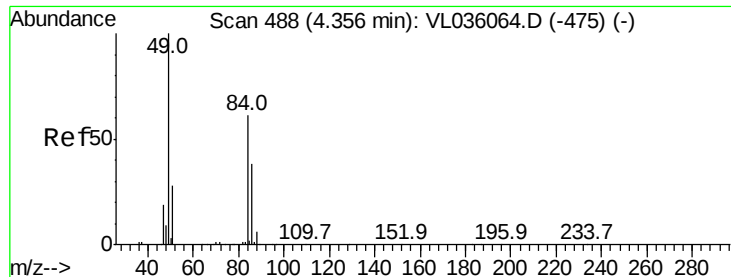
Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Tgt Ion: 45 Resp: 182870

Ion	Ratio	Lower	Upper
45	100		
58	248.2	0.0	0.0#



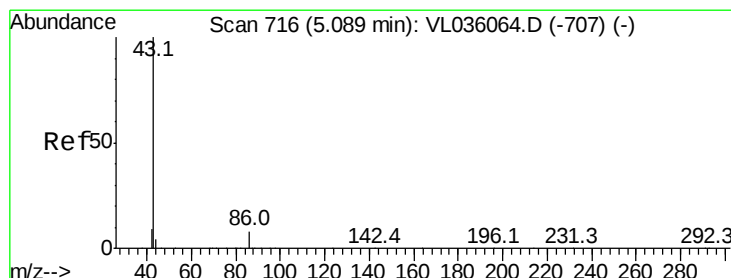
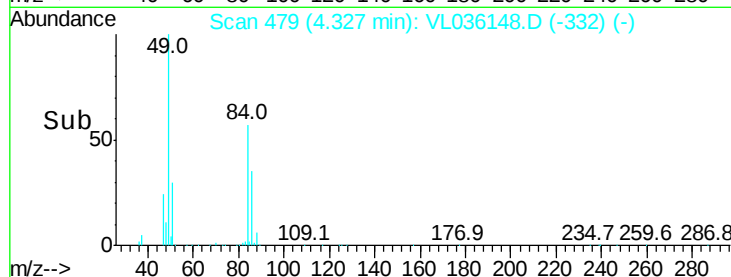
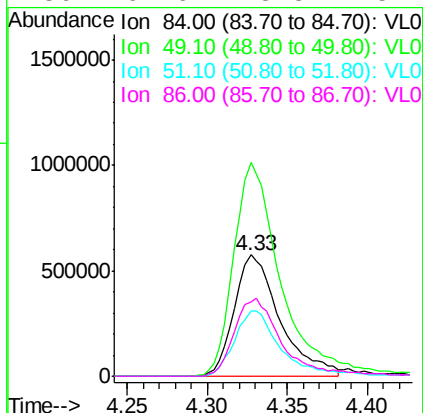
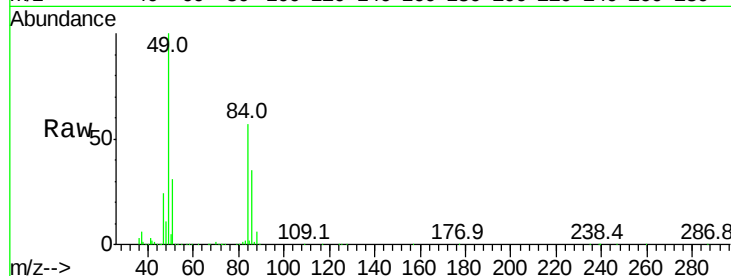


#20
Methylene Chloride
Concen: 17.485 ppbv
RT: 4.33 min Scan# 479
Delta R.T. -0.03 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

Instrument :
MSVOA_L
ClientSampleId :
48-2

Tgt Ion: 84 Resp: 1122094

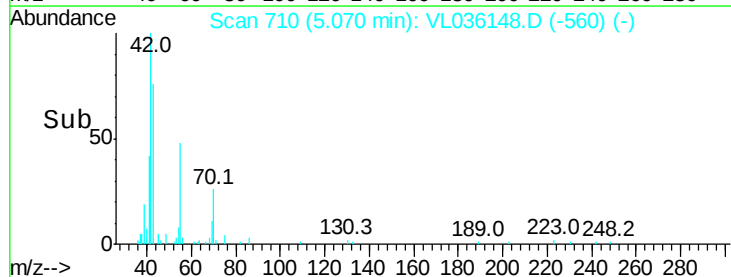
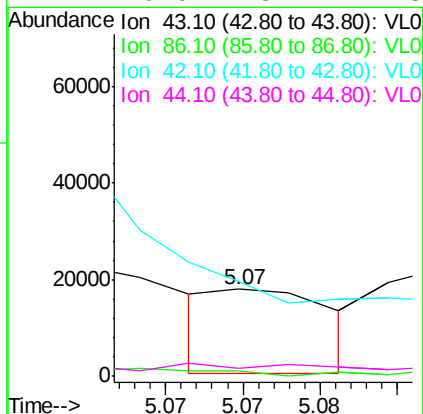
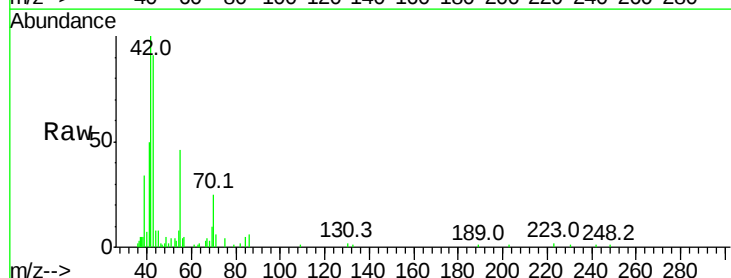
Ion	Ratio	Lower	Upper
84	100		
49	176.0	133.0	199.4
51	53.6	38.9	58.3
86	61.6	48.8	73.2

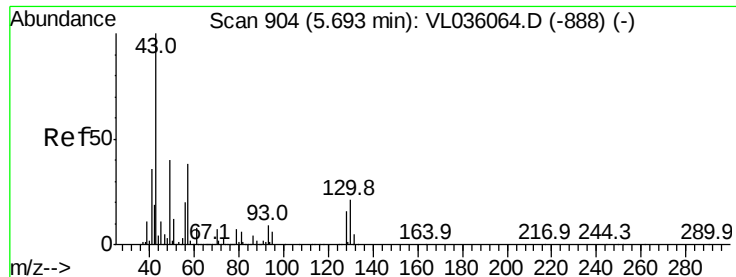


#23
Vinyl Acetate
Concen: 0.044 ppbv
RT: 5.07 min Scan# 710
Delta R.T. -0.02 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

Tgt Ion: 43 Resp: 9073

Ion	Ratio	Lower	Upper
43	100		
86	7.3	5.0	7.4
42	81.7	7.8	11.6#
44	0.0	3.2	4.8#





#25

Ethyl Acetate

Concen: 3.486 ppbv

RT: 5.66 min Scan# 895

Delta R.T. -0.03 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

48-2

Tgt Ion: 43 Resp: 1090598

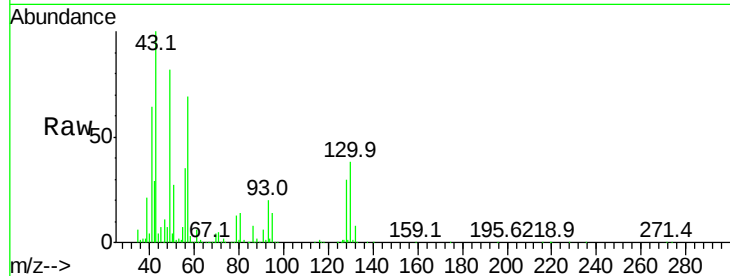
Ion Ratio Lower Upper

43 100

45 7.9 8.2 12.4#

61 6.2 7.4 11.2#

70 5.4 5.4 8.0

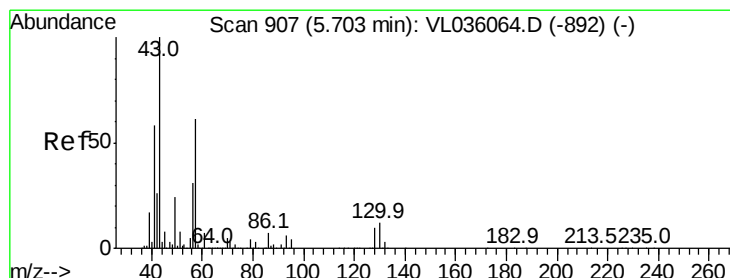
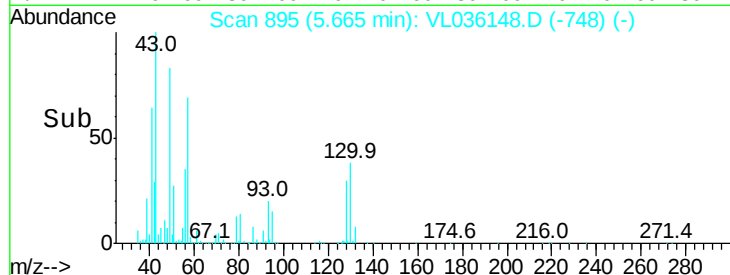
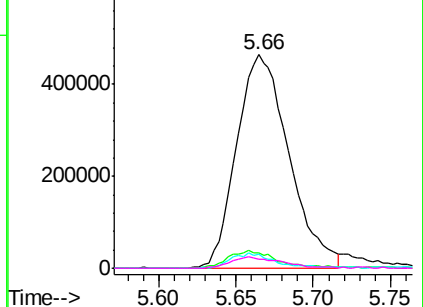


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 5.492 ppbv

RT: 5.67 min Scan# 897

Delta R.T. -0.03 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Tgt Ion: 57 Resp: 773298

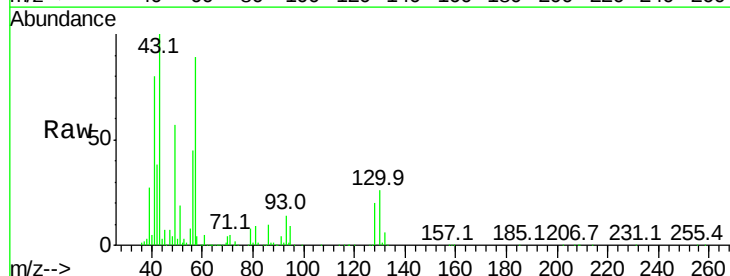
Ion Ratio Lower Upper

57 100

41 98.4 82.9 124.3

43 150.6 199.9 299.9#

56 53.3 43.1 64.7

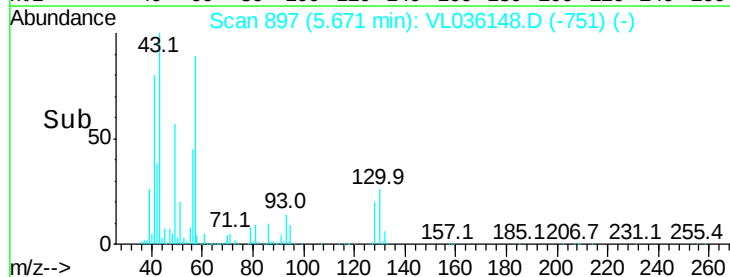
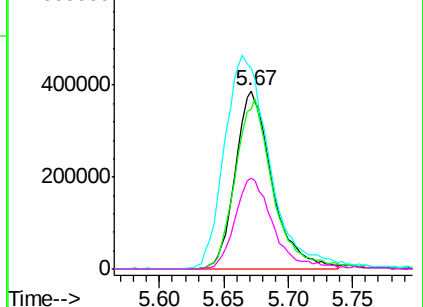


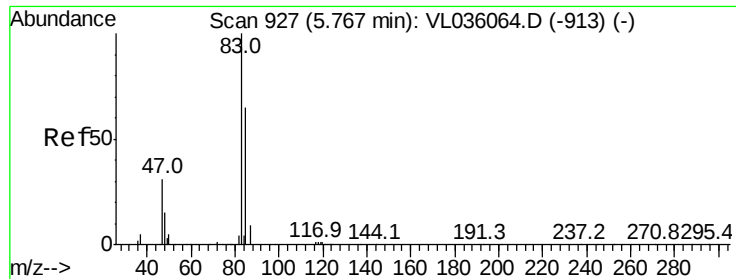
Abundance Ion 57.10 (56.80 to 57.80): VL0

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

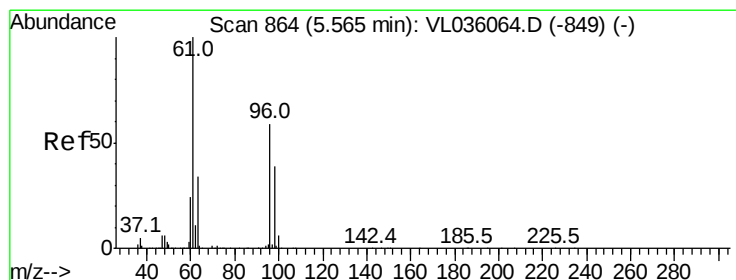
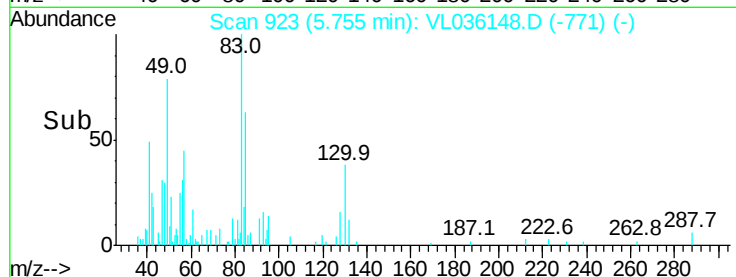
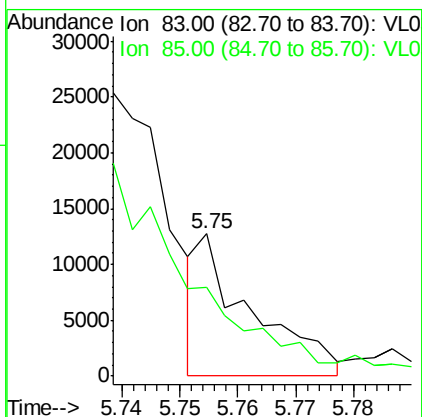
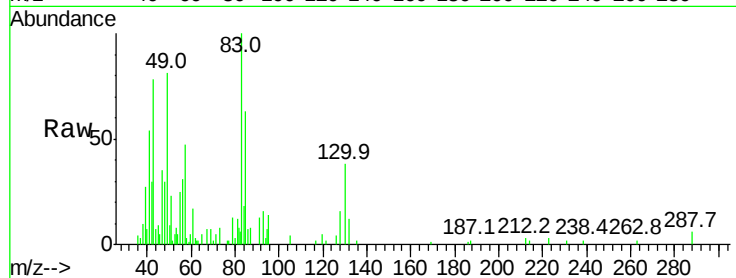




#29
Chloroform
Concen: 0.045 ppbv
RT: 5.75 min Scan# 923
Delta R.T. -0.01 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

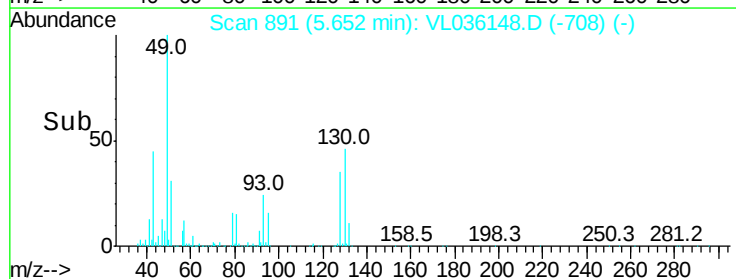
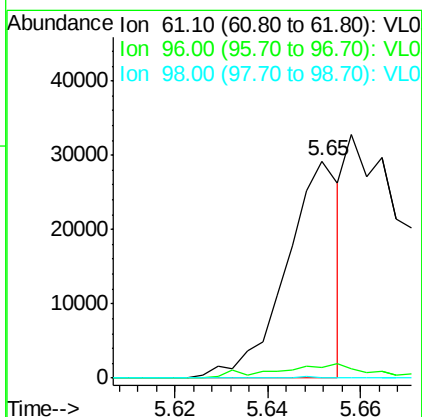
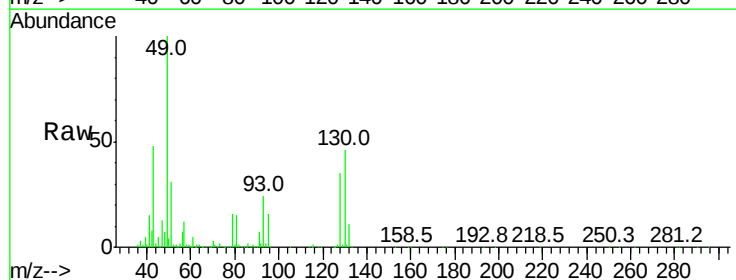
Instrument :
MSVOA_L
ClientSampleId :
48-2

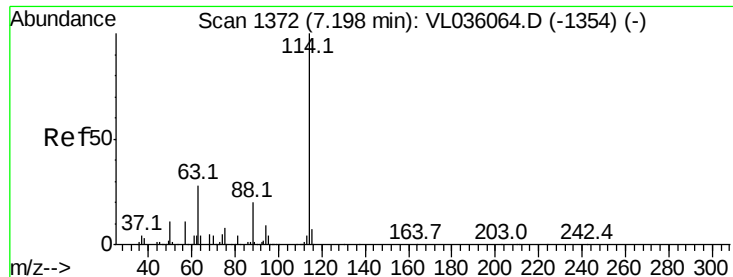
Tgt Ion: 83 Resp: 8237
Ion Ratio Lower Upper
83 100
85 62.8 51.8 77.6



#31
cis-1,2-Dichloroethene
Concen: 0.183 ppbv
RT: 5.65 min Scan# 891
Delta R.T. 0.09 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

Tgt Ion: 61 Resp: 23379
Ion Ratio Lower Upper
61 100
96 4.9 47.3 70.9#
98 0.0 31.4 47.0#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.04 min

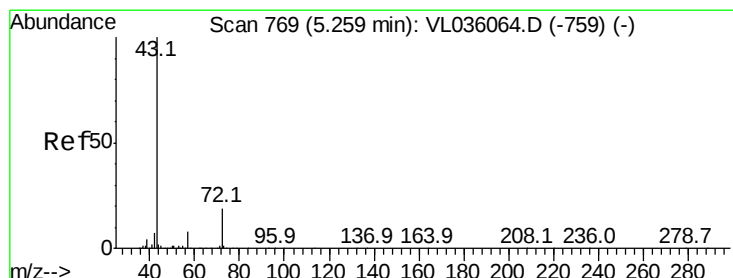
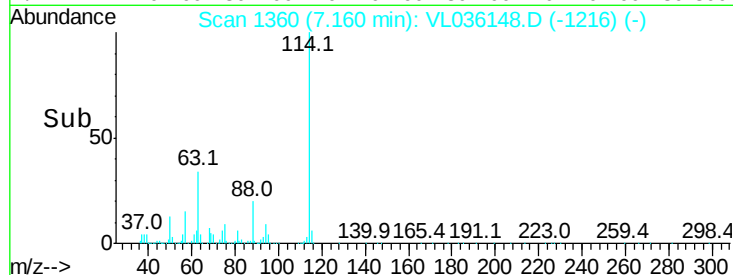
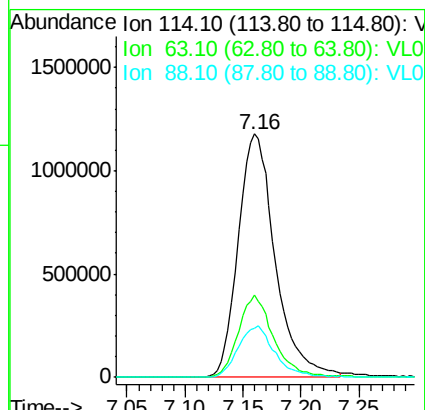
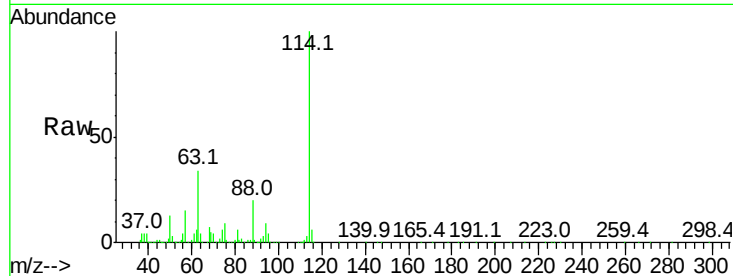
Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :
MSVOA_L
ClientSampleId :
48-2

Tgt Ion:114 Resp: 2613087

Ion	Ratio	Lower	Upper
114	100		
63	32.9	23.6	35.4
88	21.3	15.8	23.6



#34

2-Butanone

Concen: 0.399 ppbv

RT: 5.24 min Scan# 762

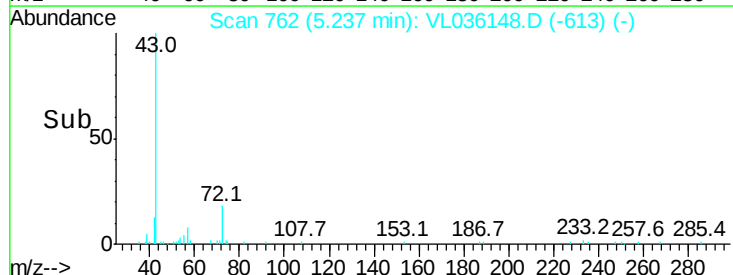
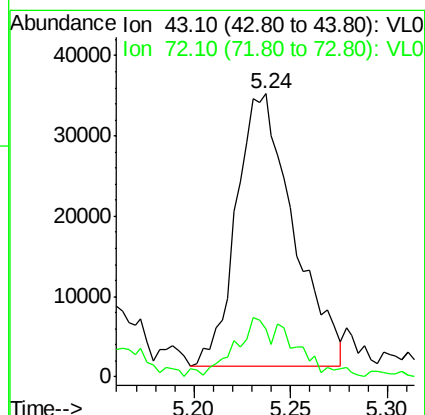
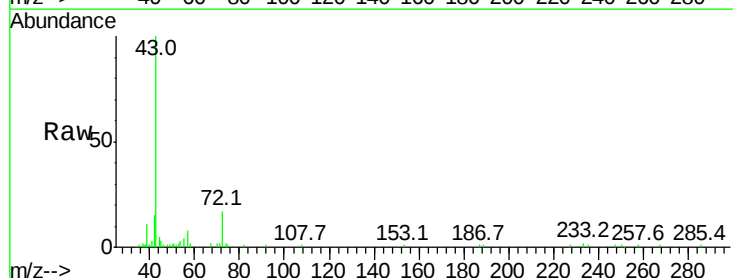
Delta R.T. -0.02 min

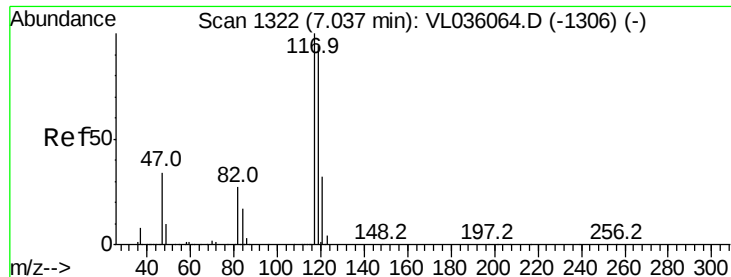
Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Tgt Ion: 43 Resp: 69225

Ion	Ratio	Lower	Upper
43	100		
72	23.3	16.5	24.7





#35

Carbon Tetrachloride

Concen: 0.049 ppbv

RT: 7.00 min Scan# 1311

Delta R.T. -0.04 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

48-2

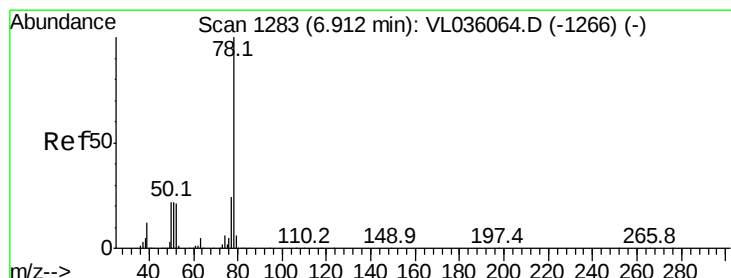
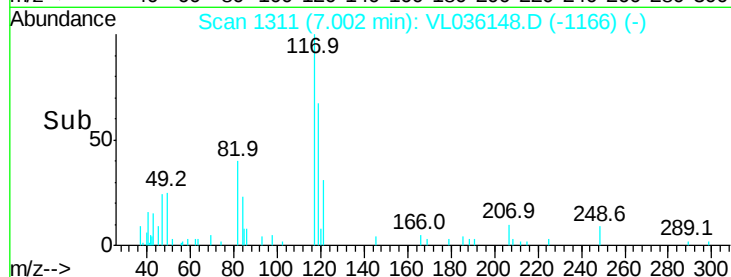
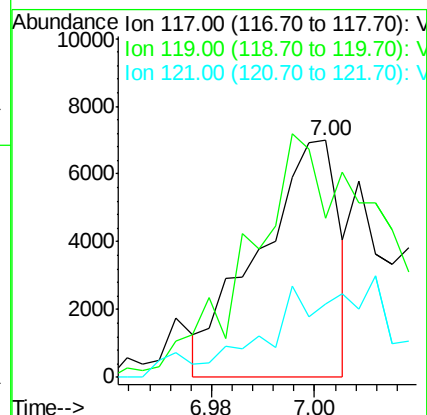
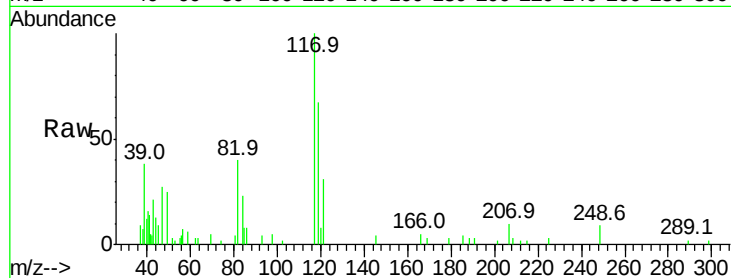
Tgt Ion:117 Resp: 7526

Ion Ratio Lower Upper

117 100

119 60.1 75.1 112.7#

121 30.9 25.6 38.4



#36

Benzene

Concen: 0.291 ppbv

RT: 6.88 min Scan# 1272

Delta R.T. -0.04 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

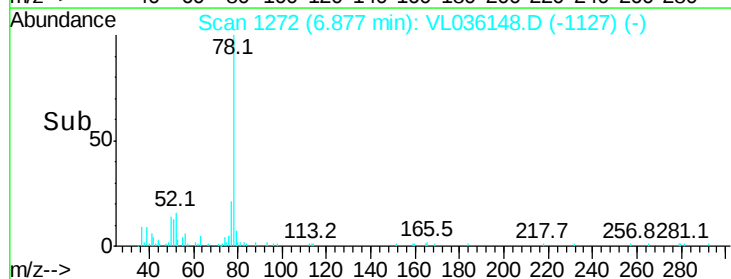
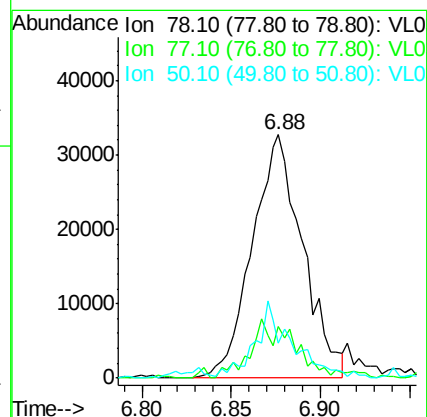
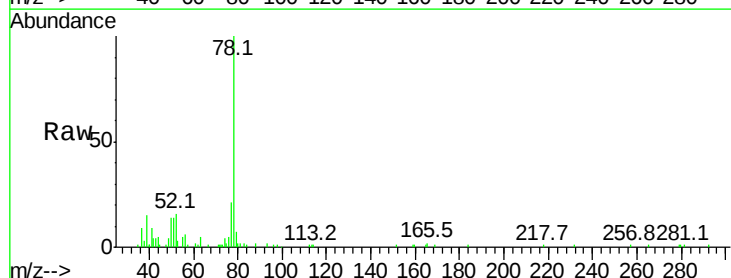
Tgt Ion: 78 Resp: 64452

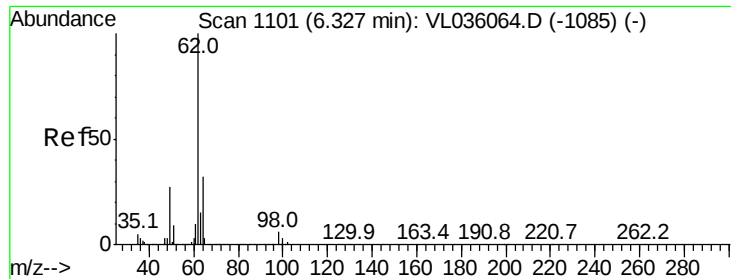
Ion Ratio Lower Upper

78 100

77 21.4 19.4 29.2

50 12.0 17.8 26.8#





#37

1,2-Dichloroethane

Concen: 0.055 ppbv

RT: 6.29 min Scan# 1090

Delta R.T. -0.04 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

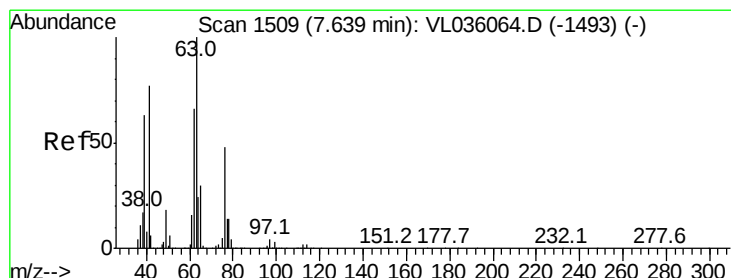
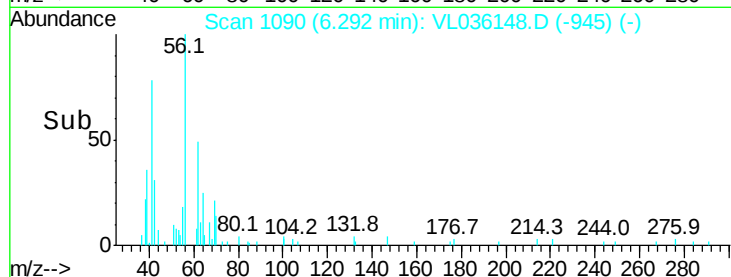
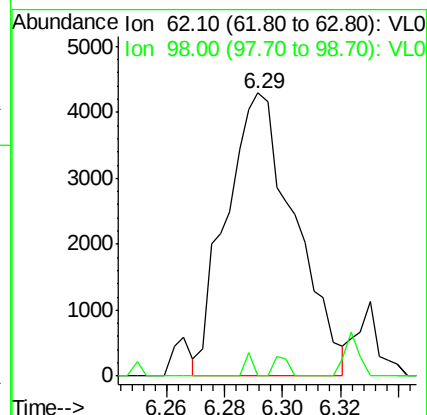
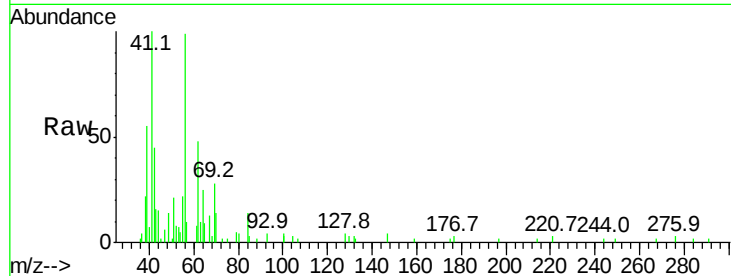
48-2

Tgt Ion: 62 Resp: 7036

Ion Ratio Lower Upper

62 100

98 2.5 4.6 7.0#



#39

1,2-Dichloropropane

Concen: 9.336 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.48 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

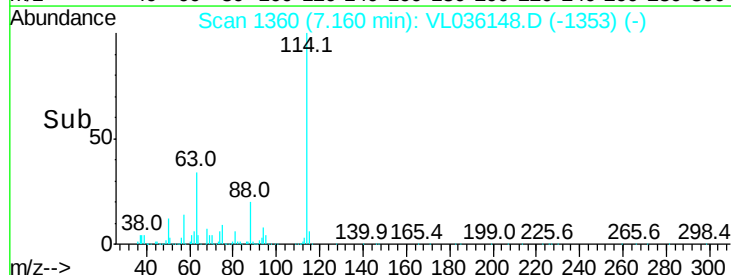
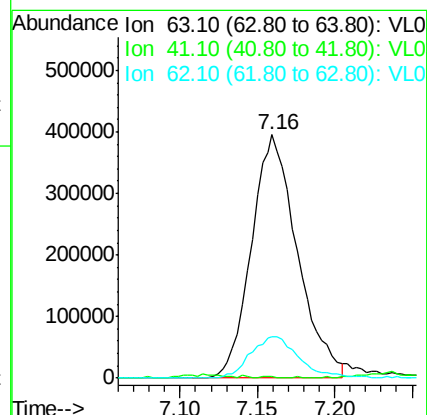
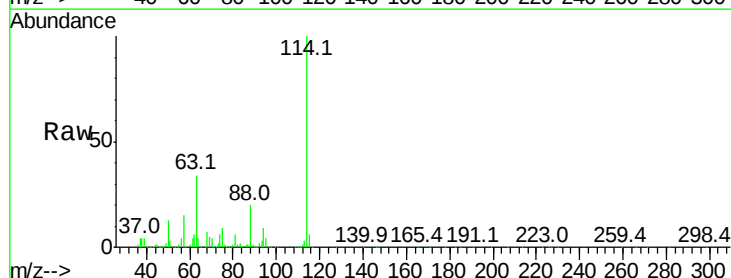
Tgt Ion: 63 Resp: 816474

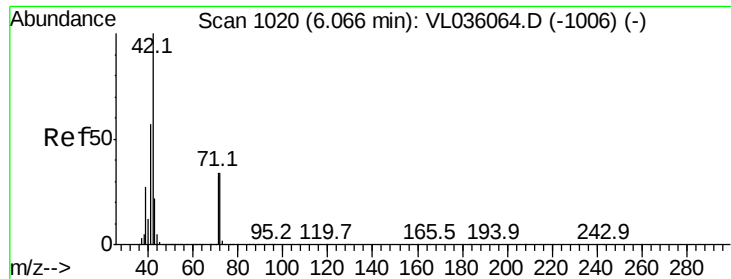
Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

62 17.1 52.5 78.7#

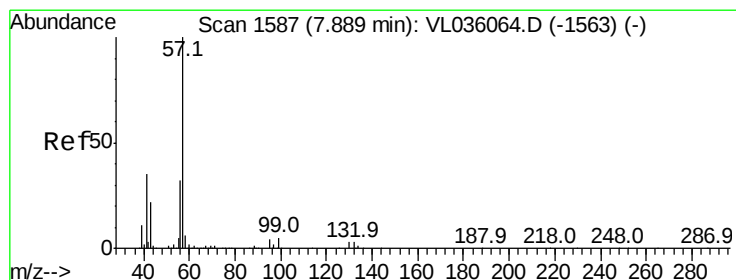
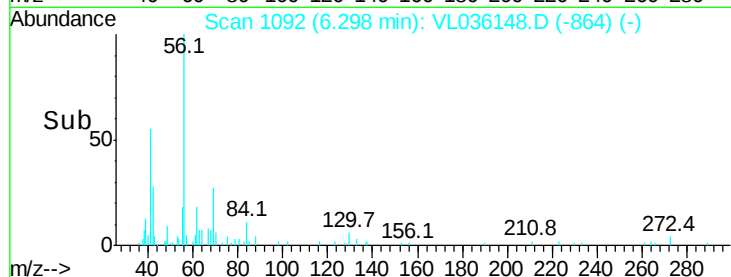
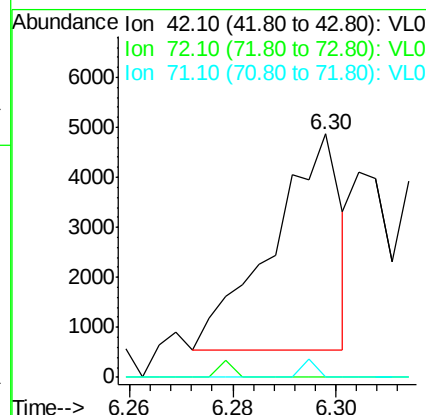
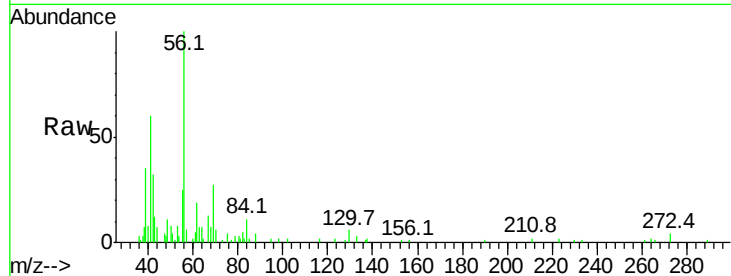




#41
Tetrahydrofuran
Concen: 0.039 ppbv
RT: 6.30 min Scan# 1092
Delta R.T. 0.23 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

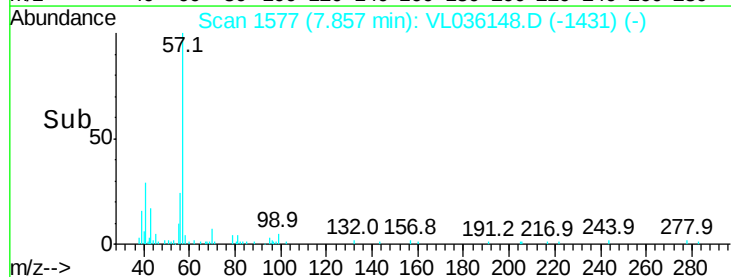
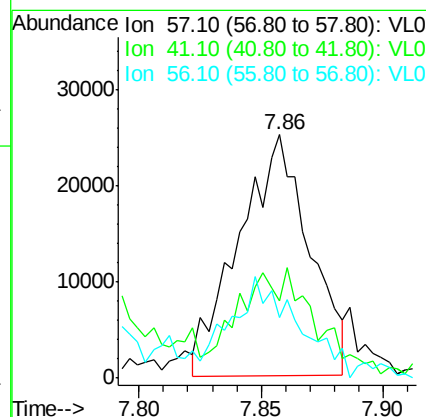
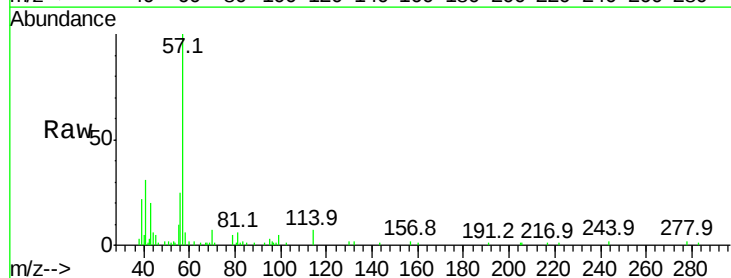
Instrument :
MSVOA_L
ClientSampleId :
48-2

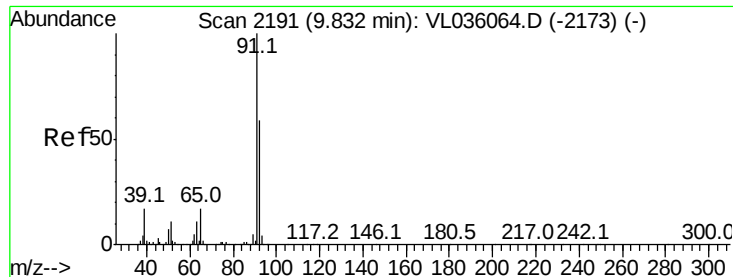
Tgt Ion: 42 Resp: 4001
Ion Ratio Lower Upper
42 100
72 4.7 28.3 42.5#
71 0.0 27.3 40.9#



#44
2,2,4-Trimethylpentane
Concen: 0.125 ppbv
RT: 7.86 min Scan# 1577
Delta R.T. -0.03 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

Tgt Ion: 57 Resp: 50268
Ion Ratio Lower Upper
57 100
41 52.6 28.9 43.3#
56 50.8 25.3 37.9#





#53

Toluene

Concen: 1.456 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.04 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampled :

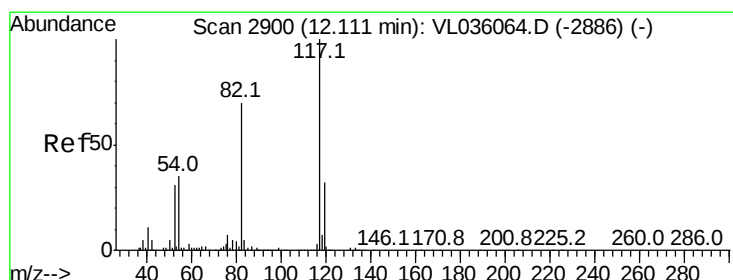
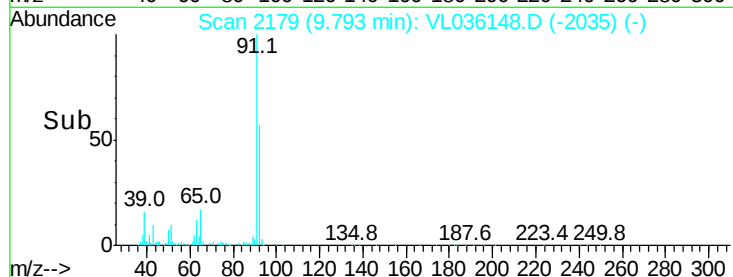
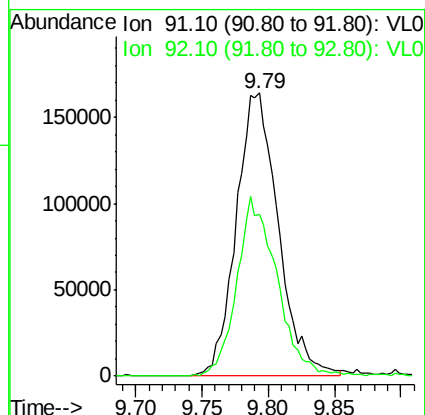
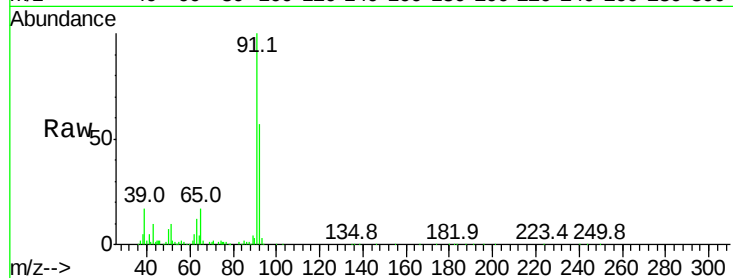
48-2

Tgt Ion: 91 Resp: 362167

Ion Ratio Lower Upper

91 100

92 61.1 48.2 72.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2888

Delta R.T. -0.04 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

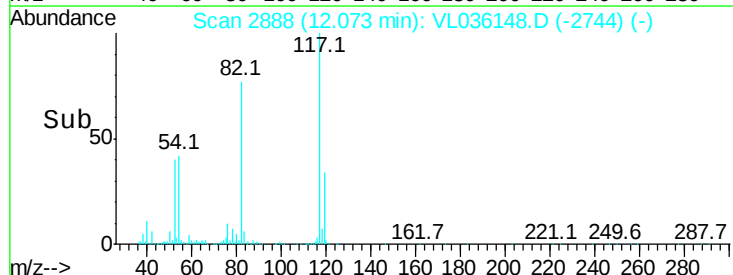
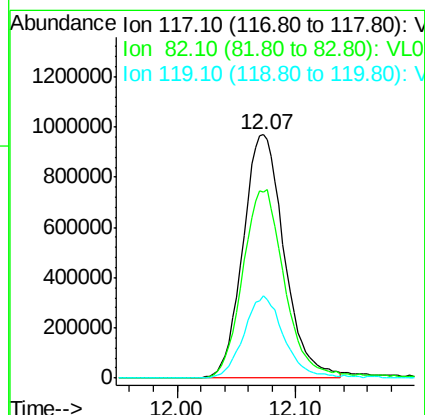
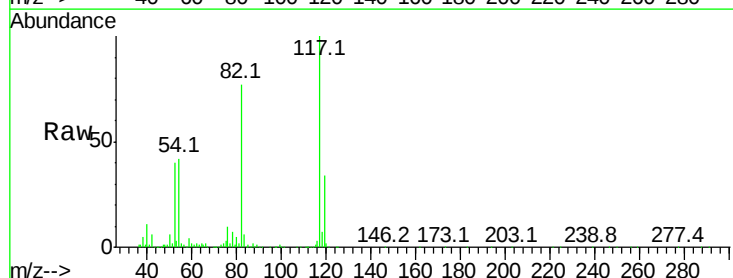
Tgt Ion: 117 Resp: 2322104

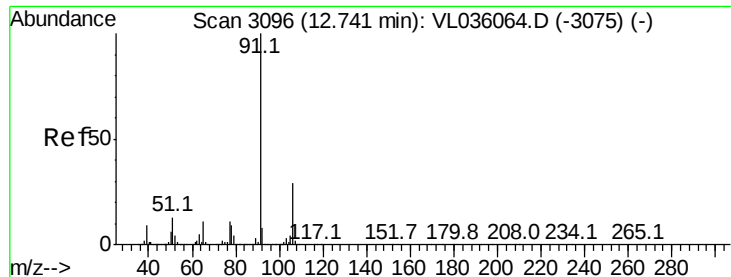
Ion Ratio Lower Upper

117 100

82 80.3 0.0 0.0#

119 33.7 0.0 0.0#





#58

Ethyl Benzene

Concen: 0.054 ppbv

RT: 12.69 min Scan# 3080

Delta R.T. -0.05 min

Lab File: VL036148.D

Acq: 11 Dec 2020 4:09

Instrument :

MSVOA_L

ClientSampleId :

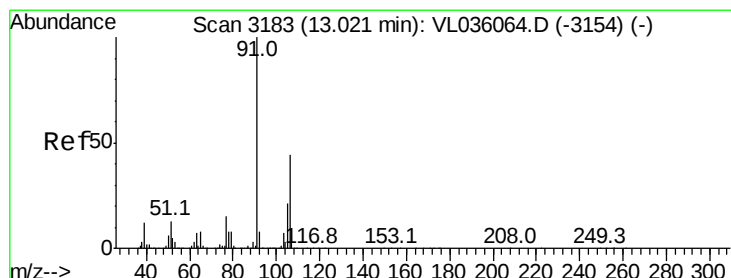
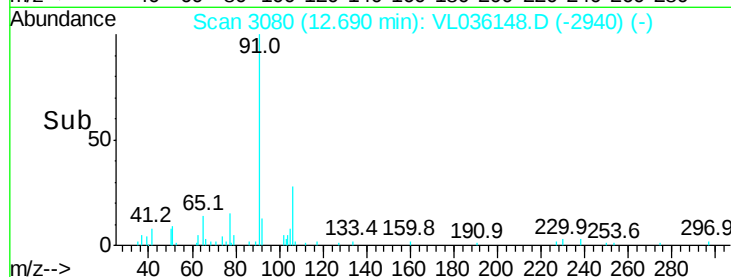
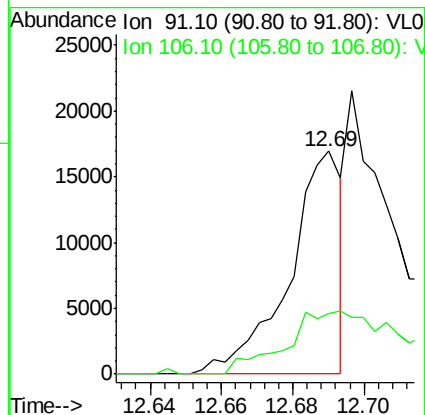
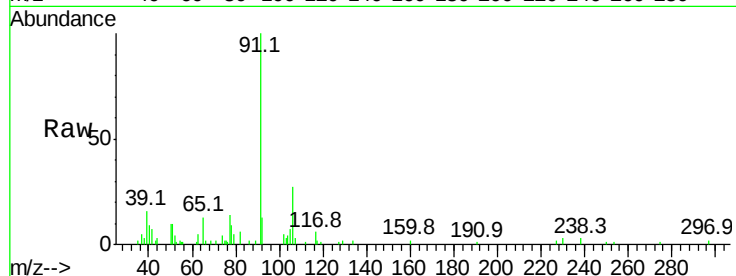
48-2

Tgt Ion: 91 Resp: 17308

Ion Ratio Lower Upper

91 100

106 27.2 23.0 34.4



#59

m/p-Xylene

Concen: 0.068 ppbv

RT: 12.98 min Scan# 3169

Delta R.T. -0.04 min

Lab File: VL036148.D

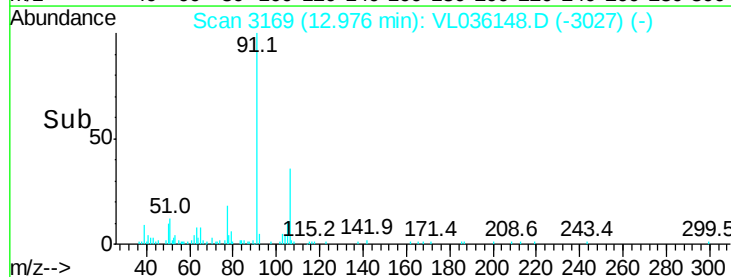
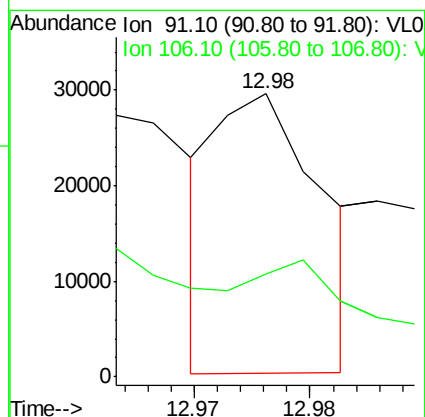
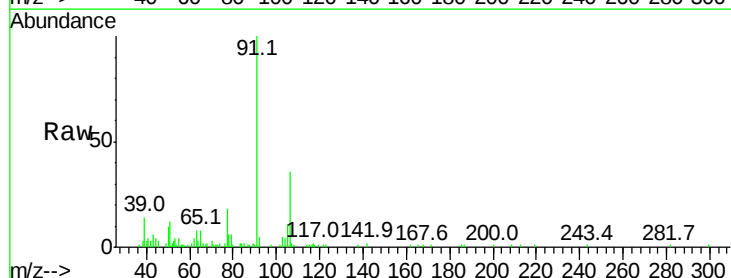
Acq: 11 Dec 2020 4:09

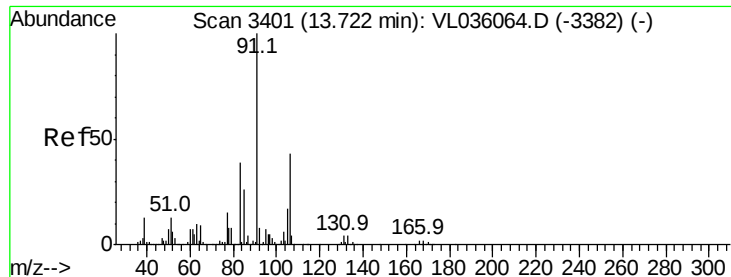
Tgt Ion: 91 Resp: 18257

Ion Ratio Lower Upper

91 100

106 0.0 33.6 50.4#

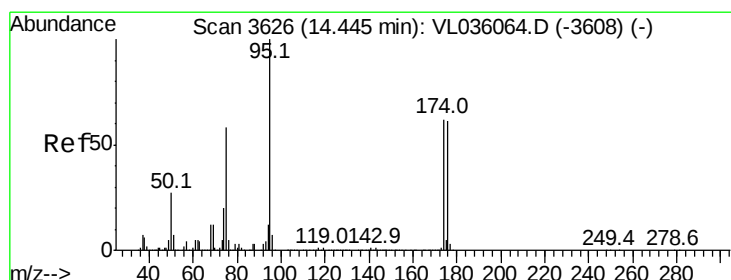
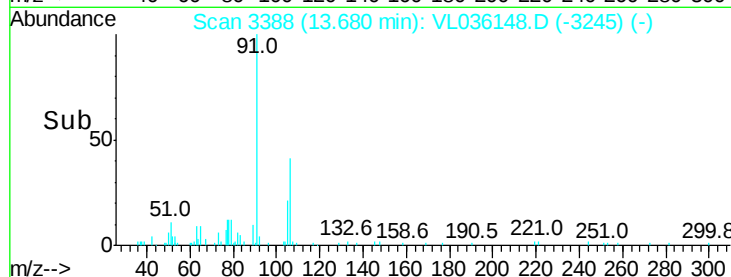
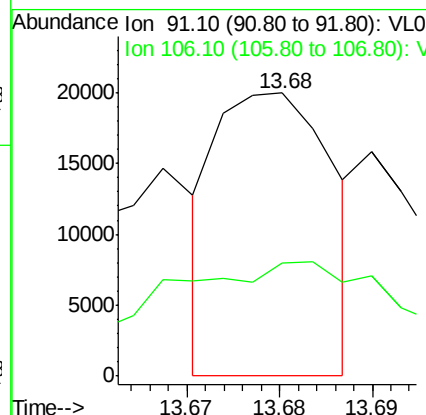
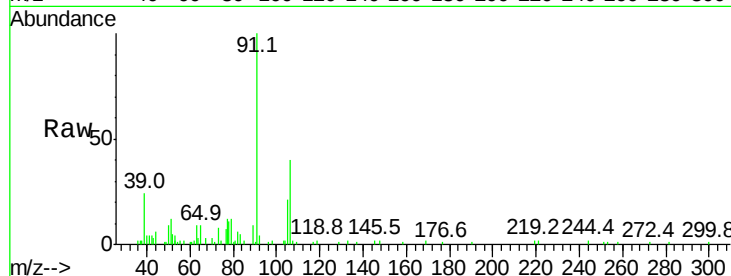




#60
o-Xylene
Concen: 0.068 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.04 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

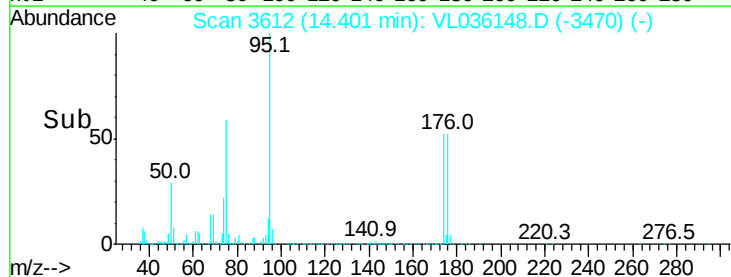
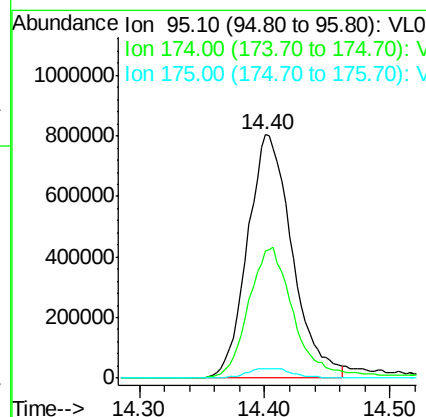
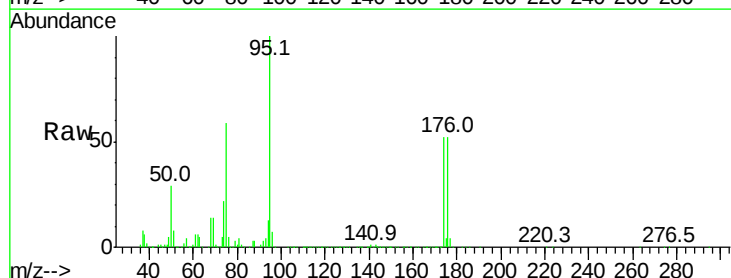
Instrument :
MSVOA_L
ClientSampled :
48-2

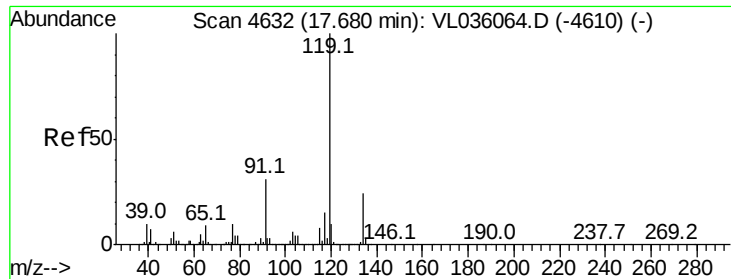
Tgt Ion: 91 Resp: 17293
Ion Ratio Lower Upper
91 100
106 111.0 21.6 64.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 10.822 ppbv
RT: 14.40 min Scan# 3612
Delta R.T. -0.04 min
Lab File: VL036148.D
Acq: 11 Dec 2020 4:09

Tgt Ion: 95 Resp: 1995423
Ion Ratio Lower Upper
95 100
174 55.8 50.7 76.1
175 4.2 4.0 6.0

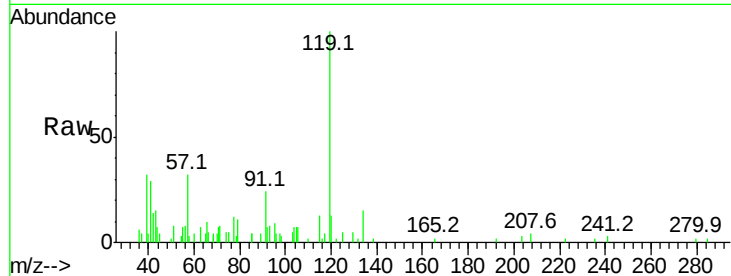




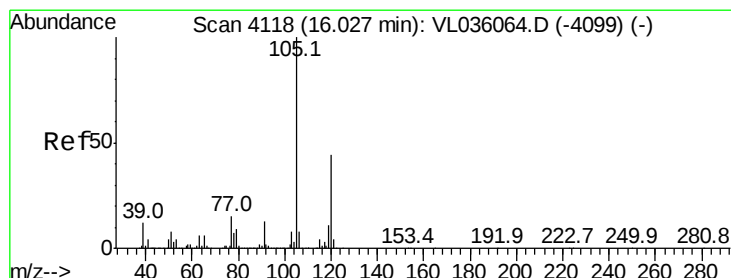
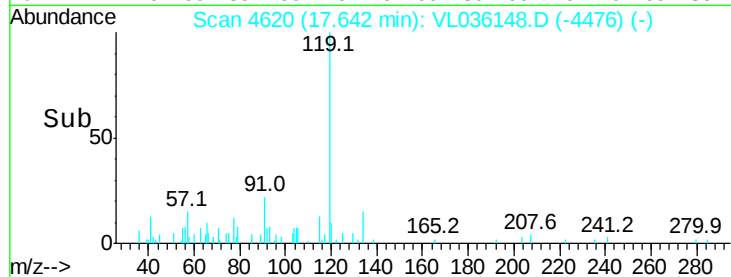
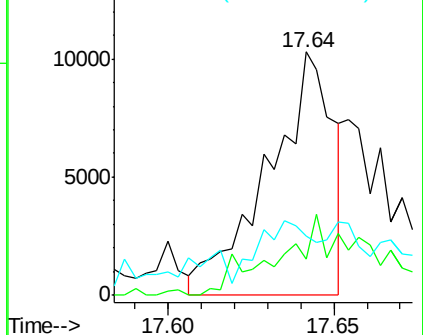
#69
 p-Isopropyltoluene
 Concen: 0.041 ppbv
 RT: 17.64 min Scan# 4620
 Delta R.T. -0.04 min
 Lab File: VL036148.D
 Acq: 11 Dec 2020 4:09

Instrument :
 MSVOA_L
 ClientSampleId :
 48-2

Tgt Ion	Ratio	Lower	Upper
119	100		
134	51.4	19.8	29.6#
91	90.7	25.8	38.6#

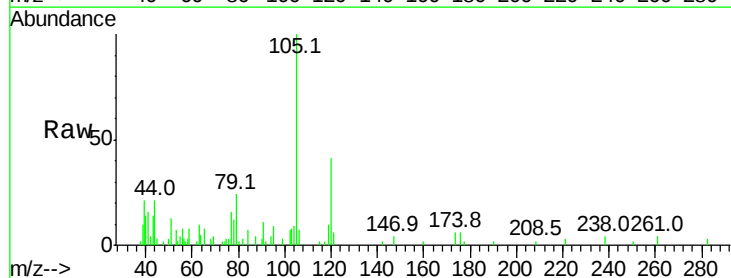


Abundance Ion 119.10 (118.80 to 119.80): V
 Ion 134.20 (133.90 to 134.90): V
 Ion 91.10 (90.80 to 91.80): V

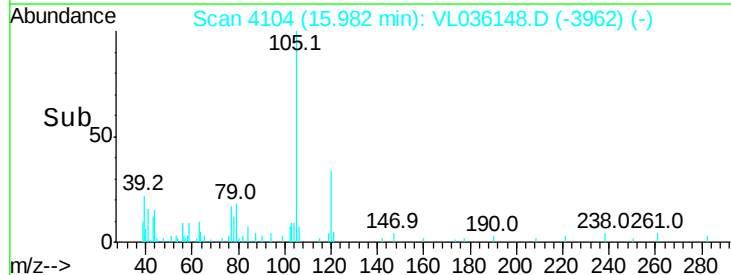
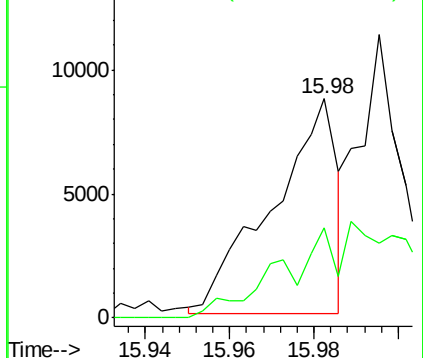


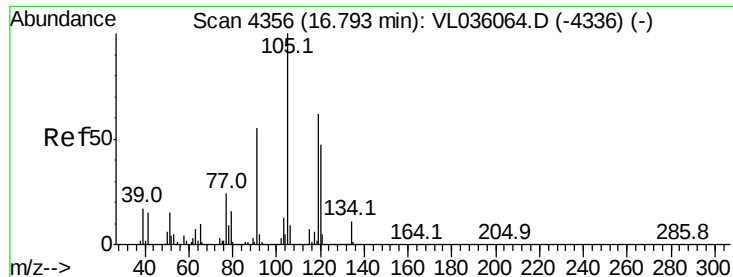
#73
 1,3,5-Trimethylbenzene
 Concen: 0.035 ppbv
 RT: 15.98 min Scan# 4104
 Delta R.T. -0.04 min
 Lab File: VL036148.D
 Acq: 11 Dec 2020 4:09

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.6	35.4	53.2



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: 0.046 ppbv
 RT: 16.74 min Scan# 4339
 Delta R.T. -0.05 min
 Lab File: VL036148.D
 Acq: 11 Dec 2020 4:09

Instrument :
 MSVOA_L
 ClientSampleId :
 48-2

Tgt Ion:	105	Resp:	12125
Ion Ratio	Lower	Upper	
105	100		
120	41.2	37.4	56.0
91	3.3	45.6	68.4#
77	11.5	19.4	29.2#

