

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL021021\
 Data File : VL036330.D
 Acq On : 10 Feb 2021 23:15
 Operator : SY/AP
 Sample : M1343-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Feb 11 06:12:17 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL021021AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10 16:04:02 2021
 QLast Update : Wed Feb 10 16:04:02 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1529253	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	3348249	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	2970571	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	1257800	5.15	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	51.50%#

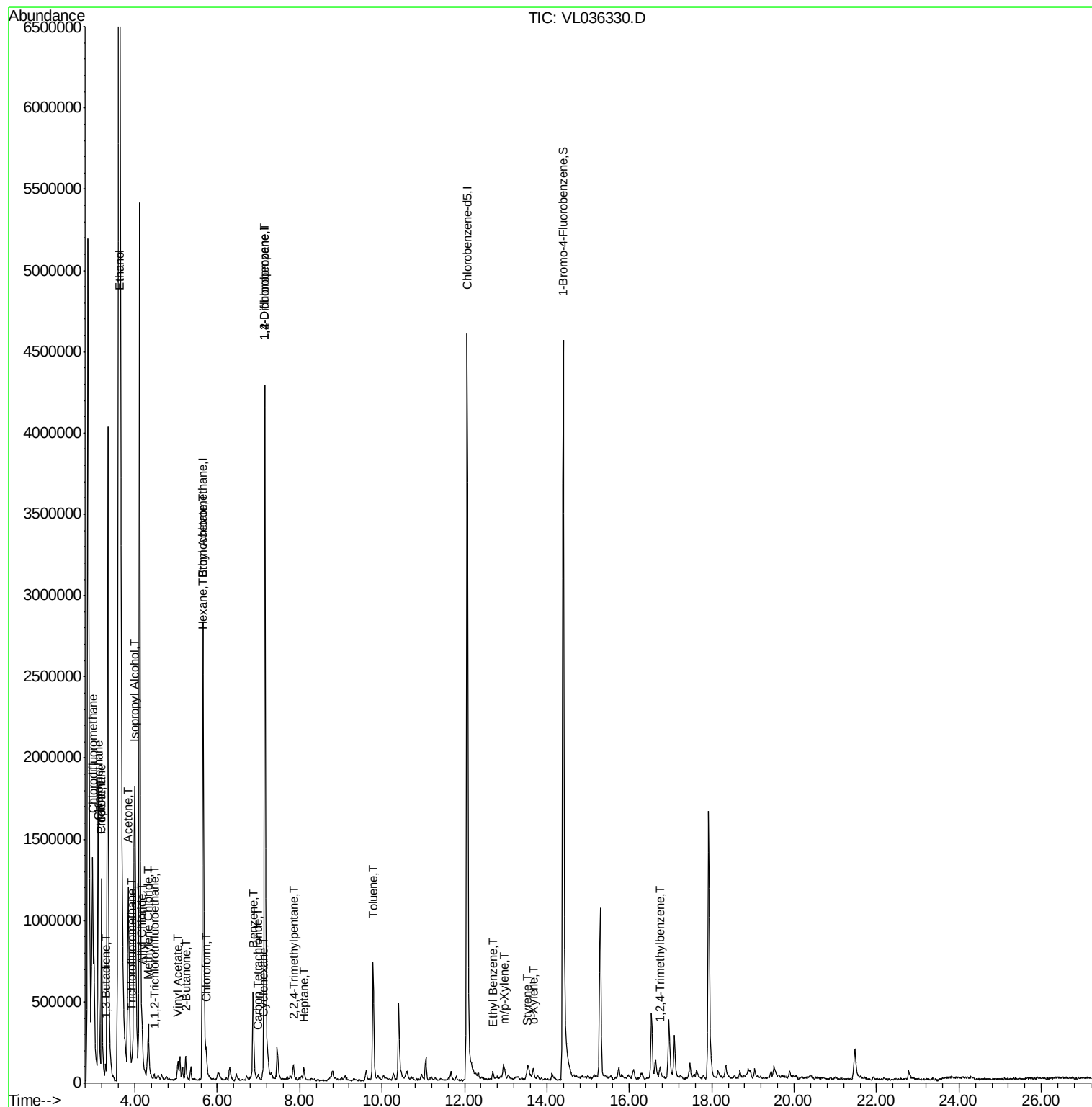
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.97	51	1834347	9.654	ppbv #	91
4) Chloromethane	3.12	50	70601	0.769	ppbv #	84
7) Chloroethane	3.19	64	1714	0.056	ppbv #	69
9) Propene	3.19	41	348480	4.919	ppbv	85
10) Heptane	8.10	43	7710	0.037	ppbv #	1
11) Trichlorofluoromethane	3.93	101	47607	0.213	ppbv	98
12) 1,1,2-Trichlorotrifluoroet	4.47	101	8210	0.059	ppbv #	75
13) Ethanol	3.62	45	19552580	1469.413	ppbv	95
15) Acetone	3.83	43	1559768	8.344	ppbv	99
16) 1,3-Butadiene	3.29	39	20971	0.235	ppbv #	9
19) Isopropyl Alcohol	3.99	45	3526359	34.050	ppbv	99
20) Methylene Chloride	4.33	84	104125	1.727	ppbv	94
21) Allyl Chloride	4.17	41	35628	0.342	ppbv #	16
23) Vinyl Acetate	5.05	43	34633	0.158	ppbv #	94
25) Ethyl Acetate	5.65	43	437889	1.213	ppbv	98
26) Hexane	5.66	57	151819	1.024	ppbv	78
29) Chloroform	5.73	83	66974	0.280	ppbv	96
30) Cyclohexane	7.11	84	10519	0.085	ppbv #	1
34) 2-Butanone	5.23	43	177992	0.800	ppbv	92
35) Carbon Tetrachloride	6.99	117	9365	0.042	ppbv	87
36) Benzene	6.87	78	493624	1.736	ppbv	96
39) 1,2-Dichloropropane	7.15	63	972202	8.415	ppbv #	23
44) 2,2,4-Trimethylpentane	7.85	57	34033	0.066	ppbv #	1
53) Toluene	9.78	91	505408	1.641	ppbv	100
58) Ethyl Benzene	12.68	91	19652	0.048	ppbv	91
59) m/p-Xylene	12.98	91	15147	0.042	ppbv #	33
60) o-Xylene	13.67	91	17808	0.052	ppbv #	24
61) Styrene	13.51	104	9780	0.046	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.74	105	27556	0.073	ppbv #	59

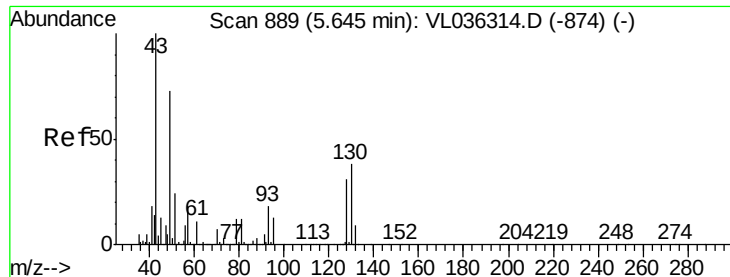
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Feb 10 16:04:02 2021
QLast Update : Wed Feb 10 16:04:02 2021
Response via : Initial Calibration

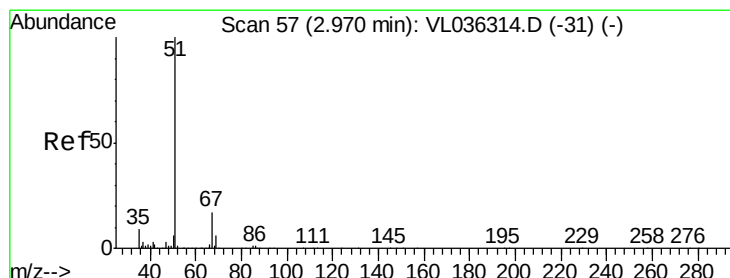
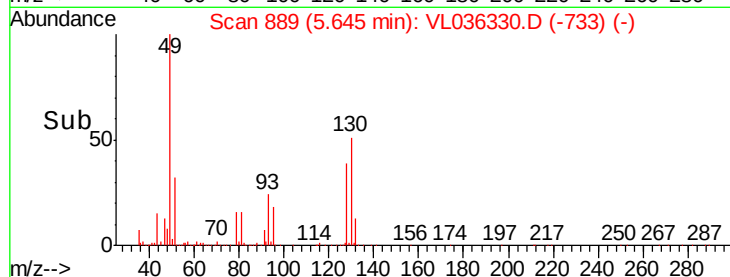
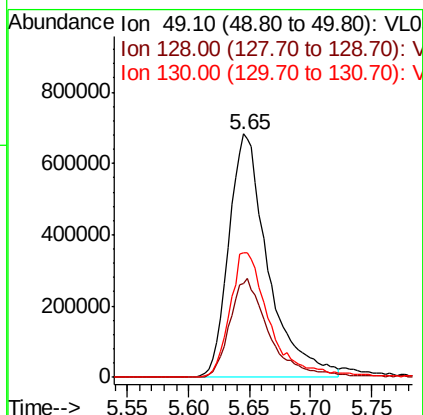
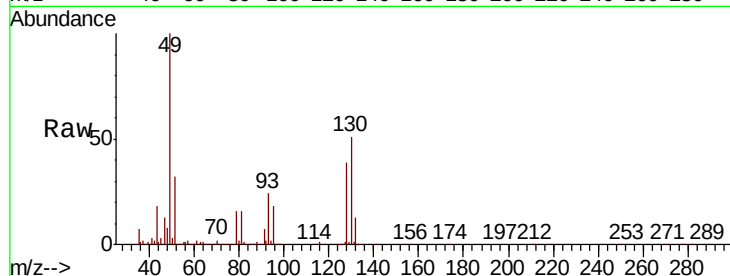




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.65 min Scan# 889
 Delta R.T. 0.00 min
 Lab File: VL036330.D
 Acq: 10 Feb 2021 23:15

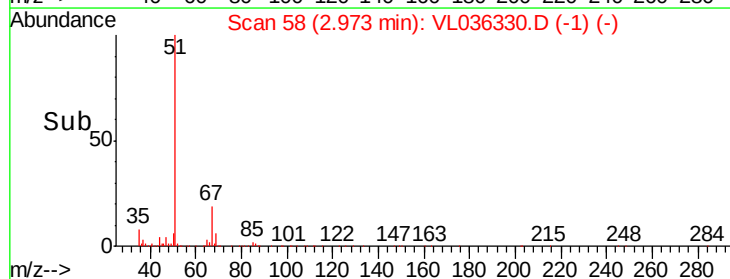
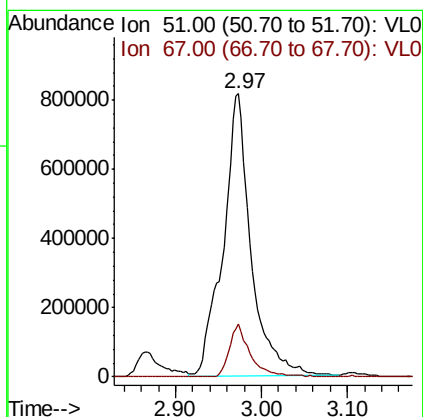
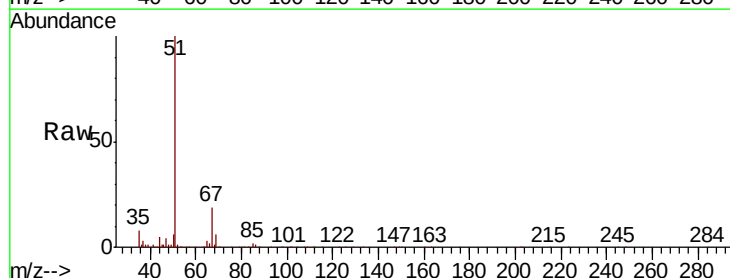
Instrument :
 MSVOA_L
 ClientSampleId :

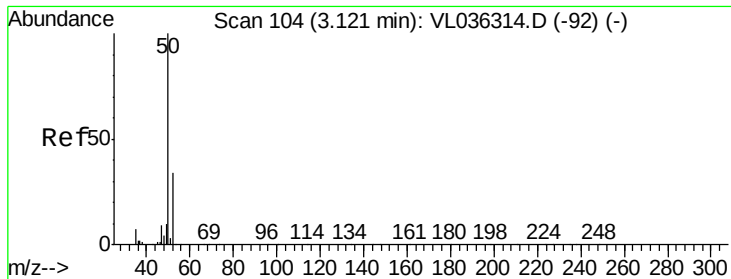
Tot Ion: 49 Resp: 1529253
 Ion Ratio Lower Upper
 49 100
 128 41.4 20.8 62.5
 130 52.9 26.7 80.1



#3
 Chlorodifluoromethane
 Concen: 9.654 ppbv
 RT: 2.97 min Scan# 58
 Delta R.T. 0.00 min
 Lab File: VL036330.D
 Acq: 10 Feb 2021 23:15

Tgt Ion: 51 Resp: 1834347
 Ion Ratio Lower Upper
 51 100
 67 14.2 14.7 22.1#





#4

Chloromethane

Concen: 0.769 ppbv

RT: 3.12 min Scan# 105

Delta R.T. 0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

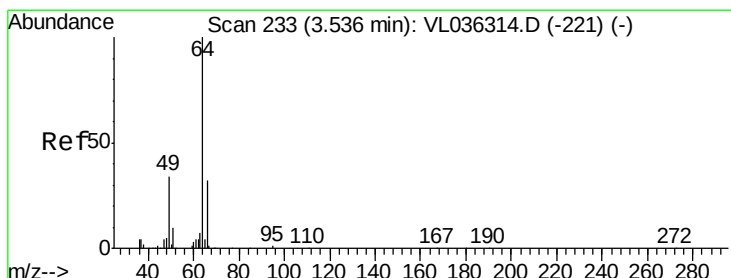
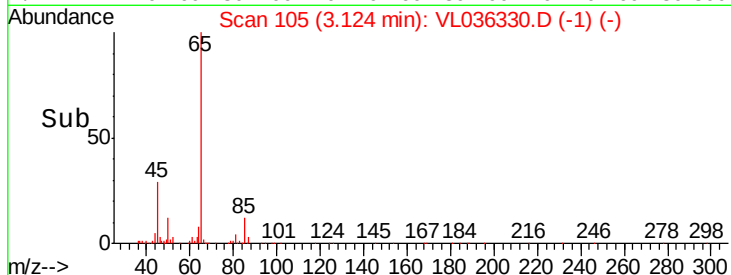
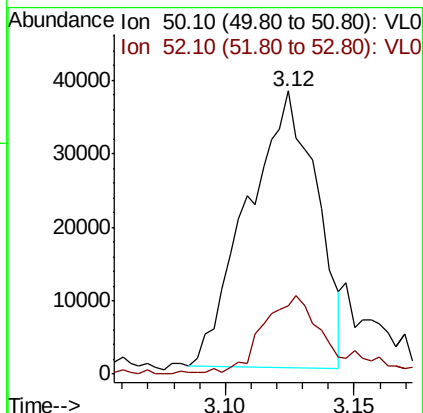
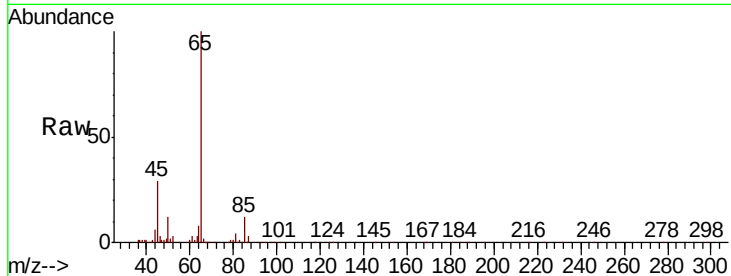
ClientSampleId :

Tot Ion: 50 Resp: 70601

Ion Ratio Lower Upper

50 100

52 24.4 27.0 40.4#



#7

Chloroethane

Concen: 0.056 ppbv

RT: 3.19 min Scan# 124

Delta R.T. -0.35 min

Lab File: VL036330.D

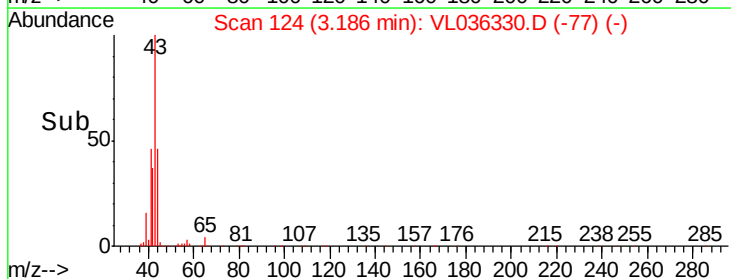
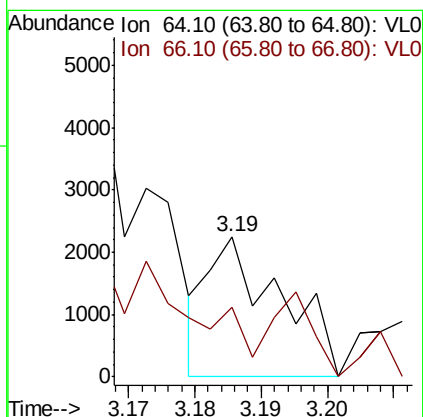
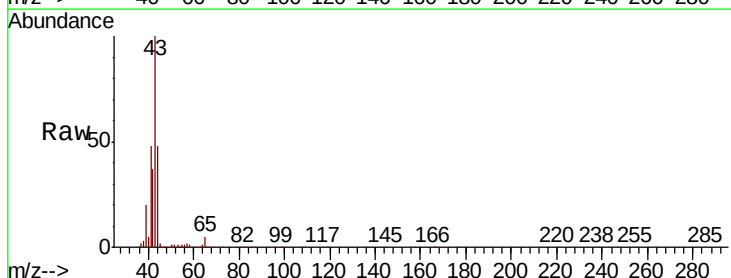
Acq: 10 Feb 2021 23:15

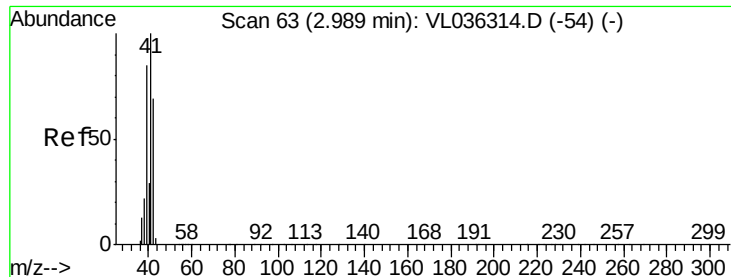
Tgt Ion: 64 Resp: 1714

Ion Ratio Lower Upper

64 100

66 49.4 25.6 38.4#





#9

Propene

Concen: 4.919 ppbv

RT: 3.19 min Scan# 124

Delta R.T. 0.20 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

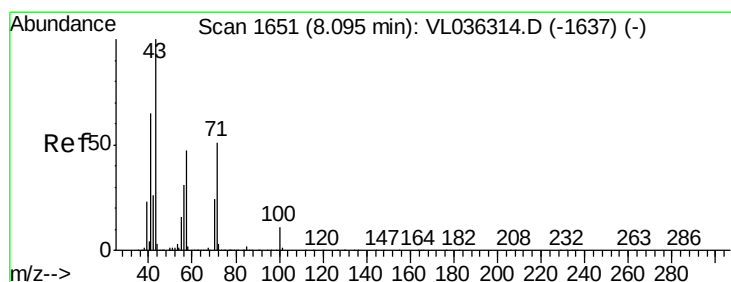
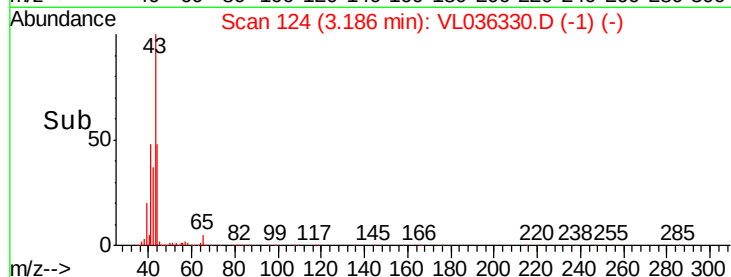
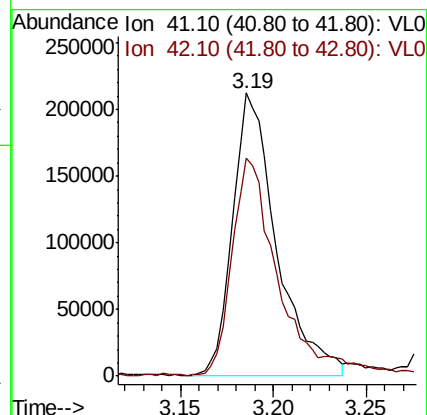
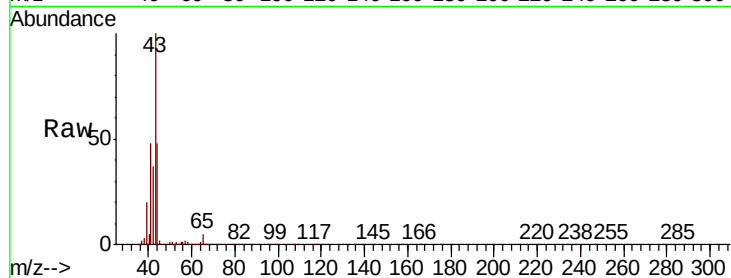
ClientSampleId :

Tot Ion: 41 Resp: 348480

Ion Ratio Lower Upper

41 100

42 82.8 56.2 84.2



#10

Heptane

Concen: 0.037 ppbv

RT: 8.10 min Scan# 1652

Delta R.T. 0.00 min

Lab File: VL036330.D

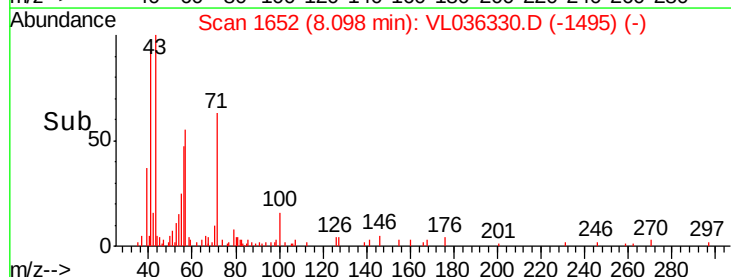
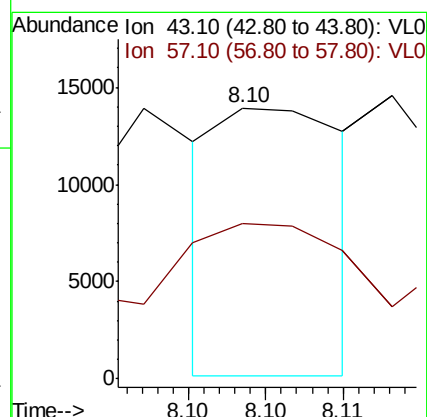
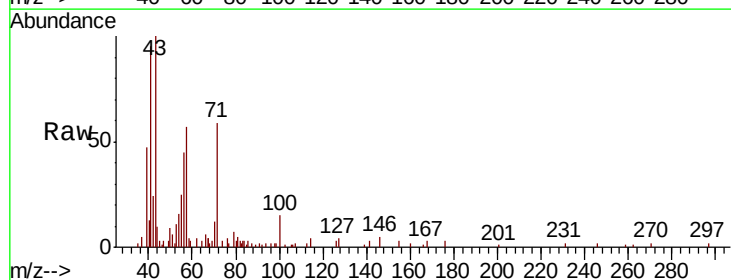
Acq: 10 Feb 2021 23:15

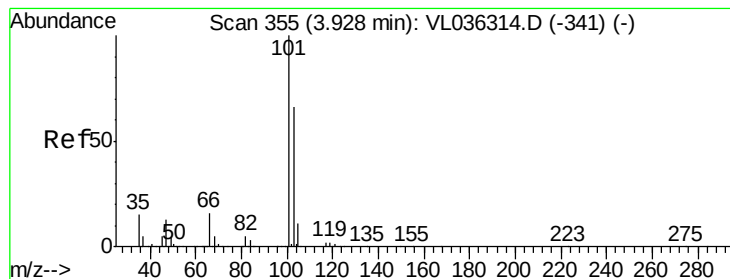
Tgt Ion: 43 Resp: 7710

Ion Ratio Lower Upper

43 100

57 225.7 39.4 59.2#





#11

Trichlorofluoromethane

Concen: 0.213 ppbv

RT: 3.93 min Scan# 356

Delta R.T. 0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

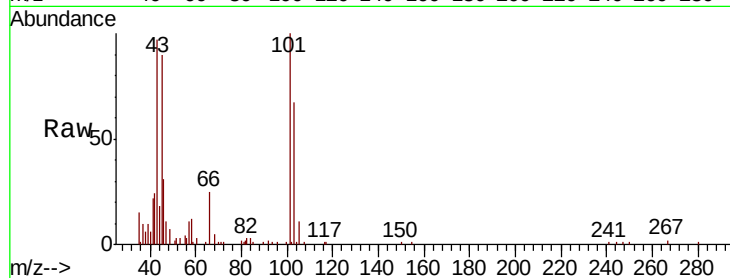
ClientSampleId :

Tot Ion:101 Resp: 47607

Ion Ratio Lower Upper

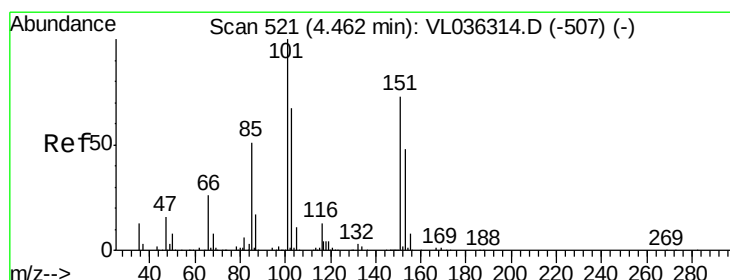
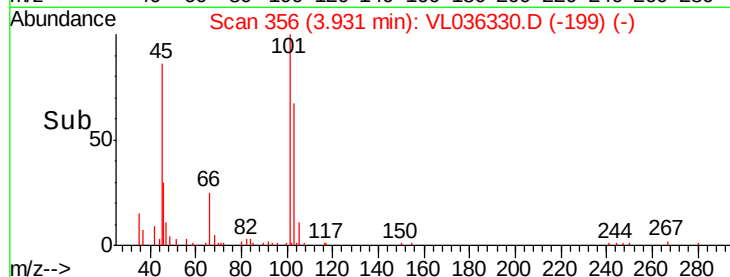
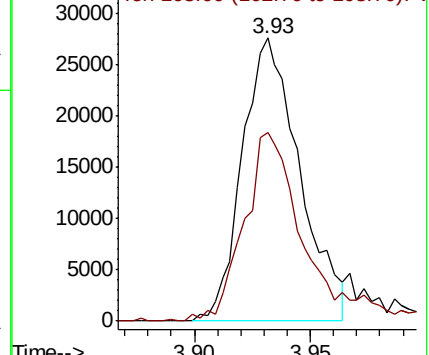
101 100

103 64.3 52.9 79.3



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.059 ppbv

RT: 4.47 min Scan# 523

Delta R.T. 0.01 min

Lab File: VL036330.D

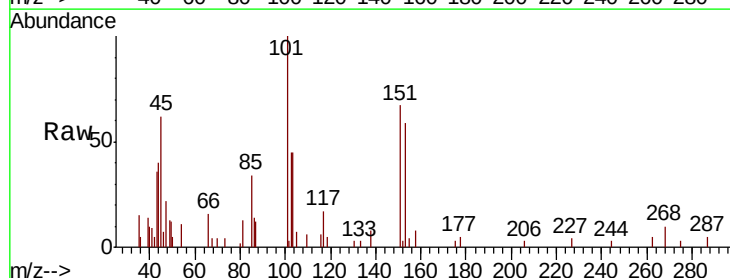
Acq: 10 Feb 2021 23:15

Tgt Ion:101 Resp: 8210

Ion Ratio Lower Upper

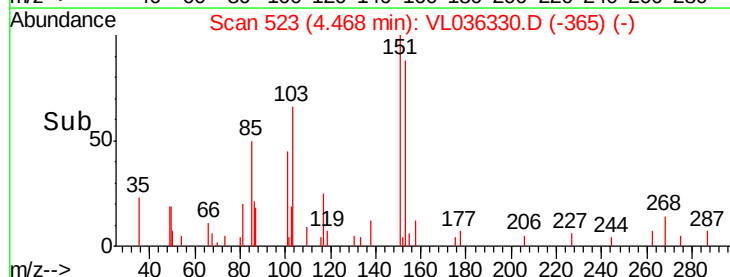
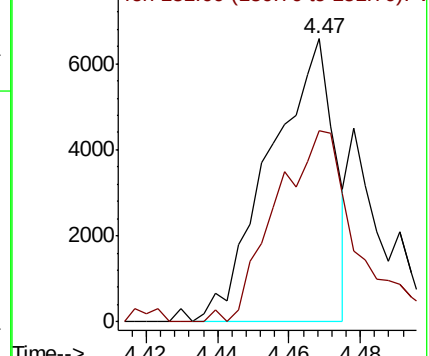
101 100

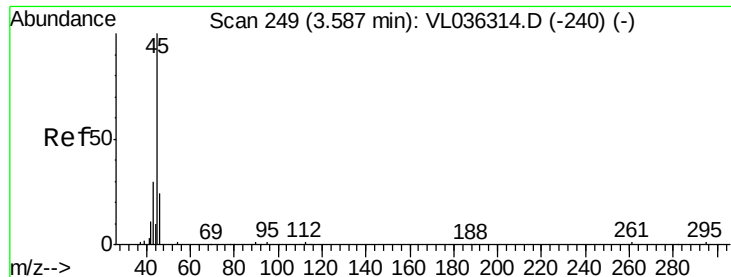
151 93.7 58.2 87.4#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V

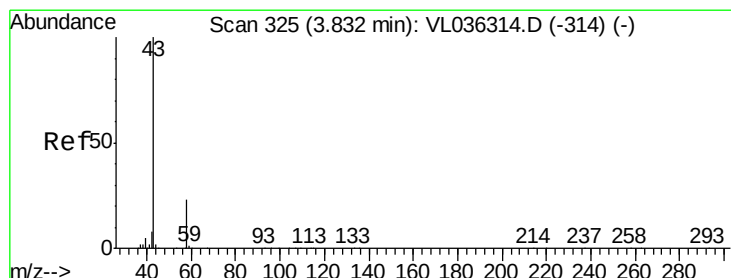
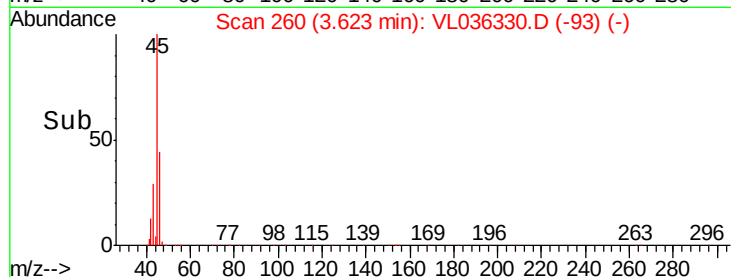
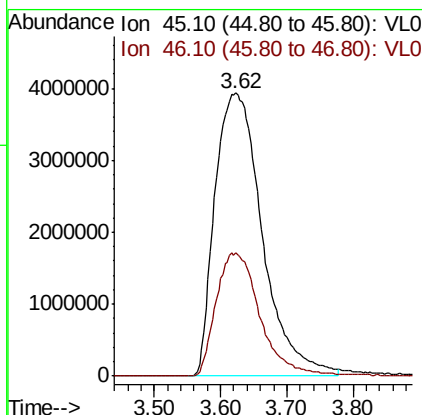
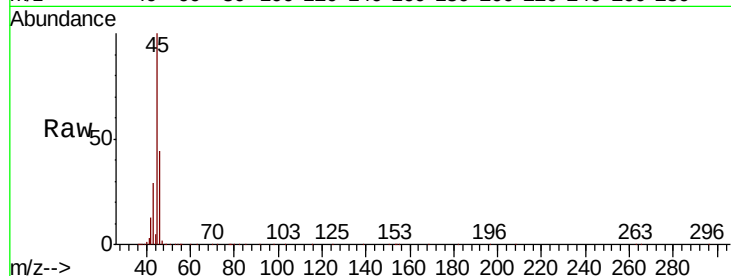




#13
Ethanol
Concen: 1469.413 ppbv
RT: 3.62 min Scan# 260
Delta R.T. 0.04 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

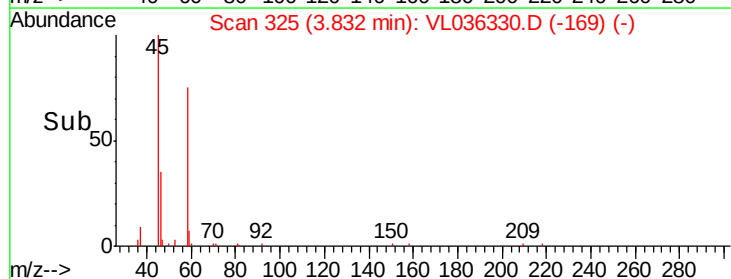
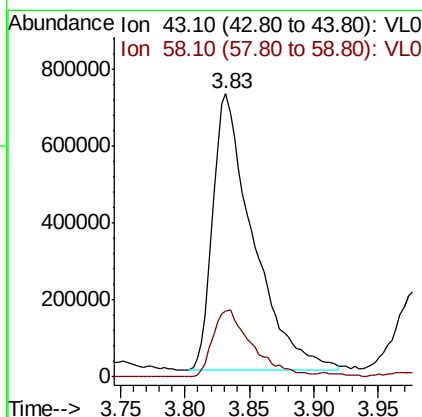
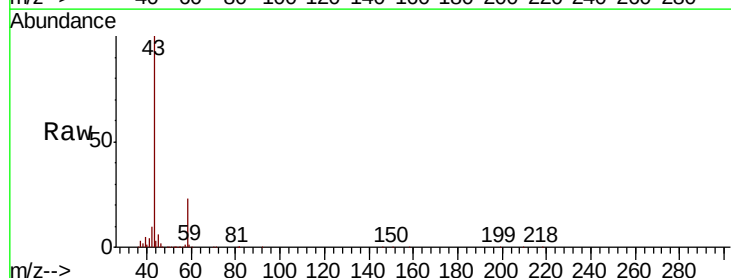
Instrument :
MSVOA_L
ClientSampleId :

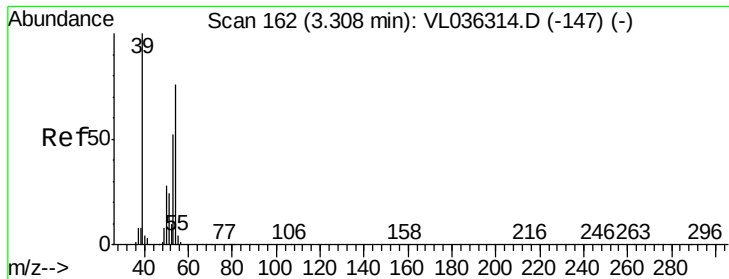
Tot Ion: 45 Resp:19552580
Ion Ratio Lower Upper
45 100
46 40.9 17.7 70.7



#15
Acetone
Concen: 8.344 ppbv
RT: 3.83 min Scan# 325
Delta R.T. 0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Tgt Ion: 43 Resp: 1559768
Ion Ratio Lower Upper
43 100
58 24.9 20.3 30.5





#16

1,3-Butadiene

Concen: 0.235 ppbv

RT: 3.29 min Scan# 158

Delta R.T. -0.01 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

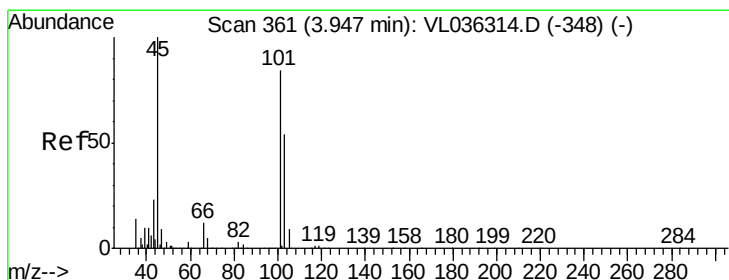
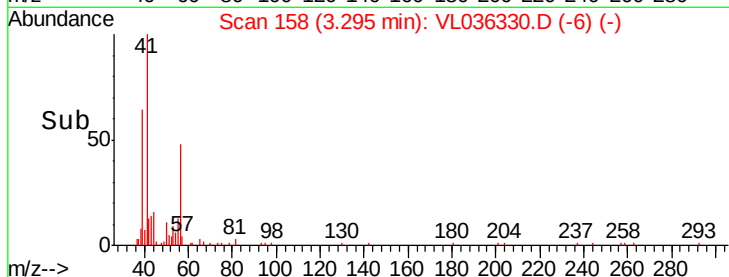
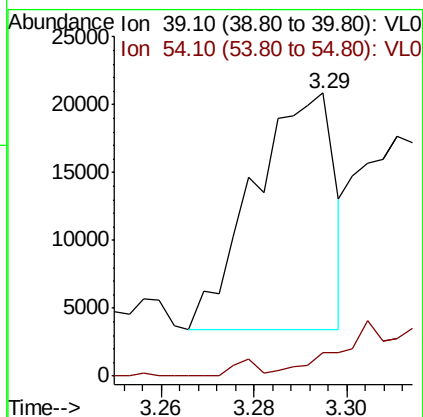
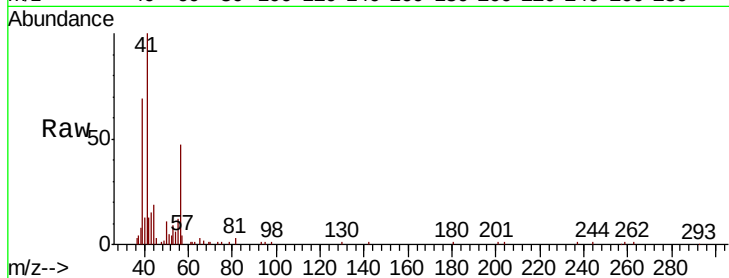
Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 39 Resp: 20971

Ion Ratio Lower Upper

39 100

54 0.0 64.4 96.6#



#19

Isopropyl Alcohol

Concen: 34.050 ppbv

RT: 3.99 min Scan# 374

Delta R.T. 0.04 min

Lab File: VL036330.D

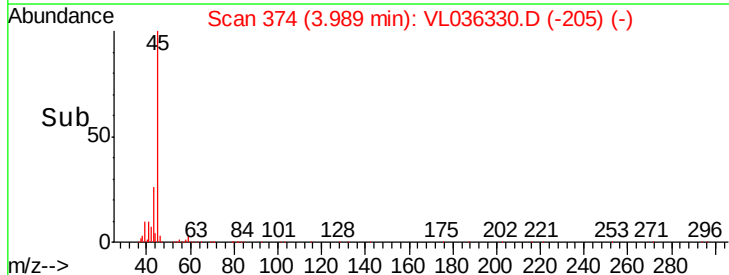
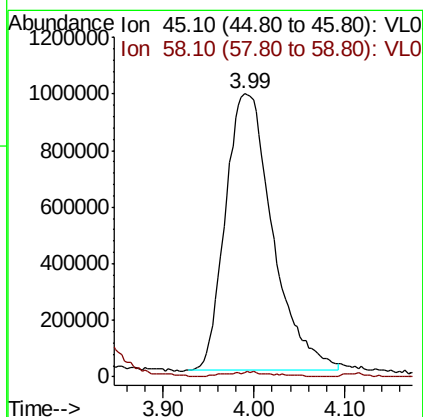
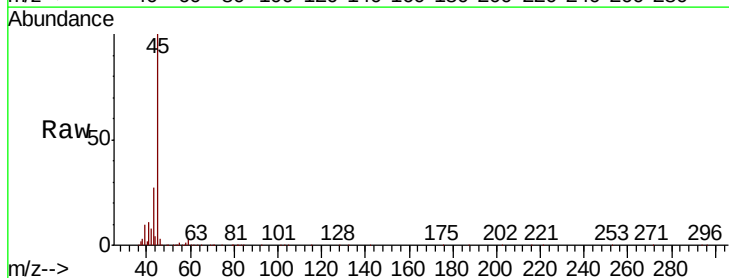
Acq: 10 Feb 2021 23:15

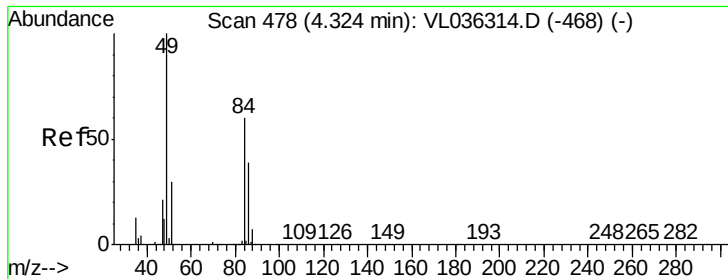
Tgt Ion: 45 Resp: 3526359

Ion Ratio Lower Upper

45 100

58 1.9 1.9 2.9

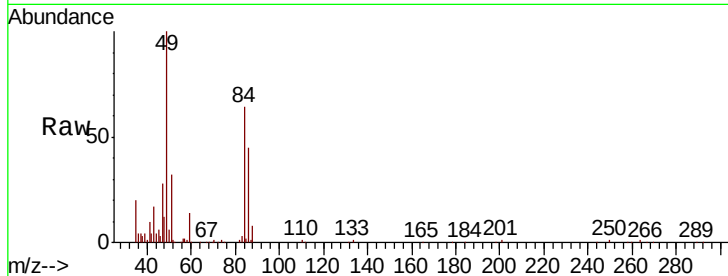




#20
Methylene Chloride
Concen: 1.727 ppbv
RT: 4.33 min Scan# 479
Delta R.T. 0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Instrument :
MSVOA_L
ClientSampled :

Tot Ion:	84	Resp:	104125
Ion	Ratio	Lower	Upper
84	100		
49	157.1	133.8	200.8
51	50.1	41.4	62.0
86	69.9	51.5	77.3



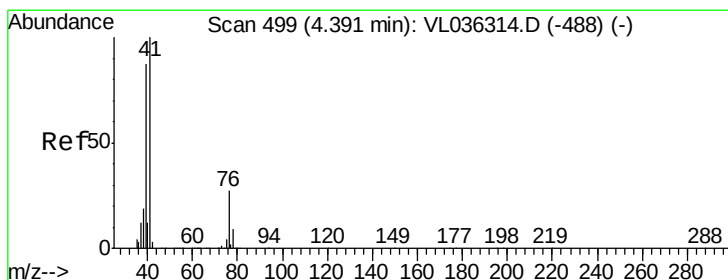
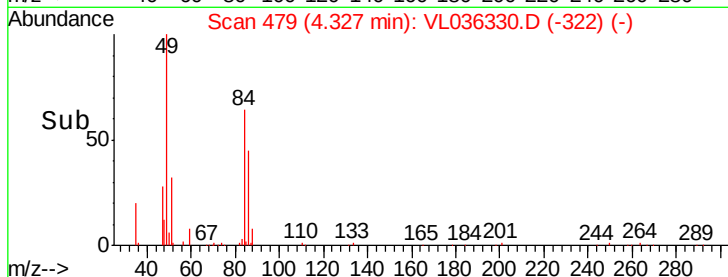
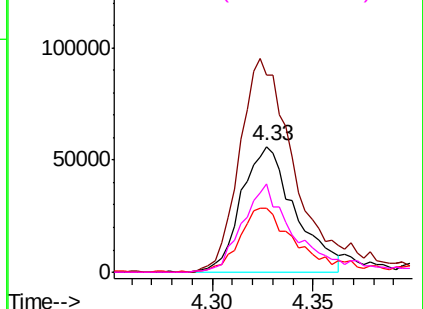
Abundance

Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

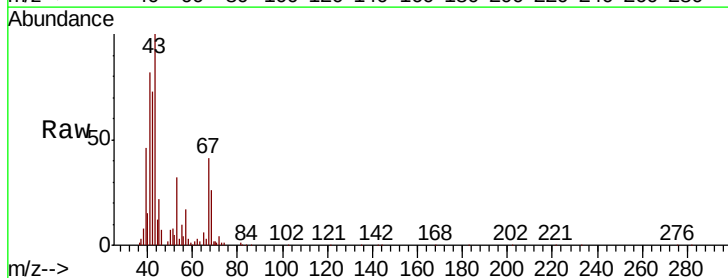
Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0



#21
Allyl Chloride
Concen: 0.342 ppbv
RT: 4.17 min Scan# 431
Delta R.T. -0.22 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Tgt Ion:	41	Resp:	35628
Ion	Ratio	Lower	Upper
41	100		
76	0.0	22.0	33.0#
39	0.0	70.2	105.2#

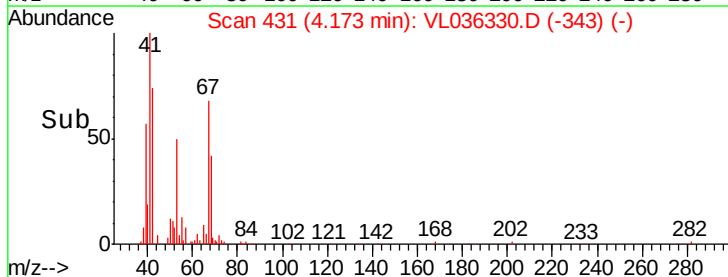
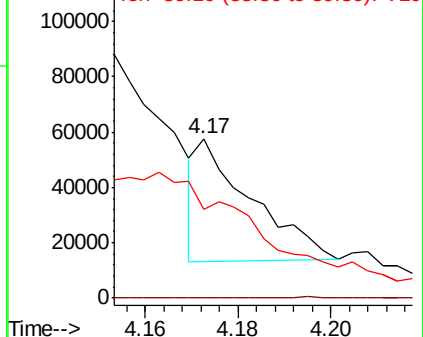


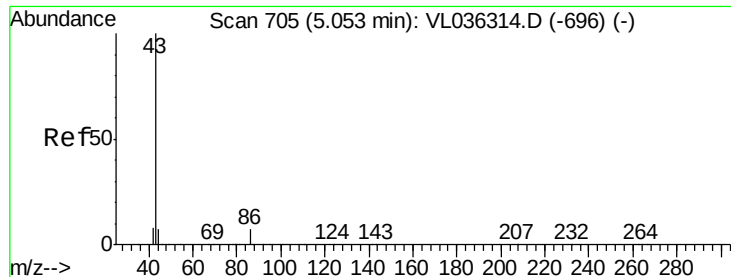
Abundance

Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

Ion 39.10 (38.80 to 39.80): VL0





#23

Vinyl Acetate

Concen: 0.158 ppbv

RT: 5.05 min Scan# 704

Delta R.T. -0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 34633

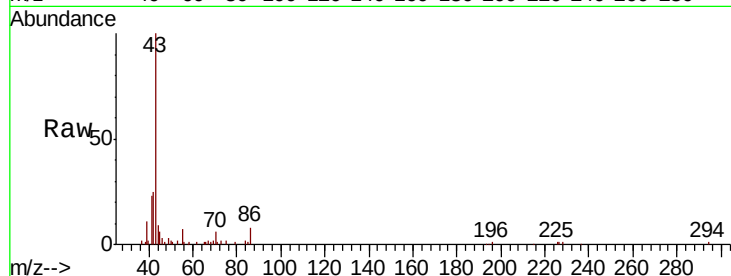
Ion Ratio Lower Upper

43 100

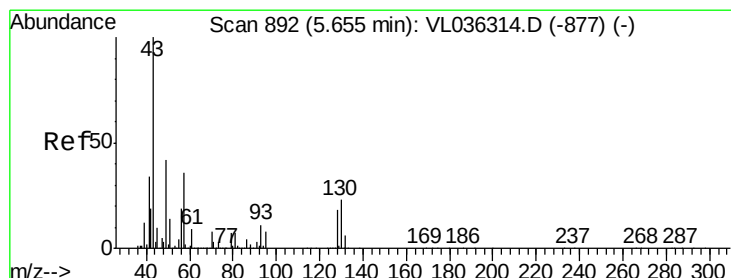
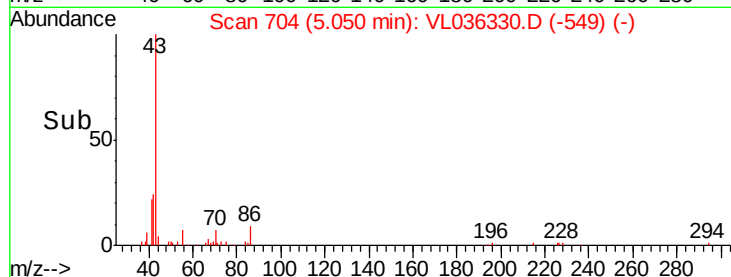
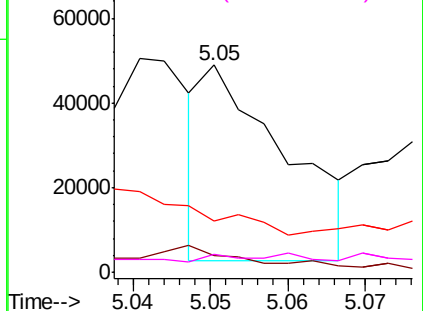
86 9.7 4.8 7.2#

42 6.9 7.4 11.0#

44 6.0 4.8 7.2



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: 1.213 ppbv

RT: 5.65 min Scan# 892

Delta R.T. 0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Tgt Ion: 43 Resp: 437889

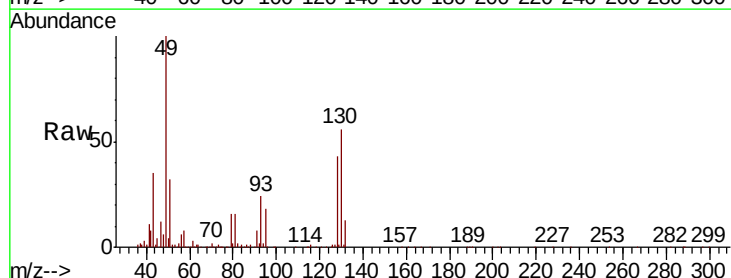
Ion Ratio Lower Upper

43 100

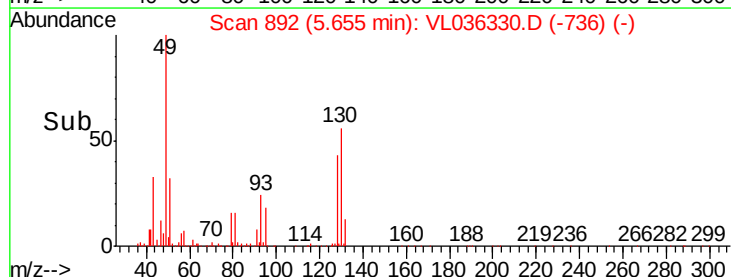
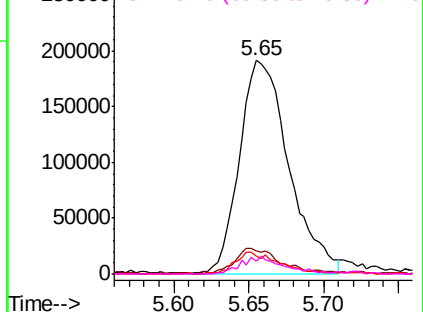
45 11.5 8.3 12.5

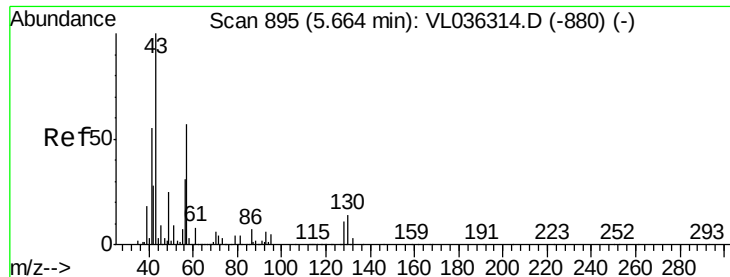
61 9.7 7.3 10.9

70 7.6 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: 1.024 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.00 min

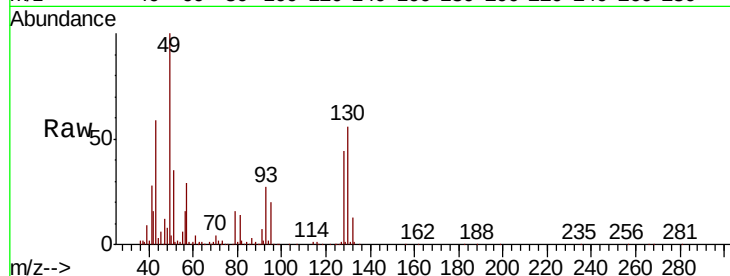
Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :
MSVOA_L
ClientSampled :

Tot Ion: 57 Resp: 151819

Ion	Ratio	Lower	Upper
57	100		
41	114.3	81.7	122.5
43	297.5	199.1	298.7
56	64.9	44.0	66.0

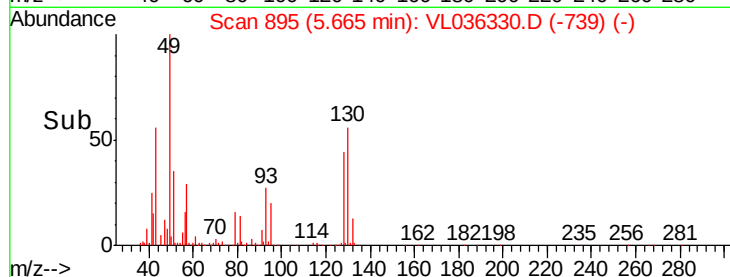


Abundance Ion 57.10 (56.80 to 57.80): VL0

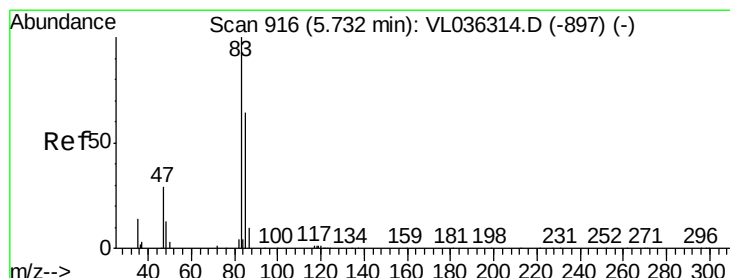
Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



Time-->



#29

Chloroform

Concen: 0.280 ppbv

RT: 5.73 min Scan# 915

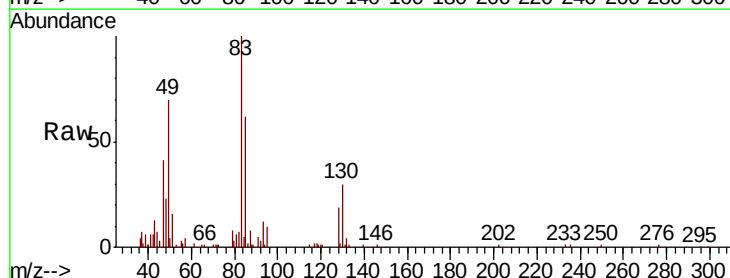
Delta R.T. -0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

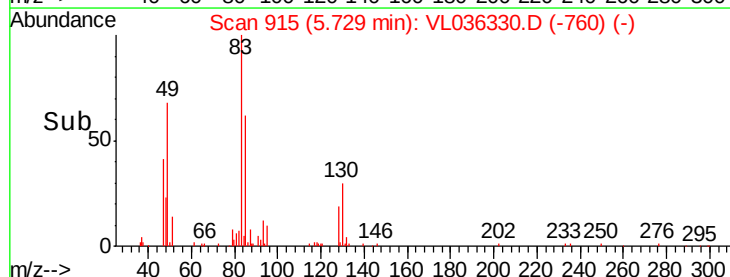
Tgt Ion: 83 Resp: 66974

Ion	Ratio	Lower	Upper
83	100		
85	60.8	51.4	77.2

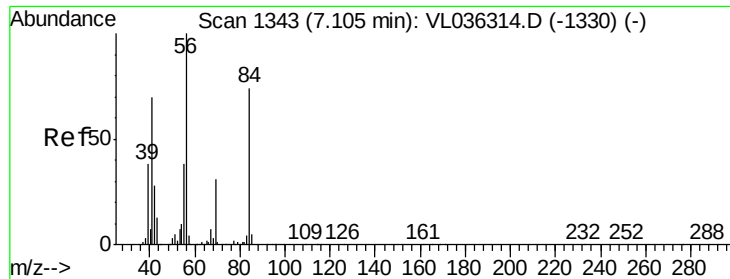


Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



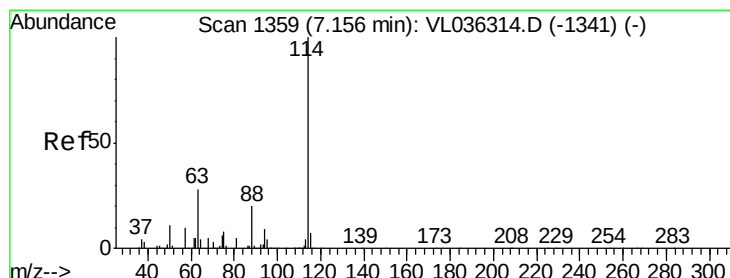
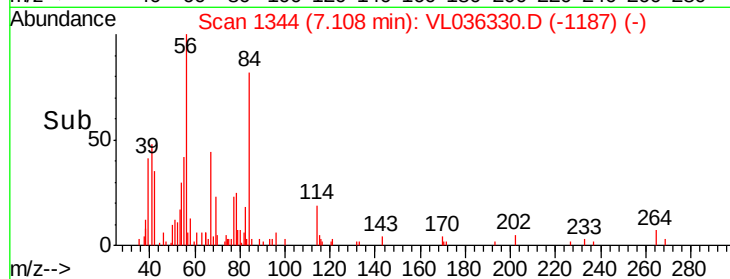
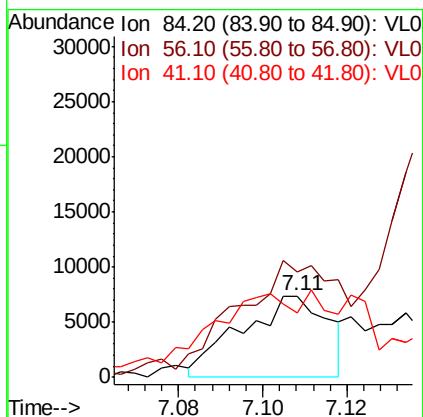
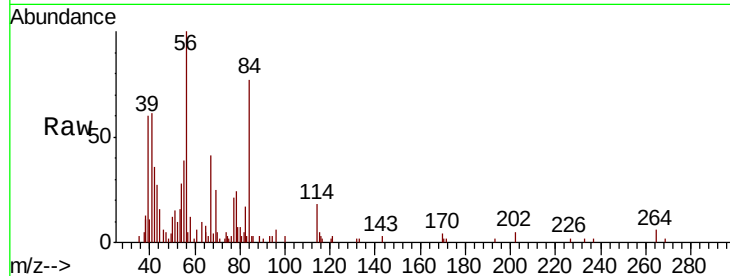
Time-->



#30
Cyclohexane
Concen: 0.085 ppbv
RT: 7.11 min Scan# 1344
Delta R.T. 0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

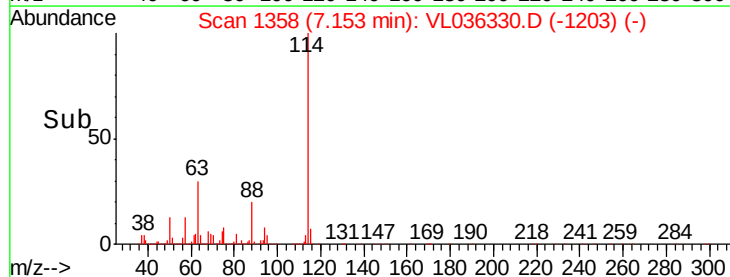
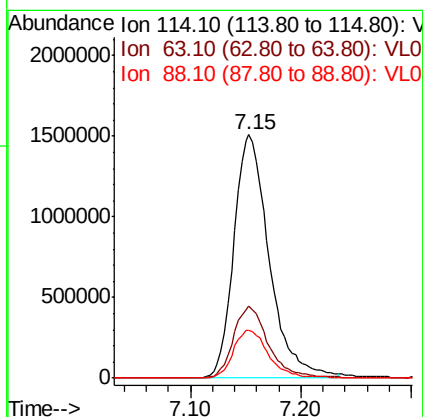
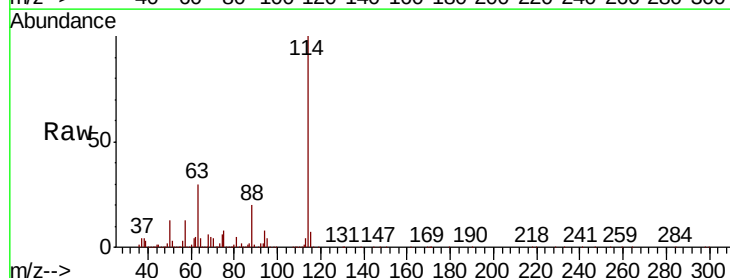
Instrument :
MSVOA_L
ClientSampled :

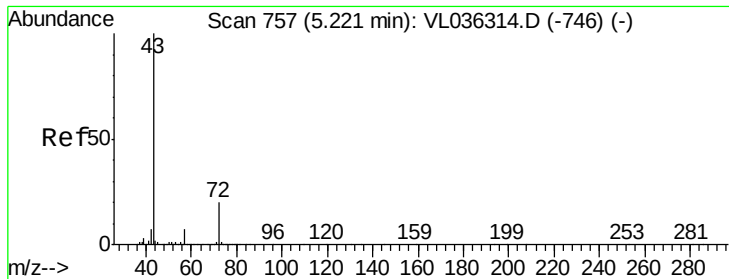
Tot Ion: 84 Resp: 10519
Ion Ratio Lower Upper
84 100
56 0.0 120.2 180.4#
41 208.5 79.7 119.5#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.15 min Scan# 1358
Delta R.T. -0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Tgt Ion: 114 Resp: 3348249
Ion Ratio Lower Upper
114 100
63 29.6 24.1 36.1
88 20.0 16.0 24.0

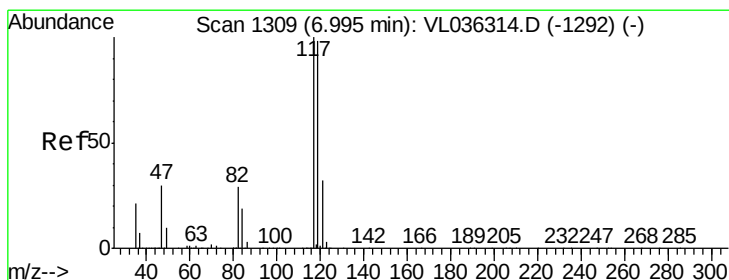
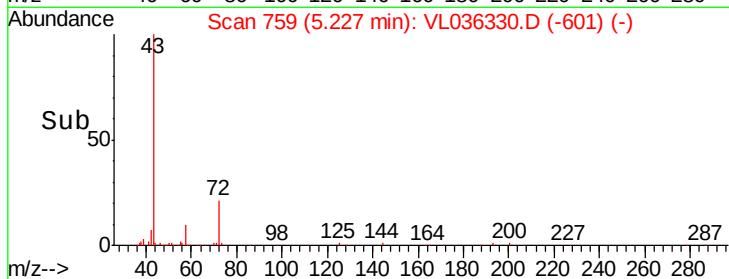
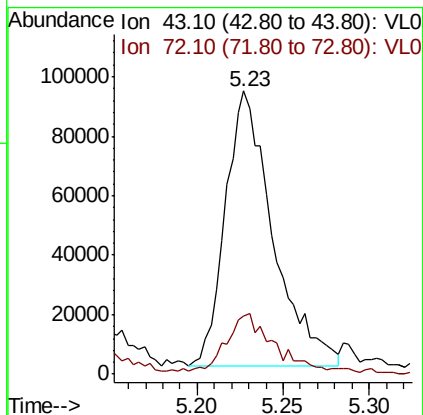
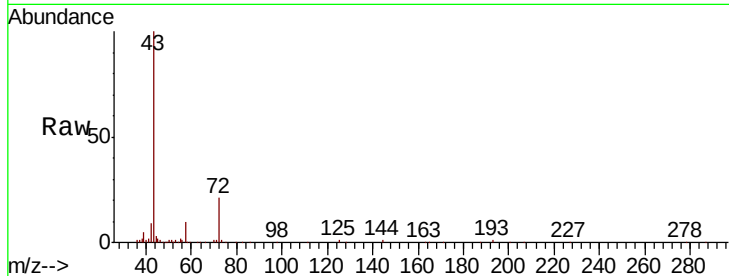




#34
2-Butanone
Concen: 0.800 ppbv
RT: 5.23 min Scan# 759
Delta R.T. 0.01 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

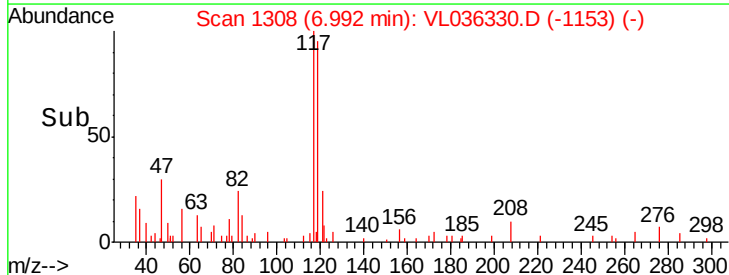
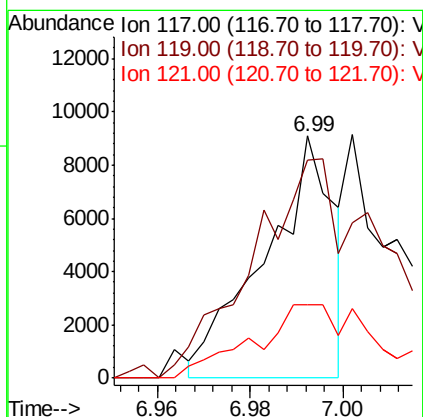
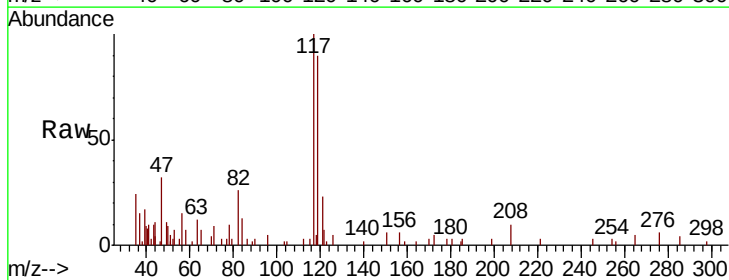
Instrument :
MSVOA_L
ClientSampled :

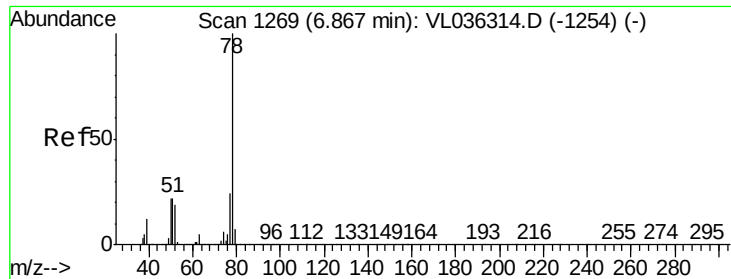
Tot Ion: 43 Resp: 177992
Ion Ratio Lower Upper
43 100
72 24.7 16.7 25.1



#35
Carbon Tetrachloride
Concen: 0.042 ppbv
RT: 6.99 min Scan# 1308
Delta R.T. -0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Tgt Ion: 117 Resp: 9365
Ion Ratio Lower Upper
117 100
119 83.1 78.1 117.1
121 26.8 25.8 38.8





#36

Benzene

Concen: 1.736 ppbv

RT: 6.87 min Scan# 1269

Delta R.T. 0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

ClientSampleId :

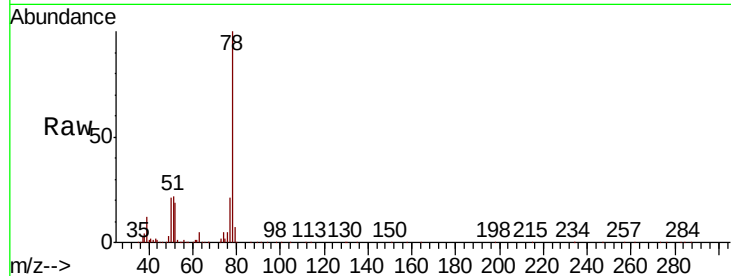
Tot Ion: 78 Resp: 493624

Ion Ratio Lower Upper

78 100

77 20.5 18.9 28.3

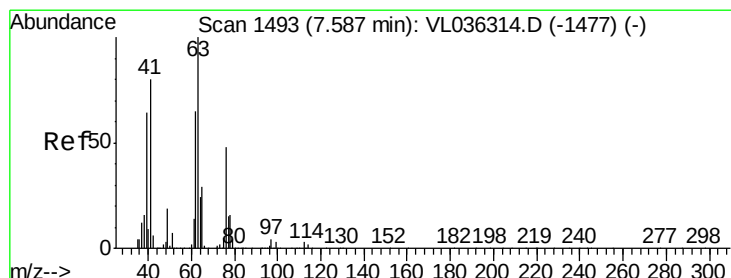
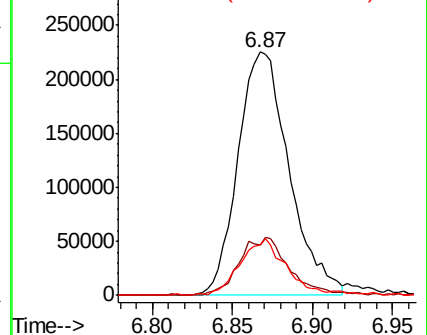
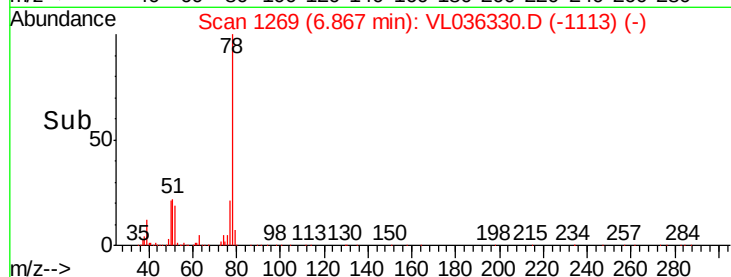
50 20.4 17.3 25.9



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: 8.415 ppbv

RT: 7.15 min Scan# 1358

Delta R.T. -0.43 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

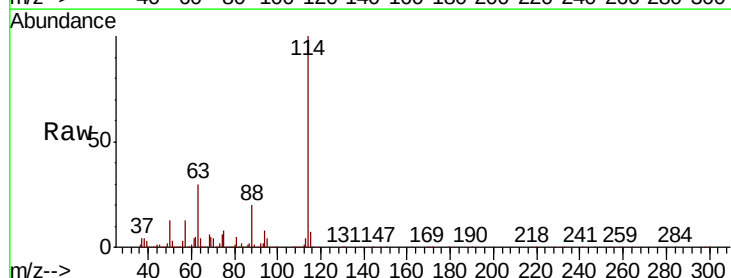
Tgt Ion: 63 Resp: 972202

Ion Ratio Lower Upper

63 100

41 0.0 63.8 95.6#

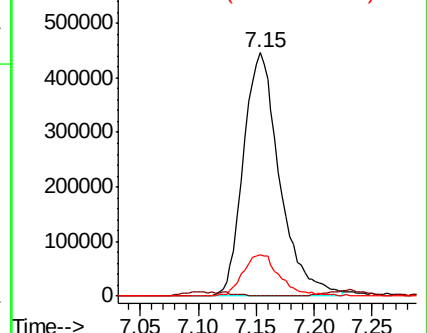
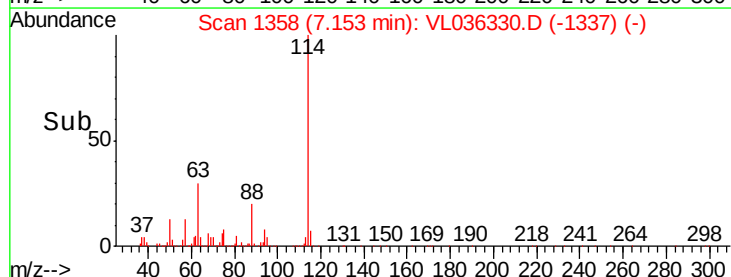
62 17.1 52.3 78.5#

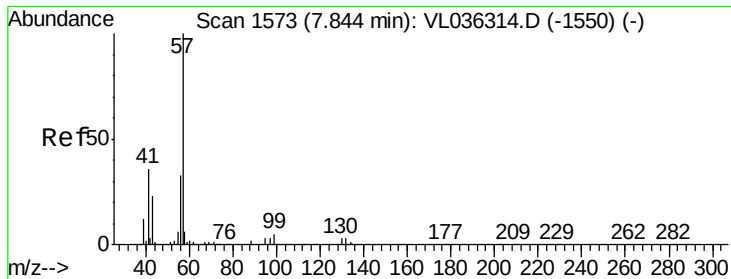


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

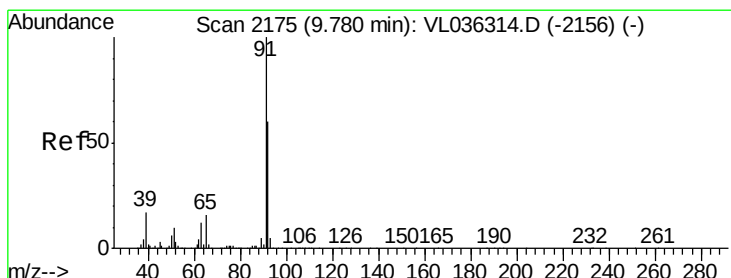
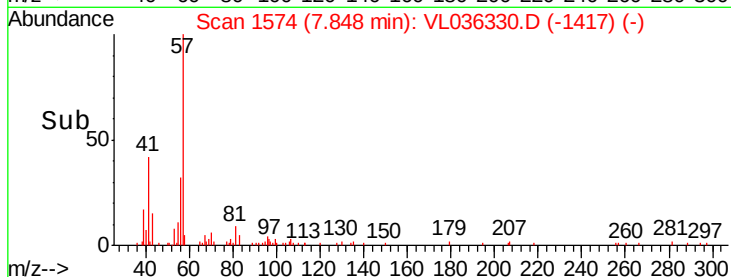
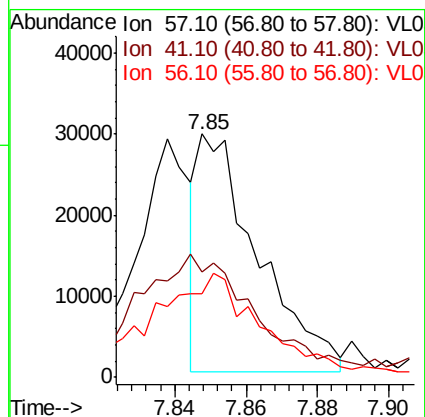
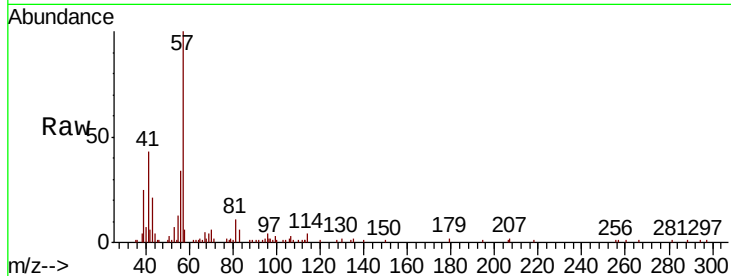




#44
 2,2,4-Trimethylpentane
 Concen: 0.066 ppbv
 RT: 7.85 min Scan# 1574
 Delta R.T. 0.00 min
 Lab File: VL036330.D
 Acq: 10 Feb 2021 23:15

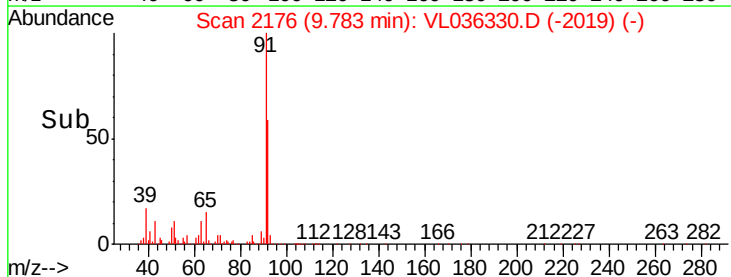
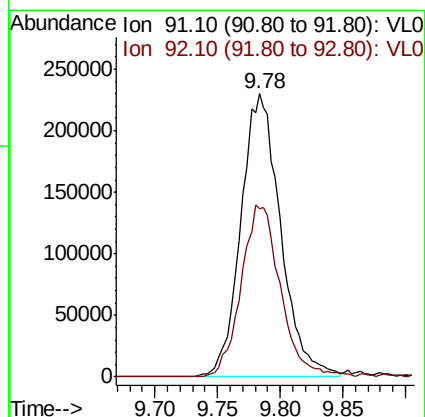
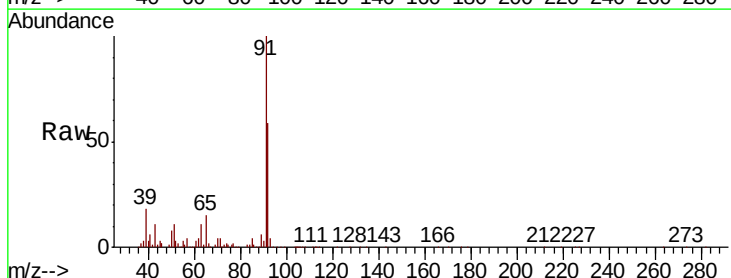
Instrument :
 MSVOA_L
 ClientSampleId :

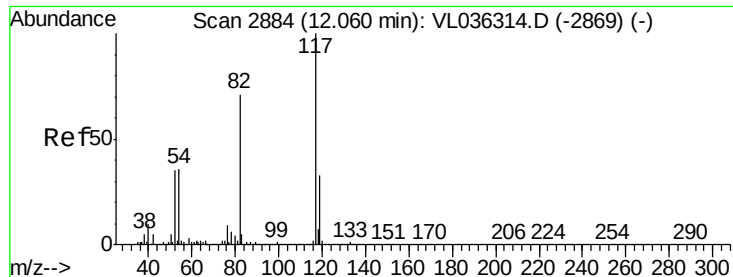
Tot Ion: 57 Resp: 34033
 Ion Ratio Lower Upper
 57 100
 41 113.1 28.8 43.2#
 56 88.5 25.8 38.6#



#53
 Toluene
 Concen: 1.641 ppbv
 RT: 9.78 min Scan# 2176
 Delta R.T. 0.00 min
 Lab File: VL036330.D
 Acq: 10 Feb 2021 23:15

Tgt Ion: 91 Resp: 505408
 Ion Ratio Lower Upper
 91 100
 92 60.8 48.6 72.8





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.01 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

ClientSampleId :

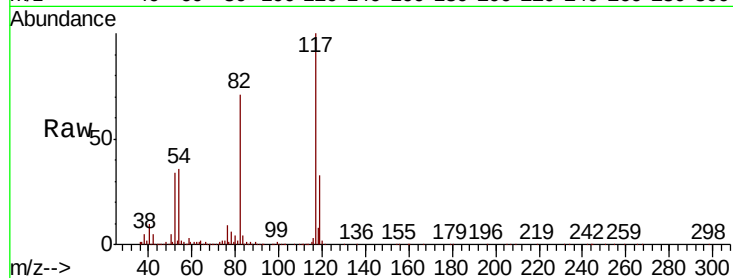
Tot Ion:117 Resp: 2970571

Ion Ratio Lower Upper

117 100

82 74.3 59.1 88.7

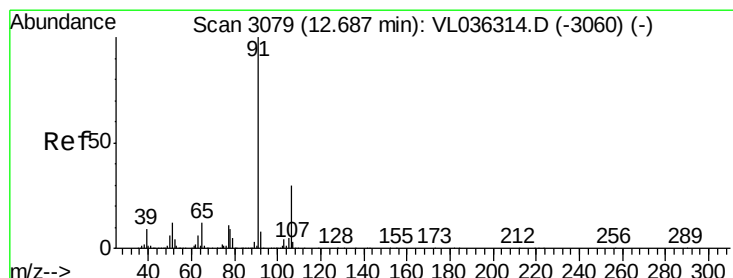
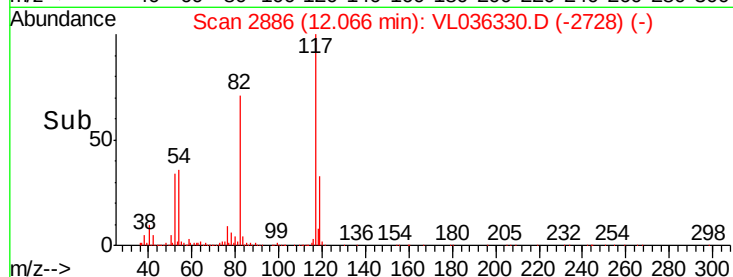
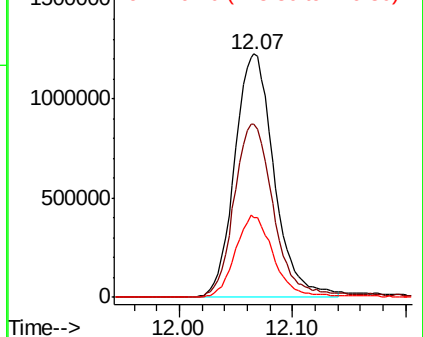
119 33.2 46.3 69.5#



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



#58

Ethyl Benzene

Concen: 0.048 ppbv

RT: 12.68 min Scan# 3078

Delta R.T. -0.00 min

Lab File: VL036330.D

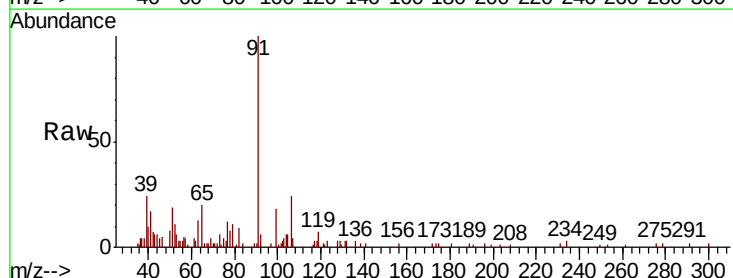
Acq: 10 Feb 2021 23:15

Tgt Ion: 91 Resp: 19652

Ion Ratio Lower Upper

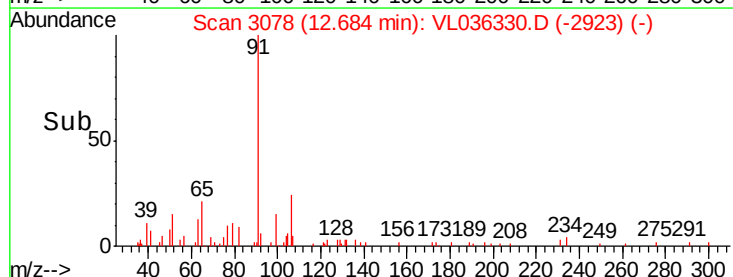
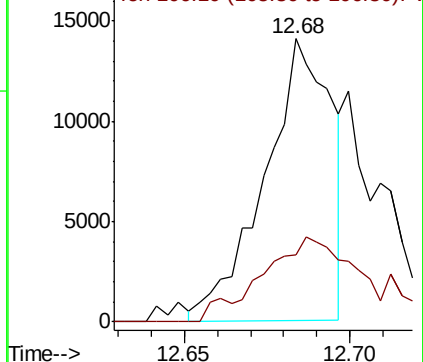
91 100

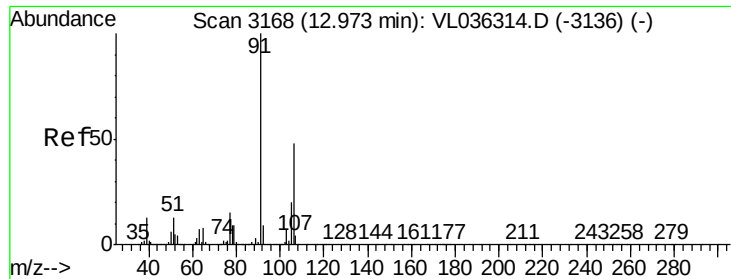
106 24.8 23.8 35.6



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 0.042 ppbv

RT: 12.98 min Scan# 3169

Delta R.T. 0.00 min

Lab File: VL036330.D

Acq: 10 Feb 2021 23:15

Instrument :

MSVOA_L

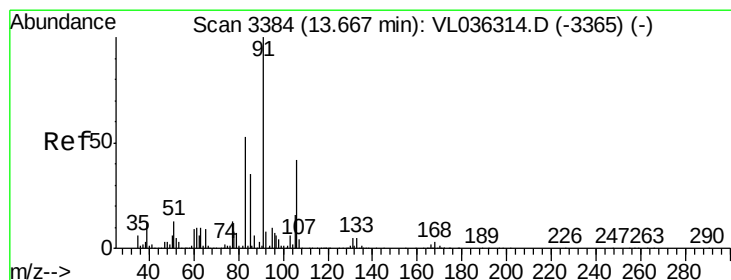
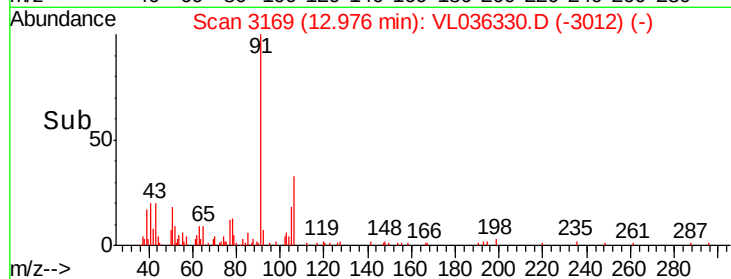
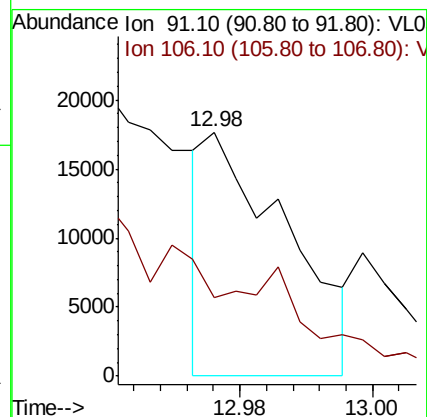
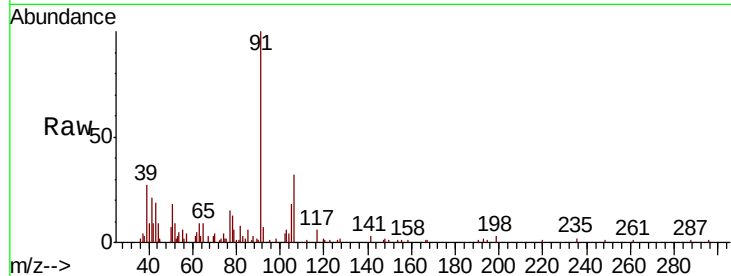
ClientSampleId :

Tot Ion: 91 Resp: 15147

Ion Ratio Lower Upper

91 100

106 0.0 34.2 51.2#



#60

o-Xylene

Concen: 0.052 ppbv

RT: 13.67 min Scan# 3386

Delta R.T. 0.01 min

Lab File: VL036330.D

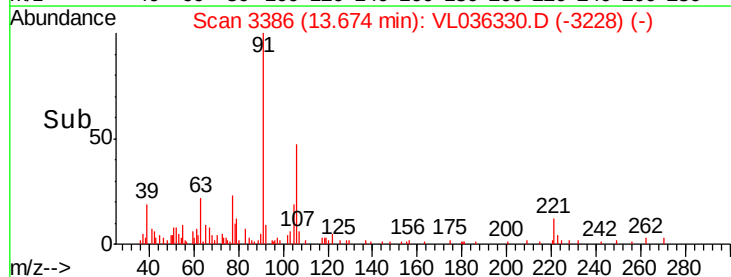
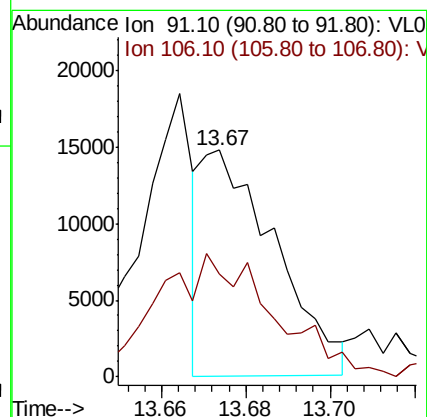
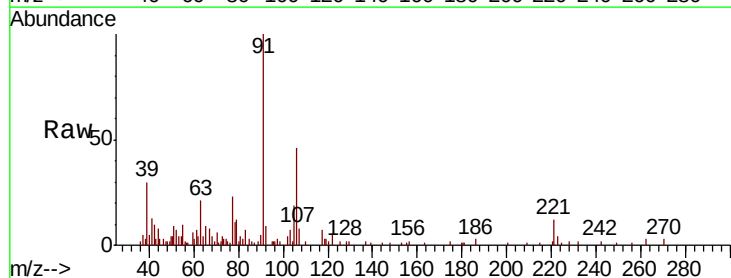
Acq: 10 Feb 2021 23:15

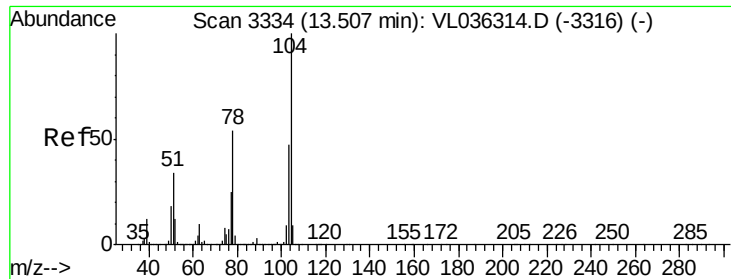
Tgt Ion: 91 Resp: 17808

Ion Ratio Lower Upper

91 100

106 93.1 22.0 66.0#

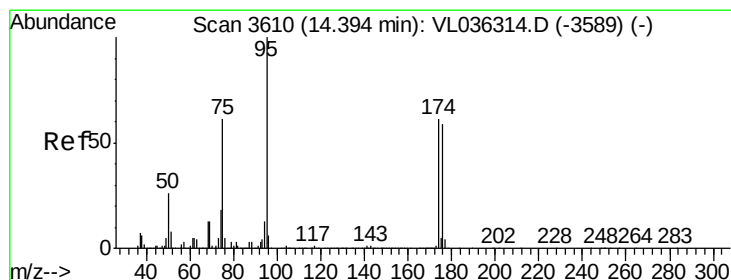
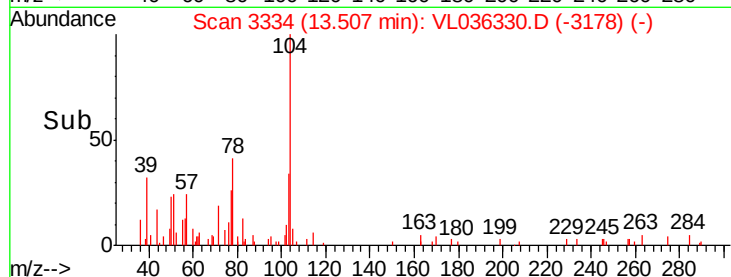
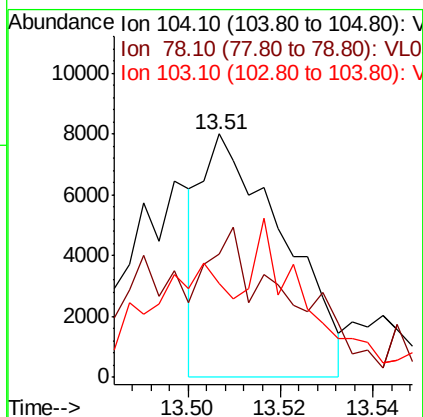
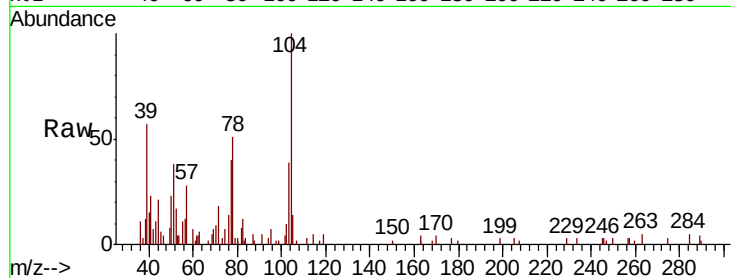




#61
Stvrene
Concen: 0.046 ppbv
RT: 13.51 min Scan# 3334
Delta R.T. 0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

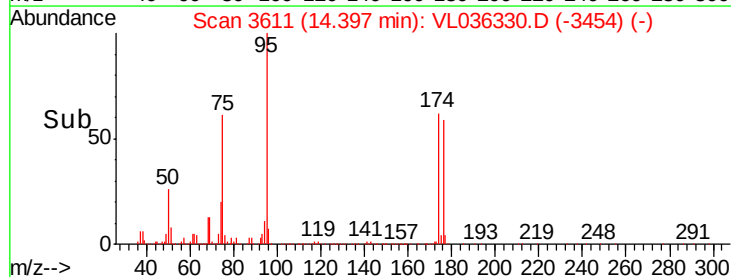
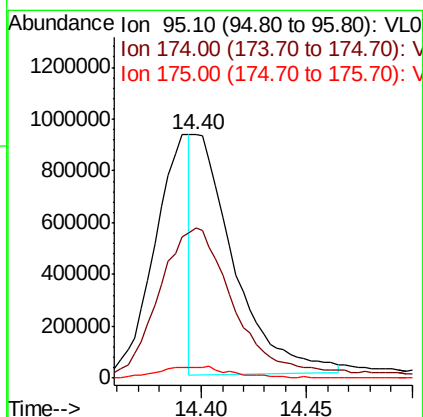
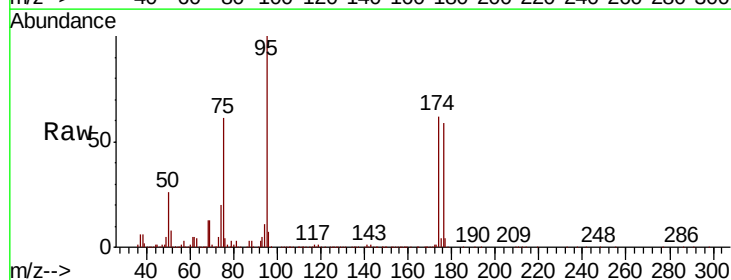
Instrument :
MSVOA_L
ClientSampleId :

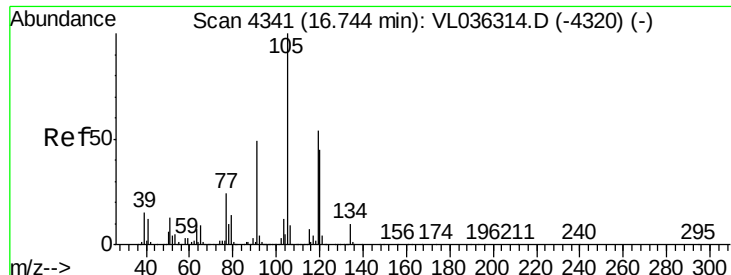
Tot Ion:104 Resp: 9780
Ion Ratio Lower Upper
104 100
78 143.5 46.2 69.2#
103 103.0 38.3 57.5#



#68
1-Bromo-4-Fluorobenzene
Concen: 5.146 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. 0.00 min
Lab File: VL036330.D
Acq: 10 Feb 2021 23:15

Tgt Ion: 95 Resp: 1257800
Ion Ratio Lower Upper
95 100
174 121.3 49.8 74.6#
175 8.4 3.7 5.5#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.073 ppbv
 RT: 16.74 min Scan# 4340
 Delta R.T. -0.00 min
 Lab File: VL036330.D
 Acq: 10 Feb 2021 23:15

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	27556
Ion Ratio		Lower	Upper
105	100		
120	25.4	35.8	53.6#
91	8.1	39.8	59.6#
77	13.6	19.1	28.7#

