

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120820\
 Data File : VL036124.D
 Acq On : 9 Dec 2020 9:58
 Operator : SY/AP
 Sample : L4949-03DL2 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL2

Quant Time: Dec 10 00:29:04 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	5.67	49	1265296	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	2601085	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	2347570	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2020045	10.84	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	108.40%

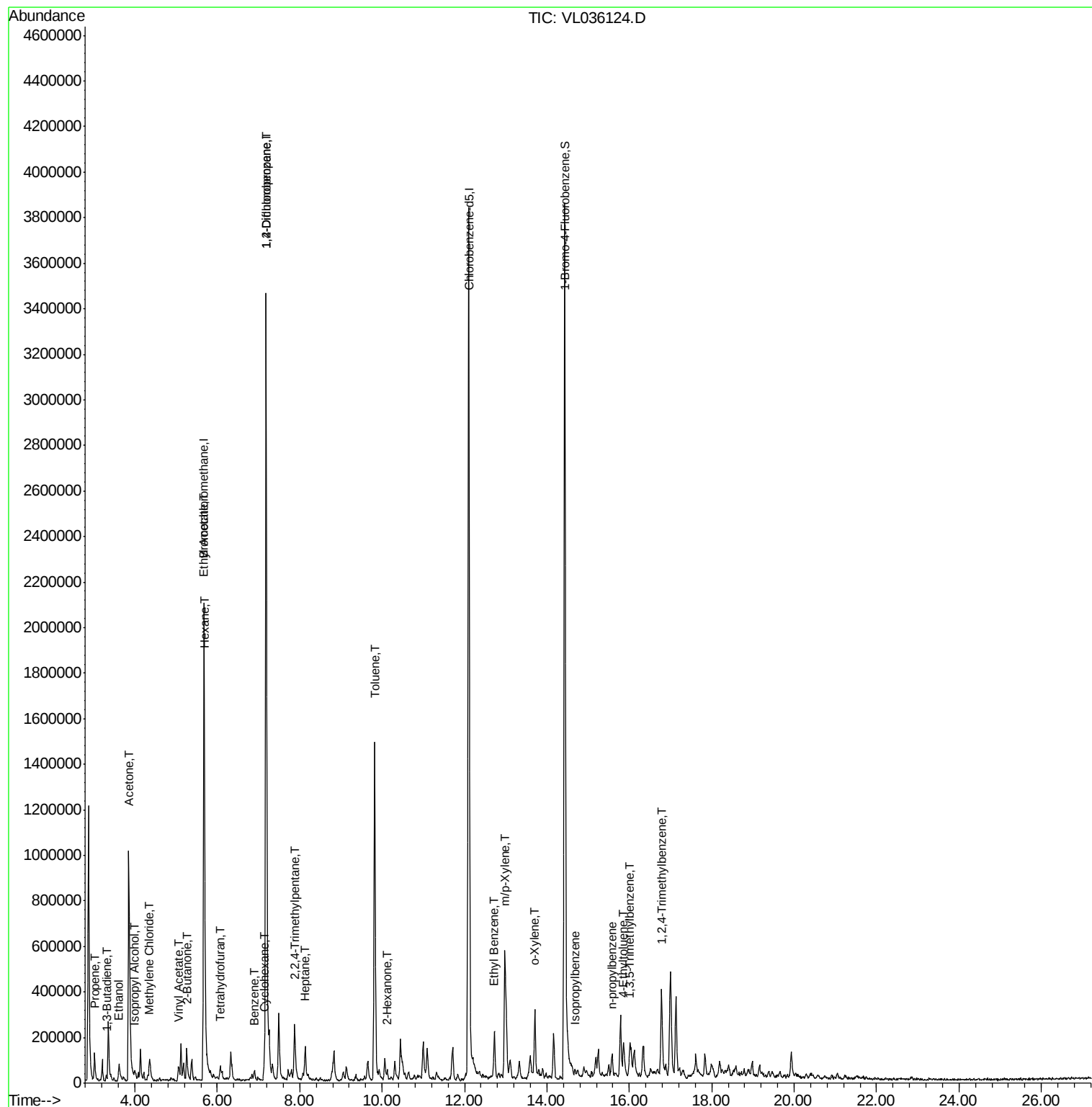
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
9) Propene	3.02	41	31236	0.432	ppbv #	82
10) Heptane	8.14	43	32745	0.177	ppbv #	13
13) Ethanol	3.60	45	35740	3.585	ppbv #	29
15) Acetone	3.85	43	1356778	8.922	ppbv	99
16) 1,3-Butadiene	3.32	39	2739	0.036	ppbv	94
19) Isopropyl Alcohol	3.98	45	14809	0.159	ppbv #	100
20) Methylene Chloride	4.35	84	25469	0.409	ppbv #	90
23) Vinyl Acetate	5.07	43	13967	0.069	ppbv #	65
25) Ethyl Acetate	5.69	43	166804	0.549	ppbv #	98
26) Hexane	5.69	57	73885	0.540	ppbv	98
30) Cyclohexane	7.14	84	11486	0.114	ppbv #	1
34) 2-Butanone	5.25	43	173127	1.003	ppbv	92
36) Benzene	6.89	78	20835	0.095	ppbv	94
39) 1,2-Dichloropropane	7.19	63	824111	9.467	ppbv #	24
41) Tetrahydrofuran	6.07	42	35143	0.343	ppbv #	81
44) 2,2,4-Trimethylpentane	7.87	57	126192	0.316	ppbv #	29
51) 2-Hexanone	10.12	43	8024	0.040	ppbv #	29
53) Toluene	9.82	91	1165164	4.707	ppbv	98
58) Ethyl Benzene	12.73	91	189225	0.588	ppbv	99
59) m/p-Xylene	12.99	91	346292	1.278	ppbv #	48
60) o-Xylene	13.71	91	232389	0.910	ppbv	96
62) Isopropylbenzene	14.69	105	11624	0.031	ppbv #	68
64) n-propylbenzene	15.59	120	8639	0.095	ppbv #	1
72) 4-Ethyltoluene	15.86	105	85026	0.307	ppbv #	84
73) 1,3,5-Trimethylbenzene	16.01	105	79451	0.301	ppbv #	83
74) 1,2,4-Trimethylbenzene	16.78	105	282401	1.065	ppbv #	69

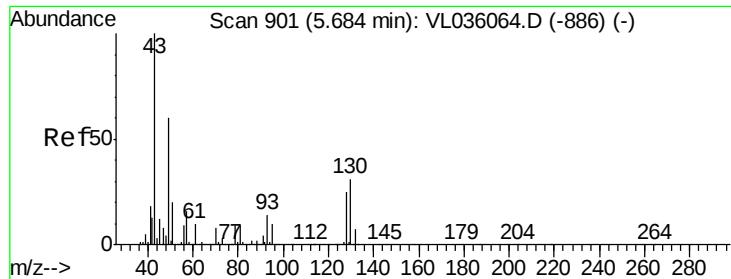
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
MSVOA_L
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Quant Time: Dec 10 00:29:04 2020
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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





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

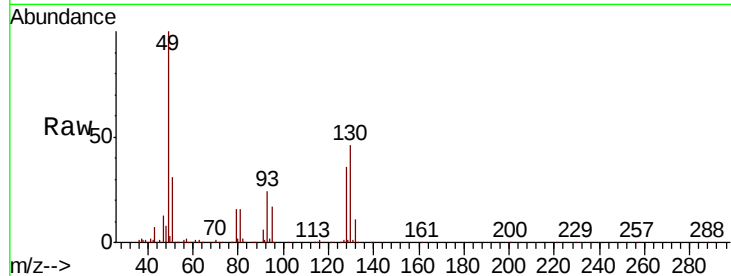
MSVOA_L

ClientSampleId :

IA-1DL2

Tot Ion: 49 Resp: 1265296

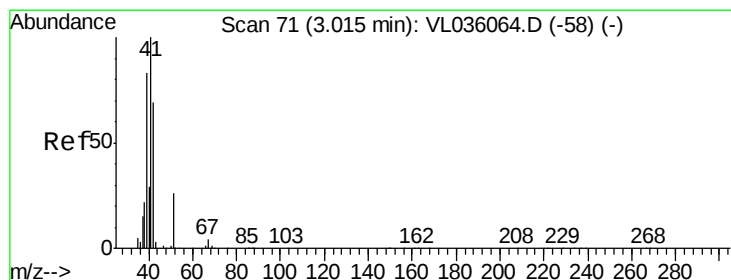
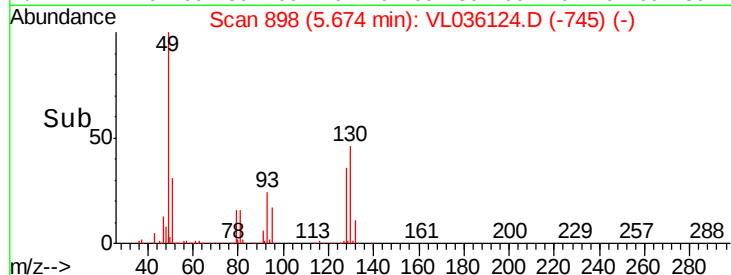
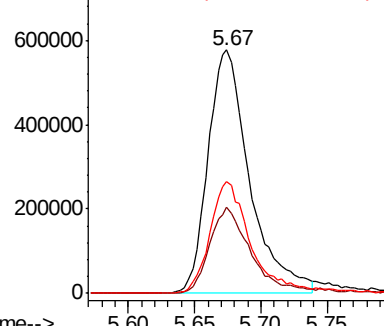
Ion	Ratio	Lower	Upper
49	100		
128	35.9	21.1	63.1
130	46.6	27.1	81.3



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#9

Propene

Concen: 0.432 ppbv

RT: 3.02 min Scan# 72

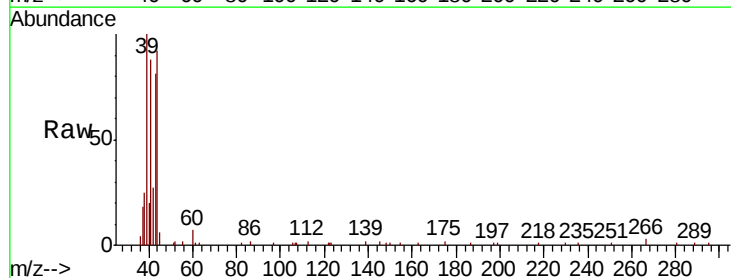
Delta R.T. 0.00 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

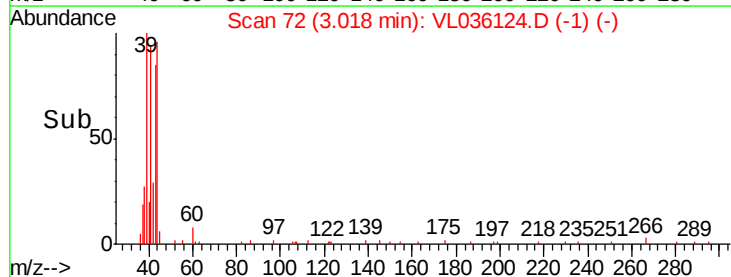
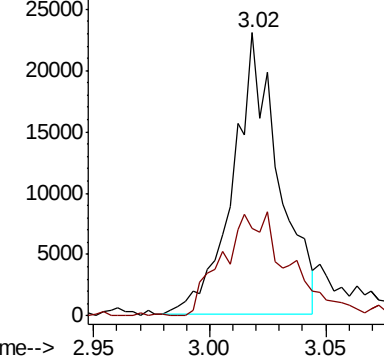
Tgt Ion: 41 Resp: 31236

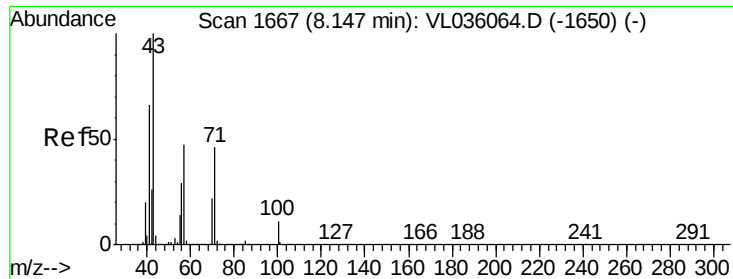
Ion	Ratio	Lower	Upper
41	100		
42	56.6	57.0	85.6#



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

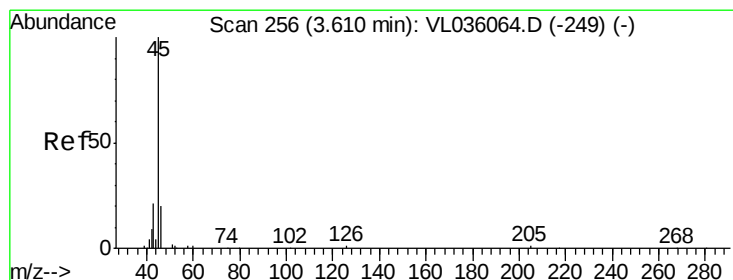
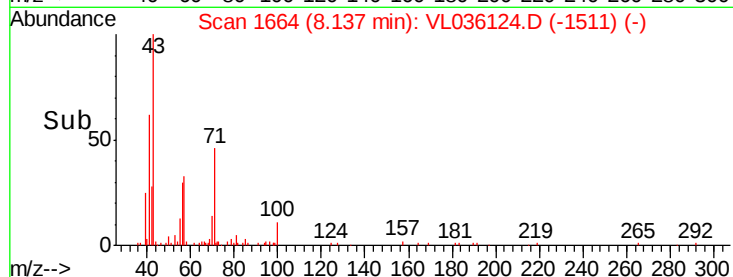
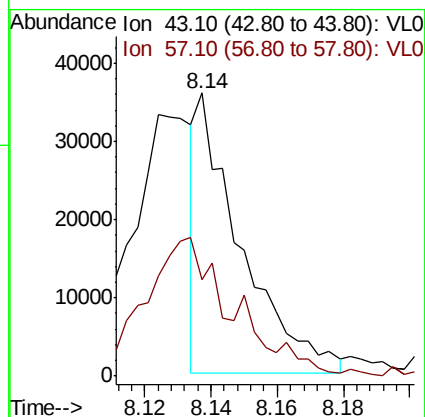
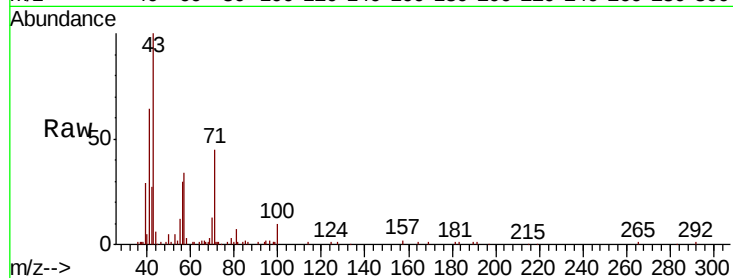




#10
Heptane
Concen: 0.177 ppbv
RT: 8.14 min Scan# 1664
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

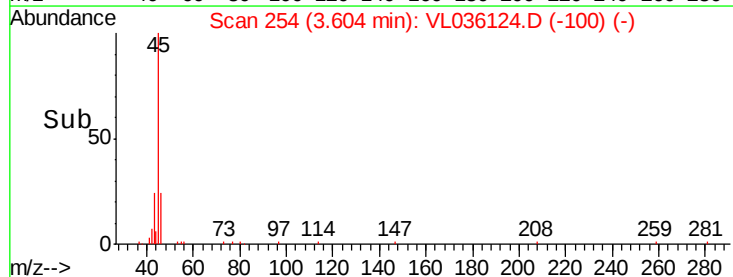
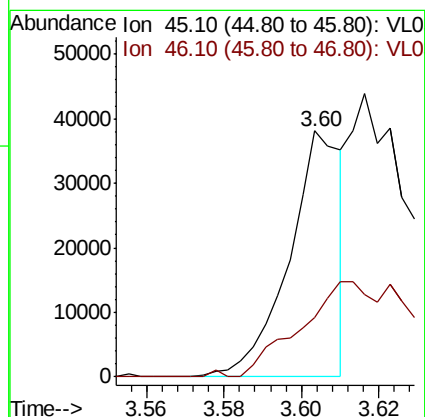
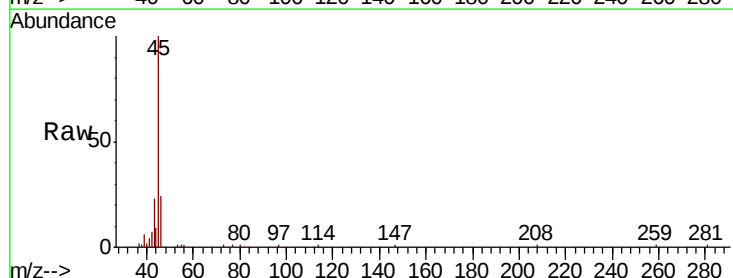
Instrument :
MSVOA_L
ClientSampleId :
IA-1DL2

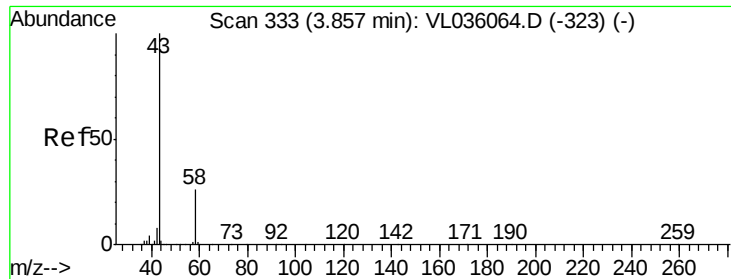
Tot Ion: 43 Resp: 32745
Ion Ratio Lower Upper
43 100
57 105.9 37.9 56.9#



#13
Ethanol
Concen: 3.585 ppbv
RT: 3.60 min Scan# 254
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

Tgt Ion: 45 Resp: 35740
Ion Ratio Lower Upper
45 100
46 0.0 19.0 75.8#





#15

Acetone

Concen: 8.922 ppbv

RT: 3.85 min Scan# 331

Delta R.T. -0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

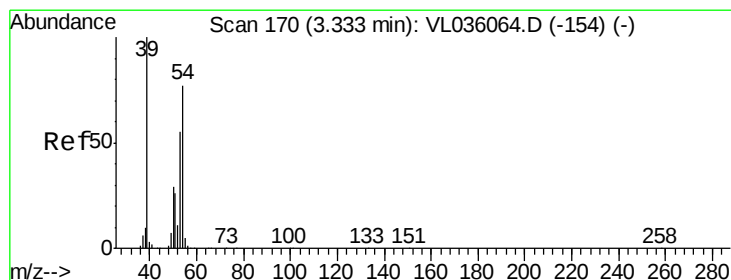
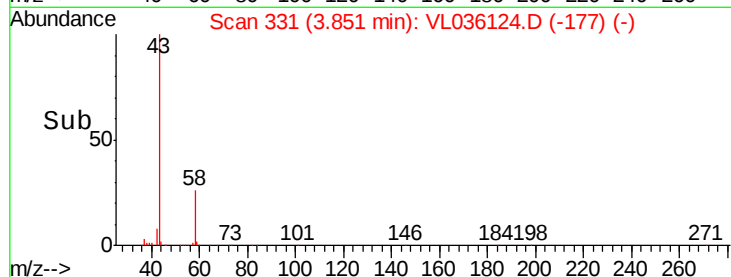
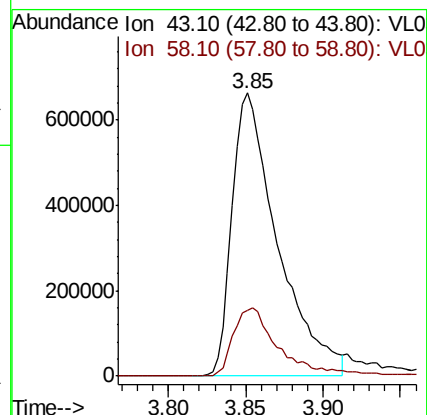
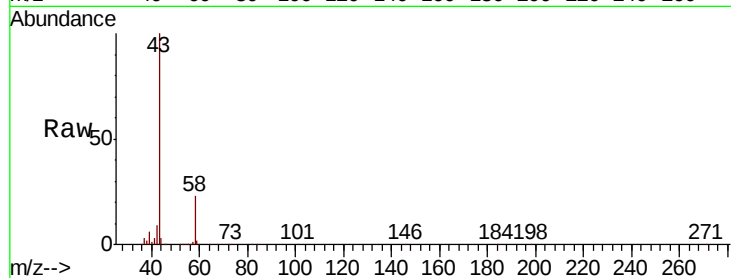
IA-1DL2

Tot Ion: 43 Resp: 1356778

Ion Ratio Lower Upper

43 100

58 25.4 20.9 31.3



#16

1,3-Butadiene

Concen: 0.036 ppbv

RT: 3.32 min Scan# 165

Delta R.T. -0.02 min

Lab File: VL036124.D

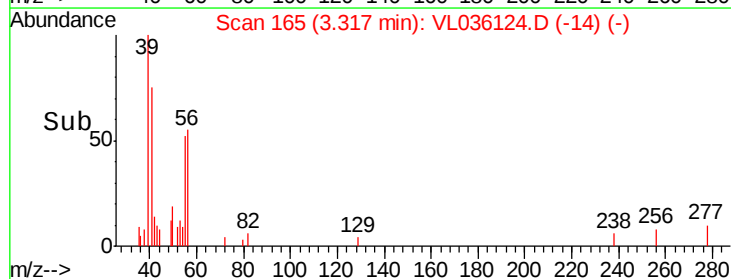
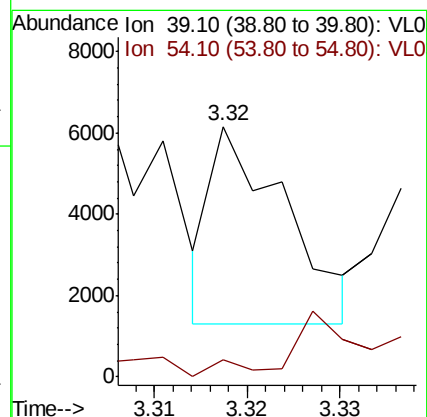
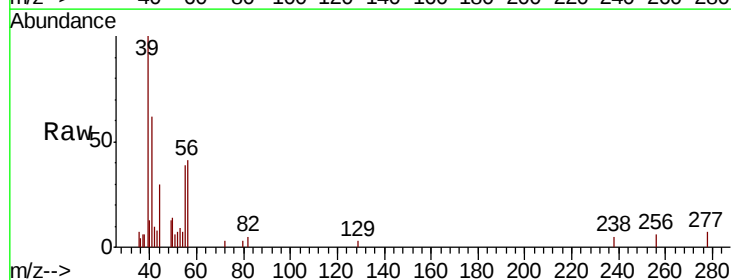
Acq: 9 Dec 2020 9:58

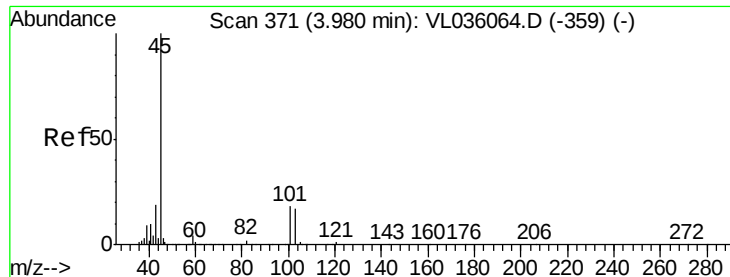
Tgt Ion: 39 Resp: 2739

Ion Ratio Lower Upper

39 100

54 82.8 62.1 93.1



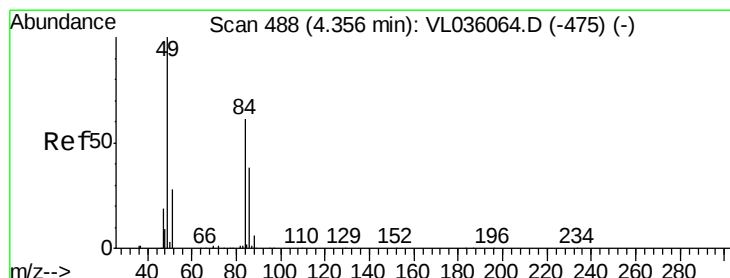
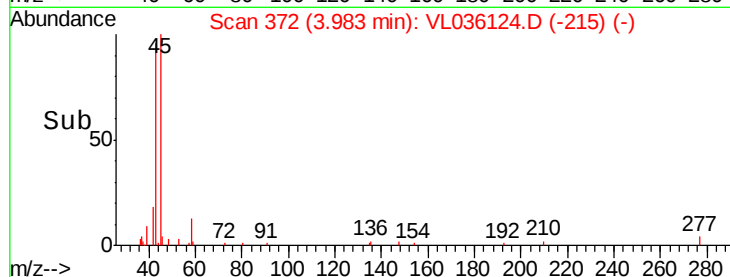
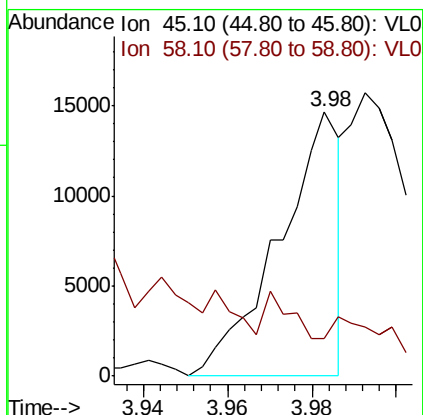
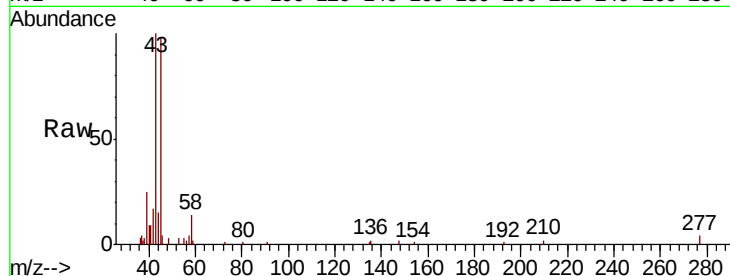


#19

Isopropyl Alcohol
 Concen: 0.159 ppbv
 RT: 3.98 min Scan# 372
 Delta R.T. 0.00 min
 Lab File: VL036124.D
 Acq: 9 Dec 2020 9:58

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL2

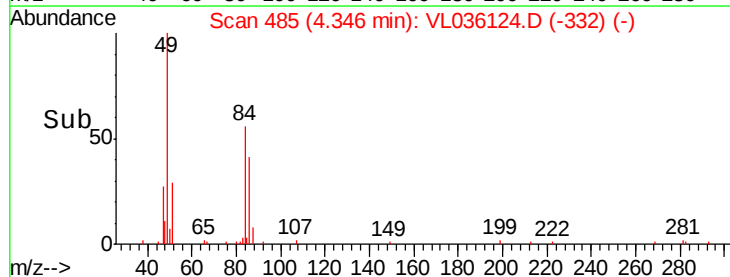
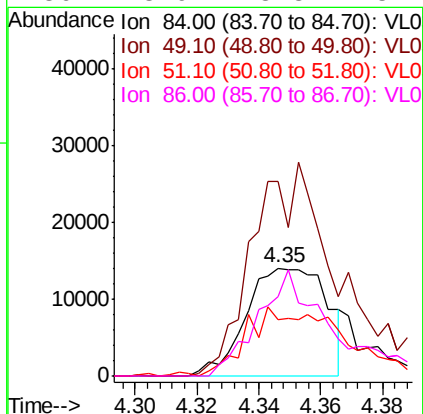
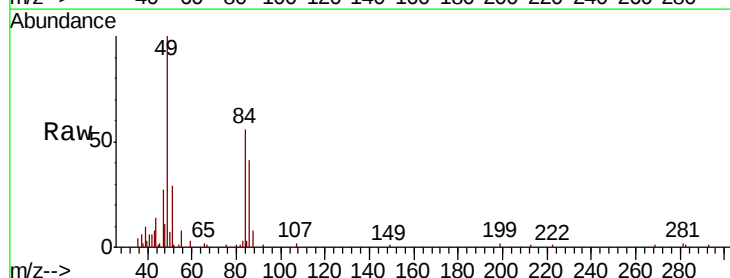
Tot Ion: 45 Resp: 14809
 Ion Ratio Lower Upper
 45 100
 58 0.0 0.0 0.0

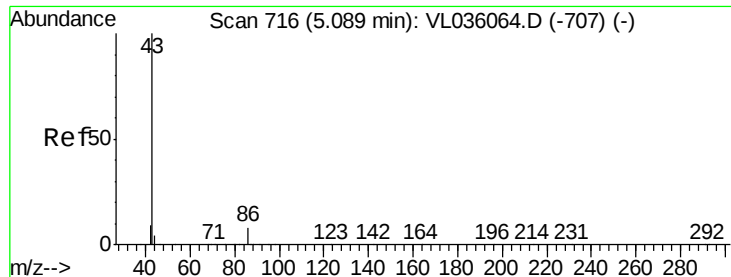


#20

Methylene Chloride
 Concen: 0.409 ppbv
 RT: 4.35 min Scan# 485
 Delta R.T. -0.01 min
 Lab File: VL036124.D
 Acq: 9 Dec 2020 9:58

Tgt Ion: 84 Resp: 25469
 Ion Ratio Lower Upper
 84 100
 49 180.0 133.0 199.4
 51 49.2 38.9 58.3
 86 73.9 48.8 73.2#





#23

Vinyl Acetate

Concen: 0.069 ppbv

RT: 5.07 min Scan# 709

Delta R.T. -0.02 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL2

Tot Ion: 43 Resp: 13967

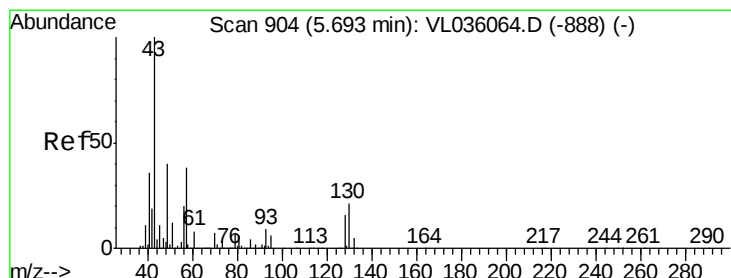
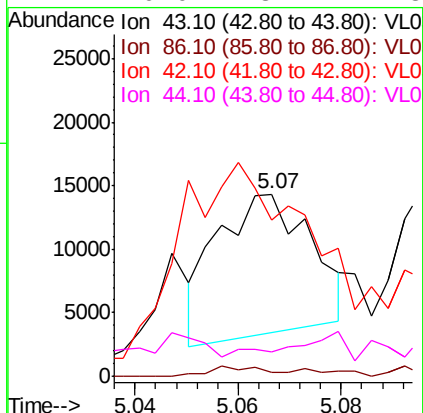
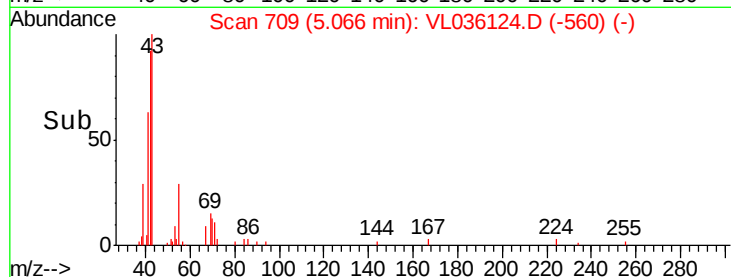
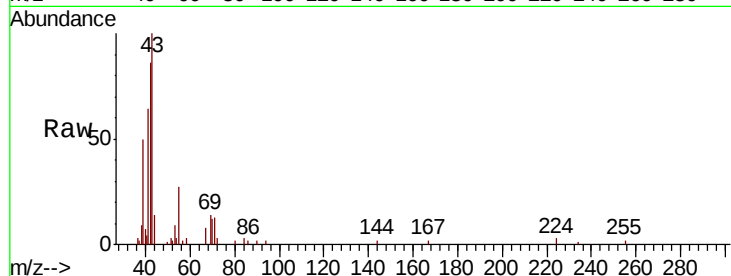
Ion Ratio Lower Upper

43 100

86 2.7 5.0 7.4#

42 32.0 7.8 11.6#

44 0.0 3.2 4.8#



#25

Ethyl Acetate

Concen: 0.549 ppbv

RT: 5.69 min Scan# 902

Delta R.T. -0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Tgt Ion: 43 Resp: 166804

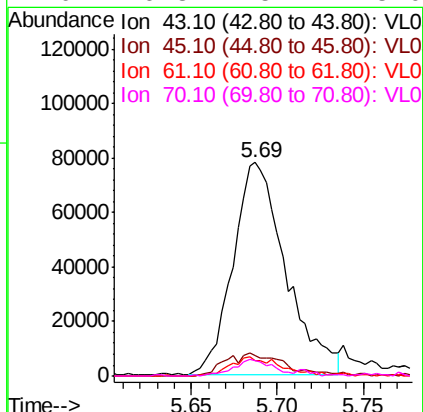
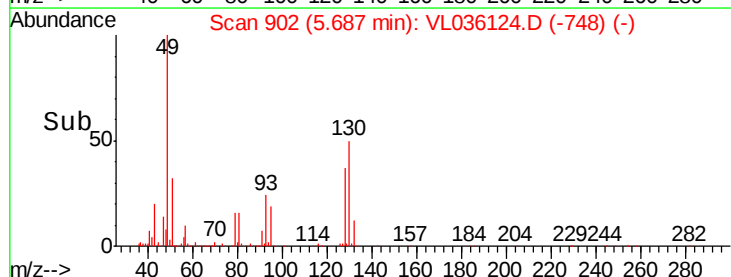
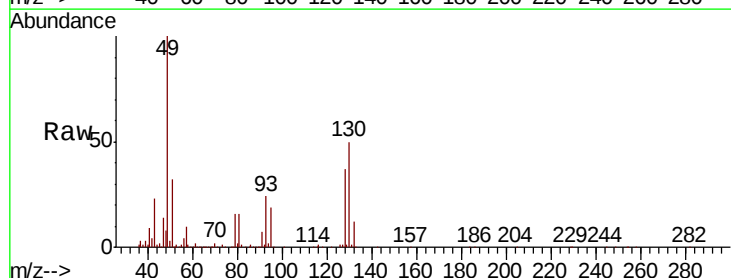
Ion Ratio Lower Upper

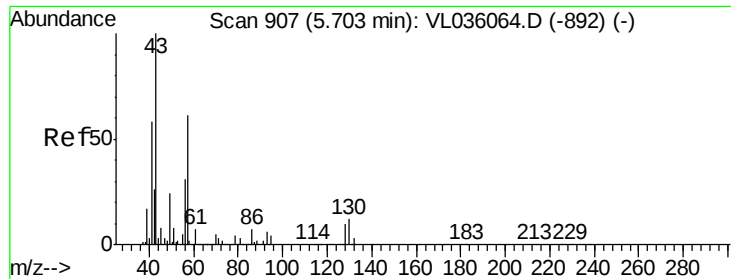
43 100

45 12.4 8.2 12.4#

61 9.2 7.4 11.2

70 6.8 5.4 8.0

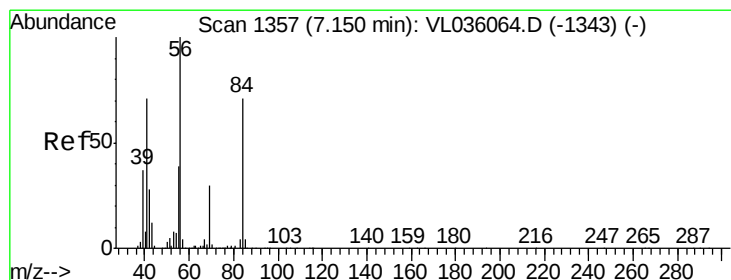
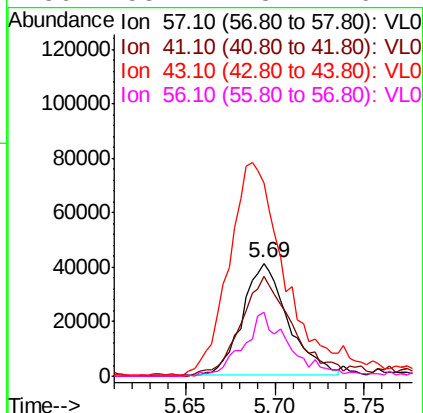
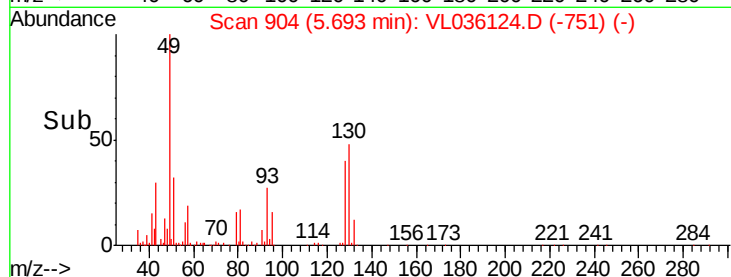
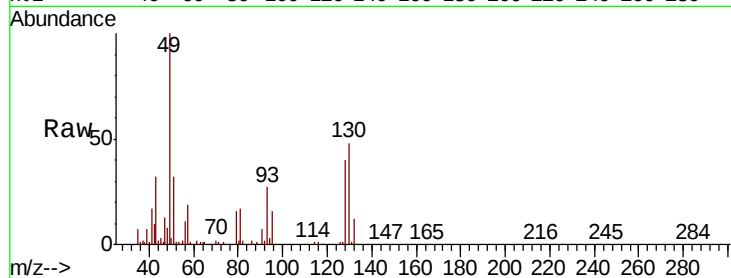




#26
Hexane
Concen: 0.540 ppbv
RT: 5.69 min Scan# 904
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

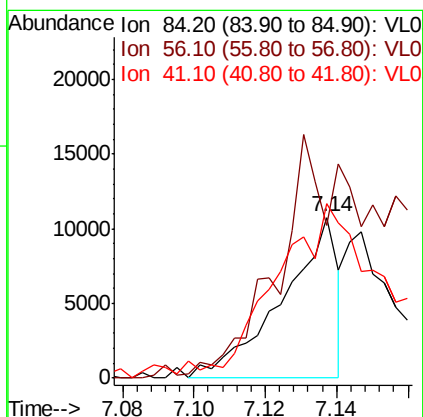
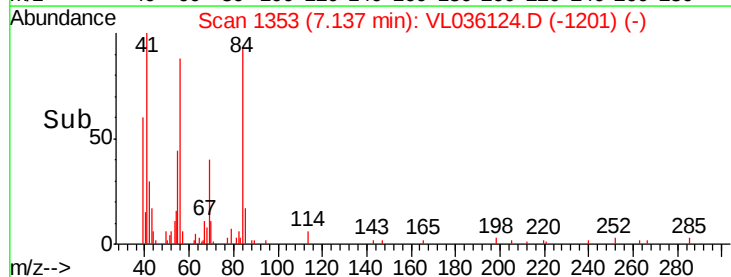
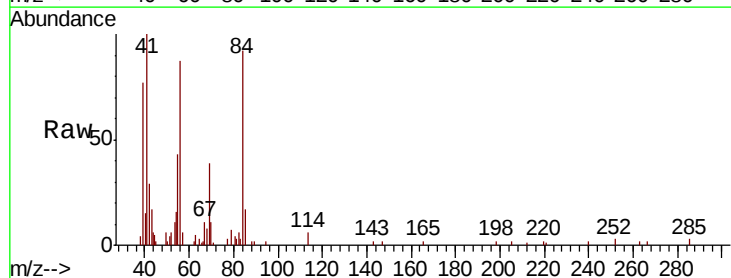
Instrument :
MSVOA_L
ClientSampled :
IA-1DL2

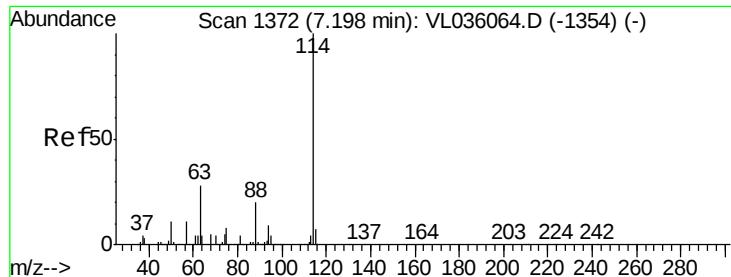
Tot Ion:	57	Resp:	73885
Ion	Ratio	Lower	Upper
57	100		
41	104.1	82.9	124.3
43	252.3	199.9	299.9
56	58.1	43.1	64.7



#30
Cyclohexane
Concen: 0.114 ppbv
RT: 7.14 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

Tgt Ion:	84	Resp:	11486
Ion	Ratio	Lower	Upper
84	100		
56	274.4	128.0	192.0#
41	230.9	81.3	121.9#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. -0.02 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL2

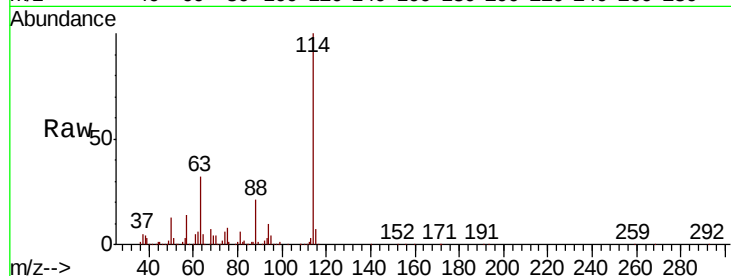
Tot Ion:114 Resp: 2601085

Ion Ratio Lower Upper

114 100

63 32.7 23.6 35.4

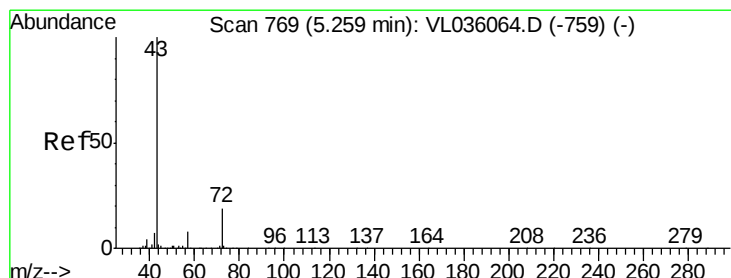
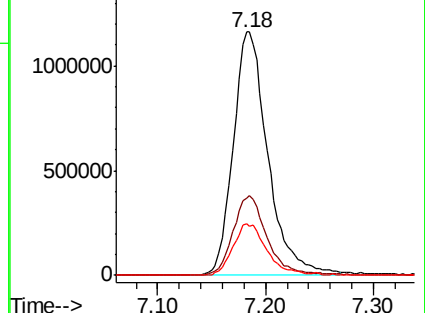
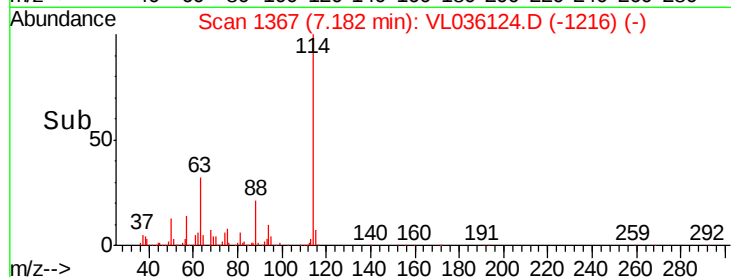
88 21.0 15.8 23.6



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: 1.003 ppbv

RT: 5.25 min Scan# 767

Delta R.T. -0.01 min

Lab File: VL036124.D

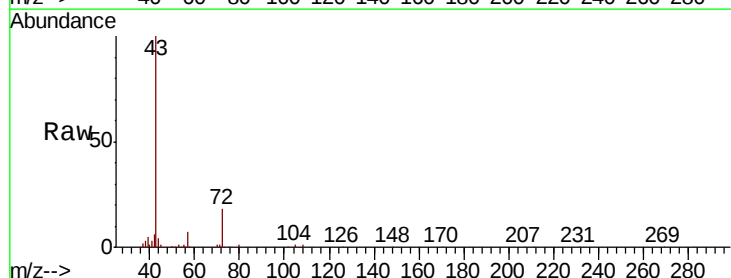
Acq: 9 Dec 2020 9:58

Tgt Ion: 43 Resp: 173127

Ion Ratio Lower Upper

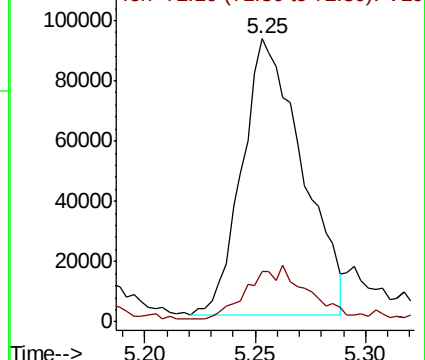
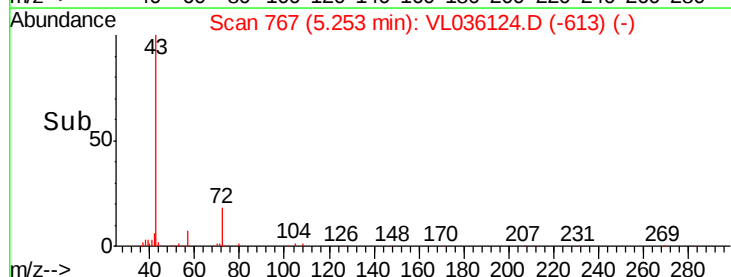
43 100

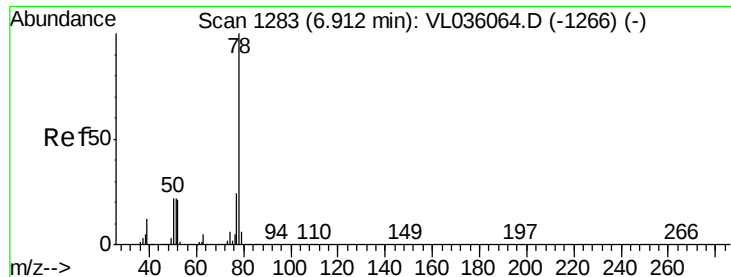
72 24.4 16.5 24.7



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.095 ppbv

RT: 6.89 min Scan# 1277

Delta R.T. -0.02 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL2

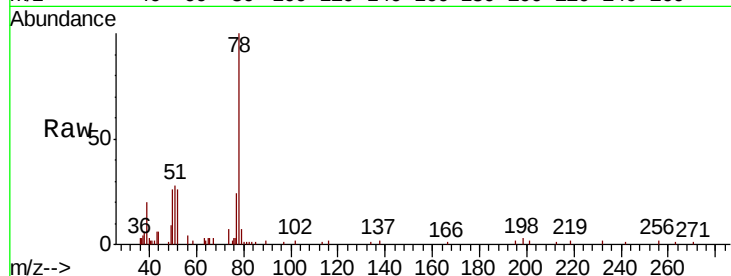
Tot Ion: 78 Resp: 20835

Ion Ratio Lower Upper

78 100

77 19.9 19.4 29.2

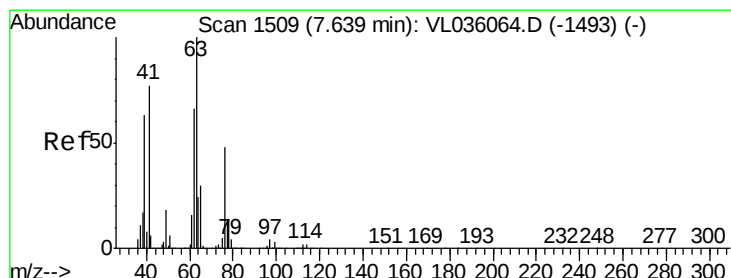
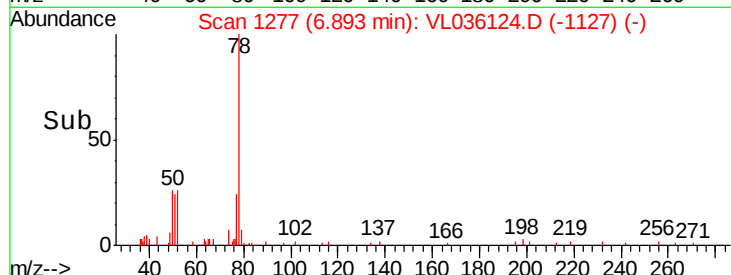
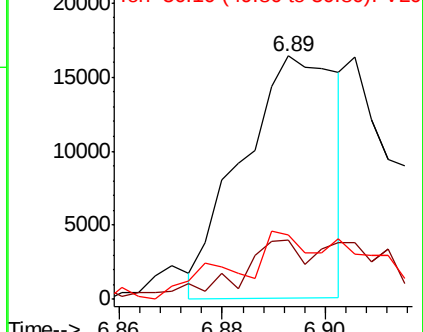
50 20.8 17.8 26.8



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: 9.467 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.45 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

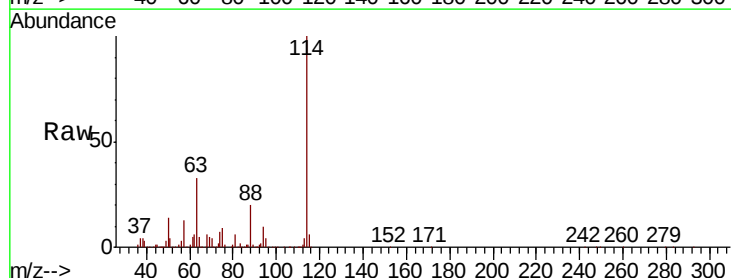
Tgt Ion: 63 Resp: 824111

Ion Ratio Lower Upper

63 100

41 0.0 61.9 92.9#

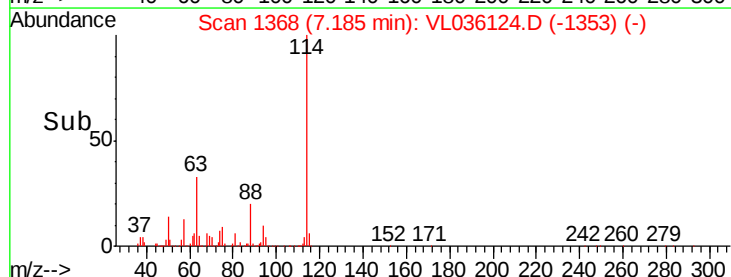
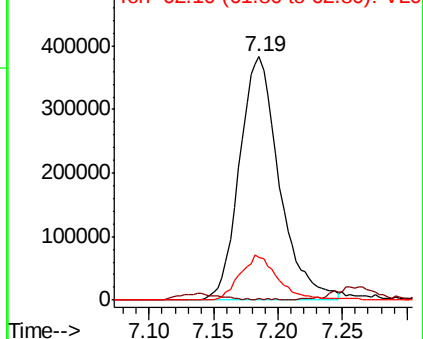
62 17.7 52.5 78.7#

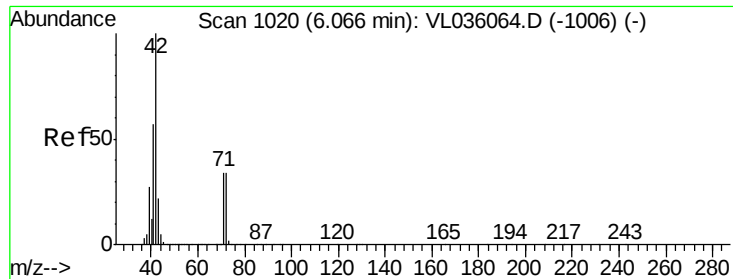


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.343 ppbv

RT: 6.07 min Scan# 1022

Delta R.T. 0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

IA-1DL2

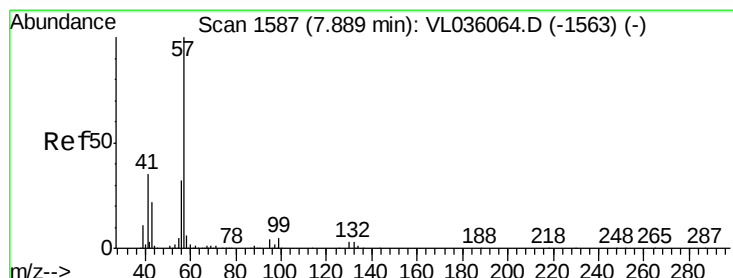
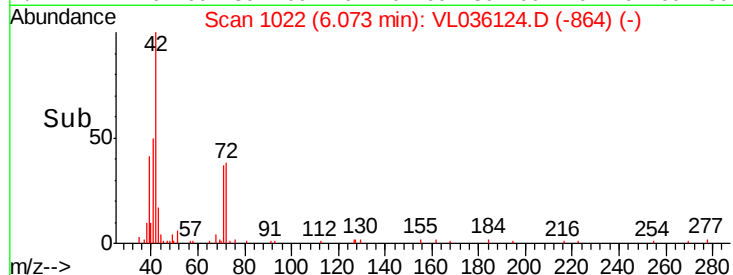
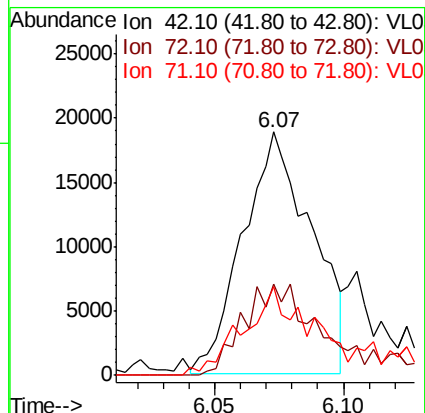
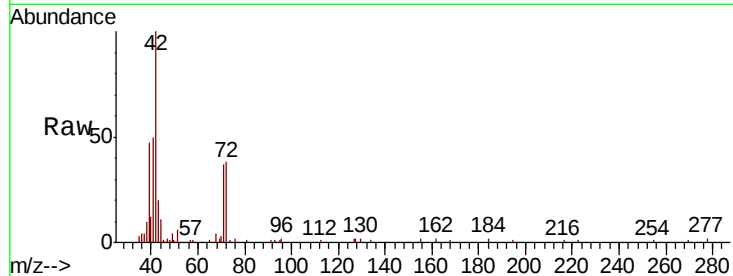
Tot Ion: 42 Resp: 35143

Ion Ratio Lower Upper

42 100

72 44.3 28.3 42.5#

71 46.9 27.3 40.9#



#44

2,2,4-Trimethylpentane

Concen: 0.316 ppbv

RT: 7.87 min Scan# 1582

Delta R.T. -0.02 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

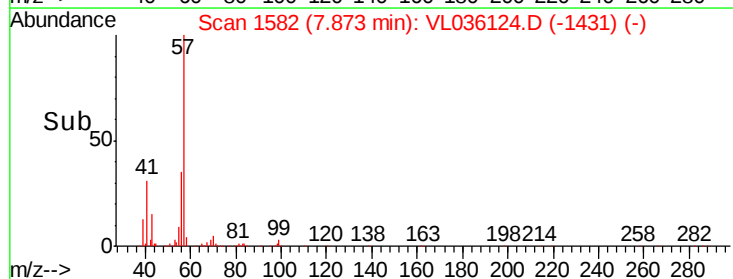
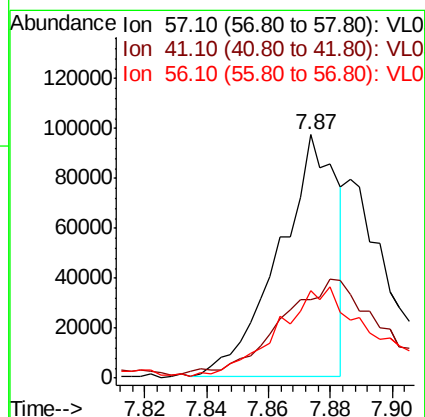
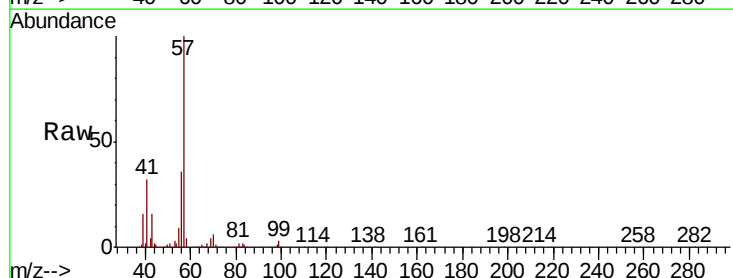
Tgt Ion: 57 Resp: 126192

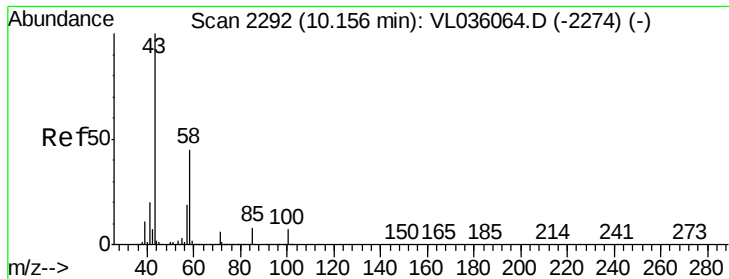
Ion Ratio Lower Upper

57 100

41 80.3 28.9 43.3#

56 68.9 25.3 37.9#

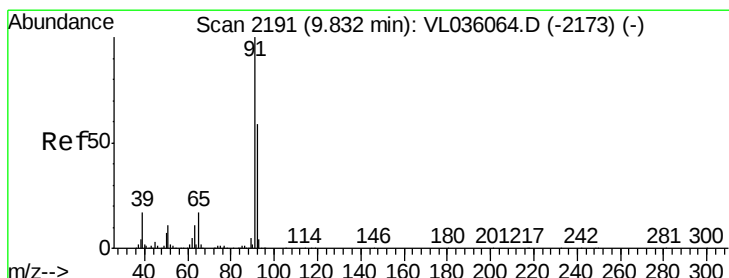
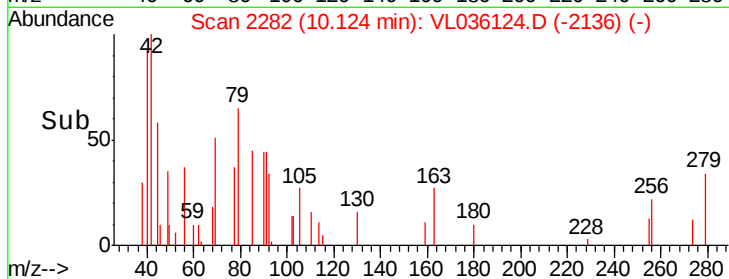
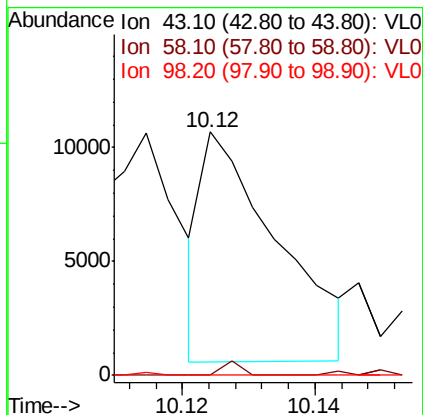
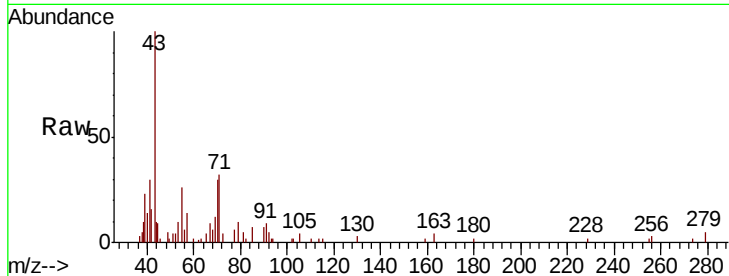




#51
2-Hexanone
Concen: 0.040 ppbv
RT: 10.12 min Scan# 2282
Delta R.T. -0.03 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

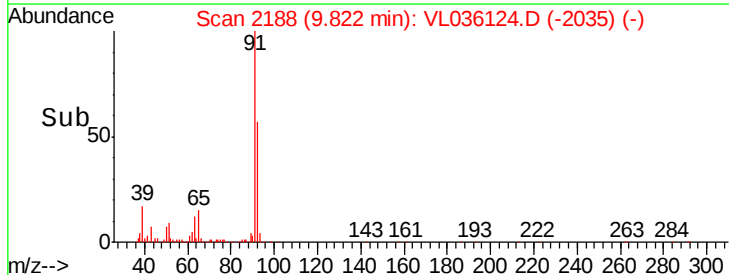
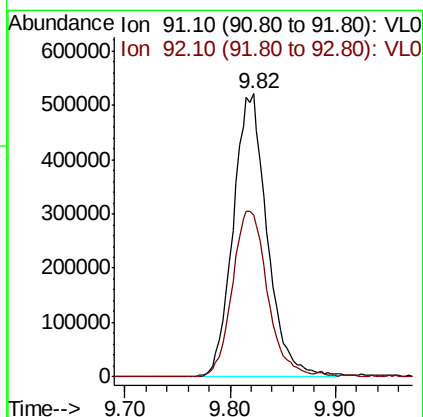
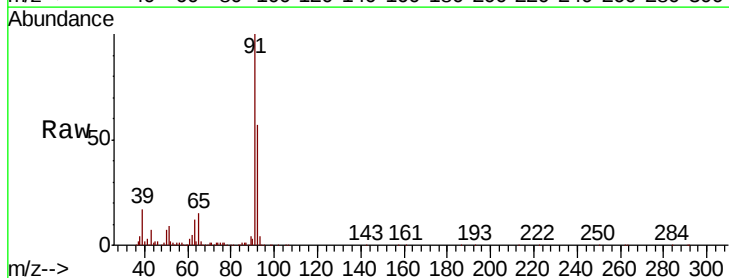
Instrument :
MSVOA_L
ClientSampleId :
IA-1DL2

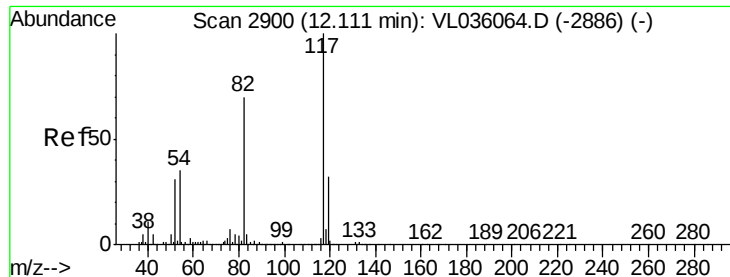
Tot Ion: 43 Resp: 8024
Ion Ratio Lower Upper
43 100
58 0.0 38.7 58.1#
98 0.0 0.1 0.1#



#53
Toluene
Concen: 4.707 ppbv
RT: 9.82 min Scan# 2188
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

Tgt Ion: 91 Resp: 1165164
Ion Ratio Lower Upper
91 100
92 61.4 48.2 72.2

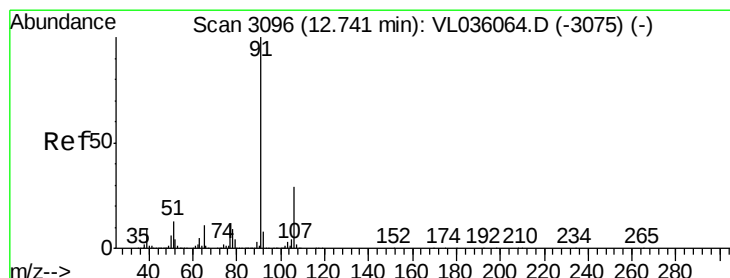
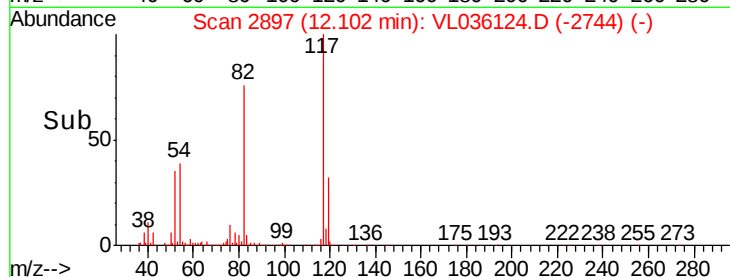
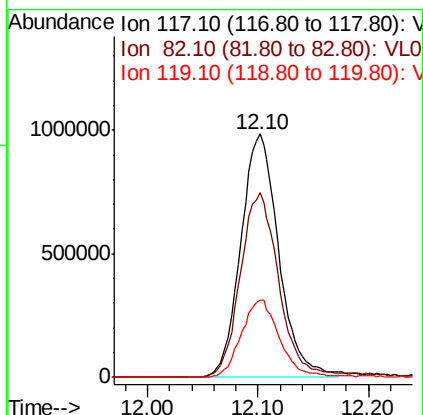
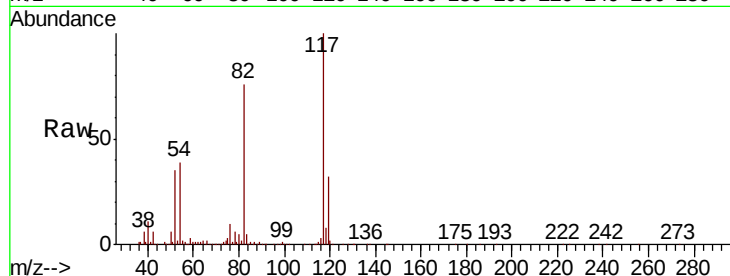




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2897
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

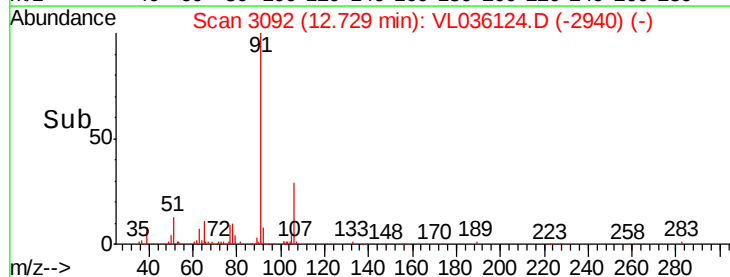
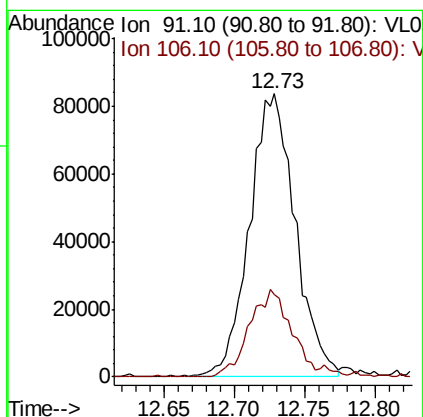
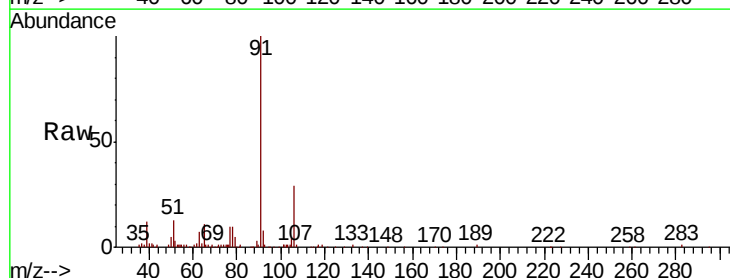
Instrument :
MSVOA_L
ClientSampled :
IA-1DL2

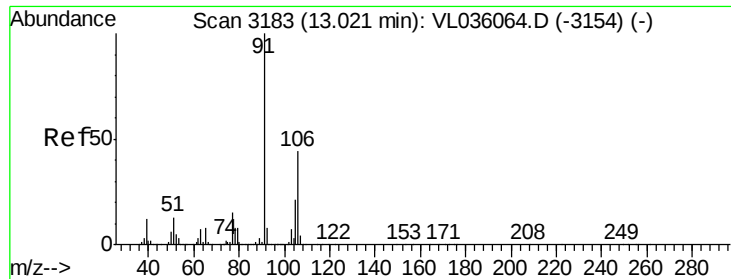
Tot Ion:117 Resp: 2347570
Ion Ratio Lower Upper
117 100
82 79.6 0.0 0.0#
119 32.7 0.0 0.0#



#58
Ethyl Benzene
Concen: 0.588 ppbv
RT: 12.73 min Scan# 3092
Delta R.T. -0.01 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

Tgt Ion: 91 Resp: 189225
Ion Ratio Lower Upper
91 100
106 29.2 23.0 34.4

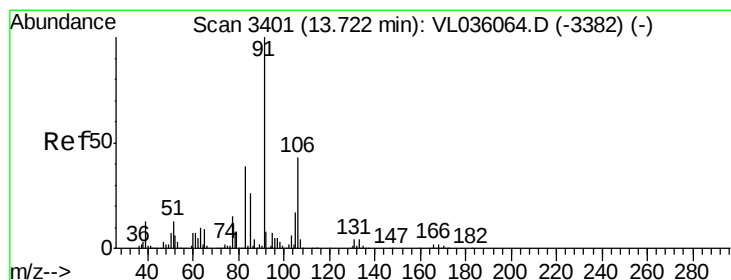
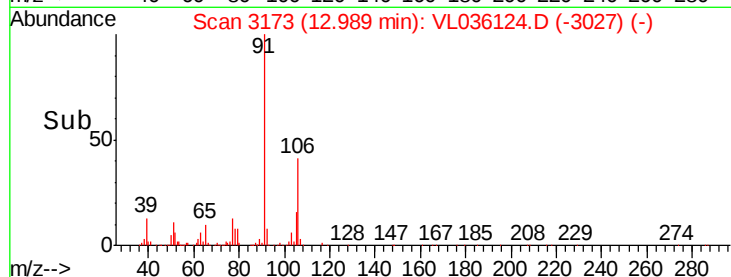
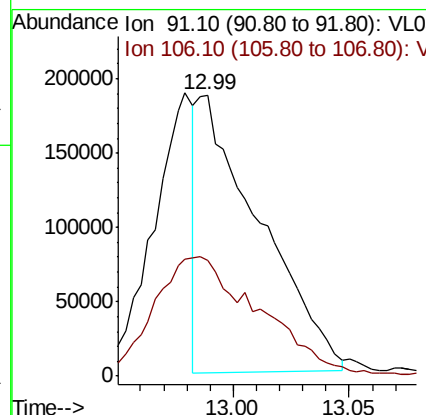
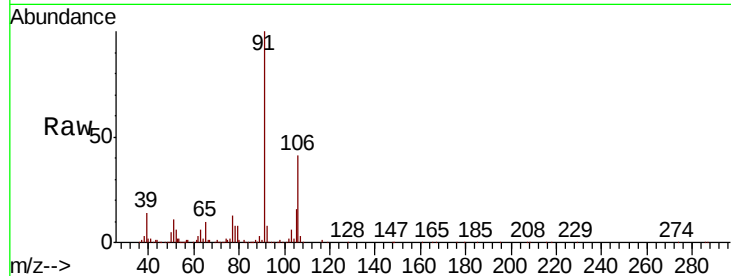




#59
m/p-Xylene
Concen: 1.278 ppbv
RT: 12.99 min Scan# 3173
Delta R.T. -0.03 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

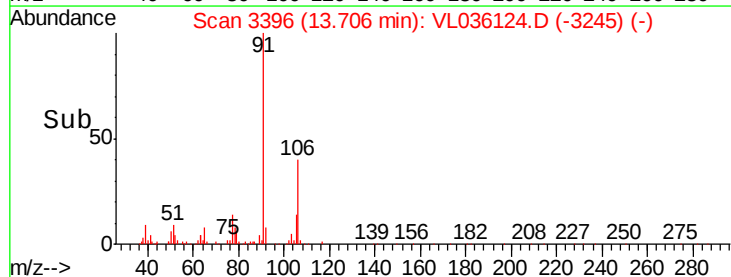
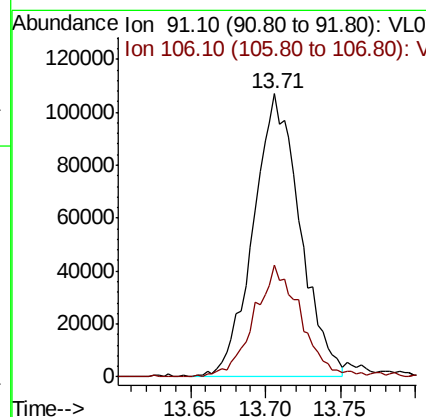
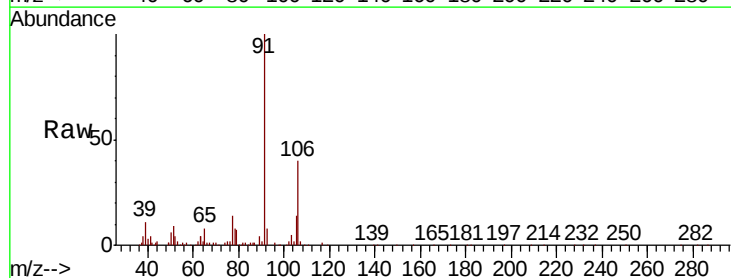
Instrument :
MSVOA_L
ClientSampleId :
IA-1DL2

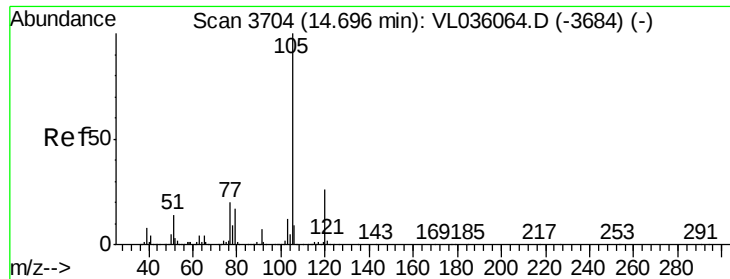
Tot Ion: 91 Resp: 346292
Ion Ratio Lower Upper
91 100
106 74.7 33.6 50.4#



#60
o-Xylene
Concen: 0.910 ppbv
RT: 13.71 min Scan# 3396
Delta R.T. -0.02 min
Lab File: VL036124.D
Acq: 9 Dec 2020 9:58

Tgt Ion: 91 Resp: 232389
Ion Ratio Lower Upper
91 100
106 40.4 21.6 64.6





#62

Isopropylbenzene

Concen: 0.031 ppbv

RT: 14.69 min Scan# 3701

Delta R.T. -0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

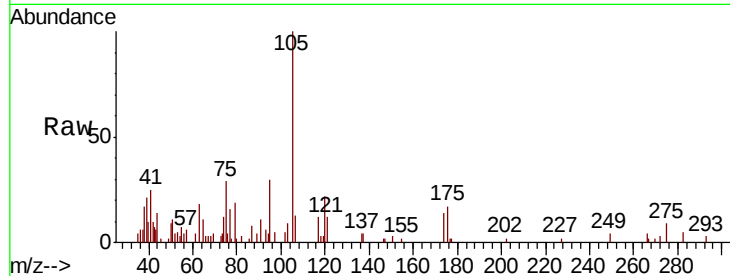
IA-1DL2

Tot Ion:105 Resp: 11624

Ion Ratio Lower Upper

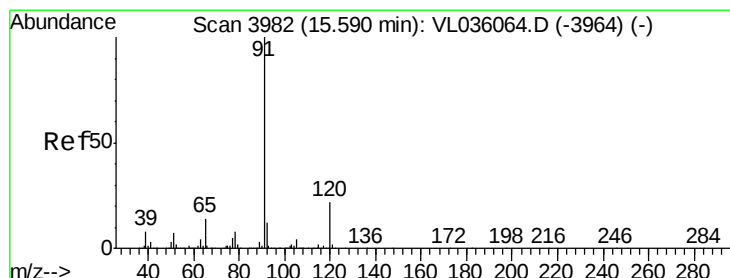
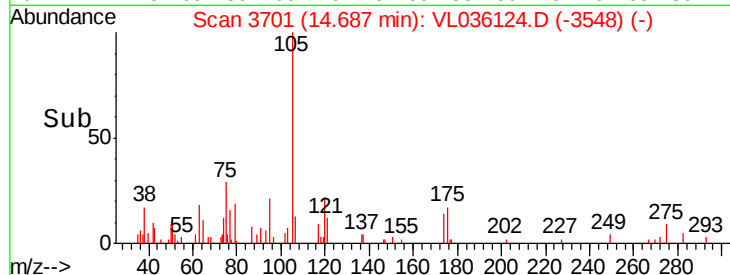
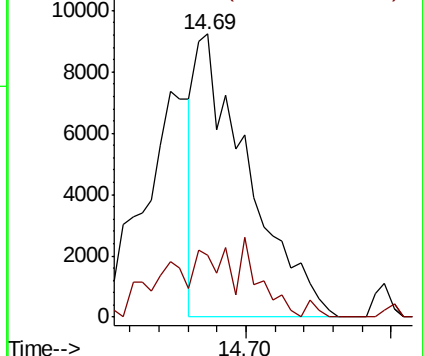
105 100

120 41.3 20.1 30.1#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#64

n-propylbenzene

Concen: 0.095 ppbv

RT: 15.59 min Scan# 3981

Delta R.T. -0.00 min

Lab File: VL036124.D

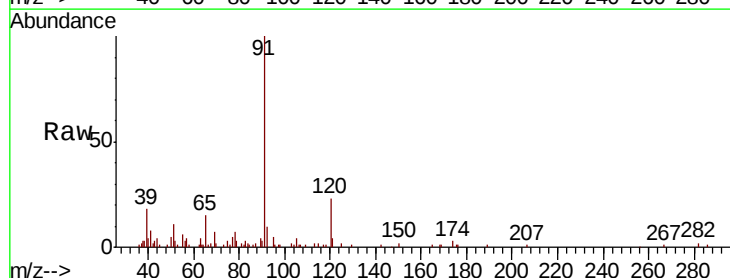
Acq: 9 Dec 2020 9:58

Tgt Ion:120 Resp: 8639

Ion Ratio Lower Upper

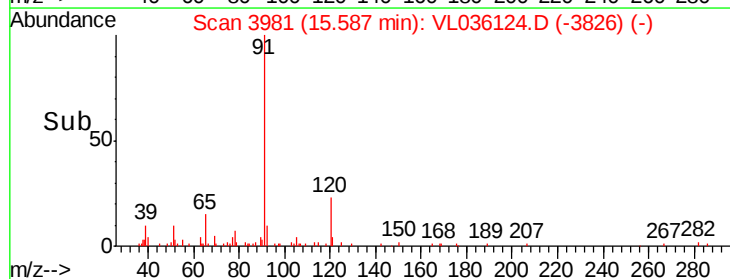
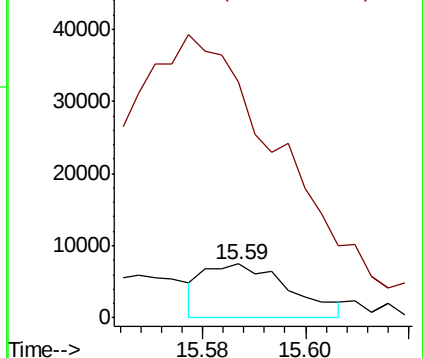
120 100

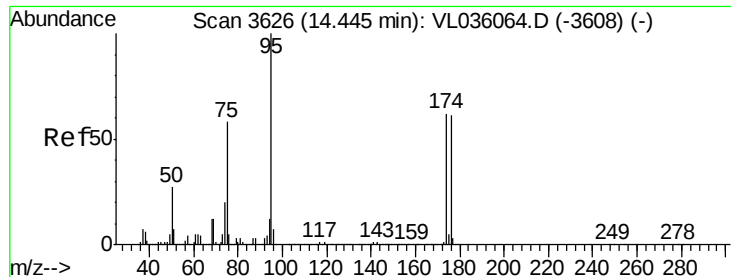
91 1098.0 388.9 583.3#



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

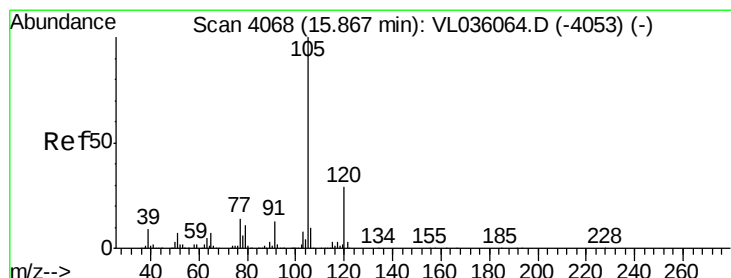
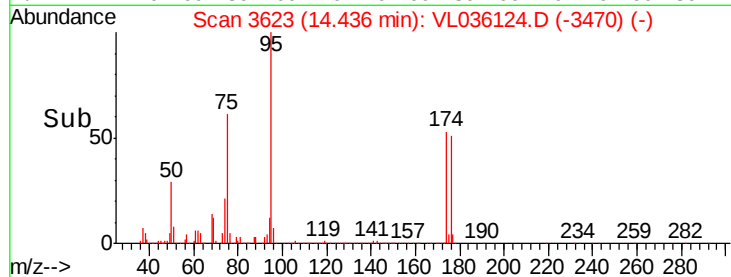
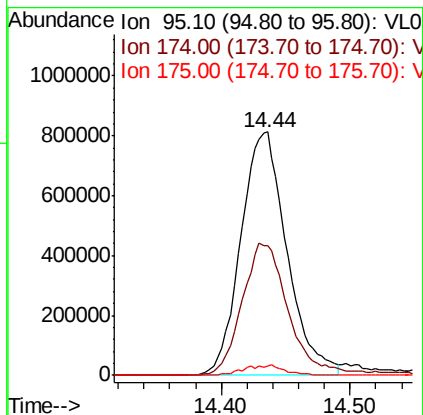
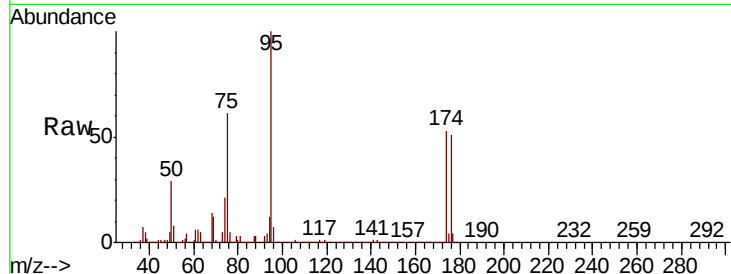




#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.837 ppbv
 RT: 14.44 min Scan# 3623
 Delta R.T. -0.01 min
 Lab File: VL036124.D
 Acq: 9 Dec 2020 9:58

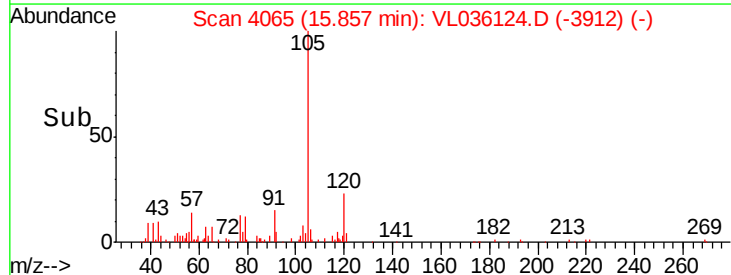
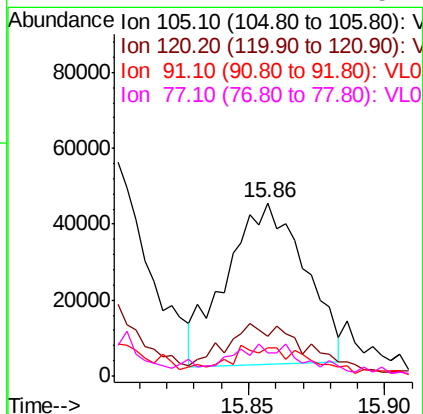
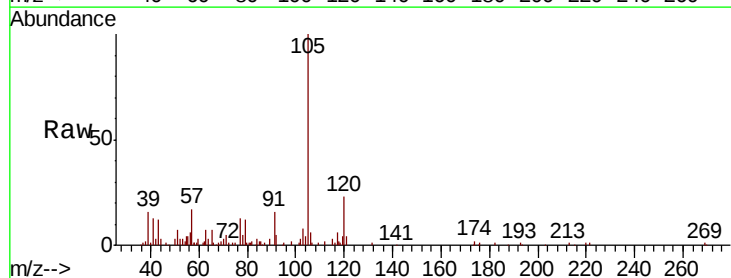
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1DL2

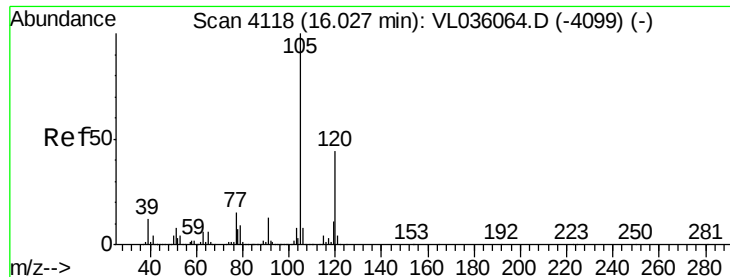
Tot Ion: 95 Resp: 2020045
 Ion Ratio Lower Upper
 95 100
 174 56.4 50.7 76.1
 175 3.9 4.0 6.0#



#72
 4-Ethyltoluene
 Concen: 0.307 ppbv
 RT: 15.86 min Scan# 4065
 Delta R.T. -0.01 min
 Lab File: VL036124.D
 Acq: 9 Dec 2020 9:58

Tgt Ion:105 Resp: 85026
 Ion Ratio Lower Upper
 105 100
 120 36.6 23.6 35.4#
 91 21.2 11.4 17.0#
 77 24.2 12.1 18.1#





#73

1,3,5-Trimethylbenzene

Concen: 0.301 ppbv

RT: 16.01 min Scan# 4113

Delta R.T. -0.02 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Instrument :

MSVOA_L

ClientSampleId :

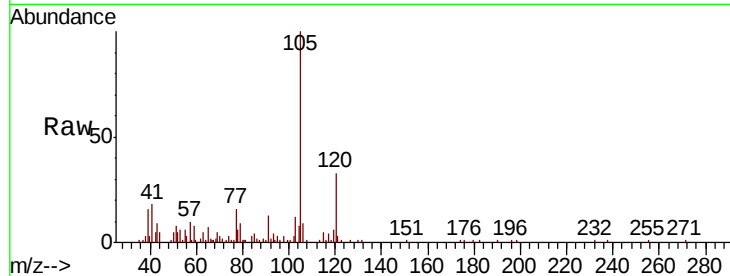
IA-1DL2

Tot Ion:105 Resp: 79451

Ion Ratio Lower Upper

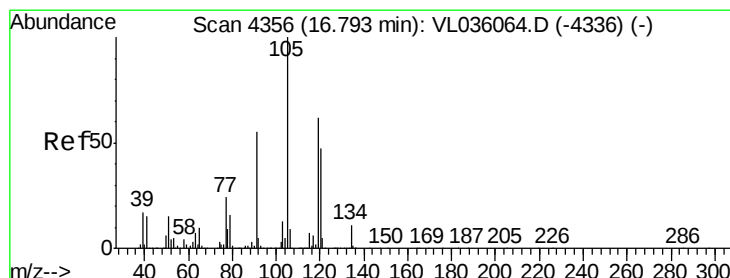
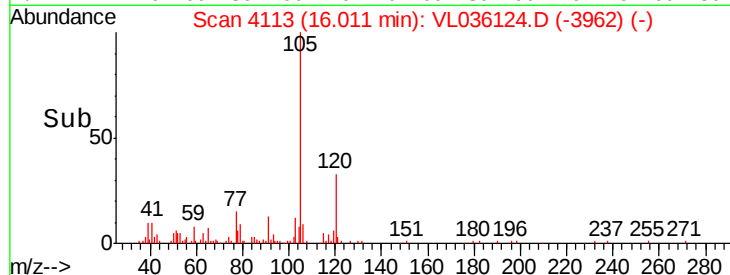
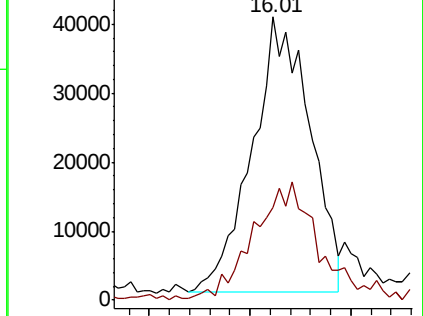
105 100

120 33.3 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: 1.065 ppbv

RT: 16.78 min Scan# 4352

Delta R.T. -0.01 min

Lab File: VL036124.D

Acq: 9 Dec 2020 9:58

Tgt Ion:105 Resp: 282401

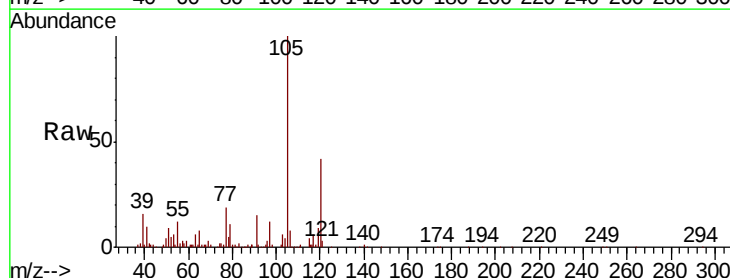
Ion Ratio Lower Upper

105 100

120 41.1 37.4 56.0

91 14.7 45.6 68.4#

77 18.8 19.4 29.2#



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

