

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL091019\
 Data File : VL034146.D
 Acq On : 10 Sep 2019 17:12
 Operator : SY/AP
 Sample : K4775-01DL 40X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Manual Integrations
 APPROVED

MMDadoda
 9/12/2019 5:16:55 AM

Quant Time: Sep 11 02:54:23 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 0
 QLast Update : Thu Sep 05 10:21:45 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.70	49	758478	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.22	114	1522675	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.17	117	1501881	10.00	ppbv	-0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.50	95	1256730	10.24	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
9) Propene	3.00	41	178983	3.784	ppbv	86
10) Heptane	8.18	43	52444m	0.427	ppbv	
13) Ethanol	3.60	45	26948m	2.908	ppbv	
15) Acetone	3.85	43	3491901	38.200	ppbv	92
17) tert-Butyl alcohol	4.31	59	54917m	0.828	ppbv	
19) Isopropyl Alcohol	3.98	45	85547	1.386	ppbv #	97
26) Hexane	5.72	57	68550	0.768	ppbv #	36
27) Carbon Disulfide	4.57	76	14230m	0.177	ppbv	
30) Cyclohexane	7.18	84	12071m	0.187	ppbv	
32) 1,1,1-Trichloroethane	6.56	97	7761m	0.068	ppbv	
34) 2-Butanone	5.27	43	418387	2.858	ppbv	99
36) Benzene	6.94	78	33853m	0.195	ppbv	
44) 2,2,4-Trimethylpentane	7.92	57	34043m	0.106	ppbv	
50) 4-Methyl-2-Pentanone	8.82	43	24414	0.109	ppbv #	87
51) 2-Hexanone	10.20	43	139426	0.723	ppbv #	100
52) Tetrachloroethene	11.30	164	66199m	1.079	ppbv	
53) Toluene	9.87	91	139350m	0.724	ppbv	
58) Ethyl Benzene	12.78	91	44517	0.181	ppbv #	87
59) m/p-Xylene	13.05	91	121676m	0.606	ppbv	
60) o-Xylene	13.77	91	44972	0.225	ppbv	99
74) 1,2,4-Trimethylbenzene	16.85	105	47677m	0.211	ppbv	

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

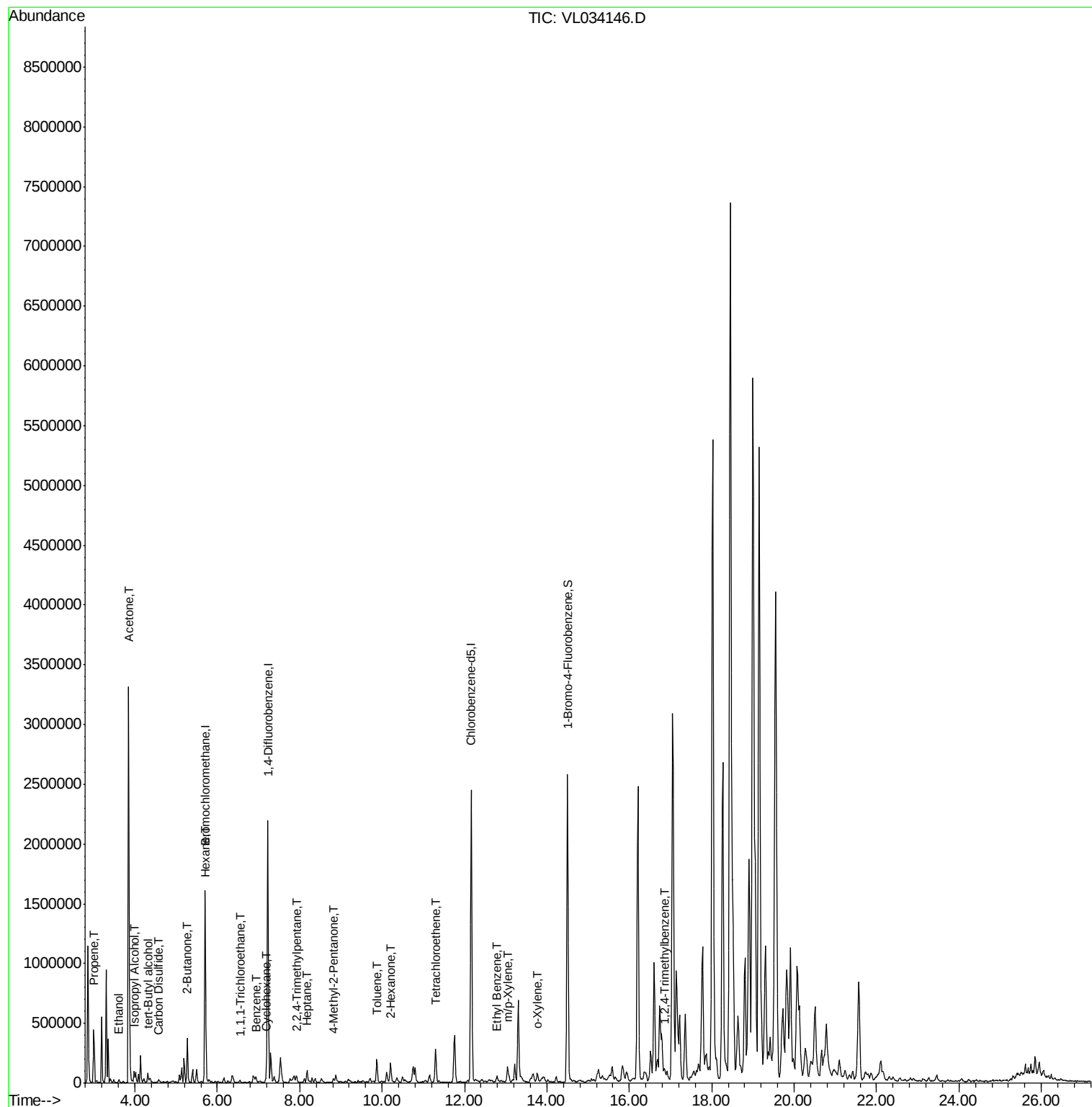
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL091019\
Data File : VL034146.D
Acq On : 10 Sep 2019 17:12
Operator : SY/AP
Sample : K4775-01DL 40X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

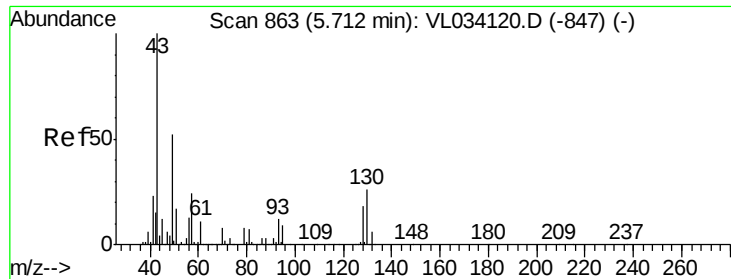
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Manual Integrations
APPROVED

MMDadoda
9/12/2019 5:16:55 AM

Quant Time: Sep 11 02:54:23 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep
QLast Update : Thu Sep 05 10:21:45 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.70 min Scan# 907

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

Tot Ion: 49 Resp: 758478

Ion Ratio Lower Upper

49 100

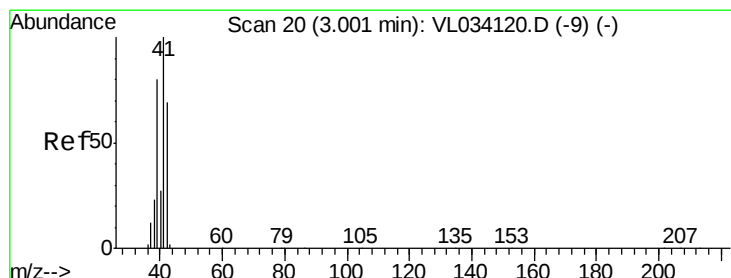
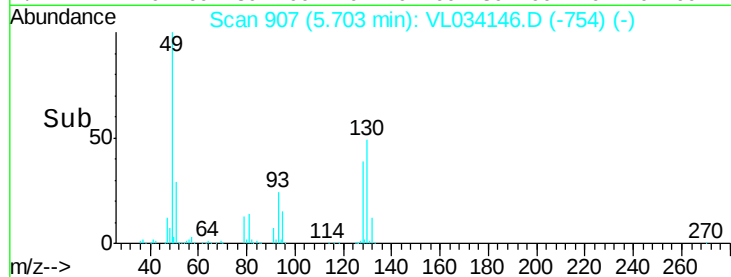
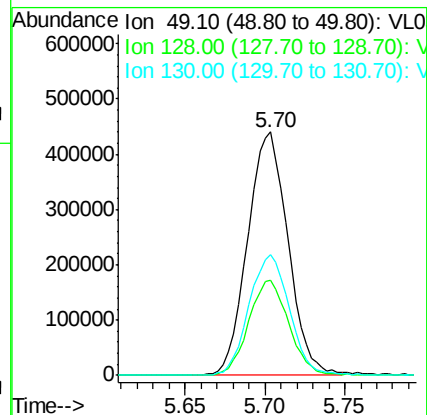
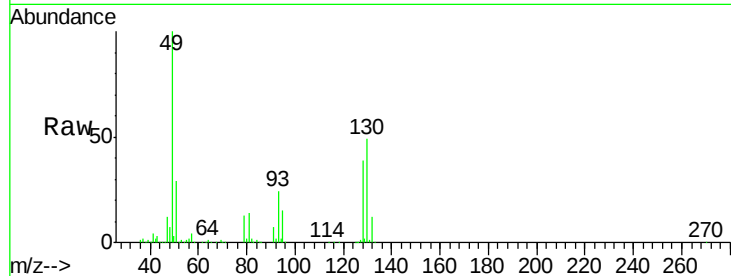
128 39.2 18.4 55.0

130 50.1 23.5 70.6

Manual Integrations
APPROVED

MMDadoda

9/12/2019 5:16:55 AM



#9

Propene

Concen: 3.784 ppbv

RT: 3.00 min Scan# 66

Delta R.T. -0.00 min

Lab File: VL034146.D

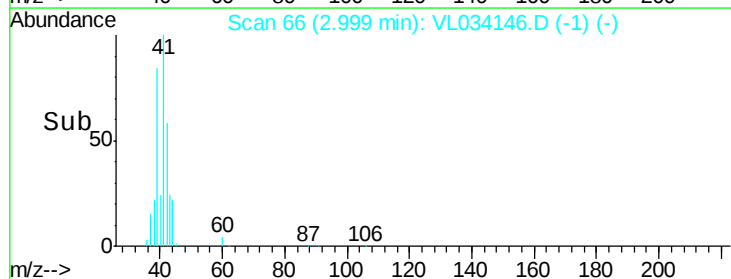
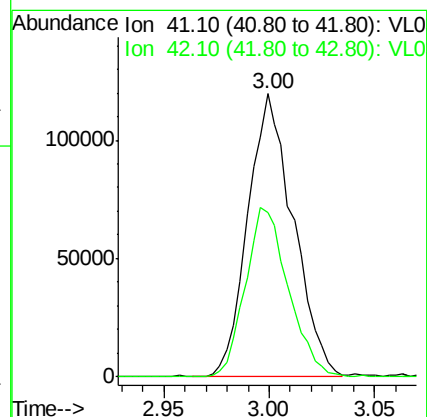
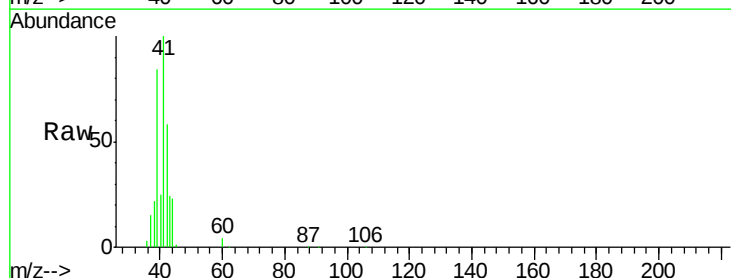
Acq: 10 Sep 2019 17:12

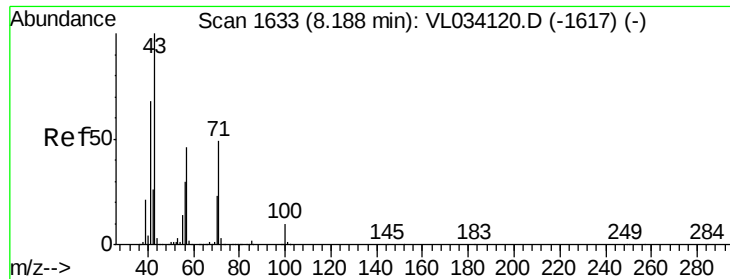
Tgt Ion: 41 Resp: 178983

Ion Ratio Lower Upper

41 100

42 56.9 54.6 81.8





#10

Heptane

Concen: 0.427 ppbv m

RT: 8.18 min Scan# 1677

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

Tot Ion: 43 Resp: 52444

Ion Ratio Lower Upper

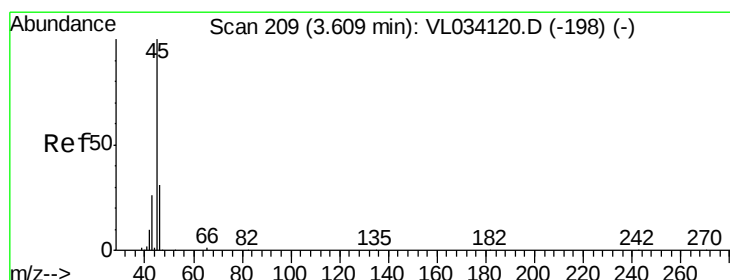
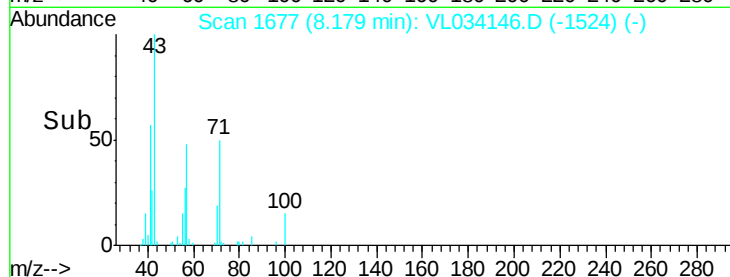
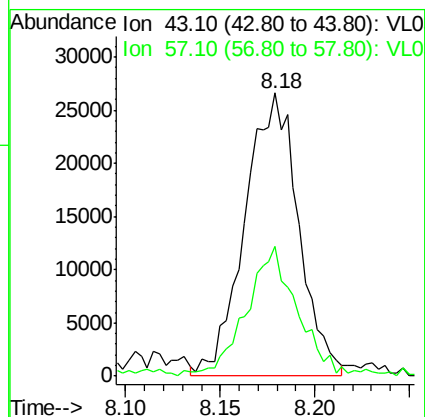
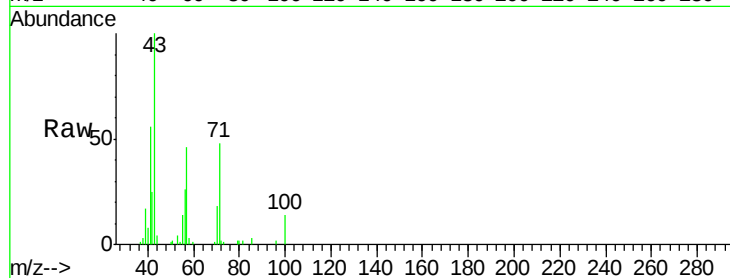
43 100

57 44.8 38.1 57.1

Manual Integrations
APPROVED

MMDadoda

9/12/2019 5:16:55 AM



#13

Ethanol

Concen: 2.908 ppbv m

RT: 3.60 min Scan# 254

Delta R.T. -0.01 min

Lab File: VL034146.D

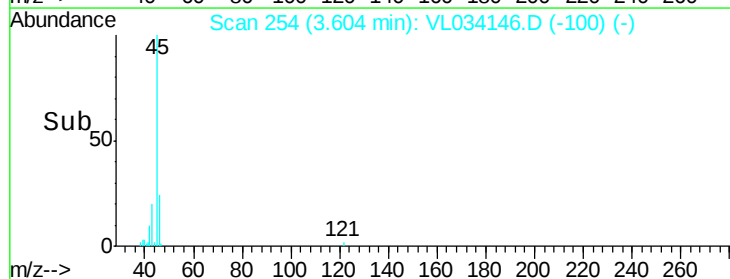
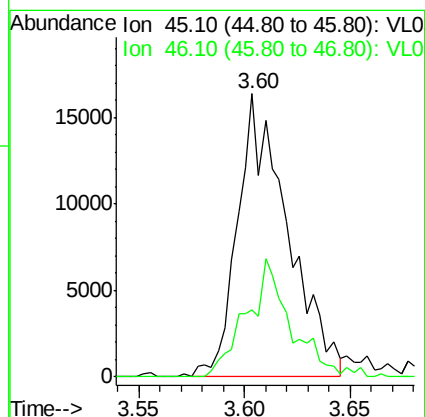
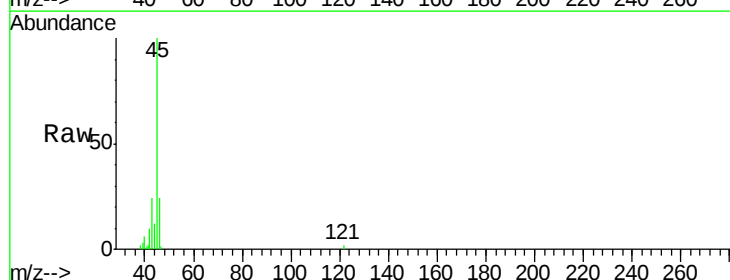
Acq: 10 Sep 2019 17:12

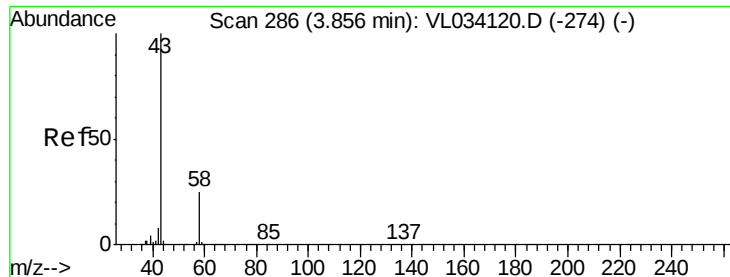
Tgt Ion: 45 Resp: 26948

Ion Ratio Lower Upper

45 100

46 0.0 15.0 60.0#





#15

Acetone

Concen: 38.200 ppbv

RT: 3.85 min Scan# 330

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Tot Ion: 43 Resp: 3491901

Ion Ratio Lower Upper

43 100

58 29.9 20.6 30.8

Instrument :

MSVOA_L

ClientSampled :

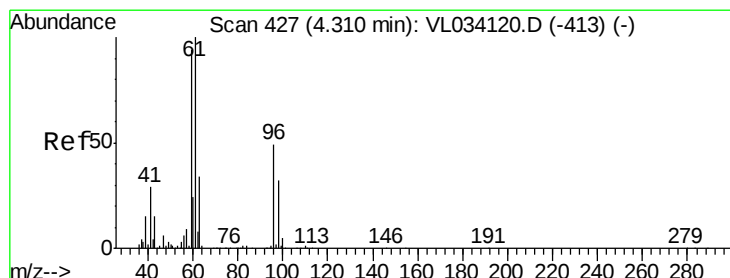
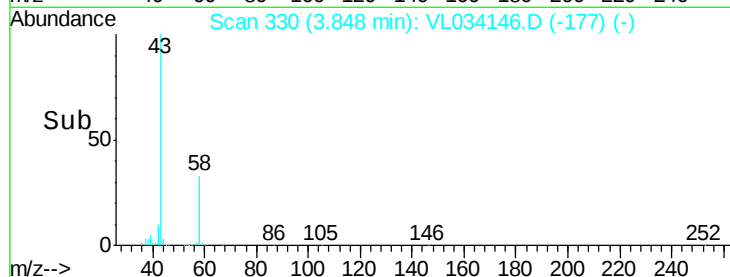
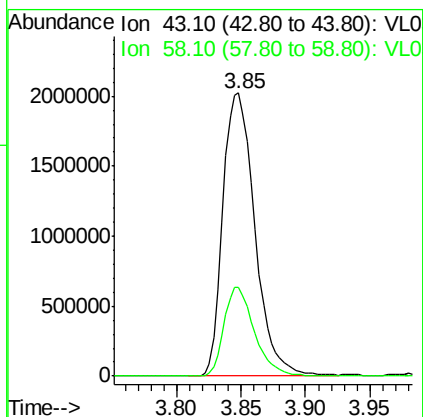
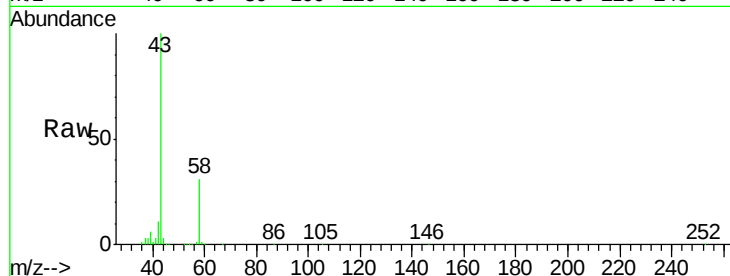
SV1DL

Manual Integrations

APPROVED

MMDadoda

9/12/2019 5:16:55 AM



#17

tert-Butyl alcohol

Concen: 0.828 ppbv m

RT: 4.31 min Scan# 473

Delta R.T. -0.00 min

Lab File: VL034146.D

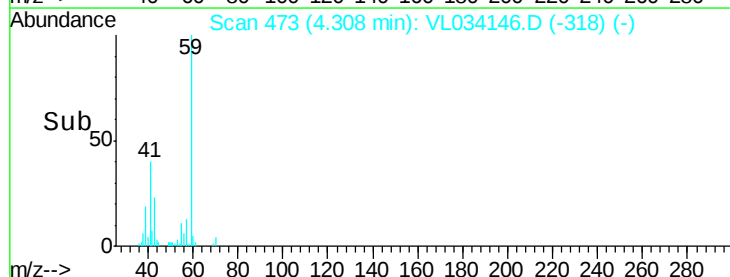
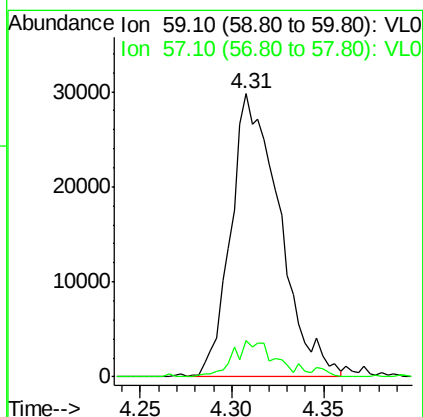
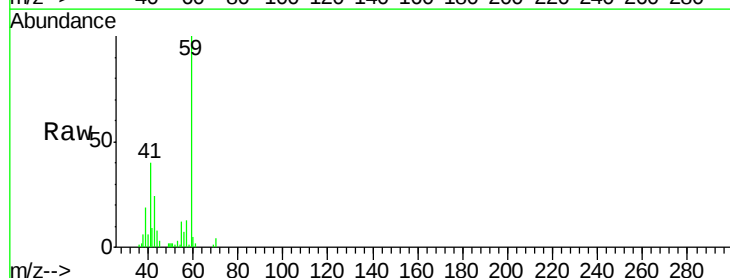
Acq: 10 Sep 2019 17:12

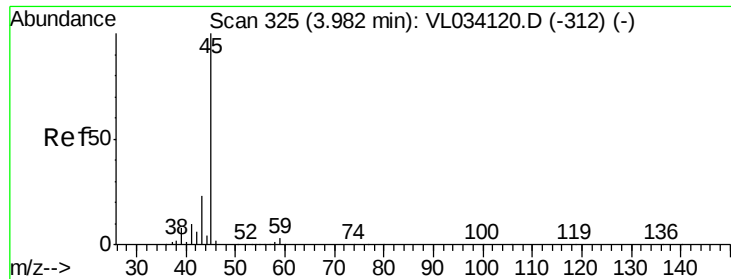
Tgt Ion: 59 Resp: 54917

Ion Ratio Lower Upper

59 100

57 12.3 8.6 12.8





#19

Isopropyl Alcohol

Concen: 1.386 ppbv

RT: 3.98 min Scan# 371

Delta R.T. -0.00 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Instrument :

MSVOA_L

ClientSampled :

SV1DL

Tot Ion: 45 Resp: 85547

Ion Ratio Lower Upper

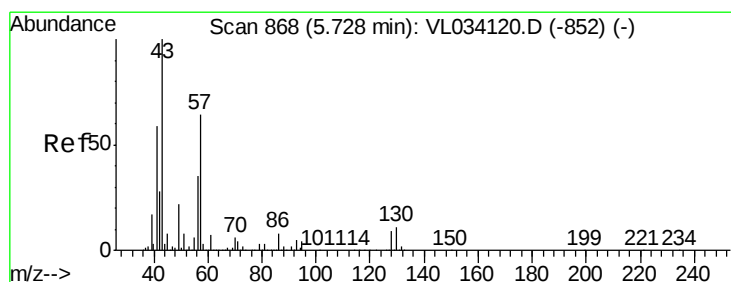
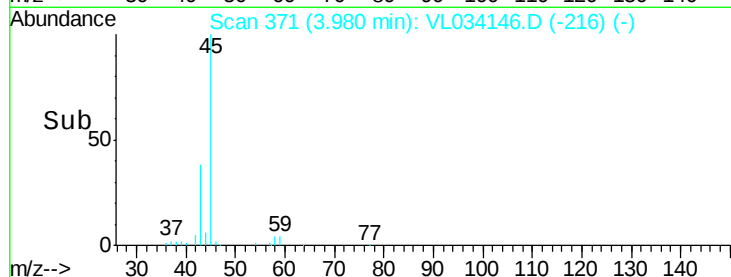
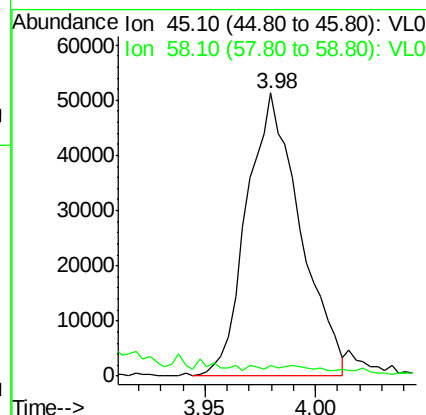
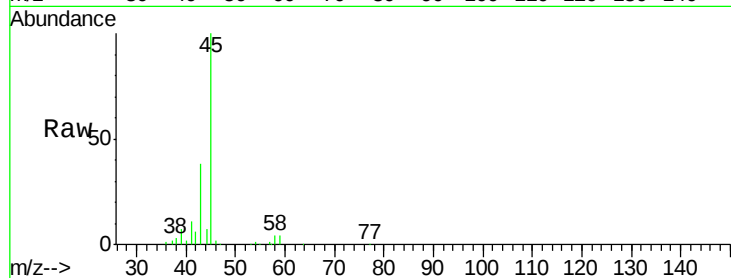
45 100

58 0.0 1.0 1.6#

Manual Integrations
APPROVED

MMDadoda

9/12/2019 5:16:55 AM



#26

Hexane

Concen: 0.768 ppbv

RT: 5.72 min Scan# 912

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Tgt Ion: 57 Resp: 68550

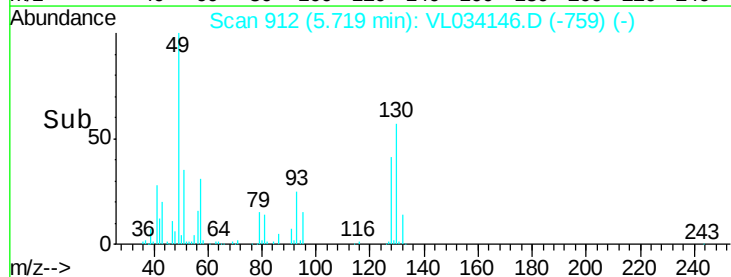
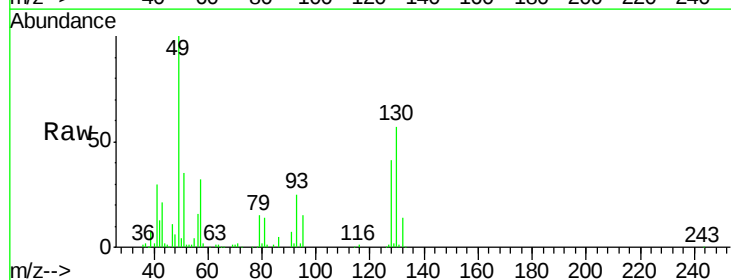
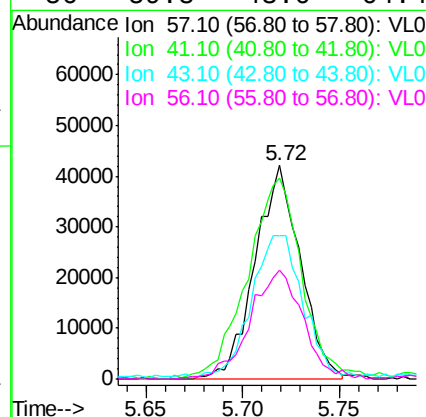
Ion Ratio Lower Upper

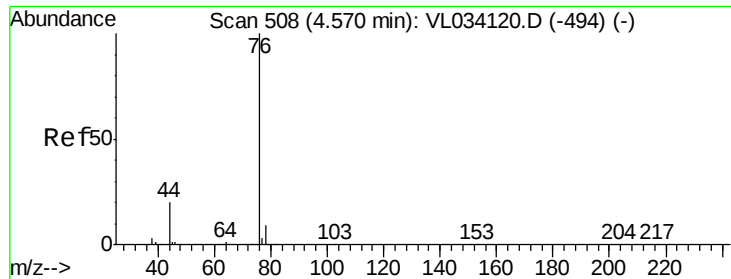
57 100

41 112.4 76.6 115.0

43 75.7 189.2 283.8#

56 59.8 43.0 64.4





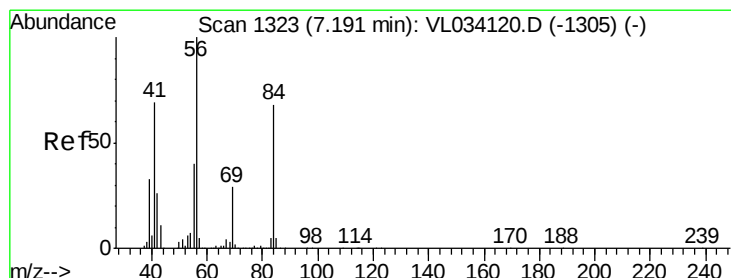
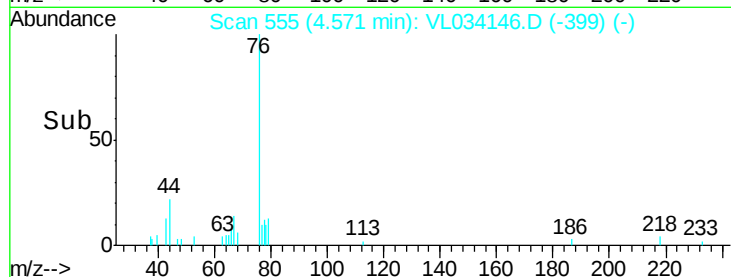
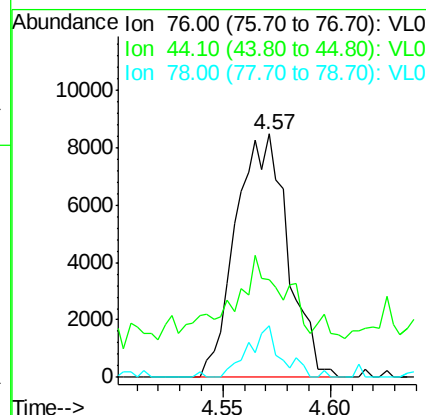
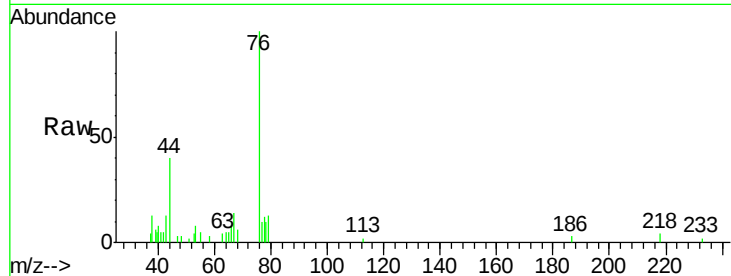
#27
Carbon Disulfide
Concen: 0.177 ppbv m
RT: 4.57 min Scan# 555
Delta R.T. 0.00 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Instrument :
MSVOA_L
ClientSampled :
SV1DL

Tot Ion	Ratio	Lower	Upper
76	100		
44	45.2	17.6	26.4#
78	0.0	7.3	10.9#

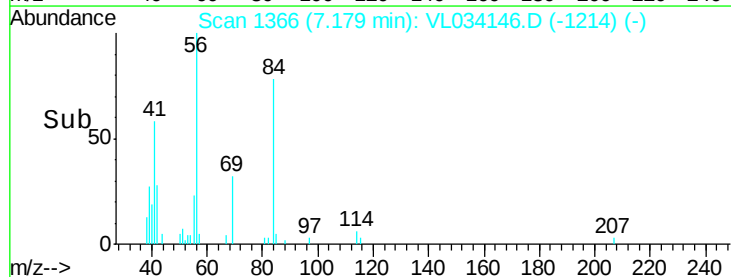
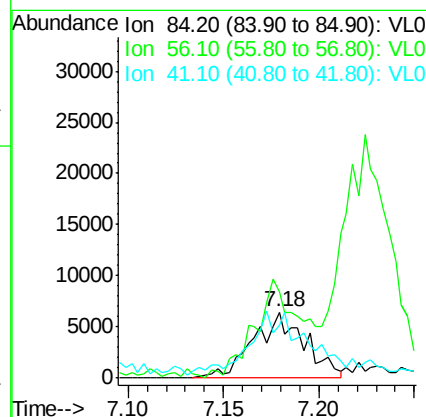
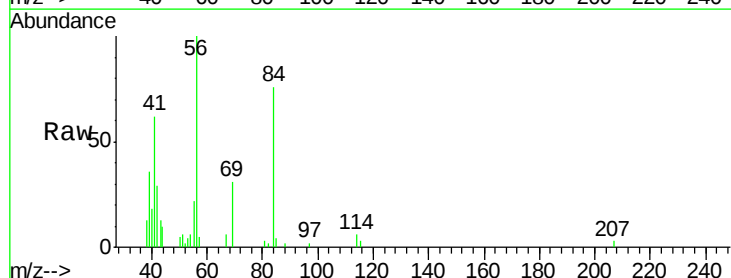
Manual Integrations
APPROVED

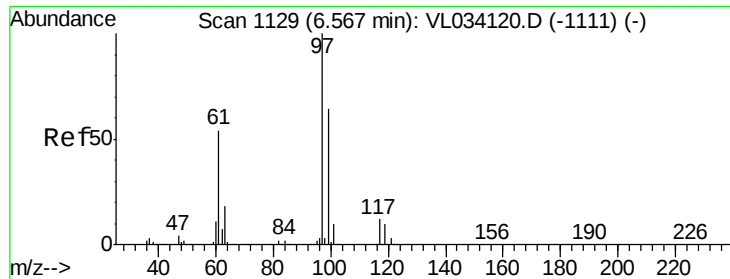
MMDadoda
9/12/2019 5:16:55 AM



#30
Cyclohexane
Concen: 0.187 ppbv m
RT: 7.18 min Scan# 1366
Delta R.T. -0.01 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Tgt Ion	Ratio	Lower	Upper
84	100		
56	113.6	122.6	183.8#
41	128.9	79.1	118.7#





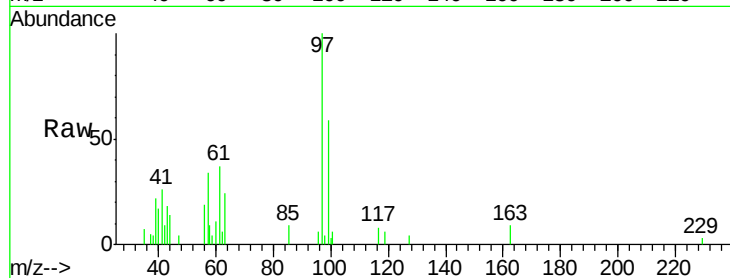
#32
 1,1,1-Trichloroethane
 Concen: 0.068 ppbv m
 RT: 6.56 min Scan# 1172
 Delta R.T. -0.01 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Tot Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.7	77.5#
61	0.0	44.0	66.0#

Manual Integrations
 APPROVED

MMDadoda
 9/12/2019 5:16:55 AM

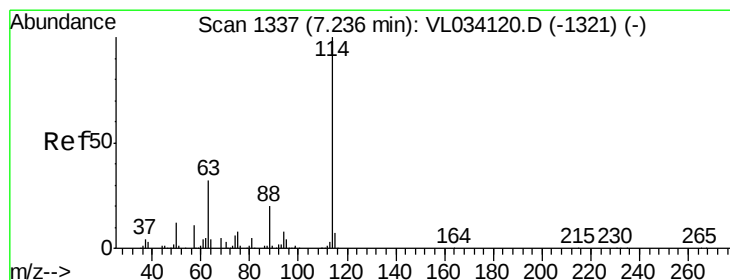
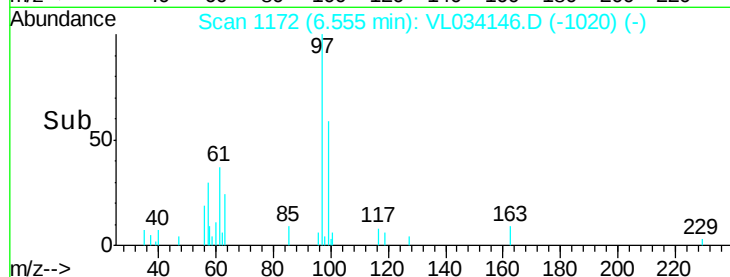
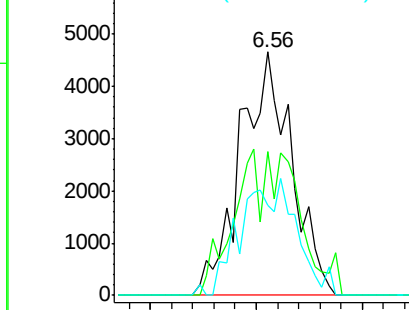


Abundance

Ion 97.00 (96.70 to 97.70): VL0

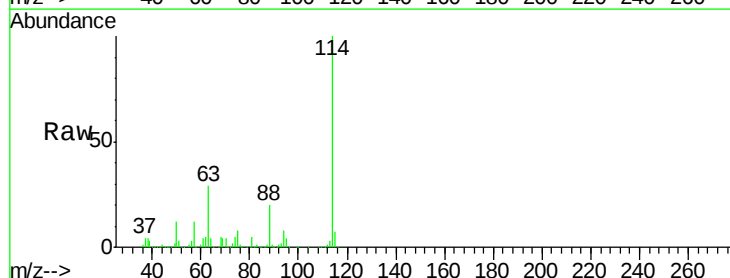
Ion 99.00 (98.70 to 99.70): VL0

Ion 61.10 (60.80 to 61.80): VL0



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.22 min Scan# 1380
 Delta R.T. -0.01 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Tgt Ion	Ratio	Lower	Upper
114	100		
63	28.4	25.5	38.3
88	19.9	16.8	25.2

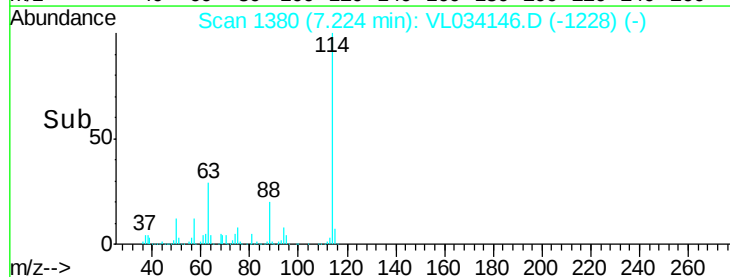
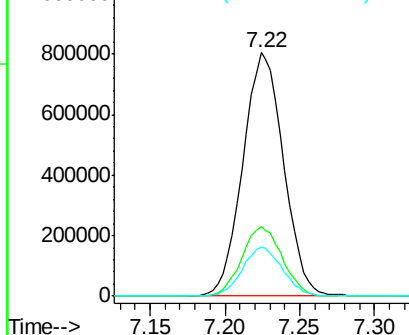


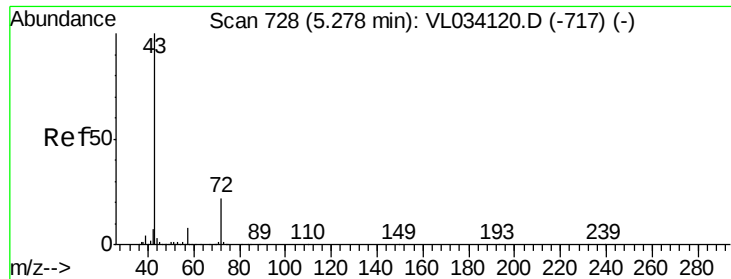
Abundance

Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





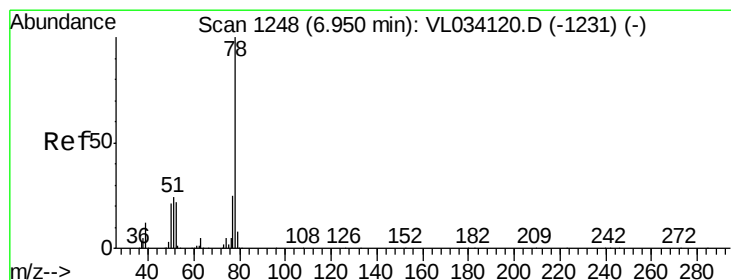
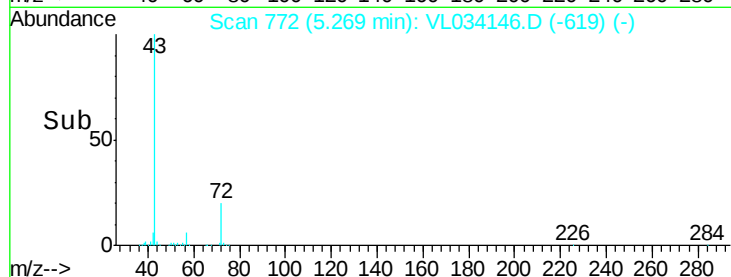
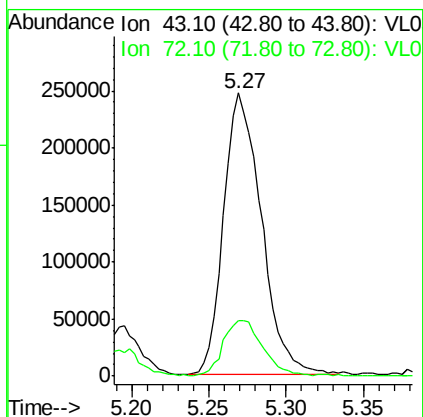
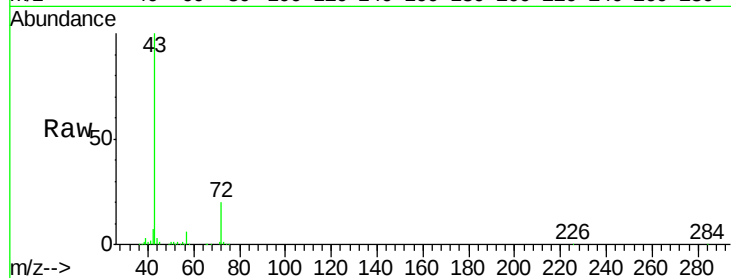
#34
2-Butanone
Concen: 2.858 ppbv
RT: 5.27 min Scan# 772
Delta R.T. -0.01 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tot Ion	Ratio	Lower	Upper
43	100		
72	21.3	16.5	24.7

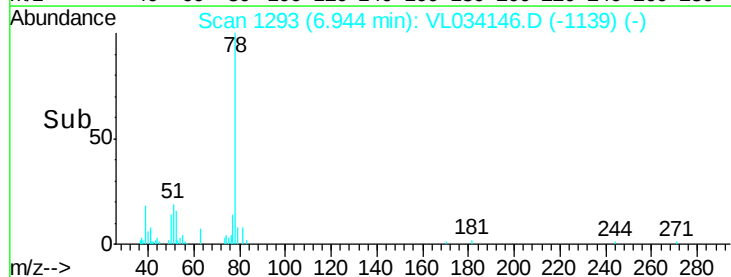
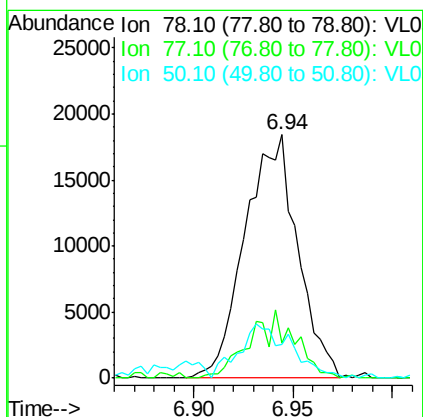
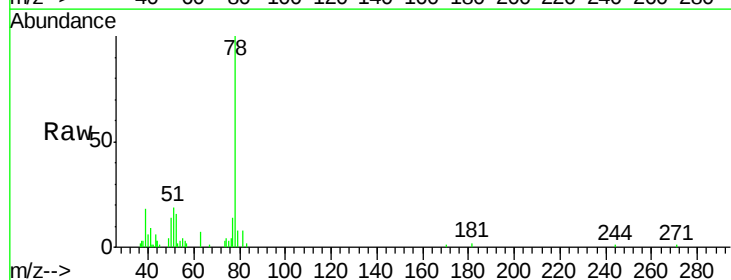
Manual Integrations
APPROVED

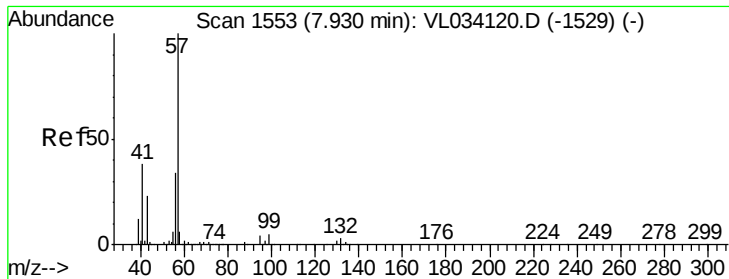
MMDadoda
9/12/2019 5:16:55 AM



#36
Benzene
Concen: 0.195 ppbv m
RT: 6.94 min Scan# 1293
Delta R.T. -0.01 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Tgt Ion	Ratio	Lower	Upper
78	100		
77	14.5	20.3	30.5#
50	13.6	16.9	25.3#





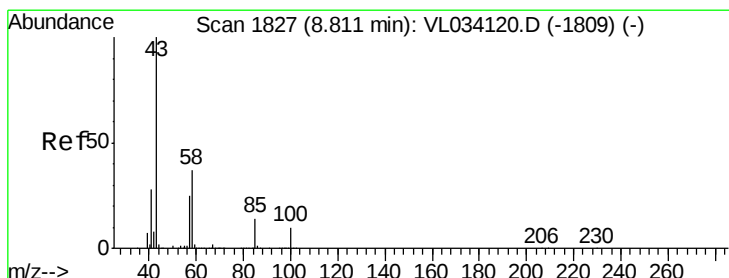
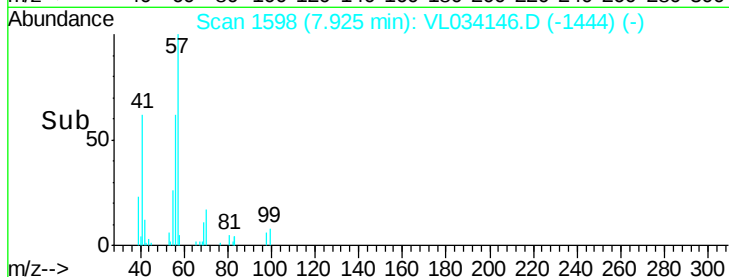
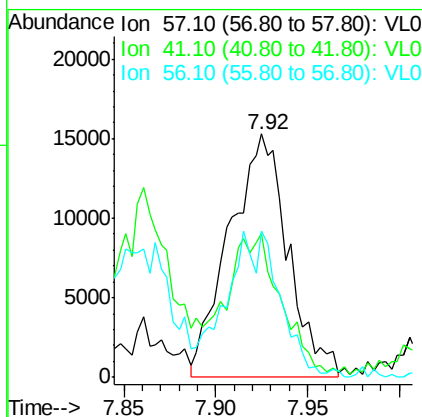
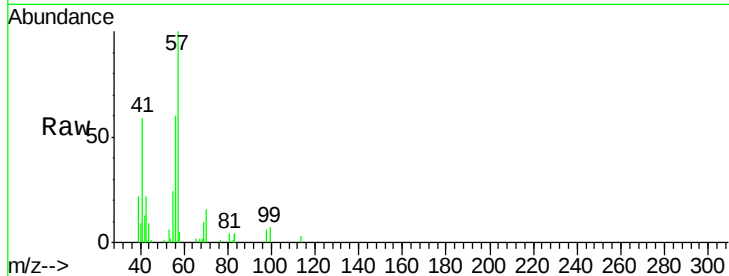
#44
 2,2,4-Trimethylpentane
 Concen: 0.106 ppbv m
 RT: 7.92 min Scan# 1598
 Delta R.T. -0.01 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Tot Ion	Ratio	Lower	Upper
57	100		
41	53.4	28.4	42.6#
56	52.1	26.3	39.5#

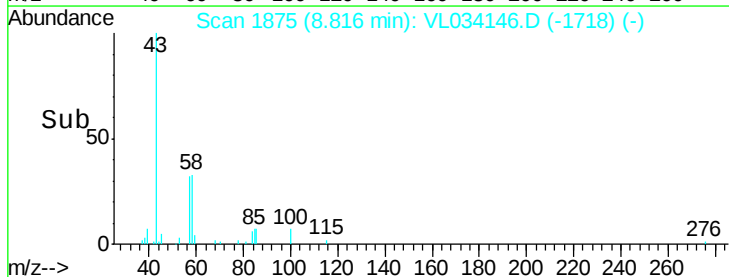
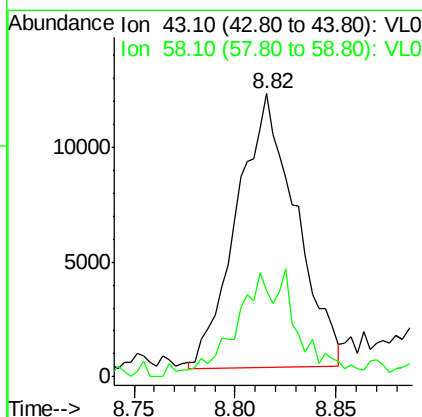
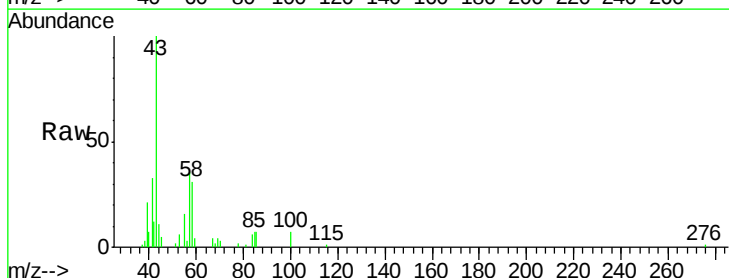
Manual Integrations
 APPROVED

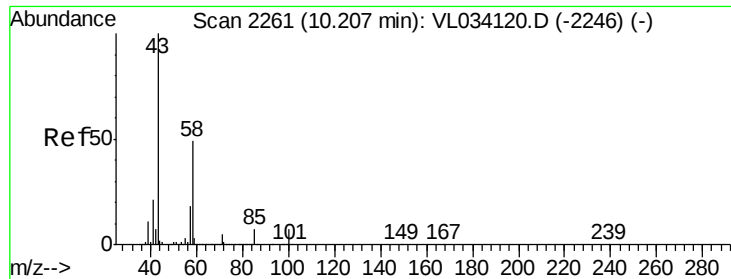
MMDadoda
 9/12/2019 5:16:55 AM



#50
 4-Methyl-2-Pentanone
 Concen: 0.109 ppbv
 RT: 8.82 min Scan# 1875
 Delta R.T. 0.00 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Tgt Ion	Ratio	Lower	Upper
43	100		
58	43.3	28.5	42.7#





#51

2-Hexanone

Concen: 0.723 ppbv

RT: 10.20 min Scan# 2306

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Instrument :

MSVOA_L

ClientSampleId :

SV1DL

Tot Ion: 43 Resp: 139426

Ion Ratio Lower Upper

43 100

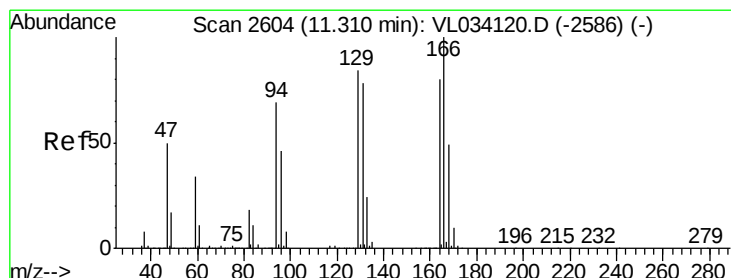
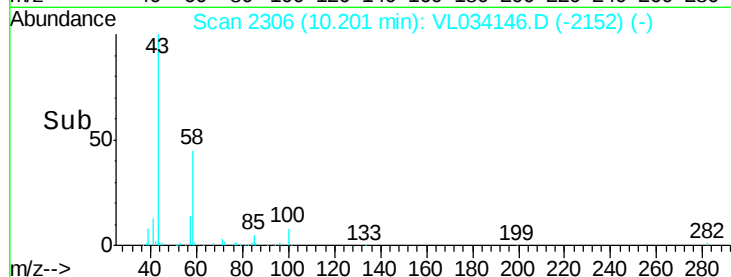
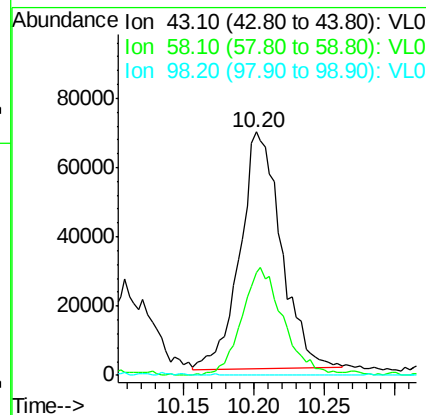
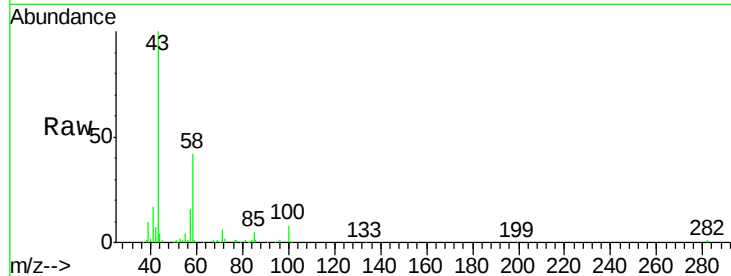
58 47.4 38.2 57.2

98 0.2 0.1 0.1#

Manual Integrations
APPROVED

MMDadoda

9/12/2019 5:16:55 AM



#52

Tetrachloroethene

Concen: 1.079 ppbv m

RT: 11.30 min Scan# 2648

Delta R.T. -0.01 min

Lab File: VL034146.D

Acq: 10 Sep 2019 17:12

Tgt Ion: 164 Resp: 66199

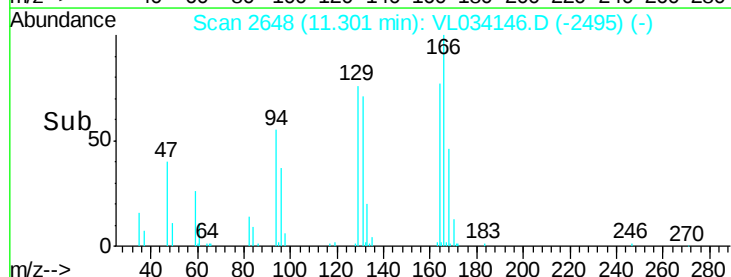
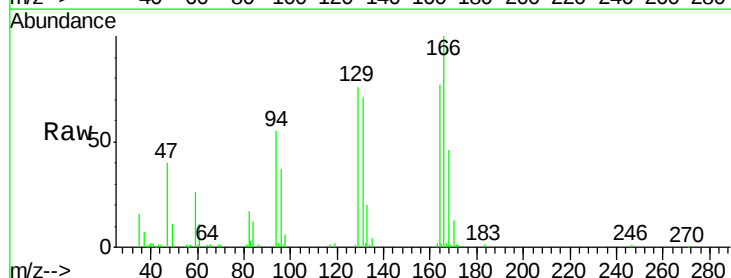
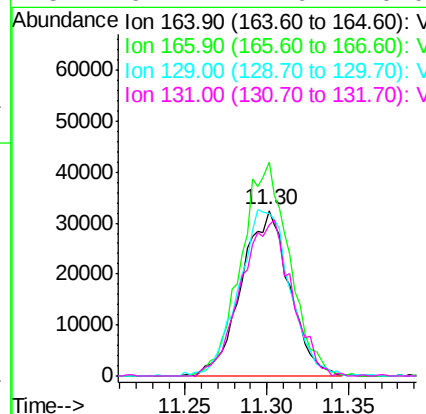
Ion Ratio Lower Upper

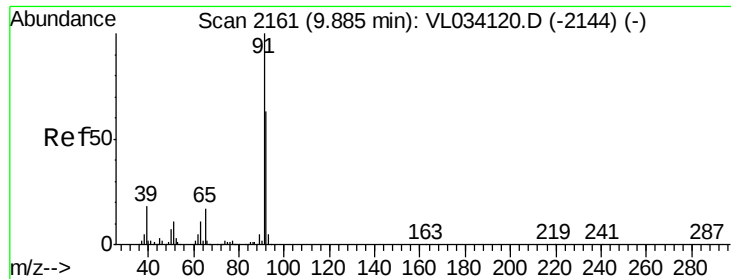
164 100

166 129.1 99.5 149.3

129 98.6 83.6 125.4

131 91.1 77.9 116.9





#53

Toluene

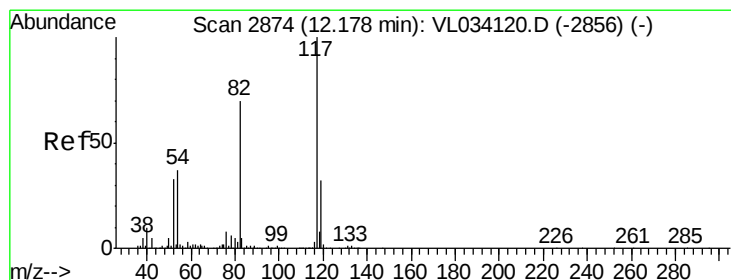
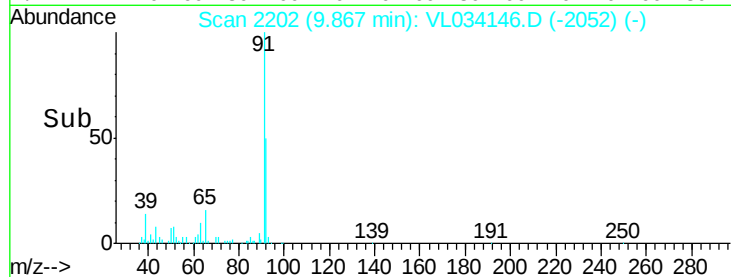
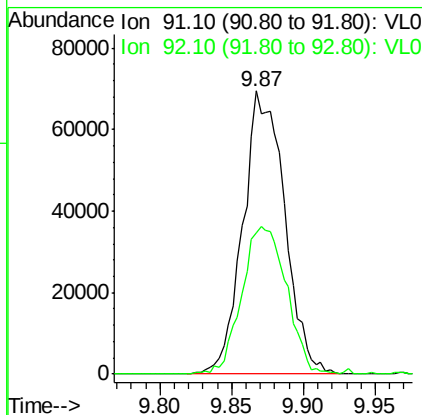
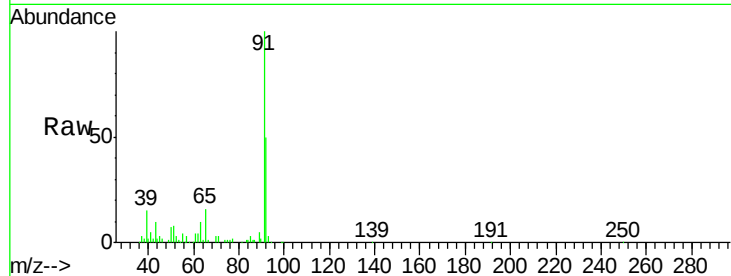
Concen: 0.724 ppbv m
 RT: 9.87 min Scan# 2202
 Delta R.T. -0.02 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Tot Ion	Ion	Ratio	Resp	Lower	Upper
91	100		139350		
92	56.5	49.3	73.9		

Manual Integrations
 APPROVED

MMDadoda
 9/12/2019 5:16:55 AM

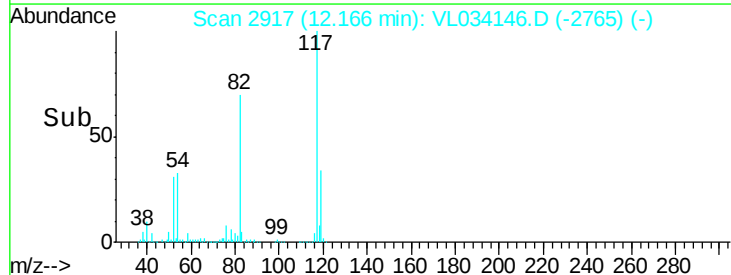
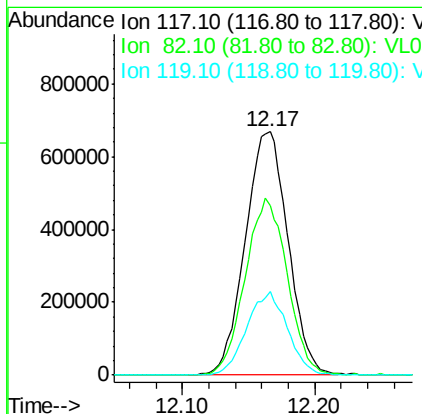
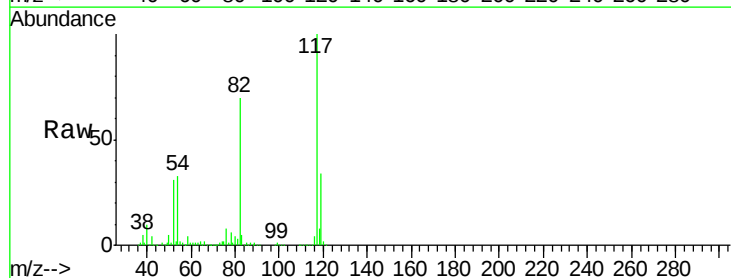


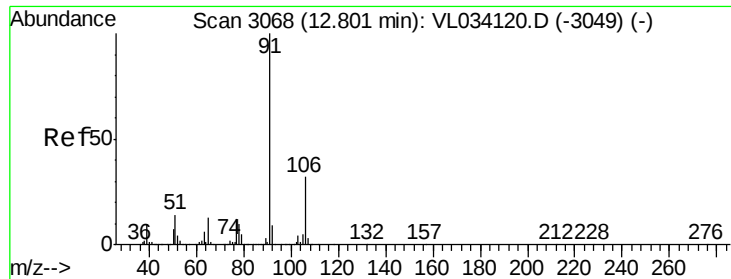
#55

Chlorobenzene-d5

Concen: 10.000 ppbv
 RT: 12.17 min Scan# 2917
 Delta R.T. -0.01 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
117	100		1501881		
82	71.8	55.8	83.6		
119	32.8	43.1	64.7#		





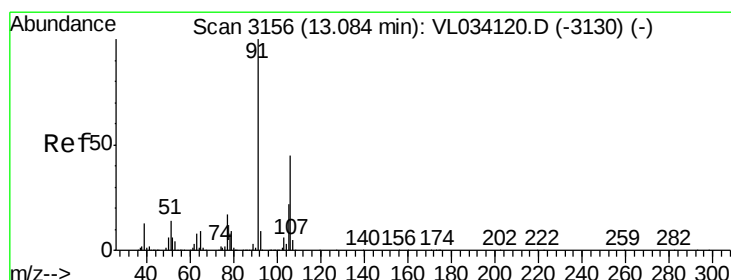
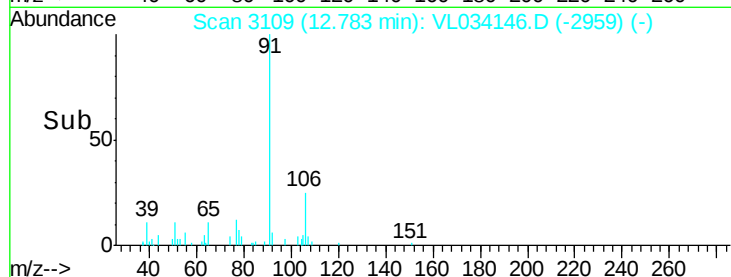
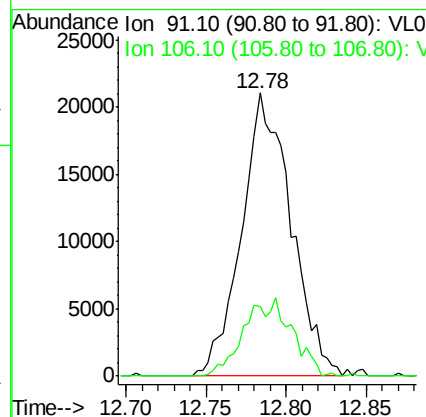
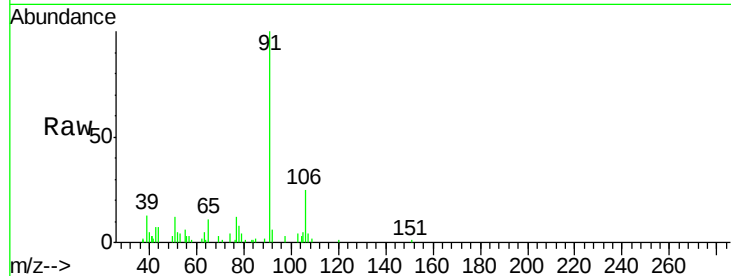
#58
Ethyl Benzene
Concen: 0.181 ppbv
RT: 12.78 min Scan# 3109
Delta R.T. -0.02 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tot Ion: 91 Resp: 44517
Ion Ratio Lower Upper
91 100
106 24.5 25.3 37.9#

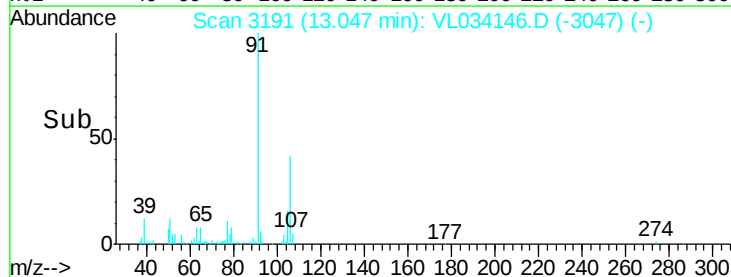
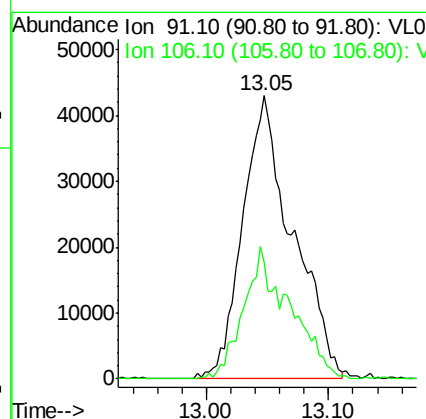
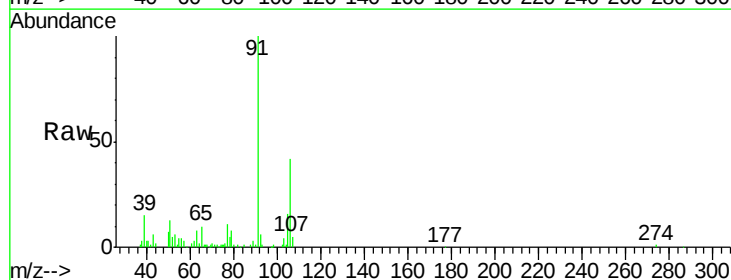
Manual Integrations
APPROVED

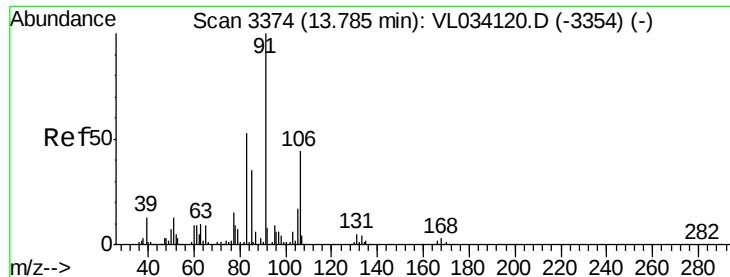
MMDadoda
9/12/2019 5:16:55 AM



#59
m/p-Xylene
Concen: 0.606 ppbv m
RT: 13.05 min Scan# 3191
Delta R.T. -0.04 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Tgt Ion: 91 Resp: 121676
Ion Ratio Lower Upper
91 100
106 0.0 35.4 53.2#





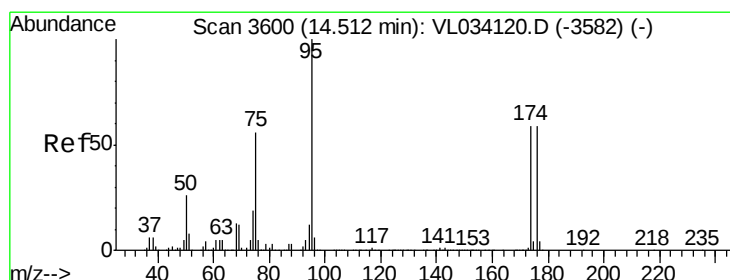
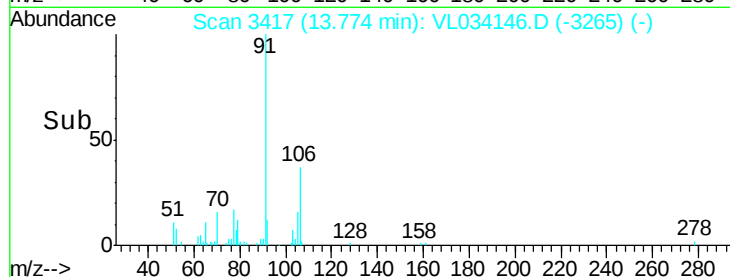
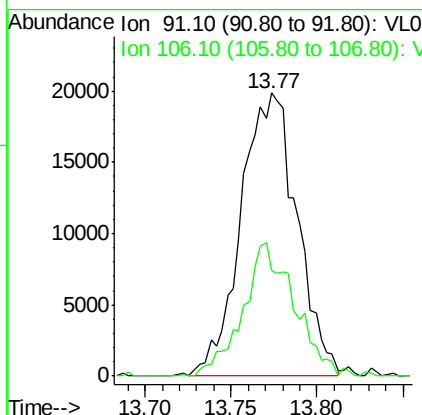
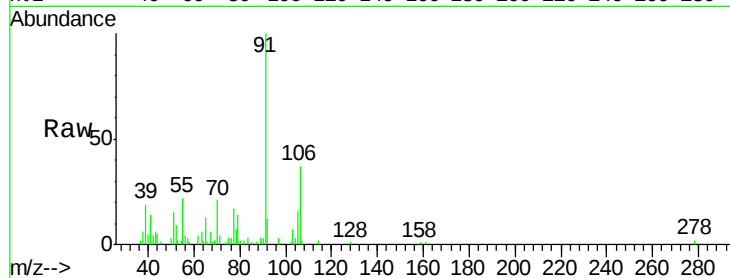
#60
o-Xylene
Concen: 0.225 ppbv
RT: 13.77 min Scan# 3417
Delta R.T. -0.01 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tot Ion	91	Resp	44972
Ion Ratio	Lower	Upper	
91	100		
106	43.5	21.4	64.3

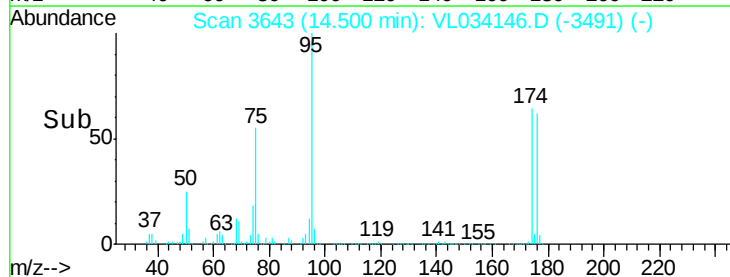
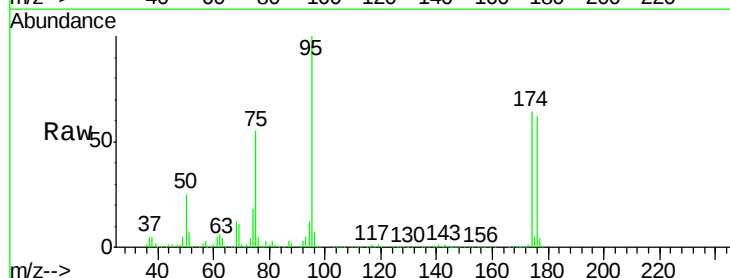
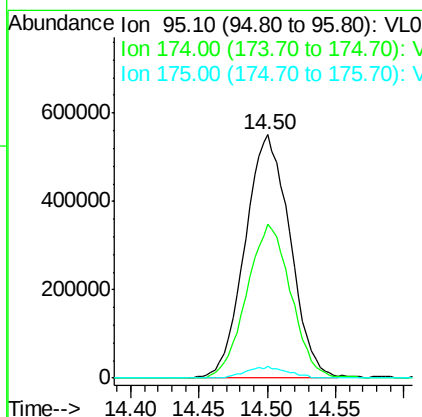
Manual Integrations
APPROVED

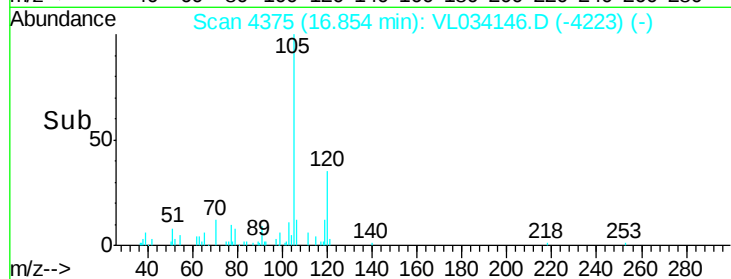
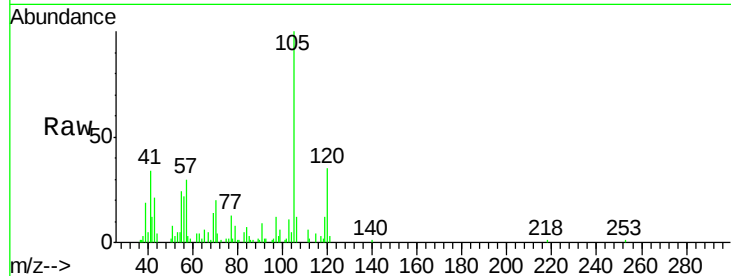
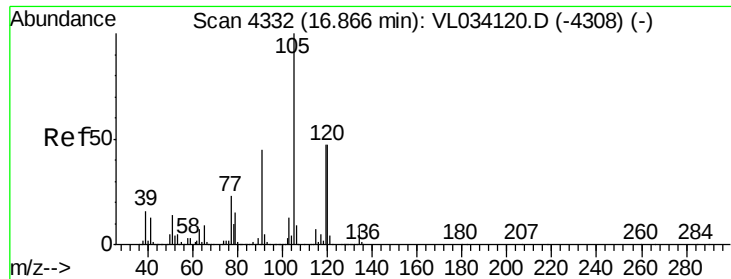
MMDadoda
9/12/2019 5:16:55 AM



#68
1-Bromo-4-Fluorobenzene
Concen: 10.236 ppbv
RT: 14.50 min Scan# 3643
Delta R.T. -0.01 min
Lab File: VL034146.D
Acq: 10 Sep 2019 17:12

Tgt Ion	95	Resp	1256730
Ion Ratio	Lower	Upper	
95	100		
174	62.8	48.1	72.1
175	4.5	3.5	5.3





#74
 1,2,4-Trimethylbenzene
 Concen: 0.211 ppbv m
 RT: 16.85 min Scan# 4375
 Delta R.T. -0.01 min
 Lab File: VL034146.D
 Acq: 10 Sep 2019 17:12

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Tot Ion	Ratio	Resp	Lower	Upper
105	100	47677		
120	34.7		37.7	56.5#
91	8.6		36.2	54.2#
77	12.7		18.5	27.7#

Manual Integrations
 APPROVED

MMDadoda
 9/12/2019 5:16:55 AM

