

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110718\
 Data File : VL032733.D
 Acq On : 8 Nov 2018 1:38
 Operator : SY/AP
 Sample : J5823-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-03

Manual Integrations
 APPROVED

MMDadoda
 11/12/2018 12:30:22 PM

Quant Time: Nov 12 03:32:18 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct 25 2018
 QLast Update : Thu Oct 25 05:15:43 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1344812	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3407245	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3552100	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.59	95	2599039	9.83	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	35091m	0.256	ppbv	
3) Chlorodifluoromethane	3.02	51	28613m	0.272	ppbv	
4) Chloromethane	3.18	50	39556	0.673	ppbv	96
9) Propene	3.04	41	164167	3.793	ppbv	90
10) Heptane	8.26	43	184981	1.109	ppbv	98
11) Trichlorofluoromethane	4.01	101	44498	0.249	ppbv	86
13) Ethanol	3.69	45	15500023	1253.006	ppbv	100
15) Acetone	3.90	43	1739664m	14.009	ppbv	
17) tert-Butyl alcohol	4.41	59	838074m	22.947	ppbv	
19) Isopropyl Alcohol	4.07	45	3096226	35.010	ppbv #	96
20) Methylene Chloride	4.42	84	64471	1.023	ppbv	93
26) Hexane	5.79	57	317544	2.348	ppbv #	59
30) Cyclohexane	7.26	84	55656m	0.520	ppbv	
34) 2-Butanone	5.34	43	302144	1.654	ppbv	99
35) Carbon Tetrachloride	7.14	117	21767m	0.090	ppbv	
36) Benzene	7.01	78	1065954	3.853	ppbv	98
44) 2,2,4-Trimethylpentane	8.00	57	1553022	3.288	ppbv	93
52) Tetrachloroethene	11.38	164	23247m	0.241	ppbv	
53) Toluene	9.96	91	7672276	24.190	ppbv	99
58) Ethyl Benzene	12.87	91	1042748	2.527	ppbv	97
59) m/p-Xylene	13.13	91	3256599	8.862	ppbv	99
60) o-Xylene	13.86	91	1189519	3.356	ppbv	99
61) Styrene	13.70	104	78170	0.329	ppbv	97
64) n-propylbenzene	15.74	120	34005	0.273	ppbv	90
72) 4-Ethyltoluene	16.01	105	284763	0.754	ppbv	98
73) 1,3,5-Trimethylbenzene	16.17	105	211603	0.575	ppbv	100
74) 1,2,4-Trimethylbenzene	16.94	105	862314	2.196	ppbv #	78
79) Naphthalene	22.44	128	32126m	0.132	ppbv	

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

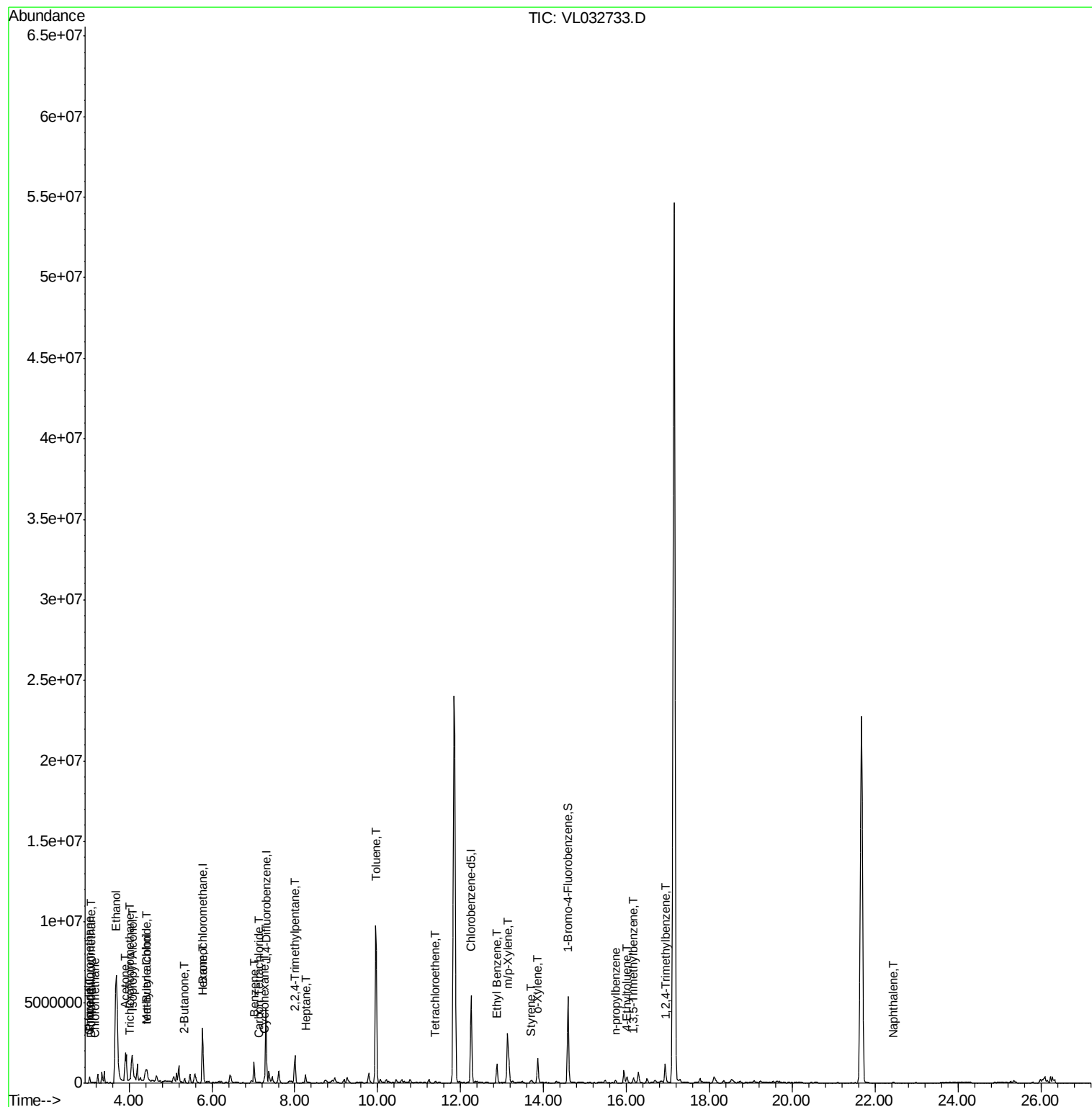
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL110718\
Data File : VL032733.D
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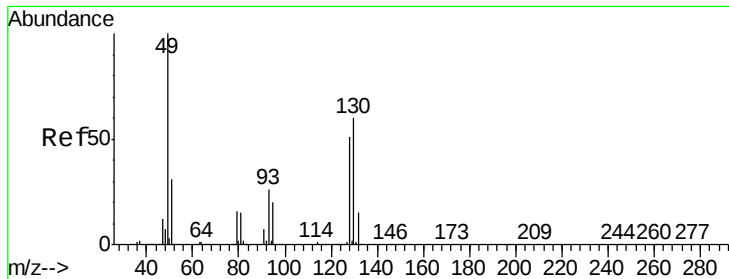
Instrument :
MSVOA_L
ClientSampleId :
SV-03

Manual Integrations
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11/12/2018 12:30:22 PM

Quant Time: Nov 12 03:32:18 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL101818AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Oct
QLast Update : Thu Oct 25 05:15:43 2018
Response via : Initial Calibration





#1

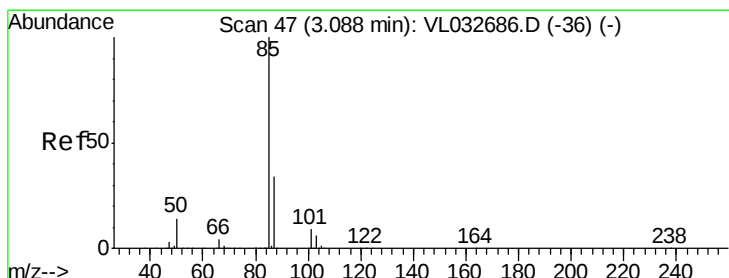
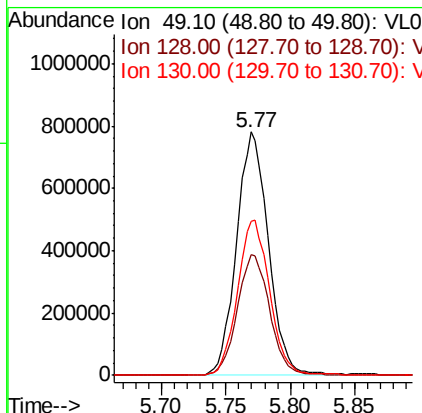
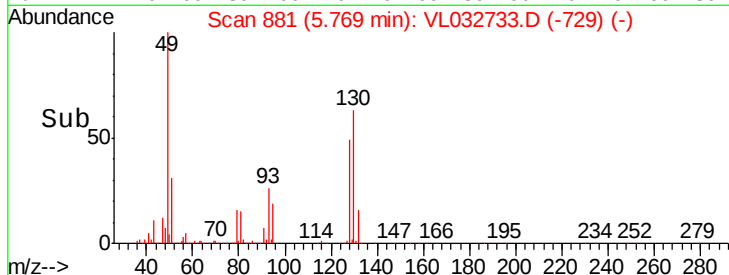
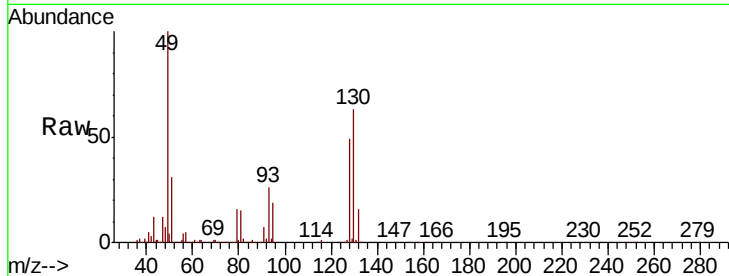
Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.77 min Scan# 881
 Delta R.T. -0.01 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Instrument :
 MSVOA_L
 ClientSampled :
 SV-03

Tot Ion	Ratio	Lower	Upper
49	100		
128	50.5	22.3	66.8
130	64.7	28.4	85.3

Manual Integrations
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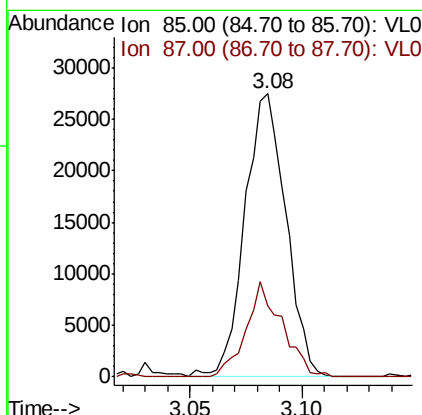
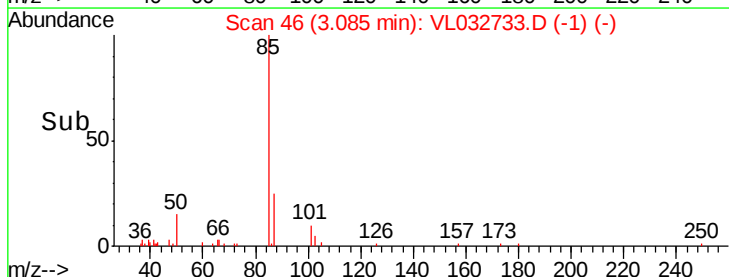
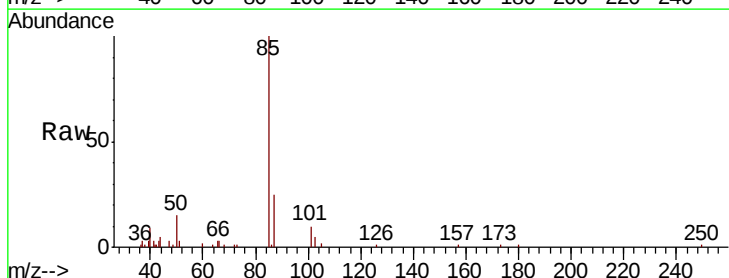
MMDadoda
 11/12/2018 12:30:22 PM

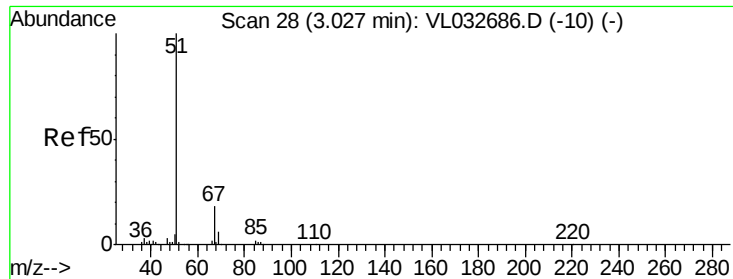


#2

Dichlorodifluoromethane
 Concen: 0.256 ppbv m
 RT: 3.08 min Scan# 46
 Delta R.T. -0.00 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Tgt Ion	Ratio	Lower	Upper
85	100		
87	25.1	26.2	39.2





#3

Chlorodifluoromethane

Concen: 0.272 ppbv

RT: 3.02 min Scan# 27

Delta R.T. -0.00 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampleId :

SV-03

Tot Ion: 51 Resp: 28613

Ion Ratio Lower Upper

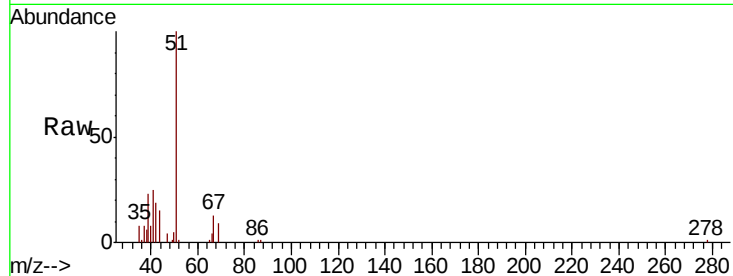
51 100

67 18.3 15.2 22.8

Manual Integrations
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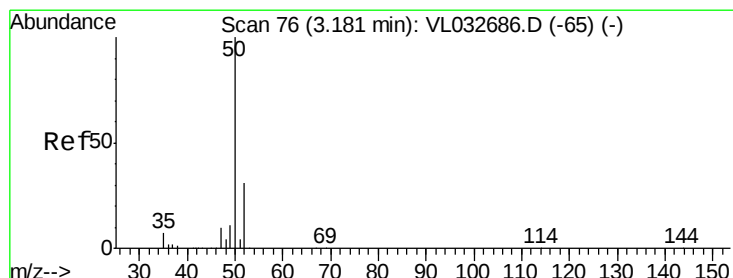
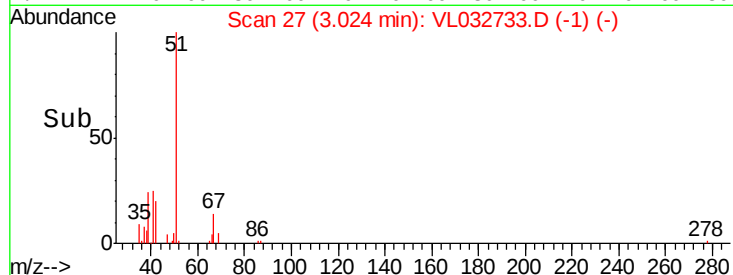
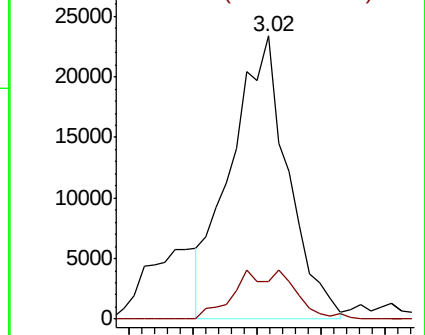
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.673 ppbv

RT: 3.18 min Scan# 75

Delta R.T. -0.00 min

Lab File: VL032733.D

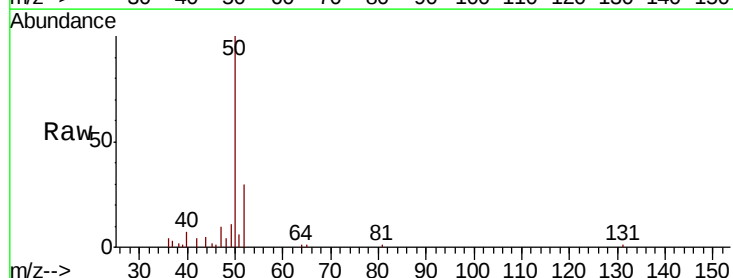
Acq: 8 Nov 2018 1:38

Tgt Ion: 50 Resp: 39556

Ion Ratio Lower Upper

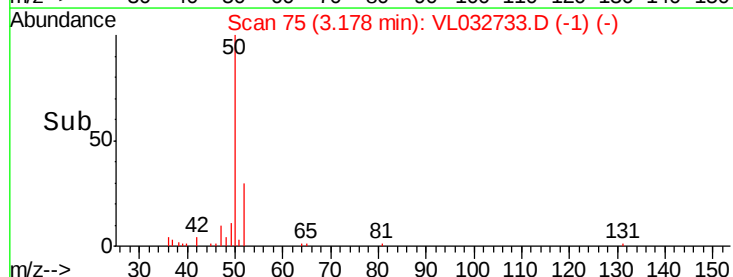
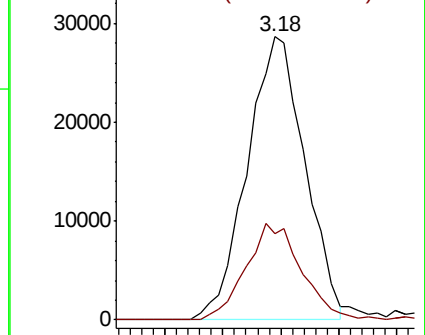
50 100

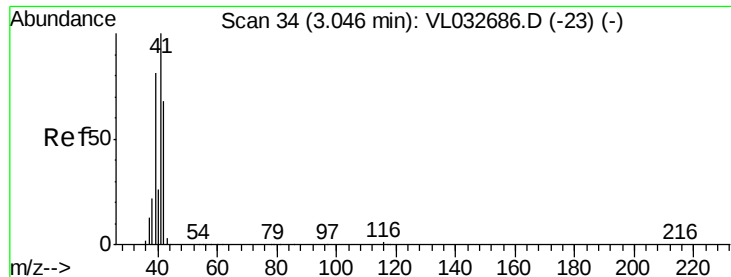
52 30.3 25.9 38.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 3.793 ppbv

RT: 3.04 min Scan# 33

Delta R.T. -0.00 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampled :

SV-03

Tot Ion: 41 Resp: 164167

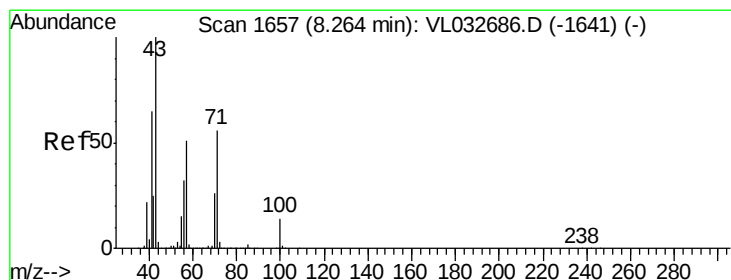
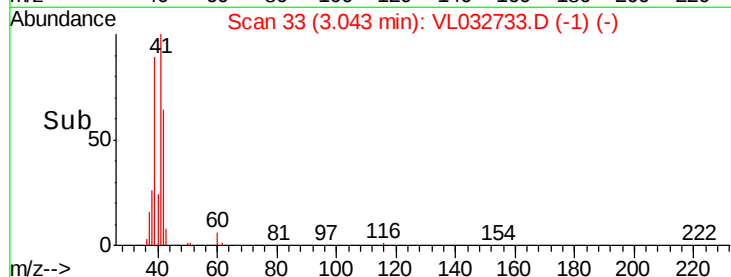
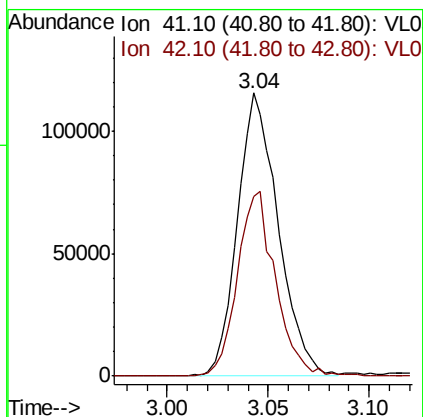
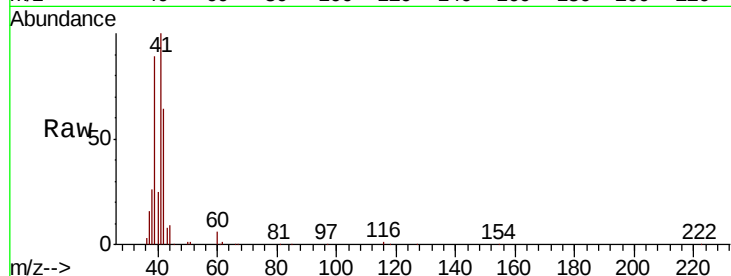
Ion Ratio Lower Upper

41 100

42 61.2 55.4 83.0

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#10

Heptane

Concen: 1.109 ppbv

RT: 8.26 min Scan# 1655

Delta R.T. -0.00 min

Lab File: VL032733.D

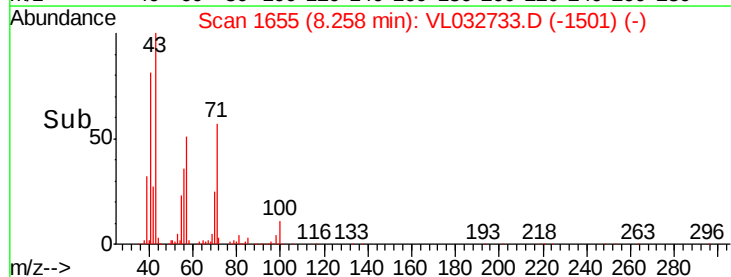
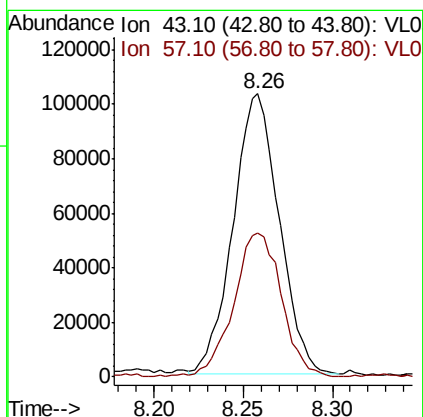
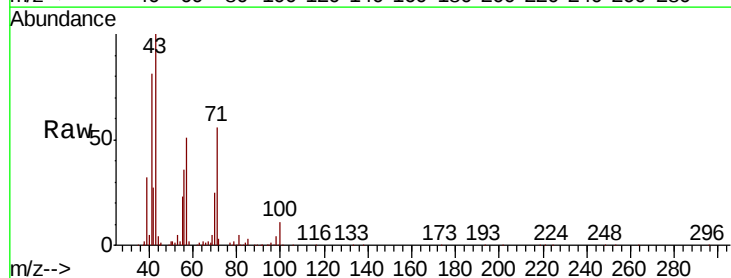
Acq: 8 Nov 2018 1:38

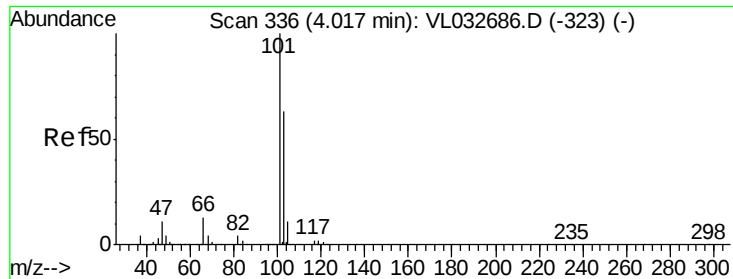
Tgt Ion: 43 Resp: 184981

Ion Ratio Lower Upper

43 100

57 53.4 41.5 62.3





#11

Trichlorofluoromethane

Concen: 0.249 ppbv

RT: 4.01 min Scan# 333

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampled :

SV-03

Tot Ion:101 Resp: 44498

Ion Ratio Lower Upper

101 100

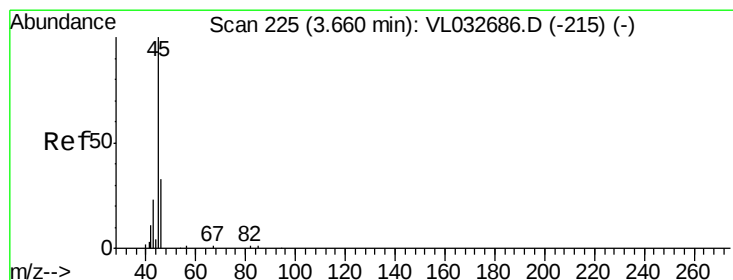
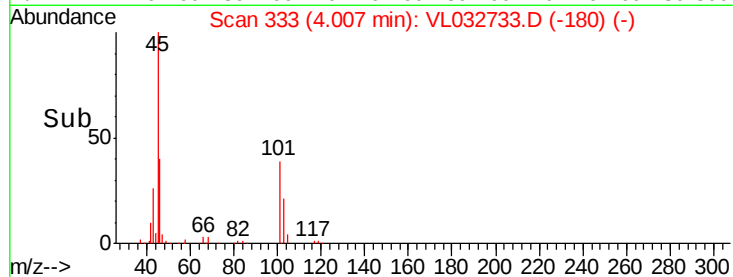
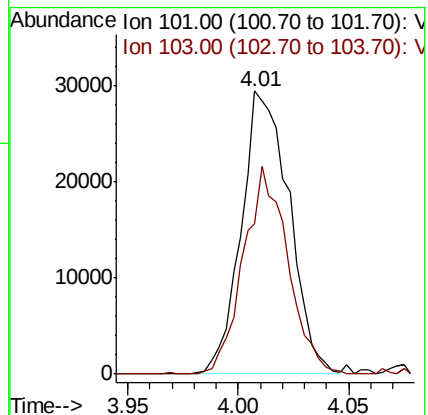
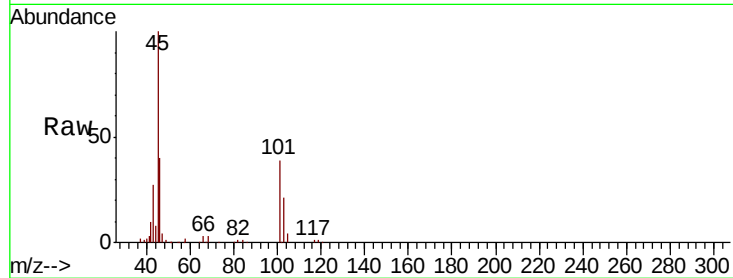
103 53.1 51.4 77.2

Manual Integrations

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#13

Ethanol

Concen: 1253.006 ppbv

RT: 3.69 min Scan# 235

Delta R.T. 0.03 min

Lab File: VL032733.D

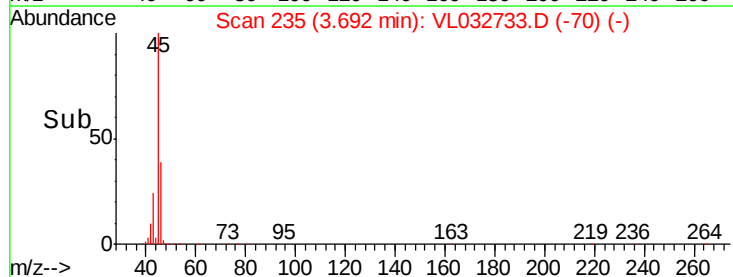
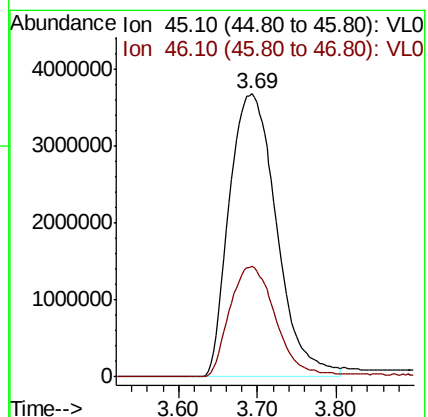
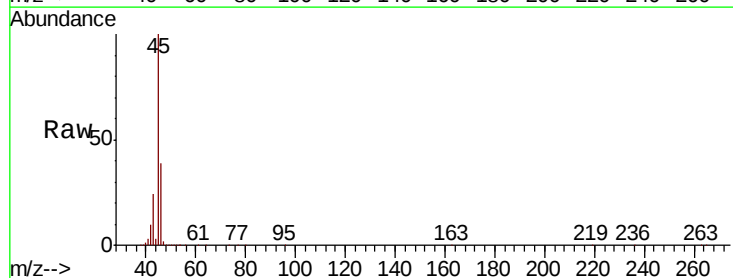
Acq: 8 Nov 2018 1:38

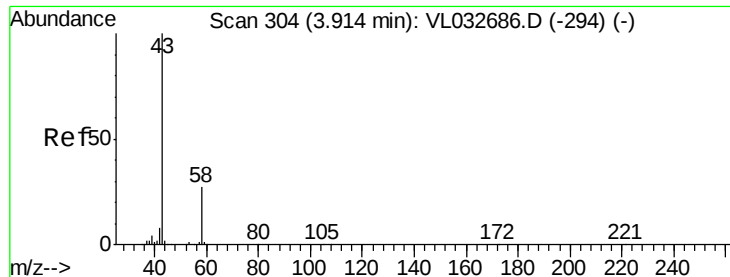
Tgt Ion: 45 Resp:15500023

Ion Ratio Lower Upper

45 100

46 38.7 15.4 61.8





#15

Acetone

Concen: 14.009 ppbv m

RT: 3.90 min Scan# 301

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampled :

SV-03

Tot Ion: 43 Resp: 1739664

Ion Ratio Lower Upper

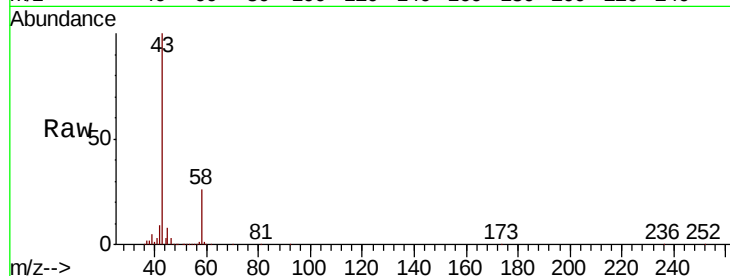
43 100

58 27.8 22.1 33.1

Manual Integrations
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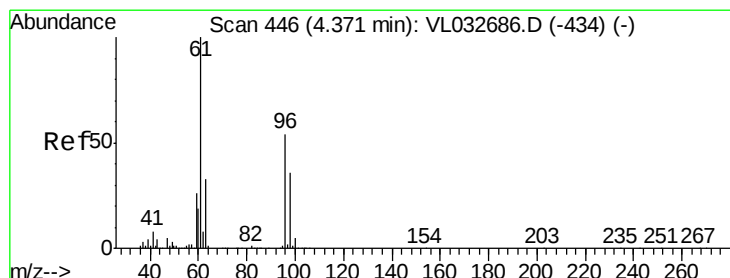
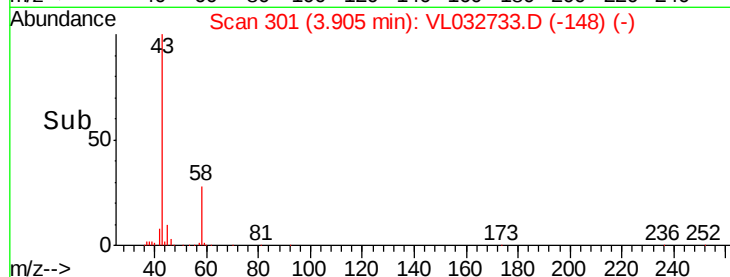
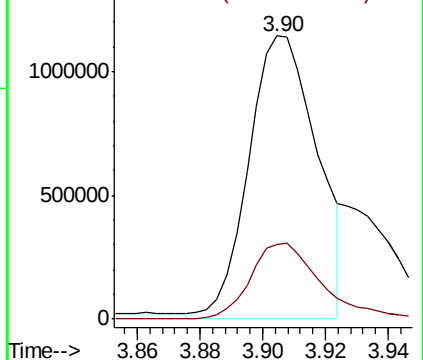
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#17

tert-Butyl alcohol

Concen: 22.947 ppbv m

RT: 4.41 min Scan# 457

Delta R.T. 0.03 min

Lab File: VL032733.D

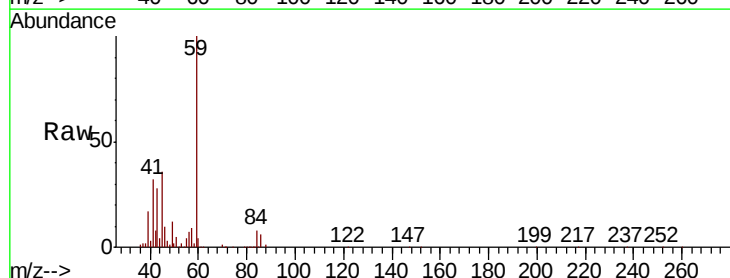
Acq: 8 Nov 2018 1:38

Tgt Ion: 59 Resp: 838074

Ion Ratio Lower Upper

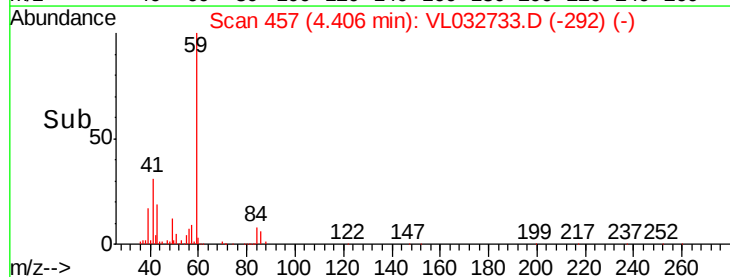
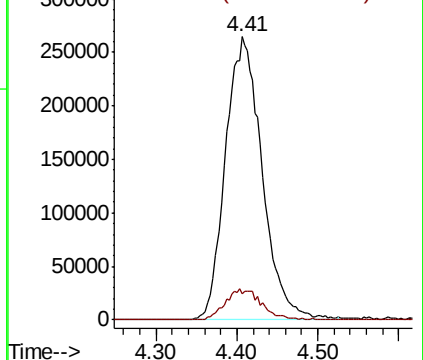
59 100

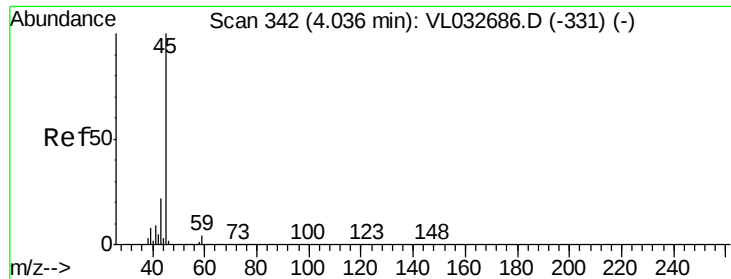
57 0.0 0.0 0.0



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#19

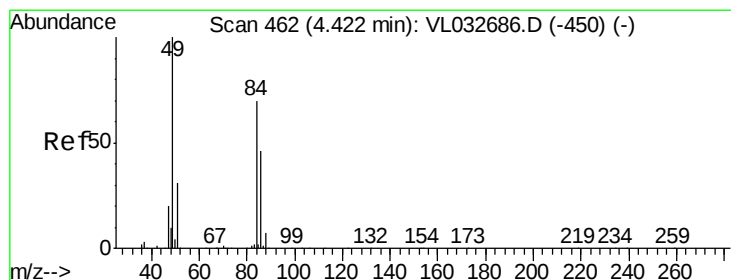
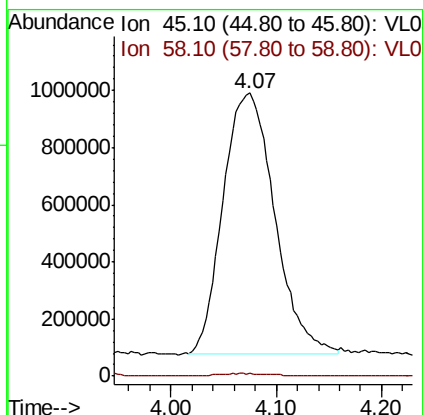
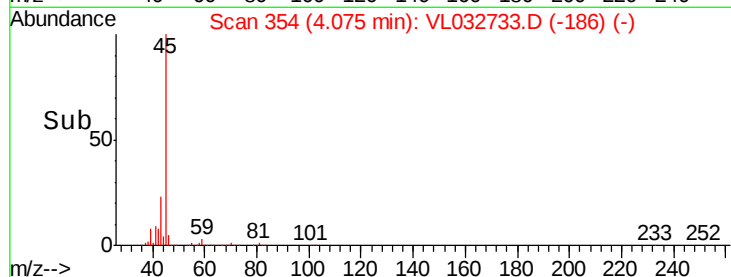
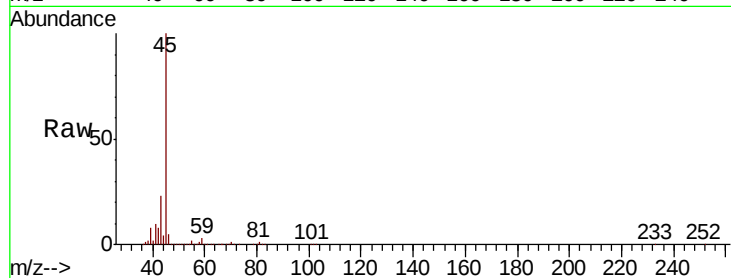
Isopropyl Alcohol
 Concen: 35.010 ppbv
 RT: 4.07 min Scan# 354
 Delta R.T. 0.04 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Instrument :
 MSVOA_L
 ClientSampled :
 SV-03

Tot Ion: 45 Resp: 3096226
 Ion Ratio Lower Upper
 45 100
 58 1.1 2.0 3.0#

Manual Integrations
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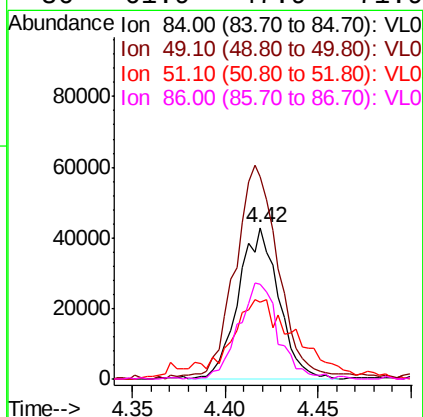
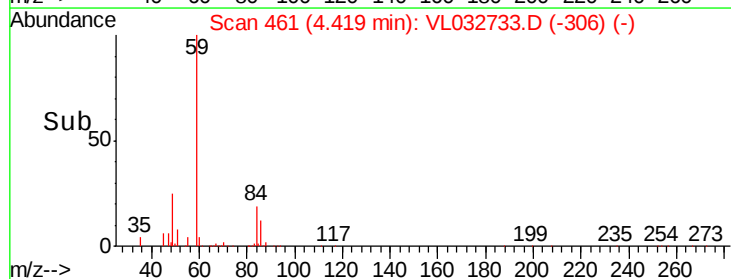
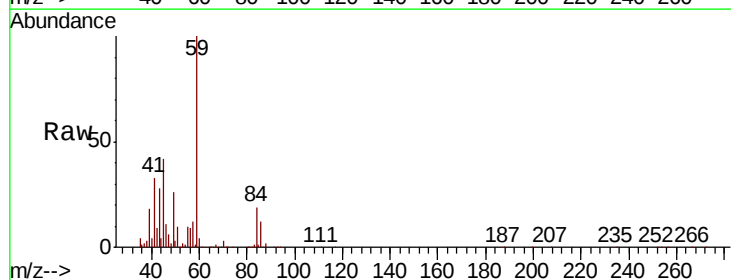
MMDadoda
 11/12/2018 12:30:22 PM

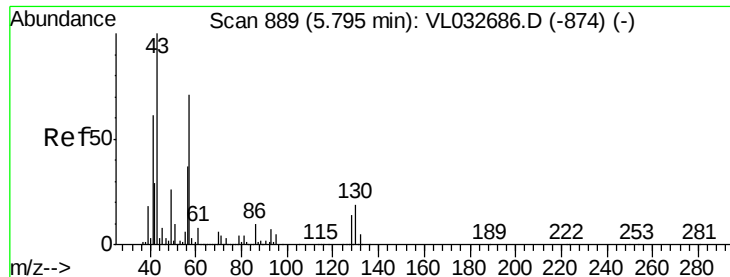


#20

Methylene Chloride
 Concen: 1.023 ppbv
 RT: 4.42 min Scan# 461
 Delta R.T. -0.00 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Tgt Ion: 84 Resp: 64471
 Ion Ratio Lower Upper
 84 100
 49 130.7 113.5 170.3
 51 46.2 34.8 52.2
 86 61.9 47.9 71.9





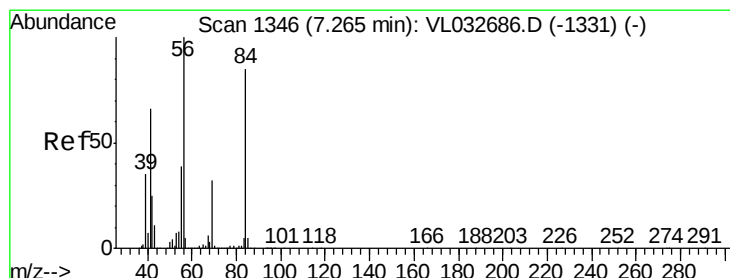
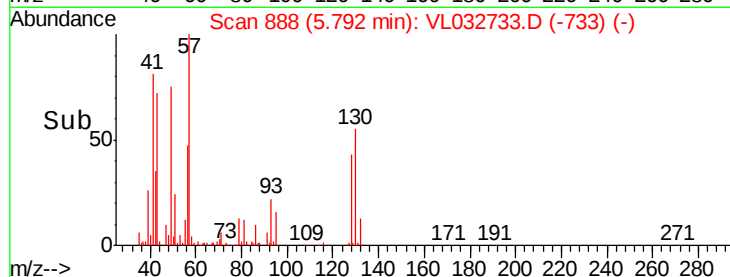
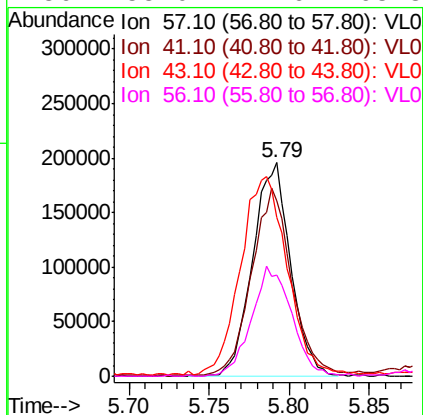
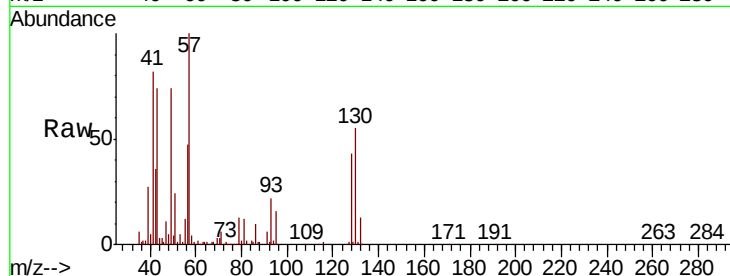
#26
Hexane
Concen: 2.348 ppbv
RT: 5.79 min Scan# 888
Delta R.T. -0.00 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Instrument :
MSVOA_L
ClientSampled :
SV-03

Tot Ion	Ratio	Lower	Upper
57	100		
41	93.0	67.4	101.0
43	114.5	171.9	257.9#
56	55.0	42.6	63.8

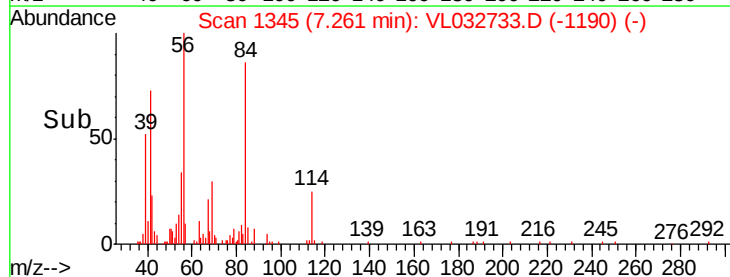
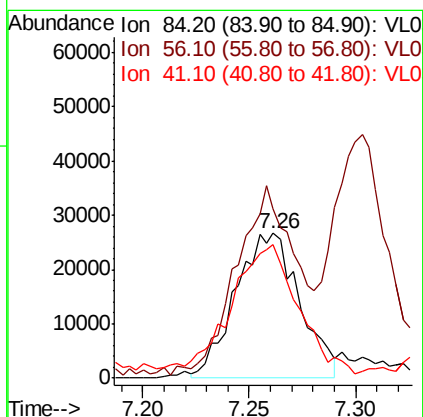
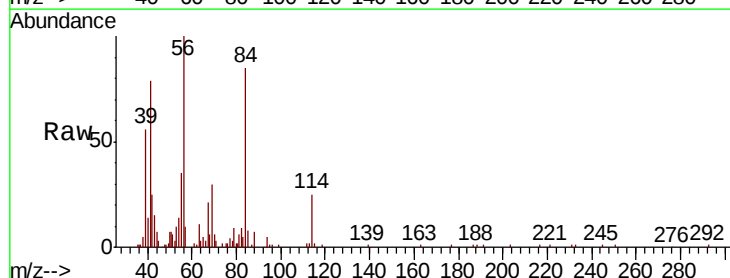
Manual Integrations
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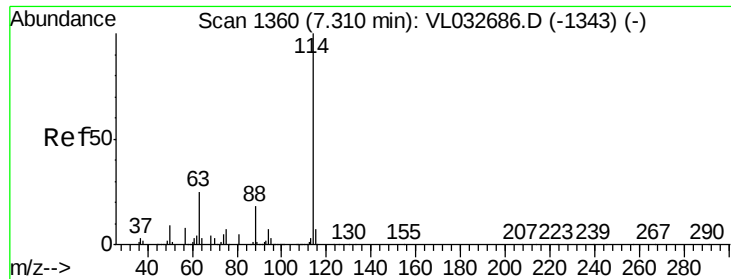
MMDadoda
11/12/2018 12:30:22 PM



#30
Cyclohexane
Concen: 0.520 ppbv m
RT: 7.26 min Scan# 1345
Delta R.T. -0.00 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	108.3	162.5#
41	0.0	64.8	97.2#





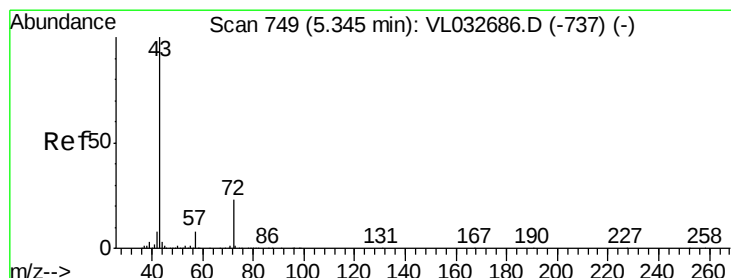
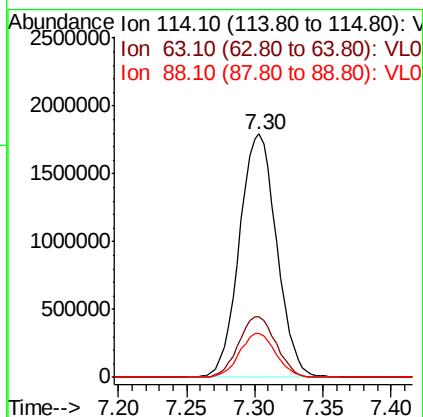
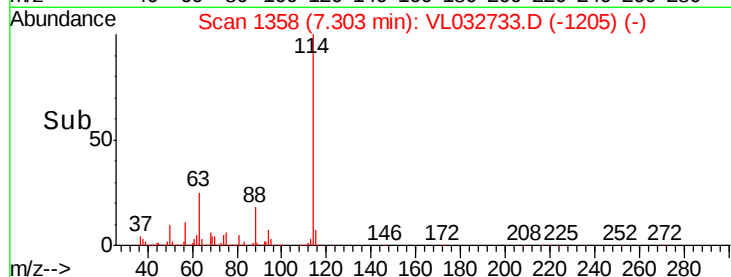
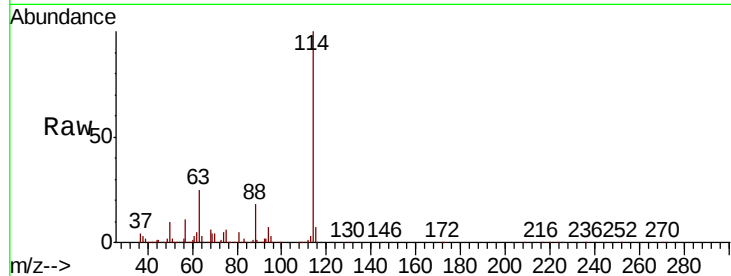
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1358
 Delta R.T. -0.01 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-03

Tot Ion	Ratio	Lower	Upper
114	100		
63	25.1	21.7	32.5
88	17.8	14.9	22.3

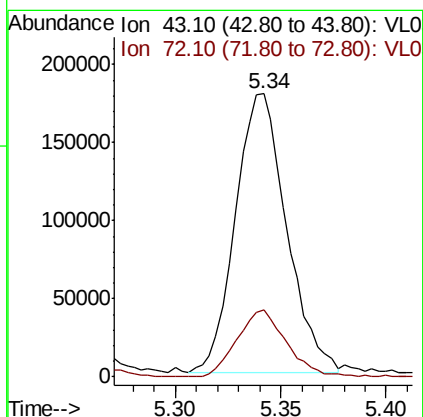
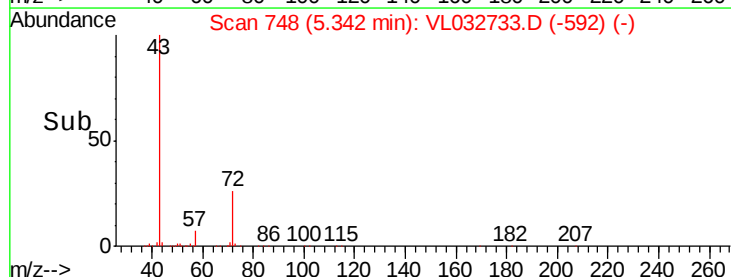
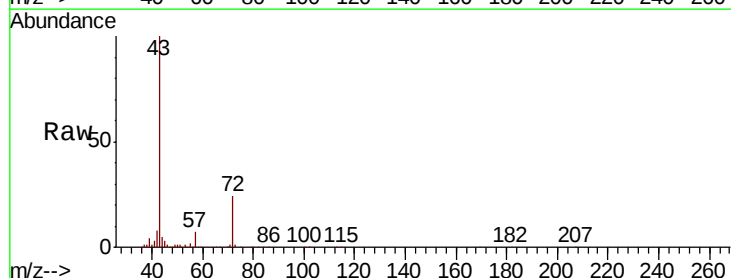
Manual Integrations
 APPROVED

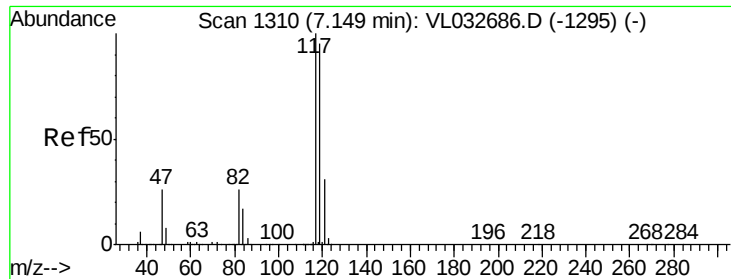
MMDadoda
 11/12/2018 12:30:22 PM



#34
 2-Butanone
 Concen: 1.654 ppbv
 RT: 5.34 min Scan# 748
 Delta R.T. 0.00 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Tgt Ion	Ratio	Lower	Upper
43	100		
72	23.4	18.6	27.8





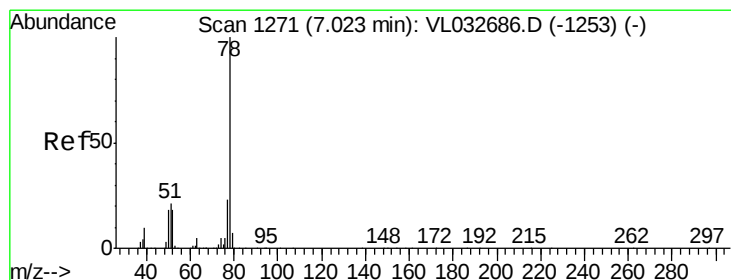
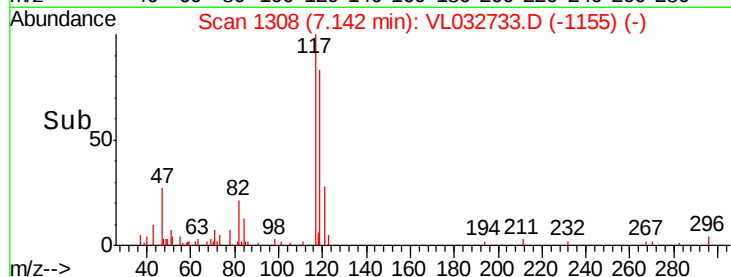
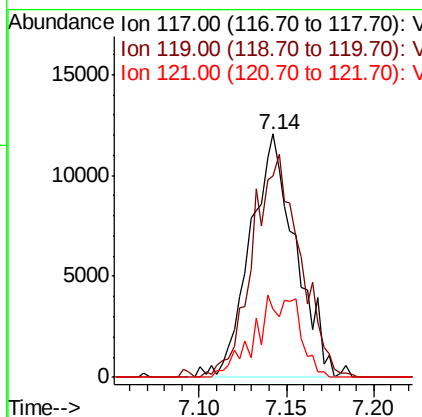
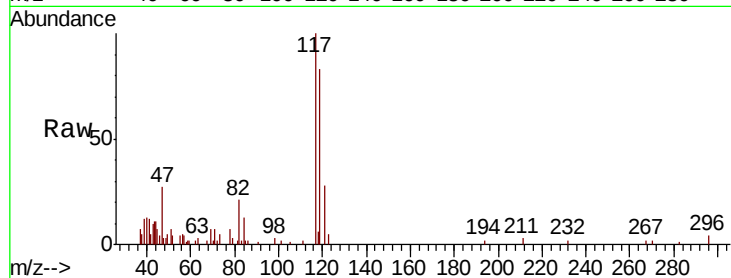
#35
Carbon Tetrachloride
Concen: 0.090 ppbv m
RT: 7.14 min Scan# 1308
Delta R.T. -0.01 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Instrument :
MSVOA_L
ClientSampleId :
SV-03

Tot Ion	Ratio	Lower	Upper
117	100		
119	82.9	75.7	113.5
121	28.2	24.7	37.1

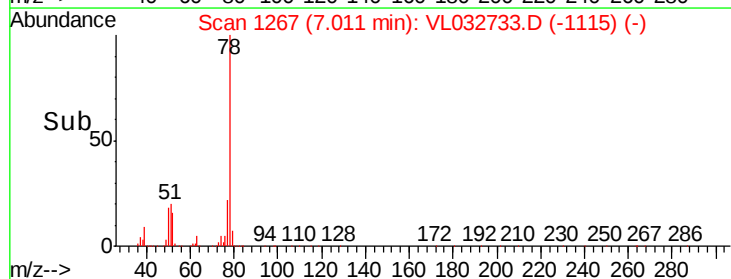
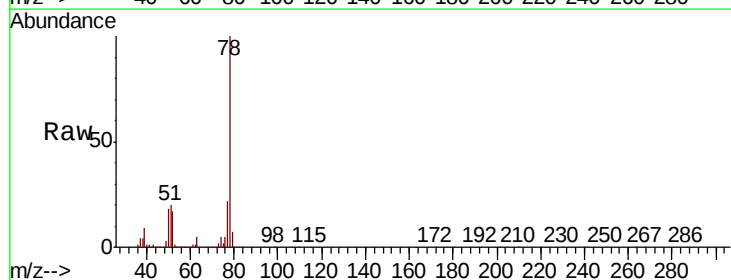
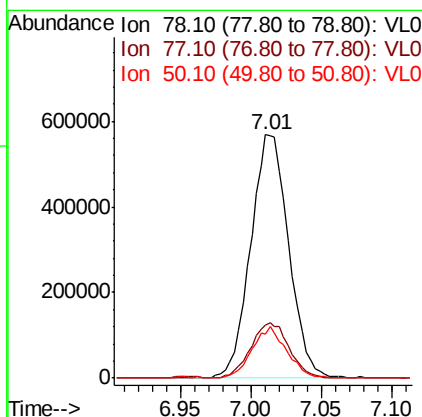
Manual Integrations
APPROVED

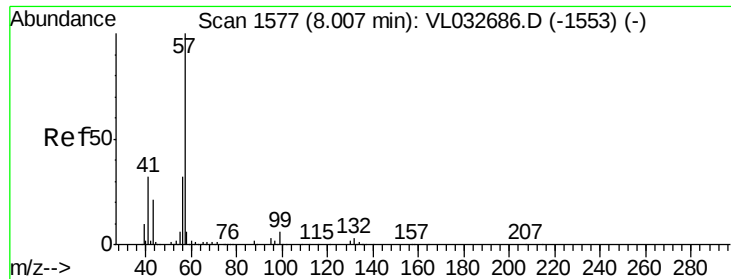
MMDadoda
11/12/2018 12:30:22 PM



#36
Benzene
Concen: 3.853 ppbv
RT: 7.01 min Scan# 1267
Delta R.T. -0.01 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Tgt Ion	Ratio	Lower	Upper
78	100		
77	21.7	18.1	27.1
50	17.8	15.1	22.7





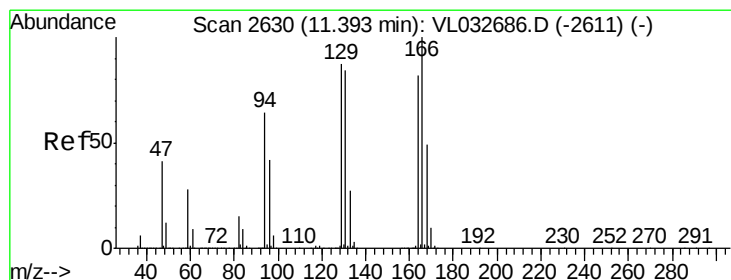
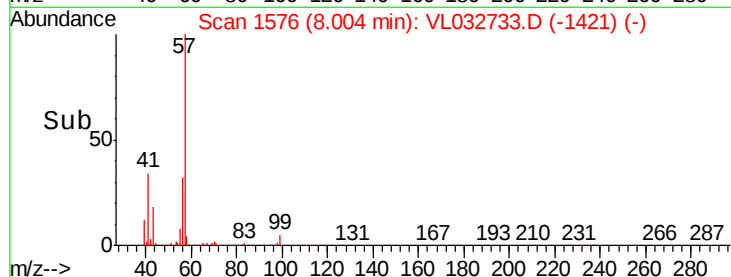
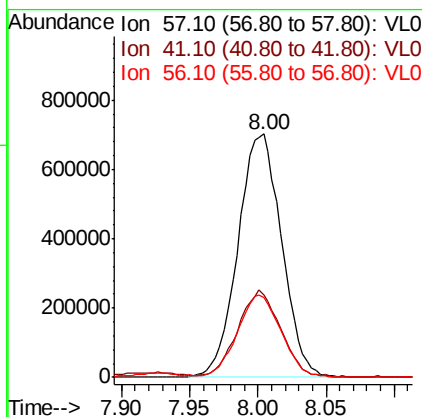
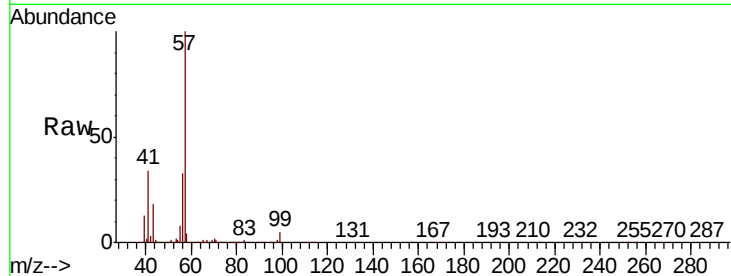
#44
 2,2,4-Trimethylpentane
 Concen: 3.288 ppbv
 RT: 8.00 min Scan# 1576
 Delta R.T. -0.00 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-03

Tot Ion	Ratio	Lower	Upper
57	100		
41	35.3	24.7	37.1
56	34.2	25.0	37.4

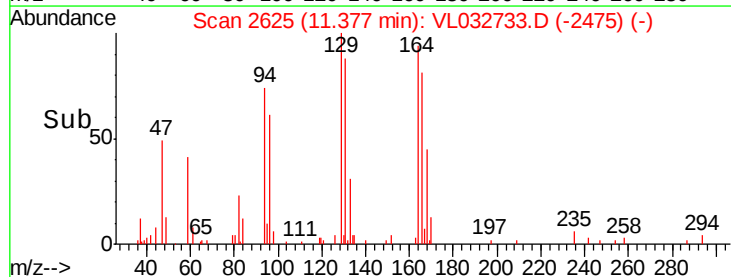
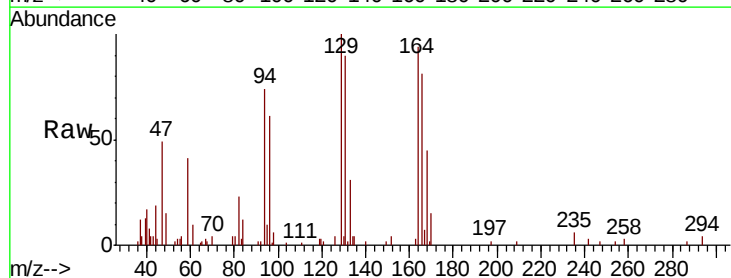
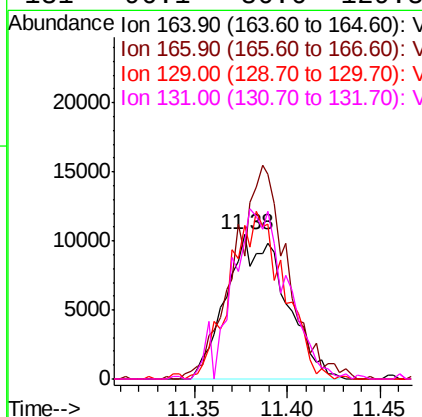
Manual Integrations
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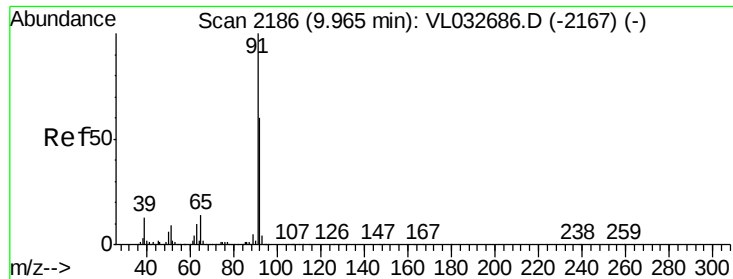
MMDadoda
 11/12/2018 12:30:22 PM



#52
 Tetrachloroethene
 Concen: 0.241 ppbv m
 RT: 11.38 min Scan# 2625
 Delta R.T. -0.02 min
 Lab File: VL032733.D
 Acq: 8 Nov 2018 1:38

Tgt Ion	Ratio	Lower	Upper
164	100		
166	85.5	100.5	150.7#
129	106.2	90.0	135.0
131	96.1	86.6	129.8





#53

Toluene

Concen: 24.190 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. -0.00 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampleId :

SV-03

Tot Ion: 91 Resp: 7672276

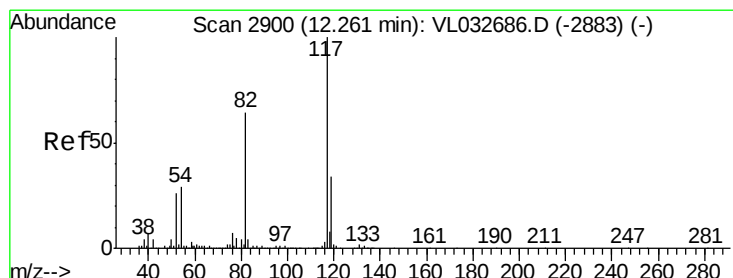
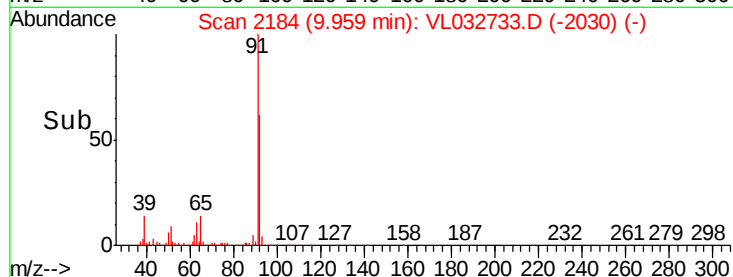
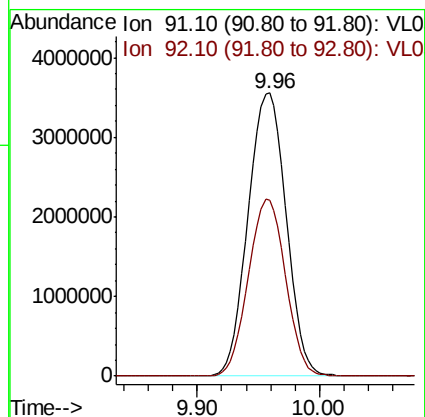
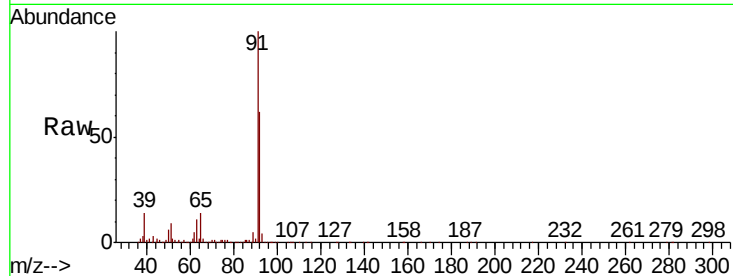
Ion Ratio Lower Upper

91 100

92 61.0 48.4 72.6

Manual Integrations
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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2897

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

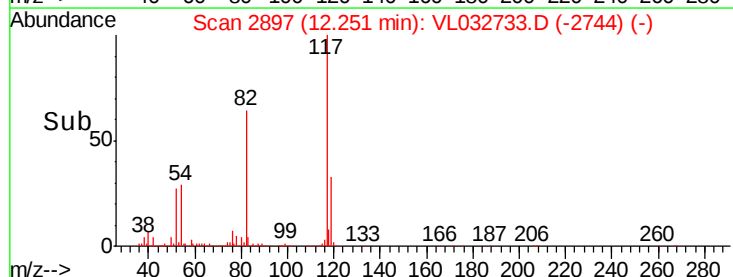
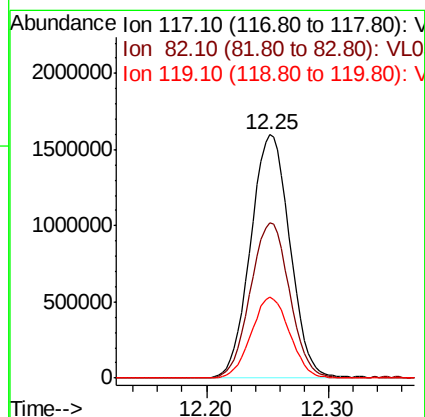
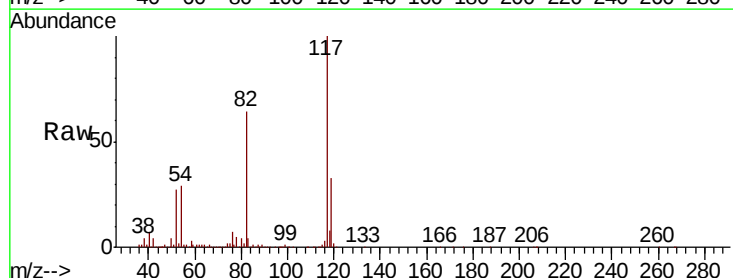
Tgt Ion: 117 Resp: 3552100

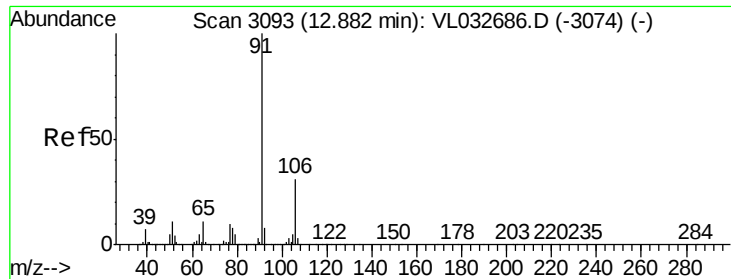
Ion Ratio Lower Upper

117 100

82 63.7 52.7 79.1

119 32.7 26.7 40.1





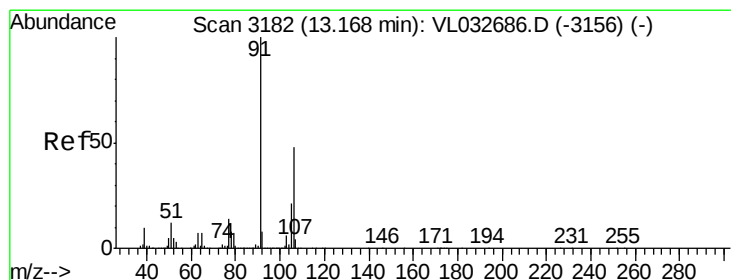
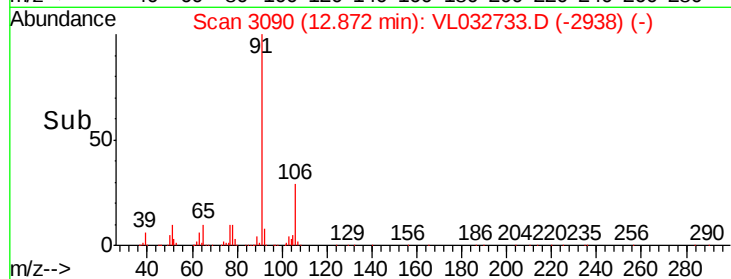
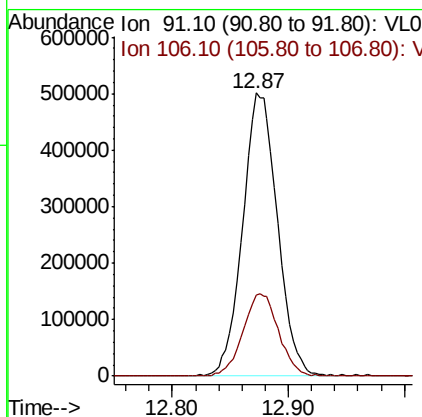
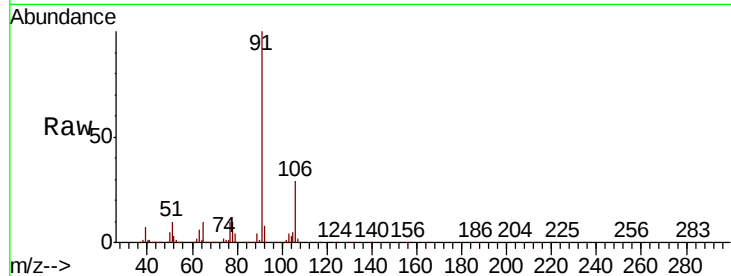
#58
Ethyl Benzene
Concen: 2.527 ppbv
RT: 12.87 min Scan# 3090
Delta R.T. -0.01 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Instrument :
MSVOA_L
ClientSampled :
SV-03

Tot Ion: 91 Resp: 1042748
Ion Ratio Lower Upper
91 100
106 28.8 24.2 36.2

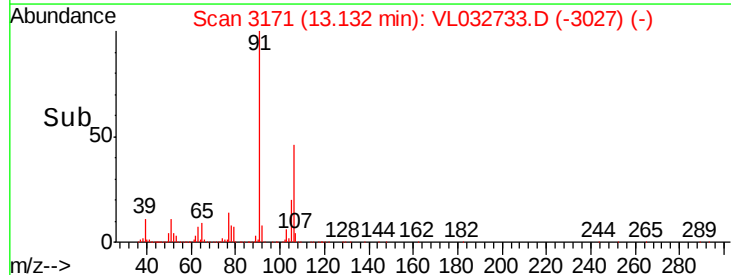
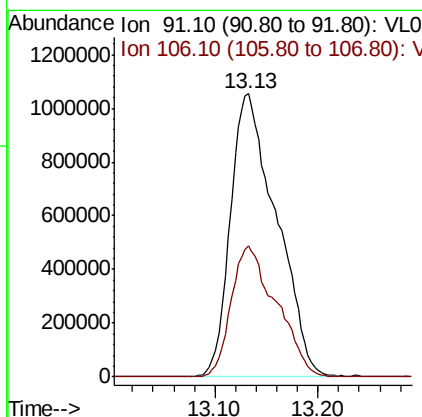
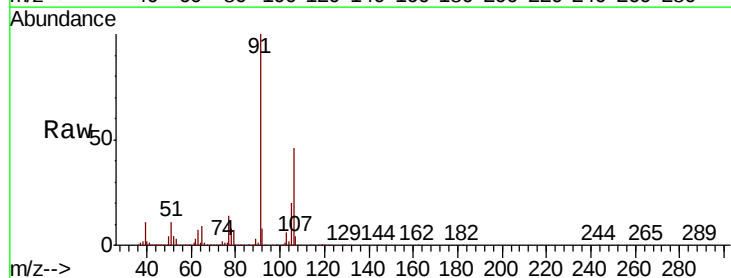
Manual Integrations
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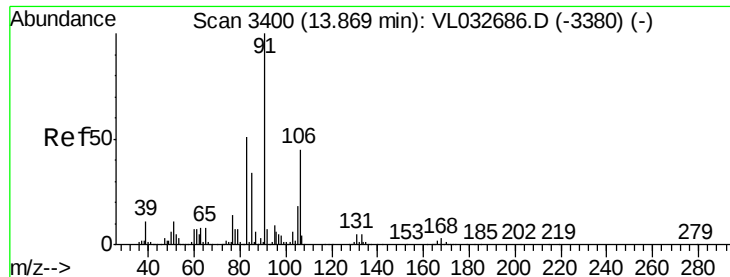
MMDadoda
11/12/2018 12:30:22 PM



#59
m/p-Xylene
Concen: 8.862 ppbv
RT: 13.13 min Scan# 3171
Delta R.T. -0.04 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Tgt Ion: 91 Resp: 3256599
Ion Ratio Lower Upper
91 100
106 45.7 35.9 53.9





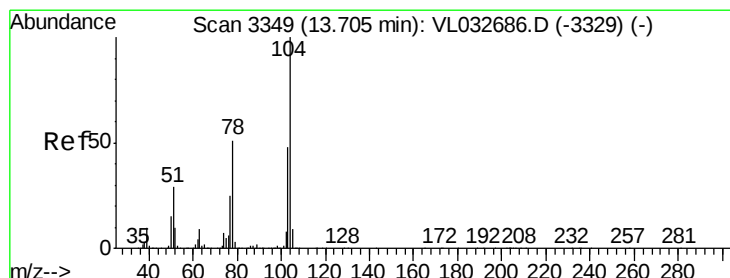
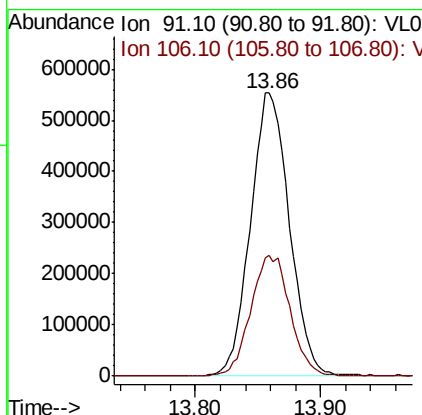
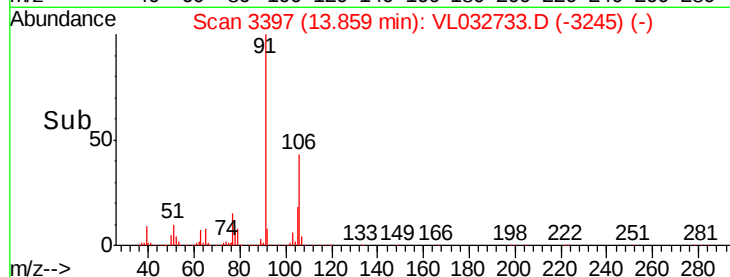
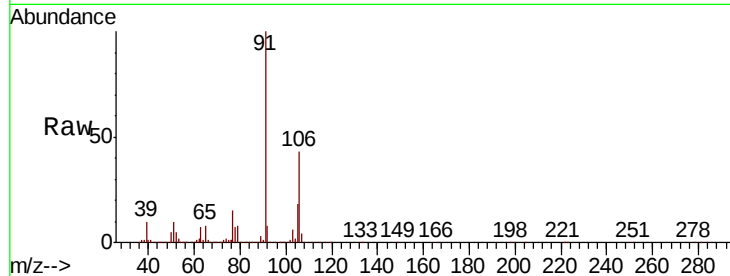
#60
o-Xylene
Concen: 3.356 ppbv
RT: 13.86 min Scan# 3397
Delta R.T. -0.01 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Instrument :
MSVOA_L
ClientSampled :
SV-03

Tot Ion: 91 Resp: 1189519
Ion Ratio Lower Upper
91 100
106 43.5 22.1 66.1

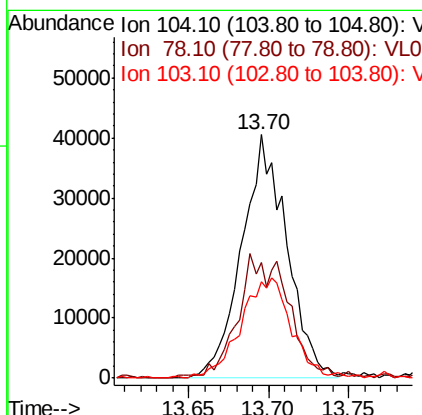
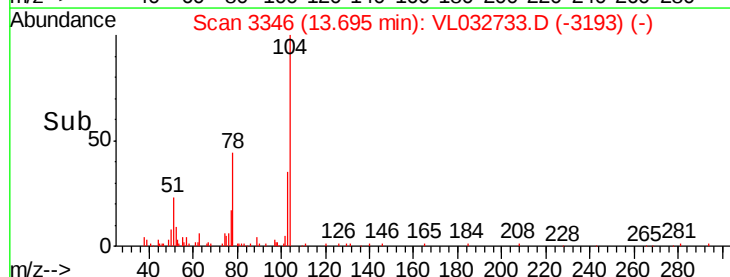
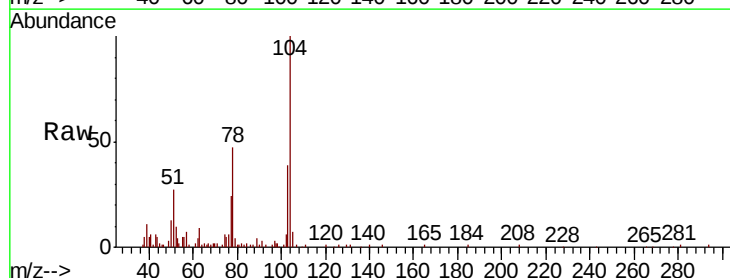
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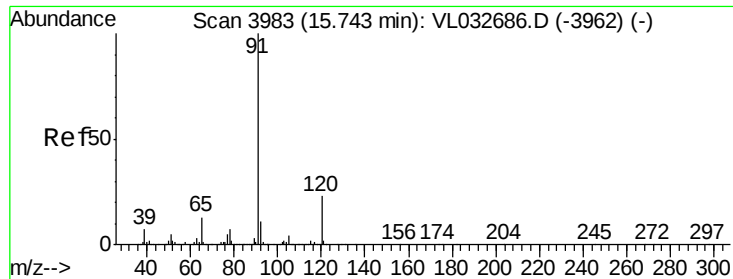
MMDadoda
11/12/2018 12:30:22 PM



#61
Styrene
Concen: 0.329 ppbv
RT: 13.70 min Scan# 3346
Delta R.T. -0.01 min
Lab File: VL032733.D
Acq: 8 Nov 2018 1:38

Tgt Ion: 104 Resp: 78170
Ion Ratio Lower Upper
104 100
78 57.0 42.8 64.2
103 46.5 37.4 56.0





#64

n-propylbenzene

Concen: 0.273 ppbv

RT: 15.74 min Scan# 3981

Delta R.T. -0.00 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

ClientSampleId :

SV-03

Tot Ion:120 Resp: 34005

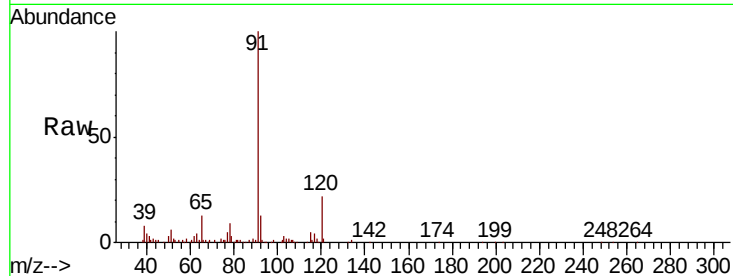
Ion Ratio Lower Upper

120 100

91 513.8 390.2 585.2

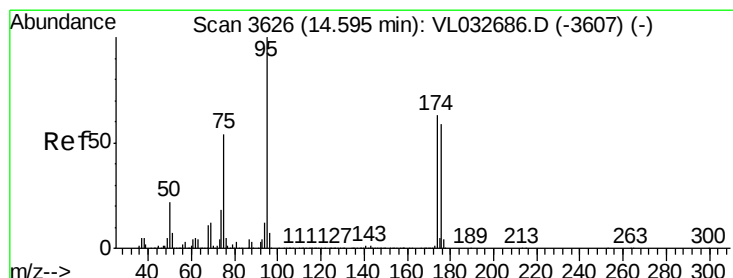
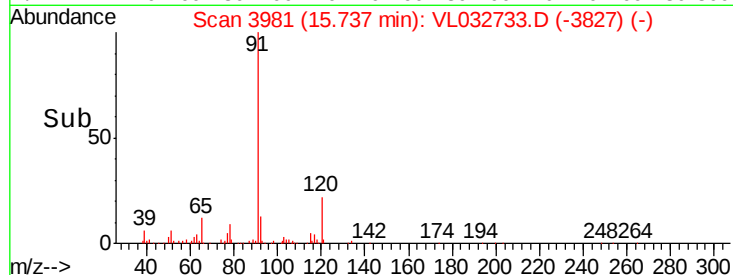
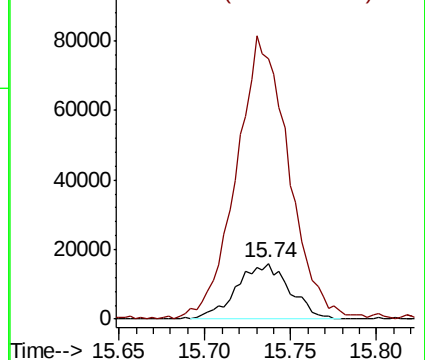
Manual Integrations
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11/12/2018 12:30:22 PM



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: 9.827 ppbv

RT: 14.59 min Scan# 3623

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

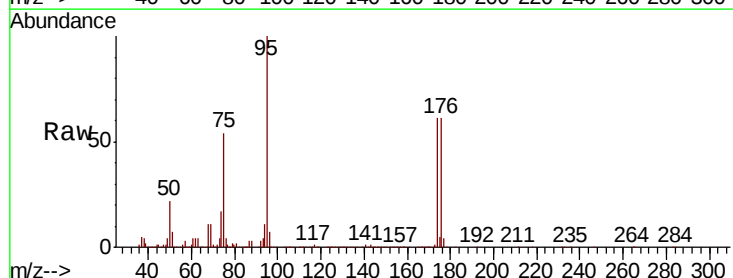
Tgt Ion: 95 Resp: 2599039

Ion Ratio Lower Upper

95 100

174 63.1 46.0 69.0

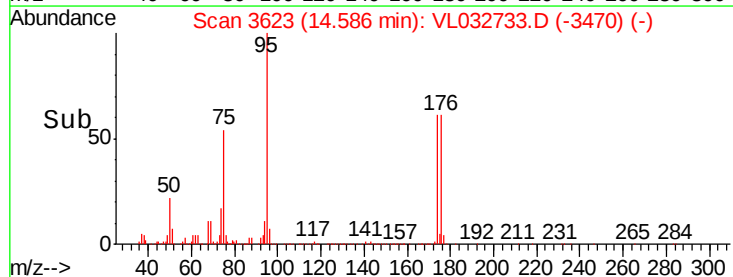
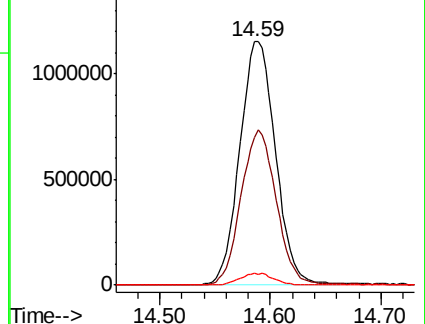
175 4.7 3.4 5.0

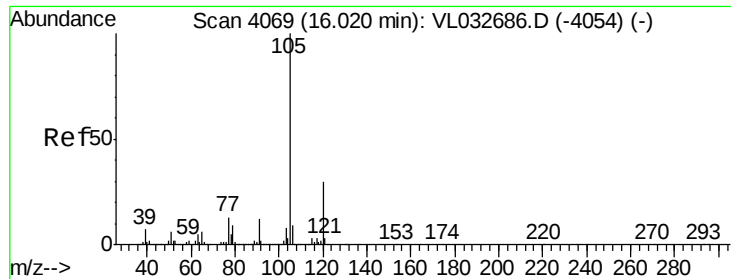


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#72

4-Ethyltoluene

Concen: 0.754 ppbv

RT: 16.01 min Scan# 4066

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

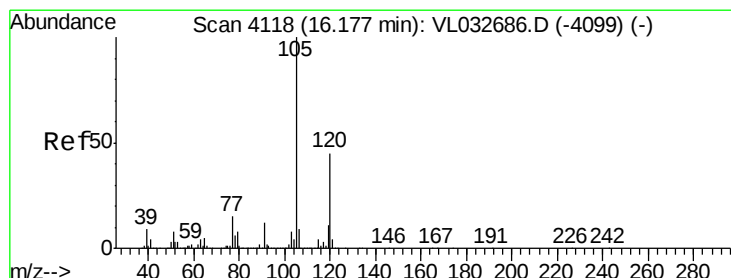
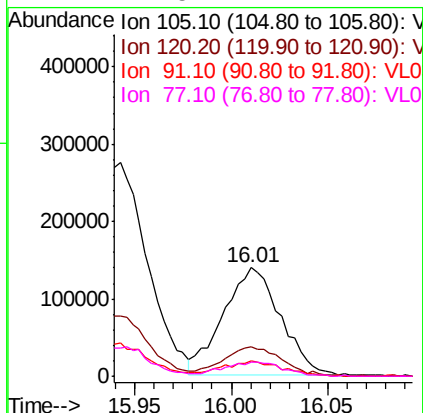
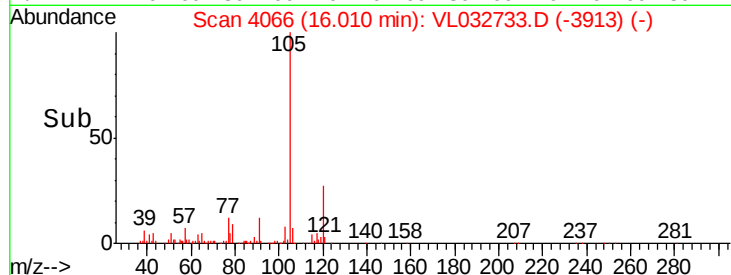
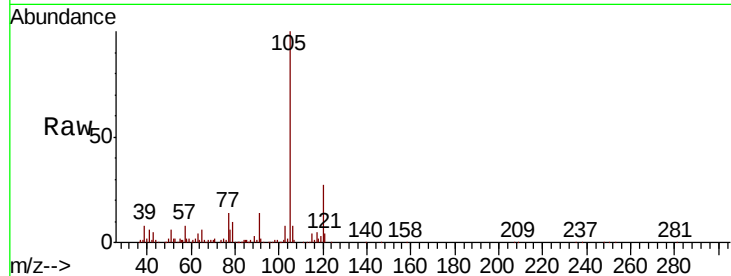
ClientSampled :

SV-03

Tot Ion:	105	Resp:	284763
Ion Ratio	Lower	Upper	
105	100		
120	28.3	23.7	35.5
91	14.3	10.4	15.6
77	14.5	11.4	17.2

Manual Integrations
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11/12/2018 12:30:22 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.575 ppbv

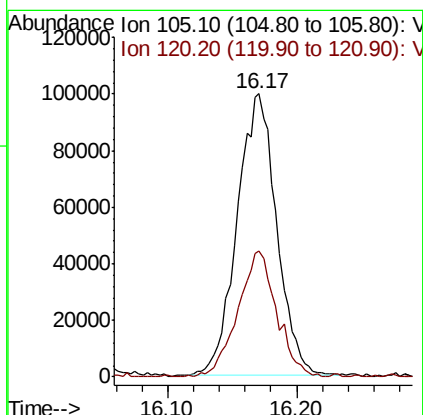
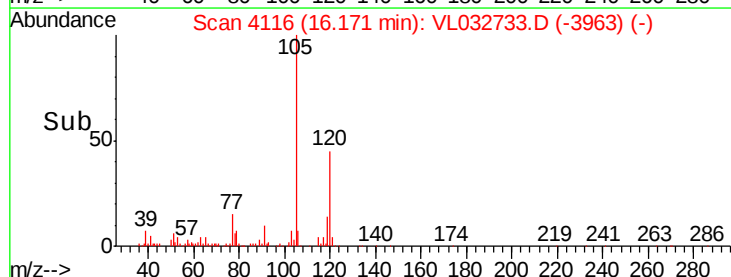
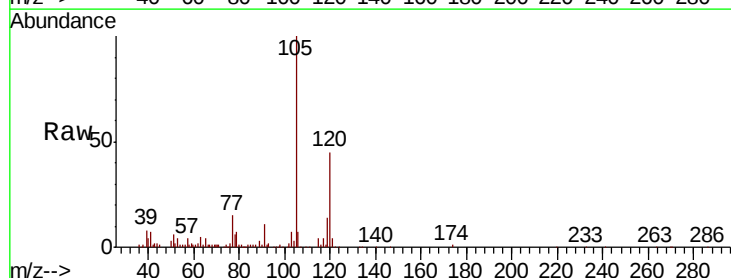
RT: 16.17 min Scan# 4116

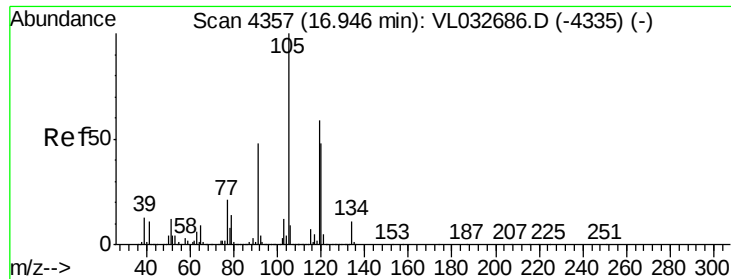
Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Tgt Ion:	105	Resp:	211603
Ion Ratio	Lower	Upper	
105	100		
120	44.3	35.4	53.2





#74

1,2,4-Trimethylbenzene

Concen: 2.196 ppbv

RT: 16.94 min Scan# 4354

Delta R.T. -0.01 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Instrument :

MSVOA_L

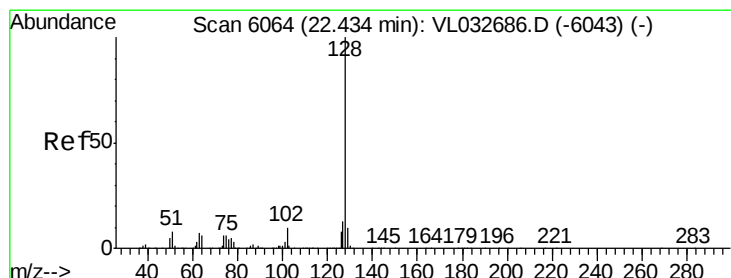
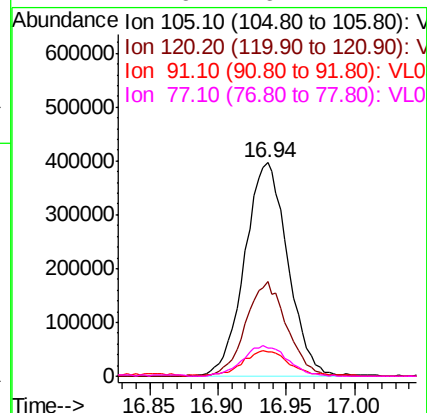
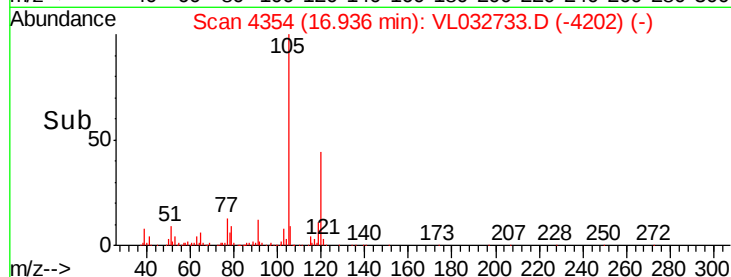
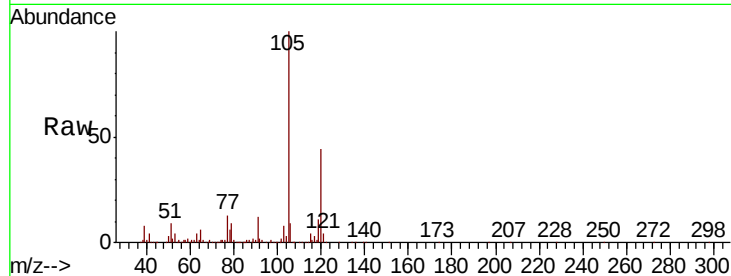
ClientSampled :

SV-03

Tot Ion	Ion	Ratio	Resp	Lower	Upper
105	100		862314		
120	44.4	35.8	53.8		
91	11.3	33.2	49.8#		
77	12.9	16.2	24.4#		

Manual Integrations
APPROVED

MMDadoda
11/12/2018 12:30:22 PM



#79

Naphthalene

Concen: 0.132 ppbv m

RT: 22.44 min Scan# 6065

Delta R.T. 0.00 min

Lab File: VL032733.D

Acq: 8 Nov 2018 1:38

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
128	100		32126		
127	13.9	10.3	15.5		
129	13.6	8.6	13.0#		

