

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060121\
 Data File : VL037068.D
 Acq On : 1 Jun 2021 13:49
 Operator : SY/AP
 Sample : M2559-01 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 HSG1

Manual Integrations
 APPROVED

MMDadoda
 6/7/2021 2:58:24 PM

Quant Time: Jun 04 11:01:43 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1622693	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	4846389	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	4553274	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	3595861	10.51	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
4) Chloromethane	3.13	50	17963m	0.178	ppbv	
9) Propene	3.01	41	97044	0.912	ppbv #	82
10) Heptane	8.11	43	8261320	31.141	ppbv	97
13) Ethanol	3.59	45	717443m	50.513	ppbv	
15) Acetone	3.83	43	2748500m	16.537	ppbv	
17) tert-Butyl alcohol	4.29	59	261544	1.718	ppbv	97
19) Isopropyl Alcohol	3.96	45	200306	2.242	ppbv #	1
20) Methylene Chloride	4.33	84	252374	2.833	ppbv	96
26) Hexane	5.67	57	1107700	5.429	ppbv #	49
27) Carbon Disulfide	4.54	76	102557	0.499	ppbv #	88
29) Chloroform	5.74	83	54326m	0.188	ppbv	
30) Cyclohexane	7.11	84	404013	2.330	ppbv	90
34) 2-Butanone	5.23	43	251421	1.425	ppbv #	88
36) Benzene	6.87	78	1181819	2.831	ppbv	98
53) Toluene	9.79	91	17138861	34.505	ppbv	87
58) Ethyl Benzene	12.69	91	2594334	4.037	ppbv	98
59) m/p-Xylene	12.95	91	7144181	13.449	ppbv	97
60) o-Xylene	13.67	91	2464362	4.864	ppbv	99
61) Styrene	13.50	104	188621	0.661	ppbv	96
62) Isopropylbenzene	14.64	105	2244864	3.083	ppbv	98
64) n-propylbenzene	15.54	120	184224m	0.981	ppbv	
67) sec-Butylbenzene	17.28	105	86819m	0.097	ppbv	
69) p-Isopropyltoluene	17.63	119	1600964	2.077	ppbv	96
70) n-Butylbenzene	18.53	91	246035	0.336	ppbv #	52
72) 4-Ethyltoluene	15.82	105	1051873	1.749	ppbv	99
73) 1,3,5-Trimethylbenzene	15.98	105	644893	1.142	ppbv	97
74) 1,2,4-Trimethylbenzene	16.74	105	2498102	4.279	ppbv #	71
79) Naphthalene	22.17	128	78402m	0.171	ppbv	
80) Naphthalene,2-methyl-	24.94	142	11603	0.116	ppbv	93

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

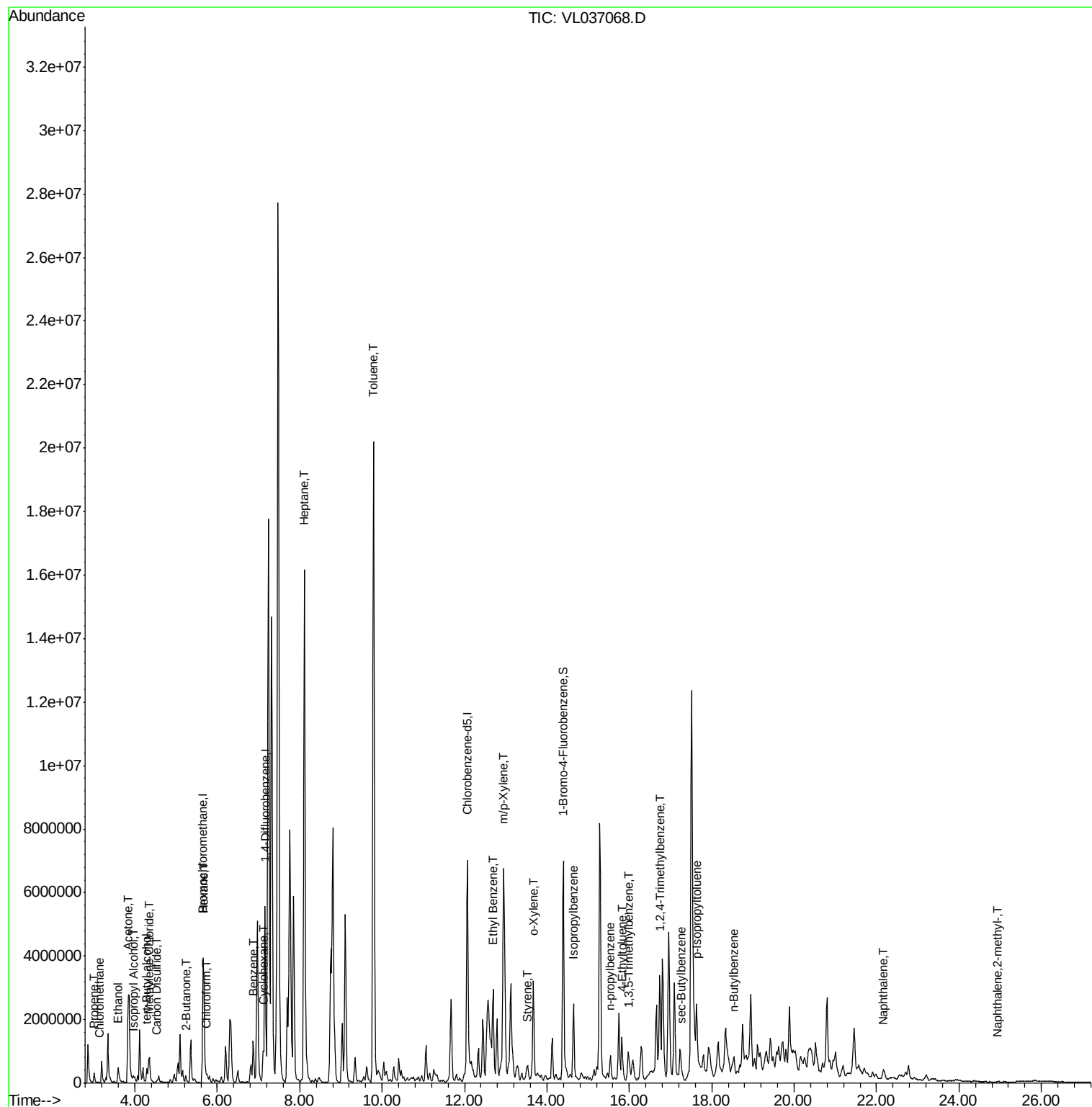
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL060121\
Data File : VL037068.D
Acq On : 1 Jun 2021 13:49
Operator : SY/AP
Sample : M2559-01 4X
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

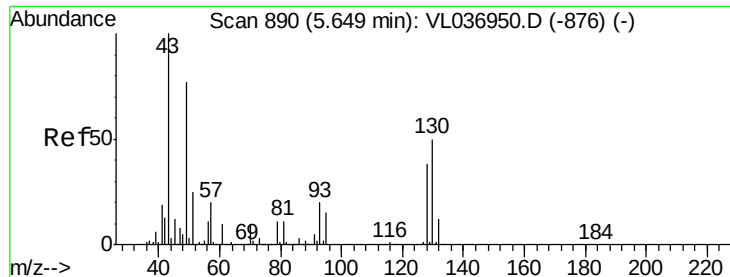
Instrument :
MSVOA_L
ClientSampleId :
HSG1

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Quant Time: Jun 04 11:01:43 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May
QLast Update : Tue May 18 12:00:15 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

ClientSampled :

HSG1

Tot Ion: 49 Resp: 1622693

Ion Ratio Lower Upper

49 100

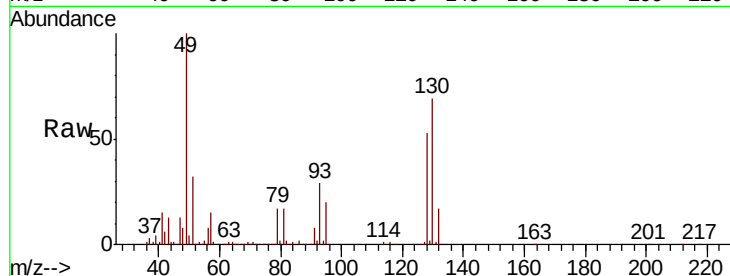
128 55.6 26.9 80.7

130 72.3 33.8 101.4

Manual Integrations
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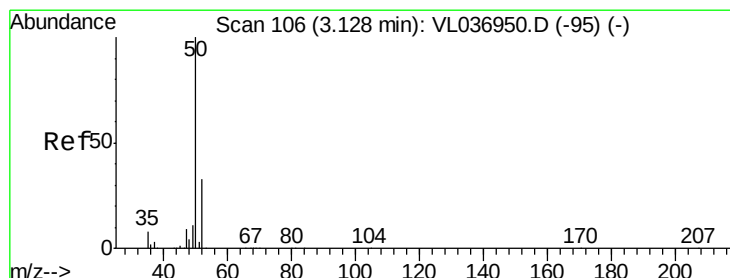
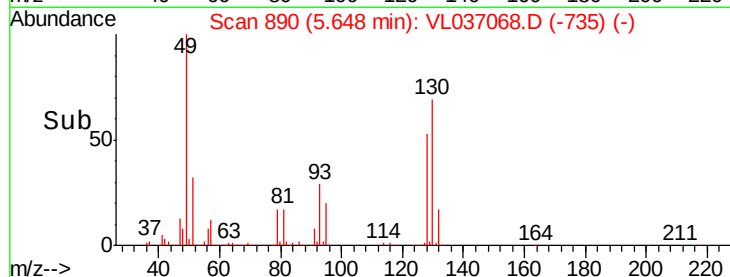
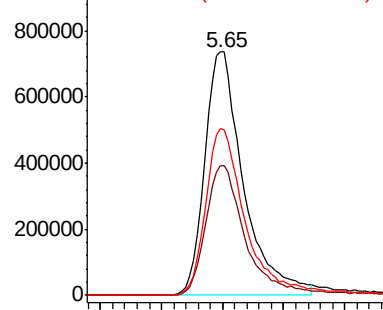
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#4

Chloromethane

Concen: 0.178 ppbv m

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL037068.D

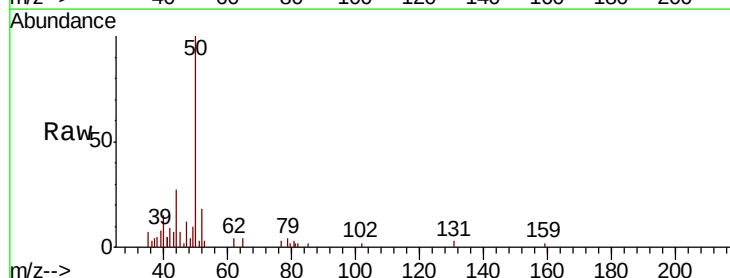
Acq: 1 Jun 2021 13:49

Tgt Ion: 50 Resp: 17963

Ion Ratio Lower Upper

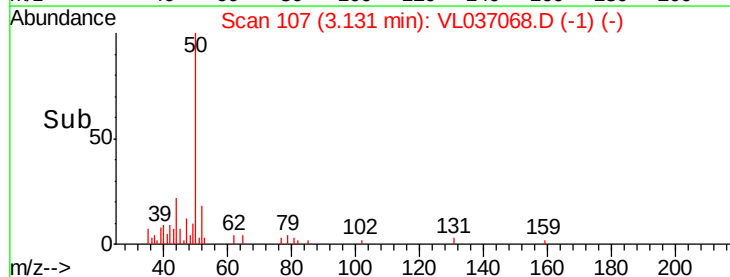
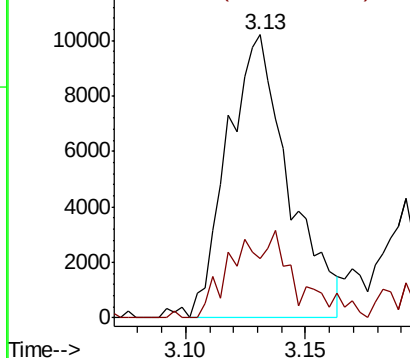
50 100

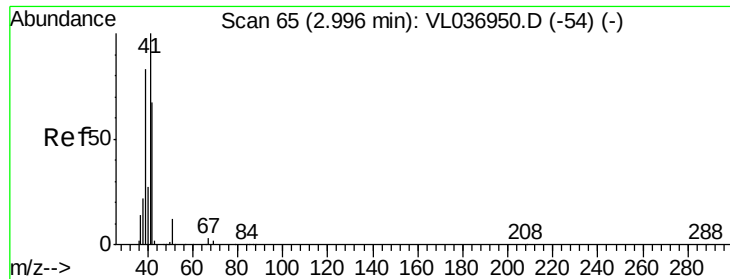
52 17.9 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





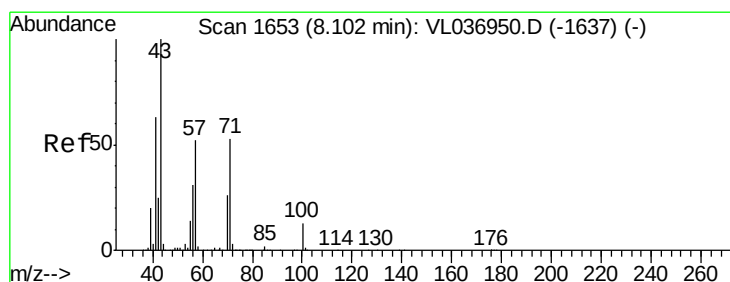
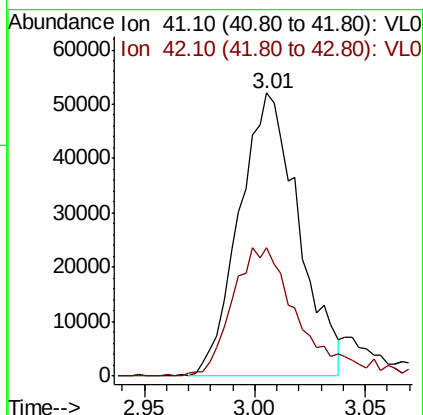
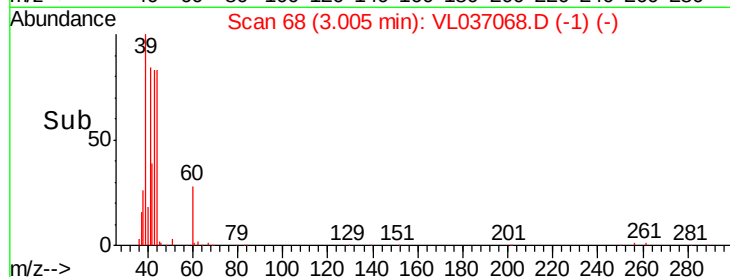
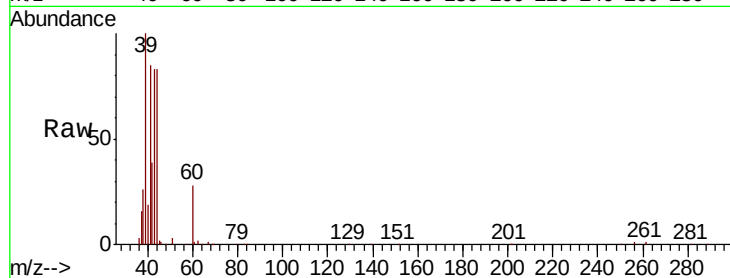
#9
 Propene
 Concen: 0.912 ppbv
 RT: 3.01 min Scan# 68
 Delta R.T. 0.01 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Instrument :
 MSVOA_L
 ClientSampled :
 HSG1

Tot Ion: 41 Resp: 97044
 Ion Ratio Lower Upper
 41 100
 42 52.6 53.9 80.9#

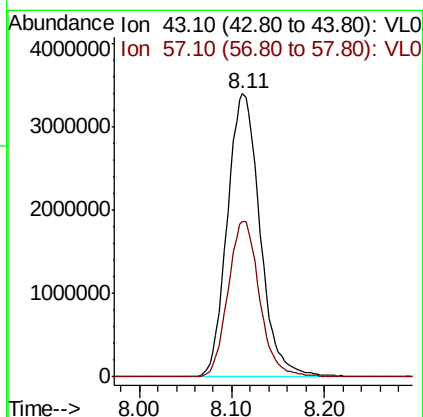
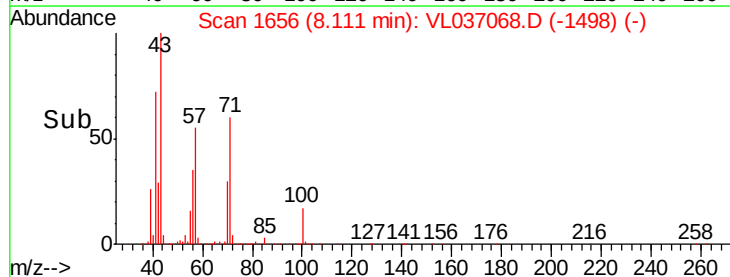
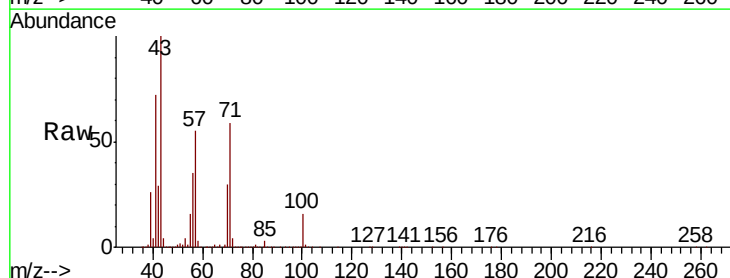
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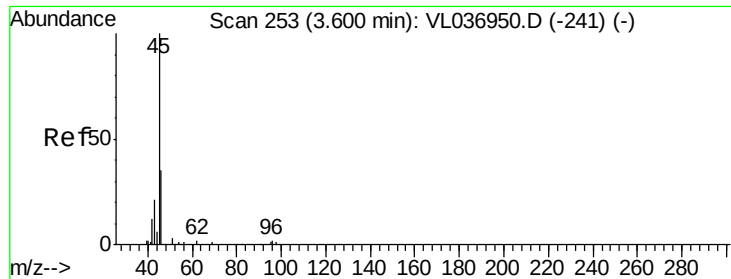
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#10
 Heptane
 Concen: 31.141 ppbv
 RT: 8.11 min Scan# 1656
 Delta R.T. 0.01 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Tgt Ion: 43 Resp: 8261320
 Ion Ratio Lower Upper
 43 100
 57 53.5 41.0 61.6





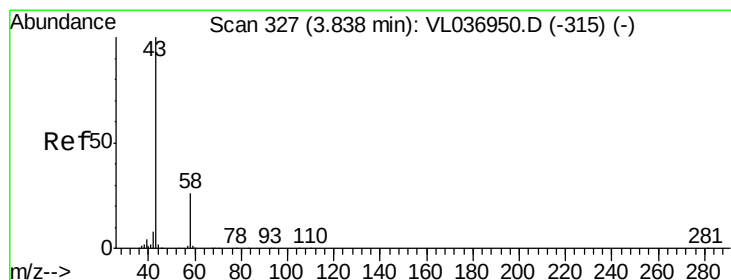
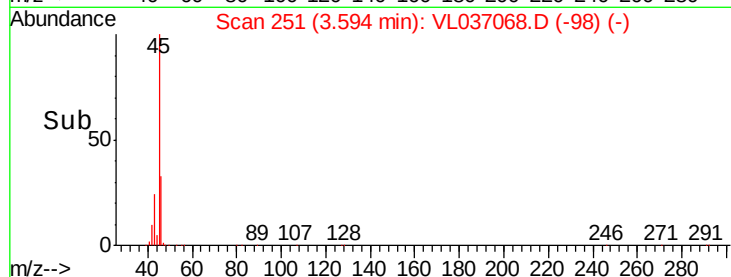
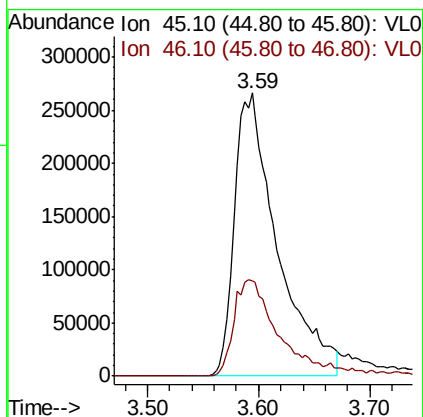
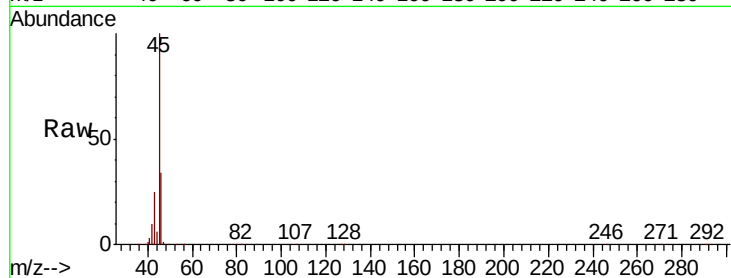
#13
Ethanol
Concen: 50.513 ppbv m
RT: 3.59 min Scan# 251
Delta R.T. -0.01 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampleId :
HSG1

Tot Ion	45	46	Ratio	Lower	Upper
717443	100	37.1		16.3	65.3

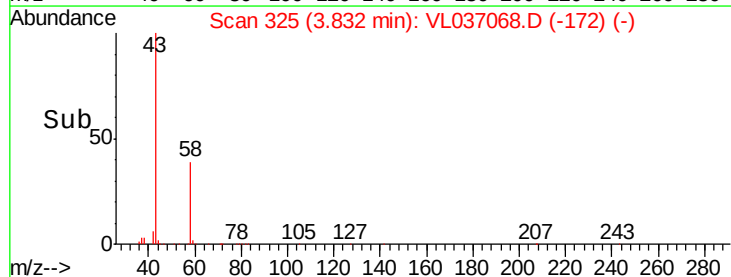
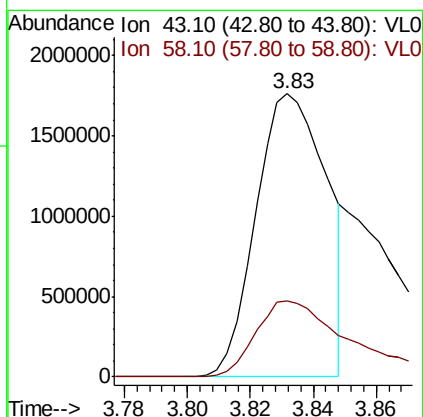
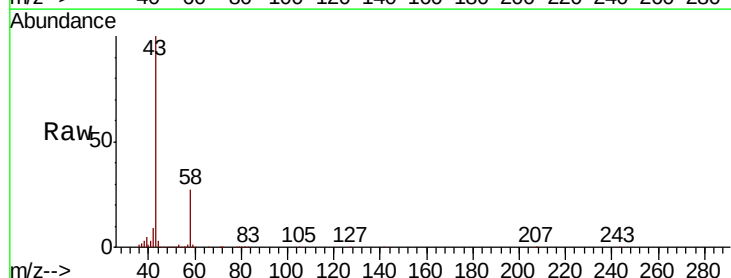
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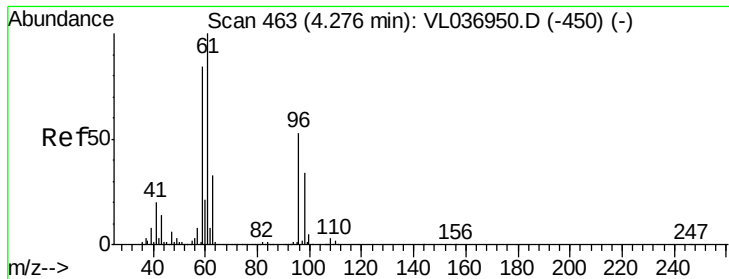
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#15
Acetone
Concen: 16.537 ppbv m
RT: 3.83 min Scan# 325
Delta R.T. -0.01 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion	43	58	Ratio	Lower	Upper
2748500	100	40.9		24.0	36.0#





#17

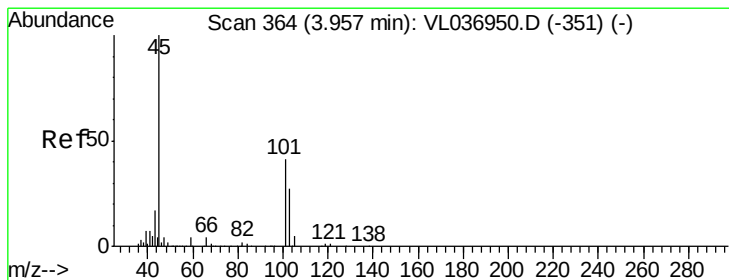
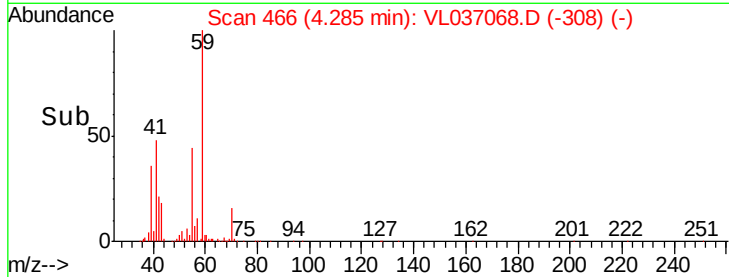
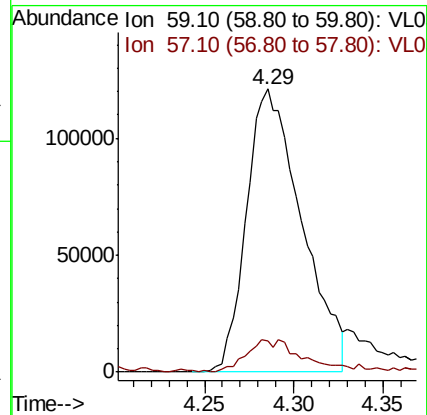
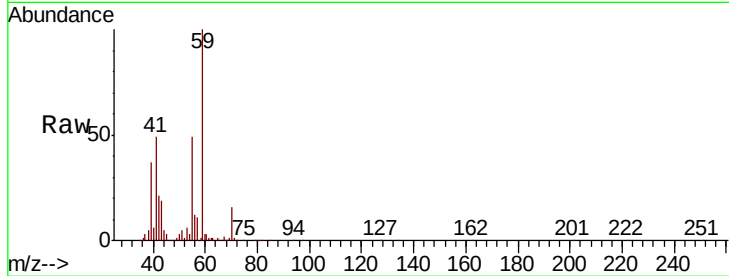
tert-Butyl alcohol
Concen: 1.718 ppbv
RT: 4.29 min Scan# 466
Delta R.T. 0.01 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampled :
HSG1

Tot Ion: 59 Resp: 261544
Ion Ratio Lower Upper
59 100
57 11.6 8.3 12.5

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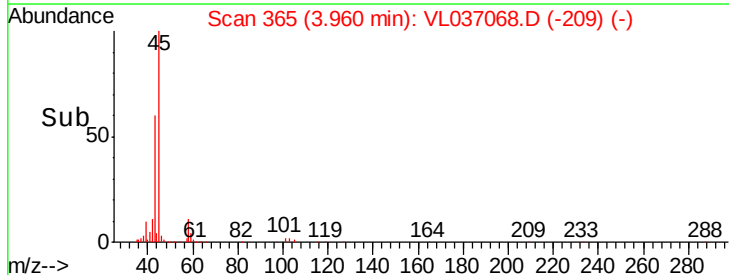
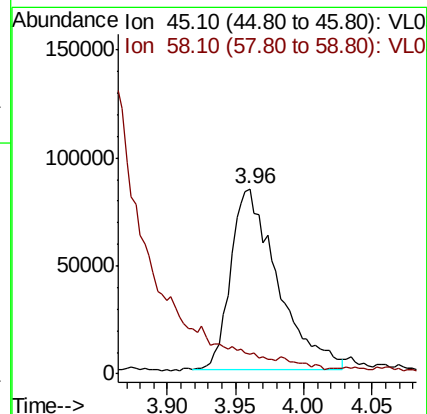
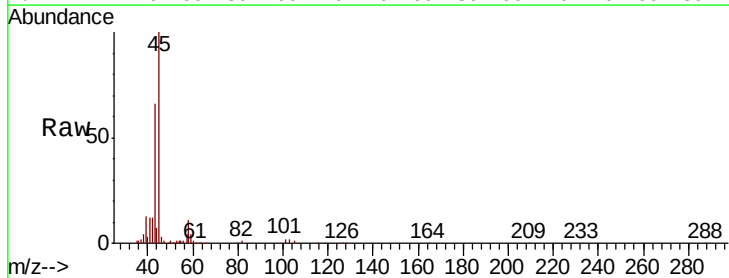
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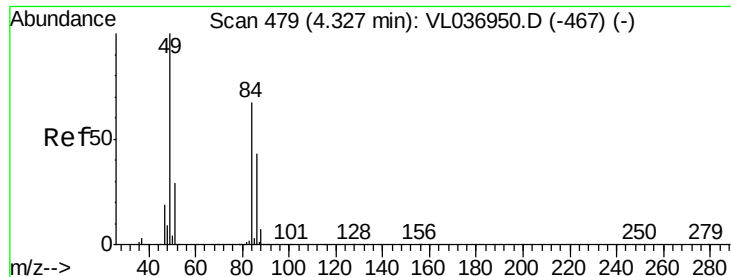


#19

Isopropyl Alcohol
Concen: 2.242 ppbv
RT: 3.96 min Scan# 365
Delta R.T. 0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion: 45 Resp: 200306
Ion Ratio Lower Upper
45 100
58 565.2 37.2 55.8#





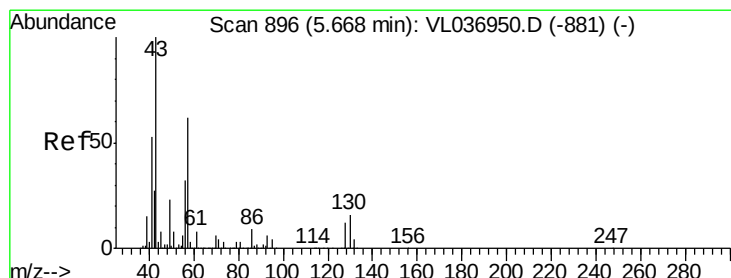
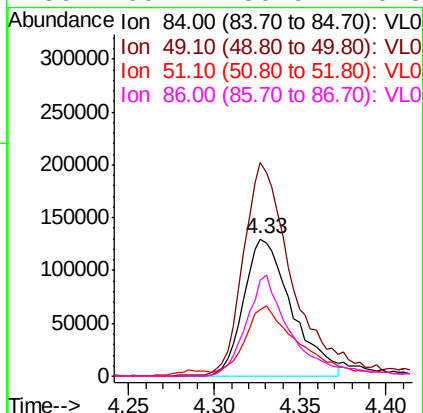
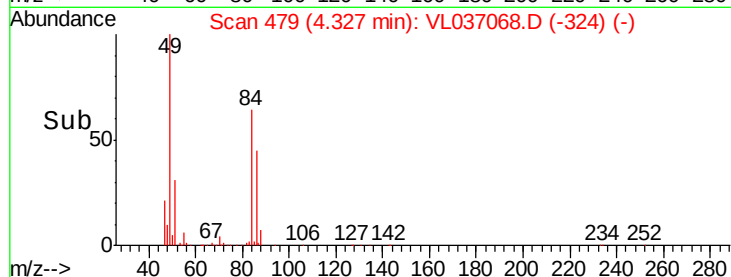
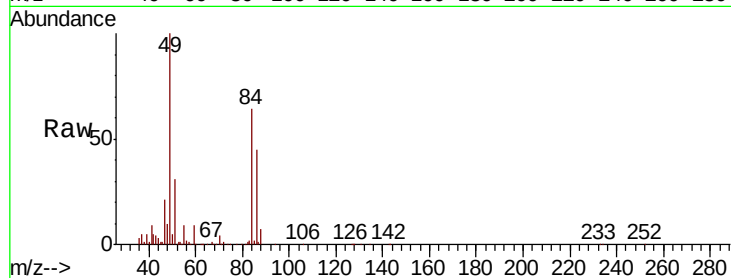
#20
Methvlene Chloride
Concen: 2.833 ppbv
RT: 4.33 min Scan# 479
Delta R.T. -0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampleId :
HSG1

Tot Ion	Ion	Ratio	Lower	Upper
84	100			
49	154.6	119.8	179.6	
51	43.9	35.1	52.7	
86	69.4	50.9	76.3	

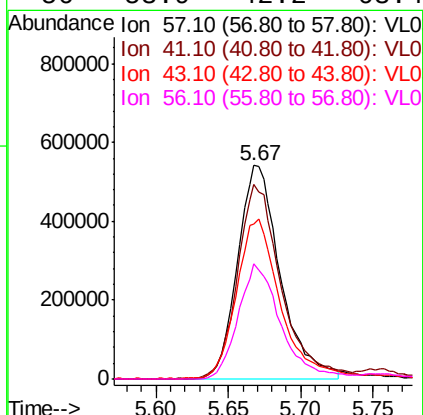
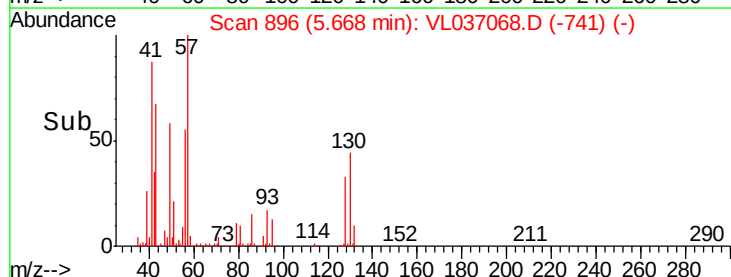
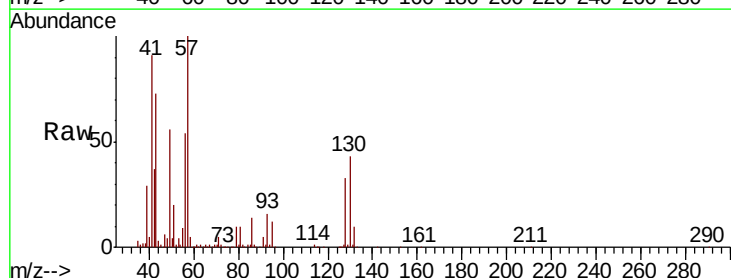
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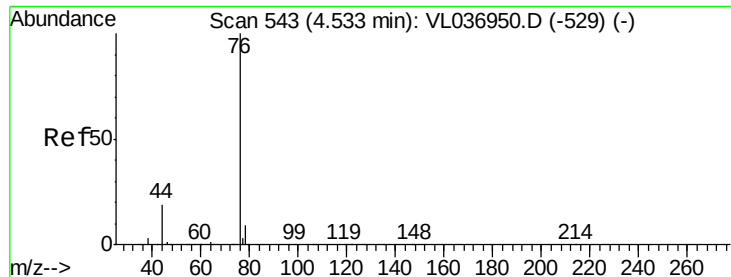
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#26
Hexane
Concen: 5.429 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion	Ion	Ratio	Lower	Upper
57	100			
41	93.3	70.5	105.7	
43	79.8	165.8	248.8#	
56	53.9	42.2	63.4	





#27

Carbon Disulfide

Concen: 0.499 ppbv

RT: 4.54 min Scan# 544

Delta R.T. 0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

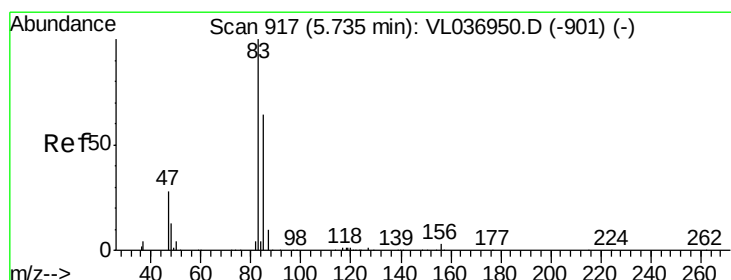
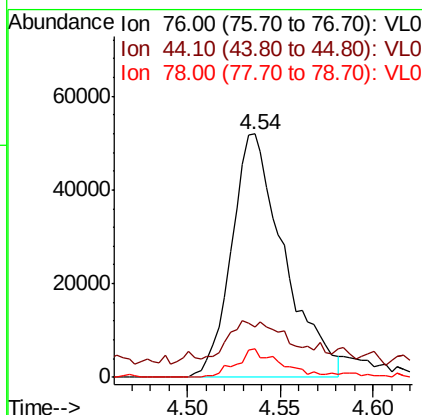
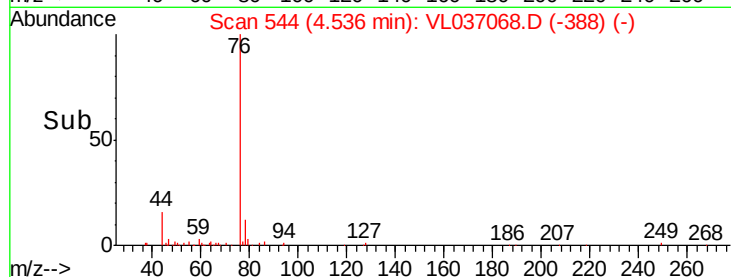
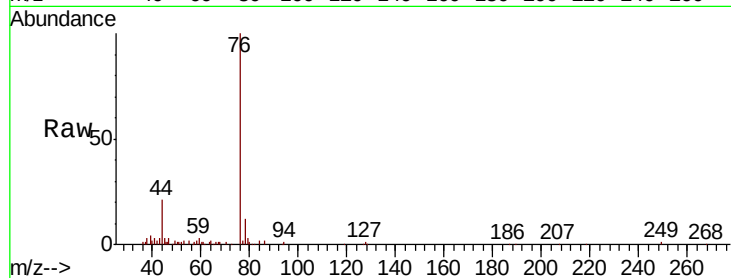
ClientSampleId :

HSG1

Tot Ion:	76	Resp:	102557
Ion Ratio	Lower	Upper	
76	100		
44	27.1	15.5	23.3#
78	11.0	7.8	11.6

Manual Integrations
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#29

Chloroform

Concen: 0.188 ppbv m

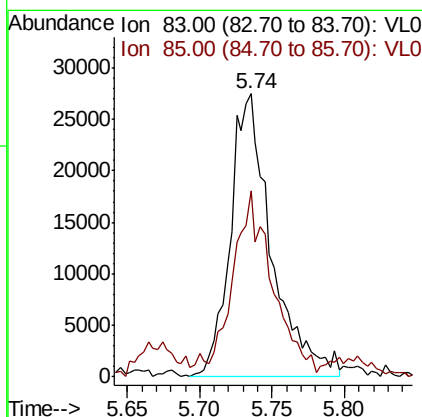
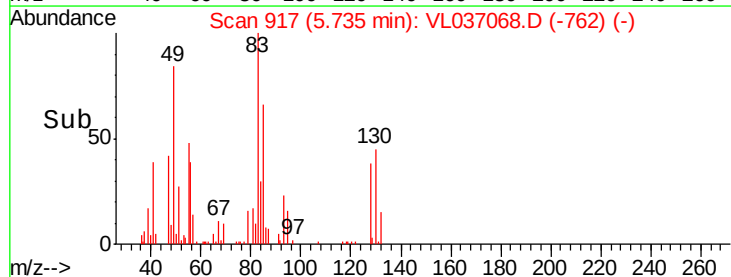
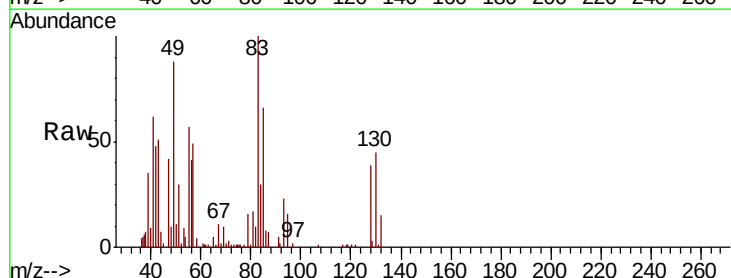
RT: 5.74 min Scan# 917

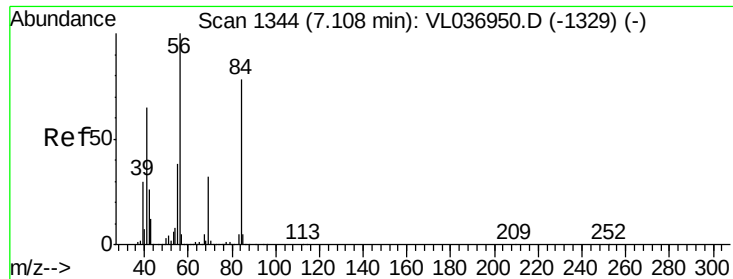
Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Tgt Ion:	83	Resp:	54326
Ion Ratio	Lower	Upper	
83	100		
85	65.9	51.1	76.7





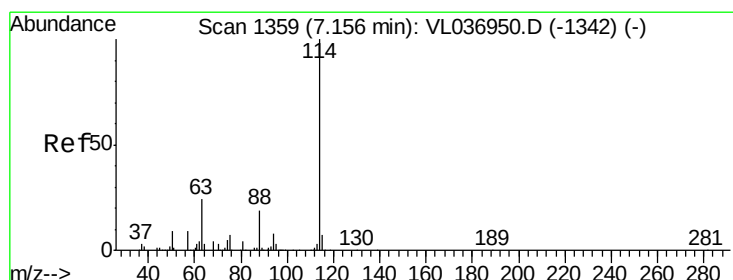
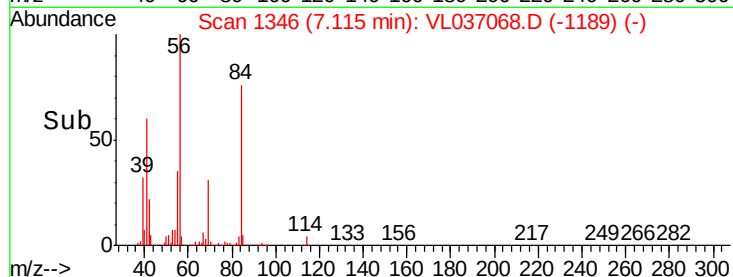
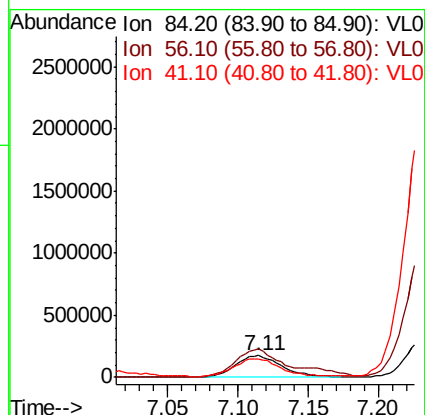
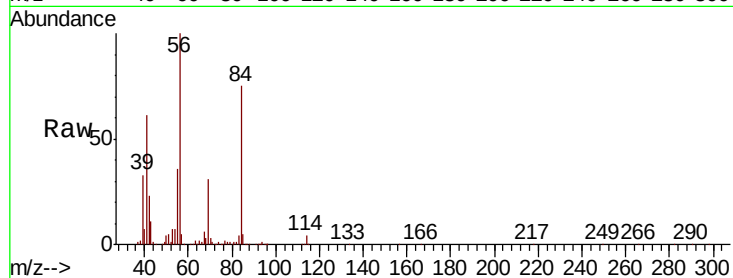
#30
Cyclohexane
Concen: 2.330 ppbv
RT: 7.11 min Scan# 1346
Delta R.T. 0.01 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampled :
HSG1

Tot Ion	Ratio	Lower	Upper
84	100		
56	150.3	107.9	161.9
41	77.4	65.5	98.3

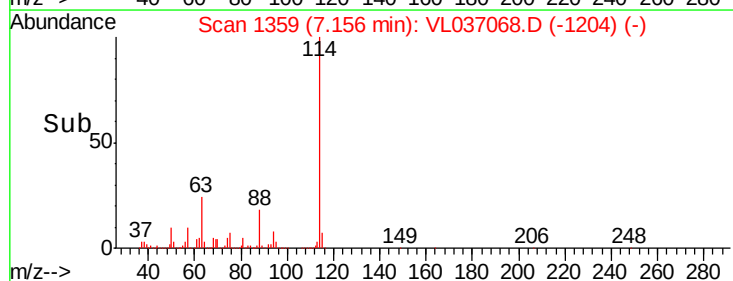
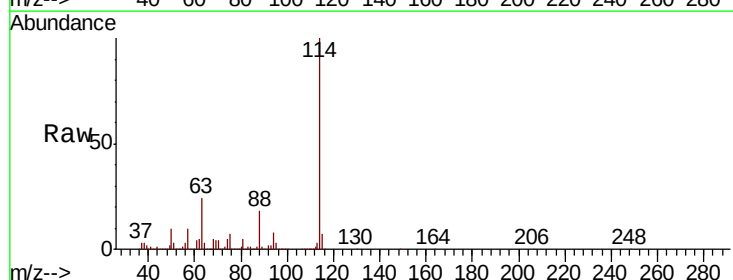
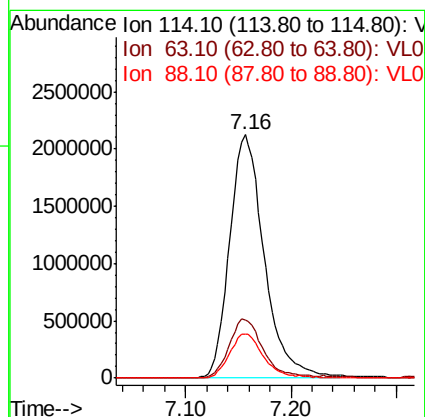
Manual Integrations
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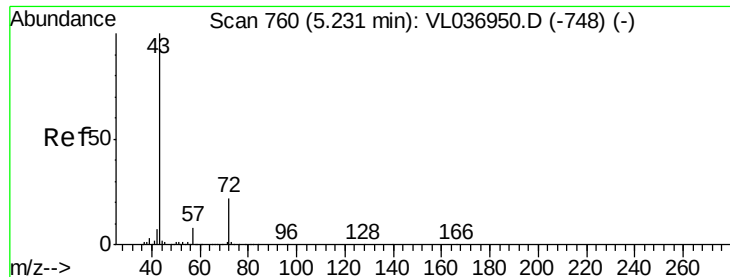
MMDadoda
6/7/2021 2:58:24 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.16 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.9	19.6	29.4
88	18.0	14.6	21.8





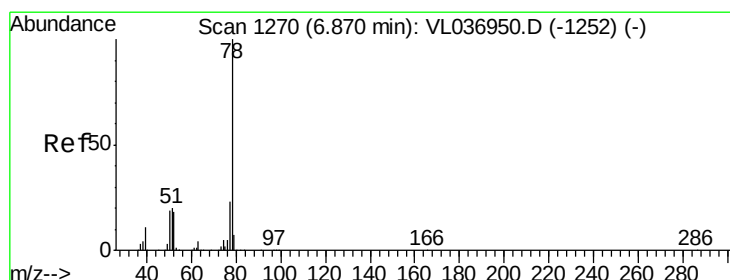
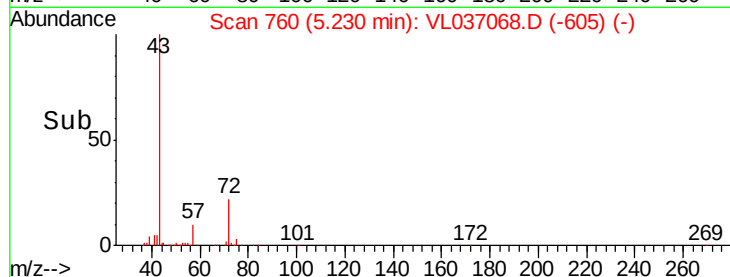
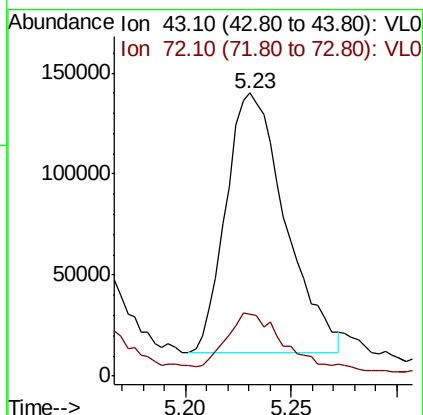
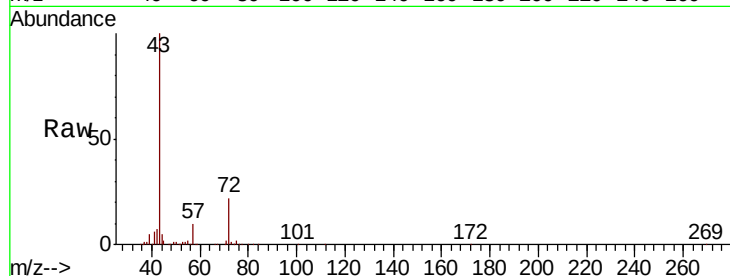
#34
2-Butanone
Concen: 1.425 ppbv
RT: 5.23 min Scan# 760
Delta R.T. -0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampled :
HSG1

Tot Ion	Ratio	Lower	Upper
43	100		
72	29.6	19.0	28.4

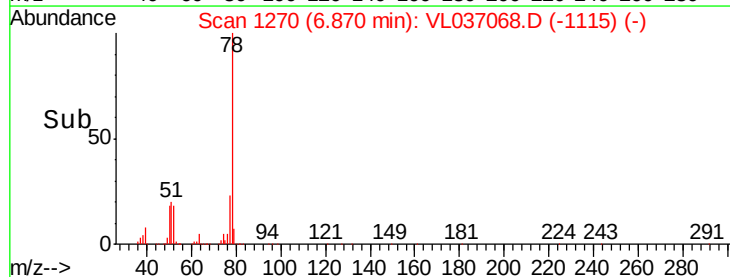
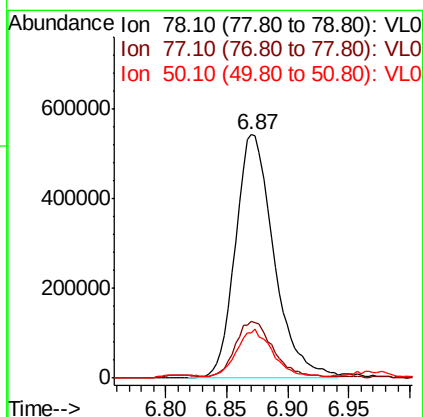
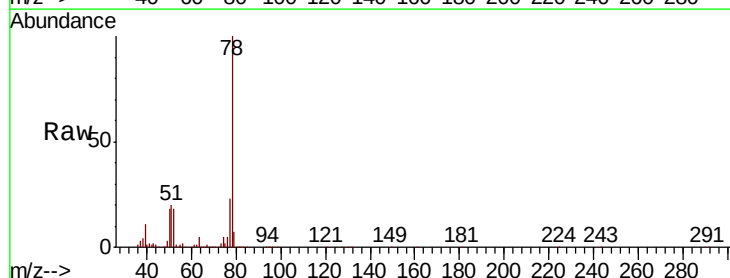
Manual Integrations
APPROVED

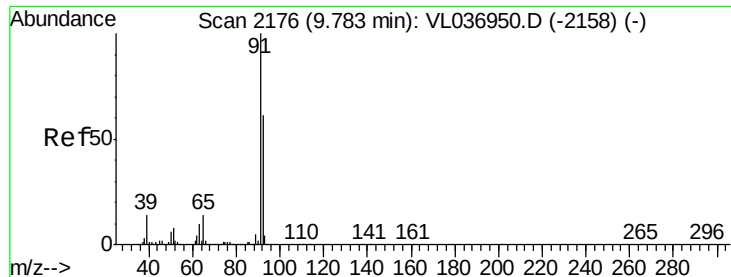
MMDadoda
6/7/2021 2:58:24 PM



#36
Benzene
Concen: 2.831 ppbv
RT: 6.87 min Scan# 1270
Delta R.T. -0.00 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.6	18.6	28.0
50	17.7	15.0	22.4





#53

Toluene

Concen: 34.505 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. 0.01 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

ClientSampled :

HSG1

Tot Ion: 91 Resp: 17138861

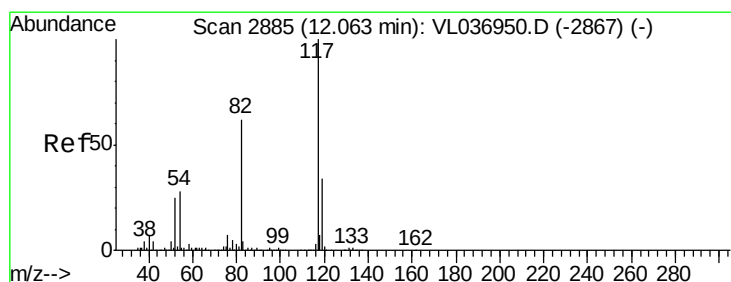
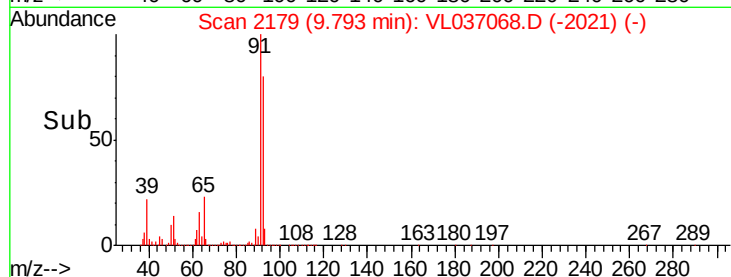
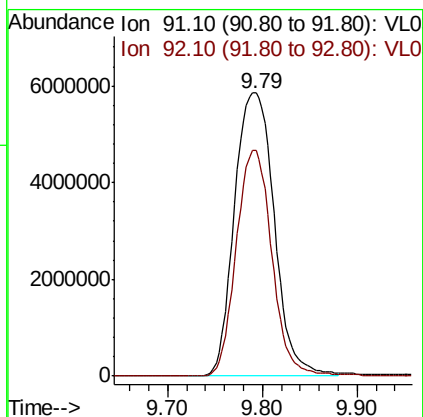
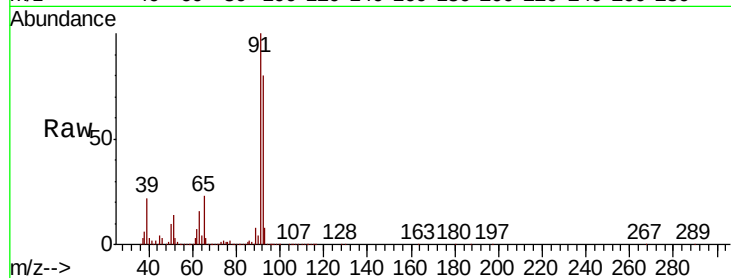
Ion Ratio Lower Upper

91 100

92 72.1 49.5 74.3

Manual Integrations
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6/7/2021 2:58:24 PM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2886

Delta R.T. 0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

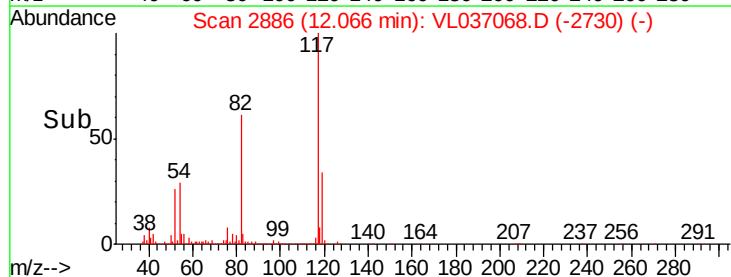
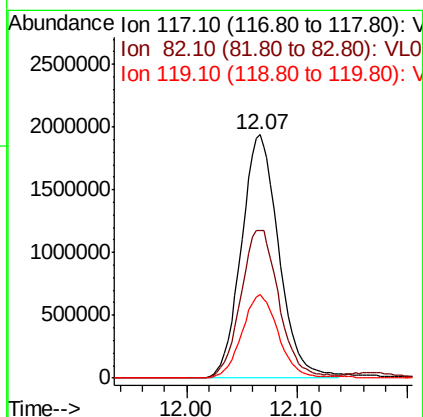
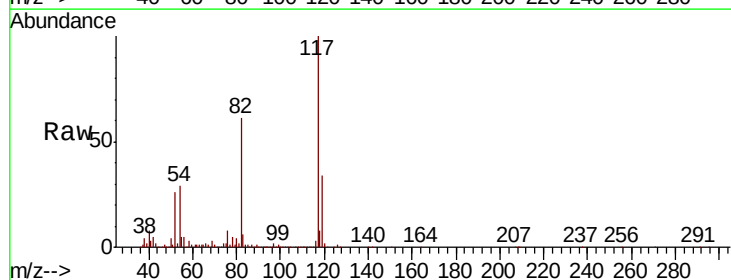
Tgt Ion: 117 Resp: 4553274

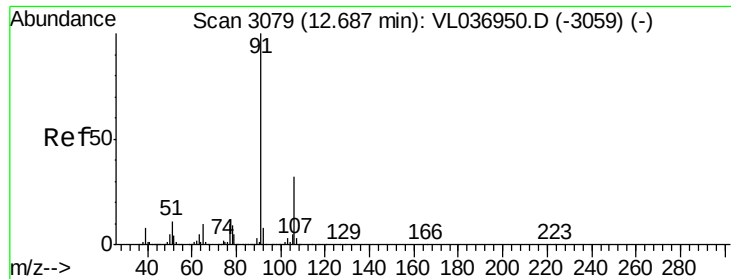
Ion Ratio Lower Upper

117 100

82 62.3 52.6 79.0

119 34.0 46.6 70.0#





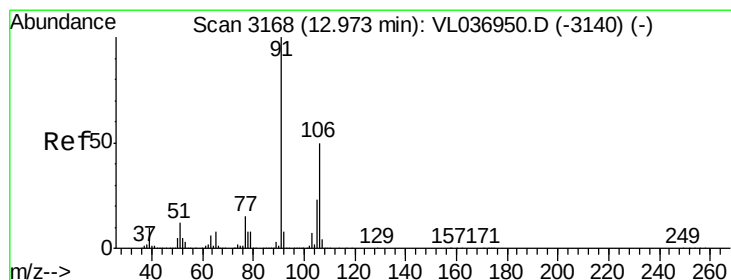
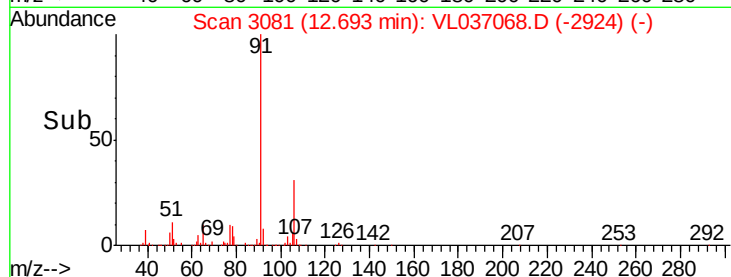
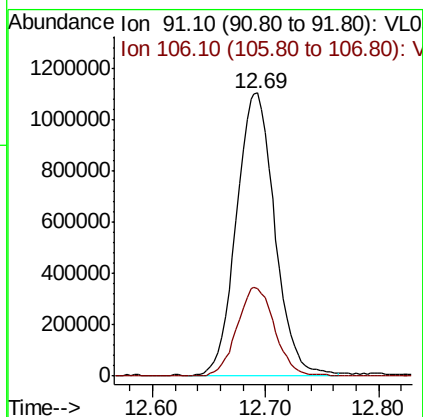
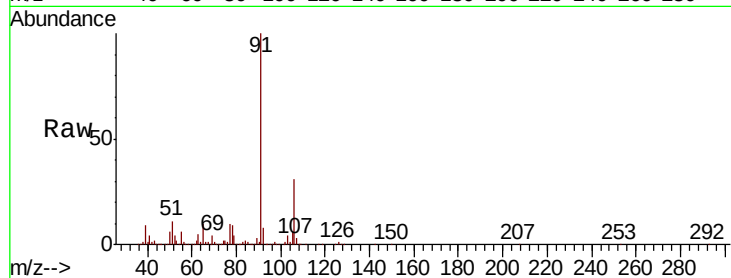
#58
Ethyl Benzene
Concen: 4.037 ppbv
RT: 12.69 min Scan# 3081
Delta R.T. 0.01 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Instrument :
MSVOA_L
ClientSampled :
HSG1

Tot Ion: 91 Resp: 2594334
Ion Ratio Lower Upper
91 100
106 31.0 25.6 38.4

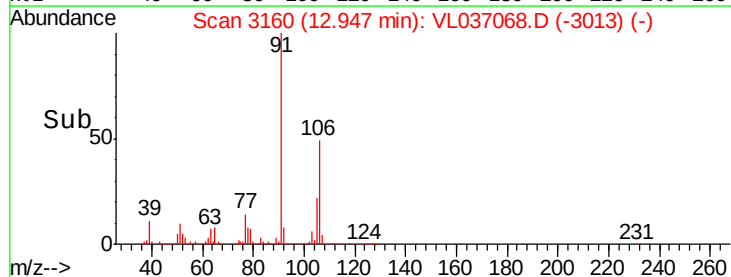
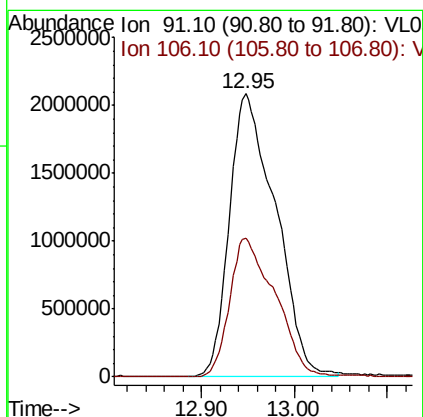
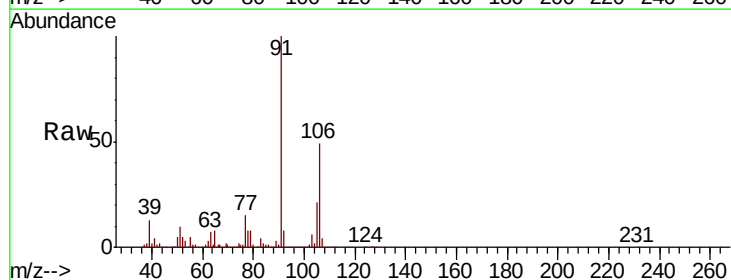
Manual Integrations
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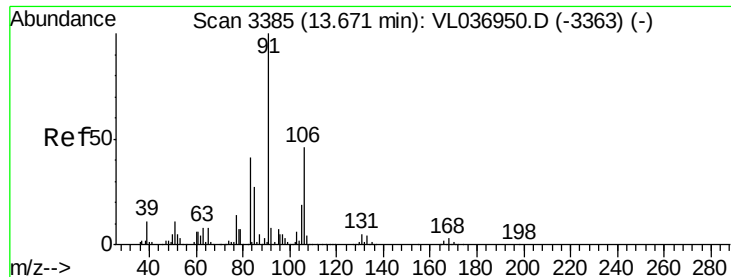
MMDadoda
6/7/2021 2:58:24 PM



#59
m/p-Xylene
Concen: 13.449 ppbv
RT: 12.95 min Scan# 3160
Delta R.T. -0.03 min
Lab File: VL037068.D
Acq: 1 Jun 2021 13:49

Tgt Ion: 91 Resp: 7144181
Ion Ratio Lower Upper
91 100
106 49.1 37.4 56.2





#60

o-Xylene

Concen: 4.864 ppbv

RT: 13.67 min Scan# 3385

Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

ClientSampled :

HSG1

Tot Ion: 91 Resp: 2464362

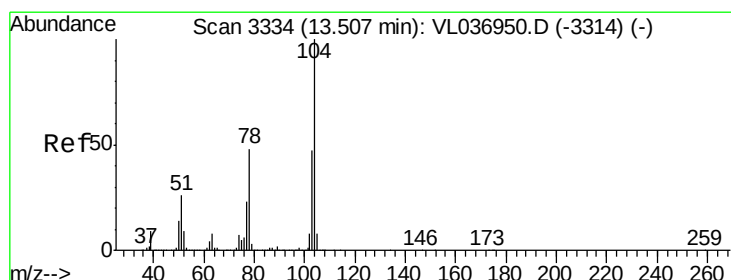
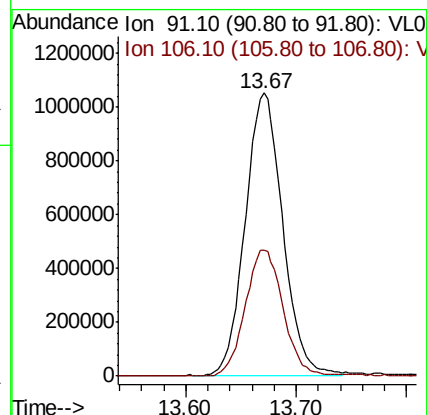
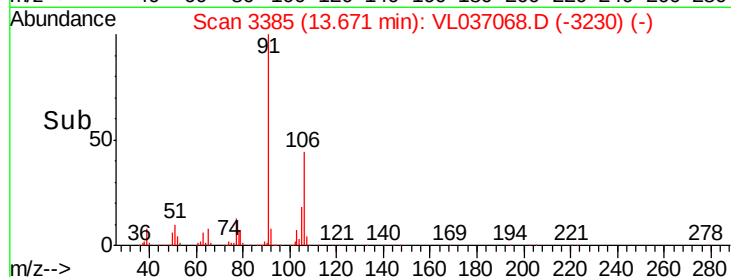
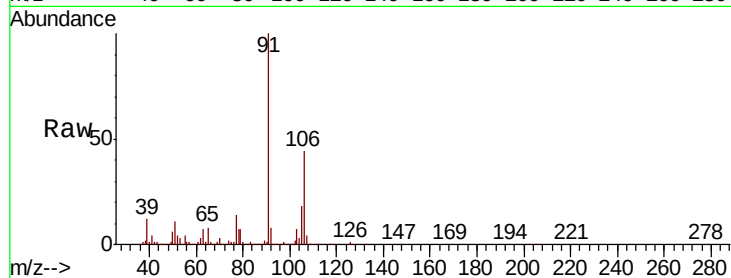
Ion Ratio Lower Upper

91 100

106 46.0 23.4 70.3

Manual Integrations
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6/7/2021 2:58:24 PM



#61

Styrene

Concen: 0.661 ppbv

RT: 13.50 min Scan# 3333

Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

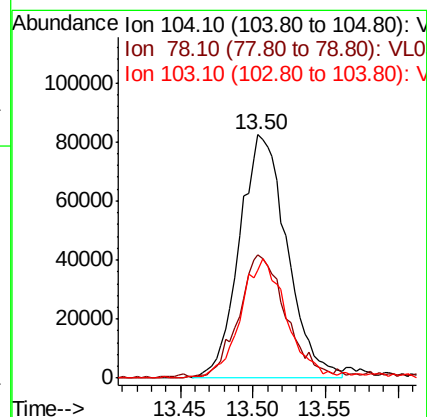
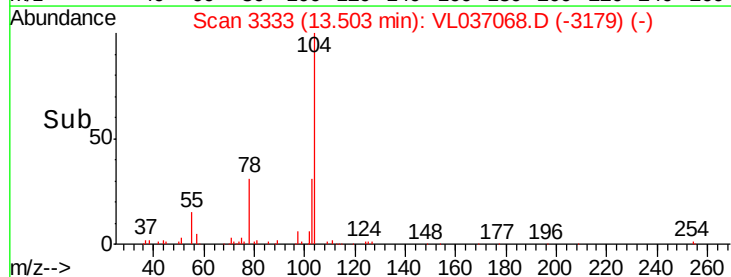
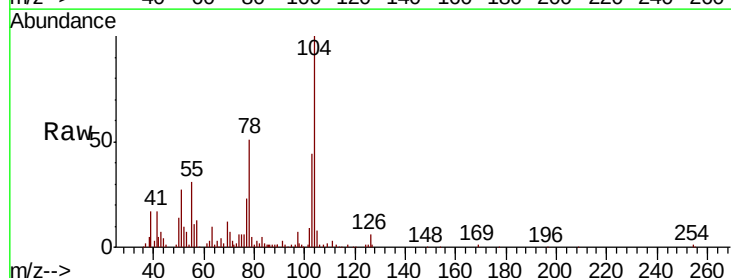
Tgt Ion: 104 Resp: 188621

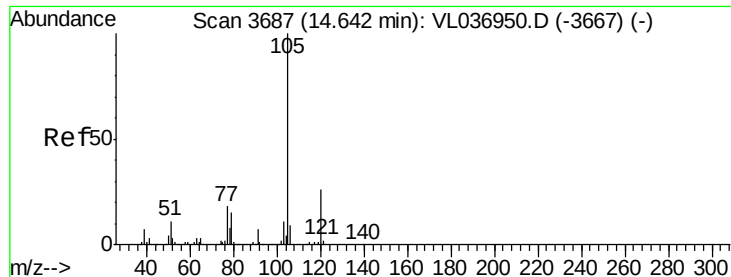
Ion Ratio Lower Upper

104 100

78 51.9 39.0 58.6

103 49.2 38.0 57.0





#62

Isopropylbenzene

Concen: 3.083 ppbv

RT: 14.64 min Scan# 3688

Delta R.T. 0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

ClientSampled :

HSG1

Tot Ion:105 Resp: 2244864

Ion Ratio Lower Upper

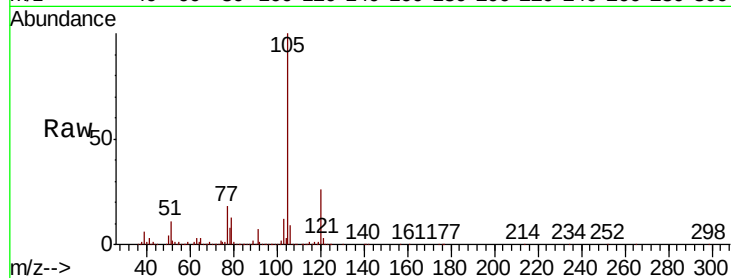
105 100

120 26.3 21.7 32.5

Manual Integrations
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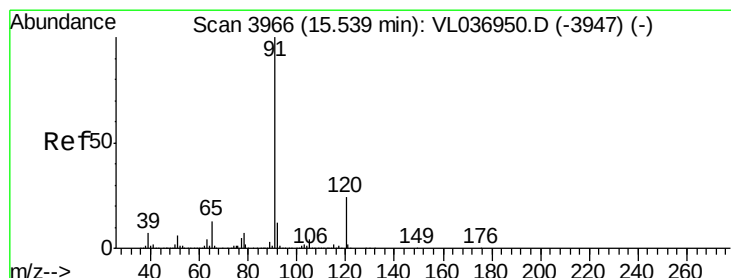
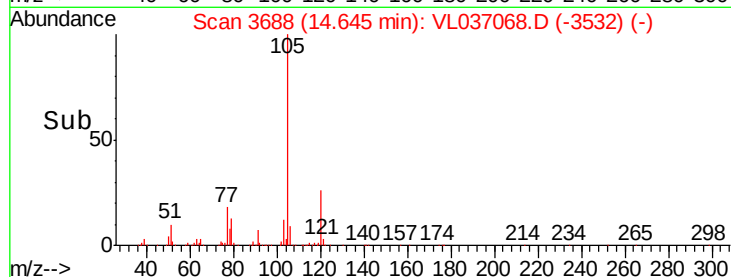
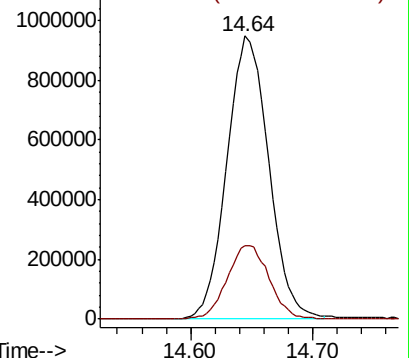
MMDadoda

6/7/2021 2:58:24 PM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#64

n-propylbenzene

Concen: 0.981 ppbv m

RT: 15.54 min Scan# 3967

Delta R.T. 0.00 min

Lab File: VL037068.D

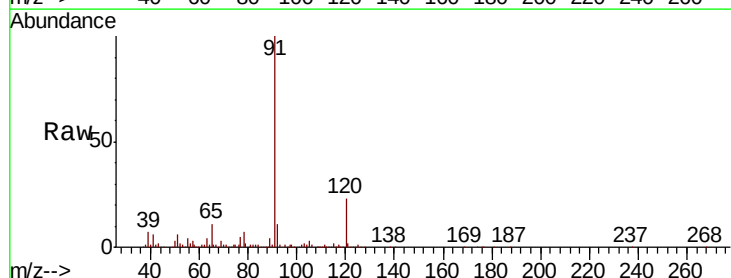
Acq: 1 Jun 2021 13:49

Tgt Ion:120 Resp: 184224

Ion Ratio Lower Upper

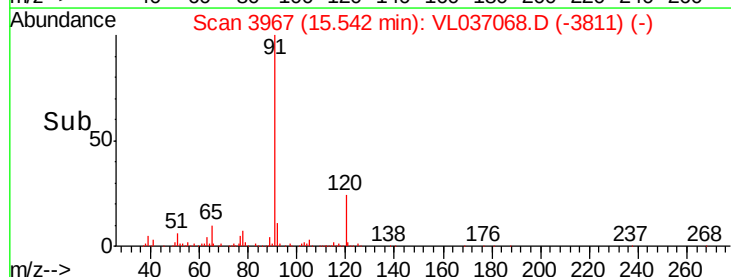
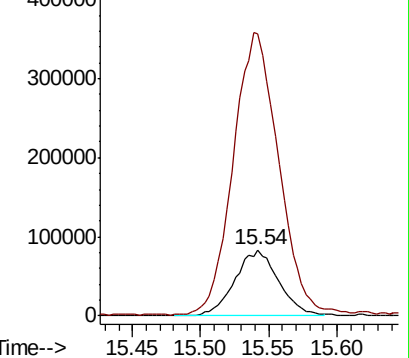
120 100

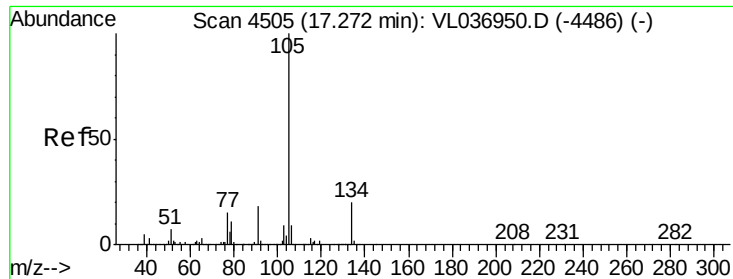
91 452.4 343.8 515.6



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0





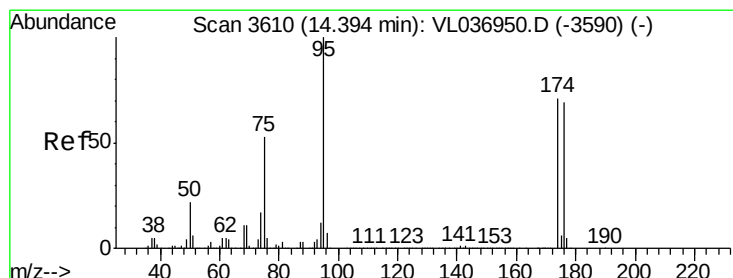
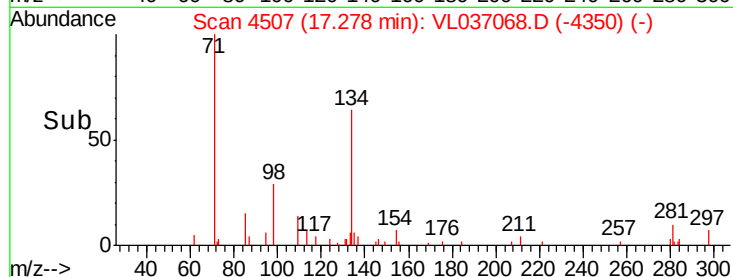
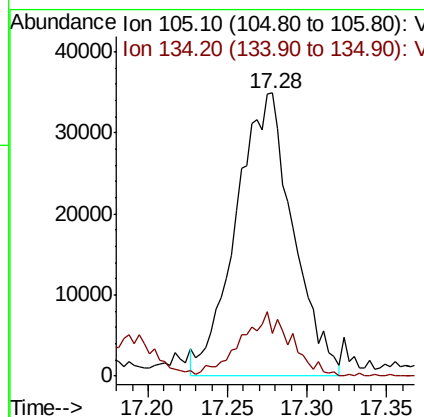
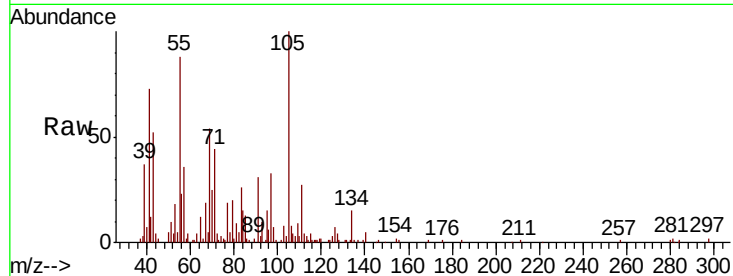
#67
 sec-Butylbenzene
 Concen: 0.097 ppbv m
 RT: 17.28 min Scan# 4507
 Delta R.T. 0.01 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Instrument :
 MSVOA_L
 ClientSampled :
 HSG1

Tot Ion: 105 Resp: 86819
 Ion Ratio Lower Upper
 105 100
 134 19.9 15.6 23.4

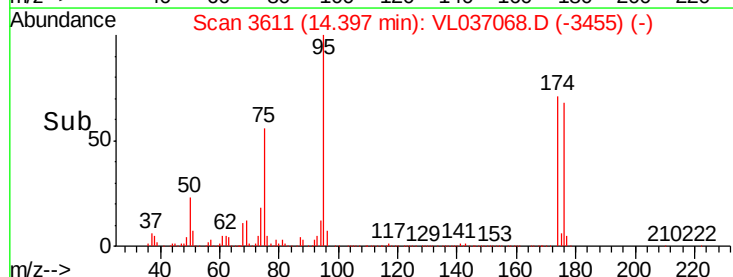
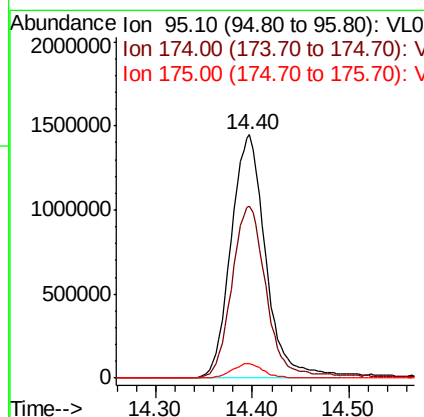
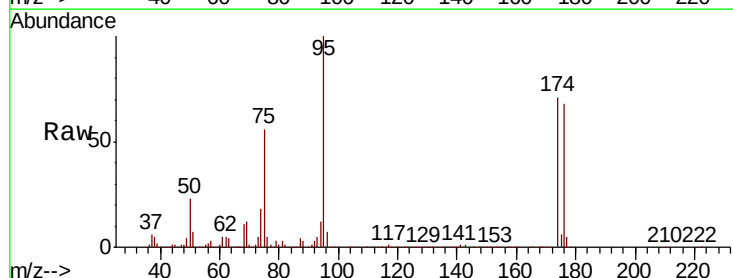
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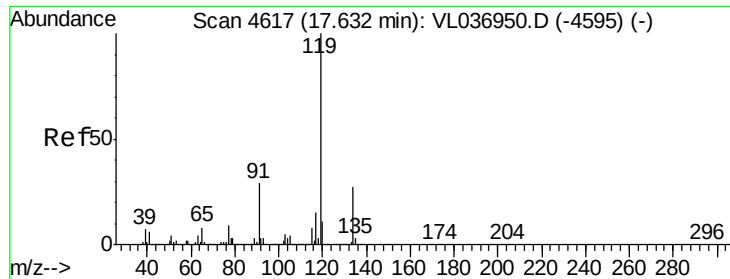
MMDadoda
 6/7/2021 2:58:24 PM



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.513 ppbv
 RT: 14.40 min Scan# 3611
 Delta R.T. 0.00 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Tgt Ion: 95 Resp: 3595861
 Ion Ratio Lower Upper
 95 100
 174 72.6 58.4 87.6
 175 5.4 4.4 6.6





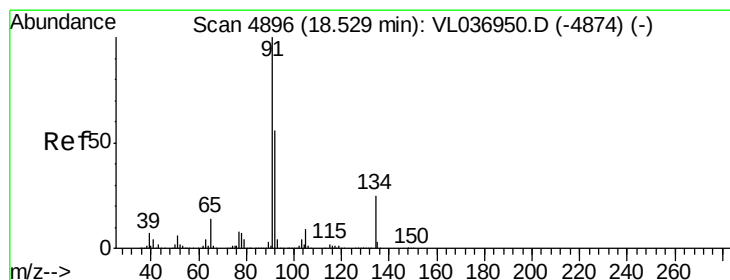
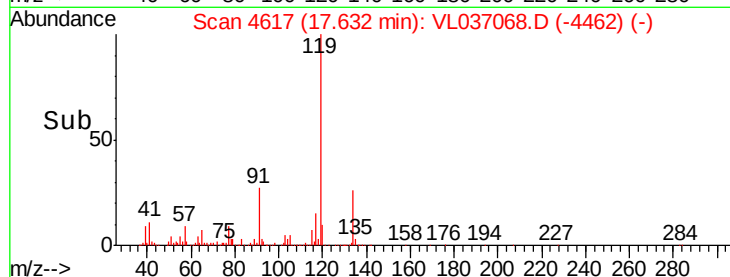
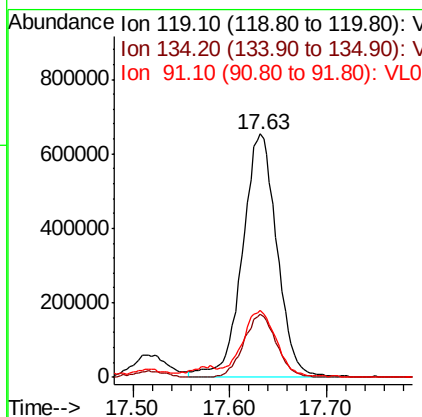
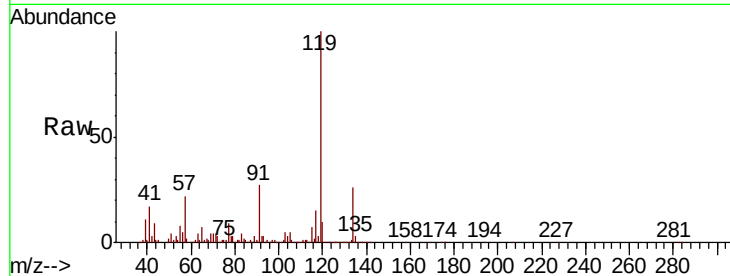
#69
 p-Isopropyltoluene
 Concen: 2.077 ppbv
 RT: 17.63 min Scan# 4617
 Delta R.T. -0.00 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Instrument :
 MSVOA_L
 Client Sampled :
 HSG1

Tot Ion	Ratio	Lower	Upper
119	100		
134	25.0	21.2	31.8
91	30.7	22.2	33.4

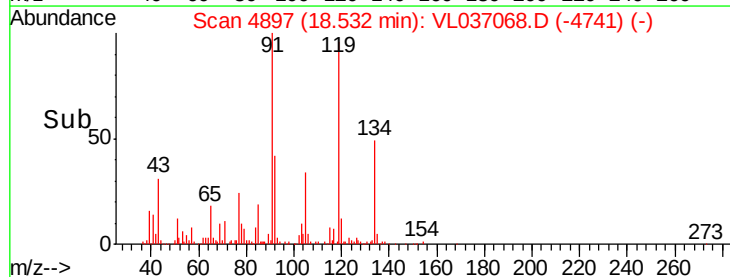
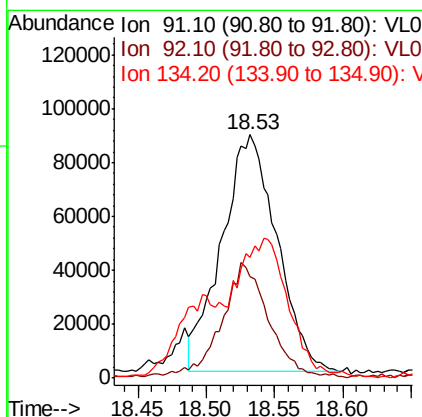
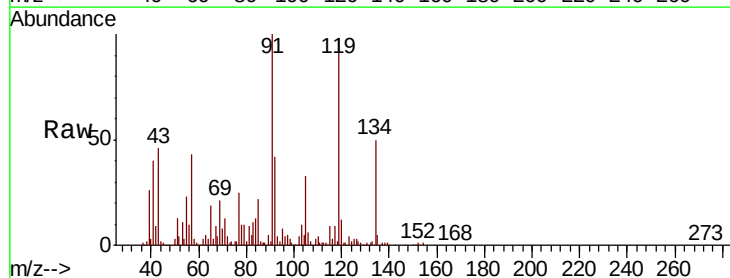
Manual Integrations
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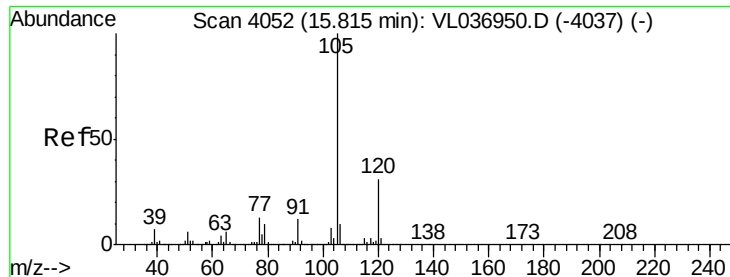
MMDadoda
 6/7/2021 2:58:24 PM



#70
 n-Butylbenzene
 Concen: 0.336 ppbv
 RT: 18.53 min Scan# 4897
 Delta R.T. 0.00 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Tgt Ion	Ratio	Lower	Upper
91	100		
92	42.9	44.6	66.8#
134	82.5	20.2	30.2#





#72

4-Ethyltoluene

Concen: 1.749 ppbv

RT: 15.82 min Scan# 4053

Delta R.T. 0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

ClientSampled :

HSG1

Tot Ion:105 Resp: 1051873

Ion Ratio Lower Upper

105 100

120 30.9 24.6 37.0

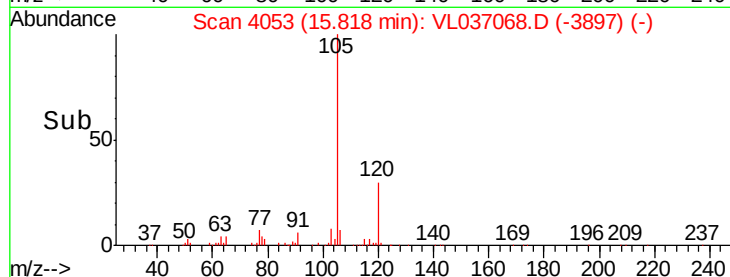
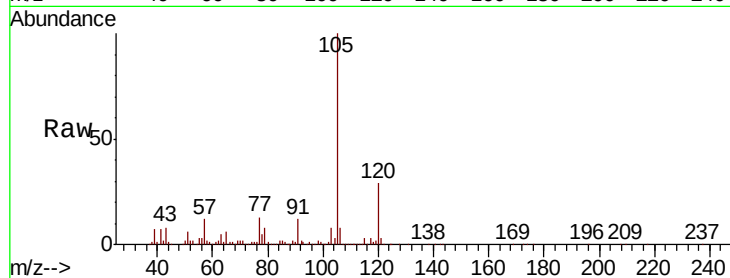
91 13.0 9.8 14.6

77 13.5 10.4 15.6

Manual Integrations
APPROVED

MMDadoda

6/7/2021 2:58:24 PM

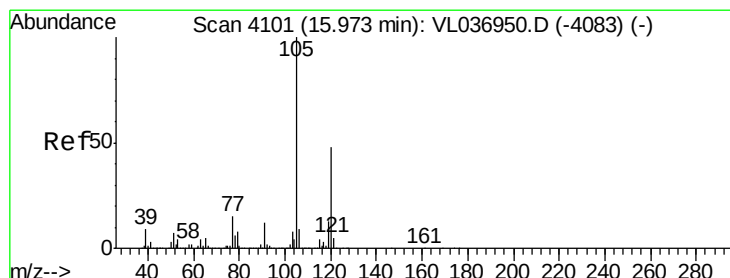
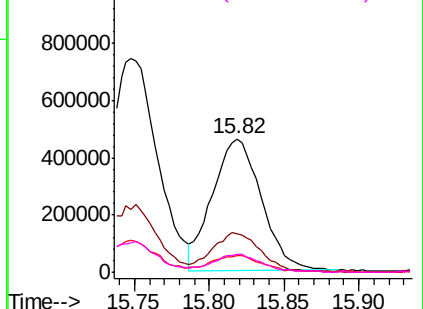


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 1.142 ppbv

RT: 15.98 min Scan# 4102

Delta R.T. 0.00 min

Lab File: VL037068.D

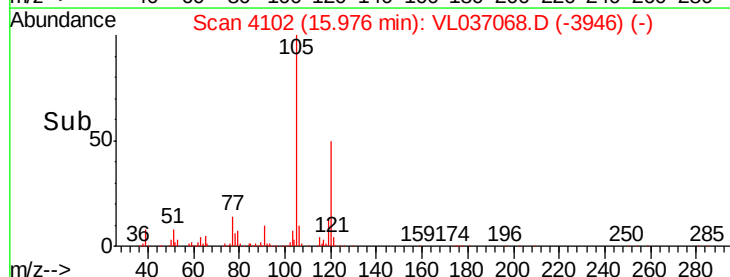
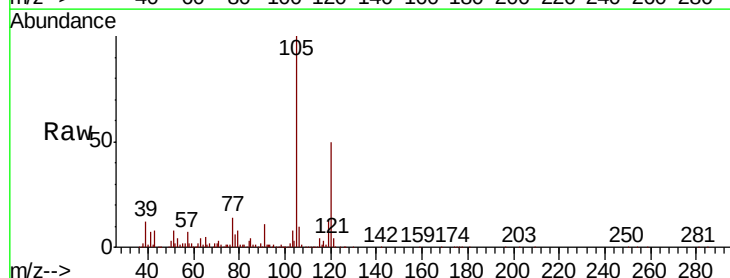
Acq: 1 Jun 2021 13:49

Tgt Ion:105 Resp: 644893

Ion Ratio Lower Upper

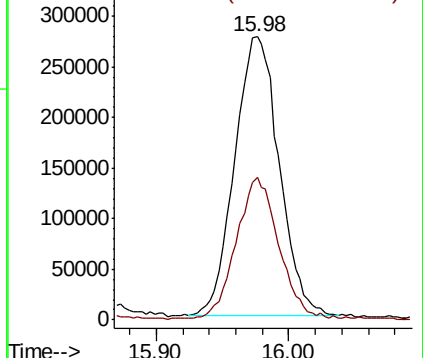
105 100

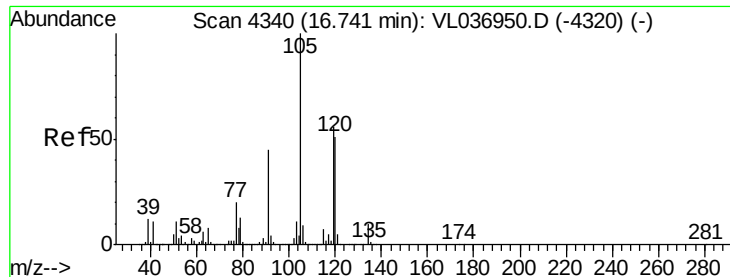
120 50.3 38.6 58.0



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: 4.279 ppbv

RT: 16.74 min Scan# 4339

Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Instrument :

MSVOA_L

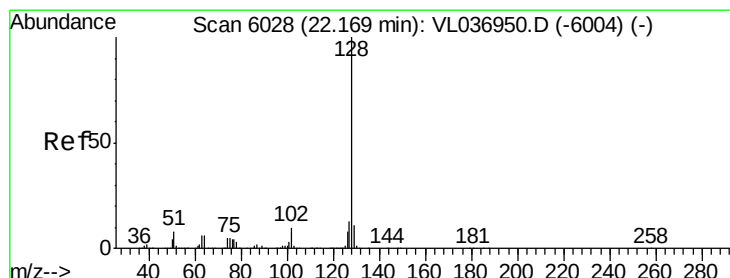
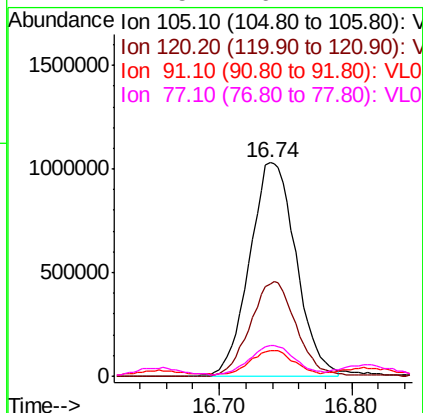
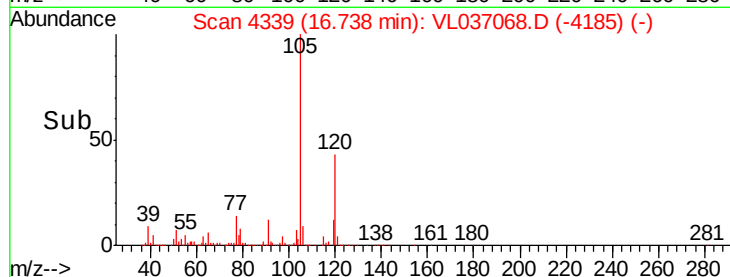
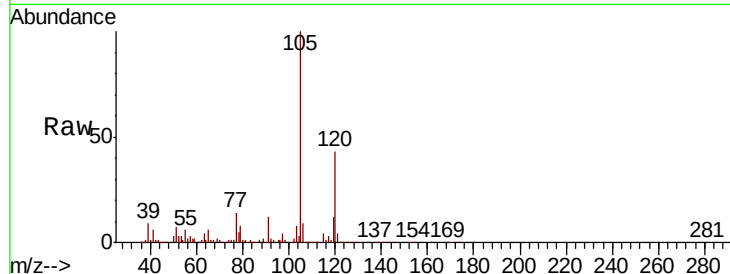
ClientSampled :

HSG1

Tot Ion	Ratio	Lower	Upper
105	100		
120	43.3	40.6	61.0
91	10.7	37.4	56.0
77	12.5	16.2	24.4

Manual Integrations
APPROVED

MMDadoda
6/7/2021 2:58:24 PM



#79

Naphthalene

Concen: 0.171 ppbv m

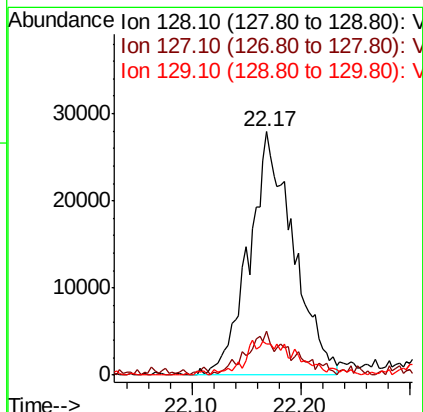
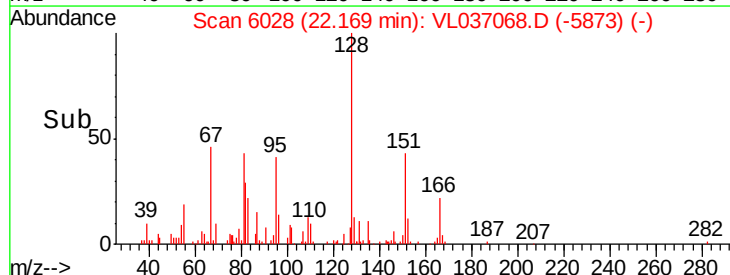
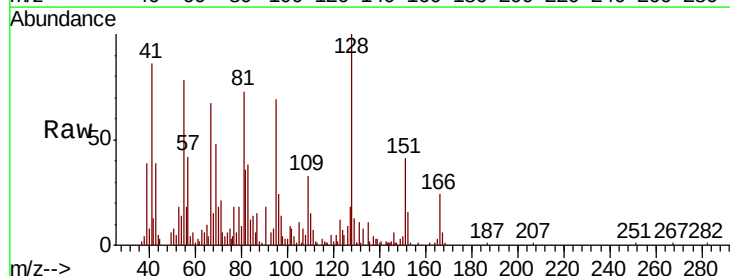
RT: 22.17 min Scan# 6028

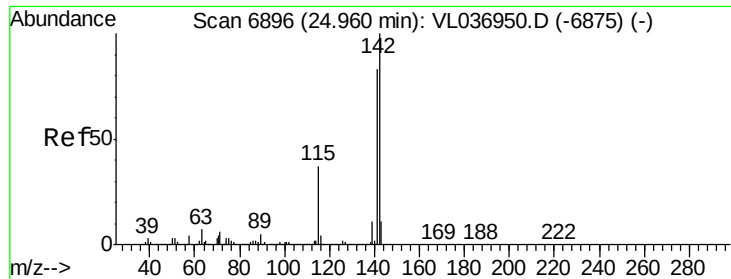
Delta R.T. -0.00 min

Lab File: VL037068.D

Acq: 1 Jun 2021 13:49

Tgt Ion	Ratio	Lower	Upper
128	100		
127	17.8	10.4	15.6
129	13.0	9.0	13.6





#80
 Naphthalene, 2-methyl-
 Concen: 0.116 ppbv
 RT: 24.94 min Scan# 6891
 Delta R.T. -0.02 min
 Lab File: VL037068.D
 Acq: 1 Jun 2021 13:49

Instrument :
 MSVOA_L
 ClientSampleId :
 HSG1

Tot Ion	Ratio	Lower	Upper
142	100		
141	91.9	69.3	103.9
115	42.9	29.1	43.7

Manual Integrations
 APPROVED

MMDadoda
 6/7/2021 2:58:24 PM

