

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL101220\
 Data File : VL035762.D
 Acq On : 12 Oct 2020 15:19
 Operator : SY/AP
 Sample : L4347-02DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Manual Integrations
 APPROVED

MMDadoda
 10/14/2020 2:11:36 PM

Quant Time: Oct 13 23:02:31 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Sep 23 2020
 QLast Update : Wed Sep 23 07:38:05 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1084673	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.17	114	4372217	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.09	117	4223063	10.00	ppbv	-0.02

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.42	95	3155012	9.97	ppbv	-0.02	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.70%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	52780	0.297	ppbv	94
3) Chlorodifluoromethane	2.98	51	49560m	0.425	ppbv	
4) Chloromethane	3.13	50	33397	0.533	ppbv	100
9) Propene	3.01	41	64056	1.512	ppbv #	71
10) Heptane	8.12	43	59336	0.502	ppbv	100
11) Trichlorofluoromethane	3.94	101	64681	0.255	ppbv	92
13) Ethanol	3.59	45	1581373	151.351	ppbv	100
15) Acetone	3.83	43	3066934m	26.277	ppbv	
17) tert-Butyl alcohol	4.30	59	24570	0.193	ppbv #	72
19) Isopropyl Alcohol	3.96	45	715115	11.264	ppbv #	1
20) Methylene Chloride	4.34	84	284815	3.322	ppbv	98
26) Hexane	5.68	57	161686	1.405	ppbv #	46
30) Cyclohexane	7.13	84	24672m	0.217	ppbv	
34) 2-Butanone	5.24	43	147774	1.022	ppbv	97
35) Carbon Tetrachloride	7.01	117	15571	0.068	ppbv #	87
36) Benzene	6.89	78	62443	0.219	ppbv #	95
44) 2,2,4-Trimethylpentane	7.87	57	104352	0.255	ppbv #	88
52) Tetrachloroethene	11.23	164	13037	0.095	ppbv	88
53) Toluene	9.81	91	4058000	12.079	ppbv	100
58) Ethyl Benzene	12.72	91	130219	0.307	ppbv #	87
59) m/p-Xylene	12.98	91	290195m	0.784	ppbv	
60) o-Xylene	13.70	91	114538	0.306	ppbv	98
61) Styrene	13.54	104	93951	0.363	ppbv	98
62) Isopropylbenzene	14.68	105	71191	0.123	ppbv	95
69) p-Isopropyltoluene	17.66	119	58622	0.099	ppbv	99
74) 1,2,4-Trimethylbenzene	16.77	105	90359m	0.191	ppbv	

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

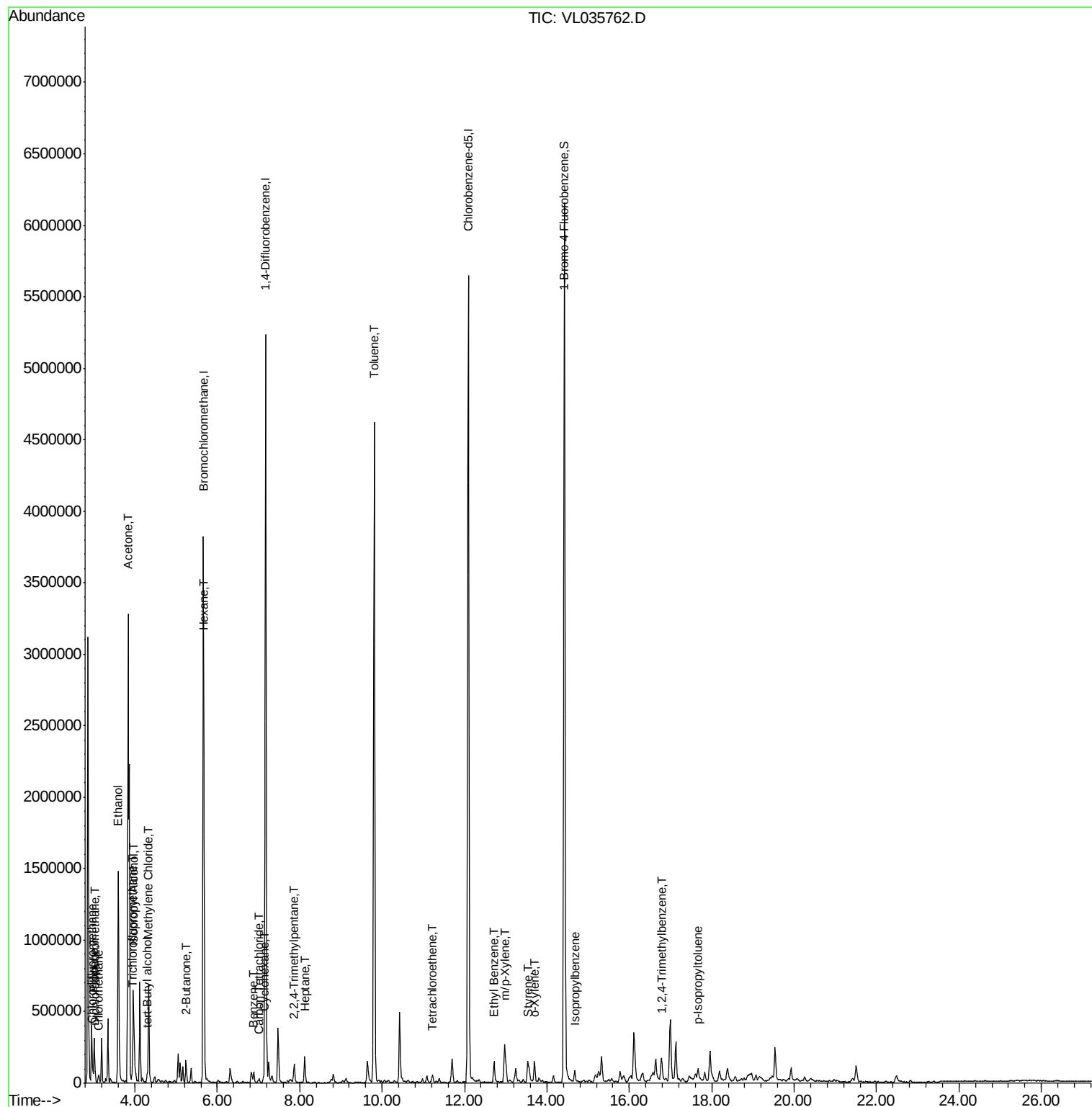
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL101220\
Data File : VL035762.D
Acq On : 12 Oct 2020 15:19
Operator : SY/AP
Sample : L4347-02DUP
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
2DUP

Quant Time: Oct 13 23:02:31 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep
QLast Update : Wed Sep 23 07:38:05 2020
Response via : Initial Calibration

Manual Integrations
APPROVED

MMDadoda
10/14/2020 2:11:36 PM





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampleId :

2DUP

Tot Ion: 49 Resp: 1084673

Ion Ratio Lower Upper

49 100

128 87.3 43.1 129.4

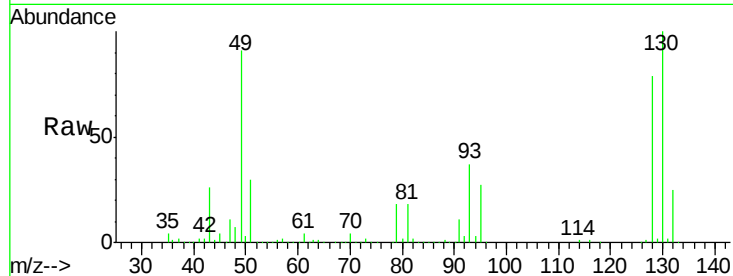
130 111.4 54.9 164.7

Manual Integrations

APPROVED

MMDadoda

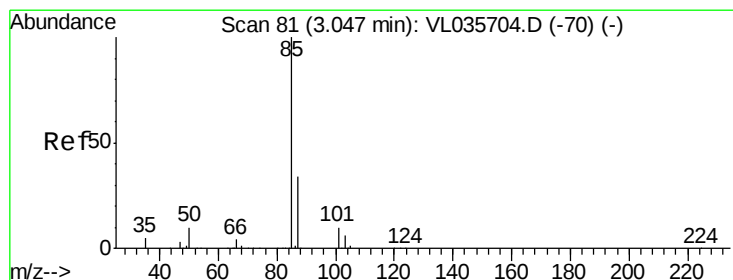
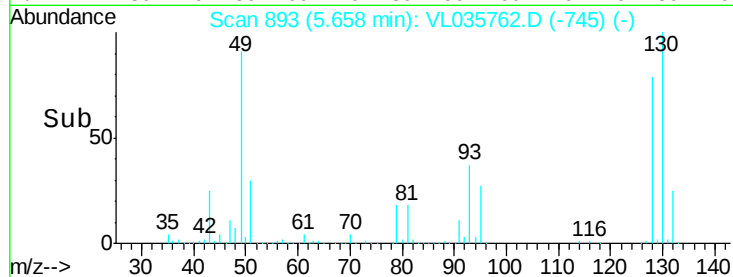
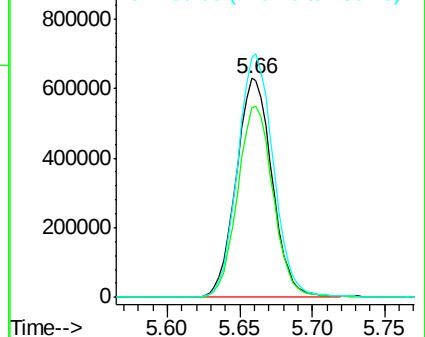
10/14/2020 2:11:36 PM



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



#2

Dichlorodifluoromethane

Concen: 0.297 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.01 min

Lab File: VL035762.D

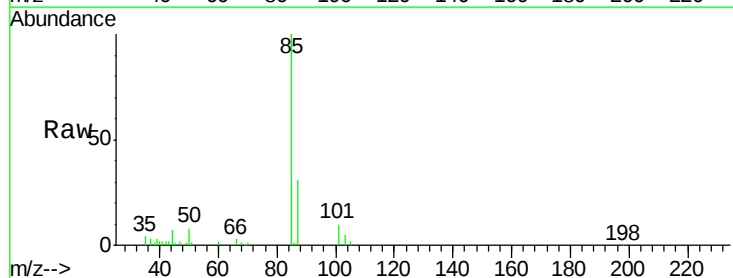
Acq: 12 Oct 2020 15:19

Tgt Ion: 85 Resp: 52780

Ion Ratio Lower Upper

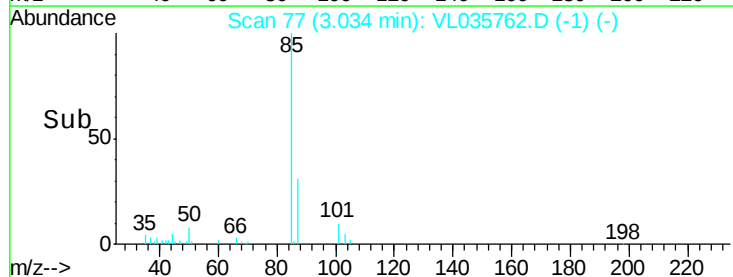
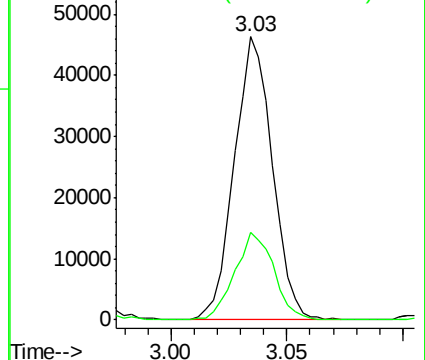
85 100

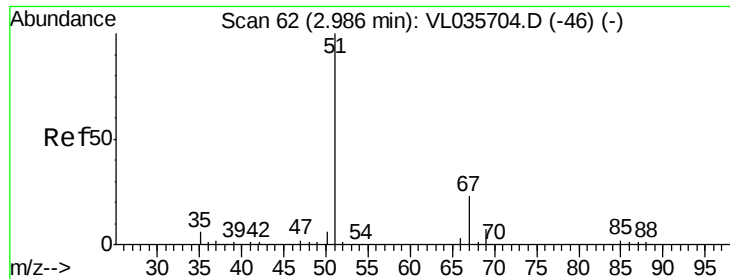
87 30.8 27.3 40.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.425 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampleId :

2DUP

Tot Ion: 51 Resp: 49560

Ion Ratio Lower Upper

51 100

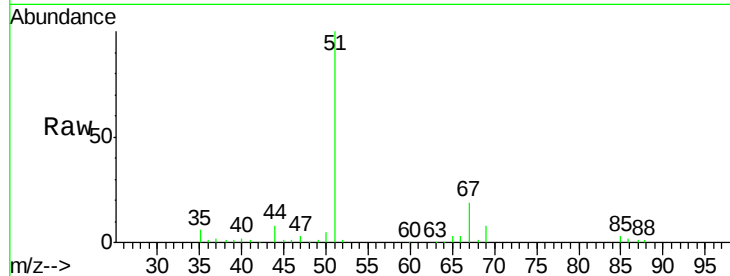
67 29.0 17.8 26.8#

Manual Integrations

APPROVED

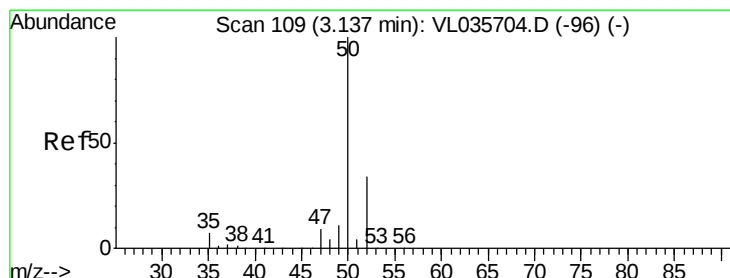
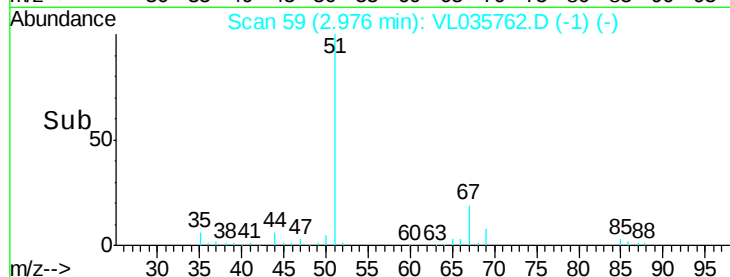
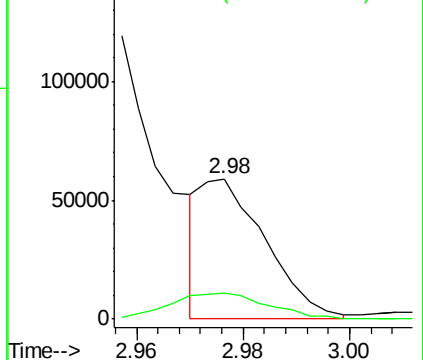
MMDadoda

10/14/2020 2:11:36 PM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.533 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.01 min

Lab File: VL035762.D

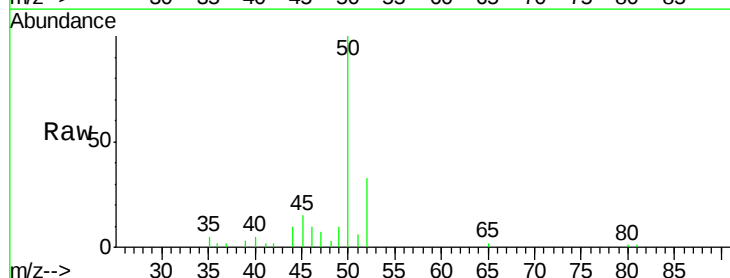
Acq: 12 Oct 2020 15:19

Tgt Ion: 50 Resp: 33397

Ion Ratio Lower Upper

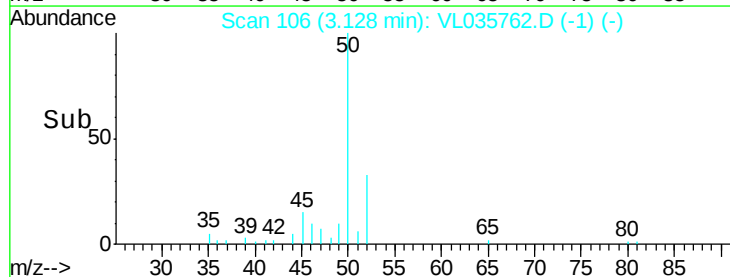
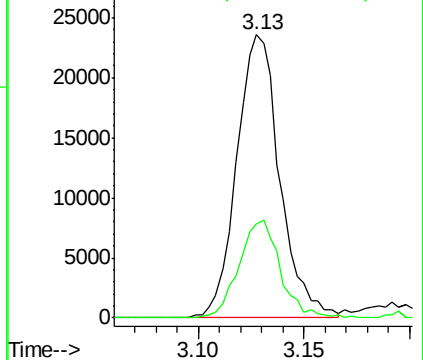
50 100

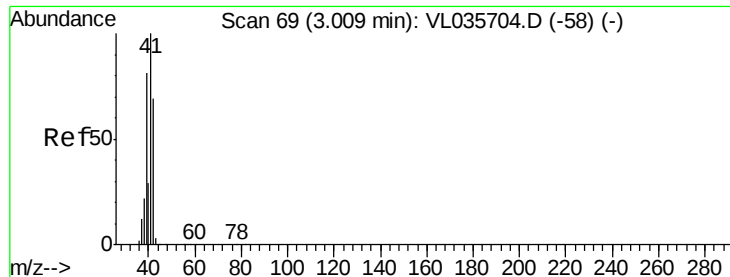
52 33.3 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





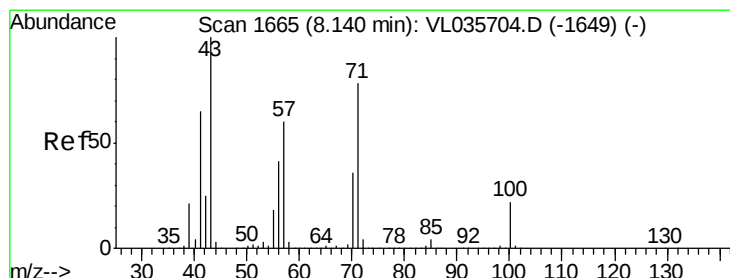
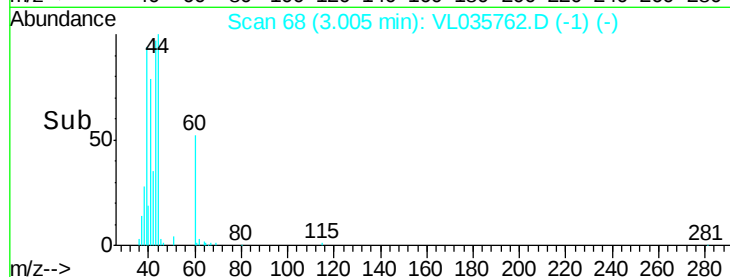
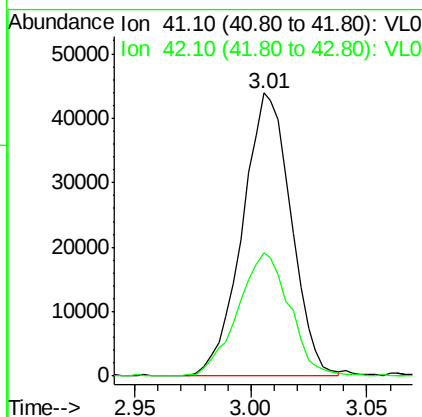
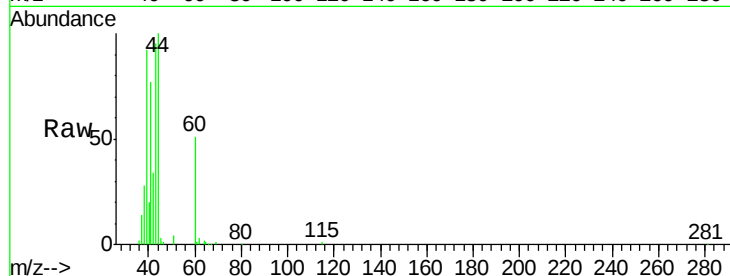
#9
 Propene
 Concen: 1.512 ppbv
 RT: 3.01 min Scan# 68
 Delta R.T. -0.00 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Tot Ion: 41 Resp: 64056
 Ion Ratio Lower Upper
 41 100
 42 46.8 56.2 84.4#

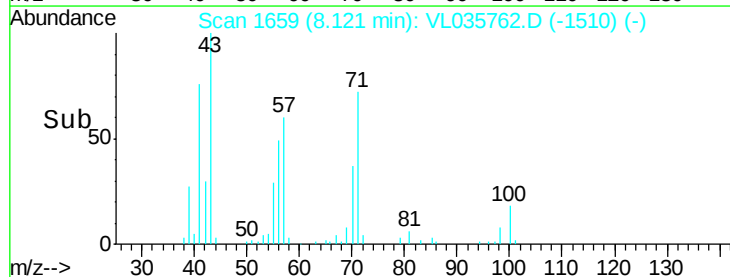
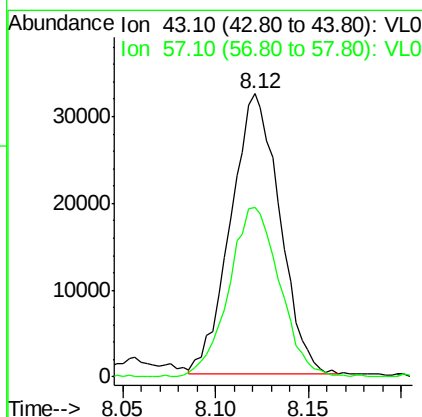
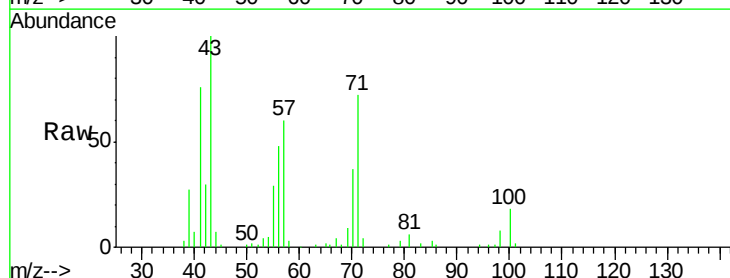
Manual Integrations
 APPROVED

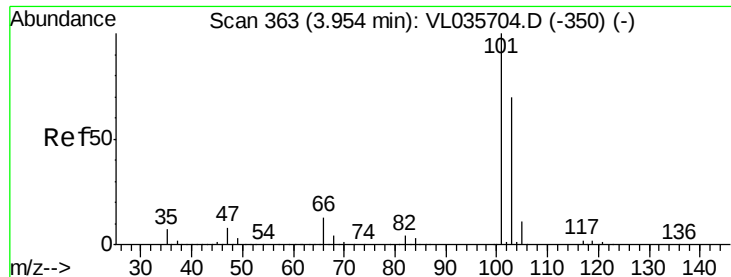
MMDadoda
 10/14/2020 2:11:36 PM



#10
 Heptane
 Concen: 0.502 ppbv
 RT: 8.12 min Scan# 1659
 Delta R.T. -0.02 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Tgt Ion: 43 Resp: 59336
 Ion Ratio Lower Upper
 43 100
 57 63.0 50.4 75.6





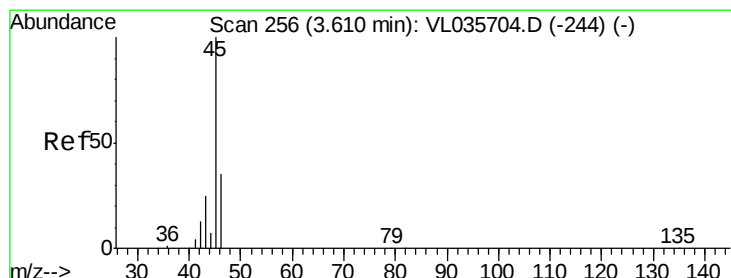
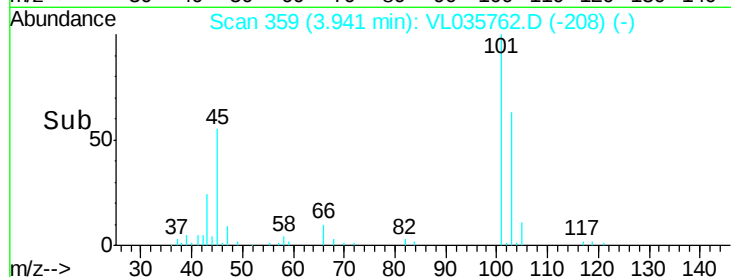
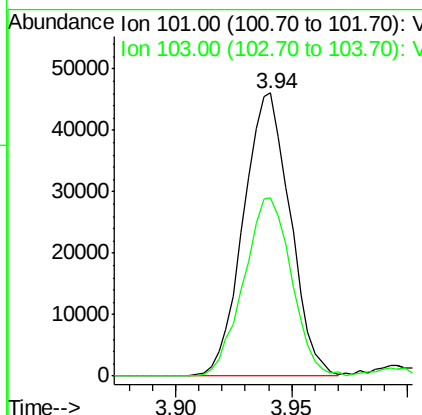
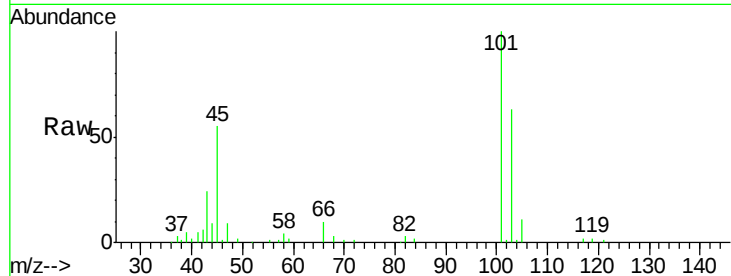
#11
 Trichlorofluoromethane
 Concen: 0.255 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Tot Ion:101 Resp: 64681
 Ion Ratio Lower Upper
 101 100
 103 62.9 55.6 83.4

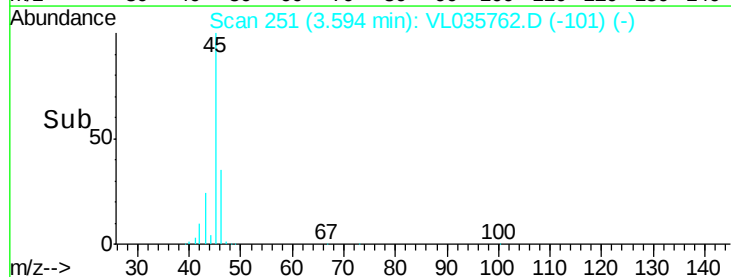
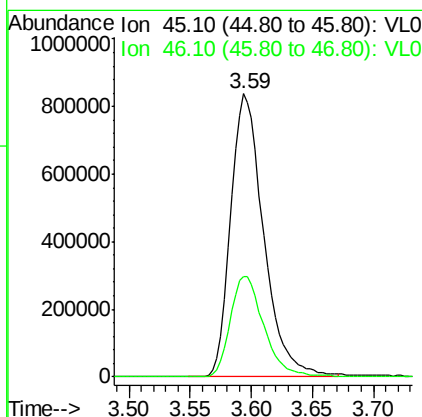
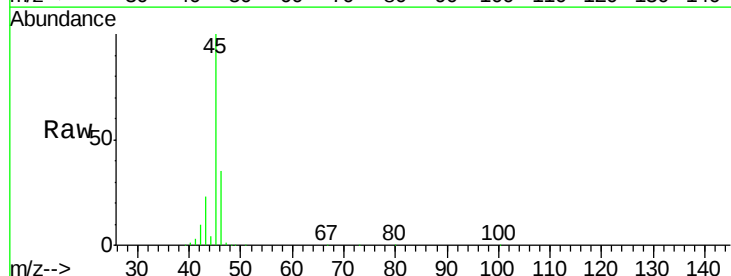
Manual Integrations
 APPROVED

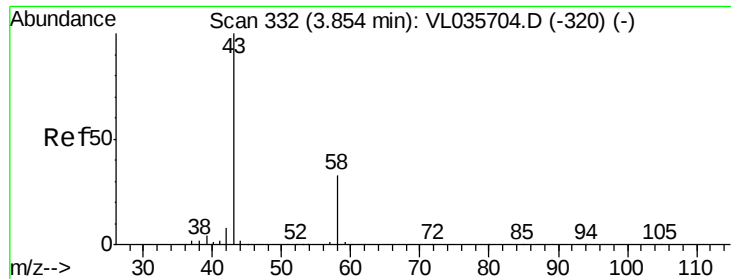
MMDadoda
 10/14/2020 2:11:36 PM



#13
 Ethanol
 Concen: 151.351 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.02 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Tgt Ion: 45 Resp: 1581373
 Ion Ratio Lower Upper
 45 100
 46 36.5 14.7 58.7





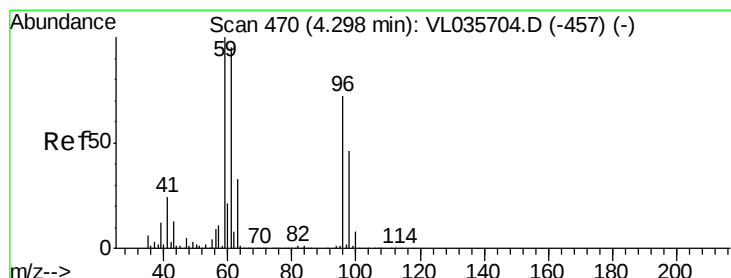
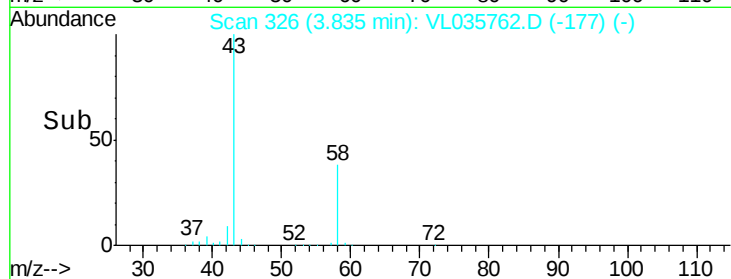
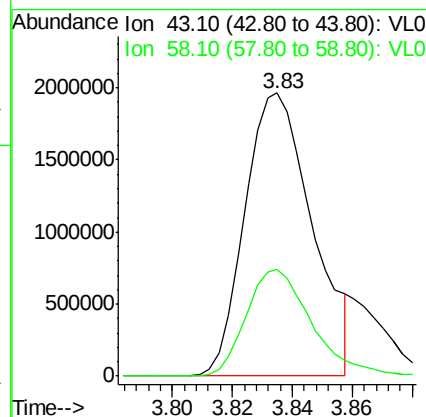
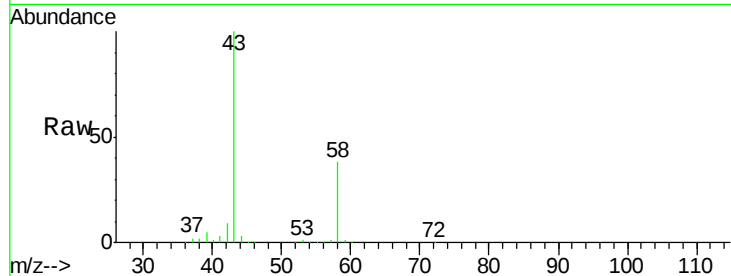
#15
Acetone
Concen: 26.277 ppbv m
RT: 3.83 min Scan# 326
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Instrument :
MSVOA_L
ClientSampled :
2DUP

Tot Ion: 43 Resp: 3066934
Ion Ratio Lower Upper
43 100
58 37.1 27.3 40.9

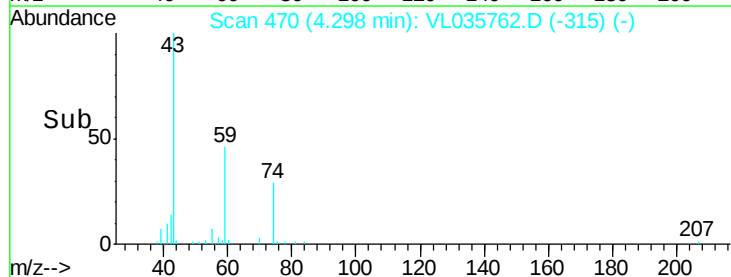
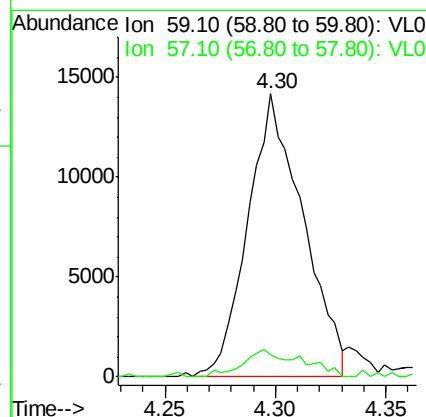
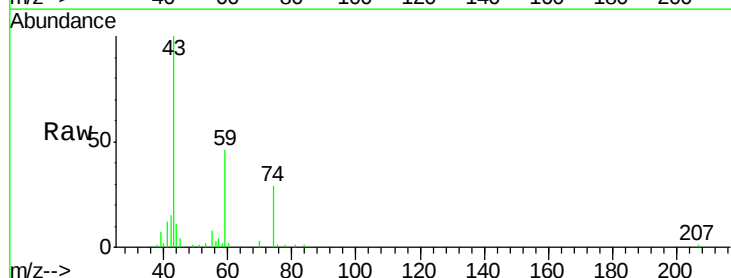
Manual Integrations
APPROVED

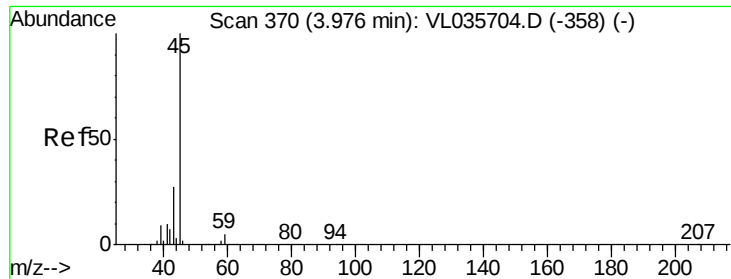
MMDadoda
10/14/2020 2:11:36 PM



#17
tert-Butyl alcohol
Concen: 0.193 ppbv
RT: 4.30 min Scan# 470
Delta R.T. -0.00 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Tgt Ion: 59 Resp: 24570
Ion Ratio Lower Upper
59 100
57 0.0 8.5 12.7#





#19

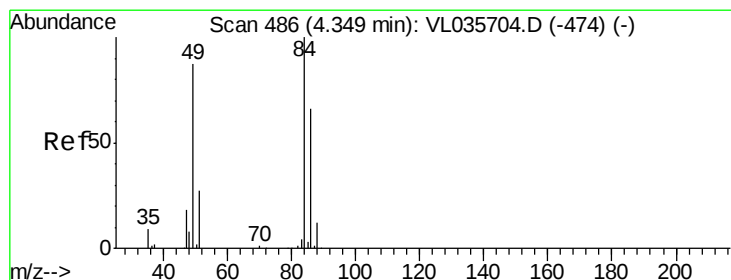
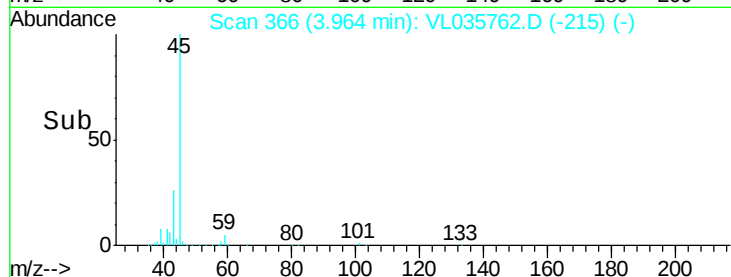
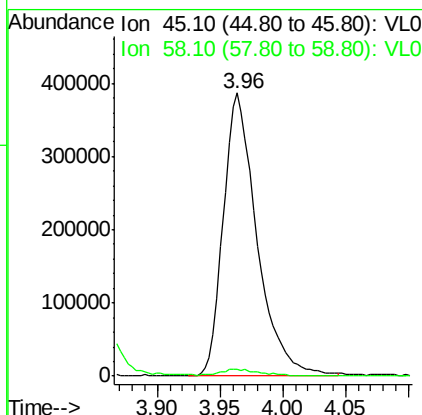
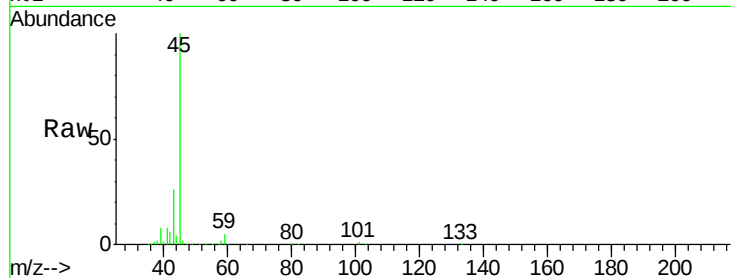
Isopropyl Alcohol
 Concen: 11.264 ppbv
 RT: 3.96 min Scan# 366
 Delta R.T. -0.01 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Tot Ion	Ratio	Lower	Upper
45	100		
58	159.0	2.8	4.2#

Manual Integrations
 APPROVED

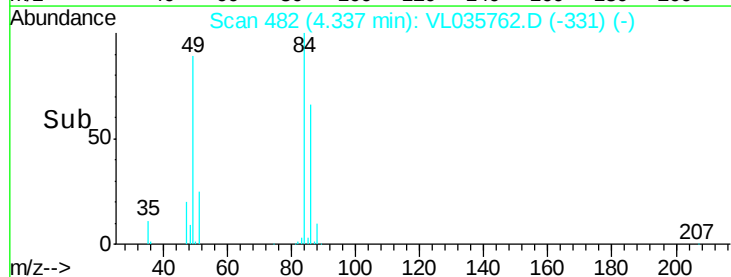
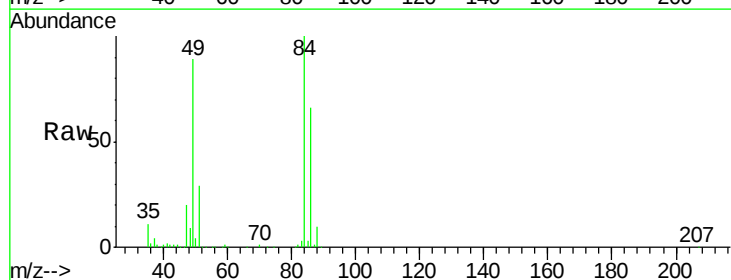
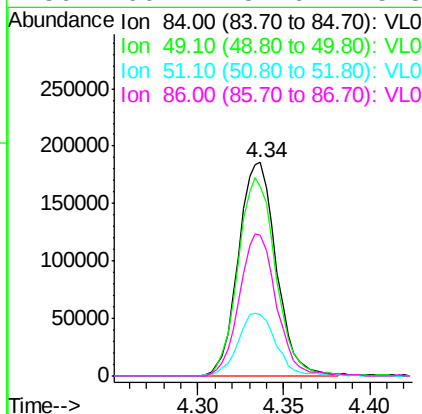
MMDadoda
 10/14/2020 2:11:36 PM

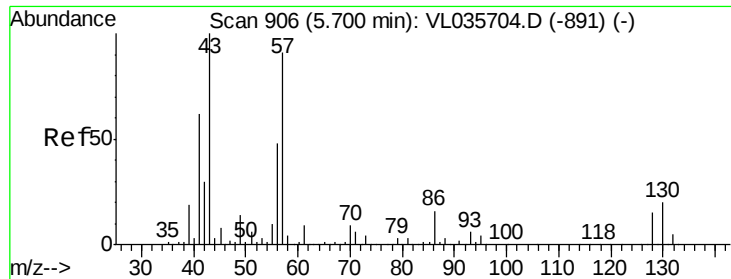


#20

Methylene Chloride
 Concen: 3.322 ppbv
 RT: 4.34 min Scan# 482
 Delta R.T. -0.01 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Tgt Ion	Ratio	Lower	Upper
84	100		
49	88.9	69.8	104.6
51	28.6	21.8	32.8
86	66.2	52.6	78.8





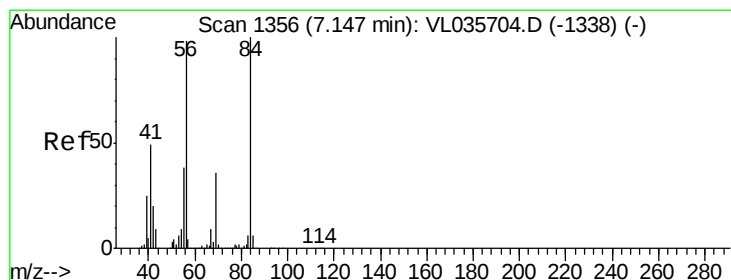
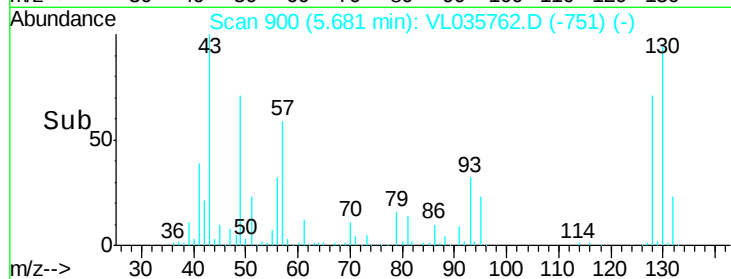
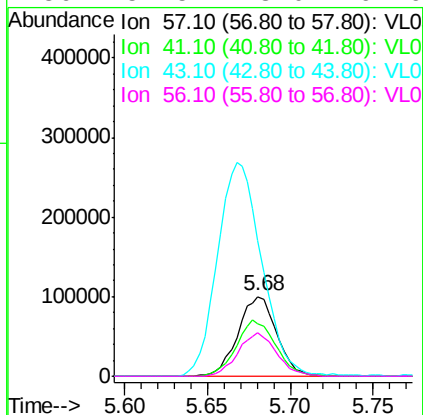
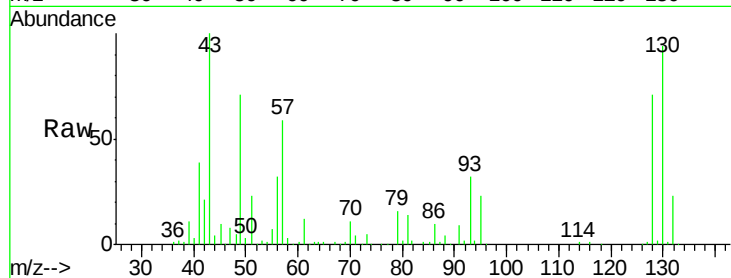
#26
Hexane
Concen: 1.405 ppbv
RT: 5.68 min Scan# 900
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Instrument :
MSVOA_L
ClientSampled :
2DUP

Tot Ion	Ratio	Lower	Upper
57	100		
41	72.5	57.9	86.9
43	309.1	143.8	215.6#
56	54.5	43.0	64.6

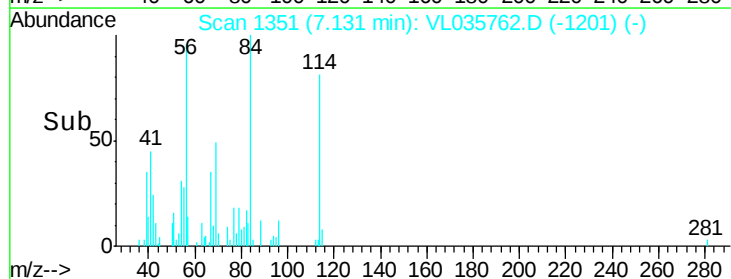
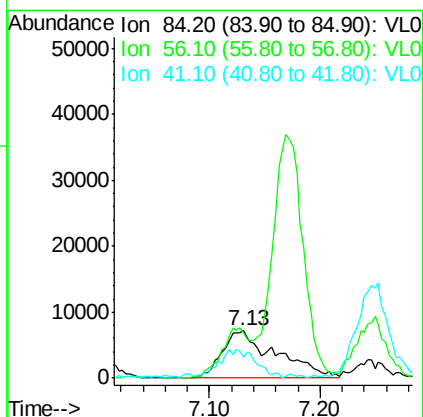
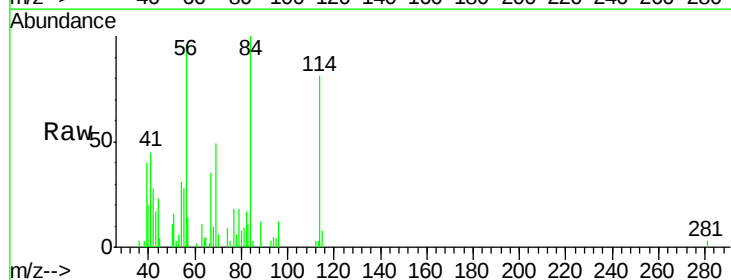
Manual Integrations
APPROVED

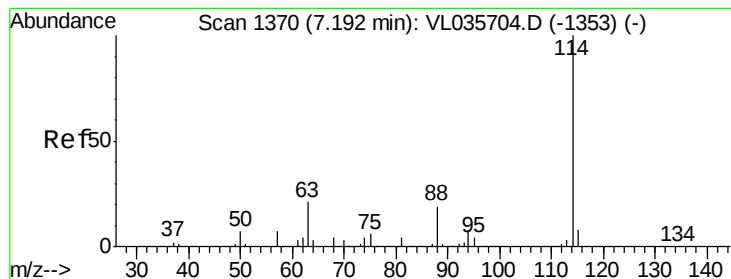
MMDadoda
10/14/2020 2:11:36 PM



#30
Cyclohexane
Concen: 0.217 ppbv m
RT: 7.13 min Scan# 1351
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	84.6	127.0#
41	45.7	41.1	61.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampleId :

2DUP

Tot Ion:114 Resp: 4372217

Ion Ratio Lower Upper

114 100

63 19.4 16.1 24.1

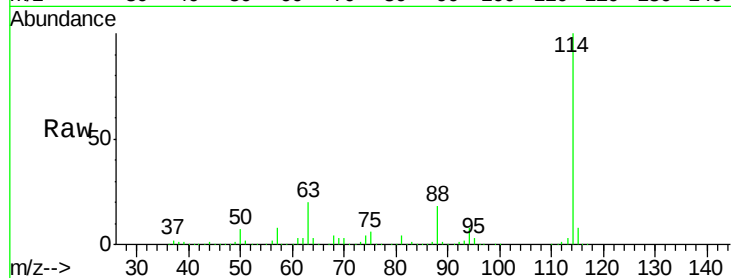
88 17.1 14.1 21.1

Manual Integrations

APPROVED

MMDadoda

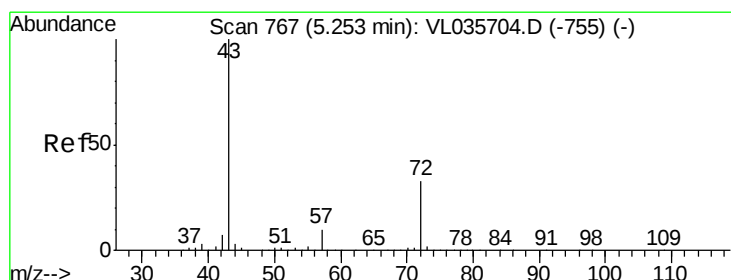
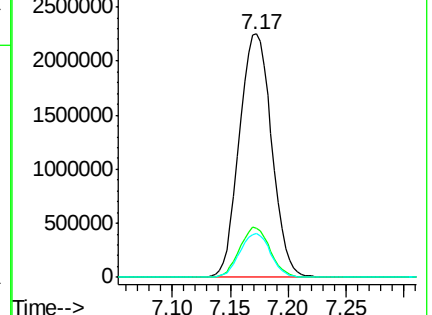
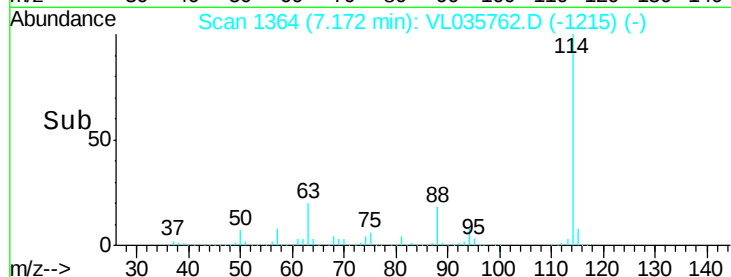
10/14/2020 2:11:36 PM



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 1.022 ppbv

RT: 5.24 min Scan# 763

Delta R.T. -0.01 min

Lab File: VL035762.D

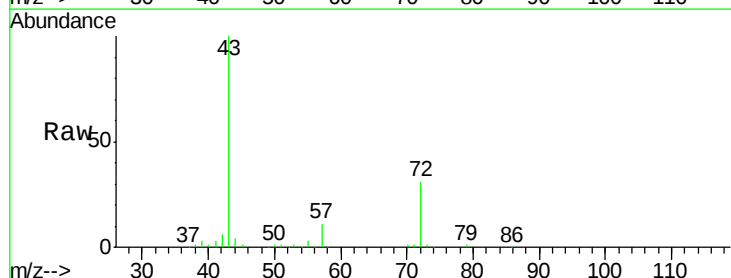
Acq: 12 Oct 2020 15:19

Tgt Ion: 43 Resp: 147774

Ion Ratio Lower Upper

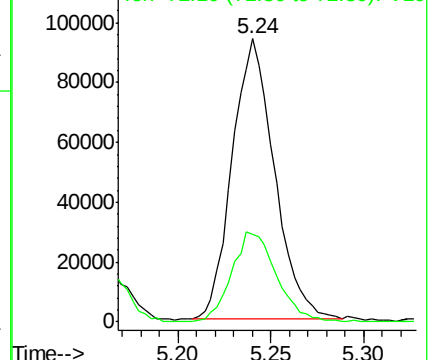
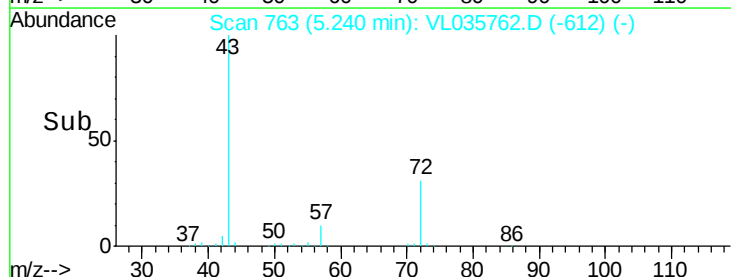
43 100

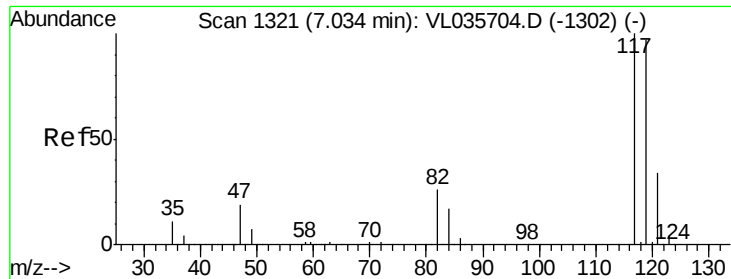
72 34.2 26.1 39.1



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





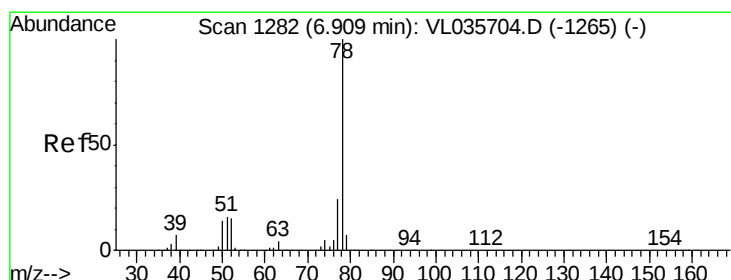
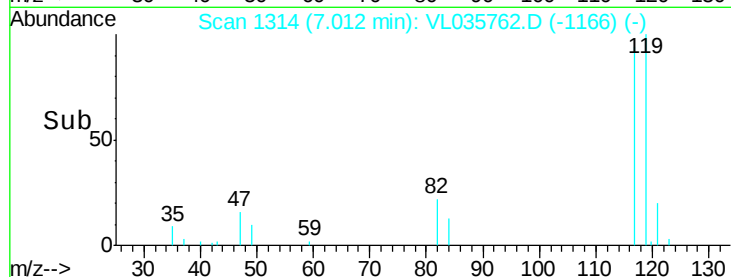
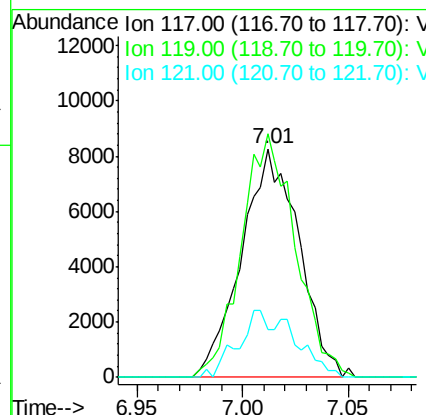
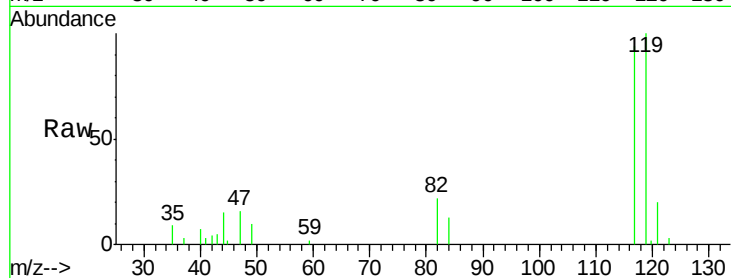
#35
Carbon Tetrachloride
Concen: 0.068 ppbv
RT: 7.01 min Scan# 1314
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Instrument :
MSVOA_L
ClientSampleId :
2DUP

Tot Ion	Ratio	Lower	Upper
117	100		
119	106.5	77.7	116.5
121	21.1	26.9	40.3#

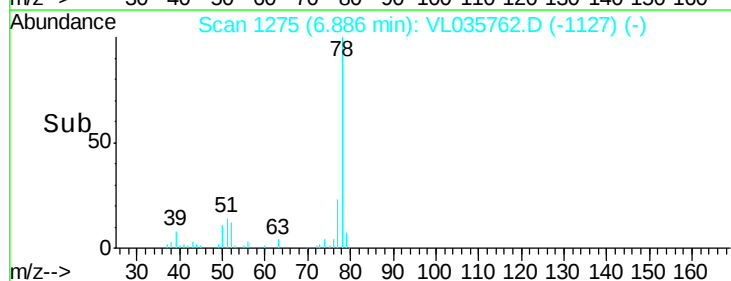
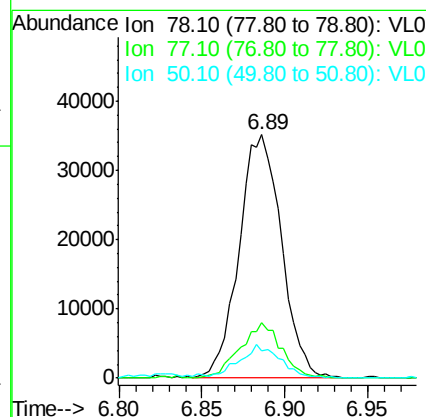
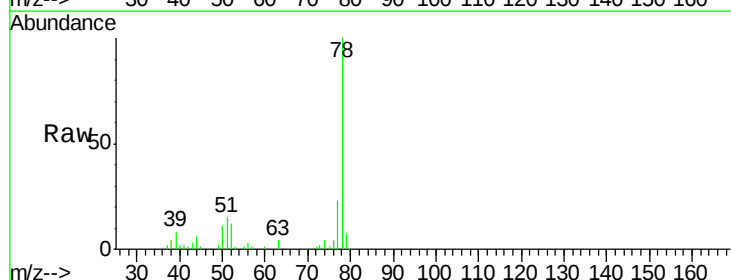
Manual Integrations
APPROVED

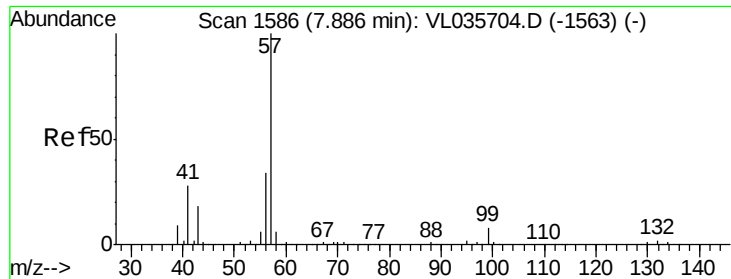
MMDadoda
10/14/2020 2:11:36 PM



#36
Benzene
Concen: 0.219 ppbv
RT: 6.89 min Scan# 1275
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.5	19.3	28.9
50	11.3	11.6	17.4#





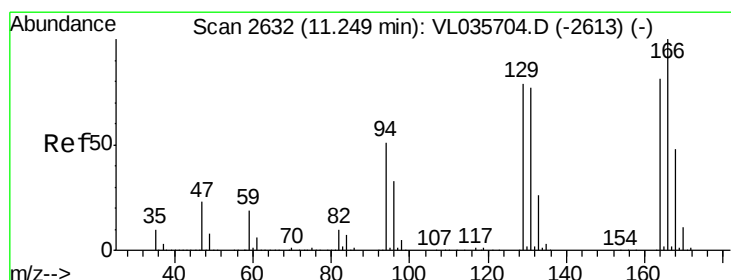
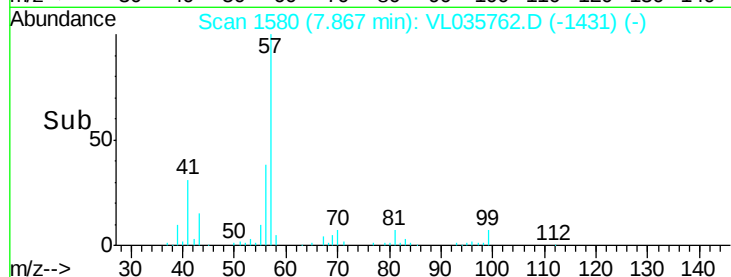
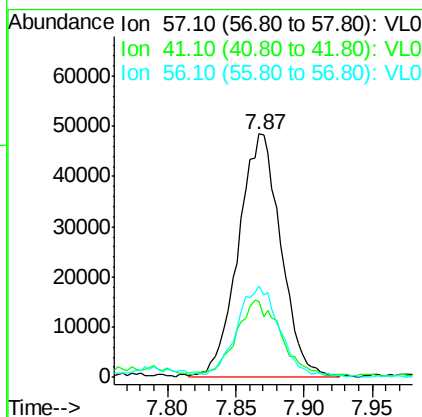
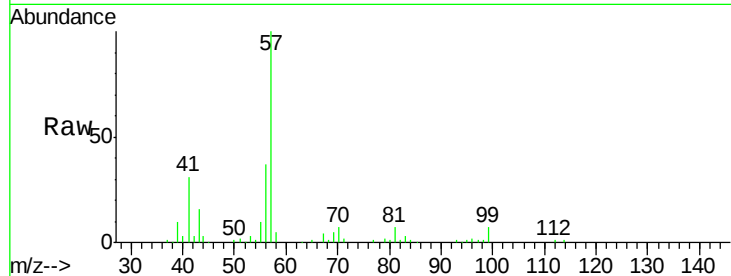
#44
 2,2,4-Trimethylpentane
 Concen: 0.255 ppbv
 RT: 7.87 min Scan# 1580
 Delta R.T. -0.02 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Tot Ion	Ratio	Lower	Upper
57	100		
41	33.2	21.2	31.8#
56	38.2	25.8	38.8

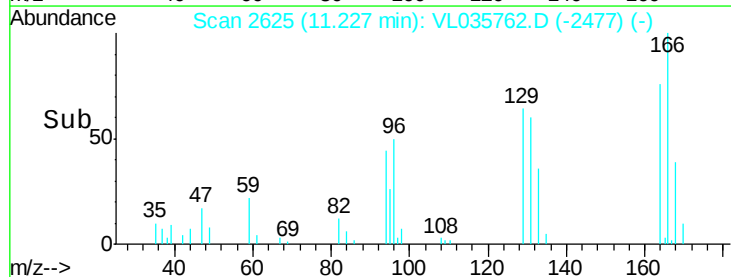
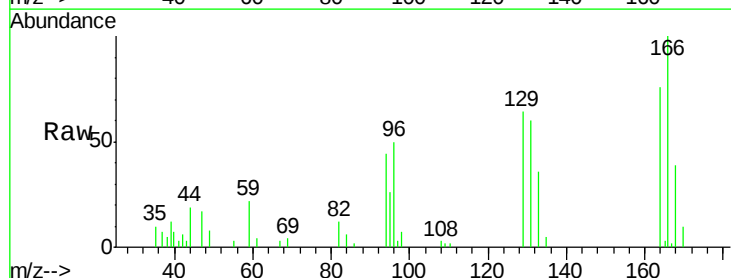
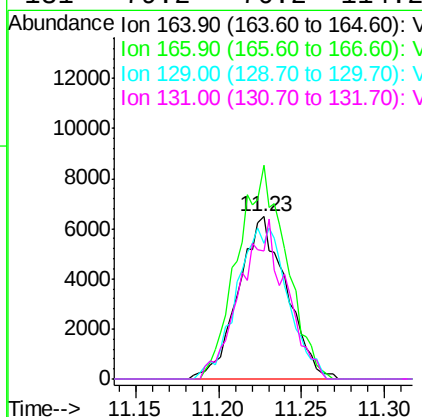
Manual Integrations
 APPROVED

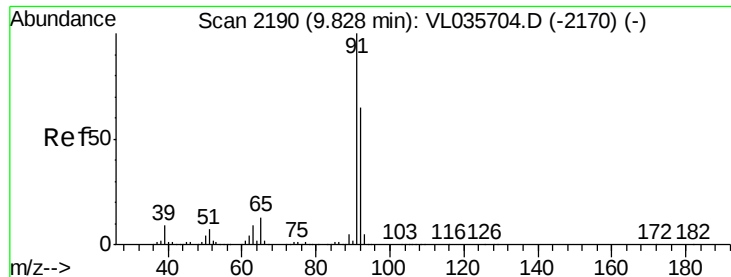
MMDadoda
 10/14/2020 2:11:36 PM



#52
 Tetrachloroethene
 Concen: 0.095 ppbv
 RT: 11.23 min Scan# 2625
 Delta R.T. -0.02 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Tgt Ion	Ratio	Lower	Upper
164	100		
166	131.8	98.7	148.1
129	84.0	78.4	117.6
131	79.2	76.2	114.2





#53

Toluene

Concen: 12.079 ppbv

RT: 9.81 min Scan# 2183

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampled :

2DUP

Tot Ion: 91 Resp: 4058000

Ion Ratio Lower Upper

91 100

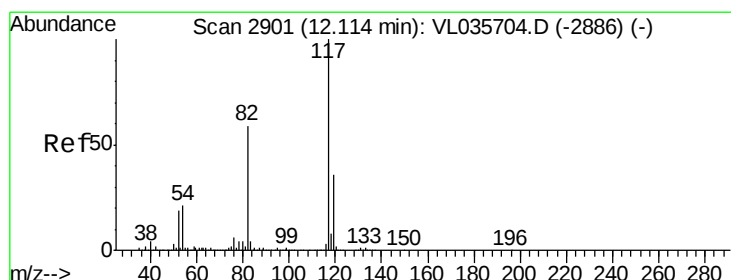
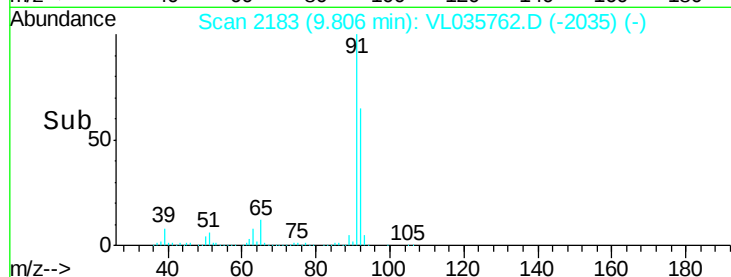
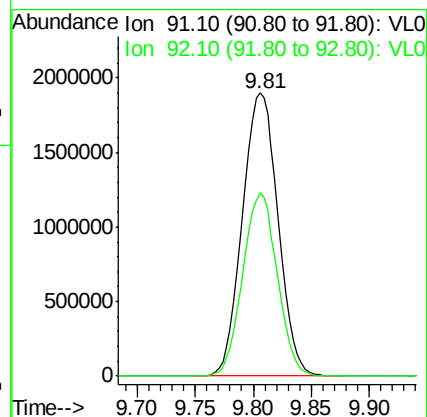
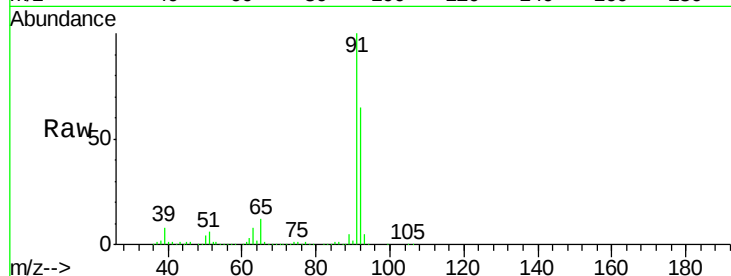
92 62.8 50.0 75.0

Manual Integrations

APPROVED

MMDadoda

10/14/2020 2:11:36 PM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

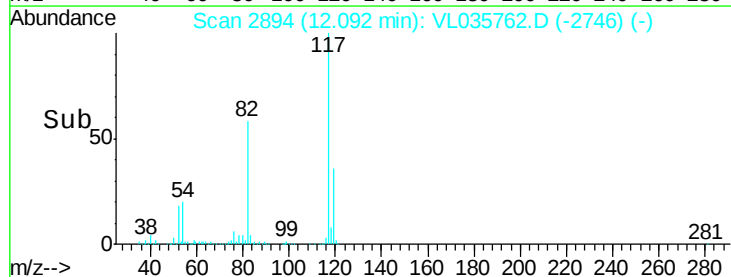
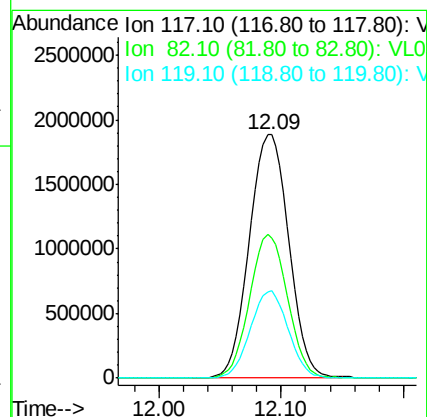
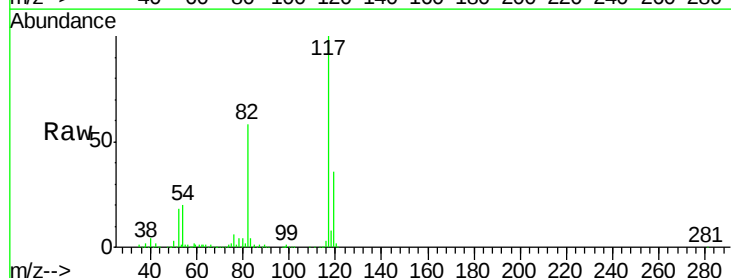
Tgt Ion: 117 Resp: 4223063

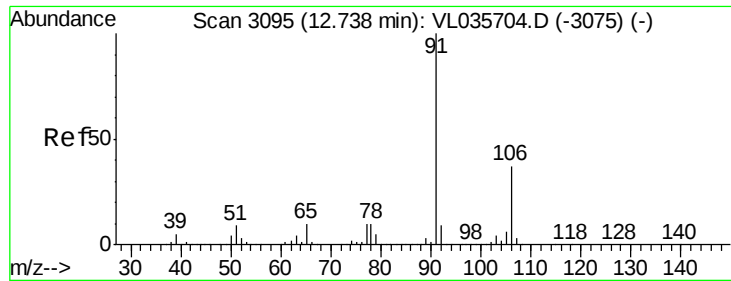
Ion Ratio Lower Upper

117 100

82 57.3 46.1 69.1

119 34.5 28.0 42.0





#58

Ethyl Benzene

Concen: 0.307 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampleId :

2DUP

Tot Ion: 91 Resp: 130219

Ion Ratio Lower Upper

91 100

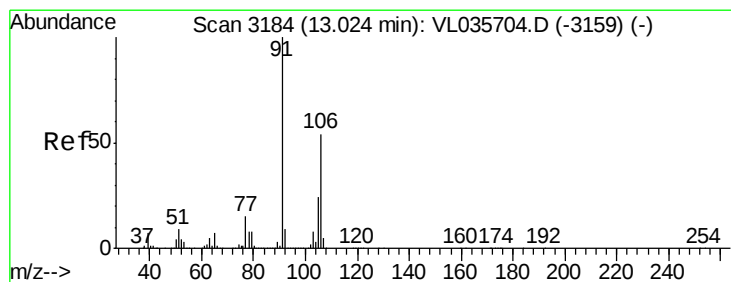
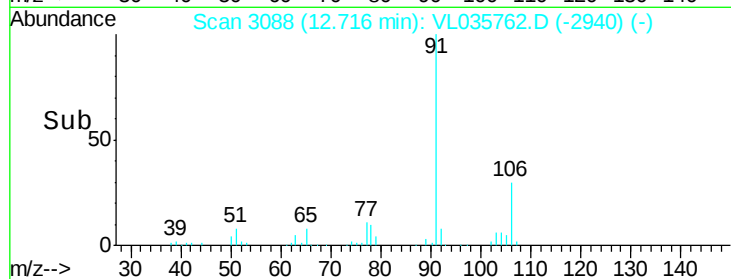
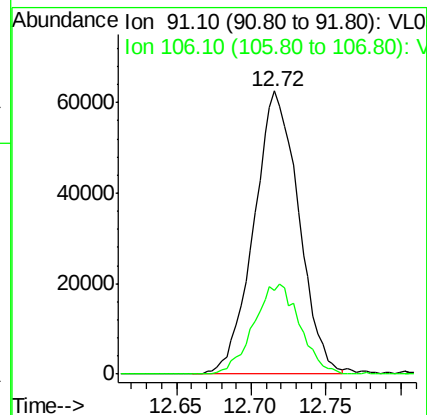
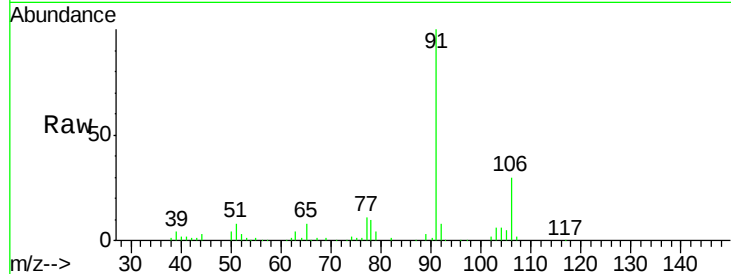
106 29.6 29.7 44.5#

Manual Integrations

APPROVED

MMDadoda

10/14/2020 2:11:36 PM



#59

m/p-Xylene

Concen: 0.784 ppbv m

RT: 12.98 min Scan# 3169

Delta R.T. -0.05 min

Lab File: VL035762.D

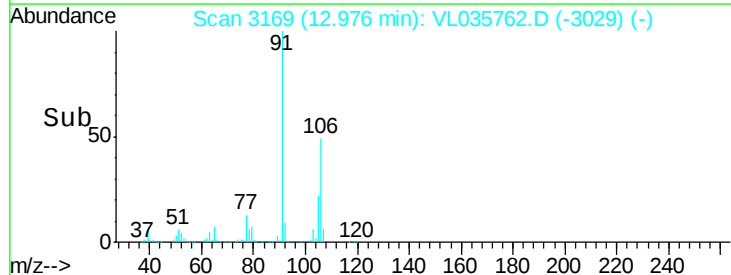
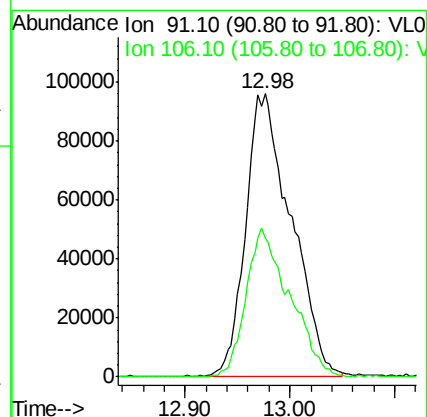
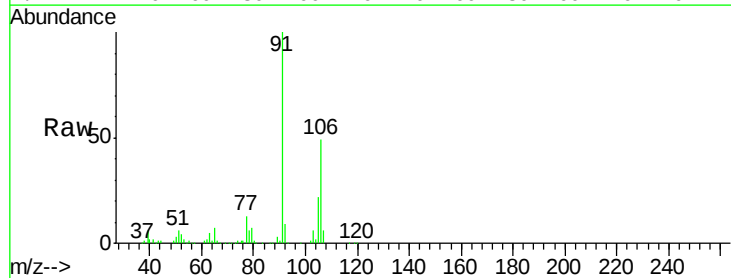
Acq: 12 Oct 2020 15:19

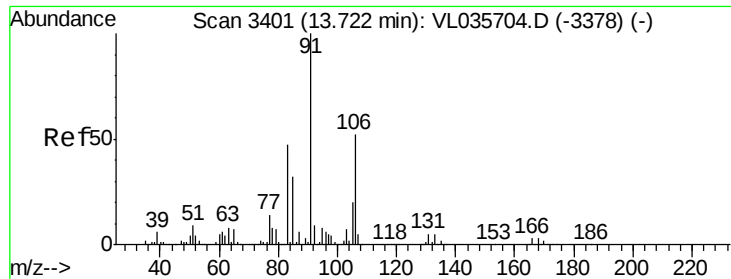
Tgt Ion: 91 Resp: 290195

Ion Ratio Lower Upper

91 100

106 50.2 41.4 62.0





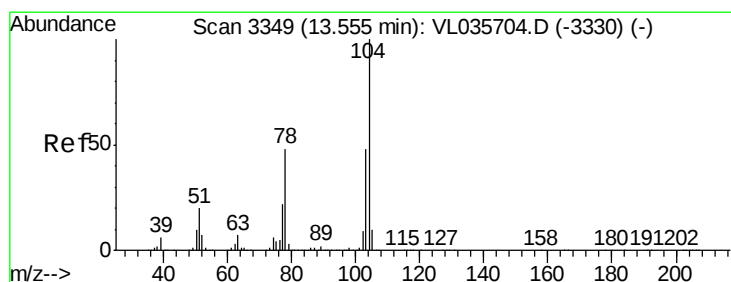
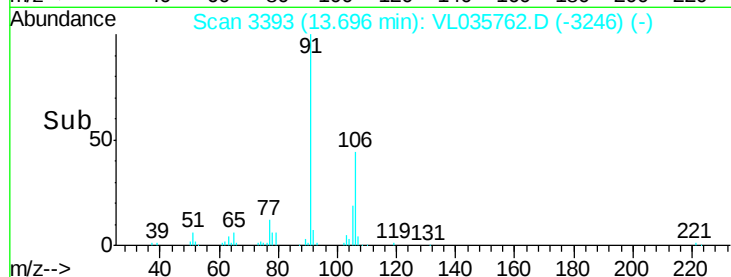
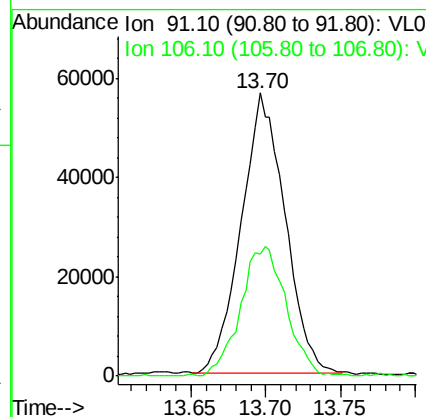
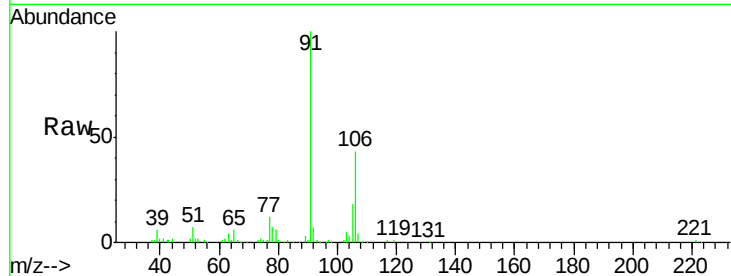
#60
o-Xylene
Concen: 0.306 ppbv
RT: 13.70 min Scan# 3393
Delta R.T. -0.03 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Instrument :
MSVOA_L
ClientSampled :
2DUP

Tot Ion: 91 Resp: 114538
Ion Ratio Lower Upper
91 100
106 48.7 25.0 75.0

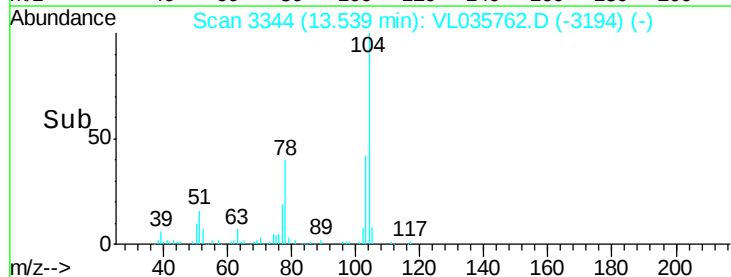
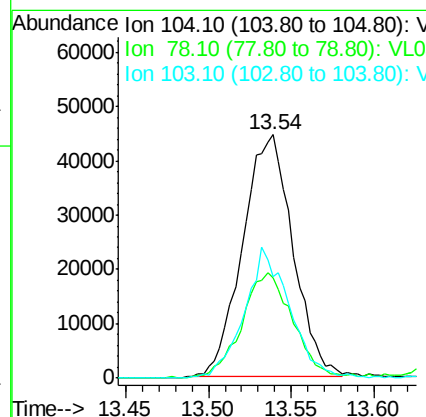
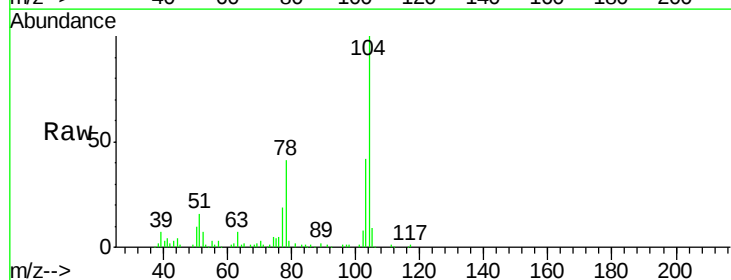
Manual Integrations
APPROVED

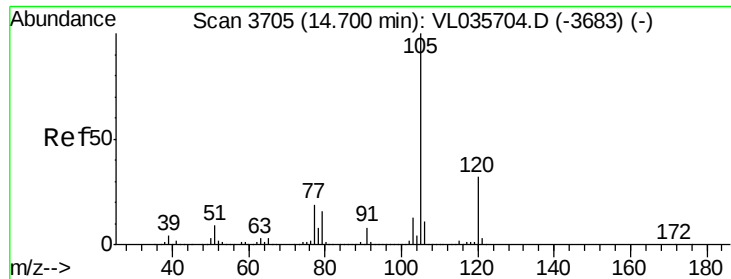
MMDadoda
10/14/2020 2:11:36 PM



#61
Styrene
Concen: 0.363 ppbv
RT: 13.54 min Scan# 3344
Delta R.T. -0.02 min
Lab File: VL035762.D
Acq: 12 Oct 2020 15:19

Tgt Ion: 104 Resp: 93951
Ion Ratio Lower Upper
104 100
78 44.6 37.2 55.8
103 48.8 38.2 57.2





#62

Isopropylbenzene

Concen: 0.123 ppbv

RT: 14.68 min Scan# 3699

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

Instrument :

MSVOA_L

ClientSampled :

2DUP

Tot Ion: 105 Resp: 71191

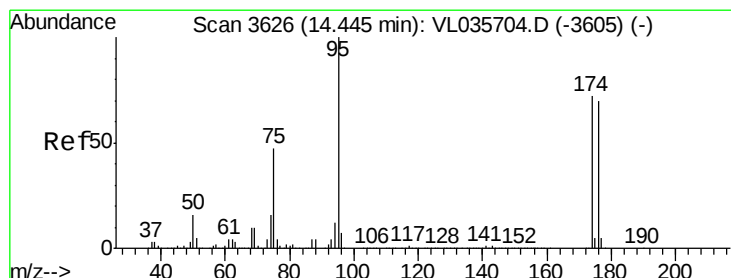
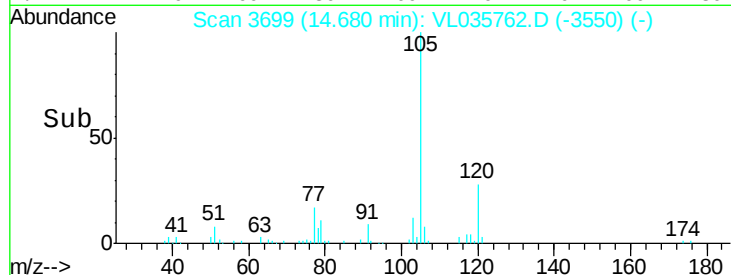
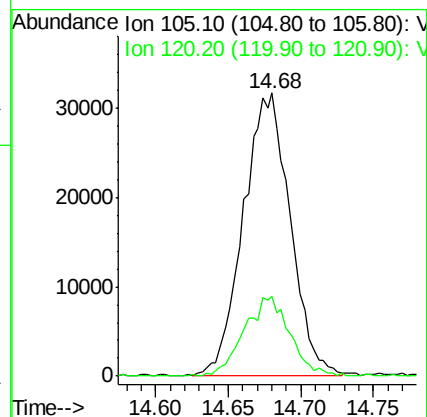
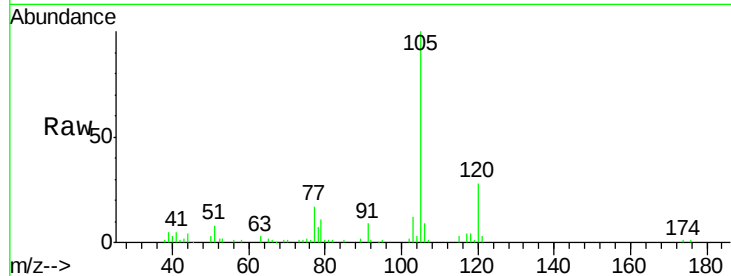
Ion Ratio Lower Upper

105 100

120 27.3 24.1 36.1

Manual Integrations
APPROVED

MMDadoda
10/14/2020 2:11:36 PM



#68

1-Bromo-4-Fluorobenzene

Concen: 9.970 ppbv

RT: 14.42 min Scan# 3619

Delta R.T. -0.02 min

Lab File: VL035762.D

Acq: 12 Oct 2020 15:19

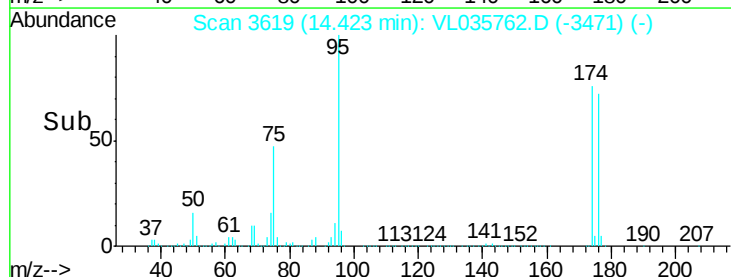
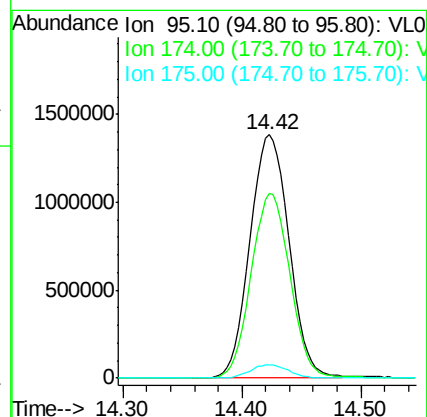
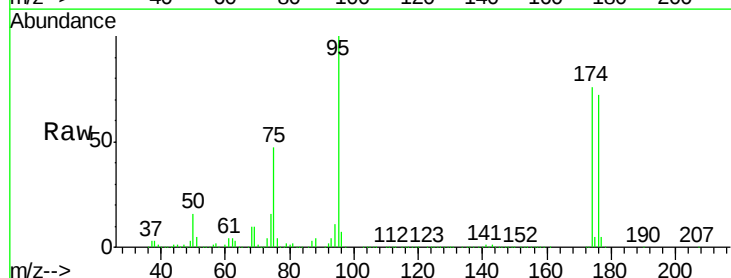
Tgt Ion: 95 Resp: 3155012

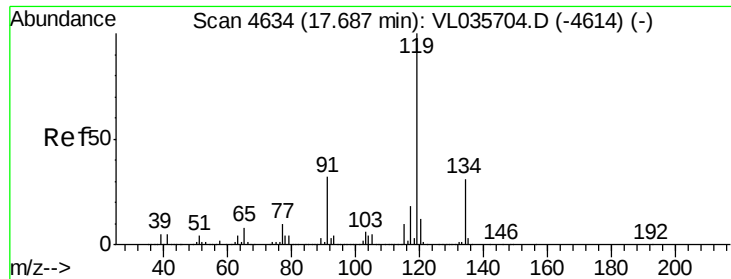
Ion Ratio Lower Upper

95 100

174 75.9 59.6 89.4

175 5.5 4.2 6.4





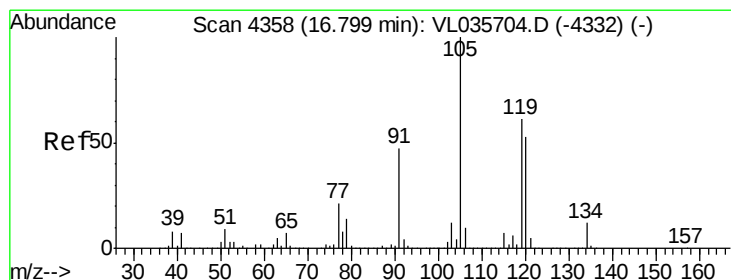
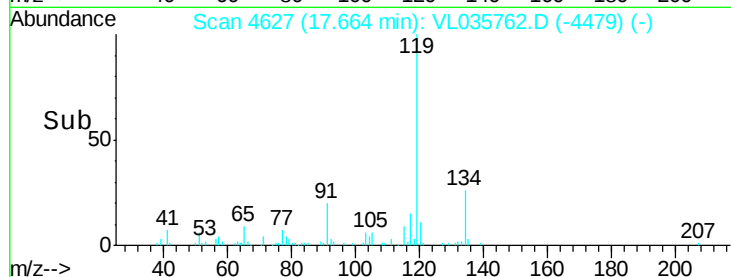
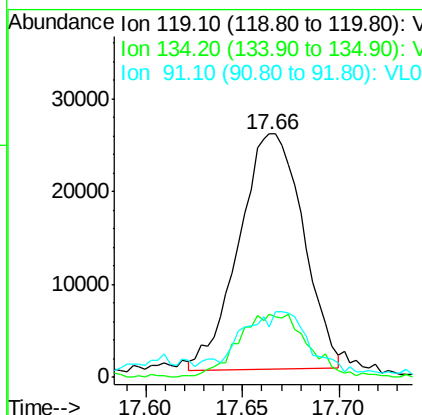
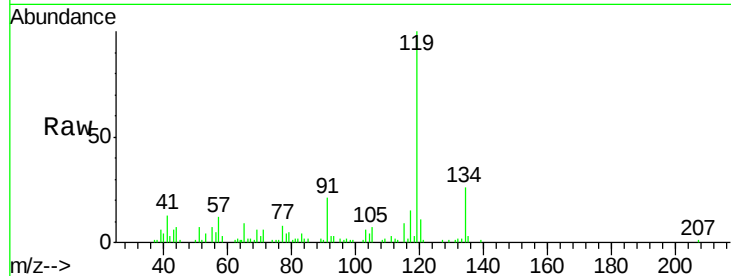
#69
 p-Isopropyltoluene
 Concen: 0.099 ppbv
 RT: 17.66 min Scan# 4627
 Delta R.T. -0.02 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Instrument :
 MSVOA_L
 ClientSampleId :
 2DUP

Tot Ion	Ratio	Resp	Lower	Upper
119	100	58622		
134	29.7		23.9	35.9
91	31.0		23.8	35.6

Manual Integrations
 APPROVED

MMDadoda
 10/14/2020 2:11:36 PM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.191 ppbv m
 RT: 16.77 min Scan# 4350
 Delta R.T. -0.03 min
 Lab File: VL035762.D
 Acq: 12 Oct 2020 15:19

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	90359		
120	46.6		42.5	63.7
91	13.6		37.7	56.5#
77	14.8		16.7	25.1#

