

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121719\
 Data File : VL034497.D
 Acq On : 17 Dec 2019 17:54
 Operator : SY/AP
 Sample : K6319-01DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

Manual Integrations
 APPROVED

MMDadoda
 12/19/2019 3:47:07 PM

Quant Time: Dec 18 05:17:16 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 18 2019
 QLast Update : Tue Nov 19 14:15:35 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	920311	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1793208	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1799331	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1559997	10.31	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	86752	0.521	ppbv	95
3) Chlorodifluoromethane	2.96	51	32834m	0.286	ppbv	
4) Chloromethane	3.11	50	29806	0.440	ppbv	97
9) Propene	3.00	41	89213m	1.750	ppbv	
10) Heptane	8.15	43	39215	0.298	ppbv	99
11) Trichlorofluoromethane	3.94	101	41424	0.250	ppbv	84
13) Ethanol	3.61	45	6384665	449.601	ppbv	91
15) Acetone	3.84	43	877847	6.661	ppbv	93
17) tert-Butyl alcohol	4.31	59	37930m	0.342	ppbv	
19) Isopropyl Alcohol	3.99	45	143879m	1.703	ppbv	
20) Methylene Chloride	4.34	84	66610	1.425	ppbv	98
26) Hexane	5.70	57	45627	0.452	ppbv #	60
29) Chloroform	5.76	83	109762	0.671	ppbv	100
34) 2-Butanone	5.25	43	33768	0.229	ppbv #	89
35) Carbon Tetrachloride	7.03	117	11795m	0.077	ppbv	
36) Benzene	6.91	78	37570m	0.210	ppbv	
52) Tetrachloroethene	11.27	164	8503m	0.110	ppbv	
53) Toluene	9.85	91	185326	0.910	ppbv	99
59) m/p-Xylene	13.01	91	37313m	0.155	ppbv	

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

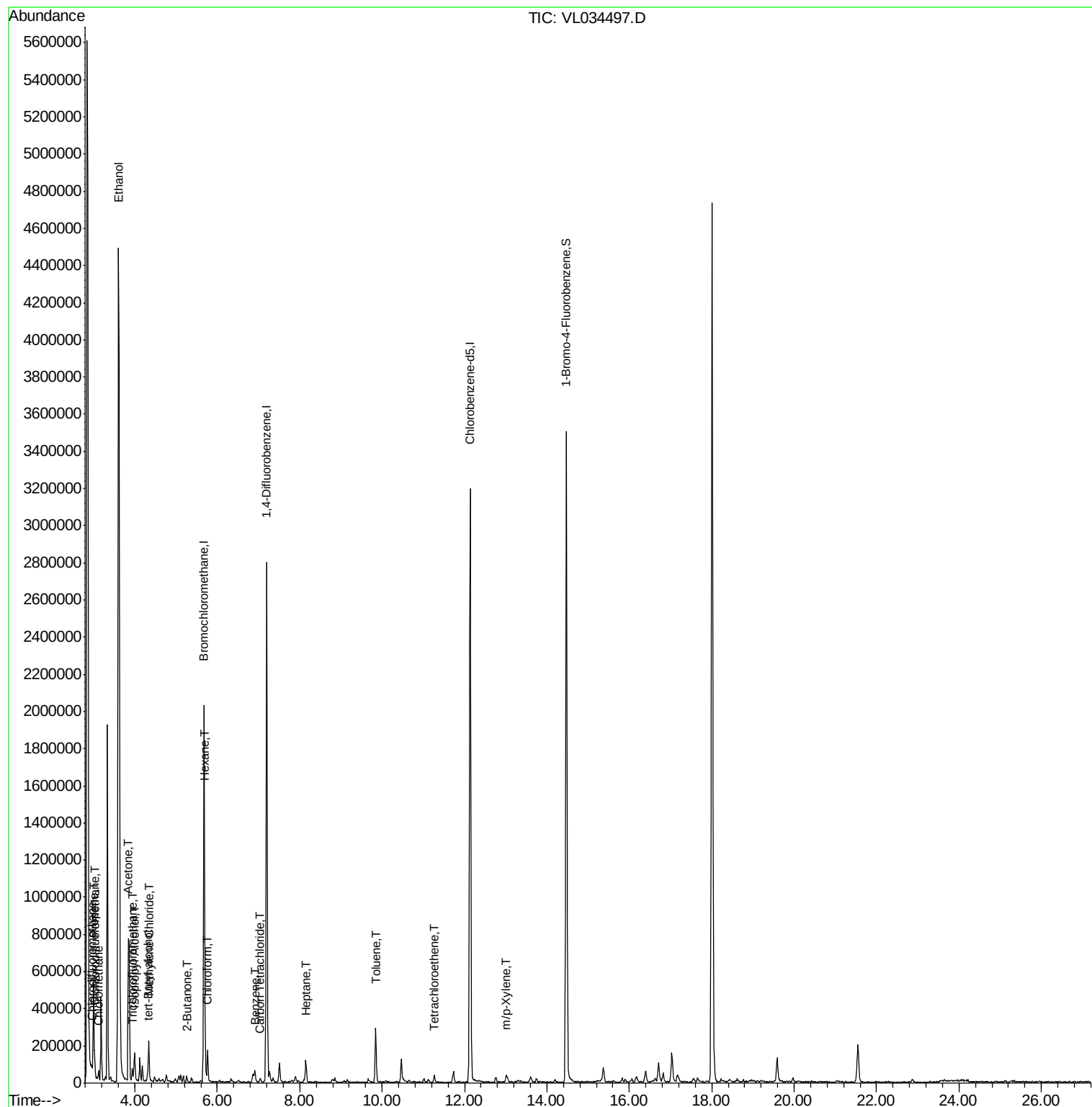
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL121719\
Data File : VL034497.D
Acq On : 17 Dec 2019 17:54
Operator : SY/AP
Sample : K6319-01DUP
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

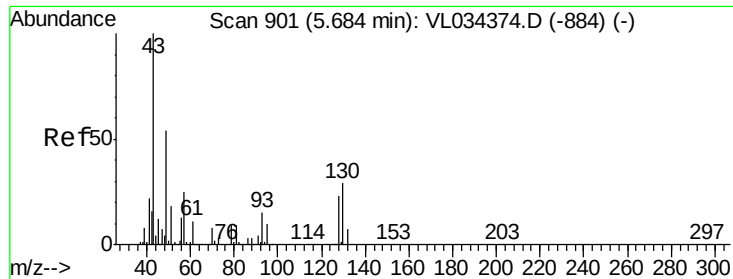
Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

Manual Integrations
APPROVED

MMDadoda
12/19/2019 3:47:07 PM

Quant Time: Dec 18 05:17:16 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov
QLast Update : Tue Nov 19 14:15:35 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.01 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

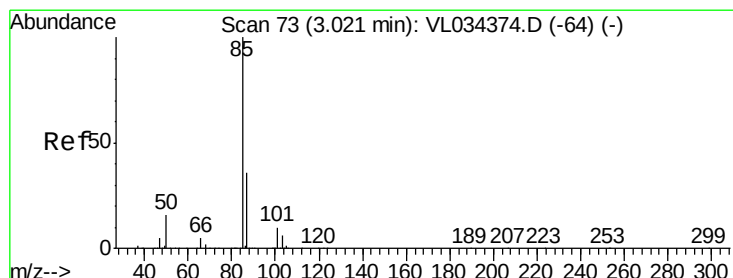
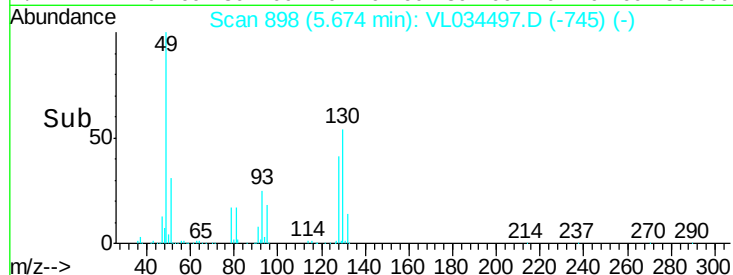
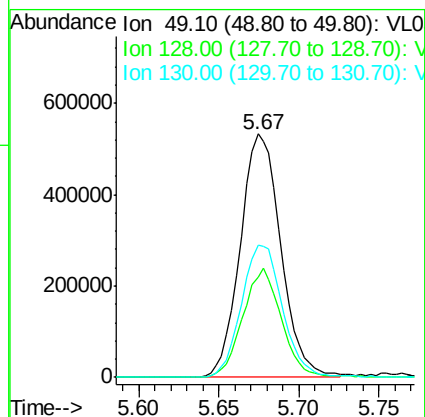
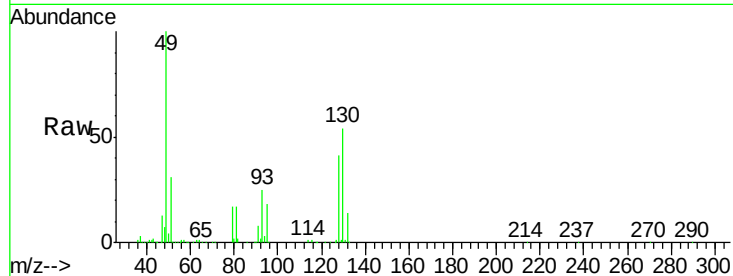
ClientSampleId :

LIHA-IAHDUP

Tot Ion:	49	Resp:	920311
Ion Ratio	Lower	Upper	
49	100		
128	42.9	21.8	65.3
130	55.7	28.0	84.0

Manual Integrations
APPROVED

MMDadoda
12/19/2019 3:47:07 PM



#2

Dichlorodifluoromethane

Concen: 0.521 ppbv

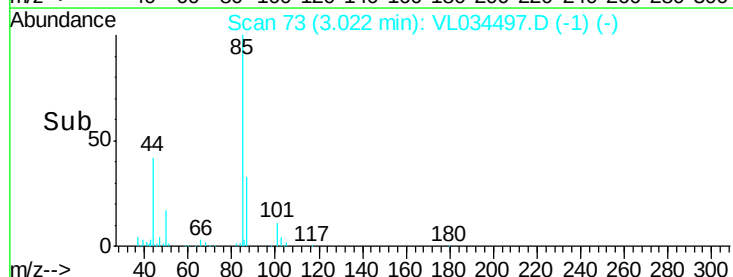
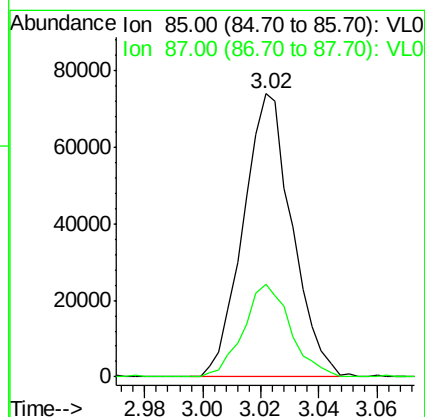
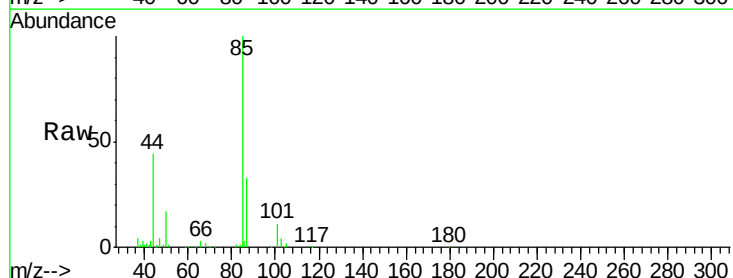
RT: 3.02 min Scan# 73

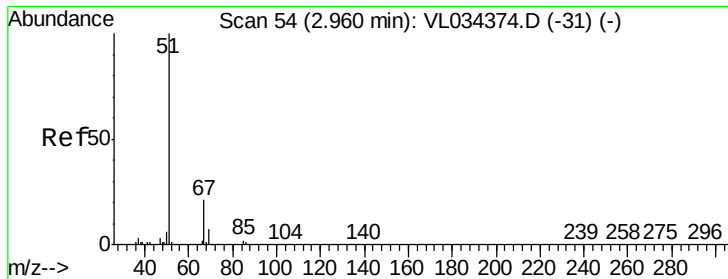
Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Tgt Ion:	85	Resp:	86752
Ion Ratio	Lower	Upper	
85	100		
87	32.8	28.5	42.7





#3

Chlorodifluoromethane

Concen: 0.286 ppbv m

RT: 2.96 min Scan# 54

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tot Ion: 51 Resp: 32834

Ion Ratio Lower Upper

51 100

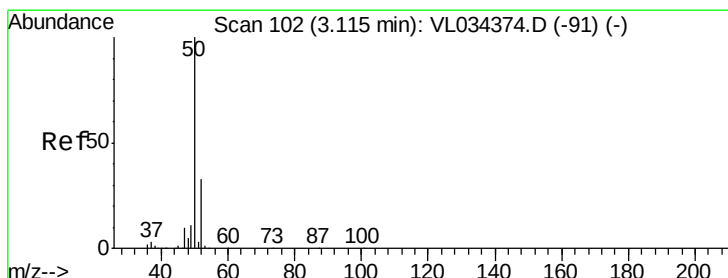
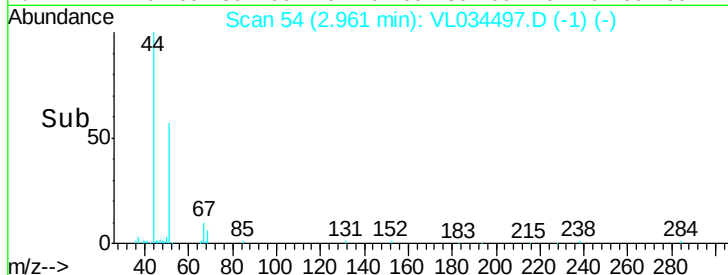
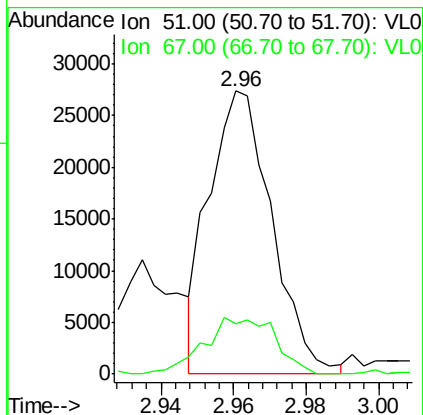
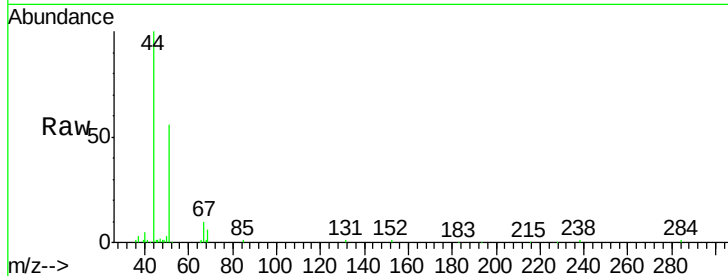
67 0.9 16.2 24.2#

Manual Integrations

APPROVED

MMDadoda

12/19/2019 3:47:07 PM



#4

Chloromethane

Concen: 0.440 ppbv

RT: 3.11 min Scan# 102

Delta R.T. 0.00 min

Lab File: VL034497.D

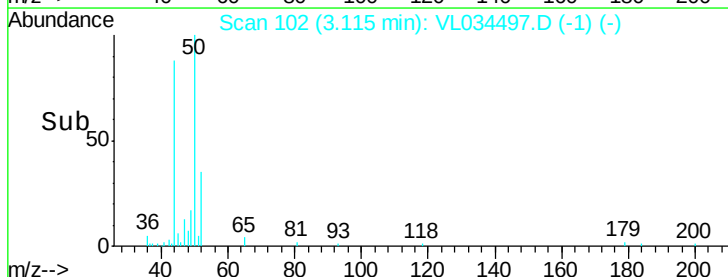
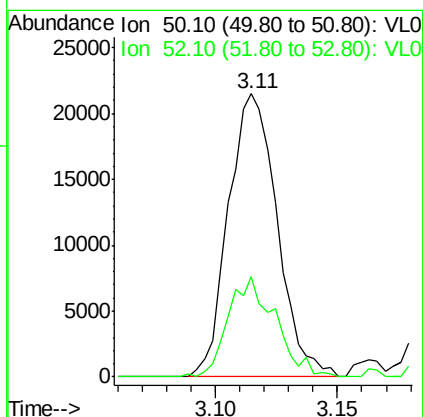
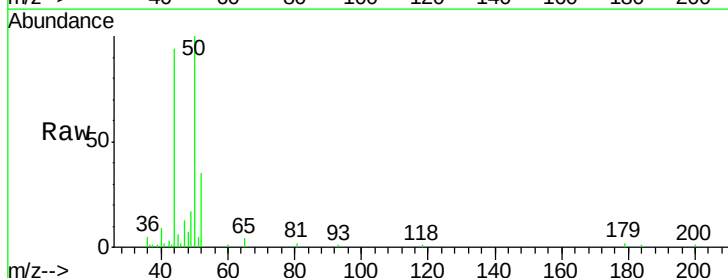
Acq: 17 Dec 2019 17:54

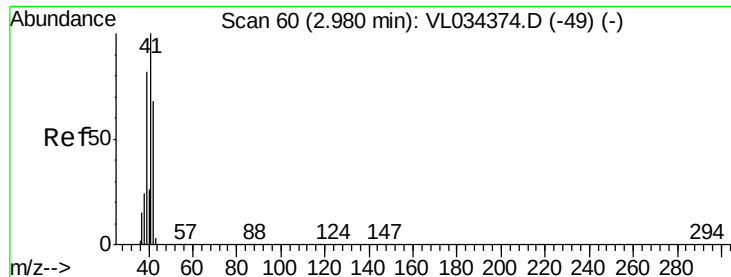
Tgt Ion: 50 Resp: 29806

Ion Ratio Lower Upper

50 100

52 35.4 26.8 40.2





#9

Propene

Concen: 1.750 ppbv m

RT: 3.00 min Scan# 65

Delta R.T. 0.02 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tot Ion: 41 Resp: 89213

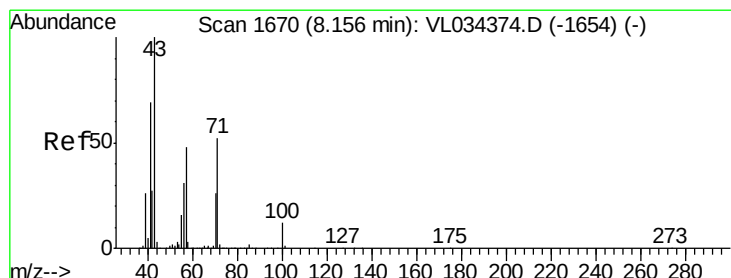
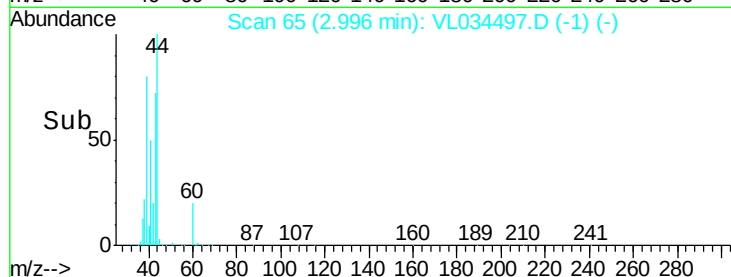
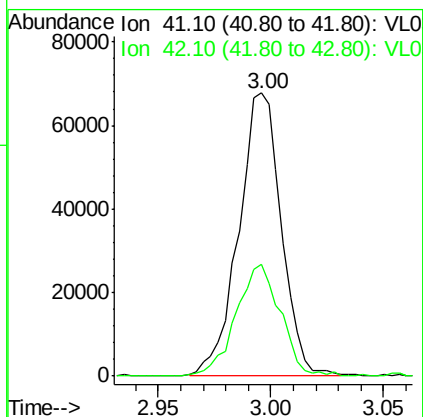
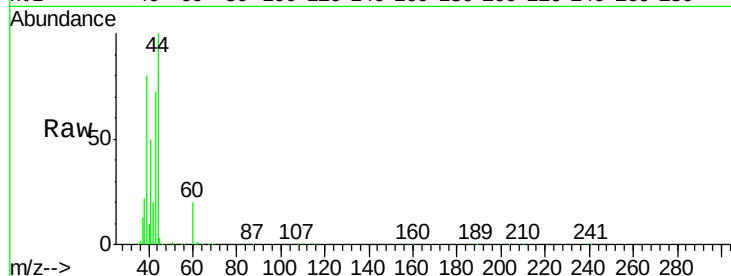
Ion Ratio Lower Upper

41 100

42 81.6 54.6 82.0

Manual Integrations
APPROVED

MMDadoda
12/19/2019 3:47:07 PM



#10

Heptane

Concen: 0.298 ppbv

RT: 8.15 min Scan# 1669

Delta R.T. -0.00 min

Lab File: VL034497.D

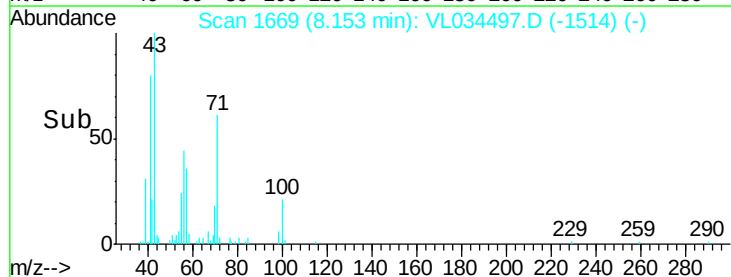
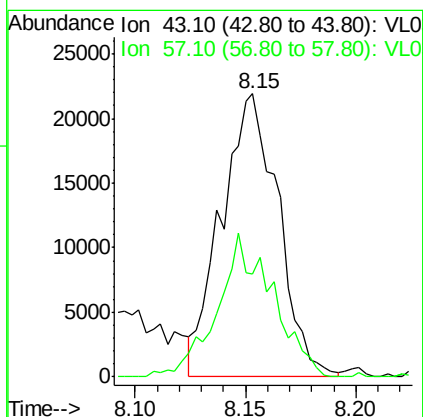
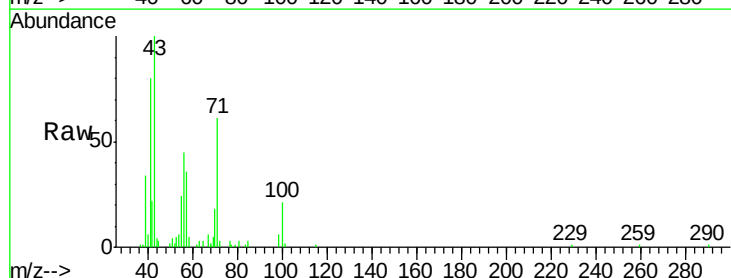
Acq: 17 Dec 2019 17:54

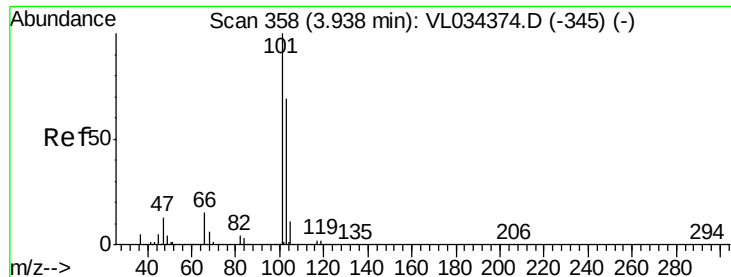
Tgt Ion: 43 Resp: 39215

Ion Ratio Lower Upper

43 100

57 49.2 40.2 60.2





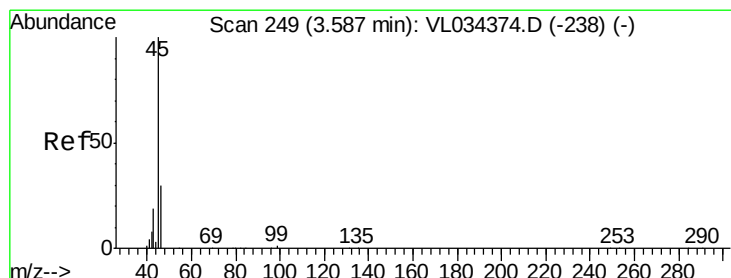
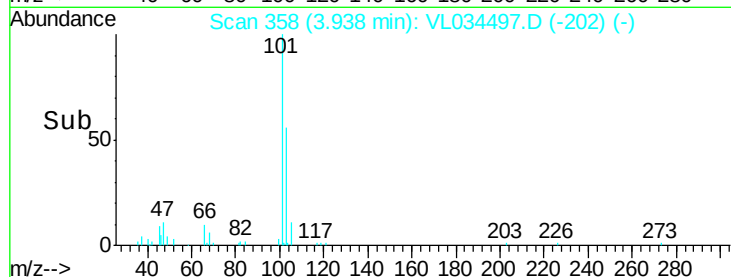
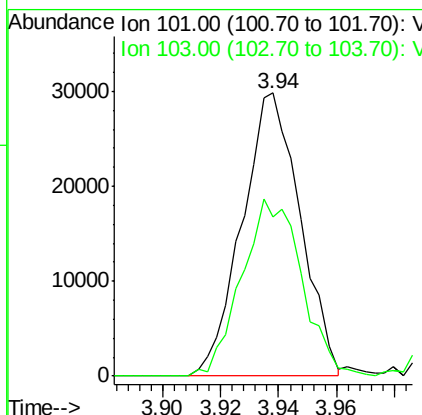
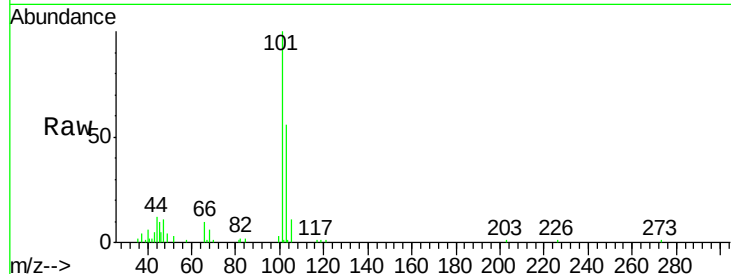
#11
 Trichlorofluoromethane
 Concen: 0.250 ppbv
 RT: 3.94 min Scan# 358
 Delta R.T. 0.00 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

Tot Ion	Ion	Ratio	Lower	Upper
41424	101	100		
	103	56.5	55.4	83.0

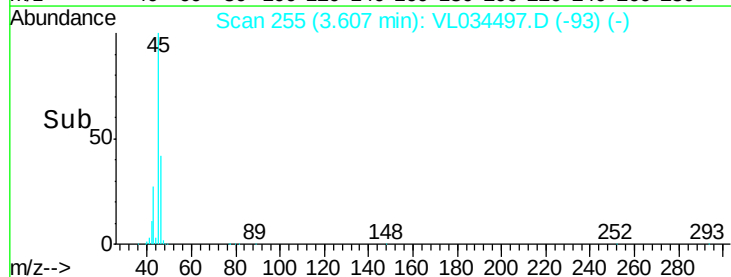
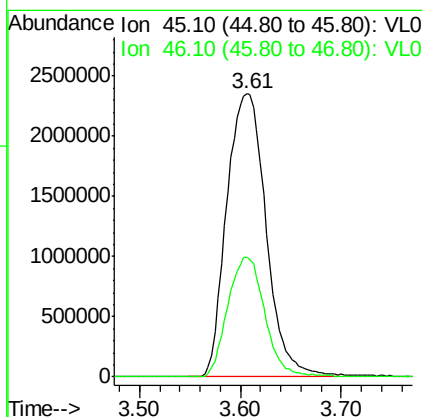
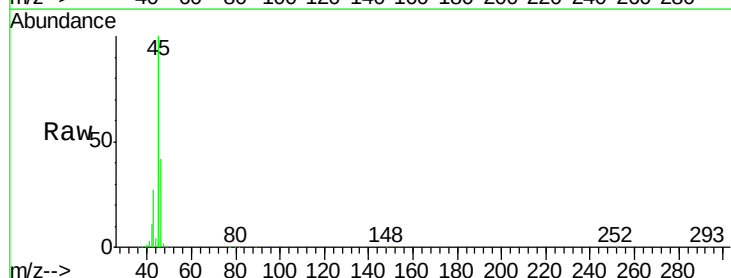
Manual Integrations
 APPROVED

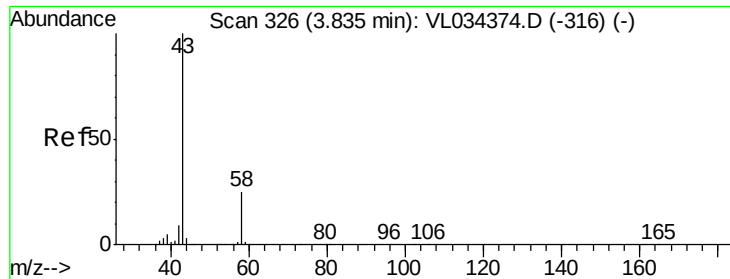
MMDadoda
 12/19/2019 3:47:07 PM



#13
 Ethanol
 Concen: 449.601 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. 0.02 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Tgt Ion	Ion	Ratio	Lower	Upper
6384665	45	100		
	46	40.1	13.8	55.4





#15

Acetone

Concen: 6.661 ppbv

RT: 3.84 min Scan# 326

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tot Ion: 43 Resp: 877847

Ion Ratio Lower Upper

43 100

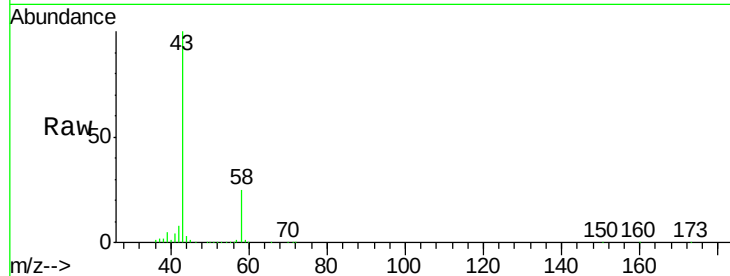
58 21.8 20.2 30.4

Manual Integrations

APPROVED

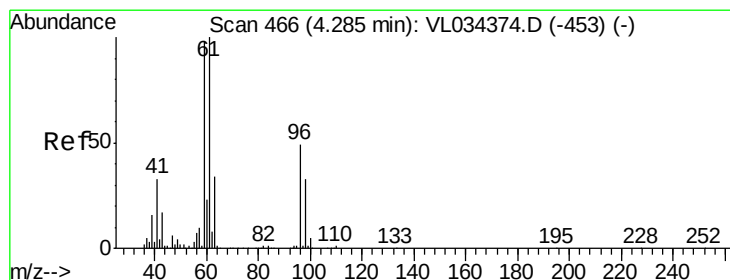
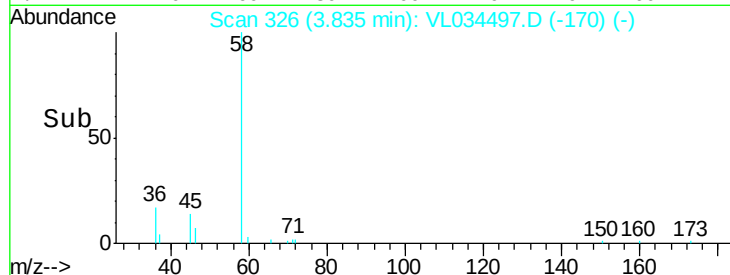
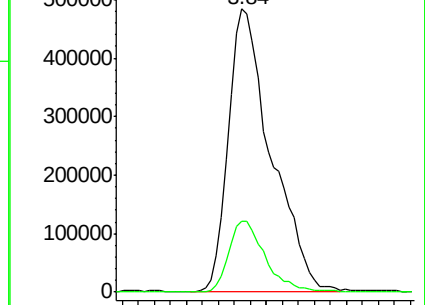
MMDadoda

12/19/2019 3:47:07 PM



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#17

tert-Butyl alcohol

Concen: 0.342 ppbv m

RT: 4.31 min Scan# 474

Delta R.T. 0.03 min

Lab File: VL034497.D

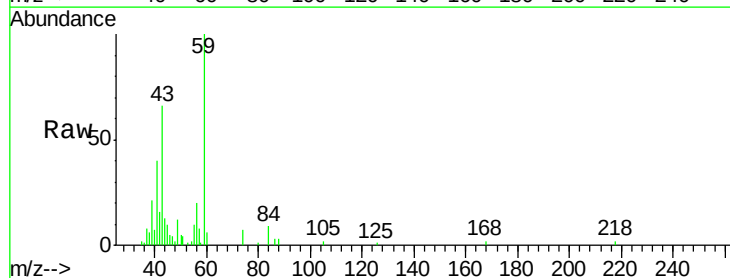
Acq: 17 Dec 2019 17:54

Tgt Ion: 59 Resp: 37930

Ion Ratio Lower Upper

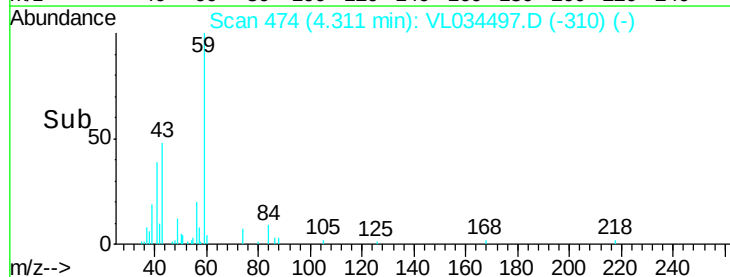
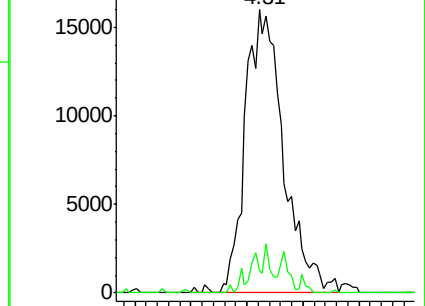
59 100

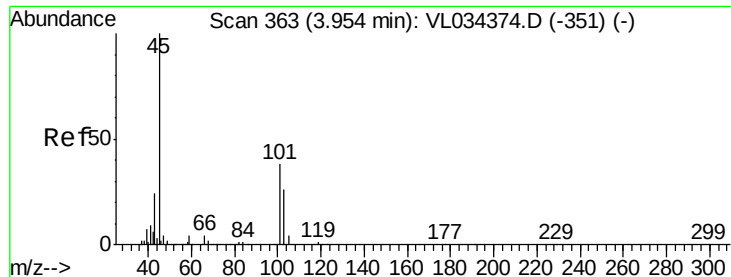
57 0.0 8.8 13.2#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#19

Isopropyl Alcohol

Concen: 1.703 ppbv m

RT: 3.99 min Scan# 374

Delta R.T. 0.04 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tot Ion: 45 Resp: 143879

Ion Ratio Lower Upper

45 100

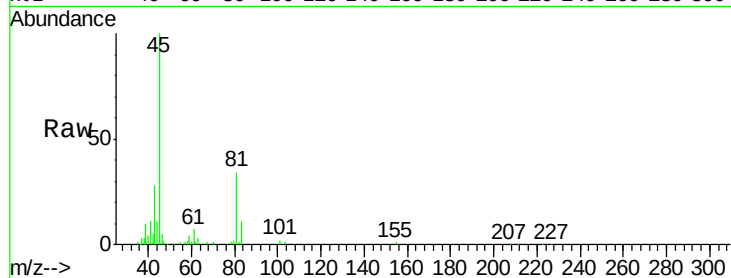
58 133.3 1.3 1.9#

Manual Integrations

APPROVED

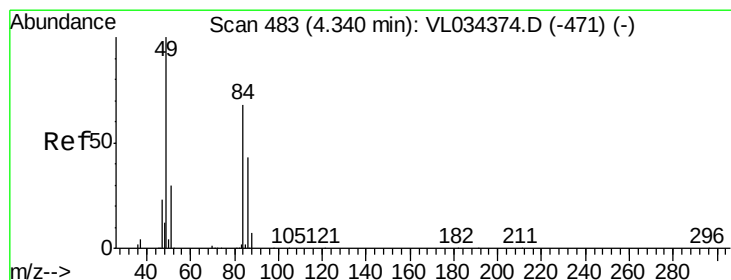
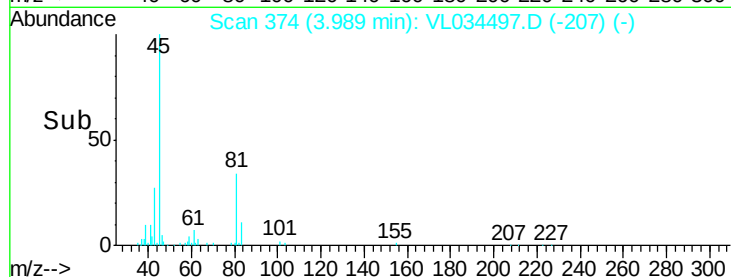
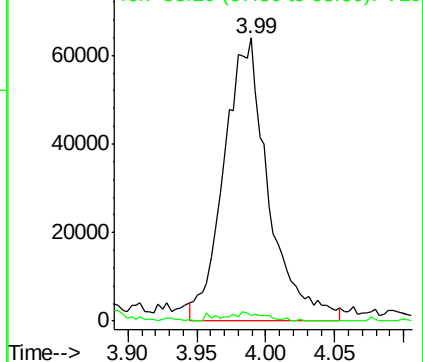
MMDadoda

12/19/2019 3:47:07 PM



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.425 ppbv

RT: 4.34 min Scan# 483

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Tgt Ion: 84 Resp: 66610

Ion Ratio Lower Upper

84 100

49 145.0 116.8 175.2

51 44.0 35.6 53.4

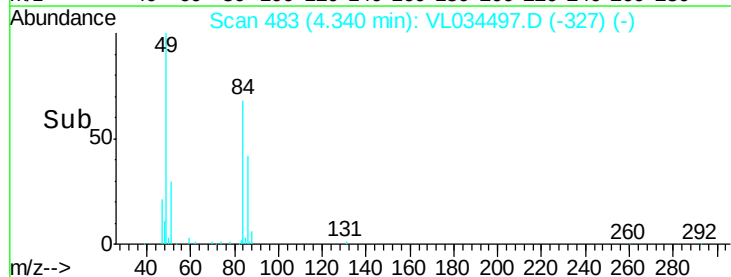
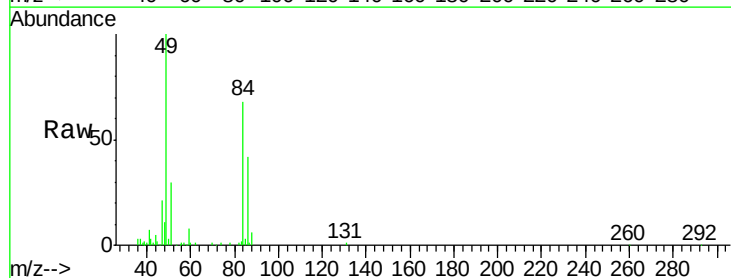
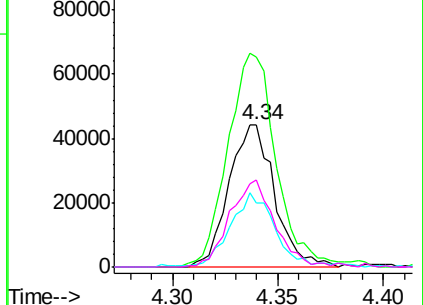
86 60.1 50.7 76.1

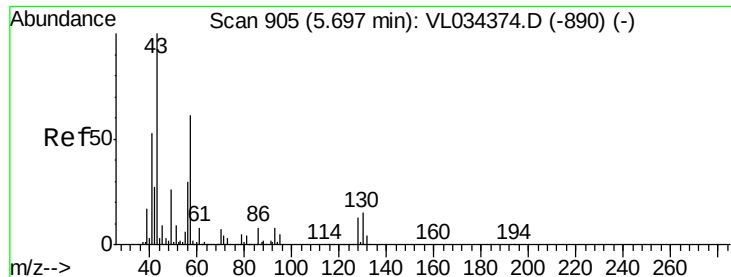
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#26

Hexane

Concen: 0.452 ppbv

RT: 5.70 min Scan# 905

Delta R.T. 0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

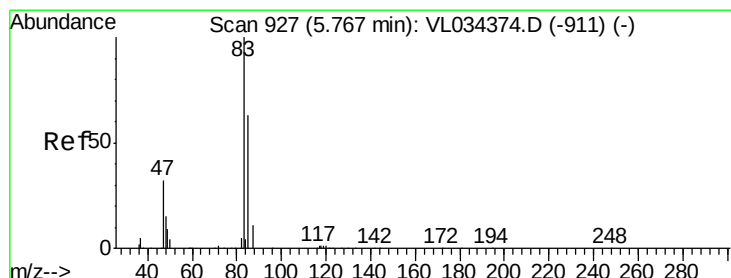
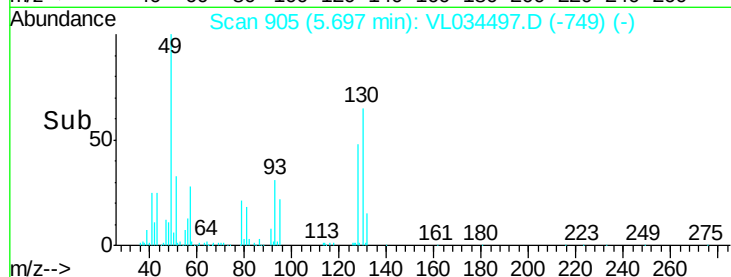
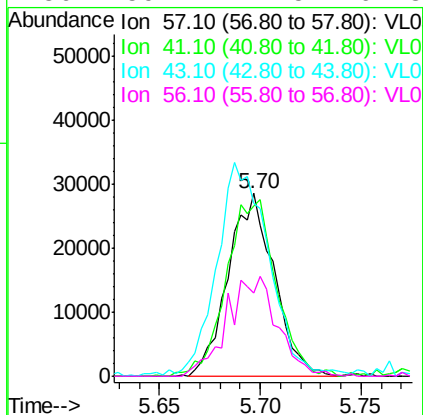
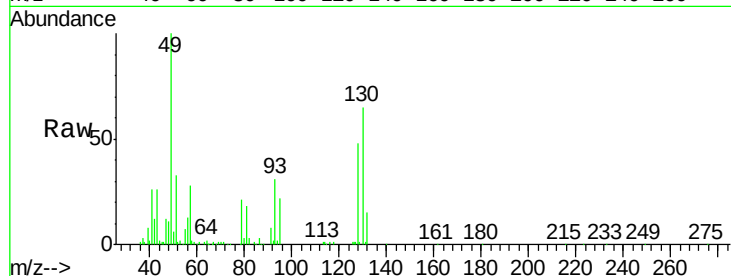
ClientSampleId :

LIHA-IAHDUP

Tot Ion	57	Resp	45627
Ion	Ratio	Lower	Upper
57	100		
41	104.8	75.0	112.4
43	136.1	186.6	279.8#
56	59.7	41.5	62.3

Manual Integrations
APPROVED

MMDadoda
12/19/2019 3:47:07 PM



#29

Chloroform

Concen: 0.671 ppbv

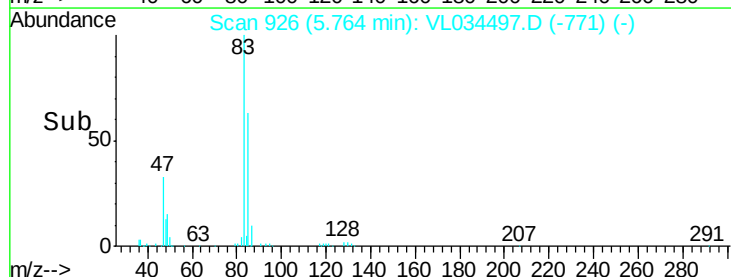
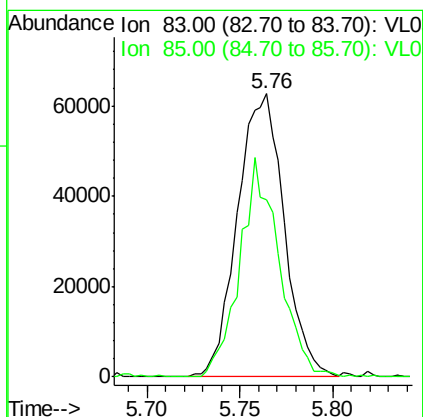
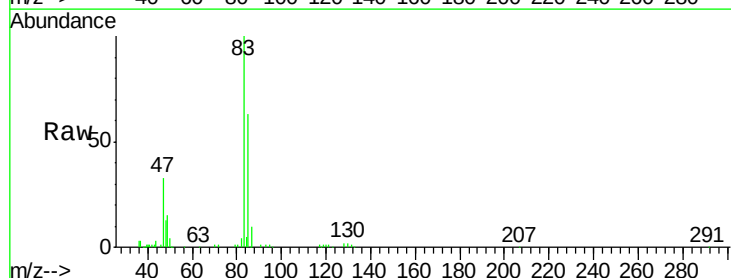
RT: 5.76 min Scan# 926

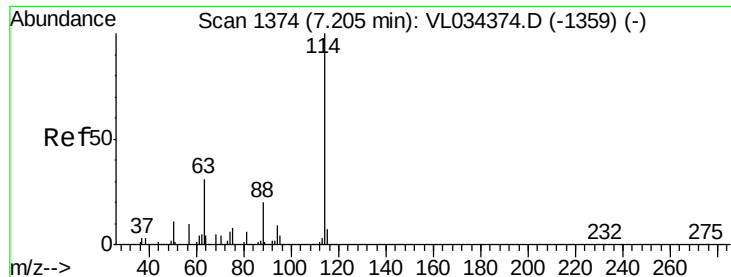
Delta R.T. -0.00 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Tgt Ion	83	Resp	109762
Ion	Ratio	Lower	Upper
83	100		
85	62.7	50.4	75.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.20 min Scan# 1372

Delta R.T. -0.01 min

Lab File: VL034497.D

Acq: 17 Dec 2019 17:54

Instrument :

MSVOA_L

ClientSampleId :

LIHA-IAHDUP

Tot Ion:114 Resp: 1793208

Ion Ratio Lower Upper

114 100

63 29.6 24.2 36.4

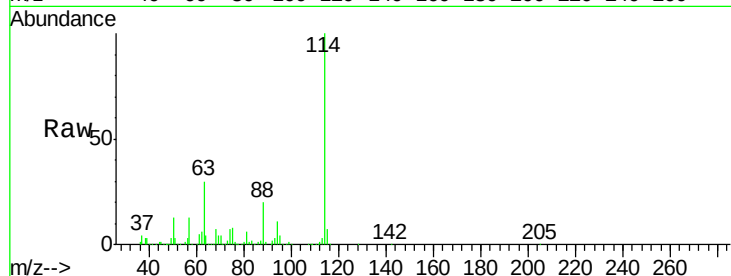
88 20.0 15.9 23.9

Manual Integrations

APPROVED

MMDadoda

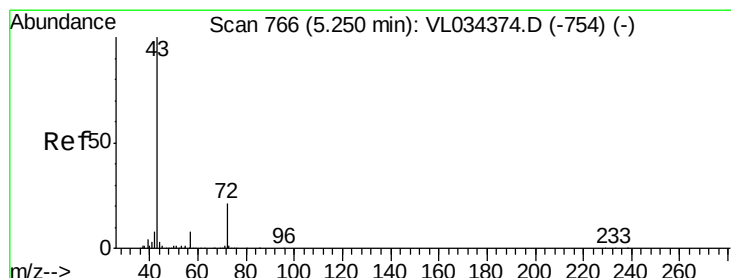
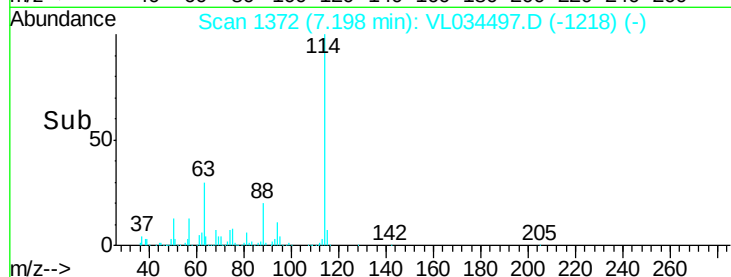
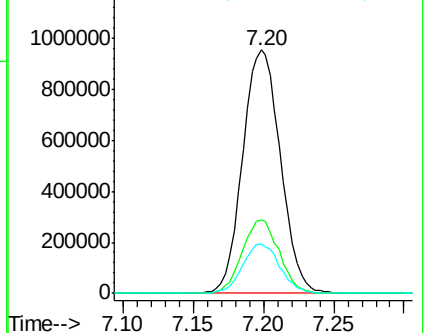
12/19/2019 3:47:07 PM



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.229 ppbv

RT: 5.25 min Scan# 766

Delta R.T. 0.00 min

Lab File: VL034497.D

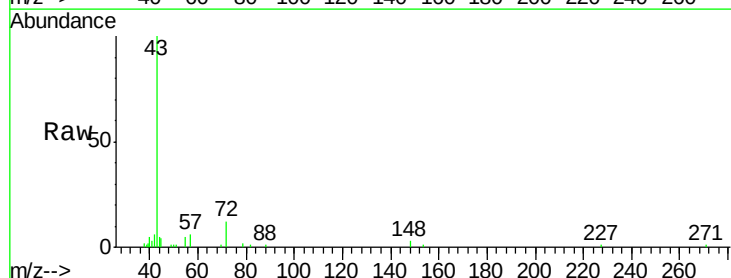
Acq: 17 Dec 2019 17:54

Tgt Ion: 43 Resp: 33768

Ion Ratio Lower Upper

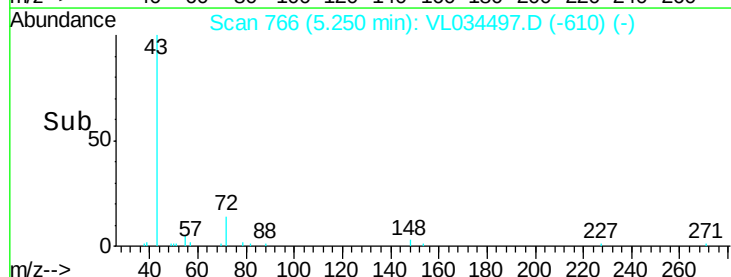
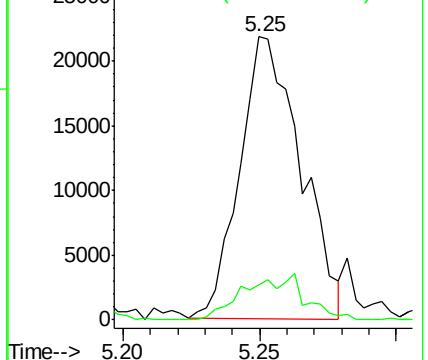
43 100

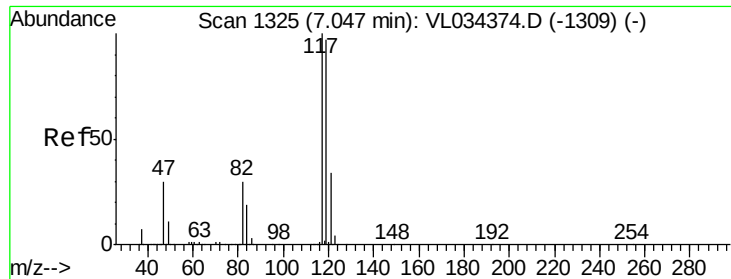
72 16.1 17.0 25.6#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





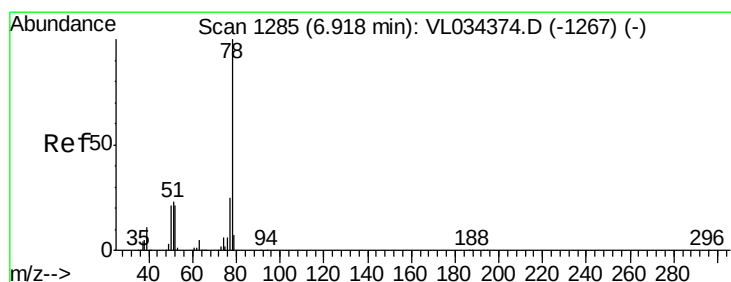
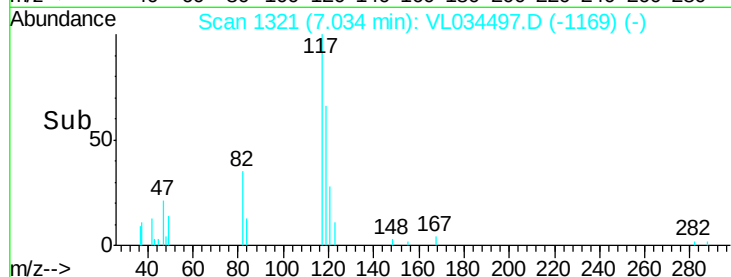
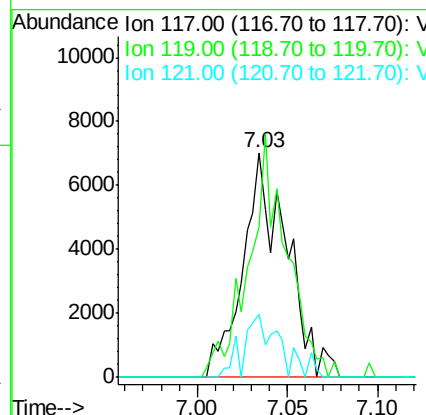
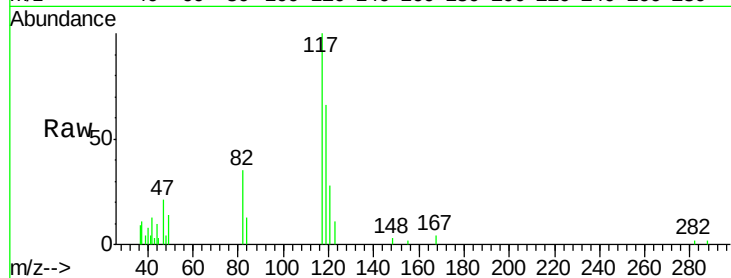
#35
Carbon Tetrachloride
Concen: 0.077 ppbv m
RT: 7.03 min Scan# 1321
Delta R.T. -0.01 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

Tot Ion	Ratio	Lower	Upper
117	100		
119	66.5	77.3	115.9#
121	28.2	27.4	41.2

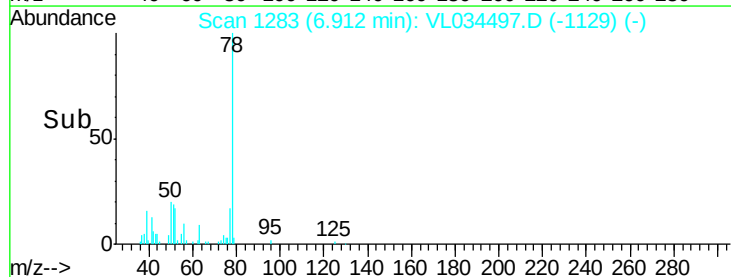
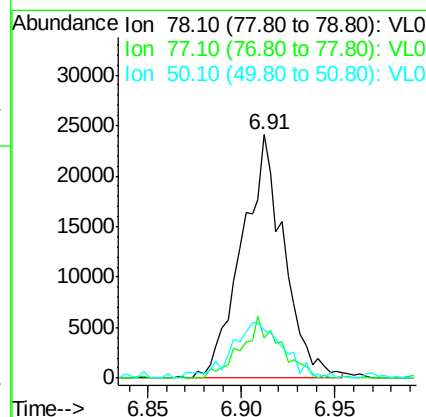
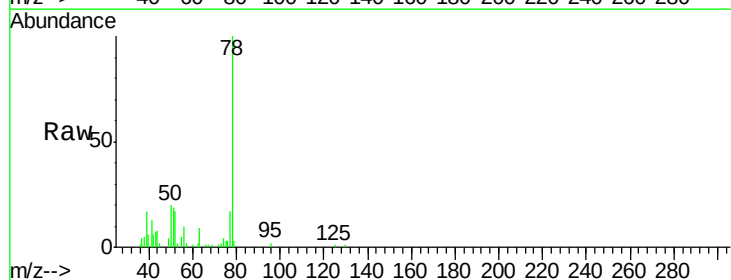
Manual Integrations
APPROVED

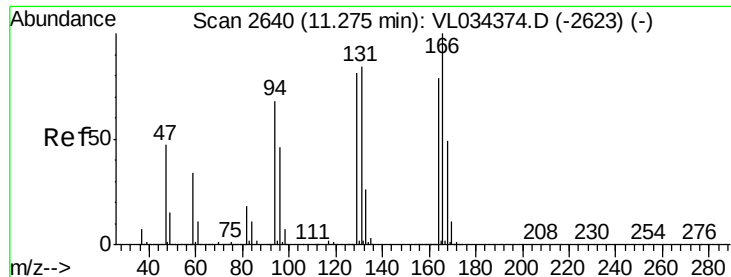
MMDadoda
12/19/2019 3:47:07 PM



#36
Benzene
Concen: 0.210 ppbv m
RT: 6.91 min Scan# 1283
Delta R.T. -0.01 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion	Ratio	Lower	Upper
78	100		
77	16.7	20.2	30.4#
50	19.9	17.1	25.7





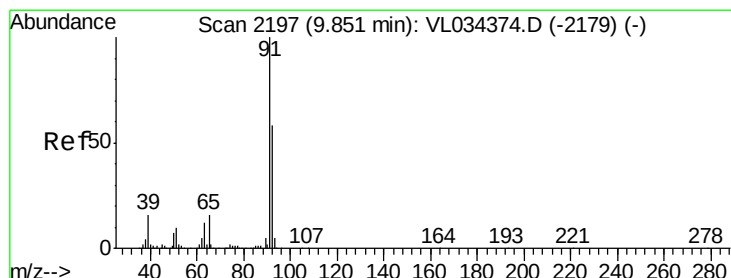
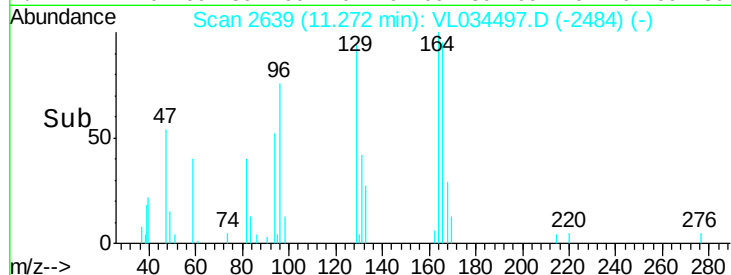
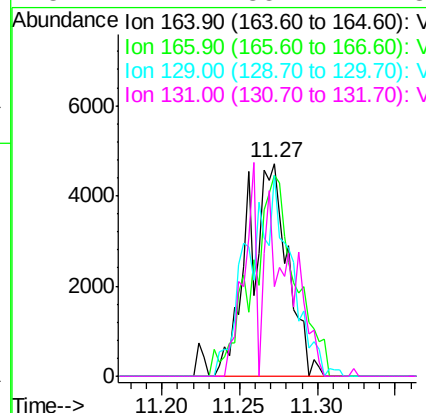
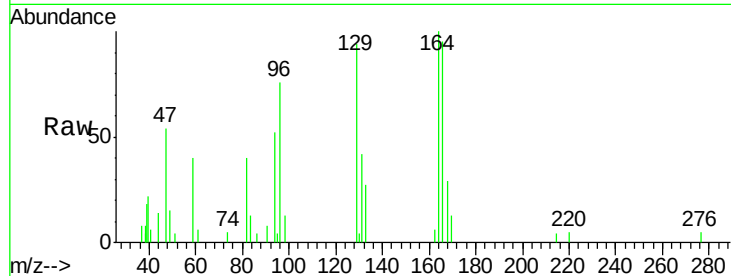
#52
Tetrachloroethene
Concen: 0.110 ppbv m
RT: 11.27 min Scan# 2639
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

Tot Ion	Ratio	Lower	Upper
164	100		
166	94.6	101.7	152.5#
129	94.4	82.6	123.8
131	42.2	85.2	127.8#

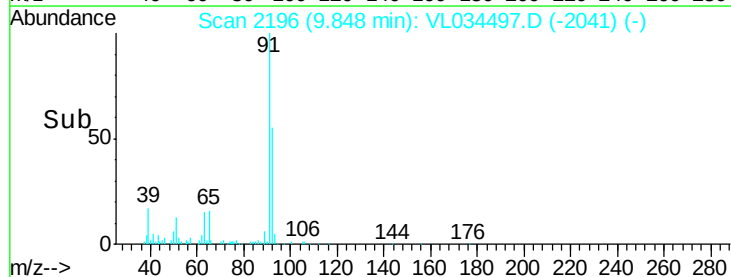
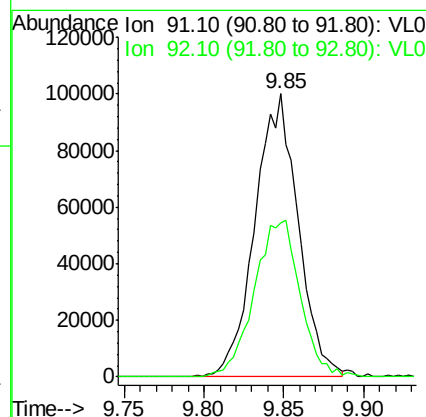
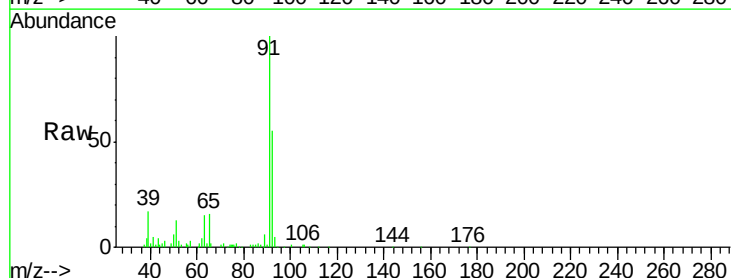
Manual Integrations
APPROVED

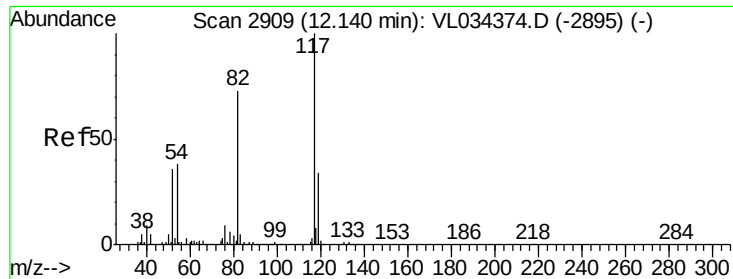
MMDadoda
12/19/2019 3:47:07 PM



#53
Toluene
Concen: 0.910 ppbv
RT: 9.85 min Scan# 2196
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.0	47.9	71.9





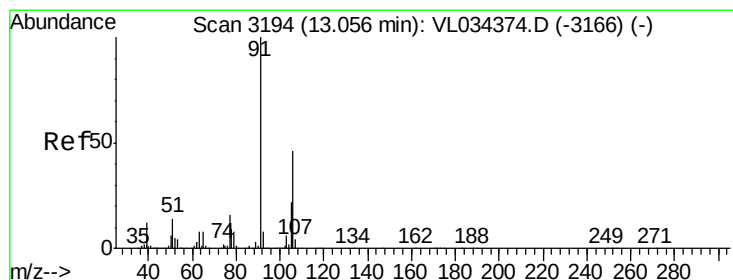
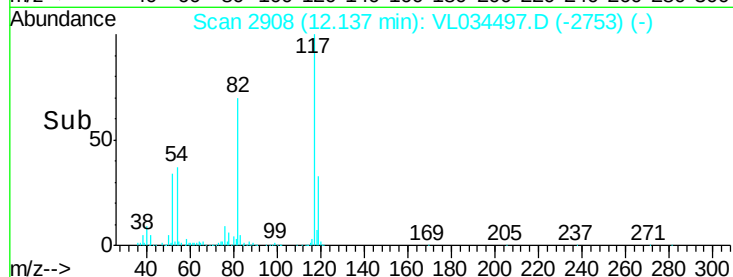
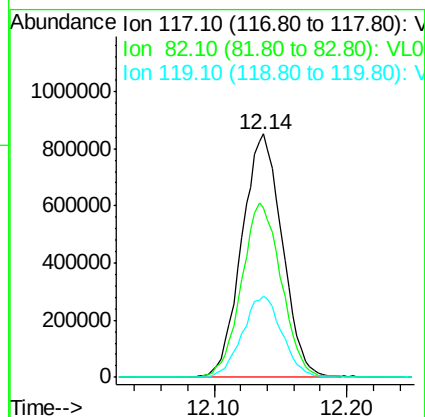
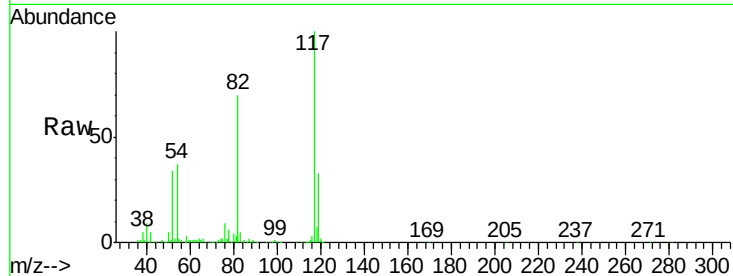
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.14 min Scan# 2908
Delta R.T. -0.00 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Instrument :
MSVOA_L
ClientSampleId :
LIHA-IAHDUP

Tot Ion	Ratio	Lower	Upper
117	100		
82	71.0	57.5	86.3
119	32.9	25.4	38.2

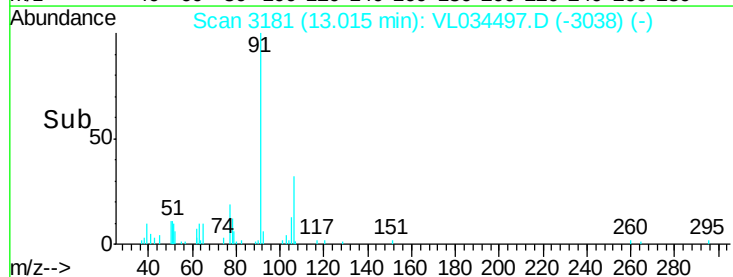
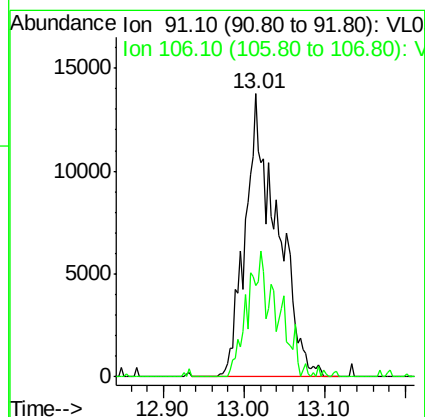
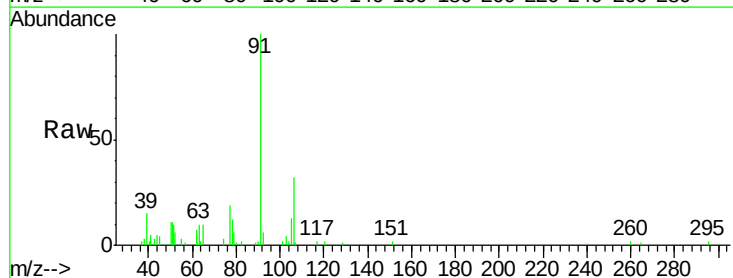
Manual Integrations
APPROVED

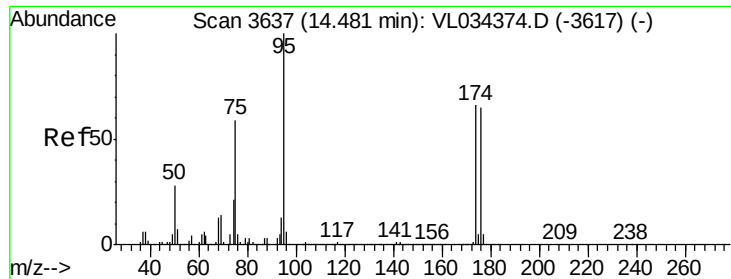
MMDadoda
12/19/2019 3:47:07 PM



#59
m/p-Xylene
Concen: 0.155 ppbv m
RT: 13.01 min Scan# 3181
Delta R.T. -0.04 min
Lab File: VL034497.D
Acq: 17 Dec 2019 17:54

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	34.6	51.8#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.306 ppbv
 RT: 14.47 min Scan# 3635
 Delta R.T. -0.01 min
 Lab File: VL034497.D
 Acq: 17 Dec 2019 17:54

Instrument :
 MSVOA_L
 ClientSampleId :
 LIHA-IAHDUP

Tot Ion	Ratio	Lower	Upper
95	100		
174	63.4	52.2	78.2
175	4.5	3.8	5.8

Manual Integrations
 APPROVED

MMDadoda
 12/19/2019 3:47:07 PM

