

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120219\
 Data File : VL034442.D
 Acq On : 3 Dec 2019 1:17
 Operator : SY/AP
 Sample : K6097-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1A

Manual Integrations
 APPROVED

apatel
 12/4/2019 4:47:36 PM

Quant Time: Dec 03 14:15:16 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 19 14:15:35 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	5.68	49	745448	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.21	114	1490625	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.15	117	1423244	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.48	95	1258196	10.51	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.10%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	39561	0.293	ppbv	90
3) Chlorodifluoromethane	2.96	51	31305m	0.337	ppbv	
4) Chloromethane	3.12	50	25034	0.456	ppbv	98
9) Propene	3.00	41	52516m	1.272	ppbv	
10) Heptane	8.16	43	18611m	0.175	ppbv	
11) Trichlorofluoromethane	3.94	101	35814	0.267	ppbv	94
13) Ethanol	3.59	45	748335	65.058	ppbv	96
15) Acetone	3.84	43	694379	6.505	ppbv	97
19) Isopropyl Alcohol	3.97	45	288357	4.214	ppbv #	97
20) Methylene Chloride	4.34	84	189146	4.997	ppbv	99
26) Hexane	5.70	57	211733	2.587	ppbv #	45
29) Chloroform	5.76	83	35612m	0.269	ppbv	
34) 2-Butanone	5.26	43	26146m	0.213	ppbv	
35) Carbon Tetrachloride	7.05	117	10567m	0.082	ppbv	
36) Benzene	6.92	78	52229	0.351	ppbv	96
38) Trichloroethene	7.88	130	136343	2.230	ppbv	95
44) 2,2,4-Trimethylpentane	7.91	57	44513m	0.163	ppbv	
53) Toluene	9.86	91	408124	2.411	ppbv	99
58) Ethyl Benzene	12.78	91	43681m	0.198	ppbv	
59) m/p-Xylene	13.03	91	149041m	0.781	ppbv	
60) o-Xylene	13.75	91	48000m	0.254	ppbv	
74) 1,2,4-Trimethylbenzene	16.83	105	83480	0.368	ppbv #	65

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

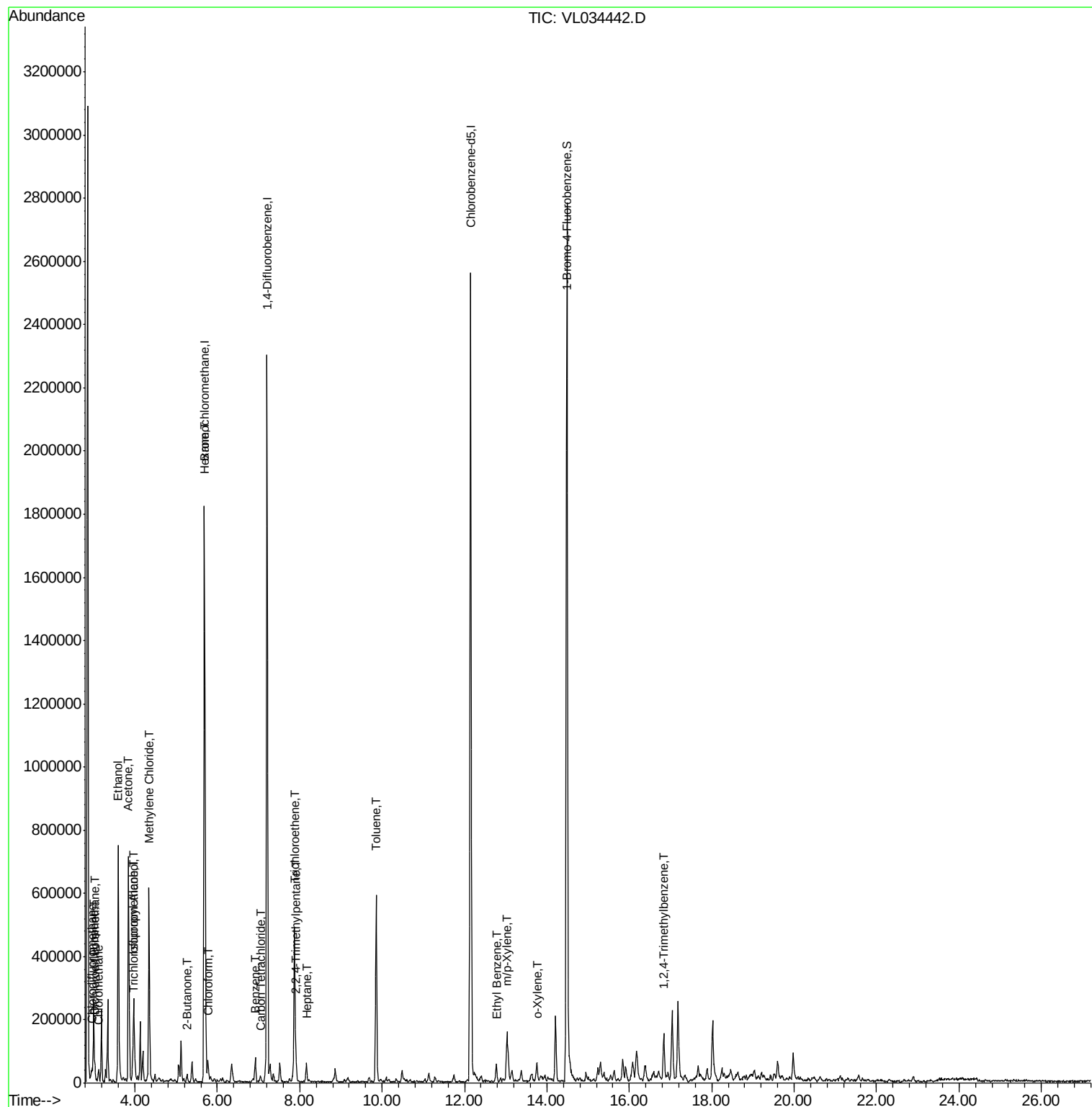
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120219\
Data File : VL034442.D
Acq On : 3 Dec 2019 1:17
Operator : SY/AP
Sample : K6097-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

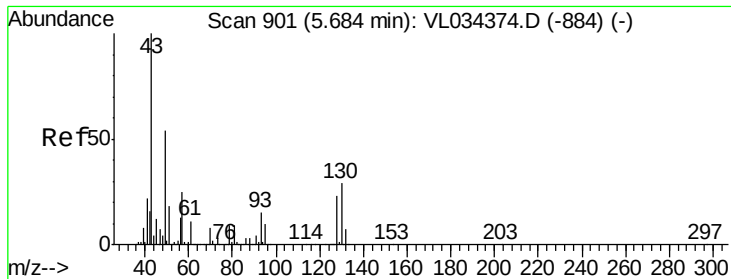
Instrument :
MSVOA_L
ClientSampleId :
IA-1A

Manual Integrations
APPROVED

apatel
12/4/2019 4:47:36 PM

Quant Time: Dec 03 14:15:16 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov
QLast Update : Tue Nov 19 14:15:35 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 901

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

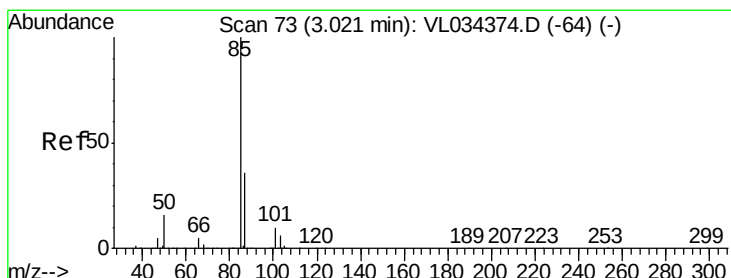
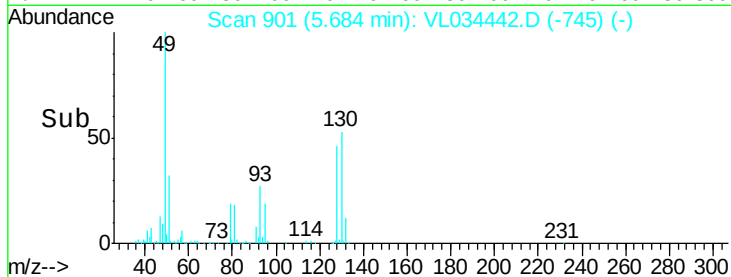
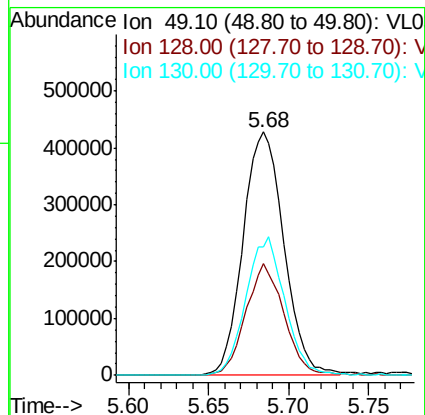
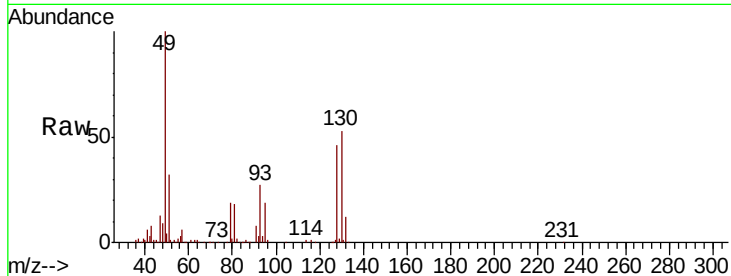
ClientSampled :

IA-1A

Tot Ion:	49	Resp:	745448
Ion Ratio	Lower	Upper	
49	100		
128	43.6	21.8	65.3
130	55.0	28.0	84.0

Manual Integrations
APPROVED

apatel
12/4/2019 4:47:36 PM



#2

Dichlorodifluoromethane

Concen: 0.293 ppbv

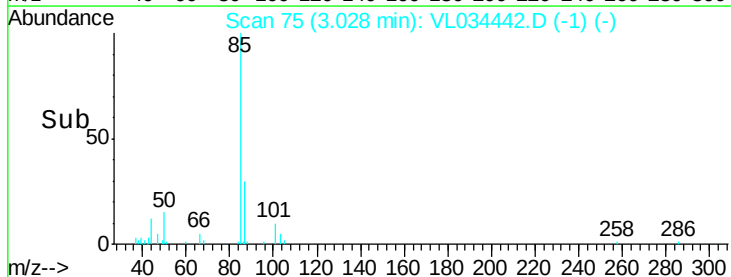
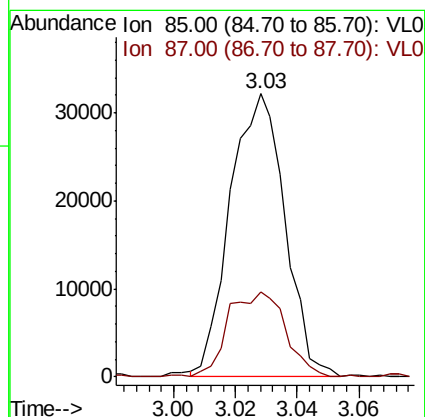
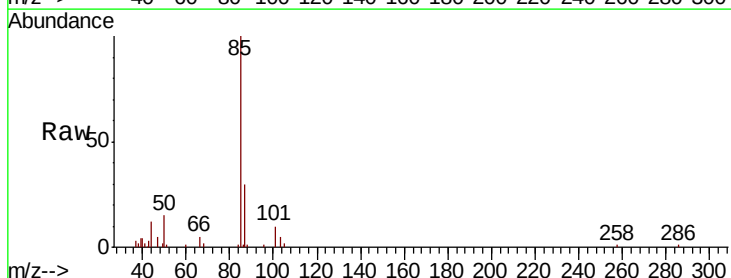
RT: 3.03 min Scan# 75

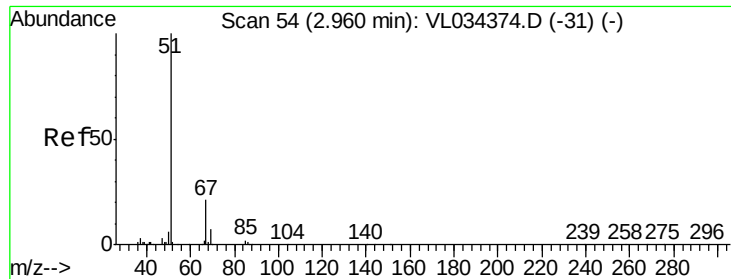
Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Tgt Ion:	85	Resp:	39561
Ion Ratio	Lower	Upper	
85	100		
87	29.9	28.5	42.7





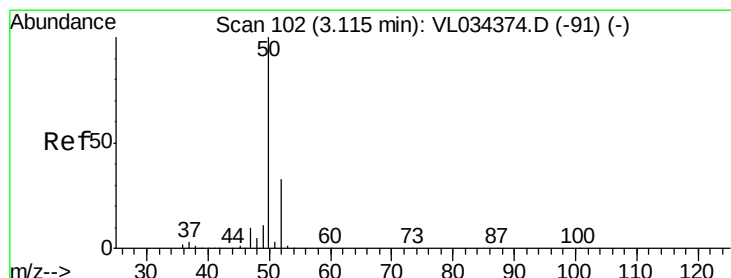
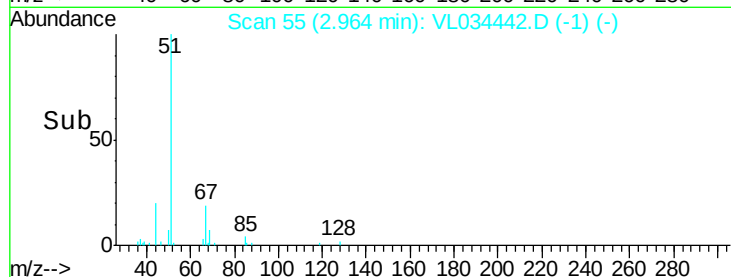
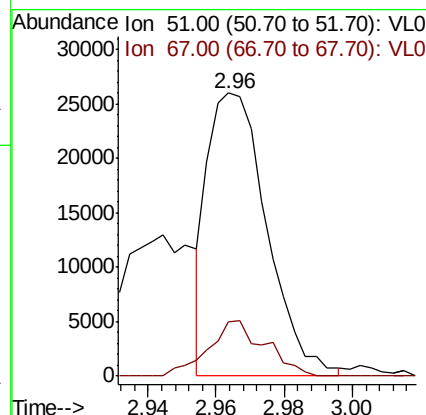
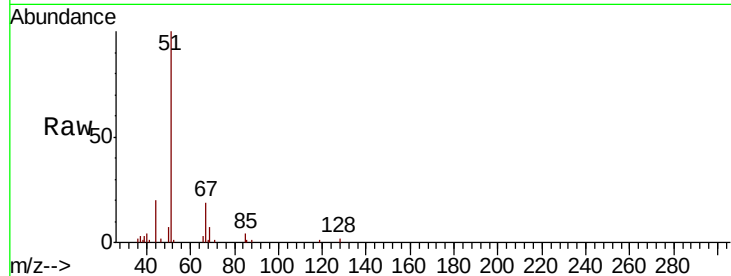
#3
Chlorodifluoromethane
Concen: 0.337 ppbv
RT: 2.96 min Scan# 55
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Instrument :
MSVOA_L
ClientSampled :
IA-1A

Tot Ion	51	Resp	31305
Ion Ratio	100	Lower	Upper
51	100		
67	18.7	16.2	24.2

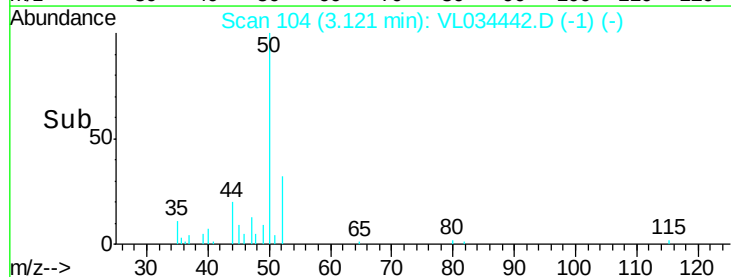
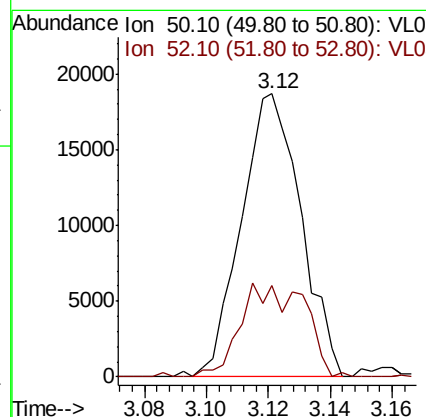
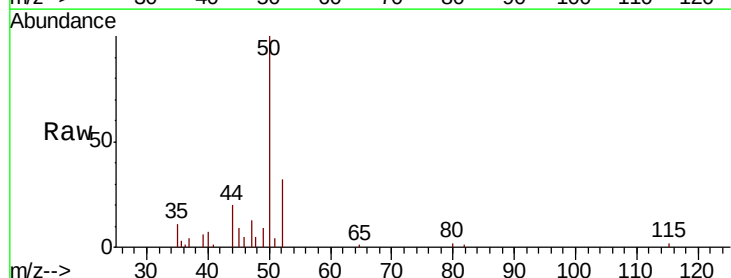
Manual Integrations
APPROVED

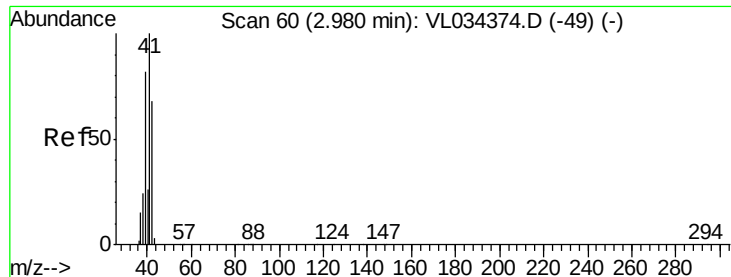
apatel
12/4/2019 4:47:36 PM



#4
Chloromethane
Concen: 0.456 ppbv
RT: 3.12 min Scan# 104
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion	50	Resp	25034
Ion Ratio	100	Lower	Upper
50	100		
52	32.5	26.8	40.2





#9

Propene

Concen: 1.272 ppbv m

RT: 3.00 min Scan# 66

Delta R.T. 0.02 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampled :

IA-1A

Tot Ion: 41 Resp: 52516

Ion Ratio Lower Upper

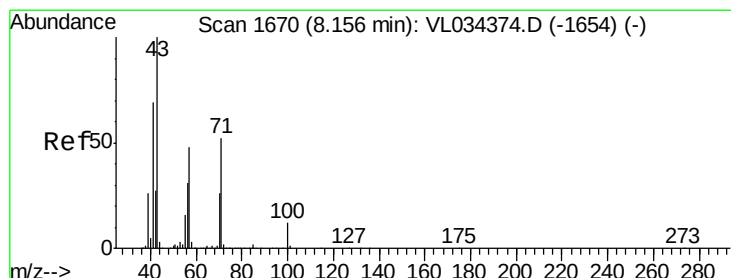
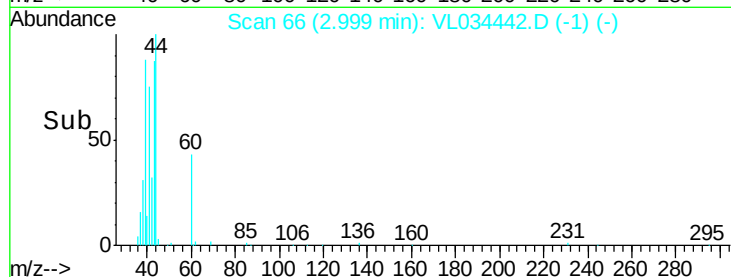
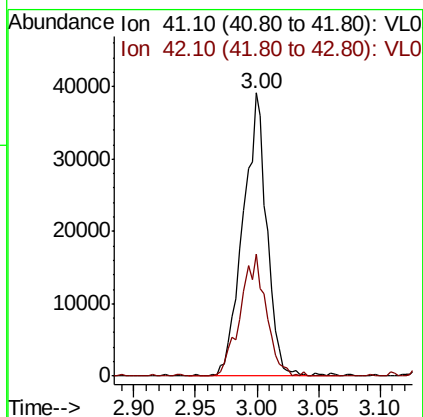
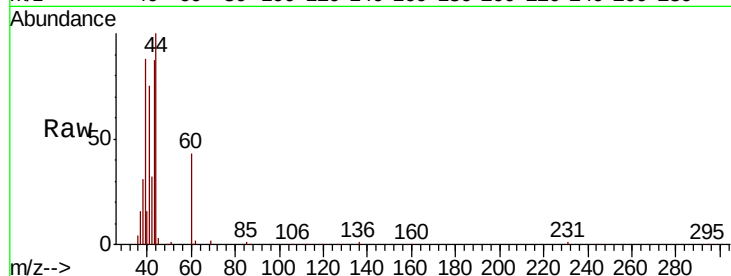
41 100

42 77.1 54.6 82.0

Manual Integrations
APPROVED

apatel

12/4/2019 4:47:36 PM



#10

Heptane

Concen: 0.175 ppbv m

RT: 8.16 min Scan# 1672

Delta R.T. 0.01 min

Lab File: VL034442.D

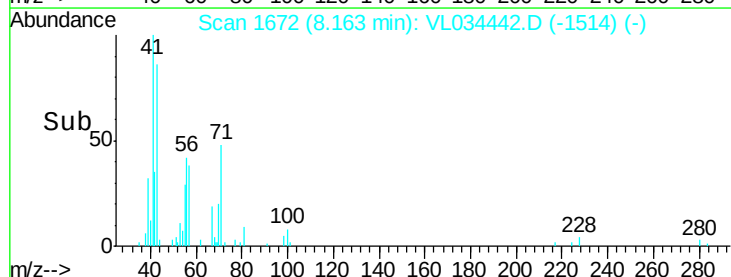
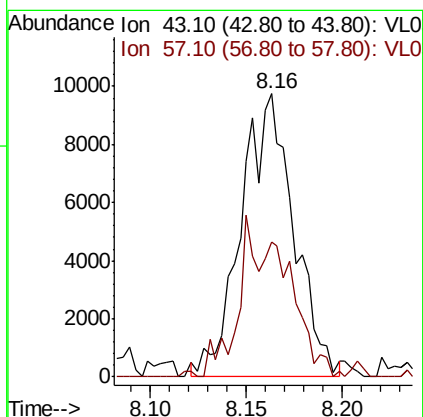
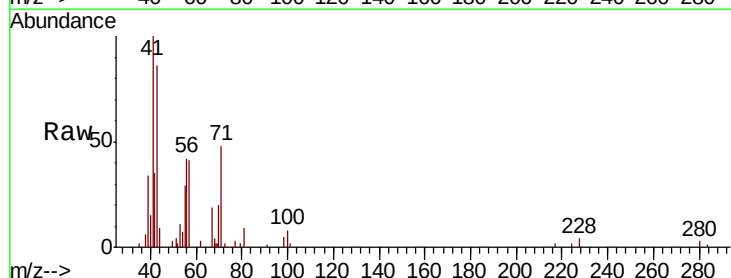
Acq: 3 Dec 2019 1:17

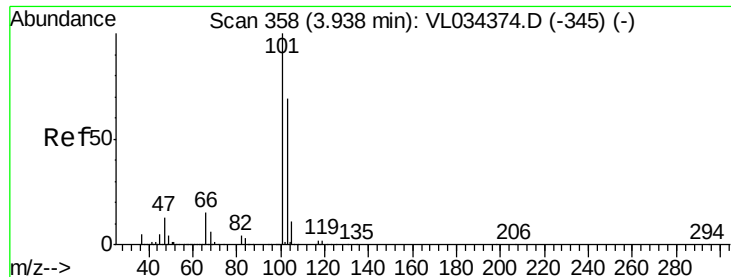
Tgt Ion: 43 Resp: 18611

Ion Ratio Lower Upper

43 100

57 53.4 40.2 60.2





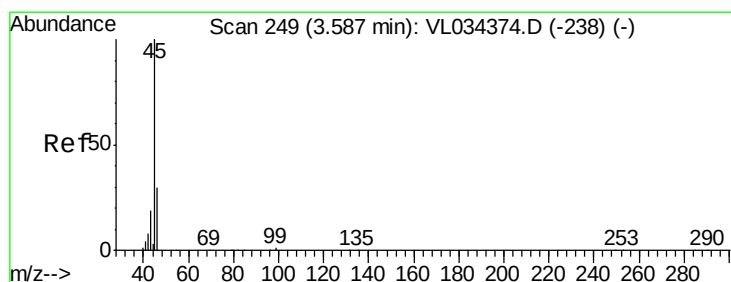
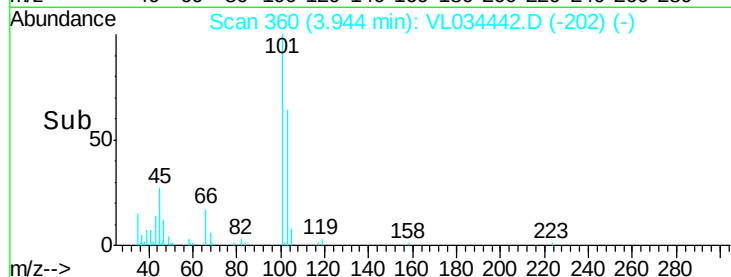
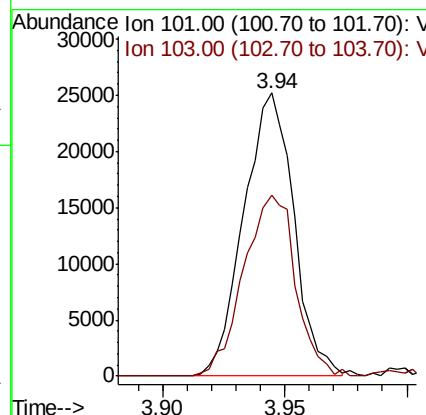
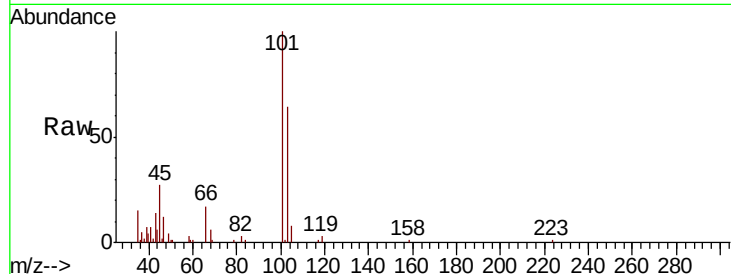
#11
Trichlorofluoromethane
Concen: 0.267 ppbv
RT: 3.94 min Scan# 360
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Instrument :
MSVOA_L
ClientSampled :
IA-1A

Tot Ion	Ratio	Lower	Upper
101	100		
103	64.1	55.4	83.0

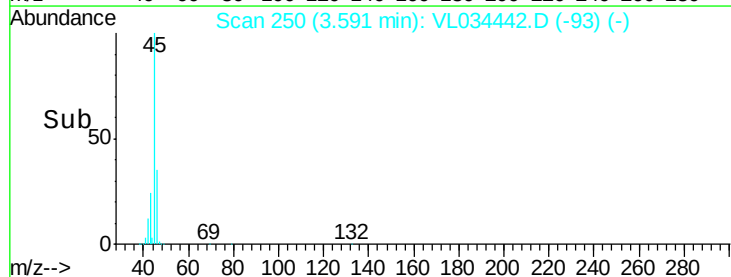
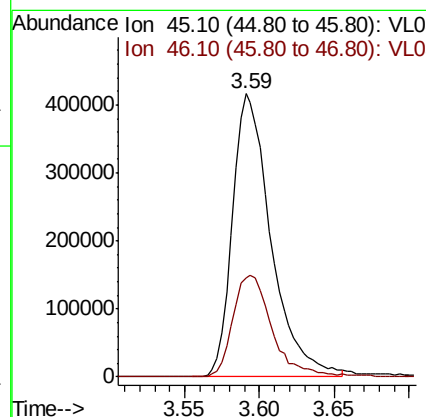
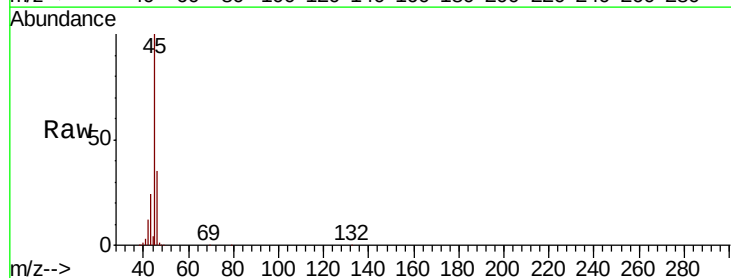
Manual Integrations
APPROVED

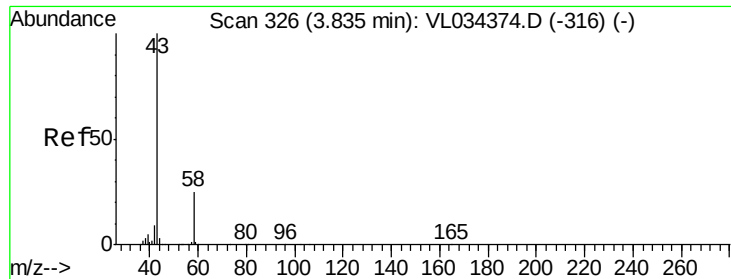
apatel
12/4/2019 4:47:36 PM



#13
Ethanol
Concen: 65.058 ppbv
RT: 3.59 min Scan# 250
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion	Ratio	Lower	Upper
45	100		
46	36.9	13.8	55.4





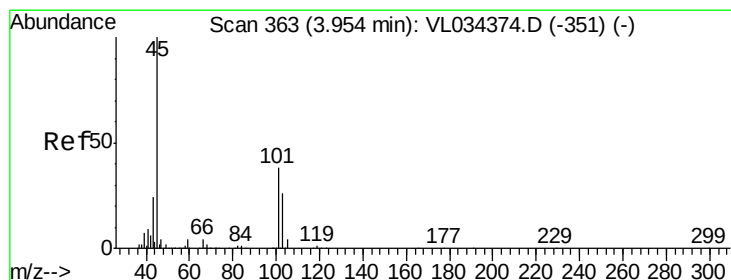
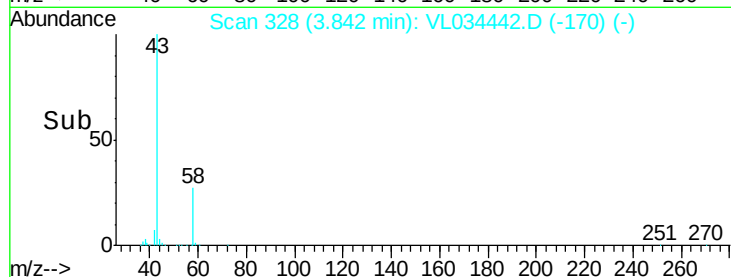
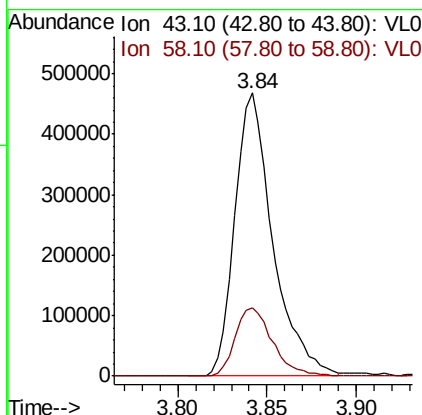
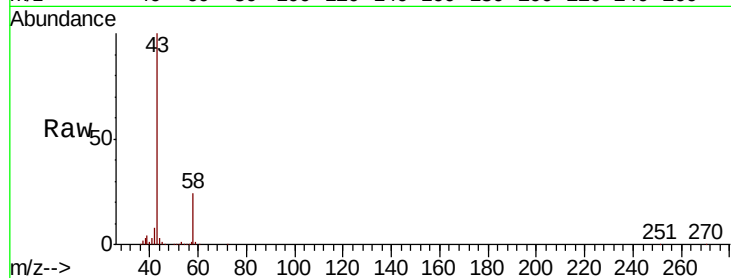
#15
Acetone
Concen: 6.505 ppbv
RT: 3.84 min Scan# 328
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Instrument :
MSVOA_L
ClientSampled :
IA-1A

Tot Ion	43	Resp	694379
Ion Ratio	100	Lower	Upper
58	24.0	20.2	30.4

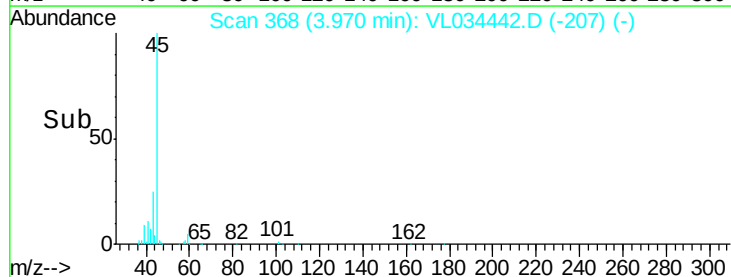
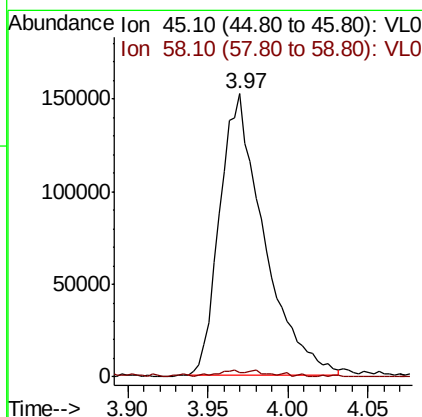
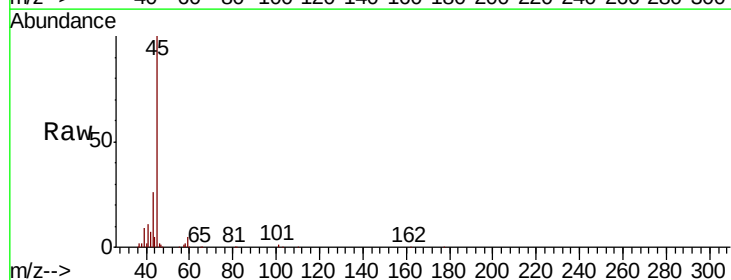
Manual Integrations
APPROVED

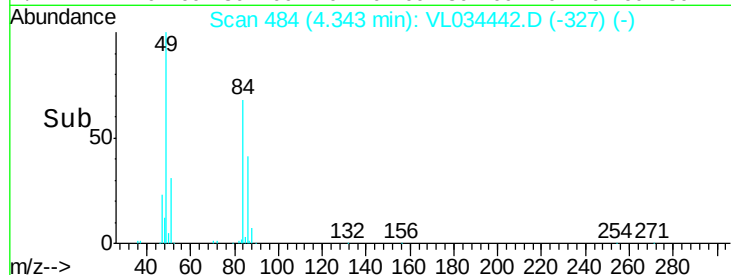
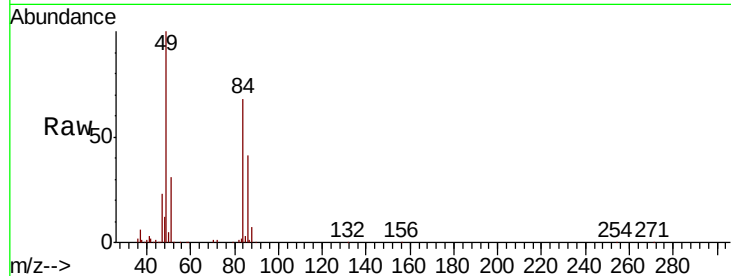
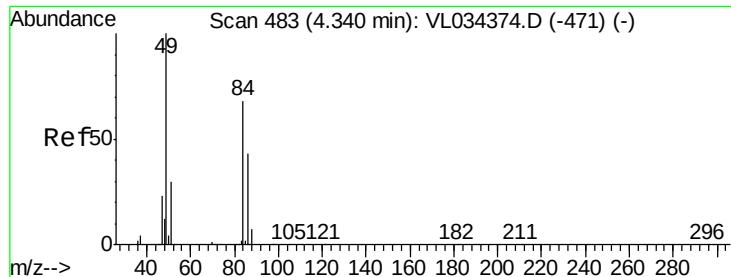
apatel
12/4/2019 4:47:36 PM



#19
Isopropyl Alcohol
Concen: 4.214 ppbv
RT: 3.97 min Scan# 368
Delta R.T. 0.02 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion	45	Resp	288357
Ion Ratio	100	Lower	Upper
58	2.8	1.3	1.9#





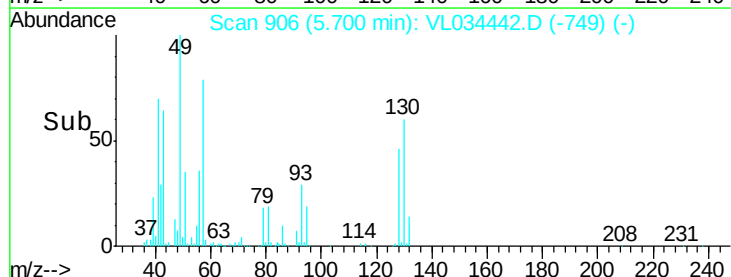
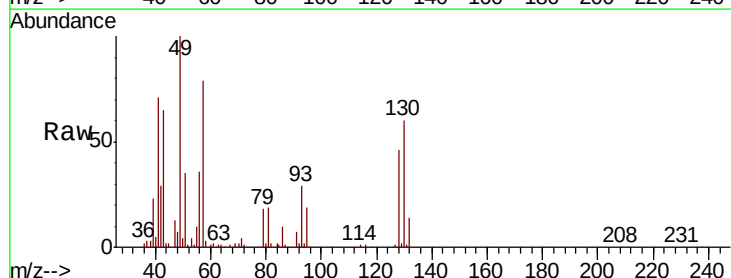
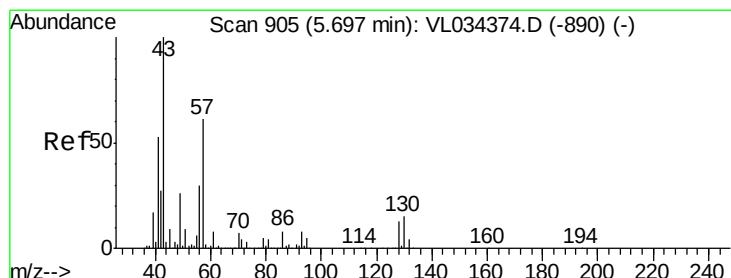
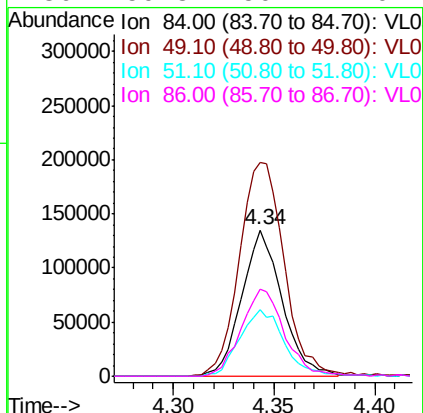
#20
Methvlene Chloride
Concen: 4.997 ppbv
RT: 4.34 min Scan# 484
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tot Ion:	84	Resp:	189146
Ion	Ratio	Lower	Upper
84	100		
49	145.9	116.8	175.2
51	45.3	35.6	53.4
86	59.8	50.7	76.1

Instrument :
MSVOA_L
ClientSampleId :
IA-1A

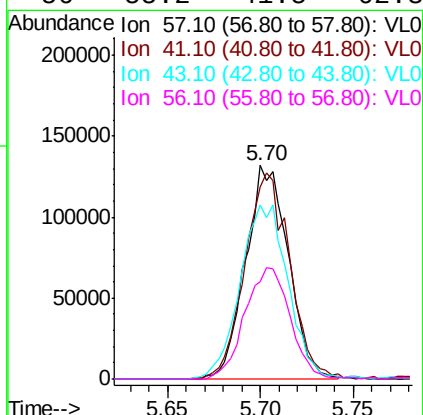
Manual Integrations
APPROVED

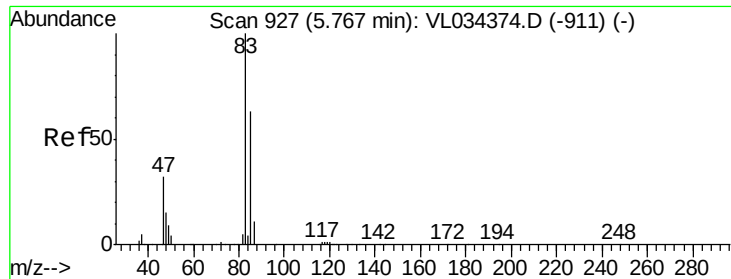
apatel
12/4/2019 4:47:36 PM



#26
Hexane
Concen: 2.587 ppbv
RT: 5.70 min Scan# 906
Delta R.T. 0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion:	57	Resp:	211733
Ion	Ratio	Lower	Upper
57	100		
41	101.3	75.0	112.4
43	92.2	186.6	279.8#
56	55.2	41.5	62.3





#29

Chloroform

Concen: 0.269 ppbv m

RT: 5.76 min Scan# 926

Delta R.T. -0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampled :

IA-1A

Tot Ion: 83 Resp: 35612

Ion Ratio Lower Upper

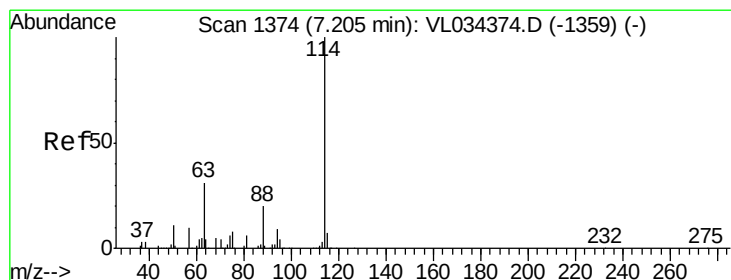
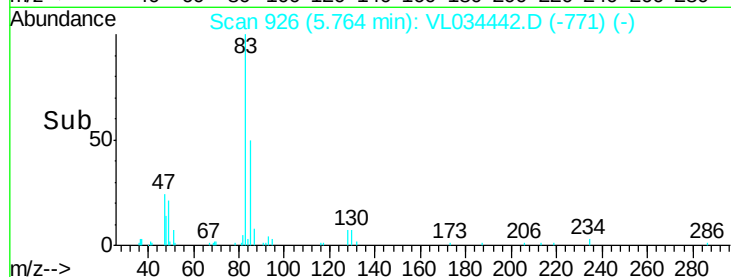
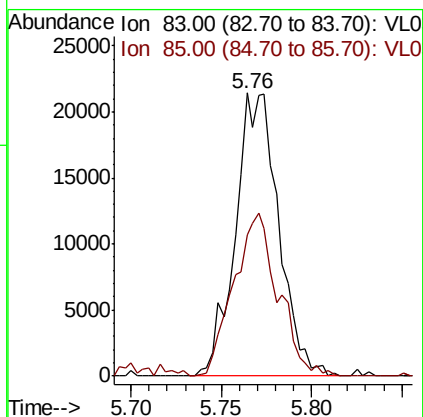
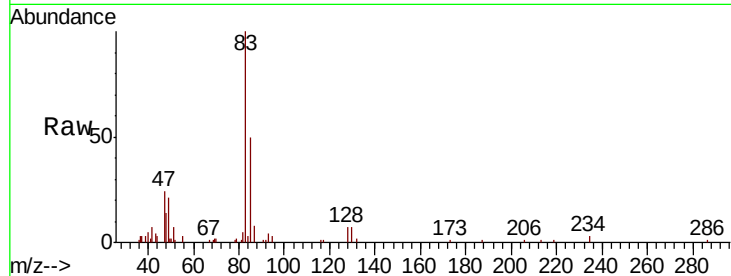
83 100

85 49.9 50.4 75.6#

Manual Integrations
APPROVED

apatel

12/4/2019 4:47:36 PM



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.21 min Scan# 1375

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

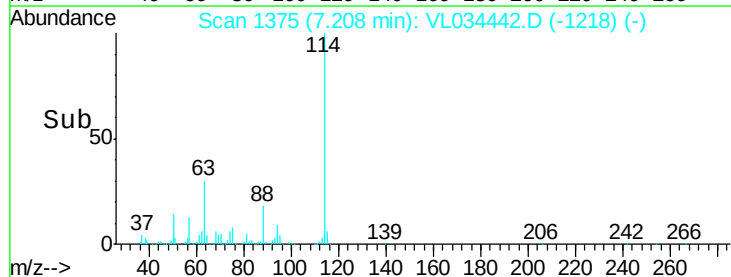
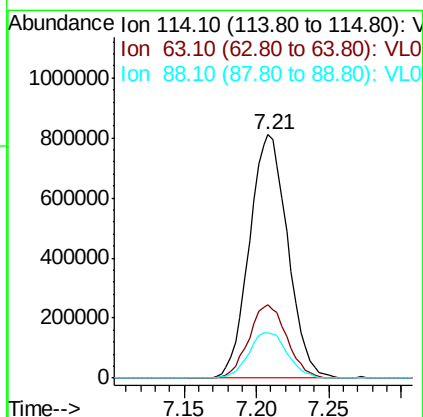
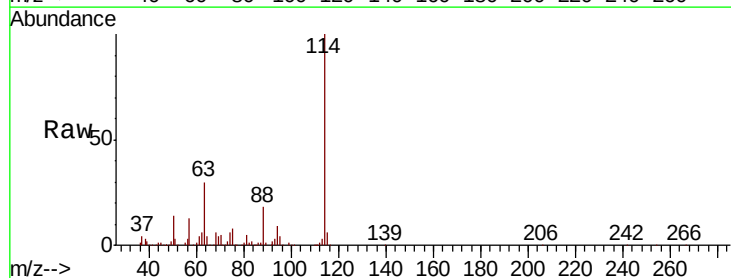
Tgt Ion: 114 Resp: 1490625

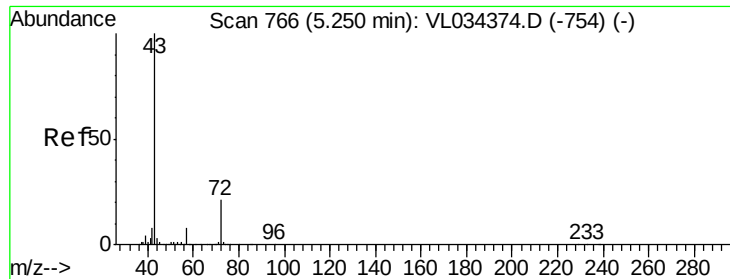
Ion Ratio Lower Upper

114 100

63 30.2 24.2 36.4

88 19.0 15.9 23.9





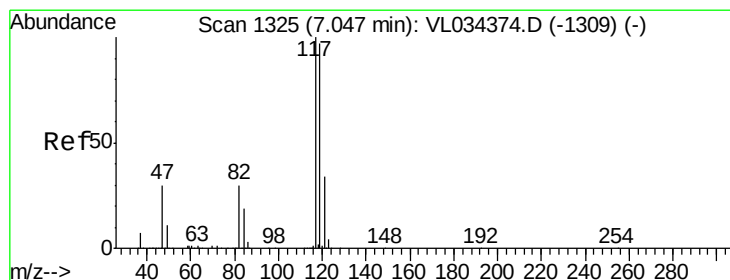
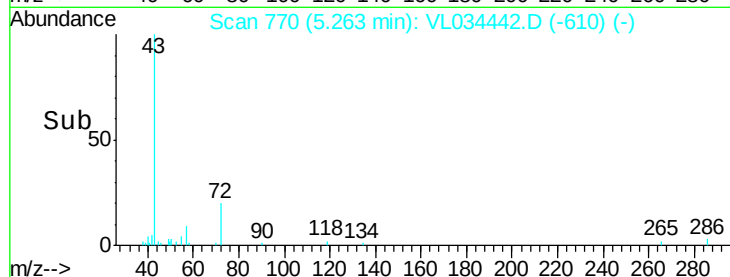
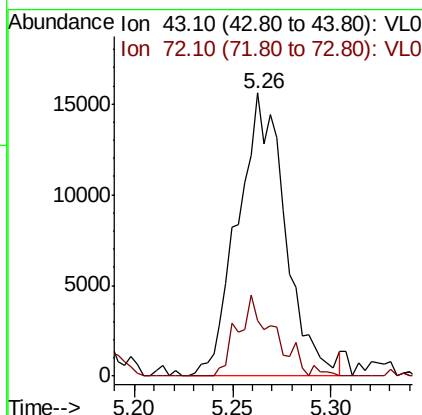
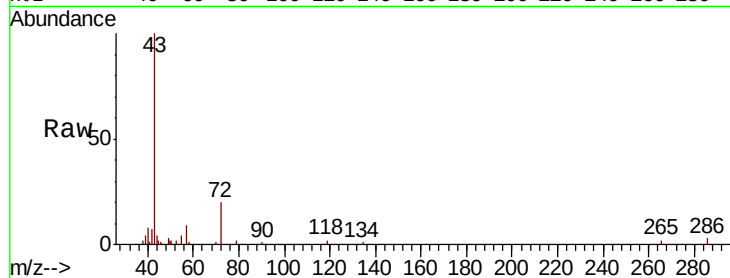
#34
2-Butanone
Concen: 0.213 ppbv m
RT: 5.26 min Scan# 770
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Instrument :
MSVOA_L
ClientSampleId :
IA-1A

Tot Ion	43	Resp	26146
Ion Ratio	Lower	Upper	
43	100		
72	22.4	17.0	25.6

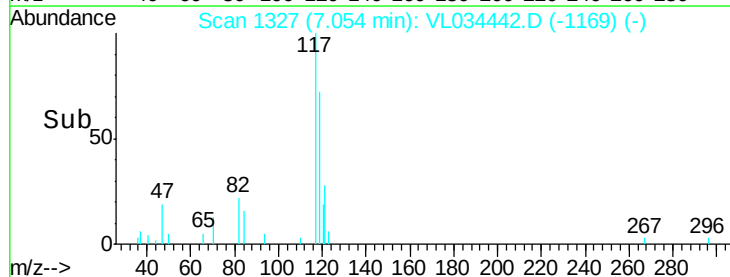
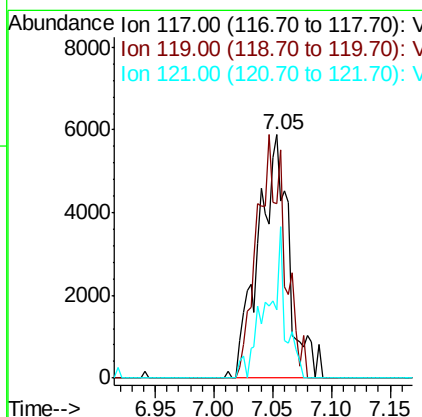
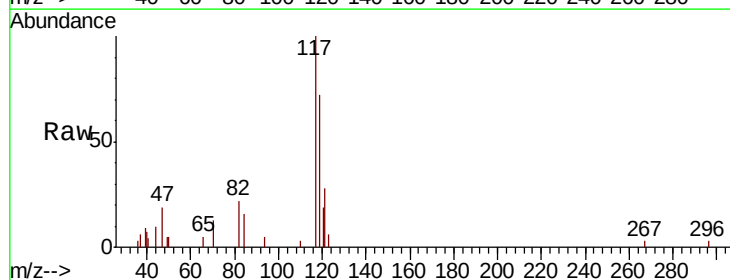
Manual Integrations
APPROVED

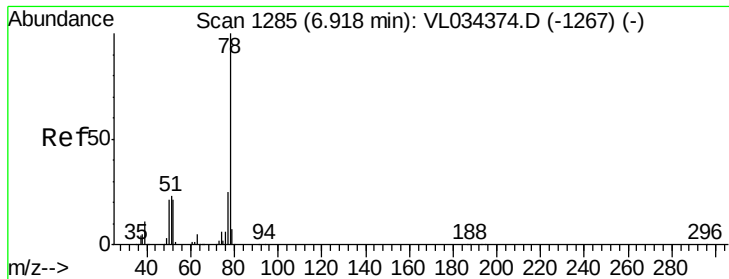
apatel
12/4/2019 4:47:36 PM



#35
Carbon Tetrachloride
Concen: 0.082 ppbv m
RT: 7.05 min Scan# 1327
Delta R.T. 0.01 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion	117	Resp	10567
Ion Ratio	Lower	Upper	
117	100		
119	72.0	77.3	115.9#
121	28.0	27.4	41.2





#36

Benzene

Concen: 0.351 ppbv

RT: 6.92 min Scan# 1286

Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

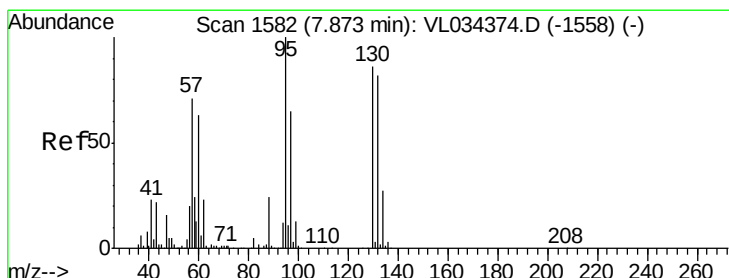
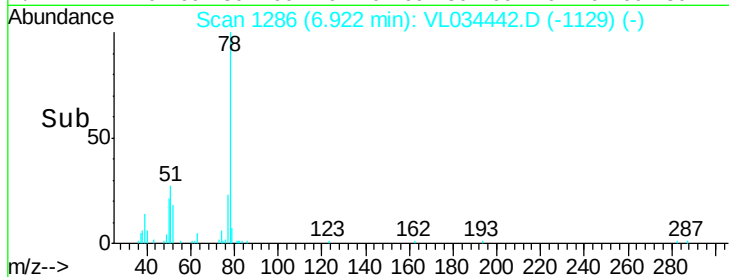
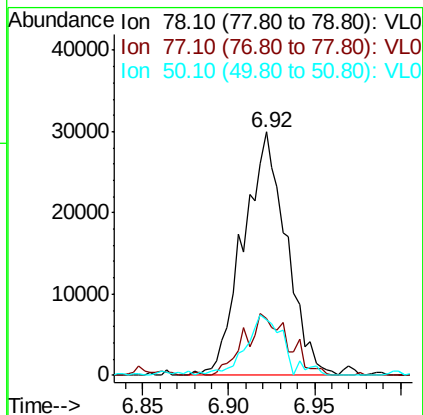
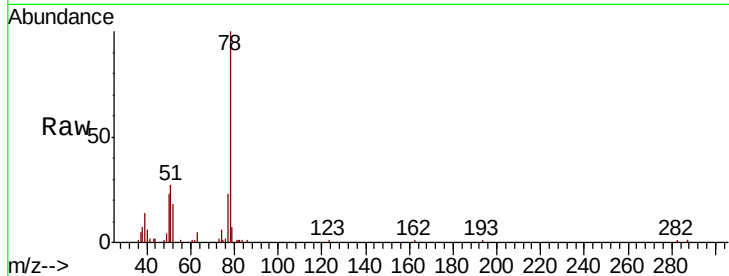
ClientSampled :

IA-1A

Tot Ion:	78	Resp:	52229
Ion	Ratio	Lower	Upper
78	100		
77	23.1	20.2	30.4
50	22.8	17.1	25.7

Manual Integrations
APPROVED

apatel
12/4/2019 4:47:36 PM



#38

Trichloroethene

Concen: 2.230 ppbv

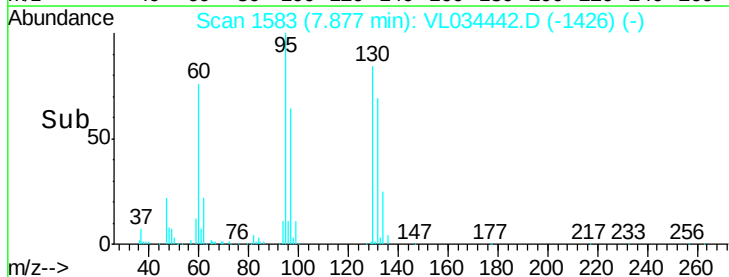
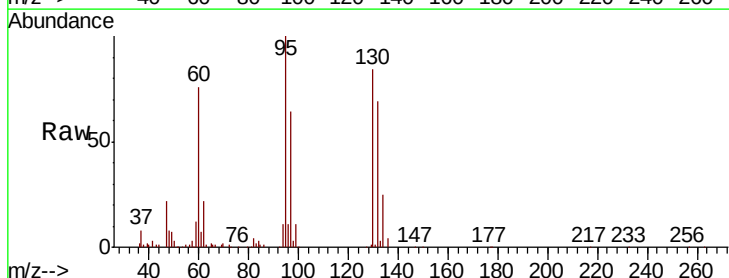
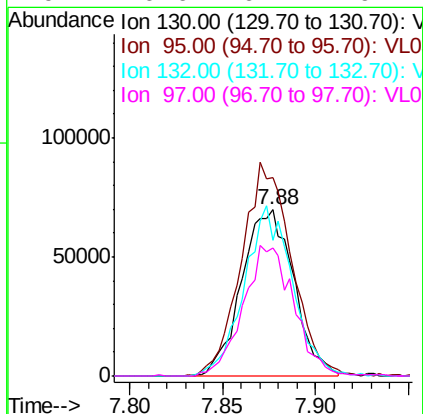
RT: 7.88 min Scan# 1583

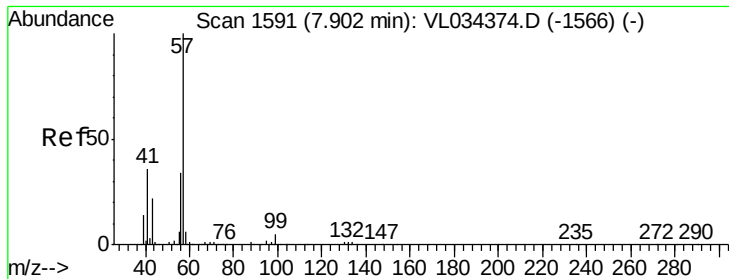
Delta R.T. 0.00 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Tgt Ion:	130	Resp:	136343
Ion	Ratio	Lower	Upper
130	100		
95	118.5	93.4	140.0
132	82.0	76.4	114.6
97	76.6	61.1	91.7





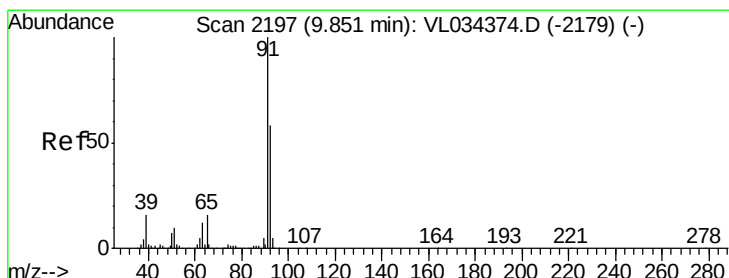
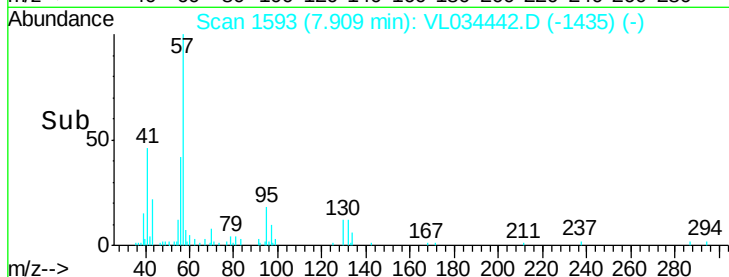
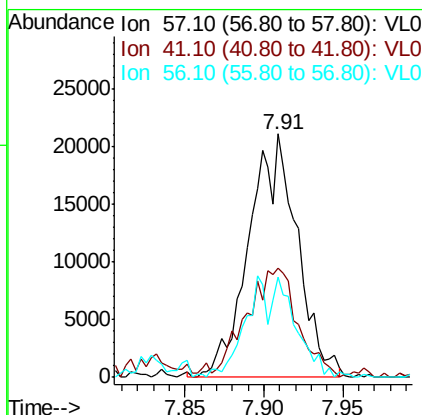
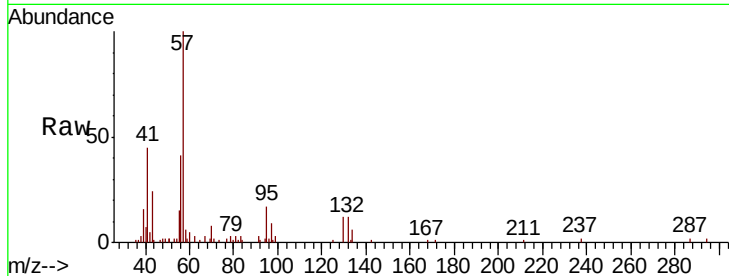
#44
 2,2,4-Trimethylpentane
 Concen: 0.163 ppbv m
 RT: 7.91 min Scan# 1593
 Delta R.T. 0.01 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Instrument :
 MSVOA_L
 ClientSampled :
 IA-1A

Tot Ion	Ratio	Lower	Upper
57	100		
41	43.9	28.6	42.8#
56	0.0	25.3	37.9#

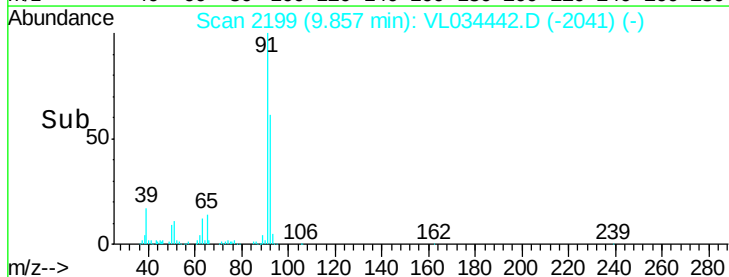
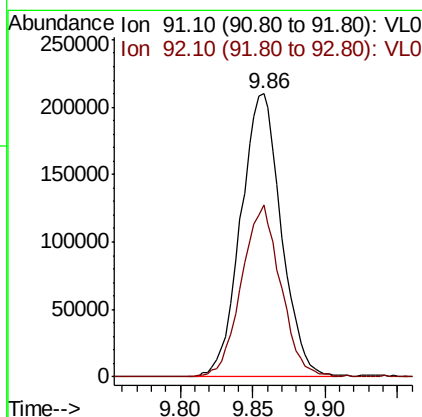
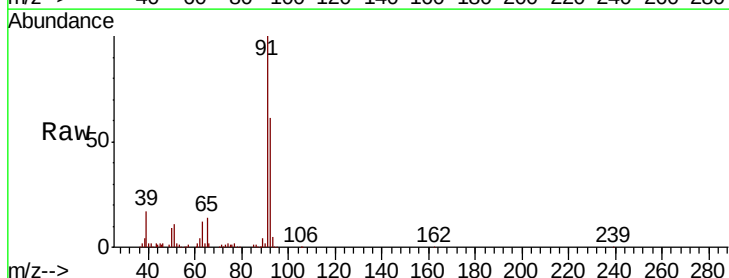
Manual Integrations
 APPROVED

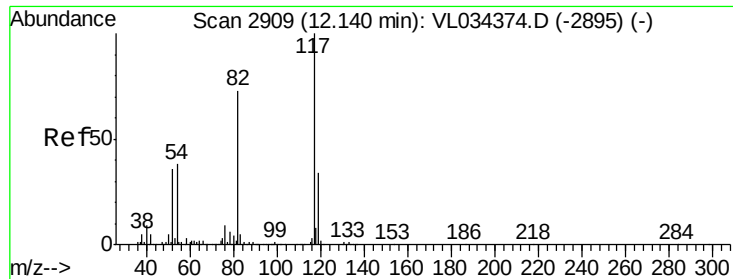
apatel
 12/4/2019 4:47:36 PM



#53
 Toluene
 Concen: 2.411 ppbv
 RT: 9.86 min Scan# 2199
 Delta R.T. 0.01 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.8	47.9	71.9





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2911

Delta R.T. 0.01 min

Lab File: VL034442.D

Acq: 3 Dec 2019 1:17

Instrument :

MSVOA_L

ClientSampleId :

IA-1A

Tot Ion:117 Resp: 1423244

Ion Ratio Lower Upper

117 100

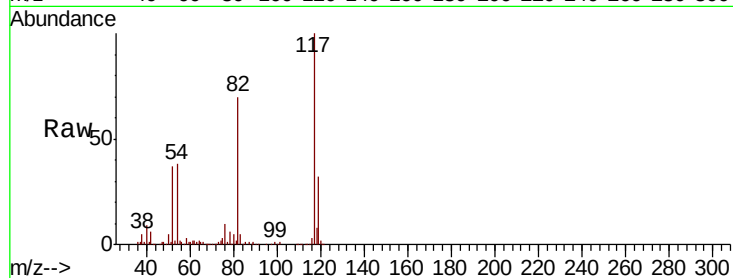
82 72.1 57.5 86.3

119 32.4 25.4 38.2

Manual Integrations
APPROVED

apatel

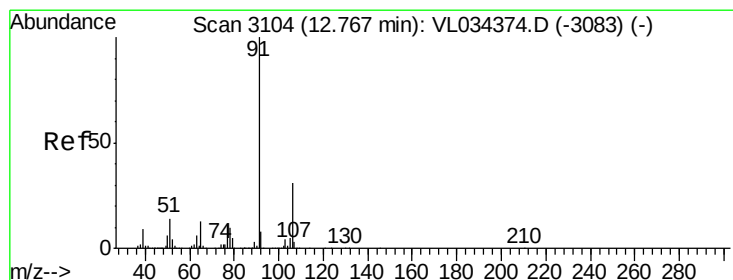
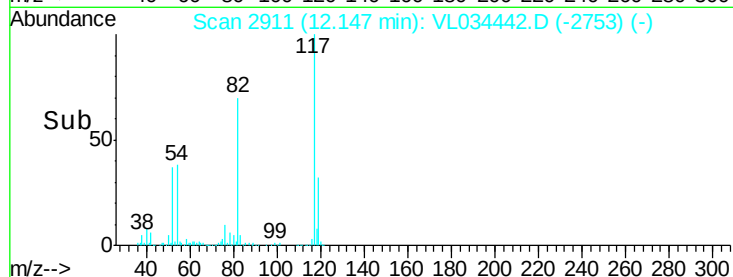
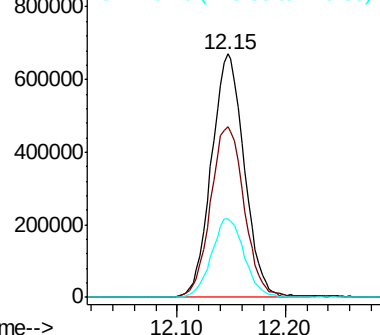
12/4/2019 4:47:36 PM



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.198 ppbv m

RT: 12.78 min Scan# 3107

Delta R.T. 0.01 min

Lab File: VL034442.D

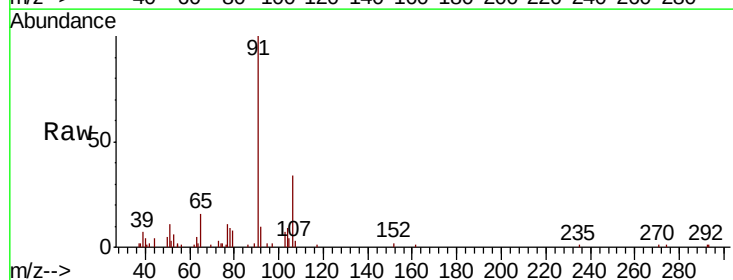
Acq: 3 Dec 2019 1:17

Tgt Ion: 91 Resp: 43681

Ion Ratio Lower Upper

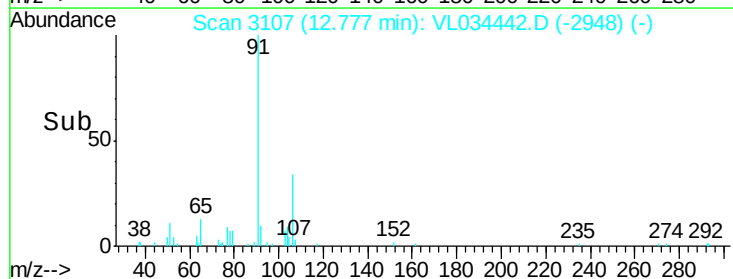
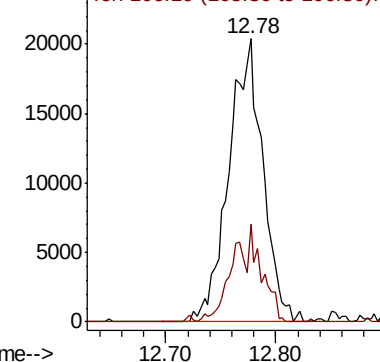
91 100

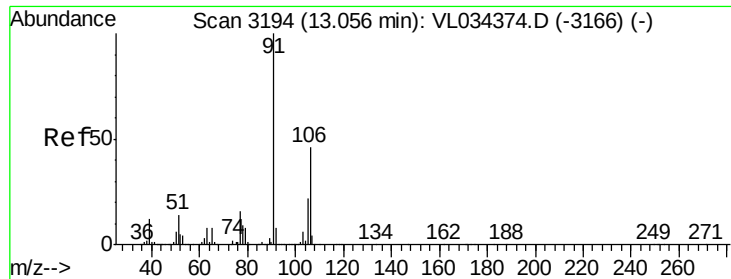
106 34.5 24.8 37.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





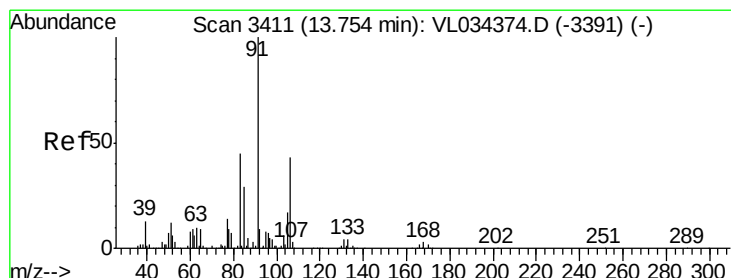
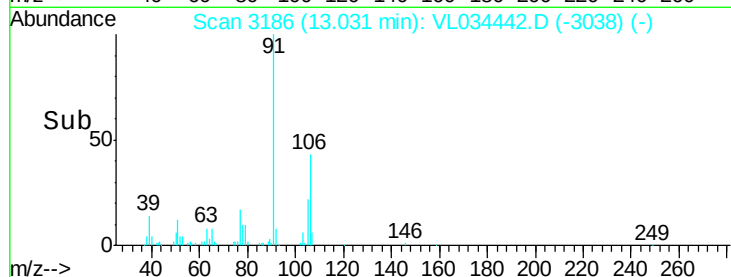
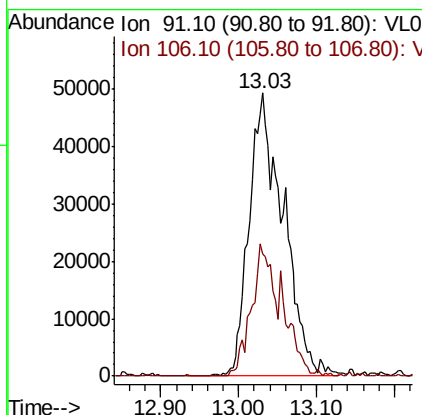
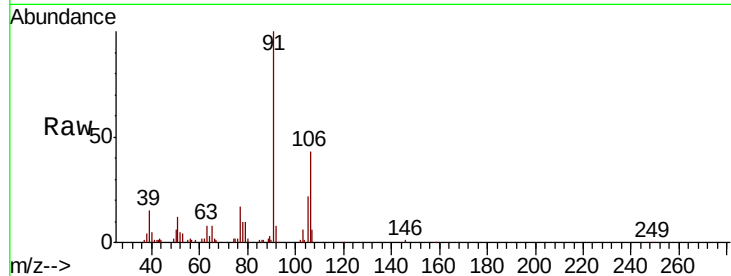
#59
m/p-Xylene
Concen: 0.781 ppbv m
RT: 13.03 min Scan# 3186
Delta R.T. -0.03 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Instrument :
MSVOA_L
ClientSampled :
IA-1A

Tot Ion: 91 Resp: 149041
Ion Ratio Lower Upper
91 100
106 0.0 34.6 51.8#

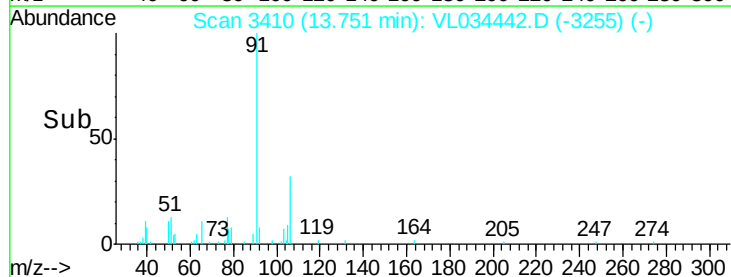
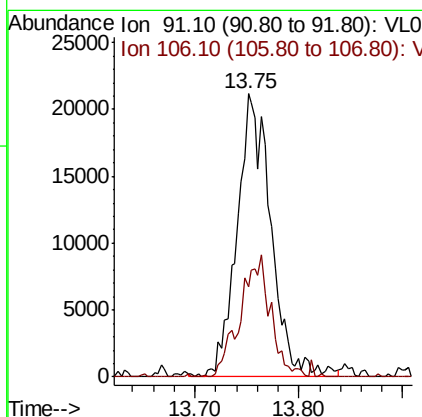
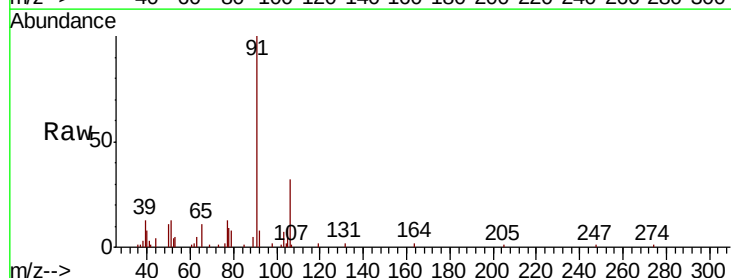
Manual Integrations
APPROVED

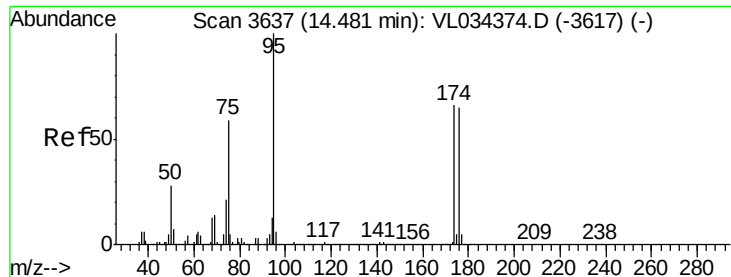
apatel
12/4/2019 4:47:36 PM



#60
o-Xylene
Concen: 0.254 ppbv m
RT: 13.75 min Scan# 3410
Delta R.T. -0.00 min
Lab File: VL034442.D
Acq: 3 Dec 2019 1:17

Tgt Ion: 91 Resp: 48000
Ion Ratio Lower Upper
91 100
106 38.2 21.3 64.0





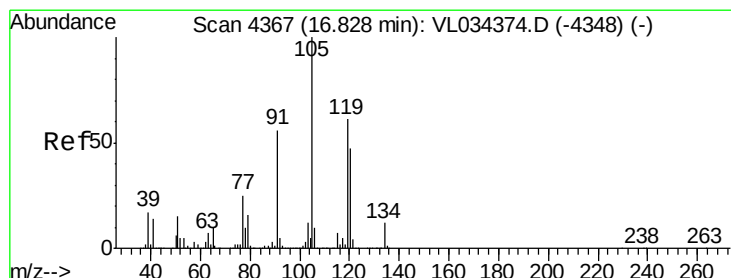
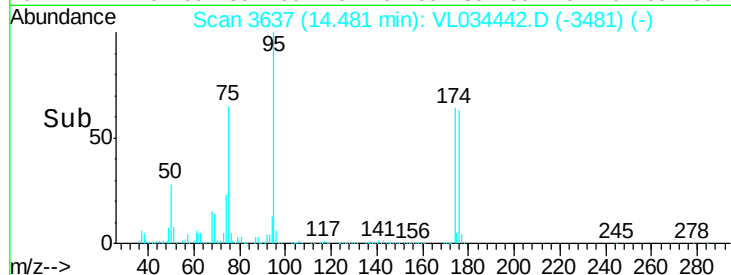
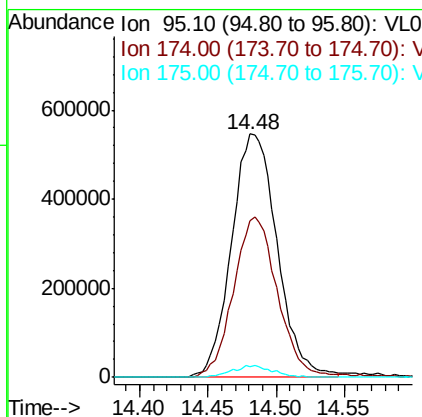
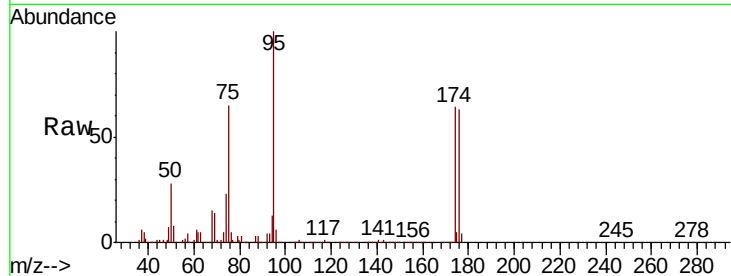
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.508 ppbv
 RT: 14.48 min Scan# 3637
 Delta R.T. 0.00 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Instrument :
 MSVOA_L
 ClientSampled :
 IA-1A

Tot Ion: 95 Resp: 1258196
 Ion Ratio Lower Upper
 95 100
 174 65.0 52.2 78.2
 175 4.5 3.8 5.8

Manual Integrations
 APPROVED

apatel
 12/4/2019 4:47:36 PM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.368 ppbv
 RT: 16.83 min Scan# 4369
 Delta R.T. 0.01 min
 Lab File: VL034442.D
 Acq: 3 Dec 2019 1:17

Tgt Ion: 105 Resp: 83480
 Ion Ratio Lower Upper
 105 100
 120 30.2 37.4 56.0#
 91 15.4 46.3 69.5#
 77 23.9 20.6 30.8

