

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031519\
 Data File : VL033351.D
 Acq On : 16 Mar 2019 4:25
 Operator : SY/AP
 Sample : K1827-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Manual Integrations
 APPROVED

MMDadoda
 3/19/2019 10:01:48 AM

Quant Time: Mar 16 06:53:11 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 16 06:53:11 2019
 QLast Update : Fri Mar 15 14:52:14 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	800714	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1754731	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1748360	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1337382	10.32	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	32405	0.230	ppbv	96
3) Chlorodifluoromethane	3.01	51	22454m	0.244	ppbv	
4) Chloromethane	3.17	50	22200	0.446	ppbv	92
9) Propene	3.05	41	19128	0.466	ppbv #	71
10) Heptane	8.25	43	14985	0.147	ppbv	98
11) Trichlorofluoromethane	4.00	101	30601	0.218	ppbv	95
13) Ethanol	3.65	45	77414	3.958	ppbv	99
15) Acetone	3.91	43	152136	1.222	ppbv	98
19) Isopropyl Alcohol	4.04	45	34198	0.578	ppbv #	88
25) Ethyl Acetate	5.78	43	86419	0.478	ppbv	98
26) Hexane	5.78	57	40050	0.495	ppbv	93
34) 2-Butanone	5.34	43	33697m	0.292	ppbv	
35) Carbon Tetrachloride	7.15	117	7948m	0.064	ppbv	
36) Benzene	7.00	78	23054	0.147	ppbv	99
53) Toluene	9.95	91	932144	5.224	ppbv	99

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

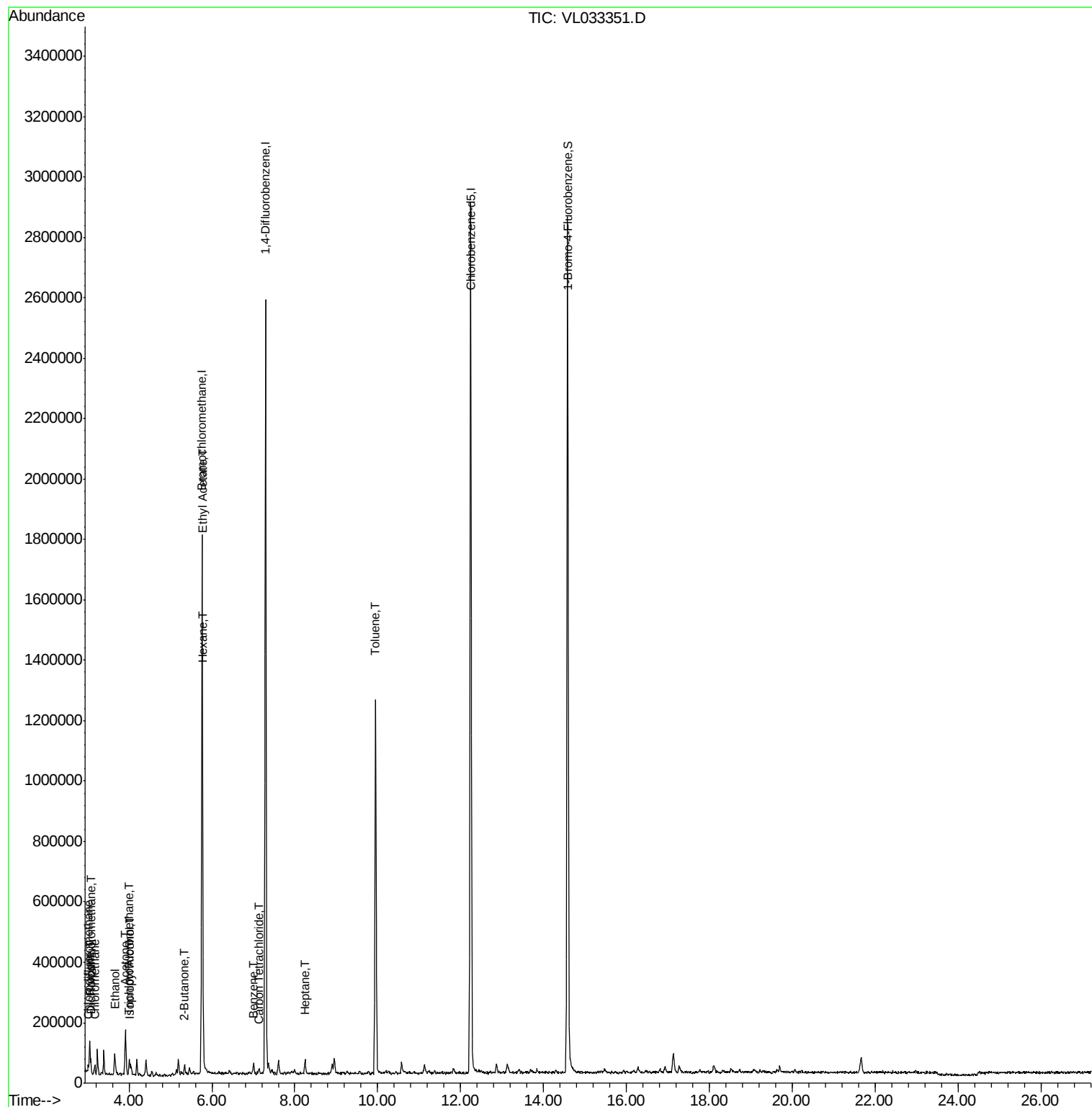
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL031519\
Data File : VL033351.D
Acq On : 16 Mar 2019 4:25
Operator : SY/AP
Sample : K1827-04
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

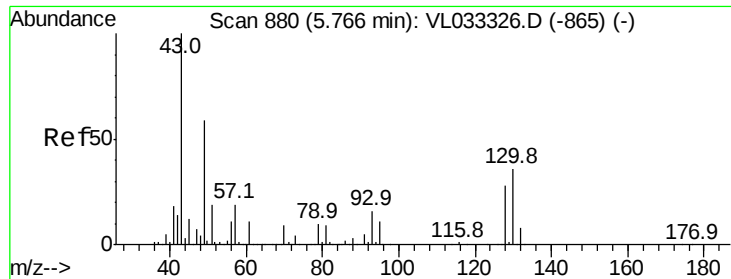
Instrument :
MSVOA_L
ClientSampleId :
A-4

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:48 AM

Quant Time: Mar 16 06:53:11 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar
QLast Update : Fri Mar 15 14:52:14 2019
Response via : Initial Calibration





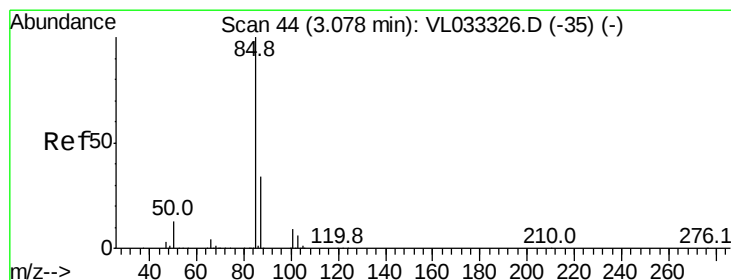
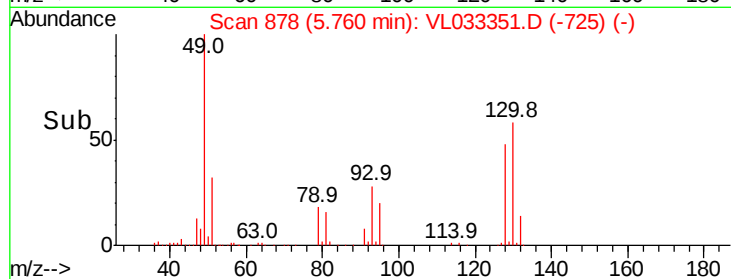
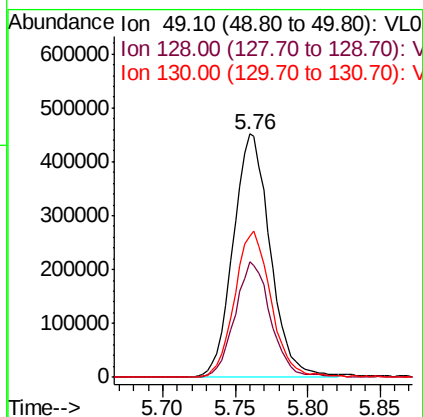
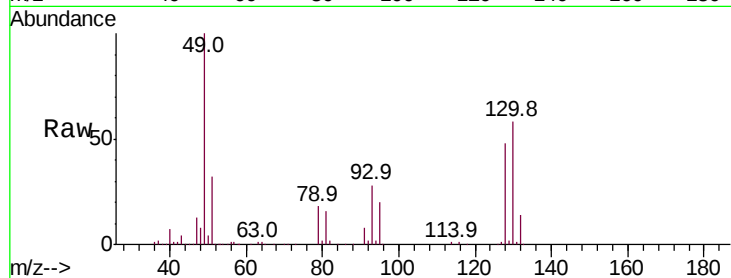
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.76 min Scan# 878
Delta R.T. -0.01 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Instrument :
MSVOA_L
ClientSampled :
A-4

Tot Ion	Ratio	Lower	Upper
49	100		
128	46.3	23.5	70.6
130	59.9	30.1	90.3

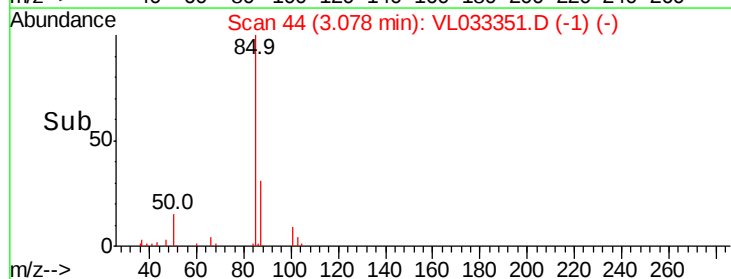
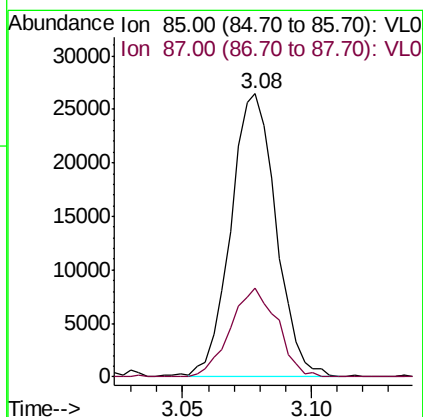
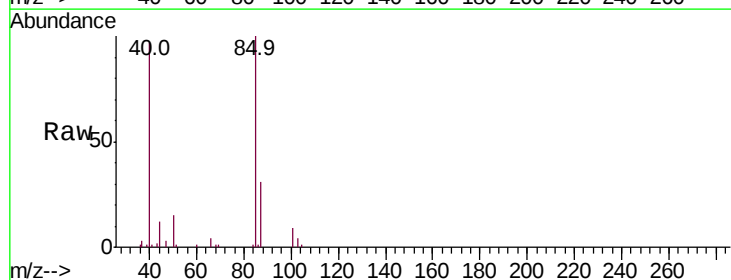
Manual Integrations
APPROVED

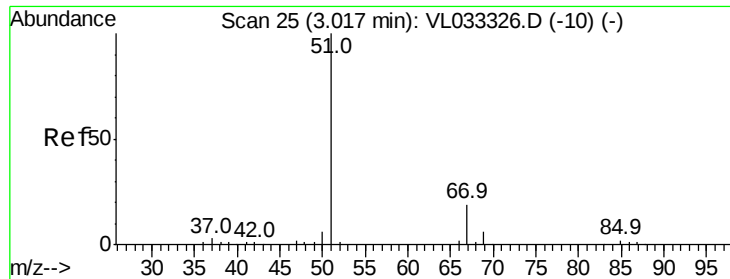
MMDadoda
3/19/2019 10:01:48 AM



#2
Dichlorodifluoromethane
Concen: 0.230 ppbv
RT: 3.08 min Scan# 44
Delta R.T. -0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Tgt Ion	Ratio	Lower	Upper
85	100		
87	31.3	26.9	40.3





#3

Chlorodifluoromethane

Concen: 0.244 ppbv

RT: 3.01 min Scan# 23

Delta R.T. -0.01 min

Lab File: VL033351.D

Acq: 16 Mar 2019 4:25

Instrument :

MSVOA_L

ClientSampleId :

A-4

Tot Ion: 51 Resp: 22454

Ion Ratio Lower Upper

51 100

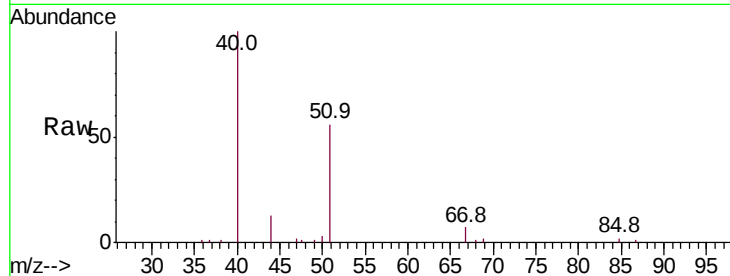
67 20.2 14.9 22.3

Manual Integrations

APPROVED

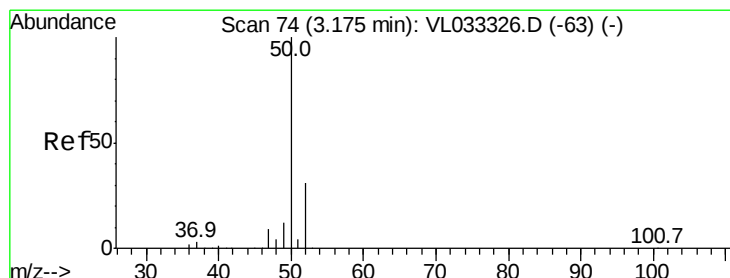
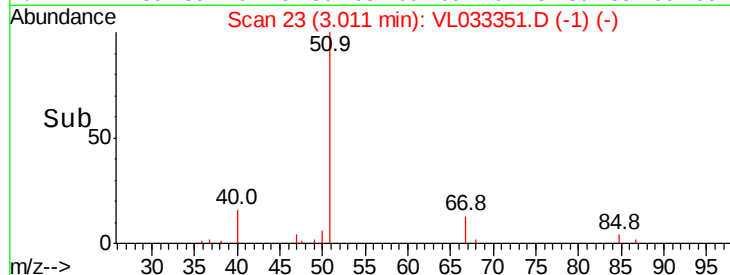
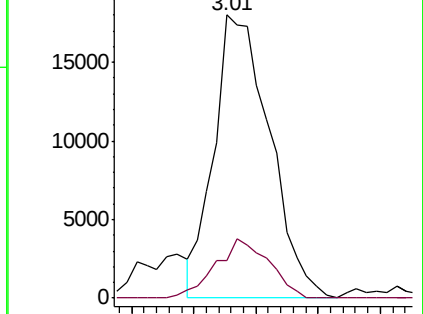
MMDadoda

3/19/2019 10:01:48 AM



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.446 ppbv

RT: 3.17 min Scan# 74

Delta R.T. -0.00 min

Lab File: VL033351.D

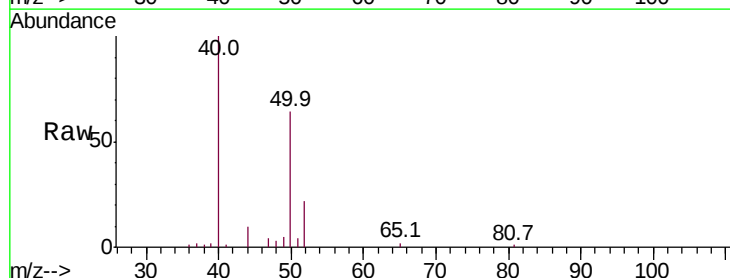
Acq: 16 Mar 2019 4:25

Tgt Ion: 50 Resp: 22200

Ion Ratio Lower Upper

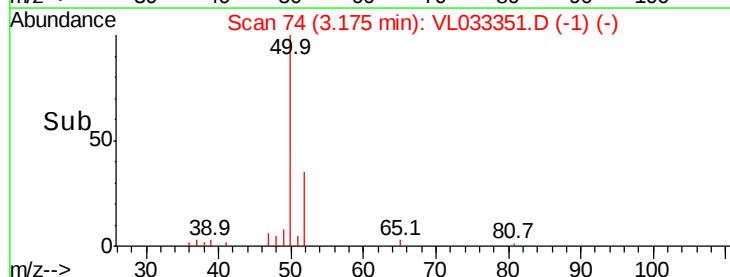
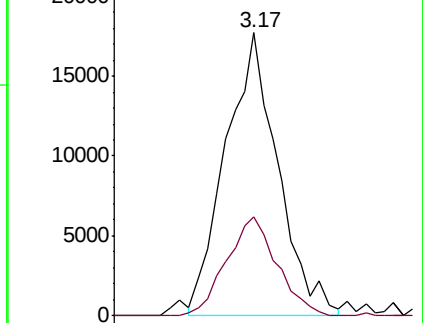
50 100

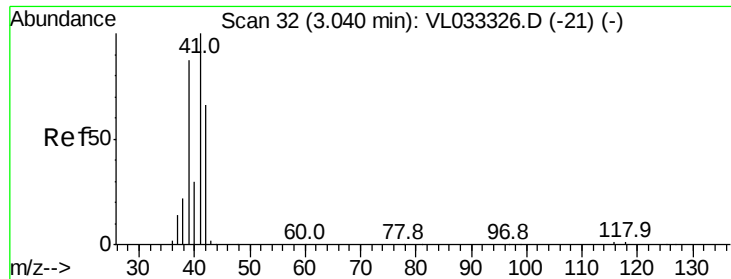
52 35.8 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.466 ppbv

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL033351.D

Acq: 16 Mar 2019 4:25

Instrument :

MSVOA_L

ClientSampleId :

A-4

Tot Ion: 41 Resp: 19128

Ion Ratio Lower Upper

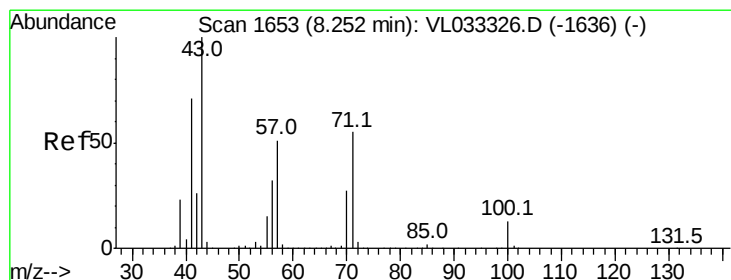
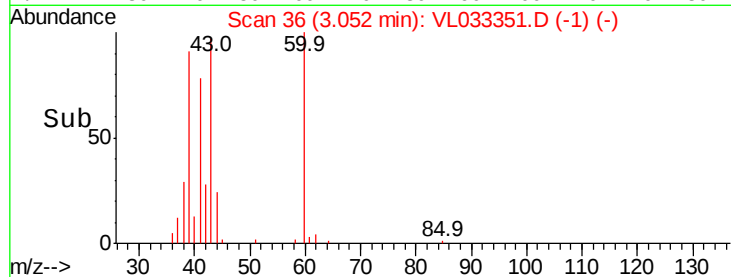
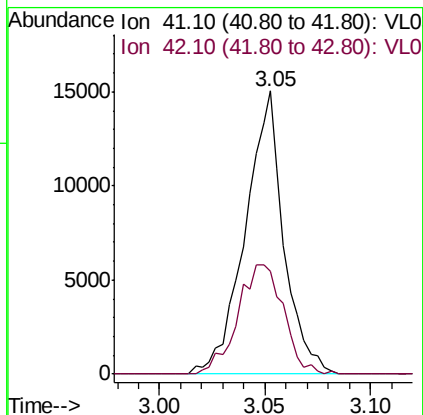
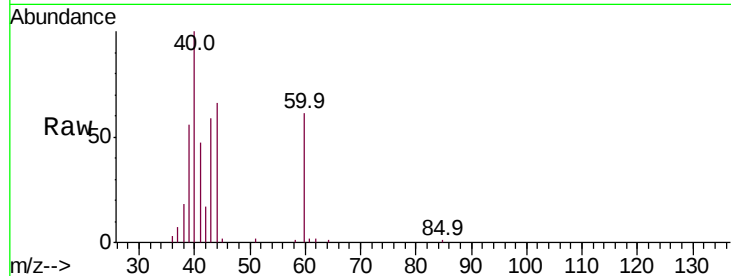
41 100

42 45.8 55.2 82.8#

Manual Integrations
APPROVED

MMDadoda

3/19/2019 10:01:48 AM



#10

Heptane

Concen: 0.147 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.01 min

Lab File: VL033351.D

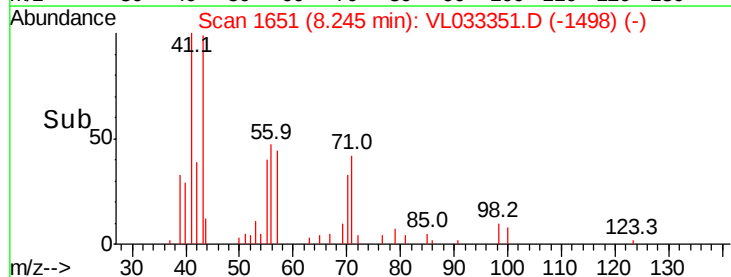
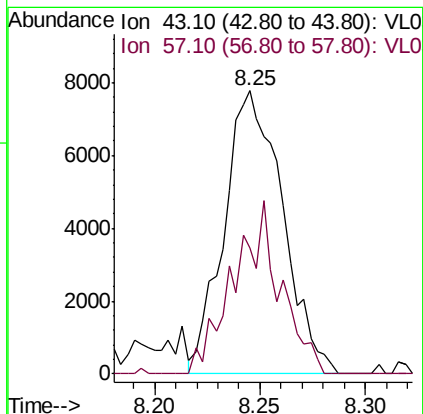
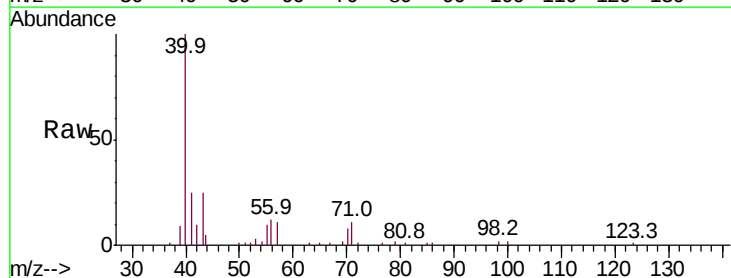
Acq: 16 Mar 2019 4:25

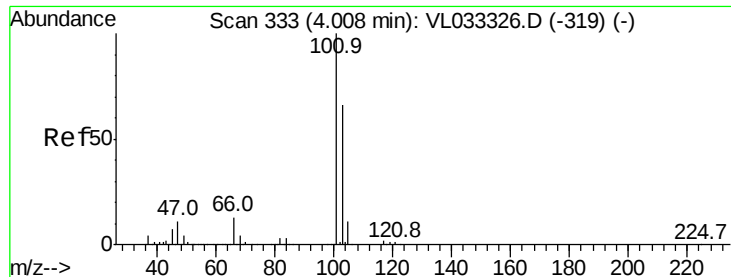
Tgt Ion: 43 Resp: 14985

Ion Ratio Lower Upper

43 100

57 48.9 40.4 60.6





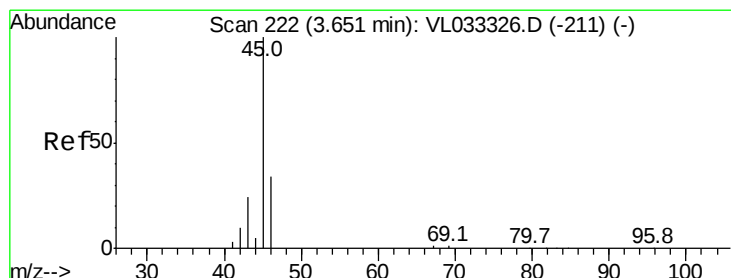
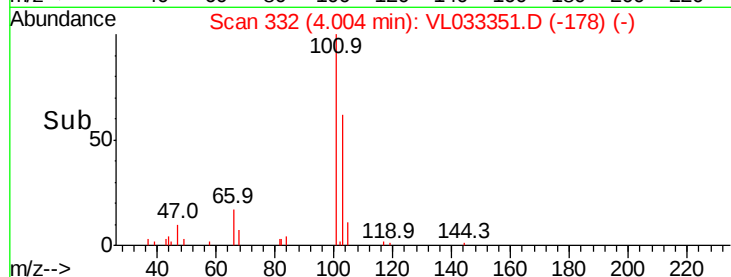
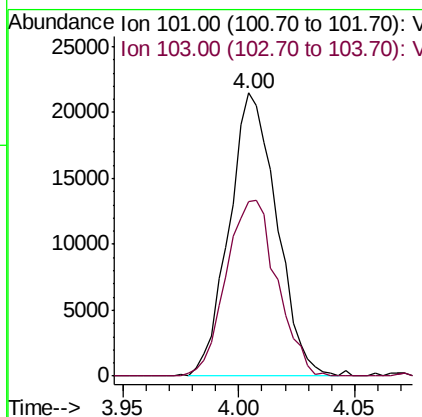
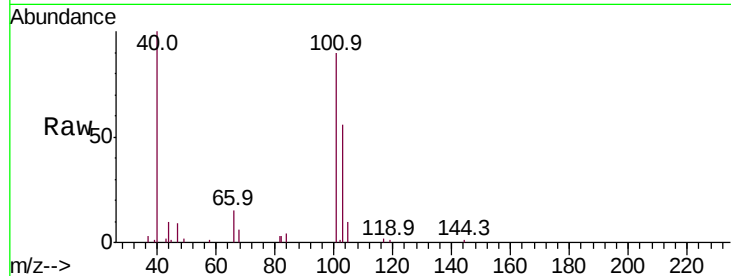
#11
Trichlorofluoromethane
Concen: 0.218 ppbv
RT: 4.00 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Instrument :
MSVOA_L
ClientSampleId :
A-4

Tot Ion	Ratio	Lower	Upper
101	100		
103	61.8	52.9	79.3

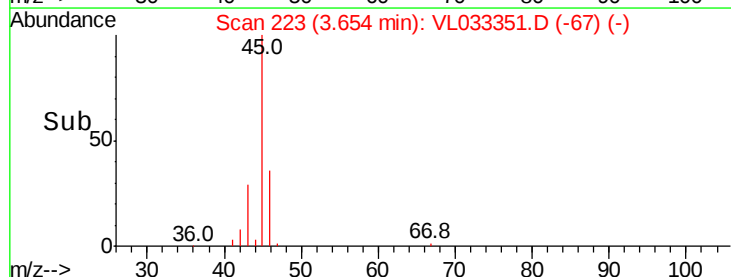
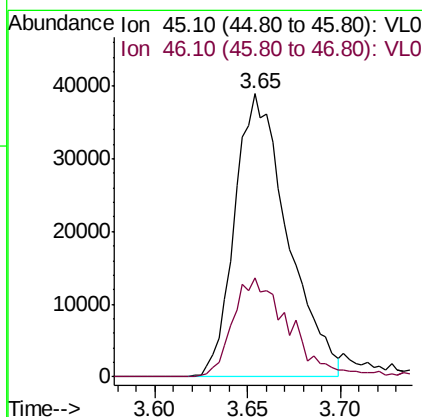
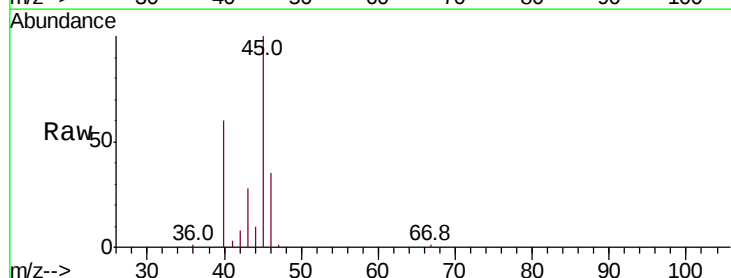
Manual Integrations
APPROVED

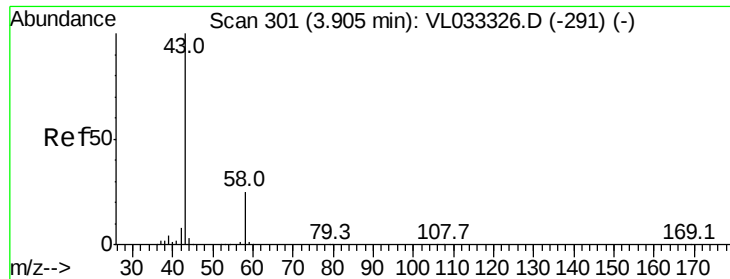
MMDadoda
3/19/2019 10:01:48 AM



#13
Ethanol
Concen: 3.958 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Tgt Ion	Ratio	Lower	Upper
45	100		
46	38.0	14.9	59.7





#15

Acetone

Concen: 1.222 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL033351.D

Acq: 16 Mar 2019 4:25

Instrument :

MSVOA_L

ClientSampled :

A-4

Tot Ion: 43 Resp: 152136

Ion Ratio Lower Upper

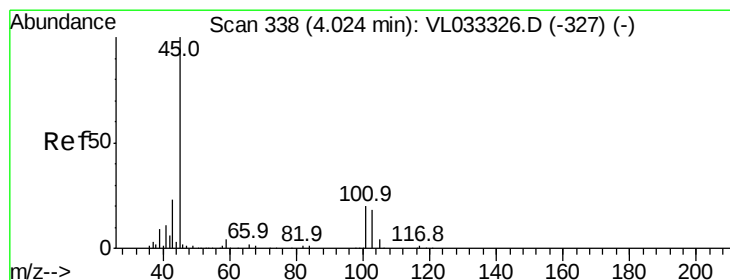
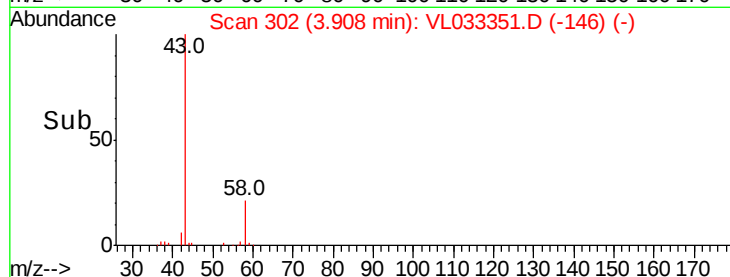
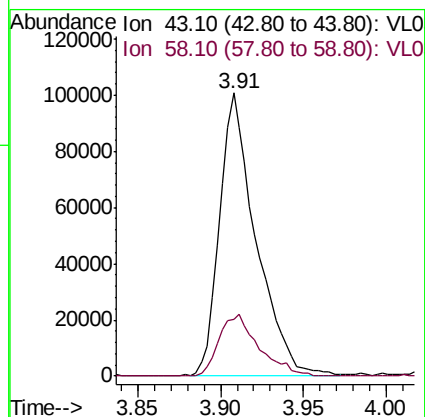
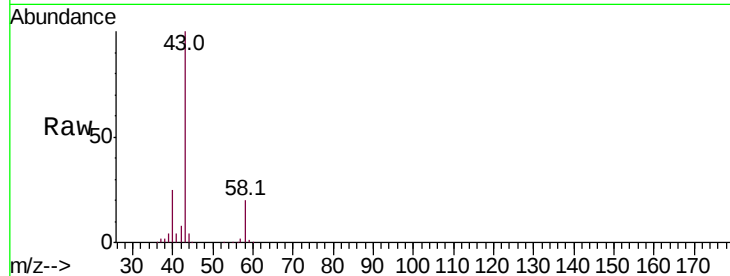
43 100

58 24.4 20.4 30.6

Manual Integrations
APPROVED

MMDadoda

3/19/2019 10:01:48 AM



#19

Isopropyl Alcohol

Concen: 0.578 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.01 min

Lab File: VL033351.D

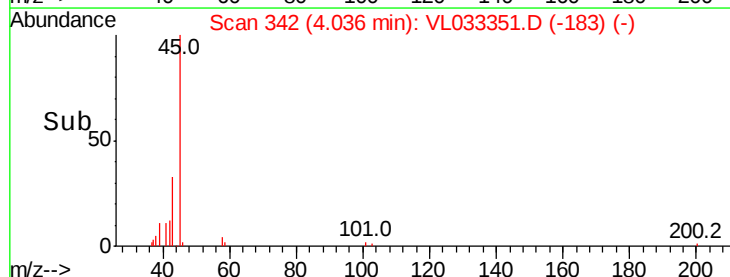
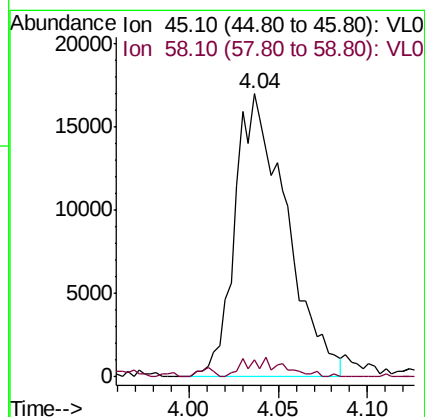
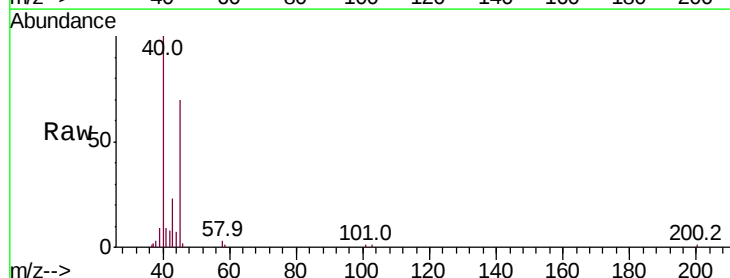
Acq: 16 Mar 2019 4:25

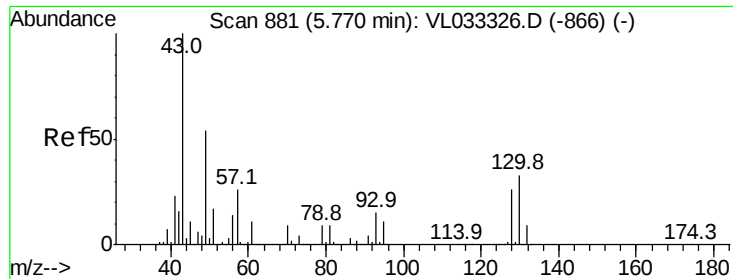
Tgt Ion: 45 Resp: 34198

Ion Ratio Lower Upper

45 100

58 6.2 1.5 2.3#





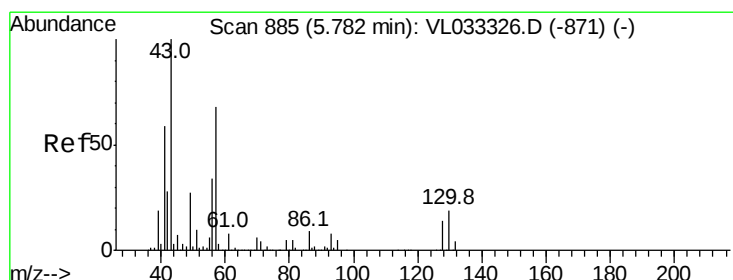
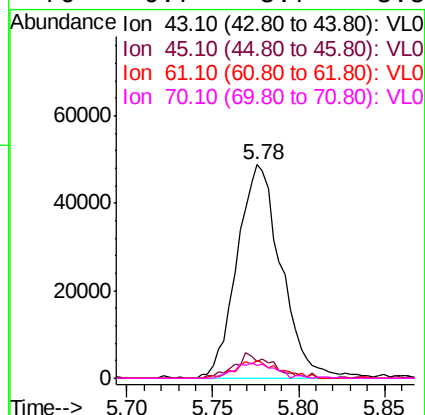
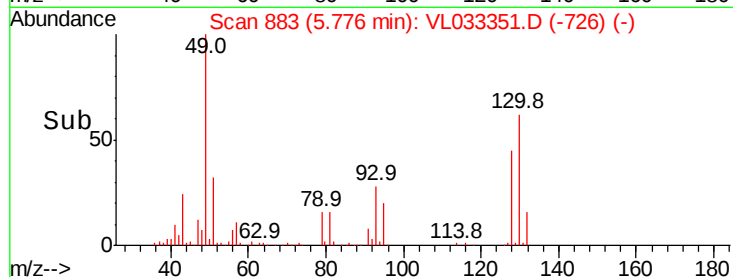
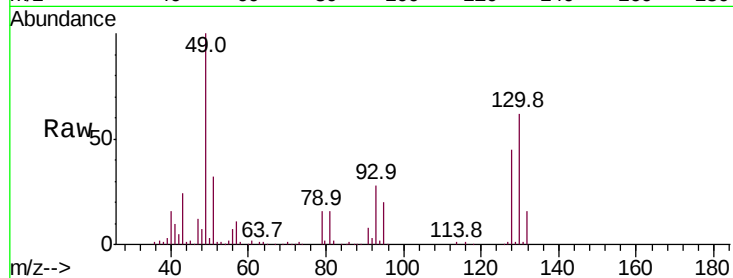
#25
Ethyl Acetate
Concen: 0.478 ppbv
RT: 5.78 min Scan# 883
Delta R.T. 0.01 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Instrument :
MSVOA_L
ClientSampleId :
A-4

Tot Ion	Ratio	Lower	Upper
43	100		
45	10.2	7.9	11.9
61	8.0	7.4	11.2
70	6.7	5.7	8.5

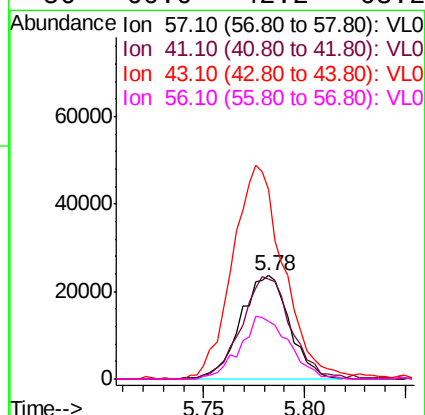
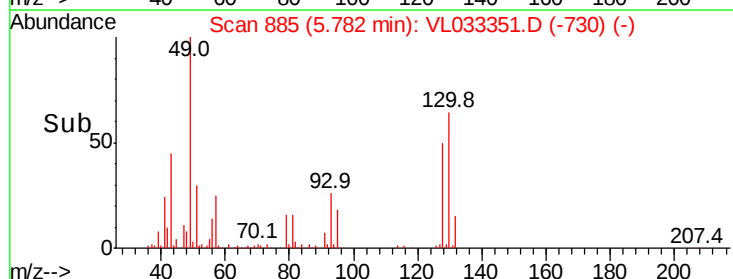
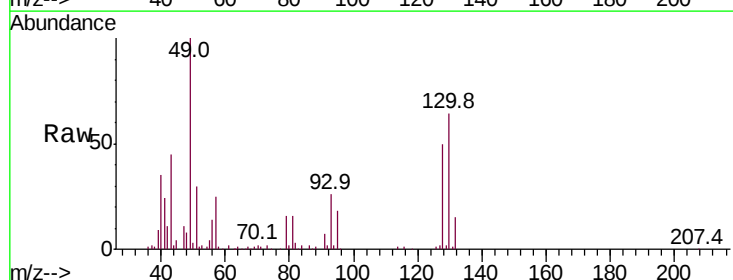
Manual Integrations
APPROVED

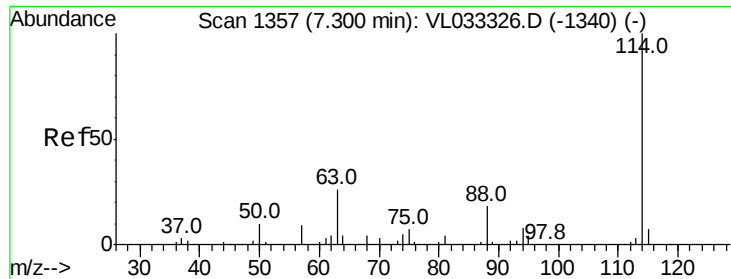
MMDadoda
3/19/2019 10:01:48 AM



#26
Hexane
Concen: 0.495 ppbv
RT: 5.78 min Scan# 885
Delta R.T. -0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Tgt Ion	Ratio	Lower	Upper
57	100		
41	101.0	70.5	105.7
43	221.0	181.8	272.8
56	60.0	42.2	63.2





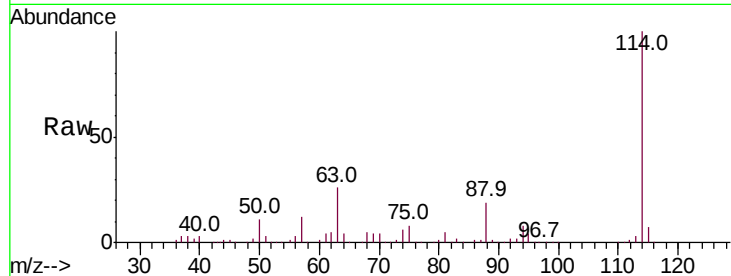
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. -0.01 min
 Lab File: VL033351.D
 Acq: 16 Mar 2019 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

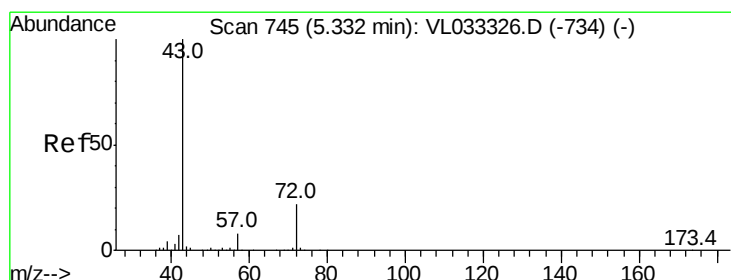
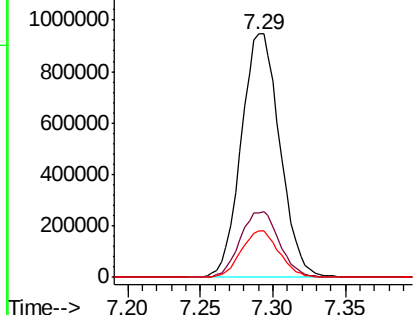
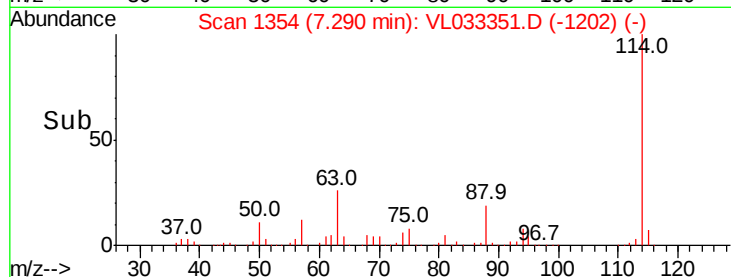
Tot Ion	Ratio	Lower	Upper
114	100		
63	27.4	21.4	32.2
88	18.8	14.5	21.7

Manual Integrations
 APPROVED

MMDadoda
 3/19/2019 10:01:48 AM

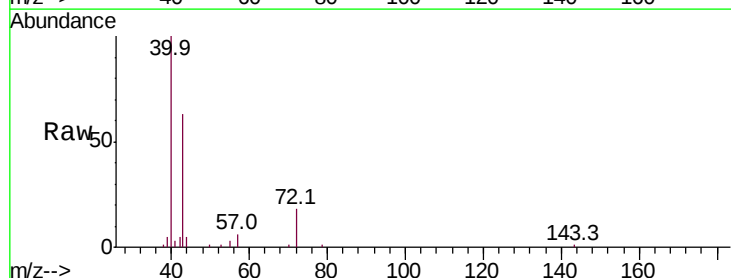


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

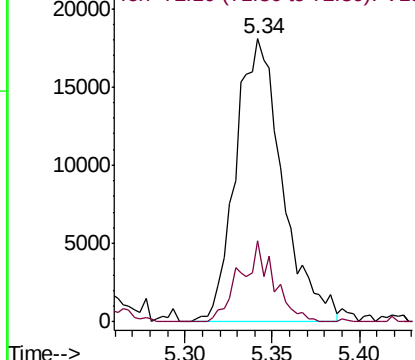
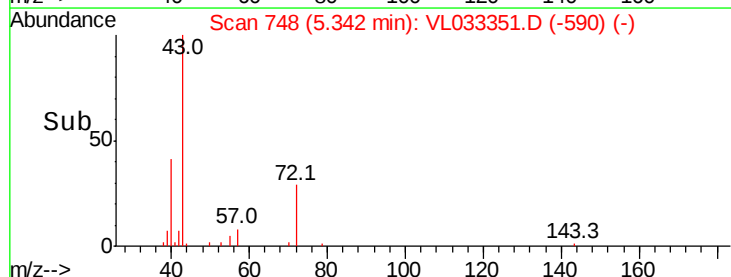


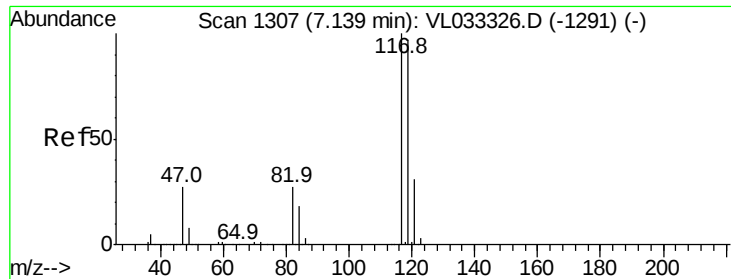
#34
 2-Butanone
 Concen: 0.292 ppbv m
 RT: 5.34 min Scan# 748
 Delta R.T. 0.01 min
 Lab File: VL033351.D
 Acq: 16 Mar 2019 4:25

Tgt Ion	Ratio	Lower	Upper
43	100		
72	20.8	17.7	26.5



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





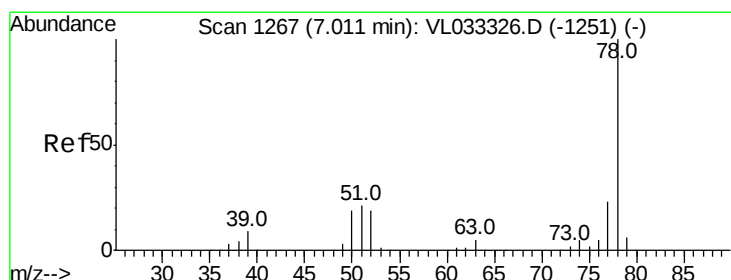
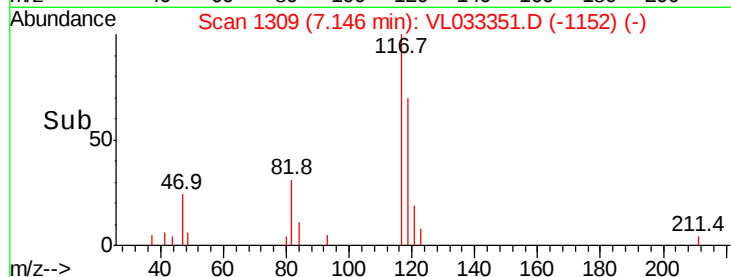
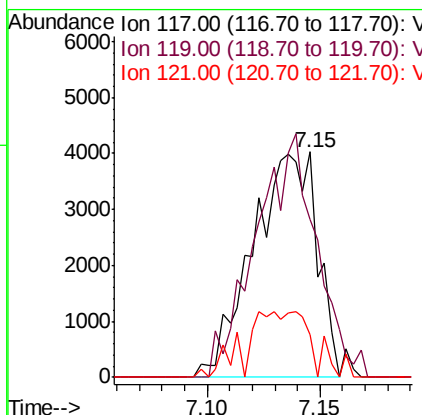
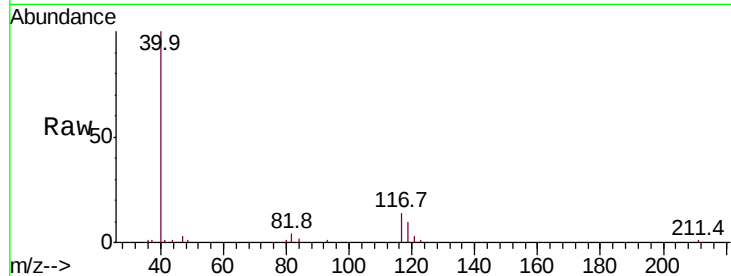
#35
Carbon Tetrachloride
Concen: 0.064 ppbv m
RT: 7.15 min Scan# 1309
Delta R.T. 0.01 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Instrument :
MSVOA_L
ClientSampled :
A-4

Tot Ion	Ratio	Lower	Upper
117	100		
119	70.0	77.4	116.0#
121	19.2	24.9	37.3#

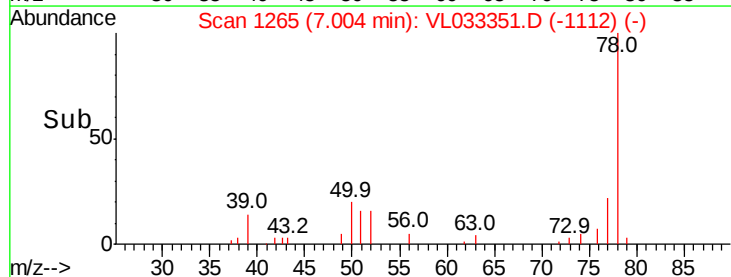
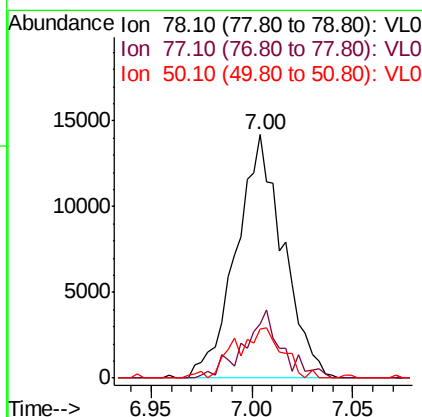
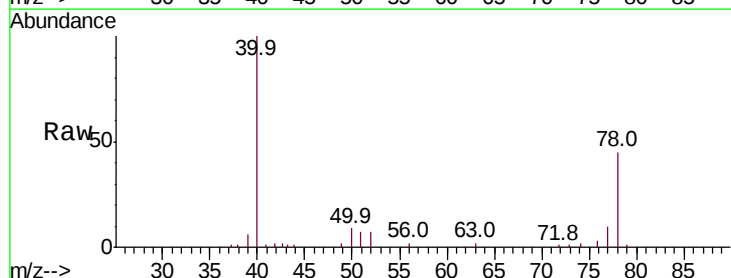
Manual Integrations
APPROVED

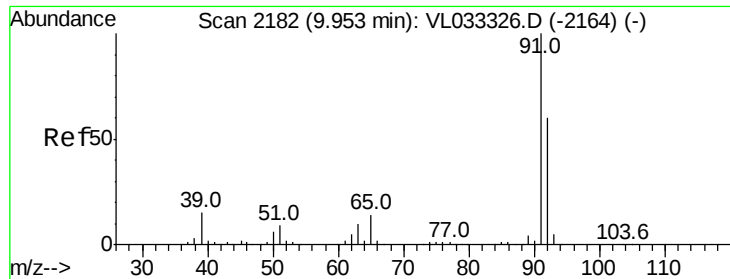
MMDadoda
3/19/2019 10:01:48 AM



#36
Benzene
Concen: 0.147 ppbv
RT: 7.00 min Scan# 1265
Delta R.T. -0.01 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Tgt Ion	Ratio	Lower	Upper
78	100		
77	22.4	18.1	27.1
50	19.9	15.2	22.8





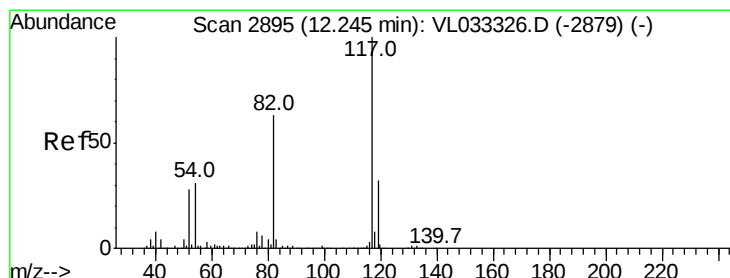
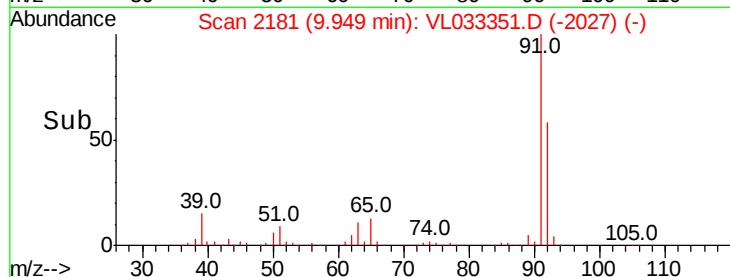
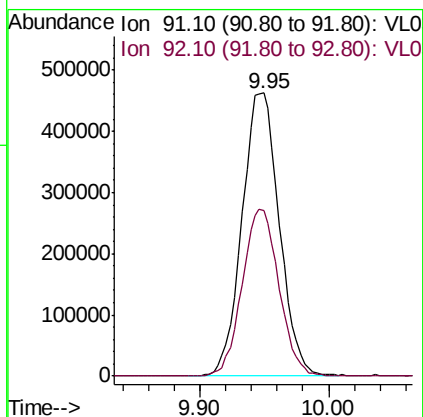
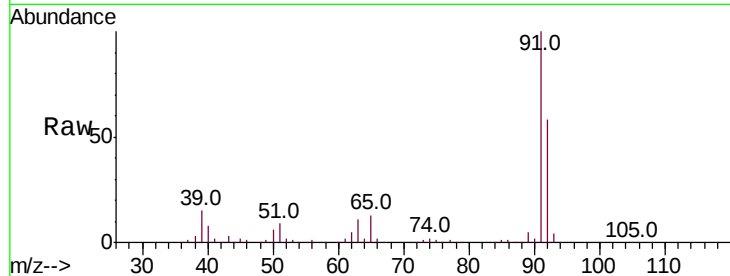
#53
Toluene
Concen: 5.224 ppbv
RT: 9.95 min Scan# 2181
Delta R.T. -0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Instrument :
MSVOA_L
ClientSampled :
A-4

Tot Ion: 91 Resp: 932144
Ion Ratio Lower Upper
91 100
92 58.1 47.4 71.0

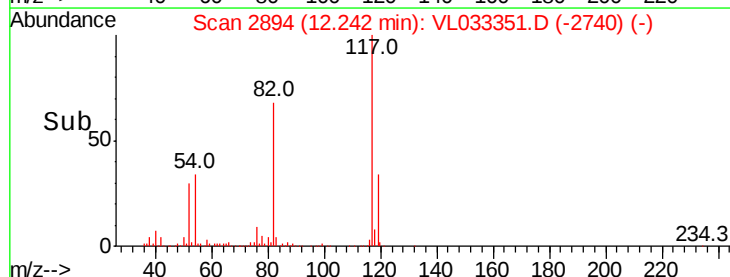
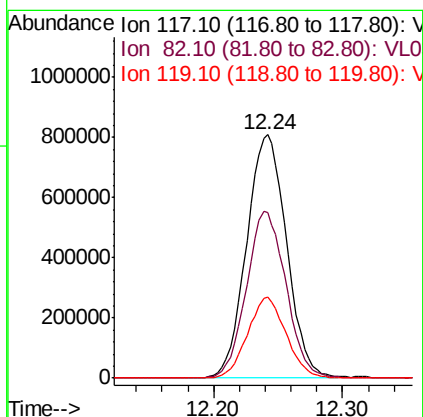
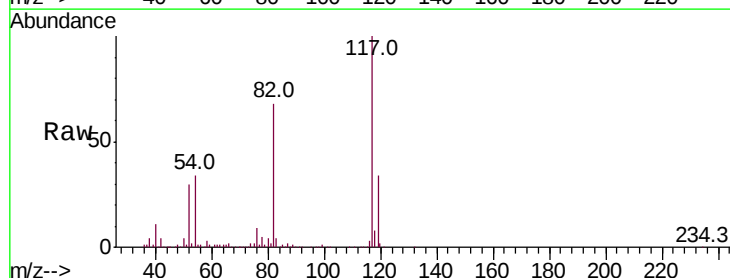
Manual Integrations
APPROVED

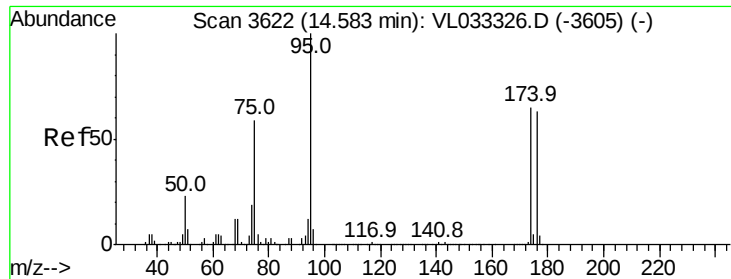
MMDadoda
3/19/2019 10:01:48 AM



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2894
Delta R.T. -0.00 min
Lab File: VL033351.D
Acq: 16 Mar 2019 4:25

Tgt Ion: 117 Resp: 1748360
Ion Ratio Lower Upper
117 100
82 68.5 53.4 80.2
119 32.2 27.3 40.9





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.323 ppbv
 RT: 14.58 min Scan# 3621
 Delta R.T. -0.00 min
 Lab File: VL033351.D
 Acq: 16 Mar 2019 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 A-4

Tot Ion: 95 Resp: 1337382
 Ion Ratio Lower Upper
 95 100
 174 63.6 51.5 77.3
 175 4.5 3.8 5.6

Manual Integrations
 APPROVED

MMDadoda
 3/19/2019 10:01:48 AM

