

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120418\
 Data File : VL032882.D
 Acq On : 4 Dec 2018 18:44
 Operator : SY/AP
 Sample : J6175-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-01

Manual Integrations
 APPROVED

MMDadoda
 12/10/2018 1:00:12 PM

Quant Time: Dec 05 06:33:03 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov 14 07:00:23 2018
 QLast Update : Wed Nov 14 07:00:23 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1425823	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3523547	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3523731	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	2552475	9.68	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	157343	0.768	ppbv	100
3) Chlorodifluoromethane	3.02	51	41101	0.364	ppbv #	89
9) Propene	3.04	41	532206	11.765	ppbv	94
10) Heptane	8.26	43	36762m	0.213	ppbv	
11) Trichlorofluoromethane	4.01	101	76275	0.395	ppbv	90
13) Ethanol	3.66	45	206561	13.941	ppbv	99
15) Acetone	3.90	43	2012174	15.453	ppbv #	79
20) Methylene Chloride	4.42	84	314553	4.666	ppbv	95
26) Hexane	5.78	57	271046	2.006	ppbv #	11
27) Carbon Disulfide	4.62	76	87264	0.509	ppbv #	81
29) Chloroform	5.86	83	68207	0.283	ppbv	92
34) 2-Butanone	5.33	43	10003252	54.736	ppbv	95
36) Benzene	7.01	78	193451	0.689	ppbv	99
44) 2,2,4-Trimethylpentane	8.00	57	65103m	0.139	ppbv	
51) 2-Hexanone	10.27	43	1159937	6.308	ppbv	99
52) Tetrachloroethene	11.37	164	6316m	0.065	ppbv	
53) Toluene	9.95	91	333520	1.139	ppbv	99
58) Ethyl Benzene	12.87	91	83352	0.197	ppbv	98
59) m/p-Xylene	13.12	91	232397m	0.616	ppbv	
60) o-Xylene	13.86	91	114684m	0.302	ppbv	
61) Styrene	13.69	104	58788	0.238	ppbv	99
72) 4-Ethyltoluene	16.01	105	44836m	0.108	ppbv	
73) 1,3,5-Trimethylbenzene	16.16	105	50089m	0.123	ppbv	
74) 1,2,4-Trimethylbenzene	16.93	105	132729m	0.305	ppbv	

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

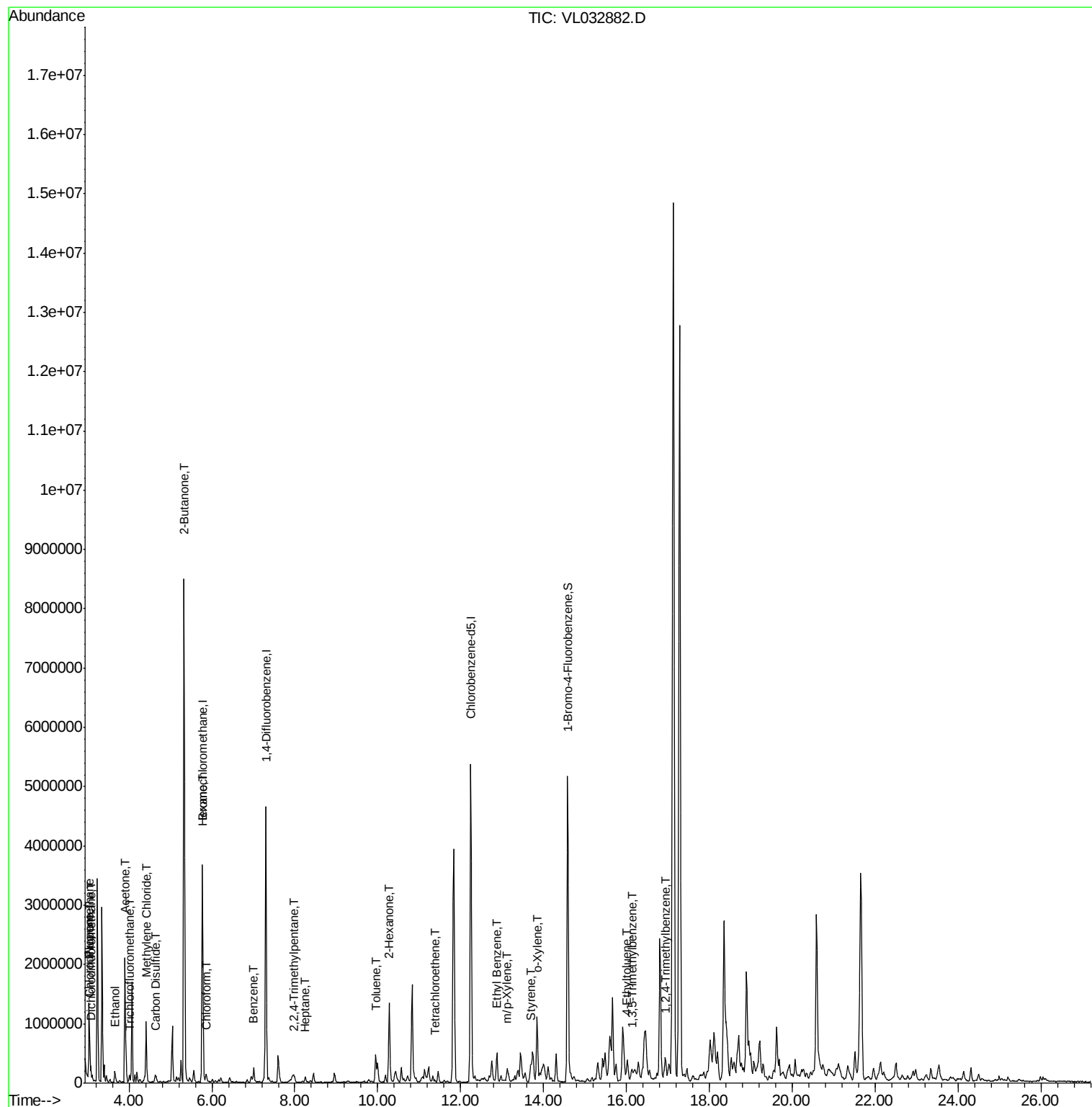
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120418\
Data File : VL032882.D
Acq On : 4 Dec 2018 18:44
Operator : SY/AP
Sample : J6175-03
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

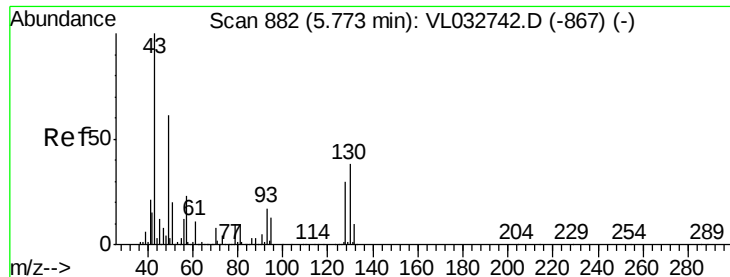
Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM

Quant Time: Dec 05 06:33:03 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Nov
QLast Update : Wed Nov 14 07:00:23 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. -0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

ClientSampleId :

MMSV-01

Tot Ion: 49 Resp: 1425823

Ion Ratio Lower Upper

49 100

128 52.6 24.9 74.6

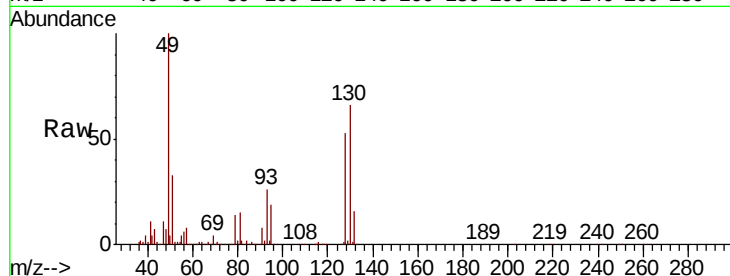
130 66.9 31.4 94.2

Manual Integrations

APPROVED

MMDadoda

12/10/2018 1:00:12 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V

1000000

800000

600000

400000

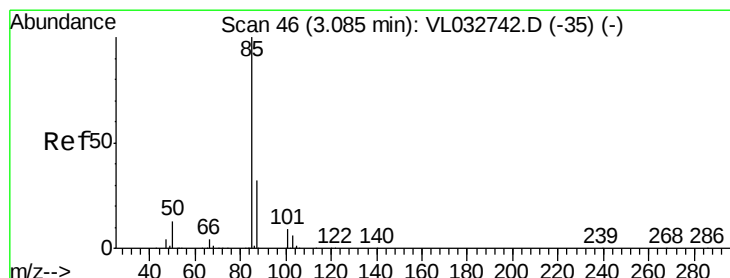
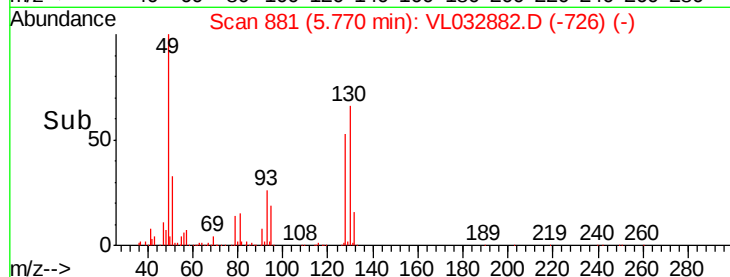
200000

0

5.77

5.70 5.75 5.80

Time-->



#2

Dichlorodifluoromethane

Concen: 0.768 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.01 min

Lab File: VL032882.D

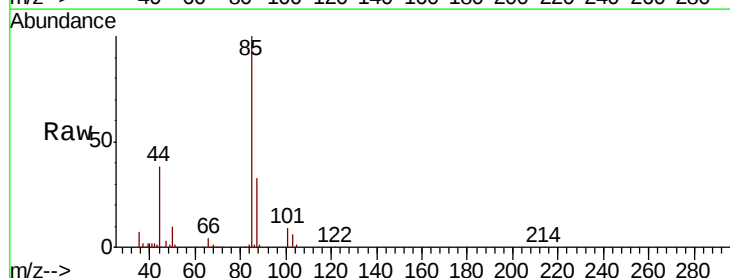
Acq: 4 Dec 2018 18:44

Tgt Ion: 85 Resp: 157343

Ion Ratio Lower Upper

85 100

87 32.8 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

150000

100000

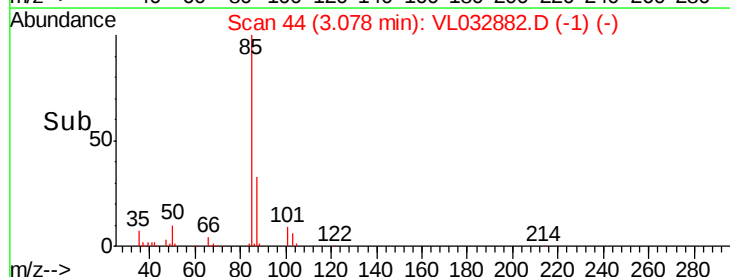
50000

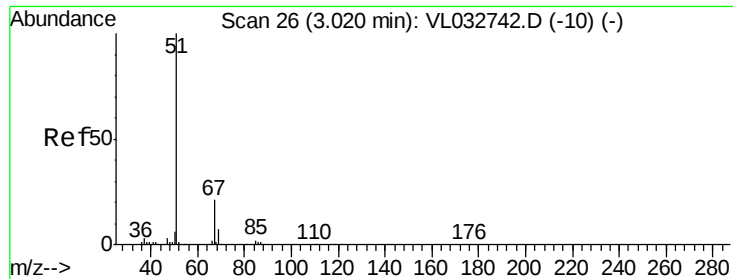
0

3.08

3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 0.364 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

ClientSampleId :

MMSV-01

Tot Ion: 51 Resp: 41101

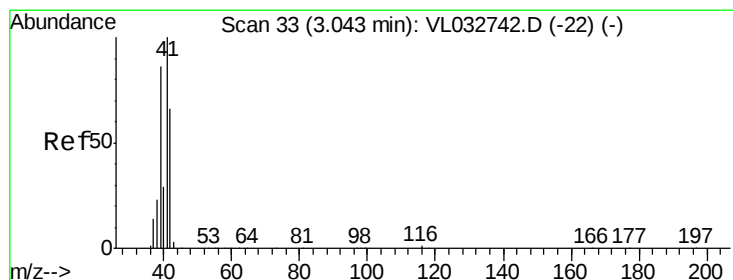
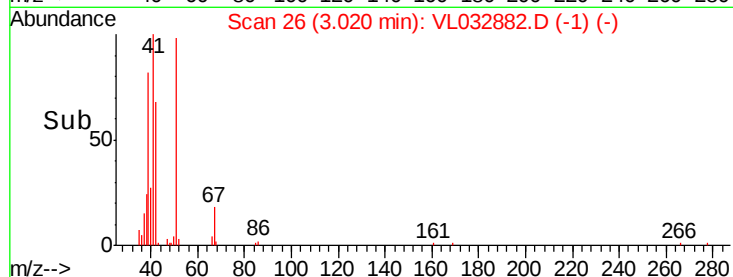
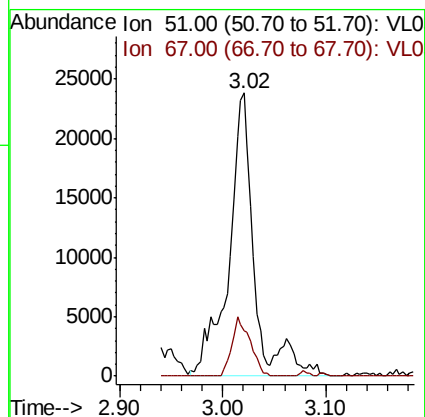
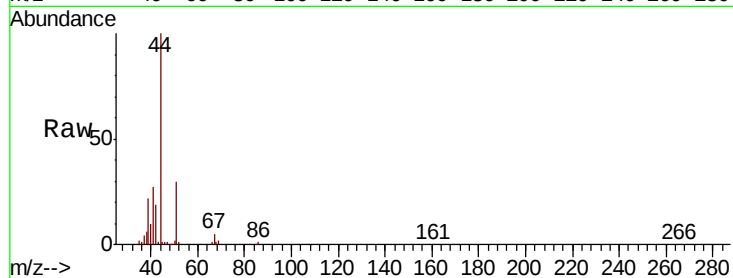
Ion Ratio Lower Upper

51 100

67 15.0 16.1 24.1#

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#9

Propene

Concen: 11.765 ppbv

RT: 3.04 min Scan# 32

Delta R.T. -0.00 min

Lab File: VL032882.D

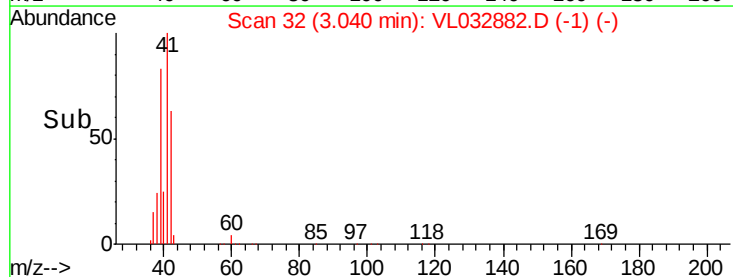
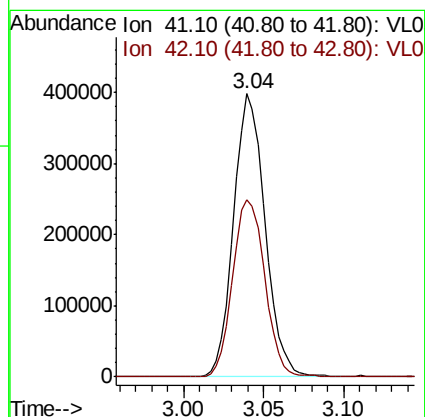
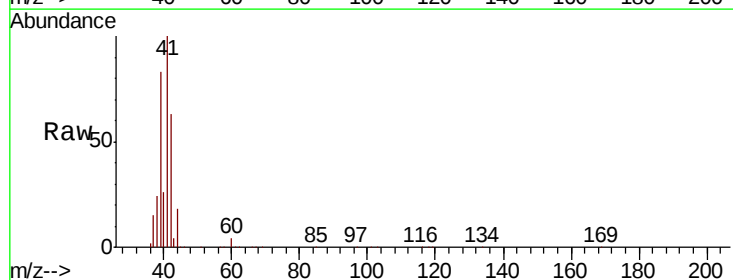
Acq: 4 Dec 2018 18:44

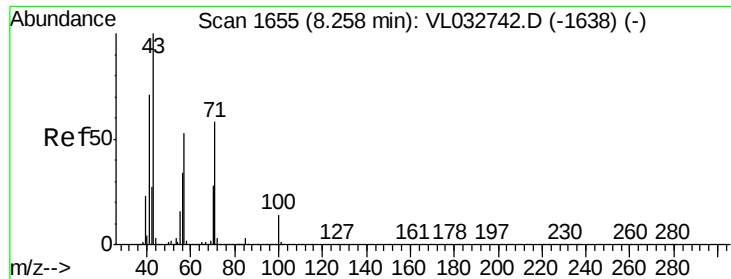
Tgt Ion: 41 Resp: 532206

Ion Ratio Lower Upper

41 100

42 64.2 55.0 82.6





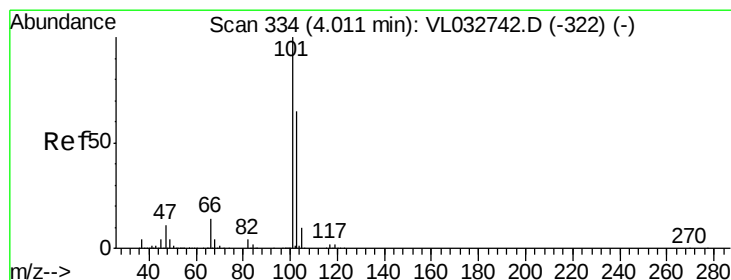
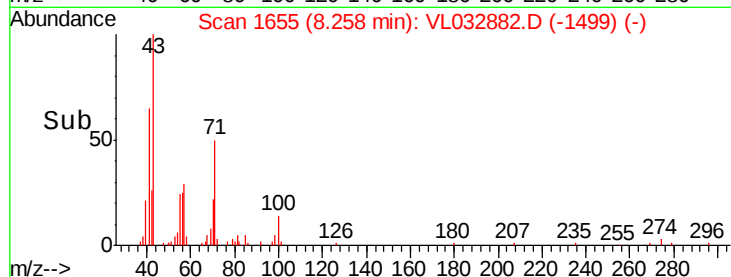
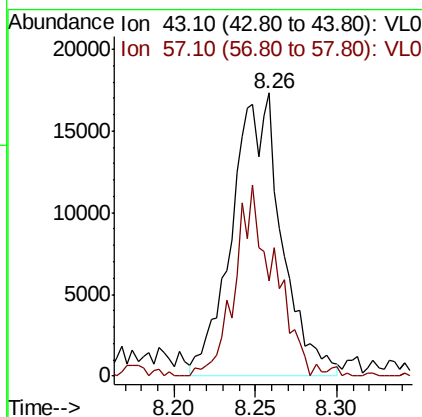
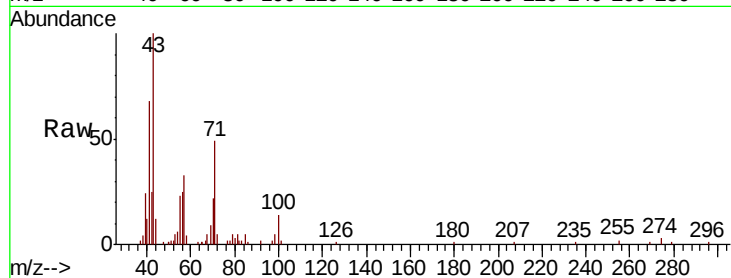
#10
Heptane
Concen: 0.213 ppbv m
RT: 8.26 min Scan# 1655
Delta R.T. 0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Tot Ion: 43 Resp: 36762
Ion Ratio Lower Upper
43 100
57 0.0 41.8 62.8#

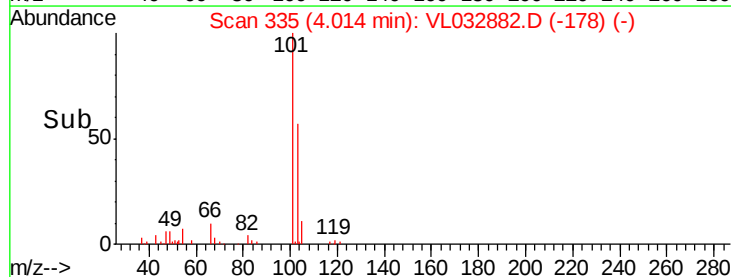
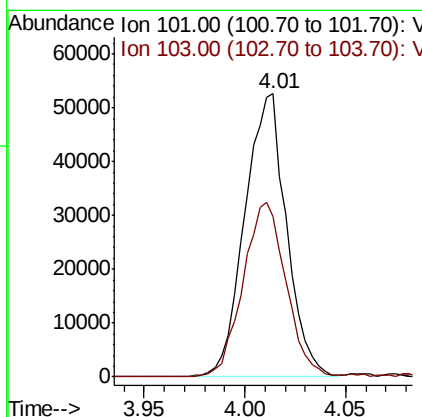
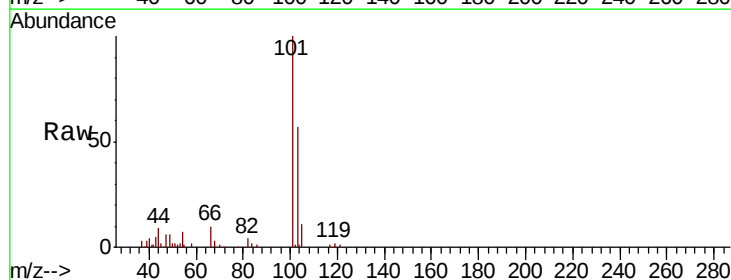
Manual Integrations
APPROVED

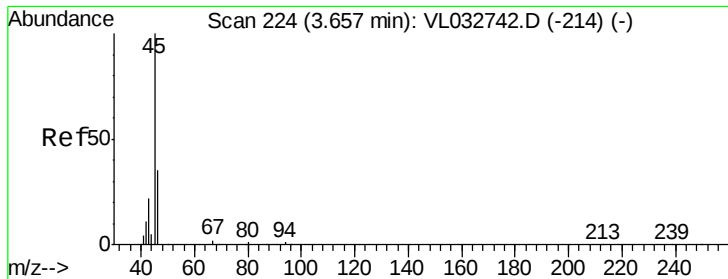
MMDadoda
12/10/2018 1:00:12 PM



#11
Trichlorofluoromethane
Concen: 0.395 ppbv
RT: 4.01 min Scan# 335
Delta R.T. 0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion: 101 Resp: 76275
Ion Ratio Lower Upper
101 100
103 56.8 51.6 77.4





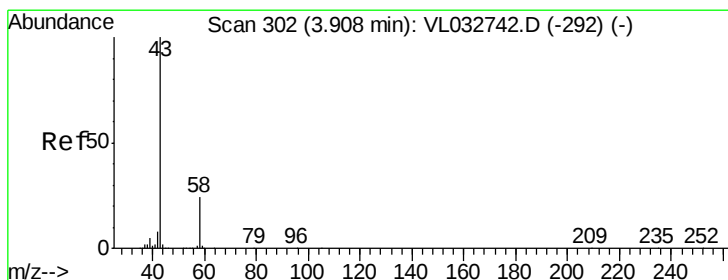
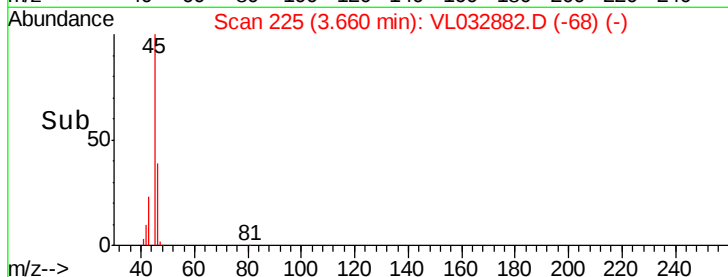
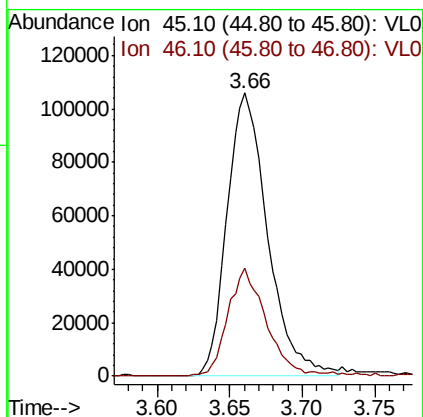
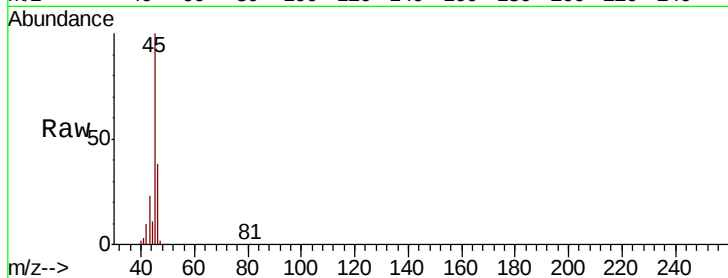
#13
Ethanol
Concen: 13.941 ppbv
RT: 3.66 min Scan# 225
Delta R.T. 0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Tot Ion	45	46	Ratio	100	36.8	Resp	206561	Lower	14.5	Upper	57.9
Ion	45	46	Ratio	100	36.8	Resp	206561	Lower	14.5	Upper	57.9

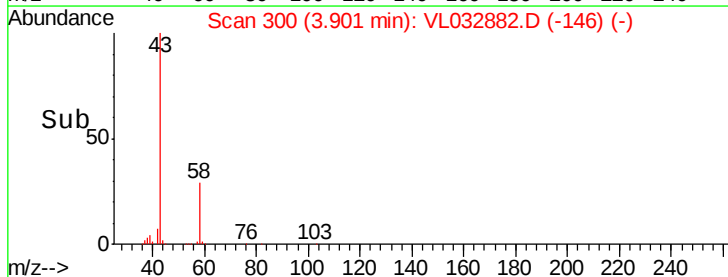
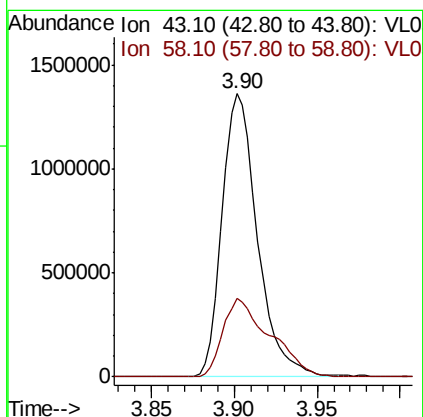
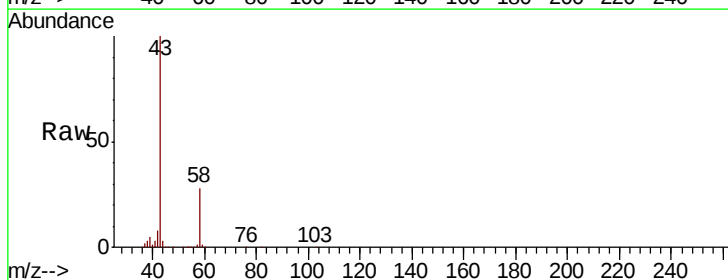
Manual Integrations
APPROVED

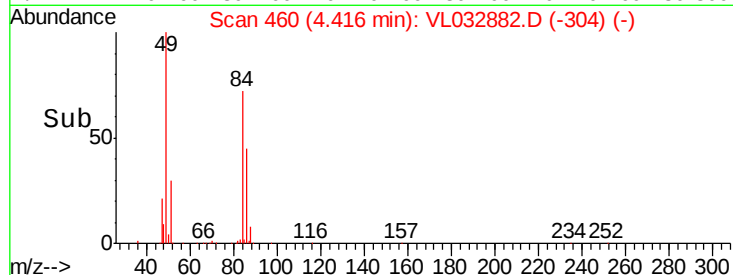
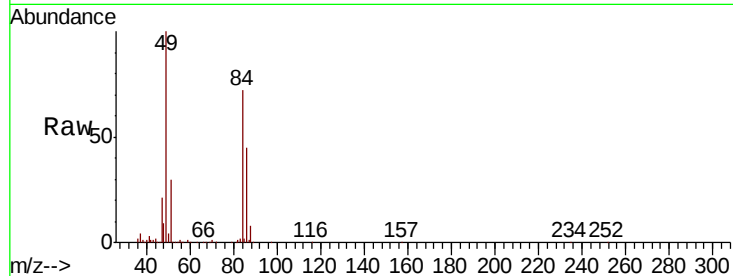
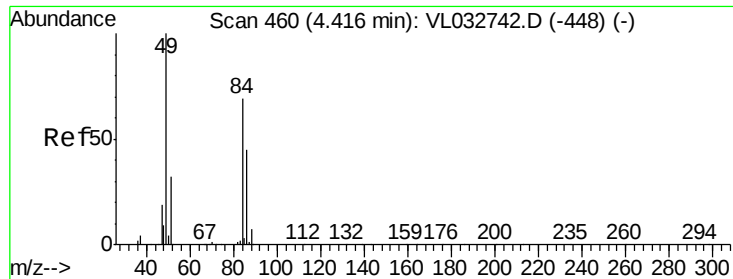
MMDadoda
12/10/2018 1:00:12 PM



#15
Acetone
Concen: 15.453 ppbv
RT: 3.90 min Scan# 300
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion	43	58	Ratio	100	37.1	Resp	2012174	Lower	21.1	Upper	31.7#
Ion	43	58	Ratio	100	37.1	Resp	2012174	Lower	21.1	Upper	31.7#





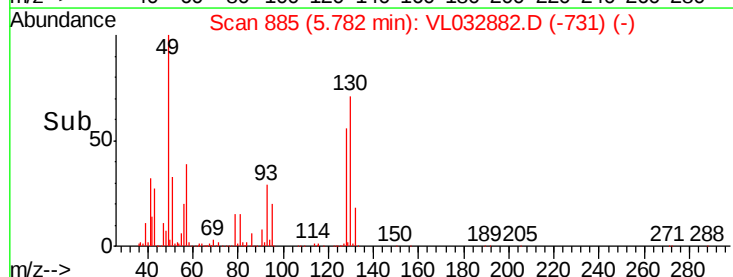
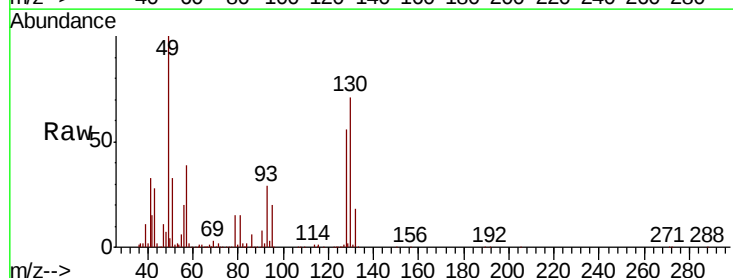
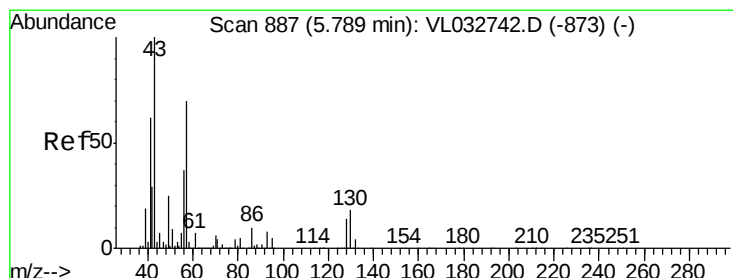
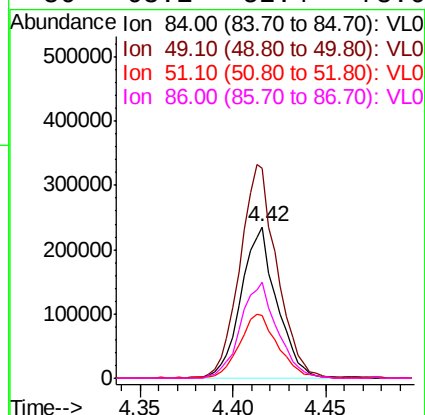
#20
Methvlene Chloride
Concen: 4.666 ppbv
RT: 4.42 min Scan# 460
Delta R.T. 0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tot Ion	Ratio	Lower	Upper
84	100		
49	138.4	115.8	173.6
51	41.0	36.9	55.3
86	63.1	52.4	78.6

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

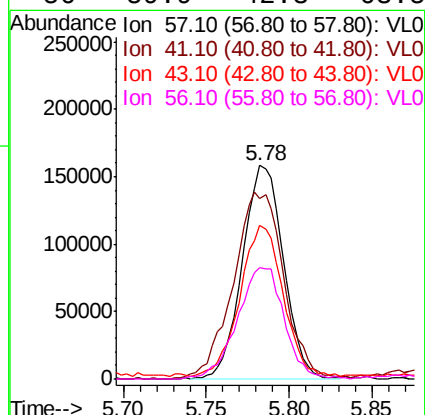
Manual Integrations
APPROVED

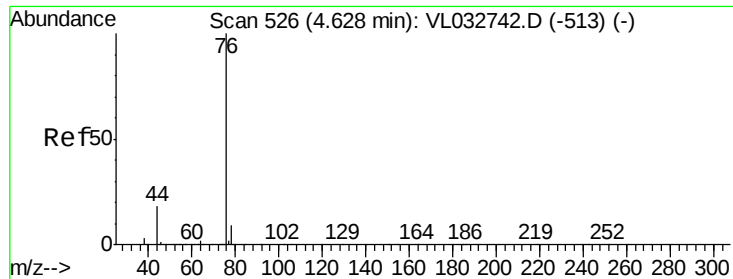
MMDadoda
12/10/2018 1:00:12 PM



#26
Hexane
Concen: 2.006 ppbv
RT: 5.78 min Scan# 885
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion	Ratio	Lower	Upper
57	100		
41	108.1	70.3	105.5#
43	0.0	174.0	261.0#
56	59.9	42.3	63.5





#27

Carbon Disulfide

Concen: 0.509 ppbv

RT: 4.62 min Scan# 525

Delta R.T. -0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

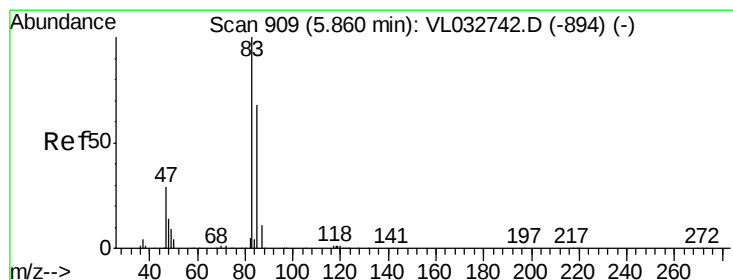
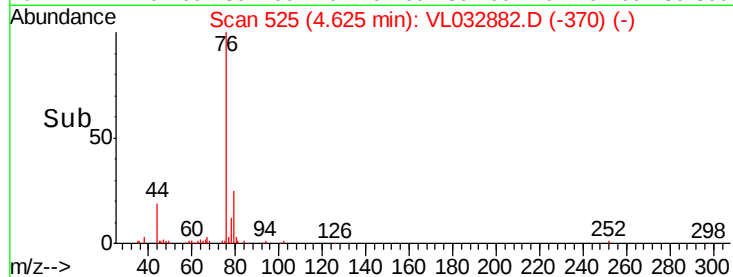
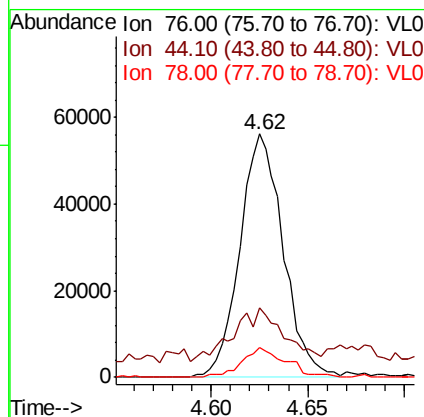
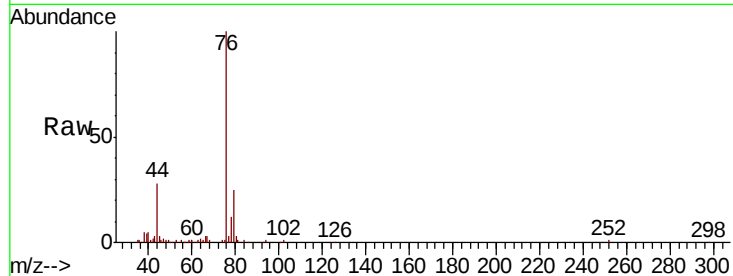
ClientSampleId :

MMSV-01

Tot Ion:	76	Resp:	87264
Ion	Ratio	Lower	Upper
76	100		
44	29.1	14.4	21.6#
78	12.8	7.7	11.5#

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#29

Chloroform

Concen: 0.283 ppbv

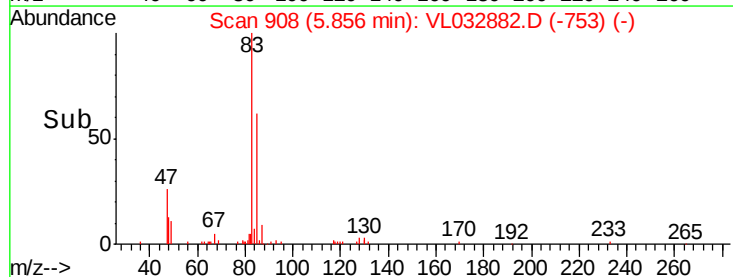
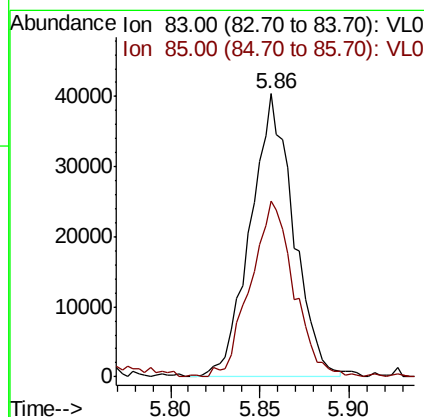
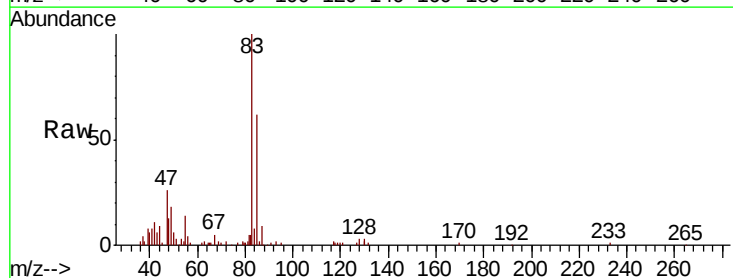
RT: 5.86 min Scan# 908

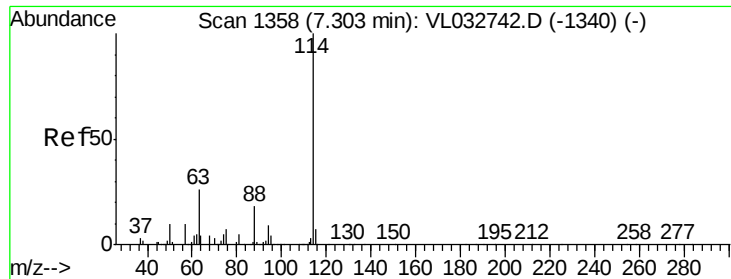
Delta R.T. -0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Tgt Ion:	83	Resp:	68207
Ion	Ratio	Lower	Upper
83	100		
85	61.6	54.2	81.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.30 min Scan# 1357

Delta R.T. -0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

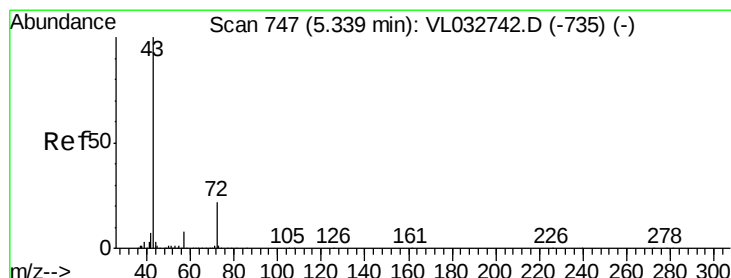
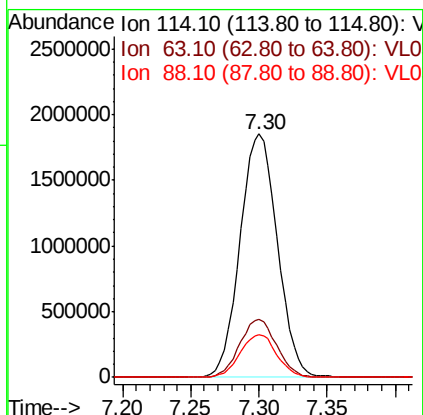
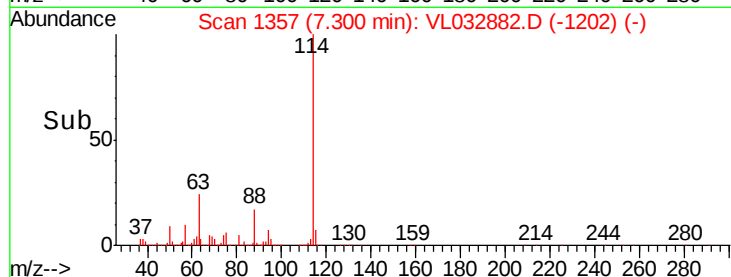
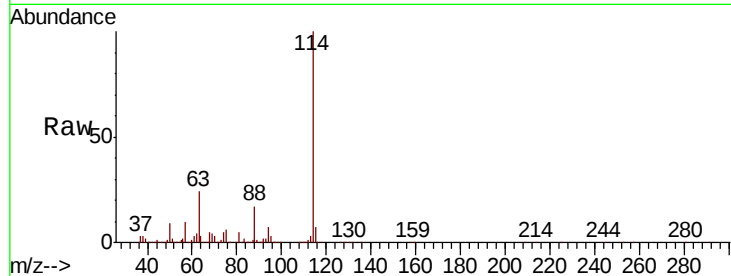
ClientSampleId :

MMSV-01

Tot Ion:	114	Resp:	3523547
Ion	Ratio	Lower	Upper
114	100		
63	23.6	20.9	31.3
88	17.4	14.4	21.6

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#34

2-Butanone

Concen: 54.736 ppbv

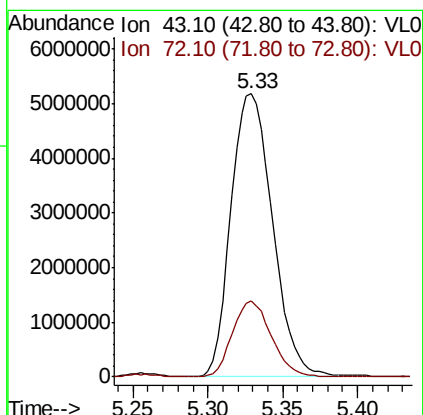
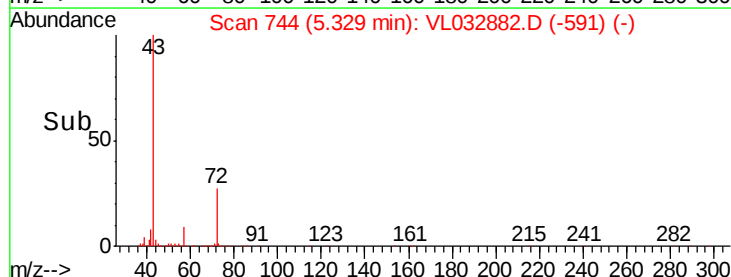
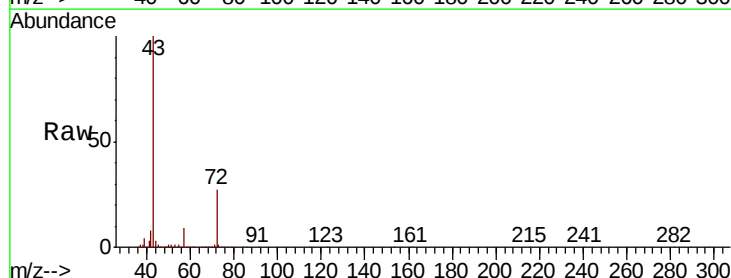
RT: 5.33 min Scan# 744

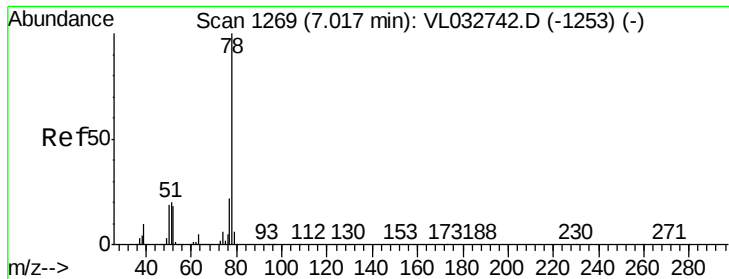
Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Tgt Ion:	43	Resp:	10003252
Ion	Ratio	Lower	Upper
43	100		
72	25.3	18.4	27.6





#36

Benzene

Concen: 0.689 ppbv

RT: 7.01 min Scan# 1266

Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

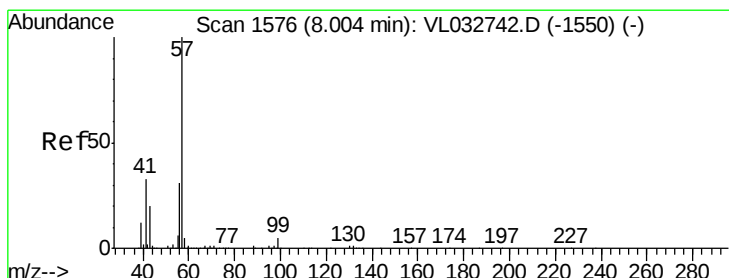
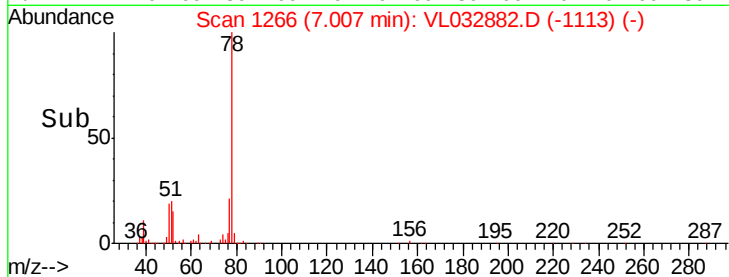
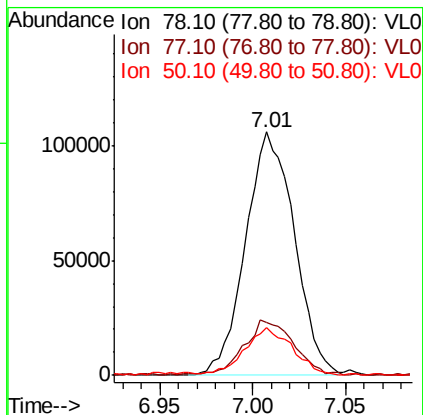
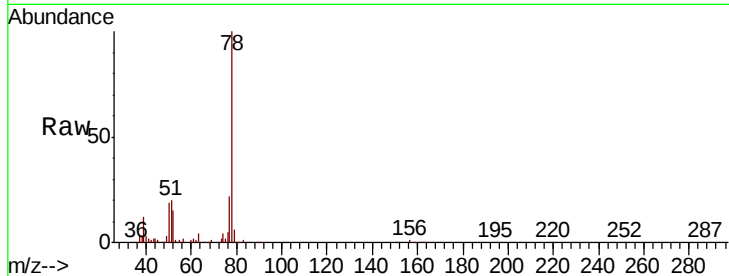
ClientSampleId :

MMSV-01

Tot Ion:	78	Resp:	193451
Ion	Ratio	Lower	Upper
78	100		
77	21.5	17.8	26.8
50	19.2	15.4	23.0

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#44

2,2,4-Trimethylpentane

Concen: 0.139 ppbv m

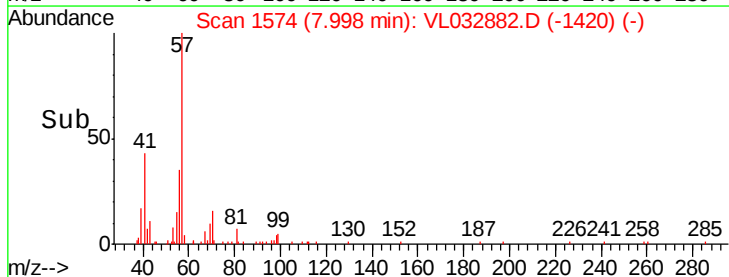
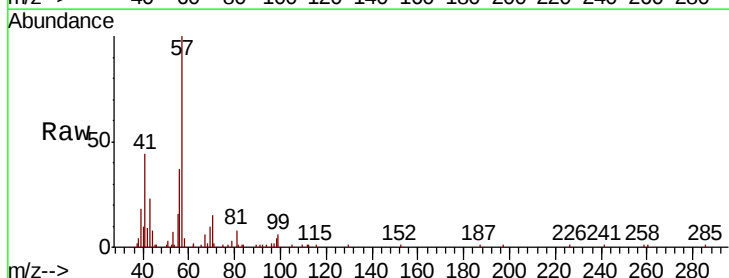
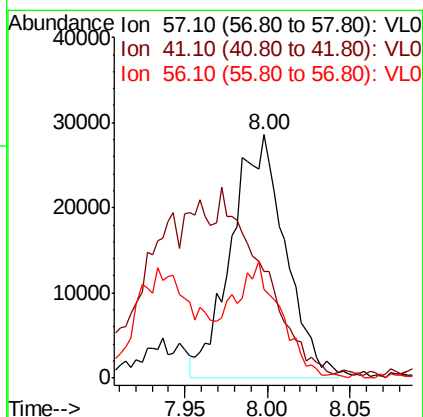
RT: 8.00 min Scan# 1574

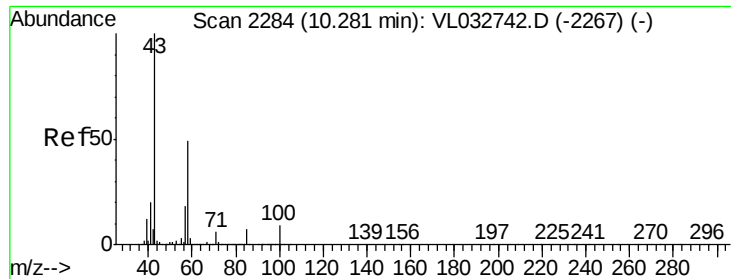
Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Tgt Ion:	57	Resp:	65103
Ion	Ratio	Lower	Upper
57	100		
41	0.0	26.6	39.8#
56	40.8	24.8	37.2#





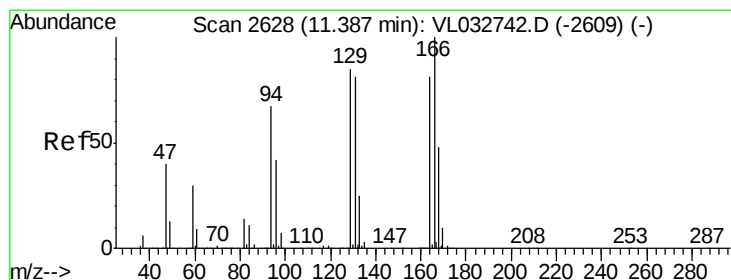
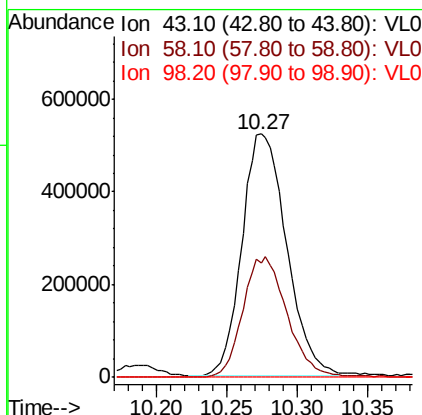
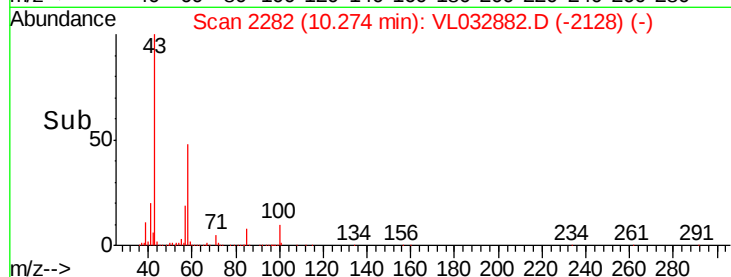
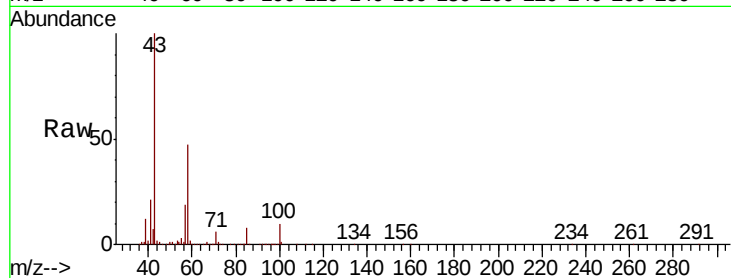
#51
2-Hexanone
Concen: 6.308 ppbv
RT: 10.27 min Scan# 2282
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Tot Ion	Ratio	Lower	Upper
43	100		
58	49.0	38.9	58.3
98	0.3	0.2	0.4

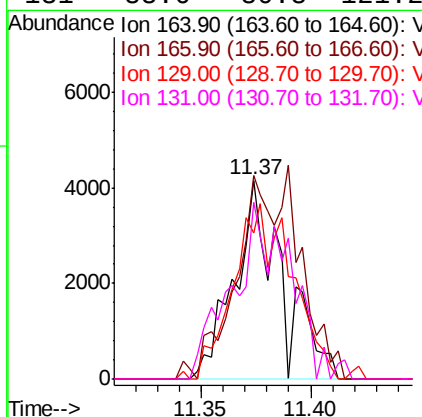
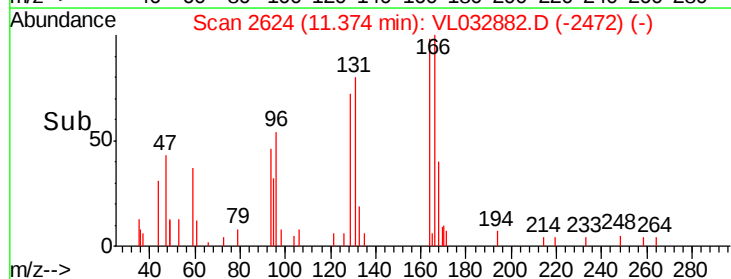
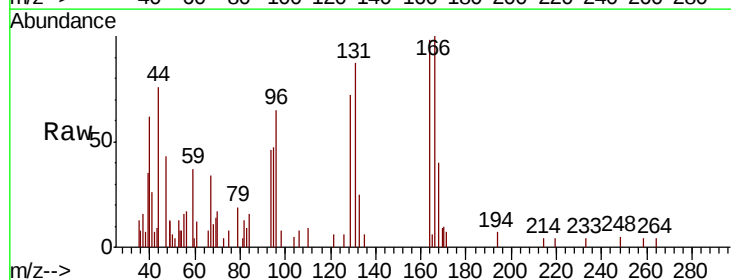
Manual Integrations
APPROVED

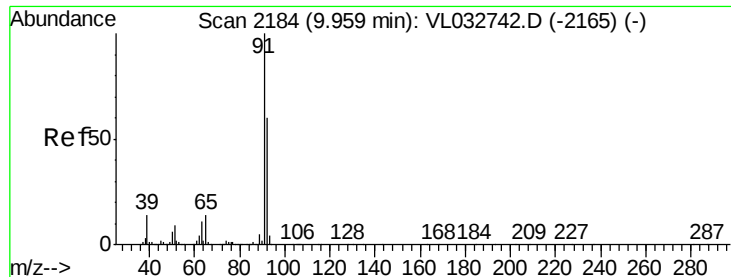
MMDadoda
12/10/2018 1:00:12 PM



#52
Tetrachloroethene
Concen: 0.065 ppbv m
RT: 11.37 min Scan# 2624
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion	Ratio	Lower	Upper
164	100		
166	102.1	99.3	148.9
129	73.7	83.9	125.9#
131	88.6	80.8	121.2





#53

Toluene

Concen: 1.139 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

ClientSampleId :

MMSV-01

Tot Ion: 91 Resp: 333520

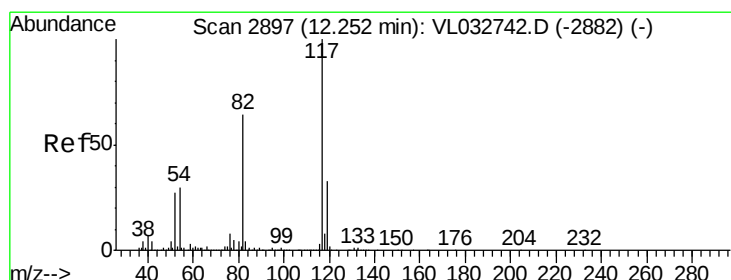
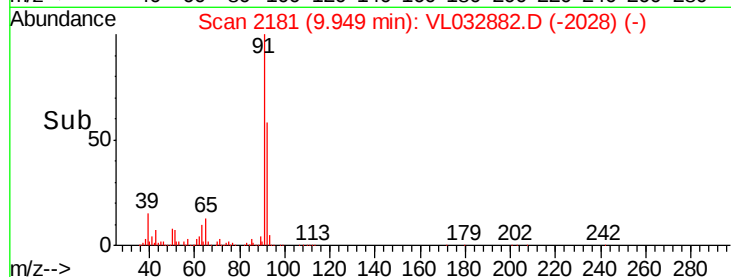
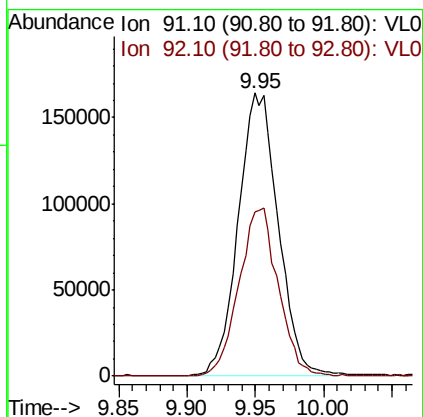
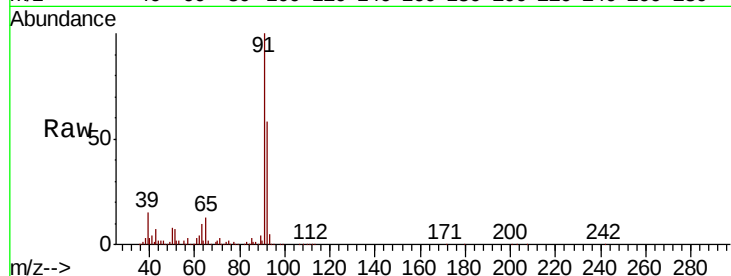
Ion Ratio Lower Upper

91 100

92 59.0 47.9 71.9

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

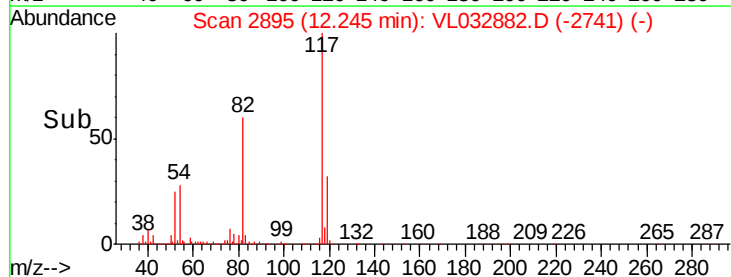
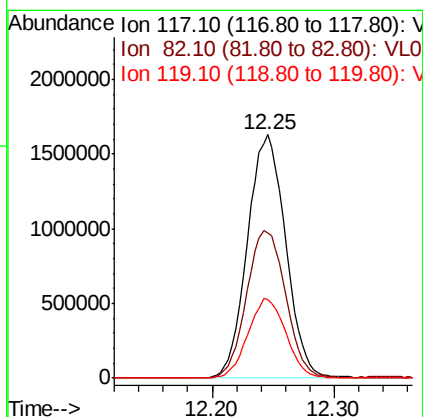
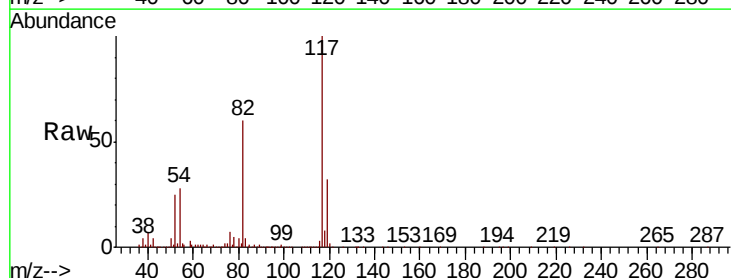
Tgt Ion: 117 Resp: 3523731

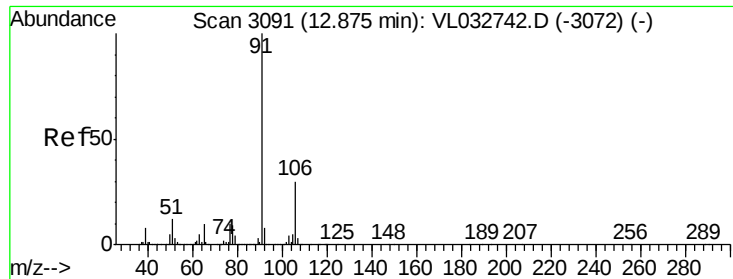
Ion Ratio Lower Upper

117 100

82 62.2 51.0 76.6

119 32.5 28.0 42.0





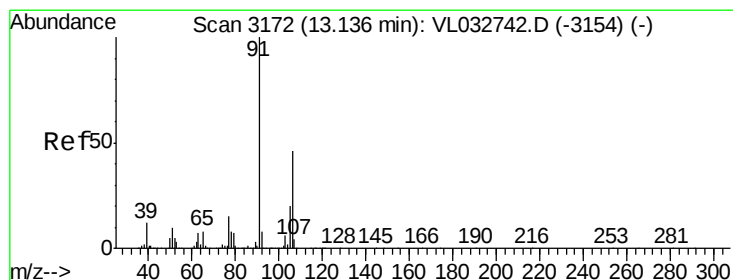
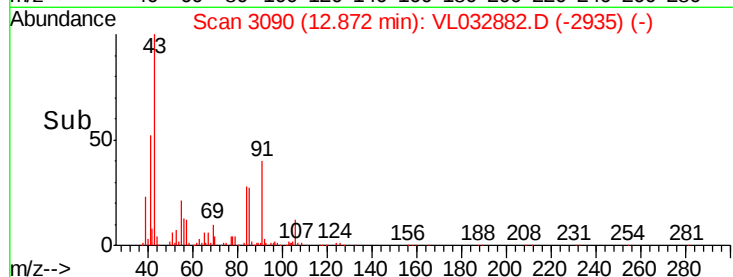
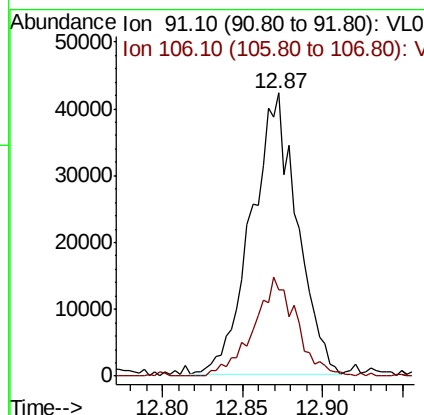
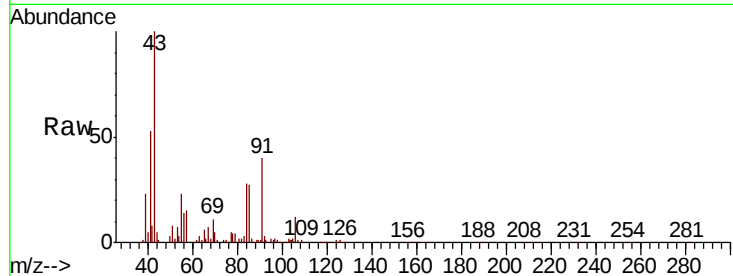
#58
Ethyl Benzene
Concen: 0.197 ppbv
RT: 12.87 min Scan# 3090
Delta R.T. -0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Tot Ion	91	Resp	83352
Ion Ratio	Lower	Upper	
91	100		
106	30.5	23.6	35.4

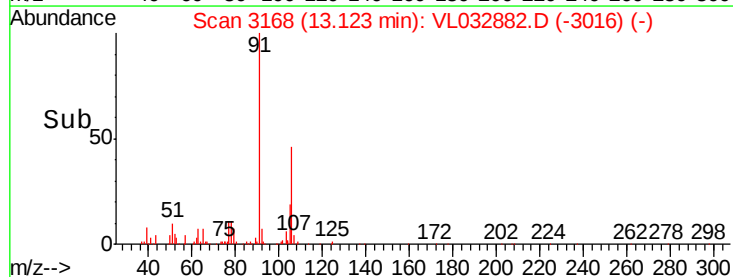
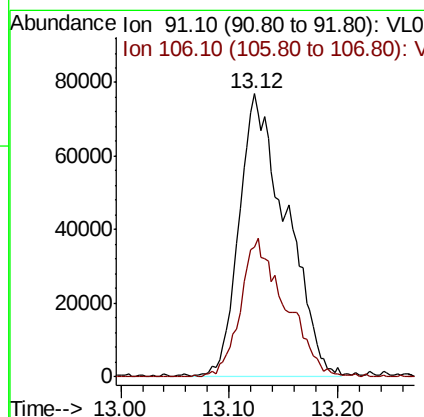
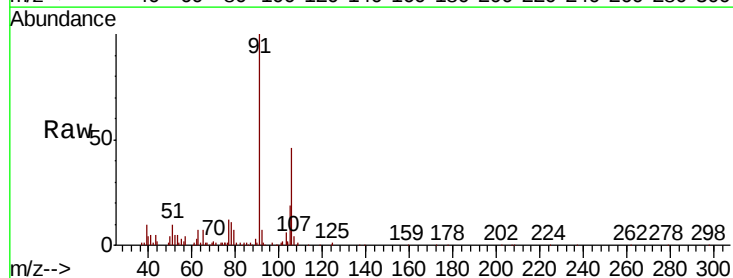
Manual Integrations
APPROVED

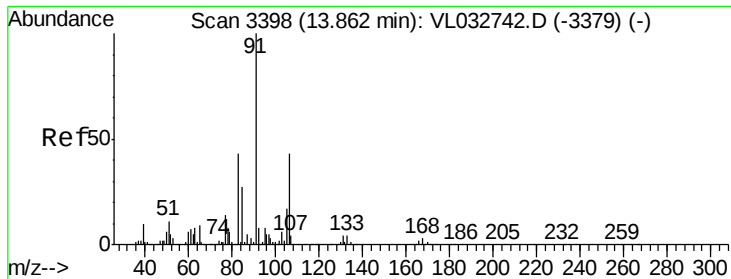
MMDadoda
12/10/2018 1:00:12 PM



#59
m/p-Xylene
Concen: 0.616 ppbv m
RT: 13.12 min Scan# 3168
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion	91	Resp	232397
Ion Ratio	Lower	Upper	
91	100		
106	0.0	36.1	54.1#





#60

o-Xylene

Concen: 0.302 ppbv m

RT: 13.86 min Scan# 3396

Delta R.T. -0.01 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

Instrument :

MSVOA_L

ClientSampled :

MMSV-01

Tot Ion: 91 Resp: 114684

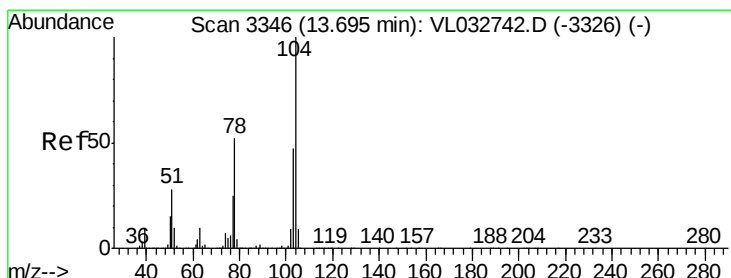
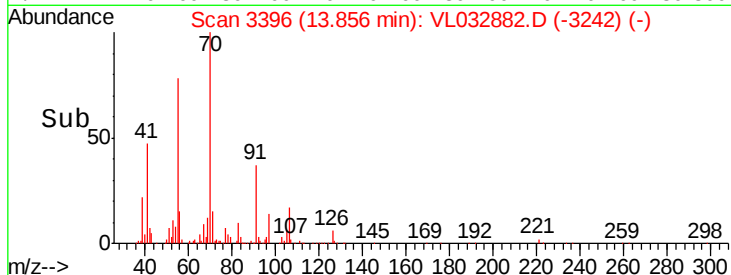
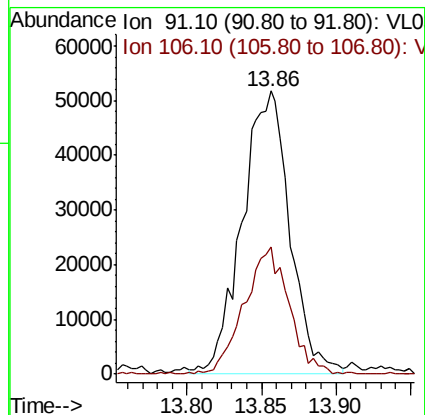
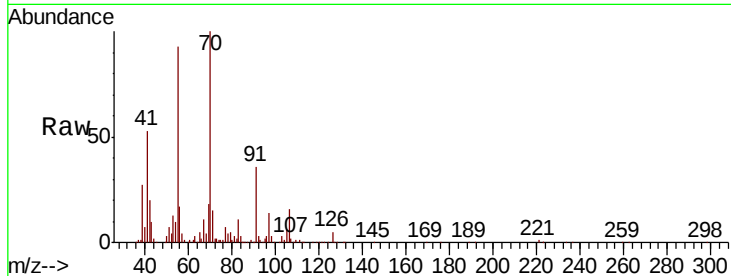
Ion Ratio Lower Upper

91 100

106 42.3 21.9 65.7

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#61

Styrene

Concen: 0.238 ppbv

RT: 13.69 min Scan# 3345

Delta R.T. -0.00 min

Lab File: VL032882.D

Acq: 4 Dec 2018 18:44

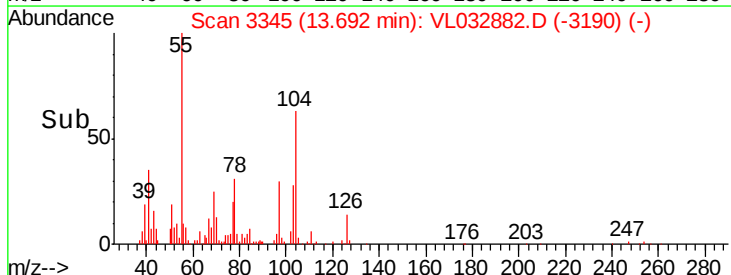
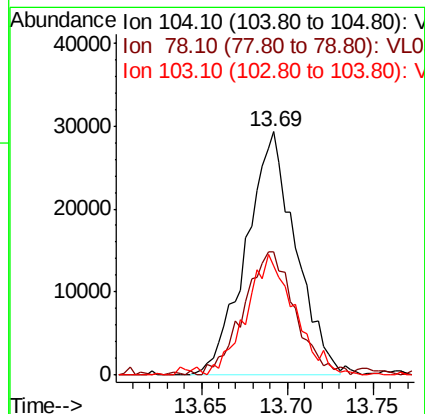
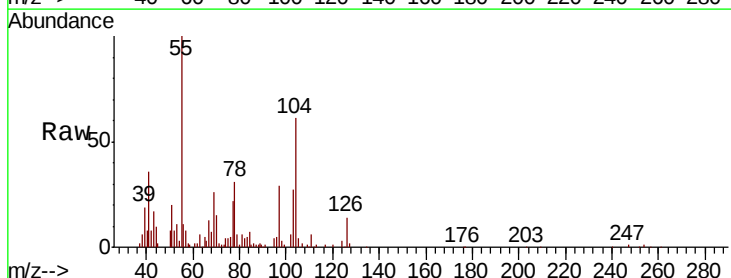
Tgt Ion: 104 Resp: 58788

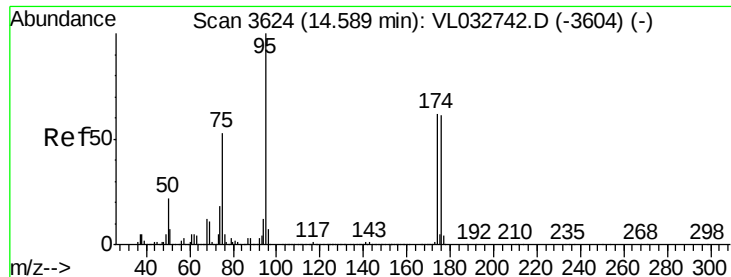
Ion Ratio Lower Upper

104 100

78 53.1 42.2 63.4

103 49.5 38.2 57.2





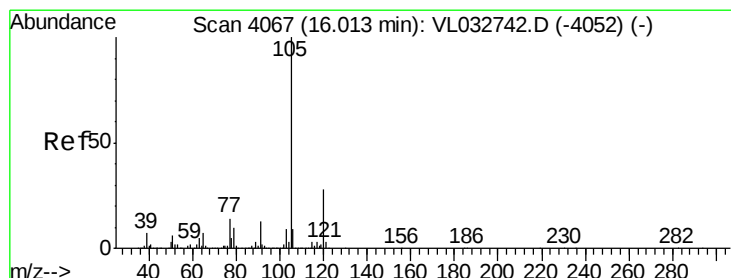
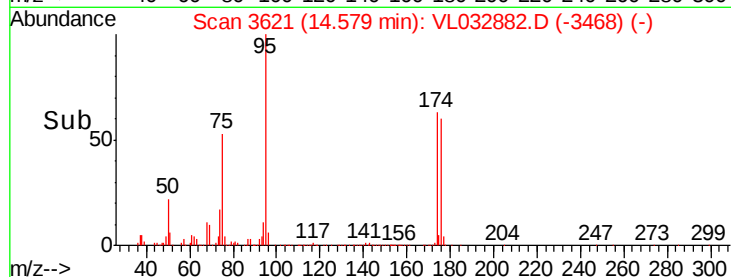
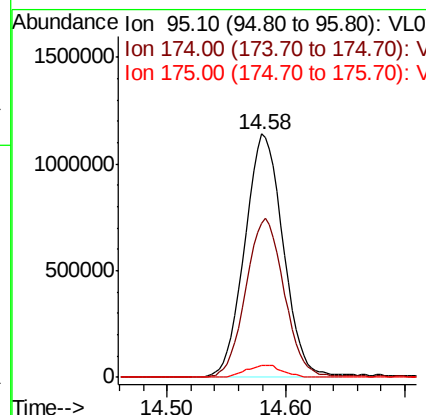
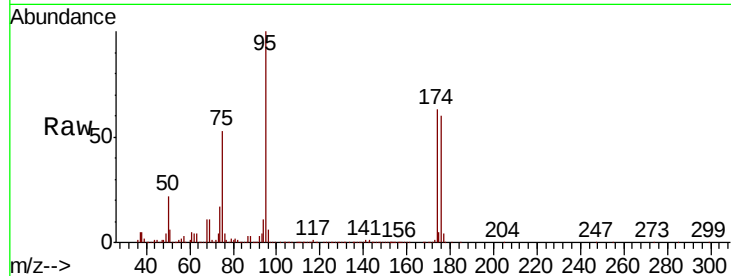
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.685 ppbv
 RT: 14.58 min Scan# 3621
 Delta R.T. -0.01 min
 Lab File: VL032882.D
 Acq: 4 Dec 2018 18:44

Instrument :
 MSVOA_L
 ClientSampleId :
 MMSV-01

Tot Ion: 95 Resp: 2552475
 Ion Ratio Lower Upper
 95 100
 174 66.1 50.7 76.1
 175 4.9 3.8 5.6

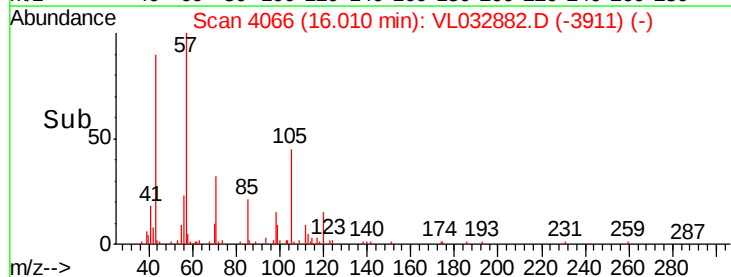
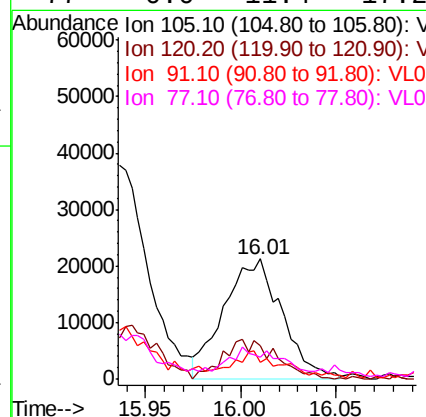
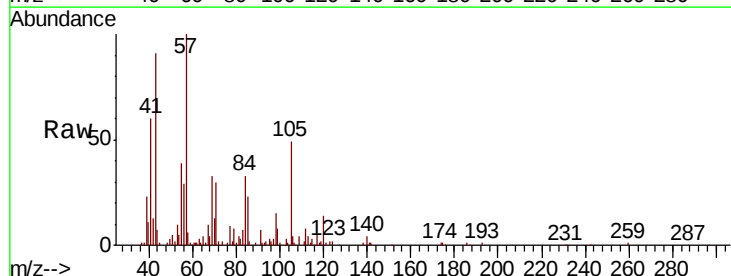
Manual Integrations
 APPROVED

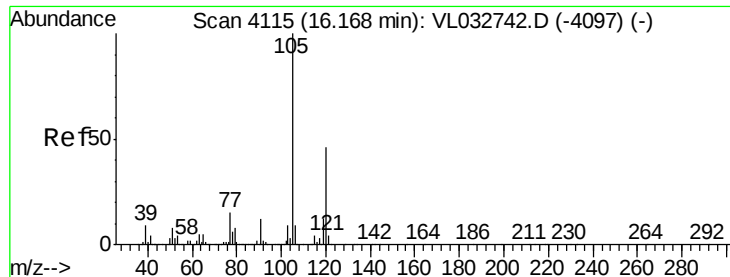
MMDadoda
 12/10/2018 1:00:12 PM



#72
 4-Ethyltoluene
 Concen: 0.108 ppbv m
 RT: 16.01 min Scan# 4066
 Delta R.T. -0.00 min
 Lab File: VL032882.D
 Acq: 4 Dec 2018 18:44

Tgt Ion: 105 Resp: 44836
 Ion Ratio Lower Upper
 105 100
 120 0.0 22.9 34.3#
 91 18.1 10.6 15.8#
 77 0.0 11.4 17.2#





#73

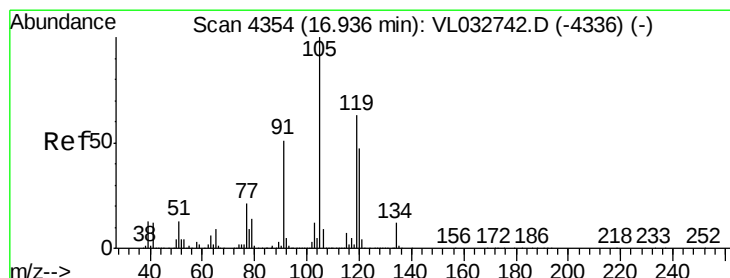
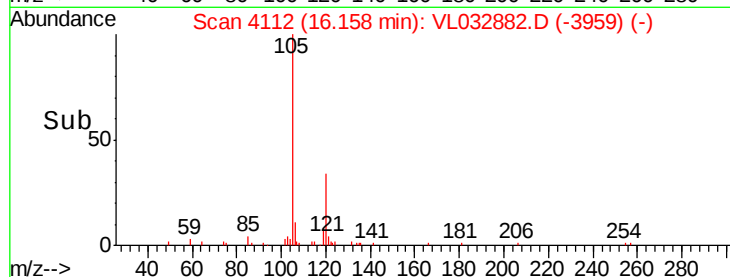
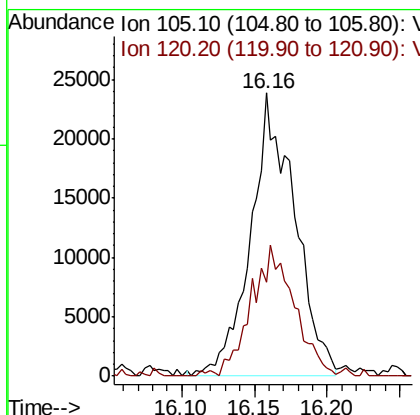
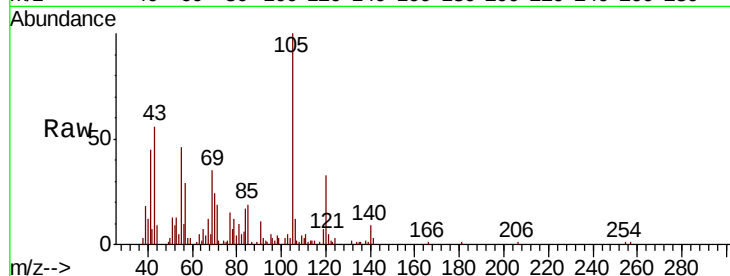
1,3,5-Trimethylbenzene
Concen: 0.123 ppbv m
RT: 16.16 min Scan# 4112
Delta R.T. -0.01 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Instrument :
MSVOA_L
ClientSampleId :
MMSV-01

Tot Ion:105 Resp: 50089
Ion Ratio Lower Upper
105 100
120 33.1 36.6 55.0#

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:00:12 PM



#74

1,2,4-Trimethylbenzene
Concen: 0.305 ppbv m
RT: 16.93 min Scan# 4353
Delta R.T. -0.00 min
Lab File: VL032882.D
Acq: 4 Dec 2018 18:44

Tgt Ion:105 Resp: 132729
Ion Ratio Lower Upper
105 100
120 42.0 37.6 56.4
91 10.0 42.5 63.7#
77 12.7 17.4 26.2#

