

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120418\
 Data File : VL032900.D
 Acq On : 5 Dec 2018 6:35
 Operator : SY/AP
 Sample : J6177-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VIELE-DUP

Manual Integrations
 APPROVED

MMDadoda
 12/10/2018 1:02:02 PM

Quant Time: Dec 05 08:36:15 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	1398879	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	3524548	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	3632197	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.58	95	2696324	9.93	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.30%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	78821	0.392	ppbv	96
3) Chlorodifluoromethane	3.01	51	66836	0.603	ppbv	94
9) Propene	3.04	41	1304107	29.384	ppbv	96
10) Heptane	8.25	43	104730m	0.618	ppbv	
11) Trichlorofluoromethane	4.01	101	43940	0.232	ppbv	98
13) Ethanol	3.66	45	976824	67.196	ppbv	99
15) Acetone	3.90	43	5294560	41.445	ppbv #	68
20) Methylene Chloride	4.42	84	358331	5.418	ppbv	94
26) Hexane	5.79	57	575281	4.340	ppbv #	46
27) Carbon Disulfide	4.63	76	573024	3.410	ppbv	99
29) Chloroform	5.86	83	24424	0.103	ppbv	90
30) Cyclohexane	7.26	84	35483m	0.306	ppbv	
34) 2-Butanone	5.33	43	14898215	81.498	ppbv #	89
35) Carbon Tetrachloride	7.14	117	15679m	0.055	ppbv	
36) Benzene	7.01	78	344901	1.229	ppbv	96
44) 2,2,4-Trimethylpentane	7.99	57	133836	0.285	ppbv #	83
51) 2-Hexanone	10.27	43	1607103	8.737	ppbv	99
52) Tetrachloroethene	11.39	164	22202m	0.227	ppbv	
53) Toluene	9.96	91	429813	1.468	ppbv	98
58) Ethyl Benzene	12.87	91	558920	1.279	ppbv	99
59) m/p-Xylene	13.13	91	1391852	3.577	ppbv	96
60) o-Xylene	13.86	91	589535	1.507	ppbv	98
61) Styrene	13.69	104	70836m	0.278	ppbv	
69) p-Isopropyltoluene	17.82	119	105933m	0.195	ppbv	
72) 4-Ethyltoluene	16.01	105	56168m	0.131	ppbv	
73) 1,3,5-Trimethylbenzene	16.17	105	106999	0.255	ppbv	91
74) 1,2,4-Trimethylbenzene	16.93	105	226002	0.504	ppbv #	69

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

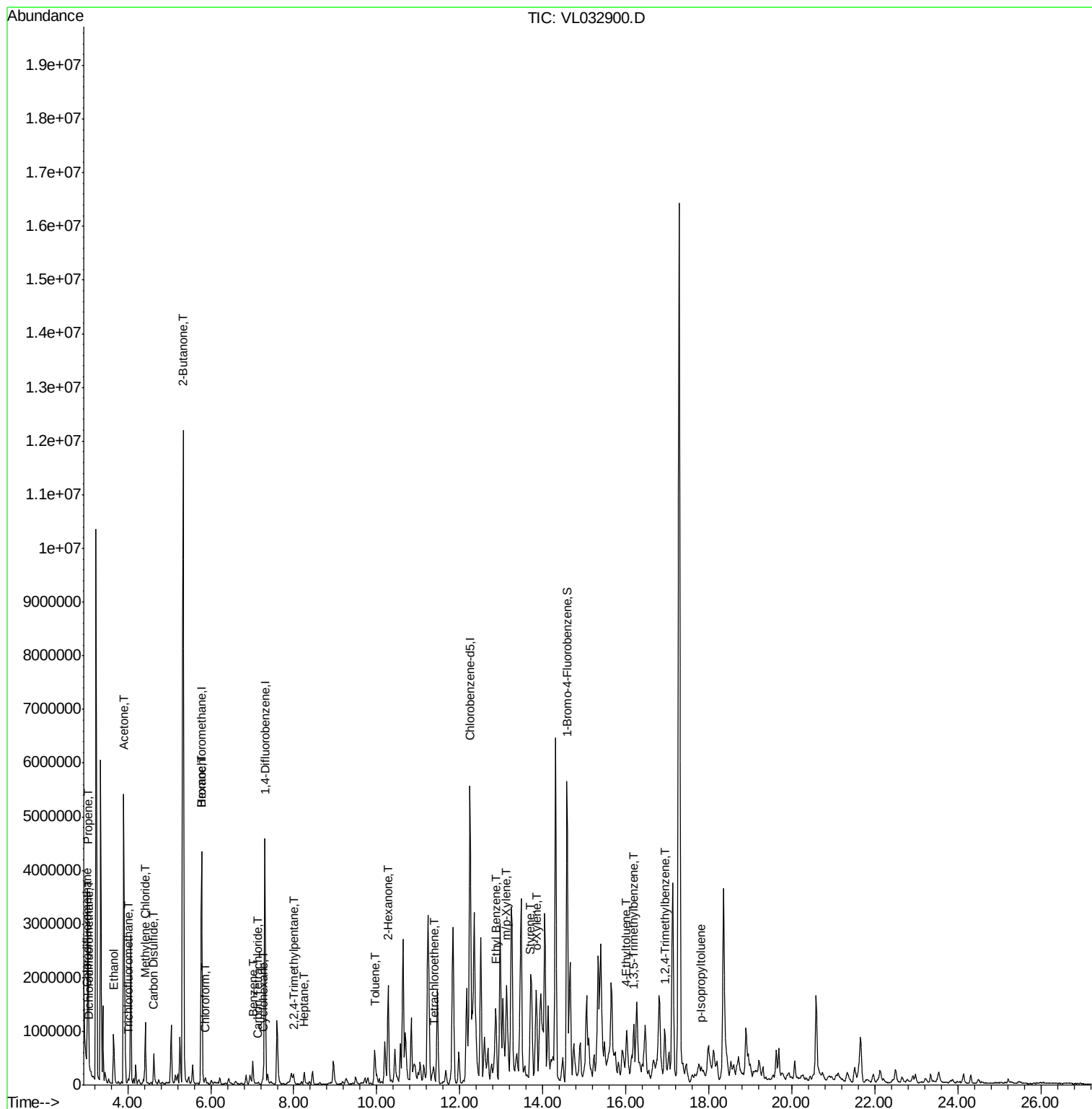
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL120418\
Data File : VL032900.D
Acq On : 5 Dec 2018 6:35
Operator : SY/AP
Sample : J6177-03
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

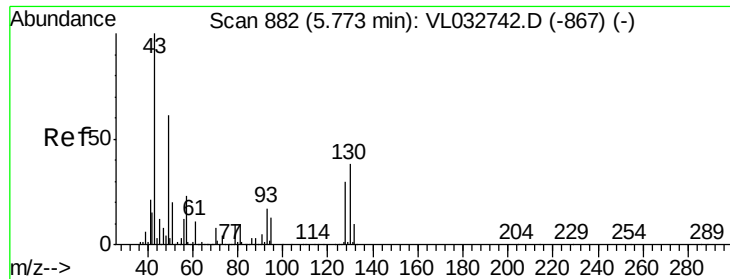
Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Manual Integrations

MMDadoda
12/10/2018 1:02:02 PM

Quant Time: Dec 05 08:36:15 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111418AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed 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# 882

Delta R.T. 0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Instrument :

MSVOA_L

ClientSampled :

VIELE-DUP

Tot Ion: 49 Resp: 1398879

Ion Ratio Lower Upper

49 100

128 52.8 24.9 74.6

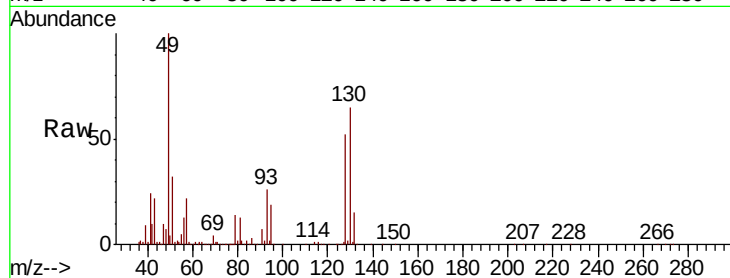
130 66.8 31.4 94.2

Manual Integrations

APPROVED

MMDadoda

12/10/2018 1:02:02 PM



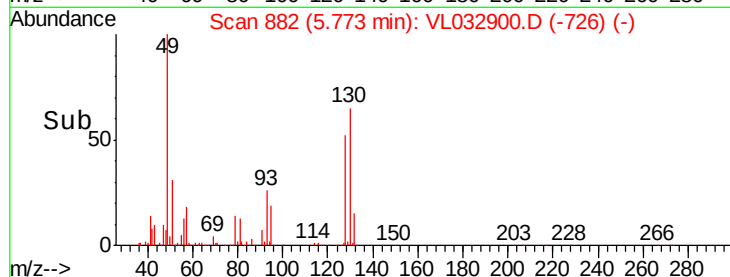
Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

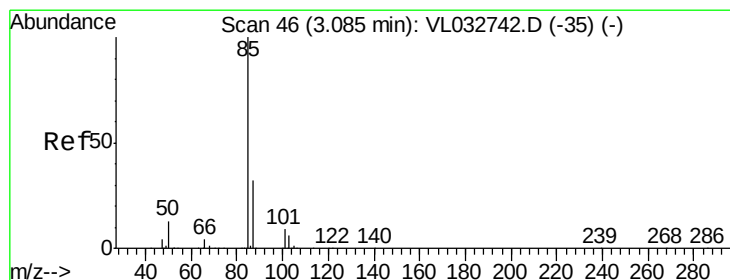
Ion 130.00 (129.70 to 130.70): V

5.77

Time-->



Time-->



#2

Dichlorodifluoromethane

Concen: 0.392 ppbv

RT: 3.08 min Scan# 45

Delta R.T. -0.00 min

Lab File: VL032900.D

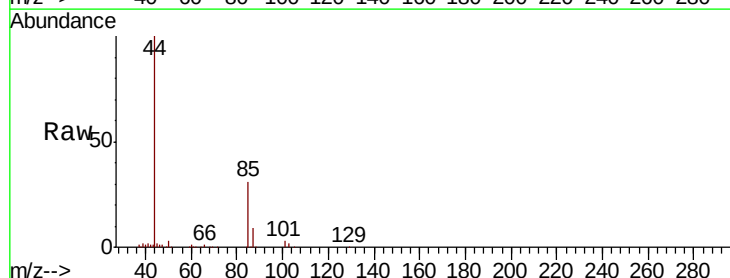
Acq: 5 Dec 2018 6:35

Tgt Ion: 85 Resp: 78821

Ion Ratio Lower Upper

85 100

87 30.4 26.0 39.0

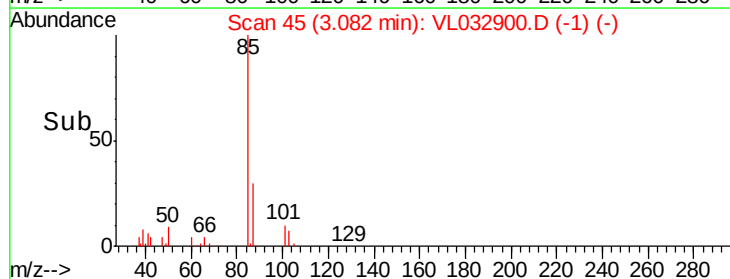


Abundance Ion 85.00 (84.70 to 85.70): VL0

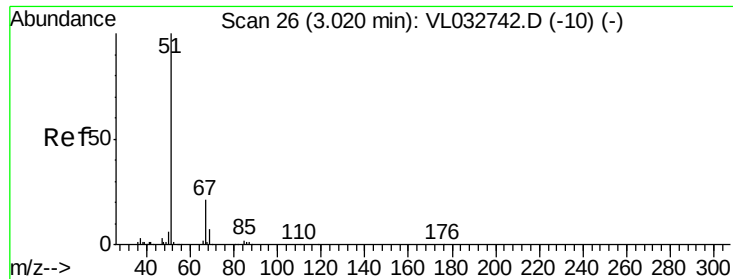
Ion 87.00 (86.70 to 87.70): VL0

3.08

Time-->



Time-->



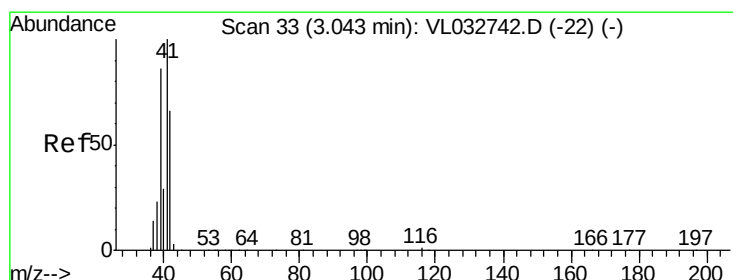
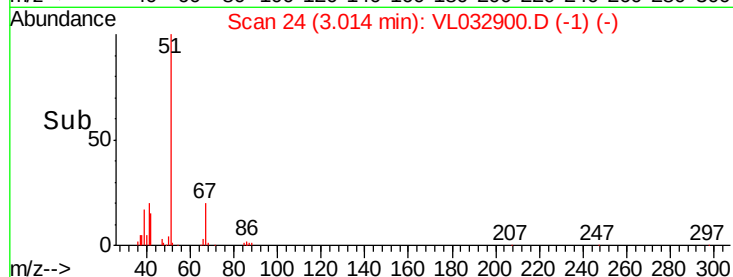
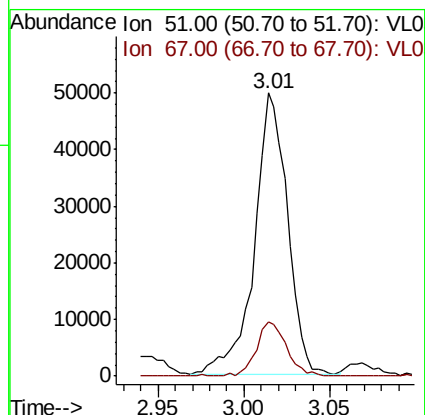
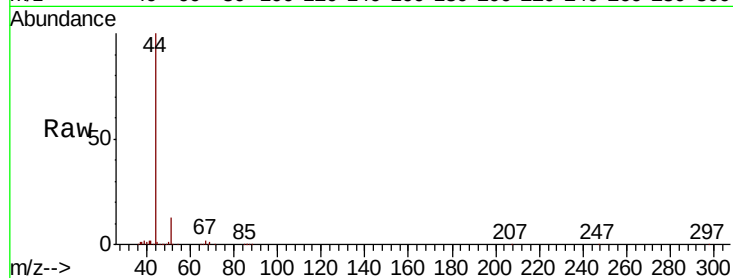
#3
Chlorodifluoromethane
Concen: 0.603 ppbv
RT: 3.01 min Scan# 24
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion: 51 Resp: 66836
Ion Ratio Lower Upper
51 100
67 17.3 16.1 24.1

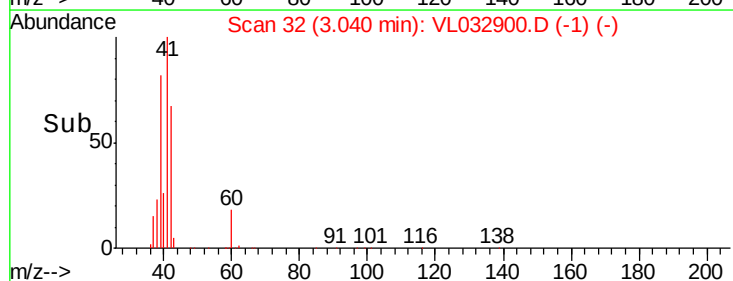
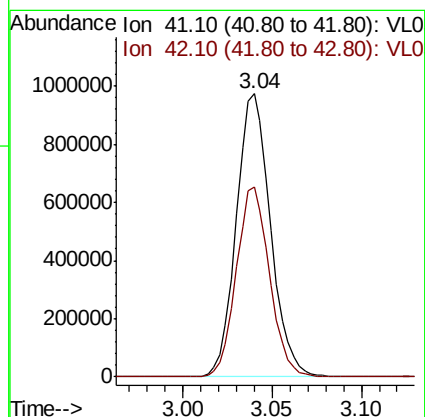
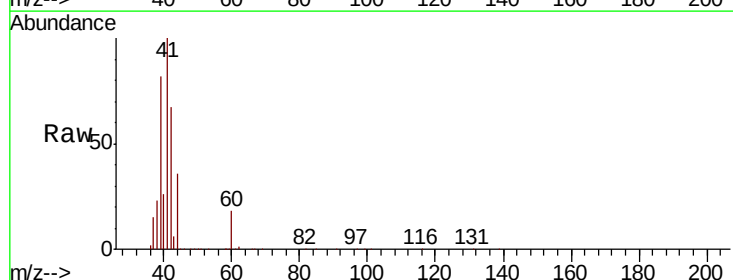
Manual Integrations
APPROVED

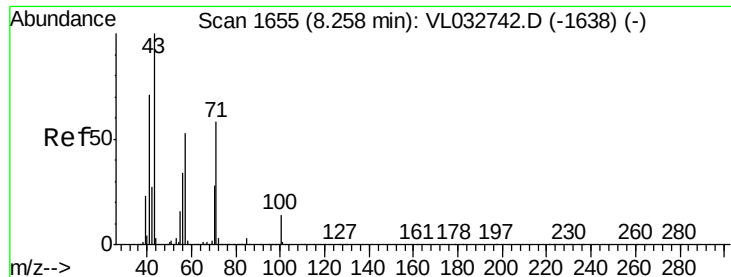
MMDadoda
12/10/2018 1:02:02 PM



#9
Propene
Concen: 29.384 ppbv
RT: 3.04 min Scan# 32
Delta R.T. -0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion: 41 Resp: 1304107
Ion Ratio Lower Upper
41 100
42 65.3 55.0 82.6





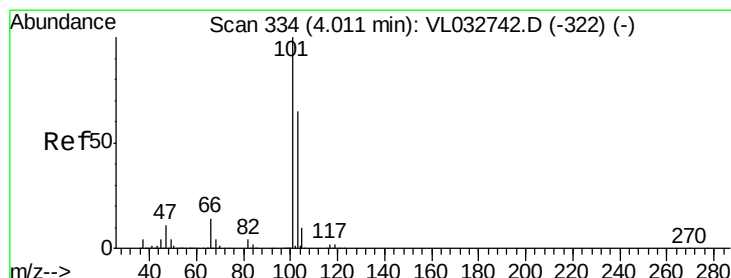
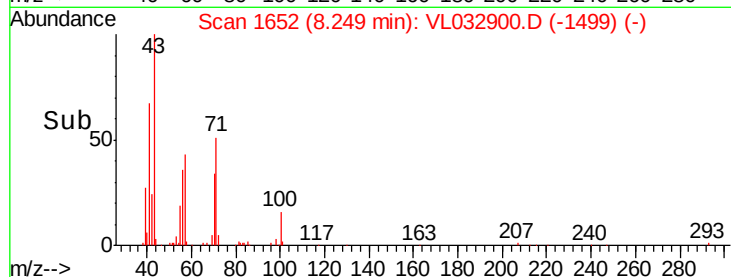
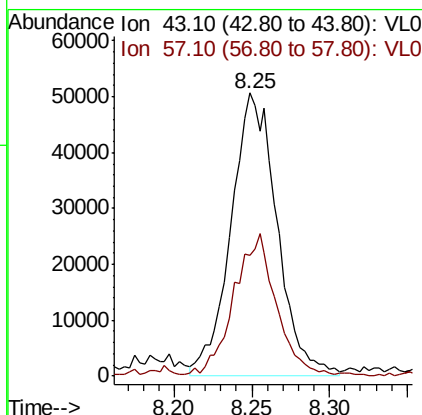
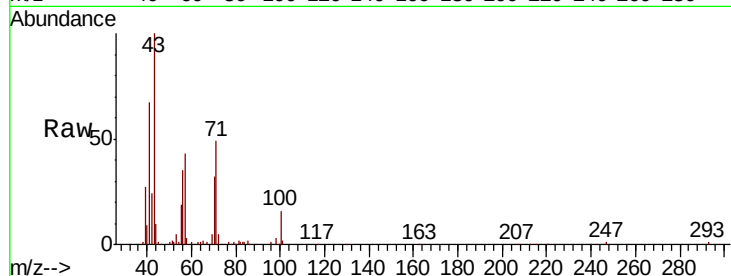
#10
 Heptane
 Concen: 0.618 ppbv m
 RT: 8.25 min Scan# 1652
 Delta R.T. -0.01 min
 Lab File: VL032900.D
 Acq: 5 Dec 2018 6:35

Instrument :
 MSVOA_L
 ClientSampleId :
 VIELE-DUP

Tot Ion: 43 Resp: 104730
 Ion Ratio Lower Upper
 43 100
 57 49.2 41.8 62.8

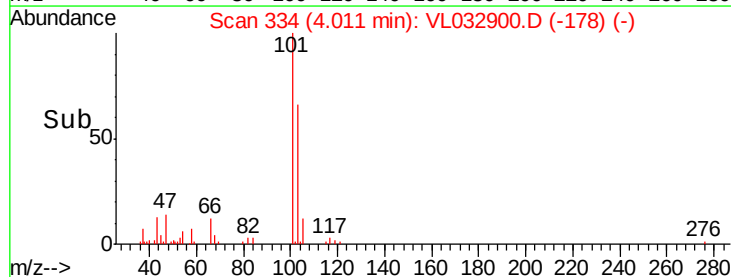
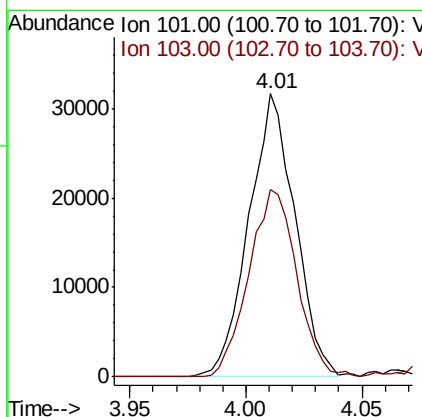
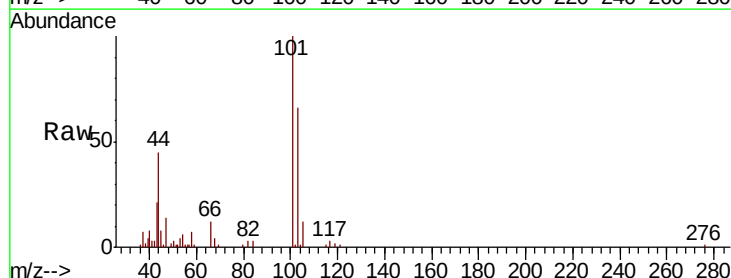
Manual Integrations
 APPROVED

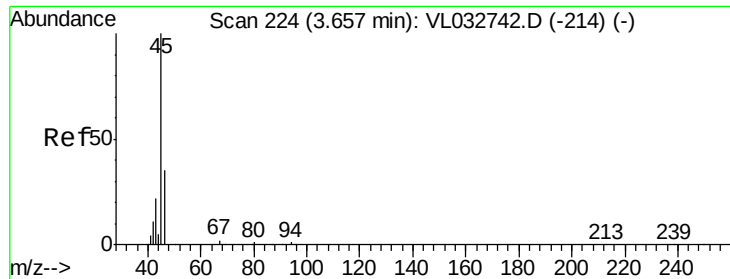
MMDadoda
 12/10/2018 1:02:02 PM



#11
 Trichlorofluoromethane
 Concen: 0.232 ppbv
 RT: 4.01 min Scan# 334
 Delta R.T. 0.00 min
 Lab File: VL032900.D
 Acq: 5 Dec 2018 6:35

Tgt Ion: 101 Resp: 43940
 Ion Ratio Lower Upper
 101 100
 103 66.1 51.6 77.4





#13

Ethanol

Concen: 67.196 ppbv

RT: 3.66 min Scan# 225

Delta R.T. 0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Tot Ion: 45 Resp: 976824

Ion Ratio Lower Upper

45 100

46 36.9 14.5 57.9

Instrument :

MSVOA_L

ClientSampleId :

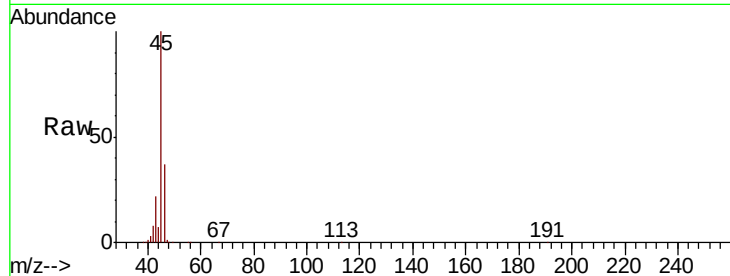
VIELE-DUP

Manual Integrations

APPROVED

MMDadoda

12/10/2018 1:02:02 PM



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0

3.66

600000

500000

400000

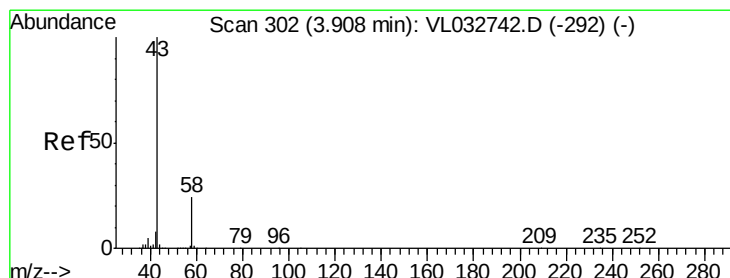
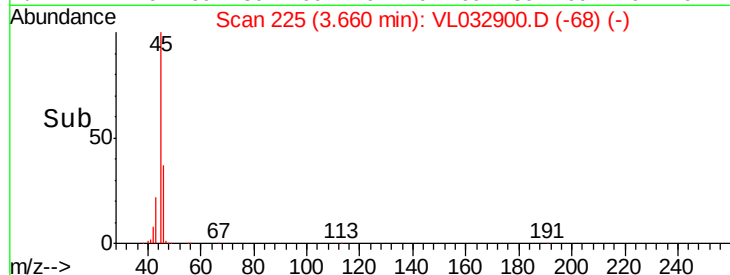
300000

200000

100000

0

Time-->



#15

Acetone

Concen: 41.445 ppbv

RT: 3.90 min Scan# 301

Delta R.T. -0.00 min

Lab File: VL032900.D

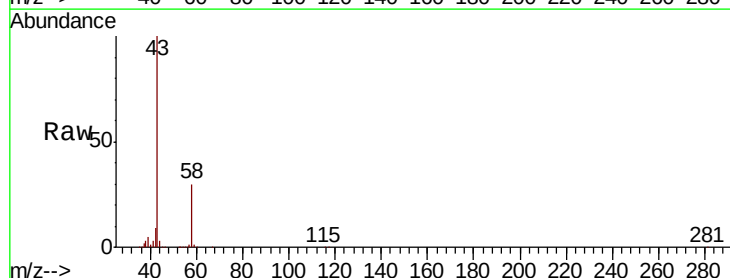
Acq: 5 Dec 2018 6:35

Tgt Ion: 43 Resp: 5294560

Ion Ratio Lower Upper

43 100

58 42.8 21.1 31.7#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.90

4000000

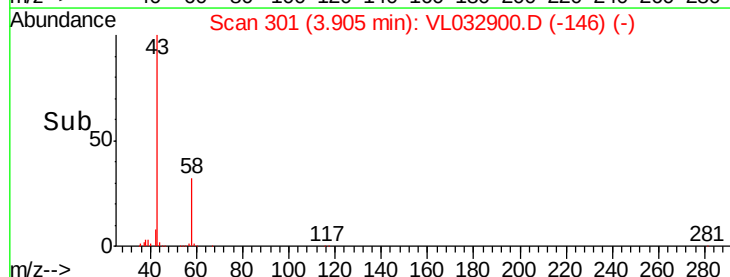
3000000

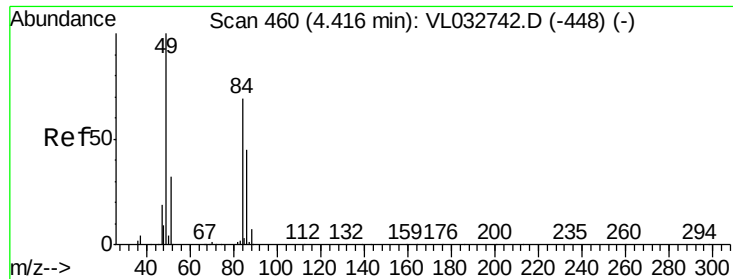
2000000

1000000

0

Time-->





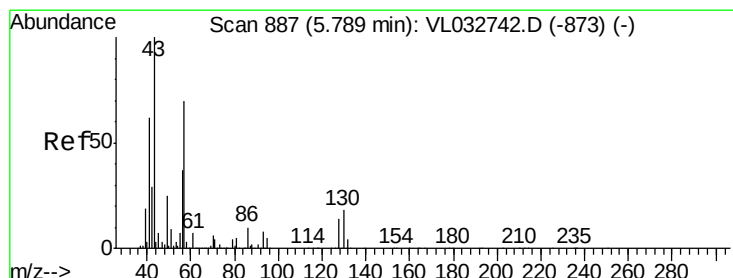
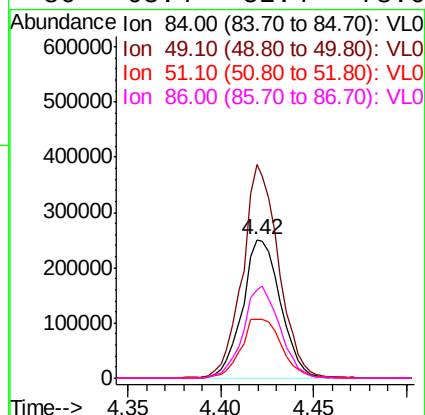
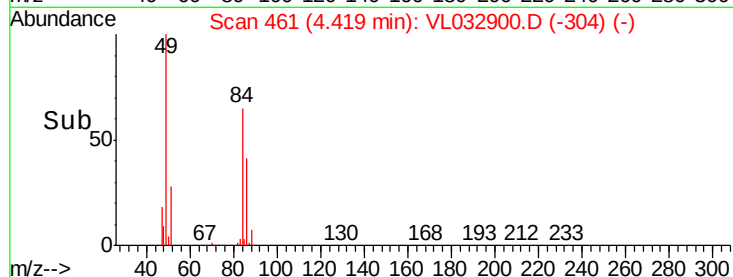
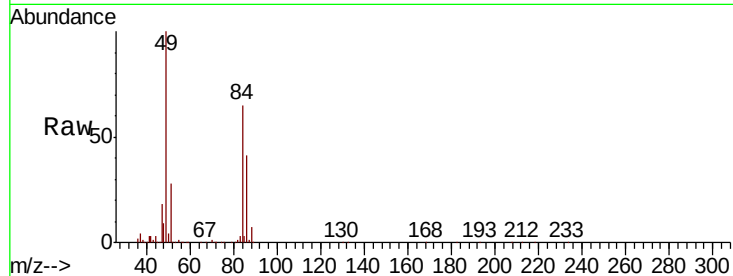
#20
Methvlene Chloride
Concen: 5.418 ppbv
RT: 4.42 min Scan# 461
Delta R.T. 0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion	Ratio	Lower	Upper
84	100		
49	154.0	115.8	173.6
51	42.2	36.9	55.3
86	63.4	52.4	78.6

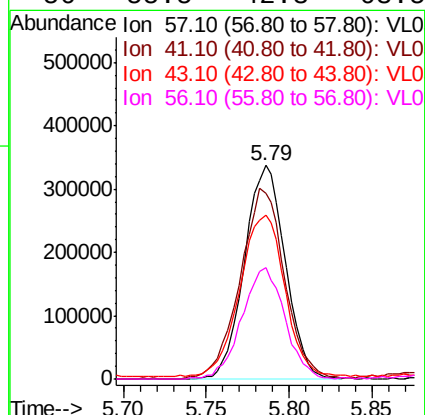
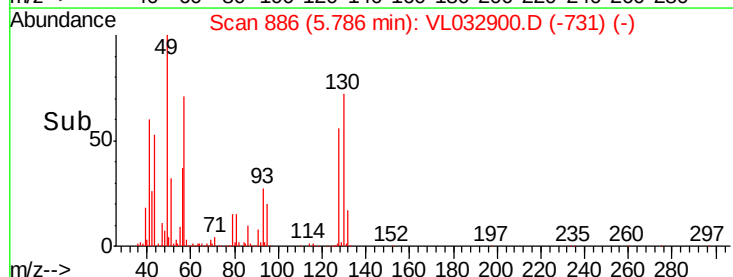
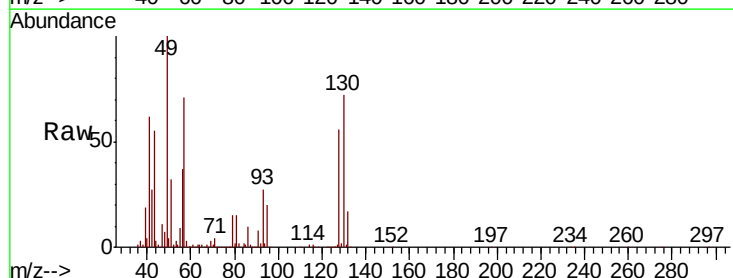
Manual Integrations
APPROVED

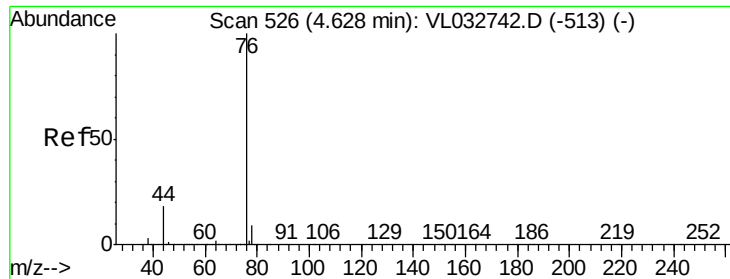
MMDadoda
12/10/2018 1:02:02 PM



#26
Hexane
Concen: 4.340 ppbv
RT: 5.79 min Scan# 886
Delta R.T. -0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion	Ratio	Lower	Upper
57	100		
41	97.8	70.3	105.5
43	84.5	174.0	261.0#
56	55.5	42.3	63.5





#27

Carbon Disulfide

Concen: 3.410 ppbv

RT: 4.63 min Scan# 526

Delta R.T. 0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Instrument :

MSVOA_L

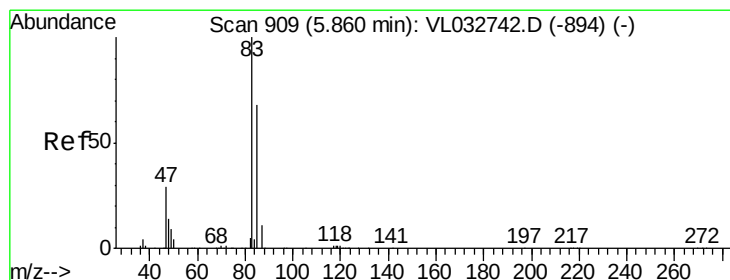
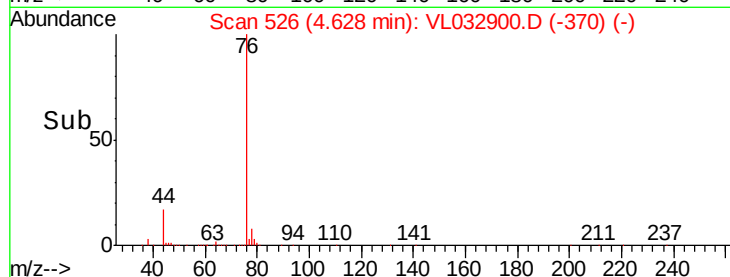
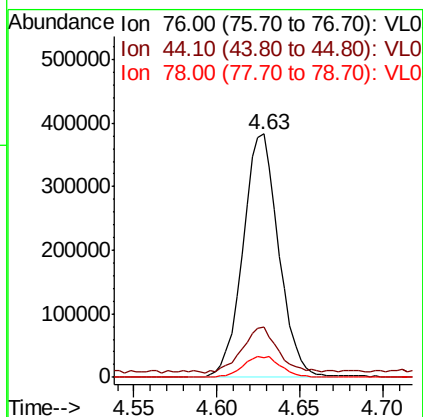
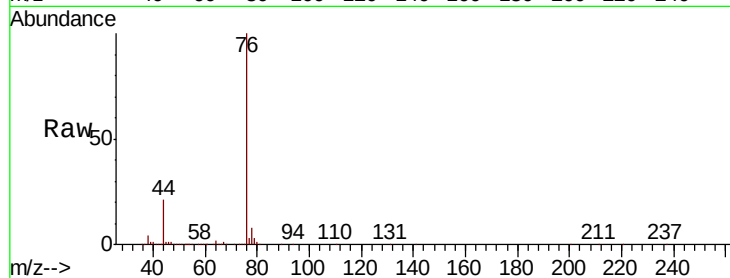
ClientSampled :

VIELE-DUP

Tot Ion:	76	Resp:	573024
Ion	Ratio	Lower	Upper
76	100		
44	17.4	14.4	21.6
78	9.2	7.7	11.5

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:02:02 PM



#29

Chloroform

Concen: 0.103 ppbv

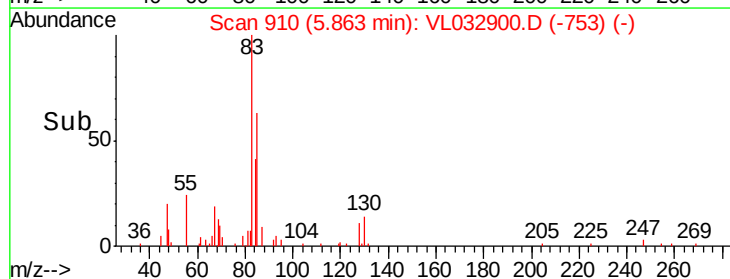
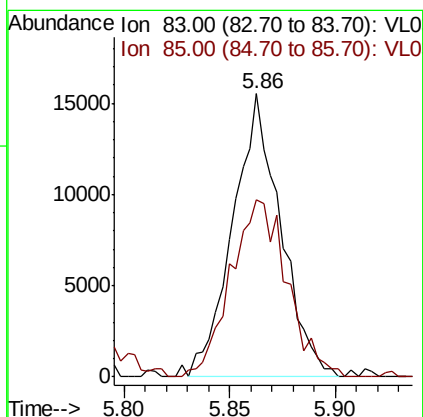
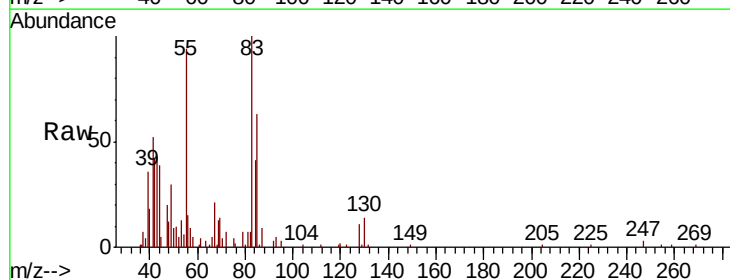
RT: 5.86 min Scan# 910

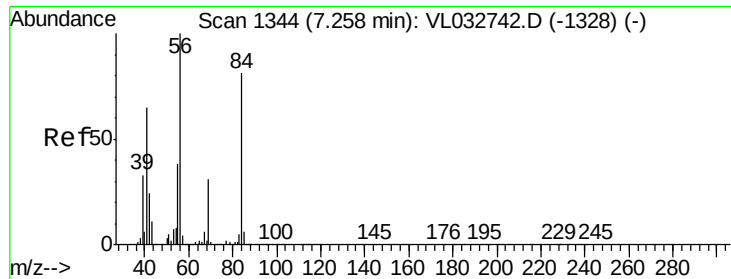
Delta R.T. 0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Tgt Ion:	83	Resp:	24424
Ion	Ratio	Lower	Upper
83	100		
85	59.8	54.2	81.4





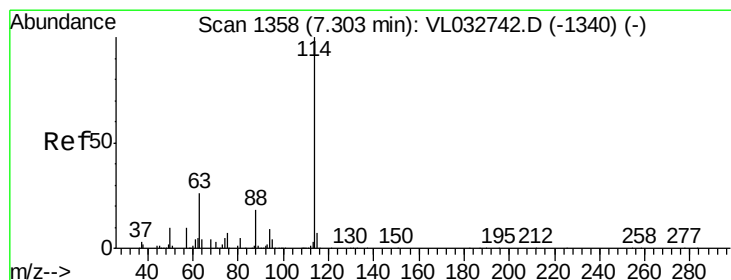
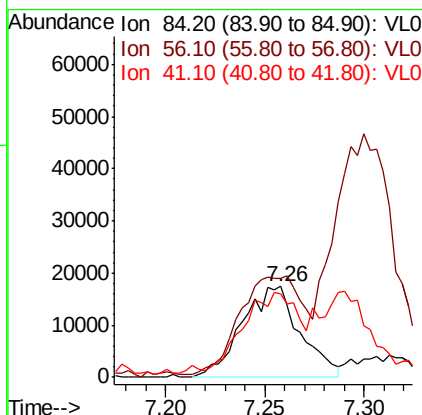
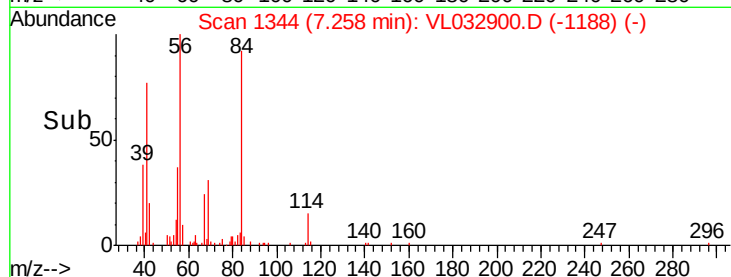
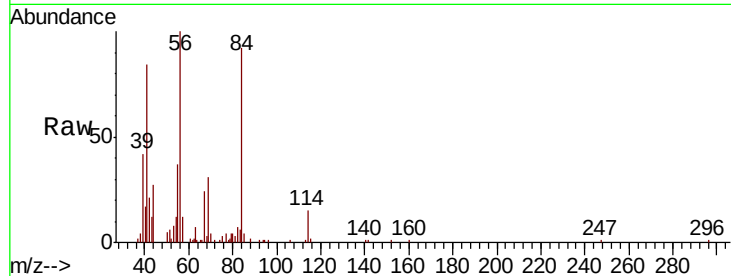
#30
Cyclohexane
Concen: 0.306 ppbv m
RT: 7.26 min Scan# 1344
Delta R.T. 0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	105.0	157.4#
41	79.0	65.3	97.9

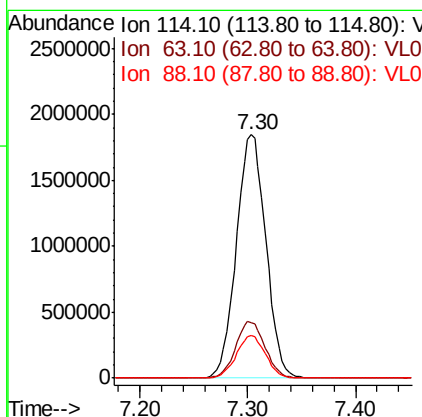
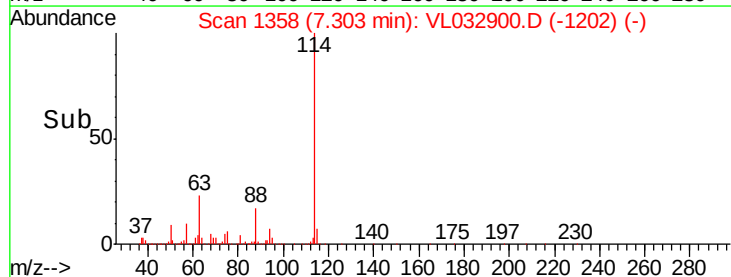
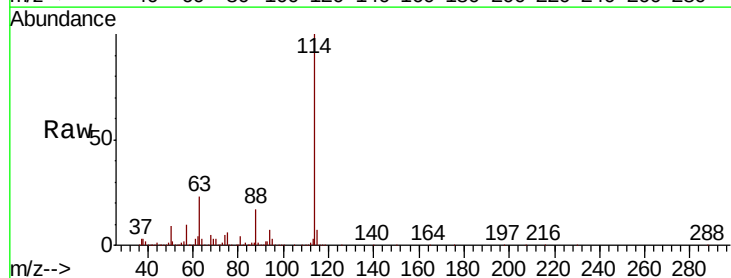
Manual Integrations
APPROVED

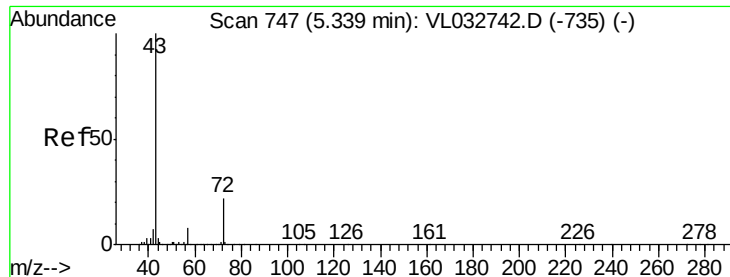
MMDadoda
12/10/2018 1:02:02 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.30 min Scan# 1358
Delta R.T. 0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion	Ratio	Lower	Upper
114	100		
63	23.2	20.9	31.3
88	17.3	14.4	21.6





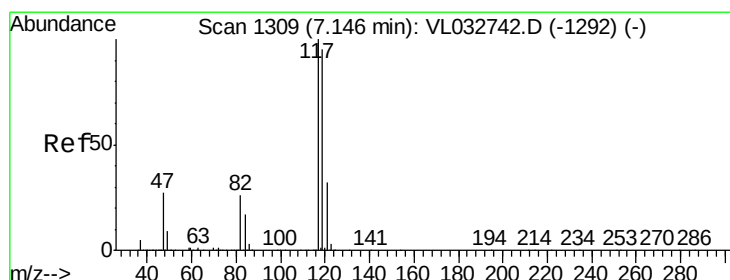
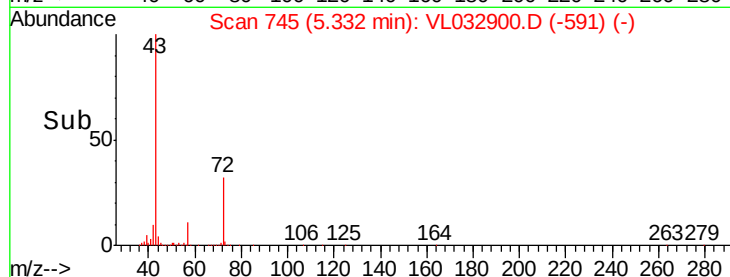
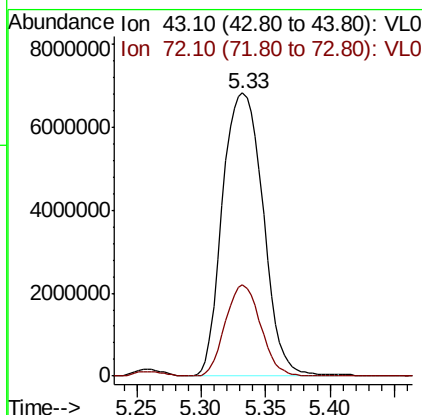
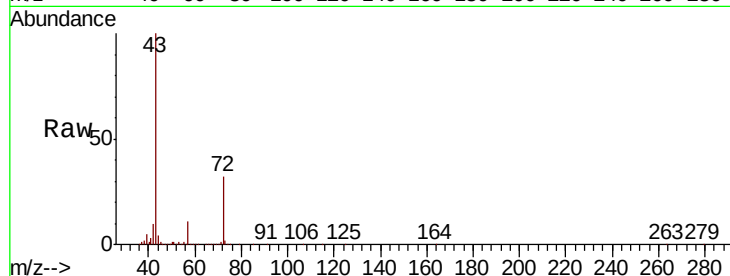
#34
2-Butanone
Concen: 81.498 ppbv
RT: 5.33 min Scan# 745
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion: 43 Resp: 14898215
Ion Ratio Lower Upper
43 100
72 28.3 18.4 27.6#

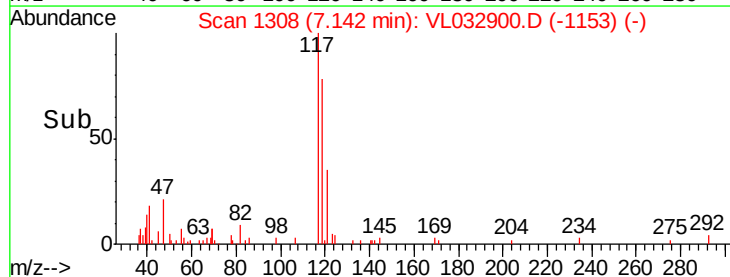
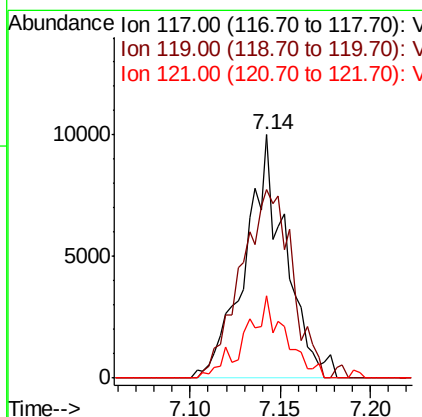
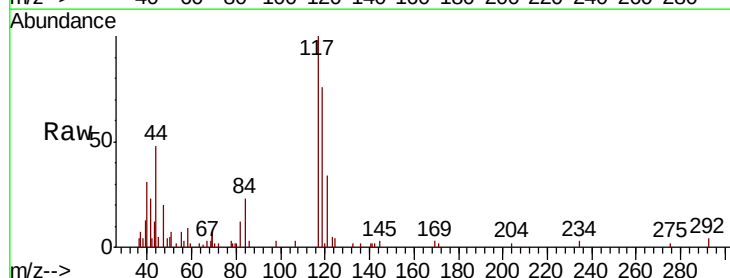
Manual Integrations
APPROVED

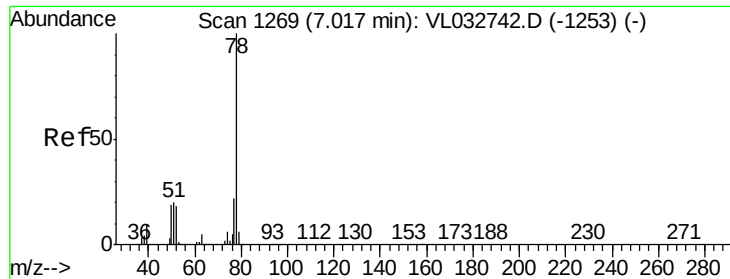
MMDadoda
12/10/2018 1:02:02 PM



#35
Carbon Tetrachloride
Concen: 0.055 ppbv m
RT: 7.14 min Scan# 1308
Delta R.T. -0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion: 117 Resp: 15679
Ion Ratio Lower Upper
117 100
119 75.6 76.1 114.1#
121 34.0 25.4 38.0





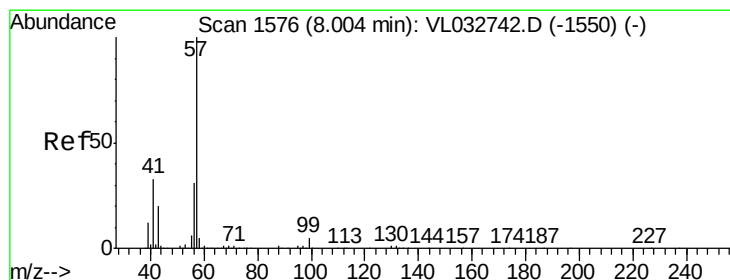
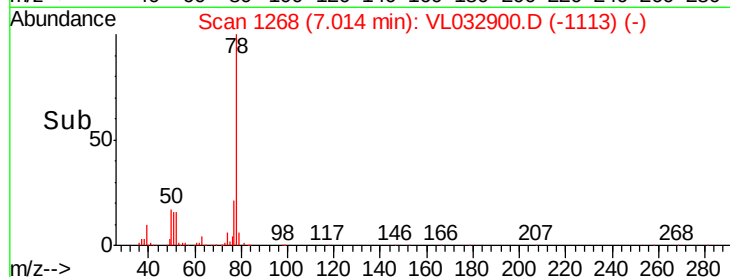
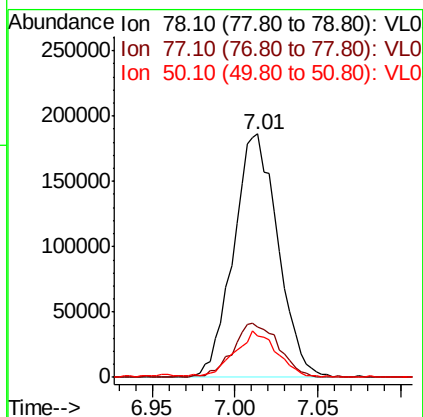
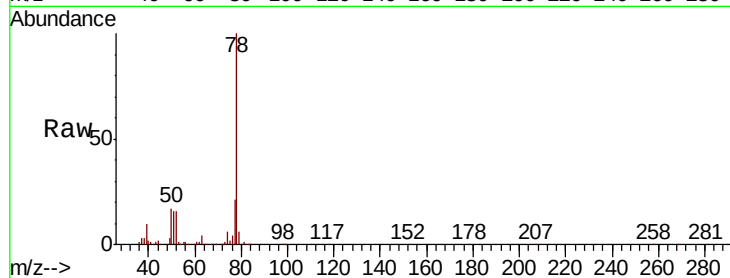
#36
Benzene
Concen: 1.229 ppbv
RT: 7.01 min Scan# 1268
Delta R.T. -0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleID :
VIELE-DUP

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.6	17.8	26.8
50	16.9	15.4	23.0

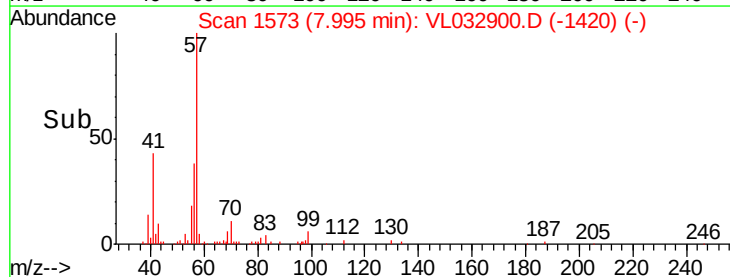
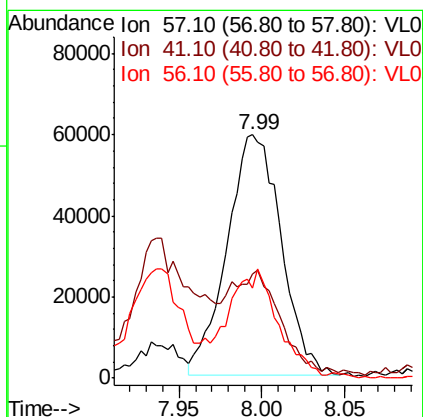
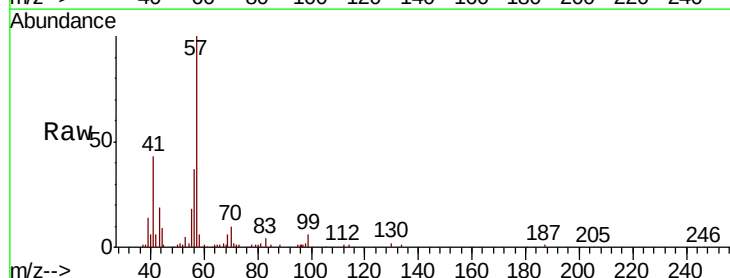
Manual Integrations
APPROVED

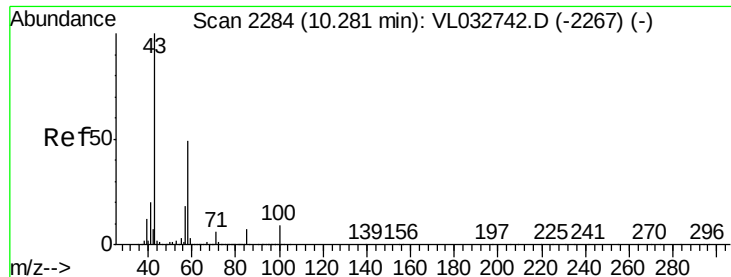
MMDadoda
12/10/2018 1:02:02 PM



#44
2,2,4-Trimethylpentane
Concen: 0.285 ppbv
RT: 7.99 min Scan# 1573
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion	Ratio	Lower	Upper
57	100		
41	41.3	26.6	39.8#
56	42.3	24.8	37.2#





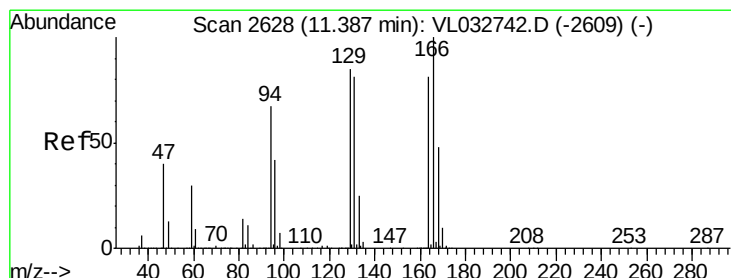
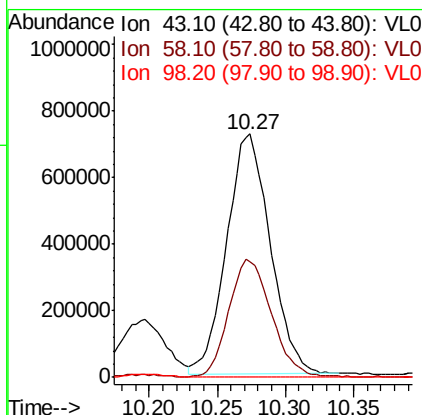
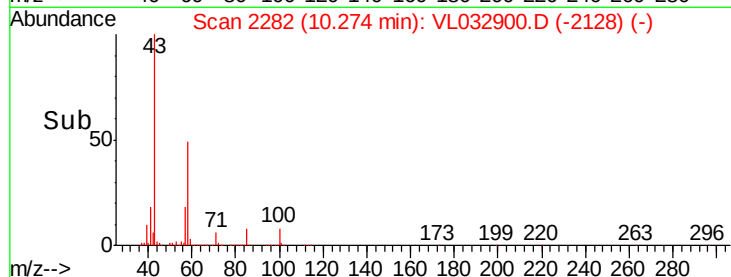
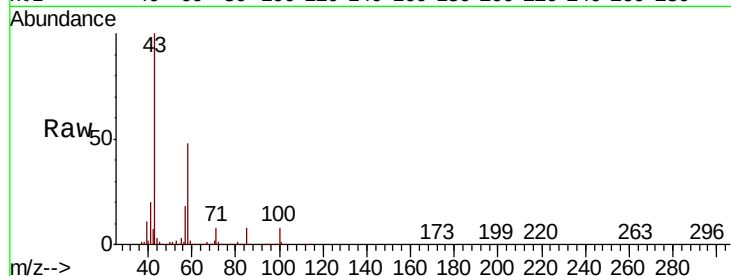
#51
2-Hexanone
Concen: 8.737 ppbv
RT: 10.27 min Scan# 2282
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleID :
VIELE-DUP

Tot Ion	Ratio	Lower	Upper
43	100		
58	47.6	38.9	58.3
98	0.3	0.2	0.4

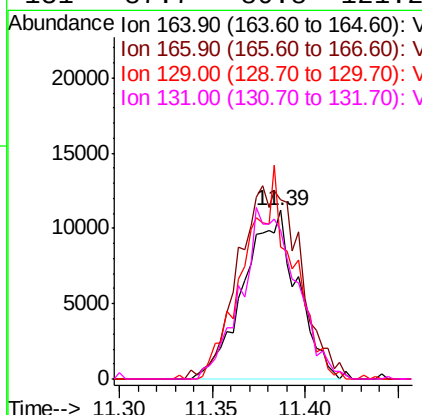
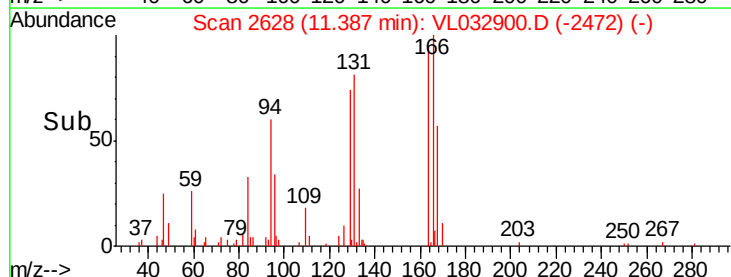
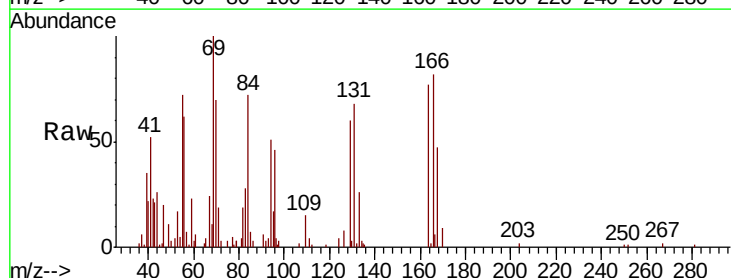
Manual Integrations
APPROVED

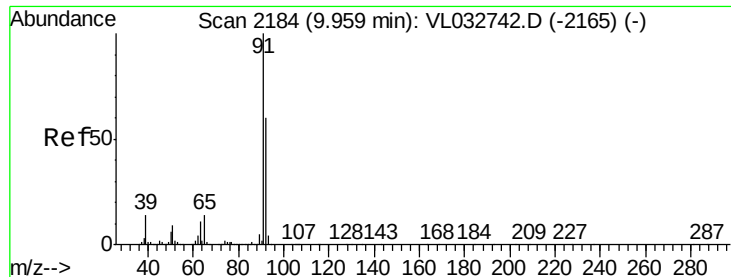
MMDadoda
12/10/2018 1:02:02 PM



#52
Tetrachloroethene
Concen: 0.227 ppbv m
RT: 11.39 min Scan# 2628
Delta R.T. 0.00 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion	Ratio	Lower	Upper
164	100		
166	106.0	99.3	148.9
129	78.4	83.9	125.9#
131	87.7	80.8	121.2





#53

Toluene

Concen: 1.468 ppbv

RT: 9.96 min Scan# 2183

Delta R.T. -0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Instrument :

MSVOA_L

ClientSampleId :

VIELE-DUP

Tot Ion: 91 Resp: 429813

Ion Ratio Lower Upper

91 100

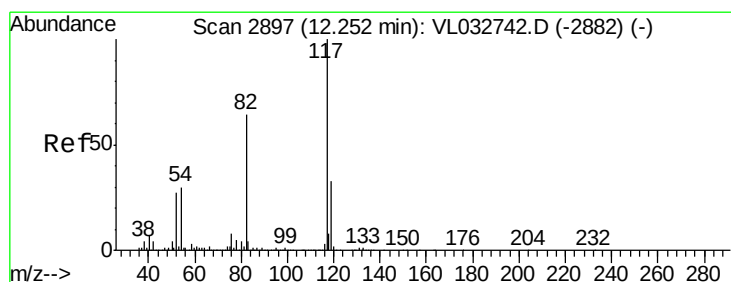
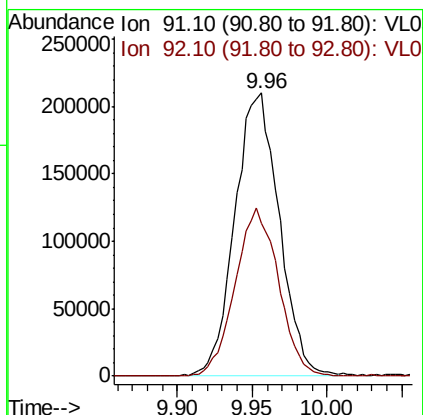
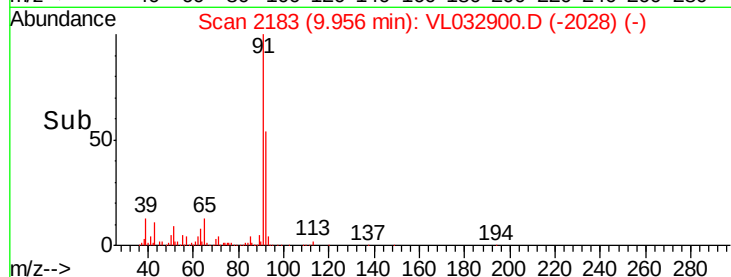
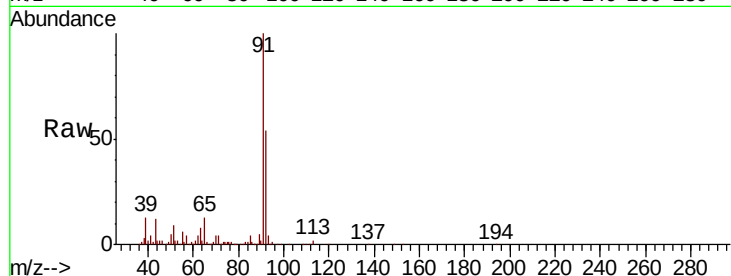
92 58.7 47.9 71.9

Manual Integrations

APPROVED

MMDadoda

12/10/2018 1:02:02 PM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.01 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

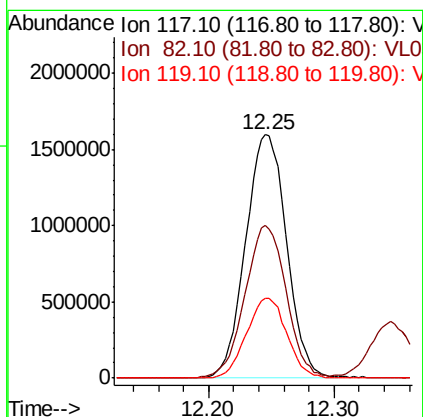
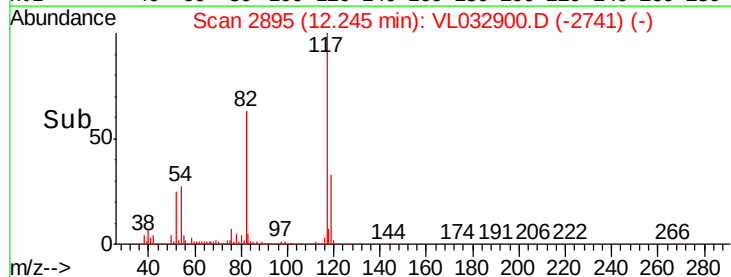
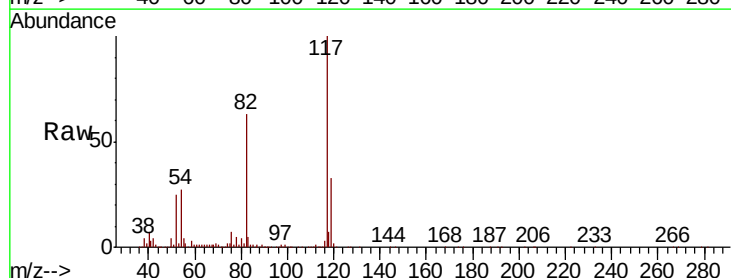
Tgt Ion: 117 Resp: 3632197

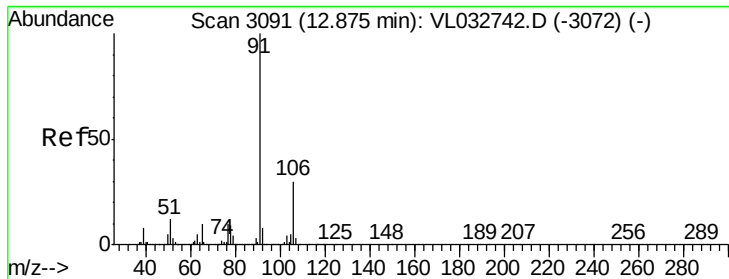
Ion Ratio Lower Upper

117 100

82 63.5 51.0 76.6

119 32.5 28.0 42.0





#58

Ethyl Benzene

Concen: 1.279 ppbv

RT: 12.87 min Scan# 3089

Delta R.T. -0.01 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Instrument :

MSVOA_L

ClientSampled :

VIELE-DUP

Tot Ion: 91 Resp: 558920

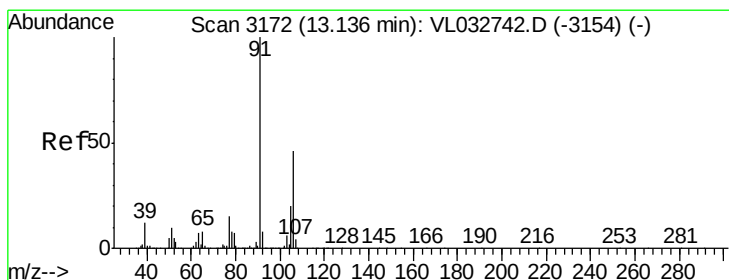
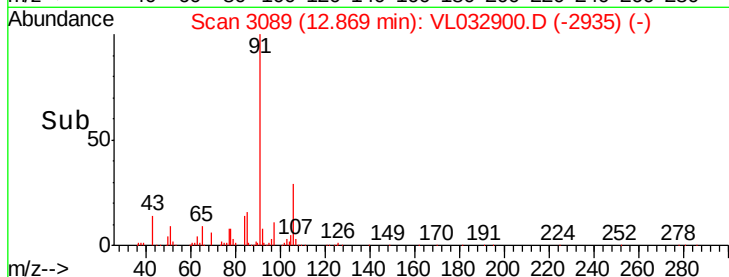
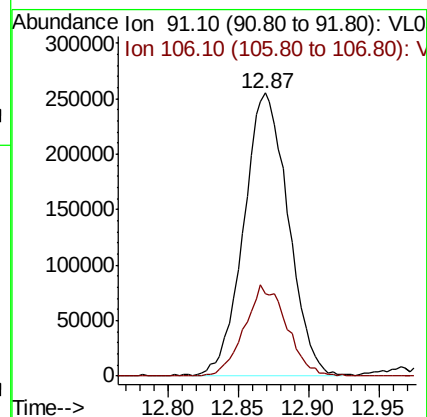
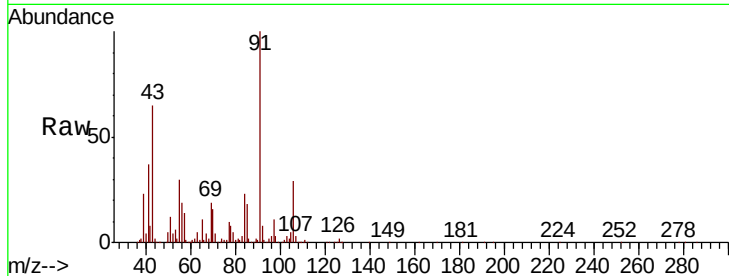
Ion Ratio Lower Upper

91 100

106 29.0 23.6 35.4

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:02:02 PM



#59

m/p-Xylene

Concen: 3.577 ppbv

RT: 13.13 min Scan# 3170

Delta R.T. -0.01 min

Lab File: VL032900.D

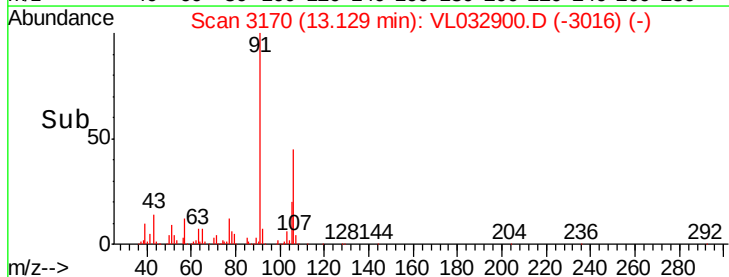
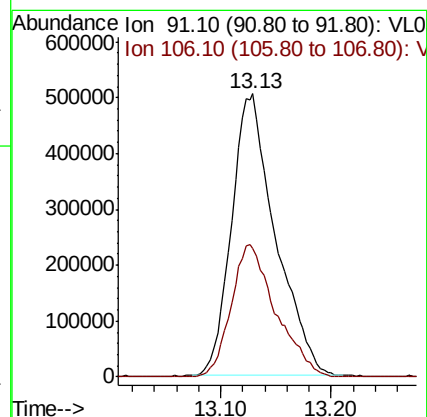
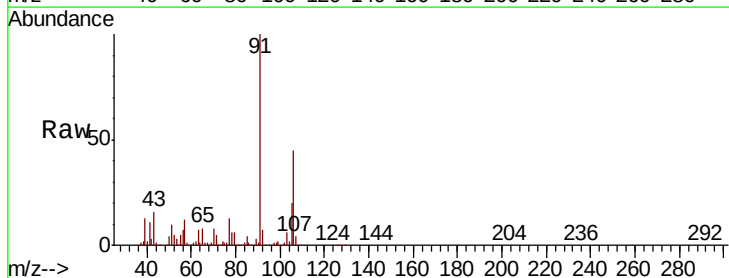
Acq: 5 Dec 2018 6:35

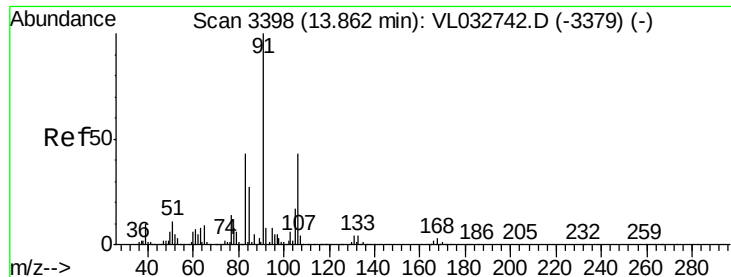
Tgt Ion: 91 Resp: 1391852

Ion Ratio Lower Upper

91 100

106 47.8 36.1 54.1





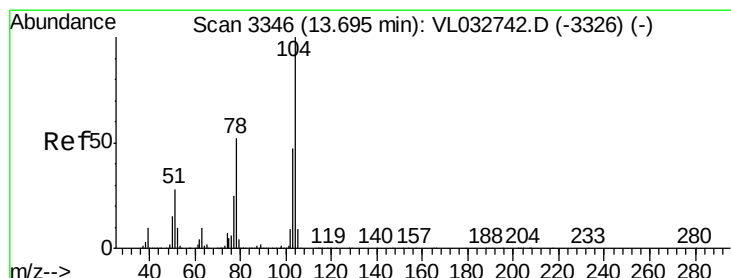
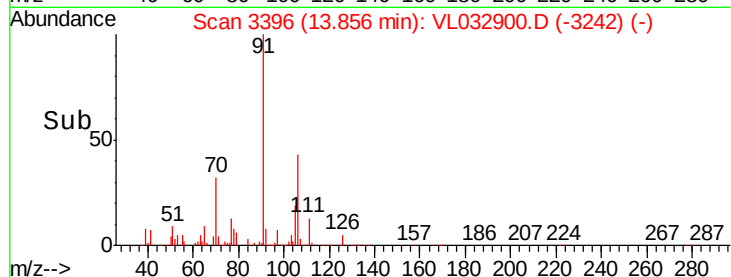
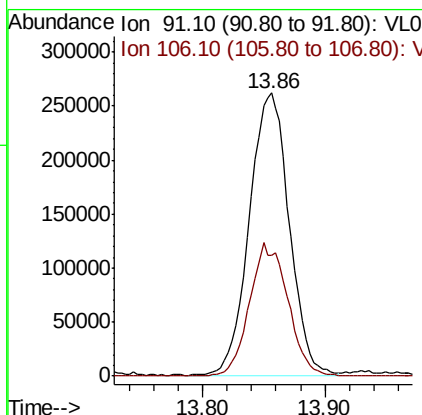
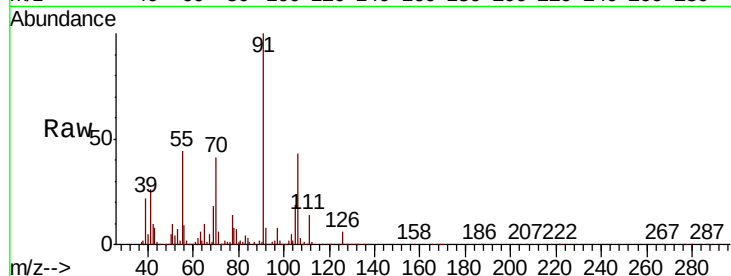
#60
o-Xylene
Concen: 1.507 ppbv
RT: 13.86 min Scan# 3396
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion: 91 Resp: 589535
Ion Ratio Lower Upper
91 100
106 45.4 21.9 65.7

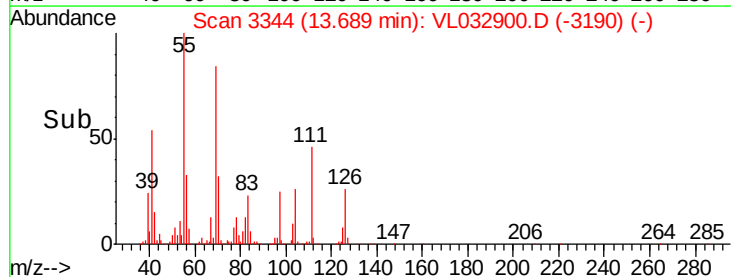
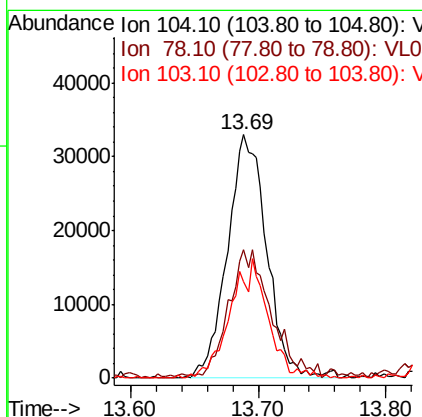
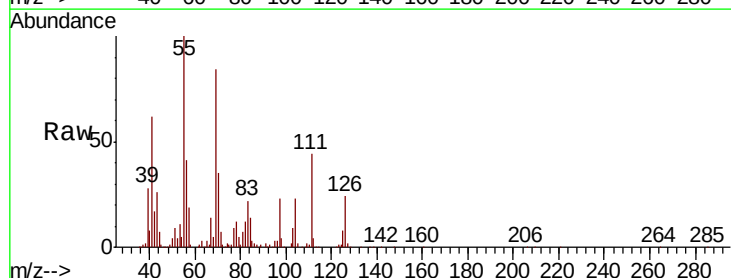
Manual Integrations
APPROVED

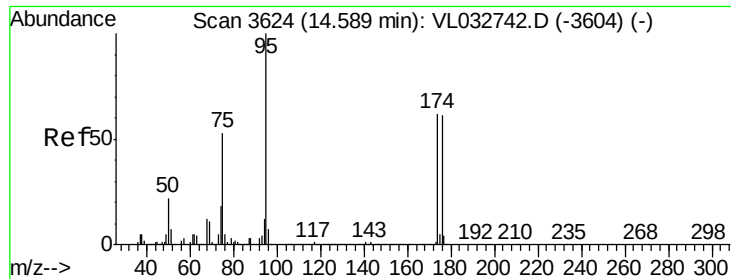
MMDadoda
12/10/2018 1:02:02 PM



#61
Styrene
Concen: 0.278 ppbv m
RT: 13.69 min Scan# 3344
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion: 104 Resp: 70836
Ion Ratio Lower Upper
104 100
78 59.4 42.2 63.4
103 47.2 38.2 57.2





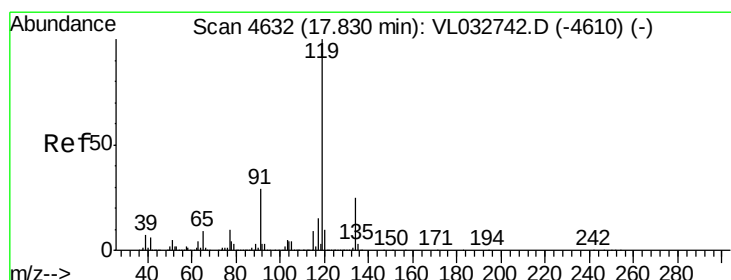
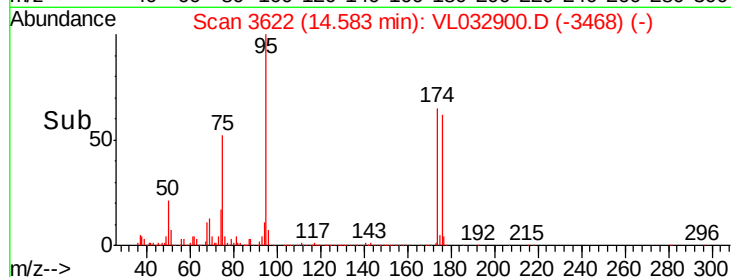
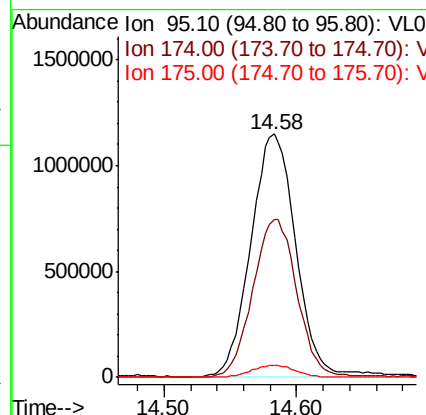
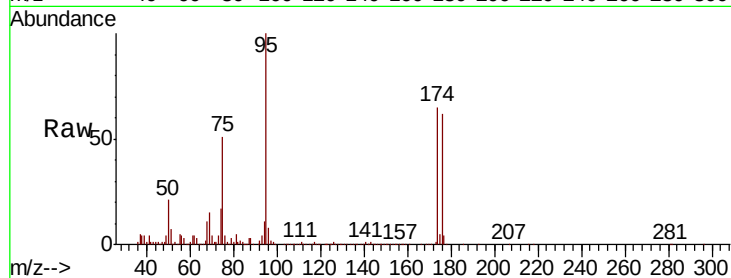
#68
1-Bromo-4-Fluorobenzene
Concen: 9.925 ppbv
RT: 14.58 min Scan# 3622
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Instrument :
MSVOA_L
ClientSampleId :
VIELE-DUP

Tot Ion: 95 Resp: 2696324
Ion Ratio Lower Upper
95 100
174 65.3 50.7 76.1
175 4.9 3.8 5.6

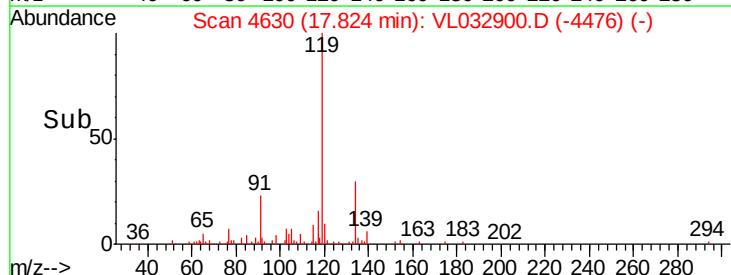
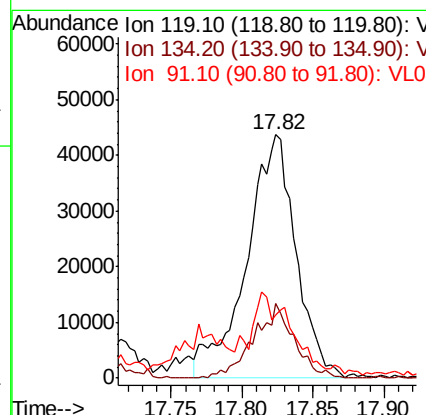
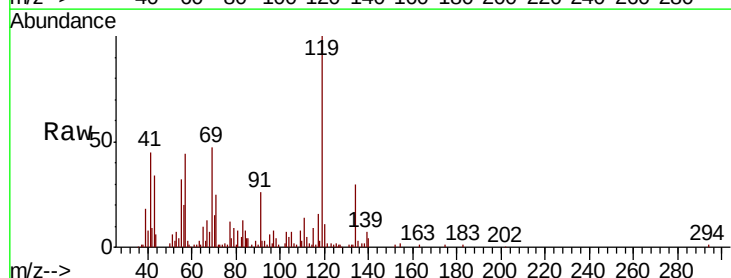
Manual Integrations
APPROVED

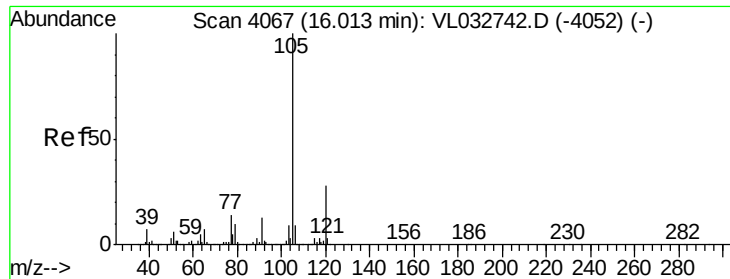
MMDadoda
12/10/2018 1:02:02 PM



#69
p-Isopropyltoluene
Concen: 0.195 ppbv m
RT: 17.82 min Scan# 4630
Delta R.T. -0.01 min
Lab File: VL032900.D
Acq: 5 Dec 2018 6:35

Tgt Ion: 119 Resp: 105933
Ion Ratio Lower Upper
119 100
134 24.9 20.2 30.4
91 0.0 23.5 35.3#





#72

4-Ethyltoluene

Concen: 0.131 ppbv m

RT: 16.01 min Scan# 4066

Delta R.T. -0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Instrument :

MSVOA_L

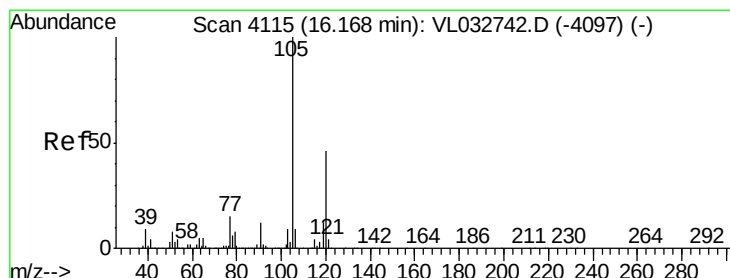
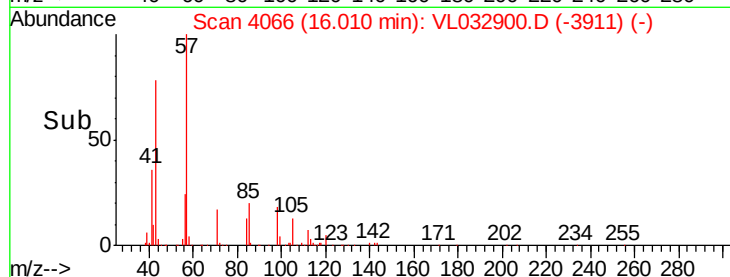
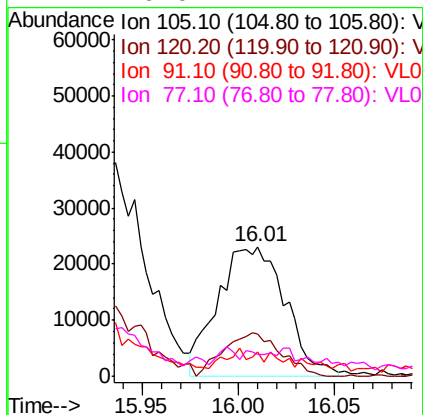
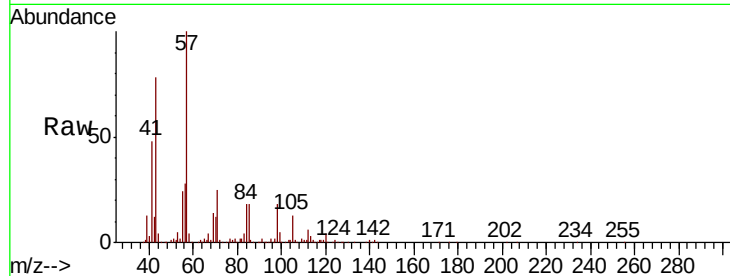
ClientSampleId :

VIELE-DUP

Tot Ion:	105	Resp:	56168
Ion Ratio	Lower	Upper	
105	100		
120	28.4	22.9	34.3
91	0.0	10.6	15.8#
77	0.0	11.4	17.2#

Manual Integrations
APPROVED

MMDadoda
12/10/2018 1:02:02 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.255 ppbv

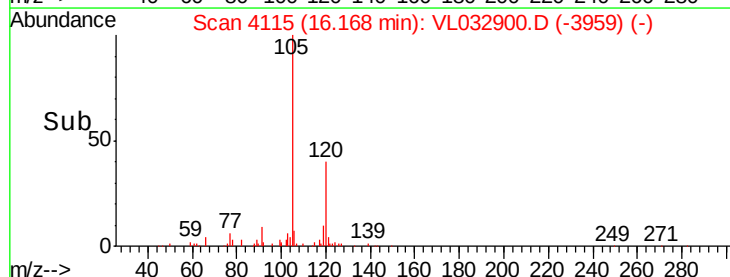
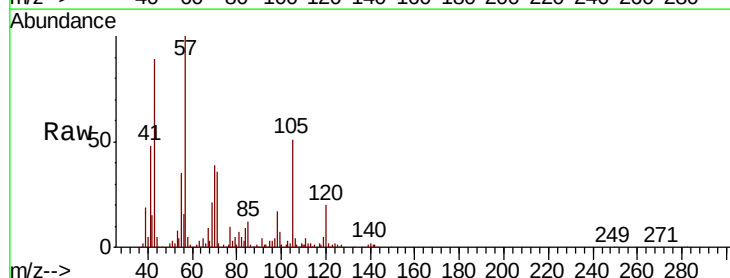
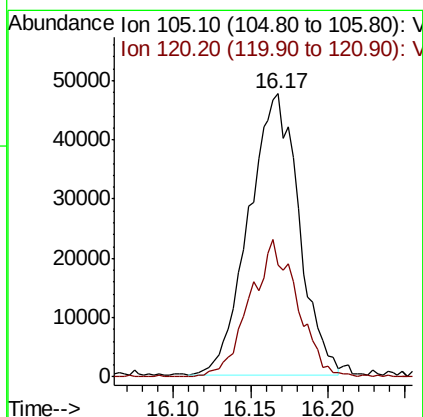
RT: 16.17 min Scan# 4115

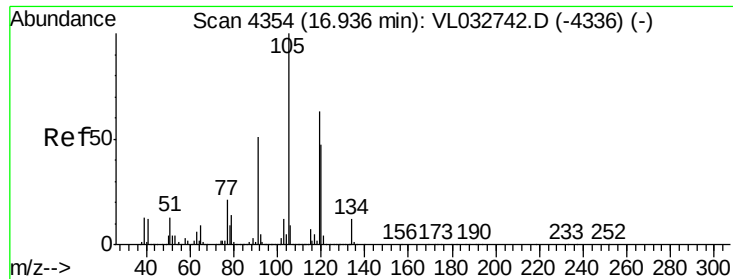
Delta R.T. 0.00 min

Lab File: VL032900.D

Acq: 5 Dec 2018 6:35

Tgt Ion:	105	Resp:	106999
Ion Ratio	Lower	Upper	
105	100		
120	39.6	36.6	55.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.504 ppbv
 RT: 16.93 min Scan# 4353
 Delta R.T. -0.00 min
 Lab File: VL032900.D
 Acq: 5 Dec 2018 6:35

Instrument :
 MSVOA_L
 ClientSampleId :
 VIELE-DUP

Tot Ion:	105	Resp:	226002
Ion Ratio	Lower	Upper	
105	100		
120	40.1	37.6	56.4
91	13.0	42.5	63.7#
77	16.4	17.4	26.2#

Manual Integrations
 APPROVED

MMDadoda
 12/10/2018 1:02:02 PM

