

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL071719\
 Data File : VL034038.D
 Acq On : 17 Jul 2019 19:13
 Operator : SY/AP
 Sample : K3804-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-1

Manual Integrations
 APPROVED

MMDadoda
 7/19/2019 1:37:15 AM

Quant Time: Jul 18 12:47:26 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL070219AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Jul 0
 QLast Update : Tue Jul 02 19:31:31 2019
 Response via : Initial Calibration

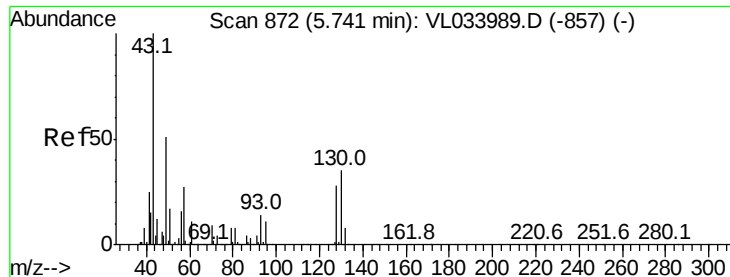
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.73	49	1037734	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.26	114	2812924	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.20	117	2801951	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.53	95	2137475	8.94	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	89.40%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	44172m	0.206	ppbv
3) Chlorodifluoromethane	2.99	51	147787m	1.153	ppbv
9) Propene	3.01	41	2941479	62.398	ppbv 94
10) Heptane	8.20	43	84803	0.718	ppbv 88
11) Trichlorofluoromethane	3.98	101	706699	2.935	ppbv 98
13) Ethanol	3.67	45	23033211	1572.796	ppbv 97
15) Acetone	3.87	43	13041541	74.748	ppbv # 87
20) Methylene Chloride	4.39	84	56880	0.747	ppbv # 89
26) Hexane	5.74	57	177067	1.621	ppbv # 72
27) Carbon Disulfide	4.59	76	10377337	55.898	ppbv 95
29) Chloroform	5.81	83	151486m	0.738	ppbv
30) Cyclohexane	7.21	84	68957m	0.818	ppbv
34) 2-Butanone	5.29	43	1176783	7.905	ppbv 98
35) Carbon Tetrachloride	7.10	117	19228m	0.086	ppbv
36) Benzene	6.97	78	505245	2.295	ppbv 96
38) Trichloroethene	7.92	130	30141	0.308	ppbv # 83
41) Tetrahydrofuran	6.11	42	86019	1.178	ppbv # 71
44) 2,2,4-Trimethylpentane	7.95	57	98438	0.259	ppbv # 68
50) 4-Methyl-2-Pentanone	8.83	43	53570m	0.242	ppbv
52) Tetrachloroethene	11.32	164	46738m	0.493	ppbv
53) Toluene	9.90	91	1096386	4.352	ppbv 100
58) Ethyl Benzene	12.82	91	203097	0.603	ppbv 90
59) m/p-Xylene	13.07	91	642370	2.105	ppbv 100
60) o-Xylene	13.80	91	254441	0.834	ppbv 99
61) Styrene	13.64	104	58663	0.290	ppbv 89
62) Isopropylbenzene	14.78	105	108399	0.231	ppbv 96
74) 1,2,4-Trimethylbenzene	16.87	105	102649m	0.254	ppbv

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.73 min Scan# 869

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Instrument :

MSVOA_L

ClientSampleId :

SG-1

Tot Ion: 49 Resp: 1037734

Ion Ratio Lower Upper

49 100

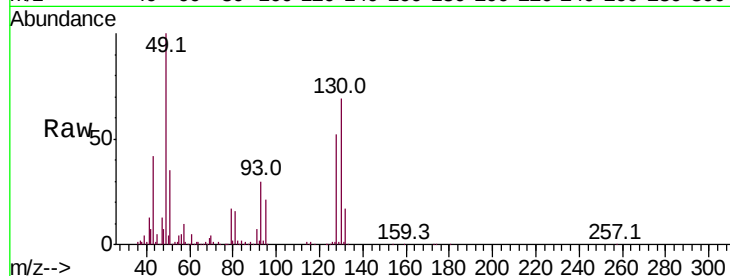
128 54.8 27.9 83.6

130 72.1 35.8 107.4

Manual Integrations
APPROVED

MMDadoda

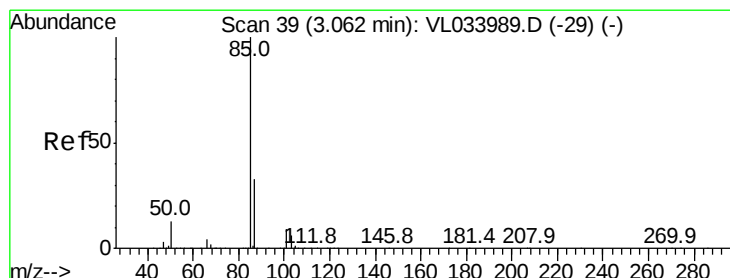
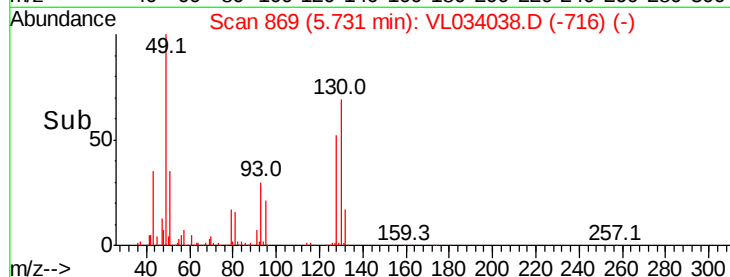
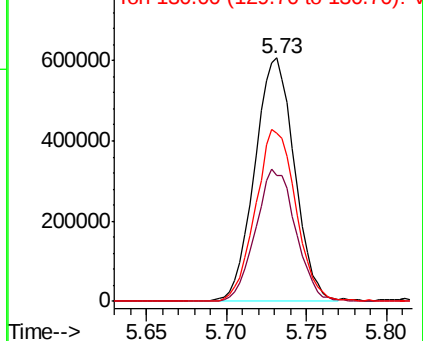
7/19/2019 1:37:15 AM



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



#2

Dichlorodifluoromethane

Concen: 0.206 ppbv m

RT: 3.05 min Scan# 36

Delta R.T. -0.01 min

Lab File: VL034038.D

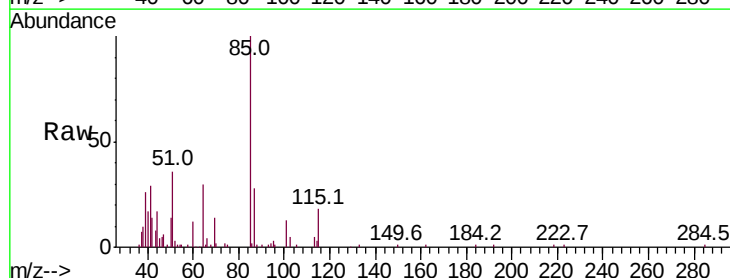
Acq: 17 Jul 2019 19:13

Tgt Ion: 85 Resp: 44172

Ion Ratio Lower Upper

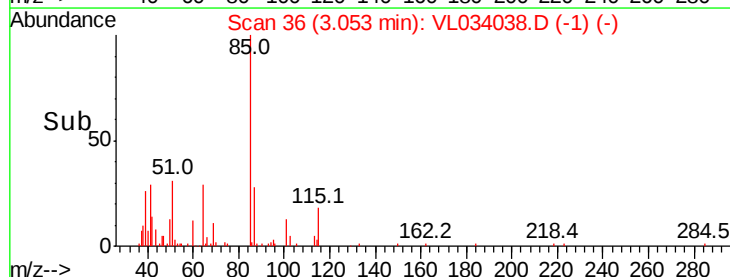
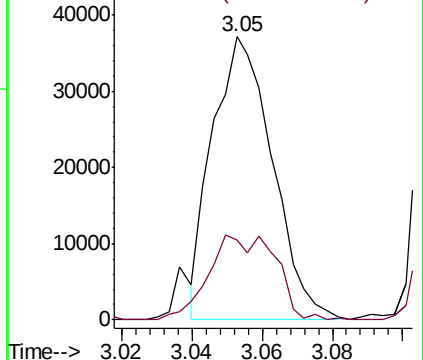
85 100

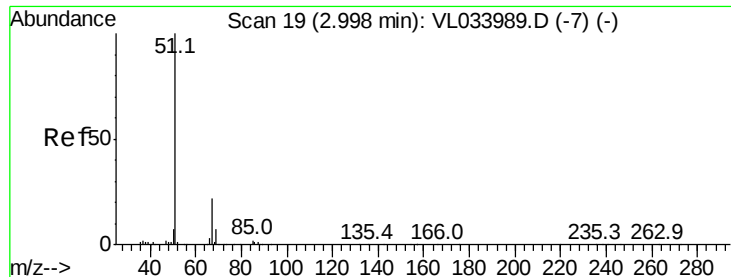
87 28.0 26.0 39.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





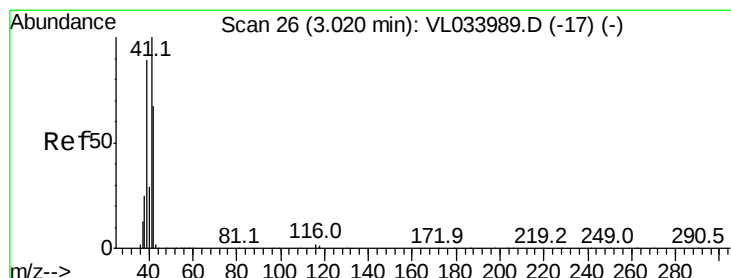
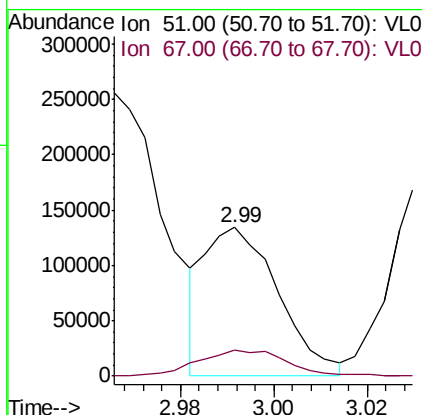
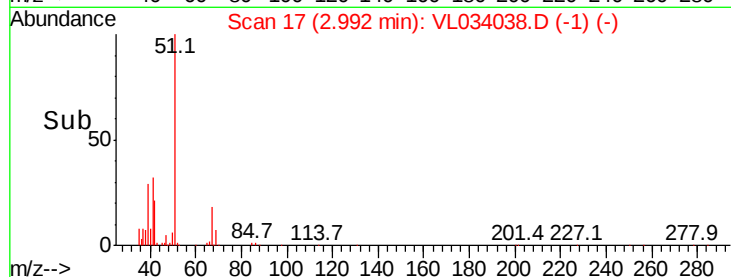
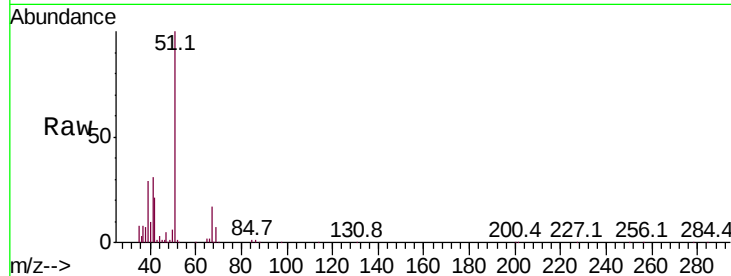
#3
Chlorodifluoromethane
Concen: 1.153 ppbv
RT: 2.99 min Scan# 17
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion: 51 Resp: 147787
Ion Ratio Lower Upper
51 100
67 21.0 17.3 25.9

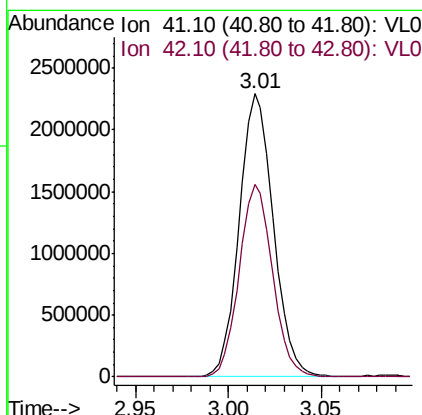
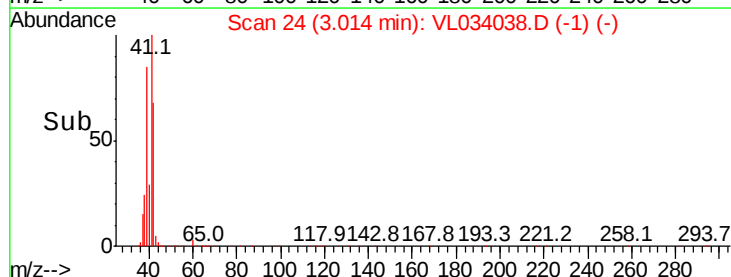
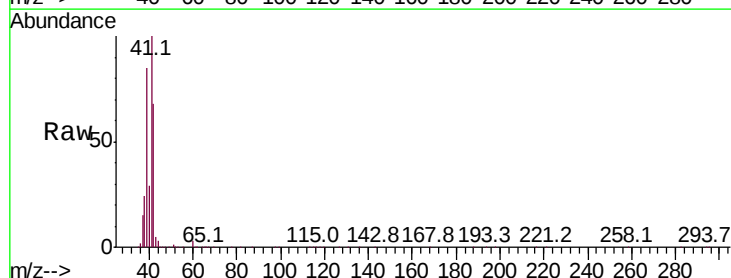
Manual Integrations
APPROVED

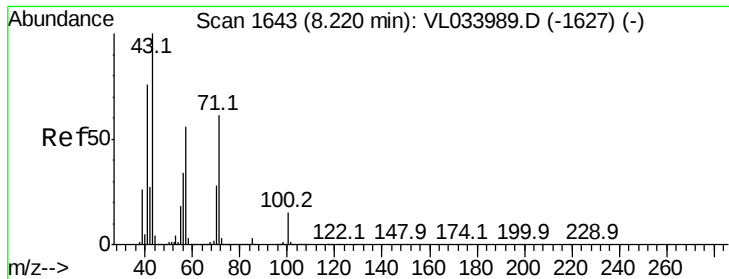
MMDadoda
7/19/2019 1:37:15 AM



#9
Propene
Concen: 62.398 ppbv
RT: 3.01 min Scan# 24
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion: 41 Resp: 2941479
Ion Ratio Lower Upper
41 100
42 66.8 57.1 85.7





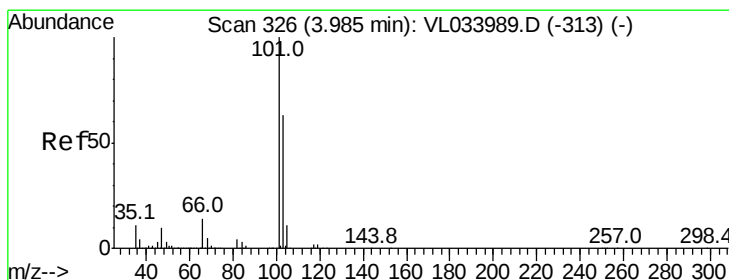
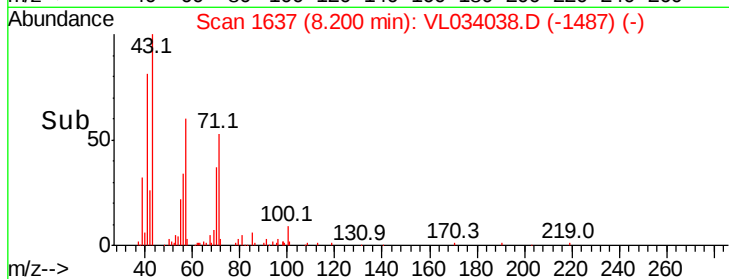
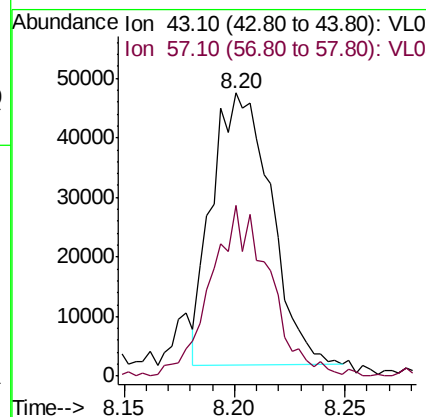
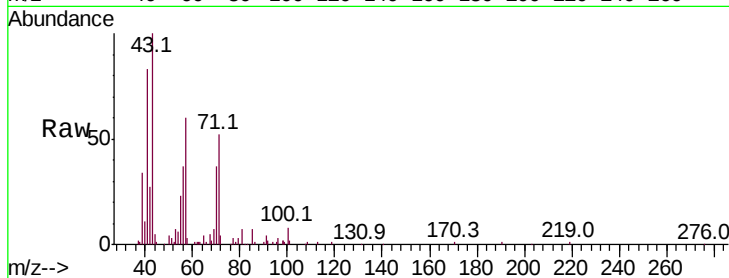
#10
Heptane
Concen: 0.718 ppbv
RT: 8.20 min Scan# 1637
Delta R.T. -0.02 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion: 43 Resp: 84803
Ion Ratio Lower Upper
43 100
57 64.5 44.6 66.8

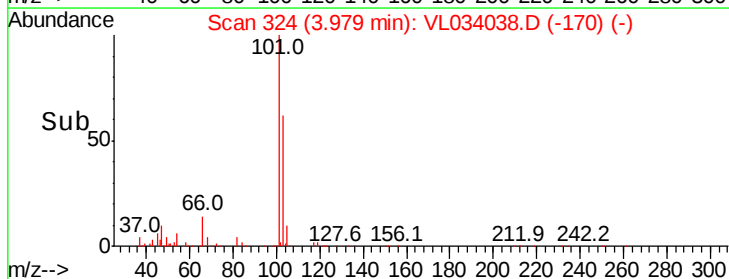
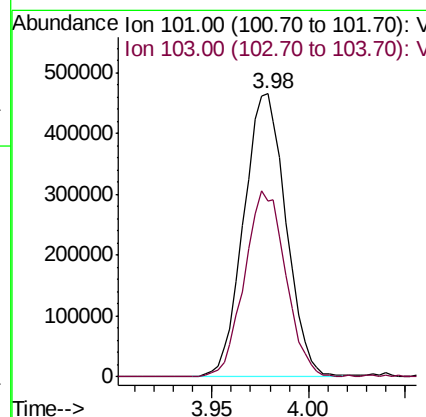
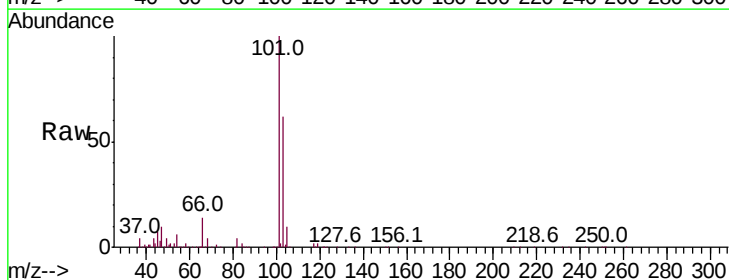
Manual Integrations
APPROVED

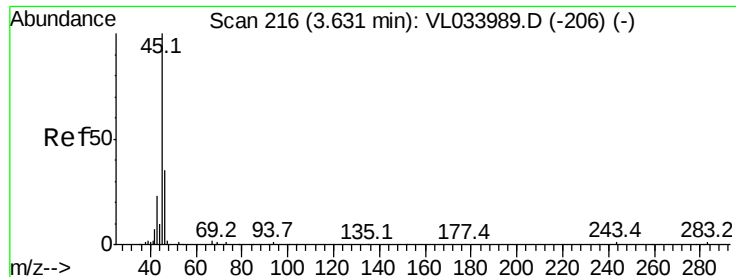
MMDadoda
7/19/2019 1:37:15 AM



#11
Trichlorofluoromethane
Concen: 2.935 ppbv
RT: 3.98 min Scan# 324
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion: 101 Resp: 706699
Ion Ratio Lower Upper
101 100
103 62.2 50.8 76.2





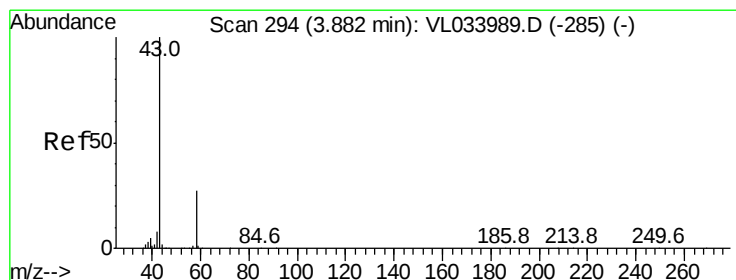
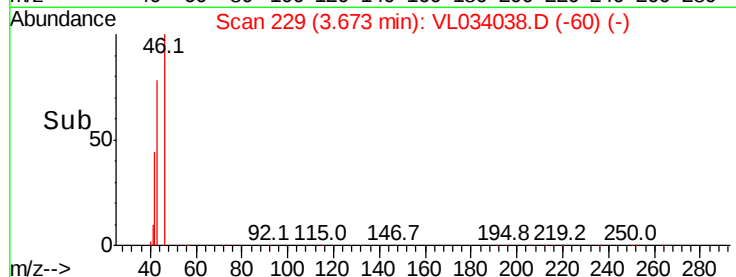
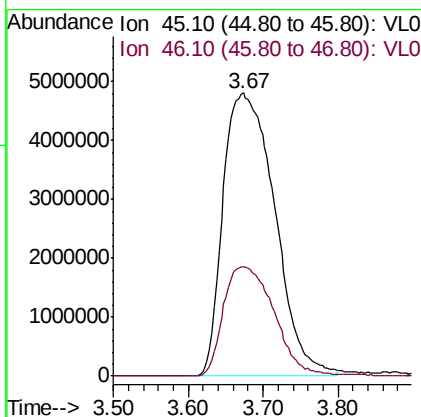
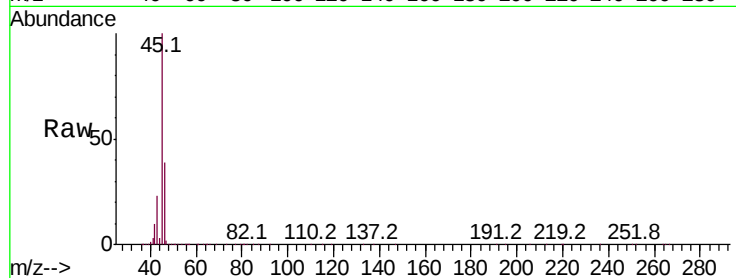
#13
Ethanol
Concen: 1572.796 ppbv
RT: 3.67 min Scan# 229
Delta R.T. 0.04 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion: 45 Resp:23033211
Ion Ratio Lower Upper
45 100
46 38.3 16.2 64.6

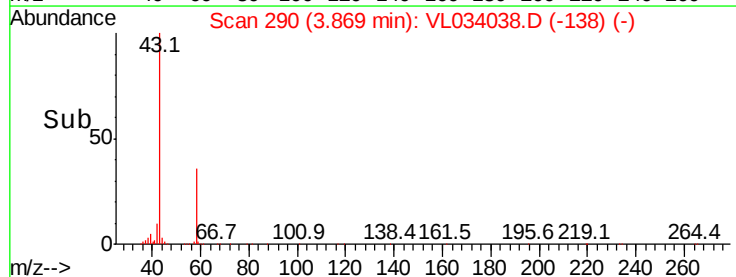
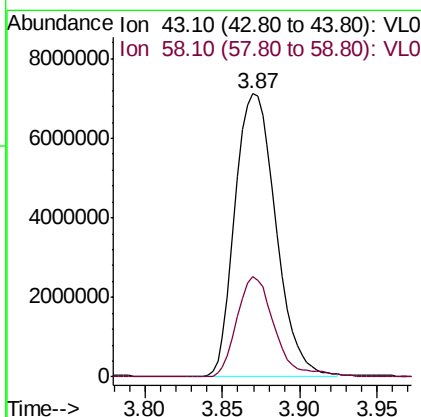
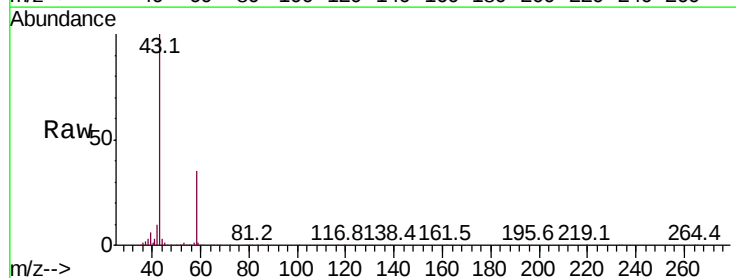
Manual Integrations
APPROVED

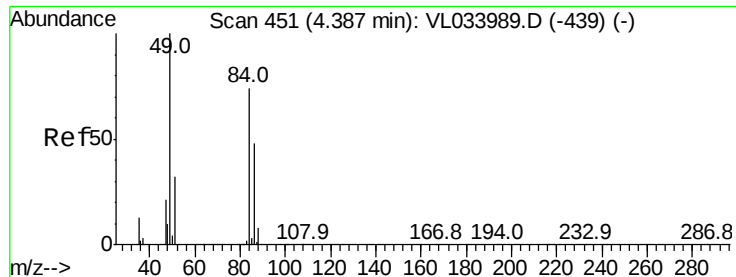
MMDadoda
7/19/2019 1:37:15 AM



#15
Acetone
Concen: 74.748 ppbv
RT: 3.87 min Scan# 290
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion: 43 Resp:13041541
Ion Ratio Lower Upper
43 100
58 33.2 21.4 32.0#





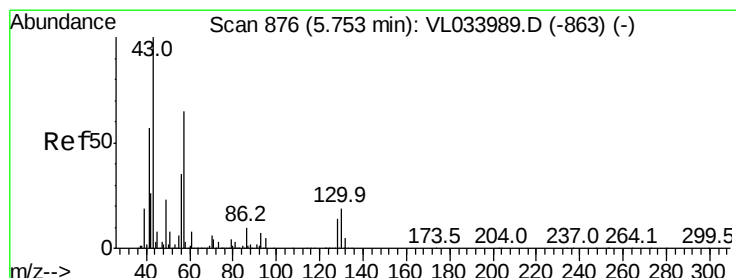
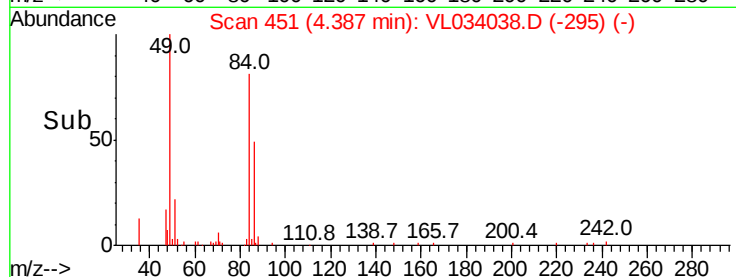
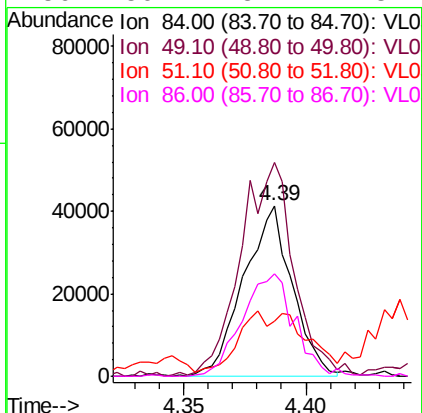
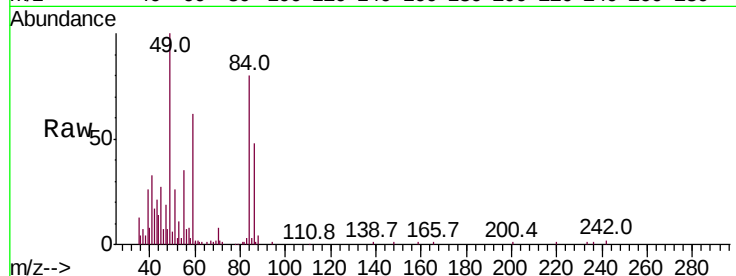
#20
Methvlene Chloride
Concen: 0.747 ppbv
RT: 4.39 min Scan# 451
Delta R.T. 0.00 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion	Ratio	Lower	Upper
84	100		
49	124.7	107.6	161.4
51	25.8	35.0	52.6#
86	59.7	52.1	78.1

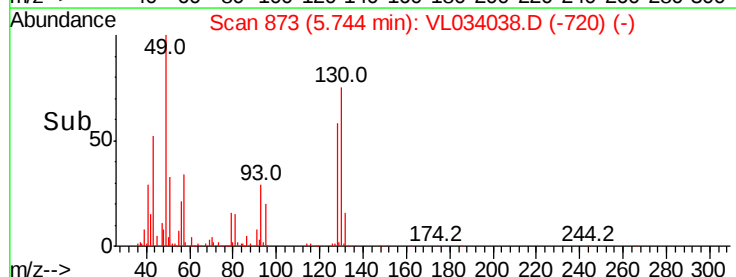
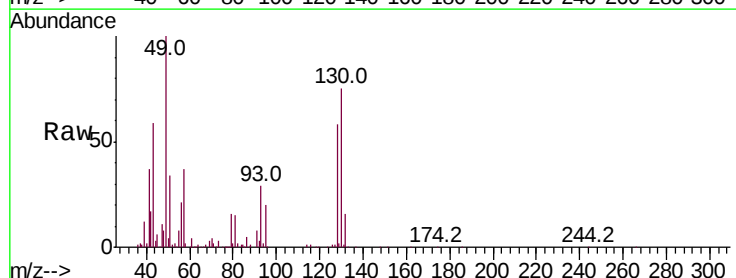
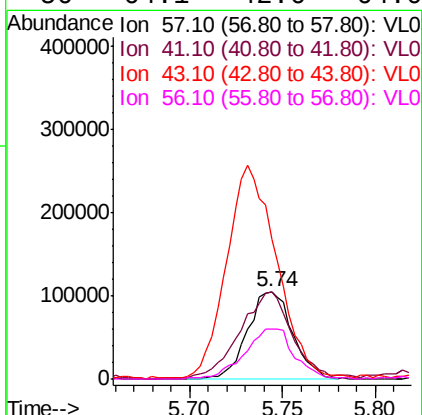
Manual Integrations
APPROVED

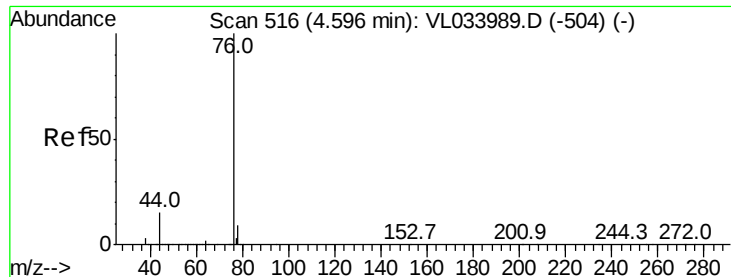
MMDadoda
7/19/2019 1:37:15 AM



#26
Hexane
Concen: 1.621 ppbv
RT: 5.74 min Scan# 873
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion	Ratio	Lower	Upper
57	100		
41	115.9	70.6	105.8#
43	272.4	177.6	266.4#
56	64.1	42.6	64.0#





#27

Carbon Disulfide

Concen: 55.898 ppbv

RT: 4.59 min Scan# 514

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Instrument :

MSVOA_L

ClientSampleId :

SG-1

Tot Ion: 76 Resp:10377337

Ion Ratio Lower Upper

76 100

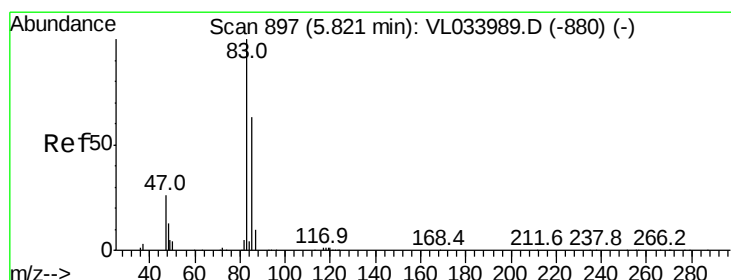
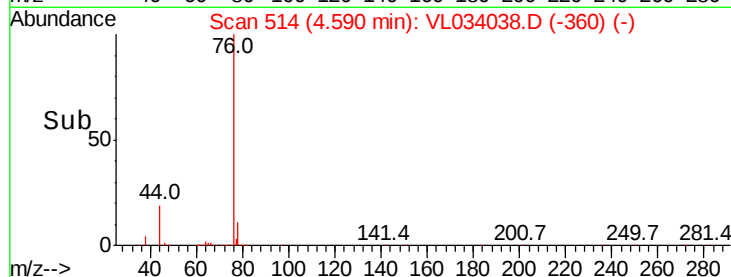
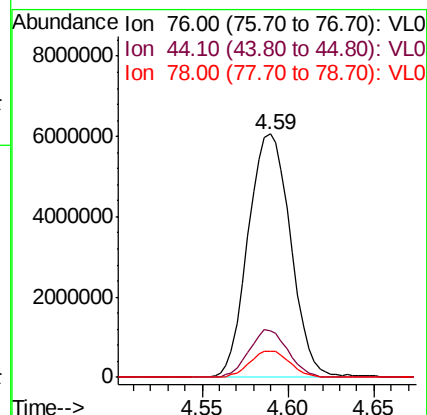
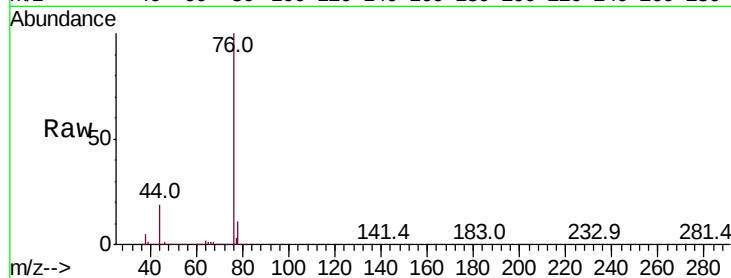
44 18.1 12.6 18.8

78 10.3 7.2 10.8

Manual Integrations
APPROVED

MMDadoda

7/19/2019 1:37:15 AM



#29

Chloroform

Concen: 0.738 ppbv m

RT: 5.81 min Scan# 895

Delta R.T. -0.01 min

Lab File: VL034038.D

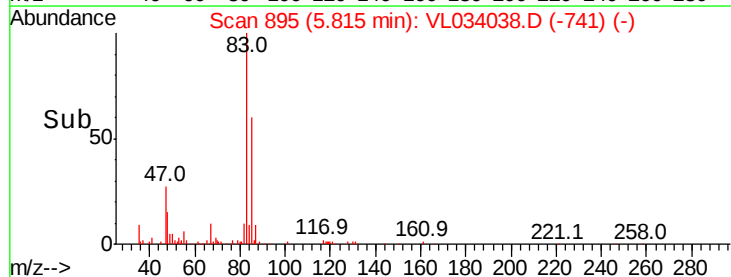
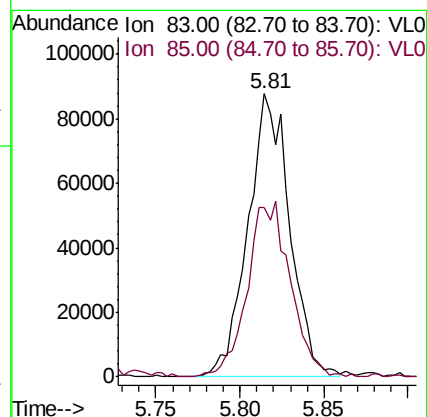
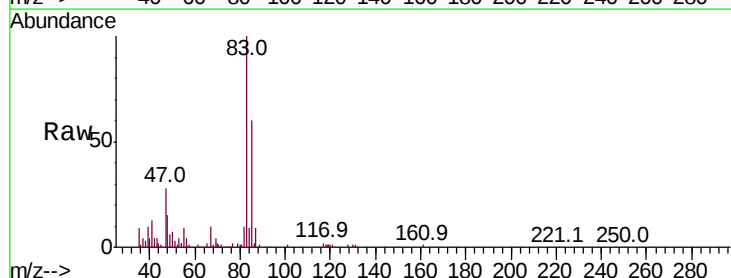
Acq: 17 Jul 2019 19:13

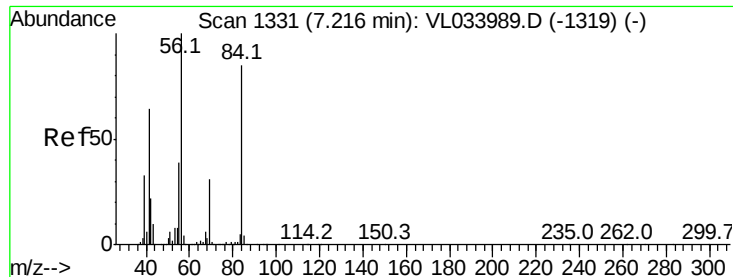
Tgt Ion: 83 Resp: 151486

Ion Ratio Lower Upper

83 100

85 59.7 50.6 75.8





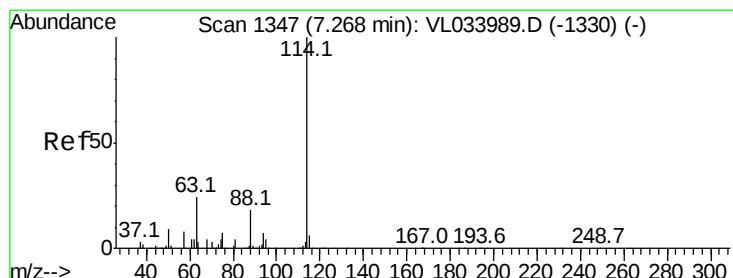
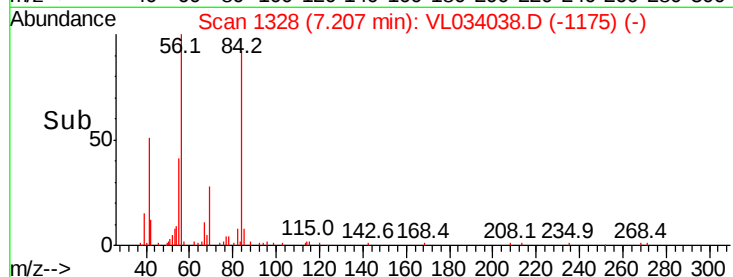
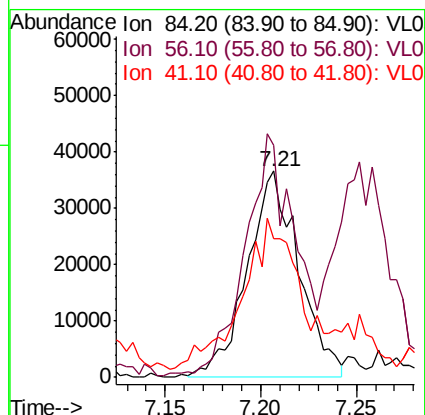
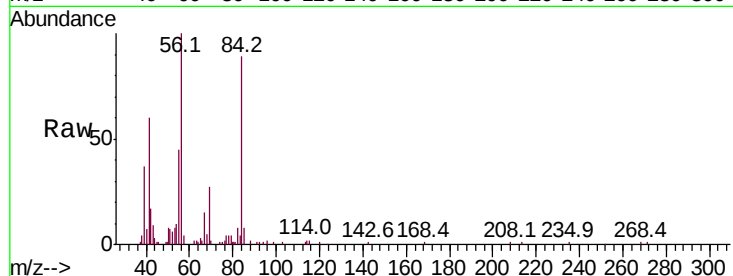
#30
Cyclohexane
Concen: 0.818 ppbv m
RT: 7.21 min Scan# 1328
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion	Ratio	Lower	Upper
84	100		
56	108.7	103.7	155.5
41	103.9	62.6	94.0#

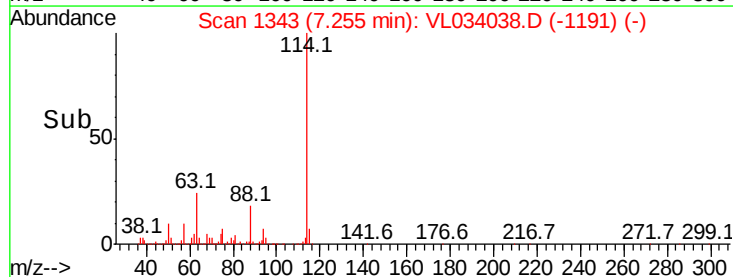
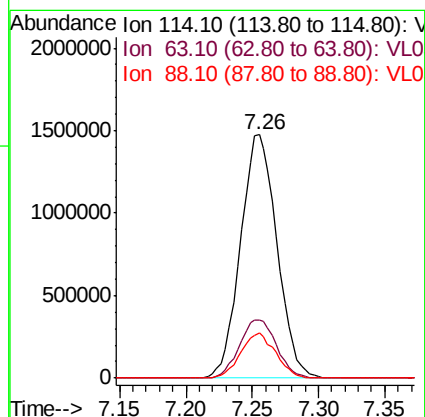
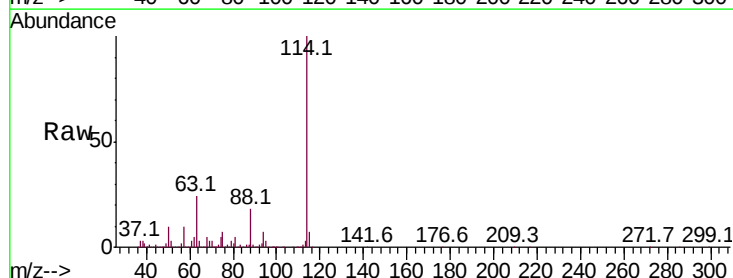
Manual Integrations
APPROVED

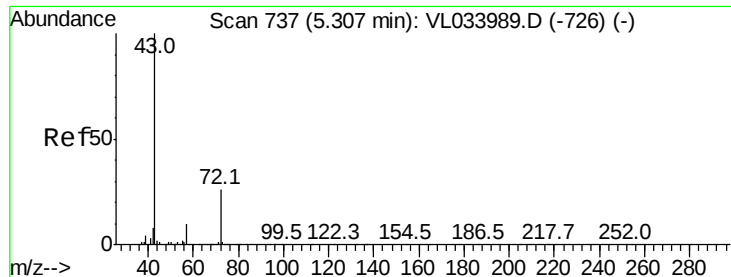
MMDadoda
7/19/2019 1:37:15 AM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.26 min Scan# 1343
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion	Ratio	Lower	Upper
114	100		
63	24.6	20.2	30.2
88	18.0	14.1	21.1





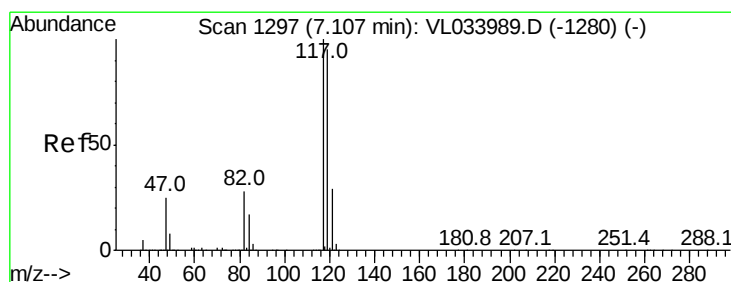
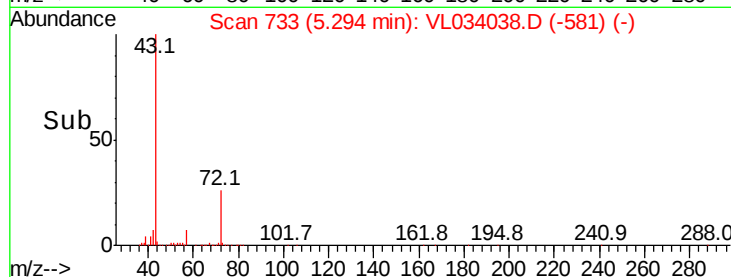
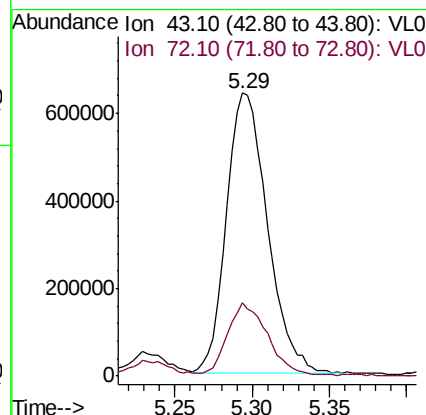
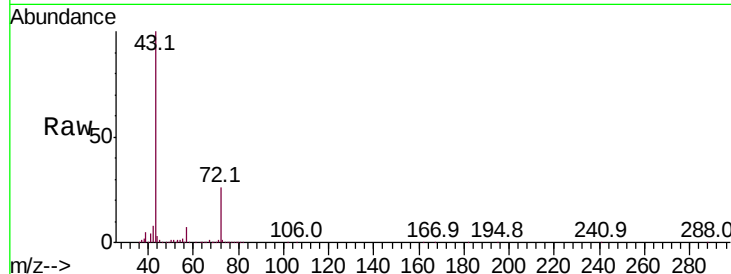
#34
2-Butanone
Concen: 7.905 ppbv
RT: 5.29 min Scan# 733
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion: 43 Resp: 1176783
Ion Ratio Lower Upper
43 100
72 25.9 19.9 29.9

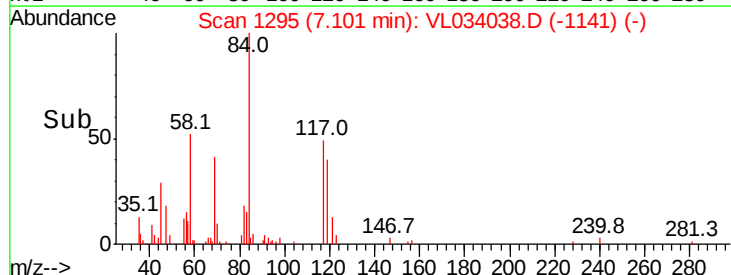
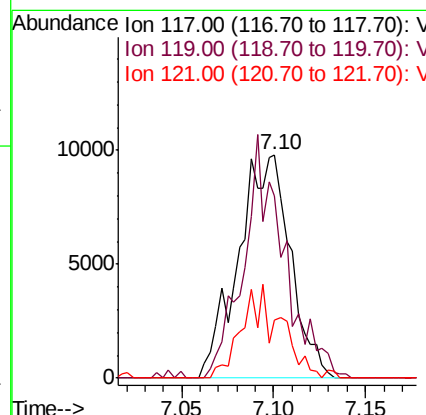
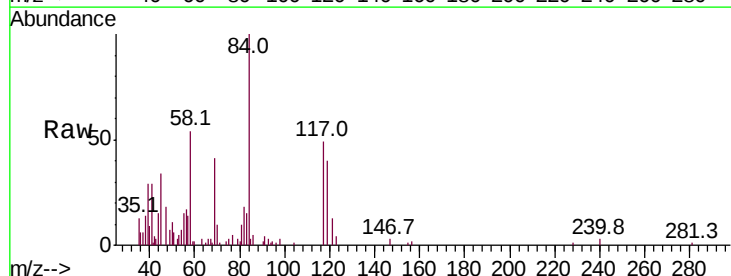
Manual Integrations
APPROVED

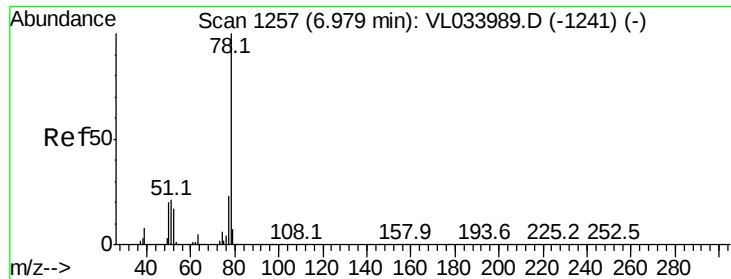
MMDadoda
7/19/2019 1:37:15 AM



#35
Carbon Tetrachloride
Concen: 0.086 ppbv m
RT: 7.10 min Scan# 1295
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion: 117 Resp: 19228
Ion Ratio Lower Upper
117 100
119 81.7 75.8 113.6
121 26.0 23.4 35.2





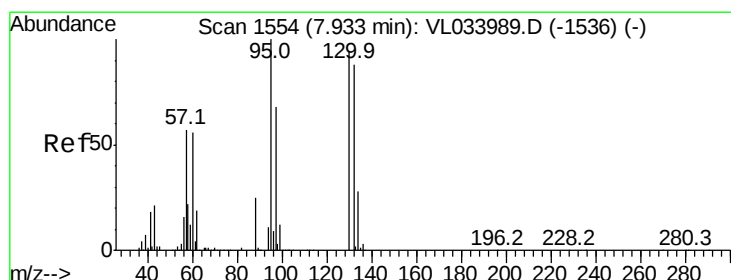
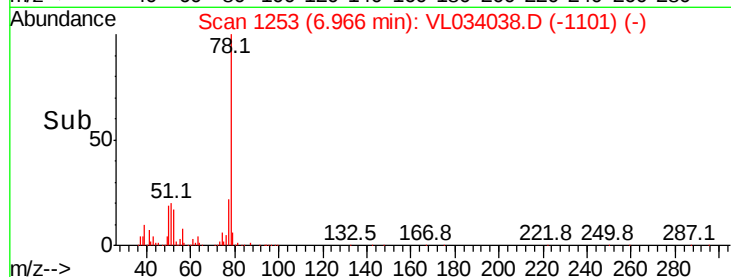
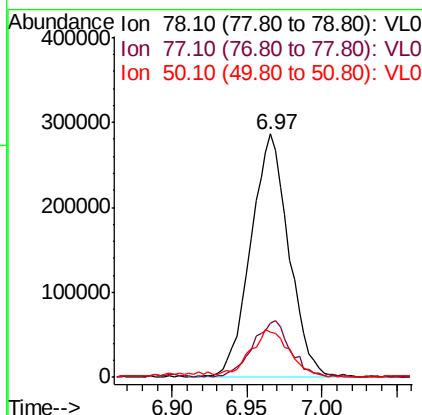
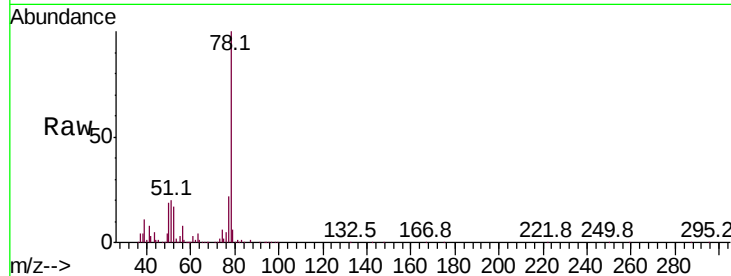
#36
Benzene
Concen: 2.295 ppbv
RT: 6.97 min Scan# 1253
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion:	78	Resp:	505245
Ion Ratio	Lower	Upper	
78	100		
77	21.8	18.7	28.1
50	18.4	16.2	24.2

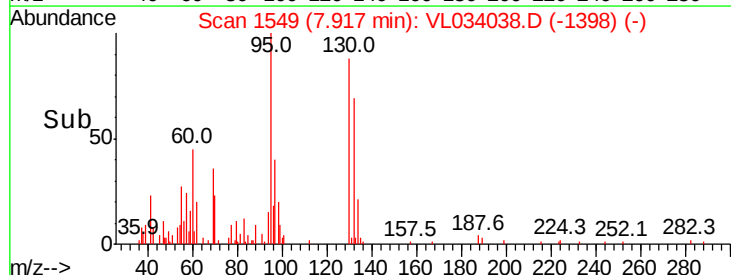
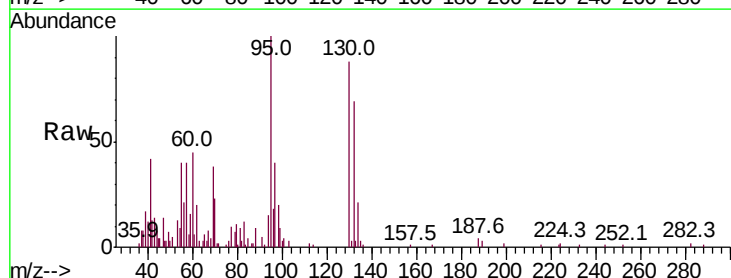
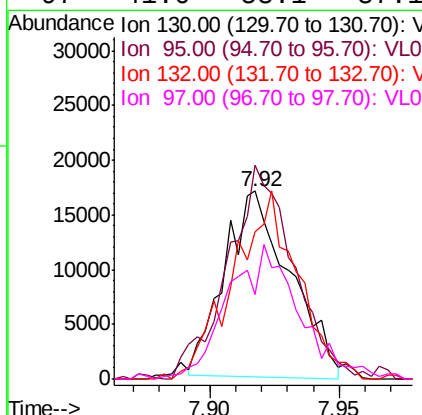
Manual Integrations
APPROVED

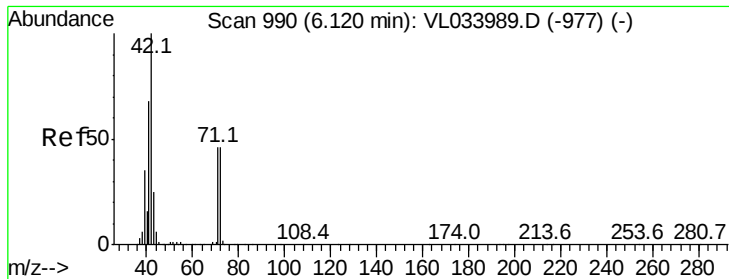
MMDadoda
7/19/2019 1:37:15 AM



#38
Trichloroethene
Concen: 0.308 ppbv
RT: 7.92 min Scan# 1549
Delta R.T. -0.02 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion:	130	Resp:	30141
Ion Ratio	Lower	Upper	
130	100		
95	109.6	85.5	128.3
132	76.0	75.1	112.7
97	41.0	58.1	87.1#





#41

Tetrahydrofuran

Concen: 1.178 ppbv

RT: 6.11 min Scan# 988

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Instrument :

MSVOA_L

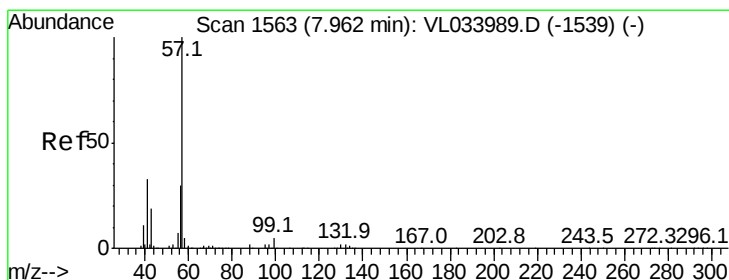
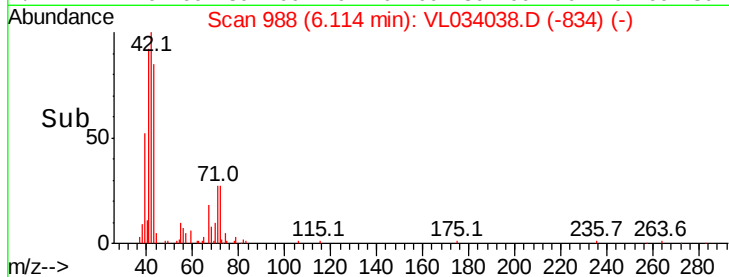
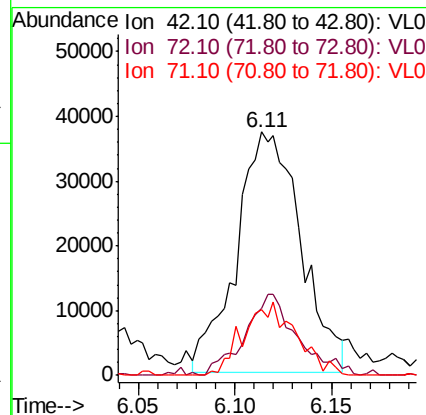
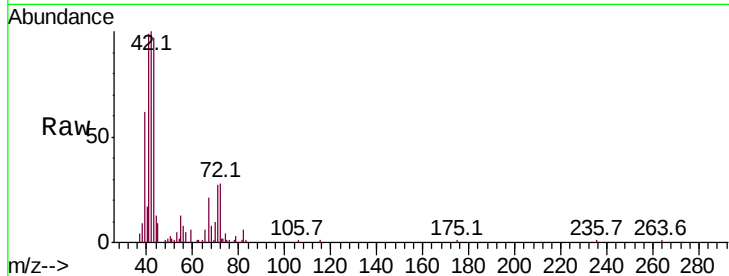
ClientSampled :

SG-1

Tot Ion	42	Resp:	86019
Ion Ratio	Lower	Upper	
42	100		
72	28.4	37.3	55.9#
71	24.9	36.2	54.2#

Manual Integrations
APPROVED

MMDadoda
7/19/2019 1:37:15 AM



#44

2,2,4-Trimethylpentane

Concen: 0.259 ppbv

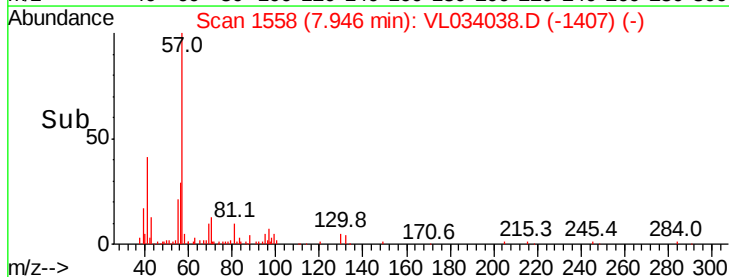
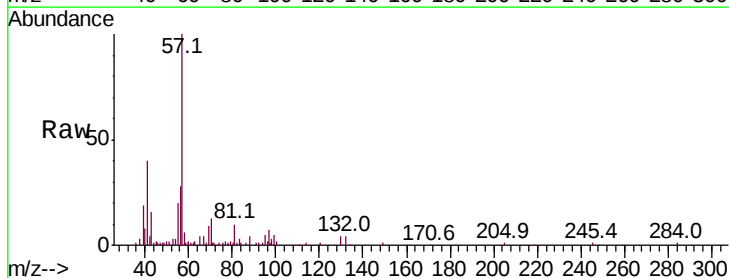
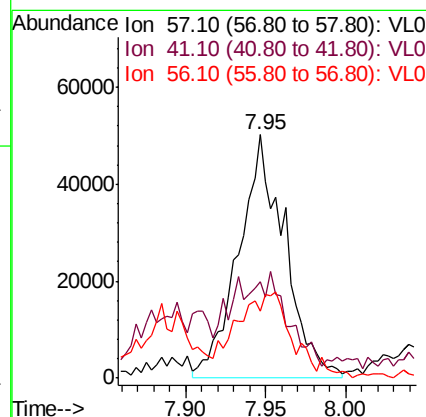
RT: 7.95 min Scan# 1558

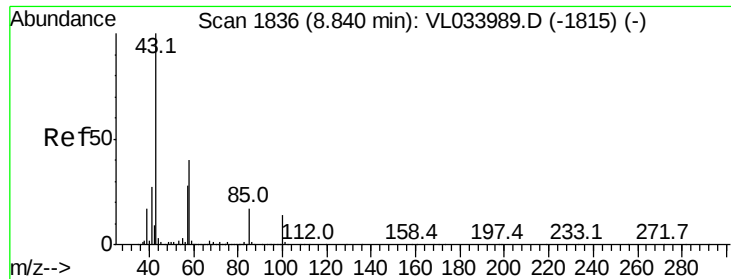
Delta R.T. -0.02 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Tgt Ion	57	Resp:	98438
Ion Ratio	Lower	Upper	
57	100		
41	53.0	26.1	39.1#
56	45.9	24.4	36.6#





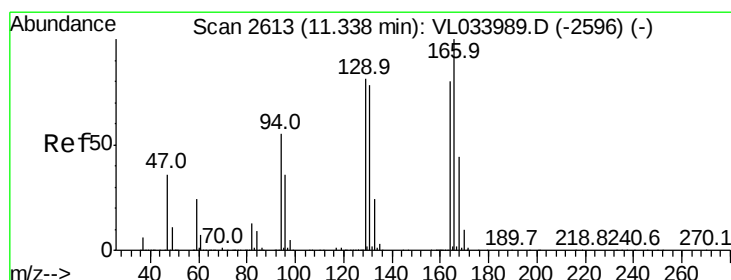
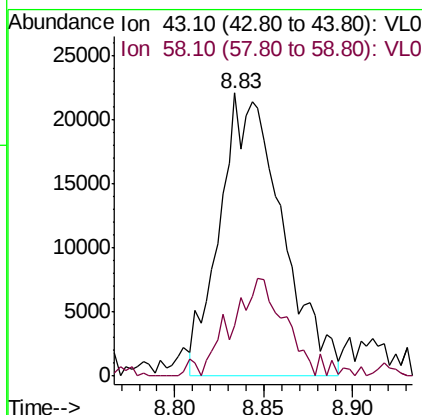
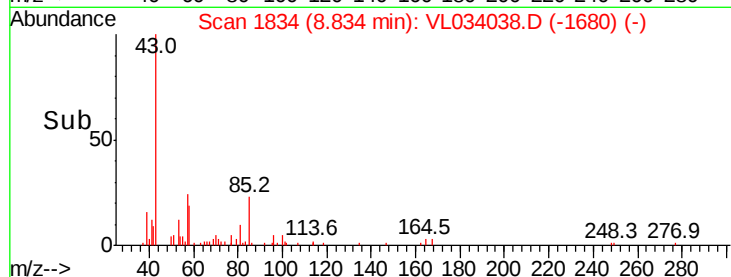
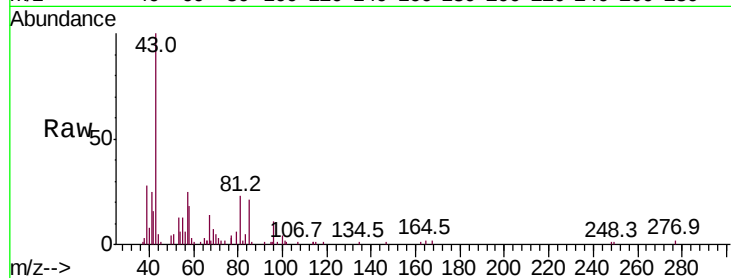
#50
4-Methyl-2-Pentanone
Concen: 0.242 ppbv m
RT: 8.83 min Scan# 1834
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion: 43 Resp: 53570
Ion Ratio Lower Upper
43 100
58 0.0 30.3 45.5#

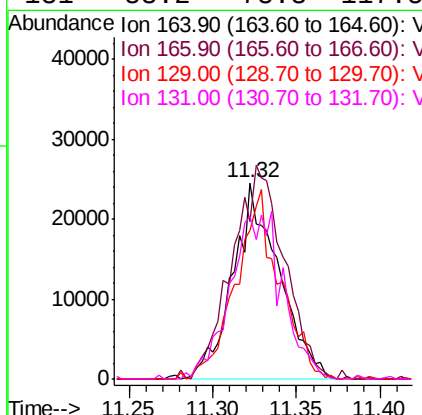
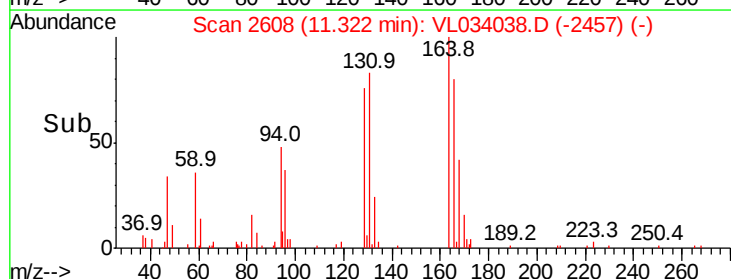
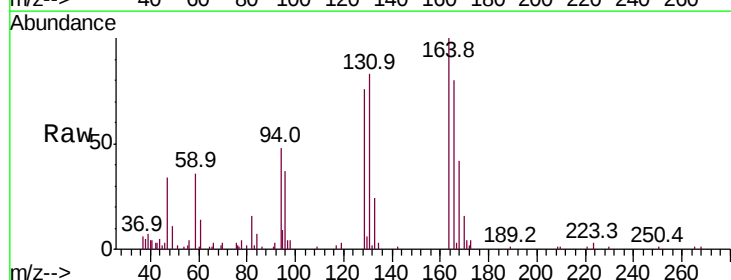
Manual Integrations
APPROVED

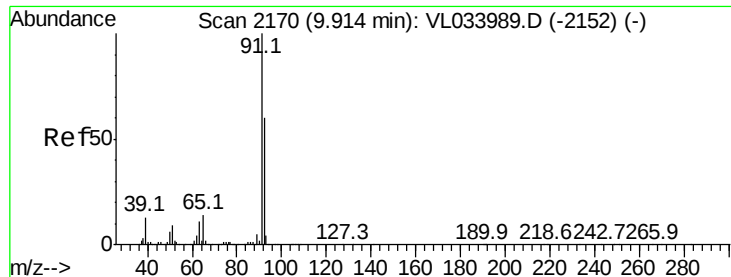
MMDadoda
7/19/2019 1:37:15 AM



#52
Tetrachloroethene
Concen: 0.493 ppbv m
RT: 11.32 min Scan# 2608
Delta R.T. -0.02 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion:164 Resp: 46738
Ion Ratio Lower Upper
164 100
166 80.2 100.2 150.2#
129 75.7 81.0 121.6#
131 83.2 78.3 117.5





#53

Toluene

Concen: 4.352 ppbv

RT: 9.90 min Scan# 2166

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Instrument :

MSVOA_L

ClientSampleId :

SG-1

Tot Ion: 91 Resp: 1096386

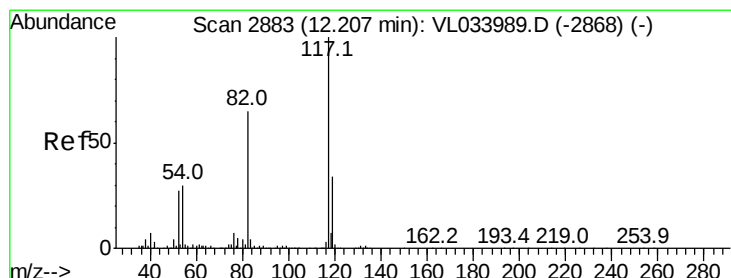
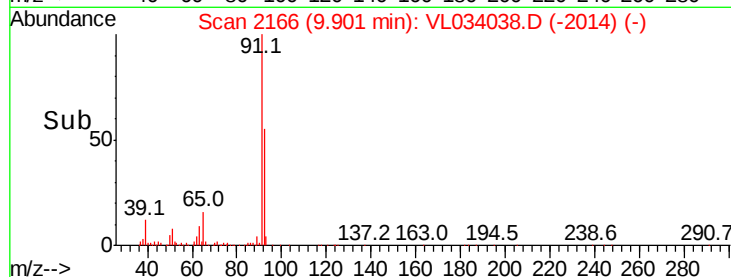
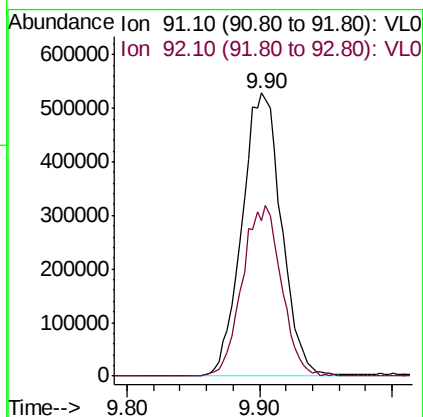
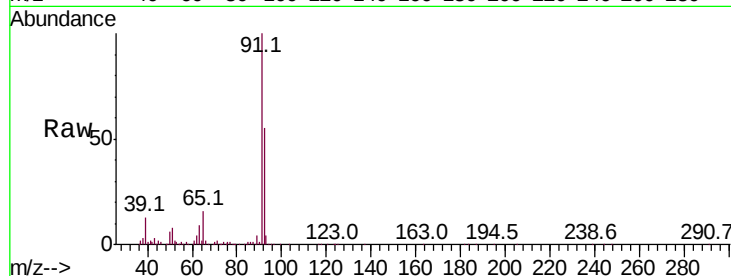
Ion Ratio Lower Upper

91 100

92 59.6 47.7 71.5

Manual Integrations
APPROVED

MMDadoda
7/19/2019 1:37:15 AM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.20 min Scan# 2880

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

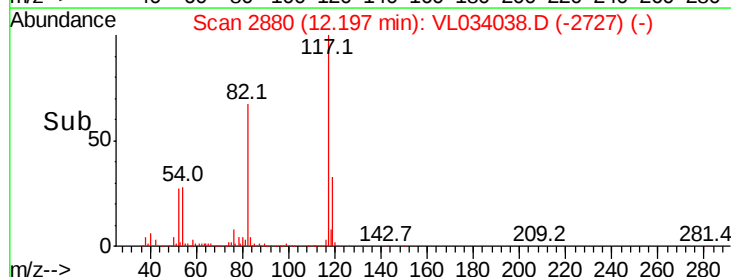
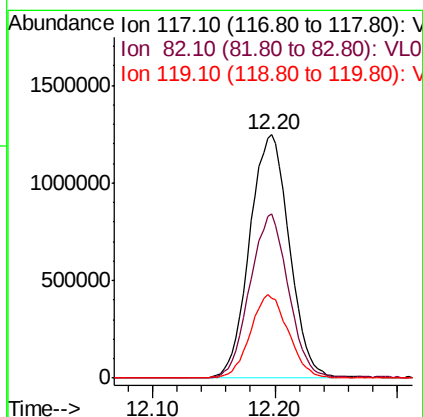
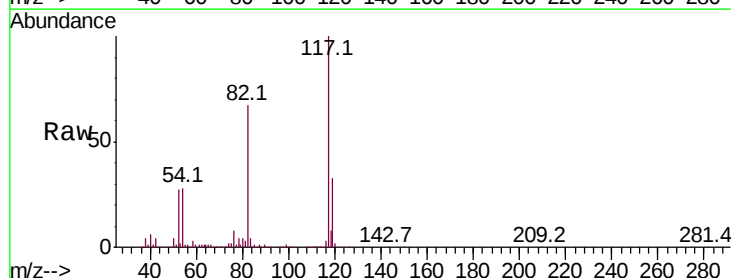
Tgt Ion: 117 Resp: 2801951

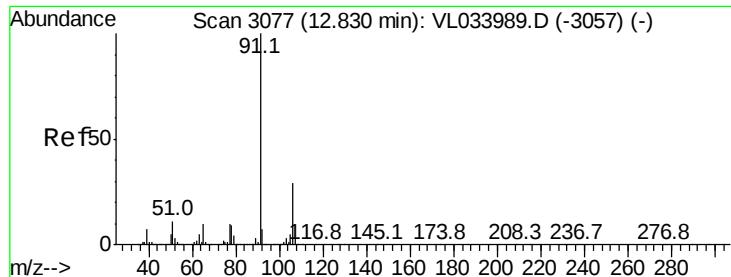
Ion Ratio Lower Upper

117 100

82 65.6 50.8 76.2

119 33.1 24.0 36.0





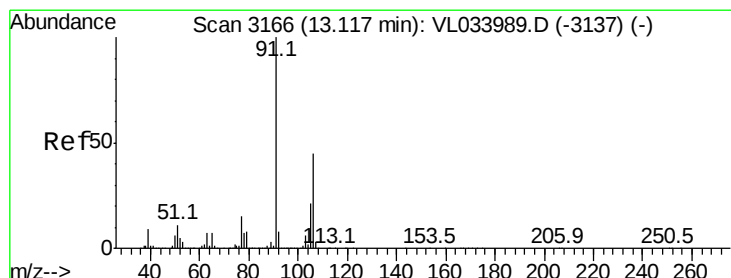
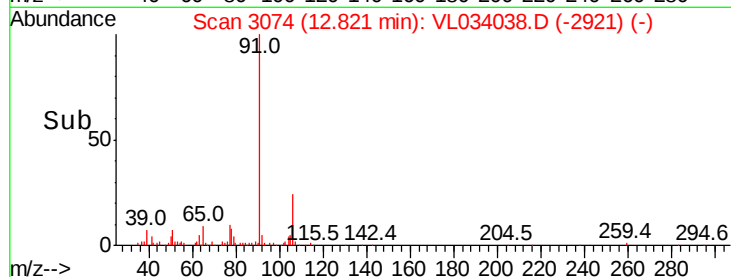
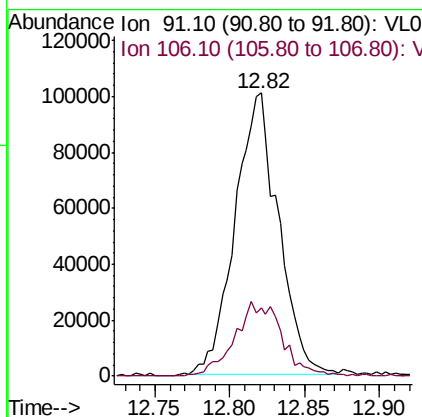
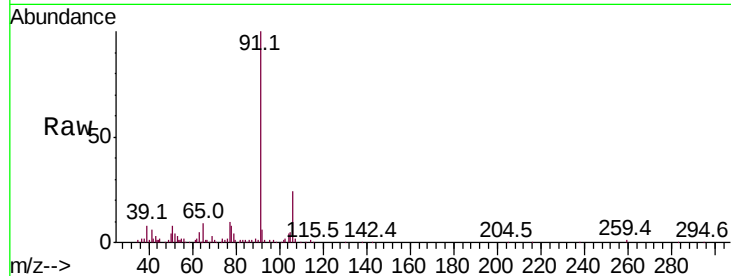
#58
Ethyl Benzene
Concen: 0.603 ppbv
RT: 12.82 min Scan# 3074
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion: 91 Resp: 203097
Ion Ratio Lower Upper
91 100
106 23.7 23.3 34.9

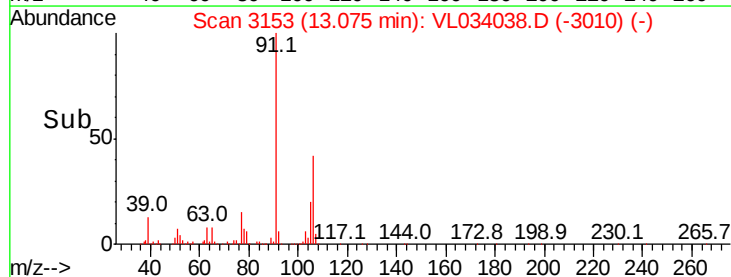
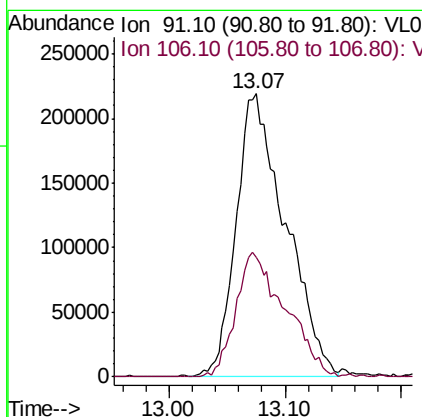
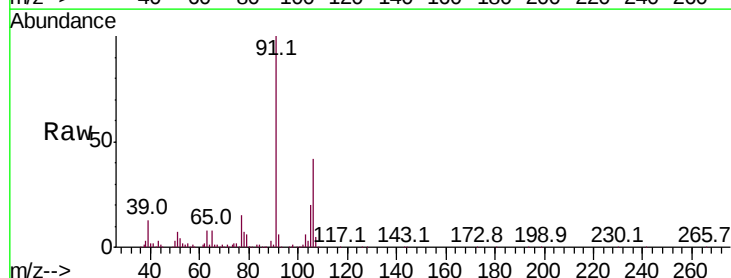
Manual Integrations
APPROVED

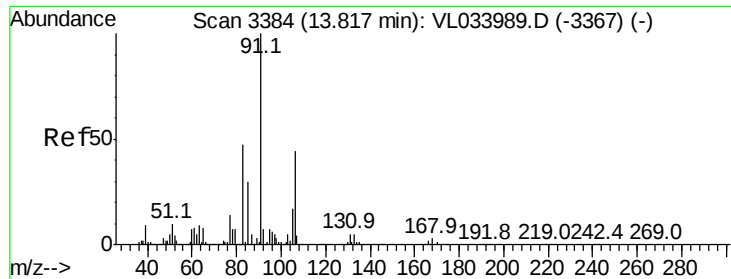
MMDadoda
7/19/2019 1:37:15 AM



#59
m/p-Xylene
Concen: 2.105 ppbv
RT: 13.07 min Scan# 3153
Delta R.T. -0.04 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion: 91 Resp: 642370
Ion Ratio Lower Upper
91 100
106 44.8 35.7 53.5





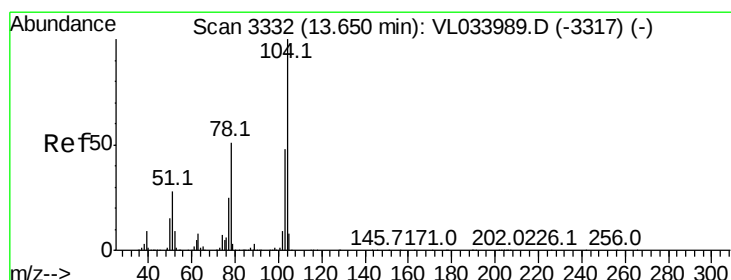
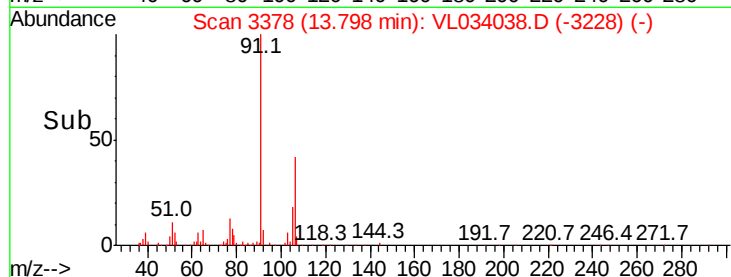
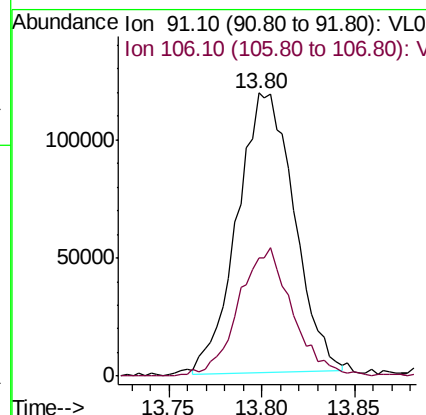
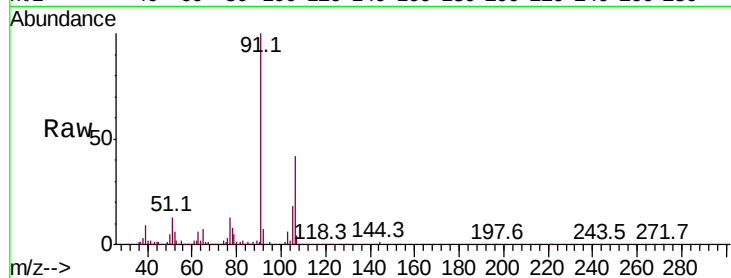
#60
o-Xylene
Concen: 0.834 ppbv
RT: 13.80 min Scan# 3378
Delta R.T. -0.02 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion	Ratio	Lower	Upper
91	100		
106	43.3	21.9	65.7

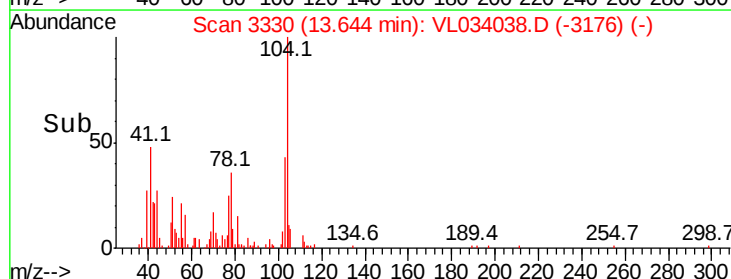
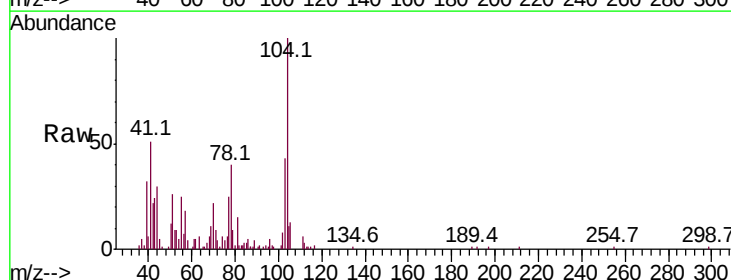
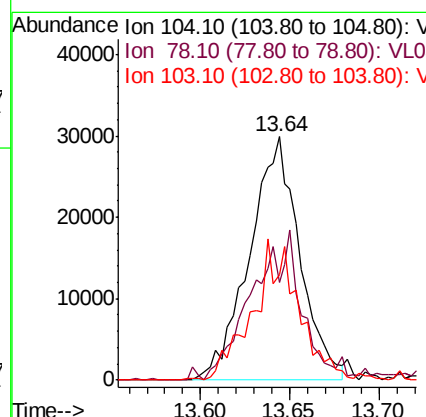
Manual Integrations
APPROVED

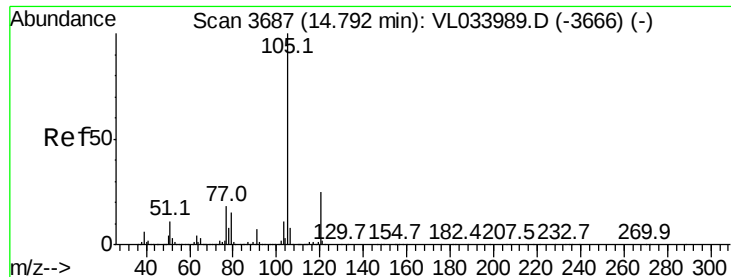
MMDadoda
7/19/2019 1:37:15 AM



#61
Styrene
Concen: 0.290 ppbv
RT: 13.64 min Scan# 3330
Delta R.T. -0.01 min
Lab File: VL034038.D
Acq: 17 Jul 2019 19:13

Tgt Ion	Ratio	Lower	Upper
104	100		
78	64.7	43.9	65.9
103	53.5	38.1	57.1





#62

Isopropylbenzene

Concen: 0.231 ppbv

RT: 14.78 min Scan# 3683

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion:105 Resp: 108399

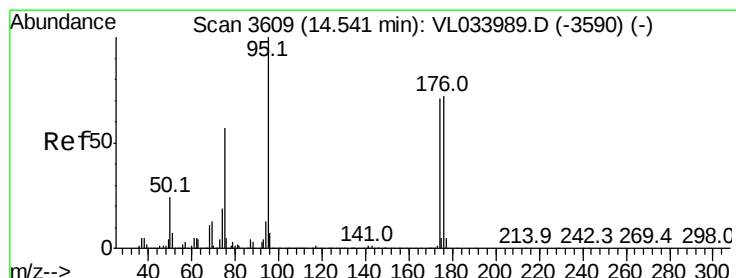
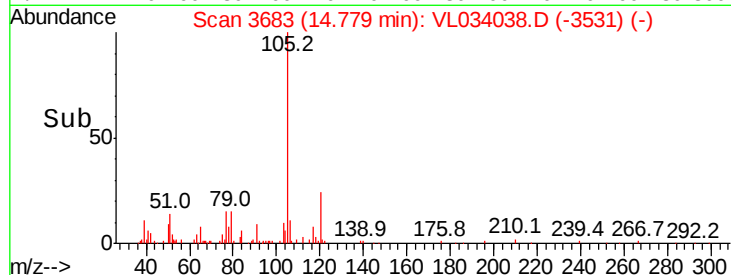
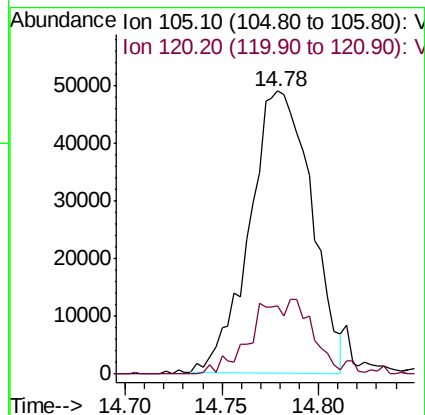
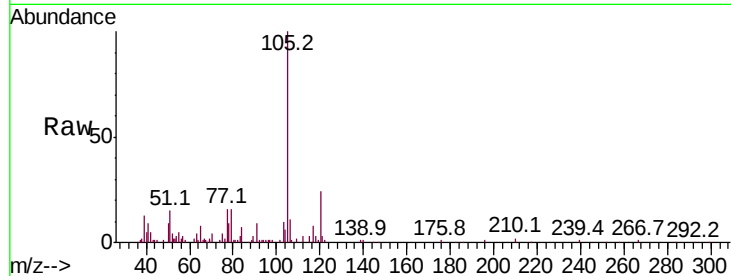
Ion Ratio Lower Upper

105 100

120 27.5 20.4 30.6

Manual Integrations
APPROVED

MMDadoda
7/19/2019 1:37:15 AM



#68

1-Bromo-4-Fluorobenzene

Concen: 8.944 ppbv

RT: 14.53 min Scan# 3606

Delta R.T. -0.01 min

Lab File: VL034038.D

Acq: 17 Jul 2019 19:13

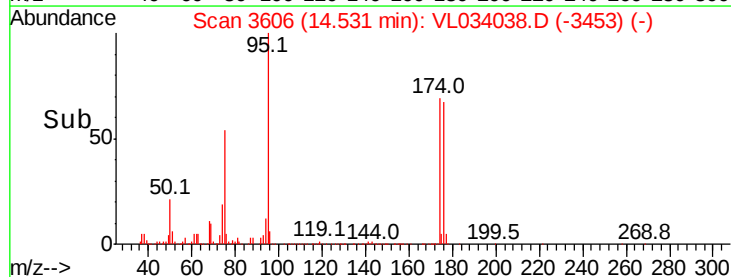
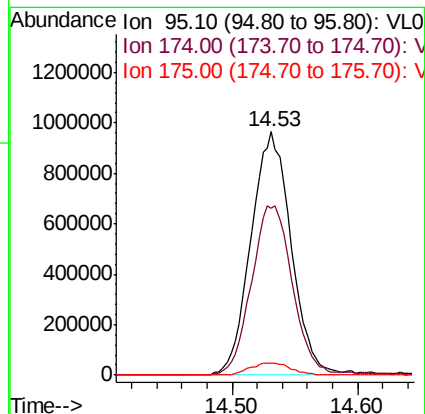
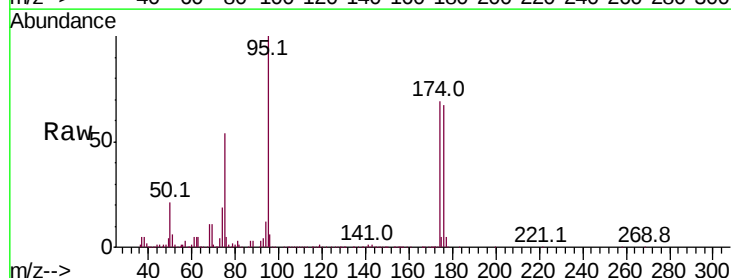
Tgt Ion: 95 Resp: 2137475

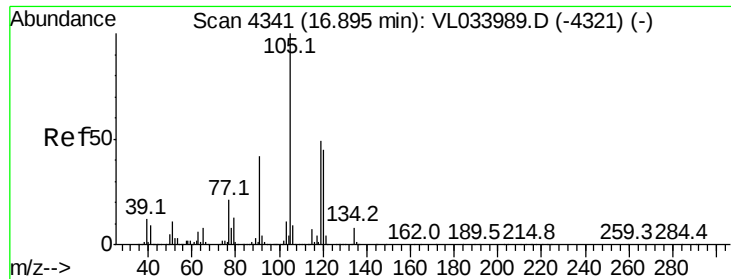
Ion Ratio Lower Upper

95 100

174 72.5 60.5 90.7

175 5.2 4.0 6.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.254 ppbv m
 RT: 16.87 min Scan# 4334
 Delta R.T. -0.02 min
 Lab File: VL034038.D
 Acq: 17 Jul 2019 19:13

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-1

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	26.2	36.2	54.2#
91	14.3	34.3	51.5#
77	10.0	17.1	25.7#

Manual Integrations
 APPROVED

MMDadoda
 7/19/2019 1:37:15 AM

