

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL020419\
 Data File : VL033166.D
 Acq On : 5 Feb 2019 3:54
 Operator : SY/AP
 Sample : K1245-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 S-01

Manual Integrations
 APPROVED

MMDadoda
 2/5/2019 10:28:32 AM

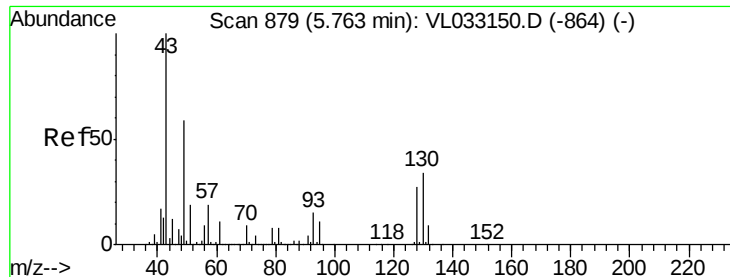
Quant Time: Feb 05 09:38:31 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL020419AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Feb 0
 QLast Update : Mon Feb 04 14:41:39 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1222560	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	4001672	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	3876552	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	3003194	10.40	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.00%

Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.08	85	119175	0.662	ppbv	91
3) Chlorodifluoromethane	3.02	51	47615m	0.350	ppbv	
4) Chloromethane	3.17	50	47084	0.614	ppbv #	88
10) Heptane	8.25	43	47943m	0.225	ppbv	
11) Trichlorofluoromethane	4.00	101	45484	0.261	ppbv	96
13) Ethanol	3.65	45	2247928	83.345	ppbv	99
15) Acetone	3.90	43	513990m	3.531	ppbv	
20) Methylene Chloride	4.41	84	143237	2.856	ppbv	96
26) Hexane	5.78	57	255985	1.819	ppbv #	61
29) Chloroform	5.84	83	410057	1.926	ppbv	98
31) cis-1,2-Dichloroethene	5.64	61	17006m	0.127	ppbv	
34) 2-Butanone	5.33	43	111237	0.442	ppbv	97
35) Carbon Tetrachloride	7.13	117	24044	0.094	ppbv	93
36) Benzene	7.00	78	153865	0.380	ppbv	95
38) Trichloroethene	7.96	130	91676	0.624	ppbv	93
44) 2,2,4-Trimethylpentane	7.98	57	137225	0.202	ppbv #	87
52) Tetrachloroethene	11.37	164	379623	2.700	ppbv	96
53) Toluene	9.94	91	581997	1.211	ppbv	98
58) Ethyl Benzene	12.87	91	89572	0.147	ppbv #	86
59) m/p-Xylene	13.12	91	228438m	0.457	ppbv	
60) o-Xylene	13.84	91	93357	0.203	ppbv	100
74) 1,2,4-Trimethylbenzene	16.93	105	115963	0.214	ppbv #	82

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. 0.00 min

Lab File: VL033166.D

Acq: 5 Feb 2019 3:54

Instrument :

MSVOA_L

ClientSampleId :

S-01

Tot Ion: 49 Resp: 1222560

Ion Ratio Lower Upper

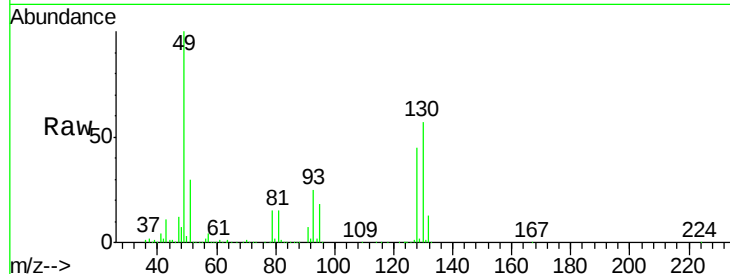
49 100

128 45.1 23.2 69.5

130 58.3 29.5 88.6

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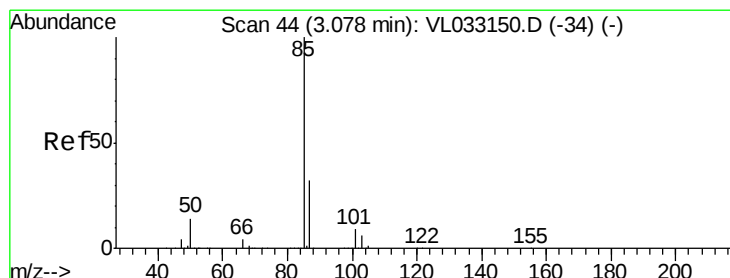
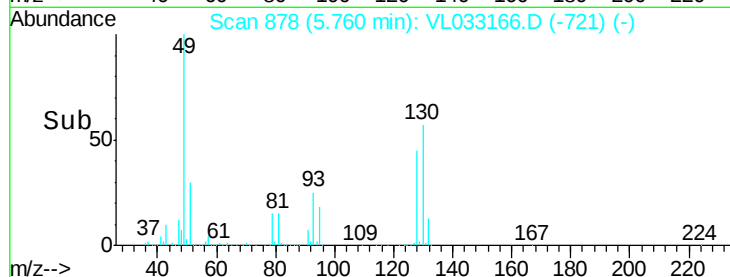
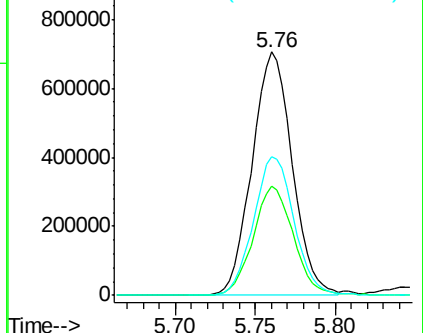
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.662 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033166.D

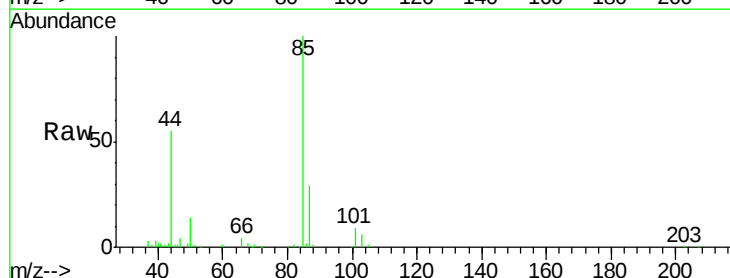
Acq: 5 Feb 2019 3:54

Tgt Ion: 85 Resp: 119175

Ion Ratio Lower Upper

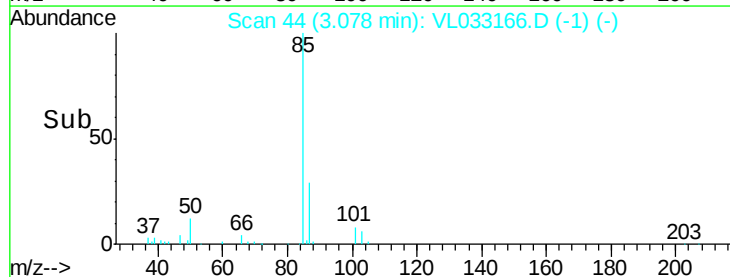
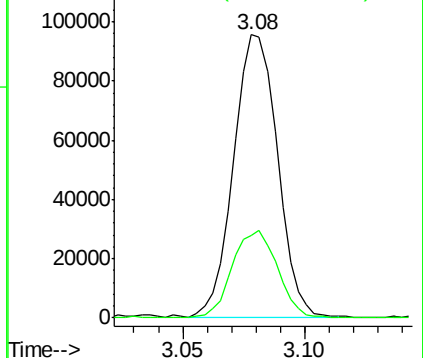
85 100

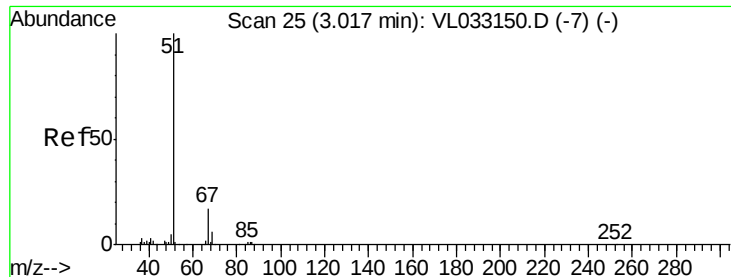
87 29.0 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

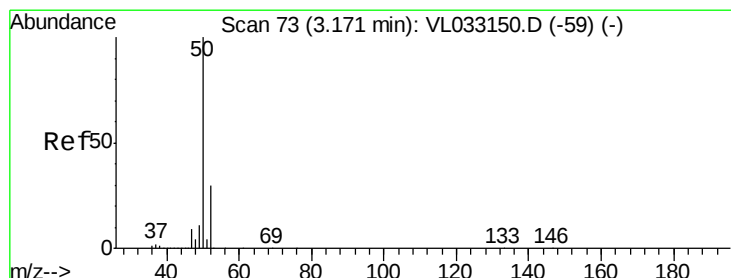
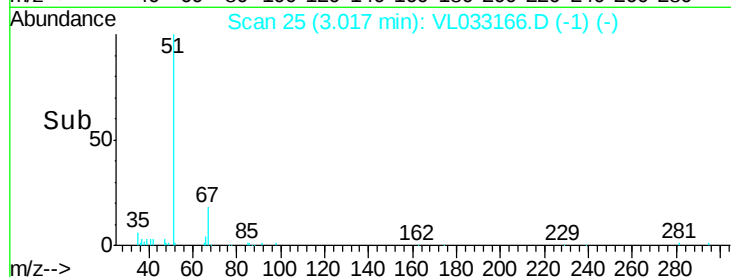
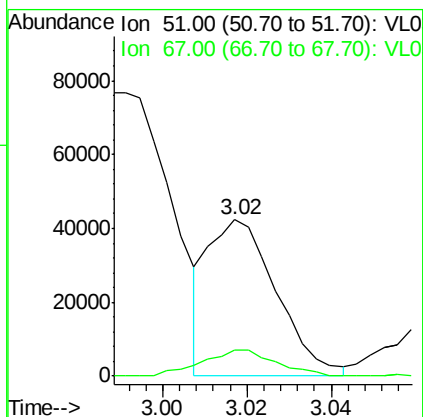
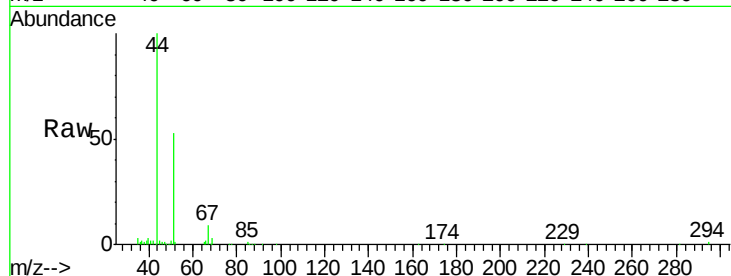
Chlorodifluoromethane
Concen: 0.350 ppbv
RT: 3.02 min Scan# 25
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampled :
S-01

Tot Ion	Ratio	Lower	Upper
51	100		
67	18.3	13.4	20.2

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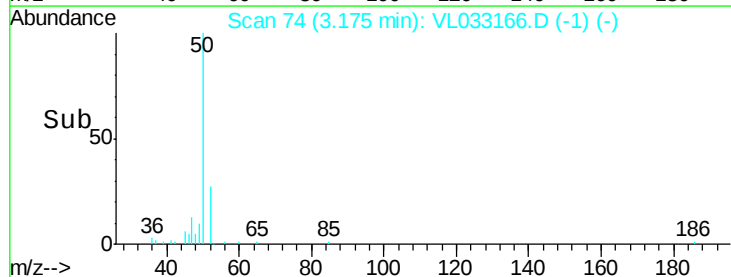
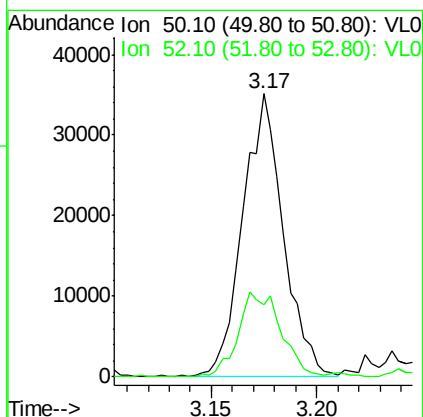
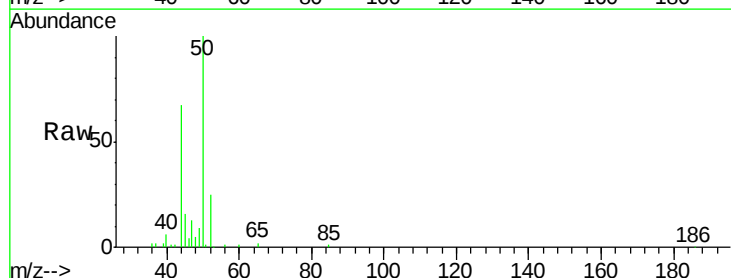
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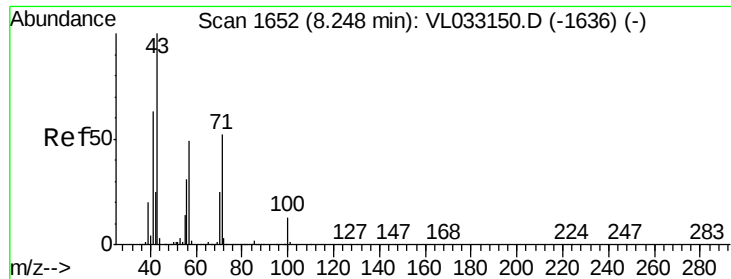


#4

Chloromethane
Concen: 0.614 ppbv
RT: 3.17 min Scan# 74
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
50	100		
52	25.4	25.7	38.5





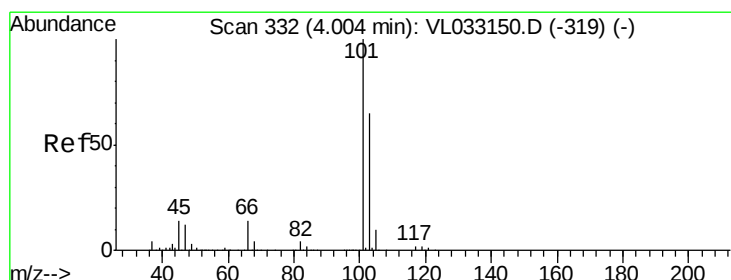
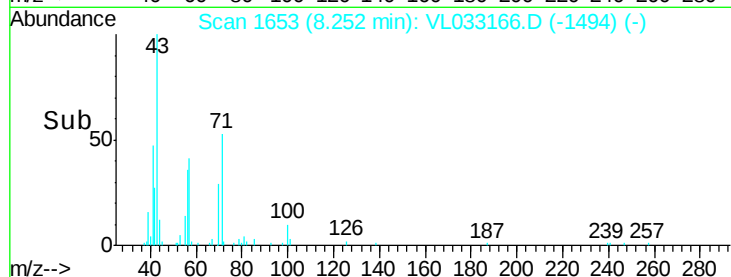
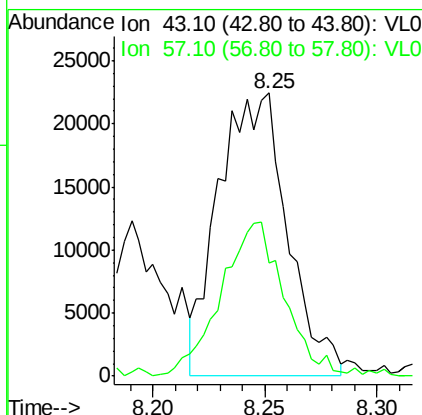
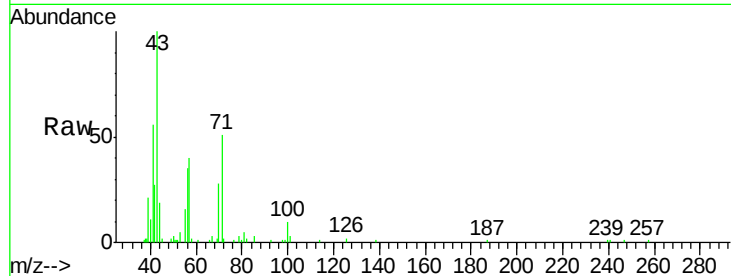
#10
Heptane
Concen: 0.225 ppbv m
RT: 8.25 min Scan# 1653
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampled :
S-01

Tot Ion: 43 Resp: 47943
Ion Ratio Lower Upper
43 100
57 50.8 39.3 58.9

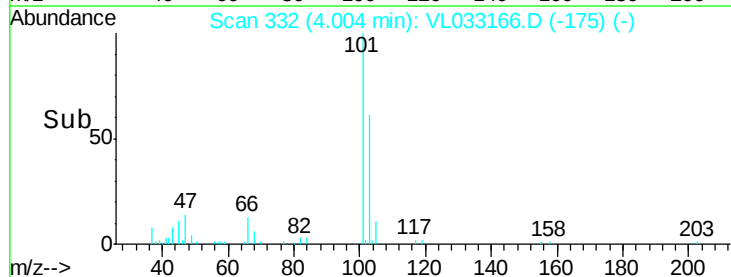
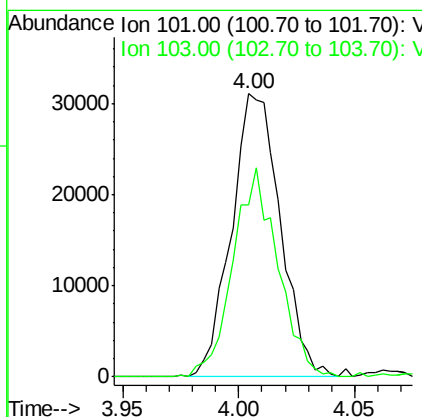
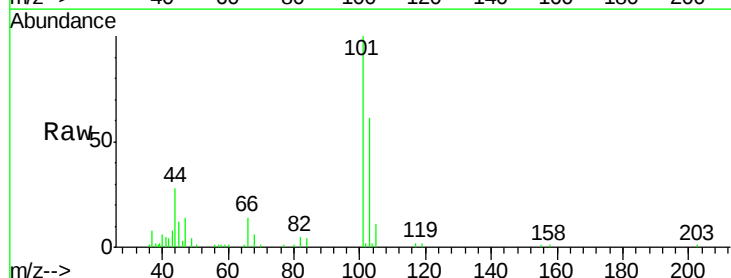
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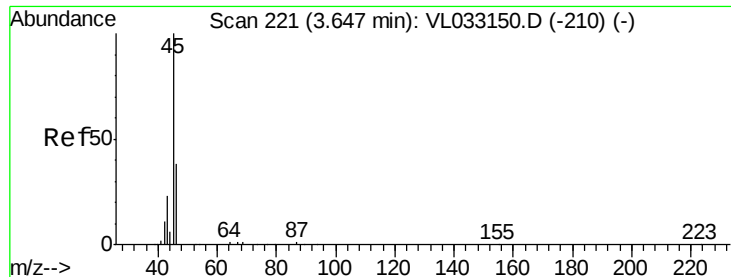
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#11
Trichlorofluoromethane
Concen: 0.261 ppbv
RT: 4.00 min Scan# 332
Delta R.T. 0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion: 101 Resp: 45484
Ion Ratio Lower Upper
101 100
103 60.6 51.3 76.9





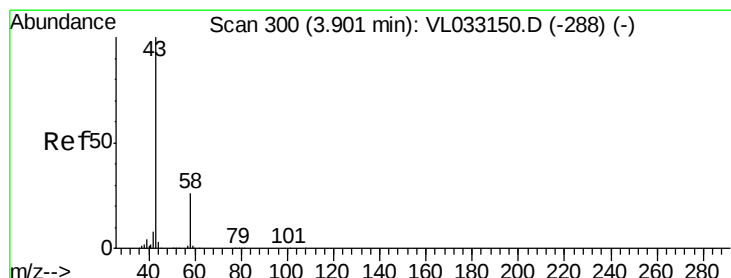
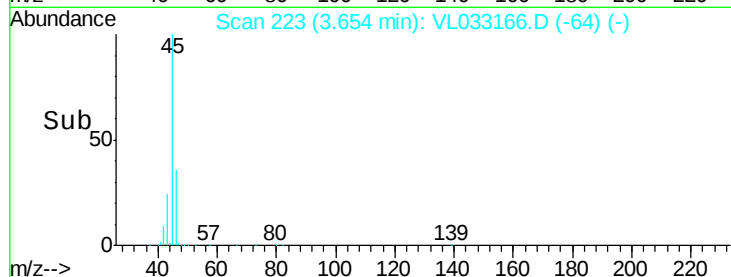
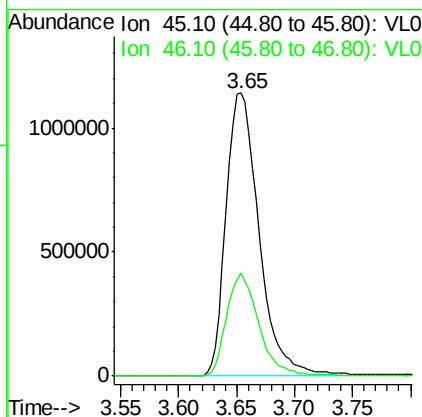
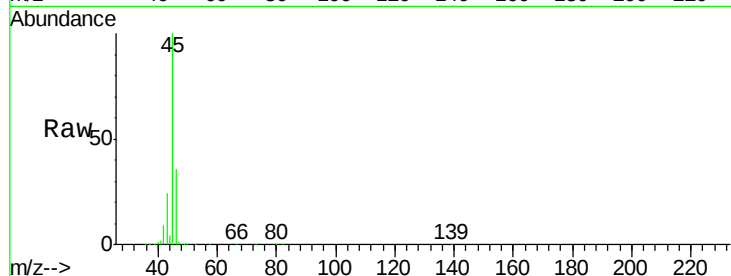
#13
Ethanol
Concen: 83.345 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampled :
S-01

Tot Ion: 45 Resp: 2247928
Ion Ratio Lower Upper
45 100
46 35.8 14.0 56.2

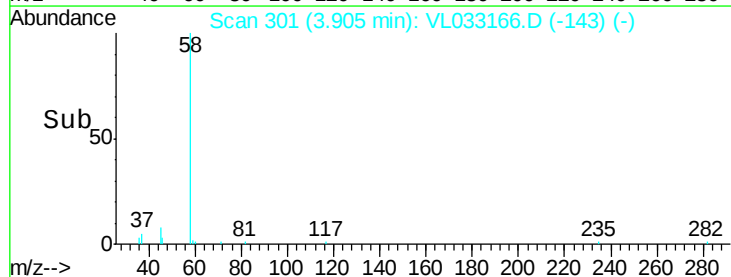
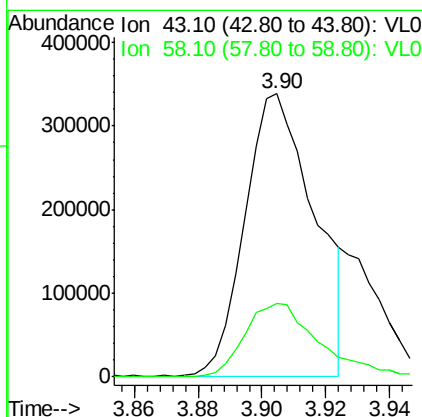
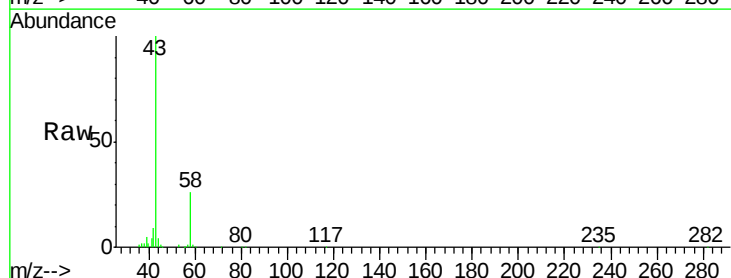
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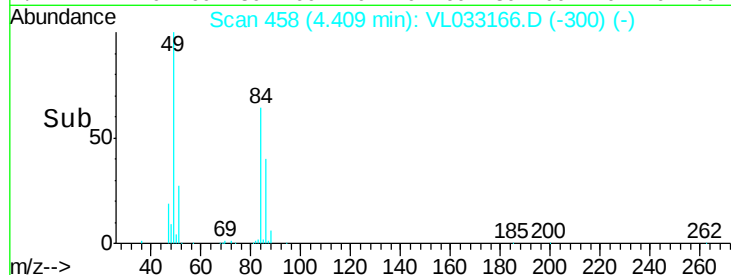
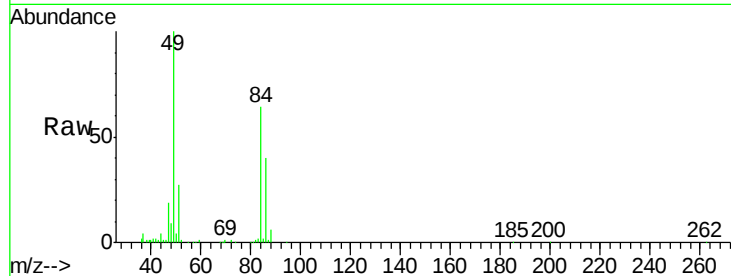
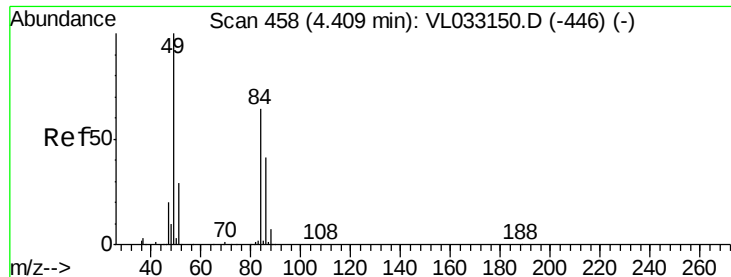
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#15
Acetone
Concen: 3.531 ppbv m
RT: 3.90 min Scan# 301
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion: 43 Resp: 513990
Ion Ratio Lower Upper
43 100
58 28.2 21.8 32.6





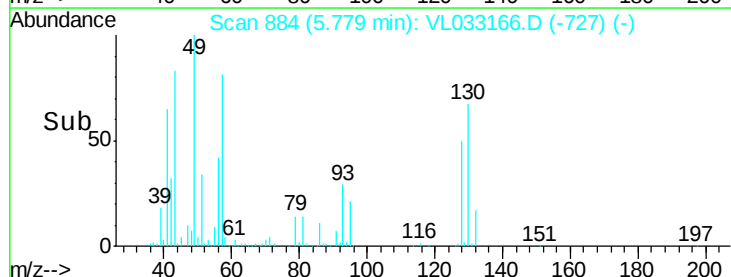
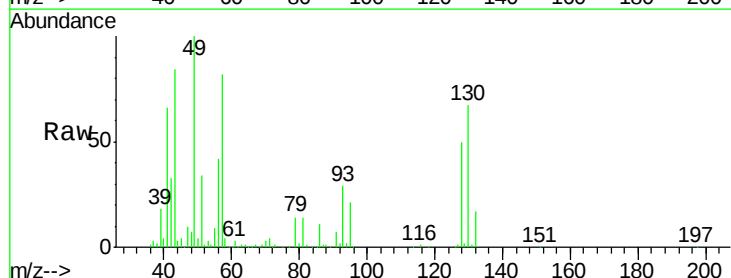
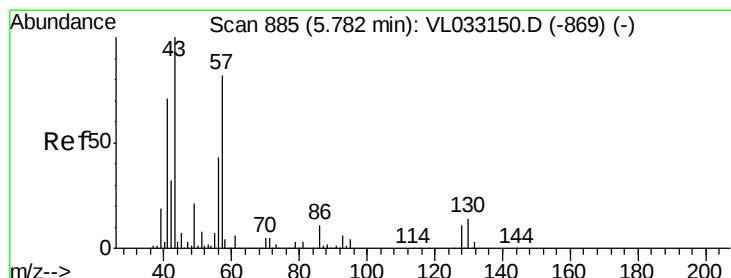
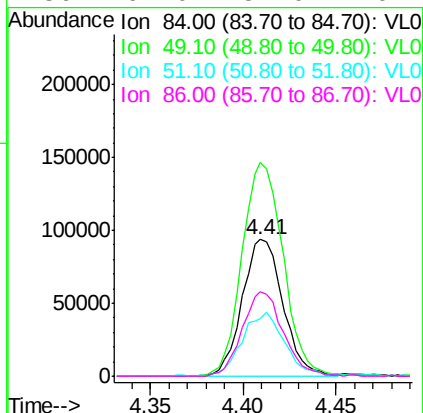
#20
Methvlene Chloride
Concen: 2.856 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tot Ion	Ratio	Lower	Upper
84	100		
49	156.4	121.1	181.7
51	41.7	37.5	56.3
86	62.0	51.0	76.4

Instrument :
MSVOA_L
ClientSampled :
S-01

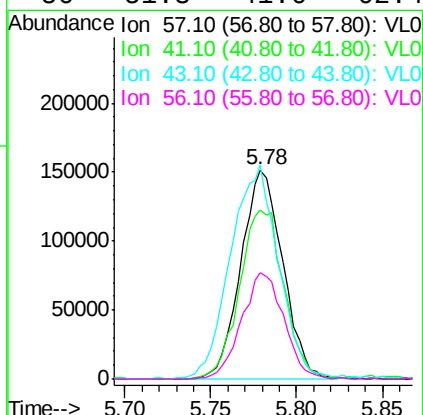
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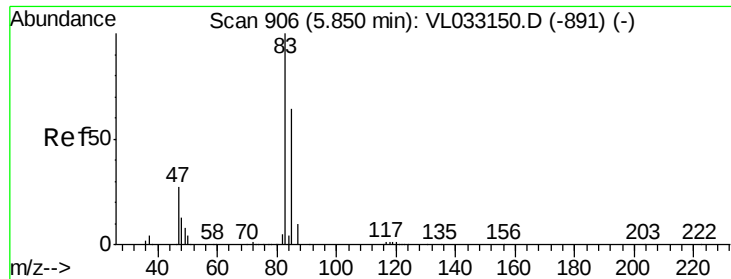
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#26
Hexane
Concen: 1.819 ppbv
RT: 5.78 min Scan# 884
Delta R.T. 0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
57	100		
41	86.0	69.5	104.3
43	118.2	175.5	263.3#
56	51.3	41.6	62.4





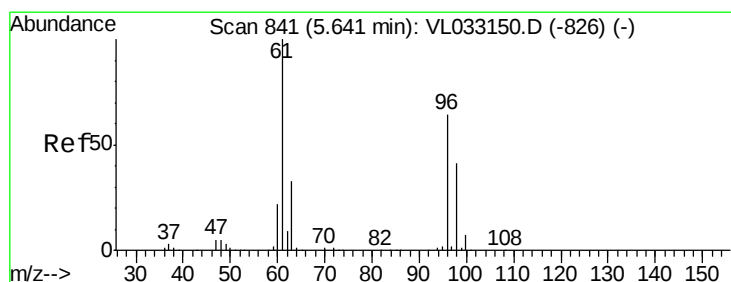
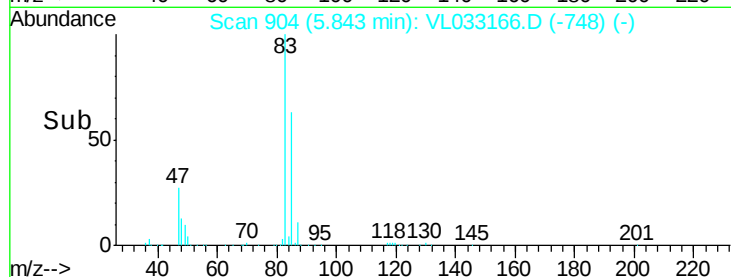
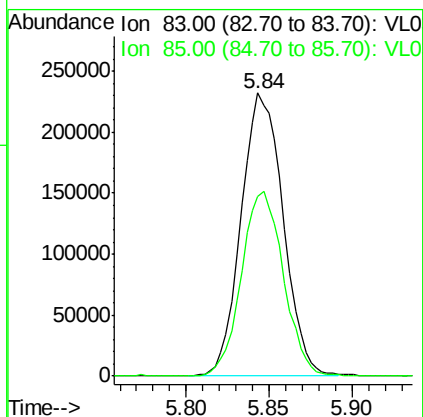
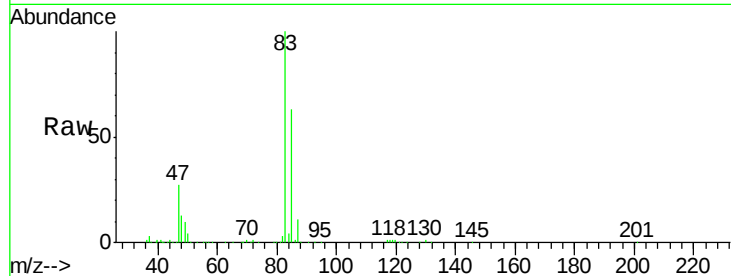
#29
Chloroform
Concen: 1.926 ppbv
RT: 5.84 min Scan# 904
Delta R.T. 0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampleId :
S-01

Tot Ion: 83 Resp: 410057
Ion Ratio Lower Upper
83 100
85 63.3 51.6 77.4

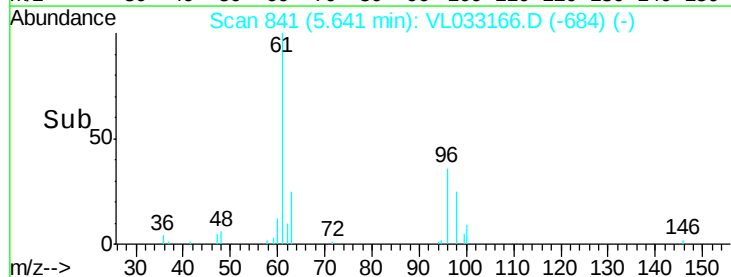
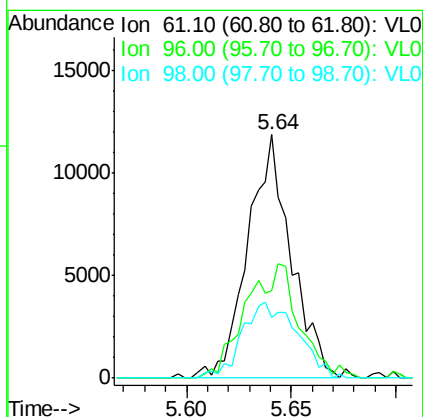
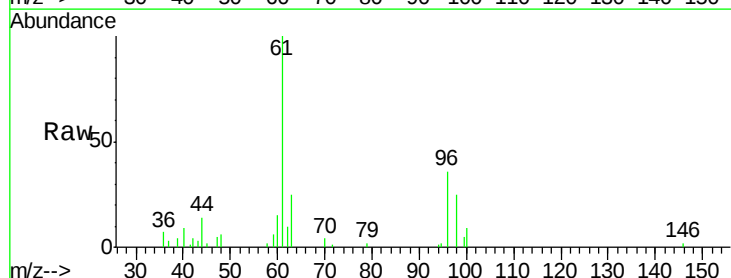
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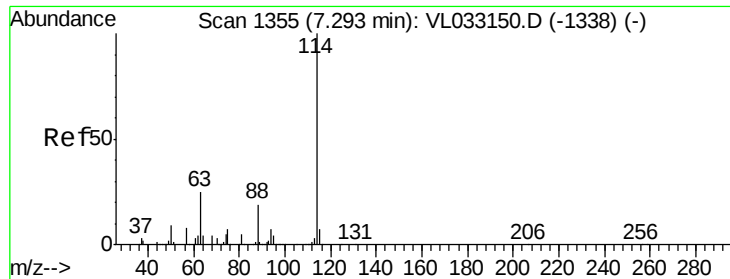
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#31
cis-1,2-Dichloroethene
Concen: 0.127 ppbv m
RT: 5.64 min Scan# 841
Delta R.T. 0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion: 61 Resp: 17006
Ion Ratio Lower Upper
61 100
96 35.9 53.3 79.9#
98 24.9 33.7 50.5#





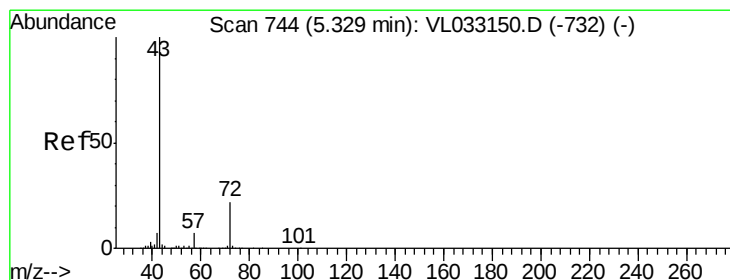
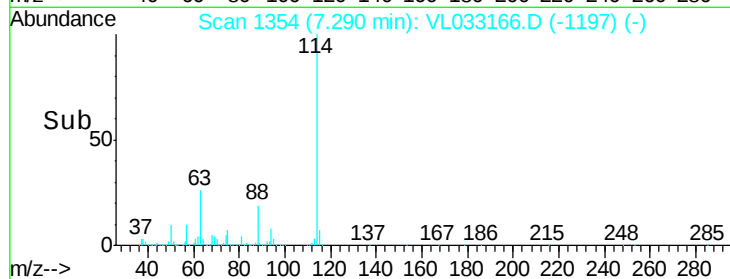
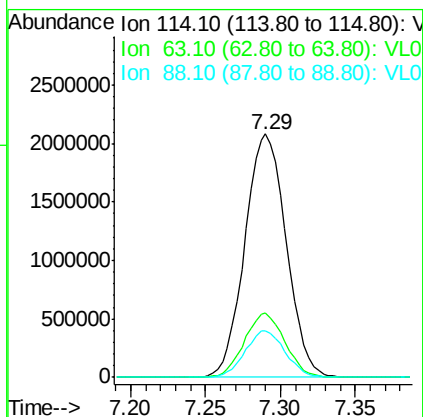
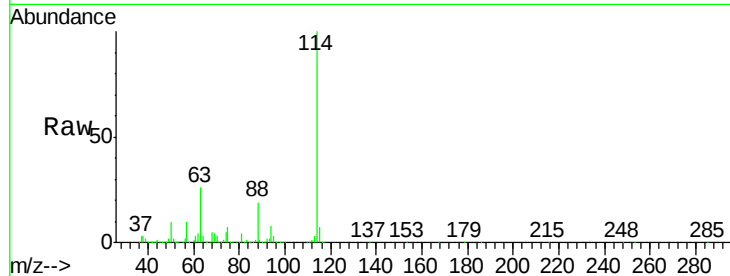
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1354
 Delta R.T. 0.00 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Instrument :
 MSVOA_L
 ClientSampleId :
 S-01

Tot Ion	Ratio	Lower	Upper
114	100		
63	25.9	20.0	30.0
88	18.6	14.4	21.6

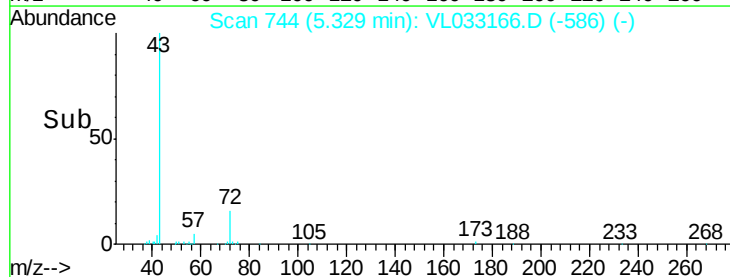
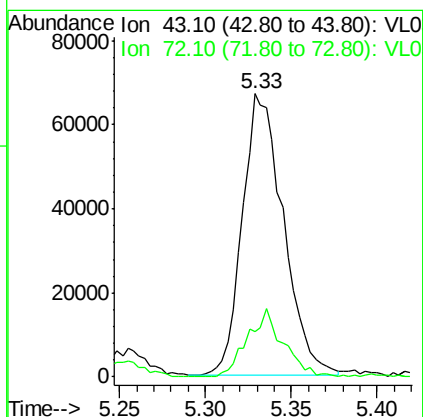
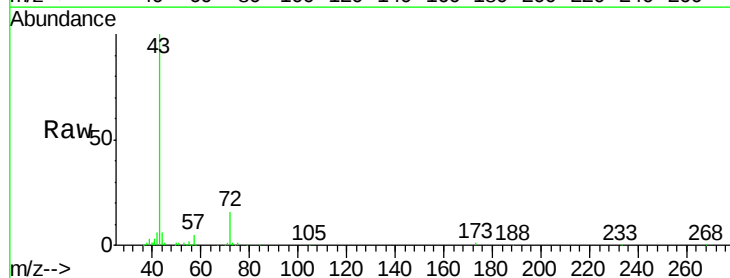
Manual Integrations
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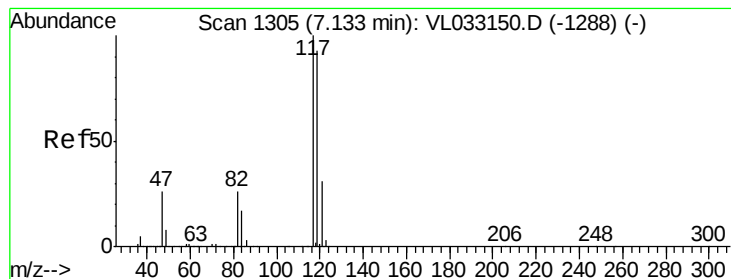
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#34
 2-Butanone
 Concen: 0.442 ppbv
 RT: 5.33 min Scan# 744
 Delta R.T. 0.01 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.1	17.9	26.9





#35

Carbon Tetrachloride

Concen: 0.094 ppbv

RT: 7.13 min Scan# 1305

Delta R.T. 0.00 min

Lab File: VL033166.D

Acq: 5 Feb 2019 3:54

Instrument :

MSVOA_L

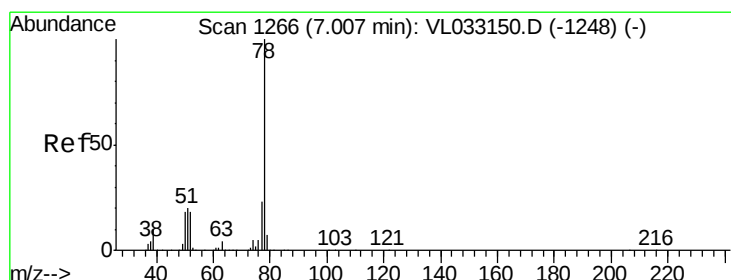
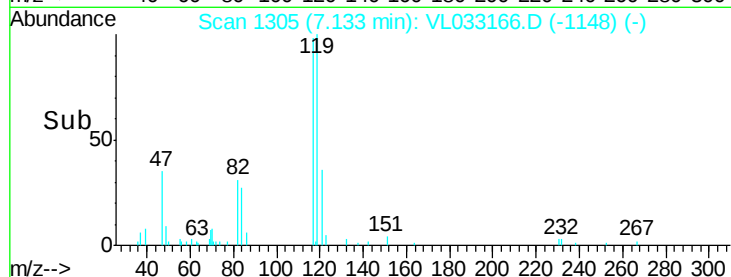
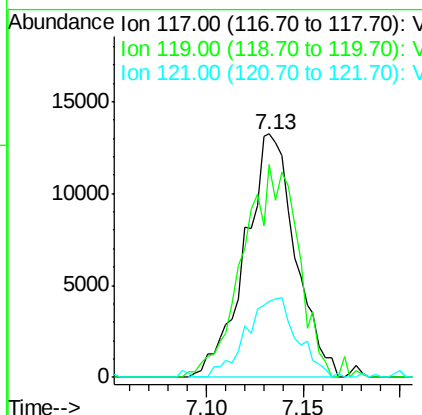
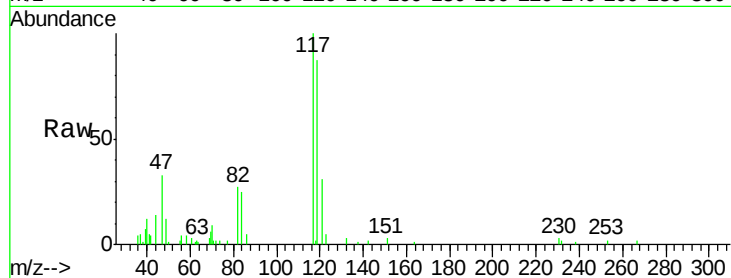
ClientSampled :

S-01

Tot Ion	Ratio	Lower	Upper
117	100		
119	87.3	76.6	114.8
121	29.7	25.0	37.4

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#36

Benzene

Concen: 0.380 ppbv

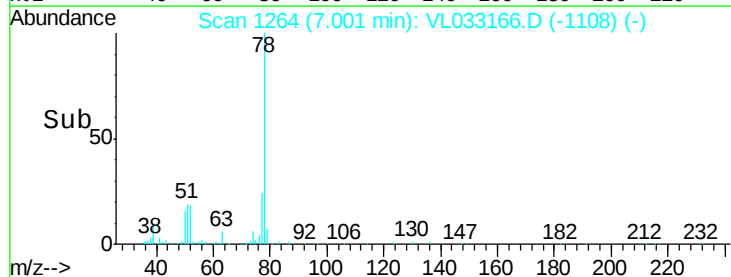
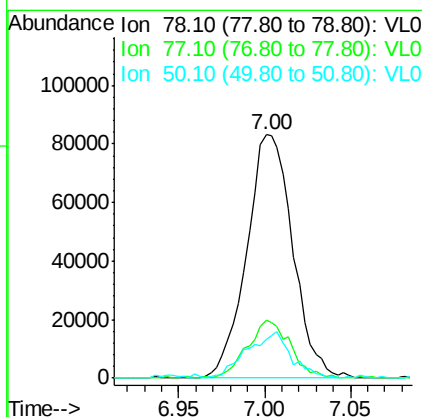
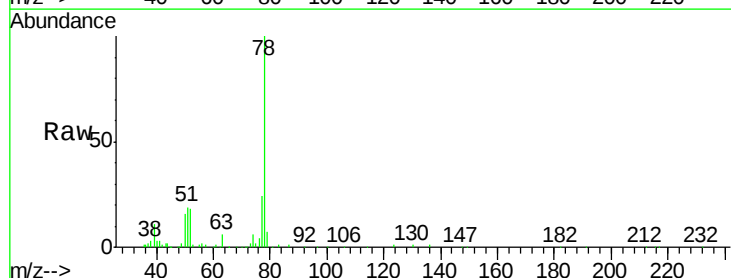
RT: 7.00 min Scan# 1264

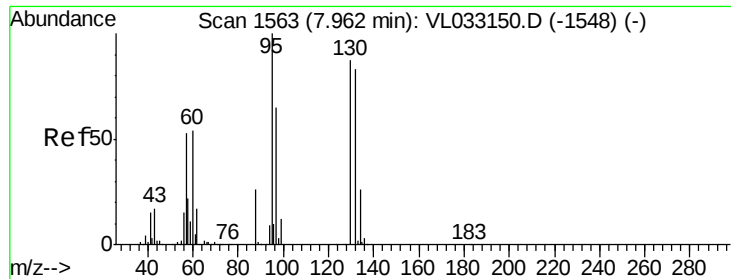
Delta R.T. 0.00 min

Lab File: VL033166.D

Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.8	17.8	26.6
50	15.7	14.7	22.1





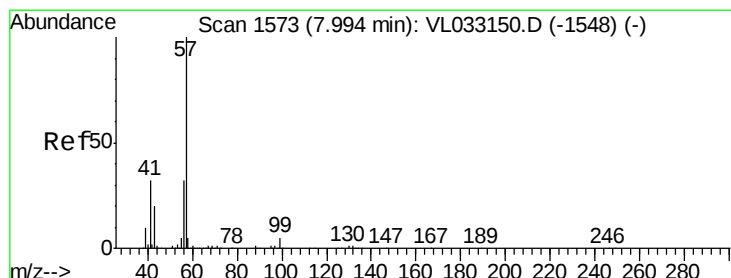
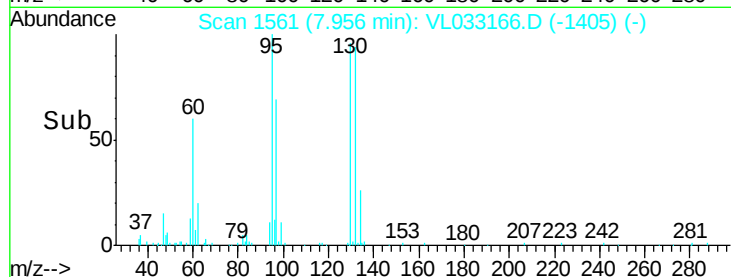
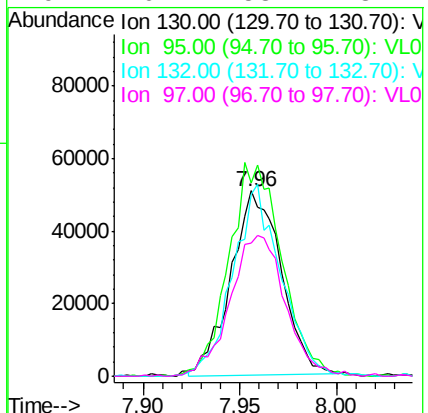
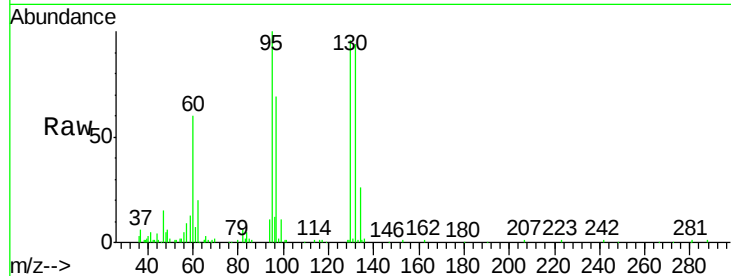
#38
 Trichloroethene
 Concen: 0.624 ppbv
 RT: 7.96 min Scan# 1561
 Delta R.T. 0.00 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Instrument :
 MSVOA_L
 ClientSampleId :
 S-01

Tot Ion	Ratio	Lower	Upper
130	100		
95	101.1	91.6	137.4
132	95.5	79.0	118.4
97	70.4	58.1	87.1

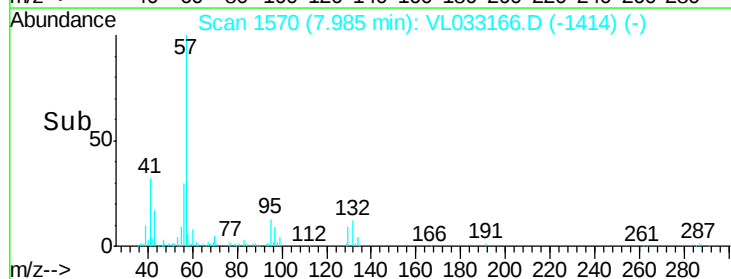
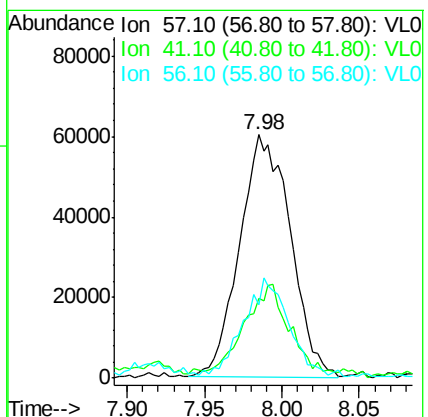
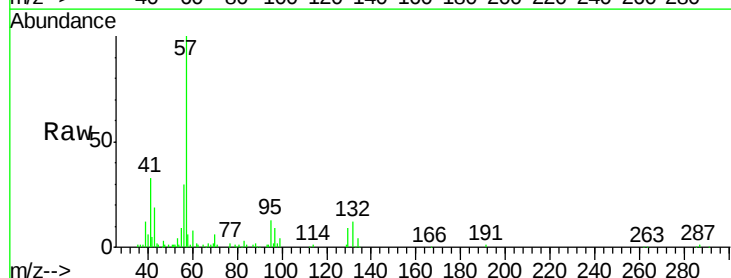
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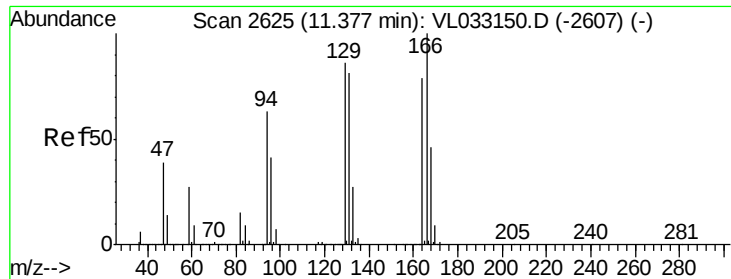
MMDadoda
 2/5/2019 10:28:32 AM



#44
 2,2,4-Trimethylpentane
 Concen: 0.202 ppbv
 RT: 7.98 min Scan# 1570
 Delta R.T. 0.00 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
57	100		
41	38.1	24.6	36.8#
56	37.4	24.9	37.3#





#52

Tetrachloroethene

Concen: 2.700 ppbv

RT: 11.37 min Scan# 2623

Delta R.T. 0.00 min

Lab File: VL033166.D

Acq: 5 Feb 2019 3:54

Instrument :

MSVOA_L

ClientSampleId :

S-01

Tot Ion:164 Resp: 379623

Ion Ratio Lower Upper

164 100

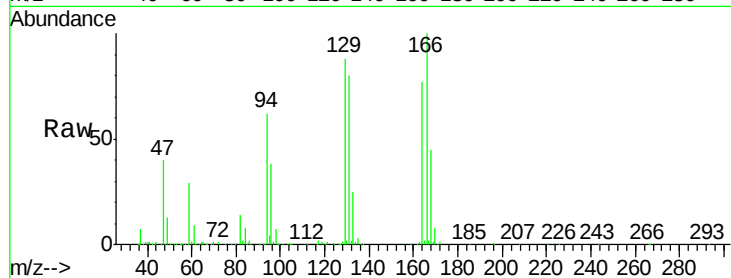
166 130.0 98.6 148.0

129 114.2 86.3 129.5

131 104.4 83.7 125.5

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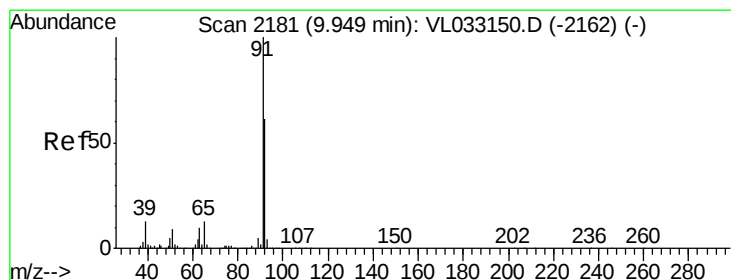
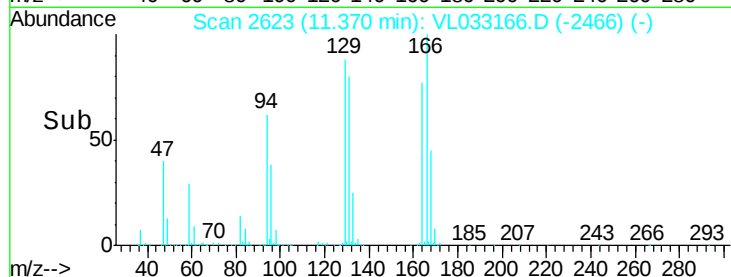
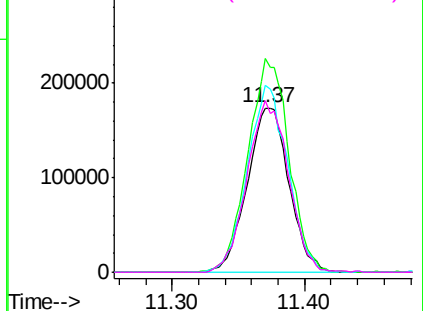


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 1.211 ppbv

RT: 9.94 min Scan# 2178

Delta R.T. 0.00 min

Lab File: VL033166.D

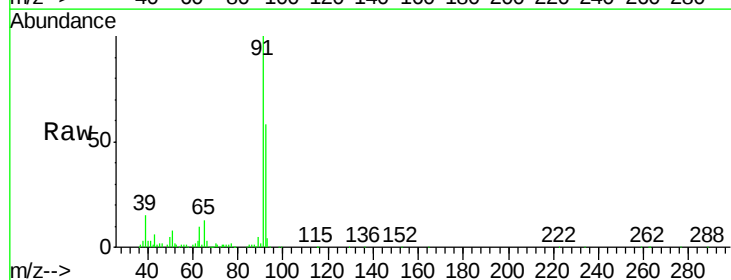
Acq: 5 Feb 2019 3:54

Tgt Ion: 91 Resp: 581997

Ion Ratio Lower Upper

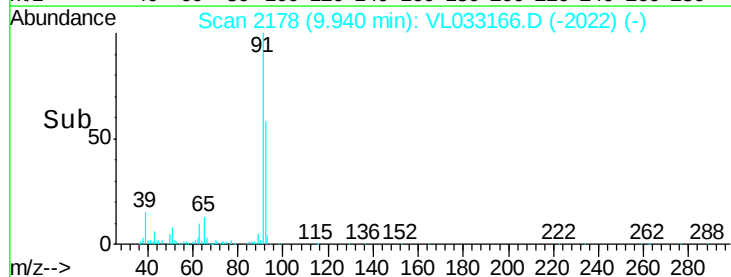
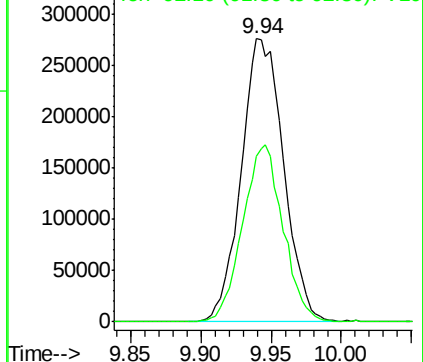
91 100

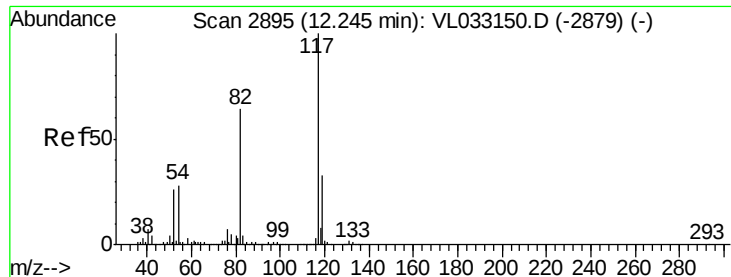
92 59.5 48.9 73.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





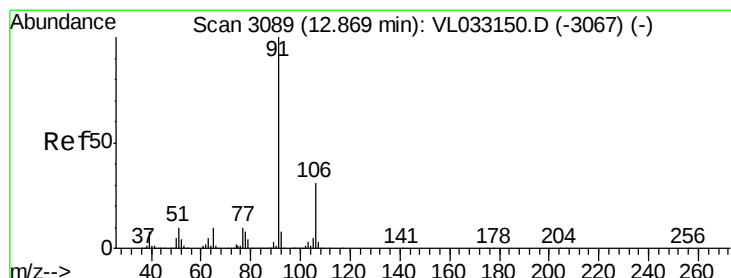
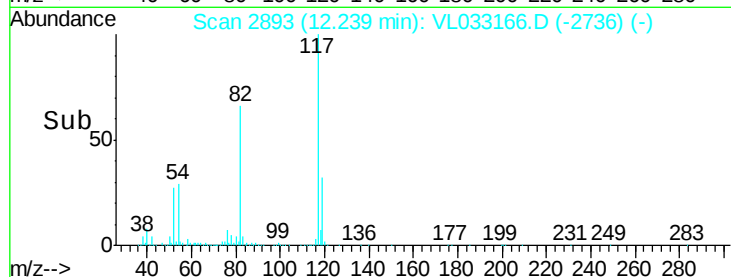
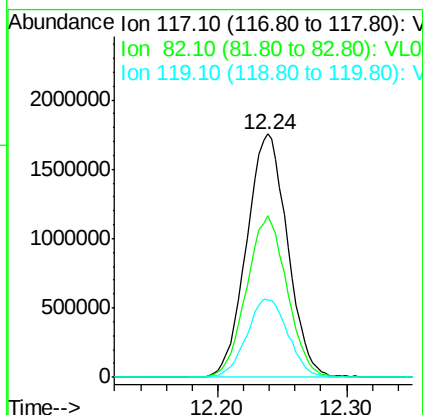
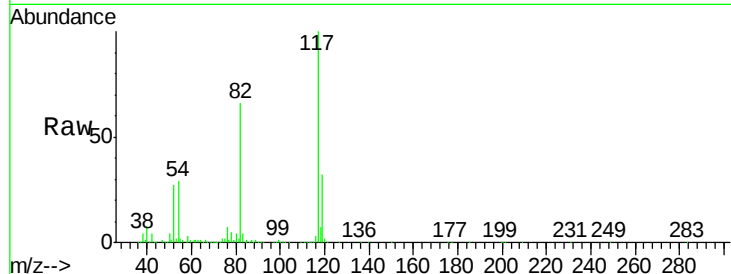
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2893
Delta R.T. 0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampleId :
S-01

Tot Ion	Ratio	Lower	Upper
117	100		
82	65.7	49.3	73.9
119	32.5	27.1	40.7

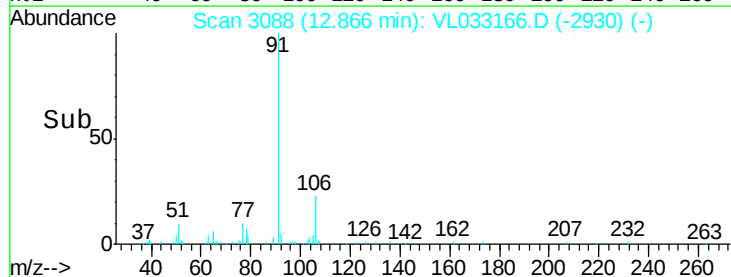
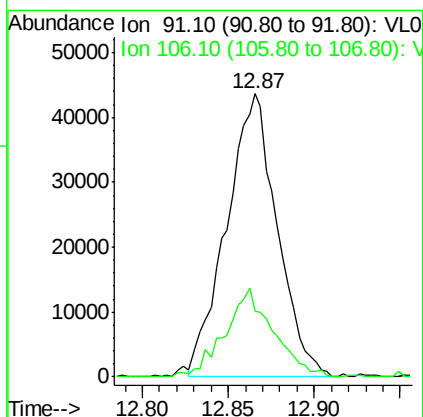
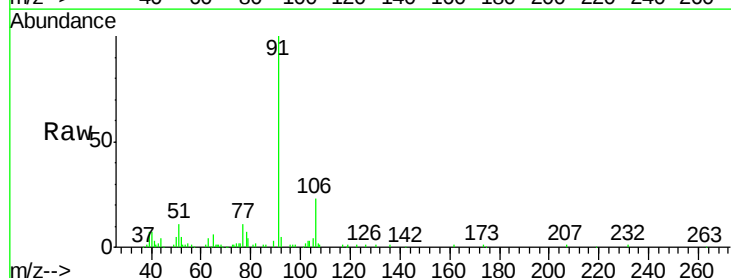
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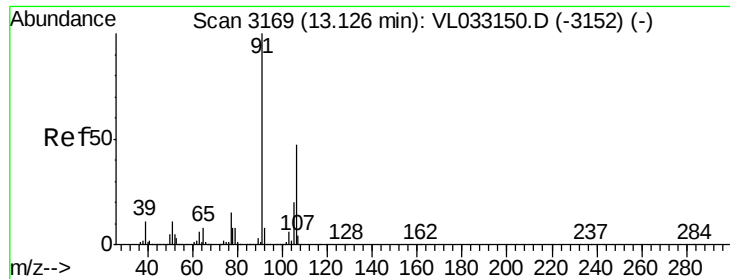
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#58
Ethyl Benzene
Concen: 0.147 ppbv
RT: 12.87 min Scan# 3088
Delta R.T. 0.01 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion	Ratio	Lower	Upper
91	100		
106	23.1	24.7	37.1#





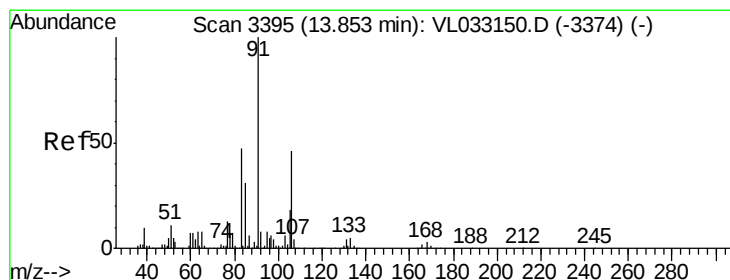
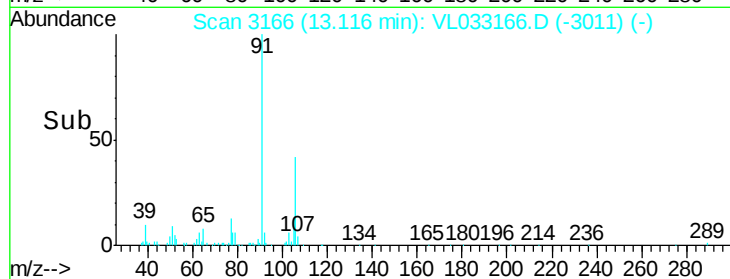
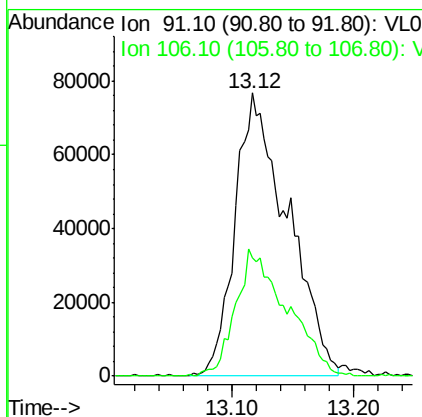
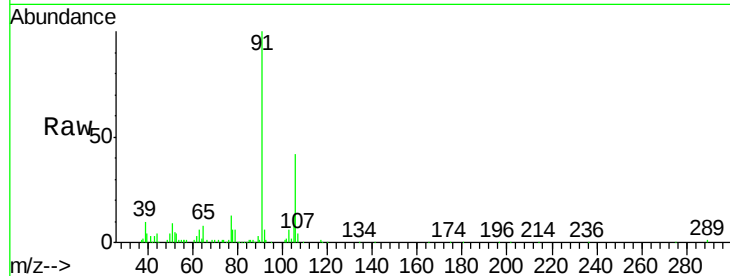
#59
m/p-Xylene
Concen: 0.457 ppbv m
RT: 13.12 min Scan# 3166
Delta R.T. -0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Instrument :
MSVOA_L
ClientSampleId :
S-01

Tot Ion	Ion	Ratio	Lower	Upper
91	100			
106	43.9	37.6	56.4	

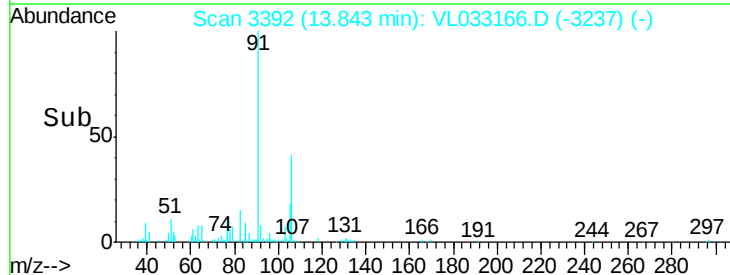
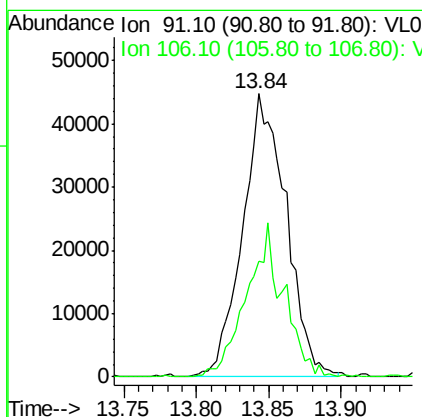
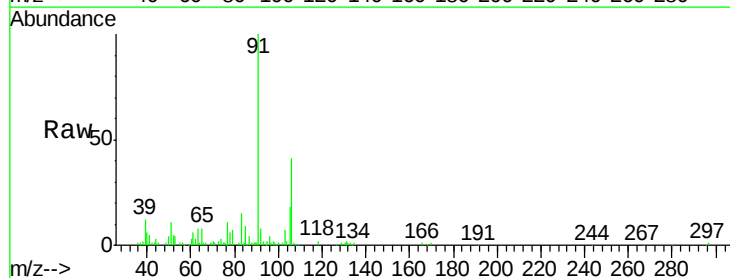
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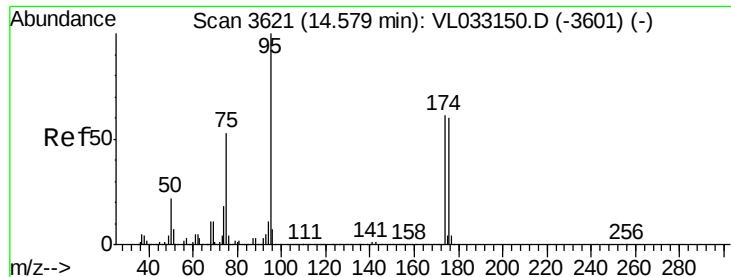
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#60
o-Xylene
Concen: 0.203 ppbv
RT: 13.84 min Scan# 3392
Delta R.T. -0.00 min
Lab File: VL033166.D
Acq: 5 Feb 2019 3:54

Tgt Ion	Ion	Ratio	Lower	Upper
91	100			
106	46.5	23.2	69.5	





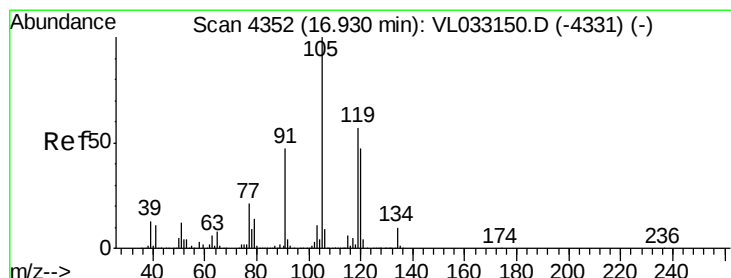
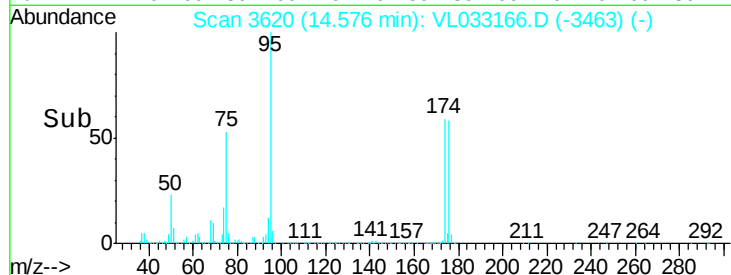
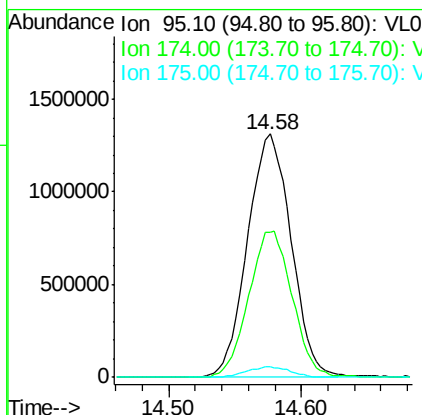
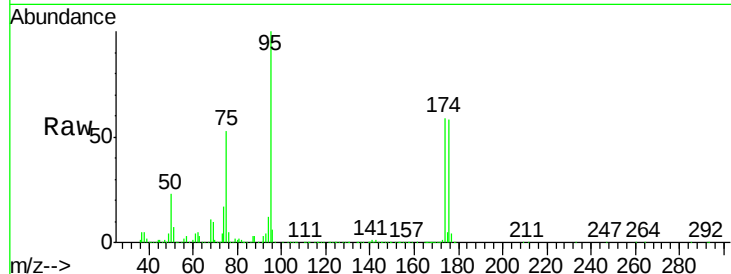
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.395 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. 0.00 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Instrument :
 MSVOA_L
 ClientSampleId :
 S-01

Tot Ion: 95 Resp: 3003194
 Ion Ratio Lower Upper
 95 100
 174 60.3 49.2 73.8
 175 4.4 3.7 5.5

Manual Integrations
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#74
 1,2,4-Trimethylbenzene
 Concen: 0.214 ppbv
 RT: 16.93 min Scan# 4351
 Delta R.T. 0.00 min
 Lab File: VL033166.D
 Acq: 5 Feb 2019 3:54

Tgt Ion: 105 Resp: 115963
 Ion Ratio Lower Upper
 105 100
 120 48.3 38.2 57.4
 91 17.9 35.0 52.4#
 77 14.8 15.8 23.6#

