

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL083118\
 Data File : VL032445.D
 Acq On : 31 Aug 2018 17:43
 Operator : SY/AP
 Sample : J4472-02DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2DUP

Manual Integrations
 APPROVED

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 9/4/2018 8:26:45 AM

Quant Time: Sep 02 22:18:06 2018

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL083118AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 31

QLast Update : Fri Aug 31 21:33:46 2018

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.80	49	1831816	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.34	114	3485426	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.29	117	3439264	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.63	95	2670863	10.46	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.60%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.11	85	89357	0.381	ppbv	100
3) Chlorodifluoromethane	3.04	51	92348m	0.557	ppbv	
4) Chloromethane	3.20	50	124736	1.242	ppbv	92
6) Bromomethane	3.55	94	6146m	0.118	ppbv	
7) Chloroethane	3.63	64	4245	0.124	ppbv #	75
9) Propene	3.06	41	569938	8.521	ppbv	98
11) Trichlorofluoromethane	4.04	101	697888	3.303	ppbv	98
13) Ethanol	3.69	45	588152	28.209	ppbv	96
15) Acetone	3.93	43	3061423	18.559	ppbv	99
17) tert-Butyl alcohol	4.41	59	37741	1.487	ppbv #	100
19) Isopropyl Alcohol	4.07	45	1745188	16.127	ppbv #	98
20) Methylene Chloride	4.45	84	417650	6.640	ppbv	95
26) Hexane	5.82	57	483168	2.770	ppbv #	62
29) Chloroform	5.89	83	61775	0.232	ppbv	84
30) Cyclohexane	7.32	84	30173m	0.236	ppbv	
34) 2-Butanone	5.37	43	1002512	4.330	ppbv	99
36) Benzene	7.05	78	239786	0.808	ppbv	99
38) Trichloroethene	8.01	130	50954	0.452	ppbv	95
44) 2,2,4-Trimethylpentane	8.04	57	87933m	0.153	ppbv	
50) 4-Methyl-2-Pentanone	8.93	43	136028m	0.390	ppbv	
51) 2-Hexanone	10.33	43	147419m	0.656	ppbv	
52) Tetrachloroethene	11.42	164	99815	1.085	ppbv	89
53) Toluene	10.00	91	1023114	3.300	ppbv	99
58) Ethyl Benzene	12.92	91	84463m	0.205	ppbv	
59) m/p-Xylene	13.18	91	231545m	0.631	ppbv	
60) o-Xylene	13.90	91	109868	0.305	ppbv	99
61) Styrene	13.74	104	48636m	0.208	ppbv	
74) 1,2,4-Trimethylbenzene	16.97	105	94908	0.220	ppbv #	73
76) 1,4-Dichlorobenzene	17.37	146	8285677	34.917	ppbv	99
79) Naphthalene	22.47	128	77160m	0.220	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.80 min Scan# 1467

Delta R.T. -0.01 min

Lab File: VL032445.D

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MSVOA_L

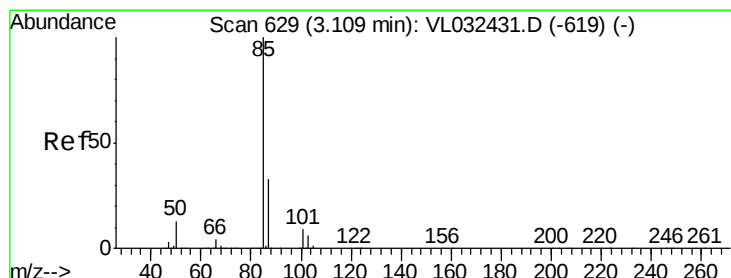
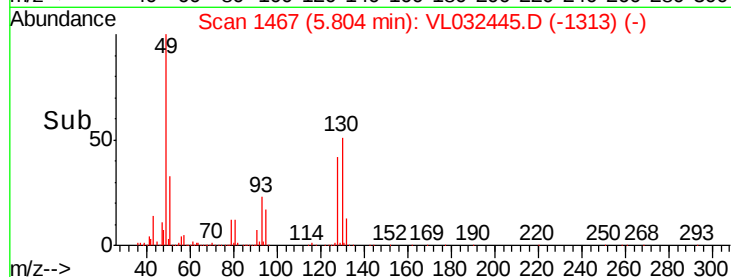
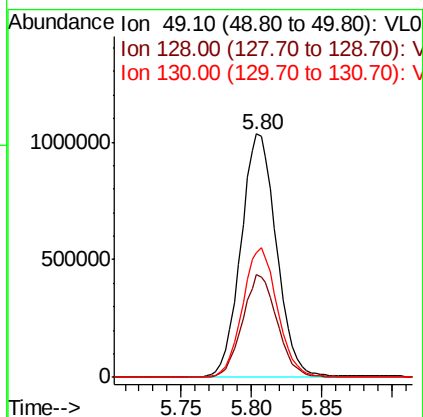
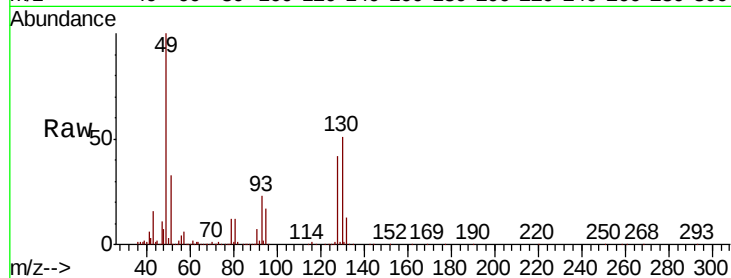
ClientSampled :

SS-2DUP

Tgt Ion:	49	Resp:	1831816
Ion	Ratio	Lower	Upper
49	100		
128	41.4	20.7	62.1
130	52.7	26.6	79.7

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#2

Dichlorodifluoromethane

Concen: 0.381 ppbv

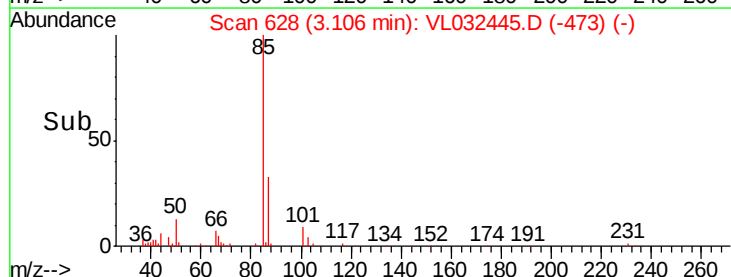
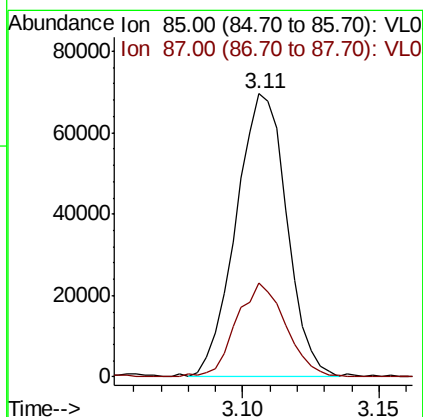
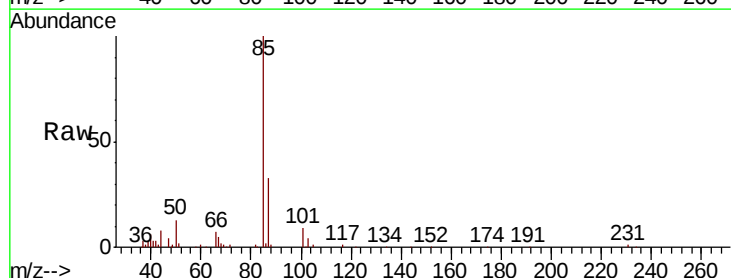
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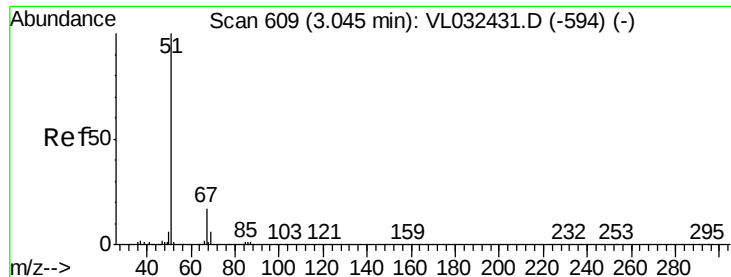
Delta R.T. -0.00 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Tgt Ion:	85	Resp:	89357
Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.2	39.4





#3

Chlorodifluoromethane

Concen: 0.557 ppbv m

RT: 3.04 min Scan# 609

Delta R.T. -0.00 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

ClientSampleId :

SS-2DUP

Tgt Ion: 51 Resp: 92348

Ion Ratio Lower Upper

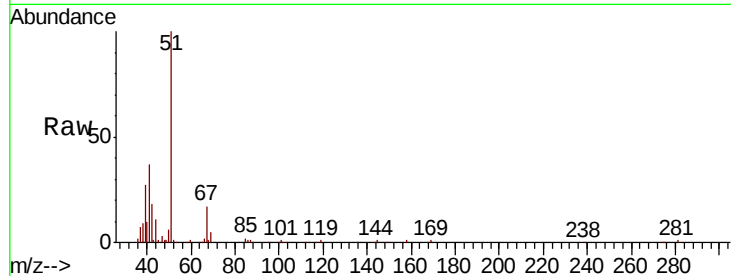
51 100

67 16.1 13.8 20.8

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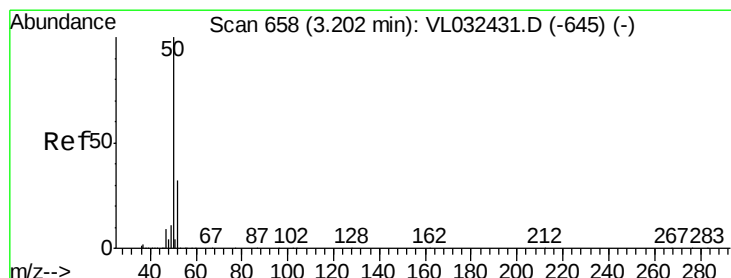
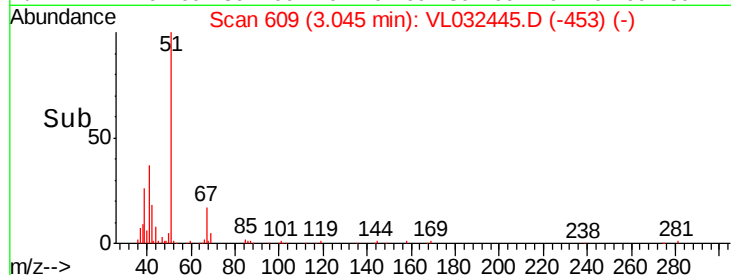
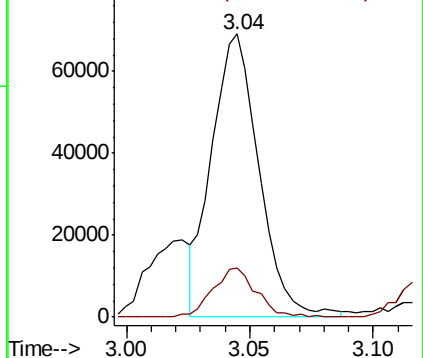
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 1.242 ppbv

RT: 3.20 min Scan# 658

Delta R.T. -0.00 min

Lab File: VL032445.D

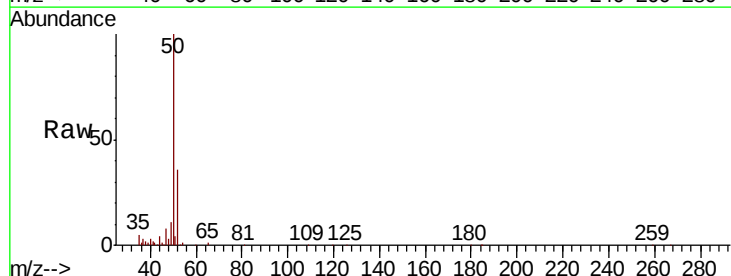
Acq: 31 Aug 2018 17:43

Tgt Ion: 50 Resp: 124736

Ion Ratio Lower Upper

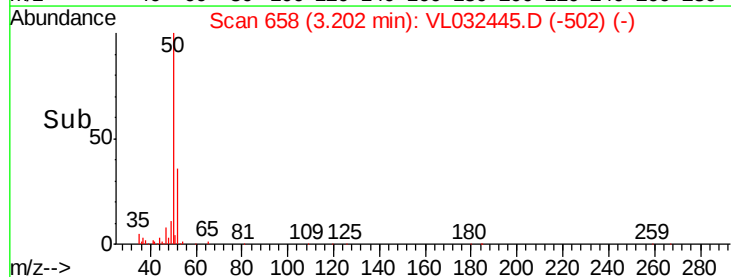
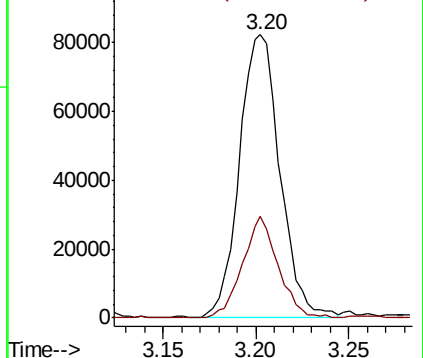
50 100

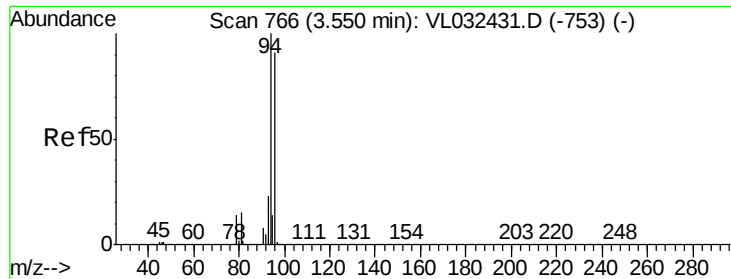
52 36.5 25.6 38.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#6

Bromomethane

Concen: 0.118 ppbv m

RT: 3.55 min Scan# 765

Delta R.T. -0.00 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

ClientSampleId :

SS-2DUP

Tgt Ion: 94 Resp: 6146

Ion Ratio Lower Upper

94 100

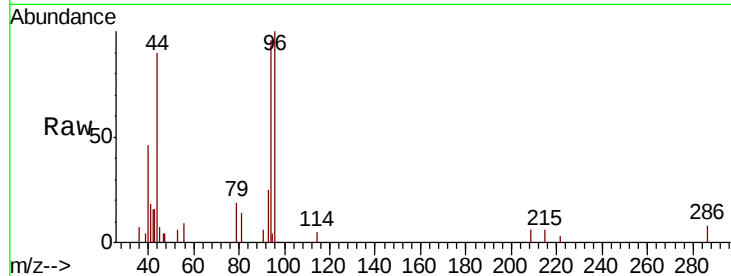
96 103.8 72.8 109.2

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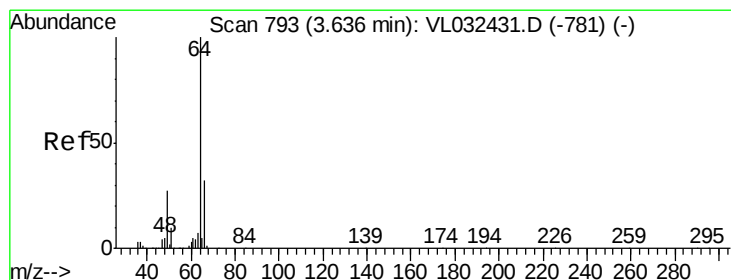
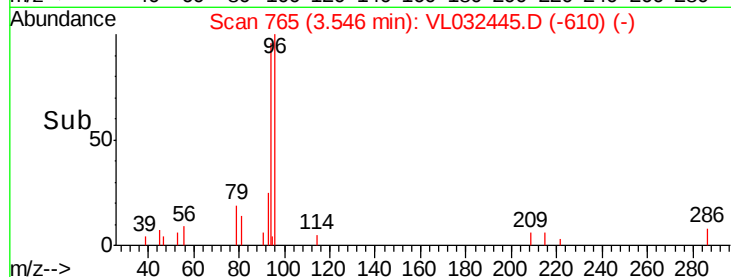
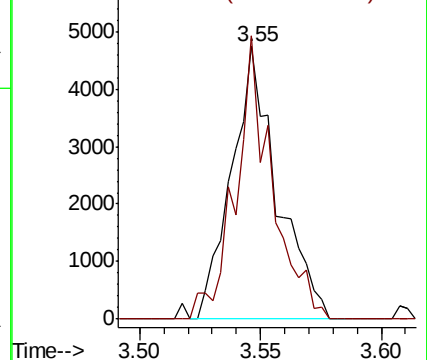
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Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0



#7

Chloroethane

Concen: 0.124 ppbv

RT: 3.63 min Scan# 791

Delta R.T. -0.01 min

Lab File: VL032445.D

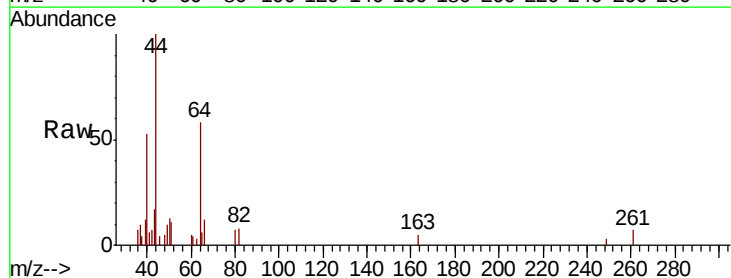
Acq: 31 Aug 2018 17:43

Tgt Ion: 64 Resp: 4245

Ion Ratio Lower Upper

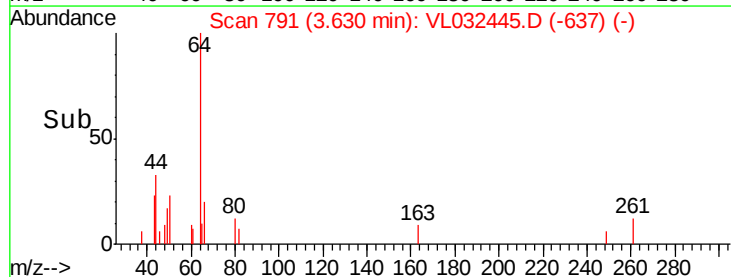
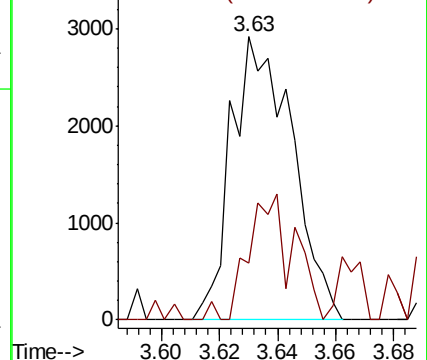
64 100

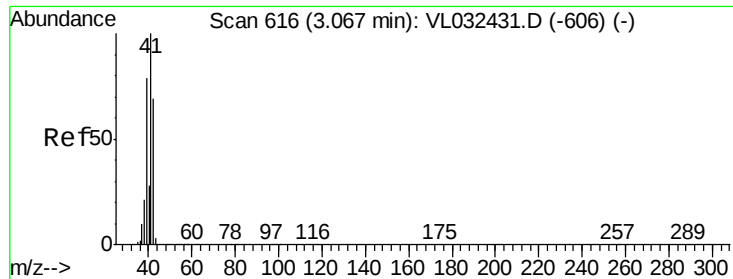
66 18.3 25.8 38.6#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 8.521 ppbv

RT: 3.06 min Scan# 615

Delta R.T. -0.00 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

ClientSampleId :

SS-2DUP

Tgt Ion: 41 Resp: 569938

Ion Ratio Lower Upper

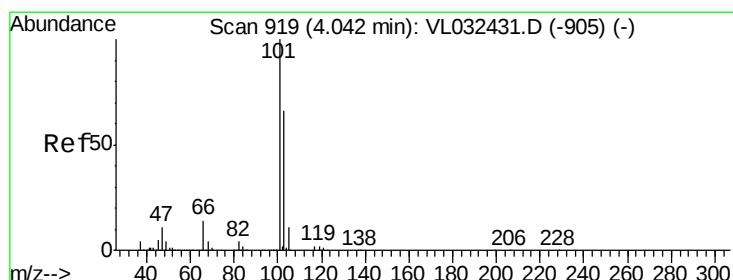
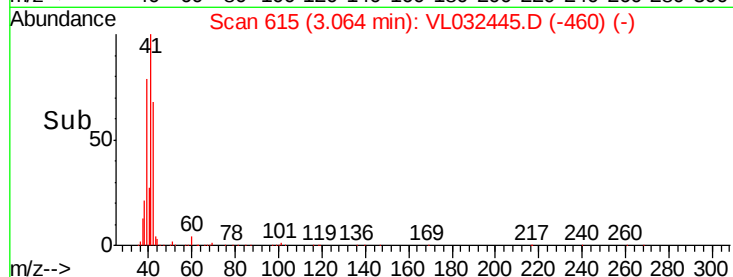
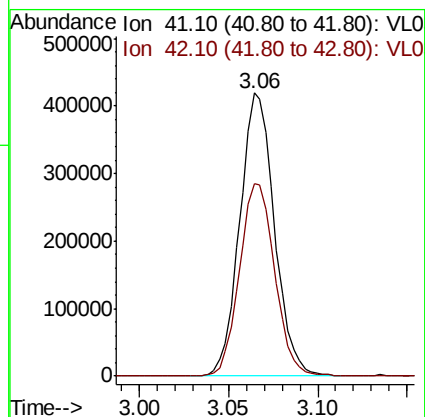
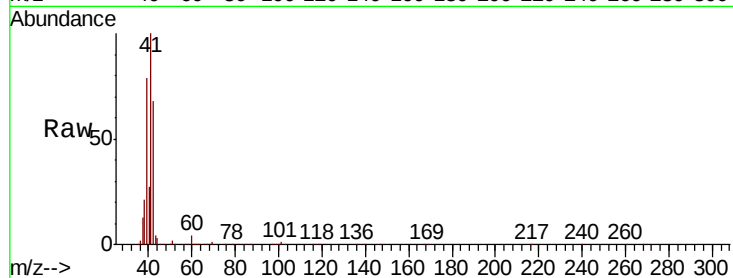
41 100

42 69.5 56.6 84.8

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#11

Trichlorofluoromethane

Concen: 3.303 ppbv

RT: 4.04 min Scan# 919

Delta R.T. 0.00 min

Lab File: VL032445.D

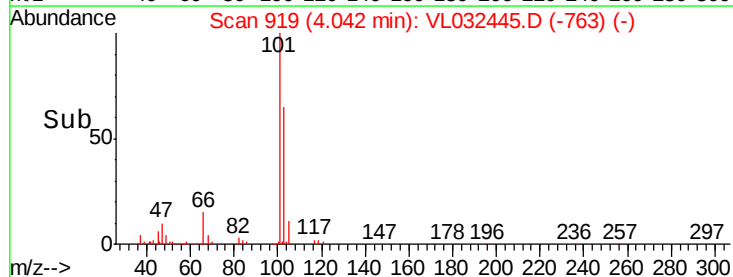
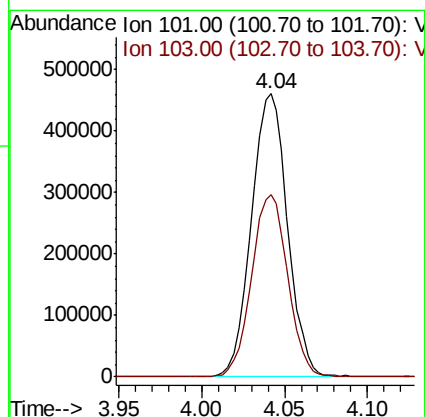
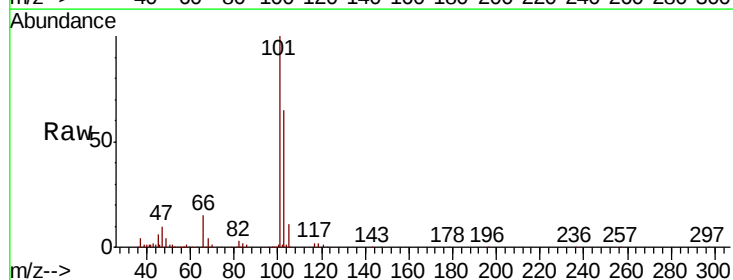
Acq: 31 Aug 2018 17:43

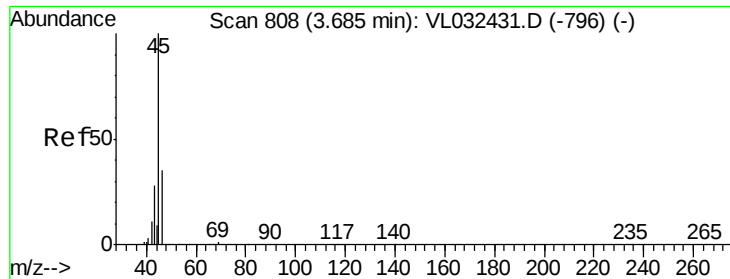
Tgt Ion: 101 Resp: 697888

Ion Ratio Lower Upper

101 100

103 64.5 52.8 79.2





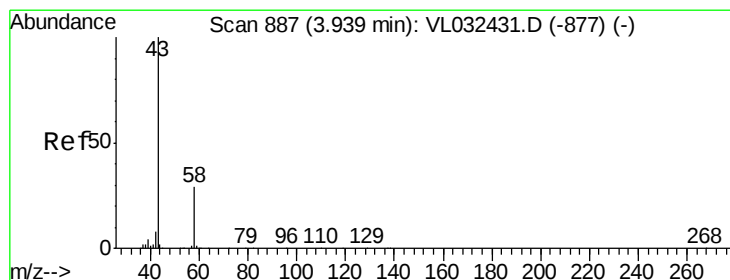
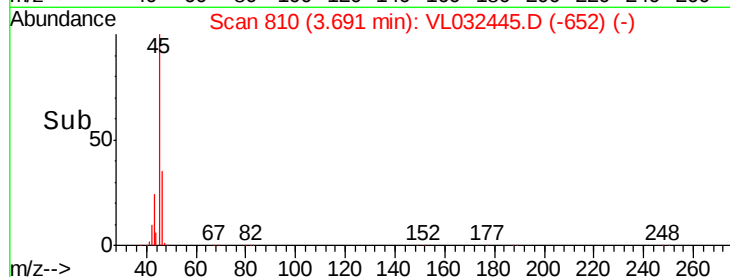
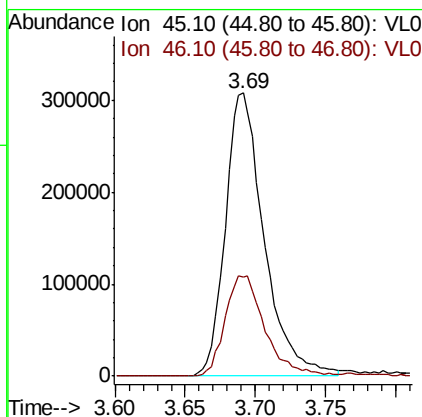
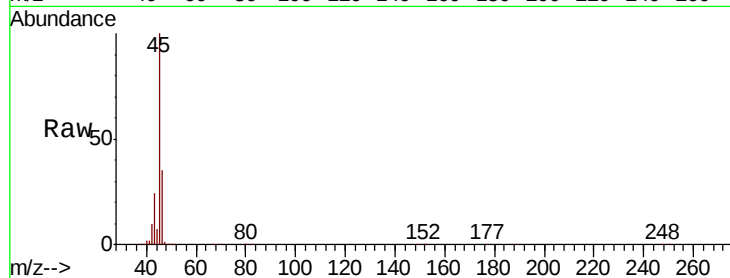
#13
Ethanol
Concen: 28.209 ppbv
RT: 3.69 min Scan# 810
Delta R.T. 0.01 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Instrument :
MSVOA_L
ClientSampleId :
SS-2DUP

Tgt Ion	Ratio	Lower	Upper
45	100		
46	37.6	14.2	56.8

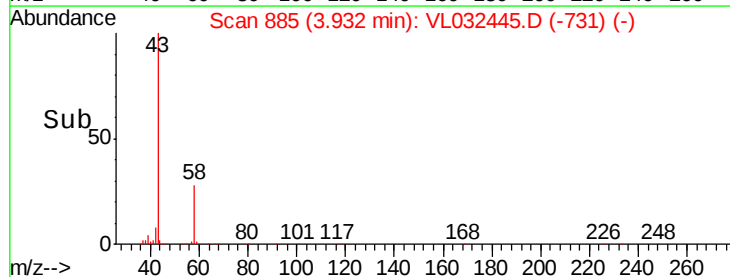
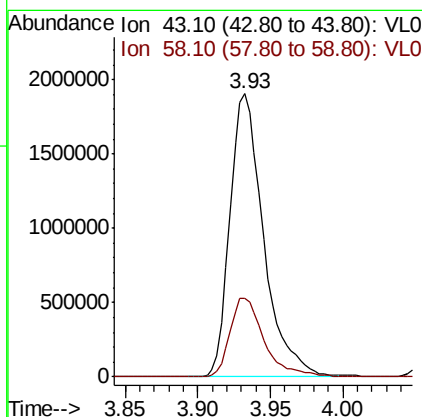
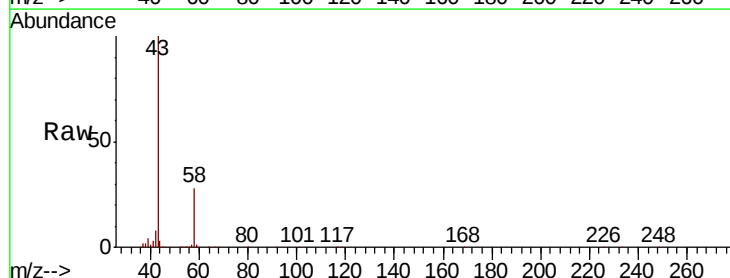
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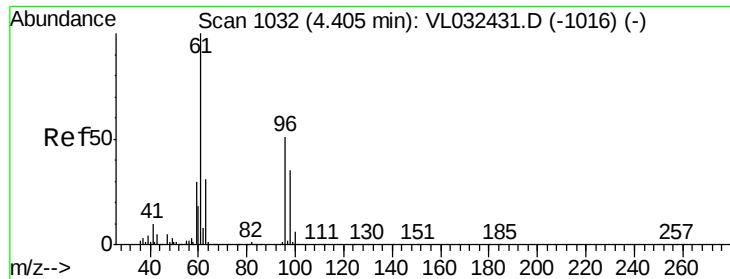
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#15
Acetone
Concen: 18.559 ppbv
RT: 3.93 min Scan# 885
Delta R.T. -0.01 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Tgt Ion	Ratio	Lower	Upper
43	100		
58	28.5	22.6	33.8





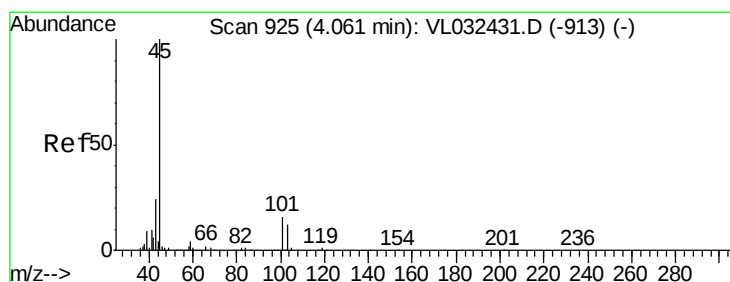
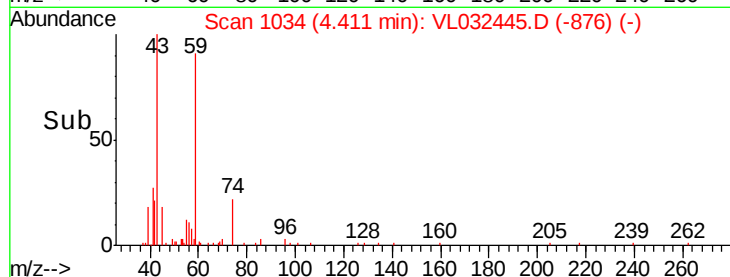
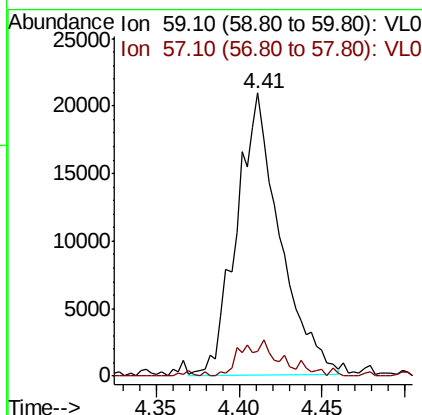
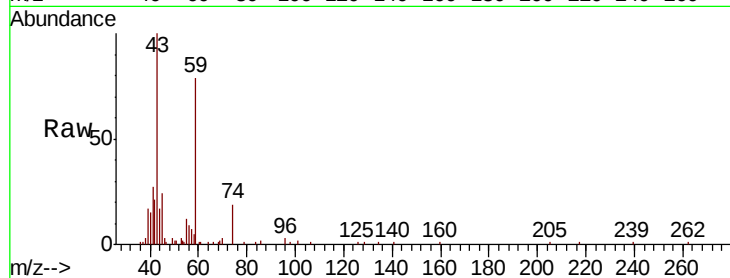
#17
tert-Butyl alcohol
Concen: 1.487 ppbv
RT: 4.41 min Scan# 1034
Delta R.T. 0.01 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Instrument :
MSVOA_L
ClientSampleId :
SS-2DUP

Tgt Ion: 59 Resp: 37741
Ion Ratio Lower Upper
59 100
57 12.3 0.0 0.0#

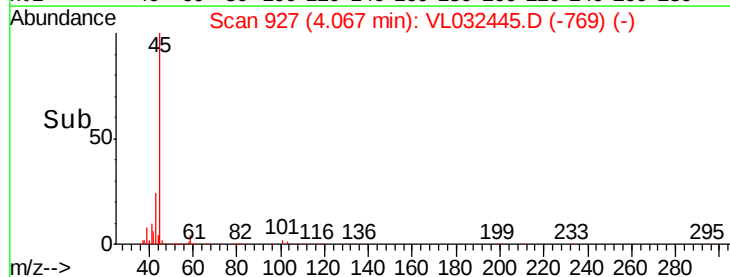
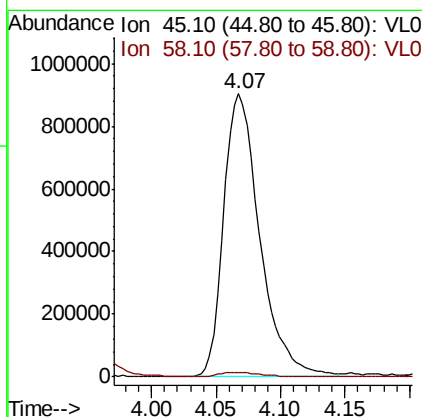
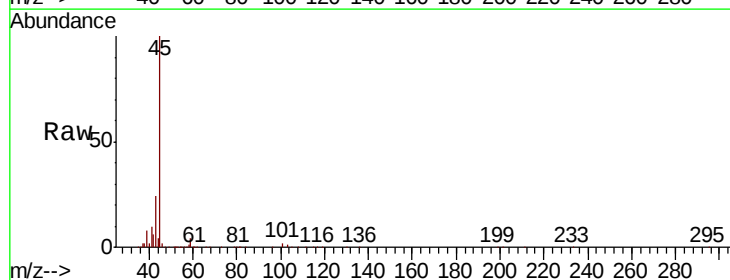
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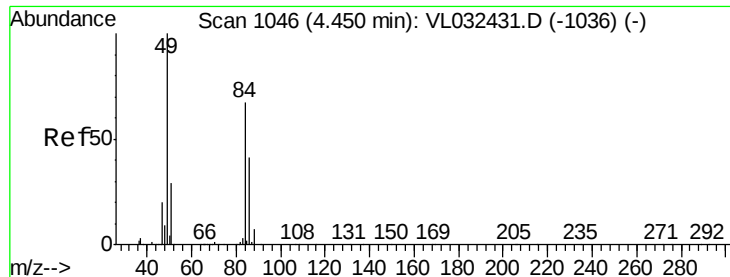
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#19
Isopropyl Alcohol
Concen: 16.127 ppbv
RT: 4.07 min Scan# 927
Delta R.T. 0.01 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Tgt Ion: 45 Resp: 1745188
Ion Ratio Lower Upper
45 100
58 1.9 2.0 3.0#





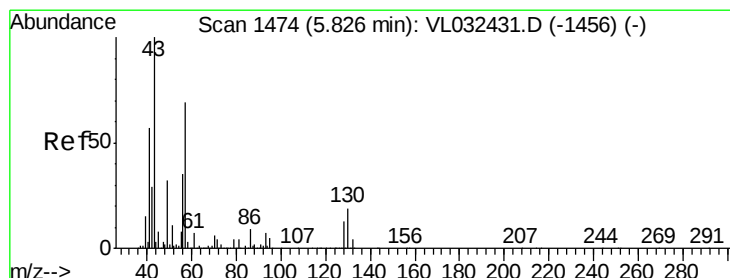
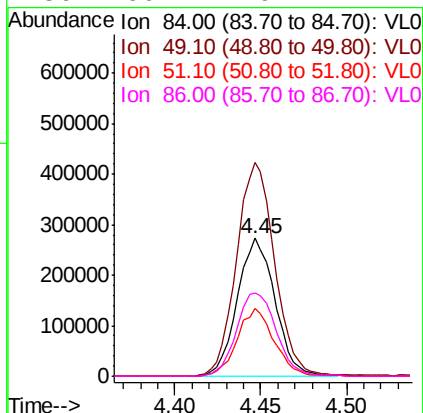
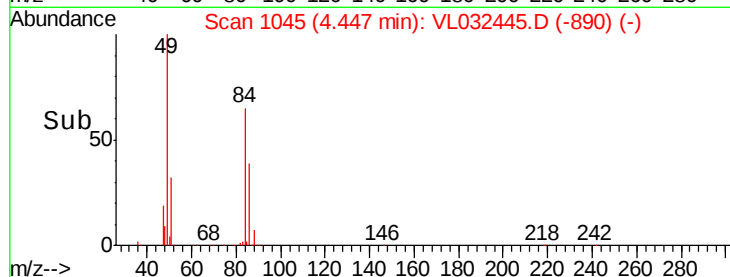
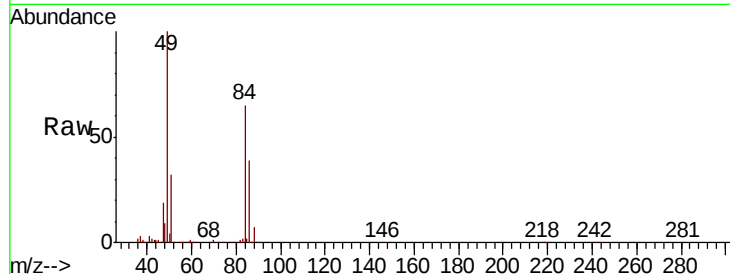
#20
Methylene Chloride
Concen: 6.640 ppbv
RT: 4.45 min Scan# 1045
Delta R.T. -0.00 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Instrument :
MSVOA_L
ClientSampleId :
SS-2DUP

Tgt Ion	Ratio	Lower	Upper
84	100		
49	154.7	119.1	178.7
51	49.0	35.2	52.8
86	60.1	49.4	74.2

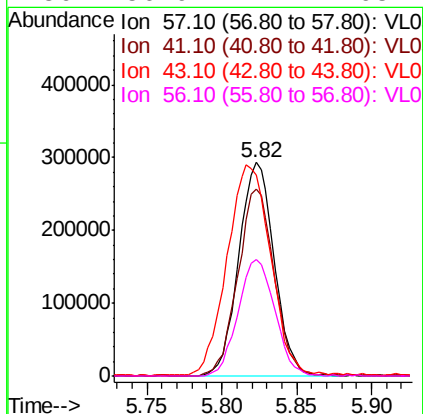
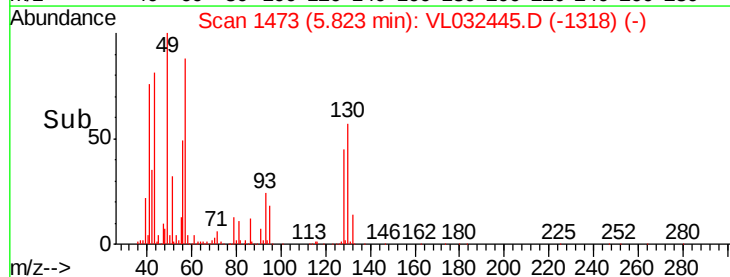
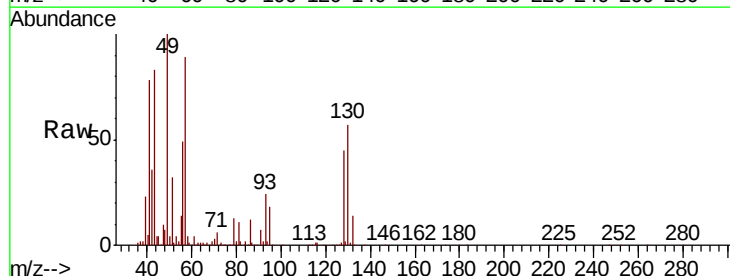
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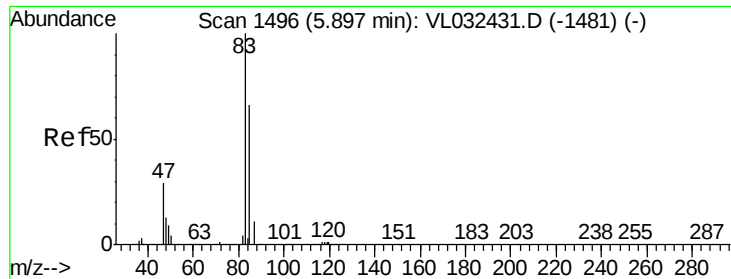
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#26
Hexane
Concen: 2.770 ppbv
RT: 5.82 min Scan# 1473
Delta R.T. -0.00 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Tgt Ion	Ratio	Lower	Upper
57	100		
41	89.9	69.0	103.4
43	121.1	172.1	258.1#
56	56.9	42.2	63.2





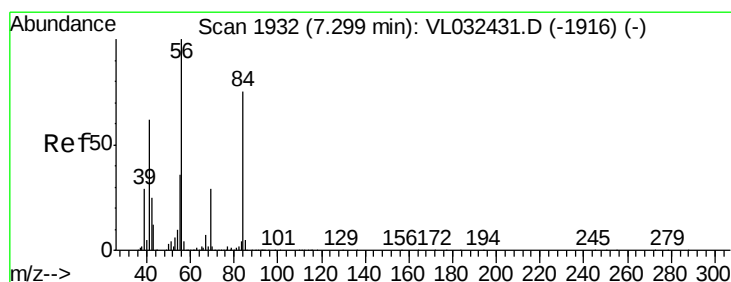
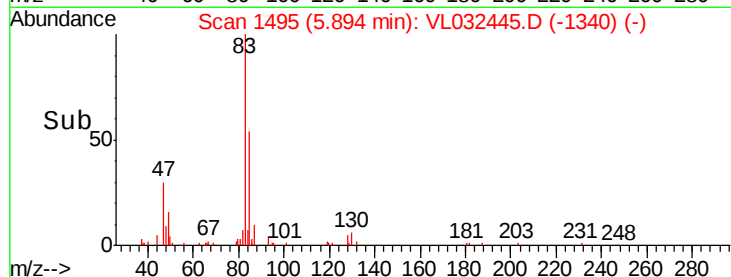
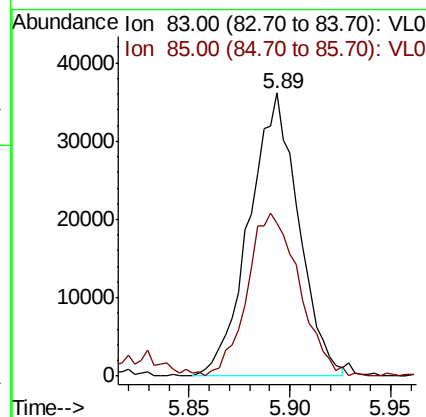
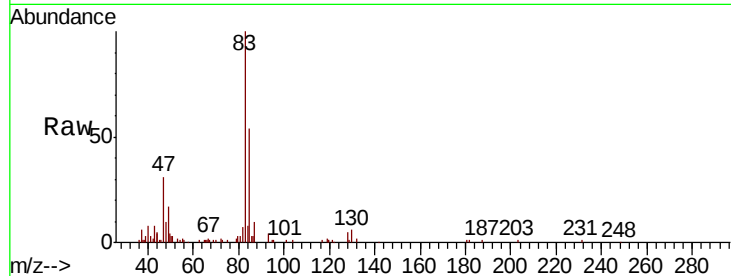
#29
Chloroform
Concen: 0.232 ppbv
RT: 5.89 min Scan# 1495
Delta R.T. -0.00 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Instrument :
MSVOA_L
ClientSampleId :
SS-2DUP

Tgt Ion: 83 Resp: 61775
Ion Ratio Lower Upper
83 100
85 53.0 52.5 78.7

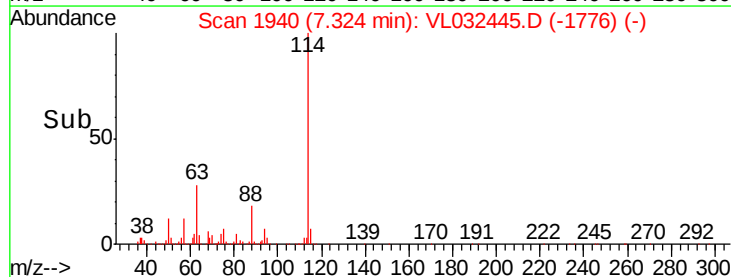
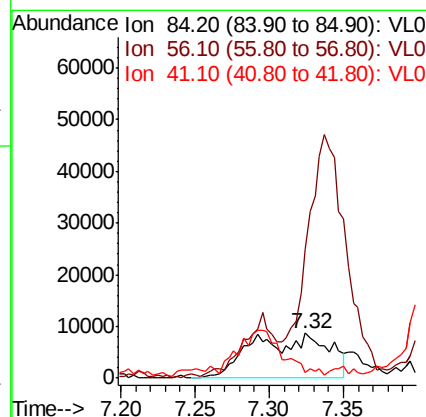
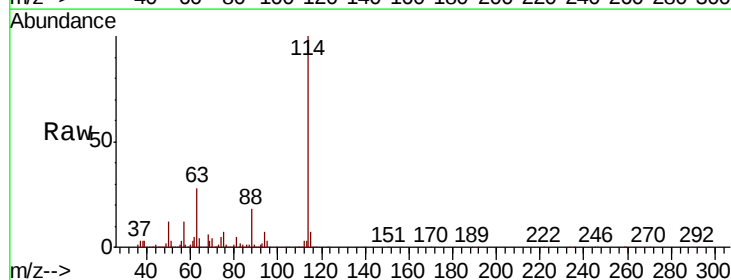
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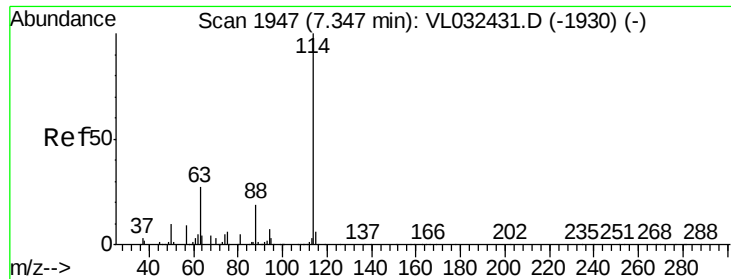
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#30
Cyclohexane
Concen: 0.236 ppbv m
RT: 7.32 min Scan# 1940
Delta R.T. 0.03 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Tgt Ion: 84 Resp: 30173
Ion Ratio Lower Upper
84 100
56 0.0 113.5 170.3#
41 68.0 68.1 102.1#





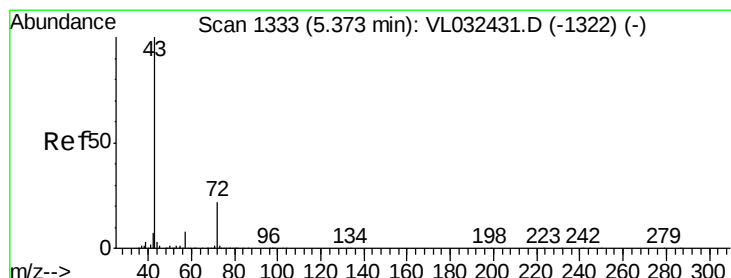
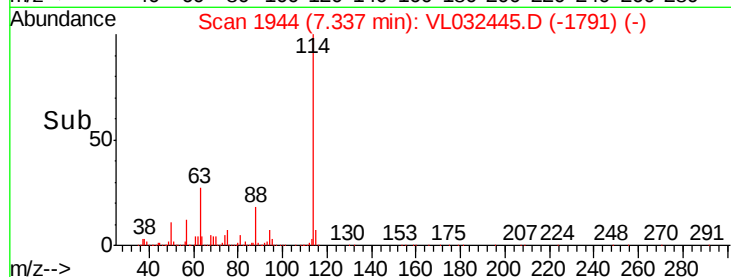
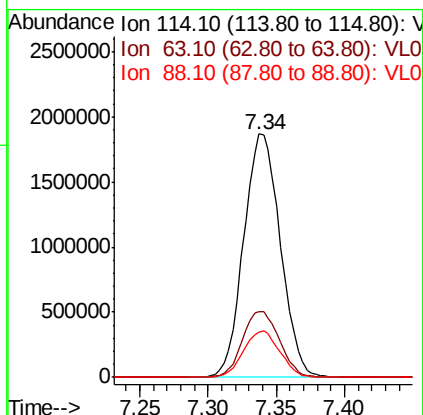
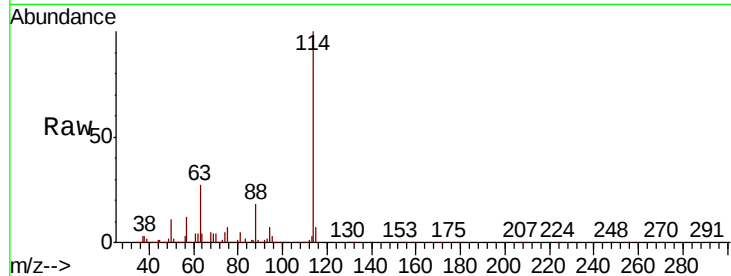
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.34 min Scan# 1944
 Delta R.T. -0.01 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2DUP

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.5	22.2	33.4
88	18.9	15.0	22.4

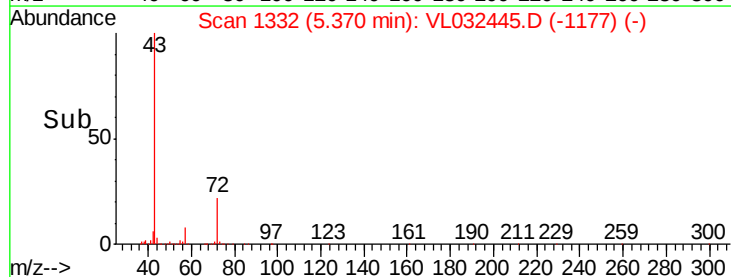
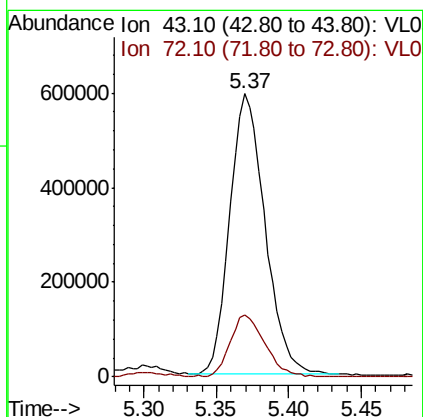
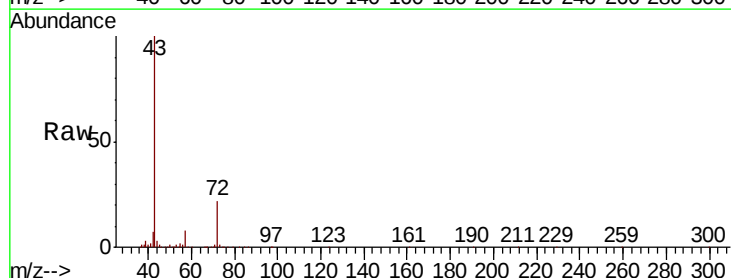
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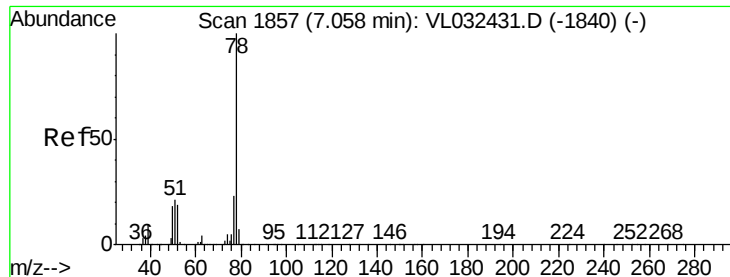
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#34
 2-Butanone
 Concen: 4.330 ppbv
 RT: 5.37 min Scan# 1332
 Delta R.T. -0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.8	17.8	26.6





#36

Benzene

Concen: 0.808 ppbv

RT: 7.05 min Scan# 1855

Delta R.T. -0.01 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

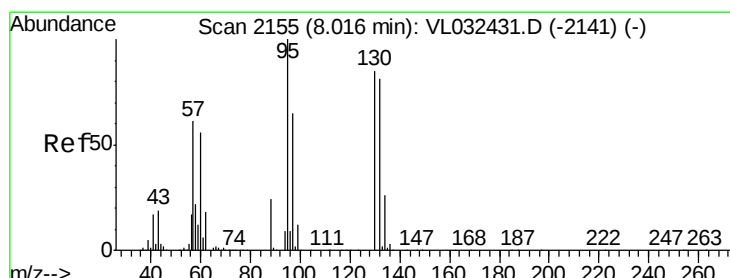
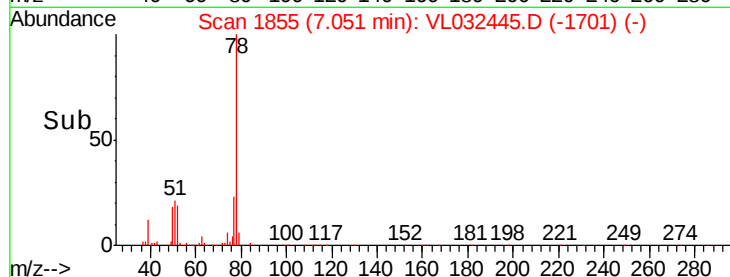
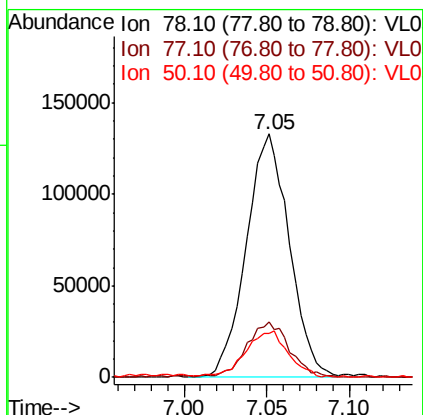
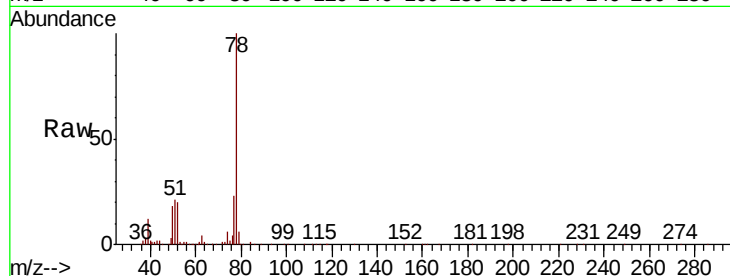
ClientSampleId :

SS-2DUP

Tgt Ion:	78	Resp:	239786
Ion	Ratio	Lower	Upper
78	100		
77	22.5	18.4	27.6
50	17.2	14.4	21.6

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#38

Trichloroethene

Concen: 0.452 ppbv

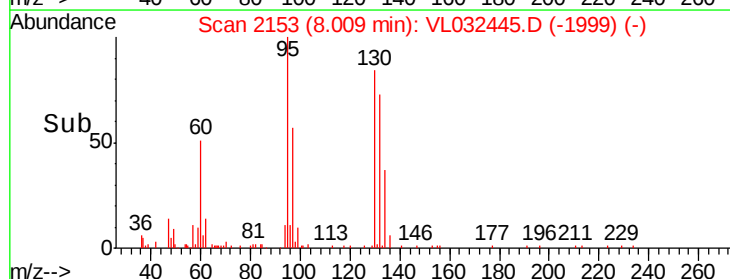
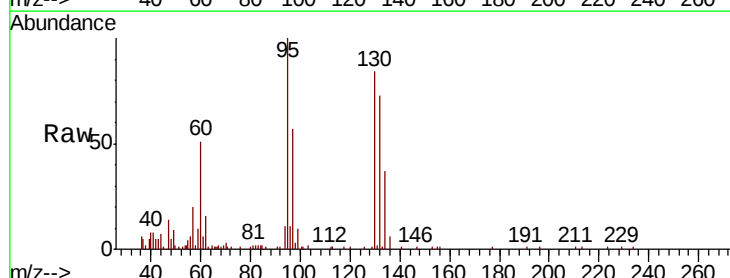
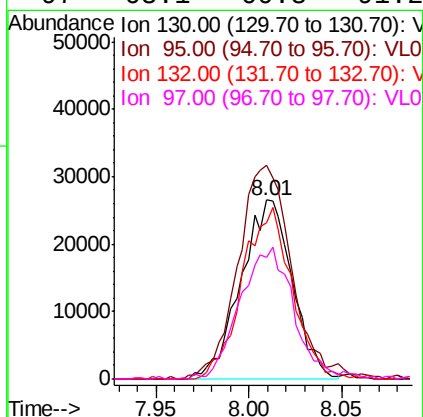
RT: 8.01 min Scan# 2153

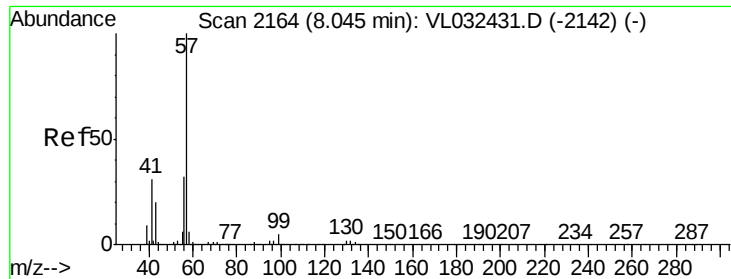
Delta R.T. -0.01 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Tgt Ion:	130	Resp:	50954
Ion	Ratio	Lower	Upper
130	100		
95	117.4	94.2	141.4
132	88.5	76.2	114.4
97	68.1	60.8	91.2





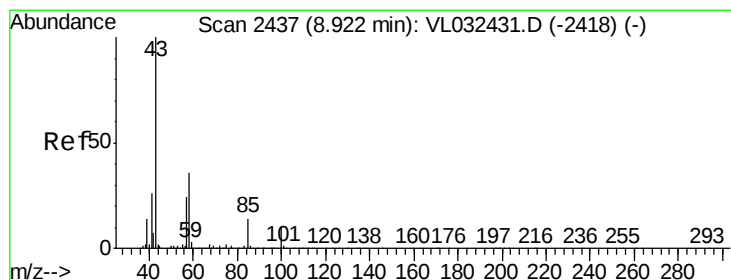
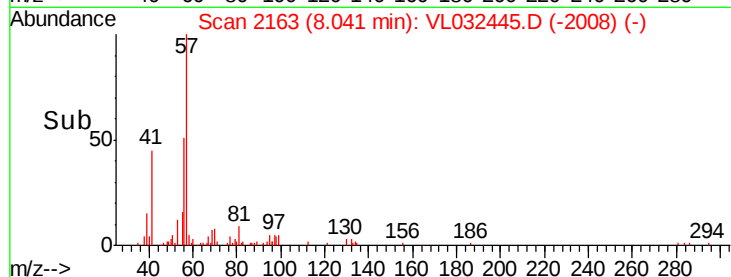
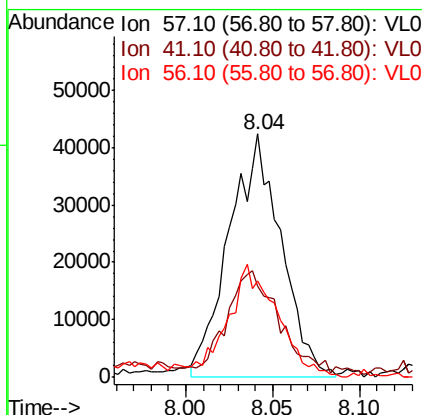
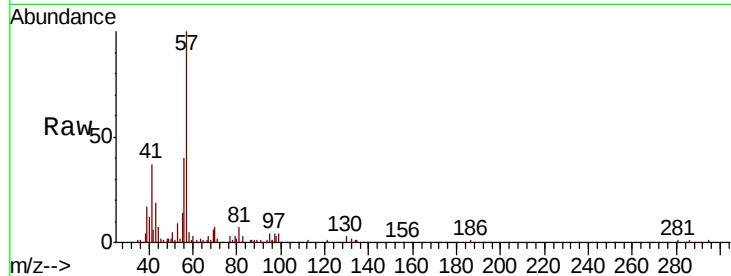
#44
 2,2,4-Trimethylpentane
 Concen: 0.153 ppbv m
 RT: 8.04 min Scan# 2163
 Delta R.T. -0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2DUP

Tgt Ion	Ratio	Lower	Upper
57	100		
41	46.2	24.4	36.6#
56	46.3	25.7	38.5#

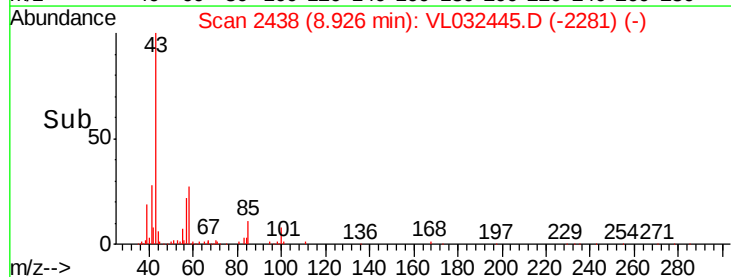
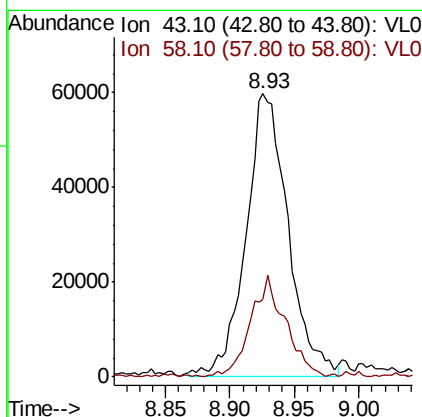
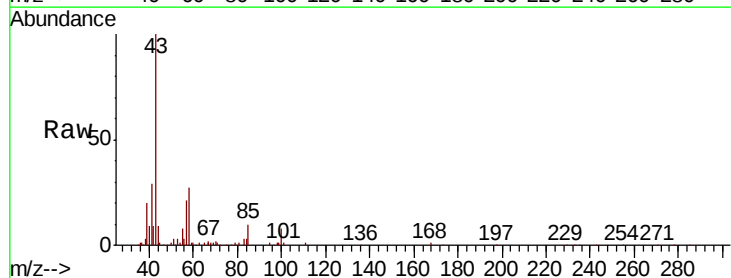
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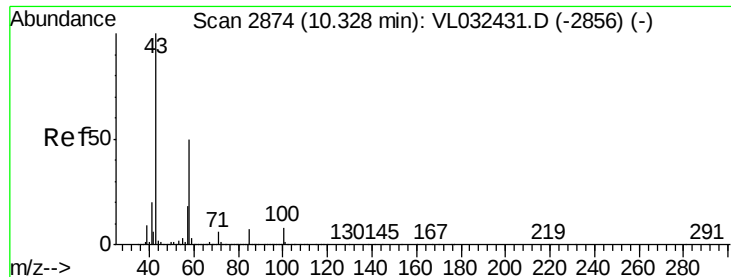
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#50
 4-Methyl-2-Pentanone
 Concen: 0.390 ppbv m
 RT: 8.93 min Scan# 2438
 Delta R.T. 0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Tgt Ion	Ratio	Lower	Upper
43	100		
58	28.1	29.0	43.4#





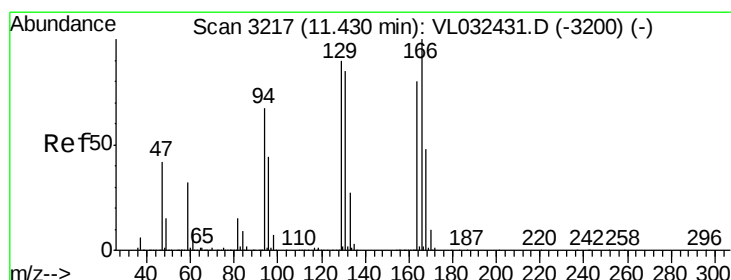
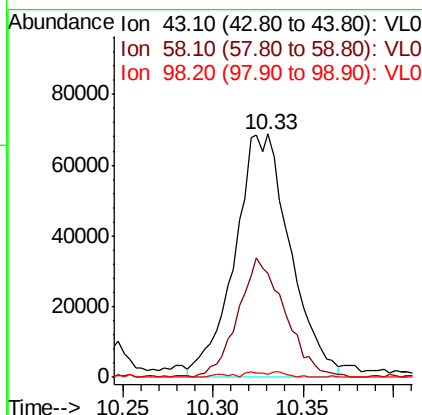
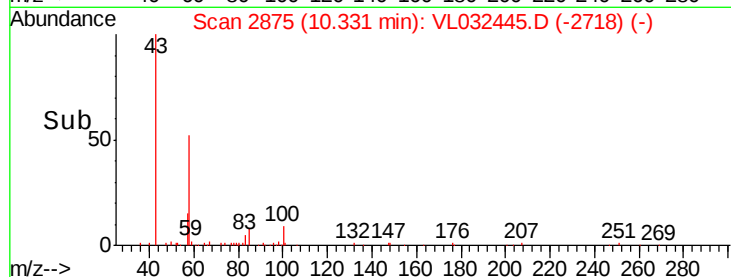
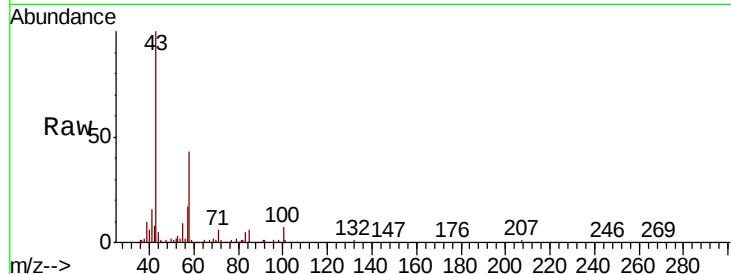
#51
 2-Hexanone
 Concen: 0.656 ppbv m
 RT: 10.33 min Scan# 2875
 Delta R.T. 0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Instrument :
 MSVOA_L
 ClientSampleId :
 SS-2DUP

Tgt Ion:	43	Resp:	147419
Ion	Ratio	Lower	Upper
43	100		
58	41.8	39.2	58.8
98	0.0	0.4	0.6#

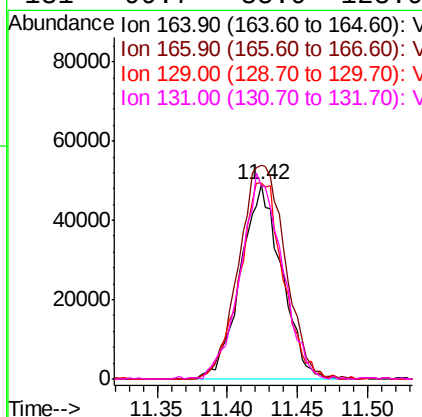
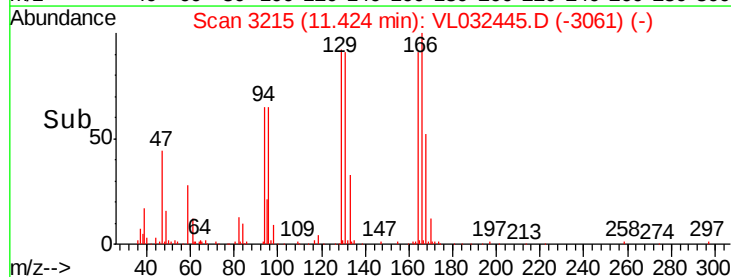
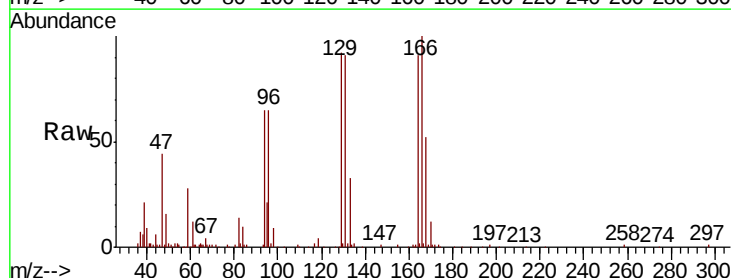
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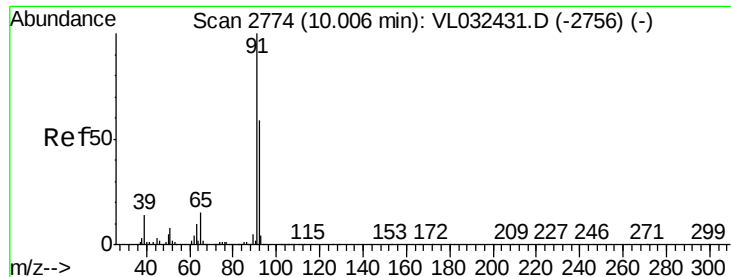
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#52
 Tetrachloroethene
 Concen: 1.085 ppbv
 RT: 11.42 min Scan# 3215
 Delta R.T. -0.01 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Tgt Ion:	164	Resp:	99815
Ion	Ratio	Lower	Upper
164	100		
166	110.1	100.6	150.8
129	100.8	89.9	134.9
131	99.7	85.9	128.9





#53

Toluene

Concen: 3.300 ppbv

RT: 10.00 min Scan# 2771

Delta R.T. -0.01 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

ClientSampled :

SS-2DUP

Tgt Ion: 91 Resp: 1023114

Ion Ratio Lower Upper

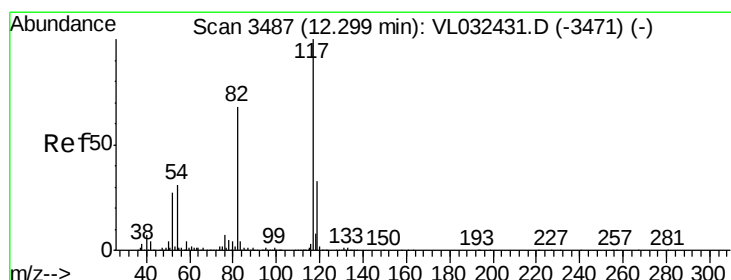
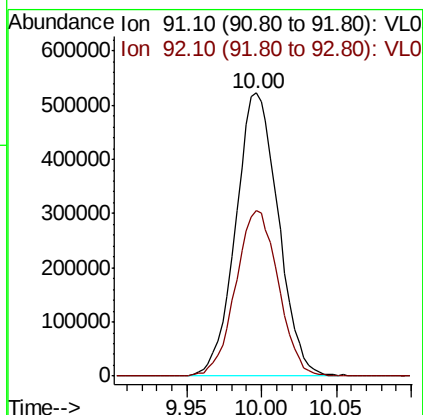
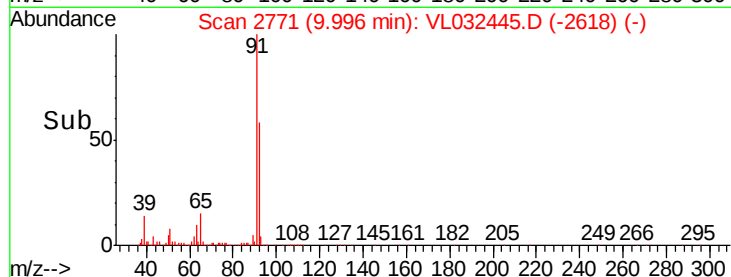
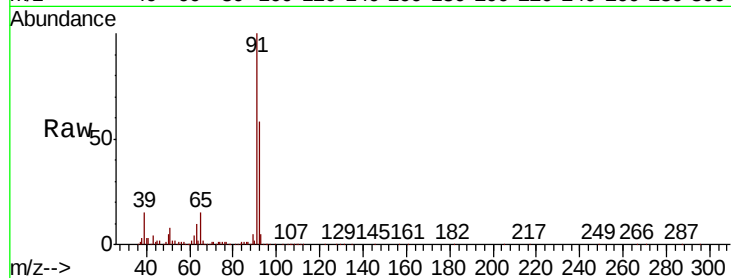
91 100

92 59.5 48.1 72.1

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.29 min Scan# 3484

Delta R.T. -0.01 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

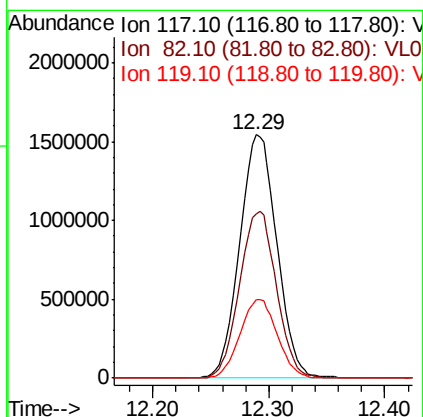
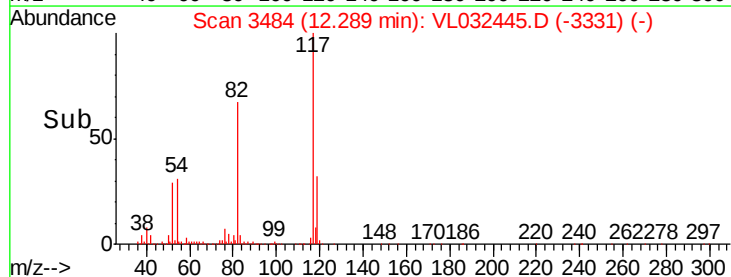
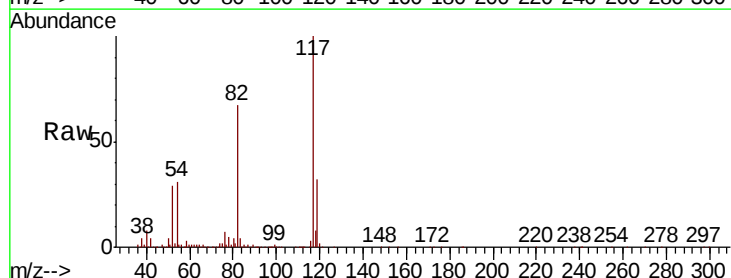
Tgt Ion: 117 Resp: 3439264

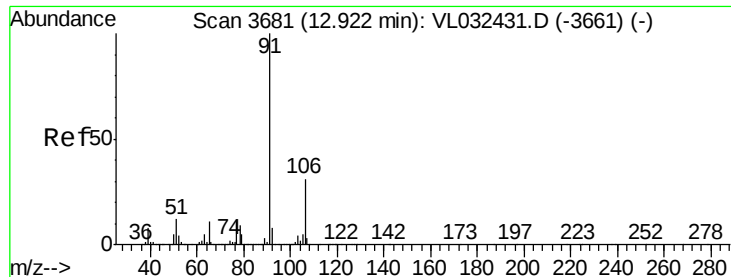
Ion Ratio Lower Upper

117 100

82 68.4 53.0 79.6

119 32.5 45.9 68.9#





#58

Ethyl Benzene

Concen: 0.205 ppbv m

RT: 12.92 min Scan# 3680

Delta R.T. -0.00 min

Lab File: VL032445.D

Acq: 31 Aug 2018 17:43

Instrument :

MSVOA_L

ClientSampleId :

SS-2DUP

Tgt Ion: 91 Resp: 84463

Ion Ratio Lower Upper

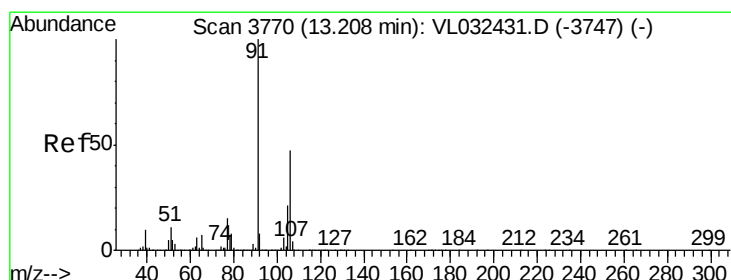
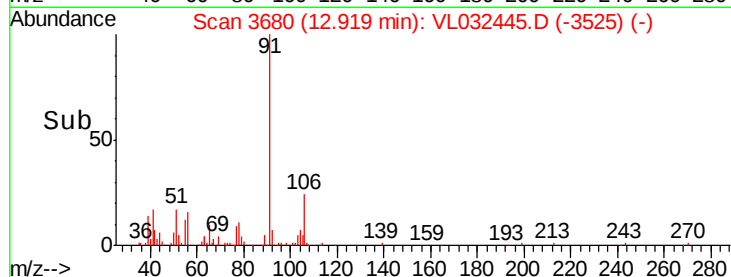
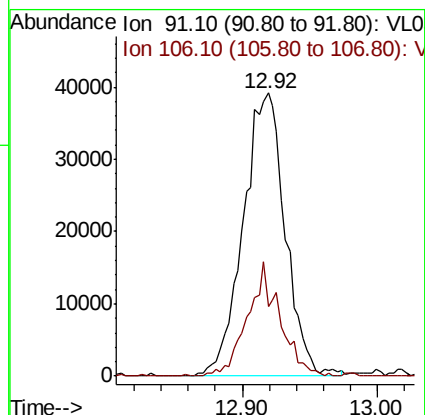
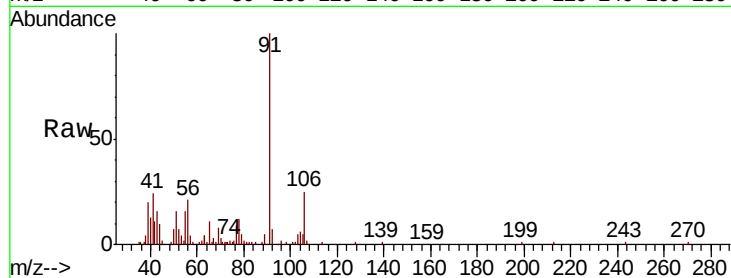
91 100

106 24.6 24.8 37.2#

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#59

m/p-Xylene

Concen: 0.631 ppbv m

RT: 13.18 min Scan# 3760

Delta R.T. -0.03 min

Lab File: VL032445.D

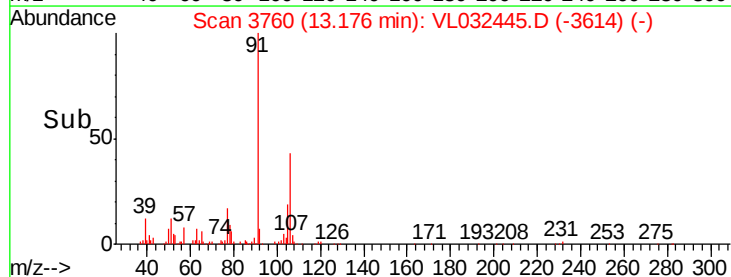
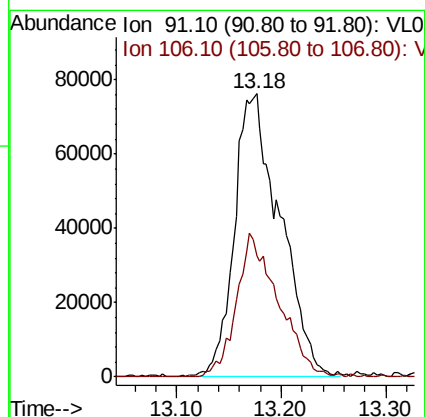
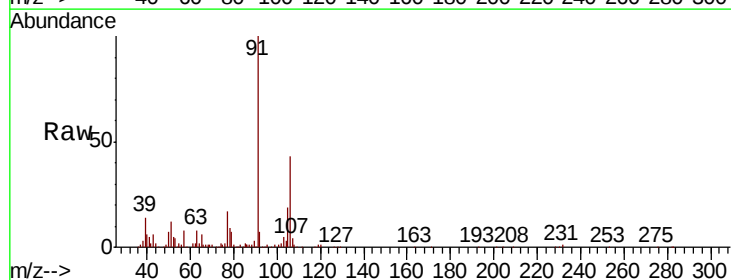
Acq: 31 Aug 2018 17:43

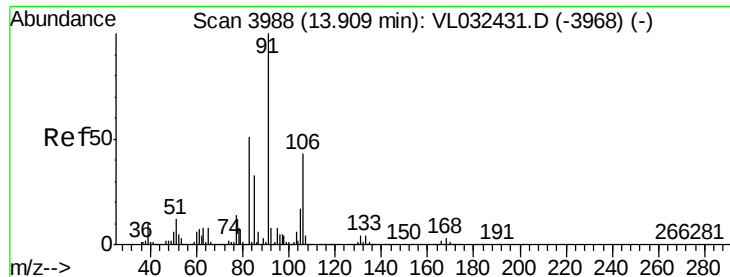
Tgt Ion: 91 Resp: 231545

Ion Ratio Lower Upper

91 100

106 0.0 36.6 55.0#





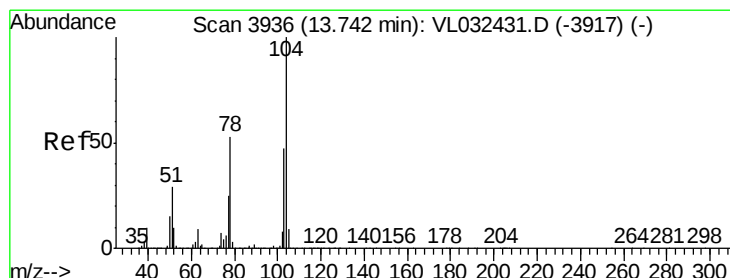
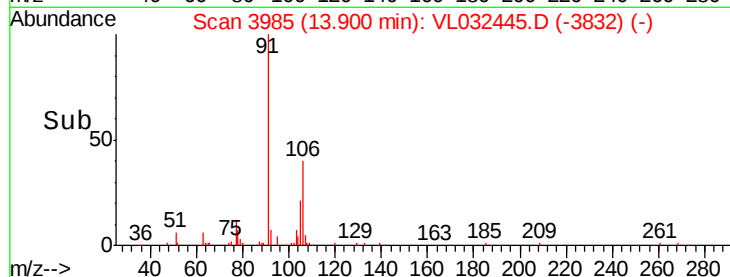
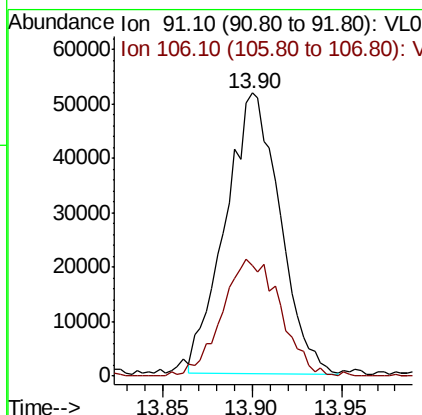
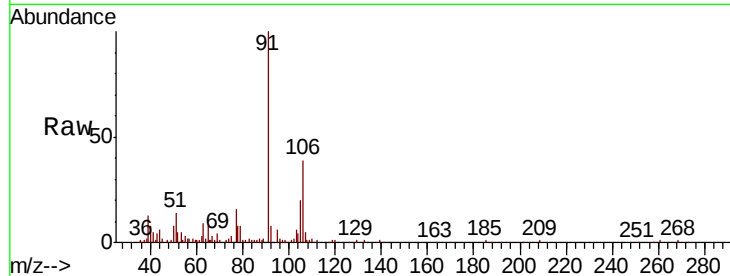
#60
o-Xylene
Concen: 0.305 ppbv
RT: 13.90 min Scan# 3985
Delta R.T. -0.01 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Instrument :
MSVOA_L
ClientSampled :
SS-2DUP

Tgt Ion: 91 Resp: 109868
Ion Ratio Lower Upper
91 100
106 44.6 21.9 65.7

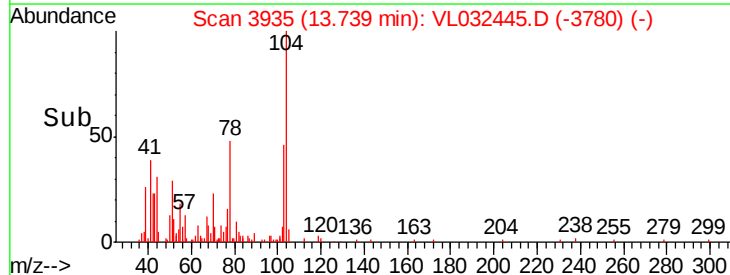
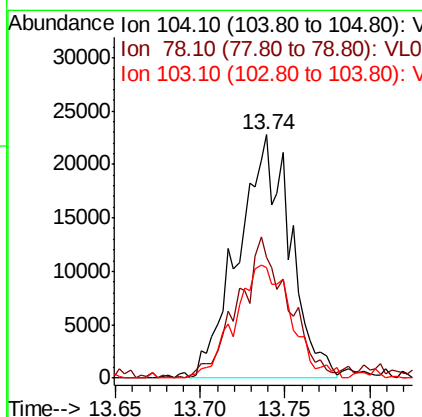
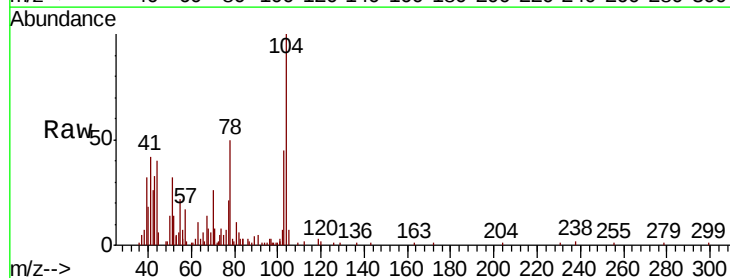
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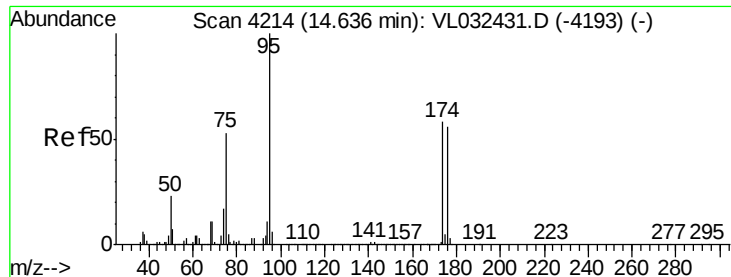
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#61
Styrene
Concen: 0.208 ppbv m
RT: 13.74 min Scan# 3935
Delta R.T. -0.00 min
Lab File: VL032445.D
Acq: 31 Aug 2018 17:43

Tgt Ion: 104 Resp: 48636
Ion Ratio Lower Upper
104 100
78 56.7 41.8 62.8
103 51.5 38.0 57.0





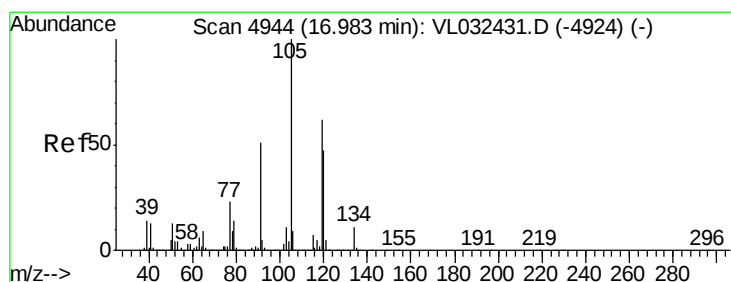
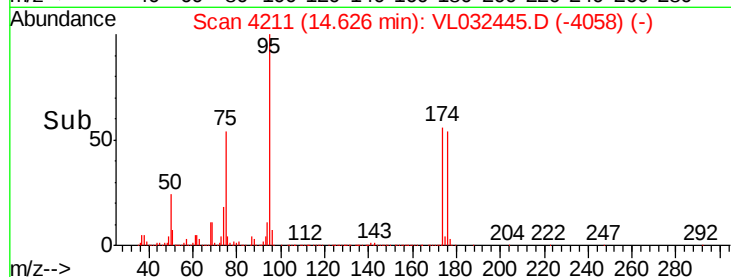
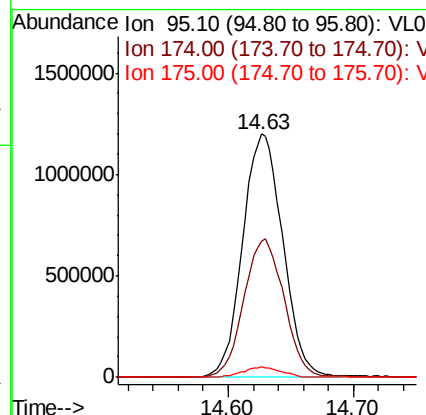
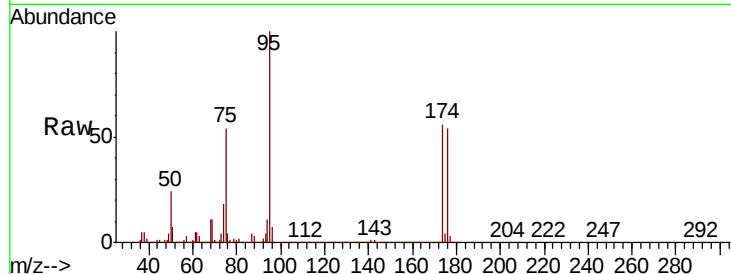
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.460 ppbv
 RT: 14.63 min Scan# 4211
 Delta R.T. -0.01 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2DUP

Tgt Ion: 95 Resp: 2670863
 Ion Ratio Lower Upper
 95 100
 174 57.1 46.3 69.5
 175 4.1 3.4 5.0

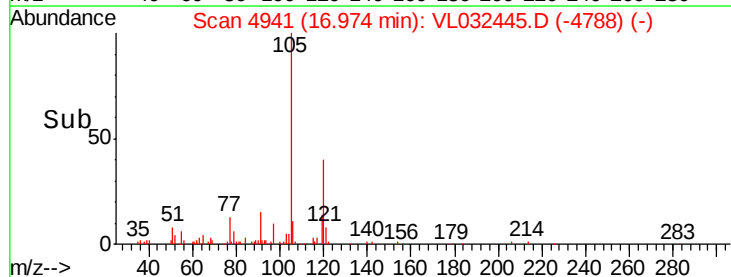
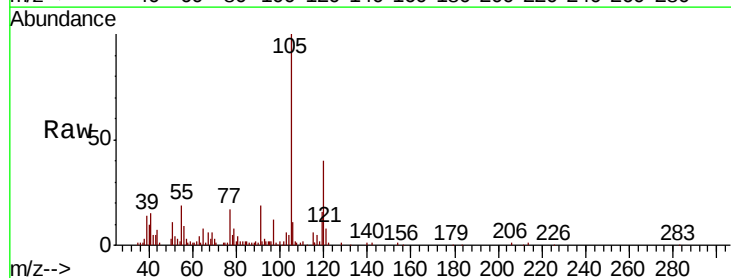
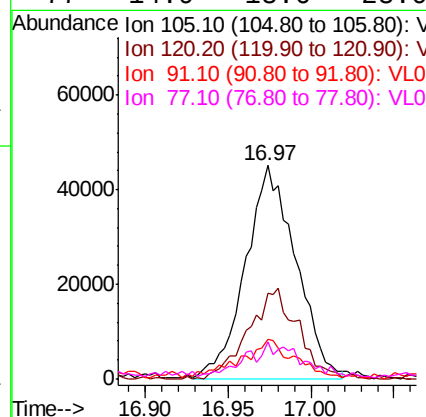
Manual Integrations
 APPROVED

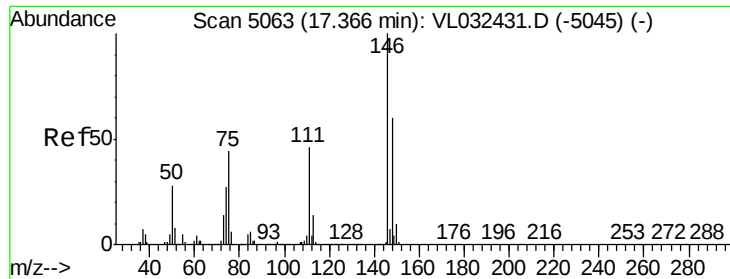
apatel
 9/4/2018 8:26:45 AM



#74
 1,2,4-Trimethylbenzene
 Concen: 0.220 ppbv
 RT: 16.97 min Scan# 4941
 Delta R.T. -0.01 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Tgt Ion: 105 Resp: 94908
 Ion Ratio Lower Upper
 105 100
 120 40.1 37.8 56.8
 91 18.5 41.4 62.0#
 77 14.9 18.6 28.0#





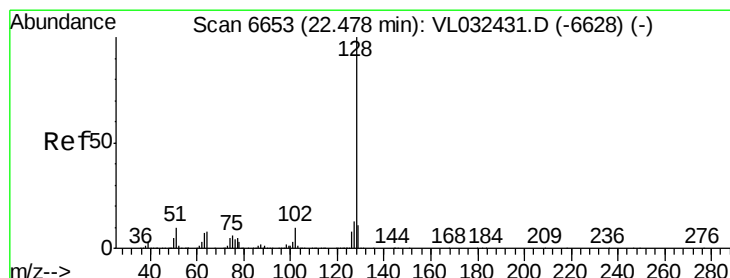
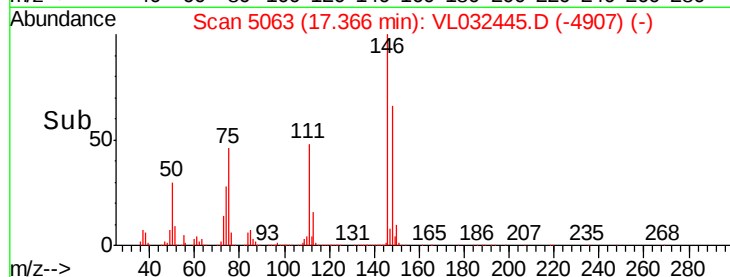
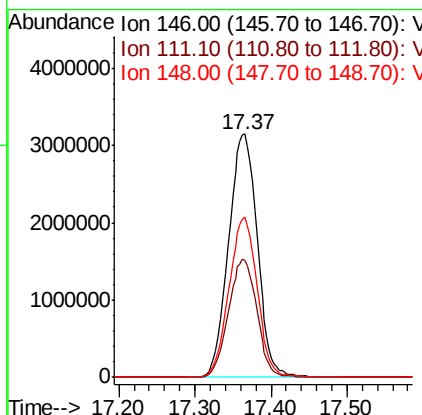
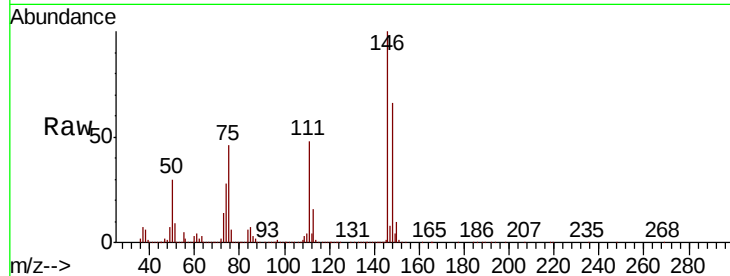
#76
 1,4-Dichlorobenzene
 Concen: 34.917 ppbv
 RT: 17.37 min Scan# 5063
 Delta R.T. -0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Instrument :
 MSVOA_L
 ClientSampled :
 SS-2DUP

Tgt Ion	Ratio	Lower	Upper
146	100		
111	48.0	23.4	70.2
148	64.5	32.0	96.2

Manual Integrations
 APPROVED

apatel
 9/4/2018 8:26:45 AM



#79
 Naphthalene
 Concen: 0.220 ppbv m
 RT: 22.47 min Scan# 6652
 Delta R.T. -0.00 min
 Lab File: VL032445.D
 Acq: 31 Aug 2018 17:43

Tgt Ion	Ratio	Lower	Upper
128	100		
127	10.7	10.2	15.2
129	8.2	8.5	12.7#

