

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121718\
 Data File : VL033008.D
 Acq On : 17 Dec 2018 23:11
 Operator : SY/AP
 Sample : J6382-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 P0068-IA001-181212-01

Manual Integrations
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 12/19/2018 5:36:46 PM

Quant Time: Dec 19 15:31:58 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	1106861	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	2769376	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	2982107	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.59	95	2126195	9.65	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	96508	0.653	ppbv	100
4) Chloromethane	3.17	50	67165	1.376	ppbv	99
10) Heptane	8.26	43	489276	3.930	ppbv	100
11) Trichlorofluoromethane	4.01	101	40986	0.294	ppbv	98
13) Ethanol	3.67	45	2860037	250.606	ppbv	96
15) Acetone	3.91	43	1058310	11.140	ppbv #	56
20) Methylene Chloride	4.42	84	62171	1.339	ppbv #	95
22) trans-1,2-Dichloroethene	4.97	96	151871	2.631	ppbv	95
26) Hexane	5.79	57	1222686	11.800	ppbv #	44
30) Cyclohexane	7.26	84	210548	2.452	ppbv	86
34) 2-Butanone	5.34	43	162574	1.348	ppbv	100
35) Carbon Tetrachloride	7.14	117	13172m	0.061	ppbv	
36) Benzene	7.01	78	1453147	7.134	ppbv	98
44) 2,2,4-Trimethylpentane	8.00	57	3230656	9.344	ppbv	96
52) Tetrachloroethene	11.38	164	79445	1.072	ppbv	96
53) Toluene	9.96	91	7218000	33.412	ppbv	97
58) Ethyl Benzene	12.87	91	1574832	4.950	ppbv	100
59) m/p-Xylene	13.13	91	5119275	17.750	ppbv #	100
60) o-Xylene	13.86	91	1612611	5.537	ppbv	100
61) Styrene	13.70	104	36296m	0.187	ppbv	
62) Isopropylbenzene	14.84	105	51316	0.126	ppbv	94
72) 4-Ethyltoluene	16.01	105	533664	1.641	ppbv	99
73) 1,3,5-Trimethylbenzene	16.16	105	334138	1.053	ppbv	98
74) 1,2,4-Trimethylbenzene	16.93	105	1494391	4.169	ppbv #	69
79) Naphthalene	22.43	128	59610m	0.258	ppbv	

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

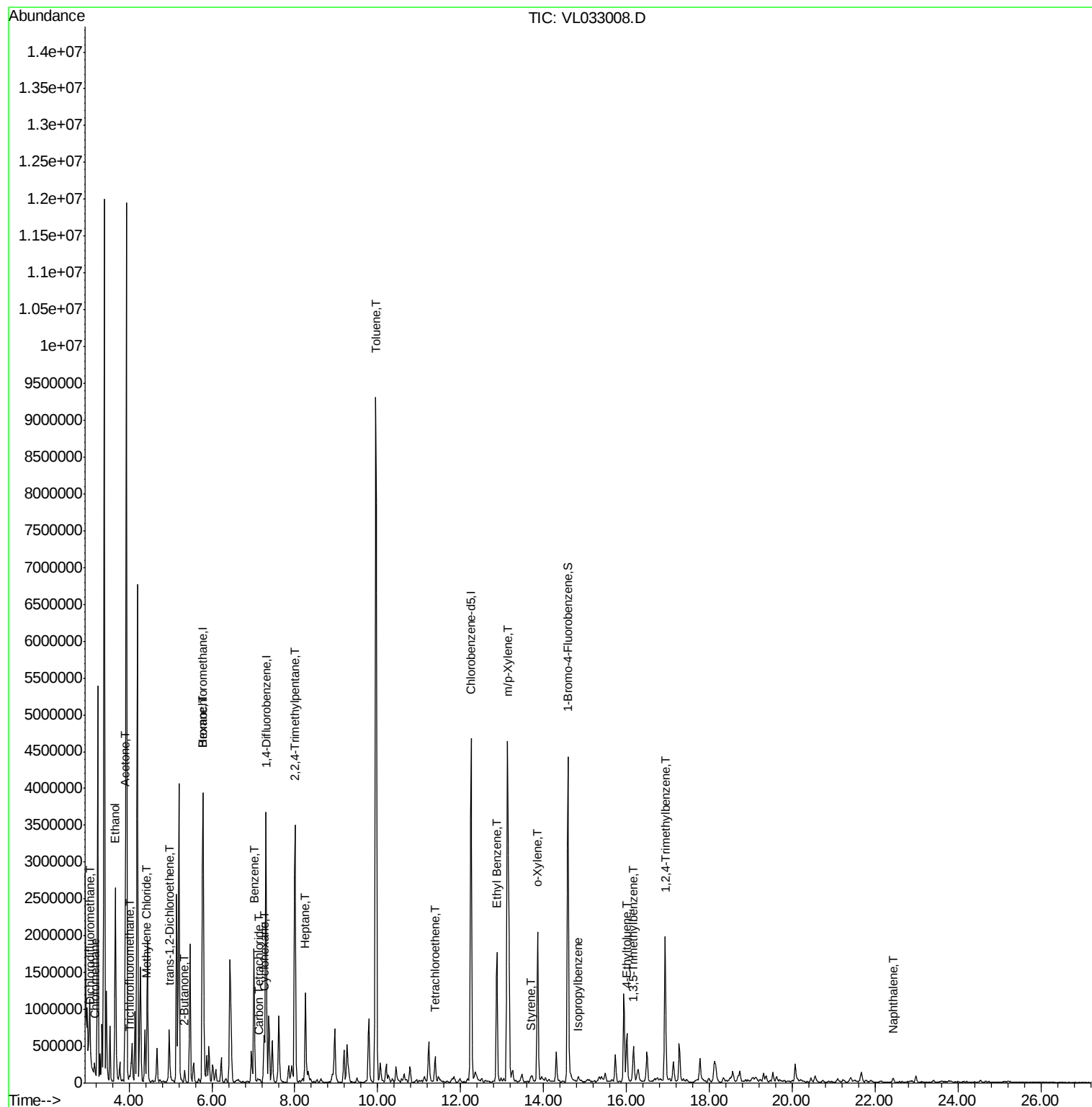
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL121718\
Data File : VL033008.D
Acq On : 17 Dec 2018 23:11
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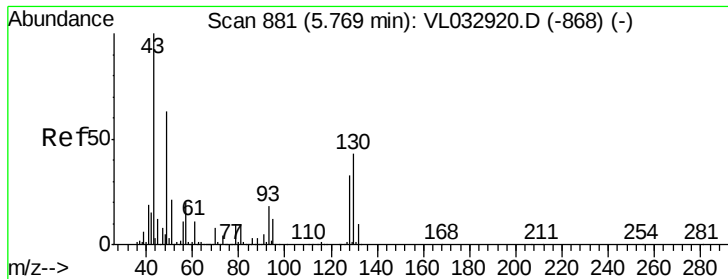
Instrument :
MSVOA_L
ClientSampleId :
P0068-IA001-181212-01

Manual Integrations
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Quant Time: Dec 19 15:31:58 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec
QLast Update : Fri Dec 07 09:35:17 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 882

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion: 49 Resp: 1106861

Ion Ratio Lower Upper

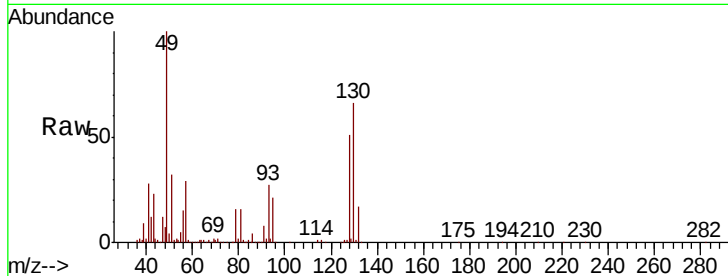
49 100

128 52.6 26.3 78.8

130 68.8 33.9 101.7

Manual Integrations
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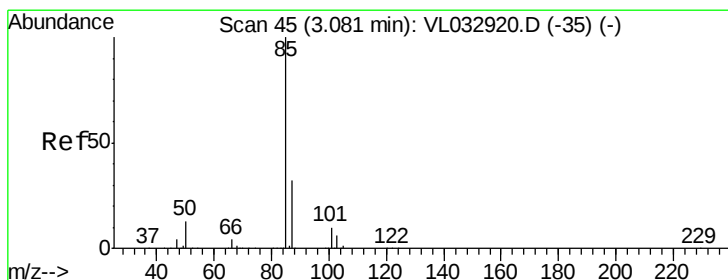
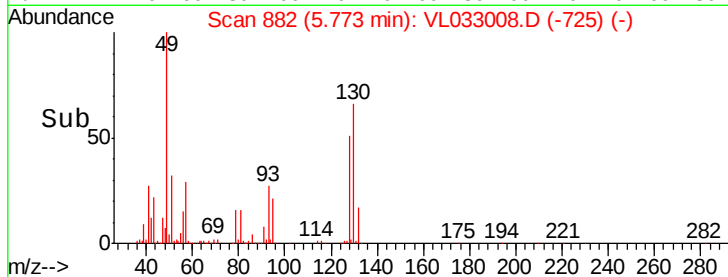
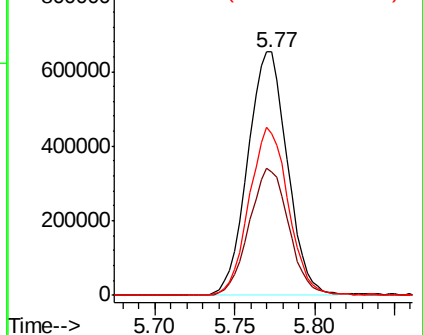
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.653 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL033008.D

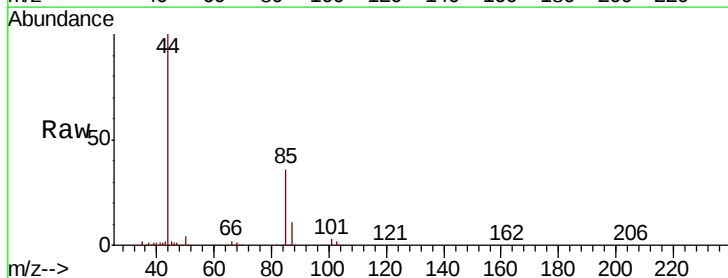
Acq: 17 Dec 2018 23:11

Tgt Ion: 85 Resp: 96508

Ion Ratio Lower Upper

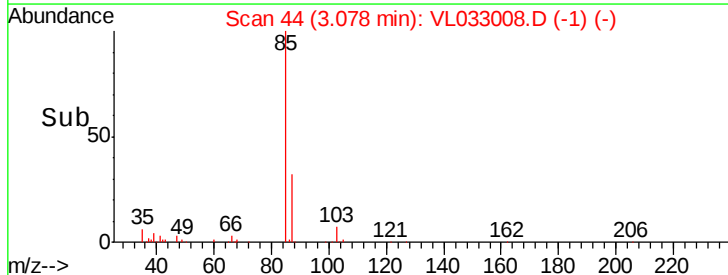
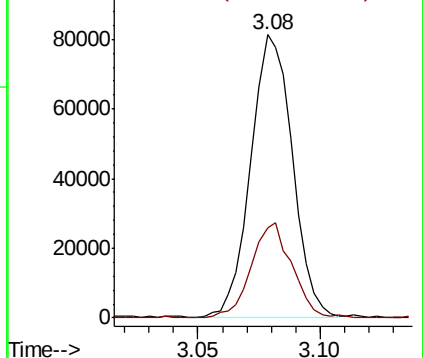
85 100

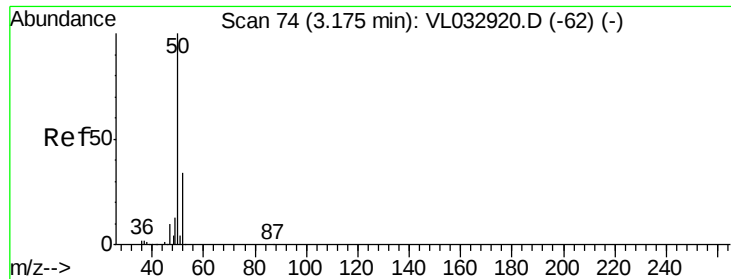
87 32.0 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#4

Chloromethane

Concen: 1.376 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion: 50 Resp: 67165

Ion Ratio Lower Upper

50 100

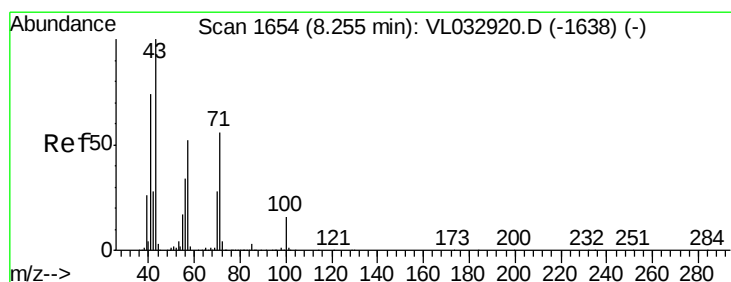
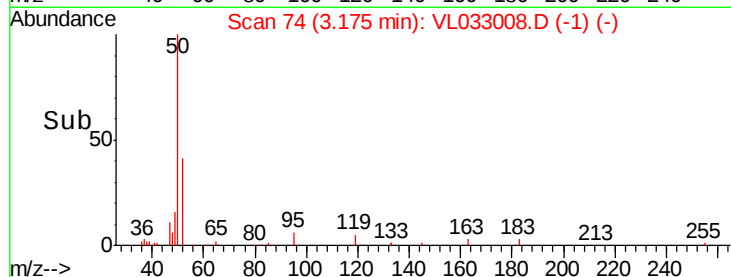
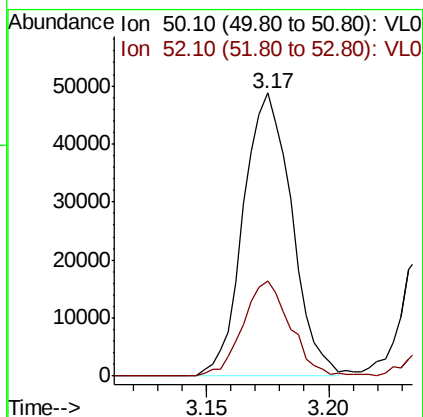
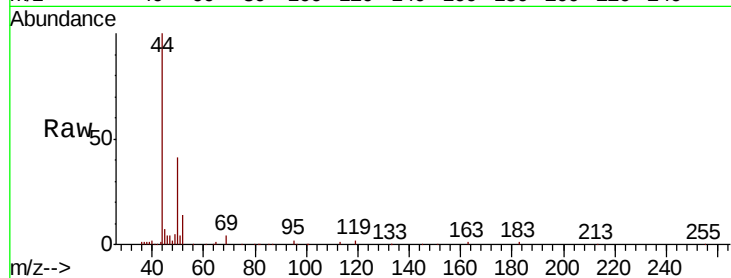
52 33.5 27.3 40.9

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#10

Heptane

Concen: 3.930 ppbv

RT: 8.26 min Scan# 1654

Delta R.T. 0.00 min

Lab File: VL033008.D

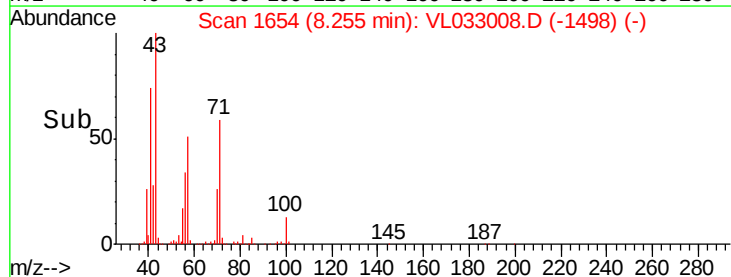
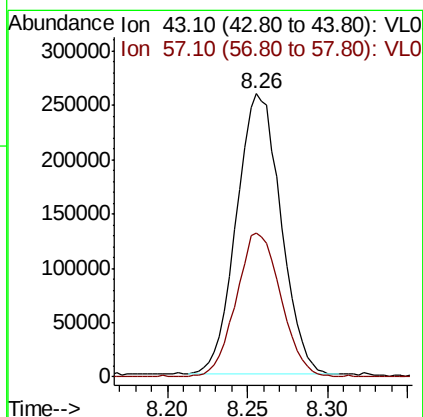
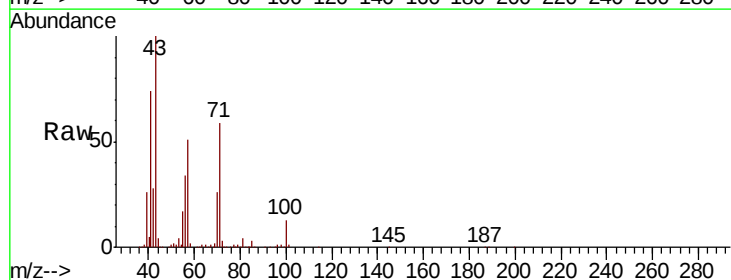
Acq: 17 Dec 2018 23:11

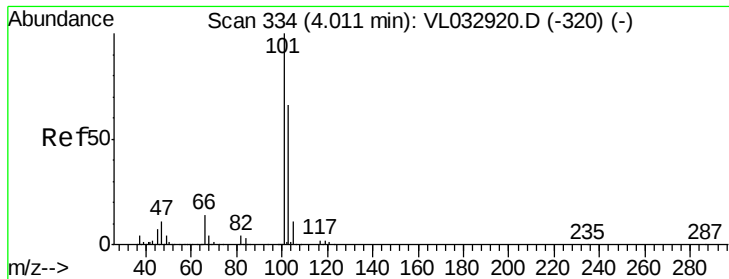
Tgt Ion: 43 Resp: 489276

Ion Ratio Lower Upper

43 100

57 52.0 41.8 62.6





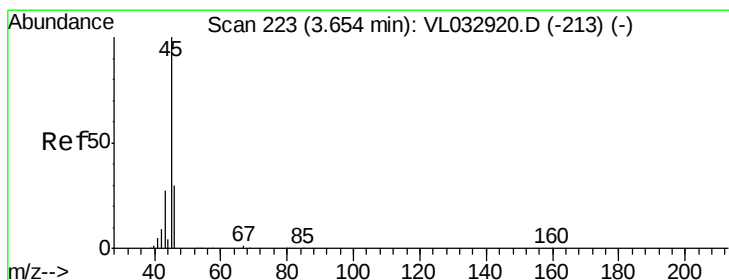
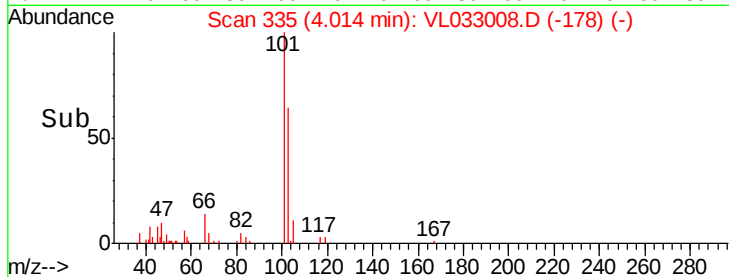
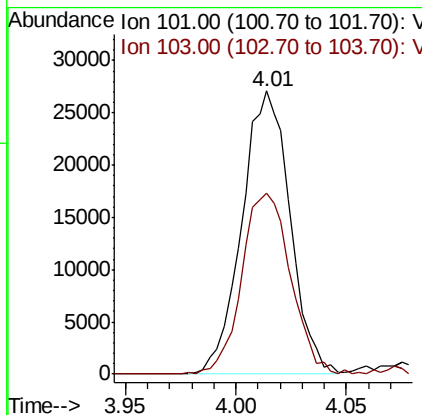
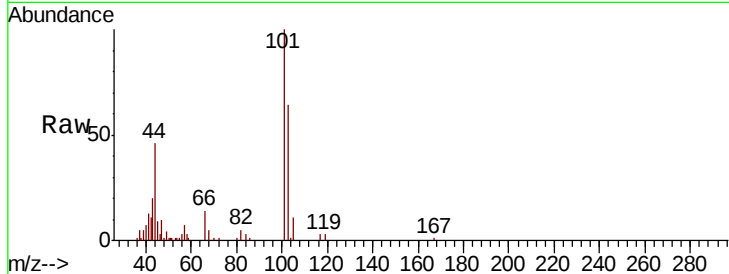
#11
 Trichlorofluoromethane
 Concen: 0.294 ppbv
 RT: 4.01 min Scan# 335
 Delta R.T. 0.00 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Instrument :
 MSVOA_L
 ClientSampleId :
 P0068-IA001-181212-01

Tot Ion: 101 Resp: 40986
 Ion Ratio Lower Upper
 101 100
 103 63.9 52.7 79.1

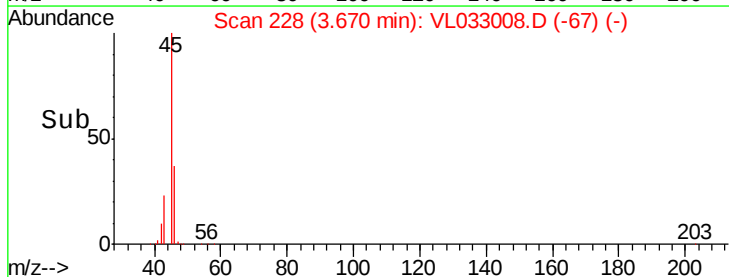
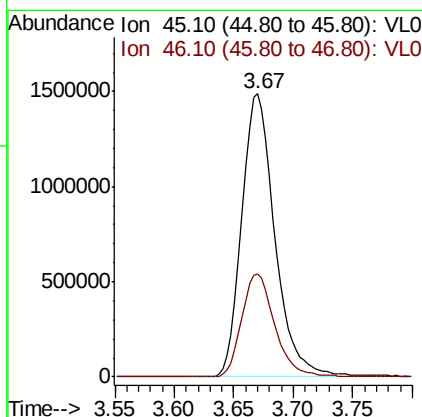
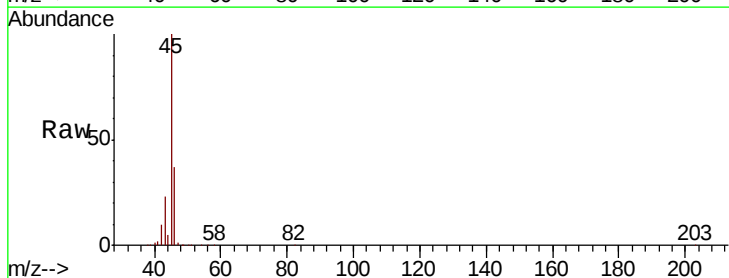
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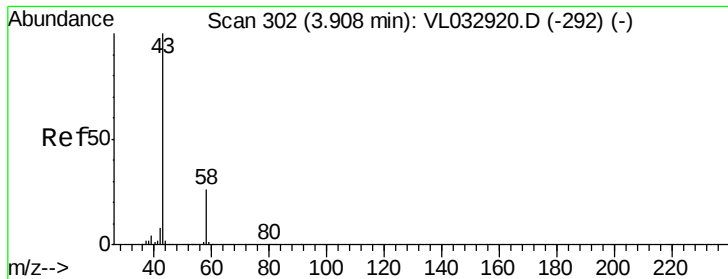
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#13
 Ethanol
 Concen: 250.606 ppbv
 RT: 3.67 min Scan# 228
 Delta R.T. 0.02 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Tgt Ion: 45 Resp: 2860037
 Ion Ratio Lower Upper
 45 100
 46 36.9 13.8 55.4





#15

Acetone

Concen: 11.140 ppbv

RT: 3.91 min Scan# 302

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion: 43 Resp: 1058310

Ion Ratio Lower Upper

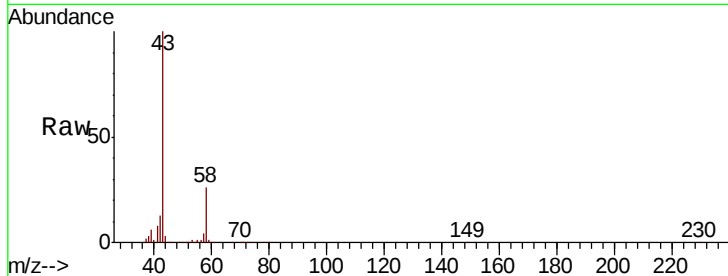
43 100

58 48.0 20.6 30.8#

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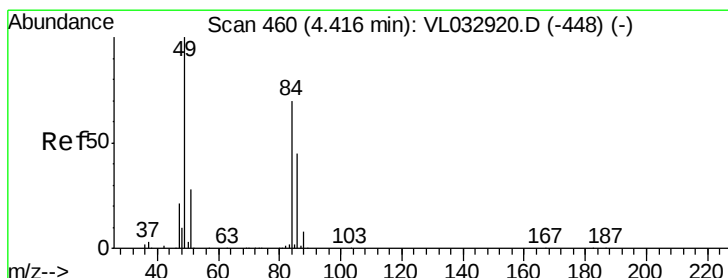
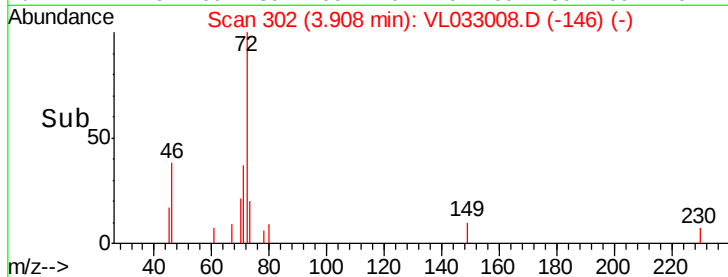
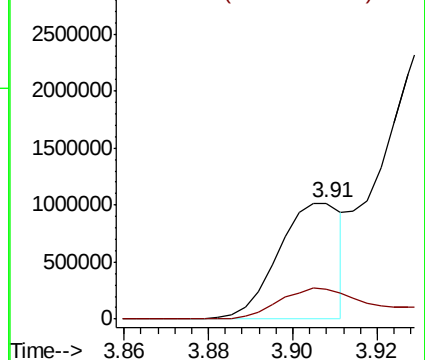
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 1.339 ppbv

RT: 4.42 min Scan# 461

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Tgt Ion: 84 Resp: 62171

Ion Ratio Lower Upper

84 100

49 138.7 113.8 170.8

51 27.8 31.8 47.8#

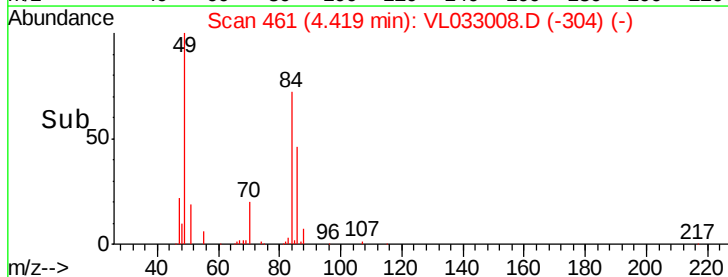
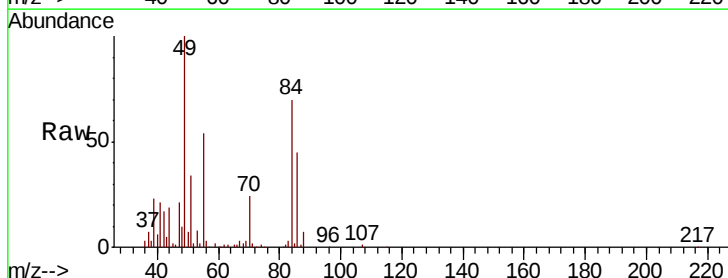
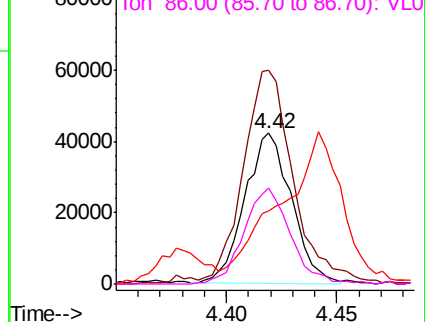
86 63.8 50.8 76.2

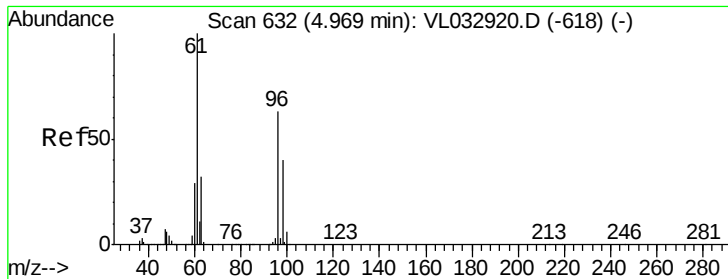
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0





#22

trans-1,2-Dichloroethene

Concen: 2.631 ppbv

RT: 4.97 min Scan# 633

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

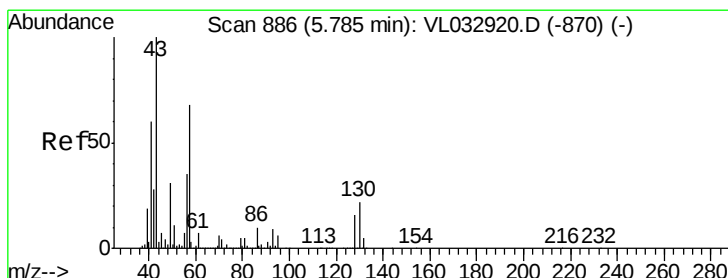
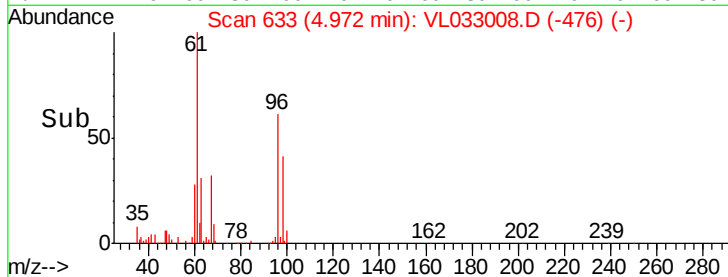
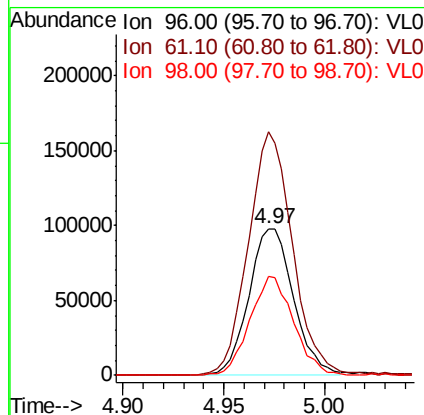
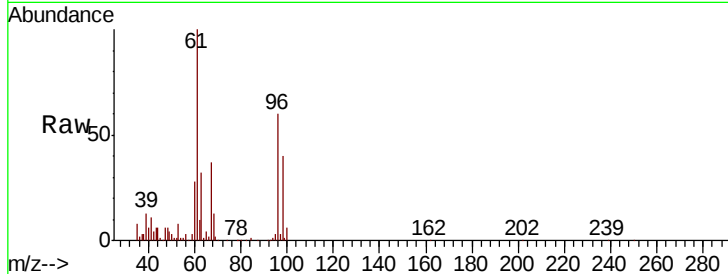
ClientSampleId :

P0068-IA001-181212-01

Tot Ion:	96	Resp:	151871
Ion Ratio	Lower	Upper	
96	100		
61	165.5	127.1	190.7
98	67.1	51.3	76.9

Manual Integrations
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#26

Hexane

Concen: 11.800 ppbv

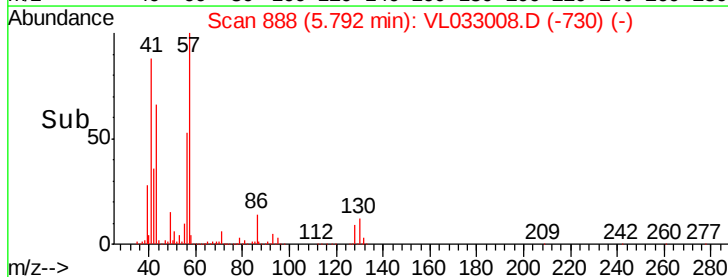
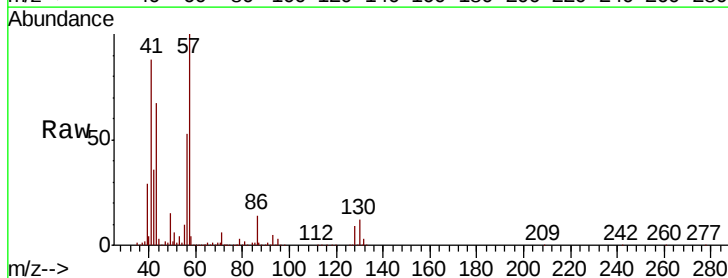
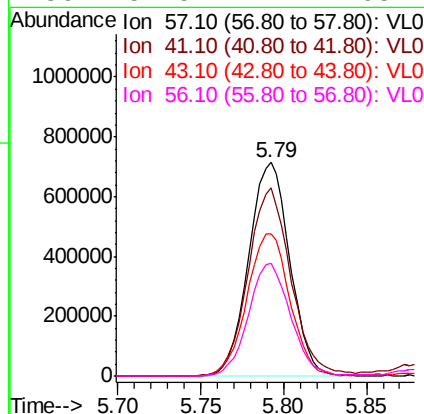
RT: 5.79 min Scan# 888

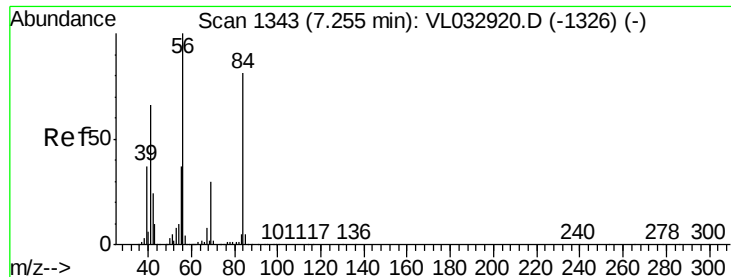
Delta R.T. 0.01 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Tgt Ion:	57	Resp:	1222686
Ion Ratio	Lower	Upper	
57	100		
41	92.6	72.2	108.2
43	69.8	171.9	257.9#
56	54.5	42.2	63.2





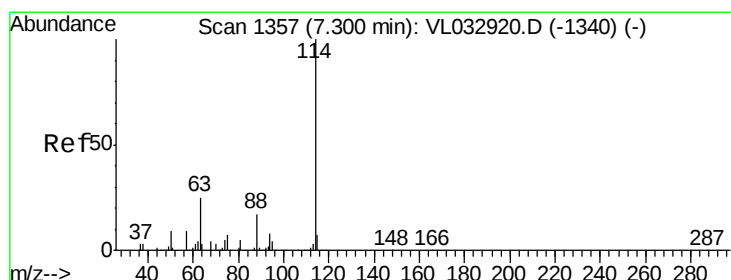
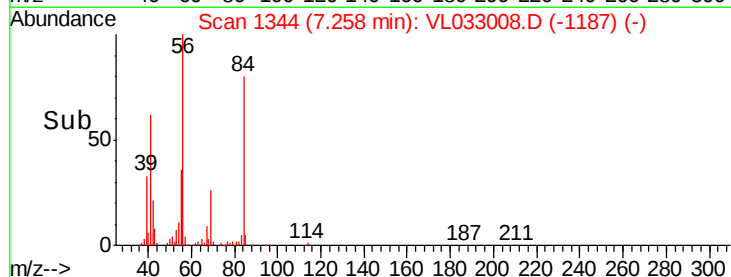
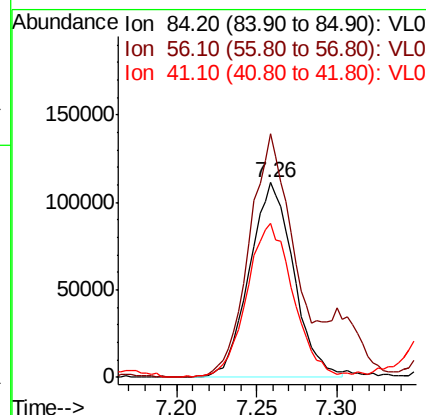
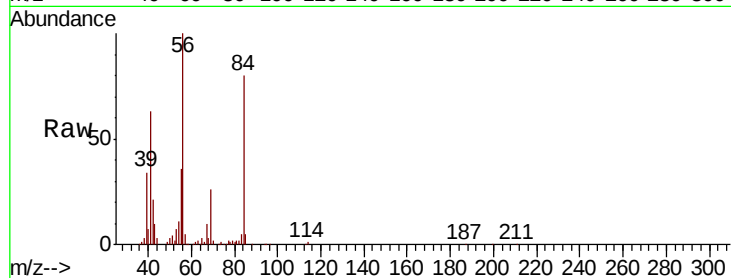
#30
Cyclohexane
Concen: 2.452 ppbv
RT: 7.26 min Scan# 1344
Delta R.T. 0.00 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Instrument :
MSVOA_L
ClientSampleId :
P0068-IA001-181212-01

Tot Ion	Ratio	Lower	Upper
84	100		
56	152.7	102.5	153.7
41	82.9	64.1	96.1

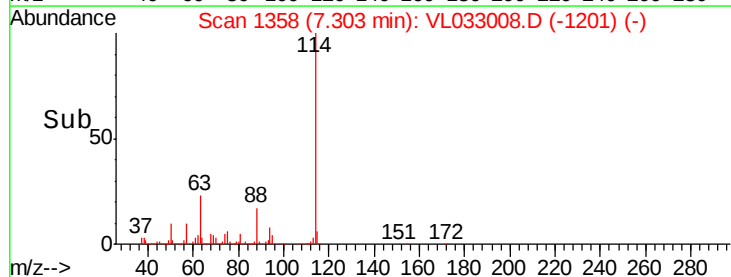
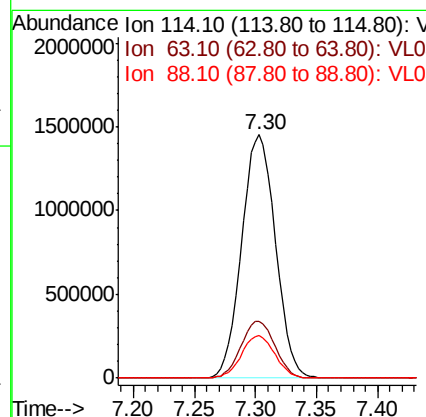
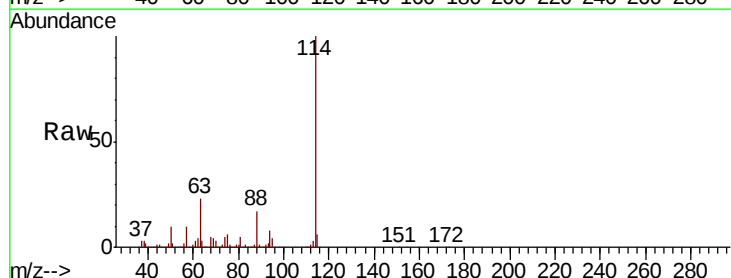
Manual Integrations
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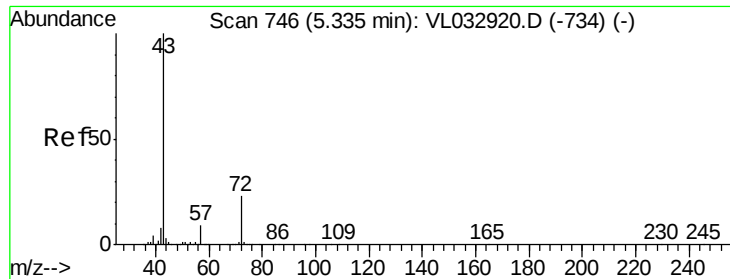
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.30 min Scan# 1358
Delta R.T. 0.00 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Tgt Ion	Ratio	Lower	Upper
114	100		
63	23.9	20.1	30.1
88	17.3	14.2	21.4





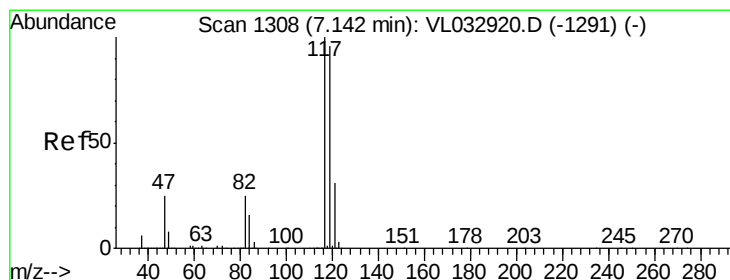
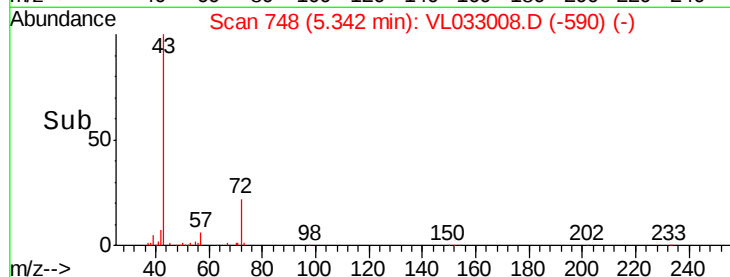
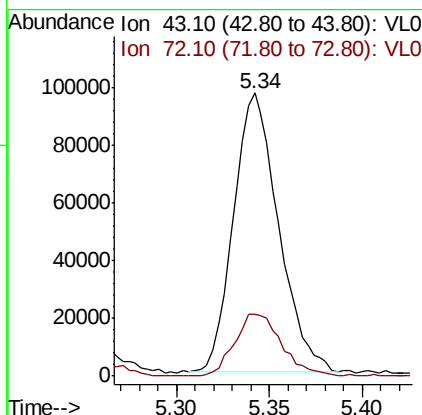
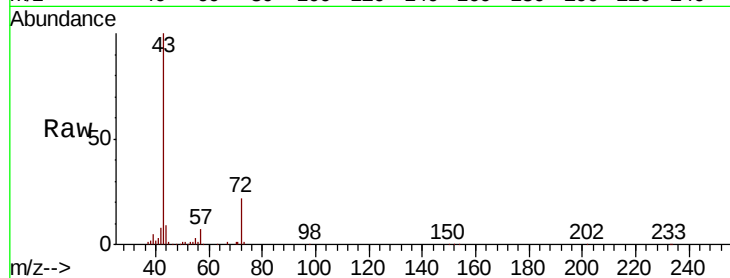
#34
2-Butanone
Concen: 1.348 ppbv
RT: 5.34 min Scan# 748
Delta R.T. 0.01 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Instrument :
MSVOA_L
ClientSampleId :
P0068-IA001-181212-01

Tot Ion: 43 Resp: 162574
Ion Ratio Lower Upper
43 100
72 23.4 18.8 28.2

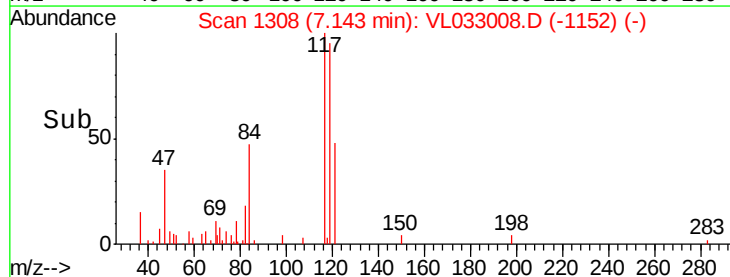
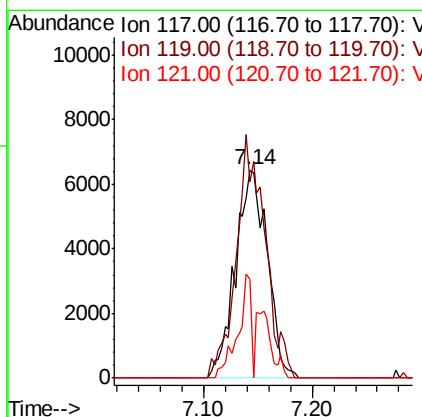
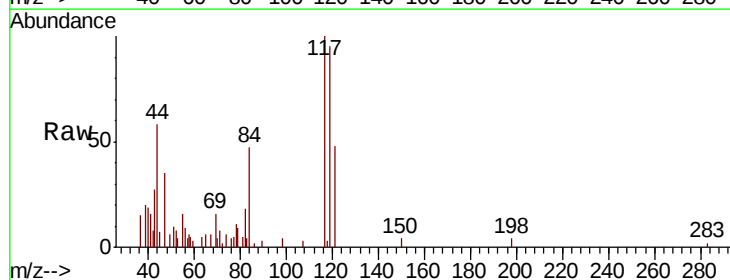
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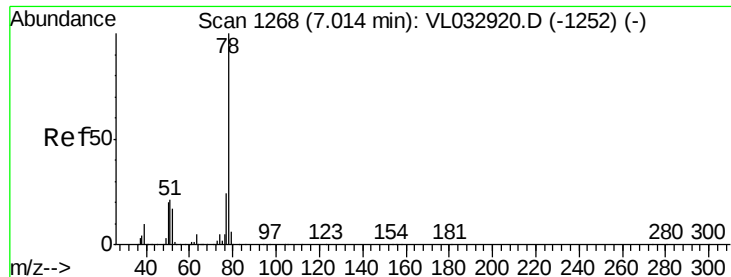
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#35
Carbon Tetrachloride
Concen: 0.061 ppbv m
RT: 7.14 min Scan# 1308
Delta R.T. 0.00 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Tgt Ion: 117 Resp: 13172
Ion Ratio Lower Upper
117 100
119 94.6 76.5 114.7
121 47.8 24.5 36.7#





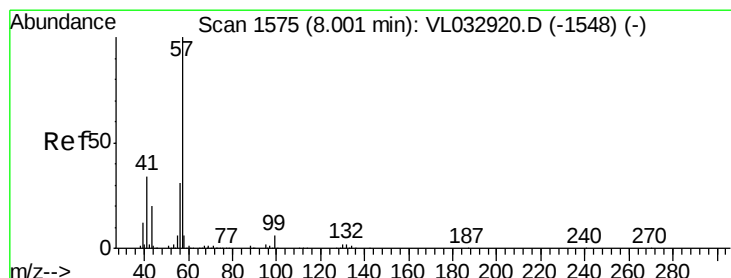
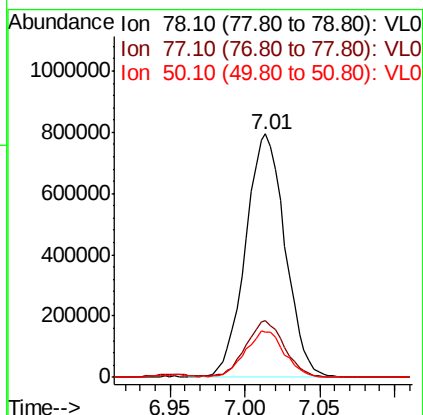
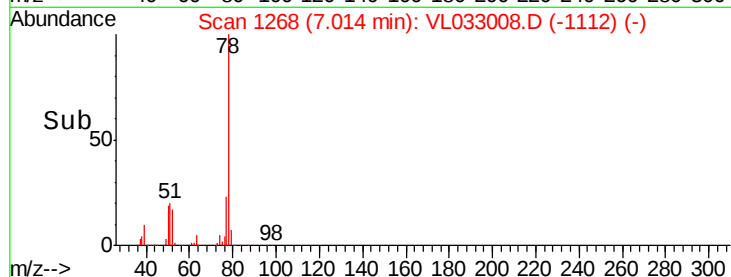
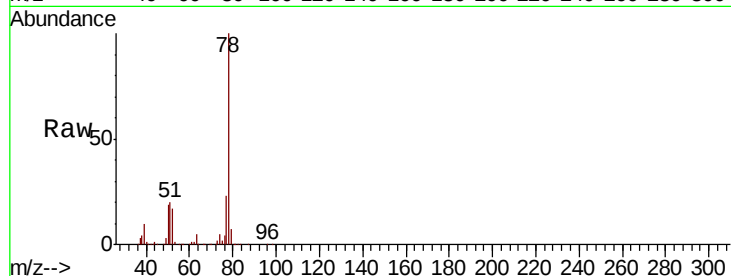
#36
Benzene
Concen: 7.134 ppbv
RT: 7.01 min Scan# 1268
Delta R.T. 0.00 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Instrument :
MSVOA_L
ClientSampleId :
P0068-IA001-181212-01

Tot Ion	Ratio	Lower	Upper
78	100		
77	23.0	18.9	28.3
50	18.7	16.1	24.1

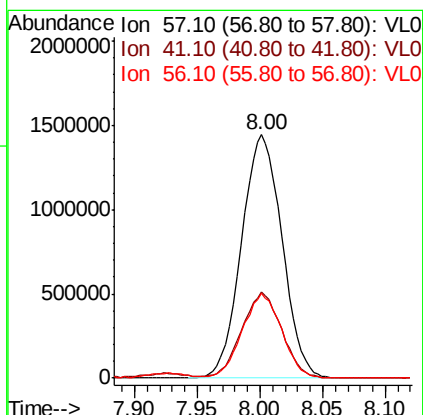
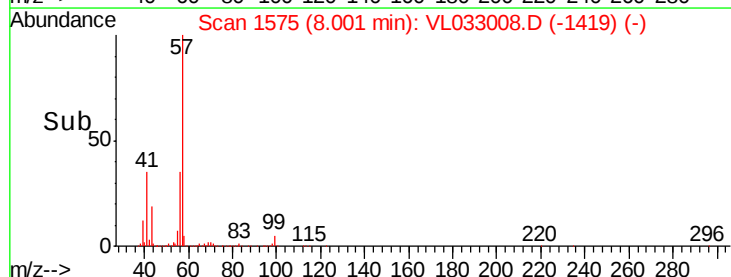
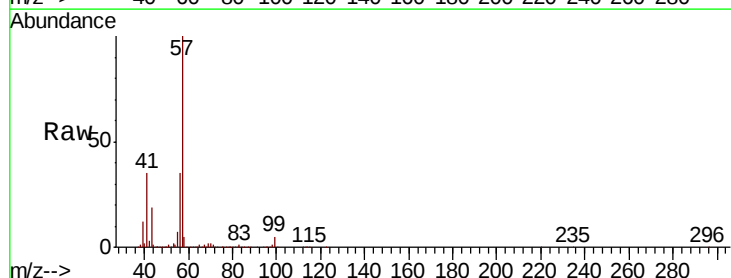
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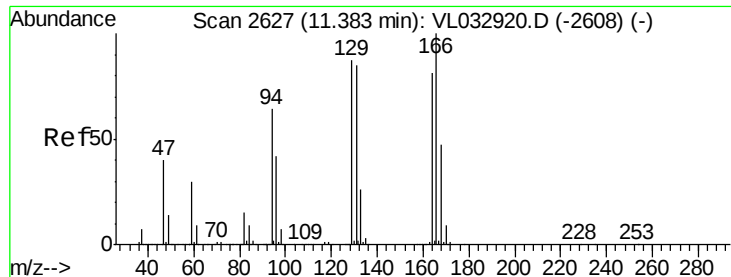
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#44
2,2,4-Trimethylpentane
Concen: 9.344 ppbv
RT: 8.00 min Scan# 1575
Delta R.T. 0.00 min
Lab File: VL033008.D
Acq: 17 Dec 2018 23:11

Tgt Ion	Ratio	Lower	Upper
57	100		
41	35.2	27.0	40.4
56	34.1	24.6	37.0





#52

Tetrachloroethene

Concen: 1.072 ppbv

RT: 11.38 min Scan# 2627

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion:164 Resp: 79445

Ion Ratio Lower Upper

164 100

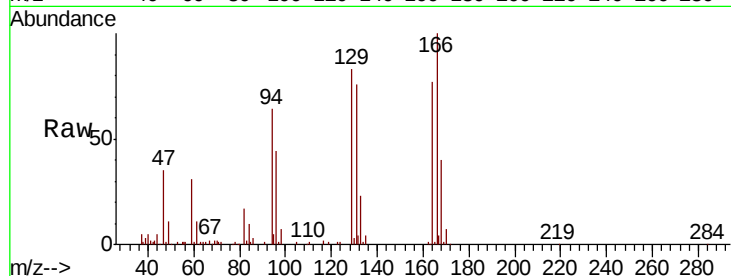
166 128.6 98.8 148.2

129 106.2 85.5 128.3

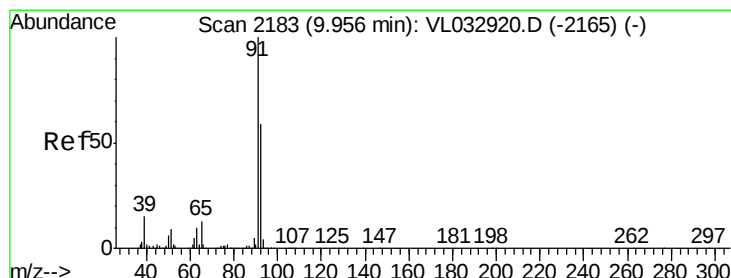
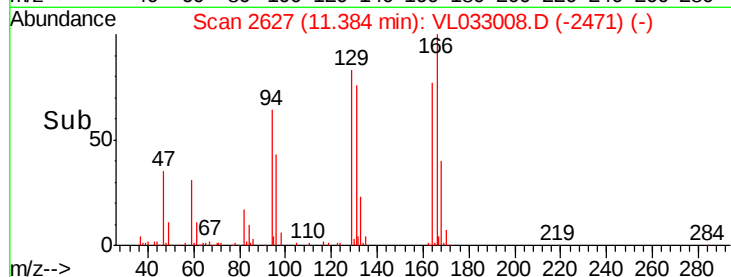
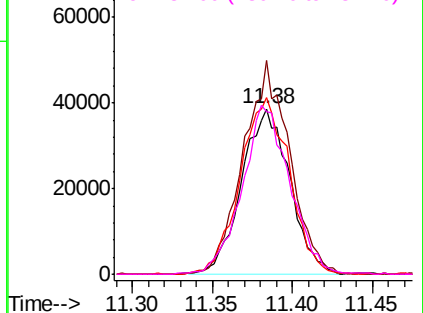
131 98.1 84.4 126.6

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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: 33.412 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. 0.00 min

Lab File: VL033008.D

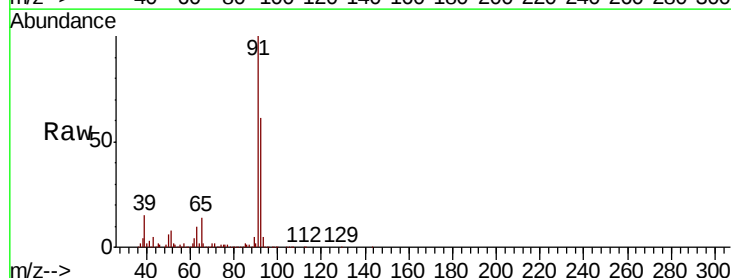
Acq: 17 Dec 2018 23:11

Tgt Ion: 91 Resp: 7218000

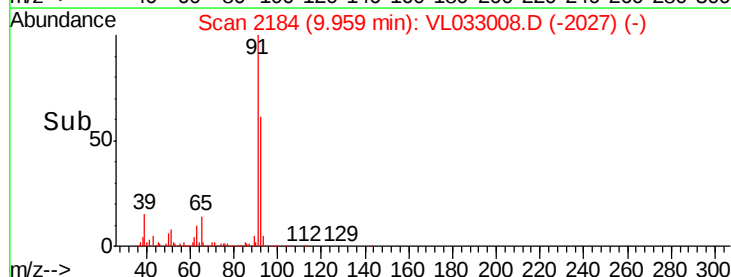
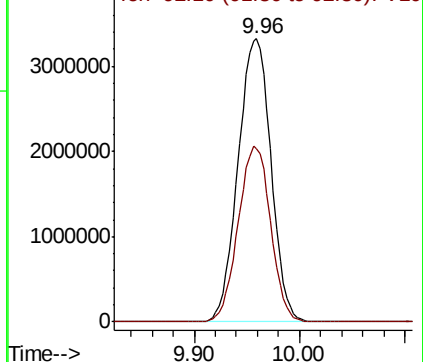
Ion Ratio Lower Upper

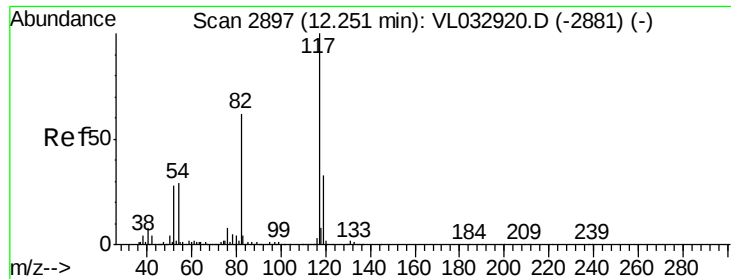
91 100

92 61.3 47.4 71.0



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: 12.25 min Scan# 2896

Delta R.T. -0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion:117 Resp: 2982107

Ion Ratio Lower Upper

117 100

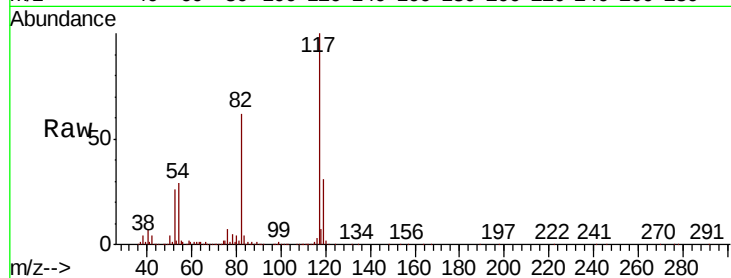
82 63.0 47.8 71.8

119 32.4 43.1 64.7#

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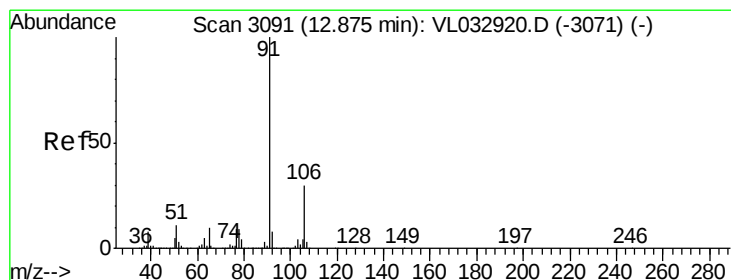
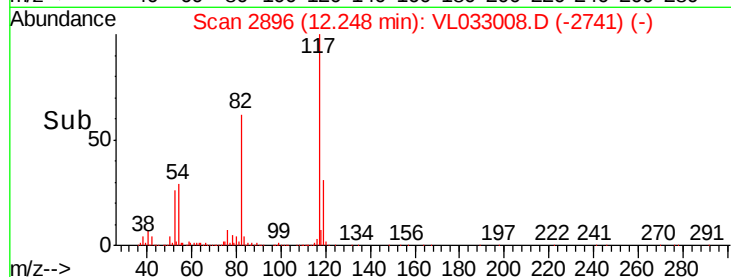
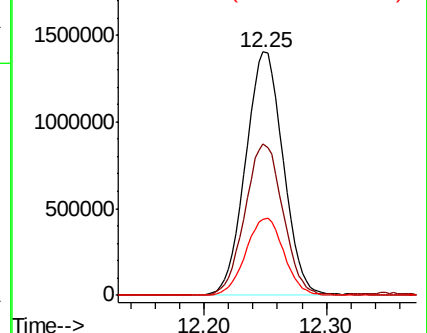
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Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 4.950 ppbv

RT: 12.87 min Scan# 3090

Delta R.T. -0.00 min

Lab File: VL033008.D

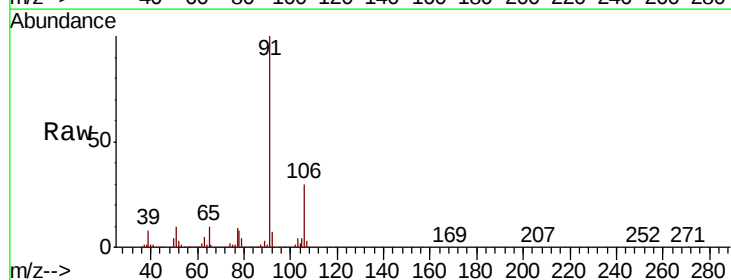
Acq: 17 Dec 2018 23:11

Tgt Ion: 91 Resp: 1574832

Ion Ratio Lower Upper

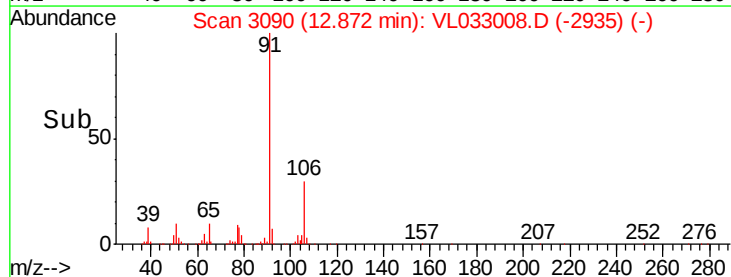
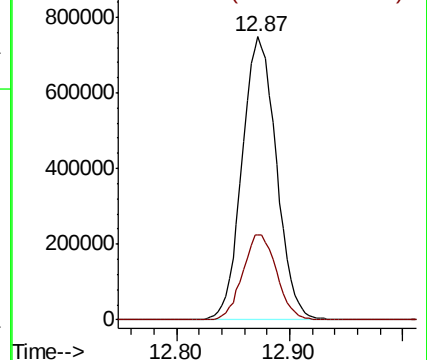
91 100

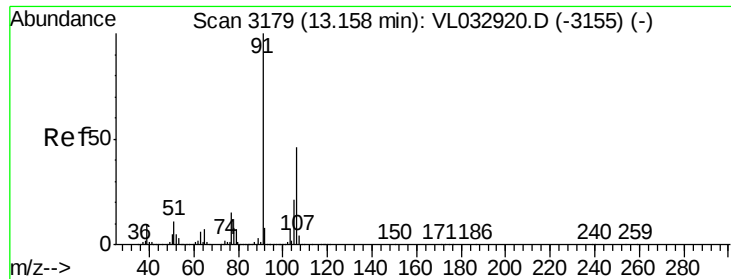
106 30.0 23.9 35.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 17.750 ppbv

RT: 13.13 min Scan# 3179

Delta R.T. -0.03 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01

Tot Ion: 91 Resp: 5119275

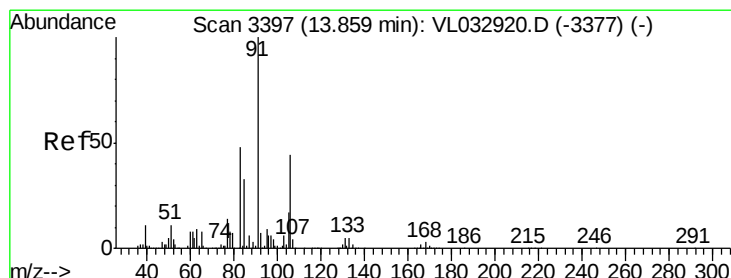
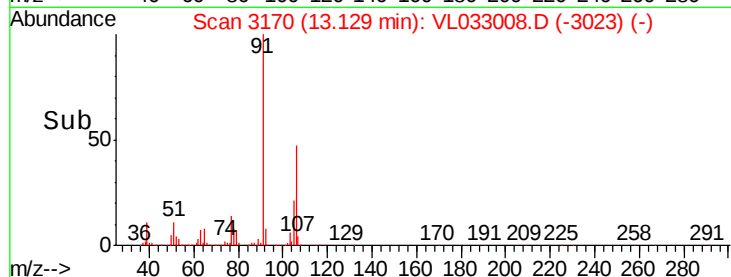
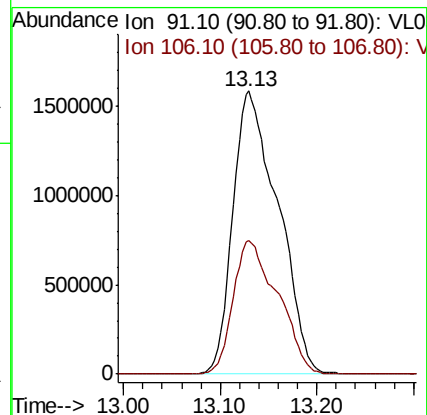
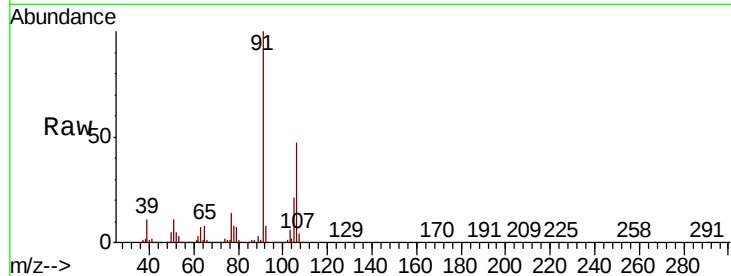
Ion Ratio Lower Upper

91 100

106 46.9 0.0 0.0#

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#60

o-Xylene

Concen: 5.537 ppbv

RT: 13.86 min Scan# 3397

Delta R.T. 0.00 min

Lab File: VL033008.D

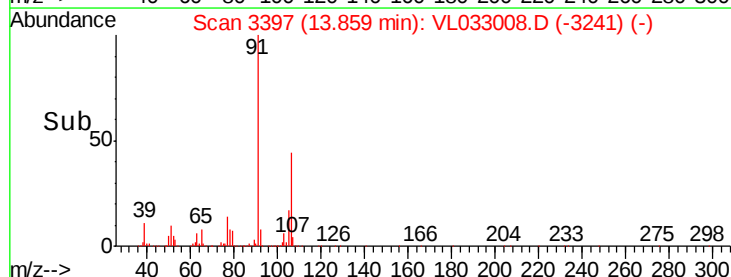
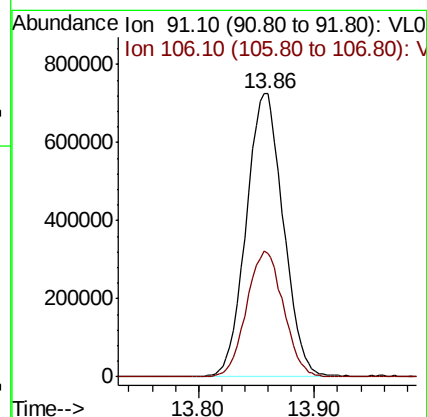
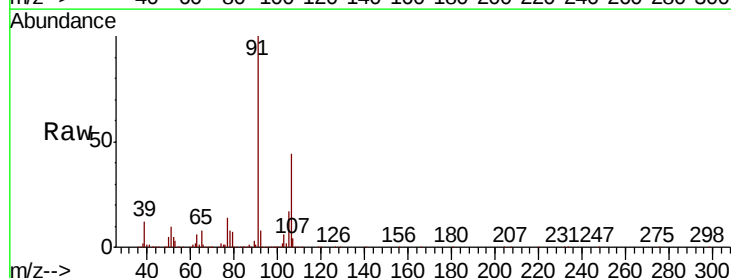
Acq: 17 Dec 2018 23:11

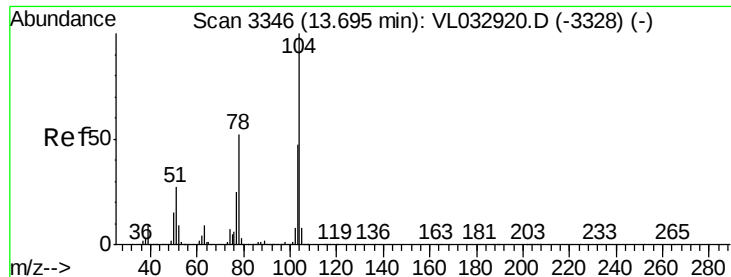
Tgt Ion: 91 Resp: 1612611

Ion Ratio Lower Upper

91 100

106 44.1 21.9 65.8





#61

Stvrene

Concen: 0.187 ppbv m

RT: 13.70 min Scan# 3347

Delta R.T. 0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

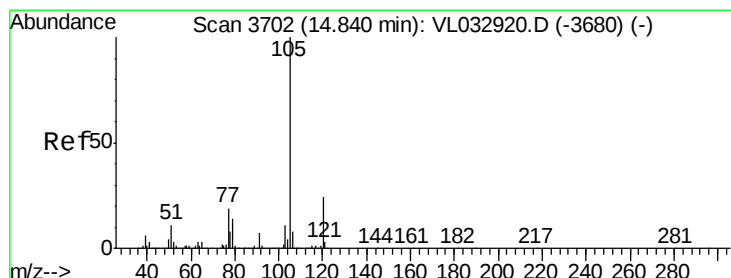
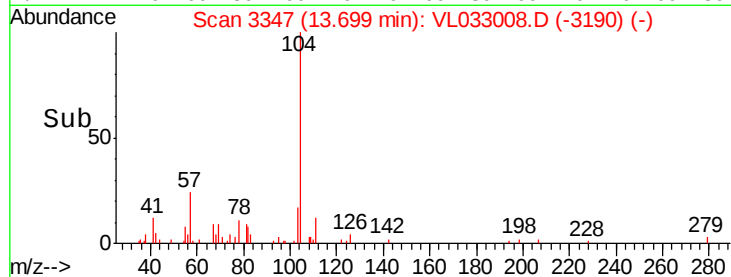
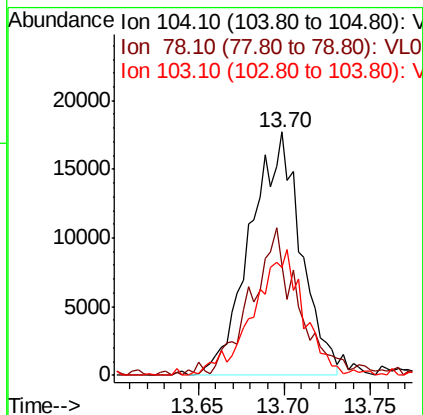
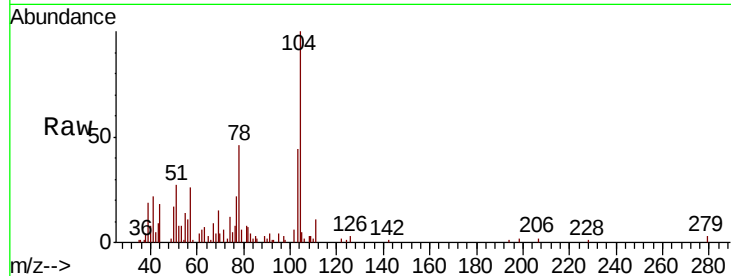
ClientSampleId :

P0068-IA001-181212-01

Tot Ion:	104	Resp:	36296
Ion Ratio	Lower	Upper	
104	100		
78	0.0	42.0	63.0#
103	0.0	38.3	57.5#

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#62

Isopropylbenzene

Concen: 0.126 ppbv

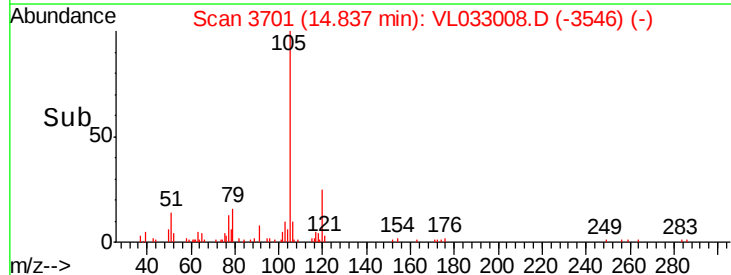
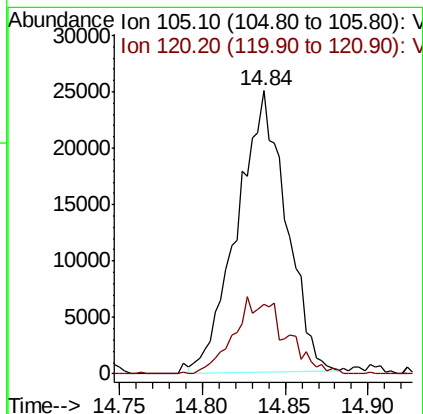
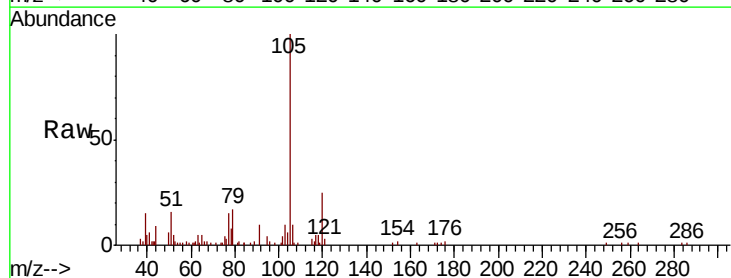
RT: 14.84 min Scan# 3701

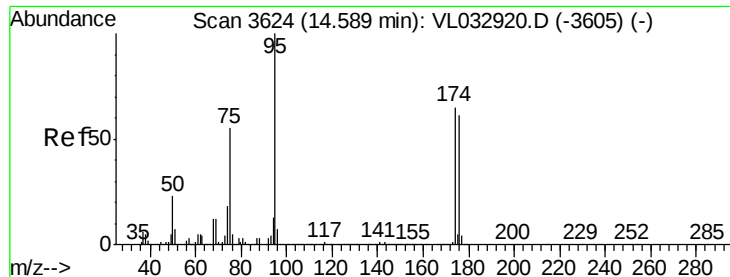
Delta R.T. -0.00 min

Lab File: VL033008.D

Acq: 17 Dec 2018 23:11

Tgt Ion:	105	Resp:	51316
Ion Ratio	Lower	Upper	
105	100		
120	28.5	20.3	30.5





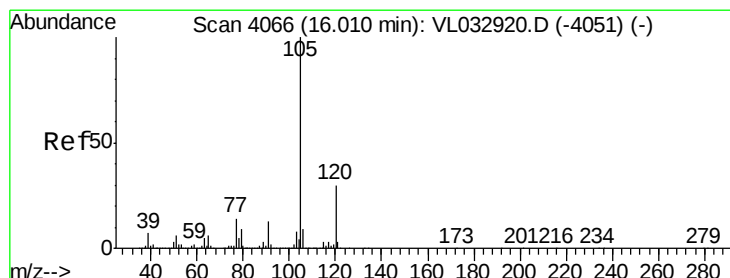
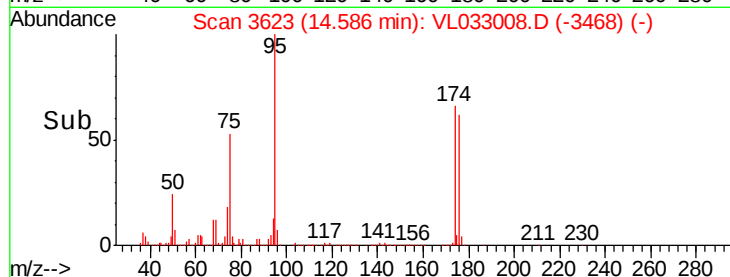
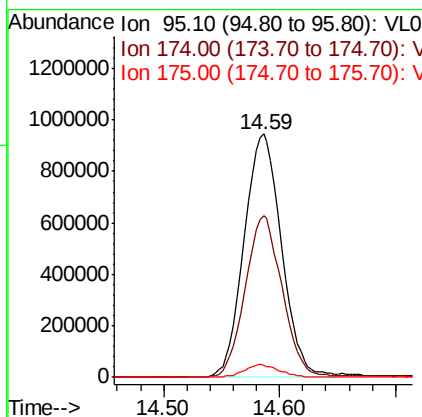
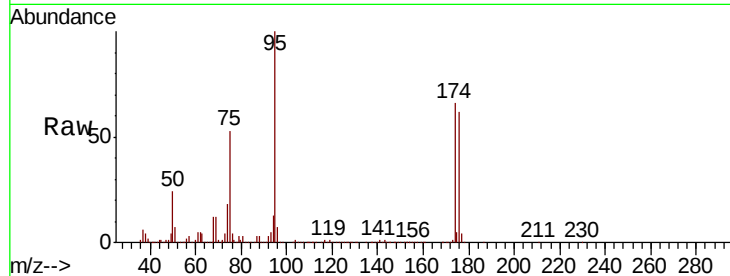
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.651 ppbv
 RT: 14.59 min Scan# 3623
 Delta R.T. -0.00 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Instrument :
 MSVOA_L
 ClientSampleId :
 P0068-IA001-181212-01

Tot Ion: 95 Resp: 2126195
 Ion Ratio Lower Upper
 95 100
 174 66.8 51.4 77.0
 175 5.0 3.8 5.6

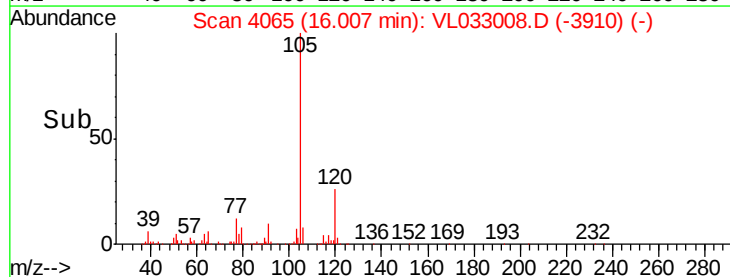
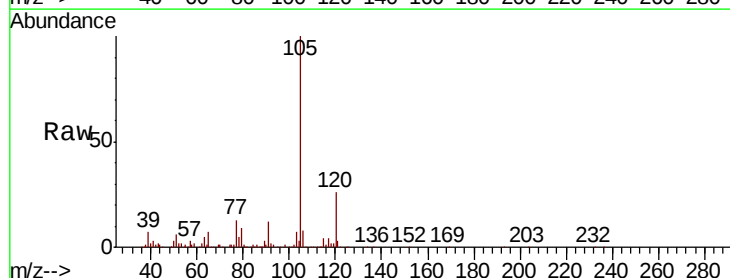
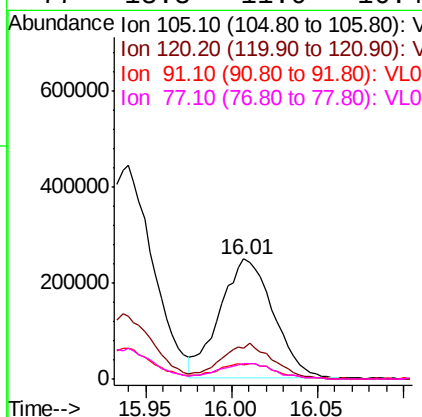
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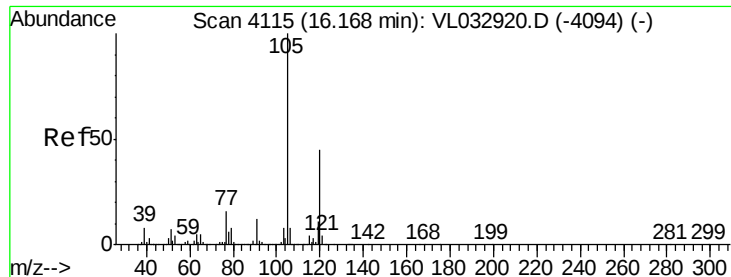
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#72
 4-Ethyltoluene
 Concen: 1.641 ppbv
 RT: 16.01 min Scan# 4065
 Delta R.T. -0.00 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Tgt Ion: 105 Resp: 533664
 Ion Ratio Lower Upper
 105 100
 120 29.0 23.0 34.4
 91 13.9 10.4 15.6
 77 13.3 11.0 16.4





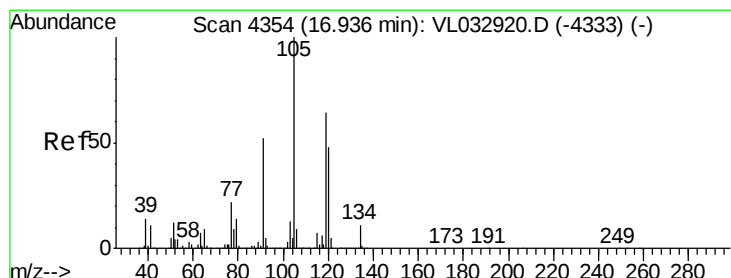
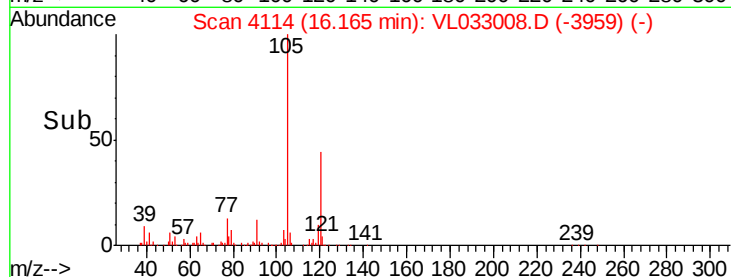
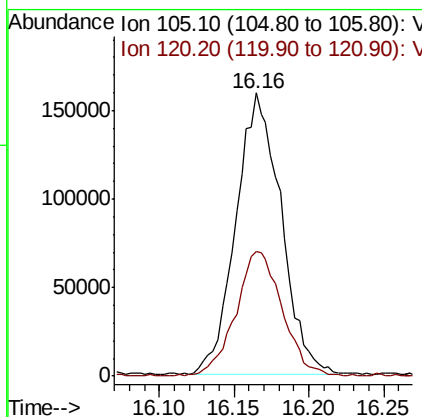
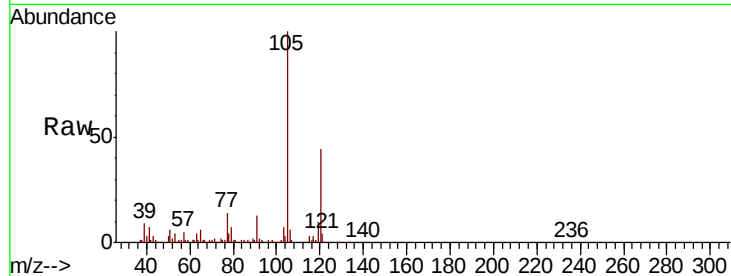
#73
 1,3,5-Trimethylbenzene
 Concen: 1.053 ppbv
 RT: 16.16 min Scan# 4114
 Delta R.T. -0.00 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Instrument :
 MSVOA_L
 ClientSampleId :
 P0068-IA001-181212-01

Tot Ion:105 Resp: 334138
 Ion Ratio Lower Upper
 105 100
 120 43.8 36.0 54.0

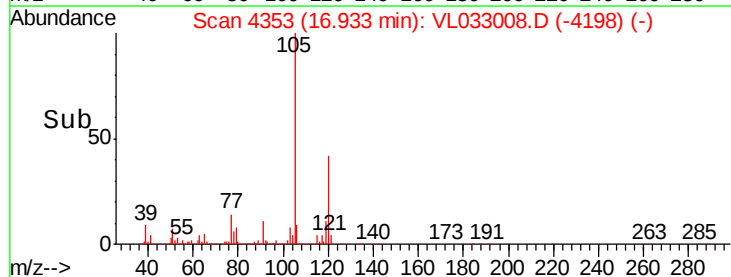
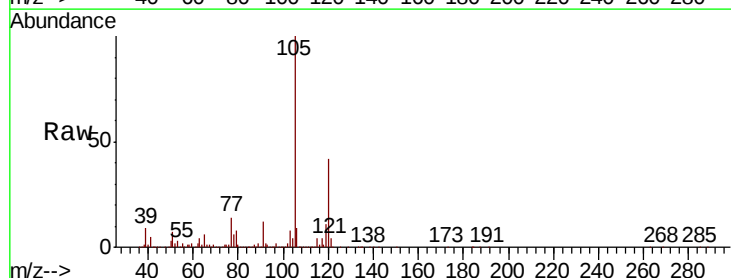
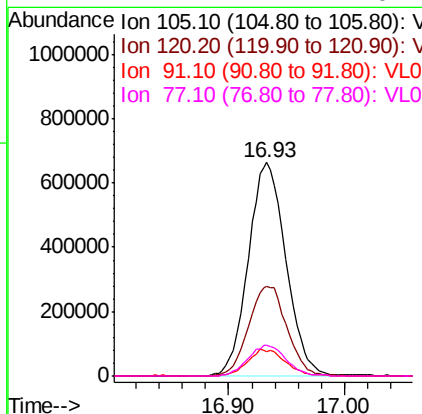
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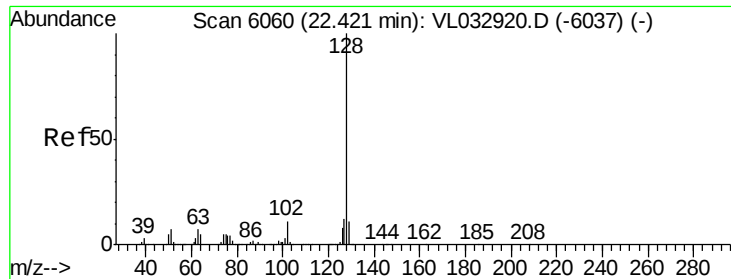
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#74
 1,2,4-Trimethylbenzene
 Concen: 4.169 ppbv
 RT: 16.93 min Scan# 4353
 Delta R.T. -0.00 min
 Lab File: VL033008.D
 Acq: 17 Dec 2018 23:11

Tgt Ion:105 Resp: 1494391
 Ion Ratio Lower Upper
 105 100
 120 41.9 38.6 58.0
 91 11.4 41.7 62.5#
 77 14.2 17.4 26.2#





#79

Naphthalene

Concen: 0.258 ppbv m

RT: 22.43 min Scan# 6063

Delta R.T. 0.01 min

Lab File: VL033008.D

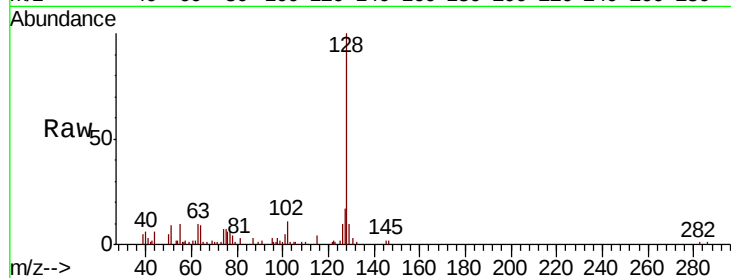
Acq: 17 Dec 2018 23:11

Instrument :

MSVOA_L

ClientSampleId :

P0068-IA001-181212-01



Tot Ion:	128	Resp:	59610
Ion Ratio	Lower	Upper	
128	100		
127	17.2	9.9	14.9#
129	9.9	8.6	13.0

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