

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121718\
 Data File : VL033012.D
 Acq On : 18 Dec 2018 1:49
 Operator : SY/AP
 Sample : J6444-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 YT-CBA-LTM5-02

Manual Integrations
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 12/19/2018 5:37:35 PM

Quant Time: Dec 19 15:49:21 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 0
 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	1126030	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	2715304	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	2497397	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	2222755	12.05	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	120.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	92890	0.618	ppbv	94
3) Chlorodifluoromethane	3.01	51	50052m	0.587	ppbv	
4) Chloromethane	3.17	50	31585	0.636	ppbv	96
9) Propene	3.05	41	1164538m	34.535	ppbv	
10) Heptane	8.25	43	31072	0.245	ppbv	98
11) Trichlorofluoromethane	4.01	101	41655	0.294	ppbv	99
13) Ethanol	3.65	45	927656	79.901	ppbv	97
15) Acetone	3.90	43	1499239m	15.512	ppbv	
19) Isopropyl Alcohol	4.04	45	200773	3.308	ppbv #	1
20) Methylene Chloride	4.41	84	183758	3.890	ppbv	98
26) Hexane	5.78	57	307999	2.922	ppbv #	50
34) 2-Butanone	5.34	43	62630	0.530	ppbv	97
35) Carbon Tetrachloride	7.14	117	15694	0.074	ppbv	85
36) Benzene	7.01	78	160382	0.803	ppbv	96
38) Trichloroethene	7.97	130	7384m	0.089	ppbv	
44) 2,2,4-Trimethylpentane	7.99	57	113503	0.335	ppbv #	78
52) Tetrachloroethene	11.38	164	8892m	0.122	ppbv	
53) Toluene	9.96	91	16145380	76.225	ppbv	91
58) Ethyl Benzene	12.88	91	74725	0.280	ppbv #	89
59) m/p-Xylene	13.13	91	223679	0.926	ppbv #	100
60) o-Xylene	13.86	91	81292m	0.333	ppbv	
73) 1,3,5-Trimethylbenzene	16.17	105	36051	0.136	ppbv	99
74) 1,2,4-Trimethylbenzene	16.93	105	131044	0.437	ppbv #	67

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

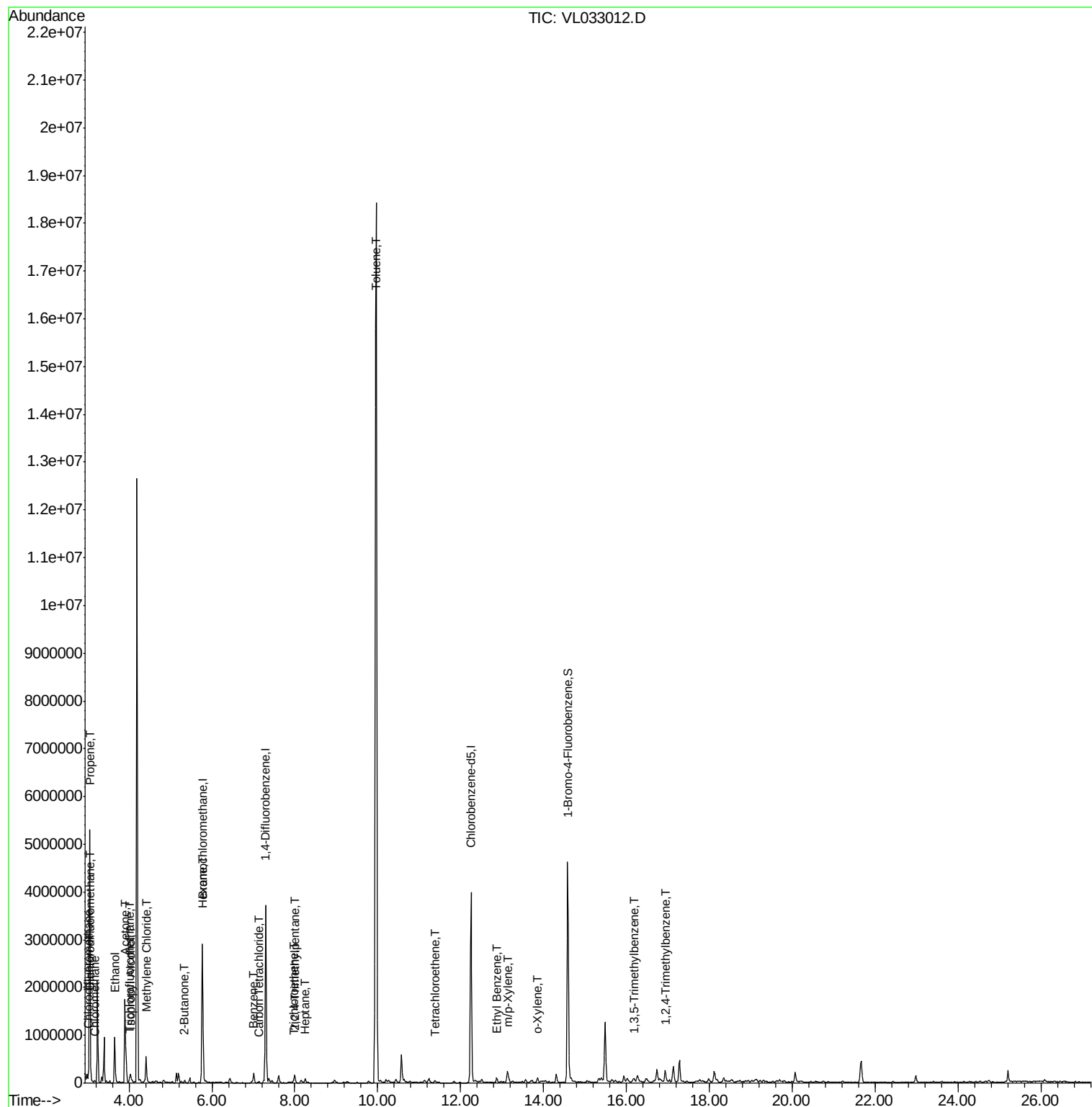
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL121718\
Data File : VL033012.D
Acq On : 18 Dec 2018 1:49
Operator : SY/AP
Sample : J6444-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

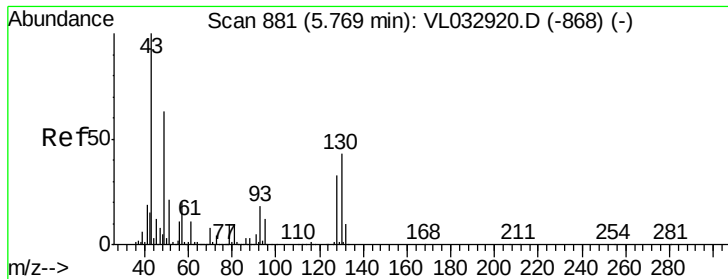
Instrument :
MSVOA_L
ClientSampleId :
YT-CBA-LTM5-02

Manual Integrations
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Quant Time: Dec 19 15:49:21 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# 880

Delta R.T. -0.00 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

ClientSampleId :

YT-CBA-LTM5-02

Tot Ion: 49 Resp: 1126030

Ion Ratio Lower Upper

49 100

128 53.2 26.3 78.8

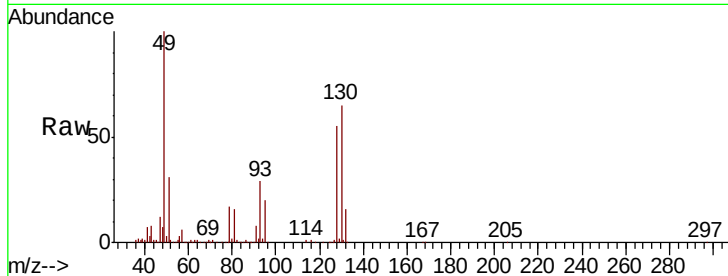
130 67.3 33.9 101.7

Manual Integrations

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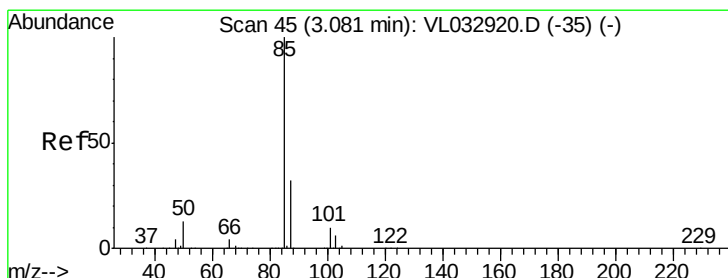
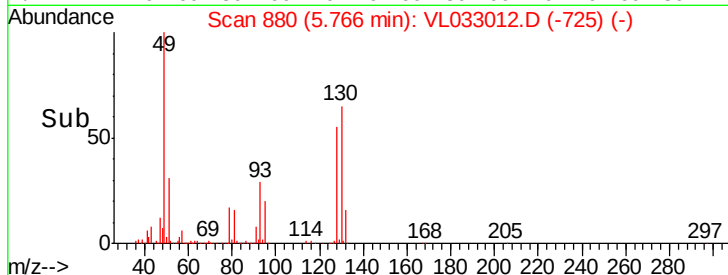
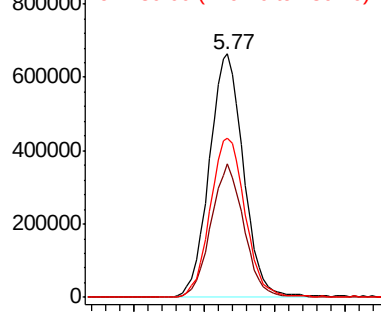
12/19/2018 5:37:35 PM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.618 ppbv

RT: 3.08 min Scan# 44

Delta R.T. -0.00 min

Lab File: VL033012.D

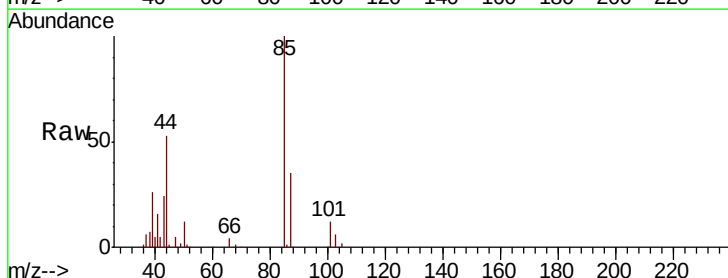
Acq: 18 Dec 2018 1:49

Tgt Ion: 85 Resp: 92890

Ion Ratio Lower Upper

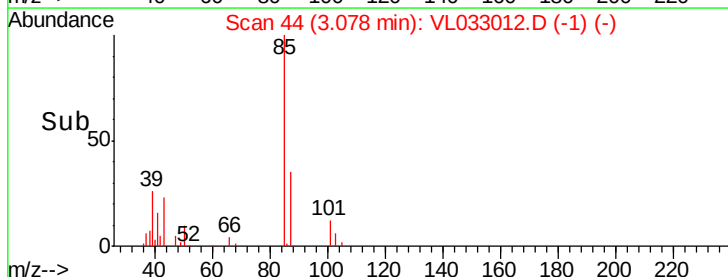
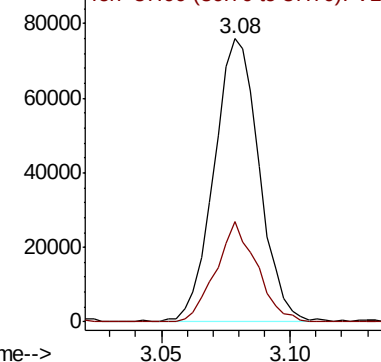
85 100

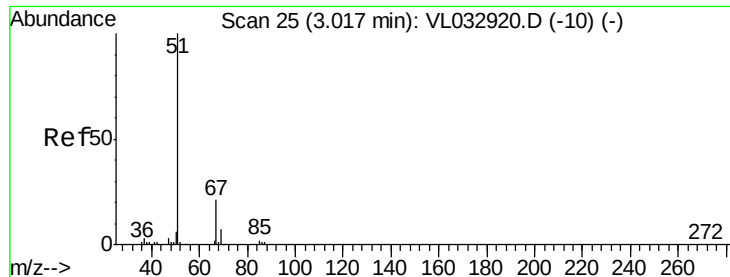
87 35.4 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





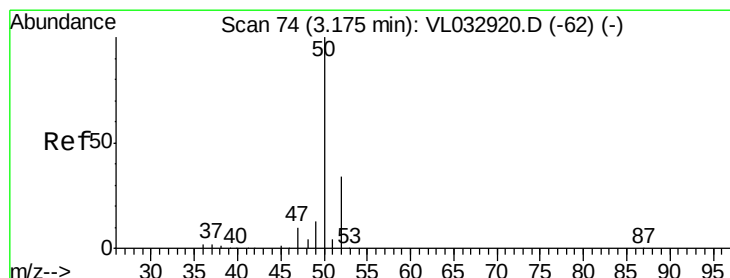
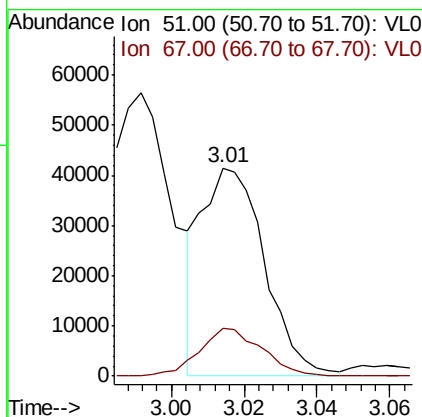
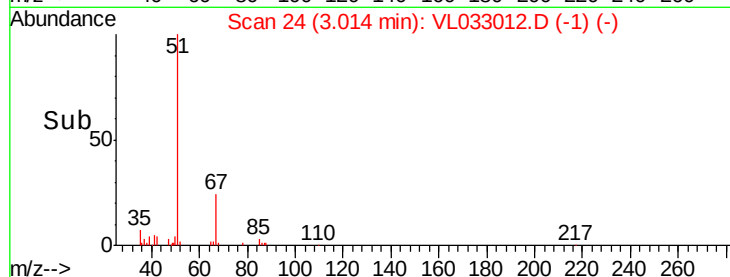
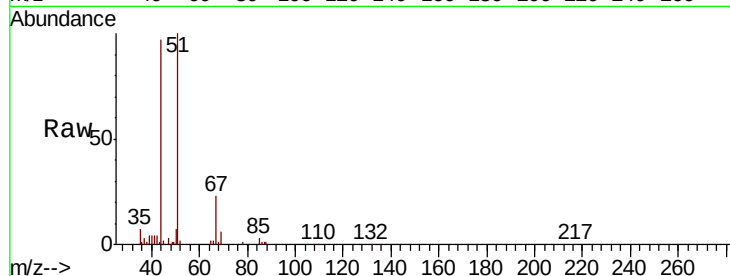
#3
Chlorodifluoromethane
Concen: 0.587 ppbv
RT: 3.01 min Scan# 24
Delta R.T. -0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Instrument :
MSVOA_L
ClientSampleId :
YT-CBA-LTM5-02

Tot Ion	Ion	Ratio	Lower	Upper
51	51	100		
67	67	22.7	16.8	25.2

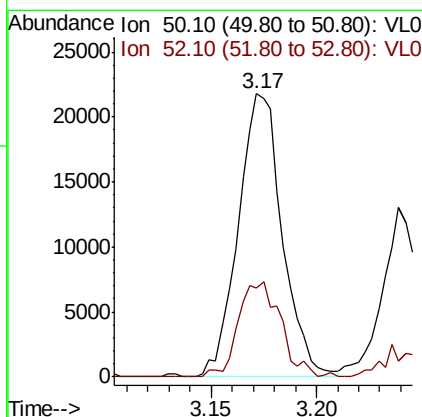
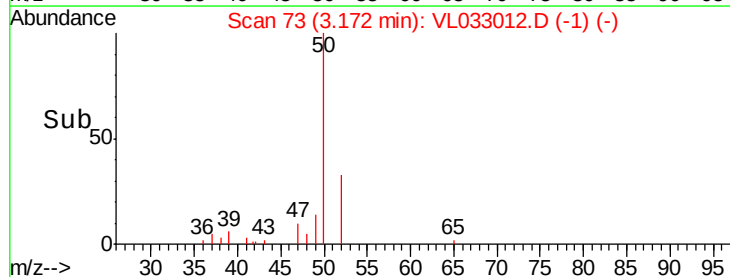
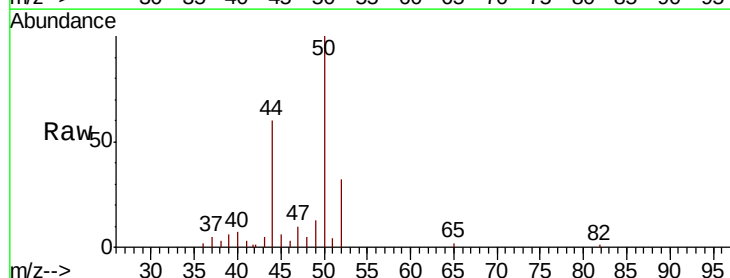
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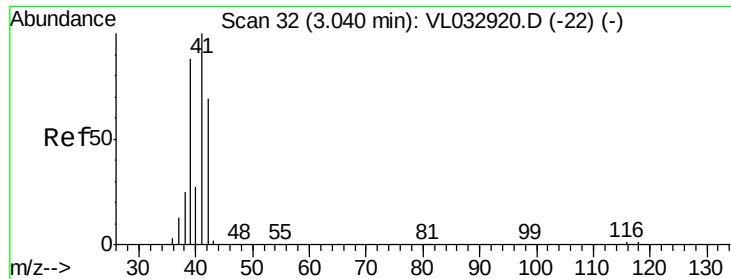
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#4
Chloromethane
Concen: 0.636 ppbv
RT: 3.17 min Scan# 73
Delta R.T. -0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Tgt Ion	Ion	Ratio	Lower	Upper
50	50	100		
52	52	31.6	27.3	40.9





#9

Propene

Concen: 34.535 ppbv m

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

ClientSampleId :

YT-CBA-LTM5-02

Tot Ion: 41 Resp: 1164538

Ion Ratio Lower Upper

41 100

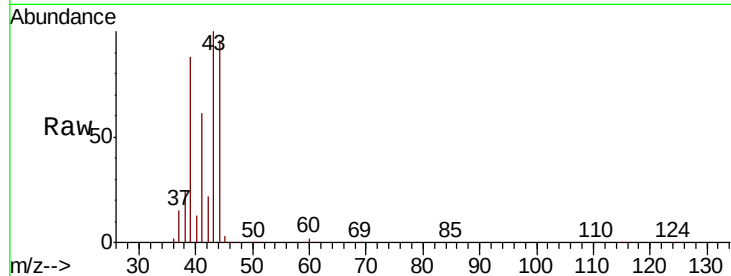
42 31.6 56.2 84.2#

Manual Integrations

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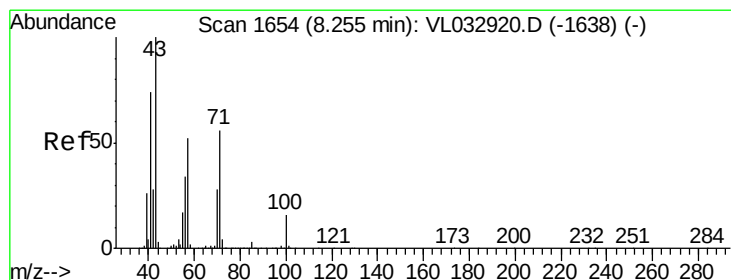
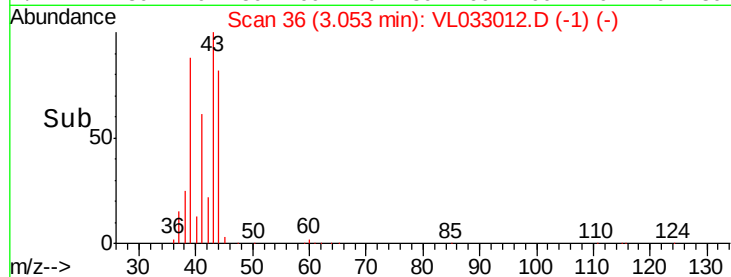
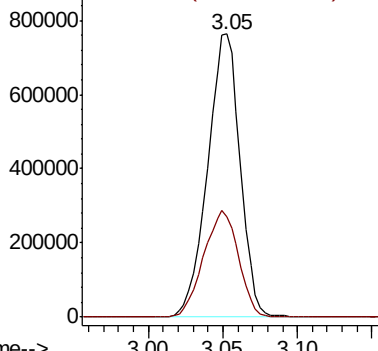
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.245 ppbv

RT: 8.25 min Scan# 1651

Delta R.T. -0.01 min

Lab File: VL033012.D

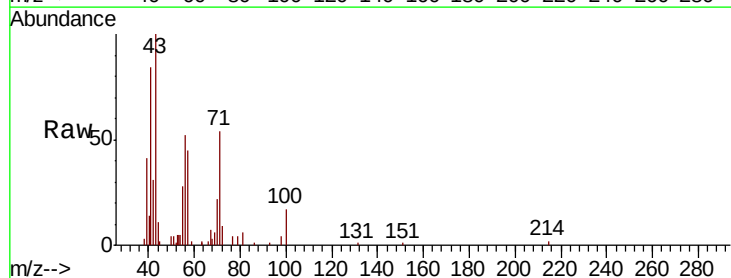
Acq: 18 Dec 2018 1:49

Tgt Ion: 43 Resp: 31072

Ion Ratio Lower Upper

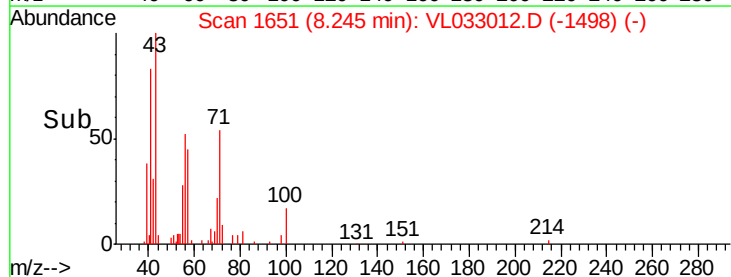
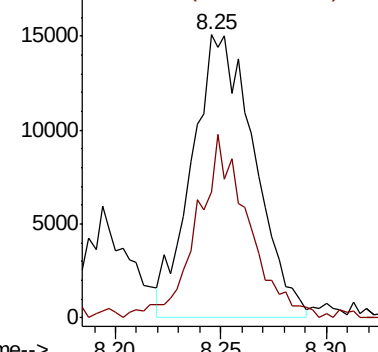
43 100

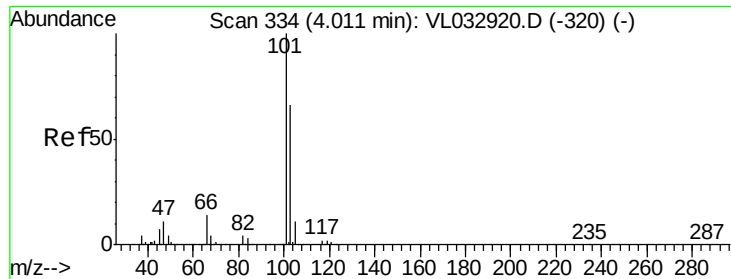
57 53.9 41.8 62.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





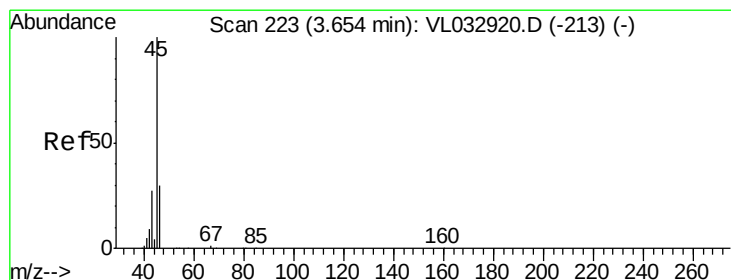
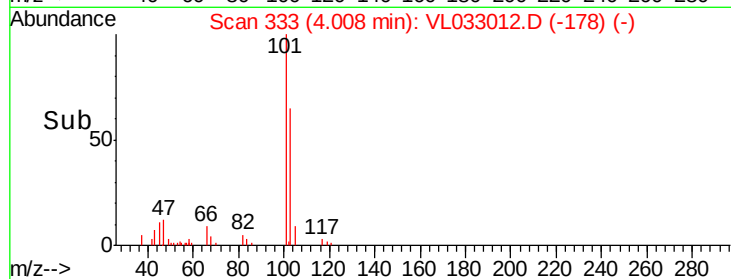
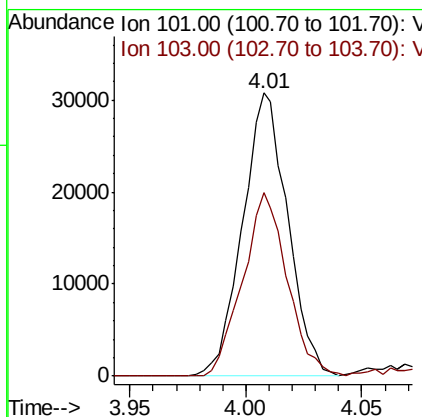
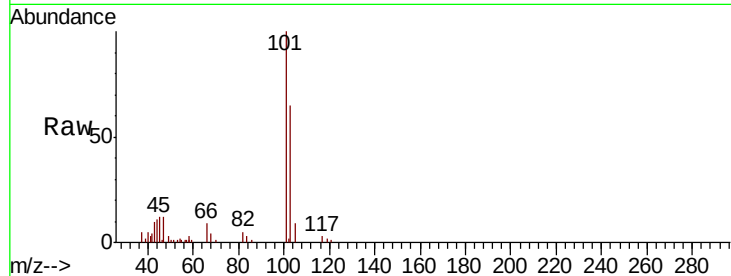
#11
 Trichlorofluoromethane
 Concen: 0.294 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. -0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Instrument :
 MSVOA_L
 ClientSampleId :
 YT-CBA-LTM5-02

Tot Ion: 101 Resp: 41655
 Ion Ratio Lower Upper
 101 100
 103 64.9 52.7 79.1

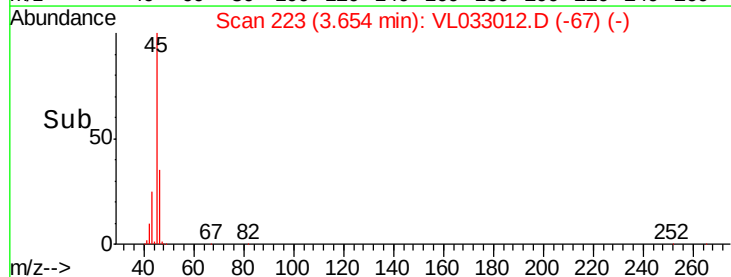
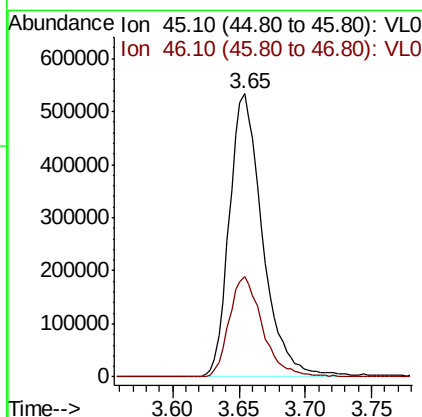
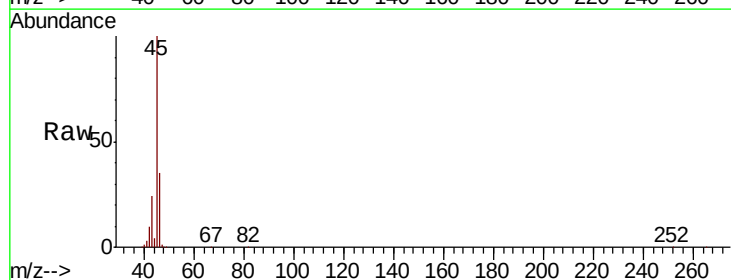
Manual Integrations
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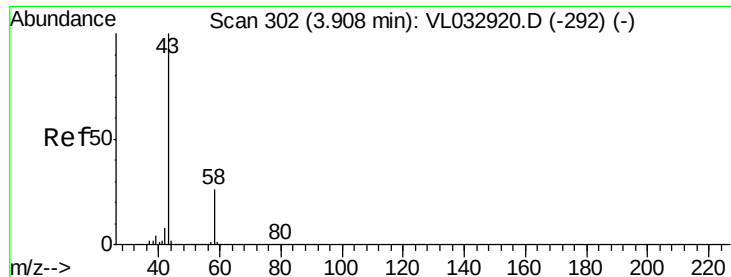
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#13
 Ethanol
 Concen: 79.901 ppbv
 RT: 3.65 min Scan# 223
 Delta R.T. 0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Tgt Ion: 45 Resp: 927656
 Ion Ratio Lower Upper
 45 100
 46 36.2 13.8 55.4





#15

Acetone

Concen: 15.512 ppbv m

RT: 3.90 min Scan# 300

Delta R.T. -0.01 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

ClientSampleId :

YT-CBA-LTM5-02

Tot Ion: 43 Resp: 1499239

Ion Ratio Lower Upper

43 100

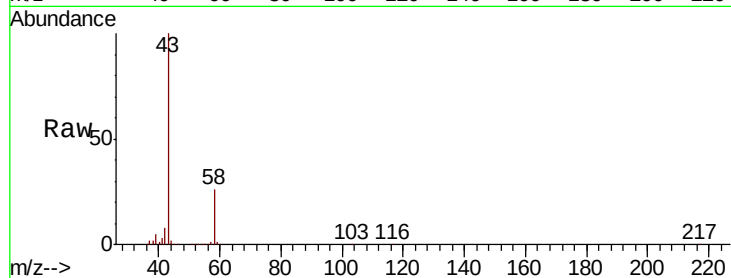
58 31.1 20.6 30.8#

Manual Integrations

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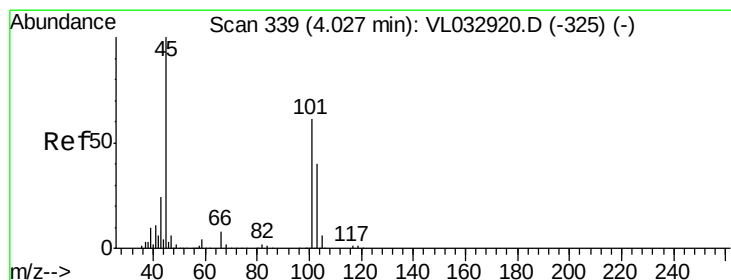
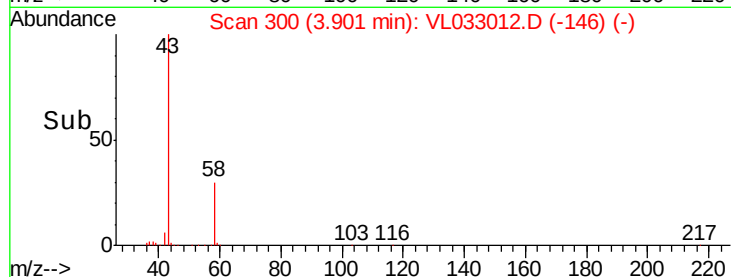
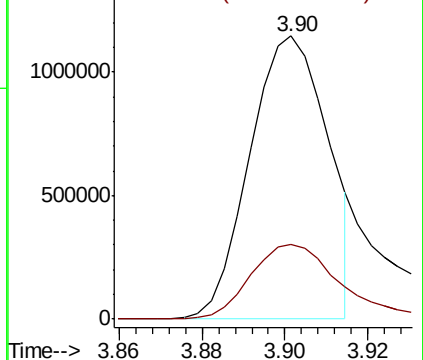
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 3.308 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.01 min

Lab File: VL033012.D

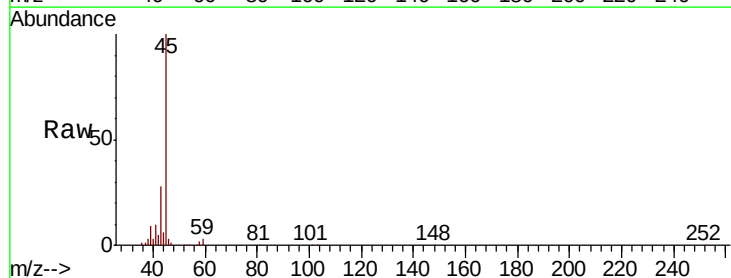
Acq: 18 Dec 2018 1:49

Tgt Ion: 45 Resp: 200773

Ion Ratio Lower Upper

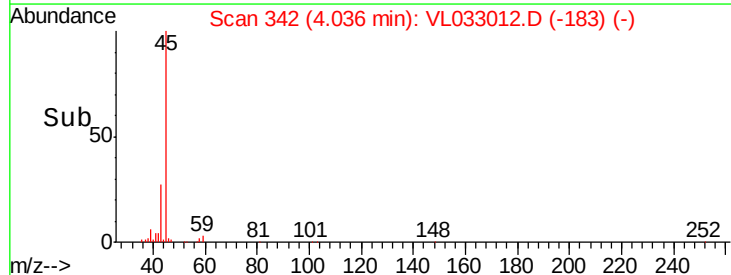
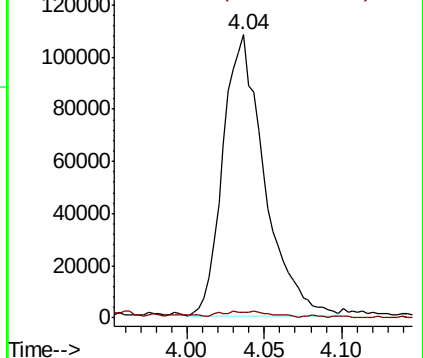
45 100

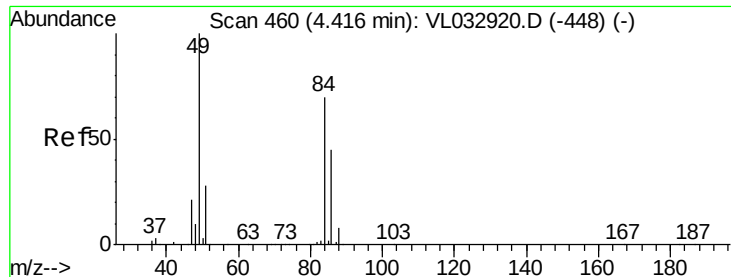
58 231.5 1.4 2.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





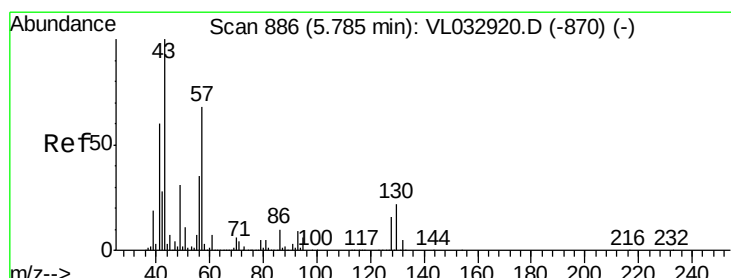
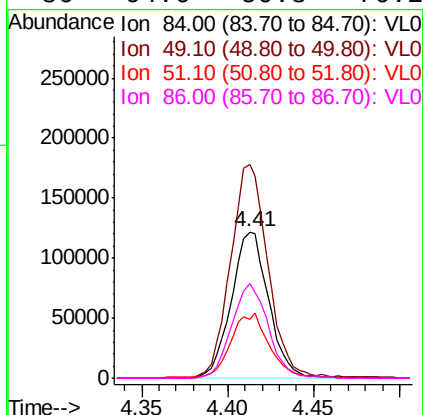
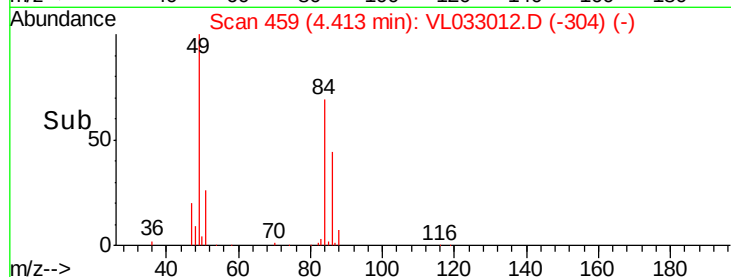
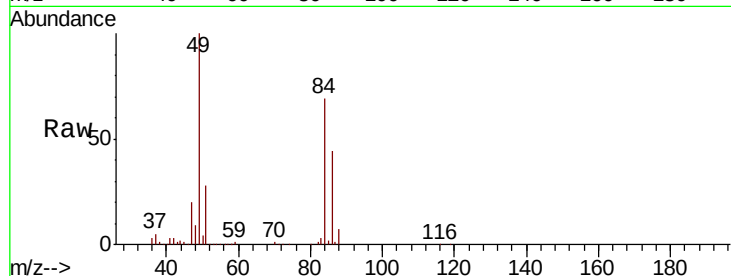
#20
Methvlene Chloride
Concen: 3.890 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Instrument :
MSVOA_L
ClientSampleId :
YT-CBA-LTM5-02

Tot Ion	Ion	Ratio	Lower	Upper
84	100			
49	145.8	113.8	170.8	
51	40.0	31.8	47.8	
86	64.6	50.8	76.2	

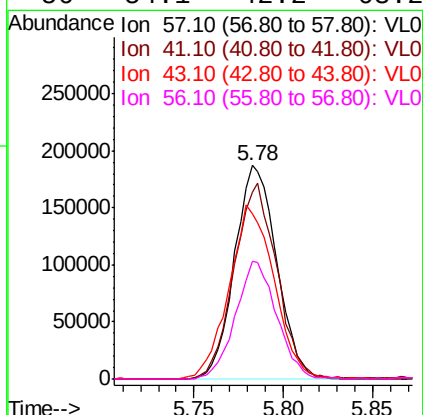
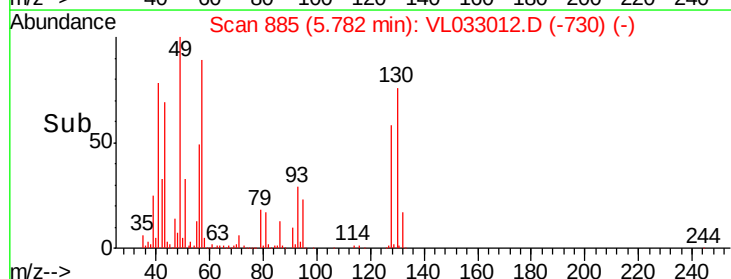
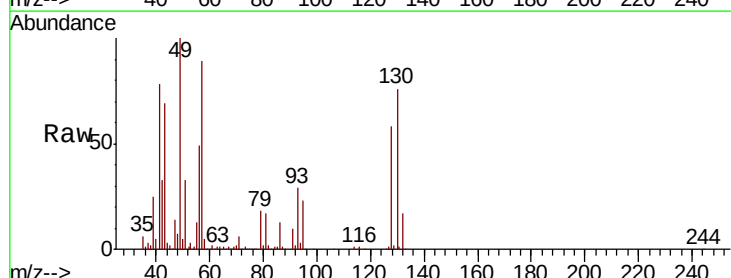
Manual Integrations
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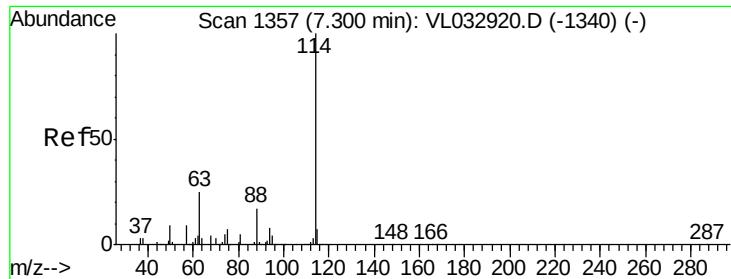
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#26
Hexane
Concen: 2.922 ppbv
RT: 5.78 min Scan# 885
Delta R.T. -0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Tgt Ion	Ion	Ratio	Lower	Upper
57	100			
41	93.4	72.2	108.2	
43	87.1	171.9	257.9#	
56	54.1	42.2	63.2	





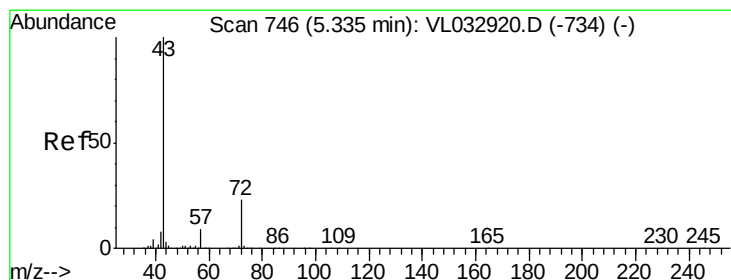
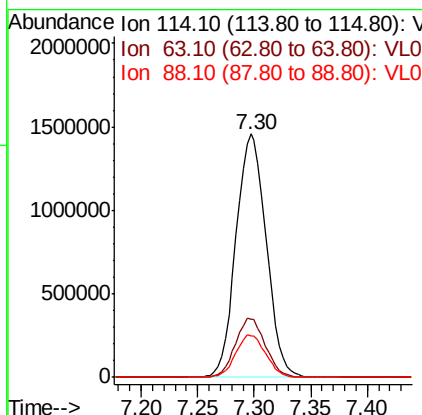
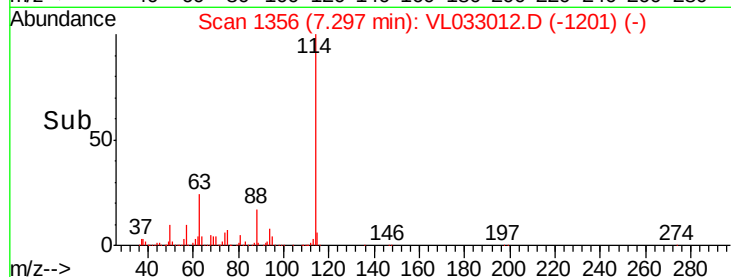
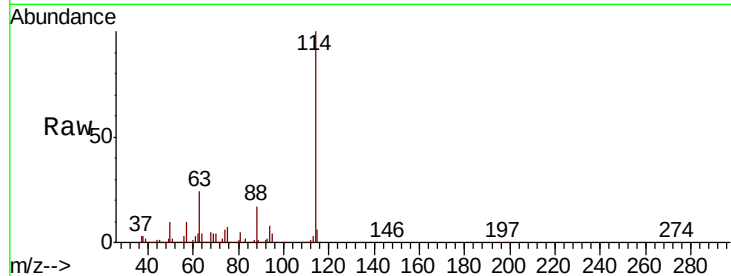
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1356
 Delta R.T. -0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Instrument :
 MSVOA_L
 ClientSampleId :
 YT-CBA-LTM5-02

Tot Ion	Ratio	Lower	Upper
114	100		
63	24.2	20.1	30.1
88	17.3	14.2	21.4

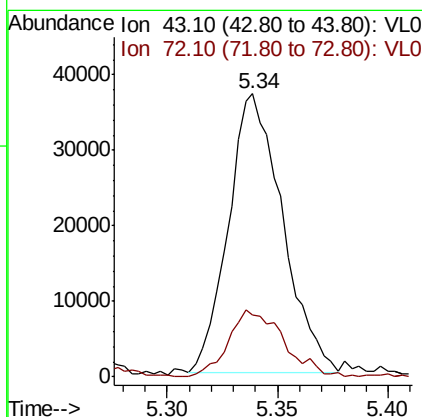
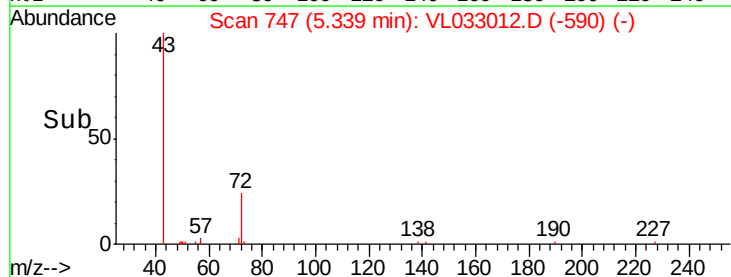
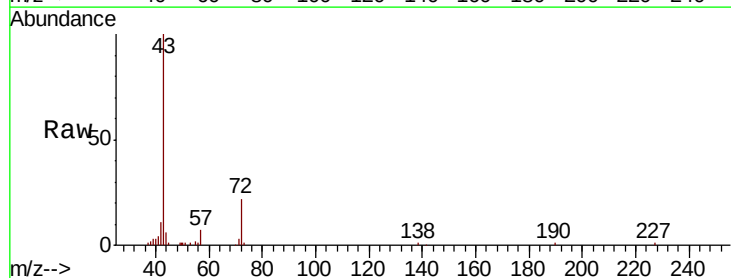
Manual Integrations
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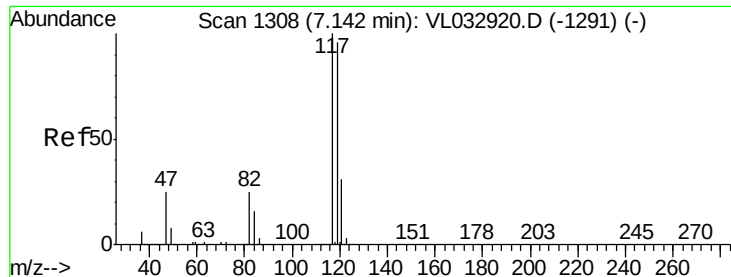
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#34
 2-Butanone
 Concen: 0.530 ppbv
 RT: 5.34 min Scan# 747
 Delta R.T. 0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Tgt Ion	Ratio	Lower	Upper
43	100		
72	24.9	18.8	28.2





#35

Carbon Tetrachloride

Concen: 0.074 ppbv

RT: 7.14 min Scan# 1307

Delta R.T. -0.00 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

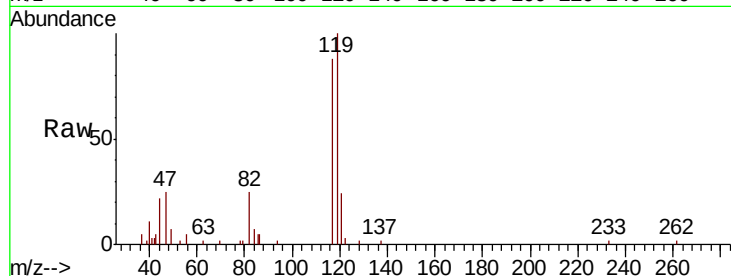
ClientSampleId :

YT-CBA-LTM5-02

Tot Ion:	117	Resp:	15694
Ion Ratio	Lower	Upper	
117	100		
119	113.4	76.5	114.7
121	27.7	24.5	36.7

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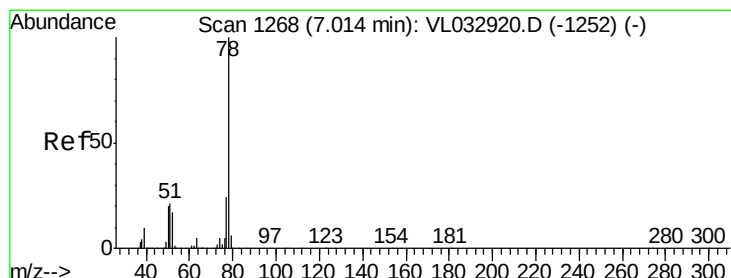
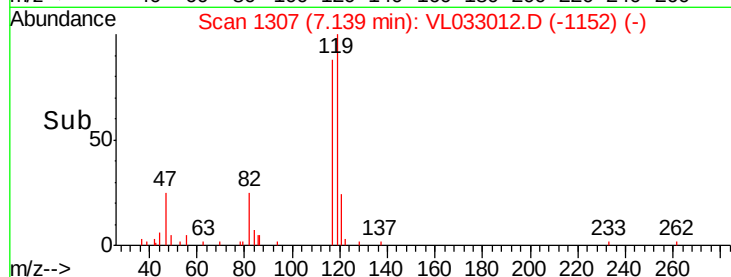
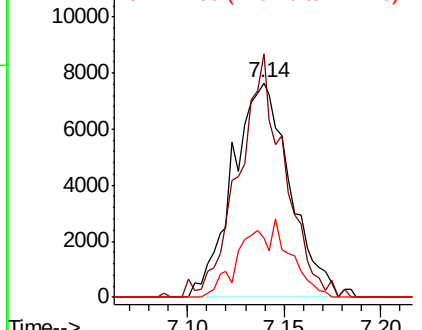


Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.803 ppbv

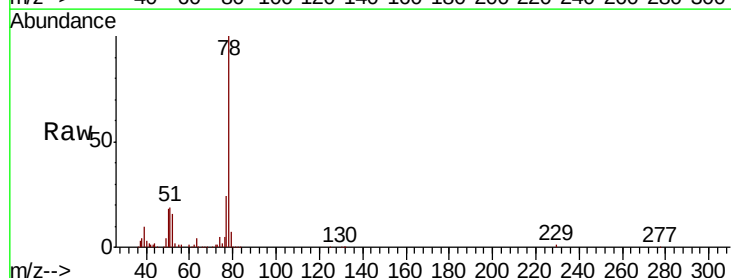
RT: 7.01 min Scan# 1266

Delta R.T. -0.01 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Tgt Ion:	78	Resp:	160382
Ion Ratio	Lower	Upper	
78	100		
77	23.1	18.9	28.3
50	17.1	16.1	24.1

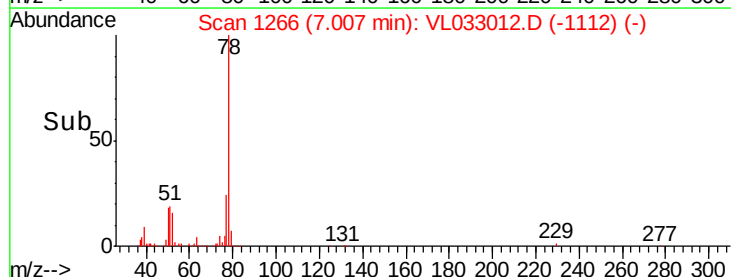
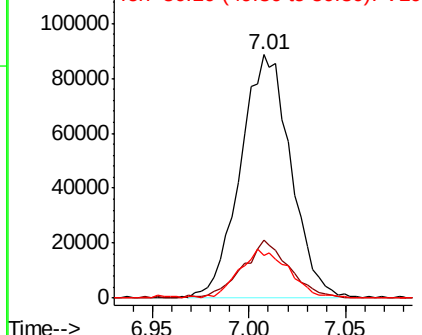


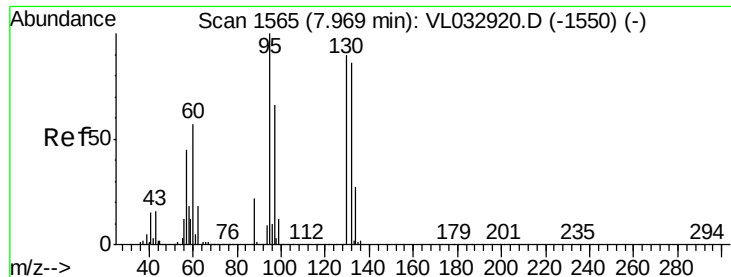
Abundance

Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#38

Trichloroethene

Concen: 0.089 ppbv m

RT: 7.97 min Scan# 1564

Delta R.T. -0.00 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

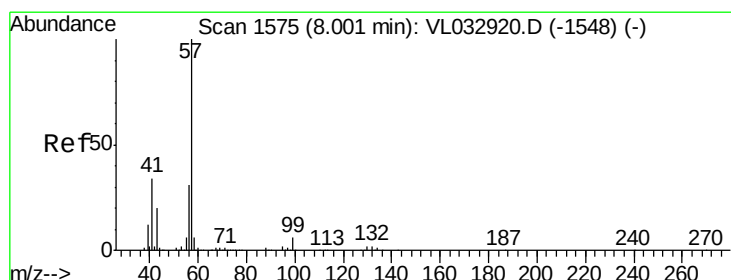
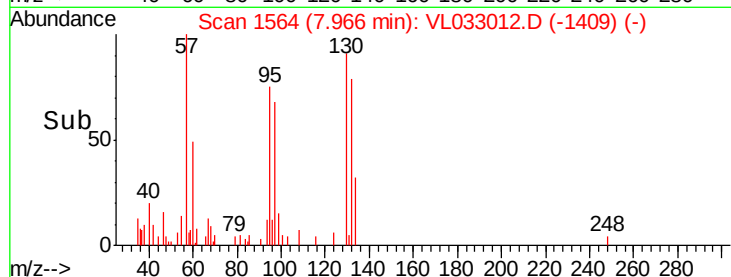
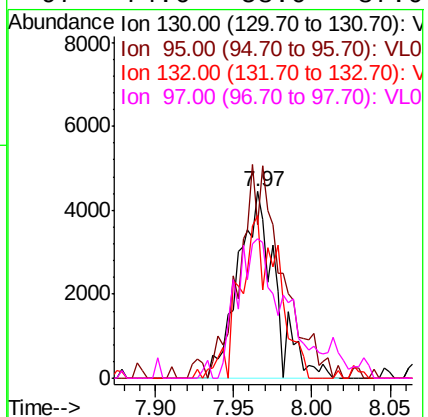
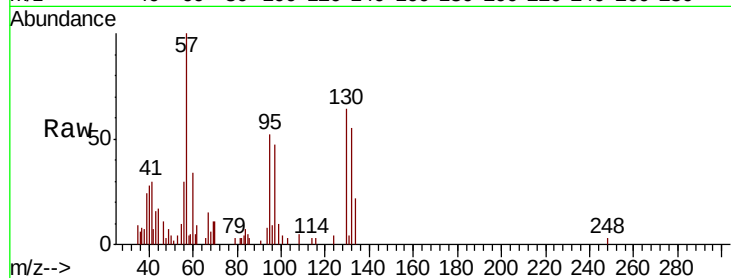
ClientSampleId :

YT-CBA-LTM5-02

Tot Ion:	130	Resp:	7384
Ion Ratio	Lower	Upper	
130	100		
95	82.6	88.6	132.8#
132	86.8	76.1	114.1
97	74.6	58.0	87.0

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#44

2,2,4-Trimethylpentane

Concen: 0.335 ppbv

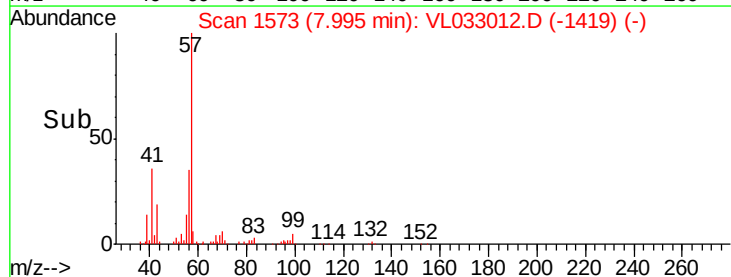
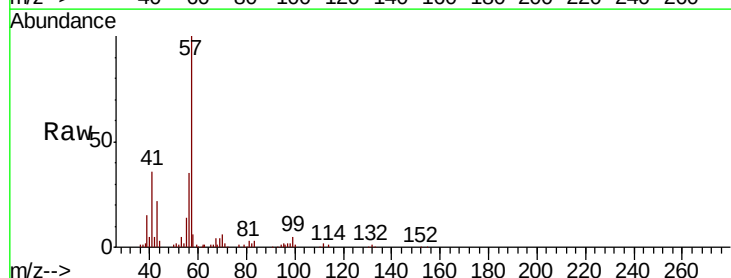
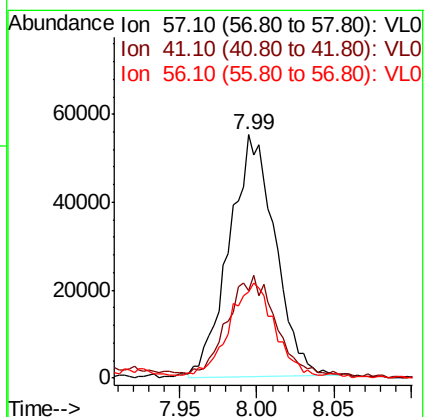
RT: 7.99 min Scan# 1573

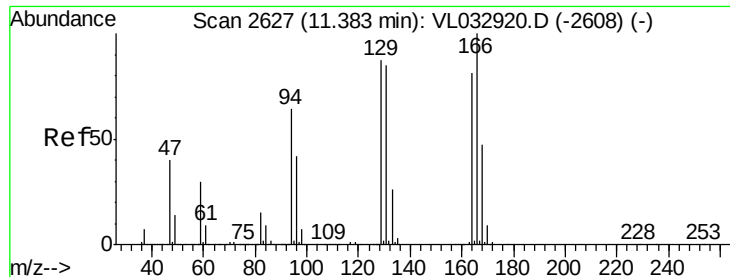
Delta R.T. -0.01 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Tgt Ion:	57	Resp:	113503
Ion Ratio	Lower	Upper	
57	100		
41	47.5	27.0	40.4#
56	41.2	24.6	37.0#





#52

Tetrachloroethene

Concen: 0.122 ppbv m

RT: 11.38 min Scan# 2626

Delta R.T. -0.00 min

Lab File: VL033012.D

Acq: 18 Dec 2018 1:49

Instrument :

MSVOA_L

ClientSampleId :

YT-CBA-LTM5-02

Tot Ion:164 Resp: 8892

Ion Ratio Lower Upper

164 100

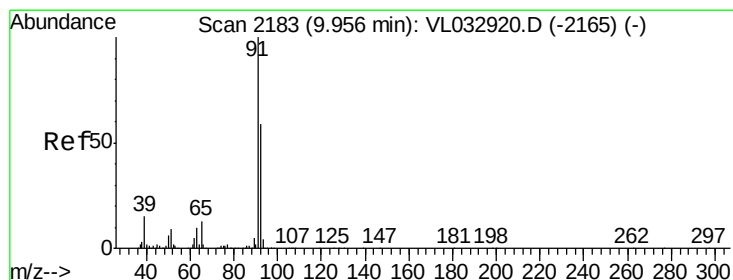
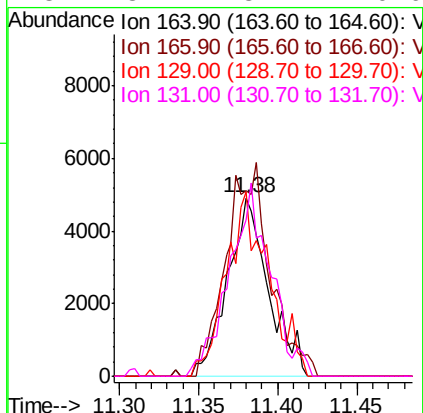
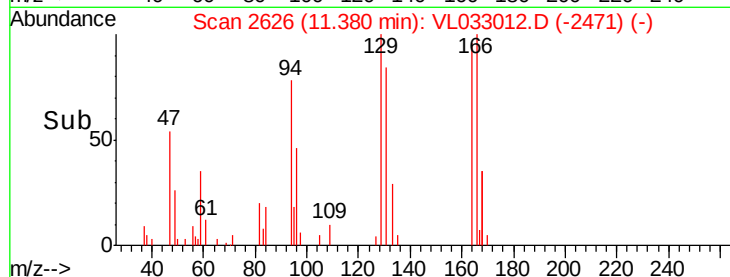
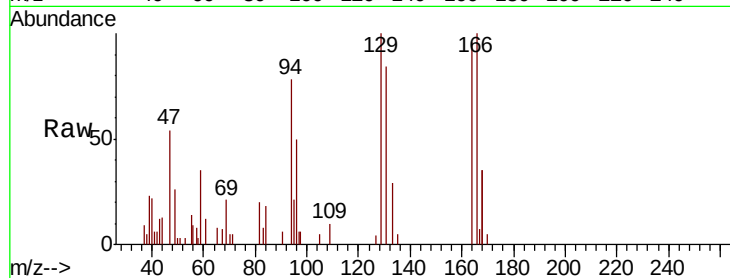
166 104.2 98.8 148.2

129 103.7 85.5 128.3

131 87.4 84.4 126.6

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#53

Toluene

Concen: 76.225 ppbv

RT: 9.96 min Scan# 2184

Delta R.T. 0.00 min

Lab File: VL033012.D

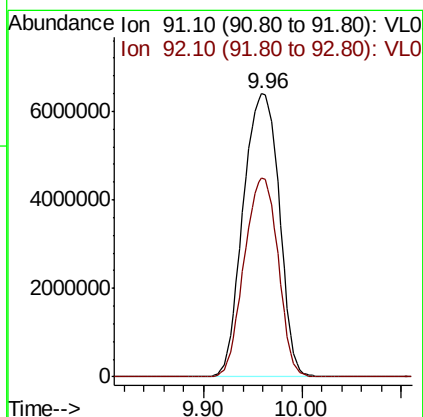
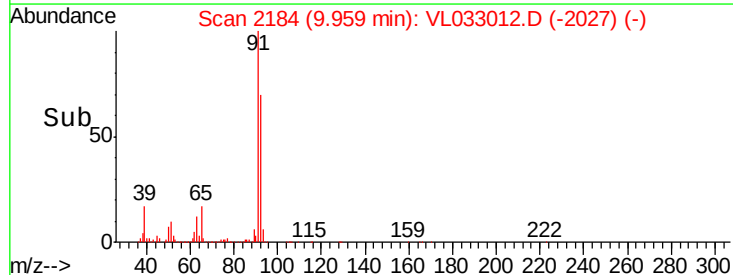
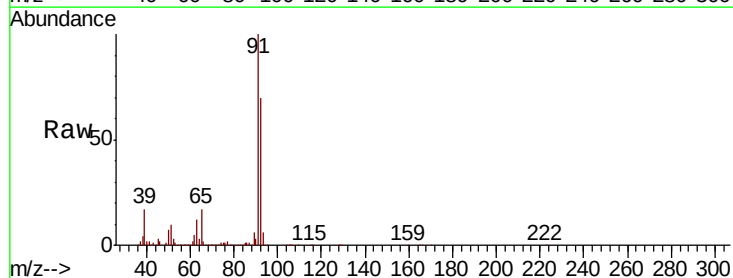
Acq: 18 Dec 2018 1:49

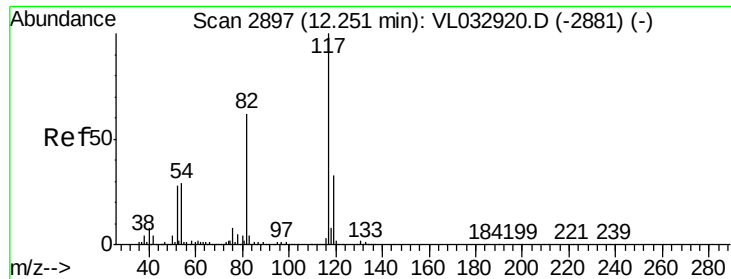
Tgt Ion: 91 Resp:16145380

Ion Ratio Lower Upper

91 100

92 66.2 47.4 71.0





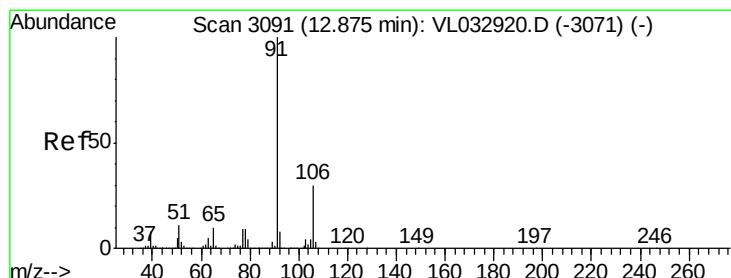
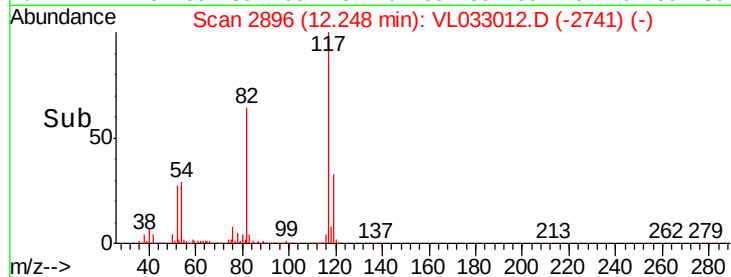
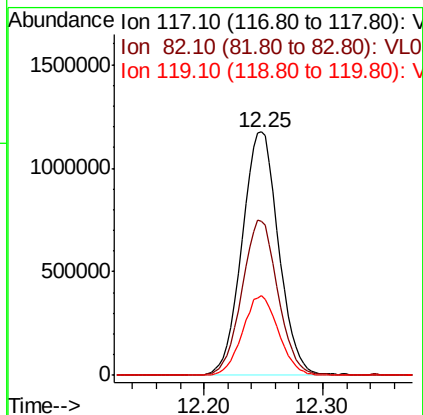
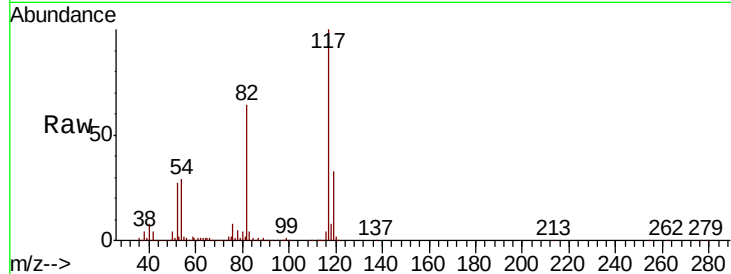
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2896
Delta R.T. -0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Instrument :
MSVOA_L
ClientSampleId :
YT-CBA-LTM5-02

Tot Ion	Ratio	Lower	Upper
117	100		
82	62.7	47.8	71.8
119	32.3	43.1	64.7#

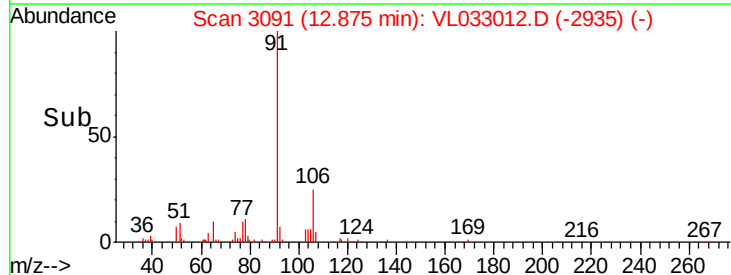
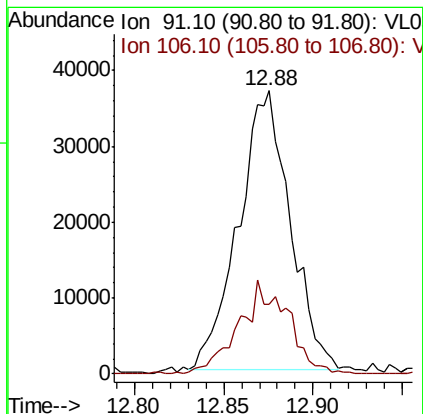
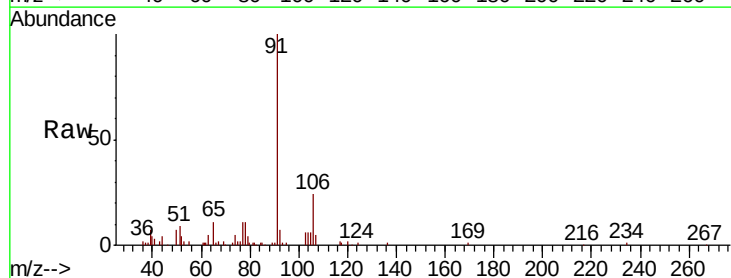
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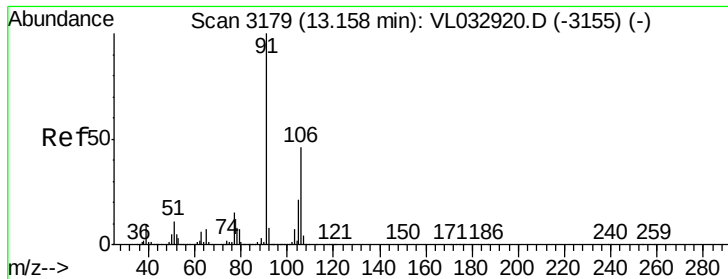
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#58
Ethyl Benzene
Concen: 0.280 ppbv
RT: 12.88 min Scan# 3091
Delta R.T. 0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Tgt Ion	Ratio	Lower	Upper
91	100		
106	23.7	23.9	35.9#





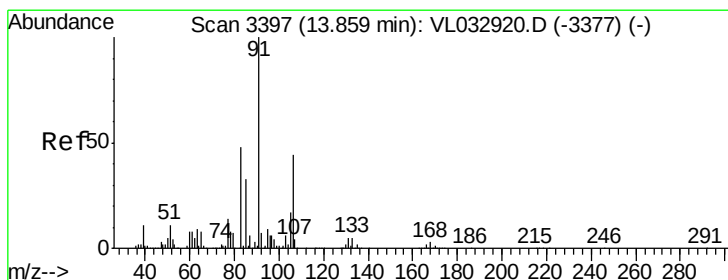
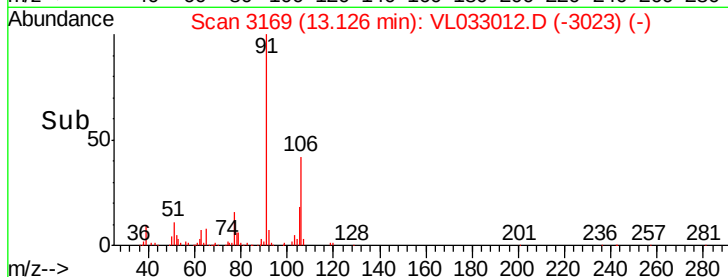
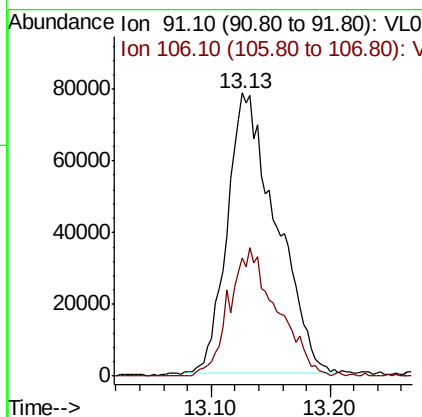
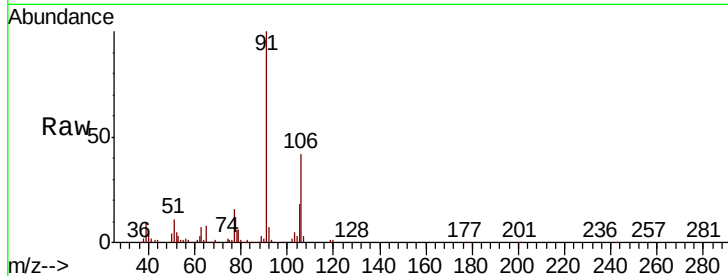
#59
m/p-Xylene
Concen: 0.926 ppbv
RT: 13.13 min Scan# 3169
Delta R.T. -0.03 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Instrument :
MSVOA_L
ClientSampleId :
YT-CBA-LTM5-02

Tot Ion: 91 Resp: 223679
Ion Ratio Lower Upper
91 100
106 44.6 0.0 0.0#

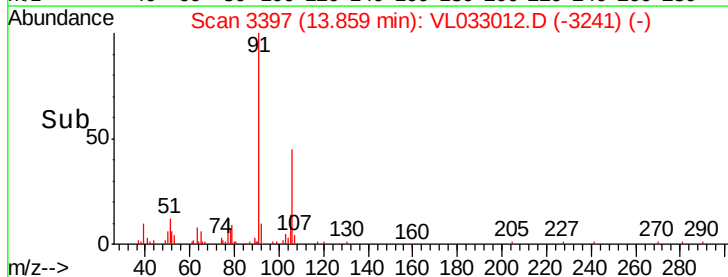
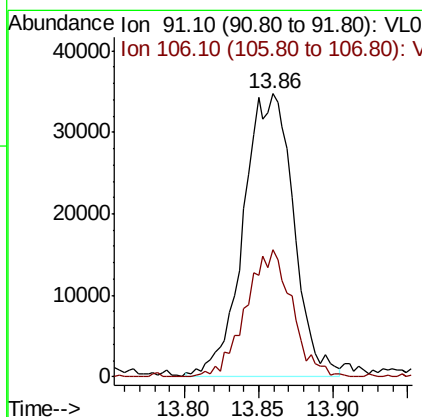
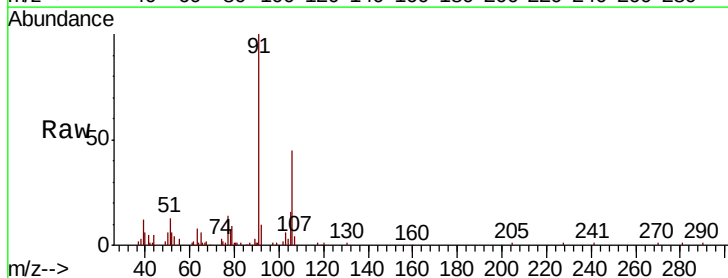
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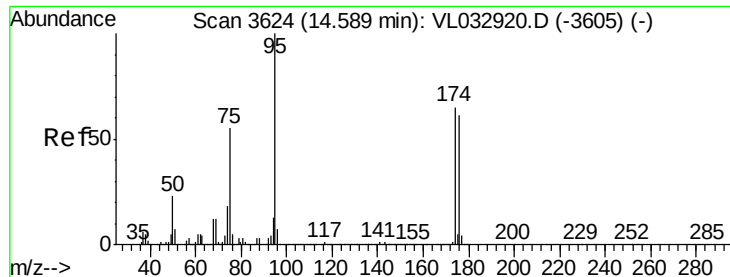
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#60
o-Xylene
Concen: 0.333 ppbv m
RT: 13.86 min Scan# 3397
Delta R.T. 0.00 min
Lab File: VL033012.D
Acq: 18 Dec 2018 1:49

Tgt Ion: 91 Resp: 81292
Ion Ratio Lower Upper
91 100
106 41.5 21.9 65.8





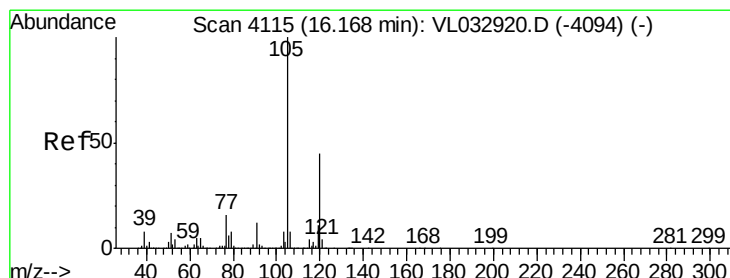
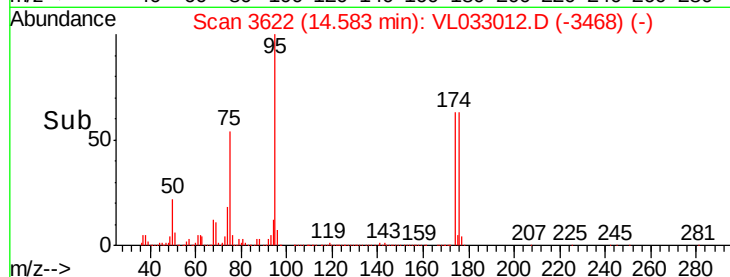
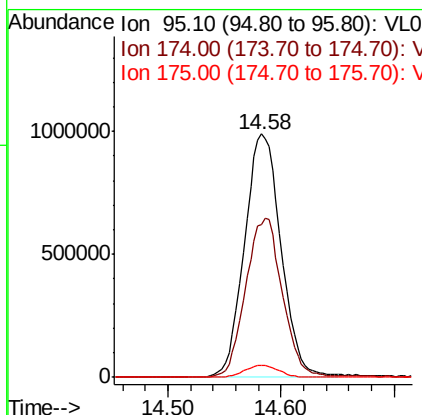
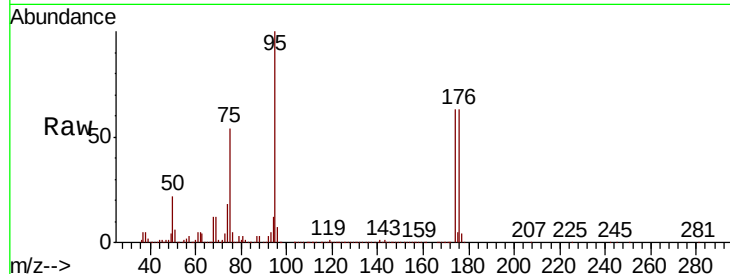
#68
 1-Bromo-4-Fluorobenzene
 Concen: 12.047 ppbv
 RT: 14.58 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Instrument :
 MSVOA_L
 ClientSampleId :
 YT-CBA-LTM5-02

Tot Ion	Ratio	Lower	Upper
95	100		
174	66.6	51.4	77.0
175	4.9	3.8	5.6

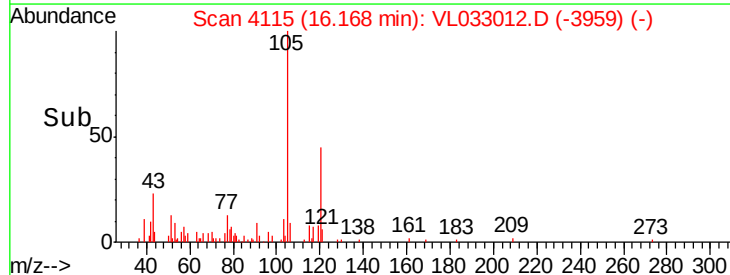
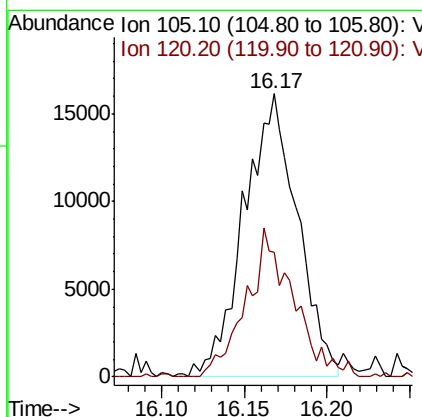
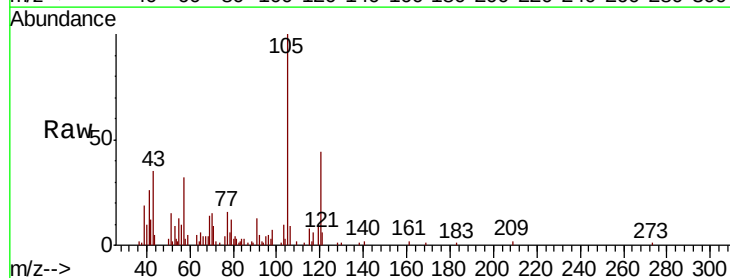
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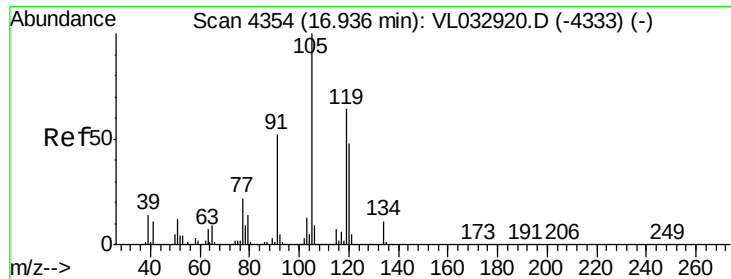
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#73
 1,3,5-Trimethylbenzene
 Concen: 0.136 ppbv
 RT: 16.17 min Scan# 4115
 Delta R.T. 0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Tgt Ion	Ratio	Lower	Upper
105	100		
120	44.0	36.0	54.0





#74
 1,2,4-Trimethylbenzene
 Concen: 0.437 ppbv
 RT: 16.93 min Scan# 4353
 Delta R.T. -0.00 min
 Lab File: VL033012.D
 Acq: 18 Dec 2018 1:49

Instrument :
 MSVOA_L
 ClientSampleId :
 YT-CBA-LTM5-02

Tot Ion:	105	Resp:	131044
Ion Ratio	Lower	Upper	
105	100		
120	35.7	38.6	58.0#
91	13.9	41.7	62.5#
77	15.7	17.4	26.2#

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