

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL121620\
 Data File : VL036187.D
 Acq On : 17 Dec 2020 4:25
 Operator : SY/AP
 Sample : L5082-01 4X
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
 APPROVED

MMDadoda
 12/17/2020 3:57:02 PM

Quant Time: Dec 17 13:42:08 2020

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL120720AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 2020

QLast Update : Mon Dec 07 16:56:49 2020

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1494647	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2857978	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2667048	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2486109	11.74	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	117.40%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	24010m	0.138	ppbv	
3) Chlorodifluoromethane	2.99	51	27642	0.162	ppbv #	86
4) Chloromethane	3.14	50	9271m	0.111	ppbv	
9) Propene	3.01	41	57195m	0.670	ppbv	
10) Heptane	8.14	43	79615m	0.365	ppbv	
13) Ethanol	3.61	45	63732m	5.412	ppbv	
15) Acetone	3.85	43	612867	3.412	ppbv	90
20) Methylene Chloride	4.35	84	182512	2.479	ppbv	96
26) Hexane	5.70	57	619615	3.836	ppbv #	37
27) Carbon Disulfide	4.56	76	36497m	0.227	ppbv	
29) Chloroform	5.77	83	59131m	0.279	ppbv	
34) 2-Butanone	5.26	43	90156	0.476	ppbv	94
36) Benzene	6.91	78	32315m	0.133	ppbv	
52) Tetrachloroethene	11.24	164	46396m	0.529	ppbv	
53) Toluene	9.83	91	200348	0.737	ppbv	98
57) Chlorobenzene	12.22	112	217310m	1.161	ppbv	
58) Ethyl Benzene	12.73	91	191089	0.523	ppbv	93
59) m/p-Xylene	12.99	91	332406m	1.080	ppbv	
60) o-Xylene	13.72	91	174236m	0.601	ppbv	
62) Isopropylbenzene	14.69	105	80219m	0.187	ppbv	
67) sec-Butylbenzene	17.33	105	86121	0.175	ppbv	95
70) n-Butylbenzene	18.60	91	127409m	0.329	ppbv	
72) 4-Ethyltoluene	15.87	105	82718m	0.263	ppbv	
73) 1,3,5-Trimethylbenzene	16.03	105	84374m	0.281	ppbv	
74) 1,2,4-Trimethylbenzene	16.80	105	140044	0.465	ppbv #	69

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

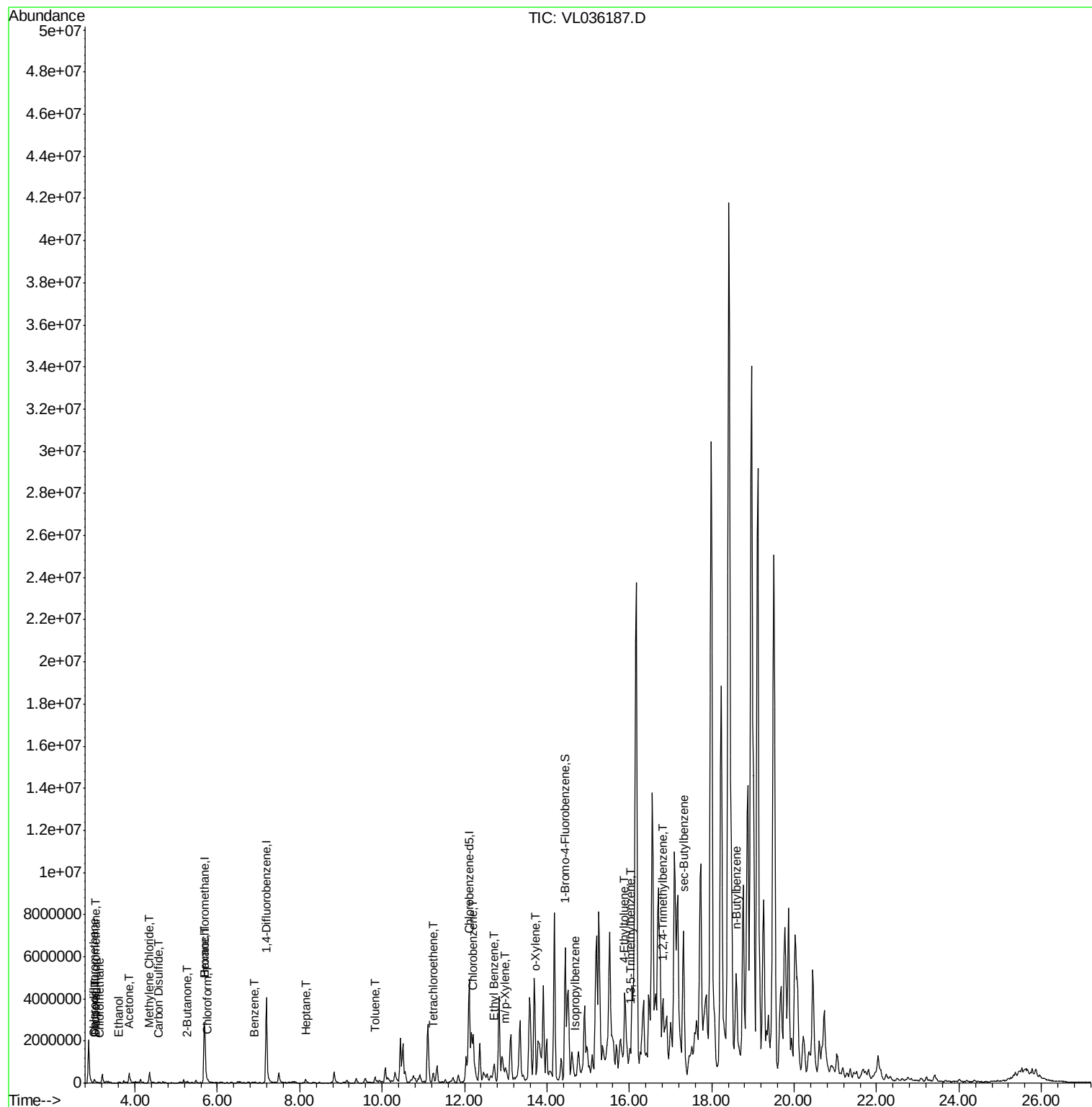
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL121620\
Data File : VL036187.D
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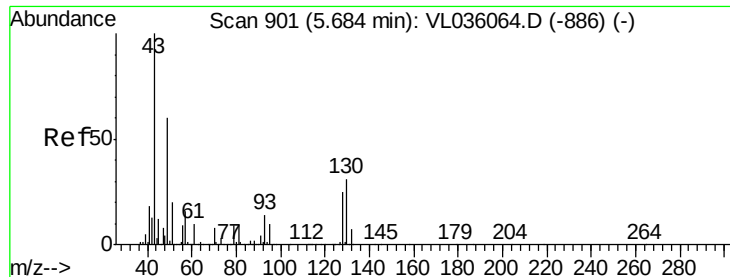
Instrument :
MSVOA_L
ClientSampleId :
SV1

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Quant Time: Dec 17 13:42:08 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL120720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec
QLast Update : Mon Dec 07 16:56:49 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 49 Resp: 1494647

Ion Ratio Lower Upper

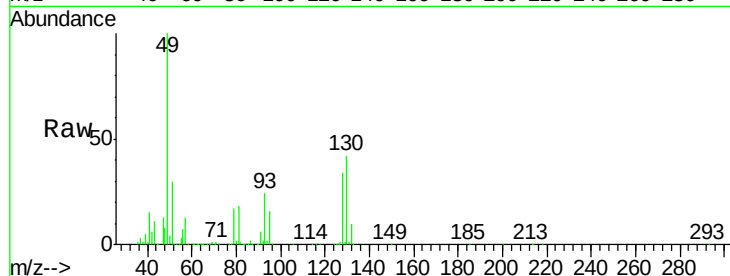
49 100

128 35.6 21.1 63.1

130 44.7 27.1 81.3

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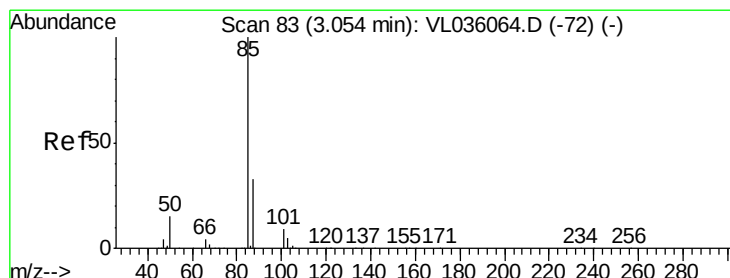
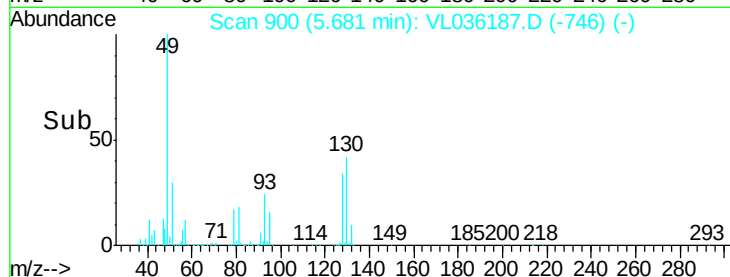
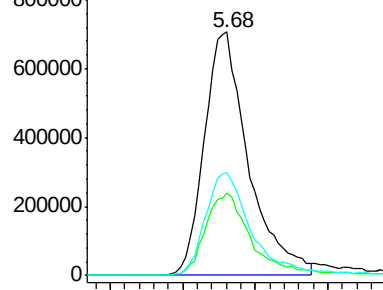
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.138 ppbv m

RT: 3.05 min Scan# 82

Delta R.T. -0.00 min

Lab File: VL036187.D

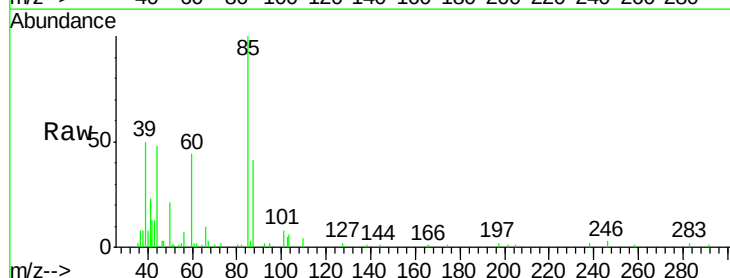
Acq: 17 Dec 2020 4:25

Tgt Ion: 85 Resp: 24010

Ion Ratio Lower Upper

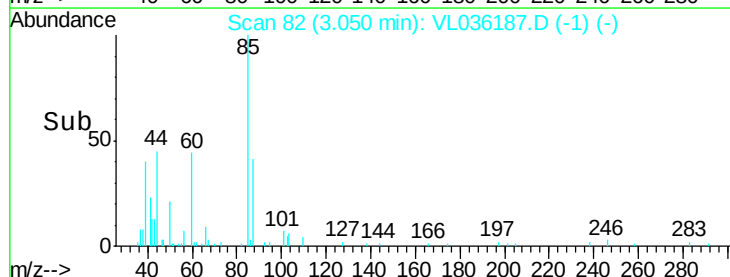
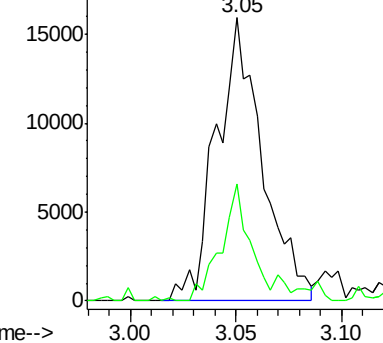
85 100

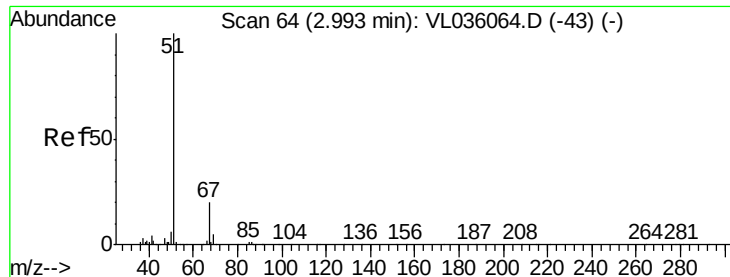
87 41.5 26.5 39.7#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.162 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 51 Resp: 27642

Ion Ratio Lower Upper

51 100

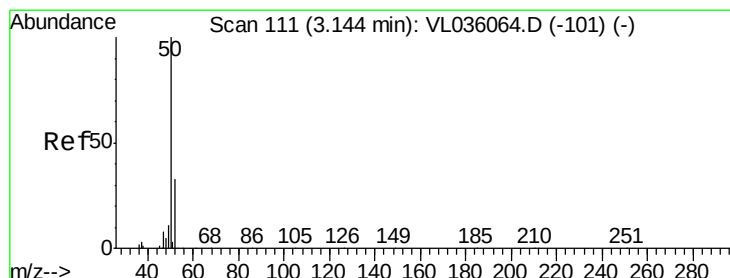
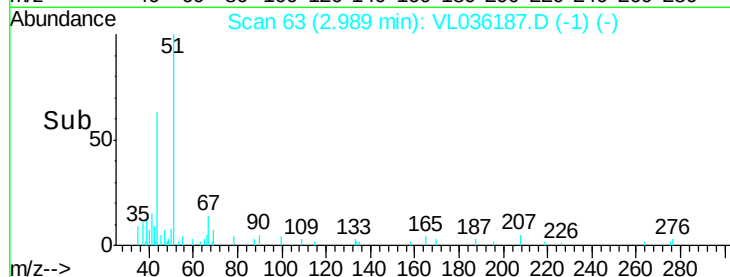
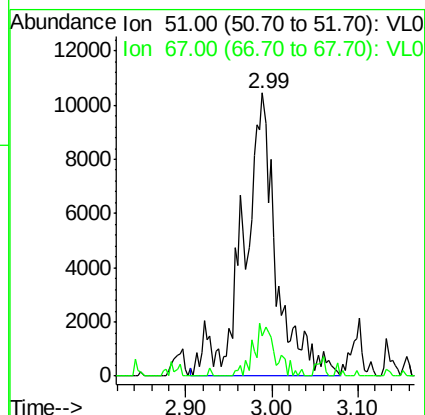
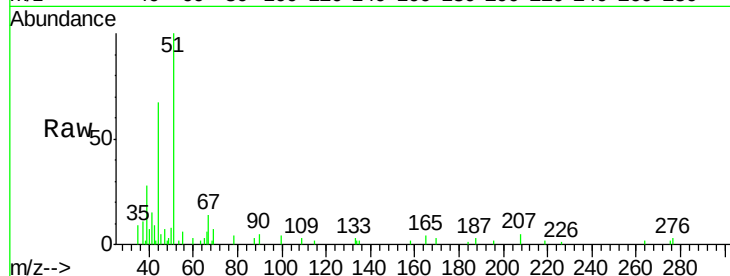
67 11.7 14.3 21.5#

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#4

Chloromethane

Concen: 0.111 ppbv m

RT: 3.14 min Scan# 110

Delta R.T. -0.00 min

Lab File: VL036187.D

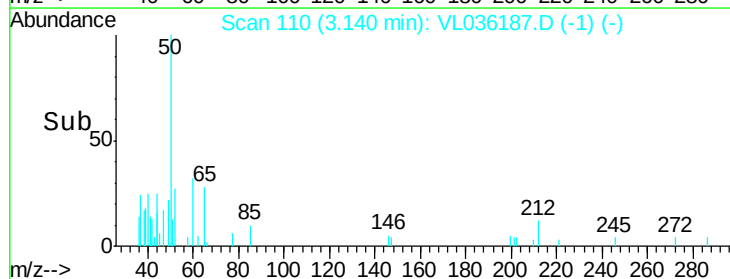
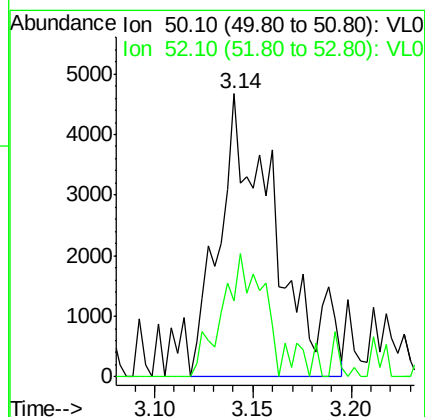
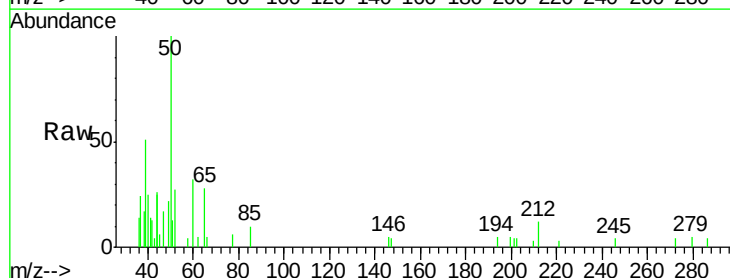
Acq: 17 Dec 2020 4:25

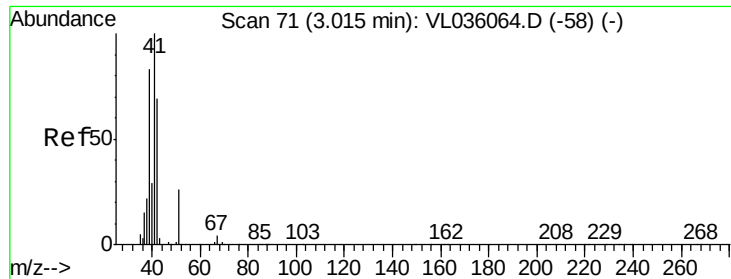
Tgt Ion: 50 Resp: 9271

Ion Ratio Lower Upper

50 100

52 27.1 26.1 39.1





#9

Propene

Concen: 0.670 ppbv m

RT: 3.01 min Scan# 69

Delta R.T. -0.01 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 41 Resp: 57195

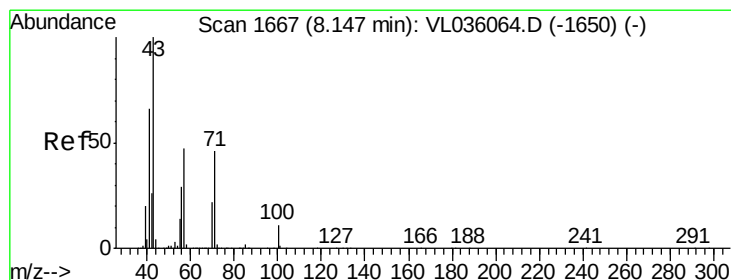
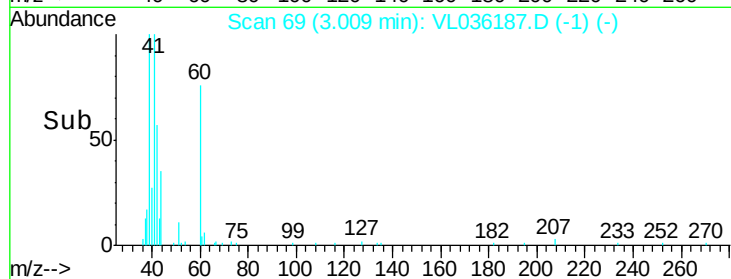
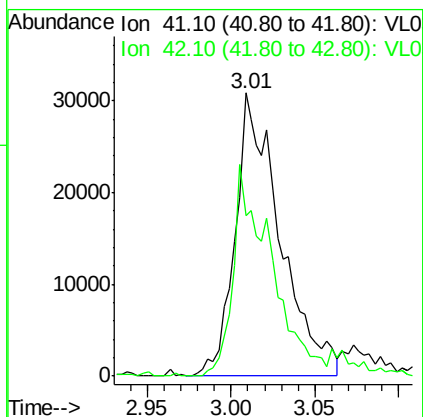
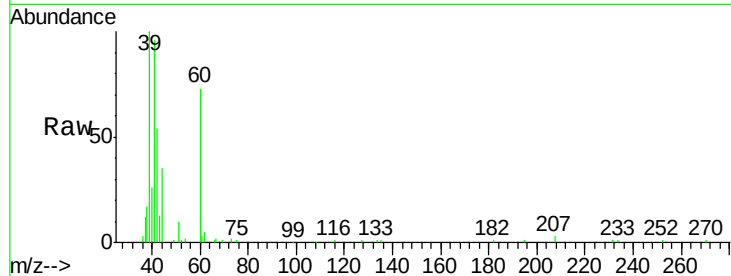
Ion Ratio Lower Upper

41 100

42 18.5 57.0 85.6#

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#10

Heptane

Concen: 0.365 ppbv m

RT: 8.14 min Scan# 1664

Delta R.T. -0.01 min

Lab File: VL036187.D

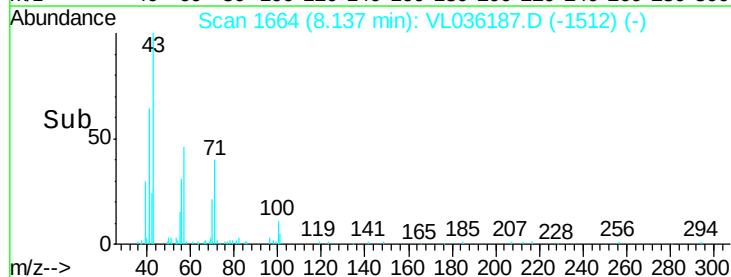
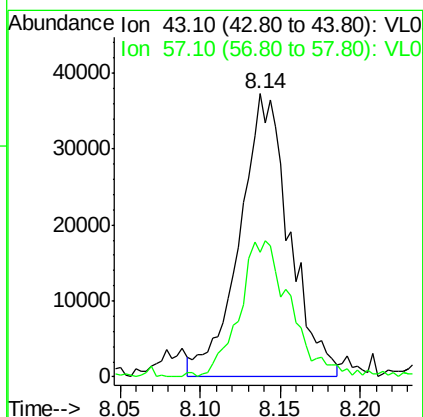
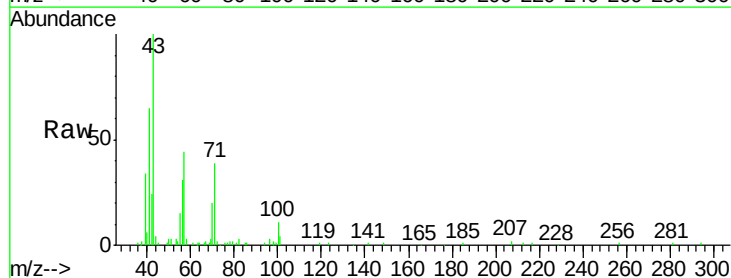
Acq: 17 Dec 2020 4:25

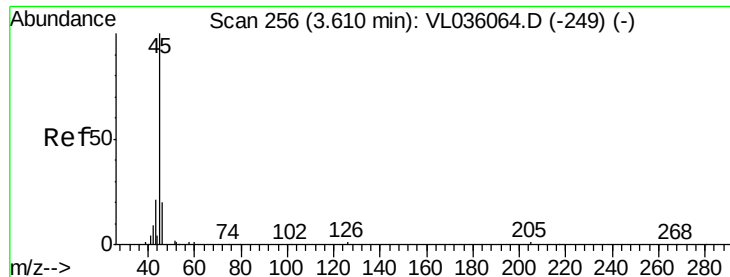
Tgt Ion: 43 Resp: 79615

Ion Ratio Lower Upper

43 100

57 0.0 37.9 56.9#





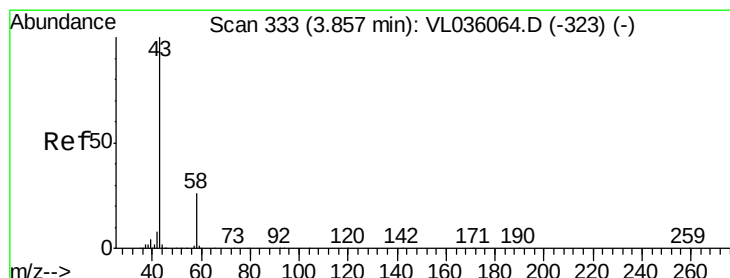
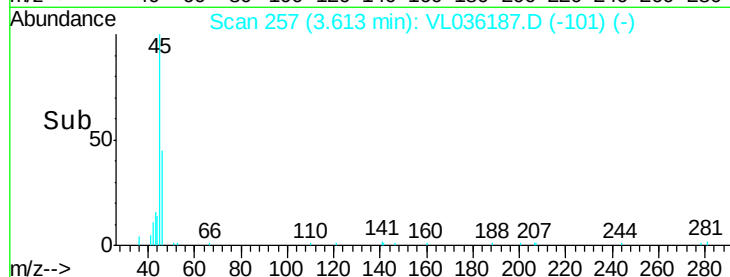
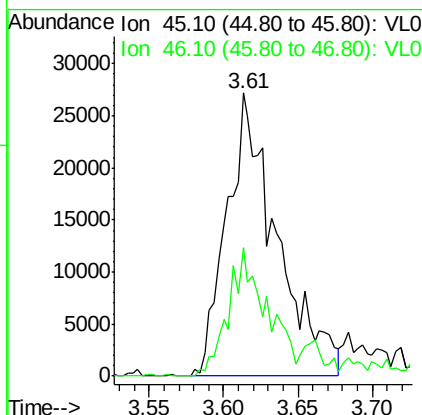
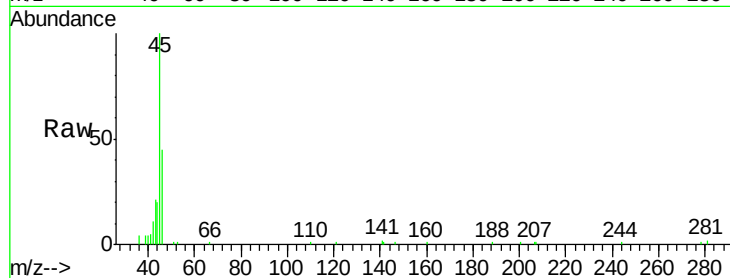
#13
Ethanol
Concen: 5.412 ppbv m
RT: 3.61 min Scan# 257
Delta R.T. 0.00 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampled :
SV1

Tgt Ion: 45 Resp: 63732
Ion Ratio Lower Upper
45 100
46 0.0 19.0 75.8#

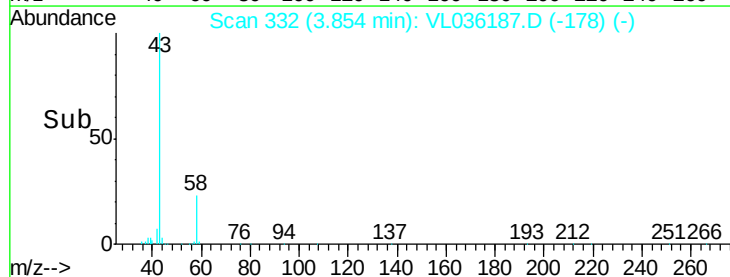
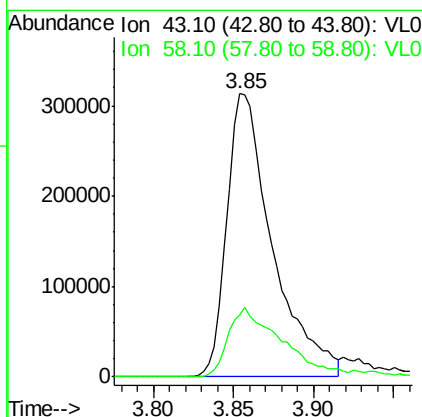
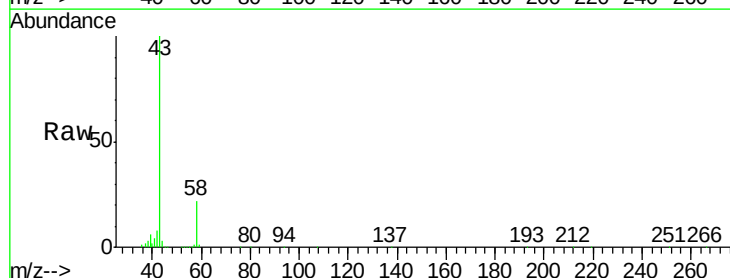
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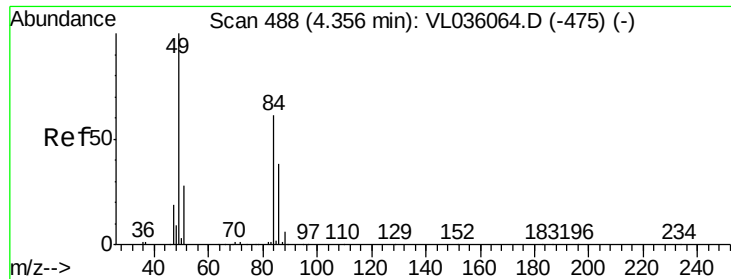
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#15
Acetone
Concen: 3.412 ppbv
RT: 3.85 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Tgt Ion: 43 Resp: 612867
Ion Ratio Lower Upper
43 100
58 31.0 20.9 31.3





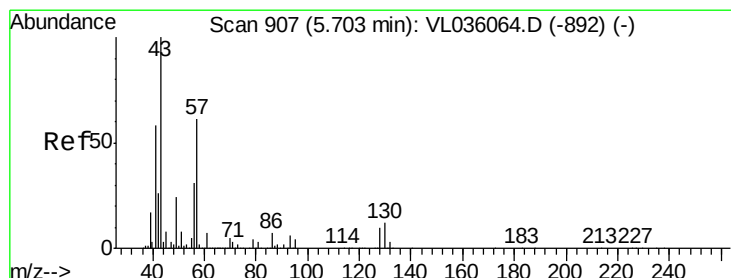
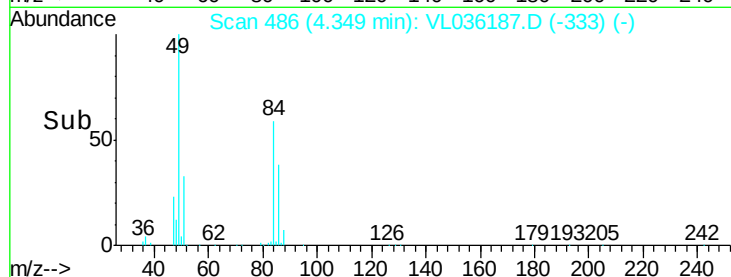
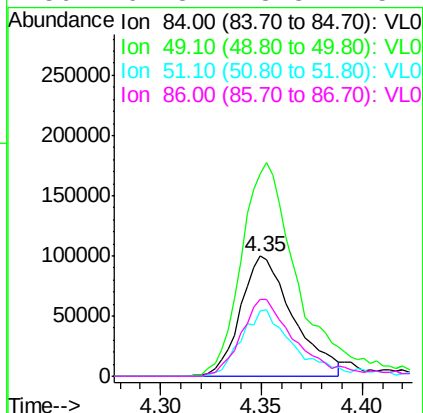
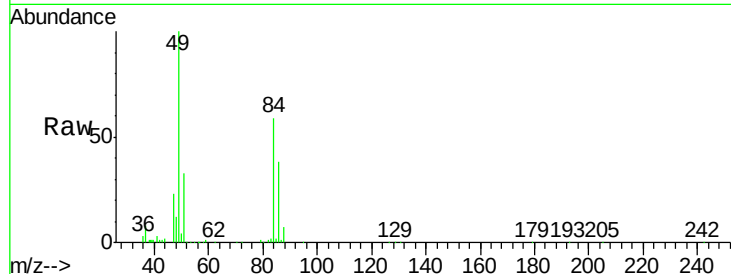
#20
Methylene Chloride
Concen: 2.479 ppbv
RT: 4.35 min Scan# 486
Delta R.T. -0.01 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampleID :
SV1

Tgt Ion	Ratio	Lower	Upper
84	100		
49	168.5	133.0	199.4
51	55.0	38.9	58.3
86	64.3	48.8	73.2

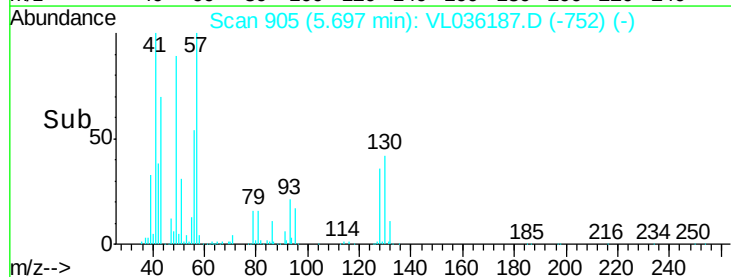
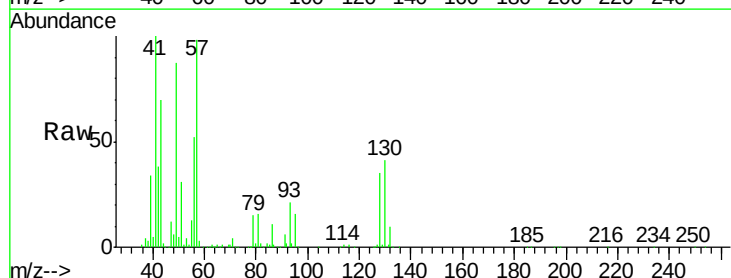
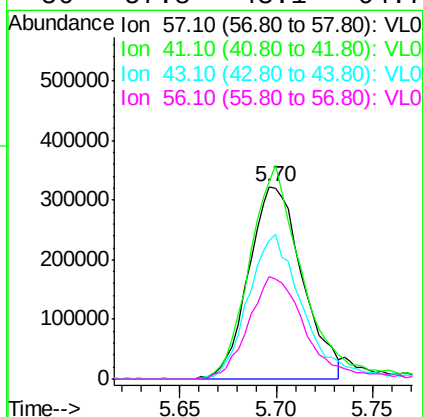
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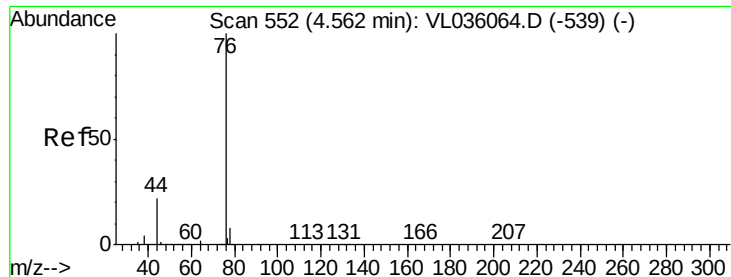
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#26
Hexane
Concen: 3.836 ppbv
RT: 5.70 min Scan# 905
Delta R.T. -0.01 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Tgt Ion	Ratio	Lower	Upper
57	100		
41	111.7	82.9	124.3
43	78.2	199.9	299.9#
56	57.8	43.1	64.7





#27

Carbon Disulfide

Concen: 0.227 ppbv m

RT: 4.56 min Scan# 550

Delta R.T. -0.01 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

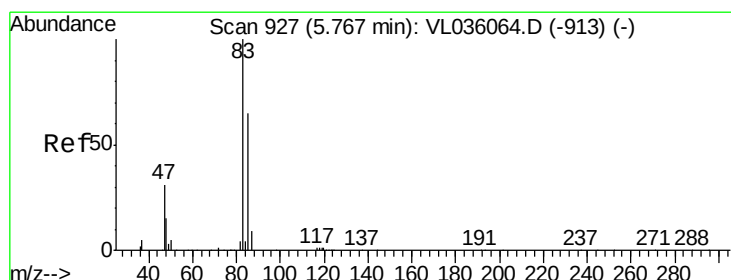
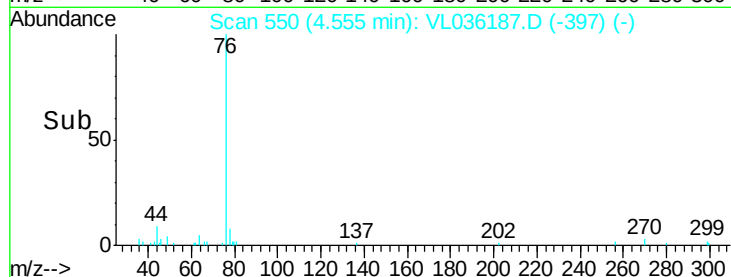
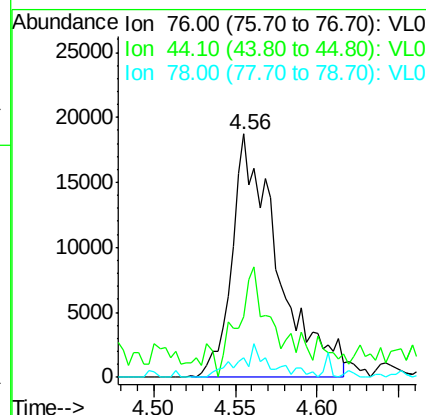
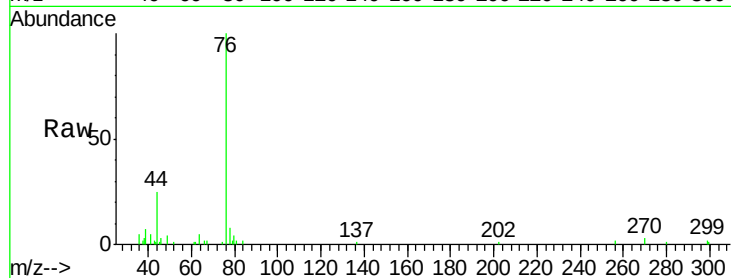
ClientSampled :

SV1

Tgt Ion:	76	Resp:	36497
Ion Ratio	Lower	Upper	
76	100		
44	32.1	17.9	26.9#
78	10.8	7.8	11.8

Manual Integrations
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#29

Chloroform

Concen: 0.279 ppbv m

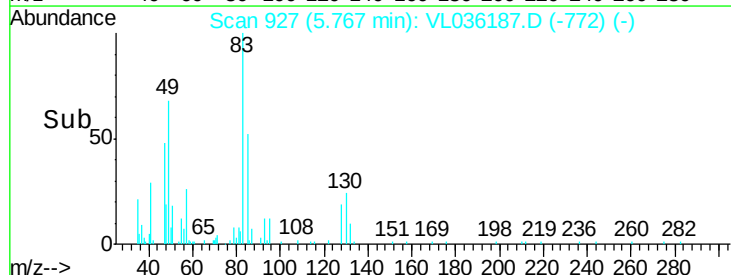
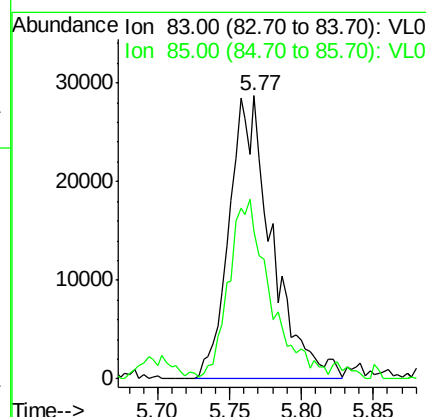
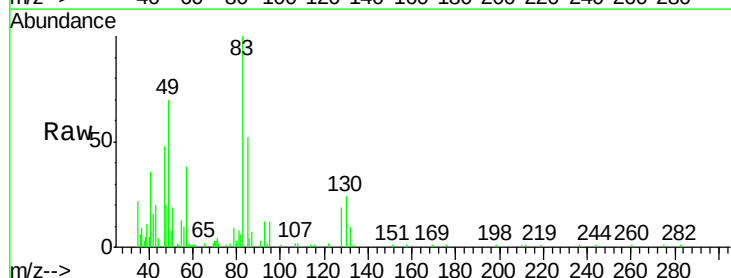
RT: 5.77 min Scan# 927

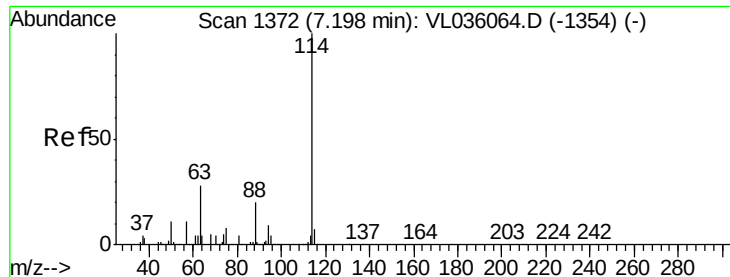
Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Tgt Ion:	83	Resp:	59131
Ion Ratio	Lower	Upper	
83	100		
85	52.0	51.8	77.6





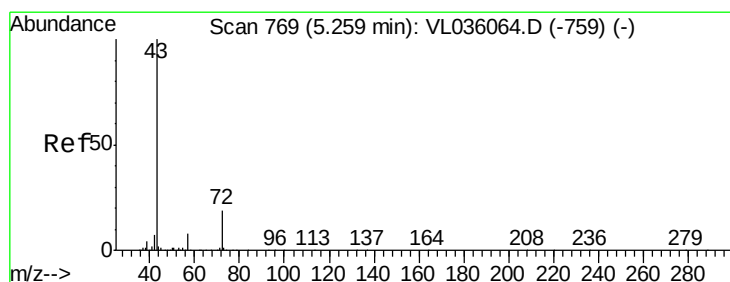
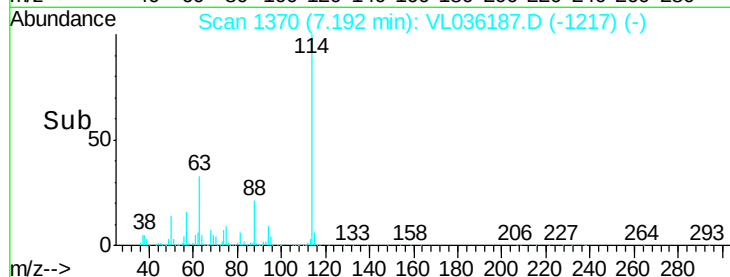
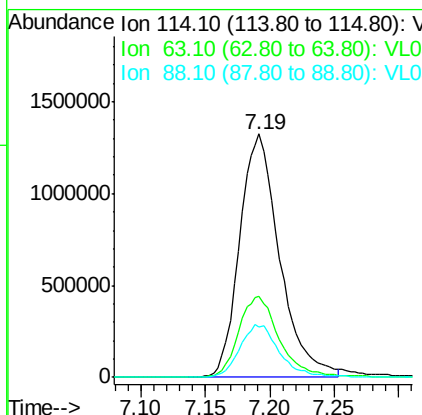
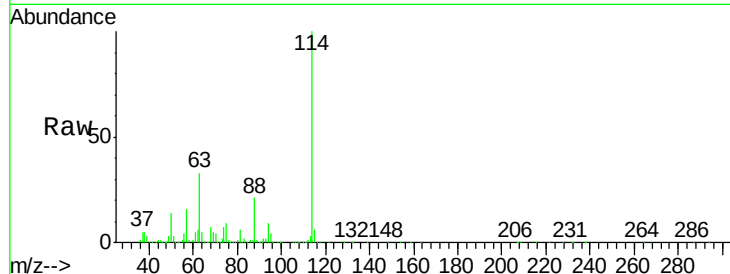
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. -0.01 min
 Lab File: VL036187.D
 Acq: 17 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tgt Ion: 114 Resp: 2857978
 Ion Ratio Lower Upper
 114 100
 63 34.4 23.6 35.4
 88 21.8 15.8 23.6

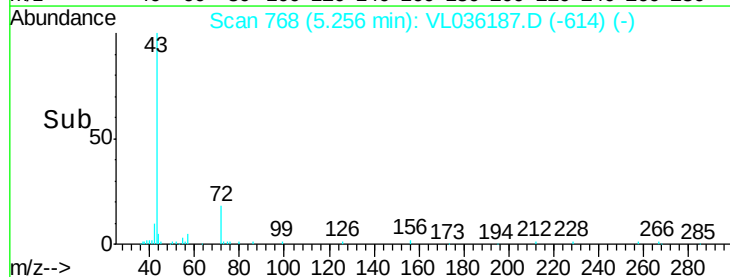
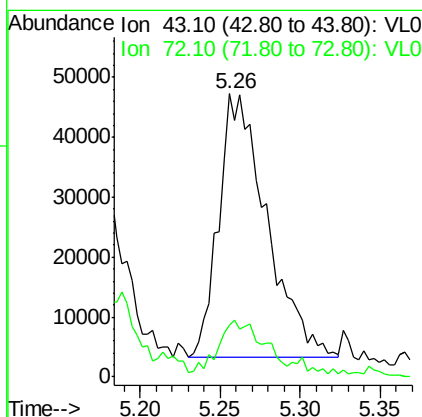
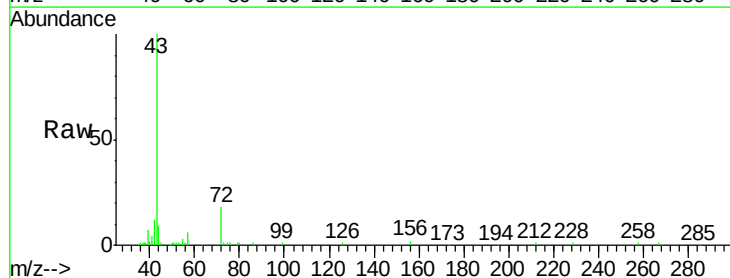
Manual Integrations
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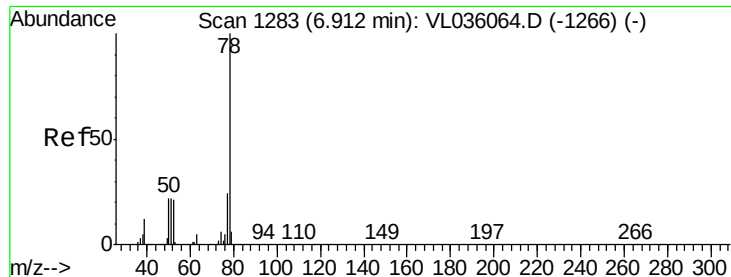
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#34
 2-Butanone
 Concen: 0.476 ppbv
 RT: 5.26 min Scan# 768
 Delta R.T. -0.00 min
 Lab File: VL036187.D
 Acq: 17 Dec 2020 4:25

Tgt Ion: 43 Resp: 90156
 Ion Ratio Lower Upper
 43 100
 72 23.4 16.5 24.7





#36

Benzene

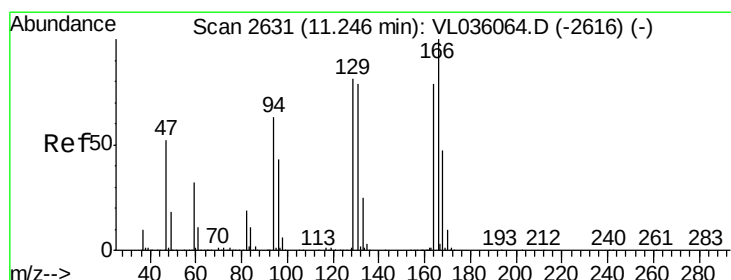
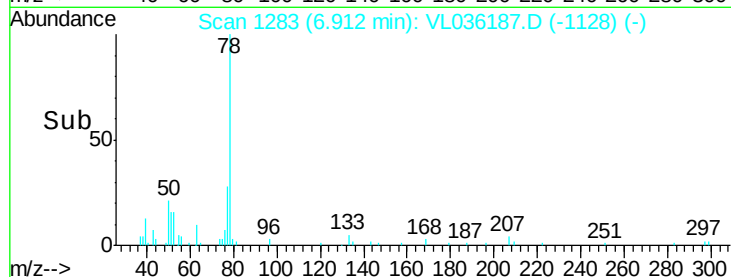
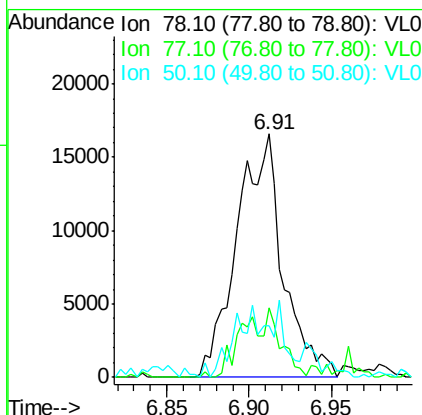
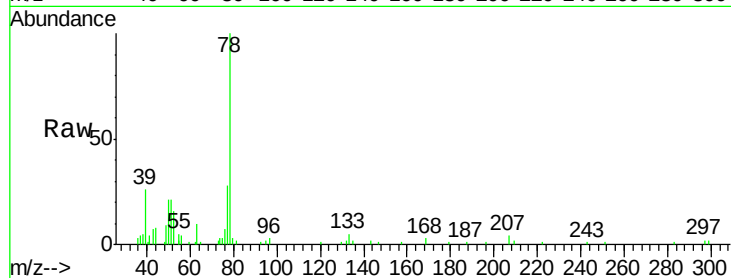
Concen: 0.133 ppbv m
RT: 6.91 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion	Ratio	Lower	Upper
78	100		
77	28.5	19.4	29.2
50	21.3	17.8	26.8

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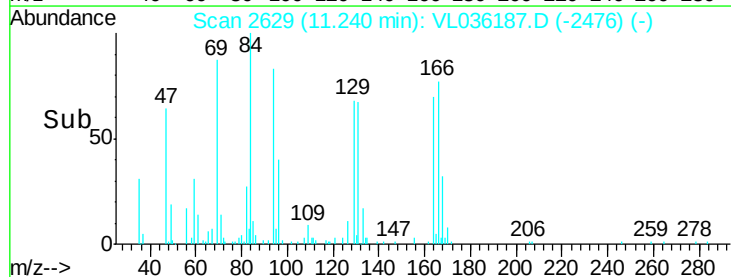
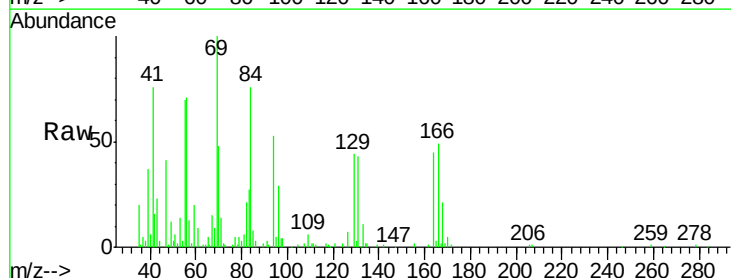
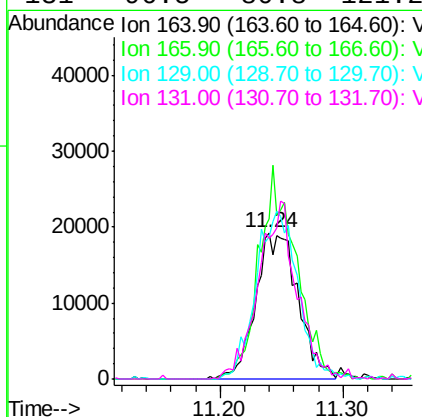


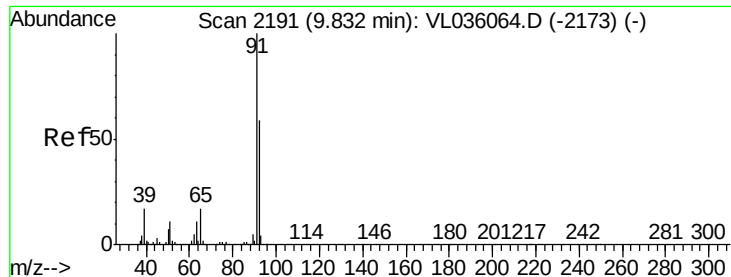
#52

Tetrachloroethene

Concen: 0.529 ppbv m
RT: 11.24 min Scan# 2629
Delta R.T. -0.01 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Tgt Ion	Ratio	Lower	Upper
164	100		
166	109.9	101.9	152.9
129	97.3	82.1	123.1
131	96.5	80.8	121.2





#53

Toluene

Concen: 0.737 ppbv

RT: 9.83 min Scan# 2190

Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 91 Resp: 200348

Ion Ratio Lower Upper

91 100

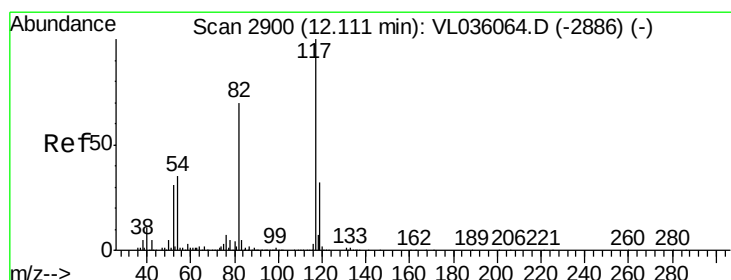
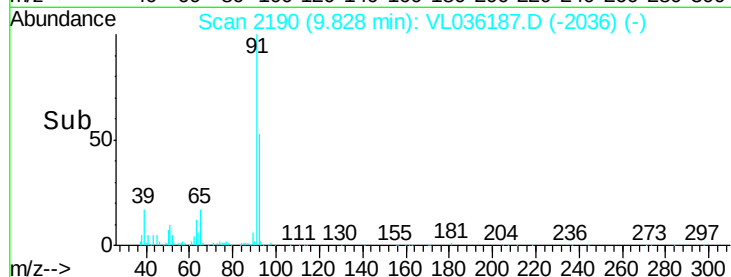
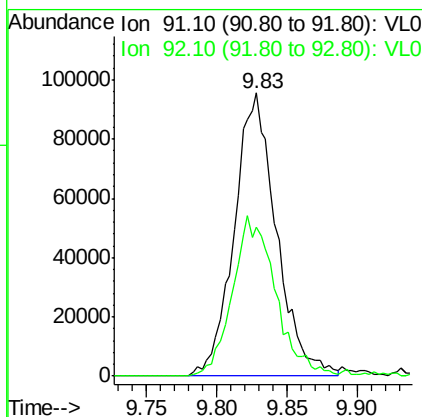
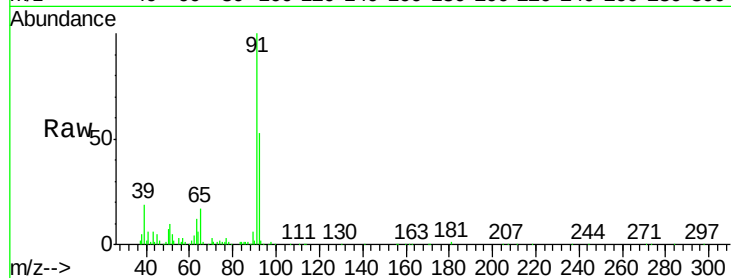
92 58.9 48.2 72.2

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.11 min Scan# 2900

Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

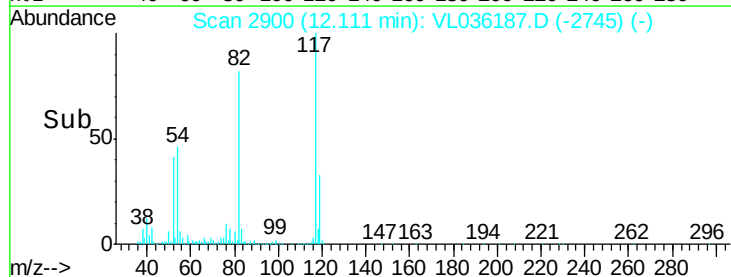
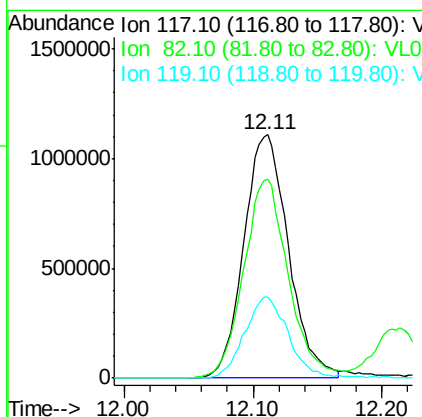
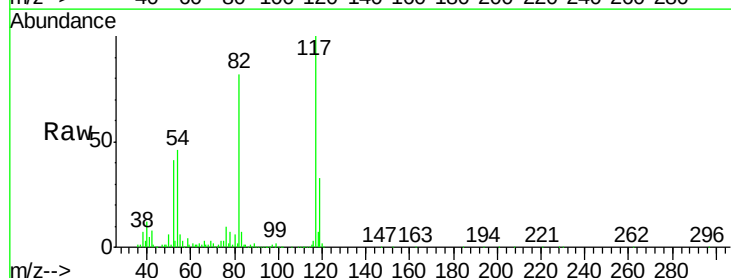
Tgt Ion: 117 Resp: 2667048

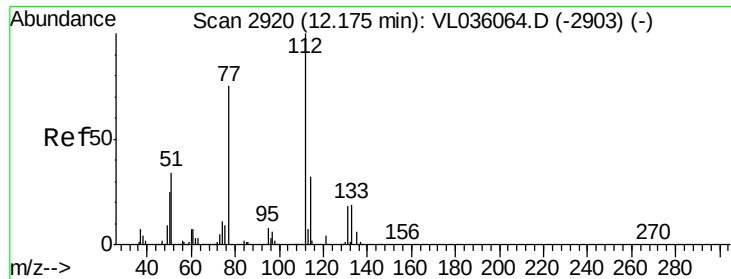
Ion Ratio Lower Upper

117 100

82 81.7 0.0 0.0#

119 33.0 0.0 0.0#





#57

Chlorobenzene

Concen: 1.161 ppbv m

RT: 12.22 min Scan# 2933

Delta R.T. 0.04 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

SV1

Tgt Ion: 112 Resp: 217310
Ion Ratio Lower Upper

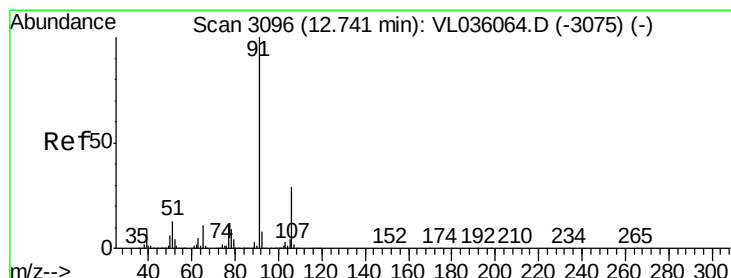
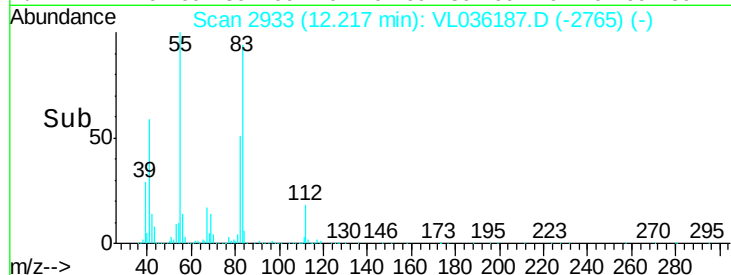
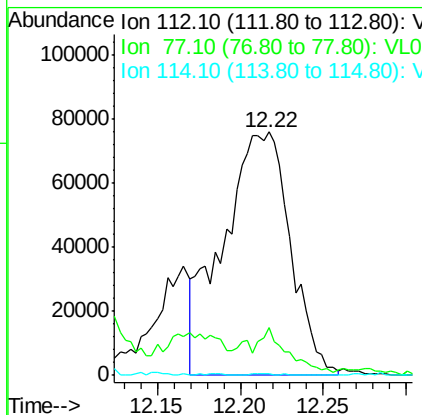
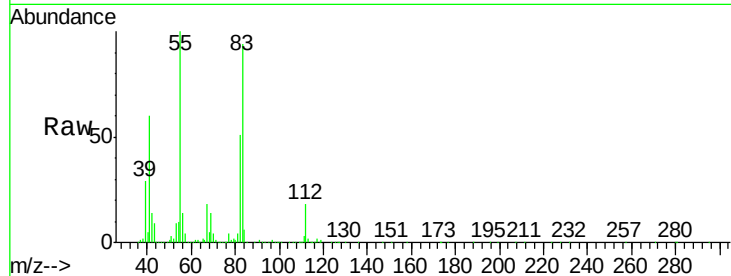
112 100

77 19.6 60.5 90.7#

114 0.5 29.2 35.6#

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#58

Ethyl Benzene

Concen: 0.523 ppbv

RT: 12.73 min Scan# 3094

Delta R.T. -0.01 min

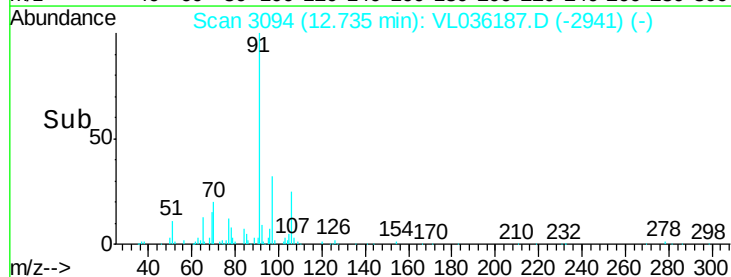
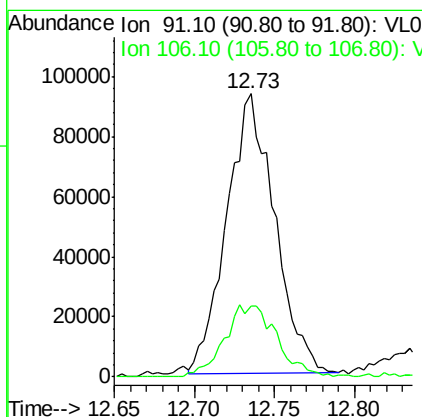
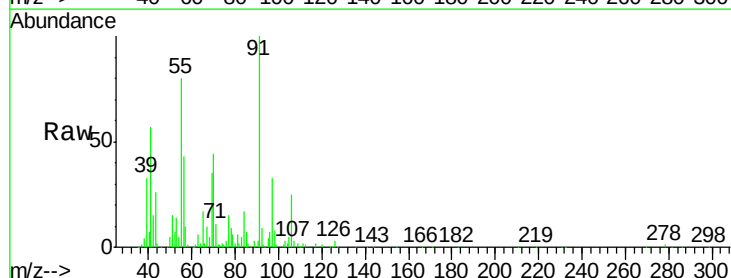
Lab File: VL036187.D

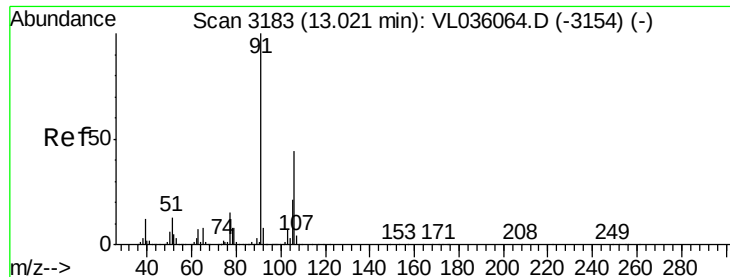
Acq: 17 Dec 2020 4:25

Tgt Ion: 91 Resp: 191089
Ion Ratio Lower Upper

91 100

106 24.8 23.0 34.4





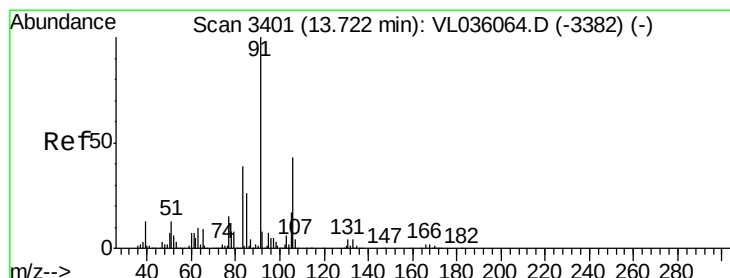
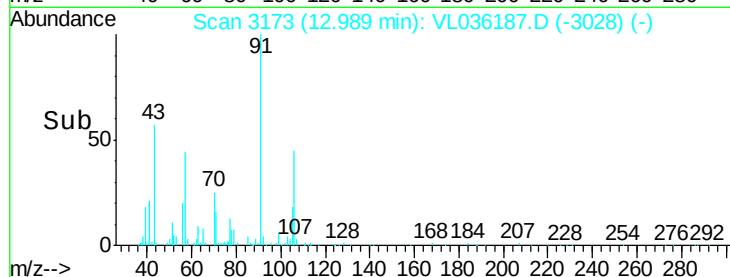
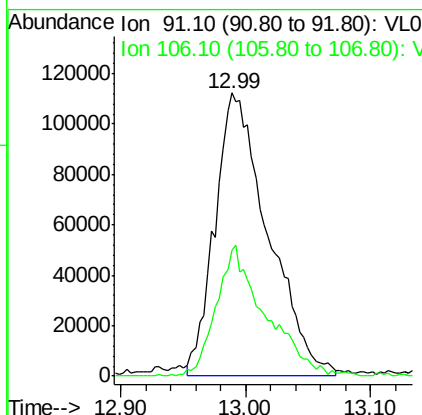
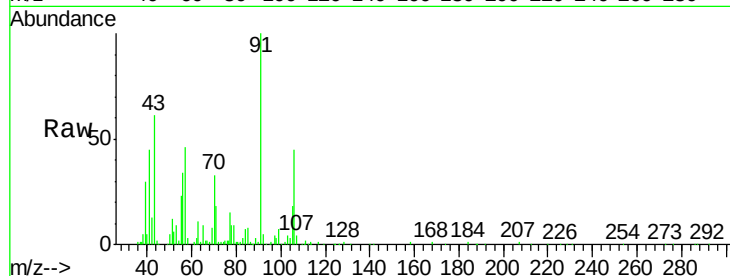
#59
m/p-Xylene
Concen: 1.080 ppbv m
RT: 12.99 min Scan# 3173
Delta R.T. -0.03 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Instrument :
MSVOA_L
ClientSampled :
SV1

Tgt Ion: 91 Resp: 332406
Ion Ratio Lower Upper
91 100
106 43.1 33.6 50.4

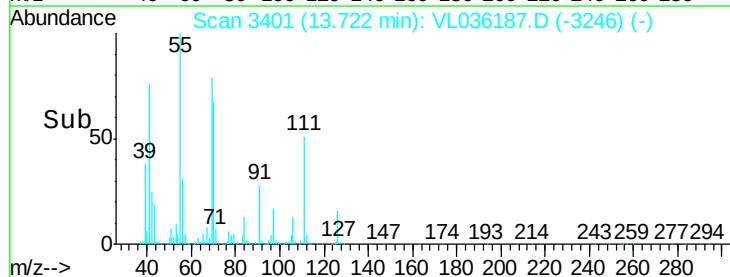
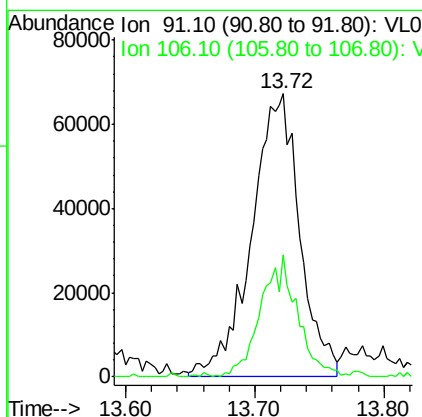
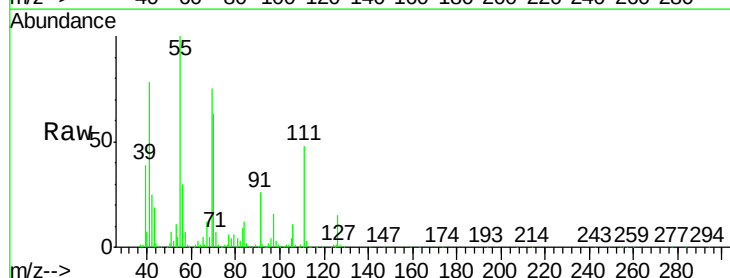
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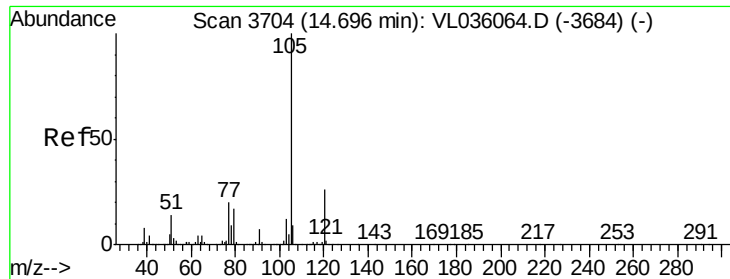
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#60
o-Xylene
Concen: 0.601 ppbv m
RT: 13.72 min Scan# 3401
Delta R.T. -0.00 min
Lab File: VL036187.D
Acq: 17 Dec 2020 4:25

Tgt Ion: 91 Resp: 174236
Ion Ratio Lower Upper
91 100
106 33.7 21.6 64.6





#62

Isopropylbenzene

Concen: 0.187 ppbv m

RT: 14.69 min Scan# 3702

Delta R.T. -0.01 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

ClientSampled :

SV1

Tgt Ion:105 Resp: 80219

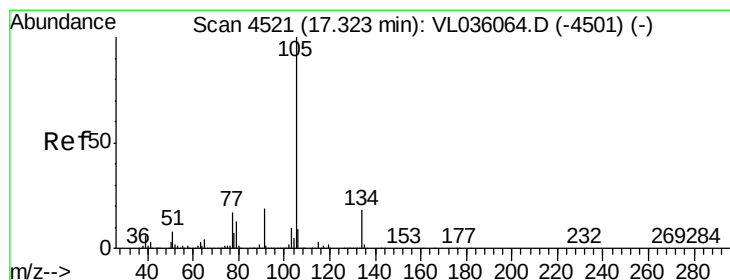
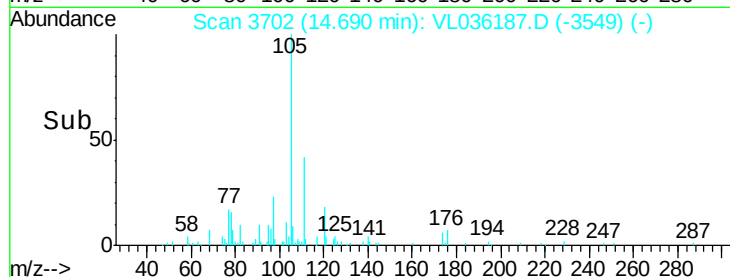
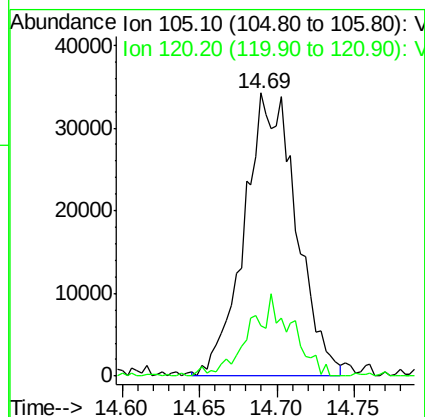
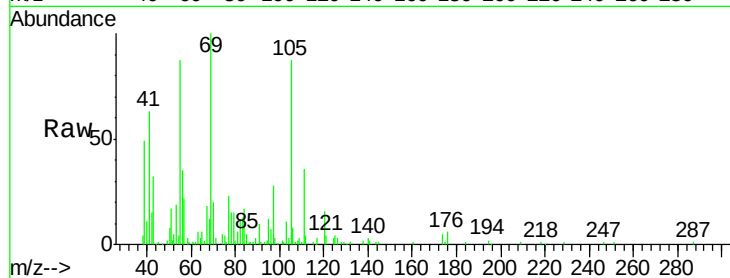
Ion Ratio Lower Upper

105 100

120 24.3 20.1 30.1

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#67

sec-Butylbenzene

Concen: 0.175 ppbv

RT: 17.33 min Scan# 4522

Delta R.T. 0.00 min

Lab File: VL036187.D

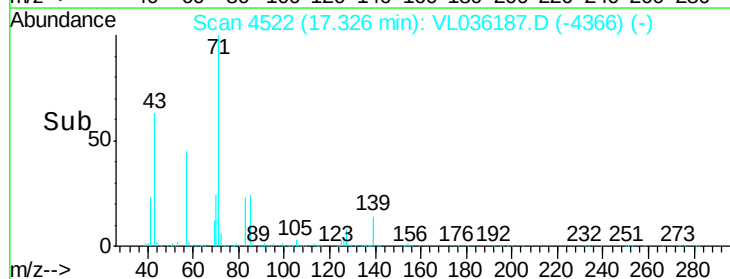
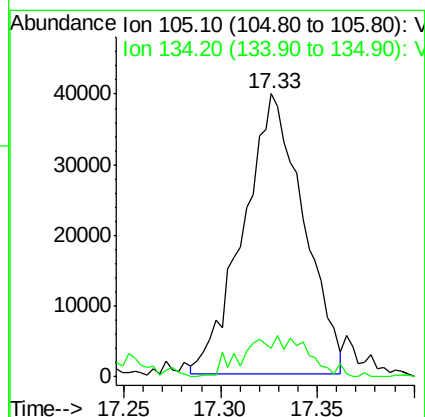
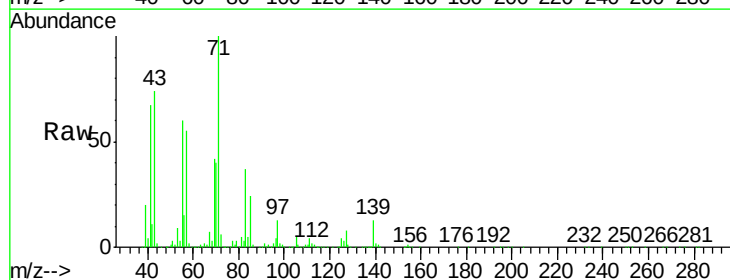
Acq: 17 Dec 2020 4:25

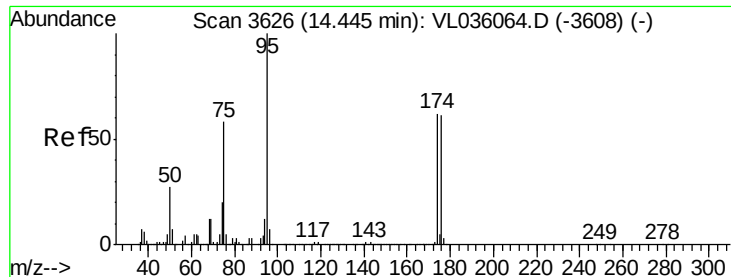
Tgt Ion:105 Resp: 86121

Ion Ratio Lower Upper

105 100

134 15.6 14.2 21.4





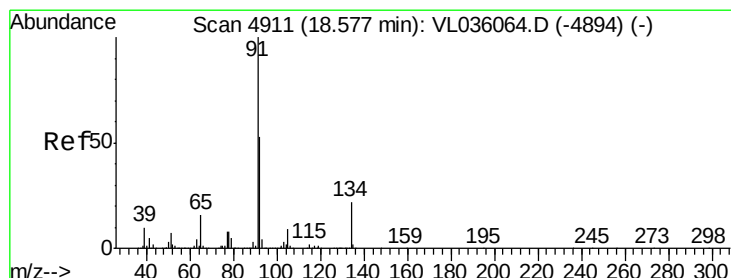
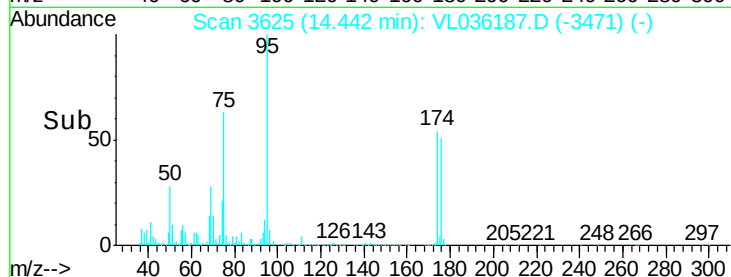
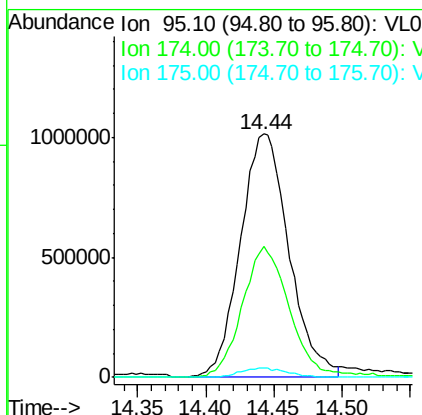
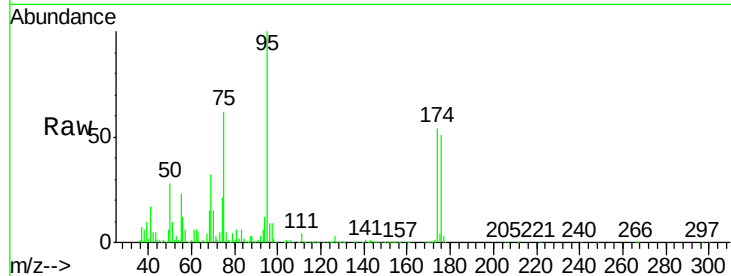
#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.739 ppbv
 RT: 14.44 min Scan# 3625
 Delta R.T. -0.00 min
 Lab File: VL036187.D
 Acq: 17 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampled :
 SV1

Tgt Ion: 95 Resp: 2486109
 Ion Ratio Lower Upper
 95 100
 174 53.3 50.7 76.1
 175 3.8 4.0 6.0#

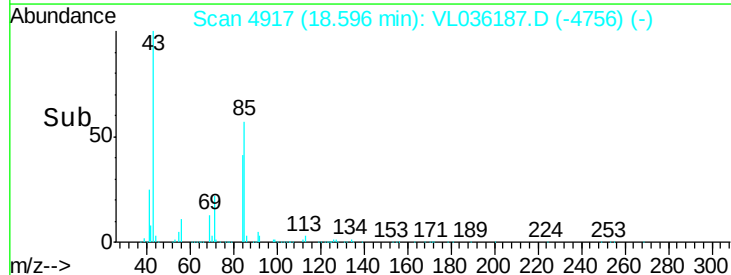
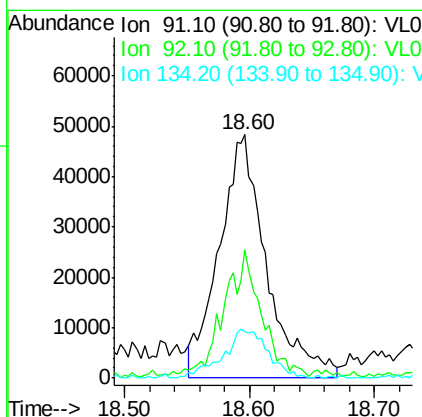
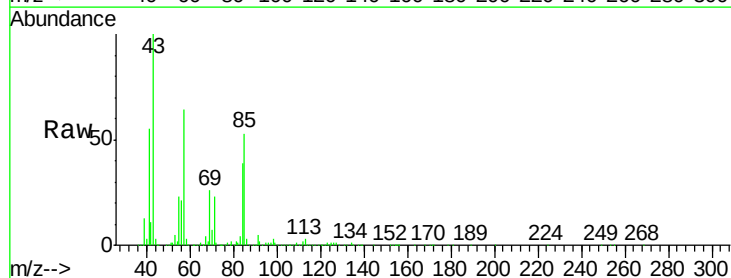
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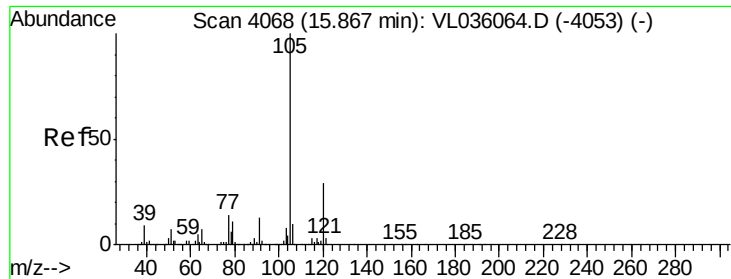
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#70
 n-Butylbenzene
 Concen: 0.329 ppbv m
 RT: 18.60 min Scan# 4917
 Delta R.T. 0.02 min
 Lab File: VL036187.D
 Acq: 17 Dec 2020 4:25

Tgt Ion: 91 Resp: 127409
 Ion Ratio Lower Upper
 91 100
 92 43.4 43.3 64.9
 134 19.2 17.1 25.7





#72

4-Ethyltoluene

Concen: 0.263 ppbv m

RT: 15.87 min Scan# 4069

Delta R.T. 0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Instrument :

MSVOA_L

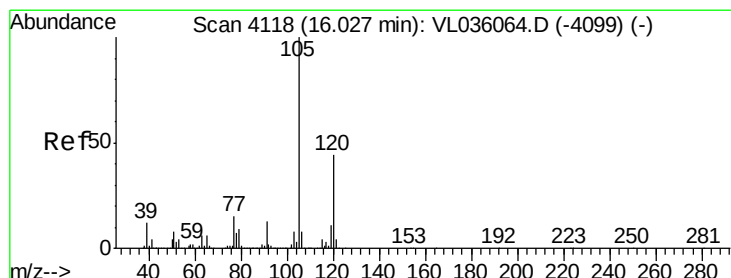
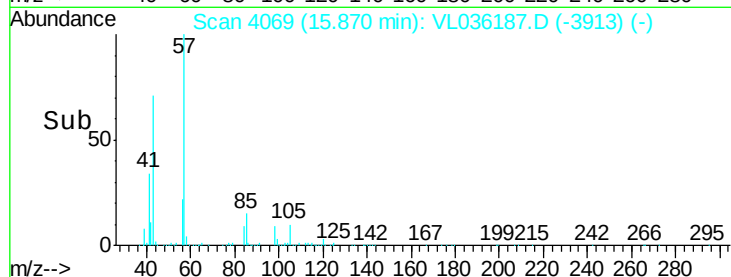
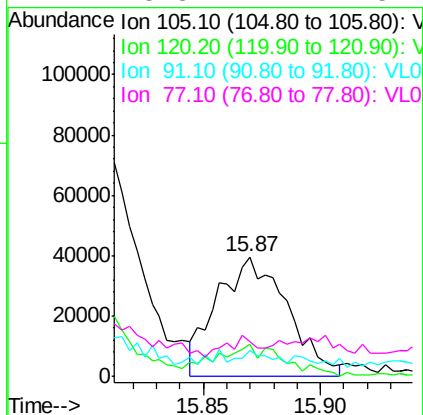
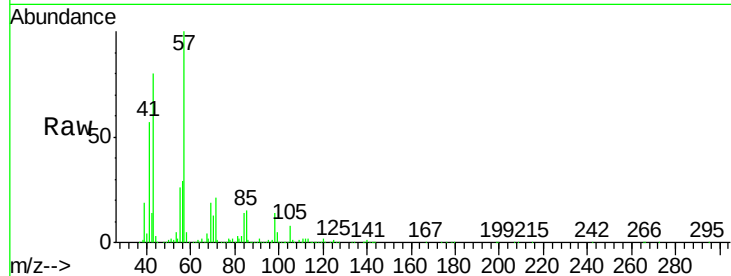
ClientSampled :

SV1

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	82718		
120	28.1	23.6	35.4	
91	0.0	11.4	17.0	
77	8.3	12.1	18.1	

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#73

1,3,5-Trimethylbenzene

Concen: 0.281 ppbv m

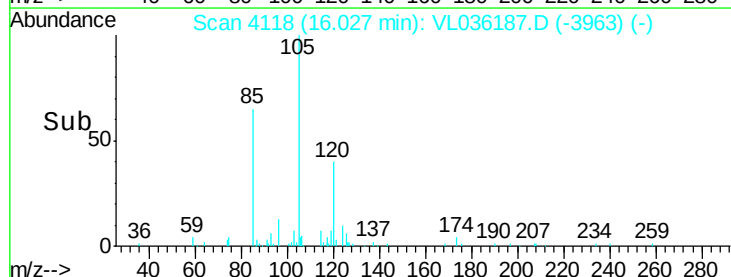
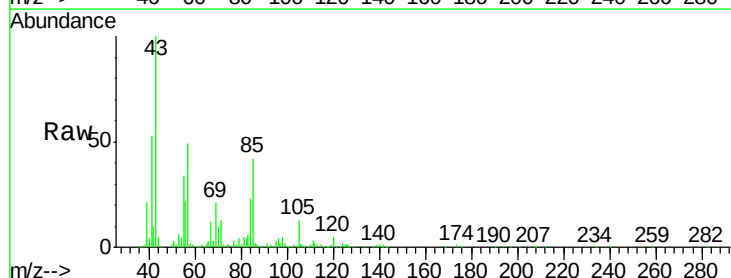
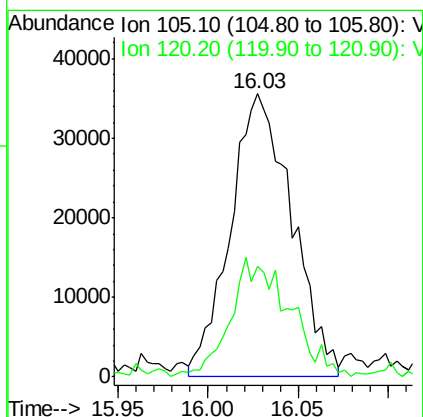
RT: 16.03 min Scan# 4118

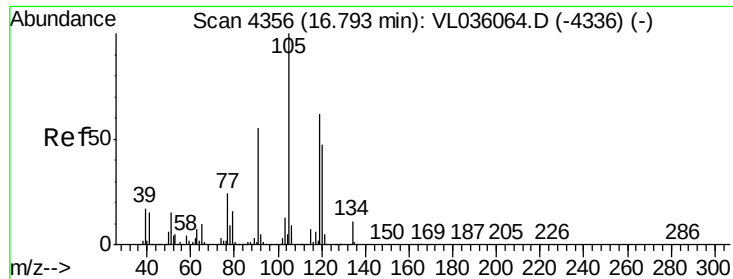
Delta R.T. -0.00 min

Lab File: VL036187.D

Acq: 17 Dec 2020 4:25

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	84374		
120	38.9	35.4	53.2	





#74
 1,2,4-Trimethylbenzene
 Concen: 0.465 ppbv
 RT: 16.80 min Scan# 4357
 Delta R.T. 0.00 min
 Lab File: VL036187.D
 Acq: 17 Dec 2020 4:25

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tgt Ion	Ratio	Resp Lower	Resp Upper
105	100		
120	43.2	37.4	56.0
91	15.1	45.6	68.4#
77	14.6	19.4	29.2#

Manual Integrations
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