

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL121620\
 Data File : VL036177.D
 Acq On : 16 Dec 2020 21:53
 Operator : SY/AP
 Sample : L5061-01DUP
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AS-EFF-201210DUP

Manual Integrations
 APPROVED

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 12/17/2020 3:56:37 PM

Quant Time: Dec 17 14:09:49 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

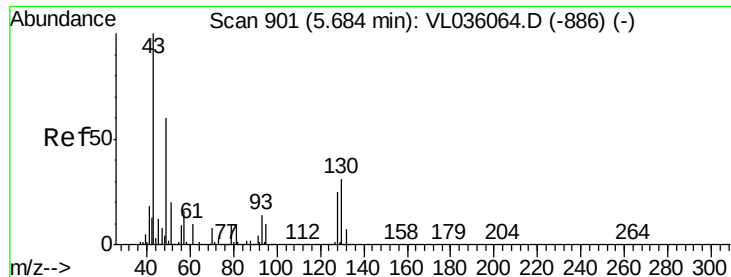
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1308284	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.18	114	2545905	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.10	117	2256745	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	1992858	11.12	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	111.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	260792	1.710	ppbv	89
3) Chlorodifluoromethane	2.98	51	1116975	7.483	ppbv	98
4) Chloromethane	3.13	50	40917m	0.558	ppbv	
5) Vinyl Chloride	3.25	62	2600	0.032	ppbv #	35
9) Propene	3.01	41	43397	0.580	ppbv	99
11) Trichlorofluoromethane	3.95	101	3426469	19.115	ppbv	97
12) 1,1,2-Trichlorotrifluoroet	4.49	101	86856m	0.713	ppbv	
13) Ethanol	3.61	45	157404m	15.270	ppbv	
18) 1,1-Dichloroethene	4.29	96	210876	3.901	ppbv	86
20) Methylene Chloride	4.34	84	270147	4.193	ppbv	95
22) trans-1,2-Dichloroethene	4.89	96	48551	0.897	ppbv #	76
24) 1,1-Dichloroethane	5.01	63	244637	1.662	ppbv #	97
26) Hexane	5.69	57	395677	2.799	ppbv #	40
28) Methyl tert-Butyl Ether	5.04	73	373092	1.856	ppbv	95
29) Chloroform	5.75	83	188900m	1.018	ppbv	
31) cis-1,2-Dichloroethene	5.55	61	2555853	19.888	ppbv	92
32) 1,1,1-Trichloroethane	6.51	97	97071	0.507	ppbv #	87
35) Carbon Tetrachloride	7.02	117	74237	0.500	ppbv	93
36) Benzene	6.90	78	77464	0.359	ppbv	94
37) 1,2-Dichloroethane	6.31	62	31011m	0.248	ppbv	
38) Trichloroethene	7.84	130	8879143	110.089	ppbv	95
52) Tetrachloroethene	11.24	164	7527067	96.371	ppbv	91
53) Toluene	9.82	91	75134m	0.310	ppbv	
59) m/p-Xylene	12.97	91	38700m	0.149	ppbv	
62) Isopropylbenzene	14.69	105	43483m	0.120	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.02 min

Lab File: VL036177.D

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Instrument :

MSVOA_L

ClientSampleId :

AS-EFF-201210DUP

Tgt Ion: 49 Resp: 1308284

Ion Ratio Lower Upper

49 100

128 36.2 21.1 63.1

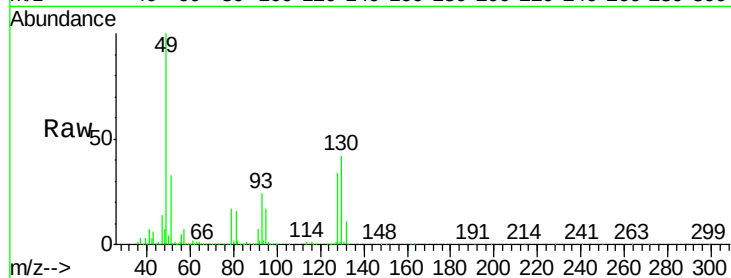
130 45.2 27.1 81.3

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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

800000

600000

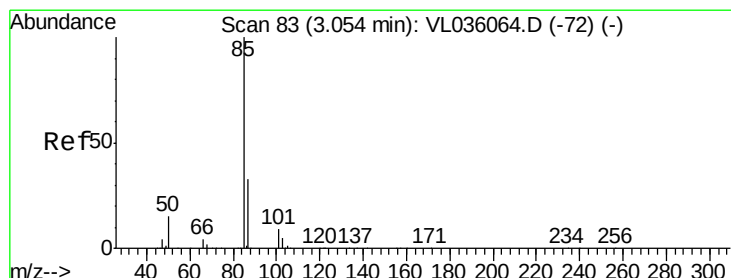
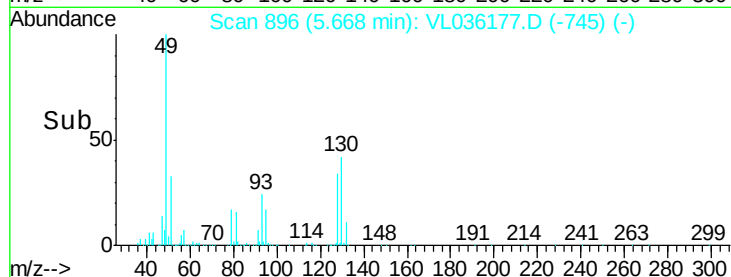
400000

200000

0

5.60 5.65 5.70 5.75

Time-->



#2

Dichlorodifluoromethane

Concen: 1.710 ppbv

RT: 3.04 min Scan# 79

Delta R.T. -0.01 min

Lab File: VL036177.D

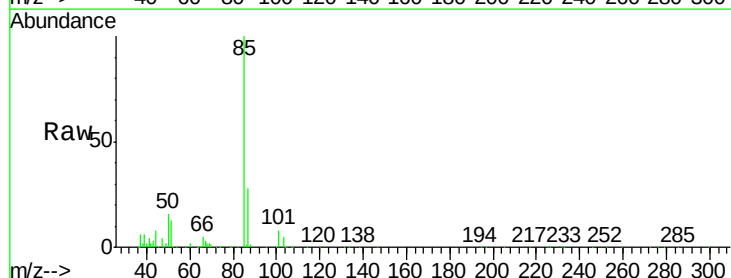
Acq: 16 Dec 2020 21:53

Tgt Ion: 85 Resp: 260792

Ion Ratio Lower Upper

85 100

87 27.1 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

200000

150000

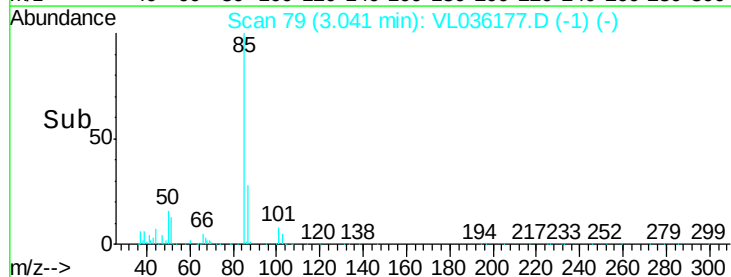
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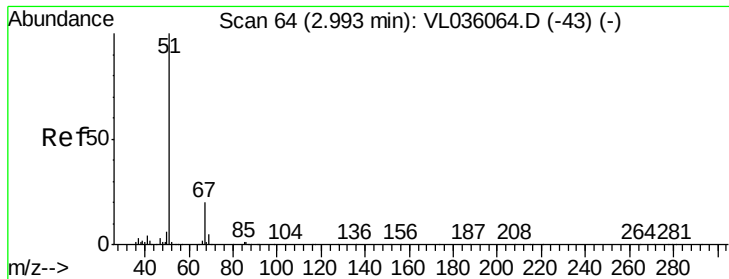
50000

0

3.00 3.05 3.10

Time-->





#3

Chlorodifluoromethane

Concen: 7.483 ppbv

RT: 2.98 min Scan# 61

Delta R.T. -0.01 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

ClientSampleId :

AS-EFF-201210DUP

Tgt Ion: 51 Resp: 1116975

Ion Ratio Lower Upper

51 100

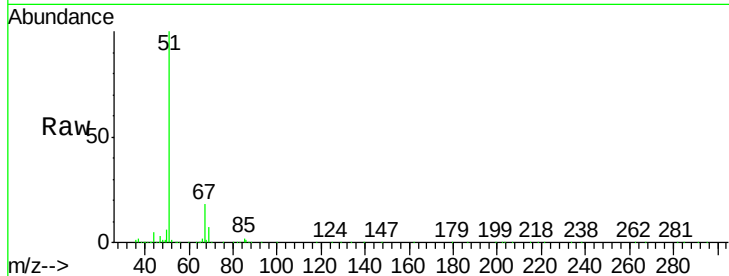
67 18.8 14.3 21.5

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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

2.98

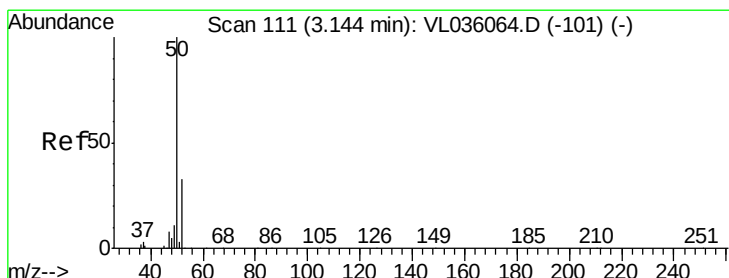
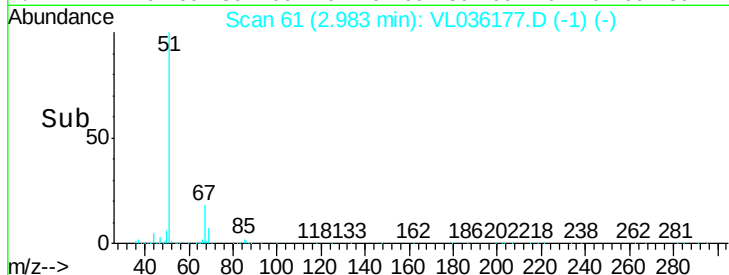
600000

400000

200000

0

Time-->



#4

Chloromethane

Concen: 0.558 ppbv m

RT: 3.13 min Scan# 108

Delta R.T. -0.01 min

Lab File: VL036177.D

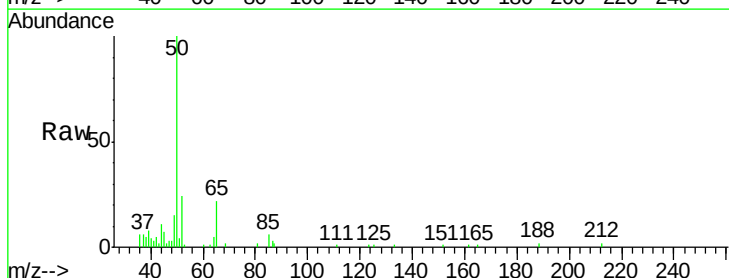
Acq: 16 Dec 2020 21:53

Tgt Ion: 50 Resp: 40917

Ion Ratio Lower Upper

50 100

52 23.6 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.13

30000

25000

20000

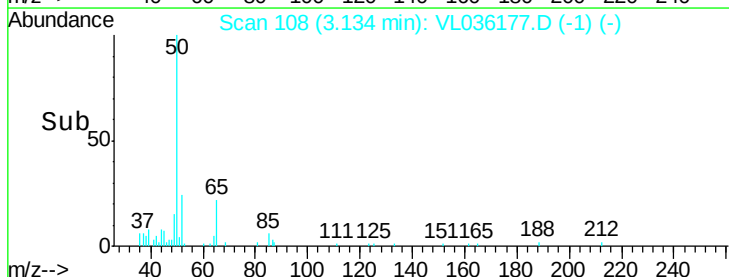
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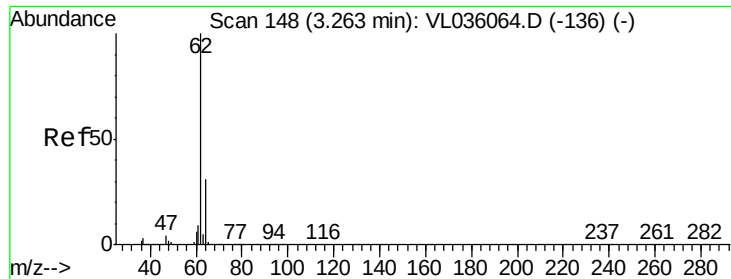
10000

5000

0

Time-->





#5

Vinyl Chloride

Concen: 0.032 ppbv

RT: 3.25 min Scan# 145

Delta R.T. -0.01 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

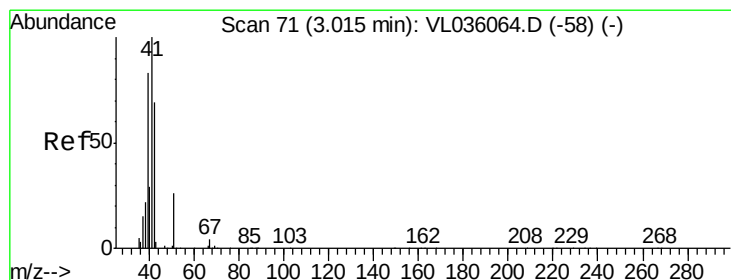
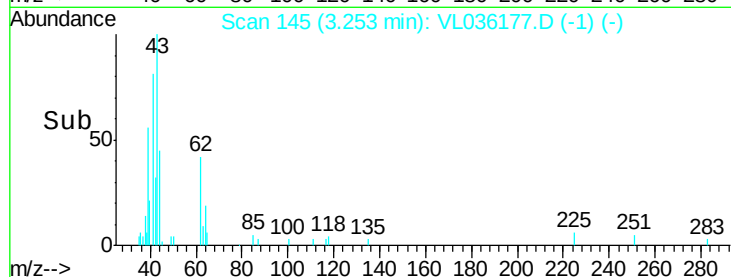
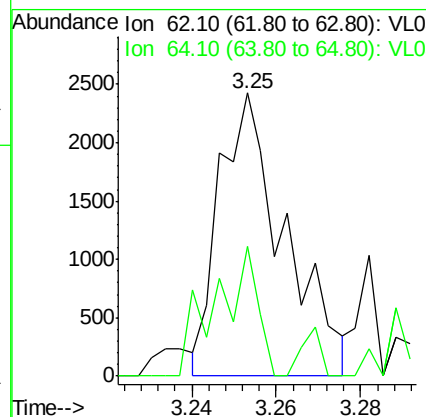
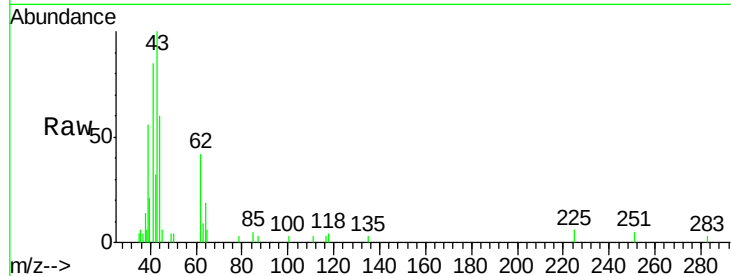
ClientSampleId :

AS-EFF-201210DUP

Tgt Ion	Ratio	Lower	Upper
62	100		
64	66.3	24.5	36.7#

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#9

Propene

Concen: 0.580 ppbv

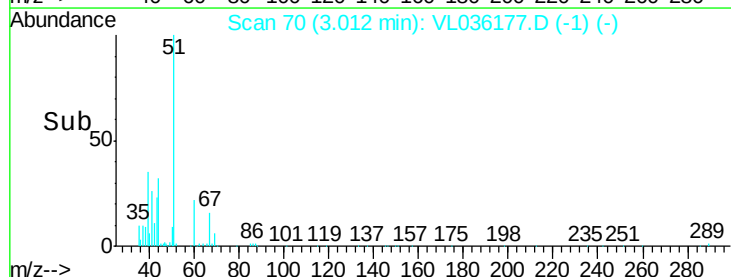
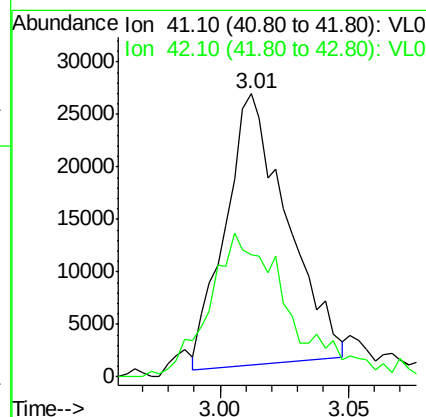
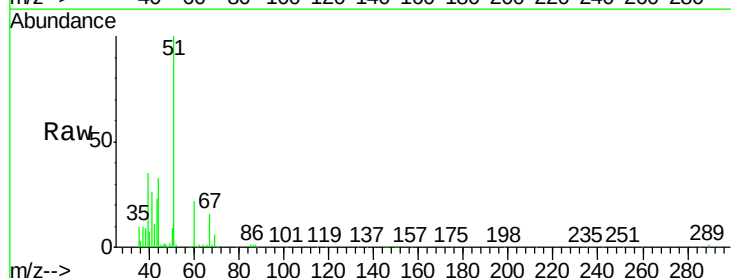
RT: 3.01 min Scan# 70

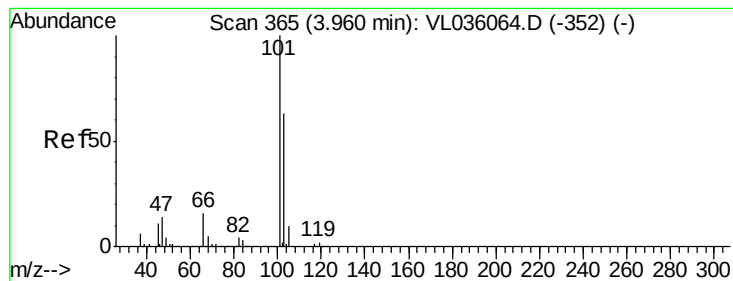
Delta R.T. -0.00 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Lower	Upper
41	100		
42	70.1	57.0	85.6





#11

Trichlorofluoromethane

Concen: 19.115 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.01 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

ClientSampleId :

AS-EFF-201210DUP

Tgt Ion:101 Resp: 3426469

Ion Ratio Lower Upper

101 100

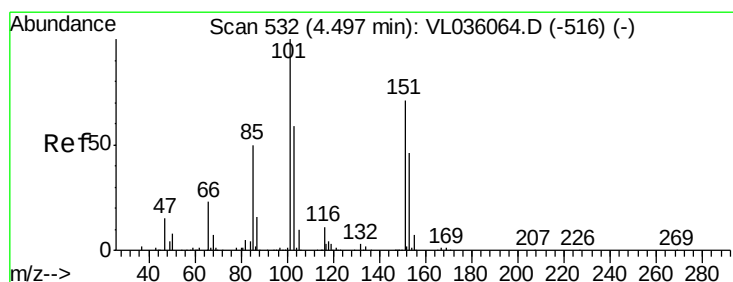
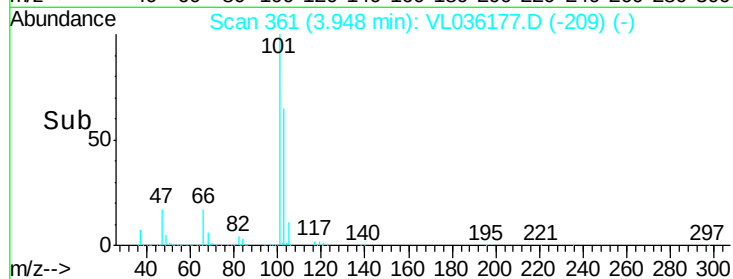
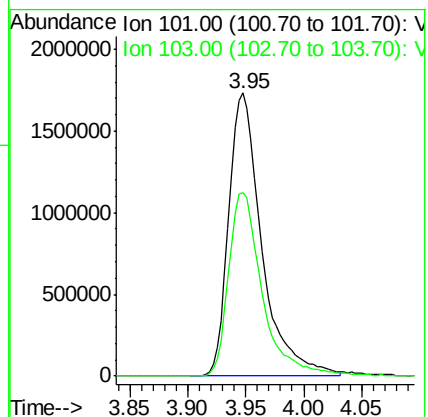
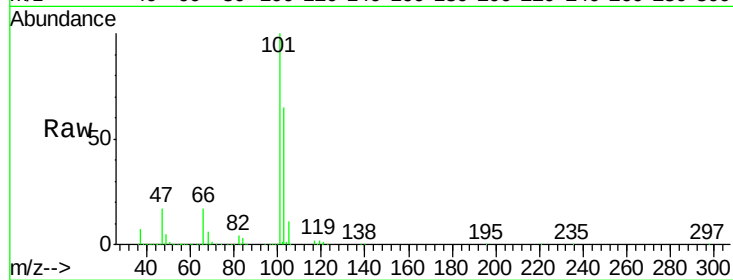
103 64.9 50.3 75.5

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#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.713 ppbv m

RT: 4.49 min Scan# 529

Delta R.T. -0.01 min

Lab File: VL036177.D

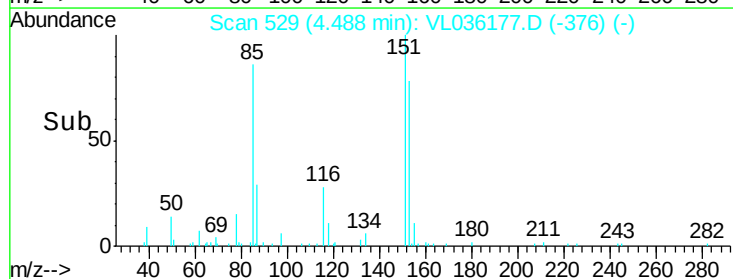
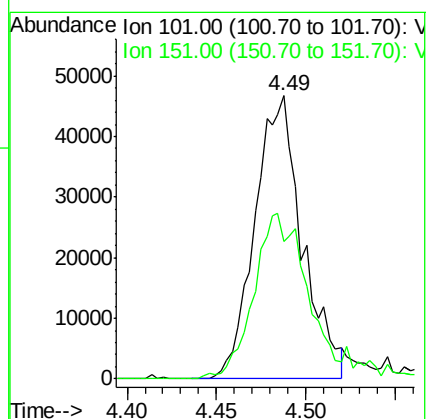
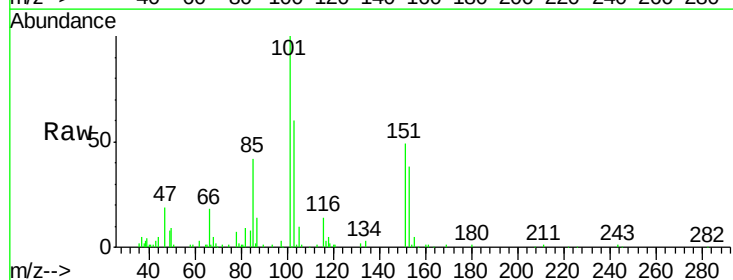
Acq: 16 Dec 2020 21:53

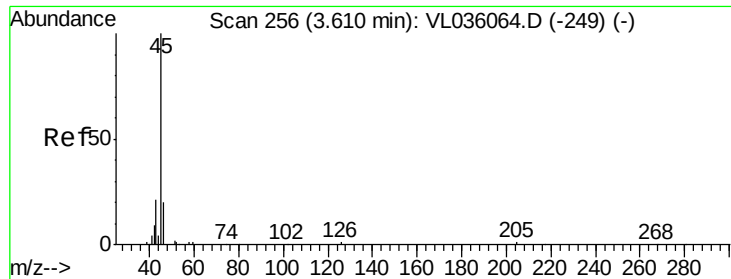
Tgt Ion:101 Resp: 86856

Ion Ratio Lower Upper

101 100

151 71.3 59.3 88.9





#13

Ethanol

Concen: 15.270 ppbv m

RT: 3.61 min Scan# 256

Delta R.T. 0.00 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

ClientSampleId :

AS-EFF-201210DUP

Tgt Ion: 45 Resp: 157404

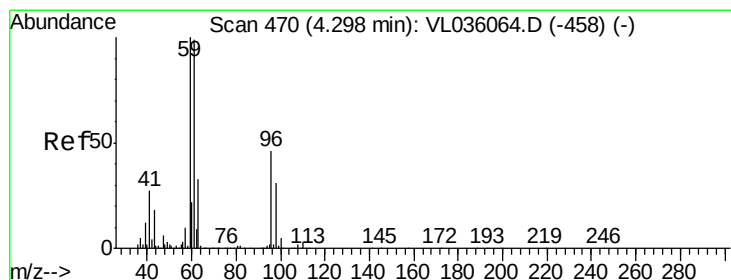
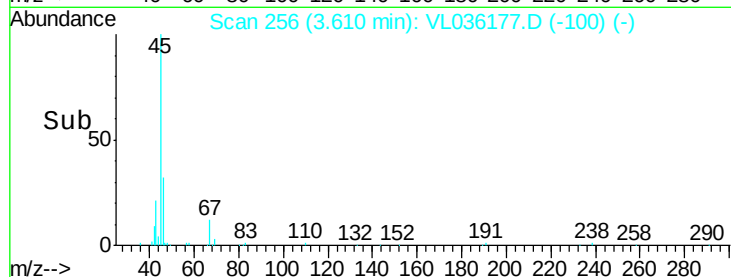
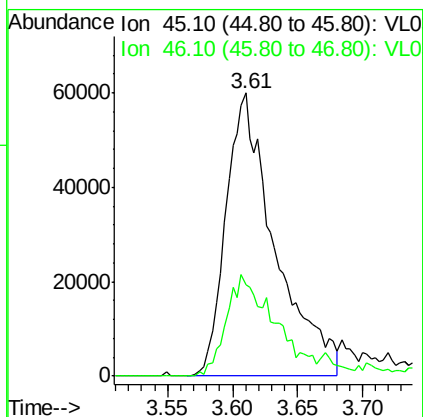
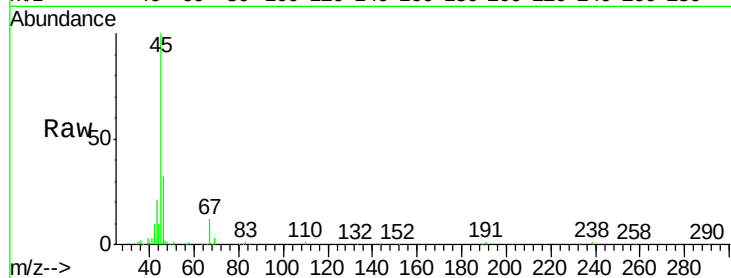
Ion Ratio Lower Upper

45 100

46 38.5 19.0 75.8

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#18

1,1-Dichloroethene

Concen: 3.901 ppbv

RT: 4.29 min Scan# 466

Delta R.T. -0.01 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

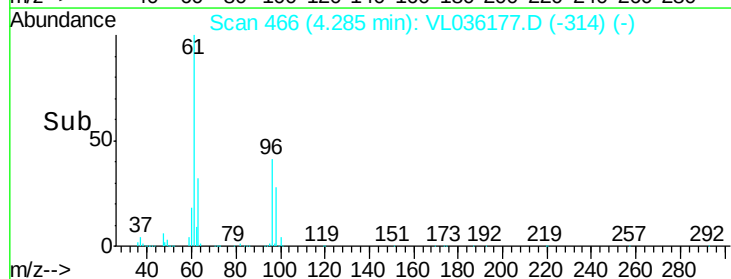
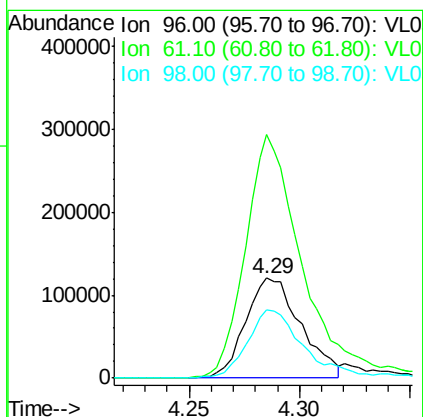
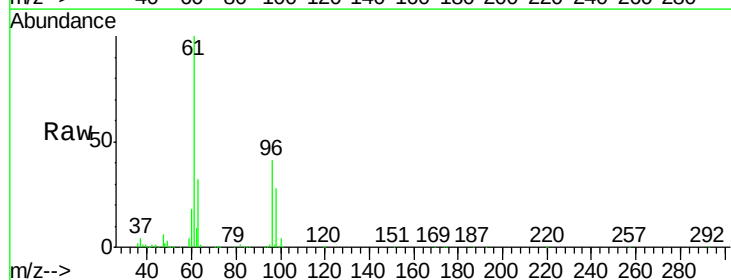
Tgt Ion: 96 Resp: 210876

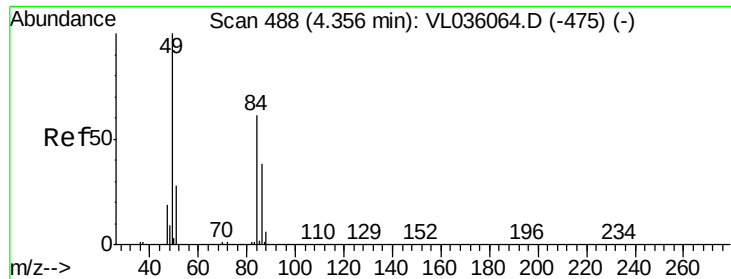
Ion Ratio Lower Upper

96 100

61 243.7 171.4 257.2

98 68.2 54.2 81.2





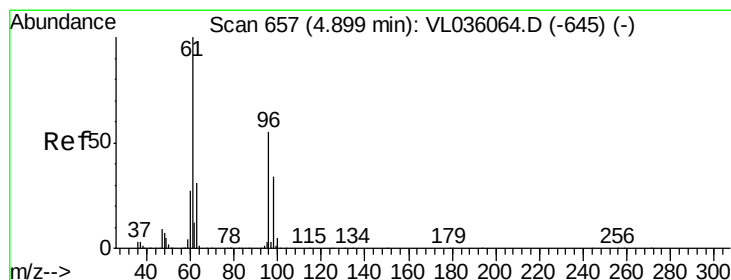
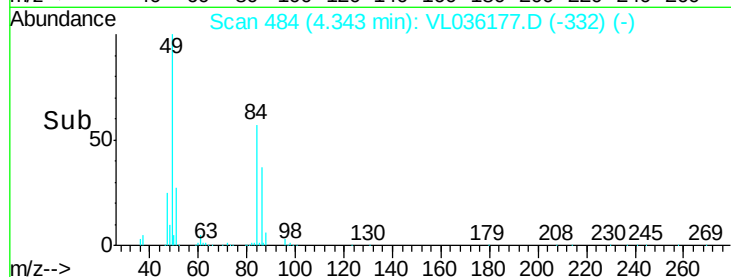
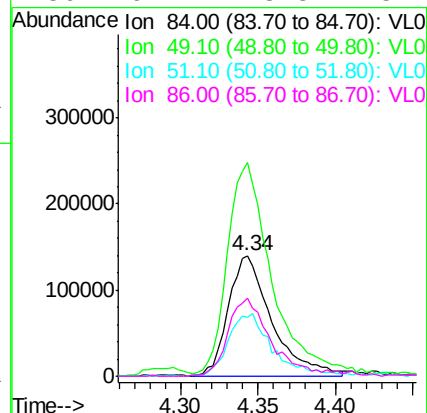
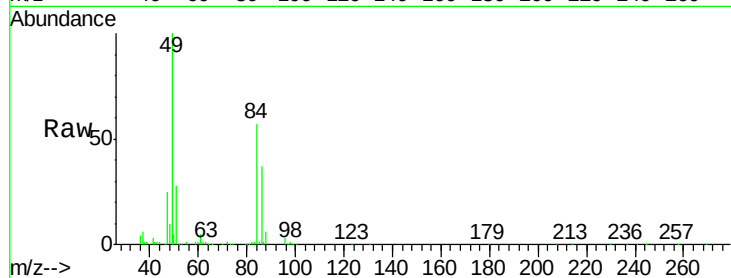
#20
Methylene Chloride
Concen: 4.193 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.01 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Instrument :
MSVOA_L
ClientSampleId :
AS-EFF-201210DUP

Tgt Ion	Ratio	Lower	Upper
84	100		
49	174.9	133.0	199.4
51	48.5	38.9	58.3
86	64.1	48.8	73.2

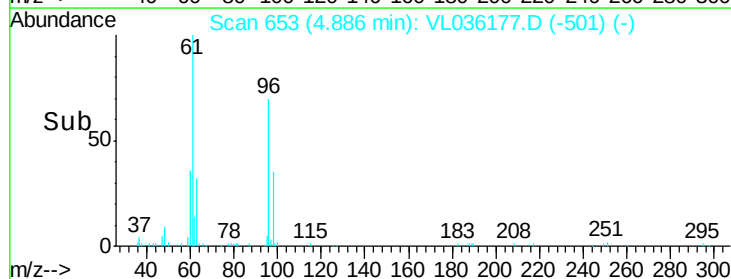
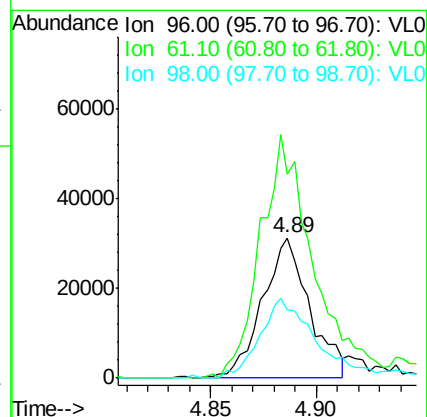
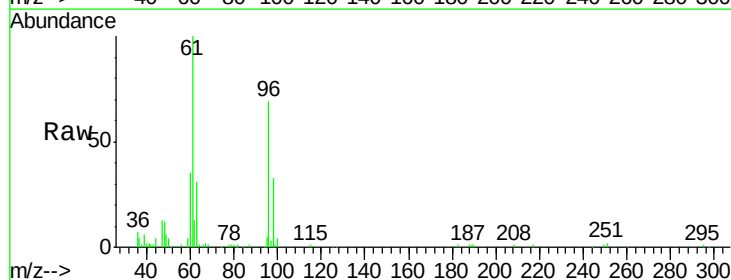
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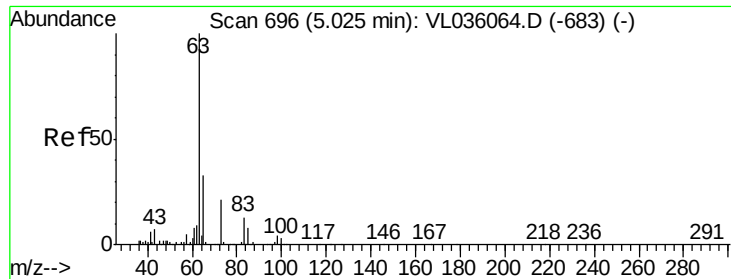
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#22
trans-1,2-Dichloroethene
Concen: 0.897 ppbv
RT: 4.89 min Scan# 653
Delta R.T. -0.01 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Lower	Upper
96	100		
61	145.8	145.7	218.5
98	47.1	49.2	73.8#





#24

1,1-Dichloroethane

Concen: 1.662 ppbv

RT: 5.01 min Scan# 692

Delta R.T. -0.01 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

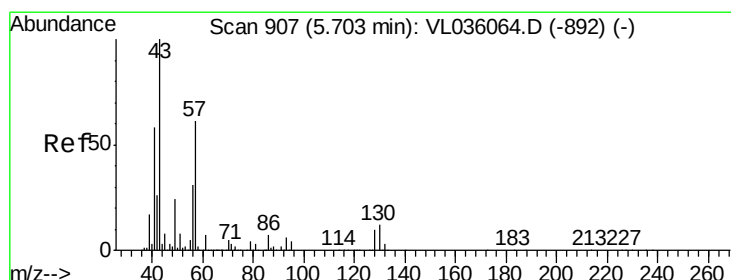
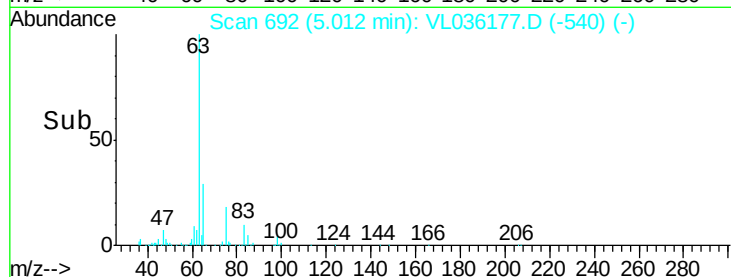
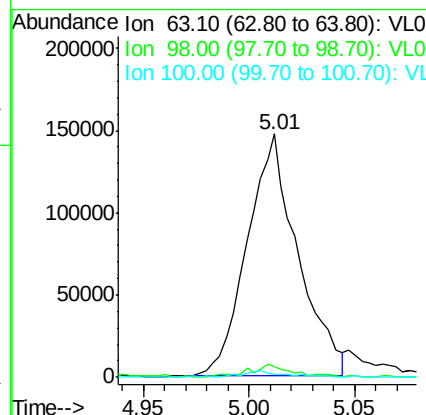
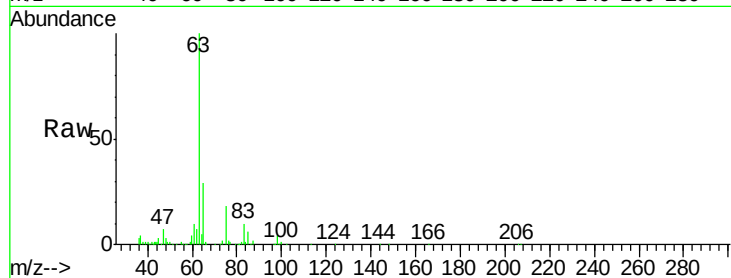
ClientSampleId :

AS-EFF-201210DUP

Tgt Ion	Ratio	Resp	Lower	Upper
63	100	244637		
98	4.1	2.2	6.6	
100	1.1	1.5	4.4	

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#26

Hexane

Concen: 2.799 ppbv

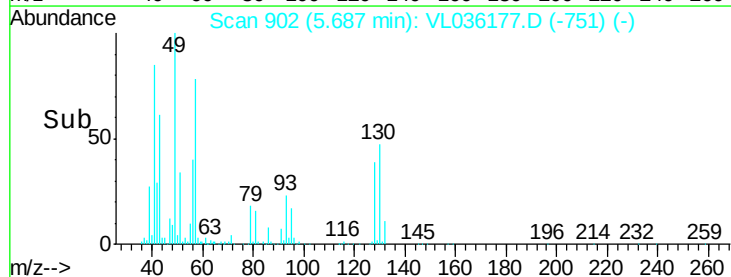
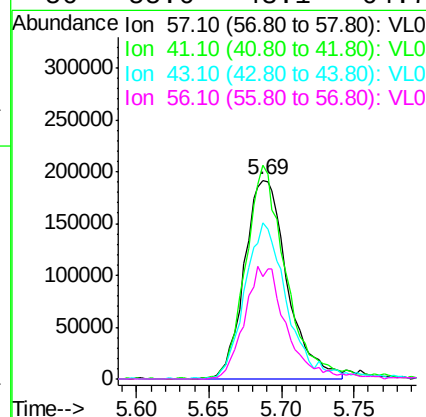
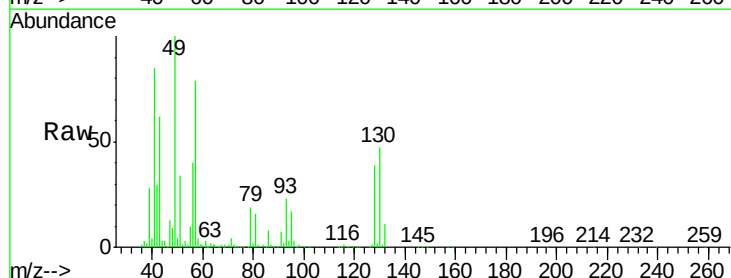
RT: 5.69 min Scan# 902

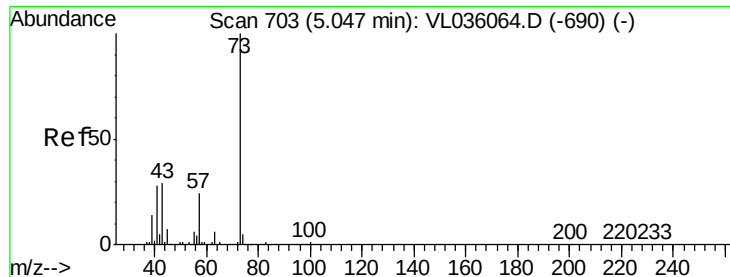
Delta R.T. -0.02 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Resp	Lower	Upper
57	100	395677		
41	103.1	82.9	124.3	
43	79.4	199.9	299.9	
56	55.6	43.1	64.7	





#28

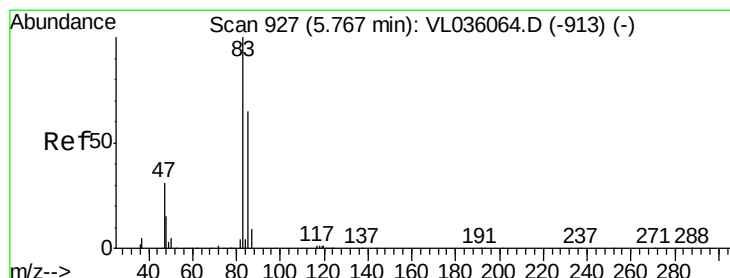
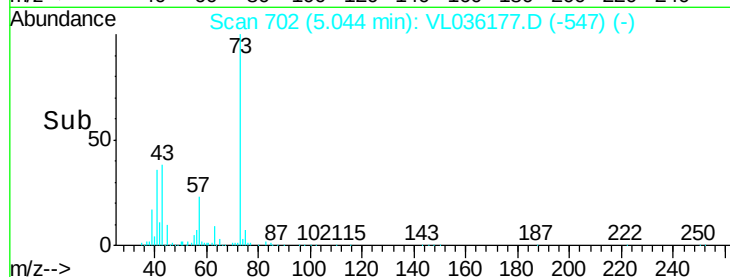
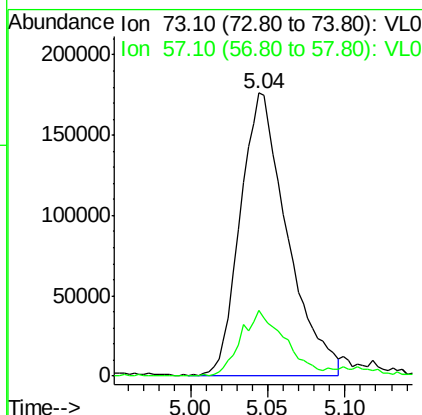
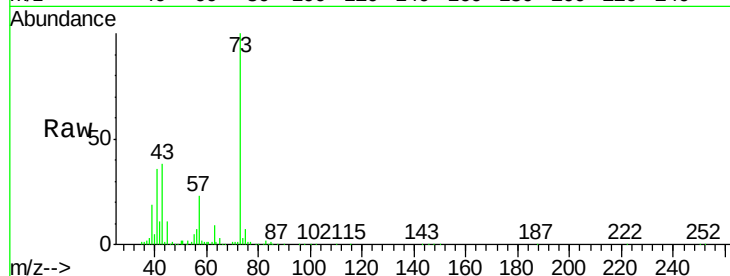
Methyl tert-Butyl Ether
 Concen: 1.856 ppbv
 RT: 5.04 min Scan# 702
 Delta R.T. -0.00 min
 Lab File: VL036177.D
 Acq: 16 Dec 2020 21:53

Instrument :
 MSVOA_L
 ClientSampleId :
 AS-EFF-201210DUP

Tgt Ion: 73 Resp: 373092
 Ion Ratio Lower Upper
 73 100
 57 21.7 19.2 28.8

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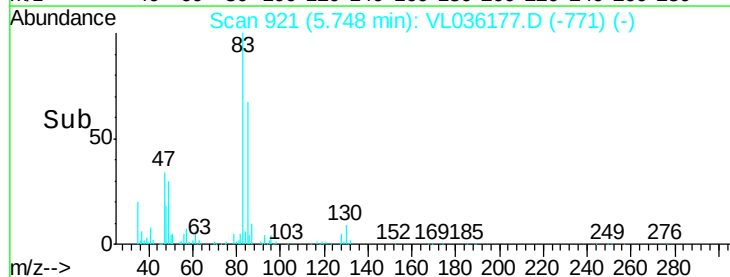
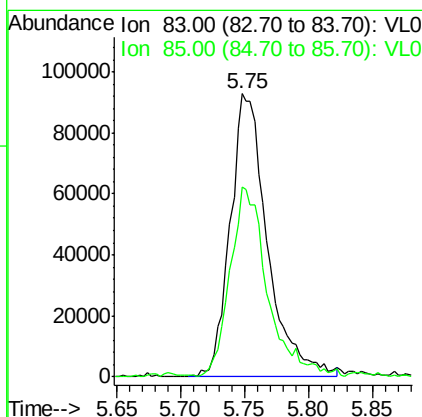
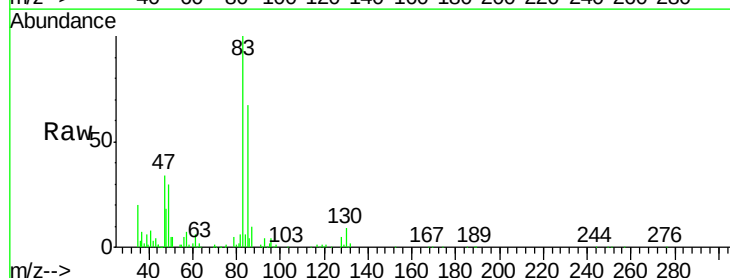
MMDadoda
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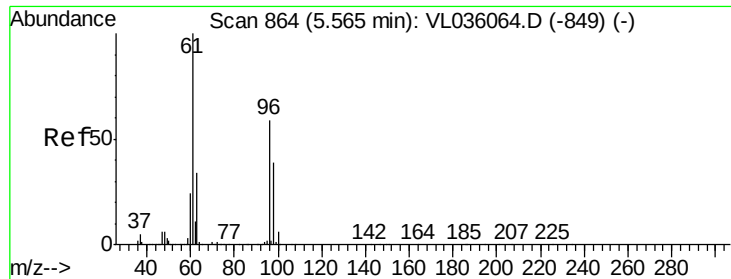


#29

Chloroform
 Concen: 1.018 ppbv m
 RT: 5.75 min Scan# 921
 Delta R.T. -0.02 min
 Lab File: VL036177.D
 Acq: 16 Dec 2020 21:53

Tgt Ion: 83 Resp: 188900
 Ion Ratio Lower Upper
 83 100
 85 67.1 51.8 77.6





#31

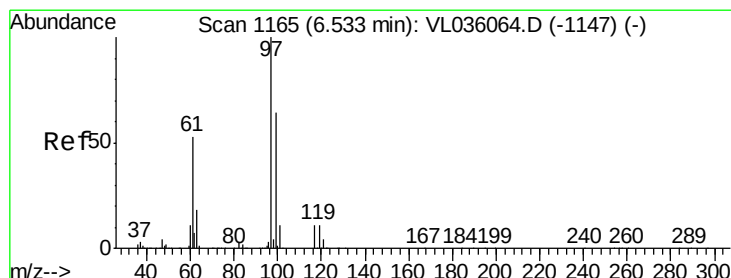
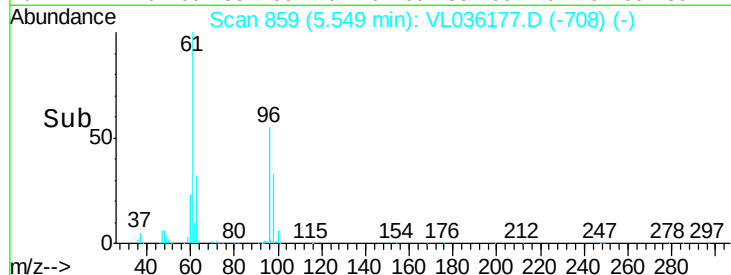
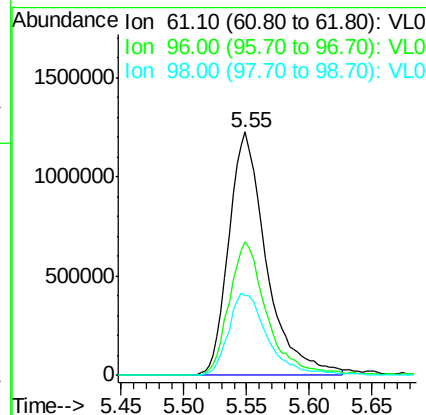
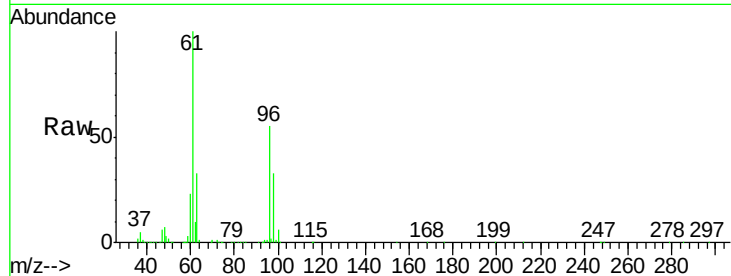
cis-1,2-Dichloroethene
Concen: 19.888 ppbv
RT: 5.55 min Scan# 859
Delta R.T. -0.02 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Instrument :
MSVOA_L
ClientSampleId :
AS-EFF-201210DUP

Tgt Ion	Ratio	Lower	Upper
61	100		
96	54.7	47.3	70.9
98	32.9	31.4	47.0

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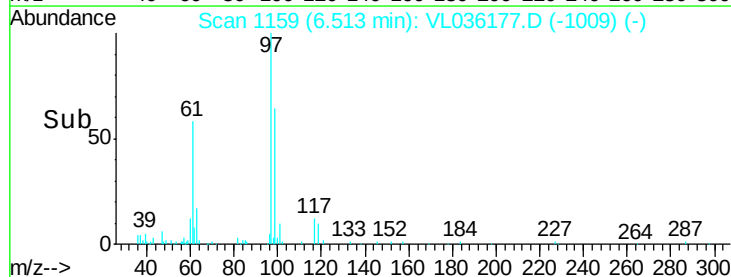
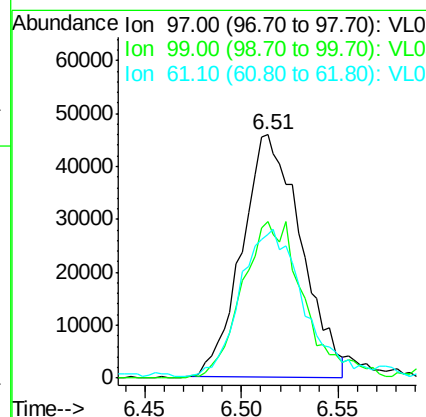
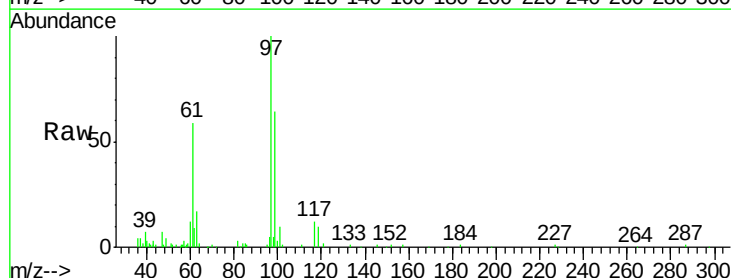
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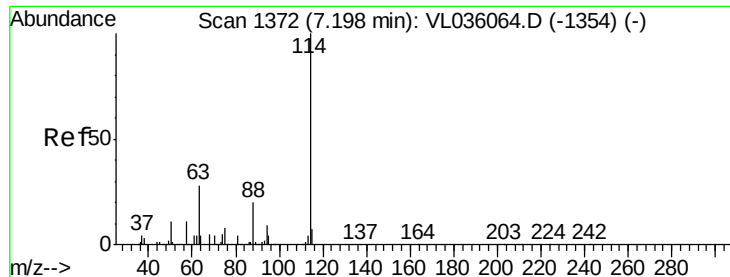


#32

1,1,1-Trichloroethane
Concen: 0.507 ppbv
RT: 6.51 min Scan# 1159
Delta R.T. -0.02 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Lower	Upper
97	100		
99	69.0	52.4	78.6
61	71.2	43.4	65.0





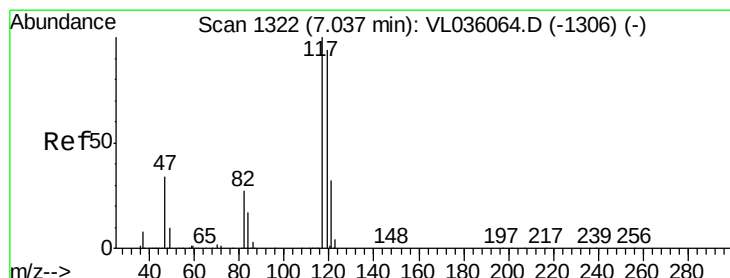
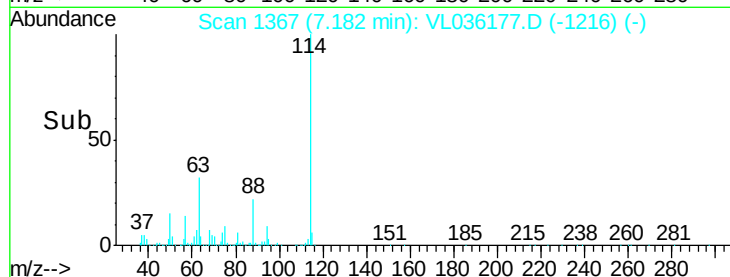
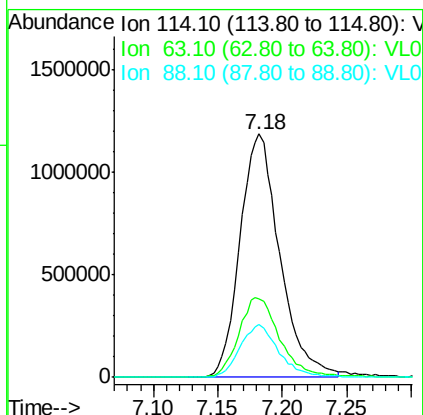
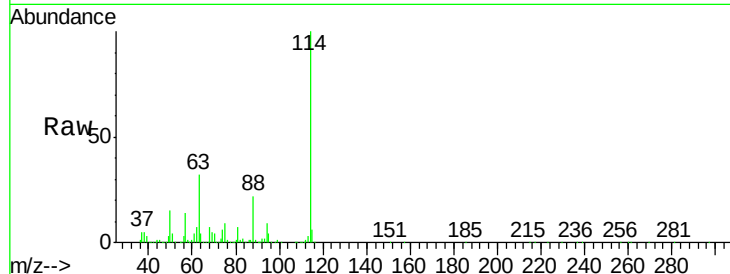
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1367
 Delta R.T. -0.02 min
 Lab File: VL036177.D
 Acq: 16 Dec 2020 21:53

Instrument :
 MSVOA_L
 ClientSampleId :
 AS-EFF-201210DUP

Tgt Ion	Ratio	Lower	Upper
114	100		
63	34.4	23.6	35.4
88	21.5	15.8	23.6

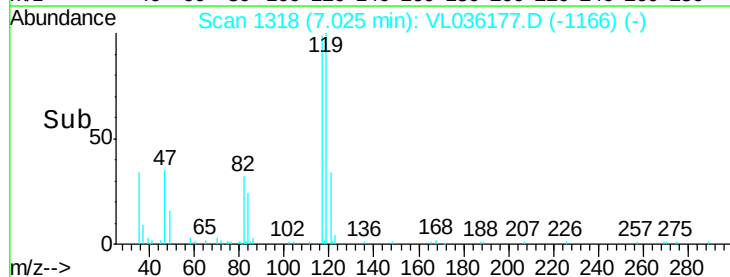
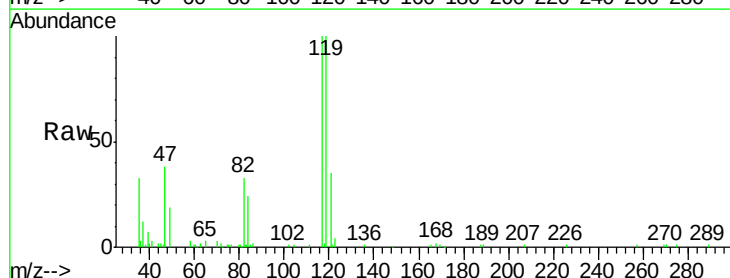
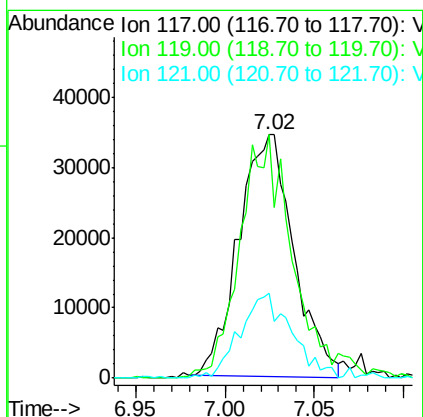
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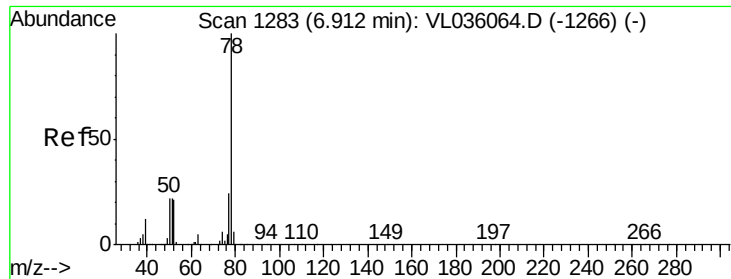
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#35
 Carbon Tetrachloride
 Concen: 0.500 ppbv
 RT: 7.02 min Scan# 1318
 Delta R.T. -0.01 min
 Lab File: VL036177.D
 Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Lower	Upper
117	100		
119	100.5	75.1	112.7
121	36.3	25.6	38.4





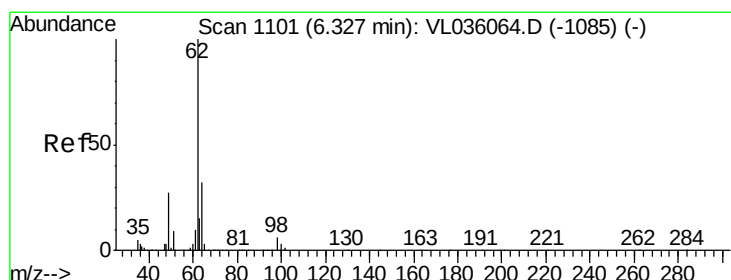
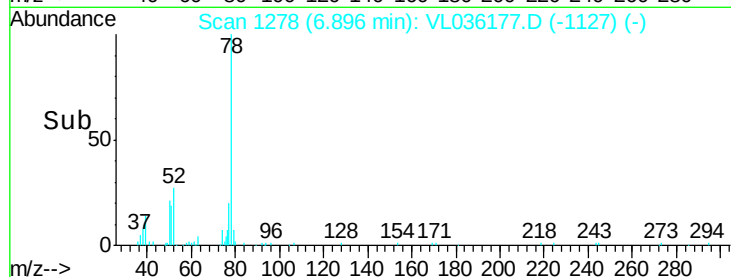
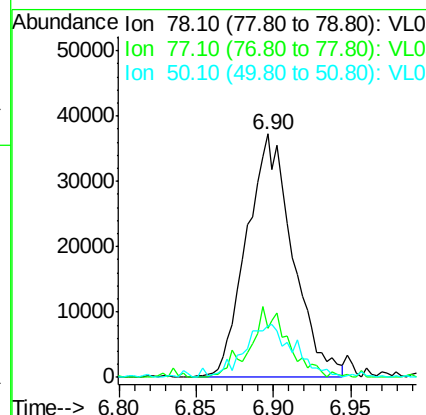
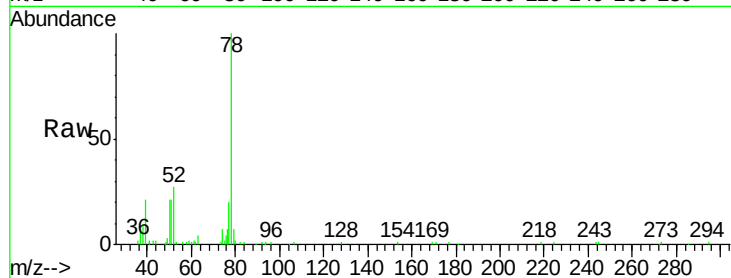
#36
Benzene
Concen: 0.359 ppbv
RT: 6.90 min Scan# 1278
Delta R.T. -0.02 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Instrument :
MSVOA_L
ClientSampleId :
AS-EFF-201210DUP

Tgt Ion	Ratio	Lower	Upper
78	100		
77	20.0	19.4	29.2
50	21.1	17.8	26.8

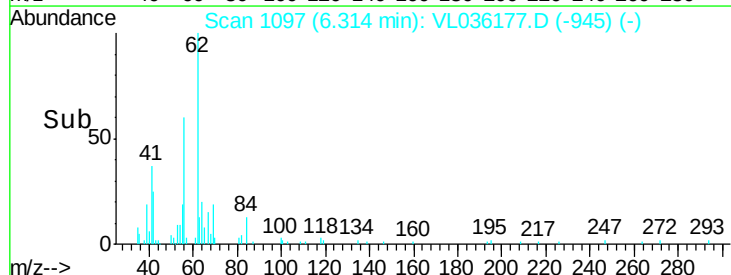
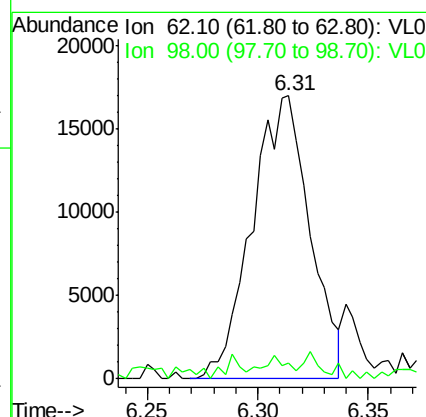
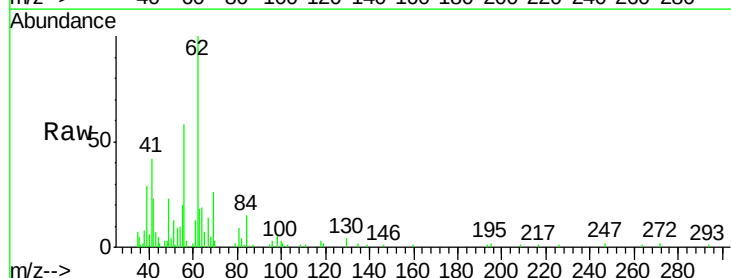
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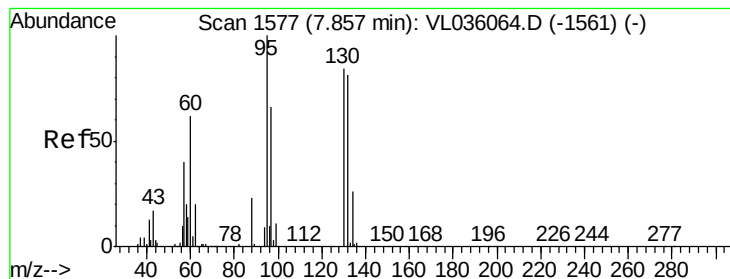
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#37
1,2-Dichloroethane
Concen: 0.248 ppbv m
RT: 6.31 min Scan# 1097
Delta R.T. -0.01 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Tgt Ion	Ratio	Lower	Upper
62	100		
98	8.9	4.6	7.0#





#38

Trichloroethene

Concen: 110.089 ppbv

RT: 7.84 min Scan# 1573

Delta R.T. -0.01 min

Lab File: VL036177.D

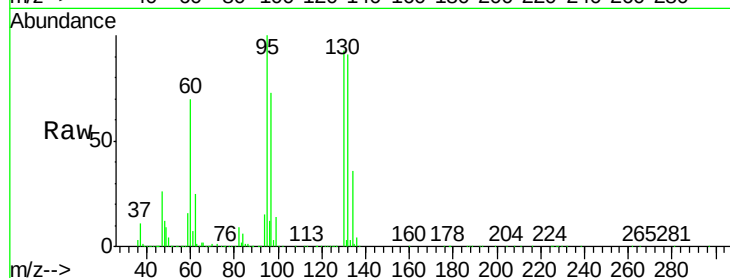
Acq: 16 Dec 2020 21:53

Instrument :

MSVOA_L

ClientSampleId :

AS-EFF-201210DUP



Tgt Ion:130 Resp: 8879143

Ion Ratio Lower Upper

130 100

95 107.3 95.2 142.8

132 97.9 76.9 115.3

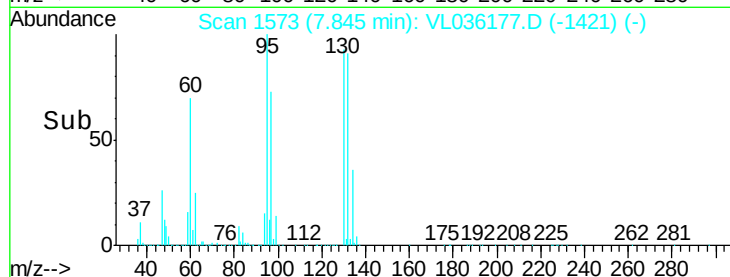
97 78.1 62.3 93.5

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Abundance Ion 130.00 (129.70 to 130.70): V

6000000 Ion 95.00 (94.70 to 95.70): VL0

5000000 Ion 132.00 (131.70 to 132.70): V

4000000 Ion 97.00 (96.70 to 97.70): VL0

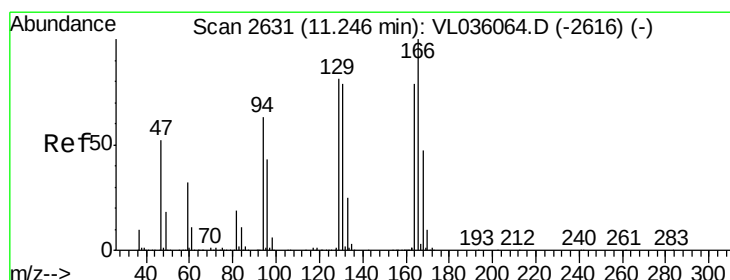
3000000

2000000

1000000

0

Time--> 7.70 7.80 7.90 8.00



#52

Tetrachloroethene

Concen: 96.371 ppbv

RT: 11.24 min Scan# 2630

Delta R.T. -0.00 min

Lab File: VL036177.D

Acq: 16 Dec 2020 21:53

Tgt Ion:164 Resp: 7527067

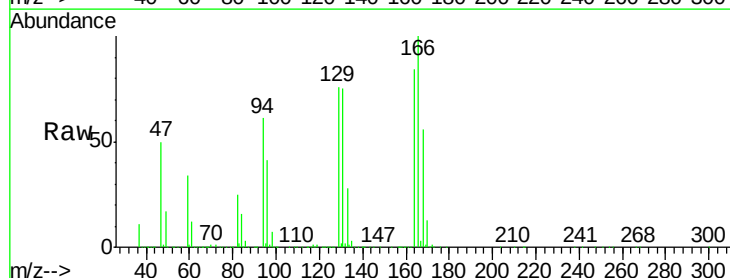
Ion Ratio Lower Upper

164 100

166 119.7 101.9 152.9

129 91.3 82.1 123.1

131 90.3 80.8 121.2



Abundance Ion 163.90 (163.60 to 164.60): V

6000000 Ion 165.90 (165.60 to 166.60): V

5000000 Ion 129.00 (128.70 to 129.70): V

4000000 Ion 131.00 (130.70 to 131.70): V

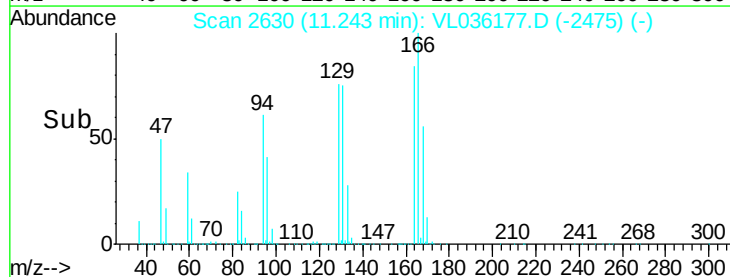
3000000

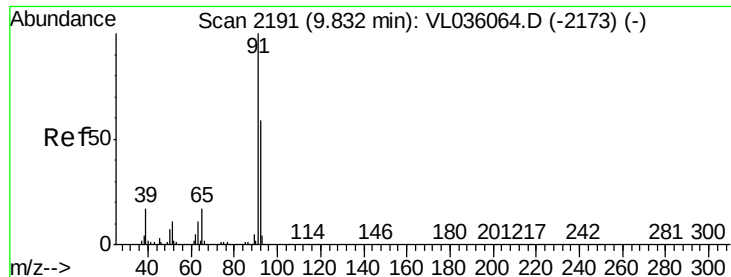
2000000

1000000

0

Time--> 11.20 11.30





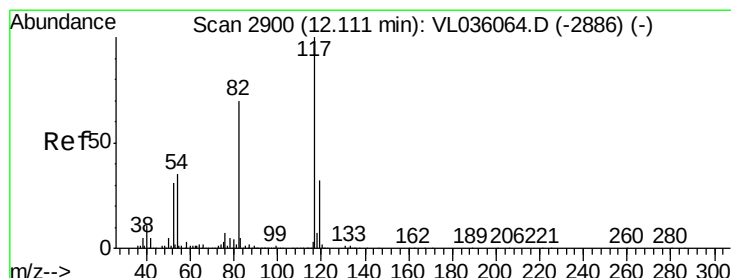
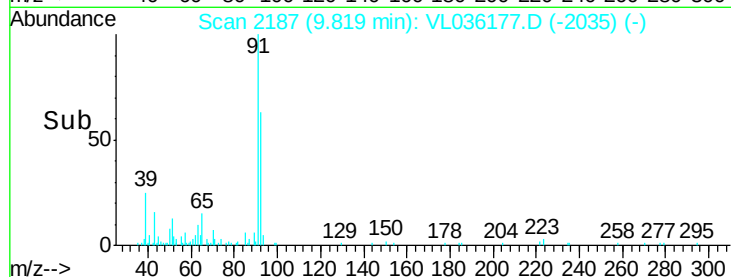
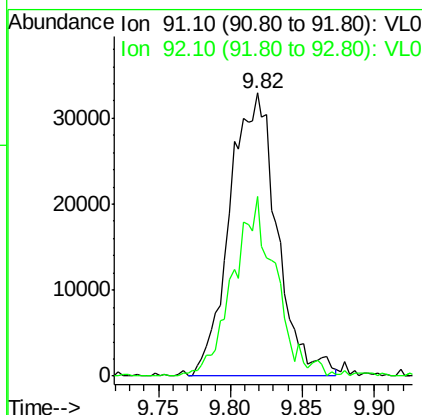
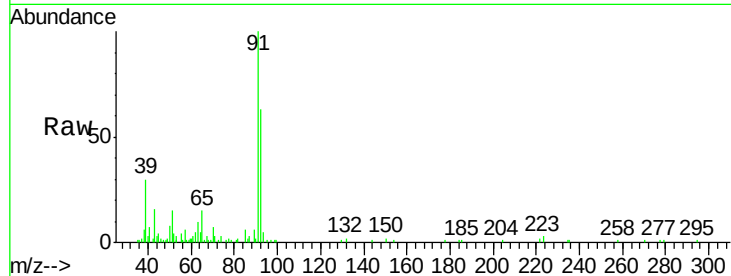
#53
Toluene
Concen: 0.310 ppbv m
RT: 9.82 min Scan# 2187
Delta R.T. -0.01 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Instrument :
MSVOA_L
ClientSampleId :
AS-EFF-201210DUP

Tgt Ion: 91 Resp: 75134
Ion Ratio Lower Upper
91 100
92 0.0 48.2 72.2#

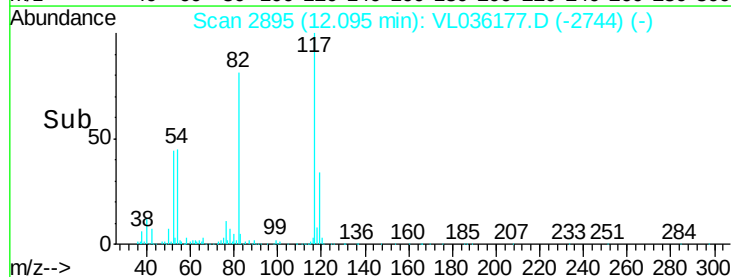
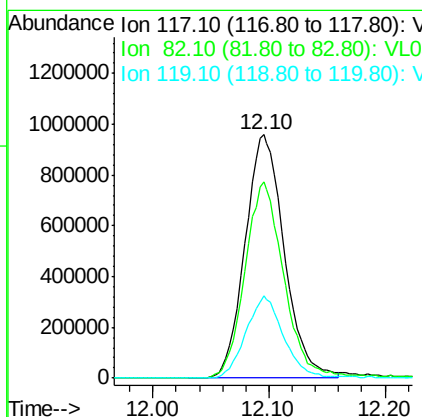
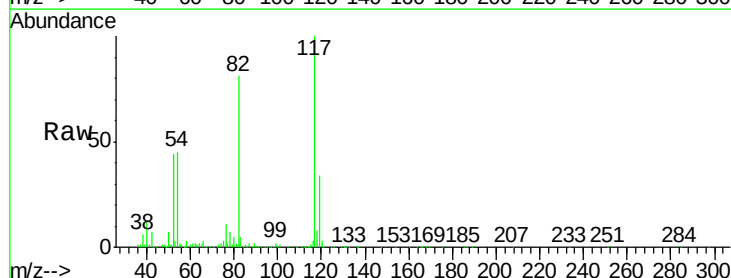
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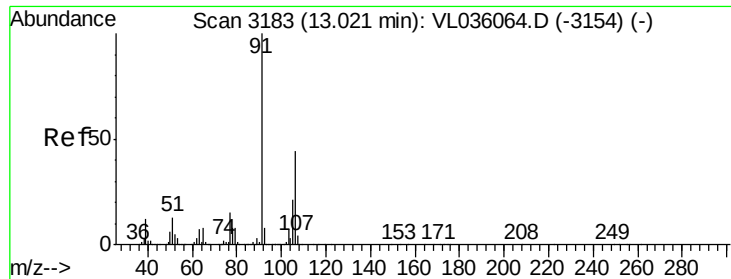
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#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2895
Delta R.T. -0.02 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Tgt Ion: 117 Resp: 2256745
Ion Ratio Lower Upper
117 100
82 81.4 0.0 0.0#
119 33.1 0.0 0.0#





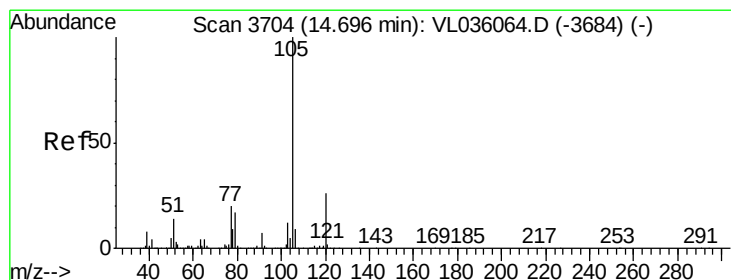
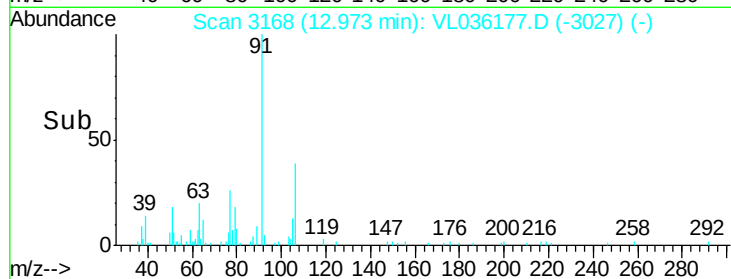
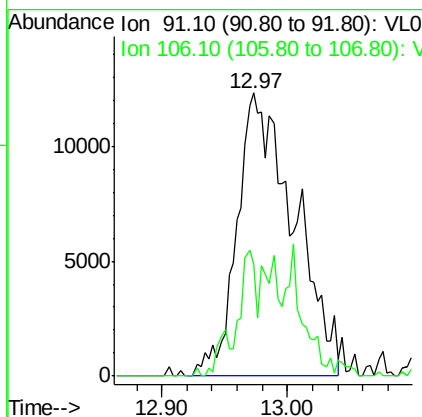
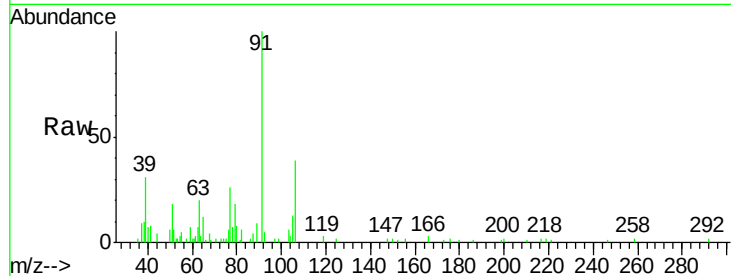
#59
m/p-Xylene
Concen: 0.149 ppbv m
RT: 12.97 min Scan# 3168
Delta R.T. -0.05 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Instrument :
MSVOA_L
ClientSampleId :
AS-EFF-201210DUP

Tgt Ion: 91 Resp: 38700
Ion Ratio Lower Upper
91 100
106 27.5 33.6 50.4#

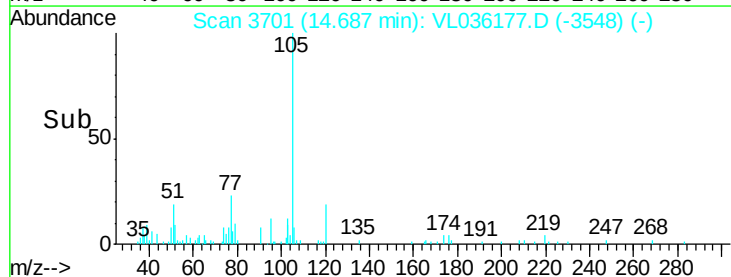
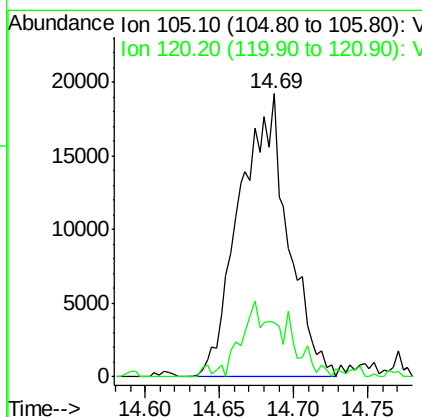
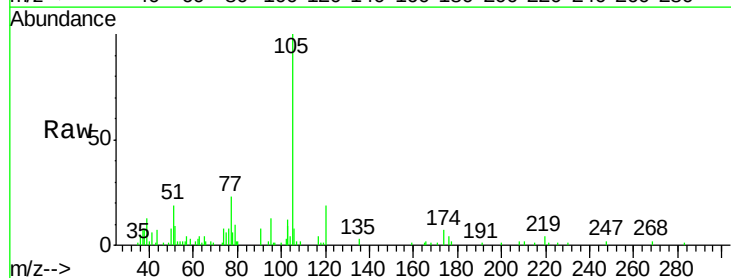
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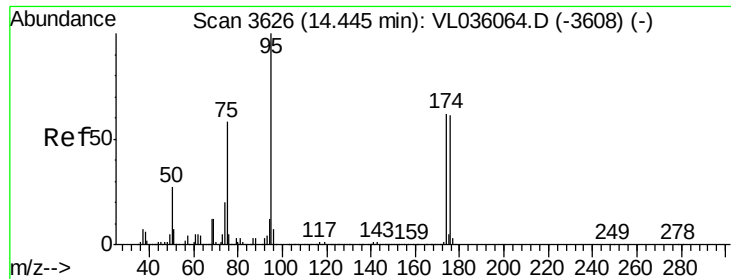
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#62
Isopropylbenzene
Concen: 0.120 ppbv m
RT: 14.69 min Scan# 3701
Delta R.T. -0.01 min
Lab File: VL036177.D
Acq: 16 Dec 2020 21:53

Tgt Ion: 105 Resp: 43483
Ion Ratio Lower Upper
105 100
120 25.9 20.1 30.1





#68
 1-Bromo-4-Fluorobenzene
 Concen: 11.121 ppbv
 RT: 14.43 min Scan# 3621
 Delta R.T. -0.02 min
 Lab File: VL036177.D
 Acq: 16 Dec 2020 21:53

Instrument :
 MSVOA_L
 ClientSampleId :
 AS-EFF-201210DUP

Tgt Ion: 95 Resp: 1992858
 Ion Ratio Lower Upper
 95 100
 174 55.1 50.7 76.1
 175 3.8 4.0 6.0#

Manual Integrations
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