

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120720\
 Data File : VL036083.D
 Acq On : 8 Dec 2020 3:06
 Operator : SY/AP
 Sample : L4948-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-6B

Manual Integrations
 APPROVED

MMDadoda
 12/11/2020 5:45:22 PM

Quant Time: Dec 08 21:25:25 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 0
 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	1196625	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2567601	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.11	117	2313295	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.45	95	1949446	10.61	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	39924	0.286	ppbv	96
3) Chlorodifluoromethane	2.99	51	159567	1.169	ppbv	96
4) Chloromethane	3.14	50	37895	0.565	ppbv	89
9) Propene	3.03	41	53851	0.787	ppbv #	81
10) Heptane	8.14	43	79398	0.455	ppbv	91
11) Trichlorofluoromethane	3.96	101	303323	1.850	ppbv	95
13) Ethanol	3.61	45	1649824	174.985	ppbv	85
15) Acetone	3.86	43	1550217	10.779	ppbv	98
17) tert-Butyl alcohol	4.32	59	69651m	0.500	ppbv	
19) Isopropyl Alcohol	3.99	45	125976	1.433	ppbv #	100
20) Methylene Chloride	4.35	84	216675	3.677	ppbv	98
26) Hexane	5.70	57	217965	1.686	ppbv #	51
30) Cyclohexane	7.15	84	163409	1.720	ppbv #	81
34) 2-Butanone	5.27	43	91311	0.536	ppbv #	91
35) Carbon Tetrachloride	7.03	117	10739m	0.072	ppbv	
36) Benzene	6.91	78	50377	0.232	ppbv #	90
52) Tetrachloroethene	11.24	164	3388m	0.043	ppbv	
53) Toluene	9.83	91	384726	1.575	ppbv	99
58) Ethyl Benzene	12.73	91	175824m	0.555	ppbv	
59) m/p-Xylene	13.00	91	688968	2.580	ppbv	98
60) o-Xylene	13.72	91	248936	0.990	ppbv	99
73) 1,3,5-Trimethylbenzene	16.02	105	64774m	0.249	ppbv	
74) 1,2,4-Trimethylbenzene	16.79	105	163654	0.626	ppbv #	65
76) 1,4-Dichlorobenzene	17.18	146	20934m	0.157	ppbv	
79) Naphthalene	22.25	128	61299m	0.462	ppbv	

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

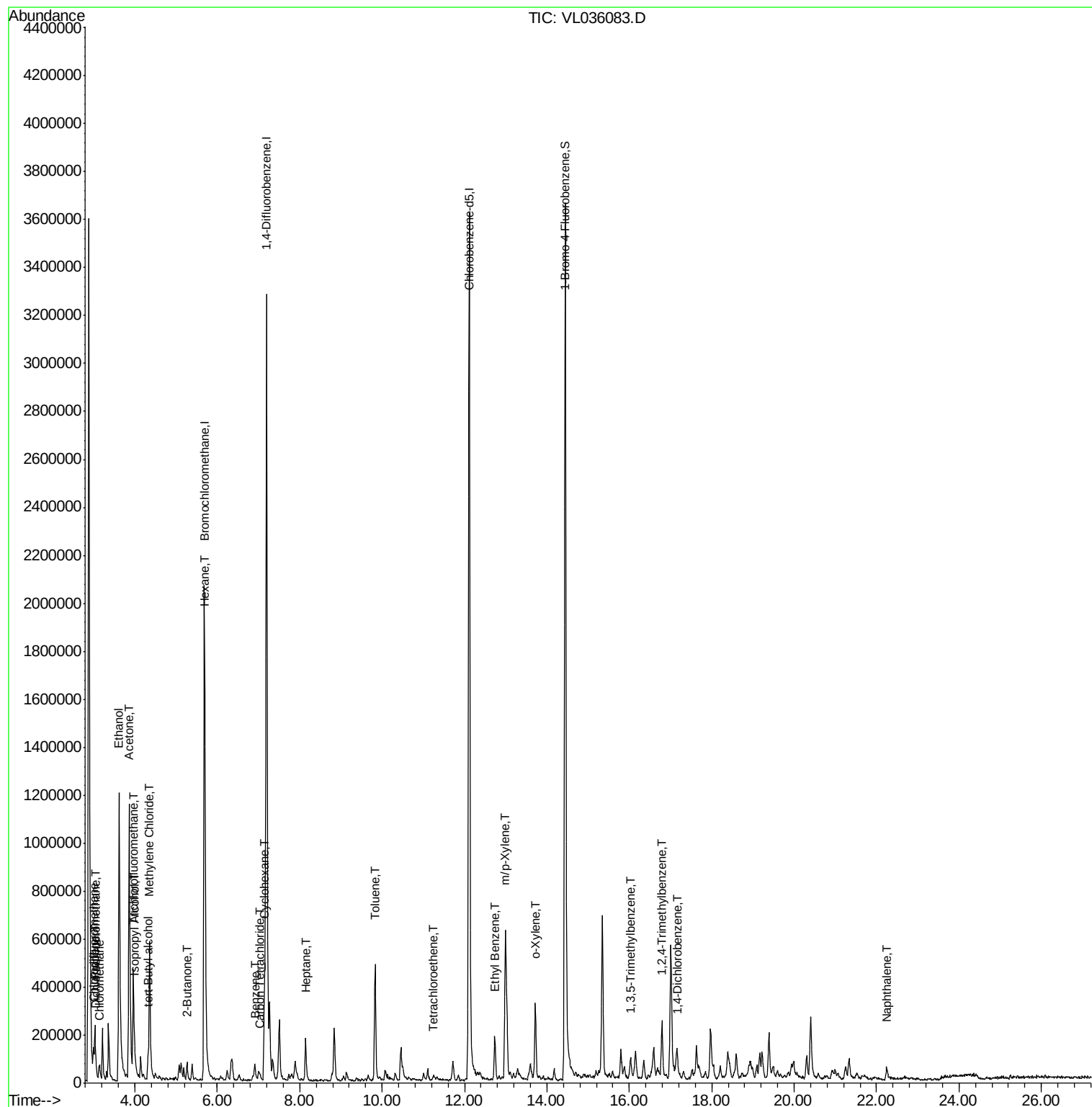
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL120720\
Data File : VL036083.D
Acq On : 8 Dec 2020 3:06
Operator : SY/AP
Sample : L4948-03
Misc : 400ml/MSVOA L
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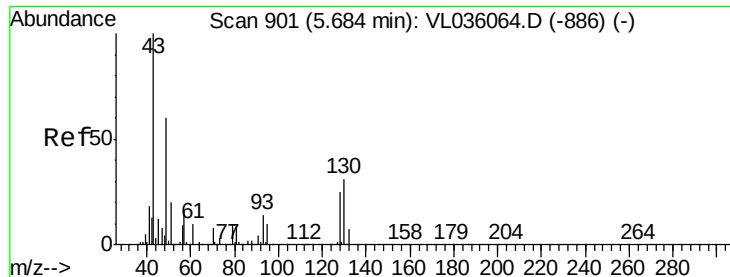
Instrument :
MSVOA_L
ClientSampleId :
IA-6B

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Quant Time: Dec 08 21:25:25 2020
Quant Method : Z:\VOASRV\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# 901

Delta R.T. 0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampled :

IA-6B

Tot Ion: 49 Resp: 1196625

Ion Ratio Lower Upper

49 100

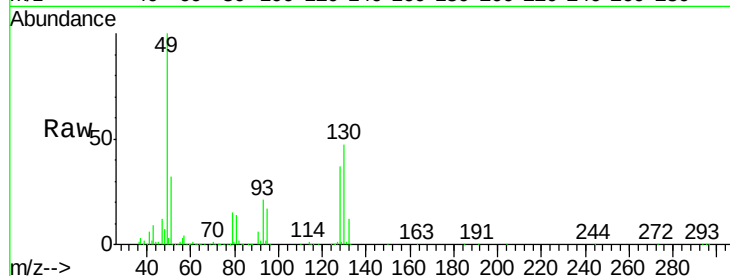
128 38.6 21.1 63.1

130 48.4 27.1 81.3

Manual Integrations
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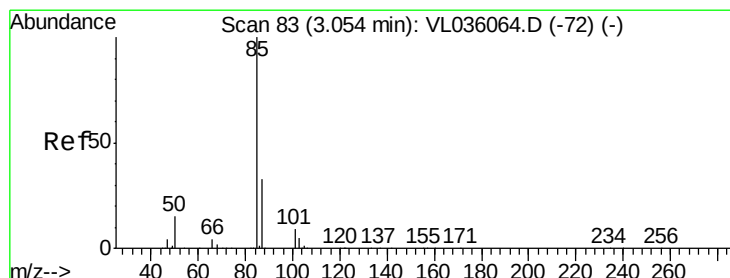
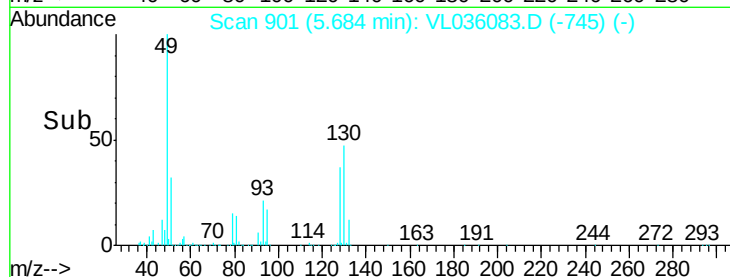
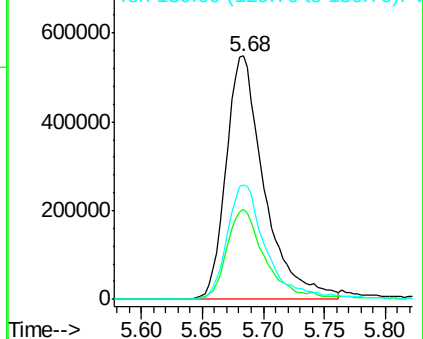
12/11/2020 5:45:22 PM



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: 0.286 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.00 min

Lab File: VL036083.D

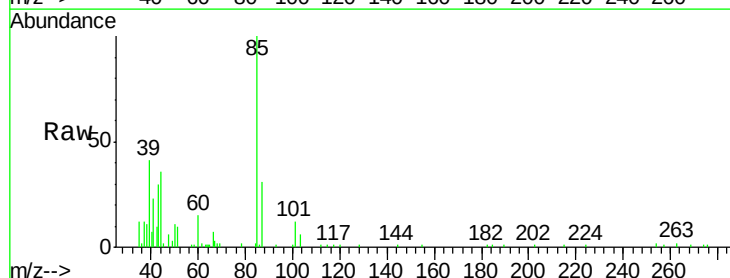
Acq: 8 Dec 2020 3:06

Tgt Ion: 85 Resp: 39924

Ion Ratio Lower Upper

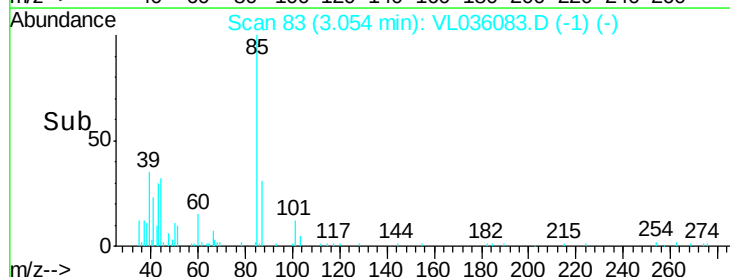
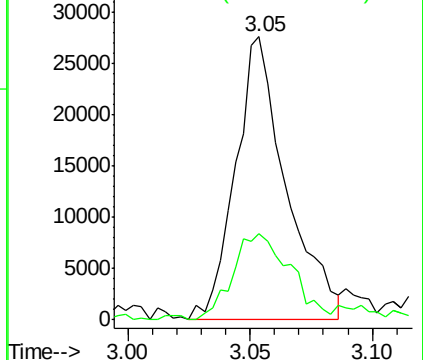
85 100

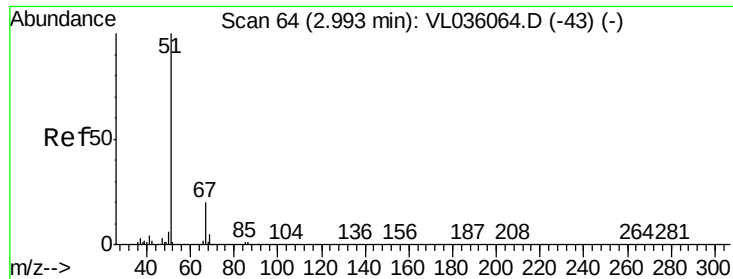
87 30.7 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 1.169 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampleId :

IA-6B

Tot Ion: 51 Resp: 159567

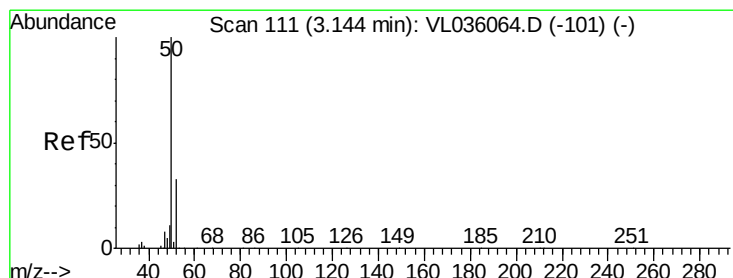
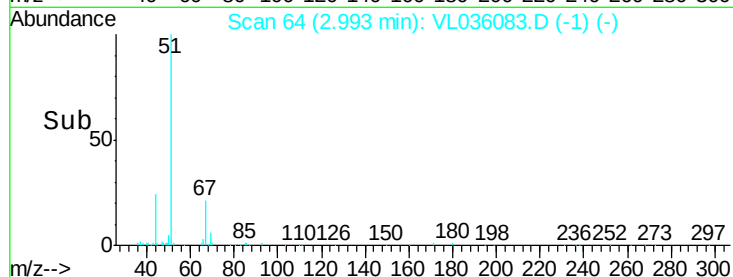
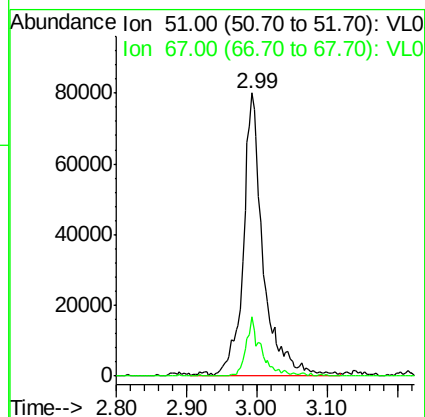
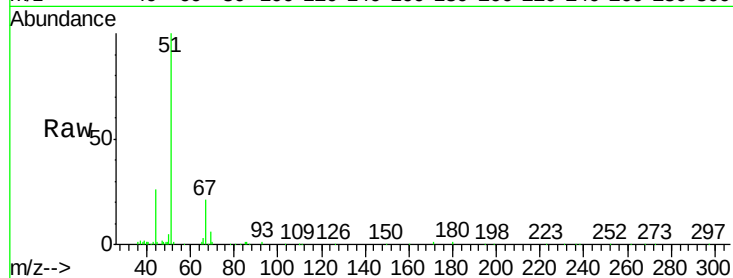
Ion Ratio Lower Upper

51 100

67 16.1 14.3 21.5

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#4

Chloromethane

Concen: 0.565 ppbv

RT: 3.14 min Scan# 111

Delta R.T. 0.00 min

Lab File: VL036083.D

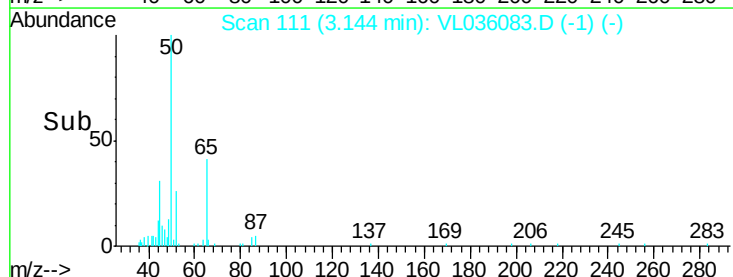
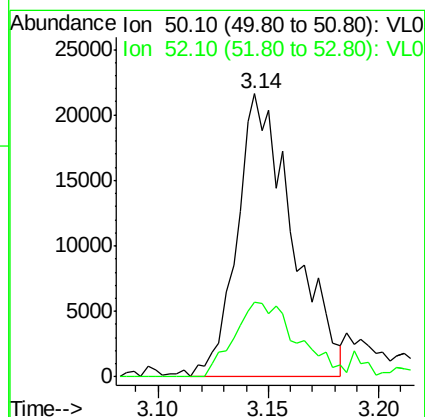
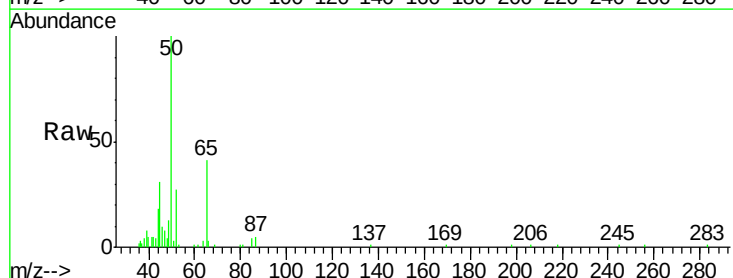
Acq: 8 Dec 2020 3:06

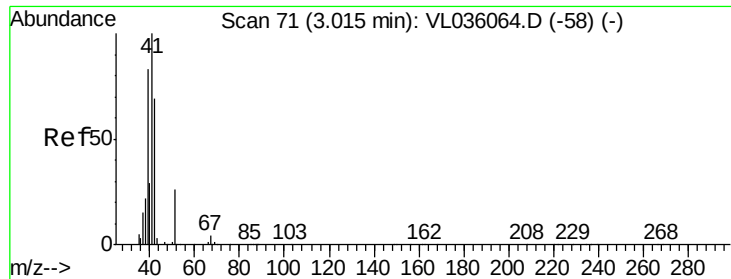
Tgt Ion: 50 Resp: 37895

Ion Ratio Lower Upper

50 100

52 26.6 26.1 39.1





#9

Propene

Concen: 0.787 ppbv

RT: 3.03 min Scan# 75

Delta R.T. 0.01 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampleId :

IA-6B

Tot Ion: 41 Resp: 53851

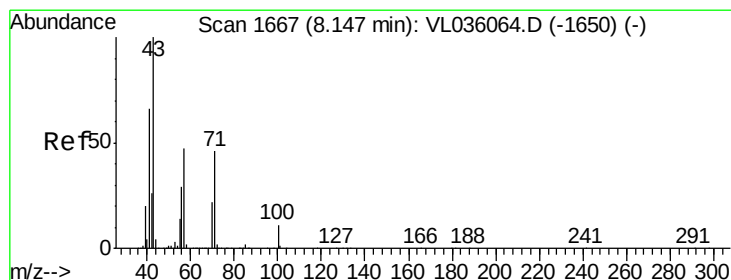
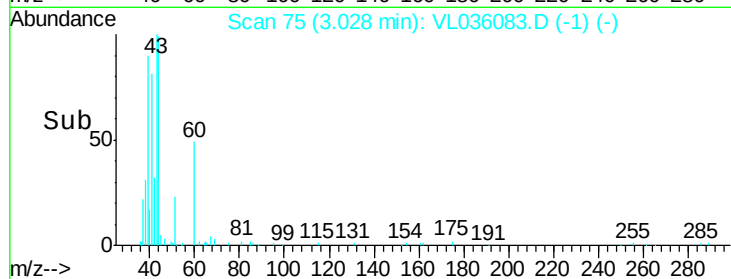
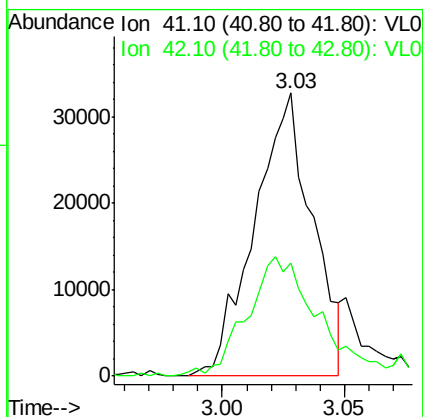
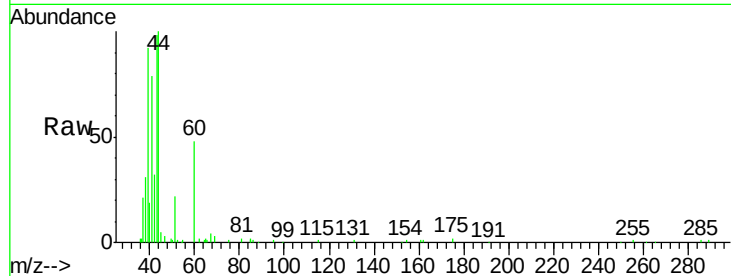
Ion Ratio Lower Upper

41 100

42 55.6 57.0 85.6#

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#10

Heptane

Concen: 0.455 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. -0.01 min

Lab File: VL036083.D

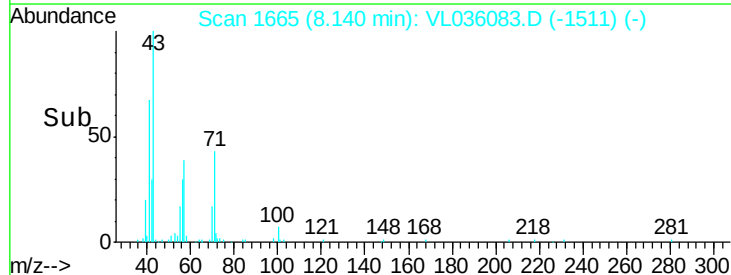
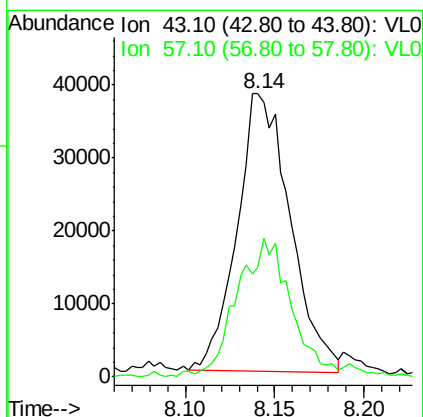
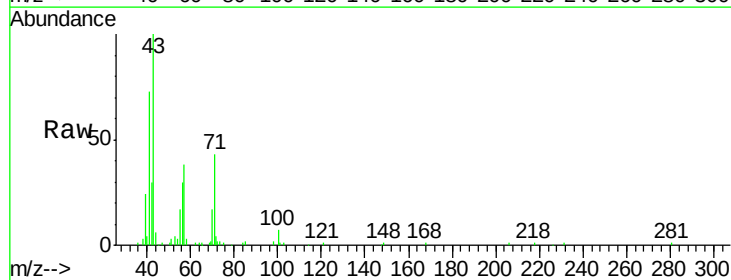
Acq: 8 Dec 2020 3:06

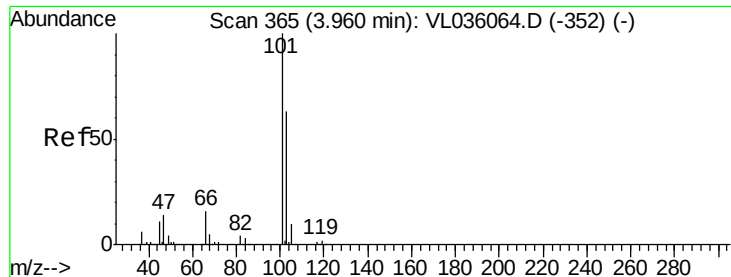
Tgt Ion: 43 Resp: 79398

Ion Ratio Lower Upper

43 100

57 53.2 37.9 56.9





#11

Trichlorofluoromethane

Concen: 1.850 ppbv

RT: 3.96 min Scan# 365

Delta R.T. 0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampled :

IA-6B

Tot Ion:101 Resp: 303323

Ion Ratio Lower Upper

101 100

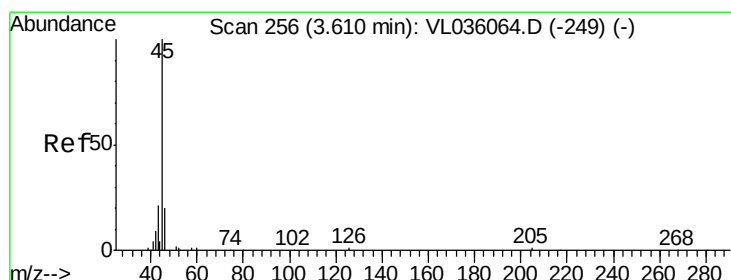
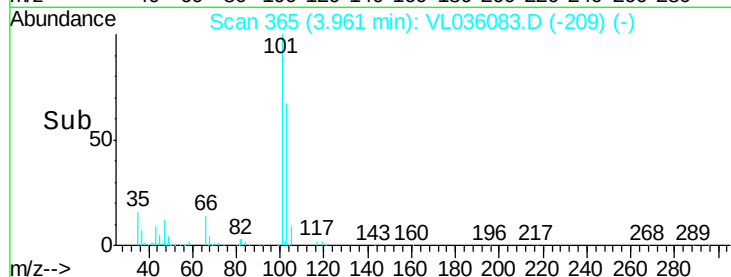
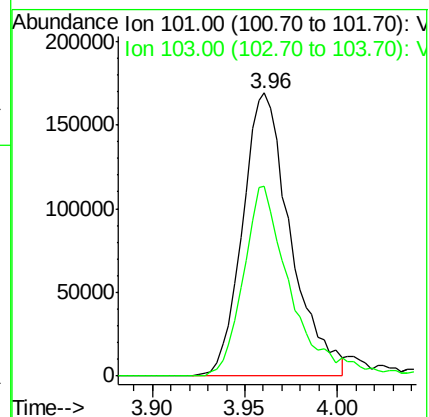
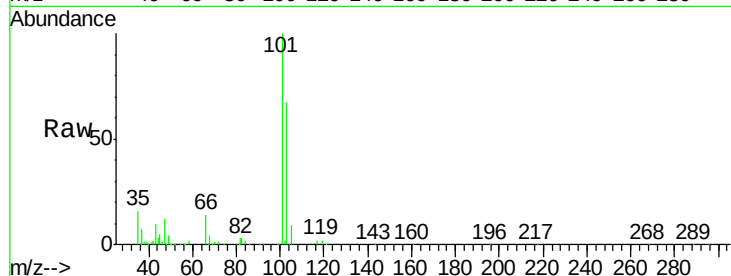
103 67.0 50.3 75.5

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#13

Ethanol

Concen: 174.985 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.00 min

Lab File: VL036083.D

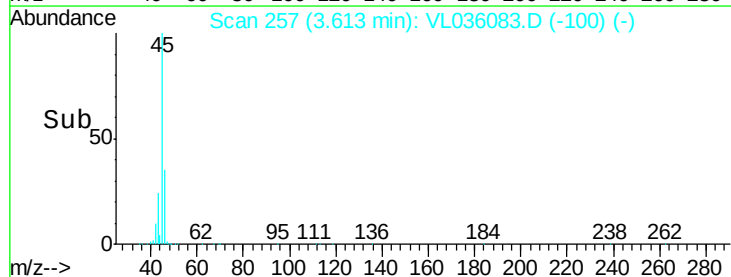
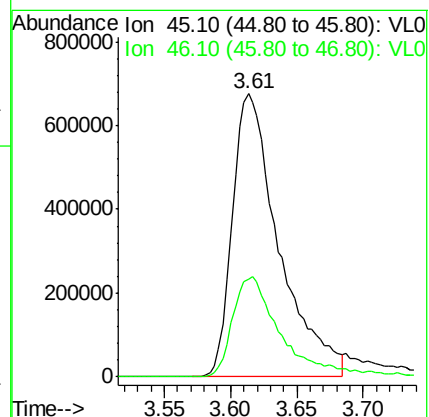
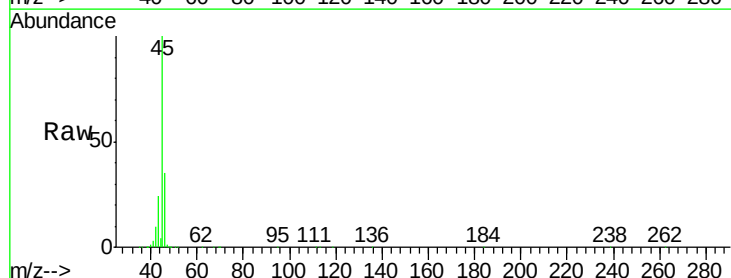
Acq: 8 Dec 2020 3:06

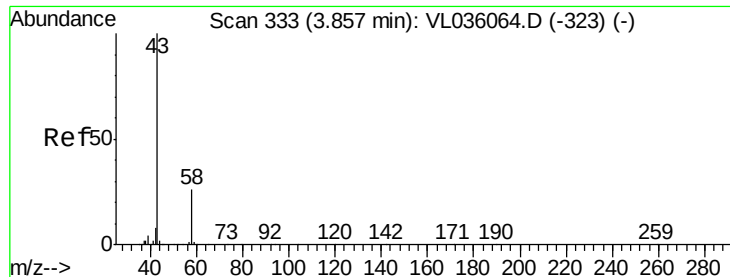
Tgt Ion: 45 Resp: 1649824

Ion Ratio Lower Upper

45 100

46 37.2 19.0 75.8





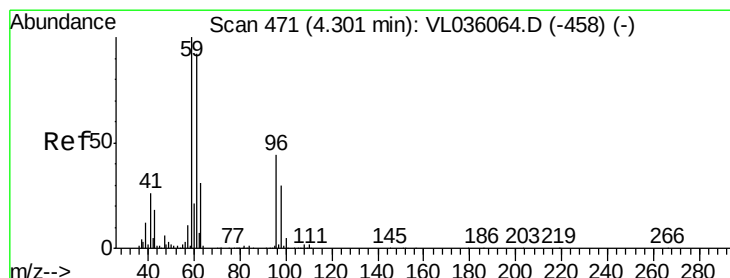
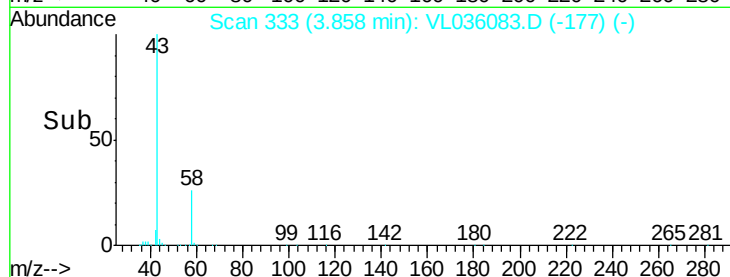
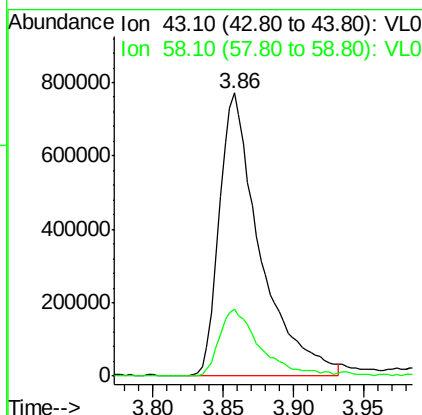
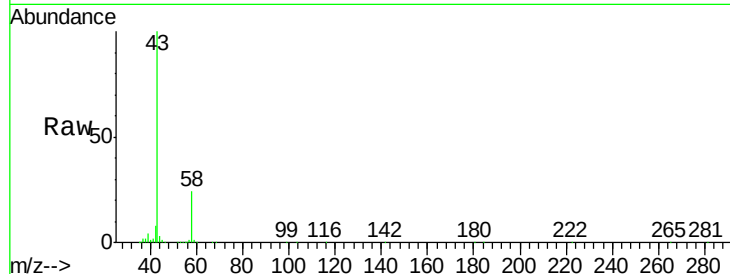
#15
Acetone
Concen: 10.779 ppbv
RT: 3.86 min Scan# 333
Delta R.T. 0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Instrument :
MSVOA_L
ClientSampled :
IA-6B

Tot Ion: 43 Resp: 1550217
Ion Ratio Lower Upper
43 100
58 25.1 20.9 31.3

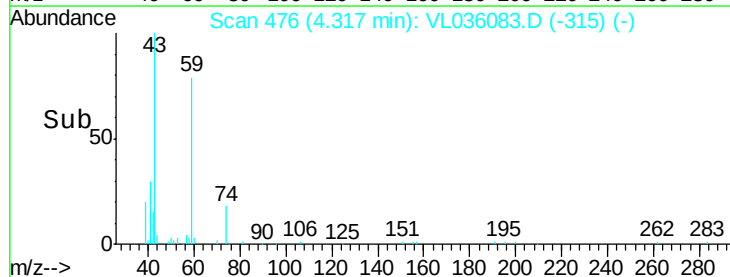
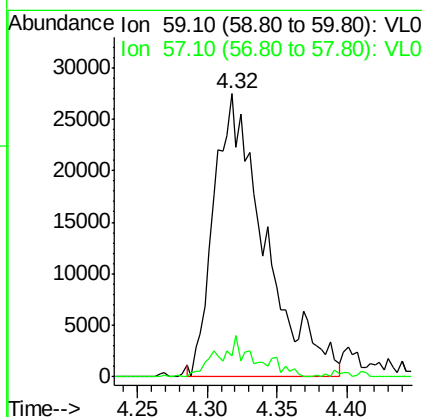
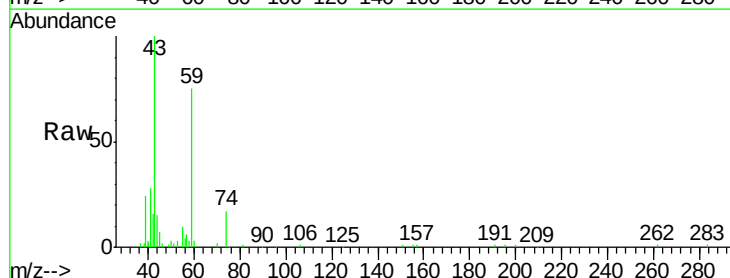
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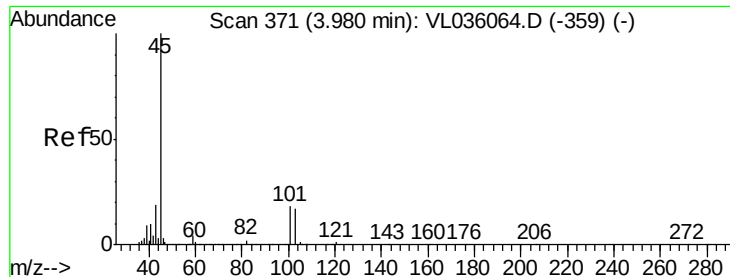
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#17
tert-Butyl alcohol
Concen: 0.500 ppbv m
RT: 4.32 min Scan# 476
Delta R.T. 0.02 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Tgt Ion: 59 Resp: 69651
Ion Ratio Lower Upper
59 100
57 10.7 8.7 13.1





#19

Isopropyl Alcohol

Concen: 1.433 ppbv

RT: 3.99 min Scan# 373

Delta R.T. 0.01 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampled :

IA-6B

Tot Ion: 45 Resp: 125976

Ion Ratio Lower Upper

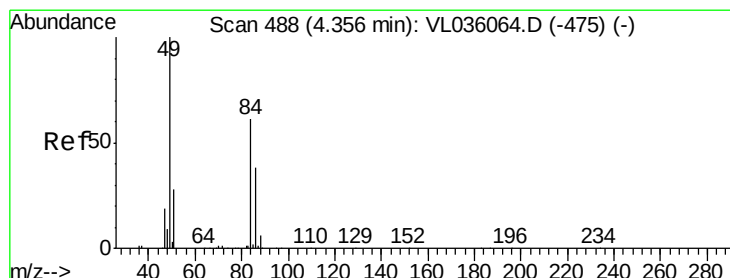
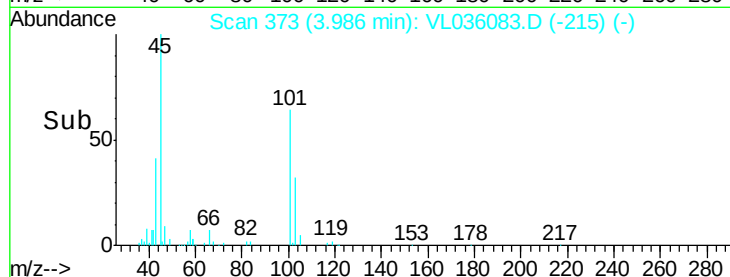
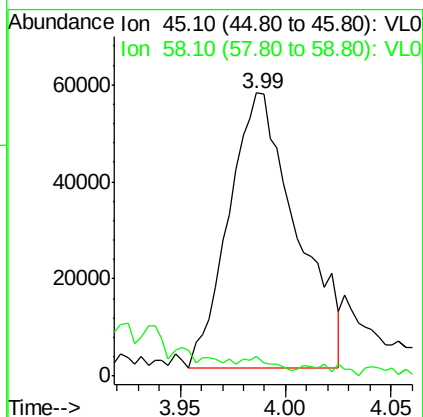
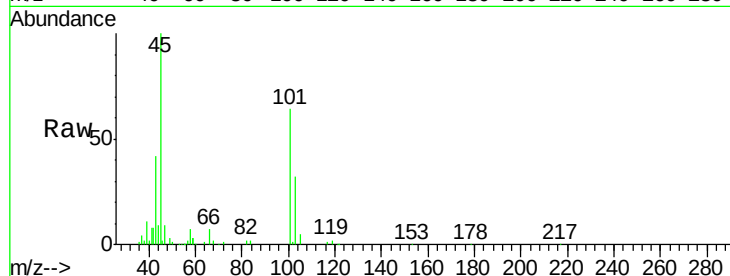
45 100

58 312.0 0.0 0.0#

Manual Integrations
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#20

Methylene Chloride

Concen: 3.677 ppbv

RT: 4.35 min Scan# 487

Delta R.T. -0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Tgt Ion: 84 Resp: 216675

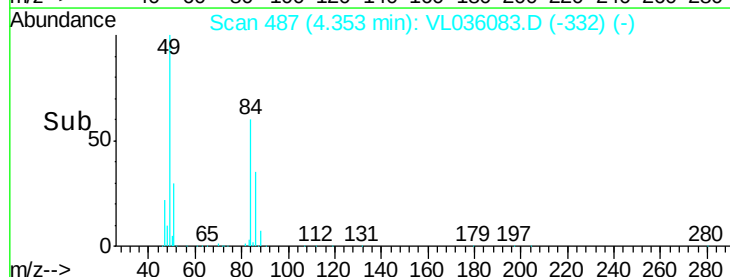
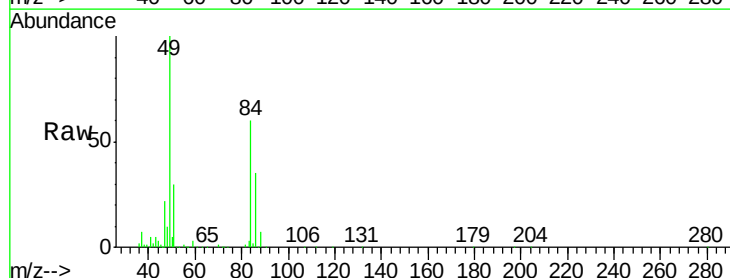
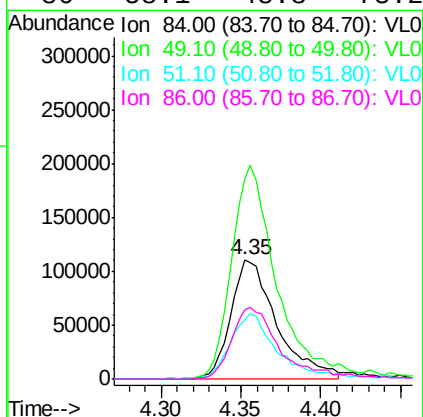
Ion Ratio Lower Upper

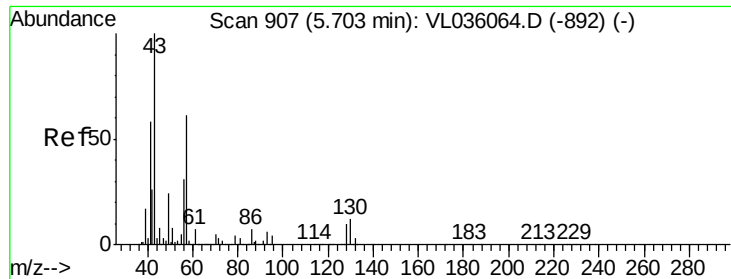
84 100

49 167.4 133.0 199.4

51 49.1 38.9 58.3

86 58.1 48.8 73.2





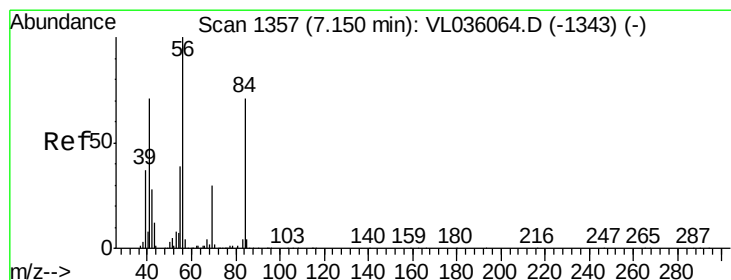
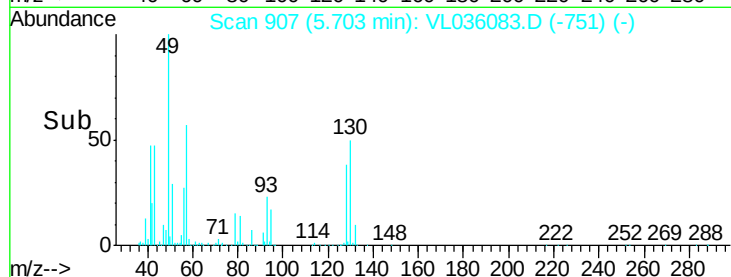
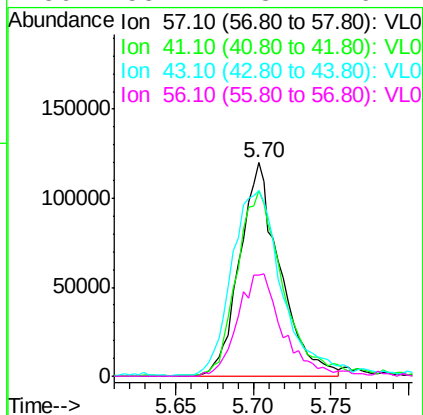
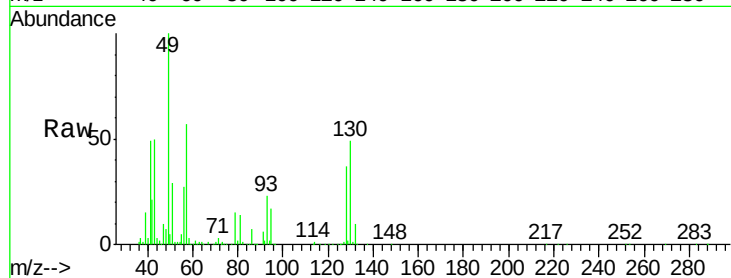
#26
Hexane
Concen: 1.686 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Instrument :
MSVOA_L
ClientSampled :
IA-6B

Tot Ion	Ratio	Lower	Upper
57	100		
41	100.6	82.9	124.3
43	112.6	199.9	299.9#
56	55.1	43.1	64.7

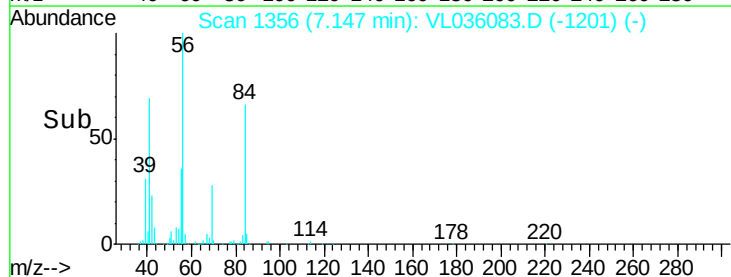
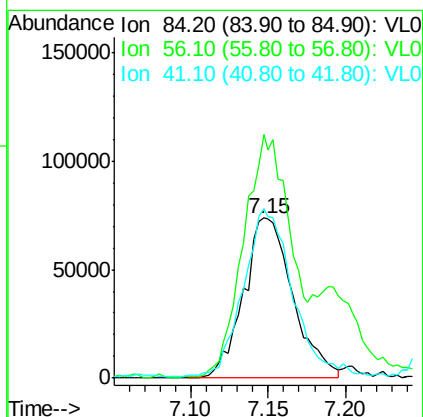
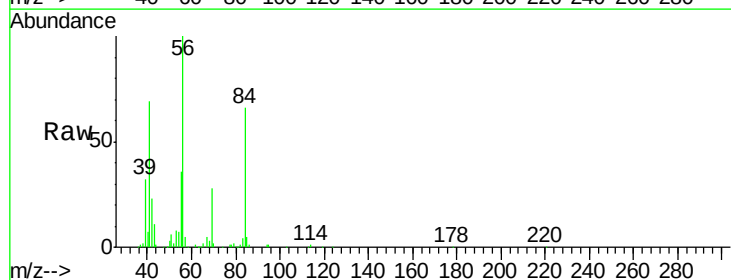
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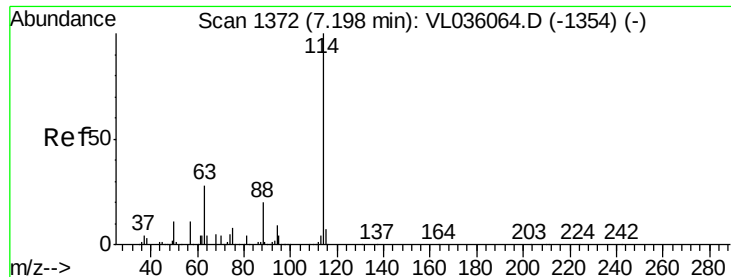
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#30
Cyclohexane
Concen: 1.720 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Tgt Ion	Ratio	Lower	Upper
84	100		
56	198.6	128.0	192.0#
41	104.9	81.3	121.9





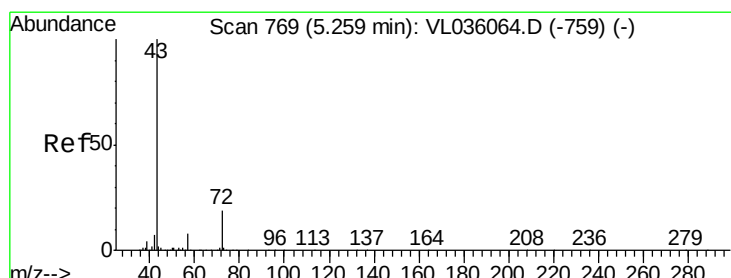
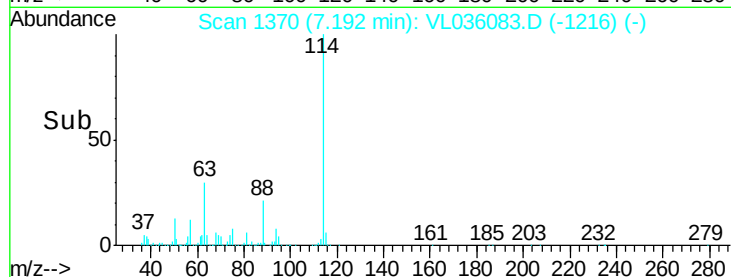
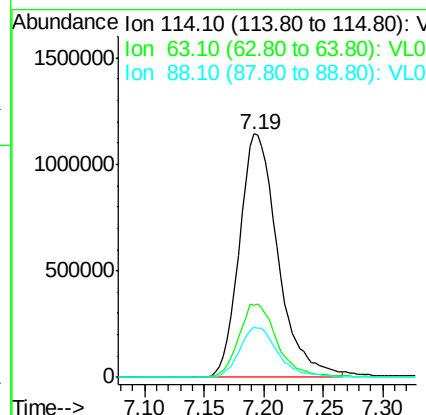
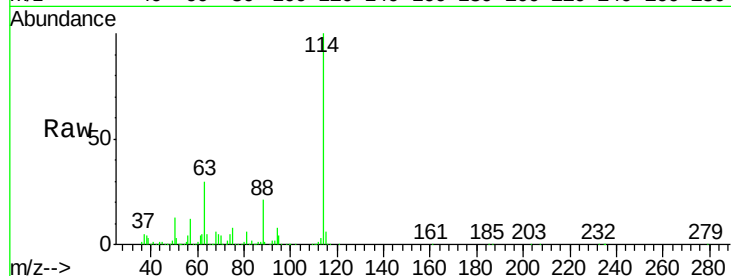
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. -0.01 min
 Lab File: VL036083.D
 Acq: 8 Dec 2020 3:06

Instrument :
 MSVOA_L
 ClientSampled :
 IA-6B

Tot Ion	Ratio	Lower	Upper
114	100		
63	30.6	23.6	35.4
88	20.6	15.8	23.6

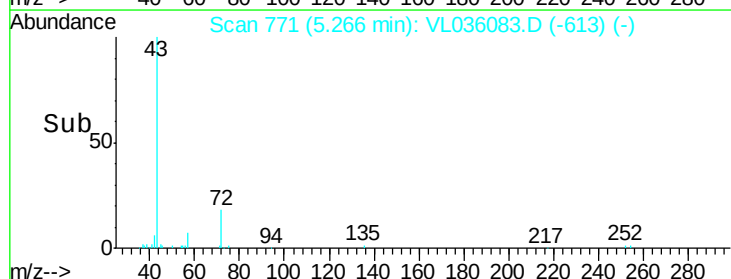
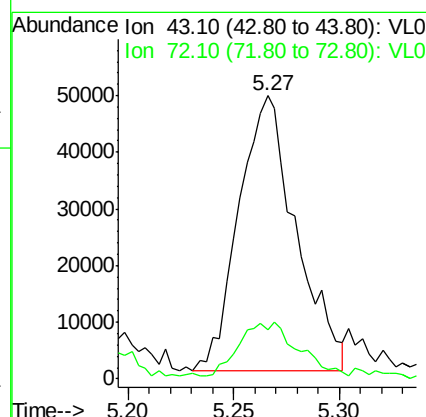
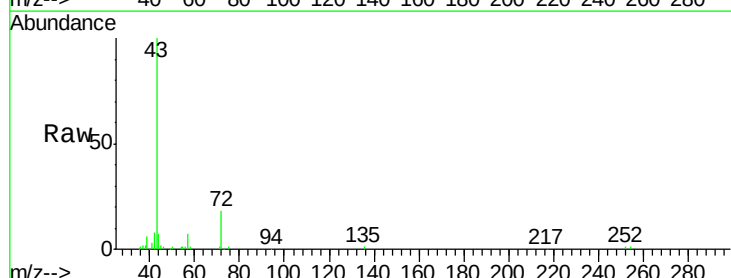
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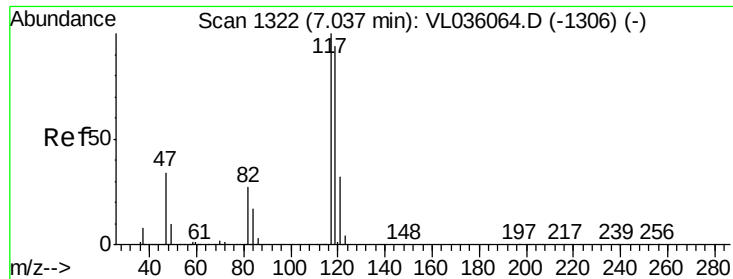
MMDadoda
 12/11/2020 5:45:22 PM



#34
 2-Butanone
 Concen: 0.536 ppbv
 RT: 5.27 min Scan# 771
 Delta R.T. 0.01 min
 Lab File: VL036083.D
 Acq: 8 Dec 2020 3:06

Tgt Ion	Ratio	Lower	Upper
43	100		
72	24.9	16.5	24.7#





#35

Carbon Tetrachloride

Concen: 0.072 ppbv m

RT: 7.03 min Scan# 1321

Delta R.T. -0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

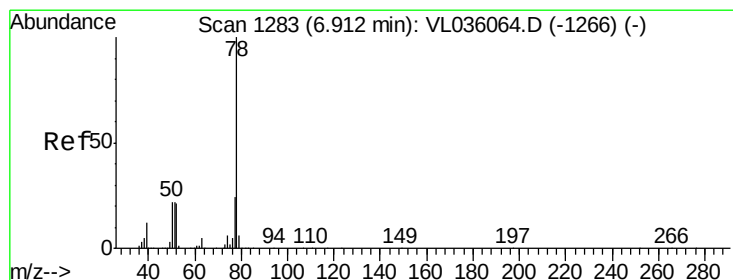
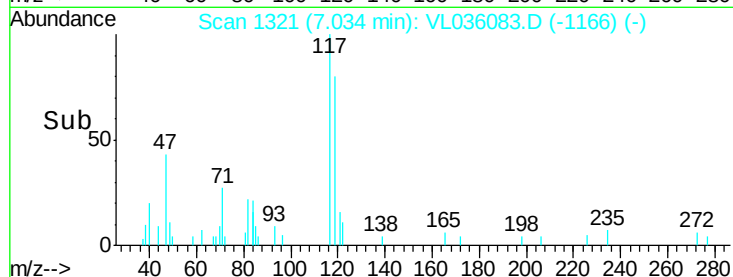
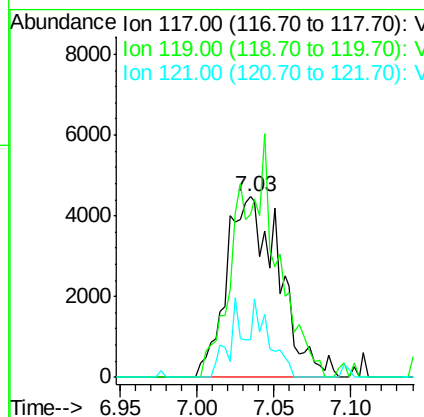
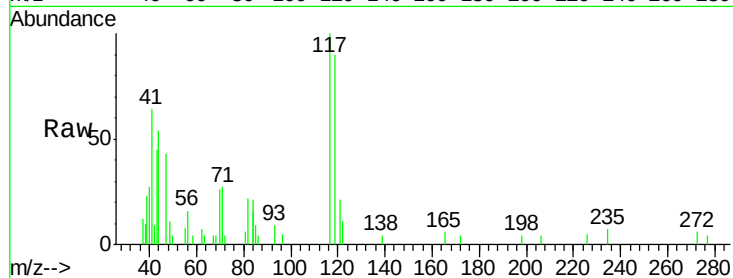
ClientSampleId :

IA-6B

Tot Ion:	117	Resp:	10739
Ion Ratio	Lower	Upper	
117	100		
119	90.4	75.1	112.7
121	20.7	25.6	38.4#

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#36

Benzene

Concen: 0.232 ppbv

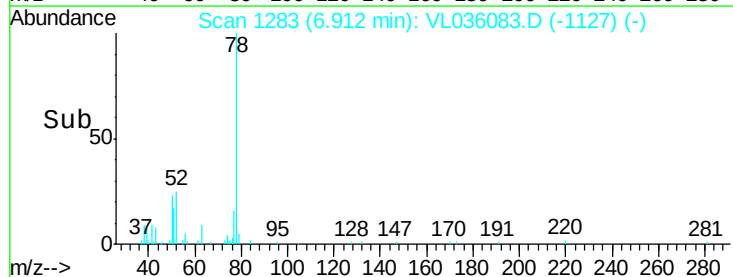
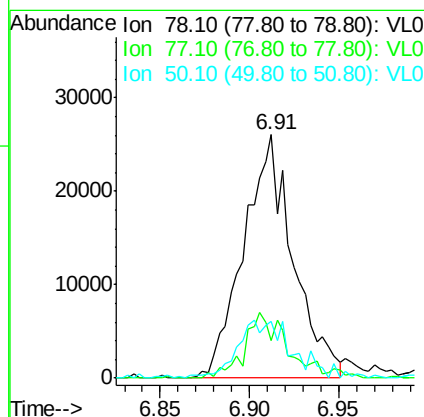
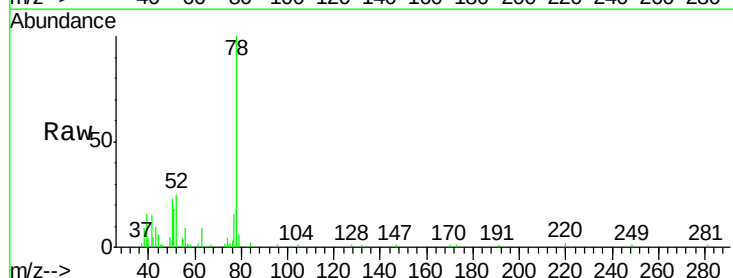
RT: 6.91 min Scan# 1283

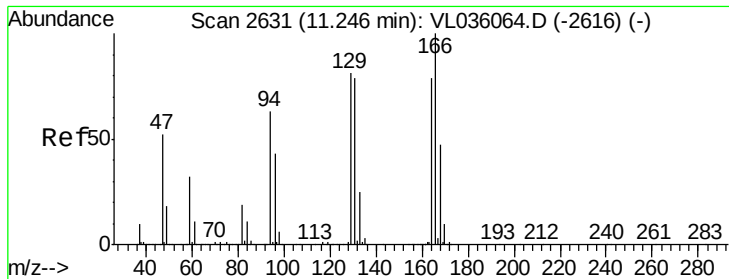
Delta R.T. 0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Tgt Ion:	78	Resp:	50377
Ion Ratio	Lower	Upper	
78	100		
77	15.9	19.4	29.2#
50	23.5	17.8	26.8





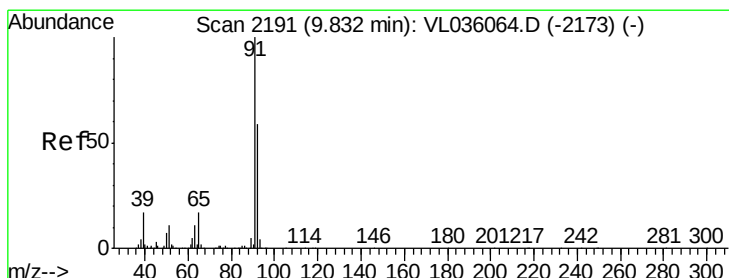
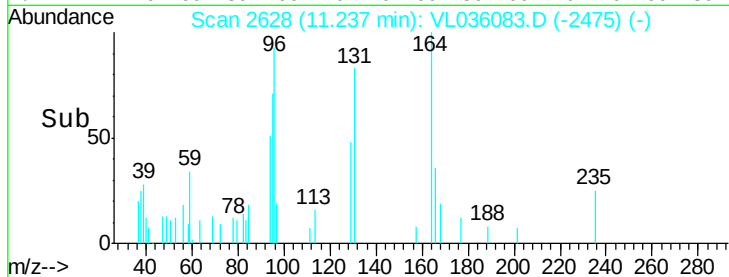
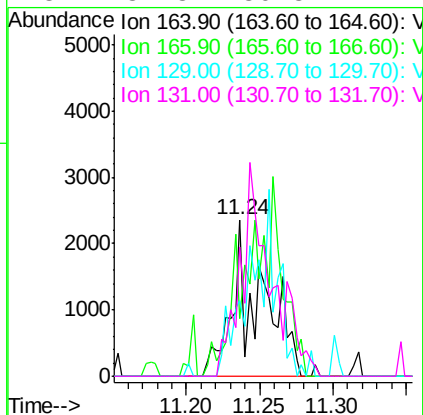
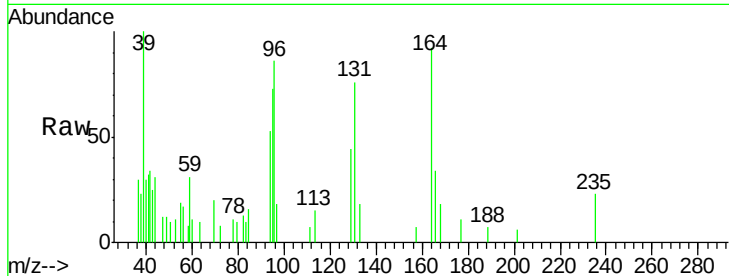
#52
Tetrachloroethene
Concen: 0.043 ppbv m
RT: 11.24 min Scan# 2628
Delta R.T. -0.01 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Instrument :
MSVOA_L
ClientSampled :
IA-6B

Tot Ion	Ratio	Lower	Upper
164	100		
166	36.4	101.9	152.9#
129	48.3	82.1	123.1#
131	82.8	80.8	121.2

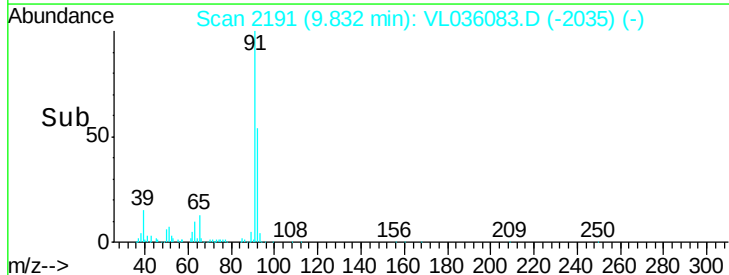
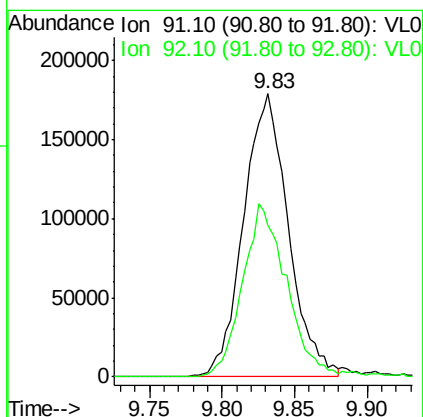
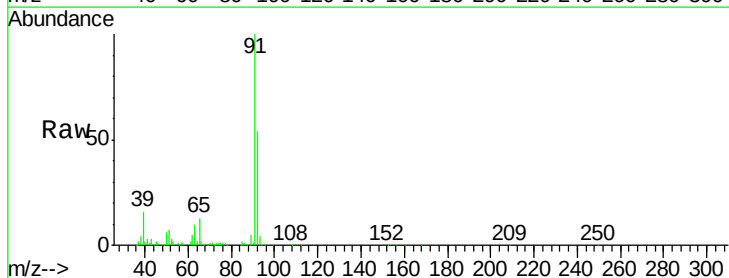
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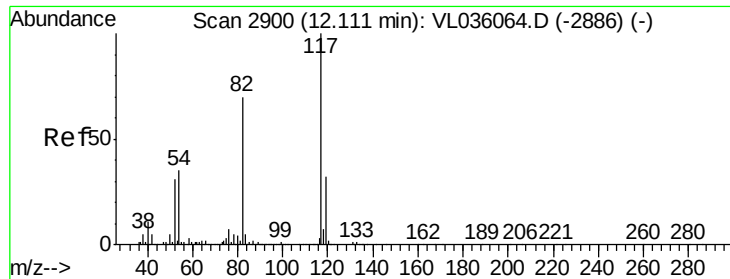
MMDadoda
12/11/2020 5:45:22 PM



#53
Toluene
Concen: 1.575 ppbv
RT: 9.83 min Scan# 2191
Delta R.T. 0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.1	48.2	72.2





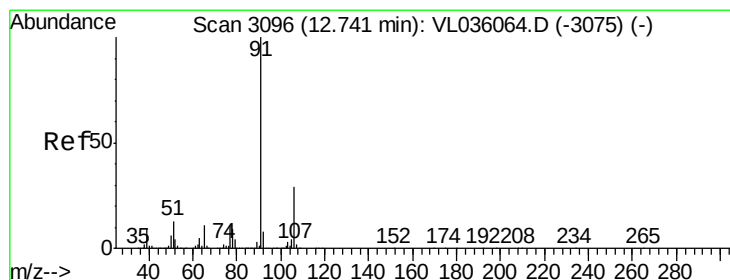
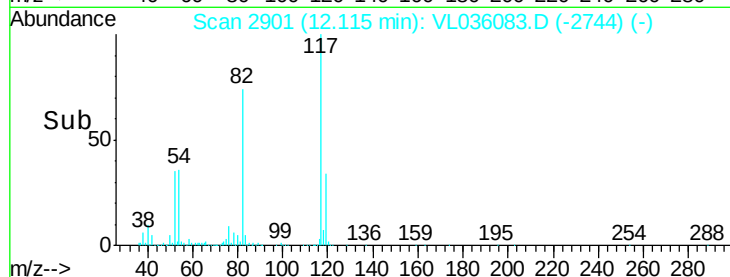
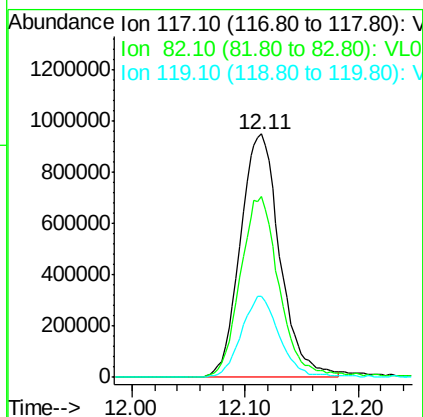
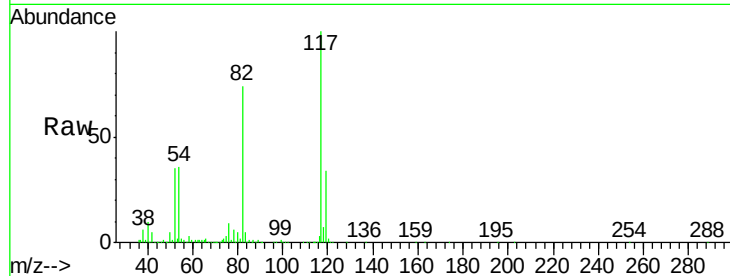
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.11 min Scan# 2901
Delta R.T. 0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Instrument :
MSVOA_L
ClientSampled :
IA-6B

Tot Ion:117 Resp: 2313295
Ion Ratio Lower Upper
117 100
82 75.3 0.0 0.0#
119 32.9 0.0 0.0#

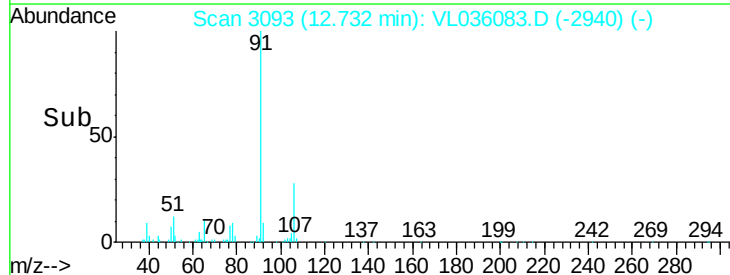
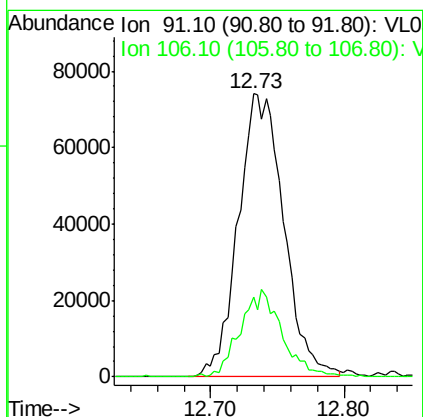
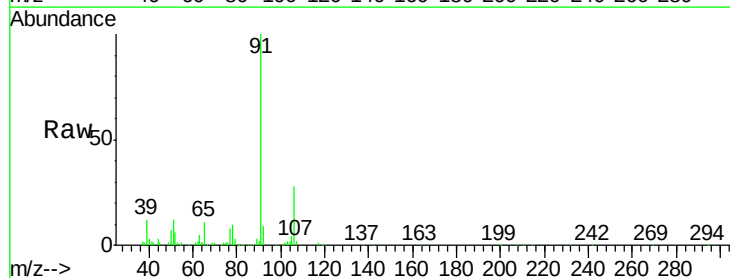
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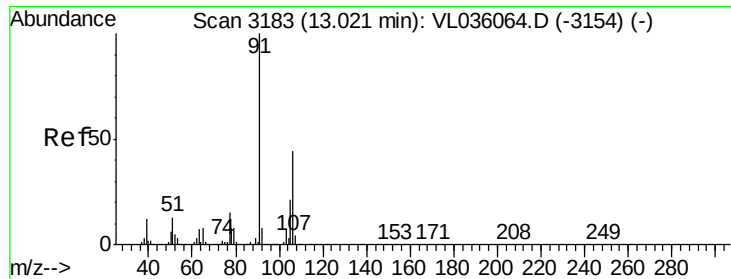
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#58
Ethyl Benzene
Concen: 0.555 ppbv m
RT: 12.73 min Scan# 3093
Delta R.T. -0.01 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Tgt Ion: 91 Resp: 175824
Ion Ratio Lower Upper
91 100
106 28.2 23.0 34.4





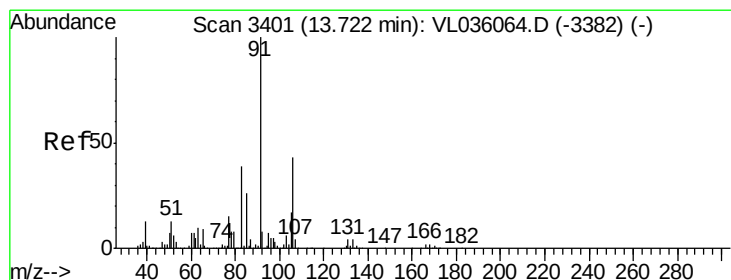
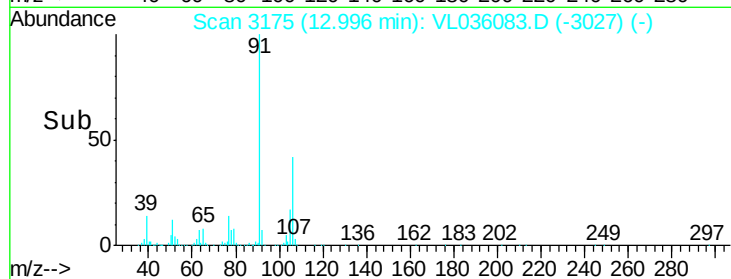
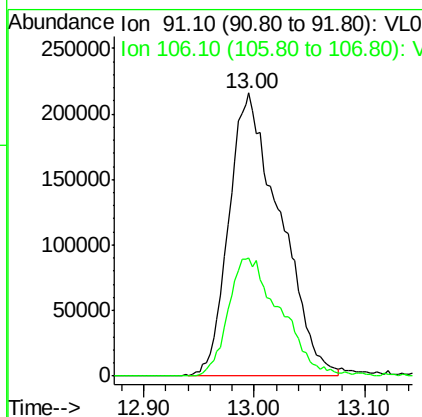
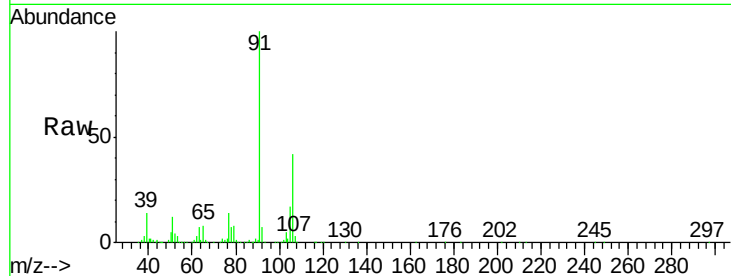
#59
m/p-Xylene
Concen: 2.580 ppbv
RT: 13.00 min Scan# 3175
Delta R.T. -0.03 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Instrument :
MSVOA_L
ClientSampled :
IA-6B

Tot Ion: 91 Resp: 688968
Ion Ratio Lower Upper
91 100
106 43.3 33.6 50.4

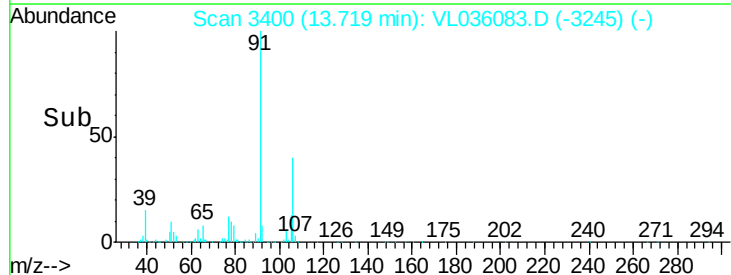
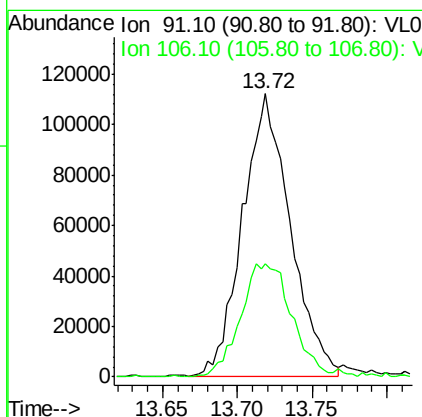
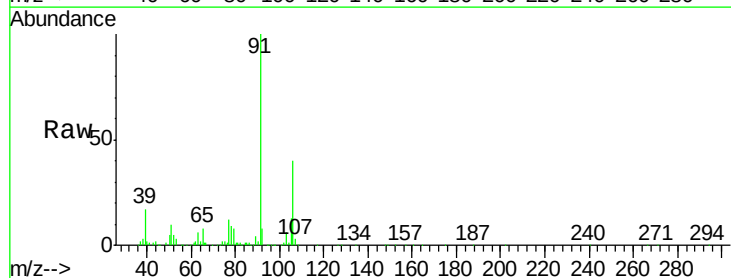
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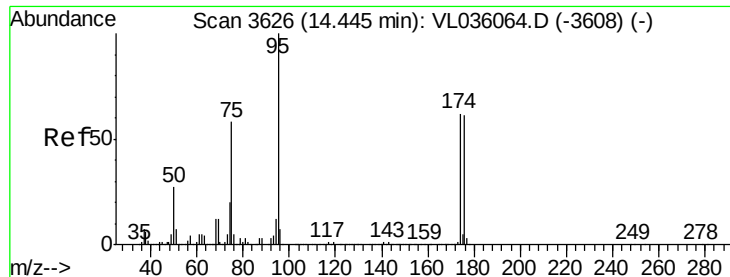
MMDadoda
12/11/2020 5:45:22 PM



#60
o-Xylene
Concen: 0.990 ppbv
RT: 13.72 min Scan# 3400
Delta R.T. -0.00 min
Lab File: VL036083.D
Acq: 8 Dec 2020 3:06

Tgt Ion: 91 Resp: 248936
Ion Ratio Lower Upper
91 100
106 43.7 21.6 64.6





#68

1-Bromo-4-Fluorobenzene

Concen: 10.613 ppbv

RT: 14.45 min Scan# 3626

Delta R.T. 0.00 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampled :

IA-6B

Tot Ion: 95 Resp: 1949446

Ion Ratio Lower Upper

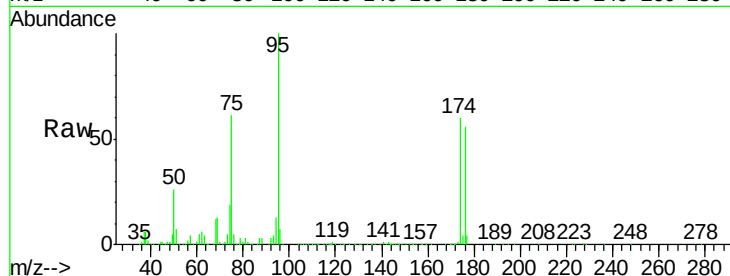
95 100

174 58.1 50.7 76.1

175 4.5 4.0 6.0

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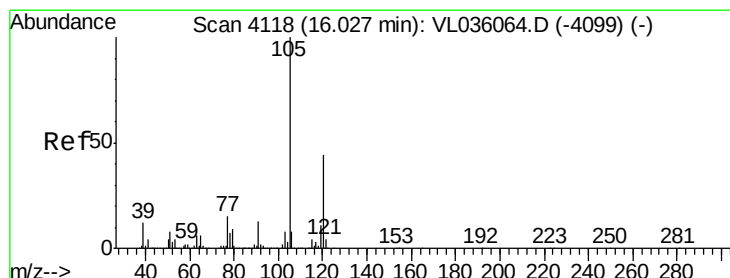
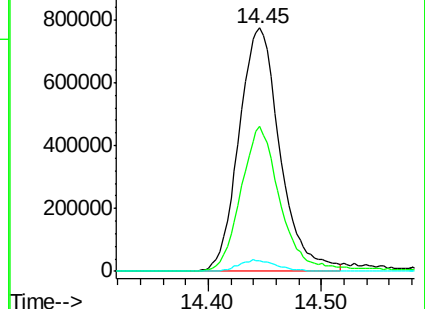
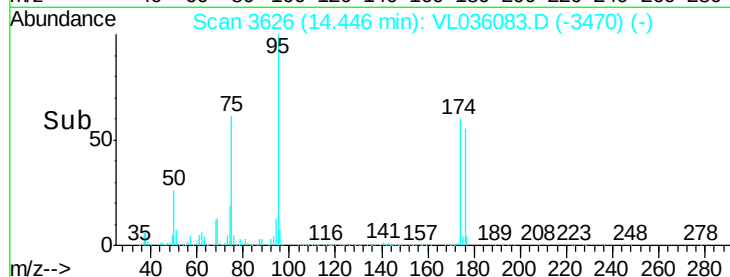
MMDadoda
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Abundance Ion 95.10 (94.80 to 95.80): VL036083.D (-3470) (-)

Ion 174.00 (173.70 to 174.70): VL036083.D (-3470) (-)

Ion 175.00 (174.70 to 175.70): VL036083.D (-3470) (-)



#73

1,3,5-Trimethylbenzene

Concen: 0.249 ppbv m

RT: 16.02 min Scan# 4117

Delta R.T. -0.00 min

Lab File: VL036083.D

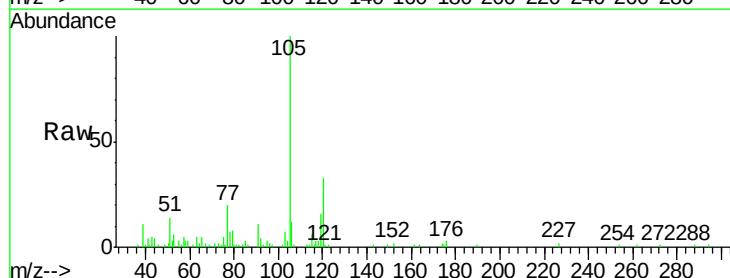
Acq: 8 Dec 2020 3:06

Tgt Ion: 105 Resp: 64774

Ion Ratio Lower Upper

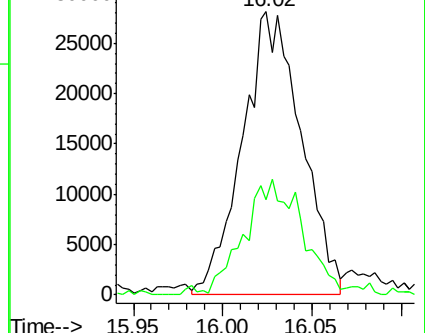
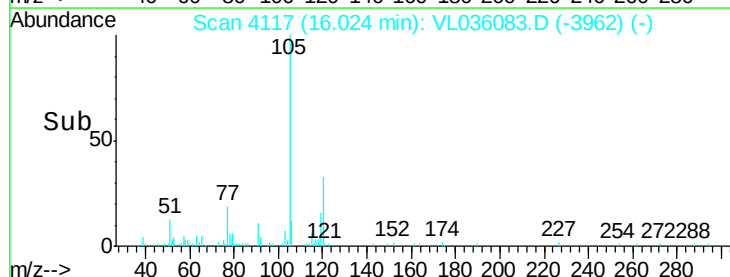
105 100

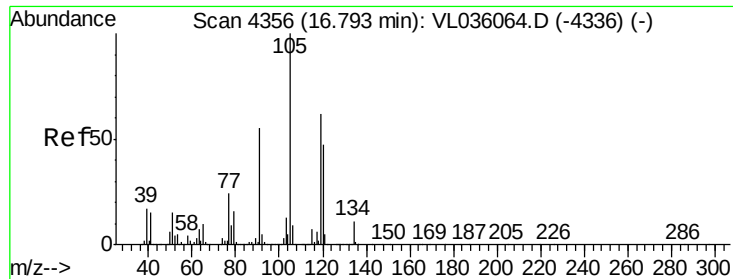
120 33.5 35.4 53.2#



Abundance Ion 105.10 (104.80 to 105.80): VL036083.D (-3962) (-)

Ion 120.20 (119.90 to 120.90): VL036083.D (-3962) (-)





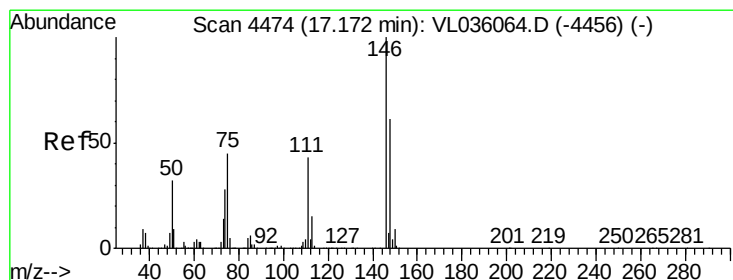
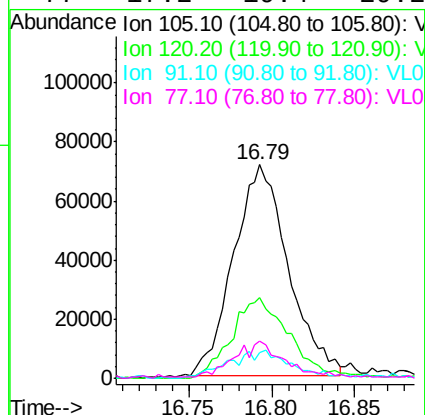
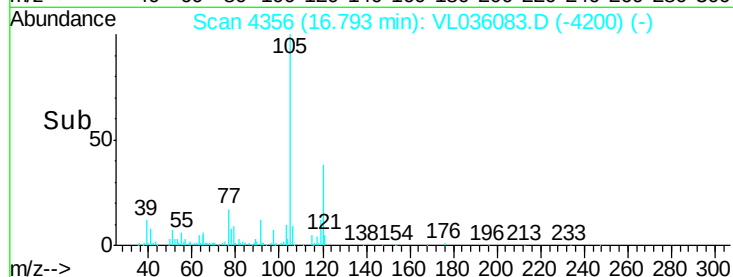
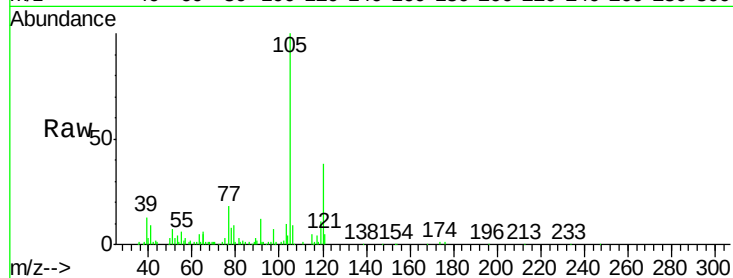
#74
 1,2,4-Trimethylbenzene
 Concen: 0.626 ppbv
 RT: 16.79 min Scan# 4356
 Delta R.T. 0.00 min
 Lab File: VL036083.D
 Acq: 8 Dec 2020 3:06

Instrument :
 MSVOA_L
 ClientSampled :
 IA-6B

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	37.9	37.4	56.0
91	11.0	45.6	68.4#
77	17.2	19.4	29.2#

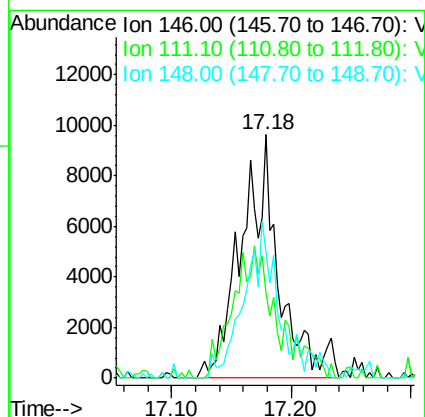
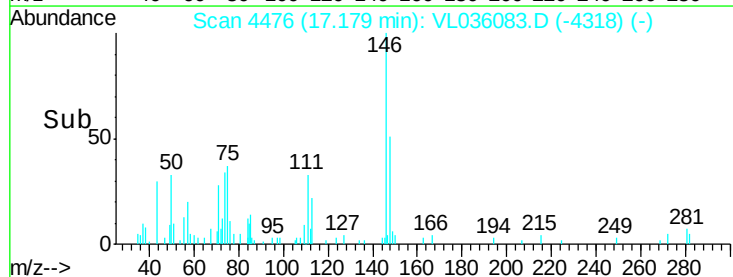
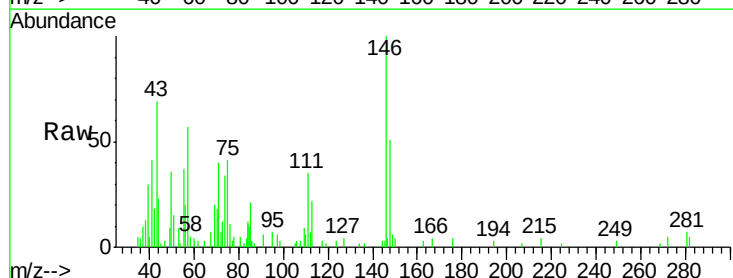
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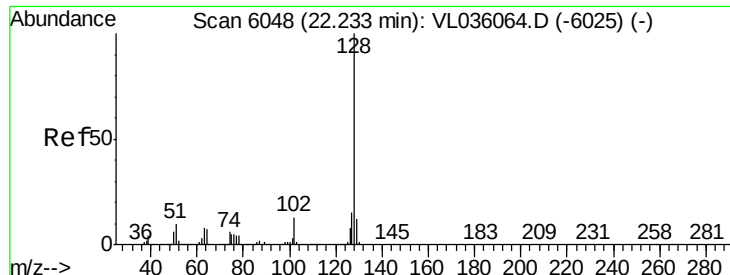
MMDadoda
 12/11/2020 5:45:22 PM



#76
 1,4-Dichlorobenzene
 Concen: 0.157 ppbv m
 RT: 17.18 min Scan# 4476
 Delta R.T. 0.01 min
 Lab File: VL036083.D
 Acq: 8 Dec 2020 3:06

Tgt Ion	Ratio	Resp Lower	Upper
146	100		
111	0.0	24.3	72.8#
148	0.0	32.8	98.3#





#79

Naphthalene

Concen: 0.462 ppbv m

RT: 22.25 min Scan# 6053

Delta R.T. 0.02 min

Lab File: VL036083.D

Acq: 8 Dec 2020 3:06

Instrument :

MSVOA_L

ClientSampleId :

IA-6B

Tot Ion:128 Resp: 61299

Ion Ratio Lower Upper

128 100

127 24.3 11.7 17.5#

129 15.0 9.3 13.9#

Manual Integrations
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