Hiden Analytical Ltd.
420 Europa Boulevard
Warrington WA5 7UN
England

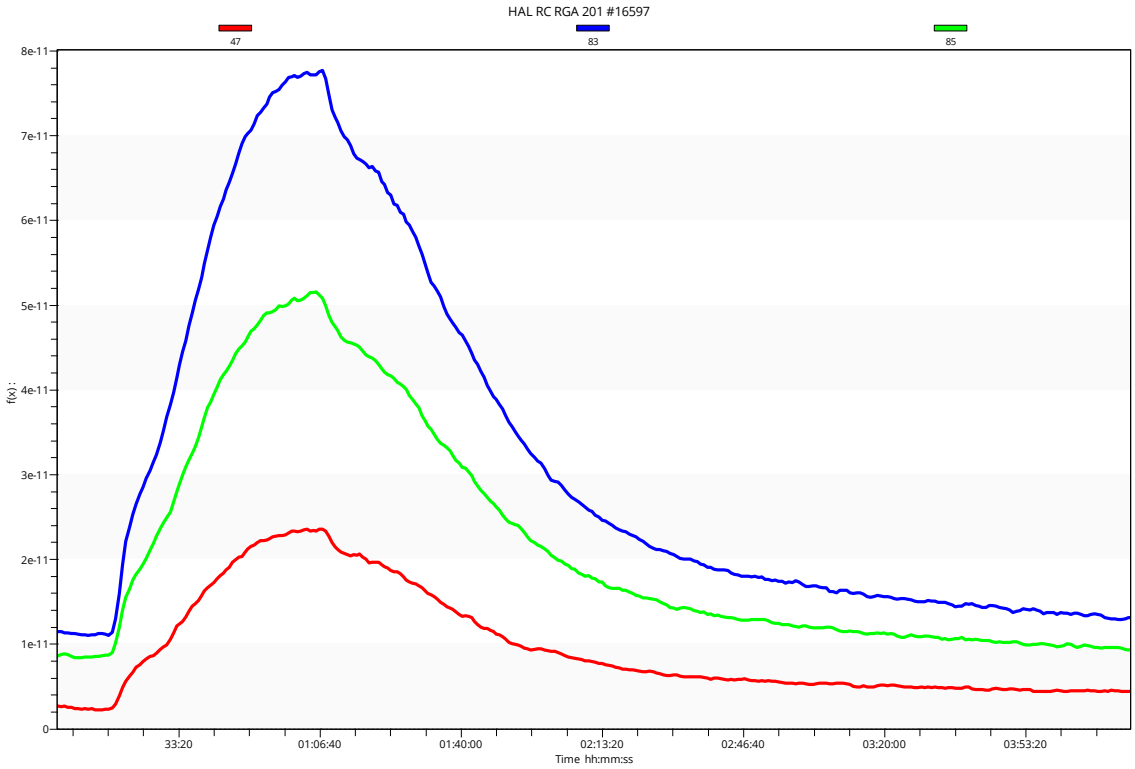
T +44 [0] 1925 445 225
F +44 [0] 1925 416 518
E info@hiden.co.uk
W www.HidenAnalytical.com

Investigation of Detection Limit of Chloroform using Large Area Circular Membrane Inlet

Chloroform solution was prepared in water using the following dilutions:

	A	B	C		D
	Chloroform	**1ml A in 1600ml**	**1 ml B in 1600ml**		**1 ml C in 300ml**
Conc (ppm)	990000	618.75	0.39	Conc (ppb)	1.29
uM		5183.03	3.239	nM	10.80

Deionised water was analysed for 17 minutes before the cell began sampling from the 1.29ppb chloroform solution. Flow was set to 6ml/min. Once a steady state was reached, deionised water was analysed.
Chloroform was measured at its 3 largest fragments, as suggested by NIST; Mass 83, 85 and 47.



Response of 1.29ppb chloroform, measured at mass 83, was 6.6e-11. Noise in this range is 1e-13, suggesting detection limits of approximately **20ppt**.