

Detection limits for Northern Ireland stream waters 1994-1996 & 2005

Sampling year(s)	Analytical method	Analyte	Units of measurement	Detection limit
1994-1996	ICP-MS	Al	µg/l	1.5
2005	ICP-MS	Al	µg/l	0.5
1994-1996	Titration	Total alkalinity	mg/l CaCO ₃	0.01
2005	Titration	Total alkalinity	mg/l CaCO ₃	0.01
1994-1996	ICP-MS	As	µg/l	0.46
2005	ICP-MS	As	µg/l	0.05
1994-1996	ICP-AES	B	µg/l	11
2005	ICP-MS	B	µg/l	0.5
1994-1996	ICP-AES	Ba	µg/l	2
1994-1996	ICP-MS	Ba	µg/l	0.83
2005	ICP-AES	Ba	µg/l	2
2005	ICP-MS	Ba	µg/l	0.05
1994-1996	ICP-MS	Be	µg/l	0.05
2005	ICP-MS	Be	µg/l	0.05
2005	ICP-MS	Br	µg/l	10
2005	Ion chromatography	Br	mg/l	0.02
1994-1996	ICP-AES	Ca	mg/l	0.013
2005	ICP-AES	Ca	mg/l	0.1
1994-1996	ICP-MS	Cd	µg/l	0.02
2005	ICP-MS	Cd	µg/l	0.02
1994-1996	ICP-MS	Ce	µg/l	0.02
1994-1996	Colorimetry	Cl	mg/l	1
2005	Ion chromatography	Cl	mg/l	0.05
1994-1996	ICP-MS	Co	µg/l	0.05
2005	ICP-MS	Co	µg/l	0.02
1994-1996	Probe	Conductivity	µS/cm	1
2005	Probe	Conductivity	µS/cm	1
1994-1996	ICP-MS	Cr	µg/l	0.4
2005	ICP-MS	Cr	µg/l	0.2
2005	ICP-MS	Cs	µg/l	0.01
1994	ICP-MS	Cs	µg/l	0.077
1994-1996	ICP-MS	Cu	µg/l	0.13
2005	ICP-MS	Cu	µg/l	0.1
1994-1996	ISE	F	mg/l	0.01
2005	Ion chromatography	F	mg/l	0.01
1994-1996	ICP-AES	Fe	mg/l	0.004
2005	ICP-AES	Fe	mg/l	0.01
1994-1996	Titration	HCO ₃	mg/l	0.01
2005	Titration	HCO ₃	mg/l	0.01
2005	ICP-MS	Ho	µg/l	0.001
1994	ICP-MS	Ho	µg/l	c.0.01
1994-1996	ICP-AES	K	mg/l	0.04
2005	ICP-AES	K	mg/l	0.5
2005	ICP-MS	K	mg/l	0.01
1994-1996	ICP-MS	La	µg/l	0.01
2005	ICP-MS	La	µg/l	0.001
1994-1996	ICP-MS	Li	µg/l	0.2
2005	ICP-MS	Li	µg/l	0.02
1994	ICP-MS	Lu	µg/l	c.0.01
1994-1996	ICP-AES	Mg	mg/l	0.018
2005	ICP-AES	Mg	mg/l	0.1
1994-1996	ICP-AES	Mn	µg/l	1
2005	ICP-AES	Mn	µg/l	1
2005	ICP-MS	Mn	µg/l	0.02
1994-1996	ICP-MS	Mo	µg/l	0.03
2005	ICP-MS	Mo	µg/l	0.02
1994-1996	ICP-AES	Na	mg/l	0.012
2005	ICP-AES	Na	mg/l	0.2
1994	ICP-MS	Nd	µg/l	0.029
1994-1996	ICP-MS	Ni	µg/l	0.6
2005	ICP-MS	Ni	µg/l	0.05

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Sampling year(s)	Analytical method	Analyte	Units of measurement	Detection limit
2005	Ion chromatography	NO2	mg/l	0.01
1994-1996	Colorimetry	NO3	mg/l	0.3
2005	Ion chromatography	NO3	mg/l	0.02
1995-1996	TIC/TOC analyser	NPOC	mg/l	0.5
2005	TIC/TOC analyser	NPOC	mg/l	0.5
1994-1996	ICP-AES	P	µg/l	61
2005	ICP-AES	P	µg/l	50
2005	ICP-MS	P	µg/l	10
2005	Ion chromatography	P	mg/l	0.1
1994-1996	ICP-MS	Pb	µg/l	0.05
2005	ICP-MS	Pb	µg/l	0.05
1994-1996	Probe	pH	pH units	n/a
2005	Probe	pH	pH units	n/a
1994-1996	ICP-MS	Rb	µg/l	0.06
2005	ICP-MS	Rb	µg/l	0.01
1994-1996	ICP-MS	Sb	µg/l	0.06
2005	ICP-MS	Sb	µg/l	0.02
1994-1996	ICP-AES	Si	mg/l	0.01
2005	ICP-AES	Si	mg/l	0.06
1994-1996	ICP-AES	SO4	mg/l	0.041
2005	ICP-AES	SO4	mg/l	0.3
2005	Ion chromatography	SO4	mg/l	0.05
1994-1996	ICP-AES	Sr	µg/l	1
2005	ICP-MS	Sr	µg/l	0.1
1995-1996	ICP-MS	Th	µg/l	0.1
2005	ICP-MS	Th	µg/l	0.01
2005	ICP-MS	Ti	µg/l	0.5
1994-1996	ICP-MS	Tl	µg/l	0.01
2005	ICP-MS	Tl	µg/l	0.01
1994-1996	ICP-MS	U	µg/l	0.01
2005	ICP-MS	U	µg/l	0.01
1994-1996	ICP-MS	V	µg/l	0.15
2005	ICP-MS	V	µg/l	0.05
2005	ICP-MS	W	µg/l	0.01
1994-1996	ICP-MS	Y	µg/l	0.01
2005	ICP-MS	Y	µg/l	0.001
1994-1996	ICP-MS	Zn	µg/l	0.77
2005	ICP-MS	Zn	µg/l	0.2
1994-1996	ICP-MS	Zr	µg/l	0.03
2005	ICP-MS	Zr	µg/l	0.03
Analytes with the majority of data below the detection limit				
1994-1996	ICP-MS	Ag	µg/l	0.08
2005	ICP-MS	Ag	µg/l	0.01
2005	ICP-MS	Au	µg/l	0.1
2005	ICP-MS	Bi	µg/l	0.02
2005	ICP-MS	Hg	µg/l	n/a (semi-quantitative)
2005	ICP-MS	Pd	µg/l	0.1
2005	ICP-MS	Pt	µg/l	0.02
2005	ICP-MS	Rh	µg/l	0.01
1994-1996	ICP-MS	Se	µg/l	3
2005	ICP-MS	Se	µg/l	0.5
1994-1996	ICP-MS	Sn	µg/l	0.1
2005	ICP-MS	Sn	µg/l	0.05