

IC Application Note No. S-217

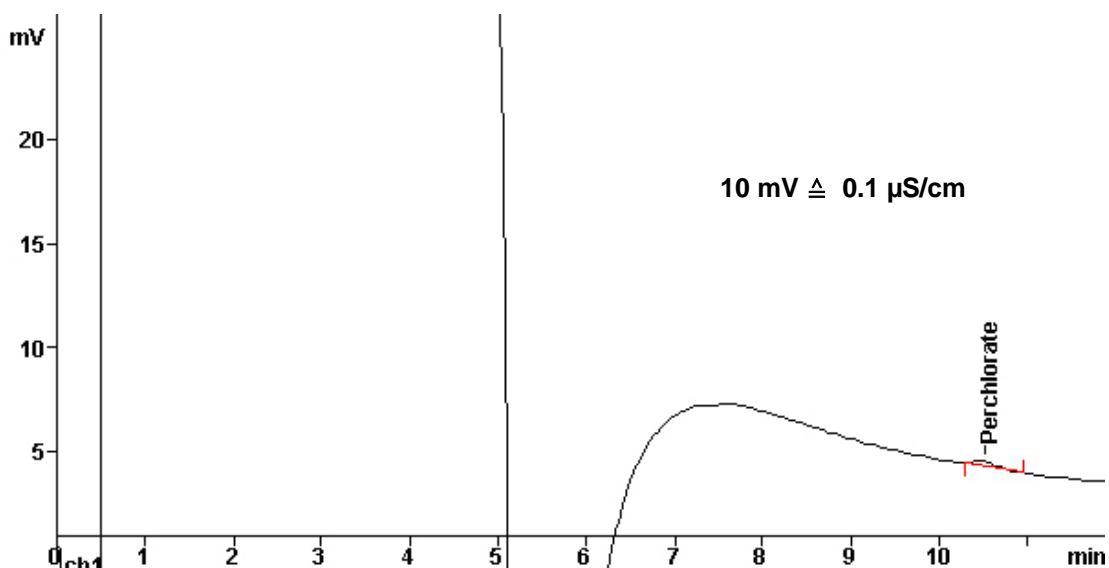
Title: Ultratrace-level perchlorate in reagent water, ground water, surface water and water containing 3000 ppm of total dissolved solids (USEPA method 314.0)

Summary: Determination of perchlorate in water containing 3 g/L of total dissolved solids (TDS) using anion chromatography with conductivity detection after chemical suppression.

Sample: Water containing 1000 ppm each of chloride, carbonate and sulfate

Sample Preparation: Direct injection after inline ultrafiltration

Column: 6.1016.020 Metrosep Dual 4 – 50 (monolithic column)
Eluent: 5 mM LiOH, 12 mM cyanophenol
Suppressor: Metrohm Suppressor Module (MSM, 100 mmol/L nitric acid, 1% acetonitrile)
Flow: 1.75 mL/min
Injection Volume: 750 µL



Results:	Perchlorate in 3000 ppm TDS µg/L
	0.5
Lowest concentration minimum reporting level (EPA-LCMRL required: 0.57 µg/L)	0.11