

U5000AT+ Technical Note

Short-Term and Long-Term Stability

Short-term (60 min) and long-term (8 hour) stability was tested by spiking selected elements into a drinking water matrix from a municipal source (Omaha, NE, USA). Measured levels of the principal matrix elements include: Ca (50.2 +/- 1.3 ppm), Na (47.0 +/- 0.9 ppm), Mg (13.6 +/- 0.2 ppm), and K (9.3 +/- 0.4 ppm).

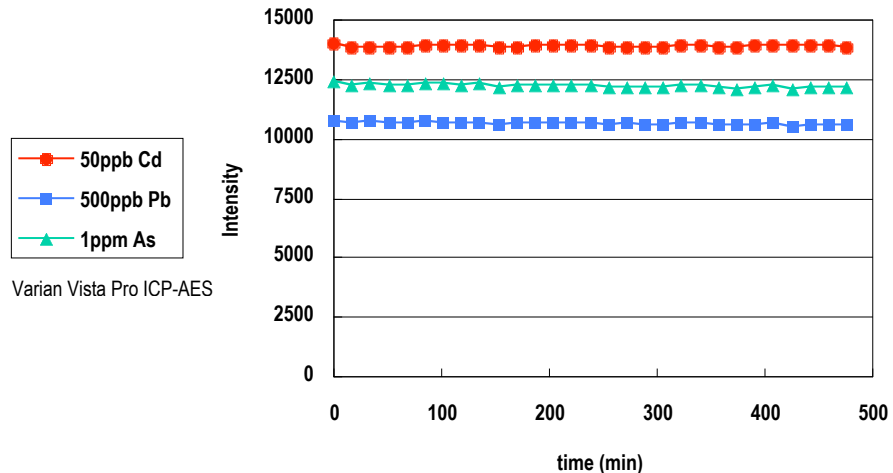
Short-term stability is excellent, with %RSDs well below 1% for all elements listed in the following table. Long-term stability, depicted graphically, again shows the same level of performance (0.26% RSD Cd, 0.5% RSD Pb, 0.6% RSD As).

U5000AT+ Short-Term Stability Selected Elements Spiked in Drinking Water

Element	Wavelength λ (nm)	Avg Intensity	%RSD (60 min)
1ppm As	188.890	12260	0.55
50ppb Cd	228.802	13270	0.50
50ppb Cu	327.396	55900	0.44
500ppb Pb	220.353	10800	0.54
500ppb Sb	206.834	7530	0.53
1ppm Se	196.026	7650	0.52
1ppm Tl	190.794	11400	0.54

Varian Vista Pro ICP-AES
10s integration time

U5000AT+ Long-Term Stability Selected Elements Spiked in Drinking Water



Varian Vista Pro ICP-AES

