

# Certificate of Analysis

**CLP ICP Spike Standard #3**

**Catalog Number: ICM-453**

**Lot Number: R00438**

**Lot Issue Date: 5/7/2013**

**Expiration Date: 06/30/2017**

This Certified Reference Material (CRM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO Guide 34 / ISO 17025 accredited laboratory, and compared to calibration standards independently prepared using NIST SRM(s). The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

Analyte	True Value			Analytical Method	NIST SRM	
Arsenic	2000	±	10	µg/mL	ICP / ICP-MS	3103a
Cadmium	50.0	±	0.3	µg/mL	ICP / ICP-MS	3108
Lead	500.0	±	2.5	µg/mL	ICP / ICP-MS	3128
Selenium	2000	±	10.0	µg/mL	ICP / ICP-MS	3149
Thallium	2000	±	10.0	µg/mL	ICP / ICP-MS	3158

**Matrix:** 5% nitric acid in low TOC water (< 50 ppb)

ULTRA uses purified acids, 18 megaohm double deionized water, calibrated Class A glassware, and meticulously cleaned bottles in the manufacturing of ULTRAgrade standards. Balances used in the manufacturing of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCCL Z-540-1 and ISO 9001.