

Certificate of Analysis

CLP ICP Calibration Standard #3

Catalog Number: ICM-413

Lot Number: R00877

Job Number: J00016815

Lot Issue Date: 08/20/2013

Expiration Date: 09/30/2017

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
cadmium	500.0	±	2.5 µg/mL	ICP / ICP-MS	3108
arsenic	1000	±	5 µg/mL	ICP / ICP-MS	3103a
thallium	1000	±	5 µg/mL	ICP / ICP-MS	3158
lead	1000	±	5 µg/mL	ICP / ICP-MS	3128
selenium	1000	±	5 µg/mL	ICP / ICP-MS	3149

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/NC SL Z-540-1 and ISO 9001.