



Certificate of Analysis

EPA Method 200.7
Spiking Standard #3

Catalog Number: ICM-213
Lot Number: R01155
Job Number: J00017171
Lot Issue Date: 10/31/2013
Expiration Date: 11/30/2017

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
aluminum	2001	±	10	µg/mL	ICP / ICP-MS	3101a
barium	2001	±	10	µg/mL	ICP / ICP-MS	3104a
beryllium	50.00	±	0.25	µg/mL	ICP / ICP-MS	3105a
chromium	200.0		1.0	µg/mL	ICP / ICP-MS	3112
cobalt	500.6	±	2.5	µg/mL	ICP / ICP-MS	3113
copper	250.0		1.3	µg/mL	ICP / ICP-MS	3114
iron	1001	±	5	µg/mL	ICP / ICP-MS	3126a
manganese	500.3	±	2.5	µg/mL	ICP / ICP-MS	3132
nickel	500.5	±	2.5	µg/mL	ICP / ICP-MS	3136
* silver	50.00		0.25	µg/mL	ICP / ICP-MS	3151
* vanadium	500.0	±	2.5	µg/mL	ICP / ICP-MS	3165
zinc	500.4	±	2.5	µg/mL	ICP / ICP-MS	3168a

Matrix: 5% nitric acid and trace hydrofluoric acid in low TOC water (< 50 ppb)

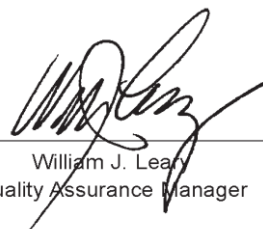
* *light sensitive*

ULTRA uses purified acids, 18 megaohm double deionized water, calibrated Class A glassware, and meticulously cleaned bottles in the manufacturing of ULTRA grade 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.



ISO 17025:2005
Accredited
A2LA
Cert. No. 0851.01

ISO 9001:2000
Registered
TUV USA, Inc.
Cert. No. 06-1004


William J. Leary
Quality Assurance Manager