



Certificate of Analysis

Custom Standard

Catalog Number: ICUS-5466

Lot Number: CP-5540

Lot Issue Date: 11/04/2016

Expiration Date: 12/31/2017

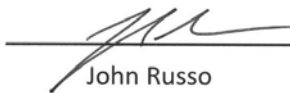
This Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO Guide 34 / ISO 17025 accredited laboratory, and compared to calibration standards independently prepared using NIST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

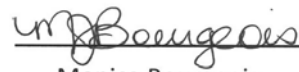
Analyte	True Value				Analytical Method	NIST SRM
boron	10.0	±	0.1	µg/mL	ICP / ICP-MS	3107
magnesium	10.0	±	0.1	µg/mL	ICP / ICP-MS	3131a
iron	10.0	±	0.1	µg/mL	ICP / ICP-MS	3126a
zinc	10.0	±	0.1	µg/mL	ICP / ICP-MS	3168a
selenium	10.0	±	0.1	µg/mL	ICP / ICP-MS	3149
molybdenum	10.0	±	0.1	µg/mL	ICP / ICP-MS	3134
* vanadium	10.0	±	0.1	µg/mL	ICP / ICP-MS	3165
chromium	10.0	±	0.1	µg/mL	ICP / ICP-MS	3112a
manganese	10.0	±	0.1	µg/mL	ICP / ICP-MS	3132
copper	10.0	±	0.1	µg/mL	ICP / ICP-MS	3114

Matrix: 5% nitric acid with trace hydrofluoric 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 ULTRAgrade standards. Balances used in the manufacturing of this standard are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.


John Russo
President


Monica Bourgeois
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ISO 9001 Registered Quality System – TUV USA