

Certificate of Analysis

Custom Standard

Catalog Number: ICUS-5352

Lot Number: CP-4735

Lot Issue Date: 09/15/2016

Expiration Date: 10/31/2017

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	1.00	±	0.01	µg/mL	ICP / ICP-MS	3107
sodium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3152a
magnesium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3131a
potassium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3141a
phosphorus	1.00	±	0.01	µg/mL	ICP / ICP-MS	3139a
calcium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3109a
* vanadium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3165
chromium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3112a
manganese	1.00	±	0.01	µg/mL	ICP / ICP-MS	3132
iron	1.00	±	0.01	µg/mL	ICP / ICP-MS	3126a
copper	1.00	±	0.01	µg/mL	ICP / ICP-MS	3114
zinc	1.00	±	0.01	µg/mL	ICP / ICP-MS	3168a
selenium	1.00	±	0.01	µg/mL	ICP / ICP-MS	3149
molybdenum	1.00	±	0.01	µg/mL	ICP / ICP-MS	3134

Matrix: 5% nitric acid with 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 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.