



Certificate of Analysis

EPA Method 200.7

LPC Solution C (concentrated)

Catalog Number:

ICM-240C

Lot Number:

CL-4462

Lot Issue Date:

11/21/2014

Expiration Date:

12/31/2015

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	200.4	±	1.0	µg/mL	ICP / ICP-MS	3101a
arsenic	200.2	±	1.0	µg/mL	ICP / ICP-MS	3103a
barium	200.1	±	1.0	µg/mL	ICP / ICP-MS	3104a
beryllium	200.4	±	1.0	µg/mL	ICP / ICP-MS	3105a
boron	200.3	±	1.0	µg/mL	ICP / ICP-MS	3107
cadmium	200.1	±	1.0	µg/mL	ICP / ICP-MS	3108
calcium	200.4	±	1.0	µg/mL	ICP / ICP-MS	3109a
chromium	200.3	±	1.0	µg/mL	ICP / ICP-MS	3112a
cobalt	200.2	±	1.0	µg/mL	ICP / ICP-MS	3113
copper	200.2	±	1.0	µg/mL	ICP / ICP-MS	3114
iron	200.0	±	1.0	µg/mL	ICP / ICP-MS	3126a
lead	200.3	±	1.0	µg/mL	ICP / ICP-MS	3128
lithium	200.2	±	1.0	µg/mL	ICP / ICP-MS	3129a
magnesium	200.3	±	1.0	µg/mL	ICP / ICP-MS	3131a
manganese	200.3	±	1.0	µg/mL	ICP / ICP-MS	3132
nickel	200.4	±	1.0	µg/mL	ICP / ICP-MS	3136
phosphorus	1001	±	5	µg/mL	ICP / ICP-MS	3139a
potassium	1001	±	5	µg/mL	ICP / ICP-MS	3141a
selenium	200.3	±	1.0	µg/mL	ICP / ICP-MS	3149
* silver	25.0	±	0.1	µg/mL	ICP / ICP-MS	3151
sodium	200.2	±	1.0	µg/mL	ICP / ICP-MS	3152a
strontium	200.2	±	1.0	µg/mL	ICP / ICP-MS	3153a
thallium	200.0	±	1.0	µg/mL	ICP / ICP-MS	3158
* vanadium	200.2	±	1.0	µg/mL	ICP / ICP-MS	3165
zinc	200.4	±	1.0	µg/mL	ICP / ICP-MS	3168a

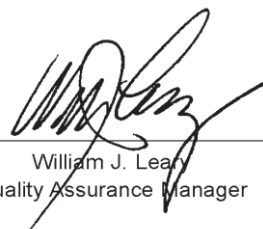
Matrix: 5% nitric acid with trace hydrofluoric acid in low TOC water (< 50 ppb)

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/NCSL 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