

# Certificate of Analysis

## ISO Guide 34

**ICP/MS Calibration Standard #4**
**Catalog Number: IMS-104**
**Lot Number: CT-0844**
**Lot Issue Date: 02/26/2019**
**Expiration Date: 03/31/2022**

This Reference Material (RM) was manufactured and verified in accordance with Agilent's ISO 9001 registered quality system. The analyte concentrations were verified by our ISO 17025 accredited laboratory to be within  $\pm 5.0\%$ , when 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
	Value	±	Uncertainty	Unit		
boron	10.0	±	0.1	µg/mL	ICP / ICP-OES	3107
germanium	10.0	±	0.1	µg/mL	ICP / ICP-OES	3120a
molybdenum	10.0	±	0.1	µg/mL	ICP / ICP-OES	3134
niobium	10.0	±	0.1	µg/mL	ICP / ICP-OES	3137
phosphorus	10.0	±	0.1	µg/mL	ICP / ICP-OES	3139a
rhenium	10.0	±	0.1	µg/mL	ICP / ICP-OES	3143
silicon	10.0	±	0.1	µg/mL	ICP / ICP-OES	3150
sulfur	10.0	±	0.1	µg/mL	ICP / ICP-OES	3154
tantalum	10.0	±	0.1	µg/mL	ICP / ICP-OES	3155
titanium	10.0	±	0.1	µg/mL	ICP / ICP-OES	3162a
tungsten	10.0	±	0.1	µg/mL	ICP / ICP-OES	3163
zirconium	10.0	±	0.1	µg/mL	ICP / ICP-OES	3169

Matrix: trace nitric and hydrofluoric acids in low TOC water (< 50 ppb)

Agilent uses purified acids, 18 megohm double deionized water, calibrated Class A glassware & meticulously cleaned bottles in the manufacturing of these 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.

  
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