



Accredited Laboratory

A2LA has accredited

HUMBOLDT SCIENTIFIC, INC.

Raleigh, NC

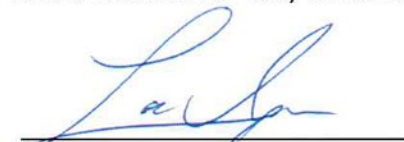
for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 13th day of December, 2017.



President & CEO
For the Accreditation Council
Certificate Number 3956.01
Valid to January 31, 2020

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

HUMBOLDT SCIENTIFIC, INC.
2525 Atlantic Ave.
Raleigh, NC 27604
Jones Caldwell Phone: 919 832 3190

CALIBRATION

Valid To: January 31, 2020

Certificate Number: 3956.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Linear Displacement Indicators and Transducers	Up to 3.0 in	68 μin	Micrometer head, gage blocks

II. Electrical

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Electrical Density Gauge – Density	(1775 to 2725) kg/m ³	1 %	MCU
Moisture ⁴	(0 to 800) kg/m ³	2 %	

III. Mechanical

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Pressure Gauge	(0 to 300) psi	0.10 %	Pressure calibrator

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Load Cells	(0 to 10 000) lbf	0.20 %	Load cells, dead weights, ASTM E4
Density Blocks	(1775 to 2725) kg/m ³	0.050 %	Calipers, load cells, scales, nuclear gauge
Moisture Blocks	(0 to 800) kg/m ³	0.40 %	Nuclear density gauge
Nuclear Density Gauge – Density	(1775 to 2725) kg/m ³	0.10 %	Density and moisture blocks
Moisture ⁴	(0 to 800) kg/m ³	0.60 %	

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.

⁴ Moisture term is in mass per unit volume.