



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

QAL-TEK ASSOCIATES
 3998 Commerce Circle
 Idaho Falls, ID 83401
 Travis Snowder Phone: 208 523 5557

CALIBRATION

Valid To: January 31, 2019

Certificate Number: 2521.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above and the satellite laboratory location to perform the following calibrations¹:

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Micrometers ³	Up to 1 in	0.14 mil	Micrometer master
Calipers ³ – Outside and Inside	Up to 6 in Up to 12 in	0.40 mil 0.42 mil	Caliper master
Dial Indicators ³	Up to 1 in	0.15 mil	Indicator calibrator

II. Ionizing Radiation and Radioactivity

Parameter/Equipment	Range	CMC ^{2, 4} (±)	Comments
Radiation Protection/Health Physics Instruments –			
Gamma Cs ¹³⁷	(80 to 4000) µR/hr	6.2 %	Mini gamma range
	400 µR/hr to 300 R/hr	3.6 %	Irradiator
Pulser (cpm)	(0 to 9e ⁹) CPM	3.3 %	Pulser
	Up to 400 µR/hr	6.5 %	Pulser and mini gamma range
	Up to 400 µR/hr	3.6 %	Pulser and irradiator
Nuclear Density Gauges, Fixed Points ³ – Density	111 lb/ft ³ 137 lb/ft ³ 169 lb/ft ³	0.56 lb/ft ³ 0.71 lb/ft ³ 1.1 lb/ft ³	ASTM 6938 and ASTM D7759/D7759M density blocks
Nuclear Density Gauges ³ – Moisture	(0 to 31) lb/ft ³	0.40 lb/ft ³	ASTM 6938 and ASTM D7759/D7759M moisture block

III. Mechanical

Parameter/Equipment	Range	CMC ² (±)	Comments
Force ³ – Measure Compression	(10 to 500) lbf (275 to 25 000) lbf (25 000 to 50 000) lbf (50 000 to 500 000) lbf	0.19 % of full scale 0.11 % of full scale 0.13 % of full scale 0.22 % of full scale	ASTM E4 using load cells
Pressure ³ – Measure			
Pneumatic	(0 to 300) psig	0.30 psig	Digital pressure tester
Absolute	(0 to 775) mmHg	0.92 mmHg	Digital manometer

Parameter/Equipment	Range	CMC ^{2,5} (±)	Comments
Scales and Balances ³	Up to 200 g Up to 1 kg Up to 5 kg Up to 30 kg	0.59 mg 3.0 mg 65 mg 30 mg + 0.60R	Class 1 weights
	Up to 200 lb	0.031 lb	Class F weights

IV. Thermodynamic

Parameter/Equipment	Range	CMC ² (±)	Comments
Ovens ³	(0 to 200) °C (200 to 600) °C	2.6 °C 2.6 °C	Thermocouples

SATELLITE FACILITY
QAL-TEK ASSOCIATES, LLC

1107 Wonder Drive
Round Rock, TX 78681
Travis Snowder Phone: 208 523 5557

I. Dimensional

Parameter/Equipment	Range	CMC ² (±)	Comments
Micrometers ³	Up to 1 in	0.14 mil	Micrometer master
Calipers ³ Outside and Inside	Up to 6 in (6 to 12) in	0.40 mil 0.42 mil	Caliper master
Dial Indicators ³	Up to 1 in	0.15 mil	Indicator calibrator

II. Ionizing Radiation and Radioactivity

Parameter/Equipment	Range	CMC ² (±)	Comments
Nuclear Density Gauges, Fixed Points – Density ³	110.9 lb/ft ³ 137.8 lb/ft ³ 168.2 lb/ft ³	0.59 lb/ft ³ 0.72 lb/ft ³ 1.1 lb/ft ³	ASTM 6938 and ASTM D7759/D7759M density blocks
Nuclear Density Gauges – Moisture ³	(0 to 31) lb/ft ³	0.40 lb/ft ³	ASTM D 6938 and ASTM D7759/D7759M Moisture block

III. Mechanical

Parameter/Equipment	Range	CMC ^{2, 5} (±)	Comments
Force ³ – Measure Compression	(10 to 500) lbf (50 to 2000) lbf (2000 to 25 000) lbf (25 000 to 50 000) lbf (50 000 to 500 000) lbf	0.19 % of full scale 0.13 % of full scale 0.11 % of full scale 0.13 % of full scale 0.22 % of full scale	ASTM E4 using load cells
Pressure ³ – Measure			
Pneumatic	(0 to 300) psig	0.30 psig	Digital pressure tester
Absolute	(0 to 775) mmHg	0.91 mmHg	Digital manometer
Scales and Balances ³			
	(1 to 200) g 200 g to 1 kg (1 to 5) kg (5 to 30) kg	0.59 mg 3.0 mg 65 mg 30 mg + 0.60R	Class 1 weights
	(25 to 200) lb	0.031 lb	Class F weights

IV. Thermodynamic

Parameter/Equipment	Range	CMC ² (±)	Comments
Ovens ³	(0 to 200) °C (200 to 600) °C	2.6 °C 4.6 °C	Thermocouples

¹ This laboratory offers commercial calibration service and field 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 Field calibration service is available for this calibration and this laboratory meets A2LA R104 – General

Requirements: Accreditation of Field Testing and Field Calibration Laboratories for these calibrations. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

⁴ In the statement of CMC, percentages are percentage of reading, unless otherwise indicated.

⁵ In the statement of CMC, R is the resolution of the unit under test.



Accredited Laboratory

A2LA has accredited

QAL-TEK ASSOCIATES

Idaho Falls, ID

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 the requirements of ANSI/NCSLI Z540-1-1994 and 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 10th day of May 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 2521.01
Valid to January 31, 2019

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