



# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**Alaska Metrology & Calibration Services**  
**224 E. 54<sup>th</sup> Avenue**  
**Anchorage, AK 99518**

Fulfills the requirements of

**ISO/IEC 17025:2017**

In the field of

**CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 29 August 2026  
Certificate Number: AC-1715



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
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 April 2017).

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### Alaska Metrology & Calibration Services

224 E. 54<sup>th</sup> Avenue  
Anchorage, AK 99518  
Clint Schirard 907-929-8052

### CALIBRATION

Valid to: **August 29, 2026**

Certificate Number: **AC-1715**

#### Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
DC Voltage – Source <sup>1</sup>	Up to 330 mV (0.33 to 3.3) V (3.3 to 33) V (33 to 330) V (330 to 1 020) V	9.2 $\mu$ V 46 $\mu$ V 0.53 mV 7.4 mV 38 mV	Fluke 5522A Multiproduct Calibrator
DC Voltage – Measure	(10 to 100) mV (0.1 to 1) V (1 to 10) V (10 to 100) V (100 to 1 000) V	4.6 $\mu$ V 10 $\mu$ V 93 $\mu$ V 1.2 mV 13 mV	Keysight 3458A 8.5 Digit Multimeter
DC Current – Source <sup>1</sup>	Up to 330 $\mu$ A (0.33 to 3.3) mA (3.3 to 33) mA (33 to 330) mA (0.33 to 3) A (3 to 20) A	90 nA 0.6 $\mu$ A 4.2 $\mu$ A 42 $\mu$ A 36 mA 25 mA	Fluke 5522A Multiproduct Calibrator
DC Current – Measure	Up to 100 $\mu$ A (0.1 to 1) mA (1 to 10) mA (10 to 100) mA (0.1 to 1) A	9.3 $\mu$ A 5.8 $\mu$ A 6.1 $\mu$ A 11 $\mu$ A 0.14 mA	Keysight 3458A 8.5 Digit Multimeter



ANSI National Accreditation Board

Electrical – DC/Low Frequency

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Resistance – Source <sup>1</sup>	Up to 11 Ω (11 to 33) Ω (33 to 110) Ω (110 to 330) Ω (0.33 to 1.1) kΩ (1.1 to 3.3) kΩ (3.3 to 11) kΩ (11 to 33) kΩ (33 to 110) kΩ (110 to 330) kΩ (0.33 to 1.1) MΩ (1.1 to 3.3) MΩ (3.3 to 11) MΩ (11 to 33) MΩ (33 to 110) MΩ (110 to 330) MΩ (0.33 to 1.1) GΩ	0.55 mΩ 1.2 mΩ 3.6 mΩ 11 mΩ 36 mΩ 0.11 Ω 0.37 Ω 1.1 Ω 3.6 Ω 11 Ω 42 Ω 0.23 kΩ 1.7 kΩ 9.8 kΩ 65 kΩ 1.2 MΩ 20 MΩ	Fluke 5522A Multiproduct Calibrator
Resistance – Measure	Up to 10 Ω (10 to 100) Ω (0.1 to 1) kΩ (1 to 10) kΩ (10 to 100) kΩ (0.1 to 1) MΩ (1 to 10) MΩ	0.2 mΩ 1.7 mΩ 14 mΩ 0.14 Ω 1.4 Ω 20 Ω 0.63 MΩ	Keysight 3458A 8.5 Digit Multimeter
Resistance Simulation of RTD Indicating Devices – Source <sup>1</sup>	Pt 385, 100 Ω (-200 to 0) °C (0 to 100) °C (100 to 400) °C (400 to 630) °C (630 to 800) °C Pt 3926, 100 Ω (-200 to 0) °C (0 to 100) °C (100 to 400) °C (400 to 630) °C	0.05 °C 0.07 °C 0.1 °C 0.12 °C 0.23 °C 0.05 °C 0.07 °C 0.1 °C 0.12 °C	Fluke 5522A Multiproduct Calibrator

**Electrical – DC/Low Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Resistance Simulation of RTD Indicating Devices – Source <sup>1</sup>	Pt 3916, 100 Ω		Fluke 5522A Multiproduct Calibrator
	(-200 to -190) °C	0.25 °C	
	(-190 to 100) °C	0.06 °C	
	(100 to 400) °C	0.09 °C	
	(400 to 600) °C	0.1 °C	
	(600 to 630) °C	0.23 °C	
	Pt 385, 200 Ω		
	(-200 to 100) °C	0.05 °C	
	(100 to 260) °C	0.07 °C	
	(260 to 400) °C	0.09 °C	
	(400 to 600) °C	0.1 °C	
	(600 to 630) °C	0.13 °C	
	Pt 385, 1 000 Ω		
	(-200 to 260) °C	0.06 °C	
	(0 to 300) °C	0.07 °C	
(260 to 600) °C	0.08 °C		
(600 to 630) °C	0.23 °C		
Pt 385, 120 Ω			
(-80 to 100) °C	0.08 °C		
(100 to 260) °C	0.14 °C		
Cu 427, 10 Ω			
(-100 to 260) °C	0.3 °C		
AC Voltage – Source <sup>1</sup>	(1 to 33) mV		Fluke 5522A Multiproduct Calibrator
	(10 to 45) Hz	37 μV	
	45 Hz to 10 kHz	13 μV	
	(10 to 20) kHz	15 μV	
	(20 to 50) kHz	45 μV	
	(50 to 100) kHz	0.15 mV	
	(100 to 500) kHz	0.36 mV	
	(33 to 330) mV		
	(10 to 45) Hz	0.13 mV	
	45 Hz to 10 kHz	65 μV	
	(10 to 20) kHz	71 μV	
	(20 to 50) kHz	0.15 mV	
	(50 to 100) kHz	0.35 mV	
	(100 to 500) kHz	0.85 mV	

**Electrical – DC/Low Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
AC Voltage – Source <sup>1</sup>	(0.33 to 3.3) V		Fluke 5522A Multiproduct Calibrator
	(10 to 45) Hz	1.2 mV	
	45 Hz to 10 kHz	0.65 mV	
	(10 to 20) kHz	0.8 mV	
	(20 to 50) kHz	1.2 mV	
	(50 to 100) kHz	2.9 mV	
	(100 to 500) kHz	9.9 mV	
	(3.3 to 33) V		
	(10 to 45) Hz	13 mV	
	45 Hz to 10 kHz	6.5 mV	
	(10 to 20) kHz	9.9 mV	
	(20 to 50) kHz	15 mV	
	(50 to 100) kHz	37 mV	
	(33 to 330) V		
	(10 to 45) Hz	75 mV	
	45 Hz to 10 kHz	84 mV	
(10 to 20) kHz	0.11 V		
(20 to 50) kHz	0.13 V		
(50 to 100) kHz	0.82 V		
(330 to 1 020) V			
(10 to 45) Hz	0.37 V		
45 Hz to 10 kHz	0.32 V		
(10 to 20) kHz	0.37 V		
AC Voltage – Measure	(1 to 10) mV		Keysight 3458A 8.5 Digit Multimeter
	40 Hz to 50 kHz	0.13 mV	
	(50 to 100) kHz	0.15 mV	
	(10 to 100) mV		
	1 Hz to 20 kHz	0.13 mV	
	(20 to 100) kHz	0.14 mV	
	(100 to 300) kHz	0.15 mV	
	100 mV to 1 V		
	(1 to 40) Hz	0.14 mV	
	40 Hz to 1 kHz	0.15 mV	
	(1 to 20) kHz	0.19 mV	
	(20 to 50) kHz	0.24 mV	
(50 to 100) kHz	0.62 mV		
(100 to 300) kHz	1.7 mV		

**Electrical – DC/Low Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
AC Voltage – Measure	(1 to 10) V		Keysight 3458A 8.5 Digit Multimeter
	(1 to 40) Hz	0.57 mV	
	40 Hz to 1 kHz	0.43 mV	
	(1 to 50) kHz	0.66 mV	
	(50 to 100) kHz	1.7 mV	
	(100 to 300) kHz	5.1 mV	
	(10 to 100) V		
	40 Hz to 1 kHz	4.4 mV	
	(1 to 20) kHz	8.1 mV	
	(20 to 50) kHz	7.7 mV	
AC Current – Source <sup>1</sup>	(29 to 330) $\mu$ A		Fluke 5522A Multiproduct Calibrator
	10 Hz to 10 kHz	1.4 $\mu$ A	
	(10 to 30) kHz	1.5 $\mu$ A	
	(0.33 to 3.3) mA		
	(10 to 20) Hz	1.6 $\mu$ A	
	(20 to 45) Hz	1.5 $\mu$ A	
	45 Hz to 1 kHz	1.4 $\mu$ A	
	(1 to 5) kHz	1.5 $\mu$ A	
	(5 to 10) kHz	3.4 $\mu$ A	
	(10 to 30) kHz	3.6 $\mu$ A	
AC Current Clamp-on Meters <sup>1</sup>	(3.3 to 33) mA		Fluke 5522A Multiproduct Calibrator, Fluke 5500A/COIL 50-turn Coil
	10 Hz to 5 kHz	14 $\mu$ A	
	(5 to 10) kHz	16 $\mu$ A	
	(10 to 30) kHz	33 $\mu$ A	
	(33 to 330) mA		
	10 Hz to 1 kHz	0.14 mA	
	(1 to 5) kHz	2.4 mA	
	(5 to 10) kHz	0.2 mA	
	(10 to 30) kHz	0.39 mA	
	(0.33 A to 3.3) A		
10 Hz to 1 kHz	1.4 mA		
(1 to 5) kHz	1.9 mA		
(5 to 10) kHz	6.2 mA		
(3.3 to 20) A		1.2 A	
45 Hz to 5 kHz	59 mA		



ANSI National Accreditation Board

**Electrical – DC/Low Frequency**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Capacitance – Source <sup>1</sup> 10 Hz to 10 kHz 10 Hz to 10 kHz 10 Hz to 3 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz 10 Hz to 1 kHz (10 to 300) kHz (10 to 150) kHz (10 to 120) kHz (10 to 80) kHz (10 to 50) kHz DC to 20 Hz DC to 6 Hz DC to 2 Hz DC to 0.6 Hz DC to 0.2 Hz	(190 to 400) pF (0.4 nF to 1.1) nF (1.1 to 3.3) nF (3.3 to 11) nF (11 to 33) nF (33 to 110) nF (110 to 330) nF (0.33 to 1.1) μF (1.1 to 3.3) μF (3.3 to 11) μF (11 to 33) μF (33 to 110) μF (110 to 330) μF (0.33 to 1.1) mF (1.1 to 3.3) mF (3.3 to 11) mF (11 to 33) mF (33 to 110) mF	20 pF 16 pF 27 pF 38 pF 0.19 nF 0.38 nF 1.2 nF 1.5 nF 3.2 nF 10 nF 32 nF 0.1 μF 0.3 μF 12 μF 12 μF 15 μF 0.12 mF 0.16 mF	Fluke 5522A Multiproduct Calibrator
Electrical Simulation of Thermocouple Indicating Devices – Source/Measure <sup>1</sup>	Type K -190 °C 0 °C 23 °C 990 °C 1 200 °C	0.35 °C 0.27 °C 0.27 °C 0.31 °C 0.39 °C	Fluke 5522A Multiproduct Calibrator

**Length – Dimensional Metrology**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Micrometers <sup>1,2</sup>	Up to 4 in	89 μin	Grade FS1 and FS2 Gage Blocks
Calipers <sup>1,2</sup>	Up to 4 in	89 μin	Grade FS1 and FS2 Gage Blocks
Depth Micrometers <sup>1,2</sup>	Up to 4 in	89 μin	Grade FS1 and FS2 Gage Blocks

**Mass and Mass Related**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Differential Pressure Gages	Up to 24 inH <sub>2</sub> O (4 °C)	0.004 5 inH <sub>2</sub> O	Dwyer 1420 Hook Gage
Compound Gages <sup>1</sup>	(-15 to 30) psig	0.044 psi	Comparison to Fluke 700PD5 Pressure Module
Pressure Gages <sup>1</sup>	(30 to 100) psig	0.15 psi	Comparison to Fluke 700P06 Pressure Module
	(100 to 500) psig	0.38 psi	Comparison to Fluke 700P07 Pressure Module
	(500 to 1 000) psig	0.64 psi	Comparison to Fluke 700P08 Pressure Module
	(1 000 to 5 000) psig	5.2 psi	Comparison to Fluke 700P30 Pressure Module
	(5 000 to 10 000) psig	9.3 psi	Comparison to Fluke 700P31 Pressure Module
Pressure Transducers	Up to 100 psig (100 to 500) psig (500 to 1 000) psig (1 000 to 5 000) psig (5 000 to 10 000) psig	0.03 psi 0.13 psi 0.28 psi 2.8 psi 5.2 psi	Ruska 2485 Hydraulic Piston Gage
Torque Wrenches	4 lbf·in to 1 000 lbf·ft	0.25 % of reading	CDI Suretest Torque Calibration System
Torque Calibration Systems	(30 to 200) ozf·in (5 to 100) lbf·in (5 to 250) lbf·ft (10 to 1 000) lbf·ft	0.17 % of reading 0.09 % of reading 0.02 % of reading 0.02 % of reading	NIST Class F Weights, Weight Hangers, Torque Wheels, Torque Arms

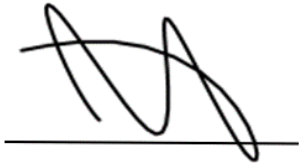


**Thermodynamic**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment
Temperature – Source	(-45 to 140) °C	0.08 °C	Hart 5681 SPRT, Hart 1560/2560 Reference Readout, Fluke 9170 Liquid Bath

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

- Notes:
1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
  2.  $L$  = length in inches.
  3. The CMC for scales and balances is highly dependent upon the resolution of the unit under test. The CMC presented here does not include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
  4. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1715.



Jason Stine, Vice President

