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<b>Customer:</b>	Mesa Laboratories, Inc. Lakewood, CO	<b>Certificate Number:</b>	106221
<b>Description:</b>	PRT	<b>Calibration Date:</b>	04 AUG 2016
<b>Model:</b>	5628-12-A	<b>Calibration Due:</b>	04 AUG 2017
<b>Serial Number:</b>	2528	<b>Ambient Temperature:</b>	20 to 27°C
<b>Unit ID:</b>	TE10611	<b>Ambient Humidity:</b>	30 to 50%RH
		<b>Barcode:</b>	C006876

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Calibration of this instrument is accredited to ISO/IEC 17025:2005 and is traceable to the International System of Units through NIST or other National Measurement Institutes. The reported expanded uncertainty used a coverage factor of k=2 for a level of confidence equal to approximately 95%. The results stated relate only to the item calibrated.

If this Certificate of Calibration is reproduced, it must be duplicated in full, unless permission for the publication of an approved abstract is obtained in writing from Masy BioServices.

This Certificate of Calibration shall not be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the Federal Government.

This Certificate of Calibration is not valid unless appropriately signed.

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**As Found Condition:**

In tolerance.

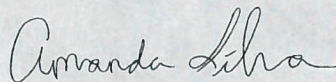
**Action Taken:**

Calibrated.

**As Left Condition:**

In tolerance.

**Performed by:**



Digitally signed by Amanda  
Silva, Calibration Technician  
Reason: I am the author of  
this document  
Date: 2016.08.08 07:10:11  
-04'00'

**Approved by:**



Digitally signed by  
Sarah Wilson, Quality  
Specialist II  
Reason: I am approving  
this document  
Date: 2016.08.08  
08:37:51 -04'00'

PRT Loop-Comparison (Rev 0)

# Calibration Measurement Results

Work Instruction: Thermometer PRT Loop Calibration (Rev 0)  
 Comments: None.

Certificate Number: 106221

## Measurement Results

\* Asterisk denotes an Out of Tolerance measurement.

Nominal	As Found Measurement Results				As Left Measurement Results				Expanded Uncertainty
	Standard	UUT	Error	MPE (Tolerance)	Standard	UUT	Error	MPE (Tolerance)	
420°C	418.853	418.859	0.006	±0.025	418.853	418.859	0.006	±0.025	0.0060°C
232°C	231.596	231.602	0.006	±0.025	231.596	231.602	0.006	±0.025	0.0045°C
157°C	156.510	156.515	0.005	±0.025	156.510	156.515	0.005	±0.025	0.0039°C
0°C	0.010	0.011	0.001	±0.025	0.010	0.011	0.001	±0.025	0.0017°C
-39°C	-38.709	-38.709	0.000	±0.025	-38.709	-38.709	0.000	±0.025	0.0026°C
-196°C	-195.670	-195.671	-0.001	±0.025	-195.670	-195.671	-0.001	±0.025	0.0027°C

## Configuration and Coefficient Details

Thermometer Information		Coefficient	As Found	As Left
Model:	1502A	R0	25.6185	25.6185
Serial Number:	B28138	A	-3.810436E-04	-3.810436E-04
Unit ID:	TE10610	B	4.976001E-05	4.976001E-05
Channel:	1	C	-2.535380E-05	-2.535380E-05
		A4	-2.777572E-04	-2.777572E-04
		B4	1.51483700E-05	1.51483700E-05

## Measurement Standards Used

MSI	Description	Serial Number	Calibration Due
7441	Super Thermometer	A09098	09 SEP 2016
3582	Resistor, Standard	1100706	15 FEB 2017
1999	SPRT	1119	16 NOV 2016
4815	SPRT	0546	10 NOV 2016
8786	Water Triple-Point Cell	C-G2040	NA
8327	RadioLogger	0215-00845	30 APR 2017

This calibration is based on the information contained in NIST Technical Note 1265, "Guidelines for Realizing the International Temperature Scale of 1990 (ITS-90)" section 4.6. The comparison standards used were calibrated in accordance with ITS-90 and are traceable to SI.

~ End of Report ~