



# SOUTHWEST RESEARCH INSTITUTE®

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Institute Calibration Laboratory  
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Certificate #

0972-01

## Certificate of Calibration

Submitted By: DIV20

Address: B57

Contact: DON BANNON

Manufacturer Model: OMEGA Type B

Description: THERMOCOUPLE

Serial No: 11116

Asset No: 011116

Procedure: THERMOCOUPLES, AUG/04

Work Order: 303067330

Date Issued: Jan 10, 2006

Calibration Date: Jan 10, 2006

\*Calibration Due: Jul 10, 2006

Calibration Location: Bldg. 64

Environment: Temp. 72.0°F Hum. 38 %RH

\*\*Data Type: FOUND-LEFT

This certificate documents traceability to the National Institute of Standards and Technology (NIST) and the International System of Units (SI). The Laboratory quality system conforms to ISO/IEC 17025, 1999, ANSI/NCSL Z540-1-1994 and relevant requirements of the ISO 9000-2000 standard. This certificate shall not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. This certificate shall not be used to claim product endorsement by Southwest Research Institute, American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government. Results of this calibration relate only to the instrument described above at the time of calibration and does not imply any long term stability of the instrument.

\*Determined by the customer, does not imply the instrument will remain within tolerance as any number of factors may cause an out-of-tolerance condition before this date. \*\*Found/Left = adjustment and/or repair was not required, As Left = adjusted and/or repaired was required. The client has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance. See Remarks or attached Measurement Report with the same Work Order number for data.

Reported uncertainty calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM) and represents an expanded uncertainty with a coverage factor of  $k=2$  to approximate a 95% confidence level.

Remarks: Cal'd at 900,1000 and 1100 Deg C

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
010814	A44625	HART SCIENTIFIC	1529	THERMOCOUPLE THERMOMETER	Oct 26, 06

Reviewed by: blt ( ) jrg ( ) pwc ( ) wgh ( )

Metrology Technician

m:\a2la1.rpt Rev date August 15, 2005

Measurements by: Mike Young

Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303067330	Mfr:	OMEGA	Technician:	msy
Asset No:	011116	Model:	TYPE B		
Serial No:	11116	Type:	THERMOCOUPLE	Cal Date:	10-Jan-06
Remarks:					
Limits are based on ASTM E230-02					

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	Found/Left
TEMPERATURE	°C	°C	°C	°C	°C	Result
	898.290	898.61	-0.32	4.5	2	Pass
	997.180	998.89	-1.71	5.0	2	Pass
	1095.270	1098.66	-3.39	5.5	2	Pass

END OF REPORT