



SOUTHWEST RESEARCH INSTITUTE™

6220 Culebra Road, P.O. Drawer 28510
Institute Quality Systems
Institute Calibration Laboratory
Phone: 210-522-5215 Fax 210-522-3692

Certificate of Calibration

Submitted By: DIV20
Address: B57
Contact: JIM PRIKRYL
Manufacturer Model: PARR 4843
Description: TEMPERATURE CONTROLLER
Serial No: 2209
Asset No: 007388
Procedure: TEMPERATURE METERS, MAR/03

Work Order: 444052851
Date Issued: Mar 31, 2003
Calibration Date: Mar 28, 2003
****Calibration Due:**
Calibration Location: Bldg. 64
Environment: Temp. 70.0°F Hum. 42 %RH
***As Found:** LIMITED CALIBRATION
***As Left:** LIMITED CALIBRATION

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 and ANSI/NCCL Z540-1-1994 which are equivalent to relevant requirements of the ISO 9000-1994 series of standards. This certificate may not be reproduced, except in full, without the written approval of the Southwest Research Institute Calibration Laboratory. The results of this calibration relate only to the individual instrument described above. This certificate shall not be used to claim product endorsement by the American Association for Laboratory Accreditation (A2LA) or any agency of the U. S. Government.

Uncertainty evaluation includes the item under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor of k=2 to approximate a 95% confidence level. The calibration process provides a Test Uncertainty Ratio (TUR) of less than or equal to 25% (4:1) of the test limit unless otherwise stated in remarks or an attachment.

*The client has sole responsibility for determination of in/out of tolerance or compliance/noncompliance. An in/out of tolerance opinion is provided for your convenience based only on the Test Instrument (TI) reading(s) and limits as reported. The reported uncertainty relates only to the results at the time of calibration and does not imply any short or long term stability of the TI.

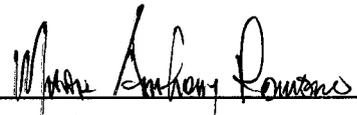
**Calibration interval is determined by the client and does not assure the instrument will remain within tolerance until this date. Any number of factors may cause the instrument to be out of tolerance before the next calibration date.

Remarks: TEMPERATURE CALIBRATED ONLY

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
006413	FLUKE	5520A/SC1100	MULTI-PRODUCT CALIBRATOR	Jan 17, 04


Approved by: Walt Hill
Metrology Group Leader
m:\Nona2la1.rpt Rev date 15, August 02


Measurements by: Mark Romero
Metrology Technician

Southwest Research Institute
 Calibration laboratory
 Calibration Sheet.

Work Order:	444052851	Mfr.	PARR	Technician	Mark A. Romero
Asset No.	007388	Model	4843		
Serial No.	2209	Type.	Temperature Meter	Cal Date.	28-Mar-03
Remarks:					
LIMITED CAL - TEMP ONLY					

Function/Range	Test Point	TI Reading	Difference	Test Limits+/-	Uncertainty	Found/Left
	Deg C	Deg C	Deg C	Deg C	Deg C	
Type J						
High Temp	0	0	0	2	1.2	Pass
	20	20	0	2	1.2	Pass
	50	50	0	2	1.2	Pass
	100	99	-1	2	1.2	Pass
	200	200	0	2	1.2	Pass
	500	499	-1	2	1.2	Pass
	800	799	-1	2	1.2	Pass
END OF REPORT						