



# SOUTHWEST RESEARCH INSTITUTE®

6220 Culebra Road, P.O. Drawer 28510  
Institute Quality Systems  
Institute Calibration Laboratory  
Phone: 210-522-5215 Fax 210-522-4834



## Certificate of Calibration

0972-01

**Submitted By:** DIV20  
**Address:** B57  
**Contact:** DON BANNON  
**Manufacturer Model:** OMEGA CT485  
**Description:** CHART RECORDER  
**Serial No:** CT485-AL-026967  
**Asset No:** 011938  
**Procedure:** TEMPERATURE/HUMIDITY, MAY/03

**Work Order:** 303066826  
**Date Issued:** Dec 21, 2005  
**Calibration Date:** Dec 21, 2005  
**\*Calibration Due:** Dec 21, 2006  
**Calibration Location:** Bldg. 64  
**Environment:** Temp. 75.0°F Hum. 24 %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:** None

### Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
006404	9806123	THUNDER SCIENTIFIC	2500	HUMIDITY GENERATOR	Jun 13, 06

Reviewed by: blt ( ) jrg ( ) pwc ( ) vgh ( )  
Metrology Technician

Measurements by: Joe Greagrey  
Metrology Technician

Southwest Research Institute  
Calibration Laboratory  
Measurement Report

Work Order:	303066826	Mfr.	OMEGA	Technician	JRG
Asset No.	011938	Model	CT485		
Serial No.	See Remarks	Type.	Chart Recorder	Cal Date.	21-Dec-05
Remarks:	S/N CT485-AL-026967				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Humidity	%RH	%RH	%RH	%RH	%RH	Result
77 °F	35.0	34	-1.0	3.0	1.2	Pass
	50.0	48	-2.0	3.0	1.2	Pass
	70.0	68	-2.0	3.0	1.2	Pass
Temperature at 35% RH	°F	°F	°F	°F	°F	
70 °F	69.8	69	-0.8	2.0	1.2	Pass
73 °F	73.4	73	-0.4	2.0	1.2	Pass
77 °F	77.0	76	-1.0	2.0	1.2	Pass

END OF REPORT

**Joe Greagrey**

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**From:** Don Bannon [dbannon@cnwra.swri.edu]  
**Sent:** Monday, December 05, 2005 3:07 PM  
**To:** 'Joe Greagrey'  
**Subject:** RE: Request to Proceed Letter

Joe--

Look for an envelope to you through interoffice mail with the circular chart.

--Don

Don Bannon - Staff Technician  
Geology & Geophysics, CNWRA  
Southwest Research Institute  
6220 Culebra Road  
San Antonio, TX 78238  
210-522-5118  
dbannon@swri.org

-----Original Message-----

**From:** Joe Greagrey [mailto:joseph.greagrey@swri.org]  
**Sent:** Monday, December 05, 2005 2:43 PM  
**To:** don.bannon@swri.org  
**Subject:** Request to Proceed Letter

**S O U T H W E S T   R E S E A R C H  
I N S T I T U T E ®**

**To:** Don Bannon, Div20, Ext 5118  
**From:** Institute Calibration Laboratory; Joe Greagrey  
**Date:** December 12, 2005  
**Subject:** Review of Work Request Number 303066826

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The work you requested is held pending your review. Please review the information provided and respond with your approval or further instructions for work to proceed. Return a signed copy via mail to Cal Lab Bldg 64, FAX (522-4834) or reply to this email. If you have questions or require additional information please call 522-5215.

Unit Received: Nov. 17, 2005

Work Requested: Calibration

Manufacturer: Omega

Model: CT485

Description: Chart Recorder

12/5/2005

Serial Number: CT485-AL-026967

Asset Number: 11938 User ID:

Cause of Review: Please provide a blank chart for calibration purposes.

If no reply has been received by Dec. 12, 2005 the unit will be returned without action.

Approved ( ) Disapproved return unit as is ( )

Date: \_\_\_\_\_

Instructions ( )

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Authorized by \_\_\_\_\_

\_\_\_\_\_  
Print or Type Name

\_\_\_\_\_  
Signature

Thank you for your timely response,

Walt Hill, Metrology Group Leader  
Institute calibration Laboratory