



SOUTHWEST RESEARCH INSTITUTE®

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



Calibration Laboratory
Certificate #0972-01

Certificate of Calibration

Cost Center: DIV20

Mail Stop: B51

Customer: DON BANNON

Manufacturer/Model: VAISALA / HM34C

Description: HUMIDITY/ TEMPERATURE METER

Serial Number: X2020010

Asset Number: 009456

Procedure: TEMPERATURE, HUMIDITY, DEW-POINT - 3 APR 08

Work Order: 303085681

Date Issued: 22-Jan-2009

Date Calibrated: 22-Jan-2009

***Date Due :** 22-Jul-2009

****Results:** FOUND-LEFT

Temperature: 74°F

Humidity: 40 %

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, 2005, 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 customer 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:

Standards Used

<u>Asset #</u>	<u>Manufacturer</u>	<u>Model</u>	<u>Description</u>	<u>Cal Date</u>	<u>Due Date</u>
006404	THUNDER SCIENTIFIC	2500	HUMIDITY GENERATOR	20-May-2008	20-May-2009
009414	HART SCIENTIFIC	1502A	TEMPERATURE READOUT	14-Oct-2008	14-Apr-2009
010692	HART SCIENTIFIC	5618	RTD	14-Oct-2008	14-Apr-2009

Reviewed By: () srk () mar () wgh

Laboratory Quality Manager

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Calibrated By: Bob Trollinger

Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303085681	Mfr	Vaisala	Technician	blt
Asset No.	009456	Model	HM34C		
Serial No.	X2020010	Type	Humidity / Temp meter	Cal Date	22-Jan-09
Remarks:					

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
HUMIDITY at	%RH	%RH	%RH	%RH	%RH	Result
	35.00	35.5	0.5	2	0.59	Pass
	49.96	50.2	0.2	2	0.59	Pass
	64.97	65.2	0.2	2	0.59	Pass
TEMPERATURE at	°C	°C	°C	°C	°C	
	20.396	20.2	-0.2	1.0	0.13	Pass
	25.170	25.0	-0.2	1.0	0.13	Pass
	29.630	29.6	0.0	1.0	0.13	Pass

END OF REPORT