



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
Department of Quality Assurance
Calibration Laboratory

Certificate of Calibration

30 May 1997

Issued to: PETER ANGELL DIV20 B57
Manufacturer/Model: BLUE M ELECTRIC CO. BM71110000011
Description: CIRCULAR CHART RECORDER/CONTR
Serial Number: 91E34523
Asset Number: 004828

Environmental Conditions

Temperature: 74.0 Deg. F Humidity: 49%

Calibration Information

Calibration was in accordance with requirements of MIL-STD-45662A and ANSI/NC SL Z540-1-1994. Measurements are traceable to the National Institute of Standards and Technology (NIST). This report may not be reproduced except in full without written approval of the originator. Inspection and test data are on file and available for inspection.

Calibration Date: 30 May 97 Calibration Procedure: CLCP-TC-008
Interval: 6 months Accuracy: MFG SPECS
Next Calibration Due: 30 Nov 97 Received: In Tolerance

Remarks:

Standards Used

Asset	MFR	Model	Description	Serial No.	Due Cal
000219	AZONIX	A1011	RTD THERMOMETER	T1587-2078	24 Mar 98
000328	AZONIX	A12001	RTD TEMPERATURE PROB	351477	3 Apr 98

Certificate # 25533

Signed: _____

LAST PAGE OF REPORT
Total Pages Printed: 1



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
Department of Quality Assurance
Calibration Laboratory

Certificate of Calibration

17 December 1997

Issued to: PETER ANGELL DIV20 B57
Manufacturer/Model: BLUE M ELECTRIC CO. BM71110000011
Description: CIRCULAR CHART RECORDER/CONTROLLER
Serial Number: 91E34523
Asset Number: 004828

Environmental Conditions

Temperature: 76.00 Deg. F

Humidity: 28 % RH

Calibration Information

Calibration was in accordance with requirements of MIL-STD-45662A and ANSI/NCSL Z540-1-1994. Measurements are traceable to the National Institute of Standards and Technology (NIST). This report may not be reproduced except in full without written approval of the originator. Inspection and test data are on file and available for inspection.

The uncertainty of the calibration was sufficient to determine that the instrument met the manufacturer's specifications.

Calibration Date: 16 Dec 97

Calibration Procedure: CLCP-TC-08

Interval: 6 months

Next Calibration Due: 16 Jun 98

Received: In Tolerance

Remarks:

Standards Used

Asset	MFR	Model	Description	Serial No.	Due Cal
000219	AZONIX	A1011	RTD THERMOMETER	T1587-2078	24 Mar 98
000328	AZONIX	A12001	RTD TEMPERATURE PROBE	351477	3 Apr 98

Signed: 

Title: 

LAST PAGE OF REPORT
Total Pages Printed: 1

Certificate # 27800



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
(210) 522-5215
Department of Quality Assurance
Calibration Laboratory



Certificate #
0972-01

Certificate of Calibration

2 March 1999

Issued to: DARRELL DUNN DIV20 B57
Manufacturer/Model: BLUE M ELECTRIC BM71110000011
Description: CHART RECORDER
Serial Number: 91E34523
Asset Number: 004828

This certifies the above item was calibrated in compliance with MIL-STD-45662A and ANSI/NCSL Z540-1-1994. Standards used in this calibration, described in the referenced calibration procedure with associated uncertainties or tolerances, are traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request. This certificate is not to be reproduced, except in full, without the written approval of the Southwest Research Institute Department of Quality Assurance Calibration Laboratory.

This laboratory is accredited by the American Association for Laboratory Accreditation (A2LA) and the results of this calibration certificate were determined in accordance with the terms of accreditation unless stated otherwise below.

The uncertainty of the calibration was sufficient to determine that the item met the manufacturer's published specifications unless stated otherwise below.

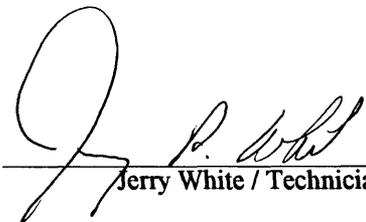
Ambient Conditions: Temperature: 71.0 Degrees Fahrenheit Humidity: 45 % RH

Calibration Date: 1 Mar 99 **Calibration Procedure:** CLCP-TC-008

Condition as Received: IN TOLERANCE

Condition as Released: IN TOLERANCE

Remarks:


Jerry White / Technician



Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
(210) 522-5215
Department of Quality Assurance
Calibration Laboratory



Certificate #
0972-01

Certificate of Calibration

14 September 1999

Issued to: DARRELL DUNN DIV20 B57
Manufacturer/Model: BLUE M ELECTRIC CO. BM71110000011
Description: CHART RECORDER
Serial Number: 91E34523
Asset Number: 004828

This certifies the above item was calibrated in compliance with MIL-STD-45662A and ANSI/NCSL Z540-1-1994. Standards used in this calibration, described in the referenced calibration procedure with associated uncertainties or tolerances, are traceable to the National Institute of Standards and Technology (NIST). Supporting documentation relative to traceability is on file and is available for examination upon request. This certificate is not to be reproduced, except in full, without the written approval of the Southwest Research Institute Department of Quality Assurance Calibration Laboratory.

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The uncertainty of the calibration was sufficient to determine that the item met the manufacturer's published specifications unless stated otherwise below.

Ambient Conditions: Temperature: 78.0 Degrees Fahrenheit Humidity: 45 % RH

Calibration Date: 14 Sep 99 **Calibration Procedure:** CL-9 MAY99

Condition as Received: IN TOLERANCE

Condition as Released: IN TOLERANCE

Remarks:

Approved by:



Jim Patterson, Supervisor or Walt Hill, Metrologist

Measurements performed by:



Mack Wood, Technician

Certificate # 35952

Page 1 of 1

SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD • POST OFFICE DRAWER 28510 • SAN ANTONIO, TEXAS, 78228-0510 • TEL (210) 522-5215 • FAX (210) 522-3692

To: Darrell Dunn, Div 20, And Bldg 57.

From: Walt Hill, Supervisor
Institute Calibration Laboratory

Date: Jan. 22, 2002

Subject: Out-of-tolerance Notice

The purpose of this notice is to alert you of a condition, which may have caused erroneous measurements affecting safety or the quality of products or services your organization provides. The attached as-found readings are provided for your evaluation to determine if the instrument listed below had an impact and if further action is required.

When the as-found results are near the specification limit, +/- a margin less than the measurement uncertainty, it is not possible to state in-tolerance or out-of-tolerance with a 95% level of confidence. It is the Institute Calibration Laboratory policy that the client is made aware of this situation because the end-user is taking some of the risk that the instrument listed below may not meet the end-user measurement requirements.

Your review/evaluation should be conducted in accordance with your organizational quality policy and procedural requirements. If we can be of further assistance, please contact the Calibration Laboratory at 522-5215.

Manufacturer: Blue M Electric Co **Model:** BM7111

Description: Recorder **Serial Number:** 91E34523

Asset Number: 004828 **User ID Number:**

Last Calibration: May 15, 2001

Date Received for Service: Jan. 09, 2002 **Work Order Number:** 444046662

Service Requested: Scheduled calibration

Remarks: Pen # 1 did not meet specification. Recalibrated recorder. See attached data sheets.

OUT OF TOLERANCE



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: DARRELL DUNN

Manufacturer Model: BLUE M ELECTRIC CO. BM71110000011

Description: CHART RECORDER

Serial No: 91E34523

Asset No: 004828

Procedure: CL-9, 5/99

Work Order: 444050892

Date Issued: Nov 1, 2002

Calibration Date: Oct 31, 2002

****Calibration Due:** Apr 30, 2003

Calibration Location: N/A

Environment: Temp. 80.0°F Hum. 51 %RH

***As Found:** SEE ATTACHED DATA

***As Left:** SEE ATTACHED DATA

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: Calibrated digital displays only. Chart not calibrated.

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
009137	HART SCIENTIFIC, INC	1575	THERMOMETER	Dec 10, 02
008920	HART SCIENTIFIC, INC	17660-A-120-6-W	PLATINUM RTD	Dec 07, 02

Approved by: Walt Hill
Metrology Group Leader
m:\Nona2\1a1.rpt Rev date 15, August 02

Measurements by: Vince Morales
Metrology Technician

Southwest Research Institute
 Calibration laboratory
 Calibration Sheet.

Work Order: 444050892	Mfr. BLUE MOUNTAIN	Technician V Morales
Asset No. 4828	Model BM71110	Procedure CL-9, 05/99
Serial No. 91E34523	Type. CHART RECORDER	Cal Date. 31-Oct-02
Remarks: Readings are provided without regard to "Pass" or "Fail". It is up to the user to determine if the readings meet their requirements.		

unction/Range	Test Point	TI Reading	Difference	Uncertainty
RTD	Deg. C	Deg. C	Deg. C	Deg. C
Upper				
0	0.11	1.00	0.89	+/-1.2
10	10.08	11.00	0.92	+/-1.2
20	20.06	20.00	-0.06	+/-1.2
30	30.03	30.00	-0.03	+/-1.2
40	40.03	39.00	-1.03	+/-1.2
50	50.02	50.00	-0.02	+/-1.2
Lower				
0	0.11	1.00	0.89	+/-1.2
10	10.08	10.00	-0.08	+/-1.2
20	20.06	20.00	-0.06	+/-1.2
30	30.03	29.00	-1.03	+/-1.2
40	40.03	39.00	-1.03	+/-1.2
50	50.02	50.00	-0.02	+/-1.2



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: DARRELL DUNN

Manufacturer Model: BLUE M ELECTRIC CO. BM71110000011

Description: CHART RECORDER

Serial No: 91E34523

Asset No: 004828

Procedure: CL-738, MAY/03

Work Order: 444053503

Date Issued: May 9, 2003

Calibration Date: May 8, 2003

****Calibration Due:** Nov 8, 2003

Calibration Location: Bldg. 64

Environment: Temp. 75.0°F Hum. 55 %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.

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**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: CHART NOT CALIBRATED.

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
009137	HART SCIENTIFIC, INC	1575	THERMOMETER	Jul 06, 03
008920	HART SCIENTIFIC, INC	17660-A-120-6-W	PLATINUM RTD	Jul 06, 03

Approved by: Walt Hill

Metrology Group Leader

m:\Nona2\al.rpt Rev date 15, August 02

Measurements by: Mark Romerg

Metrology Technician

Southwest Research Institute
 Calibration laboratory
 Calibration Report

Work Order:	444053503	Mfr.	BLUE MOUNTAIN	Technician	Mark Romero
Asset No.	004828	Model	BM71110		
Serial No.	91E34523	Type.	CHART RECORDER	Cal Date.	08-May-03
Remarks:		CHART NOT CALIBRATED.			

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	Found/Left
	Deg. C	Deg. C	Deg. C	Deg. C	Deg. C	Result
RTD						
Upper						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	30	0	1	1.2	Pass
40 Deg C	40	40	0	1	1.2	Pass
50 Deg C	50	50	0	1	1.2	Pass
Lower						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	29	-1	1	1.2	Pass
40 Deg C	40	39	-1	1	1.2	Pass
50 Deg C	50	49	-1	1	1.2	Pass

END OF REPORT



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 #

0972-01

Certificate of Calibration

Submitted By: DIV20

Address: B57

Contact: DARRELL DUNN

Manufacturer Model: BLUE M ELECTRIC CO. BM71110000011

Description: CHART RECORDER

Serial No: 91E34523

Asset No: 004828

Procedure: CL-738, MAY/03

Work Order: 444056810

Date Issued: Jan 8, 2004

Calibration Date: Jan 8, 2004

****Calibration Due:** Jul 8, 2004

Calibration Location: Bldg. 64

Environment: Temp. 78.0°F Hum. 37 %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.

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**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: CHART NOT CALIBRATED

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
009137	HART SCIENTIFIC, INC	1575	THERMOMETER	Feb 05, 04
008920	HART SCIENTIFIC, INC	5614-17660-A-12	PLATINUM RTD	Feb 07, 04

Approved by: Walt Hill

Metrology Group Leader

m:\a2la1.rpt Rev date 15, August 02

Measurements by: Mark Romero

Metrology Technician

Southwest Research Institute
 Calibration laboratory
 Calibration Report

Work Order:	444056810	Mfr.	BLUE MOUNTAIN	Technician	Mark Romero
Asset No.	004828	Model	BM71110	Cal Date.	08-Jan-04
Serial No.	91E34523	Type.	CHART RECORDER		

Remarks:

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	Found/Left
	Deg. C	Deg. C	Deg. C	Deg. C	Deg. C	Result
RTD						
Upper						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	30	0	1	1.2	Pass
40 Deg C	40	40	0	1	1.2	Pass
50 Deg C	50	50	0	1	1.2	Pass
Lower						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	30	0	1	1.2	Pass
40 Deg C	40	39	-1	1	1.2	Pass
50 Deg C	50	49	-1	1	1.2	Pass

END OF REPORT



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 #

0972-01

Certificate of Calibration

Submitted By: DIV20
Address: B57
Contact: DARRELL DUNN
Manufacturer Model: BLUE M ELECTRIC BM71110000011
Description: CHART RECORDER
Serial No: 91E34523
Asset No: 004828
Procedure: CL-738, MAY/03

Work Order: 444060000
Date Issued: Jul 26, 2004
Calibration Date: Jul 26, 2004
****Calibration Due:** Jan 26, 2005
Calibration Location: Bldg. 64
Environment: Temp. 73.0°F Hum. 40 %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/NCSL 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. See Remarks or attached Calibration Report with the same Work Order number for calibration data.

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**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: Limited Cal - Chart not Calibrated

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
009137	HART SCIENTIFIC	1575	THERMOMETER	Sep 05, 04

Approved by: Walt Hill
Metrology Group Leader
m:\a2la1.rpt Rev date 11, May 04

Measurements by: Bob Trollinger
Metrology Technician

Southwest Research Institute
Calibration laboratory
Calibration Report

Work Order:	444060000	Mfr.	BLUE MOUNTAIN	Technician	BLT
Asset No.	004828	Model	BM71110	Cal Date.	26-Jul-04
Serial No.	91E34523	Type.	CHART RECORDER		
Remarks:					
LIMITED CAL - CHART NOT CALIBRATED					

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	Found/Left
	Deg. C	Deg. C	Deg. C	Deg. C	Deg. C	Result
RTD						
Upper						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	30	0	1	1.2	Pass
40 Deg C	40	40	0	1	1.2	Pass
50 Deg C	50	50	0	1	1.2	Pass
Lower						
0 Deg C	0	0	0	1	1.2	Pass
10 Deg C	10	10	0	1	1.2	Pass
20 Deg C	20	20	0	1	1.2	Pass
30 Deg C	30	29	-1	1	1.2	Pass
40 Deg C	40	39	-1	1	1.2	Pass
50 Deg C	50	49	-1	1	1.2	Pass

END OF REPORT



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

0972-01

Submitted By: DIV20

Address: B57

Contact: DARRELL DUNN

Manufacturer Model: BLUE M ELECTRIC BM71110000011

Description: CHART RECORDER

Serial No: 91E34523

Asset No: 004828

Procedure: CL-738, MAY/03

Work Order: 303062796

Date Issued: Feb 16, 2005

Calibration Date: Feb 16, 2005

****Calibration Due:** Aug 16, 2005

Calibration Location: Bldg. 64

Environment: Temp. 73.0°F Hum. 44 %RH

***As Found:** SEE REMARKS

***As Left:** SEE REMARKS

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/NCSL 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.

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**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: CHART NOT CALIBRATED

Standards Used

Asset	Manufacturer	Model	Description	Cal Due
009137	HART SCIENTIFIC	1575	THERMOMETER	Mar 20, 05
010281	HART SCIENTIFIC	5628	SPRT	Jun 24, 08

Approved by: Walt Hill
Metrology Group Leader

m:\a2la1.rpt Rev date 11, May 04

Measurements by: Bob Trollinger
Metrology Technician

Southwest Research Institute
Calibration laboratory
Measurement Report

Work Order:	303062796	Mfr.	BLUE MOUNTAIN	Technician	blt
Asset No.	004828	Model	BM71110	Cal Date.	16-Feb-05
Serial No.	91E34523	Type.	CHART RECORDER		

Remarks:

LIMITED CAL - CHART NOT CALIBRATED

Function/Range	Test Point	TI Reading	Difference	+/-Limits	+/-Uncertainty	Found/Left
	°C	°C	°C	°C	°C	Result
RTD						
Upper						
0 Deg C	0.1	0	0	1	1.2	Pass
10 Deg C	10.1	10	0	1	1.2	Pass
20 Deg C	20.1	20	0	1	1.2	Pass
30 Deg C	30.0	30	0	1	1.2	Pass
40 Deg C	40.0	40	0	1	1.2	Pass
50 Deg C	50.0	50	0	1	1.2	Pass
Lower						
0 Deg C	0.1	0	0	1	1.2	Pass
10 Deg C	10.1	10	0	1	1.2	Pass
20 Deg C	20.1	19	-1	1	1.2	Pass
30 Deg C	30.0	29	-1	1	1.2	Pass
40 Deg C	40.0	39	-1	1	1.2	Pass
50 Deg C	50.0	49	-1	1	1.2	Pass

END OF REPORT