SOUTHWEST RESEARCH INSTITUTE®

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Institute Calibration Laboratory
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ACCREDITED
Certificate #
0972-01

Certificate of Calibration

Submitted By: DIV20
Address: B57
Contact: DON BANNON
Manufacturer Model: METTLER AE240
Description: BALANCE
Serial No: 101237
Asset No: 001439
Procedure: BALANCES & SCALES, DEC/04

Work Order: 303066800
Date Issued: Nov 14, 2005
Calibration Date: Nov 14, 2005
***Calibration Due:** May 12, 2006
Calibration Location: B57
Environment: Temp. 72.0°F Hum. 61 %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
001709	C864	RICE LAKE	20G	WEIGHT, CLASS S	Jul 06, 06
001712	C867	RICE LAKE	100G	WEIGHT, CLASS S	Jul 06, 06
001713	C868	RICE LAKE	200G	WEIGHT, CLASS S	Jul 06, 06
005566	B0113L004	MERIAN	A0030P	PRESSURE GAUGE, ABSOLUTE	Apr 10, 06
007290	T4830007	VAISALA	HM34F	HUMIDTY/ TEMPERATURE METER	Apr 11, 06
007385	73855	TROEMNER	1 MG TO 100 G	WEIGHT SET, CLASS 1	May 02, 06

Reviewed by: blt (✓) jrg ( ) pwc ( ) wgh ( )
Metrology Technician

Measurements by: Jude Morin
Metrology Technician

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

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303066800	Mfr.	Mettler	Technician	jim
Asset No.	001439	Model	AE240		
Serial No.	101237	Type.	Balance	Cal Date.	14-Nov-05
Remarks:	Manufacturer does not provide corner load specifications. Corner load readings are without pass or fail indications.				
Ambient Conditions	72 ° F		61 % RH		14.24 PSIA

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Corner Load	grams	grams	grams	grams	grams	Result
Reference	100.0000	99.9997				
Front	99.9997	99.9997	0.0000		0.00012	
Rear	99.9997	99.9997	0.0000		0.00012	
Left	99.9997	99.9995	-0.0002		0.00012	
Right	99.9997	100.0000	0.0003		0.00012	
Repeatability						
1	100.0000	99.9997				
2	100.0000	99.9997				
3	100.0000	99.9996				
4	100.0000	99.9996				
5	100.0000	99.9996				
6	100.0000	99.9996				
7	100.0000	99.9997				
8	100.0000	99.9995				
9	100.0000	99.9996				
10	100.0000	99.9997				
Std Deviation		0.00007		0.00020		Pass
Linearity	0.00000	0.00000	0.00000	0.00003	0.000022	Pass
Low Range	4.00000	3.99999	-0.00001	0.00003	0.000022	Pass
	8.00000	8.00002	0.00002	0.00003	0.000022	Pass
	12.00000	12.00003	0.00003	0.00003	0.000022	Pass
	16.00000	16.00002	0.00002	0.00003	0.000022	Pass
	20.00000	19.99998	-0.00002	0.00003	0.000022	Pass
	24.00000	23.99999	-0.00001	0.00003	0.000022	Pass
	28.00000	28.00000	0.00000	0.00003	0.000022	Pass
	32.00000	32.00001	0.00001	0.00003	0.000022	Pass
	36.00000	36.00002	0.00002	0.00003	0.000022	Pass
	40.00000	40.00001	0.00001	0.00003	0.000022	Pass
Linearity	0.0000	0.0000	0.0000	0.0002	0.00013	Pass
High Range	20.0000	20.0000	0.0000	0.0002	0.00013	Pass
	40.0000	40.0002	0.0002	0.0002	0.00013	Pass
	60.0000	60.0001	0.0001	0.0002	0.00013	Pass
	80.0000	80.0000	0.0000	0.0002	0.00013	Pass
	100.0000	100.0000	0.0000	0.0002	0.00013	Pass
	120.0000	120.0002	0.0002	0.0002	0.00013	Pass
	140.0000	140.0001	0.0001	0.0002	0.00013	Pass
	160.0000	160.0001	0.0001	0.0002	0.00013	Pass
	180.0000	180.0000	0.0000	0.0002	0.00013	Pass
	200.0000	200.0001	0.0001	0.0002	0.00013	Pass

End of Report