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

ACCREDITED
Calibration Laboratory
Certificate #0972-01

Cost Center / Customer: DIV20 / DON BANNON
Mail Stop: B51
Manufacturer/Model: METTLER TOLEDO / XP205DR
Description: BALANCE
Serial Number: 1126461033
Asset Number: 012005
Procedure: BALANCES & SCALES - 1 DEC 06

Work Order: 303092053
Date Issued: 4-Jan-2010
Date Calibrated: 4-Jan-2010
*** Date Due :** 4-Jul-2010
**** Results:** FOUND-LEFT
Temperature: 68.0 °F
Humidity: 23 %RH
Barometer: 14.58 psia

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. **Data type found in this certificate or attached measurement report must be interpreted as: Found-left - adjustment and/or repair was not performed, As-found - data is before unit is adjusted and/or repaired, As-left - data is after adjusted and/or repaired was performed. The customer has sole responsibility for determination of in-/out-of-tolerance or compliance/noncompliance.

Measurement uncertainty calculated in accordance with the method described in the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM), for a confidence level of approximately 95 percent using a coverage factor of $k=2$.

Remarks: None

Standards Used

Asset #	Manufacturer	Model	Description	Cal Date	Due Date
001704	RICE LAKE	1 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001705	RICE LAKE	2 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001706	RICE LAKE	2 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001707	RICE LAKE	5 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001708	RICE LAKE	10 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001709	RICE LAKE	20 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001710	RICE LAKE	20 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001711	RICE LAKE	50 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001712	RICE LAKE	100 G	WEIGHT, CLASS I	4-Aug-2009	4-Aug-2010
001714	RICE LAKE	200 G	WEIGHT, CLASS S	4-Aug-2009	4-Aug-2010

Walt Hill
Laboratory Manager

Carlos Mendoza
Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303092053	Mfr:	Mettler	Technician:	com
Asset No:	012005	Model:	XP205DR	Type Data:	Found-left
Serial No:	1126461033	Type:	Balance	Cal Date:	4-Jan-10
Remarks:					

Function/Range	Applied	TI Reading	Difference	± Limit		Result	% Limit
Corner Load	grams	grams	grams	grams			
Reference	100						
Front		99.9999	-0.0001	0.0005		Pass	20%
Rear		99.9999	-0.0001			Pass	20%
Left		100.0000	0.0000			Pass	0%
Right		100.0000	0.0000			Pass	0%
Repeatability							
< 81 g Range							
1	10.00000	9.99996					
2		9.99996					
3		9.99999					
4		10.00002					
5		10.00005					
6		10.00004					
7		10.00004					
8		10.00007					
9		10.00007					
10		10.00009					
Std Deviation		0.000046		0.00010		Pass	46%
Repeatability							
< 220 g Range							
1	200.0000	199.9997					
2		199.9997					
3		199.9997					
4		199.9996					
5		199.9996					
6		199.9996					
7		199.9996					
8		199.9996					
9		199.9997					
10		199.9997					
Std Deviation		0.00005		0.00012		Pass	42%

Function/Range	Applied	TI Reading	Difference	± Limit	± Uncertainty	Result	% Limit
Linearity	grams	grams	grams	grams	grams		
< 81 g Range	0.00000	0.00000	0.00000	0.00030	0.00009	Pass	0%
	7.99997	7.99999	0.00002			Pass	7%
	16.00002	16.00005	0.00003			Pass	10%
	24.00000	24.00003	0.00003			Pass	10%
	32.00004	32.00010	0.00006			Pass	20%
	40.00002	40.00011	0.00009			Pass	30%

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303092053	Mfr:	Mettler	Technician:	com
Asset No:	012005	Model:	XP205DR	Type Data:	Found-left
Serial No:	1126461033	Type:	Balance	Cal Date:	4-Jan-10

Function/Range	Applied	TI Reading	Difference	± Limit	± Uncertainty	Result	% Limit
Linearity	grams	grams	grams	grams	grams		
< 81 g Range *(Cont)*	47.99999	48.00017	0.00018	0.00030	0.00009	Pass	60%
	55.99988	56.00005	0.00017			Pass	57%
	63.99994	63.99995	0.00001			Pass	3%
	71.99989	71.99998	0.00009			Pass	30%
	79.99994	80.00007	0.00013			Pass	43%
< 220 g Range	0.0000	0.0000	0.0000	0.0003	0.0002	Pass	0%
	20.0000	20.0000	0.0000			Pass	0%
	40.0000	40.0000	0.0000			Pass	0%
	59.9999	60.0000	0.0001			Pass	33%
	79.9999	80.0000	0.0001			Pass	33%
	100.0001	100.0001	0.0000			Pass	0%
	120.0001	120.0001	0.0000			Pass	0%
	140.0001	140.0001	0.0000			Pass	0%
	160.0000	160.0001	0.0001			Pass	33%
	180.0000	180.0001	0.0001			Pass	33%
	200.0002	200.0003	0.0001			Pass	33%

END OF REPORT