



SOUTHWEST RESEARCH INSTITUTE®

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Institute Quality Systems
Institute Calibration Laboratory
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Calibration Laboratory
Certificate #0972-01

Certificate of Calibration

Cost Center / Customer: DIV20 / DON BANNON

Mail Stop: B57

Manufacturer/Model: TROEMNER / 20G

Description: WEIGHT, CLASS 1

Serial Number: 66388

Asset Number: 009341

Procedure: WEIGHTS - 10 DEC 07

Work Order: 303102205

Date Issued: 27-Jun-2011

Date Calibrated: 27-Jun-2011

*** Date Due :** 27-Jun-2012

**** Results:** FOUND-LEFT

Temperature: 68.6 °F

Humidity: 41 %RH

Barometer: N/A

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/NCCL 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: 20g CONVENTIONAL MASS VALUE: 20.00004g UNC ± 0.019 mg. CL 1 TOL ± 0.074 mg.

Standards Used

Asset #	Manufacturer	Model	Description	Cal Date	Due Date
007102	TROEMNER	1 mg - 100 g	WEIGHT SET, CLASS E1	10-Mar-2011	10-Mar-2012
012068	SARTORIUS	CC310	MASS COMPARATOR	10-Jan-2011	10-Jan-2012

Walt Hill

Laboratory Manager

Carlos Mendoza

Metrology Technician