



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

Submitted By: DIV20

Address: B57

Contact: DON BANNON

Manufacturer / Model: PAROSCIENTIFIC / 740-45A

Description: PRESSURE GAGE, DIGITAL

Serial No: 60999

Asset No: 003972

Procedure: PRESSURE, DIGITAL GAGES - 15 MAR 2006

Work Order: 303076585

Date Issued: Oct 1, 2007

Calibration Date: Oct 1, 2007

***Calibration Due:** Apr 1, 2008

Calibration Location: Bldg. 64

Environment: Temp. 68.0°F Hum. 40 %RH

****Data Type:** FOUND-LEFT

DivID/Location: 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/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: Accuracy +/- 0.025% of Full Scale

Standards Used

Asset No.	Serial No.	Manufacturer	Model	Description	Cal Due
003949	3949	TROEMNER	5MG-100G	WEIGHT SET, CLASS 1	Apr 09, 08
002856	38935 (18-31)	RUSKA	2468-714-69900	WEIGHT SET, CLASS S	May 02, 08
003220	2581	HASTINGS	VT-6B	VACUUM GAUGE	Jul 26, 08
005332	TL1352	RUSKA	2468-758	DEAD WEIGHT PISTON	Mar 26, 09

Scott Kuntz

Reviewed by: () wgh (x) srk () jrg () blt () pwc

Metrology Technician

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

Perry Carpenter

Measurements by: Perry Carpenter

Metrology Technician

Southwest Research Institute
Calibration Laboratory
Measurement Report

Work Order:	303076585	Mfr:	Paroscientific	Technician:	PWC
Asset No:	003972	Model:	740-45A	Cal Date:	01-Oct-07
Serial No:	60999	Type:	Digital Pressure Gauge		
Remarks:	Accuracy +/- 0.025% of Full Scale.				

Function/Range	Test Point	TI Reading	Difference	+/-Limit	+/-Uncertainty	Found/Left
Pressure	PSIA	PSIA	PSIA	PSIA	PSIA	Result
	0.0010	-0.0016	-0.0026	0.0113	0.0019	Pass
	4.5039	4.5041	0.0002	0.0113	0.0019	Pass
	9.0039	9.0057	0.0018	0.0113	0.0019	Pass
	13.5039	13.5083	0.0044	0.0113	0.0019	Pass
	18.0039	18.0075	0.0036	0.0113	0.0019	Pass
	22.5039	22.5086	0.0047	0.0113	0.0019	Pass
	27.0039	27.0087	0.0048	0.0113	0.0019	Pass
	31.5039	31.5088	0.0049	0.0113	0.0019	Pass
	36.0039	36.0095	0.0056	0.0113	0.0019	Pass
	40.5039	40.5102	0.0063	0.0113	0.0019	Pass
	45.0039	45.0115	0.0076	0.0113	0.0019	Pass
	40.5039	40.5102	0.0063	0.0113	0.0019	Pass
	36.0039	36.0095	0.0056	0.0113	0.0019	Pass
	31.5039	31.5092	0.0053	0.0113	0.0019	Pass
	27.0039	27.0088	0.0049	0.0113	0.0019	Pass
	22.5039	22.5085	0.0046	0.0113	0.0019	Pass
	18.0039	18.0081	0.0042	0.0113	0.0019	Pass
	13.5039	13.5069	0.0030	0.0113	0.0019	Pass
	9.0039	9.0062	0.0023	0.0113	0.0019	Pass
	4.5039	4.5049	0.0010	0.0113	0.0019	Pass
	0.0010	-0.0001	-0.0011	0.0113	0.0019	Pass

END OF REPORT