



Plant Protection Division
 Weights and Measures Program
 Metrology Laboratory
 2747 29th Ave. SW ♦ Tumwater ♦ Washington 98512
 Ph (360) 753-5042 ♦ Fax (360) 586-4728
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For Scope of Accreditation
 Under
 NVLAP Lab Code 200446-0

Report of Calibration # L2669-4

Calibration Date: November 16, 2007

Artifact

Test Item..... Test Weights, 16 each, 1000 lb	Work Order #.... L2669
Serial Number.... SP17 - SP32	Manufacture.... See Calibration Results
Specification..... NIST HB-105-3, Class F	Material..... Cast Iron
Date Received: November 13,	

Submitted By

Washington State Patrol	Purchase Order # : N/A
8623 Armstrong Road SW	Point of Contact..: Dave Cromer
Olympia, WA 98504	POC Phone.....: 360-596-6000

Artifact Calibration Results

Weight Description	Serial Number	Manufacture	Correction As found (g)	Correction As Left (g)	Specification Class Tolerance ± (g)	Uncertainty k=2 (g)
1000 lb	SP17	Hern Iron Works	-4.6	-4.6	45	5.1
1000 lb	SP18	Hern Iron Works	24.0	24.0	45	5.1
1000 lb	SP19	Hern Iron Works	26.1	26.1	45	5.1
1000 lb	SP20	Hern Iron Works	36.4	36.4	45	5.1
1000 lb	SP21	Hern Iron Works	10.8	10.8	45	5.1
1000 lb	SP22	Hern Iron Works	-3.3	-3.3	45	5.1
1000 lb	SP23	Hern Iron Works	27.6	27.6	45	5.1
1000 lb	SP24	Hern Iron Works	31.0	31.0	45	5.1
1000 lb	SP25	Hern Iron Works	39.4	39.4	45	5.1
1000 lb	SP26	Hern Iron Works	8.2	8.2	45	5.1
1000 lb	SP27	Hern Iron Works	9.4	9.4	45	5.1
1000 lb	SP28	Hern Iron Works	-11.0	-11.0	45	5.1
1000 lb	SP29	Hern Iron Works	38.7	38.7	45	5.1
1000 lb	SP30	Hern Iron Works	26.4	26.4	45	5.1
1000 lb	SP31	Hern Iron Works	20.6	20.6	45	5.1
1000 lb	SP32	Hern Iron Works	12.7	12.7	45	5.1



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Calibration Notes

- The artifact(s) listed above have been found and/or left within the stated tolerances for the classification(s) stated above, except as noted. An artifact is considered in-tolerance when the correction plus the measurement uncertainty is equal to or less than the specified tolerance. **Bold print** indicates an out-of-tolerance reading.
- 1 avoirdupois pound equals **453.59237** grams exactly.
- All corrections stated in this report correlate to a "conventional mass" (also known as 'apparent mass') scale verses 8.0 g/cm³ reference mass density and an air density of 1.2 mg/cm³ at 20 °C.

Calibration Conditions

Technician.....: Dan Wright Procedure: NIST HB 145, SOP 8
 Condition of Artifact: Good Humidity: 47.7 % RH
 Temperature.....: 21.6 °C Pressure: 753.5 mm Hg

Laboratory Mass Standard(s) Used

Description	Serial Number	Report Number	Date Calibrated	Date Calibration Due
1000 lb - 20 lb	SET WC	L2537-1	10/16/2006	10/16/2008

Relevant Information

- The results listed in this report relate only to the artifacts described and extent of calibrations performed.

Traceability Statement

The item(s) listed above have been compared to the Standards of the State of Washington. The Standards of the State of Washington are traceable to the National Institute of Standards and Technology (NIST) and are part of a comprehensive measurement assurance program for ensuring continued accuracy and measurement traceability within the level of uncertainty reported by this laboratory. The report of calibration number identified in the title of this report is the unique report number to be used in referencing measurement traceability for the artifact(s) identified in this report only.

Uncertainty Statement

The combined standard uncertainty includes uncertainties reported for the standard, uncertainties associated with the measurement process, uncertainties for any observed deviations from reference values which are less than surveillance limits, and other uncertainties associated with the particular artifact (i.e., reading meniscus, air buoyancy corrections, etc.). The combined standard uncertainty is multiplied by k, a coverage factor of 2, to give the expanded uncertainty (which defines an interval with an approximate 95 percent level of confidence). The expanded uncertainty presented in this report is consistent with NIST Technical Note 1297. Stated uncertainties are less than 1/3 of the applicable tolerances.



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Certification Statement

Accredited by the National Institute of Standards and Technology (NIST) through the National Voluntary Laboratory Accreditation Program (NVLAP) for the specified scope of accreditation under lab code 200446-0. This laboratory meets the requirements of ISO/IEC 17025 and ANSI/NC SL Z540-1. This report may not be used to claim product endorsement by NVLAP or any other government agency, and may not be reproduced, except in full, without written approval from the laboratory.

I certify (or declare) under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Executed this 16th day of November at Tumwater, Thurston County, Washington

Dan Wright
 Dan Wright, State Metrologist