

Vermont Weights and Measures Metrology Laboratory
Test Report

Issued To:

Advanced Scales
13 Delta Drive Unit #6
Londonderry, NH 03053-2372
603-626-0242

Date of Receipt: May 26, 2018

Vermont Test Number: VT18-137

Date of Test: May 29, 2018

Report of Test for Item (Make/Model/Serial Number(s)/#Pieces):

Various/Cast Iron Field Standards/See Chart/21 Pieces

The mass standards described above have been compared to the standards of the State of Vermont, by NISTIR 6969, SOP 8 (2018), and have been found at time of test, or been adjusted, to meet the requirements stated in NIST Handbook 105-1 Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures (1990) (Class F). Standards of the state of Vermont are traceable to the SI and National Institute of Standards and Technology (NIST). The Vermont Laboratory is recognized by NIST, under the Laboratory Metrology Program at Mass Echelon III. The mass standards described above were found to have a mass value at the time of test as indicated in the following tabulation. Weights received in an out of tolerance condition show a value in the “before adjustment“ column.

The uncertainties shown are expressed as the sum of the following sources of inaccuracy; (1) Type B, systematic uncertainties relative to the reference standard and procedure used, and (2) Type A, random uncertainties determined by the standard deviation of the measurement process. Type A and Type B uncertainties are combined by the root sum squared method and multiplied by a coverage factor of k (in chart) for an approximate 95 % confidence interval.

Environmental conditions at time of test:

Temperature: 20.7 °C

Relative Humidity: 55.7 %

Barometric Pressure: 14.103 PSIA

Mass Comparator: MT XP604KM

Technician: Mike Larose, Scott Dolan



| Nominal & Marking | Before Adjustment | Conventional Mass Correction | Uncertainty | NIST Class F Tolerance | Units | k Factor |
|-------------------|-------------------|------------------------------|-------------|------------------------|-------|----------|
| 1000 lb 1NJM | 33.2 | 4.1 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJG | | 3.9 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJL | | 21.3 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJQ | | 25.6 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJP | | 23.0 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJF | | 14.4 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJI | 34.4 | 1.8 | 8.2 | 45 | g | 2.11 |
| 1000 lb 10 | | 15.3 | 8.2 | 45 | g | 2.11 |
| 1000 lb 13880 | | 31.7 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJD | | 20.9 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJK | | 1.9 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1388 | | 17.2 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJE | | 28.5 | 8.2 | 45 | g | 2.11 |
| 1000 lb 9 | | 12.9 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJC | | -24.7 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJJ | | 14.0 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJH | | 7.7 | 8.2 | 45 | g | 2.11 |
| 1000 lb 1NJN | | 25.5 | 8.2 | 45 | g | 2.11 |
| 1000 lb 10003 | 32.8 | 21.9 | 8.2 | 45 | g | 2.11 |
| 1000 lb 10004 | | -16.6 | 8.2 | 45 | g | 2.11 |
| 1000 lb 10002 | | -0.7 | 8.2 | 45 | g | 2.11 |

The following weights were adjusted: 3 - 1000 lb

Calibration Performed at:
322 Industrial Lane
Berlin, VT 05641

Additional documentation material available on request.

Scott Dolan
Digitally signed by Scott Dolan
DN: cn=Scott Dolan, o=State of Vermont Agency
of Agriculture Food & Markets, ou=Consumer
Protection Section,
email=scott.dolan@vermont.gov, c=US
Date: 2018.05.29 11:06:20 -04'00'

Scott Dolan/Vermont Agency of Agriculture
Consumer Protection Section/Metrologist
Consumer Protection Specialist

End of Report