

Vermont Weights and Measures Metrology Laboratory
Test Report

Issued To:

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

Date of Receipt: March 23, 2018

Vermont Test Number: VT18-71

Date of Test: March 26, 2018

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

Varios/Cast Iron Field Standards/See Chart/47 - 50 lb, 10 - 25 lb

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: 20.4 °C

Relative Humidity: 58.4 %

Barometric Pressure: 14.434 PSIA

Mass Comparator: MT XP64003L

Technician: Marc Paquette, Mike Larose



Nominal & Marking	Before Adjustment	Conventional Mass Correction	Uncertainty	NIST Class F Tolerance	Units	<i>k</i> Factor
50 lb - 200		-209	87	2300	mg	2.03
50 lb - 201		-369	87	2300	mg	2.03
50 lb - 202		-804	87	2300	mg	2.03
50 lb - 203		-199	87	2300	mg	2.03
50 lb - 204		-844	87	2300	mg	2.03
50 lb - 205		-529	87	2300	mg	2.03
50 lb - 206		701	87	2300	mg	2.03
50 lb - 207		-1209	87	2300	mg	2.03
50 lb - 208		211	87	2300	mg	2.03
50 lb - 209		-19	87	2300	mg	2.03
50 lb - 210		1311	87	2300	mg	2.03
50 lb - 211		-139	87	2300	mg	2.03
50 lb - 212	-24449	141	87	2300	mg	2.03
50 lb - 213		-1834	87	2300	mg	2.03
50 lb - 214		-49	87	2300	mg	2.03
50 lb - 215		-634	87	2300	mg	2.03
50 lb - 216		-1524	87	2300	mg	2.03
50 lb - 217		-19	87	2300	mg	2.03
50 lb - 218		-739	87	2300	mg	2.03
50 lb - 219		521	87	2300	mg	2.03
50 lb - 400		-39	87	2300	mg	2.03
50 lb - 401		6	87	2300	mg	2.03
50 lb - 402		1076	87	2300	mg	2.03
50 lb - 403		681	87	2300	mg	2.03
50 lb - 404	2156	636	87	2300	mg	2.03
50 lb - 405		411	87	2300	mg	2.03
50 lb - 406		-74	87	2300	mg	2.03
50 lb - 407		-649	87	2300	mg	2.03
50 lb - 408		61	87	2300	mg	2.03
50 lb - 409		-519	87	2300	mg	2.03
50 lb - 410		-409	87	2300	mg	2.03
50 lb - 411		1151	87	2300	mg	2.03
50 lb - 412		336	87	2300	mg	2.03
50 lb - 413		471	87	2300	mg	2.03
50 lb - 414		621	87	2300	mg	2.03
50 lb - 415		-754	87	2300	mg	2.03
50 lb - 416		-929	87	2300	mg	2.03
50 lb - 417		446	87	2300	mg	2.03
50 lb - 418		-1004	87	2300	mg	2.03
50 lb - 419		-494	87	2300	mg	2.03
50 lb - 420		1181	87	2300	mg	2.03
50 lb - 421		1186	87	2300	mg	2.03
50 lb - 422		1636	87	2300	mg	2.03
50 lb - 423		-1504	87	2300	mg	2.03
50 lb - 424		-514	87	2300	mg	2.03
50 lb - 425		-1319	87	2300	mg	2.03
50 lb - 426		1031	87	2300	mg	2.03
25 lb - 460		372	66	1100	mg	2.04

25 lb - 461		-84	66	1100	mg	2.04
25 lb - 462		-574	66	1100	mg	2.04
25 lb - 463	-999	-129	66	1100	mg	2.04
25 lb - 464	-1059	27	66	1100	mg	2.04
25 lb - 465		-759	66	1100	mg	2.04
25 lb - 466		-324	66	1100	mg	2.04
25 lb - 467	-1259	32	66	1100	mg	2.04
25 lb - 468		402	66	1100	mg	2.04
25 lb - 469		777	66	1100	mg	2.04

Additional documentation material available on request.

The following weights were adjusted: 3-25 lb and 2-50 lb weights adjusted.

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: 2018.03.26 13:07:32 -04'00'

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

End of Report