VERMONT

Food Safety & Consumer Protection Div [phone] 802-828-2426 *Agency of Agriculture Food & Markets*
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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 25, 2022
Vermont Test Number: VT22-106
Date of Test: March 28, 2022
Report of Test for Item (Make/Model/Serial Number(s)/#Pieces):

Various/50 lb & 25 lb Cast 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 (2019), and have been found at time of test, or been adjusted, to meet the maxium permissible errors stated in ASTM E617-18 Standard Specification for Laboratory Weights and Precision Mass Standards. 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 are considered within the MPE when the absolute value of the conventional mass correction plus the uncertainty is less than or equal to the specified MPE. Weights received with a conventional mass outside the MPE 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: 22.1 ºC to 22.2 ºC
Relative Humidity: 44.1 % to 45.4 %
Barometric Pressure: 718.20 mmHg to 718.30 mmHg
Mass Comparator: MT XP64003L
Technician: Scott, Sumner, Ryan

Nominal & Marking	Conventional Mass Correction Before Adjustment	Conventional Mass Correction As Left	Uncertainty	ASTM Class 6 MPE	Units	*k* Factor
50 lb 200		-1722	80	2300	mg	2.01
50 lb 201	-3822	-72	80	2300	mg	2.01
50 lb 202		-1137	80	2300	mg	2.01
50 lb 203		-347	80	2300	mg	2.01
50 lb 204	-2937	-82	80	2300	mg	2.01
50 lb 205	-3132	-27	80	2300	mg	2.01
50 lb 206	-2532	-57	80	2300	mg	2.01
50 lb 207	-2722	353	80	2300	mg	2.01
50 lb 208		-107	80	2300	mg	2.01
50 lb 209		133	80	2300	mg	2.01
50 lb 210	-3007	18	80	2300	mg	2.01
50 lb 211	-2302	-52	80	2300	mg	2.01
50 lb 212		-482	80	2300	mg	2.01
50 lb 213		-1427	80	2300	mg	2.01
50 lb 214		-372	80	2300	mg	2.01
50 lb 215	-2422	28	80	2300	mg	2.01
50 lb 216		-1847	80	2300	mg	2.01
50 lb 217	-3777	243	80	2300	mg	2.01
50 lb 218		-1837	80	2300	mg	2.01
50 lb 219	-4582	168	80	2300	mg	2.01
50 lb 400		-1782	80	2300	mg	2.01
50 lb 401		-1667	80	2300	mg	2.01
50 lb 402		-1202	80	2300	mg	2.01
50 lb 403		-1147	80	2300	mg	2.01
50 lb 404	-2742	548	80	2300	mg	2.01
50 lb 405		-1402	80	2300	mg	2.01
50 lb 406		-1817	80	2300	mg	2.01
50 lb 407		-892	80	2300	mg	2.01
50 lb 408		-1232	80	2300	mg	2.01
50 lb 409		-1167	80	2300	mg	2.01
50 lb 410		-1062	80	2300	mg	2.01
50 lb 411		-987	80	2300	mg	2.01
50 lb 412		-1367	80	2300	mg	2.01
50 lb 413		-97	80	2300	mg	2.01
50 lb 414		-1122	80	2300	mg	2.01
50 lb 415	-2937	-472	80	2300	mg	2.01
50 lb 416		-27	80	2300	mg	2.01
50 lb 417		-542	80	2300	mg	2.01
50 lb 418		-792	80	2300	mg	2.01
50 lb 419		-1507	80	2300	mg	2.01
50 lb 420		-652	80	2300	mg	2.01
50 lb 421		-637	80	2300	mg	2.01
50 lb 422		-1607	80	2300	mg	2.01
50 lb 423		358	80	2300	mg	2.01
50 lb 424		-1557	80	2300	mg	2.01

50 lb 425		-1467	80	2300	mg	2.01
50 lb 426		-712	80	2300	mg	2.01
25 lb 460		312	40	1100	mg	2.02
25 lb 461		-543	40	1100	mg	2.02
25 lb 462		-78	40	1100	mg	2.02
25 lb 463	-1028	267	40	1100	mg	2.02
25 lb 464	-978	-198	40	1100	mg	2.02
25 lb 465		-73	40	1100	mg	2.02
25 lb 466		-433	40	1100	mg	2.02
25 lb 467		-238	40	1100	mg	2.02
25 lb 468		-113	40	1100	mg	2.02
25 lb 469		-413	40	1100	mg	2.02

MPE: Maximum Permissible Error

In addition to meeting ASTM E617-18 Class 6 MPE, all standard also meet NIST Class F Tolerance requirements.

The following weights were adjusted: 201, 204, 205, 206, 207, 210, 211, 215, 217, 219, 404, 415, 463, 464

Calibration Performed at:
163 Admin Drive
Randolph Center, VT 05061

Additional documentation material available on request.

Scott Dolan Digitally signed by Scott Dolan
Date: 2022.03.28 14:24:29 -04'00'

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

End of Report