



Receipt Date: February 27, 2017
Cal. Date: March 2, 2017
Report Date: March 2, 2017

Report No.: 337336
Set Serial No.: None
Barcode: 201064

Calibration Certificate

CLOVERDALE FOODS COMPANY
3015 34TH ST NW
MANDAN, ND 58554
Contact: GENE KEELER
Phone: 701-663-9511
PO Number: NONE
SOP: 8
Technician ID: 11

Item(s) Submitted: Cast Cube Weights
Manufacturer: Rice Lake & Toledo
Weight Type: II
Equipment ID: None
Condition: Good
Temperature: 19.9 °C
Pressure: 745.9 mmHg
Relative Humidity: 49.9 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-1 Class		k	U (g)
		As Found	As Left	As Found	As Left		
500 lb	Rice Lake	4.01	4.01	F	F	2.01	0.90
500 lb	Toledo	-20.79	-20.79	F	F	2.01	0.90

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (*k*) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Pete Whebbe

Pete Whebbe
Metrologist

Reviewed by:

Erik Alfvin

Erik Alfvin
Metrologist



Receipt Date: February 27, 2017 & March 27, 2017
 Cal. Date: March 2, 2017 & April 13, 2017
 Report Date: April 13, 2017

Report No.: 337337
 Set Serial No.: None
 Barcode: 201065

Calibration Certificate

CLOVERDALE FOODS COMPANY
 3015 34TH ST NW
 MANDAN, ND 58554
 Contact: GENE KEELER
 Phone: 701-663-9511
 PO Number: NONE
 SOP: 8
 Technician ID: 11

Item(s) Submitted: Cast Hand Weights
 Manufacturer: Rice Lake
 Weight Type: II
 Equipment ID: None
 Condition: Good
 Temperature: 20.9 °C
 Pressure: 745.3 mmHg
 Relative Humidity: 49.6 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
FIRST SHIPMENT							
50 lb		1830	1830	F	F	2.01	56
50 lb		1240	1240	F	F	2.01	56
20 lb		-11	-11	F	F	2.01	52
20 lb		719	719	F	F	2.01	52
20 lb		449	449	F	F	2.01	52
20 lb		189	189	F	F	2.01	52
20 lb		279	279	F	F	2.01	52
SECOND SHIPMENT							
50 lb		1470	1470	F	F	2.01	56
20 lb		545	545	F	F	2.11	52
20 lb		665	665	F	F	2.11	52

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (k) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Pete Whebbe

 Metrologist

Reviewed by:
 Erik Alfvén

 Metrologist



Receipt Date: February 27, 2017
Cal. Date: March 1, 2017
Report Date: March 1, 2017

Report No.: 337333
Set Serial No.: None
Barcode: 202016

Calibration Certificate

CLOVERDALE FOODS COMPANY
3015 34TH ST NW
MANDAN, ND 58554
Contact: Gene Keeler
Phone: 701-663-9511
PO Number: None
SOP: 8
Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - F
Manufacturer: Rice Lake
Weight Type: II
Equipment ID: None
Condition: Fair
Temperature: 20.4 °C
Pressure: 735.6 mmHg
Relative Humidity: 41.4 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb		3	3	F	F	2.01	12
10 lb		-149	-149	F	F	2.01	12
5 lb		57.4	57.4	F	F	2.01	6.0
2 lb		35.9	35.9	F	F	2.02	3.1
1 lb		16.4	16.4	F	F	2.01	1.6

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (*k*) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Erik Alfvín

Metrologist

Reviewed by:

Mark Nicollet

Quality Manager



Receipt Date: February 27, 2017
Cal. Date: March 1, 2017
Report Date: March 1, 2017

Report No.: 337334
Set Serial No.: None
Barcode: 201752

Calibration Certificate

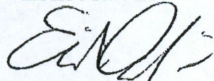
CLOVERDALE FOODS COMPANY
3015 34TH ST NW
MANDAN, ND 58554
Contact: Gene Keeler
Phone: 701-663-9511
PO Number: None
SOP: 8
Technician ID: 19

Item(s) Submitted: AVDP Weight Set - ASTM
Manufacturer: Unknown
Weight Type: II
Equipment ID: None
Condition: Good/Fair
Temperature: 20.4 °C
Pressure: 736.0 mmHg
Relative Humidity: 40.5 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb		49	49	4	4	2.01	12
5 .. lb		51.4	51.4	5	5	2.01	6.0
5 lb	1	58.4	58.4	5	5	2.01	6.0
5 lb	2	-17.6	-17.6	4	4	2.01	6.0
5 lb		-2.6	-2.6	4	4	2.01	6.0
2 lb	0161	43.2	43.2	6	6	2.02	3.1
2 lb		5.3	5.3	4	4	2.02	3.1
2 lb		23.7	23.7	5	5	2.02	3.1
2 lb		44.3	44.3	6	6	2.02	3.1
2 lb		19.5	19.5	5	5	2.02	3.1

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to ASTM E617 (2013). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (*k*) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.


Erik Alfvín



Metrologist

Reviewed by:

Mark Nicollet



Quality Manager



Receipt Date: March 27, 2017
Cal. Date: April 13, 2017
Report Date: April 13, 2017

Report No.: 337581
Set Serial No.: Indv. & None
Barcode: 203205

Calibration Certificate

CLOVERDALE FOODS COMPANY
3015 34TH ST NW
MANDAN, ND 58554
Contact: GENE KEELER
Phone: 701-663-9511
PO Number: None
Procedure: NIST SOP 8
Technician ID: 19

Item(s) Submitted: AVDP Weights - ASTM
Manufacturer: Assorted
Weight Type: II
Equipment ID: None
Condition: Fair/Dirty
Temperature: 19.5 °C
Pressure: 744.7 mmHg
Relative Humidity: 53.4 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb	.	89	89	5	5	2.01	12
10 lb	01	-2299	-2299	*	**	2.01	12
10 lb	1	109	109	5	5	2.01	12
10 lb	3	123	123	5	5	2.01	12
5 lb	.	-33.6	-33.6	4	4	2.01	6.0
5 lb	96	-342.6	-342.6	7	7	2.01	6.0
5 lb	.	-8.6	-8.6	4	4	2.01	6.0
5 lb	.	-2010.6	-2010.6	*	**	2.01	6.0
2 lb	.	-32.0	-32.0	5	5	2.02	3.1
2 lb	.	18.1	18.1	5	5	2.02	3.1
2 lb	...	9.4	9.4	4	4	2.02	3.1
2 lb	6355	33.5	33.5	5	5	2.02	3.1
1 lb	.	29.7	29.7	6	6	2.01	1.6
1 lb	.	28.3	28.3	6	6	2.01	1.6
1 lb	.	-20.3	-20.3	5	5	2.01	1.6
8 oz	.	-16.6	-16.6	6	6	2.01	1.3

* Weight(s) as found exceed largest ASTM Tolerance Class.

** Weight(s) as left exceed largest ASTM Tolerance Class and have been rejected. Existing plated steel weights may be used until they are found out of tolerance, at which point they are taken out of service.

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to ASTM E617 (2013). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (k) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Erik Alfvín

Metrologist

Reviewed by:

Pete Whebbe

Metrologist



Receipt Date: February 27, 2017
Cal. Date: March 2, 2017
Report Date: March 2, 2017

Report No.: 337335
Set Serial No.: None
Barcode: 201059

Calibration Certificate

CLOVERDALE FOODS COMPANY
3015 34TH ST NW
MANDAN, ND 58554
Contact: GENE KEELER
Phone: 701-663-9511
PO Number: NONE
SOP: 8
Technician ID: 11

Item(s) Submitted: 50 lb Weight Kit
Manufacturer: Rice Lake, Troemner
Weight Type: II
Equipment ID: None
Condition: Fair
Temperature: 19.9 °C
Pressure: 746.5 mmHg
Relative Humidity: 43.5 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb		-27	-27	F	F	2.01	12
10 lb		-80	-80	F	F	2.01	12
10 lb	2	87	87	F	F	2.01	12
5 lb		19.4	19.4	F	F	2.01	6.0
5 lb		11.4	11.4	F	F	2.01	6.0
5 lb		23.4	23.4	F	F	2.01	6.0
1 lb		14.2	14.2	F	F	2.01	1.6
1 lb	0480	46.4	46.4	F	F	2.01	1.6
1 lb	2	23.3	23.3	F	F	2.01	1.6
1 lb	3	15.6	15.6	F	F	2.01	1.6
1 lb	5	18.8	18.8	F	F	2.01	1.6
0.5 lb		-1.5	-1.5	F	F	2.02	1.3
4 oz	3	6.64	6.64	F	F	2.00	0.22

The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm³ density and an air density of 1.2 mg/cm³ at 20 °C. The items listed above have been calibrated using the Standards of the State of Minnesota which are currently in control. These standards are traceable to the SI through NIST. Calibration processes were monitored and found to be in control. All of the tolerances and specifications were evaluated according to NIST Handbook 105-1 (1990). Uncertainty calculations contain the components in NIST SOP 8 and conform to the ISO/IEC Guide to the Expression of Uncertainty in Measurement (2008), including coverage factors (k) calculated at the approximate 95.45 % confidence level. Results apply to items identified in this report only.

Pete Whebbe

Metrologist

Reviewed by:

Mark Nicollet

Quality Manager

United States Department of Commerce

National Institute of Standards and Technology

Certificate of Metrological Traceability For:

Minnesota

This laboratory has demonstrated evidence of an unbroken chain of metrological traceability of its standards to the international system of units (SI), documented measurement uncertainties, uses documented measurement procedures, successfully completed training and proficiency tests, documented calibration intervals, submitted a quality management system, and demonstrated suitable measurement assurance for the Scope listed on this certificate.


The Office of Weights and Measures Program assesses laboratories to NIST Handbook 143 - Program Handbook for State Weights and Measures Laboratories and ISO/IEC 17025:2005.

Scope

Mass Echelon I 10 kg to 1 mg	Mass Echelon III 50 kg to 1 mg 5000 lb to 0.001 lb	Volume Gravimetric, I 20 L to 10 mL 100 gal to 0.25 qt
Mass Echelon II 50 kg to 1 mg 1000 lb to 0.001 lb 4 oz to 0.03125 oz	Weight Carts 10 000 lb to 2000 lb	Volume Transfer, II 1500 gal to 5 gal 100 gal to 25 gal LPG
	Wheel Load Weighers 20 000 lb to 2000 lb	
	Railroad Test Cars 110 000 lb to 80 000 lb	



2017


Georgia L. Harris, Acting Chief
NIST Office of Weights and Measures

Effective Dates: 2017-01-01 to 2017-12-31

Amended: 2016-12-31
Scope modified for 2017.