



Receipt Date: March 28, 2019  
Cal. Date: April 3 & 24, 2019  
Certificate Date: April 24, 2019

Certificate No.: 340904  
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  
Procedure: NIST SOP 8 (2018)  
Technician ID: 11

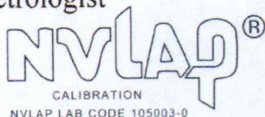
Item(s) Submitted: Cast Cube Weights  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 22.1 °C  
Pressure: 736.4 mmHg  
Relative Humidity: 48.3 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-1 Class		k	U (g)
		As Received	As Left	As Received	As Left		
500 lb	Toledo	18.9	18.9	F	F	2.11	2.0
500 lb	Rice Lake	-2.1	-2.1	F	F	2.11	2.0

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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) and MN SAP 20. 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 only apply to items identified in this certificate.

Pete Whebbe

Metrologist



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Reviewed by:

Anna Pierce

Metrologist

Receipt Date: March 28, 2019  
Cal. Date: April 3-25-29,2019  
Certificate Date: April 29, 2019

Certificate No.: 340902  
Set Serial No.: Individual/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  
Procedure: NIST SOP 8 (2018)  
Technician ID: 11

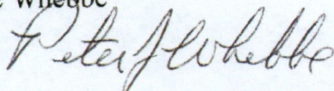
Item(s) Submitted: Cast Hand Weights  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 21.9 °C  
Pressure: 737.5 mmHg  
Relative Humidity: 47.3 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
<b>First Shipment 4-3-2019</b>							
20 lb		378	378	F	F	2.03	61
20 lb		-22	-22	F	F	2.03	61
20 lb		78	78	F	F	2.03	61
20 lb		708	708	F	F	2.03	61
50 lb		1670	1670	F	F	2.03	130
50 lb	C50-28	2360	110	*	F	2.03	130
50 lb	C50-3	1240	1240	F	F	2.03	130
50 lb	C50-1	1280	1280	F	F	2.03	130
<b>Second Shipment 4-25 &amp; 29, 2019</b>							
20 lb		738	738	F	F	2.03	61
20 lb		1028	98	*	F	2.03	61
20 lb		908	88	*	F	2.03	61
25 lb	SS/W-25-2	976	536	F	F	2.03	70
25 lb	Cast/C25-2	-204	-204	F	F	2.03	70
50 lb		2650	640	*	F	2.03	130
50 lb		2190	730	*	F	2.03	130
50 lb	C50-4	1850	1850	F	F	2.03	130
50 lb	C50-2	1280	1280	F	F	2.03	130

Weight(s) as received (\*) exceed NIST HB105-1 class F tolerance.

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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) and MN SAP 20. 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 only apply to items identified in this certificate.


Pete Whebbe



Metrologist

Reviewed by:

Erik Alfvin



Metrologist



Receipt Date: March 28, 2019  
Cal. Date: April 3, 2019  
Certificate Date: April 3, 2019

Certificate No.: 340900  
Set Serial No.: None  
Barcode: 201059

## Calibration Certificate

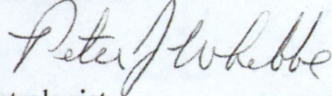
CLOVERDALE FOODS COMPANY  
3015 34TH ST NW  
MANDAN, ND 58554  
Contact: GENE KEELER  
Phone: 701-663-9511  
PO Number: NONE  
Procedure: NIST SOP 8 (2018)  
Technician ID: 11

Item(s) Submitted: 50 lb Weight Kit  
Manufacturer: Rice Lake, Troemner  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 20.9 °C  
Pressure: 742.3 mmHg  
Relative Humidity: 49.4 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
10 lb		-90	-90	F	F	2.03	11
10 lb		-7	-7	F	F	2.03	11
10 lb		91	91	F	F	2.03	11
5 lb		18.0	18.0	F	F	2.03	5.5
5 lb		19.6	19.6	F	F	2.03	5.5
5 lb		-39.0	-39.0	F	F	2.03	5.5
1 lb		24.8	24.8	F	F	2.03	1.1
1 lb		13.3	13.3	F	F	2.03	1.1
1 lb	2	23.3	23.3	F	F	2.03	1.1
1 lb	3	16.4	16.4	F	F	2.03	1.1
1 lb	5	18.5	18.5	F	F	2.03	1.1
0.5 lb		-8.20	-8.20	F	F	2.03	0.61
4 oz	3	6.43	6.43	F	F	2.05	0.29

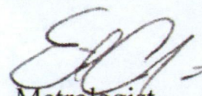
The resulting tolerance class of the weight is determined by combining the correction of the weight and the uncertainty of the measurement. The corrections given above correlate to a conventional mass scale versus 8.0 g/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> at 20 °C. The 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) and MN SAP 20. 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 only apply to items identified in this certificate.

Pete Whebbe



Metrologist

Reviewed by:  
Erik Alfvin



Metrologist



Receipt Date: April 22, 2019  
Cal. Date: April 24, 2019  
Certificate Date: April 24, 2019

Certificate No.: 341013  
Set Serial No.: Individual/ 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 (2018)  
Technician ID: 20

Item(s) Submitted: AVDP Weights  
Manufacturer: R.L., Troemner & Unknown  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 22.3 °C  
Pressure: 733.0 mmHg  
Relative Humidity: 47.7 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
10 lb		-27	-27	4	4	2.03	11
10 lb		-142	-142	5	5	2.03	11
10 lb	Cast B-3	18	18	6	6	2.03	11
5 lb		5.4	5.4	4	4	2.03	5.5
5 lb		15.1	15.1	4	4	2.03	5.5
5 lb	1	29.0	29.0	4	4	2.03	5.5
5 lb	2	-12.1	-12.1	4	4	2.03	5.5
5 lb	9	43.9	43.9	5	5	2.03	5.5
5 lb	10	68.7	68.7	5	5	2.03	5.5
5 lb	4	-9.8	-9.8	4	4	2.03	5.5
5 lb	5-18	-123.2	-123.2	6	6	2.03	5.5
5 lb	5-3	15.6	15.6	4	4	2.03	5.5
5 lb	5-4	31.5	31.5	4	4	2.03	5.5
5 lb	plated	18.3	18.3	6	6	2.03	5.5
5 lb	plated	-80.7	-80.7	6	6	2.03	5.5
5 lb	96	-288.9	-70.1	7	6	2.03	5.5
2 lb		13.9	13.9	4	4	2.03	2.2
2 lb		45.6	45.6	6	6	2.03	2.2
2 lb		15.6	15.6	4	4	2.03	2.2
2 lb		26.5	26.5	5	5	2.03	2.2
2 lb		8.3	8.3	4	4	2.03	2.2
2 lb		29.1	29.1	5	5	2.03	2.2
2 lb		9.6	9.6	4	4	2.03	2.2
2 lb		41.2	41.2	5	5	2.03	2.2
2 lb		7.0	7.0	4	4	2.03	2.2
2 lb	SN2A	-1.3	-1.3	4	4	2.03	2.2
2 lb	6355	27.7	27.7	5	5	2.03	2.2
2 lb	plated	-48.5	-48.5	6	6	2.03	2.2
1 lb		-20.9	-20.9	5	5	2.03	1.1
1 lb		8.7	8.7	5	5	2.03	1.1

Receipt Date: April 22, 2019  
Cal. Date: April 24, 2019  
Certificate Date: April 24, 2019

Certificate No.: 341013  
Set Serial No.: Individual/ None  
Barcode: 203205

Continued,

## 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 (2018)  
Technician ID: 20

Item(s) Submitted: AVDP Weights  
Manufacturer: R.L., Troemner & Unknown  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 22.3 °C  
Pressure: 733.0 mmHg  
Relative Humidity: 47.7 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
1 lb	0480	24.9	24.9	5	5	2.03	1.1
1 lb		29.5	29.5	6	6	2.03	1.1
1 lb		-0.1	-0.1	4	4	2.03	1.1
8 oz		-3.20	-3.20	4	4	2.03	0.61

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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 (2018) and MN SAP 20. 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 only apply to items identified in this certificate.

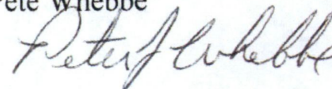
Anna Pierce



Metrologist

Reviewed by:

Pete Whebbe



Metrologist

Receipt Date: March 28, 2019  
Cal. Date: April 3, 2019  
Certificate Date: April 3, 2019

Certificate No.: 340903  
Set Serial No.: None/Individual  
Barcode: 201078

## 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 (2018)  
Technician ID: 11

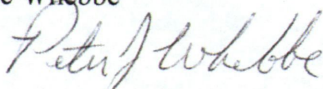
Item(s) Submitted: Assorted Cylinder Weights  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 20.6 °C  
Pressure: 741.8 mmHg  
Relative Humidity: 46.1 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
10 lb	2	65	65	4	4	2.03	11
5 lb	11	144.2	144.2	6	6	2.03	5.5
5 lb	2	-11.6	-11.6	4	4	2.03	5.5
5 lb		73.4	73.4	5	5	2.03	5.5
5 lb		-938.5	43.6	*	5	2.03	5.5
2 lb	Plated	3.1	3.1	6	6	2.03	2.2
2 lb	0161	43.5	43.5	6	6	2.03	2.2
2 lb		-29.7	-29.7	5	5	2.03	2.2
2 lb		22.2	22.2	5	5	2.03	2.2
2 lb		18.6	18.6	5	5	2.03	2.2
2 lb		19.1	19.1	5	5	2.03	2.2
2 lb		37.9	37.9	5	5	2.03	2.2
2 lb		-6.8	-6.8	4	4	2.03	2.2

Weight(s) as received (\*) exceed ASTM E617 class 7 tolerance.

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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 (2018) and MN SAP 20. 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 only apply to items identified in this certificate.

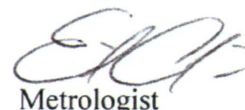
Pete Whebbe



Metrologist

Reviewed by:

Erik Alfvén



Metrologist



Receipt Date: April 22, 2019  
Cal. Date: April 24, 2019  
Certificate Date: April 24, 2019

Certificate No.: 341015  
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  
Procedure: NIST SOP 8 (2018)  
Technician ID: 20

Item(s) Submitted: AVDP Weight Set  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 22.2 °C  
Pressure: 732.2 mmHg  
Relative Humidity: 48.7 %

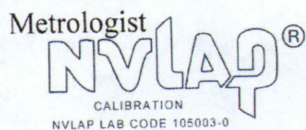
Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
10 lb	1	111	111	F	F	2.03	11
10 lb	3	109	109	F	F	2.03	11
5 lb		53.5	53.5	F	F	2.03	5.5
2 lb		32.0	32.0	F	F	2.03	2.2
1 lb		15.5	15.5	F	F	2.03	1.1

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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) and MN SAP 20. 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 only apply to items identified in this certificate.

Reviewed by:  
Pete Whebbe

*Peter J. Whebbe*  
Metrologist

Anna Pierce



Receipt Date: April 22, 2019  
Cal. Date: April 24, 2019  
Certificate Date: April 24, 2019

Certificate No.: 341014  
Set Serial No.: None  
Barcode: 203352

## 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 (2018)  
Technician ID: 20

Item(s) Submitted: Metric Weights  
Manufacturer: Rice Lake & Ohaus  
Weight Type: I & II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 22.0 °C  
Pressure: 731.7 mmHg  
Relative Humidity: 48.4 %

Nominal Value	Serial No.	<u>CM Correction (mg)</u>		<u>ASTM E617 Class</u>		k	U (mg)
		As Received	As Left	As Received	As Left		
200 g		6.76	6.76	5	5	2.04	0.50
100 g		-7.43	-7.43	5	5	2.04	0.25
10 g		-2.523	-2.523	7	7	2.04	0.065
10 g		2.483	2.483	7	7	2.04	0.065
2 g		-1.368	-1.368	6	6	2.03	0.032

**\*\* 10 g weights shall not be used for commercial use.**

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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 (2018) and MN SAP 20. 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 only apply to items identified in this certificate.

Anna Pierce

Metrologist

Reviewed by:  
Erik Alfvin

Metrologist



Receipt Date: March 28, 2019  
Cal. Date: April 3, 2019  
Certificate Date: April 3, 2019

Certificate No.: 340901  
Set Serial No.: None  
Barcode: 203377

## Calibration Certificate

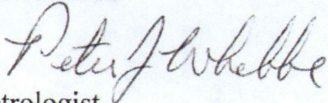
CLOVERDALE FOODS COMPANY  
3015 34TH ST NW  
MANDAN, ND 58554  
Contact: GENE KEELER  
Phone: 701-663-9511  
PO Number: NONE  
Procedure: NIST SOP 8 (2018)  
Technician ID: 11

Item(s) Submitted: Plated & SS Metric Weight Set  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Acceptable  
Temperature: 20.7 °C  
Pressure: 742.2 mmHg  
Relative Humidity: 47.2 %


Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Received	As Left	As Received	As Left		
200 . g	6	7.64	7.64	5	5	2.04	0.50
100 g		0.74	0.74	6	6	2.04	0.25
10 g		0.594	0.594	6	6	2.04	0.065
10 g		0.836	0.836	6	6	2.04	0.065
2 g		-1.679	-1.679	6	6	2.03	0.032

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/cm<sup>3</sup> density and an air density of 1.2 mg/cm<sup>3</sup> 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 (2018) and MN SAP 20. 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 only apply to items identified in this certificate.

Pete Whebbe

  
Metrologist

Reviewed by:  
Erik Alfvín

  
Metrologist

# 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	Mass Echelon III	Volume Gravimetric, I
20 kg to 1 mg	50 kg to 1 mg	20 L to 10 mL
Mass Echelon II	5000 lb to 0.001 lb	100 gal to 0.25 gal
5 kg to 1 mg	4 oz to 0.03125 oz	Volume Transfer, II
1000 lb to 250 lb	Weight Carts	1500 gal to 5 gal
50 lb to 0.001 lb	5 000 lb to 2000 lb	Volume Transfer, II LPG
	Wheel Load Weighers	200 gal to 25 gal
	12 000 lb to 2000 lb	
	Railroad Test Cars/Carts	
	110 000 lb to 80 000 lb	
	10 000 lb to 8 000 lb	



2019

*Douglas A. Olson*

Douglas A. Olson, Chief  
NIST Office of Weights and Measures

Effective Dates: 2019-01-01 to 2020-02-01