



Receipt Date: June 14, 2016
Cal. Date: June 28, 2016
Report Date: June 28, 2016

Report No.: 336083
Set Serial No.: Fargo Weight Set #2
Barcode: 201683

Calibration Certificate

NORTH COUNTRY BUSINESS PRODUCTS
4624 AMBER VALLEY PARKWAY
FARGO, ND 58104
Contact: Carol Braun
Phone: 218-722-3528
PO Number: None
SOP: 8
Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - F
Manufacturer: Rice Lake
Weight Type: I & II
Equipment ID: None
Condition: Good
Temperature: 21.2 °C
Pressure: 743.7 mmHg
Relative Humidity: 41.7 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
5 lb		-14	-14	F	F	2.03	12
5 lb		-9	-9	F	F	2.03	12
5 lb		-25	-25	F	F	2.03	12
5 lb		-14	-14	F	F	2.03	12
5 lb		-11	-11	F	F	2.03	12
1 lb		2.0	2.0	F	F	2.03	2.8
1 lb		-1.4	-1.4	F	F	2.03	2.8
1 lb		2.2	2.2	F	F	2.03	2.8
1 lb		-0.9	-0.9	F	F	2.03	2.8
1 lb		1.7	1.7	F	F	2.03	2.8
0.5 lb		2.8	2.8	F	F	2.03	2.3
0.2 lb		8.46	8.46	F	F	2.04	0.37
0.2 lb		11.02	11.02	F	F	2.04	0.37
0.1 lb		-1.92	-1.92	F	F	2.04	0.30
0.05 lb		2.91	2.91	F	F	2.04	0.30
0.02 lb		0.28	0.28	F	F	2.04	0.16
0.02 lb		0.44	0.44	F	F	2.04	0.16
0.01 lb		0.69	0.69	F	F	2.05	0.12



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 Barcode: 201683

Continued,

Calibration Certificate

NORTH COUNTRY BUSINESS PRODUCTS
 4624 AMBER VALLEY PARKWAY
 FARGO, ND 58104

Item(s) Submitted: AVDP Weight Kit - F
 Manufacturer: Rice Lake
 Weight Type: I & II
 Equipment ID: None
 Condition: Good
 Temperature: 21.2 °C
 Pressure: 743.7 mmHg
 Relative Humidity: 41.7 %

Contact: Carol Braun
 Phone: 218-722-3528
 PO Number: None
 SOP: 8
 Technician ID: 19

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
0.005 lb		0.35	0.35	F	F	2.04	0.10
0.002 lb		0.418	0.418	F	F	2.04	0.066
0.002 lb		0.308	0.308	F	F	2.04	0.066
0.001 lb		0.355	0.355	F	F	2.04	0.057

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 Alfvin

 Metrologist

Reviewed by:

Mark Nicollet

Quality Manager

Bismarck



14305 SOUTHCROSS DRIVE #150
BURNSVILLE, MN 55306-7008
MN.GOV/COMMERCE/
651.539.1555 FAX 651.539.1553
AN EQUAL OPPORTUNITY EMPLOYER

Receipt Date: June 29, 2016
Cal. Date: July 11, 2016
Report Date: July 11, 2016

Report No.: 336159
Set Serial No.: None
Barcode: 201687

Calibration Certificate

NORTH COUNTRY BUSINESS PRODUCTS
541 S AIRPORT RD
BISMARCK, ND 58504
Contact: Carol Braun
Phone: 218-722-3528
PO Number: None
SOP: 8
Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - F
Manufacturer: Rice Lake
Weight Type: I & II
Equipment ID: None
Condition: Good
Temperature: 21.3 °C
Pressure: 731.2 mmHg
Relative Humidity: 45.0 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
5 lb		-2	-2	F	F	2.03	12
5 lb		3	3	F	F	2.03	12
5 lb		11	11	F	F	2.03	12
5 lb		20.	20.	F	F	2.03	12
5 lb		-9	-9	F	F	2.03	12
1 lb		9.0	9.0	F	F	2.03	2.8
1 lb		6.2	6.2	F	F	2.03	2.8
1 lb		20.8	20.8	F	F	2.03	2.8
1 lb		25.0	25.0	F	F	2.03	2.8
1 lb		3.1	3.1	F	F	2.03	2.8
0.5 lb		13.3	13.3	F	F	2.03	2.3
0.2 lb		6.75	6.75	F	F	2.03	0.37
0.2 lb		8.28	8.28	F	F	2.03	0.37
0.1 lb		3.23	3.23	F	F	2.04	0.30
0.05 lb		1.47	1.47	F	F	2.04	0.30
0.02 lb		0.44	0.44	F	F	2.04	0.16
0.02 lb		0.38	0.38	F	F	2.04	0.16
0.01 lb		0.51	0.51	F	F	2.04	0.12



Receipt Date: June 29, 2016
 Cal. Date: July 11, 2016
 Report Date: July 11, 2016

Report No.: 336159
 Set Serial No.: None
 Barcode: 201687

Continued,

Calibration Certificate

NORTH COUNTRY BUSINESS PRODUCTS
 541 S AIRPORT RD
 BISMARCK, ND 58504
 Contact: Carol Braun
 Phone: 218-722-3528
 PO Number: None
 SOP: 8
 Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - F
 Manufacturer: Rice Lake
 Weight Type: I & II
 Equipment ID: None
 Condition: Good
 Temperature: 21.3 °C
 Pressure: 731.2 mmHg
 Relative Humidity: 45.0 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
0.005 lb		0.79	0.79	F	F	2.04	0.10
0.002 lb		0.408	0.408	F	F	2.04	0.066
0.002 lb		0.398	0.398	F	F	2.04	0.066
0.001 lb		0.405	0.405	F	F	2.04	0.057

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 Alfvin

 Metrologist

Reviewed by:
 Mark Nicollet

 Quality Manager

Belle Fourche



14305 SOUTHCROSS DRIVE #150
BURNSVILLE, MN 55306-7008
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651.539.1555 FAX 651.539.1553
AN EQUAL OPPORTUNITY EMPLOYER



Receipt Date: July 27, 2015
Test Date: October 7, 2015
Report Date: October 7, 2015

State Test No.: 334610
Set Serial No.: 1235
Barcode: 201270

Calibration Report

NORTH COUNTRY BUSINESS PRODUCTS
915 STANLEY
BELLE FOURCHE, SD 57717
Contact: CARIE LINDEMANN
Phone: 701-277-3231
PO Number: NONE
SOP: 12
Technician ID: 09

Item(s) Submitted: 30 lb. kit w/ decimals and fractions
Manufacturer: Troemner
ASTM E617 Type: I & II
Equipment ID#: None
Condition: Good
Temperature: 20.7 °C
Pressure: 743.1 mmHg
Relative Humidity: 47. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
5 lb		123	123	F	F	10.
5 lb		111	111	F	F	10.
5 lb		123	123	F	F	10.
5 lb		82	82	F	F	10.
5 lb		102	102	F	F	10.
1 lb		37.5	37.5	F	F	6.
1 lb		28.8	28.8	F	F	6.
1 lb		47.4	47.4	F	F	6.
1 lb		46.4	46.4	F	F	6.
1 lb		42.5	42.5	F	F	6.
0.2 lb		-0.92	-0.92	F	F	0.07
0.2 lb		4.09	4.09	F	F	0.07
0.1 lb		4.25	4.25	F	F	0.07
0.05 lb		0.27	0.27	F	F	0.07
0.02 lb		0.25	0.25	F	F	0.07
0.02 lb		0.45	0.45	F	F	0.07
0.01 lb		-0.28	-0.28	F	F	0.07
0.005 lb		0.58	0.58	F	F	0.07
0.002 lb		0.19	0.19	F	F	0.07
0.001 lb		-0.47	-0.47	F	F	0.07



Receipt Date: July 27, 2015
Test Date: October 7, 2015
Report Date: October 7, 2015

Continued,
State Test No.: 334610
Set Serial No.: 1235
Barcode: 201270

Calibration Report

NORTH COUNTRY BUSINESS PRODUCTS
915 STANLEY
BELLE FOURCHE, SD 57717
Contact: CARIE LINDEMANN
Phone: 701-277-3231
PO Number: NONE
SOP: 12
Technician ID: 09

Item(s) Submitted: 30 lb. kit w/ decimals and fractions
Manufacturer: Troemner
ASTM E617 Type: I & II
Equipment ID#: None
Condition: Good
Temperature: 20.7°C
Pressure: 743.1 mmHg
Relative Humidity: 47. %

Nominal Value	Serial No.	Correction (mg)		NIST HB105-1 Class		Unc. (mg) (k=2)
		As Found	As Left	As Found	As Left	
8 oz		24.5	24.5	F	F	6.
4 oz		6.27	6.27	F	F	0.07
2 oz		1.66	1.66	F	F	0.07
1 oz		2.08	2.08	F	F	0.07
1/2 oz		1.85	1.85	F	F	0.07
1/4 oz		1.37	1.37	F	F	0.07
1/8 oz		0.65	0.65	F	F	0.07
1/16 oz		0.24	0.24	F	F	0.07
1/32 oz		-0.03	-0.03	F	F	0.07
1/32 oz		-0.20	-0.20	F	F	0.07

When used as a set these weights meet 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/cm³ density and an air density of 1.2 mg/cm³. The items listed above have been compared to 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. Uncertainty calculations conform to NIST Technical Note 1297. Results apply to items identified in this report only.

Heidi Jones
Heidi Jones
Laboratory Administrator

Reviewed by:
Pete Whebbe
Peter J. Whebbe
Metrologist

Sioux Falls



1130S SOUTH CROSS DRIVE 450
 BURNING WOOD AVENUE 500
 MINN. GOV. COMMERCE 1
 605.339.1555 FAX 605.339.1553
 AN EQUAL OPPORTUNITY EMPLOYER

Receipt Date: June 20, 2016
 Cal. Date: June 28, 2016
 Report Date: June 28, 2016

Report No.: 336105
 Set Serial No.: None
 Barcode: 201261

Calibration Certificate

NORTH COUNTRY BUSINESS PRODUCTS
 1112 RAILROAD ST SE
 BEMIDJI, MN 56619-0910
 Contact: Carol Braun
 Phone: 218-722-3528
 PO Number: None
 SOP: 8
 Technician ID: 19

Item(s) Submitted: AVDP Weight Kit - F
 Manufacturer: Rice Lake
 Weight Type: I & II
 Equipment ID: None
 Condition: Good
 Temperature: 20.9 °C
 Pressure: 743.3 mmHg
 Relative Humidity: 40.9 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
5 lb		73	73	F	F	2.03	12
5 lb		106	106	F	F	2.03	12
5 lb		167	167	F	F	2.03	12
5 lb		79	79	F	F	2.03	12
5 lb		70.	70.	F	F	2.03	12
1 lb		23.0	23.0	F	F	2.03	2.8
1 lb		21.9	21.9	F	F	2.03	2.8
1 lb		26.1	26.1	F	F	2.03	2.8
1 lb		28.0	28.0	F	F	2.03	2.8
1 lb		21.8	21.8	F	F	2.03	2.8
0.5 lb		23.4	23.4	F	F	2.03	2.3
0.2 lb		11.64	11.64	F	F	2.04	0.37
0.2 lb		2.84	2.84	F	F	2.04	0.37
0.1 lb		1.09	1.09	F	F	2.04	0.30
0.05 lb		1.62	1.62	F	F	2.04	0.30
0.02 lb		0.23	0.23	F	F	2.04	0.16
0.02 lb		0.45	0.45	F	F	2.04	0.16
0.005 lb		0.21	0.21	F	F	2.04	0.10
0.002 lb		0.388	0.388	F	F	2.04	0.066
0.002 lb		0.168	0.168	F	F	2.04	0.066
0.001 lb		-0.075	-0.075	F	F	2.04	0.057

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 Allvin

 Metrologist

Reviewed by:
 Mark Nicolet

 Quality Manager