



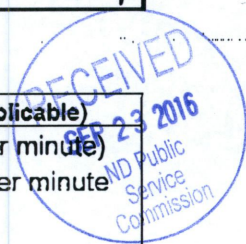
**APPLICATION FOR REGISTRATION AS A REGISTERED SERVICE COMPANY**  
 Public Service Commission  
 SFN 51277 (2/2014)

**TYPE OR PRINT - AN INCOMPLETE OR ILLEGIBLE APPLICATION WILL BE REJECTED**

Name of Company <b>Mindak Scale</b>	Email Address <b>Brad@MindakScale.com</b>	Application Date <b>9/23/16</b>	
Mailing Address <b>9628 Portal Dr.</b>	City <b>Eden Prairie</b>	State <b>Mn.</b>	Zip Code <b>55347</b>
Telephone Number <b>952-944-8916</b>	Cell Phone Number <b>612-834-0589</b>	Fax Number <b>952-944-8917</b>	

Select below all device types your company will certify:

Scales (include maximum capacity, if applicable)	Liquid (include maximum flow rate, if applicable)
<input checked="" type="checkbox"/> 1. Rail	<input type="checkbox"/> 1. Retail Fuel (less than 20 gal. per minute)
<input checked="" type="checkbox"/> 2. Truck	<input type="checkbox"/> 2. High Flow Retail Fuel (20 gal. per minute or greater)
<input checked="" type="checkbox"/> 3. Livestock	<input type="checkbox"/> 3. Vehicle Tank: Max. Flow Rate: _____
<input checked="" type="checkbox"/> 4. Hopper: Max. Capacity: _____	<input type="checkbox"/> 4. Stationary Bulk (fuel or oil): Max. Flow Rate: _____
<input type="checkbox"/> 5. Belt	<input type="checkbox"/> 5. LPG
<input checked="" type="checkbox"/> 6. Over 30 lbs.: Max. Capacity: _____	<input type="checkbox"/> 6. Stationary LPG
<input checked="" type="checkbox"/> 7. 30 lbs. or less	<input type="checkbox"/> 7. Fertilizer: Max. Flow Rate: _____
<input type="checkbox"/> 8. Class II (indicate on your calibration report which weight kit is Class II certified)	<input type="checkbox"/> 8. Chemical
<input type="checkbox"/> 9. Other: Please List:	<input type="checkbox"/> 9. Anhydrous
	<input type="checkbox"/> 10. Loading Rack
	<input type="checkbox"/> 11. Other: Please List:



List below all persons employed by your company as a North Dakota Registered Service Person and the device types they are registered to certify (attach a separate sheet to list additional employees):

Permit No.	Employee	Device Types Registered to Certify (list using device type numbers from above)
e.g. 1001	e.g. John Doe	e.g. Scales - 2, 3, 6, 8; e.g. Liquid - 1, 2, 6
<b>1435</b>	<b>Bradley S. Zarth</b>	<b>Scales 1, 2, 3, 4, 6, 7</b>

2 WM-16-434 Filed: 9/23/2016 Pages: 21  
 Application for permit

Continued on Page 2

Mindak Scale, L.L.C.

Application for Registration as a Registered Service Company  
Page 2

List below all field standards (attach current calibration reports):

2- 2000lb WT Carts	Metric wt set 5000g - 2, 2000,
1b - 1000lb Cube wts	1000, 500g
4 - 500lb Cube wts	Small Kit 4-8 lb 4-11b 2lb
50- 50lb wts 3-30lbs 2-20lb	
Rice Lake Fractional Kit, 001 lb - 10 lb	
Mixed Sets 2-500g, 8oz 1, 3, 2-2-5-10lb	
Troemner gram kit, 002 - 2000g	
Ratio wts kit Assorted Tip & Bull	
wts Fractional split kit weiss	

Additional Application Items (initial where appropriate):

Standardized Test Report	<input checked="" type="checkbox"/> Copy enclosed <b>Heavy</b> <input checked="" type="checkbox"/> No change in report filed previously <b>Lite</b>
Tested and Approved Sticker	<input checked="" type="checkbox"/> Copy enclosed <input checked="" type="checkbox"/> No change in sticker filed previously
Photocopy of Crimped Lead Wire Seal	<input checked="" type="checkbox"/> Copy enclosed <input checked="" type="checkbox"/> No change in crimped lead wire seal filed previously

Public Company Listing:

Include my company information on your registered service company list for public contact.  
 Yes     No

I am Bradley S. Zarth, and have authority to represent this company.  
 By signing this application, I declare that I have examined this form and accompanying documentation, and to the best of my knowledge and belief, the facts stated and documentation provided is true, correct, and complete.

Bradley S. Zarth  
Signature

Send Completed Application and Related Documents To:

Public Service Commission  
 600 E Boulevard Ave Dept 408  
 Bismarck ND 58505-0480  
 Telephone: (701) 328-2400  
 Fax: (701) 328-2410

North Dakota

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LEGENDARY

# SECRETARY OF STATE NORTH DAKOTA

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## MINDAK SCALE, L.L.C.

### Corporation Details

**System ID:** 18199000**Phone:** (952) 944-8916**Type:** FOREIGN LIMITED LIABILITY COMPANY**Status:** Active & Good Standing**Original File Date:** 06/24/2002**Effective Date:** 06/24/2002**State of Origin:** Minnesota

### Nature of Business

SALES/SERVICE/MAINTENANCE OF SCALES

### Principal Office

9628 PORTAL DR EDEN PRAIRIE, MN 55347-4231

### Registered Agent

**SEARCH COMPANY OF NORTH DAKOTA LLC**

1709 N 19TH ST STE 3

BISMARCK, ND 58501-2121

Established Date: Oct 10, 2008

### Generate an Annual Report To File

To Generate a Annual Report form to be filed with the Secretary of State, select the appropriate year of the report you intend to file. This report does not contain details of a report previously filed with the Secretary of State. The annual report years reflected are an indication of the various report forms available in this site and is not an indication that an entity needs to file reports for all years. Missing years indicate that the forms for the missing year have not yet been deployed to the website, or have already been removed, and can be obtained by contacting the Secretary of State.

[2015](#) [2016](#) (generates a forms-fillable pdf in a new pop-up window)[Return to Search Results](#)[Contact Us](#)[Disclaimer](#)[Privacy Policy](#)

We use Secure Sockets Layer (SSL) encryption technology to ensure your information is secure and protected.

Will open a new window (pop-up).

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Receipt Date: September 6, 2016  
Cal. Date: September 6, 2016  
Report Date: September 6, 2016

Report No.: 336449  
Set Serial No.: Baldor and B & D  
Barcode: 201440

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 11

Item(s) Submitted: Two 2000 lb Weight Carts  
Manufacturer: Howe  
Weight Type: NA  
Equipment ID: None  
Condition: Good  
Temperature: 20.2 °C  
Pressure: 736.2 mmHg  
Relative Humidity: 50.2 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-8 Tolerance		k	U (g)
		As Found	As Left	As Found	As Left		
2000 lb	B & D	112	112	Meets	Meets	2.08	60.
2000 lb	Baldor	262	-8	*	Meets	2.08	60.

\* Weight(s) as found exceed NIST HB105-8 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 105-8 (2003). 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.

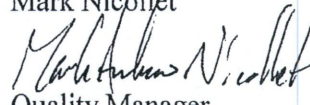
Pete Whebbe



Metrologist

Reviewed by:

Mark Nicollet



Quality Manager



Receipt Date: September 6, 2016  
Cal. Date: September 6, 2016  
Report Date: September 6, 2016

Report No.: 336448  
Set Serial No.: 1 thru 16  
Barcode: 201441

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 11

Item(s) Submitted: Cast Cube Weights  
Manufacturer: Howe, Cardinal, Webb  
Weight Type: II  
Equipment ID: None  
Condition: Good  
Temperature: 20.1 °C  
Pressure: 735.6 mmHg  
Relative Humidity: 51.2 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-1 Class		k	U (g)
		As Found	As Left	As Found	As Left		
1000 lb	1	-17.2	-17.2	F	F	2.01	2.0
1000 lb	2	-24.2	-24.2	F	F	2.01	2.0
1000 lb	3	9.8	9.8	F	F	2.01	2.0
1000 lb	4	-4.2	-4.2	F	F	2.01	2.0
1000 lb	5	14.8	14.8	F	F	2.01	2.0
1000 lb	6	-40.2	-40.2	F	F	2.01	2.0
1000 lb	7	-7.2	-7.2	F	F	2.01	2.0
1000 lb	8	-37.2	-37.2	F	F	2.01	2.0
1000 lb	9	-45.2	2.8	*	F	2.01	2.0
1000 lb	10	3.8	3.8	F	F	2.01	2.0
1000 lb	11	-19.2	-19.2	F	F	2.01	2.0
1000 lb	12	0.8	0.8	F	F	2.01	2.0
1000 lb	13	-32.2	-32.2	F	F	2.01	2.0
1000 lb	14	-6.2	-6.2	F	F	2.01	2.0
1000 lb	15	-30.2	-30.2	F	F	2.01	2.0
1000 lb	16	0.8	0.8	F	F	2.01	2.0

\* Weight(s) as found 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). 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



Receipt Date: September 6, 2016  
 Cal. Date: September 6, 2016  
 Report Date: September 6, 2016

Report No.: 336450  
 Set Serial No.: None  
 Barcode: 201412

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: BRAD ZARTH  
 Phone: 952-944-8916  
 PO Number: NONE  
 SOP: 8  
 Technician ID: 11

Item(s) Submitted: Cast Cube Weights  
 Manufacturer: Rice Lake  
 Weight Type: II  
 Equipment ID: None  
 Condition: Good  
 Temperature: 20.3 °C  
 Pressure: 736.1 mmHg  
 Relative Humidity: 50.8 %

Nominal Value	Serial No.	CM Correction (g)		NIST HB105-1 Class		k	U (g)
		As Found	As Left	As Found	As Left		
500 lb		-14.1	-14.1	F	F	2.01	1.6
500 lb		-7.5	-7.5	F	F	2.01	1.6
500 lb		-11.8	-11.8	F	F	2.01	1.6
500 lb		-4.6	-4.6	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/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). 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 J. Whebbe*  
 Metrologist

Reviewed by:  
 Mark Nicollet

*Mark Nicollet*  
 Quality Manager



Receipt Date: September 6, 2016  
Cal. Date: September 7, 2016  
Report Date: September 7, 2016

Report No.: 336455  
Set Serial No.: Individual/None  
Barcode: 201410

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 11

Item(s) Submitted: Cast Hand Weights  
Manufacturer: Howe & Assorted  
Weight Type: II  
Equipment ID: None  
Condition: Good  
Temperature: 20.2 °C  
Pressure: 736. mmHg  
Relative Humidity: 51.2 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
50 lb	518-59	520	520	F	F	2.01	120
50 lb	518-44	-1580	280	F	F	2.01	120
50 lb		2470	0	*	F	2.01	120
50 lb		1390	1390	F	F	2.01	120
50 lb		650	650	F	F	2.01	120
50 lb	518-24	90	90	F	F	2.01	120
50 lb	HR-C117	1070	1070	F	F	2.01	120
50 lb		1580	1580	F	F	2.01	120
50 lb	518-45	3050	330	*	F	2.01	120
50 lb	518-26	810	810	F	F	2.01	120
50 lb	HR-C115	1150	1150	F	F	2.01	120
50 lb		1100	1100	F	F	2.01	120
50 lb		2260	210	*	F	2.01	120
50 lb	518-57	-1000	-1000	F	F	2.01	120
50 lb		2440	1010	*	F	2.01	120
50 lb	518-56	-80	-80	F	F	2.01	120
50 lb		1170	1170	F	F	2.01	120
50 lb		2470	100	*	F	2.01	120
50 lb		640	640	F	F	2.01	120
50 lb	518-40	1540	1540	F	F	2.01	120
50 lb		1220	1220	F	F	2.01	120
50 lb		2790	90	*	F	2.01	120
50 lb		-330	-330	F	F	2.01	120
50 lb	HR-C112	2390	-80	*	F	2.01	120
50 lb		2420	110	*	F	2.01	120
50 lb		2770	-50	*	F	2.01	120
50 lb	518-49	2270	240	*	F	2.01	120
50 lb		2110	2110	F	F	2.01	120
50 lb	518-07	870	870	F	F	2.01	120
50 lb		-260	-260	F	F	2.01	120



Receipt Date: September 6, 2016  
 Cal. Date: September 7, 2016  
 Report Date: September 7, 2016

Report No.: 336451  
 Set Serial No.: Individual/None  
 Barcode: 201411

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: BRAD ZARTH  
 Phone: 952-944-8916  
 PO Number: NONE  
 SOP: 8  
 Technician ID: 11

Item(s) Submitted: Cast Hand Weights  
 Manufacturer: Assorted  
 Weight Type: II  
 Equipment ID: None  
 Condition: Good  
 Temperature: 20.5 °C  
 Pressure: 735.9 mmHg  
 Relative Humidity: 51.5 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
50 lb		-340	-340	F	F	2.01	120
50 lb		-2500	50	*	F	2.01	120
50 lb	518-46	-2620	150	*	F	2.01	120
50 lb		-1180	-1180	F	F	2.01	120
50 lb		-700	-700	F	F	2.01	120
50 lb	518-38	50	50	F	F	2.01	120
50 lb		1970	1970	F	F	2.01	120
50 lb		70	70	F	F	2.01	120
50 lb		470	470	F	F	2.01	120
50 lb		330	330	F	F	2.01	120
50 lb		380	380	F	F	2.01	120
50 lb		1130	1130	F	F	2.01	120
50 lb		70	70	F	F	2.01	120
50 lb		-390	-390	F	F	2.01	120
50 lb		1270	1270	F	F	2.01	120
50 lb		230	230	F	F	2.01	120
50 lb		-720	-720	F	F	2.01	120
50 lb	518-25	1540	1540	F	F	2.01	120
50 lb		-1620	-1620	F	F	2.01	120
50 lb		490	490	F	F	2.01	120



Receipt Date: September 6, 2016  
Cal. Date: September 7, 2016  
Report Date: September 7, 2016

Report No.: 336455  
Set Serial No.: Individual/None  
Barcode: 201410

Continued,

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 11

Item(s) Submitted: Cast Hand Weights  
Manufacturer: Howe & Assorted  
Weight Type: II  
Equipment ID: None  
Condition: Good  
Temperature: 20.2 °C  
Pressure: 736. mmHg  
Relative Humidity: 51.2 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
20 lb	513-64	728	728	F	F	2.00	67
30 lb		2020	30	*	F	2.01	67

\* Weight(s) as found 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). 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:

Mark Nicollet

*Mark Nicollet*  
Quality Manager



Receipt Date: September 6, 2016  
Cal. Date: September 7, 2016  
Report Date: September 7, 2016

Report No.:  
Set Serial No.:  
Barcode:

Continued,  
336451  
Individual/None  
201411

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 11

Item(s) Submitted: Cast Hand Weights  
Manufacturer: Assorted  
Weight Type: II  
Equipment ID: None  
Condition: Good  
Temperature: 20.5 °C  
Pressure: 735.9 mmHg  
Relative Humidity: 51.5 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
20 lb		648	648	F	F	2.00	67
30 lb		580	580	F	F	2.01	67

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). 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:

Mark Nicollet

*Mark Nicollet*  
Quality Manager



Receipt Date: September 6, 2016  
 Cal. Date: September 6, 2016  
 Report Date: September 6, 2016

Report No.: 336452  
 Set Serial No.: None  
 Barcode: 018653

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: Brad Zarth  
 Phone: 952-944-8916  
 PO Number: None  
 SOP: 8  
 Technician ID: 19

Item(s) Submitted: AVDP Slot Weight Kit  
 Manufacturer: Unknown  
 Weight Type: II  
 Equipment ID: None  
 Condition: Good  
 Temperature: 21.3 °C  
 Pressure: 735.1 mmHg  
 Relative Humidity: 46.6 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
8 lb		137	137	6	6	2.00	15
8 lb		132	132	6	6	2.00	15
8 lb		94	94	5	5	2.00	15
8 lb		192	192	6	6	2.00	15
4 lb		-67	-67	6	6	2.00	12
2 lb		-32.1	-32.1	5	5	2.03	4.8

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 (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 Alfvin  
  
 Metrologist

Reviewed by:  
 Mark Nicollet  
  
 Quality Manager



Receipt Date: September 6, 2016  
 Cal. Date: September 9, 2016  
 Report Date: September 9, 2016

Report No.: 336453  
 Set Serial No.: SET D  
 Barcode: 018652

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: BRAD ZARTH  
 Phone: 952-944-8916  
 PO Number: NONE  
 SOP: 8  
 Technician ID: 07

Item(s) Submitted: Ratio Weight & Grain Set  
 Manufacturer: Weiss  
 Weight Type: I & II  
 Equipment ID: None  
 Condition: Fair  
 Temperature: 21.4 °C  
 Pressure: 733.2 mmHg  
 Relative Humidity: 43.8 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
3 lb		1.2	1.2	4	4	2.03	5.6
1 lb		-33.3	-33.3	6	6	2.02	2.8
1/2 lb		-8.3	-8.3	5	5	2.03	2.3
1/4 lb		7.33	7.33	6	6	2.00	0.48
2/5 lb		-19.0	-19.0	7	7	2.00	2.3
1/3 lb		-18.9	-18.9	7	7	2.00	2.3
1/3 lb		-14.4	-14.4	7	7	2.00	2.3
1/5 lb		-3.78	-3.78	5	5	2.03	0.37
1/5 lb		-4.74	-4.74	5	5	2.03	0.37
1/6 lb		-4.65	-4.65	6	6	2.00	0.37
1/10 lb		-5.89	-5.89	6	6	2.03	0.30
1/12 lb		-0.62	-0.62	5	5	2.00	0.30
700 grains		3.65	3.65	7	7	2.00	0.30
700 grains		5.37	5.37	7	7	2.00	0.30
350 grains		2.22	2.22	7	7	2.00	0.30
233 1/3 grains		0.12	0.12	4	4	2.00	0.30
175 grains		-0.35	-0.35	5	5	2.00	0.20
140 grains		-1.46	-1.46	7	7	2.00	0.16
140 grains		1.32	1.32	7	7	2.00	0.16
116 2/3 grains		-0.36	-0.36	5	5	2.00	0.16
70 grains		-0.05	-0.05	4	4	2.00	0.12



Receipt Date: September 6, 2016  
Cal. Date: September 9, 2016  
Report Date: September 9, 2016

Report No.: 336453  
Set Serial No.: SET D  
Barcode: 018652

Continued,

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: Ratio Weight & Grain Set  
Manufacturer: Weiss  
Weight Type: I & II  
Equipment ID: None  
Condition: Fair  
Temperature: 21.4 °C  
Pressure: 733.2 mmHg  
Relative Humidity: 43.8 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
46 2/3 grains		1.96	1.96	7	7	2.00	0.12
46 2/3 grains		2.26	2.26	7	7	2.00	0.12
35 grains		0.19	0.19	5	5	2.00	0.10
35 grains		0.51	0.51	5	5	2.00	0.10
23 1/3 grains		1.913	1.913	7	7	2.00	0.087
17 1/2 grains		2.096	2.096	7	7	2.00	0.087
1 lb	Hook	-53.8	-53.8	7	7	2.02	2.8

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 (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

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Erik Alfvin

*Erik Alfvin*  
Metrologist



Receipt Date: September 6, 2016  
Cal. Date: September 8, 2016  
Report Date: September 9, 2016

Report No.: 336459  
Set Serial No.: None  
Barcode: 201409

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: Cast, Plated & Stainless Weight Set  
Manufacturer: Howe, Toledo, unknown  
Weight Type: II  
Equipment ID: None  
Condition: Poor/Plating flaked off  
Temperature: 21.2 °C  
Pressure: 734.6 mmHg  
Relative Humidity: 44.2 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb		140	140	5	5	2.02	15
5 . lb		85	85	5	5	2.02	12
5 .. lb		-49	-49	5	5	2.02	12
2 . lb		30.8	30.8	5	5	2.03	4.8
2 .. lb		-67.8	-67.8	6	6	2.03	4.8
2 ... lb		17.6	17.6	5	5	2.03	4.8
1 lb		3.2	3.2	4	4	2.02	2.8
500 g		-17.3	-17.3	5	5	2.03	4.0
500 . g		-2.4	-2.4	4	4	2.03	4.0

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 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.

Mark Nicollet

Quality Manager

Reviewed by:

Erik Alfvén

Metrologist



Receipt Date: September 6, 2016  
Cal. Date: September 9, 2016  
Report Date: September 9, 2016

Report No.: 336458  
Set Serial No.: None  
Barcode: 018633

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: Ratio Weight Set  
Manufacturer: WEISS  
Weight Type: I & II  
Equipment ID: None  
Condition: Fair  
Temperature: 21.6 °C  
Pressure: 733.2 mmHg  
Relative Humidity: 45.2 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
3 lb		-18.8	-18.8	4	4	2.03	5.6
2 lb		-39.5	-39.5	5	5	2.03	4.8
1 lb		-23.6	-23.6	5	5	2.02	2.8
1/2 lb		6.0	6.0	5	5	2.03	2.3
1/4 lb		-0.29	-0.29	4	4	2.00	0.48
2/5 lb		-13.8	-13.8	7	7	2.00	2.3
1/3 lb		-15.0	-15.0	7	7	2.00	2.3
1/3 lb		-15.4	-15.4	7	7	2.00	2.3
1/5 lb		8.00	8.00	6	6	2.03	0.37
1/5 lb		-0.92	-0.92	4	4	2.03	0.37
1/6 lb		-4.29	-4.29	5	5	2.00	0.37
1/10 lb		4.14	4.14	5	5	2.03	0.30
1 lb	Hook	26.2	26.2	6	6	2.02	2.8

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 (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.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Erik Alfvin

*Erik Alfvin*  
Metrologist



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

Receipt Date: September 6, 2016  
Cal. Date: September 9, 2016  
Report Date: September 9, 2016

Report No.: 336456  
Set Serial No.: None  
Barcode: 202154

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: 30 lb Kit w/ Decimals & Fractions  
Manufacturer: Rice Lake  
Weight Type: I & II  
Equipment ID: None  
Condition: Good  
Temperature: 21.0 °C  
Pressure: 734.6 mmHg  
Relative Humidity: 42.8 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
10 lb		59	59	F	F	2.02	15
10 lb		52	52	F	F	2.02	15
5 lb		95	95	F	F	2.02	12
2 lb		38.2	38.2	F	F	2.03	4.8
2 lb		37.3	37.3	F	F	2.03	4.8
1 lb		16.2	16.2	F	F	2.02	2.8
8 oz		13.8	13.8	F	F	2.03	2.3
4 oz		7.65	7.65	F	F	2.00	0.60
2 oz		3.18	3.18	F	F	2.00	0.36
1 oz		2.05	2.05	F	F	2.00	0.30
1/2 oz		0.19	0.19	F	F	2.00	0.24
1/4 oz		0.29	0.29	F	F	2.00	0.12
1/8 oz		0.272	0.272	F	F	2.00	0.090
1/16 oz		0.075	0.075	F	F	2.00	0.060
1/32 oz		0.536	0.536	F	F	2.00	0.049
1/32 oz		0.366	0.366	F	F	2.00	0.049



Receipt Date: September 6, 2016  
 Cal. Date: September 9, 2016  
 Report Date: September 9, 2016

Report No.: 336456  
 Set Serial No.: None  
 Barcode: 202154

Continued,  
 336456  
 None  
 202154

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: BRAD ZARTH  
 Phone: 952-944-8916  
 PO Number: NONE  
 SOP: 8  
 Technician ID: 07

Item(s) Submitted: 30 lb Kit w/ Decimals & Fractions  
 Manufacturer: Rice Lake  
 Weight Type: I & II  
 Equipment ID: None  
 Condition: Good  
 Temperature: 21.0 °C  
 Pressure: 734.6 mmHg  
 Relative Humidity: 42.8 %

Nominal Value	Serial No.	CM Correction (mg)		NIST HB105-1 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
0.2 lb		9.56	9.56	F	F	2.03	0.37
0.2 lb		4.42	4.42	F	F	2.03	0.37
0.1 lb		3.92	3.92	F	F	2.03	0.30
0.05 lb		1.37	1.37	F	F	2.03	0.30
0.02 lb		0.31	0.31	F	F	2.03	0.16
0.02 lb		0.62	0.62	F	F	2.03	0.16
0.01 lb		0.71	0.71	F	F	2.03	0.12
0.005 lb		0.34	0.34	F	F	2.03	0.10
0.002 lb		0.099	0.099	F	F	2.03	0.066
0.002 lb		0.063	0.063	F	F	2.03	0.066
0.001 lb		0.203	0.203	F	F	2.03	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/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). 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.

Mark Nicollet  
  
 Quality Manager

Reviewed by:  
 Erik Alfvin  
  
 Metrologist



Receipt Date: September 6, 2016  
Cal. Date: September 7, 2016  
Report Date: September 8, 2016

Report No.: 336457  
Set Serial No.: None  
Barcode: 201398

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: Polished Metric Weight Set  
Manufacturer: Rice Lake  
Weight Type: II  
Equipment ID: None  
Condition: Excellent  
Temperature: 21.2 °C  
Pressure: 734.7 mmHg  
Relative Humidity: 45.5 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
5000 g		4	4	4	4	2.14	30.
2000 g		3	3	4	4	2.03	12
2000 g		3	3	4	4	2.03	12
1000 g		1.9	1.9	4	4	2.07	7.1
500 g		1.5	1.5	4	4	2.04	4.0

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 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.

Mark Nicollet

*Mark Nicollet*  
Quality Manager

Reviewed by:

Pete Whebbe

*Pete Whebbe*  
Metrologist



Receipt Date: September 6, 2016  
 Cal. Date: September 7, 2016  
 Report Date: September 8, 2016

Report No.: 336454  
 Set Serial No.: 18272  
 Barcode: 201442

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
 9628 PORTAL DRIVE  
 EDEN PRAIRIE, MN 55347  
 Contact: BRAD ZARTH  
 Phone: 952-944-8916  
 PO Number: NONE  
 SOP: 8  
 Technician ID: 07

Item(s) Submitted: Satin Stainless Metric Weight Kit  
 Manufacturer: Troemner  
 Weight Type: I & II  
 Equipment ID: None  
 Condition: Good  
 Temperature: 21.2 °C  
 Pressure: 734.1 mmHg  
 Relative Humidity: 45.8 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
2000 g		41	41	5	5	2.03	12
1000 g		72.7	72.7	6	6	2.07	7.1
500 g		16.5	16.5	5	5	2.04	4.0
200 g		17.8	17.8	6	6	2.04	1.2
200 g		13.7	13.7	5	5	2.04	1.2
100 g		-5.83	-5.83	5	5	2.03	0.60
50 g		0.83	0.83	4	4	2.04	0.36
20 g		0.01	0.01	4	4	2.04	0.30
20 g		0.92	0.92	5	5	2.04	0.30
10 g		-0.09	-0.09	4	4	2.04	0.24
5 g		0.06	0.06	4	4	2.04	0.16
2 g		-0.02	-0.02	4	4	2.04	0.10
2 g		-0.15	-0.15	4	4	2.04	0.10
1 g		0.108	0.108	4	4	2.04	0.074
0.5 g		0.259	0.259	5	5	2.07	0.046
0.2 g		0.219	0.219	5	5	2.07	0.032
0.2 g		0.105	0.105	5	5	2.07	0.032
0.1 g		0.213	0.213	6	6	2.07	0.024



Receipt Date: September 6, 2016  
Cal. Date: September 7, 2016  
Report Date: September 8, 2016

Report No.: 336454  
Set Serial No.: 18272  
Barcode: 201442

Continued,

## Calibration Certificate

MINDAK SCALE SALES & SERVICE  
9628 PORTAL DRIVE  
EDEN PRAIRIE, MN 55347  
Contact: BRAD ZARTH  
Phone: 952-944-8916  
PO Number: NONE  
SOP: 8  
Technician ID: 07

Item(s) Submitted: Satin Stainless Metric Weight Kit  
Manufacturer: Troemner  
Weight Type: I & II  
Equipment ID: None  
Condition: Good  
Temperature: 21.2 °C  
Pressure: 734.1 mmHg  
Relative Humidity: 45.8 %

Nominal Value	Serial No.	CM Correction (mg)		ASTM E617 Class		k	U (mg)
		As Found	As Left	As Found	As Left		
0.05 g		0.195	0.195	6	6	2.07	0.020
0.02 g		0.113	0.113	6	6	2.07	0.016
0.02 g		-0.018	-0.018	4	4	2.07	0.016
0.01 g		0.034	0.034	4	4	2.07	0.016
0.005 g		0.04	0.04	4	4	2.15	0.014
0.002 g		0.024	0.024	4	4	2.14	0.012
8 oz		7.9	7.9	5	5	2.00	2.3

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 (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

Mark Nicollet  
  
Quality Manager

Reviewed by:  
Pete Whebbe  
  
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

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



2016 to 2017

Carol T. Hockett, Chief  
NIST Office of Weights and Measures

Effective Dates: 2016-01-01 to 2017-12-31