



Dave Heineman  
Governor

# State of Nebraska

DEPARTMENT OF AGRICULTURE  
GREGORY A. IBACH  
Director

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524

## CERTIFICATION FOR STANDARDS OF MEASUREMENT

Agency: Food Safety & Consumer Protection  
Area 65

Date: 3/13/2012  
Agency ID: 65  
NE Cert No: 20120034  
P.O. No:

Submitted By: Scott Bantam

Electronic Copy Page 1

Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
2 lb	10-OPI-10	1	F	A
2 lb	10-OPI-10	2	F	A
2 lb	10-OPI-10	3	F	A
1 lb	10-OPI-10	4	F	A
8 oz	10-OPI-10	5	F	A
4 oz	10-OPI-10	6	F	A
2 oz	10-OPI-10	7	F	A
1 oz	10-OPI-10	8	F	A
0.5 oz	10-OPI-10	9	F	A
0.25 oz	10-OPI-10	10	F	A
0.125 oz	10-OPI-10	11	F	A
0.0625 oz	10-OPI-10	12	F	A
0.0625 oz*	10-OPI-10	13	F	A
0.3 lb	10-OPI-10	14	F	A
0.2 lb	10-OPI-10	15	F	A
0.1 lb	10-OPI-10	16	F	A
0.05 lb	10-OPI-10	17	F	A
0.03 lb	10-OPI-10	18	F	A
0.02 lb	10-OPI-10	19	F	A
0.01 lb	10-OPI-10	20	F	A
0.005 lb	10-OPI-10	21	F	A
0.003 lb	10-OPI-10	22	F	A
0.002 lb	10-OPI-10	23	F	A
0.001 lb	10-OPI-10	24	F	A
0.001 lb*	10-OPI-10	25	F	A

Department of Agriculture, 301 Centennial Mall South  
Web Site: [www.agr.ne.gov](http://www.agr.ne.gov)

Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
FAX: (402) 471-6876

Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
(402) 471-2176  
FAX: (402) 471-0091

Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
(402) 471-2351  
FAX: (402) 471-6893

Bureau of Dairies & Foods  
P.O. Box 95064  
Lincoln, NE 68509-5064  
(402) 471-2536  
FAX: (402) 471-2759

Bureau of Plant Industry  
P.O. Box 94956  
Lincoln, NE 68509-4756  
(402) 471-2394  
FAX: (402) 471-6892

Weights and Measures  
P.O. Box 94757  
Lincoln, NE 68509-4757  
(402) 471-4292  
FAX: (402) 471-2759

Submitted By: Scott Bantam

Electronic Copy Page 2

<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
2 lb	1A7	1	F	A
2 lb	1A7	2	F	A
2 lb	1A7	3	F	A
2 lb	1A7	4	F	A
2 lb	1A7	5	F	A
2 lb	1A7	6	F	A
2 lb	1A7	7	F	A
2 lb	1A7	8	F	A
2 lb	1A7	9	F	A
2 lb	1A7	10	F	A
2 lb	1A7	11	F	A
2 lb	1A7	12	F	A
2 lb	1A7	13	F	A
2 lb	1A7	14	F	A
1 lb	1A7	15	F	A
1 lb	1A7	16	F	A
8 oz	1A7	17	F	A
4 oz	1A7	18	F	A
2 oz	1A7	19	F	A
1 oz	1A7	20	F	A
0.5 oz	1A7	21	F	A
0.25 oz	1A7	22	F	A
0.125 oz	1A7	23	F	A
0.0625 oz	1A7	24	F	A
0.0625 oz*	1A7	25	F	A
0.3 lb	1A7	26	F	A
0.2 lb	1A7	27	F	A
0.1 lb	1A7	28	F	A
0.05 lb	1A7	29	F	A
0.03 lb	1A7	30	F	A
0.02 lb	1A7	31	F	A
0.01 lb	1A7	32	F	A
0.005 lb	1A7	33	F	A
0.003 lb	1A7	34	F	A
0.002 lb	1A7	35	F	A
0.001 lb	1A7	36	F	A

Submitted By: Scott Bantam

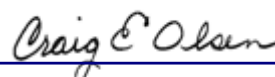
Electronic Copy Page 3

Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
0.001 lb*	1A7	37	F	A
4 kg	2	1	4	A
5 gal	4393-5-A	1	VL	A
5 gal	4393-5-D	1	VL	A
5 gal	9038034	1	VL	A
5 gal	9038035	1	VL	A
5 gal	9038036	1	VL	A
25 lb	NE-61	1	F	A
25 lb	NE-62	1	F	A
25 lb	NE-63	1	F	A
25 lb	NE-64	1	F	A
25 lb	NE-65	1	F	A
25 lb	NE-66	1	F	A
25 lb	NE-67	1	F	A
25 lb	NE-68	1	F	A
25 lb	NE-69	1	F	A
25 lb	NE-70	1	F	A
25 lb	NE-71	1	F	A
25 lb	NE-72	1	F	A
25 lb	NE-73	1	F	A
25 lb	NE-74	1	F	A
25 lb	NE-75	1	F	A
25 lb	NE-76	1	F	A
25 lb	NE-77	1	F	A
25 lb	NE-78	1	F	A
25 lb	NE-79	1	F	A
25 lb	NE-80	1	F	A
25 lb	WM-D17	1	F	A
25 lb	WM-D18	1	F	A
25 lb	WM-D19	1	F	A
25 lb	WM-D20	1	F	A

These field standards have been compared with our reference standards and found to be within the tolerances for their class, or condemned, as prescribed by the National Institute of Standards and Technology. These field standards also meet the required specifications.

The reference standards used are traceable to the National Institute of Standards and Technology (NIST). Our traceability is maintained through control charts, regional inter-comparisons and periodic recertifications. This certificate is issued by the Nebraska Department of Agriculture / Division of Weights and Measures. Reproduction of this certificate must include the entire document (including all attached papers).

- See 'Test Results' attached
- See report/letter attached



Craig E. Olsen  
Nebraska State Metrologist

**Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087**

**SOP 4 - Double Substitution - Summary Of Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

NE Cert No: 20120035

Date: 3/16/2012

P.O. No:

Observer: CEO

Form No.: NE04LF7-R00

Submitted By: Scott Bantam

Electronic Copy

Page 1 of 2

Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
300 g	WM-G89-9	1	300.00366174	300.00274322	0.00014956	CC1201 / 1 kg	300gd
200 g	WM-G89-9	2	200.00143287	200.00082053	0.00014876	CC1201 / 1 kg	200gd
100 g	WM-G89-9	3	100.00037843	100.00007226	0.00006137	AT106_100G	100grl
50 g	WM-G89-9	4	50.00069363	50.00054054	0.00003825	AT106_50G	50grl
30 g	WM-G89-9	5	30.00002274	29.99993089	0.00003053	AT106_50G	30grl
20 g	WM-G89-9	6	20.00069150	20.00063027	0.00002187	AT106_20G	20grl
10 g	WM-G89-9	7	10.00037598	10.00034536	0.00001808	AT106_10G	10grl
5 g	WM-G89-9	8	5.00017273	5.00015742	0.00000713	UMT5/6_5G	5grl
3 g	WM-G89-9	9	3.00016757	3.00015839	0.00000622	UMT5/6_5G	3grl
2 g	WM-G89-9	10	2.00004734	2.00004121	0.00000622	UMT5/6_5G	2grl
1 g	WM-G89-9	11	1.00006929	1.00006622	0.00000574	UMT5/6_1G	1grl
500 mg	WM-G89-9	12	0.50004740	0.50004586	0.00000526	UMT5/6_1G	500mgrl
200 mg	WM-G89-9	13	0.20000956	0.20000894	0.00000508	UMT5/6_1G	200mgrl
200 mg*	WM-G89-9	14	0.20000201	0.20000140	0.00000508	UMT5/6_1G	200mgrl
100 mg	WM-G89-9	15	0.09997374	0.09997344	0.00000564	MT5/6_100M	100mgrl
50 mg	WM-G89-9	16	0.05000052	0.05000036	0.00000564	MT5/6_100M	50mgrl
20 mg	WM-G89-9	17	0.02003734	0.02003144	0.00000563	MT5/6_100M	20mgrl
20 mg*	WM-G89-9	18	0.02003699	0.02003109	0.00000563	MT5/6_100M	20mgrl
10 mg	WM-G89-9	19	0.00999493	0.00999199	0.00000252	JMT5/6_10MC	10mgrl
5 mg	WM-G89-9	20	0.00500277	0.00500130	0.00000250	JMT5/6_10MC	5mgrl

*Due to handling, storage and/or environmental factors, the reported values are valid only while test items are within our control. No calibration periods or intervals are given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

*True Mass is the mass value in a vacuum. Conventional Mass is the mass value in a normal air environment. All values are "as found" unless stated differently in an attachment to the certification.*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 4 - Double Substitution - Summary Of Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

NE Cert No: 20120035

Date: 3/16/2012

P.O. No:

Observer: CEO

Form No.: NE04LF7-R00

Submitted By: Scott Bantam

Electronic Copy

Page 2 of 2

Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
2 mg	WM-G89-9	21	0.00200484	0.00200425	0.00000250	JMT5/6_10MC	2mgrl
2 mg*	WM-G89-9	22	0.00200214	0.00200155	0.00000250	JMT5/6_10MC	2mgrl
1 mg	WM-G89-9	23	0.00099599	0.00099570	0.00000250	JMT5/6_10MC	1mgrl

*Due to handling, storage and/or environmental factors, the reported values are valid only while test items are within our control. No calibration periods or intervals are given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

*True Mass is the mass value in a vacuum. Conventional Mass is the mass value in a normal air environment. All values are "as found" unless stated differently in an attachment to the certification.*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

**Nebraska Standards Laboratory**  
**3721 West Cuming Street**  
**Lincoln, NE 68524**  
**(402) 471-2087**

**SOP 8 - Modified Substitution Test Results**

*Form No.: NE04LF9-R00*

Agency ID: 65  
 Agency: Food Safety & Consumer Protection  
 Area 65  
 , -

NE Cert No: 20120034  
 Date: 3/13/2012  
 P.O. No:  
 Observer: CEO

Submitted By: Scott Bantam

Electronic Copy

Page 1 of 4

Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
10-OPI-10	1	0	2 lb	CC1201_2 lb	NSL-2-1	0.0162043 g	0.091 g	0.0022576 g	A
10-OPI-10	2	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0189957 g	0.091 g	0.0022576 g	A
10-OPI-10	3	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0180957 g	0.091 g	0.0022576 g	A
10-OPI-10	4	0	1 lb	CC1201_1 lb	NSL-1-1	0.0092273 g	0.07 g	0.0004510 g	A
10-OPI-10	5	0	8 oz	CC1201_8 oz	NSL-8-1	0.0047329 g	0.045 g	0.0003594 g	A
10-OPI-10	6	0	4 oz	CC1201_8 oz	NSL-Z	0.0055960 g	0.023 g	0.0003420 g	A
10-OPI-10	7	0	2 oz	AT106_0.2 lb	NSL-Y	0.0013152 g	0.011 g	0.0000637 g	A
10-OPI-10	8	0	1 oz	AT106_0.2 lb	2A9-1oz	0.0013109 g	0.0054 g	0.0003671 g	A
10-OPI-10	9	0	0.5 oz	AT106_0.05 lb	2A9-1.2oz	0.0018279 g	0.0028 g	0.0003635 g	A
10-OPI-10	10	0	0.25 oz	AT106_0.05 lb	2A9-1.4oz	0.0012775 g	0.0017 g	0.0000237 g	A
10-OPI-10	11	0	0.125 oz	CCE6_0.01 lb	2A9-1.8oz	-0.0000067 g	0.0013 g	0.0000092 g	A
10-OPI-10	12	0	0.0625 oz	CCE6_0.01 lb	2A9-1.16oz	0.0005891 g	0.0011 g	0.0000092 g	A
10-OPI-10	13	0	0.0625 oz*	CCE6_0.01 lb	2A9-1.16oz	0.0004064 g	0.0011 g	0.0000092 g	A
10-OPI-10	14	0	0.3 lb	CC1201_8 oz	NSL-WK1	0.0077900 g	0.027 g	0.0003482 g	A
10-OPI-10	15	0	0.2 lb	AT106_0.2 lb	NSL-WK2	-0.0036061 g	0.018 g	0.0000666 g	A
10-OPI-10	16	0	0.1 lb	AT106_0.2 lb	NSL-WK3	-0.0008513 g	0.0091 g	0.0000606 g	A
10-OPI-10	17	0	0.05 lb	AT106_0.05 lb	NSL-WK4	0.0026631 g	0.0045 g	0.0000311 g	A
10-OPI-10	18	0	0.03 lb	AT106_0.05 lb	NSL-WK5	-0.0014917 g	0.0027 g	0.0000221 g	A
10-OPI-10	19	0	0.02 lb	AT106_0.05 lb	NSL-WK6	-0.0008716 g	0.0018 g	0.0000251 g	A
10-OPI-10	20	0	0.01 lb	CCE6_0.01 lb	NSL-WK7	0.0008699 g	0.0015 g	0.0000105 g	A
10-OPI-10	21	0	0.005 lb	CCE6_0.01 lb	NSL-WK8	0.0008686 g	0.0012 g	0.0000092 g	A
10-OPI-10	22	0	0.003 lb	CCE6_0.01 lb	NSL-WK9	0.0000393 g	0.00099 g	0.0000088 g	A
10-OPI-10	23	0	0.002 lb	CCE6_0.01 lb	NSL-WK10	-0.0006457 g	0.00087 g	0.0000082 g	A
10-OPI-10	24	0	0.001 lb	CCE6_0.01 lb	NSL-WK11	-0.0000198 g	0.0007 g	0.0000081 g	A
10-OPI-10	25	0	0.001 lb*	CCE6_0.01 lb	NSL-WK11	-0.0000393 g	0.0007 g	0.0000081 g	A
1A7	1	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0031957 g	0.091 g	0.0022576 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

Agency ID: 65  
 Agency: Food Safety & Consumer Protection  
 Area 65

NE Cert No: 20120034  
 Date: 3/13/2012  
 P.O. No:  
 Observer: CEO

Submitted By: Scott Bantam

Electronic Copy

Page 2 of 4

Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
1A7	2	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0400957 g	0.091 g	0.0022576 g	A
1A7	3	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0403957 g	0.091 g	0.0022576 g	A
1A7	4	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0446957 g	0.091 g	0.0022576 g	A
1A7	5	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0386957 g	0.091 g	0.0022576 g	A
1A7	6	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0582957 g	0.091 g	0.0022576 g	A
1A7	7	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0435957 g	0.091 g	0.0022576 g	A
1A7	8	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0131957 g	0.091 g	0.0022576 g	A
1A7	9	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0344957 g	0.091 g	0.0022576 g	A
1A7	10	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0367957 g	0.091 g	0.0022576 g	A
1A7	11	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0327957 g	0.091 g	0.0022576 g	A
1A7	12	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0144957 g	0.091 g	0.0022576 g	A
1A7	13	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0558957 g	0.091 g	0.0022576 g	A
1A7	14	0	2 lb	CC1201_2 lb	NSL-2-1	-0.0464957 g	0.091 g	0.0022576 g	A
1A7	15	0	1 lb	CC1201_1 lb	NSL-1-1	-0.0138727 g	0.07 g	0.0004510 g	A
1A7	16	0	1 lb	CC1201_1 lb	NSL-1-1	-0.0191727 g	0.07 g	0.0004510 g	A
1A7	17	0	8 oz	CC1201_8 oz	NSL-8-1	-0.0120671 g	0.045 g	0.0003594 g	A
1A7	18	0	4 oz	CC1201_8 oz	NSL-Z	0.0023960 g	0.023 g	0.0003420 g	A
1A7	19	0	2 oz	AT106_0.05 lb	NSL-Y	-0.0001048 g	0.011 g	0.0000390 g	A
1A7	20	0	1 oz	AT106_0.05 lb	2A9-1oz	0.0015759 g	0.0054 g	0.0003636 g	A
1A7	21	0	0.5 oz	AT106_0.05 lb	2A9-1.2oz	-0.0006861 g	0.0028 g	0.0003635 g	A
1A7	22	0	0.25 oz	AT106_0.05 lb	2A9-1.4oz	-0.0002675 g	0.0017 g	0.0000237 g	A
1A7	23	0	0.125 oz	CCE6_0.01 lb	2A9-1.8oz	-0.0000777 g	0.0013 g	0.0000092 g	A
1A7	24	0	0.0625 oz	CCE6_0.01 lb	2A9-1.16oz	0.0005991 g	0.0011 g	0.0000092 g	A
1A7	25	0	0.0625 oz*	CCE6_0.01 lb	2A9-1.16oz	0.0002965 g	0.0011 g	0.0000092 g	A
1A7	26	0	0.3 lb	CC1201_8 oz	NSL-WK1	0.0026900 g	0.027 g	0.0003482 g	A
1A7	27	0	0.2 lb	AT106_0.2 lb	NSL-WK2	-0.0016531 g	0.018 g	0.0000666 g	A
1A7	28	0	0.1 lb	AT106_0.2 lb	NSL-WK3	-0.0016513 g	0.0091 g	0.0000606 g	A
1A7	29	0	0.05 lb	AT106_0.05 lb	NSL-WK4	-0.0003659 g	0.0045 g	0.0000311 g	A
1A7	30	0	0.03 lb	AT106_0.05 lb	NSL-WK5	-0.0012527 g	0.0027 g	0.0000221 g	A
1A7	31	0	0.02 lb	AT106_0.05 lb	NSL-WK6	0.0006574 g	0.0018 g	0.0000251 g	A
1A7	32	0	0.01 lb	CCE6_0.01 lb	NSL-WK7	0.0005676 g	0.0015 g	0.0000105 g	A
1A7	33	0	0.005 lb	CCE6_0.01 lb	NSL-WK8	-0.0006899 g	0.0012 g	0.0000092 g	A
1A7	34	0	0.003 lb	CCE6_0.01 lb	NSL-WK9	0.0002294 g	0.00099 g	0.0000088 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

Agency ID: 65  
 Agency: Food Safety & Consumer Protection  
 Area 65

NE Cert No: 20120034  
 Date: 3/13/2012  
 P.O. No:  
 Observer: CEO

Submitted By: Scott Bantam

Electronic Copy

Page 3 of 4

Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
1A7	35	0	0.002 lb	CCE6_0.01 lb	NSL-WK10	0.0004965 g	0.00087 g	0.0000082 g	A
1A7	36	0	0.001 lb	CCE6_0.01 lb	NSL-WK11	0.0000195 g	0.0007 g	0.0000081 g	A
1A7	37	0	0.001 lb*	CCE6_0.01 lb	NSL-WK11	-0.0004716 g	0.0007 g	0.0000081 g	A
2	1	0	4 kg	CC10000S_5kg	4kg	-0.0004918 g	0.08 g	0.0007868 g	A
NE-61	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.3618098 g	1.1 g	0.0343044 g	R
NE-61	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.0818098 g	1.1 g	0.0343044 g	A
NE-62	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.6368098 g	1.1 g	0.0343044 g	R
NE-62	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.0518098 g	1.1 g	0.0343044 g	A
NE-63	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.8118098 g	1.1 g	0.0343044 g	R
NE-63	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.4618098 g	1.1 g	0.0343044 g	A
NE-64	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.9618098 g	1.1 g	0.0343044 g	R
NE-64	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.5918098 g	1.1 g	0.0343044 g	A
NE-65	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.5868098 g	1.1 g	0.0343044 g	R
NE-65	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.1531902 g	1.1 g	0.0343044 g	A
NE-66	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1118098 g	1.1 g	0.0343044 g	R
NE-66	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.0468098 g	1.1 g	0.0343044 g	A
NE-67	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.5918098 g	1.1 g	0.0343044 g	R
NE-67	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.6168098 g	1.1 g	0.0343044 g	A
NE-68	1	0	25 lb	KA30-3_25lb	NSL-25-1	2.0468098 g	1.1 g	0.0343044 g	R
NE-68	1	1	25 lb	KA30-3_25lb	NSL-25-1	1.0118098 g	1.1 g	0.0343044 g	A
NE-69	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.6518098 g	1.1 g	0.0343044 g	R
NE-69	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.2168098 g	1.1 g	0.0343044 g	A
NE-70	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7618098 g	1.1 g	0.0343044 g	R
NE-70	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.0368098 g	1.1 g	0.0343044 g	A
NE-71	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.4318098 g	1.1 g	0.0343044 g	R
NE-71	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.2518098 g	1.1 g	0.0343044 g	A
NE-72	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.2468098 g	1.1 g	0.0343044 g	R
NE-72	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.2918098 g	1.1 g	0.0343044 g	A
NE-73	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.3468098 g	1.1 g	0.0343044 g	R
NE-73	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.0531902 g	1.1 g	0.0343044 g	A
NE-74	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7568098 g	1.1 g	0.0343044 g	R
NE-74	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.8868098 g	1.1 g	0.0343044 g	A
NE-75	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.9418098 g	1.1 g	0.0343044 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*



Agency ID: 65  
 Agency: Food Safety & Consumer Protection  
 Area 65

NE Cert No: 20120034  
 Date: 3/13/2012  
 P.O. No:  
 Observer: CEO

Submitted By: Scott Bantam

Electronic Copy

Page 4 of 4

Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
NE-76	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7768098 g	1.1 g	0.0343044 g	R
NE-76	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.2018098 g	1.1 g	0.0343044 g	A
NE-77	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8718098 g	1.1 g	0.0343044 g	A
NE-78	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.9868098 g	1.1 g	0.0343044 g	R
NE-78	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.5468098 g	1.1 g	0.0343044 g	A
NE-79	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.3318098 g	1.1 g	0.0343044 g	A
NE-80	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.9418098 g	1.1 g	0.0343044 g	R
NE-80	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.6968098 g	1.1 g	0.0343044 g	A
WM-D17	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8568098 g	1.1 g	0.0343044 g	A
WM-D18	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1818098 g	1.1 g	0.0343044 g	R
WM-D18	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.1881902 g	1.1 g	0.0343044 g	A
WM-D19	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7718098 g	1.1 g	0.0343044 g	R
WM-D19	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.8768098 g	1.1 g	0.0343044 g	A
WM-D20	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.2768098 g	1.1 g	0.0343044 g	R
WM-D20	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.4168098 g	1.1 g	0.0343044 g	A

*Retest number - 0 indicates "as received" error / 1 indicates "adjusted to" error*

*The uncertainty of measurement is determined using the uncertainty of the reference standard(s), standard deviation of the process, environmental factors and bias using a RSS calculation. Uncertainty values are calculated using a K factor of 2.*

*"As received" values for weights may not be a true "as found" value because these weights could have been cleaned and/or repainted prior to submission to this lab. Due to handling, storage and/or environmental factors; the reported values are valid only while test items are within our control. No calibration period or interval is given with this report. We can not guarantee accuracy of results beyond the controls of our laboratory.*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 1 of 10

Serial #: 4393-5-A  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	53.7 °F	0.999490	0 in3

**Test Measure Information**

Water Temperature: 53.7 °F  
Water Density: 0.999490 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 2 of 10

Serial #: 4393-5-A  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	49.1 °F	0.999742	0 in3

**Test Measure Information**

Water Temperature: 49.1 °F  
Water Density: 0.999742 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 3 of 10

Serial #: 4393-5-D  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	47.7 °F	0.999801	0 in3

**Test Measure Information**

Water Temperature: 47.7 °F  
Water Density: 0.999801 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 4 of 10

Serial #: 4393-5-D  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	55.7 °F	0.999355	0 in3

**Test Measure Information**

Water Temperature: 55.7 °F  
Water Density: 0.999355 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 5 of 10

Serial #: 9038034  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	50.6 °F	0.999669	0 in3

**Test Measure Information**

Water Temperature: 50.6 °F  
Water Density: 0.999669 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 6 of 10

Serial #: 9038034  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	48.7 °F	0.999759	0 in3

**Test Measure Information**

Water Temperature: 48.7 °F  
Water Density: 0.999759 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 7 of 10

Serial #: 9038035  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	56.5 °F	0.999296	0 in3

**Test Measure Information**

Water Temperature: 56.5 °F  
Water Density: 0.999296 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*



Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 8 of 10

Serial #: 9038035  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	49.3 °F	0.999732	0 in3

**Test Measure Information**

Water Temperature: 49.3 °F  
Water Density: 0.999732 g/cm<sup>3</sup>  
Scale Reading: -0.3 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 5.0004 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 9 of 10

Serial #: 9038036  
Retest #: 0  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	54.3 °F	0.999451	0 in3

**Test Measure Information**

Water Temperature: 54.3 °F  
Water Density: 0.999451 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*

Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524  
(402) 471-2087

**SOP 19 - Volume Transfer Test Results**

Agency ID: 65

Agency: Food Safety & Consumer Protection  
Area 65

Form No.: NE03LF12-R00

NE Cert No: 20120034

Date: 3/13/2012

P.O. No:

Submitted By: Scott Bantam

Page 10 of 10

Serial #: 9038036  
Retest #: 1  
Denomination: 5 gal  
Observer: CEO

Eq Vol/cu.in.: 1155 cu.in.  
Tolerance Class: VL  
Material: SS  
Coef of Expansion: 0.0000265 °F

**Test Data**

Del#	Std ID	Delivery	Material	Coef of Exp	Water Temp	Water Density	Delta
1	5gal	4.9991	SS	0.0000265 /°F	49.6 °F	0.999718	0 in3

**Test Measure Information**

Water Temperature: 49.6 °F  
Water Density: 0.999718 g/cm<sup>3</sup>  
Scale Reading: -0.1 cu.in.

**Test Results**

Test Measure Volume @ 60° F at zero scale reading: 4.9995 gal.  
Tolerance: 0.0025 gal.  
Uncertainty: 0.0012 gal.

Accepted/Rejected: A

*1 cubic meter = 264.172 gallons*



**Dave Heineman**  
Governor

# State of Nebraska

DEPARTMENT OF AGRICULTURE  
**GREGORY A. IBACH**  
Director

*Nebraska Standards Laboratory  
3721 West Cuming Street  
Lincoln, NE 68524*

## **CERTIFICATION FOR STANDARDS OF MEASUREMENT**

**Agency:** Food Safety & Consumer Protection  
Area 65

**Date:** 3/16/2012  
**Agency ID:** 65  
**NE Cert No:** 20120035  
**P.O. No:**

Page 1

**Submitted By:** Scott Bantam

<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance Class</u>
300 g	WM-G89-9	1	4
200 g	WM-G89-9	2	4
100 g	WM-G89-9	3	4
50 g	WM-G89-9	4	4
30 g	WM-G89-9	5	4
20 g	WM-G89-9	6	4
10 g	WM-G89-9	7	4
5 g	WM-G89-9	8	4
3 g	WM-G89-9	9	4
2 g	WM-G89-9	10	4
1 g	WM-G89-9	11	4
500 mg	WM-G89-9	12	4
200 mg	WM-G89-9	13	4
200 mg*	WM-G89-9	14	4
100 mg	WM-G89-9	15	4
50 mg	WM-G89-9	16	4
20 mg	WM-G89-9	17	4
20 mg*	WM-G89-9	18	4
10 mg	WM-G89-9	19	4
5 mg	WM-G89-9	20	4
2 mg	WM-G89-9	21	4
2 mg*	WM-G89-9	22	4
1 mg	WM-G89-9	23	4

**Department of Agriculture, 301 Centennial Mall South**  
**Web Site: [www.agr.ne.gov](http://www.agr.ne.gov)**

Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
FAX: (402) 471-6876

Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
(402) 471-2176  
FAX: (402) 471-0091

Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
(402) 471-2351  
FAX: (402) 471-6893

Bureau of Dairies & Foods  
P.O. Box 95064  
Lincoln, NE 68509-5064  
(402) 471-2536  
FAX: (402) 471-2759

Bureau of Plant Industry  
P.O. Box 94956  
Lincoln, NE 68509-4756  
(402) 471-2394  
FAX: (402) 471-6892

Weights and Measures  
P.O. Box 94757  
Lincoln, NE 68509-4757  
(402) 471-4292  
FAX: (402) 471-2759

**Agency:** Food Safety & Consumer Protection  
Area 65

**Date:** 3/16/2012  
**Agency ID:** 65  
**NE Cert No:** 20120035  
**P.O. No:**

**Submitted By:** Scott Bantam

Page 2

<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance Class</u>
---------------------	----------------------	----------------------	------------------------

**These field standards have been compared with our reference standards and found to be within the tolerances for their class, or condemned, as prescribed by the National Institute of Standards and Technology. These field standards also meet the required specifications.**

**The reference standards used are traceable to the National Institute of Standards and Technology (NIST). Our traceability is maintained through control charts, regional inter-comparisons and periodic recertifications. This certificate is issued by the Nebraska Department of Agriculture / Division of Weights and Measures.**

*See 'Test Results' attached*

*See report/letter attached*



Craig E. Olsen

Nebraska State Metrologist

**Department of Agriculture, 301 Centennial Mall South**  
**Web Site: [www.agr.ne.gov](http://www.agr.ne.gov)**

Administration  
P.O. Box 94947  
Lincoln, NE 68509-4947  
(402) 471-2341  
FAX: (402) 471-6876

Agriculture Laboratories  
3703 South 14<sup>th</sup> Street  
Lincoln, NE 68502-5399  
(402) 471-2176  
FAX: (402) 471-0091

Bureau of Animal Industry  
P.O. Box 94987  
Lincoln, NE 68509-4787  
(402) 471-2351  
FAX: (402) 471-6893

Bureau of Dairies & Foods  
P.O. Box 95064  
Lincoln, NE 68509-5064  
(402) 471-2536  
FAX: (402) 471-2759

Bureau of Plant Industry  
P.O. Box 94956  
Lincoln, NE 68509-4756  
(402) 471-2394  
FAX: (402) 471-6892

Weights and Measures  
P.O. Box 94757  
Lincoln, NE 68509-4757  
(402) 471-4292  
FAX: (402) 471-2759