



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: Dept of Ag. - Weights & Measures
109 Front Street
Kearney, NE 68845-

Date: 4/5/2011
Agency ID: 15
NE Cert No: 20110047
P.O. No:

Submitted By: Kent McConnell

Electronic Copy Page 1

Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
5 gal	05-40547-01	1	VL	A
5 gal	05-40547-02	1	VL	A
5 gal	05-40547-03	1	VL	A
5 gal	39423-A	1	VL	A
5 gal	39423-D	1	VL	A
2 lb	3A11	1	F	A
2 lb	3A11	2	F	A
2 lb	3A11	3	F	A
2 lb	3A11	4	F	A
2 lb	3A11	5	F	A
2 lb	3A11	6	F	A
2 lb	3A11	7	F	A
2 lb	3A11	8	F	A
2 lb	3A11	9	F	A
2 lb	3A11	10	F	A
2 lb	3A11	11	F	A
2 lb	3A11	12	F	A
2 lb	3A11	13	F	A
2 lb	3A11	14	F	A
1 lb	3A11	15	F	A
1 lb	3A11	16	F	A
8 oz	3A11	17	F	A
4 oz	3A11	18	F	A
2 oz	3A11	19	F	A
1 oz	3A11	20	F	A

Department of Agriculture, 301 Centennial Mall South
Web Site: www.agr.ne.gov

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

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Lincoln, NE 68502-5399
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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
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Lincoln, NE 68509-4756
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Weights and Measures
P.O. Box 94757
Lincoln, NE 68509-4757
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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
0.5 oz	3A11	21	F	A
0.25 oz	3A11	22	F	A
0.125 oz	3A11	23	F	A
0.0625 oz	3A11	24	F	A
0.0625 oz*	3A11	25	F	A
0.3 lb	3A11	26	F	A
0.2 lb	3A11	27	F	A
0.1 lb	3A11	28	F	A
0.05 lb	3A11	29	F	A
0.03 lb	3A11	30	F	A
0.02 lb	3A11	31	F	A
0.01 lb	3A11	32	F	A
0.005 lb	3A11	33	F	A
0.003 lb	3A11	34	F	A
0.002 lb	3A11	35	F	A
0.001 lb	3A11	36	F	A
0.001 lb*	3A11	37	F	A
2 lb	9-OPI-5	1	F	A
2 lb	9-OPI-5	2	F	A
2 lb	9-OPI-5	3	F	A
1 lb	9-OPI-5	4	F	A
8 oz	9-OPI-5	5	F	A
4 oz	9-OPI-5	6	F	A
2 oz	9-OPI-5	7	F	A
1 oz	9-OPI-5	8	F	A
0.5 oz	9-OPI-5	9	F	A
0.25 oz	9-OPI-5	10	F	A
0.125 oz	9-OPI-5	11	F	A
0.0625 oz	9-OPI-5	12	F	A
0.0625 oz*	9-OPI-5	13	F	A
2 kg	K5	1	F	A
2 kg	K6	1	F	A
0.2 lb	N-99-C	1	F	A
0.2 lb*	N-99-C	2	F	A
0.1 lb	N-99-C	3	F	A
0.05 lb	N-99-C	4	F	A

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
0.02 lb	N-99-C	5	F	A
0.02 lb*	N-99-C	6	F	A
0.01 lb	N-99-C	7	F	A
0.005 lb	N-99-C	8	F	A
0.002 lb	N-99-C	9	F	A
0.002 lb*	N-99-C	10	F	A
0.001 lb	N-99-C	11	F	A
25 lb	WM25-100	1	F	A
25 lb	WM25-101	1	F	A
25 lb	WM25-102	1	F	A
25 lb	WM25-103	1	F	A
25 lb	WM25-28	1	F	A
25 lb	WM25-38	1	F	A
25 lb	WM25-45	1	F	A
25 lb	WM25-55	1	F	A
25 lb	WM25-56	1	F	A
25 lb	WM25-57	1	F	A
25 lb	WM25-58	1	F	A
25 lb	WM25-59	1	F	A
25 lb	WM25-75	1	F	A
25 lb	WM25-76	1	F	A
25 lb	WM25-77	1	F	A
25 lb	WM25-78	1	F	A
25 lb	WM25-79	1	F	A
25 lb	WM25-96	1	F	A
25 lb	WM25-97	1	F	A
25 lb	WM25-98	1	F	A
4 kg	WM-9	1	4	A
300 g	WM-G89-10	1	4	A
200 g	WM-G89-10	2	4	A
100 g	WM-G89-10	3	4	A
50 g	WM-G89-10	4	4	A
30 g	WM-G89-10	5	4	A
20 g	WM-G89-10	6	4	A
10 g	WM-G89-10	7	4	A
5 g	WM-G89-10	8	4	A
3 g	WM-G89-10	9	4	A
2 g	WM-G89-10	10	4	A
1 g	WM-G89-10	11	4	A
500 mg	WM-G89-10	12	4	A
200 mg	WM-G89-10	13	4	A
200 mg*	WM-G89-10	14	4	A

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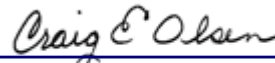
Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
100 mg	WM-G89-10	15	4	A
50 mg	WM-G89-10	16	4	A
20 mg	WM-G89-10	17	4	A
20 mg*	WM-G89-10	18	4	A
10 mg	WM-G89-10	19	4	A
5 mg	WM-G89-10	20	4	A
2 mg	WM-G89-10	21	4	A
2 mg*	WM-G89-10	22	4	A
1 mg	WM-G89-10	23	4	A

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: 15
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109 Front Street
Kearney, NE 68845-

NE Cert No: 20110047
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P.O. No:
Observer: CEO

Form No.: NE04LF7-R00

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Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
4 kg	WM-9	1	4000.01756712	4000.00532034	0.00088992	C10000S_5K	3kg
300 g	WM-G89-10	1	300.00278791	300.00186940	0.00014956	CC1201 / 1 kg	300gd
200 g	WM-G89-10	2	200.00268397	200.00207163	0.00014876	CC1201 / 1 kg	200gd
100 g	WM-G89-10	3	100.00147050	100.00116433	0.00006764	AT106_100G	100grl
50 g	WM-G89-10	4	50.00099573	50.00084264	0.00004616	AT106_100G	50grl
30 g	WM-G89-10	5	30.00041232	30.00032047	0.00003999	AT106_100G	30grl
20 g	WM-G89-10	6	20.00020821	20.00014698	0.00003508	AT106_100G	20grl
10 g	WM-G89-10	7	10.00031275	10.00028213	0.00001787	AT106_10G	10grl
5 g	WM-G89-10	8	5.00024028	5.00022497	0.00000721	CCE6_5G	5grl
3 g	WM-G89-10	9	3.00028583	3.00027665	0.00000632	CCE6_5G	3grl
2 g	WM-G89-10	10	2.00010332	2.00009719	0.00000632	CCE6_5G	2grl
1 g	WM-G89-10	11	1.00002476	1.00002169	0.00000607	CCE6_5G	1grl
500 mg	WM-G89-10	12	0.50003735	0.50003582	0.00000562	CCE6_5G	500mgrl
200 mg	WM-G89-10	13	0.19996966	0.19996905	0.00000545	CCE6_5G	200mgrl
200 mg*	WM-G89-10	14	0.19997461	0.19997400	0.00000545	CCE6_5G	200mgrl
100 mg	WM-G89-10	15	0.09993524	0.09993493	0.00000542	CCE6_5G	100mgrl
50 mg	WM-G89-10	16	0.04999476	0.04999461	0.00000541	CCE6_5G	50mgrl
20 mg	WM-G89-10	17	0.02003460	0.02002870	0.00000540	CCE6_5G	20mgrl
20 mg*	WM-G89-10	18	0.02003189	0.02002600	0.00000540	CCE6_5G	20mgrl
10 mg	WM-G89-10	19	0.01000533	0.01000239	0.00000540	CCE6_5G	10mgrl

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.

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3721 West Cuming Street
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SOP 4 - Double Substitution - Summary Of Test Results

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109 Front Street
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Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
5 mg	WM-G89-10	20	0.00500923	0.00500775	0.00000540	CCE6_5G	5mgrl
2 mg	WM-G89-10	21	0.00200884	0.00200825	0.00000540	CCE6_5G	2mgrl
2 mg*	WM-G89-10	22	0.00200119	0.00200060	0.00000540	CCE6_5G	2mgrl
1 mg	WM-G89-10	23	0.00100460	0.00100431	0.00000540	CCE6_5G	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: 15
Agency: Dept of Ag. - Weights & Measures
109 Front Street
Kearney, NE 68845-

NE Cert No: 20110047
Date: 4/5/2011
P.O. No:
Observer: CEO

Submitted By: Kent McConnell

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
3A11	1	0	2 lb	CC1201-lb	NSL-2-1	0.0015819 g	0.091 g	0.0026112 g	A
3A11	2	0	2 lb	CC1201-lb	NSL-2-1	-0.0526181 g	0.091 g	0.0026112 g	A
3A11	3	0	2 lb	CC1201-lb	NSL-2-1	-0.0374181 g	0.091 g	0.0026112 g	A
3A11	4	0	2 lb	CC1201-lb	NSL-2-1	-0.0609181 g	0.091 g	0.0026112 g	A
3A11	5	0	2 lb	CC1201-lb	NSL-2-1	-0.0447181 g	0.091 g	0.0026112 g	A
3A11	6	0	2 lb	CC1201-lb	NSL-2-1	-0.0582181 g	0.091 g	0.0026112 g	A
3A11	7	0	2 lb	CC1201-lb	NSL-2-1	-0.0475181 g	0.091 g	0.0026112 g	A
3A11	8	0	2 lb	CC1201-lb	NSL-2-1	-0.0478181 g	0.091 g	0.0026112 g	A
3A11	9	0	2 lb	CC1201-lb	NSL-2-1	-0.0512181 g	0.091 g	0.0026112 g	A
3A11	10	0	2 lb	CC1201-lb	NSL-2-1	-0.0370181 g	0.091 g	0.0026112 g	A
3A11	11	0	2 lb	CC1201-lb	NSL-2-1	-0.0504181 g	0.091 g	0.0026112 g	A
3A11	12	0	2 lb	CC1201-lb	NSL-2-1	-0.0557181 g	0.091 g	0.0026112 g	A
3A11	13	0	2 lb	CC1201-lb	NSL-2-1	-0.0452181 g	0.091 g	0.0026112 g	A
3A11	14	0	2 lb	CC1201-lb	NSL-2-1	-0.0299181 g	0.091 g	0.0026112 g	A
3A11	15	0	1 lb	CC1201-lb	NSL-1-1	-0.0026241 g	0.07 g	0.0026015 g	A
3A11	16	0	1 lb	CC1201-lb	NSL-1-1	-0.0379241 g	0.07 g	0.0026015 g	A
3A11	17	0	8 oz	CC1201-lb	NSL-8-1	-0.0037265 g	0.045 g	0.0025995 g	A
3A11	18	0	4 oz	CC1201-lb	NSL-Z	0.0008070 g	0.023 g	0.0025971 g	A
3A11	19	0	2 oz	AT106-lb	NSL-Y	-0.0038808 g	0.011 g	0.0000539 g	A
3A11	20	0	1 oz	AT106-lb	2A9-1oz	-0.0049551 g	0.0054 g	0.0003655 g	A
3A11	21	0	0.5 oz	AT106-lb	2A9-1.2oz	-0.0015461 g	0.0028 g	0.0003654 g	A
3A11	22	0	0.25 oz	AT106-lb	2A9-1.4oz	-0.0005345 g	0.0017 g	0.0000441 g	A
3A11	23	0	0.125 oz	UMT5/6-lb	2A9-1.8oz	-0.0011476 g	0.0013 g	0.0000085 g	A
3A11	24	0	0.0625 oz	UMT5/6-lb	2A9-1.16oz	0.0007000 g	0.0011 g	0.0000084 g	A
3A11	25	0	0.0625 oz*	UMT5/6-lb	2A9-1.16oz	0.0003303 g	0.0011 g	0.0000084 g	A
3A11	26	0	0.3 lb	CC1201-lb	NSL-WK1	-0.0074100 g	0.027 g	0.0025980 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.

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
3A11	27	0	0.2 lb	AT106-lb	NSL-WK2	-0.0047051 g	0.018 g	0.0000572 g	A
3A11	28	0	0.1 lb	AT106-lb	NSL-WK3	-0.0063373 g	0.0091 g	0.0000501 g	A
3A11	29	0	0.05 lb	AT106-lb	NSL-WK4	0.0000401 g	0.0045 g	0.0000485 g	A
3A11	30	0	0.03 lb	AT106-lb	NSL-WK5	-0.0009897 g	0.0027 g	0.0000432 g	A
3A11	31	0	0.02 lb	AT106-lb	NSL-WK6	0.0008914 g	0.0018 g	0.0000449 g	A
3A11	32	0	0.01 lb	UMT5/6-lb	NSL-WK7	0.0013087 g	0.0015 g	0.0000098 g	A
3A11	33	0	0.005 lb	UMT5/6-lb	NSL-WK8	0.0002638 g	0.0012 g	0.0000085 g	A
3A11	34	0	0.003 lb	UMT5/6-lb	NSL-WK9	-0.0004272 g	0.00099 g	0.0000080 g	A
3A11	35	0	0.002 lb	UMT5/6-lb	NSL-WK10	0.0005692 g	0.00087 g	0.0000074 g	A
3A11	36	0	0.001 lb	UMT5/6-lb	NSL-WK11	-0.0005276 g	0.0007 g	0.0000072 g	A
3A11	37	0	0.001 lb*	UMT5/6-lb	NSL-WK11	0.0003781 g	0.0007 g	0.0000072 g	A
9-OPI-5	1	0	2 lb	CC1201-lb	NSL-2-1	-0.0658181 g	0.091 g	0.0026112 g	A
9-OPI-5	2	0	2 lb	CC1201-lb	NSL-2-1	-0.0048181 g	0.091 g	0.0026112 g	A
9-OPI-5	3	0	2 lb	CC1201-lb	NSL-2-1	-0.0122181 g	0.091 g	0.0026112 g	A
9-OPI-5	4	0	1 lb	CC1201-lb	NSL-1-1	-0.0174241 g	0.07 g	0.0026015 g	A
9-OPI-5	5	0	8 oz	CC1201-lb	NSL-8-1	-0.0109265 g	0.045 g	0.0025995 g	A
9-OPI-5	6	0	4 oz	CC1201-lb	NSL-Z	0.0016960 g	0.023 g	0.0025971 g	A
9-OPI-5	7	0	2 oz	AT106-lb	NSL-Y	-0.0007708 g	0.011 g	0.0000539 g	A
9-OPI-5	8	0	1 oz	AT106-lb	2A9-1oz	0.0004409 g	0.0054 g	0.0003655 g	A
9-OPI-5	9	0	0.5 oz	AT106-lb	2A9-1.2oz	0.0014369 g	0.0028 g	0.0003654 g	A
9-OPI-5	10	0	0.25 oz	AT106-lb	2A9-1.4oz	0.0002715 g	0.0017 g	0.0000441 g	A
9-OPI-5	11	0	0.125 oz	CCE6_lb	2A9-1.8oz	-0.0007649 g	0.0013 g	0.0000075 g	A
9-OPI-5	12	0	0.0625 oz	CCE6_lb	2A9-1.16oz	-0.0001894 g	0.0011 g	0.0000074 g	A
9-OPI-5	13	0	0.0625 oz*	CCE6_lb	2A9-1.16oz	0.0000324 g	0.0011 g	0.0000074 g	A
K5	1	0	2 kg	CC1000S-2 kg	2kgd	0.0210226 g	0.2 g	0.0011705 g	A
K6	1	0	2 kg	CC1000S-2 kg	2kgd	0.0466226 g	0.2 g	0.0011705 g	A
N-99-C	1	0	0.2 lb	AT106-lb	NSL-WK2	0.0087229 g	0.018 g	0.0000572 g	A
N-99-C	2	0	0.2 lb*	AT106-lb	NSL-WK2	0.0081259 g	0.018 g	0.0000572 g	A
N-99-C	3	0	0.1 lb	AT106-lb	NSL-WK3	0.0037307 g	0.0091 g	0.0000501 g	A
N-99-C	4	0	0.05 lb	AT106-lb	NSL-WK4	0.0011981 g	0.0045 g	0.0000485 g	A
N-99-C	5	0	0.02 lb	AT106-lb	NSL-WK6	-0.0005776 g	0.0018 g	0.0000449 g	A
N-99-C	6	0	0.02 lb*	AT106-lb	NSL-WK6	0.0000464 g	0.0018 g	0.0000449 g	A
N-99-C	7	0	0.01 lb	UMT5/6-lb	NSL-WK7	-0.0001432 g	0.0015 g	0.0000098 g	A

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
N-99-C	8	0	0.005 lb	UMT5/6-lb	NSL-WK8	0.0004984 g	0.0012 g	0.0000085 g	A
N-99-C	9	0	0.002 lb	UMT5/6-lb	NSL-WK10	0.0000745 g	0.00087 g	0.0000074 g	A
N-99-C	10	0	0.002 lb*	UMT5/6-lb	NSL-WK10	0.0001232 g	0.00087 g	0.0000074 g	A
N-99-C	11	0	0.001 lb	UMT5/6-lb	NSL-WK11	0.0000143 g	0.0007 g	0.0000072 g	A
WM25-100	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.8368098 g	1.1 g	0.0353136 g	A
WM25-101	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.2818098 g	1.1 g	0.0353136 g	A
WM25-102	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.7018098 g	1.1 g	0.0353136 g	A
WM25-103	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4568098 g	1.1 g	0.0353136 g	A
WM25-28	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1631902 g	1.1 g	0.0353136 g	A
WM25-38	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.0231902 g	1.1 g	0.0353136 g	A
WM25-45	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.2968098 g	1.1 g	0.0353136 g	A
WM25-55	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.2268098 g	1.1 g	0.0353136 g	A
WM25-56	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6981902 g	1.1 g	0.0353136 g	A
WM25-57	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.4381902 g	1.1 g	0.0353136 g	A
WM25-58	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6081902 g	1.1 g	0.0353136 g	A
WM25-59	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6531902 g	1.1 g	0.0353136 g	A
WM25-75	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.0068098 g	1.1 g	0.0353136 g	A
WM25-76	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.6131902 g	1.1 g	0.0353136 g	A
WM25-77	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4068098 g	1.1 g	0.0353136 g	A
WM25-78	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.5931902 g	1.1 g	0.0353136 g	A
WM25-79	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.4581902 g	1.1 g	0.0353136 g	A
WM25-96	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5218098 g	1.1 g	0.0353136 g	A
WM25-97	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.0418098 g	1.1 g	0.0353136 g	A
WM25-98	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.6818098 g	1.1 g	0.0353136 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: 15

Agency: Dept of Ag. - Weights & Measures
109 Front Street
Kearney, NE 68845-

Form No.: NE03LF12-R00

NE Cert No: 20110047

Date: 4/5/2011

P.O. No:

Submitted By: Kent McConnell

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Serial #: 05-40547-01
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	47.8 °F	0.999797	0 in3

Test Measure Information

Water Temperature: 48.5 °F
Water Density: 0.999797 g/cm³
Scale Reading: -0.3 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0005 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

Nebraska Standards Laboratory
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(402) 471-2087

SOP 19 - Volume Transfer Test Results

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NE Cert No: 20110047

Date: 4/5/2011

P.O. No:

Submitted By: Kent McConnell

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Serial #: 05-40547-01
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	47 °F	0.999827	0 in3

Test Measure Information

Water Temperature: 47.5 °F
Water Density: 0.999827 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

Nebraska Standards Laboratory
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Lincoln, NE 68524
(402) 471-2087

SOP 19 - Volume Transfer Test Results

Agency ID: 15

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109 Front Street
Kearney, NE 68845-

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NE Cert No: 20110047

Date: 4/5/2011

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Submitted By: Kent McConnell

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Serial #: 05-40547-02
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	49.4 °F	0.999728	0 in3

Test Measure Information

Water Temperature: 50.9 °F
Water Density: 0.999728 g/cm³
Scale Reading: -0.25 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

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Serial #: 05-40547-02
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	47.6 °F	0.999805	0 in3

Test Measure Information

Water Temperature: 48.2 °F
Water Density: 0.999805 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

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Serial #: 05-40547-03
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	48.1 °F	0.999785	0 in3

Test Measure Information

Water Temperature: 48.8 °F
Water Density: 0.999785 g/cm³
Scale Reading: -0.4 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0009 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

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SOP 19 - Volume Transfer Test Results

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Serial #: 05-40547-03
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	48.1 °F	0.999785	0 in3

Test Measure Information

Water Temperature: 48.8 °F
Water Density: 0.999785 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

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Serial #: 05-40547-03
Retest #: 2
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 °F	0.999789	0 in3

Test Measure Information

Water Temperature: 48.7 °F
Water Density: 0.999789 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

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Agency ID: 15

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Serial #: 39423-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	48.6 °F	0.999764	0 in3

Test Measure Information

Water Temperature: 48.9 °F
Water Density: 0.999764 g/cm³
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

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Serial #: 39423-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	47.1 °F	0.999824	0 in3

Test Measure Information

Water Temperature: 47.5 °F
Water Density: 0.999824 g/cm³
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

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Serial #: 39423-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 °F	0.999827	0 in3

Test Measure Information

Water Temperature: 47.7 °F
Water Density: 0.999827 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A

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Serial #: 39423-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	47.2 °F	0.999820	0 in3

Test Measure Information

Water Temperature: 47.5 °F
Water Density: 0.999820 g/cm³
Scale Reading: -0.25 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0002 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: A