



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
551 West Burt
Lincoln, NE 68521-

Date: 3/10/2011
Agency ID: 65
NE Cert No: 20110035
P.O. No:

Submitted By: Rick Lookk

Electronic Copy Page 1

<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
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

Administration
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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
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Bureau of Dairies & Foods
P.O. Box 95064
Lincoln, NE 68509-5064
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Weights and Measures
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Submitted By: Rick Loock

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
50 gal	1892483	1	VL	A
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

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<u>Denomination</u>	<u>Serial Number</u>	<u>Weight Number</u>	<u>Tolerance</u>	<u>Accept/Reject</u>
0.001 lb	1A7	36	F	A
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
300 g	WM-G89-9	1	4	A
200 g	WM-G89-9	2	4	A
100 g	WM-G89-9	3	4	A
50 g	WM-G89-9	4	4	A
30 g	WM-G89-9	5	4	A
20 g	WM-G89-9	6	4	A
10 g	WM-G89-9	7	4	A
5 g	WM-G89-9	8	4	A
3 g	WM-G89-9	9	4	A
2 g	WM-G89-9	10	4	A

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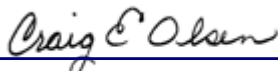
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Denomination	Serial Number	Weight Number	Tolerance	Accept/Reject
1 g	WM-G89-9	11	4	A
500 mg	WM-G89-9	12	4	A
200 mg	WM-G89-9	13	4	A
200 mg*	WM-G89-9	14	4	A
100 mg	WM-G89-9	15	4	A
50 mg	WM-G89-9	16	4	A
20 mg	WM-G89-9	17	4	A
20 mg*	WM-G89-9	18	4	A
10 mg	WM-G89-9	19	4	A
5 mg	WM-G89-9	20	4	A
2 mg	WM-G89-9	21	4	A
2 mg*	WM-G89-9	22	4	A
1 mg	WM-G89-9	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: 65
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551 West Burt
Lincoln, NE 68521-

NE Cert No: 20110035
Date: 3/10/2011
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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
300 g	WM-G89-9	1	300.00528874	300.00437021	0.00014956	CC1201 / 1 kg	300gd
200 g	WM-G89-9	2	200.00128399	200.00067165	0.00014876	CC1201 / 1 kg	200gd
100 g	WM-G89-9	3	100.00034791	100.00004174	0.00006764	AT106_100G	100grl
50 g	WM-G89-9	4	50.00068305	50.00052997	0.00004616	AT106_100G	50grl
30 g	WM-G89-9	5	30.00002699	29.99993514	0.00003999	AT106_100G	30grl
20 g	WM-G89-9	6	20.00068059	20.00061935	0.00003508	AT106_100G	20grl
10 g	WM-G89-9	7	10.00037357	10.00034295	0.00001787	AT106_10G	10grl
5 g	WM-G89-9	8	5.00018716	5.00017185	0.00000721	CCE6_5G	5grl
3 g	WM-G89-9	9	3.00016462	3.00015543	0.00000632	CCE6_5G	3grl
2 g	WM-G89-9	10	2.00004550	2.00003938	0.00000632	CCE6_5G	2grl
1 g	WM-G89-9	11	1.00006838	1.00006532	0.00000607	CCE6_5G	1grl
500 mg	WM-G89-9	12	0.50004830	0.50004677	0.00000562	CCE6_5G	500mgrl
200 mg	WM-G89-9	13	0.20001088	0.20001026	0.00000545	CCE6_5G	200mgrl
200 mg*	WM-G89-9	14	0.20000172	0.20000111	0.00000545	CCE6_5G	200mgrl
100 mg	WM-G89-9	15	0.09997488	0.09997457	0.00000542	CCE6_5G	100mgrl
50 mg	WM-G89-9	16	0.05000072	0.05000056	0.00000541	CCE6_5G	50mgrl
20 mg	WM-G89-9	17	0.02003750	0.02003160	0.00000540	CCE6_5G	20mgrl
20 mg*	WM-G89-9	18	0.02003675	0.02003085	0.00000540	CCE6_5G	20mgrl
10 mg	WM-G89-9	19	0.00999498	0.00999204	0.00000540	CCE6_5G	10mgrl
5 mg	WM-G89-9	20	0.00500355	0.00500208	0.00000540	CCE6_5G	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: Dept of Ag. - Weights & Measures
551 West Burt
Lincoln, NE 68521-

NE Cert No: 20110035

Date: 3/10/2011

P.O. No:

Observer: CEO

Form No.: NE04LF7-R00

Submitted By: Rick Loock

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Denom.	Serial Number	Wt. No.	True Mass (g)	Conventional Mass (g)	Uncertainty (g)	Comparator used	Standard used
2 mg	WM-G89-9	21	0.00200500	0.00200441	0.00000540	CCE6_5G	2mgrl
2 mg*	WM-G89-9	22	0.00200205	0.00200146	0.00000540	CCE6_5G	2mgrl
1 mg	WM-G89-9	23	0.00099725	0.00099695	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.

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3721 West Cuming Street
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SOP 8 - Modified Substitution Test Results

Form No.: NE04LF9-R00

Agency ID: 65
 Agency: Dept of Ag. - Weights & Measures
 551 West Burt
 Lincoln, NE 68521-

NE Cert No: 20110035
 Date: 3/10/2011
 P.O. No:
 Observer: CEO

Submitted By: Rick Look

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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-lb	NSL-2-1	0.0155819 g	0.091 g	0.0005150 g	A
10-OPI-10	2	0	2 lb	CC1201-lb	NSL-2-1	-0.0197181 g	0.091 g	0.0005150 g	A
10-OPI-10	3	0	2 lb	CC1201-lb	NSL-2-1	-0.0183181 g	0.091 g	0.0005150 g	A
10-OPI-10	4	0	1 lb	CC1201-lb	NSL-1-1	0.0091759 g	0.07 g	0.0004635 g	A
10-OPI-10	5	0	8 oz	CC1201-lb	NSL-8-1	0.0042735 g	0.045 g	0.0004521 g	A
10-OPI-10	6	0	4 oz	CC1201-lb	NSL-Z	0.0055960 g	0.023 g	0.0004384 g	A
10-OPI-10	7	0	2 oz	AT106-lb	NSL-Y	0.0013872 g	0.011 g	0.0000536 g	A
10-OPI-10	8	0	1 oz	AT106-lb	2A9-1oz	0.0015219 g	0.0054 g	0.0003655 g	A
10-OPI-10	9	0	0.5 oz	AT106-lb	2A9-1.2oz	0.0019899 g	0.0028 g	0.0003654 g	A
10-OPI-10	10	0	0.25 oz	AT106-lb	2A9-1.4oz	0.0013885 g	0.0017 g	0.0000437 g	A
10-OPI-10	11	0	0.125 oz	CCE6_lb	2A9-1.8oz	0.0000705 g	0.0013 g	0.0000075 g	A
10-OPI-10	12	0	0.0625 oz	CCE6_lb	2A9-1.16oz	0.0006381 g	0.0011 g	0.0000074 g	A
10-OPI-10	13	0	0.0625 oz*	CCE6_lb	2A9-1.16oz	0.0006449 g	0.0011 g	0.0000074 g	A
10-OPI-10	14	0	0.3 lb	CC1201-lb	NSL-WK1	0.0077900 g	0.027 g	0.0004432 g	A
10-OPI-10	15	0	0.2 lb	AT106-lb	NSL-WK2	-0.0034271 g	0.018 g	0.0000569 g	A
10-OPI-10	16	0	0.1 lb	AT106-lb	NSL-WK3	-0.0008423 g	0.0091 g	0.0000498 g	A
10-OPI-10	17	0	0.05 lb	AT106-lb	NSL-WK4	0.0026811 g	0.0045 g	0.0000481 g	A
10-OPI-10	18	0	0.03 lb	AT106-lb	NSL-WK5	-0.0014537 g	0.0027 g	0.0000429 g	A
10-OPI-10	19	0	0.02 lb	AT106-lb	NSL-WK6	-0.0010236 g	0.0018 g	0.0000445 g	A
10-OPI-10	20	0	0.01 lb	UMT5/6-lb	NSL-WK7	0.0009339 g	0.0015 g	0.0000098 g	A
10-OPI-10	21	0	0.005 lb	UMT5/6-lb	NSL-WK8	0.0010153 g	0.0012 g	0.0000085 g	A
10-OPI-10	22	0	0.003 lb	UMT5/6-lb	NSL-WK9	0.0001232 g	0.00099 g	0.0000081 g	A
10-OPI-10	23	0	0.002 lb	UMT5/6-lb	NSL-WK10	-0.0006162 g	0.00087 g	0.0000074 g	A
10-OPI-10	24	0	0.001 lb	UMT5/6-lb	NSL-WK11	0.0000117 g	0.0007 g	0.0000073 g	A
10-OPI-10	25	0	0.001 lb*	UMT5/6-lb	NSL-WK11	-0.0000084 g	0.0007 g	0.0000073 g	A
1A7	1	0	2 lb	CC1201-lb	NSL-2-1	-0.0033181 g	0.091 g	0.0005150 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
1A7	2	0	2 lb	CC1201-lb	NSL-2-1	-0.0389181 g	0.091 g	0.0005150 g	A
1A7	3	0	2 lb	CC1201-lb	NSL-2-1	-0.0387181 g	0.091 g	0.0005150 g	A
1A7	4	0	2 lb	CC1201-lb	NSL-2-1	-0.0435181 g	0.091 g	0.0005150 g	A
1A7	5	0	2 lb	CC1201-lb	NSL-2-1	-0.0376181 g	0.091 g	0.0005150 g	A
1A7	6	0	2 lb	CC1201-lb	NSL-2-1	-0.0574181 g	0.091 g	0.0005150 g	A
1A7	7	0	2 lb	CC1201-lb	NSL-2-1	-0.0422181 g	0.091 g	0.0005150 g	A
1A7	8	0	2 lb	CC1201-lb	NSL-2-1	-0.0115181 g	0.091 g	0.0005150 g	A
1A7	9	0	2 lb	CC1201-lb	NSL-2-1	-0.0330181 g	0.091 g	0.0005150 g	A
1A7	10	0	2 lb	CC1201-lb	NSL-2-1	-0.0355181 g	0.091 g	0.0005150 g	A
1A7	11	0	2 lb	CC1201-lb	NSL-2-1	-0.0314181 g	0.091 g	0.0005150 g	A
1A7	12	0	2 lb	CC1201-lb	NSL-2-1	-0.0132181 g	0.091 g	0.0005150 g	A
1A7	13	0	2 lb	CC1201-lb	NSL-2-1	-0.0548181 g	0.091 g	0.0005150 g	A
1A7	14	0	2 lb	CC1201-lb	NSL-2-1	-0.0442181 g	0.091 g	0.0005150 g	A
1A7	15	0	1 lb	CC1201-lb	NSL-1-1	-0.0139241 g	0.07 g	0.0004635 g	A
1A7	16	0	1 lb	CC1201-lb	NSL-1-1	-0.0180241 g	0.07 g	0.0004635 g	A
1A7	17	0	8 oz	CC1201-lb	NSL-8-1	-0.0122265 g	0.045 g	0.0004521 g	A
1A7	18	0	4 oz	CC1201-lb	NSL-Z	0.0028960 g	0.023 g	0.0004384 g	A
1A7	19	0	2 oz	AT106-lb	NSL-Y	0.0001992 g	0.011 g	0.0000536 g	A
1A7	20	0	1 oz	AT106-lb	2A9-1oz	0.0016979 g	0.0054 g	0.0003655 g	A
1A7	21	0	0.5 oz	AT106-lb	2A9-1.2oz	-0.0006531 g	0.0028 g	0.0003654 g	A
1A7	22	0	0.25 oz	AT106-lb	2A9-1.4oz	-0.0001565 g	0.0017 g	0.0000437 g	A
1A7	23	0	0.125 oz	CCE6_lb	2A9-1.8oz	-0.0000246 g	0.0013 g	0.0000075 g	A
1A7	24	0	0.0625 oz	CCE6_lb	2A9-1.16oz	0.0006606 g	0.0011 g	0.0000074 g	A
1A7	25	0	0.0625 oz*	CCE6_lb	2A9-1.16oz	0.0003350 g	0.0011 g	0.0000074 g	A
1A7	26	0	0.3 lb	CC1201-lb	NSL-WK1	0.0027900 g	0.027 g	0.0004432 g	A
1A7	27	0	0.2 lb	AT106-lb	NSL-WK2	-0.0014901 g	0.018 g	0.0000569 g	A
1A7	28	0	0.1 lb	AT106-lb	NSL-WK3	-0.0015603 g	0.0091 g	0.0000498 g	A
1A7	29	0	0.05 lb	AT106-lb	NSL-WK4	-0.0003389 g	0.0045 g	0.0000481 g	A
1A7	30	0	0.03 lb	AT106-lb	NSL-WK5	-0.0012237 g	0.0027 g	0.0000429 g	A
1A7	31	0	0.02 lb	AT106-lb	NSL-WK6	0.0004824 g	0.0018 g	0.0000445 g	A
1A7	32	0	0.01 lb	CCE6_lb	NSL-WK7	0.0005848 g	0.0015 g	0.0000090 g	A
1A7	33	0	0.005 lb	CCE6_lb	NSL-WK8	-0.0005400 g	0.0012 g	0.0000075 g	A
1A7	34	0	0.003 lb	CCE6_lb	NSL-WK9	0.0002576 g	0.00099 g	0.0000070 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
1A7	35	0	0.002 lb	CCE6_lb	NSL-WK10	0.0005030 g	0.00087 g	0.0000063 g	A
1A7	36	0	0.001 lb	CCE6_lb	NSL-WK11	0.0000519 g	0.0007 g	0.0000061 g	A
1A7	37	0	0.001 lb*	CCE6_lb	NSL-WK11	-0.0004222 g	0.0007 g	0.0000061 g	A
2	1	0	4 kg	CC10000S-5 kg	4kg	0.0003082 g	0.08 g	0.0007766 g	A
NE-61	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.2668098 g	1.1 g	0.0354518 g	R
NE-61	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.3018098 g	1.1 g	0.0354518 g	A
NE-62	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.3418098 g	1.1 g	0.0354518 g	A
NE-63	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7218098 g	1.1 g	0.0354518 g	R
NE-63	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.7168098 g	1.1 g	0.0354518 g	A
NE-64	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1868098 g	1.1 g	0.0354518 g	R
NE-64	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.5318098 g	1.1 g	0.0354518 g	A
NE-65	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.7268098 g	1.1 g	0.0354518 g	A
NE-66	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1668098 g	1.1 g	0.0354518 g	R
NE-66	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.3118098 g	1.1 g	0.0354518 g	A
NE-67	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5518098 g	1.1 g	0.0354518 g	A
NE-68	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.0468098 g	1.1 g	0.0354518 g	A
NE-69	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.5218098 g	1.1 g	0.0354518 g	A
NE-70	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.1918098 g	1.1 g	0.0354518 g	A
NE-71	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4418098 g	1.1 g	0.0354518 g	A
NE-72	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.1418098 g	1.1 g	0.0354518 g	R
NE-72	1	1	25 lb	KA30-3_25lb	NSL-25-1	0.3118098 g	1.1 g	0.0354518 g	A
NE-73	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.1818098 g	1.1 g	0.0354518 g	A
NE-74	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.3368098 g	1.1 g	0.0354518 g	A
NE-75	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.0181902 g	1.1 g	0.0354518 g	A
NE-76	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.4468098 g	1.1 g	0.0354518 g	A
NE-77	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.4418098 g	1.1 g	0.0354518 g	R
NE-77	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.1931902 g	1.1 g	0.0354518 g	A
NE-78	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.7968098 g	1.1 g	0.0354518 g	A
NE-79	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.6918098 g	1.1 g	0.0354518 g	R
NE-79	1	1	25 lb	KA30-3_25lb	NSL-25-1	-0.7131902 g	1.1 g	0.0354518 g	A
NE-80	1	0	25 lb	KA30-3_25lb	NSL-25-1	1.7818098 g	1.1 g	0.0354518 g	R
NE-80	1	1	25 lb	KA30-3_25lb	NSL-25-1	1.0718098 g	1.1 g	0.0354518 g	A
WM-D17	1	0	25 lb	KA30-3_25lb	NSL-25-1	-0.1681902 g	1.1 g	0.0354518 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: Dept of Ag. - Weights & Measures
 551 West Burt
 Lincoln, NE 68521-

NE Cert No: 20110035
 Date: 3/10/2011
 P.O. No:
 Observer: CEO

Submitted By: Rick Loock

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Serial Number	Wt. No.	Retest No.	Denom.	Comparator used	Standard Used	Error of test weight	Tolerance	Uncertainty	Accepted or Rejected
WM-D18	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.2718098 g	1.1 g	0.0354518 g	A
WM-D19	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.6668098 g	1.1 g	0.0354518 g	A
WM-D20	1	0	25 lb	KA30-3_25lb	NSL-25-1	0.1718098 g	1.1 g	0.0354518 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: Dept of Ag. - Weights & Measures
551 West Burt
Lincoln, NE 68521-

Form No.: NE03LF12-R00

NE Cert No: 20110035

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P.O. No:

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Serial #: 1892483
Retest #: 0
Denomination: 50 gal
Observer: CEO

Eq Vol/cu.in.: 11550 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	50gal	49.9960184	SS	0.0000265 /°F	48.6 °F	0.999764	0 in3

Test Measure Information

Water Temperature: 48.8 °F
Water Density: 0.999764 g/cm³
Scale Reading: 1 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 49.9919 gal.
Tolerance: 0.0251 gal.
Uncertainty: 0.0242 gal.
Accepted/Rejected: A

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Serial #: 1892483
Retest #: 1
Denomination: 50 gal
Observer: CEO

Eq Vol/cu.in.: 11550 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	50gal	49.9960184	SS	0.0000265 /°F	48.6 °F	0.999764	0 in3

Test Measure Information

Water Temperature: 48.8 °F
Water Density: 0.999764 g/cm³
Scale Reading: -1 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 50.0005 gal.
Tolerance: 0.0251 gal.
Uncertainty: 0.0242 gal.
Accepted/Rejected: A

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Serial #: 1892483
Retest #: 2
Denomination: 50 gal
Observer: CEO

Eq Vol/cu.in.: 11550 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	50gal	49.9960184	SS	0.0000265 /°F	47.9 °F	0.999793	0 in3

Test Measure Information

Water Temperature: 48 °F
Water Density: 0.999793 g/cm³
Scale Reading: -1 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 50.0004 gal.
Tolerance: 0.0251 gal.
Uncertainty: 0.0242 gal.
Accepted/Rejected: A

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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	44.6 °F	0.999902	0 in3

Test Measure Information

Water Temperature: 44.6 °F
Water Density: 0.999902 g/cm³
Scale Reading: -0.8 cu.in.

Test Results

Test Measure Volume @ 60° F at zero scale reading: 5.0026 gal.
Tolerance: 0.0025 gal.
Uncertainty: 0.0012 gal.
Accepted/Rejected: R

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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	45.7 °F	0.999871	0 in3

Test Measure Information

Water Temperature: 45.7 °F
Water Density: 0.999871 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 #: 4393-5-A
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	47.3 °F	0.999816	0 in3

Test Measure Information

Water Temperature: 47.3 °F
Water Density: 0.999816 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 #: 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	43.2 °F	0.999933	0 in3

Test Measure Information

Water Temperature: 43.2 °F
Water Density: 0.999933 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 #: 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	43.5 °F	0.999927	0 in3

Test Measure Information

Water Temperature: 43.5 °F
Water Density: 0.999927 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 #: 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	44.9 °F	0.999894	0 in3

Test Measure Information

Water Temperature: 44.9 °F
Water Density: 0.999894 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 #: 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	44.2 °F	0.999911	0 in3

Test Measure Information

Water Temperature: 44.2 °F
Water Density: 0.999911 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 #: 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	44.5 °F	0.999904	0 in3

Test Measure Information

Water Temperature: 44.5 °F
Water Density: 0.999904 g/cm³
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

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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	44.5 °F	0.999904	0 in3

Test Measure Information

Water Temperature: 44.5 °F
Water Density: 0.999904 g/cm³
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

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NE Cert No: 20110035

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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	46.2 °F	0.999855	0 in3

Test Measure Information

Water Temperature: 46.2 °F
Water Density: 0.999855 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 #: 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	44.4 °F	0.999907	0 in3

Test Measure Information

Water Temperature: 44.4 °F
Water Density: 0.999907 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