

## RLWS Traceable Mass Value Certificate


A customer requesting a RLWS Traceable Mass Value Report, needs proof of traceability to NIST, and actual values and uncertainties. Comparisons must be made between the item being tested and the standard being used. The known standard used for the tolerance test is essential to the traceable document.

Prior to comparison between the known standard and the item submitted for testing, the known standard must be sufficiently tested over time to produce predictable measurements.

This report should contain all of the data related to the test. After testing, a RLWS Traceable Mass Value Report is issued. Although the RLWS Traceable Mass Value Report provides traceability to NIST, it is not a NVLAP accredited document. If an accredited document is required, please refer to the TMAP Traceable Certificate and/or TMAP Calibration Report.

### The RLWS Traceable Mass Value Report includes the following information:

- 1 Name and address of the calibration laboratory
- 2 Identification of the calibrated item and serial number, if applicable
- 3 Nominal mass value
- 4 As found condition of the weight
- 5 As left condition of the weight
- 6 Tolerance for the specific class
- 7 A statement of the estimated value of uncertainty<sup>1</sup>
- 8 Your Traceable Report Number
- 9 NIST Certificate number
- 10 Environmental condition at time of test
- 11 Procedure used
- 12 Record of the weighing equipment
- 13 Calibration and due date of RLWS standards. This represents the date that RLWS standard is due for recalibration. This RLWS standard was used to check the performance of your weight. This date in no way reflects an expiration date of the certificate, nor does it infer or specify a recall date. The expiration of the certificate and the specification of a recall date are user assigned responsibilities under NIST H150-1.
- 14 Assumed density of the weights being tested
- 15 Contractor name and address
- 16 Client name and address




Contractor: **15** Rice Lake Weighing Systems  
230W Coleman St  
Rice Lake, WI 54868

Purchase Order #: 003333  
Client: **16** Rice Lake Weighing Systems  
Address: 230 W Coleman St  
City & State: Rice Lake, WI 54868  
Date Received: 13 AUG 2008  
Date Calibrated: 14 AUG 2008 to 19 AUG 2008  
Temperature Range: 21.77 to 22.78 °C  
Pressure Range: 730.9 to 734.4 mmHg  
Relative Humidity Range: **10** 48 to 49 %  
Air Density: **8** 1.1417 to 1.1492 mg/cm<sup>3</sup>  
Traceable Report #: **9** SAMPLE4  
NIST Certificate #: 822/272801-06 822/274081-06  
Tested By: 12, 17  
Procedure: **11** Modified Substitution (WI05-0023)

Primary Standard Calibration Date: 11/03/06 Due: 11/03/10  
Description of Weights: **2** 1mg-50g Polished Kit, Class \*3\*, S/N 7890  
Although there are two NIST numbers, one or both may apply.

| 3      | Nominal Value | Id.      | Conventional Mass Corr. |              | 7       | 6     | 12    | Standard Set Used | 13                | 14   |
|--------|---------------|----------|-------------------------|--------------|---------|-------|-------|-------------------|-------------------|------|
|        |               |          | As Found (mg)           | As Left (mg) |         |       |       |                   |                   |      |
| 1 mg   | 0.00727       |          | 0.00727                 | 0.00727      | 0.00069 | 0.025 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 1 mg   | 0.00727       |          | 0.00727                 | 0.00727      | 0.00069 | 0.025 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 2 mg   | 0.01193       | <b>4</b> | 0.01193                 | 0.01193      | 0.00063 | 0.025 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 2 mg   | 0.01205       |          | 0.01205                 | 0.01205      | 0.00063 | 0.025 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 5 mg   | 0.00962       |          | 0.00962                 | 0.00962      | 0.00077 | 0.028 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 10 mg  | 0.0116        | <b>5</b> | 0.0116                  | 0.0116       | 0.0011  | 0.030 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 20 mg  | 0.01186       |          | 0.01186                 | 0.01186      | 0.00086 | 0.035 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 20 mg  | 0.01106       |          | 0.01106                 | 0.01106      | 0.00086 | 0.035 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 50 mg  | 0.0219        |          | 0.0219                  | 0.0219       | 0.0010  | 0.042 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 100 mg | 0.0244        |          | 0.0244                  | 0.0244       | 0.0016  | 0.050 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 200 mg | 0.0186        |          | 0.0186                  | 0.0186       | 0.0014  | 0.060 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 300 mg | 0.0310        |          | 0.0310                  | 0.0310       | 0.0014  | 0.070 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 500 mg | 0.0266        |          | 0.0266                  | 0.0266       | 0.0017  | 0.080 | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.95 |
| 1 g    | 0.0198        |          | 0.0198                  | 0.0198       | 0.0024  | 0.10  | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 2 g    | 0.0210        |          | 0.0210                  | 0.0210       | 0.0037  | 0.13  | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 2 g    | 0.0030        |          | 0.0030                  | 0.0030       | 0.0037  | 0.13  | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 5 g    | 0.0181        |          | 0.0181                  | 0.0181       | 0.0091  | 0.18  | 501Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 10 g   | 0.014         |          | 0.014                   | 0.014        | 0.013   | 0.25  | 676Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 20 g   | 0.021         |          | 0.021                   | 0.021        | 0.012   | 0.35  | 676Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 20 g   | 0.027         |          | 0.027                   | 0.027        | 0.012   | 0.35  | 676Q  | K594Q             | 06-04-08/09-04-08 | 7.85 |
| 50 g   | -0.024        |          | -0.024                  | -0.024       | 0.021   | 0.60  | 1183Q | K594Q             | 06-04-08/09-04-08 | 7.85 |

Prepared By: **1**   
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<sup>1</sup> A reported value without all required parameters cannot be used in any link of traceability. Therefore, a traceable report without an uncertainty statement is useless.