

# United States Department of Commerce

## National Institute of Standards and Technology

Certificate of Metrological Traceability For:

# Minnesota

This laboratory has demonstrated evidence of an unbroken chain of metrological traceability of its standards to the international system of units (SI), documented measurement uncertainties, uses documented measurement procedures, successfully completed training and proficiency tests, documented calibration intervals, submitted a quality management system, and demonstrated suitable measurement assurance for the Scope listed on this certificate.

The Office of Weights and Measures Program assesses laboratories to NIST Handbook 143 - Program Handbook for State Weights and Measures Laboratories and ISO/IEC 17025:2005.

### Scope

#### Mass Echelon I

20 kg to 1 mg  
50 lb to 0.001 lb

#### Mass Echelon II

20 kg to 1 mg  
1000 lb to 500 lb  
50 lb to 0.001 lb  
4 oz to 0.03125 oz

#### Mass Echelon III

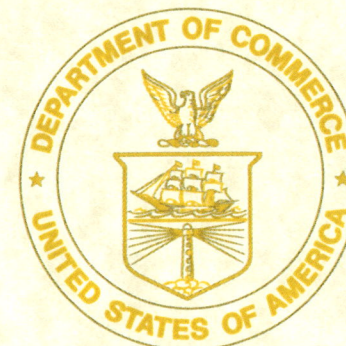
50 kg to 1 mg  
5000 lb to 0.001 lb  
4 oz to 0.03125 oz  
  
Weight Carts  
10 000 lb to 2000 lb  
  
Wheel Load Weighers  
20 000 lb to 2000 lb  
  
Railroad Test Cars  
110 000 lb to 80 000 lb

#### Volume Gravimetric, I

20 L to 10 mL  
100 gal to 0.25 gal

#### Volume Transfer, II

1500 gal to 5 gal  
200 gal to 25 gal LPG



2018 to 2019

Douglas A. Olson, Chief  
NIST Office of Weights and Measures

Effective Dates: 2018-01-01 to 2019-12-31