



# National Voluntary Laboratory Accreditation Program



## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

### State of Ohio Metrology Laboratory

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### CALIBRATION LABORATORIES

### NVLAP LAB CODE 200420-0

**NVLAP Code:** 20/A01

ANSI/NCSL Z540-1-1994; Part 1

Compliant

### DIMENSIONAL

**NVLAP Code:** 20/D13

Surveying Rods and Tapes

<i>Range in inches</i>	<i>Best Uncertainty (<math>\pm</math>) in inches <sup>note 1</sup></i>	<i>Remarks</i>
6 to 12	0.0061	Rigid Rules, 72 inch
6 to 18	0.010	Rigid Rules, 72 inch
6 to 24	0.010	Rigid Rules, 72 inch
6 to 30	0.014	Rigid Rules, 72 inch
6 to 36	0.015	Rigid Rules, 72 inch
6 to 42	0.018	Rigid Rules, 72 inch
6 to 48	0.018	Rigid Rules, 72 inch
6 to 54	0.023	Rigid Rules, 72 inch
6 to 60	0.023	Rigid Rules, 72 inch
6 to 66	0.027	Rigid Rules, 72 inch
6 to 72	0.029	Rigid Rules, 72 inch
1 to 2	0.0061	Rigid Rules, 18 inch
1 to 3	0.0061	Rigid Rules, 18 inch
1 to 4	0.0061	Rigid Rules, 18 inch
1 to 5	0.0061	Rigid Rules, 18 inch

2008-07-01 through 2009-06-30

Effective dates

For the National Institute of Standards and Technology



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1 to 6	0.0061	Rigid Rules, 18 inch
1 to 7	0.0061	Rigid Rules, 18 inch
1 to 8	0.0061	Rigid Rules, 18 inch
1 to 9	0.0061	Rigid Rules, 18 inch
1 to 10	0.0061	Rigid Rules, 18 inch
1 to 11	0.0062	Rigid Rules, 18 inch
1 to 12	0.0062	Rigid Rules, 18 inch
1 to 13	0.0062	Rigid Rules, 18 inch
1 to 14	0.010	Rigid Rules, 18 inch
1 to 15	0.010	Rigid Rules, 18 inch
1 to 16	0.010	Rigid Rules, 18 inch
1 to 17	0.010	Rigid Rules, 18 inch
1 to 18	0.010	Rigid Rules, 18 inch

Range in ft	Best Uncertainty ( $\pm$ ) in inches <sup>note 1</sup>	Remarks
0 to 6	0.023	Tape to Bench
0 to 30	0.033	Tape to Bench
0 to 50	0.042	Tape to Bench
0 to 100	0.065	Tape to Bench
0 to 6	0.024	Tape to Tape
0 to 30	0.035	Tape to Tape
0 to 50	0.045	Tape to Tape
0 to 100	0.075	Tape to Tape

## MECHANICAL

**NVLAP Code:** 20/M08  
Mass- Metric

Range	Best Uncertainty ( $\pm$ ) <sup>note 1</sup>	Remarks
1000 kg	8.2 g	Echelon II
500 kg	3.2 g	Echelon II
300 kg	2.6 g	Echelon II
200 kg	1.8 g	Echelon II
100 kg	1.4 g	Echelon II

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*Sally S. Bruce*  
For the National Institute of Standards and Technology



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## CALIBRATION LABORATORIES

NVLAP LAB CODE 200420-0

50 kg	0.80 g	Echelon II
25 kg	0.040 g	Echelon II
20 kg	0.030 g	Echelon II
10 kg	0.029 g	Echelon II
5 kg	9.4 mg	Echelon II
3 kg	5.2 mg	Echelon II
2 kg	5.0 mg	Echelon II
1 kg	1.3 mg	Echelon II
500 g	0.73 mg	Echelon II
300 g	0.50 mg	Echelon II
200 g	0.42 mg	Echelon II
100 g	0.40 mg	Echelon II
50 g	0.20 mg	Echelon II
30 g	0.14 mg	Echelon II
20 g	0.091 mg	Echelon II
10 g	0.071 mg	Echelon II
5 g	0.036 mg	Echelon II
3 g	0.023 mg	Echelon II
2 g	0.018 mg	Echelon II
1 g	0.016 mg	Echelon II
500 mg	0.010 mg	Echelon II
300 mg	0.0074 mg	Echelon II
200 mg	0.0065 mg	Echelon II
100 mg	0.0072 mg	Echelon II
50 mg	0.0057 mg	Echelon II
30 mg	0.0049 mg	Echelon II
20 mg	0.0047 mg	Echelon II
10 mg	0.0053 mg	Echelon II
5 mg	0.0042 mg	Echelon II
3 mg	0.0039 mg	Echelon II
2 mg	0.0043 mg	Echelon II
1 mg	0.0046 mg	Echelon II

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## CALIBRATION LABORATORIES

NVLAP LAB CODE 200420-0

### Mass- Avoirdupois

2500 lb	10 g	Echelon II
1000 lb	3 g	Echelon II
500 lb	1.8 g	Echelon II
50 lb	0.026 g	Echelon II
25 lb	0.014 g	Echelon II
20 lb	0.0030 g	Echelon II
10 lb	4.1 mg	Echelon II
5 lb	3.2 mg	Echelon II
2 lb	0.17 mg	Echelon II
1 lb	0.085 mg	Echelon II
0.5 lb	0.17 mg	Echelon II
0.3 lb	0.072 mg	Echelon II
0.2 lb	0.026 mg	Echelon II
0.1 lb	0.19 mg	Echelon II
0.05 lb	0.014 mg	Echelon II
0.03 lb	0.012 mg	Echelon II
0.02 lb	0.0089 mg	Echelon II
0.01 lb	0.0036 mg	Echelon II
0.005 lb	0.0028 mg	Echelon II
0.003 lb	0.0022 mg	Echelon II
0.002 lb	0.0021 mg	Echelon II
0.001 lb	0.0028 mg	Echelon II

### Mass- Metric

1000 kg	14 g	Echelon III
500 kg	6.2 g	Echelon III
200 kg	4.8 g	Echelon III
100 kg	2.6 g	Echelon III
50 kg	1.6 g	Echelon III
25 kg	0.040 g	Echelon III
20 kg	0.039 g	Echelon III
10 kg	0.035 g	Echelon III
5 kg	19 mg	Echelon III

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## CALIBRATION LABORATORIES

NVLAP LAB CODE 200420-0

2 kg	11 mg	Echelon III
1 kg	2.6 mg	Echelon III
500 g	1.5 mg	Echelon III
300 g	1.0 mg	Echelon III
200 g	0.81 mg	Echelon III
100 g	0.78 mg	Echelon III
50 g	0.40 mg	Echelon III
30 g	0.26 mg	Echelon III
20 g	0.18 mg	Echelon III
10 g	0.13 mg	Echelon III
5 g	0.070 mg	Echelon III
3 g	0.046 mg	Echelon III
2 g	0.036 mg	Echelon III
1 g	0.032 mg	Echelon III
500 mg	0.020 mg	Echelon III
300 mg	0.015 mg	Echelon III
200 mg	0.013 mg	Echelon III
100 mg	0.014 mg	Echelon III
50 mg	0.011 mg	Echelon III
30 mg	0.0094 mg	Echelon III
20 mg	0.0090 mg	Echelon III
10 mg	0.010 mg	Echelon III
5 mg	0.0082 mg	Echelon III
3 mg	0.0073 mg	Echelon III
2 mg	0.0086 mg	Echelon III
1 mg	0.0084 mg	Echelon III

### Mass- Avoirdupois

2500 lb	38 g	Echelon III
2000 lb	18 g	Echelon III
1000 lb	5.8 g	Echelon III
500 lb	3.4 g	Echelon III
50 lb	0.050 g	Echelon III
25 lb	0.026 g	Echelon III

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20 lb	5.6 g	Echelon III
10 lb	5.2 mg	Echelon III
5 lb	3.8 mg	Echelon III
2 lb	0.24 mg	Echelon III
1 lb	0.15 mg	Echelon III
0.5 lb	0.091 mg	Echelon III
0.3 lb	0.088 mg	Echelon III
0.2 lb	0.038 mg	Echelon III
0.1 lb	0.034 mg	Echelon III
0.05 lb	0.025 mg	Echelon III
0.03 lb	0.018 mg	Echelon III
0.02 lb	0.013 mg	Echelon III
0.01 lb	0.0052 mg	Echelon III
0.005 lb	0.0045 mg	Echelon III
0.003 lb	0.0041 mg	Echelon III
0.002 lb	0.0021 mg	Echelon III
0.001 lb	0.0028 mg	Echelon III

**NVLAP Code:** 20/M12

Volume

Range	Best Uncertainty ( $\pm$ ) <sup>note 1</sup>	Remarks
100 gal	5.2 in <sup>3</sup>	Volume Transfer
50 gal	3.7 in <sup>3</sup>	Volume Transfer
25 gal	2.6 in <sup>3</sup>	Volume Transfer
5 gal	0.55 in <sup>3</sup>	Volume Transfer
50 gal	2.8 in <sup>3</sup>	Gravimetric Method
25 gal	0.76 in <sup>3</sup>	Gravimetric Method
5 gal	0.20 in <sup>3</sup>	Gravimetric Method
1 gal	0.079 in <sup>3</sup>	Gravimetric Method
½ gal	0.067 in <sup>3</sup>	Gravimetric Method
1 qt	0.054 in <sup>3</sup>	Gravimetric Method
1 pt	0.035 in <sup>3</sup>	Gravimetric Method

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2 L	0.26 in <sup>3</sup>	Gravimetric Method
1 L	0.35 in <sup>3</sup>	Gravimetric Method
100 mL	0.27 in <sup>3</sup>	Gravimetric Method

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1. Represents an expanded uncertainty using a coverage factor, k = 2, at an approximate level of confidence of 95%.

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