

## WHAT DOES LL, QLL, AND QQLL MEAN?

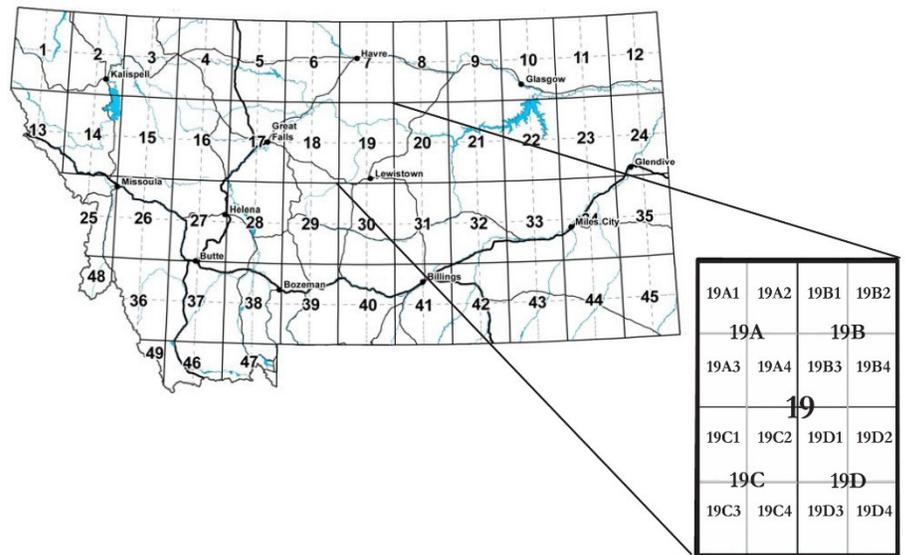
In order to collect information in a big state like Montana, The state of Montana is divided into a grid-like pattern of units called latilongs (LL), quarter-latilongs (QLL), and, smaller yet, quarter-quarter latilongs (QQLL). The word “**latilong**” is a combination of the words “latitude” and “longitude” and represents the area of land formed by the intersection of these imaginary mapping lines. Montana is divided into 49 latilongs, 185 **quarter-latilongs**, and 736 **quarter-quarter latilongs**.

The definitions for Latilong (L), Quarter Latilong (QLL), and Quarter-Quarter Latilong (QQLL) appear below:

**Latilongs (LL)** are assigned a number, 1 through 49, starting at the northwest corner of the state. The average dimension of each latilong is 47 miles (76 km) wide and 69 miles (111 km) long, representing an average area of approximately 3,200 square miles (8,436 sq. km). Because of the earth’s curvature, latilongs along the Canadian border are 5.4 percent smaller than those along the Wyoming border. Note that latilongs 48 and 49 cover only small portions of southwestern Montana.

**Quarter Latilongs (QLL)** are created by evenly dividing each latilong unit into four quarters. Each quarter latilong is identified by its associated latilong number, with the addition of a letter (A, B, C, or D), ordered left to right and from top to bottom (see Figure 1). Thus, latilong 19 is broken into 4 QLLs: 19A, 19B, 19C, and 19D. QLLs cover an area roughly 24 miles (38 km) by 35 miles (56 km).

**Quarter-Quarter Latilongs (QQLL)** are a further subdivision of quarter latilongs. Although QQLLs are too detailed for presentation in this publication, records in the MBD database include a QQLL designation if the original report has detailed location information allowing this to be determined. QQLLs are created by evenly dividing each quarter latilong into four quarters. Each QQLL is identified by its associated LL number and QLL letter in the same manner as for QLLs, with the addition of a number (1, 2, 3, or 4), ordered left to right and from top to bottom. Thus, latilong 19 is divided into 16 QQLLs: 19A1, 19A2, 19A3, 19A4, 19B1, etc. QQLLs cover an area roughly 12 miles (19 km) by 17 miles (28 km).



**Figure 1. Quarter latilongs are created by dividing each latilong unit into four quarters; quarter-quarter latilongs by dividing each quarter latilong into four quarters.**