

FIGURE 1. INDEX MAP OF MINNESOTA SHOWING LOCATION OF NORTH RANGE, CUYUNA DISTRICT

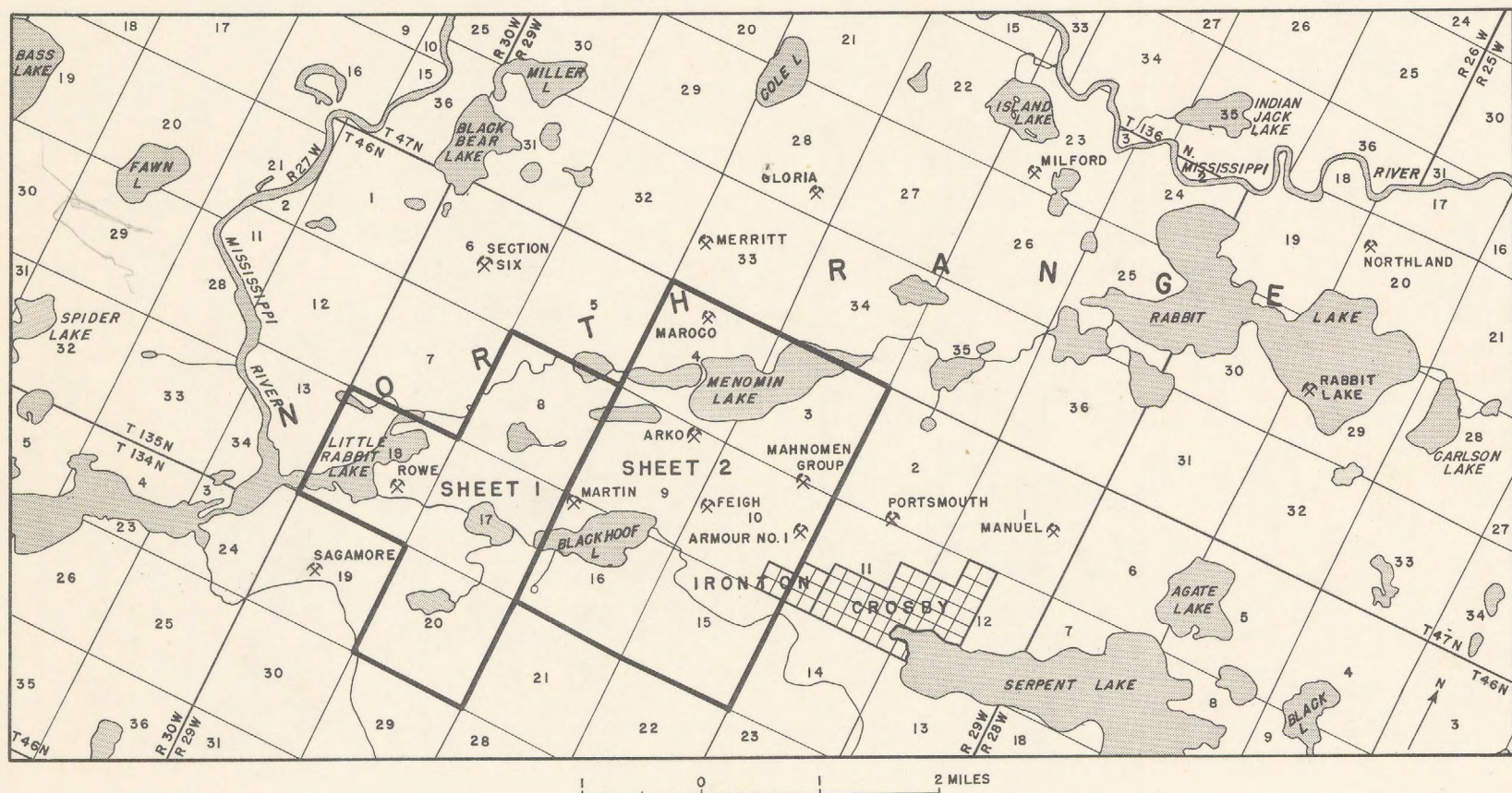
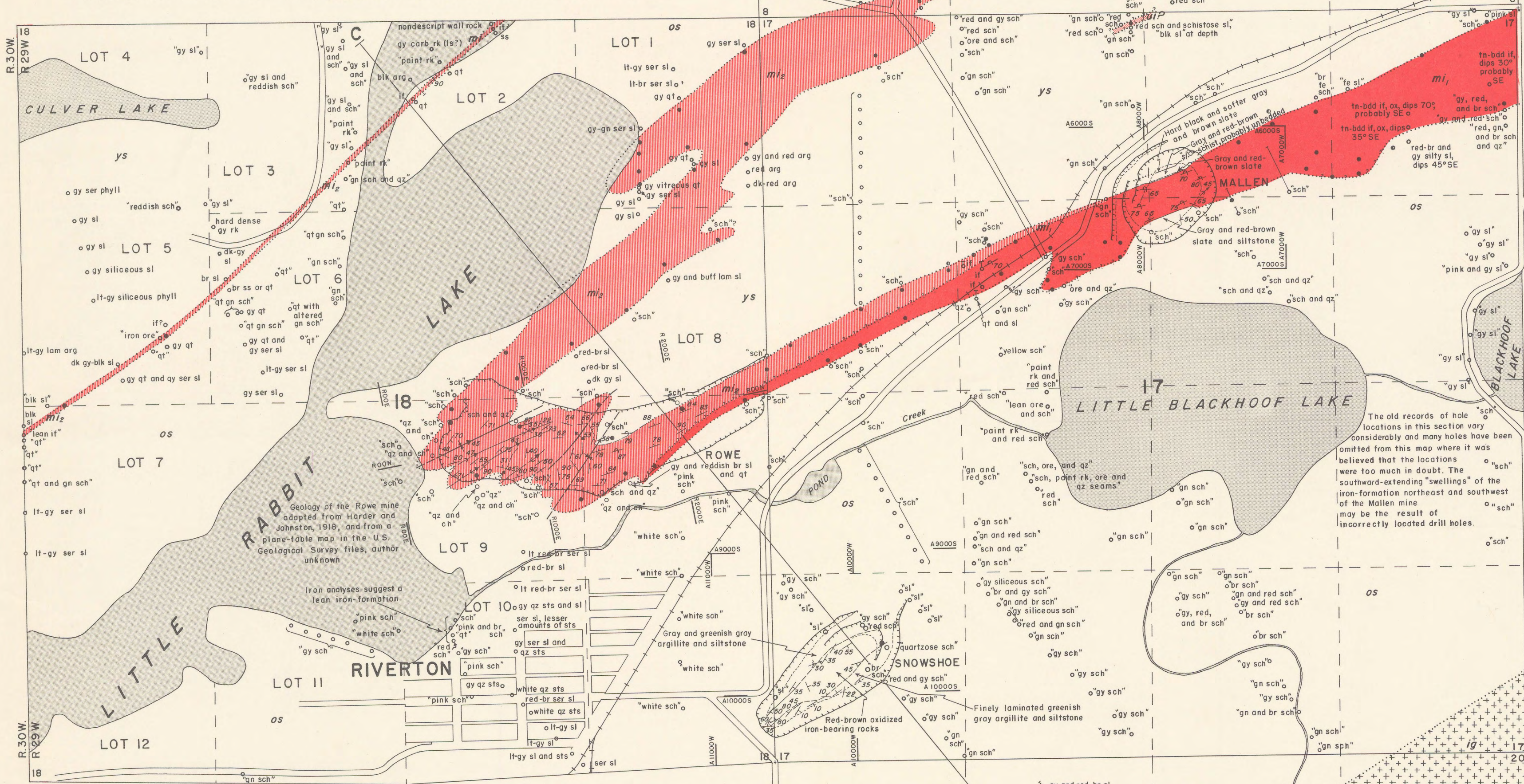


FIGURE 2. CUYUNA DISTRICT NORTH RANGE SHOWING LOCATION OF SHEETS 1 AND 2



- EXPLANATION**
- Chloritized intrusive rock
  - Argillite and slate, gray and black, generally ferruginous, and interbedded tuffs and flows near the base
  - Thin-bedded facies
  - Main iron-formation
  - Sericitic argillite and siltstone, gray, light green, or light brown
  - Geologic contact
  - Anticline
  - Syncline
  - Plunge of minor anticline
  - Plunge of minor syncline
  - Strike and dip of beds
  - Strike and dip of overturned beds
  - Strike of vertical beds
  - Generalized strike of folded beds
  - Outline of pit bank
  - Vertical drill hole
  - Inclined drill hole
  - Drill hole
  - Drill hole
  - Mine coordinates are identified by letter as follows:
- Abbreviations**
- bdd. Bedded
  - blk. Black
  - br. Brown
  - ch. Chert
  - dk. Dark
  - fg. Ferruginous
  - gn. Green
  - gy. Gray
  - if. Iron-formation
  - lg. Limestone
  - lam. Laminated
  - ls. Limestone
  - lt. Light
  - ox. Oxidized
  - phyl. Phyllite
  - qt. Quartz
  - rk. Rock
  - sch. Schist
  - ser. Sericitic
  - sl. Siltstone
  - st. Slate
  - tn. Thin
- NOTE:** Quotation marks indicate the description of rock type is from mining company records.

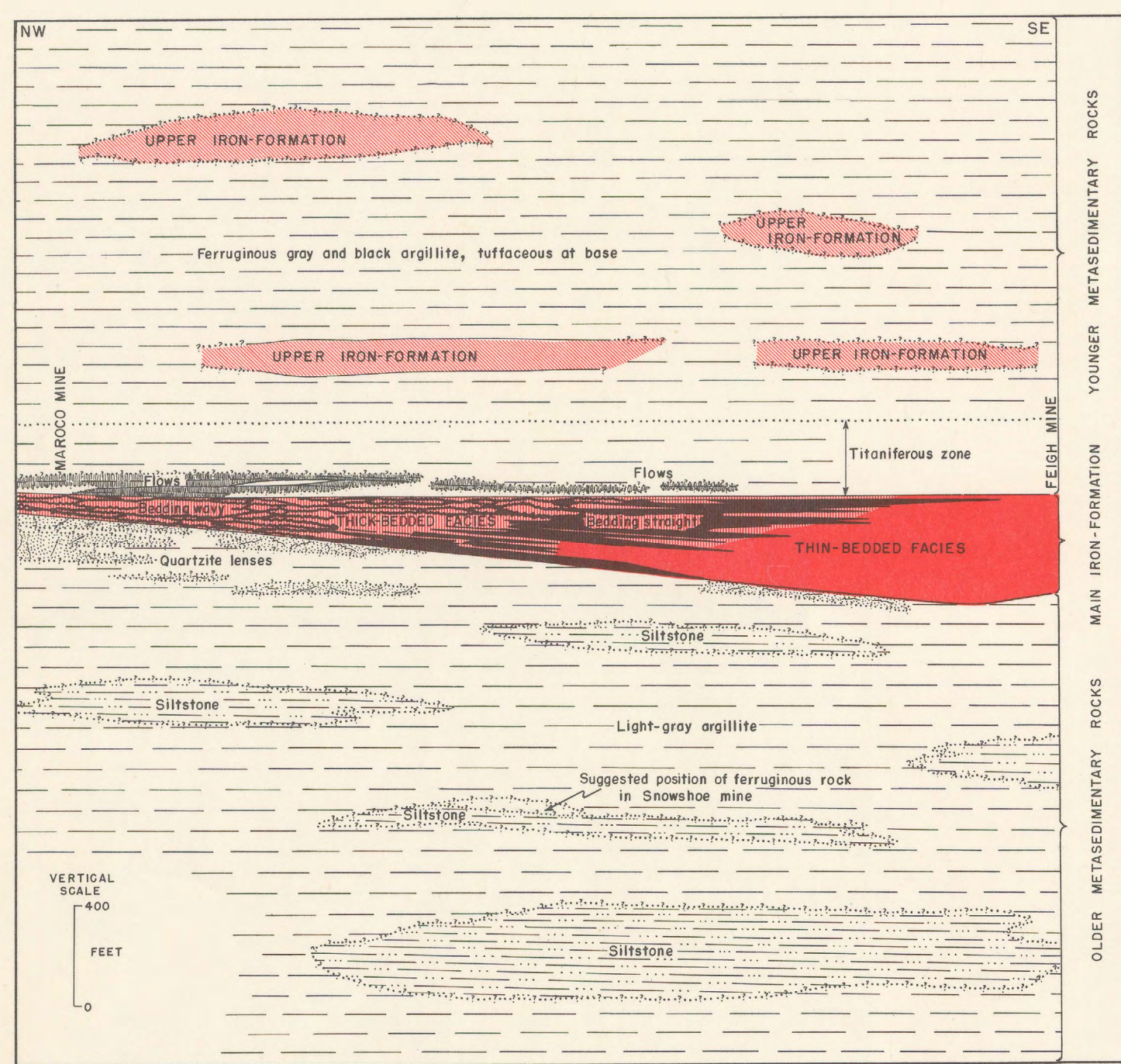


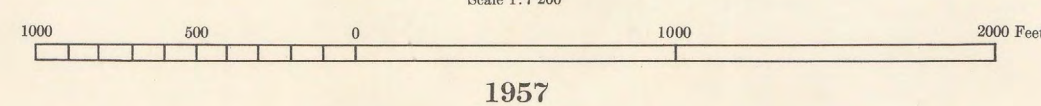
FIGURE 3. HYPOTHETICAL UNFOLDED STRATIGRAPHIC SECTION ALONG LINE B-B', SHEET 2, LOOKING NORTHEAST AND SHOWING CHANGES IN THE IRON-FORMATION FACIES AND PROBABLE RELATIONSHIPS OF FACIES IN THE OLDER AND YOUNGER STRATA

Base from U.S. Geological Survey Brainerd quadrangle and from maps provided by the M. A. Hanna Company. Published with permission of the operating mining companies.

Geology by R. G. Schmidt, 1952-55.

SHEET 1  
BEDROCK GEOLOGY OF THE SOUTH-CENTRAL PART OF THE NORTH RANGE, CUYUNA DISTRICT, MINNESOTA

By  
R. G. Schmidt and C. E. Dutton



1957

Minnesota (North Range) Geol. 1:7,200.  
sheet 1  
cap. 1.



For sale by U.S. Geological Survey, price, 75¢ per set

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