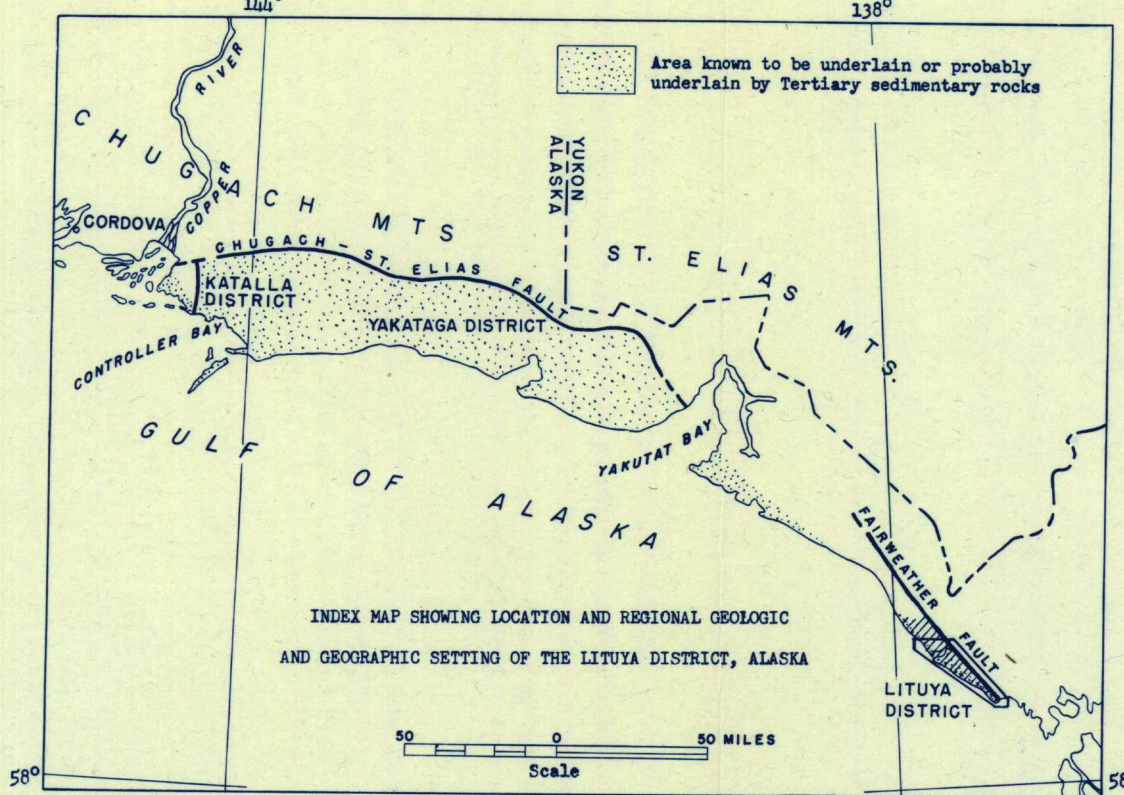


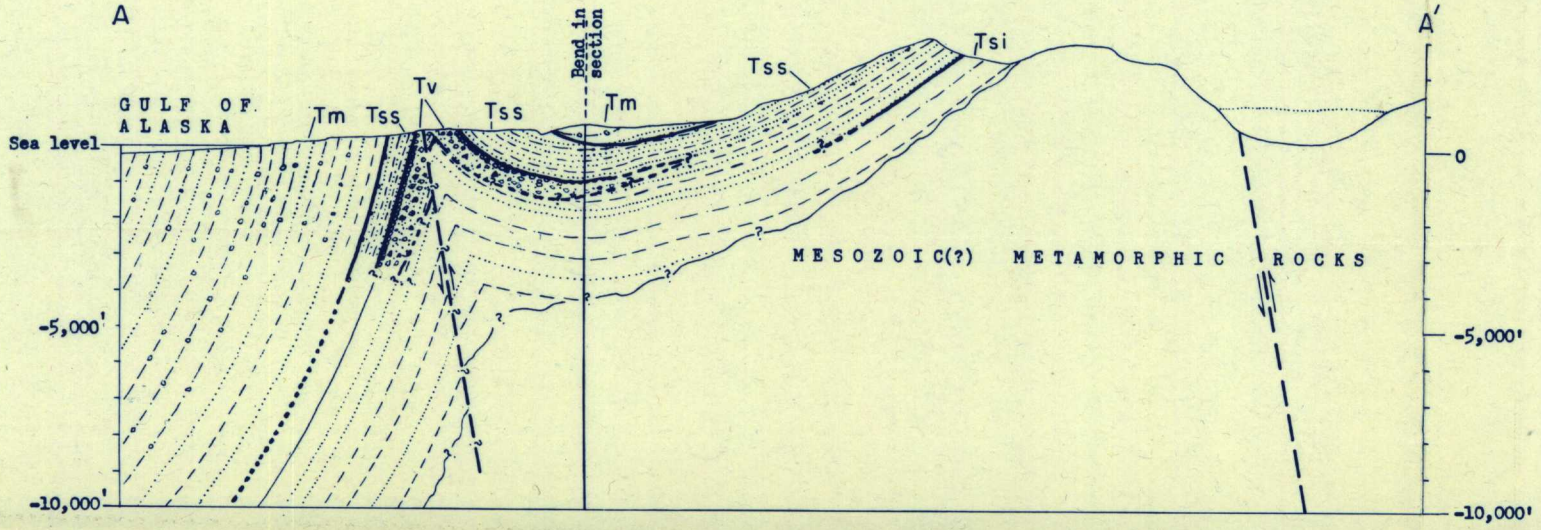
EXPLANATION FOR GEOLOGIC MAP

- Q**  
Unconsolidated fluvial, glacial, and marine deposits
  - Tm**  
Massive gray "conglomeratic" sandy mudstone, massive to platy gray siltstone, and gray to green sandstone. Marine. Basal contact drawn at lowest bed of "conglomeratic" sandy mudstone. Degree of induration decreases gradually upward in this unit. Maximum exposed thickness in map area more than 9,000 feet.
  - Tss**  
Massive to platy gray siltstone and mudstone interbedded with gray to green sandstone. Marine. In gradational contact with and lithologically similar to the overlying stratigraphic unit, but lacks the "conglomeratic" sandy mudstone. Total exposed thickness in map area ranges from about 600 feet to possibly as much as 2,500 feet.
  - Tv**  
Volcanic rocks interbedded with and grading laterally into conglomerate, sandstone, and siltstone. Marine and continental. Conglomerate unit at top consists of pebble-conglomerate with thin lenses of coal, interbedded with dark-green siltstone and pebbly sandstone. Volcanic rocks are largely volcanic breccia, with some tuff and possibly some lava flows. Maximum observed thickness in map area about 1,200 feet.  
(Possible erosional unconformity)
  - Tu**  
Undifferentiated sandstone and siltstone, probably including time equivalents of Tss, Tv, and Tsi.
  - Tsi**  
Largely massive gray siltstone containing round to lenticular calcareous concretions. Some gray to green sandstone.  
(Major angular unconformity)
  - M**  
Metamorphosed sedimentary and volcanic rocks, including slate, graywacke, greenstone, graphitic phyllite, amphibole schist, and biotite schist. Includes some intrusive igneous rocks.
- ?---  
Contact  
(Dotted where approximately located or concealed. Question mark indicates uncertainty as to existence or nature of contact)
- U  
D  
---?---  
Fault  
(Dashed where approximately located, dotted where concealed. Question mark indicates uncertainty as to existence of fault. U, upthrown side; D, downthrown side)
- ↑?↓    ↓?↑  
Anticline    Syncline  
(Showing trace of axial plane of fold. Dashed where approximately located, dotted where concealed. Question mark indicates uncertainty as to existence of fold)
- 45  
Strike and dip of beds  
(Question mark indicates uncertainty as to up side of beds)
- 90  
Strike of vertical beds  
(90 is on up side)
- 37  
Strike and dip of overturned beds
- ⊕  
Horizontal beds



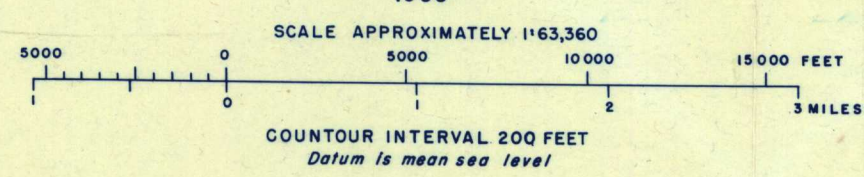
TRUE NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN  
DECLINATION 1955

Geology mapped in 1952. Base map compiled from aerial photographs by D. L. Rosenman, U. S. Geological Survey.



PRELIMINARY GEOLOGIC MAP OF TERTIARY ROCKS  
IN THE SOUTHEASTERN PART OF THE  
LITUYA DISTRICT, ALASKA

BY  
DON J. MILLER  
1953



Note: This map is preliminary and has not been edited or reviewed for conformity with the U. S. Geological Survey standards and nomenclature.