

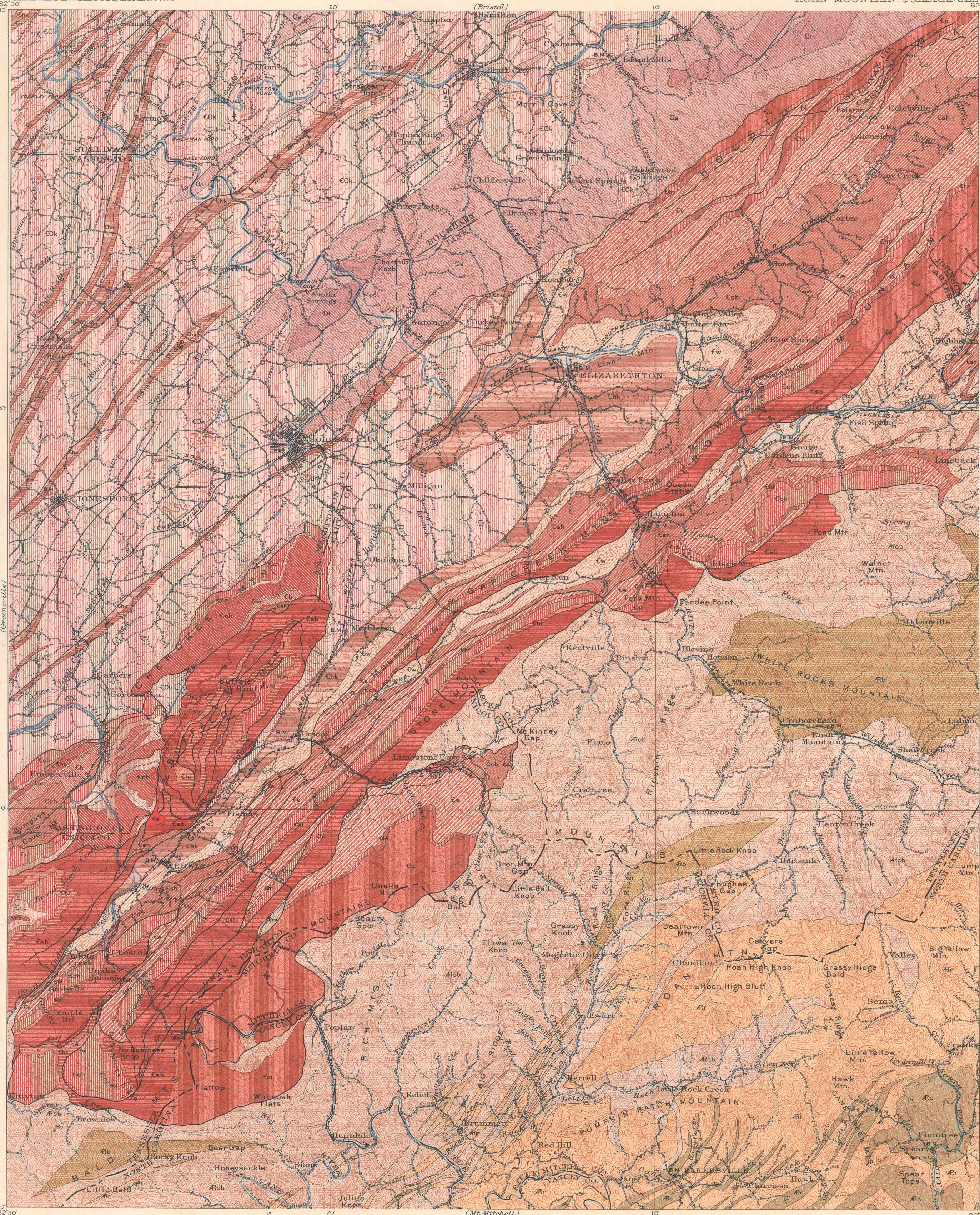
(Bristol)

U.S. GEOLOGICAL SURVEY  
CHARLES D. WALCOTT, DIRECTOR

# AREAL GEOLOGY

TENNESSEE-NORTH CAROLINA  
ROAN MOUNTAIN QUADRANGLE

## LEGEND



- SEDIMENTARY ROCKS**  
(Areas of subaqueous deposits are shown by patterns of parallel lines)
- Or**  
Tellico sandstone  
(red and gray calcareous sandstone)
  - Oa**  
Athens shale  
(blue and black calcareous shale)
- UNCONFORMITY**
- COk**  
Knox dolomite  
(light and dark magnesian limestones with chert nodules)
  - Cn**  
Nolichucky shale  
(variegated calcareous shales and thin limestones)
  - Chk**  
Honnaker limestone  
(massive blue and gray limestone with chert)
  - Cw**  
Watauga shale  
(purple, reddish, and yellow shale and sandy shale with thin limestones)
  - Csh**  
Shady limestone  
(grayish limestone with chert)
- Cambrian**
- Ch**  
Hesse quartzite  
(massive white quartzite)
  - Ee**  
Erwin quartzite  
(massive white quartzite)
  - Eor**  
Murray slate  
(gray slates and shales)
  - Cnb**  
Nebo quartzite  
(chiefly white quartzite)
  - Chm**  
Hampton shale  
(banded gray shale with thin sandstone layers)
  - Cnc**  
Nichols slate  
(grayish slate and shale with sandy layers)
  - Ech**  
Cochran conglomerate  
(with sandstone, quartzite, and conglomerate)
  - Chi**  
Hiwassee slate  
(chiefly dark banded slate with layers of sandstone and conglomerate)
  - Eu**  
Unicoi formation  
(white sandstone and quartzite with thin layers of conglomerate, and a bed of ironstone, local, Ca)
  - Csb**  
Snowbird formation  
(chiefly black and olive shale and quartzite and conglomerate with thin layers of sandstone and anyolite, Ca)
- IGNEOUS ROCKS**  
(Areas of igneous rocks are shown by patterns of triangles and diamonds; metamorphism is indicated by hachures)
- Ab**  
Beech granite  
(coarse or porphyritic granite, light or reddish in color)
  - Arb**  
Cranberry granite  
(mainly granite and granite gneiss)
  - As**  
Soapstone, diorite, and serpentine
  - Ar**  
Roan gneiss  
(chiefly hornblende gneiss and schist, with some diorite)
- METAMORPHIC ROCKS OF UNKNOWN ORIGIN**  
(Areas of metamorphic rocks of unknown origin are shown by hachures)
- Ac**  
Carolina gneiss  
(chiefly mica-schists and mica-schist, including other gneiss, granite, and diorite)
- Faults**

(Ashesville)

H. M. Wilson, Geographer in charge.  
Triangulation by W. C. Kerr and S. S. Gannett.  
Topography by Hersey Munroe, W. L. Miller, W. N. Brown,  
Geo. H. Guerdum, and E. G. Hamilton.  
Surveyed in 1901-1902.

Scale 1:25,000  
1 inch = 100 feet  
0 1 2 3 4 5 Miles  
0 1 2 3 4 5 Kilometers

Geology by Arthur Keith,  
assisted by H. B. Goodrich and H. S. Gale.  
Surveyed in 1893, 1900, 1904, and 1906.

Contour interval 100 feet.  
Datum is mean sea level.  
Edition of April 1907

APPROXIMATE MEAN DECLINATION 1902