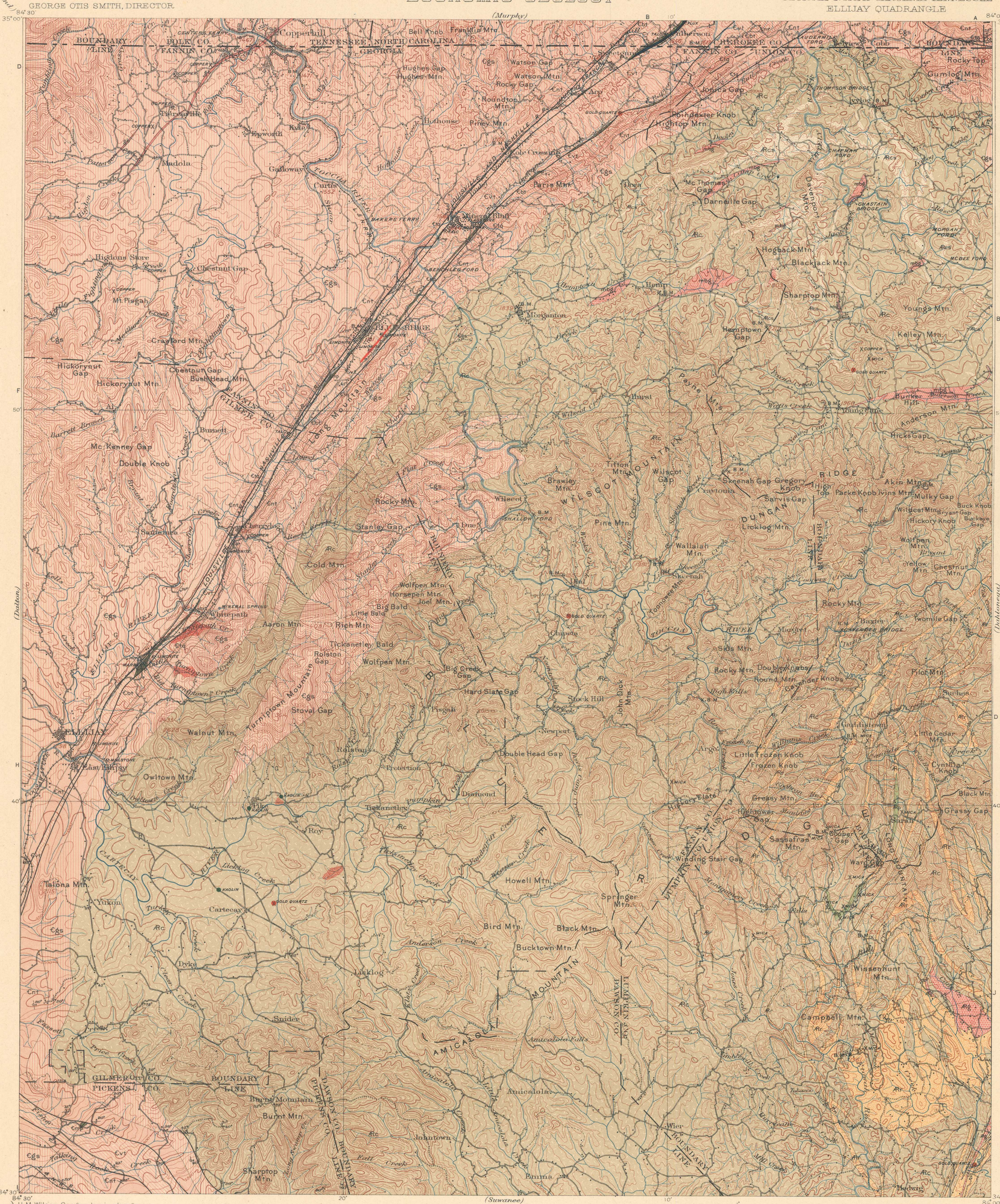
U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

ECONOMIC GEOLOGY

GEORGIA–NORTH CAROLINA–TENNESSEE
ELLIJAY QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines; metamorphism is indicated by hachures combined with the line patterns.)

Lower Cambrian series (CAMBRIAN)

- Ꞓvy — **Nottely quartzite** *(white quartzite)*
- Ꞓmp — **Murphy marble** *(white and blue marble, thin calcareous schist at the top probably represents Andrews schist)*
- Ꞓvt — **Valleytown formation** *(chiefly mica schist, mica slate, talcose slate, and graywacke)*
- Ꞓbt — **Brasstown schist** *(blue and black banded ottrelite schist and slate)*
- Ꞓtq — **Tusquitee quartzite** *(white quartzite)*
- Ꞓnt — **Nantahala slate** *(banded black graphitic slate with some garnet-staurolite schist)*
- Ꞓgs — **Great Smoky formation** *(chiefly graywacke, mica slate, and mica schist, conglomerate and staurolite gneiss near the base)*

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and rhombs; metamorphism is indicated by hachures)

POST-CAMBRIAN

- gb — **Gabbro**
- mbg — **Muscovite-biotite granite and pegmatite**

ARCHEAN

- Ꞓg — **Granite** *(gneissoid augite-biotite granite)*
- Ꞓp — **Pyroxenite, dunite, and serpentine**
- Ꞓr — **Roan gneiss** *(chiefly hornblende gneiss, hornblende schist, and schistose diorite)*

METAMORPHIC ROCKS OF PARTLY UNKNOWN ORIGIN

(Areas of metamorphic rocks of unknown origin are shown by patterns of short dashes)

ARCHEAN

- Ꞓc, Ꞓcs — **Carolina gneiss** *(graywacke, conglomerate, mica gneiss, mica schist, and garnet-staurolite gneiss with some cyanite-graphite schist, Ꞓcs)*

Faults

Known mineral deposits

- *Gold-bearing gravels (in stream valleys)*
- *Iron ore (limonite)*
- *Marble (Murphy marble, white or blue banded)*
- *Kaolin (decomposed feldspar in pegmatite dikes)*
- *Quartzite flux (Nottely quartzite)*

20° Strike and dip of stratified rocks
80° Strike and overturned dip of stratified rocks
Strike of vertical stratified rocks

Mines and quarries
Prospects *(gold, iron, copper, marble, quartzite, talc, mica, kaolin, flagstone, and millstone)*

Mineral springs

Note. *Building stone is obtained from Great Smoky formation, Carolina gneiss, and muscovite biotite granite. Flagstone from the Valleytown formation, millstone from the Great Smoky formation.*

H. M. Wilson, Geographer in charge.
Triangulation by S. S. Gannett.
Topography by W. L. Miller, R. H. Mc. Kee and A. E. Murlin.
Surveyed in 1895–96.

Scale $\frac{1}{125000}$

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.
Edition of Nov. 1912

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1910.

Geology by Laurence LaForge, assisted by D. B. Sterret, W. C. Phalen, F. B. Laney, and L. A. Kolbe, under supervision of Arthur Keith.
Surveyed in 1905–1911.