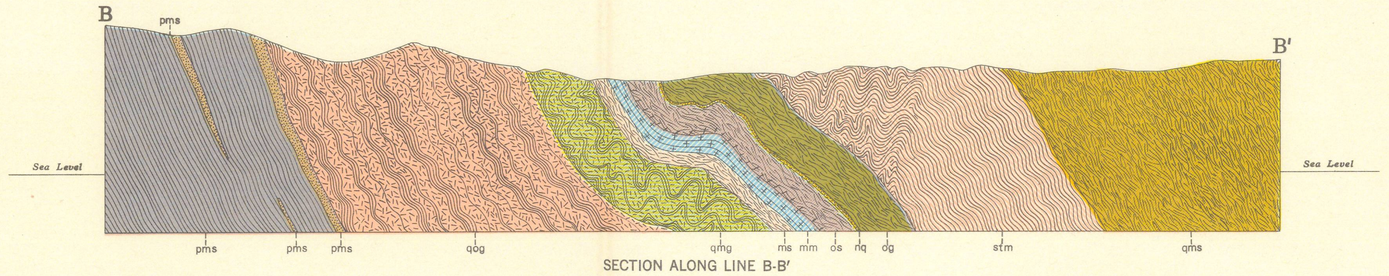
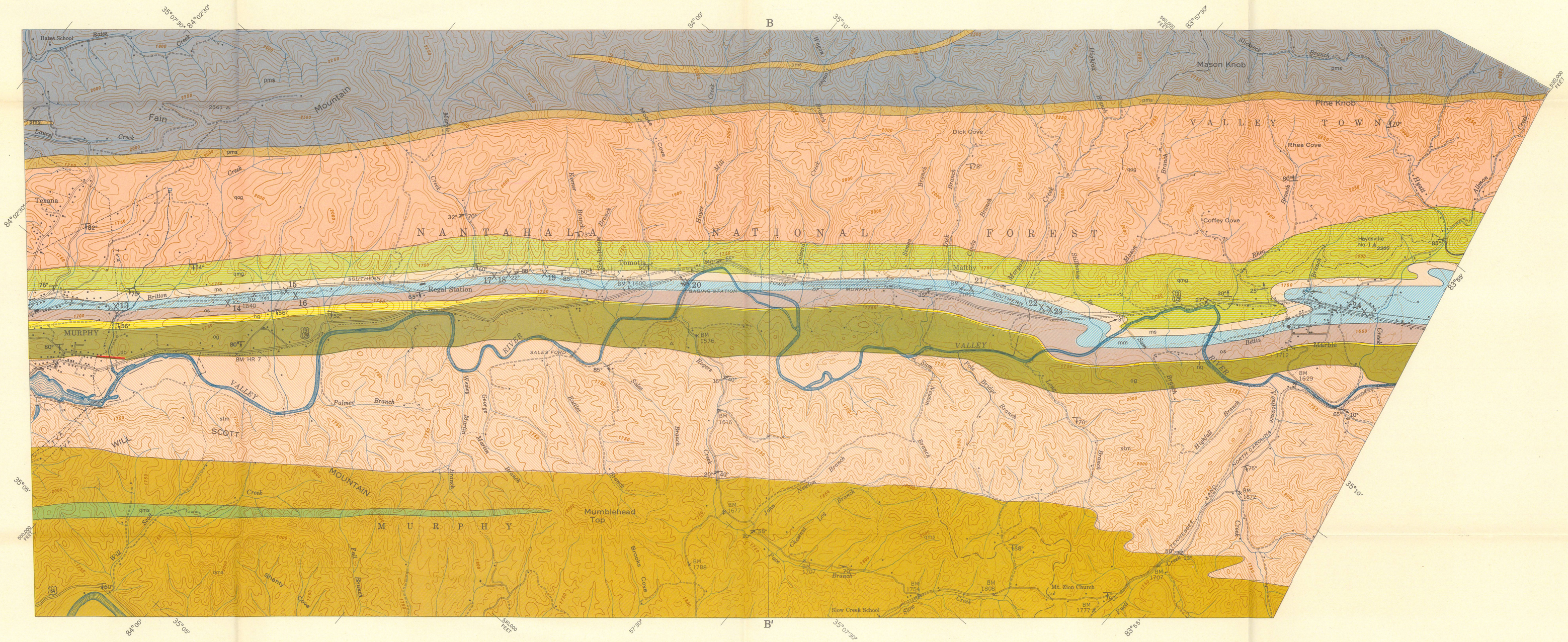


SECTION ALONG LINE B-B'



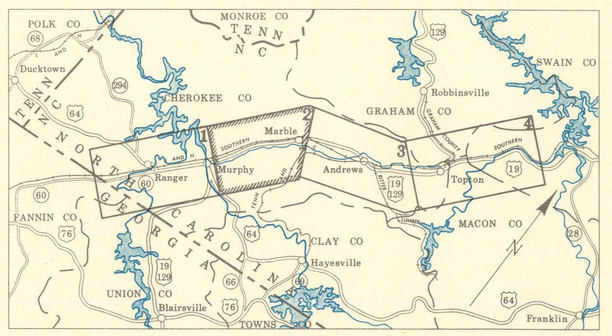
LEGEND

- **Diorite** *(dark gray sills or dikes; best exposed near Murphy and Hewitt)*
- **Quartz-mica gneiss** *(essentially gneiss with beds of massive quartzite; arkosic at base; has distinctive flat-lying recumbent folds)*
- **Ottrelite schist** *(coarse brown mica schist with abundant ottrelite and minor but uniform amounts of pyrite; grades into formations on either side; limonite beds in residuum)*
- **Staurolite-mica schist** *(light colored with thin beds of feldspathic quartzite; occasionally gneissic; chloritic and sericitic west of Murphy; mica schist and quartz schist east of Andrews)*
- **Phyllite and mica schist** *(usually dark, fine-grained; contains pyrite, graphite, ottrelite, and occasional quartzite stringers; quartzite-conglomerate at base)*
- **Mica schist** *(fine-grained uniform schist impregnated with pegmatite material; becomes siliceous in vicinity of Nantahala River)*
- **Nottely quartzite** *(usually dense white quartzite with conglomeratic phases and beds of ottrelite schist; becomes less dense to the east and difficult to distinguish from adjoining ottrelite gneiss)*
- **Quartz-mica schist** *(essentially schist with intermittent quartzite stringers; cleavage surfaces have typical "brassy" sheen)*
- **Quartz-ottrelite gneiss** *(dark banded gneiss with local garnetic phases; schistose with fewer accessory minerals in vicinity of Culberson and Nantahala River)*
- **Murphy marble** *(white to dark blue, usually dolomitic marble with silicious phases and zones of amphibole, talc, phlogopite, and argillaceous laminae)*
- **Ottrelite gneiss** *(typically gneiss, with schistose phases and zones of feldspathic quartzite; chief source of limonite beds)*

Talc mine 2
Talc prospect 25
Strike and dip of rocks ..... 45°
Strike and dip of foliation, with plunge of lineation (cleavage intersection) ..... 50° 22°
Inclined fold axis ..... 8°
Horizontal fold axis

Note:
See text for facies changes along strike

INDEX TO SHEETS



Cartography and Reproduction
TVA Maps and Surveys Division

GEOLOGIC MAP
TALC DEPOSITS OF MURPHY MARBLE BELT

NORTH CAROLINA DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINERAL RESOURCES
IN COOPERATION WITH
TENNESSEE VALLEY AUTHORITY
COMMERCE DEPARTMENT - MINERALS SECTION

SCALE 1:24,000
5,000 0 5,000 Feet
1 0 1 Mile

1947

SHEET 2 OF 4 SHEETS

5-CO-800 K 501-2