UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 246 PLATE 1 (EASTERN PART)

GEOLOGIC MAP OF THE DEEP RIVER COAL FIELD, CHATHAM, LEE, AND MOORE COUNTIES, NORTH CAROLINA

1 ½ 0 2 Miles

Compiled by photogrammetric (radial line) methods from aerial photographs made in 1938. Cultural features corrected to 1950

Geology by John A. Reinemund, 1951

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EXPLANATION

SEDIMENTARY ROCKS

Qal — Alluvium
Stream deposits

Qc — Colluvium
Slope wash deposits

Qg 1, Qg 2, Qg 3 — Terrace gravel deposits
Unconsolidated clay, sand, and gravel; Qg 1, terrace no. 1; Qg 2, terrace no. 2; Qg 3, terrace nos. 3 and 4

Ts — High-level surficial deposits
Unconsolidated white sand and light-brown clay, with patches of white quartz gravel shown by black dots; patches of coarse-grained, brown sand with brown and purple quartzite cobbles shown by red dots

Quaternary — Recent; Pleistocene (?); Pliocene (?)

Trf — Sanford formation; fanglomerate
Fragments of metamorphic rocks, shown by hollow black dots, and blocks of granite, shown by red dots, embedded in and interbedded with red claystone, siltstone, and sandstone

Ts — Sanford formation
Red, purple, and gray claystone, shale, siltstone, sandstone, and conglomerate; conglomerate beds shown by black dots

Tkc — Cumnock formation
Gray and black claystone, shale, and siltstone; gray sandstone and conglomerate. Contains beds of coal and carbonaceous shale in lower part. Grades laterally into red beds of Pekin and Sanford formations. Conglomerate beds shown by black dots

Tp — Pekin formation
Red, purple, and gray claystone, shale, siltstone, sandstone, and conglomerate; conglomerate beds shown by black dots

Cg — Pekin formation; basal conglomerate
Purple, gray, and red conglomerate with interbedded sandstone, containing pebbles and cobbles of quartz and metamorphic rocks

Newark group — Triassic; Triassic (?)

IGNEOUS ROCKS

Trd — Diabase
Intrusive dikes and irregular sheet-like masses. Number indicates thickness in feet

Cg — Granite
Light-gray, stock-like intrusives

Triassic; Carboniferous (?)

METAMORPHIC ROCKS

pKs — Slate, schist, and gneiss
Undifferentiated, metamorphosed sedimentary and igneous rocks; including conglomerate, quartzite, slate, rhyolite, andesite, diorite, rhyolitic and dacitic tuffs and flows, acidic and basic volcanic breccias, quartz-feldspar-mica schist, and pryophyllite schist

Pre-Triassic

Zone of wind polished and faceted pebbles

Outcrop of Cumnock coal bed
Dashed where approximately located

Contact, showing dip
Dashed where approximately located

Fault, showing dip and plunge of slickensides; dashed where approximately located; U, upthrown side; D, downthrown side

Vertical fault

Concealed fault

Probable fault

Syncline

Strike and dip of beds

Strike and dip of beds
Showing progressive change of strike

Horizontal beds

Strike and dip of foliation

Strike of vertical foliation

Strike and dip of planar structure in granite

Mine or quarry

Prospect pit

Gravel pit

Open cut

Shaft

DH 4 — Diamond-drill hole
From N. C. Geol. and Econ. Survey Bull. 33 (Campbell and Kimball, 1933), and map by W. F. Cooke, 1925

SDH — Diamond-drill hole
State of North Carolina

DH A-1 — Diamond-drill hole
Eavenson and associates, 1930

CPDH — Diamond-drill hole
Coal Products, Inc., 1944

BDH 3 — Diamond-drill hole
Walter Bledsoe and Co., 1945-46

BMDH E-1 — Diamond-drill hole
U. S. Bureau of Mines, 1944-1948

BM 276 — U. S. Coast and Geodetic Survey bench mark and elevation

281 — Temporary bench mark and elevation established by Saville (1924, p. 12)

185 WS — Elevation of water surface established by Saville (1924, p. 5)

275 — Plane table or transit elevation

370 A — Aneroid elevation

Carthage TP — U. S. Coast and Geodetic Survey triangulation station

TS Gibbons — U. S. Coast and Geodetic Survey traverse station

TS T 71 325 — U. S. Coast and Geodetic Survey traverse station and elevation

TS NC 199 — North Carolina state highway monument

Power transmission lines

Main telephone lines

Note: Geologic Sections A-A' and B-B' appear on Plate 2.
Concealed faults in vicinity of Carolina and Cumnock mines not shown on this map are shown on subsurface maps, plates 3 and 7

EASTERN PART
CENTRAL PART
WESTERN PART

3½° MAGNETIC NORTH TRUE NORTH