ECONOMIC GEOLOGY

DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

STATE OF PENNSYLVANIA
DEPARTMENT OF FORESTS AND WATERS
TOPOGRAPHIC AND GEOLOGIC SURVEY

PENNSYLVANIA
GETTYSBURG QUADRANGLE

(Newville) (Carlisle) (New Cumberland)
(Ennitsburg) (Taneytown) (Westminster)
(Fairfield) (Hanover)

77°15′ 10′ 5′ 77°00′
40°00′ 55′ 50′ 45′ 39°45′

MENALLEN · HUNTINGTON · LATIMORE · READING · TYRONE · BUTLER · HAMILTON · STRABAN · OXFORD · BERWICK · MOUNT PLEASANT · CONEWAGO · UNION · GERMANY · HIGHLAND · MOUNTJOY

Bendersville · Biglerville · Arendtsville · Gettysburg · New Oxford · Hampton · McSherrystown · Mt Pleasant · Abbottstown · Littlestown · Hunterstown · Table Rock · Round Top · Little Round Top · Culps Hill · Cemetery Hill · Wolf Hill · Powers Hill · Benner Hill · Oak Ridge · Big Mountain · Rampike Hill · Wolfpit Hill · Chestnut Hill · Granite Hill · Baldow Knoll · Brush Run · Cedar Ridge · Bonneauville · Whitehall · Germantown · Heidlersburg · Bowlder · Round Hill · Hoover School · Baker School · Wills School · Limerock Mill · Cranberry School · Center Mills · Friends Grove School · Plainview · Belmont School · Oakgrove School · Oakwood School · Woodside School · Goodintent School · Pine Church · Seven Hundred School · Greenmeadow School · Waldheim · Newbraister · Fairview School · Rowe School · Mt Rock School · Centennial · Edgegrove · Midway · Brushtown · Valley Grove School · Willow Grove School · Barlow · Ashgrove School · Mt Vernon School · Square Corner · Valley School · St Lukes Church · Tway School · Red Hill School · Independence School · Bairds Mill · Conewago Chapel · Pigeon Hill · Berlin Line · Bittinger · Irishtown · Granite · Guldens · Montz School · Kohler Schools · Mt Pleasant Mills · Bermudian Creek · Rock Creek · Conewago Creek · Marsh Run · Plum Run · Mud Run · Opossum Creek · Willoughby Run · Latimore Creek · Hunting Creek · Toms Creek · Muddy Run · Beaverdam Creek · Alloway Creek · Rock Creek · Conewago Creek · Frederick Branch · Yellow Breeches Creek · Adams Co · York Co

EXPLANATION

SEDIMENTARY ROCKS

(subaqueous deposits shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles)

Qal — **Alluvium**
(gravel and silt in stream bottoms; only larger areas mapped)
Pliocene (?) and Pleistocene · Recent · TERTIARY (?) QUATERNARY

QTt — **Terrace gravel**
(gravel, cobbles, and sand on elevated terraces and benches along the larger streams)

UNCONFORMITY

Rg / Rh / Rs — **Gettysburg shale**
(chiefly red shale and soft red sandstone; middle part, Heidlersburg member, Rh, contains numerous harder white sandstone beds; Arendtsville fanglomerate lentil, unassorted fragments of quartzite and metarhyolite, Ra, at the top in places; shale adjacent to intrusive diabase metamorphosed to hard dense dark-purple and black argillite, and red sandstone altered to hard white sandstone, shown by red ruling)

Rno / Rna / Rnc — **New Oxford formation**
(red shale and sandstone with beds of hard light-colored micaceous sandstone and conglomerate, lower part, Rna, containing many interbedded layers of light-colored, micaceous arkose, and thin beds of quartzose conglomerate, Rnc)
Upper Triassic (Newark group) · TRIASSIC

UNCONFORMITY

Ocsd / Oc / Ocs — **Conestoga limestone**
(thin-bedded, impure, blue limestone; dark argillaceous shale and earthy gray sandstone, Ocs, at base; sandy beds weathering to sand, Ocsd)
Lower (?) Ordovician · ORDOVICIAN

UNCONFORMITY

Clg / Clm / Clg — **Ledger dolomite**
(coarse gray pure dolomite, with pure white and blue limestone marble, Clm, in places)

Ck — **Kinzers formation**
(chiefly gray shale)

Cv — **Vintage dolomite**
(dark impure dolomite)

Ca — **Antietam sandstone**
(rusty banded fossiliferous sandstone, weathering porous)

Ch — **Harpers schist**
(gray sandy schist and buff-weathering slate)

Cc / Chl — **Chickies quartzite with Hellam conglomerate member, Chl**
(vitreous, white, scolithus-bearing quartzite, with basal conglomerate, Chl, of glassy quartz pebbles and grains)
Probably equivalent to Tomstown dolomite · Lower Cambrian · CAMBRIAN

UNCONFORMITY

METAMORPHOSED VOLCANIC ROCKS

(shown by patterns of triangles, rhombs, and hachures)

Amb — **Metabasalt**
(basalt flows altered to greenstone)

Arh — **Aporhyolite**
(rhyolite flows altered to purplish felsitic rock)
ALGONKIAN

IGNEOUS ROCKS

(shown by patterns of triangles and rhombs)

Rdb / Rb — **Diabase**
(sills, intrusive masses, and dikes; one small basalt lava flow, Rb, interbedded in upper part of Heidlersburg member of Gettysburg shale near Bendersville)
Intrusive into Triassic sediments and older rocks · LATE TRIASSIC

Faults
(dotted where concealed)

T Overthrust side of thrust fault
D Down-dropped side of normal fault
U Up-thrown side of normal fault
Strike and dip of stratified rocks

Quarries and mines
Prospects and abandoned quarries and mines

ECONOMIC DATA

Diabase building stone
(areas in which stone for buildings, steps, culverts, curbstones, monument stones, crushed stone, and road material is quarried)

Diabase foundation stone
(area in which stone suitable for foundation stone, crushed stone, road material, and possibly building stone occur)

Magnetite
(areas in which magnetite iron ore may occur at depth)

Brown iron ore
(area in which ore has been mined)

Pure limestone
(area in which high-calcium limestone occurs and has been quarried for finishing lime, chemical lime, and agricultural lime, and suitable also for cement manufacture; interbedded impure limestone is crushed for broken stone and road material and is also suitable for foundation stone)

Impure limestone
(area in which limestone is quarried for foundation stone, broken stone, road material, and fertilizer lime, and the surficial residual clay is suitable for brick manufacture)

Marble
(variegated pink and buff marble of pleasing color and high polish; fine-grained white marble occurs elsewhere in the pure limestone area)

Building sand
(coarse sand derived from weathered sandy limestone quarried for building purposes)

Frank Sutton, Geographer in charge.
Topography by L.C. Fletcher.
Control by S.S. Gannett, Geo. T. Hawkins, and Gettysburg Battlefield Commission.
Surveyed in 1906–1907.

SURVEYED IN COOPERATION WITH THE STATE OF PENNSYLVANIA.

7° MAGNETIC NORTH · TRUE NORTH
APPROXIMATE MEAN DECLINATION 1929.

Scale 1/62500

1 ½ 0 1 2 3 4 Miles
1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.
Datum is mean sea level.
Edition of Feb. 1929.

Geology by Geo. W. Stose.
Surveyed in 1908–1925.