

AREAL GEOLOGY

LEGEND

SEDIMENTARY ROCKS

Areas of subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles; metamorphism is indicated by hachures combined with the line patterns.

Quaternary
 Pleistocene
 Pensauken formation
 (archaic valley phase, coarse sand and gravel, possibly includes material of locally different ages)

Tertiary
 Pliocene
 Lafayette formation
 (loam, clay, sand, and gravel)

Cretaceous
 Lower Cretaceous
 Patapsco formation
 (highly colored clay)

Triassic
 Newark group
 Brunswick shale
 (red shale in greater part)
 Lockatong formation
 (dark hard shale and fine-grained sandstone, with some red layers)

Ordoevician
 Stockton formation
 (gray sandstone, argillaceous, and red shale)

Ordoevician
 Octoraro schist
 (schistose quartz-mica rock)

Cambrian
 Shenandoah limestone
 (crystalline, blue and white, siliceous, magnesian limestone)

Cambrian
 Chickies quartzite
 (thin bedded, conglutinate, quartzite, and quartz schist)

Pre-Cambrian
 Wissahickon gneiss
 (banded quartz-feldspar-mica rock with garnet, sillimanite, and andalusite)

Pre-Cambrian
 Baltimore gneiss
 (banded quartz-feldspar rock containing hornblende or biotite in part massive granitic)

Igneous Rocks
 Areas of igneous rocks are shown by patterns of triangles and rhombs; metamorphism is indicated by hachures.

Triassic or Younger Ordoevician
 Diabase dikes
 (acute tabular rock)

Triassic or Younger Ordoevician
 Pegmatite
 (quartz-feldspar-mica vein rock)

Triassic or Younger Ordoevician
 Metagabbro
 (dikes of fine-grained hornblende-feldsparite rock, locally related to the gabbro)

Triassic or Younger Ordoevician
 Metaproxenite and metaperidotite
 (serpentine, steatite, and associated alteration products)

Early Cambrian or Older
 Gabbro
 (quartz-gabbro, hypersthene gabbro, and norite)

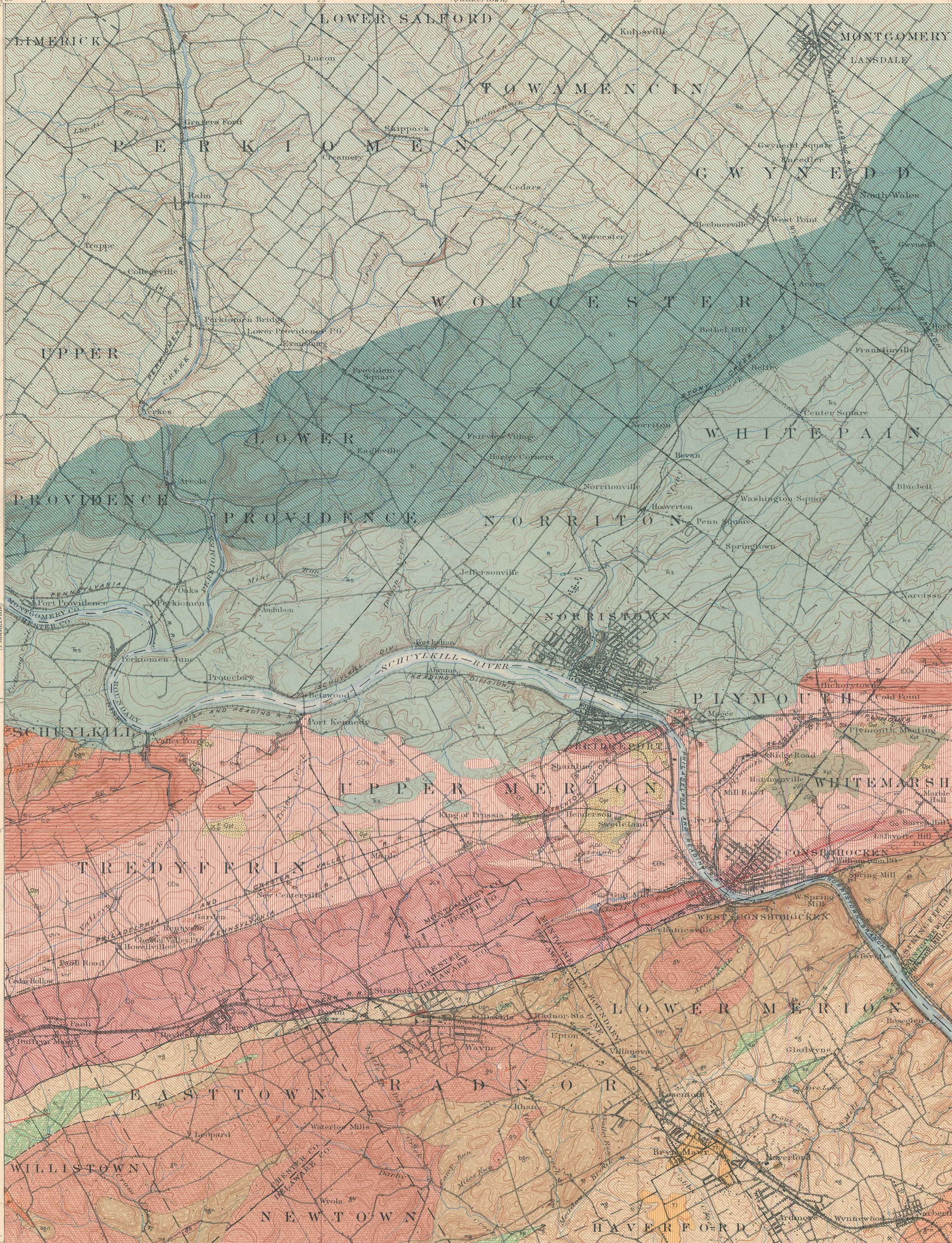
Early Cambrian or Older
 Granite gneiss
 (quartz-orthoclase biotite-hornblende rock)

Faults
 Strike and dip of sedimentary rocks
 Strike and dip of schistosity
 Strike of vertical schistosity

Economic data
 Quarries, in part abandoned
 chiefly building stone and road material,
 L, lime; Q, quartz sand; MC, magnesium carbonate

Pits in unconsolidated deposits
 S, sand; G, gravel; CL, clay

Note: Building stone can be obtained from bgn, grn, sp, gb, wg, Cc, COs, DO, Ws, and H; road materials from gb, sp, grn, mg, gb, diabase, COs, and Opt limestone for lime and flux from COs; soapstone from sp; feldspar for pottery from pt; gravel for concrete and building purposes from Opt sand for building and molting purposes from Opt.



Henry Gannett, Chief Topographer.
 H. M. Wilson, Chief Geographer in charge.
 Triangulation by S. S. Gannett.
 Topography by J. H. Jennings, W. H. Lovell, and E. B. Clark.
 Surveyed in 1894.

APPROXIMATE MEAN DECLINATION 1907.

Scale 62500
 Contour interval 20 feet.
 Datum is mean sea level.
 Edition of Sept. 1908.

Geology of the pre-Triassic by F. Bascom;
 Triassic by N. H. Darton;
 Cretaceous and Tertiary by B. L. Miller.
 Surveyed in 1894-1907.