

GEOLOGY NOT SHOWN FOR AREA OF INACTIVE CELLS

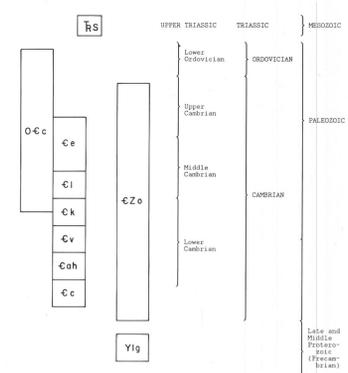
MODELED AREA

EXPLANATION

DESCRIPTION OF MAP UNITS¹

- RS** STOCKTON FORMATION--Light- to medium-gray and light-yellowish-gray to pale-reddish-brown, thin- to thick-bedded, fine- to coarse-grained sandstone, arkose and arkosic conglomerate with pebbles of quartz, quartzite, feldspar, shale, limestone, and metamorphic rocks locally more than 8 cm (3 in.) long; grayish-red to moderate-reddish-brown, and light- to medium-gray siltstone and shale, bioturbated by roots and burrows and grayish-red to reddish-brown, thin- to thick-bedded, very fine to medium-grained, arkosic sandstone, generally fining upward with abrupt lateral lithic changes.
- OEc** CONESTOGA LIMESTONE--Upper part consists of medium- to bluish-gray, light-gray-weathering, fine- to medium-grained, thin-bedded (2-10 cm, 1-4 in.) highly micaceous limestone with argillaceous, shaly partings parallel to regional cleavage that give the unit a finely laminated appearance.
- Ee** ELBROOK FORMATION--Light-blue, fine-grained, thin-bedded limestone which weathers to a shaly, light-yellowish-brown or buff limestone interbedded with cream-colored to pure-white, fine-grained, thin-bedded, laminated dolomitic marble.
- E1** LEDGER DOLOMITE--Coarse-grained, white to light- to medium-dark-gray, massive, thick-bedded, finely laminated, pure, high-magnesian dolomite with some siliceous beds which weather to rust-stained, granular, cherty layers.
- Ek** KINZERS FORMATION--The upper part consists of fine- to medium-grained, white to light- to medium- to bluish-gray, thin- and irregularly bedded argillaceous limestone, nodular limestone, and marble lenses surrounded by argillaceous residue left behind during pressure solution.
- Ev** VINTAGE DOLOMITE--Upper part is fine- to medium-grained, mottled-blue limestone, grading downward into medium-grained, dark-blue, knotty dolomite with blebs of coarse-grained dolomite, grading downward into medium-grained, gray, thick-bedded, glistening dolomite.
- Cah** ANTIETAM QUARTZITE AND HARPERS PHYLLITE, UNDIVIDED--The Antietaam is a fine-grained, light-gray, shaly, rusty, laminated quartzite which weathers to a dark-brown manganese-stained soil. Contains Obolella in the rusty layers. It is in gradational contact with the underlying Harpers which is a fine- to medium-grained, greenish- to dark-gray, sandy, argillaceous phyllite. Bedding in the Harpers is almost always impossible to identify due to pervasive cleavage.
- Cc** CHICKIES QUARTZITE--Upper part consists of medium-grained, gray, massive, crossbedded, medium-bedded, finely laminated, vitreous quartzite with clear quartz grains and fine-grained, variously colored, thin-bedded, sericitic quartz schist. Lower part (commonly referred to as the Hellam Member) consists of a coarse-grained, gray, tourmaline-bearing quartzite, arkosic-pebble conglomerate, and interbeds of black slate and biotite schist.
- EZo** OCTORARO PHYLLITE--Fine- to medium-grained, greenish- to silvery-gray, dark-olive-green-weathering phyllite and phylionite. In some places, abundant white-weathering albite and magnetite grains reach 1 cm (0.25 in.) in diameter. Porphyroblasts of albite, magnetite, garnet, tourmaline, rutile, and ilmenite are found in a fine-grained chlorite-muscovite-ribbon quartz matrix.
- Ylg** LEUCOCRATIC AND INTERMEDIATE FELSIC GNEISSES--Fine- to medium-grained, white to light- to medium-dark-gray, microcline-microperthite-quartz gneiss with minor hornblende, magnetite, and biotite intimately associated with biotite-oligoclase-microperthite-quartz gneiss. This unit is interlayered with amphibolite at all scales.

CORRELATION OF MAP UNITS¹

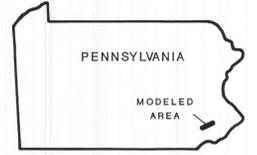
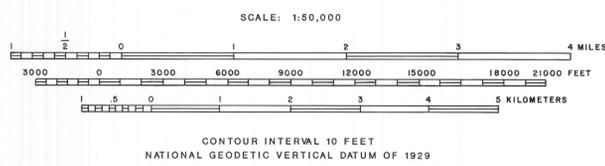
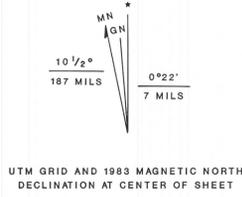


--- CONTACT---Dashed where approximately located
- - - FAULT---Dashed where approximately located. Where throw is indicated: U, upthrown side; D, downthrown side

¹From Lyttle and Epstein (1987)

Base from U.S. Geological Survey 1:24,000 quadrangle maps from Berg and Dodge (1981)

Geology from Berg and Dodge (1981)



GEOLOGIC MAP OF CHESTER VALLEY, EASTERN CHESTER AND CENTRAL MONTGOMERY COUNTIES, PENNSYLVANIA