# Southbury Rodgers Bedrock Compilation Sheet 2 (paper)

Map

# NOTICE !

Bedrock quadrangle 1:24,000 scale compilation sheets for the Bedrock Geological Map of Connecticut, John Rodgers, 1985, Connecticut Geological and Natural History Survey, Department of Environmental Protection, Hartford, Connecticut, in Cooperation with the U.S. Geological Survey, 1:125,000 scale, 2 sheets. [minimum 116 paper quad compilations with mylar overlays constituting the master file set for geologic lines and units compiled to the State map, some quads have multiple sheets depicting iterations of mapping]. Compilations drafted by Nancy Davis, Craig Dietsch, and Nat Gibbons under the direction of John Rodgers.

Geologic unit designation table translates earlier map unit nomenclature to the units ultimately used in the State publication.

This map set contains unpublished maps, cross- sections, and related information archived by the State Geological and Natural History Survey of Connecticut as part of the Survey Library Collection.

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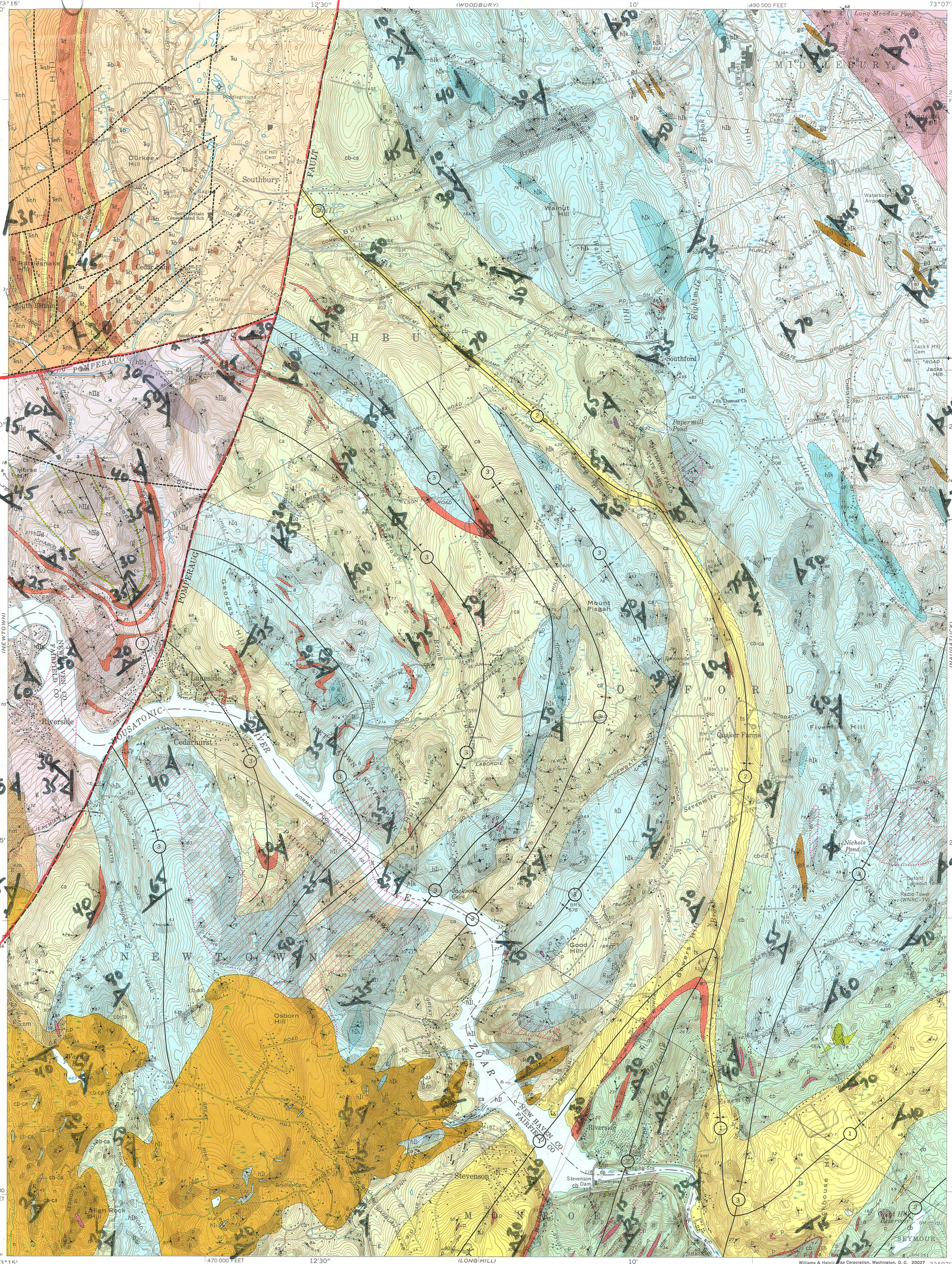
STATE OF CONNECTICUT
GEOLOGICAL AND NATURAL HISTORY SURVEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

QUADRANGLE REPORT NO. 30
PLATE 1

# BEDROCK GEOLOGY OF THE SOUTHBURY QUADRANGLE, CONNECTICUT

By Robert B. Scott, 1967-1969 Assisted by William Raymond




## EXPLANATION

### ROCK UNITS

SEDIMENTARY, VOLCANIC, METASEDIMENTARY, AND METAVOLCANIC ROCKS (Veneer of Pleistocene glacial deposits and Holocene deposits not mapped.)

**MESOZOIC — TRIASSIC**

Tru / Trb — *Undifferentiated, covered sedimentary rocks and basalts; may include rocks of the Talcott Formation and the New Haven Arkose, and younger Triassic rocks.* Trb, *exposed basalts.*

Trt, *Talcott Formation. Sedimentary rocks and basalts; six members tentatively identified.*

- $t_6$, *arkosic conglomerates, sandstones, and siltstones; some carbonates.*
- $t_5$, *pillowed and brecciated basalt.*
- $t_4$, *pale reddish-brown and grayish-olive shale.*
- $t_3$, *very dark gray columnar basalt, massive, medium-grained central portion.*
- $t_2$, *pale reddish-brown to moderate reddish-orange arkosic sandstone and conglomerate; thin bluish-gray to grayish-red shale at the base.*
- $t_1$, *thin amygdaloidal basalt; weathers to light brown vesicular and angular chips.*

Trnh — *New Haven Arkose. Pale reddish-brown to moderate reddish-orange shales, siltstones, arkosic sandstones, and arkosic conglomerates; the base is not exposed.*

Major unconformity after Acadian deformation

**PALEOZOIC — SILURO-DEVONIAN**

ts — *Straits Schist. Lustrous, muscovite coated foliation surfaces with quartz segregation pods, rusty weathering, homogeneous lithology, massive bedding. Medium- to coarse-grained quartz + muscovite + biotite + plagioclase + garnet + graphite ± sillimanite ± kyanite schist.*

a, m, q, cs — *Discontinuous lenses of amphibolite (a), quartzite (q), marble (m), and calcsilicate (cs) along the boundary between the Straits Schist and the Collinsville Formation.*

Unconformity between the Straits Schist or discontinuous lenses and the Collinsville Formation

west: ca | cb-ca | cb :east

*Collinsville Formation. Aluminous member (ca) is heterogeneous; medium-grained nonrusty-weathering quartz + muscovite + biotite + plagioclase ± garnet ± staurolite ± kyanite ± sillimanite schist and schistose gneiss, medium- to coarse-grained quartz + plagioclase + biotite + garnet + kyanite + muscovite gneiss, and muscovite + quartz + biotite + plagioclase schist. Muscovite/biotite > 1. Bristol Member (cb) is a uniform, nonrusty-weathering, medium-grained quartz + plagioclase + biotite ± muscovite ± garnet gneiss to schistose gneiss. Transitional member (cb-ca) contains all the above rocks of the Collinsville Formation.*

**CAMBRO-ORDOVICIAN**

hIq, hIl, hIk, hIb — *Hartland Unit I. Laminated member ( hIl ) is a nonrusty-weathering, laminated, fine-grained quartz + biotite + plagioclase + muscovite schistose gneiss. The banded member ( hIb ) is a nonrusty-weathering, banded, fine- to medium-grained quartz + biotite + plagioclase + microcline + muscovite ± kyanite schistose gneiss. The kyanite-rich member ( hIk ) is a partly rusty-weathering, fine-grained, knobby surfaced biotite + quartz + muscovite + kyanite ± sillimanite massive schist to schistose gneiss. The quartz-rich member ( hIq ) contains light-gray quartzite and quartz-rich gneiss.*

west: hIlq / hIlg :east

Hartland Unit II. — w — Waterbury Formation.

*The garnetiferous member of Hartland Unit II ( hIlg ) is an extremely heterogeneous suite of well foliated, lustrous nonrusty-weathering medium-grained to coarse-grained quartz + biotite + plagioclase + muscovite ± staurolite ± garnet ± kyanite schist to schistose gneiss, biotite + plagioclase + quartz + garnet schist. Coarse porphyroblasts of garnet, kyanite, staurolite, biotite, and magnetite are common. The quartz-rich member ( hIq ) is medium-grained quartz + plagioclase + biotite + garnet gneiss.*

*The Waterbury Formation ( w ) is a rusty-weathering, fine-grained, contorted, massive, patchy to felt textured biotite + quartz + kyanite + plagioclase ± muscovite ± microline + garnet schist to schistose gneiss.*

**PALEOZOIC PLUTONIC ROCKS**

Post Acadian Plutons — K-Ar Dates

270 my — ss — *Syenite stock: microcline + arfvedsonite + apatite + biotite + rutile + sphene + calcite.*

340 my — lm — *Lamprophyre: minette biotite + augite + orthoclase + apatite + sphene + calcite*

Deformation

gd — Granodiorites or granodioritic gneisses that are rich in plagioclase and biotite and have little or no microcline or muscovite.

p — Pegmatites. Quartz + albite + microline or orthoclase + muscovite. Rare tourmaline and beryl accessories. Some pegmatites are relatively undeformed. Highly deformed pegmatites may have intruded during early Acadian deformation.

g — Granites and granitic gneisses that vary from microcline-rich and muscovite-rich plutons to biotite-rich plutons. Nonporphyritic. Some granites are relatively undeformed. Highly deformed granites may have intruded during early Acadian deformation.

Acadian

n, nm — Newtown Gneiss, granitic (n) to granodioritic (nm) gneiss characterized by large euhedral to subhedral microcline porphyroblasts.

Some amphibolites may have been sills but no evidence to support a distinction between intrusive and extrusive mafic bodies exists.

Possible Taconic plutonic events but there is no evidence to support this possibility.

Siluro-Devonian / Cambro-Ordovician

um — Ultramafic body

*Phlogopite + chlorite + serpentine + talc.*

Miscellaneous Rocks

- a — amphibolite
- m — marble
- q — quartzite
- cs — calcsilicate

x — K-feldspar porphyroblasts outside of limit of Newtown Gneiss.

Where extent of outcrop is small, only letter symbols are used: p (pegmatite), g (granite) cs (calcsilicate), gs (graphitic schist), a (amphibolite).

### SYMBOLS

Outcrop

Single outcrop or closely spaced outcrop.

Contact

Long dashed where approximately located; short dashed where gradational or inferred.

Boundary of area containing abundant granitic rocks

Fault, approximately located, showing dip where locally exposed. U, upthrown side; D, downthrown side, short dashed where inferred.

Strike and dip of beds — Inclined — Vertical — Horizontal

Strike and dip of foliation

Strike and dip of foliation and parallel bedding

Inclined — Vertical — Anticline — Syncline

Strike and dip of axial plane of fold — Showing trace of axial plane.

No attempt is made to define the degree of rotation from an original position; only the stratigraphic fold relationship is indicated. Circled number refers to generation of fold, explained in text.

### LINEAR FEATURES

Combined symbols show similar attitude of more than one linear feature

Bearing and plunge of symmetrical fold axis

Bearing and plunge of fold axis with clockwise asymmetry.

Bearing and plunge of fold axis with counterclockwise asymmetry.

Bearing and plunge of late stage fold axis.

Bearing and plunge of crinkle axis.

Bearing and plunge of mineral lineation.

### ECONOMIC FEATURES

Dry hole

Abandoned mine, pit, or quarry.

Sand and gravel pit.

Mineralized zone

Base map by U.S. Geological Survey.
Control by USGS, USC&GS, and Connecticut Geodetic Survey.

Topography from aerial photographs by multiplex methods. Aerial photographs taken 1950. Field check 1953.

Revisions from aerial photographs taken 1972.

Polyconic projection. 1927 North American datum
10,000-foot grid based on Connecticut coordinate system

MN 13° 231 MILS — GN 1°12' 21 MILS
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000
1 MILE — 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET — 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

CONNECTICUT — QUADRANGLE LOCATION

Williams & Heintz Map Corporation, Washington, D.C. 20027