Hartford North Rodgers Bedrock Compilation Sheet (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.

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GEOLOGY OF THE HARTFORD NORTH QUADRANGLE CONNECTICUT GQ-223

Flood-plain alluvium of the Connecticut and Farmington Rivers Medium- to dark-gray laminated silt and sand in areas flooded by the Connecticut and Farmington Rivers. Deposited on surfaces cut by the rivers on older deposits. Generally 20 feet thick but as much as 40 feet thick in areas adjacent to the Connecticut River. Underlain by varved clay and silt

Local alluvial deposits Moderately well-sorted reddish-brown to brown gravel, sand, and silt deposited along channels

topography with numerous undrained depressions

of small streams tributary to the Connecticut and Farmington Rivers. Pebbles as much as 2 inches in diameter are common. Deposits are generally less than 5 feet thick

present over much of the map area but is not shown

EXPLANATION

Qld

Landslide deposits Composed of varved clay and overlying sand in area where

Farmington River has undercut steep valley wall causing bank to slide. Unstable ground may be as much as 90 feet thick. Rough

> Swamp deposits Grayish-brown to black muck and peat. Muck consists chiefly of silt, clay, and very fine-grained sand intermixed with humus. Generally 5 to 10 feet thick, but as much as 15 feet thick in a few places. Not mapped where less than 2 feet thick. Generally underlain by fine sand, silt, and clay; locally by till

Eolian deposits Chiefly sand dunes. Yellowish-brown medium- to fine-grained sand in dunes as much as 25 feet high. A thin layer of yellowish-brown to yellow wind-blown fine-grained sand and silt (loess?) also is

Stream-terrace deposits Yellowish-brown well-stratified medium- to fine-grained sand and silt that form cut and fill terraces as much as 20 feet thick.

Locally has a ½- to 1-inch-thick pebble layer at base.

Unconformably overlies varved clay and silt of glacial

Lake Hitchcock

DEPOSITS OF GLACIAL LAKE HITCHCOCK

Deltaic deposits

Very fine sand and silt that grade upward into nearly horizontal well-sorted yellowish-brown fine- to medium-grained sand, which contains some gravel in uppermost part. The two facies are inferred to be bottomset and topset beds of a delta deposited by the glacial Farmington River. Foreset beds were not observed. Average thickness is 40 feet; maximum observed thickness is 75 feet. Underlain by lake-bottom deposits or ice-contact stratified

Lake-bottom deposits Varved clay and silt that locally grade upward, with alternations, through silt into fine- to medium-grained sand. Uppermost lake-bottom deposits are dark-yellowish-brown thick-bedded silt that grades upward into light-yellowishbrown thin-bedded very fine- to medium-grained sand; average thickness is 20 feet. Varved deposits underlying the silt and sand unit are paired horizontal laminae generally consisting of basal lamina of yellowish-brown to olive-gray silt and upper lamina of reddish-brown clay. They are open-lake deposits and are a few feet thick on the flanks of buried ridges of bedrock or till and as much as 255 feet thick where they overlie buried bedrock valleys.

Lake-bottom deposits generally overlie

till or bedrock

Beach deposits

Gently dipping reddish-brown coarse- to mediumgrained openwork gravel in thin beds with occasional beds of well-sorted reddish-brown coarse-grained sand; inferred to be shore deposits of glacial Lake Hitchcock. Generally formed by reworking of ice-contact stratified deposits. Grades outward, with alternations, into yellowish-brown sand of lake-bottom deposits. Beach deposits are as much as 20 feet thick but average 10 feet in thickness

Ice-contact stratified deposits

Thin-bedded reddish-brown coarse-grained gravel to medium-grained sand with some boulder gravel. Sorting and bedding range from poor to good, and margins are collapsed. The lateral extent of a single facies may range from a few feet to several yards and facies changes are abrupt. As much as 90 feet thick in one area in western part of town of Windsor, but most occurrences are less than 30 feet thick

Ground-moraine deposits Chiefly reddish-brown till, which is a loose to compact nonstratified mixture of clay, silt, sand, pebbles, and boulders. Locally includes lenses of laminated clay and silt or fine-grained sand. Thickness of the till generally is less than 30 feet. Lighter tone indicates approximate areas where the till is known or inferred to be more than 40 feet thick under crests of some drumlins; maximum known thickness is 200 feet

Portland Arkose Medium- to dark-red arkosic siltstone and shale with thin beds of red arkose and gray sandstone. The materials become slightly coarser from west to east. Arkose predominates over siltstone and shale in the southeastern part of the quadrangle. Thickness not

Hampden Basalt Medium- to dark-greenish-gray massive fine-grained basalt deposited as a lava flow. Vesicular and amygdaloidal at top. Weathers to olive brown. Stratigraphic thickness calculated from borings at Jefferson Street Tunnel is 127 feet. Underlain by East Berlin Formation which is not exposed in the

Artificial fill

Earth fill mapped only where it is in part at least 5 feet thick. Foundation fills around private and commercial construction are excluded. Consists of (1) till obtained from ground moraine, (2) sand, gravel, and silt obtained from deltaic, lake-bottom, eolian, and flood-plain deposits, and (3) trash

Contact of surficial deposits Dashed where approximately located; dotted where concealed

Fault in bedrock U Dotted where concealed, queried where projected; U, upthrown side; D, downthrown side. Evidence for concealed fault based on data from test borings at Jefferson Street Tunnel and abrupt termination of north end of basalt ridge

Strike and dip of beds in the Newark Group Where shown without outcrop symbol used to denote bedrock exposed temporarily during construction and now covered

> Bench or scarp reflecting erosional shoreline of glacial Lake Hitchcock

Shoreline of glacial Lake Hitchcock Position inferred; shown where erosional bench

or beach deposit is not present Erratic boulder Shown only where greater than 4 feet in diameter. Letter symbols indicate kind of bedrock; b, basalt; g, granite gneiss

> Letter symbols indicate kind of material; g, gravel; s, sand; c, clay; t, till

> > Area of large pit

GEOLOGY OF THE HARTEORD NORTH QUADRANGLE, CONNECTICUT

R. V. Cushman SCALE 1:24 000

> DATUM IS MEAN SEA LEVEL 1963

CONTOUR INTERVAL 10 FEET

GEOLOGY OF THE HARTFORD NORTH QUADRANGLE CONNECTICUT GQ-223

Base map by Topographic Division

Geology mapped in 1959-60

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