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This map set contains unpublished maps, cross- sections, and related information archived by the State Geological and Natural History Survey of Connecticut as part of the Survey Library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

These materials have not been reviewed for accuracy, consistency, or completeness. For many geographic areas, more current information exists, either in published or unpublished form.

These materials were developed under research and mapping agreements between the State Geological Survey and individual scientists, academic institutions, or graduate students. The veracity of the information contained within these documents is the responsibility of the authorship. The State Geological and Natural History Survey of Connecticut, does not promote or endorse this content, nor does the State Survey attest as to its level of accuracy.

These materials have been preserved under a cooperative agreement between the State Geological Survey and the US Geological Survey as part of the National Geological and Geophysical Data Preservation Program. www.datapreservation.usgs.gov

These materials are offered in the spirit of open government. Reproduction of these manuscripts was conducted to the highest practical degree, within the parameters of the funding mechanism. Original documents are available for inspection by contacting the Connecticut State Geologist.

JR Structure 4 July 1977

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
STATE OF CONNECTICUT
GEOLOGICAL AND NATURAL HISTORY SURVEY

GEOLOGIC QUADRANGLE MAP
SURFICIAL GEOLOGY
NORFOLK QUADRANGLE, CONNECTICUT
GQ-983

INTRODUCTION

Most of the unconsolidated (surficial) material in this quadrangle is till deposited by glacier ice that came from the north-northwest. The rest is stratified drift deposited by glacial melt water, postglacial alluvium, peat, and artificial fill. No weathered bedrock or other preglacial unconsolidated materials have been recognized.

Norris W. Hillery assisted with much of the field work and made most of the pebble counts. George F. Sweeney of the Soil Conservation Service, U.S. Department of Agriculture, kindly made available an unpublished soil map of Litchfield County from which the distribution of swamp and marsh deposits and areas of abundant bedrock exposures was in part inferred. William M. Brown of the Soil Conservation Service provided subsurface data on the Norfolk Brook damsite and on proposed damsites on Wood Creek and Spaulding Brook. The Connecticut State Water Commission provided information on water wells.

TILL

Till deposited by ice that came from the north-northwest constitutes more than 90 percent of the unconsolidated material in the Norfolk quadrangle. Glacial grooves and striae at dozens of localities bear south-southeast (maximum range S. 8° E. to S. 53° E.). The mapped distribution of marble bedrock in northwest Connecticut (Rodgers and others, 1959) implies that marble erratics scattered in the drift came from the northwest. The few till hills with glacial streamline forms (including drumlins) are elongate south-southeast. The till in these hills is of subglacial (lodgement) origin, whereas the till in morainelike ridges west of Norfolk village is probably ablation till.

In other parts of Connecticut Pessl and Schafer (1968) have distinguished a widely distributed sandy, loose, relatively unoxidized upper till from a less widely exposed silty, compact, jointed, oxidized lower till that underlies it. The till in this quadrangle probably belongs to their upper till, though few good till exposures were seen and lower till is undoubtedly present in places.

Pessl and Schafer (1968) believe that the upper part of their upper till may have been deposited by ice that came from the northeast. Pebbles derived from Triassic rocks of the Connecticut Valley found in a gravel pit half a mile east of the Norfolk quadrangle (Warren, 1970) give inconclusive support to this inference, and suggest that ice from the northeast may have entered at least the northeast part of this quadrangle.

EARLY ICE-CONTACT STRATIFIED DRIFT DEPOSITS

The ice front apparently retreated progressively, though probably with fluctuations and with an irregular margin, from southeast to northwest across the area. Thus ice-contact stratified drift in the southeast (Qcd_1) is probably the oldest, having been deposited while ice covered most of the quadrangle. These deposits include rounded gravelly hills (kames) south of Winchester Center and a kame terrace northeast of the Park Pond dam; they may be approximately contemporary with ice-contact deposits mapped by Colton (1968) near Stillwater Pond, to the southwest in the adjoining West Torrington quadrangle.

After much of the ice at and near what is now Lake Winchester had melted, a melt-water stream drained southward across the Mad River-Naugatuck River divide south of Grant Swamp. Apparently this stream initially flowed in a tunnel under ice, where it formed an esker (part of Qcd_2 area). Later a kame terrace (rest of Qcd_2) was deposited.

As the ice melted down, still further, a route was opened up for water to escape eastward down the Mad River valley. A group of kame terraces along Mad River that are apparently graded to the spillway east of Grant Swamp (Qcd_3) are lower and clearly younger than the kame terrace to the south (Qcd_2). Several small stratified drift deposits north and northeast of Dennis Hill are probably not contemporaneous with the deposits along Mad River, but are mapped as Qcd_3 because they are inferred from topography to be of ice-contact origin, to be younger than the Qcd_2 kame terrace, and to have formed while ice still nearly filled the Blackberry River drainage basin.

Small patches of sandy drift on Ocain and Rugg Brooks cannot be reliably correlated with other deposits. They seem to be older than the ice-contact deposits along Mad River (Qcd_3), and have been designated Qcd_2.

OUTWASH IN HALL MEADOW, AND RELATED DEPOSITS

A fan northeast of Tibbals Hill (Qohf) is probably contemporaneous with discontinuous terraces (Qoh) that extend down Hall Meadow and up Hall Meadow Brook. I infer that they consist of outwash from farther up Hall Meadow Brook because (a) I find no ice-contact features, yet (b) two lines of evidence suggest a melt-water origin (glacial rather than postglacial age). First, 4 of 100 pebbles collected for the gravel count at the pit southwest of Hall Meadow Cemetery were so weathered that they crumbled in my hand, though associated pebbles of similar original lithology were fresh. Such fragile rottenstones, presumably from preglacially weathered rock, are not a normal constituent of Holocene deposits, but they are common in Pleistocene melt-water deposits; they were probably frozen solid when they were deposited. Second, angular erratic boulders scattered through the terrace deposits are reminiscent of the boulders, commonly ascribed to rafting on river-bergs, that are common in many outwash deposits.

The tributary stream that enters Hall Meadow from the north follows the trough between the east-sloping Qohf fan and the valley wall. Clearly, aggradation of the fan has pushed it over to this position, and raised its profile. The stream from southeast of Parker Hill was only partially dammed, however, for no pond formed north of the fan, as commonly occurs in tributaries of an aggrading valley train. Instead, it built a bouldery, cobbly fan of its own (Qopf), which must have risen in step with the rising profile of the Qohf fan.

The deposition of the secondary fan (Qopf), in turn, pushed the stream from between Parker Hill and Turkey Cobble against the west wall of the valley. This stream, also, responded to the rising base level by depositing gravelly material (Qot), rather than by being dammed and forming a pond.

Thus all three streams must have been heavily loaded and aggraded simultaneously. Both the secondary fan (Qopf) and the deposits to the north (Qot) are probably outwash deposits built by glacial melt water, though conceivably the streams that built them could have been fed by local rainfall.

The outwash and related deposits (Qohf, Qoh, Qopf, and Qot) are probably of about the same age as the ice-contact deposits south of Grant Swamp (Qcd_2). They are younger than the earliest ice-contact deposits (Qcd_1), for the ice had melted out from the valley at Hall Meadow before they were deposited, and they are probably older than the deposits along Mad River (Qcd_3), for ice probably filled the Mad River valley at the time they were deposited. Ice definitely filled this valley, standing at the divide northeast of Parker Hill, if the deposits north of Hall Meadow (Qopf and Qot) are outwash. In any case, ice probably filled the Mad River valley when ice standing near the site of South Norfolk contributed substantial volumes of heavily loaded melt water to build the Hall Meadow Brook deposits (Qohf and Qoh). The ice front is believed to have retreated in a generally northwest direction, so that ice would have spilled across the saddle at the head of Mad River, north of Dennis Hill, whenever it spilled across the narrower saddle, more than 100 feet higher, at the head of Hall Meadow Brook, west of Dennis Hill.

LATER STRATIFIED DRIFT DEPOSITS

During deposition of the ice-contact deposits along Mad River (Qcd_3), ice almost filled the Blackberry River basin. Most stratified drift deposits in this basin are therefore younger than the Qcd_3.

Deposits east of Dutton Mountain.—After the ice had melted back to a position about 1,000 feet north of Spaulding Pond, melt-water streams draining to Spaulding Pond, controlled by an outlet at about 1,365 feet, deposited sand and gravel at elevations well below the ice-contact deposits south of Spaulding Pond (Qcd_3), which were graded to a spillway at about 1,455 feet. Kettles and crevasse fillings are present in the northern part of this deposit, and the entire deposit is mapped as of ice-contact origin (Qcd_4), although its southern part, which diverts the drainage across the preglacial divide (Warren, 1969), lacks kettles and is probably outwash. This deposit was doubtless built out into the ancestral Spaulding Pond, but no deltaic deposits are exposed because the pond has been raised about 12 feet by a dam.

Deposits west of Dutton Mountain.—In the wide lowland west and southwest of Dutton Mountain most of the stratified drift was deposited some distance behind the drainage divide. Much of the early deposition was over ice; Tobey Pond is a large kettle, and the deposits to the south are now collapsed. Gravel in a road cut 1,000 feet west of corner 1235 is significantly coarser and thicker than the topset delta gravels exposed in the pit 700 feet to the northeast. The now-collapsed deposits were evidently thick enough to protect the ice they buried against melting for a time, so that their surface remained above the level of the glacial lake that formed later. They are grouped on the map with the deposits north of Spaulding Pond (Qcd_4), though they are probably not exactly contemporaneous.

After the ice surface farther north had melted down, a lake much larger than Spaulding Pond developed, held in by ice to the northwest. The water of this lake, glacial Lake Norfolk (Warren, 1969), escaped to Mad River by a spillway at about 1,325 feet elevation, 3,000 feet north of Dennis Hill. A large body of stratified drift, chiefly sand, accumulated in glacial Lake Norfolk as the Tobey Pond delta (Qd). Much of the delta was built around and across remnants of ice, so that the delta surface is now extensively kettled and collapsed.

Deposits of stratified sand and silt (Qsu) in the upper Spaulding Brook valley, southeast of Tobey Pond, are of uncertain origin and age. They contain scattered lenses of pebble gravel, and a few boulders as much as 4 feet in maximum diameter. Possibly they are collapsed ice-contact deposits contemporary with those to the northwest (Qcd_4), and owe their finer grain size to a position farther downstream where the gradient was reduced by the local base level of the spillway.

Lake deposits in Wood Creek valley.—The lake deposits (Ql) into which Wood Creek is incised consist of laminated silts with some layers of clay and very fine sand; an engineering report prepared for the Soil Conservation Service (W. M. Brown, oral commun., 1968) interprets them as varved. The same report also mentions soil-consolidation tests interpreted as showing that in the vicinity of the proposed dam the lake silts have been compacted by "sediments, since removed by erosion, which filled the valley to a level above the top of the proposed dam" (indicated thickness of overburden more than 16 feet). I found no silts above about 1,195 feet elevation, though a well whose collar is at 1,182 feet penetrated 69 feet of the lake silts. Lying on these lakebeds are scattered boulders and patches of till.

The scattered boulders and till suggest that ice probably covered the lake beds, though some boulders and till could perhaps have been rafted in on the lake by bergs, and some might have rolled or slid from slopes above. Overriding by ice would also explain the results of the soil-compaction tests; compaction by ice that subsequently melted seems a more likely explanation than compaction by strata entirely removed by stream erosion without leaving any remnants.

The age relations of these lake deposits are uncertain. The lake beds are assumed in the map explanation to have been deposited in glacial Lake Norfolk. In this interpretation, if ice overrode the lake beds, it was a readvance postdating glacial Lake Norfolk, possibly the suspected ice movement from the northeast. It is not clear, however, why the silts should have such an apparently sharp upper limit near 1,195 feet if they were deposited in a lake whose surface was near 1,325 feet. The silts may have been deposited in a lake older than glacial Lake Norfolk, whose surface was near 1,200 feet and whose basin became almost filled by its own sediments. Any such low-level lake must have had an outlet down the Blackberry River. In this case, the ice readvance that closed the Blackberry River route and created Lake Norfolk presumably buried the Wood Creek lake deposits during the lifetime of Lake Norfolk. It is possible, however, that the Wood Creek lake beds are younger than glacial Lake Norfolk if the evidence for overriding has been misinterpreted.

Deposits west of Norfolk village.—Along the Blackberry River and south to Tobey Pond Brook is a heterogeneous assemblage of materials ranging from clay and silt to cobbles, with patches of till. Laminated silt and clay with scattered boulders and inclusions of till were exposed by a cellar hole for a new house north of Sunset Drive; the bedding of the silt and clay was somewhat contorted. Nearby kames apparently consist mostly of sand, with only minor amounts of gravel. Ridges of sand, gravel, and till at the head of the brook southeast of Case Pond have curved, morainelike forms (Warren, 1969). Apparently all of this material was deposited in glacial Lake Norfolk, adjacent to the ice front as the front retreated northwestward, probably with fluctuations. Because the deposits lie northwest of the Tobey Pond deta, they are assumed to be slightly younger. Though they are partly lacustrine, they are of ice-contact origin and are delineated as Qcd_5.

Glacial Lake Norfolk was finally drained when the ice melted sufficiently to permit flow down the Blackberry River valley, around the north and west sides of Canaan Mountain.

POSTGLACIAL DEPOSITS

Fans (Qf) are present at various places. Aggradation on some fans (Qfd) is apparently still in progress, for the depositing streams break up into distributary channels. The Norfolk Brook fan (Qfm) at Norfolk may have been built in late Pleistocene time, perhaps by mudflows (Warren, 1969).

Terraces (Qst) of sand and gravel, which stand above ordinary flood level, border streams at several places. Organic deposits (Qsm), in part thick peat, are present in many of the swamps and marshes. Alluvium (Qal) occurs along most streams, though commonly in belts too narrow to map.

ECONOMIC AND ENVIRONMENTAL CONSIDERATIONS

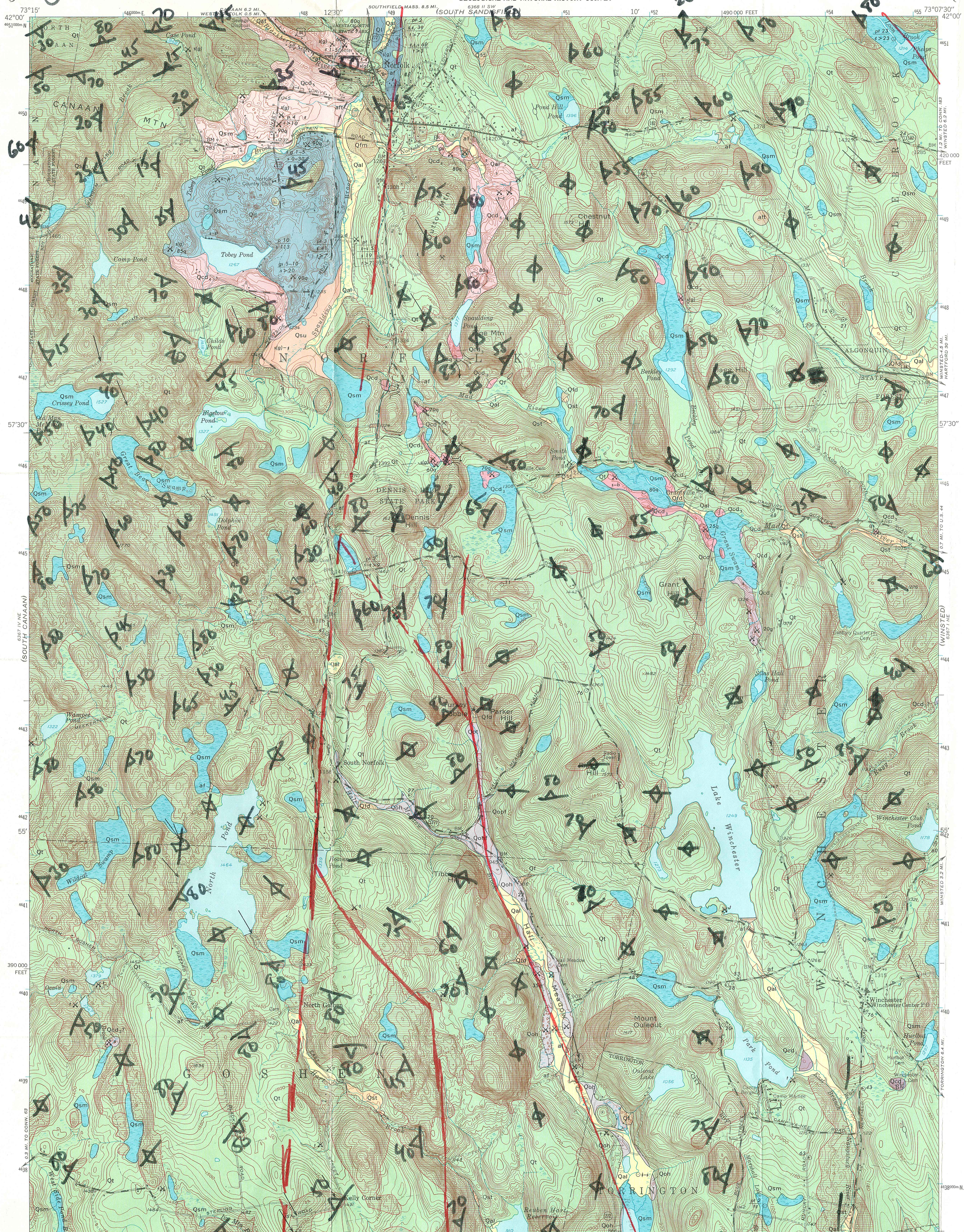
Materials of potential economic value in the surficial deposits of the Norfolk quadrangle include till, sand and gravel, water, and peat. Till suitable for use as fill is abundant throughout many parts of the quadrangle.

Economic resources of sand and gravel are generally scarce except in the area north and east of Tobey Pond (Qd), where medium to fine sand, locally referred to as "dead" sand, is abundant and locally is more than 100 feet thick. Gravel is present south of Tobey Pond, south of Grant Swamp, and in Hall Meadow. The gravels north of Spaulding Pond are of good quality, but any further pitting there might cause Spaulding Pond to drain into Norfolk Brook; this would adversely affect the Winsted city water supply, because these gravels provide water storage that maintains the level of Spaulding Pond and keeps Mad River perennial.

Properly screened and developed wells in the deltaic sands north of Tobey Pond (Qd) would yield fair amounts of good water. Water is even more readily available from the gravels north of Spaulding Pond, but heavy pumping there would affect the discharge of Mad River.

Peat near Phelps Pond is of commercial quality for garden use as a soil conditioner (C. C. Cameron, oral commun., 1969). Peat is also present in Great Bear and Wildcat Swamps, in swamps south of North Pond and east of Dennis Hill, and in many smaller deposits.

The areas of thick till (Qt symbol without bedrock exposures overprint) are generally suited for disposal of solid waste by sanitary landfill operations. In areas of numerous outcrops, unconsolidated material for borrow to bury the waste is scarce. Areas of stratified drift and of alluvium are poorly suited for sanitary landfill because of permeable soils and commonly because of a high water table. The delta sands (Qd) north of Tobey Pond would be geologically suitable for disposal of fluid wastes, if the rate of addition was not excessive, as they would provide natural filtration to remove particulate solids and aeration to neutralize biologic oxygen demand; the water table is more than 50 feet deep in places.



Base from U.S. Geological Survey, 1956
Interim revisions, 1969
10,000-foot grid based on Connecticut coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue

APPROXIMATE MEAN DECLINATION, 1972

SCALE 1:24 000

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL

QUADRANGLE LOCATION

Geology mapped in 1967 and 1968.
Assisted by Norris W. Hillery in 1968

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1972—G71016

SURFICIAL GEOLOGIC MAP OF THE NORFOLK QUADRANGLE, LITCHFIELD COUNTY, CONNECTICUT

By
Charles R. Warren
1972

EXPLANATION

QUATERNARY

Holocene

Qal

Alluvium

Stratified sand, gravel, and silt. In many places, especially where swampy, undecomposed to partly decomposed organic material present at the surface. Along Mill Brook near east edge of quadrangle includes laminated silt, sand, and clay deposited partly in beaver ponds and probably also partly in a local Pleistocene lake. Holocene material at the surface probably overlies Pleistocene stratified drift in many places

Qsm

Swamp and marsh deposits

Organic matter, undecomposed to partly decomposed; in places mixed with silt and sand, in other places pure peat, in still other places hemlock duff. Chiefly of Holocene age, but in places bottom part of deposit is possibly Pleistocene. Peat overlies thin-bedded lacustrine deposits, probably Pleistocene, near Phelps Pond and in swamp 0.5 mile southwest of Dennis Hill

Qst

Stream-terrace deposits

Stratified sand, gravel (in places bouldery), and silt. Age uncertain; probably in places Pleistocene outwash, or ice-contact deposits without preserved kettles, in places partly Pleistocene and partly Holocene and in places entirely Holocene

Qf | Qfm | Qfd

Fan deposits

Gravel and sand

Qf, *age uncertain except that it postdates melting of ice at the site*

Qfm, *possibly mudflow fan of late Pleistocene age (Warren, 1969)*

Qfd, *fan with distributary stream channels that indicate deposition is still continuing*

Pleistocene

Qcd_5 | Qcd_4 | Qcd_3 | Qcd_2 | Qcd_1

Ice-contact stratified drift

Chiefly stratified sand and gravel, generally with scattered boulders. Arranged in order of increasing inferred age, youngest at the top

Qcd_5, *apparently deposited in glacial Lake Norfolk (Warren, 1969) adjacent to the ice confining the lake. Material includes much laminated silt and clay, somewhat contorted, and bodies of till*

Qcd_4, *deposited after part of the ice in the Blackberry River drainage basin had melted out; includes probable outwash near Spaulding Pond*

Qcd_3, *deposited after drainage down the Mad River valley was established, while ice still nearly filled the Blackberry River basin.*

Qcd_2, *deposited while ice still nearly filled the valley of Mad River*

Qcd_1, *deposited while ice covered most of the quadrangle*

Qd

Kettled delta deposits

Chiefly sand, but the top few feet gravelly at most places; boulders as much as 30 feet in diameter in places, and some till (presumed to be flow till). This is the Tobey Pond delta (Warren, 1969), deposited in glacial Lake Norfolk

Qsu

Stratified drift?

Stratified sand and silt with scattered lenses of pebble gravel and scattered angular boulders as much as 4 ft in diameter. Origin and correlation uncertain

Ql

Lake deposits

Laminated silt, sand, and clay, possibly varved. In places apparently overlain by till. Age uncertain; possibly older or younger than glacial Lake Norfolk

Qoh | Qohf | Qopf | Qot

Outwash(?) deposits

Stratified sand and gravel. Qoh *and* Qohf *are probably outwash;* Qopf *and* Qot *are contemporaneous but are possibly not of melt-water origin*

Qoh, *sand to cobbles, with scattered boulders, possibly rafted; includes rottenstones*

Qohf, *fan of* Qoh *with preserved fill surface*

Qopf, *sand to small boulders; fan deposited by stream from east of Parker Hill*

Qot, *sand to boulders, deposited by stream from east of Turkey Cobble*

Qt

Till

Nonsorted to poorly sorted mixture of sand with silt, clay, rock flour, and angular to rounded stones as much as 35 feet in maximum diameter; loose to moderately compact. Does not react with dilute hydrochloric acid where tested, but commonly contains pockets of powdery oxides, of clay, or of sand believed to be the leached residues ("ghosts") of carbonate pebbles. Pockets or lenses of stratified sand and gravel commonly present. In areas of abundant bedrock exposures, till is discontinuous, commonly less than 10 ft thick, and includes many swampy areas in which undecomposed to partly decomposed organic matter is present near the surface. In areas lacking abundant bedrock exposures, thickness ranges from less than 1 foot (as near scattered outcrops) to a maximum reported figure of 76 ft. Most of the till is older than the Qcd *nearby, but some till is as young as the* Qcd_5 *deposits, and possibly some till in the northeast dates from an ice advance postdating the* Qcd_5

Area of abundant bedrock exposures

af | aft

Artificial fill

af, *chiefly or entirely till material; sand, gravel, and broken rock are locally present. Includes the larger graded areas; in a graded area northwest of the dam on Norfolk Brook consists of sand and gravel. Small fills and graded areas not shown*

aft, *trash fill (dump)*

Contact, approximately located

Glacial grooves, striae, or both

Showing inferred direction of ice movement. Point of observation is at tip of arrow. Double-arrow symbol indicates a locality where grooves trending S. 20° E. are apparently cut by grooves trending S. 35° E.

Long axis of streamline till deposit

Hill of till, with or without rock core, whose elongation is inferred to reflect the direction of ice movement (includes drumlins)

Melt-water channel

Dry channel carved or modified by a glacial melt-water stream (generally omitted in areas of abundant bedrock exposures). Includes outlets (spillways) of ice-dammed lakes. Arrow indicates inferred direction of stream flow. Where channel is wide, banks are shown. Where one bank was ice, only the earth bank is shown

Hypothetical shoreline of glacial Lake Norfolk

Based on the present topography; no shoreline features have been found except the spillway and delta (Qd). Much of the shoreline was against ice (Warren, 1969). No allowance made for postglacial tilt, which has affected the actual shoreline to an unknown degree

d

Damsite

Centerline of proposed dam; some subsurface data available

Inactive pit | Abandoned pit | Quarry | Abandoned quarry

Larger pits and areas of multiple pits are hachured to show approximate boundaries

Pits and quarries shown as abandoned probably have not been worked for more than a decade. Materials symbols are identified below

21 | $\frac{pt\ 23}{¢>23}$ | 70q

Surficial materials

Materials are identified as follows: b, *bouldery gravel;* c, *cobbly gravel;* p, *pebble gravel;* s, *sand;* ṣ, *silt;* ¢, *clay;* gs, *gravel and sand, gravel estimated to constitute more than 50 percent of the deposit;* sg, *sand and gravel, sand estimated to constitute more than 50 percent of the deposit;* s(g), *sand with minor amounts of gravel;* pt, *peat;* t, *till. Superposition of symbols indicates superposition of materials in pit or at point indicated; numeral denotes thickness in feet. Read* > *as "more than;"* < *as "less than." Read a dash between symbols as "to." Numeral alone is reported depth to bedrock in a well, in feet; reliability of well information varied. Symbol* 70q *indicates that approximately 70 percent of the pebbles in pit or at point indicated are quartzite or vein quartz*

REFERENCES CITED

Colton, R. B., 1968, Surficial geologic map of the West Torrington quadrangle, Litchfield County, Connecticut: U.S. Geol. Survey Geol. Quad. Map GQ-727.

Pessl, Fred, Jr., and Schafer, J. P., 1968, Two-till problem in Naugatuck-Torrington area, western Connecticut, Trip B-1. *in* New England Intercollegiate Geological Conference, 60th Annual Meeting, Oct. 25-27, 1968, Guidebook for fieldtrips in Connecticut: Connecticut Geol. and Nat. History Survey, Guidebook 2, 25 p.

Rodgers, John, Gates, R. M., and Rosenfeld, J. L., 1959, Explanatory text for preliminary geological map of Connecticut, 1956; Connecticut Geol. and Nat. History Survey Bull. 84, 64 p.

Warren, C. R., 1969, Glacial Lake Norfolk and drainage changes near Norfolk, Connecticut: U.S. Geol. Survey Prof. Paper 650-D, p. D200-D205.

——— 1970, Surficial geologic map of the Winsted quadrangle, Litchfield and Hartford Counties, Connecticut: U.S. Geol. Survey Geol. Quad. Map GQ-871.

For sale by U.S. Geological Survey, price $1.00

(13)