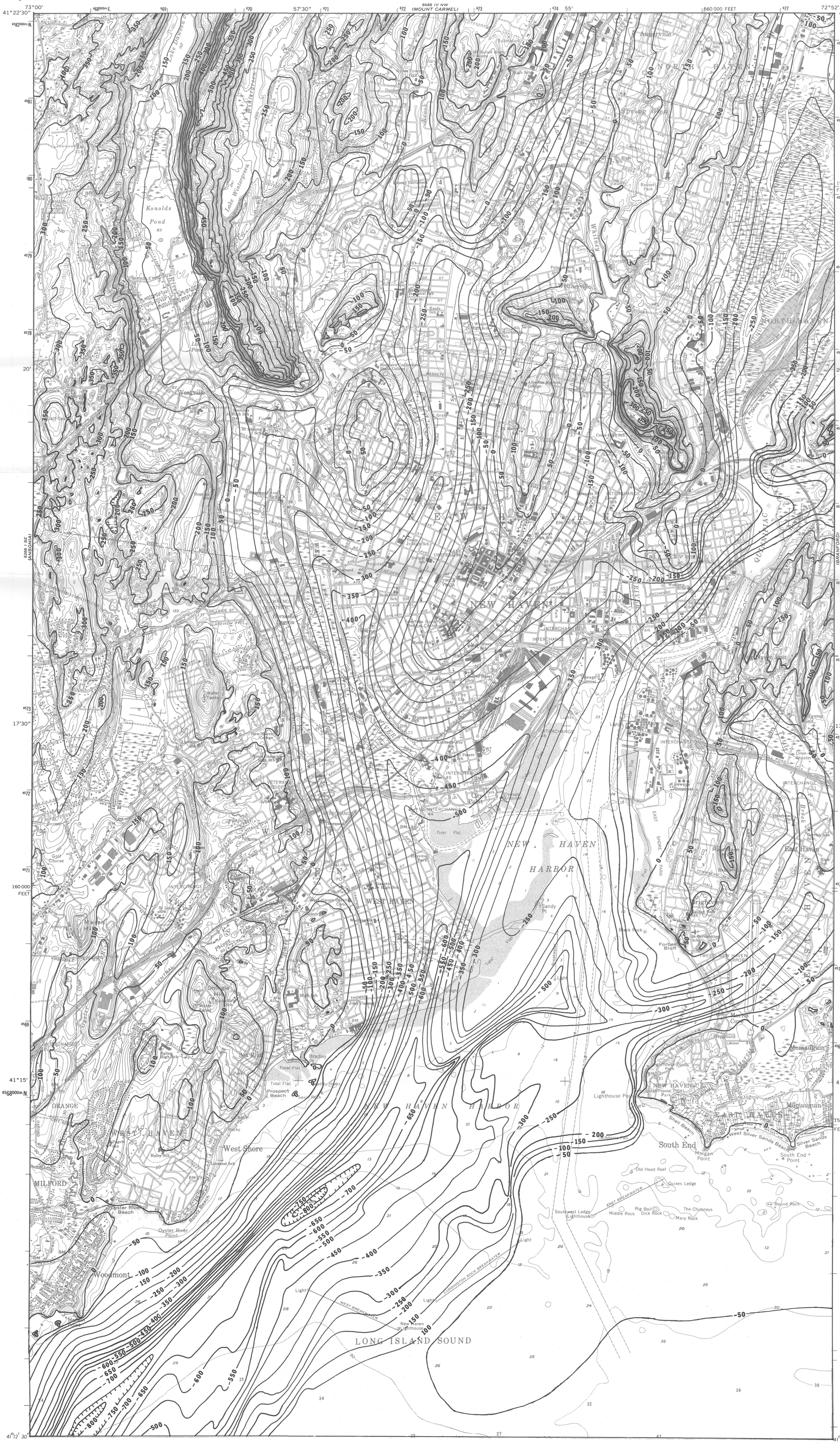
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES
MAP MF-557 A



EXPLANATION

Contours show the altitude of the consolidated (hard) bedrock surface. On land, the contours are based largely on data from wells and test holes, supplemented by knowledge of the geologic history of the region. Under New Haven Harbor and Long Island Sound, the contours are based almost entirely upon data from continuous seismic profiles (Sanders, 1965). These contours represent a strongly reflecting surface, interpreted as consolidated (hard) bedrock. The altitude of this surface was calculated by assuming that the speed of sound in the overlying water and water-saturated unconsolidated (loose) materials is 4900 feet per second.

150

CONTOUR, in feet above or below (-) mean sea level. Hachures show closed depressions. Contour interval 50 feet.

REFERENCES

Brown, J. S., 1928, Ground Water in the New Haven Area, Connecticut: U.S. Geol. Survey Water-Supply Paper 540.

Flint, R. F., 1965, Surficial geology of the New Haven and Woodmont quadrangles: Connecticut Geol. Nat. History Survey Quad. Rept. 18.

LaSala, A. M., 1968, Ground-water resources of the Hamden-Wallingford area, Connecticut: Connecticut Water Resources Bull. 14.

Mazzaferro, D. L., 1973, Hydrogeologic data for the Quinnipiac River basin, Connecticut: Connecticut Water Resources Bull. 26, 54p.

Sanders, J. E., 1965, Sediment-filled deep valleys underlying New Haven Harbor, Connecticut, revealed by continuous seismic profiling using sparker and pneumatic sources (abstract): Am. Geophys. Union Trans., v. 46, p. 105.

Base from U.S. Geological Survey
New Haven, 1967 and Woodmont, 1960
10,000-foot grid based on Connecicut coordinate system
1,000-meter Universal Transverse Mercator grid ticks, zone 18, shown in black

SCALE 1:24 000

1 0 1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 6.2 FEET

QUADRANGLE LOCATION

Compiled in part from data gathered in cooperation with the Connecticut Department of Environmental Protection

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1970

CONTOUR MAP OF THE BEDROCK SURFACE, NEW HAVEN-WOODMONT QUADRANGLES, CONNECTICUT

By
F. P. Haeni and J. E. Sanders

1974