PART III

REFERENCES AND INFORMATION

SUGGESTIONS AS TO THE USE OF MAPS

Russell Suter

HOW TO USE MAPS AND PROFILES

A. Commonly the information we are asked to give the public is the probable depth of a well at a selected spot and reaching a specified aquifer.

First it is necessary to determine the location of the proposed well, its latitude and longitude, and the surface elevation at the proposed site. These data most easily can be obtained by using the topographic maps of the United States Geological Survey or the maps recently published by the United States Army Engineers, but, particularly in the City of New York and other built-up areas, special detailed street maps may have to be used first in order to locate the well on the topographic maps.

Lists and key maps of the above topographic sheets are appended.

The site of the proposed well is plotted on the appropriate topographic map by reference to streets, roads and other objects. The elevation at the site is determined and the latitude and longitude.

The site of the well is then plotted on the corresponding maps in this report. As the well must be located on several maps, three point dividers will be found very convenient. Finally, the elevation of the top of each formation and aquifer under this site is obtained by interpolation between the contours on the various maps.

From this information, a prospective log of the well can be plotted. This may be checked by locating nearby wells and looking up the data on them, either from our publications or in our Long Island office. Estimates of water levels, quality and probable yield can be obtained in the same manner.

B. From studies of water levels and the fluctuating drawndown, interference between wells and other characteristics, the profiles will be most useful. If the published profiles are too remote or inconveniently oriented, special profiles readily can be prepared from the contour maps.

C. We depend on the logs furnished us by the drillers to correct these maps and profiles and keep them up to date. Eventually the driller will help himself as well as others by giving us the most accurate information possible. This is more particularly important in those cases where our maps are found to be greatly in error, as may too often happen.

D. Drillers and others doing much of this work and needing the most accurate information will probably prefer to use our Geological Atlas (Bulletin GW–19) or separate sheets from it. This atlas contains the same maps as are contained in this report but on a larger scale and are constantly subject to revision to keep them as nearly up to date as possible. This atlas also contains profiles on all fifteen minute meridians and parallels of latitude and longitude, only a few of which are reproduced in this report. This atlas, or individual sheets from it, may be obtained from the Commission at cost.

TOPOGRAPHIC MAPS OF LONG ISLAND

U. S. Geological Survey

U. S. Army

TOPOGRAPHIC MAPS OF LONG ISLAND BY THE U. S. GEOLOGICAL SURVEY

Geological Survey maps at a scale of 1:62,500 (About 1 inch = 1 mile) with contour intervals of 20 feet, covering Long Island counties in some 14 quadrangles, are entitled as follows:

Staten Island
Harlem
Brooklyn
Stamford (Conn.)
Oyster Bay
Hempstead
Northport
Babylon
Setauket
Fire Island
Moriches
Riverhead
Shelter Island
Sag Harbor
New London (Conn.)
Gardiners Island
Easthampton
Stonington (Conn.)
Montauk

These may be purchased locally or directly from the Director, U. S. Geological Survey, Washington, D. C.

TOPOGRAPHIC MAPS OF LONG ISLAND PUBLISHED BY THE CORPS OF ENGINEERS OF THE UNITED STATES ARMY

These may be obtained from:

Army Map Service
6500 Brooks Lane
Washington 16, D. C.

Jersey City, N. J.
Narrows
Mt. Vernon
Central Park
Brooklyn
Coney Island
Flushing
Jamaica
Far Rockaway
Stamford, Conn.
Glenville, Conn.
Mamaroneck
Sea Cliff
Lynbrook
Lawrence
Oyster Bay
Hicksville
Freeport
Jones Inlet
Lloyd Harbor
Huntington
Amityville
Jones Beach
Northport
Greenlawn
Bay Shore West
St. James
Central Islip
Bay Shore East
Port Jefferson
Patchogue
Sayville
Middle Island
Bellport
Howell Point
Wading River
Moriches
Riverhead
Eastport
Mattituck Hills
Mattituck
Quogue
Southold
Southampton
Shinnecock Bay
Orient
Greenport
Sag Harbor
New London, Conn.
Plum Island
Gardiners Island
East Hampton
Gardiners Island East
Gardiners Island West
Napeague Beach
Mystic, Conn.
Montauk Point

SUMMARY OF INFORMATION ON LONG ISLAND WELLS AVAILABLE IN THE LONG ISLAND OFFICE WATER POWER AND CONTROL COMMISSION

SUMMARY OF INFORMATION ON LONG ISLAND WELLS AVAILABLE IN THE LONG ISLAND OFFICE OF WATER POWER AND CONTROL COMMISSION

The following data are on file in the Long Island office of the Commission and there may be consulted by the public:

Water Supply Applications involving Long Island Water Supply Systems and wells—110 series—complete files. Published decisions may be found in the annual reports of the State Water Supply Commission and the Conservation Commission prior to 1920, thereafter in State Department Reports.

Long Island Well Applications complete files, decisions are summarized in annual reports, important decisions are published in State Department Reports.

Well Location Maps—There are on file sectional maps and atlases covering Long Island on which the locations of all known wells have been plotted together with the official identifying number.

Well Data—Data on all known wells filed by official number. This is made up of census sheets, drillers' final reports and similar data. This file is cross indexed as to the special data given with regard to each well.

Drillers' Preliminary Reports

Drillers' Final Reports (filed under well data)

Water Levels in Observation Wells—These water levels are published annually in the bulletins of the U. S. Geological Survey, a list of which will be found below, under reference. More recent observations, not yet published, can be consulted in blueprint form.

Observation Wells—Wells in which observation of water levels and other characteristics are taken. These are shown on various maps, and the data are on file. Water levels, fluctuations, charts showing such fluctuations are on file.

Pumpage Data

Recharge Data, also designs of diffusion wells.

Geological Correlations of Well Logs—Those included in this report, data to keep them up to date and early correlations made by other parties, notably Veatch and Crosby.

Geologic Maps and Sections—Those included in this report and others.

Topographic Maps—United States Government, United States Coast Survey Charts.

Ground Water Level Maps—Contour maps made from time to time showing the upper ground water surface on definite dates.

LONG ISLAND GROUND WATER BULLETINS

Water Power and Control Commission

In cooperation with

U. S. Geological Survey

LONG ISLAND

Ground Water Bulletins

GW–

1. Withdrawal of Water in Long Island ..... *D. G. Thompson*
2. Engineering Report—Water Supplies of L. I. ..... *R. Suter*
3. Records of Wells—Kings (1) ..... *R. M. Leggette*
4. Records of Wells—Suffolk (1) ..... *R. M. Leggette*
5. Records of Wells—Nassau (1) ..... *R. M. Leggette*
6. Records of Wells—Queens (1) ..... *R. M. Leggette*
7. Report—Geology and Hydrology Kings and Queens ..... *J. H. Sanford*
8. Record of Wells—Kings (2) ..... *R. M. Leggette and M. L. Brashears, Jr.*
9. Record of Wells—Suffolk (2) ..... *C. M. Roberts and M. L. Brashears, Jr.*
10. Record of Wells—Nassau (2) ..... *C. M. Roberts and M. L. Brashears, Jr.*
11. Record of Wells—Queens (2) ..... *C. M. Roberts and M. C. Jaster*
12. Water Table in Western and Central Parts of Long Island ..... *C. E. Jacob*
13. Configuration of Rock Floor—Western Long Island ..... *W. de Laguna M. L. Brashears, Jr.*
14. Correlation of Ground Water Levels and Precipitation ..... *C. E. Jacob*
15.
16.
17. Geological Correlation of Logs of Wells in Kings County, New York ..... *W. de Laguna*
18. Mapping of Geological Formations and Aquifers of Long Island, N. Y. ..... *R. Suter and others*
19. Geologic Atlas of Long Island, N. Y. ..... *R. Suter*

In general these bulletins have been published in small editions; copies of them have been deposited in most of the libraries in the City of New York and on Long Island so that they may be available for ready reference.

Aside from Bulletins GW–2, GW–18 and GW–19, these generally are unavailable for public distribution. The three above mentioned may be obtained from the Commission.