

HYDROGEOLOGY AND GROUND-WATER QUALITY OF THE
NORTHERN PART OF THE TOWN OF OYSTER BAY,
NASSAU COUNTY, NEW YORK, IN 1980

By Chabot Kilburn and Richard K. Krulik

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CONVERSION FACTORS AND ABBREVIATIONS

<u>Multiply inch-pound units</u>	<u>by</u>	<u>To obtain metric equivalent</u>
inch (in)	2.54	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square foot (ft ²)	0.0929	square meter (m ²)
square mile (mi ²)	2.590	square kilometer (km ²)

Specific Combinations

gallon per minute (gal/min)	0.06309	liter per second (L/s)
gallon per minute per foot [(gal/min)/ft]	0.207	liter per second per meter [(L/s)/m]
gallon (gal)	3.785	liter (L)
million gallons (Mgal)	3,785	cubic meter (m ³)
thousand gallons per day	0.0000438	cubic meter per second (m ³ /s)
million gallons per day (Mgal/d)	0.0438	cubic meter per second (m ³ /s)
billion gallons per year (Bgal/yr)	3.785 x 10 ⁶	cubic meter per year (m ³ /yr)
micromho per centimeter at 25 degrees Celsius (μmho/cm at 25°C)	1.000	microsiemens per centimeter at 25 degrees Celsius (μS/cm at 25°C)

Hydrogeology and Ground-Water Quality of the Northern Part of the Town of Oyster Bay, Nassau County, New York, in 1980

by Chabot Kilburn and Richard K. Krulikas

ABSTRACT

This report presents hydrogeologic and water-quality data from the northern part of the Town of Oyster Bay, in the north-shore area of Long Island. The ground-water reservoir underlying the area consists of clay, silt, sand, and gravel layers that form six hydrogeologic units. The units are, from bottom to top, the Lloyd aquifer, Raritan clay, Magothy aquifer, Port Washington aquifer, Port Washington confining unit, and the upper glacial aquifer. Crystalline bedrock underlies the Lloyd aquifer and forms the base of the ground-water system.

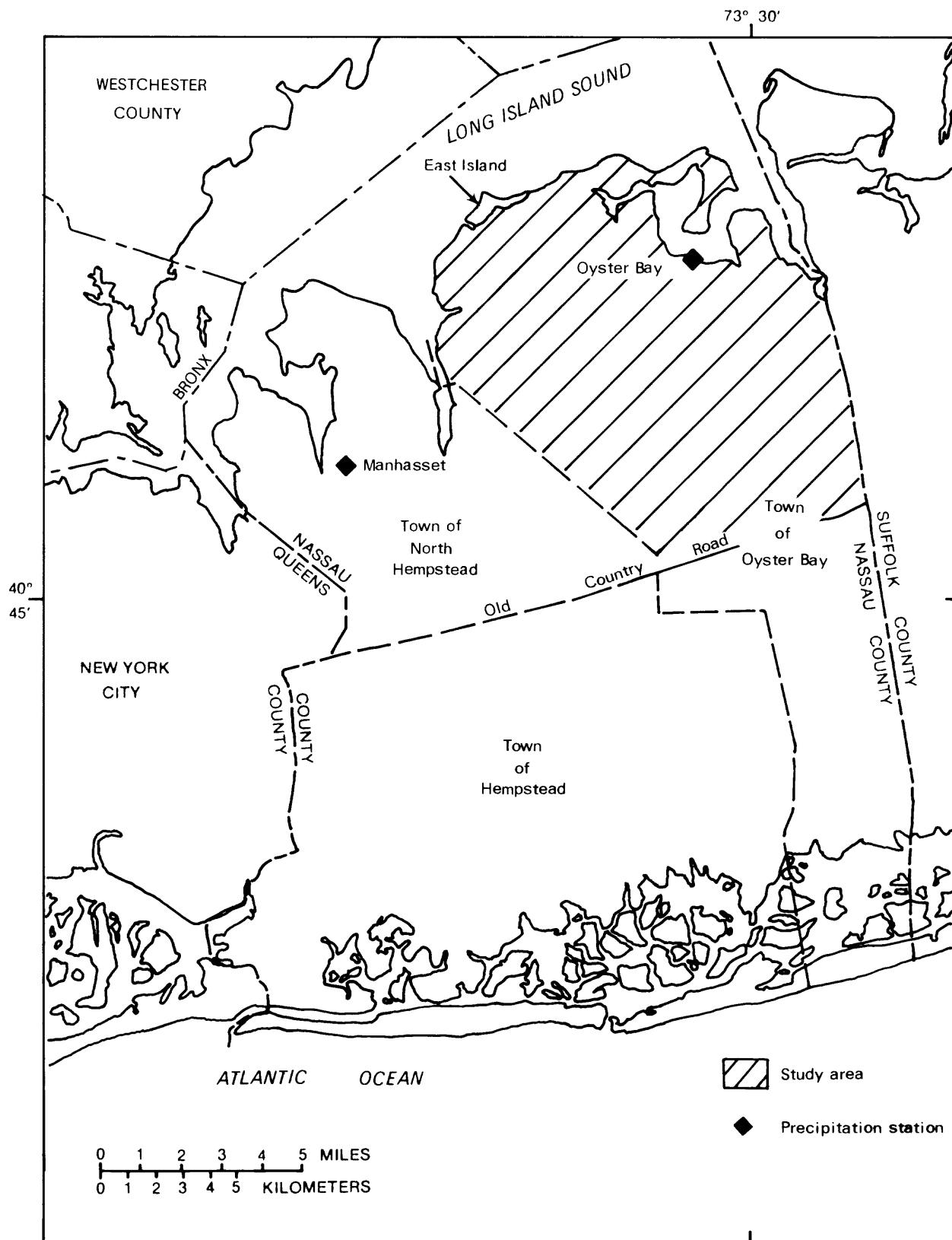
The regional drought of 1962-67 caused ground-water levels to decline as much as 16 feet, but the water-table altitude in 1980 equaled or exceeded predrought levels. Water levels measured in wells screened in the lower part of the Magothy aquifer and in the Lloyd aquifer throughout much of the area are still below those measured before the drought but are recovering. Water levels in wells screened in the Lloyd aquifer along the north shore have been declining since the mid-1970's.

Ground water in some areas contains nitrates, volatile organic compounds, and chloride in concentrations that exceed New York State drinking-water standards. Contamination is limited largely to the upper glacial aquifer and upper part of the Magothy aquifer.

Saltwater has been reported in some wells along the shore but probably represents a natural condition rather than saltwater encroachment due to excessive pumping.

INTRODUCTION

Ground water is the sole source of drinking water for all of Nassau County. Because population and ground-water use have increased significantly since the 1950's, proper development of this resource requires detailed knowledge of the hydrogeologic environment and ground-water-quality. The U.S. Geological Survey began a study in cooperation with the Nassau County Department of Public Works to document the hydrogeology of the County. The area of this investigation is the part of the Town of Oyster Bay that lies north of Old County Road (fig. 1). The area contains approximately 71 mi², or 63 percent of the town's 112-mi² area.



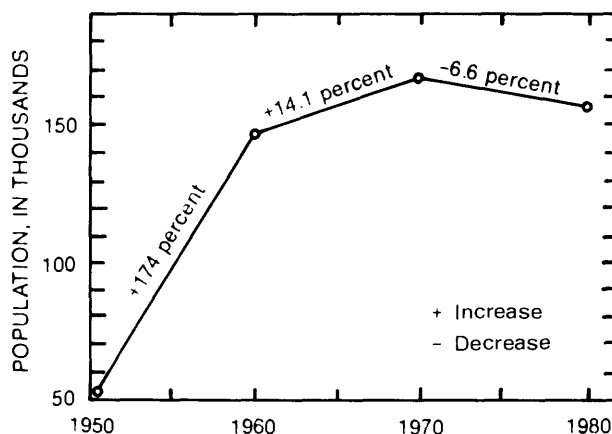
Base from U.S. Geological Survey
1:250,000 series New York, 1960.

Figure 1.--Location of northern part of Town of Oyster Bay.

The population of the study area increased from 53,716 in 1950 to 167,732 in 1970, then declined to 156,670 during 1970-80 (Long Island Lighting Company, 1956, 1964, 1971, 1981). The population decline as a whole from 1970-80 is consistent with a general trend throughout the rest of Nassau County during this period. The population trend within the study area during 1950-80 is depicted in figure 2.

Figure 2.

Trend in population of the northern part of the Town of Oyster Bay, 1950-80.



Purpose and Scope

This report describes the hydrogeology and ground-water quality of the northern part of the Town of Oyster Bay. It presents (1) surface-altitude maps and hydrogeologic sections of the units that form the ground-water reservoir; (2) water-table and potentiometric-surface maps of the major aquifers; and (3) graphs and tables of population, precipitation, water levels, and ground-water pumpage during 1950-80. It also discusses the trends indicated by these data and their effects on the local ground-water supply.

Previous Studies

The ground-water resources of Long Island were first studied in detail by Veatch and others (1906), who described the geologic units and the conditions under which ground water occurs. They also provided information on ground-water movement, water quality, pumpage, and well characteristics. Their description of the geologic units that underlie Long Island was revised and supplemented by Fuller (1914) in a report on the geology of Long Island. The scope of both reports is islandwide and provides a significant amount of information on the occurrence of ground water in the northern part of the Town of Oyster Bay during the early part of this century.

Swarzenski (1963) described the hydrogeology and hydrologic conditions that prevailed in northwestern Nassau and northeastern Queens Counties during 1955-57. That report includes the westernmost part of the northern part of Oyster Bay. Isbister (1966) described the hydrogeology and hydrologic conditions in the northern part of the Town of Oyster Bay in 1958-60 that was not covered by Swarzenski (1963). Together, these reports cover the area described herein and summarize the hydrologic conditions of 1955-60.

The most recent water-table maps that include the study area are by Koszalka (1975) for 1974, Nakao and Erlichman (1978) for 1975, and Donaldson and Koszalka (1982) for 1979.

Additional publications detailing the hydrology of the area are by Cohen, Franke, and McClymonds (1969), which includes a discussion of the 1962-66 drought; and Donaldson and Koszalka (1982), which depicts the 1979 potentiometric surface of the Magothy and Lloyd aquifers.

Methods of Investigation

This report was prepared from information obtained from Nassau County and State agencies and through previous studies by Federal, State, and local agencies. All data are on file at the Long Island office of the U.S. Geological Survey in Syosset, N.Y.

Data compilation was done from May through September 1981. Data on well construction and geology were obtained from the New York State Department of Environmental Conservation in Stony Brook, N.Y. Water-level data collected in April 1980 were used to make a water-table map (pl. 6A). The data were provided by the Division of Sanitation and Water Supply of the Nassau County Department of Public Works. Water-level measurements made by the U.S. Geological Survey in January 1979 and March 1980 were used to make the potentiometric-surface maps of the Magothy and Lloyd aquifers (pl. 5A, 5B). 13). Water-quality data from 1950-79 were from analyses made by the Nassau County Department of Health and the U.S. Geological Survey.

Fieldwork was limited to determining the status and location of most wells shown on the well-location map (pl. 1A). Most of this work was done during 1977-79.

Well Data

The New York State Department of Environmental Conservation assigns numbers serially by county to wells on Long Island. Nassau County well and test-hole numbers bear the prefix N. Plate 1A shows the location of selected wells in the northern part of the Town of Oyster Bay that were located during this study. Well-completion data and other pertinent information on the wells are given in table 6 (at end of report). The well-completion data were taken from reports on file at the New York State Department of Environmental Conservation office, Stony Brook, N.Y.

Acknowledgments

Appreciation is extended to the following well-drilling companies for providing lithologic samples, drillers' logs, geophysical logs, and water-quality data from drilled wells: Delta Well Co., Inc.; R. H. Lauman and Associates, Inc.; Layne-New York Co. Inc.; Strata Well Corp.; and United Well and Pump Corp. Thanks are also given to the many water-supply superintendents and individual well owners who allowed access to their wells. Special gratitude is extended to the New York State Department of Environmental Conservation for making records of wells, pumpage data, and other essential data available to this study.

HYDROGEOLOGY

The ground-water reservoir underlying the northern part of the Town of Oyster Bay consists of unconsolidated glacial deposits of Pleistocene age and coastal-plain deposits of continental and marine origin of Late Cretaceous age. These unconsolidated deposits consist of gravel, sand, silt, and clay and are underlain by bedrock of early Paleozoic and (or) Precambrian age. The bedrock, which is relatively impermeable, forms the base of the ground-water reservoir.

The thickness, character, and water-bearing properties of the aquifer and the relationships between hydrogeologic and geologic units underlying the study area are depicted in table 1. The correlations should be considered direct relationships as implied in the tables. The upper and lower boundaries of the hydrogeologic units are determined mainly from gross lithologic differences between units rather than the age of the deposits, which forms the basis for geologic correlations. For example, the upper and lower limits of the confining units (Port Washington confining unit and Raritan clay) are placed at intervals where the lithologic sequence changes from predominantly clay to sand or sand and gravel, and these positions may have no time-stratigraphic significance. For this reason, and because differentiation between sediments of Pleistocene and Cretaceous age is difficult and uncertain, it is possible that some deposits of Pleistocene age have been included in the upper part of the Magothy aquifer, which, by present definition, is approximately equivalent to the Magothy Formation-Matawan Group, undifferentiated, of Late Cretaceous age. The three hydrogeologic sections (pl. 1B) show the inferred extent, lateral and vertical relationships, and the variations in depth, thickness, lithology, and structure of these units.

Description of Hydrogeologic Units

Bedrock

Bedrock of early Paleozoic and (or) Precambrian age underlies all of western Long Island (Fisher and others, 1962). The bedrock generally consists of metamorphic and igneous crystalline rocks--schist, gneiss, and granite--and lies at depths ranging from about 350 ft below sea level along the north shore to about 950 ft below sea level in the southeast part of the study area (pl. 2A, and hydrogeologic sections, pl. 1B).

Bedrock is generally regarded as the base of the ground-water reservoir on Long Island because of its density and low permeability. No wells in the Town of Oyster Bay are known to obtain water from bedrock.

Lloyd Aquifer

The Lloyd aquifer is the equivalent of the Lloyd Sand Member of the Raritan Formation of Late Cretaceous age (Cohen and others, 1968, p. 18). It consists of discontinuous layers of gravel, sand, sandy clay, silt, and clay, and lies roughly parallel to the bedrock surface at depths ranging from about

Table 1.--Summary of geology and water-bearing properties of deposits underlying the northern part of Town of Oyster Bay, Nassau County, New York.

[Modified from Swarzenski (1963) and Isbister (1966)]

System Series	Geologic unit	Hydrogeologic unit	Approximate range in thickness (feet)	Character of deposits forming geologic unit (modified from Swarzenski, 1963, and Isbister, 1966)	Water-bearing properties
QUATERNARY	Holocene	Undifferentiated artificial fill, salt-marsh and swamp deposits, stream alluvium, and shore deposits	0 - 50	Sand, gravel, silt, and clay; organic mud, peat, loam, and shells. Colors are gray, green, black, and brown.	Permeable zones near the shore and in stream valleys may yield small quantities of fresh or brackish water at shallow depths. Clay and silt beneath the north-shore harbors retard saltwater encroachment and confine underlying aquifers.
	Pleistocene	Upper Pleistocene deposits	10 - 380	Till, composed of unsorted clay, sand, gravel, and boulders. Outwash deposits of stratified brown sand and gravel. May also contain some lacustrine and marine deposits consisting of clay, silt, and sand; locally fossiliferous.	Till, relatively impermeable, may cause local conditions of perched water and impede downward percolation of precipitation. Outwash deposits of sand and gravel are highly permeable. Wells screened in glacial outwash deposits yield as much as 1,750 gal/min. Specific capacities of large-capacity wells range from 14 to 175 (gal/min)/ft of drawdown. Water is generally fresh and unconfined but may locally contain saltwater near shores.
CRETACEOUS - QUATERNARY	Unconformity		0 - 360	Clay, solid and silty, gray, gray-green, white, red, mottled, and brown, containing lenses or layers of sand or sand and gravel. May locally contain lignite, shells, foraminifera, and other microfossils.	Relatively impermeable throughout much of the area. May be moderately to highly(?) permeable in areas adjacent to inferred limit of Magothy aquifer where sand and sand and gravel content may be large. Confines water in underlying Port Washington and Lloyd aquifers but does not prevent movement of water between upper glacial aquifer and Port Washington aquifer. Lenses of sand and sand and gravel provide sources of water supply and may permit local interchange of water with adjacent formations. One large-capacity well had a reported yield of 2,000 gal/min with a specific capacity of 43 (gal/min)/ft of drawdown. Coarser deposits may locally contain saltwater near shores.
	Unconformity		0 - 170	Sand, fine to coarse, white, yellow, gray, and brown, or gray and gravel with interbedded clay, silt, and sandy clay.	Moderately to highly(?) permeable. One large-capacity well had a reported yield of 1,100 gal/min with a specific capacity of 11 (gal/min)/ft of drawdown. Water is confined under artesian pressure. Generally contains freshwater but may have high iron content.
Upper Cretaceous, Pleistocene, and Holocene(?)	Unconformity				
	Deposits of Pleistocene age, undifferentiated, and (or) local erosional remnants of the Lloyd Sand Member of the Raritan Formation.			Port Washington confining unit	

CRETACEOUS	Upper Cretaceous	Unconformity	Matawan Group Magothy Formation- undifferentiated	0 - 610	Clay, silt, sandy clay, and sand, fine to medium, clayey, white, gray, yellow, pink, and multicolored, in lenticular beds. May contain lenticular beds of coarse sand and gravel in lower part of unit. Lignite, pyrite, and iron oxide concretions may occur throughout the unit.	Moderately to highly permeable. Wells screened in lower part of aquifer yield as much as 1,400 gal/min. Specific capacities of large-capacity wells commonly range from 10 to 50 (gal/min)/ft of drawdown but may be as high as 80 (gal/min)/ft. Aquifer is principal source for public supply. Water is generally of excellent quality. Degree of confinement under artesian pressure is variable; however, artesian conditions increase with depth. Hydraulic continuity may exist between the Magothy aquifer and contiguous Pleistocene aquifers.
		Unconformity	Clay member	0 - 185	Clay, solid and silty, gray, white, red, and mottled. May contain lenses or layers of fine to medium sand which may locally contain gravel. Sand layers frequently occur near top of unit. Lignite and pyrite are common.	Relatively impermeable. Confines water in underlying Lloyd aquifer but does not prevent movement of water between Magothy and Lloyd aquifers.
		Unconformity	Lloyd Sand Member	0 - 195	Sand, fine to coarse, white, yellow, or gray, and gravel, commonly in a clayey matrix. Contains lenses and layers of solid or silty clay. Beds are usually lenticular and frequently show great lateral changes in composition.	Moderately permeable. Large-capacity wells may yield as much as 1,600 gal/min; specific capacities commonly range from 10 to 19 (gal/min)/ft of drawdown. Water is confined under artesian pressure; some wells flow. Water is generally of excellent quality but may have high iron content.
		Unconformity	Crystalline rocks	Bedrock	Not known	Relatively impermeable. Contains some water in fractures, but impracticable to develop owing to low permeability.

200 ft below sea level along the north shore to about 700 ft below sea level in the southeast part of the study area (pl. 2B). Its thickness ranges from 0 to 250 ft from northwest to southeast, respectively.

The Lloyd aquifer is a major aquifer in the Town of Oyster Bay. It is probably hydraulically continuous with the adjacent Port Washington aquifer and upper glacial aquifer in the northern part of the study area. Water in the Lloyd aquifer is confined under artesian pressure beneath the Raritan clay.

Well yields during test pumping of large-capacity public-supply wells screened in the Lloyd aquifer have ranged from 500 gal/min to as much as 1600 gal/min.

Raritan Clay

The Raritan clay is a distinct hydrogeologic unit that extends throughout much of the Town of Oyster Bay (pl. 3A). In this area, the Raritan clay may be equivalent to the unnamed clay member of the Raritan Formation of Late Cretaceous age. The Raritan clay consists mainly of light to dark gray, red, white, or yellow clay and variable amounts of silt, and clayey silty fine sand. Sandy beds of varying thickness are common. The top of the Raritan clay is roughly parallel to that of the underlying Lloyd sand member. The upper-surface altitude of the Raritan clay ranges from 150 ft below sea level along the north shore to about 550 ft below sea level in the southeastern part of the study area. Its thickness ranges from 0 to 200 ft from northwest to southeast, respectively.

The Raritan clay is a significant hydrogeologic unit because it confines water in the underlying Lloyd aquifer. Although its hydraulic conductivity is very low, it does not entirely prevent movement of water between the Magothy and Lloyd aquifers. Some public-supply and other wells obtain part of their water supply from the sandy zones in the upper part of the Raritan clay.

Magothy Aquifer

The Magothy aquifer is the equivalent of the Matawan Group-Magothy Formation undifferentiated of upper Cretaceous age. Deposits in this unit consist of beds and lenses of light-gray, fine to coarse sand with some interstitial clay. Detailed lithologic descriptions are given in Soren (1978); Ku and others (1975); and Jensen and Soren (1974).

The top of the Magothy aquifer is not planar, unlike the surfaces of the underlying units. The Magothy surface was deeply eroded during Tertiary time and probably was considerably eroded in Pleistocene time. The upper surface altitude of the Magothy ranges from as high as 200 ft above sea level in the center of the study area to 200 ft below sea level along the northeast edge of the study area (pl. 3B). Its thickness ranges from 0 to 650 ft from northwest to southeast, respectively.

The Magothy aquifer is the principal aquifer underlying Long Island and is the island's main source of water for public supply. The sand beds within the aquifer are moderately to highly permeable. The reported yields during

pumping tests of several public-supply wells screened in the Magothy aquifer in the Town of Oyster Bay ranged from 300 gal/min to as much as 1,500 gal/min. The average yield was about 1,000 gal/min.

The large amount of clay in the upper half of the aquifer causes the water to become increasingly confined with depth. Along the north shore, the Magothy aquifer is probably in hydraulic continuity with the adjacent Port Washington aquifer. The Magothy also has a generally high degree of hydraulic continuity with the overlying upper glacial aquifer, but the degree of continuity may vary considerably from place to place.

Port Washington Aquifer

Two previously unrecognized hydrogeologic units in the northern part of the Town of Oyster Bay are defined as the Port Washington aquifer and Port Washington confining unit. The units were first recognized in the northern part of the Town of North Hempstead (Kilburn, 1979). The inferred limits of the units are shown in plates 4A and 4B, and their relationships to the other hydrologic units are shown on the hydrogeologic sections on plate 1B.

The Port Washington aquifer is a sequence of deposits of Pleistocene and (or) Late Cretaceous age that underlie the north-shore area of the Town of Oyster Bay. The deposits form a distinct hydrogeologic unit that rests upon bedrock and is overlain by a thick sequence of confining clay. The south edge of the deposits overlap and abut the adjacent Cretaceous units. The sediments of the Port Washington aquifer form part of the valley fill in the channels cut into the Cretaceous deposits. These deposits consist largely of sand or sand and gravel and varying amounts of interbedded clay, silt, and sandy clay.

The altitude of the top of the Port Washington aquifer ranges from 150 ft below sea level along the north shore to 450 ft below sea level along the south shore (pl. 4A). Its thickness ranges from 0 to more than 150 ft in the central parts of the study area.

The Port Washington aquifer is moderately to highly permeable and is a major aquifer in the northern parts of the Town of Oyster Bay. The reported yields during pumping tests of public-supply wells screened in the aquifer range from 300 gal/min to 1,200 gal/min. Water in the aquifer is confined beneath the Port Washington confining unit. The hydrogeologic relationships between the Port Washington aquifer and the abutting Lloyd, Magothy, and upper glacial aquifers, as shown in the hydrogeologic sections on plate 1B, suggest that these deposits could be in lateral hydraulic continuity. Potentiometric studies of the head in the Lloyd aquifer made by Swarzenski (1963), Kimmel (1973), and Kilburn (1979) tend to verify a lateral hydraulic continuity between the Port Washington and Lloyd aquifers.

Port Washington Confining Unit

The Port Washington confining unit is a sequence of deposits of Pleistocene or Late Cretaceous to Holocene(?) age that locally underlies the north shore. The unit consists mainly of clay and silt, with scattered lenses

of sand or sand and gravel. (See Kilburn, 1979, for a more detailed description.) The deposits that form the Port Washington confining unit overlie the Port Washington aquifer or overlap the adjacent Cretaceous units and may form part of the valley fill that occupies channels cut into the other Cretaceous deposits. The unit may locally include or consist of erosional remnants of the clay member of the Raritan Formation.

The altitude of the top of the Port Washington confining unit ranges from 100 ft above sea level in the central part of the study area to 300 ft below sea level along the northeastern part (pl. 4B). Its thickness ranges from 0 to more than 150 ft in the central part of the study area.

Upper Glacial Aquifer

The upper glacial aquifer consists of deposits of late Pleistocene and Holocene age that overlie the Magothy aquifer and the Port Washington confining unit and locally abut against or overlie the Port Washington aquifer. The extent and relationships of these deposits to the adjacent hydrogeologic units are shown on plate 1B.

The upper deposits consist mainly of stratified beds of fine to coarse sand and of sand and gravel but also contain thin beds of silt and clay interbedded with coarse-grained material. The outwash that constitutes the bulk of the upper Pleistocene deposits is yellow and brown or, in some places, gray. (See Perlmutter, 1949, and Kilburn, 1979, for further descriptions.)

The upper glacial aquifer, which contains the water table in most of the area, transmits all recharge to the underlying aquifers. Precipitation filtering downward to the water table is the principal source of ground-water recharge. In the past, the upper glacial aquifer was tapped as a water supply by many public-supply wells. Because it has become contaminated by cesspool effluents, fertilizers, and other substances, however, its use for public supply has decreased. Wells tapping the aquifer are now used mainly to supply water for domestic use, irrigation, and commercial and industrial purposes.

The sand and gravel deposits in the upper glacial aquifer are highly permeable and yield large amounts of water to properly constructed wells. The yields of large-capacity public-supply wells screened in the aquifer have been reported to range from 400 gal/min to 1,400 gal/min.

The recent deposits of Holocene age along beaches, streams, swamps, and the bottoms of bays and lakes have not been differentiated from the upper glacial aquifer because they are too thin.

Correlation of Units

The differentiation between deposits of Pleistocene and Cretaceous age throughout most of the northern part of the Town of Oyster Bay is uncertain. On Long Island, the contact between Pleistocene and Cretaceous deposits is an erosional unconformity that is commonly marked by an abrupt lithologic and

mineralogic change. In most of the study area, this boundary has not been delineated with confidence because of the lack of reliable lithologic data (cores and cuttings) and the uncertainty of recognizing this boundary from well drillers' logs, which formed the basis for correlations made during this study. The tops of the Cretaceous deposits may be lower in altitude than indicated on plates 2B, 3A, and 3B because they seem lithologically similar to the overlying Pleistocene deposits in most of the drillers' logs.

The inferred limits of some of the hydrogeologic units in plates 2, 3, and 4 have been extrapolated into areas where little or no data are available. Where the inferred boundaries are questionable, they are so indicated by dashed lines. In the hydrogeologic sections (pl. 1B), extrapolated and questionable extensions of the contacts of some of the units are indicated by question marks.

The hydrogeologic correlations of wells used in constructing the sections and maps in this report are given in table 7 (at end of report) with the altitudes of the tops of the hydrogeologic units penetrated by wells in the northern part of the Town of Oyster Bay.

GROUND-WATER HYDROLOGY

Pumpage

The total reported ground-water pumpage for all purposes in the northern part of the Town of Oyster Bay increased from 1.885 Bgal/yr (5.16 Mgal/d) in 1950 to 10.929 Bgal/yr (29.94 Mgal/d) in 1980. The total reported pumpage is plotted in figure 3A. During 1950-66, pumpage in the area increased at an average annual rate of about 291.6 Mgal/yr (798,900 gal/d); the graph does not reflect a significant effect from the 1962-67 drought. Beginning in 1967, however, the last year of the drought, the trend first reversed then leveled off until 1979. Pumpage during this time ranged between 7.95 Bgal/yr (21.8 Mgal/d) in 1967 and 9.94 Bgal/yr (27.2 Mgal/d) in 1971 and averaged 9.29 Bgal/yr (25.4 Mgal/d). A new upward trend may have started in 1980, when annual pumpage was reported to have been 10.92 billion gallons--an 11.6-percent increase over that in 1979. Whether this is a new trend or a short-term fluctuation will be ascertainable only from future records.

Ground water for public supply and nonpublic supply in the Town of Oyster Bay is derived principally from the upper glacial, Magothy, and Lloyd aquifers. The total amounts pumped from each of the aquifers and the Port Washington aquifer and confining unit are shown in figure 3B.

Ground-water pumpage from the Magothy aquifer is far larger than that from the other aquifers (fig. 3B) and, therefore, determines the trend of the graphs of total pumpage and public-supply withdrawals shown in figure 3A. Pumpage from the Magothy aquifer since 1976 (fig. 3B) has shown a significant upward trend that, through 1980, has increased by an average of more than 680 Mgal/yr (1.86 Mgal/d). This is largely because of a decline in public-supply withdrawals from the upper glacial aquifer and Port Washington confining unit (fig. 3C), but this loss is being made up by increasing pumpage from the

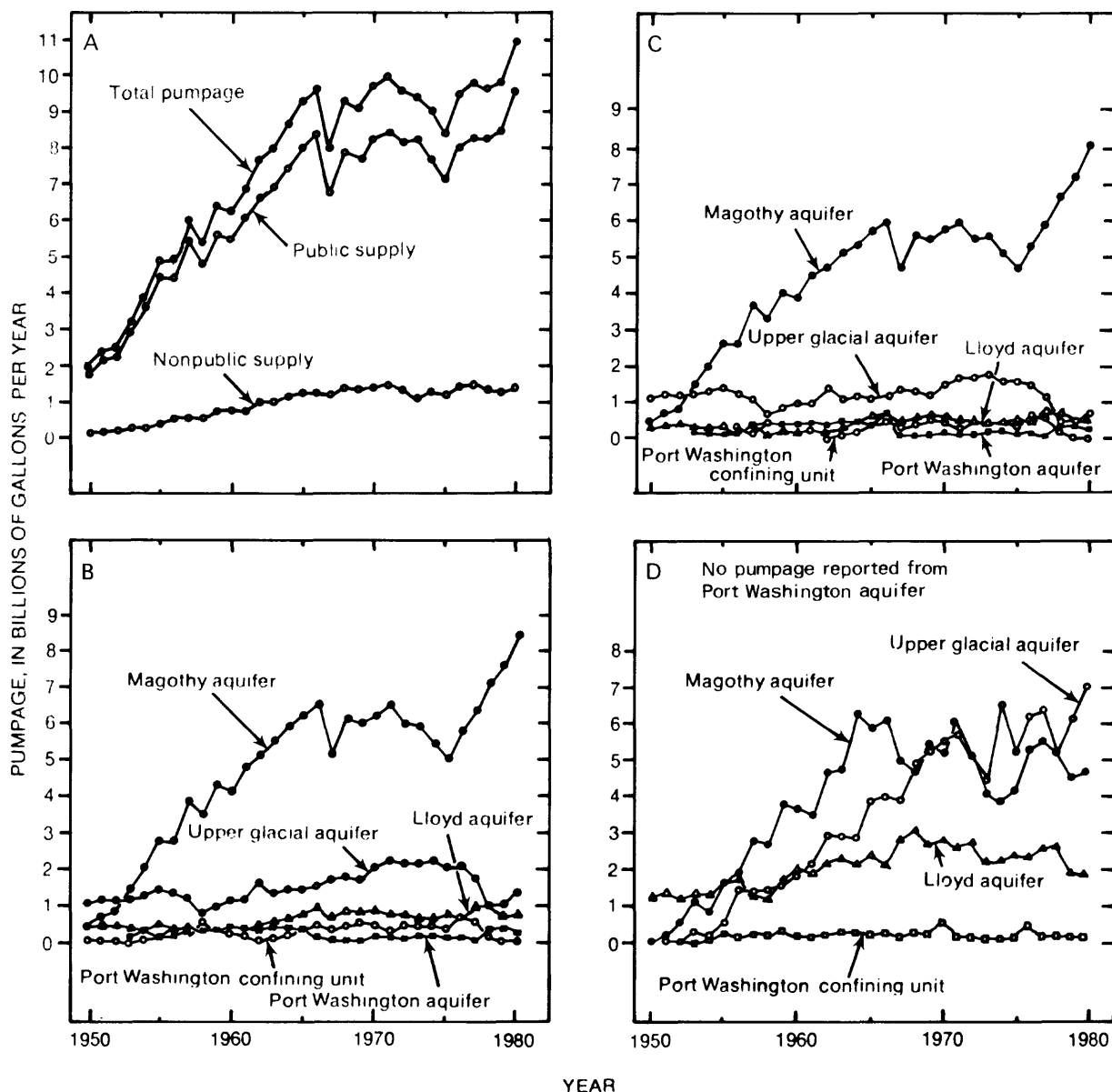


Figure 3.--Ground-water pumpage in northern part of Town of Oyster Bay, 1950-80. A. Total reported public-supply and nonpublic-supply pumpage. B. Total reported pumpage, by aquifer and confining unit. C. Public-supply pumpage, by aquifer and confining unit. D. Reported nonpublic-supply pumpage, by aquifer and confining unit.

Magothy aquifer as wells in the upper glacial aquifer are closed or restricted because of contamination by nitrates and volatile organic chemical compounds.

Ground-water pumpage for other than public supply is far smaller than that for public supply, as indicated in figure 3A, but the trends are similar. Pumpage for other than public supply slowly increased from 0.145 Bgal/yr (0.40 Mgal/d) in 1950 to 1.24 Bgal/yr (3.40 Mgal/d) in 1965, which was an average annual increase of about 70.4 Mgal/yr. During 1966-80, pumpage for other than public supply remained relatively constant, without a significant trend, and averaged 1.35 Bgal/yr (3.71 Mgal/d).

Trends in ground-water pumpage for public and other-than-public supply during coming years are expected to continue as in 1966-80, except that increased pumpage for public supply from the deeper parts of the Magothy aquifer should be expected as new wells are drilled or old wells deepened to reduce the possibility of inducing the downward movement of contaminated water from the upper glacial aquifer or upper parts of the Magothy aquifer. Also, as contaminated water moves into the lower parts of the Magothy aquifer from the effects of pumping, the demand for new wells that tap the Lloyd aquifer may increase.

Precipitation

The climate of the Town of Oyster Bay is characterized by a medium temperature range and mild winters that are moderated by the Atlantic Ocean. Precipitation falls in almost the same total in the cool season as during the warm season but is most frequent in spring. Most precipitation on Long Island is in the form of rain; only 5 to 10 percent falls as snow or sleet.

Long-term precipitation in Nassau County averages 42 inches per year, as determined from 30 years of records collected by the National Weather Service (fig. 4). The precipitation regime of Long Island for 1951-56 was studied by Miller and Frederick (1969), who calculated the mean annual precipitation in the Town of Oyster Bay to be between 42 and 45 inches. This compares closely with the 42 inches per year determined for all of Nassau County. The annual precipitation recorded at Manhasset during 1938-78 had a maximum of 64.70 inches in 1975 and a minimum of 22.73 inches in 1965 (fig. 4); the long-term average annual precipitation from 1938-78 is 41.95 inches. Mean monthly precipitation at Manhasset ranges from a low of 2.68 inches in June to a high of 4.09 inches in August.

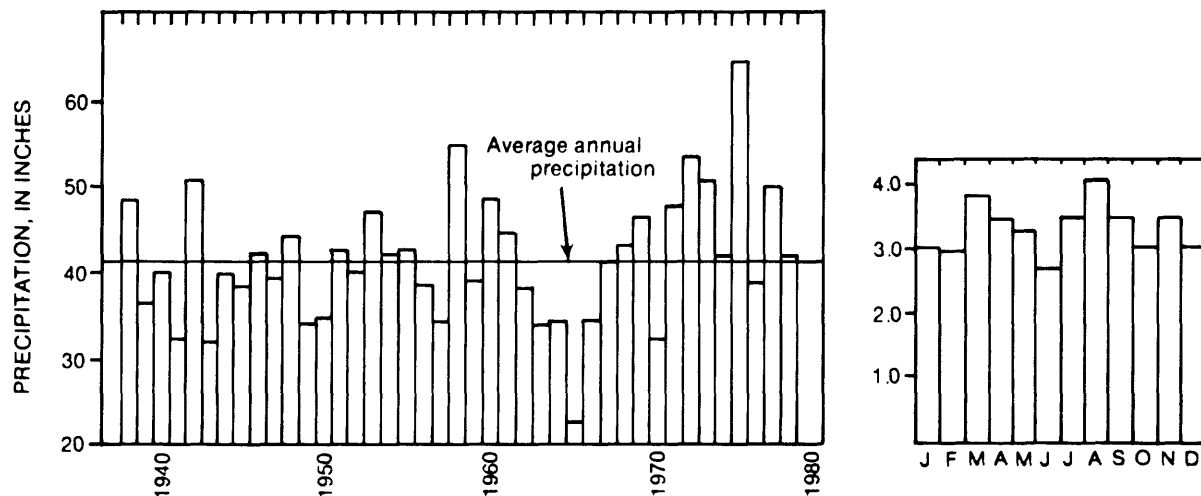


Figure 4.--Precipitation at Manhasset, 1938-78: Left, average annual values. Right, average monthly precipitation.

Water Levels

The principal sources of ground-water recharge in the Town of Oyster Bay are precipitation and infiltration of water from stormwater basins and home sanitary systems. Water that infiltrates from these sources recharges the upper part of the ground-water body and eventually migrates downward to the underlying aquifers.

The Port Washington aquifer, an important aquifer only in the northern part of the Town of Oyster Bay, is not discussed here because Kilburn (1979) has suggested that these deposits could be in lateral hydraulic continuity with the abutting Lloyd, Magothy, and upper glacial aquifers; this relationship is shown on plate 1B. Studies of the potentiometric head in the Lloyd aquifer by Swarzenski (1963) and Kimmel (1973) seem to verify a lateral hydraulic continuity between the Port Washington and Lloyd aquifers.

Upper Glacial Aquifer

The water table is in the upper glacial or the Magothy aquifer, depending upon geographic location. The altitude and configuration of the water table underlying the northern part of the Town of Oyster Bay in April 1980 is shown on plate 6A; the highest water-table altitude is along the regional ground-water (water-table) divide. A significant local ground-water divide in the water table extends northwest from the Brookville-Muttontown area through the Locust Valley area. (Locations are shown on pl. 1A.)

Fluctuations and long-term trends of water levels in six wells screened just below the water table are shown in the hydrographs in figure 5; locations of the wells are shown on plate 1A. The hydrographs indicate that during the 1962-67 drought, water levels in these wells declined 10 to 16 ft. The largest declines were along and near the regional water-table divide, which lies near the southern part of the area near the Long Island Expressway (wells N1193 and N1230, with declines of 16.1 and 14.4 ft, respectively). It can be inferred from these data that the water table throughout much of the northern part of the Town of Oyster Bay, except along the coast, declined by 10 to 16 ft during the drought.

At the end of the drought in 1967, water levels began to recover rapidly. The rate of recovery in the six wells was about 1.4 ft/yr from 1967 to late 1973, but little or no trend is clearly recognized from late 1973 to 1978. Another recovery trend may have begun in 1979, but this cannot yet be determined. As of 1981, water levels have recovered in four of the wells (N1190, N1193, N1227, and N1230) to heights that exceed those measured during the 12 years (1950-61) preceding the drought. It is probable, therefore, that the water table has recovered throughout much of the Oyster Bay area and has also risen to levels equal to or exceeding those immediately preceding the 1962-67 drought.

Magothy Aquifer

Ground water in the Magothy aquifer becomes increasingly confined with depth. Water levels in wells screened in the lower part of the Magothy aquifer reflect the hydrostatic pressure, or static head, that has been

developed in the lower part of the aquifer by this confinement. Plate 5A shows the approximate altitude and configuration of the potentiometric surface of the lower part of the Magothy aquifer during March 1980. The regional potentiometric divide in the aquifer passes through the southern part of the study area. A significant local ground-water divide that is close to a similar divide in the water table extends northwest from the Brookville-Muttontown area through the Locust Valley area.

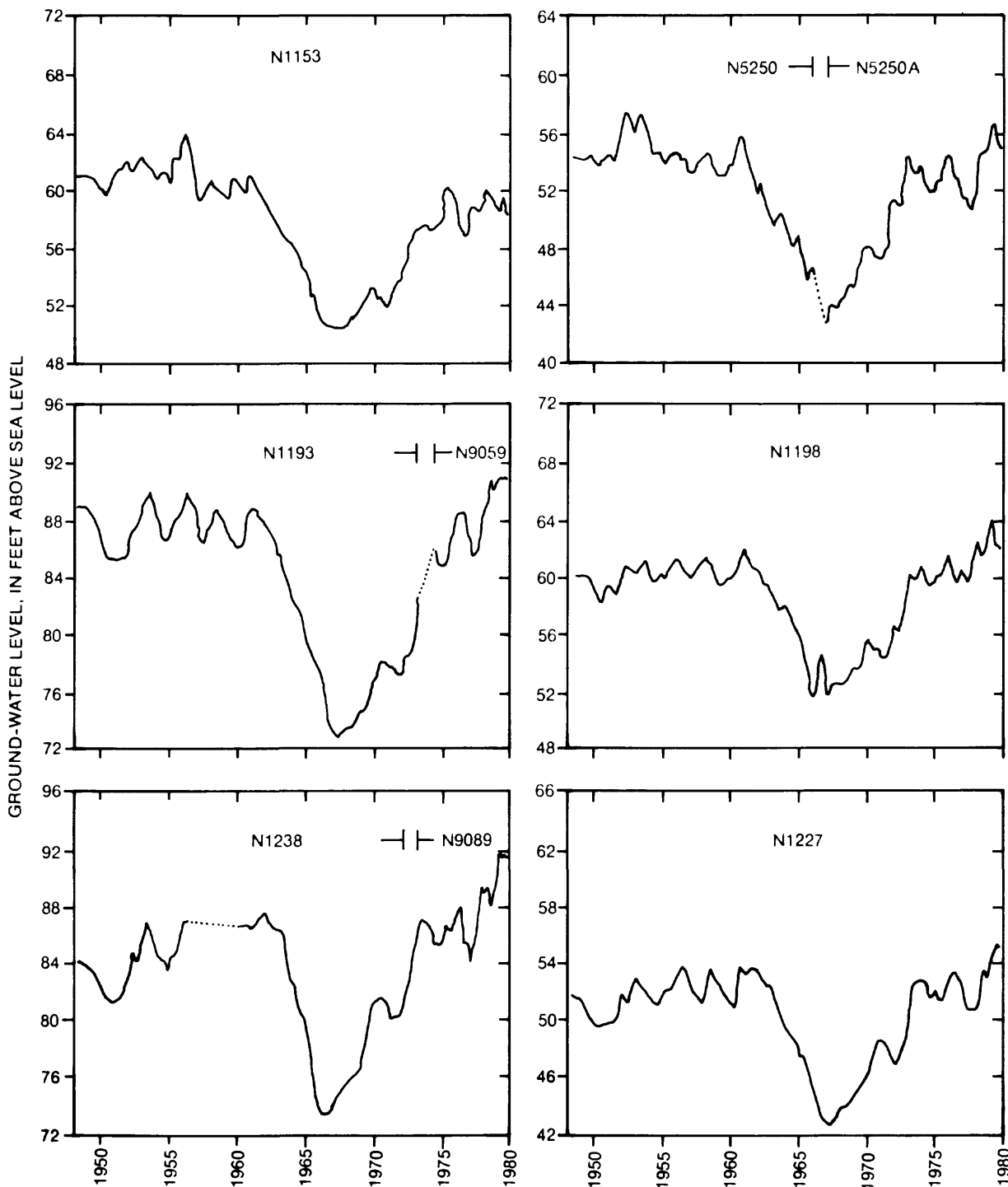


Figure 5.--Hydrographs of six water-table observation wells, 1950-80.

Hydrographs of four wells screened in the lower part of the Magothy aquifer are shown in figure 6; the well locations are shown on plate 1A. Water-level records are insufficient to plot accurate hydrographs for periods earlier than those shown.

If the hydrograph of well N3475 in figure 6 is assumed to represent water-level declines during the 1962-67 drought in wells screened in the lower part of the Magothy aquifer, the greatest decline would have been about 12 ft, which is nearly as great as those in the upper glacial aquifer. The hydrographs also indicate that water levels began to recover rapidly after the drought. Since 1967, water-level recovery seems to have continued at a rate of slightly more than 1 ft/yr, even though pumpage from the Magothy aquifer steadily increased.

Because little or no pre-1961 data are available from wells in figure 6, it cannot be directly determined whether water levels have returned to their predrought levels. However, 1961 water-level altitudes at four of the wells are indicated above the 1980 altitudes on plate 5A; comparison of these altitudes at wells N6190 and N7030 suggests that the altitude of the potentiometric surface along and near the potentiometric divide has recovered

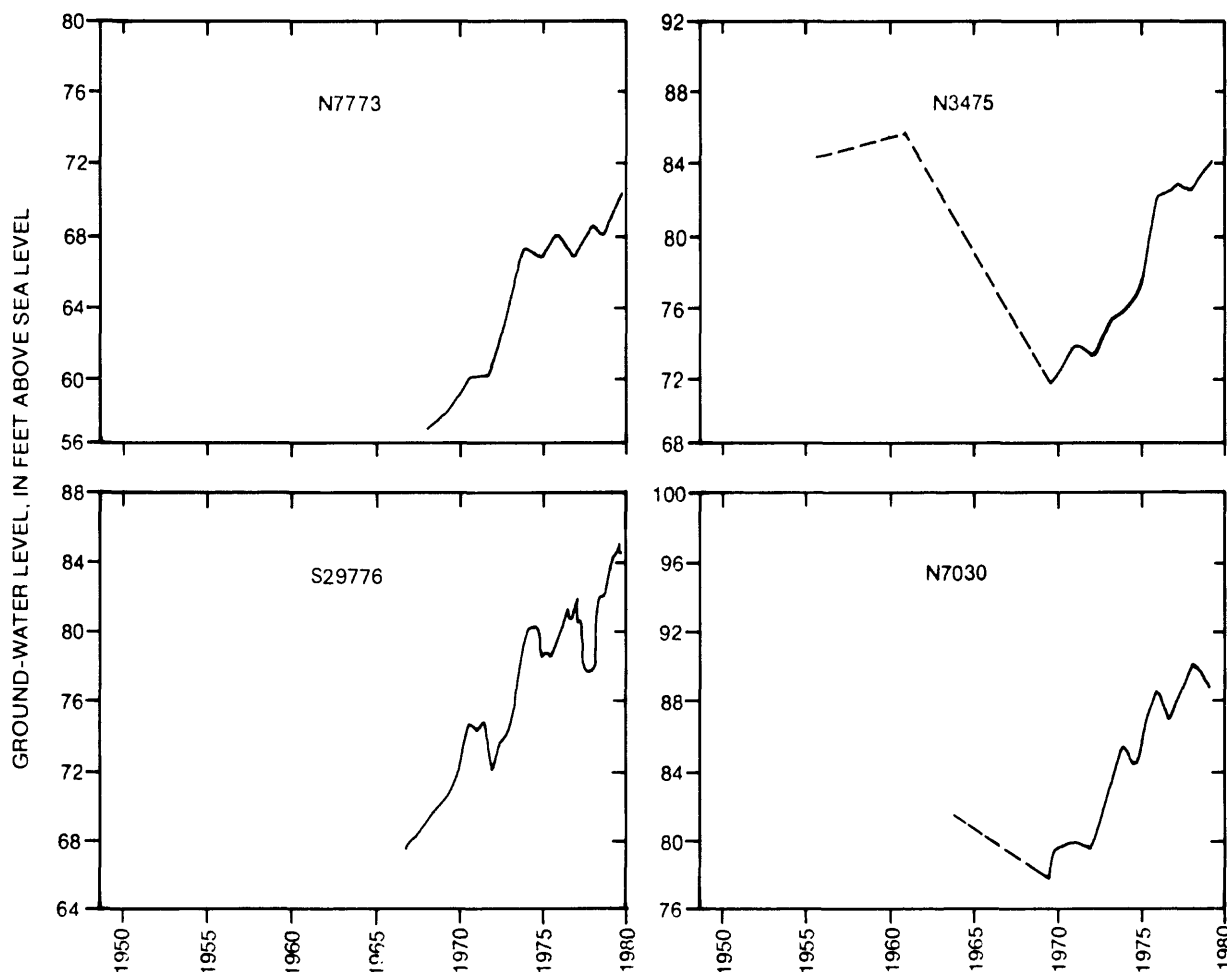


Figure 6.--Hydrographs of four wells screened in the lower part of the Magothy aquifer, 1950-80.

to, or exceeds, that which prevailed before the drought. North of the divide, however, the potentiometric-surface altitude of 1980 seems to have remained below that which prevailed before the drought. The differences between water-level altitudes in 1961 and 1980 (well N3475, -1.6 ft; well N5762, -11.4 ft) suggest that the decline increases northward. Thus, the potentiometric surface over much of the area north of the divide had probably not recovered by 1980 to the predrought levels, although the upward trends indicated in figure 6 suggest that recovery is continuing.

Lloyd Aquifer

Ground water in the Lloyd aquifer is confined beneath the Raritan confining unit. The inferred potentiometric surface in the aquifer in January 1979 is shown on plate 5B. The position of the regional potentiometric divide can be only inferred because water-level data are sparse. The position of the regional divide was extrapolated from previous regional potentiometric-surface maps that place the divide well north of the regional divides of the Magothy aquifer and water table. The maximum potentiometric-surface altitude along the regional divide in 1979 was probably between 35 and 45 ft. No 40-ft contour is shown in plate 5B, however, because water-level data are not available. Many earlier maps show an inferred 40-ft contour, and recent digital modeling studies of the Lloyd aquifer indicate that a 40-ft contour may be present (M. S. Garber, U.S. Geological Survey, oral commun., 1981). The inferred altitude of the potentiometric surface of the Lloyd aquifer across the central part of the study area is shown in the hydrogeologic sections (pl. 1B) to be about 40 ft.

Hydrographs of four wells screened in the Lloyd aquifer in and adjacent to the study area are shown in figure 7. (Well locations are shown on pl. 1A). The hydrographs of wells N124 and N3355 suggest that water levels in the Lloyd aquifer declined 4 to 10 ft during the 1962-67 drought. Water levels probably began to recover at the end of the drought, but, as the hydrographs suggest, the rates of recovery have probably differed considerably from well to well.

Water-level trends since 1967 also differ among wells. The trends indicated by the hydrographs of wells N2424 and N3355 seem to be upward. At well N124, in the north-shore area (pl. 5B), water levels recovered until 1974, after which they began a declining trend that continued into 1980. Hydrographs of wells N7152 and N7546 (not shown), both along the extreme north shore, indicate declining trends from 1968, when water-level records began, through 1980. The declines in these wells, and probably the decline at well N124 (fig. 16), may be due to the effects of pumping by well N7620 and other local pumping. The rates of decline in wells N7152 and N7546 are estimated to be about 0.3 ft/yr and 0.15 ft/yr, respectively. Water-level measurements obtained from well N835 indicate a declining trend through 1980 that may have begun in the late 1950's or early 1960's. Table 2 gives the available water-level data from 1961-80.

A comparison of water levels in March-April 1961 with January 1979 levels in wells shown on plate 5B indicates that, by January 1979, the potentiometric surface of the Lloyd aquifer had recovered to levels ranging from a fraction of a foot to 5 ft below the March-April 1961 level. The hydrograph of

well N124 (fig. 7) indicates that water levels in this well were about 4 ft higher in 1974 than in 1961. Since that time, however, the potentiometric surface at that well has declined to its lowest level of record.

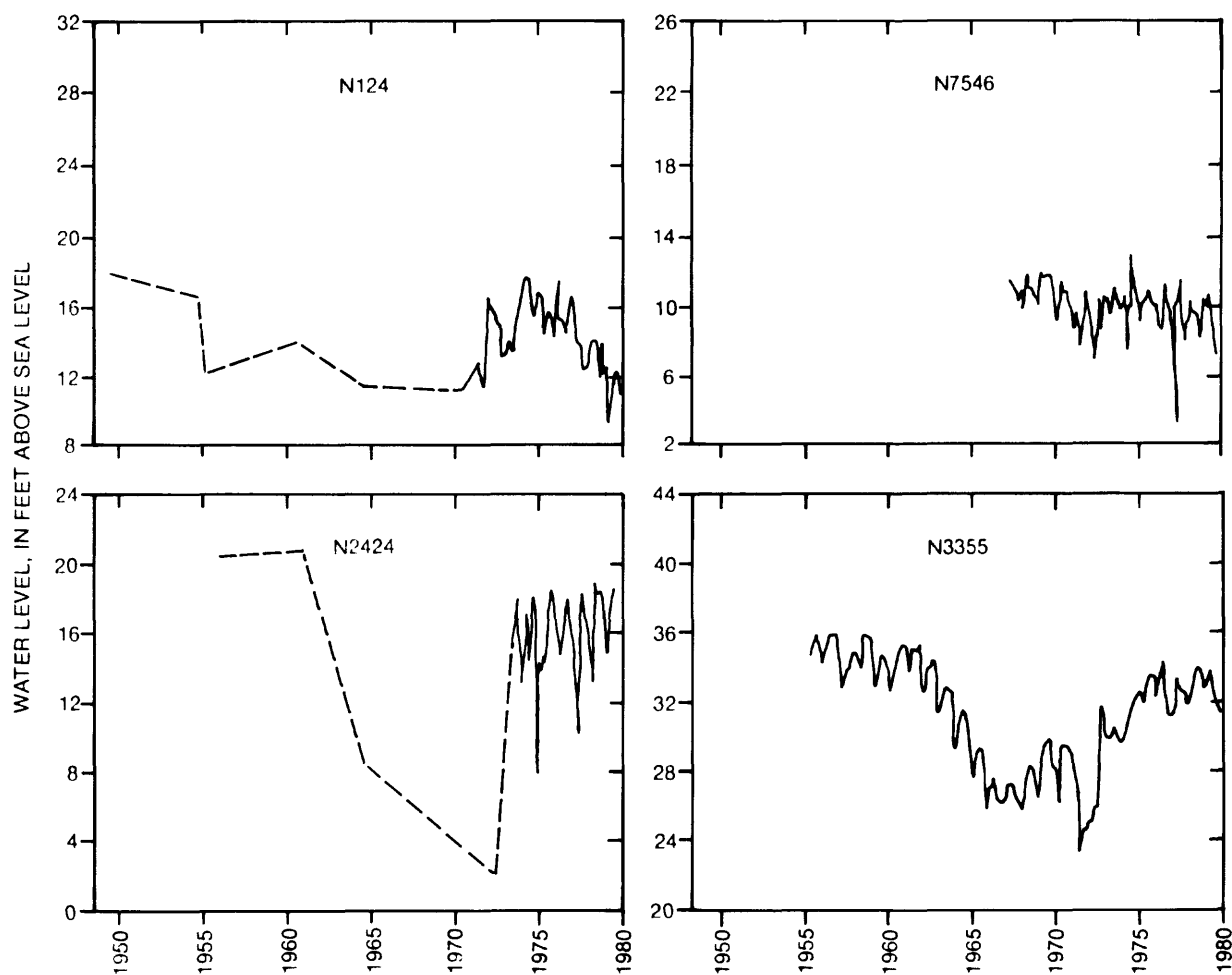


Figure 7.--Hydrographs of four wells screened in the Lloyd aquifer, 1950-80.

Table 2.--Water levels from Lloyd aquifer, well N835, on East Island, 1961-80.

[Location is shown in fig. 5; altitudes are in feet above sea level]

Date	Water-level altitude	Date	Water-level altitude
Mar. 13, 1961	10.50	Jan. 15, 1975	7.06
Dec. 31, 1970	8.10	Jan. 16, 1979	5.82
Jan. 6, 1972	8.68	Jan. 21, 1980	1.62
Jan. 30, 1974	7.61		

Water Movement

The lateral direction of ground-water flow can be estimated from water-table and potentiometric-surface maps. Ground water moves in the direction of decreasing head and perpendicular to the potentiometric contours. A vertical component of ground-water flow may also develop where differences in hydrostatic head are present with depth in an aquifer or between aquifers.

Upper Glacial Aquifer

The regional and local directions of lateral ground-water movement near the water table in the northern part of the Town of Oyster Bay are controlled from the regional and local ground-water divides (pl. 6A). Other smaller, local ground-water divides (not shown) are present on Mill Neck, Centre Island, and Cove Neck.

The lateral direction of ground-water movement near the water table is indicated on plate 6A by arrows. Water on the south side of the regional divide moves southward to discharge areas along the south shore; water north of the regional divide moves in two directions. Ground water east of the principal local divide shown on plate 6A moves toward discharge areas along or underlying Long Island Sound, Mill Neck Creek, Oyster Bay Harbor, or Cold Spring Harbor, and ground water west of the principal local divide moves westward to discharge areas along Glen Cove Creek or into Hempstead Harbor. Some water along the divides moves directly downward until it meets a zone of low permeability (for example, a clay bed or the top of the Port Washington confining unit or the Raritan confining unit), where it is diverted laterally.

Hydrostatic head differences between the water table (pl. 6A) and the potentiometric surface in the lower part of the Magothy aquifer (pl. 5A) during March and April 1980 ranged from less than 1 ft to more than 20 ft throughout most of the area except near the shore. The head differences were such that recharge from the water table could move downward into the Magothy aquifer over most of the area. Cones of depression due to local ground-water pumpage are not shown on plate 6A because the observation wells in the area are spaced too broadly to provide adequate definition.

Magothy Aquifer

The directions of lateral and vertical ground-water movement in the Magothy aquifer are controlled by the position of the regional and local potentiometric divides and by the hydraulic gradients. (See pl. 5A.) Some of the ground water along the divides moves downward to the bottom of the aquifer, where it then moves laterally toward areas of natural discharge or active pumping wells.

The areas of natural discharge from the Magothy aquifer can be inferred from plates 5A and 6A. Discharge occurs wherever the hydrostatic head in the Magothy is greater than that in the adjacent or overlying units. Water discharges from the Magothy aquifer into the upper glacial aquifer in areas adjacent to Hempstead Harbor and Oyster Bay Harbor, and into the Port Washington confining unit elsewhere.

Hydrostatic heads in the Magothy aquifer in 1980 exceeded those in the Lloyd aquifer by as much as 50 ft throughout a large part of the area. This is due largely to the low permeability of the Raritan confining unit, which confines water in the Lloyd aquifer but does not prevent water from the areas of higher head in the Magothy from moving in the direction of decreasing head and perpendicular to the potentiometric contours.

Lloyd Aquifer

The Lloyd aquifer is recharged by water moving downward from the Magothy and upper glacial aquifers through the Raritan clay and Port Washington confining unit in response to the higher hydrostatic heads in the upper aquifers. The confining units impede but do not prevent this downward movement. The principal areas of recharge of the Lloyd aquifer are those underlying and adjacent to the regional and local potentiometric divides, where flow is predominantly downward (pl. 5B).

Areas of natural discharge of water from the Lloyd aquifer can be inferred from a comparison of heads in the Lloyd (pl. 5B), the Magothy (pl. 5A), and the water table (pl. 6A). Natural discharge from the Lloyd may occur in areas where the head in the Lloyd exceeds heads in overlying or adjacent units. These comparisons indicate that water from the Lloyd aquifer can move laterally and upward through the Port Washington aquifer (where present) and into the upper glacial aquifer, and thence into Hempstead Harbor (section C-C', pl. 1B). Other areas of discharge are along and beneath Long Island Sound (section A-A', pl. 1B). Some discharge may also occur in the Oyster Bay Harbor area (section C-C', pl. 1B) by movement of water upward through the Port Washington aquifer and Port Washington confining unit into the upper glacial aquifer and then into the harbor.

GROUND-WATER QUALITY

Data on ground-water quality in the northern part of the Town of Oyster Bay during 1950-79 are available mainly from analyses made by the Nassau County Department of Health. These analyses, together with those made by the U.S. Geological Survey, represent 155 wells. The number of samples per well during this period ranged from 1 to 37. The frequency of sampling varied, as did the constituents for which analyses were made. It was beyond the scope of this study to make a detailed study of water quality or to review the 2,168 analyses for obvious errors. It was assumed that the number of analyses in error was small enough to not significantly affect general interpretations of water quality that could be made from the analyses.

General Water Quality

Table 3 (p. 22) lists the median and range of the principal constituents and summarizes the general water quality of the three aquifers during 1950-79; table 4 summarizes the ground-water quality in the northern part of the Town of Oyster Bay in 1979. The analyses are arranged by aquifer to facilitate comparison and to demonstrate changes with depth.

The present overall quality of the ground water in the northern part of the Town of Oyster Bay is suitable for most industrial and domestic uses except in localized areas where it is contaminated, as discussed in the following section.

Contamination

Recent ground-water-quality studies made by the Nassau County Department of Health (1978, 1980) indicate that ground water from most public and nonpublic supply wells was of good quality and generally does not contain inorganic or organic constituents in concentrations that equal or exceed New York State drinking-water standards. These studies found that certain inorganic constituents (except pH) in public-supply wells exceeded State standards; these are, in order of decreasing abundance: turbidity, sodium, copper, nitrates, total solids, and chloride (Nassau County Department of Health, 1978). The studies also found contamination by volatile organic chemicals in the northern part of the Town to be largely limited to two areas--one near Glen Cove, the other a band extending from the Hicksville-Syosset area to the Plainview-Farmingdale area (pl. 1A), described in the following section.

Much, if not most, of the contamination other than turbidity may be attributed to private sewage-disposal systems that have leached nitrogen (in the form of ammonia), detergents, chlorides, sodium, sulfate, total solids, and volatile halogenated organics into the upper part of the ground-water system. Other possible sources of contamination are fertilizers, landfill leachate, road salting, road-salt storage, and saltwater intrusion.

Volatile Organic Compounds

Volatile organic chemical pollutants that have been found in ground water in the northern part of the Town of Oyster Bay could be derived from two sources--domestic cesspool and drain cleaners, and solvents and degreasers used by industries.

The organic chemicals most frequently detected and reported in Nassau County's 1978 and 1980 reports were trichloroethylene, an industrial solvent; tetrachloroethylene, an industrial degreaser and stain remover used in dry cleaning; and 1,1,1 trichloroethane, an industrial solvent and cesspool and drain cleaner.

The studies also indicated that the most significant ground-water contamination problem in the northern part of the Town of Oyster Bay is the continued increase in nitrates and volatile organic compounds, as indicated by the number of wells in the area that have been closed or whose use has been restricted because of these substances. Plate 6B shows the locations of these wells; table 5 (p. 26) lists the contaminants found. Wells classified as "restricted" because of organic contamination may not be used except in extreme emergency situations. The Nassau County Department of Health (1980, p. 10), suggested that water from wells closed because of nitrates may be used if blended with water from uncontaminated wells to reduce the nitrates to acceptable levels.

Table 3.--Summary of chemical analyses of ground water from wells in northern part of Town of Oyster Bay, Nassau County, 1950-79.

[Chemical constituents given in milligrams per liter unless otherwise indicated. Data summarized from analyses by Nassau County Department of Health and U.S. Geological Survey]

Upper Glacial aquifer					
Characteristic or constituent	Number of wells	Number of analyses	Median	Minimum	Maximum
Specific conductance (µmho/cm at 25 °C)	40	337	150	25	600
pH	46	493	6.3	4.8	10.3
Temperature (°C)	15	77	12.0	9.0	16.0
Hardness (as CaCO ₃)	45	491	46	4	184
Hardness, noncarbonate	23	82	63	.0	110
Calcium, dissolved (as Ca)	38	411	11.2	.8	40.1
Magnesium, dissolved (as Mg)	38	410	.48	.04	29.0
Sodium, dissolved (as Na)	37	320	11.0	.10	62.0
Bicarbonate (as HCO ₃)	23	78	19	4	560
Carbonate (as CO ₃)	35	388	13.2	.0	60
Alkalinity, total (as CaCO ₃)	42	473	15	2	460
Sulfate, dissolved (as SO ₄)	37	316	18.0	.0	61.0
Chloride, dissolved (as Cl)	47	497	12.0	3.0	130
Silica, dissolved (as SiO ₂)	15	72	13.0	1.8	17.0
Dissolved solids, residue at 180°C	41	404	112.5	18	448
Dissolved solids, calculated, sum of constituents	15	70	200	22	280
Nitrate, dissolved (as N)	42	508	2.90	.0	22.0
Phosphorus, total (as P)	34	274	.01	.0	2.40
Iron, total (µg/L as Fe)	36	452	80	.0	15,400

Magothy aquifer					
Characteristic or constituent	Number of wells	Number of analyses	Median	Minimum	Maximum
Specific conductance (µmho/cm at 25 °C)	71	843	70	6	665
pH	75	1,208	6.1	4.4	9.5
Temperature (°C)	36	72	12	8	16
Hardness (As CaCO ₃)	76	1,190	18	2	150
Hardness, noncarbonate	47	93	5	.0	140
Calcium, dissolved (as Ca)	70	979	4.0	.0	37.0
Magnesium, dissolved (as Mg)	70	965	.16	.0	14.0
Sodium, dissolved (as Na)	69	732	6.0	.0	90.0
Bicarbonate (as HCO ₃)	47	93	12	.0	41
Carbonate (as CO ₃)	70	971	6	.0	46
Alkalinity, total (as CaCO ₃)	76	1,209	8	1	58
Sulfate, dissolved (as SO ₄)	72	784	2.0	.0	88.0
Chloride, dissolved (as Cl)	76	1,188	6.8	1.0	180
Silica, dissolved (as SiO ₂)	37	81	8.9	4.3	19.0
Dissolved solids, residue at 180°C	69	1,127	64	2	689
Dissolved solids, calculated, sum of constituents	37	79	45	19	494
Nitrate, dissolved (as N)	75	1,201	1.68	.0	29.5
Phosphorus, total (as P)	66	518	.01	.0	2.45
Iron, total (µg/L as Fe)	69	1,155	40	.0	15,800

- continued-

Table 3.--Summary of chemical analyses of ground water from wells in northern part of Town of Oyster Bay, Nassau County, 1950-79.--continued

Characteristic or constituent	Lloyd aquifer				
	Number of wells	Number of analyses	Median	Minimum	Maximum
Specific conductance ($\mu\text{mho}/\text{cm}$ at 25 °C)	16	55	55	30	240
pH	17	210	6.5	5.7	7.7
Temperature (°C)	8	10	14	12	15
Hardness (As CaCO_3)	17	205	18	8	46
Hardness, noncarbonate	10	12	0	0	12
Calcium, dissolved (as Ca)	17	173	3.2	1.6	9.6
Magnesium, dissolved (as Mg)	17	171	.16	.0	4.5
Sodium, dissolved (as Na)	17	127	5.0	.1	22.0
Bicarbonate (as HCO_3)	10	12	20	16	47
Carbonate (as CO_3)	17	173	4.8	0	14
Alkalinity, total (as CaCO_3)	17	209	15	4	124
Sulfate, dissolved (as SO_4)	17	134	1.0	.0	7.0
Chloride, dissolved (as Cl)	18	207	5.2	2.5	24.0
Silica, dissolved (as SiO_2)	10	12	11.5	7.8	22.0
Dissolved solids, residue at 180°C	16	198	53.5	17	117
Dissolved solids, calculated, sum of constituents	10 17	12 209	41.5 .36	33 .0	75 6.7
Nitrate, dissolved (as N)	15	97	.01	.0	.67
Phosphorus, total (as P)	15	203	50	.0	1,680

In 1978, contamination by volatile organic compounds was limited to the upper glacial and Magothy aquifers, and the largest areas of known or suspected contamination were in the upper glacial aquifer. No contamination by volatile organic compounds has been found in wells screened in the Lloyd aquifer. The Lloyd seems as yet to be protected from the downward movement of synthetic organic compounds from the overlying aquifers by the Raritan clay.

Ground water in the northern part of the Town of Oyster Bay exceeded the New York State Health Department interim guidelines concentration of 50 $\mu\text{g}/\text{L}$ per organic chemical mainly in two areas--one near Glen Cove, the other in a general east-west band extending from the Hicksville-Syosset area to the Plainview-Farmingdale area (pl. 1A). Both are in the more highly industrialized areas of the northern part of the Town of Oyster Bay; the latter is a region having a strong component of vertical downward ground-water movement and large ground-water withdrawals from the deeper part of the Magothy aquifer.

Nitrate

The ground-water quality study for 1978 in Nassau County (Nassau County Department of Health, 1980) indicated that nearly all ground water in the upper glacial aquifer and the upper part of the Magothy aquifer in the northern part of the Town of Oyster Bay contained nitrate (as N) concentrations that exceed 1 mg/L. Katz and others (1977, p. 13), in a study of nitrogen in ground water in Nassau and Suffolk Counties, considered that nitrate (as N) concentrations above 0.20 mg/L indicate contamination. The major sources of nitrate contamination are domestic cesspool leachate, industrial wastes, fertilizers, and precipitation.

Table 4.--Chemical analyses of ground water from wells in northern part of Town of Oyster Bay, 1979.

[Concentrations in milligrams per liter unless otherwise indicated. Analyses by Nassau County Department of Health except as indicated. Dashes indicate no measurement recorded.]

Well number ¹	Well data			Constituents					
	Date of sample	Depth of well (ft)	Use of well	Specific conductance (µmho)	pH	Hardness (as CaCO ₃)	Calcium dissolved (as Ca)	Magnesium dissolved (as Mg)	Sodium dissolved (as Na)
Upper Glacial aquifer									
N1194A ²	6- 7-79	100	Obs.	360	5.7	90	26	6.1	40
N1209A	8-21-79	64	Obs.	--	5.9	72	18	.5	33
N2072 ²	9- 9-75	159	P.S.	25	5.2	8	2.0	.8	2.9
N3892	6-28-77	251	P.S.	170	6.4	42	9.6	.4	10
N5792	12-27-76	300	P.S.	50	6.4	56	14	.4	10
N7034	9-19-79	232	Irr.	--	6.3	80	18	.7	11
N7643	4- 5-78	218	P.S.	320	5.7	64	11	.7	50
N7665	4-10-79	375	P.S.	--	6.3	60	14	.5	12
N8183	1- 2-79	230	P.S.	150	6.3	47	11	.4	10
Magothy aquifer									
N3475	10-12-77	487	P.S.	65	6.4	15	2.8	0.2	5.1
N4097	3-26-79	470	P.S.	95	5.3	20	5.2	.1	7.4
N4400	1- 2-79	302	P.S.	88	7.0	25	5.2	.2	6.0
N5762	6-28-77	283	P.S.	140	6.6	38	8.8	.3	7.0
N6093	1-23-79	612	P.S.	40	5.6	8	1.6	.1	3.0
N6768	3-13-78	208	Inst.	--	6.3	54	12	.5	6.0
N7030	1-23-79	531	P.S.	140	6.3	44	11	.3	10
N7772	2-16-79	568	P.S.	70	6.4	20	5.6	.1	5.0
N8355	8- 9-78	595	P.S.	--	6.2	30	5.6	.3	6.0
N8713	7-31-78	377	P.S.	70	6.5	16	4.0	.1	4.0
Lloyd aquifer									
N 118	7-11-79	477	P.S.	65	6.9	18	4.0	0.2	4.9
N2920	9-12-77	--	P.S.	75	6.9	22	4.8	.2	10
N5201	7-31-78	509	P.S.	55	6.6	12	3.2	.1	.0
N7614	2-26-79	393	Ind.	--	6.6	14	2.4	.2	4.0
N7857	8-10-79	614	P.S.	41	6.1	14	4.0	.1	--
N8776	8-28-79	459	P.S.	46	6.5	10	2.4	.1	3.8

¹Well locations are shown in plate 1.

²Analyses by U.S. Geological Survey.

Constituents (Continued)									
Well number ¹	Carbonate (as CO ₃)	Alkalinity total (as CaCO ₃)	Sulfate dissolved (as SO ₄)	Chloride dissolved (as Cl)	Silica dissolved (as SiO ₂)	Solids residue at 180°C	Solids (sum of dissolved constituents)	Nitrogen Nitrate, dissolved (as N)	Iron total (µg/L as Fe)
Upper Glacial aquifer									
N1194A ²	0	25	29	82	13	--	214	2.3	810
N1209A	28	14	35	44	--	267	--	12	1,580
N2072	0	4	.4	3.0	6.8	--	22	.71	60
N3892	14	16	11	17	--	155	--	3.2	230
N5792	20	20	9.0	13	--	153	--	4.4	60
N7034	28	14	36	23	--	209	--	8.7	200
N7643	17	10	54	41	--	302	--	19	0
N7665	20	14	32	11	--	190	--	4.4	110
N8183	17	20	7.0	14	--	113	--	6.4	0
Magothy aquifer									
N3475	4	12	0.0	6.5	--	33	--	2.0	100
N4097	8	4	.0	11	--	28	--	6.3	0
N4400	8	24	4.0	5.0	--	75	--	2.1	150
N5762	13	20	12	9.2	--	102	--	2.8	280
N6093	2	2	.0	4.0	--	53	--	1.3	60
N6768	18	14	33	7.8	--	116	--	2.9	260
N7030	17	10	18	10	--	102	--	4.5	190
N7772	8	12	.0	7.4	--	56	--	1.9	0
N8355	8	24	.0	10	--	67	--	3.5	0
N8713	6	9	.0	5.6	--	66	--	1.7	0
Lloyd aquifer									
N 118	6	17	3.0	5.0	--	56	--	2.0	50
N2920	7	16	.0	4.8	--	71	--	.73	130
N5201	5	13	.0	4.6	--	58	--	.02	100
N7614	4	12	.0	5.0	--	53	--	1.0	210
N7857	6	15	.0	8.0	--	76	--	.00	--
N8776	4	12	.0	2.5	--	33	--	.00	0

3 Obs... observation well; P.S., public supply well; Irr., irrigation well;
Inst., institutional well; Ind., industrial well.

Table 5.--Wells in northern part of Town of Oyster Bay that are closed or restricted because of contamination by nitrates or volatile organic chemicals.

(Locations of wells are shown in pl. 1 and pl. 6B; dashes indicate data unavailable).

Well number	Well owner or user ¹	Screened interval or depth (feet below land surface)	Aquifer	Date		Contaminants
				Closed or abandoned	Restricted or reopened	
N 149	Hicksville W.D.	153	Upper Glacial	1967	--	Nitrate
150	Hicksville W.D.	148	Upper Glacial	1953	--	Nitrate
2072	Hicksville W.D.	138-159	Upper Glacial	1967	--	Nitrate
2316	Pall Corp.	170	Upper Glacial	--	07/13/77	1,1,2 Trichloroethylene
3466	City of Glen Cove	148-173	Upper Glacial	06/23/77	--	1,1,2 Trichloroethylene
N 3892	City of Glen Cove	139-172	--	--	--	--
		225-246	Upper Glacial	07/07/77	--	Tetrachloroethylene
3953	Hicksville W.D.	169-213	--	--	--	--
		371-419	Magothy	--	07/06/79	Nitrate
4097	Plainview W.D.	413-463	Magothy	12/28/76	06/13/77	1,1,2 Trichloroethylene, 1,1,1 Trichloroethane
4246	Jericho W.D.	403-453	Magothy	05/06/77	--	1,1,1 Trichloroethane
5261	City of Glen Cove	131-170	--	--	--	--
		185-195	Port Washington	--	--	--
		220-230	confining unit	08/14/78	--	Tetrachloroethylene
N 6191	Hicksville W.D.	489-550	Magothy	--	1973	Nitrate
6531	Riverside Plastics	114-119	Upper Glacial	--	09/06/78	1,1,1 Trichloroethane Trichloroethylene
6579	Glen Components	130-146	Upper Glacial	--	08/10/77	Trichloroethylene
7427	Photocircuits	120-161	Upper Glacial	--	07/25/77	Trichloroethylene
7643	Village of Bayville	159-218	Upper Glacial	--	1967	Nitrate
N 7664	Engineer's Country Club	58-79	Upper Glacial	--	06/06/78	Tetrachloroethylene
8326	City of Glen Cove	120-165	Upper Glacial	06/13/77	--	1,1,2 Trichloroethylene Tetrachloroethylene
8327	City of Glen Cove	118-168	Upper Glacial	06/23/77	--	1,1,2 Trichloroethylene Tetrachloroethylene
8880	Metco Inc.	221-247	Magothy	--	05/05/78	Trichloroethylene
8887	Slater Electric	105-130	Upper Glacial	--	07/13/77	Trichloroethylene

¹ W.D. = Water District

Nitrate (as N) concentrations that exceed the New York State drinking-water standards of 10 mg/L in the upper glacial aquifer were found in three areas in the northern part of the Town of Oyster Bay--in the Hicksville region, in a band along the Suffolk County border in Woodbury, and in Bayville (pl. 1A). The elevated concentrations in the Woodbury area are attributed largely to the use of fertilizers at nearby vegetable farms (Nassau County Department of Health, 1980). Elsewhere, nitrate (as N) concentrations in the upper glacial aquifer ranged from 1 to 10 mg/L and were less than 1 mg/L in only two small areas--Lattingtown, and along a thin band between the Hicksville-Syosset region and Woodbury.

Nitrate (as N) concentrations that exceeded 10 mg/L in the upper part of the Magothy aquifer were found in the Hicksville-Jericho area, where ground-water pumpage from the deeper parts of the aquifer is large and where natural ground-water flow (recharge) is downward from the upper glacial aquifer. As a result, shallow ground water that contains high concentrations of nitrate moves downward into the lower parts of the Magothy aquifer. To date (1981), nitrate concentrations that equal or exceed 10 mg/L in the lower part of the aquifer have been reported in only one well (N6191) in the northern part of Hicksville (pl. 1A) (D. H. Myott, Nassau County Department of Health, oral commun., 1981). Nitrate concentrations in the lower part of the Magothy aquifer throughout most of the remainder of the northern part of the Town of Oyster Bay are probably less than 1 mg/L (Nassau County Department of Health, 1980, fig. 6B).

Saltwater

Salty ground water is reported by drillers in some wells near the shore. Most drillers have reported that saltwater-bearing zones are near the base of the upper glacial aquifer or in discrete sand beds in the upper glacial aquifer or Port Washington confining unit. One well log (N7510) at the northern end of Centre Island (pl. 1A) reports saltwater in a thin sand unit from 203 to 257 ft below land surface that is probably part of the Port Washington aquifer.

Drillers' logs of wells drilled on Centre Island commonly report saltwater at varying depths in the upper glacial aquifer and Port Washington confining unit. Isbister (1962, fig. 226.2), in a study of the relationship between freshwater and saltwater beneath Centre Island, indicates that the freshwater in the upper glacial aquifer and Port Washington confining unit (shallow aquifer of Isbister) may be underlain by saltwater throughout much of Centre Island.

The Port Washington confining unit and the Raritan clay seem to be effective barriers to the downward movement of saltwater into the Port Washington and Lloyd aquifers. As of 1980, no saltwater had been reported from any well screened in either the Port Washington or Lloyd aquifers.

Hydrostatic heads in the adjacent fresh ground water are such that saltwater encroachment into areas formerly containing freshwater probably has not occurred. However, if water levels continue to decline below sea level in the Lloyd aquifer along the north-shore area, conditions that could allow saltwater encroachment may eventually be established.

SUMMARY AND CONCLUSIONS

The northern part of the Town of Oyster Bay is underlain by unconsolidated glacial deposits of Pleistocene age and unconsolidated coastal plain continental deposits of Late Cretaceous age that consist of clay, silt, sand, and gravel deposited on crystalline bedrock of early Paleozoic and (or) Precambrian age.

The deposits have been divided into six hydrogeologic units, which are, from oldest to youngest, the Lloyd aquifer, Raritan clay, Magothy aquifer, Port Washington aquifer, Port Washington confining unit, and upper glacial aquifer. Crystalline bedrock forms the base of the ground-water reservoir.

Ground water for public and nonpublic supply is derived principally from the upper glacial, Magothy, and Lloyd aquifers.

Total pumpage for all purposes in the northern part of the Town of Oyster Bay increased from 1.89 Bgal/yr (5.16 Mgal/d) in 1950 to 10.93 Bgal/yr (29.94 Mgal/d) in 1980. Pumpage from the Magothy aquifer is by far the largest and has increased from 0.44 Bgal/yr (1.20 Mgal/d) in 1950 to 8.49 Bgal/yr (23.25 Mgal/d) in 1980.

Pumpage in the northern part of the Town of Oyster Bay has shown three significant trends during 1950-80. From 1950-66, pumpage increased from 1.89 Bgal/yr (5.16 Mgal/d) in 1950 to 9.60 Bgal/yr (26.31 Mgal/d) in 1966 and does not indicate any effect of the 1962-66 drought. During 1967-79, pumpage leveled off and averaged 9.29 Bgal/yr (25.4 Mgal/d). A new increase began in 1980, when total pumpage was reported to have been about 10.93 Bgal/yr, an 11.6 percent increase over that reported in 1979. Whether this is a new increasing trend in pumpage could not be ascertained during preparation of this report.

The trend in ground-water pumpage during the next few years is expected to continue. Public-supply pumpage from the deeper parts of the Magothy aquifer may increase as wells are drilled deeper to reduce the possibility of inducing infiltration from the upper glacial aquifer and the upper parts of the Magothy aquifer, where water quality has deteriorated. If water quality in the lower parts of the Magothy aquifer deteriorates, the demand for wells that tap the Lloyd aquifer could increase.

The water table and the potentiometric surface in the Lloyd aquifer and lower parts of the Magothy aquifer declined as much as 13 ft during the 1962-67 drought. Declines in the water table during this time may have been as much as 16 ft in some areas. At the end of the drought in 1967, water levels began to recover almost immediately. By 1980, the water table had recovered to or exceeded predrought levels. Water levels in wells screened in the lower parts of the Magothy aquifer in the southern part of the area had recovered to predrought levels but may not have recovered fully in the area to the north.

Water-level data before 1970 from wells screened in the Lloyd aquifer are sparse, making the interpretation of trends difficult. Hydrographs suggest that, after an initial period of recovery from the 1962-67 drought into the mid-1970's, water levels in some wells began a decline that has continued into

the 1980's. Declining trends have also been noted at wells along the extreme north-shore area since the early 1970's and have continued into the 1980's. If these declines continue, saltwater, if present in the aquifer to the north beneath Long Island Sound, may encroach landward.

The directions of ground-water movement near the water table and in the Magothy and Lloyd aquifers are largely controlled by the position of regional water-table and other potentiometric divides. The regional water-table divide and the regional potentiometric divide in the lower part of the Magothy aquifer trend east-west and are near the southern part of the area near the Long Island Expressway. The location of the regional potentiometric divide of the Lloyd aquifer can only be inferred because water-level data are lacking, but may be in the area of North Hempstead Turnpike, 3 to 4 mi north of the Long Island Expressway.

Ground-water movement south of the regional divides is southward toward the south shore of Nassau County. Ground-water flow north of the regional divides contains two principal flow regimes separated by local divides. In the eastern part of the Town, ground-water flow is northward and northeastward toward natural discharge areas adjacent to or underlying Cold Spring and Oyster Bay Harbors or into Long Island Sound. In the western part of the town, ground water flows west and north toward natural discharge areas adjacent to or underlying Hempstead Harbor or Long Island Sound. In both areas, however, some ground water at or near the water table discharges into springs, ponds, or streams where their channels intercept the water table. Some ground-water discharge is also caused locally by pumping or flowing wells.

In areas overlying and adjacent to the ground-water divides, differences in hydrostatic head between the potentiometric surfaces of the Magothy and Lloyd aquifers probably cause a downward vertical component of flow. These are the areas of natural recharge to the deeper parts of the hydrologic system. The Port Washington confining unit and Raritan clay retard but do not prevent recharge and serve to confine the water in the Port Washington and Lloyd aquifers.

An upward vertical component of ground-water flow from the deeper parts of the system probably occurs along the north-shore area underlying Hempstead, Oyster Bay, and Cold Spring Harbors and other areas adjacent to Long Island Sound. This region is the natural discharge area of the hydrologic system in the northern part of the Town of Oyster Bay.

Chemical analyses of ground water indicate that the overall quality of the ground water in the northern part of the Town of Oyster Bay is suitable for most uses at present (1985) except in certain localized areas. Ground-water-quality studies made by the Nassau County Department of Health in 1977 and 1978 indicate that the most severe threat to ground-water quality in the area is contamination by volatile organic compounds and nitrates. The studies found that contamination by organic compounds is limited to the upper glacial and Magothy aquifers and occurs mainly in two areas. The highest concentrations were found in the Glen Cove area and in an east-west band extending from the Hicksville-Syosset area to the Plainview-Farmingdale area. Both of these areas are highly industrialized; the latter area contains a strong downward component of ground-water movement and is pumped heavily from the deeper parts

of the Magothy aquifer. These conditions are conducive to the continued downward movement of organic compounds, which will increase the amount of contamination and will enlarge the area of contamination in the lower parts of the Magothy aquifer.

The ground-water quality study by Nassau County Department of Health also found that nearly all ground water in the upper glacial and upper parts of the Magothy aquifer in the northern part of the Town of Oyster Bay contained nitrate (as N) concentrations that exceed 1 mg/L. (Concentrations of nitrate [as N] above 0.20 mg/L may indicate contaminated water). Nitrate concentrations that exceed New York State drinking-water standards of 10 mg/L in the upper glacial aquifer were found in the Hicksville area, in Woodbury along the Suffolk County border, and in Bayville; concentrations that exceed 10 mg/L in the upper part of the Magothy aquifer were found in the Hicksville-Jericho area. To date, however, nitrate (as N) concentrations that exceed 10 mg/L in the lower part of the Magothy have been found only at one well (N6191) in the northern part of Hicksville. Nitrate concentrations in the lower part of the Magothy aquifer in the remainder of the area are probably less than 1 mg/L. Nitrate concentrations in the Lloyd aquifer are probably less than 1 mg/L.

REFERENCES CITED

- Cohen, Philip, Franke, O. L., and Foxworthy, B. L., 1968, An atlas of Long Island's water resources: New York State Water Resources Commission Bulletin 62, 117 p.
- Cohen, Philip, Franke, O. L., and McClymonds, N. E., 1969, Hydrologic effects of the 1962-66 drought on Long Island, N.Y., in Contributions to the hydrology of the United States: U.S. Geological Survey Water-Supply Paper 1879-F, p. F1-F18.
- Donaldson, C. D., and Koszalka, E. J., 1982, Potentiometric surface of the Magothy aquifer, Long Island, New York, in March 1979: U.S. Geological Survey Open-File Report 82-160, 2 sheets.
- _____, 1982, Potentiometric surface of the Lloyd aquifer, Long Island, New York, in January 1979: U.S. Geological Survey Open-File Report 82-162, 2 sheets.
- _____, 1982, Water table on Long Island, New York, March 1979: U.S. Geological Survey Open-File Report 82-163, 2 sheets.
- Fisher, D. W., and others, 1962, Geologic map of New York, Lower Hudson sheet, 1961: New York State Museum and Science Service, map and chart series, no. 5, 1:25,000.
- Fuller, M. L., 1914, The geology of Long Island, New York: U.S. Geological Survey Professional Paper 82, 231 p.

REFERENCES CITED (continued)

- Isbister, John, 1962, Relation of fresh water to salt water at Centre Island, Nassau County, New York, in Geological Survey Research 1962: U.S. Geological Survey Professional Paper 450-E, article 226, p. E154-E156.
- _____, 1966, Geology and hydrology of northeastern Nassau County, Long Island, New York: U.S. Geological Survey Water-Supply Paper 1825, 89 p.
- Jensen, H. M., and Soren, Julian, 1974, Hydrogeology of Suffolk County, Long Island, New York: U.S. Geological Survey Hydrologic Investigations Atlas HA-501, 2 sheets.
- Katz, B. G., Ragone, S. E., and Harr, C. A., 1977, Nitrogen in water in Nassau and Suffolk Counties, Long Island, New York, in 1971: U.S. Geological Survey Open-File Report 77-433, 46 p.
- Kilburn, Chabot, 1979, Hydrogeology of the Town of North Hempstead, Nassau County, Long Island, New York: Long Island Water Resources Bulletin 12, 87 p.
- Kimmel, G. E., 1973, Change in potentiometric head in the Lloyd aquifer, Long Island, New York: U.S. Geological Survey Journal of Research, v. 1, no. 3, p. 345-350.
- Koszalka, E. J., 1975, The water table on Long Island, New York, in March 1974: Suffolk County Water Authority, Long Island Water Resources Bulletin 5, 7 p.
- Ku, H. F. H., Vecchioli, John, and Cerrillo, L. A., 1975, Hydrogeology along the proposed barrier-recharge-well alignment in southern Nassau County, Long Island, New York: U.S. Geological Survey Hydrologic Investigations Atlas HA-502, 1 sheet.
- Long Island Lighting Company, 1956, Population Survey 1956: Current population estimates for Nassau and Suffolk Counties: Long Island Lighting Company, 62 p.
- _____, 1964, Population Survey 1964: Current population estimates for Nassau and Suffolk Counties: Long Island Lighting Company, 54 p.
- _____, 1971, Population Survey 1971: Current population estimates for Nassau and Suffolk Counties: Long Island Lighting Company, 53 p.
- _____, 1981, Population Survey 1981: Current population estimates for Nassau and Suffolk Counties: Long Island Lighting Company, 51 p.
- Miller, J. F., and Frederick, R. H., 1969, The precipitation regime of Long Island, New York: U.S. Geological Survey Professional Paper 627A, 21 p.
- Nakao, J. H., and Erlichman, F. R., 1978, The water table on Long Island, New York, in March 1975: U.S. Geological Survey Open-File Report 78-569, 10 p.

REFERENCES CITED (continued)

Nassau County Department of Health, 1978, Nassau County water-quality assessment report for 1977 year, October 1978: 80 p.

_____, 1980, Ground-water quality assessment, Nassau County, New York, 1978 year, June 1980: 39 p.

Soren, Julian, 1978, Subsurface geology and paleogeography of Queens County, Long Island, New York: U.S. Geological Survey Water-Resources Investigations 77-34, 17 p.

Suter, Russell, de Laguna, Wallace, and Perlmutter, N. M., 1949, Mapping of geologic formations and aquifers of Long Island, New York: New York State Water Power and Control Commission Bulletin GW-18, 212 p.

Swarzenski, W. V., 1963, Hydrogeology of northwestern Nassau and northeastern Queens Counties, Long Island, New York: U.S. Geological Survey Water-Supply Paper 1657, 90 p.

Veatch, A. C., Slichter, C. S., Bowman, Isaiah, Crosby, W. O., and Horton, R. E., 1906, Underground water resources of Long Island, New York: U.S. Geological Survey Professional Paper 44, 394 p.

TABLE 6

*Well-completion data on selected wells and test holes in
northern part of Town of Oyster Bay, Nassau County, N.Y.*

EXPLANATION OF COLUMN HEADINGS AND ABBREVIATIONS USED IN TABLE 6

Well Number

Well numbers are assigned by the New York State Department of Environmental Conservation. The prefix N designates Nassau County.

Owner or Well User

The owner or well user is in most cases the name shown on the completion report that was sent to the New York State Department of Environmental Conservation by the driller. During this study, it was found that many of the wells have changed ownership or user. New owners or well users are listed if known.

The following abbreviations are used in the "owner/user" column:

AM. PHYSICS INST ASSOC	American Institute of Physics Associates
BAYVILLE	Village of Bayville
BEAVER DAM CLUB	Beaver Dam Winter Sports Club
CC	Country Club
CERRO WIRE	Cerro Wire and Cable Co.
CERTIFIED IND	Certified Industries
CERT. REDI MIX	Certified Redi-Mix Co., Inc.
CL	Club
CO	Company
C.W. POST COLL.	C.W. Post Center of Long Island University
FABRIC LEATHER	Fabric Leather Corp.
FAIRCHILD CORP.	Fairchild Space and Defense Systems
GENERAL INST.	General Instrument Corp.
GLEN COVE	City of Glen Cove
GLEN COVE BOT.	Glen Cove Bottling Co.
GLEN COVE HOSP.	The Community Hospital at Glen Cove
INC	Incorporated
KOLLSMAN INST.	Kollsman Instrument Co.
LOCUST VLY WD	Locust Valley Water District
L.I. LIGHTING CO.	Long Island Lighting Co.
L.I. RAILROAD CO.	Long Island Railroad Co.
L.I. STATE PARK	Long Island State Park and Recreation Commission Planting Field Arboretum
L.I. TUNGSTEN	Li Tungsten Corp.
MILL NECK ESTS.	Association of Owners of Mill Neck Estates
NASSAU CO DPW	Nassau County Department of Public Works
NASSAU CO WTR	Nassau County Water Co.
NATL. PARK SERV	National Park Service
NEW YORK STATE	New York State Conservation Department Cold Spring Harbor Hatchery
OLD WESTBURY	Village of Old Westbury
OYSTER BAY	Town of Oyster Bay
PIPING ROCK WTR	Piping Rock Water Co.
POWERS CHEMCO	Powers Chemco, Inc.
REG. PLAN. BOARD	Nassau-Suffolk Regional Planning Board
RIVESIDE PLAS.	Riverside Plastics Corp.
ST. PATRICKS	Saint Patrick's Roman Catholic Church
ST. UNIV. AT O.W.	State University of New York College at Old Westbury

EXPLANATION OF COLUMN HEADINGS AND ABBREVIATIONS USED IN TABLE 6 (Continued)

SEA CLIFF WTR	Sea Cliff Water Co.
SEL-VRA ACRES	Association of Property Owners of SEL-VRA Acres
U.S. GEOL. SURV	U.S. Geological Survey
WD	Water District

Map Coord

Locations of wells are given by map coordinates, based on a latitude and longitude grid system, to aid the reader in locating the wells shown in plate 1. In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates are shown along the margins of plate 1.

Year Completed

Year completed refers to the year in which the well was reported to have been completed or accepted by the original well owner. It may not always be the year in which the well was actually drilled, however.

Altitude of Land-Surface Datum (LSD)

The altitude of land surface at the well was estimated from U.S. Geological Survey 7-1/2-minute quadrangle topographic maps. At most observation wells, however, land-surface elevation was estimated from spirit leveling of the altitude of the measuring points of the wells and is probably accurate to the nearest foot.

Use of Water

The following abbreviations indicate the primary purpose for which water from the well is used:

ARCD	air conditioning	IRR	irrigation
COM	commercial	OTHR	other
DOM	domestic	P.S.	public supply
INST	institutional	RECH	recharge
IND	industrial	UNSD	unused

Use of Well

The following abbreviations indicate the principal use of the well or the purpose for which the well or hole was drilled:

DEST	well or hole destroyed	TEST	test hole
OBS	observation well	UNSD	well unused
RECH	recharge water	WTDR	withdrawal of water

Depth of Well

The figures give well depth or total depth of the drilled test hole, in feet below land surface.

EXPLANATION OF COLUMN HEADINGS AND ABBREVIATIONS USED IN TABLE 6 (Continued)

Screen Setting and Total Screen Length

The altitudes of the top and bottom of the screened interval are given in feet above or below (-) sea level. The total length of screen or perforated pipe in that interval is given in feet. In some wells, screen was set at two or more intervals; in such cases the differences between the altitudes of the two screen settings is different from the total screen length.

Diameter of Well

The diameter of the well is the nominal inside diameter of the smallest or innermost casing at land surface, in inches.

Water Level (feet below land-surface datum)

The water level given is the reported original static water level, in feet above or below land surface, when the well was completed.

Date of Measurement

Date of water-level measurement is by month (M), day (D), and year (Y).

Lift Type

The following abbreviations indicate the type of pump or other conveyance used to bring water to the surface:

CENT	centrifugal	TURB	turbine
JET	jet	NONE	no pump in well
SUBM	submersible	OTHR	some other type of lift

Aquifer Developed

The following abbreviations indicate the hydrogeologic unit that yields water to the well. Where two or more units yield water to the well, the probable principal unit is given:

UPGLAC	Upper glacial aquifer	MAGOTHY	Magothy aquifer
PTWCU	Port Washington confining unit	LLOYD	Lloyd aquifer
PTWAQ	Port Washington aquifer		

Specific Capacity

The value in this column is the number of gallons per minute pumped from the well per foot of drawdown in the well, as reported by drillers.

Abbreviations

COORD	coordinates	IN	inches
D	day	LSD	land surface datum
DIAM	diameter	M	month
FT	feet	MEAS	measurement
GPM/FT	gallons per minute pumped per foot of drawdown in well	SL	sea level
		Y	year

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMPLETION	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	AQUIFER LIFT TYPE		SPECIFIC CAPACITY [(GAL/MIN)/FT]
							(FT ABOVE OR BELOW (-) SEA LEVEL)	LEVEL							
N 107	OLD WESTBURY	D 6	1935	212	P.S.	506	-243 TO	-279	36	16	132	08-18-35	TURR	MAGNETHY	1
N 109	JERICHO WD	D 6	1925	48	UNSD	529	-384 TO	-465	59	16	26	06-27-24	NONE	LLOYD	20
N 110	JERICHO WD	D 6	1924	56	UNSD	519	-389 TO	-459	70	16	24.0	07-05-24	NONE	LLOYD	13
N 112	GLEN COVE	E 6	1930	53	UNSD	169	-79 TO	-116	37	15			NONE	UPGLAC	
N 114	NASSAU CC	E 6	1910	123	IRR	117	30 TO	10	20	10			MAGNETHY		
N 115	LOCUST VLY WD	E 6	1925	75	UNSD	416	-265 TO	-332	67	18			TURR	PTWAQ	7
N 116	LOCUST VLY WD	E 6	1925	80	UNSD	256							NONE	UPGLAC	
N 117	LOCUST VLY WD	E 6		77	UNSD	155				16			NONE	UPGLAC	
N 118	LOCUST VLY WD	E 6	1932	55	P.S.	477	-347 TO	-406	59	24			TURR	LLOYD	19
N 119	LOCUST VLY WD	E 6	1935	80	P.S.	572	-417 TO	-491	74	18			TURR	LLOYD	29
N 120	LOCUST VLY WD	E 6	1933	80	UNSD	559							NONE		
N 121	CREEK CLUR	E 6	1933	120	TEST	415							NONE		
N 121	CREEK CLUR	E 6	1933	120	IRR	219	-29 TO	-87	42	12	56.5	10-00-33	TURR	UPGLAC	26
N 124	CREEK CLUR	E 6	1920	9	UNSD	390				12			NONE	LLOYD	
N 149	HICKSVILLE WD	D 7		161	UNSD	153							UPGLAC		
N 150	HICKSVILLE WD	D 7		161	UNSD	148							UPGLAC		14
N 166	PIPING ROCK WTR	E 7	1936	55	UNSD	114	-43 TO	-63	20	6	4.8	11-19-36	NONE	MAGNETHY	28
N 167	PIPING ROCK WTR	E 7	1936	55	UNSD	123	-45 TO	-65	20	6			NONE	MAGNETHY	
N 173	M.C.TAYLOR	E 7	1920	38	DOM	398			11	6	19.5	03-00-20	TURR	LLOYD	37
N 198	JERICHO WD	D 8	1930	240	P.S.	628	-327 TO	-377	50	18			TURR	MAGNETHY	
N 199	JERICHO WD	D 8	1930	235	P.S.	611	-309 TO	-365	56	18			TURR	MAGNETHY	28
N 202	OYSTER RAY WD	E 7		18	UNSD	420							NONE	LLOYD	
N 486	A.HUTCHINSON	E 7		3		190			6	3			NONE	PTWAQ	
N 511	W.P.WOODBRIDGE	E 7	1905	11	UNSD	359							NONE	PTWAQ	
N 551	NATL. PARK SERV	E 7		154	UNSD	325							NONE	PTWAQ	
N 570	JERICHO WD	D 8	1937	237	P.S.	600	-323 TO	-363	40	18	178	07-15-37	TURR	MAGNETHY	66
N 576	L.I.RAILROAD CO	D 7	1935	144	UNSD	409	-255 TO	-265	10	8			NONE	MAGNETHY	
N 585	OYSTER RAY WD	E 7	1937	18	P.S.	78	-39 TO	-59	20	12	2	09-03-37	OTHR	UPGLAC	15
N 590	NATL. PARK SERV	E 8	1937	120	DOM	165	-32 TO	-42	10	8	130	07-21-37	PTWAQ		6
N 613	PIPING ROCK WTR	E 7	1937	55	UNSD	140	-61 TO	-81	20	6	5.5	12-10-37	NONE	MAGNETHY	18
N 614	PIPING ROCK WTR	E 7	1937	55	UNSD	122	-44 TO	-64	20	6	4.5	12-28-37	NONE	MAGNETHY	28
N 638	OLD WESTBURY CC	D 6	1938	295	IRR	560	-250 TO	-265	15	12	209	00-00-62	TURR	MAGNETHY	3
N 660	POWERS CHEMCO	E 6		58	IND	404				15			TURR	LLOYD	
N 661	POWERS CHEMCO	E 6	1939	60	UNSD	403	-264 TO	-340	70	10			NONE	LLOYD	11
N 733	OYSTER RAY WD	E 7		18	UNSD	350				6			NONE	PTWAQ	
N 734	OYSTER RAY WD	E 7		18	UNSD	420				10			NONE	LLOYD	12
N 735	OYSTER RAY WD	E 7		18	P.S.	100							OTHR	UPGLAC	
N 736	OYSTER RAY WD	E 7		20	P.S.	70				6			OTHR	UPGLAC	
N 801	GLEN COVE	E 6		53	UNSD	36				10			NONE	UPGLAC	
N 802	GLEN COVE	E 6		53	UNSD	162				8			NONE	UPGLAC	

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMPLETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	AQUIFER		SPECIFIC CAPACITY [(GAL/MIN)/FT]
							FT ABOVE OR BELOW (-) SEA LEVEL	FT					LIFT TYPE	DEVELOPED	
N 803	GLEN COVE	E 6		53	UNSD	162				8			NONE	UPGLAC	
N 804	GLEN COVE	E 6		53	UNSD	151				8			NONE	UPGLAC	
N 805	GLEN COVE	E 6		53	UNSD	120				6			NONE	UPGLAC	
N 806	GLEN COVE	E 6		53	UNSD	122				6			NONE	UPGLAC	
N 807	GLEN COVE	E 6		53	UNSD	146				8			NONE	UPGLAC	
N 808	GLEN COVE	E 6		53	UNSD	55				8			NONE	UPGLAC	
N 809	GLEN COVE	E 6		53	UNSD	49				8			NONE	UPGLAC	
N 810	GLEN COVE	E 6		53	UNSD	52	17 TO	1	16	10			NONE	UPGLAC	
N 811	GLEN COVE	E 6	1951	53	UNSD	42				8			NONE	UPGLAC	
N 812	GLEN COVE	E 6		53	UNSD	58	11 TO	-5	16				NONE	UPGLAC	
N 813	GLEN COVE	E 6		53	UNSD	52				8			NONE	UPGLAC	
N 814	GLEN COVE	E 6		53	UNSD	55				8			NONE	UPGLAC	
N 815	GLEN COVE	E 6		53	UNSD	161				6			NONE	UPGLAC	
N 816	GLEN COVE	E 6		53	UNSD	169				6			NONE	UPGLAC	
N 817	GLEN COVE	E 6		53	UNSD	164				10			NONE	UPGLAC	
N 818	GLEN COVE	E 6		53	UNSD	159				10			NONE	UPGLAC	
N 834	GLEN COVE	E 6	1931	10	UNSD	302	-272 TO	-292	20	8			NONE	UPGLAC	
N 835	GLEN COVE	E 6	1940	10	P.S.	303	-266 TO	-290	24	10			NONE	UPGLAC	
N 842	SEA CLIFF WATER	E 6	1940	8	UNSD	420	-357 TO	-407	50	20			NONE	UPGLAC	
N 844	L.I. RAILROAD	CO D 7		149	UNSD	258				10			NONE	UPGLAC	
N 901	SEA CLIFF WATER	E 6	1915	9	UNSD	84				10			NONE	UPGLAC	
N 901	SEA CLIFF WATER	E 6	1951	9	P.S.	68	-37 TO	-59	22	8			NONE	UPGLAC	
N 902	SEA CLIFF WATER	E 6	1921	9	UNSD	84				10			NONE	UPGLAC	
N 902	SEA CLIFF WATER	E 6	1946	9	P.S.	60				10			NONE	UPGLAC	
N 903	SEA CLIFF WATER	E 6	1921	9	P.S.	184				10			OTHER	UPGLAC	
N 904	SEA CLIFF WATER	E 6	1917	9	UNSD	80				10			NONE	UPGLAC	
N 905	SEA CLIFF WATER	E 6	1921	9	UNSD	80				8			NONE	UPGLAC	
N 905	SEA CLIFF WATER	E 6	1951	9	P.S.	67	-37 TO	-58	21	8			OTHER	UPGLAC	
N 906	SEA CLIFF WATER	E 6	1927	9	P.S.	419							OTHER	UPGLAC	
N 907	SEA CLIFF WATER	E 6		9	P.S.	134				10			OTHER	UPGLAC	
N 908	SEA CLIFF WATER	E 6		9	P.S.	233				10			OTHER	UPGLAC	
N 909	SEA CLIFF WATER	E 6		9	P.S.	196				10			OTHER	UPGLAC	
N 1037	SEA CLIFF WATER	E 6	1940	10	P.S.	68	-35 TO	-55	20	24			OTHER	UPGLAC	
N 1149	NASSAU CO DPW	E 6	1941	89	UNSD	82				2.50			NONE	UPGLAC	34
N 1150	NASSAU CO DPW	E 6	1938	53	UNSD	21				1.25			NONE	UPGLAC	
N 1150	NASSAU CO DPW	E 6	1966	56	UNSD	28	31 TO	28	3	1.25			TURR	UPGLAC	
N 1151	NASSAU CO DPW	E 6	1938	34	UNSD	26				1.25			NONE	UPGLAC	
N 1151	NASSAU CO DPW	E 6	1965	33	UNSD	23	13 TO	10	3	1.25			NONE	UPGLAC	
N 1152	NASSAU CO DPW	E 6	1940	154	UNSD	130				4			NONE	UPGLAC	

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING (FT ABOVE OR BELOW SEA LEVEL)	TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVEL- OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
N 1152	NASSAU CO DPW	E 6	1965	154	UNSD OBS				4	107.74	06-07-65	NONE	UPGLAC	
N 1153	NASSAU CO DPW	E 6	1940	122	UNSD OBS	86			2.50	59.70	09-09-40	NONE	WAGNTHY	
N 1170	NASSAU CO DPW	E 6	1938	110	UNSD OBS	49			1.25			NONE	UPGLAC	
N 1170	NASSAU CO DPW	E 6	1976	110	UNSD OBS	14	-1 TO	5	4			NONE	UPGLAC	
N 1171	NASSAU CO DPW	E 6	1938	68	UNSD DEST	41			1.25			NONE	UPGLAC	
N 1171	NASSAU CO DPW	E 6	1942	83	UNSD DEST	38			2.50	20.90	09-11-42	NONE	UPGLAC	
N 1172	NASSAU CO DPW	E 6	1940	144	UNSD OBS	102			2.50	83.35	09-24-40	NONE	UPGLAC	
N 1173	NASSAU CO DPW	E 6	1941	145	UNSD DEST	97	53 TO	48	5	78.65	09-11-41	NONE	UPGLAC	
N 1174	NASSAU CO DPW	E 6	1940	113	UNSD DEST	60			2.50	38.69	09-13-40	NONE	WAGNTHY	
N 1175	NASSAU CO DPW	D 6	1940	177	UNSD DEST	158			4	92.50	10-24-40	NONE	WAGNTHY	
N 1176	NASSAU CO DPW	D 6	1940	195	UNSD OBS	198			4	109.28	10-08-40	NONE	WAGNTHY	
N 1187	NASSAU CO DPW	E 7	1938	6	UNSD DEST	25			1.25			NONE	UPGLAC	
N 1188	NASSAU CO DPW	E 7	1961	35	UNSD OBS	29	9 TO	6	1.25	17.03	07-25-38	NONE	UPGLAC	
N 1189	NASSAU CO DPW	E 7	1940	67	UNSD OBS	33			1.25	10.20	11-22-61	NONE	UPGLAC	
N 1190	NASSAU CO DPW	E 7	1940	128	UNSD OBS	99			4	12.78	11-26-40	NONE	PTWCU	
N 1191	NASSAU CO DPW	E 7	1940	154	UNSD DEST	97			2.50	67.62	11-06-40	NONE	UPGLAC	
N 1192	NASSAU CO DPW	D 7	1941	143	UNSD OBS	78	70 TO	65	5	77.76	11-22-40	NONE	UPGLAC	
N 1193	NASSAU CO DPW	D 7	1940	231	UNSD DEST	161			2.50	55.73	08-11-41	NONE	WAGNTHY	
N 1194	NASSAU CO DPW	D 7	1940	174	UNSD DEST	104			2.50	141.40	10-18-40	NONE	WAGNTHY	
N 1194	NASSAU CO DPW	D 7	1961	168	UNSD OBS	100			4	85.60	10-31-40	NONE	UPGLAC	
N 1195	NASSAU CO DPW	D 7	1941	147	UNSD DEST	84	68 TO	63	5	79.20	12-14-61	NONE	UPGLAC	
N 1195	NASSAU CO DPW	D 7	1961	148	UNSD TEST	155			2.50	64.45	09-16-41	NONE	UPGLAC	
N 1195	NASSAU CO DPW	D 7	1961	148	UNSD DEST	77			1.25	61.85	11-30-61	NONE	UPGLAC	
N 1195	NASSAU CO DPW	D 7	1966	148	UNSD DEST	93			1.25	58.00	11-22-66	NONE	UPGLAC	
N 1195	NASSAU CO DPW	D 7	1976	148	UNSD OBS	116	37 TO	32	5	63.70	08-18-76	NONE	WAGNTHY	
N 1206	NASSAU CO DPW	E 7	1938	9	UNSD DEST	30			1.25			NONE	UPGLAC	
N 1207	NASSAU CO DPW	E 7	1938	23	UNSD OBS	24			1.25			NONE	UPGLAC	
N 1208	NASSAU CO DPW	E 7	1938	59	UNSD DEST	31			1.25	15.21	07-28-38	NONE	UPGLAC	
N 1208	NASSAU CO DPW	E 7	1959	59	UNSD DEST	31			1.25			NONE	UPGLAC	
N 1208	NASSAU CO DPW	E 7	1963	58	UNSD OBS	33	28 TO	25	3	13.45	02-19-63	NONE	UPGLAC	
N 1209	NASSAU CO DPW	E 7	1941	126	UNSD DEST	68	63 TO	58	5	49.03	06-10-41	NONE	UPGLAC	
N 1209	NASSAU CO DPW	E 7	1942	126	UNSD DEST	133			2.50	49.31	11-20-42	NONE	UPGLAC	
N 1209	NASSAU CO DPW	E 7	1943	126	UNSD DEST	129			2.50	50.20	06-23-43	NONE	UPGLAC	
N 1209	NASSAU CO DPW	E 7	1943	126	UNSD DEST	174			4	27.44	12-16-42	NONE	UPGLAC	
N 1209	NASSAU CO DPW	E 7	1961	122	UNSD OBS	64			4	38.07	12-29-61	NONE	UPGLAC	
N 1210	NASSAU CO DPW	E 7	1941	188	UNSD DEST	108			2.50	86.25	06-24-41	NONE	WAGNTHY	
N 1210	NASSAU CO DPW	E 7	1942	188	UNSD DEST	140	53 TO	48	5	93.90	07-30-42	NONE	WAGNTHY	
N 1210	NASSAU CO DPW	E 7	1965	187	UNSD OBS	143	47 TO	44	3	98.84	04-06-65	NONE	WAGNTHY	
N 1211	NASSAU CO DPW	D 7	1941	217	UNSD OBS	156	66 TO	61	5	141.55	06-03-41	NONE	UPGLAC	

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WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS.		AQUIFER LIFT DEVEL- TYPE	OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
							(FT ABOVE OR BELOW (-) SEA LEVEL)	(M-D-Y)								
N 1212	NASSAU CO DPW	D 7	1941	227	UNSD DEST	125				4	96.18	04-25-41		NONE	MAGNETHY	
N 1212	NASSAU CO DPW	D 7	1942	227	UNSD OBS	185	48 TO	42	6	4	143.48	07-20-42		NONE	MAGNETHY	
N 1213	NASSAU CO DPW	D 7	1941	175	UNSD DEST	109	71 TO	66	5	2.50	89.98	05-15-41		NONE	UPGLAC	
N 1214	NASSAU CO DPW	D 7	1938	149	UNSD DEST	80				1.25	68.78	10-13-38		NONE	UPGLAC	
N 1214	NASSAU CO DPW	D 7	1950	149	UNSD DEST	77				1.25	62.00	02-18-50		NONE	UPGLAC	
N 1214	NASSAU CO DPW	D 7	1965	148	UNSD OBS	85	66 TO	63	3	1.25	73.14	09-22-65		NONE	UPGLAC	
N 1224	NASSAU CO DPW	E 7	1941	25	UNSD OBS	34	-10 TO	-13	3	1.25	22.37	10-06-41		NONE	UPGLAC	
N 1225	NASSAU CO DPW	E 7	1938	34	UNSD OBS	20				1.25	5.32	07-29-38		NONE	UPGLAC	
N 1226	NASSAU CO DPW	E 7	1941	34	UNSD OBS	62	-26 TO	-28	2	1.25	9.18	10-09-41		NONE	PTWCU	
N 1227	NASSAU CO DPW	E 8	1941	172	UNSD OBS	134	43 TO	38	5	2.50	120.17	07-23-41		NONE	MAGNETHY	
N 1228	NASSAU CO DPW	D 8	1941	224	UNSD DEST	189	41 TO	35	6	4	156.59	03-13-41		NONE	UPGLAC	
N 1228	NASSAU CO DPW	D 8	1941	224	UNSD DEST	179	51 TO	45	6	4	156.88	09-06-41		NONE	UPGLAC	
N 1228	NASSAU CO DPW	D 8	1962	227	UNSD OBS	174	54 TO	51	3	4	158.27	02-06-62		NONE	UPGLAC	
N 1229	NASSAU CO DPW	D 8	1941	251	UNSD OBS	201				4	173.17	01-09-41		NONE	MAGNETHY	
N 1230	NASSAU CO DPW	D 8	1940	174	UNSD DEST	144				2.50	90.52	12-13-40		NONE	MAGNETHY	
N 1231	NASSAU CO DPW	D 8	1940	143	UNSD DEST	83				2.50	61.46	11-27-40		NONE	MAGNETHY	
N 1231	NASSAU CO DPW	D 8	1962	139	UNSD OBS	81				2.50	53.72	03-30-62		NONE	MAGNETHY	
N 1242	NASSAU CO DPW	E 8	1938	41	UNSD DEST	31				1.25				NONE	UPGLAC	
N 1242	NASSAU CO DPW	E 8	1953	41	UNSD OBS	32				1.25	14.69	01-05-53		NONE	UPGLAC	
N 1243	NASSAU CO DPW	E 8	1939	65	UNSD DEST	22				1.25				NONE	UPGLAC	
N 1243	NASSAU CO DPW	E 8	1953	65	UNSD DEST	24	44 TO	41	3	1.25	7.15	01-07-53		NONE	UPGLAC	
N 1243	NASSAU CO DPW	E 8	1959	67	UNSD DEST					1.25				NONE	UPGLAC	
N 1243	NASSAU CO DPW	E 8	1966	64	UNSD DEST	28	39 TO	36	3	1.25	16.00	12-08-66		NONE	MAGNETHY	
N 1243	NASSAU CO DPW	E 8	1975	64	UNSD OBS	28	39 TO	36	3	1.25	6.44	09-22-75		NONE	MAGNETHY	
N 1244	NASSAU CO DPW	D 8	1940	249	UNSD	262	-8 TO	-11	3	4	171.65	04-03-40		NONE	MAGNETHY	
N 1245	NASSAU CO DPW	D 8	1940	260	UNSD OBS	202				2.50	175.58	01-02-40		NONE	MAGNETHY	
N 1246	NASSAU CO DPW	D 8	1940	186	UNSD OBS	124				4	102.77	04-30-40		NONE	MAGNETHY	
N 1327	SEA CLIFF WATER	E 6	1940	10	P.S. WTD	126	-91 TO	-116	25	24	FLOWING	05-22-40		OTHER	UPGLAC	
N 1476	NASSAU CO DPW	E 7	1944	130	UNSD OBS	81				4				NONE	MAGNETHY	
N 1477	NASSAU CO DPW	E 7	1944	216	UNSD OBS	194				4				NONE	UPGLAC	
N 1481	NASSAU CO DPW	D 7	1944	149	UNSD DEST	77				4	67.55	04-18-44		NONE	UPGLAC	
N 1486	J.R. SOLERWITZ	E 8	1927	5	DOM	500				8				NONE	LLOYD	
N 1595	SEA CLIFF WATER	E 6	1940	11	P.S. WTD	125	-84 TO	-114	30	16	2	09-23-40			UPGLAC	15
N 1651	LOCUST VLY WD	E 6	1941	162	P.S. WTD	470	-223 TO	-303	80	18	145	01-19-41		TURB	LLOYD	24
N 1767	OYSTER RAY	D 8	1941	251	DOM WTD	582	-310 TO	-331	21	10	180	10-10-41			MAGNETHY	10
N 1768	OYSTER RAY	D 8		250		260				8					MAGNETHY	
N 1773	ST.UNIV.AT O.W.	D 7	1942	228	UNSD	293	-53 TO	-65	12	8	151	01-14-42		TURB	MAGNETHY	
N 1774	ST.UNIV.AT O.W.	D 7		241	UNSD	134				8				NONE	UPGLAC	
N 1775	ST.UNIV.AT O.W.	D 7		188	UNSD	284				6				TURB	MAGNETHY	
N 1917	LI TUNGSTEN	E 6	1943	15	IND WTD	307	-281 TO	-291	10	8				TURB	LLOYD	

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							(FT ABOVE OR BELOW (-) SEA LEVEL)								
N 2017	FRIEDMAN	E 7	1945	10	DOM	395	-375 TO	-384	9	8	FLOWING	04-25-45		LLOYD	12
N 2027	SOERENSON LUMBER	E 6	1945	21	UNSD	76	-39 TO	-54	15	6	FLOWING	04-10-45	NONE	UPGLAC	13
N 2060	GLEN COVE ROT.	E 6	1946	26	UNSD	82	-34 TO	-44	10	8	8	06-01-46		UPGLAC	28
N 2072	HICKSVILLE WD	D 7	1946	162	UNSD	159	24 TO	3	21	10	80	05-15-46	TURR	UPGLAC	2
N 2087	POWERS CHEMCO	E 6	1946	50	UNSD	75	-9 TO	-25	16	8	15	02-25-46	NONE	UPGLAC	6
N 2087	POWERS CHEMCO	E 6	1946	50	IND	345	-284 TO	-295	11	8	20	07-15-52	TURR	LLOYD	12
N 2088	F.M.GOULD	E 8	1932	159		605				8				LLOYD	13
N 2113	G.CARDELLI	E 7	1946	10	DOM	449	-417 TO	-439	22	8	FLOWING	05-16-46		LLOYD	25
N 2132	KOENIG	E 7	1907	10	UNSD	469				5	FLOWING	00-00-14	NONE	LLOYD	25
N 2208	NEW YORK STATE	E 8	1903	15	IND	76				6			NONE	UPGLAC	25
N 2209	NEW YORK STATE	E 8	1903	15	IND	84				6			NONE	UPGLAC	25
N 2210	NEW YORK STATE	E 8	1903	15	IND	86				5			NONE	UPGLAC	25
N 2211	NEW YORK STATE	E 8	1903	15	IND	66				8			NONE	UPGLAC	25
N 2238	L.I.RAILROAD CO	E 7		10		198				8			PTWCU		25
N 2241	BAKER-CAMPRELL	E 7	1947	18	DOM	376	-346 TO	-358	12	8	+6	10-01-47		LLOYD	25
N 2316	PALL CORP	E 6	1930	157	IND	170				6			TURR	UPGLAC	18
N 2409	NEW YORK STATE	E 8	1947	15	IND	93	-51 TO	-71	20	10	FLOWING	09-10-47	NONE	UPGLAC	25
N 2410	NEW YORK STATE	E 8	1947	15	IND	90	-50 TO	-70	20	10	FLOWING	09-12-47	NONE	UPGLAC	25
N 2528	NASSAU CO DPW	E 7	1946	92	UNSD	343				4			NONE	UPGLAC	25
N 2528	NASSAU CO DPW	E 7	1947	93	UNSD	328	-185 TO	-189	4	6			NONE	UPGLAC	25
N 2616	GLEN HEAD CC	E 6	1931	75	IHR	232	-109 TO	-146	37	12	8	01-30-30	TURR	UPGLAC	59
N 2920	SEL-VRA ACRES	E 8	1948	10	P.S.					10				LLOYD	43
N 3110	L.I.LIGHTING CO	D 6	1949	27	IND	151	-93 TO	-124	31	12	4.9	06-27-49	TURR	UPGLAC	9
N 3444	JERICHO WD	D 7	1949	263	UNSD	460				12			NONE	UPGLAC	31
N 3466	GLEN COVE	E 6	1950	53	P.S.	177	-95 TO	-120	25	12	FLOWING	04-25-50		UPGLAC	36
N 3474	JERICHO WD	D 7	1951	244	P.S.	517	-208 TO	-268	60	18	153	06-02-50	TURR	WAGNTHY	10
N 3475	JERICHO WD	D 7	1950	208	P.S.	487	-224 TO	-274	50	18	121	07-22-50	TURR	WAGNTHY	4
N 3486	OYSTER RAY WD	E 7	1950	18	P.S.	102	-52 TO	-84	32	12				UPGLAC	39
N 3561	OYSTER RAY WD	E 7	1950	18	P.S.	120	-70 TO	-100	30	12	FLOWING	08-31-50		UPGLAC	43
N 3569	CERRO WIRE	D 7	1951	181	IND	402	-172 TO	-221	49	16	95	06-04-51	TURR	WAGNTHY	8
N 3838	SPIEGEL ASSOC.	D 7	1951	195	UNSD	163	42 TO	32	10	8	105	12-03-51	NONE	WAGNTHY	4
N 3850	FAIRCHILD CORP	D 7		185	UNSD	501				16			NONE	WAGNTHY	39
N 3850	FAIRCHILD CORP	D 7	1953	185	UNSD	445	-215 TO	-255	40	16	104	02-08-52	TURR	WAGNTHY	43
N 3860	FAIRCHILD CORP	D 7	1953	183	UNSD	445	-217 TO	-257	40	16	101	03-25-52	SURR	WAGNTHY	8
N 3874	FAIRCHILD CORP	D 7	1952	183	UNSD	335	-127 TO	-147	20	16	106	11-06-52	TURR	WAGNTHY	4
N 3877	HICKSVILLE WD	D 7	1952	152	UNSD	555							NONE		53
N 3878	HICKSVILLE WD	D 7	1952	150	UNSD	606					67	07-22-52	TURR	WAGNTHY	40
N 3878	HICKSVILLE WD	D 7	1952	150	P.S.	428	-225 TO	-278	53	18			NONE		
N 3892	GLEN COVE	E 6	1953	145	UNSD	445							NONE		
N 3892	GLEN COVE	E 6	1953	145	P.S.	251	6 TO	-101	54	16	87	10-07-53		UPGLAC	

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVEL- OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
							(FT ABOVE OR BELOW (-) SEA LEVEL)								
N 3925	COCA COLA CO	D 7	1952	158	UNSD	143	36 TO	15	21	8	63	08-14-52	TURR	UPGLAC	
N 3953	HICKSVILLE WD	D 7	1952	152	UNSD	514							NONE		
N 3953	HICKSVILLE WD	D 7	1953	152	P.S.	419	-17 TO	-267	92	18	66	11-14-52	TURR	MAGNTHY	69
N 3982	A.DAVIS	E 7	1952	20	DOM	419	-376 TO	-399	23	6	FLOWING	10-07-52	TURR	LLOYD	
N 4058	CERTIFIED IND	E 7	1952	75	UNSD	200							NONE	MAGNTHY	
N 4095	PLAINVIEW WD	D 8	1954	150	P.S.	495	-290 TO	-340	50	18	72	08-03-54	TURR	MAGNTHY	31
N 4096	PLAINVIEW WD	D 8	1954	150	P.S.	499	-294 TO	-344	50	18	68	08-02-54	TURR	MAGNTHY	37
N 4097	PLAINVIEW WD	D 8	1954	158	P.S.	470	-255 TO	-305	50	18	75	08-04-54	TURR	MAGNTHY	36
N 4133	JERICHO WD	D 7	1954	192	P.S.	445	-208 TO	-258	50	18	102	05-28-54	TURR	MAGNTHY	17
N 4136	OYSTER RAY WD	E 7	1953	18	UNSD	310							NONE	PTWAQ	
N 4137	OYSTER RAY WD	E 7	1953	18	UNSD	188	-145 TO	-170	25	12	FLOWING	04-28-53	NONE	PTWCU	
N 4245	JERICHO WD	D 7	1955	222	P.S.	571	-303 TO	-343	40	18	150	11-12-53	TURR	MAGNTHY	30
N 4246	JERICHO WD	D 7	1954	200	UNSD	458	-203 TO	-253	50	18	110	11-05-54	TURR	MAGNTHY	31
N 4376	MARY G.BURKE	E 7	1953	58	DOM	367	-298 TO	-308	10	6	50	12-07-53	TURR	LLOYD	15
N 4400	OYSTER RAY WD	E 8	1954	36	UNSD	400							NONE		
N 4400	OYSTER RAY WD	E 8	1957	36	P.S.	302	-178 TO	-266	88	20	2	09-04-56	TURR	MAGNTHY	50
N 4431	CERTIFIED IND	D 7	1953	98	UNSD	30	79 TO	68	11	4	4	06-00-53	NONE	UPGLAC	11
N 4432	DYCKMAN LAUNDRY	E 6	1955	28	COM	352	-304 TO	-320	16	6	FLOWING	04-00-55	TURR	LLOYD	2
N 4440	F.WARMORALE	E 7	1954	16	DOM	316	-290 TO	-300	10	6	0	07-16-54	NONE		10
N 4462	NORTH SHORE CC	E 6	1954	69	UNSD	271							NONE		
N 4462	NORTH SHORE CC	E 6	1954	69	IRR	181	-80 TO	-112	32	12	46	05-25-54	TURR	PTWCU	10
N 4633	MEADOWBROOK CL	D 7	1954	176	UNSD	308							NONE		
N 4633	MEADOWBROOK CL	D 7	1954	176	IRR	216	13 TO	-39	52	16	94	08-25-54	TURR	MAGNTHY	83
N 4639	NASSAU CC	E 6	1911	123	IRR	250				10				MAGNTHY	
N 4760	PINE HOLLOW CC	E 7	1954	220	IRR	247	5 TO	-27	32	12	172	09-15-54	TURR	UPGLAC	51
N 4891	PINE HOLLOW CC	E 7	1933	230	UNSD	245				10	183	05-00-33	TURR	UPGLAC	9
N 5058	WM.-J.LEVITT	D 7	1955	238	UNSD	255	3 TO	-17	20	8	151	11-17-54	TURR	MAGNTHY	25
N 5071	NASSAU CC	E 6	1954	143	IRR	242	-67 TO	-99	32	12	90	10-26-54	TURR	MAGNTHY	29
N 5086	S.L.LANG	D 7	1955	225	UNSD	193	36 TO	32	4	4	170	00-00-55	NONE	MAGNTHY	11
N 5152	LOCUST VLY WD	E 6	1956	44	P.S.	360	-261 TO	-311	50	18	18	08-10-56	TURR	PTWAQ	
N 5188	P.SAMRAD	E 7	1955	22	DOM	375	-340 TO	-350	10	6			TURR	LLOYD	3
N 5201	JERICHO WD	D 6	1956	48	P.S.	509	-386 TO	-456	70	18	36	06-12-56	TURR	LLOYD	27
N 5250	NASSAU CO DPW	E 6	1944	128	UNSD	89				2.50	71.48	06-23-44	NONE	UPGLAC	
N 5250	NASSAU CO DPW	E 6	1967	123	UNSD	101				1.25	79.80	01-24-67	NONE	UPGLAC	
N 5261	GLEN COVE	E 6	1955	145	UNSD	302							NONE		
N 5261	GLEN COVE	E 6	1955	145	P.S.	235	14 TO	-85	59	18	97	05-14-55	SURM	PTWCU	43
N 5332	CERTIFIED IND	E 7	1955	73	UNSD	162	-44 TO	-89	45	12	28	11-26-55	NONE	UPGLAC	34
N 5335	CERT.-REDI MIX	D 7	1955	170	UNSD	144	47 TO	26	21	6	80	00-00-55	NONE	MAGNTHY	
N 5450	ENGINEERS CC	D 6	1955	57	IRR	80	-1 TO	-23	22	12	7.5	06-29-55	TURR	UPGLAC	15
N 5672	REAVEN DAM CLUB	E 7	1955	25	COM	121	-76 TO	-96	20	8	FLOWING	12-06-55	TURR	UPGLAC	

TABLE 6. --WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVEL- OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
							(FT ABOVE OR BELOW (-) SEA LEVEL)	LEVEL							
N 5677	KOLLSMAN INST.	D 7	1955	218	UNSD	TEST 429			60	12	130	06-22-56	NONE	TURR MAGOTHY	44
N 5677	KOLLSMAN INST.	D 7	1956	218	UNSD	WTDR 257	47 TO	-39							
N 5762	GLEN COVE	E 6	1956	145	UNSD	TEST 310			59	18	81	07-05-56	NONE	TURR MAGOTHY	58
N 5792	SEA CLIFF WATER	E 6	1956	140	UNSD	TEST 361	-76 TO	-135							
N 5792	SEA CLIFF WATER	E 6	1957	140	P.S.	WTDR 300	-115 TO	-155	40	20	84.4	11-07-57	TURR	UPGLAC	175
N 5851	ST.UNIV.AT O.W.	D 7	1956	218	DOM	WTDR 177	47 TO	41	6	6	128	08-31-56	SURM	MAGOTHY	2
N 5901	CERT.-REDI-MIX	D 7	1956	179	UNSD	DEST 148	42 TO	31	11	4	90	06-02-56	NONE	MAGOTHY	43
N 5994	GLEN COVE HOSP	E 6	1957	130	INST	WTDR 226	-43 TO	-96	36	16	73	08-22-56	TURR	MAGOTHY	
N 6042	MILL NFCK ESTS.	E 7		10	P.S.	WTDR 347	-318 TO	-330	12	8				PTWAQ	
N 6076	PLAINVIEW WD	D 8	1956	158	UNSD	TEST 694			62	20	73	02-11-57	TURR	MAGOTHY	41
N 6076	PLAINVIEW WD	D 8	1957	158	P.S.	WTDR 358	-138 TO	-200							
N 6077	PLAINVIEW WD	D 8	1956	158	UNSD	TEST 692			62	20	75	03-06-57	TURR	MAGOTHY	45
N 6092	JERICHO WD	D 8	1958	241	P.S.	WTDR 637	-240 TO	-302	70	18	184	06-25-57	TURR	MAGOTHY	52
N 6092	JERICHO WD	D 8	1957	259	P.S.	WTDR 612	-287 TO	-347	60	18	171	09-09-57	TURR	MAGOTHY	54
N 6190	HICKSVILLE WD	D 7	1957	177	UNSD	TEST 642			50	20	94	08-22-57	NONE	TURR MAGOTHY	41
N 6190	HICKSVILLE WD	D 7	1958	177	P.S.	WTDR 605	-373 TO	-423							
N 6191	HICKSVILLE WD	D 7	1957	176	UNSD	TEST 676			61	20	93.5	06-26-57	TURR	MAGOTHY	37
N 6191	HICKSVILLE WD	D 7	1958	176	P.S.	WTDR 555	-313 TO	-374							
N 6289	PIPING ROCK CL	E 6	1957	162	UNSD	TEST 385			37	12	71	09-19-57	TURR	UPGLAC	19
N 6289	PIPING ROCK CL	E 6	1957	162	IRR	WTDR 219	40 TO	-57			22.81	06-17-57	TURR	UPGLAC	
N 6294	U.S. GEOL SURV	E 7	1957	93	UNSD	DEST 28					1.25				
N 6294	U.S. GEOL SURV	E 7	1966	93	UNSD	TEST 37					1.25				
N 6416	ZARA ASPHALT CO	E 6	1958	15	UNSD	TEST 295									
N 6416	ZARA ASPHALT CO	E 6	1958	15	UNSD	UNSD 107	-83 TO	-92	9	6	6.5	06-06-58	TURR	UPGLAC	1
N 6435	LAVISTA	E 7	1958	58	DOM	WTDR 438	-360 TO	-380	15	6	38.5	06-00-58	SURM	LLOYD	37
N 6444	RRDOKVILLE CC	E 6	1958	170	IRR	WTDR 257	-51 TO	-87	36	12	75	06-30-58	TURR	MAGOTHY	8
N 6531	RIVERSIDE PLAS.	D 7	1959	178	UNSD	DEST 119	64 TO	59	5	6	89	09-25-58	NONE	UPGLAC	10
N 6531	METCO INC	D 7	1966	178	IRR	WTDR 174	17 TO	5	12	6	102	05-05-66	SURM	UPGLAC	
N 6549	POWERS CHEMCO	E 6	1958	32	IND	RECH 425	-292 TO	-393	60	8	20	08-13-58	NONE	LLOYD	14
N 6579	GLEN COMPONENTS	E 6	1958	57	UNSD	WTDR 146	-73 TO	-89	16	4	75	08-13-58	TURR	UPGLAC	54
N 6580	PLAINVIEW WD	D 8	1958	158	UNSD	TEST 702			63	20	75	08-13-58	TURR	MAGOTHY	
N 6587	ZARA ASPHALT	E 6	1958	15	P.S.	WTDR 601	-365 TO	-438	16	6	7	06-06-58	TURR	UPGLAC	
N 6587	ZARA ASPHALT	E 6	1958	15	UNSD	UNSD 56	-25 TO	-41	16	6					
N 6651	JERICHO WD	D 7	1960	232	P.S.	WTDR 615	-328 TO	-378	50	18	133.7	05-17-60	TURR	MAGOTHY	27
N 6655	METCO INC	D 7	1959	172	UNSD	UNSD 236	-74 TO	-114	40	8	47	04-24-59	NONE	MAGOTHY	15
N 6665	U.S. GEOL SURV	D 6	1959	97	UNSD	29	70 TO	68	2	1.25					
N 6666	U.S. GEOL SURV	D 6	1959	97	UNSD	12									
N 6667	U.S. GEOL SURV	D 6	1959	94	UNSD	43	53 TO	51	2	1.25					

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WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LST (FT ABOVE SEA LEVEL)	USE OF WATER WELL	USE OF WELL	DEPTH OF WELL (FT)	SCREEN SETTING (FT ABOVE OR BELOW SEA LEVEL)	TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	AQUIFER LIFT TYPE	AQUIFER DEVELOP- MENT	SPECIFIC CAPACITY [(GAL/MIN)/FT]
N 6668	U.S. GEOL SURV	E 6	1959	103	UNSD	OBS	43			1.25			NONE	UPGLAC	
N 6669	U.S. GEOL SURV	E 6	1959	89	UNSD	OBS	44			1.25			NONE	UPGLAC	
N 6670	U.S. GEOL SURV	E 6	1959	81	UNSD	OBS	13			1.25			NONE	UPGLAC	
N 6675	PAR ARNEBERG	E 7	1959	7	DOM	WTDR	460	-448 TO	-453	5			SUBM	LLOYD	
N 6708	ZARA ASPHALT CO	E 6	1959	13	UNSD	OBS	50	-33 TO	-37	4	5.5	06-00-59	NONE	UPGLAC	
N 6741	CERRO WIRE	D 7	1959	191	IND	WTDR	423	-192 TO	-242	50	102	09-04-59	TURR	WAGOTHY	35
N 6768	L.I. STATE PARK	E 7	1914	208	INST	WTDR	175	45 TO	33	12	8		TURR	WAGOTHY	
N 6806	CEDAR BROOK CC	E 6	1960	154	IRR	WTDR	323	-133 TO	-163	30	86	02-18-60	TURR	WAGOTHY	33
N 6860	GENERAL INST.	D 7	1960	138	UNSD	DEST	94	52 TO	42	10	57	04-04-60	NONE	UPGLAC	10
N 6876	U.S. GEOL SURV	E 8	1960	146	UNSD	TEST	113						NONE		
N 6877	U.S. GEOL SURV	E 7	1960	130	UNSD	TEST	133						NONE		
N 6878	U.S. GEOL SURV	E 7	1960	35	UNSD	OBS	23	15 TO	12	3	1.25		NONE	UPGLAC	
N 6879	U.S. GEOL SURV	E 7	1960	131	UNSD	OBS	131	2 TO	0	2	1.25		NONE	WAGOTHY	
N 6880	U.S. GEOL SURV	E 7	1960	115	UNSD	TEST	133						NONE		
N 6881	U.S. GEOL SURV	D 6		94	UNSD		75	22 TO	19	3	1.25		NONE	UPGLAC	
N 6882	U.S. GEOL SURV	D 6	1960	140	UNSD		77	66 TO	63	3	1.25		NONE	UPGLAC	
N 6883	U.S. GEOL SURV	D 6	1960	118	UNSD		82	39 TO	36	3	1.25		NONE	UPGLAC	
N 6884	U.S. GEOL SURV	E 7	1960	191	UNSD		108	86 TO	83	3	1.25		NONE	UPGLAC	
N 6885	U.S. GEOL SURV	E 7	1960	165	UNSD		114	54 TO	51	3	1.25		NONE	UPGLAC	
N 6886	U.S. GEOL SURV	E 7	1960	164	UNSD		98	69 TO	66	3	1.25		NONE	UPGLAC	
N 6887	U.S. GEOL SURV	E 8	1960	160	UNSD		90	73 TO	70	3	1.25		NONE	UPGLAC	
N 6888	U.S. GEOL SURV	E 8	1960	84	UNSD		56	33 TO	30	3	1.25		NONE	WAGOTHY	
N 6889	U.S. GEOL SURV	D 8	1960	290	UNSD	TEST	135						NONE		
N 6973	NASSAU CO DPW	D 7	1960	48	UNSD	DEST	34	17 TO	14	3	1.25	08-02-60	NONE	UPGLAC	10
N 7030	JERICHO WD	D 7	1962	158	P.S.	WTDR	531	-322 TO	-377	50	75	04-23-62	TURR	WAGOTHY	
N 7034	WOODCREST CLUR	D 7	1961	219	IRR	WTDR	232	18 TO	-13	31	145	03-16-61	TURR	UPGLAC	42
N 7045	ST.UNIV.AT O.W.	D 7	1961	241	UNSD	UNSD	151	105 TO	90	15	143	05-21-61	TURR	WAGOTHY	
N 7047	L.I. STATE PARK	E 7	1962	223	INST	WTDR	264	11 TO	-41	52	169	06-09-61	SUBM	WAGOTHY	39
N 7066	MEYER GOLDSTEIN	E 7	1961	9	UNSD	UNSD	89	-65 TO	-80	15	2	05-15-61	SUBM	PTWCU	7
N 7115	MUTTONOWN CC	E 7	1961	205	IRR	WTDR	274	-29 TO	-69	40	12		TURR	WAGOTHY	
N 7152	U.S. GEOL SURV	E 7	1961	14	UNSD	OBS	370	-346 TO	-356	10	6	08-17-61	NONE	LLOYD	
N 7190	U.S. GEOL SURV	E 7	1961	14	UNSD	OBS	240	-223 TO	-226	3	8.24	09-07-61	NONE	PTWCU	
N 7191	U.S. GEOL SURV	E 7	1961	14	UNSD	OBS	142	-125 TO	-128	3	3.94	09-07-61	NONE	PTWCU	
N 7192	U.S. GEOL SURV	E 7	1961	14	UNSD	OBS	40	-23 TO	-26	3	14.31	09-07-61	NONE	UPGLAC	
N 7193	U.S. GEOL SURV	E 7	1961	14	UNSD	UNSD	18	-1 TO	-4	3	10.88	09-07-61	NONE	UPGLAC	
N 7277	CERTIFIED IND	E 7	1962	77	UNSD	UNSD	235	-122 TO	-157	35	12		NONE	UPGLAC	9
N 7419	OYSTER BAY	D 8	1963	243	UNSD	UNSD	325	-57 TO	-82	25	10	08-14-63	SUBM	WAGOTHY	4
N 7420	AM.PHYSICS INST	D 8	1963	283	COM	WTDR	265	33 TO	18	15	211	10-09-63	SUBM	WAGOTHY	4
N 7427	PHOTOCIRCUITS	E 6	1963	58	IND	WTDR	161	-62 TO	-103	41	3	05-13-63	TURR	UPGLAC	57
N 7439	GLEN COVE	E 6	1963	22		WTDR	212	-182 TO	-188	6	4		SUBM	LLOYD	

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							OR ABOVE (-) SEA LEVEL	OR BELOW (-) SEA LEVEL							
N 7446	JERICHO WD	D 7	1964	222	P.S.	498	-221 TO	-271 TO	50	20	146	05-26-64	TURR	MAGNETHY	30
N 7450	NASSAU CO DPW	D 6	1975	176	UNSD	134	47 TO	42	5	4	131.40	07-18-63	NONE	MAGNETHY	
N 7478	NASSAU CO DPW	D 7	1963	217	UNSD	165					12	04-21-64	SURM	LLOYD	2
N 7510	F.F. PASSARELLA	E 7	1964	19	DOM	329	-302 TO	-310	8	8	140	08-03-64	SURM	MAGNETHY	43
N 7526	PLAINVIEW WD	D 8	1964	228	P.S.	691	-342 TO	-460	73	20					
N 7546	NASSAU CO DPW	E 7	1964	11	UNSD	364	-348 TO	-353	5	4					
N 7547	NASSAU CO DPW	E 6	1966	9	UNSD	322									
N 7549	OLD WESTRURY	D 6	1965	198	P.S.	504	-251 TO	-301	50	20	126	06-03-65	TURR	MAGNETHY	22
N 7562	HICKSVILLE WD	D 7	1964	163	P.S.	550					80	06-01-64	TURR	MAGNETHY	28
N 7570	BAYVILLE	E 7	1964	125	UNSD	522									
N 7593	JERICHO WD	E 8	1965	253	P.S.	473	-155 TO	-215	60	20	205	05-24-65	TURR	MAGNETHY	40
N 7614	POWERS CHEMCO	E 6	1964	32	IND	393	-319 TO	-360	41	10	32	08-28-64	TURR	LLOYD	9
N 7620	RAYVILLE	E 7	1964	125	P.S.	480	-287 TO	-355	68	16	113.36	09-09-64	TURR	LLOYD	19
N 7643	RAYVILLE	E 7	1964	125	P.S.	218	-34 TO	-93	59	20	121.6	09-18-64	TURR	UPGLAC	169
N 7644	J.D. MOONEY	E 7	1964	19	DOM	320	-286 TO	-301	15	4	13	09-04-64	SURM	LLOYD	5
N 7664	ENGINEERS CC	D 6	1965	53	IRR	85	-5 TO	-26	21	12	172	12-11-65	TURR	UPGLAC	22
N 7665	LOCUST VLY WD	E 6	1966	218	P.S.	375	-102 TO	-152	50	20	90.00	11-02-64	NONE	MAGNETHY	30
N 7672	NASSAU CO DPW	D 7	1964	177	UNSD	159	20 TO	18	2	2					
N 7719	BAYVILLE	E 7	1964	20	UNSD	400	-378 TO	-380	2	4	105	02-24-65	TURR	REDROCK	6
N 7745	W.J. LEVITT	E 7	1965	150	DOM	215	-40 TO	-65	25	16					
N 7772	JERICHO WD	E 7	1966	258	P.S.	568	-245 TO	-305	60	20	194	05-19-66	TURR	MAGNETHY	23
N 7773	JERICHO WD	E 7	1966	230	P.S.	565	-270 TO	-330	60	20	188	05-24-66	TURR	MAGNETHY	30
N 7781	JERICHO WD	D 7	1965	217	P.S.	459	-177 TO	-237	60	20	140	06-29-65	TURR	MAGNETHY	42
N 7782	ST. PATRICKS	E 6	1965	95	ARCD	226	-105 TO	-131	26	8	40.2	03-14-65	TURR	MAGNETHY	33
N 7830	MILL RIVER CLUB	E 7	1965	118	IRR	197	-48 TO	-79	31	12	67	05-05-65	TURR	MAGNETHY	27
N 7834	GLEN HEAD CC	E 6	1965	150	IRR	202	-21 TO	-52	31	12	116	05-25-65	TURR	UPGLAC	13
N 7857	SEA CLIFF WATER	E 6	1966	195	P.S.	614	-365 TO	-419	54	20	195	05-10-66	SURM	LLOYD	80
N 7858	TAM OSHANTER CC	D 7	1966	218	IRR	375	-92 TO	-142	50	16	140	03-01-66	TURR	MAGNETHY	48
N 8043	JERICHO WD	D 8	1966	222	P.S.	688	-293 TO	-466	173	20	153	06-10-66	TURR	MAGNETHY	48
N 8048	POWERS CHEMCO	E 6	1966	60	RECH	370	-266 TO	-310	44	12					
N 8123	WINSTON GUEST	E 7	1966	263	OTHR	324	-56 TO	-63	7	6	215	09-00-66	SURM	MAGNETHY	30
N 8183	OYSTER BAY WD	E 7	1966	90	UNSD	487					54.5	11-17-67	TURR	UPGLAC	254
N 8183	OYSTER BAY WD	E 7	1968	90	P.S.	230	-91 TO	-140	49	16	11.5	01-29-70	TURR	UPGLAC	71
N 8224	PHOTOCIRITS	E 6	1970	58	IND	155	-46 TO	-97	51	12	89	02-25-67	SURM	MAGNETHY	33
N 8249	HICKSVILLE WD	D 7	1967	163	P.S.	495	-237 TO	-327	90	20					
N 8259	NASSAU CO DPW	E 6	1967	70	UNSD	42	30 TO	28	2	1.25	35.50	01-17-67	NONE	UPGLAC	33
N 8326	GLEN COVE	E 6	1967	53	UNSD	507					6.5	07-26-67	SURM	UPGLAC	41
N 8326	GLEN COVE	E 6	1965	53	P.S.	168	-67 TO	-112	45	20					
N 8327	GLEN COVE	E 6	1967	53	UNSD	362					13.5	09-06-67	SURM	UPGLAC	
N 8327	GLEN COVE	E 6	1965	53	P.S.	168	-65 TO	-115	50	20					

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP.- LETD SEA LEVEL	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVELOPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
							OR ABOVE	OR BELOW							
N 4355	JERICHO WD	D 7	1969	258	P.S.	595	-272 TO	-332	60	20	194	04-25-69	TURR	MAGNTHY	42
N 4394	GLEN COVE HOSP.	E 6	1969	134	P.S.	580	-379 TO	-442	63	8			NONE	LLOYD	
N 4426	MILL NECK ESTS.	E 7	1968	10	P.S.	360	-335 TO	-350	15	8	FLOWING	05-20-68	SURM	PTWAO	3
N 4430	NASSAU CO DPW	E 7	1968	190	UNSD	145	50 TO	45	5	4	133.17	04-10-68	NONE	MAGNTHY	
N 4432	C.W. POST COLL.	D 6	1968	165	IRR	250	-55 TO	-85	30	10	107	05-07-68	SURM	MAGNTHY	26
N 4492	MRS. G. PELLICORO	D 7	1969	178	DOM	150	34 TO	29	5	6			SURM	UPGLAC	
N 4493	J. GIANETTO	D 7	1968	175	DOM	255	-75 TO	-80	5	6			SURM	MAGNTHY	
N 4542	MUTTONTOWN CC	E 7	1969	175	IRR	335	-119 TO	-160	41	12	116	04-30-69	SURM	UPGLAC	24
N 4583	NASSAU CO DPW	D 8	1969	194	UNSD	177	22 TO	17	5	4			NONE	MAGNTHY	
N 4597	G. VAN AKEN	E 8	1969	100	DOM	224	-116 TO	-126	10	6			SURM	UPGLAC	
N 4606	NASSAU CO DPW	D 8	1969	197	UNSD	80	121 TO	117	4	2	71.60	08-20-69	NONE	UPGLAC	
N 4610	NASSAU CO DPW	E 6	1969	9	UNSD	22	-12 TO	-14	2	1.25	8.27	08-06-69	NONE	UPGLAC	
N 4642	GLEN OAKES CC	D 7	1970	243	IRR	400	-126 TO	-157	31	12	185	05-14-70	SURM	MAGNTHY	27
N 4658	OLD WESTBURY	D 7	1970	325	UNSD	670							NONE		
N 4658	OLD WESTBURY	D 7	1972	320	P.S.	615	-230 TO	-290	60	20	248.4	03-30-72	TURR	MAGNTHY	49
N 4681	FOX RUN CC	E 7	1970	200	IRR	370	-117 TO	-169	52	12	133	09-12-70		MAGNTHY	32
N 4690	FABRIC LEATHER	E 6	1970	25	WTR	347	-292 TO	-317	25	8			NONE	LLOYD	
N 4709	FABRIC LEATHER	E 6	1970	22	IND	312	-218 TO	-290	72	6	8	10-07-70	NONE	LLOYD	
N 4713	JERICHO WD	D 6	1970	168	UNSD	412							NONE		
N 4713	JERICHO WD	D 6	1972	168	P.S.	377	-144 TO	-204	60	20	113.1	03-23-72	TURR	MAGNTHY	51
N 4716	NASSAU CO DPW	E 6	1970	47	UNSD	25				1.25	7.60	09-29-70	NONE	UPGLAC	
N 4776	RAYVILLE	E 7	1972	94	P.S.	459	-301 TO	-361	60	20	106.3	06-24-71	TURR	LLOYD	29
N 4805	G.E. RODUIT	E 7	1971	63	DOM	457	-384 TO	-394	10	5	53.5	09-10-71	SURM	LLOYD	6
N 4807	CERTIFIED IND	D 7	1971	114	IND	140	9 TO	-22	31	8	17	10-25-71	TURR	MAGNTHY	9
N 4880	METCO INC	D 7	1972	122	IND	247	-99 TO	-125	26	8	51	10-03-72	SURM	MAGNTHY	19
N 4887	SLATER ELECTRIC	E 6	1972	65	IND	130	-40 TO	-65	25	8	12	10-17-72	SURM	UPGLAC	6
N 4888	NASSAU CO DPW	D 7	1972	174	UNSD	111	68 TO	63	5	4	91.38	10-25-72	NONE	UPGLAC	
N 4898	L.I. LIGHTING CO	D 6	1973	18	UNSD	223							NONE		
N 4928	NASSAU CO DPW	E 7	1973	10	UNSD	31	-18 TO	-21	3	1.25	8.06	01-18-73	NONE	UPGLAC	
N 4937	L.I. LIGHTING CO	D 6	1973	14	COM	164	-103 TO	-143	40	12	3	10-10-73	TURR	UPGLAC	24
N 4962	MRS. S. PRATT	E 6	1973	6	DOM	420	-365 TO	-414	41	4				LLOYD	
N 4995	THURSTON SMITH	E 7	1974	41	DOM	405	-354 TO	-364	10	6			SURM	LLOYD	
N 9023	PINE HOLLOW CC	E 7	1974	219	IRR	247	2 TO	-28	30	12	175	07-09-74	TURR	UPGLAC	50
N 9059	NASSAU CO DPW	D 7	1974	224	UNSD	175	58 TO	53	5	4	117.90	10-31-74	NONE	MAGNTHY	
N 9066	GLEN COVE	E 6	1975	143	UNSD	651							NONE		
N 9066	GLEN COVE	E 6	1975	143	UNSD	460	-277 TO	-317	40					LLOYD	
N 9066	GLEN COVE	E 6	1975	143	UNSD	270	-77 TO	-127	50	12	92	09-00-75		MAGNTHY	
N 9068	NATL. PARK SERV	E 8	1975	154	WTR	325				6				PTWCU	
N 9076	NATL. PARK SERV	E 8	1975	154	WTR	199	-35 TO	-45	10	8				PTWCU	
N 9087	NASSAU CO DPW	E 7	1975	157	UNSD	111	51 TO	46	5	4	83.60	08-08-75	NONE	UPGLAC	

TABLE 6. ---WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVEL- OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]
							(FT ABOVE OR BELOW (-) SEA LEVEL)	(-)							
N 9089	NASSAU CO DPW	D 8	1975	173	UNSD	178	0 TO	-5	5	4	93.20	11-19-75	NONE	WAGOTHY	
N 9100	NASSAU CO DPW	E 6	1976	54	UNSD	70	-11 TO	-16	5	4	13.85	02-27-76	NONE	PTWCU	
N 9115	NASSAU CO DPW	E 6	1976	145	UNSD	110	40 TO	35	5	4			NONE	WAGOTHY	
N 9117	NASSAU CO DPW	E 6	1976	112	UNSD	73	44 TO	39	5	4	40.73	04-05-76	NONE	WAGOTHY	
N 9127	NASSAU CO DPW	E 7	1976	10	UNSD	41	-26 TO	-31	5	4	6.32	07-09-76	NONE	UPGLAC	
N 9152	NASSAU CO DPW	E 8	1976	40	UNSD	58	-13 TO	-18	5	4			NONE	UPGLAC	
N 9154	NASSAU CO DPW	E 7	1976	34	UNSD	66	-27 TO	-32	5	4			NONE	PTWCU	
N 9170	REG.PLAN.BOARD	D 7	1977	184	UNSD	553							NONE		
N 9170	REG.PLAN.BOARD	D 7	1977	184	UNSD	510	-321 TO	-326	5	1.25	95.5	01-00-77	NONE	WAGOTHY	
N 9189	NASSAU CO CPW	E 7	1977	59	UNSD	42	22 TO	17	5	4	13.05	03-02-77	NONE	UPGLAC	
N 9210	GLEN COVE	E 6	1979	142	P.S.	275	-67 TO	-128	61	20	89.2	08-19-77	TURB	WAGOTHY	34
N 9211	GLEN COVE	E 6	1979	142	P.S.	269	-60 TO	-122	62	20			SUBM	WAGOTHY	15
N 9259	HENRY R. STERN	E 7	1977	58	ISR	5			3	1	55.5	09-02-77	NONE	UPGLAC	
N 9276	D.HOLTERRSCH	E 7	1978	10	UNSD	321							NONE	UPGLAC	
N 9300	NASSAU CO WTR	E 7		45	UNSD	DEST							NONE	UPGLAC	
N 9301	NASSAU CO WTR	E 7		45	UNSD	DEST							NONE	UPGLAC	
N 9302	NASSAU CO WTR	E 7		45	UNSD	DEST							NONE	UPGLAC	
N 9303	NASSAU CO WTR	E 7		45	UNSD	DEST							NONE	UPGLAC	
N 9314	NASSAU CO DPW	E 7	1977	32	UNSD	54	-17 TO	-22	5	4			NONE	PTWCU	
N 9315	NASSAU CO DPW	E 6	1977	9	UNSD	41	-27 TO	-32	5	4	3.40	05-04-77	NONE	UPGLAC	
N 9316	NASSAU CO DPW	E 7	1977	25	UNSD	58	-28 TO	-33	5	4	21.36	07-13-77	NONE	UPGLAC	
N 9317	NASSAU CO DPW	D 7	1977	218	UNSD	194	29 TO	24	5	4			NONE	WAGOTHY	
N 9334	GLEN COVE	E 6	1978	143	UNSD	631							NONE		
N 9334	GLEN COVE	E 6	1978	143	UNSD	603	-417 TO	-460	43				TURB	LLOYD	
N 9334	GLEN COVE	E 6		143	P.S.	WTR								WAGOTHY	
N 9353	NASSAU CO DPW	D 7	1978	143	UNSD	101	47 TO	42	5	4	57.82	05-11-78	NONE	WAGOTHY	
N 9455	REG.PLAN.BOARD	D 7	1977	184	UNSD	195	-6 TO	-11	5	1.25	95.5	01-00-77	NONE	UPGLAC	
N 9456	REG.PLAN.BOARD	D 7	1977	184	UNSD	361	-172 TO	-177	5	1.25	95.5	01-00-77	NONE	WAGOTHY	
N 9463	HICKSVILLE WD	D 7	1979	141	P.S.	638	-419 TO	-497	70	20			NONE	WAGOTHY	14
N 9464	MARVIN SCHUR	E 7	1979	22	DOM	330	-298 TO	-308	10	4	20	03-00-79	SUBM	LLOYD	
N 9478	NASSAU CO DPW	E 6	1978	9	UNSD	24	-10 TO	-15	5	2	3.47	11-13-78	NONE	UPGLAC	
N 9488	HICKSVILLE WD	D 7	1979	161	UNSD	638							NONE		
N 9488	HICKSVILLE WD	D 7	1979	161	P.S.	583			60	20			WAGOTHY		21
N 9489	S.L.LANG	D 7	1979	225	DOM	198	32 TO	27	5	6	150	04-00-79	SUBM	WAGOTHY	
N 9520	OYSTER BAY WD	E 7	1979	90	UNSD	556							NONE		
N 9520	OYSTER BAY WD	E 7		90	P.S.	WTR	-361 TO	-422	61					PTWAO	
N 9593	H.D.KOHLER	E 7	1979	5	DOM	370	-353 TO	-365	12	6				LLOYD	
N 9595	F.H.GILLMORE	E 7	1980	20	DOM	467	-416 TO	-447	31	6	+3	09-15-80	CENT	LLOYD	
N 9606	MICHAEL HURLEY	E 8		121	UNSD	203							NONE		
N 9606	MICHAEL HURLEY	E 8	1980	121	DOM	134	-8 TO	-13	5	4	106	12-00-79	SUBM	UPGLAC	

TABLE 6.--WELL COMPLETION DATA ON SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NASSAU COUNTY, NEW YORK.

WELL NUMBER	OWNER OR WELL USER	MAP COORD.	YEAR COMP- LETED	ALTITUDE OF LSD (FT ABOVE SEA LEVEL)	USE OF WATER WELL	DEPTH OF WELL (FT)	SCREEN SETTING		TOTAL SCREEN LENGTH (FT)	DIAM OF WELL (IN)	WATER LEVEL (FT BELOW LSD)	DATE OF MEAS. (M-D-Y)	LIFT TYPE	AQUIFER DEVEL- OPED	SPECIFIC CAPACITY [(GAL/MIN)/FT]	
							(FT ABOVE OR BELOW (-) SEA LEVEL)									
N 9616	LEROY CLOSE	E 7	1980	163	IRR	WTD	193	-20 TO	-30	10	6	132	01-22-80	SURM	UPGLAC	1
N 9695	U.S. GEOL SURV	D 8	1980	194	UNSD	OBS	92	113 TO	102	11	4	73.5	05-30-80	NONE	UPGLAC	
N 9696	U.S. GEOL SURV	D 8	1980	194	UNSD	OBS	88	126 TO	110	16	4	73.5	06-04-80	NONE	UPGLAC	
N 9697	U.S. GEOL SURV	D 8	1980	180	UNSD	OBS	129	62 TO	57	5	4	57	05-07-80	NONF	WAGOTHY	
N 9698	U.S. GEOL SURV	D 8	1980	181	UNSD	OBS	74	128 TO	107	21	4	57	05-12-80	NONE	UPGLAC	
N 9699	U.S. GEOL SURV	E 8	1980	67	UNSD	OBS	47	28 TO	23	5	4	19.1	05-15-80	NONE	UPGLAC	
N 9700	U.S. GEOL SURV	E 8	1980	70	UNSD	OBS	31	58 TO	42	16	4			NONE	UPGLAC	
N 9708	A.J. PEGNO	E 7	1980	12	UNSD	TEST	387							NONE		
N 9708	A.J. PEGNO	E 7	1980	12	OOM	WTD	334	-312 TO	-322	10	6	12	07-22-80	LLOND		10

TABLE 7

Geohydrologic correlations of selected wells and test holes in northern part of Town of Oyster Bay, Nassau County, New York.

EXPLANATION OF DATA AND ABBREVIATIONS

Well number

Well numbers are assigned by the New York State Department of Environmental Conservation. The prefix N designates Nassau County.

Location of Well

Locations of wells are given by map coordinates, based on a latitude and longitude grid system, to aid the reader in locating the wells shown in plate 1. In this system, 5-minute intervals of latitude are lettered consecutively from south to north, and 5-minute intervals of longitude are numbered consecutively from west to east. The grid coordinates are shown along the margins of plate 1.

The wells are also numbered according to the national well-numbering system of the U.S. Geological Survey. This system locates wells to the nearest second of latitude and longitude and gives a sequence number to the well to denote the chronological order in which a particular well within a 1-second quadrangle was recorded. For example, in well number 4054330733446.01 (N7152), the first six numbers indicate latitude 40°54'33" north; the remaining numbers before the period indicate longitude 073°34'46". The 01 after the period is the sequence number. It was the first of five wells (N7151, and N7190 to N7193 in the 1-second quadrangle) to be defined by latitude and longitude.

Hydrogeologic Unit Penetrated and Altitude of Top of Unit

Altitudes of the tops of the hydrogeologic units penetrated by wells are given in feet above or below (-) sea level. These data were used to compile the maps and sections in this report. The number in the "upper glacial aquifer" column is the altitude of the land surface at the well site. Absence of an altitude figure indicates that the test hole did not penetrate the unit.

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

LOCATION OF WELL			HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL						
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK
N 107	D 6	4047330733524.01	212			153			
N 109	D 6	4049250733817.01	48				-272	-374	
N 110	D 6	4049310733821.01	56				-296	-335	
N 112	E 6	4051140733727.01	53						
N 114	E 6	4052010733603.01	123						
N 115	E 6	4052420733516.01	75	-106	-255				
N 116	E 6	4052420733523.01	80						
N 117	E 6	4052400733522.01	77						
N 118	E 6	4052440733509.01	65	-15	-247			-337	-411
N 119	E 6	4052440733523.02	80	-184	-387			-411	-492
N 120	E 6	4052410733526.01	80	-133	-312			-363	-478
N 121	E 6	4053070733550.01	120						
N 121	E 6	4053070733550.02	120	-87	-279				
N 124	E 6	4053550733558.01	9						
N 149	D 7	4046260733112.01	161						
N 150	D 7	4046290733111.01	161						
N 166	E 7	4051480733417.01	55			0			
N 167	E 7	4051480733417.02	55			34			
N 173	E 7	4053370733448.01	38	18	-252			-322	-576
N 198	D 8	4049170732929.01	240			40	-390		
N 199	D 8	4049220732924.01	235			20			
N 202	E 7	4052310733231.01	18						
N 486	E 7	4052300733136.01	3						
N 511	E 7	4053410733401.01	11	-117					
N 551	E 7	4053070733002.01	154	-89	-289				
N 570	D 8	4049190732931.01	237			-27	-369		
N 576	D 7	4046040734633.01	144			54			
N 585	E 7	4052300733231.01	18						
N 590	E 8	4053120732946.01	120	70					
N 613	E 7	4051480733417.03	55			33			
N 614	E 7	4051480733417.04	55						
N 638	D 6	4048110733604.01	295			138			
N 660	E 6	4051480733820.01	58						
N 661	E 6	4051510733816.01	60						
N 733	E 7	4052300733230.01	18				-140	-212	
N 734	E 7	4052300733229.01	18						
N 735	E 7	4052310733232.01	18						
N 736	E 7	4052300733231.02	20						
N 901	E 6	4051130733727.01	53						
N 902	E 6	4051130733726.01	53						

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL										
LOCATION OF WELL			UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK	
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE								
N 803	E 6	4051130733726.02	53							
N 804	E 6	4051120733726.01	53							
N 805	E 6	4051120733725.01	53							
N 806	E 6	4051130733724.01	53							
N 807	E 6	4051130733725.01	53							
N 808	F 6	4051140733727.02	53							
N 809	E 6	4051150733727.01	53							
N 810	E 6	4051150733728.01	53							
N 811	E 6	4051140733728.01	53							
N 811	E 6	4051140733728.02	53							
N 812	E 6	4051140733728.03	53							
N 813	E 6	4051130733728.01	53							
N 814	E 6	4051130733729.01	53							
N 815	E 6	4051160733727.01	53							
N 816	E 6	4051160733727.02	53							
N 817	E 6	4051160733728.01	53							
N 818	E 6	4051150733728.02	53							
N 834	E 6	4053460733752.01	10							
N 835	E 6	4053460733752.01	10							
N 842	E 6	4050320733912.01	8							-336
N 844	D 7	4046040734633.02	149							-433
N 901	E 6	4050340734012.01	9							
N 901	E 6	4050340734012.02	9							
N 902	E 6	4050340734012.03	9							
N 902	E 6	4050340734012.04	9							
N 903	E 6	4050340734012.05	9							
N 904	E 6	4050340734012.06	9							
N 905	E 6	4050350734010.01	9							
N 905	E 6	4050350734010.02	9							
N 906	E 6	4050340734012.07	9							
N 907	E 6	4050340734012.08	9							
N 908	E 6	4050340734012.09	9							
N 909	E 6	4050340734012.10	9							
N 1037	E 6	4052310733634.01	10							
N 1149	E 6	4053190733755.01	89							
N 1150	F 6	4051590733752.01	53							
N 1150	E 6	4051590733752.02	56							
N 1151	E 6	4051420733756.01	34							
N 1151	E 6	4051420733756.02	33							
N 1152	E 6	4051040733752.01	154							

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TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

LOCATION OF WELL			HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL					
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	PORT					
			UPPER GLACIAL AQUIFER	WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER
								BEDROCK
N 1152	E 6	4051040733752.02	154					
N 1153	E 6	4050070733731.01	122					
N 1170	E 6	4053580733645.01	10					
N 1170	E 6	4053580733645.02	10					
N 1171	E 6	4053200733629.01	68					
N 1171	E 6	4053180733634.01	83					
N 1172	E 6	4052290733628.01	144					
N 1173	E 6	4051130733614.01	145					
N 1174	E 6	4050130733556.01	113					
N 1175	D 6	4049020733539.01	177			97		
N 1176	D 6	4047360733531.01	195			163		
N 1197	E 7	4054280733451.01	6					
N 1188	E 7	4053500733453.01	37					
N 1188	E 7	4053510733458.01	35					
N 1189	E 7	4053460733433.01	67					
N 1190	E 7	4051320733407.01	128			35		
N 1191	E 7	4050190733355.01	154					
N 1192	D 7	4049330733346.01	143					
N 1193	D 7	4048320733332.01	231					
N 1194	D 7	4047020733311.01	174					
N 1194	D 7	4046590733326.01	148					
N 1195	D 7	4046090733303.01	147			90		
N 1195	D 7	4046140733305.01	148					
N 1195	D 7	4046140733305.02	148					
N 1195	D 7	4046140733305.03	148					
N 1195	D 7	4046140733305.04	148					
N 1206	E 7	4054220733259.01	9					
N 1207	E 7	4052280733229.01	23					
N 1208	E 7	4051410733207.01	59					
N 1208	E 7	4051470733202.01	59					
N 1208	E 7	4051470733202.02	58			-3		
N 1209	E 7	4051090733207.01	126					
N 1209	E 7	4051090733207.02	126					
N 1209	E 7	4051090733207.03	126					
N 1209	E 7	4051090733207.04	126					
N 1209	E 7	4051010733200.01	122					
N 1210	E 7	4050230733155.01	188					
N 1210	E 7	4050230733155.02	188			90		
N 1210	E 7	4050230733155.03	187					
N 1211	D 7	4049280733138.01	217					

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL									
LOCATION OF WELL			PORT						
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	WASHINGTON CONFINING UNIT	WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK
N 1212	D 7	4048400733119.01	227						
N 1212	D 7	4048400733119.02	227			104			
N 1213	D 7	4047030733056.01	175						
N 1214	D 7	4046010733035.01	149						
N 1214	D 7	4046010733035.02	149						
N 1214	D 7	4046000733034.01	148						
N 1224	F 7	4053260733021.01	25						
N 1225	E 7	4052200733010.01	8						
N 1226	E 7	4051590733000.01	34						
N 1227	E 8	4050550732950.01	172			132			
N 1228	D 8	4049540732939.01	224			38			
N 1228	D 8	4049540732939.02	224						
N 1228	D 8	4050000732933.01	227						
N 1229	D 8	4048460732910.01	251			93			
N 1230	D 8	4047190732857.01	174						
N 1231	D 8	4046280732840.01	143			85			
N 1231	D 8	4046290732837.01	139						
N 1242	E 8	4051260732756.01	41						
N 1242	E 8	4051260732756.02	41						
N 1243	E 8	4050260732725.01	65						
N 1243	E 8	4050260732725.02	65						
N 1243	E 8	4050270732726.01	67						
N 1243	E 8	4050260732720.01	64						
N 1243	F 8	4050260732720.02	64						
N 1244	D 8	4049100732708.01	249			184			
N 1245	D 8	4048200732659.01	260			192			
N 1246	D 8	4047030732642.01	186			97			
N 1327	E 6	4050340733910.01	10						
N 1476	E 7	4050570733251.01	130			101			
N 1477	E 7	4051250733047.01	216			30			
N 1491	D 7	4046090733029.01	149			78			
N 1486	E 8	4053250732933.01	5					-475	
N 1595	E 6	405033073309.02	11						
N 1651	F 6	4052310733633.01	162					-259	
N 1767	D 8	4049040732851.02	251						
N 1768	D 8	4049040732850.01	250						
N 1773	D 7	4047270733425.01	228						
N 1774	D 7	4047290733423.01	241						
N 1775	D 7	4047110733403.01	188						
N 1917	F 6	4051380733924.01	15						-200

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

LOCATION OF WELL				UNIT IN FEET ABOVE OR BELOW SEA LEVEL						
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK	
N 3925	D 7	4046450733330.01	158							
N 3953	D 7	4046280733237.02	152			23				
N 3953	D 7	4046280733237.03	152							
N 3982	E 7	4053150733342.01	20					-311		
N 4058	E 7	40514107333213.01	75							
N 4095	D 8	4046390732809.01	150			76				
N 4096	D 8	4046390732802.01	150							
N 4097	D 8	4046310732939.01	158			112				
N 4133	D 7	4048090733034.01	192			-2				
N 4136	E 7	4052300733229.02	18							
N 4137	E 7	4052300733226.01	18							
N 4245	D 7	4047460733211.01	222			72				
N 4246	D 7	4048020733128.01	200			40				
N 4376	E 7	4054450733112.01	58					-242		
N 4400	E 8	4051540732958.01	36			-177				
N 4400	E 8	4051540732958.02	36							
N 4431	D 7	4045420733244.01	98							
N 4432	E 6	4051430733821.01	28					-272		
N 4440	E 7	4051350733829.01	16					-234		
N 4462	E 6	4050100733849.01	69							
N 4462	F 6	4050100733849.02	69							
N 4633	D 7	4047210733322.01	176			19				
N 4633	D 7	4047210733322.02	175							
N 4639	E 6	4052010733502.02	123							
N 4760	E 7	4051070733120.01	220							
N 4891	E 7	4051070733120.01	230							
N 5058	D 7	4048480733407.01	238			170				
N 5071	E 6	4052130733655.01	143			48				
N 5086	D 7	4049120733235.01	225							
N 5152	E 6	4053250733514.01	44							
N 5188	E 7	4053500733124.01	22					-338		
N 5201	D 6	404250733817.02	48					-376		
N 5250	E 6	4052380733748.01	128							
N 5250	E 6	4052450733748.01	123							
N 5261	E 6	4052330733722.01	145							
N 5261	E 6	4052330733722.02	145							
N 5332	E 7	4051400733210.01	73							
N 5335	D 7	4047130733145.01	170			112				
N 5450	D 6	4049220733814.01	57							
N 5672	E 7	4052560733405.01	25							

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL										
LOCATION OF WELL			UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK	
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE								
N 5677	D 7	4048410733047.01	218			139				
N 5677	D 7	4048410733047.02	218							
N 5762	E 6	4051290733615.01	145			-19				
N 5762	E 6	4051290733615.02	145							
N 5792	E 6	4050140733736.01	140			101				
N 5792	E 6	4050140733736.02	140							
N 5951	D 7	4047140733420.01	218			90				
N 5901	D 7	4047310733105.01	179			103				
N 5994	E 6	4052110733718.01	130			25				
N 6042	F 7	4053590733323.01	10							
N 6076	D 8	4046500732911.01	158			86				
N 6076	D 8	4046500732911.02	158							
N 6077	D 8	4046490732910.01	158			86				
N 6077	D 8	4046490732910.02	158							
N 6092	D 8	4049120732751.01	241			191				
N 6093	D 8	4049080732751.01	259			141				
N 6190	D 7	4047070733053.01	177			-41				
N 6190	D 7	4047070733053.02	177							
N 6191	D 7	4047070733049.01	176			9				
N 6191	D 7	4047070733049.02	176							
N 6289	E 6	4051220733517.01	162							
N 6289	E 6	4051220733517.02	162							
N 6294	E 7	4050010733432.03	93						-236	
N 6416	E 6	4051330733818.01	15							
N 6416	F 6	4051330733818.02	15							
N 6435	E 7	4052280733126.01	58						-307	
N 6444	E 6	4050310733535.01	170			80				
N 6531	D 7	4047120733057.01	178							
N 6531	D 7	4047120733057.02	178							
N 6549	F 6	4051440733824.01	32						-223	-404
N 6579	F 6	4051100733725.01	57							
N 6580	D 8	4046300732938.01	158			98				
N 6580	D 8	4046300732938.02	158							
N 6587	F 6	4051330733418.03	15			89				
N 6651	D 7	4047540733157.01	232							
N 6655	D 7	4045340733244.01	122			57				
N 6665	D 6	4049130733701.01	97							
N 6666	D 6	4049130733701.02	97							
N 6667	D 6	405200733256.01	94							
N 6668	E 6	4052120733540.01	103							

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL									
LOCATION OF WELL			PORT						
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK
N 6669	E 6	4053060733546.01	89						
N 6670	E 6	40524207333522.01	81						
N 6675	E 7	4053330733032.01	7					-431	
N 6708	E 6	4051340733917.01	13						
N 6741	D 7	4047510733045.02	181			93			
N 6768	E 7	4051420733322.01	208						
N 6806	E 6	4050260733616.01	154			69			
N 6860	D 7	4045560733300.01	138						
N 6876	E 8	4051300732856.01	146						
N 6877	E 7	4052560733000.01	130						
N 6878	E 7	4054320733116.01	35						
N 6879	E 7	4053110733318.01	131						
N 6880	E 7	4054250733359.01	115						
N 6881	D 6	4049360733700.01	94						
N 6882	D 6	4049020733628.01	140						
N 6883	D 6	4049420733634.01	118						
N 6884	E 7	4050050733145.01	191						
N 6885	E 7	4050430733131.01	165						
N 6886	E 7	4050290733225.01	164						
N 6887	E 8	4050320732755.01	160						
N 6888	E 8	4050050732718.01	86						
N 6889	D 8	4048010732804.01	290						
N 6973	D 7	4051450733728.01	48			-3			
N 7030	D 7	4046350733311.01	158						
N 7034	D 7	4049190733038.01	219						
N 7045	D 7	4047290733423.02	241						
N 7047	E 7	4051530733376.01	223			91			
N 7066	E 7	4054270733458.01	9			83			
N 7115	E 7	4050290733317.01	205			-10			
N 7152	E 7	4054330733446.01	14					-266	-369
N 7190	E 7	4054330733446.02	14						
N 7191	E 7	4054330733446.03	14						
N 7192	E 7	4054330733446.04	14						
N 7193	E 7	4054330733446.05	14						
N 7277	E 7	4051400733211.01	77						
N 7419	D 8	4049050732452.01	243						
N 7420	D 8	4049030732806.01	283			78			
N 7427	E 6	4051020733715.01	58			153			
N 7439	E 6	4052590733650.01	22						-179
N 7446	D 7	4048490733443.01	222			85			

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

LOCATION OF WELL			HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL									
			WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK
N 7450	D 6	4048550733501.01	176						71			
N 7478	D 7	4047510733219.01	217									
N 7510	E 7	4054440733131.01	19								-265	
N 7526	D 8	40470307332801.01	228						108			
N 7546	E 7	4054180733240.01	11								-332	
N 7547	E 6	4054300733528.01	9								-291	
N 7549	D 6	4047380733531.01	198						65			
N 7562	D 7	4046340733111.01	163						-18			
N 7570	E 7	4054240733400.01	125								-286	
N 7593	E 8	4050450732830.01	253						66			
N 7614	E 6	4051450733815.01	32								-229	
N 7620	E 7	4054240733400.02	125								-281	
N 7643	E 7	4054240733400.03	125									
N 7644	E 7	4054210733052.01	19								-277	
N 7664	D 6	4049230733814.01	53									
N 7665	E 6	4052030733500.01	218									
N 7672	D 7	4047340733143.01	177									
N 7719	E 7	4054420733429.01	20									
N 7745	E 7	4052130733343.01	150									
N 7772	E 7	4050120733102.01	258						-86			
N 7773	E 7	4050100733059.01	230						-136			
N 7781	D 7	4047510733220.01	217						91			
N 7782	E 6	4051420733714.01	95						24			
N 7830	E 7	4051110733258.01	118						83			
N 7834	E 6	4050390733717.01	150						59			
N 7857	E 6	4050590733841.01	195								-275	
N 7858	D 7	4048110733321.01	218						33			
N 8043	D 8	4047540732831.01	222						132			
N 8048	E 6	4051520733419.01	60								-240	
N 8123	E 7	4050490733035.01	263						41			
N 8183	E 7	4051460733134.01	90									
N 8183	E 7	4051460733134.02	90									
N 8224	E 6	4051010733715.01	58									
N 8249	D 7	4046320733111.01	163									
N 8259	E 6	4053200733629.01	70						-27			
N 8326	E 6	4051160733729.01	53								-304	
N 8326	E 6	4051160733729.02	53									
N 8327	E 6	4051130733726.03	53								-304	
N 8327	E 6	4051130733726.04	53									
N 8355	D 7	4048290733159.01	258						136			

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

LOCATION OF WELL			HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL						
			UPPER GLACIAL AQUIFER	PORT WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE							
N 8394	E 6	4052170733721.01	138			11		-251	-444
N 8426	E 7	4053590733323.02	10						
N 8430	E 7	4050090733146.01	190						
N 8432	D 6	4048570733521.01	165			102			
N 8492	D 7	4046530733423.01	178						
N 8493	D 7	4046520733426.01	175						
N 8542	E 7	4050170733336.01	175						
N 8583	D 8	4048150732946.01	194			115			
N 8597	E 8	4053270732939.01	100						
N 8606	D 8	4048150732946.02	197						
N 8610	E 6	4054290733502.01	8						
N 8642	D 7	4047270733456.01	243			57		-220	
N 8658	D 7	4049190733433.01	325			246		-218	
N 8659	D 7	4048190733433.02	320						
N 8681	E 7	4049530733302.01	200			78			
N 8690	E 6	4051340733843.01	25						
N 8709	E 6	4051320733845.01	22			-22			
N 8713	D 6	4049200733733.01	168						
N 8713	D 6	4049200733733.02	168						
N 8716	E 6	4051450733729.02	47						
N 8776	E 7	4054230733353.01	98					-294	
N 8805	E 7	4053230733131.01	63					-327	
N 8807	D 7	4045430733246.01	119			58			
N 8880	D 7	4045340733244.02	122			52			
N 8887	E 6	4051010733725.01	65						
N 8888	D 7	4047030733056.02	174						
N 8898	D 6	4049410733845.01	18						
N 8928	E 7	4054160733256.01	10						
N 8937	D 6	4049410733845.01	18						
N 8962	E 6	4054210733548.01	6					-368	-422
N 8995	E 7	4053570733109.01	41						
N 9023	F 7	4051060733120.01	219					-346	
N 9059	D 7	4048320733330.01	228						
N 9066	E 6	4052040733434.01	143			5		-282	-461
N 9066	E 6	4052040733434.02	143						
N 9066	E 6	4052040733634.03	143						
N 9068	F 8	4053070733002.02	154						
N 9076	E 8	4053070733002.03	154						
N 9087	E 7	4050190733355.02	157						
N 9089	D 8	4047190732857.02	173						

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL										
LOCATION OF WELL			PORT							
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER GLACIAL AQUIFER	WASHINGTON CONFINING UNIT	PORT WASHINGTON AQUIFER	MAGOTHY AQUIFER	RARITAN CLAY	LLOYD AQUIFER	BEDROCK	
N 9100	F 6	4051580733753.01	54							
N 9115	E 6	4051130733613.01	145							
N 9117	E 6	4050110733559.01	112							
N 9127	E 7	4054160733257.01	10							
N 9152	E 8	4051260732756.03	40							
N 9154	E 7	4051580733001.01	34			40				
N 9170	D 7	4047540733039.01	184							
N 9170	D 7	4047540733039.02	184							
N 9189	E 7	4051480733202.01	59							
N 9210	E 6	4052020733633.01	142			2				
N 9211	E 6	4052050733634.01	142			0				
N 9259	E 7	4052240733137.01	58							
N 9276	E 7	4053180733036.01	10							
N 9300	E 7	4052030733227.01	45							
N 9301	E 7	4052030733227.02	45							
N 9302	E 7	4052030733227.03	45							
N 9303	E 7	4052030733227.04	45							
N 9314	F 7	4053500733454.01	32							
N 9315	E 6	4054280733503.01	9							
N 9316	E 7	4053260733021.02	25							
N 9317	D 7	4049280733134.01	218			8		-294		-481
N 9334	E 6	4051280733705.01	143							
N 9334	E 6	4051280733705.02	143							
N 9334	E 6	4051280733705.03	143							
N 9353	D 7	4049340733348.01	143							
N 9455	D 7	4047540733039.03	184							
N 9456	D 7	4047540733039.04	184							
N 9463	D 7	4046010733150.01	141			-64				
N 9464	E 7	4054390733045.01	22							
N 9478	E 6	4054280733503.02	9					-288		
N 9488	D 7	4046280733112.01	161			-111				
N 9488	D 7	4046280733112.02	161							
N 9489	D 7	4049120733235.02	225			130				
N 9520	E 7	4051440733135.01	90					-447		
N 9520	E 7	4051440733135.02	90							
N 9593	E 7	4054100733120.01	5						-295	
N 9595	E 7	4053000733250.02	20						-306	
N 9606	E 8	4053360732944.01	121							
N 9606	E 8	4053360732944.02	121							
N 9616	E 7	4052250733243.01	163							

TABLE 7.--GEOHYDROLOGIC CORRELATIONS OF SELECTED WELLS AND TEST HOLES IN NORTHERN PART OF TOWN OF OYSTER BAY, NEW YORK.

HYDROGEOLOGIC UNIT PENETRATED AND ALTITUDE OF TOP OF UNIT IN FEET ABOVE OR BELOW (-) SEA LEVEL									
LOCATION OF WELL			PORT						
WELL NUMBER	MAP COORD.	LATITUDE AND LONGITUDE	UPPER	WASHINGTON	PORT	WASHINGTON	MAGOTHY	RARITAN	LLOYD
			GLACIAL AQUIFER	CONFINING UNIT	AQUIFER	AQUIFER	CLAY	AQUIFER	BEDROCK
N 9695	D 8	4048150732946.02	194						
N 9696	D 8	4048150732946.03	194				124		
N 9697	D 8	4047130732730.01	180				104		
N 9698	D 8	4047130732730.02	181						
N 9699	E 8	4051240732926.01	67				33		
N 9700	E 8	4051240732926.02	70						
N 9708	E 7	4054260733119.01	12						-300
N 9708	E 7	4054260733119.02	12						