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**J. A. Krug, Secretary**

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**W. E. Wrather, Director**

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**Water-Supply Paper 1016**

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**WATER LEVELS AND ARTESIAN PRESSURE  
IN OBSERVATION WELLS IN THE  
UNITED STATES IN 1944**

**PART 1. NORTHEASTERN STATES**

**BY**

**A. N. SAYRE**

**and others**

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Prepared in cooperation with the States of  
**CONNECTICUT, DELAWARE, INDIANA, MAINE  
MASSACHUSETTS, MICHIGAN, NEW HAMPSHIRE, NEW JERSEY  
NEW YORK, OHIO, PENNSYLVANIA, and VERMONT**  
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# WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES, IN 1944

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## Part 1. NORTHEASTERN STATES

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### INTRODUCTION

#### Significance of records of water level and artesian pressure

The rock formations of the earth are great natural underground reservoirs in which a part of the water derived from rain and snow is stored to supply wells and springs and to maintain the flow of streams during periods of fair weather. Water levels in wells register the stages of these natural reservoirs; they show the extent to which water supplies are depleted by drought or by heavy pumping, whether for public waterworks, irrigation, or industrial uses, and the extent to which they are replenished in seasons of abundant rainfall or melting snow. The changes in pressure recorded on flowing wells indicate depletion or replenishment of the artesian reservoirs.

#### Annual publication of records by Geological Survey

The regular publication of records of water level and artesian pressure in the United States was begun by the Geological Survey in 1935 and has continued yearly since. The records for the entire country were published in a single volume each year through 1939. Beginning with 1940 the records have been published in six volumes, covering the northeastern, southeastern, north-central, south-central, northwestern, and southwestern sections of the country. Hawaii is included in the southwestern section. (See fig. 1.) The following table gives the numbers of these reports. This series of water-supply papers is in a sense an inventory, year by year, of the ground-water supplies of such parts of the country as have been covered.

Water-supply papers on water levels and artesian pressure in observation wells in the United States

Year	North-eastern States	South-eastern States	North-central States	South-central States	North-western States	South-western States and Hawaii
1935	777	777	777	777	777	777
1936	817	817	817	817	817	817
1937	840	840	840	840	840	840
1938	845	845	845	845	845	845
1939	886	886	886	886	886	886
1940	906	907	908	909	910	911
1941	936	937	938	939	940	941
1942	944	945	946	947	948	949
1943	986	987	988	989	990	991
1944	1016	1017	1018	1019	1020	1021

#### Scope of present volume

The present volume covers the northeastern States and gives records of water level and artesian pressure in about 889 observation wells of the Geological Survey and cooperating agencies in Connecticut, Delaware, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, and Vermont. Of these wells, 152 are equipped with automatic water-stage recorders. For some wells not previously reported complete records of water level are given in this volume, including those of the years before 1944. For wells whose previous records have been published this volume gives only the current records. If a complete description of a well has been published in a previous report, only the well number or the well number and a brief identifying description are given in this report. The numbers in parentheses immediately following a well number are those of the water-supply papers in which earlier records of that well are given and the pages on which they appear. An asterisk indicates that a description of the well is given in the paper whose number is so marked. This report includes about 25,710 individual determinations of water level and artesian pressure.

#### Land-surface datum

Before 1943, in Geological Survey reports, the water levels and artesian pressures for some wells were given in feet above or below the measuring points and for other wells in feet above or below sea level or above or below various assumed datum planes. It had been considered inadvisable to adopt a standard procedure in expressing water levels and artesian heads until after a period of trial with datum planes of

different kinds. In 1943, however, it was decided that uniform practice should be adopted. Accordingly precise datum planes were established approximating the land surface at each well. The water levels and artesian heads for all wells listed in this report are given in reference to land-

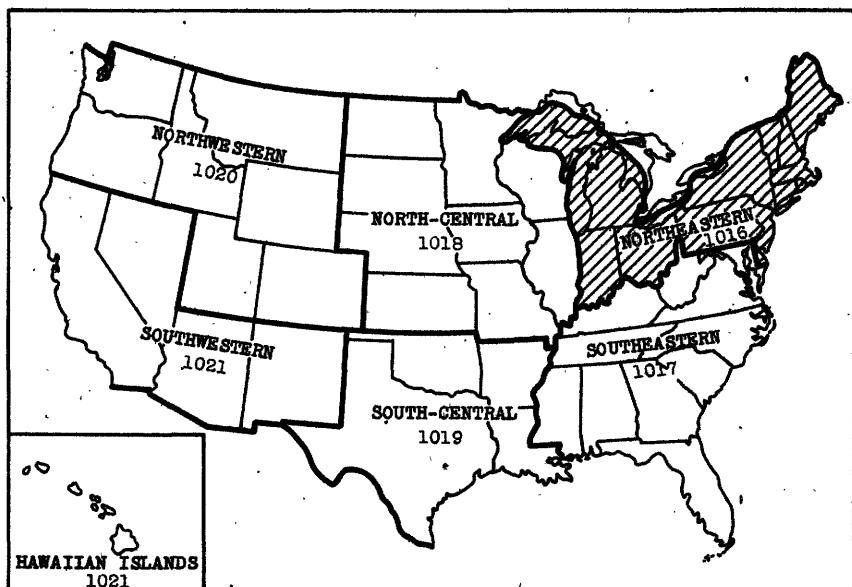


Figure 1.--Outline map of the United States showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1944. The shaded section represents the part of the country covered by this volume.

surface datum planes. If the water levels or artesian heads are referred to land-surface datum for the first time, a conversion factor is given in the descriptive matter preceding them in order to facilitate comparison of the older and newer records. Wherever the conversion factor is given in earlier reports it is not repeated in this report. New data as to the positions of the measuring point and of the bench marks, in feet above or below land-surface datum plane, will be published in succeeding annual reports.

#### Network of key observation wells

During 1942, the Geological Survey established a network of key observation wells in order to make available current information on general

ground-water conditions over the country. These wells were selected because the fluctuations of water level in them are believed to be typical, and they represent the general fluctuations that occur in the parts of the country in which the wells are situated. At the end of 1944 the network included about 160 wells in 45 States. About 40 of the wells were established expressly for the network in 1942 and about 20 were established in 1943; the other 100 were selected from wells measured regularly in connection with cooperative ground-water investigations. The coverage of the country is still far from adequate, and it is expected that some wells not now included will be added to the network from time to time.

Changes in ground-water level in 1944 in the northeastern part of the  
United States

In 1944 the precipitation in all but two of the States in the northeastern section of the country was below normal; in Delaware it was normal, and in New Jersey it was slightly above normal. The fluctuations of both water level and artesian pressure in wells depend, however, on many factors besides the amount of precipitation. In certain of the observation wells there are fluctuations caused by differences in the rate of pumping or artesian flow from other wells in the area, but most of the observation wells are not noticeably affected by pumping or artesian flow. A summary of the changes in ground-water level is given in the chapter for each State.

Acknowledgments

Acknowledgments for effective services in the preparation of this water-supply paper are due Miss Dorothy M. Ireland, Rodney Hart, and Misses Gladys Case, Nauvoo Morris, and Frances Head. Miss Ireland had general charge of the assembling of the several reports and did most of the editing; Mr. Hart prepared the illustrations; and Misses Case, Morris, and Head did the offset typing.

## CONNECTICUT

By Jean Lowry

### PROGRAM OF WORK

The ground-water studies in Connecticut being carried on in cooperation with the Connecticut State Water Commission were continued during 1944. In addition to the investigation of ground-water conditions already under way in the city of New Haven and the town of Waterbury, a program of periodic water-level measurements was begun in the town of Waterbury, and in scattered observation wells located in Burlington, Falls Village, Plainfield and the Pomperaug area. These areas are shown on figure 2, an index map of Connecticut.

The investigation in New Haven involved the measurement of water levels in 18 observation wells on a monthly basis, and the collection of samples for chloride analyses from pumping plants on a bimonthly basis. In Waterbury, monthly samples were collected for determination of sulfate content and biweekly water-level measurements were made in 22 observation wells. Three other wells in Waterbury and the wells in Burlington and Falls Village were measured weekly by local observers, while the well in Plainfield was measured at the end of each month by an engineer from the Hartford office of the surface water division of the United States Geological Survey, B. L. Wigwood, district engineer. The three wells in the Pomperaug area were measured on a biweekly basis.

### NEW HAVEN AREA

1944 marked the fifth year of the cooperative investigation of ground-water conditions in the New Haven area. To facilitate this study, the city of New Haven has been divided into four somewhat arbitrary areas, based on the chief use of ground water in each. The boundaries of these areas are shown on a map of New Haven published in Water-Supply Paper 986. The Residential area comprises the north upland part of the city, where there are relatively few pumping wells, most of them of small capacity. At

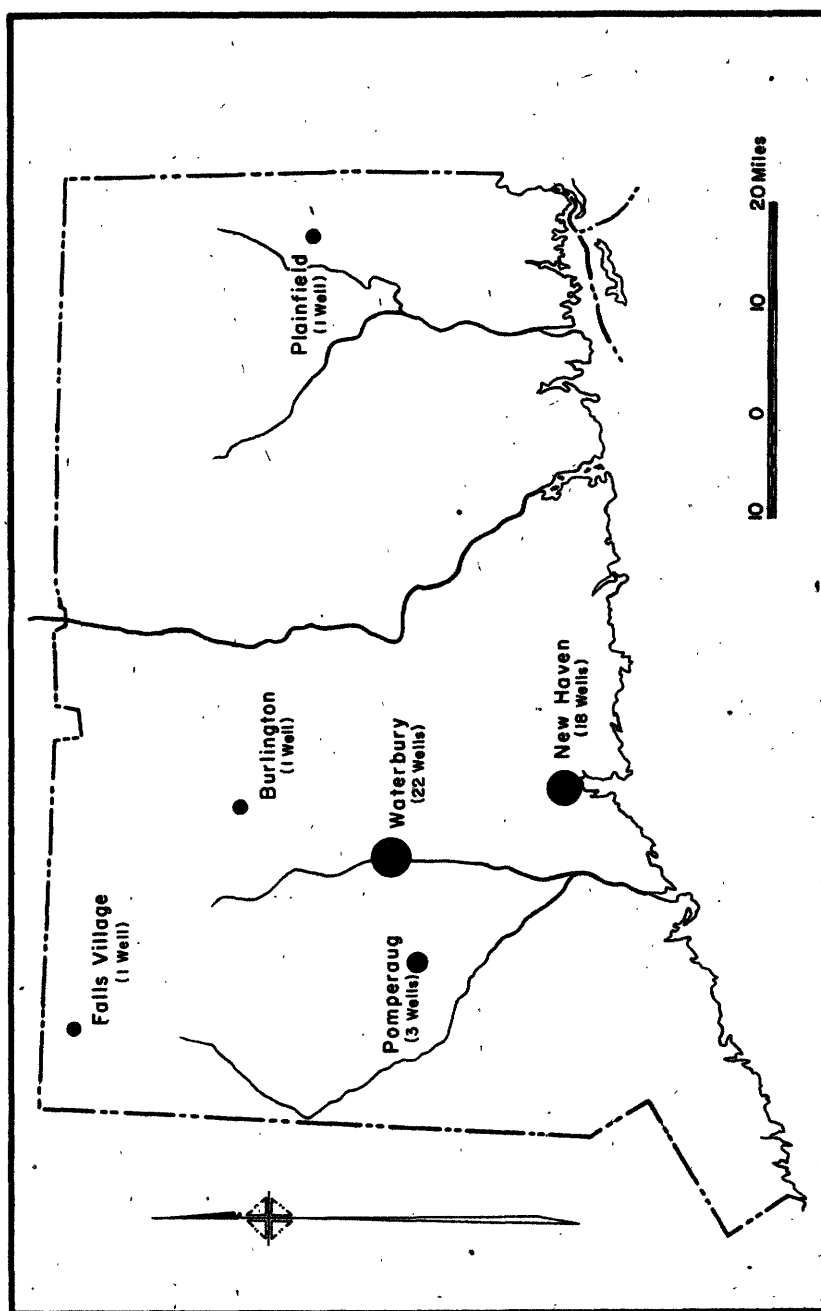


Figure 2.—Map of Connecticut showing areas of ground-water investigation.

widely separated locations in this area, however, there are a few industrial plants that pump considerable water. The Air-conditioning area includes the business section, in which theaters, stores, and restaurants use ground water for air-conditioning. The Cold-storage area, in which ground water is used chiefly for refrigeration in storing meat and dairy products, extends along State Street from Columbus Avenue to Grand Avenue. The Industrial area, where ground water is used chiefly for manufacturing purposes, is in the vicinity of the West and Mill River.

Summary of data on water levels in New Haven, Conn.  
(Measurements refer to mean sea level)

Well	First measured	Lowest observed water level		Highest observed water level		Water level at end of year (feet)
		Feet	Date	Feet	Date	
<u>Residential area</u>						
NHn 170	June 23, 1939	+15.65	Jan. 14, 1942	+18.41	June 23, 1939	+16.44
NHn 175	June 23, 1939	+2.27	Dec. 17, 1941	+4.51	June 23, 1939	+2.97
NHn 183	Dec. 13, 1939	+2.67	Dec. 3, 1941	+5.88	June 12, 1940	+5.35
NHn 270	May 21, 1941	+3.78	Dec. 17, 1941	+5.94	Apr. 28, 1943	+4.66
<u>Air-conditioning area</u>						
NHn 123	Feb. 26, 1941	a-1.22a/Sept. 29, 1944		+2.48	June 1, 1943	-.42
NHn 126	Jan. 22, 1941	a +.44a/Oct. 15, 1941		+2.81	Apr. 28, 1943	.....
NHn 250	Oct. 9, 1940	+ .98	Aug. 30, 1944	+4.79	Oct. 9, 1940	+2.30
<u>Cold-Storage area</u>						
NHn 108	May 12, 1939	-2.79	Aug. 30, 1944	+1.26	May 8, 1940	+1.38
NHn 110	May 12, 1939	-2.20	Oct. 27, 1944	+ .51	May 12, 1939	-2.11
<u>Industrial area</u>						
NHn 131	June 1, 1939	-5.65	May 26, 1944	-2.06	Feb. 19, 1941	-5.14
NHn 138	Feb. 28, 1940	-5.70	June 23, 1944	-1.83	Jan. 2, 1941	-4.46
NHn 149	June 13, 1939	+1.08	Nov. 21, 1941	+3.25	June 30, 1939	+2.13
NHn 159	June 7, 1939	-19.08	Dec. 1, 1944	-4.11	June 12, 1939	-19.08
NHn 160	June 7, 1939	-18.75	Aug. 31, 1944	+4.15	Mar. 6, 1940	+3.76
NHn 178	July 21, 1939	-6.28	Oct. 1, 1944	-.04	June 12, 1940	-6.26
NHn 179	July 21, 1939	-5.95	Dec. 1, 1944	-.17	July 17, 1940	-5.95
NHn 235	Oct. 2, 1940	-2.30	Aug. 31, 1944	+ .15	Mar. 30, 1943	-1.54
NHn 245	Oct. 2, 1940	-1.07	Oct. 8, 1941	+ .82	Mar. 30, 1943	.....

a well inaccessible for measurements during summer due to pumping in the air-conditioning season.

Measurements in several of the wells listed in the preceding table were discontinued during 1944. Two of these wells (NHn 126 and NHn 245) were inaccessible for the greater part of the year, so that the figures given in the table for the lowest and highest observed water levels in these wells may have been exceeded during the periods when the wells were inaccessible. It will be noted, that if these two wells be omitted, the water level in all but one of the wells in the three pumping areas of the city reached its lowest observed state during 1944, although the water level in the Residential area was approximately the same at the end of 1944 as at the end of the preceding year. The one exception, well NHn 149,

is affected by pumpage from other wells located at the same plant, which used considerably less ground water in 1944 than during the previous years of measurement.

The effects of heavy pumping in the Air-conditioning, Cold-storage, and Industrial areas are also shown by the net changes in water level for the year, given in the following table. All of the wells in the Residential area show approximately the same water level at the end of 1944 as at the end of the previous year, although there was increased precipitation, the annual rainfall in 1944 being 46.08 inches, or about 9.5 inches above that of 1943. On the other hand, all but two of the wells in the pumping areas showed a decline in water level for the same period, even though pumpage in these areas was less during 1944 than in 1943. This indicates that the pumpage is exceeding the safe yield for the area.

Net change in water levels in observation wells in New Haven, Conn., in feet, during 1944

Area	Well	Net rise (+) or net decline (-)
Residential	NHn 170	+0.01
	NHn 175	+0.10
	NHn 183	+0.01
	NHn 270	-.02
Air-conditioning	NHn 123	-1.11
	NHn 250	-1.08
Cold-storage	NHn 108	-.70
	NHn 110	-1.03
Industrial	NHn 131	-.68
	NHn 138	+0.07
	NHn 159	-6.37
	NHn 160	+2.19
	NHn 178	-1.28
	NHn 179	-1.00
	NHn 235	-.80

#### WATERBURY AREA

A part of the investigation of ground-water conditions in the town of Waterbury consists of biweekly measurement of water levels in 22 observation wells. (See fig. 3) In addition, local observers have made weekly measurements in three additional wells (Wb 1, Wb 14, and Wb 74). Records for the first two wells date back to the spring of 1943.

Analyses of ground water from pumping wells in Waterbury disclosed the fact that several of the wells situated close to the Naugatuck River were badly contaminated by seepage from the river which contains a high concentration of industrial wastes, largely from brass mills. Samples, collected monthly from those wells showing the greatest degree of contamination, were analyzed for sulfate content by the Connecticut State Agricultural Experiment Station at New Haven, under the direction of Dr. Bailey.



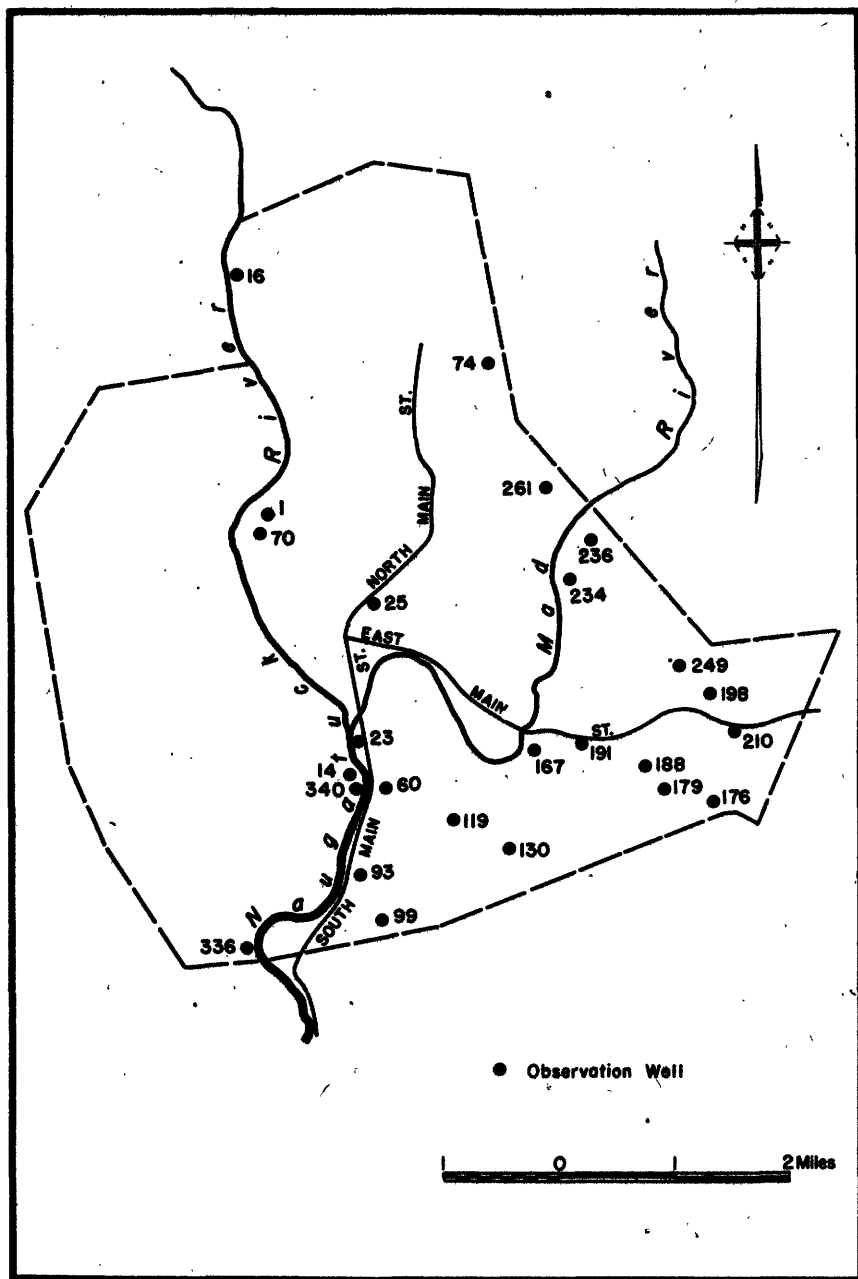


Figure 3.--Map of Waterbury, Connecticut showing observation wells, 1944

Geology

Waterbury is underlain by gneiss and schist which, as a rule, yield only small quantities of ground water in this area. Glacial till covers most of the hilltops and slopes in the town, furnishing water to most of the domestic wells. The till, however, has a relatively low porosity. As a result, the water level in wells in the till fluctuates widely during the year, and many of these wells go dry each summer. Deposits of stratified glacial drift occur in the valleys of the Naugatuck River and Mad River, and also in scattered pockets. These deposits supply most of the industrial ground water for Waterbury. Although the stratified drift deposits are over a hundred feet thick in the valley of the Naugatuck River, most wells draw their water from the top 80 feet of drift.

Summary of data on water levels in Waterbury, Conn.

Well	First measured	Lowest observed water level, in feet below land surface		Highest observed water level, in feet below land surface		Water level, in feet below surface Nov. 29 & 30, 1944
		Water level	Date	Water level	Date	
Wb 1	Apr. 29, 1943	10.99	Sept. 11, 1944	7.90	May 29, 1943	8.85
Wb 14	29, 1943	16.97	25, 1943	14.82	13, 1944	....
Wb 16	Feb. 2, 1944	15.80	May 25, 1944	11.36	Nov. 29,	11.36
Wb 23	2	16.47	Feb. 2	15.56	Mar. 29	....
Wb 25	3	8.62	Aug. 29	4.28	Apr. 26	4.79
Wb 60	Mar. 17	52.85	Mar. 17	22.56	July 12	....
Wb 70	Feb. 2	17.01	Aug. 29	13.08	Apr. 26	15.17
Wb 74	Oct. 18	29.80	Sept. 12	11.70	Dec. 12	a 15.00
Wb 93	18	28.39	Aug. 29	26.05	May 9	26.50
Wb 99	18	26.20	Mar. 2	25.79	7	26.14
Wb 119	18	12.34	Aug. 29	2.93	Nov. 30	2.93
Wb 130	18	15.20	July 25	1.42	Apr. 26	2.30
Wb 167	18	11.01	Aug. 29	7.45	26	8.51
Wb 176	18	14.48	29	3.55	26	4.24
Wb 179	18	22.15	29	7.46	26	7.82
Wb 188	18	28.21	29	19.66	26	20.66
Wb 191	18	23.72	Sept. 27	18.15	May 9	22.27
Wb 198	18	18.25	29	11.46	9	14.34
Wb 210	18	11.02	29	5.78	Apr. 26	6.60
Wb 234	18	20.84	29	16.65	May 9	18.57
Wb 236	18	8.15	29	2.27	Nov. 30	2.27
Wb 249	18	13.18	29	6.30	May 9	9.00
Wb 261	18	28.08	29	8.35	Apr. 26	19.95
Wb 336	June 20	20.40	29	16.08	Nov. 29	16.08
Wb 340	Aug. 8	23.26	8	16.54	29	16.54

a Depth to water on Nov. 28, 1944.

Measurements in three of the wells listed in the preceding table were discontinued during 1944. As measurements were not begun in wells Wb 336 and Wb 340 until the middle of the year, it may be that the figures given in the table for the highest and lowest observed water levels in these

wells were exceeded during the earlier part of the year. Records of measurements in wells Wb 1 and Wb 14 were begun on April 29, 1943, and in well Wb 74 on October 18, 1943. Measurements in all the other wells were begun in February 1944, except in Wb 60 where they were begun in the following month. Wells Wb 16, Wb 60, and Wb 74 are strongly affected by pumping. The relatively greater annual fluctuation of water levels in Waterbury, compared with that in New Haven, is due to the fact that many of the observation wells in Waterbury are located on slopes, in till, which is less permeable than the stratified drift which supplies wells in New Haven.

It will be noted that water levels in 15 of the 25 wells reached their lowest observed stages at the end of August 1944, and water levels in 17 wells reached their highest observed stages during April and May 1944. In the only well for which a comparison is possible, Wb 1, the water level at the end of 1944 was 1.08 feet higher than at the end of 1943. This is partially due, at least, to recharge from the heavy rainfall which accompanied the hurricane of September 14, 1944. The resulting recharge is especially noticeable in the water-level records for wells Wb 25, Wb 75, Wb 119, Wb 130, Wb 176, Wb 179, Wb 188, Wb 210, and Wb 236. Although water levels had been declining previously, the recharge resulting from the storm caused the level in well Wb 179 to rise 7.24 feet during September, and in well Wb 74, a rock well, it rose 11.30 feet. The annual precipitation in Waterbury was 44.40 inches in 1944, compared to 35.12 inches in 1943. However, over 50 per cent of this rain fell during the last 4 months of the year.

#### OTHER AREAS

##### Burlington

Measurements of the water level in an observation well, Burlington 1, was begun in May 1944. This well was measured weekly by a local observer. The hurricane in September had only a slight effect on the water level in this well. Seasonal recharge did not begin until the last week in December. The well is located in a small drainage basin having an area of only about 4 square miles. There is no nearby industrial pumpage, but the water level in the well may be affected to a small extent by the withdrawal of water, by means of a hand pump, for domestic use.

Falls Village

Weekly measurements made by a local observer were begun in a well near Falls Village in June 1944. This well showed seasonal recharge by the end of the year. It is located in the flood plain of the Hausatonic River just above its confluence with the Hollenbeck River. There is no nearby pumping of any kind.

Plainfield

Since October 1942, water level measurements have been made at the end of each month in an observation well in Plainfield by an engineer from the Hartford office of the surface-water division of the United States Geological Survey. The hurricane in September 1944 had only a small effect on this well. Seasonal recharge began in this well in September. At the end of 1944, the water level stood 1.03 feet higher than at the end of 1943, and 0.48 foot higher than at the end of 1942.

Pomperaug area

In April 1944, water-level measurements were resumed in three wells, which were among those measured 30 years ago in connection with the report on the hydrology of the Pomperaug Basin by Meinzer. Descriptions of the wells, a map showing their locations, and previous water-level measurements are given in that report. Two of the wells, W 1 and W 2, are located in Litchfield County. The third, S 1, is in New Haven County. Seasonal recharge in these wells began in September with the hurricane. The damming of a nearby stream, which has produced a lake of considerable size adjacent to the well, has raised the water table in the vicinity of well W 2 approximately 3 feet above the levels measured during Meinzer's study. The water level in well S 1 was higher in 1944 than during the period 1913 to 1917 because the well had been used less in recent years.

Summary of data on water levels in Burlington, Falls Village, Plainfield, and the Pomperaug area, Conn.

Well	First measured	Lowest observed water level, in feet below land surface		Highest observed water level, in feet below land surface		Water level, in feet below land surface at end of year a/
		Water level	Date	Water level	Date	
Bu 1	May 20, 1944	16.80	Oct. 9, 11, 23, 1944	12.99	May 20, 1944	16.50
Fv 1	June 8, 1944	16.22	Nov. 16, 1944	14.67	June 8, 1944	15.85
P 1	Oct. 1, 1942	31.72	Feb. 3, 1944	28.79	Jan. 4, 1943	30.44

1/ Meinzer, O. E. and Stearns, N. D., A study of ground water in the Pomperaug Basin, Connecticut: U. S. Geol. Survey Water-Supply Paper 597-B, 1929.

a On date of last measurement.

Summary of data on water levels in Burlington, Falls Village,  
Plainfield, and the Pomperaug area, Conn.-Continued

Well	First measured	Lowest observed water level, in feet below land surface		Highest observed water level, in feet below land surface		Water level, in feet below land surface at end of year <sup>a</sup>
		Water level	Date	Water level	Date	
W 1	Oct. 4, 1913	33.5	Oct. 10, 1914	21.4	Mar. 13, 1916	28.87
W 2	Oct. 4, 1913	18.7	Sept. 26, 1914	11.54	Apr. 13, 1944	11.69.
			July 3, 1915		May 8, 1944	
S 1	Oct. 4, 1913	21.7	Oct. 14, 1916	15.28	May 8, 1944	15.80

a On date of last measurement.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Hartford County

Bu 1. Mrs. Alice Green, R. D. No. 1, Unionville. Dug domestic well, diameter 2 feet, depth 35 feet. Cased in stratified drift on flat. Measuring point, edge of east side of cement curb, at land-surface datum.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 20	12.99	July 6	14.70	Aug. 21	15.99	Oct. 23	16.80
25	13.60	11	15.10	Sept. 27	16.60	30	16.40
June 1	14.00	18	15.20	Oct. 3	16.10	Nov. 30	16.20
9	14.40	24	15.60	9	16.80	Dec. 19	16.50
27	14.30	Aug. 14	16.10	16	16.80	27	16.50

Litchfield County

FV 1. Dwight Harris, R. F. D., Falls Village. Unused dug domestic well, diameter 2 feet, depth 20 feet. Cased in stratified drift in a valley. Measuring point, south side of stone casing, 3.2 feet above land-surface.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 8	14.67	Aug. 3	15.46	Sept. 28	15.77	Nov. 16	16.22
15	14.80	10	15.57	Oct. 5	15.58	23	16.11
22	14.80	17	15.71	12	15.87	30	16.08
29	14.75	Sept. 1	15.89	19	15.84	Dec. 7	15.94
July 6	14.85	7	15.85	26	15.87	14	15.85
13	15.05	14	15.87	Nov. 2	15.94	21	15.86
20	15.17	21	15.72	9	16.06	28	15.85
27	15.29						

W 1 (Well 1 in 597-B, p. 117). James Crowfoot, Woodbury. Unused dug domestic well, diameter 2 feet, depth 34.2 feet. Cased in stratified drift on flat. Measuring point, top of north side of cement well curb, 2.5 feet above land-surface. Water level Oct. 4, 1913, 34.9 feet below measuring point and 32.4 feet below land surface.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 13	27.99	June 7	22.71	Aug. 7	28.49	Oct. 25	29.29
25	26.49	21	23.53	28	29.34	Nov. 9	29.30
May 8	22.75	July 11	25.53	Sept. 26	29.18	28	28.87
23	22.34	24	27.02	Oct. 13	29.23		

W 2 (Well 14 in 597-B, p. 117). Oliver Towles, Woodbury. Dug domestic well, diameter 3 feet, depth 20.5 feet. Cased in stratified drift on flat. Measuring point, east side of hole in wooden cover, at land surface. Water level, Oct. 4, 1913, 18.5 feet below measuring point and land surface.

## W 2. Oliver Towles--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 13	11.54	June 7	12.01	Aug. 7	12.45	Oct. 25	12.09
25	11.77	21	12.30	28	12.55	Nov. 9	12.19
May 8	11.54	July 11	12.39	Sept. 26	11.90	28	11.69
23	11.62	24	12.53	Oct. 13	12.14		

New Haven County

NHn 108 (\*886, p. 58; 906, p. 8; 936, p. 11; 944, p. 12; 986, p. 13). Whiting Realty Co. About 100 feet south of Whiting Street and about 100 feet west of State Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	16.61	0.75	Aug. 30	18.65	2.79
Feb. 29	16.86	1.00	Sept. 29	17.85	1.99
Mar. 31	17.05	1.19	Oct. 27	17.68	1.82
Apr. 27	16.92	1.06	Dec. 1	17.24	1.38
July 27	18.36	2.60			

NHn 110 (\*886, p. 58; \*906, p. 8; 936, p. 12; 944, p. 12; 986, p. 13). Federal Packing Co. On east side of State Street at Whiting Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	12.49	1.05	July 27	13.15	1.71
Feb. 29	12.53	1.09	Aug. 30	13.43	1.99
Mar. 31	12.63	1.19	Sept. 29	13.59	2.15
Apr. 27	12.68	1.24	Oct. 27	13.64	2.20
May 26	12.74	1.30	Dec. 1	13.55	2.11
June 23	12.88	1.44			

NHn 123 (\*936, p. 13; 944, p. 13; 986, p. 13). New York Life Insurance Co. On west side of Church Street, about 135 feet south of Center Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	24.47	0.06	Sept. 29	25.63	1.22
Feb. 29	24.64	.23	Oct. 27	24.50	.09
Mar. 31	24.54	.13	Dec. 1	24.83	.42
Apr. 27	24.24	.17			

NHn 126 (\*936, p. 13; 944, p. 13; 986, p. 13). Liggett Drug Store. On east side of Church Street, about 100 feet north of Chapel Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	21.27	1.06	Mar. 31	21.51	0.82
Feb. 29	21.48	.85	Apr. 27	21.31	1.02

NHn 128 (\*886, p. 59; 906, p. 9; 936, p. 13; 944, p. 13; 986, p. 14). United Restaurant. On southwest side of Chapel Street, about 80 feet north-west of York Street, New Haven. Measurements discontinued after Sept. 23, 1943.

NHn 131 (\*886, p. 59; 906, p. 9; 936, p. 13; 944, p. 13; 986, p. 14). New Haven Clock Co. On west side of Wallace Street, about 120 feet north of St. John Street, New Haven. Measuring point raised in September 1944 to 16.59 feet above mean sea level.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	22.27	5.04	July 27	22.59	5.36
Feb. 29	22.59	5.36	Aug. 31	22.55	5.32
Mar. 30	22.50	5.27	Sept. 29	22.52	5.29
Apr. 27	22.52	5.29	Oct. 27	22.57	5.34
May 26	22.88	5.65	Dec. 1	22.37	5.14
June 23	22.76	5.53			

NHn 136 (\*906, p. 9; 936, p. 14; 944, p. 14; 986, p. 14). Associated Realty Co. On south side of Greene Street, about 150 feet west of East Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	22.95	5.20	July 27	23.51	5.56
Feb. 29	23.40	5.65	Aug. 31	23.01	5.26
Mar. 30	23.06	5.31	Sept. 29	22.94	5.19
Apr. 27	23.10	5.35	Oct. 27	22.61	4.86
May 26	23.30	5.55	Dec. 1	22.21	4.46
June 23	23.45	5.70			

NHn 149 (\*886, p. 60; \*906, p. 10; 936, p. 14; 944, p. 14; 986, p. 14). Seamless Rubber Co. On east side of Hallock Avenue, about 200 feet south of Second Street, New Haven. Measurements discontinued on Oct. 26, 1944.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	20.60	2.34	June 23	20.55	2.39
Feb. 28	20.57	2.37	July 27	20.80	2.14
Mar. 31	20.40	2.54	Aug. 30	21.00	1.94
Apr. 27	20.27	2.67	Sept. 29	20.68	2.26
May 26	20.40	2.54	Oct. 26	20.61	2.13

NHn 152 (\*886, p. 60; 906, p. 10; 936, p. 14; 944, p. 14; 986, p. 14). A. C. Gilbert Co. About 220 feet north of Peck Street and about 350 feet east of Blatchley Avenue, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	32.10	10.38	July 27	29.21	13.27
Feb. 29	32.83	9.65	Aug. 31	30.91	11.57
Mar. 31	30.21	12.27	Sept. 29	28.83	13.65
Apr. 27	28.43	14.05	Oct. 27	29.70	12.78
May 26	28.29	14.19	Dec. 1	28.85	13.65
June 23	29.24	13.24			

NHn 159 (\*886, p. 61; 906, p. 11; 936, p. 15; 944, p. 14; 986, p. 15). National Folding Box Co. About 270 feet north of Alton Street and about 250 feet west of James Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	21.03	13.70	July 27	24.44	17.11
Feb. 29	22.43	15.10	Aug. 31	25.50	18.17
Mar. 31	21.42	14.09	Sept. 29	22.57	15.24
Apr. 27	25.07	17.74	Oct. 27	26.01	18.68
May 26	26.22	18.89	Dec. 1	26.41	19.08
June 23	23.99				

NHn 160 (\*886, p. 61; 906, p. 11; 936, p. 15; 944, p. 15; 986, p. 15). National Folding Box Co. About 25 feet south of Alton Street and about 315 feet west of James Street, New Haven.

Water level in feet, with reference to mean sea level, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	20.22	-13.33	July 27	5.63	+1.26
Feb. 29	5.85	+1.04	Aug. 31	25.64	-18.75
Mar. 31	3.71	+3.18	Sept. 29	4.72	+2.17
Apr. 27	3.57	+3.32	Oct. 27	5.57	+1.52
May 26	5.46	+1.43	Dec. 1	3.13	+3.76
June 23	5.55	+1.34			

NHn 168 (\*886, p. 61; 906, p. 11; 936, p. 15; 944, p. 15; 986, p. 15). Story Dairy. About 120 feet south of Bailey Street and about 180 feet east of Ferry Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	38.45	6.27	July 27	37.90	6.82
Feb. 29	38.58	6.14	Aug. 31	38.46	6.26
Mar. 31	37.94	6.78	Sept. 29	37.75	6.97
Apr. 27	37.52	7.20	Oct. 27	38.10	6.62
May 26	37.37	7.35	Dec. 1	37.71	7.01
June 23	37.50	7.22			

NHn. 170 (\*886, p. 61; 906, p. 11; 936, p. 15; 944, p. 15; 986, p. 15). Yale University. About 100 feet southwest of Grove Street and about 200 feet northwest of College Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	24.90	16.19	July 27	24.17	16.92
Feb. 29	24.81	16.28	Aug. 31	24.57	16.52
Mar. 31	24.52	16.57	Sept. 29	24.44	16.65
Apr. 27	24.13	16.96	Oct. 27	24.58	16.51
May 26	23.64	17.45	Dec. 1	24.65	16.44
June 23	23.81	17.28			

NHn 175 (\*886, p. 62; 906, p. 12; 936, p. 16; 944, p. 15; 986, p. 16). Monarch Laundry. About 200 feet north of Derby Avenue and about 70 feet west of Ellsworth Street.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	31.02	2.82	July 27	30.63	3.21
Feb. 28	31.17	2.67	Aug. 30	30.06	2.98
Mar. 31	31.02	2.82	Sept. 29	30.83	3.01
Apr. 27	30.80	3.04	Oct. 26	30.82	3.02
May 26	30.58	3.26	Dec. 1	30.87	2.97
June 23	30.50	3.34			

NHn 178 (\*886, p. 63; 906, p. 12; 936, p. 16; 944, p. 16; 986, p. 16). Connecticut Co. About 40 feet south of Grand Avenue and about 200 feet west of Haven Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	20.09	5.73	July 27	19.89	5.53
Feb. 28	20.08	5.72	Aug. 31	20.52	6.16
Mar. 31	20.26	5.90	Sept. 29	20.34	5.98
Apr. 27	19.95	5.59	Oct. 27	20.64	6.28
May 26	20.21	5.85	Dec. 1	20.62	6.26
June 23	20.32	5.96			

NHn 179 (\*886, p. 63; 906, p. 13; 936, p. 16; 944, p. 16; 986, p. 16). Connecticut Co. About 40 feet south of Grand Avenue and about 220 feet west of Haven Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	19.81	5.46	July 27	19.80	5.45
Feb. 28	19.97	5.62	Aug. 31	20.30	5.95
Mar. 31	19.94	5.59	Sept. 29	19.92	5.57
Apr. 27	19.83	5.48	Oct. 27	20.26	5.91
May 26	19.99	5.64	Dec. 1	20.30	5.95
June 23	20.17	5.82			

NHn 183 (\*906, p. 13; 936, p. 17; 944, p. 16; 986, p. 16). Frank X. Hald Storage Co. On south side of Davenport Avenue, about 500 feet west of West Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	20.85	3.09	July 27	20.56	3.38
Feb. 28	20.92	3.02	Aug. 30	21.00	2.94
Mar. 31	20.40	3.54	Sept. 29	20.51	3.43
Apr. 27	19.98	3.96	Oct. 26	20.74	3.20
May 26	19.82	4.12	Dec. 1	20.59	3.35
June 23	20.11	3.83			

NHn 235 (\*906, p. 14; 936, p. 17; 944, p. 16; 986, p. 17). C. Cowles & Co. About 100 feet north of Water Street and about 70 feet west of Chestnut Street, New Haven.

Water level, in feet, 1944					
Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	15.97	1.17	July 27	16.89	2.09
Feb. 28	16.44	1.64	Aug. 31	17.10	2.30
Mar. 30	16.36	1.66	Sept. 26	16.50	1.70
Apr. 27	16.13	1.33	Oct. 26	16.73	1.93
May 26	16.35	1.55	Dec. 1	16.34	1.64
June 23	16.65	1.85			



NHn 245 (\*906, p. 15; 936, p. 18; 944, p. 17; 986, p. 17). Atlantic Bottling Works. On south side of Fair Street, about 90 feet east of Prindle Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Jan. 29	19.17	0.46
Feb. 29	19.43	.72

NHn 250 (\*906, p. 15; 936, p. 18; 944, p. 17; 986, p. 17). I. Newman & Sons. On north side of Oak Street, about 180 feet east of Factory Street, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	12.30	2.63	July 27	13.33	1.60
Feb. 28	12.64	2.29	Aug. 30	13.95	.98
Mar. 31	12.87	2.06	Sept. 29	12.87	2.06
Apr. 27	12.66	2.27	Oct. 26	12.49	2.44
May 26	12.16	2.77	Dec. 1	12.63	2.30
June 23	12.62	2.31			

NHn 270 (\*936, p. 19; 944, p. 18; 986, p. 17). Carl E. Altmann. On east side of Auburn Street, about 190 feet south of Legion Avenue, New Haven.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level	Date	Below land-surface datum	Above mean sea level
Jan. 29	33.66	4.52	July 27	33.15	5.03
Feb. 28	33.79	4.39	Aug. 30	33.68	4.50
Mar. 31	33.51	4.67	Sept. 29	33.28	2.90
Apr. 27	33.12	5.06	Oct. 27	33.41	4.77
May 26	32.69	5.49	Dec. 1	33.52	4.66
June 23	32.80	5.38			

S 1 (Well 11 in 597-B, p. 117). James Fleming, Southbury. Dug domestic well, diameter 2 feet, depth 23.0 feet. Cased in till on slope. Measuring point, top of south side of wooden curb, 2.8 feet above land-surface. Water level Oct. 4, 1913, 22.5 feet below measuring point and 19.7 feet below land-surface datum.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 13	15.99	June 7	15.69	Aug. 7	16.93	Oct. 25	16.12
25	15.65	21	16.06	28	17.38	Nov. 9	16.15
May 8	15.28	July 11	16.70	Sept. 26	16.42	28	15.80
23	15.47	24	16.93	Oct. 13	16.18		

Wb 1. Waterbury Ash Removing Co., Thomaston Avenue, Waterbury. Drilled well, diameter 6 inches, depth 82.2 feet. Cased in stratified drift in valley. Measuring point, top of 6-inch casing, at land surface.

## Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Apr. 29, 1943	9.05	Sept. 16	10.72	Jan. 29, 1944	10.01
May 6	8.85	22	10.89	Feb. 7	10.30
14	8.65	Oct. 1	10.97	12	10.43
25	8.55	8	10.92	21	9.96
29	7.90	16	10.82	28	9.88
June 5	8.46	23	10.71	Mar. 6	10.13
11	9.01	30	10.15	13	9.36
21	9.67	Nov. 10	9.35	18	8.89
28	9.90	20	9.67	25	8.40
July 14	10.30	27	9.70	Apr. 1	8.87
21	10.50	Dec. 6	9.94	10	9.00
28	10.56	15	10.12	17	8.47
Aug. 6	10.56	23	10.23	24	8.80
12	10.67	30	10.36	May 2	8.48
26	10.79	Jan. 7, 1944	10.22	10	8.85
Sept. 1	10.85	14	10.47	17	9.49
8	10.85	22	10.41	23	9.70

## Wb 1. Waterbury Ash Removing Co.--Continued.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
May 30	9.86	Aug. 7	10.75	Oct. 17	10.40
June 5	18.10	15	10.68	23	10.20
7	9.89	21	10.73	31	10.40
19	10.36	28	10.92	Nov. 14	10.47
27	9.95	Sept. 5	10.97	21	9.68
July 5	10.40	11	10.99	29	8.85
10	10.50	18	9.42	Dec. 6	8.80
17	10.66	25	9.77	13	8.37
25	10.73	Oct. 4	10.12	27	9.28
Aug. 1	10.57	10	10.22		

Wb 14. Eastern Industrial Welding Co. 100 Eagle Street, Waterbury. Unused drilled industrial well, diameter 8 inches, depth 80 feet. Cased in stratified drift in valley. Measuring point, top of 6-inch casing, 9.7 feet below land-surface. Measurements discontinued on June 10, 1944.

Water level, in feet below land-surface datum, 1943-44

Apr. 29, 1943	15.51	Oct. 30	16.72	Feb. 12, 1944	16.69
June 12	15.54	Nov. 6	16.55	19	16.12
19	15.76	July 17	16.36	26	16.04
Aug. 7	16.40	24	16.42	Mar. 4	16.51
18	16.40	31	16.49	11	15.60
21	16.60	Nov. 13	15.74	18	15.59
28	16.68	20	16.04	25	15.40
Sept. 4	16.70	27	16.00	Apr. 1	15.57
11	16.77	Dec. 4	16.19	8	15.10
18	16.81	11	16.34	15	15.36
June 26	16.01	18	16.63	22	15.49
July 3	16.09	25	16.64	29	15.28
10	16.14	Jan. 1, 1944	16.68	6	15.71
Sept. 25	16.97	8	16.42	13	14.82
Oct. 2	16.90	15	16.64	20	16.12
9	16.93	22	16.59	27	16.28
16	16.90	30	16.67	June 3	16.68
23	16.78	Feb. 5	16.59	10	16.63

Wb 16. Chase Brass Co., Waterville. Unused drilled industrial well, diameter 10 inches, depth 86 feet. Cased in stratified drift in valley. Measuring point, top of seat of manhole cover, at land-surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	13.92	Aug. 8	13.56	May 9	13.90	June 6	13.13
17	13.49	29	13.98	Sept. 27	12.04	20	13.37
Mar. 3	13.35	Mar. 29	11.64	Oct. 13	12.48	July 12	13.02
18	12.52	Apr. 12	14.82	24	12.30	Nov. 10	13.03
July 25	13.84	26	13.59	May 25	15.80	29	11.36

Wb 23. Waterbury Button Co., South Main Street, Waterbury. Unused driven industrial test well, diameter 2 inches, depth 27.3 feet. Cased in stratified drift in valley. Measuring point, top of 2-inch casing, at land surface. Measurements discontinued on Apr. 12, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Feb. 2	16.47	Mar. 3	16.36	Mar. 29	15.35
17	16.08	18	15.55	Apr. 12	15.43

Wb 25. U. S. Time Corporation. Cherry Street and Cherry Avenue, Waterbury. Unused drilled industrial well, diameter 8 inches, depth 540 feet. Rock well situated on a slope. Measuring point, top of 6-inch casing at land surface.

## Wb 25. U. S. Time Corporation--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	7.98	Apr. 12	5.21	June 20	7.68	Sept. 27	5.80
17	8.04	26	4.28	July 12	8.01	Oct. 13	6.33
Mar. 3	7.64	May 9	5.72	25	8.26	24	6.30
18	6.12	24	6.48	Aug. 8	8.40	Nov. 10	6.45
30	5.36	June 7	7.23	29	8.62	29	4.79

Wb 60. Sommers Brass Co., Baldwin Avenue, Waterbury. Unused drilled industrial well, diameter 10 inches, depth 300 feet. Rock well on hilltop. Measuring point, top of 10-inch casing, 5 feet below land-surface. Measurements discontinued on Aug. 29, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 17	52.85	Apr. 26	34.97	June 6	25.22	July 25	27.55
30	44.56	May 9	24.06	20	39.17	Aug. 8	32.36
Apr. 13	43.50	25	25.50	July 12	22.36	29	41.74

Wb 70. Thomaston Avenue dump. Thomaston Avenue, Waterbury. Used dug domestic well, diameter 2 feet, measured depth 19.5 feet. Cased in stratified drift in valley. Measuring point, top of northwest side of wooden curb, 2 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	16.23	Apr. 12	15.15	June 20	16.45	Sept. 27	15.91
17	15.98	26	13.08	July 12	16.69	Oct. 13	16.49
Mar. 3	16.14	May 9	14.84	25	16.87	24	16.33
18	15.18	25	15.82	Aug. 8	16.76	Nov. 10	16.65
29	14.74	June 6	16.24	29	17.01	29	15.17

Wb 74. Frank Wood. About 2,000 feet northwest of Chestnut Hill Road, just west of town line, Waterbury. Used drilled domestic well, diameter 6 inches, depth 83 feet. Rock well on hilltop. Measuring point, top of casing, 5 feet below land surface. Measurements discontinued Dec. 20, 1944.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Oct. 18, 1943	29.00	Sept. 19, 1944	19.00	July 31, 1944	25.00
28	27.00	26	18.50	Aug. 7	25.80
Nov. 5	24.40	Oct. 3	19.70	14	27.00
12	19.60	11	19.00	21	27.50
19	17.30	Mar. 24	18.70	29	27.90
26	17.80	31	18.50	Sept. 5	29.00
Dec. 3	18.00	Apr. 7	18.80	12	29.80
10	18.60	14	19.00	Oct. 17	24.60
17	19.00	21	14.00	24	24.00
Jan. 7, 1944	20.40	May 1	13.90	Nov. 1	23.80
Mar. 4	18.10	8	13.70	8	24.00
10	20.90	15	15.70	15	22.50
17	18.90	22	16.00	28	15.00
June 5	17.90	29	17.60	Dec. 5	14.30
12	18.70	July 10	25.50	12	11.70
19	20.00	17	24.80	20	13.70
26	19.80	24	24.70		

Wb 93. Mrs. William Nichols, Sr., 118 Pearl Lake Road, Waterbury. Unused dug domestic well, diameter 4 feet, depth 32.8 feet. Cased in stratified drift on a slope. Measuring point, bottom edge of northwest corner of stone well cover, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	27.26	Apr. 26	26.39	July 12	28.00	Oct. 12	27.40
Mar. 2	26.99	May 9	26.05	25	28.10	25	27.68
18	26.68	24	26.96	Aug. 8	28.18	Nov. 10	27.77
28	26.53	June 6	27.36	29	28.39	30	26.50
Apr. 12	26.60	20	27.65	Sept. 27	27.18		

Wb 99. John McNamara, Hill Avenue, Waterbury. Unused dug domestic well, diameter 3 feet, depth 30.9 feet. Rock well on a slope. Measuring point, top of south side of wooden curb, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	26.17	Apr. 26	26.01	July 25	26.02	Oct. 12	26.15
Mar. 2	26.20	May 9	25.79	Aug. 8	26.04	25	26.18
18	26.17	24	25.80	29	26.06	Nov. 10	26.18
28	26.15	June 6	25.91	Sept. 27	26.10	30	26.14
Apr. 12	26.08	July 12	25.98				

Wb 119. James O'Connor, 947 Pearl Lake Road, Waterbury. Dug domestic well, diameter 2 feet, depth 27.6 feet. Cased in till on a slope. Measuring point, top of west side of wooden curb, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	5.87	Apr. 26	4.01	July 12	8.18	Oct. 12	5.68
Mar. 2	5.35	May 9	5.01	25	9.57	25	5.38
18	4.50	24	5.46	Aug. 8	10.15	Nov. 10	5.57
28	4.46	June 6	6.31	29	12.34	30	2.93
Apr. 12	4.82	30	6.86	Sept. 27	5.11		

Wb 130. Charles De Bisschop, 141 Peach Orchard Road, Waterbury. Used dug domestic well, diameter 2 feet, depth 29.3 feet. Cased in till on a hilltop. Measuring point, top of wooden cover, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	9.63	Apr. 26	1.42	July 12	12.75	Oct. 12	10.00
Mar. 2	8.84	May 9	3.48	25	15.20	25	11.36
18	5.61	24	5.13	Aug. 8	13.36	Nov. 10	12.18
28	7.67	June 6	6.68	29	15.19	30	2.30
Apr. 12	4.35	20	9.44	Sept. 27	7.55		

Wb 167. Carmen Cefratti, Plank Road, Waterbury. Unused dug domestic well, diameter 3 feet, depth 16.4 feet. Cased in stratified drift in a valley. Measuring point, top of south side of cement coping, 2.5 feet above land-surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	9.68	Apr. 26	7.45	July 12	9.97	Oct. 12	10.44
Mar. 2	9.55	May 9	8.39	25	10.36	25	10.23
18	8.99	24	8.67	Aug. 8	10.54	Nov. 10	10.51
28	8.51	June 6	9.06	29	11.01	30	8.51
Apr. 12	8.49	20	9.47	Sept. 27	9.90		

Wb 176. Mrs. Frank Bergin, 535 Scott Road, Waterbury. Unused dug domestic well, diameter 2 feet, depth 16.4 feet. Cased in till on a slope. Measuring point, edge of north side of cement curb, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	9.03	Apr. 26	3.55	July 12	11.70	Oct. 12	9.62
Mar. 2	9.38	May 9	5.27	25	12.53	25	9.20
18	7.98	24	7.20	Aug. 8	13.20	Nov. 10	9.57
28	6.31	June 6	8.66	29	14.48	30	4.24
Apr. 12	5.29	20	10.10	Sept. 27	9.83		

Wb 179. Paul Daunis, 320 Scott Road, Waterbury. Unused dug domestic well, diameter 2 feet, measured depth 29.0 feet. Cased in till on a slope. Measuring point, top of north side of wooden curb, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	12.44	Apr. 26	7.46	July 12	18.44	Oct. 12	14.30
Mar. 2	12.64	May 9	7.98	25	19.95	25	12.81
18	11.55	24	9.19	Aug. 8	21.09	Nov. 10	12.24
28	10.81	June 6	12.35	29	22.15	30	7.82
Apr. 12	9.44	20	15.32	Sept. 27	14.91		

Wb 188. Paul Rechenberg, 183 Scott Road, Waterbury. Unused drilled domestic well, diameter 4 inches, depth 46.5 feet. Rock well on a slope. Measuring point, top of casing, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	23.07	Apr. 26	19.66	July 12	25.29	Oct. 12	24.25
Mar. 2	23.23	May 9	21.22	Aug. 25	26.18	Nov. 25	24.44
18	22.15	24	22.52	Aug. 8	26.96	Nov. 10	24.61
28	21.58	June 6	22.75	29	28.21	30	20.66
Apr. 12	21.65	20	23.40	Sept. 27	24.21		

Wb 191. John French, 2472 East Main Street, Waterbury. Dug domestic well, diameter 3 feet, depth 37.9 feet. Cased in till on a slope. Measuring point, top of north side of wooden curb, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	22.03	Apr. 26	19.56	July 12	22.43	Oct. 12	22.84
Mar. 2	21.88	May 9	18.15	25	23.10	25	22.65
18	21.74	24	19.26	Aug. 8	22.99	Nov. 10	22.86
28	21.14	June 6	20.64	29	23.71	30	22.27
Apr. 12	19.94	20	21.21	Sept. 27	23.72		

Wb 198. E. L. Bronson, Pierpont Road, Waterbury. Used dug domestic well, diameter 2 feet, depth 30.9 feet. Cased in till on a slope. Measuring point, top of south side of wooden curb, 3.6 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	15.10	Apr. 26	12.77	July 12	14.85	Oct. 12	16.15
Mar. 2	15.36	May 9	11.46	25	15.76	25	16.09
18	15.37	24	12.35	Aug. 8	16.52	Nov. 10	16.07
28	15.17	June 6	14.13	29	18.25	30	14.54
Apr. 12	14.58	20	14.66	Sept. 27	17.67		

Wb 210. John Rasco, 4280 East Main Street, Waterbury. Used dug domestic well, diameter 4 feet, measured depth 14.1 feet. Cased in stratified drift in a valley. Measuring point, top of south side of cement curb, which is 2 feet above land surface.

Water level, in feet above land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	8.28	Apr. 26	5.78	July 12	10.29	Oct. 12	8.96
Mar. 2	8.57	May 9	7.73	25	10.46	25	8.66
18	7.36	24	8.53	Aug. 8	9.87	Nov. 10	8.98
28	6.54	June 6	9.00	29	11.02	30	6.60
Apr. 12	7.25	20	9.46	Sept. 27	8.11		

Wb 234. Arcanoglo Amicone, 577 Woodtick Road, Waterbury. Unused dug domestic well, diameter 15 inches, depth 24.3 feet. Cased in stratified drift in a valley. Measuring point, inner edge of top of tile casing on south side, 2 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	20.09	Apr. 26	17.66	July 12	19.86	Oct. 12	19.49
Mar. 2	19.85	May 9	16.85	25	20.26	25	19.48
18	19.45	24	17.36	Aug. 8	20.51	Nov. 10	19.92
28	19.01	June 6	18.25	29	20.84	30	18.57
Apr. 12	18.49	20	19.07	Sept. 27	19.65		

Wb 236. C. W. Faber, 864 Woodtick Road, Waterbury. Unused dug domestic well, diameter 2 feet, depth 12.1 feet. Cased in stratified drift in a valley. Measuring point, top of east side of stone casing, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	7.44	Apr. 26	2.67	July 12	6.36	Oct. 12	6.63
Mar. 2	6.76	May 9	3.03	25	7.22	25	6.72
18	5.51	24	3.17	Aug. 8	7.46	Nov. 10	7.58
28	2.87	June 6	4.05	29	8.15	30	2.27
Apr. 12	2.67	20	4.19	Sept. 27	5.30		

Wb 249. Nick Gugliotti, Stefano Avenue, Waterbury. Unused drilled domestic well, diameter 4 inches, depth 62.0 feet. Rock well on a hilltop. Measuring point, top of south side of casing, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	10.85	Apr. 26	6.91	July 12	10.66	Oct. 12	10.92
Mar. 2	10.82	May 9	6.30	25	11.41	25	10.91
18	10.58	24	7.35	Aug. 8	12.13	Nov. 10	10.86
28	9.84	June 6	8.18	29	13.18	30	9.00
Apr. 12	7.24	20	9.23	Sept. 27	12.18		

Wb 261. F. A. Alcott, Wolcott Road, Waterbury. Used dug domestic well, diameter 2 feet, depth 32.2 feet. Cased in till on a slope. Measuring point, top of south side of wooden curb, 3 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	22.45	Apr. 26	8.35	July 12	19.19	Oct. 12	25.15
Mar. 2	23.45	May 9	10.36	25	21.97	25	25.48
18	24.02	24	11.85	Aug. 8	24.66	Nov. 10	24.73
28	22.57	June 6	13.78	29	28.08	30	19.95
Apr. 12	18.58	20	15.19	Sept. 27	25.46		

Wb 336. The Bristol Co., Platts Mills Road, Waterbury. Unused drilled industrial well, diameter 8 inches, depth 56.5 feet. Cased in stratified drift in a valley. Measuring point, top of casing, 7 feet below land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 20	17.60	Aug. 8	19.65	Oct. 13	18.89	Nov. 10	18.32
July 12	18.52	29	20.40	24	17.96	29	16.06
25	19.47	Sept. 27	19.03				

Wb 340. Connecticut Light & Power Co., Eagle Street, Waterbury. Unused driven industrial well, diameter 2 inches, depth 40 feet. Cased in stratified drift in a valley. Measuring point, top of casing, at land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 8	23.26	Sept. 28	17.95	Oct. 24	17.81	Nov. 29	16.54
29	18.40	Oct. 13	18.14	Nov. 10	17.83		

### Windham County

P-1 (U. S. 94). W. P. Lewis, Pleasant Street. Unused dug domestic well, diameter 3 feet, depth 34.3 feet. Cased in unconsolidated material. Measuring point, top of north side of stone well curb, at land surface.

Water level, in feet below land-surface datum, 1942-44

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1942	30.84	July 1, 1943	30.08	Apr. 3, 1944	31.01
Nov. 2	30.98	Aug. 3	30.65	May 2	30.50
Dec. 1	30.92	Sept. 1	30.97	June 2	30.15
Jan. 4, 1943	28.79	Oct. 2	31.36	July 3	30.43
Feb. 1	29.02	Nov. 2	31.61	Aug. 1	30.80
Mar. 1	29.14	Dec. 2	31.47	Sept. 1	31.24
Apr. 1	29.31	Jan. 3, 1944	31.63	Oct. 3	30.69
May 1	29.60	Feb. 3	31.72	Nov. 2	30.75
June 3	29.69	Mar. 2	31.68	Dec. 2	30.44

## DELAWARE

By G. D. DeBuchananne

### PROGRAM OF WORK

The program of ground-water investigation in Delaware was begun in 1943 in cooperation with the town of Lewes and the city of Rehoboth Beach. The wells included in this report are located at Fort Miles, which lies between these two municipalities.

The investigations have been limited to these two municipalities and adjacent areas in an attempt to determine the extent of salt-water encroachment in aquifers from which the municipalities draw their public supplies.

Measurements were made on two observation wells in this area. One well is equipped with an automatic water-stage recorder and the other is measured once a week. Both wells show tidal fluctuations and at least one is affected by pumpage. The record on these two wells is not long enough to draw any conclusions as to the trend of water-level fluctuations.

Precipitation in Delaware for 1944 was 0.80 inch above normal. The months of May through August had deficient rainfall which totaled 6.38 inches. Even with the heavy precipitation that accompanied the September 14 hurricane, it was not until November that the accumulated precipitation for the year was above normal again.

The pumpage at Lewes, is not metered but is estimated to average about 300,000 gallons daily. In Rehoboth Beach the pumpage average is about 270,000 gallons daily. It varies, however, from a high of about 800,000 gallons a day in the summer to a low of about 100,000 gallons daily during the winter months.

### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

#### Sussex County

S-1. U. S. War Department. Fort Miles test well 1. About 1 mile southeast of Lewes. Drilled well, diameter 6 inches, depth 92 feet. Measuring point, top of casing, 2.5 feet above land-surface datum which is 22.4 feet above mean sea level. Highest observed water, 15.7 feet below land-surface Apr. 28, 1944; lowest, 18.3 feet below land-surface June 17, 1944. Water-level affected by tide and pumping of nearby wells.

## S-1. U. S. War Department--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 7	17.0	Apr. 26	16.6	May 15	16.9	June 3	17.0
8	17.0	27	16.5	16	16.8	4	16.8
9	17.0	28	16.4	17	16.8	5	17.0
10	16.9	29	16.5	18	16.8	6	17.0
11	16.9	30	16.5	19	16.8	7	17.1
12	16.7	May 1	16.6	20	16.9	8	17.2
13	16.9	2	16.6	21	16.9	9	17.2
14	17.0	3	16.6	22	16.9	10	17.2
15	16.9	4	16.7	23	16.8	11	17.2
16	16.8	5	16.7	24	16.7	12	17.4
17	16.8	6	16.7	25	16.8	17	18.3
18	16.9	7	16.6	26	16.9	18	18.2
19	17.0	8	16.8	27	16.9	19	18.1
20	17.0	9	16.9	28	17.0	25	17.0
21	16.9	10	16.9	29	17.0	26	17.8
22	16.8	11	16.9	30	16.9	July 9	17.5
23	16.8	12	17.0	31	17.0	10	17.5
24	16.7	13	17.0	June 1	17.1	11	17.3
25	16.6	14	17.0	2	16.9	12	17.4

S-2. U. S. War Department. Fort Miles test well 2. About 1 mile southeast of Lewes. Jetted well, diameter 2 inches, depth 57 feet. Measuring point, top of casing, 4.0 feet above land-surface datum, which is 22.15 feet above mean sea level. Highest observed water level, 14.9 feet below land-surface May 9, 1944; lowest, 17.5 feet below land surface July 24, 1944. Water level affected by tide.

Water level, in feet below land-surface datum, 1944

Apr. 11	16.1	May 9	14.9	May 30	16.3	July 8	17.4
18	16.2	16	16.2	June 6	16.4	24	17.5
25	15.8	23	16.0	July 1	16.9	Dec. 28	16.7
May 2	15.0						



## INDIANA

By F. H. Klaer, Jr., and J. G. Ferris

The observation-well program in Indiana was continued during 1944 as a part of the State-wide investigation of water resources in cooperation with the Indiana Department of Conservation, the Indiana State Highway Commission, and the Indiana State Board of Health. The main purpose of the ground-water phase of the investigation is to inventory the ground-water supplies of the State, to determine the seasonal range in fluctuation and the general trends in ground-water levels, and to determine the relations of changes in ground-water storage to stream flow, precipitation, and lake levels.

The program in Indiana during 1944 was directed toward the investigation of ground-water conditions in critical areas where large quantities of water are pumped for municipal and war-production purposes. A detailed investigation of ground-water conditions in the South Bend area, in cooperation with the city of South Bend, was started in August. Brief detailed investigations of local problems pertaining to water supply for war production were made in about 10 smaller areas in the State.

The observation-well program in Indiana was expanded during 1944 as part of the larger water-resources investigation. In December 1943 the program included 53 wells, in which measurements of water level were made at weekly, semimonthly and monthly intervals. Two of these wells were equipped with automatic water-stage recorders. During 1944 measurements of water level were being made in 131 wells. During the year 78 wells were added, and 9 wells were dropped from the program. Of the remaining 122 wells, 4 were measured at irregular intervals, 11 once a month, 21 twice a month, 63 once a week, 4 daily, and 19 were equipped with water-stage recorders. Approximately 5,000 individual measurements of water level were made and about 3,200 additional water levels were computed from recorder charts. The locations of wells included in the program in December 1944 are shown in figure 4.

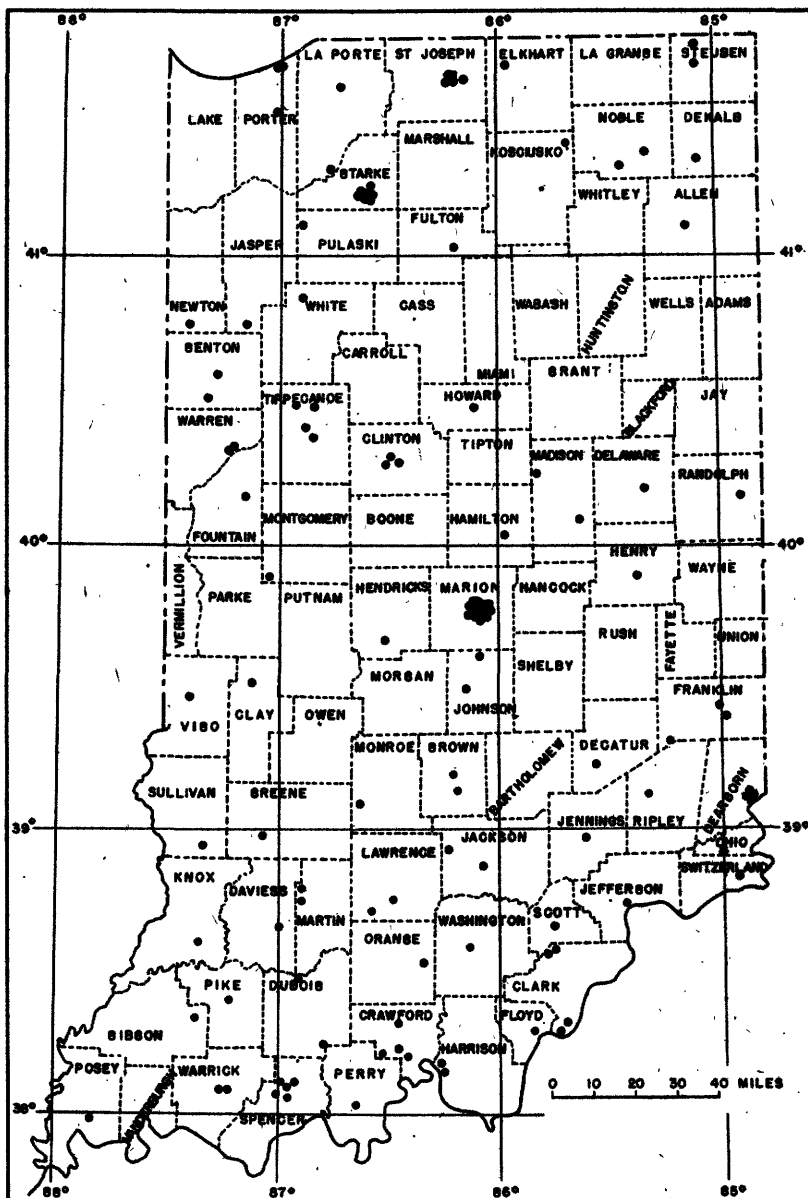


Figure 4.--Map of Indiana, showing location of observation wells, 1944.

In order to maintain a continuous record of water levels in which all measurements are comparables, an arbitrary datum plane has been established for each well. This datum approximates the land surface at the well, to which all measurements are referred. In this way confusion resulting from changes in measuring point is minimized.

#### PRECIPITATION

The annual precipitation for Indiana during 1944 averaged 33.83 inches over the State, or 5.25 inches below the average for the 58-year period of record. Precipitation was above normal in February, March, April, May, and August. A moderately severe drought followed the spring rains. Deficient precipitation during June, July, and early August caused widespread damage to crops.

The precipitation for different sections of the State is summarized in the following table.

Precipitation, in inches, in Indiana during 1944				
Section	Average annual precipitation	Departure from average	Wettest month	Driest month
Northern	32.20	-3.56	April (5.83)	January (0.59)
Central	31.80	-7.12	April (6.95)	January (.38)
Southern	35.72	-6.83	April (5.81)	January (.88)
Entire State	33.83	-5.25	April (6.20)	January (.62)

Ground-water supplies were generally adequate, although precipitation was below normal from August until the end of the year and shortages were reported at several localities.

#### FLUCTUATIONS OF WATER LEVEL

This data on water levels in observation wells in Indiana are summarized in the following table:

Water levels in observation wells in Indiana,  
in feet below land-surface datum

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on last date of record
		Water level	Date	Water level	Date	
Adams 1 a/	May 27, 1944	52.45	Dec. 11, 1944	46.18	June 2, 1944	52.37
Allen 3 a/	May 25, 1944	11.52	Sept. 21, 1944	8.88	May 25, 1944	11.04
			Oct. 19, 1944			
Bartholomew 1	Sept. 16, 1944	12.53	Nov. 11, 1944	11.00	Sept. 16, 1944	12.30
Benton 1 a/	May 25, 1944	47.60	Nov. 2, 1944	37.38	June 1, 1944	43.98
Benton 2	May 25, 1944	15.58	Dec. 28, 1944	8.43	June 1, 1944	15.58
Brown 2 a/	Dec. 8, 1936	17.65	Jan. 1, 1940	3.26	Jan. 21, 1937	5.82
			Feb. 1, 1940			
Brown 3	Dec. 8, 1936	11.40	Nov. 11, 1938	b .30	Feb. 2, 1943	9.12

See footnotes at end of table.

Water levels in observation wells in Indiana,  
in feet below land-surface datum--Cont.

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on last date of record
		Water level	Date	Water level	Date	
Clark 1	Dec. 2, 1936	26.69	Dec. 31, 1944	1.30	Feb. 15, 1937	26.69
Clark 2	Dec. 2, 1936	24.46	Nov. 29, 1944	.05	June 3, 1943	24.32
Clark 3	Aug. 26, 1943	33.99	May 12, 1944	31.29	Dec. 11, 1944	31.62
Clark 4 a/	Nov. 24, 1943	27.82	July 9, 1944	18.95	Apr. 17, 1944	27.32
Clark 5	Feb. 21, 1944	17.86	Feb. 21, 1944	9.95	June 2, 1944	16.44
Clay 2 a/	Feb. 11, 1944	19.67	Feb. 11, 1944	8.45	Apr. 16, 1944	10.25
Clinton 1 a/	Feb. 7, 1944	54.38	Dec. 2, 1944	47.12	May 20, 1944	51.90
Clinton 2 a/	Feb. 7, 1944	71.11	Dec. 3, 1944	64.64	May 22, 1944	69.02
Clinton 3 a/	Apr. 20, 1944	38.90	Sept. 23, 1944	20.67	Dec. 4, 1944	25.16
Crawford 1 a/	Mar. 3, 1944	11.21	Aug. 22, 1944	2.25	Apr. 14, 1944	9.86
Crawford 2	July 27, 1944	7.26	Dec. 22, 1944	4.98	July 27, 1944	6.27
Crawford 3	July 27, 1944	16.57	Dec. 16, 1944	15.70	Oct. 27, 1944	16.57
Crawford 4	Aug. 22, 1944	31.43	Oct. 31, 1944	31.23	Aug. 28, 1944	31.36
Davess 1	Feb. 24, 1944	28.30	Mar. 2, 1944	23.57	Aug. 31, 1944	25.56
Dearborn 1-la	Nov. 15, 1943	91.69	Sept. 21, 1944	63.85	Apr. 29, 1944	89.90
Dearborn 1-7a	Sept. 30, 1944	83.55	Sept. 30, 1944	80.03	Nov. 21, 1944	80.45
Dearborn 1-8a	Oct. 6, 1944	107.89	Oct. 12, 1944	99.86	Dec. 26, 1944	103.70
Dearborn 2 a/	Sept. 21, 1944	67.95	Nov. 20, 1944	65.20	Oct. 4, 1944	65.70
			Nov. 26, 1944			
			Dec. 4, 1944			
Dearborn 3	Sept. 21, 1944	58.00	Nov. 26, 1944	56.85	Sept. 21, 1944	57.50
Dearborn 4	Sept. 21, 1944	45.50	Nov. 13, 1944	44.60	Oct. 4, 1944	44.67
			Nov. 20, 1944			
Decatur 1	Sept. 8, 1944	5.95	Nov. 3, 1944	3.45	Dec. 29, 1944	3.45
Dekalb 1 a/	Nov. 24, 1936	14.50	Aug. 15, 1944	5.5	May 26, 1943	7.50
Dubois 2	Dec. 1, 1936	17.89	Dec. 1, 1943	5.77	May 15, 1943	17.52
Dubois 5	July 28, 1944	22.16	Dec. 29, 1944	20.70	July 28, 1944	22.16
Elkhart 1 a/	Oct. 15, 1935	19.00	Dec. 21, 1943	8.3	Dec. 16, 1935	10.20
Floyd 1	Dec. 21, 1943	47.06	Nov. 13, 1944	13.39	Apr. 18, 1944	41.47
			Nov. 14, 1944			
Floyd 2	Dec. 21, 1943	47.48	Feb. 18, 1944	11.90	Apr. 18, 1944	42.99
Floyd 3	Dec. 21, 1943	22.23	Feb. 18, 1944	8.78	Apr. 18, 1944	15.18
Floyd 4	Dec. 21, 1943	30.23	Feb. 18, 1944	15.00	Apr. 18, 1944	26.44
Floyd 5	Dec. 21, 1943	33.80	Feb. 18, 1944	14.24	Apr. 18, 1944	28.75
Floyd 6	Feb. 4, 1944	20.08	Feb. 28, 1944	11.72	June 2, 1944	16.15
Fountain 1	May 26, 1944	42.19	Nov. 24, 1944	34.32	June 14, 1944	42.06
Franklin 1 a/	Dec. 8, 1936	31.71	Oct. 16, 1939	21.64	Jan. 18, 1937	30.00
Franklin 3	Mar. 16, 1944	22.30	Nov. 4, 1944	15.60	Apr. 11, 1944	22.23
Franklin 4 a/	Feb. 18, 1944	30.93	Dec. 29, 1944	16.86	Apr. 7, 1944	30.93
Fulton 3	Sept. 10, 1935	10.10	Feb. 1, 1940	3.27	June 3, 1943	9.45
Gibson 1	Aug. 24, 1944	20.64	Oct. 12, 1944	16.10	Dec. 21, 1944	16.27
Greene 1	Feb. 21, 1944	9.57	Dec. 18, 1944	.87	Apr. 10, 1944	9.51
Hamilton 2 a/	Nov. 2, 1935	27.33	Sept. 15, 1941	14.71	May 19, 1943	24.80
Harrison 1	Dec. 2, 1936	5.65	Nov. 15, 1941	.00	Apr. 15, 1939	1.91
Harrison 3	Oct. 25, 1938	7.80	Sept. 30, 1941	2.00	Mar. 21, 1939	7.37
Hendricks 1	Feb. 25, 1944	8.24	Dec. 25, 1944	(c)	Apr. 17, 1944	8.24
					Apr. 24, 1944	
Howard 3 a/	Nov. 25, 1941	21.49	Aug. 28, 1944	11.73	Apr. 25, 1944	20.98
Jackson 1	Dec. 3, 1936	11.40	Oct. 14, 1941	1.2	Apr. 15, 1939	8.30
Jackson 2	Feb. 16, 1944	18.87	Feb. 16, 1944	12.20	May 22, 1944	13.41
Jasper 2 a/	May 24, 1944	7.34	Sept. 27, 1944	.87	May 24, 1944	6.68
Jefferson 2	Mar. 3, 1937	32.50	Aug. 16, 1943	27.60	Aug. 2, 1939	30.00
Jennings 1	Dec. 3, 1936	16.98	Dec. 15, 1943	1.86	Jan. 15, 1937	15.98
Johnson 1	Feb. 22, 1944	10.45	Oct. 25, 1944	2.61	Apr. 11, 1944	9.15
			Oct. 31, 1944			
Knox 1	Aug. 24, 1944	37.05	Dec. 21, 1944	36.70	Aug. 24, 1944	37.04
Kosciusko 2	Nov. 3, 1938	2.35	Nov. 3, 1938	4.33	May 1, 1944	3.41
La Porte 1 a/	July 4, 1942	15.50	July 18, 1942	4.61	Nov. 13, 1943	7.68
La Porte 2	July 2, 1942	6.90	Feb. 16, 1944	1.07	June 1, 1943	6.30
			Oct. 1, 1944			

See footnotes at end of table.

Water levels in observation wells in Indiana,  
in feet below land-surface datum--Cont.

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on last date of record
		Water level	Date	Water level	Date	
Lawrence 1 a/	Feb. 24, 1944	21.93	July 6, 1944	15.00	Mar. 30, 1944	21.81
Lawrence 2	Feb. 23, 1944	21.51	Mar. 15, 1944	19.60	Apr. 26, 1944	21.38
Madison 2 a/	Oct. 16, 1935	18.40	July 5, 1944	10.90	Nov. 15, 1938	17.80
Madison 5 a/	May 22, 1944	48.31	Oct. 5, 1944	31.99	May 22, 1944	37.00
Marion 1 a/	Aug. 1, 1935	37.46	Aug. 5, 1941	13.85	Apr. 16, 1938	19.26
Marion 2 a/	Oct. 15, 1935	71.55	Sept. 21, 1941	47.44	Apr. 12, 1938	55.75
Marion 3 a/	Oct. 15, 1935	71.16	Oct. 7, 1941	50.00	Mar. 29, 1938	60.95
Marion 4 a/	Dec. 3, 1937	15.72	May 27, 1941	6.32	Apr. 16, 1938	5.37
Marion 9 a/	July 26, 1939	62.48	Oct. 3, 1942	43.38	Mar. 26, 1941	58.70
Marion 10 a/	Aug. 2, 1939	70.78	Aug. 29, 1941	50.64	Feb. 13, 1940	60.92
Marion 11 a/	July 30, 1939	24.20	Sept. 29, 1941	10.10	May 21, 1943	.....
Marion 12 a/	July 17, 1939	25.19	Sept. 20, 1940	11.50	May 21, 1943	.....
Marion 13 a/	Jan. 12, 1928	(d)	Sept. 22, 1930	b 2.19	Jan. 20, 1932	(f)
Marion 14 a/	June 3, 1929	(e)	Nov. 1, 1930	11.75	Jan. 18, 1937	18.35
Marion 16 a/	Mar. 19, 1940	14.38	May 1, 1944	56.65	Jan. 28, 1941	100.16
Marion 18	Oct. 11, 1943	27.70	Dec. 31, 1944	22.71	June 2, 1944	27.70
Marion 19	Oct. 18, 1943	21.35	Dec. 30, 1944	17.12	May 22, 1944	21.35
Marion 20 a/	Apr. 17, 1944	83.18	Aug. 7, 1944	66.36	May 8, 1944	76.24
Marion 21 a/	Mar. 28, 1944	67.28	Aug. 4, 1944	57.24	May 8, 1944	61.36
Marion 22 a/	Apr. 11, 1944	90.40	July 14, 1944	67.80	Apr. 12, 1944	78.05
Marion 24	Nov. 1, 1944	14.29	Dec. 11, 1944	13.95	Nov. 1, 1944	14.24
Martin 3	Mar. 1, 1944	22.38	Dec. 11, 1944	19.15	Apr. 13, 1944	22.36
Martin 4	Mar. 1, 1944	12.56	Dec. 2, 1944	2.40	Mar. 8, 1944	12.45
Monroe 3	Sept. 15, 1944	27.31	Dec. 30, 1944	26.79	Oct. 5, 1944	27.31
Montgomery 1	Sept. 27, 1935	15.45	Nov. 16, 1940	4.78	Jan. 15, 1937	12.08
Morgan 1	Dec. 7, 1936	11.95	Oct. 15, 1940	4.10	May 1, 1943	.....
Morgan 2	Jan. 31, 1944	11.64	Oct. 24, 1944	4.20	Apr. 1, 1944	11.64
Newton 2 a/	May 25, 1944	51.80	Sept. 9, 1944	44.28	May 25, 1944	50.10
Noble 2	Oct. 9, 1935	28.20	Sept. 15, 1936	5.40	Apr. 16, 1939	22.62
Noble 3	Oct. 9, 1935	25.50	Dec. 14, 1935	11.60	May 18, 1939	20.90
Noble 5	May 1, 1942	8.89	Dec. 15, 1944	.49	May 17, 1943	8.39
Ohio 1	Sept. 7, 1944	13.46	Dec. 23, 1944	12.89	Sept. 7, 1944	13.46
Orange 1	Mar. 1, 1944	14.49	Mar. 1, 1944	(c)	Apr. 9, 1944	13.40
Perry 1	Mar. 3, 1944	10.12	Aug. 13, 1944	2.22	Dec. 31, 1944	2.22
Pike 1	Dec. 1, 1936	12.94	Dec. 30, 1944	6.80	Apr. 29, 1944	12.94
Porter 1 a/	Oct. 16, 1935	57.34	Oct. 16, 1937	50.63	Aug. 3, 1943	56.55
Porter 2 a/	Oct. 18, 1935	13.80	Oct. 18, 1935	10.10	Nov. 16, 1943	11.10
Porter 3 a/	Oct. 18, 1935	17.30	Dec. 23, 1940	13.80	July 1, 1937	14.90
Posey 1	Feb. 17, 1944	16.10	Feb. 27, 1944	5.50	Apr. 16, 1944	14.83
Pulaski 1	Dec. 1, 1935	10.05	Nov. 2, 1944	7.39	Apr. 29, 1939	10.05
Randolph 1 a/	Feb. 8, 1942	18.12	Dec. 31, 1944	12.39	Apr. 15, 1944	18.12
Ripley 1	Sept. 7, 1944	12.90	Nov. 4, 1944	11.60	Oct. 27, 1944	12.90
St. Joseph 1 a/	Oct. 16, 1935	13.34	Aug. 1, 1941	4.46	May 25, 1943	9.83
St. Joseph 16-1 a/	June 28, 1944	31.27	Aug. 16, 1944	28.59	Nov. 8, 1944	28.79
St. Joseph 16-F a/	Dec. 5, 1909	21.63	Nov. 29, 1944	13.99	Dec. 5, 1909	21.46
St. Joseph 22 a/	June 8, 1944	43.46	Aug. 5, 1944	31.31	Dec. 27, 1944	33.42
St. Joseph 25-3 a/	Sept. 29, 1944	31.38	Oct. 6, 1944	29.28	Sept. 30, 1944	31.30
Scott 1 a/	May 4, 1942	27.61	Dec. 2, 1944	16.50	June 22, 1942	24.57
Spencer 4	Mar. 2, 1944	8.26	Oct. 7, 1944	1.91	Mar. 18, 1944	3.48
Spencer 5	Mar. 2, 1944	31.55	Dec. 20, 1944	23.50	Mar. 8, 1944	31.35
Spencer 6	Aug. 23, 1944	30.25	Nov. 22, 1944	29.79	Oct. 4, 1944	30.10
Spencer 7	Aug. 23, 1944	11.31	Dec. 23, 1944	8.88	Dec. 9, 1944	9.63
Spencer 8	Aug. 23, 1944	8.23	Nov. 11, 1944	7.18	Dec. 30, 1944	7.18

See footnotes at end of table.

Water levels in observation wells in Indiana,  
in feet below land-surface datum--Cont.

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on last date of record
		Water level	Date	Water level	Date	
Starke 1 a/	Oct. 3, 1935	15.94	Sept. 15, 1941	11.28	June 1, 1943	15.45
Starke 2 a/	Oct. 3, 1935	6.19	Sept. 15, 1941	1.15	Mar. 16, 1944	4.60
Starke 3 a/	Oct. 3, 1935	5.45	Sept. 15, 1941	.00	Apr. 17, 1944	4.30
Steuben 1	Sept. 16, 1935	4.72	Nov. 1, 1935	-1.00	June 2, 1943	3.70
Steuben 2	Sept. 16, 1935	6.40	Dec. 1, 1941	.03	Apr. 15, 1939	6.35
Sullivan 1	Aug. 24, 1944	15.38	Nov. 5, 1944	10.80	Sept. 2, 1944	13.72
Switzerland 1	Sept. 7, 1944	21.90	Dec. 2, 1944	15.03	Sept. 28, 1944	21.75
Tippecanoe 1	Jan. 15, 1937	48.25	Oct. 31, 1941	40.00	Jan. 30, 1937	45.56
Tippecanoe 3	Oct. 15, 1935	15.30	Dec. 14, 1940	.00	Apr. 15, 1939	12.00
Tippecanoe 4a/	Apr. 24, 1944	22.16	Aug. 13, 1944	2.97	May 11, 1944	15.30
Tippecanoe 5a/	Apr. 24, 1944	89.16	Dec. 2, 1944	87.83	May 1, 1944	88.56
Warren 1	May 26, 1944	18.84	Aug. 26, 1944	10.92	May 26, 1944	17.30
Warrick 1	Dec. 1, 1936	21.15	Dec. 1, 1936	16.70	Mar. 1, 1944	19.70
Warrick 2	Feb. 18, 1944	15.47	Feb. 18, 1944	2.58	May 18, 1944	11.00
Washington 1	Feb. 15, 1944	12.25	June 6, 1944	7.16	Mar. 27, 1944	12.07
White 1 a/g/	Dec. 4, 1935	20.34	Oct. 3, 1941	8.00	Apr. 3- June 8, 1935	19.09

a Affected by pumping from nearby wells.

b Above land-surface datum.

c Flowing.

d Dry at 6.00 feet.

e Dry at 22.96 feet.

f Dry.

g No record Sept. 10, 1936, to Oct. 3, 1941.

h Water flowing over top of casing 8.0 feet below land surface.

It should be noted that of the 48 wells for which records of water level are available for a period of at least 5 years, the highest water level for the period of record occurred during 1944 in 7 wells. Also, the lowest water levels for the period of record occurred during 1944 in 7 wells. Many of the wells in which the lowest water levels occurred are in areas of large ground-water withdrawals and are affected by pumping from nearby wells.

The net changes in water level during 1944 in observation wells for which records are available are given below. The net change is the difference in the water level obtained by measurements nearest to December 31, 1943 and December 31, 1944. It should be realized that the lowest water levels during the winter of 1943-44 were generally not reached until February 1944, while the lowest water levels during the winter of 1944-45 were generally reached in December 1944 and January 1945. It should be remembered also that the average precipitation for the year was more than 5 inches below normal. The combined result of these factors should be a net average decline in water level during 1944 and this is confirmed by well records in the following table.

Net changes, in feet, in water levels in observation wells  
in Indiana during 1944

Well	Net rise (+) or net decline (-)	Well	Net rise (+) or net decline (-)
Clark 1	-1.40	Marion 10 <u>a/</u>	-2.64
Clark 2	-10.98	Marion 16 <u>a/</u>	-.99
Clark 3 <u>a/</u>	+1.78	Marion 18	-1.69
Clark 4 <u>a/</u>	-.52	Marion 19	-1.15
Dearborn 1-1 <u>a/</u>	-3.20	Montgomery 1	+ .77
De Kalb 1 <u>a/</u>	.00	Noble 3	+1.20
Dubois 2	+ .37	Noble 5	-1.05
Fulton 3	-1.19	Pike 1	-.82
Harrison 1	+ .35	Porter 1 <u>a/</u>	-6.70
Harrison 3	+1.92	Porter 2 <u>a/</u>	-.50
Jackson 1	+2.10	Porter 3 <u>a/</u>	-1.30
Jennings 1	+1.02	Randolph 1 <u>a/</u>	-.79
La Porte 1 <u>a/</u>	-1.48	St. Joseph 1 <u>a/</u>	-.50
Marion 1 <u>a/</u>	-2.02	Steuben 1	-1.40
Marion 2 <u>a/</u>	-3.57	Steuben 2	-1.95
Marion 3 <u>a/</u>	-5.02	Warrick 1	-1.40
Marion 4 <u>a/</u>	-1.85	White 1 <u>a/</u>	+3.95
Marion 9 <u>a/</u>	-1.49		

a Affected by pumping from nearby wells.

During January 1944, the water levels generally declined, reaching the lowest stages for the winter in February. Heavy rains in March, April, and May caused all wells to rise rapidly, generally reaching their highest observed water levels in June. From July through December the water levels in most wells declined, largely because of the deficiency in precipitation during the growing season when peak water demands by plant life was satisfied by withdrawals from ground-water storage, and a continued deficiency of precipitation in the last part of the year when recharge would normally occur. Excessive rainfall during August had little effect on the declining water levels.

In order to show the relations of water levels in Indiana during 1944 to water levels during other years, the graphs of water level in three wells, Clark 1, near Henryville, Montgomery 1, at Waveland, and Steuben 1, near Angola, are shown in figure 5. It may be seen that the water levels during the past 10 years in these wells have shown little permanent decline. The years of extreme low levels correspond closely to the years of deficient precipitation. These wells are believed to reflect only natural fluctuations of water level and are not affected by pumping from nearby wells.

In order to show examples of trends in ground-water levels in areas of large pumpage of ground water, the graphs of two observation wells, Marion 2, ending in gravel, and Marion 10, ending in limestone, in the

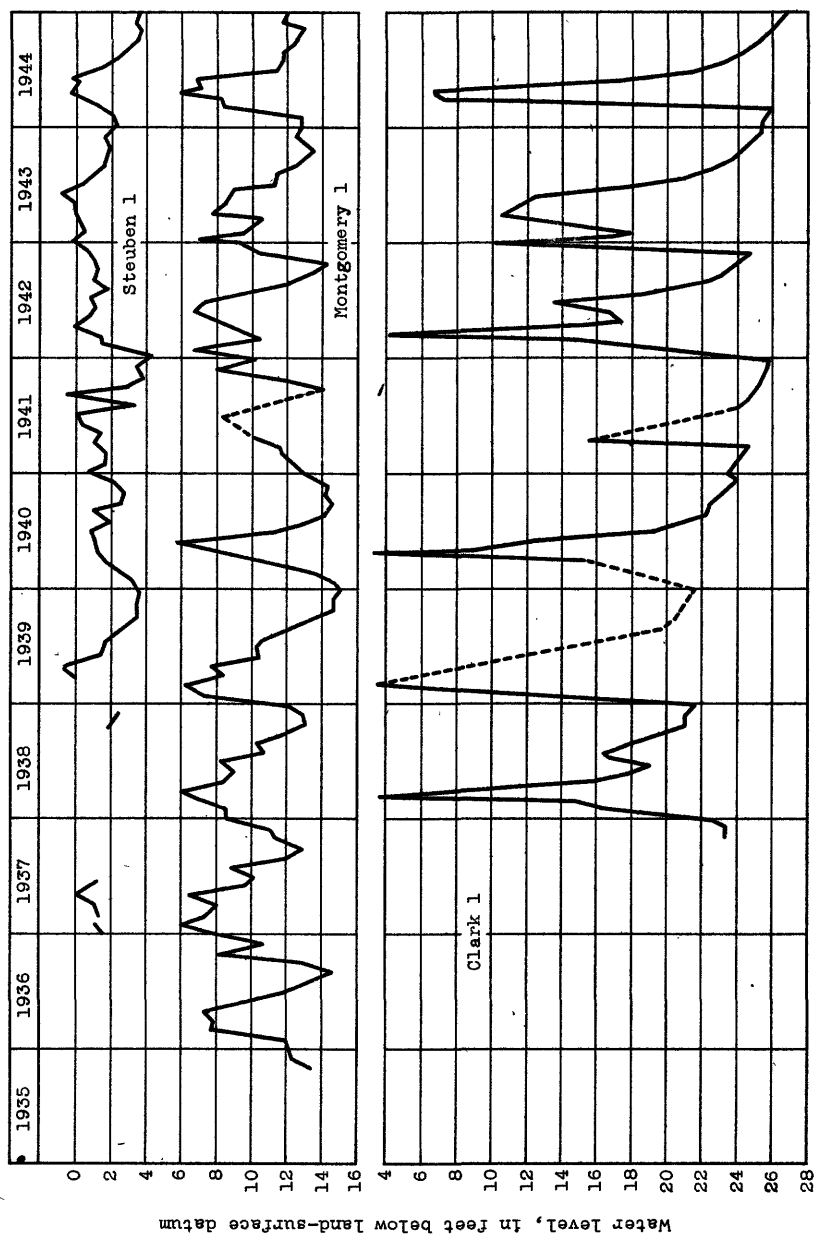


Figure 5.—Graphs showing fluctuations of water level in three wells in Indiana that represent widely separated parts of the State. These wells are not affected by pumping.



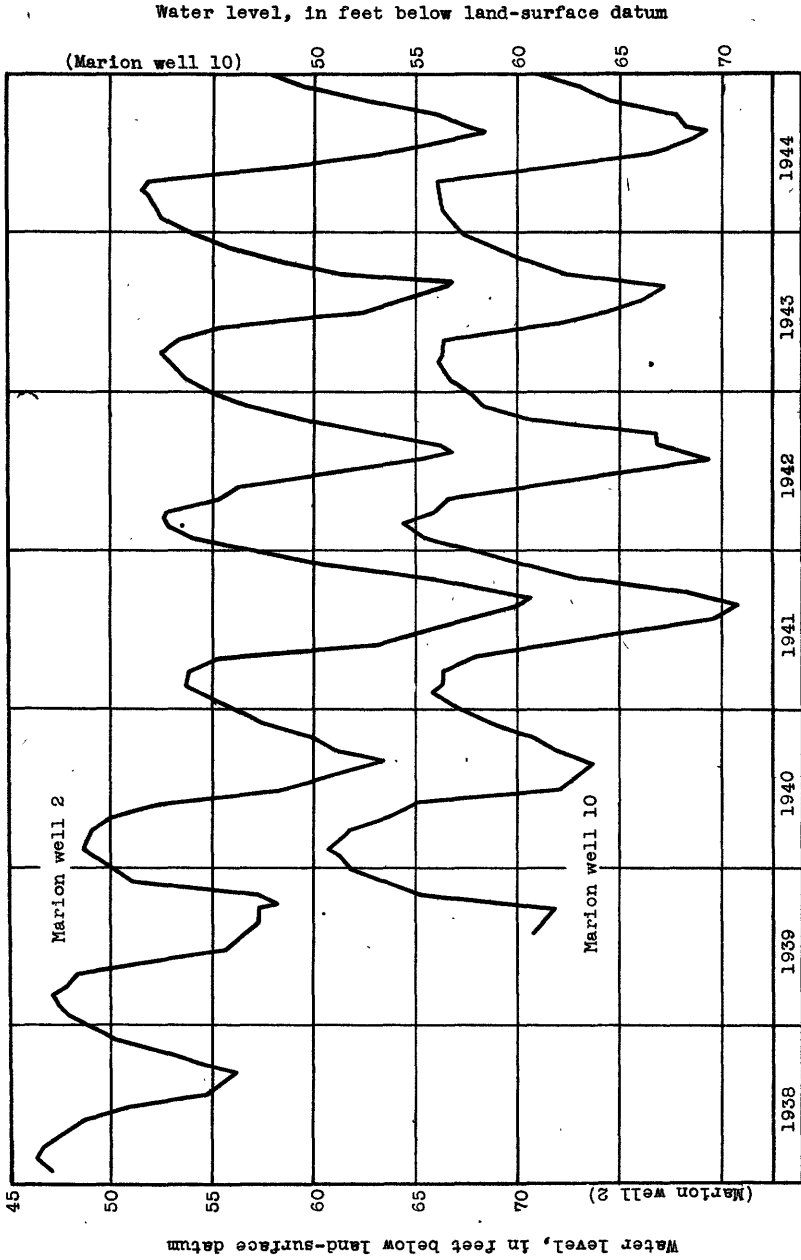


Figure 6.--Graphs showing fluctuations of water level in two wells in the downtown area of Indianapolis, Ind.

Indianapolis area, are shown in figure 6. It is evident that, although the lowest levels reached during 1944 were lower than those reached during 1943, they were still several feet above the lowest levels reached during 1941.

In order to correct several errors in records which have been published in previous water-supply papers, a table of corrections is included below.

Water-supply paper	Page	Well	Date	Correct measurement
817	44	Boone 1	Aug. 1	12.15
			Nov. 15, 1935	25.50
		Boone 3	Jan. 16	20.82
			May 1	22.25
	45	Fulton 1	Nov. 2	28.04
			Nov. 15, 1936	4.54
			Feb. 15	11.82
		Fulton 2	add May 16	8.40
			June 1	9.30
		Fulton 3	July 3	10.90
			Oct. 16, 1935	10.07
	47	Jasper 1	Jan. 2, 1936	16.78
	48	Madison 2	Feb. 1	16.40
			June 5	15.83
			Oct. 15, 1935	24.79
		Madison 3	Nov. 1, 1935	25.07
			Nov. 1, 1935	9.51
		Madison 4	Nov. 15, 1935	9.51
			Jan. 15, 1936	7.62
		Montgomery 1	Dec. 2, 1936	7.92
			May 1, 1936	7.80
		Montgomery 2	Apr. 1, 1936	2.74
			May 1, 1936	2.60
	51	Porter 5	July 15, 1936	39.95
840	73	Boone 3	Jan. 5	26.58
	76	Fulton 1	Nov. 15	4.24
		Fulton 2	July 1	11.35
	77	Hamilton 2	Feb. 1	19.65
		Harrison 1	Nov. 1	2.92
	79	Madison 1	Feb. 15	2.80
			Mar. 10	2.10
		Madison 2	Feb. 2	14.70
	80	Madison 3	Mar. 1	14.70
			Sept. 2	23.25
		Montgomery 1	Aug. 2	10.20
	82	Montgomery 2	Aug. 2	3.49
	84	Porter 1	add Dec. 1	53.63
	85	Pulaski 1	June 15	5.35
		Pulaski 2	Mar. 15	3.40
		Pulaski 2	June 2	4.10
		Pulaski 2	Aug. 21	5.46
		Pulaski 4	Feb. 16	5.22
		Tippecanoe 1	Jan. 30	30.08
	87	Tippecanoe 3	Aug. 17	7.84
		Tippecanoe 3	Oct. 1	9.91
845	72	Franklin 1	July 5	29.03
	75	Madison 2	Feb. 3	15.53
	82	Pulaski 1	May 2	5.13
				.....

Water-supply paper	Page	Well	Date	Correct measurement
	84	Tippecanoe 1	June 2	.....
		Tippecanoe 2	June 2	23.20
			July 1	23.46
			Aug. 1	25.62
886	104	Marion 9	Dec. 12	47.73
	108	Porter 1	Aug. 15	51.32
			Oct. 16	51.41
	108	Porter 5	May 31	43.50
906	24	Jackson 1	Jan. 2	8.60
			Apr. 1	5.60
			15	4.60
			May 1	4.50
936	24	Clark 1	July 15	23.66
	27	Howard 1	add Nov. 25	17.20
			Dec. 18	17.40
	33	Marion 9	Aug. 1	54.19
	41	Tippecanoe 1	June 2	36.52
			16	36.52
944	28	Marion 2	Nov. 28	37.68
	37	Stauben 2	Sept. 10	6.80

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

Adams 1. City of Decatur. In Decatur, 50 feet north of Park Street and 120 feet east of North Fifth Street. Unused drilled well, diameter 8 inches, depth 244.2 feet. Measuring point, top of pump base, which is 1.80 feet above pump house floor and 1.80 feet above land-surface datum. First measured May 27, 1944. Measurements made by Ralph Roop, city engineer.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 27	47.10	June 5	47.00	July 22	49.11	Nov. 28	51.95
29	47.20	6	46.97	Aug. 12	47.53	Dec. 4	51.95
31	46.70	7	46.85	26	48.37	11	52.45
June 1	47.20	July 11	48.30	Nov. 8	51.03	20	52.12
2	46.18	17	48.60	18	51.70	27	52.37
3	46.70						

Allen County

Allen 3. City of Fort Wayne. In Fort Wayne, at Lawton Park, about 700 feet east of Clinton Street and about 800 feet north of East Fourth Street. Unused drilled well, diameter 8 inches, depth about 400 feet, ending in limestone. Measuring point, top of 8-inch flange, 1.20 feet above land-surface datum. First measured May 25, 1944. Measurements made by Dudley G. Lester.

## Water level, in feet below land-surface datum, 1944

May 25	8.88	July 20	10.54	Sept. 14	11.39	Nov. 9	11.22
June 1	9.11	27	11.06	21	11.52	16	11.16
8	9.28	Aug. 3	11.15	28	11.49	23	11.02
17	9.51	10	11.14	Oct. 5	11.39	30	11.06
22	9.74	17	11.27	12	11.37	Dec. 7	10.96
29	10.02	24	11.32	19	11.52	14	11.01
July 6	10.19	31	11.30	26	11.42	21	11.05
13	10.25	Sept. 7	11.39	Nov. 2	11.54	28	11.04

Bartholomew County

Bartholomew 1. Thomas J. Merritt. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 20, T. 8 N., R. 5 E., half a mile south of Ogilville, Ohio township. Unused dug well, diameter 42 inches, depth 18.6 feet. Measuring point, top edge of stone curbing on west side of well, at land-surface datum. First measured Sept. 16, 1944. Measurements made by Thomas J. Merritt. Measurements discontinued Dec. 5, 1944.

## Water level, in feet below land-surface datum, 1944

Sept. 16	11.00	Oct. 14	12.08	Nov. 4	12.48	Nov. 24	12.15
23	11.38	21	12.20	11	12.53	Dec. 3	12.27
30	11.70	28	12.10	18	12.37	5	12.30
Oct. 7	12.00						

Benton County

Benton 1. Northern Indiana Public Service Co. In Fowler, NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 15, T. 25 N., R. 8 W., South Van Buren Street, 2 $\frac{1}{2}$  blocks south of U. S. Highway 52. Unused drilled well, diameter 10 inches, depth 114.2 feet, ending in limestone. Measuring point, top of milled "T" on 10-inch casing, 2.00 feet above land-surface datum. First measured May 25, 1944. Measurements made by D. C. Daily, Northern Indiana Public Service Co., Fowler.

## Benton 1. Northern Indiana Public Service Co.--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 25	37.47	July 6	39.05	Oct. 5	41.20	Nov. 30	41.08
June 1	37.38	Aug. 3	39.97	12	47.50	Dec. 7	43.10
8	39.20	31	41.97	19	46.89	14	46.67
15	38.00	Sept. 14	43.20	26	41.60	21	43.47
22	38.80	21	46.92	Nov. 2	47.60	28	43.98
29	38.50	28	42.07	9	47.00		

Benton 2. City of Boswell. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 24 N., R. 9 W., near northeast corner of intersection of U. S. Highway 41 and State Highway 352. Unused drilled gravel-wall well, diameter 30 inches, depth 37.4 feet. Measuring point, top of vent pipe on east side of pump, 1.85 feet above land-surface datum. First measured May 25, 1944. Measurements made by Chas. W. Brady.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 25	8.73	July 21	10.10	Sept. 7	13.00	Nov. 9	14.35
June 1	8.43	27	10.19	14	13.41	16	15.07
8	9.24	Aug. 3	10.55	21	13.71	24	14.76
15	9.28	10	11.54	28	13.64	30	15.16
22	9.18	17	11.84	Oct. 20	14.19	Dec. 15	14.88
29	9.94	24	12.03	27	14.55	21	15.43
July 6	9.84	31	12.20	Nov. 2	14.88	28	15.58
13	9.92						

## Boone County

Boone 1 (\*817, p. 43; 840, p. 73; 845, p. 70; 886, p. 97; 906, p. 21; 936, p. 23; 944, p. 23; 986, p. 25). Leland H. Dale. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 23, T. 18 N., R. 1 W., about 3 miles south of Lebanon along State Highway 39. No measurements made in 1944.

Boone 2 (\*817, p. 43; 840, p. 73; 845, p. 70; 886, p. 97; 906, p. 21; 936, p. 23; 944, p. 23; 986, p. 25). R. W. Gorrell. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4, T. 18 N., R. 1 E., at east end of abandoned schoolhouse on south side of State Highway 32, about 3 miles east of Lebanon. No measurements made in 1944.

## Brown County

Brown 2 (\*840, p. 73; 845, p. 70; 886, p. 98; 906, p. 21; 936, p. 23; 944, p. 23; 986, p. 25). Brown County State Park. Near head of valley northwest of Blockhouse. Measurements made by Ted Rains, Brown County State Park.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	10.30	Oct. 7	9.58	Nov. 11	10.15	Dec. 2	9.01
Mar. 1	3.50	14	9.31	18	10.02	9	8.45
Sept. 16	9.16	25	9.71	23	9.22	16	6.55
23	9.33	28	9.80	28	9.01	26	5.82
30	9.57	Nov. 4	10.01				

Brown 3 (\*840, p. 74; 845, p. 70; 886, p. 98; 906, p. 21; 936, p. 23; 944, p. 23; 986, p. 25). Brown County State Park. In front of Hoosier's. Nest cabin, near tower at entrance to Brown County Game Preserve. Measurements made by Ted Rains, Brown County State Park.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	7.50	Oct. 7	8.92	Nov. 11	9.18	Dec. 2	9.19
Mar. 1	.90	14	9.08	18	9.20	9	9.20
Sept. 16	8.71	25	9.14	23	9.15	16	9.18
23	8.86	28	9.14	28	9.19	26	9.12
30	8.91	Nov. 4	9.16				

Clark County

Clark 1 (\*840, p. 74; 845, p. 70; 886, p. 98; 906, p. 21; 936, p. 24; 944, p. 23; 986, p. 25). Clark State Forest. Sec. 36, T. 2 N., R. 6 E. Schlamm well, on west side of trail 9, about an eighth of a mile north of trail 10, near Henryville. Measuring point beginning Sept. 7, 1944, top of wood floor of recorder shelter over well, 0.26 foot above previous measuring point and 0.76 foot above land-surface datum. Automatic water-stage recorder installed Sept. 6, 1944. Measurements made by Orman Neville, Clark State Forest.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	25.51	Mar. 15	21.45	May 15	12.35	July 15	22.50
31	25.62	31	7.58	31	16.90	28	23.15
Feb. 15	25.87	Apr. 15	6.87	June 15	19.58	Aug. 16	23.87
29	25.99	30	7.06	30	21.37	28	24.20

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Sept.	Oct.	Nov.	Dec.
1	.....	a 25.13	a 25.86	26.31
2	.....	25.15	25.88	26.34
3	.....	25.17	a 25.90	26.38
4	.....	25.19	a 25.91	26.42
5	.....	25.21	25.93	a 26.45
6	.....	a 25.23	25.95	26.46
7	24.40	25.25	25.98	26.44
8	24.44	25.27	26.00	26.43
9	24.48	25.30	.....	26.43
10	24.51	25.33	26.01	26.44
11	24.55	25.35	26.02	26.46
12	a 24.58	25.37	26.04	a 26.47
13	a 24.60	a 25.39	26.05	a 26.47
14	24.61	a 25.41	26.06	26.49
15	a 24.64	a 25.44	26.06	26.51
16	a 24.67	a 25.48	26.05	26.52
17	24.71	25.51	26.07	26.53
18	24.75	.....	26.10	26.54
19	24.78	25.56	26.13	26.55
20	24.81	25.58	26.13	26.57
21	24.83	25.60	26.14	26.59
22	a 24.86	25.62	26.16	26.61
23	24.89	25.66	26.18	26.63
24	24.92	25.68	26.19	26.66
25	24.96	a 25.70	26.21	26.67
26	24.99	a 25.73	26.22	26.66
27	25.03	a 25.75	26.24	26.68
28	25.05	a 25.77	26.26	26.67
29	a 25.07	25.79	26.27	26.68
30	a 25.10	25.82	26.29	26.68
31	.....	a 25.84	.....	26.69

a Estimated.

Clark 2 (\*840, p. 74; 845, p. 70; 886, p. 98; 906, p. 21; 936, p. 24; 944, p. 23; 986, p. 25). Clark State Forest. NW $\frac{1}{4}$ , lot 282, Clark Military Grant. At Purdue camp site. Measurements made by Orman Neville, Clark State Forest.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	13.55	May 15	2.01	Sept. 6	12.48	Nov. 8	12.76
31	13.68	31	3.99	13	12.46	15	a 24.41
Feb. 15	13.70	June 15	5.40	20	12.49	29	24.46
29	13.68	30	7.55	Oct. 4	12.40	Dec. 6	24.37
Mar. 15	13.33	July 15	9.90	18	12.60	13	24.30
31	10.90	28	11.36	25	12.73	20	24.37
Apr. 15	6.71	Aug. 16	12.56	Nov. 1	12.69	27	24.32
30	2.21	28	12.60				

a Pumped dry.

Clark 3 (\*986, p. 26). Public Service Co. of Indiana. Jeffersonville public water-supply well field, Tenth and Fulton Streets, Jeffersonville. Measurements made by T. Himmel, Public Service Co. of Indiana.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.59	33.21	33.64	33.83	33.86	.....	33.30	31.42	31.72	32.33	31.90	31.77
2	33.59	33.58	33.60	33.82	33.94	.....	33.32	31.46	31.77	31.91	32.07	31.94
3	33.41	33.40	33.53	33.86	33.94	.....	33.10	31.55	31.60	31.90	32.07	32.03
4	33.43	33.38	33.53	33.85	33.75	.....	32.95	32.69	31.52	32.34	32.04	31.87
5	33.42	33.34	33.55	33.83	33.75	33.49	32.88	32.75	31.58	32.36	31.30	32.14
6	33.44	33.36	33.60	33.85	33.88	33.54	32.90	32.56	31.64	32.34	31.99	32.05
7	33.46	33.30	33.64	33.88	33.84	33.42	32.89	32.53	31.73	32.74	31.81	32.03
8	33.50	33.44	33.63	33.92	33.80	33.15	.....	32.61	31.57	32.64	31.83	32.01
9	33.64	33.34	33.75	33.84	33.91	32.89	33.12	32.72	31.59	32.31	31.88	31.99
10	33.70	33.39	33.75	33.93	33.96	32.73	32.97	32.77	31.58	32.34	31.94	32.21
11	33.72	33.40	33.75	33.75	33.98	32.60	33.14	32.75	31.59	32.16	31.97	31.29
12	33.74	33.42	33.65	33.83	33.99	32.45	33.10	32.88	31.52	32.23	32.23	31.36
13	33.52	33.41	33.72	33.85	33.96	32.31	33.03	32.82	31.44	32.30	31.80	31.38
14	33.60	33.44	33.82	33.75	33.94	32.48	32.87	32.47	31.46	32.34	31.84	31.43
15	33.63	33.43	33.75	33.84	33.82	32.48	32.82	32.49	.....	32.32	31.79	31.46
16	33.40	33.43	33.74	33.83	33.82	32.55	32.82	32.59	.....	32.34	31.81	31.45
17	33.54	33.44	33.76	33.90	33.75	32.56	32.84	32.50	.....	32.35	31.93	31.64
18	33.20	33.64	33.75	33.88	33.80	32.71	32.80	32.66	31.76	32.31	31.95	31.64
19	33.12	33.53	33.65	33.92	33.82	32.50	32.81	32.60	31.89	32.23	32.09	31.61
20	33.13	33.64	33.65	33.93	33.88	33.55	32.79	32.60	32.01	32.28	31.77	31.58
21	33.20	33.63	33.65	33.93	33.86	33.42	32.59	32.05	31.76	32.35	31.72	31.57
22	33.20	33.64	33.71	33.94	33.75	32.47	32.19	32.02	31.88	32.27	31.63	31.57
23	33.41	33.64	33.68	.....	33.72	32.55	33.41	31.92	31.99	31.84	31.63	31.53
24	33.14	33.67	33.72	.....	33.64	32.75	33.27	31.87	31.98	31.81	31.64	31.64
25	33.59	33.69	33.74	.....	33.53	32.45	33.28	31.89	32.05	31.91	31.69	31.63
26	33.58	33.69	33.73	.....	33.57	32.62	33.31	31.88	31.98	32.04	31.73	31.60
27	33.56	33.72	33.75	.....	33.72	33.00	33.01	31.91	31.99	32.09	31.56	.....
28	33.58	33.57	33.79	.....	33.55	33.25	32.86	31.96	31.96	32.15	31.58	31.64
29	33.16	33.65	33.78	.....	33.43	33.29	32.87	31.84	31.93	32.10	31.59	31.65
30	33.39	.....	33.80	33.86	.....	33.23	32.66	31.93	32.27	31.52	31.64	31.69
31	33.39	.....	33.82	.....	.....	.....	32.51	31.91	.....	31.75	.....	31.62

Clark 4 (\*986, p. 26). Public Service Co. of Indiana test well 1. Arctic Springs well field, Jeffersonville. SW $\frac{1}{4}$ SE $\frac{1}{4}$ , log 3 Clark Military Grant, 250 feet north of Ohio River. Automatic water-stage recorder installed Nov. 24, 1943. Measurements made by S. Ginther, Public Service Co. of Indiana.

Water level, at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.85	26.97	26.66	25.14	26.56	.....	27.28	27.40	27.16	27.35	27.23	27.36
2	26.84	27.09	26.62	25.40	26.35	26.82	27.36	27.35	27.28	27.35	27.10	27.38
3	26.69	27.05	26.59	25.72	26.56	.....	27.50	27.38	27.21	27.24	27.19	27.17
4	27.09	27.07	26.48	25.80	26.56	.....	27.43	27.45	27.27	.....	27.33	27.16
5	27.04	26.83	26.44	25.97	26.40	.....	27.63	27.44	27.15	27.28	27.30	27.19
6	27.18	27.19	26.42	26.25	26.44	27.20	27.63	27.40	27.30	27.43	27.29	27.28
7	27.16	27.00	26.36	26.32	26.50	27.10	27.60	27.36	27.51	27.51	27.51	27.30
8	27.08	26.89	26.16	26.51	26.60	27.04	27.72	27.46	27.55	27.35	.....	27.24
9	27.04	26.79	26.02	26.69	26.69	27.19	27.82	27.52	27.54	27.29	27.22	27.23
10	27.13	26.84	25.81	26.59	26.68	27.26	27.68	27.54	27.48	27.27	27.29	27.16
11	27.20	26.72	25.62	26.51	26.60	.....	27.50	27.55	27.39	27.41	27.36	27.16
12	27.28	26.81	25.57	26.15	26.53	.....	27.51	27.55	27.36	27.32	27.35	27.24
13	27.56	26.85	25.70	24.86	26.43	27.33	27.50	27.59	27.41	27.35	27.30	27.13
14	27.29	26.84	25.81	24.52	26.46	27.33	27.56	27.58	27.33	27.32	27.25	27.08
15	26.99	26.98	26.01	21.85	26.52	27.41	27.51	27.54	27.37	27.28	27.21	27.08
16	26.86	26.87	26.18	20.65	26.64	27.37	27.62	27.49	27.55	27.29	27.25	27.16
17	.....	26.95	26.28	18.95	26.61	27.49	27.52	27.50	27.41	27.17	27.16	27.21
18	.....	26.95	26.26	18.96	26.58	27.41	27.59	27.46	27.29	27.36	27.17	27.26
19	.....	26.95	26.22	.....	26.69	27.34	27.49	27.55	27.33	27.36	27.18	27.39
20	.....	26.73	26.18	.....	.....	27.51	27.60	27.54	27.40	27.29	27.20	27.29
21	.....	27.01	26.11	.....	.....	27.66	27.59	27.41	27.44	27.36	27.22	27.24
22	.....	26.90	25.89	.....	.....	27.66	27.56	27.33	27.50	27.27	27.26	27.49

a Estimated.

## Clark 4. Public Service Co. of Indiana test well 1.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	.....	26.90	25.64	.....	26.95	27.63	27.49	27.33	27.25	27.29	27.35	27.46
24	26.79	27.00	24.52	.....	26.80	27.62	27.50	27.42	27.33	27.35	27.20	27.52
25	26.74	27.04	23.62	26.23	26.83	27.39	27.52	27.49	27.37	27.29	27.44	27.42
26	26.81	26.96	22.81	26.40	26.94	27.25	27.43	27.41	27.41	27.15	27.35	27.25
27	26.76	26.87	22.30	26.40	27.00	27.28	27.42	27.45	27.45	27.04	27.29	27.40
28	26.87	26.71	22.48	26.51	26.85	27.25	27.42	27.38	27.48	27.19	27.20	27.53
29	26.88	26.62	22.80	26.53	26.73	27.21	27.52	27.33	27.42	27.30	27.25	27.54
30	26.82	.....	23.69	26.49	26.68	27.13	27.50	27.23	27.33	27.21	27.27	27.42
31	27.01	.....	24.70	.....	26.72	.....	27.44	27.23	.....	27.32	.....	27.32

a Estimated.

Clark 5 (46-17-4). Clark County. About 40 feet north of Kenwood Avenue, about 100 feet east of intersection with Gutford Road, about 0.38 mile east of Silver Creek and about 250 feet north of Ohio River bank in Clark County. Dug stock and domestic well, diameter 36 inches, depth 22 feet. Measuring point, top of brick curbing, 3 feet above land-surface datum. Elevation above mean sea level, not determined. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge. First measured Feb. 21, 1944.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 21	17.86	Apr. 7	13.57	June 20	12.73	Aug. 29	15.89
Mar. 9	17.52	18	10.95	27	13.52	Oct. 3	15.49
15	17.32	25	10.23	July 11	15.86	Dec. 1	16.44
25	16.16	June 2	9.95	Aug. 1	16.55		

## Clay County

Clay 2. Brazil Water Works. In Brazil, about 80 feet west of center-line of Water Works Road and about 150 feet north of State Highway 340. Unused dug well, diameter 14 inches, depth 25.8 feet, ending in sand. Measuring point, top of well curb, at land-surface datum. First measured Feb. 11, 1944. Measurements made by Ted McCoy, Brazil Water Works. Well put back in service and measurements discontinued Dec. 26, 1944.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	19.67	Mar. 27	17.82	May 7	8.47	June 4	9.50
18	19.09	Apr. 3	14.75	14	8.94	11	9.30
26	19.27	9	11.64	21	8.75	18	10.50
Mar. 5	19.26	16	8.45	28	8.80	25	10.25
12	18.54	30	8.47				

## Clinton County

Clinton 1. Frankfort Water Co. In Frankfort, about 380 feet north of Washington Street and about 240 feet east of Jackson Street. Nearest pumped well about 95 feet east. Unused drilled well, diameter 6 inches, depth 79 feet, ending in gravel. Measuring point, top of 6-inch casing, 0.2 foot below land-surface datum. First measured Feb. 7, 1944. Measurements made by S. E. Stern, Frankfort Water Co.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	51.09	Mar. 25	48.80	May 13	47.14	July 1	48.77
12	50.68	Apr. 1	49.01	20	47.12	8	49.45
19	50.73	8	48.96	27	48.92	15	49.12
26	49.78	15	47.92	June 3	48.49	21	49.07
Mar. 4	49.68	22	48.55	10	47.93	29	48.88
13	49.93	29	48.23	17	48.24	Aug. 5	50.36
18	49.72	May 6	47.30	24	48.13	12	49.94



## Clinton 1. Frankfort Water Co.--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 19	50.69	Sept. 30	49.12	Nov. 4	52.69	Dec. 9	52.72
26	50.16	Oct. 7	49.75	11	53.13	16	52.50
Sept. 2	49.76	14	51.39	18	53.34	23	52.49
16	50.06	21	52.07	25	52.58	30	51.90
23	50.16	28	52.32	Dec. 2	54.38		

Clinton 2. Frankfort Ice Co. In Frankfort, about 150 feet west of alley on east side of ice plant and about 60 feet north of centerline of track of Toledo, St. Louis & Western Railroad Co. Unused drilled well, diameter 8 inches, depth 84.6 feet, ending in sand and gravel. First measured Feb. 7, 1944. Measuring point Feb. 7 to Apr. 16, 1944, top of 8-inch casing, 0.51 foot above land-surface datum. Measuring point beginning Apr. 16, 1944, top of shelf of recorder shelter, 0.69 foot above top of 8-inch casing and 1.20 feet above land-surface datum. Automatic water-stage recorder installed Apr. 19, 1944. Measurements made by S. E. Stern, Frankfort Water Co.

Water level, in feet below land-surface datum, 1944

Feb. 7	68.37	Feb. 26	67.60	Mar. 18	67.40	Apr. 8	66.97
12	68.49	Mar. 4	67.37	25	67.01	15	66.96
19	68.39	13	67.80	Apr. 1	66.93		

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	65.95	66.22	66.65	.....	67.30	68.64	69.93
2	.....	.....	65.84	66.09	66.86	.....	67.25	68.79	70.37
3	.....	.....	65.75	66.09	66.88	67.29	67.03	68.81	71.11
4	.....	.....	65.75	66.14	66.97	67.15	67.20	68.93	70.88
5	.....	.....	65.74	66.34	66.90	67.03	67.10	68.99	.....
6	.....	.....	65.68	66.50	66.90	67.18	67.13	68.94	.....
7	.....	65.47	65.81	66.58	66.98	67.42	67.22	68.89	.....
8	.....	65.52	65.72	66.58	67.03	67.44	.....	68.76	.....
9	.....	65.33	65.68	66.63	67.25	67.39	.....	68.68	.....
10	.....	65.55	.....	66.69	67.14	67.36	.....	68.89	69.77
11	.....	65.47	.....	66.47	67.24	67.18	.....	69.34	69.31
12	.....	65.45	.....	66.64	67.32	66.94	.....	69.39	69.30
13	.....	65.15	.....	66.84	67.30	67.00	.....	69.22	69.46
14	.....	65.15	.....	66.83	67.36	67.24	.....	69.06	69.71
15	.....	64.89	.....	66.66	67.64	67.39	68.01	68.98	69.61
16	.....	64.71	.....	66.47	.....	67.56	68.08	69.23	69.43
17	.....	64.71	65.56	66.45	.....	67.57	68.07	69.73	69.76
18	.....	64.79	65.63	66.35	.....	67.39	67.82	69.71	69.79
19	.....	64.88	65.35	66.28	.....	67.30	67.81	69.75	69.77
20	66.41	64.90	65.48	66.28	68.57	67.22	67.96	69.22	69.80
21	66.40	64.85	65.51	66.43	67.63	67.17	68.02	69.52	69.60
22	66.41	64.64	65.46	66.44	67.51	67.44	68.44	69.60	69.95
23	66.19	64.82	65.35	66.38	.....	67.57	68.24	69.48	69.68
24	65.70	65.09	65.54	66.19	.....	67.67	68.07	69.68	69.72
25	65.99	65.37	65.65	66.42	.....	67.46	68.18	69.80	69.40
26	66.26	.....	65.41	66.50	.....	67.52	68.52	69.52	69.67
27	66.12	.....	65.62	66.38	.....	67.19	68.78	69.30	69.44
28	66.44	65.99	65.83	66.47	.....	67.27	68.69	69.85	69.47
29	66.44	65.94	66.21	66.50	.....	67.37	68.62	69.66	69.52
30	.....	66.00	66.20	66.55	.....	67.13	68.60	69.61	.....
31	.....	65.91	.....	66.68	.....	.....	68.61	.....	69.02

Clinton 3. Frankfort Light Plant. In Frankfort, at southeast corner of settling ponds at municipal light plant. Unused drilled well, diameter 10 inches, depth 206.5 feet, ending in fine sand. Water level is affected by pumped well 500 feet north. Measuring point, top of recorder shelter floor, 1.5 feet above land-surface datum. First measured Apr. 20, 1944. Automatic water-stage recorder installed Apr. 20, 1944. Measurements made by S. E. Stern, Frankfort Water Co.

## Clinton 3. Frankfort Light Plant--Continued.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	28.88	28.42	29.88	36.02	36.68	37.35	22.86	21.42
2	.....	28.87	29.65	29.73	33.90	37.01	37.35	.....	21.47
3	.....	29.12	30.70	29.56	35.07	37.02	37.31	.....	21.28
4	.....	.....	31.24	29.41	35.51	36.26	37.82	.....	20.67
5	.....	.....	31.32	29.57	36.08	35.78	37.97	24.86	21.11
6	.....	.....	31.37	29.60	35.75	36.47	38.30	23.82	21.18
7	.....	30.82	31.64	29.93	35.51	37.12	38.47	23.37	23.45
8	.....	31.19	31.71	29.95	35.70	37.39	38.38	22.90	31.83
9	.....	31.18	32.40	29.92	35.80	37.56	37.61	22.66	34.92
10	.....	31.37	32.70	30.05	36.75	37.48	37.86	23.00	35.37
11	.....	30.00	.....	30.22	36.64	36.61	.....	23.34	34.73
12	.....	29.80	.....	33.30	36.66	36.85	.....	24.58	35.04
13	.....	29.80	.....	33.67	36.58	36.80	.....	24.90	35.56
14	.....	28.78	.....	33.98	35.63	37.17	.....	25.43	.....
15	.....	29.66	.....	34.19	35.99	37.48	24.96	24.83	.....
16	.....	30.67	31.00	35.08	35.66	37.76	a25.40	23.70	.....
17	.....	31.26	32.03	34.82	35.48	37.72	.....	23.59	37.01
18	.....	31.55	32.13	35.26	36.20	37.25	a23.15	.....	36.85
19	.....	31.73	32.07	35.76	36.93	37.34	a25.89	22.09	36.85
20	32.13	31.87	32.48	35.75	37.23	38.00	24.87	21.82	37.08
21	32.02	31.70	32.48	35.06	37.33	38.57	25.47	23.18	34.35
22	31.15	31.23	32.67	34.75	37.33	38.60	24.28	.....	30.78
23	29.75	30.45	32.87	35.30	37.29	38.90	22.41	.....	29.61
24	29.35	29.44	32.81	35.35	37.52	38.72	21.93	22.55	28.02
25	30.00	28.58	32.68	35.90	37.89	37.61	22.35	21.87	25.75
26	31.10	28.13	32.55	36.08	38.06	37.82	23.47	21.75	24.61
27	31.47	27.97	32.69	36.00	37.34	38.32	.....	21.05	24.73
28	31.35	27.55	32.91	35.77	36.46	38.69	.....	20.87	24.85
29	27.50	27.57	30.60	35.98	34.83	38.53	22.71	20.79	25.42
30	28.39	27.62	29.69	35.78	35.79	37.95	21.74	21.31	25.30
31	.....	28.87	.....	35.50	36.33	.....	22.27	.....	25.18

a Estimated.

## Crawford County

Crawford 1. J. F. Blevins. In English, SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T. 3 S., R. 1 W., west of State Highway 37, 2.5 miles south of junction with State Highway 64. Unused dug well, diameter 36 inches, depth 17 feet. Measuring point, top of concrete cover on south side, 0.30 foot above land-surface datum. First measured Mar. 3, 1944. Measurements made by Everett Enlow. Well put back in service and measurements discontinued Sept. 21, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 3	7.48	Mar. 31	2.68	Apr. 28	2.45	Aug. 28	10.03
10	7.48	Apr. 7	3.27	Aug. 1	11.10	Sept. 5	10.09
17	7.48	14	2.25	14	11.10	12	10.20
22	4.02	22	2.64	22	11.21	20	9.86
24	3.82						

Crawford 2. Zenis R. Parkhill. In Leavenworth, SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 26, T. 3 S., R. 1 E., 2 miles northwest of Leavenworth, about 400 feet northwest of Mansfield Church and about 30 feet southwest from edge of road. Unused dug well, diameter 42 inches, depth 19 feet, ending in limestone. Measuring point, top of rock slab covering south side of well, 1.00 foot above land-surface datum. First measured July 27, 1944. Measurements made by Zenis R. Parkhill.

## Crawford 2. Zenis R. Parkhill--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 27	4.98	Sept. 8	5.80	Oct. 20	5.85	Dec. 1	6.84
Aug. 4	5.17	15	5.90	27	6.10	8	7.10
11	5.36	22	5.80	Nov. 3	6.30	15	6.46
18	5.46	29	5.81	10	6.45	22	7.26
25	5.64	Oct. 6	5.80	17	5.42	29	6.27
Sept. 1	5.72	13	5.90	24	6.72		

Crawford 3. J. Elmer Faulkenburg. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 3 S., R. 1 W., about 100 feet south of county road, about 50 feet east of Crawford-Perry county line, near St. Croix. Unused dug well, diameter 42 inches, depth 18 feet, ending in limestone (?). Measuring point, top of rock on south-east side of well at land-surface datum. First measured July 27, 1944. Measurements made by J. Elmer Faulkenburg.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 27	15.87	Sept. 2	15.90	Sept. 30	15.96	Nov. 4	16.20
Aug. 5	15.88	9	15.90	Oct. 7	15.98	11	16.24
12	16.04	16	16.14	27	15.70	18	16.20
19	16.02	23	16.10	28	16.14	Dec. 16	16.57
26	15.80						

Crawford 4. Indiana State Highway Commission. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30, T. 2 S., R. 1 E., on north side of State Highway 37. Unused dug well, diameter 42 inches, depth 41.1 feet, ending in rock (?). Measuring point, top of platform over well, east side of hole, at land-surface datum. First measured Aug. 22, 1944. Measurements made by Everett Enlow.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 22	31.25	Sept. 26	31.32	Oct. 23	31.35	Nov. 21	31.34
28	31.23	Oct. 3	31.34	31	31.43	Dec. 13	31.37
Sept. 5	31.28	10	31.29	Nov. 8	31.31	21	31.35
12	31.27	17	31.36	15	31.35	28	31.36
20	31.32						

Daviess County

Daviess 1. John Harbin. In Cannelburg, NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29, T. 3 N., R. 5 W., 50 feet south of post office. Unused dug well, diameter 30 inches, depth 28.3 feet. Measuring point, top of shoulder of bell on east side of well, 0.5 foot below land-surface datum. First measured Feb. 24, 1944. Measurements made by Noah W. Summers.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 24	25.20	May 11	23.86	Aug. 3	24.20	Oct. 26	25.01
Mar. 2	28.30	18	23.75	10	24.27	28	25.04
9	25.70	25	23.68	19	24.60	Nov. 2	25.10
16	25.70	June 1	23.66	24	24.40	9	25.13
21	25.13	8	23.69	31	23.57	16	25.14
23	25.05	15	23.69	Sept. 7	24.57	23	25.10
30	25.07	22	23.80	14	24.61	30	25.12
Apr. 6	24.93	27	23.88	21	24.71	Dec. 7	25.34
13	24.00	July 6	23.90	28	24.74	14	25.10
20	24.62	13	24.00	Oct. 5	24.80	21	25.68
27	24.24	20	24.08	12	24.87	28	25.66
May 4	24.11	27	24.12	19	24.85		

Dearborn County

Dearborn 1-1 (\*986, p. 26). Schenley Distillers, Inc. well 1. Old Quaker plant, Greendale, Lawrenceburg. Automatic water-stage recorder removed Sept. 30, 1944. Measurements made by Frank C. Caveman, Schenley Distillers, Inc. Water levels Jan. 1 to Sept. 30 are at 2:00 a.m. as determined from recorder charts and from Oct. 1 to Dec. 31 are individual tape measurements at 10:30 a.m.

## Dearborn 1-1. Schenley Distillers, Inc.--Continued.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	89.50	.....	87.78	.....	.....	76.12	84.15	89.30	.....	.....	90.85	89.7
2	89.40	.....	87.20	.....	68.10	77.45	84.60	89.30	.....	.....	91.30	91.07
3	.....	.....	87.42	.....	67.73	77.48	84.79	89.20	.....	.....	91.50	.....
4	89.80	.....	85.85	.....	68.40	78.35	84.90	89.45	.....	91.38	90.60	90.4
5	89.67	.....	86.88	69.32	68.81	78.42	.....	89.63	.....	91.32	.....	89.84
6	89.76	.....	86.59	69.72	67.89	78.82	85.52	89.04	90.63	90.15	89.70	90.25
7	90.37	.....	.....	70.00	68.54	79.25	84.98	88.32	90.37	91.64	89.90	90.75
8	90.30	.....	87.47	69.48	69.00	79.18	85.07	88.62	90.24	.....	90.30	89.90
9	.....	.....	87.32	69.65	70.50	79.50	85.83	88.30	90.19	90.85	89.70	90.15
10	.....	88.26	86.20	.....	.....	79.25	85.60	88.99	90.49	90.90	90.60	90.65
11	89.82	86.87	85.95	70.30	70.58	79.40	85.97	89.10	90.13	90.65	90.70	90.23
12	89.62	88.47	85.45	68.60	70.95	79.18	86.50	89.60	91.20	91.31	.....	90.23
13	89.47	88.10	.....	68.62	72.02	80.05	86.88	89.60	91.49	91.35	89.15	89.95
14	.....	86.70	.....	67.61	72.11	80.70	87.26	.....	91.15	90.40	90.67	90.15
15	.....	87.45	.....	68.87	72.75	80.86	87.68	89.75	91.04	.....	89.18	89.7
16	.....	88.07	.....	67.89	73.50	81.12	87.73	89.97	91.79	89.40	88.55	89.56
17	.....	87.55	83.55	66.55	73.58	82.06	87.40	89.48	91.44	90.16	89.08	.....
18	.....	87.55	82.55	.....	74.00	81.78	87.75	89.85	91.12	89.45	89.15	90.4
19	.....	87.50	81.95	66.62	74.40	82.12	87.56	90.28	91.17	90.55	.....	90.15
20	88.87	86.55	80.00	64.63	74.83	82.50	87.83	90.22	91.55	90.35	89.04	90.65
21	87.46	86.80	79.72	.....	74.66	82.70	87.44	89.69	91.69	90.85	88.76	90.40
22	.....	87.55	79.41	.....	75.00	82.30	85.46	90.10	91.55	.....	88.82	90.10
23	.....	88.00	78.39	64.79	75.08	82.93	87.11	90.14	91.45	.....	88.56	89.90
24	.....	87.95	.....	.....	74.50	83.03	87.17	90.47	.....	90.70	88.45	.....
25	.....	88.32	77.48	.....	73.32	83.20	.....	90.62	.....	90.30	90.83	.....
26	.....	87.05	76.52	.....	73.67	82.55	87.92	90.72	.....	90.75	.....	87.25
27	87.56	.....	74.70	.....	73.90	83.25	88.04	90.42	91.20	90.90	87.95	89.10
28	87.37	.....	75.39	65.08	73.95	83.75	88.34	90.29	91.31	90.60	88.2	90.20
29	.....	87.47	75.37	63.85	74.06	83.80	.....	89.68	90.86	.....	88.65	89.65
30	.....	.....	74.40	.....	75.50	84.46	.....	90.62	90.82	90.68	90.25	89.90
31	.....	.....	74.30	.....	76.87	.....	88.58	90.46	.....	90.37	.....	.....

a Well put back into service.

Dearborn 1-7. Schenley Distillers, Inc., well 7. Old Quaker plant, Greendale, Lawrenceburg. Unused drilled well, 625 feet south of Dearborn 1-1, diameter 12 inches, depth 102 feet, ending in gravel. Measuring point, top of 12-inch casing, at land-surface datum, and 496.45 feet above mean sea level. First measured Sept. 30, 1944. Automatic water-stage recorder installed Sept. 30, 1944. Measurements made by Frank C. Caveman, Schenley Distillers, Inc.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 1	82.64	Oct. 19	81.67	Nov. 3	81.86	Nov. 18	80.45
2	82.70	20	81.67	4	81.89	19	80.56
3	82.75	21	81.67	5	81.95	20	80.11
4	82.88	22	81.77	6	81.68	21	80.03
5	82.93	23	81.84	7	81.50	22	80.14
6	83.00	24	81.72	8	81.50	23	80.28
7	83.02	25	81.72	9	81.52	24	80.40
8	83.08	26	81.75	10	81.49	25	80.55
9	83.08	27	81.74	11	81.49	26	80.68
13	82.08	28	81.73	12	81.44	27	80.60
14	82.03	29	81.68	13	80.94	28	80.42
15	81.98	30	81.67	14	80.53	29	80.58
16	81.92	31	81.70	15	80.42	20	80.79
17	81.79	Nov. 1	81.73	16	80.40	Dec. 1	80.95
18	81.70	2	81.80	17	80.39	2	81.09

## Dearborn 1-7. Schenley Distillers, Inc.--Continued.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 3	81.23	Dec. 9	81.41	Dec. 15	81.48	Dec. 21	81.28
4	80.76	10	81.6	16	81.56	22	81.43
5	80.68	11	81.43	17	81.64	23	81.51
6	80.77	12	81.02	18	81.25	24	81.57
7	81.05	13	81.18	19	81.00	25	81.13
8	81.21	14	81.33	20	81.15	26	80.45

a Estimated.

Dearborn 1-8. Schenley Distillers, Inc., well 8. Old Quaker plant, Greendale, Lawrenceburg. Unused drilled well, 1,160 feet northwest of Dearborn 1-1, diameter 12 inches, depth 129 feet, ending in gravel. Measuring point, top of 12-inch casing, at land-surface datum, and 506.60 feet above mean sea level. First measured Oct. 6, 1944. Company-owned automatic water-stage recorder installed Oct. 6, 1944. Measurements made by Frank C. Caveman, Schenley Distillers, Inc.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Oct. 7	106.30	Oct. 29	106.82	Nov. 20	102.52	Dec. 11	103.21
8	106.55	30	107.16	21	104.30	12	104.41
9	106.23	31	107.06	22	105.35	13	105.04
10	106.73	Nov. 1	107.38	23	105.56	14	105.50
11	107.84	2	107.41	24	106.08	15	105.80
12	107.89	3	107.28	25	106.00	16	105.60
13	107.20	4	107.46	26	105.50	17	105.60
14	107.08	5	107.135	27	103.10	18	102.50
15	107.50	6	105.80	28	105.15	19	104.72
16	107.81	7	106.46	29	105.70	20	105.50
17	107.50	8	106.18	30	105.49	21	105.55
18	107.10	9	106.20	Dec. 1	106.10	22	106.23
19	107.14	10	106.14	2	106.36	23	106.33
20	107.12	11	106.84	3	105.21	24	106.49
21	107.21	12	106.10	4	103.49	25	102.40
22	107.59	13	104.62	5	105.05	26	99.86
23	107.23	14	105.39	6	105.88	27	103.55
24	106.79	15	105.64	7	106.23	28	103.13
25	106.87	16	105.90	8	106.10	29	104.35
26	107.19	17	106.18	9	106.25	30	104.40
27	107.28	18	106.06	10	106.98	31	103.70
28	107.38	19	105.76				

Dearborn 2. City of Lawrenceburg. In Lawrenceburg, at municipal water plant, Third and Shipping Streets. Municipal supply well, diameter 10 inches, depth 100 feet, ending in gravel. Measured by altitude gage on pump base, 1.80 feet above pumphouse floor and 493.9 feet above mean sea level. First measured Sept. 21, 1944. Measurements made by R. C. Patton, Lawrenceburg Water Department.

Water level, in feet below land-surface datum, 1944

Sept. 21	65.95	Oct. 23	65.95	Nov. 13	65.95	Dec. 4	67.95
Oct. 4	65.20	30	65.95	20	67.95	11	65.95
16	65.95	Nov. 6	65.95	26	67.95	26	65.70

Dearborn 3. City of Lawrenceburg. In Lawrenceburg, 31.51 feet south of centerline of Second Street and 26.7 feet west of centerline of Water Street. Unused drilled well, diameter 3 inches, depth 72.7 feet. Measuring point, top of cast iron pump base, 0.20 foot above land-surface datum and 484.66 feet above mean sea level. First measured Sept. 21, 1944. Measurements made by R. C. Patton, Lawrenceburg Water Department.

## Dearborn 3. City of Lawrenceburg--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 21	56.85	Oct. 23	57.70	Nov. 13	57.80	Dec. 4	57.90
Oct. 4	56.90	30	57.30	20	57.90	11	57.89
16	57.70	Nov. 6	57.50	26	58.00	26	57.50

Dearborn 4. City of Lawrenceburg. In Lawrenceburg, 43.4 feet north of centerline of High Street and 2.5 feet east of curb line of Mulberry Street. Unused drilled well, diameter 3 inches, depth 70.4 feet. Measuring point, top of cast iron pump base, 0.20 foot above land-surface datum and 477.00 feet above mean sea level. First measured Sept. 21, 1944. Measurements made by R. C. Patton, Lawrenceburg Water Department.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 21	44.57	Oct. 23	44.70	Nov. 13	45.50	Dec. 4	45.00
Oct. 4	44.50	30	44.70	20	45.50	11	44.80
16	45.30	Nov. 6	45.20	26	45.40	26	44.67

Decatur County

Decatur 1. Decatur County. "Public well", Letts. Unused dug well, diameter 48 inches, depth 24.5 feet. Measuring point, top of rock slab over well at northwest side, of hole through slab, at land-surface datum. First measured Sept. 8, 1944. Measurements made by Sam D. Elliott.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 8	4.74	Oct. 13	5.34	Nov. 10	4.99	Dec. 8	4.52
15	4.58	20	5.58	17	5.01	15	4.43
22	4.98	27	5.78	24	5.16	22	4.55
29	4.63	Nov. 3	5.95	Dec. 1	4.77	29	3.45
Oct. 6	5.09						

De Kalb County

De Kalb 1 (#817, p. 44; 840, p. 75; 845, p. 71; 886, p. 98; 906, p. 22; 936, p. 24; 944, p. 24; 986, p. 27). Auburn Water Department well 3. At Auburn Waterworks. Measurements made by Ted Haynes, Auburn Water Department.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	8.5	May 15	6.5	Aug. 15	14.5	Oct. 30	7.5
30	9.5	31	9.5	30	7.5	Nov. 15	8.5
Feb. 15	12.5	June 30	11.5	Sept. 15	9.5	30	9.5
29	8.5	July 15	13.5	30	9.5	Dec. 15	9.5
Mar. 15	8.5	31	11.5	Oct. 18	9.5	31	7.5
May 1	8.5						

Dubois County

Dubois 2 (#840, p. 75; 936, p. 24; 944, p. 24; 986, p. 27). Ferdinand State Forest. North side of road near foot of hill at entrance to forest, in SW 1/4 sec. 18, T. 3 S., R. 3 W. Measurements made by Emmeran Tretter, Ferdinand State Forest.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	17.30	Apr. 3	9.36	June 20	14.55	Sept. 21	15.75
16	15.48	28	7.48	26	14.98	29	14.66
31	16.11	May 5	7.04	July 11	15.66	Oct. 20	15.40
Feb. 16	15.67	14	9.39	24	15.60	Nov. 2	16.54
Mar. 1	10.39	22	11.19	29	15.84	13	18.45
11	11.94	June 1	12.48	Aug. 18	15.68	Dec. 4	17.52
19	9.48	7	13.17	25	15.86		

Dubois 5. Harry Baker. In Haysville, NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25, T: 1 N., R. 5 W., near southeast corner of intersection of State Highways 45 and 56. Unused dug well, diameter 42 inches, depth 37 feet, ending in sandstone (?). Measuring point, top of brick curb on west side of well, 4.0 feet above land-surface datum. First measured July 28, 1944. Measurements made by Joe M. Popp.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 28	20.70	Sept. 8	21.10	Oct. 20	21.45	Dec. 1	21.84
Aug. 4	20.98	15	21.10	27	21.55	8	21.90
11	21.25	22	21.25	Nov. 3	21.65	15	22.00
18	21.20	29	21.10	11	21.60	22	22.05
25	21.30	Oct. 6	21.15	17	21.70	29	22.16
Sept. 1	21.05	13	21.30	24	21.60		

Elkhart County

Elkhart 1 (#936, p. 24; 944, p. 24; 986, p. 27). Elkhart City Waterworks. "Bucklen" well at city water plant on east side of North Main Street and north side of Christiana Creek. Water level is affected by discharge from similar wells to the west, the nearest of which is about 300 feet distant. Measurements made by Charles Stone, Elkhart City Waterworks, Richard B. Corns, superintendent. Water levels, in feet below land-surface datum, 1944: Jan. 15, 12.0; Feb. 3, 10.9; June 2, 10.2.

Fountain County

Fountain 1. City of Hillsboro. In Hillsboro, at northeast corner of Regal Store, north of intersection of State Highways 34 and 341. Unused drilled well, diameter 4 inches, depth 59 feet, ending in rock. Measuring point, top of concrete floor of shelter house, 0.30 foot above land-surface datum. First measurement May 26, 1944. Measurements made by Everett Kay.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 26	40.68	July 19	40.81	Sept. 13	41.94	Nov. 8	42.03
31	40.68	26	40.98	21	42.09	15	42.07
June 7	40.77	Aug. 3	41.33	27	42.12	24	42.19
14	34.32	9	41.50	Oct. 4	42.14	29	42.09
21	37.75	16	41.30	10	42.08	Dec. 6	42.14
28	39.51	23	41.76	17	42.09	20	42.06
July 5	40.14	30	41.76	25	42.11	27	42.06
12	40.56	Sept. 6	41.89	Nov. 1	42.14		

Floyd County

Floyd 1 (50-13-27). Mr. Shane. In field 110 feet west of Ohio River bank, 300 feet north of small house, and 240 feet east of a point on River Road about 0.3 mile north of Middle Creek stone bridge. Drilled well, diameter 6 inches, depth 51 feet. Measuring point, top of casing, about 1 foot above land-surface datum and 452.34 feet above mean sea level. Automatic water-stage recorder maintained since June 11, 1944, in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Ky., W. F. Guyton, engineer in charge. First measured Dec. 21, 1943. Water level, in feet below land-surface datum, 1943: Dec. 21, 46.52; Dec. 28, 46.54.

Daily noon water level, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	.....	.....	.....	.....	46.17	46.55	46.82	46.65	46.74
2	.....	.....	.....	.....	.....	38.22	.....	46.17	46.56	46.83	46.65	46.47
3	.....	.....	.....	.....	.....	.....	.....	46.18	46.56	46.85	46.67	45.93
4	.....	44.41	.....	.....	.....	.....	44.99	46.18	46.56	46.85	46.81	45.80

a Tape measurement at another hour.

## Floyd 1. Mr. Shane--Continued.

Daily noon water level, in feet below land-surface datum, 1944  
(From recorder charts after June 11)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	.....	.....	.....	46.21a	46.58	46.85	46.92	.....
6	.....	.....	.....	.....	.....	.....	.....	46.22	.....	46.85a	46.96	.....
7	43.38	.....	26.58	37.83	.....	.....	.....	46.23	.....	46.85	46.96	.....
8	.....	.....	.....	.....	.....	.....	.....	46.32	.....	46.85	46.96	.....
9	.....	.....	22.39	.....	.....	.....	.....	46.33	.....	46.85	46.96	.....
10	39.99	.....	.....	.....	.....	44.98	.....	46.33	.....	46.85	46.97	.....
11	.....	.....	.....	.....	.....	45.02a	46.33	46.34	.....	46.85	47.01a	45.89
12	.....	.....	.....	.....	.....	45.14	.....	46.34a	46.65	46.85	47.04	45.73
13	41.77	.....	.....	.....	.....	45.40	.....	46.37	46.65	46.86a	47.06	45.16
14	.....	.....	.....	.....	.....	45.67	.....	46.38	46.65	46.87	47.08	44.74
15	.....	.....	29.83	.....	.....	45.72	.....	46.41	46.66	46.89	47.05	44.52
16	.....	.....	.....	.....	.....	45.65	.....	46.41	46.67a	46.90	47.05	44.60
17	.....	.....	.....	.....	.....	45.65	.....	46.42	46.69	46.90	47.04	45.36
18	.....	44.92	.....	17.39	.....	.....	46.16	46.42	46.70	46.90	47.04a	45.73
19	.....	.....	.....	.....	.....	.....	46.16	46.44a	46.72	46.90	47.03	45.81
20	.....	.....	.....	.....	.....	45.34	46.18	46.45	46.72	46.90a	47.02	45.87
21	.....	.....	.....	.....	.....	45.68	46.17	46.46	46.72	46.91	47.02	47.89
22	.....	.....	.....	.....	.....	45.98	46.17	46.47	46.73	46.91	47.02	47.89
23	.....	.....	.....	.....	.....	45.87	46.18	46.47	46.73a	46.84	47.02a	46.00
24	.....	.....	.....	.....	.....	45.86	46.19	46.48	46.73	46.57	46.99	46.03
25	.....	.....	15.03	30.10	.....	45.68a	46.19	46.53	46.74	45.55	46.76	46.03
26	.....	.....	.....	.....	.....	44.78	46.19	46.54a	46.76	44.30	46.76	45.44
27	.....	.....	.....	.....	.....	44.63	46.19	46.57	46.77	43.66a	46.76	44.50
28	.....	29.48	.....	.....	.....	.....	46.20	46.57	46.78	44.90	46.76a	41.47
29	.....	.....	.....	.....	.....	.....	46.20a	46.55	46.80	45.81	46.76	.....
30	.....	.....	.....	.....	.....	.....	46.21	46.55	46.81a	46.18	46.75	.....
31	.....	.....	.....	.....	.....	.....	46.23	46.55	.....	46.43	.....	.....

a Tape measurement at another hour.

Floyd 2 (50-13-26). Mr. Randall. On lane beside electric fence about 150 feet west of a point on River Road which is about 500 feet south of red barn and about 0.7 mile north of Middle Creek stone bridge. Drilled well, diameter 8 inches, depth 49 feet. Measuring point, top of casing, west side, at land-surface datum and 433.71 feet above mean sea level. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1943	47.17	Mar. 15, 1944	23.30	June 27, 1944	37.96
28	47.21	25	14.01	July 11	39.89
Jan. 7, 1944	44.33	Apr. 7	24.09	Aug. 1	40.69
10	40.97	18	11.90	29	41.23
13	42.75	25	19.08	Oct. 3	42.19
Feb. 4	46.73	June 2	36.50	Dec. 1	43.97
18	47.48	20	38.40	28	42.99
Mar. 9	22.21				

Floyd 3 (50-14-1). Mr. Heil. In open field south of two-story house, 150 feet west of River Road directly opposite road from shack, 150 feet north of fence about 2.2 miles north of Middle Creek stone bridge and about 1.3 miles south of New Albany city limits. Drilled well, diameter 8 inches, depth 126 feet. Measuring point, top of casing, north side, about 1 foot above land-surface datum and 434.61 feet above mean sea level. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1943	21.50	Feb. 28, 1944	21.25	June 20, 1944	16.22
28	21.57	Mar. 9	18.32	July 11	17.20
Jan. 7, 1944	21.67	15	17.80	Aug. 1	17.92
10	21.48	25	13.39	29	16.43
13	21.77	Apr. 7	14.80	Dec. 1	17.37
Feb. 4	22.00	18	8.78	28	15.18
18	22.23	25	11.50		



Floyd 4. (50-14-2). Mr. Shane. In open field 60 feet west of River Road, 60 feet north of field entrance, and 30 feet south of old cistern, on River Road about 1.1 miles north of Middle Creek stone bridge and about 2.4 miles south of New Albany city limits. Drilled well, diameter 6 inches, depth 36 feet. Measuring point, top of concrete foundation covered with rock, at land-surface datum and 434.71 feet above mean sea level. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge. First measured Dec. 21, 1943.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1943	29.71	Mar. 9, 1944	27.81	June 27, 1944	22.43
28	29.72	15	25.00	July 11	24.00
Jan. 7, 1944	29.55	25	21.35	Aug. 1	25.79
10	29.60	Apr. 7	21.57	29	25.96
13	29.72	18	15.00	Oct. 3	25.59
Feb. 4	29.98	25	17.44	Dec. 1	26.10
18	30.23	June 2	20.32	28	26.44
28	30.10	20	22.03		

Floyd 5 (50-14-3). Mr. Shane. In field by northwestern corner of old barn foundation south of 2-story house, 45 feet west of River Road, 30 feet south of field entrance, and about 96 feet south of well 50-14-2, on River Road about 1.1 miles north of Middle Creek stone bridge and about 2.4 miles south of New Albany city limits, in Floyd County, Indiana. Drilled well, diameter 6 inches, depth 46 feet. Measuring point, top of casing, south side, under brown rock 1.0 foot above land surface, and 435.71 feet above mean sea level. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge. First measured Dec. 21, 1943.

Water level, in feet below land-surface datum, 1943-44

Date	Water level	Date	Water level	Date	Water level
Dec. 21, 1943	33.13	Mar. 9, 1944	26.32	June 27, 1943	29.24
28	33.26	15	25.10	July 11	29.85
Jan. 7, 1944	33.20	25	19.17	Aug. 1	30.72
10	32.32	Apr. 7	23.38	29	30.17
13	33.28	18	14.24	Oct. 3	28.50
Feb. 4	33.26	25	20.90	Dec. 1	29.79
18	33.80	June 2	25.61	28	28.75
28	30.49	20	28.85		

Floyd 6 (50-15-1). Mr. Royse. West of foundation of house 150 feet west of River Road, 50 feet north of lane leading to shed and about 1.4 miles south of New Albany city limits, in Floyd County, Indiana. Dug domestic well, diameter 3 feet, depth 25 feet. Measuring point, top of brick curbing, at land surface and 436.49 feet above mean sea level. Maintained in connection with Louisville, Kentucky, project, by U. S. Geological Survey, Louisville, Ky., W. F. Guyton, engineer in charge. First measured Feb. 4, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	19.79	Mar. 25	18.93	June 20	13.45	Aug. 29	15.16
18	19.96	Apr. 7	18.03	27	12.25	Oct. 3	14.19
28	20.08	18	15.09	July 11	14.57	Dec. 1	16.04
Mar. 9	19.87	25	14.40	Aug. 1	15.57	28	16.15
15	19.82	June 2	11.72				

#### Franklin County

Franklin 1 (\*840, p. 75; 845, p. 71; 886, p. 99; 944, p. 24). Brookville Water Department. In Brookville at south end of pumping plant. Measured by air line 100 feet long. Measurements made by Walter Cleaver, Brookville Water Department.

## Franklin 1. Brookville Water Department--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	30.50	June 3	28.50	Aug. 12	30.25	Oct. 21	30.00
20	30.50	10	29.00	19	30.25	28	30.00
31	31.25	17	29.50	26	29.50	Nov. 4	30.00
Feb. 26	30.50	24	30.00	Sept. 2	30.00	17	30.50
Mar. 20	28.50	July 1	30.25	9	30.50	25	29.75
Apr. 8	27.50	8	30.50	16	30.00	Dec. 2	30.00
15	26.50	15	30.50	23	30.00	11	30.25
May 9	28.00	22	30.75	30	30.00	16	30.00
12	28.25	29	30.25	Oct. 7	30.00	25	30.00
20	28.25	Aug. 8	30.50	14	30.50	30	30.00
27	28.25						

Franklin 3. John Weber. In Brookville, SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20, T. 9 N., R. 2 W., at old ice plant in southwest part of city, east of U. S. Highway 52. Unused drilled well, diameter 6 inches, depth 40 feet, ending in sand and gravel. Measuring point, top of 6-inch casing, at land-surface datum. First measured Mar. 16, 1944. Measurements made by Walter Cleaver, Brookville Water Department.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 16	19.98	May 28	20.26	July 24	21.92	Oct. 3	22.16
27	19.55	June 12	21.14	Aug. 8	22.05	21	22.20
Apr. 3	19.58	21	21.2	18	21.91	Nov. 4	22.30
11	15.60	26	21.4	24	21.97	16	22.20
28	18.77	July 3	21.60	30	22.00	28	22.15
May 8	19.49	13	21.54	Sept. 12	22.09	Dec. 4	22.23
17	20.3	18	21.82	21	22.10		

Franklin 4. Henry H. Harmeyer. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12, T. 10 N., R. 11 E., about 2 miles northwest of Batesville. Unused drilled well, diameter 6 inches, depth 120 feet, ending in sand and gravel (?). Measuring point, top of 6-inch casing, 0.40 foot above land-surface datum. First measured Feb. 18, 1944. Measurements made by Henry H. Harmeyer.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	17.63	May 5	17.73	July 21	18.06	Sept. 22	18.30
25	17.37	19	17.82	28	18.04	29	18.32
Mar. 3	17.31	26	17.85	Aug. 4	18.06	Oct. 13	18.44
10	17.63	June 2	17.73	11	18.22	20	18.46
17	17.39	12	17.67	18	18.28	27	18.47
24	17.61	16	18.02	27	18.26	Nov. 10	18.92
31	18.37	30	17.97	Sept. 1	18.28	Dec. 15	23.07
Apr. 7	16.86	July 8	18.15	8	18.26	22	29.67
14	17.69	14	18.11	15	18.29	29	30.93
24	17.64						

## Fulton County

Fulton 3 (#817, p. 45; 840, p. 76; 845, p. 72; #886, p. 99; 906, p. 22; 936, p. 25; 944, p. 25; 986, p. 28). City of Rochester. At Federal Fish Hatchery east of Rochester. Measuring point beginning Feb. 2, 1944, top of 1 $\frac{1}{2}$ -inch pipe, flush with concrete base and 1.10 feet above land-surface datum. Measurements made by C. H. Walker and K. W. Morrison, Federal Fish Hatchery.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	8.26	Apr. 10	7.81	May 29	5.00	July 10	6.06
15	8.28	17	6.02	June 5	4.90	17	6.08
Feb. 1	7.98	24	4.37	12	5.38	24	6.21
15	9.05	May 1	4.79	14	5.44	31	6.21
Mar. 1	7.06	8	4.93	19	5.60	Aug. 7	6.50
15	6.77	15	4.47	26	5.91	14	7.00
Apr. 1	6.37	22	4.64	July 3	5.98	21	7.20

## Fulton 3. City of Rochester--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 28	7.21	Oct. 4	8.27	Nov. 6	9.25	Dec. 11	9.40
Sept. 4	7.32	9	8.17	20	9.14	18	9.42
18	7.84	23	8.58	27	9.28	26	9.45
25	8.35	Nov. 3	9.25	Dec. 5	9.42		

Gibson County

Gibson 1. Oakland City College Farm. In Oakland City, on West Street, south of State Highway 54. Unused dug well, diameter 42 inches, depth 37 feet. Measuring point, top of notch in top slab under pump base, 0.20 foot above land-surface datum. First measured Aug. 24, 1944. Measurements made by John D. McCarty.

## Water level, in feet below land-surface datum, 1944

Aug. 24	18.81	Sept. 28	19.56	Nov. 2	20.09	Dec. 7	18.47
31	18.90	Oct. 5	19.67	9	20.14	14	17.10
Sept. 6	19.20	12	20.64	16	20.21	21	16.10
14	19.35	19	19.84	23	20.31	28	16.27
21	19.44	27	20.15	30	20.58		

Greene County

Greene 1. Bert Edwards. In Lyons, about 700 feet southeast of State Highway 67, and about 80 feet northeast of street. Unused dug well, diameter 36 inches, depth 20.7 feet, ending in shale. Measuring point, top of tile, 1.50 feet above land-surface datum. First measured Feb. 21, 1944. Measurements made by Bert Edwards.

## Water level, in feet below land-surface datum, 1944

Feb. 21	4.24	May 29	2.40	Aug. 14	6.71	Oct. 24	8.85
28	1.54	June 6	2.59	21	7.06	31	8.97
Mar. 6	1.16	12	2.85	28	7.33	Nov. 6	9.08
Apr. 3	1.76	19	3.19	Sept. 4	7.53	13	9.16
10	.87	26	3.52	12	7.76	21	9.25
17	1.76	July 3	4.04	18	8.03	27	9.29
24	1.63	10	4.53	25	8.24	Dec. 4	9.49
May 1	1.98	17	4.99	Oct. 2	8.50	12	9.52
8	2.08	25	5.51	9	8.55	18	9.57
15	1.85	31	5.83	17	8.73	25	9.51
23	2.19	Aug. 7	6.33				

Hamilton County

Hamilton 2 (\*817, p. 45; 840, p. 77; 845, p. 72; 886, p. 99; 906, p. 23; 936, p. 25; 944, p. 25; 986, p. 28). Public Service Co. of Indiana. In Noblesville, at water plant. Measurements made by A. L. Wann and Glenn Beaver, Public Service Co. of Indiana.

## Water level, in feet below land-surface datum, 1944

Jan. 17	24.24	Apr. 8	23.70	July 6	23.06	Oct. 1	24.44
Feb. 4	24.61	17	20.80	14	23.35	11	24.59
11	24.70	22	20.86	21	23.98	23	24.60
18	24.74	May 4	21.02	28	22.50	30	24.58
25	24.43	10	21.37	Aug. 8	23.25	Nov. 6	24.60
Mar. 6	24.75	19	20.99	25	24.10	19	25.20
11	23.96	June 7	22.25	Sept. 4	24.50	26	25.40
20	24.70	19	22.54	12	24.35	Dec. 4	25.20
27	24.71	26	22.77	20	24.40	24	24.80

Harrison County

Harrison 1 (\*845, p. 73; 886, p. 99; 906, p. 23; 936, p. 26; 944, p. 25; 986, p. 28). Harrison County State Forest. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 23, T. 4 S., R. 2 E., on south side of truck trail 1, near Lowe Pond. Measurements made by K. I. Shumaker, Harrison County State Forest.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	2.08	Apr. 17	0.95	July 15	2.29	Oct. 15	2.17
31	2.10	30	1.56	Aug. 1	3.20	31	2.64
Feb. 15	2.20	May 15	2.07	17	3.20	Nov. 16	2.19
29	.70	31	1.00	Sept. 1	2.00	30	2.14
Mar. 15	1.44	June 15	2.01	15	2.14	Dec. 15	1.91
31	.85	30	2.09	30	1.00		

Harrison 2 (\*840, p. 77; 845, p. 73; 936, p. 26; 944, p. 25; 948, p. 28). No measurements made in 1944.

Harrison 3 (\*845, p. 73; 886, p. 99; 906, p. 23; 936, p. 26; 944, p. 25; 986, p. 28). Harrison County State Forest. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2, T. 4 S., R. 2 E., on south side of truck trail 1, about 350 yards northwest of service building. Measurements made by K. I. Shumaker, Harrison County State Forest.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	7.26	Apr. 17	3.11	July 15	6.18	Oct. 15	7.07
31	7.37	30	3.15	Aug. 1	6.44	31	7.22
Feb. 15	7.47	May 15	3.44	17	6.71	Nov. 16	7.26
29	4.45	31	4.49	Sept. 1	6.77	30	7.32
Mar. 15	3.15	June 15	5.23	15	6.84	Dec. 15	7.37
31	3.00	30	5.76	30	6.97		

Hendricks County

Hendricks 1. Brocia A. Smith. W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 14, T. 14 N., R. 1 W., at southeast corner of abandoned township school about 1.5 miles south of Clayton. Unused drilled well, diameter 4 inches, depth 34 feet, ending in gravel. Measuring point, top of 4-inch casing on east side of well, 0.30 foot above land-surface datum. First measured Feb. 25, 1944. Measurements made by Brocia A. Smith.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	5.35	May 13	0.71	Aug. 14	5.93	Oct. 23	7.46
Mar. 6	3.17	29	.60	21	6.78	30	7.54
13	2.29	June 5	2.17	28	6.22	Nov. 6	7.10
20	2.32	19	3.01	Sept. 4	6.32	13	7.97
27	1.70	26	3.40	10	6.50	20	7.90
Apr. 3	1.25	July 3	3.90	18	6.71	27	7.81
10	.38	10	4.44	25	7.45	Dec. 4	7.97
17	(a)	17	4.71	Oct. 2	7.08	11	7.94
24	(a)	24	5.10	8	7.14	18	8.09
May 1	.10	31	5.39	16	7.34	25	8.24
8	.24	Aug. 7	5.68				

a Well full.

Henry County

Henry 1 (\*817, p. 46; 840, p. 77; 845, p. 73; 886, p. 100; 906, p. 23; \*936, p. 26; 944, p. 25; 986, p. 28). City of Newcastle. Newcastle Waterworks. No measurements made in 1944.

Howard County

Howard 3 (\*944, p. 25; 986, p. 28). Pittsburg Plate Glass Co. On north side of creek, 0.3 mile west of pumping station of Kokomo water works. Measurements made by M. A. Stearns, Kokomo Water Works Co.

## Howard 3. Pittsburg Plate Glass Co.--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	19.20	Mar. 27	15.34	June 19	18.00	Sept. 4	20.80
31	17.9	Apr. 3	15.60	26	19.04	11	20.24
Feb. 7	17.72	10	14.59	July 3	20.60	25	20.50
14	17.91	17	13.19	10	21.42	Oct. 2	20.97
21	17.82	25	11.73	17	21.48	9	20.70
28	16.69	May 1	13.33	24	21.01	16	20.92
Mar. 6	15.90	15	14.49	31	20.57	23	20.40
13	15.85	29	15.77	Aug. 7	20.76	30	21.10
17	15.88	June 5	17.35	14	20.60	Nov. 6	21.30
20	15.18	12	16.91	28	21.49	13	20.98

Jackson County

Jackson 1 (\*840, p. 78; 845, p. 74; 886, p. 100; \*906, p. 24; 936, p. 27; 944, p. 26; 986, p. 29). Jackson State Forest. In Brownstown, NW $\frac{1}{4}$  sec. 19, T. 5 N., R. 5 E., near northeast corner of office of abandoned Civilian Conservation Corps camp, Jackson State Forest. Measurements made by Forrest Miller, Indiana Department of Conservation, Brownstown.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.4	Apr. 24	2.9	July 17	9.90	Oct. 9	10.21
17	9.6	May 1	5.0	24	10.30	16	10.35
Feb. 1	9.9	9	5.1	31	10.50	23	10.45
14	9.5	15	6.1	Aug. 7	10.80	30	10.78
21	9.2	22	7.0	14	11.10	Nov. 6	10.74
28	7.3	29	8.0	21	11.30	13	10.72
Mar. 6	6.0	June 5	7.3	28	11.10	20	10.30
13	6.1	12	7.9	Sept. 5	10.0	27	9.60
20	5.3	19	7.6	11	10.1	Dec. 4	9.71
29	4.2	26	8.2	18	9.8	12	8.96
Apr. 3	5.0	July 3	9.10	25	10.20	19	8.90
10	4.2	10	9.70	Oct. 2	10.0	26	8.30
17	5.5						

Jackson 2. Hiram H. Martin. W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 24, T. 6 N., R. 2 E., about 1 mile south and about 2 miles east of Norman. Unused dug well, diameter 6 inches, depth 103 feet, ending in rock (?). Measuring point, top of 6-inch casing, 1.0 foot above land-surface datum. First measured Feb. 16, 1944. Measurements made by Hiram Martin and Ralph Fish.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 16	18.87	May 8	12.38	July 31	14.60	Oct. 21	14.50
23	18.06	15	12.30	Aug. 7	14.95	29	14.59
Mar. 6	17.00	22	12.20	14	15.46	Nov. 4	14.78
13	16.00	29	12.50	21	15.94	11	14.66
20	15.00	June 5	12.48	28	16.04	20	14.45
27	14.50	12	12.85	Sept. 4	15.80	27	14.18
Apr. 3	14.00	19	12.80	11	15.50	Dec. 4	14.80
10	13.50	26	13.10	15	15.13	10	13.80
17	13.00	July 3	13.50	23	15.10	17	13.82
24	13.00	10	13.85	Oct. 2	14.80	24	13.60
May 1	13.00	17	13.95	9	14.48	31	13.41
4	12.47	24	14.50	14	14.51		

Jasper County

Jasper 2. Lottie Spalding. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, T. 27 N., R. 6 W., south of State Highway 24, 0.2 mile east of Remington. Unused dug well, diameter 48 inches, depth 14 feet. Measuring point, top of sill on east side of well, 0.20 foot above land-surface datum. First measured May 24, 1944. Measurements made by Ben F. May.

## Jasper 2. Lottie Spalding--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 24	0.87	July 26	4.64	Sept. 20	6.32	Nov. 8	6.98
31	1.61	Aug. 2	4.81	26	6.97	15	6.62
June 7	2.56	9	5.31	27	7.34	22	6.65
14	2.36	16	5.15	Oct. 4	6.97	29	6.82
21	2.96	23	5.41	10	6.84	Dec. 6	6.78
28	3.32	30	5.72	18	6.40	13	6.74
July 5	4.01	Sept. 6	5.79	25	6.40	20	6.60
12	4.17	13	5.98	Nov. 1	6.82	27	6.58
19	4.42						

## Jefferson County

Jefferson 2 (\*840, p. 79; 845, p. 74; 886, p. 101; 906, p. 24; 936, p. 28; 944, p. 26; 986, p. 29). Clifty Falls State Park. At superintendent's house. Measurements made by personnel of Clifty Falls State Park, M. L. Carr, superintendent.

Water level, in feet below land-surface datum, 1944							
Jan. 19	30.40	Feb. 9	30.45	Sept. 6	30.06	Sept. 18	29.90
Feb. 1	30.30	July 24	29.50	11	29.78	Oct. 23	30.00

## Jennings County

Jennings 1 (\*840, p. 79; 845, p. 74; 886, p. 101; 906, p. 24; 936, p. 28; 944, p. 26; 986, p. 29). Muscatatuck State Park. SE $\frac{1}{4}$  sec. 3, T. 6 N., R. 8 E., in northwest corner of park, near North Vernon. Measurements made by G. J. Bernhart, Muscatatuck State Park, Charles Vogel, superintendent.

Water level, in feet below land-surface datum, 1944							
Mar. 2	15.00	May 15	5.98	Aug. 15	15.94	Oct. 15	15.95
15	9.92	31	6.99	Sept. 1	15.92	31	16.93
22	6.36	June 15	10.94	15	14.95	Nov. 15	16.97
Apr. 1	4.05	30	12.97	Oct. 1	15.91	Dec. 2	15.98
15	3.01	July 15	13.98	6	15.24	15	15.96
30	4.94	Aug. 1	14.96				

## Johnson County

Johnson 1. City of Bargserville. In Bargserville, W $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 35, T. 13 N., R. 3 E., 60 feet northwest of Bargserville State Bank near intersection of State Highway 144 and the Illinois Central Railroad. Unused dug well, diameter 42 inches, depth 25.3 feet. Measuring point, top of curb on east side, 0.70 foot above land-surface datum. First measured Feb. 22, 1944. Measurements made by L. I. Mardis, Bargserville.

Water level, in feet below land-surface datum, 1944							
Feb. 22	8.67	May 9	5.96	July 25	10.31	Oct. 10	10.05
29	7.78	16	6.42	Aug. 1	9.55	17	10.07
Mar. 7	6.68	23	6.66	8	9.96	25	10.45
14	6.68	30	6.75	15	10.19	31	10.45
21	6.61	June 6	6.36	22	10.31	Nov. 14	10.33
28	5.81	13	7.81	29	9.97	28	9.50
Apr. 4	5.98	20	7.74	Sept. 5	9.47	Dec. 4	9.53
11	2.61	27	7.96	12	9.08	12	9.35
18	3.64	July 4	9.19	18	9.31	19	9.06
25	4.59	11	9.70	Oct. 3	9.87	27	9.15
May 2	5.55	18	9.96				

Knox County

Knox 1. William M. Downey. In Monroe City, 1 block north of State Highway 61 on lot 60. Unused dug well, diameter 30 inches, depth 38 feet, ending in gravel. Measuring point, top of shoulder on 30-inch vitrified tile, 0.40 foot above land-surface datum. First measured Aug. 24, 1944. Measurements made by William M. Downey.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 24	36.70	Sept. 28	36.78	Nov. 2	36.89	Dec. 7	37.00
31	36.73	Oct. 5	36.81	10	36.90	14	37.00
Sept. 7	36.74	12	36.82	16	36.95	21	37.05
14	36.74	19	36.83	23	36.95	28	37.04
21	36.80	26	36.87	30	36.97		

Kosciusko County

Kosciusko 2 (\*845, p. 74; 886, p. 101; 936, p. 28; 944, p. 26; 986, p. 29). Wawasee State Fish Hatchery. Flowing well at sunken garden. Measurements made by personnel of Wawasee State Fish Hatchery, Raymond Underwood, superintendent.

## Water level, in feet above land-surface datum, 1944

Jan. 15	4.83	May 1	5.25	July 19	4.96	Oct. 21	4.52
31	4.73	15	5.00	Aug. 10	4.92	Nov. 1	4.46
Feb. 15	4.69	June 3	4.92	19	4.31	16	4.46
Mar. 23	5.10	18	4.94	Sept. 20	4.42	Dec. 4	4.38
Apr. 4	4.83	July 5	4.88	Oct. 4	4.46	16	4.33

La Porte County

La Porte 1 (\*944, p. 26; 986, p. 29). City of La Porte. Well 4 at pumping station of La Porte waterworks. Water level affected by pumping for public supply from this and 3 other similar wells at pumping station. Measurements made by Arthur C. Baker, La Porte Water Works, Ray D. Gangwer, superintendent.

## Water level, in feet below land-surface datum, 1944

Jan. 1	5.70	Apr. 8	5.68	July 8	12.18	Oct. 7	6.68
8	6.21	15	6.08	15	7.48	16	6.28
15	6.21	22	6.28	22	7.05	21	7.60
22	6.29	29	6.28	29	5.48	28	6.90
29	5.70	May 6	6.51	Aug. 5	11.28	Nov. 4	6.08
Feb. 5	6.31	13	5.80	12	14.70	11	6.68
12	6.28	20	4.84	19	7.60	18	7.68
19	6.29	27	6.29	26	10.68	25	7.68
26	5.60	June 3	7.29	Sept. 8	6.63	Dec. 2	7.59
Mar. 4	6.60	10	4.68	9	6.28	9	7.59
11	6.46	17	7.28	16	5.91	16	7.68
18	6.60	24	7.57	23	7.08	23	8.08
25	6.29	July 1	10.20	30	6.28	30	7.68
Apr. 1	6.28						

La Porte 2 (\*944, p. 27; 986, p. 30). Kankakee State Game Preserve. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T. 33 N., R. 3 W., about 500 feet north of State Highway 8, on west side of Kankakee River. Unused drilled well, diameter 6 inches, depth 115 feet, ending in sand and gravel. Measuring point, top of 6-inch casing, 1.10 feet above land-surface datum. Measurements made by Arthur Timm, superintendent, Kankakee State Game Preserve.

## Water level, in feet below land-surface datum, 1944

Jan. 15	5.90	Apr. 30	1.90	Aug. 1	6.30	Oct. 1	6.90
Feb. 5	5.70	May 15	2.90	15	6.80	Nov. 1	6.60
16	6.90	June 1	3.20	Sept. 7	5.30	15	5.70
Mar. 1	4.90	15	4.50	16	4.85	Dec. 15	6.30
Apr. 10	4.60	July 1	5.40				

Lawrence County

Lawrence 1. David S. Cox. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 3 N., R. 1 W., north of Georgia. Unused dug well, diameter 30 inches, depth 25 feet. Measuring point, top of plate on pump, 0.50 foot above land-surface datum. First measured Feb. 24, 1944. Measurements made by David S. Cox.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 24	20.89	May 11	18.25	Aug. 3	21.78	Oct. 19	21.85
Mar. 2	18.30	18	19.02	10	21.78	26	21.87
9	19.20	25	20.13	17	21.79	Nov. 2	21.88
16	20.26	June 1	20.39	22	21.80	9	21.85
21	17.17	8	20.64	24	21.79	16	21.81
23	15.69	15	20.83	31	21.78	23	21.78
30	15.00	22	21.20	Sept. 7	21.82	30	21.78
Apr. 6	18.06	29	20.74	14	21.85	Dec. 7	21.73
13	16.72	July 6	21.93	21	21.86	14	21.77
20	16.05	13	21.77	28	21.85	21	21.79
27	15.54	20	21.78	Oct. 5	21.78	28	21.81
May 4	17.97	27	21.75	12	21.86		

Lawrence 2. Roscoe Ingram. In Mitchell, NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 4 N., R. 1 W., north of Mitchell between Monon Railroad and Rabbittsville Pike. Unused dug well, diameter 24 inches, depth 26 feet. Measuring point, top edge of concrete cover of well at pump opening, 0.70 foot above land-surface datum. First measured Feb. 23, 1944. Measurements made by Roscoe Ingram.

## Water level, in feet below land-surface datum, 1944

Feb. 23	21.35	May 10	20.33	July 19	21.48	Sept. 20	21.48
Mar. 1	21.40	17	21.40	26	21.49	27	21.40
8	21.40	24	21.45	Aug. 2	21.50	Oct. 4	21.40
15	21.51	31	21.45	9	21.49	11	21.38
22	20.80	June 7	21.47	16	21.50	18	21.40
29	20.27	13	21.47	22	21.41	25	21.44
Apr. 5	21.35	21	21.47	23	21.41	Nov. 1	21.41
12	20.40	28	21.49	30	21.41	8	21.50
19	19.80	July 5	21.48	Sept. 6	21.39	15	21.21
26	19.60	12	21.49	13	21.48	22	21.38
May 4	21.20						

Madison County

Madison 1 (\*817, p. 47; 840, p. 79; 845, p. 75; 886, p. 101; 906, p. 25; 936, p. 28; 944, p. 27; 986, p. 30). Mounds State Park, Anderson. No measurements made in 1944.

Madison 2 (\*817, p. 47; 840, p. 79; 845, p. 75; 886, p. 101; 906, p. 25; \*936, p. 28; 944, p. 27; 986, p. 30). Anderson Water Department well 1. Thirty-second Street and Central Avenue (extended), Anderson. Measurements made by Earl Walker, Anderson Water Department, Paul Laux, superintendent.

## Water level, in feet below land-surface datum, 1944

Jan. 19	16.04	Mar. 1	16.10	June 19	15.90	Oct. 17	15.80
Feb. 1	16.25	Apr. 4	17.00	July 5	18.40	Nov. 3	16.80
15	16.25	May 18	13.60	Sept. 16	16.50	Dec. 15	17.80

Madison 5. Elwood Water Works. At city well field, Eighth and South B Streets, Elwood. Unused drilled well, diameter 8 inches, depth about 170 feet. Measuring point, top edge of 3/4-inch hole in 8-inch flange, 1.00 foot above land-surface datum. First measured May 22, 1944. Measurements made by Roy Chance, Elwood Water Works, C. W. Berry, superintendent.



## Madison 5. Elwoo Water Works--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 22	31.99	Sept. 20	47.1	Oct. 25	39.0	Nov. 29	35.70
Aug. 16	41.80	27	45.8	Nov. 1	39.0	Dec. 6	34.50
23	42.30	Oct. 5	48.3	8	36.90	13	35.50
30	42.2	11	47.7	15	39.90	20	37.00
Sept. 6	47.0	19	46.6	22	36.00	27	37.00
13	45.5						

## Marion County

Marion 1 (\*817, p. 48; 840, p. 80; 845, p. 75; \*886, p. 102; 906, p. 25; \*936, p. 29; 944, p. 27; 986, p. 30). Indianapolis Water Co. "Motor well 15," at northeast corner of intersection of Harding and Eighteenth Street, in Riverside well field, Indianapolis. Measurements generally made at 10:00 a.m., by personnel of Indianapolis Water Co., L. S. Finch, chief engineer.

## Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.00a	19.10	17.48	17.84	16.10	.....	18.00	.....	.....	19.92a	19.62	21.26
2	18.38a	23.94	17.40	17.60	16.28	16.98	17.48	.....	.....	23.08	.....	19.72
3	18.54a	21.64	17.44	17.64	16.18	17.00	.....	20.96	19.52	24.70	19.64	19.52
4	18.70a	20.90	17.40a	17.82	16.38	16.92	17.78a	24.79	19.24	24.86	.....	19.64
5	18.64a	20.90a	17.96a	18.18	16.36a	19.27	17.88a	20.72	19.64	.....	.....	19.68
6	19.14a	21.84a	20.78a	21.46	16.26	17.16a	18.00	19.54	20.88	25.36	.....	19.80
7	.....	.....	20.88a	21.54	16.08	.....	18.02a	33.60	21.62	.....	.....	19.72
8	18.66a	22.30a	20.96	18.20	16.24	17.00	18.02a	35.68	23.72	20.12	.....	19.68
9a	18.65	.....	.....	.....	17.60	16.32	17.10	18.00a	37.26	24.26	20.12a	35.00
10a	20.72a	22.18a	21.22	17.42	16.46	17.10a	19.72a	35.92a	29.90	20.12	.....	19.68
11a	21.12a	22.18a	21.48	20.00	16.42	17.04	.....	35.30a	34.66	20.08a	23.30	19.56
12	.....	19.18a	21.60	19.34	16.46a	17.20	.....	.....	35.32a	20.08a	20.84	19.68
13a	21.18	18.82	18.36	.....	16.42a	19.66a	18.80	20.14a	36.33a	20.06a	20.12	19.64
14a	21.22a	20.50	18.28	19.24	16.02	17.22	.....	20.20a	33.86	.....	.....	19.64
15	.....	21.04	18.36	19.58	16.18a	19.40a	18.96	23.92	35.22'	.....	.....	19.64
16	.....	19.10	18.24	19.02	16.58a	19.76	.....	24.14	35.72	.....	19.80	.....
17	20.78	19.02	18.14	17.08	.....	17.38a	17.92	24.50	35.84	.....	19.82	.....
18	18.80a	18.98	18.33	16.68	16.64	17.18a	18.64	23.70	35.64	19.92	19.78	.....
19	18.80	18.94	17.78	16.56	16.52	17.40a	22.08	19.86	35.96	.....	19.56	19.40
20	18.84	18.68	.....	16.46	.....	17.40	18.54a	20.00	33.36	19.94	19.66	.....
21	18.80	18.80	18.06	16.58	16.70	17.44	18.60	.....	25.28	19.88	19.74	.....
22	18.72	18.80	18.00	16.44	.....	19.46	.....	20.00	25.17	19.70	19.68	19.48
23	18.50	18.72	17.92	16.12	16.70	17.96	.....	.....	.....	19.73	19.56	19.42
24	18.56	18.64	17.92	16.04	16.64	17.48	.....	19.80	20.12	19.84	19.52	19.44
25	18.72	18.54	17.90	16.10	16.66	17.24a	20.82	.....	23.26	19.76	.....	19.16
26	18.76	.....	17.64	16.22	16.72	17.64a	21.54	.....	24.42	.....	.....	19.28
27	.....	18.42a	18.96	16.24	16.78	17.72a	23.70	19.54	24.52	19.80	.....	19.32
28	18.72	.....	17.72	16.20	16.50a	20.58a	21.82	19.66	.....	19.74	19.74a	24.14
29a	18.66	18.50a	17.68	16.14	16.80	18.08	19.50	19.77	20.80	19.40	19.72a	19.68
30a	20.06	.....	.....	16.20	.....	17.92	19.20	.....	24.70	19.70	19.76	19.54
31	.....	.....	18.58	.....	16.86	.....	.....	21.96	.....	19.76	.....	19.26

a One or more gravel wells at White River filtration plant pumping at time of measurements.

Marion 2 (\*817, p. 48; 840, p. 80; \*886, p. 102; 906, p. 26; 936, p. 32; 944, p. 28; 986, p. 31). Security Trust Bank Building, 130 East Washington Street, Indianapolis. Equipped with automatic water-stage recorder. Measurements made by personnel of U. S. Geological Survey.

## Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.18	53.53	53.25	52.88	52.75	58.68	63.43	66.89	67.45	.....	62.06	59.54
2	54.12	53.53	53.27	52.91	52.77	58.88	63.60	67.07	67.43	.....	62.06	59.51
3	54.01	53.45	53.21	52.90	52.86	59.10	63.58	67.25	67.48	65.78	62.09	59.44
4	53.98	53.46	53.18	52.82	52.95	59.39	63.61	67.43	67.41	65.78	62.15	59.34

## Marion 2. Security Trust Bank Building--Continued.

## Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	53.98	53.46	53.17	52.82	53.03	59.49	63.58	67.59	67.39	65.80	62.16	59.26
6	53.96	53.45	53.13	52.80	53.08	59.66	63.67	67.72	67.39	65.88	62.03	59.17
7	53.97	53.42	53.08	52.77	53.10	59.84	63.85	67.73	67.43	65.97	61.90	59.11
8	53.98	53.40	53.10	52.74	53.04	59.81	64.01	67.83	67.41	65.89	61.77	59.02
9	53.94	53.39	53.16	52.77	52.88	59.68	64.17	67.92	67.33	65.55	61.63	59.01
10	53.86	53.40	53.19	52.70	.....	59.79	64.16	68.07	67.33	65.28	61.59	58.97
11	.....	53.36	53.14	52.65	.....	59.97	64.25	68.22	67.30	64.99	61.53	58.85
12	.....	53.40	53.10	52.58	.....	59.95	64.44	68.26	67.22	64.73	61.42	58.78
13	.....	53.45	53.11	52.66	.....	60.05	64.66	68.27	67.22	64.44	61.25	58.76
14	.....	53.33	53.12	52.63	.....	60.29	64.87	68.27	67.27	64.24	61.15	58.74
15	53.76	53.26	53.06	52.57	.....	60.49	65.04	.....	67.12	64.09	61.13	58.69
16	53.72	53.33	53.06	52.60	54.37	60.70	65.23	68.30	66.99	63.93	61.11	58.61
17	53.69	53.27	53.09	52.67	54.54	60.90	65.29	68.34	66.96	63.74	61.05	58.58
18	53.65	53.24	53.16	52.65	54.80	61.18	65.30	68.42	66.99	63.57	60.91	58.50
19	53.64	53.33	53.24	52.60	55.13	61.28	65.45	68.42	66.96	63.43	60.78	58.44
20	53.60	53.28	.....	52.59	55.62	61.45	65.64	68.44	67.11	63.29	60.62	58.41
21	53.62	53.23	53.13	52.61	56.10	61.56	65.83	68.31	67.26	63.17	60.52	58.35
22	53.64	53.15	53.16	52.70	56.35	61.69	65.90	68.24	67.41	63.06	60.43	58.34
23	53.60	53.12	53.06	52.72	56.56	61.89	65.95	68.26	67.52	62.86	60.31	58.28
24	53.54	53.15	53.04	52.65	56.77	62.14	65.89	68.37	67.32	62.72	60.21	58.23
25	53.52	53.18	53.03	52.65	57.12	62.36	65.97	68.39	66.83	62.66	60.12	58.11
26	53.53	53.14	53.11	52.68	57.45	62.42	66.15	68.32	66.37	62.62	59.99	58.06
27	53.54	53.17	52.99	52.69	57.79	62.57	66.25	68.14	66.05	62.54	59.85	57.98
28	53.53	53.24	53.05	52.74	58.10	62.78	66.51	68.00	66.05	62.43	59.80	57.93
29	53.57	53.21	52.93	52.77	58.27	63.00	66.68	67.64	65.98	62.34	59.69	57.89
30	53.59	.....	52.94	52.75	58.42	63.23	66.81	67.51	.....	62.22	59.60	57.81
31	53.54	.....	52.90	.....	58.57	.....	66.80	67.43	.....	62.11	.....	57.75

a Estimated.

Marion 3 (#817, p. 48; 840, p. 80; 845, p. 75; 886, p. 102; 906, p. 27; 936, p. 32; 944, p. 29; 986, p. 32). Rimmerich Manual Training High School. In north room of school building, South Meridian and Henry Streets, Indianapolis. Measurements made by personnel of U. S. Geological Survey.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	56.46	Apr. 4	57.47	July 3	58.66	Oct. 2	62.70
10	56.54	10	57.73	10	59.19	9	62.48
17	56.59	17	57.80	17	59.55	16	62.56
24	56.61	24	56.90	24	59.10	23	62.71
31	56.97	May 1	56.11	31	60.80	30	62.16
Feb. 7	56.80	8	56.06	Aug. 7	61.46	Nov. 6	62.14
14	56.69	15	56.04	14	60.58	13	61.50
21	57.23	22	55.49	21	61.13	20	60.98
28	57.32	29	57.24	28	61.79	27	59.19
Mar. 6	56.79	June 5	57.11	Sept. 5	61.63	Dec. 4	60.83
13	57.95	12	57.39	11	62.07	11	61.39
20	57.67	19	58.54	18	62.49	18	60.95
27	57.89	26	58.88	25	62.50		

Marion 4 (#840, p. 80; 845, p. 76; #886, p. 103; 906, p. 27; #936, p. 32; 944, p. 29; 986, p. 32). Layne-Northern Co., Inc. In valley of Lick Creek, about 100 feet north of creek, about 700 feet west of South Meridian Street and about 350 feet south of Edwards Avenue, Indianapolis. Measurements made by personnel of U. S. Geological Survey.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.44	Feb. 21	4.22	Apr. 10	3.57	May 29	1.94
10	3.61	28	4.24	17	2.95	June 5	2.02
17	3.73	Mar. 6	4.12	24	2.57	12	3.16
24	3.75	13	4.16	May 1	2.45	19	3.55
31	3.84	20	3.99	8	2.32	26	4.16
Feb. 7	3.93	27	3.97	15	2.36	July 3	5.26
14	3.98	Apr. 4	3.84	22	2.19	10	5.29

## Marion 4. Layne-Northern Co., Inc.--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 17	5.03	Sept. 4	4.94	Oct. 16	5.06	Nov. 27	5.26
24	5.20	11	4.85	23	5.27	Dec. 4	5.27
31	4.23	18	5.14	30	5.41	11	5.23
Aug. 7	4.67	25	5.43	Nov. 6	5.35	18	5.37
14	5.01	Oct. 2	5.12	13	5.39	23	5.31
21	4.74	9	4.97	20	5.13	30	5.37
28	4.71						

Marion 9 (\*886, p. 103; 906, p. 27; \*936, p. 32; 944, p. 30; 986, p. 33). At former American Brewery, West Ohio Street at Indianapolis Water Co. canal, Indianapolis. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944

Jan. 3	57.08	Apr. 10	46.52	July 10	59.37	Oct. 9	61.79
10	57.13	17	46.26	17	59.68	16	61.70
17	56.96	24	55.28	24	60.05	23	61.70
24	56.69	May 1	54.39	31	62.01	30	61.66
31	56.71	8	54.18	Aug. 7	60.50	Nov. 6	61.36
Feb. 7	56.51	15	54.21	14	60.41	13	61.25
14	56.31	22	55.14	21	60.80	20	60.80
21	56.30	29	55.82	28	60.97	27	60.29
28	56.33	June 5	56.65	Sept. 4	60.55	Dec. 4	60.09
Mar. 6	56.10	12	57.40	11	61.10	11	59.79
13	47.88	19	58.59	18	61.41	18	59.56
20	59.79	26	58.85	25	61.78	23	59.19
27	47.12	July 3	58.70	Oct. 2	61.84	30	58.70
Apr. 4	46.80						

Marion 10 (\*886, p. 104; 906, p. 27; 936, p. 32; 944, p. 30; 986, p. 33). Federal Building, Meridian and Ohio Streets, Indianapolis. In basement of building. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944

Jan. 3	57.09	Apr. 10	56.04	July 10	66.94	Oct. 9	67.94
10	57.15	17	56.10	17	67.38	16	66.38
17	56.86	24	56.05	24	67.98	23	65.04
24	56.76	May 1	56.05	31	68.47	30	64.52
31	56.78	8	56.16	Aug. 7	69.16	Nov. 6	64.34
Feb. 7	56.50	15	59.01	14	69.05	13	64.66
14	56.42	22	60.01	21	69.18	20	63.35
21	56.39	29	61.95	28	68.28	27	63.11
28	56.32	June 5	62.79	Sept. 4	67.57	Dec. 4	62.08
Mar. 6	56.32	12	63.29	11	68.93	11	61.76
13	56.46	19	65.00	18	68.89	18	61.52
20	56.37	26	65.96	25	68.28	23	61.45
27	56.40	July 3	66.51	Oct. 2	67.98	30	60.92
Apr. 4	56.17						

Marion 11 (\*886, p. 105; 906, p. 28; 936, p. 33; 944, p. 30; 986, p. 33). Indianapolis sanitation plant well 3. In dehydration building, about 500 feet west of powerhouse, Indianapolis. Measurements made by D. O. Bender, Indianapolis sanitation plant. Measurements discontinued Jan. 11, 1944.

Water level, in feet below land-surface datum, 1944

Jan. 3	20.59	Jan. 5	20.60	Jan. 7	20.80	Jan. 10	20.76
4	20.71	6	20.74	8	20.78		

Marion 12 (\*886, p. 106; 906, p. 29; 936, p. 34; 944, p. 31; 986, p. 33). Indianapolis sanitation plant. South Harding Street, south of Raymond Street, about 300 feet south of powerhouse and about 50 feet north of resettler tank, Indianapolis. No measurements made in 1944.

Marion 13 (#886, p. 106; 906, p. 29; 936, p. 34; 944, p. 31; 986, p. 34). Indianapolis sanitation plant. "East" observation well, about 500 feet east of powerhouse. Measurements made by D. O. Bender, Indianapolis sanitation plant. Measurements discontinued Oct. 13, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	4.44	Apr. 5	2.20	June 28	3.80	Sept. 11	(a)
Feb. 2	4.46	May 9	1.58	July 10	4.40	Oct. 13	(a)
Mar. 10	.58						

a Dry.

Marion 14 (#886, p. 106; 906, p. 29; 936, p. 34; 944, p. 31; 986, p. 34). Indianapolis sanitation plant. "Resettler" well, about 400 feet southeast of powerhouse at southeast end of resettler tank. Measurements made by D. O. Bender, Indianapolis sanitation plant.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	21.75	Apr. 5	19.49	June 28	20.86	Sept. 11	17.69
Feb. 2	21.89	May 9	18.40	July 10	21.47	Oct. 13	18.35
Mar. 10	17.96						

Marion 16 (#906, p. 30; #936, p. 33; 944, p. 31; 986, p. 34). At former American Homin Co.'s plant B, Madison Avenue and Palmer Street, Indianapolis. At south end of main building, near base of steel smokestack. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	98.66	Apr. 4	98.68	July 10	107.56	Oct. 9	107.22
10	97.80	10	91.52	17	107.57	16	106.35
17	96.09	17	107.99	24	107.93	23	107.61
24	99.63	May 1	114.38	31	107.95	30	107.82
31	100.47	8	108.66	Aug. 7	108.02	Nov. 6	82.45
Feb. 7	101.40	15	108.24	14	107.21	13	73.87
14	102.22	22	107.00	21	107.23	20	86.45
21	76.55	29	108.01	28	104.17	27	88.79
28	100.70	June 5	107.98	Sept. 5	104.42	Dec. 4	88.11
Mar. 6	100.65	12	106.42	11	104.87	11	89.58
13	98.67	19	105.68	18	105.76	18	89.15
20	103.62	26	105.67	25	105.98	23	103.94
27	77.80	July 3	107.97	Oct. 2	107.14	30	100.16

Marion 18 (#986, p. 34). Anna M. Stelzner, 4948 Vermont Street, Speedway City. SW 1/4 sec. 6, T. 15 N., R. 3 E., 500 feet north of Vermont Street, west of junction with Cassell Drive. Measuring point beginning May 16, 1944, top of floor of recorder shelter, 0.47 foot above land-surface datum. Automatic water-stage recorder installed May 16, 1944. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	24.99	Feb. 7	25.68	Mar. 13	24.50	Apr. 17	19.30
10	25.12	14	25.76	20	24.11	24	17.12
17	25.32	21	25.89	27	23.75	May 1	19.28
24	25.47	28	25.54	Apr. 4	23.50	8	20.21
31	25.59	Mar. 6	25.05	10	21.41	16	25.86

Water level at 2 a.m., in feet below land-surface datum, 1944

(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	22.73	23.89	24.95	a 25.61	26.34	26.88	27.17
2	.....	22.71	23.96	24.95	a 25.60	26.35	26.89	27.21
3	.....	22.72	24.01	24.97	a 25.59	26.36	26.91	27.24
4	.....	22.76	24.05	25.03	a 25.58	26.36	26.93	27.27
5	.....	22.83	24.11	25.04	25.58	26.36	26.94	27.28
6	.....	22.88	24.16	25.14	25.60	26.37	26.96	27.29
7	.....	22.97	24.21	25.17	25.63	26.37	26.98	27.30
8	.....	23.07	24.27	25.22	25.69	26.39	26.97	27.31

a Estimated.

## Marion 18. Anna M. Stelzner--Continued.

Water level at 2 a.m., in feet below land-surface datum, 1944								
Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	.....	23.17	24.33	.....	25.72	26.40	26.97	27.33
10	.....	23.26	24.37	.....	25.74	26.40	26.96	27.36
11	.....	23.35	24.39	.....	25.76	26.41	26.97	27.37
12	.....	23.41	24.43	.....	25.77	26.42	26.99	27.37
13	.....	22.45	24.45	.....	25.78	26.43	26.99	27.38
14	.....	23.49	24.49	.....	25.79	26.43	27.00	27.41
15	.....	23.50	24.53	25.50	25.80	26.44	26.99	27.44
16	.....	23.49	24.56	25.48	25.83	26.47	26.99	27.44
17	.....	23.45	24.58	25.47	25.86	26.49	27.01	27.47
18	.....	23.44	24.60	25.46	25.88	26.49	27.03	27.48
19	.....	23.43	24.63	25.47	25.91	26.50	27.05	27.50
20	.....	23.41	24.67	25.51	25.94	26.53	27.05	27.52
21	.....	23.41	24.73	25.53	25.99	26.57	27.05	27.53
22	.....	23.41	24.81	25.54	26.03	26.63	27.06	27.56
23	.....	23.42	24.88	25.54	26.09	26.70	27.07	27.59
24	.....	23.42	24.93	25.53	26.15	26.72	27.08	27.62
25	23.13	23.45	24.95	25.55	26.19	26.75	27.10	27.63
26	23.02	23.49	24.98	25.59	26.22	26.80	27.11	27.65
27	22.95	23.52	24.98	25.64	26.26	26.83	27.11	27.67
28	22.89	23.59	24.98	25.66	26.30	26.86	27.13	27.67
29	22.84	23.70	24.98	25.65	26.33	26.87	27.14	27.69
30	22.80	23.80	24.98 a	25.63	26.33	26.88	27.15	27.70
31	22.76	.....	24.96 a	25.62	.....	26.88	.....	27.70

a Estimated.

Marion 19 (\*986, p. 35). Peoria & Eastern Railway Co. Tenth Street at Big Four Railroad tracks crossing, 250 feet west of Exeter Avenue, 60 feet south of centerline of Tenth Street, Indianapolis. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	19.74	Apr. 10	19.60	July 10	17.35	Oct. 9	19.40
10	19.83	17	18.01	17	17.62	16	19.58
17	19.96	24	17.46	24	17.63	23	19.65
24	20.06	May 1	17.83	31	17.82	30	19.78
31	20.14	8	16.57	Aug. 7	18.00	Nov. 6	20.01
Feb. 7	20.26	15	16.57	14	18.23	13	20.02
14	20.35	22	16.55	21	18.39	20	20.08
21	20.46	29	16.67	28	18.62	27	20.23
28	20.40	June 5	16.75	Sept. 4	18.66	Dec. 4	20.41
Mar. 6	20.22	12	16.88	11	18.75	11	20.45
13	20.19	19	16.97	18	19.07	18	20.60
20	20.07	26	17.09	25	19.20	23	20.69
27	20.01	July 3	17.23	Oct. 2	19.32	30	20.78
Apr. 4	19.93						

Marion 20. Frozen Products Co., 601 Fulton Street, Indianapolis. About 75 feet north of North Street and about 10 feet east of Fulton Street. Unused drilled well, diameter 8 inches, depth 373 feet, ending in limestone. Measuring point, top of 8-inch coupling, 2.80 feet above land-surface datum. First measured Apr. 17, 1944. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	67.42	June 12	76.11	Aug. 7	83.18	Oct. 2	80.85
24	67.34	19	78.05	14	81.99	16	79.66
May 1	67.42	26	79.83	21	81.68	23	77.88
8	66.36	July 3	78.90	28	81.34	30	77.44
15	69.28	10	79.77	Sept. 4	79.87	Nov. 6	77.72
22	72.24	17	79.90	11	80.89	20	77.53
29	73.86	24	80.65	18	80.88	Dec. 18	76.24
June 5	75.96	31	82.51	25	80.65	23	(a)

a Frozen.

Marion 21. Continental Baking Co., 339 East Market Street, Indianapolis. About 175 feet south of Market Street and about 10 feet east of New Jersey Street. Unused drilled well, diameter 8 inches, depth 305.2 feet, ending in limestone. Measuring point, top of 2- by 4-inch brace across top of well, 0.32 foot above top of 8-inch flange on well and 10.90 feet below land-surface datum. First measured Mar. 28, 1944. Automatic water-stage recorder installed Mar. 28, 1944. Measurements made by personnel of U. S. Geological Survey.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	59.34	61.40	66.26	66.72	65.70	64.96	63.40	61.04
2	.....	.....	57.59	61.68	65.64	66.86	65.91	64.62	63.43	61.79
3	.....	.....	57.87	61.90	64.40	66.92	65.49	.....	63.82	61.89
4	.....	.....	57.85	62.24	65.22	67.28	64.73	65.02	63.46	61.66
5	.....	.....	58.03	61.18	65.06	66.96	65.02	65.01	63.28	61.72
6	.....	.....	58.02	62.00	65.60	66.52	65.58	65.19	62.92	61.67
7	.....	.....	57.88	62.16	66.02	66.23	65.70	65.36	63.10	61.72
8	.....	.....	57.24	62.26	66.08	67.10	65.82	65.00	62.97	61.62
9	.....	.....	57.40	62.26	65.74	67.08	65.64	64.66	62.83	61.97
10	.....	.....	57.58	62.30	64.64	67.10	65.46	65.03	62.96	62.04
11	.....	57.34	57.88	62.40	65.93	67.00	64.80	64.86	63.19	61.60
12	.....	57.36	58.22	61.24	66.19	66.93	65.46	64.78	63.00	61.87
13	.....	57.93	58.44	62.08	66.61	.....	.....	64.65	62.72	62.28
14	.....	58.00	58.76	62.34	66.70	.....	.....	64.56	62.84	62.56
15	.....	57.80	57.99	62.44	66.70	66.58	.....	64.60	62.72	62.64
16	.....	57.92	58.73	62.84	66.10	66.70	.....	63.94	63.01	62.15
17	.....	57.54	59.17	63.49	64.98	66.58	.....	64.32	63.22	62.24
18	.....	57.90	59.28	64.08	66.10	.....	.....	64.17	63.09	62.67
19	.....	58.00	59.50	63.18	66.34	.....	65.82	64.17	62.98	62.02
20	.....	58.08	59.42	64.58	66.54	.....	65.93	64.00	62.47	62.14
21	.....	58.32	59.58	64.70	66.74	.....	65.89	64.06	62.83	62.22
22	.....	.....	58.82	65.04	.....	66.41	66.12	64.00	62.90	62.58
23	.....	.....	58.92	.....	.....	66.73	66.16	63.64	62.70	62.52
24	.....	.....	59.68	.....	.....	66.95	65.74	63.76	62.59	62.24
25	.....	57.86	60.30	.....	.....	66.87	65.04	63.75	62.30	61.27
26	.....	58.03	60.76	.....	.....	66.78	65.49	63.88	61.66	60.73
27	.....	58.14	61.10	65.84	.....	66.30	65.38	63.89	61.02	61.46
28	58.67	58.32	61.40	66.12	.....	.....	65.38	63.75	61.14	61.61
29	.....	60.35	60.62	66.24	.....	66.09	65.30	63.65	60.90	61.72
30	.....	58.10	61.38	66.38	.....	65.91	65.18	63.00	60.69	61.58
31	.....	.....	61.08	.....	.....	65.77	.....	63.44	.....	61.36

Marion 22. Arthur Baxter. Formerly owned by Puritan Bedspring Co. About 290 feet north of Georgia Street and about 160 feet east of East Street, Indianapolis. Unused drilled well, diameter 10 inches, depth 310 feet, ending in limestone. Measuring point, top of floor of recorder shelter, 2.00 feet above land-surface datum. Automatic water-stage recorder installed Apr. 5, 1944. Measurements made by personnel of U. S. Geological Survey.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	68.25	77.50	88.07	87.60	81.49	83.05	82.32	78.52
2	.....	69.40	78.15	81.90	88.85	81.97	82.00	82.37	80.75
3	.....	.....	78.47	79.00	87.90	80.80	83.00	82.65	80.75
4	.....	70.35	77.00	81.97	88.16	80.52	83.45	82.74	80.43
5	.....	70.65	75.50	81.99	86.35	81.22	83.50	82.55	80.75
6	.....	70.60	78.32	87.50	83.13	82.23	84.15	81.05	80.52
7	.....	69.25	78.25	89.05	82.67	82.55	84.45	81.85	80.50
8	.....	69.15	78.55	89.35	86.85	83.47	83.45	81.84	80.50
9	.....	69.68	78.50	83.50	.....	82.60	82.05	81.52	80.65
10	.....	70.02	78.63	79.00	.....	82.45	83.10	82.05	80.00
11	68.50	.....	77.80	86.00	.....	81.83	83.55	82.50	80.80
12	67.80	71.26	79.00	89.00	.....	82.99	83.63	81.15	81.50
13	70.10	71.75	78.25	90.00	81.85	84.67	83.62	81.62	81.96
14	70.65	72.00	78.50	90.40	80.15	83.60	83.61	82.05	82.19

## Marion 22. Arthur Baxter--Continued.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	70.50	67.75	77.90	90.25	81.47	81.59	83.07	81.95	81.07
16	68.25	72.00	76.00	83.75	81.45	81.42	80.85	82.82	79.60
17	68.40	72.92	76.75	78.70	82.24	81.08	82.60	83.10	79.00
18	70.45	70.65	78.00	82.06	81.78	81.02	82.92	82.25	77.95
19	70.30	71.55	80.00	87.75	81.85	83.07	82.67	81.87	79.10
20	70.35	71.20	82.70	89.25	81.25	84.75	81.97	81.30	79.25
21	70.60	71.25	82.80	89.50	81.05	83.54	82.63	81.75	79.95
22	70.80	.....	83.67	88.45	81.60	83.03	82.30	81.75	80.42
23	70.15	70.10	82.45	82.38	82.67	84.79	81.77	81.43	80.29
24	69.20	70.07	85.65	82.34	83.39	83.57	82.78	81.00	79.13
25	70.10	70.96	84.35	.....	83.35	81.00	82.70	76.50	71.76
26	70.25	71.45	82.20	.....	83.03	82.26	82.68	74.25	73.60
27	70.25	71.65	89.60	.....	81.77	83.25	82.70	71.90	78.45
28	70.50	72.43	89.95	.....	82.55	83.77	82.80	74.42	78.92
29	70.50	.....	89.95	.....	85.44	84.02	82.15	74.65	79.00
30	69.40	77.30	89.25	.....	83.47	84.20	80.40	74.40	78.68
31	.....	76.60	.....	.....	82.45	.....	82.27	.....	78.05

Marion 24. Joe Ritter, 215 South High School Road, Indianapolis. About 100 feet east of High School Road and about 100 feet north of Big Four Railroad tracks. Unused dug well, diameter 36 inches, depth 39 feet. Measuring point, top of curbing, at land-surface datum. First measured Nov. 1, 1944. Measurements made by personnel of U. S. Geological Survey.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 1	13.95	Nov. 20	14.11	Dec. 11	14.29	Dec. 23	14.28
6	14.02	27	14.15	18	14.23	30	14.24
13	14.08	Dec. 4	14.19				

Martin County

Martin 3. John Ketcham. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 4 N., R. 5 W., on west side of State Highway 45, 1.3 miles south of intersection with State Highway 58, on top of hill, near Odon. Unused dug well, diameter 42 inches, depth 32 feet. Measuring point, top of iron plate over well, 0.70 foot above land-surface datum. First measured Mar. 1, 1944. Measurements made by George W. Melton.

Water level, in feet below land-surface datum, 1944

Mar.	1	22.03	May	18	20.60	July	27	21.53	Oct.	19	22.06
	8	21.62		25	21.01		3	21.67		24	22.15
	21	21.66		31	20.97		10	21.74		26	22.05
	22	21.67	June	8	21.01		24	21.72	Nov.	9	22.02
	29	21.31		15	21.04		31	21.75		18	22.06
Apr.	6	21.28		22	21.33	Sept.	8	21.89		25	22.06
	13	19.15		29	21.42		14	21.94	Dec.	2	22.34
	20	19.97	July	6	21.49		21	21.98		11	22.38
	26	19.47		13	21.43	Oct.	5	22.04		19	22.37
May	4	19.45		20	21.43		14	22.08		24	22.36
	11	20.35									

Martin 4. John Ketcham. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 12, T. 4 N., R. 5 W., on west side of State Highway 45, 1.3 miles south of intersection with State Highway 58, about 300 feet north of well Martin 3 downhill, near Odon. Unused dug well, diameter 36 inches, depth 15 feet. Measuring point, top of rock on east side, at land-surface datum. First measured Mar. 1, 1944. Measurements made by George W. Melton.

## Martin 4. John Ketcham--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 1	3.65	May 18	3.72	July 27	8.81	Oct. 19	10.72
8	2.40	25	3.77	Aug. 3	9.36	24	10.84
22	3.71	31	3.71	10	10.17	26	11.16
29	3.56	June 8	3.82	24	4.69	Nov. 9	11.05
Apr. 6	3.78	15	3.86	31	4.59	18	12.46
13	3.56	22	4.04	Sept. 8	5.45	25	12.44
20	3.68	29	6.06	14	6.77	Dec. 2	12.56
26	3.49	July 6	7.39	21	8.26	11	12.52
May 4	3.52	13	8.19	Oct. 5	9.49	19	12.49
11	3.66	20	7.32	14	9.58	24	12.45

## Monroe County

Monroe 3. Dustin McDnald. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31, T. 8 N., R. 2 W., west side of county road, 2 miles south of Stanford. Unused dug well, diameter 36 inches, depth 29.5 feet, ending in clay (?). Measuring point, top of 4- by 4-foot timber over well, 0.50 foot above land-surface datum. First measurement Sept. 15, 1944. Measurements made by George B. Harp.

## Water level, in feet below land-surface datum, 1944

Sept. 15	27.07	Oct. 21	26.95	Nov. 18	27.13	Dec. 16	27.24
Oct. 5	26.79	28	26.99	25	27.13	23	27.27
7	26.81	Nov. 3	27.06	Dec. 2	27.11	30	27.31
14	26.88	11	27.10	9	27.20		

## Montgomery County

Montgomery 1 (\*817, p. 49; 840, p. 82; 845, p. 79; 886, p. 109; 906, p. 30; 936, p. 35; 944, p. 32; 986, p. 35). W. H. Moore. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36, T. 17 N., R. 6 W., at site of burned house, in Waveland. Measuring point beginning Sept. 1, top of floor of recorder shelter, 1.75 feet above land-surface datum. Automatic water-stage recorder installed Sept. 1, 1944. Measurements made by C. N. McBrayer, M. A. Fuller, W. A. Cotton, W. F. Moore.

## Water level, in feet below land-surface datum, 1944

Jan. 15	12.66	Mar. 15	8.16	May 21	8.42	July 15	12.04
31	12.85	30	8.42	31	7.07	28	11.79
Feb. 15	12.67	Apr. 15	6.00	June 15	8.84	Aug. 15	12.67
28	8.50	May 1	7.30	30	11.42	28	11.92

## Water level at 2 a.m., in feet below land-surface datum, 1944

(From recorder charts)

Sept. 2	11.58	Sept. 23	12.37	Nov. 5	12.98	Dec. 10	a 11.71
3	11.59	24	12.45	8	12.63	11	a 11.67
4	11.61	25	12.50	9	12.47	12	11.62
5	11.54	26	12.53	10	12.32	13	11.65
6	11.42	27	12.54	11	12.29	14	11.72
7	11.40	28	12.59	12	12.24	15	11.61
8	11.43	29	12.58	13	12.16	16	11.69
9	11.40	Oct. 23	12.67	14	12.05	17	11.71
10	11.39	24	12.61	15	11.94	19	11.81
11	11.43	25	12.62	29	11.81	20	11.81
12	11.47	26	12.71	30	a 11.74	21	11.82
13	11.50	27	12.83	Dec. 1	a 11.87	22	11.94
14	11.60	28	12.92	2	a 12.02	23	11.90
15	11.71	29	12.85	3	a 12.10	24	11.92
16	12.00	30	12.89	4	a 12.06	25	11.89
18	12.09	31	12.91	5	11.99	26	12.05
19	12.13	Nov. 1	12.92	6	11.90	29	12.14
20	12.16	2	12.96	7	a 11.86	30	12.10
21	12.21	3	13.00	8	a 11.81	31	12.08
22	12.26	4	13.02	9	a 11.76		

a Estimated.



Morgan County

Morgan 1 (\*840, p. 82; 845, p. 80; 886, p. 109; 906, p. 31; 936, p. 35; 944, p. 32; 986, p. 35). State of Indiana. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 11 N., R. 1 E. Morgan-Monroe State Forest. South of trail 3, in front of Shady Rest Cabin. Well put into service and measurements discontinued July 15, 1943.

Morgan 2. State of Indiana. Morgan-Monroe State Forest. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27, T. 11 N., R. 1 E., truck trail 3 at Bucks Store, about 600 feet north of Morgan 1. Unused dug well, diameter 33 inches, depth 16.0 feet. Measuring point, top of brick curb, at land-surface datum. First measured Jan. 31, 1944. Measurements made by John Holwager, Morgan-Monroe State Forest.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	6.0	Apr. 30	5.0	July 2	8.2	Sept. 1	10.8
Mar. 1	4.7	June 1	6.5	Aug. 1	9.8	Oct. 24	11.64
Apr. 1	4.2						

Newton County

Newton 2. Kentland Dairy Products Co. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 16, T. 27 N., R. 9 W., north of city limits and east of New York Central Railroad tracks near southeast corner of milk plant, Kentland. Unused drilled well, diameter 10 inches, depth 91.5 feet, ending in gravel. Measuring point, top of 10-inch casing at west side, 1.5 feet below land-surface datum. First measured May 25, 1944. Measurements made by E. E. Lyons, Kentland Dairy Products Co.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 25	44.28	Aug. 19	49.83	Sept. 4	50.65	Sept. 30	50.60
June 15	46.20	26	51.00	9	51.80	Oct. 28	50.10

Noble County

Noble 2 (\*840, p. 83; 845, p. 80; 886, p. 109; 906, p. 31; 936, p. 36; 944, p. 32; 986, p. 36). Lawrence Ott. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 35, T. 33 N., R. 9 E., about 0.8 mile east of State Highway 9 and about 0.2 mile west of State Highway 102, about 100 yards north of county-line road. Measurements made by James F. Bodley, superintendent, Tri-Lakes State Fish Hatchery. Well destroyed and measurements discontinued Apr. 29, 1944.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	21.90	Feb. 15	22.10	Mar. 15	21.20	Apr. 15	22.62
31	21.90	Mar. 1	22.70	Apr. 1	12.94		

Noble 3 (\*840, p. 83; 845, p. 80; 886, p. 109; 906, p. 31; 936, p. 36; 944, p. 33; 986, p. 36). Della May Kitt. NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23, T. 33 N., R. 9 E., about 1.1 mile northwest of Merriam, across road from owner's residence. Measurements made by James F. Bodley, superintendent, Tri-Lakes State Fish Hatchery.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	21.40	Apr. 15	20.50	July 30	18.70	Oct. 31	20.40
31	21.40	29	19.10	Aug. 15	19.30	Nov. 15	20.80
Feb. 15	21.80	May 15	18.10	Sept. 1	19.50	30	20.90
Mar. 1	21.60	31	17.90	15	19.70	Dec. 1	20.90
15	20.90	June 15	17.70	30	19.70	30	20.90
Apr. 1	20.04	30	18.40	Oct. 17	19.60		

Noble 5 (\*944, p. 33; 986, p. 36). Rolla Becker. N $\frac{1}{2}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13, T. 34 N., R. 10 E., about 1 mile north of State Highway 8 and about 4 miles southwest of Kendallville. Measurements made by Keith Becker.

## Noble 5. Rolla Becker--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.90	Apr. 3	3.73	July 1	4.65	Oct. 1	8.25
15	7.99	15	2.52	15	5.40	15	8.45
Feb. 4	8.39	May 1	3.34	Aug. 3	6.20	Nov. 1	8.75
16	7.98	15	2.66	16	6.80	15	8.75
Mar. 2	8.48	June 3	3.58	Sept. 1	7.54	Dec. 2	8.80
16	3.18	15	4.03	15	7.86	15	8.89

Ohio County

Ohio 1. Arthur H. Hannah. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 16, T. 3 N., R. 2 W., about 1.5 miles north and about 0.7 mile west of Aberdeen, about 800 feet east of county road. Unused dug well, diameter 48 inches, depth 40 feet. Measuring point, top of rock curb, top layer on west side of well, 0.50 foot above land-surface datum. First measured Sept. 7, 1944. Measurements made by Arthur H. Hannah.

Water level, in feet below land-surface datum, 1944

Sept. 7	12.89	Oct. 7	13.25	Nov. 11	13.37	Dec. 9	13.41
9	12.94	14	13.30	18	13.36	16	13.45
16	13.05	21	13.32	25	13.39	23	13.46
23	13.17	28	13.35	Dec. 2	13.40	30	13.45
30	13.25	Nov. 4	13.36				

Orange County

Orange 1. Owner unknown. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 7, T. 1 N., R. 2 E., at abandoned house, 1.25 miles south of Millersburg on west side of county road. Unused dug well, diameter 36 inches, depth 36 feet, ending in limestone. Measuring point, top of flat stone on south side of well, at land-surface datum. First measured Mar. 1, 1944. Measurements made by Herman D. Winingar.

Water level, in feet below land-surface datum, 1944

Mar. 1	14.49	Apr. 23	0.90	July 2	6.30	Nov. 11	11.65
5	14.30	30	1.70	9	6.70	18	11.80
12	11.80	May 6	.70	25	7.37	25	12.10
19	6.80	14	2.30	29	7.44	Dec. 2	12.35
22	5.05	21	3.50	Aug. 8	7.80	9	12.73
26	.80	June 4	4.30	12	6.84	16	13.00
Apr. 2	.70	11	4.80	19	6.84	23	13.20
9	(a)	19	5.20	Oct. 28	10.97	30	13.40
16	.80	25	6.00	Nov. 4	11.25		

a Flowing.

Perry County

Perry 1. Owner unknown. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 21, T. 5 S., R. 2 W., about 1.8 miles northeast of Gatchel along State Highway 37, about 50 feet north of road. Unused dug well, diameter 30 inches, depth 22 feet. Measuring point, top of rock on east side of well curb, at land-surface datum. First measured Mar. 3, 1944. Measurements made by Charles H. Goffinet.

Water level, in feet below land-surface datum, 1944

Mar. 3	3.78	May 7	2.98	July 9	9.39	Sept. 3	9.85
12	3.80	14	4.78	16	9.18	10	8.80
19	2.50	21	6.83	23	9.68	17	8.92
26	3.07	28	6.65	27	9.66	24	9.17
Apr. 2	2.94	June 4	7.24	30	9.69	Oct. 1	8.35
9	3.27	11	7.80	Aug. 6	9.80	8	7.80
16	2.97	18	8.42	13	10.12	15	7.98
23	2.47	25	8.91	20	10.10	22	8.36
30	3.91	July 2	9.24	27	9.56	27	8.68

Perry 1. Owner unknown--Continued.

Water level, in feet below land-surface datum, 1944					
Date	Water level	Date	Water level	Date	Water level
Oct. 29	8.36	Nov. 19	8.59	Dec. 10	7.68
Nov. 5	8.73	Dec. 26	8.05	17	7.27
12	9.85	Dec. 3	7.77	Dec. 24	7.48
				31	2.22

Pike County

Pike 1 (\*840, p. 83; 845, p. 80; 886, p. 109; 906, p. 32; 936, p. 36; 944, p. 33; 986, p. 36). A. J. Heuring. In front of Heuring residence at Lafayette and Main Streets, in Winslow. Measurements made by Hoyt McClure, superintendent, Pike State Forest.

Water level, in feet below land-surface datum, 1944					
Jan. 15	11.98	Apr. 29	6.80	July 31	10.57
31	11.94	May 15	7.17	Aug. 15	11.08
Feb. 15	12.91	31	8.00	31	11.37
29	11.76	June 15	8.67	Sept. 16	11.57
Mar. 16	10.50	30	9.38	30	11.86
Apr. 15	7.41	July 15	10.06	Oct. 31	12.33
				Nov. 15	12.56
				30	12.67
				Dec. 16	12.79
				30	12.94

Porter County

Porter 1 (\*817, p. 50; 840, p. 83; 845, p. 80; 886, p. 108; 906, p. 32; 936, p. 36; 944, p. 33; 986, p. 36). Valparaiso Water Department. Test well at well 1 pump house at Flint Lake, about 3 miles north of Valparaiso along State Highway 49. Measurements made by J. F. Bradley, engineer, Valparaiso Water Department.

Water level, in feet below land-surface datum, 1944					
Jan. 1	50.95	Apr. 15	50.90	July 15	50.96
16	51.10	30	51.19	31	50.87
Feb. 15	51.40	May 15	51.06	Aug. 15	52.03
29	51.55	31	50.93	31	52.22
Mar. 15	51.28	June 15	50.96	Sept. 15	51.44
31	51.34	30	50.98	30	53.67
				Oct. 15	52.74
				31	53.86
				Nov. 15	54.46
				30	54.70
				Dec. 15	55.25
				31	56.65

Porter 2 (\*817, p. 50; 840, p. 83; 845, p. 80; 886, p. 108; 906, p. 32; 936, p. 37; 944, p. 33; 986, p. 37). Indiana Dunes State Park. At Waverly Beach. Measurements made by K. R. Coughill, superintendent, Indiana Dunes State Park.

Water level, in feet below land-surface datum, 1944					
Jan. 5	10.6	Mar. 3	11.6	June 5	10.8
18	11.5	20	11.7	15	11.5
Feb. 4	11.3	Apr. 1	11.2	July 19	10.1
15	11.1	15	11.5	Aug. 2	10.92
				Oct. 24	11.00
				Nov. 30	11.00
				Dec. 15	11.10

Porter 3 (\*817, p. 50; 840, p. 83; 845, p. 80; 886, p. 108; 906, p. 32; 936, p. 37; 944, p. 34; 986, p. 37). Indiana Dunes State Park. Near grocery store on picnic ground. Measurements made by K. R. Coughill, superintendent, Indiana Dunes State Park.

Water level, in feet below land-surface datum, 1944					
Jan. 5	13.6	Mar. 3	14.5	June 5	12.5
18	14.3	20	14.3	15	12.7
Feb. 4	14.6	Apr. 1	13.8	July 19	13.6
15	14.1	15	12.8	Aug. 2	13.67
				Oct. 24	14.8
				Nov. 30	14.8
				Dec. 15	14.90

Posey County

Posey 1. Alonzo Allyn. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 6 S., R. 12 W., Bufkin-Caborn Road, about 6.9 miles from Mt. Vernon on north side of road. Abandoned dug well, diameter 36 inches, depth 25.3 feet, ending in coarse sand. Measuring point, top edge of brick in third course on south side of well, 0.40 foot below land-surface datum. First measured Feb. 17, 1944. Measurements made by Emil G. Wolf.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 17	16.07	May 7	6.00	July 30	11.60	Oct. 22	13.53
20	16.09	14	6.30	Aug. 6	11.83	29	13.68
27	16.10	21	6.70	13	11.70	Nov. 5	13.83
Mar. 5	15.78	28	7.20	20	12.26	12	13.98
12	15.83	June 5	7.70	27	12.37	19	14.11
19	14.80	11	7.76	Sept. 3	13.26	26	14.25
26	14.17	18	8.50	10	12.65	Dec. 3	14.45
Apr. 2	10.50	25	9.97	17	12.78	10	14.55
9	9.10	July 2	10.90	24	12.98	17	14.70
16	5.50	9	10.78	Oct. 1	13.08	24	14.84
23	5.65	16	11.13	8	13.22	31	14.83
30	5.73	23	11.38	15	13.40		

Pulaski County

Pulaski 1 (\*817, p. 51; 840, p. 84; 845, p. 81; 886, p. 108; 906, p. 32; \*936, p. 38; 944, p. 34). Jasper-Pulaski State Game Preserve. In basement of superintendent's residence. Measurements made by Philip Crecelius, superintendent, Jasper-Pulaski State Game Preserve. Water levels, in feet below land-surface datum, 1944: May 22, 6.14; May 27, 6.13; Aug. 1, 8.79; Nov. 2, 10.05.

Randolph County

Randolph 1 (\*944, p. 34; 986, p. 37). Artie V. Keys. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 20 N., R. 14 E., in rear of owner's residence, about 3 miles east and 1 mile south of Winchester. Measurements made by Artie V. Keys.

Water level, in feet below land-surface datum, 1944

Jan. 15	17.26	Apr. 15	12.39	July 15	15.76	Oct. 15	17.93
31	17.33	30	13.09	31	16.30	31	17.89
Feb. 15	17.52	May 15	13.79	Aug. 15	16.72	Nov. 15	17.82
29	16.23	31	14.36	31	16.88	30	17.94
Mar. 15	14.42	June 15	14.70	Sept. 15	17.40	Dec. 15	18.04
31	13.15	30	15.35	30	17.54	31	18.12

Ripley County

Ripley 1. Cleve Fagan. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 19, T. 8 N., R. 11 E., 2.8 miles west of Osgood on county road. Unused dug well, diameter 48 inches, depth 20.6 feet. Measuring point, top of stone curb east side of well, 0.60 foot below land-surface datum. First measured Sept. 7, 1944. Measurements made by Cleve Fagan.

Water level, in feet below land-surface datum, 1944

Sept. 7	12.28	Sept. 28	12.22	Oct. 12	12.40	Oct. 27	11.60
16	11.80	Oct. 5	12.30	19	12.80	Nov. 4	12.90
21	12.30						

St. Joseph County

St. Joseph 1 (\*817, p. 52; 840, p. 85; 845, p. 82; 886, p. 110; 906, p. 33; \*936, p. 38; 944, p. 34; 986, p. 37). Mishawaka Water and Light Department. At pumping plant, Mishawaka. Measurements made by A. R. Klein, superintendent, Mishawaka Water and Light Department.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.26	Apr. 15	6.08	July 15	11.24	Oct. 16	11.08
17	8.57	May 1	6.00	Aug. 1	12.58	Nov. 1	11.51
Feb. 1	8.92	16	6.84	16	12.75	15	9.75
Mar. 1	8.07	June 1	7.42	Sept. 1	11.24	Dec. 1	9.66
16	6.06	15	11.83	16	12.31	16	9.83
Apr. 1	6.58	July 1	9.84	Oct. 2	10.75		

St. Joseph 16-1. Singer Manufacturing Co., Olive Street and Western Avenue, South Bend. About 180 feet east of centerline of Olive Street, 12.0 feet west and 54.0 feet north of 8-inch supply well. Unused drilled well, diameter 6 inches, depth 118 feet, ending in gravel. Well is seriously affected by automatic intermittent pumping of supply well. Measuring point, top of 2-inch nipple, 0.70 foot above land-surface datum. First measured June 28, 1944. Measurements made by personnel of Singer Manufacturing Co., J. R. Kerr, chief engineer.

Water level, in feet below land-surface datum, 1944

June 28	29.86	Aug. 16	31.27	Oct. 4	29.30	Nov. 22	29.96
July 5	29.41	24	30.17	11	29.45	29	29.34
12	30.14	30	29.60	19	29.55	6	29.70
19	30.21	Sept. 7	29.59	25	29.32	15	29.04
26	30.42	13	29.49	Nov. 8	28.69	22	29.71
Aug. 1	30.87	20	29.85	12	29.12	28	28.79
10	30.10	27	29.10	16	29.38		

St. Joseph 16-F. Singer Manufacturing Co., Olive Street and Western Avenue, South Bend. "Fire well", open dug well, diameter 40 feet, depth 40 feet, ending in shallow sand formation. Measuring point, top of pump suction-valve deck, 13.89 feet below land-surface datum. First measured Dec. 5, 1909 (from records of company). Measurements made by personnel of Singer Manufacturing Co., J. R. Kerr, chief engineer.

Water level, in feet below land-surface datum, 1909, 1925, 1927-31, 1944

Date	Water level	Date	Water level	Date	Water level
Dec. 5, 1909	13.99	Mar. 30, 1931	21.71	Sept. 20, 1944	20.95
May 6, 1925	15.04	June 1, 1944	19.29	27	21.09
Aug. 25, 1927	16.04	28	19.28	Oct. 11	21.20
July 18, 1928	17.37	July 5	19.31	19	21.26
19	17.71	12	19.48	25	21.30
Aug. 16	18.12	19	19.57	Nov. 1	21.14
Sept. 7	18.46	26	19.87	8	21.35
17	19.04	Aug. 1	19.91	16	21.42
25	18.71	10	19.79	22	21.38
Oct. 19	19.17	16	20.29	29	21.63
Dec. 11	19.71	24	20.45	Dec. 6	21.46
13	19.79	30	20.54	15	21.48
Sept. 17, 1929	20.37	Sept. 7	20.70	22	21.57
Aug. 9, 1930	20.17	13	20.83	28	21.46

St. Joseph 22. Palace Theater, Colfax Avenue and Michigan Street, South Bend. West well in basement of theater. Unused drilled well, diameter 12 inches, depth 96.7 feet, ending in gravel. Well was originally 142 feet deep, and was dynamited, destroying screen. Measuring point, top of 6-inch casing in hole in concrete cover over well, 10.00 feet below land-surface datum. First measured June 8, 1944. Automatic water-stage recorder installed Sept. 28, 1944. Measurements made by O. A. Lambert, engineer, Palace Theater.

## St. Joseph 22. Palace Theater--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 8	37.39	July 5	40.22	Aug. 1	39.90	Aug. 26	40.08
9	36.68	6	40.97	2	41.82	28	38.40
10	35.75	7	41.92	3	41.88	29	34.63
12	34.06	8	41.97	4	43.00	30	35.77
13	35.77	10	41.94	5	43.46	31	35.45
14	37.39	11	41.55	7	38.87	Sept. 1	35.18
15	37.87	12	40.88	8	38.42	2	35.06
16	37.77	13	39.28	9	39.20	4	35.58
17	37.89	14	38.88	10	40.42	5	35.90
19	37.19	15	39.67	11	42.24	6	36.08
20	35.60	17	39.16	12	42.56	7	36.47
21	35.42	18	39.08	14	41.80	8	35.80
22	36.22	19	40.07	15	42.87	9	35.60
23	35.62	20	40.56	16	42.84	11	35.60
24	36.80	21	37.24	17	42.04	12	35.55
26	35.52	22	36.55	18	41.70	13	35.36
27	38.78	24	38.62	19	41.24	14	35.18
28	40.43	25	39.82	21	40.45	15	35.16
29	40.44	26	39.94	22	40.60	16	35.16
30	39.67	27	39.10	23	40.79	18	36.21
July 1	39.22	28	38.80	24	40.58	19	36.84
3	38.89	29	37.20	25	40.26	20	36.90
4	40.20	31	38.45				

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Sept. 29	33.63	Oct. 25	32.04	Nov. 18	36.21	Dec. 10	36.68
30	34.65	26	33.11	19	35.13	11	35.78
Oct. 1	34.15	27	32.75	20	33.50	12	35.03
2	32.18	28	32.84	21	33.92	13	35.55
3	33.26	29	32.04	22	35.52	14	35.53
4	33.66	30	32.35	23	35.78	15	36.11
5	33.66	31	32.60	24	34.97	16	35.76
6	33.72	Nov. 1	33.97	25	34.50	17	35.91
7	35.35	2	34.40	26	33.88	18	34.57
8	34.42	3	35.12	27	32.14	19	34.11
9	32.28	4	35.87	28	33.12	20	35.21
10	33.05	5	34.53	29	34.35	21	35.76
11	33.15	7	34.35	30	34.25	22	34.51
12	33.53	8	34.22	Dec. 1	33.93	23	34.25
13	34.07	9	34.43	2	34.23	24	33.95
17	32.80	10	34.51	3	35.79	25	32.75
18	33.01	11	34.49	4	34.63	26	31.50
19	33.35	12	35.03	5	35.25	27	31.51
20	33.61	13	33.43	6	36.40	28	32.48
21	33.62	14	34.84	7	36.25	29	32.62
22	32.76	15	35.00	8	35.64	30	34.33
23	31.71	16	35.10	9	35.88	31	33.42
24	31.72	17	35.78				

St. Joseph 25-3. Oliver Farm Equipment Co., Chapin and Ford Streets, South Bend. Well is west of Chapin Street, about 150 feet west of dug supply well. Unused driven test well, diameter 2 inches, depth 44.2 feet, ending in sand. Measuring point, top of 2-inch coupling, 1.90 feet above land-surface datum. First measured Sept. 29, 1944. Measurements made by personnel of Oliver Farm Equipment Co., C. O. Drulliner, chief engineer.

## Water level, in feet below land-surface datum, 1944

Sept. 29	31.18	Oct. 7	30.28	Oct. 16	30.19	Oct. 30	31.34
30	29.28	9	29.98	17	30.38	Nov. 1	31.30
Oct. 2	30.18	10	30.18	18	30.19	2	31.28
3	29.68	11	30.19	19	29.98	3	31.24
4	30.18	12	30.48	20	31.34	8	31.28
5	30.28	13	30.28	23	31.18	9	31.30
6	31.38	14	29.98	25	30.87		

Scott County

Scott 1 (\*944, p. 35; 986, p. 38). Scottsburg Water Department well 3. Near northeast corner of intersection of Hyland and Thomas Streets, Scottsburg. Automatic water-stage recorder installed May 11, 1944. Measurements made by C. E. Robbins, superintendent, Scottsburg Water Department.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Jan. 10	26.13	Feb. 24	23.12	Mar. 31	22.24
Feb. 9	25.83	Mar. 14	20.93		

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	23.10	23.53	24.50	24.70	26.51	26.52	27.48
2	.....	23.15	23.70	23.85	25.15	26.07	26.73	27.61
3	.....	21.82	22.67	24.19	.....	25.48	26.98	27.61
4	.....	22.92	23.64	24.73	24.03	26.24	27.08	27.45
5	.....	23.00	24.25	25.22	22.60 a	26.80	27.15	27.31
6	.....	23.43	24.69	.....	25.03	.....	26.88	27.33
7	.....	23.30	24.21	.....	25.78	26.35	26.82	27.25
8	.....	23.81	24.74	.....	25.60 a	26.37	26.89	27.03
9	.....	24.01	25.07	.....	24.70	24.88	26.86	26.91
10	.....	23.64	25.05	25.70	24.15	25.66	26.82	26.87
11	.....	23.66	24.71	25.73	23.10	25.78	27.09	26.43
12	19.78	22.87	23.45	25.81	24.01	25.85	27.13	26.40
13	22.01	22.68	22.23	25.98	25.42	25.78	26.77	26.35
14	23.15	22.95	23.45	26.00	25.22	25.06	26.67	26.51
15	.....	23.46	24.90	25.78	24.95	25.42	26.80	26.62
16	22.15	23.88	24.65	24.98	24.87	25.90	27.04	26.45
17	23.45	23.78	23.95	.....	25.22	.....	27.21	26.48
18	23.77	23.60	24.95	.....	24.00	26.15	27.22	26.34
19	23.40	.....	24.40	26.12	.....	26.25	27.20	26.23
20	21.78	.....	25.00	26.10	24.15	26.33	26.87	26.20
21	20.62	22.06	25.63	25.54	24.49	26.38	26.92	26.08
22	.....	22.54	24.95	25.52	24.50	26.56	27.15	26.13
23	23.65	24.36	24.80	24.43	24.95	26.66	27.20	25.91
24	24.07	24.81	23.85	24.36	24.60 a	26.47	27.38	25.91
25	23.52	24.25	23.52	24.98	25.13	26.98	27.37	25.68
26	.....	22.57	23.62	.....	25.46	.....	27.32	25.40
27	.....	22.28	23.75	25.25	25.83	.....	27.25	24.20
28	.....	23.91	23.73	25.03	25.96	26.84	27.16	24.60
29	.....	24.35	23.90	24.60	25.90	26.72	27.11	24.56
30	23.05	23.86	23.73	25.30	26.23	26.75	27.26	24.58
31	23.72	.....	24.10	25.88	.....	26.51	.....	24.57

a Estimated.

Spencer County

Spencer 4. J. Andrew Wetzel. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 10, T. 5 S., R. 5 W., 0.5 mile east of Buffaloville and about 100 feet north of road. Unused dug well, diameter 48 inches, depth 19 feet, ending in clay and sandstone. Measuring point, top of stone curb, 0.40 foot below land-surface datum. First measured Mar. 2, 1944. Measurements made by Elbert B. Meier.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 2	2.54	Apr. 1	2.47	May 13	3.17	June 24	6.25
11	2.78	8	2.69	20	3.89	July 1	6.71
16	2.81	15	2.18	27	4.71	8	6.82
18	1.91	22	2.87	June 3	5.20	15	6.98
22	2.19	29	2.85	10	6.00	22	7.16
25	2.33	May 6	2.19	17	5.98	29	7.26

## Spencer 4. J. Andrew Wetzol--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 4	7.56	Sept. 16	8.22	Oct. 26	4.67	Dec. 2	4.19
12	7.65	23	8.00	28	3.44	9	4.17
19	7.69	30	7.28	Nov. 4	5.14	16	4.18
26	7.50	Oct. 7	8.26	11	3.97	23	4.17
Sept. 2	8.18	14	3.91	18	3.58	30	3.48
9	7.84	21	4.43	25	3.57		

Spencer 5. Lincoln State Park. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 4 S., R. 5 W., at caretaker's house, Lincoln City. Unused drilled well, diameter 4 inches, depth 238 feet, ending in rock. Measuring point, top of 4-inch casing on west side of well, 4.00 feet below land-surface datum. First measured Mar. 2, 1944. Measurements made by Wayne Jones.

Water level, in feet below land-surface datum, 1944

Mar. 2	31.13	May 24	29.96	Aug. 9	30.96	Oct. 24	31.15
8	23.50	30	29.96	15	30.97	26	31.50
15	31.16	June 7	27.97	23	31.20	Nov. 1	31.45
22	30.93	14	30.92	30	31.16	8	31.30
23	30.92	21	29.99	Sept. 6	31.25	15	31.35
Apr. 5	30.91	27	29.98	12	31.16	22	31.35
12	29.97	July 5	30.95	18	31.25	29	31.45
19	27.98	12	30.96	26	31.20	Dec. 6	31.45
25	27.97	19	30.97	Oct. 4	31.40	13	31.50
May 3	28.92	26	30.99	10	30.97	20	31.55
9	27.99	28	30.96	18	30.98	27	31.35
16	28.00	Aug. 2	30.96				

Spencer 6. Lincoln State Park. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5, T. 5 S., R. 5 W., about 300 feet southwest of memorial building in pumphouse, Lincoln City. Unused drilled well, diameter 4 inches, depth 429 feet, ending in rock. Measuring point, top of 4-inch casing on west side of well, 0.2 foot above land-surface datum. First measured Aug. 23, 1944. Measurements made by Wayne Jones.

Water level, in feet below land-surface datum, 1944

Aug. 23	29.92	Sept. 26	30.15	Oct. 26	30.23	Nov. 29	30.15
30	29.90	Oct. 4	29.79	Nov. 1	30.15	Dec. 6	30.15
Sept. 6	29.90	10	30.10	8	30.15	13	30.20
12	29.86	18	29.95	15	30.10	20	30.25
18	30.10	24	30.05	22	30.25	27	30.10

Spencer 7. Lincoln State Park. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 5 S., R. 5 W., about 2,500 feet northeast of fire tower, 75 feet southwest of Spencer 8, near east boundary of park, Lincoln City. Unused dug well, diameter 42 inches, depth 16 feet. Measuring point, top of curb on south side of well, 2.50 feet above land-surface datum. First measured Aug. 23, 1944. Measurements made by Elbert B. Meier.

Water level, in feet below land-surface datum, 1944

Aug. 23	8.95	Sept. 30	9.37	Oct. 28	9.56	Dec. 2	9.27
26	9.03	Oct. 7	9.37	Nov. 4	9.84	9	8.88
Sept. 2	9.08	14	9.54	11	9.88	16	11.18
9	9.12	21	9.53	18	9.75	23	11.31
16	9.05	26	9.64	25	9.62	30	9.63
23	9.32						

Spencer 8. Lincoln State Park. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8, T. 5 S., R. 5 W., about 2,500 feet north of fire tower, 75 feet northeast of Spencer 7, near east boundary of park, Lincoln City. Unused dug well, diameter 8 feet, depth 12 feet. Measuring point, top of rock on cover, west side, 0.20 foot above land-surface datum. First measured Aug. 23, 1944. Measurements made by Elbert B. Meier.



## Spencer 8. Lincoln State Park--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 23	7.63	Sept. 23	7.93	Oct. 26	7.90	Dec. 2	7.64
26	7.64	30	7.85	Nov. 4	8.02	9	7.26
Sept. 2	7.67	Oct. 7	7.83	11	8.23	16	8.21
9	7.44	14	7.89	18	7.99	23	7.46
16	7.48	21	7.85	25	7.94	30	7.18

## Starke County

Starke 1 (\*817, p. 53; 840, p. 86; 845, p. 83; 886, p. 111; 906, p. 33; \*936, p. 39; 944, p. 36; 986, p. 38). Joe Tomassi. At Bass Lake State Fish Hatchery, about 200 feet north of superintendent's house. Measurements made by Peter Brown, Bass Lake State Fish Hatchery.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	14.74	Apr. 25	12.90	July 3	12.85	Oct. 11	13.98
Feb. 15	14.20	May 2	12.50	25	13.70	Nov. 3	15.65
Mar. 1	14.99	16	12.50	Aug. 12	13.98	16	15.80
16	14.47	June 1	12.46	Sept. 1	14.70	Dec. 2	15.87
Apr. 1	14.41	15	12.18	21	15.00	21	15.45
17	13.50						

Starke 2 (\*817, p. 53; 840, p. 86; 845, p. 83; 886, p. 111; 906, p. 33; \*936, p. 39; 944, p. 36; 986, p. 38). S. A. Craigmile. At mint still about 0.25 mile northeast of owner's residence, near junction of State Highways 10 and 29. Measurements made by Peter Brown, Bass Lake State Fish Hatchery.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	3.64	Apr. 17	2.15	June 15	3.15	Oct. 11	4.70
Feb. 15	3.46	25	1.88	July 3	3.77	Nov. 3	4.80
Mar. 1	2.70	May 2	2.65	25	4.26	16	4.55
16	1.15	16	2.66	Sept. 1	4.80	Dec. 2	4.55
Apr. 1	2.25	June 1	1.68	21	4.93	21	4.60

Starke 3 (\*817, p. 53; 840, p. 86; 845, p. 83; 886, p. 111; 906, p. 33; \*936, p. 39; 944, p. 36; 986, p. 38). S. A. Craigmile. At mint still about 0.25 mile northeast of owner's residence, near junction of State Highways 10 and 29 and about 1 foot from Starke 2. Measurements made by Peter Brown, Bass Lake State Fish Hatchery.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	3.47	Apr. 25	1.76	July 3	3.65	Oct. 11	4.55
Feb. 15	3.34	May 2	2.77	25	4.10	Nov. 3	4.60
Mar. 1	2.92	16	2.39	Aug. 12	4.80	16	4.38
16	1.50	June 1	2.65	Sept. 1	4.65	Dec. 2	4.40
Apr. 1	2.47	15	3.00	21	4.85	21	4.30
17	.00						

## Steuben County

Steuben 1 (\*817, p. 53; 840, p. 87; 845, p. 83; 886, p. 111; 906, p. 34; 936, p. 40; 944, p. 36; 986, p. 38). Pokagon State Park. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 33, T. 38 N., R. 13 E., near superintendent's residence, on south side of area formerly used for buffalo pen. Measurements made by R. N. Sprague, superintendent, Pokagon State Park.

Water level, in feet above (+) or below (-) land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	-2.30	Apr. 3	-0.40	June 15	-0.60	Sept. 28	-3.55
15	-2.60	15	+1.15	July 3	-1.30	Oct. 28	-3.70
31	-2.20	May 17	-.20	28	-2.30	Nov. 28	-3.55
Feb. 28	-1.40	June 1	+2.20	Aug. 28	-3.00	Dec. 28	-3.70
Mar. 15	-.15						

Steuben 2 (\*817, p. 53; 840, p. 87; 845, p. 83; 886, p. 111; 906, p. 34; 936, p. 40; 944, p. 36; 986, p. 39). Pokagon State Park. NE $\frac{1}{4}$ NE $\frac{1}{4}$ , sec. 33, T. 38 N., R. 13 E., on north side of area formerly used for buffalo pen, north of Steuben 1. Measurements made by R. N. Sprague, superintendent, Pokagon State Park.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.40	Apr. 3	1.10	June 15	2.20	Sept. 28	6.00
15	4.60	15	.50	July 3	3.50	Oct. 28	6.20
31	4.50	May 2	.70	28	4.70	Nov. 28	6.20
Feb. 28	3.20	17	1.20	Aug. 28	5.50	Dec. 28	6.35
Mar. 15	.95	June 1	.80				

Sullivan County

Sullivan 1. William Koenig. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 19, T. 6 N., R. 8 W., east side of county road, about 3.8 miles southeast of Carlisle. Dug well, diameter 36 inches, depth 23.8 feet. Measuring point, top of brick curb on north side of well, at land-surface datum. First measured Aug. 24, 1944. Measurements made by John R. Howard.

Water level, in feet below land-surface datum, 1944

Aug. 24	12.25	Sept. 24	12.08	Oct. 29	13.67	Dec. 3	13.56
26	12.10	30	12.15	Nov. 5	15.38	10	13.32
Sept. 2	10.80	Oct. 7	12.43	13	13.10	16	13.50
9	11.10	15	12.60	19	13.47	28	13.77
16	11.70	21	12.75	26	13.27	31	13.72

Switzerland County

Switzerland 1. Nellie M. Walker. SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8, T. 2 N., R. 1 W., 1.0 mile east of Posey Township school on State Highway 250, on north side of road. Unused dug well, diameter 48 inches, depth 23 feet. Measuring point, top of curb on north side, 1.0 foot above land-surface datum. First measured Sept. 7, 1944. Measurements made by Nellie M. Walker.

Water level, in feet below land-surface datum, 1944

Sept. 7	18.96	Oct. 14	20.25	Nov. 10	21.55	Dec. 9	21.75
14	18.88	20	20.60	17	21.70	15	21.90
21	18.52	26	20.90	24	21.70	22	21.80
28	15.03	Nov. 2	21.30	Dec. 2	21.90	29	21.75
Oct. 6	20.10						

Tippecanoe County

Tippecanoe 1 (\*840, p. 87; 845, p. 84; 886, p. 111; 906, p. 34; 936, p. 34; 944, p. 37; 986, p. 39). Tippecanoe Township School. SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 26, T. 24 N., R. 4 W., in basement of school building, at Battle-ground. Measuring point, top of 6-inch casing, 10.00 feet below land-surface datum. Measurements made by David Mikels, janitor, Tippecanoe Township School.

Water level, in feet below land-surface datum, 1944

Feb. 5	45.26	May 12	43.93	June 29	42.93	Aug. 19	45.70
Mar. 17	45.70	19	43.91	July 7	43.93	25	45.80
24	43.60	26	43.91	15	45.73	Sept. 1	43.40
31	43.70	June 2	44.10	21	45.58	8	43.99
Apr. 14	43.50	10	42.90	28	43.74	15	43.94
17	43.60	16	42.99	Aug. 3	45.36	Dec. 5	46.10
21	43.60	23	42.97	11	43.60	15	45.56
29	42.60						

Tippecanoe 3 (\*817, p. 53; 840, p. 87; 845, p. 84; 886, p. 111; 906, p. 34; 936, p. 41; 944, p. 37; 986, p. 39). Wallace Martin. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17, T. 24 N., R. 4 W., at residence of Benton Moore. Measuring point, top of tile casing on east side of well, at land-surface datum. Measurements made by Benton Moore. Well put into service and measurements discontinued Oct. 11, 1944.

## Tippecanoe 3. Wallace Martin--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	11.46	Apr. 4	4.6	May 27	4.3	Aug. 23	10.6
Mar. 1	6.19	10	4.5	June 1	5.6	29	11.0
9	4.8	20	2.6	July 15	8.7	Sept. 12	11.3
16	4.3	28	3.8	24	9.0	20	11.7
21	4.6	May 8	4.1	31	9.5	27	12.0
28	3.7	19	4.9	Aug. 14	10.3	Oct. 5	12.0

Tippecanoe 4. Lafayette Water Department. Well 7 at city well field, Canal Street at Tippecanoe Street (extended), east bank of Wabash River. Unused drilled well, diameter 12 inches, depth 127 feet, ending in gravel. Measuring point, top of 12-inch casing, 535.87 feet above mean sea level, and 15.00 feet above land-surface datum. First measured Apr. 24, 1944. Automatic water-stage recorder installed Apr. 24, 1944. Measurements made by Robert D. Southworth, Lafayette Water Department, Glen J. Garman, superintendent.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	9.08	....	15.81	15.67	....	15.47	15.69
2	....	9.31	....	16.13	16.17	....	15.51	....
3	6.23	9.63	....	16.36	16.06	15.40	15.56	....
4	7.05	10.18	....	21.92	15.58	15.02	15.50	....
5	7.61	10.52	....	16.80	15.61	15.11	15.24	....
6	....	11.16	....	16.32	15.71	15.05	15.37	....
7	....	11.23	....	16.08	15.78	15.23	....	....
8	....	11.40	15.65	16.23	15.77	15.10	....	15.50
9	8.64	11.67	15.45	16.30	15.75	15.08	....	15.50
10	6.00	11.88	15.54	....	15.59	15.08	....	15.52
11	2.97	11.99	19.71	....	15.50	15.20	....	15.35
12	3.44	12.00	16.50	....	15.63	15.22	....	15.47
13	5.10	12.23	20.89	22.16	15.48	15.27	....	15.63
14	6.23	11.99	16.50	16.50	15.47	15.35	....	15.69
15	7.06	12.34	....	20.64	15.39	15.20	....	....
16	7.83	12.49	15.20	20.72	15.43	15.02	....	15.42
17	8.20	12.78	19.10	16.27	....	15.50	15.21	15.39
18	8.30	13.18	15.45	20.34	....	15.51	15.10	15.12
19	7.42	13.00	15.30	20.49	15.66	15.51	14.98	15.30
20	7.67	13.08	15.90	20.02	....	15.49	15.07	15.57
21	8.38	13.41	19.30	20.22	....	15.62	15.44	15.72
22	8.30	....	19.96	20.27	....	15.51	15.45	15.30
23	8.31	....	15.90	16.13	15.76	15.46	15.75	15.70
24	8.42	....	15.60	16.57	15.77	15.70	....	15.79
25	8.91	....	20.67	16.67	15.80	15.45	15.35	15.75
26	8.04	....	19.77	16.90	....	15.70	15.35	15.62
27	7.81	....	14.98	16.10	....	15.72	15.10	15.75
28	8.39	....	21.12	15.61	....	15.53	15.30	15.85
29	8.33	....	21.51	15.80	....	15.68	15.38	15.70
30	8.42	....	20.20	15.73	....	15.52	15.52	15.60
31	8.71	....	19.30	15.86	....	15.51	....	15.30

Tippecanoe 5. Fairfield Manufacturing Co. In main building, Earl Avenue and Wallace Street, Lafayette. Unused drilled well, diameter 8 inches, depth 124.4 feet, ending in gravel. Measuring point, top of 8-inch casing, 0.23 foot above concrete pump base, 1.1 feet above pumphouse floor and 2.00 feet above land-surface datum. First measured Apr. 24, 1944. Automatic water-stage recorder installed Apr. 24, 1944. Measurements made by personnel of Fairfield Manufacturing Co., C. C. Crook, chief engineer.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	87.83	88.26	....	88.59	88.50	88.71	88.72	88.99
2	....	88.15	88.25	....	88.59	....	88.67	88.74	89.16
3	....	88.18	88.27	....	88.55	....	88.55	88.62	89.03

## Tippecanoe 5. Fairfield Manufacturing Co.--Continued.

Water level at 2 a.m., in feet below land-surface datum, 1944  
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	.....	88.15	88.32	88.17	88.54	88.39	88.66	88.75	88.65
5	.....	88.30	88.14	88.17	88.58	.....	88.67	88.77	88.66
6	.....	88.30	88.44	88.35	88.39	88.68	88.70	88.68	88.58
7	.....	88.33	88.58	88.38	88.37	88.87	88.81	88.65	88.65
8	.....	88.16	88.49	88.44	.....	88.83	88.63	88.50 a	88.54
9	.....	88.12	88.49	88.32	88.55	88.70	88.51	88.42	.....
10	.....	88.50	88.40	88.17	88.53	88.58	88.65	88.58	.....
11	.....	88.50	88.42	88.38	88.48	88.48	88.63	88.92	.....
12	.....	88.39	87.99	88.37	88.47	88.49	88.73	88.83	88.62
13	.....	88.22	88.30	88.63	88.45	88.64	88.67	88.58	88.79
14	.....	88.12	88.26	88.58	88.30	88.66	88.60	88.52	88.93
15	.....	87.96	88.13	88.51	88.57	88.76	88.95	88.50	88.83
16	.....	88.15	88.10	.....	88.58	88.84	88.79	88.71	88.67
17	.....	88.19	88.16	.....	88.53	88.78	88.70	88.02	88.70
18	.....	88.29	88.28	88.36	.....	.....	88.56	88.96	88.69
19	.....	88.37	88.18	.....	.....	.....	88.68	88.80	88.85
20	.....	88.30	88.39	.....	.....	88.63	88.63	88.44	88.90
21	.....	88.22	88.36	.....	88.32	88.60	88.64	88.73	88.85
22	.....	87.85	88.29	.....	88.50	88.72	88.80	88.85	89.10
23	.....	88.23	88.22	.....	88.48	88.86	88.60	88.68	88.78
24	.....	88.33	88.41	.....	88.57	88.77	88.45	88.91	88.80
25	88.27	88.38	88.34	88.50	.....	88.56	88.61	89.03	88.36
26	88.47	88.61	.....	88.42	.....	88.63	.....	88.65	.....
27	88.32	88.56	.....	88.39	88.46	88.61	.....	88.50	88.80
28	88.58	88.46	.....	88.53	88.26	88.61	.....	88.99	88.82
29	88.50	88.08	.....	88.57	88.57	88.69	.....	88.81	88.93
30	88.07	88.30	.....	88.44	88.55	88.61	.....	88.74	88.71
31	.....	88.29	.....	88.40	88.34	.....	88.65	.....	88.56

a Estimated.

Warren County

Warren 1. City of Williamsport. On Market Street, 200 feet east of Main Street, Williamsport. Unused dug well, diameter 42 inches, depth 24 feet, ending in gravel. Measuring point, top of concrete cover, 0.50 foot above land-surface datum. First measured May 26, 1944. Measurements made by Oscar D. George.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 26	10.92	July 22	17.85	Sept. 16	17.82	Nov. 11	16.42
June 3	12.75	29	17.93	23	18.23	18	16.69
10	14.50	Aug. 5	17.99	30	18.24	25	15.84
17	13.00	12	18.52	Oct. 7	16.08	Dec. 9	16.55
24	13.99	19	18.52	14	16.24	16	16.76
July 1	15.63	26	18.84	21	16.80	23	17.04
8	16.89	Sept. 2	17.30	28	16.80	29	17.27
15	17.59	9	16.66	Nov. 4	16.79	30	17.30

Warrick County

Warrick 1 (\*840, p. 88; 886, p. 112; 906, p. 35; 936, p. 41; 944, p. 37; 986, p. 39). Sunlight Stripper Co. On east side of railroad tracks about 0.7 mile north of Boonville along Folsomville Road and about 0.1 mile east of road, north of Scales Lake State Forest. Measurements made by Shelby McEmore, Scales Lake State Forest.

## Warrick 1. Sunlight Stripper Co.--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	18.30	Apr. 19	18.20	July 18	18.80	Oct. 28	20.30
15	18.20	May 18	18.60	Aug. 1	19.54	Nov. 15	19.30
Feb. 18	20.06	25	18.10	14	19.40	24	19.30
Mar. 1	16.70	June 14	19.00	27	19.60	Dec. 8	19.20
15	19.85	22	18.10	Sept. 30	19.70	28	19.70
31	19.60	July 13	18.80	Oct. 11	19.80		

Warrick 2. Scales Lake State Forest. About 0.45 mile east of entrance to Scales Lake State Forest and about 60 feet north of Old Tennyson Road. Abandoned dug well, diameter 48 inches, depth 21.1 feet. Measuring point, top of brick in fourth course, south side of well, 1.00 foot below land-surface datum. First measured Feb. 18, 1944. Measurements made by Shelby McEmore, Scales Lake State Forest.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	15.47	May 25	3.25	Aug. 1	10.40	Oct. 28	15.00
Mar. 1	15.30	June 14	6.00	14	11.45	Nov. 15	15.00
15	13.90	22	6.70	27	12.30	24	14.00
31	4.60	July 13	5.70	Sept. 30	14.00	Dec. 8	13.00
Apr. 19	3.80	18	5.30	Oct. 11	14.00	28	11.00
May 18	2.58						

## Washington County

Washington 1. Ford Smith. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 7, T. 2 N., R. 4 E., on west side of county road, about 0.4 mile north of north corporation line, Salem. Unused dug well, diameter 24 inches, depth 14.2 feet. Measuring point, top of cover over well at drain hole on west side, 0.40 foot above land-surface datum. First measured Feb. 15, 1944. Measurements made by Ray Stanley.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 15	12.10	May 11	11.93	Aug. 1	12.09	Oct. 25	12.11
21	12.10	16	11.96	9	12.10	28	12.10
29	12.10	24	12.00	18	12.10	Nov. 2	12.09
Mar. 7	10.10	29	12.04	25	12.10	8	12.09
13	12.02	June 6	12.25	31	11.90	19	12.09
22	11.07	14	12.06	Sept. 5	11.87	24	12.09
27	7.16	20	12.05	14	12.09	Dec. 1	12.10
Apr. 3	11.80	26	12.09	28	12.11	8	12.10
10	9.61	July 3	12.07	Oct. 5	12.10	15	12.01
17	11.32	10	12.07	12	12.09	22	12.11
26	11.83	25	12.08	20	12.13	28	12.07
May 2	11.88	26	12.07				

## White County

White 1 (\*817, p. 54; \*840; p. 88; \*936, p. 41; \*944, p. 37; 986, p. 39). Town of Monon. In basement of municipal building. Measurements made by John M. Winkley.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	15.42	Apr. 1	12.08	July 1	13.15	Oct. 1	17.67
15	15.11	15	8.08	15	13.68	16	17.53
Feb. 1	15.46	May 1	9.68	Aug. 1	15.15	Nov. 1	18.69
15	16.32	15	9.81	15	16.44	15	18.52
Mar. 1	14.34	June 1	9.12	Sept. 1	17.32	Dec. 1	19.09
15	13.07	15	10.75	15	18.46	15	19.09

## MAINE

By H. N. Halberg

### PROGRAM OF WORK

The program of periodic measurements of water level was continued in 1944 in five observation wells in Maine. Three of the wells are in the southern part of the State, at Amherst, Cornish and Mercer, in the drainage basins of the Union, Saco, and Kennebec Rivers, respectively. The other two are in the northern part of the State, at Portage and Sherman Mills, in the drainage basins of the St. John and Penobscot Rivers, respectively. In all, 226 measurements of water level were made during 1944.

### FLUCTUATIONS OF WATER LEVEL

The water level in observation wells in northern Maine shows evidence of a definite seasonal pattern. This is due to the climate, which in northern Maine is colder than elsewhere in New England. The water level falls steadily during the winter, when the ground is frozen and snow covered, with no recharge of the ground-water reservoir until late winter or early spring, when the snow melts and the reservoir is recharged rapidly. Two good examples of this seasonal fluctuation are given by the wells at Portage and Sherman Mills (U. S. 103 and U. S. 105). At both wells starting in November 1943 there was a steady decline until late in March 1944, when the water level rose slightly. There followed a sharp rise over a period of one or two weeks in the middle of April.

The wells in southern Maine show this seasonal pattern to a limited extent. Occasionally there is some recharge of the ground-water reservoir in December. The records of the wells at Mercer and Amherst (U. S. 102 and U. S. 158) indicate that the spring recharge may begin in February, and be completed either in March or April.

Precipitation in Maine in 1944, for the State as a whole, was about 1.8 inches below normal, and about 4.3 inches less than in 1943. Normal for the year is 40.16 inches. Precipitation was reported above normal at

12 out of 29 stations, as compared with 23 out of 31 stations in 1943. In January, May, and August precipitation was extremely low, and it was deficient in April. Several stations in northern Maine reported less than 0.2 inch in January. There was greater than normal rainfall in June and October, and excessive precipitation in September and November, the total at several stations amounting to more than 7 inches in September due to the tropical hurricane which passed through eastern Maine on September 15.

In general, the water level in the observation wells in Maine reflects changes in precipitation. All wells show rather clearly the effect of heavy precipitation in the autumn. At the Portage and Sherman Mills wells the effect of heavy rainfall in September and October is indicated by sharp rises in those months. At the wells at Amherst and Mercer the effect of heavy rainfall in November is shown by a continuation of the rise during that month.

There was an increase in ground-water storage in Maine during 1944, as indicated by a net rise in water level at four of the five observation wells. Only one well, U. S. 102, at Mercer, showed a decline during the year. The water level in the wells at Portage and Sherman Mills rose during 1944 as compared with a negligible drop at Portage and a slight drop at Sherman Mills in 1943. The rise in 1944 is attributed to the high precipitation in September and October as there was about 3.5 inches less rainfall than in 1943 at Presque Isle, near Portage, and about 0.2 inch less at Millinocket, near Sherman Mills. The rise in the water level in the well at Amherst is also attributed to the high precipitation in the autumn since there was about 4.3 inches less precipitation in 1944 at nearby Oldtown than there was in 1943. The well at Cornish had an appreciable net rise of 2.54 feet (the water level on January 5, 1945, was 9.82 feet below land-surface datum). This rise is in agreement with the precipitation measured at the nearby station at Hiram where rainfall in 1944 was about 2.5 inches greater than in 1943 and about 4.8 inches greater than normal. At Mercer the slight drop in water level agrees with the precipitation measured at nearby Madison, which was 7.4 inches less in 1944 than in 1943 and about 0.6 inch less than normal.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Aroostook County

U. S. 103 (\*986, p. 41). H. L. Stevens. Portage well 1. On west side of State Route 11, about 1.0 mile north of Portage Lake post office, in Portage Lake.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.88	Apr. 9	7.24	July 23	5.76	Oct. 15	2.11
9	7.26	24	1.71	30	5.87	22	2.66
16	7.57	May 6	2.09	Aug. 6	6.34	29	2.26
22	7.77	14	2.25	13	6.21	Nov. 5	2.74
30	8.05	21	2.76	20	7.17	12	2.11
Feb. 6	8.41	28	3.21	27	7.43	19	2.64
13	8.84	June 4	3.83	Sept. 3	7.71	26	3.37
20	9.30	11	4.44	10	7.71	Dec. 3	3.74
27	9.80	18	5.01	17	7.70	10	4.94
Mar. 4	9.90	25	4.24	24	7.71	17	5.19
11	9.89	July 2	4.18	Oct. 1	5.83	24	5.82
26	8.88	9	4.62	8	6.01	31	6.17
Apr. 2	7.82	16	5.10				

U. S. 105 (\*986, p. 42). C. C. Young. Sherman Mills 1. On west side of U. S. Route 2, about 6 miles south of Island Falls, in Sherman Mills

## Water level, in feet below land-surface datum, 1944

Jan. 6	12.83	Apr. 13	1.43	July 13	14.08	Oct. 12	2.53
12	13.23	19	1.08	20	14.38	20	1.35
19	13.78	26	.93	25	14.53	24	.80
26	14.08	30	.93	31	14.73	31	1.20
31	14.33	May 10	1.88	Aug. 8	14.93	Nov. 10	1.44
Feb. 9	14.63	17	4.53	17	15.10	17	.88
16	14.68	26	9.03	25	15.25	23	1.23
25	14.98	31	10.23	31	15.39	30	2.30
29	15.08	June 8	11.98	Sept. 7	15.52	Dec. 9	4.75
Mar. 9	15.58	14	13.08	14	15.59	13	5.60
16	15.66	22	13.53	22	11.35	22	9.70
22	15.63	30	12.68	30	12.25	27	10.80
31	11.93	July 7	13.63	Oct. 3	10.40	31	11.65
Apr. 5	11.48						

Hancock County

U. S. 158 (\*986, p. 43). George C. Orcutt. Amherst 1. On south side of State Route 9, about 0.3 mile west of junction with State Route 181, in Amherst. Depth of well increased to 14.0 feet below land-surface datum.

## Water level, in feet below land-surface datum, 1944

Jan. 2	6.33	Apr. 2	4.67	July 2	10.22	Oct. 1	13.25
9	7.86	9	5.55	9	10.70	8	12.81
16	8.56	16	5.06	16	11.17	15	11.00
23	9.18	23	5.58	23	11.64	22	9.35
30	9.30	30	5.47	30	12.10	29	6.95
Feb. 6	9.60	May 7	6.00	Aug. 6	12.43	Nov. 5	6.19
13	10.18	14	6.24	13	12.89	12	4.56
20	7.60	21	6.80	20	13.34	19	5.07
27	8.56	28	7.48	27	13.73	26	5.49
Mar. 5	8.60	June 4	8.40	Sept. 3	13.78	Dec. 3	4.41
12	8.12	11	9.15	10	(a)	10	5.05
19	5.42	18	9.80	17	(a)	17	5.69
26	4.41	25	10.12	25	13.46	24	6.31

a Dry.



Somerset County

U. S. 102 (\*986, p. 43). J. Harrison Farrand. Mercer l. On north-west side of Bog Stream Road, about 2.2 miles north of Mercer.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.05	Apr. 9	4.54	July 9	7.64	Oct. 7	9.02
9	6.22	16	4.50	15	7.71	15	8.52
16	6.30	23	4.82	21	7.91	20	8.12
23	6.40	29	5.09	28	8.01	27	6.79
30	6.51	May 6	5.45	Aug. 5	8.30	Nov. 5	6.11
Feb. 5	6.27	14	5.71	12	8.55	12	5.17
14	6.48	21	6.05	19	8.77	19	5.55
20	6.03	28	6.51	26	9.03	26	5.30
27	6.09	June 5	6.79	Sept. 1	9.31	Dec. 3	5.07
Mar. 5	6.14	11	7.14	9	9.52	10	5.17
12	6.18	17	7.42	17	9.17	15	5.29
19	5.79	25	7.34	24	9.25	22	5.78
26	4.92	30	7.32	30	9.16	31	6.00
Apr. 2	4.64						

York County

U. S. 159 (\*986, p. 44). J. P. Small. Cornish l. On south side of Main Street, about 0.2 mile west of Little River crossing, in Cornish.

Water level, in feet below land-surface datum, 1944

Jan. 2	13.00	Feb. 6	15.20	May 17	10.70	Aug. 29	16.20
9	13.40	Mar. 12	16.30	24	11.68	Sept. 6	17.28
16	13.98	19	16.01	June 6	11.97	Oct. 1	12.09
23	14.68	Apr. 18	8.80	14	12.80	Dec. 12	9.93
30	14.64	May 7	9.90				

## MASSACHUSETTS

By H. N. Halberg

### PROGRAM OF WORK

The investigation of the ground-water resources of Massachusetts, begun in 1938, was continued in 1944 in cooperation with the Massachusetts Department of Public Works. Monthly water-level measurements were made in 33 wells in the Lowell and the Aberjona Valley areas, Middlesex County. Periodic measurements of water levels were also made in two wells in Worcester County, and in one well each in Berkshire, Essex, Franklin, and Hampden Counties. In all, about 500 individual water-level measurements were made. Water-stage recorders were operated throughout the year on the two wells in Worcester County, at Leominster and Winchendon. Monthly readings were made on all other wells. Beginning in September, readings were made weekly in three wells in Woburn and in one well in Wilmington. A water-stage recorder was installed on the Wilmington well in December. Readings at three wells in Lowell were discontinued during the year.

In the spring, quantitative ground-water studies were begun in the vicinity of Fresh Pond, in Cambridge. As part of this project, water-level observations were made weekly in 20 test wells that were drilled by the Massachusetts Department of Public Health. Water-stage recorders were installed on two of these wells in November and on Fresh Pond in July. These water-level data are to be published in another report. In the meantime, the records are available for inspection in the offices of the U. S. Geological Survey at Jamaica, New York, and at Boston, Massachusetts.

In September, a report describing the ground-water studies in northeastern Massachusetts was presented at the annual meeting of the New England Water Works Association at Poland Springs, Maine.<sup>1/</sup> This paper describes the nature of the work being carried out, the progress made since the work was begun in 1938, and ground-water conditions in the Lowell and Aberjona Valley areas.

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<sup>1/</sup> Brashears, M. L., Jr., Ground-water studies in northeastern Massachusetts: New England W. W. Jour., vol. 58, No. 4, pp. 307-316, December 1944.

The following tables summarize the data pertaining to ground-water levels in Massachusetts.

Summary of ground-water level data in Massachusetts,  
in feet below land-surface datum\*

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record in 1944
		Water level	Date	Water level	Date	
Brimfield 12	Feb. 6, 1936	(a)	(a)	7.32	June 7, 1943	(a)
Chelmsford 68	July 27, 1939	10.58	Oct. 4, 1941	5.69	Apr. 23, 1940	8.60
Chelmsford 69	Aug. 22, 1939	6.05	Aug. 23, 1941	.11	Feb. 24, 1943	1.64
Great Barrington 1	Mar. 4, 1936	c 22.14	Oct. 11, 1942	c 16.91	Feb. 7, 1938	21.47
Loeminster 11	July 13, 1939	9.21	Oct. 31, 1939	d .81	May 22, 1943	d 3.28
Lowell 4	May 26, 1939	12.18	Oct. 5, 1941	7.56	May 7, 1940	e 10.07
Lowell 9	May 29, 1939	17.67	Oct. 11, 1941	7.73	Apr. 23, 1940	.....
Lowell 14	May 29, 1939	22.46	Nov. 7, 1939	9.67	May 7, 1940	12.61
Lowell 18	May 29, 1939	28.95	Mar. 12, 1940 p/	26.93	May 24, 1941	.....
Lowell 22	Sept. 7, 1939	8.86	Oct. 24, 1939	4.83	Apr. 30, 1940	.....
Lowell 26	Aug. 9, 1939	12.65	Oct. 18, 1941	1.97	Apr. 2, 1940	10.76
Lowell 33	May 29, 1939	11.33	Oct. 4, 1941	6.42	May 7, 1940	
Lowell 41	Aug. 22, 1939	20.74	Oct. 17, 1942	4.66	Feb. 8, 1941	7.68
Lowell 43	May 28, 1940	19.87	Dec. 30, 1944	10.62	Feb. 15, 1941	15.16
Montague 5	Jan. 16, 1936	5.10	Aug. 30, 1944	.78	June 4, 1940	19.87
Reading 1	Aug. 25, 1939	(f)	(f)	13.73	Apr. 27, 1944	4.54
Reading 3	June 20, 1940	5.63	Nov. 1, 1941	1.14	Apr. 30, 1940	17.37
Topsfield 13	Feb. 8, 1936	17.48	Dec. 6, 1939	7.20	Nov. 30, 1944	1.83
Wilmington 10	July 18, 1940	(g)	Dec. 13, 1941	.73	Apr. 22, 1939	13.90
Wilmington 29	July 24, 1940	11.70	Sept. 27, 1941	8.40	Nov. 30, 1944	2.05
Wilmington 44	July 26, 1940	7.61	Oct. 11, 1941	1.68	Mar. 28, 1942	9.93
Wilmington 56	Aug. 12, 1940	7.97	Oct. 4, 1941	2.07	Feb. 8, 1941	d 3.97
Wilmington 58	July 27, 1940	12.65	Nov. 1, 1941	2.77	Feb. 8, 1941	4.14
Winchendon 13	July 18, 1939	12.75	Nov. 27, 1939	d 2.18	Mar. 23, 1942	6.76
Winchester 4	Aug. 22, 1939	(h)	(h)	7.45	Apr. 26, 1944	d 6.66
Winchester 14	June 13, 1940	14.99	Dec. 14, 1941	5.62	May 7, 1940	12.34
Winchester 18	July 15, 1940	(j)	(j)	1.15	Mar. 23, 1942	9.70
Woburn 1	Aug. 14, 1939	9.73	Sept. 29, 1943	4.47	Mar. 23, 1942	6.95
					Nov. 30, 1944	7.08

\* Footnotes at end of table.

Summary of ground-water level data in Massachusetts,  
in feet below land-surface datum--Continued

Well		First measured	Lowest observed water level		Highest observed water level		Water level on last date of record in 1944
			Water level	Date	Water level	Date	
Woburn	3	Aug. 18, 1939	2.41	Aug. 16, 1941	k .71	Mar. 23, 1942	.01
Woburn	4	Sept. 12, 1939	2.57	Sept. 26, 1939	k .01	Nov. 30, 1944	1.02
Woburn	5	Sept. 12, 1939	1.00	Sept. 19, 1939	k .22	Dec. 24, 1942	.16
Woburn	17	July 15, 1940	(1)	(1)	4.13	Nov. 30, 1944	5.05
Woburn	19	June 20, 1940	14.85	Oct. 18, 1941	5.45	Nov. 30, 1944	5.84
Woburn	21	June 21, 1940	9.69	Oct. 25, 1941	5.80	Mar. 28, 1942	6.75
Woburn	23	July 15, 1940	3.10	Sept. 27, 1941	.61	Feb. 8, 1941	1.10
Woburn	36	June 28, 1940	4.01	Sept. 29, 1944	1.77	May 10, 1941	3.47
Woburn	38	June 28, 1940	m 18.15	Dec. 14, 1941	n 7.79	Mar. 23, 1942	9.20
Woburn	49	July 10, 1940	4.25	Dec. 5, 1941	k 1.59	Feb. 8, 1941	k .97
Woburn	53	July 13, 1940	10.69	Sept. 27, 1941	7.93	Mar. 23, 1942	8.67

a Well dry Nov. 6, Dec. 4, 1944; water level below 16.3 feet below land-surface datum.

b Previously published as Van Deusenville 20.

c Revision of figure published in Water-Supply Paper 986.

d Moon reading, from recorder chart.

e Dec. 28, 1943, 10.17; published erroneously as 10.15 in Water-Supply Paper 986.

f Well dry on Dec. 26, 1941; water level below 21.9 feet below land-surface datum. Published erroneously in Water-Supply Paper 936 and 944 as 85.22 feet above mean sea level Aug. 25, 1939, Sept. 27, 1941, and as 22.72 feet below land-surface datum Aug. 25, 1939 in Water-Supply Paper 986.

g Well dry; water level below 9.0 feet below land-surface datum.

h Well dry Dec. 27, 1941; water level below 22.6 feet below land-surface datum. In all previous reports, date given erroneously as Dec. 26, 1941.

j Well dry Dec. 26, 1941, Nov. 28, 1942, Oct. 30, 1943, Aug. 31, 1944. Water level below 14.1 feet below land-surface datum.

k Feet above land-surface datum.

l Well dry Dec. 26, 1941. Water level below 12.0 feet below land-surface datum.

m Published erroneously as 19.15 in Water-Supply Paper 986.

n Published erroneously as 8.79 in Water-Supply Paper 986.

p Published erroneously as May 12, 1940 in Water-Supply Paper 986.

Net change, in feet, in water levels, in observation wells  
in Massachusetts, 1944

Well	Net change	Well	Net change
Chelmsford 68	+0.27	Reading 1	+2.93
Chelmsford 69	+ .75	Reading 3	+ .60
Great Barrington 1	- .13	Topsfield 13	+ .64
Leominster 11	+1.43	Wilmington 10	+2.20
Lowell 4	+ .10	Wilmington 29	+ .47
Lowell 14	+1.38	Wilmington 44	+ .77
Lowell 26	+ .24	Wilmington 56	+1.23
Lowell 33	+ .50	Wilmington 58	+1.31
Lowell 41	+4.26	Winchendon 13	- .24
Lowell 43	- .78	Winchester 4	+3.90
Montague 5	-1.28	Winchester 14	+ .20
		Winchester 18	+2.13

Net change, in feet, in water levels, in observation wells  
in Massachusetts, 1944--Continued

Well		Net change	Well		Net change
Woburn	1	-0.52	Woburn	21	+1.36
Woburn	3	+ .46	Woburn	23	+ .28
Woburn	4	+ .39	Woburn	36	- .25
Woburn	5	+ .07	Woburn	38	+1.74
Woburn	17	+1.47	Woburn	49	+ .51
Woburn	19	+5.71	Woburn	53	+ .33

As indicated in the foregoing table, all but five of the observation wells in Massachusetts included in this report, for which there are complete records in 1944, showed a net rise during the year. In general, the rise was greater in wells that penetrate unstratified sandy clay than it was in wells that penetrate stratified sand and gravel. The net rise in water levels during 1944 is chiefly the result of greater precipitation than in 1943, particularly the result of heavy rains in September and November.

The water levels in three of the wells that showed net declines for the year, Woburn 1, Woburn 36, and Lowell 43, were affected by pumping wells nearby. The other two, Brimfield 12 and Winchendon 13, did not react as quickly as others to the heavy precipitation in September and November, and hence the water levels did not recover to their position at the beginning of the year.

In 1944 the precipitation for the State as a whole was about 1.5 inches less than normal and about 2.5 inches greater than in 1943. The precipitation at Boston was about 1 inch less than the average for the preceding 10 years, and was about 5 inches greater than in 1943. At Lowell it was about at the average for the preceding 10 years and about 2 inches greater than in 1943. Water levels, which were at about normal stages at the end of 1943, rose to high stages by the end of April as the result of above normal precipitation in March and April. As a result of deficient precipitation in May, the levels dropped sharply to below-normal stages by the end of the month. The decline was checked by heavy rains in June, but lack of rainfall in July and August caused water levels to fall to abnormally low stages. The decline was checked again in September by heavy rains and further precipitation in November produced additional recharge, resulting in a net rise in the water table for the year. At the end of each of the last 4 months of the year, the average water level in Middlesex County was the highest it had been for that time of the year since the

beginning of record in 1939. At the end of November, six wells in Middlesex County reached new highs for the period of record.

#### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

##### Berkshire County

Great Barrington 1 (Formerly published as Van Deusenville 20, #944, p. 4; #986, p. 48). Mr. Kopf. Northwest corner of North Plains Road and Division Street (State Highway 41), Great Barrington. Measuring point reported in water-supply paper 944 is at land-surface datum. Add 2.20 feet to water level measurements in water-supply paper 986.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	21.17	Apr. 13	20.82	July 8	20.96	Oct. 3	21.60
Feb. 5	21.91	May 24	20.82	Aug. 1	21.23	Nov. 3	21.90
22	21.88	June 13	21.23	31	21.60	Dec. 8	21.47
Mar. 11	21.54						

##### Essex County

Topsfield 13 (#944, p. 41; #986, p. 48). Mr. Tainter. About 1.5 miles east of Newburyport turnpike (U. S. Highway 1), 0.7 mile south of Ipswich-Topsfield road, and 2.3 miles east of Topsfield.

Water level, in feet below land-surface datum, 1944							
Jan. 11	13.13	Apr. 12	11.48	July 2	12.85	Oct. 9	15.69
Feb. 10	12.99	29	8.47	Aug. 1	13.83	Nov. 7	16.12
Mar. 11	13.02	May 31	11.68	Sept. 1	15.03	Dec. 6	13.90

##### Franklin County

Montague 5 (#944, p. 41; #986, p. 49). Charles Kurtyka. On west side of Turners Falls-Montague road, about 1.3 miles north of Montague. Land-surface datum is about 240 feet above mean sea level, (revised, reported as 270 feet above mean sea level in water-supply paper 944, p. 41).

Water level, in feet below land-surface datum, 1944							
Jan. 6	4.60	Apr. 5	1.10	June 30	3.60	Sept. 29	4.13
Feb. 4	3.70	27	.78	Aug. 2	4.00	Nov. 3	5.02
Mar. 5	3.45	June 11	4.08	30	5.10	29	4.54

##### Hampden County

Brimfield 12 (#944, p. 42; #986, p. 49). Q. Q. Goodrich. On south side of Palmer-Brimfield road (U. S. Highway 20), about 30 feet south of abandoned section of old Highway 20, 2.3 miles west of Brimfield. Measuring point, previously reported as 0.5 foot below land-surface datum, is level with it.

Water level, in feet below land-surface datum, 1944							
Jan. 9	13.94	Mar. 30	15.82	June 28	14.66	Oct. 3	16.05
27	14.42	May 3	10.84	Aug. 5	14.70	Nov. 6	(a)
Mar. 7	14.35	June 4	13.82	Sept. 1	15.70	Dec. 4	(a)

a Well dry, water level below 16.06 feet below land-surface datum.

##### Middlesex County

Chelmsford 68 (#886, p. 254; 906, p. 39; 936, p. 44; 944, p. 42; #986, p. 49). Wannalancit Trotting Park. In northeast corner of abandoned trotting track, 2,100 feet east of Middlesex Street (U. S. Highway 3), 1,300 feet north of intersection of Trotting Park Lane and Boston & Maine Railroad tracks, 0.5 mile north of Vinal Square, North Chelmsford.

Water level, in feet below land-surface datum, 1944							
Jan. 28	8.97	Apr. 28	6.59	July 31	9.09	Oct. 31	9.22
Feb. 25	8.54	May 31	8.07	Aug. 31	9.69	Nov. 30	8.70
Mar. 31	8.74	June 30	7.40	Sept. 29	9.14	Dec. 30	8.60

Chelmsford 69 (#886, p. 254; 906, p. 39; 936, p. 45; 944, p. 42; #986, p. 49). City of Lowell, Washington test well 2. About 2,100 feet south-east of Chelmsford Street, 300 feet southwest of Ecuador Road, and 1.7 miles northeast of Chelmsford Center, Chelmsford.

## Chelmsford 69. City of Lowell, Washington test well 2--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	1.76	Apr. 28	1.25	July 31	2.63	Oct. 31	2.33
Feb. 25	1.22	May 31	2.60	Aug. 31	2.70	Nov. 30	1.42
Mar. 31	1.38	June 30	1.35	Sept. 29	1.99	Dec. 30	1.64

Lowell 4 (\*886, p. 254; 906, p. 39; 936, p. 45; 944, p. 43; \*986, p. 49). U. S. Rubber Co. Formerly owned by Remington Arms Co., Inc. About 135 feet north of Marginal Street, and about 1,000 feet east of Pawtucket Street bridge over Boston & Main Railroad tracks. Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.26	Apr. 28	11.93	July 31	10.18	Oct. 31	10.52
Feb. 25	9.94	May 31	10.21	Aug. 31	10.32	Nov. 30	9.92
Mar. 31	11.30	June 30	8.34	Sept. 29	10.10	Dec. 30	10.07

Lowell 9 (\*886, p. 255; 906, p. 40; 936, p. 46; 944, p. 44; \*986, p. 50). Roark Estate. About 25 feet east of Wilder Street and 40 feet south of Parker Street, Lowell. Measurements discontinued Apr. 28. Water level, in feet below land-surface datum, 1944. Jan. 28, 13.49; Feb. 25, 13.75; Mar. 31, 12.80; Apr. 28, 10.05

Lowell 14 (\*886, p. 255; 906, p. 40; 936, p. 46; 944, p. 44; \*986, p. 50). Rogers Hall School. About 90 feet north of Rogers Street and 2,000 feet east of Fort Hill Avenue, Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	14.59	Apr. 28	11.36	July 31	13.58	Oct. 31	15.18
Feb. 25	14.69	May 31	11.82	Aug. 31	14.76	Nov. 30	15.02
Mar. 31	13.55	June 30	12.63	Sept. 29	14.32	Dec. 30	12.61

Lowell 18 (\*886, p. 255; 906, p. 41; 936, p. 46; 944, p. 44; \*986, p. 50). Mrs. Logan. About 130 feet west of Rolfe Street and 500 feet south of Pawtucket Street, Lowell. Measurements discontinued Sept. 29, 1944.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	28.19	Apr. 28	28.22	June 30	28.12	Aug. 31	28.46
Feb. 25	28.28	May 31	27.98	July 31	28.28	Sept. 29	28.46
Mar. 31	28.30						

Lowell 22 (\*886, p. 256; 906, p. 41; 936, p. 46; 944, p. 45; \*986, p. 51). Shaw Paper Co. About 79 feet south of Shaw Street and 270 feet east of Smith Street, Lowell. Measurements discontinued Sept. 29, 1944.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	7.94	Apr. 28	6.08	June 30	6.79	Aug. 31	8.40
Feb. 25	7.95	May 31	7.06	July 31	7.78	Sept. 29	7.74
Mar. 31	7.19						

Lowell 26 (\*886, p. 256; 906, p. 41; 936, p. 47; 944, p. 45; \*986, p. 51). A. W. Crosby (well 1). About 55 feet northeast of Pawtucket Boulevard Extension and about 4,500 feet west of East Avenue, Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.62	Apr. 28	5.22	July 31	9.72	Oct. 31	11.54
Feb. 25	10.86	May 31	8.08	Aug. 31	11.07	Nov. 30	11.53
Mar. 31	9.06	June 30	7.76	Sept. 29	10.58	Dec. 30	10.76

Lowell 33 (\*886, p. 256; 906, p. 41; 936, p. 47; 944, p. 45; \*986, p. 51). Thomas Varnum. About 400 feet south and 50 feet west of intersection of Varnum Avenue and West Meadow Road, Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	7.52	Apr. 28	6.63	July 31	9.04	Oct. 31	8.85
Feb. 25	7.44	May 31	8.03	Aug. 31	10.05	Nov. 30	7.64
Mar. 31	7.10	June 30	7.16	Sept. 29	8.77	Dec. 30	7.68

Lowell 41 (\*886, p. 257; 906, p. 42; 936, p. 47; 944, p. 45; \*986, p. 51). City of Lowell (Cook test well 3). About 50 feet north and 75 feet east of northeast corner of owner's Cook well-field pump house. Pump house about 1,300 feet southwest of intersection of Plain and Manufacturers Streets, Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	19.81	Apr. 28	14.48	July 31	17.70	Oct. 31	15.91
Feb. 25	16.04	May 31	17.17	Aug. 31	17.72	Nov. 30	11.78
Mar. 31	15.24	June 30	14.74	Sept. 29	15.13	Dec. 30	15.16

Lowell 43 (\*906, p. 42; 936, p. 47; 944, p. 46; \*986, p. 51). City of Lowell (test well 26). About 230 feet south of Pawtucket Boulevard, about 415 feet east of Boulevard Avenue, 30 feet southwest of southeast corner of Pawtucket Boulevard pump house, Lowell.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	19.77	Apr. 28	17.35	July 31	16.52	Oct. 31	18.10
Feb. 25	19.67	May 31	18.54	Aug. 31	17.10	Nov. 30	18.33
Mar. 31	19.74	June 30	14.94	Sept. 29	18.17	Dec. 30	19.87

Reading 1 (\*886, p. 257; 906, p. 42; 936, p. 48; 944, p. 46; \*986, p. 51). William Kelch. About 50 feet northeast of West Street, 1,000 feet northwest of intersection of West and Willow Streets, and about 1.4 miles northwest of Reading.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	20.34	Apr. 28	16.63	July 31	20.30	Oct. 31	22.03
Feb. 25	20.13	May 31	18.23	Aug. 31	21.20	Nov. 30	20.10
Mar. 31	19.19	June 30	19.43	Sept. 29	21.32	Dec. 30	17.37

Reading 3 (\*906, p. 43; 936, p. 48; 944, p. 46; \*986, p. 52). Merle W. Farr. About 500 feet southeast of intersection of West Street and County Road and about 1.2 miles southwest of Reading.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	2.06	Apr. 28	1.55	July 31	2.95	Oct. 31	2.84
Feb. 25	1.93	May 31	2.50	Aug. 31	4.78	Nov. 30	1.14
Mar. 31	1.45	June 30	2.30	Sept. 29	3.08	Dec. 30	1.83

Wilmington 10 (\*906, p. 43; 936, p. 48; 944, p. 47; \*986, p. 52). L. Chisholm. About 75 feet southeast of Hopkins Street, 1,100 feet southwest of Shawsheen Avenue, and 2.1 miles west of Wilmington Center.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.34	Apr. 28	1.20	July 31	5.56	Oct. 31	3.90
Feb. 25	2.50	May 31	3.53	Aug. 31	6.01	Nov. 30	.73
Mar. 31	.94	June 30	3.04	Sept. 29	3.80	Dec. 30	2.05

Wilmington 29 (\*906, p. 43; 936, p. 49; 944, p. 47; \*986, p. 52). Oliver R. Surette. About 40 feet east of Andover Street, 2,700 feet northeast of intersection of Andover and Woburn Streets, and 2.5 miles northeast of Wilmington Center.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.13	Apr. 28	9.74	July 31	10.80	Oct. 31	10.54
Feb. 25	9.98	May 31	10.44	Aug. 31	11.07	Nov. 30	9.77
Mar. 31	9.81	June 30	10.38	Sept. 29	10.42	Dec. 30	9.93

Wilmington 44 (\*906, p. 44; 936, p. 49; 944, p. 47; \*986, p. 52). Mrs. Anne M. McMahon. About 700 feet northwest of intersection of Federal Street and Middlesex Avenue and 0.4 mile northeast of Wilmington Center. Water-stage recorder installed on Dec. 6, 1944.



## Wilmington 44. Mrs. Anne M. McMahon--Continued.

Water level, in feet below land-surface datum, 1944 (Tape measurements from Jan. 28-Dec. 4; after Dec. 4, daily noon levels from recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	4.32	Sept. 29	4.42	Dec. 4	3.00	Dec. 15	3.02
Feb. 25	4.38	Oct. 9	4.75	6	a 3.38	16	3.21
Mar. 31	2.75	16	4.95	7	3.49	17	3.36
Apr. 28	2.90	23	4.38	8	3.56	18	3.48
May 31	4.79	31	4.56	9	3.12	26	3.84
June 30	4.25	Nov. 6	4.74	10	2.91	27	3.78
July 31	5.85	13	4.24	11	3.06	28	3.80
Aug. 31	5.95	20	4.16	12	2.50	29	3.86
Sept. 11	6.15	27	3.76	13	2.30	30	3.91
18	3.39	30	2.52	14	2.70	31	33.97
25	4.20						

a Estimated.

Wilmington 56 (\*944, p. 47; \*986, p. 52). D. P. Falkner. East side of Woburn Street, about 700 feet north of Lowell Street and 1.4 miles southeast of Wilmington Center, Wilmington.

## Water level, in feet below land-surface datum, 1944

Jan. 28	4.52	Apr. 28	3.13	July 31	6.46	Oct. 31	5.07
Feb. 25	4.64	May 31	5.34	Aug. 31	7.02	Nov. 30	2.90
Mar. 31	2.82	June 30	4.85	Sept. 29	5.22	Dec. 30	4.14

Wilmington 58 (\*906, p. 44; 936, p. 49; 944, p. 48; \*986, p. 52). Mrs. R. Malatesta. About 3 feet south of Butters Row, 1,600 feet west of Main Street, and 1.5 miles south of Wilmington Center.

## Water level, in feet below land-surface datum, 1944

Jan. 28	7.33	Apr. 28	4.17	July 31	10.06	Oct. 31	9.00
Feb. 25	6.97	May 31	8.20	Aug. 31	10.80	Nov. 30	6.02
Mar. 31	5.20	June 30	8.36	Sept. 29	8.64	Dec. 30	6.76

Winchester 4 (\*886, p. 257; 906, p. 44; 936, p. 49; 944, p. 44; \*986, p. 53). Town of Winchester (test well AA). About 60 feet south of Royal Street, 800 feet east of Pond Street, and 1,000 feet west of Sylvester Avenue, Winchester.

## Water level, in feet below land-surface datum, 1944

Jan. 28	15.67	Apr. 28	13.14	July 31	17.75	Oct. 31	18.14
Feb. 25	16.48	May 31	15.24	Aug. 31	19.94	Nov. 30	14.18
Mar. 31	14.99	June 30	15.09	Sept. 29	19.28	Dec. 30	12.34

Winchester 14 (\*906, p. 44; 936, p. 50; 944, p. 49; \*986, p. 53). Karl W. B. Cox. Formerly owned by F. E. Gregory. About 105 feet north of Forest Street, 360 feet northeast of west intersection of Forest Street and Forest Circle, 1.7 miles northeast of Winchester.

## Water level, in feet below land-surface datum, 1944

Jan. 28	11.42	Apr. 28	6.90	July 31	12.24	Oct. 31	11.85
Feb. 25	11.16	May 31	11.00	Aug. 31	13.33	Nov. 30	8.12
Mar. 31	8.84	June 30	10.38	Sept. 29	12.16	Dec. 30	9.70

Winchester 18 (\*944, p. 49; \*986, p. 53). Thomas N. Vinson. About 60 feet east of Ridge Street, 40 feet north of High Street, about 1.9 miles west of Winchester.

## Water level, in feet below land-surface datum, 1944

Jan. 28	8.89	Apr. 28	3.83	July 31	12.38	Oct. 31	12.00
Feb. 25	8.41	May 31	10.23	Aug. 31	(a)	Nov. 30	4.58
Mar. 31	3.71	June 30	10.77	Sept. 29	12.90	Dec. 30	6.95

a Well dry. Water level below 14.1 feet below land-surface datum.

Woburn 1 (\*886, p. 258; 906, p. 45; 936, p. 50; 944, p. 50; \*986, p. 53). E. P. Fox. About 225 feet south of Green Street, 250 feet west of Highland Street, 3.5 miles north of Woburn.

## Woburn 1. E. P. Fox--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	6.00	Apr. 28	5.67	July 31	8.20	Oct. 31	7.35
Feb. 25	6.32	May 31	7.93	Aug. 31	9.20	Nov. 30	4.47
Mar. 31	6.36	June 30	7.15	Sept. 29	7.93	Dec. 30	7.08

Woburn 3 (#886, p. 258; 906, p. 45; 936, p. 50; 944, p. 50; #986, p. 53). Lord Tannery. About 70 feet north of Lord Tannery well field concrete pump pit, 670 feet north of Ashburton Avenue, 200 feet east of Boston & Maine Railroad tracks, 2.7 miles north of Woburn.

Water level, in feet with reference to land-surface datum, 1944							
Jan. 28	-0.44	Apr. 28	+0.22	July 31	-0.55	Oct. 31	-0.53
Feb. 25	-.30	May 31	-.23	Aug. 31	-.93	Nov. 30	+0.06
Mar. 31	+0.01	June 30	-.30	Sept. 29	-.49	Dec. 30	-.01

Woburn 4 (#886, p. 258; 906, p. 46; 936, p. 51; 944, p. 50; #986, p. 53). Consolidated Chemical Industries, Inc. (well 10). About 800 feet north of intersection of Merrimac and New Boston Streets, 350 feet west of New Boston Street, 3 miles north of Woburn.

Water level, in feet with reference to land-surface datum, 1944							
Jan. 28	-1.18	Aug. 31	-2.00	Oct. 16	-1.54	Nov. 27	-1.10
Feb. 25	-1.16	Sept. 11	-1.93	23	-1.20	30	+0.01
Mar. 31	-1.69	18	-.94	31	-1.36	Dec. 4	-.92
Apr. 28	-1.00	25	-1.25	Nov. 6	-1.34	11	-.92
May 31	-1.54	29	-1.23	13	-1.28	18	-1.05
June 30	-1.33	Oct. 9	-1.45	20	-1.26	26	-1.02
July 31	-1.43						

Woburn 5 (#886, p. 259; 906, p. 46; 936, p. 51; 944, p. 51; #986, p. 54). Consolidated Chemical Industries, Inc. About 1,000 feet south of intersection of Merrimac and New Boston Streets, 350 feet east of New Boston Street, 2.6 miles north of Woburn.

Water level, in feet below land-surface datum, 1944							
Jan. 28	0.12	Aug. 31	0.65	Oct. 16	0.43	Nov. 27	0.27
Feb. 25	.02	Sept. 11	.63	23	.30	30	.01
Mar. 31	.21	18	.22	31	.38	Dec. 4	.18
Apr. 28	.24	25	.34	Nov. 6	.29	11	.20
May 31	.49	29	.29	13	.31	18	.22
June 30	.43	Oct. 9	.38	20	.32	26	.16
July 31	.40						

Woburn 17 (#906, p. 46; 936, p. 51; 944, p. 51; #986, p. 54). J. D. Coakley. About 70 feet north of north end of Ingalls Street, 370 feet north of intersection of Montvale Avenue and Ingalls Street, and 0.8 mile east of Woburn.

Water level, in feet below land-surface datum, 1944							
Jan. 28	6.91	Apr. 28	4.78	July 31	7.94	Oct. 31	6.83
Feb. 25	6.92	May 31	6.89	Aug. 31	8.75	Nov. 30	4.13
Mar. 31	5.80	June 30	6.97	Sept. 29	6.92	Dec. 30	5.05

Woburn 19 (#906, p. 47; 936, p. 52; 944, p. 51; #986, p. 54). De Greasing Co., Inc. About 230 feet north of Montvale Avenue and 300 feet west of Albany Street, East Woburn.

Water level, in feet below land-surface datum, 1944							
Jan. 28	6.60	Apr. 28	5.68	July 31	13.12	Oct. 31	10.73
Feb. 25	7.12	May 31	11.31	Aug. 31	13.85	Nov. 30	5.45
Mar. 31	6.06	June 30	9.34	Sept. 29	12.25	Dec. 30	5.84

Woburn 21 (#906, p. 47; 936, p. 52; 944, p. 54; #986, p. 51). Morris Kaplan. About 150 feet south of Webster Street, 1,100 feet west of Kimball Lane, North Woburn.

## Woburn 21. Morris Kaplan--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	8.00	Aug. 31	8.72	Oqt. 16	8.63	Nov. 27	7.99
Feb. 25	7.80	Sept. 11	8.90	23	8.57	30	7.55
Mar. 31	7.22	18	8.34	31	8.50	Dec. 4	7.00
Apr. 28	6.44	25	8.37	Nov. 6	8.45	11	6.87
May 31	7.17	29	8.38	13	8.39	18	6.61
June 30	7.40	Oct. 9	8.52	20	8.32	26	6.75
July 31	8.06						

Woburn 23 (\*906, p. 47; 936, p. 52; 944, p. 52; \*986, p. 54). F. H. Bowser. About 490 feet southwest of intersection of Main and Elm Streets, 0.6 mile south of North Woburn.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	0.96	Apr. 28	0.77	July 31	2.00	Oct. 31	1.50
Feb. 25	.63	May 31	2.05	Aug. 31	2.92	Nov. 30	.99
Mar. 31	.89	June 30	1.75	Sept. 29	1.69	Dec. 30	1.10

Woburn 36 (\*906, p. 47; 936, p. 52; 944, p. 52; \*986, p. 54). Town of Woburn (test well 12-A). About 100 feet east of Willow Street, 365 feet south of Lexington Street, 320 feet west of owner's Unit E pump house, 1.2 miles southwest of Woburn.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	3.25	Apr. 28	3.27	July 31	3.51	Oct. 31	3.93
Feb. 25	3.36	May 31	3.20	Aug. 31	3.87	Nov. 30	3.79
Mar. 31	3.41	June 30	3.25	Sept. 29	4.01	Dec. 30	3.47

Woburn 38 (\*906, p. 48; 936, p. 53; 944, p. 52; \*986, p. 55). Town of Woburn. On Woburn Country Club golf course, about 300 feet northwest of owner's Unit D pump house. Pump house is about 60 feet west of Woburn Parkway and 1.1 miles southwest of Woburn. Land surface datum is 51.66 feet above mean sea level (published erroneously in water-supply paper 986 as 52.66 feet).

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	9.95	Apr. 28	7.95	July 31	12.19	Oct. 31	12.04
Feb. 25	8.01	May 31	10.02	Aug. 31	13.90	Nov. 30	10.61
Mar. 31	8.30	June 30	10.17	Sept. 29	13.19	Dec. 30	9.20

Woburn 49 (\*906, p. 48; 936, p. 53; 944, p. 52; \*986, p. 55). Leo Pias. About 260 feet south of Locust Street, 560 feet east of Cambridge Road, and 1.3 miles west of Woburn. Water level measurements in table in water-supply paper 986, p. 55 have + and - signs interchanged.

Water level, in feet with reference to land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	+0.66	Apr. 28	+1.10	July 31	+1.10	Oct. 31	-1.96
Feb. 25	+.80	May 31	+.89	Aug. 31	-1.30	Nov. 30	+.38
Mar. 31	+1.18	June 30	+.67	Sept. 29	-1.26	Dec. 30	+.97

Woburn 53 (\*906, p. 48; 936, p. 53; 944, p. 53; \*986, p. 55). P. Flowers. About 240 feet north of Kilby Street, 550 feet west of Hart Street, about 0.6 mile north of Woburn.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	8.63	Apr. 28	8.30	July 31	9.66	Oct. 31	9.24
Feb. 25	8.36	May 31	9.00	Aug. 31	10.34	Nov. 30	8.30
Mar. 31	8.39	June 30	9.05	Sept. 29	9.30	Dec. 30	8.67

Worcester County

Leominster 11 (\*886, p. 259; 906, p. 48; 936, p. 53; 944, p. 53; \*986, p. 55). C. S. Pierce. About 100 feet east of Nashua Street, 300 feet west of Boston & Maine Railroad tracks, 0.7 mile south of North Leominster, 1.2 miles east of Leominster.

## Leominster 11. C. S. Pierce--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.80	4.39	4.85	2.62	2.46	5.03 a	2.98	5.19	7.52	4.71	5.18	1.99
2	4.89	4.56	4.90	2.58	2.63	5.13	3.22	5.30	7.56	4.79	5.21	2.16
3	4.96	4.68	4.90	2.57	2.70	5.23	3.46	5.40	7.61	4.90	5.23	2.43
4	5.00	4.81	4.93	2.52	2.80	5.39	3.60	5.51	7.66	5.00	5.25	2.65
5	5.04	4.90	4.99	2.53	2.94	5.48	3.78	5.60	7.70	5.10	5.26	2.78
6	4.97	4.93	5.13	2.61	3.09	5.57	3.97	5.72	7.74	5.18	5.32	2.89
7	4.91	4.93	5.14	2.54	3.19	5.67	4.14	5.85	7.76	5.19	5.32	2.96
8	4.85	5.03	5.04	2.47	2.87	5.81	4.29	5.95	7.79	5.23	5.26	3.00
9	4.78	5.10	5.01	2.10	3.10	5.92	4.43	6.06	7.82	5.30	5.30 a	1.92
10	4.76	5.21	5.02	1.89	3.26	6.00	4.56	6.14	7.86	5.37	5.29	2.12
11	4.85	5.30	5.04	1.89	3.40	5.95	3.69	6.23	7.89	5.44	4.74	2.32
12	4.90	5.32	5.06	1.54	3.52	5.70	3.69	6.32	7.92	5.53	4.46	....
13	5.00	5.47	5.06	1.56	3.66	5.64	3.88	6.42	7.94	5.59	4.45 a	1.93
14	5.02	5.51	4.93	1.83	3.54	5.75	4.08	6.52	7.94	5.62	4.45	2.18
15	5.09	5.37	4.87	1.99	3.77	5.83	4.23	6.58	3.62	5.70	4.49	2.44
16	5.15	5.20	4.82	1.17	3.91	5.90	4.37	6.62	3.58	5.73	4.50	2.51
17	5.21	5.11	4.70	1.27	4.01	5.95	4.47	6.67	3.76	5.76	4.42	2.55
18	5.25	5.01	4.40	1.53	4.14	5.98 a	4.61	6.72	3.89	5.81	4.38	2.65
19	5.28	4.98	4.36	1.80	4.27	6.04	4.76	6.80	3.99	5.86	4.38	2.74
20	5.31	4.95	4.30	2.02	4.36	....	....	6.88	4.09	5.96	4.39	2.89
21	5.35	5.04	4.31	2.12	4.47	....	....	6.93	4.12	5.93	4.39	2.94
22	5.23	5.12	4.33	2.00	4.56	....	....	6.97 a	4.10	5.23	4.14	3.08
23	4.99	5.02	4.15	2.21	4.19	....	....	7.03 a	4.09	4.87	3.65	3.17
24	4.92	4.92	3.77	1.58	4.14	....	....	7.08	4.23	4.81	3.62	3.24
25	4.93	4.89	3.61	1.11	4.18	....	as 5.34	7.15	4.35	4.82	3.66	3.24
26	4.84	4.88	3.55	1.39	4.28	....	5.45	7.22	4.45	4.81	3.69	2.91
27	4.79	4.87	3.53	1.59	4.38	....	5.55	7.28	4.54	4.85	3.71	3.02
28	4.62	4.86	3.35	1.84	4.53	....	5.58	7.33	4.59	4.87	3.46	3.08
29	4.50	4.86	3.37	2.09	4.68	....	5.57	7.37	4.61	4.91	3.47	3.23
30	4.43	....	3.29	2.30	4.80	....	5.57	7.42	4.64	5.03	2.21	3.26
31	4.41	....	2.73	....	4.91	....	5.35	7.48	....	5.13	....	3.28

a Estimated.

Winchendon 13 (\*886, p. 260; 906, p. 50; 936, p. 55; 944, p. 54; \*986, p. 56). W. B. Hart. About 10 feet east of Forristall Road, 800 feet south of intersection of Forristall and Crosby Roads, and 1.5 miles northeast of Winchendon.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.49	7.52	6.67	3.39	3.72	6.19	4.52	7.88	10.30	10.34	10.82	10.02
2	6.60	7.58	6.67	3.35	3.86	6.31	4.82	7.99	10.36	10.34	10.82	9.70
3	6.67	7.58	6.67	3.28	3.92	6.44	5.08	7.93	10.43	10.34	10.82	9.10
4	6.72	7.60	6.64	3.36	3.98	6.64	5.23	7.99	10.49	10.34	10.81	8.44
5	6.83	7.68	6.66	3.52	4.00	6.77	5.33	8.07	10.55	10.34	10.80	7.90
6	6.82	7.65	6.78	3.71	4.16	6.86	5.39	8.16	10.60	10.35	10.80	7.51
7	6.88	7.71	6.63	3.75	4.24	6.98	5.55	8.28	10.66	10.37	10.79	7.28
8	6.96	7.77	6.42	3.72	4.22	7.17	5.72	8.39	10.72	10.38	10.79	7.15
9	6.98	7.34	6.43	3.55	4.31	7.32	5.89	8.50	10.77	10.40	10.79	6.98
10	7.02	7.88	6.46	3.14	4.41	7.43	6.06	8.58	10.83	10.42	10.80	6.69
11	7.12	7.94	6.49	3.14	4.50	7.47	6.17	8.67	10.98	10.45	10.80	6.40
12	7.12	7.92	6.50	2.90	4.57	7.35	6.25	8.77	10.92	10.47	10.80	6.05
13	7.18	8.00	6.06	2.88	4.65	7.24	6.36	8.87	10.96	10.50	10.80	5.98
14	7.20	8.09	5.80	3.17	4.66	7.24	6.51	8.97	11.00	10.52	10.79	6.01
15	7.24	7.96	5.28	3.38	4.74	7.25	6.63	9.06	10.95	10.55	10.77	6.07
16	7.30	7.99	5.01	2.76	4.84	7.27	6.76	9.15	10.97	10.58	10.74	6.05
17	7.40	7.98	4.63	2.62	4.94	7.34	6.90	9.23	10.98	10.61	10.70	6.11
18	7.43	7.68	4.29	2.94	5.08	7.43	7.04	9.31	10.96	10.64	10.65	6.20
19	7.44	7.66	4.14	3.14	5.19	7.50	7.18	9.40	10.89	10.66	10.61	6.23
20	7.42	7.59	4.04	3.30	5.27	7.49	7.29	9.49	10.83	10.69	10.56	6.33
21	7.48	7.51	4.13	3.42	5.38	7.32	7.36	9.56	10.74	10.71	10.51	6.37
22	7.52	7.50	4.35	3.52	5.47	6.72	7.34	9.64	10.67	10.73	10.46	6.53

Winchendon 13. W. B. Hart--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	7.57	7.22	4.29	3.59	5.45	6.31	7.31	9.71	10.61	10.76	10.41	6.59
24	7.61	7.23	3.96	3.45	5.40	5.51	7.36	9.78	10.55	10.79	10.36	6.65
25	7.68	7.08	3.65	2.47	5.45	2.32	7.44	9.85	10.50	10.80	10.32	6.70
26	7.71	7.00	3.35	2.18	5.53	2.33	7.57	9.92	10.45	10.81	10.28	6.69
27	7.72	6.89	3.27	3.07	5.58	3.29	7.68	9.99	10.42	10.82	10.23	6.71
28	7.68	6.92	3.21	3.30	5.69	3.66	7.78	10.05	10.39	10.92	10.19	6.52
29	7.60	6.73	3.38	3.48	5.84	3.95	7.85	10.12	10.36	10.82	10.16	6.64
30	7.57	.....	3.36	3.60	5.97	4.23	7.88	10.18	10.35	10.82	10.10	6.65
31	7.53	.....	3.47	.....	6.07	.....	7.89	10.24	.....	10.82	.....	6.66

a Estimated.

745977 O-47-7

## MICHIGAN

By W. T. Stuart, R. W. Stallman, and Norman Billings

### PROGRAM OF WORK

The program of water-level measurements in observation wells in Michigan was continued during 1944 in cooperation with the Geological Survey Division of the Michigan Department of Conservation. Continuous records of water level were obtained through the year on two wells equipped with automatic water-stage recorders. During the year, water-level measurements were made weekly in 5 observation wells, monthly in 45 wells, and annually in 53 wells. About 1,200 individual measurements of water level were made in 1944. The observation wells, for which water-level records are included in this report, are located in the Lower Peninsula. For convenience, this area is sub-divided into the northern and the southern part of the Lower Peninsula. An earlier report<sup>1/</sup> included an index map showing the location of the observation wells in Michigan.

### FLUCTUATIONS OF WATER LEVEL

#### Northern Part of Lower Peninsula

Measurements of water level were made, at least once during the year, in 42 observation wells located in Cheboygan, Grand Traverse, Missaukee, Montmorency, Presque Isle, and Wexford Counties. Monthly measurements were made in 45 wells in Crawford, Kalkaska, Otsego, and Roscommon Counties.

In the first half of 1944, the water-level measurements were made by Norman Billings, hydrologist of the Michigan Geological Survey Division. Measurements through the latter part of the year were made by personnel of the U. S. Geological Survey.

Water levels in the 45 observation wells, for which monthly measurements are available, showed, on the average, a net decline of about 1 foot during 1944. The subnormal precipitation during the nongrowing season in

the first part of the year resulted in a net loss of about 1.2 feet  
<sup>1/</sup> Meinzer, O. E., Wenzel, L. K., and others, Water levels and artesian pressure in observation wells in the United States in 1940, Part 1, Northeastern States: U. S. Geol. Survey Water-Supply Paper 906, p. 52.

in the high water level for the spring of 1944 as compared to the peak stage for 1943. The latter part of 1944 was a period of prolonged drought and accordingly the water levels in most wells showed a general downward trend during the last half of the year. In the 10 year period, 1935-44, the average water level for this group of wells at the end of 1944 was the third lowest end-of-the-year stage recorded, being exceeded only in 1935 and 1939.

The trends of water level shown by the continuous records obtained from the automatic water-stage recorders in operation on wells near Grayling and Roscommon, are very similar to the trends shown by the average water level for the group of wells noted above. The depth to water in the Grayling recorder well ranged from 5.19 feet below land surface on June 24 to 7.95 feet on Sept. 9. Some recharge occurred from October through December to raise the water level in this well to a depth of 6.91 feet below the land surface on December 29, a rise of about 1 foot in a period of almost 4 months.

The depth to water in the Roscommon recorder well ranged from 4.32 feet below land surface on June 24 to 5.85 feet on December 29. Although the hydrograph of this well indicates there was recharge to the water table from October through December, as in the case of the Grayling well, the amount of such recharge was not sufficient to compensate for the steep downward trend caused by the prolonged drought period. The net result of the minor amounts of recharge and the reduced evapotranspiration demands during the October-December period was a flattening of the rate of water-level decline.

#### Southern Part of Lower Peninsula

Water-level measurements were made at least twice during the year in 10 wells located in Calhoun, Ingham, Kalamazoo, Oakland, St. Joseph, and Washtenaw Counties. Weekly or semiweekly measurements were made in 6 wells in Calhoun, Oakland, and Washtenaw Counties. In all, 549 individual measurements of water level were made during the year in the above wells.

The observation wells in this southern area are situated within the larger municipalities and, in general, the water-level trends are greatly influenced by the withdrawal of water from local industrial and public-supply wells. A discussion of the water-level fluctuations and the pumpage

trends in each area is included with the water-level records under each county.

#### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

The number assigned to each well, except the municipal wells, is its number in the township in which it is situated. The number assigned to each of the municipal wells is preceded by the name of the county in which the well is situated and to which it refers.

##### Calhoun County

Calhoun 1 (\*886, p. 267; 906, p. 58; \*936, pp. 59-60; 944, pp. 59-60; \*986, p. 60). City of Battle Creek. Well 22 at Verona pumping station of city waterworks. Measurements by S. C. Einhardt and Kenneth E. Garvey, operators, Verona pumping station.

##### Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.09	Apr. 3	3.58	July 3	4.23	Sept. 30	6.00
14	4.61	10	3.58	10	5.80	Oct. 8	5.60
22	5.43	17	3.58	17	6.56	16	5.70
31	4.65	24	3.49	24	5.08	24	5.50
Feb. 3	5.64	30	5.34	31	5.10	30	6.80
10	4.43	May 1	5.00	Aug. 12	6.05	Nov. 4	5.65
17	4.60	7	3.90	18	6.32	12	5.65
24	5.00	14	3.69	24	6.00	16	5.30
29	5.76	23	3.65	30	4.80	30	5.35
Mar. 6	4.60	31	4.17	Sept. 1	5.00	Dec. 5	6.40
13	4.65	June 7	4.47	8	5.69	19	7.20
20	4.28	14	3.49	15	6.12	24	5.90
27	3.50	21	3.70	22	5.50	31	5.80
30	3.52						

The average daily withdrawal of water from wells at the Verona pumping station in 1944 ranged from 3.28 million gallons in April to 7.07 million gallons in August and averaged 4.77 million gallons for the year. The average daily withdrawal was 3.93 million gallons in 1943, 2.79 million gallons in 1942, 3.75 million gallons in 1941; and 2.49 million gallons in 1940.

Calhoun 2 (\*886, pp. 267, 268; 906, p. 58; \*936, pp. 60-61; 944, p. 60; \*986, p. 61). City of Battle Creek. Armstrong test well 3 at Goguae pumping station of city waterworks. Measurements by C. A. Bunce, operator, Goguae pumping station.

##### Water level, in feet below land-surface datum, 1944

Jan. 14	21.8	Apr. 2	21.8	June 30	22.1	Sept. 28	20.6
16	21.3	9	21.9	July 3	22.4	Oct. 6	22.0
21	21.8	16	23.7	10	22.6	13	21.3
28	21.6	23	23.8	18	22.0	20	21.6
Feb. 4	22.1	27	23.9	24	22.6	27	22.6
11	22.3	May 7	22.1	Aug. 2	23.9	Nov. 12	22.6
21	24.5	14	23.3	7	24.4	20	22.1
27	23.0	21	22.6	14	24.2	28	21.4
Mar. 5	23.0	28	22.5	26	25.7	Dec. 6	19.6
12	22.9	June 3	22.6	Sept. 2	21.6	13	20.1
19	23.0	14	22.5	10	23.1	21	20.1
26	23.2	21	22.3	20	22.0		



The average daily withdrawal of ground water from wells at the Goguac pumping station in 1944 ranged from 1.10 million gallons in December to 1.56 million gallons in March and averaged 1.37 million gallons for the year. The average daily withdrawal was 1.30 million gallons in 1943; 1.34 million gallons in 1942; 1.10 million gallons in 1941; and 1.50 million gallons in 1940.

Charlevoix County

T. 32 N., R. 4 W.

1 (\*840, pp. 125, 126; 845, p. 153; 886, p. 268; 906, p. 58; 936, p. 61; 944, p. 61; \*986, p. 61). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 1. No measurements made in 1944.

33 (\*840, pp. 125, 126; 845, p. 153; 886, p. 268; 906, p. 58; 936, p. 61; 944, p. 61; \*986, p. 61). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10. No measurements made in 1944.

34 (\*840, pp. 125, 126; 845, p. 153; 936, p. 61; 944, p. 61; \*986, p. 61). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 4. No measurements made in 1944.

T. 33 N., R. 4 W.

31 (\*840, pp. 125, 127; 845, p. 153; 886, p. 268; 936, p. 61; 944, p. 61; \*986, p. 62). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36. No measurements made in 1944.

T. 33 N., R. 5 W.

12 (\*840, pp. 125, 128; 845, p. 153; 886, p. 268; 906, p. 58; 936, p. 61; 944, p. 61; \*986, p. 62). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4. No measurements made in 1944.

Cheboygan County

T. 33 N., R. 1 E.

5 (\*886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 27. Water level, in feet below land-surface datum, 1944: Sept. 21, 2.84.

7 (\*840, pp. 129, 130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28. Water level, in feet below land-surface datum, 1944: Sept. 21, 3.53.

8 (\*840, pp. 129, 130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 29. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.42.

17 (\*840, pp. 129, 130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23. Water level, in feet below land-surface datum, 1944: Sept. 21, 8.20.

T. 33 N., R. 1 W.

2 (\*840, pp. 129-130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 3. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.68.

4 (\*840, pp. 129-130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.40.

11 (\*840, pp. 129-130; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25. No measurements made in 1944.

## T. 34 N., R. 1 W.

11 (\*845, p. 153; \*886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1. Water level, in feet below land-surface datum, 1944: Sept. 21, 5.12.

33 (\*840, pp. 129, 130-131; 845, p. 153; 886, p. 268; 906, p. 59; 936, p. 61; 944, p. 61; \*986, p. 62). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.85.

Grawford County

## T. 25 N., R. 3 W.

8 (\*886, pp. 268, 269; 906, p. 59; 936, pp. 61-62; 944, p. 61; \*986, p. 62). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 29.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	9.73	Apr. 13	9.57	July 14	9.95	Oct. 14	10.23
Feb. 15	9.82	May 16	9.57	Aug. 14	10.14	Nov. 15	10.38
Mar. 14	9.66	June 14	9.73	Sept. 16	10.18	Dec. 16	10.38

## T. 26 N., R. 2 W.

9 (\*840, pp. 134, 137; 845, p. 154; 886, p. 269; 906, p. 59; 936, pp. 61-62; 944, p. 61; \*986, p. 63). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 12.

## Water level, in feet below land-surface datum, 1944

Jan. 14	2.14	Apr. 12	2.10	July 14	2.23	Oct. 14	2.14
Feb. 15	2.14	May 15	2.07	Aug. 14	2.46	Nov. 15	2.12
Mar. 14	2.04	June 15	2.12	Sept. 16	2.19	Dec. 16	2.14

## T. 26 N., R. 3 W.

26 (\*840, pp. 134, 137-138; 845, p. 154; 886, p. 269; 906, p. 59; 936, pp. 61-62; 944, p. 61; \*986, p. 63). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 19.

## Water level, in feet below land-surface datum, 1944

Jan. 13	9.61	Apr. 13	9.36	July 14	9.58	Oct. 14	10.34
Feb. 15	9.66	May 16	9.29	Aug. 14	10.16	Nov. 15	10.44
Mar. 14	9.59	June 14	9.63	Sept. 16	10.48	Dec. 16	10.22

28 (\*840, pp. 134, 137-138; 845, p. 154; 886, p. 269; 906, p. 59; 936, pp. 61-62; 944, pp. 61-62; \*986, p. 63). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12.

## Water level, in feet below land-surface datum, 1944

Jan. 14	7.30	May 15	7.08	Aug. 14	7.71	Nov. 15	8.30
Feb. 15	7.45	June 15	7.39	Sept. 16	8.04	Dec. 16	8.35
Apr. 12	7.33	July 14	7.37	Oct. 14	8.16		

## T. 26 N., R. 4 W.

9 (\*840, pp. 134, 138; 845, p. 154; 886, p. 269; 906, p. 59; 936, p. 62; 944, p. 62; \*986, p. 63). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6.

## Water level, in feet below land-surface datum, 1944

Jan. 14	1.63	Apr. 12	0.87	July 14	1.60	Oct. 14	2.55
Feb. 19	1.53	May 15	.45	Aug. 14	2.40	Nov. 15	3.07
Mar. 14	1.42	June 15	1.05	Sept. 16	2.94	Dec. 16	2.53

10 (\*840, pp. 134, 138; 845, p. 154; 886, p. 269; 906, p. 59; 936, p. 62; 944, p. 62; \*986, p. 63). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10.

10. NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	4.92	Apr. 12	4.20	July 14	5.29	Oct. 14	5.58
Feb. 19	4.81	May 15	4.13	Aug. 14	6.16	Nov. 15	5.62
Mar. 14	4.60	June 15	4.66	Sept. 16	6.40	Dec. 16	5.12

Grayling recorder well (\*986, p. 63). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10. Equipped with water-stage recorder.

Water level, in feet below land-surface datum, 1944

Jan. 8	6.31	Apr. 8	5.79	June 24	5.19	Sept. 16	7.93
15	6.39	14	5.74	July 1	5.81	23	7.56
22	6.47	21	5.78	8	6.30	30	7.46
31	5.67	28	5.36	15	6.84	Oct. 7	7.28
Feb. 5	5.81	May. 3	5.49	22	6.90	14	7.12
12	6.01	8	5.47	29	7.06	22	7.14
19	6.19	15	5.57	Aug. 5	7.15	28	7.18
26	6.31	22	5.75	12	7.34	Nov. 4	7.25
Mar. 4	6.17	29	5.97	19	7.58	11	7.16
11	6.32	June 5	5.80	26	7.80	18	6.75
18	6.15	12	6.06	Sept. 2	7.94	25	6.63
25	6.02	17	6.15	9	7.95	Dec. 29	6.91
Apr. 1	5.99						

12 (\*840, pp. 134, 139-140; 845, p. 154; 886, p. 269; 906, p. 59; 936, p. 62; 944, p. 62; \*986, p. 64). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 8.

Water level, in feet below land-surface datum, 1944

Jan. 14	4.18	Apr. 12	3.57	July 14	4.12	Oct. 14	5.17
Feb. 19	4.08	May 15	3.45	Aug. 14	4.93	Nov. 15	5.56
Mar. 14	4.04	June 15	3.68	Sept. 16	5.55	Dec. 16	5.02

## T. 27 N., R. 1 W.

8 (\*840, pp. 134, 139-140; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 62; \*986, p. 64). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 4.

Water level, in feet below land-surface datum, 1944

Jan. 14	4.00	Apr. 12	3.73	July 14	4.06	Oct. 14	4.05
Feb. 15	4.00	May 15	3.77	Aug. 14	4.20	Nov. 15	4.12
Mar. 14	3.91	June 15	4.01	Sept. 16	4.10	Dec. 16	4.05

22 (\*840, pp. 134, 139-140; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 62; \*986, p. 64). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20.

Water level, in feet below land-surface datum, 1944

Jan. 14	3.85	Apr. 12	3.38	July 14	3.67	Oct. 14	4.58
Feb. 15	3.97	May 15	3.10	Aug. 14	4.22	Nov. 15	4.80
Mar. 14	3.77	June 15	3.51	Sept. 16	4.50	Dec. 16	4.60

27 (\*840, pp. 134, 139-140; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 62; \*986, p. 64). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22.

Water level, in feet below land-surface datum, 1944

Jan. 14	5.45	Apr. 12	4.87	July 14	5.22	Oct. 14	5.77
Feb. 15	5.51	May 15	4.71	Aug. 14	5.52	Nov. 15	5.92
Mar. 14	5.23	June 15	5.05	Sept. 16	5.70	Dec. 16	5.73

## T. 27 N., R. 4 W.

42 (\*840, pp. 135, 141; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 63; \*986, p. 64). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2.

Water level, in feet below land-surface datum, 1944

Jan. 21	4.73	Apr. 12	4.34	July 14	4.86	Oct. 14	5.17
Feb. 15	4.62	May 15	4.34	Aug. 14	5.17	Nov. 15	5.31
Mar. 14	4.42	June 15	4.73	Sept. 16	5.50	Dec. 16	5.22

51 (\*886, pp. 268, 269; 906, p. 60; 936, p. 62; 944, p. 63; \*986, p. 64). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 14.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.82	Apr. 12	11.68	July 14	11.74	Oct. 14	12.54
Feb. 15	11.73	May 15	11.52	Aug. 14	12.17	Nov. 15	12.73
Mar. 14	11.75	June 15	11.53	Sept. 16	12.53	Dec. 16	12.73

T. 28 N., R. 1 W.

6 (\*840, pp. 135, 141-142; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 63; \*986, p. 65). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 8.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	7.10	Apr. 12	6.95	July 14	6.52	Oct. 14	7.64
Feb. 15	7.25	May 15	6.64	Aug. 14	6.99	Nov. 15	7.90
Mar. 14	7.17	June 15	6.64	Sept. 16	7.41	Dec. 16	7.65

18 (\*840, pp. 135, 141-142; 845, p. 154; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 63; \*986, p. 65). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	6.30	Apr. 12	5.78	July 14	5.37	Oct. 14	6.53
Feb. 15	6.27	May 15	5.43	Aug. 14	5.90	Nov. 15	6.69
Mar. 14	5.99	June 15	5.44	Sept. 16	6.34		

T. 28 N., R. 2 W.

2 (\*986, p. 65). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 30.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 15	2.95	May 15	2.50	Aug. 14	3.93	Nov. 15	4.04
Mar. 14	2.75	June 15	3.15	Sept. 16	4.19	Dec. 16	3.57
Apr. 12	2.43	July 14	3.31	Oct. 14	3.86		

T. 28 N., R. 4 W.

50 (\*845, p. 155; 886, p. 269; 906, p. 60; 936, p. 62; 944, p. 63; \*986, p. 65). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 14. No measurements made in 1944.

Grand Traverse County

T. 25 N., R. 9 W.

6 (\*840, pp. 143, 144; 936, p. 62; 944, p. 63; \*986, p. 65). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 23. Water level, in feet below land-surface datum, 1944: Sept. 20, 5.37.

24 (\*840, pp. 143, 144; 936, p. 62; 944, p. 63; \*986, p. 65). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26. Water level, in feet below land-surface datum, 1944: Sept. 20, 6.92.

27 (\*840, pp. 143, 144; 936, p. 62; 944, p. 63; \*986, p. 65). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34. Water level, in feet below land-surface datum, 1944: Sept. 20, 13.60.

T. 25 N., R. 10 W.

25 (\*840, pp. 143, 144-145; 936, p. 62; 944, p. 63; \*986, p. 65). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 2. Water level, in feet below land-surface datum, 1944: Sept. 20, 0.87.

26 (\*840, pp. 143, 144-145; 936, p. 62; 944, p. 63; \*986, p. 66). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 8. Water level, in feet below land-surface datum, 1944: Sept. 20, 0.36.

T. 25 N., R. 11 W.

19 (\*840, pp. 143, 145; \*986, p. 66). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2. Water level, in feet below land-surface datum, 1944: Sept. 20, 5.09.

T. 26 N., R. 9 W.

2 (\*840, pp. 143, 145-146; 936, p. 62; 944, p. 63; \*986, p. 66). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 13. Water level, in feet below land-surface datum, 1944: Sept. 20, 6.74.

T. 26 N., R. 11 W.

2 (\*840, pp. 143, 146; 936, p. 63; 944, p. 63; \*986, p. 66). NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27. Water level, in feet below land-surface datum, 1944: Sept. 20, 2.55.

4 (\*840, pp. 143, 146; 936, p. 63; 944, p. 63; \*986, p. 66). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 18. No measurements made in 1944.

7 (\*840, pp. 143, 146; 936, p. 63; 944, p. 63; \*986, p. 66). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7. No measurements made in 1944.

14 (\*840, pp. 143, 146; 936, p. 63; 944, p. 63; \*986, p. 66). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 21. Water level, in feet below land-surface datum, 1944: Sept. 20, 1.55.

T. 27 N., R. 9 W.

1 (\*840, pp. 143, 147-148; 936, p. 63; 944, p. 63; \*986, p. 66). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36. Water level, in feet below land-surface datum, 1944: Sept. 20, 12.81.

6 (\*840, pp. 143, 147-148; 936, p. 63; 944, p. 63; \*986, p. 66). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25. Water level, in feet below land-surface datum, 1944: Sept. 20, 2.32.

15 (\*840, pp. 143, 147-148; 936, p. 63; 944, p. 63; \*986, p. 66). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28. Water level, in feet below land-surface datum, 1944: Sept. 20, 13.18.

18 (\*840, pp. 143, 147-148; 936, p. 63; 944, p. 63; \*986, p. 66). NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 4. Water level, in feet below land-surface datum, 1944: Sept. 20, 0.91.

25 (\*840, pp. 143, 147-148; 936, p. 63; 944, p. 64; \*986, p. 66). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 34. Water level, in feet below land-surface datum, 1944: Sept. 20, 15.45.

#### Ingham County

Ingham 2 (\*886, pp. 270-272; \*936, pp. 63-64; 944, p. 64; \*986, p. 67). City of Lansing. Well 9 at Cedar Street pumping station, near northeast corner of Cedar and Kalamazoo Streets, Lansing. Water levels, in feet below land-surface datum, 1944: Nov. 20, 51.25; Dec. 19, 50.75.

Ingham 3 (\*886, pp. 270-272; 906, pp. 60-61; \*936, pp. 63-64; 944, p. 64; \*986, p. 67). City of Lansing. Well 5 in Pennsylvania Avenue well field, at northwest corner of crossing of Pennsylvania Avenue and Grand Trunk Railroad, Lansing. Water levels, in feet below land-surface datum, 1944: Nov. 20, 35.28; Dec. 19, 34.65.

Ingham 4 (\*886, pp. 265, 270-272; 906, pp. 60-61; \*936, pp. 63-64; 944, p. 64; \*986, p. 67). City of Lansing. Well 9 in Pennsylvania Avenue well field, about 500 feet east of Pennsylvania Avenue and just north of Grand Trunk Railroad, Lansing. Water levels, in feet below land-surface datum, 1944: Nov. 20, 49.40; Dec. 22, 47.87.

Ingham 5 (\*886, pp. 270-272; 906, pp. 60-61; 944, p. 64; 986, p. 67). City of Lansing. Well 7 in Riverside well field, just north of Cedar River, on approximate line of Mifflin Avenue, Lansing. No measurements made in 1944.

Ingham 6 (\*886, pp. 270-272; 906, pp. 60-61; \*936, pp. 63-64; 944, p. 64; \*986, p. 67). City of Lansing. Logan well, at Logan Street pumping station, Lapeer and Logan Streets, Lansing.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 18	84.22	Nov. 4	84.95	Nov. 24	85.31	Dec. 15	85.20
Oct. 16	84.10	10	85.25	Dec. 1	86.50	21	86.91
Nov. 2	84.76	17	85.05	8	84.97	29	87.34

Ingham 7 (\*886, pp. 270-272; 906, pp. 60-61; \*936, pp. 63-64; 944, p. 64; \*986, p. 67). City of Lansing. Seymour well, at Seymour Avenue pumping station, on north side of Josephine Street, about 500 feet east of Seymour (Grand River) Avenue, Lansing.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 18	73.88	Nov. 10	74.42	Dec. 1	73.49	Dec. 22	76.46
Oct. 16	73.53	17	74.55	8	72.89	29	76.61
Nov. 4	73.07	24	74.48	15	72.94		

Ingham 8 (\*886, pp. 265, 270-272; 906, pp. 60-61; \*936, pp. 63-64; 944, p. 65; \*986, p. 68). City of Lansing. Townsend well, at Townsend Street pumping station, on east side of Townsend Street opposite Olds Street, Lansing. Water levels, in feet below land-surface datum, 1944: Sept. 18, 35.95; Oct. 16, 35.35; Nov. 17, 35.70; Dec. 19, 35.05.

The average daily withdrawal from the municipal wells in Lansing was 14.1 million gallons in 1944 as compared to 12.8 million gallons in 1943; 11.1 million gallons in 1942; 10.8 million gallons in 1941; and 9.4 million gallons in 1940. The average daily pumpage in July, the peak month in 1944, was 16.6 million gallons.

The most notable changes in water level in the Lansing area observation wells occurred in wells 6 and 7 which show declines in water level ranging from 5 to 10 feet over the 1-year period 1943-44. These wells are located in the Northwest quadrant of the city in the vicinity of the new municipal water-supply developments. The gradual shift of the heavy pumping to this area is probably responsible, in large part, for the large declines of water level reflected by wells 6 and 7.

The total precipitation at Lansing, in 1944, was 25.86 inches, or 5.63 inches below normal. This represents the first year of below-normal precipitation within the past 5-year period 1940-44 inclusive. The greater part of the deficiency in precipitation during 1944 was accumulated during the last half of the year. As may be noted above, all of the water-level measurements for the Lansing wells were made in the latter part of the year, and, accordingly, the general lowering of water level of about 2 feet shown by wells, 2, 3, 4, and 8 between 1943 and 1944 might be attributed to the aforementioned deficiency in precipitation.

#### Kalamazoo County

Kalamazoo 1 (\*886, pp. 264, 273, 274; \*906, pp. 61-62; \*936, pp. 64-65; 944, p. 66; \*986, p. 68). Well 5 at Central (Burdick Street) pumping station of city waterworks, Kalamazoo.

Kalamazoo 1. Well B at Central (Burdick Street) pumping station of city waterworks--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Jan. 2	15.80	Mar. 12	17.12	Oct. 29	21.96
Feb. 27	17.07	Apr. 9	16.66		

Kalamazoo 2 (\*886, pp. 264, 273-274; \*906, p. 62; \*936, pp. 64-65; 944, p. 66; \*986, p. 68). Well C at city waterworks, about 1,100 feet southeast of Central pumping station, Kalamazoo.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.42	Mar. 12	17.22	Oct. 29	21.39
Feb. 27	17.15	Apr. 9	16.96		

Kalamazoo 3 (\*886, pp. 264, 273-274; \*906, p. 62; \*936, p. 65; 944, p. 66; \*986, p. 69). At Balch Street pumping station of city waterworks, between supply wells 1 and 2, Kalamazoo.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.21	Mar. 12	16.95	Oct. 29	20.55
Feb. 27	16.80	Apr. 9	16.72		

Measurements in wells 1, 2, and 3 were made by personnel of the city waterworks of the city of Kalamazoo.

The average daily pumpage from the municipal wells in Kalamazoo in 1944 was 8.62 million gallons, about 1.90 million gallons more than in 1943 and 2.85 million gallons more than in 1942. The average daily pumpage in 1944 ranged from 7.1 million gallons in January to 10.3 million gallons in August.

The water levels in wells 1, 2, and 3 averaged, respectively, 3.9, 5.3, and 5.1 feet lower in 1944 than in 1943. The decline in water levels in each of these wells is probably due, in part, to the increased pumpage noted above. The larger water-level declines reported for wells 2 and 3 are in keeping with the pumpage data which indicate that the increases in pumpage were occasioned by the adding of new producing wells in that portion of the well field which is nearer to wells 2 and 3.

The precipitation at Kalamazoo, in 1944, was 29.65 inches, or 5.50 inches below normal. A large part of this deficiency was accumulated during the last half of the year and it may be noted that the latter water level records for each well show a considerable decline below the levels of the first half of the year. It may be noted that the precipitation factor is as great an influence as the pumpage in affecting the water level in these wells.

Kalkaska County

T. 27 N., R. 5 W.

13 (\*944, p. 67; \*986, p. 69). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 27.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	13.69	May 15	13.72	Sept. 16	13.24	Nov. 15	13.67
Mar. 14	13.81	June 15	13.12	Oct. 14	13.47	Dec. 16	13.90
Apr. 12	13.82	Aug. 14	12.90				

100 (\*886, p. 274; 906, p. 65; 936, p. 65; 944, p. 67; \*986, p. 69). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 36.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.84	Apr. 12	11.92	July 14	11.43	Oct. 14	12.30
Feb. 19	11.96	May 15	11.70	Aug. 14	11.80	Nov. 15	12.38
Mar. 14	11.99	June 15	11.59	Sept. 16	12.15	Dec. 16	12.49

Missaukee County

T. 22 N., R. 5 W.

1 (\*840, pp. 148, 150, 151; 845, p. 155; 886, pp. 274-275; 906, pp. 62-63; 936, p. 66; 944, p. 67; \*986, p. 69). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2. Water level, in feet below land-surface datum, 1944: Apr. 12, 2.66.

T. 23 N., R. 6 W.

17 (\*840, pp. 148, 152, 153; 845, p. 155; 886, pp. 274-275; 906, pp. 62-63; 936, p. 66; 944, p. 67; \*986, p. 70). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 13. No measurements made in 1944.

T. 24 N., R. 6 W.

45 (\*840, pp. 149, 154, 155; 845, p. 155; 886, pp. 274-275; 906, pp. 62-63; 936, p. 66; 944, p. 67; \*986, p. 70). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13. Water level, in feet below land-surface datum, 1944: Apr. 12, 4.16.

Montmorency County

T. 31 N., R. 2 E.

6 (\*840, pp. 156-158; 845, p. 156; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 67; \*986, p. 70). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11. Water level, in feet below land-surface datum, 1944: Sept. 21, 10.93.

15 (\*840, pp. 156-158; 845, p. 156; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 67; \*986, p. 70). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14. Water level, in feet below land-surface datum, 1944: Sept. 21, 9.44.

18 (\*845, p. 156; 886, p. 275; 906, p. 63; 944, p. 67; \*986, p. 70). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15. Water level, in feet below land-surface datum, 1944: Sept. 21, 13.30.

28 (\*845, p. 156; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 67; \*986, p. 70). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 34. No measurements made in 1944.

T. 31 N., R. 3 E.

22 (\*840, pp. 156, 158-159; 845, pp. 156-157; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 68; \*986, p. 70). NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 9. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.51.

30 (\*840, pp. 156, 158-159; 845, pp. 156-157; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 68; \*986, p. 70). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 7. Well filled with stone. Measurements discontinued.

T. 31 N., R. 4 E.

1 (\*840, pp. 156, 160; 845, pp. 156-157; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 68; \*986, p. 70). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 8. Water level, in feet below land-surface datum, 1944: Sept. 21, 0.95.

12 (\*840, pp. 156, 160; 845, pp. 156-157; 886, p. 275; 906, p. 63; 936, p. 66; 944, p. 68; \*986, p. 70). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 20. Water level, in feet below land-surface datum, 1944: Sept. 21, 3.13.

Oakland County

Oakland 1 (\*886, pp. 266, 276, 277; 906, pp. 63-64; \*936, pp. 66, 67; 944, p. 68; \*986, p. 71). City of Pontiac. Well 6' at Walnut Street pumping station. In Pontiac, about 200 feet west of supply well 1.



## Oakland 1. City of Pontiac--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	74.3	Mar. 10	76.3	June 7	79.3	Sept. 25	83.3
5	76.1	13	70.8	12	76.3	27	83.3
10	74.3	15	75.8	16	77.3	29	82.3
14	74.3	17	74.1	19	81.3	Oct. 4	75.8
17	71.3	20	71.3	21	74.3	6	75.8
19	74.3	22	74.3	23	76.3	9	80.1
21	73.6	24	73.8	26	76.8	11	78.3
24	71.3	27	70.3	July 5	87.6	13	79.3
26	71.8	Apr. 3	74.9	14	90.6	25	80.3
28	74.3	5	74.3	17	84.3	30	77.3
30	69.3	7	72.8	21	84.3	Nov. 3	83.3
Feb. 2	73.3	10	74.3	24	84.8	6	82.3
4	74.3	12	74.9	28	83.6	8	82.3
7	70.8	14	75.6	Aug. 2	86.8	10	84.3
9	71.8	19	73.8	28	94.7	15	84.3
11	74.3	21	74.3	30	88.3	17	83.8
14	70.3	24	71.3	Sept. 1	88.3	24	78.3
16	72.8	26	70.8	5	80.3	29	81.8
21	70.3	28	73.6	8	82.3	Dec. 4	80.3
23	73.1	May 1	73.3	11	84.8	8	80.3
25	74.3	5	72.3	13	79.3	11	80.3
28	70.3	10	72.3	15	82.3	13	81.8
Mar. 1	73.3	15	74.3	18	84.3	15	81.3
3	74.8	22	75.1	20	85.3	18	80.8
6	70.6	24	74.8	22	83.3	23	79.3
8	73.3	29	78.3				

Oakland 2 (\*886, pp. 266, 276-277; 906, p. 64; \*936, pp. 66, 67-68; 944, p. 68; \*986, p. 71). City of Pontiac. Well 21 in Walnut Street well group. In Pontiac, about 40 feet northwest of supply well 3.

Water level, in feet below land-surface datum, 1944												
Jan.	3	85.9	Mar.	3	81.9	May	5	81.9	Sept.	25	91.9	
	5	86.6		6	78.9		10	81.9	Oct.	4	87.9	
	10	86.6		8	80.9		15	86.9		6	84.9	
	14	82.9		13	78.9		22	83.7		9	87.9	
	17	80.1		15	83.5		24	83.9		11	90.9	
	19	79.9		17	81.9		29	87.4		13	88.9	
	21	80.9		20	79.2	June	7	88.9		25	89.7	
	24	84.4		22	82.4		12	85.9		30	89.9	
	26	81.3		24	81.7		16	87.9	Nov.	3	90.9	
	28	82.2		27	78.4	19	89.9	6		92.9		
	30	76.9		29	80.9	21	87.9	8		92.9		
Feb.	2	81.9	Apr.	3	82.9		23	87.9		10	96.9	
	4	82.4			5	83.1		26	86.9		15	93.9
	7	79.2			7	81.9	July	5	96.9		17	94.4
	9	81.4		10	83.9	14		94.1		24	90.9	
	11	82.5		12	83.6	17		94.9		29	91.9	
	14	80.1		14	84.4		21	92.9	Dec.	4	88.9	
	16	81.3		19	82.9		24	95.9		8	91.5	
	21	79.1		21	83.2		28	90.9		11	89.4	
	23	80.9		24	80.6	Aug.	2	98.6		13	89.9	
	25	81.9		26	78.5		28	98.9		15	89.9	
	28	78.9		28	81.9		30	98.9		18	89.9	
Mar.	1	78.9	May	1	82.9	Sept.	1	100.9		23	88.9	

Oakland 3 (\*886, pp. 266, 276-277; 906, p. 64; \*936, pp. 66, 68; 944, p. 68; \*986, p. 71). City of Pontiac. Just outside pump house of East Boulevard supply well, near intersection of East Boulevard and Mount Clemens Street, Pontiac.

## Oakland 3. City of Pontiac--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	23.6	Mar. 10	27.6	May 29	31.6	Sept. 25	31.6
5	24.6	13	27.6	June 2	29.6	27	31.6
10	24.9	15	27.6	7	27.6	29	35.6
14	26.9	17	27.6	12	26.6	Oct. 4	38.6
17	25.9	20	26.9	16	27.6	6	39.1
19	26.6	22	27.6	19	27.6	9	35.6
21	26.6	24	27.6	21	22.6	11	35.6
24	26.6	27	26.6	23	29.6	13	38.6
26	28.6	29	26.6	26	29.6	25	35.6
28	27.6	Apr. 3	27.6	July 5	42.6	30	33.6
30	27.6	5	27.6	14	40.6	Nov. 3	38.6
Feb. 2	27.6	7	25.6	17	31.6	6	35.6
4	27.6	10	24.4	21	33.6	8	36.6
7	27.6	12	24.6	24	31.6	10	33.6
9	28.1	14	24.6	28	35.6	15	34.6
11	28.1	19	24.6	Aug. 2	36.6	17	34.6
14	27.1	21	24.6	28	34.6	24	35.6
16	27.6	24	22.6	30	35.1	29	35.6
21	27.4	26	24.6	Sept. 1	34.6	Dec. 4	35.5
23	27.4	28	23.6	5	34.6	8	37.1
25	27.6	May 1	22.4	8	35.6	11	36.6
28	27.6	5	22.4	11	33.1	13	39.6
Mar. 1	27.6	10	24.6	13	34.6	15	39.6
3	27.6	15	24.6	15	33.6	18	36.6
6	27.9	22	24.1	18	33.6	23	36.4
8	27.4	24	25.4	22	33.6		

Water-level measurements in wells 1, 2, and 3 were made by H. L. Monroe, superintendent, and H. W. MacDuff, chief engineer of the Department of Water Supply for the city of Pontiac.

The average daily pumpage from the municipal wells in Pontiac, during 1944, ranged from 7.38 million gallons in April to 10.3 million gallons in August, and averaged 8.3 million gallons for the year. The average daily pumpage in 1943 was 7.64 million gallons and in 1942 was 7.07 million gallons. The average daily withdrawal in 1944 of 8.3 million gallons represents an increase of 9% over the 1943 rate and 17% over the 1942 rate.

The total precipitation at Pontiac, in 1944, was 23.40 inches or 5.85 inches below normal. The greater part of this rainfall deficiency was accumulated during the last half of the year.

The net decline in the average water level in wells 1, 2, and 3 from 1943 to 1944 was respectively 5.9, 4.5, and 9.3 feet. As noted from the water-level records, a large part of the decline of water level in each well occurred in the latter part of 1944 which was a period of deficient rainfall and also a period of increased pumpage. Probably both the increased pumpage and the rainfall deficiency were of equal importance in contributing to the decline in water level.

## Otsego County

T. 29 N., R. 3 W.

105, (#840, p. 163; 845, p. 157; 886, p. 277; 906, p. 64; 936, p. 68; 944, p. 69; #986, p. 72). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 32.

Water level, in feet below land-surface datum, 1944					
Jan. 21	2.06	Apr. 12	1.67	July 14	2.10
Feb. 15	1.94	May 15	1.52	Aug. 16	2.53
Mar. 14	1.90	June 15	1.92	Sept. 16	2.69
				Oct. 14	2.62
				Nov. 15	2.82
				Dec. 16	2.83

106 (\*840, p. 163; 845, p. 157; 886, p. 277; 906, p. 64; 936, p. 68; 944, p. 69; \*986, p. 72). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	7.71	Apr. 12	7.31	July 14	7.61	Oct. 14	8.13
Feb. 15	7.65	May 15	7.18	Aug. 16	7.78	Nov. 15	8.20
Mar. 14	7.41	June 15	7.39	Sept. 16	8.03	Dec. 16	8.15

Presque Isle County

T. 33 N., R. 2 E.

13 (\*840, pp. 164, 165; 845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 69; \*986, p. 72). SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 29. Water level, in feet below land-surface datum, 1944: Sept. 21, 9.12.

16 (\*844, pp. 69, 70; \*986, p. 72). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 17. Well filled with sand.

17 (\*845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 20. Water level, in feet below land-surface datum, 1944: Sept. 21, 6.11.

18 (\*840, pp. 164, 166; 845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 30. Water level, in feet below land-surface datum, 1944: Sept. 21, 4.53.

19 (\*840, pp. 165, 166; 845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 70; \*986, p. 73). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 30. Water level, in feet below land-surface datum, 1944: Sept. 21, 9.60.

20 (\*840, pp. 165, 166; 845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 18. Water level, in feet below land-surface datum, 1944: Sept. 21, 4.74.

23 (\*845, pp. 157-158; 886, p. 277; 906, p. 65; 936, p. 68; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 6. Water level, in feet below land-surface datum, 1944: Sept. 21, 3.77.

Roscommon County

T. 21 N., R. 3 W.

3 (\*840, pp. 168, 171-172; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 2.

Water level, in feet below land-surface datum, 1944

Jan. 13	13.64	Apr. 13	13.93	July 12	14.28	Oct. 16	15.21
Feb. 15	13.91	May 16	14.05	Aug. 15	14.58	Nov. 14	15.43
Mar. 14	14.06	June 14	14.08	Sept. 15	14.92	Dec. 15	15.66

15 (\*840, pp. 168, 171-172; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 5.

Water level, in feet below land-surface datum, 1944

Jan. 13	9.30	Apr. 13	9.17	July 12	9.54	Oct. 16	9.84
Feb. 15	9.35	May 16	9.15	Aug. 15	9.78	Nov. 14	9.87
Mar. 14	9.34	June 14	9.32	Sept. 15	9.87	Dec. 15	9.88

T. 21 N., R. 4 W.

8 (\*840, pp. 169, 172-173; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 73). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13.

8. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 13--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	4.18	Apr. 13	3.09	July 12	3.89	Oct. 16	5.05
Feb. 15	3.99	May 16	2.80	Aug. 15	4.84	Nov. 14	5.15
Mar. 14	3.80	June 14	3.28	Sept. 15	5.48	Dec. 15	4.56

50 (\*886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 73). NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 4.

Water level, in feet below land-surface datum, 1944

Jan. 13	5.76	Apr. 13	4.74	July 12	5.38	Oct. 16	6.25
Feb. 15	5.65	May 16	3.94	Aug. 15	6.46	Nov. 14	6.28
Mar. 14	5.33	June 14	4.48	Sept. 15	6.80	Dec. 15	5.97

## T. 22 N., R. 1 W.

5 (\*840, pp. 169, 174; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 73). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 11.

Water level, in feet below land-surface datum, 1944

Jan. 13	2.73	Apr. 13	1.98	July 12	2.80	Oct. 16	4.63
Feb. 15	2.88	May 16	1.95	Aug. 15	4.02	Nov. 14	4.83
Mar. 14	2.63	June 14	2.20	Sept. 15	4.50	Dec. 15	4.67

## T. 22 N., R. 2 W.

3 (\*840, pp. 169, 174-175; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 74). SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6. No measurements made in 1944.9 (\*840, pp. 169, 174-175; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 70; \*986, p. 74). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 14.

Water level, in feet below land-surface datum, 1944

Jan. 13	5.30	Apr. 13	4.52	July 12	5.09	Oct. 16	5.87
Feb. 15	5.18	May 16	4.37	Aug. 15	5.67	Nov. 14	5.88
Mar. 14	4.95	June 14	4.62	Sept. 15	6.25	Dec. 15	5.56

15 (\*840, pp. 169, 174-175; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, pp. 70-71; \*986, p. 74). NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 17.

Water level, in feet below land-surface datum, 1944

Jan. 13	3.70	Apr. 13	2.97	July 12	3.49	Oct. 16	4.38
Feb. 15	3.64	May 16	2.40	Aug. 15	4.20	Nov. 14	4.45
Mar. 14	3.50	June 14	2.75	Sept. 15	4.70	Dec. 15	4.15

16 (\*840, pp. 169, 174-175; 845, p. 158; 886, p. 278; 906, p. 65; 936, p. 69; 944, p. 71; \*986, p. 74). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 18.

Water level, in feet below land-surface datum, 1944

Jan. 13	4.74	Apr. 13	4.09	July 12	4.90	Oct. 16	5.75
Feb. 15	4.74	May 16	3.61	Aug. 15	5.63	Nov. 14	5.90
Mar. 14	4.66	June 14	4.10	Sept. 15	6.05	Dec. 15	5.67

## T. 22 N., R. 3 W.

7 (\*840, pp. 169, 176-177; 845, p. 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 74). SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 22.

Water level, in feet below land-surface datum, 1944

Jan. 13	5.77	Apr. 13	5.59	July 12	5.83	Oct. 16	7.16
Feb. 15	5.98	May 16	5.08	Aug. 15	6.52	Nov. 14	7.34
Mar. 14	5.88	June 14	5.15	Sept. 15	7.05	Dec. 15	7.43

20 (\*840, pp. 170, 176-177; 845, p. 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 74). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 31.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	7.24	Apr. 13	6.59	July 12	7.43	Oct. 16	7.50
Feb. 15	7.18	May 16	6.40	Aug. 15	7.99	Nov. 14	7.42
Mar. 14	6.94	June 14	6.75	Sept. 15	8.00	Dec. 15	7.30

26 (\*840, pp. 170, 176-177; 845, p. 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 74). SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 34.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	5.28	Apr. 13	5.26	July 12	5.33	Oct. 16	6.64
Feb. 15	5.53	May 16	5.03	Aug. 15	5.86	Nov. 14	6.90
Mar. 14	5.61	June 14	4.93	Sept. 15	6.40	Dec. 15	7.04

T. 22 N., R. 4 W.

4 (\*840, pp. 170, 177; 845, p. 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 75). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	3.89	Apr. 13	3.25	July 12	3.41	Oct. 16	4.23
Feb. 15	3.81	May 16	2.55	Aug. 15	4.09	Nov. 14	4.55
Mar. 14	3.68	June 14	3.05	Sept. 15	4.54	Dec. 15	4.18

T. 23 N., R. 1 W.

50 (\*886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 75). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 3.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	4.36	Apr. 13	3.97	July 12	4.24	Oct. 16	5.55
Feb. 15	4.50	May 16	3.40	Aug. 15	5.01	Nov. 14	5.77
Mar. 14	4.45	June 14	3.90	Sept. 15	5.52	Dec. 16	5.57

T. 23 N., R. 3 W.

5 (\*840, pp. 170, 178; 845, p. 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 75). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 25.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	5.07	Apr. 13	4.45	July 12	4.77	Oct. 16	5.35
Feb. 15	4.97	May 16	4.26	Aug. 15	5.70	Nov. 14	5.30
Mar. 14	4.78	June 14	4.57	Sept. 15	5.91	Dec. 15	5.10

75 (\*845, pp. 158, 159; 886, p. 278; 906, pp. 65-66; 936, p. 69; 944, p. 71; \*986, p. 75). SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 12.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	6.49	May 16	7.50	Aug. 15	8.40	Nov. 14	8.95
Mar. 14	7.98	June 14	7.74	Sept. 15	8.74	Dec. 15	8.89
Apr. 13	7.82	July 12	7.92	Oct. 16	8.82		

T. 24 N., R. 1 W.

30 (\*840, pp. 170, 178; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, p. 66; 944, p. 71; \*986, p. 75). NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 34.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	16.29	Apr. 13	16.24	July 12	15.90	Sept. 15	16.70
Feb. 15	16.45	May 16	15.87	Aug. 15	16.30	Oct. 16	17.00
Mar. 14	16.48	June 14	15.79				

T. 24 N., R. 2 W.

Roscommon recorder well 1 (\*817, pp. 83, 85; \*840, pp. 123-124, 170, 179; \*845, pp. 152, 160; \*886, pp. 261-263, 267, 279; \*906, pp. 51, 53, 54, 67; \*936, pp. 58-59, 70; \*944, pp. 57-58, 72; \*986, p. 75). SW $\frac{1}{4}$  sec. 17.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.19	Apr. 1	5.03	July 1	4.47	Sept. 16	5.73
8	5.23	8	4.83	8	4.74	23	5.70
15	5.26	14	4.84	15	4.85	30	5.65
22	5.29	21	4.86	22	5.00	Oct. 7	5.69
31	5.16	28	4.62	29	5.03	14	5.72
Feb. 5	5.18	May 3	4.53	Aug. 1	5.09	21	5.75
12	5.28	9	4.49	5	5.15	28	5.78
19	5.32	16	4.41	12	5.31	Nov. 4	5.81
26	5.34	29	4.38	19	5.36	11	5.83
Mar. 4	5.31	June 5	4.44	26	5.58	18	5.81
11	5.36	12	4.57	Sept. 2	5.65	25	5.79
18	5.16	17	4.63	9	5.69	Dec. 29	5.85
25	4.89	24	4.32				

81 (\*840, pp. 170, 179; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). NW $\frac{1}{4}$  sec. 3.

Water level, in feet below land-surface datum, 1944

Jan. 13	2.92	Apr. 13	3.15	July 12	3.19	Oct. 16	3.88
Feb. 15	3.17	May 16	3.22	Aug. 15	3.43	Nov. 14	4.10
Mar. 14	3.13	June 14	3.11	Sept. 15	3.65	Dec. 15	4.36

88 (\*840, pp. 170, 179; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). NE $\frac{1}{4}$  sec. 1.

Water level, in feet below land-surface datum, 1944

Jan. 13	9.50	Apr. 13	9.18	July 12	8.78	Oct. 16	10.35
Feb. 15	9.47	May 16	8.53	Aug. 15	9.49	Nov. 14	10.55
Mar. 14	9.53	June 14	8.41	Sept. 15	10.10	Dec. 15	10.53

107 (\*840, pp. 170, 179; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). SE $\frac{1}{4}$  sec. 7.

Water level, in feet below land-surface datum, 1944

Jan. 13	7.26	Apr. 13	6.91	July 12	6.91	Oct. 16	7.63
Feb. 15	7.23	May 16	6.52	Aug. 15	7.34	Nov. 14	7.75
Mar. 14	7.03	June 14	6.68	Sept. 15	7.65	Dec. 15	7.75

150 (\*840, pp. 171, 179; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19.

Water level, in feet below land-surface datum, 1944

Jan. 13	3.25	Apr. 13	2.47	July 12	2.71	Oct. 16	4.44
Feb. 15	3.36	May 16	2.18	Aug. 15	4.20	Nov. 14	4.65
Mar. 14	3.22	June 14	2.12	Sept. 15	4.70	Dec. 15	4.40

1000 (\*886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). NW $\frac{1}{4}$  sec. 21.

Water level, in feet below land-surface datum, 1944

Jan. 13	5.36	Apr. 13	5.22	July 12	4.14	Oct. 16	6.38
Feb. 15	5.55	May 16	3.83	Aug. 15	5.15	Nov. 14	6.80
Mar. 14	5.67	June 14	3.87	Sept. 15	6.10	Dec. 15	6.90

T. 24 N., R. 3 W.

1 (\*840, pp. 171, 180-181; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, p. 72; \*986, p. 76). NW $\frac{1}{4}$  sec. 24.

1. NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 24--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	8.68	Apr. 13	8.71	July 12	8.26	Oct. 16	9.81
Feb. 15	8.86	May 16	8.12	Aug. 15	9.00	Nov. 14	10.20
Mar. 14	8.92	June 14	8.17	Sept. 15	9.56	Dec. 15	10.37

7 (\*840, pp. 171, 180-181; 845, p. 159; 886, pp. 278-279; 906, p. 66; 936, pp. 69-70; 944, pp. 72-73; \*986, p. 77). SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 15.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	11.28	Apr. 13	10.82	July 12	10.59	Oct. 16	12.33
Feb. 15	11.29	May 16	9.90	Aug. 15	11.67	Nov. 14	12.51
Mar. 14	11.51	June 14	10.06	Sept. 15	12.27	Dec. 15	12.38

17 (\*840, pp. 171, 180-181; 845, p. 159; 886, p. 279; 906, p. 66; 936, p. 70; 944, p. 73; \*986, p. 77). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 3.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	11.44	Apr. 13	11.48	July 14	11.81	Oct. 16	12.48
Feb. 15	11.58	May 16	11.35	Aug. 15	12.10	Nov. 14	12.63
Mar. 14	11.61	June 14	11.61	Sept. 15	12.39	Dec. 15	12.70

St. Joseph County

St. Joseph 1 (\*886, p. 279; 906, p. 67; 936, pp. 70-71; 944, p. 73; \*986, p. 77). City of Three Rivers. About 350 feet south of West Michigan Street, on an island at the confluence of the St. Joseph and Rock Rivers. Measurements by A. C. Walls, pump station operator, city waterworks; O. O. Johnson, city manager, city of Three Rivers.

Water level, in feet with reference to land-surface datum, 1944

Oct. 7	-1.16	Oct. 28	+0.85	Nov. 27	+1.60	Dec. 16	-2.80
14	-3.00	Nov. 4	-3.35	30	-3.66	23	-3.30
21	+0.83	11	+1.00	Dec. 9	-0.88	29	-3.55

Washtenaw County

Washtenaw 1 (\*906, pp. 57, 67-68; \*936, p. 71; 944, pp. 73-74; \*986, p. 77). City of Ann Arbor. About 200 feet south of main building of Steere Farm pumping station of city waterworks.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2-4	(a)	Apr. 1	0.21	July 14	(a)	Oct. 15	4.27
5	3.20	5	.88	15	(a)	20	4.52
10	2.05	6	.96	20	(a)	25	4.59
15	2.06	10	.91	25	2.53	26	4.72
20	2.04	15	.64	30	2.59	30	4.56
25	2.09	20	.34	Aug. 5	2.92	31	3.41
30	2.13	25	.24	7	1.04	Nov. 5	4.78
Feb. 5	2.18	30	.21	10	3.07	10	4.82
10	2.30	May 5	.12	15	3.25	14	3.63
15	2.25	6	.16	20	2.98	15	4.74
20	2.33	7	.16	25	4.11	17	5.30
21	2.38	8-31	(a)	30	3.43	20	5.05
25	2.31	June 1-5	(a)	Sept. 5	3.51	25	4.73
27	1.25	10	.64	8	b .09	30	4.77
29	1.33	11	(a)	10	3.61	Dec. 5	5.26
Mar. 5	1.53	15	.56	15	.51	10	4.84
10	2.07	20	1.07	20	3.78	15	5.34
15	1.96	25	.55	25	3.95	19	3.59
20	1.56	30	1.45	28	4.12	20	5.39
25	.93	July 5	1.69	30	4.00	23	5.56
30	.88	10	1.88	Oct. 5	4.18	25	5.55
31	.87	12	3.01	10	4.19	30	5.23

a Flowing.

b Above land-surface datum.

The average daily pumpage at the Steere Farm pumping station, in 1944, ranged from 0.90 million gallons in May to 2.76 million gallons in July and averaged 1.90 million gallons. This represents an increase of 0.44 million gallons a day over the pumpage of 1943; an increase of 0.15 million gallons a day over the pumpage of 1942; and an increase of 0.63 million gallons a day over the pumpage of 1941. The lowest water level reached in well 1 was about 2.4 feet lower in 1944 than in 1943, 1.4 feet higher than in 1942 and 0.4 foot higher than in 1941. The precipitation at Ann Arbor was 3.56 inches below normal in 1944; 6.27 inches above normal in 1943; 5.87 inches above normal in 1942; and 2.28 inches below normal in 1941.

Wexford County

T. 24 N., R. 9 W.

7 (\*840, pp. 181-182; 936, p. 72; 944, p. 74; \*986, p. 78). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27. Water level, in feet below land-surface datum, 1944: Sept. 20, 10.35.

58 (\*840, pp. 181-182; 936, p. 72; 944, p. 74; \*986, p. 78). SW $\frac{1}{4}$ NW $\frac{1}{4}$

sec. 19. Water level, in feet below land-surface datum, 1944: Sept. 20, 2.42.

T. 24 N., R. 10 W.

2 (\*840, pp. 181, 182; 936, p. 72; 944, p. 72; \*986, p. 78). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 22. Water level, in feet below land-surface datum, 1944: Sept. 20, 2.81.

3 (\*840, pp. 181, 182; 936, p. 72; 944, p. 74; \*986, p. 78). SE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 28. Water level, in feet below land-surface datum, 1944: Sept. 20, 7.75.

4 (\*840, pp. 181, 182; 936, p. 72; 944, p. 74; \*986, p. 78). SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 26. Water level, in feet below land-surface datum, 1944: Sept. 20, 1.28.

42 (\*840, pp. 181, 182; 936, p. 72; 944, p. 74; \*986, p. 78). NW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 36. Water level, in feet below land-surface datum, 1944: Sept. 20, 4.49.



## NEW HAMPSHIRE

By H. N. Halberg

### PROGRAM OF WORK

Periodic measurements of water level, begun in New Hampshire in 1942 at one observation well near Bristol, in the town of Hill, Merrimack County, were continued in 1944, and 10 measurements were made in this well during the year.

The Manchester Water Works began periodic measurements of water level in September 1942 at two observation wells in Auburn, Rockingham County. Both wells are in hilly country and penetrate unconsolidated material. One measurement was made at each well in 1942, and readings were continued about on a monthly basis thereafter. A water-stage recorder was installed on well Auburn 10 on January 28, 1944. All readings that have been made at the two wells are included in this report.

### FLUCTUATIONS OF WATER LEVEL

The fluctuations of water level in the well near Bristol appear to be due largely to temperature and precipitation changes. The slight net gain in underground storage during 1944, as indicated by a net rise in the water level of about 0.7 foot, (the water level on January 2, 1945, was 7.99 feet below land-surface datum) seems to be due to an increase in precipitation over that of 1943. The precipitation at nearby Franklin was about 3.3 inches above normal in 1944, and about 1.6 inches more than in 1943. Normal precipitation at Franklin is 39.92 inches.

The rise in water level in March and April 1944 in the well in Bristol was largely the result of temperatures high enough to melt the snow cover. The effect of a slight deficiency of precipitation in April was overcome by this snow melt. The seasonal decline in May, due to the beginning of the growing season, was increased by greater than normal temperatures and deficient precipitation. Excessive rainfall in June caused a small rise.

The two wells in Auburn apparently reflect changes in precipitation and temperature. During 1943, a loss in underground storage near both wells was indicated by a net decline in water level of 0.5 foot in well Auburn 8 and 1.3 feet in well Auburn 10. A gain in underground storage during 1944 was indicated by a net rise of 0.5 foot in the former. (the water level on January 1, 1945, was 1.60 feet below land-surface datum) and 1.1 feet at the latter well. The precipitation at nearby Manchester was about 2.0 inches below normal in 1943 and about 2.5 inches above normal in 1944. Normal precipitation at Manchester is 39.15 inches.

An unseasonal decline in water level in both wells in Auburn during March 1943 reflected deficient precipitation, which was about two-thirds of normal. In May the water level fell, reflecting the beginning of the growing season, as rainfall was about 160 percent of normal. In June the needs of plants and deficient precipitation caused a further decline, but considerable recovery was made in July with greater than normal rainfall. In September extremely deficient precipitation (0.99 inch at Manchester) caused the water level to continue to drop. Excessive rains in October and November caused considerable recovery, but negligible precipitation in December (0.62 inch at Manchester) resulted in a net loss in underground storage at both wells during 1943.

During March 1944 the water level in both wells rose, reflecting the well above normal rainfall. The sharp drop in May in well Auburn 10 was the result of high temperatures, deficient precipitation, and the needs of plants. The rise in June in well Auburn 10 was the result of excessive rainfall (over 7 inches at Manchester). The water level in this well fell off sharply in July and August, reflecting the deficient precipitation in those two months. Excessive rainfall in September caused a sharp recovery in the water level in both wells, and the level rose farther in November as a result of high precipitation. Although December showed a slight decline, there was a net gain in underground storage for the year in both wells.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Merrimack County

U. S. 91 (\*986, p. 79). J. E. Norcross. Bristol l. About 0.2 mile south of Smith River, 1.0 mile west of U. S. Route 3A, and 2 miles south of Bristol Hill.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	9.03	May 1	4.06	Aug. 1	8.68	Nov. 1	9.19
Mar. 1	9.22	June 1	8.30	Oct. 2	9.29	Dec. 1	8.36
Apr. 3	6.09	July 3	7.66				

Rockingham County

Auburn 8. Manchester Water Works. About 250 feet east of the intersection of Hookset and Depot Roads, 0.9 mile north of Auburn. Unused dug domestic well, diameter 32 inches, depth 7.0 feet below land surface. Measuring point, edge of steel plate attached to horizontal timber, at land surface, which is about 300 feet above mean sea level. Measurements made by Manchester Water Works.

## Water level, in feet below land-surface datum, 1942-44

Date	Water level	Date	Water level	Date	Water level
Sept. 2, 1942	2.3	Aug. 9, 1943	1.8	Apr. 3, 1944	1.41
Jan. 2, 1943	1.6	Sept. 2	1.9	June 1	2.17
Feb. 2	1.4	Oct. 6	2.3	July 5	2.66
Mar. 1	1.6	Nov. 1	2.2	Aug. 1	1.29
Apr. 3	2.2	Dec. 4	1.4	Sept. 12	4.11
May 10	2.1	Jan. 1, 1944	2.1	Oct. 10	2.09
June 10	2.4	Feb. 1	2.5	Nov. 1	1.93
July 6	3.4	Mar. 1	1.8	Dec. 4	1.58

Auburn 10. Frank Forsaith. On west side of Burts Road, about 150 feet south of Kent Road, 1.8 miles east of Auburn. Unused dug domestic well, diameter 48 inches, depth 7.7 feet below land surface. Measuring point, steel plate attached to horizontal timber, at land surface, which is about 320 feet above mean sea level. Measurements made by Manchester Water Works.

Water level at noon, in feet below land-surface datum, 1942-43  
(Record from Sept. 2, 1942, through Jan. 1, 1944, taken from  
tape measurements; record beginning Jan. 28, 1944,  
based on recorder charts)

Sept. 2, 1942	4.4	May 10, 1943	2.0	Sept. 2, 1943	4.2
Jan. 2, 1943	2.4	June 10	3.3	Oct. 6	5.2
Feb. 2	3.0	July 6	4.5	Nov. 1	3.1
Mar. 1	1.6	Aug. 9	2.7	Dec. 4	2.2
Apr. 3	2.0				

## Water level at noon, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.7	3.44	2.67	a1.49	2.06	3.49	2.58	3.75	5.70	2.79	a2.86	1.40
2	...	3.46	2.67	...	2.16	3.57	2.76	...	5.74	2.90	2.89	...
3	...	3.46	2.67	...	a2.21	3.55	2.91	...	5.79	2.97	2.89	...
4	...	3.46	2.68	...	2.26	3.74	2.99	a4.21	5.84	3.04	...	2.06
5	...	...	...	...	2.32	3.82	2.98	4.26	5.89	3.11	...	2.14
6	...	...	...	...	2.41	3.89	2.71	...	5.65	3.12	a2.9	2.23
7	...	...	...	a1.87	2.45	3.96	2.86	...	5.49	2.87	2.69	2.27
8	...	...	2.53	...	2.03	4.05	3.04	4.52	5.46	2.85	2.70	2.31
9	...	...	2.4	...	2.18	4.12	3.16	4.60	5.48	2.85	2.78	1.53
10	...	...	2.44	...	2.32	4.18	3.28	4.69	5.53	2.91	2.71	1.70
11	...	3.74	...	...	2.42	3.78	3.28	4.77	5.60	2.99	2.22	1.86
12	...	...	a2.46	...	2.50	3.76	3.32	4.89	5.66	3.08	2.26	1.85

a Estimated.

## Auburn 10. Frank Forsaith--Continued.

Water level at noon, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	...	....	2.10	....	2.58	3.85	3.40	4.99	5.69	3.14	2.36	1.98
14	...	....	1.96	....	2.43	3.99	3.52	5.07	5.52	3.15	2.44	2.09
15	...	3.65	1.88	....	2.61	4.06	3.63	4.93	2.47	2.96	2.52	2.17
16	...	3.59	1.89	....	2.67	4.03	3.70	4.96	1.89	3.01	2.52	a2.25
17	...	3.54	1.84	....	2.74	3.64	3.01	5.07	2.01	3.04	2.48	2.32
18	...	3.43	1.67	1.57	2.86	3.65	3.10	5.11	2.12	3.11	2.54	2.37
19	...	3.41	1.72	1.71	2.95	3.67	3.24	5.18	2.23	3.16	2.59	2.41
20	...	3.35	1.75	1.82	3.03	3.36	3.36	5.24	2.28	3.23	a2.67	2.44
21	...	3.33	1.80	1.91	3.11	2.46	3.26	5.31	2.33	a2.53	2.65	2.45
22	...	3.32	2.0	1.97	3.14	2.25	3.29	5.36	2.17	2.21	2.39	....
23	...	3.23	1.9	2.04	2.68	2.26	....	5.42	2.38	2.24	2.11	....
24	...	3.10	1.6	2.02	2.68	2.01	....	5.47	2.51	2.32	2.14	....
25	...	2.93	1.51	1.32	2.78	1.11	....	5.35	2.59	2.36	....	....
26	...	2.86	1.52	1.43	2.89	1.47	....	5.37	2.67	....	....	2.62
27	...	2.81	1.58	1.60	2.98	1.76	....	5.43	2.75	....	a2.17	....
28	a3.53	2.79	1.54	1.73	3.07	2.03	3.73	5.50	2.82	....	1.92	....
29	3.52	2.73	1.65	1.89	3.22	2.21	....	5.53	2.55	....	2.04	....
30	3.49	....	1.67	1.98	3.31	2.40	....	5.59	2.68	a2.73	.91	....
31	3.47	....	1.48	....	3.39	....	....	5.64	....	a2.80	....	....

a Estimated.

## NEW JERSEY

By J. M. Birdsall

### PROGRAM OF WORK

The investigations of the ground-water resources of New Jersey were continued during 1944 in cooperation with the New Jersey State Water Policy Commission, under a cooperative agreement between these agencies.

During 1944 about 4,100 measurements were made and at the end of the year approximately 195 wells were being observed; measurements were made monthly or less frequently in some of the wells, biweekly and weekly in others and 4 times a day in one. Continuous records from water-stage recorders were obtained for 54 wells during the year. The State and Federal governments owned and operated 46 of these recorders; the other 8 being owned by private water-supply companies, or industries.

### FLUCTUATIONS OF WATER LEVEL

The average precipitation for the State during 1944 was 46.76 inches or 1.04 inches above normal. Precipitation varied greatly in different localities. Annual totals ranged from 34.01 inches at Cape May to 59.19 inches at Elizabeth. In general, more precipitation occurred in the eastern part of the State. Annual totals were 50 inches or more over a considerable area from Hudson and Essex Counties southward to Ocean County and extending for about 20 to 25 miles inland.

A tropical hurricane occurred on September 13 and 14, the most destructive storm in the State in 50 years, causing property damage amounting to approximately \$25,000,000 and a loss of 8 lives in the coastal areas. The high tide accompanying the storm, although of short duration inundated the tops of many wells in the Atlantic City area allowing some salt water to enter through breather pipes and through inadequate seals. This could be pumped out and, except from a sanitary standpoint, the contamination was not considered to be serious. September was the wettest month of the

year due to the heavy rains that accompanied the hurricane.

The Morrell well (29.11.1.2.3), a shallow well near Old Bridge, in Middlesex County, is considered to be a fairly reliable index of the amount of water stored in the ground. Its water level responds quickly to precipitation and, due to its location, it is not affected by pumping. From the hydrograph, it would appear that throughout the year the ground-water storage was generally slightly above that during the preceding year. Beginning on June 20 there was a fairly uniform drop due to transpiration and below normal precipitation until September 13, when a pronounced rise occurred as the result of heavy precipitation at the time of the hurricane. Following the hurricane a moderate drop was registered until October 20, when approximately 1.66 inches of precipitation in this area produced a rise in the water level. At the end of the year the water level was 0.57 foot above that recorded on December 31, 1943.

In Salem County the water levels in 13 wells reached new high stages in 1944 and one reached a new low. Eight of the new high stages occurred near the end of March--one of the five wettest on record--with a total precipitation for the State of 151 percent. In Middlesex County three wells showed record high stages. One of these, the Old Bridge observation well, recording levels in the Old Bridge sand member of the Raritan formation, reached new high stages on September 14 or 15. These were the results of the hurricane. The other two were the Sayreville test well with a record of 11.55 feet above mean sea level on March 27, 1944, and Runyon Old Deep well No. 1, with a recording of 12.8 feet above mean sea level on March 26, 1944. These two wells tap the No. 1, or Farrington, sand members of the Raritan formation. The high stages reflect a slacking up of pumpage from the industrial wells in the Parlin area which also tap the No. 1 sand.

The water level in the 800-foot sand in Atlantic City was approximately 8 feet higher during the first 4 months in 1944 than in the previous year. Starting in May and continuing through August of 1944 there was a uniform decline. The water levels for the 2 years were about the same during the middle of July; from that time until the end of the year, the water level for 1944 remained below that of 1943, at times as much as 9 feet below. The water level in the Longport well, which taps the same artesian

aquifer, showed a similar trend through the 12-month period with a much smaller difference between the 1943 and 1944 period. Inasmuch as the intake area is at a considerable distance from this pumpage area, the precipitation may not be considered too important a factor; the pumpage probably accounts for the trend and this was to some extent influenced by the fact that military establishments were still functioning in this area.

## WELL-NUMBERING SYSTEM

The well-numbering system used in New Jersey is described in the text of Water-Supply Paper 986, p. 83.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Atlantic County

## Atlantic City Area

36.13.2.9.1 (\*845, p. 197; 886, p. 342; 906, p. 76; 936, p. 78; 944, p. 78; \*986, p. 85). Atlantic City Water Department 600-foot well. New measuring point established Apr. 14, 1943, 1.02 feet above old measuring point, 1.0 foot above land-surface datum, and 12.80 feet above mean sea level. Extremes of observed water level, in feet below mean sea level: Highest, 3.05 Mar. 28, 1925; lowest, 25.47 Sept. 28 and 29, 1929.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	30.7	30.0	29.6	28.9	28.7	29.1	30.1	....	32.8	33.6	33.2	31.9
2	30.7	30.1	29.6	28.9	28.7	29.0	30.1	....	32.8	33.6	33.2	32.0
3	30.6	30.1	29.6	28.9	28.7	29.0	30.1	....	32.9	33.6	33.2	32.0
4	30.6	30.1	29.6	28.9	28.7	29.1	30.2	....	32.9	33.6	33.1	32.0
5	30.6	30.1	29.5	28.9	28.7	29.2	30.2	....	32.9	33.6	33.1	32.0
6	30.6	30.0	29.6	28.9	28.7	29.2	30.3	....	33.0	33.6	33.1	32.0
7	30.6	30.0	29.4	28.9	28.7	29.2	30.3	....	33.0	33.6	33.1	32.0
8	30.6	30.0	29.4	28.9	28.8	29.2	....	....	33.0	33.6	33.1	32.0
9	30.6	30.0	29.5	28.9	28.8	29.3	....	....	33.0	33.6	33.1	32.0
10	30.6	30.0	29.5	28.9	28.8	29.3	....	....	....	33.6	....	32.0
11	30.6	29.8	29.6	28.9	28.8	29.3	....	....	....	33.6	....	32.0
12	30.3	29.18	29.6	28.9	28.8	29.4	....	....	....	33.6	....	31.8
13	30.4	29.9	29.3	28.9	28.9	29.4	....	....	....	33.6	....	31.8
14	30.4	29.8	29.4	28.8	28.9	29.4	....	....	....	33.6	....	31.8
15	30.3	29.8	29.4	28.9	28.9	29.4	....	32.0	....	33.7	....	31.8
16	30.2	29.9	29.3	28.8	28.9	29.4	....	32.0	....	33.7	....	31.8
17	30.3	29.9	29.2	28.9	28.9	29.5	....	32.0	....	33.7	32.8	31.8
18	30.3	29.8	29.3	28.9	28.9	29.5	....	32.1	....	33.7	32.8	31.9
19	30.2	29.9	29.3	28.9	28.9	29.6	....	32.2	....	33.7	32.8	31.9
20	30.2	29.9	29.1	28.9	28.9	29.6	....	32.2	....	33.2	32.7	31.9
21	30.2	29.9	29.1	28.9	29.0	29.6	....	32.3	....	33.2	32.4	31.9
22	30.2	29.8	29.2	28.9	28.9	29.7	....	32.3	....	33.2	32.4	31.9
23	30.1	29.7	29.0	28.9	29.0	29.7	....	32.3	....	33.2	32.4	31.9
24	30.2	29.7	29.0	28.7	29.0	29.7	....	32.4	....	33.2	32.4	31.9
25	30.2	29.8	29.1	28.7	29.0	29.7	31.3	32.5	33.5	33.2	32.4	31.9
26	30.2	29.8	29.1	28.8	29.0	29.8	31.3	32.5	33.5	33.2	32.4	31.9
27	30.1	29.7	29.1	28.7	29.1	29.9	31.4	32.6	33.6	33.2	32.4	31.9
28	30.1	29.7	29.1	28.8	29.1	30.0	31.4	32.6	33.6	33.2	33.2	31.9
29	30.0	29.6	29.1	28.8	29.1	30.0	31.5	32.6	33.6	33.2	32.2	31.9
30	30.0	....	29.0	28.8	29.1	30.0	31.5	32.7	33.6	33.2	31.9	31.9
31	30.0	....	28.9	....	29.1	....	31.6	32.7	....	33.2	....	31.9

## 36.13.2.9.1. Atlantic City Water Department--Continued.

Water level, at end of day, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.9	18.2	17.8	17.1	16.9	17.3	18.3	....	21.0	21.8	21.4	20.1
2	18.9	18.3	17.8	17.1	16.9	17.2	18.3	....	21.0	21.8	21.4	20.2
3	18.8	18.3	17.8	17.1	16.9	17.2	18.3	....	21.1	21.8	21.4	20.2
4	18.8	18.3	17.8	17.1	16.9	17.3	18.4	....	21.1	21.8	21.3	20.2
5	18.8	18.3	17.7	17.0	16.9	17.4	18.4	....	21.1	21.8	21.3	20.2
6	18.8	18.2	17.8	17.1	16.9	17.4	18.5	....	21.2	21.8	21.3	20.2
7	18.8	18.2	17.6	17.1	16.9	17.4	18.5	....	21.2	21.8	21.3	20.2
8	18.8	18.2	17.6	17.1	17.0	17.4	....	....	21.2	21.8	21.3	20.2
9	18.8	18.2	17.7	17.1	17.0	17.5	....	....	21.2	21.8	21.3	20.2
10	18.8	18.2	17.7	17.1	17.0	17.5	....	....	....	21.8	....	20.2
11	18.8	18.0	17.8	17.1	17.0	17.5	....	....	....	21.8	....	20.2
12	18.5	18.0	17.8	17.1	17.0	17.6	....	....	....	21.8	....	20.0
13	18.6	18.1	17.5	17.1	17.0	17.6	....	....	....	21.8	....	20.0
14	18.6	18.0	17.6	17.0	17.0	17.6	....	....	....	21.8	....	20.0
15	18.5	18.0	17.6	17.1	17.0	17.6	....	20.2	....	21.9	....	20.0
16	18.4	18.1	17.5	17.0	17.0	17.6	....	20.2	....	21.9	....	20.0
17	18.5	18.1	17.4	17.1	17.0	17.7	....	20.2	....	21.9	21.0	20.0
18	18.5	18.0	17.5	17.1	17.1	17.7	....	20.3	....	21.9	21.0	20.1
19	18.4	18.1	17.5	17.1	17.1	17.8	....	20.4	....	21.9	21.0	20.1
20	18.4	18.1	17.3	17.1	17.1	17.8	....	20.4	....	21.4	20.9	20.1
21	18.4	18.1	17.3	17.1	17.2	17.8	....	20.5	....	21.4	20.6	20.1
22	18.4	18.0	17.4	17.1	17.1	17.9	....	20.5	....	21.4	20.6	20.1
23	18.3	17.9	17.2	17.1	17.2	17.9	....	20.5	....	21.4	20.6	20.1
24	18.4	17.9	17.2	16.9	17.2	17.9	....	20.6	....	21.4	20.6	20.1
25	18.4	18.0	17.3	16.9	17.2	17.9	19.5	20.7	21.7	21.4	20.6	20.1
26	18.4	18.0	17.3	17.0	17.2	18.0	19.5	20.7	21.7	21.4	20.6	20.1
27	18.3	17.9	17.3	16.9	17.3	18.1	19.6	20.8	21.8	21.4	20.6	20.1
28	18.3	17.9	17.3	17.0	17.3	18.2	19.6	20.8	21.8	21.4	20.4	20.1
29	18.2	17.8	17.3	17.0	17.3	18.2	19.7	20.8	21.8	21.4	20.4	20.1
30	18.2	....	17.2	17.0	17.3	18.2	19.7	20.9	21.8	21.4	20.1	20.1
31	18.2	....	17.1	....	17.3	....	19.8	20.9	....	21.4	....	20.1

36.14.5.8.7 (#206, p. 77; 936, p. 78; 944, p. 78; 986, p. 86).  
Citizens Ice Co. well. Pennsylvania-Reading Seashore Lines. Formerly  
owned by Reading Railroad Co. Extremes of observed water level, in feet  
below mean sea level: Highest, when first drilled (see Annual Report of  
New Jersey State Geologist 1894) well flowed 40 gallons per minute, 14  
feet above mean sea level; lowest, 78.8 Sept. 2, 1929.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	50.3	51.6	....	....	50.8	53.1	....	64.5	....	64.5	....	....
2	50.0	51.3	....	49.8	50.9	53.6	58.8	64.7	66.5	64.6	....	59.3
3	48.7	51.1	50.0	49.4	51.2	....	58.6	....	66.0	64.9	62.5	58.0
4	....	....	....	49.5	....	53.8	58.8	....	66.3	65.2	....	58.0
5	....	51.1	50.0	49.8	51.5	54.2	....	....	66.2	64.9	60.5	58.1
6	....	50.5	....	50.2	51.7	54.7	59.0	....	66.0	....	60.9	58.3
7	50.8	50.2	....	51.1	51.6	....	59.6	65.0	....	....	61.0	....
8	50.8	50.4	....	51.0	51.6	....	60.1	64.5	....	64.0	....	....
9	49.9	50.3	51.0	50.9	51.7	....	60.0	64.9	....	63.9	....	....
10	49.8	50.6	50.6	50.8	51.4	55.8	....	64.8	65.8	64.1	60.9	58.9
11	50.4	49.8	50.4	51.5	51.9	55.2	....	65.4	65.3	63.1	....	....
12	50.4	....	50.0	51.3	51.3	55.5	....	65.1	....	63.2	61.5	....
13	51.0	50.7	....	52.1	51.1	55.9	....	65.1	....	63.0	61.4	....
14	51.1	50.1	49.2	52.1	50.9	55.6	....	64.5	....	63.3	61.7	....
15	50.6	51.0	49.0	51.5	50.9	55.7	62.0	64.9	....	63.5	....	....
16	49.4	....	....	50.9	50.8	55.9	62.0	65.2	....	63.4	....	60.8
17	49.7	50.8	49.4	51.0	50.2	56.2	....	65.5	....	63.0	....	60.1
18	50.1	51.1	49.9	51.1	51.8	56.3	....	65.5	....	63.3	61.1	59.9
19	....	....	49.6	51.0	52.2	56.1	....	66.0	....	63.4	61.4	60.3
20	50.5	50.6	....	51.0	52.2	56.4	....	65.2	....	....	61.0	....
21	50.8	50.5	....	....	52.0	56.1	62.8	66.2	....	....	....	59.6



## 36.14.5.8.7. Citizens Ice. Co. Well--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
22	51.3	....	....	51.0	51.3	....	63.3	65.8	....	62.2	....	59.5
23	51.3	....	....	51.0	51.7	....	....	65.9	....	62.2	....	....
24	51.1	....	....	50.6	52.0	....	63.6	66.3	....	61.9	60.2	....
25	51.2	50.2	....	50.6	51.8	56.4	63.8	66.8	....	....	60.0	....
26	....	....	....	50.5	51.8	....	63.8	66.6	....	....	....	....
27	52.3	....	....	....	52.3	....	64.4	66.2	....	....	....	....
28	51.5	....	....	....	51.8	....	64.4	66.7	64.5	61.7	....	....
29	51.5	....	....	50.6	51.6	58.0	64.5	66.7	64.7	61.6	....	59.8
30	51.3	....	....	50.8	52.4	....	64.3	66.6	64.7	62.2	....	....
31	51.3	....	....	....	55.2	....	64.2	66.2	....	62.6	....	....

Lowest daily water level, in feet below mean sea level, 1944.  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.3	44.6	....	....	43.8	46.1	....	57.5	....	57.5	....	....
2	43.0	44.3	....	42.8	43.9	46.6	51.8	57.7	59.5	57.6	....	52.3
3	41.7	44.1	43.0	42.4	44.2	....	51.6	....	59.0	57.9	55.5	51.0
4	....	44.1	....	42.5	....	46.8	51.8	....	59.3	58.2	....	51.0
5	....	44.1	43.0	42.8	44.5	47.2	....	....	59.2	57.9	53.5	51.1
6	....	43.5	....	43.2	44.7	47.7	52.0	....	59.0	....	53.9	51.3
7	43.8	43.2	....	44.1	44.6	....	52.6	58.0	....	....	54.0	....
8	43.8	43.4	....	44.0	44.6	....	53.1	57.5	....	57.0	....	....
9	42.9	43.3	44.0	43.9	44.7	....	53.0	57.9	....	56.9	....	....
10	42.8	43.6	43.6	43.8	44.4	48.8	....	57.8	58.8	57.1	53.9	51.9
11	43.4	42.8	43.4	44.5	44.9	48.2	....	58.4	58.3	56.1	....	....
12	43.4	....	43.0	44.3	44.3	48.5	....	58.1	....	56.2	54.5	....
13	44.0	43.7	....	45.1	44.1	48.9	....	58.1	....	56.0	54.4	....
14	44.1	43.1	42.2	45.1	43.9	48.6	....	57.5	....	56.3	54.7	....
15	43.6	44.0	42.0	44.5	43.9	48.7	55.0	57.9	....	56.5	....	....
16	42.4	....	....	43.9	43.8	48.9	55.0	58.2	....	56.4	....	53.8
17	42.7	43.8	42.5	44.0	44.2	49.2	....	58.5	....	56.0	....	53.1
18	43.1	44.1	42.9	44.1	44.8	49.3	....	58.5	....	56.3	54.1	52.9
19	....	....	42.6	44.0	45.2	49.1	....	59.0	....	56.4	54.4	53.3
20	43.5	43.6	....	44.0	45.2	49.4	....	58.2	....	....	54.0	....
21	43.8	43.5	....	....	45.0	49.1	55.8	59.2	....	....	....	52.6
22	44.3	....	....	44.0	44.3	....	56.3	58.8	....	55.2	....	52.5
23	44.3	....	....	44.0	44.7	....	....	58.9	....	55.2	....	....
24	44.1	....	....	43.6	45.0	....	56.6	59.3	....	54.9	53.2	....
25	44.2	43.2	....	43.6	44.8	49.4	56.8	59.8	....	....	53.0	....
26	....	....	....	43.5	44.8	....	56.8	59.6	....	....	....	....
27	45.3	....	....	....	45.2	....	57.4	59.2	....	....	....	....
28	44.5	....	....	....	44.8	....	57.4	59.7	57.5	54.7	....	....
29	44.5	....	....	43.6	44.6	51.0	57.5	57.7	57.7	54.6	....	52.8
30	44.3	....	....	43.8	45.4	....	57.3	59.6	57.7	55.2	....	....
31	44.3	....	....	....	46.2	....	57.2	59.2	....	55.6	....	....

36.23.1.9.6 (\*777, p. 99; \*817, p. 172; 840, p. 242; 845, p. 198; \*886, p. 342; 906, p. 84; 936, p. 79; 944, p. 79; \*986, p. 87). Longport Fourteenth Avenue well. Longport Water Dept. Extremes of observed water level, in feet with reference to mean sea level: Highest, about +19 in 1895, when well was drilled; lowest, 54.5 Sept. 4, 1929.

Average daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	37.4	36.2	35.0	34.9	36.3	41.1	....	53.8	56.9	48.9	....	....
2	37.2	36.1	35.0	34.8	36.3	40.7	....	53.7	56.7	48.8	....	42.2
3	36.4	36.1	35.0	34.6	36.5	40.5	47.3	52.7	56.9	48.5	....	41.5
4	35.3	36.0	34.7	34.5	36.6	40.9	48.2	52.5	57.2	48.3	....	41.3
5	35.8	35.9	34.9	34.7	36.4	41.8	48.9	52.8	57.3	48.3	43.5	41.1
6	36.5	36.0	35.0	34.6	36.5	42.1	49.5	53.3	57.4	47.9	43.7	41.0
7	37.3	35.7	34.6	35.1	36.5	42.5	50.0	52.9	57.5	47.6	43.3	40.7
8	36.9	35.7	35.0	34.9	37.0	42.9	50.5	52.4	57.3	47.3	43.1	....

36.23.1.9.6. Longport Fourteenth Avenue well--Continued.

Average daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	36.9	35.6	35.6	34.9	37.1	43.5	50.9	52.9	56.9	46.6	42.9	....
10	37.2	35.7	35.7	34.9	37.3	43.9	51.2	53.0	56.9	47.1	42.6	41.5
11	37.1	34.7	35.5	35.3	37.5	43.7	51.5	53.7	56.5	46.9	42.7	41.0
12	37.0	35.4	35.3	35.3	37.8	43.9	51.7	54.5	55.6	46.7	42.5	....
13	37.4	36.2	34.8	35.9	37.7	44.7	51.8	54.9	54.3	46.3	42.5	....
14	37.1	35.7	35.1	36.1	37.8	44.8	50.8	55.3	53.5	46.3	42.3	....
15	36.9	36.0	35.1	35.7	38.3	43.9	50.0	55.6	53.9	46.8	42.1	41.1
16	35.9	36.5	34.8	35.4	38.6	43.5	49.9	55.3	54.8	46.5	41.6	40.9
17	36.4	35.7	34.8	35.7	38.3	43.9	50.2	55.3	54.7	46.3	41.3	41.3
18	36.5	35.7	35.1	36.1	39.2	45.0	50.9	55.5	54.5	46.1	41.4	40.6
19	36.2	36.3	34.8	35.9	39.5	45.3	51.4	55.8	53.9	45.9	41.7	40.3
20	36.2	35.8	34.0	35.9	39.7	44.8	51.5	56.2	53.2	44.9	41.3	40.5
21	36.3	....	34.5	35.7	39.3	44.5	51.6	56.7	52.8	44.7	40.8	40.8
22	....	....	35.1	35.8	39.2	44.9	51.9	56.6	52.5	45.3	41.0	40.5
23	....	....	34.8	36.0	39.1	45.2	52.4	....	52.1	45.4	41.1	40.4
24	....	....	34.8	35.7	39.1	44.7	52.7	56.5	51.8	45.3	41.3	40.4
25	....	35.1	34.9	35.7	38.9	44.4	53.1	56.5	51.5	45.0	41.5	40.5
26	....	35.1	34.9	35.9	39.1	44.6	53.2	56.7	51.1	44.7	41.4	41.2
27	....	34.8	34.9	35.7	39.9	45.2	53.5	56.9	50.9	44.3	41.3	41.1
28	35.9	35.0	34.9	....	39.7	45.8	53.5	56.9	50.5	43.7	41.3	41.2
29	35.8	34.8	34.7	....	40.0	46.4	53.3	56.5	50.0	43.8	41.3	41.1
30	35.9	....	34.3	36.3	40.6	46.7	53.4	56.7	49.1	44.2	....	40.3
31	35.7	....	34.5	....	41.1	....	53.7	56.8	....	44.3	....	....

Average daily water level, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.0	30.8	29.6	29.5	30.9	35.7	....	48.4	51.5	43.5	....	....
2	31.8	30.7	29.6	29.4	30.9	35.3	....	48.3	51.3	43.4	....	36.8
3	31.0	30.7	29.6	29.2	31.1	35.1	41.9	47.3	51.5	43.1	....	36.1
4	29.9	30.6	29.3	29.1	31.2	35.5	42.8	47.1	51.8	42.9	....	35.9
5	30.4	30.5	29.5	29.3	31.0	36.4	43.5	47.4	51.9	42.9	38.1	35.7
6	31.1	30.6	29.6	29.2	31.1	36.7	44.1	47.9	52.0	42.5	38.3	35.6
7	31.9	30.3	29.2	29.7	31.1	37.1	44.6	47.5	52.1	42.2	37.9	35.3
8	31.5	30.3	29.6	29.5	31.6	37.5	45.1	47.0	51.9	41.9	37.7	....
9	31.5	30.2	30.2	29.5	31.7	38.1	45.5	47.5	51.5	41.8	47.5	....
10	31.8	30.3	30.3	29.5	31.9	38.5	45.8	47.6	51.5	41.7	37.2	36.1
11	31.7	29.3	30.1	29.9	32.1	38.3	46.1	48.3	51.1	41.5	37.3	35.6
12	31.6	30.0	29.9	29.9	32.4	38.5	46.3	49.1	50.2	41.3	37.1	....
13	32.0	30.8	29.4	30.5	32.3	39.3	46.4	49.5	48.4	40.9	37.1	....
14	31.7	30.3	29.7	30.7	32.4	39.4	45.5	49.9	48.1	40.9	36.9	....
15	31.5	30.6	29.7	30.3	32.9	38.5	44.6	50.2	48.5	41.4	36.7	35.7
16	30.5	31.1	29.4	30.0	33.2	38.1	44.5	49.9	49.4	41.1	36.2	35.5
17	31.0	30.3	29.4	29.3	32.9	38.5	44.8	49.9	49.3	40.9	35.9	35.9
18	31.1	30.3	29.7	30.7	33.8	39.6	45.5	50.1	49.1	40.7	36.0	35.2
19	30.8	30.9	29.4	30.5	34.1	39.9	46.0	50.4	48.5	40.5	36.3	34.9
20	30.8	30.4	28.6	30.5	34.3	39.4	46.1	50.8	47.8	39.5	35.9	35.1
21	30.9	....	29.1	30.3	33.9	39.1	46.2	51.3	47.4	39.3	35.4	35.4
22	....	....	29.7	30.4	33.8	39.5	46.5	51.2	47.1	39.9	35.6	35.1

## 36.23.1.9.6. Longport Fourteenth Avenue well--Continued.

Average daily water level, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	....	....	29.4	30.6	33.7	39.8	47.1	....	46.7	40.0	35.7	35.0
24	....	....	29.4	30.3	33.7	39.3	47.3	51.1	46.4	39.9	35.9	35.0
25	....	29.7	29.5	30.3	33.5	39.0	47.7	51.1	46.1	39.6	36.1	35.1
26	....	29.7	29.5	30.5	33.7	39.2	47.8	51.3	45.7	39.3	36.0	35.8
27	....	29.4	29.5	30.3	34.5	39.8	48.1	51.5	45.5	38.9	35.9	35.7
28	30.5	29.6	29.5	....	34.3	40.4	48.1	51.5	45.1	38.3	35.9	35.8
29	30.4	29.4	29.3	....	34.6	41.0	47.9	51.1	44.6	38.4	35.9	35.7
30	30.5	....	28.9	30.9	35.2	41.3	48.0	51.3	43.7	38.8	....	34.9
31	30.3	....	29.1	....	35.7	....	48.3	51.4	....	38.9	....	....

Bergen County

## East Paterson area

26.3.1.7.3 (\*817, p. 192; 840, p. 245; 845, p. 202; 886, p. 343; 906, p. 85; 936, p. 80; 944, p. 80; 986, p. 89). City of Garfield well  
 11. Extremes of observed water level, in feet with reference to mean sea level: Highest, 56.2 Mar. 8, 1926; lowest, 1.8 Nov. 5, 1932.

Lowest daily level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	56.2	56.6	58.3	53.6	47.4	51.5	56.0	57.8	62.5	60.2	62.8	64.1
2	55.7	56.9	58.3	53.2	47.4	51.5	55.6	57.9	62.1	60.4	62.9	64.6
3	55.4	57.2	58.1	51.2	47.2	51.7	55.6	58.0	61.1	60.5	63.0	64.1
4	56.1	57.5	58.0	51.9	46.5	51.8	54.9	59.0	59.1	60.4	63.1	64.2
5	56.1	57.5	58.0	52.0	47.0	51.3	53.8	59.5	59.1	60.3	62.8	64.2
6	56.6	57.6	57.9	52.0	47.0	51.7	55.6	59.5	61.2	60.3	62.5	63.8
7	56.7	57.5	57.9	51.8	46.9	52.6	56.3	55.8	62.9	60.4	62.4	63.2
8	56.7	57.8	58.0	51.7	46.4	53.1	56.3	57.6	62.3	60.4	62.7	63.2
9	56.1	58.0	58.0	51.5	46.9	53.3	55.9	58.2	62.3	60.3	62.7	62.6
10	56.5	58.0	58.0	50.9	46.7	53.3	55.8	59.2	62.4	60.3	62.8	62.6
11	56.4	58.0	57.8	50.0	47.1	50.0	56.7	59.9	62.2	60.4	63.1	62.0
12	56.2	58.2	57.8	50.7	47.1	51.3	56.8	60.2	62.2	60.5	63.1	61.6
13	56.1	58.4	57.7	51.1	47.2	52.8	56.8	60.2	62.5	60.5	62.8	62.0
14	56.7	58.3	57.7	51.1	47.4	53.1	55.3	59.6	62.5	60.6	62.8	62.0
15	55.2	58.7	57.8	51.1	47.3	52.1	53.2	60.4	59.4	60.6	62.9	60.6
16	55.3	58.8	57.4	51.1	48.1	53.1	48.7	60.1	59.2	60.6	63.2	58.6
17	54.7	58.8	57.3	50.6	48.2	54.0	52.7	60.3	58.8	60.6	63.4	59.0
18	55.1	58.6	57.3	50.8	48.6	54.0	55.0	61.0	61.5	60.6	63.4	59.2
19	54.7	58.5	56.8	50.8	48.9	51.0	55.6	61.3	60.6	61.0	63.4	59.4
20	55.2	58.5	56.7	50.5	49.2	52.1	55.6	61.3	59.1	61.4	63.2	59.4
21	54.9	58.4	56.6	50.5	49.6	51.1	55.9	59.0	61.8	61.7	63.4	59.7
22	55.0	58.3	56.6	50.1	49.5	54.3	55.1	60.3	61.6	61.7	63.5	59.7
23	54.7	58.4	56.3	49.9	50.0	63.4	55.9	60.9	60.6	61.8	63.5	59.2
24	55.4	58.4	55.7	48.0	53.6	52.5	56.4	61.3	59.6	61.8	63.2	58.2
25	55.7	58.4	55.6	48.9	55.9	52.6	57.5	61.6	58.2	62.0	64.1	58.0
26	55.4	58.4	55.5	48.9	52.5	53.8	58.2	61.6	59.2	62.0	64.8	57.7

## 26.3.1.7.3. City of Garfield well 11--Continued.

Lowest daily level in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	56.2	58.3	55.3	48.3	66.9	54.3	58.7	61.9	59.6	61.8	64.8	57.9
28	55.8	58.1	54.9	47.4	52.2	55.0	58.8	62.1	59.9	62.1	65.1	57.7
29	56.0	58.1	54.7	47.5	64.0	55.6	58.8	62.4	60.0	62.1	65.4	58.1
30	55.6	....	54.0	47.4	50.3	56.0	58.6	62.8	60.1	62.1	65.4	57.4
31	56.0	....	53.7	....	50.9	....	56.8	62.9	....	62.6	...	57.6

Lowest daily water level, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.4	10.0	8.3	13.0	19.2	15.1	10.6	8.8	4.1	6.4	3.8	2.5
2	10.9	9.7	8.3	13.4	19.2	15.1	11.0	8.7	4.5	6.2	3.7	2.0
3	11.2	9.4	8.5	15.4	19.4	14.9	11.0	8.6	5.5	6.1	3.6	2.5
4	10.5	9.1	8.6	14.7	20.1	14.8	11.7	7.6	7.5	6.2	3.5	2.4
5	10.5	9.1	8.6	14.6	19.6	15.3	12.8	7.1	7.5	6.3	3.8	2.4
6	10.0	9.0	8.7	14.6	19.6	14.9	11.0	7.1	5.4	6.3	4.1	2.8
7	9.9	9.1	8.7	14.8	19.7	14.0	10.3	10.8	3.7	6.2	4.2	3.4
8	9.9	8.8	8.6	14.9	20.2	13.5	10.3	9.0	4.3	6.2	3.9	3.4
9	10.5	8.6	8.6	15.1	19.7	13.3	10.7	8.4	4.3	6.3	3.9	4.0
10	10.1	8.6	8.6	15.7	19.9	13.3	10.8	7.4	4.2	6.3	3.8	4.0
11	10.2	8.6	8.8	16.6	19.5	16.6	9.9	6.7	4.4	6.2	3.5	4.6
12	10.4	8.4	8.8	15.9	19.5	15.3	9.8	6.4	4.4	6.1	3.5	5.0
13	10.5	8.2	8.9	15.5	19.4	13.8	9.8	6.4	4.1	6.1	3.8	4.6
14	10.9	8.3	8.9	15.5	19.2	13.5	11.3	7.0	4.1	6.0	3.8	4.6
15	11.4	7.9	8.8	15.5	19.3	14.5	13.4	6.2	7.2	6.0	3.7	6.0
16	11.3	7.8	9.2	15.5	18.5	13.5	17.9	6.5	7.4	6.0	3.4	8.0
17	11.9	7.8	9.3	16.0	18.4	12.6	13.9	6.3	7.8	6.0	3.2	7.6
18	11.5	8.0	9.3	15.8	18.0	12.6	11.6	5.6	5.1	6.0	3.2	7.4
19	11.9	8.1	9.8	15.8	17.7	15.6	11.0	5.3	6.0	5.6	3.2	7.2
20	11.4	8.1	9.9	16.1	17.4	14.5	11.0	5.3	7.5	5.2	3.4	7.2
21	11.7	8.2	10.0	16.1	17.0	15.5	10.7	7.6	4.8	4.9	3.2	6.9
22	11.6	8.3	10.0	16.5	17.1	12.3	11.5	6.3	5.0	4.9	3.1	6.9
23	11.9	8.2	10.3	16.7	16.6	3.2	10.7	5.7	6.0	4.8	3.1	7.4
24	11.2	8.2	10.9	18.6	13.0	14.1	10.2	5.3	7.0	4.8	3.4	8.4
25	10.9	8.2	11.0	17.7	.7	14.0	9.1	5.0	8.4	4.6	2.5	8.6
26	11.2	8.2	11.1	17.7	14.1	12.8	8.4	5.0	7.4	4.6	1.8	8.9
27	10.4	8.3	11.3	18.3 a	.3	12.3	7.9	4.7	7.0	4.8	1.8	8.7
28	10.8	8.5	11.7	19.2	14.4	11.6	7.8	4.5	6.7	4.5	1.5	8.9
29	10.6	8.5	11.9	19.1	2.6	11.0	7.8	4.2	6.6	4.5	1.2	8.5
30	11.0	....	12.6	19.2	16.3	10.6	8.0	3.8	6.5	4.5	1.2	9.2
31	10.6	....	12.9	....	15.7	....	9.8	3.7	....	4.0	....	9.0

a Below mean sea level.

Camden County

## Camden area

31.2.2.5.2 (\*817, p. 174; 840, p. 242; 845, p. 200; 886, p. 343; 906, p. 85; 936, p. 80; 944, p. 80; 986, p. 90). Morris Station test well 3, City of Camden. In Water-Supply Paper 986, p. 90; reference 906, p. 80, should read 906, p. 85; 936, p. 80; 944, p. 80. No measurements made in 1944.

31.2.4.5.1 (\*845, p. 201; \*886, p. 344; 906, p. 86; 936, p. 81; 944, p. 81; \*986, p. 91). New Jersey Water Co. well 10. In Water-Supply Paper 986, p. 90; the lowest observed water level should read 21.8 feet below mean sea level Aug. 25, 1943. Extremes of observed water level, in feet with reference to mean sea level: Highest, +1.26 Mar. 19, 1933; lowest, -21.9 June 29, 1944.

## 31.2.4.5.1. New Jersey Water Co. well 10--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Nov.	Dec.
1	20.1	22.0	22.0	21.3	20.5	24.0	23.9	....	21.7
2	19.8	22.0	22.5	21.2	20.8	24.2	23.5	....	21.6
3	20.0	21.3	21.5	21.4	21.5	23.9	24.8	....	21.3
4	20.6	21.7	21.6	21.3	22.2	22.1	....	....	21.8
5	21.5	21.2	21.1	21.3	22.2	22.7	....	....	....
6	21.4	20.5	22.4	21.0	22.2	23.1	....	....	....
7	21.2	21.9	21.5	21.3	21.6	22.1	....	....	....
8	21.5	22.5	21.0	21.4	21.6	23.7	....	....	....
9	20.3	21.8	21.5	21.2	21.4	23.6	....	....	....
10	22.1	22.4	21.7	20.6	21.6	23.2	....	....	....
11	21.5	21.6	21.9	21.4	22.5	20.9	....	....	....
12	21.6	22.2	21.5	21.0	22.7	22.5	....	....	....
13	21.9	22.2	21.6	21.6	22.5	24.1	....	....	....
14	21.7	22.2	22.1	21.4	22.1	23.8	....	....	....
15	21.8	22.0	21.5	21.1	21.4	21.6	....	....	....
16	21.1	22.0	21.5	21.0	21.6	23.0	....	....	....
17	22.2	21.8	21.0	21.8	21.6	22.9	....	....	....
18	22.5	22.2	21.3	21.6	21.7	23.9	....	....	....
19	22.0	22.4	21.2	21.7	21.3	23.2	....	....	....
20	21.9	21.6	21.4	22.0	21.0	22.7	....	....	....
21	21.5	22.4	22.0	21.7	20.8	22.2	....	....	....
22	21.4	22.4	21.9	21.6	23.1	22.8	....	....	....
23	20.6	22.6	21.5	21.4	23.2	22.9	....	....	....
24	19.3	22.5	21.8	21.1	21.7	21.8	....	....	....
25	19.1	21.9	22.1	21.5	21.2	21.2	....	....	....
26	19.6	21.3	22.1	21.3	21.7	23.5	....	....	....
27	21.4	21.0	21.1	21.3	21.4	24.2	....	....	....
28	21.4	22.1	21.2	21.6	20.9	25.3	....	....	....
29	21.7	20.8	20.8	21.6	22.8	25.5	....	....	21.5
30	21.3	....	20.6	20.9	22.4	24.6	....	21.5	20.7
31	21.7	....	21.6	....	23.6	....	....	....	21.1

Lowest daily water level, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Nov.	Dec.
1	16.5	18.4	18.4	17.7	16.9	20.4	20.3	....	18.1
2	16.2	18.4	18.9	17.6	17.2	20.6	19.9	....	18.0
3	16.4	17.7	17.9	17.8	17.9	20.3	21.2	....	17.7
4	17.0	18.1	18.0	17.7	18.6	18.5	....	....	18.2
5	17.9	17.6	17.5	17.7	18.6	19.1	....	....	....
6	17.8	16.9	18.8	17.4	19.6	19.5	....	....	....
7	17.6	18.3	17.9	17.7	18.0	18.5	....	....	....
8	17.9	18.9	17.4	17.8	18.0	20.1	....	....	....
9	16.7	18.2	17.9	17.6	17.8	20.0	....	....	....
10	18.5	18.8	18.1	17.0	18.0	19.6	....	....	....
11	17.9	18.0	18.3	17.8	18.9	17.3	....	....	....
12	18.0	18.6	17.9	17.4	19.1	18.9	....	....	....
13	18.3	18.6	18.0	18.0	18.9	20.5	....	....	....
14	18.1	18.6	18.5	17.8	18.5	20.2	....	....	....
15	18.2	18.4	17.9	17.5	17.8	18.0	....	....	....
16	17.5	18.4	17.9	17.4	18.0	19.4	....	....	....
17	18.6	18.2	17.4	18.2	18.0	19.3	....	....	....
18	18.9	18.6	17.7	18.0	18.1	20.3	....	....	....
19	18.4	18.3	17.6	18.3	18.2	19.6	....	....	....
20	18.3	18.0	17.8	18.4	17.4	19.1	....	....	....
21	17.9	18.3	18.4	18.1	17.2	18.6	....	....	....
22	17.8	18.8	18.3	18.0	19.5	19.2	....	....	....
23	17.0	19.0	17.9	17.3	19.6	19.3	....	....	....
24	15.7	18.9	18.2	17.5	18.1	18.2	....	....	....
25	15.5	18.3	18.5	17.9	17.6	17.6	....	....	....
26	16.0	18.2	18.5	17.7	18.1	19.9	....	....	....
27	17.8	17.4	17.5	17.7	17.8	20.6	....	....	....
28	17.8	18.5	17.6	18.0	17.3	21.7	....	....	....

## 31.2.4.5.1. New Jersey Water Co. well 10--Continued.

Lowest daily water level, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Nov.	Dec.
29	18.1	17.2	17.2	18.0	19.2	21.9	....	....	17.9
30	17.7	....	17.0	17.3	18.8	21.0	....	17.9	17.1
31	18.1	....	18.0	....	20.0	....	....	....	17.5

Cape May County

Atlantic City area

36.31.9.1.9 (\*845, p. 199; 886, p. 345; 906, p. 87; 936, p. 82; 944, p. 82; \*986, p. 92). Sea Isle City Water Dept. well 1. Extremes of observed water level, in feet below land-surface datum: Highest, 9.0 Apr. 7, 1930; lowest, 15.6 Sept. 13, 1931.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	12.0	11.6	....	11.2	11.5	....	12.9	13.3	13.3	12.9
2	....	12.0	11.6	....	11.3	11.4	....	13.0	13.4	13.3	13.0
3	....	12.0	11.6	....	11.3	11.4	....	13.0	13.4	13.2	12.9
4	....	12.0	11.6	....	11.3	11.4	....	13.0	13.4	13.1	12.9
5	....	12.0	11.5	....	11.3	11.5	....	12.9	13.4	13.1	12.7
6	....	12.0	11.6	....	11.3	11.5	....	12.9	13.4	13.1	12.7
7	....	12.0	11.5	....	11.3	11.4	....	12.9	13.3	13.0	12.6
8	....	11.9	11.5	....	11.4	11.5	....	13.0	13.3	13.0	12.5
9	....	11.9	11.8	....	11.4	11.6	....	13.0	13.3	13.0	12.8
10	....	11.9	11.8	....	11.5	11.6	....	13.0	13.3	12.9	12.9
11	....	11.9	11.8	....	11.5	11.5	....	13.0	13.3	12.9	12.8
12	....	11.8	11.9	....	11.5	11.6	....	12.9	13.3	12.9	12.8
13	....	12.0	11.8	....	11.4	11.6	....	12.8	13.3	12.9	12.9
14	12.3	12.0	11.7	....	11.4	11.6	....	12.8	13.3	12.9	12.9
15	12.2	12.0	11.7	....	11.4	11.4	....	13.3	13.4	12.9	13.0
16	12.0	12.1	11.6	11.3	11.4	11.4	....	13.4	13.5	12.8	13.0
17	12.1	12.0	11.5	11.3	11.3	11.4	12.6	13.5	13.5	12.8	13.0
18	12.1	11.9	11.6	11.4	11.4	11.5	12.6	13.5	13.4	12.6	13.0
19	12.1	12.0	11.7	11.4	11.4	11.5	12.7	13.4	13.4	12.7	12.8
20	12.0	12.1	11.6	11.4	11.4	11.4	12.8	13.4	13.3	12.7	12.9
21	12.0	12.0	11.3	11.4	11.4	11.4	12.8	13.4	13.0	12.4	12.9
22	12.1	12.0	11.6	11.4	11.3	11.4	12.8	13.4	13.2	12.5	12.9
23	12.1	11.9	11.7	11.4	11.3	11.4	12.8	13.4	13.2	12.5	12.9
24	12.2	11.9	11.5	11.4	11.3	11.4	12.8	13.4	13.2	12.6	12.9
25	12.2	11.9	11.6	11.2	11.3	....	12.8	13.5	13.2	12.7	12.9
26	12.2	11.9	11.6	11.2	11.3	....	12.8	13.5	13.2	12.7	13.0
27	12.2	11.7	....	11.2	11.4	....	12.9	13.5	13.2	12.7	13.0
28	12.1	11.7	....	11.1	11.4	....	12.9	13.5	13.1	12.7	13.0
29	12.0	11.7	....	11.2	11.4	....	12.9	13.5	13.1	12.8	13.0
30	12.0	....	....	11.2	11.4	....	12.9	13.4	13.1	12.6	12.9
31	12.0	....	....	....	11.5	....	12.9	....	13.2	....	12.8

Essex County

Camden Brook area

25.15.7.5.4 (\*886, p. 345; 906, p. 88; 936, p. 82; 944, p. 83; \*986, p. 92). Commonwealth Water Co. well 30. Extremes of observed water level, in feet below land-surface datum: Highest, 11.8 Aug. 25, 1931; lowest, 65.4 Sept. 5, 1929.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.	Nov.	Dec.
1	....	29.0	27.5	....	20.6	34.5	36.9	....	....	54.3	....
2	....	29.0	27.6	34.4	22.2	35.5	37.1	....	....	54.1	....
3	....	29.0	27.4	....	25.0	36.5	37.2	....	....	54.1	....
4	44.7	....	27.3	....	26.7	36.7	37.4	....	....	53.9	....
5	36.2	42.6	27.4	....	27.4	36.8	....	....	....	53.3	....
6	32.1	44.0	27.4	....	27.8	36.8	....	....	....	53.6	....
7	30.9	44.3	27.3	....	28.0	37.0	....	....	....	53.9	....
8	....	44.7	27.1	....	26.7	37.0	....	....	....	54.0	....

## 25.15.7.5.4. Commonwealth Water Co. well 30--Continued.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.	Nov.	Dec.
9	....	35.5	27.3	33.1	26.8	39.7	38.0	....	....	54.0	....
10	32.1	31.4	27.3	33.1	26.9	39.7	38.0	....	....	....	....
11	29.7	29.9	27.1	33.0	26.7	36.7	38.0	....	....	....	....
12	29.4	....	27.0	33.0	26.8	36.7	38.1	....	....	....	....
13	....	....	26.9	33.2	26.3	36.9	40.5	....	....	54.2	....
14	....	....	27.0	33.3	....	36.9	41.7	....	....	54.1	....
15	....	....	....	33.3	....	36.5	41.8	....	53.5	54.1	....
16	29.1	....	....	33.1	....	....	41.8	....	52.9	54.1	....
17	29.1	....	....	32.9	....	36.3	41.4	....	53.2	54.1	....
18	29.0	....	32.4	31.3	....	36.6	41.3	....	53.3	....	....
19	29.0	....	32.6	25.5	....	35.7	41.4	....	53.7	54.0	....
20	28.9	27.8	32.6	....	....	35.6	45.9	48.7	53.7	53.8	....
21	28.9	27.7	32.7	....	28.8	36.5	....	47.7	53.1	53.4	....
22	....	27.6	34.5	....	28.6	36.5	44.1	....	53.9	51.0	....
23	....	27.4	34.7	....	28.7	36.5	41.7	....	53.9	50.2	....
24	....	27.4	....	....	28.6	36.3	41.6	....	54.0	....	....
25	....	27.5	....	....	28.5	36.2	42.3	....	53.9	....	....
26	....	27.4	....	....	28.5	36.5	42.3	....	54.0	....	....
27	30.8	27.3	32.9	20.3	30.9	36.7	....	....	54.0	....	....
28	30.0	27.2	....	20.6	34.7	36.8	....	....	....	....	....
29	29.4	27.4	....	20.5	35.3	36.8	....	....	54.1	....	....
30	29.3	....	....	20.5	35.4	35.6	....	....	54.1	....	41.6
31	29.2	....	....	....	35.5	....	....	....	54.1	....	41.6

26.21.1.5.6 (\*817, p. 189; 840, p. 244; 845, p. 202; 886, p. 355; 906, p. 84; 936, p. 83; 944, p. 83; \*986, p. 93). Short Hills Water Co. test well 10. Extremes of observed water level, in feet below land-surface datum: Highest, 3.40 May 12, 1933; lowest, 28.78 Oct. 31, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.21	June 3	12.47	Aug. 19	17.51	Nov. 17	17.54
Feb. 10	11.36	24	8.41	Oct. 12	18.88	Dec. 15	18.59
Apr. 26	5.48						

Middlesex and Monmouth Counties

## Runyon area

Average of the water levels in water table wells near Runyon, New Jersey, in feet above an assumed datum, 1944

Date	Wells less than 25 feet in depth		Wells 25 feet or more in depth	
	Number of wells	Water level	Number of wells	Water level
June 13	19	11.59	5	7.49

Middlesex County

## Runyon area

29.1.4.6.8 (\*840, p. 247; 845, p. 203; 886, p. 356; 986, p. 90; 936, p. 84; 944, p. 84; \*986, p. 93). Browntown test well. Clyde Bowne. Extremes of observed water level, in feet above mean sea level: Highest, 28.14 Apr. 9 and 10, 1939, lowest 21.83 Nov. 18, 1932.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.34	7.71	7.68	6.42	5.62	5.64	5.95	....	....	7.27	7.31	6.49
2	8.34	7.71	7.68	6.42	5.62	5.64	5.97	....	7.80	7.27	7.32	6.47
3	8.34	7.71	7.68	6.42	5.62	5.64	....	....	7.82	7.27	7.32	6.47

## 29.1.4.6.8. Browntown test well--Continued.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	8.34	7.71	7.68	6.42	5.62	5.64	....	....	7.84	7.27	7.34	6.47
5	8.22	7.72	7.68	6.41	5.62	5.65	....	7.08	7.86	7.27	7.34	6.48
6	7.98	7.72	7.68	6.41	5.62	5.65	....	7.10	7.88	....	7.34	6.47
7	7.88	7.72	7.60	6.41	5.62	5.66	6.10	7.12	7.90	....	7.34	6.47
8	7.79	7.72	7.56	6.40	5.62	5.67	6.13	7.15	7.94	....	7.35	6.35
9	7.74	7.72	7.56	6.40	5.62	5.68	6.16	7.18	7.94	7.24	7.35	6.35
10	7.72	7.73	7.56	6.40	5.62	5.70	6.19	7.20	7.97	7.24	7.36	6.35
11	7.72	7.73	7.56	6.40	5.62	5.71	6.22	7.23	7.99	7.24	7.37	6.32
12	7.71	7.76	7.54	6.40	5.62	5.72	6.25	7.24	....	7.24	7.37	6.12
13	7.71	7.76	7.25	6.40	5.63	5.72	6.28	7.26	....	7.24	7.37	6.12
14	7.71	7.76	7.08	6.40	5.63	5.73	6.32	7.29	....	7.25	7.38	6.12
15	7.70	7.77	6.97	6.35	5.63	5.74	6.37	7.32	....	7.25	7.39	6.12
16	7.70	7.77	6.89	6.27	5.63	5.76	6.40	7.34	7.61	7.25	7.39	6.12
17	7.70	7.77	6.85	6.25	5.63	....	6.43	7.37	7.55	7.25	7.39	6.12
18	7.70	7.77	6.84	6.25	5.63	5.76	6.47	7.39	7.49	7.26	....	6.12
19	7.70	7.78	6.84	6.25	5.63	5.77	6.50	7.42	7.38	7.26	....	6.14
20	7.70	7.78	6.84	6.25	5.63	5.77	6.54	7.46	7.33	7.27	....	6.14
21	7.70	7.78	6.84	6.25	5.63	5.78	6.56	7.48	....	7.28	....	6.14
22	7.69	7.75	6.84	6.24	5.63	5.79	....	7.51	....	7.28	....	6.15
23	7.69	7.72	6.70	6.24	5.63	5.80	....	7.54	7.27	7.28	....	6.16
24	7.69	7.72	6.65	5.99	5.63	....	....	7.56	7.27	7.29	....	6.16
25	7.69	7.72	6.65	5.82	5.63	5.82	....	7.59	7.27	7.29	7.19	6.16
26	7.69	7.72	6.64	5.79	....	5.83	....	7.63	7.27	7.29	7.19	6.16
27	7.69	7.72	6.64	5.70	....	5.86	....	7.65	7.27	7.29	6.98	6.17
28	7.69	7.72	6.63	5.65	5.63	5.89	....	7.68	7.27	7.31	6.86	6.17
29	7.71	7.69	....	5.64	5.63	5.92	....	7.70	7.27	7.31	6.70	6.17
30	7.71	....	....	5.63	5.63	5.93	....	7.73	7.27	7.31	6.50	6.19
31	7.71	....	....	....	5.63	....	....	7.75	....	7.31	....	6.19

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.27	23.90	23.93	25.19	25.99	25.97	25.66	....	....	24.34	24.30	25.12
2	23.27	23.90	23.93	25.19	25.99	25.97	25.64	....	23.81	24.34	24.29	25.14
3	23.27	23.90	23.93	25.19	25.99	25.97	....	....	23.79	24.34	24.29	23.14
4	23.27	23.90	23.93	25.19	25.99	25.97	....	....	23.77	24.34	24.27	25.14
5	23.39	23.89	23.93	25.20	25.99	25.96	....	24.53	23.75	24.34	24.27	25.13
6	23.63	23.89	23.93	25.20	25.99	25.96	....	24.51	23.73	....	24.27	25.14
7	23.73	23.89	24.01	25.20	25.99	25.95	25.51	24.49	23.71	....	24.27	25.14
8	23.82	23.89	24.05	25.21	25.99	25.94	25.48	24.46	23.67	....	24.26	25.26
9	23.87	23.89	24.05	25.21	25.99	25.93	25.45	24.43	23.67	24.37	24.26	25.26
10	23.89	23.88	24.05	25.21	25.99	25.91	25.42	24.41	23.64	24.37	24.25	25.26
11	23.89	23.88	24.05	25.21	25.99	25.90	25.39	24.38	23.62	24.37	24.24	25.29
12	23.90	23.85	24.07	25.21	25.99	25.89	25.36	24.37	....	24.37	24.24	25.47
13	23.90	23.85	24.36	25.21	25.98	25.89	25.33	24.35	....	24.37	24.24	25.49
14	23.90	23.85	24.53	25.21	25.98	25.88	25.29	24.32	....	24.36	24.23	25.49
15	23.91	23.84	24.64	25.26	25.98	25.87	25.24	24.29	....	24.36	24.22	25.49
16	23.91	23.84	24.72	25.34	25.98	25.85	25.21	24.27	24.00	24.36	24.22	25.49
17	23.91	23.84	24.76	25.36	25.98	....	25.18	24.24	24.06	24.36	24.22	25.49
18	23.91	23.84	24.77	25.36	25.98	25.85	25.14	24.22	24.12	24.35	....	25.49
19	23.91	23.83	24.77	25.36	25.98	25.84	25.11	24.19	24.23	24.35	....	25.47
20	23.91	23.83	24.77	25.36	25.98	25.84	25.07	24.15	24.28	24.34	....	25.47
21	23.91	23.83	24.77	25.36	25.98	25.83	25.05	24.13	....	24.33	....	25.47
22	23.92	23.86	24.77	25.37	25.98	25.82	....	24.10	....	24.33	....	25.46
23	23.92	23.89	24.91	25.37	25.98	25.81	....	24.07	24.34	24.33	....	25.45
24	23.92	23.89	24.96	25.62	25.98	....	....	24.05	24.34	24.32	....	25.45
25	23.92	23.89	24.96	25.79	25.98	25.79	....	24.02	24.34	24.32	24.42	25.45
26	23.92	23.89	24.97	25.82	....	25.78	....	23.98	24.34	24.32	24.42	25.45
27	23.92	23.89	24.97	25.91	....	25.75	....	23.96	24.34	24.32	24.63	25.44
28	23.92	23.89	24.98	25.96	25.98	25.72	....	23.93	24.34	24.30	24.75	25.44
29	23.90	23.92	....	25.97	25.98	25.69	....	23.91	24.34	24.30	24.91	25.44
30	23.90	....	....	25.98	25.98	25.68	....	23.88	24.34	24.30	25.11	25.42
31	23.90	....	....	....	25.98	....	....	23.86	....	24.30	....	25.42



28.5.4.8.1 (\*845, p. 203; 886, p. 357; 906, p. 91; 936, p. 84; 944, p. 84; \*986, p. 94). Duhermal observation well 1. Extremes of observed water level, in feet above mean sea level: Highest 7.58 Apr. 18, 1939; lowest, 4.06 Dec. 12, 1941.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.24	13.54	13.73	12.70	11.97	12.30	12.89	13.62	14.10	12.84	13.45	13.10
2	14.25	13.58	13.76	12.70	11.90	12.31	12.92	13.64	14.09	12.84	13.47	13.10
3	14.21	13.60	13.76	12.68	11.85	12.34	12.94	13.64	14.08	12.85	13.48	13.08
4	14.04	13.64	13.77	12.65	11.80	12.35	12.96	13.64	14.06	12.65	13.50	12.85
5	13.94	13.64	13.79	12.63	11.76	12.37	13.00	13.64	14.06	12.89	13.51	12.75
6	13.85	13.67	13.80	12.62	11.73	12.38	13.02	13.64	14.08	12.92	13.53	12.66
7	13.81	13.68	13.77	12.61	11.71	12.41	13.03	13.62	14.11	12.95	13.55	12.60
8	13.78	13.69	13.75	12.59	11.72	12.44	13.05	13.62	14.14	13.00	13.58	12.52
9	13.76	13.70	13.79	12.57	11.73	12.47	13.08	13.62	14.16	13.02	13.59	12.50
10	13.74	13.72	13.81	12.56	11.76	12.48	13.10	13.64	14.17	13.09	13.59	12.50
11	13.71	13.67	13.82	12.53	11.79	12.48	13.11	13.67	14.19	13.13	13.61	12.46
12	13.65	13.67	13.81	12.51	11.81	12.50	13.16	13.69	14.20	13.16	13.62	12.43
13	13.65	13.74	13.71	12.52	11.83	12.52	13.19	13.72	14.15	13.17	13.64	12.47
14	13.65	13.75	13.63	12.53	11.87	12.54	13.20	13.74	13.87	13.20	13.65	12.49
15	13.60	13.78	13.57	12.52	11.89	12.54	13.23	13.76	13.60	13.25	13.67	12.50
16	13.55	13.81	13.49	12.50	11.91	12.56	13.24	13.80	13.40	13.27	13.65	12.61
17	13.55	13.80	13.43	12.49	11.95	12.58	13.27	13.81	13.21	13.30	13.63	12.53
18	13.50	13.81	13.36	12.50	11.99	12.60	13.29	13.83	13.06	13.33	13.61	12.55
19	13.50	13.83	13.27	12.48	12.00	12.59	13.32	13.85	12.96	13.35	13.62	12.56
20	13.45	13.84	13.19	12.47	12.02	12.61	13.33	13.87	12.90	13.33	13.61	12.56
21	13.45	13.84	13.08	12.46	12.03	12.61	13.34	13.91	12.84	13.32	13.57	12.62
22	13.45	13.79	13.02	12.45	12.04	12.63	13.38	13.92	12.82	13.35	13.51	12.65
23	13.45	13.80	12.94	12.42	12.05	12.64	13.39	13.95	12.82	13.38	13.46	12.65
24	13.45	13.77	12.89	12.38	12.07	12.65	13.43	13.97	12.82	13.40	13.44	12.66
25	13.45	13.75	12.84	12.34	12.10	12.67	13.46	14.00	12.82	13.43	13.44	12.63
26	13.48	13.73	12.81	12.29	12.12	12.69	13.48	14.02	12.84	13.43	13.40	12.68
27	13.47	13.70	12.78	12.25	12.14	12.76	13.49	14.04	12.86	13.44	13.35	12.64
28	13.47	13.70	12.78	12.20	12.19	12.80	13.52	14.06	12.86	13.40	13.30	12.72
29	13.47	13.68	12.74	12.12	12.21	12.84	13.54	14.07	12.88	13.42	13.20	12.75
30	13.49	.....	12.71	12.04	12.24	12.87	13.57	14.09	12.86	13.44	13.15	12.72
31	13.50	.....	12.70	.....	12.27	.....	13.50	14.10	.....	13.44	.....	12.67

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.46	5.16	4.97	6.00	6.73	6.40	5.81	5.08	4.60	5.86	5.25	5.60
2	4.45	5.12	4.94	6.00	6.80	6.39	5.78	5.06	4.61	5.86	5.23	5.60
3	4.49	5.10	4.94	6.02	6.85	6.36	5.76	5.06	4.62	5.85	5.22	5.72
4	4.66	5.06	4.93	6.05	6.90	6.35	5.74	5.06	4.64	5.85	5.20	5.85
5	4.76	5.06	4.91	6.07	6.94	6.33	5.70	5.06	4.64	5.81	5.19	5.95
6	4.85	5.03	4.90	6.09	6.97	6.32	5.68	5.06	4.66	5.78	5.17	6.04
7	4.89	5.02	4.93	6.09	6.99	6.29	5.67	5.08	4.59	5.75	5.15	6.10
8	4.92	5.01	4.95	6.11	6.98	6.26	5.65	5.08	4.56	5.70	5.12	6.18
9	4.94	5.00	4.91	6.13	6.97	6.23	5.62	5.08	4.54	5.68	5.11	6.20
10	4.96	4.98	4.89	6.14	6.94	6.22	5.60	5.06	4.53	5.61	5.11	6.20
11	4.99	5.03	4.88	6.17	6.91	6.22	5.59	5.03	4.51	5.57	5.09	6.24
12	5.05	5.03	4.89	6.19	6.89	6.20	5.54	5.01	4.50	5.54	5.08	6.27
13	5.05	4.96	4.99	6.18	6.87	6.18	5.51	4.98	4.55	5.53	5.06	6.23
14	5.05	4.95	5.07	6.17	6.83	6.16	5.50	4.96	4.83	5.50	5.05	6.21
15	5.10	4.92	5.13	6.18	6.81	6.16	5.47	4.94	5.10	5.45	5.03	6.20
16	5.15	4.89	5.21	6.20	6.79	6.14	5.46	4.90	5.30	5.43	5.05	6.19
17	5.15	4.90	5.27	6.21	6.75	6.12	5.43	4.89	5.49	5.40	5.07	6.17
18	5.20	4.89	5.34	6.20	6.71	6.10	5.41	4.87	5.64	5.37	5.09	6.15
19	5.20	4.87	5.43	6.22	6.70	6.11	5.38	4.85	5.74	5.35	5.08	6.14
20	5.25	4.86	5.51	6.23	6.68	6.09	5.37	4.83	5.80	5.37	5.09	6.14
21	5.25	4.86	5.62	6.24	6.67	6.09	5.36	4.79	5.86	5.38	5.13	6.08
22	5.25	4.91	5.68	6.25	6.66	6.07	5.32	4.78	5.88	5.35	5.19	6.05
23	5.25	4.90	5.76	6.28	6.65	6.06	5.31	4.75	5.88	5.32	5.24	6.05
24	5.25	4.93	5.81	6.32	6.63	6.05	5.27	4.73	5.88	5.30	5.26	6.04
25	5.25	4.95	5.86	6.36	6.60	6.03	5.24	4.70	5.88	5.27	5.26	6.07
26	5.22	4.97	5.89	6.41	6.58	6.01	5.22	4.68	5.86	5.27	5.30	6.02

## 28.5.4.8.1. Duhernal observation well 1--Continued.

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	5.23	5.00	5.92	6.45	6.56	5.94	5.21	4.66	5.84	5.26	5.35	6.06
28	5.23	5.00	5.92	6.50	6.51	5.90	5.18	4.64	5.84	5.30	5.40	5.98
29	5.23	5.02	5.96	6.58	6.49	5.86	5.16	4.63	5.82	5.28	5.50	5.95
30	5.21	....	5.99	6.66	6.46	5.83	5.13	4.61	5.84	5.26	5.55	5.98
31	5.20	....	6.00	....	6.43	....	5.10	4.60	....	5.26	....	6.03

28.5.4.8.\* (#845, p. 204; 886, p. 358; 906, p. 91; 936, p. 85; 944, p. 85; 986, p. 96). Duhernal observation well 2. Automatic water-stage recorder operated Jan. 7 to 18, 1944. Extremes of observed water level, in feet with reference to mean sea level: Highest, +15.65 Apr. 11, 1939; lowest, +8.84 Dec. 10, 1941.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	19.05	Jan. 10	18.95	Jan. 13	18.60	Jan. 16	18.48
8	19.03	11	18.70	14	18.42	17	18.49
9	18.98	12	18.71	15	18.31		

Water level, in feet above mean sea level, 1942-44

Date	Water level	Date	Water level	Date	Water level
July 7, 1942	11.03	Nov. 24, 1942	9.89	May 5, 1943	12.03
16	11.07	Dec. 2	10.26	12	11.65
22	10.63	16	11.14	20	11.75
29	10.53	22	11.48	26	11.79
Aug. 5	11.13	30	12.30	June 2	11.58
12	11.23	Jan. 6, 1943	12.41	22	11.62
21	10.43	13	11.70	27	11.54
28	10.36	19	11.94	July 6	11.29
Sept. 2	10.18	27	11.89	Jan. 7, 1944	9.83
9	11.15	Feb. 10	11.96	8	9.85
17	10.03	17	12.17	9	9.90
23	9.03	24	11.93	10	9.93
30	9.95	Mar. 11	12.40	11	10.18
Oct. 6	9.76	17	12.32	12	10.17
14	9.81	24	12.47	13	10.28
20	9.73	29	12.37	14	10.46
27	9.97	Apr. 7	12.36	15	10.57
Nov. 4	10.02	13	12.02	16	10.40
11	9.94	19	12.24	17	10.39
18	9.94	28	11.99		

28.4.9.3.5 (#845, p. 206; 886, p. 359; 906, p. 93; 936, p. 86; 944, p. 85; #986, p. 96). Duhernal observation well 4. Extremes of observed water level, in feet with reference to mean sea level: Highest, +11.76 Apr. 20, 1939; lowest, -0.85 Oct. 22, 23, 1943. Date of highest observed water level, published in Water-Supply Papers 936, 944, and 986 as Apr. 29, 1939, should be Apr. 20, 1939.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.66	22.01	....	20.36	....	20.36	20.76	....	23.01	20.56	21.21	19.46
2	21.46	21.16	22.41	20.26	....	20.46	20.86	....	23.01	20.61	21.21	19.41
3	22.31	21.86	22.51	20.91	....	20.61	20.51	....	22.96	20.66	21.21	....
4	22.36	21.96	22.56	21.01	....	20.61	20.76	....	22.86	20.76	21.21	....
5	....	22.01	22.61	21.26	....	20.66	20.96	22.06	22.91	20.76	21.21	....
6	....	22.16	22.56	21.31	....	20.71	21.11	22.01	22.96	20.81	21.21	19.25
7	....	22.21	22.51	21.46	....	20.86	21.21	22.06	23.01	20.81	21.31	19.24
8	....	22.21	22.26	....	....	20.76	21.21	22.16	23.01	20.81	21.26	19.21
9	....	22.31	22.16	....	....	20.76	21.31	22.21	23.06	20.41	21.31	19.09

## 28.4.9.3.5. Duhermal observation well 4--Continued.

Water level, at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	.....	22.31	22.51	.....	.....	20.76	20.86	22.21	23.06	20.76	21.31	18.91
11	.....	22.36	22.56	.....	.....	20.61	21.41	22.31	23.01	20.91	21.36	18.64
12	.....	22.46	22.41	.....	.....	20.31	21.56	22.36	23.01	21.06	21.31	18.67
13	22.11	22.51	22.36	21.61	.....	20.31	21.71	22.36	22.96	21.16	21.31	18.63
14	22.16	22.46	22.36	21.61	.....	.....	21.76	22.06	.....	21.31	21.36	.....
15	22.21	22.46	22.41	.....	.....	.....	21.81	22.26	.....	21.31	21.46	.....
16	22.26	22.36	22.26	.....	.....	19.91	21.71	22.41	.....	21.41	21.46	18.64
17	22.21	22.31	22.31	.....	.....	20.26	21.86	22.41	.....	21.41	21.46	.....
18	22.11	22.31	22.46	.....	.....	20.21	22.01	22.46	.....	21.46	21.41	.....
19	22.16	21.41	22.01	.....	.....	20.26	22.16	22.51	.....	21.46	.....	.....
20	22.16	21.01	22.16	.....	.....	20.21	22.16	22.51	20.26	21.46	.....	18.75
21	22.16	20.86	22.06	.....	.....	20.16	22.21	22.51	20.26	21.31	.....	18.93
22	22.16	20.61	22.06	.....	.....	20.21	.....	22.56	20.26	21.21	20.76	18.94
23	22.11	20.61	21.91	.....	.....	20.31	.....	22.61	20.31	21.21	20.41	18.86
24	22.21	22.01	21.91	.....	.....	20.31	.....	22.61	20.21	21.21	20.46	18.88
25	22.21	22.26	21.81	.....	.....	20.41	.....	22.66	20.26	21.21	.....	18.88
26	22.26	22.26	21.61	.....	19.96	20.46	.....	22.71	20.36	21.21	.....	18.97
27	22.26	22.26	21.51	.....	20.06	20.51	.....	22.71	20.51	21.26	.....	18.76
28	22.11	22.36	21.51	.....	19.86	20.56	.....	22.76	20.51	21.26	19.92	18.95
29	22.11	.....	20.96	.....	20.16	20.61	.....	22.86	20.56	21.16	19.85	18.90
30	22.06	.....	20.81	.....	20.21	20.71	.....	22.96	20.61	21.16	19.71	18.85
31	22.06	.....	20.76	.....	20.26	.....	.....	23.01	.....	21.16	.....	18.78

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.45	1.10	0.70	2.75	.....	2.75	2.35	.....	0.10	2.55	1.90	3.65
2	1.65	1.95	.70	2.85	.....	2.65	2.25	.....	.10	2.50	1.90	3.70
3	.80	1.25	.60	2.20	.....	2.50	2.60	.....	.15	2.45	1.90	.....
4	.75	1.15	.55	2.10	.....	2.50	2.35	.....	.25	2.35	1.90	.....
5	.....	1.10	.50	1.85	.....	2.45	2.15	1.05	.20	2.35	1.90	.....
6	.....	.95	.55	1.80	.....	2.40	2.00	1.10	.15	2.30	1.90	3.86
7	.....	.90	.60	1.65	.....	2.25	1.90	1.05	.10	2.30	1.80	3.87
8	.....	.90	.85	.....	.....	2.35	1.90	.95	.10	2.30	1.85	3.90
9	.....	.80	.95	.....	.....	2.35	1.80	.90	.05	2.70	1.80	4.02
10	.....	.80	.60	.....	.....	2.35	2.25	.90	.05	2.35	1.80	4.20
11	.....	.75	.55	.....	.....	2.50	1.70	.80	.10	2.20	1.75	4.47
12	.....	.65	.70	.....	.....	2.80	1.55	.75	.10	2.05	1.80	4.44
13	1.00	.60	.75	1.50	.....	2.80	1.40	.75	.15	1.95	1.80	4.48
14	.95	.65	.75	1.50	.....	.....	1.35	1.05	.....	1.80	1.75	.....
15	.90	.65	.70	.....	.....	.....	1.30	.85	.....	1.80	1.65	.....
16	.85	.75	.85	.....	.....	3.20	1.40	.70	.....	1.70	1.65	.....
17	.90	.80	.80	.....	.....	2.85	1.25	.70	.....	1.70	1.65	.....
18	1.00	.80	.65	.....	.....	2.90	1.10	.65	.....	1.65	1.70	.....
19	.95	1.70	1.10	.....	.....	2.85	.95	.60	.....	1.65	.....	.....
20	.95	2.10	.95	.....	.....	2.90	.95	.60	2.85	1.65	.....	4.36
21	.95	2.25	1.05	.....	.....	2.95	.90	.60	2.85	1.80	.....	4.18
22	.95	2.50	1.05	.....	.....	2.90	.....	.55	2.85	1.90	2.35	4.17
23	1.00	2.50	1.20	.....	.....	2.80	.....	.50	2.80	1.90	2.70	4.25
24	.90	1.10	1.20	.....	.....	2.80	.....	.50	2.90	1.90	2.65	4.23
25	.90	.85	1.30	.....	.....	2.70	.....	.45	2.85	1.90	.....	4.23
26	.85	.85	1.50	.....	3.15	2.65	.....	.40	2.75	1.90	.....	4.14
27	.85	.85	1.60	.....	3.05	2.60	.....	.40	2.60	1.85	.....	4.35
28	1.00	.75	1.60	.....	3.25	2.55	.....	.35	2.60	1.85	3.19	4.16
29	1.00	.....	2.15	.....	2.95	2.50	.....	.25	2.55	1.95	3.26	4.21
30	1.05	.....	2.30	.....	2.90	2.40	.....	.15	2.50	1.95	3.40	4.26
31	1.05	.....	2.35	.....	2.85	.....	.....	.10	.....	1.95	.....	4.33

28.5.7.1.5 (\*886, p. 359; 906, p. 93; 936, p. 86; 944, p. 86; \*986, p. 97). Duermal observation well 5. Extremes of observed water level, in feet above mean sea level: Highest, 14.94 Apr. 7 and 8, 1939; lowest, 6.17 Oct. 14, 1943.

Water level, in feet above mean sea level, 1943

Date	Water level	Date	Water level	Date	Water level
May 26	10.50	June 9	10.20	June 27	9.19
June 2	10.57	22	9.57		

Water level at end of day, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	12.06	.....	9.46	8.48	9.31	10.28	12.41	13.63	11.03	12.26	9.85
2	.....	12.28	.....	9.48	8.47	9.35	10.34	12.34	13.66	11.13	12.28	9.68
3	.....	12.33	.....	9.56	8.48	9.49	10.32	12.31	13.69	11.18	12.30	9.64
4	.....	12.45	.....	9.59	8.53	9.50	10.37	12.28	13.72	11.26	12.32	9.64
5	.....	12.41	.....	9.65	8.60	9.53	10.59	12.30	13.78	11.31	12.37	9.62
6	.....	12.53	.....	9.69	8.64	9.53	10.66	12.33	13.82	11.34	12.44	9.62
7	.....	12.54	.....	9.72	8.55	9.61	10.73	12.37	13.87	11.40	12.45	9.57
8	.....	12.63	11.57	9.80	8.69	9.62	10.81	12.44	13.91	11.48	12.53	9.62
9	.....	12.68	11.56	9.68	8.76	9.66	.....	12.51	13.90	11.42	12.53	9.67
10	.....	12.73	11.51	9.76	8.83	9.58	10.88	12.57	13.98	11.53	12.56	9.64
11	.....	12.68	11.45	9.73	8.88	9.59	10.99	12.62	14.01	11.61	12.60	9.46
12	.....	.....	11.33	9.87	8.85	9.57	11.08	12.68	13.94	11.66	12.60	9.53
13	.....	.....	10.83	10.00	8.76	9.64	11.17	12.75	13.68	11.71	12.63	9.49
14	.....	.....	10.42	9.99	8.51	9.71	.....	12.73	13.08	11.81	12.66	9.56
15	.....	.....	10.23	9.91	8.52	9.55	11.32	12.79	11.03	11.87	12.65	9.53
16	.....	12.78	10.21	.....	8.58	9.63	11.38	12.83	.....	11.89	12.56	9.62
17	.....	12.68	10.29	.....	8.58	9.76	.....	12.89	.....	11.95	12.53	9.65
18	.....	.....	10.32	.....	8.68	9.70	.....	12.99	10.40	12.00	12.53	9.68
19	.....	12.46	10.28	9.45	8.68	9.73	11.52	13.13	10.39	12.07	12.47	9.78
20	12.16	12.24	10.26	9.41	8.71	9.81	11.60	13.13	10.41	11.97	12.15	9.74
21	12.18	12.36	10.39	9.51	8.73	9.91	11.71	13.13	10.43	12.02	11.97	9.89
22	12.25	12.27	10.23	9.57	8.83	9.93	11.78	13.17	10.53	11.95	11.68	9.93
23	12.18	12.28	9.98	9.50	8.89	9.93	11.84	13.19	10.61	11.94	11.37	9.96
24	12.25	12.24	9.76	.....	8.95	9.96	11.89	13.28	10.58	11.92	11.24	10.02
25	12.23	12.23	9.76	.....	9.00	10.01	11.98	13.33	10.65	11.98	11.08	9.91
26	12.29	12.16	9.85	8.75	9.03	10.08	12.03	.....	10.74	12.03	10.91	10.03
27	12.25	12.08	9.85	8.56	9.06	10.13	12.13	.....	10.80	12.07	10.81	9.33
28	12.24	12.03	9.97	8.48	9.12	10.15	12.20	.....	10.83	12.07	10.52	9.94
29	12.20	12.02	.....	8.48	9.18	10.17	12.27	.....	10.93	.....	10.23	9.92
30	12.18	.....	.....	8.49	9.21	10.22	12.31	13.56	10.97	12.24	9.98	9.93
31	12.00	.....	9.61	.....	9.28	.....	12.36	13.59	.....	12.27	.....	9.90

Water level at end of day, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	9.02	.....	11.62	12.60	11.77	10.80	8.67	7.45	10.05	8.82	11.23
2	.....	8.80	.....	11.60	12.61	11.73	10.74	8.74	7.42	9.95	8.80	11.40
3	.....	8.75	.....	11.52	12.60	11.59	10.76	8.77	7.39	9.90	8.78	11.44
4	.....	8.63	.....	11.49	12.55	11.58	10.71	8.80	7.36	9.82	8.76	11.44
5	.....	8.67	.....	11.43	12.48	11.55	10.49	8.78	7.30	9.77	8.71	11.46
6	.....	8.55	.....	11.39	12.44	11.55	10.42	8.75	7.26	9.74	8.64	11.46
7	.....	8.54	.....	11.36	12.53	11.47	10.35	8.71	7.21	9.68	8.63	11.51
8	.....	8.45	9.51	11.28	12.39	11.46	10.27	8.64	7.17	9.60	8.55	11.46
9	.....	8.40	9.52	11.40	12.32	11.42	.....	8.57	7.18	9.66	8.55	11.41
10	.....	8.35	9.57	11.32	12.25	11.50	10.20	8.51	7.10	9.55	8.52	11.44
11	.....	8.40	9.63	11.35	12.20	11.49	10.09	8.46	7.07	9.47	8.48	11.62
12	.....	.....	9.75	11.21	12.23	11.51	10.00	8.40	7.14	9.42	8.48	11.55
13	.....	.....	10.25	11.08	12.32	11.44	9.91	8.33	7.40	9.37	8.45	11.59
14	.....	.....	10.66	11.09	12.57	11.37	.....	8.35	8.00	9.27	8.42	11.52
15	.....	.....	10.85	11.17	12.56	11.53	9.76	8.29	10.05	9.21	8.45	11.55
16	.....	8.30	10.87	.....	12.50	11.45	9.70	8.25	.....	9.19	8.52	11.46
17	.....	8.40	10.79	.....	12.50	11.32	.....	8.19	.....	9.13	8.55	11.43
18	.....	.....	10.76	.....	12.40	11.38	.....	8.09	10.68	9.08	8.55	11.40
19	.....	8.62	10.80	11.65	12.40	11.35	9.56	7.95	10.69	9.01	8.61	11.30

## 28.5.7.1.5. Duhermal observation well 5--Continued

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	8.92	8.74	10.82	11.67	12.37	11.27	9.48	7.95	10.67	9.11	8.93	11.34
21	8.90	8.72	10.69	11.57	12.35	11.17	9.37	7.95	10.65	9.06	9.11	11.19
22	8.83	8.81	10.85	11.51	12.25	11.15	9.30	7.91	10.55	9.13	9.40	11.15
23	8.90	8.80	11.10	11.58	12.19	11.15	9.24	7.89	10.47	9.14	9.71	11.12
24	8.83	8.84	11.32	.....	12.13	11.12	9.19	7.80	10.50	9.16	9.84	11.06
25	8.85	8.85	11.32	.....	12.08	11.07	9.10	7.75	10.43	9.10	10.00	11.17
26	8.79	8.92	11.23	12.33	12.05	11.00	9.05	.....	10.34	9.05	10.17	11.05
27	8.83	9.00	11.23	12.52	12.02	10.95	8.95	.....	10.28	9.01	10.27	11.25
28	8.94	9.05	11.11	12.60	11.96	10.93	8.88	.....	10.25	9.01	10.56	11.14
29	8.89	9.06	.....	12.60	11.90	10.91	8.81	.....	10.15	.....	10.85	11.16
30	8.90	.....	.....	12.59	11.87	10.86	8.77	7.52	10.11	8.84	11.10	11.15
31	9.08	.....	11.47	.....	11.80	.....	8.72	7.49	.....	8.81	.....	11.18

28.4.9.5.1 (\*886, p. 360; 906, p. 94; 936, p. 87; 944, p. 87; \*986, p. 98). Duhermal observation well 9. Extremes of observed water level, in feet above mean sea level: Highest, 14.85 June 1, 1940; lowest, 8.45 Sept. 29 and Oct. 13 and 14, 1943.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level
Jan. 1	4.95	Jan. 3	4.70	Jan. 5	3.35
2	4.95	4	4.10		

Water level at end of day in feet above mean sea level, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level
Jan. 1	10.05	Jan. 3	10.30	Jan. 5	11.65
2	10.05	4	10.90		

28.4.9.8.2 (\*845, p. 206; 886, p. 361; 906, p. 94; 936, p. 88; 944, p. 87; \*986, p. 99). Duhermal observation well 10. Extremes of observed water level, in feet above mean sea level: Highest, 21.98 Feb. 8, 1941; lowest, 12.56 Sept. 28 and Oct. 1, 1943.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	5.60	5.25	4.03	3.44	4.12	4.47	5.93	6.95	....	5.22	3.93
2	....	5.52	5.27	4.08	3.53	4.17	4.55	5.95	6.81	5.11	5.23	3.91
3	....	5.48	5.25	4.08	3.51	4.27	4.63	5.74	6.79	....	5.23	3.93
4	....	5.53	5.31	4.02	3.54	4.28	4.63	5.77	6.74	5.18	5.20	3.95
5	....	5.47	5.29	4.06	3.69	4.28	....	5.31	6.76	5.20	5.20	....
6	....	5.51	5.26	4.16	3.70	4.30	....	5.84	6.82	5.20	5.37	3.99
7	....	5.52	4.95	4.16	3.54	4.41	....	5.99	6.86	5.20	5.44	4.02
8	....	5.58	4.97	4.26	3.70	4.21	....	6.03	....	5.24	5.44	3.91
9	....	5.59	5.08	4.15	3.79	4.56	....	6.08	....	....	5.46	3.96
10	....	5.59	5.09	4.25	3.79	4.30	....	6.11	....	5.20	5.39	3.92
11	....	5.56	5.09	4.22	3.88	3.16	....	6.20	6.19	5.40	5.44	3.28
12	....	5.66	....	4.23	3.83	3.49	4.83	6.28	6.55	5.49	5.44	....
13	....	5.74	....	4.33	3.63	3.72	4.94	6.33	6.15	5.49	5.45	3.26
14	....	5.56	....	4.40	3.44	3.75	5.07	6.32	....	5.54	5.45	3.33
15	....	5.45	4.00	4.25	3.47	3.65	5.10	6.43	....	5.62	5.48	3.36
16	....	5.31	4.08	3.98	3.49	2.95	5.05	6.48	....	5.54	5.47	3.32
17	....	5.29	4.20	3.95	3.50	3.09	5.10	6.40	4.47	5.59	5.54	3.34
18	....	5.33	4.34	3.91	3.63	3.80	5.28	6.45	4.48	5.66	5.54	3.38
19	5.31	5.37	4.22	3.87	3.64	3.86	5.27	6.49	4.51	5.53	5.51	3.61
20	5.36	5.36	4.25	3.82	3.67	3.83	5.23	6.50	....	5.36	5.34	3.76
21	5.36	5.45	4.31	3.93	3.58	3.99	5.28	6.50	4.55	5.19	....	3.95
22	5.43	5.40	4.30	4.05	3.15	4.12	5.33	6.50	4.66	5.18	4.24	4.04
23	5.43	5.49	4.02	3.93	3.65	4.13	5.34	6.55	4.78	5.15	4.26	4.04

## 28.4.9.3.2. Duhermal observation well 10--Continued

Water level, at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	5.55	5.49	4.02	3.61	3.76	4.11	5.01	6.64	....	5.15	4.39	3.78
25	5.51	5.51	4.16	....	3.84	4.14	5.43	6.68	....	5.20	4.41	3.30
26	5.51	5.50	4.12	3.60	3.84	4.28	5.52	6.69	....	5.20	4.33	3.60
27	5.47	5.38	4.10	3.52	3.85	4.37	5.56	6.69	4.94	5.21	4.14	3.60
28	5.42	5.33	4.23	3.45	3.85	4.39	5.72	6.77	4.95	5.15	3.90	3.40
29	5.43	5.24	4.10	3.52	3.98	4.40	5.84	6.79	....	5.14	3.73	3.30
30	5.48	....	3.87	3.53	4.05	4.41	5.91	6.84	....	5.20	3.77	3.24
31	5.47	....	4.00	....	4.08	....	5.97	6.85	....	5.22	....	3.15

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	14.44	14.69	15.91	16.50	15.82	15.47	14.01	13.09	....	14.72	16.01
2	....	14.42	14.67	15.86	16.41	15.77	15.39	13.99	13.13	14.83	14.71	16.03
3	....	14.46	14.69	15.86	16.43	15.67	15.31	14.20	13.15	....	14.71	16.01
4	....	14.41	14.63	15.92	16.40	15.66	15.31	14.17	13.20	14.76	14.74	15.99
5	....	14.47	14.65	15.88	16.25	15.66	....	14.13	13.18	14.74	14.74	....
6	....	14.43	14.68	15.78	16.24	15.64	....	14.10	13.12	14.74	14.57	15.95
7	....	14.42	14.99	15.78	16.40	15.53	....	14.05	13.08	14.74	14.50	15.92
8	....	14.36	14.97	15.68	16.24	15.73	....	13.91	....	14.70	14.50	16.03
9	....	14.35	14.86	15.79	16.15	15.38	....	13.86	....	....	14.48	15.98
10	....	14.35	14.85	15.69	16.15	15.64	....	13.83	....	14.74	14.55	16.02
11	....	14.38	14.85	15.72	16.06	16.78	....	13.74	13.75	14.54	14.50	16.66
12	....	14.28	....	15.71	16.11	16.45	15.11	13.66	13.39	14.45	14.50	....
13	....	14.20	....	15.61	16.31	16.22	15.00	13.61	13.79	14.45	14.49	16.68
14	....	14.38	....	15.64	16.50	16.19	14.87	13.62	....	14.40	14.49	16.61
15	....	14.49	15.94	15.69	16.47	16.29	14.84	13.51	....	14.32	14.46	16.58
16	....	14.53	15.86	15.96	16.45	16.99	14.89	13.46	....	14.40	14.47	16.62
17	....	14.65	15.74	15.99	16.44	16.85	14.84	13.54	15.47	14.35	14.40	16.60
18	....	14.61	15.60	16.03	16.31	16.14	14.66	13.49	15.46	14.38	14.40	16.56
19	14.63	14.57	15.72	16.07	16.30	16.08	14.67	13.45	15.43	14.41	14.43	16.33
20	14.58	14.58	15.69	16.12	16.27	16.11	14.71	13.44	....	14.58	14.60	16.18
21	14.58	14.49	15.63	16.01	16.36	15.95	14.66	13.44	15.39	14.75	....	15.99
22	14.51	14.54	15.64	15.89	16.79	15.82	14.61	13.44	15.28	14.76	15.70	15.90
23	14.51	14.45	15.92	15.96	16.29	15.81	14.60	13.39	15.16	14.79	15.68	15.90
24	14.39	14.45	15.92	16.33	16.18	15.83	14.93	13.30	....	14.79	15.55	16.16
25	14.43	14.43	15.78	....	16.10	15.80	14.51	13.26	....	14.74	15.53	16.64
26	14.43	14.44	15.82	16.34	16.10	15.66	14.42	13.25	....	14.74	15.61	16.34
27	14.47	14.56	15.84	16.42	16.09	15.57	14.38	13.25	15.00	14.73	15.80	16.34
28	14.52	14.61	15.71	16.49	16.09	15.55	14.22	13.17	14.99	14.79	16.04	16.54
29	14.51	14.70	15.84	16.42	15.96	15.54	14.10	13.15	....	14.80	16.21	16.64
30	14.46	....	16.07	16.41	15.89	15.53	14.03	13.10	....	14.74	16.17	16.70
31	14.47	....	15.94	....	15.86	....	13.97	13.09	....	14.72	....	16.79

28.4.9.3.1 (\*886, p. 361; 906, p. 95; 936, p. 80; 944, p. 38; \*986, p. 100). Duhermal observation well 11. Extremes of observed water level, in feet with reference to mean sea level; Highest, +14.23 June 1, 1940; lowest, -1.90 Jan. 22, 23, and 24, 1943.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.6	36.4	36.5	35.9	35.4	34.9	34.7	35.8	36.4	34.6	34.8	34.3
2	36.6	36.3	36.6	35.7	35.2	34.9	34.8	35.8	36.3	34.6	34.8	34.4
3	36.7	36.4	36.4	35.7	....	35.0	34.7	35.8	36.0	34.6	34.8	34.4
4	36.4	36.2	36.4	35.9	....	35.1	34.8	35.8	35.8	34.6	34.8	34.4
5	36.3	36.4	36.4	35.1	....	35.1	34.8	35.8	36.0	34.6	34.8	34.4
6	36.3	36.4	36.4	36.0	....	35.1	34.8	35.8	36.0	34.6	34.9	34.4
7	36.3	36.5	36.4	35.9	....	35.2	34.9	35.8	36.1	34.6	34.8	34.4
8	36.4	36.5	36.3	36.0	....	35.2	34.9	35.9	36.1	34.6	34.9	34.4
9	36.5	36.6	36.4	36.1	....	35.2	34.9	35.9	36.1	34.5	34.9	34.4
10	36.4	36.6	36.4	36.0	34.9	35.2	34.7	36.0	36.1	34.5	34.9	34.4
11	36.3	36.6	36.4	35.7	34.9	34.9	34.9	33.0	36.2	34.6	34.9	34.3

## 28.4.9.3.1. Duhermal observation well 11--Continued

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
12	36.3	36.7	36.4	36.0	34.8	34.9	34.9	36.1	36.1	34.6	34.9	34.2
13	36.3	36.8	36.2	36.0	34.7	35.0	35.0	36.1	35.8	34.6	35.0	34.2
14	36.4	36.8	36.1	36.0	34.6	35.1	35.0	36.1	32.6	34.7	35.0	34.3
15	36.3	36.7	36.2	35.9	34.6	35.1	35.0	36.1	34.3	34.7	35.0	34.3
16	36.3	36.7	36.3	35.8	34.6	34.9	35.0	36.2	34.5	34.7	35.0	34.3
17	36.1	36.6	36.1	35.6	34.6	34.9	35.0	36.2	34.6	34.7	35.0	34.3
18	36.2	36.5	36.4	35.6	34.6	34.9	35.1	36.3	34.7	34.8	35.0	34.3
19	36.2	36.5	36.4	35.8	34.6	34.8	35.1	36.3	34.7	34.8	35.0	34.3
20	36.3	36.5	36.4	35.7	34.6	34.7	35.2	36.3	34.7	34.7	35.0	34.4
21	36.4	36.3	36.3	35.6	34.5	34.7	35.2	36.3	34.7	34.7	34.8	34.4
22	36.1	36.4	36.3	35.7	34.6	34.7	35.2	36.4	34.7	34.7	34.4	34.4
23	36.0	36.4	36.1	35.6	34.6	34.8	35.2	36.4	34.7	34.6	34.4	34.4
24	36.3	36.4	36.0	35.7	34.7	34.8	35.2	36.4	34.6	34.6	34.5	34.4
25	36.5	36.4	36.1	35.6	34.8	34.7	35.2	36.4	34.6	34.7	34.5	34.3
26	36.6	36.4	36.2	35.7	34.7	34.7	35.2	36.4	35.6	34.7	34.5	34.3
27	36.4	36.4	36.1	35.5	34.7	34.7	35.2	36.5	34.6	34.7	34.4	34.3
28	36.2	36.4	36.2	35.3	34.8	34.7	35.4	36.5	34.6	34.7	34.3	34.3
29	36.3	36.5	36.0	35.5	34.8	34.7	35.5	36.6	34.6	34.8	34.4	34.3
30	36.4	....	35.9	35.5	34.8	34.7	35.6	36.6	34.6	34.8	34.4	34.3
31	36.4	....	35.9	....	34.8	....	35.7	36.5	....	34.8	....	34.3

Water level at end of day, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-1.2	-1.0	-1.1	-0.5	0.0	+0.5	+0.7	-0.4	-1.0	+0.8	+0.6	+1.1
2	-1.2	-.9	-1.2	-.3	+2	+5	+6	-.4	-.9	+8	+6	+1.0
3	-1.3	-1.0	-1.0	-.3	...	+4	+7	-.4	-.6	+8	+6	+1.0
4	-1.0	-.8	-1.0	-.5	...	+3	+6	-.4	-.4	+8	+6	+1.0
5	-.9	-1.0	-1.0	-.7	...	+3	+6	-.4	-.6	+8	+6	+1.0
6	-.9	-1.0	-1.0	-.6	...	+3	+6	-.4	-.6	+8	+5	+1.0
7	-.9	-1.1	-1.0	-.5	...	+2	+5	-.4	-.0	+8	+6	+1.0
8	-1.0	-1.1	-.9	-.6	...	+2	+5	-.5	-.7	+8	+5	+1.0
9	-1.1	-1.2	-1.0	-.7	...	+2	+5	-.5	-.7	+9	+5	+1.0
10	-1.0	-1.2	-1.0	-.6	+5	+2	+7	-.6	-.7	+9	+5	+1.0
11	-.9	-1.2	-1.0	-.3	+5	+5	+5	-.6	-.8	+8	+5	+1.1
12	-.9	-1.3	-1.0	-.6	+6	+5	+5	-.7	-.7	+8	+5	+1.2
13	-.9	-1.4	-.8	-.6	+7	+4	+4	-.7	-.4	+8	+4	+1.2
14	-1.0	-1.4	-.7	-.6	+8	+3	+4	-.7	+2.8	+7	+4	+1.1
15	-.9	-1.3	-.8	-.5	+8	+3	+4	-.7	+1.1	+7	+4	+1.1
16	-.9	-1.3	-.9	-.4	+8	+5	+4	-.8	+9	+7	+4	+1.1
17	-.7	-1.2	-.7	-.2	+8	+5	+4	-.8	+8	+7	+4	+1.1
18	-.8	-1.1	-1.0	-.2	+8	+5	+3	-.9	+7	+6	+4	+1.1
19	-.8	-1.1	-1.0	-.4	+8	+6	+3	-.9	+7	+6	+4	+1.1
20	-.9	-1.1	-1.0	-.3	+8	+7	+2	-.9	+7	+7	+4	+1.0
21	-1.0	-.9	-.9	-.2	+9	+7	+2	-.9	+7	+7	+6	+1.0
22	-.7	-1.0	-.9	-.3	+8	+7	+2	-1.0	+7	+7	+1.0	+1.0
23	-.6	-1.0	-.7	-.2	+8	+6	+2	-1.0	+7	+8	+1.0	+1.0
24	-.9	-1.0	-.6	-.3	+7	+6	+2	-1.0	+8	+8	+9	+1.0
25	-1.1	-1.0	-.7	-.2	+6	+7	+2	-1.0	+8	+7	+9	+1.1
26	-1.2	-1.0	-.8	-.3	+7	+7	+2	-1.0	+8	+7	+9	+1.1
27	-1.0	-1.0	-.7	-.1	+7	+7	+2	-1.1	+8	+7	+1.0	+1.1
28	-.8	-1.0	-.8	+1	+6	+7	.0	-1.1	+8	+7	+1.1	+1.1
29	-.9	-1.1	-.6	-.1	+6	+7	-.1	-1.2	+8	+6	+1.0	+1.1
30	-1.0	....	-.5	-.1	+6	+7	-.2	-1.2	+8	+6	+1.0	+1.1
31	-1.0	....	-.5	....	+6	....	-.3	-1.1	....	+6	....	+1.1

28.4.4.2.1 (\*845, p. 207; 886, p. 364; 906, p. 98; 936, p. 89; 944, p. 89; \*986, p. 101). Robert D. Fischer test well. Extremes of observed water level, in feet below land-surface datum: Highest, 10.58 Apr. 26 and 27, 1939; lowest, 16.29 Jan. 30, 1942.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.10	15.60	15.53	14.54	13.21	.....	13.07	13.80	14.55	13.68	14.08	14.07
2	16.10	15.59	15.53	14.50	13.16	.....	13.10	13.82	14.58	13.68	14.10	14.02
3	16.08	15.58	15.52	14.25	13.10	.....	13.12	13.84	14.60	13.68	14.11	13.93
4	15.95	15.58	15.52	14.20	13.04	.....	13.13	13.86	14.62	13.68	14.12	13.85
5	15.94	15.58	15.52	14.16	12.99	.....	13.15	13.88	14.65	13.69	14.13	13.77
6	15.86	15.58	15.52	14.12	12.95	.....	13.17	13.90	14.68	13.68	14.15	13.72
7	15.86	15.58	15.50	14.08	12.92	.....	13.20	13.93	14.71	13.68	14.17	13.67
8	15.88	15.58	15.49	14.04	12.90	.....	13.22	13.96	14.73	13.69	14.18	13.62
9	15.88	15.58	15.48	14.00	12.87	.....	13.24	13.98	14.76	13.71	14.20	13.58
10	15.86	15.58	15.48	13.97	12.85	.....	13.26	14.00	14.78	13.72	14.20	13.57
11	15.84	15.58	.....	13.94	12.82	.....	13.28	14.02	14.80	13.75	14.22	13.54
12	15.83	15.57	.....	13.90	12.78	.....	13.30	14.05	14.81	13.76	14.25	13.46
13	15.82	15.59	.....	13.89	12.75	.....	13.33	14.08	14.65	13.76	14.26	13.45
14	15.79	15.59	.....	13.87	12.73	.....	13.36	14.11	14.47	13.79	14.27	13.44
15	15.78	15.57	.....	13.84	12.72	.....	13.38	14.13	14.06	13.84	14.29	13.43
16	15.76	15.54	.....	13.82	12.70	.....	13.39	14.15	13.98	13.83	14.30	13.39
17	15.74	15.54	.....	13.81	12.68	.....	13.42	14.17	13.94	13.85	14.32	13.37
18	15.73	15.52	.....	13.80	12.69	.....	13.44	14.20	13.91	13.86	14.35	.....
19	15.71	15.52	.....	13.78	12.66	.....	13.46	14.24	13.88	13.88	14.36	.....
20	15.70	15.52	.....	13.77	12.64	12.83	13.48	14.26	13.84	13.87	14.37	.....
21	15.68	15.52	.....	13.76	12.62	12.86	13.51	14.28	13.81	13.89	14.36	.....
22	15.68	15.52	.....	13.73	12.61	12.88	13.54	14.30	13.80	13.93	14.34	.....
23	15.66	15.52	.....	13.71	12.60	12.88	13.56	14.33	13.79	13.94	14.36	.....
24	15.66	15.53	.....	13.66	12.60	12.90	13.58	14.36	13.78	13.95	14.35	.....
25	15.65	15.54	14.72	13.61	12.59	12.93	13.61	14.39	13.75	13.96	14.33	.....
26	15.64	15.54	14.68	13.58	12.58	12.96	13.63	14.41	13.73	13.97	14.30	.....
27	15.63	15.54	14.62	13.48	.....	12.99	13.66	14.44	13.72	13.99	14.25	.....
28	15.62	15.53	14.57	13.40	.....	13.01	13.68	14.46	13.69	13.99	14.20	.....
29	15.61	15.53	14.50	13.34	.....	13.03	13.71	14.48	13.69	14.02	14.19	.....
30	15.60	.....	14.44	13.27	.....	13.04	13.74	14.51	13.69	14.05	14.12	.....
31	15.60	.....	14.39	.....	.....	.....	13.78	14.53	.....	14.06	.....	.....

29.11.1.2.3 (\*777, p. 100; \*817, p. 182; 840, p. 246; \*845, p. 208; 886, p. 366; \*906, p. 100; 936, p. 89; 944, p. 89; \*986, p. 102). Joseph Morrell well. Extremes of observed water level in feet above mean sea level; Highest 75.08 Mar. 28, 1932; lowest, 68.08 Oct. 6, 1932. Not affected by pumping.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.16	0.97	.....	0.60	0.82	2.14	2.27	4.84	6.06	2.37	1.58	0.52
2	1.21	1.01	.....	.54	.91	1.78	2.43	4.89	6.11	2.45	1.59	.60
3	.24	1.02	.....	.63	.96	1.88	2.56	4.85	6.16	2.46	1.59	.68
4	.32	1.08	.82	.68	1.02	2.00	2.66	4.81	6.20	2.46	1.57	.72
5	.22	1.07	.86	.73	1.08	2.11	2.79	4.79	6.25	2.47	1.57	.76
6	.34	1.09	.81	.62	1.15	2.23	2.93	4.80	6.29	2.46	1.60	.78
7	.43	1.11	.34	.70	.77	2.38	3.05	4.81	6.33	2.50	1.63	.80
8	.56	1.13	.53	.73	.92	2.47	3.16	4.84	6.38	2.57	1.64	.44
9	.60	1.20	.60	.79	1.05	2.57	3.28	4.88	6.38	2.60	1.64	.57
10	.70	1.24	.68	.87	1.15	.....	3.39	4.93	6.43	2.63	1.44	.64
11	.78	1.22	.78	.87	1.22	.65	3.48	4.98	6.48	2.65	1.37	.44
12	.85	1.27	.76	.85	.54	.92	3.58	5.04	6.48	2.67	1.40	.39
13	.90	1.30	.30	.95	.37	1.17	3.61	5.11	6.17	2.61	1.43	.56
14	.95	.48	.41	.99	.65	1.21	3.64	5.17	.07	2.53	1.46	.64
15	.98	.50	.44	.88	.82	1.17	3.68	5.24	.69	2.57	1.47	.68
16	1.03	.60	.46	.89	.82	1.41	3.71	5.30	.97	2.50	1.06	.71
17	1.10	.40	.57	.52	.90	1.66	3.74	5.34	1.19	2.49	1.04	.75
18	1.12	.44	.66	.63	1.10	1.83	3.78	5.39	1.29	2.48	1.11	.79
19	1.09	.59	.70	.71	1.21	.53	3.83	5.45	1.34	2.51	1.16	.86
20	1.09	.64	.74	.79	1.28	.76	3.88	5.51	1.46	2.32	.5	.87



## 29.11.1.2.3. Joseph Morrell well--Continued.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	1.08	0.74	0.63	0.86	1.37	0.93	3.95	5.56	1.54	1.09	0.19	0.93
22	1.08	.72	.47	.91	1.47	1.19	4.01	5.61	1.74	1.14	.37	.97
23	1.01	.72	.24	.63	1.50	1.26	4.04	5.66	1.88	1.23	.51	.98
24	1.02	.76	.40	.16	1.50	1.57	4.12	5.71	1.97	1.29	.59	.99
25	1.04	.80	.53	.40	1.50	1.20	4.22	5.75	2.04	1.35	.65	.60
26	1.05	....	.63	.57	1.49	1.48	4.31	5.80	2.10	1.42	.69	.68
27	.96	....	.61	.27	1.59	1.70	4.40	5.84	2.16	1.43	.17	.34
28	.78	....	.69	.50	1.72	1.87	4.48	5.90	2.19	1.40	.42	.47
29	.78	....	.17	.62	1.84	2.03	4.60	5.93	2.29	1.48	.13	.57
30	.85	....	.58	.71	1.94	2.11	4.68	5.98	2.31	1.54	.32	.63
31	.87	....	.55	....	2.05	....	4.76	6.02	...	1.57	....	.50

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	73.56	73.75	....	74.12	73.90	72.58	72.45	69.88	68.66	72.35	73.14	74.20
2	73.51	73.71	....	74.18	73.81	72.94	72.29	69.83	68.61	72.27	73.13	74.12
3	74.48	73.70	....	74.09	73.76	72.84	72.16	69.87	68.56	72.26	73.13	74.04
4	74.40	73.64	73.90	74.04	73.70	72.72	72.06	69.91	68.52	72.26	73.15	74.00
5	74.50	73.65	73.86	73.99	73.64	72.61	71.93	69.93	68.47	72.25	73.15	73.96
6	74.38	73.63	73.91	74.10	73.57	72.49	71.79	69.92	68.43	72.26	73.12	73.94
7	74.29	73.61	74.58	74.02	73.95	72.34	71.67	69.91	68.39	72.22	73.09	73.92
8	74.16	73.54	74.19	73.99	73.30	72.25	71.56	69.88	68.34	72.15	73.08	74.28
9	74.12	73.52	74.12	73.93	73.67	72.15	71.44	69.84	68.34	72.12	73.08	74.15
10	74.02	73.48	74.04	73.85	73.57	....	71.33	69.79	68.29	72.09	73.28	74.08
11	73.94	73.50	73.94	73.85	73.50	74.07	71.24	69.74	68.24	72.07	73.35	74.28
12	73.87	73.45	73.96	73.37	74.18	73.80	71.14	69.68	68.24	72.05	73.32	74.33
13	73.82	73.42	74.42	73.77	74.35	73.55	71.11	69.61	68.55	72.11	73.29	74.16
14	73.77	74.24	74.31	73.73	74.07	73.51	71.08	69.55	74.65	72.19	73.26	74.08
15	73.74	74.22	74.28	74.44	73.90	73.55	71.04	69.48	74.03	72.15	73.25	74.04
16	73.64	74.12	74.26	74.43	73.90	73.31	71.01	69.42	73.75	72.22	73.72	74.01
17	73.62	74.32	74.15	74.20	73.82	73.06	70.98	69.38	73.53	72.23	73.68	73.97
18	73.60	74.28	74.06	74.09	73.62	72.89	70.94	69.33	73.43	72.24	73.61	73.93
19	73.63	74.13	74.02	74.01	73.51	74.19	70.89	69.27	73.38	72.21	73.56	73.86
20	73.63	74.08	73.98	73.93	73.44	73.96	70.84	69.21	73.26	72.40	74.15	73.85
21	73.64	73.98	74.09	73.96	73.35	73.79	70.77	69.16	73.18	73.63	74.53	73.79
22	73.64	74.00	74.25	73.81	73.25	73.53	70.71	69.11	73.00	73.58	74.35	73.75
23	73.71	74.00	74.48	74.09	73.22	73.46	70.68	69.06	72.84	73.49	74.21	73.74
24	73.70	73.96	74.32	74.56	73.22	73.35	70.60	69.01	72.75	73.43	74.13	73.73
25	73.68	73.92	74.19	74.32	73.22	73.52	70.50	68.97	72.68	73.37	74.07	74.12
26	73.67	....	74.09	74.15	73.23	73.24	70.41	68.92	73.62	73.30	74.03	74.04
27	73.76	....	74.11	74.45	73.13	73.02	70.32	68.88	72.56	73.29	74.55	74.38
28	73.94	....	74.03	74.22	73.00	72.85	70.24	68.82	72.53	73.32	74.30	74.25
29	73.94	....	74.55	74.10	72.88	72.69	70.12	68.79	72.43	73.24	74.59	74.15
30	73.87	....	74.34	74.01	72.78	72.61	70.04	68.74	72.41	73.18	74.40	74.09
31	73.85	....	74.17	....	72.67	....	69.96	68.70	....	73.15	....	74.22

28.4.3.1.5 (#845, p. 209; 886, p. 367; 906, p. 101; 936, p. 90; 944, p. 90; #986, p. 103). National Fireproofing Corporation dug well. Measurements discontinued.

28.5.4.7.2 (#845, p. 210; 886, p. 368; 906, p. 101; 936, p. 91; 944, p. 91; #986, p. 104). Perth Amboy Water Department. Old Bridge observation well. Extremes of observed water level, in feet with reference to mean sea level: Highest, above top of casing Sept. 22, 1938, Apr. 21-25, 1940, and Sept. 14-15, 1944; lowest, -1.9 May 2, 1943.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	June	July	Sept.	Oct.
1	6.5	6.5	6.1	5.6	...	6.1	...	6.1
2	6.6	6.5	6.0	5.6	...	6.3	...	6.3
3	6.3	6.6	5.5	5.6	...	6.3	...	6.4
4	4.4	...	5.9	5.7	...	6.5	...	6.4

## 28.5.4.7.2. Perth Amboy Water Department--Continued.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	June	July	Sept.	Oct.
5	...	...	6.0	5.8	...	6.7	...	6.5
6	...	...	6.1	5.9	...	6.7	...	6.4
7	...	...	5.6	6.0	...	6.7	...	6.2
8	...	...	5.2	6.0	...	6.6	...	5.7
9	5.8	...	5.9	6.0	...	6.7	...	...
10	6.1	...	6.2	6.1	...	6.8	...	...
11	6.1	...	6.2	6.1	5.1	6.7	...	...
12	6.3	...	6.3	5.9	5.1	6.7	5.8	...
13	6.5	...	5.7	6.1	5.8	6.8	5.5	...
14	6.6	...	3.7	6.1	6.0	6.6	4.9	6.6
15	6.5	...	5.1	5.9	5.9	6.5	2.2	6.8
16	5.5	...	5.3	4.9	...	6.5	2.7	6.8
17	5.9	...	5.6	4.9	...	6.3	4.7	6.8
18	6.1	...	5.8	5.5	...	...	5.3	6.8
19	6.1	...	5.9	5.8	...	...	5.7	6.8
20	5.8	...	5.1	6.0	...	...	5.7	6.2
21	6.3	...	5.7	6.0	5.7	...	5.9	5.5
22	6.5	...	5.8	6.0	6.0	...	6.0	5.8
23	6.5	...	5.7	...	6.0	...	6.0	...
24	6.5	...	...	...	5.8	...	5.7	...
25	6.5	...	...	...	5.4	...	5.8	...
26	6.5	...	...	...	5.6	...	6.2	...
27	6.4	6.0	5.8	...	6.0	...	6.2	...
28	6.4	5.8	5.9	...	6.2	...	6.3	...
29	6.2	5.7	5.8	...	6.2	...	6.4	...
30	6.3	...	4.6	...	6.2	...	6.2	...
31	6.2	...	5.2	...	...	...	...	...

Lowest daily water level, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	June	July	Sept.	Oct.
1	-1.2	-1.2	-0.8	-0.3	...	-0.8	...	-0.8
2	-1.3	-1.2	-.7	-.3	...	-.9	...	-1.0
3	-1.0	-1.3	-.2	-.3	...	-1.0	...	-1.1
4	+.9	...	-.6	-.4	...	-1.2	...	-1.1
5	...	...	-.7	-.5	...	-1.4	...	-1.2
6	...	...	-.8	-.6	...	-1.4	...	-1.1
7	...	...	-.5	-.7	...	-1.4	...	-.9
8	...	...	-.1	-.7	...	-1.3	...	-.4
9	-.5	...	-.6	-.7	...	-1.4	...	...
10	-.8	...	-.9	-.8	...	-1.5	...	...
11	-.8	...	-.9	-.8	+2	-1.4	...	...
12	-1.0	...	-1.0	-.6	+2	-1.4	-.5	...
13	-1.2	...	-.4	-.8	-.5	-1.5	-.2	...
14	-1.3	...	+2.6	-.8	-.7	-1.3	+.4	-1.3
15	-1.2	...	+.2	-.6	-.6	-1.2	+3.1	-1.5
16	-.2	...	.0	+.4	...	-1.2	+2.6	-1.5
17	-.6	...	-.3	+.4	...	-1.0	+.6	-1.5
18	-.8	...	-.5	-.2	...	...	0	-1.5
19	-.8	...	-.6	-.5	...	...	-.4	-1.5
20	-.5	...	+.2	-.7	...	...	-.4	-.9
21	-1.0	...	-.4	-.7	-.4	...	-.6	-.2
22	-1.2	...	-.5	-.7	...	...	-.7	-.5
23	-1.2	...	-.4	...	-.7	...	-.7	...
24	-1.2	...	...	...	-.5	...	-.4	...
25	-1.2	...	...	...	-.1	...	+.5	...
26	-1.2	...	-.5	...	-.5	...	-.9	...
27	-1.1	-.7	-.5	...	-.7	...	-.9	...
28	-1.1	-.5	-.6	...	-.9	...	-1.0	...
29	-.9	-.4	-.5	...	-.9	...	-1.1	...
30	-1.0	...	+.7	...	-.9	...	-.9	...
31	-.9	...	+.1	...	...	...	...	...

28.5.4.3.9 (\*845, p. 227; 886, p. 368; 906, p. 102; 936, p. 91; 944, p. 91; \*986, p. 105). Perth Amboy Water Department. Runyon old deep well 1. Extremes of observed water level, in feet with reference to mean sea level: Highest, +12.8 Mar. 1, 1943; and Mar. 26, 1944; lowest, -46.6 Oct. 25, 1935.

Water level in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Mar.	Apr.	June	July	Sept.	Oct.
1	38.5	....	....	....	40.7	....	....
2	38.0	....	....	....	....	....	....
3	37.4	....	....	....	....	....	....
4	37.0	....	....	....	....	49.4	40.7
5	36.9	....	....	....	....	49.9	40.6
6	36.9	....	....	....	....	50.7	40.9
7	....	....	....	....	....	45.2	42.0
8	....	31.7	....	....	....	43.3	42.0
9	37.3	15.8	....	....	....	42.7	45.6
10	37.1	11.8	....	38.5	....	42.3	45.9
11	36.8	10.7	....	38.5	....	42.0	44.8
12	37.2	10.0	....	38.2	....	42.0	43.9
13	37.2	31.6	....	38.3	....	41.3	43.6
14	37.2	33.6	....	38.3	....	41.1	43.5
15	37.2	33.6	....	38.8	....	44.8	43.4
16	34.9	14.4	....	40.3	....	45.2	43.2
17	34.3	11.7	....	41.3	....	45.2	42.8
18	34.1	10.1	....	41.3	....	44.2	42.4
19	34.1	9.0	....	40.2	....	43.6	42.1
20	33.9	8.0	....	33.4	....	43.0	42.2
21	33.9	7.2	....	41.0	....	42.7	41.6
22	34.1	7.0	....	39.9	....	42.7	41.3
23	34.1	6.5	7.3	39.8	....	42.1	40.8
24	....	6.1	6.3	39.9	....	42.0	41.0
25	....	5.9	....	39.9	....	41.3	40.9
26	....	5.8	....	39.4	....	....	41.4
27	....	....	....	39.6	....	....	41.4
28	....	....	....	40.0	....	....	....
29	....	....	....	40.4	....	....	....
30	....	....	....	40.7	....	....	....
31	....	....	....	....	....	....	....

Lowest daily water level, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Mar.	Apr.	June	July	Sept.	Oct.
1	-20.3	....	....	....	-22.5	....	....
2	-19.8	....	....	....	....	....	....
3	-19.2	....	....	....	....	....	....
4	-18.8	....	....	....	....	-31.2	-22.5
5	-18.7	....	....	....	....	-31.7	-22.4
6	-18.7	....	....	....	....	-32.5	-22.7
7	....	....	....	....	....	-27.0	-23.8
8	....	-13.5	....	....	....	-25.1	-23.8
9	-19.1	+4.4	....	....	....	-24.5	-27.4
10	-18.9	+6.4	....	-20.3	....	-24.1	-27.7
11	-18.6	+7.5	....	-20.3	....	-25.8	-26.6
12	-19.0	+8.2	....	-20.0	....	-23.8	-25.7
13	-19.0	-13.4	....	-20.1	....	-23.1	-25.4
14	-19.0	-15.4	....	-20.1	....	-22.9	-25.3
15	-19.0	-15.4	....	-20.6	....	-26.6	-25.2
16	-16.7	+3.8	....	-22.1	....	-27.0	-25.0
17	-16.1	+6.5	....	-23.1	....	-27.0	-24.6
18	-15.9	+8.1	....	-23.1	....	-26.0	-24.2
19	-15.9	+9.2	....	-22.0	....	-25.4	-23.9
20	-15.8	+10.2	....	-21.2	....	-24.8	-24.0
21	-15.8	+11.0	....	-21.8	....	-24.5	-23.4
22	-15.9	+11.2	....	-21.7	....	-24.5	-23.1
23	-15.9	+11.7	+10.8	-21.6	....	-23.9	-22.6
24	....	+12.1	+11.9	-21.7	....	-23.8	-22.8

## 28.5.4.3.9. Runyon old deep well 1--Continued.

Lowest daily water level, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Mar.	Apr.	June	July	Sept.	Oct.
25	.....	+12.3	.....	-21.7	.....	-23.1	-22.7
26	.....	+12.4	.....	-21.2	.....	.....	-23.2
27	.....	.....	.....	-21.4	.....	.....	-23.2
28	.....	.....	.....	-21.8	.....	.....	.....
29	.....	.....	.....	-22.2	.....	.....	.....
30	.....	.....	.....	-22.5	.....	.....	.....
31	.....	.....	.....	.....	.....	.....	.....

\*29.1.4.1.1 (\*840, p. 248; 845, p. 229; \*886, p. 369; 906, p. 103; 936, p. 92; 944, p. 92; \*986, p. 106). Perth Amboy Water Department. Runyon old deep well 8. Extremes of observed water level, in feet with reference to mean sea level: Highest, +12.2 Apr. 8, 1943; lowest, -40.6 Oct. 25, 1935. Date of highest observed water level, published in Water-Supply Paper 986, as Apr. 18, 1943, should be Apr. 8, 1943.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.4	22.6	21.1	....	....	24.7	27.5	28.1	29.7	....	26.5	11.5
2	24.9	22.1	21.0	....	....	25.1	27.5	28.4	....	....	....	....
3	24.2	22.1	20.9	....	....	25.4	28.3	28.4	33.3	....	....	11.1
4	23.5	22.1	20.2	7.9	....	25.4	28.3	27.7	36.1	....	....	10.6
5	23.7	22.6	20.2	7.5	....	24.3	27.0	....	37.0	....	26.7	10.4
6	23.8	22.5	19.7	7.5	....	23.3	28.9	27.7	30.5	....	26.4	10.0
7	24.2	22.3	19.6	7.8	22.9	23.8	28.5	30.3	29.5	....	26.3	9.7
8	....	22.6	19.7	8.4	23.2	25.2	....	31.5	....	....	26.2	9.8
9	24.0	22.8	15.3	....	22.2	25.2	....	31.9	....	....	....	....
10	23.8	23.3	13.8	8.2	22.0	24.8	33.9	....	....	....	....	....
11	23.5	23.0	13.0	8.5	23.0	24.7	33.9	....	....	....	....	....
12	23.9	22.3	12.8	8.4	23.4	24.0	32.2	....	....	....	....	....
13	23.9	22.3	....	8.0	24.0	24.6	31.4	....	....	....	....	....
14	23.9	22.0	....	7.9	24.2	24.6	30.3	....	....	....	....	....
15	23.9	21.8	....	8.0	24.0	25.6	29.8	....	....	30.5	....	....
16	23.6	21.8	16.0	7.8	24.5	28.1	29.8	....	....	30.2	....	....
17	22.5	21.8	15.2	9.0	23.6	28.6	28.4	....	33.1	29.7	....	....
18	22.5	21.5	11.6	9.5	23.7	28.4	28.6	....	....	28.5	....	....
19	22.5	21.8	10.8	15.0	23.7	26.9	28.7	....	....	....	....	....
20	22.4	21.9	9.6	11.6	23.2	26.0	27.9	31.2	....	....	....	....
21	22.4	21.8	8.9	10.4	23.1	26.7	28.2	30.0	....	....	....	....
22	22.6	21.8	8.7	10.0	22.2	26.6	27.9	29.1	....	27.9	....	....
23	22.6	22.1	8.2	9.5	22.4	26.4	27.6	29.2	....	27.7	....	....
24	22.9	22.1	7.9	8.0	22.4	....	28.9	29.1	....	....	....	....
25	22.8	21.9	7.7	....	22.6	....	28.5	28.5	....	....	....	....
26	22.9	22.1	7.7	....	22.7	25.4	28.7	....	....	....	13.5	....
27	22.9	21.8	7.2	8.0	....	26.2	28.3	....	....	....	12.9	....
28	23.2	21.0	7.3	8.0	....	26.6	28.0	....	....	....	12.4	....
29	23.8	21.3	7.3	....	22.9	27.4	....	36.8	....	27.6	12.0	....
30	23.7	....	....	....	22.8	27.6	28.0	37.4	....	26.8	11.6	....
31	22.6	....	....	....	23.2	....	27.8	....	....	26.5	....	....

Lowest daily water level, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-7.4	-4.6	-3.1	....	....	-6.7	-9.5	-10.1	-11.7	....	-8.5	+6.5
2	-6.9	-4.1	-3.0	....	....	-7.1	-9.5	-10.4	....	....	....	....
3	-6.2	-4.1	-2.9	....	....	-7.4	-9.3	-10.4	-15.3	....	....	+6.9
4	-5.5	-4.2	-2.2	+10.1	....	-7.4	-9.3	-9.7	-18.1	....	....	+7.4
5	-5.7	-4.6	-2.2	+10.5	....	-6.3	-9.0	....	-19.0	....	-8.7	+7.6
6	-5.8	-4.5	-1.7	+10.5	....	-5.3	-9.9	-9.7	-12.5	....	-8.4	+8.0
7	-6.2	-4.3	-1.6	+10.2	-4.9	-5.8	-10.5	-12.3	-11.5	....	-8.3	+8.3
8	....	-4.6	-1.7	+9.6	-5.2	-7.2	....	-13.5	....	....	-8.2	+8.2
9	-6.0	-4.8	+2.7	....	-4.2	-7.2	....	-13.9	....	....	....	....

## 29.1.4.1.1. Runyon old well 8--Continued.

Lowest daily water level, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	-5.8	-5.3	+4.2	+9.8	-4.0	-6.8	-15.9	....	....	....	....	....
11	-5.5	-5.0	+5.0	+9.5	-5.0	-6.7	-15.9	....	....	....	....	....
12	-5.9	-4.3	+5.2	+9.6	-5.4	-6.0	-14.2	....	....	....	....	....
13	-5.9	-4.3	....	+10.0	-6.0	-6.6	-13.4	....	....	....	....	....
14	-5.9	-4.0	....	+10.1	-6.2	-6.6	-12.3	....	....	....	....	....
15	-5.9	-5.8	....	+10.0	-6.0	-7.6	-11.8	....	....	-12.5	....	....
16	-5.6	-3.8	+2.0	+10.2	-6.5	-10.1	-11.8	....	....	-12.2	....	....
17	-4.5	-3.8	+4.8	+9.0	-5.6	-10.6	-10.4	....	-15.1	-11.7	....	....
18	-4.5	-3.5	+6.4	+8.5	-5.7	-10.4	-10.6	....	....	-10.5	....	....
19	-4.5	-3.8	+7.2	+3.0	-5.7	-8.9	-10.7	....	....	....	....	....
20	-4.4	-3.9	+8.4	+6.4	-5.2	-8.0	-9.9	-13.2	....	....	....	....
21	-4.4	-3.8	+9.1	+7.6	-5.1	-8.7	-10.2	-12.0	....	....	....	....
22	-4.6	-3.8	+9.3	+8.0	-4.2	-8.6	-9.9	-11.1	....	-9.9	....	....
23	-4.6	-4.1	+9.8	+8.5	-4.4	-8.4	-9.6	-11.2	....	-9.7	....	....
24	-4.9	-4.1	+10.1	+10.0	-4.4	....	-10.9	-11.1	....	....	....	....
25	-4.8	-3.9	+10.3	....	-4.6	....	-10.5	-10.5	....	....	....	....
26	-4.9	-4.1	+10.3	....	-4.7	-7.4	-10.7	....	....	....	+4.5	....
27	-4.9	-3.8	+10.8	+10.0	....	-8.2	-10.3	....	....	....	+5.1	....
28	-5.2	-3.0	+10.7	+10.0	....	-8.6	-10.0	....	....	....	+5.6	....
29	-5.8	-5.3	+10.7	....	-4.9	-9.4	....	-18.8	....	-9.6	+6.0	....
30	-5.7	....	....	....	-4.8	-9.6	-10.0	-19.4	....	-8.8	+6.4	....
31	-4.6	....	....	....	-5.2	....	-9.8	....	....	-8.5	....	....

28.5.4.7.3 (\*845, p. 212; 886, p. 369; 906, p. 103; 936, p. 93; 944, p. 93; 986, p. 107). Perth Amboy Water Department. Runyon well 123.  
Extremes of observed water level, in feet above mean sea level: Highest, 6.14 Sept. 22, 1938 (flooded); lowest, 0.53 Jan. 23, 1940.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.35	2.35	2.05	....	....	1.85	1.90	....	2.35	....	2.05	....
2	2.40	2.35	1.95	1.70	....	1.75	1.90	....	2.30	....	2.10	....
3	2.10	2.35	1.90	1.70	....	1.85	....	....	2.25	1.70	....	1.80
4	....	2.30	1.95	1.70	....	1.50	....	....	2.15	1.75	....	1.65
5	....	2.30	2.10	1.75	....	1.85	....	....	2.10	1.75	1.95	1.45
6	....	2.35	2.10	1.80	....	1.90	....	2.05	2.10	....	2.05	1.45
7	....	2.25	1.85	1.90	1.50	1.95	....	1.90	2.15	....	1.80	1.45
8	....	2.20	1.85	1.90	1.60	2.00	....	1.75	2.25	1.65	1.90	1.10
9	1.90	2.10	2.10	1.85	1.65	2.00	2.00	1.80	2.20	1.70	1.80	1.70
10	1.95	2.20	2.25	1.90	1.70	2.00	2.10	1.85	2.15	1.80	....	1.85
11	2.10	....	2.30	1.80	1.70	1.55	2.05	1.90	2.10	1.85	....	1.85
12	1.90	....	2.35	1.70	1.75	1.50	2.10	1.95	1.95	1.90	2.15	1.40
13	....	....	2.00	1.85	1.60	1.70	2.15	2.05	1.90	....	2.15	1.65
14	....	....	1.30	1.85	1.55	1.80	2.10	2.10	....	....	2.15	1.80
15	....	....	1.65	1.70	1.60	1.75	2.00	2.20	....	2.25	2.10	1.90
16	....	....	1.70	1.40	1.65	1.80	2.05	2.15	....	2.25	1.80	1.95
17	....	....	1.75	1.40	1.60	1.90	1.95	2.05	1.25	2.25	1.70	2.00
18	....	....	1.90	1.65	1.70	1.95	1.95	1.90	1.40	2.50	....	2.00
19	....	....	1.90	1.75	1.75	1.80	1.95	2.10	1.55	2.50	....	1.80
20	....	2.35	1.55	1.80	1.80	1.55	2.00	2.25	1.60	2.10	....	1.90
21	....	2.35	1.65	1.75	1.80	1.55	1.95	2.30	1.65	....	....	2.05
22	....	2.30	1.70	1.70	1.75	1.70	2.00	2.20	1.70	1.80	....	1.95
23	2.30	2.20	1.70	1.70	1.65	1.65	2.00	2.30	1.75	1.95	....	....
24	2.30	2.20	1.30	1.50	1.60	1.55	2.10	2.15	1.65	1.95	....	....
25	2.25	2.10	1.55	.95	1.60	....	2.20	2.10	1.75	2.00	....	....
26	2.25	2.10	1.70	1.25	1.70	1.50	2.25	2.10	1.85	2.10	1.85	....
27	....	1.90	1.75	1.30	....	1.70	....	2.15	1.90	....	1.85	....
28	....	1.85	....	1.10	....	1.80	....	2.25	1.90	....	1.50	....
29	....	1.75	....	....	1.75	1.85	....	2.25	1.95	2.00	1.30	....
30	2.15	....	....	....	1.75	1.90	....	2.25	....	2.00	....	....
31	2.05	....	....	....	1.90	....	....	2.25	....	2.05	....	....

## 28.5.4.7.3. Runyon well 123--Continued.

Lowest daily water level, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.23	1.23	1.55	....	....	1.73	1.68	....	1.23	....	1.53	....
2	1.18	1.23	1.63	1.88	....	1.83	1.68	....	1.28	....	1.48	....
3	1.48	1.23	1.68	1.88	....	1.73	....	....	1.33	1.88	....	1.78
4	....	1.28	1.63	1.88	....	2.08	....	....	1.43	1.83	....	1.93
5	....	1.28	1.48	1.83	....	1.73	....	....	1.48	1.83	1.63	2.13
6	....	1.23	1.48	1.78	....	1.68	....	1.53	1.48	....	1.53	2.13
7	....	1.33	1.73	1.68	2.08	1.63	....	1.68	1.43	....	1.78	2.13
8	....	1.38	1.73	1.68	1.98	1.58	....	1.83	1.33	1.93	1.68	2.48
9	1.68	1.48	1.48	1.73	1.93	1.58	1.58	1.78	1.38	1.88	1.78	1.88
10	1.63	1.38	1.33	1.68	1.88	1.58	1.48	1.73	1.43	1.78	....	1.73
11	1.48	....	1.28	1.78	1.88	2.03	1.53	1.68	1.48	1.73	....	1.73
12	1.68	....	1.23	1.88	1.83	2.08	1.48	1.63	1.63	1.68	1.43	2.18
13	....	....	1.58	1.73	1.98	1.88	1.43	1.53	1.68	....	1.43	1.93
14	....	....	2.28	1.73	2.03	1.78	1.48	1.48	....	....	1.43	1.78
15	....	....	1.93	1.88	1.98	1.83	1.58	1.38	....	1.33	1.48	1.68
16	....	....	1.88	2.18	1.93	1.78	1.53	1.43	....	1.33	1.78	1.63
17	....	....	1.83	2.18	1.98	1.68	1.63	1.53	2.33	1.33	1.88	1.58
18	....	....	1.68	1.93	1.88	1.63	1.63	1.68	2.18	1.28	....	1.58
19	....	....	1.68	1.83	1.83	1.78	1.63	1.48	2.03	1.28	....	1.78
20	....	1.23	2.03	1.78	1.78	2.03	1.58	1.33	1.98	1.48	....	1.68
21	....	1.23	1.93	1.83	1.78	2.03	1.63	1.28	1.93	....	....	1.53
22	....	1.28	1.88	1.88	1.83	1.88	1.58	1.18	1.88	1.78	....	1.63
23	1.28	1.58	1.88	1.88	1.93	1.93	1.58	1.28	1.83	1.73	....	....
24	1.28	1.38	2.28	2.08	1.98	2.03	1.48	1.43	1.93	1.63	....	....
25	1.33	1.48	2.03	2.63	1.98	....	1.38	1.48	1.83	1.58	....	....
26	1.33	1.48	1.88	2.33	1.88	2.08	1.33	1.48	1.73	1.48	1.73	....
27	....	1.68	1.83	2.28	....	1.88	....	1.43	1.68	....	1.73	....
28	....	1.73	....	2.48	....	1.78	....	1.33	1.68	....	2.08	....
29	....	1.83	....	....	1.83	1.73	....	1.33	1.63	1.58	2.28	....
30	1.43	....	....	....	1.83	1.68	....	1.13	....	1.58	....	....
31	1.53	....	....	....	1.68	....	....	1.13	....	1.53	....	....

28.5.4.6.3.A (#936, p. 94; 944, p. 93; #986, p. 109). Perth Amboy Water Department test well A-2. Extremes of observed water level, in feet above mean sea level: Highest, 13.65 May 27, 1940; lowest, 3.86 Oct. 23, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 6.60; above mean sea level, June 14, 10.07.

28.5.4.6.6 (#936, p. 95; 944, p. 93; #986, p. 109). Perth Amboy Water Department test well A-3. Extremes of observed water level, in feet above mean sea level: Highest, 15.89 May 10, 1933; lowest, 5.80 Oct. 19, 1935. Water level, in feet, 1944: Below land-surface datum, June 14, 4.21; above mean sea level, June 14, 13.01.

28.5.4.6.6.A (#936, p. 96; 944, p. 93; #986, p. 109). Perth Amboy Water Department test well A-40. Extremes of observed water level: Well flowing Apr. 24, 1940; lowest, 8.89 feet above mean sea level, Oct. 29, 1939. Water level, in feet, 1944: Below land-surface datum, June 14, 2.94; above mean sea level, June 14, 14.65.

28.5.4.6.2.A (Published incorrectly in Water-Supply Papers 944 and 986 as 28.5.4.6.6.A). (#845, p. 230; 886, p. 356; 906, p. 89; 936, p. 97; 944, p. 94; 986, p. 109). Perth Amboy Water Department test well B-2. Extremes of observed water level, in feet above mean sea level: Highest, 14.49 July 29, 1938; lowest 1.08 Dec. 29, 1939. Water level, in feet, 1944: Below land-surface datum, June 14, 6.09; above mean sea level, June 14, 7.95.

28.5.4.6.2.B (#845, p. 230; 886, p. 356; 906, p. 89; 936, p. 97; 944, p. 94; #986, p. 109). Perth Amboy Water Department test well B-3. Extremes in observed water level, in feet above mean sea level: Highest, 10.59 May 5, 1939; lowest, 2.11 Oct. 19, 1935. Water level in feet, 1944: Below land-surface datum, June 14, 6.74; Above mean sea level, June 14, 7.70.

28.5.4.6.5 (#845, p. 231; 886, p. 356; 906, p. 89; 936, p. 97; 944, p. 94; #986, p. 109). Perth Amboy Water Department test well B-4. Extremes of observed water level, in feet above mean sea level: Highest, 11.54 May 22, 1937; lowest, 5.08 Oct. 24, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 3.60; above mean sea level, June 14, 10.29.

28.5.4.5.9 (\*936, p. 97; 944, p. 94; \*986, p. 109). Perth Amboy Water Department test well B-5. Extremes of observed water level, in feet above mean sea level: Highest, 9.50 Apr. 29, 1937; lowest 6.20 Oct. 27, 1941 (published incorrectly in Water-Supply Paper 986 as 6.30). No measurements made in 1944.

28.5.4.3.7 (\*845, p. 231; 886, p. 357; 906, p. 90; 936, p. 98; 944, p. 94; \*986, p. 109). Perth Amboy Water Department test well C-1. Extremes of observed water level, in feet above mean sea level: Highest, 7.30 Mar. 29, 1938; lowest, 2.43 Jan. 27, 1940. Water level, in feet, 1944: Below land-surface datum, June 14, 7.86; above mean sea level, June 14, 4.32.

28.5.4.3.6 (\*845, p. 233; 886, p. 357; 906, p. 90; 936, p. 99; 944, p. 94; \*986, p. 109). Perth Amboy Water Department test well D-1. Extremes of observed water level, in feet above mean sea level: Highest, 12.29 July 29, 1938; lowest 5.19 Nov. 13, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 7.55; above mean sea level, June 13, 9.13.

28.5.4.3.2 (\*845, p. 233; 886, p. 357; 906, p. 91; 936, p. 100; 944, p. 94; \*986, p. 109). Perth Amboy Water Department test well D-2. Extremes of observed water level, in feet above mean sea level: Highest, 14.34 July 29, 1938 (published incorrectly in Water-Supply Paper 986 as 14.39); lowest, 7.91 Nov. 13, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 4.50; above mean sea level, June 13, 11.44.

29.1.4.5.2 (\*845, p. 213; 886, p. 362; 906, p. 96; 936, p. 101; 944, p. 94; \*986, p. 110). H. C. Perrine Farm well F-2. Extremes of observed water level, in feet above mean sea level: Highest, 22.9 Mar. 27, 1936; lowest, 14.59 Sept. 24, 1932, and Oct. 27, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 3.35; above mean sea level, June 13, 20.41.

29.1.4.3.9 (\*817, p. 186; 840, p. 251; \*845, p. 214; 886, p. 362; 906, p. 96; 936, p. 101; 944, p. 94; \*986, p. 110). Clyde Rowne Farm well F-3. Extremes of observed water level, in feet above mean sea level: Highest, 31.91 June 17, 1939; lowest, 24.07 Nov. 24, 1942. Water level, in feet, 1944: Below land-surface datum, June 12, 39.99; above mean sea level, June 12, 29.65.

29.1.5.1.4 (\*845, p. 215; 886, p. 363; 906, p. 96; 936, p. 101; 944, p. 94; \*986, p. 110). A. R. Brown Farm well F-4. Extremes of observed water level, in feet above mean sea level: Highest, 29.47 July 12, 1939; lowest, 22.89 Mar. 11, 1932. Water level, in feet, 1944: Below land-surface, June 12, 44.22; above mean sea level, June 12, 23.97.

29.1.5.1.9 (\*845, p. 215; 886, p. 363; 906, p. 96; 936, p. 101; 944, p. 94; 986, p. 110). A. Hanley Farm well F-5. Extremes of observed water level, in feet above mean sea level: Highest, 105.73 Jan. 24, 1934; lowest, 97.69 Sept. 24, 1932. Water level, in feet, 1944: Below land-surface datum, June 12, 4.61; above mean sea level, June 12, 101.9.

29.1.5.6.3 (\*845, p. 216; 886, p. 363; 906, p. 96; 936, p. 101; 944, p. 95; \*986, p. 110). Owner unknown. Farm well F-9. Extremes of observed water level, in feet above mean sea level: Highest, 106.79 Apr. 15, 1932; lowest, 98.43 Oct. 27, 1941. Water level, in feet, 1944: Below land-surface datum, June 12, 2.95; above mean sea level, June 12, 105.01.

29.1.5.6.3.A (\*845, p. 217; 886, p. 363; 906, p. 96; 936, p. 102; 944, p. 95; \*986, p. 110). Maude Lamberton. Farm well F-10. Measurement for July 1943 published incorrectly in Water-Supply Paper 986 as 5.43; correct measurement is 4.43. Extremes of observed water level, in feet above mean sea level: Highest, 126.71 Mar. 27, 1936; lowest 119.12 Oct. 27, 1941. Water level, in feet, 1944: Below land-surface datum, June 12, 3.13; above mean sea level, June 12, 124.25.

29.1.5.4.6 (\*845, p. 218; 886, p. 363; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 110). Charles Schnuck. Farm well F-11. Extremes of observed water level, in feet above mean sea level: Highest, 33.94 Apr. 18, 1941; lowest, 22.75 Mar. 11, 1932. Water level, in feet, 1944: Below land-surface datum, June 12, 18.42; above mean sea level, June 12, 26.26.

29.1.5.4.8 (\*845, p. 218; 886, p. 363; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 110). George Burlew. Farm well F-12. Extremes of observed water level, in feet above mean sea level: Highest, 34.98 May 4, 1939; lowest, well dry on several days in 1932. Water level, in feet, 1944: Below land-surface datum, June 12, 25.36; above mean sea level, June 12, 27.10.

29.1.5.4.8.A (\*845, p. 219; 886, p. 363; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 110). George Burlew. Farm well F-13. Extremes of observed water level, in feet above mean sea level: Highest, 46.54 Sept. 17, 1934 (published incorrectly in Water-Supply Paper 944 as Sept. 7, 1934); lowest 41.54 June 19, 1925. No measurements made in 1944.

29.1.5.7.2 (\*817, p. 187; 840, p. 251; \*845, p. 220; 886, p. 363; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 110). William Jurman. Farm well F-14. Extremes of observed water level, in feet above mean sea level: Highest, 38.94 July 27, 1939; well dry Oct. 21, 1925 and Nov. 13, 1931. Water level, in feet, 1944: Below land-surface datum, June 12, 8.01; above mean sea level, June 12, 33.73.

29.1.5.7.5.A (\*845, p. 220; 886, p. 364; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 110). Amos Burlew. Farm well F-16. Extremes of observed water level, in feet above mean sea level: Highest, 89.34 Mar. 17, 1939; lowest 82.92 Aug. 10, 1936. Water level, in feet, 1944: Below land-surface datum, June 12, 3.62; above mean sea level, June 12, 87.42.

29.1.4.7.6 (\*845, p. 221; 886, p. 364; 906, p. 97; 936, p. 102; 944, p. 95; 986, p. 111). A. Fredda. Farm well F-20. Extremes of observed water level, in feet above mean sea level: Highest, 36.62 Apr. 11, 1939; lowest, 28.54 Sept. 24, 1932. Water level, in feet, 1944: Below land-surface datum, June 12, 11.02; above mean sea level, June 12, 34.10.

29.1.4.9.8 (\*845, p. 222; 886, p. 364; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 111). Mrs. A. Green. Farm well F-21. Measurement for July 1943 published incorrectly in Water-Supply Paper 986 as 5.31; correct measurement as 5.67. Extremes of observed water level, in feet above mean sea level: Highest, 66.47 Sept. 17, 1934; lowest 59.78 July 19, 1935. Water level, in feet, 1944: Below land-surface datum, June 12, 4.07; above mean sea level, June 12, 64.33.

29.1.7.3.5 (\*845, p. 222; 886, p. 364; 906, p. 97; 936, p. 102; 944, p. 95; \*986, p. 111). Reuben Miller. Farm well F-22. Extremes of observed water level, in feet above mean sea level: Highest, 88.76 Sept. 17, 1934; lowest, 76.19 Oct. 20, 1932. Water level, in feet, 1944: Below land-surface datum, June 12, 6.11; above mean sea level, June 12, 84.10.

29.11.1.2.5 (\*845, p. 224; 886, p. 364; 906, p. 98; 936, p. 103; 944, p. 95; \*986, p. 111). Ambrose Green. Farm well F-26. Extremes of observed water level, in feet above mean sea level: Highest, 88.10 Apr. 11, 1939; lowest, 82.51 Sept. 18, 1925. Water level, in feet, 1944: Below land-surface datum, June 12, 14.80; above mean sea level, June 12, 85.96.

29.11.1.2.5.A (\*845, p. 225; 886, p. 364; 906, p. 98; 936, p. 103; 944, p. 95; \*986, p. 111). Mrs. J. Green. Farm well F-27. Extremes of observed water level, in feet above mean sea level: Highest 88.38 Aug. 5, 1939; lowest, 82.33 Aug. 11, 1925 (published incorrectly in Water-Supply Paper 986 as 32.33). Water level, in feet, 1944: Below land-surface datum, June 12, 16.07; above mean sea level, June 12, 85.76.

29.1.1.7.8 (\*845, p. 234; 886, p. 365; 906, p. 98; 936, p. 103; 944, p. 96; \*986, p. 111). Perth Amboy Water Department test well G-1. Extremes of observed water level, in feet above mean sea level: Highest, 23.79 May 10, 1933; lowest, 17.43 Oct. 27, 1941 (published incorrectly in Water-Supply Paper 944 as 17.43). Water level, in feet, 1944: Below land-surface datum, June 14, 5.14; above mean sea level, June 14, 20.20.

29.1.1.7.8.A (\*845, p. 345; 886, p. 365; 906, p. 99; 936, p. 103; 944, p. 96; \*986, p. 111). Perth Amboy Water Department test well G-2. Extremes of observed water level, in feet above mean sea level: Highest, 25.45 Nov. 17, 1934; lowest, 20.84, Oct. 27, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 4.05; above mean sea level, June 14, 23.40.



29.1.1.7.9 (\*845, p. 235; 886, p. 365; 906, p. 99; 936, p. 103; 944, p. 96; \*986, p. 111). Perth Amboy Water Department test well G-3. Extremes of observed water level, in feet above mean sea level: Highest, 28.43 June 12, 1937; lowest, 24.51 Jan. 7, 1942. Water level, in feet, 1944: Below land-surface datum, June 14, 2.62; above mean sea level, June 14, 26.76.

29.1.1.8.4 (\*845, p. 235; 886, p. 365; 906, p. 99; 936, p. 103; 944, p. 96; \*986, p. 111). Perth Amboy Water Department test well G-4. Extremes of observed water level, in feet above mean sea level: Highest, 31.91 May 23, 1938; lowest, 27.0 Jan. 7, 1942. Water level, in feet, 1944: Below land-surface datum, June 14, 21.05; above mean sea level, June 14, 29.66.

29.1.1.7.9.A (\*936, p. 103; 944, p. 96; \*986, p. 111). Perth Amboy Water Department test well G-20. Extremes of observed water level, in feet above mean sea level: Highest, 25.94 Dec. 20, 1938, Feb. 14, 1939; lowest, 20.58 Oct. 27, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 4.05; above mean sea level, June 14, 27.49.

29.1.4.2.4 (\*936, p. 104; 944, p. 96; \*986, p. 112). Test well H-1. Owner unknown. Measurement for July 17, 1943, incorrectly published in Water-Supply Paper 986 as 12.34 feet below land-surface datum; correct measurement is 12.42. Extremes of observed water level, in feet above mean sea level: Highest, 23.45 Apr. 19, 1941; lowest, 17.75 Aug. 6, 1935. Water level, in feet, 1944: Below land-surface datum, June 14, 11.02; above mean sea level, June 14, 21.22.

29.1.4.1.4 (\*845, p. 236; 886, p. 365; 906, p. 99; 936, p. 104; 944, p. 96; \*986, p. 112). Test well J-1. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 15.61 Oct. 16, 1933; lowest, 9.10 Oct. 24, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 8.08; above mean sea level, June 13, 12.52.

29.1.4.1.6 (\*845, p. 236; \*886, p. 366; 906, p. 99; 936, p. 105; 944, p. 96; \*986, p. 112). Test well J-2. Owner unknown. Measurement on July 16, 1943, published incorrectly in Water-Supply Paper 986, as 5.71 feet below land-surface datum; correct measurement is 5.81. Extremes of observed water level, in feet above mean sea level: Highest, 16.25 Jan. 27, 1937; lowest, 11.49 Jan. 11, 1935. Water level, in feet, 1944: Below land-surface datum, June 13, 4.36; above mean sea level, June 13, 14.56.

29.1.4.2.7 (\*845, p. 237; \*886, p. 366; 906, p. 99; 936, p. 105; 944, p. 96; \*986, p. 112). Test well J-3. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 17.69 July 29, 1938; lowest, 13.23 Sept. 24, 1932. Water level, in feet, 1944: Below land-surface datum, June 13, 5.03; above mean sea level, June 13, 15.86.

29.1.4.2.7.A (\*845, p. 237; 886, p. 366; 906, p. 99; 936, p. 105; 944, p. 96; \*986, p. 112). Test well J-4. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 18.35 Sept. 18, 1934; lowest, 13.76 Oct. 24, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 4.17; above mean sea level, June 13, 16.32.

29.1.4.5.2.A (\*845, p. 238; 886, p. 366; 906, p. 99; 936, p. 105; 944, p. 96; \*986, p. 112). Test well J-5. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 23.60 Feb. 22, 1938; lowest, 13.82 July 16, 1943. Water level, in feet, 1944: Below land-surface datum, June 13, 8.67; above mean sea level, June 13, 18.78.

29.1.4.4.6 (\*936, p. 105; 944, p. 96; 986, p. 112). Perth Amboy Water Department test well K-1. Measurements discontinued.

28.5.4.5.6 (\*845, p. 238; 886, p. 366; 906, p. 100; 936, p. 105; 944, p. 97; \*986, p. 112). Perth Amboy Water Department test well L-1. Measurement for July 17, 1943, published incorrectly in Water-Supply Paper 986 as 9.85 feet below land-surface datum; correct measurement is 9.86. Extremes of observed water level, in feet above mean sea level: Highest, 7.56 Apr. 16, 1935; lowest, 2.03 July 17, 1943. Water level, in feet, 1944: Below land-surface datum, June 14, 6.27; above mean sea level, June 14, 5.62.

28.5.4.6.7.A (#845, p. 239; 886, p. 366; 906, p. 100; 936, p. 105; 944, p. 97; #986, p. 112). Perth Amboy Water Department test well L-2. Extremes of observed water level, in feet above mean sea level: Highest, 9.06 July 29, 1938; lowest, 4.82 Oct. 24, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 4.55; above mean sea level, June 14, 7.51.

28.5.4.6.7.B (#845, p. 239; 886, p. 366; 906, p. 100; 936, p. 106; 944, p. 97; #986, p. 112). Perth Amboy Water Department test well L-3. Extremes of observed water level, in feet above mean sea level: Highest, 11.51 July 29, 1938; lowest, 3.84 Sept. 30, 1937. Water level, in feet, 1944: Below land-surface datum, June 14, 4.93; above mean sea level, June 14, 9.68.

28.5.4.5.1.A (#936, p. 106; 944, p. 97; 986, p. 112). Perth Amboy Water Department test well M-1. Measurements discontinued.

28.5.4.5.1.B (#936, p. 106; 944, p. 97; #986, p. 112). Perth Amboy Water Department test well M-2. Measurements discontinued.

28.5.4.4.9.A (#936, p. 106; 944, p. 97; 986, p. 113). Perth Amboy Water Department test well N-1. Extremes of observed water level, in feet above mean sea level: well flowing June 23, 1940, and Jan. 18, 1941; lowest, 2.87 Jan. 27, 1940. Water level, in feet, 1944: Below land-surface datum, June 14, 0.72; above mean sea level, June 14, 4.59.

28.5.4.4.9.B (#936, p. 107; 944, p. 97; #986, p. 113). Perth Amboy Water Department test well N-2. Extremes of observed water level, in feet above mean sea level: Highest, 6.48 June 12, 1937; lowest, 3.65 Nov. 13, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 13.40; above mean sea level, June 14, 5.21.

28.5.4.8.1.A (#936, p. 107; 944, p. 97; #986, p. 113). Perth Amboy Water Department test well N-3. Extremes of observed water level, in feet above mean sea level: Highest, 11.18 May 10, 1933; lowest, 4.66 Nov. 13, 1941. Water level, in feet, 1944: Below land-surface datum, June 14, 13.50; above mean sea level, June 14, 6.64.

29.1.1.7.5.A (#936, p. 107; 944, p. 97; #986, p. 113). Test well P 1. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 25.15 Mar. 27, 1936; lowest, 19.90 July 17, 1943. Water level, in feet, 1944: Below land-surface datum, June 15, 6.42; above mean sea level, June 15, 21.33.

29.1.1.7.5.B (#936, p. 108; 944, p. 97; #986, p. 113). Test well P-2. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 28.72 Apr. 27, 1939; lowest, 21.59 July 17, 1943. Water level, in feet, 1944: Below land-surface datum, June 15, 4.15; above mean sea level, June 15, 27.87.

29.1.4.1.8 (#936, p. 108; 944, p. 97; 986, p. 113). Perth Amboy Water Department test well R-1. Extremes of observed water level, in feet above mean sea level: Highest, 12.16 Apr. 24, 1940; lowest, 7.22 Oct. 13, 1936. Water level, in feet, 1944: Below land-surface datum, June 14, 4.94; above mean sea level, June 14, 10.78.

29.1.4.4.2.A (#936, p. 109; 944, p. 97; #986, p. 113). Perth Amboy Water Department test well R-2. Extremes of observed water level, in feet above mean sea level: Highest, 12.16 Aug. 15, 1938; lowest, 6.39 Dec. 29, 1939. Water level, in feet, 1944: Below land-surface datum, June 14, 5.94; above mean sea level, June 14, 10.14.

29.1.4.4.1.A (#817, p. 185; 840, p. 250; #845, p. 240; #886, p. 370; 906, p. 104; 936, p. 110; 944, p. 97; #986, p. 113). Perth Amboy Water Department test well S-1. Extremes of observed water level, in feet above mean sea level: Highest, 11.46 Apr. 15, 1935; lowest, 2.80 Oct. 23, 1941. Water level, in feet, 1944: Below land-surface datum, June 13, 8.19; above mean sea level, June 13, 7.30.

28.5.1.8.4 (#886, p. 370; 906, p. 104; 936, p. 110; 944, p. 98 #986, p. 113). Sayreville Borough test well 4. Extremes of observed water level, in feet above mean sea level: Highest, 11.55 Mar. 27, 1944; lowest, 3.29 Oct. 25, 1935.

## 28.5.1.8.4. Sayreville Borough test well 4--Continued.

Lowest daily water level, in feet with reference  
to land surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-6.33	-4.58	-3.33	+3.97	+2.42	-6.23	-8.58	-10.03	-11.48	-9.23	-7.63	-1.58
2	-5.55	-3.98	-3.33	+3.77	+1.52	-6.98	-8.23	-9.73	-12.53	.....	-7.73	-.88
3	-4.63	-3.98	-2.83	+4.07	+1.02	-7.08	-8.03	-9.68	-12.68	.....	-7.73	-.28
4	-4.23	-3.88	-2.58	+4.17	-.83	-6.98	-7.88	-8.68	-10.48	.....	-8.23	+1.02
5	-4.58	-4.43	-2.43	+4.67	-3.18	-5.53	-8.08	-8.98	-11.53	-6.53	-7.88	+7.2
6	-4.58	-4.18	-1.93	+4.42	-4.83	-4.73	-9.13	-8.78	-13.33	-7.03	-7.58	.....
7	-4.78	-4.43	-2.13	+4.17	-5.48	-5.23	-10.68	-7.88	-12.63	-9.98	-7.43	+9.2
8	-4.88	-4.48	-2.33	+3.47	-5.88	-6.08	-11.08	.....	-11.13	-8.93	-7.08	+8.7
9	-4.83	-4.68	-1.43	+3.17	-4.58	-6.73	-10.48	.....	-10.63	-14.83	-7.43	+8.7
10	-4.68	-5.48	-.43	+3.52	-3.98	-6.08	-16.18	-8.23	-9.78	-14.63	-7.13	+1.02
11	-4.58	-4.83	+.27	+3.17	-4.98	-5.68	-15.23	-8.53	-10.08	-11.88	-7.68	+2.12
12	-4.78	-4.33	+1.17	+3.47	-6.03	-5.08	-13.48	-8.98	-9.58	-10.63	-7.28	.....
13	-4.93	-4.13	-4.58	+3.87	.....	-6.18	-13.08	-8.73	-9.23	-10.43	-7.13	.....
14	-5.03	-4.08	-5.03	+3.72	.....	-6.03	-11.98	-9.53	-9.43	-10.78	-7.08	+2.12
15	-5.18	-3.88	-4.23	+3.77	.....	.....	-11.33	-10.63	-14.38	-10.63	-6.73	+1.77
16	-4.78	-3.78	.....	+3.97	.....	-9.08	-11.18	-11.78	-13.88	-10.28	-7.28	+2.32
17	-3.43	-3.43	.....	+3.02	.....	-10.23	.....	-12.98	-13.88	-10.28	-7.58	+2.97
18	-4.18	-3.23	.....	+2.47	-5.43	-9.73	.....	-13.58	-12.18	-9.48	-8.18	+3.07
19	-3.98	-3.78	.....	+1.12	-5.23	.....	-9.83	-12.93	-11.38	-9.58	-7.88	.....
20	-4.13	-3.68	.....	+1.17	-4.68	.....	-9.13	-12.08	-10.53	-9.63	-7.53	.....
21	-3.93	-3.78	.....	+1.82	-4.48	-7.98	-9.48	-10.18	-10.43	-9.33	-8.13	.....
22	-4.58	-3.88	.....	+2.12	-3.73	-7.18	-9.03	-10.03	-10.18	-8.58	-7.48	.....
23	-4.33	-4.43	+4.22	+2.52	-3.68	-7.28	-8.93	-10.58	-9.68	-8.38	-6.93	.....
24	-4.93	-4.43	+4.52	+4.07	-3.78	-7.23	-11.68	-9.98	-9.13	-8.83	-6.18	+2.52
25	-4.83	-4.23	+4.62	+4.42	-3.83	-6.83	-11.03	-9.28	-8.38	-8.88	-6.98	+4.17
26	-4.78	-4.48	+4.87	+4.22	-4.33	-6.28	-10.58	-8.93	-9.73	-9.13	-6.78	.....
27	-4.88	-3.63	+5.37	+4.32	-4.98	-7.28	-10.28	-8.58	-9.83	-9.03	-6.53	.....
28	-5.03	-2.83	+4.72	+4.12	-4.58	-7.68	-9.53	-7.18	-10.13	-8.88	-4.68	.....
29	-5.88	-3.48	+5.22	+3.62	-4.48	-8.43	-9.58	-7.93	-10.23	-8.83	-3.88	.....
30	-5.33	.....	+5.02	+3.37	-4.23	-8.53	-9.98	-9.18	-9.78	-7.73	-2.18	+3.72
31	-4.43	.....	+5.17	.....	-4.53	.....	-9.28	-11.23	.....	-7.48	.....	+4.07

Lowest daily water level, in feet, with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-0.60	+1.15	+2.40	+9.70	+8.15	-0.50	-2.85	-4.30	-5.75	-7.50	-1.90	+4.15
2	+.20	+1.75	+2.40	+9.50	+7.25	-1.25	-2.50	-4.00	-6.80	.....	-2.00	+4.85
3	+1.10	+1.75	+2.90	+9.80	+6.75	-1.35	-2.30	-3.75	-6.95	.....	-2.00	+5.45
4	+1.50	+1.85	+3.15	+9.90	+4.90	-1.25	-2.15	-2.95	-4.75	.....	-2.50	+6.75
5	+1.35	+1.30	+3.30	+10.40	-2.55	+2.20	-2.35	-3.25	-5.85	-.80	-2.15	+6.45
6	+1.35	+1.55	+3.80	+10.15	+.90	+1.00	-3.40	-3.05	-7.60	-1.30	-1.85	.....
7	+.95	+1.80	+3.60	+9.90	+.25	+.50	-4.95	-2.15	-6.90	-3.25	-1.70	+6.65
8	+.85	+1.25	+3.40	+9.20	-.15	-.35	-5.35	.....	-5.40	-3.20	-1.35	+6.60
9	+.90	+1.05	+4.30	+8.90	+1.15	-1.00	-4.75	.....	-4.95	-9.10	-1.70	+6.60
10	+1.05	+.25	+5.30	+9.25	+1.75	-.35	-10.45	-2.50	-4.05	-8.90	-1.40	+6.75
11	+1.35	+.90	+6.00	+8.90	+.75	+.05	-9.50	-2.60	-4.35	-6.15	-1.95	+7.85
12	+.95	+1.40	+6.90	+9.20	-.30	+.65	-7.75	-3.25	-3.85	-4.90	-1.55	.....
13	+.89	+1.60	+1.15	+9.60	.....	-.45	-7.35	-3.00	-3.50	-4.70	-1.40	.....
14	+.70	+1.65	+.70	+9.45	.....	-.30	-6.25	-3.60	-3.70	-5.05	-1.35	+7.85
15	+.55	+1.85	+1.50	+9.50	.....	.....	-5.60	-4.90	-8.65	-4.90	-1.00	+7.60
16	+.95	+1.95	.....	+9.70	.....	-3.35	-5.45	-6.00	-8.15	-4.55	-1.55	+8.05
17	+2.30	+2.30	.....	+8.75	.....	-4.50	.....	-7.25	-8.15	-4.55	-1.85	+8.70
18	+1.55	+2.50	.....	+8.20	+.20	-4.00	.....	-7.65	-6.45	-3.75	-2.45	+8.80
19	+1.75	+1.95	.....	+6.85	+.50	.....	-4.10	-7.20	-5.65	-3.85	-2.15	.....
20	+1.60	+2.05	.....	+6.90	+1.05	.....	-3.40	-6.35	-4.80	-3.90	-1.80	.....
21	+1.80	+1.95	.....	+7.55	+1.25	-2.25	-3.75	-4.45	-4.70	-3.60	-2.40	.....
22	+1.35	+1.85	.....	+7.85	+2.00	-1.45	-3.30	-4.30	-4.45	-2.85	-1.75	.....
23	+1.40	+1.30	+9.95	+8.25	+2.05	-1.55	-3.20	-4.65	-3.95	-2.65	-1.20	.....
24	+.80	+1.30	+10.25	+9.80	+1.95	-1.50	-5.95	-4.25	-3.40	-3.10	-.45	+8.25
25	+.90	+1.60	+10.35	+10.15	+1.90	-1.10	-5.30	-3.55	-2.65	-3.15	-1.25	+9.90
26	+.95	+1.25	+10.60	+9.95	+.40	-.55	-4.85	-3.20	-4.00	-3.40	-1.05	.....
27	+.85	+2.10	+11.10	+10.05	+.75	-1.55	-4.55	-2.65	-4.10	-3.30	-.80	.....
28	+.70	+2.90	+10.45	+9.85	+1.15	-1.95	-3.80	-1.45	-4.40	-3.15	+1.05	.....
29	-.15	+2.25	+10.95	+9.35	+1.25	-2.70	-3.65	-2.20	-4.50	-3.10	+1.85	.....
30	+.40	.....	+10.75	+9.10	+1.50	-2.80	-3.25	-3.45	-4.05	-2.00	+3.55	+9.45
31	+1.30	.....	+10.90	.....	+1.20	.....	-3.55	-5.50	.....	-1.75	.....	+9.80

26.41.5.9.5 (\*845, p. 240; 886, p. 374; 906, p. 105; 936, p. 110; 944, p. 98; \*986, p. 115). South Amboy Water Department old deep well 3. Measurements discontinued.

29.24.7.1.6 (\*817, p. 176; 840, p. 243; \*845, p. 196; 886, p. 375; 906, p. 105; 936, p. 111; 944, p. 99; \*986, p. 116). Avon Water Department well 1. Extremes of observed water level, in feet below mean sea level: Highest, 4.46 Apr. 12, 1937; lowest, 132.0 Aug. 4, 1925.

Water level, in feet, 1944		
Date	Below land-surface datum	Below mean sea level
Apr. 28	45.46	17.19
Aug. 24	116	87.73
24	97.90	69.63

29.24.4.8.4 (\*817, p. 178; 840, p. 243; \*845, p. 197; 886, p. 375; 906, p. 105; 936, p. 111; 944, p. 99; \*986, p. 116). Bradley Beach 650 foot well. Monmouth Consolidated Water Co. Extremes of observed water level, in feet below mean sea level: Highest, 5.17 Apr. 17, 1935; lowest, 136.68 Aug. 27, 1925.

Water level, in feet, 1944		
Date	Below land-surface datum	Below mean sea level
Apr. 28,	32.69	16.15
Aug. 24	44.52	27.98

29.11.2.1.1 (\*845, p. 226; 886, p. 375; 906, p. 106; 936, p. 111, 944, p. 99; \*986, p. 116). Edward Huffrey. Farm well F-30. Reference cited 844, p. 99 in Water-Supply Paper 986 should read 944, p. 99. Extremes of observed water level, in feet above mean sea level: Highest, 75.85 Dec. 14, 1940; lowest, 59.93 June 28, 1929. Water level, in feet, 1944: Below land-surface datum, June 12, 13.06; above mean sea level, June 12, 63.55.

29.1.8.9.4 (\*845, p. 227; 886, p. 375; 906, p. 106; 936, p. 112; 944, p. 99; \*986, p. 116; references to previous water-supply papers, as published in Water-Supply Paper 986, should include 944, p. 99). W. Gibson (published incorrectly in Water-Supply Paper 986 as W. Gilson). Farm well F-31. Extremes of observed water level, in feet above mean sea level: Highest, 85.48 Apr. 16, 1935; lowest, 90.02 Oct. 21, 1925. Water level, in feet, 1944: Below land-surface datum, June 12, 7.27; above mean sea level, June 12, 81.65.

29.11.1.2.9 (\*817, p. 185; 840, p. 247; 845, p. 208; 886, p. 375; 906, p. 106; 936, p. 112; 944, p. 99; \*986, p. 116). Hulsart well. Rulif Hulsart (published incorrectly in Water-Supply Paper 986 as Rufus Hulsart). Measuring point beginning Sept. 8, 1939, 115.84 feet above mean sea level. Extremes of observed water level, in feet above mean sea level: Highest, 100.40 Apr. 19, 1939; lowest, 95.47 Feb. 18, 1940.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	17.23	16.76	16.70	15.47	14.28	.....	14.62	15.53	.....	15.40	.....
2	17.24	16.76	16.70	15.44	14.23	.....	14.66	15.54	.....	15.44	.....
3	17.22	16.76	16.70	15.40	14.17	.....	14.70	15.56	.....	15.47	.....
4	17.26	16.76	16.70	15.35	14.12	.....	14.70	15.57	.....	15.50	.....
5	17.24	16.76	16.70	15.33	14.08	.....	14.74	15.59	.....	15.52	.....
6	17.20	16.76	16.69	15.28	.....	.....	14.76	15.62	.....	15.55	.....
7	17.12	16.77	16.66	15.25	.....	.....	14.79	15.65	.....	15.56	.....
8	17.05	16.77	16.66	15.21	.....	.....	14.83	15.68	.....	15.60	.....
9	17.00	16.78	16.66	15.17	.....	.....	14.85	15.70	.....	15.63	.....
10	16.95	16.80	16.65	15.14	.....	.....	14.88	15.72	.....	15.65	.....
11	16.94	16.80	16.65	15.08	.....	.....	14.91	15.74	16.47	15.69	.....
12	16.91	16.80	.....	15.06	.....	.....	14.93	15.77	16.48	15.71	.....
13	16.90	16.82	.....	15.05	.....	.....	14.97	15.80	16.40	15.73	.....
14	16.86	16.80	.....	15.09	.....	.....	15.00	15.84	16.03	.....	.....

29.11.1.2.9. Hulsart well--Continued.

Water level at end of day, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
15	16.85	16.83	.....	14.97	.....	.....	15.02	15.85	15.35	.....	.....
16	16.84	16.82	.....	14.96	.....	.....	15.04	15.87	15.04	.....	.....
17	16.83	16.78	.....	14.93	.....	.....	15.08	15.89	14.95	.....	.....
18	16.82	16.77	.....	14.90	.....	.....	15.11	15.92	14.95	.....	.....
19	16.80	16.77	.....	14.87	.....	.....	15.14	15.95	14.95	.....	14.98
20	16.80	16.75	.....	14.85	.....	14.35	15.15	15.98	14.97	.....	14.93
21	16.80	16.75	.....	14.82	.....	14.40	15.20	15.98	15.00	.....	14.97
22	16.80	16.74	.....	14.80	.....	14.40	15.22	16.01	15.06	.....	14.98
23	16.78	16.73	.....	14.75	.....	14.41	15.25	16.03	15.12	.....	14.94
24	16.78	16.73	.....	14.68	.....	14.43	15.28	.....	15.15	.....	14.96
25	16.78	16.73	15.71	14.66	.....	14.47	15.30	.....	15.19	.....	14.92
26	16.78	16.72	15.68	14.61	.....	14.50	15.33	.....	15.24	.....	14.98
27	16.72	16.72	15.65	14.55	.....	14.54	15.37	.....	15.26	.....	14.89
28	16.78	16.70	15.63	14.49	.....	14.55	15.40	.....	15.29	.....	14.93
29	16.78	16.70	15.56	14.42	.....	14.57	15.43	.....	15.34	.....	14.92
30	16.77	.....	15.54	14.32	.....	14.60	15.47	.....	15.36	.....	14.91
31	16.76	.....	15.50	.....	.....	.....	15.50	.....	.....	.....	14.90

Water level at end of day, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	96.11	96.58	96.64	97.87	90.06	.....	98.72	97.81	.....	97.64	.....
2	96.10	95.58	96.64	97.90	99.11	.....	98.68	97.80	.....	97.90	.....
3	96.12	96.58	96.94	97.94	99.17	.....	98.64	97.78	.....	97.87	.....
4	96.08	96.58	96.64	97.99	99.22	.....	98.64	97.77	.....	97.84	.....
5	96.10	96.58	96.64	98.01	99.26	.....	98.60	97.75	.....	97.82	.....
6	96.14	96.58	96.65	98.06	.....	.....	98.58	97.72	.....	97.79	.....
7	96.22	95.57	96.68	98.09	.....	.....	98.55	97.69	.....	97.78	.....
8	96.29	96.57	96.68	98.13	.....	.....	98.51	97.66	.....	97.74	.....
9	96.34	96.56	96.68	96.17	.....	.....	98.49	97.64	.....	97.71	.....
10	96.39	96.54	96.69	98.20	.....	.....	98.46	97.62	.....	97.69	.....
11	96.40	96.54	96.69	98.26	.....	.....	98.43	97.60	96.87	97.45	.....
12	96.43	96.54	.....	98.28	.....	.....	98.41	97.57	96.86	97.63	.....
13	96.44	96.52	.....	98.29	.....	.....	98.37	97.54	96.94	97.61	.....
14	96.48	96.54	.....	98.30	.....	.....	98.34	97.50	97.31	.....	.....
15	96.49	96.51	.....	98.37	.....	.....	98.32	97.49	97.99	.....	.....
16	96.50	96.52	.....	98.38	.....	.....	98.30	97.47	98.30	.....	.....
17	96.51	98.56	.....	98.41	.....	.....	98.25	97.45	98.39	.....	.....
18	96.52	96.57	.....	98.44	.....	.....	98.23	97.42	98.39	.....	.....
19	96.54	96.57	.....	98.47	.....	.....	98.21	97.39	98.39	.....	98.36
20	96.54	96.59	.....	98.49	.....	98.99	98.19	97.36	98.37	.....	98.41
21	96.54	96.59	.....	98.52	.....	98.94	98.14	97.36	98.34	.....	98.37
22	96.54	96.60	.....	98.54	.....	98.94	98.12	97.33	98.28	.....	98.36
23	96.56	96.61	.....	98.59	.....	98.93	98.09	97.31	98.22	.....	98.40
24	96.56	96.61	.....	98.66	.....	98.91	98.06	.....	98.19	.....	98.58
25	96.56	96.61	97.63	98.68	.....	98.87	98.94	.....	98.15	.....	98.32
26	96.56	96.62	97.66	98.73	.....	98.84	98.01	.....	98.10	.....	98.36
27	96.56	96.62	97.69	98.79	.....	98.80	97.97	.....	98.08	.....	98.45
28	96.56	96.64	97.71	98.85	.....	98.79	97.94	.....	98.05	.....	98.41
29	96.56	96.64	97.78	97.92	.....	98.77	97.91	.....	98.00	.....	98.42
30	96.57	.....	97.80	99.02	.....	98.74	97.87	.....	97.98	.....	98.43
31	96.58	.....	97.84	.....	.....	.....	97.84	.....	.....	.....	98.44

Salem County

## Penns Grove Area

30.23.1.8.5 (\*936, p. 112; 944, p. 100; \*986, p. 118). Penns Grove observation well 6. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 3.58 Aug. 14, 1942; lowest, 6.16 Sept. 27, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	4.32	Feb. 13	4.51	Mar. 25	3.75	May 7	3.88
16	4.23	26	4.30	Apr. 9	4.07	20	4.17
29	4.18	Mar. 12	4.07	22	3.97	June 3	4.50

## 30.23.1.8.5. Penns Grove observation well 6--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	4.37	Aug. 11	4.64	Oct. 6	4.63	Dec. 1	3.85
30	4.29	25	5.20	23	4.38	14	3.97
July 14	4.61	Sept. 8	5.48	Nov. 3	4.60	27	4.48
28	5.16	22	4.52	16	4.55		

30.23.4.1.9 (\*936, p. 113; 944, p. 100; \*986, p. 118). Penns Grove observation well 7. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 2.83 Aug. 14, 1942; lowest, 7.08 Nov. 22, 1941.

Water level, in feet below land-surface datum, 1944

Jan. 1	4.30	Apr. 9	3.82	July 14	4.66	Oct. 23	5.13
16	4.00	22	3.82	28	5.13	Nov. 3	5.36
29	4.06	May 7	3.71	Aug. 11	4.57	16	5.53
Feb. 13	4.22	20	3.96	25	5.25	Dec. 1	3.94
26	4.05	June 3	4.26	Sept. 8	5.75	14	3.88
Mar. 12	3.78	17	4.57	22	4.42	27	4.09
25	3.41	30	4.09	Oct. 6	5.00		

30.22.6.6.7 (\*936, p. 113; 944, p. 101; \*986, p. 118). Penns Grove observation well 9. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 2.51 Mar. 25, 1944; lowest, 6.75 Sept. 25, 1943.

Water level, in feet below land-surface datum, 1944

Jan. 1	4.04	Apr. 9	3.04	July 14	4.75	Oct. 23	4.38
16	3.60	22	2.98	28	5.44	Nov. 3	4.74
29	3.42	May 7	2.88	Aug. 11	4.40	16	4.64
Feb. 13	3.92	20	3.48	25	5.35	Dec. 1	3.22
26	3.48	June 3	4.37	Sept. 8	6.00	14	3.19
Mar. 12	3.04	17	4.48	22	4.20	27	3.57
25	2.51	30	3.79	Oct. 6	4.73		

30.22.6.9.3 (\*936, p. 113; 944, p. 101; \*986, p. 118). Penns Grove observation well 10. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 1.63 Mar. 13, 1941; lowest, 6.89 Oct. 24, 1943.

Water level, in feet below land-surface datum, 1944

Jan. 1	3.38	Apr. 9	2.59	July 14	4.48	Oct. 23	4.47
16	3.01	22	2.41	28	5.17	Nov. 3	4.68
29	2.40	May 7	2.63	Aug. 11	4.25	16	4.60
Feb. 13	3.21	20	3.43	25	5.22	Dec. 1	2.30
26	2.66	June 3	4.04	Sept. 8	5.87	14	2.20
Mar. 12	2.27	17	4.28	22	3.98	27	2.70
25	1.86	30	3.44	Oct. 6	4.63		

30.23.4.7.8 (\*936, p. 114; 944, p. 101; \*986, p. 119). Penns Grove observation well 11. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 5.20 Dec. 11, 1940; lowest, 10.77 Feb. 12, 1942.

Water level, in feet below land-surface datum, 1944

Jan. 1	9.80	Feb. 13	9.55	Mar. 25	9.00	May 7	7.59
16	9.70	26	9.52	Apr. 9	8.40	20	7.44
27	9.62	Mar. 12	9.40	22	8.11	June 3	7.40

## 30.23.4.7.8. Penns Grove observation well 11--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	7.40	Aug. 11	7.50	Oct. 6	7.76	Dec. 1	8.46
30	7.42	25	7.54	23	7.89	14	8.49
July 14	7.43	Sept. 8	7.65	Nov. 3	8.04	27	8.48
28	7.47	22	7.71	16	8.08		

30.22.8.3.5 (#936, p. 114; 944, p. 101; #986, p. 119). Penns Grove observation well 12. New Jersey State Water Policy Commission. Extremes of observed water level, in feet with reference to land-surface: Highest, +0.80 May 7, lowest, -2.32 Oct. 11, 1941.

## Water level, in feet with reference to land-surface datum, 1944

Jan. 1	-0.73	Apr. 9	+0.33	July 14	-0.99	Oct. 23	-1.08
16	-.27	22	+.42	28	-1.17	Nov. 3	-1.10
29	-.27	May 7	+.80	Aug. 11	-.80	16	-1.00
Feb. 13	-.66	20	+.08	25	-1.32	Dec. 1	-.41
26	-.60	June 3	-.40	Sept. 8	-1.54	14	-.32
Mar. 12	0	17	-.65	22	-.83	27	-.40
25	+.69	30	-.57	Oct. 6	-.99		

30.22.9.2.1 (#936, p. 114; 944, p. 102; #986, p. 119). Penns Grove observation well 13. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface: Highest, 0.83 Mar. 13, 1941; lowest, 7.08 Oct. 24, 1943 (published incorrectly in Water-Supply Paper 986 as 6.90 Nov. 22, 1941).

## Water level, in feet below land-surface datum, 1944

Jan. 1	3.95	Apr. 9	1.64	July 14	4.26	Oct. 23	5.00
16	2.96	22	1.45	28	4.89	Nov. 3	5.27
29	2.20	May 7	1.69	Aug. 11	4.18	16	5.43
Feb. 13	3.27	20	2.95	25	5.07	Dec. 1	2.72
26	2.32	June 3	3.77	Sept. 8	5.60	14	2.05
Mar. 12	1.56	17	4.15	22	4.26	27	2.60
25	.96	30	3.13	Oct. 6	4.91		

30.22.9.6.2 (#936, p. 115; 944, p. 102; #986, p. 119). Penns Grove observation well 14. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 22.51, Mar. 13, 1941; lowest, 16.55, Oct. 24, 1943 (incorrectly published in Water-Supply Paper 986 as 16.85 on Sept. 25, 1943).

## Water level, in feet, 1944

Date	Below land surface datum	Above mean sea level
Jan. 1	6.02	19.36
16	5.17	20.21
29	4.76	20.62
Feb. 13	4.58	20.80
26	4.83	20.55
Mar. 12	3.98	21.40
25	2.94	22.44
Apr. 9	3.86	21.52
22	3.84	21.54
May 7	4.00	21.38
20	5.03	20.35
June 3	5.78	19.60
17	6.13	19.25
30	5.12	20.26
July 14	6.18	19.20
28	6.79	18.59
Aug. 11	6.00	19.38
25	6.86	18.52
Sept. 8	7.43	17.95
22	5.60	19.78
Oct. 6	6.33	19.05
23	6.55	19.03

## 30.22.9.6.2. Penns Grove observation well 14--Continued.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Nov. 3	6.65	18.73
16	6.74	18.64
Dec. 1	3.76	21.62
14	3.68	21.70
27	4.65	20.73

30.22.9.5.8 (\*936, p. 115; 944, p. 102; \*986, p. 120). Penns Grove observation well 15. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 9.43, Mar. 29, 1941; lowest, 3.15, Nov. 6, 1942.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Jan. 1	20.28	3.50
16	19.73	4.05
29	19.58	4.20
Feb. 13	19.67	4.11
26	19.65	4.13
Mar. 12	19.45	4.33
25	18.38	5.40
Apr. 9	17.05	6.73
22	16.60	7.18
May 7	15.31	8.47
20	15.42	8.36
June 3	15.88	7.90
17	16.40	7.38
30	16.63	7.15
July 14	17.02	6.76
28	17.52	6.26
Aug. 11	17.98	5.80
25	18.32	5.46
Sept. 8	18.70	5.08
22	18.93	4.85
Oct. 6	19.25	4.53
23	19.68	4.10
Nov. 3	19.95	3.83
16	20.22	3.56
Dec. 1	20.50	3.28
14	20.28	3.50
27	19.96	3.82

30.22.9.5.5 (\*936, p. 115; 944, p. 102; \*986, p. 120). Penns Grove observation well 21. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 14.87, Mar. 13, 1941; lowest, 8.24, Oct. 24, 1943.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Jan. 1	10.95	9.04
16	9.80	10.19
29	9.87	10.12
Feb. 13	10.05	9.94
26	9.87	10.12
Mar. 12	8.90	11.09
25	6.98	13.01
Apr. 9	6.76	13.23
22	6.70	13.29
May 7	5.83	14.16
20	6.75	13.24
June 3	7.53	12.46
17	8.10	11.89



30.22.9.5.5. Penns Grove observation well 21--Continued.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
June 30	8.02	11.97
July 14	8.55	11.44
28	9.12	10.87
Aug. 11	9.40	10.59
25	9.78	10.21
Sept. 8	10.32	9.77
22	10.15	9.84
Oct. 6	10.42	9.57
23	10.75	9.24
Nov. 3	10.98	9.01
16	11.19	8.80
Dec. 1	10.70	9.29
14	9.96	10.03
27	9.58	10.41

30.22.9.4.9 (\*936, p. 116; 944, p. 102; \*986, p. 121). Penns Grove observation well 22. Penns Grove Water Co. Extremes of observed water level, in feet above mean sea level: Highest, 14.92, Aug. 18, 1939; well dry on various dates in 1942, 1943, 1944.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Jan. 1	(a)	(a)
16	13.80	.58
29	14.22	.16
Feb. 13	(a)	(a)
26	(a)	(a)
Mar. 12	12.92	1.46
25	11.90	2.48
Apr. 9	11.60	2.78
22	11.38	3.00
May 7	10.55	3.83
20	11.00	3.58
June 3	11.03	3.35
17	11.37	3.01
30	12.00	2.38
July 14	13.16	1.22
28	13.57	.81
Aug. 11	13.16	1.22
25	13.79	.59
Sept. 8	(a)	(a)
22	13.28	1.10
Oct. 6	13.89	.49
23	(a)	(a)
Nov. 3	(a)	(a)
16	(a)	(a)
Dec. 1	12.54	1.84
14	13.33	1.05
27	(a)	(a)

30.22.9.7.3 (\*936, p. 117; 944, p. 103; \*986, p. 121). Penns Grove observation well 24. New Jersey State Water Policy Commission. Extremes of observed water level, in feet with reference to mean sea level: Highest, +0.52, May 22, 1944; lowest, -5.62 Nov. 30 and Dec. 3, 1942.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	22.31	20.35	18.32	17.77	18.50	.....	20.40	21.19	22.11	22.91
2	.....	22.32	20.26	18.25	17.78	18.55	.....	20.43	21.21	22.13	22.91
3	.....	22.30	20.16	18.15	17.87	18.56	.....	20.48	21.24	22.15	22.95
4	.....	22.29	21.05	18.07	17.88	18.59	.....	20.49	21.30	22.17	22.95

30.22.9.7.3. Penna Grove observation well 24--Continued.

Water level at end of day, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	22.32	20.00	18.00	17.87	18.60	.....	20.51	21.32	22.21	22.95
6	.....	22.29	19.93	17.93	17.84	18.63	19.54	20.56	21.34	22.24	22.95
7	.....	22.26	19.85	17.99	17.90	18.65	19.55	20.59	21.35	22.27	22.96
8	.....	22.25	19.79	17.89	17.94	18.70	.....	20.62	21.40	22.30	22.97
9	.....	22.21	19.72	17.86	17.95	18.74	.....	20.66	21.42	22.31	22.99
10	.....	22.17	19.67	17.83	17.95	18.77	.....	20.72	21.45	22.34	23.03
11	.....	22.14	19.59	17.80	18.01	18.79	.....	20.74	21.47	22.38	22.95
12	.....	22.09	19.52	17.76	18.04	18.80	.....	20.75	21.48	22.43	23.00
13	.....	22.05	19.51	17.70	18.08	18.85	19.86	20.77	21.48	22.44	23.02
14	.....	21.98	19.47	17.67	18.10	18.88	19.88	20.77	21.49	22.46	23.02
15	22.36	21.87	19.39	17.66	18.12	18.90	19.89	20.80	21.63	22.48	23.01
16	22.35	21.78	19.34	17.65	18.16	18.95	19.93	20.84	21.63	22.52	22.99
17	22.27	21.70	19.34	17.64	18.20	18.98	19.94	20.88	21.65	22.56	22.99
18	22.32	21.64	19.28	17.68	18.21	19.02	19.99	20.89	21.68	22.59	22.99
19	22.33	21.53	19.22	17.69	18.22	19.03	20.02	20.89	21.70	22.62	22.98
20	22.31	21.46	19.15	17.66	18.24	19.05	20.08	20.90	21.71	22.62	22.97
21	22.31	21.42	19.12	17.64	18.29	19.10	20.09	20.90	21.78	22.67	22.97
22	22.27	21.34	19.09	17.62	18.30	19.12	20.11	20.93	21.85	22.70	22.97
23	22.30	21.22	19.04	17.67	18.31	19.19	20.13	20.99	21.86	22.74	22.96
24	22.31	21.15	18.93	17.68	18.31	19.19	20.17	21.04	21.88	22.77	22.95
25	22.33	21.05	18.90	17.71	18.36	19.21	20.20	21.05	21.89	22.81	22.93
26	22.32	20.97	18.80	17.71	18.38	19.23	20.24	21.06	21.91	22.84	22.93
27	22.32	20.86	18.70	17.71	18.42	19.25	20.29	21.08	21.93	22.85	22.89
28	22.32	20.79	18.61	17.72	18.45	19.27	20.30	21.09	21.95	22.89	22.88
29	22.30	20.65	18.51	17.78	18.45	19.29	20.32	21.12	22.01	22.88	22.89
30	.....	20.55	18.39	17.78	18.46	19.35	20.35	21.15	22.05	22.89	22.89
31	.....	20.46	.....	17.77	.....	19.36	20.38	.....	22.08	.....	22.86

Water level at end of day, in feet with reference  
to mean sea level, 1944  
(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	-4.17	-2.21	-0.18	+0.37	-0.36	.....	-2.26	-3.05	-3.97	-4.77
2	.....	-4.18	-2.12	-1.11	+3.36	-4.41	.....	-2.29	-3.07	-3.99	-4.77
3	.....	-4.16	-2.02	-0.01	+2.27	-4.42	.....	-2.34	-3.10	-4.01	-4.81
4	.....	-4.15	-1.91	+0.07	+2.26	-4.45	.....	-2.35	-3.16	-4.03	-4.81
5	.....	-4.18	-1.86	+0.14	+2.27	-4.46	.....	-2.37	-3.18	-4.07	-4.81
6	.....	-4.15	-1.79	+0.21	+0.30	-4.49	-1.40	-2.42	-3.20	-4.10	-4.81
7	.....	-4.12	-1.71	+0.25	+0.24	-4.51	-1.41	-2.45	-3.21	-4.13	-4.82
8	.....	-4.11	-1.65	+0.25	+0.20	-4.56	.....	-2.48	-3.26	-4.16	-4.83
9	.....	-4.07	-1.58	+0.28	+0.19	-4.60	.....	-2.52	-3.28	-4.17	-4.85
10	.....	-4.03	-1.53	+0.31	+0.19	-4.63	.....	-2.58	-3.31	-4.20	-4.89
11	.....	-4.00	-1.45	+0.34	+0.13	-4.65	.....	-2.60	-3.33	-4.24	-4.81
12	.....	-3.95	-1.38	+0.38	+0.10	-4.66	.....	-2.61	-3.34	-4.29	-4.86
13	.....	-3.91	-1.37	+0.44	+0.06	-4.71	-1.72	-2.63	-3.34	-4.30	-4.88
14	.....	-3.84	-1.33	+0.47	+0.04	-4.74	-1.74	-2.63	-3.35	-4.32	-4.88
15	-4.22	-3.73	-1.25	+0.48	+0.02	-4.76	-1.75	-2.66	-3.49	-4.34	-4.87
16	-4.21	-3.64	-1.20	+0.49	-0.02	-4.81	-1.79	-2.70	-3.49	-4.38	-4.85
17	-4.13	-3.56	-1.20	+0.50	-0.06	-4.84	-1.80	-2.74	-3.51	-4.42	-4.85
18	-4.18	-3.50	-1.14	+0.46	-0.07	-4.88	-1.85	-2.75	-3.54	-4.45	-4.85
19	-4.19	-3.39	-1.08	+0.45	-0.08	-4.89	-1.88	-2.75	-3.56	-4.48	-4.84
20	-4.17	-3.32	-1.01	+0.48	-0.10	-4.91	-1.94	-2.76	-3.57	-4.48	-4.83
21	-4.17	-3.28	-0.98	+0.50	-0.15	-4.96	-1.95	-2.76	-3.64	-4.53	-4.83
22	-4.13	-3.20	-0.95	+0.52	-0.17	-4.98	-1.97	-2.79	-3.71	-4.56	-4.83
23	-4.16	-3.08	-0.90	+0.47	-0.17	-1.05	-1.99	-2.85	-3.72	-4.60	-4.82
24	-4.17	-3.01	-0.79	+0.46	-0.17	-1.05	-2.03	-2.90	-3.74	-4.63	-4.81
25	-4.19	-2.91	-0.76	+0.43	-0.22	-1.07	-2.06	-2.91	-3.75	-4.67	-4.79
26	-4.18	-2.83	-0.66	+0.43	-0.24	-1.09	-2.10	-2.92	-3.77	-4.70	-4.79
27	-4.18	-2.72	-0.56	+0.43	-0.28	-1.11	-2.15	-2.94	-3.79	-4.71	-4.75
28	-4.18	-2.65	-0.47	+0.42	-0.31	-1.13	-2.16	-2.95	-3.81	-4.75	-4.74
29	-4.16	-2.51	-0.37	+0.36	-0.31	-1.15	-2.18	-2.98	-3.87	-4.74	-4.75
30	.....	-2.41	-0.25	+0.36	-0.32	-1.21	-2.21	-3.01	-3.91	-4.75	-4.75
31	.....	-2.32	.....	+0.37	.....	-1.22	-2.24	.....	-3.94	.....	-4.72

30.32.2.2.3. (Incorrectly published in Water-Supply Paper 986, as 30.22.2.2.3. #936, p. 118; 944, p. 103; #986, p. 122). Penna Grove observation well 31. New Jersey State Water Policy Commission. Extremes of observed water level, in feet with reference to mean sea level: Highest, 0.26 Mar. 13, 1941; lowest, 4.23 Nov. 22, 1941, and Oct. 24, 1943.

## Water level, in feet, 1944

Date	Below land surface datum	Below mean sea level
Jan. 1	7.90	2.70
16	7.17	1.97
29	6.97	1.77
Feb. 13	7.10	1.90
26	6.75	1.55
Mar. 12	6.04	.84
25	5.20	0
Apr. 9	5.48	.28
22	5.33	.13
May 7	5.16	.04
20	5.83	.63
June 3	6.36	1.11
17	6.58	1.38
30	6.53	1.33
July 14	7.03	1.83
28	7.35	2.15
Aug. 11	7.07	1.87
25	7.53	2.33
Sept. 8	7.80	2.60
22	7.00	1.80
Oct. 6	7.28	2.08
23	7.46	2.26
Nov. 3	7.68	2.48
16	7.52	2.32
Dec. 1	6.14	.94
14	5.45	.25
27	5.53	.33

30.22.8.9.5 (#936, p. 119; 944, p. 104; #986, p. 123). Penna Grove observation well 32. New Jersey State Water Policy Commission. Extremes of observed water level, in feet with reference to mean sea level: Highest, 1.71 Mar. 25, 1944; lowest, 1.06 Nov. 22, 1941.

## Water level, in feet, 1944

Date	Below land surface datum	With reference to mean sea level
Jan. 1	4.05	-0.17
16	3.50	+.38
29	3.63	+.25
Feb. 13	3.82	+.06
26	3.58	+.30
Mar. 12	2.95	+.93
25	2.17	+1.71
Apr. 1	2.60	+1.28
22	2.58	+1.30
May 7	2.35	+1.53
20	2.83	+1.05
June 3	3.24	+.64
17	3.43	+.45
30	3.44	+.44
July 14	3.72	+.16
28	3.98	-.10
Aug. 11	3.88	0
25	4.17	-.29
Sept. 8	4.40	-.52
22	3.85	-.03
Oct. 6	4.12	-.24
23	4.16	-.28
Nov. 3	4.37	-.49
16	4.43	-.55
Dec. 1	3.35	+.53
14	3.20	+.68
27	3.51	+.37

30.22.9.8.6 (\*936, p. 119; 944, p. 104; \*986, p. 123). Penns Grove observation well 35. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level; Highest, 18.66, Nov. 29, 1940; lowest, 0.35 Oct. 9, 1942.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Jan. 1	19.17	1.44
16	18.54	2.07
29	18.44	2.17
Feb. 13	18.58	2.03
26	18.41	2.20
Mar. 12	18.08	2.53
25	17.14	3.47
Apr. 9	16.36	4.25
22	16.16	4.45
May 7	15.42	5.19
20	15.50	5.11
June 3	15.93	4.68
17	16.22	4.39
30	16.17	4.44
July 14	16.65	3.96
28	17.10	3.51
Aug. 11	17.25	3.36
25	17.70	2.91
Sept. 8	18.20	2.41
22	17.85	2.76
Oct. 6	18.10	2.51
23	18.35	2.26
Nov. 3	18.49	2.12
16	18.60	2.01
Dec. 1	18.13	2.48
14	17.64	2.97
27	17.45	3.16

30.22.9.8.4 (\*936, p. 119; 944, p. 104; \*986, p. 124). Penns Grove observation well 36. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below mean sea level; Highest, 0.76 Dec. 17, 1940; lowest, 9.39 Dec. 14, 1942.

Water level, in feet, 1944		
Jan. 1	35.10	8.69
16	34.66	8.25
29	34.27	7.86
Feb. 13	34.15	7.74
26	33.97	7.56
Mar. 12	33.81	7.40
25	33.27	6.86
Apr. 9	31.71	5.30
22	30.97	4.56
May 7	30.12	3.71
20	29.63	3.22
June 3	29.68	3.27
17	29.93	3.52
30	30.24	3.83
July 14	30.50	4.09
28	30.95	4.54
Aug. 11	31.33	4.92
25	31.72	5.31
Sept. 8	32.21	5.80
22	32.50	6.09
Oct. 6	32.72	6.31
23	33.03	6.62
Nov. 3	33.26	6.85
16	33.67	7.26
Dec. 1	34.14	7.73
14	34.28	7.87
27	34.05	7.64

30.32.2.3.3 (#936, p. 120; 944, p. 104; #986, p. 124). Penns Grove observation well 41.. New Jersey State Water Policy Commission. Measuring point is 2.1 feet above land surface ( incorrectly published in Water-Supply Paper 936 as 21 feet above land surface). Extremes of observed water level, in feet above mean sea level; Highest, 11.08 Apr. 25, 1944; lowest; 4.66 Oct. 15, 1943.

Water level at end of day, in feet with reference  
to land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.40	-1.30	-0.88	+0.36	+0.43	-1.34	-1.58	-3.43	-3.71	-2.71	-3.15	-0.83
2	-2.42	-1.34	-.93	+3.56	+3.34	-1.42	-1.69	-2.73	-3.74	-2.77	-3.15	-.93
3	-1.94	-1.33	-.92	+3.57	+2.28	-1.54	-1.77	-1.99	-3.79	-2.79	-3.20	-.95
4	-1.50	-1.34	-.92	+3.36	+2.21	-1.61	-1.86	-1.93	-3.82	-2.82	-3.21	-.99
5	-1.33	-1.40	-.95	+3.55	+1.13	-1.65	-1.96	-1.95	-3.87	-2.85	-3.27	-.99
6	-1.05	-1.37	-.87	+2.27	+0.05	-1.72	-2.03	-2.01	-3.93	-2.87	-3.30	-.99
7	-1.01	-1.43	-.21	+2.23	+1.16	-1.81	-2.10	-2.07	-3.99	-2.89	-3.34	-.99
8	-1.00	-1.48	-.14	+1.18	+0.06	-1.87	-2.20	-2.12	-3.99	-2.88	-3.37	-.91
9	1.00	-1.50	-.17	....	-.03	-1.94	-2.28	-2.20	-4.02	-2.88	-3.39	-.84
10	-1.04	-1.53	-.24	....	-.10	-1.92	-2.34	-2.34	-4.07	-2.93	-3.54	-.87
11	-1.07	-1.58	-.22	....	-.14	-1.94	-2.40	-2.43	-4.10	-2.98	-3.52	-.63
12	-1.08	-1.56	-.24	....	-.19	-2.03	-2.47	-2.52	-3.96	-3.03	-3.32	-.32
13	-1.15	....	+2.26	....	-.25	-2.11	-2.49	-2.62	-3.04	-3.05	-3.33	-.32
14	-1.19	....	+2.26	....	-.32	-1.92	-2.63	....	-2.39	-3.09	-3.33	-.35
15	-1.20	-1.20	+2.24	....	-.39	-1.75	-2.69	....	-2.16	-3.17	-3.33	-.40
16	-1.33	-1.15	+1.19	....	-.45	-1.77	-2.75	....	-2.13	-3.17	-3.34	-.41
17	-1.35	-1.05	+1.19	....	-.49	-1.88	-2.85	....	-2.13	-3.17	-3.40	-.44
18	-1.35	-1.05	+1.16	....	-.61	-1.87	-2.92	....	-2.11	-3.21	-3.42	-.48
19	-1.31	....	+1.13	....	-.65	-1.19	-2.95	....	-2.10	-3.27	-3.44	-.57
20	-1.31	....	+1.13	....	-.60	-1.12	-2.94	....	-2.08	-3.16	-3.35	-.60
21	-1.31	....	+2.24	....	-.64	-1.14	-2.89	....	-2.11	-3.01	-3.14	-.67
22	-1.29	....	+3.34	+1.17	-.73	-1.18	-2.95	....	-2.19	-3.00	-3.09	-.75
23	-1.26	....	+6.5	+1.19	-.80	-1.17	-3.02	....	-2.29	-2.98	-3.04	-.75
24	-1.29	....	+5.7	+6.8	-.79	-1.03	-3.07	....	-2.35	-2.94	-3.06	-.76
25	-1.29	....	+4.7	+8.0	-.80	-1.04	-3.12	-3.35	-2.39	-2.94	-3.06	....
26	-1.29	-.93	+3.4	+6.8	-.80	-1.12	-3.17	-3.42	-2.45	-2.98	-3.06	....
27	-1.25	-.88	+3.3	+7.9	-.85	-1.22	-3.20	-3.48	-2.50	-3.02	-2.53	....
28	-1.19	-.88	+2.0	+7.0	-.97	-1.31	-3.26	-3.53	-2.54	-3.03	-1.55	....
29	-1.19	-.84	+3.6	+6.9	-1.14	-1.40	-3.31	-3.57	-2.61	-3.11	-1.21	....
30	-1.23	....	+5.1	+5.1	-1.23	-1.47	-3.38	-3.63	-2.65	-3.15	-.95	....
31	-1.23	....	+4.3	....	-1.26	....	-3.44	-3.66	....	-3.19	....	....

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.87	8.97	9.39	10.63	10.70	8.93	8.69	6.79	6.56	7.56	7.12	9.34
2	7.85	8.93	9.34	10.63	10.61	8.85	8.58	7.54	6.53	7.50	7.12	9.34
3	8.53	8.94	9.35	10.64	10.55	8.73	8.50	8.28	6.48	7.48	7.07	9.32
4	8.77	8.93	9.35	10.63	10.48	8.66	8.41	8.34	6.45	7.45	7.06	9.28
5	8.94	8.87	9.32	10.62	10.40	8.62	8.31	8.32	6.40	7.42	7.00	9.28
6	9.22	8.90	9.40	10.64	10.32	8.55	8.24	8.26	6.34	7.40	6.97	9.28
7	9.26	8.84	10.06	10.50	10.43	8.46	8.17	8.20	6.28	7.38	6.93	9.28
8	9.27	8.79	10.13	10.45	10.33	8.40	8.07	8.15	6.28	7.39	6.90	9.46
9	9.27	8.77	10.10	....	10.24	8.33	7.99	8.07	6.25	7.39	6.88	9.43
10	9.23	8.74	10.03	....	10.17	8.35	7.93	7.93	6.20	7.34	6.92	9.40
11	9.20	8.69	10.05	....	10.13	8.33	7.87	7.84	6.17	7.29	6.94	9.64
12	9.19	8.71	10.03	....	10.08	8.24	7.80	7.75	6.31	7.22	6.95	9.95
13	9.12	....	10.53	....	10.02	8.16	7.78	7.65	7.23	7.22	6.94	9.95
14	9.08	....	10.53	....	9.95	8.35	7.64	....	7.88	7.18	6.94	9.92
15	9.07	9.07	10.51	....	9.88	8.52	7.58	....	8.11	7.10	6.94	9.87
16	8.94	9.12	10.46	....	9.82	8.50	7.52	....	8.14	7.10	6.93	9.86
17	8.92	9.22	10.46	....	9.78	8.39	7.42	....	8.14	7.10	6.87	9.83
18	8.92	9.22	10.43	....	9.66	8.40	7.35	....	8.16	7.06	6.85	9.79
19	8.96	....	10.40	....	9.62	9.08	7.32	....	8.17	7.00	6.83	9.70
20	8.96	....	10.40	....	9.67	9.15	7.33	....	8.19	7.11	6.92	9.67
21	8.96	....	10.51	....	9.63	9.13	7.38	....	8.16	7.26	7.13	9.60
22	8.98	....	10.61	10.44	9.54	9.09	7.32	....	8.08	7.27	7.18	9.52
23	9.01	....	10.92	10.46	9.47	9.10	7.25	....	7.98	7.29	7.23	9.52

## 30.32.2.3.3. Penns Grove observation well 41--Continued.

Water level at end of day, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	8.98	....	10.84	10.95	9.48	9.24	7.20	....	7.92	7.33	7.21	9.51
25	8.98	....	10.74	11.07	9.47	9.23	7.15	6.92	7.88	7.33	7.21	....
26	8.98	9.34	10.61	10.95	9.47	9.15	7.10	6.85	7.82	7.29	7.21	....
27	9.02	9.39	10.60	11.06	9.42	9.05	7.07	6.79	7.77	7.25	7.94	....
28	9.08	9.39	10.47	10.97	9.30	8.96	7.01	6.74	7.73	7.24	8.72	....
29	9.08	9.43	10.63	10.86	9.13	8.87	6.96	6.70	7.66	7.16	9.06	....
30	9.04	....	10.78	10.78	9.04	8.80	6.89	6.64	7.62	7.12	9.32	....
31	9.04	....	10.70	....	9.01	....	6.83	6.61	....	7.08	....	....

30.32.2.3.9 (\*936, p. 120; 944, p. 105; \*986, p. 125). Penns Grove observation well 51. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 10.99 Mar. 13, 1941; lowest, 3.94 Oct. 24, 1943.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 1	4.70	8.01
16	3.51	9.20
29	3.14	9.57
Feb. 13	3.71	9.00
26	2.84	9.87
Mar. 12	2.41	10.30
25	1.83	10.88
Apr. 9	2.46	10.25
22	2.31	10.40
May 7	2.82	9.89
20	3.66	9.05
June 3	4.45	8.26
17	4.76	7.95
30	4.36	8.35
July 14	5.62	7.09
28	6.25	6.46
Aug. 11	5.59	7.12
25	6.52	6.19
Sept. 8	7.13	5.58
22	5.60	7.11
Oct. 6	6.10	6.61
23	6.29	6.42
Nov. 3	6.22	6.49
16	6.20	6.51
Dec. 1	3.02	9.69
14	2.41	10.30
27	2.90	9.81

30.32.2.5.1 (\*936, p. 121; 944, p. 105; \*986, p. 126). Penns Grove observation well 52. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below mean sea level: Highest, 6.25, Dec. 27, 1944; lowest, 13.65 Feb. 12, 1942.

## Water level, in feet, 1944

Date	Below land- surface datum	Below mean sea level
Jan. 1	18.67	11.51
16	18.44	11.28
29	18.15	10.99
Feb. 13	17.84	10.68
26	17.83	10.67
Mar. 12	17.74	10.58
25	17.51	10.35
Apr. 9	17.41	10.25
22	17.20	10.04
May 7	16.68	9.52
20	16.80	9.64
June 3	16.85	9.69
17	16.90	9.74
30	16.80	9.64

## 30.32.2.5.1. Penns Grove observation well 52--Continued.

Water level, in feet, 1944		
Date	Below land- surface datum	Below mean sea level
July 14	17.00	9.84
28	17.03	9.87
Aug. 11	17.00	9.84
25	17.70	10.54
Sept. 8	17.64	10.48
22	17.50	10.34
Oct. 6	17.70	10.54
23	18.21	11.05
Nov. 3	18.45	11.29
16	17.72	10.56
Dec. 1	15.94	8.78
14	14.53	7.37
27	13.41	6.25

30.32.2.6.5 (\*936, p. 121; 944, p. 105; \*986, p. 126). Penns Grove observation well 54. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: well flowing Mar. 13, 1941; lowest, 5.63 Oct. 24, 1943.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 1	4.06	8.73
16	3.01	9.78
29	2.75	10.04
Feb. 13	3.16	9.63
26	2.65	10.14
Mar. 12	2.12	10.67
25	1.71	11.68
Apr. 9	1.86	10.93
22	1.86	10.93
May 7	2.00	10.79
20	2.83	9.96
June 3	3.65	9.14
17	3.48	9.31
30	3.64	9.15
July 14	4.28	8.51
28	4.78	8.01
Aug. 11	4.32	8.47
25	5.16	7.63
Sept. 8	5.72	7.07
22	4.30	8.49
Oct. 6	4.76	8.03
23	5.08	7.71
Nov. 3	5.05	7.74
16	5.10	7.69
Dec. 1	2.92	9.97
14	2.44	10.35
27	2.53	10.26

30.32.3.5.5 (\*936, p. 121; 944, p. 106; \*986, p. 127). Penns Grove observation well 55. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 7.22 Dec. 2, 1940, and Dec. 1, 1944; lowest, 1.93 Oct. 20 and 24, 1943.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 1	2.85	5.37
16	2.12	6.10
29	1.87	6.35
Feb. 13	2.44	5.78
26	2.02	6.20
Mar. 12	1.49	6.73
25	1.01	7.21
Apr. 9	1.60	6.62
22	1.53	6.69
May 7	1.48	6.74
20	2.26	5.96
June 3	3.08	5.14
17	3.13	5.09

## 30.32.3.5.5. Penns Grove observation well 55--Continued.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
June 30	2.87	5.35
July 14	3.90	4.32
28	4.42	3.80
Aug. 11	3.59	4.63
25	4.48	3.74
Sept. 8	5.02	3.20
22	2.73	5.49
Oct. 6	3.37	4.85
23	2.94	5.28
Nov. 3	3.30	4.92
16	3.17	5.05
Dec. 1	1.00	7.22
14	1.29	6.93
27	1.90	6.32

30.32.2.5.8 (\*936, p. 122; 944, p. 106; \*986, p. 127). Penns Grove observation well 62. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 17.84 Apr. 26, 1941; lowest, 20.90 Feb. 13, 1942.

Water level, in feet below land-surface datum						1944	
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	20.65	Apr. 9	19.56	July 14	18.85	Oct. 23	20.20
16	20.60	22	19.22	28	19.02	Nov. 3	20.28
29	20.37	May 7	18.56	Aug. 11	19.60	16	20.25
Feb. 13	20.33	20	18.28	25	19.46	Dec. 1	19.77
26	20.16	June 3	18.36	Sept. 8	19.67	14	19.20
Mar. 12	20.10	17	18.48	22	19.84	27	18.46
25	20.00	30	18.63	Oct. 6	19.98		

30.32.2.9.1 (\*936, p. 122; 944, p. 106; \*986, p. 128). Penns Grove observation well 63. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 15.33 Mar. 25, 1944; lowest, 8.09 Oct. 24, 1943.

Water level, in feet, 1944		
Date	Below land surface datum	Above mean sea level
Jan. 1	7.01	10.80
16	5.47	12.34
29	5.18	12.63
Feb. 13	5.55	12.26
26	4.74	13.07
Mar. 12	3.58	14.23
25	2.48	15.33
Apr. 9	3.17	14.64
22	3.04	14.77
May 7	3.37	14.44
20	4.56	13.25
June 3	5.52	12.29
17	6.00	11.81
30	5.86	11.95
July 14	6.80	11.01
28	7.37	10.44
Aug. 11	7.08	10.73
25	7.78	10.03
Sept. 8	8.25	9.56
22	7.19	10.62
Oct. 6	7.55	10.26
23	7.82	9.99
Nov. 3	7.86	9.95
16	7.90	9.91
Dec. 1	5.19	12.62
14	4.15	13.66
27	4.48	13.33



30.32.2.9.5 (\*936, p. 122; 944, p. 106; \*986, p. 128). Penns Grove observation well 64. New Jersey State Water Policy Commission. Extremes of observed water level, in feet with reference to mean sea level: Highest, 2.00 Mar. 13, 1941; lowest, 1.42 Sept. 25, 1943.

## Water level, in feet, 1944

Date	Below land surface datum	Above mean sea level
Jan. 1	3.57	1.45
16	3.63	1.39
29	3.31	1.71
Feb. 13	3.97	1.05
26	3.72	1.30
Mar. 12	3.47	1.55
25	3.32	1.70
Apr. 9	3.52	1.50
22	3.56	1.46
May 7	3.38	1.64
20	3.48	1.54
June 3	3.68	1.34
17	3.64	1.38
30	3.64	1.38
July 14	3.98	1.04
28	4.23	.79
Aug. 11	3.70	1.32
25	4.23	.79
Sept. 8	4.76	.26
22	3.51	1.51
Oct. 6	3.58	1.44
23	3.52	1.50
Nov. 3	4.37	.65
16	3.45	1.57
Dec. 1	3.06	1.96
14	3.71	1.31
27	3.25	1.07

30.32.6.1.6. (\*936, p. 123; 944, p. 106; \*986, p. 129). Penns Grove observation well 65. New Jersey State Water Policy Commission. Extremes of observed water level, in feet above mean sea level: Highest, 8.80 Mar. 25, 1944; lowest, 1.88 Oct. 24, 1943.

## Water level, in feet, 1944

Jan. 1	6.22	4.63
16	4.64	6.21
29	4.50	6.35
Feb. 13	4.83	6.02
26	4.15	6.70
Mar. 12	3.14	7.71
25	2.05	8.80
Apr. 9	2.57	8.28
22	2.59	8.26
May 7	2.44	8.41
20	3.52	7.33
June 3	4.45	6.40
17	4.94	5.91
30	4.79	6.06
July 14	5.86	4.99
28	6.50	4.35
Aug. 11	6.15	4.70
25	6.94	3.91
Sept. 8	7.50	3.35
22	5.80	5.05
Oct. 6	6.50	4.35
23	6.57	4.28
Nov. 3	6.67	4.18
16	6.66	4.19
Dec. 1	3.89	6.96
14	3.06	7.79
27	3.69	7.16

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30.32.1.9.5 (\*936, p. 123; 944, p. 107; \*986, p. 129). Penns Grove observation well 71. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 5.30 May 7, 1944; lowest, 10.87 Dec. 6, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.90	Apr. 9	6.02	July 14	7.55	Oct. 23	9.41
16	8.77	22	5.85	28	8.09	Nov. 3	9.63
29	8.78	May 7	5.30	Aug. 11	8.22	16	9.77
Feb. 13	8.99	20	5.90	25	8.74	Dec. 1	8.58
26	8.78	June 3	6.46	Sept. 8	10.24	14	7.84
Mar. 12	7.82	17	6.97	22	8.69	27	7.57
25	6.53	30	6.97	Oct. 6	9.11		

30.32.5.1.3 (\*936, p. 123; 944, p. 107; \*986, p. 129). Penns Grove observation well 72. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 3.36 Feb. 14, 1943; lowest, 9.13 Oct. 24, 1943.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	7.76	Apr. 9	4.20	July 14	6.84	Oct. 23	7.90
16	6.88	22	4.19	28	7.17	Nov. 3	7.96
29	6.80	May 7	4.15	Aug. 11	6.93	16	8.10
Feb. 13	7.04	20	5.11	25	7.55	Dec. 1	6.08
26	6.50	June 3	5.77	Sept. 8	7.97	14	5.26
Mar. 12	5.41	17	6.13	22	7.25	27	5.50
25	3.89	30	5.95	Oct. 6	7.63		

30.32.4.6.4 (\*936, p. 124; 944, p. 107; \*986, p. 130). Penns Grove observation well 73. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 1.16 Mar. 25, 1944; lowest, 5.52 Sept. 25, 1943.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	2.28	Apr. 9	1.46	July 14	3.60	Oct. 23	3.08
16	1.92	22	1.50	28	4.13	Nov. 3	3.24
29	1.77	May 7	1.30	Aug. 11	3.55	16	3.00
Feb. 13	2.14	20	1.88	25	4.44	Dec. 1	1.34
26	1.82	June 3	2.60	Sept. 8	5.02	14	1.48
Mar. 12	1.51	17	2.63	22	3.12	27	1.81
25	1.16	30	2.88	Oct. 6	3.50		

30.32.5.4.6 (\*936, p. 124; 944, p. 107; \*986, p. 130). Penns Grove observation well 74. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 1.17 Dec. 3, 1940; lowest, 7.87 Oct. 24, 1943.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	6.84	Apr. 9	4.80	July 14	6.29	Oct. 23	7.16
16	6.06	22	4.88	28	6.57	Nov. 3	7.19
29	6.05	May 7	4.71	Aug. 11	6.72	16	7.23
Feb. 13	6.15	20	5.05	25	6.88	Dec. 1	6.43
26	6.08	June 3	5.53	Sept. 8	7.07	14	5.58
Mar. 12	5.72	17	5.87	22	7.09	27	5.62
25	5.08	30	6.00	Oct. 6	7.10		

30.32.4.8.7 (\*936, p. 124; 944, p. 107; \*986, p. 130). Penns Grove observation well 81. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 4.20 Mar. 25, 1944; lowest, 12.36 Dec. 6, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	10.80	Apr. 9	5.47	July 14	10.12	Oct. 23	11.50
16	8.70	22	5.78	28	10.61	Nov. 3	11.50
29	8.50	May 7	5.90	Aug. 11	10.87	16	11.57
Feb. 13	8.75	20	7.57	25	11.17	Dec. 1	10.27
26	7.83	June 3	8.62	Sept. 8	11.46	14	7.57
Mar. 12	5.84	17	9.29	22	11.13	27	7.78
25	4.20	30	9.46	Oct. 6	11.14		

30.32.5.7.7 (\*936, p. 125; 944, p. 108; \*986, p. 130). Penns Grove observation well 84. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 0.03 Mar. 14, 1943; lowest, 6.70 Oct. 24, 1943.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	7.31	Apr. 9	0.57	July 14	4.50	Oct. 23	5.40
16	2.21	22	.55	28	4.90	Nov. 3	5.55
29	1.02	May 7	1.03	Aug. 11	4.70	16	5.60
Feb. 13	2.08	20	2.17	25	5.30	Dec. 1	1.98
26	.78	June 3	3.17	Sept. 8	5.76	14	.85
Mar. 12	.41	17	3.50	22	4.89	27	1.22
25	.10	30	3.70	Oct. 6	5.17		

30.31.9.6.6 (\*936, p. 125; 944, p. 108; \*986, p. 130). Penns Grove observation well 91. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 2.80 Mar. 25, 1944; lowest, 7.49 Oct. 11, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	4.94	Apr. 9	3.53	July 14	6.25	Oct. 23	5.72
16	4.27	22	3.58	28	6.67	Nov. 3	5.77
29	4.04	May 7	3.65	Aug. 11	6.24	16	5.72
Feb. 13	4.71	20	4.47	25	6.83	Dec. 1	3.14
26	4.17	June 3	5.15	Sept. 8	7.07	14	3.31
Mar. 12	3.48	17	5.48	22	5.69	27	4.19
25	2.80	30	5.76	Oct. 6	5.90		

30.32.7.6.9 (\*936, p. 125; 944, p. 108; \*986, p. 131). Penns Grove observation well 92. New Jersey State Water Policy Commission. Extremes of observed water level, in feet below land-surface datum: Highest, 2.45 Feb. 14, 1943; lowest, 11.87 Dec. 6, 1941.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	10.64	Apr. 9	3.86	July 14	9.57	Oct. 23	11.31
16	9.32	22	4.15	28	10.05	Nov. 3	11.40
29	9.30	May 7	4.09	Aug. 11	10.32	16	11.62
Feb. 13	9.36	20	6.30	25	10.64	Dec. 1	11.20
26	8.95	June 3	7.62	Sept. 8	10.93	14	10.31
Mar. 12	7.18	17	8.42	22	10.97	27	9.54
25	3.05	30	9.03	Oct. 6	11.10		

30.22.9.4.3 (\*936, p. 126; 944, p. 108; \*986, p. 131). Penns Grove observation well E-14. Logwood Inn. Extremes of observed water level, in feet above mean sea level: Highest, 16.69 May 24, 1940; lowest, 9.54 Oct. 20, 1943 (incorrectly published in Water-Supply Paper 986 as 9.82 Dec. 6, 1941).

Water level, in feet, 1944

Date	Below land surface datum	Above mean sea level
Jan. 1	10.30	10.84
29	9.15	11.99
Feb. 26	8.85	12.29
Mar. 25	6.92	14.22
Apr. 22	6.00	15.14
May 20	6.85	14.29
June 17	8.32	12.82
30	7.94	13.20
July 14	8.69	12.45
28	9.32	11.82
Aug. 11	9.62	11.52
25	9.79	11.35
Sept. 8	10.25	10.89
22	10.15	10.99
Oct. 6	10.53	10.61
23	10.56	10.58
Nov. 3	10.70	10.44
16	10.80	10.34
Dec. 14	9.02	12.12
27	8.76	12.38

\*0.22.9.5.4 (\*936, p. 126; 944, p. 108; \*986, p. 131). Penns Grove observation well E-15. George Schmid. Extremes of observed water level, in feet above mean sea level: Highest, 15.12 Apr. 23, 1940; lowest, 5.79 Nov. 7, 1943.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 1	13.53	6.38
16	12.78	7.13
29	12.64	7.27
Feb. 13	12.78	7.13
26	12.60	7.31
Mar. 12	11.98	7.93
25	10.40	9.51
Apr. 9	9.64	10.27
22	9.44	10.47
May 7	8.50	11.41
20	9.20	10.71
June 3	9.95	9.96
17	10.48	9.43
30	10.63	9.28
July 14	11.22	8.69
28	11.75	8.16
Aug. 11	12.00	7.91
25	12.39	7.52
Sept. 8	12.72	7.19
22	12.84	7.07
Oct. 6	13.04	6.87
23	13.31	6.60
Nov. 3	13.50	6.41
16	13.82	6.09
Dec. 1	13.82	6.09
14	13.14	6.77
27	12.58	7.33

30.32.2.6.4 (\*936, p. 127; 944, p. 109; \*986, p. 132). Penns Grove observation well E-16. Owner unknown. Extremes of observed water level, in feet above mean sea level: Highest, 14.85 Mar. 14, 1943; lowest, 10.21 Oct. 24, 1943.

## Water level, in feet, 1944

Jan. 1	2.80	12.25
16	2.32	12.73
29	1.62	13.43
Feb. 13	2.20	12.85
26	1.50	13.55
Mar. 12	0.77	14.28
25	.34	14.71
Apr. 9	.65	14.40
22	.61	14.44
May 7	.74	14.31
20	1.70	13.35
June 3	2.40	12.65
17	2.64	12.41
30	2.67	12.38
July 14	3.10	11.95
28	3.45	11.60
Aug. 11	3.14	11.91
25	3.63	11.42
Sept. 8	4.19	10.86
22	2.96	12.09
Oct. 6	3.35	11.70
23	3.37	11.68
Nov. 3	3.57	11.48
16	3.70	11.35
Dec. 1	1.92	13.13
14	1.38	13.67
27	1.60	13.45

30.32.9.9.8 (\*936, p. 127; 944, p. 109; \*986, p. 132). Penns Grove observation well R-5. Penns Grove Water Supply Co. Extremes of observed water level, in feet above mean sea level: Highest, 10.30 Apr. 24, 1940; lowest, 4.10 Oct. 24, 1943.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 1	3.34	6.50
16	2.60	7.24
29	2.45	7.39
Feb. 13	2.85	6.99
26	2.46	7.38
Mar. 12	1.98	7.86
25	1.25	8.59
Apr. 9	1.44	8.40
22	1.37	8.47
May 7	1.27	8.57
20	1.79	8.05
June 3	2.36	7.48
17	2.55	7.29
30	2.15	7.69
July 14	2.94	6.90
28	3.46	6.38
Aug. 11	3.38	6.46
25	3.75	6.09
Sept. 8	4.33	5.51
22	2.75	7.09
Oct. 6	3.24	6.60
23	3.19	6.65
Nov. 3	3.39	6.45
16	3.35	6.49
Dec. 1	1.85	7.99
14	1.67	8.17
27	1.98	7.86

30.23.7.1.4 (\*936, p. 128; 944, p. 109; \*986, p. 133). Penns Grove observation well R-7. Penns Grove Water Supply Co. Extremes of observed water level, in feet above mean sea level: Highest, 23.99 Mar. 25, 1944; lowest, 18.82 Oct. 20, 1943.

## Water level, in feet, 1944

Jan. 1	2.77	21.78
16	1.76	22.79
29	2.47	22.08
Feb. 13	2.23	22.32
26	2.06	22.49
Mar. 12	.85	23.70
25	.56	23.99
Apr. 9	.76	23.79
22	.83	23.72
May 7	.80	23.75
20	1.48	23.07
June 3	2.18	22.37
17	2.63	21.92
30	2.08	22.47
July 14	2.45	22.10
28	3.03	21.52
Aug. 11	2.75	21.80
25	3.04	21.51
Sept. 8	3.49	21.06
22	3.36	21.19
Oct. 6	3.05	21.50
23	3.23	21.32
Nov. 3	3.27	21.28
16	2.98	21.57
Dec. 1	1.38	23.17
14	.97	23.58
27	1.49	23.06

30.32.3.6.5 (\*936, p. 128; 944, p. 109; \*986, p. 133). Penns Grove observation well R-8. Penns Grove Water Supply Co. Extremes of observed water level, in feet above mean sea level: Highest, 6.03 Feb. 14, 1943 (incorrectly published in Water-Supply Paper 986 as 5.98 May 2, 1940); lowest, 2.09 Oct. 10, 1943.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 1	4.84	4.29
16	4.22	4.91
29	4.29	4.84
Feb. 13	4.50	4.63
26	4.28	4.85
Mar. 12	3.90	5.23
25	3.35	5.78
Apr. 9	3.45	5.68
22	3.45	5.68
May 7	3.35	5.78
20	3.88	5.25
June 3	4.28	4.85
17	4.52	4.61
30	4.31	4.82
July 14	4.95	4.18
28	5.30	3.83
Aug. 11	4.92	4.21
25	5.45	3.68
Sept. 8	5.87	3.26
22	4.60	4.53
Oct. 6	4.90	4.23
23	4.90	4.23
Nov. 3	4.95	4.18
16	4.88	4.25
Dec. 1	3.20	5.93
14	3.45	5.68
27	3.93	5.20

## NEW YORK

### CENTRAL NEW YORK

By Gordon R. Ayer

#### PROGRAM OF WORK

The periodic observation of water levels in a few wells in the central part of the State of New York, begun in connection with a study made to determine the effects of reforestation on stream flow, was continued in 1944 in cooperation with the New York State Department of Conservation. At the end of the year seven wells were under observation--four in Cortland County, two in Chenango County, and one in Delaware County.

Weekly measurements of water level in all the wells were obtained, but the records of only four of them are presented in this report. These four wells are equipped with automatic water-stage recorders, which are inspected weekly by local observers and frequently, also, between the weekly inspections, by an engineer of the Geological Survey. During the year 234 measurements were obtained in the four wells.

#### FLUCTUATIONS OF WATER LEVEL

An earlier report discusses briefly the topography and geology of the three areas in central New York in which observation wells are situated, especially as regards their effect on ground-water conditions. (See Water-Supply Paper 886, p. 468). Of the four well records included in the present report, that of Shackham Brook well 1, in Cortland County, best reflects the effect of climatologic variations on the fluctuations of water level in these areas. The year 1944 was characterized by a slightly below normal amount of precipitation in the early months, accompanied by relatively cold months of March and April, so that the spring recharge was delayed until late June and levels in wells, in general, remained somewhat below normal until that time. Beginning with July, monthly precipitation was considerably below normal, and well levels declined steadily, reaching low points for the year in late September or early October. In most cases these low points were the lowest levels reached in the wells during the

past 6 years. Heavy rainfall in the latter part of October caused levels to rise rapidly until they were about normal in all wells. Continued precipitation held levels at about normal during the remainder of the year and, as a result, an average net gain of nearly 1 foot for the year was recorded.

None of the wells is affected by pumping or by any other acts of man.

#### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

##### Chenango County

Sage Brook well 2 (\*777, p. 128; 817, p. 198; 840, p. 256; \*845, p. 302; \*886, p. 469; \*906, p. 108; \*936, p. 130; 944, p. 111, \*986, p. 135). Latitude  $42^{\circ}31'55''$ , longitude  $75^{\circ}25'30''$ . About 50 feet upstream from gaging station, 100 feet to left of Sage Brook, and about 2.5 miles west of South New Berlin. Extremes of water level, in feet below land-surface datum, 1944: Highest, 0.00 June 25; lowest (observed), 4.04 Sept. 13. Calendar-year gain, 0.55 foot (0.70-0.15 a/).

##### Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	0.84	Apr. 10	0.23	July 17	1.31	Oct. 9	.96
10	.88	17	.64	24	1.67	17	.84
17	.87	24	.22	31	1.91	23	.78
24	.90	May 1	.71	Aug. 7	2.51	31 a	.98
31	.60	8	.44	11	2.86	6	.87
Feb. 7	.69	15	.70	18 a	3.10	13	.78
14	.82	23	.07	24 a	3.40	20	.73
21	.81	29	.73	29	3.75	27	.70
28	.72	June 5	.82	Sept. 5 a	3.85	Dec. 4	.73
Mar. 6	.85	12	.88	13	4.04	11	.71
13	.81	19	.74	18	1.23	18	.76
21	.79	26	.58	25	1.10	24	.79
28	.57	July 3	.91	Oct. 2	1.28		
Apr. 3	.64	10	1.18				

a Estimate based on recorder chart and records for nearby wells.

##### Cortland County

East Homer Creek well 1 (\*845, p. 303; 886, p. 470; \*906, p. 109; \*936, p. 131; 944, p. 111; \*986, p. 136). Latitude  $42^{\circ}43'05''$ , longitude  $76^{\circ}06'50''$ . On side of hill, about 70 feet to right of creek and about 2.5 miles above gaging station, in East Homer. Extremes of water level, in feet below land-surface datum, 1944: Highest (observed), 0.37 Dec. 10; lowest, 6.07 Sept. 28. Calendar-year gain, 1.13 feet (a/2, 4.5-1.32).

##### Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.70	Apr. 2	1.35	July 2	1.83	Oct. 1	5.63
9	2.61	9	1.56	9	2.49	8	2.89
16	2.64	17	1.00	16	2.90	15	1.06
23	2.81	25	1.40	23	3.37	24	1.06
30	2.26	30	1.71	30	3.83	31 a	1.53
Feb. 7	2.01	May 7	2.20	Aug. 6	4.18	Nov. 5	1.80
14	2.11	14	1.09	13	4.57	12 a	1.80
23	2.23	21	2.21	19	4.94	19	1.18
27	2.01	28	2.08	27	5.41	26	.84
Mar. 5 a	2.00	June 4	2.34	Sept. 3	5.68	Dec. 3 a	.80
13	2.04	11	2.33	10	5.92	10	.37
20 a	1.20	18	2.27	17	5.99	17	.56
26	1.25	25	1.19	24	6.05	24	1.06

a Estimate based on recorder chart and records for nearby wells.



Shackham Brook well 1 (\*777, p. 137; 817, p. 198; 840, p. 255; \*845, p. 301; 886, p. 469; \*906, p. 108; \*936, p. 430; 944, p. 112; \*986, p. 136). Latitude 42°46'00", longitude 76°01'10". On side of hill, about 300 feet upstream from gaging station, 500 feet to left of Shackham Brook, and about 5 miles north of Truxton. Extremes of water level, in feet below land-surface datum, 1944: Highest, 0.08 Mar. 25-30; lowest, 4.81 Sept. 29-Oct. 8. Calendar-year gain, 0.10 foot (0.99-0.89).

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.02	Apr. 9	0.22	July 16	2.10	Oct. 15	3.20
9	1.13	16	.22	23	2.40	22	1.46
16	1.28	24	.24	30	2.63	29	1.50
23	1.38	30	.28	Aug. 6	2.86	Nov. 5	1.51
30	.50	May 7	.43	13	3.09	12	.95
Feb. 6	.53	14	.36	20	3.29	19	.90
13 a	.64	21	.47	27	3.66	26	.88
20	1.03	28	.57	Sept. 3	4.09	Dec. 3 a	.57
27	.52	June 4	.88	10	4.43	10	.44
Mar. 5	.55	11	1.13	17	4.68	17	.50
12	.75	18	1.21	24	4.80	24	.55
19	.09	25 a	.28	Oct. 1	4.81	31	.59
26	.08	July 2	.43	8	4.81		
Apr. 2	.14	9	1.51				

a Estimate based on recorder chart and levels for nearby wells.

Delaware County

Cold Spring Brook well 1 (\*777, p. 128; 817, p. 199; 840, p. 256; \*845, p. 302; \*886, p. 469; \*906, p. 109; \*936, p. 131; 944, p. 112; \*986, p. 136). Latitude 42°09'35", longitude 75° 23'35". On side of hill, about 150 feet to left of gaging station, about 1 mile upstream from China and 2 miles west of Upper Barbourville. Extremes of water level, in feet below land-surface datum, 1944: Highest, 1.03 Apr. 24, 25; lowest, 7.99, Oct. 14. Calendar-year gain, 2.06 feet (3.43-1.37).

Water level, in feet below land-surface datum, 1944

Jan. 2	3.81	Apr. 9	2.03	July 16	5.13	Oct. 15	7.50
9	4.56	16	1.36	23	5.69	22	2.86
16	5.30	23	1.77	30	6.01	29	4.00
23	5.85	30	2.21	Aug. 6	6.34	Nov. 5	5.30
30	2.64	May 7	3.81	13	6.56	12	3.46
Feb. 6	3.26	14	2.42	20	6.65	19	2.28
13	4.52	21	4.31	27	6.89	26	2.56
20	4.81	28	3.75	Sept. 3	7.12	Dec. 3	1.70
27	2.51	June 4	4.75	10	7.33	10	1.45
Mar. 5	4.13	11	5.21	17	8.80	17	2.50
12	5.06	18	5.63	24	7.20	24	3.51
19	2.64	25	5.35	Oct. 1	7.55	31	2.34
26	2.63	July 2	4.00	8	7.82		
Apr. 2	3.91	9	5.00				

LONG ISLAND

By M. L. Brashears, Jr.

The investigation of ground-water conditions on Long Island was continued during 1944 in cooperation with the New York State Water Power and Control Commission, the Nassau County Department of Public Works, the Suffolk County Board of Supervisors, and also the Suffolk County Water Authority. A part of the ground-water studies consisted of periodic measurements of water levels in a large number of observation wells scattered

throughout the four counties on Long Island, in the area lying west of Riverhead. During the year, observations were continued in somewhat more than 200 wells, about 20 of which were equipped with automatic water-stage recorders, and about 3,500 measurements were obtained.

On Long Island, there are a number of water-bearing beds that yield large supplies of water to wells that tap them. There are five more or less well recognized water-bearing zones. The upper and most productive consists of extensive beds of glacial outwash which in most places are not overlain with impervious material. The second zone, the Jameco gravel, also a glacial outwash deposit, is distributed only around the borders of the island and is usually covered by the Gardiners clay, an interglacial deposit. The third and fourth zones consist of widespread Cretaceous beds of supposed Magothy age. The third zone lies in the upper part of the Magothy deposits and generally consists of coarse to medium sand. In the center of the island these sands are open to the overlying glacial outwash, whereas around the borders of the island they are covered by either the Gardiners clay or the Jameco gravel. The fourth zone lies in the lower part of the Magothy beds, consists of coarse sand and gravel, and is generally overlain by beds and lenses of clay distributed within the Magothy deposits. The fifth and lowermost zone, the Lloyd sand, lies just above the bedrock floor of the island and is generally covered by beds of Raritan clay. The Lloyd sand, also of Cretaceous age, consists of beds of sand and gravel which extend throughout much of Long Island.

The shallow-lying upper glacial beds constitute a reservoir in which large quantities of water are stored and into which water derived from precipitation can readily sink. As a result, the water table in these beds responds more or less rapidly to changes in the rate of precipitation. In contrast, the deeper sands that lie beneath clay beds are under artesian pressure and are fed at a more or less constant rate by water percolating down from the overlying formations, through relatively small intake areas. The safe yield of the upper glacial beds is governed more or less by the average rate of precipitation, whereas that of the deeper sands is limited by the capacity of the beds to transmit water from the areas of intake to points of withdrawal. Because of these features the movement of water levels in wells that penetrate the deeper sands is controlled chiefly by changes in rate of withdrawal.

The relation between precipitation and the fluctuation of water levels has been discussed at considerable length by Leggette <sup>1/</sup> and by Jacob <sup>2/</sup> and the effect of ground water withdrawal on water levels in deep wells has been reported by Leggette <sup>3/</sup>.

Most of the observation wells on Long Island are screened in the upper glacial beds, from which over half of the withdrawals are taken, but a number of them penetrate the deeper beds. The observation wells that appear in the present report and which penetrate the deeper water-bearing formations are listed in the following table:

Source formations of deeper observation wells on Long Island, N. Y.		
Jameco gravel	Magothy sands	Lloyd sand
K19	N9	K1057
K533	N157	N7
Q350	N844	N67
Q1237	N1244	Q273
	N1245	Q287
	N1613	Q470
	S58	Q543
	S203	Q1222
	S2314	S202

Generally speaking, Long Island may be divided into two hydrologic provinces. At the western end of the island, excessive pumping for a number of years has lowered the water table below sea level in a large area in Kings County and adjacent parts of Queens County. At places, the bottom of the depression in the water table lies as much as 30 feet below mean sea level, with the water level in pumping wells being at an even greater depth. In the other parts of the island the perennial recharge exceeds ground-water withdrawals with the result that the water table stands above sea level except at a few places along the shore where local over-development has occurred. In the higher parts of the island the water table stands as much as 80 feet above mean sea level. In the overdeveloped area at the western end of Long Island, the water table responds more or less

<sup>1/</sup> Leggette, R. M., Section entitled "ground water recharge on Long Island" in U. S. Geol. Survey Water-Supply Paper 867, pp. 529-552, 1940. Leggette, R. M., Long Island section in U. S. Geol. Survey Water-Supply Paper 886, pp. 473-482, 1941.

<sup>2/</sup> Jacob, C. E., Correlation of ground-water levels and precipitation on Long Island: Amer. Geophys. Union Trans., pp. 564-572, 1944 and pp. 928-939, 1945.

<sup>3/</sup> Leggette, R. M., The mutual interference of artesian wells on Long Island, New York; Amer. Geophys. Union Trans., pp. 490-494, 1937.

rapidly to changes in the distribution of pumping and also the over-all rate of withdrawal, whereas in the other parts of the island the major fluctuations of the ground-water level are chiefly the result of differences in amount and distribution of precipitation.

The following tables summarize the data pertaining to ground-water levels for Long Island. The comparative data is given in terms of mean sea level only. The water-level records for 1944, however, are listed in terms of two datum planes, mean sea level (Sandy Hook) and land surface. The constant distance between the datum planes at each well is also indicated.

Summary of data on ground-water levels on Long Island, N. Y.

Well No.	Date of first measurement	Lowest observed water level with reference to mean sea level		Highest observed water level with reference to mean sea level		Water level on last date of record in 1944 (feet)
		Water level (feet)	Date	Water level (feet)	Date	
K19	Sept. 10, 1940	a-26.80	Sept. 26, 1941	a-24.00	May 9, 1944	a-24.80
K30	June 14, 1935	a-29.75	Nov. 8, 1941	a-24.34	June 14, 1935	a-27.74
K65	Nov. 8, 1937	a-28.34	Aug. 25, 1939	-24.01	Apr. 9, 1938	-25.06
K67	Nov. 8, 1937	-20.75	Oct. 11, 1941	-18.49	Mar. 26, 1938	-19.77
K92	Dec. 11, 1937	-29.69	Dec. 11, 1937	-21.29	May 3, 1941	-22.17
K97	Apr. 5, 1944	-26.58	Oct. 27, 1944	-24.77	Apr. 5, 1944	-25.56
K196	Sept. 12, 1942	-4.75	Sept. 19, 1942	-3.11	May 29, 1943	-3.57
K533	Sept. 8, 1932	a-27.89	Sept. 16, 1942	a-12.73	Dec. 20, 1932	-20.21
K539	Oct. 28, 1939	-8.28	Feb. 21, 1942	-2.34	Oct. 5, 1944	-2.50
K1057	Mar. 29, 1939	a - .79	Sept. 1, 1944	+10.15	Dec. 29, 1942	+9.93
K1198	Nov. 2, 1940	-8.45	May 14, 1942	-4.49	Oct. 5, 1944	-4.65
K1199	Nov. 16, 1940	-17.17	Jan. 1, 1944	-15.28	May 10, 1941	-15.84
K1235	Jan. 25, 1941	-10.65	June 27, 1942	-8.40	Dec. 5, 1944	-8.40
K1236	Jan. 25, 1941	-19.42	Oct. 4, 1941	-17.41	May 3, 1941	-18.11
K1237	Jan. 18, 1941	-34.68	July 31, 1944	-31.56	Apr. 12, 1941	-34.61
K1263	Apr. 21, 1933	-11.97	July 21, 1936	-7.58	Nov. 2, 1933	-10.34
K1264	Apr. 21, 1933	-15.17	July 25, 1942	-9.42	June 28, 1933	-15.12
K1265	Apr. 21, 1933	-11.55	Aug. 22, 1942	-6.34	Apr. 21, 1933	-9.12
K1266	Apr. 21, 1933	-7.49	June 27, 1942	-2.02	Apr. 21, 1933	-5.08
K1296	Sept. 6, 1941	-8.27	May 7, 1942	-1.10	Dec. 5, 1944	-1.10
K1347	Oct. 15, 1942	-23.72	Sept. 9, 1944	-19.92	Apr. 24, 1943	-21.41
N7	July 24, 1936	a +5.59	Sept. 11, 1944	a+12.75	Mar. 9, 1941	a +9.23
N9	July 3, 1936	+20.99	Sept. 11, 1936	+23.57	Sept. 23, 1938	21.93
N53	Jan. 21, 1934	+12.05	Feb. 17, 1940	+16.49	Apr. 15, 1939	+14.45
N67	Mar. 16, 1932	a+13.48	Aug. 15, 1937	a+18.89	Mar. 9, 1941	a+17.06
N157	Sept. 22, 1932	+75.71	May 5, 1933	a+88.84	Oct. 31, 1939	+83.93
N844	June 27, 1938	a+78.87	Apr. 16, 1942	a+85.48	Aug. 5, 1939	a+83.93
N1102	Apr. 21, 1939	+57.81	July 31, 1942	+58.64	July 28, 1939	+55.25
N1103	Apr. 21, 1939	+54.06	Nov. 1, 1943	+60.46	June 30, 1939	+57.09
N1104	Apr. 21, 1939	+55.27	May 1, 1942	+61.15	June 2, 1939	+57.61
N1105	Apr. 21, 1939	+52.88	Mar. 30, 1942	+58.85	June 2, 1939	+55.02
N1107	Apr. 21, 1939	+41.64	Feb. 27, 1942	+48.21	Apr. 28, 1939	+44.58
N1108	Apr. 21, 1939	+36.94	Jan. 31, 1942	+43.62	Apr. 28, 1939	+39.93
N1109	Apr. 21, 1939	+25.28	Jan. 30, 1942	+30.04	Apr. 21, 1939	+27.95
N1110	Apr. 21, 1939	+18.68	Dec. 1, 1941	+21.05	Apr. 21, 1939	+20.45
N1111	Apr. 21, 1939	+11.95	Nov. 3, 1939	+14.67	Dec. 1, 1944	+14.04
N1112	Jan. 6, 1939	+6.84	Dec. 13, 1941	+10.17	Apr. 8, 1939	+9.51
N1126	Mar. 12, 1938	+55.27	Jan. 31, 1942	+62.21	Apr. 29, 1939	+58.68
N1132	Apr. 2, 1938	+6.06	Feb. 24, 1940	+9.77	Sept. 23, 1938	+8.49
N1140	Jan. 7, 1939	+58.32	Feb. 7, 1942	+66.09	Apr. 29, 1939	+61.14
N1147	Jan. 6, 1939	+16.62	Dec. 13, 1941	+19.72	Apr. 8, 1939	+18.16
N1160	Jan. 7, 1939	+63.37	Jan. 31, 1942	+70.90	Apr. 15, 1939	+66.30
N1167	Mar. 12, 1938	+9.63	Dec. 13, 1941	+12.92	Apr. 15, 1939	+11.38
N1185	Apr. 2, 1938	+10.50	Dec. 13, 1941	+15.39	Apr. 8, 1939	+12.09
N1198	Jan. 6, 1939	+63.46	Feb. 7, 1942	+70.49	May 6, 1939	+65.86

a Based on instrumental records.

Summary of data on ground-water levels on Long Island, N. Y.--Continued

Well No.	Date of first measurement	Lowest observed water level with reference to mean sea level		Highest observed water level with reference to mean sea level		Water level on last date of record in 1944 (feet)
		Water level (feet)	Date	Water level (feet)	Date	
N1204	Jan. 9, 1939	+5.58	Feb. 17, 1940	+12.26	Apr. 8, 1939	+7.87
N1212	Jan. 1, 1943	+83.72	Jan. 20, 1943	+86.30	Nov. 30, 1944	+85.70
N1215	May 27, 1943	+71.57	Oct. 15, 1943	+77.47	Feb. 17, 1944	+73.24
N1216	Jan. 7, 1939	+62.31	Feb. 14, 1942	+69.16	May 20, 1939	+65.40
N1222	Jan. 6, 1939	+1.27	Jan. 31, 1942	+9.67	Apr. 8, 1939	+4.37
N1232	May 27, 1943	+75.30	Dec. 16, 1943	+77.55	Sept. 28, 1944	+76.28
N1233	May 27, 1943	+68.07	Dec. 16, 1943	+71.14	June 1, 1944	+69.13
N1234	Jan. 7, 1939	+59.01	Feb. 14, 1942	+66.64	May 6, 1939	+61.87
N1240	Jan. 6, 1939	-1.08	Jan. 24, 1942	+11.29	Apr. 8, 1939	+3.69
N1244	May 31, 1940	+71.31	Oct. 30, 1942	+76.50	May 31, 1940	+73.80
N1245	Feb. 2, 1940	+75.96	Oct. 30, 1942	+82.88	Feb. 2, 1940	+78.65
N1246	May 31, 1940	+77.14	Aug. 31, 1942	+82.12	May 31, 1940	+79.26
N1247	Apr. 21, 1939	+70.52	July 31, 1942	+76.98	July 28, 1939	+72.76
N1249	Apr. 21, 1939	+50.34	Jan. 30, 1942	+58.18	Apr. 21, 1939	+53.76
N1250	Apr. 21, 1939	+45.20	Jan. 30, 1942	+49.64	Apr. 21, 1939	+46.52
N1251	Apr. 21, 1939	+35.57	Jan. 30, 1942	+40.54	Apr. 29, 1944	+38.50
N1252	Apr. 21, 1939	+22.48	Jan. 30, 1942	+26.23	Apr. 29, 1944	+25.05
N1253	Jan. 6, 1939	+11.31	Jan. 31, 1942	+16.89	Apr. 8, 1939	+14.01
N1255	May 12, 1913	+68.57	Nov. 11, 1918	+65.59	Apr. 15, 1939	+61.37
N1256	May 12, 1913	+70.30	Feb. 27, 1933	+80.97	May 20, 1939	+77.65
N1257	Aug. 17, 1932	+5.83	Dec. 13, 1941	+10.17	Apr. 8, 1939	+8.43
N1258	Oct. 8, 1931	+33.68	Dec. 28, 1931	+39.58	Apr. 8, 1939	+37.40
N1259	Feb. 5, 1909	+47.83	Jan. 24, 1933	+56.43	Apr. 29, 1939	+52.19
N1260	June 6, 1903	+16.52	Dec. 20, 1916	+23.68	Apr. 8, 1939	+20.15
N1262	Oct. 5, 1931	+32.66	Oct. 5, 1942	+36.20	Apr. 8, 1939	+34.87
N1263	Nov. 3, 1911	+46.22	Oct. 31, 1932	+54.98	Apr. 22, 1939	+50.52
N1264	Mar. 7, 1932	+2.70	Feb. 17, 1940	+9.41	Apr. 8, 1939	+4.92
N1265	Mar. 9, 1939	+2.43	Dec. 1, 1941	+4.74	Dec. 31, 1942	.....
N1269	Mar. 9, 1939	+3.52	Oct. 1, 1942	+9.57	Mar. 14, 1939	.....
N1271	Mar. 9, 1939	+1.19	Sept. 5, 1944	+3.66	Dec. 31, 1942	.....
N1273	Nov. 1, 1939	+4.34	Jan. 2, 1940	+7.38	Mar. 31, 1943	.....
N1275	Nov. 1, 1939	+1.89	Oct. 31, 1941	+4.07	Dec. 31, 1942	.....
N1278	Nov. 3, 1939	+4.87	Jan. 30, 1942	+6.97	Dec. 6, 1944	.....
N1280	Jan. 2, 1940	+2.22	Jan. 30, 1942	+10.10	Mar. 31, 1943	.....
N1282	Nov. 1, 1939	+3.34	Apr. 1, 1940	+2.58	Jan. 2, 1942	.....
N1285	Nov. 1, 1939	+2.12	Jan. 31, 1940	+4.03	Dec. 31, 1942	.....
N1288	Nov. 1, 1939	+2.21	Jan. 2, 1940	+4.35	Dec. 6, 1944	.....
N1461	Apr. 27, 1943	+74.34	Oct. 10, 1943	+76.33	June 20, 1944	+76.02
N1462	May 6, 1943	+61.41	Dec. 24, 1943	+63.78	June 16, 1944	+62.72
N1463	May 6, 1943	+36.82	Oct. 15, 1943	+40.75	May 7, 1944	+38.53
N1464	May 18, 1943	+13.13	Nov. 21, 1944	+17.59	Apr. 29, 1944	+14.94
N1613	July 3, 1936	+21.73	Dec. 6, 1941	+24.38	Apr. 15, 1939	+23.70
N1614	Apr. 2, 1913	+61.90	Feb. 27, 1933	+71.03	May 1, 1914	+68.77
N1615	Mar. 17, 1913	+41.49	Oct. 27, 1932	+47.17	Mar. 28, 1939	+44.53
N1616	Mar. 17, 1913	+74.06	Feb. 27, 1933	+85.42	June 1, 1939	+81.29
N1682	Nov. 30, 1940	+41.29	Feb. 28, 1942	+44.38	June 2, 1944	+43.76
N1683	Dec. 3, 1940	+53.46	Jan. 31, 1942	+56.86	June 1, 1944	+56.67
N1684	Nov. 30, 1940	+55.33	Feb. 7, 1942	+59.81	June 1, 1944	+59.00
N1828	June 10, 1942	+58.45	July 27, 1942	+62.93	May 7, 1944	+60.67
N1829	June 10, 1942	+66.22	Oct. 15, 1943	+69.39	Sept. 15, 1944	+68.09
N1830	June 3, 1942	+49.06	June 7, 1942	+51.41	Oct. 3, 1944	+51.18
Q273	Mar. 15, 1935	+1.12	Mar. 21, 1942	+8.47	Apr. 20, 1939	+4.75
Q287	Apr. 13, 1939	+3.35	Feb. 13, 1940	+10.30	Mar. 29, 1944	+9.44
Q350	Mar. 17, 1937	-1.18	Mar. 29, 1944	+3.51	Apr. 29, 1939	+1.43
Q470	Sept. 21, 1933	+12.75	July 15, 1937	+6.78	Jan. 8, 1938	+6.69
Q471	Mar. 31, 1939	+13.69	Mar. 31, 1939	+16.91	June 24, 1944	+15.55
Q543	May 17, 1932	+28.36	Feb. 13, 1940	+11.2	Apr. 13, 1945	+9.84
Q1089	Oct. 10, 1911	-42	Oct. 17, 1932	+4.04	Sept. 28, 1938	+2.69
Q1090	Oct. 10, 1911	+1.19	Oct. 17, 1932	+8.29	May 12, 1913	+4.02
Q1222	Apr. 1, 1940	-9.19	Feb. 28, 1942	+3.52	Feb. 8, 1941	+1.81
Q1223	Jan. 28, 1933	+5.78	Dec. 12, 1936	+10.23	Apr. 4, 1939	+7.93
Q1224	Apr. 20, 1933	+6.88	July 18, 1942	+12.41	May 29, 1939	+7.95

a Based on instrumental records.

## Summary of data on ground-water levels on Long Island, N. Y.--Continued

Well No.	Date of first measurement	Lowest observed water level with reference to mean sea level		Highest observed water level with reference to mean sea level		Water level on last date of record in 1944 (feet)
		Water level (feet)	Date	Water level (feet)	Date	
Q1225	Apr. 20, 1933	+26.72	Feb. 7, 1942	+32.19	Apr. 4, 1939	+28.01
Q1237	Feb. 10, 1939	a -6.38	Mar. 1, 1942	a +5.03	May 4, 1939	a +1.44
Q1248	Oct. 12, 1940	+34.48	Feb. 14, 1942	+37.10	May 30, 1944	+36.36
Q1249	Oct. 19, 1940	+30.46	Feb. 7, 1942	+32.66	May 30, 1944	+31.83
Q1250	Oct. 19, 1940	+19.36	Feb. 7, 1942	+21.68	Mar. 29, 1941	+21.08
Q1251	Oct. 19, 1940	+9.85	Feb. 14, 1942	+13.02	Oct. 19, 1940	+11.09
Q1252	Oct. 26, 1940	+11.69	Feb. 28, 1942	+13.70	Feb. 15, 1941	+12.59
Q1253	Nov. 2, 1940	+2.32	Aug. 8, 1942	+4.58	Apr. 26, 1941	+3.20
Q1254	Oct. 26, 1940	-2.24	June 20, 1942	+2.29	Apr. 12, 1941	-1.26
Q1255	Oct. 12, 1911	-5.95	Apr. 11, 1942	+12.03	May. 12, 1944	+3.28
Q1281	Oct. 11, 1911	-3.62	Mar. 7, 1942	+8.59	June 4, 1913	-1.19
Q1282	Jan. 31, 1933	+1.17	Jan. 31, 1933	+2.49	May 10, 1941	+1.22
Q1283	Oct. 12, 1911	+2.12	Mar. 3, 1933	+13.33	Nov. 10, 1911	.....
Q1284	Oct. 12, 1911	+5.01	Jan. 28, 1933	+11.55	June 2, 1913	+6.25
Q1285	Apr. 20, 1911	+5.74	Feb. 21, 1942	+8.05	May 31, 1941	+6.58
Q1286	Apr. 20, 1933	+9.06	Aug. 1, 1942	+11.29	Apr. 26, 1941	+9.81
Q1287	Apr. 20, 1933	+11.39	Sept. 1, 1944	+15.80	Oct. 5, 1934	+13.59
Q1288	Apr. 20, 1933	+16.22	Jan. 31, 1942	+22.06	Oct. 5, 1934	+18.04
Q1289	Apr. 20, 1933	+30.10	Feb. 7, 1942	+34.56	Nov. 8, 1934	+31.75
Q1290	Apr. 20, 1933	+15.25	Jan. 31, 1942	+19.48	Oct. 5, 1934	+17.19
Q1292	May 10, 1941	+26.41	Feb. 28, 1942	+28.10	June 24, 1944	+27.51
S58	Aug. 14, 1944	22.39	Aug. 30, 1944	a+24.36	Dec. 7, 1944	+23.74
S202	May 28, 1936	a+36.93	Feb. 1, 1939	a+47.17	Apr. 10, 1937	+40.42
S203	Feb. 14, 1937	a+70.94	Feb. 17, 1937	a+77.13	Oct. 31, 1939	+72.89
S1803	Oct. 18, 1912	+14.93	Oct. 25, 1941	+18.19	Apr. 22, 1913	+16.70
S1805	Oct. 18, 1912	+37.90	Oct. 27, 1932	+47.01	Apr. 8, 1939	+42.59
S1806	Oct. 18, 1912	+50.61	Jan. 5, 1933	+61.69	Apr. 22, 1939	+55.79
S1807	Oct. 19, 1912	+20.59	Sept. 12, 1932	+23.48	Oct. 14, 1938	+22.06
S1808	Oct. 21, 1912	+9.45	Sept. 12, 1932	+12.94	Sept. 23, 1938	+11.45
S1809	Oct. 21, 1912	+25.00	Nov. 2, 1932	+32.56	Apr. 15, 1939	+28.05
S1810	Oct. 21, 1912	+45.24	Feb. 23, 1933	+56.19	Apr. 29, 1939	.....
S1811	Feb. 28, 1937	+51.41	Aug. 28, 1941	+55.56	Apr. 20, 1940	+52.51
S1812	Apr. 17, 1937	+45.12	Mar. 7, 1942	+51.09	May 27, 1939	+46.12
S1813	Nov. 4, 1939	+37.05	Jan. 31, 1942	+39.64	June 15, 1940	+37.66
S1814	Nov. 4, 1939	+35.01	Feb. 14, 1942	+38.28	June 29, 1940	+36.12
S1815	Dec. 2, 1939	+43.80	Mar. 14, 1942	+47.81	June 29, 1940	+44.49
S1816	Dec. 2, 1939	+55.01	Feb. 14, 1942	+59.93	June 1, 1940	+56.51
S1817	Dec. 2, 1939	+50.24	Jan. 17, 1942	+53.95	June 1, 1940	+51.89
S2714	Mar. 27, 1943	+58.76	Jan. 1, 1944	+60.49	May 30, 1944	+59.78
S2454	Sept. 21, 1940	+6.70	Oct. 4, 1941	+8.47	Nov. 28, 1944	+7.84
S2455	June 23, 1933	a+19.98	Nov. 6, 1937	a+24.85	Sept. 23, 1938	+22.36
S3112	Aug. 30, 1941	+51.65	Feb. 7, 1942	+56.41	May 30, 1944	+54.11
S3496	Nov. 2, 1942	+46.85	Mar. 31, 1944	+48.83	Aug. 2, 1943	+47.27
S3497	Nov. 2, 1942	+46.51	Dec. 28, 1944	+48.56	Aug. 2, 1943	+46.51
S3498	Sept. 11, 1942	+43.72	Nov. 30, 1944	+45.44	June 28, 1943	+43.78
S3512	Apr. 24, 1942	+66.51	Jan. 31, 1944	+68.76	June 26, 1944	+66.98
S3513	Apr. 24, 1942	a+60.88	Dec. 22, 1944	+63.32	May 27, 1943	a+60.95
S3514	May 15, 1942	+66.09	Dec. 26, 1942	+68.18	Sept. 27, 1944	+67.42
S3515	Mar. 5, 1907	+31.47	Nov. 1, 1944	+34.64	May 8, 1907	+32.62
S3516	Mar. 5, 1907	+35.76	Dec. 2, 1909	+39.72	July 24, 1907	+37.35
S3517	Apr. 2, 1907	+11.60	Dec. 4, 1909	+13.86	Mar. 2, 1908	+13.08
S3518	Mar. 22, 1907	+30.58	Oct. 31, 1944	+33.04	May 8, 1907	+31.74
S3519	May 22, 1907	+23.69	Dec. 3, 1909	+26.69	Aug. 21, 1942	+25.78
S3521	Feb. 28, 1907	+56.13	Nov. 30, 1944	+58.44	Aug. 2, 1907	+56.74
S3522	Feb. 6, 1907	+19.11	Nov. 1, 1944	+19.99	Apr. 4, 1942	+19.71
S3523	Jan. 2, 1907	+25.73	Dec. 30, 1943	+27.96	June 8, 1907	+26.28
S3524	Mar. 8, 1907	+21.47	Dec. 30, 1943	+23.28	Apr. 6, 1908	+22.23
S3525	July 15, 1907	+25.72	Nov. 30, 1943	+28.24	June 8, 1907	+26.38
S3526	Jan. 30, 1943	+26.11	Mar. 31, 1944	+28.07	Aug. 2, 1943	+26.53
S3527	Mar. 7, 1907	+51.29	Mar. 1, 1944	+55.69	June 4, 1908	+51.43
S3529	Mar. 8, 1907	+24.07	Nov. 29, 1944	+28.07	Apr. 27, 1907	+25.49
S3530	Mar. 8, 1907	+31.68	Nov. 29, 1944	+34.78	Aug. 5, 1908	+32.19

a Based on instrumental records.

## Summary of data on ground-water levels on Long Island, N. Y.--Continued

Well No.	Date of first measurement	Lowest observed water level with reference to mean sea level		Highest observed water level with reference to mean sea level		Water level on last date of record in 1944 (feet)
		Water level (feet)	Date	Water level (feet)	Date	
S3531	Aug. 9, 1907	+9.14	Dec. 11, 1909	+10.37	May 7, 1908	+9.70
S3532	Apr. 21, 1907	+45.76	Dec. 27, 1944	+51.74	June 8, 1908	+45.76
S3533	Apr. 4, 1907	+45.06	Nov. 1, 1944	+49.49	June 8, 1908	+45.07
S3534	June 9, 1907	+26.73	Dec. 31, 1942	+31.75	June 9, 1907	.....
S3535	Aug. 13, 1907	+18.13	Dec. 31, 1942	+21.75	Aug. 13, 1908	+18.28
S3538	Jan. 11, 1908	+14.79	Nov. 30, 1942	+17.56	Aug. 19, 1908	+15.65
S3545	Mar. 12, 1907	+34.44	Dec. 30, 1943	+38.00	June 7, 1907	+35.39
S3727	July 13, 1943	+29.94	Dec. 30, 1943	+32.34	June 1, 1944	+30.93
S3728	May 28, 1943	+19.51	Dec. 30, 1943	+21.76	June 9, 1944	+20.32
S3729	Sept. 10, 1943	+27.54	Nov. 30, 1944	+28.87	Aug. 9, 1944	+27.79
S3730	Sept. 21, 1943	+33.70	Dec. 27, 1944	+35.42	June 28, 1944	+33.70
S3731	May 3, 1943	+22.52	Dec. 30, 1943	+24.68	June 9, 1944	+23.20
S3732	Oct. 5, 1943	+52.25	Nov. 29, 1944	+53.68	Oct. 5, 1943	+52.26
S3733	Aug. 2, 1943	+15.87	Dec. 30, 1943	+18.39	June 1, 1944	+17.81
S3735	Oct. 1, 1943	+64.28	May 31, 1944	+65.93	Oct. 1, 1943	+64.29
S3736	July 19, 1943	+12.75	Dec. 28, 1944	+44.75	Aug. 2, 1943	+42.75
S3737	Aug. 17, 1943	+55.59	Dec. 28, 1944	+57.13	Sept. 24, 1943	+55.59
S3738	Aug. 19, 1943	+55.21	Mar. 31, 1944	+57.12	Aug. 19, 1943	+55.27
S3739	July 20, 1943	+26.48	Dec. 30, 1943	+28.89	June 1, 1944	+27.59
S3760	Nov. 6, 1943	+24.88	Dec. 27, 1944	+25.61	Nov. 6, 1943	+24.88
S3868	June 26, 1944	+37.29	June 26, 1944	+37.80	Aug. 29, 1944	+37.43
S3869	June 22, 1944	+53.84	Dec. 27, 1944	+55.26	June 22, 1944	+53.84
S3870	June 16, 1944	+53.42	Nov. 29, 1944	+54.52	June 16, 1944	+53.48
S3871	June 15, 1944	+46.43	Dec. 27, 1944	+47.18	Aug. 29, 1944	+46.43
S3955	May 31, 1944	+52.68	May 31, 1944	+53.83	Aug. 29, 1944	+53.12
S3956	May 31, 1944	+31.22	May 31, 1944	+32.16	Sept. 28, 1944	+31.71

a Based on instrumental records.

## Net change in water level in wells on Long Island, N. Y., 1944

Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)
K19	+1.14	N1111	+0.20	N1259	+0.72	Q1248	+0.98
K30	-.23	N1112	+0.47	N1260	-.41	Q1249	+0.60
K65	+0.05	N1126	+2.20	N1262	+0.40	Q1250	+0.43
K67	-.78	N1132	+1.12	N1263	+0.79	Q1251	-.14
K92	+0.73	N1140	+1.52	N1264	-2.67	Q1252	+0.16
K196	-.19	N1147	+0.44	N1461	+1.29	Q1254	-.51
K533	+1.42	N1160	+1.80	N1462	+1.07	Q1281	-.25
K539	+0.48	N1167	+0.80	N1463	+0.68	Q1282	-.23
K1198	+0.58	N1185	+0.43	N1464	-.75	Q1284	-.72
K1199	+0.61	N1198	+1.21	N1613	+0.59	Q1285	-.21
K1235	+0.53	N1204	-3.03	N1614	+2.42	Q1286	-.23
K1236	+1.00	N1212	+1.15	N1615	+1.04	Q1288	+0.39
K1237	-.90	N1215	+1.27	N1616	+1.52	Q1289	+0.61
K1263	+0.33	N1216	+1.26	N1682	+1.23	Q1290	+0.19
K1264	-.51	N1222	-4.26	N1683	+2.13	Q1292	+0.35
K1266	+0.74	N1232	+0.98	N1684	+2.25	S202	+1.11
K1296	+0.85	N1233	+1.06	N1828	+1.20	S203	+1.30
K1347	+0.10	N1234	+0.83	N1829	+1.48	S1803	+0.77
N7	-1.50	N1240	-6.21	N1830	+1.56	S1805	+0.67
N9	+0.39	N1244	+1.66	Q273	+0.35	S1806	+1.87
N53	+0.80	N1245	+1.68	Q287	+0.73	S1807	+0.64
N67	+0.05	N1246	+1.25	Q350	+0.80	S1808	+0.69
N157	+0.40	N1247	+1.32	Q470	-2.51	S1809	+0.98
N844	+1.28	N1249	+0.82	Q471	+0.52	S1811	-.31
N1102	+0.78	N1250	+0.65	Q543	+0.64	S1812	+0.57
N1103	+1.74	N1251	+0.40	Q1089	+0.68	S1813	+0.17
N1104	+1.47	N1252	+0.21	Q1090	-.03	S1814	+0.26
N1105	+1.66	N1253	-1.07	Q1222	-.45	S1815	-.19
N1107	+1.43	N1255	+1.64	Q1223	+0.06	S1816	+0.50
N1108	+1.21	N1256	+2.20	Q1224	-.77	S1817	+0.43
N1109	+1.08	N1257	1.05	Q1225	+0.45	S2314	+0.60
N1110	+0.52	N1258	+0.31	Q1237	-.31	S2354	+0.60

Net change in water level in wells on Long Island, N. Y., 1944--Continued

Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)
S2455	+1.12	S3514	+1.05	S3522	+53	S3531	+38
S3112	+.62	S3515	+.78	S3523	+55	S3532	-.62
S3496	-.35	S3516	+.58	S3524	+.76	S3533	-.07
S3497	-.75	S3517	+.95	S3525	-.32	S3535	+0.02
S3498	-.20	S3518	+.77	S3527	-.21	S3536	-.56
S3512	+.41	S3519	+.72	S3529	+.87	S3538	+.27
S3513	-.59	S3521	+.52	S3530	+.46	S3545	+.95

Prior to 1942, water levels in Kings County had progressively declined for a number of years as the result of excessive pumping. In 1942, however, the trend of water levels was reversed and a general rise occurred (see fig. 7), particularly in the center of the overpumped area. The upward trend of the water table continued in 1944, indicating a net decline in over-all pumpage and the establishment of a more favorable relationship between ground-water recharge and withdrawal in Kings County. However, water levels are still far below sea level over a large area and salt water continues to flow inland from the bodies of sea water surrounding Kings County.

Although many of the wells are affected to a considerable degree by pumping from nearby wells, the records given in the preceding tables show, in a general way, the extent of the recovery of water levels in the past 3 years. Observations were begun in some of the wells as early as 1932. Additional wells have been installed each year since then, with about half of the wells having been installed since 1939. The first table shows that the lowest observed water level since the start of record in most of the observation wells occurred in the latter part of 1941 or the early part of 1942, indicating a continued decline even for the wells installed as early as 1932 and 1933. Further, it will be noted that the highest observed water level in wells installed prior to 1939 occurred relatively soon after measurements were begun, whereas the highest water level for a majority of the wells installed since 1939 was recorded in 1944. It will appear, therefore, that, in general, the water table has recovered to approximately its 1939 stage. The second of the preceding tables indicates equally favorable conditions. As shown, net rises ranging up to as much as 1.4 feet occurred in all but five of the wells in 1944.

Further evidence regarding the recovery is indicated by the record for well K30, a diagnostic well situated near the bottom of the water-table depression and on which a water-stage recorder has been operated since 1935.



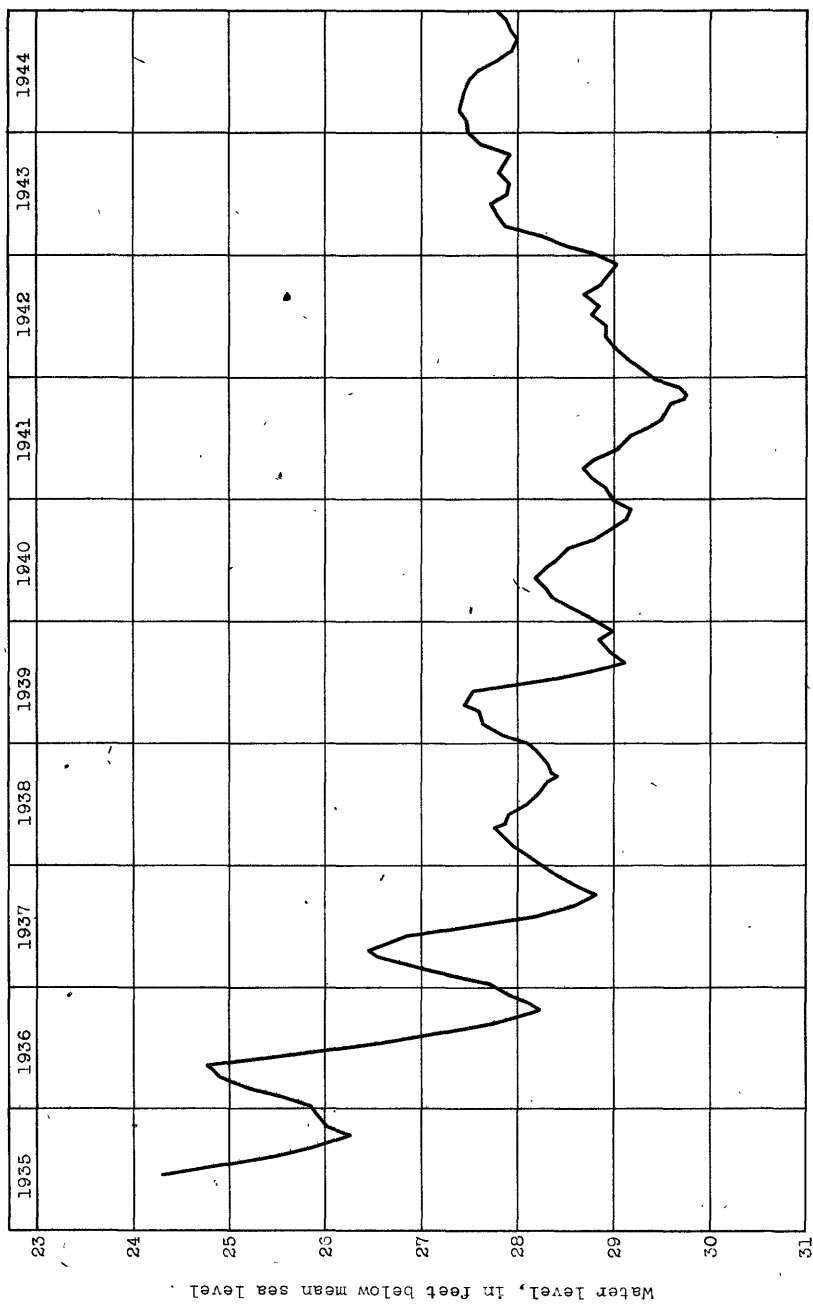


Figure 7.--Trend of water level in well K30, Brooklyn, New York.

The lowest water level for this well, 29.75 feet below mean sea level, was recorded in November 1941. (See fig. 7.) During March 1944, the water level in well K30 rose to the highest stage recorded since June 1937, having recovered more than 2 to 27.36 feet above mean sea level. Thereafter the water level in well K30 declined until September, when it again began to rise. At the end of the year the stage was about 0.2 foot lower than for the previous year but its rate of rise near the end of the year, if continued, forecasted stages in 1945 which would exceed the peak for 1944.

Except in the vicinity of heavily pumped public water-supply plants along the south shore of Queens and Nassau Counties, water levels in the remainder of Long Island trended upward as the result of above normal precipitation. In 1944 the precipitation amounted to nearly 52 inches, or about 9 inches above normal and 11 inches greater than for 1943. The distribution was uneven, most of the precipitation falling in the first 4 and last 4 months of the year. As a result, the water table rose rapidly during the early part of the year, declined just as rapidly during the middle of the year, and then recovered toward the end of 1944. However, the net movement of the water table during the year amounted to a rise of about 1 foot, an increase in ground-water storage being caused thereby.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Kings County

KLP (\*906, p. 116; 936, p. 140; 944, p. 124; 986, p. 146). Kew-Pacific Garage. Dean Street and Fifth Avenue, Brooklyn.

Mean daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	70.07	69.98	69.87	69.76	69.66	.....	70.42	.....	70.98	70.97	70.88	70.64
2	69.97	70.04	.....	69.67	69.73	.....	70.34	.....	70.98	70.94	70.90	70.61
3	69.96	69.99	69.81	69.65	69.71	69.95	70.31	.....	70.93	71.00	70.89	70.53
4	70.06	70.02	69.84	69.71	69.72	69.91	70.30	.....	70.84	71.01	70.85	70.44
5	70.08	69.98	69.78	69.74	69.77	69.84	70.29	.....	70.81	71.03	70.79	70.49
6	70.04	69.84	69.74	69.80	69.85	69.91	70.43	70.71	.....	71.02	70.73	70.50
7	70.09	69.82	69.75	69.79	69.77	69.99	70.47	70.64	.....	70.99	70.86	.....
8	70.02	69.91	69.83	69.73	69.54	70.04	70.45	70.71	.....	70.95	70.88	.....
9	69.92	69.93	.....	69.67	69.30	70.06	70.41	70.73	.....	70.96	70.86	70.49
10	69.92	69.95	.....	69.58	69.35	70.04	70.36	70.74	70.96	71.16	70.84	70.41
11	69.98	69.90	69.82	69.71	69.82	69.98	70.48	70.80	70.94	71.21	70.86	70.30
12	69.99	69.88	69.73	69.66	69.89	69.97	70.53	70.77	70.97	71.20	70.74	70.33
13	70.04	69.88	69.67	69.73	69.89	70.11	70.57	70.72	70.99	71.15	70.70	70.45
14	70.04	69.78	.....	69.76	69.84	70.14	70.58	70.73	71.01	71.05	.....	70.45
15	70.03	69.82	.....	69.72	69.80	70.13	70.56	70.82	71.11	70.94	.....	70.44
16	69.97	69.94	.....	69.67	69.88	70.16	70.48	70.87	71.08	70.81	.....	70.35
17	69.93	.....	.....	69.66	69.91	70.18	70.42	70.90	71.04	70.90	.....	70.28
18	69.99	.....	69.81	69.75	69.96	70.13	70.57	70.92	70.95	70.92	70.83	70.25
19	69.99	69.93	69.74	69.77	70.00	70.09	70.61	70.88	70.97	70.94	70.72	70.32
20	70.01	69.83	69.60	69.78	69.96	70.16	.....	70.80	71.03	70.92	70.64	70.33
21	70.03	69.82	69.77	69.81	69.87	70.21	.....	70.75	71.05	70.87	70.70	70.35
22	.....	69.84	69.82	69.80	69.81	70.26	70.59	70.88	71.10	70.87	70.76	.....
23	.....	69.89	69.73	69.67	69.95	70.28	70.55	70.91	71.09	70.81	70.66	70.24
24	.....	.....	69.79	69.59	69.97	70.26	70.53	70.94	71.00	70.86	70.62	.....
25	.....	69.93	69.79	69.70	69.99	70.21	70.65	70.95	70.94	70.87	70.68	.....
26	.....	69.87	69.71	69.75	70.00	70.19	70.70	70.92	71.00	70.88	70.59	.....
27	.....	69.77	69.65	69.74	69.95	70.34	70.74	70.84	71.01	70.92	70.50	.....
28	.....	69.73	69.78	69.78	.....	70.39	70.76	70.79	71.01	70.83	70.58	.....
29	70.00	69.80	69.78	69.78	.....	70.41	70.67	70.87	71.06	70.81	70.59	.....
30	69.96	.....	69.72	69.67	.....	70.43	70.63	70.92	71.04	70.78	70.56	70.10
31	69.91	.....	69.76	.....	.....	.....	70.61	70.97	.....	70.86	.....	.....

Mean daily water level, in feet below mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.77	24.68	24.57	24.46	24.36	.....	25.12	.....	25.68	25.67	25.58	25.34
2	24.67	24.74	.....	24.37	24.43	.....	25.04	.....	25.68	25.64	25.60	25.31
3	24.66	24.69	24.51	24.35	24.41	24.65	25.01	.....	25.63	25.70	25.59	25.23
4	24.76	24.72	24.54	24.41	24.42	24.61	25.00	.....	25.54	25.71	25.55	25.14
5	24.78	24.68	24.48	24.44	24.47	24.54	24.99	.....	25.51	25.73	25.49	25.19
6	24.74	24.54	24.44	24.50	24.55	24.61	25.18	25.41	.....	25.72	25.43	25.20
7	24.79	24.52	24.45	24.49	24.47	24.69	25.17	25.34	.....	25.69	25.56	.....
8	24.72	24.61	24.53	24.43	24.24	24.74	25.15	25.41	.....	25.65	25.58	.....
9	24.62	24.63	.....	24.37	24.00	24.76	25.11	25.43	.....	25.66	25.56	25.19
10	24.62	24.65	.....	24.28	24.05	24.74	25.06	25.44	25.66	25.86	25.54	25.11
11	24.68	24.60	24.52	24.41	24.52	24.68	25.18	25.50	25.64	25.91	25.56	25.00
12	24.69	24.58	24.43	24.36	24.59	24.67	25.23	25.47	25.67	25.90	25.44	25.03
13	24.74	24.58	24.57	24.43	24.59	24.81	25.27	25.42	25.69	25.85	25.40	25.15
14	24.74	24.48	.....	24.46	24.54	24.84	25.28	25.43	25.71	25.75	.....	25.15
15	24.73	24.52	.....	24.42	24.50	24.83	25.26	25.52	25.81	25.64	.....	25.14
16	24.67	24.64	.....	24.37	24.58	24.86	25.18	25.57	25.78	25.51	.....	25.05
17	24.63	.....	.....	24.36	24.61	24.88	25.12	25.60	25.74	25.60	.....	24.98
18	24.69	.....	24.51	24.45	24.66	24.83	25.27	25.62	25.65	25.62	25.53	24.95
19	24.69	24.63	24.44	24.47	24.70	24.79	25.31	25.58	25.67	25.64	25.42	25.02
20	24.71	24.53	24.30	24.48	24.66	24.86	.....	25.50	25.73	25.62	25.34	25.03
21	24.73	24.52	24.47	24.51	24.57	24.91	.....	25.45	25.75	25.57	25.40	25.05
22	.....	24.54	24.52	24.50	24.51	24.96	25.29	25.58	25.80	25.57	25.46	.....
23	.....	24.59	24.43	24.37	24.65	24.98	25.25	25.61	25.79	25.51	25.36	24.94
24	.....	.....	24.49	24.29	24.67	24.96	25.23	25.64	25.70	25.56	25.32	.....

## K19. Kew-Pacific Garage--Continued.

Mean daily water level, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	.....	24.63	24.49	24.40	24.69	24.91	25.35	25.65	25.64	25.57	25.38	.....
26	.....	24.57	24.41	24.45	24.70	24.89	25.40	25.62	25.70	25.58	25.29	.....
27	.....	24.47	24.35	24.44	24.65	25.04	25.44	25.54	25.71	25.62	25.20	.....
28	.....	24.43	24.48	24.48	.....	25.09	25.46	25.49	25.71	25.53	25.28	.....
29	24.70	24.50	24.48	24.48	.....	25.11	25.37	25.57	25.76	25.51	25.29	.....
30	24.66	.....	24.42	24.37	.....	25.13	25.33	25.62	25.74	25.48	25.26	24.80
31	24.61	.....	24.46	.....	.....	.....	25.31	25.67	.....	25.56	.....	.....

K30 (\*817, p. 201; \*840, p. 258; 845, p. 307; 886, p. 483; 906, p. 116; 936, p. 141; 944, p. 125; 986, p. 147). C. J. Tagliabue Manufacturing Co. Park and Nostrand Avenues, Brooklyn.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	45.30	45.24	45.20	.....	45.19	45.27	45.37	45.58	45.74	45.78	45.74	45.72
2	45.27	45.26	45.24	.....	45.21	45.30	45.39	45.59	45.75	45.74	45.76	45.75
3	45.23	45.26	45.25	.....	45.22	45.32	45.37	45.60	45.75	45.74	45.77	45.75
4	45.23	45.29	45.26	.....	45.21	45.35	45.36	45.62	45.71	45.75	45.77	45.71
5	45.27	45.30	45.24	.....	45.22	45.30	45.36	45.62	45.68	45.77	45.75	45.69
6	45.25	45.25	45.21	.....	45.24	45.28	45.39	45.62	45.70	45.78	45.72	45.69
7	45.30	45.22	45.15	.....	45.22	45.30	45.41	45.60	45.71	45.77	45.73	45.69
8	45.31	45.22	45.18	.....	45.20	45.34	45.44	45.62	45.74	45.76	45.74	45.69
9	45.31	45.24	45.22	45.27	45.20	45.35	45.45	45.63	45.76	45.73	45.76	45.72
10	45.28	45.26	45.26	45.20	45.22	45.34	45.43	45.64	45.75	45.74	45.75	45.72
11	45.28	45.26	45.28	45.23	45.23	45.32	45.44	45.65	45.72	45.75	45.77	45.67
12	45.28	45.24	45.27	45.19	45.23	45.29	45.44	45.66	45.71	45.77	45.76	45.61
13	45.30	45.27	45.21	45.22	45.20	45.28	45.46	45.63	45.73	45.78	45.72	45.66
14	45.29	45.21	45.22	45.25	45.20	45.31	45.48	45.61	45.76	45.77	45.71	45.69
15	45.30	45.19	45.22	45.25	45.18	45.31	45.50	45.62	45.77	45.80	45.72	45.71
16	45.33	45.24	45.21	45.20	45.17	45.32	45.49	45.64	45.78	45.74	45.73	45.69
17	45.29	45.23	45.21	45.19	45.19	45.34	45.46	45.59	45.78	45.72	45.77	45.68
18	45.27	45.21	45.24	45.19	45.20	45.35	45.48	45.63	45.72	45.73	45.80	45.65
19	45.27	45.28	45.26	45.20	45.24	45.30	45.50	45.68	45.71	45.74	45.79	45.63
20	45.29	45.24	45.18	45.22	45.25	45.27	45.51	45.69	45.72	45.77	45.73	45.65
21	45.32	45.19	45.20	45.24	45.26	45.30	45.52	45.63	45.74	45.74	45.70	45.66
22	45.34	45.18	45.23	45.26	45.21	45.33	45.54	45.63	45.77	45.77	45.75	45.70
23	45.27	45.16	45.21	45.25	45.24	45.33	45.52	45.65	45.78	45.72	45.77	45.67
24	45.27	45.22	45.20	45.18	45.27	45.32	45.50	45.68	45.78	45.71	45.74	45.65
25	45.27	45.25	45.23	45.17	45.30	45.32	45.49	45.71	45.73	45.71	45.74	45.61
26	45.29	45.27	.....	45.19	45.31	45.31	45.53	45.73	45.72	45.72	45.73	45.58
27	45.29	45.23	.....	45.21	45.32	45.32	45.53	45.73	45.74	45.75	45.69	45.57
28	45.30	45.21	.....	45.23	45.31	45.33	45.56	45.69	45.75	45.75	45.69	45.54
29	45.29	45.19	.....	45.25	45.29	45.34	45.57	45.67	45.77	45.73	45.70	45.57
30	45.28	.....	.....	45.23	45.29	45.36	45.59	45.70	45.78	45.71	45.66	45.55
31	45.24	.....	.....	.....	45.27	.....	45.57	45.73	.....	45.72	.....	45.53

Water level at noon, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.51	27.45	27.41	.....	27.40	27.48	27.58	27.79	27.95	27.89	27.95	27.93
2	27.48	27.47	27.45	.....	27.42	27.51	27.60	27.80	27.96	27.95	27.97	27.96
3	27.44	27.47	27.46	.....	27.43	27.53	27.58	27.81	27.96	27.95	27.98	27.96
4	27.44	27.50	27.47	.....	27.42	27.56	27.57	27.83	27.92	27.96	27.98	27.92
5	27.48	27.51	27.45	.....	27.43	27.51	27.57	27.83	27.89	27.98	27.96	27.90
6	27.46	27.46	27.42	.....	27.45	27.49	27.60	27.83	27.91	27.99	27.93	27.90
7	27.51	27.43	27.36	.....	27.43	27.51	27.62	27.81	27.92	27.98	27.94	27.90
8	27.52	27.43	27.39	.....	27.41	27.55	27.65	27.83	27.95	27.97	27.95	27.90
9	27.52	27.45	27.43	27.48	27.41	27.56	27.66	27.84	27.97	27.94	27.97	27.93
10	27.49	27.47	27.47	27.41	27.43	27.55	27.64	27.85	27.96	27.95	27.96	27.93
11	27.49	27.47	27.49	27.44	27.44	27.53	27.65	27.86	27.93	27.96	27.98	27.88
12	27.49	27.45	27.48	27.40	27.44	27.50	27.65	27.87	27.92	27.98	27.97	27.82
13	27.51	27.48	27.42	27.43	27.41	27.49	27.67	27.84	27.94	27.99	27.93	27.87
14	27.50	27.42	27.43	27.46	27.41	27.52	27.69	27.82	27.97	27.98	27.92	27.90
15	27.51	27.40	27.43	27.46	27.39	27.52	27.71	27.83	27.98	28.01	27.93	27.92

## K30. C. J. Tagliabue Manufacturing Co.--Continued.

Water level at noon, in feet below mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	27.54	27.45	27.42	27.41	27.38	27.53	27.70	27.85	27.99	27.95	27.94	27.90
17	27.50	27.44	27.42	27.40	27.40	27.55	27.67	27.80	27.99	27.93	27.98	27.89
18	27.48	27.42	27.45	27.40	27.41	27.56	27.69	27.84	27.93	27.94	28.01	27.86
19	27.48	27.49	27.47	27.41	27.45	27.51	27.71	27.89	27.92	27.95	28.00	27.84
20	27.50	27.45	27.39	27.43	27.46	27.48	27.72	27.90	27.93	27.98	27.94	27.86
21	27.53	27.40	27.41	27.45	27.47	27.51	27.73	27.84	27.95	27.95	27.91	27.87
22	27.55	27.39	27.44	27.47	27.42	27.54	27.75	27.84	27.98	27.98	27.96	27.91
23	27.48	27.37	27.42	27.46	27.45	27.54	27.73	27.86	27.99	27.93	27.98	27.88
24	27.48	27.43	27.41	27.39	27.48	27.53	27.71	27.89	27.99	27.92	27.95	27.86
25	27.48	27.46	27.44	27.38	27.51	27.53	27.70	27.92	27.94	27.92	27.95	27.82
26	27.50	27.48	.....	27.40	27.52	27.52	27.74	27.94	27.93	27.93	27.94	27.79
27	27.50	27.44	.....	27.42	27.53	27.53	27.74	27.94	27.95	27.96	27.90	27.78
28	27.51	27.42	.....	27.44	27.52	27.54	27.77	27.90	27.96	27.96	27.90	27.75
29	27.50	27.40	.....	27.46	27.50	27.55	27.78	27.88	27.98	27.94	27.91	27.78
30	27.49	.....	.....	27.44	27.50	27.57	27.80	27.91	27.99	27.92	27.87	27.76
31	27.45	.....	.....	.....	27.48	.....	27.78	27.94	.....	27.93	.....	27.74

K65 (\*840, p. 259; 845, p. 308; 886, p. 484; 906, p. 117; 936, p. 142; 944, p. 125; 986, p. 148). A. Ludwig Co. well 2. 123 Middleton Street, Brooklyn.

Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Jan. 1	42.14	24.80
29	42.00	24.66
Feb. 26	42.10	24.76
Mar. 30	41.90	24.56
May 5	42.15	24.81
June 3	42.04	24.70
July 1	42.31	24.97
31	42.48	25.14
Sept. 2	42.57	25.23
Oct. 4	42.53	25.19
28	42.46	25.12
Dec. 6	42.40	25.06

K67 (\*840, p. 259; 845, p. 308; 886, p. 484; 906, p. 117; 936, p. 143; 944, p. 126; 986, p. 148). Young Men's Christian Association. 179 Marcy Avenue, Brooklyn.

Water level, in feet, 1944

Jan. 1	65.92	18.97
29	65.82	18.87
Feb. 26	65.89	18.94
Mar. 30	65.96	19.01
May 5	66.11	19.16
27	66.12	19.17
July 5	66.19	19.24
31	66.47	19.52
Sept. 2	66.52	19.57
Oct. 4	66.34	19.39
28	66.24	19.29
Dec. 6	66.72	19.77

K92 (\*840, p. 260; 845, p. 309; 886, p. 484; 906, p. 117; 936, p. 143; 944, p. 126; 986, p. 149). St. Johns University. 75 Lewis Avenue, Brooklyn.

Water level, in feet, 1944

Jan. 1	91.98	22.93
29	91.94	22.89
Feb. 26	91.99	22.94
Apr. 1	90.76	21.71
May 5	91.17	22.12

## K92. St. Johns University--Continued.

Water level, in feet, 1944		
Date	Below land-surface datum	Below mean sea level
May 27	91.34	22.29
July 5	91.69	22.64
31	91.89	22.84
Sept. 2	92.03	22.98
Oct. 4	92.03	22.98
27	91.73	22.68
Dec. 6	91.22	22.17

K97. Colony Foods. Grand & Lexington Avenues, Brooklyn. Unused drilled industrial well, diameter 8 inches, depth 124 feet below street level. Measuring point, top of pipe, 2.0 feet below land-surface datum and 62.23 feet above mean sea level.

Water level, in feet, 1944		
Apr. 5	89.00	24.77
May 5	89.07	24.84
June 3	90.09	25.86
July 31	90.36	26.13
Sept. 2	90.56	26.33
Oct. 4	90.74	26.51
27	90.81	26.58
Dec. 6	89.79	25.56

K196 (\*986, p. 149). Knickerbocker Ice Co. well 1. Twelfth Avenue and 37th Street, Brooklyn.

Water level, in feet, 1944		
Jan. 29	73.01	3.33
Feb. 26	73.20	3.52
Mar. 30	73.27	3.59
May 5	73.17	3.49
June 8	73.13	3.45
July 5	73.22	3.54
Aug. 1	73.31	3.63
Sept. 2	73.41	3.73
Oct. 4	73.27	3.59
27	73.27	3.59
Dec. 6	73.21	3.57

K533 (\*777, p. 120; \*817, p. 200; \*840, p. 261; 845, p. 310; 886, p. 486; \*906, p. 118; 936, p. 144; 944, p. 127; 986, p. 150). New York Water Service Corporation test well. On southwest side of East 98th Street, near Rutland Road, Brooklyn.

Water level, in feet, 1944		
Jan. 1	62.70	21.32
29	62.59	21.21
Mar. 6	62.44	21.06
30	62.42	21.04
Apr. 25	62.38	21.00
June 3	62.47	21.09
July 4	62.38	21.00
31	62.53	21.15
Sept. 1	62.48	21.10
Oct. 4	62.27	20.89
28	62.19	20.81
Dec. 2	61.59	20.21

K539 (\*906, p. 120; 936, p. 146; 944, p. 128; 986, p. 151). New York City Department of Water Supply, Gas and Electricity. Atlantic Avenue and Logan Street, Brooklyn.

Water level, in feet, 1944		
Mar. 6	35.98	3.06
29	35.82	2.90
Apr. 25	35.59	2.67

K539. New York City Department of Water Supply, Gas and Electricity  
--Continued.

Water level, in feet, 1944

Date	Below land- surface datum	Below mean sea level
May 27	35.35	2.43
July 3	35.32	2.40
31	35.35	2.43
Sept. 1	35.57	2.65
Oct. 5	35.26	2.34
28	35.30	2.38
Dec. 5	35.42	2.50

K1057 (\*840, p. 260; \*845, p. 309; \*886, p. 487; 906, p. 129; \*936, p. 147; \*944, p. 129). U. S. Navy, Floyd Bennett Airport. Formerly owned by Thomas F. White Estate. About 0.6 mile northeast of Marine Parkway Bridge and about 800 feet from Jamaica Bay, Barren Island. Measurements resumed June 7 1944. Measuring point is 5.0 feet above land-surface datum, which is 8.3 feet above mean sea level.

Water level, in feet, 1944

Date	Above (+) or below (-) land-surface datum	Above mean sea level
June 3	+1.73	9.86
July 4	+0.92	9.05
Aug. 1	-.34	7.79
Sept. 1	-.79	7.34
Oct. 4	+1.04	9.17
27	+0.27	8.40
Dec. 4	+1.80	9.93

K1198 (\*906, p. 122; 936, p. 148; 944, p. 130; 986, p. 152). New York City Department of Water Supply, Gas and Electricity. Cleveland and Fulton Streets, Brooklyn.

Water level, in feet, 1944

Date	Below land- surface datum	Below mean sea level
Jan. 1	42.07	5.17
29	42.06	5.16
Feb. 26	42.08	5.18
Mar. 30	42.08	5.18
May 5	41.83	4.93
27	41.69	4.79
July 4	41.58	4.68
31	41.61	4.71
Sept. 2	41.69	4.79
Oct. 5	41.39	4.49
Nov. 3	41.49	4.59
Dec. 5	41.55	4.65

K1199 (\*906, p. 123; 936, p. 149; 944, p. 131; 986, p. 152). New York City Department of Water Supply, Gas and Electricity. Jefferson and Howard Avenues, Brooklyn.

Water level, in feet, 1944

Jan. 1	65.79	17.17
29	65.00	16.38
Feb. 26	64.91	16.29
Apr. 1	64.85	16.23
May 5	64.65	16.03
27	64.53	15.91
July 31	64.73	16.11
Sept. 2	64.69	16.07
Oct. 4	64.64	16.02
27	64.60	15.98
Dec. 6	64.46	15.84

K1235 (\*936, p. 149; \*944, p. 131; 986, p. 153). New York City Department of Water Supply, Gas and Electricity. Fulton Street and Pennsylvania Avenue, Brooklyn.

K1235. New York City Department of Water Supply, Gas and Electricity  
--Continued.

Water level, in feet, 1944

Date	Below land- surface datum	Below mean sea level
Jan. 1	69.25	8.78
29	69.14	8.67
Feb. 26	69.25	8.78
Mar. 30	69.17	8.70
May 5	69.11	8.64
27	69.10	8.63
July 4	69.05	8.58
31	69.10	8.63
Sept. 2	69.26	8.79
Oct. 5	68.97	8.50
Nov. 3	68.94	8.47
Dec. 5	68.87	8.40

K1236 (\*936, p. 149; 944, p. 131; 986, p. 153). New York City Department of Water Supply, Gas and Electricity. Lexington and Patchen Avenues, Brooklyn.

Water level, in feet, 1944

Jan. 1	69.80	18.89
29	70.03	19.12
Feb. 26	69.87	18.96
Apr. 1	69.40	18.49
May 5	69.23	18.32
27	68.84	17.93
July 5	69.40	18.49
31	69.05	18.14
Sept. 2	69.60	18.69
Oct. 4	69.59	18.68
27	69.36	18.45
Dec. 6	69.02	18.11

K1237 (\*936, p. 150; 944, p. 131; 986, p. 153). New York City Department of Water Supply, Gas and Electricity. Delmonico Place and Hopkins Street, Brooklyn.

Water level, in feet, 1944

Jan. 1	51.68	33.66
29	51.63	33.61
Feb. 26	51.60	33.58
Mar. 30	51.87	33.85
May 5	52.03	34.01
27	52.46	34.44
July 5	52.60	34.58
31	52.70	34.68
Sept. 2	52.38	34.36
Oct. 4	52.32	34.30
28	52.35	34.33
Dec. 6	52.63	34.61

K1263 (\*936, p. 150; 944, p. 132; 986, p. 153). New York City Department of Water Supply, Gas and Electricity. East 16th Street and Cortelyou Road, Brooklyn.

Water level, in feet, 1944

Jan. 1	46.60	10.73
29	46.52	10.65
Mar. 7	46.62	10.75
29	46.66	10.79
Apr. 25	46.55	10.68
June 3	46.37	10.50
July 4	46.55	10.68
Aug. 1	46.74	10.87
Sept. 1	46.66	10.79
Oct. 4	46.12	10.25
27	46.16	10.29
Dec. 4	46.21	10.34



K1264 (#936, p. 151; 944, p. 132; 986, p. 153). New York City Department of Water Supply, Gas and Electricity. East 37th Street and Snyder Avenue, Brooklyn.

Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Jan. 1	58.77	14.88
29	58.70	14.81
Mar. 7	58.11	14.22
28	58.05	14.16
Apr. 25	58.10	14.21
June 3	57.80	13.91
July 4	57.77	13.88
Aug. 1	57.99	14.10
Sept. 1	58.82	14.93
Oct. 4	59.03	15.14
28	59.05	15.16
Dec. 4	59.01	15.12

K1265 (#936, p. 151; 944, p. 132; 986, p. 154). New York City Department of Water Supply, Gas and Electricity. Riverdale Avenue and Thatford Street, Brooklyn. Measurements resumed on April 6, 1944.

Water level, in feet, 1944

Apr. 6	33.55	10.33
25	33.26	10.04
June 3	33.35	10.13
July 4	33.36	10.14
Aug. 1	33.52	10.30
Sept. 1	33.74	10.52
Oct. 4	33.15	9.93
28	32.97	9.75
Dec. 5	32.34	9.12

K1266 (#936, p. 152; 944, p. 133; 986, p. 154). New York City Department of Water Supply, Gas and Electricity. Vermont Street and Livonia Avenue, Brooklyn.

Water level, in feet, 1944

Jan. 1	33.58	5.90
29	33.49	5.81
Mar. 7	33.75	6.07
29	33.34	5.66
Apr. 25	33.10	5.42
June 3	32.83	5.15
July 4	32.86	5.18
Aug. 1	33.01	5.33
Sept. 1	33.19	5.51
Oct. 4	32.76	5.08
28	32.77	5.09
Dec. 5	32.76	5.08

K1296 (#936, p. 152; 944, p. 133; 986, p. 154). New York City Department of Water Supply, Gas and Electricity. Blake Avenue and Crystal Street, Brooklyn.

Water level, in feet, 1944

Jan. 1	8.68	1.38
29	8.55	1.25
Mar. 6	8.65	1.35
29	8.13	.83
Apr. 25	7.83	.53
May 27	7.85	.55
July 3	8.03	.73
Aug. 1	8.27	.97
Sept. 1	8.41	1.11
Oct. 16	7.68	.38
28	7.74	.44
Dec. 5	7.40	.10

KL347 (\*986, p. 154). R. K. O. Albee Theatre. DeKalb Avenue and Fulton Street, Brooklyn.

Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Jan. 1	61.60	21.33
8	61.46	21.19
29	61.19	20.92
Feb. 5	61.17	20.90
12	61.06	20.79
26	60.90	20.63
Mar. 4	60.94	20.67
11	60.82	20.55
18	60.81	20.54
30	60.73	20.46
May 5	61.00	20.33
13	60.35	20.08
27	60.34	20.07
June 3	61.10	20.83
10	60.71	20.44
17	62.11	21.84
24	62.53	22.26
July 1	62.45	22.18
15	63.31	23.04
22	62.37	23.10
29	63.40	23.13
Sept. 2	63.82	23.55
9	63.99	23.72
16	63.78	23.51
23	63.63	23.36
30	62.70	22.43
Oct. 7	62.51	22.24
14	62.46	22.19
21	62.41	22.14
28	62.47	22.20
Nov. 4	62.29	22.02
11	62.27	22.00
18	62.23	21.96
25	62.12	21.85
Dec. 2	62.07	21.80
9	61.99	21.72
16	61.86	21.59
23	61.80	21.5
30	61.68	21.41

Nassau County

N7 (\*840, p. 263; 845, p. 311; 886, p. 488; \*906, p. 123; \*936, p. 153; 944, p. 133; 986, p. 155). Citizens Water Supply Co. About 130 feet north of Remsen Street and 150 feet west of Corona Avenue, Valley Stream.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.06	9.56	9.74	9.57	9.38	9.55	11.54	14.16	14.95	13.25	11.95	10.76
2	10.12	9.70	9.86	9.56	9.42	9.55	11.61	14.22	14.95	13.16	11.90	11.05
3	10.09	9.68	9.94	9.59	9.44	....	11.76	14.14	14.95	13.14	11.83	11.22
4	9.74	9.66	9.84	9.54	9.36	9.80	11.86	14.11	14.95	13.11	11.64	11.26
5	9.77	9.78	9.82	9.40	9.31	9.96	11.93	14.06	14.85	13.09	11.55	11.17
6	9.45	9.63	9.91	9.44	9.30	9.97	11.99	14.02	14.82	13.06	11.54	11.05
7	9.50	9.69	9.65	9.46	9.30	9.95	12.07	14.06	14.84	12.89	11.60	11.01
8	9.63	9.73	9.59	9.46	9.30	10.10	12.16	14.11	14.94	12.78	11.57	10.84
9	9.65	9.83	9.68	9.48	9.37	10.26	12.31	14.15	15.05	12.75	11.57	10.83
10	9.65	9.85	9.85	9.42	9.44	10.34	12.49	14.13	15.14	12.72	11.55	11.01
11	9.72	9.92	9.96	9.47	9.46	10.33	12.63	14.06	15.21	12.71	11.27	11.00
12	9.69	9.65	9.99	9.25	9.47	10.40	12.76	14.05	15.20	12.71	11.39	10.41
13	9.72	9.81	9.75	9.23	9.42	10.45	12.85	14.09	15.07	12.67	11.35	10.65
14	9.76	9.95	9.81	9.33	9.31	10.56	13.07	14.18	14.85	12.45	11.28	10.88

## N7. Citizens Water Supply Co.--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	9.76	9.59	9.84	9.37	9.33	10.60	13.18	14.27	14.43	12.56	11.27	11.06
16	....	9.85	9.72	9.31	9.32	10.58	....	14.32	14.47	12.69	11.16	10.97
17	....	9.98	9.59	9.30	9.30	10.59	....	14.35	14.48	12.59	11.20	11.06
18	....	9.77	9.63	9.30	9.28	10.67	....	14.37	14.46	12.52	11.26	11.12
19	....	9.98	9.84	9.33	9.41	10.76	....	14.54	14.32	12.44	11.27	11.09
20	....	10.06	9.76	9.37	9.43	10.77	....	14.73	14.15	12.45	11.16	11.24
21	....	10.01	9.74	9.39	9.43	10.82	....	14.79	14.02	11.95	11.10	11.17
22	9.78	10.03	9.90	9.45	9.42	10.95	13.61	14.78	13.88	12.20	....	11.47
23	9.73	9.67	9.85	9.52	9.42	11.01	13.72	14.77	13.89	12.23	....	11.49
24	9.77	9.78	9.52	9.47	9.49	10.99	13.77	14.77	13.92	12.12	....	11.48
25	9.87	9.90	9.63	9.24	9.54	10.98	13.79	14.87	13.87	12.07	11.07	11.43
26	9.86	10.00	9.68	9.25	9.58	11.08	13.82	14.98	13.76	11.97	11.07	11.42
27	9.86	9.98	9.75	9.28	9.57	11.26	13.85	15.03	13.62	11.99	10.98	11.53
28	9.72	9.93	9.71	9.34	9.54	11.40	13.87	15.05	13.49	11.87	10.85	11.28
29	9.61	9.82	9.83	9.42	9.55	11.46	13.95	15.00	13.31	11.77	10.96	11.55
30	9.60	....	9.61	9.44	9.61	11.48	14.02	14.95	13.31	11.90	10.43	11.55
31	9.68	....	9.52	....	9.60	....	14.09	14.95	....	11.98	....	11.57

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.74	11.24	11.06	11.23	11.42	11.25	9.26	6.64	5.85	7.55	8.85	10.04
2	10.68	11.10	10.94	11.24	11.38	11.25	9.19	6.58	5.85	7.64	8.90	9.75
3	10.71	11.12	10.86	11.21	11.36	....	9.04	6.66	5.85	7.66	8.97	9.58
4	11.06	11.14	10.96	11.26	11.44	11.00	8.94	6.69	5.85	7.69	9.16	9.54
5	11.03	11.02	10.98	11.40	11.49	10.84	8.87	6.74	5.95	7.71	9.25	9.63
6	11.35	11.17	10.89	11.36	11.50	10.83	8.81	6.78	5.98	7.74	9.26	9.75
7	11.30	11.11	11.15	11.34	11.50	10.85	8.73	6.74	5.96	7.91	9.20	9.79
8	11.17	11.07	11.21	11.34	11.50	10.70	8.64	6.69	5.86	8.02	9.23	9.96
9	11.15	10.97	11.12	11.32	11.43	10.54	8.49	6.65	5.75	8.05	9.23	9.97
10	11.15	10.95	10.95	11.38	11.36	10.46	8.31	6.67	5.66	8.08	9.45	9.79
11	11.08	10.88	10.84	11.33	11.34	10.47	8.17	6.74	5.59	8.09	9.53	9.80
12	11.11	11.15	10.81	11.55	11.73	10.40	8.04	6.75	5.60	8.09	9.41	10.39
13	11.08	10.99	11.05	11.57	11.38	10.35	7.95	6.71	5.73	8.13	9.45	10.15
14	11.04	10.85	10.99	11.47	11.49	10.24	7.73	6.62	5.95	8.35	9.52	9.92
15	11.04	11.21	10.96	11.43	11.47	10.20	7.62	6.53	6.37	8.24	9.53	9.74
16	....	10.95	11.08	11.49	11.48	10.22	....	6.48	6.33	8.11	9.64	9.83
17	....	10.82	11.21	11.50	11.50	10.21	....	6.45	6.32	8.21	9.60	9.74
18	....	11.03	11.17	11.50	11.52	10.13	....	6.43	6.34	8.28	9.54	9.68
19	....	10.82	10.96	11.47	11.39	10.04	....	6.26	6.48	8.36	9.53	9.71
20	....	10.74	11.04	11.45	11.37	10.03	....	6.07	6.65	8.55	9.64	9.56
21	....	10.79	11.06	11.41	11.37	9.98	....	6.01	6.78	8.85	9.70	9.63
22	11.02	10.77	10.90	11.35	11.38	9.85	7.19	6.02	6.92	8.60	....	9.33
23	11.07	11.13	10.95	11.28	11.38	9.79	7.08	6.03	6.91	8.57	....	9.31
24	11.03	11.02	11.28	11.33	11.31	9.81	7.03	6.03	6.88	8.68	....	9.32
25	10.93	10.90	11.17	11.56	11.26	9.82	7.01	5.93	6.93	8.73	9.73	9.37
26	10.94	10.80	11.12	11.55	11.22	9.72	6.98	5.82	7.04	8.73	9.73	9.38
27	10.94	10.82	11.05	11.52	11.23	9.54	6.95	5.77	7.18	8.81	9.82	9.27
28	11.08	10.87	11.09	11.46	11.26	9.40	6.93	5.75	7.31	8.93	9.95	9.52
29	11.19	10.98	10.97	11.38	11.25	9.34	6.85	5.80	7.49	9.03	9.84	9.25
30	11.20	....	11.19	11.36	11.19	9.32	6.78	5.85	7.49	8.90	10.37	9.25
31	11.12	....	11.28	....	11.20	....	6.71	5.85	....	8.82	....	9.23

N9 (#840, p. 264; 845, p. 312; 886, p. 489; #906, p. 124; 936, p. 153; #944, p. 134; 986, p. 156). Citizens Water Supply Co. well Valley Stream  
7. West side of Corona Avenue, 650 feet north of Remsen Street in Valley Stream.

## N9. Citizens Water Supply Co. well Valley Stream 7--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	1.57	21.61
Mar. 2	1.60	21.58
27	1.23	21.95
Apr. 22	1.14	22.04
May 27	1.28	21.90
June 24	1.54	21.64
July 29	1.79	21.39
Sept. 2	2.03	21.15
30	1.04	22.14
Oct. 28	1.38	21.80
Dec. 2	1.09	22.09
30	1.25	21.93

N53 (\*777, p. 123; \*817, p. 201; \*840, p. 265; 845, p. 312; 886, p. 489; \*906, p. 124; 936, p. 154; 944, p. 134; \*986, p. 156). Village of Rockville Center. In basement of municipal power station, Morris and Maple Avenues, Rockville Center.

## Water level, in feet, 1944

Feb. 7	12.06	14.05
Mar. 2	12.16	13.95
27	11.35	14.76
May 2	10.45	15.66
June 2	10.99	15.12
30	11.60	14.51
July 29	12.33	13.78
Aug. 31	12.95	13.16
Oct. 2	12.06	14.05
Nov. 2	12.48	13.63
Dec. 1	12.06	14.05
30	11.66	14.45

N67 (\*777, p. 122; \*817, p. 201; \*840, p. 266; \*845, p. 313; 886, p. 490; 906, p. 125; 936, p. 154; 944, p. 135; 986, p. 157). Village of Freeport. Sunrise Highway about 200 feet west of Long Beach Avenue, Freeport. Recorder removed on May 25 as well is being pumped.

## Water level at noon, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May
1	3.65	3.49	3.40	3.43	3.35
2	3.79	3.63	3.66	3.39	3.51
3	3.65	3.49	3.57	3.42	3.44
4	3.23	3.56	3.47	3.29	3.35
5	3.30	3.61	3.62	3.14	3.32
6	2.99	3.38	3.68	3.34	3.34
7	3.39	3.43	3.18	3.34	3.27
8	3.50	3.55	3.28	3.30	3.43
9	3.43	3.53	3.54	3.43	3.52
10	3.50	3.63	3.74	3.22	3.58
11	3.59	3.52	3.85	3.48	3.58
12	3.51	3.14	3.78	3.03	3.51
13	3.72	3.66	3.45	3.20	3.40
14	3.63	3.68	3.68	3.33	3.34
15	3.60	3.39	3.62	3.26	3.37
16	3.64	3.80	3.40	3.04	3.33
17	3.78	3.71	3.19	3.18	3.29
18	3.77	3.44	3.39	3.35	3.32
19	3.55	3.84	3.70	3.37	3.43
20	3.48	3.72	3.27	3.37	3.40
21	3.53	3.64	3.47	3.36	3.42
22	3.63	3.57	3.71	3.46	3.28
23	3.38	3.17	3.39	3.50	3.42
24	3.70	3.39	3.24	3.26	3.44
25	3.74	3.56	3.42	3.10	3.54

## N67. Village of Freeport--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May
26	3.70	3.61	3.47	3.25	....
27	3.58	3.47	3.47	3.27	....
28	3.51	3.49	3.61	3.35	....
29	3.35	3.33	3.71	3.40	....
30	3.45	....	3.29	3.34	....
31	3.50	....	3.25	....	....

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May
1	16.95	17.11	17.20	17.17	17.25
2	16.81	16.97	16.94	17.21	17.09
3	16.95	17.11	17.03	17.18	17.16
4	17.37	17.04	17.13	17.31	17.25
5	17.30	16.99	17.08	17.46	17.28
6	17.61	17.22	16.92	17.26	17.26
7	17.21	17.17	17.42	17.26	17.33
8	17.10	17.05	17.32	17.30	17.17
9	17.17	17.07	17.06	17.17	17.08
10	17.10	16.97	16.86	17.38	17.02
11	17.01	17.08	16.75	17.12	17.02
12	17.09	17.46	16.82	17.57	17.09
13	16.88	16.94	17.15	17.40	17.20
14	16.97	16.92	16.92	17.27	17.26
15	17.00	17.21	16.98	17.34	17.23
16	16.96	16.80	17.20	17.56	17.27
17	16.82	16.89	17.41	17.42	17.31
18	16.83	17.16	17.21	17.25	17.28
19	17.05	16.76	16.90	17.23	17.17
20	17.12	16.88	17.33	17.23	17.20
21	17.07	16.96	17.13	17.24	17.18
22	16.97	17.03	16.89	17.14	17.32
23	17.22	17.43	17.21	17.10	17.18
24	16.90	17.21	17.36	17.54	17.16
25	16.86	17.04	17.18	17.50	17.06
26	16.90	16.99	17.13	17.35	....
27	17.02	17.13	17.13	17.33	....
28	17.09	17.11	16.99	17.25	....
29	17.25	17.27	16.89	17.20	....
30	17.15	.....	17.31	17.26	....
31	17.10	.....	17.35	.....	.....

N157 (\*777, p. 122; \*817, p. 201; \*840, p. 267; 845, p. 314; 886, p. 491; \*906, p. 125; 936, p. 155; 944, p. 135; 986, p. 158). J. N. Hill.  
About 0.4 mile south of Cedar Swamp Road and 460 feet west of Wheatley Road, Wheatley Hills.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	135.12	83.35
29	135.25	83.22
Feb. 26	135.75	82.72
Apr. 1	135.71	82.76
27	135.52	82.95
May 30	135.26	83.21
June 26	135.13	83.34
July 26	134.71	83.76
Aug. 28	134.50	83.97
Sept. 27	134.29	84.18
Oct. 30	134.53	83.94
Dec. 1	134.46	84.01
26	134.54	83.93

N844 (\*906, p. 126; 936, p. 155; \*944, p. 136; 986, p. 158). Long Island Railroad. Jerusalem Avenue about 110 feet north of railroad tracks, Hicksville.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	68.84	68.63	68.50	68.30	67.82	67.58	67.74	68.06	67.88	68.11	68.24
2	.....	68.83	68.66	68.47	68.30	67.80	67.57	67.73	68.06	67.88	68.12	68.26
3	.....	68.81	68.64	68.48	68.28	67.80	67.58	67.79	68.06	67.90	68.12	68.26
4	.....	68.81	68.62	68.46	68.26	67.82	67.56	67.79	68.07	67.90	68.09	68.25
5	.....	68.80	68.62	68.45	68.26	67.79	67.56	67.79	68.08	67.91	68.08	68.22
6	.....	68.78	68.64	68.48	68.26	67.77	67.57	67.79	68.10	67.90	68.11	68.20
7	69.36	68.78	68.58	68.47	68.25	67.76	67.57	67.83	68.11	67.89	68.13	68.20
8	69.29	68.80	68.60	68.45	68.25	67.77	67.57	67.85	68.12	67.88	68.14	68.15
9	69.21	68.78	68.62	68.45	68.24	67.76	67.57	67.86	68.13	67.90	68.14	68.19
10	69.17	68.79	68.63	68.45	68.23	67.73	67.58	67.84	68.14	67.91	68.11	68.21
11	69.13	68.76	68.63	68.47	68.22	67.71	67.58	67.84	68.15	67.92	68.14	68.19
12	69.10	68.75	68.59	68.41	68.18	67.71	67.58	67.85	68.15	67.95	68.16	68.12
13	69.08	68.78	68.57	68.43	68.14	67.71	67.60	67.85	68.15	67.94	68.17	68.18
14	69.04	68.77	68.59	68.44	68.11	67.70	67.62	67.88	68.11	67.92	68.16	68.22
15	69.01	68.74	68.57	68.42	68.10	67.68	67.62	67.89	68.11	67.98	68.17	68.25
16	69.01	68.76	68.54	68.40	68.08	67.67	67.60	67.89	68.07	67.99	68.14	68.21
17	68.99	68.70	68.54	68.41	68.04	67.66	67.62	67.89	68.04	67.98	68.18	68.23
18	68.98	68.68	68.56	68.42	68.03	67.66	67.64	67.92	68.01	67.98	68.19	68.24
19	.....	68.70	68.57	68.41	68.02	67.65	67.66	67.95	67.98	68.00	68.19	68.23
20	.....	68.66	68.53	68.40	68.00	67.63	67.62	67.96	67.95	68.01	68.17	68.24
21	68.92	68.66	68.56	68.39	67.97	67.63	67.63	67.96	67.92	67.96	68.14	68.23
22	68.92	68.64	68.56	68.40	67.96	67.62	67.67	67.96	67.91	68.03	68.19	68.27
23	68.88	68.62	68.49	68.38	67.96	67.61	67.66	67.97	67.93	68.05	68.21	68.25
24	68.90	68.64	68.50	68.35	67.94	67.59	67.67	67.97	67.92	68.03	68.22	68.25
25	68.88	68.66	68.51	68.35	67.92	67.59	67.67	67.99	67.92	68.03	68.24	68.22
26	68.87	68.66	68.50	68.35	67.91	67.61	67.68	68.01	67.90	68.03	68.24	68.25
27	68.85	68.63	68.50	68.33	67.88	67.63	67.67	68.01	67.90	68.05	68.22	68.25
28	68.84	68.63	68.52	68.34	67.86	67.62	67.70	68.01	67.88	68.03	68.23	68.21
29	68.83	68.62	68.51	68.33	67.86	67.59	67.71	68.01	67.88	68.04	68.24	68.27
30	68.83	.....	68.47	68.30	67.84	67.59	67.71	68.02	67.89	68.09	68.18	68.26
31	68.82	.....	68.48	.....	67.82	.....	67.73	68.04	.....	68.11	.....	68.23

Mean daily water level, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	80.32	80.53	80.66	80.86	81.34	81.58	81.42	81.10	81.28	81.05	80.92
2	.....	80.33	80.50	80.69	80.86	81.36	81.59	81.43	81.10	81.28	81.04	80.90
3	.....	80.35	80.52	80.68	80.88	81.36	81.58	81.37	81.10	81.26	81.04	80.90
4	.....	80.35	80.54	80.70	80.90	81.34	81.60	81.37	81.09	81.26	81.07	80.91
5	.....	80.36	80.54	80.71	80.90	81.37	81.60	81.37	81.08	81.25	81.08	80.94
6	.....	80.38	80.52	80.68	80.90	81.39	81.59	81.37	81.06	81.26	81.05	80.96
7	79.80	80.38	80.58	80.69	80.91	81.40	81.59	81.33	81.05	81.27	81.03	80.96
8	79.87	80.36	80.56	80.71	80.91	81.39	81.59	81.31	81.04	81.28	81.02	81.01
9	79.95	80.38	80.54	80.71	80.92	81.40	81.59	81.30	81.03	81.26	81.02	80.97
10	79.99	80.37	80.53	80.71	80.93	81.43	81.58	81.32	81.02	81.25	81.05	80.95
11	80.03	80.40	80.53	80.69	80.94	81.45	81.58	81.32	81.01	81.24	81.02	80.97
12	80.06	80.41	80.87	80.75	80.98	81.45	81.58	81.31	81.01	81.21	81.00	81.04
13	80.08	80.38	80.59	80.73	81.02	81.45	81.56	81.30	81.01	81.22	80.99	80.98
14	80.12	80.39	80.57	80.72	81.05	81.46	81.54	81.28	81.05	81.24	81.00	80.94
15	80.15	80.42	80.59	80.74	81.06	81.48	81.54	81.27	81.05	81.18	80.99	80.91
16	80.15	80.40	80.62	80.76	81.08	81.49	81.56	81.27	81.09	81.17	81.02	80.95
17	80.17	80.46	80.62	80.75	81.12	81.50	81.54	81.27	81.12	81.18	80.98	80.93
18	80.18	80.48	80.60	80.74	81.13	81.50	81.52	81.24	81.15	81.18	80.97	80.92
19	.....	80.46	80.59	80.75	81.14	81.51	81.50	81.21	81.18	81.16	80.97	80.93
20	.....	80.50	80.63	80.76	81.16	81.53	81.54	81.20	81.21	81.15	80.99	80.92
21	80.24	80.50	80.60	80.77	81.19	81.53	81.53	81.20	81.24	81.20	81.02	80.93
22	80.24	80.52	80.60	80.76	81.20	81.54	81.49	81.20	81.25	81.13	80.97	80.89
23	80.28	80.54	80.67	80.78	81.20	81.55	81.50	81.19	81.23	81.11	80.95	80.91
24	80.26	80.52	80.66	80.81	81.22	81.57	81.49	81.19	81.24	81.13	80.94	80.91
25	80.28	80.50	80.65	80.81	81.24	81.57	81.49	81.17	81.24	81.13	80.92	80.94
26	80.29	80.50	80.66	80.81	81.25	81.55	81.48	81.15	81.26	81.13	80.92	80.91
27	80.31	80.53	80.66	80.83	81.28	81.53	81.49	91.15	81.26	81.11	80.94	80.91

## N844. Long Island Railroad--Continued.

Mean daily water level, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	80.32	80.53	80.64	80.82	81.30	81.54	81.46	81.15	81.28	81.13	80.93	80.95
29	80.33	80.54	80.65	80.83	81.30	81.57	81.45	81.15	81.28	81.12	80.92	80.89
30	80.33	.....	80.69	80.86	81.32	81.57	81.45	81.14	81.27	81.07	80.98	80.90
31	80.34	.....	80.68	.....	81.34	.....	81.43	81.12	.....	81.05	.....	80.93

N1102 (\*886, p. 491; 906, p. 128; 936, p. 156; 944, p. 137; 986, p. 159). Nassau County Department of Public Works. Willets and Valley Roads, Lake Success.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	131.11	54.71
Mar. 2	131.26	54.56
27	130.92	54.90
May 1	130.77	55.05
June 2	130.46	55.36
26	130.70	55.12
July 26	130.64	55.18
Aug. 28	130.68	55.14
Sept. 27	130.63	55.19
Oct. 30	130.76	55.06
Nov. 27	130.46	55.36
Dec. 26	130.57	55.25

N1103 (\*886, p. 493; 906, p. 128; 936, p. 156; 944, p. 137; 986, p. 160). Nassau County Department of Public Works. North side of Marcus Avenue and 253 feet east of Lakeville Road, Lake Success.

## Water level, in feet, 1944

Feb. 7	89.92	56.20
Mar. 2	89.91	56.21
27	89.63	56.49
May 1	90.67	55.45
June 2	91.10	55.02
26	90.67	55.45
July 26	90.20	55.92
Aug. 28	90.08	56.04
Sept. 27	90.22	55.90
Oct. 30	90.59	55.53
Nov. 27	89.35	56.77
Dec. 26	89.03	57.09

N1104 (\*886, p. 493; 906, p. 128; 936, p. 156; 944, p. 137; 986, p. 160). Nassau County Department of Public Works. Rhodes Street and 80th Avenue, New Hyde Park.

## Water level, in feet, 1944

Feb. 7	68.68	56.69
Mar. 2	68.62	56.75
27	68.52	56.85
May 2	68.48	56.89
June 2	67.98	57.39
26	67.66	57.71
July 26	67.53	57.84
Aug. 28	67.77	57.60
Sept. 27	67.59	57.78
Oct. 30	67.71	57.66
Nov. 27	67.83	57.54
Dec. 26	67.76	57.61

N1105 (\*886, p. 493; 906, p. 128; 936, p. 156; 944, p. 137; 986, p. 160). Nassau County Department of Public Works. Emerson and Whittier Avenues, New Hyde Park.

## N1105. Nassau County Department of Public Works--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	54.54	53.86
Mar. 2	54.28	53.92
27	54.21	53.99
May 2	53.87	54.33
June 2	53.27	54.93
30	53.22	54.98
July 26	53.57	54.63
Aug. 28	53.90	54.30
Sept. 27	53.61	54.59
Oct. 30	53.29	54.91
Nov. 27	53.30	54.90
Dec. 26	53.18	55.02

N1107 (\*886, p. 4 3; 906, p. 128; 936, p. 157; 944, p. 138; 986, p. 160). Nassau County Department of Public Works. Bertha Street and Kingston Avenue, South Floral Park.

## Water level, in feet, 1944

Feb. 7	22.57	43.84
Mar. 2	22.64	43.77
27	22.27	44.14
May 2	21.72	44.69
June 2	21.32	45.09
30	21.90	44.51
July 29	22.41	44.00
Aug. 31	22.97	43.44
Oct. 5	21.67	44.74
Nov. 2	22.02	44.39
Dec. 1	22.13	44.28
30	21.83	44.58

N1108 (\*886, p. 492; 906, p. 128; 936, p. 157; 944, p. 138; 986, p. 161). Nassau County Department of Public Works. Jacob Street and Rosalind Avenue, Elmont.

## Water level, in feet, 1944

Feb. 7	31.78	38.34
Mar. 2	30.90	39.22
27	30.61	39.51
May 2	30.03	40.09
30	29.65	40.47
June 30	29.28	40.84
July 29	30.92	39.20
Aug. 31	31.58	38.54
Oct. 3	30.31	39.81
Nov. 2	30.57	39.55
Dec. 1	30.68	39.44
30	30.19	39.93

N1109 (\*886, p. 492; 906, p. 128; 936, p. 157; 944, p. 138; 986, p. 161). Nassau County Department of Public Works. Dutch Broadway and Henry Street, Elmont.

## Water level, in feet, 1944

Feb. 7	15.03	27.31
Mar. 3	15.13	27.21
27	14.56	27.78
May 2	14.07	28.27
June 2	14.13	28.21
30	14.76	27.58
July 29	15.39	26.95
Aug. 31	16.00	26.34
Oct. 3	14.28	28.06
Nov. 2	14.84	27.50
Dec. 1	14.78	27.56
30	14.39	27.95



N1110 (\*886, p. 492; 906, p. 129; 936, p. 157; 944, p. 138; 986, p. 161). Nassau County Department of Public Works. On east side of Henry Street about 500 feet south of Southern State Parkway, North Valley Stream.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	10.74	20.11
Mar. 2	10.75	20.10
27	10.23	20.62
May 2	9.86	20.99
June 2	10.34	20.51
30	10.78	20.07
July 29	11.19	19.66
Aug. 31	11.60	19.25
Oct. 3	10.30	20.55
Nov. 2	10.73	20.12
Dec. 1	10.23	20.62
30	10.40	20.45

N1111 (\*886, p. 492; 906, p. 129; 936, p. 157; 944, p. 138; 986, p. 161). Nassau County Department of Public Works. Fletcher and Teneyck Avenues, Valley Stream.

## Water level, in feet, 1944

Feb. 7	6.56	13.88
Mar. 2	6.61	13.83
27	6.30	14.14
May 2	6.20	14.24
June 2	6.45	13.99
30	6.60	13.84
July 29	6.72	13.72
Aug. 31	6.91	13.53
Oct. 3	6.58	13.86
Nov. 2	6.71	13.73
Dec. 1	5.77	14.67
30	6.40	14.04

N1112 (\*886, p. 492; 906, p. 129; 936, p. 157; 944, p. 138; 986, p. 161). Nassau County Department of Public Works. Sunrise Highway and 2nd Street, Valley Stream.

## Water level, in feet, 1944

Feb. 7	4.29	9.15
Mar. 2	4.23	9.21
27	3.61	9.83
May 2	3.42	10.02
June 2	4.10	9.34
30	4.50	8.94
July 29	4.90	8.54
Aug. 31	5.22	8.22
Oct. 3	3.92	9.52
Nov. 2	4.24	9.20
Dec. 1	3.28	10.16
30	3.93	9.51

N1126 (\*845, p. 322; 886, p. 494; 906, p. 129; 936, p. 158; 944, p. 139; 986, p. 162). Nassau County Department of Public Works. At north-west corner of Stewart Avenue and Sackville Road, Garden City.

## Water level, in feet, 1944

Feb. 7	29.29	57.45
Mar. 7	29.56	57.18
27	29.20	57.54
Apr. 29	28.56	58.18
June 1	27.75	58.99
26	28.20	58.54
July 26	28.78	57.96
Aug. 28	29.35	57.39
Sept. 27	28.01	58.73
Oct. 30	28.36	58.38
Nov. 27	28.70	58.04
Dec. 26	28.06	58.68

N1132 (\*845, p. 320; 886, p. 494; 906, p. 130; 936, p. 158; 944, p. 139; 986, p. 163). Nassau County Department of Public Works. West side of Lakewood Boulevard, 111 feet south of Sunrise Highway, Lynbrook.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	12.81	8.06
Mar. 2	12.87	8.00
27	12.10	8.77
May 2	11.63	9.24
June 2	12.25	8.62
30	12.75	8.12
July 29	13.17	7.70
Aug. 31	13.54	7.53
Oct. 3	12.61	8.26
Nov. 2	12.93	7.94
Dec. 1	12.16	8.71
30	12.38	8.49

N1140 (\*886, p. 495; 906, p. 130; 936, p. 158; 944, p. 139; 986, p. 163). Nassau County Department of Public Works. On west side of Kellum Place, 37 feet north of Ninth Street, Garden City.

## Water level, in feet, 1944

Feb. 7	31.19	60.15
Mar. 7	31.13	60.21
27	30.96	60.38
Apr. 29	30.31	61.03
June 1	29.16	62.18
26	29.47	61.87
July 26	30.46	60.88
Aug. 28	31.43	59.91
Sept. 27	31.68	59.66
Oct. 30	31.98	60.36
Nov. 27	30.89	60.45
Dec. 26	30.20	61.14

N1147 (\*886, p. 495; 906, p. 130; 936, p. 159; 944, p. 140; 986, p. 163). Nassau County Department of Public Works. On north side of Seaman Avenue, 310 feet east of Knollwood Road, Baldwin.

## Water level, in feet, 1944

Feb. 7	9.33	17.99
Mar. 2	9.38	17.94
27	8.71	18.61
May 2	7.91	19.41
June 2	8.75	18.57
30	9.20	18.12
July 29	9.75	17.57
Aug. 31	10.23	17.09
Oct. 2	9.58	17.74
Nov. 2	9.89	17.43
Dec. 1	9.46	17.86
30	9.16	18.16

N1160 (\*886, p. 495; 906, p. 130; 936, p. 159; 944, p. 140; 986, p. 163). Nassau County Department of Public Works. On south side of Stewart Avenue, about 75 feet east of Mitchel Field, 1.5 miles east of Garden City.

## Water level, in feet, 1944

Feb. 7	27.34	65.23
Mar. 7	27.43	65.14
27	26.71	65.86
Apr. 29	25.93	66.64
June 1	25.74	66.83
26	26.10	66.47
July 26	26.87	65.70
Aug. 28	27.64	65.03
Sept. 27	26.78	65.79
Oct. 30	27.15	65.42
Nov. 27	27.19	65.38
Dec. 26	26.27	66.30

N1167 (\*845, p. 321; 886, p. 496; 906, p. 131; 936, p. 159; 944, p. 140; 986, p. 163). Nassau County Department of Public Works. On east side of North Ocean Avenue, 38 feet north of Brooklyn Avenue, Freeport.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	12.88	10.88
Mar. 2	12.97	10.79
27	12.33	11.43
May 2	11.59	12.17
June 2	12.04	11.72
30	12.57	11.19
July 29	13.14	10.62
Aug. 31	13.72	10.04
Oct. 2	13.15	10.61
Nov. 2	13.29	10.47
Dec. 1	12.89	10.87
30	12.38	11.38

N1185 (\*845, p. 321; 886, p. 496; 906, p. 132; 936, p. 161; 944, p. 142; 986, p. 166). Nassau County Department of Public Works. Northwest corner of West Grand Avenue and Lindgren Street, Merrick.

## Water level, in feet, 1944

Feb. 7	8.16	12.96
Mar. 2	8.20	12.92
27	7.64	13.48
May 2	7.38	13.74
June 2	8.18	12.94
30	8.77	12.35
July 29	9.61	11.51
Aug. 31	9.93	11.19
Oct. 2	9.18	11.94
Nov. 2	9.72	11.40
Dec. 1	8.85	12.27
30	9.03	12.09

N1198 (\*886, p. 496; 906, p. 132; 936, p. 161; 944, p. 142; 986, p. 166). Nassau County Department of Public Works. On east side of Newbridge Road, 73 feet north of Motor Parkway, about 2.5 miles south of Hicksville.

## Water level, in feet, 1944

Feb. 7	35.17	65.67
Mar. 3	35.09	65.75
27	34.84	66.00
Apr. 29	34.70	66.14
June 1	33.77	67.07
29	34.01	66.83
July 26	34.34	66.50
Aug. 28	34.85	65.99
Sept. 27	34.46	66.38
Oct. 30	34.96	65.88
Nov. 27	35.31	65.53
Dec. 26	34.98	65.86

N1204 (\*886, p. 497; 906, p. 133; 936, p. 162; 944, p. 143; 986, p. 166). Nassau County Department of Public Works. At northwest corner of Harris Court and John Street, Bellemore.

## Water level, in feet, 1944

Feb. 7	10.31	11.16
Mar. 3	10.27	11.20
27	11.44	10.03
May 2	10.04	11.43
June 1	10.22	11.25
30	10.57	10.90
July 29	10.83	10.64
Aug. 31	13.11	8.36
Oct. 2	13.78	7.69
31	13.97	7.50
Dec. 1	14.02	7.45
30	13.60	7.87

N1212 (#986, p. 166). Nassau County Department of Public Works,  
Jericho Turnpike about 1.3 miles east of Broadway, Locust Grove.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	143.75	143.66	143.63	143.44	143.15
2	.....	143.78	143.88	143.54	143.57	143.17
3	.....	143.60	143.60	143.57	143.42	143.21
4	.....	143.77	143.63	143.45	143.33	143.47
5	.....	143.73	143.73	143.39	143.36	143.26
6	.....	143.62	143.82	143.65	143.41	143.11
7	143.78	143.64	143.32	143.54	143.33	143.16
8	143.75	143.86	143.62	143.45	143.55	143.54
9	143.67	143.73	143.79	143.64	143.50	143.29
10	143.74	143.89	143.82	143.56	143.50	143.12
11	143.79	143.61	143.82	143.64	143.44	143.16
12	143.71	143.64	143.67	143.16	143.34	143.16
13	143.82	144.01	143.50	143.57	143.25	143.19
14	143.59	143.70	143.77	143.61	143.32	143.24
15	143.63	.....	143.64	143.46	143.33	143.05
16	143.92	.....	143.46	143.41	143.32	143.04
17	143.86	.....	143.36	143.59	143.30	143.10
18	143.75	143.64	143.66	143.64	143.41	143.17
19	143.50	143.96	143.85	143.57	143.45	143.03
20	143.64	143.66	143.41	143.58	143.31	142.98
21	143.68	143.75	143.83	143.55	143.31	143.10
22	143.83	143.62	143.86	143.65	143.16	143.13
23	143.55	143.44	143.29	143.57	143.45	143.03
24	143.91	143.71	143.55	.....	143.38	142.84
25	145.84	143.85	143.65	143.37	143.42	143.09
26	143.86	143.76	143.68	143.52	143.36	143.20
27	143.78	143.68	143.49	143.46	143.21	143.24
28	143.64	143.66	143.74	143.59	143.22	143.15
29	143.59	143.50	143.69	143.55	143.35	143.00
30	143.67	.....	143.35	143.45	143.26	143.00
31	143.67	.....	143.46	.....	143.15	.....

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	143.00	142.88	142.62	142.57	142.63	142.61
2	143.06	142.81	142.59	142.67	142.60	142.68
3	143.08	142.69	142.58	142.63	142.50	.....
4	142.96	142.74	142.58	142.62	142.36	.....
5	142.95	142.68	142.58	142.61	142.34	.....
6	142.98	142.74	142.66	142.51	142.43	.....
7	142.97	142.80	142.62	142.43	142.59	142.52
8	142.96	142.85	142.67	142.45	142.49	142.18
9	142.97	142.78	142.66	142.51	142.51	142.65
10	142.93	142.68	142.69	142.56	142.29	142.65
11	142.93	142.66	142.66	142.56	142.49	142.45
12	142.85	142.68	142.55	142.61	142.57	142.06
13	142.98	142.74	142.54	142.44	142.47	142.64
14	143.00	142.75	142.51	142.28	142.45	142.69
15	142.88	142.71	142.76	142.87	142.44	142.72
16	142.80	142.66	142.79	142.55	142.31	142.38
17	142.88	142.63	142.85	142.57	142.59	142.59
18	142.94	142.73	142.73	142.51	142.63	142.66
19	142.92	142.86	142.56	142.48	142.55	142.52
20	142.77	142.85	142.52	142.48	142.31	142.66
21	142.81	142.70	142.48	142.23	142.18	142.65
22	142.93	142.63	142.56	142.76	142.52	142.86
23	142.86	142.64	142.72	142.58	142.51	142.61
24	142.80	142.65	142.75	142.48	142.54	142.70
25	142.77	142.73	142.61	142.44	142.64	142.49
26	142.80	142.73	142.52	142.45	142.66	142.79
27	142.70	142.73	142.55	142.55	142.49	142.68
28	142.82	142.62	142.50	142.29	142.58	142.59
29	142.80	142.59	142.57	142.45	142.55	142.83
30	142.84	142.62	142.61	142.67	141.91	142.66
31	142.88	142.64	.....	142.71	.....	142.51

## N1212. Nassau County Department of Public Works--Continued.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	84.46	84.55	84.68	84.77	85.06	85.21	85.33	85.59	85.64	85.58	85.60
2	.....	84.43	84.33	84.67	84.64	85.04	85.15	85.40	85.62	85.64	85.61	85.53
3	.....	84.61	84.61	84.64	84.79	85.00	85.13	85.52	85.63	85.58	85.71	.....
4	.....	84.44	84.58	84.76	84.88	84.74	85.25	85.47	85.63	85.59	85.85	.....
5	.....	84.48	84.48	84.82	84.85	84.95	85.26	85.53	85.63	85.60	85.87	.....
6	.....	84.59	84.39	84.86	84.80	85.10	85.23	85.47	85.55	85.70	85.78	.....
7	84.43	84.57	84.89	84.67	84.88	85.05	85.24	85.41	85.59	84.78	85.62	85.69
8	84.46	84.35	84.59	84.76	84.66	84.87	85.25	85.36	85.54	85.76	85.72	86.03
9	84.54	84.48	84.42	84.57	84.71	84.92	85.24	85.43	85.55	85.70	85.70	85.56
10	84.47	84.32	84.39	84.85	84.71	85.09	85.28	85.53	85.52	85.65	85.92	85.56
11	84.42	84.60	84.39	84.57	84.77	85.05	85.28	85.55	85.55	85.65	85.72	85.76
12	84.50	84.67	84.54	85.05	84.87	85.06	85.36	85.53	85.66	85.60	85.64	86.15
13	84.59	84.20	84.71	84.64	84.96	85.02	85.23	85.47	85.67	85.77	85.74	85.57
14	84.62	84.51	84.44	84.60	84.89	84.97	85.21	85.46	85.70	85.93	85.76	85.52
15	84.58	.....	84.57	84.75	84.88	85.16	85.33	85.50	85.45	85.34	85.77	85.49
16	84.29	.....	84.75	84.80	84.89	85.17	85.41	85.55	85.42	85.66	85.90	85.83
17	84.35	.....	84.85	84.62	84.91	85.11	85.33	85.58	85.36	85.64	85.62	85.62
18	84.46	84.57	84.55	84.57	84.80	85.04	85.27	85.48	85.48	85.70	85.58	85.55
19	84.71	84.25	84.36	84.64	84.76	85.18	85.29	85.35	85.65	85.73	85.66	85.69
20	84.57	84.55	84.80	84.63	84.90	85.23	85.44	85.36	85.69	85.73	85.90	85.55
21	84.53	84.46	84.38	84.66	84.90	85.11	85.40	85.51	85.73	85.98	86.03	85.56
22	84.38	84.59	84.35	84.56	85.05	85.08	85.28	85.58	85.65	85.45	85.69	95.35
23	84.66	84.77	84.92	84.64	84.76	85.18	85.35	85.57	85.49	85.63	85.70	85.60
24	84.30	84.50	84.66	.....	84.83	85.37	85.41	85.56	85.46	87.73	85.67	85.51
25	84.37	84.36	84.56	84.84	84.79	85.12	85.44	85.48	85.60	85.77	85.57	85.72
26	84.35	84.45	84.53	84.69	84.85	85.01	85.41	85.48	85.69	85.76	85.55	85.42
27	84.43	84.63	84.72	84.75	85.00	84.97	85.51	85.48	85.66	85.66	85.72	85.53
28	84.57	84.55	84.47	84.62	84.99	85.06	85.39	85.59	85.71	85.92	85.63	85.62
29	84.62	84.71	84.52	84.66	84.86	85.21	85.41	85.62	85.64	85.76	85.66	85.38
30	84.54	.....	84.86	84.76	84.95	85.21	85.37	85.59	85.60	85.54	86.30	85.55
31	84.54	.....	84.75	.....	85.06	.....	85.33	85.57	.....	85.50	.....	85.70

N1215 (\*986, p. 168). Nassau County Department of Public Works.  
Bloomingdale Road and Broadway, Hicksville.

Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 13	39.62	75.85
20	42.34	73.13
27	42.59	72.88
Feb. 3	42.62	72.85
10	42.68	72.79
24	42.22	73.25
Mar. 2	42.60	72.87
9	42.55	72.92
16	42.32	73.15
23	42.08	73.39
30	42.11	73.36
Apr. 6	42.16	73.31
13	42.20	73.27
20	42.24	73.23
27	42.22	73.25
May 4	42.13	73.34
11	42.11	73.36
19	42.16	73.31
25	42.10	73.37
June 1	42.00	73.47
15	41.95	73.52
29	41.99	73.48
July 13	42.06	73.41
27	42.30	73.17
Aug. 10	42.35	73.12
18	42.65	72.82

## N1215. Nassau County Department of Public Works--Continued.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Aug. 30	42.84	72.63
Sept. 14	42.88	72.59
28	42.03	73.44
Oct. 12	42.33	73.14
26	42.22	73.25
Nov. 2	42.22	73.25
18	42.29	73.18
30	42.28	73.19
Dec. 12	42.24	73.23
30	42.23	73.24

N1216 (\*986, p. 168). Nassau County Department of Public Works.  
North side of Central Boulevard, 500 feet west of Wantagh Road, Central  
Park.

Water level, in feet, 1944		
Jan. 1	40.38	64.05
6	39.91	64.52
13	39.26	65.17
20	39.26	65.17
27	39.28	65.15
29	39.41	65.02
Feb. 3	39.34	65.09
10	39.33	65.10
17	38.79	65.64
24	39.14	65.29
26	39.39	65.04
Mar. 2	39.25	65.18
9	39.28	65.15
16	39.09	65.34
23	38.98	65.45
30	38.94	65.49
Apr. 1	39.08	65.35
6	38.90	65.53
13	38.65	65.78
20	38.77	65.66
27	38.80	65.63
May 4	38.35	66.08
11	38.06	66.37
19	37.72	66.71
25	37.60	66.83
30	37.76	66.67
June 1	37.57	66.86
15	37.49	66.94
29	37.70	66.73
July 13	37.68	66.75
26	37.91	66.52
Aug. 10	37.88	66.55
18	37.95	66.48
28	38.24	66.19
30	38.16	66.27
Sept. 14	38.45	65.98
27	37.83	66.60
28	37.74	66.69
Oct. 12	38.22	66.21
26	38.55	65.88
31	38.84	65.59
Nov. 2	38.77	65.66
18	39.10	65.33
28	39.31	65.12
30	39.14	65.29
Dec. 12	39.03	65.40

N1222 (\*886, p. 497; 906, p. 134; 936, p. 162; 944, p. 143; 986, p. 169). Nassau County Department of Public Works. At southwest corner of Cecelia Place and John Street, Seaford.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	13.40	7.78
Mar. 3	14.00	7.18
28	13.53	7.65
May 2	12.03	9.15
June 2	12.29	8.89
30	12.45	8.73
July 29	13.12	8.06
Aug. 31	16.36	4.82
Oct. 2	17.49	3.69
31	18.35	2.83
Dec. 1	18.05	3.13
30	16.81	4.37

N1232 (\*986, p. 169). Nassau County Department of Public Works. Plainview Road and Plain Hay Path, Plainview.

## Water level, in feet, 1944

Jan. 13	34.97	76.84
20	35.30	76.51
27	35.37	76.44
Feb. 3	35.45	76.36
10	35.62	76.19
17	35.53	76.28
24	35.30	76.51
Mar. 2	35.45	76.36
9	35.24	76.57
16	34.65	77.16
23	34.60	77.21
30	34.87	76.94
Apr. 6	35.04	76.77
13	35.06	76.75
20	35.14	76.67
27	34.85	76.96
May 4	34.71	77.10
11	34.65	77.16
19	34.81	77.00
25	34.76	77.05
June 1	34.67	77.14
15	34.62	77.19
29	34.63	77.18
July 13	34.65	77.16
27	34.66	77.15
Aug. 10	34.92	76.89
18	34.90	76.91
30	35.00	76.81
Sept. 14	35.16	76.55
28	34.26	77.55
Oct. 12	34.42	77.39
26	34.80	77.01
Nov. 2	35.01	76.80
18	35.12	76.69
30	35.45	76.36
Dec. 12	35.18	76.63
30	35.53	76.28

N1233 (\*986, p. 170). Nassau County Department of Public Works. Plainview Road and Motor Parkway, Bethpage.

## N1233. Nassau County Department of Public Works--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 6	25.73	69.46
13	25.20	69.99
20	25.45	69.74
27	25.23	69.96
Feb. 3	25.53	69.66
10	25.68	69.51
17	25.45	69.74
24	25.28	29.91
Mar. 2	25.45	69.74
9	25.31	69.88
16	24.78	70.41
23	24.62	70.57
30	24.75	70.44
Apr. 6	24.85	70.34
13	24.78	70.41
20	24.89	70.30
27	24.66	70.53
May 4	24.43	70.76
11	24.32	70.87
19	24.32	70.87
25	24.15	71.04
June 1	24.05	71.14
15	24.11	71.09
29	24.30	70.89
July 13	24.51	70.68
27	24.69	70.50
Aug. 10	25.00	70.19
18	25.13	70.06
30	25.27	69.92
Sept. 14	25.53	69.66
28	25.02	70.17
Oct. 12	25.42	69.77
26	25.54	69.65
Nov. 2	25.70	69.49
18	25.99	69.20
30	25.82	69.37
Dec. 12	25.79	69.40
30	26.06	69.13

N1234 (\*986, p. 170). Nassau County Department of Public Works.  
Southwest side of Plainview Road, 400 feet northwest of Bethpage State  
Parkway, Central Park.

## Water level, in feet, 1944

Jan. 1	40.26	60.87
13	39.47	61.66
20	39.12	62.01
27	38.90	62.23
29	38.98	62.15
Feb. 3	38.78	62.35
10	38.82	62.31
17	38.89	62.24
24	38.57	62.56
26	38.77	62.36
Mar. 2	38.63	62.50
9	38.57	62.56
16	38.28	62.85
23	38.13	63.00
30	38.01	63.12
Apr. 1	38.24	62.89
6	38.00	63.13
13	37.85	63.28
20	37.75	63.38
27	37.72	63.41
May 4	37.30	63.83
11	37.13	64.00
19	36.81	64.32



## N1234. Nassau County Department of Public Works--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
May 25	36.79	64.34
30	36.88	64.25
June 1	36.64	64.49
15	36.83	64.20
29	37.26	63.87
July 13	37.50	63.83
26	37.75	63.38
Aug. 10	37.92	63.21
18	38.10	63.03
28	38.48	62.65
30	38.39	62.74
Sept. 16	38.68	62.45
27	38.62	62.51
28	38.48	62.65
Oct. 12	38.75	62.38
26	38.93	62.20
31	39.24	61.89
Nov. 2	39.10	62.03
18	39.35	61.78
28	39.55	61.58
28	39.25	61.88
Dec. 12	39.15	61.98
26	39.33	61.80
30	39.26	61.87

N1240 (\*886, p. 498; 906, p. 134; 936, p. 163; 944, p. 144; 986, p. 170). Nassau County Department of Public Works. 44 feet south of Sunrise Highway and 62 feet east of Manhattan Avenue, Massapequa Park.

## Water level, in feet, 1944

Feb. 7	15.50	7.70
Mar. 3	16.04	6.96
28	15.85	7.15
May 2	12.62	10.38
June 2	12.64	10.36
30	12.88	10.12
July 29	14.12	8.88
Aug. 31	19.39	3.61
Oct. 2	20.72	2.28
31	21.52	1.48
Dec. 1	20.81	2.19
30	19.31	3.69

N1244 (\*906, p. 135; 936, p. 163; 944, p. 144; 986, p. 171). Nassau County Department of Public Works. On north side of Jericho Turnpike, 60 feet west of Avery Road, about 2.5 miles east of Syosset.

## Water level, in feet, 1944

Feb. 26	176.64	72.25
Apr. 1	176.52	72.37
29	176.64	72.25
May 30	176.52	72.37
June 29	176.31	72.58
July 26	176.07	72.82
Aug. 28	175.83	73.06
Sept. 27	175.42	73.47
Oct. 31	175.34	73.55
Nov. 28	175.20	73.69
Dec. 26	175.09	73.80

N1245 (\*906, p. 135; 936, p. 163; 944, p. 144; 986, p. 171). Nassau County Department of Public Works. On west side of Plainview-Cold Spring Harbor Road, about 1 mile south of Jericho Turnpike and about 2 miles northeast of Plainview.

Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 26	183.06	76.87
Apr. 1	182.89	77.04
29	182.89	77.04
May 30	182.71	77.22
June 28	182.59	77.34
July 26	182.32	77.61
Aug. 28	181.99	77.94
Sept. 27	181.77	78.22
Oct. 31	181.64	78.29
Nov. 28	181.28	78.65
Dec. 26	181.28	78.65

N1246 (\*906, p. 135; 936, p. 163; 944, p. 144; 986, p. 171). Nassau County Department of Public Works. On east side of Plainview-Melville Road, just west of Suffolk County Line, Plainview.

Water level, in feet, 1944

Feb. 26	106.89	78.21
May 30	106.40	78.70
June 28	106.18	78.92
July 26	105.86	79.24
Aug. 28	105.58	79.52
Sept. 27	105.46	79.64
Oct. 31	105.54	79.56
Nov. 28	105.57	79.53
Dec. 26	105.84	79.26

N1247 (\*886, p. 498; 906, p. 135; 944, p. 145; 986, p. 172). Nassau County Department of Public Works. 500 feet north of Motor Parkway, 200 feet west of Suffolk County line, Bethpage.

Water level, in feet, 1944

June 28	83.79	73.34
July 26	83.54	73.59
Aug. 28	83.72	73.41
Sept. 27	83.85	73.28
Oct. 31	84.18	72.95
Nov. 28	84.25	72.88
Dec. 26	84.37	72.76

N1249 (\*906, p. 136; 936, p. 164; 944, p. 145; 986, p. 172). Nassau County Department of Public Works. At northeast corner of Secatogue Avenue and Wall Street, Farmingdale.

Water level, in feet, 1944

Feb. 26	14.16	53.68
Apr. 1	13.00	54.84
29	11.78	56.06
May 30	12.24	55.60
June 29	13.10	54.74
July 29	13.90	53.94
Aug. 28	14.54	53.30
Sept. 27	14.21	53.63
Oct. 31	14.97	52.87
Nov. 28	14.96	52.88
Dec. 26	14.08	53.76

N1250 (\*886, p. 499; 906, p. 136; 936, p. 164; 944, p. 145; 986, p. 172). Nassau County Department of Public Works. 37 feet northwest of Old Carmans Road and about 2,200 feet northeast of Great Neck Road, Farmingdale.

## N1250. Nassau County Department of Public Works--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 26	15.84	46.40
Apr. 1	14.53	47.71
29	13.33	48.91
May 30	14.29	47.95
June 29	15.27	46.97
July 29	16.14	46.10
Aug. 31	16.94	45.30
Sept. 29	16.55	45.69
Oct. 31	17.17	45.07
Nov. 28	17.10	45.14
Dec. 29	15.72	46.52

N1251 (\*886, p. 499; 906, p. 136; 936, p. 164; 944, p. 145; 986, p. 172). Nassau County Department of Public Works. About 275 feet west of County Line Road, about 800 feet north of Southern State Parkway, and about 2 miles south of Farmingdale.

## Water level, in feet, 1944

Feb. 26	10.21	38.64
Apr. 1	9.13	39.72
29	8.31	40.54
May 30	9.45	39.40
June 29	10.20	38.65
July 29	10.94	37.91
Aug. 31	11.70	37.15
Sept. 29	11.60	37.25
Oct. 31	12.07	36.78
Nov. 28	11.62	37.23
Dec. 29	10.35	38.50

N1252 (\*906, p. 136; 936, p. 164; 944, p. 145; 986, p. 173). Nassau County Department of Public Works. At southwest corner of County Line Road and Smith Street, 1 mile north of Amityville.

## Water level, in feet, 1944

Feb. 26	4.15	25.16
Apr. 1	3.45	25.86
29	3.08	26.23
May 30	3.49	25.82
June 29	4.12	25.19
July 29	4.75	24.56
Aug. 31	5.40	23.91
Sept. 29	5.29	24.02
Oct. 31	5.77	23.54
Nov. 28	5.25	24.06
Dec. 29	4.26	25.05

N1253 (\*886, p. 499; 906, p. 137; 936, p. 164; 986, p. 173). Nassau County Department of Public Works. At northeast corner of Clocks Boulevard and Pine Street, about 1 mile east of Massapequa Park.

## Water level, in feet, 1944

Feb. 7	13.21	15.27
Mar. 3	13.65	14.83
28	13.05	15.43
Apr. 29	12.27	16.21
May 30	12.74	15.74
June 29	13.20	15.28
July 29	13.75	14.73
Aug. 31	15.02	13.46
Sept. 29	15.24	13.24
Oct. 31	15.92	12.56
Nov. 28	15.84	12.64
Dec. 29	14.47	14.01

N1255 (\*840, p. 277; 945, p. 319; 886, p. 500; \*906, p. 137; 936, p. 165; 986, p. 174). Nassau County Department of Public Works. On east side of Clinton Road near St. James Street, Garden City.

Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	18.78	60.58
Mar. 7	18.77	60.59
27	17.93	61.43
Apr. 29	17.12	62.24
June 1	17.18	62.18
26	17.60	61.76
July 26	18.65	60.71
Aug. 28	19.47	59.89
Sept. 27	18.28	61.08
Oct. 30	18.81	60.55
Nov. 27	18.80	60.56
Dec. 26	17.99	61.37

N1256 (\*777, p. 135; \*817, p. 202; \*840, p. 277; 845, p. 319; 886, p. 500; \*906, p. 138; 936, p. 165; 986, p. 174). Nassau County Department of Public Works. At junction of Hillside Avenue and Bacon Road, Westbury.

Water level, in feet, 1944

Jan. 1	37.15	75.19
29	35.98	76.36
Feb. 26	35.79	76.55
Apr. 1	35.60	76.74
27	35.36	76.98
May 30	34.82	77.52
June 26	34.71	77.63
July 26	35.11	77.23
Aug. 28	35.44	76.90
Sept. 27	34.72	77.62
Oct. 30	34.97	77.37
Nov. 27	35.21	77.13
Dec. 26	34.69	77.65

N1257 (\*840, p. 278; 845, p. 319; \*886, p. 500; 906, p. 138; 936, p. 165; 944, p. 146; 986, p. 175). New York City Department of Water Supply, Gas and Electricity. Carman and Scranton Avenues, East Rockaway.

Water level, in feet, 1944

Feb. 7	14.22	7.72
Mar. 2	14.26	7.68
27	13.08	8.86
May 2	12.24	9.70
June 2	13.38	8.56
30	14.31	7.63
July 29	15.20	6.74
Aug. 31	15.68	6.26
Oct. 3	14.15	7.79
Nov. 2	14.64	7.30
Dec. 1	13.42	8.52
30	13.51	8.43

N1258 (\*840, p. 278; 845, p. 320; 886, p. 500; 906, p. 138; 936, p. 166; 944, p. 146; 986, p. 175). New York City Department of Water Supply, Gas and Electricity. West side of Carman Road about 300 feet north of Southern State Parkway, Farmingdale.

Water level, in feet, 1944

Feb. 26	10.64	37.55
Apr. 1	9.63	38.56
29	8.86	39.33
May 30	9.98	38.21
June 29	10.69	37.50
July 29	11.42	36.77
Aug. 31	12.13	36.06

N1258. New York City Department of Water Supply, Gas and Electricity  
--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Sept. 29	11.85	36.34
Oct. 31	12.35	35.84
Nov. 28	11.87	36.32
Dec. 29	10.79	37.40

N1259 (\*777, p. 125; \*840, p. 279; 845, p. 320; 886, p. 501; 906, p. 158; 936, p. 166; 944, p. 146; 986, p. 175). Geological Survey, U. S. Dept. of Interior. About 600 feet south of Union Avenue on west side of Hicksville-Massapequa Road, about 2 miles south of Central Park.

## Water level, in feet, 1944

Feb. 5	26.03	52.34
Mar. 3	26.09	52.28
27	25.61	52.76
May 2	24.78	53.59
June 1	24.25	54.12
30	24.82	53.55
July 29	25.42	52.95
Aug. 31	26.10	52.27
Oct. 2	26.20	52.17
31	26.59	51.78
Nov. 30	26.82	51.55
Dec. 30	26.18	52.19

N1260 (\*777, p. 126; \*817, p. 281; 845, p. 322; 886, p. 501; \*906, p. 139; 936, p. 166; 944, p. 147; 986, p. 176). Nassau County Department of Public Works. On west side of Main Street, 100 feet south of Pittsburg Avenue, Massapequa.

## Water level, in feet, 1944

Feb. 7	11.82	21.32
Mar. 3	12.14	21.00
27	11.06	22.08
May 2	10.03	23.11
June 1	11.33	21.81
30	12.14	21.00
July 26	12.84	20.30
Aug. 31	13.61	19.63
Oct. 2	13.82	19.32
31	14.32	18.82
Nov. 30	14.16	18.98
Dec. 30	12.99	20.15

N1262 (\*840, p. 282; 845, p. 323; 886, p. 502; 906, p. 139; 936, p. 166; 944, p. 147; 986, p. 176). New York City Department of Water Supply, Gas and Electricity. East side of Wantagh Avenue, about 0.25 mile south of Southern State Parkway, Wantagh.

## Water level, in feet, 1944

Feb. 7	6.19	34.77
Mar. 3	6.15	34.81
27	5.68	35.28
May 2	5.36	35.60
June 1	5.80	35.16
30	6.21	34.75
July 29	6.61	34.55
Aug. 31	6.96	34.00
Oct. 2	6.40	34.56
31	6.70	34.26
Dec. 1	6.00	34.96
30	6.09	34.87

N1263 (\*840, p. 283; 845, p. 323; 886, p. 502; \*906, p. 139; 936, p. 167; 944, p. 147; 986, p. 176). Nassau County Department of Public Works. At northeast corner of Wantagh and Farmingdale (Seamans Neck) Roads, about 1.3 miles north of Southern State Parkway and about 2 miles south of Central Park.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	15.47	50.50
Mar. 3	15.46	50.51
Apr. 1	14.79	51.18
May 2	14.03	51.94
June 1	13.82	52.15
30	14.31	51.66
July 29	14.90	51.07
Aug. 31	15.61	50.36
Oct. 2	15.41	50.56
31	15.91	50.06
Dec. 1	15.88	50.09
30	15.45	50.52

N1264 (\*840, p. 285; 845, p. 323; 886, p. 502; 906, p. 140; 936, p. 167; 944, p. 147; 986, p. 176). New York City Department of Water Supply, Gas and Electricity. On west side of Newbridge Road about 300 feet south of Sunrise Highway, Bellemore.

## Water level, in feet, 1944

Feb. 7	5.75	7.97
Mar. 3	5.85	7.87
27	6.72	7.00
May 2	5.47	8.25
June 1	5.61	8.11
30	5.90	7.82
July 29	6.31	7.41
Aug. 31	7.82	5.90
Oct. 2	8.81	6.91
Nov. 2	9.38	4.34
Dec. 1	8.01	5.71
30	8.80	4.92

N1265 (\*906, p. 140; \*936, p. 167; 944, p. 148; 986, p. 177). Nassau County Department of Public Works. At southwest corner of Albany Avenue and Merrick Road, Freeport.

## Water level, in feet, 1944

May 29	2.55	3.32
Sept. 1	2.97	2.90
Dec. 6	2.28	3.59

N1269 (\*906, p. 140; 936, p. 168; 944, p. 148; 986, p. 177). Nassau County Department of Public Works. At southwest corner of Babylon Turnpike and Poplar Street, Merrick.

## Water level, in feet, 1944

May 29	6.12	6.86
Sept. 5	7.69	5.29
Dec. 6	8.28	4.70

N1271 (\*906, p. 141; 936, p. 168; \*944, p. 148; 986, p. 177). Nassau County Department of Public Works. At northeast corner of Beach Drive and Florence Street, Merrick.

## Water level, in feet, 1944

May 29	2.84	1.78
Sept. 5	3.43	1.19
Dec. 6	1.92	2.70

N1273 (\*906, p. 141; 936, p. 168; 944, p. 148; 986, p. 177). Nassau County Department of Public Works. At northwest corner of Cypress Street and Walters Avenue, Wantagh.

Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
May 29	8.08	7.03
Sept. 4	9.74	5.37
Dec. 6	8.86	6.25

N1275 (\*906, p. 141; 936, p. 168; 944, p. 148; 986, p. 177). Nassau County Department of Public Works. At northeast corner of Byron and Willow Streets, Wantagh.

Water level, in feet, 1944

May 30	6.50	2.81
Sept. 4	7.42	1.89
Dec. 6	5.30	4.01

N1278 (\*906, p. 142; 936, p. 168; 944, p. 148; 986, p. 177). Nassau County Department of Public Works. At southeast corner of Nassau Street and Bay Drive, Massapequa.

Water level, in feet, 1944

May 30	6.63	6.53
Sept. 4	7.94	5.22
Dec. 6	6.19	6.97

N1280 (\*906, p. 142; 936, p. 169; 944, p. 149; 986, p. 177). Nassau County Department of Public Works. At northwest corner of Harmony Drive and Park Boulevard, Massapequa.

Water level, in feet, 1944

May 30	10.28	9.49
Sept. 4	13.85	5.92
Dec. 6	14.20	5.57

N1282 (\*906, p. 143; 936, p. 169; 944, p. 149; 986, p. 177). Nassau County Department of Public Works. On west side of Wantagh State Parkway, about 0.9 mile south of Merrick Road, Wantagh.

Water level, in feet, 1944

May 31	6.49	0.96
Sept. 4	6.40	1.05
Dec. 6	5.40	2.05

N1285 (\*906, p. 143; 936, p. 169; 944, p. 149; 986, p. 178). Nassau County Department of Public Works. At northwest corner of Spruce and Melvin Streets, Wantagh.

Water level, in feet, 1944

May 29	3.94	2.72
Sept. 4	4.26	2.40
Dec. 6	3.40	3.26

N1288 (\*906, p. 143; 936, p. 169; 944, p. 149; 986, p. 178). Nassau County Department of Public Works. On west side of Bay View Avenue at St. Regis Street, Wantagh.

Water level, in feet, 1944

May 29	6.60	3.38
Sept. 4	7.59	2.39
Dec. 6	5.63	4.35

N1461 (\*986, p. 178). Nassau County Department of Public Works. Along tracks of Long Island Railroad about 235 feet southeast of New South Road, South Hicksville.

## N1461. Nassau County Department of Public Works--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	53.82	53.71	53.35	53.34	53.30	53.32	53.53	53.95	53.39	53.50	53.50
2	.....	53.86	53.76	53.35	53.38	53.29	53.29	53.55	53.95	53.38	53.50	53.54
3	.....	53.84	53.74	53.36	53.38	53.29	53.27	53.55	53.94	53.37	53.48	53.52
4	.....	53.86	53.73	53.35	53.34	53.31	53.22	53.58	53.93	53.38	53.45	53.48
5	.....	53.88	53.74	53.34	53.37	53.30	53.19	53.59	53.92	53.39	53.42	53.45
6	.....	53.82	53.77	53.38	53.42	53.28	53.19	53.58	53.96	53.38	53.43	53.44
7	54.42	53.85	53.68	53.39	53.42	53.27	53.21	53.59	53.79	53.39	53.46	53.45
8	54.17	53.88	53.69	53.38	53.45	53.28	53.22	53.62	53.99	53.40	53.46	53.40
9	53.99	53.89	53.66	53.40	53.47	53.28	53.20	53.64	54.02	.....	53.48	53.47
10	53.94	53.92	53.64	53.36	53.48	53.25	53.19	53.64	54.03	.....	53.43	53.51
11	53.92	53.88	53.64	53.43	53.48	53.20	53.21	54.65	54.03	.....	53.45	53.50
12	53.90	53.84	53.62	53.33	53.48	53.19	53.22	53.67	54.03	53.48	53.49	53.37
13	53.91	53.94	53.58	53.39	53.46	53.20	53.27	53.68	54.04	53.48	53.49	53.48
14	53.87	53.91	53.58	53.43	53.45	53.22	53.32	53.71	54.05	53.46	53.49	53.51
15	53.87	53.89	53.45	53.42	53.45	53.20	53.33	53.73	53.99	53.56	53.48	53.54
16	53.91	53.93	53.54	53.39	53.45	53.19	53.30	53.74	53.72	53.55	53.47	53.47
17	53.91	53.86	53.27	53.42	53.45	53.20	53.28	53.76	53.52	53.53	53.53	53.50
18	53.89	53.81	53.27	53.45	53.48	53.20	53.32	53.78	53.37	53.51	53.56	53.51
19	53.85	53.86	53.31	53.45	53.50	53.17	53.35	53.81	53.30	53.48	53.56	53.48
20	53.86	53.79	53.25	53.45	53.47	53.16	53.36	53.82	53.29	53.49	53.53	53.53
21	53.87	53.76	53.51	53.46	53.46	53.18	53.38	53.82	53.29	53.40	53.44	53.51
22	53.88	53.75	53.35	53.49	53.41	53.20	53.42	53.82	53.32	53.50	53.51	53.56
23	53.83	53.71	53.27	53.48	53.45	53.20	53.42	53.85	53.37	53.50	53.51	53.55
24	53.89	53.74	53.28	53.40	53.44	53.17	53.40	53.87	53.38	53.48	53.49	53.54
25	53.88	53.77	53.32	53.38	53.40	53.19	53.42	53.89	53.36	53.46	53.53	53.50
26	53.85	53.77	53.32	53.40	53.37	53.22	53.44	53.90	53.34	53.44	53.55	53.51
27	53.81	53.73	53.31	53.38	53.33	53.26	53.45	53.91	53.33	53.45	53.54	53.54
28	53.81	53.72	53.34	53.38	53.31	53.28	53.48	53.89	53.35	53.43	53.52	53.47
29	53.79	53.70	53.36	53.39	53.31	53.29	53.50	53.88	53.38	53.41	53.52	53.54
30	53.80	.....	53.30	53.37	53.30	53.31	53.50	53.90	53.39	53.48	53.36	53.52
31	53.82	.....	53.31	.....	53.29	.....	53.51	53.93	.....	53.50	.....	53.47

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	75.67	75.78	76.14	76.15	76.19	76.17	75.96	75.54	76.10	75.99	75.99
2	.....	75.63	75.73	76.14	76.11	76.20	76.20	75.94	75.54	76.11	75.99a	75.95
3	.....	75.65	75.75	76.13	76.11	76.20	76.22	75.94	75.55	76.12	76.01	75.97
4	.....	75.63	75.76	76.14	76.15	76.18	76.27	75.91	75.56	76.11	76.04	76.01
5	.....	75.61	75.75	76.15	76.12	76.19	76.30	75.90	75.57	76.10	76.07	76.04
6	.....	75.67	75.72	76.11	76.07	76.21	76.30	75.91	75.53	76.11	76.06	76.05
7	75.07	75.64	75.81	76.10	76.07	76.22	76.28	75.90	75.52	76.10	76.03	76.04
8	75.32	75.60	75.80	76.11	76.04	76.21	76.27	75.87	75.50	76.09	76.03	76.09
9	75.50	75.60	75.83	76.09	76.02	76.21	76.29	75.85	75.47	.....	76.01	76.02
10	75.55	75.57	75.85	76.13	76.01	76.24	76.30	75.35	75.46	.....	76.06	75.98
11	75.57	75.61	75.85	76.06	76.01	76.29	76.28	75.84	75.46	.....	76.04	75.99
12	75.59	75.65	75.87	76.16	76.01	76.30	76.27	75.82	75.46	76.01	76.00	76.12
13	75.58	75.55	75.91	76.10	76.03	76.29	76.22	75.81	75.45	76.01	76.00	76.01
14	75.62	75.58	75.91	76.06	76.04	76.27	76.17	75.78	75.44	76.03	76.00	75.98
15	75.62	75.60	76.04	76.07	76.04	76.29	76.16	75.76	75.50	75.93	76.01	75.95
16	75.58	75.56	76.15	76.10	76.04	76.30	76.19	75.75	75.77	75.94	76.02	76.02
17	75.58	75.63	76.22	76.07	76.04	76.29	76.21	75.73	75.97	75.96	75.96	75.99
18	75.60	75.68	76.22	76.04	76.01	76.29	76.17	75.71	76.12	75.98	75.93	75.98
19	75.64	75.63	76.18	76.04	75.99	76.32	76.14	75.68	76.19	76.01	75.93	76.01
20	75.63	75.70	76.24	76.04	76.02	76.33	76.13	75.67	76.20	76.00	75.96	75.96
21	75.62	75.73	76.18	76.03	76.03	76.31	76.11	75.67	76.20	76.09	76.05	75.98
22	75.61	75.74	76.14	76.00	76.08	76.29	76.07	75.67	76.17	75.99	75.98	75.93
23	75.66	75.78	76.22	76.01	76.04	76.29	76.07	75.64	76.12	75.99	75.98	75.94
24	75.60	75.75	76.21	76.09	76.05	76.32	76.09	75.62	76.11	76.01	76.00	75.95
25	75.61	75.72	76.17	76.11	76.09	76.30	76.07	75.60	76.13	76.03	75.96	75.99
26	75.64	75.72	76.17	76.09	76.12	76.27	76.05	75.69	76.15	76.05	75.94	75.98
27	75.68	75.76	76.18	76.11	76.16	76.23	76.04	75.68	76.16	76.04	75.95	75.95
28	75.68	75.77	76.15	76.11	76.18	76.21	76.01	75.60	76.14	76.06	75.97	76.02
29	75.70	75.79	76.13	76.10	76.18	76.20	75.99	75.61	76.11	76.08	75.97	75.95
30	75.69	.....	76.19	76.12	76.19	76.18	75.99	75.59	76.10	76.01	76.13	75.97
31	75.67	.....	76.18	.....	76.20	.....	75.98	75.56	.....	75.99	.....	76.02

a Estimated.



N1462 (\*986, p. 179). Nassau County Department of Public Works.  
Along tracks of Long Island Railroad at Bloomingdale Road, Island Trees.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	32.65	32.58	32.27	31.94	31.28	31.32	31.63	32.02	31.78	32.24	32.48
2	.....	32.68	32.61	32.26	31.92	31.27	31.33	31.65	32.03	31.80	32.26	32.45
3	33.42	32.68	32.62	32.27	31.89	31.26	31.35	31.66	32.04	31.82	32.27	32.42
4	33.28	32.70	32.64	32.25	31.86	31.30	31.35	31.67	32.06	31.84	32.27	32.40
5	33.01	32.72	32.65	32.23	31.83	31.27	31.35	31.68	32.06	31.85	32.28	32.37
6	32.62	32.70	32.68	32.27	31.81	31.24	31.36	31.69	32.08	31.86	32.29	32.35
7	.....	32.72	32.61	32.25	31.79	31.23	31.37	31.70	32.13	31.87	32.31	32.33
8	.....	32.74	32.45	32.23	31.77	31.26	31.38	31.72	32.14	31.88	32.33	32.30
9	.....	32.75	32.39	32.26	31.75	31.26	31.39	31.74	32.16	31.90	32.35	32.31
10	32.27	32.76	32.42	32.22	31.72	31.23	31.39	31.74	32.18	31.92	32.35	32.34
11	32.37	32.75	32.46	32.26	31.70	31.22	31.40	31.74	32.19	31.94	32.36	32.32
12	32.43	32.73	32.48	32.19	31.67	31.22	31.41	31.76	32.20	31.96	32.39	32.27
13	32.50	32.79	32.46	32.22	31.64	31.22	31.43	31.77	32.21	31.97	32.40	32.30
14	32.53	32.81	32.16	32.24	31.61	31.23	31.45	31.78	32.21	31.96	32.42	32.33
15	32.54	32.76	32.05	32.23	31.59	31.21	31.45	31.80	31.82	31.99	32.43	32.35
16	32.58	32.58	32.02	32.20	31.57	31.20	31.45	31.81	31.45	32.02	32.43	32.31
17	32.61	32.45	32.03	32.22	31.54	31.20	31.46	31.82	31.39	32.03	32.45	32.32
18	32.62	32.39	32.10	32.23	31.51	31.22	31.48	31.83	31.34	32.04	32.47	32.32
19	32.61	32.38	32.16	32.22	31.50	31.22	31.49	31.86	31.48	32.05	32.49	32.30
20	32.62	32.40	32.15	32.21	31.47	31.20	31.49	31.88	31.52	32.07	32.50	32.32
21	32.64	32.45	32.20	32.21	31.46	31.21	31.50	31.89	31.55	32.04	32.49	32.31
22	32.67	32.48	32.25	32.21	31.42	31.23	31.52	31.89	31.58	32.09	32.50	32.35
23	32.63	32.48	32.22	32.20	31.41	31.23	31.52	31.90	31.63	32.11	32.50	32.33
24	32.68	32.52	32.22	32.17	31.40	31.20	31.53	31.91	31.67	32.11	32.50	32.33
25	32.65	32.55	32.25	32.14	31.39	31.22	31.54	31.92	31.69	32.12	32.52	32.31
26	32.63	32.56	32.26	32.10	31.38	31.26	31.55	31.95	31.70	32.14	32.53	32.30
27	32.61	32.57	32.26	32.07	31.35	31.30	31.56	31.96	31.71	32.16	32.54	32.34
28	32.61	32.57	32.28	32.04	31.33	31.31	31.57	31.98	31.73	32.16	32.54	32.32
29	32.60	32.56	32.30	32.01	31.33	31.31	31.58	31.98	31.74	32.17	32.53	32.29
30	32.62	.....	32.24	31.98	31.32	31.31	31.60	32.00	31.77	32.20a	32.50	32.27
31	32.66	.....	32.24	.....	31.30	.....	31.61	32.01	.....	32.22	.....	32.26

a Estimated.

Water level at noon, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	62.33	62.40	62.71	63.04	63.70	63.66	63.35	62.96	63.20	62.74	62.50
2	.....	62.30	62.37	62.72	63.06	63.71	63.65	63.33	62.95	63.18	62.72	62.53
3	61.56	62.30	62.36	62.71	63.09	63.72	63.63	63.32	62.94	63.16	62.71	62.56
4	61.70	62.28	62.34	62.73	63.12	63.68	63.63	63.31	62.92	63.14	62.71	62.58
5	61.97	62.26	62.33	62.75	63.15	63.71	63.63	63.30	62.92	63.13	62.70	62.61
6	62.36	62.28	62.30	62.71	63.17	63.74	63.62	63.29	62.90	63.12	62.69	62.63
7	.....	62.26	62.37	62.73	63.19	63.75	63.61	63.28	62.86	63.11	62.67	62.65
8	.....	62.24	62.53	62.75	63.21	63.72	63.60	63.26	62.84	63.10	62.65	62.68
9	.....	62.23	62.59	62.72	63.23	63.72	63.59	63.24	62.82	63.08	62.63	63.67
10	62.71	62.22	62.56	62.76	63.26	63.75	63.59	63.24	62.80	63.06	62.63	62.64
11	62.61	62.23	62.52	62.72	63.28	63.76	63.58	63.24	62.79	63.04	62.62	62.66
12	62.55	62.25	62.50	62.79	63.31	63.76	63.57	63.22	62.78	63.02	62.59	62.71
13	62.48	62.19	62.52	62.76	63.34	63.76	63.55	63.21	62.77	63.01	62.58	62.68
14	62.45	62.17	62.82	62.74	63.37	63.75	63.53	63.20	62.77	63.02	62.56	62.65
15	62.44	62.22	62.93	62.75	63.39	63.77	63.53	63.18	63.16	62.99	63.55	62.63
16	62.40	62.40	62.96	62.78	63.41	63.78	63.53	63.17	63.53	62.96	62.55	62.67
17	62.37	62.53	62.95	62.76	63.44	63.78	63.52	63.16	63.59	62.95	62.53	62.66
18	62.36	62.59	62.88	62.75	63.47	63.76	63.50	63.15	63.54	62.94	62.51	62.66
19	62.37	62.60	62.82	62.76	63.48	63.76	63.49	63.12	63.50	62.93	62.49	62.68
20	62.36	62.58	62.83	62.77	63.51	63.78	63.49	63.10	63.46	62.91	62.48	62.66
21	62.34	62.53	62.78	62.77	63.52	63.77	63.48	63.09	63.43	62.94	62.49	62.67
22	62.31	62.50	62.73	62.77	63.56	63.75	63.46	63.09	63.40	62.89	62.48	62.63
23	62.35	62.50	62.76	62.78	63.57	63.75	63.46	63.08	63.35	62.87	62.48	62.65
24	62.30	62.46	62.76	62.81	63.58	63.79	63.45	63.07	63.31	62.87	62.48	62.65
25	62.33	62.43	62.73	62.84	63.59	63.76	63.44	63.05	63.29	62.86	62.46	62.67
26	62.35	62.42	62.72	62.88	63.60	63.72	63.43	63.03	63.28	62.84	62.45	62.68

## N1462. Nassau County Department of Public Works--Continued.

Water level at noon, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	62.37	62.41	62.72	62.91	63.63	63.68	63.42	63.02	63.27	62.82	62.44	62.64
28	62.37	62.41	62.70	62.94	63.65	63.67	63.41	63.00	63.25	62.82	62.44	62.72
29	62.38	62.42	62.68	62.97	63.65	63.67	63.40	63.00	63.24	62.81	62.45	62.69
30	62.36	.....	62.74	63.00	63.66	63.67	63.38	62.98	63.21	62.78a	62.48	62.71
31	62.32	.....	62.74	.....	63.68	.....	63.37	62.97	.....	62.76	.....	62.72

a Estimated.

N1463 (#986, p. 180). Nassau County Department of Public Works.  
Southern State Parkway and Seamans Neck Road, Jerusalem.

Water level at noon, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	11.66	11.78	10.94	10.03	10.62	11.48	12.39	13.12	12.61	13.17	12.91
2	.....	11.70	11.82	10.92	10.01	10.65	11.51	12.41	13.13	12.63	13.19	12.78
3	12.90	11.71	11.85	10.91	10.00	10.68	11.55	12.42	13.15	12.65	13.20	12.69
4	12.16	11.74	11.87	10.89	9.99	10.73	11.57	12.45	13.17	12.67	13.21	12.62
5	11.75	11.77	11.89	10.88	9.99	10.76	11.60	12.47	13.18	12.69	13.22	12.58
6	11.46	11.77	11.92	10.89	.....	10.78	11.64	12.49	13.20	12.70	13.24	12.54
7	11.35	11.79	11.77	10.88	.....	10.81	11.67	12.51	13.23	12.72	13.26	12.48
8	11.43	11.82	11.83	10.89	.....	10.86	11.70	12.54	13.26	12.74	13.28	12.42
9	11.46	11.85	11.85	10.90	.....	10.91	11.73	12.57	13.28	12.76	13.30	12.39
10	11.47	11.89	11.87	10.87	.....	10.93	11.76	12.58	13.31	12.78	13.31	12.37
11	11.46	11.90	11.88	10.91	.....	10.94	11.79	12.60	13.33	12.80	13.33	12.35
12	11.43	11.92	11.88	10.85	10.06	10.98	11.82	12.63	13.35	12.83	13.35	12.28
13	11.43	11.95	11.52	10.89	10.08	11.01	11.85	12.65	13.32	12.84	13.36	12.29
14	11.40	11.98	11.29	10.92	10.10	11.05	11.89	12.67	13.31	12.86	13.38	12.27
15	11.40	11.46	11.25	10.90	10.14	11.06	11.91	12.69	12.59	12.89	13.39	12.25
16	11.41	11.44	11.21	10.82	10.16	11.08	11.93	12.72	.....	12.91	13.40	12.22
17	11.43	11.55	11.17	10.78	10.19	11.11	11.96	12.75	.....	12.92	13.41	12.21
18	11.43	11.57	11.17	10.76	10.22	11.14	12.00	12.77	.....	12.93	13.43	12.20
19	11.43	11.61	11.17	10.75	10.26	11.16	12.02	12.80	.....	12.95	13.44	12.19
20	11.44	11.62	11.13	10.75	10.28	11.17	12.05	12.82	.....	13.00	13.46	12.21
21	11.46	11.63	11.14	10.75	10.31	11.20	12.07	12.83	12.43	12.91	13.42	12.20
22	11.50	11.64	11.15	10.75	10.32	11.24	12.10	12.85	12.45	13.00	13.42	12.22
23	11.49	11.63	11.11	10.75	10.36	11.26	12.13	12.88	12.46	13.01	13.37	12.21
24	11.54	11.67	11.08	10.69	10.40	11.27	12.15	12.91	12.48	13.02	13.33	12.20
25	11.56	11.71	11.05	10.45	10.42	11.31	12.18	12.93	12.49	13.03	13.33	12.20
26	11.58	11.73	11.03	10.35	10.46	11.35	12.21	12.96	12.50	13.05	13.34	12.21
27	11.59	11.74	11.01	10.29	10.48	11.39	12.25	12.98	12.51	13.08	13.34	12.23
28	11.60	11.75	11.02	10.22	10.50	11.41	12.28	13.00	13.53	13.09	13.24	12.15
29	11.61	11.75	11.02	10.16	10.54	11.43	12.31	13.02	12.56	13.10	13.13	12.17
30	11.62	.....	10.95	10.09	10.57	11.45	12.34	13.04	12.58	13.11	13.02a	12.15
31	11.63	.....	10.94	.....	10.58	.....	12.36	13.08	.....	13.14	.....	12.14

a Estimated.

Water level at noon, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	39.01	38.89	39.73	40.64	40.05	39.19	38.28	37.55	38.06	37.50	37.76
2	.....	38.97	38.85	39.75	40.66	40.02	39.16	38.26	37.54	38.04	37.48	37.89
3	37.77	38.96	38.82	39.76	40.67	39.99	39.12	38.25	37.52	38.02	37.47	37.98
4	38.51	38.93	38.80	39.78	40.68	39.94	39.10	38.22	37.50	38.00	37.46	38.05
5	38.92	38.90	38.78	39.79	40.68	39.91	39.07	38.20	37.49	37.98	37.45	38.09
6	39.21	38.90	38.75	39.78	.....	39.89	39.02	38.18	37.47	37.97	37.43	38.13
7	39.22	38.88	38.90	39.79	.....	39.86	39.00	38.16	37.44	37.95	37.41	38.19
8	39.24	38.85	38.84	39.78	.....	39.81	38.97	38.13	37.41	37.93	37.39	38.25
9	39.21	38.82	38.82	39.77	.....	39.76	38.94	38.10	37.39	37.91	37.37	38.28
10	39.20	38.78	38.80	39.80	.....	39.74	38.91	38.09	37.36	37.89	37.36	38.30
11	39.21	38.77	38.79	39.76	.....	39.73	38.88	38.07	37.34	37.87	37.34	38.32
12	39.24	38.75	38.79	39.82	40.61	39.69	38.85	38.04	37.32	37.74	37.32	38.39
13	39.24	38.72	39.15	39.78	40.59	39.66	38.82	38.02	37.35	37.83	37.31	38.38
14	39.27	38.69	39.38	39.75	40.57	39.62	38.78	38.00	37.36	37.81	37.29	38.40
15	39.27	39.21	39.42	39.77	40.53	39.61	38.76	37.98	38.08	37.78	37.28	38.42
16	39.26	39.23	39.46	39.85	40.51	39.59	38.74	37.95	.....	37.76	37.27	38.45

## N1463. Nassau County Department of Public Works--Continued.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	39.24	39.12	39.50	39.89	40.48	39.56	38.71	37.92	.....	37.75	37.26	38.46
18	39.24	39.10	39.50	39.91	40.45	39.53	38.67	37.90	.....	37.74	37.24	38.47
19	39.24	39.06	39.50	39.92	40.41	39.51	38.65	37.87	.....	37.72	37.23	38.48
20	39.23	39.05	39.54	39.92	40.39	39.50	38.62	37.85	.....	37.67	37.21	38.46
21	39.21	39.04	39.53	39.92	40.36	39.47	38.60	37.84	38.24	37.76	37.25	38.47
22	39.17	39.03	39.52	39.92	40.35	39.43	38.57	37.82	38.22	37.67	37.25	38.45
23	39.18	39.04	39.56	39.92	40.31	39.41	38.54	37.79	38.21	37.66	37.30	38.46
24	39.13	39.00	39.59	39.99	40.27	39.40	38.52	37.76	38.19	37.65	37.34	38.47
25	39.11	38.96	39.62	40.22	40.25	39.36	38.49	37.74	38.18	37.64	37.34	38.47
26	39.09	38.94	39.64	40.32	40.21	39.32	38.46	37.71	38.17	37.62	37.33	38.46
27	39.08	38.93	39.66	40.38	40.19	39.28	38.42	37.69	38.16	37.59	37.33	38.44
28	39.07	38.92	39.65	40.45	40.17	39.26	38.39	37.67	38.14	37.58	37.43	38.52
29	39.06	38.92	39.65	40.51	40.13	39.24	38.36	37.65	38.11	37.57	37.54	38.50
30	39.05	.....	39.72	40.58	40.10	39.22	38.33	37.65	38.09	37.56	37.65	38.52
31	39.04	.....	39.73	.....	40.09	.....	38.31	37.69	.....	37.53	.....	38.53

a Estimated.

N1464 (\*986, p. 181). Nassau County Department of Public Works.  
Grant and Franklin Avenues, Seaford.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	12.64	13.01	12.01	11.24	12.59	13.11	13.59	14.23	13.62	15.28	15.08
2	.....	12.68	13.04	11.97	11.31	12.62	13.13	13.60	14.26	14.65	15.30	14.90
3	.....	12.70	13.04	11.94	11.33	12.65	13.15	13.61	14.30	14.68	15.31	14.71
4	.....	12.73	13.04	11.92	11.36	12.70	13.16	13.61	14.34	14.71	15.32	14.54
5	.....	12.76	13.05	11.89	11.40	12.72	13.17	13.62	14.37	14.74	15.34	14.43
6	.....	12.78	13.07	11.91	11.47	12.74	13.19	13.63	14.42	14.76	15.36	14.34
7	.....	12.81	13.00	11.91	11.52	12.75	13.21	13.65	14.46	14.79	15.39	14.27
8	11.89	12.85	12.95	11.92	11.58	12.79	13.22	13.67	14.49	.....	15.41	14.22
9	11.81	12.88	12.95	11.95	11.64	12.81	13.24	13.67	14.53	.....	15.44	14.19
10	11.81	12.91	12.89	11.93	11.70	12.83	13.25	13.66	14.58	.....	15.47	14.17
11	11.88	12.93	12.87	12.00	11.75	12.83	13.27	13.66	14.61	.....	15.50	14.14
12	11.92	12.95	12.83	11.93	11.81	12.85	13.28	13.67	14.65	14.91	15.52	14.10
13	12.01	13.00	12.78	11.99	11.86	12.86	13.30	13.69	14.67	14.95	15.55	14.09
14	12.04	13.02	12.53	12.04	11.93	12.89	13.32	13.70	14.70	14.95	15.57	14.08
15	12.09	12.95	12.25	12.05	11.99	12.89	13.33	13.72	14.52	14.98	15.59	14.07
16	12.14	12.86	12.11	12.01	12.04	12.90	13.34	13.74	14.41	15.01	15.60	14.04
17	12.21	12.83	12.07	11.96	12.09	12.92	13.35	13.77	14.37	15.03	15.62	14.02
18	12.25	12.84	12.12	11.91	12.14	12.94	13.37	13.79	14.35	15.06	15.65	14.00
19	12.27	12.90	12.21	11.87	12.18	12.95	13.38	13.83	14.34	15.09	15.66	13.98
20	12.31	12.90	12.21	11.83	12.22	12.94	13.39	13.85	14.34	15.11	15.68	13.97
21	12.35	12.93	12.29	11.80	12.26	12.96	13.40	13.87	14.36	15.12	15.69	13.94
22	12.39	12.95	12.35	11.79	12.30	12.98	13.42	13.89	14.39	15.13	15.66	13.95
23	12.40	12.93	12.34	11.78	12.34	12.99	13.43	13.91	14.43	15.14	15.60	13.94
24	12.46	12.98	12.29	11.76	12.38	12.99	13.45	13.94	14.37	15.15	15.65	13.93
25	12.50	13.01	12.27	11.67	12.42	13.00	13.46	13.97	14.49	15.17	15.62	13.93
26	12.53	13.02	12.23	11.47	12.45	13.03	13.48	14.01	14.51	15.18	15.49	13.94
27	12.54	13.01	12.18	11.30	12.47	13.05	13.50	14.05	14.53	15.19	15.46	13.96
28	12.56	13.02	12.15	11.24	12.49	13.06	13.51	14.08	14.56	15.21	15.41	13.92
29	12.57	13.00	12.13	11.23	12.52	13.08	13.53	14.11	14.58	15.22	15.36	13.91
30	12.59	.....	12.07	11.24	12.55	13.09	13.55	14.14	14.60	15.24	15.24	13.90
31	12.62	.....	12.03	.....	12.57	.....	13.57	14.19	.....	15.26	.....	13.88

a Estimated.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	16.18	15.81	16.81	17.58	16.23	15.71	15.23	14.59	14.20	13.54	13.74
2	.....	16.14	15.78	16.85	17.51	16.20	15.69	15.22	14.56	14.17	13.52	13.92
3	.....	16.12	15.78	16.88	17.49	16.17	15.67	15.21	14.52	14.14	13.51	14.11
4	.....	16.09	15.78	16.90	17.46	16.12	15.66	15.21	14.48	14.11	13.50	14.28
5	.....	16.06	15.77	16.93	17.42	16.10	15.65	15.20	14.45	14.08	13.48	14.39
6	.....	16.04	15.75	16.91	17.35	16.08	15.63	15.19	14.40	14.06	13.46	14.48

## N1464. Nassau County Department of Public Works--Continued.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	16.01	15.82	16.91	17.30	16.07	15.61	15.17	14.36	14.03	13.43	14.55	
8	16.93	15.97	15.87	16.90	17.24	16.03	15.60	15.15	14.35	.....	13.41	14.60
9	17.01	15.94	15.90	16.87	17.18	16.01	15.58	15.15	14.29	.....	13.38	14.63
10	17.01	15.91	15.93	16.89	17.12	15.99	15.57	15.16	14.24	.....	13.35	14.65
11	16.94	15.89	15.95	16.82	17.07	15.99	15.55	15.16	14.21	.....	13.32	14.68
12	16.90	15.87	15.99	16.89	17.01	15.97	15.54	15.15	14.17	13.91	13.30	14.72
13	16.81	15.82	16.04	16.83	16.96	15.96	15.52	15.13	14.15	13.89	13.27	14.73
14	16.78	15.80	16.29	16.78	16.89	15.93	15.50	15.12	14.12	13.87	13.25	14.74
15	16.73	15.87	16.57	16.77	16.83	15.93	15.49	15.10	14.30	13.84	13.23	14.75
16	16.68	15.96	16.71	16.81	16.78	15.92	15.48	15.08	14.41	13.81	13.22	14.78
17	16.61	15.99	16.75	16.86	16.73	15.90	15.47	15.05	14.45	13.79	13.20	14.80
18	16.57	15.98	16.70	16.91	16.68	15.88	15.45	15.03	14.47	13.76	13.17	14.82
19	16.55	15.82	16.61	16.95	16.64	15.87	15.44	14.99	14.48	13.73	13.16	14.84
20	16.51	15.92	16.61	16.99	16.60	15.88	15.43	14.97	14.48	13.71	13.14	14.85
21	16.47	15.89	16.53	17.02	16.56	15.86	15.42	14.95	14.46	13.70	13.13	14.88
22	16.43	15.87	16.47	17.03	16.52	15.84	15.40	14.93	14.43	13.69	13.16	14.87
23	16.42	15.89	16.48	17.04	16.48	15.83	15.39	14.91	14.39	13.68	13.22	14.88
24	16.36	15.84	16.53	17.06	16.44	15.83	15.37	14.88	14.35	13.67	13.27	14.89
25	16.32	15.81	16.55	17.15	16.40	15.82	15.36	14.85	14.33	13.65	13.30	14.89
26	16.29	15.80	16.59	17.35	16.37	15.79	15.34	14.81	14.31	13.64	13.33	14.88
27	16.28	15.81	16.64	17.52	16.35	15.77	15.32	14.77	14.29	13.63	13.36	14.86
28	16.26	15.80	16.67	17.58	16.33	15.76	15.31	14.74	14.26	13.61	13.41	14.90
29	16.25	15.82	16.69	17.59	16.30	15.74	15.29	14.71	14.24	13.60	13.46	14.91
30	16.23	.....	16.75	17.58	16.27	15.73	15.27	14.68	14.22	13.59	13.58	14.92
31	16.20	.....	16.79	.....	16.25	.....	15.25	14.63	.....	13.56	.....	14.94

a Estimated.

N1613 (\*840, p. 263; 845, p. 312; \*886, p. 489; \*906, p. 144; 936, p. 170; 944, p. 149; 986, p. 182). Citizens Water Supply Co. well Valley Stream 5. About 1,500 feet west of Corona Avenue and 96 feet north of Southern State Parkway, North Valley Stream.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	0.98	23.38
Mar. 2	1.07	23.29
27	.64	23.72
Apr. 22	.56	23.80
May 27	.36	24.00
June 24	.75	23.61
July 29	1.40	22.96
Sept. 2	1.82	22.54
30	.49	23.87
Oct. 28	.76	23.60
Dec. 2	.76	23.60
30	.66	23.70

N1614 (\*906, p. 144; 936, p. 170; 944, p. 150; 986, p. 183). New York City Department of Water Supply, Gas and Electricity. On west side of Herricks Road, about 150 feet north of Florence Road, Mineola.

## Water level, in feet, 1944

Date	Water level, in feet, 1944
Jan. 1	34.60
29	33.37
Feb. 26	33.39
Apr. 1	32.88
27	32.31
June 1	31.47
26	31.79
July 26	32.60
Aug. 28	33.18
Sept. 27	32.71
Oct. 30	32.16
Nov. 27	32.64
Dec. 26	31.93

N1615 (\*906, p. 145; 936, p. 170; 944, p. 150; 986, p. 183). New York City Department of Water Supply, Gas and Electricity. On east side of Merrick Avenue, 324 feet north of Luddington Road, East Meadow.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	18.48	44.27
Mar. 3	18.55	44.20
27	17.67	45.08
May 2	16.68	46.07
June 1	17.15	45.60
30	18.04	44.71
July 29	18.79	43.96
Aug. 31	19.47	43.28
Oct. 2	18.95	43.80
Nov. 2	19.35	43.40
Dec. 1	19.24	43.51
30	18.22	44.53

N1616 (\*906, p. 146; 936, p. 170; 944, p. 150; 986, p. 183). New York City Department of Water Supply, Gas and Electricity. On east side of Post Avenue at Argyle Road, Westbury.

## Water level, in feet, 1944

Jan. 1	43.27	79.53
29	42.56	80.24
Feb. 26	42.40	80.40
Apr. 1	42.14	80.66
27	41.73	81.07
May 30	40.90	81.90
June 26	40.65	82.15
July 26	40.99	81.81
Aug. 28	41.31	81.49
Sept. 27	41.30	81.50
Oct. 30	41.43	81.37
Nov. 27	41.60	81.20
Dec. 26	41.51	81.29

N1682 (\*906, p. 151; 936, p. 171; 944, p. 151; 986, p. 184). Nassau County Department of Public Works. On southwest corner of Crocus and Elm Avenues, Bellerose.

## Water level, in feet, 1944

Feb. 7	40.14	42.97
Mar. 2	40.20	42.91
27	40.06	43.05
May 2	39.51	43.60
June 2	38.73	44.38
30	39.04	44.07
July 29	39.37	43.74
Aug. 31	39.84	43.27
Oct. 3	39.34	43.77
Nov. 2	39.42	43.69
Dec. 1	39.60	43.51
30	39.35	43.76

N1683 (\*906, p. 151; 936, p. 171; 944, p. 151; 986, p. 184). Nassau County Department of Public Works. At northwest corner of Sixth Street and Stewart Avenue, New Hyde Park.

## Water level, in feet, 1944

Feb. 7	27.79	55.24
Mar. 7	27.83	55.20
27	27.58	55.45
Apr. 29	27.02	56.01
June 1	26.17	56.86
26	26.57	56.46
July 26	27.01	56.02
Aug. 28	27.51	55.52

## N1683. Nassau County Department of Public Works--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Sept. 27	26.57	56.46
Oct. 30	26.66	56.37
Nov. 27	26.90	56.13
Dec. 26	26.36	56.67

N1684 (\*906, p. 151; 936, p. 172; 944, p. 151; 986, p. 184). Nassau County Department of Public Works. About 150 feet west of Madison Avenue and 690 feet north of Stewart Avenue, Garden City.

## Water level, in feet, 1944

Feb. 7	32.00	57.53
Mar. 7	32.10	57.43
27	31.99	57.54
Apr. 29	31.02	58.51
June 1	29.72	59.81
26	30.47	59.06
July 26	31.29	58.24
Aug. 28	32.12	57.41
Sept. 27	31.11	58.42
Oct. 30	31.14	58.39
Nov. 27	31.50	58.03
Dec. 26	30.53	59.00

N1828 (\*886, p. 498; 906, p. 136; 936, p. 164; \*944, p. 152; 986, p. 184). Nassau County Department of Public Works. Melville Road near Suffolk County line, Farmingdale.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	21.23	21.53	.....	19.22	19.51	20.16	20.87	21.42	21.38	21.91	21.96
2	.....	21.27	21.57	.....	19.18	19.52	20.18	20.89	21.43	21.40	21.94	21.90
3	22.47	21.29	21.58	.....	19.11	19.55	20.20	20.90	21.45	21.42	21.95	21.78
4	22.21	21.32	21.58	.....	19.06	19.61	20.23	20.92	21.47	21.44	21.96	21.63
5	22.15	21.36	21.60	20.30	18.99	19.63	20.23	20.94	21.49	21.47	21.97	21.49
6	21.85	21.37	21.62	20.30	18.98	19.65	20.27	20.95	21.52	21.48	21.99	21.58
7	21.77	21.39	21.52	20.27	18.96	19.67	.....	20.97	21.54	21.49	22.02	21.27
8	21.58	21.43	21.58	20.24	18.97	19.72	.....	21.00	21.56	21.50	22.03	21.20
9	21.35	21.43	21.62	20.23	18.99	19.75	.....	21.00	21.59	21.52	22.07	21.15
10	21.19	21.49	21.63	20.19	19.01	19.76	.....	21.00	21.62	21.54	22.08	21.13
11	21.08	21.50	21.63	20.21	19.03	19.77	.....	21.01	21.64	21.56	22.10	21.10
12	20.98	21.51	21.63	20.15	19.03	19.80	.....	21.03	21.65	21.59	22.12	21.03
13	20.94	21.56	21.34	20.16	19.03	19.83	20.44	21.05	21.65	21.59	22.14	21.06
14	20.89	21.58	21.45	20.16	19.05	19.85	20.46	21.07	21.65	21.59	22.16	21.08
15	20.85	21.42	21.35	20.15	19.09	19.88	20.49	21.09	21.47	21.62	22.18	21.09
16	20.86	21.42	21.16	20.10	19.11	19.89	20.50	21.11	21.48	21.64	22.19	21.09
17	20.88	21.42	20.99	20.09	19.13	19.91	20.52	21.13	21.44	21.65	22.19	21.09
18	.....	21.38	20.85	20.10	19.18	19.94	20.55	21.13	21.39	21.67	22.23	21.10
19	20.88	21.44	20.77	20.09	19.23	19.95	20.58	21.16	21.36	21.71	22.25	21.10
20	20.88	21.44	20.67	20.09	19.24	19.96	20.60	21.18	21.32	21.73	22.27	21.13
21	20.93	21.44	20.62	20.02	19.26	19.99	20.60	21.20	21.30	21.64	22.21	21.15
22	20.99	21.45	20.59	19.98	19.27	20.02	20.63	21.21	21.30	21.74	22.25	21.17
23	20.97	21.41	20.53	19.92	19.31	20.03	20.65	21.23	21.30	21.77	22.26	21.17
24	21.04	21.47	20.45	19.83	19.35	20.03	.....	21.26	21.30	21.78	22.26	21.17
25	21.07	21.49	.....	19.71	19.38	20.05	.....	21.29	21.30	21.78	22.26	21.17
26	21.10	21.50	.....	19.70	19.38	20.08	.....	21.31	21.30	21.81	22.25	21.17
27	21.11	21.50	20.45	19.61	19.40	20.12	20.74	21.34	21.31	21.81	22.21	21.17
28	21.14	21.50	20.45	19.52	19.41	20.14	20.76	21.35	21.31	21.83	22.10	21.15
29	21.16	21.51	20.46	19.41	19.44	20.15	20.79	21.35	21.33	21.83	22.10	21.22
30	21.19	.....	20.40	19.30	19.46	20.15	20.81	21.38	21.36	21.85	22.08	21.22
31	21.20	.....	20.38	.....	19.46	.....	20.84	21.41	.....	21.88	.....	21.22

## N1828. Nassau County Department of Public Works--Continued.

Water level at noon, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	60.66	60.36	.....	62.67	62.38	61.73	61.02	60.47	60.51	59.98	59.93
2	.....	60.62	60.32	.....	62.71	62.37	61.71	61.00	60.46	60.49	59.95	59.99
3	59.42	60.62	60.31	.....	62.78	62.34	61.69	60.99	60.44	60.47	59.94	60.11
4	59.68	60.57	60.31	.....	62.83	62.28	61.66	60.97	60.42	60.45	59.93	60.26
5	59.74	60.53	60.29	61.59	62.90	62.26	61.65	60.95	60.40	60.42	59.92	60.40
6	60.04	60.52	60.27	61.59	62.91	62.24	61.62	60.94	60.37	60.41	59.90	60.61
7	60.12	60.50	60.37	61.62	62.93	62.22	.....	60.92	60.55	60.40	59.87	60.62
8	60.31	60.46	60.31	61.65	62.92	62.17	.....	60.89	60.33	60.39	59.86	60.69
9	60.54	60.46	60.27	61.66	62.90	62.14	.....	60.89	60.30	60.37	59.82	60.74
10	60.70	60.40	60.26	61.70	62.88	62.13	.....	60.89	60.27	60.35	59.81	60.76
11	60.81	60.39	60.26	61.68	62.86	62.12	.....	60.88	60.25	60.35	59.79	60.79
12	60.91	60.38	60.26	61.74	62.86	62.09	.....	60.86	60.24	60.30	59.77	0.86
13	60.95	60.33	60.55	61.73	62.86	62.06	61.45	60.84	60.24	60.30	59.75	60.83
14	61.00	60.31	60.44	61.73	62.84	62.04	61.43	60.82	60.24	60.30	59.73	60.81
15	61.04	60.47	60.54	61.74	62.80	62.01	61.40	60.80	60.42	60.27	59.71	60.80
16	61.03	60.47	60.75	61.79	62.78	62.00	61.39	60.78	60.41	60.25	59.70	60.80
17	61.01	60.47	60.90	61.80	62.76	61.98	61.37	60.76	60.45	60.24	59.70	60.80
18	.....	60.51	61.04	61.79	62.71	61.95	61.34	60.76	60.50	60.22	59.66	60.79
19	61.01	60.45	61.12	61.80	62.66	61.94	61.31	60.73	60.53	60.18	59.64	60.79
20	61.01	60.45	61.22	61.80	62.65	61.93	61.29	60.71	60.57	60.16	59.62	60.76
21	60.96	60.45	61.27	61.87	62.63	61.90	61.29	60.69	60.59	60.25	59.68	60.74
22	60.90	60.44	61.30	61.91	62.62	61.87	61.26	60.68	60.59	60.15	59.64	60.72
23	60.92	60.48	61.36	61.97	62.58	61.86	61.24	60.66	60.59	60.12	59.63	60.72
24	60.85	60.42	61.44	62.06	62.54	61.86	.....	60.63	60.59	60.11	59.63	60.72
25	60.82	60.40	.....	62.18	62.51	61.84	.....	60.60	60.59	60.11	59.63	60.72
26	60.79	60.39	.....	62.19	62.51	61.81	.....	60.58	60.59	60.08	59.64	60.72
27	60.78	60.39	61.44	62.28	62.49	61.77	61.15	60.55	60.58	60.08	59.68	60.72
28	60.75	60.39	61.44	62.37	62.48	61.75	61.13	60.54	60.58	60.06	59.79	60.74
29	60.73	60.38	61.43	62.48	62.45	61.74	61.10	60.54	60.56	60.06	59.79	60.67
30	60.70	.....	61.49	62.59	62.43	61.74	61.08	60.51	60.53	60.04	59.81	60.67
31	60.69	.....	61.51	.....	62.43	.....	61.05	60.48	.....	60.01	.....	60.67

a Estimated.

N1829 (\*845, p. 321; 886, p. 496; 906, p. 131; 936, p. 160; \*944, p. 153; 986, p. 186). Nassau County Department of Public Works. Stewart Avenue about 700 feet west of New Bridge Avenue, Salisbury.

Water level at noon, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	9.19	9.32	8.66	8.11	8.10	8.56	8.99	9.51	8.69	9.25	9.03
2	....	9.22	9.36	8.64	8.09	8.11	8.59	9.01	9.52	8.72	9.26	9.00
3	....	9.23	9.37	8.64	8.05	8.13	8.61	8.98	9.53	8.75	9.27	8.98
4	....	9.26	9.38	8.63	8.02	8.17	8.62	9.03	9.55	8.78	9.28	8.96
5	....	9.28	9.40	8.62	8.00	8.18	8.63	9.05	9.56	8.79	9.28	8.94
6	....	9.28	9.42	8.65	7.98	8.19	8.65	9.07	9.58	8.81	9.30	8.91
7	8.73	9.30	9.31	8.64	7.96	8.20	8.67	9.09	9.61	8.83	9.33	8.89
8	8.89	9.34	9.27	8.64	7.94	8.24	8.68	9.11	9.63	8.84	9.34	8.85
9	8.90	9.36	9.29	8.66	7.95	8.25	8.70	9.12	9.64	8.86	9.36	8.82
10	8.90	9.38	9.30	8.63	7.94	8.25	8.71	9.14	9.66	8.89	9.37	8.82
11	8.90	9.40	9.31	8.66	7.94	8.25	8.73	9.15	9.67	8.91	9.39	8.80
12	8.88	9.40	9.31	8.61	7.94	....	8.75	9.17	9.69	8.93	9.41	8.74
13	8.89	9.46	9.27	8.64	7.93	....	8.76	9.19	9.32	8.95	9.42	8.74
14	8.88	9.46	8.58	8.66	7.92	....	8.79	9.20	8.98	8.96	9.44	8.73
15	8.89	9.31	8.68	8.65	7.92	8.32	8.80	9.23	7.28	9.00	9.45	8.69
16	8.92	9.17	8.70	8.59	7.92	8.34	8.81	9.24	7.94	9.02	9.45	8.68
17	8.95	9.20	8.72	8.57	7.92	8.35	8.82	9.26	8.21	9.03	9.46	8.68
18	8.96	9.13	8.75	8.54	7.93	8.37	8.85	9.27	8.50	9.05	9.48	8.68
19	8.95	9.14	8.78	8.52	7.97	8.37	8.86	9.30	8.32	9.07	9.49	8.67
20	8.97	9.15	8.75	8.52	7.97	8.37	8.86	9.32	8.34	9.09	9.49	8.68
21	8.99	9.16	8.79	8.52	7.97	8.39	8.88	9.33	8.38	8.84	9.41	8.68
22	9.01	9.18	8.81	8.53	7.97	8.43	8.90	9.34	8.44	9.01	9.32	8.71
23	9.00	9.16	8.77	8.53	8.00	8.43	8.91	9.36	8.48	9.06	9.30	8.69
24	9.04	9.20	8.71	8.49	8.02	8.43	8.93	9.37	8.53	9.08	9.29	8.71
25	9.07	9.24	8.71	8.30	8.05	8.45	8.94	9.39	8.55	9.10	9.31	8.72

## N1829. Nassau County Department of Public Works--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	9.08	9.26	8.68	8.25	8.07	8.49	8.96	9.41	8.57	9.12	9.32	a8.66
27	9.09	9.27	8.67	8.24	8.07	8.51	8.98	9.43	8.60	9.15	9.33	a8.59
28	9.12	9.29	8.68	8.22	8.08	8.53	8.76	9.44	8.62	9.16	9.19	8.54
29	9.13	9.30	8.70	8.20	8.11	8.55	8.85	9.45	8.65	9.18	9.18	8.58
30	9.15	....	8.64	8.16	8.12	8.55	8.91	9.47	8.67	9.20	9.08	8.58
31	9.17	....	8.65	....	8.11	....	8.96	9.49	....	9.23	....	8.68

a Estimated.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	67.48	67.35	68.01	68.56	68.57	68.11	67.68	67.16	67.98	67.42	67.64
2	....	67.45	67.31	68.03	68.58	68.56	68.08	67.66	67.15	67.95	67.41	67.67
3	....	67.44	67.30	68.03	68.62	68.54	68.06	67.69	67.14	67.92	67.40	67.69
4	....	67.41	67.29	68.04	68.65	68.50	68.05	67.64	67.12	67.89	67.39	67.71
5	....	67.39	67.27	68.05	68.67	68.49	68.04	67.62	67.11	67.88	67.39	67.73
6	....	67.39	67.25	68.02	68.69	68.48	68.02	67.60	67.09	67.86	67.37	67.76
7	67.94	67.37	67.36	68.03	68.71	68.47	68.00	67.58	67.06	67.84	67.34	67.78
8	67.78	67.33	67.40	68.03	68.73	68.43	67.99	67.56	67.04	67.83	67.33	67.82
9	67.77	67.31	67.38	68.01	68.72	68.42	67.97	67.55	67.03	67.81	67.31	67.85
10	67.77	67.29	67.37	68.04	68.73	68.42	67.96	67.53	67.01	67.78	67.30	67.85
11	67.77	67.27	67.36	68.01	68.73	68.42	67.94	67.52	67.00	67.76	67.28	67.87
12	67.79	67.26	67.36	68.06	68.73	....	67.92	67.50	66.98	67.74	67.26	67.93
13	67.78	67.22	67.70	68.03	68.74	....	67.91	67.48	67.35	67.72	67.25	67.93
14	67.79	67.21	68.09	68.01	68.75	....	67.88	67.47	67.69	67.71	67.23	67.94
15	67.78	67.36	67.99	68.02	68.75	68.35	67.87	67.44	69.39	67.67	67.22	67.98
16	67.75	67.50	67.97	68.08	68.75	68.35	67.86	67.43	68.73	67.65	67.22	67.99
17	67.72	67.47	67.95	68.10	68.75	68.32	67.85	67.41	68.46	67.64	67.21	67.99
18	67.71	67.54	67.92	68.13	68.74	68.30	67.82	67.40	68.37	67.62	67.19	67.99
19	67.72	67.53	67.89	68.15	68.70	68.30	67.81	67.37	68.35	67.60	67.18	68.00
20	67.70	67.52	67.92	68.15	68.70	68.30	67.81	67.35	68.33	67.58	67.18	67.99
21	67.68	67.51	67.88	68.15	68.70	68.28	67.79	67.34	68.29	67.63	67.26	67.99
22	67.66	67.49	67.86	68.14	68.70	68.24	67.77	67.33	68.23	67.66	67.35	67.96
23	67.67	67.51	67.90	68.14	68.67	68.24	67.76	67.31	68.19	67.61	67.37	67.98
24	67.63	67.47	67.96	68.18	68.65	68.24	67.74	67.30	68.14	67.59	67.38	67.96
25	67.60	67.43	67.96	68.37	68.62	68.22	67.73	67.28	68.12	67.57	67.36	67.95
26	67.59	67.41	67.99	68.42	68.60	68.18	67.71	67.26	68.10	67.55	67.35a	68.01
27	67.58	67.40	68.00	68.43	68.60	68.16	67.69	67.24	68.07	67.52	67.34a	68.08
28	67.55	67.38	67.99	68.45	68.59	68.14	67.91	67.23	68.05	67.51	67.48	68.13
29	67.54	67.37	67.97	68.47	68.56	68.12	67.82	67.22	68.02	67.49	67.49	68.09
30	67.52	....	68.03	68.51	68.55	68.12	67.76	67.20	68.00	67.47	67.59	68.09
31	67.50	....	68.02	....	68.56	....	67.71	67.18	....	67.44	....	68.09

a Estimated.

N1830 (\*944, p. 153; 986, p. 187). Nassau County Department of Public Works. West side of Tyson Avenue just north of Creedmoor spur of Long Island Railroad, Floral Park.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	44.92	50.10
Mar. 2	44.93	50.09
27	44.74	50.28
May 2	44.26	50.76
June 2	43.71	51.31
30	43.73	51.29
July 29	44.05	50.97
Aug. 31	44.41	50.61
Oct. 3	43.61	51.41
Nov. 2	43.82	51.20
Dec. 1	43.84	51.18
30	43.84	51.18



Queens County

Q273 (\*817, p. 201; \*840, p. 268; 845, p. 315; \*886, p. 503; 906, p. 153; 936, p. 173; 944, p. 154; 986, p. 188). New York City Department of Water Supply. On south side of Grand Central Parkway about 1,000 feet east of Queens Boulevard, Forest Hills.

Water level at noon, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	20.95	20.97	20.68	19.96	19.90	20.84	21.46	21.62	21.18	20.89	20.78
2	21.27	21.08	21.13	20.74	20.03	19.91	20.90	21.45	21.59	21.17	20.86	20.97
3	21.20	21.02	21.09	20.76	.....	19.91	21.00	21.29	21.56	21.20	20.81	21.12
4	20.91	.....	21.00	20.63	.....	20.08	21.01	21.30	21.55	21.19	20.69	21.05
5	21.06	21.10	21.03	20.46	.....	20.11	21.02	21.31	21.47	21.17	20.56	20.95
6	20.91	20.97	21.16	20.53	20.00	20.05	21.03	21.33	21.51	21.08	20.55	20.83
7	20.99	21.01	20.94	.....	20.01	19.94	21.08	21.41	21.56	20.94	20.64	20.75
8	21.08	21.08	20.94	20.49	20.06	20.09	21.12	21.50	21.62	20.83	20.64	20.59
9	21.05	21.14	21.08	20.55	20.09	20.28	21.17	21.55	21.62	20.85	20.65	20.57
10	21.04	.....	21.20	20.47	20.10	20.29	21.16	21.49	21.65	20.89	20.54	20.74
11	21.09	.....	21.26	20.54	20.08	20.18	21.16	21.44	21.66	20.91	20.56	20.74
12	.....	.....	21.21	20.31	20.06	20.17	21.16	21.45	21.57	20.95	20.75	20.53
13	.....	21.11	20.92	20.27	19.91	20.15	21.14	21.49	21.33	20.88	20.81	20.46
14	.....	21.20	21.05	.....	19.88	20.19	21.21	21.54	21.31	20.73	20.72	20.64
15	20.99	20.97	21.07	20.28	19.93	20.24	21.22	21.56	.....	20.91	20.58	20.75
16	20.99	21.15	20.94	20.06	19.93	20.25	21.19	21.54	.....	21.01	20.40	20.63
17	.....	21.17	20.76	20.10	19.91	20.33	21.17	21.47	21.36	20.93	20.52	20.64
18	.....	20.98	20.79	20.19	19.91	20.49	21.26	21.46	21.39	20.86	20.76	20.69
19	.....	21.17	20.97	20.20	20.04	20.50	21.32	21.59	21.28	20.80	20.89	20.66
20	.....	21.19	20.79	20.18	20.00	20.43	21.28	21.70	21.19	20.83	20.83	20.73
21	.....	21.12	20.81	.....	19.92	20.50	21.25	21.67	21.14	20.53	20.67	20.74
22	.....	21.12	20.96	20.18	.....	20.66	21.35	21.56	21.14	20.72	20.69	20.96
23	20.90	20.89	20.78	20.16	.....	20.69	21.39	21.54	21.28	20.87	20.79	20.99
24	21.02	21.00	20.53	20.07	.....	20.60	21.38	21.52	21.41	20.82	20.82	20.98
25	21.12	21.11	20.62	19.86	.....	20.60	21.34	21.64	21.42	20.75	20.94	20.93
26	21.09	21.19	20.65	19.93	.....	20.77	21.37	21.72	21.31	20.69	21.02	20.93
27	21.04	21.09	20.66	.....	19.91	20.89	21.31	21.78	21.16	20.70	20.94	21.09
28	20.93	21.05	20.67	.....	19.87	20.94	21.28	21.74	21.12	20.67	20.81	20.85
29	20.86	20.98	20.75	20.06	19.91	20.88	21.34	21.60	21.09	20.63	20.91	21.00
30	20.90	.....	.....	20.03	19.94	20.82	21.39	21.59	21.16	20.77	20.59	20.99
31	21.01	.....	.....	.....	19.93	.....	21.44	21.63	.....	20.89	.....	20.88

Water level at noon, in feet above mean sea level, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	4.68	4.66	4.95	5.67	5.73	4.79	4.17	4.01	4.45	4.74	4.85
2	4.36	4.55	4.50	4.89	5.60	5.72	4.73	4.18	4.04	4.46	4.77	4.66
3	4.43	4.61	4.54	4.87	.....	5.72	4.63	4.34	4.07	4.43	4.82	4.61
4	4.72	.....	4.63	5.00	.....	5.55	4.62	4.33	4.08	4.44	4.94	4.68
5	4.57	4.53	4.60	5.17	.....	5.52	4.61	4.32	4.16	4.46	5.07	4.68
6	4.72	4.66	4.47	5.10	5.63	5.58	4.60	4.30	4.12	4.55	5.08	4.80
7	4.64	4.62	4.69	.....	5.62	5.69	4.55	4.22	4.07	4.69	4.99	4.88
8	4.55	4.55	4.69	5.14	5.57	5.54	4.51	4.13	4.01	4.80	4.99	5.04
9	4.58	4.49	4.55	5.08	5.54	5.35	4.46	4.08	4.01	4.78	4.98	5.06
10	4.59	.....	4.43	5.16	5.53	5.34	4.47	4.14	3.98	4.74	5.09	4.89
11	4.54	.....	4.37	5.09	5.55	5.45	4.47	4.19	3.97	4.72	5.07	4.89
12	.....	.....	4.42	5.32	5.57	5.46	4.47	4.18	4.06	4.68	4.88	5.30
13	.....	4.52	4.71	5.36	5.72	5.48	4.49	4.14	4.30	4.75	4.82	5.17
14	.....	4.43	4.58	.....	5.75	5.44	4.42	4.09	4.32	4.90	4.91	4.99
15	4.64	4.66	4.56	5.35	5.70	5.39	4.41	4.07	.....	4.72	5.05	4.88
16	4.64	4.48	4.69	5.57	5.70	5.38	4.44	4.09	.....	4.62	5.23	5.00
17	.....	4.46	4.87	5.53	5.72	5.30	4.46	4.16	4.27	4.70	5.11	4.99
18	.....	4.65	4.84	5.44	5.72	5.14	4.37	4.17	4.24	4.77	4.81	4.94
19	.....	4.46	4.66	5.43	5.59	5.13	4.31	4.04	4.35	4.83	4.74	4.97
20	.....	4.44	4.84	5.45	5.63	5.20	4.35	3.93	4.44	4.80	4.80	4.89
21	.....	4.51	4.82	.....	5.65	5.13	4.38	3.96	4.49	5.10	5.06	4.90
22	.....	4.51	4.67	5.45	.....	4.97	4.28	4.07	4.49	4.91	4.94	4.67
23	4.73	4.74	4.85	5.47	.....	4.94	4.24	4.09	4.35	4.76	4.84	4.64
24	4.61	4.63	5.10	5.56	.....	5.07	4.25	4.11	4.22	4.81	4.81	4.65

a Estimated.

## Q273. New York City Department of Water Supply--Continued.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	4.51	4.52	5.01	5.77	....	5.03	4.29	3.99	4.21	4.88	4.69	4.70
26	4.54	4.44	4.98	5.70	....	4.86	4.26	3.91	4.32	4.94	4.61	4.70
27	4.59	4.54	4.97	....	5.72	4.74	4.32	3.85	4.47	4.93	4.69	4.54
28	4.70	4.58	4.96	....	5.76	4.69	4.35	3.89	4.51	4.96	4.82	4.78
29	4.77	4.65	4.88	5.57	5.72	4.75	4.29	4.03	4.54	5.00	4.72	4.63
30	4.73	....	....	5.60	5.69	4.81	4.24	4.04	4.47	4.86	5.04	4.64
31	4.62	.....	.....	....	5.70	....	4.19	4.00	....	4.74	....	4.75

Q287 (\*886, p. 504; 906, p. 153; 936, p. 174; 944, p. 155; 986, p. 189). Broad Channel Corporation. Southeast side of Shad Creek Road, about 100 feet southwest of Ninth Road, Broad Channel.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	3.96	9.60
Feb. 28	3.40	9.04
Mar. 29	4.44	10.08
Apr. 25	4.66	10.30
June 3	3.29	8.93
July 14	1.77	7.41
Aug. 1	.24	5.88
Sept. 1	.40	5.24
Oct. 4	3.28	8.92
27	1.79	7.43
Dec. 4	3.80	9.44

Q350 (\*804, p. 269; 845, p. 315; 886, p. 504; 906, p. 154; \*936, p. 174; 944, p. 155; 986, p. 190). Aqueduct deep test well of New York Water Service Corporation. About 0.5 mile south of Rockaway Boulevard, 700 feet east of Centerville Street, and 200 feet north of owners Aqueduct pumping station, Aqueduct. Measuring point lowered to 32.77 feet above mean sea level on Mar. 29, 1944.

Water level, in feet, 1944

Date	Below land-surface datum	Above (+) or below (-) land-surface datum
Jan. 1	31.40	+0.28
29	31.29	+3.39
Feb. 28	32.17	-4.49
Mar. 29	31.97	-2.29
Apr. 25	31.05	+6.63
June 3	31.18	+5.50
July 4	31.42	+2.26
Aug. 1	32.92	-2.24
Sept. 1	32.15	-4.47
Oct. 4	30.74	+9.4
27	30.65	+1.03
Dec. 4	30.25	+1.43

Q470 (\*777, p. 123; \*817, p. 201; \*840, p. 269; \*845, p. 315; \*886, p. 505; \*906, p. 155; 936, p. 175; 944, p. 156; 986, p. 191). New York City Department of Water Supply. Cross Island Parkway about 325 feet south of Northern Boulevard, Bayside.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	8.24	10.33	10.26	7.89	7.06	8.55	12.64	13.22	11.50	10.67	10.39
2	9.25	8.37	10.34	10.24	7.72	7.06	8.55	12.61	13.29	11.49	10.66	10.51
3	9.09	8.62	10.36	10.20	7.63	7.07	8.57	12.53	....	11.46	10.66	10.55
4	8.82	8.85	10.37	10.15	7.51	7.14	8.61	12.42	....	11.45	10.63	10.57
5	8.65	9.09	10.37	10.08	7.40	7.26	8.64	12.34	....	11.46	10.63	10.58
6	8.48	9.24	10.36	....	7.28	7.35	8.68	12.29	....	11.47	10.62	10.57
7	8.41	9.37	10.29	....	7.24	7.47	8.90	12.20	....	11.44	10.60	10.56
8	8.40	9.48	10.23	10.00	7.20	7.58	9.50	12.11	....	11.45	10.57	10.55

## Q470. New York City Department of Water Supply--Continued.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	8.38	9.59	10.23	9.99	7.17	7.76	9.99	12.10	13.59	11.41	10.56	10.50
10	....	9.69	10.28	9.94	7.15	8.02	10.39	12.10	13.70	11.37	10.55	10.52
11	....	9.75	10.34	9.91	7.15	8.14	10.76	12.12	13.79	11.32	10.48	10.54
12	....	9.85	10.39	9.89	7.14	8.19	11.21	12.23	13.85	11.27	10.49	10.43
13	8.40	9.91	10.39	9.85	7.08	8.21	11.53	12.31	13.81	11.23	10.49	10.40
14	8.42	10.02	10.38	9.87	7.05	8.23	11.78	12.45	13.72	11.21	10.45	10.44
15	8.43	10.04	10.40	9.91	7.03	8.25	11.91	12.60	13.56	11.20	10.41	10.52
16	8.47	10.12	10.41	9.90	7.01	8.25	12.06	12.72	12.92	11.20	10.39	10.64
17	8.47	10.21	10.42	9.89	7.00	8.23	....	12.83	12.46	11.17	10.41	10.79
18	8.47	10.25	10.43	9.90	6.99	8.26	....	12.90	12.09	11.12	10.48	10.95
19	....	10.30	10.46	9.93	7.00	8.34	....	12.96	11.96	11.11	10.53	11.06
20	8.45	10.36	10.47	9.97	7.02	8.42	....	12.99	11.91	11.10	10.55	11.19
21	8.43	10.37	10.46	10.01	7.02	8.45	....	13.00	11.86	11.03	10.48	11.34
22	8.44	10.39	10.49	10.02	7.04	8.48	12.46	12.98	11.83	11.01	10.43	11.49
23	8.41	10.35	10.52	10.05	....	8.50	12.48	12.92	11.82	11.01	10.43	11.66
24	8.38	10.36	10.49	10.07	....	8.51	12.54	12.91	11.82	10.99	10.43	11.74
25	8.35	10.39	10.48	10.00	....	8.48	12.57	12.91	11.80	10.98	10.44	11.83
26	8.34	10.44	10.49	9.59	....	8.47	12.65	12.94	11.73	10.97	10.47	11.83
27	8.33	10.45	10.47	9.14	7.09	8.47	12.75	13.01	11.68	10.97	10.48	11.88
28	8.32	10.42	10.42	8.72	7.08	8.48	12.81	13.05	11.61	10.92	10.46	11.90
29	8.29	10.35	10.42	8.38	7.08	8.51	12.82	13.06	11.56	10.82	10.45	11.97
30	8.29	....	10.36	8.11	7.08	8.52	12.78	13.07	11.53	10.74	10.41	12.05
31	8.28	....	10.27	....	7.07	....	12.71	13.14	....	10.70	....	12.10

Water level at noon, in feet above (+) or below (-) mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	+4.55	+2.46	+2.53	+4.90	+5.73	+4.24	+0.15	-0.43	+1.29	+2.12	+2.40
2	+3.54	+4.42	+2.45	+2.55	+5.07	+5.73	+4.24	+1.18	-1.50	+1.30	+2.13	+2.28
3	+3.70	+4.17	+2.43	+2.59	+5.16	+5.72	+4.22	+1.26	....	+1.33	+2.13	+2.24
4	+3.97	+3.94	+2.42	+2.64	+5.28	+5.65	+4.18	+1.37	....	+1.34	+2.16	+2.22
5	+4.14	+3.70	+2.42	+2.71	+5.39	+5.53	+4.15	+1.45	....	+1.33	+2.16	+2.21
6	+4.31	+3.55	+2.43	....	+5.51	+5.44	+4.11	+1.50	....	+1.32	+2.17	+2.22
7	+4.38	+3.42	+2.50	....	+5.55	+5.32	+3.89	+1.59	....	+1.35	+2.19	+2.23
8	+4.39	+3.31	+2.56	+2.79	+5.59	+5.21	+3.29	+1.68	....	+1.34	+2.22	+2.24
9	+4.41	+3.20	+2.56	+2.80	+5.62	+5.03	+2.80	+1.69	-1.80	+1.38	+2.23	+2.29
10	....	+3.10	+2.51	+2.85	+5.64	+4.77	+2.40	+1.69	-1.91	+1.42	+2.24	+2.27
11	....	+3.04	+2.45	+2.88	+5.64	+4.65	+2.03	+1.67	-1.00	+1.47	+2.31	+2.25
12	....	+2.94	+2.40	+2.90	+5.65	+4.60	+1.58	+1.56	-1.06	+1.52	+2.30	+2.36
13	+4.39	+2.88	+2.40	+2.94	+5.71	+4.58	+1.26	+1.48	-1.02	+1.56	+2.30	+2.39
14	+4.37	+2.77	+2.41	+2.92	+5.74	+4.56	+1.01	+1.34	-1.03	+1.58	+2.34	+2.35
15	+4.36	+2.75	+2.39	+2.88	+5.76	+4.54	+1.88	+1.19	-1.57	+1.59	+2.38	+2.27
16	+4.32	+2.67	+2.38	+2.89	+5.78	+4.54	+1.73	+1.07	-1.13	+1.59	+2.40	+2.15
17	+4.32	+2.58	+2.37	+2.90	+5.79	+4.56	....	-1.04	+1.33	+1.62	+2.38	+2.00
18	+4.32	+2.54	+2.36	+2.89	+5.80	+4.53	....	-1.11	+1.70	+1.67	+2.31	+1.84
19	....	+2.49	+2.33	+2.86	+5.79	+4.45	....	-1.17	+1.83	+1.68	+2.26	+1.73
20	+4.34	+2.43	+2.32	+2.82	+5.77	+4.37	....	-1.20	+1.88	+1.69	+2.24	+1.60
21	+4.36	+2.42	+2.33	+2.78	+5.77	+4.34	....	-1.21	+1.93	+1.76	+2.31	+1.45
22	+4.35	+2.40	+2.30	+2.77	+5.75	+4.31	+1.33	-1.19	+1.96	+1.78	+2.36	+1.30
23	+4.38	+2.44	+2.27	+2.74	....	+4.29	+1.31	-1.13	+1.97	+1.78	+2.36	+1.13
24	+4.41	+2.43	+2.30	+2.72	....	+4.28	+1.25	-1.12	+1.97	+1.80	+2.36	+1.05
25	+4.44	+2.40	+2.31	+2.79	....	+4.31	+1.22	-1.12	+1.99	+1.81	+2.35	+1.06
26	+4.45	+2.35	+2.31	+2.70	....	+4.32	+1.14	-1.15	+1.06	+1.82	+2.32	+1.06
27	+4.46	+2.34	+2.32	+2.65	+5.70	+4.32	+1.04	-1.22	+1.11	+1.82	+2.31	+1.01
28	+4.47	+2.37	+2.37	+4.07	+5.71	+4.31	-1.02	-1.26	+1.18	+1.87	+2.33	+1.09
29	+4.50	+2.44	+2.37	+4.41	+5.71	+4.28	-1.03	-1.27	+1.23	+1.97	+2.34	+1.02
30	+4.50	....	+2.43	+4.68	+5.71	+4.27	+1.01	-1.28	+1.26	+2.05	+2.38	+1.74
31	+4.51	....	+2.52	....	+5.72	....	+1.08	-1.35	....	+2.09	....	+1.69

Q471 (\*906, p. 155; 936, p. 176; 944, p. 157; 986, p. 192). New York City Department of Water Supply, Gas and Electricity well Bayside 11. About 310 feet south of Northern Boulevard and 110 feet west of Cross Island Parkway (Belt Parkway), Bayside.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	2.74	15.53
29	3.16	15.95
Feb. 26	2.18	14.97
Apr. 1	2.01	14.80
May 2	3.55	16.34
27	4.04	16.83
June 24	4.12	16.91
July 29	2.86	15.65
Sept. 2	2.47	15.28
30	2.96	15.75
Oct. 28	2.80	15.59
Dec. 2	2.76	15.55

Q543 (\*840, p. 271; \*845, p. 316; \*886, p. 506; 906, p. 156; 936, p. 176; 944, p. 157; 986, p. 192). New York City Department of Water Supply well Rockaway Park 3. Rockaway Beach Boulevard and Beach 110th Street, Rockaway Park.

Water level, in feet, 1944		
Date	Above mean sea level	Above (+) or below (-) land-surface datum
Feb. 28	9.75	+2.35
Mar. 29	10.93	+3.53
July 4	8.21	+8.1
Aug. 1	7.05	-.35
Sept. 1	6.28	-1.12
Oct. 4	9.43	+2.03
27	8.58	+1.18
Dec. 4	9.84	+2.44

Q1089 (\*840, p. 274; 845, p. 318; \*886, p. 506; \*936, p. 177; 944, p. 158; 986, p. 194). New York City Department of Water Supply, Gas and Electricity. On north side of North Conduit Avenue, about 800 feet east of Far Rockaway Branch of Long Island Railroad, Aqueduct.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	18.99	1.52
29	18.86	1.65
Feb. 28	18.75	1.76
Mar. 29	18.74	1.77
Apr. 25	18.23	2.28
June 3	18.50	2.01
July 4	18.69	1.82
Aug. 1	19.08	1.43
Sept. 1	19.13	1.38
Oct. 4	18.28	2.23
27	18.34	2.17
Dec. 4	17.82	2.69

Q1090 (\*840, p. 275; 845, p. 318; 886, p. 507; 906, p. 157; \*936, p. 178; 944, p. 159; 986, p. 195). New York City Department of Water Supply, Gas and Electricity. On east side of Hawtrees Creek Road, about 350 feet south of 133d Avenue, Aqueduct.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	27.89	3.73
29	27.84	3.78
Feb. 28	27.81	3.81
Mar. 29	27.54	4.08

Q1090. New York City Department of Water Supply, Gas and Electricity  
--Continued.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Apr. 25	27.38	4.24
June 3	27.06	4.56
July 4	27.47	4.15
Aug. 1	27.95	3.67
Sept. 1	28.36	3.26
Oct. 4	27.52	4.10
27	27.73	3.89
Dec. 4	27.60	4.02

Q1222 (\*906, p. 158; 936, p. 178; 944, p. 159; 986, p. 195). New York City Department of Water Supply, Gas and Electricity well Whitestone 9. About 200 feet east of 142d Street, about 850 feet north of 20th Avenue, Whitestone.

Water level, in feet, 1944		
Jan. 1	5.52	2.06
29	5.24	2.34
Feb. 26	5.40	2.18
Apr. 1	4.99	2.59
May 5	4.55	3.03
27	4.46	3.12
June 29	4.97	2.61
July 29	5.62	1.96
Aug. 31	6.19	1.39
Sept. 30	5.92	1.66
Oct. 28	5.47	2.11
Dec. 2	5.09	2.49
30	5.77	1.81

Q1223 (\*906, p. 159; \*936, p. 178; 944, p. 159; 986, p. 195). New York City Department of Water Supply, Gas and Electricity. On northeast corner of Rockaway Boulevard and 142d Place, South Ozone Park.

Water level, in feet, 1944		
Jan. 1	19.17	7.43
29	19.11	7.49
Feb. 28	19.08	7.52
Mar. 29	18.54	8.06
Apr. 25	18.20	8.40
June 3	18.29	8.31
July 4	18.77	7.83
Aug. 1	19.30	7.30
Sept. 1	19.75	6.85
Oct. 4	18.63	7.97
27	18.85	7.75
Dec. 4	18.67	7.93

Q1224 (\*906, p. 159; \*936, p. 179; 944, p. 159; 986, p. 195). New York City Department of Water Supply, Gas and Electricity. On north side of 102d Avenue, about 100 feet east of Van Wyck Boulevard, Jamaica.

Water level, in feet, 1944		
Jan. 1	39.54	8.11
29	39.50	8.15
Mar. 8	39.63	8.02
29	39.15	8.50
Apr. 25	39.38	8.27
June 3	39.26	8.39
July 3	38.99	8.66
Aug. 1	39.27	8.38
Sept. 1	39.85	7.80
Oct. 5	39.50	8.15
Nov. 3	39.73	7.75
Dec. 5	39.53	7.95

Q1225 (\*906, p. 160; \*936, p. 179; 944, p. 160; 986, p. 195). New York City Department of Water Supply, Gas and Electricity. Southeast corner of 109th Avenue and 200th Street.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	21.87	27.53
29	21.74	27.66
Feb. 26	21.77	27.63
Mar. 28	21.53	27.87
Apr. 26	21.45	27.95
May 30	20.71	28.69
July 3	21.08	28.32
Aug. 1	21.54	27.86
Sept. 1	22.01	27.39
Oct. 3	21.44	27.96
Nov. 3	21.58	27.82
Dec. 5	21.39	28.01

Q1237 (\*906, p. 160; 936, p. 179; 944, p. 160; 986, p. 196). New York City Department of Water Supply. Belt Parkway about 1,450 feet west of 150th Street, Baisley Park.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.80	15.49	14.88	.....	15.29	17.14	17.20	.....	18.14	15.54	14.89	.....
2	15.85	15.81	15.06	.....	15.84	17.19	17.34	.....	17.64	15.29	14.94	.....
3	15.77	15.87	15.12	.....	16.14	16.64	17.24	.....	17.44	15.19	14.89	14.94
4	15.45	15.89	15.27	.....	16.24	16.84	17.34	.....	17.24	15.11	14.89	15.04
5	15.28	15.96	15.43	.....	16.39	16.79	17.29	.....	17.04	15.09	14.99	14.84
6	14.98	15.92	15.59	.....	16.59	16.99	17.59	17.24	17.29	15.07	15.19	14.69
7	15.11	15.98	15.44	.....	.....	.....	17.39	16.84	17.39	15.04	15.39	14.84
8	15.26	15.99	15.41	14.80	.....	.....	18.24	16.64	17.14	14.99	15.39	14.84
9	15.30	16.01	15.55	14.84	.....	.....	18.44	.....	17.29	14.99	15.34	14.89
10	15.36	16.00	15.62	14.77	.....	17.59	18.49	.....	17.49	14.99	.....	15.14
11	15.43	15.92	15.67	.....	.....	.....	18.54	.....	17.54	15.04	.....	15.29
12	15.39	15.68	15.54	.....	.....	16.59	18.49	.....	.....	15.04	14.99	15.04
13	15.52	16.04	15.27	.....	16.60	16.74	18.49	18.29	.....	15.04	14.99	15.24
14	15.60	16.20	15.48	.....	.....	16.64	18.44	18.24	.....	14.94	14.99	15.54
15	15.65	16.09	15.50	14.82	.....	16.44	18.44	18.29	.....	15.09	14.94	15.64
16	15.59	16.41	15.28	.....	.....	16.49	18.34	18.29	.....	15.24	14.84	15.69
17	15.58	16.27	15.26	.....	.....	16.79	17.64	17.94	15.59	15.24	14.79	15.69
18	15.51	.....	15.47	.....	.....	17.39	17.74	17.84	15.69	15.24	14.64	15.69
19	14.91	.....	15.76	14.69	.....	17.44	17.89	17.79	15.89	15.19	14.64	15.54
20	14.51	16.28	15.65	14.69	16.89	16.64	17.84	17.69	16.14	15.24	14.64	15.44
21	14.42	16.24	15.61	14.69	17.14	16.64	17.74	17.64	16.19	14.74	.....	15.29
22	14.79	16.15	15.72	14.64	16.99	16.64	17.99	17.64	16.19	14.79	.....	15.44
23	15.04	15.91	15.62	14.59	16.59	16.64	18.24	17.54	.....	14.89	.....	15.29
24	15.27	15.97	15.49	.....	.....	16.29	18.19	17.84	.....	14.89	.....	15.19
25	15.39	15.87	15.58	.....	.....	16.09	18.14	18.04	16.51	14.89	.....	15.14
26	15.40	.....	15.68	.....	.....	16.04	18.49	17.79	16.74	14.89	.....	15.04
27	15.34	15.65	15.72	.....	.....	16.29	18.64	18.14	.....	14.89	.....	15.44
28	15.24	15.54	15.73	.....	15.84	16.74	17.94	17.89	.....	14.79	.....	15.49
29	15.16	14.90	15.67	14.84	15.84	.....	.....	17.59	.....	14.69	.....	15.84
30	15.16	.....	15.24	15.14	16.44	.....	.....	17.39	.....	14.74	14.74	16.19
31	15.20	.....	15.02	.....	16.59	.....	17.54	17.89	.....	14.84	.....	16.10

a Estimated.

Water level at noon, in feet above (+) or below (-) mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.74	+2.05	+2.66	.....	+2.25	+0.40	+0.34	.....	-0.60	+2.00	+2.65	.....
2	+1.69	+1.73	+2.48	.....	+1.70	+0.35	+0.20	.....	-1.10	+2.25	+2.60	.....
3	+1.77	+1.67	+2.42	.....	+1.40	+0.90	+0.30	.....	+1.10	+2.35	+2.65	+2.60
4	+2.09	+1.65	+2.27	.....	+1.30	+0.70	+0.20	.....	+0.30	+2.43	+2.65	+2.50
5	+2.26	+1.58	+2.11	.....	+1.15	+0.75	+0.25	.....	+0.50	+2.45	+2.55	+2.70
6	+2.56	+1.62	+1.95	.....	+0.95	+0.55	-0.05	+0.30	+0.25	+2.47	+2.35	+2.85

## Q1237. New York City Department of Water Supply--Continued.

Water level at noon, in feet above (+) or below (-) mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	+2.43	+1.56	+2.10	....	....	....	-C.45	+0.70	+0.15	+2.50	+2.15	+2.70
8	+2.28	+1.55	+2.13	+2.74	....	....	-.70	+.90	+.40	+2.55	+2.15	+2.70
9	+2.24	+1.53	+1.99	+2.70	....	....	-.90	....	+.25	+2.55	+2.20	+2.65
10	+2.18	+1.54	+1.92	+2.77	....	a-.05	-.95	....	+.05	+2.55	....	+2.40
11	+2.11	+1.62	+1.87	....	....	....	-1.00	....	.00	+2.50	....	+2.25
12	+2.15	+1.86	+2.00	....	....	+.95	-.95	....	....	+2.50	+2.55	+2.50
13	+2.02	+1.50	+2.27	....	a+.94	+.80	-.95	-.75	....	+2.50	+2.55	+2.30
14	+1.94	+1.34	+2.06	....	....	+.90	-.90	-.70	....	+2.60	+2.55	+2.00
15	+1.89	+1.45	+2.04	+2.72	....	+1.10	-.90	-.75	....	a+2.45	+2.60	+1.90
16	+1.95	+1.13	+2.26	....	....	+1.05	-.80	-.75	....	+2.30	+2.70	+1.85
17	+1.96	+1.27	+2.28	....	....	+.75	-.10	-.40	+1.95	+2.30	+2.75	+1.85
18	+2.03	....	+2.07	....	....	+.15	-.20	-.30	+1.85	+2.30	+2.90	+1.85
19	+2.63	....	+1.78	+2.85	....	+.10	-.35	-.25	+1.65	+2.35	+2.90	+2.00
20	+3.05	+1.26	+1.89	+2.85	+.65	+.90	-.30	-.15	+1.40	+2.30	+2.90	+2.10
21	+3.12	+1.30	+1.93	+2.85	+.40	+.90	-.20	-.10	+1.35	+2.80	....	+2.25
22	+2.75	+1.39	+1.82	+2.90	+.55	+.90	-.45	-.10	+1.35	+2.75	....	+2.10
23	+2.50	+1.63	+1.92	+2.95	+.95	+.90	-.70	.00	....	+2.65	....	+2.25
24	+2.27	+1.57	+2.05	....	....	+1.25	-.65	-.30	....	+2.65	....	+2.35
25	+2.15	+1.67	+1.96	....	....	+1.45	-.60	-.50	+1.03	+2.65	....	+2.40
26	+2.14	....	+1.86	....	....	+1.50	-.95	-.25	+.80	+2.65	....	+2.50
27	+2.20	+1.89	+1.82	....	....	+1.25	-1.10	-.60	....	+2.65	....	+2.10
28	+2.30	+2.00	+1.81	....	+1.70	+.80	-.40	-.35	....	+2.75	....	+2.05
29	+2.38	+2.64	+1.87	+2.70	+1.70	....	....	-.05	....	+2.85	....	+1.70
30	+2.38	....	+2.30	+2.40	+1.10	....	....	+.15	....	+2.80	a+2.80	a+1.35
31	+2.34	....	+2.52	....	+.95	....	.00	a+.35	....	+2.70	....	+1.44

a Estimated.

Q1248 (\*906, p. 161; \*936, p. 180; 944, p. 161; 986, p. 197). New York City Department of Water Supply, Gas and Electricity. At 100th Road and Belt Parkway, Queens Village.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	41.05	35.48
29	40.74	35.79
Feb. 26	40.72	35.81
Mar. 28	40.61	35.92
Apr. 26	40.27	36.26
May 30	39.43	37.10
July 3	39.58	36.95
Aug. 1	40.45	36.08
Sept. 1	41.21	35.32
Oct. 3	40.41	36.12
Nov. 3	40.29	36.24
Dec. 1	40.37	36.16
30	40.17	36.36

Q1249 (\*906, p. 161; \*936, p. 180; 944, p. 161; 986, p. 197). New York City Department of Water Supply, Gas and Electricity. On northwest corner of 106th Avenue and 216th Street, Queens Village.

## Water level, in feet, 1944

Jan. 1	41.07	31.28
29	40.91	31.44
Feb. 26	40.78	31.57
Mar. 28	40.68	31.67
Apr. 26	40.36	31.99
May 30	39.69	32.66
July 3	39.90	32.45
Aug. 1	40.34	32.01
Sept. 1	40.92	31.43
Oct. 3	40.57	31.78
Nov. 3	40.58	31.77
Dec. 5	40.52	31.83

Q1250 (#906, p. 161; #936, p. 181; 944, p. 161; 986, p. 197). New York City Department of Water Supply, Gas and Electricity. At southwest corner of Liberty and Camden Avenues, Hollis.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	17.08	20.48
29	16.92	20.64
Feb. 26	16.84	20.72
Mar. 28	16.62	20.94
Apr. 26	16.32	21.24
May 30	16.10	21.46
July 3	16.44	21.12
Aug. 1	16.81	20.75
Sept. 1	17.33	20.23
Oct. 9	16.51	21.05
Nov. 3	16.66	20.90
Dec. 5	16.48	21.08

Q1251 (#906, p. 161; #936, p. 181; 944, p. 161; 986, p. 198). New York City Department of Water Supply, Gas and Electricity. At northwest corner of 107th Avenue and 172d Street, Jamaica.

Water level, in feet, 1944

Jan. 1	31.63	11.06
29	31.13	11.56
Feb. 26	31.30	11.39
Mar. 28	31.03	11.66
Apr. 26	30.82	11.87
May 30	30.55	12.14
July 3	31.21	11.48
Aug. 1	31.71	10.98
Sept. 1	32.35	10.34
Oct. 3	31.61	11.08
Nov. 3	31.58	11.11
Dec. 5	31.60	11.09

Q1252 (#906, p. 161; #936, p. 181; 944, p. 162; 986, p. 198). New York City Department of Water Supply, Gas and Electricity. At northeast corner of Liberty Avenue and 157th Street, Jamaica.

Water level, in feet, 1944

Jan. 1	18.40	12.78
29	18.29	12.89
Mar. 7	18.73	12.45
29	18.43	12.75
Apr. 25	18.28	12.90
June 3	18.15	13.03
July 3	18.47	12.71
Aug. 1	18.89	12.29
Sept. 1	19.35	11.83
Oct. 5	18.80	12.38
Nov. 3	18.83	12.35
Dec. 6	18.59	12.59

Q1253 (#906, p. 161; #936, p. 182; 944, p. 162; 986, p. 198). New York City Department of Water Supply, Gas and Electricity. At northeast corner of 101st Avenue and 121st Street, Richmond Hill.

Water level, in feet, 1944

Apr. 25	45.56	3.60
June 3	45.26	3.90
July 3	45.26	3.90
Aug. 1	45.40	3.76
Sept. 1	45.70	3.46
Oct. 5	45.56	3.60
Nov. 3	45.75	3.41
Dec. 5	45.96	3.20



Q1254 (\*906, p. 162; \*936, p. 182; \*944, p. 162; 986, p. 198). New York City Department of Water Supply, Gas and Electricity. At northwest corner of 101st Avenue and 108th Street, Richmond Hill.

## Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Jan. 1	45.96	0.50
29	45.85	.39
Mar. 7	45.72	.26
29	46.23	.77
Apr. 25	45.99	.53
June 3	45.51	.05
July 3	45.80	.34
Aug. 1	46.20	.74
Sept. 1	46.55	1.09
Oct. 5	46.72	1.26
Nov. 3	46.66	1.20
Dec. 5	46.72	1.26

Q1255 (\*936, p. 182; 944, p. 162; 986, p. 199). New York City Department of Water Supply, Gas and Electricity. At northwest corner of Atlantic Avenue and Woodhaven Boulevard, Woodhaven.

## Water level, in feet, 1944

Apr. 25	43.24	2.81
May 27	43.12	2.69
July 3	43.30	2.87
31	43.70	3.27
Sept. 1	44.10	3.67
Oct. 5	43.95	3.52
28	44.20	3.77
Dec. 5	43.71	3.28

Q1281 (\*936, p. 184; 944, p. 163; 986, p. 199). New York City Department of Water Supply, Gas and Electricity. At southwest corner of Liberty Avenue and Woodhaven Boulevard, Ozone Park.

## Water level, in feet, 1944

Jan. 1	29.77	0.99
29	29.71	.93
Mar. 7	29.76	.98
29	30.05	1.27
Apr. 25	29.60	.82
June 3	29.38	.60
July 3	29.64	.86
Aug. 1	30.09	1.31
Sept. 1	30.44	1.66
Oct. 5	30.04	1.26
28	30.03	1.25
Dec. 5	29.97	1.19

Q1282 (\*936, p. 185; 944, p. 163; 986, p. 199). New York City Department of Water Supply, Gas and Electricity. At northeast corner of Liberty Avenue and 113th Street Richmond Hill.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	38.30	1.72
29	38.24	1.78
Mar. 7	38.19	1.83
29	38.38	1.64
Apr. 25	38.30	1.72
June 3	37.94	2.08
July 3	38.03	1.99
Aug. 1	38.41	1.61
Sept. 1	38.74	1.28
Oct. 5	38.85	1.17
Nov. 3	38.79	1.23
Dec. 5	38.80	1.22

Q1283 (\*936, p. 186; 944, p. 163; 986, p. 199). New York City Department of Water Supply, Gas and Electricity. At southeast corner of Rockaway Boulevard and 121st Street, South Ozone Park.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	22.29	4.45
29	22.18	4.56
Feb. 28	22.22	4.52
Mar. 29	22.04	4.70
Apr. 25	21.96	4.78
June 3	21.48	5.26
July 4	21.93	4.81
Aug. 1	22.47	4.27
Sept. 1	22.89	3.85
Oct. 4	22.24	4.50

Q1284 (\*936, p. 187; 944, p. 164; 986, p. 200). New York City Department of Water Supply, Gas and Electricity. At northwest corner of Rockaway Boulevard and Lincoln Street, South Ozone Park.

Water level, in feet, 1944		
Jan. 1	27.14	6.70
29	27.07	6.77
Feb. 28	25.78	8.06
Mar. 29	26.13	7.71
Apr. 25	25.68	8.16
June 3	26.14	7.70
July 4	26.58	7.26
Aug. 1	27.05	6.79
Sept. 1	27.72	6.12
Oct. 4	27.00	6.84
27	27.39	6.45
Dec. 4	27.59	6.25

Q1285 (\*936, p. 187; 944, p. 164; 986, p. 200). New York City Department of Water Supply, Gas and Electricity. At northwest corner of 132d Street and 111th Avenue, South Ozone Park.

Water level, in feet, 1944		
Jan. 1	35.93	6.79
29	35.85	6.87
Feb. 28	35.70	7.02
Mar. 29	35.65	7.07
Apr. 25	35.47	7.25
June 3	34.89	7.83
July 4	35.24	7.48
Aug. 1	35.66	7.06
Sept. 1	36.12	6.60
Oct. 4	35.89	6.83
27	36.03	6.69
Dec. 4	36.14	6.58

Q1286 (\*936, p. 188; 944, p. 164; 986, p. 200). New York City Department of Water Supply, Gas and Electricity. On east side of 144th Place, about 315 feet south of Jamaica Avenue, Jamaica.

Water level, in feet, 1944		
Jan. 1	36.74	10.20
29	36.76	10.18
Feb. 28	36.93	10.01
Mar. 30	36.98	9.96
May 5	36.83	10.11
27	36.76	10.18
July 3	36.82	10.12
31	37.11	9.83
Sept. 2	37.43	9.51
Oct. 5	37.25	9.69
Nov. 3	37.32	9.62
Dec. 5	37.13	9.81

Q1287 (\*936, p. 188; 944, p. 164; 986, p. 200). New York City Department of Water Supply, Gas and Electricity. At north corner of Merrick Boulevard and 116th Avenue, St. Albans.

Water level, in feet, 1944		
Date	Below land-surface datum	Above mean sea level
Jan. 1	13.57	11.96
29	13.30	12.03
Feb. 28	12.91	12.42
Mar. 29	12.06	13.27
Apr. 25	11.45	13.88
June 3	12.42	12.91
July 4	13.11	12.22
Aug. 1	13.52	11.81
Sept. 1	13.94	11.39
Oct. 3	12.21	13.12
27	12.54	12.79
Dec. 4	11.74	13.59

Q1288 (\*936, p. 189; 944, p. 165; 986, p. 201). New York City Department of Water Supply, Gas and Electricity. At northwest corner of Murdock Avenue and 180th Street, St. Albans.

Water level, in feet, 1944		
Jan. 1	19.05	17.25
29	18.96	17.34
Feb. 28	18.77	17.53
Mar. 28	18.15	18.15
Apr. 25	17.69	18.61
June 3	17.84	18.46
July 4	18.44	17.86
Aug. 1	18.91	17.39
Sept. 1	19.39	16.91
Oct. 3	18.06	18.24
Nov. 3	18.29	18.01
Dec. 2	18.26	18.04

Q1289 (\*936, p. 189; 944, p. 165; 986, p. 201). New York City Department of Water Supply, Gas and Electricity. At northwest corner of Springfield Boulevard and 110th Avenue, Queens Village.

Water level, in feet, 1944		
Jan. 29	22.25	31.55
Feb. 26	22.34	31.46
Mar. 28	22.25	31.55
Apr. 26	22.02	31.78
May 30	21.19	32.61
July 3	22.36	31.44
Sept. 4	22.48	31.32
Oct. 3	21.97	31.83
Nov. 3	22.02	31.78
Dec. 5	22.05	31.75

Q1290 (\*936, p. 190; 944, p. 165; 986, p. 201). New York City Department of Water Supply, Gas and Electricity. At southwest corner of Merrick Road and Springfield Boulevard, Springfield.

Water level, in feet, 1944		
Feb. 28	7.10	16.93
Mar. 29	6.89	17.14
Apr. 25	6.73	17.30
June 3	6.88	17.15
July 4	7.36	16.67
Aug. 1	7.64	16.39
Sept. 1	7.94	16.09
Oct. 3	6.96	17.07
27	7.05	16.98
Dec. 4	6.84	17.19

Q1292 (\*936, p. 190; 944, p. 166; 986, p. 201). New York City Department of Water Supply, Gas and Electricity. About 96 feet south of Union Turnpike and 81 feet east of 185th Street, Jamaica.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	40.85	26.86
29	40.60	27.11
Feb. 26	40.58	27.13
Apr. 1	40.53	27.18
May 2	40.20	27.51
27	39.80	27.91
June 24	39.61	28.10
Aug. 1	40.00	27.71
31	40.10	27.61
Sept. 30	39.94	27.77
Oct. 28	39.81	27.90
Dec. 2	40.20	27.51

Suffolk County

S58. New York City Board of Water Supply, California Stovepipe well 6. Southwest corner of Grand Boulevard & 44th Street, Islip. Drilled test well, diameter 12 inches, depth 468 feet below measuring point. Measuring point, top of pipe, 36.35 feet above mean sea level. Land-surface datum is 37.00 feet above mean sea level. First measured by Geological Survey on Aug. 14, 1944. Record from Aug. 14 to Nov. 27, 1944, based on tape measurements, records after Nov. 27, 1944 taken from recorder charts (noon reading).

Water level, in feet, 1944

Date	Below land-surface datum	Below mean sea level
Aug. 14	14.45	22.55
30	14.61	22.39
Oct. 31	14.27	22.73
Nov. 27	13.58	23.42
Dec. 1	13.17	23.83
2	12.98	24.02
3	12.79	24.21
4	12.69	24.31
5	12.65	24.35
6	12.67	24.33
7	12.64	24.36
9	12.78	24.22
9	12.86	24.14
10	12.93	24.07
11	12.97	24.03
12	13.03	23.97
13	13.03	23.97
17	13.06	23.94
18	13.09	23.91
19	13.10	23.90
20	13.13	23.87
21	13.15	23.95
22	13.18	23.82
23	13.19	23.81
24	13.22	23.78
25	13.24	23.76
26	13.26	23.74
27	13.28	23.72
28	13.25	23.75
29	13.27	23.73
30	13.27	23.73
31	13.26	23.74

S202 (\*840, p. 273; \*845, p. 317; 886, p. 509; \*906, p. 164; 936, p. 191; 944, p. 166; 986, p. 202). New York Water Service Corporation. Abandoned well at Spring Street pumping station, 450 feet south of Gains Avenue, Huntington.

## S202. New York Water Service Corporation--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 1	29.80	39.20
29	29.54	39.46
Feb. 26	29.40	39.60
Apr. 1	28.94	40.06
27	29.64	39.36
May 30	29.13	39.87
June 26	29.05	39.95
July 26	29.04	39.96
Aug. 28	29.07	39.93
Sept. 27	28.91	40.09
Oct. 30	28.81	40.19
Nov. 27	28.68	40.32
Dec. 26	28.58	40.42

S203 (\*840, p. 273; 845, p. 318; 886, p. 510; \*906, p. 164; 936, p. 192; 944, p. 167; 986, p. 202). C. A. Gould. About 125 feet north of Wolf Hill Road and about 1.4 miles west of Deer Park Avenue, Dix Hills.

## Water level, in feet, 1944

Jan. 1	131.89	71.56
29	131.97	71.48
Feb. 26	132.09	71.36
Apr. 1	131.97	71.48
27	131.82	71.63
May 30	131.57	71.88
June 26	131.33	72.12
July 26	130.88	72.57
Aug. 28	130.58	72.87
Sept. 27	130.40	73.05
Oct. 30	130.44	73.01
Nov. 28	130.42	73.03
Dec. 26	130.56	72.89

S1803 (\*840, p. 285; 845, p. 324; 886, p. 510; 906, p. 165; 936, p. 192; 944, p. 16; 986, p. 202). New York City Department of Water Supply, Gas and Electricity. At north corner of Belmont Avenue and Farmingdale Road, about 1.5 miles west of Babylon.

## Water level, in feet, 1944

Feb. 7	5.50	16.19
Mar. 3	5.50	16.19
28	4.60	17.09
Apr. 29	4.06	17.63
June 1	5.27	16.42
29	5.79	15.90
July 28	6.32	15.37
Aug. 30	6.64	15.05
Sept. 29	5.91	15.78
Nov. 2	6.23	15.46
30	4.87	16.82
Dec. 29	4.99	16.70

S1805 (\*840, p. 287; 845, p. 324; 886, p. 511; 906, p. 166; \*936, p. 193; 944, p. 168; 986, p. 202). New York City Department of Water Supply, Gas and Electricity. At southwest corner of Albany Avenue and Farmingdale Road, about 3 miles north of Amityville.

## Water level, in feet, 1944

Feb. 7	14.30	42.89
Mar. 3	14.56	42.63
28	13.10	44.09
Apr. 29	11.57	45.62
June 1	12.25	44.94
29	13.19	44.00
July 28	14.20	42.99

S1805. New York City Department of Water Supply, Gas and Electricity  
--Continued.

## Water level, in feet, 1944.

Date	Below land- surface datum	Above mean sea level
Aug. 30	15.28	41.91
Sept. 29	15.53	41.66
Nov. 2	16.31	40.88
30	15.90	41.29
Dec. 29	14.60	42.59

S1806 (\*840, p. 288; 845, p. 325; 886, p. 511; 906, p. 166; 936, p. 193; 944, p. 168; 986, p. 203). New York City Department of Water Supply, Gas and Electricity. On northeast corner of Wellwood and Long Island Avenues, Pinelawn.

## Water level, in feet, 1944

Jan. 1	31.27	55.11
29	30.01	56.37
Feb. 26	30.40	55.98
Apr. 1	29.51	56.87
27	28.77	57.61
May 30	27.98	58.40
June 28	28.75	57.63
July 28	29.61	56.77
Aug. 30	30.54	55.84
Sept. 29	30.94	55.44
Nov. 2	31.51	54.87
30	31.70	54.68
Dec. 26	30.59	55.79

S1807 (\*840, p. 289; 845, p. 325; 886, p. 511; 906, p. 166; 936, p. 193; 944, p. 168; 986, p. 203). New York City Department of Water Supply, Gas and Electricity. On east side of Higbie Lane, 0.4 mile south of Hunter Avenue and about 1.5 miles northeast of Babylon.

## Water level, in feet, 1944

Feb. 7	3.00	21.67
Mar. 3	3.06	21.61
28	2.34	22.33
Apr. 29	1.87	22.80
May 30	2.61	22.06
June 29	3.03	21.64
July 29	3.47	21.20
Aug. 31	3.75	20.92
Sept. 29	3.37	21.30
Nov. 2	3.63	21.04
28	2.86	21.81
Dec. 29	2.61	22.06

S1808 (\*777, p. 124; \*817, p. 202; \*840, p. 290; 845, p. 325; 886, p. 511; 906, p. 166; 936, p. 194; 944, p. 168; 986, p. 203). New York City Department of Water Supply, Gas and Electricity. On east side of Sagtikos Manor Lane, about 4,250 feet south of Montauk Branch of Long Island Railroad, and 2.5 miles east of Babylon.

## Water level, in feet, 1944

Feb. 7	5.07	10.78
Mar. 31	5.07	10.78
Apr. 29	3.95	11.90
June 1	5.14	10.71
29	5.30	10.55
July 28	5.96	9.89
Aug. 30	6.34	9.51
Sept. 29	5.35	10.50
Nov. 2	5.56	10.29
28	3.70	12.15
Dec. 29	4.40	11.45

S1809 (\*777, p. 124; #817, p. 202; #840, p. 291; 845, p. 326; 886, p. 512; 906, p. 167; 936, p. 194; 944, p. 169; 986, p. 203). New York City Department of Water Supply, Gas and Electricity. At northwest corner of Sagtikos Manor Lane and road 0.1 mile south of Bay Shore, about 1.5 miles northwest of Bay Shore.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 7	13.49	28.00
Mar. 3	13.75	27.74
28	12.54	28.95
Apr. 29	11.38	30.11
May 30	11.66	29.83
June 29	12.49	29.00
July 29	13.36	28.13
Aug. 31	14.32	27.17
Sept. 29	14.71	26.78
Nov. 2	15.13	26.36
28	15.02	26.47
Dec. 29	13.44	28.05

S1810 (\*777, p. 124; #817, p. 202; #840, p. 291; 845, p. 326; 886, p. 512; 906, p. 167; 936, p. 194; 944, p. 169; 986, p. 204). Geological Survey, U. S. Department of Interior. On east side of Sagtikos Manor Lane, about 1,000 feet south of main line of Long Island Railroad and 1.5 miles southwest of Brentwood.

## Water level, in feet, 1944

Jan. 1	40.81	49.29
Nov. 2	40.39	49.71
30	40.83	49.27
Dec. 29	40.46	49.64

S1811 (#840, p. 292; 845, p. 326; #886, p. 512; #906, p. 167; #936, p. 194; 944, p. 169; 986, p. 204). Geological Survey, U. S. Dept. of Interior. At north shore of Lake Ronkonkoma. Measurements show the level of Lake Ronkonkoma.

## Water level, in feet, 1944

Jan. 1	0.87	52.81
29	.72	52.96
Feb. 26	.75	52.93
Apr. 1	.63	53.05
27	.42	53.26
May 30	.72	52.96
June 26	.76	52.92
July 27	.91	52.77
Sept. 28	1.23	52.45
Nov. 1	1.33	52.35
29	1.22	52.46
Dec. 28	1.17	52.51

S1812 (#840, p. 292; 845, p. 327; 886, p. 512; #906, p. 168; 936, p. 195; 944, p. 170; 986, p. 204). Geological Survey, U. S. Dept. of Interior. On northeast side of Smithtown Boulevard, about 100 feet northwest of Nichols Road and 1 mile west of Lake Ronkonkoma, Nesconset.

## Water level, in feet, 1944

Jan. 1	23.83	45.20
29	23.35	45.68
Feb. 26	23.43	45.60
Apr. 1	23.10	45.93
27	22.59	46.44
May 30	21.91	47.12
June 26	21.76	47.27
July 27	22.14	46.89
Aug. 28	22.54	46.49
Sept. 28	22.82	46.21
Oct. 31	23.30	45.73
Nov. 29	23.52	45.51
Dec. 28	22.91	46.12

S1813 (\*906, p. 168; 936, p. 195; 944, p. 170; 986, p. 204). Geological Survey, U. S. Dept. of Interior. On south side of Johnson Avenue about 1.5 miles west of Ocean Avenue, Ronkonkoma.

Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 1	21.58	37.17
29	21.00	37.75
Feb. 26	21.30	37.45
Apr. 1	20.76	37.99
27	20.51	38.24
May 30	20.26	38.49
June 28	20.30	38.46
July 28	20.63	38.12
Aug. 30	21.01	37.74
Sept. 29	21.04	37.71
Nov. 2	21.43	37.32
30	21.23	37.52
Dec. 29	21.09	37.66

S1814 (\*906, p. 169; 936, p. 196; 944, p. 170; 986, p. 204). Geological Survey, U. S. Dept. of Interior. On northwest corner of Suffolk and Lowells Avenues, Central Islip.

Water level, in feet, 1944

Jan. 1	44.01	35.62
29	43.33	36.30
Feb. 26	43.40	36.23
Apr. 1	43.11	36.52
27	42.66	36.97
May 30	42.10	37.53
June 28	42.26	37.37
July 28	42.57	37.06
Aug. 30	43.05	36.58
Sept. 29	43.29	36.34
Nov. 2	43.72	35.91
29	43.94	35.69
Dec. 29	43.51	36.12

S1815 (\*906, p. 169; 936, p. 196; 944, p. 171; 986, p. 205). Geological Survey, U. S. Dept. of Interior. On northwest corner of Suffolk and Eastern Avenues, Brentwood.

Water level, in feet, 1944

Jan. 1	27.72	44.42
29	27.24	44.90
Feb. 26	27.19	44.95
Apr. 1	27.06	45.08
27	26.64	45.50
May 30	25.87	46.27
June 28	25.75	46.39
July 28	26.00	46.14
Aug. 30	26.42	45.72
Sept. 29	26.68	45.46
Nov. 2	27.22	44.92
29	27.58	44.56
Dec. 29	27.65	44.49

S1816 (\*906, p. 170; 936, p. 196; 944, p. 171; 986, p. 205). Geological Survey, U. S. Dept. of Interior. On northeast corner of Brentwood and Commack Roads, Deer Park.

Water level, in feet, 1944

Jan. 1	29.34	55.87
29	28.64	56.57
Feb. 26	28.73	56.48
Apr. 1	28.27	56.94
27	27.40	57.81
May 30	26.42	58.79
June 28	26.83	58.38



## S1816. Geological Survey, U. S. Dept. of Interior--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
July 28	27.39	57.82
Aug. 30	28.11	57.10
Sept. 29	28.54	56.67
Nov. 2	29.22	55.99
30	29.60	55.61
Dec. 29	28.70	56.51

S1817 (\*906, p. 170; 936, p. 196; 944, p. 171; 986, p. 205). Geological Survey, U. S. Dept. of Interior. Southeast corner of Long Island Avenue and 18th Street, Wyandanch.

## Water level, in feet, 1944

Jan. 1	7.80	51.13
29	7.05	51.88
Feb. 26	7.17	51.76
Apr. 1	6.02	52.91
27	6.27	52.66
May 30	6.29	52.64
June 28	6.85	52.08
July 28	7.68	51.25
Aug. 30	8.29	50.64
Sept. 29	7.64	51.29
Nov. 2	8.20	50.73
Dec. 30	6.54	52.39
Dec. 26	7.04	51.89

S2314 (\*986, p. 205). Foundation Sand & Gravel Co. On west side of Burr's Lane about 1,500 feet north of Straight Path, Wyandanch.

## Water level, in feet, 1944

Jan. 1	34.02	58.76
29	33.33	59.45
Feb. 26	33.54	59.24
Apr. 1	33.03	59.75
27	32.54	60.24
May 30	32.29	60.49
June 28	32.49	60.29
July 28	32.63	60.15
Aug. 28	32.95	59.83
Sept. 27	32.97	59.81
Nov. 2	33.40	59.38
30	33.02	59.76
Dec. 26	33.00	59.78

S2454 (\*906, p. 171; 936, p. 197; 944, p. 171; 986, p. 206). Long Island Railroad. On south side of railroad tracks, about 80 feet east of Deer Park Avenue, Babylon.

## Water level, in feet, 1944

Feb. 7	5.86	7.21
Mar. 3	5.70	7.37
28	5.16	7.91
Apr. 29	4.71	8.36
June 1	5.91	7.16
29	5.90	7.17
July 28	6.23	6.84
Aug. 30	6.35	6.72
Sept. 29	5.72	7.35
Nov. 2	6.00	7.07
28	4.60	8.47
Dec. 29	5.23	7.84

S2455 (\*777, p. 121; \*817, p. 201; \*840, p. 272; 845, p. 317; \*886, p. 317; \*886, p. 508; \*906, p. 172; 936, p. 198; 944, p. 172; 986, p. 206). Geological Survey, U. S. Dept. of Interior. About 4,000 feet southeast of intersection of Udalls Road and Hunter Avenue, about 2 miles west of Bay Shore.

## S2455. Geological Survey, U. S. Dept. of Interior--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Feb. 5	11.00	22.09
Mar. 3	11.19	21.90
28	9.97	23.12
Apr. 29	9.08	24.01
May 30	9.92	23.17
June 29	10.78	22.31
July 29	11.70	21.39
Aug. 31	12.53	20.56
Sept. 29	12.40	20.69
Oct. 31	12.73	20.36
Nov. 28	12.07	21.02
Dec. 29	10.73	22.36

S3112 (\*936, p. 199; 944, p. 172; 986, p. 207). New York City Department of Water Supply, Gas and Electricity. On northeast corner of Long Island Avenue and Little East Neck Road, Wyandanch.

## Water level, in feet, 1944

Jan. 1	24.79	53.30
29	23.67	54.42
Feb. 26	24.03	54.06
Apr. 1	23.02	55.07
27	22.24	55.85
May 30	21.68	56.41
June 28	22.38	55.71
July 28	23.21	54.88
Aug. 30	24.15	53.94
Sept. 29	24.67	53.42
Nov. 2	25.19	52.90
30	25.39	52.70
Dec. 29	23.98	54.11

S3496 (\*944, p. 173; 986, p. 207). Geological Survey, U. S. Dept. of Interior. On east side of Coates Avenue about 100 feet north of Long Island Railroad, Holbrook. Measuring point raised 0.28 foot on Aug. 30, 1944.

## Water level, in feet, 1944

Jan. 31	68.66	47.21
Mar. 1	68.86	47.01
31	69.02	46.85
Apr. 28	69.02	46.85
June 1	68.51	47.36
28	67.74	48.13
July 28	67.35	48.52
Aug. 30	67.60	48.55
Sept. 29	67.82	48.33
Nov. 1	68.23	47.92
30	68.56	47.59
Dec. 28	68.88	47.27

S3497 (\*944, p. 173; 986, p. 208). Geological Survey, U. S. Dept. of Interior. On northeast corner of Waverly and Long Island Avenues, Holtsville.

## Water level, in feet, 1944

Jan. 31	56.89	46.92
Mar. 1	57.08	46.73
31	57.22	46.59
Apr. 28	57.20	46.61
June 1	56.59	47.22
28	55.88	47.93
July 28	55.70	48.11
Aug. 30	56.01	47.80
Sept. 29	56.22	47.59
Nov. 1	56.65	47.16
30	56.97	46.84
Dec. 28	57.30	46.51

83498 (\*944, p. 173; 986, p. 208). Geological Survey, U. S. Dept. of Interior. On south side of Long Island Avenue about 1,000 feet west of State Highway 112, Medford.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 31	50.79	43.92
Mar. 1	50.85	43.86
31	50.74	43.97
Apr. 28	50.37	44.34
May 31	49.63	45.08
June 28	49.47	45.24
July 28	49.76	44.95
Aug. 29	50.08	44.63
Sept. 28	50.37	44.34
Nov. 1	50.75	43.96
30	50.99	43.72
Dec. 28	50.93	43.78

83512 (\*944, p. 173; 986, p. 208). New York State Division of Highways. On south side of Middle Country Road (State Highway 25), about 0.6 mile east of Lake Avenue, Lake Grove.

## Water level, in feet, 1944

Jan. 31	40.90	66.51
Feb. 29	40.75	66.66
Mar. 31	40.54	66.87
Apr. 28	39.97	67.44
May 31	39.06	68.35
June 26	38.65	68.76
July 27	38.84	68.67
Aug. 29	39.23	68.18
Sept. 28	39.55	67.86
Nov. 1	40.03	67.58
29	40.26	67.15
Dec. 28	40.43	66.98

83513 (\*944, p. 173; 986, p. 208). New York State Department of Public Works. Middle Country Road about 0.9 mile west of Selden.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts beginning Apr. 12)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	.....	40.94	40.32	39.99	39.79	40.12	40.43	40.81	41.18
2	.....	.....	.....	.....	40.93	40.30	40.00	39.80	40.12	40.44	40.82	41.20
3	.....	.....	.....	.....	40.91	40.31	40.00	39.76	40.13	.....	40.82	41.21
4	.....	.....	.....	.....	40.89	40.29	39.99	39.78	40.13	.....	40.82	41.21
5	.....	.....	.....	.....	40.86	40.26	39.98	39.78	40.13	.....	40.83	41.21
6	.....	.....	.....	.....	.....	40.24	39.98	39.80	40.15	.....	40.85	41.21
7	.....	.....	.....	.....	.....	.....	39.98	39.82	40.17	.....	40.87	41.21
8	.....	.....	.....	.....	.....	.....	.....	39.84	40.18	.....	40.88	41.16
9	.....	.....	.....	.....	.....	40.21	.....	39.86	40.20	.....	40.89	.....
10	.....	.....	.....	.....	.....	40.19	.....	39.86	40.22	.....	40.89	41.21
11	.....	.....	.....	.....	.....	40.17	39.66	39.87	40.23	.....	40.81	41.19
12	.....	.....	.....	41.20	.....	40.16	39.65	39.88	40.23	40.56	40.93	41.11
13	.....	.....	.....	41.19	.....	40.15	39.67	39.90	40.23	40.56	40.94	41.17
14	.....	.....	.....	41.17	.....	40.15	39.68	39.91	40.24	40.55	40.95	41.19
15	.....	.....	.....	41.14	.....	40.12	39.67	39.92	40.26	40.61	40.96	41.20
16	.....	.....	.....	41.14	40.65	40.10	39.66	39.92	40.27	40.61	40.96	41.16
17	.....	.....	.....	41.14	40.63	40.09	39.66	39.92	40.29	40.63	41.01	41.18
18	.....	.....	.....	41.12	40.61	40.09	39.68	.....	40.30	40.63	41.03	41.19
19	.....	.....	.....	.....	40.60	40.07	.....	.....	40.30	40.64	41.04	41.17
20	.....	.....	.....	.....	40.57	40.05	.....	.....	.....	40.66	41.04	41.19
21	.....	.....	.....	41.09	40.55	40.05	.....	.....	.....	40.61	41.02	41.18
22	.....	.....	.....	41.03	40.51	40.05	39.69	.....	40.35	40.68	41.06	41.22
23	.....	.....	.....	41.07	40.51	40.03	39.69	.....	40.35	40.69	41.08	41.20
24	.....	.....	.....	41.03	40.48	40.01	39.69	.....	40.37	40.70	41.09	41.20
25	.....	.....	.....	41.02	40.46	40.02	39.69	.....	40.38	40.70	41.12	41.18
26	.....	.....	.....	41.01	40.43	40.03	39.70	.....	40.38	40.71	41.13	41.21

## WATER LEVELS AND ARTESIAN PRESSURE, 1944, NORTHEASTERN STATES

## S3513. New York State Department of Public Works--Continued.

Water level at noon, in feet below land-surface datum, 1944

(From recorder charts beginning Apr. 12)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	.....	.....	.....	41.00	40.41	40.04	39.69	.....	40.39	40.73	41.14	41.21
28	.....	.....	.....	40.99	40.41	40.03	39.71	.....	40.39	40.73	41.14	41.18
29	.....	41.10	.....	40.97	40.39	40.00	39.72	40.08	.....	40.75	41.16	41.22
30	.....	.....	.....	40.95	40.35	40.00	39.74	40.09	40.42	40.78	41.10	41.17
31	40.93	.....	41.04	.....	40.34	.....	39.77	40.11	.....	40.80	.....	41.15

a Tape measurement.

Water level at noon, in feet above mean sea level, 1944

(From recorder charts beginning Apr. 12)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	.....	61.16	61.78	62.11	62.31	61.98	61.87	61.29	60.92
2	.....	.....	.....	.....	61.17	61.80	62.10	62.30	61.98	61.66	61.28	60.90
3	.....	.....	.....	.....	61.19	61.79	62.10	62.34	61.97	.....	61.28	60.89
4	.....	.....	.....	.....	61.21	61.81	62.11	62.32	61.97	.....	61.28	60.89
5	.....	.....	.....	.....	61.24	61.84	62.12	62.32	61.97	.....	61.27	60.89
6	.....	.....	.....	.....	.....	61.86	62.12	62.30	61.95	.....	61.25	60.89
7	.....	.....	.....	.....	.....	.....	62.12	62.28	61.93	.....	61.23	60.89
8	.....	.....	.....	.....	.....	.....	.....	62.26	61.92	.....	61.22	60.94
9	.....	.....	.....	.....	.....	61.89	.....	62.24	61.90	.....	61.21	.....
10	.....	.....	.....	.....	.....	61.91	.....	62.24	61.88	.....	61.21	60.89
11	.....	.....	.....	.....	.....	61.93	62.44	62.23	61.87	.....	61.19	60.91
12	.....	.....	.....	60.90	.....	61.94	62.45	62.22	61.87	61.54	61.17	60.99
13	.....	.....	.....	60.91	.....	61.95	62.43	62.20	61.87	61.54	61.16	60.93
14	.....	.....	.....	60.93	.....	61.95	62.42	62.19	61.86	61.55	61.15	60.91
15	.....	.....	.....	60.96	.....	61.98	62.43	62.18	61.84	61.49	61.14	60.90
16	.....	.....	.....	60.96	61.45	62.00	62.44	62.18	61.83	61.49	61.14	60.94
17	.....	.....	.....	60.96	61.47	62.01	62.44	62.18	61.81	61.47	61.09	60.92
18	.....	.....	.....	60.98	61.49	62.01	62.42	.....	61.80	61.47	61.07	60.91
19	.....	.....	.....	.....	61.50	62.03	.....	.....	61.80	61.46	61.06	60.93
20	.....	.....	.....	.....	61.53	62.05	.....	.....	.....	61.44	61.06	60.91
21	.....	.....	.....	61.01	61.55	62.05	.....	.....	.....	61.49	61.08	60.92
22	.....	.....	.....	61.02	61.59	62.05	62.41	.....	.....	61.42	61.04	60.88
23	.....	.....	.....	61.03	61.59	62.07	62.41	.....	61.75	61.41	61.02	60.90
24	.....	.....	.....	61.07	61.62	62.09	62.41	.....	61.73	61.40	61.01	60.90
25	.....	.....	.....	61.08	61.64	62.08	62.41	.....	61.72	61.40	60.98	60.92
26	.....	.....	.....	61.09	61.67	62.07	62.40	.....	61.72	61.39	60.97	60.89
27	.....	.....	.....	61.10	61.69	62.06	62.41	.....	61.71	61.37	60.97	60.89
28	.....	.....	.....	61.11	61.69	62.07	62.39	.....	61.71	61.37	60.96	60.92
29	.....	61.00	.....	61.13	61.71	62.10	62.38	62.02	.....	61.35	60.94	60.88
30	.....	.....	.....	61.15	61.75	62.10	62.36	62.01	61.68	61.32	61.00	60.93
31	61.17	.....	61.06	.....	61.76	.....	62.33	61.99	.....	61.30	.....	60.95

a Tape measurement.

S3514 (\*944, p. 174; 986, p. 208). Herman Jurgens. On south side of Jericho Turnpike (State Highway 25), about 0.5 mile east of Larkfield Avenue, Commack.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 1	87.93	66.29
29	87.23	66.99
Feb. 26	87.19	67.03
Mar. 31	86.78	67.44
Apr. 27	86.70	67.52
May 30	86.62	67.60
June 26	86.64	67.68
July 26	86.39	67.83
Aug. 28	86.31	67.91
Sept. 27	86.04	68.18
Oct. 30	86.28	67.94
Nov. 28	86.56	67.66
Dec. 26	86.80	67.42

S3515 (\*944, p. 174; 986, p. 209). New York City Board of Water Supply test well 57. West side of East Third Avenue, about 0.35 mile north of Brook Street, Bay Shore.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Feb. 7	11.57	32.58
Mar. 3	11.79	32.36
28	10.79	33.36
Apr. 29	9.98	34.17
June 1	10.16	33.99
29	10.78	33.37
July 29	11.47	32.68
Aug. 30	12.14	32.01
Sept. 29	12.18	31.97
Nov. 1	12.68	31.47
28	12.59	31.56
Dec. 29	11.53	32.62

S3516 (\*944, p. 174; 986, p. 209). New York City Board of Water Supply test well 58. On east side of East Third Avenue, about 105 feet south of Walbridge Avenue, Bay Shore.

## Water level, in feet, 1944

Feb. 7	22.97	37.53
Mar. 3	23.20	37.30
28	22.44	38.06
Apr. 29	21.55	38.95
June 1	21.20	39.30
29	21.75	38.75
July 29	22.39	38.11
Aug. 30	23.08	37.42
Sept. 29	23.35	37.15
Nov. 1	23.94	36.56
28	24.20	36.30
Dec. 29	23.15	37.35

S3517 (\*944, p. 175; 986, p. 209). New York City Board of Water Supply test well 60. On southwest corner of Lakeland Avenue and Tariff Street, Sayville.

## Water level, in feet, 1944

Jan. 31	18.83	12.73
Mar. 1	18.95	12.61
31	18.34	13.22
Apr. 29	17.86	13.60
June 1	18.10	13.46
29	18.62	12.94
July 28	19.09	12.47
Aug. 30	19.47	12.09
Sept. 29	19.38	12.18
Nov. 1	19.63	11.93
30	19.26	12.30
Dec. 28	18.48	13.08

S3518 (\*944, p. 175; 986, p. 209). New York City Board of Water Supply test well 79. East side of Islip Avenue, about 190 feet north of Locust Street, Central Islip.

## Water level, in feet, 1944

Jan. 31	19.99	31.74
Mar. 1	20.25	31.48
31	19.40	32.33
Apr. 29	18.93	32.80
June 1	19.01	32.72
29	18.65	32.08
July 28	20.22	31.51
Aug. 30	20.82	30.91
Sept. 29	20.82	30.91
Oct. 31	21.15	30.58
Nov. 28	21.11	30.62
Dec. 29	19.99	31.74

S3519 (#944, p. 176; 986, p. 210). New York City Board of Water Supply test well 93. On east side of Carleton Avenue, about 2.25 miles south of main line of Long Island Railroad, Central Islip.

Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 31	7.04	25.56
Mar. 1	7.12	25.48
31	6.21	26.39
Apr. 29	5.80	26.80
June 1	6.43	26.17
29	6.80	25.80
July 28	7.40	25.20
Aug. 30	8.00	24.60
Sept. 29	7.44	25.16
Oct. 31	7.95	24.65
Nov. 28	7.25	25.35
Dec. 29	6.82	25.78

S3521 (#944, p. 176; 986, p. 210). New York City Board of Water Supply test well 162. On east side of Medford Avenue, 0.9 mile south of Long Island Avenue, Medford.

Water level, in feet, 1944

Jan. 31	35.89	36.68
Mar. 1	36.00	36.57
31	35.80	36.77
Apr. 28	35.31	37.26
May 31	34.73	37.84
June 28	35.06	37.51
July 28	35.39	37.18
Aug. 29	35.77	36.80
Sept. 28	35.99	36.58
Nov. 1	36.31	36.26
30	36.44	36.13
Dec. 28	35.83	36.74

S3522 (#944, p. 177; 986, p. 210). New York City Board of Water Supply test well 166. On east side of Waverly Avenue, 1.0 mile north of Main Street, Patchogue.

Water level, in feet, 1944

Jan. 31	23.93	19.42
Mar. 1	23.94	19.41
31	23.56	19.79
Apr. 28	23.37	19.98
June 1	23.43	19.92
28	23.69	19.66
July 28	23.98	19.37
Aug. 30	24.13	19.22
Sept. 29	24.10	19.25
Nov. 1	24.24	19.11
30	24.04	19.31
Dec. 28	23.64	19.71

S3523 (#944, p. 177; 986, p. 210). New York City Board of Water Supply test well 202. On south side of Barton Avenue, about 1.1 miles east of Medford Avenue, and about 2 miles northeast of Patchogue.

Water level, in feet, 1944

Jan. 31	23.10	26.14
Mar. 1	23.13	26.11
31	22.88	26.36
Apr. 28	22.36	26.88
June 1	21.88	27.36
28	22.18	27.06
July 28	22.56	26.68
Aug. 29	22.73	26.51
Sept. 29	22.81	26.43
Nov. 1	22.58	26.66
30	23.33	25.91
Dec. 28	22.96	26.28

S3524 (\*944, p. 177; 986, p. 211). New York City Board of Water Supply test well 215. On south side of Park Road, about 0.3 mile east of Yaphank Avenue and about 0.1 mile south of main line of Long Island Railroad, Yaphank.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 31	24.39	22.06
Mar. 1	24.50	21.95
31	24.25	22.20
Apr. 28	24.05	22.40
May 31	23.92	22.53
June 28	24.20	22.25
July 28	24.43	22.02
Aug. 29	24.62	21.83
Sept. 28	24.66	21.79
Nov. 1	24.83	21.62
29	24.86	21.59
Dec. 27	24.22	22.23

S3525 (\*944, p. 178; 986, p. 211). New York City Board of Water Supply test well 216. On north side of Long Island Avenue, 0.6 mile east of Yaphank.

## Water level, in feet, 1944

Jan. 31	26.09	27.93
Mar. 1	25.78	28.24
31	26.32	27.70
Apr. 28	26.59	27.43
May 31	26.80	27.22
June 27	27.03	26.99
July 27	27.20	26.82
Aug. 29	27.36	26.66
Sept. 28	27.45	26.57
Nov. 1	27.60	26.42
29	27.70	26.32
Dec. 27	27.64	26.38

S3526. New York City Board of Water Supply test well 218. South side of Long Island Avenue about 100 feet east of South Haven Road, and 1.6 miles east of Yaphank. Driven test well, diameter 2 inches, depth 66.4 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 89.88 feet above mean sea level. First measured by the Geological Survey on January 30, 1943.

## Water level, in feet, 1944

Jan. 31	63.44	26.49
Feb. 29	63.68	26.25
Mar. 31	63.82	26.11
Apr. 28	63.73	26.20
June 27	62.87	27.06
July 27	62.55	27.38
Aug. 29	62.67	27.26
Sept. 28	62.85	27.08
Nov. 1	63.14	26.74
29	63.18	26.70
Dec. 27	63.35	26.53

S3527 (\*944, p. 178; 986, p. 211). New York City Board of Water Supply test well 222. On south side of Horseblock Road, 1.6 miles west of Yaphank Avenue and about 1.7 miles southeast of Plainfield.

## Water level, in feet, 1944

Jan. 31	58.64	31.47
Mar. 1	58.82	31.29
31	58.79	31.32
Apr. 28	58.56	31.55
May 31	57.83	32.28
June 28	57.30	32.81

## S3527. New York City Board of Water Supply test well 222--Continued.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
July 28	57.23	32.88
Aug. 29	57.53	32.58
Sept. 28	57.75	32.36
Nov. 1	58.28	31.83
29	58.57	31.54
Dec. 28	58.68	31.43

S3529 (\*944, p. 179; 986, p. 211). New York City Board of Water Supply test well 238. On north side of Horseblock Road, about 0.7 mile west of Yaphank Avenue, and about 1.3 miles northwest of Brookhaven Railroad station, Brookhaven.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 31	13.10	25.32
Mar. 1	13.45	24.97
31	12.70	25.72
Apr. 28	12.31	26.11
May 31	12.30	26.12
June 28	12.20	26.22
July 28	12.55	25.87
Aug. 29	13.06	25.36
Sept. 28	13.28	25.14
Nov. 1	13.67	24.75
29	14.35	24.07
Dec. 28	12.93	25.49

S3530 (\*944, p. 179; 986, p. 212). New York City Board of Water Supply test well 240. At northeast corner of trail intersection, about 0.9 mile west of Yaphank Avenue, and about 300 feet south of main line of Long Island Railroad, Yaphank.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 31	33.81	32.11
Mar. 31	33.60	32.32
Apr. 28	33.24	32.68
May 31	32.89	33.03
June 28	33.03	32.89
July 28	33.12	32.80
Aug. 29	33.38	32.54
Sept. 28	33.63	32.29
Nov. 1	33.95	31.97
29	34.24	31.68
Dec. 27	33.73	32.19

S3531 (\*944, p. 180; 986, p. 212). New York City Board of Water Supply test well 254. On east side of River Road, about 0.5 mile north of Montauk Highway (State Highway 27), and about 0.3 mile east of Carmans River, South Haven.

Water level, in feet, 1944		
Date	Below land- surface datum	Above mean sea level
Jan. 31	15.85	9.46
Mar. 1	16.00	9.29
31	15.81	9.48
Apr. 28	15.70	9.59
May 31	15.66	9.63
June 28	15.48	9.81
July 27	15.27	10.02
Aug. 29	15.80	9.49
Sept. 28	15.71	9.58
Nov. 1	15.74	9.55
29	15.51	9.78
Dec. 27	15.59	9.70



S3532 (\*944, p. 180; 986, p. 212). New York City Board of Water Supply test well 265. At southeast corner of Whiskey and Randall Roads, about 1.4 miles north of intersection of Randall Road and Middle Country Road (State Highway 25), Ridge.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Jan. 31	38.88	46.12
Feb. 29	39.05	45.95
Mar. 31	38.84	46.16
Apr. 28	38.34	46.66
May 31	37.48	47.52
June 27	37.17	47.83
July 27	37.31	47.69
Aug. 29	37.67	47.33
Sept. 28	38.03	46.97
Nov. 1	38.57	46.43
29	39.01	45.99
Dec. 27	39.24	45.76

S3533 (\*944, p. 181; 986, p. 212). New York City Board of Water Supply test well 272. On east side of dirt road, about 0.8 mile east of Yaphank-Middle Island road and about 1.1 miles south of Middle Country Road (State Highway 25), Middle Island.

## Water level, in feet, 1944

Jan. 31	16.18	45.28
Feb. 29	16.28	45.18
Mar. 31	15.94	45.52
Apr. 28	15.51	45.95
May 31	14.96	46.50
June 27	15.02	46.44
July 27	15.33	46.13
Aug. 29	15.74	45.72
Sept. 28	15.99	45.47
Nov. 1	16.40	45.06
29	16.64	44.82
Dec. 27	16.39	45.07

S3534 (\*944, p. 181; 986, p. 212). New York City Board of Water Supply test well 276. On northeast side of trail, about 1.8 miles east of intersection of Long Island Avenue and South Haven road, and about 3.4 miles east of Yaphank.

## Water level, in feet, 1944

Jan. 31	41.60	26.61
Feb. 29	41.68	26.53
Mar. 31	41.71	26.50
Oct. 26	40.07	27.09
Nov. 1	40.14	27.02
29	40.50	26.66

S3535 (\*944, p. 181; 986, p. 213). New York City Board of Water Supply test well 284. On south side of Chichester Avenue, about 1,000 feet southeast of Brookfield Avenue, Center Moriches. Measuring point lowered 1.65 feet on Dec. 27, 1944.

## Water level, in feet, 1944

Jan. 31	35.15	18.36
Feb. 29	32.51	18.40
Mar. 31	32.53	18.38
Apr. 28	32.21	18.70
May 31	31.43	19.48
June 27	31.16	19.75
July 27	31.34	19.57
Aug. 29	31.66	19.25
Sept. 28	31.98	18.93
Nov. 1	32.38	18.53
29	32.67	18.24
Dec. 27	32.63	18.28

S3536 (\*944, p. 182; 986, p. 213). New York City Board of Water Supply test well 289. On southwest side of Manor Branch of Long Island Railroad, about 2.7 miles northwest of Eastport railroad station, and about 2.3 miles northeast of Center Moriches.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Jan. 31	50.69	23.79
Feb. 29	50.88	23.60
Mar. 31	50.98	23.50
Apr. 28	50.87	23.61
May 31	50.38	24.10
June 27	49.83	24.65
July 27	49.54	24.94
Aug. 29	49.75	24.73
Sept. 28	50.00	24.48
Nov. 1	50.35	24.13
29	51.65	22.83
Dec. 27	50.87	23.61

S3538 (\*944, p. 183; 986, p. 213). New York City Board of Water Supply test well 339. On northwest side of Fox Trail about 1.7 miles south of intersection of old Riverhead road and Riverhead-Quogue Road (State Highway 113), and about 0.6 mile west of Oakville.

## Water level, in feet, 1944

Jan. 31	18.30	15.45
Feb. 29	18.50	15.25
Mar. 31	18.34	15.41
Apr. 28	18.22	15.53
May 31	17.81	15.94
June 27	17.75	16.00
July 27	17.82	15.93
Aug. 29	18.04	15.71
Sept. 28	18.23	15.52
Nov. 1	18.51	15.24
29	18.54	15.21
Dec. 27	18.10	15.65

S3545 (\*944, p. 185; 986, p. 214). New York City Board of Water Supply test well 130. On east side of Lincoln Avenue, about 0.6 mile north of Church Street and 2.2 miles south of Holbrook. Measuring point raised 0.23 foot on Aug. 30, 1944.

## Water level, in feet, 1944

Jan. 31	21.80	34.76
Mar. 1	21.65	34.91
31	21.43	35.13
Apr. 29	20.74	35.82
June 1	19.89	36.67
29	20.13	36.43
July 28	20.46	36.10
Aug. 30	20.95	35.84
Sept. 29	21.31	35.48
Nov. 1	21.82	34.97
30	22.11	34.68
Dec. 28	21.40	35.39

S3727. New York City Board of Water Supply test well 129. On north side of Church Street, about 500 feet east of Lincoln Avenue and 2.0 miles north of Sayville. Driven test well, diameter 2 inches, depth 42.0 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 40.06 feet above mean sea level. First measured by Geological Survey on July 13, 1943.

## Water level, in feet, 1944

Jan. 31	9.43	30.63
Mar. 1	9.45	30.61
31	8.91	31.15

## S3727. New York City Board of Water Supply test well 129--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Apr. 29	8.20	31.86
June 1	7.72	32.34
29	8.05	32.01
July 28	8.45	31.61
Aug. 30	9.06	31.00
Sept. 29	9.37	30.69
Nov. 1	9.87	30.19
30	9.86	30.20
Dec. 28	9.13	30.93

S3728. New York City Board of Water Supply test well 186. Along dirt trail about 0.2 mile north of Montauk Highway (State Highway 27) and about 0.2 mile east of Taylor Avenue (extended) Hagerman. Driven test well, diameter 2 inches, depth 46.9 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 48.11 feet above mean sea level. First measured by Geological Survey on May 28, 1943.

## Water level, in feet, 1944

Jan. 31	28.26	19.85
Mar. 31	27.88	20.23
June 9	26.35	21.76
28	26.54	21.57
July 28	26.86	21.25
Aug. 30	27.32	20.79
Sept. 29	27.69	20.42
Nov. 1	28.12	19.99
30	28.46	19.65
Dec. 29	27.79	20.32

S3729. New York City Board of Water Supply test well 204. At north-east corner of Barton & Duntun Avenues, and about 1.3 miles north of Hagerman. Driven test well, diameter 2 inches, depth 39.6 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 58.59 feet above mean sea level. First measured by Geological Survey on Sept. 10, 1943.

## Water level, in feet, 1944

Aug. 8	29.75	28.84
9	29.72	28.87
29	29.98	28.61
Sept. 29	30.32	28.27
Nov. 1	30.76	27.83
30	31.05	27.54
Dec. 27	30.80	27.79

S3730. New York City Board of Water Supply test well 207. At south-west corner of Duntun Avenue and South Haven Road, and about 1.0 mile south of Plainfield. Driven test well, diameter 2 inches, depth 57.2 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 80.45 feet above mean sea level. First measured by Geological Survey on Sept. 21, 1943.

## Water level, in feet, 1944

Jan. 31	46.71	33.74
Mar. 31	46.70	33.75
Apr. 28	46.34	34.11
June 1	45.34	35.11
28	45.03	35.42
July 28	45.21	35.24
Aug. 30	45.53	34.92
Sept. 29	45.84	34.61
Nov. 1	46.26	34.19
30	46.53	33.92
Dec. 27	46.75	33.70

S3731. New York City Board of Water Supply test well 244. On east side of Taylor Avenue (extended) and 0.5 mile north of Hagerman. Driven test well, diameter 2 inches, depth 44.2 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 52.02 feet above mean sea level. First measured by Geological Survey on May 28, 1943.

Water level, in feet, 1943-44		
Date	Below land-surface datum	Above mean sea level
May 28, 1943	28.50	23.52
Aug. 2	27.64	24.38
Sept. 2	28.00	24.02
24	28.28	23.74
Oct. 28	28.76	23.26
Nov. 29	29.13	22.89
Dec. 30	29.50	22.52
Jan. 31, 1944	29.26	22.76
Mar. 31	28.90	23.12
June 9	27.34	24.68
28	27.49	24.53
July 28	27.80	24.22
Aug. 30	28.23	23.79
Sept. 29	28.62	23.40
Nov. 1	29.06	22.96
30	29.41	22.61
Dec. 27	28.82	23.20

S3732. New York City Board of Water Supply test well 259. At west side of Mt. Sinai Road, about 225 feet south of Port Jefferson-Middle Village Road, and about 2.6 miles north of Coram. Driven test well, diameter 2 inches, depth 76.4 feet below measuring point. Measuring point, top of pipe, at land-surface datum, and 110.27 feet above mean sea level. First measured by Geological Survey on Oct. 5, 1943.

Water level, in feet, 1943-44		
Oct. 5, 1943	56.59	53.68
28	56.70	53.57
Nov. 29	56.85	53.42
Feb. 29, 1944	57.68	52.59
Mar. 31	57.89	52.38
Apr. 28	57.79	52.48
May 31	57.42	52.85
June 27	57.52	52.75
July 27	57.34	52.93
Aug. 29	57.62	52.65
Sept. 29	57.68	52.59
Nov. 1	57.81	52.46
29	58.02	52.25
Dec. 27	58.01	52.26

S3733. New York City Board of Water Supply test well 467. On west side of Lincoln Avenue about 1.3 miles south of Church Street, Sayville. Driven test well, diameter 2 inches, depth 47.2 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 36.79 feet above mean sea level. First measured by Geological Survey on Aug. 2, 1943.

Water level, in feet, 1943-44		
Aug. 2, 1943	19.16	17.63
Sept. 2	19.51	17.28
24	19.68	17.11
Oct. 28	19.85	16.94
Nov. 29	19.84	16.95
Dec. 30	20.92	15.87
Jan. 31, 1944	19.22	17.57
Mar. 1	19.37	17.42
31	18.84	17.95
Apr. 29	18.47	18.32
June 1	18.40	18.39
29	18.85	17.94
July 28	19.32	17.47

## S3733. New York City Board of Water Supply test well 467--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Aug. 30	19.74	17.06
Sept. 29	19.78	17.01
Nov. 1	20.01	16.78
30	19.84	16.95
Dec. 28	18.98	17.81

S3735. New York City Board of Water Supply test well 1214. On north side of Old Town Road about 0.6 mile east of Dare Road and about 2.0 miles north of Selden. Driven test well, diameter 2 inches, depth 54.9 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 115.08 feet above mean sea level. First measured by Geological Survey on Oct. 1, 1943.

## Water level, in feet, 1943-44

Oct. 1, 1943	49.15	65.93
28	49.43	65.65
Nov. 29	49.74	65.34
Jan. 31, 1944	50.38	64.70
Feb. 29	50.72	64.36
Mar. 31	50.80	64.28
Apr. 28	50.70	64.38
May 31	50.04	65.04
June 27	49.48	65.60
July 27	49.32	65.76
Aug. 29,	49.63	65.45
Sept. 28	49.90	65.18
Nov. 1	50.22	64.86
29	50.53	64.55
Dec. 28	50.79	64.29

S3736. U. S. Geological Survey. At northwest corner of Schmidt Street & Lincoln Avenue, about 0.7 mile south of Holbrook. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 57.9 feet below measuring point. Measuring point, top of pipe, at land-surface datum, and 93.25 feet above mean sea level. First measured by Geological Survey on July 19, 1943.

## Water level, in feet, 1943-44

July 19, 1943	49.18	44.07
27	48.54	44.71
Aug. 2	48.50	44.75
Sept. 2	48.73	44.52
24	48.87	44.38
Oct. 28	49.20	44.05
Nov. 29	49.64	43.61
Dec. 30	50.10	43.15
Jan. 31, 1944	50.39	42.86
Mar. 1	50.40	42.85
31	50.41	42.84
Apr. 29	50.13	43.12
June 1	49.28	43.97
29	48.86	44.39
July 28	48.92	44.33
Aug. 30	49.23	44.02
Sept. 29	49.46	43.79
Nov. 1	49.92	43.33
30	50.31	42.94
Dec. 28	50.50	42.75

S3737. Geological Survey, U. S. Dept. of Interior. On east side of Holbrook Road, about 0.6 mile south of Middle Country Road (State Highway 25) and 0.8 mile southwest of New Village. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 64.0 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 110.94 feet above mean sea level. First measured on Aug. 17, 1943.

## S3737. Geological Survey, U. S. Department of Interior--Continued.

## Water level, in feet, 1943-44

Date	Below land-surface datum	Above mean sea level
Aug. 17, 1943	53.47	57.07
Sept. 24	53.41	57.13
Oct. 28	53.68	56.86
Nov. 29	53.97	56.57
Dec. 30	54.28	56.26
Jan. 31, 1944	54.57	55.97
Feb. 29	54.74	55.20
Mar. 31	54.89	55.65
Apr. 28	54.76	55.78
May 31	54.40	56.14
June 27	54.06	56.48
July 26	53.89	56.65
Aug. 29	53.98	56.56
Sept. 28	54.16	56.38
Nov. 1	54.47	56.07
29	54.72	55.82
Dec. 28	54.95	55.59

S3738. Geological Survey, U. S. Dept. of Interior. On west side of Oxhead Road, about 0.9 mile north of Middle Country Road (State Highway 25) and 1.3 miles northwest of New Village. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 68.8 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 114.59 feet above mean sea level. First measured on Aug. 19, 1943.

## Water level, in feet, 1943-44

Aug. 19, 1943	57.47	57.12
Sept. 24	57.80	56.79
Oct. 28	58.09	56.50
Nov. 29	58.47	56.12
Dec. 30	58.85	55.74
Jan. 31, 1944	59.15	55.44
Feb. 29	59.33	55.26
Mar. 31	59.38	55.21
Apr. 28	59.17	55.42
May 31	58.50	56.09
June 30	57.90	56.69
July 27	57.75	56.84
Aug. 29	58.04	56.55
Sept. 28	58.33	56.26
Nov. 1	58.73	55.86
29	59.05	55.54
Dec. 28	59.32	55.27

S3739. Geological Survey, U. S. Dept. of Interior. On west side of Lincoln Avenue, about 0.4 mile south of Church Street, and 1.5 miles north of Sayville. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 30.5 feet below measuring point. Measuring point, top of pipe, at land-surface datum, and 50.32 feet above mean sea level. First measured July 20, 1943.

## Water level, in feet, 1943-44

July 20, 1943	21.90	28.42
Aug. 2	22.06	28.26
Sept. 2	22.56	27.70
24	22.85	27.47
Oct. 28	23.27	26.99
Nov. 29	23.57	26.75
Dec. 30	23.84	26.48
Jan. 31, 1944	22.97	27.35
Mar. 1	23.07	27.25
31	22.52	27.80
Apr. 29	21.91	28.41
June 1	21.43	28.89
29	21.83	28.49
July 28	22.33	27.99

## S3739. Geological Survey, U. S. Dept. of Interior--Continued.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
Aug. 30	22.91	27.41
Sept. 29	23.22	27.10
Nov. 1	23.66	26.66
30	23.71	26.61
Dec. 28	22.73	27.59

S3760. W. L. Miller. About 200 feet north of State Highway 25A and 600 feet west of Manorville-Wading River Road (North Country Road), Wading River Station. Unused drilled industrial well, diameter 12 inches, depth 139.8 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 117.14 feet above mean sea level. First measured on Jan. 6, 1944.

Water level at noon, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	91.82	91.95	91.94	91.99	91.84	91.68	91.86	91.85	91.86	92.02	.....
2	.....	91.83	91.96	91.94	91.99	91.84	91.68	91.86	91.86	91.86	92.02	.....
3	.....	91.83	91.96	91.94	91.97	91.84	91.68	91.84	91.89	91.87	92.02	.....
4	.....	91.85	91.96	91.94	91.96	91.84	91.69	91.84	91.90	91.86	92.02	.....
5	.....	91.84	91.97	91.94	91.96	91.83	91.70	91.85	91.87	91.86	92.02	92.13
6a	91.81	91.85	91.98	91.97	91.96	91.81	91.69	91.82	91.89	91.86	92.03	92.13
7	.....	91.85	91.94	91.97	91.95	91.81	91.73	91.83	91.91	91.86	92.04	92.14
8	.....	91.87	91.98	91.97	91.96	91.81	91.76	91.86	91.91	91.87	92.04	92.12
9	.....	91.88	91.98	91.98	91.96	91.81	91.76	91.81	91.92	91.90	92.06	92.15
10	.....	91.88	91.99	91.97	91.96	91.80	91.73	91.77	91.90	91.94	92.06	92.16
11	.....	91.87	92.00	91.99	91.95	91.79	91.77	91.79	91.89	91.96	92.07	92.15
12	.....	91.89	91.99	91.96	91.95	91.79	91.77	91.80	91.88	91.99	92.08	92.14
13	.....	91.90	91.98	91.98	91.93	91.78	91.76	91.77	91.89	91.95	92.08	92.18
14	.....	91.90	92.00	91.99	91.93	91.77	91.77	91.78	91.87	91.93	92.09	92.19
15	.....	91.94	92.00	91.98	91.92	91.77	91.77	91.79	91.88	91.96	92.09	92.19
16	.....	91.92	91.98	91.97	91.92	91.76	91.76	91.79	91.88	91.94	.....	92.19
17	.....	91.91	91.95	91.99	91.91	91.76	91.75	91.81	91.88	91.94	.....	92.19
18	91.66	91.92	91.96	92.00	91.92	91.76	91.77	91.79	91.87	91.94	.....	92.20
19	91.65	91.93	91.95	91.99	91.92	91.75	91.78	91.78	91.85	91.97	.....	92.21
20	91.69	91.91	91.91	92.00	91.90	91.74	91.80	91.77	91.85	92.01	.....	92.21
21	91.69	91.91	91.93	91.99	91.90	91.74	91.82	91.75	91.85	91.97	.....	92.22
22	91.73	91.89	91.93	92.00	91.88	91.73	91.84	91.74	91.85	91.99	.....	92.23
23	91.70	91.89	91.90	92.00	91.90	91.72	91.84	91.76	91.85	91.98	.....	92.23
24	91.77	91.90	91.91	91.98	91.89	91.71	91.84	91.80	91.86	91.98	.....	92.24
25	91.76	91.91	91.91	91.98	91.88	91.71	91.84	91.82	91.86	91.99	.....	92.25
26	.....	91.91	91.92	91.99	91.88	91.71	91.85	91.83	91.85	91.99	.....	92.25
27	91.74	91.91	91.91	91.99	91.86	91.71	91.84	91.82	91.86	92.00	.....	92.26
28	91.78	91.92	91.93	91.99	91.86	91.70	91.83	91.79	91.84	91.98	.....	.....
29	91.78	91.92	91.93	91.99	91.86	91.69	91.83	91.80	91.85	92.01	92.13	.....
30	91.80	.....	91.90	91.98	91.85	91.69	91.84	91.85	91.85	92.02	.....	.....
31	91.81	.....	91.91	.....	91.85	.....	91.83	91.83	.....	92.02	.....	.....

a Estimated.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	25.32	25.19	25.20	25.16	25.30	25.46	25.28	25.29	25.28	25.12	.....
2	.....	25.31	25.18	25.20	25.15	25.30	25.46	25.28	25.28	25.28	25.12	.....
3	.....	25.31	25.18	25.20	25.17	25.30	25.46	25.30	25.25	25.27	25.12	.....
4	.....	25.29	25.18	25.20	25.18	25.30	25.45	25.30	25.24	25.28	25.12	25.01
5	.....	25.30	25.17	25.20	25.18	25.31	25.44	25.29	25.27	25.28	25.12	25.01
6a	25.33	25.29	25.16	25.17	25.18	25.33	25.45	25.32	25.25	25.28	25.11	25.01
7	.....	25.29	25.20	25.17	25.19	25.33	25.41	25.31	25.23	25.28	25.10	25.00
8	.....	25.27	25.16	25.17	25.18	25.33	25.38	25.28	25.23	25.27	25.10	25.02
9	.....	25.26	25.16	25.16	25.18	25.33	25.38	25.33	25.22	25.24	25.08	24.99
10	.....	25.26	25.15	25.17	25.18	25.34	25.41	25.37	25.24	25.20	25.08	24.98
11	.....	25.27	25.14	25.15	25.19	25.35	25.37	25.35	25.25	25.18	25.07	24.99
12	.....	25.25	25.15	25.18	25.19	25.35	25.37	25.34	25.26	25.15	25.06	25.00

a Estimated.

S3760. W. L. Miller--Continued.

Water level at noon, in feet above mean sea level, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	.....	25.24	25.16	25.16	25.21	25.36	25.38	25.37	25.25	25.19	25.06	24.96
14	.....	25.24	25.14	25.15	25.21	25.37	25.37	25.36	25.27	25.21	25.05	24.95
15	.....	25.20	25.14	25.16	25.22	25.37	25.37	25.35	25.26	25.18	25.05	24.95
16	.....	25.20	25.16	25.17	25.22	25.38	25.38	25.35	25.26	25.20	.....	24.95
17	.....	25.23	25.19	25.15	25.23	25.38	25.39	25.35	25.26	25.20	.....	24.95
18	25.48	25.22	25.18	25.14	25.22	25.39	25.37	25.35	25.27	25.20	.....	24.94
19	25.49	25.21	25.19	25.15	25.22	25.39	25.36	25.36	25.29	25.17	.....	24.93
20	25.45	25.23	25.23	25.14	25.24	25.40	25.34	25.37	25.29	25.13	.....	24.93
21	25.45	25.23	25.21	25.15	25.24	25.40	25.32	25.39	25.29	25.17	.....	24.92
22	25.41	25.25	25.21	25.14	25.26	25.41	25.30	25.40	25.29	25.15	.....	24.91
23	25.44	25.25	25.24	25.14	25.24	25.42	25.30	25.38	25.29	25.16	.....	24.91
24	24.37	25.24	25.23	25.16	25.25	25.43	25.30	25.34	25.28	25.16	.....	24.90
25	24.38	25.23	25.23	25.16	25.26	25.43	25.30	25.32	25.28	25.15	.....	24.89
26	.....	25.23	25.22	25.15	25.26	25.43	25.29	25.31	25.29	25.15	.....	24.89
27	25.40	25.23	25.23	25.15	25.28	25.43	25.30	25.32	25.28	25.14	.....	24.88
28	25.36	25.32	25.21	25.15	25.28	25.44	25.31	25.35	25.30	25.16	.....	.....
29	25.36	25.22	25.21	25.15	25.28	25.45	25.31	25.34	25.29	25.13	25.01	.....
30	25.34	.....	25.24	25.16	25.29	25.45	25.30	25.29	25.29	25.12	.....	.....
31	25.33	.....	25.23	.....	25.29	.....	25.27	25.31	.....	25.12	.....	.....

S3868. Geological Survey, U. S. Dept. of Interior. South side of Upper Sheep Pasture Road about 0.4 mile east of Pond Road, Setauket Station. Drilled test well, diameter 4 to 2 inches, depth 114.0 feet below measuring point. Measuring point, top of 2-inch pipe, at land-surface datum and 99.63 feet above mean sea level. First measured on June 26, 1944.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
June 26	62.34	37.29
July 27	61.92	37.71
Aug. 29	61.83	37.80
Sept. 28	61.87	37.76
Nov. 1	62.16	37.47
29	62.20	37.43
Dec. 28	62.20	37.43

S3869. Geological Survey, U. S. Dept. of Interior. East side of Mt. Sinai Road about 1.3 miles north of Middle Country Road (State Highway 25), North Coram. Drilled test well, diameter 4 to 2 inches, depth 44.0 feet below measuring point. Measuring point, top of 2-inch pipe, at land-surface datum and 84.37 feet above mean sea level. First measured on June 22, 1944.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
June 22	29.11	55.26
27	29.15	55.22
July 27	29.21	55.16
Aug. 29	29.52	54.85
Sept. 28	29.79	54.58
Nov. 1	30.19	54.18
29	30.48	53.89
Dec. 27	30.53	53.84

S3870. Geological Survey, U. S. Dept. of Interior. West side of Mill Pond about 0.7 mile south of Middle Country Road (State Highway 25), South Coram. Drilled test well, diameter 4 to 2 inches, depth 43.8 feet below measuring point. Measuring point, top of 2-inch pipe, at land-surface and 88.11 feet above mean sea level. First measured on June 16, 1944.

## Water level, in feet, 1944

Date	Below land-surface datum	Above mean sea level
June 16	33.59	54.52
28	33.64	54.47
July 27	33.73	54.38
Aug. 29	33.93	54.18



## S3870. Geological Survey, U. S. Dept. of Interior--Continued.

## Water level, in feet, 1944

Date	Below land- surface datum	Above mean sea level
Sept. 28	34.15	53.96
Nov. 1	34.46	53.65
29	34.69	53.42
Dec. 28	34.63	53.48

S3871. Geological Survey, U. S. Dept. of Interior. South side of Fire Road about 0.6 mile west of Fellport Road, North Plainfield. Drilled test well, diameter  $\frac{3}{4}$  to 2 inches, depth 91.5 feet below measuring point. Measuring point, top of 2-inch pipe, at land-surface datum and 128.64 feet above mean sea level. First measured on June 15, 1944.

## Water level, in feet, 1944

June 15	81.98	46.66
28	81.83	46.81
July 27	81.58	47.06
Aug. 29	81.46	47.18
Sept. 28	81.55	47.09
Nov. 1	81.80	46.84
29	82.00	46.64
Dec. 28	82.21	46.43

S3955. Geological Survey, U. S. Dept. of Interior. East side of Pond Road about 200 feet north of intersection with Horseblock Road, South Setauket Station. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 78.0 feet below measuring point. Measuring point, top of pipe, at land-surface datum and 122.43 feet above mean sea level. First measured on May 31, 1944.

## Water level, in feet, 1944

May 31	69.75	52.68
June 27	69.34	53.09
July 27	68.86	53.57
Aug. 29	68.60	53.83
Sept. 28	68.62	53.81
Nov. 1	68.88	53.55
29	69.10	53.33
Dec. 28	69.31	53.12

S3956. Geological Survey, U. S. Dept. of Interior. Southeast corner of Millers Place and Yaphank Road, South Millers Place. Driven test well, diameter  $1\frac{1}{4}$  inches, depth 124.4 feet below measuring point. Measuring point, top of pipe, land-surface datum, and 145.47 feet above mean sea level. First measured on May 31, 1944.

## Water level, in feet, 1944

May 31	114.05	31.42
June 27	113.81	31.66
July 27	113.57	31.90
Aug. 29	113.76	32.11
Sept. 28	113.31	32.16
Nov. 1	113.44	32.03
29	113.61	31.86
Dec. 27	113.76	31.71

## OHIO

By E. J. Schaefer

### PROGRAM OF WORK

The observation-well program in Ohio was continued in 1944 in cooperation with the Ohio Engineering Experiment Station, the Boards of Commissioners of Butler and Hamilton Counties and the Federal Works Agency. Approximately 6,000 individual measurements of water levels were made in observation wells during 1944. At the end of the year automatic water-stage recorders were in operation on 37 observation wells, 19 in Butler and Hamilton Counties, and 18 throughout the rest of the State. In addition, weekly measurements were made in 81 observation wells and monthly measurements in 4 others. The majority of these wells are located in Butler and Hamilton Counties.

### FLUCTUATIONS OF WATER LEVEL

The average precipitation for Ohio, as determined by the United States Weather Bureau, amounted to 33.36 inches for the year, or 4.45 inches below normal. In general, precipitation in the late winter and spring months was sufficient to cause rises in ground-water levels in areas not affected by heavy pumping. However, these rises were generally less than in 1943 because of widespread soil-moisture deficiencies resulting from the drought prevailing throughout the last half of 1943 and early part of 1944. Many farm wells were reported dry during that period. Deficient stream flow, due to insufficient ground water runoff, resulted in serious depletion of surface-water supplies, notably at Columbus and at Lima.

In most of the heavily pumped areas of the State, such as the Mill Creek area, in Hamilton County, and the central section of Canton, pumping exceeded recharge and net declines in ground water levels occurred.

### BUTLER AND HAMILTON COUNTIES

#### Middletown area

Ground-water supplies in Middletown<sup>1/</sup> are obtained from glacial deposits of sand and gravel filling the valley of the Miami River.

<sup>1/</sup> F. H. Klaer, Jr. and D. G. Thompson, Ground-water resources of the Cincinnati area in Butler and Hamilton Counties, Ohio: U. S. Geol. Survey typewritten report. June 1941.

Throughout most of the city these deposits occur in two beds separated by a fairly continuous layer of boulder clay. The shallower beds, varying from 20 to 50 feet and averaging about 35 feet in thickness, are preferred for municipal supply and for some industrial processes such as paper making, because the iron content of the water obtained from them is generally lower than that obtained from the deeper beds. The shallow beds have been developed for water supply mainly in the northwest part of the city. Hydrographs for wells 29-1 and 25-5 located in this area are shown in figure 8. The record for well 29-1 has been continuous since 1939. In each full year of record, with the exception of 1941, appreciable recharge has been received in the late winter and spring months of the year from direct precipitation and from flood waters of the Miami River. More or less continuous declines have occurred during most of the last half of each year of record. While the water-level records obtained from observation wells and gravel pits tapping the shallower beds in Middletown show no evidence of a continuous decline of water levels, considerable difficulty is experienced during periods of low ground-water levels because of the shallow depth of the aquifer. In 1944, water levels in the shallow beds generally were low during the first 3 months of the year following the extreme drought prevailing throughout the last half of 1943. Favorable precipitation in April resulted in appreciable rises in all of the observation wells in the Middletown area. These rises were not as great as in the early part of 1943. Another drought, beginning in the summer months of 1944 and continuing through the end of the year, resulted in slightly lower water levels throughout most of the area at the end of the year than at the beginning of the year. The following table shows the water levels in several gravel pits and wells in Middletown at the beginning and end of 1944 and the net changes in water levels in 1944.

Water level, in feet below land-surface datum, 1944					
Well or gravel pit	Date	Water level	Date	Water level	Net change
Pit J	Jan. 4	25.52	Dec. 26	25.01	+0.51
Pit L	4	19.58	12	19.75	-.17
Pit P	4	16.20	26	17.40	-1.20
25-5	1	37.47	31	37.94	-.47
29-1	4	40.56	26	41.41	-.85
33-1	4	41.17	26	(a)	

a Dry.

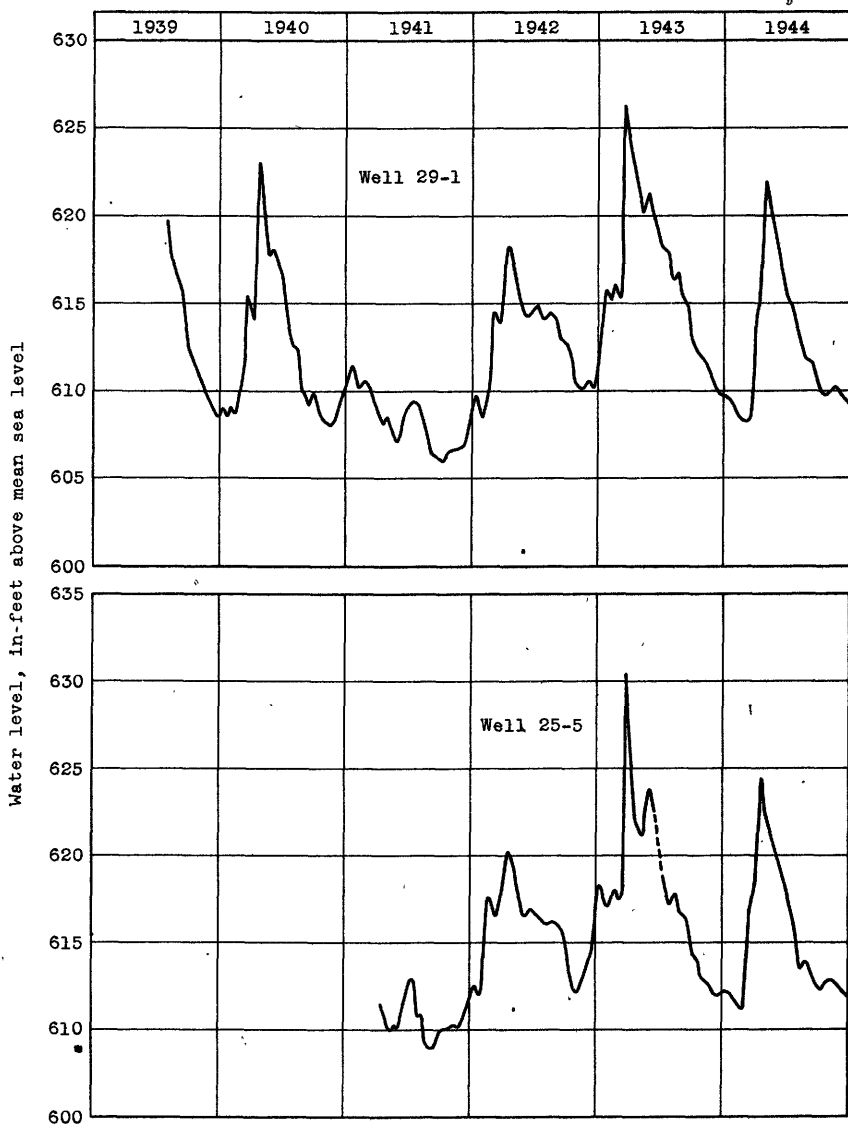


Figure 8.--Graphs showing fluctuations of water level in wells 29-1 (Young Men's Christian Association), and 25.5 (Middletown Municipal water plant), Butler County, Ohio.

It has been possible to obtain water-level measurements in only one well tapping the deeper formation in the central part of Middletown, well 29-2; used for supply purposes by the Young Men's Christian Association. The record beginning in October 1942 is too short to indicate a trend. Being a production well, changes in the water level are caused mainly by changes in the rate of pumping. The water level in this well was 2.95 feet lower at the end of the year than at the beginning of the year. The highest observed water level in 1944 was 37.67 feet below land-surface datum on May 2, and the lowest was 50.72 feet below land-surface datum, on November 28, the total range being 13.05 feet.

An average of about 9 million gallons of water a day was pumped for industrial purposes in southeast Middletown in 1944. The water level in well 36-13 followed a more or less persistent downward trend from the beginning of record in August 1938 until June 1942. Some rises occurred during this period due to variations in the regional rate of pumping, but the water level was lower at the end of each year than at the beginning. Following this period a steady rise in water level occurred from July 1942 until September 1943 when the water level again declined until July 1944. The lowest water level in 1944 was about 1 foot higher than the lowest water level in 1942. The water level then rose from July 1944 until the end of the year because of a reduction in pumping from 10 million gallons a day in July to 6.3 million gallons a day in December. At the end of 1944 the water level was 7.9 feet higher than at the beginning of the year.

#### Hamilton area

Ground-water supplies for municipal and industrial purposes are obtained in Hamilton from deposits of sand and gravel of glacial origin filling the valley of the Miami River. Bedrock depths of over 200 feet have been encountered in several wells drilled in the city.

Water-level measurements were made in 15 observation wells in Hamilton during the year. Although appreciable rises in water levels occurred in the spring, they were considerably less than in 1943 and somewhat less than needed to balance the declines caused by pumping during the last half of the year. As a result, water levels were lower at the end of the year than at the beginning of the year. The declines in water levels in observation wells in Hamilton in 1944 ranged from 0.21 foot to 2.02 feet and

averaged 1.41 feet. The following table summarizes these changes in water levels.

Water level, in feet below land-surface datum, 1944					
Well	Date	Water level	Date	Water level	Net change
B-24	Jan. 3	40.08	Dec. 26	43.10	-3.02
B-25	3	20.19	26	20.40	-.21
B-26	3	18.54	26	18.95	-.31
B-27	3	32.98	26	35.18	-2.20
B-28	3	41.58	26	44.21	-2.63
B-30-D	3	33.78	26	36.66	-2.88
B-32	3	32.00	26	32.17	-.17
B-33	3	25.38	26	26.00	-.62
B-34-D	3	32.24	26	33.07	-.83
B-35	3	37.24	26	39.19	-1.95
B-36	3	37.61	26	39.00	-1.39
B-37	3	48.69	26	50.54	-1.85
B-38	10	40.42	26	41.90	-1.48
B-39	1	32.88	31	34.06	-1.18
B5-7	5	28.37	31	28.89	-.52

Miami Valley immediately south of Hamilton

The area at the junction of the Mill Creek and the Miami Valley immediately south of Hamilton was developed for water supply by the Federal Works Agency in 1943 to supply a large war industry at Lockland, in Hamilton County. A report<sup>2/</sup> describing the results of a study of this area was released by the U. S. Geological Survey in July 1943. The report includes a description of the hydrology and geology of the area, an estimate of safe yield, and several maps showing locations of observation wells, production wells, and the layout of the distribution system for the project.

In 1944 the pumpage from this area averaged 8.1 million gallons a day. Continuous water-level records were obtained from four observation wells equipped with automatic water-stage recorders, and weekly measurements were made in 18 other observation wells and gravel pits to check the effect of pumping. The hydrographs for observation well 133 and gravel pit E, chosen because they had been measured for several years before the beginning of pumping in the area, are shown in figure 9. The net changes in water levels in the observation wells at the end of the year, as compared with the beginning of the year, ranged from a rise of 0.45 foot to a decline of 6.17 feet. Levels in all wells except one declined, the average decline being 2.0 feet.

<sup>2/</sup> F. H. Klaer, Jr. and R. G. Kazmann; A quantitative study of the well field of the Mill Creek Valley water-supply project, Butler County, Ohio: U. S. Geol. Survey, July 1943. (Mimeographed.)

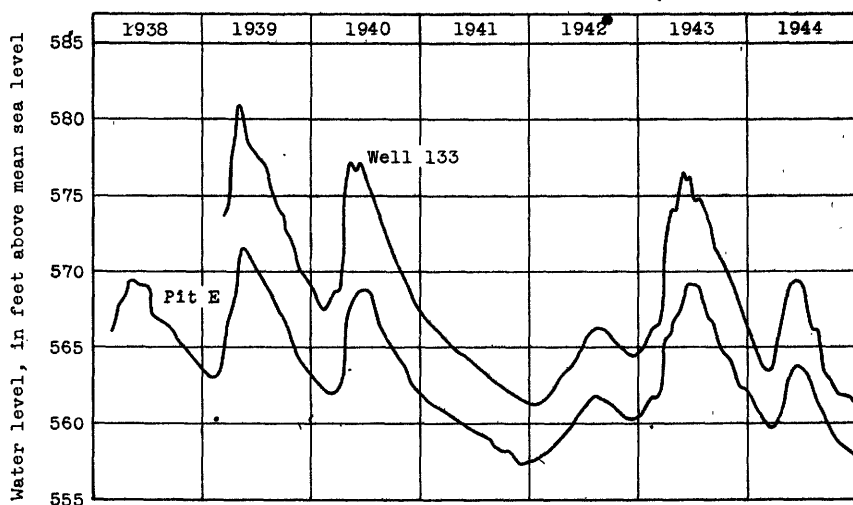


Figure 9.--Graphs showing water levels in observation well 133 and gravel pit E, Fairfield Township, Butler County, Ohio.

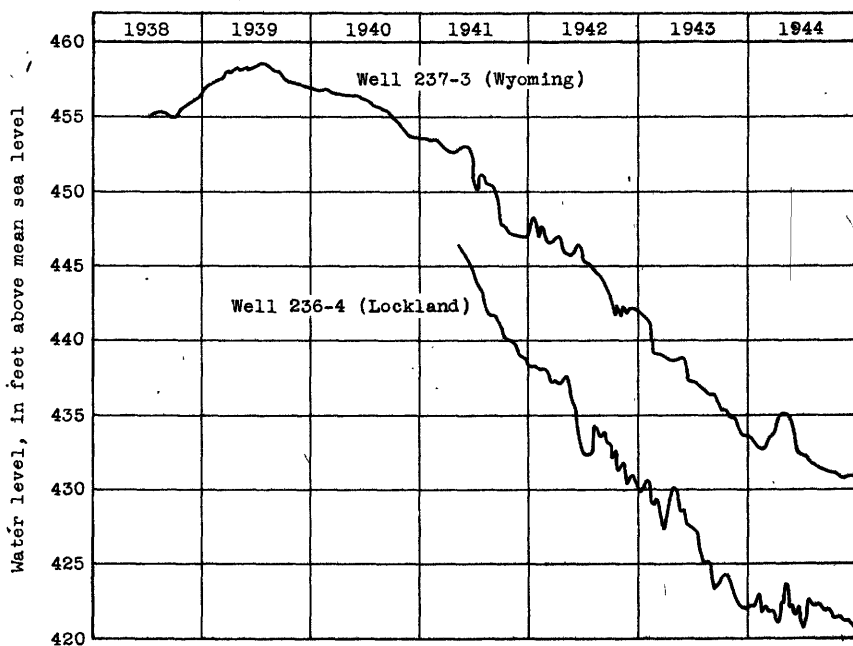


Figure 10.--Graphs showing water levels in wells 237-3, at Wyoming, and well 236-4, at Lockland, Hamilton County, Ohio.

The following table summarizes the net changes in water levels in the observation wells in the area in 1944.

Water level, in feet below land-surface datum, 1944					
Well or gravel pit	Date	Water level	Date	Water level	Net change
E-1	Jan. 3	36.82	Dec. 26	42.99	-6.17
B-2	4	37.07	26	39.76	-2.69
B-3	4	24.05	26	25.59	-1.56
B-4	4	28.53	26	30.04	-1.51
B-6	4	23.23	26	24.66	-1.43
B-9	4	15.35	26	14.03	-1.32
B-10	1	12.93	31	15.05	-2.12
B-11	4	59.77	26	45.90	-6.13
B-22	1	20.42	31	20.22	-.20
B-23	1	25.72	31	27.41	-1.69
11-D-4	1	35.79	31	36.48	-.69
T-50	4	16.18	25	17.54	-1.36
110	3	21.60	25	21.15	+.45
112-A	3	25.42	25	26.45	-1.03
113-A	3	.....	25	.....	-1.13
115	4	.....	25	.....	-1.90
117	4	30.66	25	31.54	-.88
122	3	42.99	26	44.60	-1.61
133	4	39.41	26	44.10	-4.69
156	3	34.98	25	37.11	-2.13
Pit E	3	38.00	26	41.80	-3.80
Pit N	4	6.00	25	6.21	-.21

The largest declines in water levels, as shown by the records for wells B-1, 133, and B-11, occurred east of the junction between the Mill Creek and Miami Valleys where recharge facilities are poor because of a fairly continuous layer of impermeable deposits overlying the main water-bearing formation. Declines in the three wells mentioned above averaged 5.86 feet, compared to an average decline of 1.59 feet in the observation wells to the west, where 6.5 million gallons a day of the total of 8.1 million gallons a day was pumped in 1944.

#### Mill Creek Valley

The area of heavy pumping in the Mill Creek Valley extends from the Glendale waterworks near Sharonville south to Ivorydale and St. Bernard at the junction of the Mill Creek Valley and the Norwood trough. Pumpage from this part of the valley in each year since 1939 is estimated as follows:

Year	Average daily pumpage in millions of gallons
1939	12.5
1940	13.3
1941	13.9
1942	17.5
1943	16.9
1944	14.0



The larger industrial users of ground-water and the municipally owned water-supply systems in the Mill Creek Valley furnish their pumpage records to the Geological Survey each month. The pumpage records obtained in this way cover about 70 percent of the total amount of water pumped. The estimate of the remainder is based on a survey made by Klaer and Thompson in 1940, and a survey made by the Ohio Water Resources Board early in 1945. The large increases in pumpage in 1942 and 1943 were due mainly to pumping by a new war plant operated by the Wright Aeronautical Corporation, immediately north of Lockland, and to an increase in pumping by an industrial plant at Carthage. Construction of the Federal Works Agency well field near Hamilton to supply the Wright plant was completed in July 1943 and pumping was discontinued at the Wright plant at that time. The reduced pumpage in the Mill Creek Valley in 1943 and 1944 as compared to pumpage in 1942 was due, in great part, to construction of the Federal Works Agency well field. Additional reductions in pumping were made voluntarily by two other industries, one purchased water from the city of Cincinnati for about  $3\frac{1}{2}$  months in the winter when the Cincinnati water was cold enough for industrial use.

The following table shows the net changes in water levels in 1944 in 15 observation wells located in the heavily pumped portion of the Mill Creek Valley in Hamilton County from Glendale south to Ivorydale:

Water level, in feet below land-surface datum, 1944					
Well	Date	Water level	Date	Water level	Net change
207-3	Dec. 31, 1943	50.94	Dec. 31, 1944	55.96	-5.02
212-1	31	54.20	31	57.85	-3.65
T-8	27	18.79	28	19.46	-.67
214-3	27	29.72	28	31.05	-1.33
215-2	27	30.15	28	30.38	-.23
216-E	31	65.33	31	66.87	-1.54
236-4	31	123.77	28	124.85	-1.08
237-3	31	142.33	31	144.86	-2.53
241-3	31	124.11	31	130.55	-6.54
242-T-1	27	134.19	28	141.18	-6.99
246-1	Jan. 7, 1944	113.83	31	108.90	-4.93
252	Dec. 27	109.22	28	111.73	-2.51
265	27	132.10	28	131.08	+1.02
270-A-4	31	92.54	31	89.87	+2.67
270-T-7	27	125.12	28	121.73	+3.39

The only observation wells in the Mill Creek Valley in which net rises were recorded in 1944 were in the Ivorydale-St. Bernard area, as shown by the records for wells 265, 270-A-4, and 270-T-7.

Hydrographs of six wells in the Mill Creek Valley are shown in figures 10 , 11 , and 13 . The hydrograph for well 207-3 (Glendale waterworks), figure 13 , has shown a downward trend since 1940. The largest net decline occurred in 1941, a year of severe drought.

Hydrographs for wells 237-3 and 236-4 are shown in figure 10. The

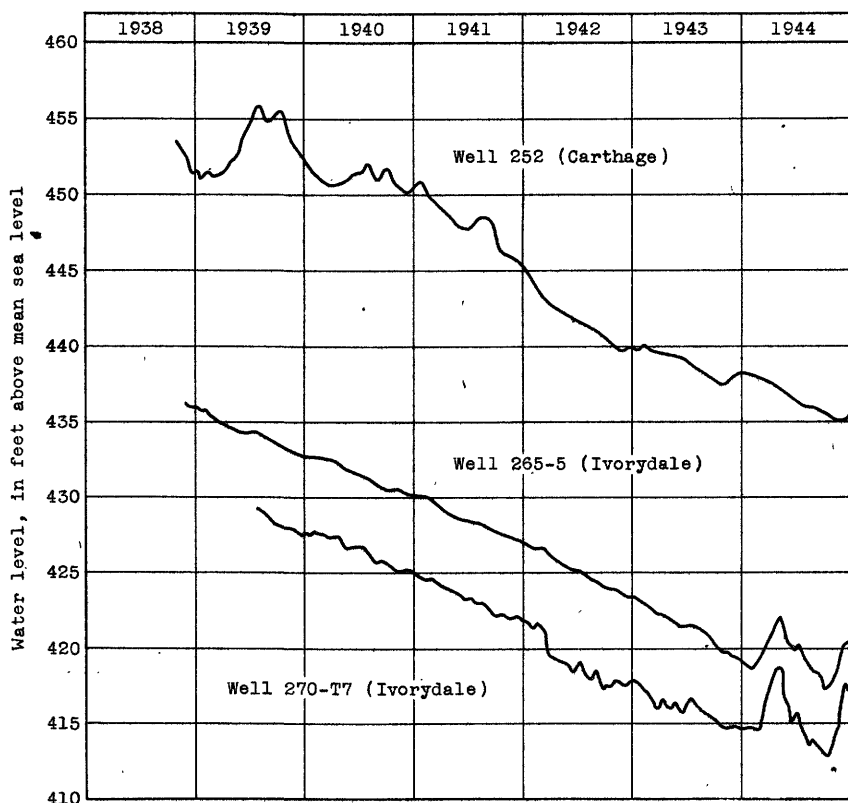


Figure 11.--Graphs showing water levels in observation wells 252 (Carthage), 265-5 (Ivorydale), and 270-T7 (Ivorydale), Hamilton County, Ohio.

water level record for well 237-3, at the village of Wyoming waterworks, has shown a steady decline since 1939. Similarly, the water level in well 236-4 at the Grasselli-Du Pont plant at Lockland has declined steadily since the beginning of record in 1941. However, a marked reduction in the rate of decline in the water level in each of these wells occurred at the beginning of 1944, probably because of the shutdown of the wells at the Wright plant in July, 1943.

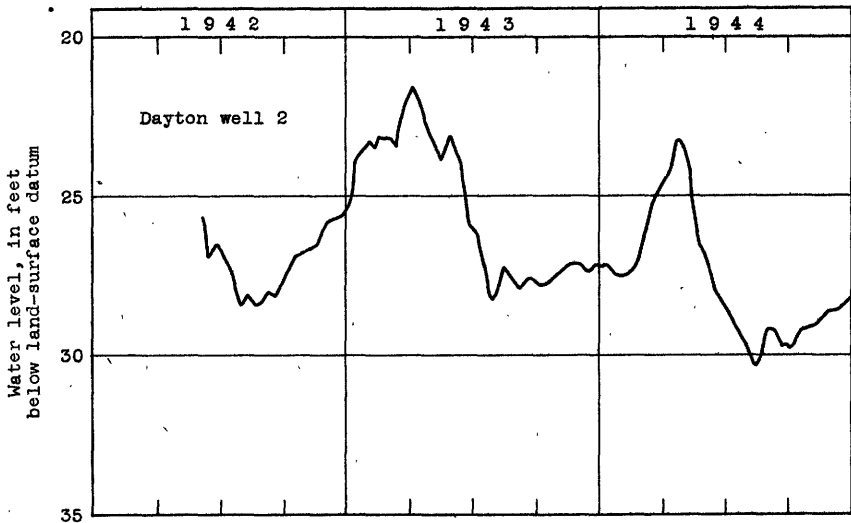


Figure 12.--Graph showing fluctuations of water level in an observation well at Dayton, Ohio.

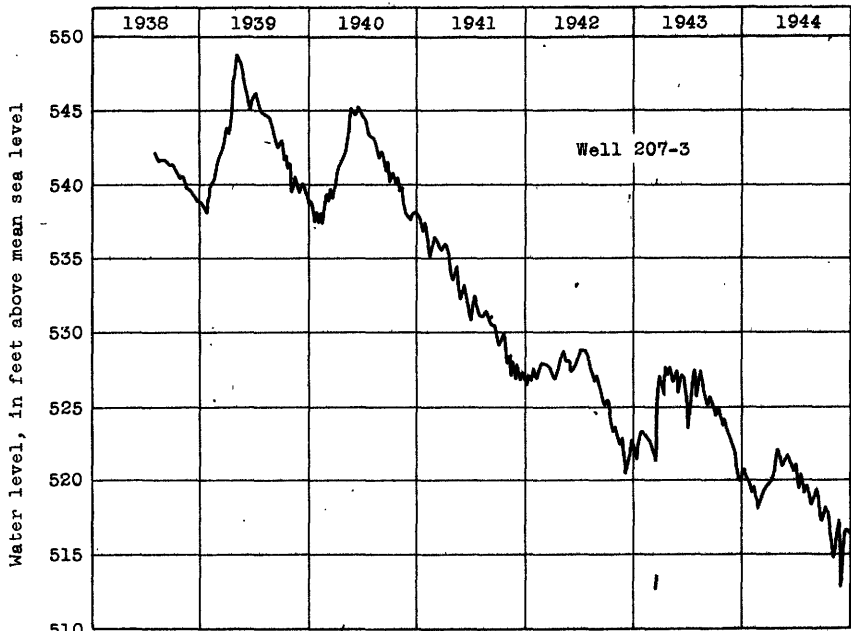


Figure 13.--Graph showing fluctuations of water level in well 207-3 (Glendale waterworks), Sycamore Township, Hamilton County, Ohio.

## FRANKLIN COUNTY

Columbus

Wells in Columbus obtain water from glacial deposits of sand and gravel and from the Columbus and other limestones.<sup>3/</sup> A survey by the Ohio Water Resources Board shows that total ground-water withdrawals in Columbus amount to slightly over 32 million gallons a day. Most of this water is used by industries for cooling and processing. Unfortunately no records are available to indicate the trend of water-level fluctuations in the glacial deposits in Columbus.

Well Columbus 1, at the Spring Street garage of the Moores & Ross Dairy, near the main business section of Columbus, is a limestone well 269 feet deep on which an automatic water-stage recorder has been maintained since April 1942. A hydrograph of the water-level record for this well is shown in figure 14. Individual recorder charts from this well show daily fluctuations ranging from 0.5 to 1 foot or more in response to pumping in and near the main business section of Columbus. Large declines in water level have occurred each summer since the beginning of record, probably because of increased use of water for cooling purposes during the summer months. In 1944 the water level in this well ranged from a high of 105.54 feet below land surface on February 16 to a low of 121.53 below land surface on August 16, a total range of 15.99 feet. However, a large recovery took place in the fall and winter months of the year. The water level at the end of 1944 was 0.55 foot higher than at the beginning of the year.

## MONTGOMERY COUNTY

Dayton

Ground-water supplies in Dayton are obtained mainly from alluvial deposits of sand and gravel filling the preglacial valleys now occupied by the Mad and Miami Rivers. The best water-bearing materials are generally encountered at depths of 70 to 130 feet below the land surface, although rock is known to be 200 feet or more below the surface in some<sup>4/</sup> places. According to a survey made by the Ohio Water Resources Board,

<sup>3/</sup> Harker, David H., Report on water supply in Franklin County and Columbus: Ohio Water Resources Board, p. 50, Sept. 1, 1944.

<sup>4/</sup> Bernhagen, Ralph J., Geologist, Ohio Water Resources Board, Columbus, Ohio, personal communication.

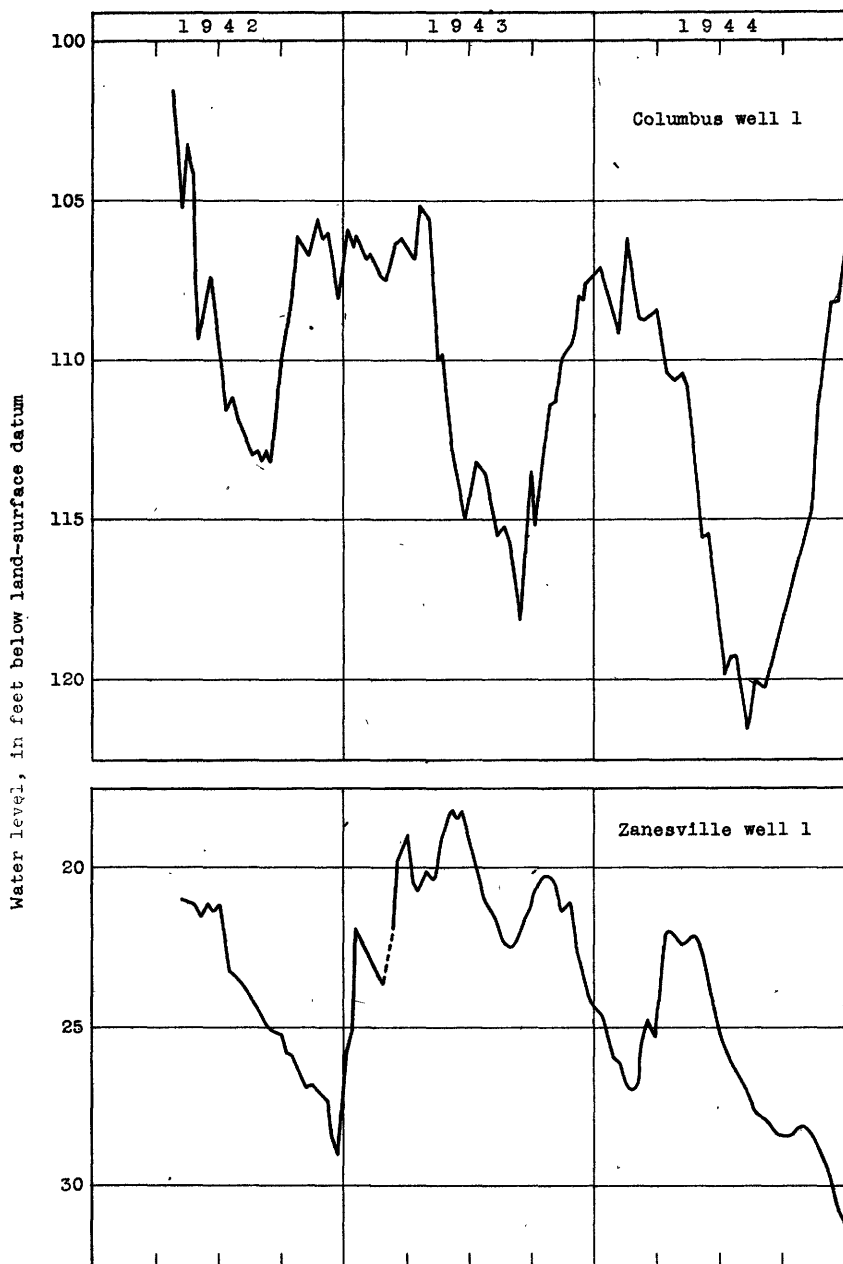


Figure 14.--Graphs showing fluctuations of water level in observation wells at Columbus and Zanesville, Ohio.

total ground-water withdrawals in the Dayton area in 1944 amounted to approximately 77.8 million gallons a day. Of this amount, 35.1 million gallons a day was pumped by the Dayton Water Department and about 42.7 million gallons a day was pumped by industries and commercial establishments.

An automatic water-stage recorder has been maintained since May 27, 1942, on well Dayton 2, an abandoned well at the Dayton Power & Light Co. steam distribution plant at 118 East Fourth Street. This well is located in the main business section of Dayton. Water-level fluctuations are caused by natural recharge and variations in pumping from production wells in the area. The record obtained from this well is shown graphically in figure 12. The lowest observed water level in this well since the beginning of record in May 1942 was 30.25 feet below land surface, on August 16, 1944, and the highest was 20.97 feet, on March 25, 1943, the total range being 9.28 feet. In each year of record high water levels have occurred in the spring months and low water levels have occurred in the late summer, fall, and winter months. The record indicates a downward trend as shown by the water-level measurements given in the following table:

Water level, in feet below land-surface, 1944	
Date	Water level
Dec. 31, 1942	24.90
31, 1943	27.27
31, 1944	28.22

The municipal water-supply for the city of Dayton is obtained mainly from wells on Rohrer's Island in the valley of the Mad River. Artificial recharge is accomplished by diverting water from the Mad River through channels into dredged areas on the island. An automatic water-stage recorder has been maintained on a well in this area, designated as Dayton 1, since March 6, 1942. The effectiveness of the recharge operations is clearly indicated by large rises in water level in the observation well whenever the gates are opened to admit flow from the Mad River into the dredged areas.

#### MUSKINGUM COUNTY

##### Zanesville

The municipal water supply for the city of Zanesville is obtained from wells in the alluvium of the Muskingum River, a short distance north

of the city. Ground-water recharge is derived from direct precipitation in the area, from flood waters of the Muskingum River, and possibly from infiltration from the river induced by pumping. An automatic water-stage recorder has been maintained on an observation well in the city well field since May 21, 1942. The water-level record obtained is shown graphically in figure 14. The highest water level observed in this well since the beginning of record was 16.92 feet below land surface, on June 5, 1943. This value does not appear on the graph because only the low values for each week of record are plotted. The lowest water level for the period of record was 31.05 feet below land surface, on December 31, 1944. Thus, the total range of fluctuation has been 14.13 feet.

The record indicates that ground-water recharge was considerably less in 1944 than in 1943, when rises in water level occurred frequently throughout most of the year. The only appreciable rise recorded in the observation well in 1944 occurred between March 4 and May 9, and amounted to 4.7 feet. The water level declined throughout most of the remainder of the year, and at the end of the year it was 6.78 feet lower than at the beginning of the year.

#### RICHLAND COUNTY

##### Mansfield

An automatic water-stage recorder has been operated on an unused well, 129 feet deep, at the old North Main Street pumping station of the Mansfield water department since May 5, 1942. It is believed that this well ends in gravel.

Fluctuations of water level in this well are caused almost entirely by changes in the rate of pumping of industrial wells in the area. During 1944 the daily fluctuations generally ranged from slightly less than 1 foot to slightly more than 1 foot, the drawdown occurring between 6:00 a.m. and 6:00 p.m. The weekly trend was usually downward from Monday to Saturday of each week, with substantial recoveries occurring each week end. Weekly fluctuations ranged from 2 to 3 feet, except when periods of shutdown of production wells in the area were longer than normal. The water level in the well at the old North Main Street pumping station ranged from about 36.5 to 41.0 feet below the land surface until the July 4 holiday period, when a recovery of slightly more than 11 feet

occurred. From July 4 until the end of August a downward trend occurred, indicating that the regional rate of pumping had increased. From the end of August until the end of the year the water level followed a more or less even trend except for the usual daily and weekly fluctuations, an indication that, although the rate of pumping in the area had increased, the safe yield of the water-bearing formation had not been exceeded. During the last half of the year the water level averaged about 48 feet below the land surface, while during the first half it averaged about 39 feet.

#### STARK COUNTY

##### Canton

A survey<sup>5/</sup> made by the Ohio Water Resources Board indicates that on the average about 38 million gallons of ground water was pumped in and near Canton each day in 1944. Of this amount, about 24 million gallons a day was pumped by 53 industrial and commercial establishments and 14 million gallons a day was pumped by the city water department from wells in the Northeast, Ninth Street, and Grovemiller well fields. About 31 million gallons a day was obtained from deposits of sand and gravel of glacial origin and about 7 million gallons a day from bedrock formations.

In 1944 water-level measurements were obtained in 10 observation wells in the city of Canton and in Plain and Perry Townships. Publication of records obtained from wells 3, 5, 9, 10, and 11, production wells of the Northeast well field, has been discontinued. It is believed that the record obtained in well 13, an unused test well, is fairly representative of conditions in the Northeast well field. Automatic water-stage recorders were installed on 4 observation wells in and near Canton in 1944, wells 12, 13, 14A, and the Boron well (Canton test well 50). Water-level records were obtained from eight of the observation wells in the area by the Canton water department through the courtesy of Mr. A. E. Ranson, Superintendent. The water-level measurements in well 20 (Republic Steel Co.) were made by E. V. Beftoulides and in well 21A (Ohio Power Co.) by C. R. Phillips, both under the direction of the Geological Survey.

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<sup>5/</sup> Bernhagen, Ralph J., Geologist, Ohio Water Resources Board, Columbus, Ohio, personal communication.



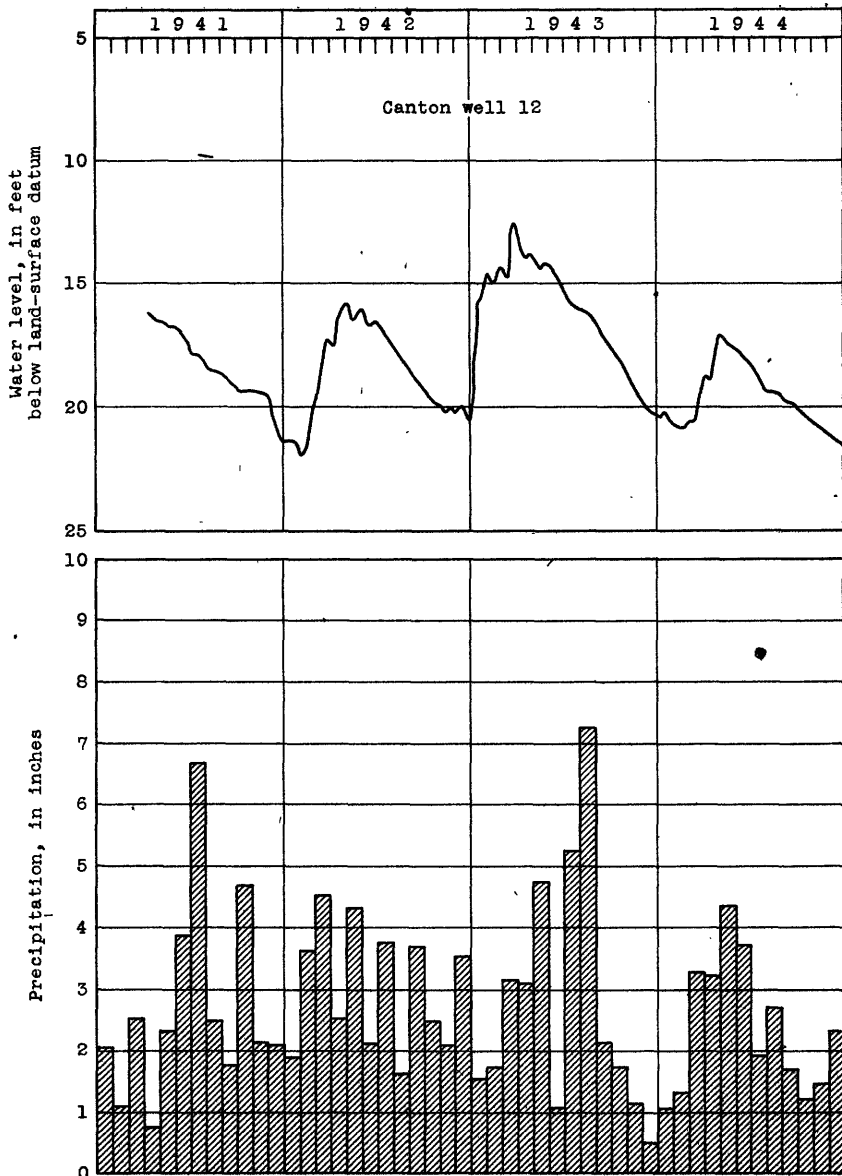


Figure 15.--Graphs showing monthly precipitation at Canton and fluctuations of water level in Canton well 12 (Goughnour well), Plain Township, Stark County, Ohio.

Natural changes in ground-water levels in the Canton area in 1944, as compared with other years, are best shown by the record for well 12 (Goughnour well) in figure 15. This well in the valley of the Middle Branch of Nimishillen Creek, about  $1\frac{1}{2}$  miles northeast of the Northeast well field. The record shows that recharge in the Canton area in 1944 occurred almost entirely between about February 14 and April 24. The water-level rise during the period was 3.75 feet, which was considerably less than in 1942 or 1943. Rises in the first halves of those years amounted to 6.0 feet and 8.0 feet, respectively. In the calendar year 1944 the net decline in the Goughnour well amounted to 1.17 feet.

The water-level record obtained since January 1941 is well 13, in the Northeast well field of the Canton water department, located along Middle Branch Nimishillen Creek, at Trump, is shown in figure 17. Fluctuations in water levels are caused mainly by changes in the rate of pumping from wells in the Northeast well field. It should be noted that the Canton water department has attempted to maintain an approximately constant water level in this field since 1942. As a result, more water is usually pumped in the first half of each year than in the last half, and the total amount of water pumped in each year is dependent upon the amount of recharge received. The pumpage record in figure 17 shows that the greatest amount of pumpage occurred in 1943 when recharge, as shown by the record for well 12 (Goughnour well), was greatest. The water-level record for well 13 shows clearly that pumpage from wells in the Northeast well field since 1941 has been within the safe yield of the area. The average pumpage from the field in that period has amounted to 7.5 million gallons a day. In 1944 the average pumpage amounted to 6.7 million gallons a day.

Net declines in ground-water levels have occurred in the central section of Canton in each year since 1939, except in 1943. This is shown by the records of water-level measurements obtained in observation wells 20 and 21A, (see fig. 16). The net decline in well 20, from the beginning of record on January 16, 1939, to the end of 1944, amounted to 26.88 feet. The net decline in well 21A (Ohio Power Co.) from the beginning of record on Oct. 30, 1939, to the end of 1944, amounted to 24.51 feet. The net declines in wells 20 and 21A in 1944 amounted to 3.92 and 6.59 feet,

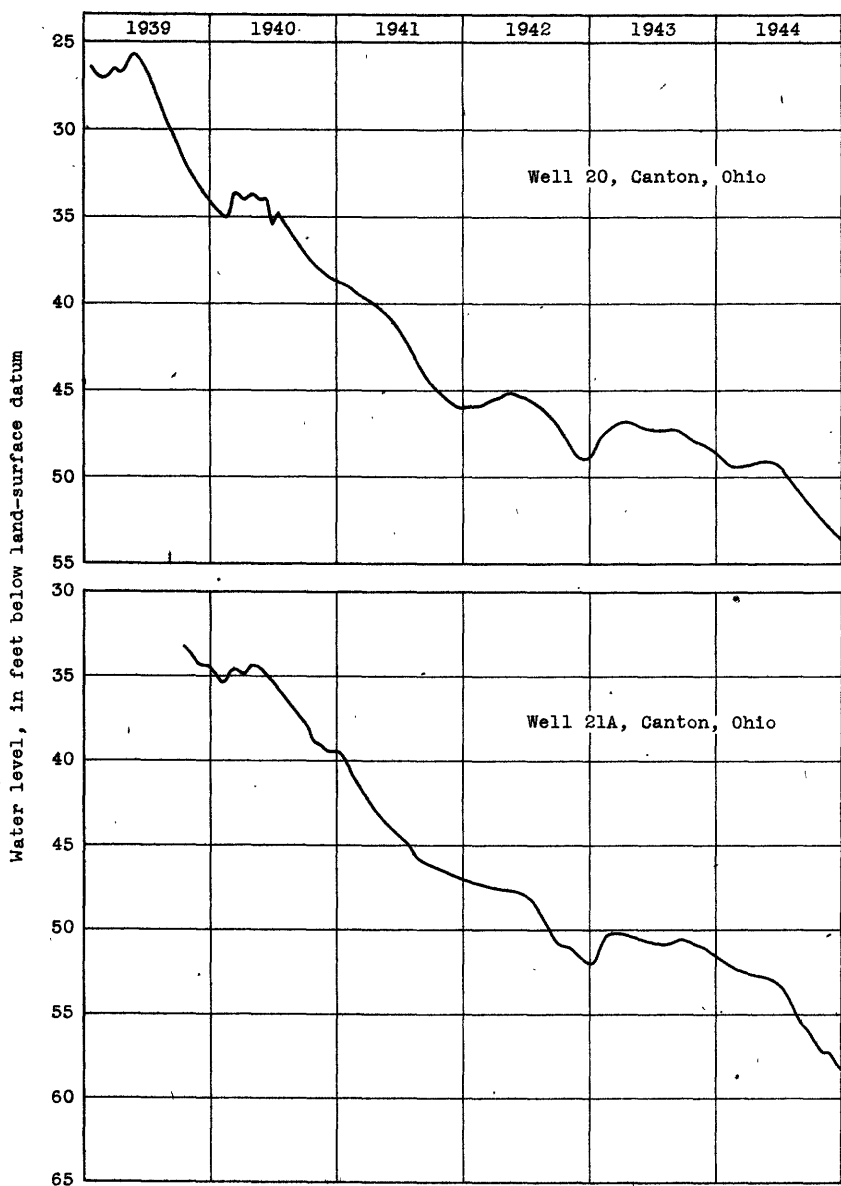


Figure 16.--Graphs showing fluctuations of water level in well 20 (Republic Steel Co.), and well 21A (Chio Power Co.) Canton, Stark County, Ohio.

respectively. The greater portion of the declines in both wells in 1944 took place in the period from the latter part of June to the end of the year. These declines coincide with the period of pumping of the Ninth Street production well owned by the Canton water department. This well was pumped at an average rate of 4.4 million gallons a day from June 21

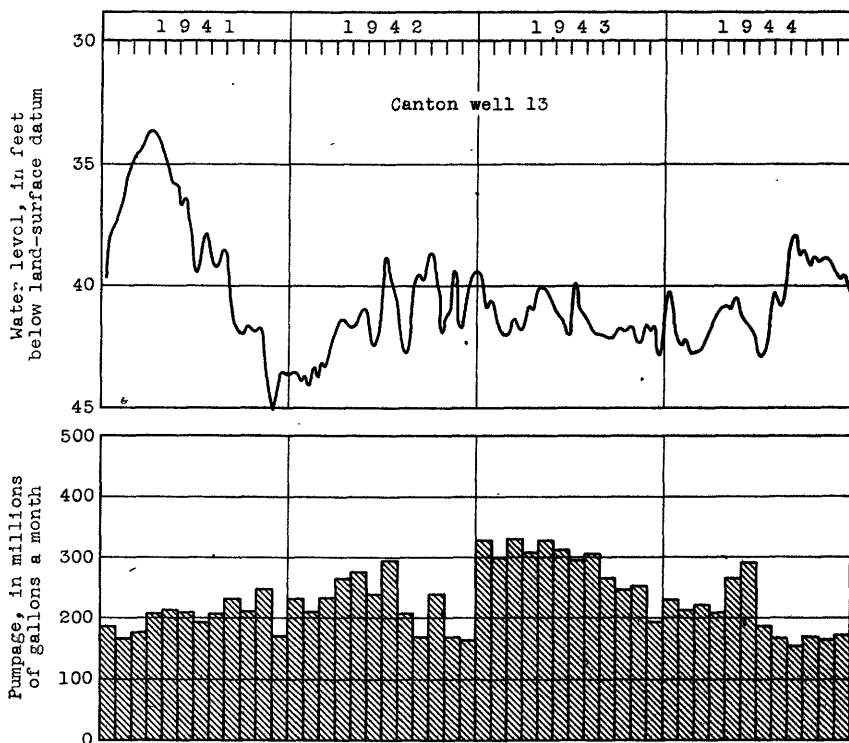


Figure 17.--Graphs showing monthly pumpage at the Canton water department Northeast well field and water levels in Canton well 13 (Northeast well field observation well) Canton, Ohio.

through the end of the year, resulting in a decline of 11 feet in water level during the year.

Water-level measurements have been made since April 10, 1944, in three test wells in the Grovemiller well field of the Canton water department, located along Tuscarawas Avenue about 3 miles west of the central part of the city. Pumpage from this field in 1944 amounted to an average of 5.1 million gallons a day.

Massillon

An automatic water-stage recorder has been operated since June 1942 on an unused well in the basement of the main office building of the Republic Steel Corporation, which is on the north side of Oberlin Ave., about 0.1 mile west of the Tuscarawas River, in the southern part of the city. The record obtained from the water-stage recorder indicates that the water level in this well is apparently unaffected by the pumping of any individual well, although it is probably affected by the regional pumping in the area.

The water-level record obtained in the Massillon observation well in 1944 indicates that recharge in the area was considerably less than in 1943, the net rises in water level in 1944 amounting to only 1 foot as compared to 3.6 feet in 1943. The water level at the end of 1944 was 4.76 feet lower than at the beginning of the year.

## WASHINGTON COUNTY

Marietta

An automatic water-stage recorder has been maintained on a well at the rear of the Marietta Osteopathic Clinic, in the business section of Marietta, since May 1942. This well is 42 feet deep and ends in gravel. Although the water level in this well is affected slightly by pumping of an air-conditioning well at a nearby theater, the principal fluctuations seem to be caused by recharge from precipitation and flood waters from the Muskingum River. The longest period of recharge in the area during 1944 occurred between February 23 and April 17 when there was a net rise in the well of 5.5 feet. From April 17 to August 15 the water level declined 5.9 feet, and then it followed a level trend until December 27. A rise of 1.1 feet occurred between December 27 and December 31. In each year of record the water level in this well has receded to about 31 feet below the ground in dry periods. Although the elevation of the water surface in the Marietta well has not been determined by instrumental leveling, it seems probable that, at a depth of 31 feet below the surface, the water level has reached the level of the Muskingum River. The minor fluctuations occurring at such times are probably in response to changes in the stage of the river.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

## Butler County

12-1 (\*886, p. 565; \*906, p. 177; \*936, p. 207; \*994, p. 203; \*986, p. 226). Village of Trenton. Municipal water-supply well.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	36.70	June 13	34.55	Sept. 12	36.80	Nov. 21	37.94
May 2	33.23	Aug. 15	36.43	Oct. 24	37.90	Dec. 19	38.27
9	33.59						

12-2 (\*944, p. 203; \*986, p. 226). Village of Trenton. Municipal water supply well. No measurements made in 1944.

25-5 (\*936, p. 207; \*944, p. 203; \*986, p. 226). City of Middletown. Municipal water plant.

Lowest daily water level, in feet below land-surface datum, 1944  
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	37.47	38.15	38.13	31.82	26.94	29.65	32.62	35.17	35.85	37.32	36.56	36.94
2	37.28	38.24	38.07	31.78	27.19	29.79	32.66	35.28	35.89	36.89	36.65	37.01
3	37.13	38.35	38.03	31.67	27.35	29.90	32.66	35.36	35.84	37.31	36.75	37.01
4	37.30	38.49	37.98	31.51	27.52	29.90	32.51	35.44	35.67	37.48	36.78	36.94
5	37.39	38.53	38.03	31.51	27.74	29.96	32.64	35.55	35.31	37.64	36.46	37.03
6	37.39	38.29	37.95	31.53	27.89	30.16	32.83	35.58	35.64	37.74	36.56	37.08
7	37.30	38.23	37.94	31.54	27.97	30.18	33.00	35.21	35.87	37.78	36.57	37.05
8	37.27	38.29	37.71	31.58	27.77	30.12	33.06	35.34	36.05	37.61	36.71	37.25
9	36.98	38.36	37.15	31.44	27.91	30.32	32.60	35.75	36.12	37.23	36.90	37.34
10	37.19	38.36	36.45	30.15	28.12	30.50	32.48	36.04	36.07	37.36	36.97	36.97
11	37.42	38.34	35.79	29.38	28.18	30.55	32.60	36.06	35.82	37.05	36.97	37.42
12	37.42	38.30	35.31	27.95	8.06	30.55	32.74	35.89	35.98	37.37	36.66	37.42
13	37.42	38.28	34.89	24.27	27.94	30.69	32.91	35.45	36.11	37.14	36.80	37.23
14	37.42	38.11	34.66	22.07	29.05	30.81	33.05	35.51	36.19	37.18	36.65	37.44
15	37.43	38.26	34.51	22.49	28.17	30.86	33.19	35.66	36.30	37.16	36.72	37.62
16	37.29	38.39	34.48	22.76	28.24	30.87	33.73	35.81	36.35	37.04	36.85	37.71
17	37.31	38.46	34.36	23.93	28.36	30.98	33.65	35.99	36.35	37.06	36.87	37.26
18	37.47	38.48	34.22	23.87	28.48	31.02	33.26	36.26	36.84	37.11	36.87	37.50
19	37.59	38.52	34.09	24.43	28.56	31.11	33.35	36.30	36.51	37.19	36.48	37.69
20	37.75	38.46	33.85	24.85	28.61	31.28	33.47	36.24	36.68	37.31	36.66	37.82
21	37.82	38.52	33.64	25.24	28.62	31.44	33.59	35.68	36.78	37.25	36.78	37.93
22	37.82	38.62	33.45	25.44	28.59	31.62	33.69	35.47	36.96	37.30	36.90	38.02
23	37.74	38.71	33.32	25.54	28.76	31.77	33.69	35.54	36.91	36.74	37.07	38.12
24	37.80	38.83	33.20	25.58	28.99	31.80	33.58	35.56	36.84	36.80	37.15	38.14
25	37.83	38.85	33.31	25.79	29.25	31.82	33.79	35.57	36.83	36.92	37.16	37.50
26	37.85	38.80	32.78	26.02	29.40	32.00	34.31	35.56	36.98	36.99	36.90	37.53
27	37.90	38.67	32.56	26.24	29.45	32.16	35.77	35.40	37.04	37.00	36.63	37.68
28	37.97	38.41	32.36	26.45	29.45	32.31	.....	35.43	37.05	36.97	36.71	37.77
29	38.01	38.24	32.16	26.56	29.19	32.44	.....	35.57	37.17	36.70	36.82	37.95
30	38.01	.....	32.03	26.67	29.36	32.52	.....	35.67	37.25	36.51	36.86	37.92
31	38.01	.....	31.91	.....	29.52	.....	.....	35.76	.....	36.54	.....	37.94

Pit J (\*845, p. 373; \*886, pp. 560-561; \*906, p. 180; \*936, pp. 207-208; \*944, p. 204; \*986, p. 227). Moorman Sand & Gravel Co. gravel pit. In Middletown.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	25.52	Feb. 1	25.65	Feb. 29	25.35	Mar. 28	20.96
11	25.32	8	25.75	Mar. 7	24.60	Apr. 4	20.32
18	25.35	15	25.85	14	22.58	11	18.15
25	25.55	22	25.94	21	21.88	13	21.08

## Pit J--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 14	17.30	June 20	20.88	Aug. 29	23.82	Oct. 31	25.02
18	18.38	27	21.56	Sept. 5	24.08	Nov. 7	25.10
25	21.28	July 5	22.58	12	24.32	14	25.12
May 2	22.80	11	22.47	19	24.58	21	24.97
9	18.06	18	22.92	26	24.86	28	24.89
16	18.82	25	23.22	Oct. 3	24.92	Dec. 5	24.84
23	19.33	Aug. 1	23.52	10	24.96	12	24.92
31	19.65	8	23.79	17	24.94	19	24.93
June 6	20.01	15	23.97	24	25.00	26	25.01
13	20.52	22	23.79				

Pit L (\*886, pp. 560-561; \*906, p. 180; \*936, p. 208; \*944, p. 204; \*986, p. 227). Smith Farm gravel pit. 0.3 mile north of Middletown.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	19.58	Apr. 4	17.40	June 27	16.00	Sept. 26	18.92
11	19.65	11	16.62	July 5	16.50	Oct. 3	19.00
18	19.70	14	16.10	11	16.78	10	19.06
25	19.75	18	13.85	18	17.18	17	19.15
Feb. 1	19.80	25	12.75	25	17.50	24	19.25
8	20.00	May 2	13.10	Aug. 1	17.78	31	19.33
15	20.12	9	12.55	8	18.12	Nov. 7	19.40
22	20.25	16	13.80	15	18.36	14	19.60
29	20.25	23	14.25	22	18.56	21	19.60
Mar. 7	19.75	31	14.68	29	18.55	28	19.65
14	19.25	June 6	14.94	Sept. 5	18.59	Dec. 5	19.70
21	18.65	13	15.24	12	18.64	12	19.75
28	18.07	20	15.63	19	18.80		

29-1 (\*886, pp. 565-566; \*906, p. 178; \*936, p. 208; \*944, p. 204; \*986, p. 227). Young Men's Christian Association. In Middletown.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	40.56	Apr. 11	33.47	July 5	24.63	Oct. 3	40.09
11	40.61	13	32.15	11	35.08	10	40.55
18	40.93	14	29.93	18	35.83	17	40.70
25	41.31	18	28.36	25	36.60	24	40.75
Feb. 1	41.62	25	29.31	Aug. 1	37.45	31	40.51
8	41.91	May 2	29.95	8	38.16	Nov. 7	40.58
15	42.16	9	30.42	15	38.63	14	40.43
22	42.28	16	30.54	22	38.84	21	40.41
29	42.25	Apr. 23	31.13	29	38.73	28	40.41
Mar. 7	41.95	31	31.83	Sept. 5	38.68	Dec. 4	40.69
14	39.60	June 6	32.41	12	38.84	12	40.82
21	37.73	13	33.02	19	39.32	19	41.10
28	36.36	20	33.66	26	39.80	26	41.41
Apr. 4	35.20	27	34.25				

29-2 (\*944, p. 205; \*986, p. 228). Young Men's Christian Association. In Middletown.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	46.20	Mar. 14	47.22	May 9	37.89	July 18	43.83
11	47.20	21	46.52	16	39.74	25	45.21
18	46.05	28	45.91	23	39.54	Aug. 1	45.21
25	46.73	Apr. 4	44.92	31	40.13	8	47.24
Feb. 1	46.70	11	43.23	June 6	40.62	15	46.34
8	47.97	13	42.32	13	42.34	22	46.38
15	48.44	14	41.60	20	42.40	29	45.77
22	49.04	18	39.10	27	43.43	Sept. 5	45.56
29	47.50	25	38.27	July 5	41.85	12	45.45
Mar. 7	47.65	May 2	37.67	11	44.51	19	46.17

## 29-2. Young Men's Christian Association--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 26	47.00	Oct. 24	48.50	Nov. 21	49.64	Dec. 12	49.95
Oct. 3	47.28	31	49.66	28	50.72	19	50.01
10	48.14	Nov. 7	48.82	Dec. 5	50.47	26	49.15
17	48.47	14	49.39				

33-1 (\*886, p. 569; \*906, p. 178; \*936, p. 208; \*944, p. 205; \*986, p. 228). Wardlow-Thomas Paper Co. In Middletown.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	41.17	Apr. 11	40.42	July 5	39.10	Oct. 3	44.28
11	41.24	13	40.14	11	39.22	10	44.80
18	42.26	14	39.76	18	40.06	17	45.27
25	42.73	18	37.23	25	41.05	24	46.11
Feb. 1	42.49	25	34.99	Aug. 1	41.81	31	46.74
8	43.29	May 2	33.98	8	42.43	Nov. 7	46.78
15	43.78	9	33.53	15	43.32	14	(a)
22	44.25	16	34.27	22	42.60	21	(a)
29	44.61	23	35.43	29	42.34	28	(a)
Mar. 7	44.81	31	36.07	Sept. 5	41.87	Dec. 5	(a)
14	44.63	June 6	36.90	12	42.24	12	(a)
21	43.76	13	37.65	19	43.06	19	(a)
28	43.20	20	38.51	26	43.76	26	(a)
Apr. 4	42.00	27	38.00				

a Dry

36-13 (\*845, p. 375; \*886, pp. 568-569; \*906, pp. 209-210; \*944, p. 205; \*986, p. 228). American Rolling Mill Co. In Middletown.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	122.38	124.26	125.73	125.42	125.06	127.72
2	122.31	124.38	125.41	125.36	126.77	127.62
3	121.97	124.48	125.20	124.58	127.16	126.96
4	122.03	123.95	125.77	124.61	127.43	126.67
5	122.01	124.02	125.66	124.20	127.44	127.03
6	122.12	124.34	125.38	123.96	127.53	127.29
7	122.15	124.53	125.33	123.84	127.10	127.47
8	122.39	124.14	125.31	124.07	126.40	127.65
9	122.24	124.12	125.27	124.02	126.44	127.70
10	122.23	124.19	125.62	124.02	126.36	127.66
11	122.24	124.73	126.02	124.27	126.55	126.60
12	122.60	124.74	125.65	124.58	126.73	127.26
13	122.66	124.55	124.20	124.64	126.91	127.54
14	122.92	124.99	125.15	124.82	126.70	127.79
15	123.13	125.05	125.81	125.01	126.35	127.97
16	123.16	125.30	125.95	125.02	126.79	128.20
17	122.88	125.50	125.32	125.76	126.87	128.37
18	123.16	125.55	125.47	125.59	126.71	127.99
19	123.44	125.45	125.46	125.57	126.66	127.76
20	123.36	124.96	126.44	125.88	126.81	127.76
21	123.27	124.96	126.52	126.07	126.77	127.83
22	123.17	124.90	126.35	126.31	126.38	127.80
23	122.74	125.26	126.31	125.95	126.76	127.71
24	123.30	125.46	126.30	125.86	127.06	127.80
25	123.57	125.56	126.34	125.98	127.31	127.61
26	123.76	125.81	125.35	126.17	127.51	128.01
27	123.98	125.81	126.05	126.48	127.64	128.24
28	124.02	125.72	126.35	126.60	127.56	128.45
29	124.18	126.07	126.55	126.59	127.37	128.65
30	123.93	.....	126.58	126.14	127.56	128.81
31	124.01	.....	125.74	.....	127.67	.....



## 36-13. American Rolling Mill Co.--Continued

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	128.98	125.70	124.23	123.45	121.15	119.50
2	128.63	125.67	124.02	122.81	121.10	119.54
3	128.31	125.10	123.37	122.86	121.02	119.25
4	128.47	124.98	122.74	122.87	121.02	118.72
5	128.52	124.91	122.65	122.89	120.77	118.73
6	128.36	124.61	122.62	122.87	120.58	118.26
7	128.33	124.26	122.61	122.77	120.60	118.23
8	127.93	124.06	122.56	122.50	120.51	118.63
9	127.69	124.68	122.45	121.63	120.43	118.44
10	128.13	124.94	122.33	121.57	120.40	117.99
11	128.19	124.80	122.24	121.45	120.39	117.62
12	128.12	124.79	122.58	121.86	119.90	117.79
13	128.10	124.49	122.58	121.91	120.18	117.79
14	127.92	124.80	121.94	122.06	120.24	117.91
15	127.82	125.90	121.71	122.06	120.31	117.77
16	127.46	125.13	122.61	121.73	120.54	117.75
17	127.24	125.29	122.74	121.71	120.75	117.65
18	127.45	125.44	121.80	121.65	120.94	117.69
19	127.74	125.42	121.40	121.06	120.52	117.70
20	127.74	124.55	121.24	121.01	119.96	117.67
21	127.78	123.58	121.11	121.08	120.04	117.71
22	127.66	123.49	121.06	121.26	119.98	117.71
23	126.36	123.71	120.99	121.69	119.86	117.54
24	125.90	123.81	120.83	121.85	119.99	117.27
25	126.18	123.87	120.86	121.76	119.97	116.85
26	126.21	123.89	122.36	121.79	119.68	116.35
27	126.17	123.16	122.64	121.76	120.03	116.01
28	126.16	123.60	122.96	121.66	120.11	115.55
29	125.16	123.83	123.18	121.38	120.11	115.35
30	125.33	124.00	123.46	121.08	119.50	115.26
31	124.89	124.21	.....	121.13	.....	115.19

Pit P (\*906, p. 180; \*936, p. 210; \*944, p. 206; \*986, p. 229).  
South Middletown Sand & Gravel Co. Gravel pit in Middletown.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.20	Apr. 11	7.26	July 5	14.25	Oct. 3	16.50
11	15.98	13	5.40	11	14.60	10	16.62
18	16.13	18	6.40	18	14.75	17	16.75
25	16.28	25	8.80	25	15.00	24	16.90
Feb. 1	16.32	May 2	10.35	Aug. 1	15.28	31	17.01
8	16.37	9	11.05	8	15.50	Nov. 7	17.10
15	16.42	16	11.75	15	15.52	14	17.19
22	16.42	23	12.00	22	15.12	21	17.15
29	15.26	31	12.06	29	15.44	28	17.25
Mar. 7	12.50	June 6	12.30	Sept. 5	15.75	Dec. 5	17.30
14	11.90	13	13.00	12	15.96	12	17.35
21	12.21	20	13.17	18	16.10	19	17.46
28	11.50	27	13.80	26	16.21	26	17.40
Apr. 4	11.55						

85-7 (\*886, p. 567; 568; \*906, pp. 210-211; \*944, pp. 206-207; \*986, p. 230). City of Hamilton. On U. S. Highway 127, in Fairfield Township.

Lowest daily water level in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	29.95	30.25	26.65	23.89	25.25	28.35	27.74	27.41	27.87	28.51	28.60
2	.....	29.96	30.58	27.27	22.81	25.30	27.81	27.67	27.51	27.87	28.51	28.60
3	.....	29.88	30.62	27.34	23.66	25.20	27.35	27.73	27.55	27.90	28.53	28.58

## 85-7. City of Hamilton--Continued.

Lowest daily water level in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	.....	29.97	30.71	25.47	23.87	25.00	27.52	26.58	27.47	27.91	28.54	28.61
5	28.37	30.20	29.88	25.27	24.13	25.05	27.56	26.29	27.46	27.80	28.40	28.62
6	29.84	30.28	29.78	26.64	24.04	25.11	27.70	26.26	27.60	27.80	28.51	28.64
7	28.97	30.78	27.52	27.04	24.22	25.40	27.87	27.19	27.74	28.11	28.53	28.66
8	29.07	30.90	26.67	27.04	24.24	26.27	28.15	27.39	27.58	28.19	28.54	28.66
9	29.25	30.93	26.08	25.75	24.29	25.66	28.33	27.47	27.50	28.13	28.54	28.64
10	29.00	30.61	26.00	25.70	24.21	25.98	27.87	27.76	27.43	28.05	28.55	28.50
11	29.78	30.54	25.59	24.73	23.70	26.02	27.92	27.74	27.38	28.03	28.55	28.58
12	29.87	30.59	27.31	21.31	24.39	26.17	27.88	27.83	27.45	28.16	28.56	28.61
13	29.99	31.02	29.31	20.65	24.51	26.24	27.30	27.44	27.39	28.30	28.57	28.60
14	29.99	31.15	27.90	20.13	24.86	26.40	27.00	27.82	27.58	28.25	27.59	28.77
15	30.02	30.70	27.86	20.29	25.00	26.59	27.38	27.90	27.60	28.11	26.79	28.79
16	29.57	29.97	28.14	20.53	24.98	26.55	27.34	27.99	27.76	28.28	26.67	28.82
17	29.61	30.74	28.04	20.00	25.27	26.24	27.59	28.07	27.70	28.15	27.75	28.82
18	29.56	31.03	27.61	20.34	24.87	26.44	27.68	27.90	27.65	28.11	28.25	28.82
19	.....	31.06	27.65	20.54	25.01	26.55	27.58	28.23	27.62	28.16	28.57	28.88
20	.....	31.09	26.17	22.29	25.01	26.57	27.59	28.14	27.71	28.28	28.76	28.88
21	.....	31.03	26.50	22.64	24.97	26.73	27.15	28.11	27.66	28.35	28.76	28.88
22	.....	31.02	26.78	22.88	25.14	26.76	27.16	27.79	27.87	28.34	26.93	28.89
23	.....	30.76	26.91	22.94	24.86	27.31	27.45	27.81	28.43	28.37	26.69	28.89
24	.....	29.58	27.24	22.71	23.74	27.45	28.45	27.81	27.82	28.37	28.15	28.90
25	30.26	29.48	26.71	21.50	24.00	27.64	28.53	27.71	27.98	28.36	28.41	28.90
26	.....	29.18	26.79	21.19	24.07	27.64	28.53	27.64	27.87	28.37	28.47	28.90
27	.....	29.14	25.82	22.63	24.06	27.65	28.04	27.41	28.03	28.37	28.59	28.82
28	.....	29.03	26.23	22.89	24.02	28.02	27.87	27.12	27.84	28.38	28.60	28.88
29	.....	29.13	26.19	23.63	24.86	28.17	26.75	27.26	27.91	28.39	28.59	28.90
30	.....	.....	25.39	23.75	24.88	28.35	27.27	27.31	28.07	28.39	28.61	28.90
31	.....	.....	25.29	.....	25.10	.....	27.92	27.24	.....	28.46	.....	28.89

86-7 (\*886, p. 567; \*906, pp. 181-182; \*936, p. 211; \*944, p. 207; \*986, p. 230). City of Hamilton. On U. S. Highway 127, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	15.57	Apr. 11	13.24	July 5	13.26	Oct. 3	15.15
11	15.45	13	12.77	11	13.56	10	15.35
18	15.71	18	11.79	18	13.75	17	15.45
25	16.01	25	11.51	25	14.03	24	15.65
Feb. 1	16.49	May 2	11.37	Aug. 1	14.20	31	15.80
8	16.42	9	11.33	8	14.37	Nov. 7	15.91
15	16.62	16	11.36	15	14.49	14	16.05
22	16.72	23	11.54	22	14.51	21	16.15
29	16.43	31	11.66	29	14.55	28	16.17
Mar. 7	15.90	June 6	11.85	Sept. 5	14.66	Dec. 5	16.28
14	15.20	13	12.18	12	14.80	12	16.34
21	14.96	20	12.50	19	14.93	19	16.44
28	14.47	27	12.80	26	15.10	26	16.57
Apr. 4	14.15						

89-3 (\*845, p. 574; \*886, p. 566; \*906, p. 182; \*936, pp. 211-212; \*944, p. 207; \*986, p. 231).. General Machinery Co. (Niles Tool Works). In Hamilton. Measurements discontinued after Aug. 18, 1941.

104-1 (\*845, p. 377; \*886, pp. 565-566; \*906, p. 183; \*936, p. 212; \*944, pp. 207-208; \*986, p. 231). McGreevy Dairy Co. In Hamilton.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level
Apr. 25	35.85	May 9	35.70	May 23	36.05
May 2	35.60	16	36.05	31	36.05

104-2 (\*944, p. 208; \*986, p. 231). McGreevy Dairy Co. In Hamilton.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	37.63	Apr. 4	39.97	July 5	39.31	Oct. 10	39.96
11	37.78	11	39.68	11	39.36	17	40.20
18	37.96	18	39.76	18	39.44	24	40.45
28	38.12	25	39.62	25	39.44	31	40.66
Feb. 1	38.30	May 2	39.60	Aug. 1	39.38	Nov. 7	40.75
8	38.50	9	39.40	8	39.39	14	40.80
15	38.71	16	39.42	15	39.38	21	40.79
22	39.71	23	39.25	22	39.35	28	40.97
29	39.80	31	39.25	Sept. 5	39.21	Dec. 5	41.15
Mar. 7	39.51	June 6	39.25	12	39.35	12	41.12
14	39.67	13	39.25	18	39.32	19	41.29
21	39.86	20	40.24	26	39.75	26	41.20
28	39.92	27	39.25	Oct. 3	39.79		

117 (\*845, p. 376; \*896, pp. 563-564; \*906, p. 183; \*936, p. 212; \*944, pp. 208-209; \*986, p. 233). Anna Magie. At Symmes, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	30.66	Apr. 4	27.55	July 4	29.59	Oct. 3	30.91
11	29.74	11	27.17	11	21.31	10	31.02
18	29.76	18	25.83	18	30.98	17	30.79
25	29.98	25	25.39	25	29.92	24	30.71
Feb. 1	30.14	May 1	25.28	Aug. 1	31.79	31	30.92
8	30.31	9	25.28	8	32.31	Nov. 7	31.09
15	30.46	16	25.40	15	30.31	14	31.28
22	30.49	23	25.64	22	30.31	21	31.38
29	30.20	30	25.88	29	30.33	28	31.43
Mar. 7	30.04	June 6	26.17	Sept. 5	30.32	Dec. 5	31.35
14	29.11	13	26.42	12	30.58	12	31.37
21	28.61	20	26.82	19	30.70	19	31.43
28	28.18	27	27.08	26	30.79	25	31.54

Pit M (\*944, p. 209; \*986, p. 233). Edward Hieb. Abandoned gravel pit. In Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	5.70	Mar. 14	3.20	May 23	2.90	July 23	5.90
11	5.40	21	3.10	30	3.00	Aug. 1	6.60
18	5.50	28	2.60	June 6	3.10	8	6.40
25	5.60	Apr. 4	2.10	13	3.90	15	6.30
Feb. 1	5.80	11	2.00	20	5.00	22	5.60
8	6.00	18	1.00	27	4.60	29	5.70
15	5.80	25	.70	July 4	5.00	Sept. 3	5.80
22	5.80	May 2	1.50	11	5.30	12	7.00
29	5.50	9	2.20	18	5.60	19	6.20
Mar. 7	4.80	16	2.60				

a Above land-surface datum.

Pit N (\*944, p. 209; \*986, p. 233). Edward Hieb. Abandoned gravel pit. In Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	6.00	Mar. 7	5.30	May 23	3.90	July 25	5.90
11	6.00	21	3.70	30	3.80	Aug. 1	5.90
18	6.00	28	3.10	June 6	3.90	8	6.40
25	6.30	Apr. 4	3.80	12	4.40	15	6.20
Feb. 1	6.30	11	3.40	20	4.60	22	6.20
8	6.50	25	1.50	27	4.80	29	6.20
15	6.46	May 2	3.40	July 4	5.30	Sept. 5	6.20
22	6.30	9	3.10	11	5.60	12	6.30
29	6.00	16	3.50	18	5.80	19	6.40

## Pit N. Edward Hieb--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 26	6.50	Oct. 24	6.90	Nov. 21	6.90	Dec. 12	6.11
Oct. 3	6.60	31	6.90	28	6.90	19	6.21
10	6.60	Nov. 7	6.01	Dec. 5	6.11	25	6.21
17	6.70	14	6.01				

Pit D (\*845, p. 372; \*886, pp. 560-561; \*906, p. 183; \*936, p. 212; \*944, p. 208; \*986, p. 231). Paul Benninghofen gravel pit. At Symmes, (Symmes Lake), in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	17.90	Mar. 27	15.20	June 19	15.60	Sept. 4	17.20
10	17.50	Apr. 10	14.10	26	16.20	11	17.40
17	17.70	17	9.70	July 3	16.50	18	17.40
24	18.00	24	12.50	10	16.70	25	17.50
31	18.00	May 1	13.40	17	16.60	Oct. 2	17.60
Feb. 7	18.00	8	14.00	24	16.70	9	17.70
14	18.00	15	14.50	31	16.80	16	17.80
28	17.20	22	14.90	Aug. 7	16.90	23	17.20
Mar. 6	16.60	29	14.90	14	16.90	30	17.98
13	14.90	June 5	15.10	21	16.60	Nov. 6	18.00
20	15.50	12	15.50	28	16.90		

110 (\*845, p. 373; \*886, pp. 563-564; \*906, p. 183; \*944, p. 208; \*986, p. 232). Joe Conrad. At Symmes, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	21.60	Apr. 3	18.98	July 3	21.55	Oct. 2	21.06
10	21.63	10	19.10	10	20.67	9	21.09
17	(a)	17	14.56	17	20.26	16	20.98
24	(a)	24	16.41	24	20.19	23	20.95
31	(a)	May 1	17.41	31	20.24	30	20.97
Feb. 7	(a)	8	17.37	Aug. 7	20.87	Nov. 6	20.95
14	21.26	15	18.95	14	20.99	13	20.98
21	21.39	22	19.38	21	20.92	20	20.95
28	20.42	29	19.61	28	20.76	27	20.95
Mar. 6	20.49	June 5	19.75	Sept. 4	20.66	Dec. 4	20.04
13	19.33	12	20.27	11	20.87	11	21.05
20	19.05	19	20.67	18	20.76	18	20.08
27	19.34	26	21.13	25	21.36	25	21.15

a Dry.

112A (\*986, p. 232). Louis Mergy. At Symmes, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	25.42	Apr. 3	22.69	July 3	24.09	Oct. 2	25.08
10	25.18	10	21.45	10	24.15	9	27.74
17	25.45	17	18.38	17	24.08	16	25.24
24	25.55	24	19.13	24	24.23	23	25.95
31	25.62	May 1	20.06	31	24.36	30	28.26
Feb. 7	25.71	8	21.49	Aug. 7	24.53	Nov. 6	25.64
14	25.74	15	22.04	14	24.44	13	25.78
21	25.66	22	22.26	21	24.23	20	25.84
28	24.65	29	22.26	28	24.59	27	27.49
Mar. 6	24.19	June 5	22.53	Sept. 4	24.75	Dec. 4	28.07
13	23.05	12	23.05	11	24.88	11	26.13
20	23.37	19	23.18	18	24.94	18	26.32
27	22.93	26	23.72	25	25.09	25	26.45

121 (\*906, p. 184; \*936, p. 212; \*944, p. 210; \*986, p. 234). Edward Hieb. At Symmes, in Fairfield Township. Measurements discontinued Sept. 15, 1942.

T-50 (\*886, pp. 563-564; \*906, p. 184; \*936, p. 213; \*944, p. 210; \*986, p. 234). Mary Gerber. On River Road, in Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.18	Apr. 4	14.28	July 4	14.79	Oct. 3	16.77
11	16.20	11	13.09	11	15.05	10	16.87
18	16.41	18	12.27	18	15.27	17	16.97
25	16.49	25	12.66	25	15.44	24	17.07
Feb. 1	16.58	May 2	12.94	Aug. 1	15.62	31	17.15
8	16.65	9	13.28	8	15.81	Nov. 7	17.23
15	16.75	16	13.53	15	15.97	14	17.29
22	16.76	23	13.75	22	16.02	21	17.33
29	16.49	30	13.86	29	16.13	28	17.44
Mar. 7	16.09	June 6	13.95	Sept. 5	16.25	Dec. 5	17.40
14	15.35	13	14.17	12	16.42	12	17.44
21	15.06	20	14.35	19	16.54	19	17.49
28	14.65	27	14.57	26	16.67	25	17.54

T-51 (\*886, p. 564; \*906, p. 184; \*936, p. 213; \*944, p. 210; \*986, p. 234). Miami Conservancy District. On River Road, in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.68	Apr. 4	14.68	July 4	17.39	Oct. 3	18.17
11	17.62	11	13.82	11	17.49	10	18.28
18	17.85	18	12.02	18	17.53	17	18.29
25	17.95	25	12.93	25	17.75	24	17.38
Feb. 1	17.95	May 2	14.94	Aug. 1	17.88	31	18.58
8	18.02	9	15.19	8	17.92	Nov. 7	18.35
15	18.05	16	15.73	15	17.77	14	18.35
22	18.01	23	15.57	22	17.33	21	18.20
29	16.03	30	15.43	29	17.75	28	18.22
Mar. 7	13.97	June 6	15.78	Sept. 5	17.95	Dec. 5	18.32
14	14.91	13	15.52	12	18.06	12	18.24
21	14.81	20	16.57	19	18.13	19	18.28
28	13.41	27	17.09	26	18.23	25	18.29

122 (\*886, pp. 563-564; \*944, p. 210; \*986, p. 234). Carl Federle. In Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	42.99	Apr. 10	41.71	July 10	41.34	Oct. 9	43.68
10	43.13	17	40.86	17	41.80	16	43.79
17	43.22	24	40.08	24	41.82	23	44.74
24	43.38	May 1	39.85	31	42.13	30	43.65
31	43.49	8	39.88	Aug. 7	42.28	Nov. 6	44.12
Feb. 7	43.51	15	38.49	14	42.89	13	44.19
14	43.53	22	40.16	21	42.93	20	44.68
21	43.72	29	40.44	28	43.94	27	44.70
28	43.71	June 5	40.51	Sept. 4	44.25	Dec. 4	44.92
Mar. 13	43.09	12	40.84	11	43.07	11	44.44
21	42.63	19	40.82	18	43.18	18	44.57
27	42.58	26	41.11	25	43.54	26	44.60
Apr. 3	42.02	July 3	41.32	Oct. 2	43.54		

Pit E (\*845, p. 372; \*886, pp. 560-561; \*906, pp. 184-185; \*936, p. 213; \*944, p. 210; \*986, p. 235). South Hamilton Sand & Gravel Co. In Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	38.00	Feb. 21	39.90	Apr. 10	39.20	May 29	36.00
10	38.50	28	40.10	17	39.00	June 5	35.90
17	38.70	Mar. 6	40.20	24	37.90	12	35.90
24	38.96	13	40.20	May 1	37.30	19	35.90
31	39.20	21	40.00	8	36.80	26	36.00
Feb. 7	39.50	27	39.80	15	36.50	July 3	36.20
14	39.60	Apr. 3	39.60	22	36.20	10	36.30

## Pit E. South Hamilton Sand &amp; Gravel Co.--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 17	36.60	Aug. 28	36.90	Oct. 9	40.60	Nov. 20	41.50
24	37.00	Sept. 4	39.20	16	40.90	27	41.60
31	37.30	11	39.60	23	41.10	Dec. 4	41.70
Aug. 7	37.80	18	39.80	30	41.30	11	41.70
14	36.20	25	40.20	Nov. 6	41.40	18	41.80
21	36.60	Oct. 2	40.40	13	41.40	26	41.80

128 (\*886, pp. 562-563; \*906, p. 185; \*936, p. 213; \*944, p. 211; \*986, p. 235). George Shearer. At Schenck, in Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	49.30	Mar. 21	51.00	June 6	46.54	Aug. 15	49.45
11	49.46	28	50.63	13	46.53	22	50.09
18	49.85	Apr. 4	50.24	20	46.60	Sept. 5	50.72
25	50.18	11	49.74	27	46.73	12	51.11
Feb. 1	50.47	18	49.03	July 5	46.93	19	51.47
8	50.80	25	48.28	11	47.23	Oct. 3	51.38
15	51.09	May 2	47.67	18	47.80	10	52.35
22	51.43	9	47.30	25	48.35	17	52.60
29	51.85	16	46.91	Aug. 1	48.78	24	52.87
Mar. 7	51.48	23	46.72	8	49.28	31	52.91
14	51.26	31	46.55				

133 (\*886, pp. 562-563; \*906, p. 185; \*936, p. 214; \*944, p. 211; \*986, p. 235). J. E. Ryan. At Schenck, in Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	39.41	Apr. 4	40.50	July 5	36.36	Oct. 10	42.95
11	39.72	11	39.62	11	36.75	17	43.15
18	39.91	18	38.82	18	37.58	24	43.47
25	40.42	25	38.26	25	38.15	31	43.49
Feb. 1	40.67	May 2	37.35	Aug. 1	38.88	Nov. 7	43.45
8	41.04	9	36.99	8	39.43	14	43.45
15	41.46	16	36.48	15	38.85	21	43.68
22	41.53	23	36.35	22	40.27	28	43.65
29	42.30	31	35.98	Sept. 5	41.10	Dec. 5	43.55
Mar. 7	42.05	June 6	36.04	12	41.33	12	43.73
14	41.53	13	35.92	18	42.32	19	44.00
21	41.46	20	36.05	26	42.24	26	44.10
28	40.75	27	36.23	Oct. 3	42.61		

150-2 (\*845, p. 376; \*886, pp. 562-563; \*906, p. 186; \*936, p. 214; \*944, p. 211; \*986, p. 235). Harry A. Morris. At Flockton, in Fairfield Township.

Water level in feet below land surface, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	14.20	Apr. 4	2.72	July 5	13.77	Oct. 10	18.09
11	13.80	11	1.37	18	15.13	17	18.36
18	14.30	18	2.68	25	15.91	24	18.39
25	14.62	25	2.31	Aug. 1	16.30	31	18.38
Feb. 1	15.12	May 2	3.34	8	16.98	Nov. 7	18.57
8	15.40	9	3.39	15	17.42	14	18.84
15	17.37	16	4.74	22	17.59	21	19.08
22	15.87	23	5.24	Sept. 5	17.87	28	19.31
29	14.70	31	7.13	12	17.88	Dec. 5	19.38
Mar. 7	2.70	June 6	8.41	18	17.95	12	19.62
14	2.82	13	9.86	26	18.03	19	19.80
21	2.19	20	11.71	Oct. 3	17.99	26	19.40
28	1.97	27	12.85				

151-1 (\*906, pp. 186-187; \*936, pp. 214-215; \*944, p. 212; \*986, p. 236). Harry A. Morris. At Flockton, in Fairfield Township.

## 151-1. Harry A. Morris--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.19	26.22	28.38	23.92	20.33	19.25	20.12	24.13	.....	29.82	31.21	31.10
2	24.15	26.29	28.36	23.84	20.24	19.25	20.17	24.23	.....	29.88	31.18	31.13
3	24.09	26.30	28.36	23.77	20.15	19.26	20.21	24.36	.....	29.98	31.14	31.14
4	24.14	26.38	27.90	23.62	20.06	19.29	20.26	24.48	.....	30.06	31.10	31.12
5	24.22	26.44	27.80	23.52	20.00	19.30	20.28	24.57	27.56	30.13	31.08	31.10
6	24.32	26.50	27.64	23.47	19.94	19.37	20.31	24.70	27.70	30.21	31.07	31.08
7	24.41	26.65	27.43	23.38	19.90	19.41	20.34	24.83	27.81	30.27	31.05	31.07
8	24.46	26.30	27.20	23.28	.....	19.44	20.37	24.97	27.89	30.30	31.02	31.09
9	24.53	26.98	27.04	23.25	19.77	19.44	20.41	25.08	27.97	30.31	30.99	31.15
10	24.60	27.03	26.83	23.14	19.78	19.47	20.55	25.16	28.06	30.41	30.99	31.15
11	24.70	27.19	26.70	23.05	19.73	19.49	20.80	25.26	28.13	30.48	31.00	31.11
12	24.79	27.34	26.46	22.94	19.69	19.49	21.07	25.36	28.24	30.55	31.00	31.15
13	24.84	27.33	26.32	22.75	19.61	19.53	21.31	25.49	28.33	30.62	30.98	31.17
14	24.86	27.21	26.16	22.50	19.57	19.57	21.50	25.61	28.44	30.74	30.96	31.20
15	24.74	27.27	25.98	22.22	19.53	19.57	.....	25.68	28.53	30.82	30.95	31.20
16	25.04	27.41	25.81	22.03	19.50	19.61	.....	25.78	28.64	30.90	30.99	31.22
17	25.13	27.48	25.63	21.96	19.48	19.65	.....	25.90	28.71	30.93	31.01	31.23
18	25.18	27.49	25.55	21.90	19.48	19.68	22.29	26.04	28.79	30.98	31.01	31.26
19	25.19	27.56	25.51	21.69	19.47	19.70	22.45	26.16	28.86	31.04	31.00	31.29
20	25.29	27.70	25.31	21.56	19.42	19.73	22.63	26.24	28.94	31.10	30.95	31.29
21	25.39	27.79	25.30	21.45	19.37	19.75	22.80	26.32	29.03	31.21	30.96	31.33
22	25.44	27.89	25.25	21.39	19.32	19.77	22.92	26.43	29.12	31.28	30.96	31.33
23	25.55	27.96	25.08	21.25	19.32	19.79	23.05	26.54	29.22	31.33	30.96	31.35
24	25.62	28.08	24.94	21.08	19.32	19.84	23.17	26.64	29.30	31.40	31.01	31.36
25	25.70	28.12	24.78	20.98	19.32	19.86	23.27	26.74	29.37	31.49	31.02	31.38
26	25.77	28.21	24.71	20.87	19.35	19.93	23.32	26.83	29.45	31.54	31.00	31.43
27	25.80	28.28	24.52	20.74	19.33	20.00	23.46	26.90	29.49	31.51	31.02	31.43
28	25.89	28.28	24.48	20.71	19.31	20.02	23.59	27.02	29.56	31.41	31.04	31.45
29	25.95	28.36	24.28	20.61	19.31	20.07	23.71	27.11	29.63	31.53	31.01	31.45
30	26.00	.....	24.17	20.46	19.28	20.10	23.87	.....	29.73	31.29	31.05	31.45
31	26.10	.....	24.03	.....	19.28	.....	23.94	.....	.....	31.24	.....	31.45

151-2 (\*906, p. 187; \*936, p. 215; \*944, p. 211; \*986, p. 236).

Harry A. Morris. At Flockton, in Fairfield Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.10	23.97	25.88	22.85	19.45	18.14	18.88	21.69	.....	27.15	29.04	29.58
2	22.11	24.02	25.85	22.77	19.36	18.13	18.93	21.78	.....	27.22	29.06	29.62
3	.....	24.08	25.79	22.68	19.29	18.13	18.97	21.88	.....	27.27	29.08	29.64
4	.....	24.16	25.73	22.56	19.21	18.16	19.01	21.98	.....	27.38	29.10	29.65
5	22.26	24.22	25.70	22.46	19.13	18.16	19.03	22.07	24.96	27.46	29.10	29.66
6	22.31	24.28	25.60	22.39	19.06	18.22	19.06	22.18	25.06	27.53	29.12	29.68
7	22.39	24.37	25.50	22.30	19.01	18.25	19.09	22.30	25.16	27.61	29.13	29.68
8	22.44	24.48	25.31	22.22	18.96	18.27	19.12	22.41	25.24	27.66	29.13	29.71
9	22.53	24.59	25.21	22.15	18.89	18.27	19.17	22.52	25.32	27.72	29.15	29.76
10	22.56	24.64	25.08	22.05	18.84	18.29	19.20	22.60	25.41	27.79	29.18	29.76
11	22.66	24.76	24.96	21.97	18.79	18.31	19.22	22.69	25.49	27.87	29.19	29.77
12	22.74	24.90	24.83	21.85	18.74	18.32	19.46	22.79	25.58	27.94	29.20	29.80
13	22.79	24.91	24.73	21.73	18.66	18.35	19.60	22.90	25.67	28.01	.....	29.82
14	22.82	24.93	24.64	21.55	18.61	18.38	19.71	23.00	25.77	28.10	29.24	29.82
15	22.89	25.00	24.52	21.33	18.56	18.37	19.82	23.08	25.85	28.19	29.27	29.82
16	22.99	25.06	24.40	21.18	18.52	18.40	19.93	23.17	25.96	28.26	29.30	29.89
17	23.07	25.15	24.29	21.08	18.47	18.43	20.04	23.27	26.03	28.32	29.32	29.91
18	23.11	25.21	24.21	20.97	18.45	18.47	20.16	23.38	26.12	28.39	29.35	29.94
19	23.14	25.25	24.17	20.82	18.41	18.48	20.28	23.48	26.17	28.47	29.35	29.97
20	23.22	25.34	24.04	20.68	18.36	18.51	20.41	23.57	26.27	28.53	29.36	29.96
21	23.30	25.39	24.01	20.56	18.31	18.55	20.52	23.66	26.34	28.62	29.38	29.90
22	23.35	25.45	23.96	20.48	18.25	18.57	20.62	23.74	26.43	28.70	29.39	30.01
23	23.43	25.52	23.84	20.36	18.24	18.59	20.72	23.84	26.52	28.76	29.42	30.03
24	23.49	25.60	23.75	20.22	18.24	18.63	20.84	23.94	26.60	28.82	29.44	30.05
25	23.55	25.64	23.63	20.12	18.23	18.66	20.93	24.04	26.68	28.90	29.46	30.08
26	23.58	25.71	23.56	19.98	18.23	18.69	21.02	24.12	26.76	28.97	29.47	30.10

151-2. Harry A. Morris--Continued.

Lowest daily water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	23.61	25.77	23.42	19.95	18.21	18.77	21.13	24.20	26.83	29.00	29.51	30.10
28	23.66	25.79	23.36	19.79	18.20	18.79	21.24	24.30	26.91	29.01	29.51	30.13
29	23.72	25.85	23.17	19.69	18.20	18.84	21.35	24.39	26.98	29.01	29.52	30.14
30	23.80	.....	23.07	19.56	18.17	18.86	21.47	.....	27.06	29.04	29.55	30.15
31	23.97	.....	22.96	.....	18.16	.....	21.58	.....	.....	29.04	.....	30.16

156 (\*944, p. 212; \*986, p. 237). Ray Milder's Inn. At Symmes, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	34.98	Apr. 3	34.84	July 3	31.73	Oct. 2	36.45
10	34.11	10	34.35	10	32.17	9	36.57
17	34.97	17	32.59	17	32.77	16	36.62
24	35.06	24	31.92	24	33.38	23	36.55
31	35.24	May 1	31.25	31	34.00	30	36.62
Feb. 7	35.39	8	30.65	Aug. 7	34.41	Nov. 6	36.74
14	35.56	15	30.39	14	34.82	13	36.86
21	35.84	22	30.25	21	35.20	20	36.99
28	35.96	29	30.25	28	35.48	27	37.09
Mar. 6	35.83	June 5	30.43	Sept. 4	35.72	Dec. 4	37.10
13	35.38	12	30.69	11	35.89	11	37.05
21	34.91	19	31.03	18	36.06	18	37.07
27	34.48	26	31.32	25	36.24	25	37.11

157 (\*944, p. 212; \*986, p. 238). Carl Schiering. On River Road, in Fairfield Township. Water levels, in feet below land-surface datum, 1944: Jan. 3, 27.08; Jan. 10, 27.20; Jan. 17, 27.29. Measurements discontinued after Jan. 17, 1944.

158-1 (\*944, p. 212; \*986, p. 238). Ralph Miller. On Seward Road, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	40.07	Apr. 25	39.10	July 11	37.67	Oct. 10	45.71
Feb. 8	42.00	May 2	38.40	18	38.17	17	46.25
21	43.42	9	37.95	25	38.80	24	46.70
29	43.87	16	37.38	Aug. 1	39.49	31	47.21
Mar. 7	43.73	23	37.06	8	40.19	Nov. 14	47.65
14	43.31	31	36.83	15	40.80	21	47.84
21	43.98	June 6	36.81	22	41.53	28	47.98
28	42.18	13	36.88	Sept. 5	42.82	Dec. 5	48.15
Apr. 4	41.56	20	37.04	12	43.42	12	48.23
11	40.85	27	37.23	19	44.02	19	48.39
18	39.96	July 5	37.47	26	44.61		

158-2 (\*944, p. 213; \*986, p. 238). Ralph Miller. On Seward Road, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	1.72	Apr. 4	1.75	July 5	5.99	Oct. 10	8.65
11	1.95	11	1.17	11	6.29	17	8.98
18	1.92	18	2.05	18	6.51	24	9.22
25	1.54	25	1.74	25	6.85	31	9.45
Feb. 1	1.47	May 2	2.60	Aug. 1	6.81	Nov. 7	9.64
8	1.69	9	2.49	8	7.15	14	9.60
15	2.30	16	3.48	15	7.38	21	9.34
22	1.13	23	3.67	22	7.60	28	9.28
29	1.37	31	4.39	Sept. 5	7.60	Dec. 5	9.64
Mar. 7	.34	June 6	4.65	12	7.95	12	9.84
14	1.41	13	5.05	19	8.23	19	10.04
21	1.20	20	5.35	26	8.51	26	9.45
28	1.44	27	5.58	Oct. 3	8.51		



160-1 (\*906, p. 188; \*936, p. 215; \*944, p. 213; \*986, p. 238). Orin James. 0.9 mile east of Flockton, in Union Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	29.57	Mar. 28	30.27	June 27	26.36	Sept. 26	32.91
11	29.80	Apr. 4	29.30	July 5	26.61	Oct. 3	32.88
18	30.06	11	28.47	11	28.11	10	33.79
25	30.30	18	28.95	18	28.10	17	34.20
Feb. 1	31.17	25	27.38	25	27.91	24	34.47
8	31.60	May 2	26.66	Aug. 1	30.19	31	37.60
15	32.70	9	27.26	8	31.28	Nov. 7	35.05
22	31.94	16	25.87	15	29.82	14	37.00
29	32.76	23	25.71	22	32.73	21	35.66
Mar. 7	31.65	31	26.00	Sept. 5	31.37	28	36.50
14	31.03	June 13	25.82	12	31.83	Dec. 12	36.28
21	31.05	20	26.03	19	32.42	19	35.94

160-2 (\*845, p. 376; \*886, pp. 562-563; \*906, p. 188; \*936, p. 216; \*944, p. 213; \*986, p. 239). Orin James. 0.9 mile east of Flockton, in Union Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	20.47	Mar. 28	2.22	June 20	10.10	Sept. 12	21.02
11	20.71	Apr. 4	2.75	27	11.13	19	21.67
18	20.90	11	1.03	July 5	12.35	26	22.40
25	21.10	18	2.39	11	13.19	Oct. 3	23.46
Feb. 1	21.35	25	1.90	18	14.08	10	23.82
8	21.56	May 2	2.99	25	15.02	17	24.53
15	21.80	9	2.80	Aug. 1	16.00	24	25.52
22	21.78	16	4.25	8	16.97	31	26.02
29	19.83	23	4.75	15	17.90	Nov. 7	27.08
Mar. 7	13.20	31	6.45	22	18.70	14	25.80
14	10.07	June 6	7.80	Sept. 5	20.30	21	26.60
21	6.15	13	8.98				

165-1 (\*944, p. 213; \*986, p. 239). E. C. Sheperd. 0.7 mile north of Port Union, in Union Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	43.62	Apr. 4	37.73	July 5	40.82	Sept. 26	45.21
11	44.09	11	37.49	11	40.92	Oct. 3	45.05
18	44.33	18	36.95	18	41.44	10	47.77
25	43.36	25	36.65	25	41.91	17	45.42
Feb. 1	43.59	May 2	37.02	Aug. 1	42.43	24	45.57
8	43.31	9	37.15	8	42.92	Nov. 7	46.10
15	45.13	16	38.29	15	43.17	21	46.30
22	44.61	23	38.41	22	43.20	28	46.36
29	42.90	31	38.35	29	44.06	Dec. 5	46.65
Mar. 7	39.90	June 6	38.90	Sept. 5	44.18	12	46.79
14	38.27	13	39.45	12	44.37	19	46.99
21	38.15	20	39.65	19	44.99	26	47.00
28	37.66	27	40.29				

165-2 (\*845, p. 375; \*886, pp. 561-562; \*906, p. 188; \*936, p. 216; \*944, pp. 213-214; \*986, p. 239). E. C. Sheperd. 0.7 mile north of Port Union, in Union Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	15.37	Feb. 29	14.87	Apr. 25	5.07	June 20	10.50
11	15.30	Mar. 7	14.46	May 2	6.12	27	11.24
18	15.99	14	14.18	9	6.80	July 5	12.01
25	15.84	21	14.02	16	7.44	11	12.40
Feb. 1	15.71	28	13.77	23	8.05	18	12.91
8	15.63	Apr. 4	12.82	31	8.74	25	13.44
15	15.58	11	10.31	June 6	9.19	Aug. 1	13.74
22	15.04	18	6.62	13	9.85	8	14.72

165-2. E. C. Sheperd--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 15	16.02	Sept. 19	18.65	Oct. 24	20.06	Nov. 28	20.75
22	17.21	26	18.95	31	20.27	Dec. 5	20.86
29	17.36	Oct. 3	19.10	Nov. 7	20.41	12	21.07
Sept. 5	17.67	10	19.45	14	20.53	19	21.09
12	18.05	17	19.75	21	20.67	26	21.31

166 (\*906, pp. 188-189; \*936, p. 216; \*944, p. 214; \*986, p. 240).  
M. Haugbers. In Port Union, Union Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	30.87	Apr. 4	22.75	July 5	28.30	Sept. 26	30.70
11	29.59	11	20.77	11	26.62	Oct. 3	31.02
18	29.72	18	23.15	18	28.11	10	31.10
25	30.99	25	21.74	25	27.46	24	31.28
Feb. 1	30.03	May 2	23.73	Aug. 1	28.11	31	31.66
8	30.20	9	23.29	8	28.39	Nov. 7	31.93
15	31.24	16	23.55	15	29.17	14	32.77
22	30.24	23	23.31	22	30.38	21	31.94
29	28.13	31	24.70	29	29.56	28	32.15
Mar. 7	23.33	June 6	25.05	Sept. 5	29.32	Dec. 12	32.85
14	23.05	13	25.26	12	30.10	19	32.60
21	23.07	20	25.09	19	30.57	26	32.37
28	22.20	27	26.00				

175 (\*845, p. 375; \*886, pp. 561-562; \*906, p. 189; \*936, p. 216;  
\*944, p. 214; \*986, p. 240). J. W. Margonett. At Rialto, in Union Town-  
ship.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	12.00	Apr. 4	6.05	July 5	11.29	Oct. 3	12.75
11	11.58	11	4.39	11	11.33	10	12.93
18	11.40	18	5.88	18	11.45	17	12.82
25	11.46	25	5.70	25	11.60	24	12.89
Feb. 1	11.47	May 2	6.52	Aug. 1	11.89	31	13.10
8	11.52	9	6.50	8	12.28	Nov. 7	13.10
15	12.54	16	7.70	15	12.17	14	13.19
22	10.56	23	8.54	22	12.29	21	13.08
29	6.61	31	9.45	29	12.25	28	13.14
Mar. 7	5.10	June 6	9.91	Sept. 5	12.45	Dec. 5	13.29
14	5.88	13	10.37	12	12.59	12	13.23
21	6.12	20	10.58	19	12.97	19	13.35
28	5.60	27	11.05	26	12.96	26	12.94

180 (\*845, p. 373; \*886, pp. 561-562; \*906, p. 189; \*936, p. 217;  
\*944, p. 214; \*986, p. 240). Fox Paper Co. At Crescentville, in Union  
Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	18.29	Apr. 4	8.60	July 11	15.06	Oct. 10	18.72
11	17.68	18	7.71	18	15.42	17	19.01
18	17.82	25	7.78	25	15.83	24	18.78
25	18.01	May 2	8.21	Aug. 1	16.37	31	19.14
Feb. 1	18.19	9	8.61	8	16.70	Nov. 7	19.29
8	18.13	16	8.65	15	16.88	14	19.50
15	18.30	23	8.25	22	17.20	21	20.06
22	15.47	31	8.93	29	17.46	28	19.85
29	13.95	June 6	10.90	Sept. 5	17.54	Dec. 5	19.66
Mar. 7	11.74	13	12.50	12	17.72	12	19.67
14	10.32	20	13.44	19	18.31	19	20.15
21	10.23	27	14.29	26	18.41	26	20.49
28	9.15	July 5	14.84	Oct. 3	18.53		

B-1 (\*944, p. 215; \*986, p. 241). Ohio State Highway Department.  
Along State Highway in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	36.82	Apr. 3	39.76	July 17	40.23	Oct. 9	41.52
10	36.98	24	40.21	24	40.27	16	41.67
17	37.18	May 1	40.15	31	40.33	23	41.85
24	37.35	8	40.19	Aug. 7	40.39	30	41.99
31	37.56	15	40.21	14	40.49	Nov. 6	42.15
Feb. 7	37.78	22	40.22	21	40.61	13	42.29
14	37.80	29	40.22	28	40.71	20	42.37
21	38.31	June 5	40.18	Sept. 4	40.82	27	42.45
28	38.51	12	40.18	11	40.98	Dec. 4	42.70
Mar. 6	38.79	19	40.15	18	41.10	11	42.80
13	39.09	26	40.14	25	41.23	18	42.95
21	39.37	July 3	40.17	Oct. 2	41.35	26	42.99
27	39.57	10	40.18				

B-2 (\*944, p. 215; \*986, p. 241). Ohio State Highway Department.  
Along U. S. Highway 127, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	37.07	Apr. 10	36.37	July 17	35.66	Oct. 9	38.72
10	37.18	24	34.87	24	36.07	16	38.88
17	37.34	May 1	34.46	31	36.43	23	38.93
24	37.51	8	34.29	Aug. 7	36.79	30	39.11
31	37.63	15	34.15	14	37.09	Nov. 6	39.23
Feb. 7	37.86	22	34.07	21	37.32	13	39.35
14	37.88	29	34.05	28	37.60	20	39.49
21	38.25	June 5	34.05	Sept. 4	37.77	27	39.55
28	38.27	12	34.19	11	37.98	Dec. 4	38.86
Mar. 6	38.21	19	34.35	18	38.20	11	39.66
13	37.76	26	34.54	25	37.41	18	39.72
21	37.44	July 3	34.81	Oct. 2	38.58	26	39.76
Apr. 3	36.75	10	35.28				

B-3 (\*944, p. 215; \*986, p. 241). E. H. Zinsmeister. Along River Road in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	24.05	Apr. 4	21.65	July 4	23.67	Oct. 3	24.99
11	23.91	11	21.07	11	25.27	10	25.12
18	23.92	18	19.91	18	25.05	17	24.83
25	24.17	25	19.52	25	24.03	24	24.75
Feb. 1	24.33	May 1	19.35	Aug. 1	25.87	31	25.01
8	24.49	9	19.35	8	26.38	Nov. 7	25.19
15	24.65	15	19.49	15	24.44	14	25.35
22	24.68	23	19.75	22	24.45	21	24.45
29	24.49	30	20.01	29	24.44	28	25.52
Mar. 7	24.17	June 6	20.32	Sept. 5	24.46	Dec. 5	25.42
14	23.22	12	20.57	12	24.68	12	25.42
21	22.72	20	20.95	19	24.84	19	25.52
28	22.27	27	21.26	26	24.91	26	25.59

B-4 (\*944, p. 215; \*986, p. 241). A. H. Kollstadt. Along River Road, in Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	28.53	Mar. 7	27.56	May 9	25.21	July 11	27.94
11	28.15	14	26.48	16	25.59	18	28.16
18	28.69	21	26.36	23	25.86	25	28.35
25	28.84	28	25.72	30	25.77	Aug. 1	28.55
Feb. 1	28.84	Apr. 4	25.53	June 6	26.05	8	28.71
8	29.02	11	24.87	13	26.42	15	28.75
15	29.08	18	22.53	20	26.15	22	28.58
22	29.08	25	23.97	27	27.06	29	28.71
29	28.25	May 2	24.69	July 4	27.45	Sept. 5	28.86

B-4. A. H. Kollstadt--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 12	29.61	Oct. 10	29.35	Nov. 7	29.63	Dec. 4	29.81
19	29.15	17	29.43	14	29.72	12	29.96
Oct. 3	29.27	24	29.51	21	29.75	19	29.91
26	29.29	31	29.55	28	29.79	26	30.04

B-5 (#944, pp. 215-216; #986, p. 242). L. Haviland. In Fairfield Township. Measurements discontinued. Well clogged about Apr. 5, 1943. Measurements published in Water-Supply Paper 986, after Apr. 5, 1943, are unsatisfactory.

B-6 (#944, p. 216; #936, p. 242). Andrew Groh. In Fairfield Township.

Water level, in feet below land-surface datum, 1944											
Jan.	4	23.23	Apr.	4	20.36	July	4	22.18	Oct.	3	22.88
	11	23.20		11	19.37		11	22.12		10	22.92
	18	23.28		18	17.23		18	22.03		17	23.03
	25	22.65		25	18.26		25	22.21		24	23.06
Feb.	1	23.25	May	2	18.81	Aug.	1	22.39		31	23.44
	8	23.12		9	19.24		8	22.53	Nov.	7	23.71
	15	23.74		16	19.69		15	22.59		14	23.93
	22	23.79		23	20.07		22	22.43		21	24.07
	29	22.74		30	20.26		29	22.62		28	24.10
Mar.,	7	22.39	June	6	20.19	Sept.	5	22.65		5	24.35
	14	21.47		13	20.82		12	22.78		12	24.39
	21	21.31		20	21.17		19	22.97		19	24.72
	28	20.73		27	21.75		26	22.81		26	24.66

B-9 (\*944, p. 216; \*986, p. 243). Henrietta Joyce. In Fairfield Township.

Water level, in feet below land-surface datum, 1944											
Jan.	4	15.35	Apr.	4	13.02	July	4	11.49	Oct.	3	13.39
	11	15.39		11	11.41		11	11.69		10	13.52
	13	15.43		13	7.76		18	11.88		17	13.65
	25	15.51		25	8.18		25	12.07		24	13.77
Feb.	1	15.57	May	2	8.49	Aug.	1	12.23		31	13.92
	8	15.56		9	8.88		8	12.39	Nov.	7	14.05
	15	15.69		16	9.29		15	12.53		14	14.19
	22	15.65		23	9.66		22	12.66		21	14.30
	29	15.73		30	9.87		29	12.77		28	14.37
Mar.	7	15.69	June	6	10.27	Sept.	5	12.87	Dec.	5	14.58
	14	15.64		13	10.58		12	13.01		12	14.73
	21	15.51		20	10.32		19	13.13		19	14.88
	28	15.45		27	11.23		26	13.27		26	14.03

B-10 (\*944, p. 217; \*986, p. 243 ). Elizabeth Groh. In Fairfield Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.93	13.05	12.63	10.21	7.54	9.34	10.32	11.17	11.72	12.22	13.49	14.80
2	12.94	13.06	12.63	10.22	7.63	9.37	10.35	11.20	11.74	12.24	13.62	14.82
3	12.96	13.06	12.63	10.22	7.71	9.41	10.37	11.22	11.75	12.25	13.73	14.83
4	12.96	13.08	12.63	10.24	7.80	9.44	10.40	11.24	11.76	12.26	13.82	14.84
5	12.96	13.09	12.16	10.25	7.88	9.47	10.43	11.26	11.77	12.29	13.89	14.86
6	12.97	13.08	11.93	10.27	7.96	9.50	10.46	11.29	11.78	12.30	13.97	14.87
7	12.97	13.09	10.78	10.29	8.02	9.54	10.49	11.30	11.80	12.31	14.04	14.88
8	12.98	13.09	10.72	10.29	8.16	9.57	10.53	11.32	11.82	12.33	14.11	14.89
9	12.98	13.09	10.69	9.35	8.27	9.61	10.56	11.34	11.84	12.34	14.17	14.91
10	13.01	13.11	10.70	8.72	8.38	9.65	10.61	11.36	11.85	12.31	14.23	14.92

## B-10. Elizabeth Groh--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	13.01	13.11	10.71	8.56	8.48	9.69	10.64	11.38	11.88	12.34	14.28	14.92
12	13.02	13.12	10.72	7.99	8.60	9.71	10.66	11.41	11.90	12.35	14.33	14.94
13	13.03	13.13	10.76	5.09	8.72	9.75	10.69	11.43	11.91	12.37	14.38	14.95
14	13.04	13.16	10.77	4.89	8.82	9.79	10.71	11.45	11.94	12.39	14.42	14.96
15	13.04	13.17	10.79	5.04	8.93	9.83	10.74	11.46	11.95	12.41	14.46	14.97
16	13.05	13.16	10.80	5.36	8.99	9.86	10.76	11.49	11.97	12.44	14.50	14.99
17	13.05	13.17	10.81	5.54	9.05	9.89	10.79	11.50	11.99	12.46	14.54	15.01
18	12.96	13.18	10.82	5.81	9.11	9.92	10.81	11.52	12.01	12.49	14.57	15.01
19	12.97	13.19	10.83	5.84	9.16	9.94	10.84	11.54	12.03	12.52	14.61	15.01
20	12.98	13.19	10.86	6.11	9.22	9.97	10.86	11.55	12.05	12.57	14.64	15.03
21	12.99	13.21	10.86	6.40	9.28	10.00	10.89	11.56	12.06	12.63	14.67	15.04
22	13.00	13.21	10.97	6.85	9.30	10.04	10.91	11.58	12.08	12.67	14.69	15.05
23	13.00	13.22	10.87	6.82	8.96	10.06	10.94	11.59	12.09	12.75	14.71	15.07
24	13.02	13.22	10.75	6.91	9.01	10.10	10.97	11.60	12.11	12.79	14.72	15.08
25	13.02	13.08	10.42	7.00	9.06	10.13	11.00	11.61	12.13	12.84	14.74	15.09
26	13.03	13.04	10.41	7.09	9.11	10.17	11.02	11.64	12.14	12.89	14.75	15.00
27	13.03	12.67	10.46	7.18	9.14	10.20	11.04	11.65	12.16	12.93	14.76	15.01
28	13.04	12.66	10.46	7.27	9.19	10.23	11.07	11.65	12.17	12.97	14.77	15.02
29	13.05	12.63	10.36	7.37	9.22	10.26	11.09	11.67	12.19	13.03	14.78	15.03
30	13.05	.....	10.21	7.46	9.25	10.29	11.11	11.69	12.21	13.19	14.79	15.05
31	13.06	.....	10.20	.....	9.29	.....	11.15	11.70	.....	13.35	.....	15.05

B-11 (\*944, p. 217; \*986, p. 244). Fred Bandtel. In Fairfield Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	39.77	Apr. 4	39.00	July 5	35.54	Oct. 10	50.63
11	40.64	11	38.07	11	41.60	17	51.11
18	41.06	18	36.93	18	43.31	24	51.50
25	41.60	25	36.11	25	44.39	31	47.84
Feb. 1	42.05	May 2	35.45	Aug. 1	45.27	Nov. 7	45.48
8	47.69	9	35.19	8	46.03	14	45.30
15	47.55	16	34.84	15	46.54	21	45.44
22	48.50	23	34.74	22	47.17	28	45.39
29	49.51	31	34.60	Sept. 5	47.86	Dec. 5	45.32
Mar. 7	40.64	June 6	34.73	12	48.83	12	45.52
14	41.40	13	34.91	19	49.37	19	45.75
21	40.99	20	35.00	26	49.89	26	45.90
28	39.82	27	35.29	Oct. 3	50.34		

B-22 (\*986, p. 244). Joseph N. Conrad. In Fairfield Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.42	20.74	19.62	18.85	16.61	.....	.....	19.17	.....	20.20	19.97	20.05
2	20.42	20.79	19.62	18.80	16.74	.....	19.31	.....	.....	20.16	19.97	20.06
3	20.50	20.85	19.80	18.78	18.86	.....	20.41	19.45	.....	20.14	19.98	20.06
4	20.55	20.35	19.89	18.78	16.99	.....	20.41	19.49	19.78	20.11	19.98	20.07
5	20.55	20.73	20.01	18.92	19.11	18.79	20.21	19.59	19.91	20.09	19.99	20.07
6	20.53	20.60	20.06	18.86	19.24	18.86	19.39	19.61	19.91	20.06	19.99	20.08
7	20.54	20.51	20.06	18.90	19.34	18.91	19.33	19.61	19.91	20.05	19.99	20.09
8	20.54	20.42	19.97	18.95	19.41	18.97	19.79	19.61	.....	20.04	19.99	20.10
9	20.55	20.35	19.81	18.95	19.50	19.02	19.74	19.61	.....	20.15	20.00	20.11
10	20.57	20.30	19.63	18.93	19.58	19.09	19.09	19.73	.....	20.19	20.00	20.11
11	20.51	20.24	19.28	18.74	19.65	19.15	19.53	19.78	19.90	20.19	20.00	20.12
12	20.62	20.20	19.18	19.41	19.73	19.21	19.46	19.87	19.90	20.17	20.00	20.13
13	20.61	20.16	19.15	17.62	19.80	19.27	19.40	19.90	.....	20.14	20.01	20.14
14	20.65	20.23	19.14	16.57	19.87	19.34	19.35	19.91	19.85	20.11	20.01	20.15
15	20.68	20.36	19.15	16.74	19.85	19.39	19.30	.....	19.84	20.09	20.01	20.15
16	20.71	20.40	19.19	15.28	18.03	19.45	19.26	.....	19.84	20.07	20.02	20.15

## B-22. Joseph N. Conrad--Continued

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	20.69	20.40	19.24	15.10	19.11	19.49	19.22	.....	19.84	20.06	20.03	20.15
18	20.72	20.44	19.29	15.01	18.16	19.53	19.20	.....	19.84	20.04	20.03	20.19
19	20.76	20.51	19.30	15.10	18.21	19.57	19.18	.....	19.98	20.03	20.03	20.20
20	20.79	20.50	19.40	15.24	18.27	19.61	19.16	.....	20.12	20.02	20.03	20.20
21	20.82	20.43	19.42	15.41	18.32	19.65	19.15	20.03	20.25	20.01	20.03	20.21
22	20.85	20.36	19.44	15.58	18.39	19.70	19.14	19.98	20.36	20.00	20.03	20.22
23	20.88	20.35	19.44	15.74	18.45	19.76	19.12	19.98	20.45	20.01	20.03	20.23
24	20.95	20.27	19.44	15.79	18.51	19.91	19.12	19.94	20.46	20.00	20.03	20.24
25	20.97	20.19	19.41	16.00	18.56	19.87	.....	19.94	20.44	20.00	20.03	20.26
26	20.96	20.10	19.32	16.10	18.60	19.94	.....	19.90	20.33	19.99	20.03	20.25
27	20.89	19.99	19.24	16.20	18.64	20.00	.....	19.87	20.27	19.99	20.04	20.23
28	20.84	19.88	19.19	16.30	18.66	20.06	.....	19.87	20.28	19.99	20.05	20.22
29	20.77	19.75	19.11	16.39	18.66	.....	.....	19.90	20.28	19.98	20.05	20.22
30	20.77	.....	19.02	16.49	.....	.....	.....	.....	20.25	19.98	20.05	20.22
31	20.73	.....	18.93	.....	.....	.....	19.16	.....	.....	19.97	.....	20.22

## B-23 (\*986, p. 245). Carl E. Schiering. In Fairfield Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.72	26.23	26.14	24.09	21.59	23.41	25.09	26.27	26.71	26.94	26.34	27.36
2	25.39	26.23	26.15	24.04	21.61	23.50	25.23	26.29	26.74	26.63	26.36	27.39
3	25.97	26.26	26.17	24.00	21.64	23.36	25.31	26.31	26.70	26.89	26.38	27.36
4	26.03	26.30	26.17	23.97	21.67	23.19	25.40	26.35	26.60	26.90	26.41	27.15
5	26.04	26.34	26.16	23.92	21.70	23.05	25.49	26.36	26.78	26.94	26.42	27.35
6	26.04	26.36	26.11	23.89	21.73	23.04	25.56	26.39	26.87	27.01	26.45	27.38
7	26.03	26.34	26.00	23.86	21.75	23.00	25.65	26.41	26.94	27.00	26.46	27.51
8	26.04	26.25	25.84	23.82	21.75	23.16	25.75	26.44	26.99	26.90	26.49	27.55
9	26.05	26.25	25.69	23.74	21.71	23.15	25.84	26.46	27.01	26.65	26.51	27.57
10	26.05	26.31	25.53	23.44	21.74	23.13	25.82	26.49	26.86	26.53	26.54	27.59
11	26.03	26.38	25.33	23.39	21.76	23.15	25.69	26.50	26.87	26.45	26.56	27.44
12	26.03	26.43	25.26	23.11	21.79	23.16	25.55	26.52	26.99	26.40	26.57	.....
13	26.03	26.46	25.19	22.80	21.81	23.25	25.58	26.54	27.06	26.36	26.57	.....
14	26.06	26.48	25.16	22.41	21.86	24.05	25.64	26.55	27.09	26.32	26.58	.....
15	26.08	26.52	25.10	22.09	21.89	23.79	25.69	26.57	27.12	26.30	26.60	.....
16	26.09	26.45	25.04	21.67	21.94	23.74	25.74	26.59	27.15	26.23	26.62	.....
17	26.10	26.34	25.00	21.69	21.99	23.59	25.77	26.60	27.16	.....	26.64	.....
18	26.10	26.49	24.95	21.63	22.02	23.56	25.80	26.61	27.17	.....	26.66	28.00
19	26.11	26.51	24.99	21.59	22.06	23.87	25.84	26.61	26.85	.....	26.67	28.04
20	.....	26.39	24.83	21.57	22.10	24.13	25.83	26.60	26.78	.....	26.72	28.10
21	.....	26.50	24.82	21.59	22.14	24.31	25.94	26.61	26.85	.....	26.74	28.10
22	.....	26.52	24.79	21.60	22.05	24.46	25.97	26.59	26.84	.....	26.75	27.76
23	.....	26.46	24.74	21.60	.....	24.57	26.01	26.58	26.60	26.09	26.75	.....
24	25.72	26.42	24.69	21.56	.....	24.68	26.05	26.57	26.45	26.09	26.75	.....
25	25.88	26.42	24.62	21.56	.....	24.71	26.04	26.59	26.46	26.08	26.77	.....
26	25.88	26.34	24.56	21.54	.....	24.74	26.07	26.61	26.68	26.26	26.77	28.00
27	25.88	26.24	24.48	21.56	.....	24.81	26.10	26.64	26.66	26.59	26.86	28.01
28	25.91	26.07	24.45	21.57	.....	24.85	26.14	26.66	26.88	26.66	27.24	27.94
29	25.95	26.13	24.34	21.58	23.12	24.66	26.16	26.67	26.89	26.47	27.44	27.70
30	25.97	.....	24.25	21.58	23.25	24.92	26.21	26.68	26.93	26.36	27.53	27.53
31	26.17	.....	24.17	.....	23.29	.....	26.24	26.69	.....	26.34	.....	27.41

## B-24 (\*986, p. 245). City of Hamilton. At Minor Park, in Hamilton.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	40.08	Feb. 14	40.99	Mar. 27	40.75	May 8	38.08
10	40.24	21	41.42	Apr. 3	40.41	15	37.96
17	40.41	28	41.55	10	40.10	22	37.88
24	40.58	Mar. 6	41.50	17	39.21	29	37.87
31	40.76	13	41.24	24	38.63	June 5	37.88
Feb. 7	40.95	21	40.99	May 1	38.28	12	37.94

## B-24. City of Hamilton--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 19	38.05	Aug. 7	39.69	Sept. 25	41.45	Nov. 13	42.59
26	38.17	14	40.03	Oct. 2	41.65	20	42.68
July 3	38.34	21	40.31	9	41.86	27	42.70
10	38.52	28	40.51	16	42.04	Dec. 4	42.90
17	38.78	Sept. 4	40.76	23	42.22	11	42.96
24	39.07	11	40.98	30	42.38	18	43.08
31	39.39	18	41.19	Nov. 6	42.49	26	43.10

## B-25 (\*986, p. 246). Elizabeth J. Sipp. In St. Clair Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	20.19	Apr. 3	14.39	July 3	19.48	Oct. 2	20.32
10	19.42	10	15.62	10	19.72	9	20.34
17	20.08	17	10.97	17	19.82	16	20.38
24	20.09	24	14.47	24	20.06	23	20.45
31	20.23	May 1	15.61	31	20.95	30	20.54
Feb. 7	20.18	8	16.39	Aug. 7	20.03	Nov. 6	20.52
14	20.22	15	17.06	14	20.02	13	20.48
21	20.21	22	17.42	21	19.30	20	20.61
28	17.61	29	16.94	28	19.58	27	20.55
Mar. 6	16.45	June 5	17.25	Sept. 4	19.88	Dec. 4	20.38
13	14.97	12	18.17	11	20.09	11	20.40
21	15.64	19	18.13	18	20.25	18	20.38
27	14.59	26	18.94	25	20.31	26	20.40

## B-26 (\*986, p. 246). Miami Conservancy District. In St. Clair Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	18.54	Apr. 3	13.91	July 3	17.97	Oct. 2	18.75
10	17.39	10	13.18	10	18.16	9	18.77
17	19.35	17	9.79	17	18.24	16	18.82
24	18.49	24	13.01	24	18.65	23	18.88
31	18.64	May 1	14.57	31	18.49	30	18.92
Feb. 7	18.56	8	14.89	Aug. 7	18.22	Nov. 6	19.57
14	18.59	15	15.69	14	18.35	13	18.34
21	18.84	22	15.89	21	17.96	20	18.92
28	15.70	29	15.22	28	18.04	27	18.97
Mar. 6	14.98	June 5	15.70	Sept. 4	18.38	Dec. 4	18.85
13	13.99	12	16.98	11	18.55	11	18.83
21	13.93	19	16.72	18	18.65	18	18.92
27	12.95	26	17.57	25	18.77	26	18.85

## B-27 (\*986, p. 247). Andrews Asphalt Paving Co. In Hamilton.

Water level, in feet below land-surface datum, 1944

Jan. 3	32.98	Apr. 3	33.04	July 10	31.68	Oct. 9	34.25
10	32.99	10	33.07	17	31.98	16	34.37
17	33.08	17	27.48	24	32.27	23	34.49
24	33.16	24	27.74	31	32.54	30	34.59
31	33.28	May 1	28.08	Aug. 7	32.67	Nov. 6	34.71
Feb. 7	33.36	8	29.54	14	33.02	13	34.79
14	33.39	15	28.95	21	33.20	20	34.89
21	33.43	22	29.36	28	33.34	27	34.93
28	33.59	29	29.73	Sept. 4	33.50	Dec. 4	35.05
Mar. 6	33.57	June 12	31.35	11	33.67	11	35.06
13	33.49	19	30.71	18	33.82	18	35.13
21	33.58	26	31.01	25	33.97	26	35.18
27	33.39	July 3	31.34	Oct. 2	34.12		

B-28 (\*986, p. 247). Baltimore &amp; Ohio Railroad. In Hamilton.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	41.58	Apr. 3	41.56	July 3	39.86	Oct. 2	42.77
10	41.67	10	41.26	10	39.99	9	42.97
17	41.79	17	40.39	17	40.25	16	43.13
24	41.95	24	39.76	24	40.49	23	43.29
31	42.15	May 1	39.46	31	40.77	30	43.46
Feb. 7	42.33	8	39.29	Aug. 7	40.03	Nov. 6	43.58
14	42.49	15	39.22	14	41.33	13	43.68
21	42.73	22	39.21	21	41.58	20	43.81
28	42.77	29	39.24	28	41.75	27	43.85
Mar. 6	42.72	June 5	39.29	Sept. 4	41.94	Dec. 4	43.89
13	42.41	12	39.39	11	42.17	11	44.10
21	42.15	19	39.53	18	42.36	18	44.18
27	41.99	26	39.67	25	42.58	26	44.21

B-29 (\*986, p. 247). Pennsylvania Railroad Co. In Fairfield Township.

Water level, in feet below land-surface datum, 1944

Jan. 3	42.69	Feb. 14	43.52	Mar. 27	43.19	May 8	40.46
10	42.80	21	43.77	Apr. 3	43.81	15	40.37
17	42.94	28	44.02	10	42.54	22	40.31
24	43.09	Mar. 6	43.99	17	41.72	29	40.35
31	43.02	13	43.61	24	41.01	June 5	40.37
Feb. 7	43.49	21	43.44	May 1	41.31	12	41.97

B-30-D (\*986, p. 247). City of Hamilton. On Pleasant Ave., in Hamilton.

Water level, in feet below land-surface datum, 1944

Jan. 3	33.78	Apr. 3	36.16	July 3	32.52	Oct. 2	35.12
10	34.42	10	33.85	10	32.69	9	35.35
17	34.45	17	33.18	17	32.89	16	35.54
24	34.59	24	34.52	24	33.09	23	35.68
31	34.80	May 1	32.13	31	33.34	30	35.84
Feb. 7	34.96	8	31.95	Aug. 7	33.55	Nov. 6	36.01
14	35.00	15	31.92	14	33.74	13	36.13
21	36.29	22	31.93	21	34.05	20	36.24
28	35.33	29	31.99	28	34.27	27	36.29
Mar. 6	35.29	June 5	31.99	Sept. 4	34.41	Dec. 4	36.44
13	35.09	12	32.07	11	34.58	11	36.51
21	34.75	19	32.23	18	34.75	18	36.62
27	34.49	26	32.36	25	34.93	26	36.66

B-30-M (\*986, p. 248). City of Hamilton. On Pleasant Ave., in Hamilton.

Water level, in feet below land-surface datum, 1944

Jan. 3	34.80	Apr. 3	32.79	July 3	33.09	Oct. 2	35.52
10	34.83	10	33.54	10	32.29	9	35.65
17	34.91	17	32.39	17	33.51	16	35.82
24	35.05	24	31.99	24	33.74	23	35.95
31	35.21	May 1	31.96	31	33.96	30	36.19
Feb. 7	35.35	8	31.94	Aug. 7	34.17	Nov. 6	36.23
14	35.39	15	32.09	14	34.37	13	36.35
21	35.63	22	32.21	21	34.67	20	36.45
28	35.59	29	32.35	28	34.78	27	36.49
Mar. 6	35.41	June 5	32.41	Sept. 4	34.89	Dec. 4	36.62
13	34.94	12	32.54	11	35.02	11	36.68
21	34.44	19	32.73	18	35.18	18	36.70
27	34.15	26	32.89	25	35.37	26	36.72

B-30-S (\*986, p. 248). City of Hamilton. On Pleasant Ave., in Hamilton.



## B-30-S. City of Hamilton--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	35.19	Apr. 3	33.60	July 3	33.47	Oct. 2	35.71
10	35.11	10	33.39	10	33.71	9	35.84
17	35.21	17	32.38	17	33.90	16	35.98
24	35.32	24	31.64	24	34.11	23	36.09
31	35.45	May 1	31.93	31	34.30	30	36.23
Feb. 7	35.58	9	32.01	Aug. 7	34.52	Nov. 6	36.34
14	35.60	15	32.29	14	34.69	13	35.45
21	35.83	22	32.44	21	34.88	20	35.53
28	35.67	29	32.66	28	35.01	27	35.60
Mar. 6	35.92	June 5	32.73	Sept. 4	35.12	Dec. 4	35.70
13	34.82	12	32.87	11	35.24	11	35.75
21	34.26	19	33.08	18	35.39	18	35.79
27	33.97	26	33.25	25	35.55	26	35.85

## B-32 (\*986, p. 248). City of Hamilton. On Hamilton-Cleves Road, in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	32.00	Apr. 3	25.83	July 3	31.01	Oct. 2	32.97
10	30.94	10	25.85	10	31.34	9	32.09
17	31.25	17	21.14	17	30.52	16	32.13
24	31.65	24	26.34	24	31.95	23	32.19
31	31.80	May 1	27.21	31	31.79	30	32.24
Feb. 7	31.97	9	28.22	Aug. 7	31.86	Nov. 6	32.26
14	31.95	15	28.86	14	31.79	13	32.23
21	31.99	22	29.33	21	30.83	20	31.74
28	28.03	29	28.89	28	31.34	27	31.78
Mar. 6	26.87	June 5	29.30	Sept. 4	31.63	Dec. 4	32.15
13	24.67	12	29.85	11	31.86	11	32.16
21	26.22	19	30.19	18	31.96	18	32.14
27	25.38	26	30.48	25	32.05	26	32.17

## B-33-D (\*986, p. 249). City of Hamilton. On southeast corner of South Ave. and Front St., in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	25.38	Apr. 3	21.79	July 3	25.28	Oct. 2	25.86
10	25.26	10	20.85	10	25.39	9	25.83
17	25.61	17	18.39	17	26.48	16	24.99
24	25.67	24	20.74	24	26.59	23	26.97
31	25.70	May 1	22.45	31	25.65	30	26.02
Feb. 7	25.73	8	22.53	Aug. 7	25.66	Nov. 6	26.01
14	25.73	15	23.42	14	25.49	13	25.98
21	25.77	22	23.47	21	24.90	20	25.89
28	22.80	29	21.76	28	25.43	27	25.95
Mar. 6	20.61	June 5	23.31	Sept. 4	25.63	Dec. 4	25.99
13	21.94	12	24.75	11	25.77	11	25.95
21	22.01	19	24.36	18	25.39	18	25.98
27	20.46	26	24.99	25	25.89	26	26.00

## B-33-S (\*986, p. 249). City of Hamilton. On southeast corner of South Ave. and Front St., in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	27.03	Mar. 6	23.79	May 8	23.94	July 10	26.75
10	26.69	13	23.35	15	23.73	17	26.96
17	26.99	21	23.44	22	24.88	24	26.91
24	27.06	27	21.63	29	24.17	31	27.03
31	27.10	Apr. 3	23.25	June 5	24.78	Aug. 7	27.33
Feb. 7	27.10	10	23.21	12	26.02	14	26.35
14	27.10	17	19.96	19	25.78	21	26.33
21	27.13	24	22.13	25	26.39	28	26.84
28	24.23	May 1	23.87	July 3	26.66	Sept. 4	27.04

## B-33-S. City of Hamilton.--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11	27.15	Oct. 9	27.25	Nov. 6	27.39	Dec. 4	27.36
18	27.19	16	27.27	13	27.33	11	27.30
25	27.27	23	27.35	20	27.26	18	27.30
Oct. 2	27.25	30	27.38	27	27.30	26	27.32

B-34-D (\*986, p. 249). City of Hamilton. On southwest corner of South Ave. and Second St., in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	32.24	Apr. 3	28.63	July 3	31.43	Oct. 2	32.61
10	31.94	10	27.54	10	31.64	9	32.55
17	32.23	17	25.55	17	31.79	16	32.69
24	32.38	24	27.52	24	31.96	23	32.79
31	32.51	May 1	28.59	31	32.08	30	32.89
Feb. 7	32.57	8	28.94	Aug. 7	32.16	Nov. 6	32.95
14	32.60	15	29.58	14	32.13	13	32.96
21	32.69	22	29.78	21	31.65	20	32.91
28	30.62	29	29.39	28	32.01	27	32.83
Mar. 6	29.02	June 5	29.75	Sept. 4	32.19	Dec. 4	33.00
13	28.97	12	30.44	11	32.37	11	33.02
21	29.12	19	30.55	18	32.45	18	33.04
27	28.07	26	31.09	25	32.58	26	33.07

B-34-S (\*986, p. 250). City of Hamilton. On southwest corner of South Ave. and Second St., in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	30.98	Apr. 3	27.81	July 3	29.48	Oct. 2	31.22
10	30.74	10	28.73	10	29.73	9	31.35
17	30.89	17	24.37	17	29.96	16	31.39
24	30.92	24	26.12	24	30.11	23	31.49
31	31.06	May 1	26.37	31	30.23	30	31.59
Feb. 7	31.19	8	27.57	Aug. 7	30.38	Nov. 6	31.67
14	31.22	15	27.92	14	30.52	13	31.76
21	31.42	22	28.22	21	30.55	20	31.84
28	31.02	29	28.33	28	30.56	27	31.88
Mar. 6	30.42	June 5	28.45	Sept. 4	30.68	Dec. 4	31.93
13	28.24	12	28.09	11	30.83	11	31.97
21	28.59	19	28.94	18	30.98	18	32.00
27	28.17	26	29.21	25	31.11	26	32.02

B-35 (\*986, p. 250). Baltimore & Ohio Railroad Co. In Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	37.24	Apr. 3	36.69	July 3	35.47	Oct. 2	37.93
10	37.26	10	36.45	10	35.68	9	38.07
17	37.33	17	35.13	17	35.89	16	38.23
24	37.45	24	34.89	24	36.12	23	38.38
31	37.63	May 1	34.74	31	36.36	30	38.53
Feb. 7	37.80	8	34.74	Aug. 7	36.58	Nov. 6	38.67
14	37.95	15	34.73	14	36.77	13	38.79
21	38.12	22	34.77	21	36.97	20	38.81
28	38.11	29	34.82	28	37.13	27	38.92
Mar. 6	37.99	June 5	34.83	Sept. 4	37.28	Dec. 4	39.05
13	37.57	12	34.95	11	37.42	11	39.14
21	37.29	19	36.09	18	37.59	18	39.16
27	37.03	26	35.26	25	37.77	26	39.19

B-36 (\*986, p. 250). Baltimore & Ohio Railroad Co. In Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	37.61	Jan. 17	37.61	Jan. 31	37.75	Feb. 14	37.99
10	37.62	24	37.63	Feb. 7	37.94	21	38.22

## B-36. Baltimore &amp; Ohio Railroad--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	38.15	May 15	34.59	July 31	36.65	Oct. 16	38.19
Mar. 6	37.84	22	34.78	Aug. 7	36.83	23	38.32
13	36.98	29	34.95	14	37.00	30	38.35
21	36.57	June 5	35.03	21	37.18	Nov. 6	38.52
27	36.29	12	35.17	28	37.25	13	38.63
Apr. 3	35.83	19	35.35	Sept. 4	37.32	20	38.70
10	36.69	26	35.56	11	37.49	27	38.73
17	34.45	July 3	35.79	18	37.67	Dec. 4	38.97
24	34.08	10	36.02	25	37.80	11	38.95
May 1	34.20	17	35.25	Oct. 2	37.93	18	38.97
8	34.43	24	36.41	9	38.07	26	39.00

## B-37 (\*986, p. 251). Esther Spinelli and Mary Jelle. On northeast corner of Mosler Ave. and Crawford Run, in Hamilton

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	48.69	Apr. 17	47.29	July 17	47.07	Oct. 9	49.64
10	48.69	24	46.57	24	48.34	16	49.77
17	48.78	May 1	46.17	31	47.56	23	50.05
24	49.01	8	45.96	Aug. 7	47.79	30	50.15
31	49.23	15	45.85	14	48.25	Nov. 6	50.13
Feb. 7	49.41	22	45.84	21	48.29	13	50.51
14	49.43	29	45.92	28	48.49	20	50.54
21	49.23	June 5	45.91	Sept. 4	48.73	27	50.59
Mar. 13	49.29	12	46.08	11	48.79	Dec. 4	50.60
21	48.94	19	46.23	18	48.97	11	50.49
27	48.69	26	46.38	25	49.19	18	50.52
Apr. 3	48.33	July 3	47.58	Oct. 2	49.35	26	50.54
10	48.01	10	46.78				

## B-38 (\*986, p. 251). City of Hamilton. In rear of electric sub-station, on Fifth St. and Maple Ave., in Hamilton.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	40.42	Apr. 10	38.77	July 17	39.32	Oct. 9	40.74
17	40.48	17	37.04	24	39.86	16	41.08
24	40.69	24	36.91	31	39.98	23	41.23
31	41.10	May 1	36.97	Aug. 7	40.10	30	41.38
Feb. 7	41.35	8	37.15	14	40.31	Nov. 6	41.52
14	41.39	15	37.29	21	40.52	13	41.61
21	41.49	22	37.49	28	40.25	20	41.71
28	41.32	29	37.66	Sept. 4	40.32	27	41.74
Mar. 6	40.89	June 12	37.31	11	40.45	Dec. 4	42.20
13	39.74	19	38.08	18	40.58	11	42.25
21	39.35	26	38.31	25	40.75	18	42.28
27	39.17	July 3	38.74	Oct. 2	40.94	26	41.90
Apr. 3	38.87	10	38.96				

## B-39 (\*986, p. 251). City of Hamilton. On west side of North Third St., in front of transformer station, in Hamilton.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.98	33.76	33.90	31.76	29.31	29.60	30.61	31.80	32.17	32.71	33.59	33.76
2	32.89	33.83	33.86	31.75	29.35	29.62	30.65	31.81	32.19	32.72	33.42	33.78
3	32.91	33.86	33.85	31.71	29.34	29.64	30.69	31.85	32.20	32.72	33.44	33.78
4	32.92	33.87	33.94	31.70	29.34	29.64	30.72	31.87	32.19	32.75	33.46	33.79
5	32.92	33.88	33.91	31.70	29.33	29.62	30.78	31.90	32.20	32.80	33.46	33.81
6	32.91	33.89	33.70	31.70	29.32	29.66	30.94	31.91	32.23	32.83	33.47	33.81
7	32.92	33.99	33.56	31.69	29.31	29.70	30.90	31.94	32.27	32.85	33.48	33.82
8	32.93	33.94	33.38	31.68	29.28	29.74	30.95	32.00	32.50	32.86	33.49	33.84
9	32.93	33.96	33.21	31.54	29.25	29.77	30.99	32.04	32.32	32.98	33.51	33.85
10	32.93	33.99	33.05	31.35	29.29	29.91	31.04	32.06	32.33	32.92	33.53	33.85

## B-39. City of Hamilton--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	32.96	34.01	32.94	31.20	29.29	29.81	31.11	32.08	32.35	32.96	33.56	33.86
12	32.98	34.03	32.86	30.94	29.29	29.84	31.16	32.10	32.37	33.00	33.57	33.87
13	33.01	34.04	32.77	30.56	29.29	29.87	31.20	32.10	32.38	33.01	33.59	33.88
14	33.03	34.06	32.74	30.29	29.29	29.93	31.24	32.09	32.40	33.02	33.62	33.90
15	33.04	34.10	32.72	29.99	29.30	29.96	31.27	32.10	32.43	33.02	33.63	33.91
16	33.05	34.12	32.66	29.80	29.31	30.00	31.29	32.11	32.46	32.98	33.64	33.92
17	33.16	34.14	32.64	29.67	29.35	30.05	31.32	32.14	32.46	33.01	33.65	33.92
18	33.22	34.16	32.59	29.60	29.36	30.07	31.39	32.14	32.46	33.03	33.66	33.92
19	33.21	34.17	32.56	29.57	29.39	30.11	31.43	32.14	32.48	33.08	33.66	33.94
20	33.23	34.18	32.72	29.52	29.41	30.16	31.46	32.14	32.52	33.11	33.67	33.95
21	33.27	34.20	32.45	29.48	29.40	30.19	31.51	32.09	32.54	33.14	33.69	33.98
22	33.29	34.21	32.44	29.48	29.42	30.23	31.56	32.11	32.57	33.15	33.70	33.99
23	33.30	34.21	32.41	29.46	29.52	30.25	31.57	32.11	32.61	33.18	33.70	34.02
24	33.40	34.19	32.34	29.39	29.55	30.29	31.59	32.13	32.64	33.21	33.72	34.03
25	33.53	34.17	32.24	29.37	29.57	30.31	31.52	32.15	32.66	33.24	33.72	34.03
26	33.60	34.13	32.18	29.33	29.60	30.33	31.63	32.15	32.67	33.27	33.72	34.04
27	33.66	34.07	32.07	29.30	29.64	30.39	31.66	32.14	32.68	33.30	33.70	34.03
28	33.69	33.96	32.01	29.33	29.66	30.45	31.69	32.11	32.68	33.32	33.71	34.04
29	33.68	33.91	31.96	29.34	29.67	30.51	31.72	32.14	32.69	33.33	33.72	34.05
30	33.66	.....	31.89	29.33	29.67	30.58	31.73	32.15	32.70	33.35	33.74	34.06
31	33.68	.....	31.81	.....	29.67	.....	31.75	32.16	.....	33.38	.....	34.06

## 11-D-2 (\*986, p. 252). Federal Works Agency. In Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	39.75	Apr. 3	35.83	July 3	35.05	Oct. 2	40.39
10	36.87	10	35.28	10	36.22	9	40.68
17	37.77	17	34.76	17	39.08	16	38.57
24	40.03	24	35.31	24	39.67	23	38.30
31	39.08	May 1	33.18	31	40.13	30	40.27
Feb. 7	40.43	8	32.75	Aug. 7	39.37	Nov. 6	39.59
14	40.08	15	33.06	14	40.63	13	40.29
21	40.08	22	34.28	21	40.86	20	40.26
28	40.05	29	33.46	28	38.99	27	40.36
Mar. 6	38.06	June 5	34.59	Sept. 4	38.69	Dec. 4	38.82
13	37.83	12	34.81	11	39.65	11	38.72
20	36.99	19	36.07	18	40.39	18	38.53
27	36.59	26	34.91	25	41.18	25	38.97

## 11-D-3 (\*986, p. 252). Federal Works Agency. In Fairfield Township.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	36.99	Apr. 3	32.89	July 3	32.15	Oct. 2	37.18
10	34.03	10	32.29	10	34.57	9	37.41
17	34.21	17	32.11	17	35.42	16	35.58
24	35.34	24	31.72	24	36.08	23	35.25
31	36.18	May 1	30.28	31	36.53	30	36.83
Feb. 7	36.75	8	29.77	Aug. 7	36.22	Nov. 6	36.95
14	36.79	15	30.47	14	37.04	13	37.18
21	36.59	22	31.19	21	37.22	20	37.21
28	36.88	29	30.78	28	36.45	27	37.02
Mar. 6	36.24	June 5	31.47	Sept. 4	36.17	Dec. 4	35.66
13	35.13	12	31.54	11	36.98	11	35.56
20	34.15	19	32.48	18	37.15	18	35.63
27	33.86	26	31.66	25	37.57	26	35.75

## 11-D-4. Federal Works Agency.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.79	36.07	36.72	34.15	31.38	31.01	31.89	34.61	36.04	36.64	36.45	36.74
2	35.74	36.03	36.74	34.02	31.34	31.06	31.91	34.69	36.05	36.65	36.47	36.72

## 11-D-4. Federal Works Agency--Continued.

Lowest daily water level, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	35.82	36.04	36.75	33.90	31.37	31.09	31.93	34.75	36.05	36.67	36.49	36.71
4	35.90	36.10	36.76	33.72	31.24	31.11	31.96	34.81	36.12	36.69	36.50	36.70
5	35.96	36.15	36.76	33.64	31.17	31.14	32.03	34.89	36.14	36.71	36.50	36.69
6	35.95	36.20	36.71	33.57	31.11	31.14	32.12	34.91	36.15	36.74	36.51	36.68
7	35.89	36.22	36.54	33.46	31.03	31.14	32.24	35.04	36.16	36.75	36.52	36.67
8	35.84	36.20	36.33	33.39	30.98	31.14	32.36	35.08	36.19	36.76	36.54	36.66
9	35.72	36.25	36.17	33.31	30.75	31.14	32.47	35.13	36.21	36.76	36.55	36.63
10	35.56	36.26	36.04	33.20	30.71	31.19	32.58	35.19	36.24	36.78	36.56	36.62
11	35.44	36.27	35.99	33.14	30.70	31.20	32.68	35.24	36.25	36.78	36.59	36.62
12	35.40	36.27	35.87	33.14	30.69	31.24	32.79	35.30	36.27	36.77	36.59	36.61
13	35.48	36.27	35.71	33.08	30.69	31.29	32.78	35.35	36.30	36.76	36.60	36.60
14	35.43	36.44	35.62	32.98	30.69	31.34	32.98	35.39	36.31	36.75	36.63	36.59
15	35.37	36.48	35.51	32.93	30.68	31.35	33.09	35.44	36.34	36.73	36.64	36.57
16	35.34	36.50	35.39	32.84	30.69	31.40	33.19	35.48	36.35	36.70	36.66	36.56
17	35.24	36.54	35.34	32.78	30.70	31.44	33.30	35.53	36.36	36.68	36.67	36.55
18	35.17	36.57	35.21	32.69	30.71	31.48	33.39	35.57	36.36	36.66	36.69	36.55
19	35.26	36.58	35.13	32.59	30.74	31.53	33.49	35.61	36.39	36.64	36.70	36.52
20	35.35	36.53	35.00	32.54	30.78	31.54	33.60	35.66	36.42	36.61	36.70	36.51
21	35.50	36.51	34.86	32.40	30.79	31.55	33.69	35.70	36.43	36.60	36.71	36.50
22	35.66	36.55	34.79	32.30	30.86	31.55	33.79	35.75	36.45	36.58	36.73	36.50
23	.....	36.57	34.76	32.22	30.87	31.56	33.88	35.78	36.48	36.55	36.75	36.49
24	35.44	36.60	34.65	32.12	30.90	31.59	33.99	35.82	36.50	36.53	36.75	36.49
25	35.92	36.64	34.63	32.00	30.94	31.60	34.08	35.85	36.51	36.50	36.75	36.48
26	35.98	36.63	34.56	31.70	30.97	31.64	34.16	35.88	36.54	36.49	36.75	36.46
27	36.06	36.70	34.50	31.77	31.00	31.67	34.24	35.90	36.56	36.46	36.75	36.46
28	36.11	36.69	34.40	31.69	31.00	31.72	34.32	35.91	36.59	36.46	36.75	36.46
29	36.14	36.70	34.35	31.60	30.99	31.79	34.39	35.94	36.61	36.46	36.75	36.46
30	36.11	.....	34.35	31.48	30.98	31.85	34.47	35.96	36.64	36.46	36.74	36.47
31	36.11	.....	34.20	.....	30.98	.....	31.54	36.00	.....	36.46	.....	36.48

## Clark County

Springfield l. Borden Co. At Fountain and Main Sts., Springfield. Abandoned well in boiler room of Borden Co. plant, 160 feet south of the curb line of North Ave. and 160 feet west of the curb line of Fountain Ave. Drilled in rock, diameter 6 inches, depth 185 feet. Reported to yield about 25 gallons a minute when pumped. Measuring point, top of casing, at land surface. Automatic water-stage recorder installed Jan. 19, 1944.

Lowest daily water level, in feet below land-surface datum, 1944

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	24.95	24.53	24.95	24.89	24.70	24.94	25.05	25.01	24.96	24.85	25.15
2	.....	24.84	24.53	25.00	24.89	24.49	24.94	25.03	25.02	24.95	24.85	25.19
3	.....	24.81	24.46	25.00	24.92	24.41	24.95	25.00	25.03	24.89	24.84	25.19
4	.....	24.91	.....	24.85	24.96	24.43	24.99	25.00	25.04	24.90	24.80	25.03
5	.....	24.86	24.47	24.99	24.85	24.44	25.00	24.98	25.05	24.91	24.88	25.01
6	.....	24.89	24.44	24.99	24.73	24.57	24.96	25.10	25.11	24.90	24.88	25.01
7	.....	24.90	24.30	24.99	24.80	24.64	24.95	25.15	25.11	24.90	24.95	24.99
8	.....	24.90	24.32	24.80	24.82	24.65	24.96	25.15	25.05	24.86	24.80	25.06
9	.....	24.90	24.34	24.80	24.86	24.66	25.00	25.14	24.99	24.86	24.76	25.09
10	.....	24.89	24.32	24.82	24.90	24.76	25.00	25.10	24.99	24.87	24.83	25.09
11	.....	24.75	24.27	24.82	24.90	24.76	25.00	25.05	.....	24.87	24.86	24.99
12	.....	24.79	24.24	24.65	24.90	24.77	24.99	25.06	.....	24.89	24.84	25.00
13	.....	24.79	24.21	24.65	24.87	24.79	25.00	25.04	.....	24.87	24.80	25.05
14	.....	24.61	24.21	24.65	24.89	24.80	24.99	25.07	.....	24.96	24.75	25.09
15	.....	24.71	24.15	24.64	24.89	24.80	24.94	25.09	.....	25.11	24.70	25.09
16	.....	24.65	24.16	24.77	24.87	24.35	24.98	25.05	.....	25.04	24.80	25.05
17	.....	24.51	24.26	24.84	24.86	24.92	24.98	24.94	.....	24.95	24.81	25.07
18	.....	24.61	24.40	24.84	24.98	24.92	24.96	24.70	.....	24.89	24.90	25.09
19	24.74	24.59	24.40	24.84	24.93	24.90	24.99	24.94	.....	24.86	24.76	25.14
20	24.78	24.50	24.39	24.84	24.96	24.90	25.04	24.95	.....	24.86	24.74	25.14
21	24.80	24.51	24.45	24.86	24.94	24.90	25.10	24.93	.....	24.91	24.90	25.16
22	24.83	24.44	24.49	24.86	24.80	24.90	25.09	24.93	.....	24.96	24.90	25.16

## Springfield 1. Borden Co.--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	24.75	24.50	24.60	24.81	24.85	24.90	25.04	24.91	.....	24.89	24.94	25.10
24	24.74	24.50	24.76	24.74	24.85	24.93	25.05	24.95	.....	24.76	25.01	25.12
25	24.73	24.50	24.91	24.77	24.89	24.90	25.06	24.96	.....	24.83	25.01	25.10
26	24.71	24.42	24.95	24.83	24.94	24.95	25.04	24.97	24.96	24.86	25.04	25.16
27	24.64	24.50	24.98	24.88	24.94	24.98	25.00	24.97	24.90	24.90	25.10	25.13
28	24.61	24.50	24.99	24.30	24.79	24.99	25.00	24.96	24.88	24.82	25.11	25.16
29	24.67	24.52	24.91	24.82	24.74	24.95	25.00	24.99	24.83	24.97	25.06	25.14
30	24.67	.....	24.89	24.90	24.73	24.96	25.04	24.99	24.89	24.96	25.09	25.04
31	24.76	.....	24.91	.....	24.70	.....	25.07	24.98	.....	24.84	.....	25.15

## Franklin County

Columbus 1 (\*944, p. 189; \*986, p. 253). Moores &amp; Ross Dairy Co., in Columbus. Measuring point beginning Apr. 14, 1944, brass plate nailed to top of floor of shelter, 0.27 foot above land surface.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	108.72	.....	.....	109.67	114.22
2	.....	108.81	.....	.....	109.28	114.10
3	.....	108.97	.....	.....	108.54	114.60
4	.....	108.77	108.64	.....	110.17	115.45
5	.....	109.01	108.50	.....	108.83	115.58
6	.....	109.01	.....	.....	109.29	114.36
7	.....	108.18	108.23	.....	109.30	114.35
8	.....	108.77	108.53	.....	110.25	114.14
9	.....	109.28	108.53	.....	111.16	113.68
10	106.53	109.28	108.43	.....	110.65	113.64
11	106.71	108.10	108.13	.....	110.82	.....
12	107.01	107.02	107.73	.....	110.59	.....
13	106.99	106.34	108.57	.....	110.69	.....
14	106.72	105.57	108.56	.....	.....	.....
15	106.66	105.60	108.50	.....	.....	.....
16	106.50	105.54	107.69	.....	.....	.....
17	106.54	105.56	107.30	109.10	.....	114.98
18	106.90	105.91	107.87	109.98	.....	115.34
19	107.37	106.02	107.42	110.29	.....	115.23
20	107.45	105.23	107.33	110.29	111.83	115.98
21	107.88	105.67	108.55	109.93	112.73	116.69
22	107.79	106.33	108.54	109.34	112.53	116.79
23	107.50	107.45	108.12	108.53	112.30	117.02
24	106.97	107.54	108.16	108.96	113.01	117.83
25	107.52	107.56	108.22	109.92	113.44	117.50
26	107.93	107.27	106.71	110.23	113.51	118.21
27	107.87	.....	107.84	110.33	114.17	118.58
28	107.56	.....	108.16	110.73	113.84	118.68
29	107.31	.....	.....	110.42	114.49	118.59
30	107.02	.....	.....	109.73	114.59	119.08
31	107.37	.....	.....	.....	114.55	.....

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	119.24	119.82	119.90	118.17	115.99	.....
2	118.89	.....	119.97	117.73	115.83	.....
3	117.40	.....	.....	117.79	115.32	.....
4	117.05	.....	.....	118.02	114.85	108.45
5	118.50	120.16	.....	117.78	114.43	108.41
6	119.58	119.83	.....	117.63	114.06	108.63
7	119.43	119.41	.....	117.69	115.16	108.44
8	119.26	119.79	.....	117.66	114.94	108.61
9	.....	119.77	.....	117.94	114.97	108.49

## Columbus 1. Moores &amp; Ross Dairy Co.--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	119.37	119.99	.....	117.73	115.38	108.42
11	119.47	120.24	119.97	117.61	115.42	107.48
12	119.54	121.07	118.94	117.39	115.15	107.74
13	119.73	120.94	119.88	117.96	114.74	108.05
14	119.97	121.18	119.78	117.79	114.62	108.03
15	119.86	121.40	119.87	117.95	114.60	107.80
16	118.97	121.53	120.01	117.17	114.53	107.66
17	.....	121.43	119.60	116.52	114.24	107.43
18	.....	121.29	119.50	116.27	113.58	107.56
19	.....	121.10	120.28	116.89	112.64	108.10
20	.....	.....	121.49	117.02	111.97	107.94
21	119.28	.....	120.40	116.83	111.45	107.92
22	119.03	.....	120.60	115.63	110.91	107.73
23	118.39	.....	119.69	115.70	110.57	107.31
24	118.72	.....	119.43	.....	110.04	.....
25	.....	.....	118.54	.....	110.04	.....
26	.....	119.87	118.77	.....	109.55	.....
27	.....	119.57	118.67	.....	109.18	106.84
28	.....	119.03	119.22	.....	.....	107.29
29	119.10	119.94	119.22	.....	.....	107.09
30	119.00	120.18	119.17	.....	.....	106.94
31	119.09	120.12	.....	.....	.....	106.70

Gallia County

For records of a well near Addison, see the section on West Virginia in Water-Supply Paper 987, under Mason County. As the ground-water conditions in this area in Ohio are similar to those in the heavily pumped area directly across the Ohio River, in West Virginia, the record of fluctuations of water level in the Addison well may aid in the interpretation of ground-water conditions in the West Virginia area on the opposite side of the river.

Greene County

Xenia Waterworks observation well. In Xenia waterworks well field, about 75 feet north of Massie Creek and about 200 feet west of U. S. Highway 68 and about 2.8 miles north of the corporate limits of Xenia. Concrete casing and screen 30 inches inside diameter; depth 77 feet. Measuring point, top of base of recorder shelter, 4.5 feet above land surface. Automatic water-stage recorder installed Aug. 21, 1944.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 21	8.58	Sept. 8	9.14	Sept. 26	9.36	Oct. 14	10.14
22	8.66	9	9.23	27	9.26	15	9.93
23	8.67	10	9.23	28	9.05	16	10.33
24	8.78	11	9.17	29	9.16	17	10.46
25	8.75	12	9.19	30	9.45	18	10.45
26	9.06	13	8.58	Oct. 1	9.45	19	10.49
27	9.06	14	8.52	2	9.46	20	10.37
28	8.92	15	8.51	3	9.57	21	10.44
29	8.84	16	9.22	4	9.47	22	10.68
30	8.89	17	9.12	5	9.53	23	10.83
31	9.81	18	8.94	6	9.35	24	10.89
Sept. 1	8.75	19	9.21	7	9.34	25	10.54
2	8.16	20	9.38	8	9.41	26	10.29
3	8.40	21	9.42	9	9.53	27	10.20
4	8.31	22	9.50	10	9.64	28	10.40
5	8.94	23	9.34	11	9.70	29	10.33
6	8.98	24	9.17	12	9.76	30	10.16
7	9.00	25	9.46	13	9.90	31	10.16

Xenia Waterworks observation well--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 1	10.07	Nov. 16	9.65	Dec. 1	10.11	Dec. 16	10.25
2	10.05	17	9.57	2	10.34	17	10.08
3	9.93	18	9.61	3	10.03	18	10.10
4	9.80	19	9.42	4	10.17	19	(a)
5	9.81	20	9.75	5	9.77	20	(a)
6	9.89	21	9.75	6	9.87	21	(a)
7	10.36	22	9.71	7	9.72	22	(a)
8	10.26	23	9.72	8	9.65	23	(a)
9	9.76	24	9.40	9	9.70	24	(a)
10	9.60	25	9.30	10	9.60	25	(a)
11	9.61	26	8.34	11	9.64	26	(a)
12	9.85	27	9.71	12	9.85	27	(a)
13	9.85	28	9.54	13	10.17	28	(a)
14	9.80	29	9.45	14	10.20	29	(a)
15	9.61	30	9.53	15	10.24	30	(a)

a Recorder not operating.

## Hamilton County

T-74 (\*906, p. 190; \*936, p. 217; \*944, pp. 217-218; \*986, p. 255).  
Frederick Hauck. On Crescentville Road, in Sycamore Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	14.27	Apr. 10	7.12	July 10	11.49	Oct. 9	15.02
10	13.74	17	6.57	17	11.76	16	15.16
17	14.07	24	6.37	24	12.15	23	15.30
24	15.32	May 1	7.25	31	12.46	30	15.47
31	14.22	8	7.58	Aug. 7	12.76	Nov. 6	15.62
Feb. 14	14.58	15	7.94	13	13.14	13	15.75
21	14.65	22	7.73	23	13.46	20	15.93
28	13.20	29	8.05	30	13.78	27	16.02
Mar. 6	5.87	June 6	8.44	Sept. 6	14.03	Dec. 4	16.16
13	9.66	12	9.15	13	14.30	12	16.29
20	9.21	19	9.96	18	14.47	18	16.40
27	7.84	26	10.65	25	14.70	28	16.19
Apr. 3	7.66	July 3	11.14	Oct. 2	14.85		

T-75 (\*906, p. 190; \*936, p. 217; \*944, p. 218; \*986, p. 255).  
Frederick Hauck. On Crescentville Road, in Sycamore Township.

Water level, in feet below land-surface datum, 1944

Jan. 4	11.47	Apr. 10	6.01	July 10	9.38	Oct. 9	12.28
10	11.34	17	6.11	17	9.68	16	12.47
17	11.53	24	5.43	24	9.95	23	12.63
24	11.60	May 1	6.74	31	10.25	30	12.77
31	11.65	8	6.85	Aug. 7	10.58	Nov. 6	12.93
Feb. 14	11.87	15	7.32	16	10.91	13	13.06
21	12.05	22	7.00	23	11.27	20	13.13
28	9.56	29	7.45	30	11.44	27	13.28
Mar. 6	11.00	June 6	7.70	Sept. 6	11.66	Dec. 4	13.38
13	7.37	12	7.98	13	11.85	12	13.51
20	7.31	19	8.33	18	12.01	18	13.60
27	6.20	26	8.75	25	12.22	28	13.07
Apr. 3	6.72	July 3	9.07	Oct. 2	11.96		

204-4 (\*886, p. 587; \*906, p. 190; \*936, p. 217; \*944, p. 218; \*986, p. 255). Albert Sorter Estate. In Sycamore Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.58	13.89	13.71	9.54	8.90	9.78	11.10	12.14	13.07	13.84	14.46	14.98
2	13.60	13.90	13.66	9.56	8.96	9.83	11.14	12.17	13.09	13.86	14.48	15.01



## 204-4. Albert Sorter Estate--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	13.61	13.92	13.60	9.58	9.02	9.88	11.19	12.21	13.11	13.88	14.49	15.04
4	13.63	13.99	13.54	9.58	9.09	9.93	11.23	12.24	13.12	13.90	14.50	15.05
5	13.64	14.03	13.22	9.62	9.11	9.99	11.26	12.27	13.14	13.91	14.51	15.06
6	13.64	14.07	12.95	9.65	9.14	10.03	11.29	12.31	13.16	13.93	14.52	15.08
7	13.64	14.12	9.80	9.67	9.20	10.10	11.33	12.37	13.17	13.93	14.54	15.10
8	13.65	14.14	9.66	9.67	9.22	10.15	11.36	12.39	13.19	13.95	14.56	15.09
9	13.66	14.16	9.95	9.51	9.27	10.19	11.40	12.42	13.21	13.95	14.57	15.11
10	13.67	14.17	10.10	9.36	10.27	11.45	12.45	13.24	13.95	14.59	15.12	15.12
11	13.67	14.19	10.22	9.30	9.35	10.30	11.47	12.49	13.27	13.96	14.60	15.14
12	13.67	14.21	10.24	7.39	10.41	10.34	11.50	12.52	13.29	13.97	14.61	15.15
13	13.68	.....	10.27	7.70	9.44	10.36	11.52	12.54	13.35	13.98	14.64	15.16
14	13.68	14.24	10.31	7.86	9.49	10.40	11.56	12.58	13.36	14.00	14.65	15.17
15	13.69	14.25	10.33	7.03	9.51	10.47	11.60	12.60	13.39	14.02	14.66	15.18
16	13.69	14.26	10.34	8.32	9.52	10.52	11.63	12.62	13.41	14.07	14.67	15.19
17	13.73	14.27	10.34	8.47	9.55	10.57	11.65	12.64	13.45	14.09	14.69	15.20
18	13.73	14.28	10.36	8.54	9.56	10.63	11.66	12.69	13.51	14.11	14.70	15.22
19	13.74	14.29	10.36	8.63	9.56	10.70	11.69	12.71	13.54	14.12	14.73	15.23
20	13.74	14.30	10.34	8.69	9.59	10.74	11.72	12.75	13.58	14.14	14.74	.....
21	13.75	14.31	10.36	8.79	9.40	10.78	11.76	12.78	13.62	14.16	14.76	.....
22	13.76	14.30	10.32	8.84	9.42	10.81	11.84	12.82	13.66	14.17	14.76	.....
23	13.76	14.28	10.17	8.85	9.47	10.86	11.89	12.85	13.76	14.20	14.77	15.29
24	13.77	14.19	9.72	8.43	9.53	10.90	11.91	12.87	13.72	14.21	14.78	15.31
25	13.77	14.11	9.73	8.48	9.57	10.94	11.94	12.90	13.74	14.22	14.79	15.32
26	13.78	14.03	9.75	8.60	9.61	10.98	11.96	12.94	13.76	14.26	14.91	15.34
27	13.79	13.92	9.75	8.67	9.64	10.99	11.99	12.97	13.78	14.30	14.82	15.34
28	13.80	13.83	9.61	8.76	9.67	11.01	12.02	13.00	13.79	14.34	14.84	15.35
29	13.82	13.78	9.61	8.82	9.70	11.05	12.04	13.02	13.81	14.40	14.90	15.36
30	13.84	.....	9.55	8.86	9.71	11.08	12.07	13.05	13.83	14.42	14.95	15.36
31	13.85	.....	9.54	.....	9.74	.....	12.11	13.06	.....	14.44	.....	15.37

T-67 (\*906, p. 191; \*936, p. 218; \*944, p. 219; \*986, p. 256). Emmitt Ferris. In Sycamore Township.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	8.42	Apr. 10	2.75	July 10	6.35	Oct. 2	7.83
10	8.20	17	3.10	17	6.67	9	8.07
17	8.37	24	2.49	24	6.63	16	8.28
24	8.48	May 1	3.60	31	7.03	23	8.47
31	8.52	8	3.59	Aug. 7	6.93	30	8.56
Feb. 14	8.67	15	3.91	16	6.72	Nov. 6	8.73
21	8.75	22	3.88	23	6.74	13	8.82
28	6.74	29	4.02	30	6.39	20	8.88
Mar. 6	2.08	June 5	4.20	Sept. 6	7.10	27	8.97
13	3.80	12	4.70	13	7.33	Dec. 4	9.09
20	3.95	19	5.12	18	7.49	11	9.13
27	3.10	26	5.59	25	7.70	28	8.74
Apr. 3	3.57	July 3	6.08				

207-3 (\*845, p. 381; \*886, p. 586; \*906, p. 192; \*936, p. 218; \*944, p. 219; \*986, p. 256). Village of Glendale. At Municipal Water Plant, in Sycamore Township.

Lowest daily water level, in feet below land-surface, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	50.94	52.23	53.15	52.07	49.43	50.35	51.04	51.55	52.71	53.47	55.03	56.33
2	51.56	52.15	53.27	50.86	48.55	50.63	.....	52.30	52.95	53.48	57.46	55.77
3	51.50	52.44	53.15	52.46	48.46	50.34	.....	52.16	51.91	53.96	56.93	55.95
4	47.15	52.43	53.14	52.03	50.94	50.47	50.33	52.04	52.43	54.03	54.55	55.85
5	50.93	52.27	53.05	52.07	50.37	50.63	50.69	52.04	52.14	53.05	54.30	54.83
6	51.09	52.76	53.76	52.77	50.74	50.16	51.20	52.29	52.51	53.13	54.56	55.25

## 207-3. Village of Glendale--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	51.31	52.50	52.94	52.36	50.94	50.37	50.90	52.03	52.33	53.80	57.03	54.54
8	51.27	52.40	53.05	52.27	51.07	50.43	50.84	52.05	52.40	54.13	57.35	55.06
9	49.24	52.66	53.13	52.60	50.64	50.55	51.70	52.64	53.06	54.13	57.85	55.44
10	51.26	52.74	53.07	52.26	50.53	50.25	51.34	52.26	.....	53.80	57.34	55.56
11	51.48	52.47	53.05	51.27	50.75	50.03	51.26	52.50	.....	52.75	54.77	55.47
12	52.17	52.76	52.97	52.46	50.83	50.67	51.34	52.58	.....	53.63	54.36	54.86
13	51.75	53.26	53.43	51.70	50.55	49.96	51.13	53.57	.....	53.16	53.78	55.67
14	51.74	52.99	52.80	51.69	50.43	50.16	51.00	52.74	52.95	53.97	53.26	55.56
15	51.62	52.93	52.62	51.74	50.26	50.55	51.67	52.25	52.46	53.95	54.63	55.21
16	52.05	52.86	52.77	51.50	50.63	50.07	52.75	52.28	53.16	53.47	54.65	55.39
17	52.54	52.93	52.14	51.50	50.57	50.65	51.06	52.64	53.03	53.50	54.13	55.85
18	51.86	53.17	52.55	50.96	50.25	51.43	51.58	52.16	53.71	54.15	53.75	55.70
19	51.42	53.04	52.71	51.14	50.55	50.12	51.50	51.96	53.27	53.90	54.53	55.73
20	51.42	54.16	52.36	50.96	50.33	50.66	51.76	53.16	53.83	54.23	54.86	54.76
21	51.95	53.36	52.65	50.85	51.07	50.57	51.50	52.50	52.85	54.44	54.40	55.54
22	51.72	53.40	52.86	51.74	.....	50.60	51.35	52.66	53.16	54.40	54.16	55.54
23	51.98	53.05	51.71	50.96	50.67	50.55	51.83	52.06	53.15	53.95	54.43	55.55
24	51.88	53.36	52.38	50.13	51.10	50.96	51.06	53.06	55.05	54.31	56.40	55.76
25	52.50	53.05	52.23	48.35	50.36	50.67	51.55	52.75	54.23	54.50	54.93	54.85
26	52.07	52.60	52.94	48.60	50.50	51.16	51.61	52.65	53.39	54.64	59.76	55.34
27	51.90	53.97	52.63	48.76	50.77	51.35	50.84	53.96	53.97	54.95	59.40	54.67
28	52.16	54.23	52.33	48.86	49.86	51.40	50.97	51.55	53.06	54.86	61.13	55.23
29	52.06	53.25	51.83	48.64	50.06	51.15	51.44	52.14	52.96	54.17	60.55	54.96
30	52.86	.....	52.27	48.40	50.04	51.16	53.03	51.76	53.47	54.53	55.46	55.94
31	52.16	.....	51.76	.....	50.44	.....	51.44	51.83	.....	54.55	.....	55.96

T-47 (\*886, p. 585; \*906, p. 193; \*936, p. 219; \*944, p. 220; \*986, p. 257). Drakett Chemical Co. In Sycamore Township. No measurements made in 1944.

212-1 (\*845, pp. 382, 383; \*886, pp. 193-194; \*936, pp. 219-220, \*944, p. 220; \*986, p. 257). Johns-Manville Corporation. In Sycamore Township.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.08	55.09	55.96	55.44	54.46	53.95	54.47	54.52	55.26	55.75	56.54	57.63
2	53.96	55.09	55.78	55.66	54.35	53.82	54.27	54.69	55.35	55.89	56.60	57.71
3	54.07	55.06	55.87	55.61	54.37	53.97	54.42	54.63	55.30	55.85	56.89	57.62
4	54.21	55.23	55.74	55.45	54.33	53.96	54.39	54.65	55.19	55.88	56.62	57.49
5	54.10	55.11	55.99	55.44	54.42	53.97	54.31	54.72	55.28	55.96	56.68	57.40
6	54.27	55.25	55.74	55.49	54.40	54.00	54.25	54.74	55.29	55.94	56.74	57.36
7	54.52	55.17	.....	55.41	54.50	53.95	54.22	54.82	55.43	55.95	56.63	57.31
8	54.34	55.22	.....	55.46	54.39	54.00	54.12	54.89	55.35	55.89	56.82	57.60
9	54.27	55.35	.....	55.34	54.37	53.98	54.16	54.87	55.35	55.88	56.77	57.71
10	54.22	55.36	.....	55.42	54.39	54.02	54.26	54.92	55.35	55.93	56.99	57.60
11	54.32	55.49	.....	55.41	54.80	53.87	54.08	54.89	55.39	56.04	56.86	57.41
12	54.58	55.68	.....	55.52	54.35	53.95	54.19	54.92	55.29	56.08	56.88	57.46
13	54.50	55.84	55.96	55.43	54.31	53.77	54.19	54.91	55.34	55.94	56.82	57.51
14	54.45	55.38	55.79	55.10	54.21	53.90	54.32	55.04	55.48	56.02	56.71	57.63
15	54.23	55.52	55.61	54.97	54.27	54.05	54.41	54.90	55.49	56.31	56.79	57.55
16	54.55	55.56	55.64	55.02	54.09	53.88	54.10	55.03	55.61	56.22	56.91	57.63
17	54.60	55.57	55.66	55.25	54.15	54.04	54.46	55.08	55.58	56.23	57.01	57.61
18	54.58	55.78	55.91	55.25	54.25	53.99	54.55	55.30	55.58	56.11	56.92	57.62
19	54.41	55.78	55.77	55.13	54.21	53.96	54.31	55.23	55.55	56.08	56.93	57.87
20	54.58	55.69	55.76	54.93	54.24	54.03	54.49	55.18	55.53	56.08	56.73	57.76
21	54.72	55.66	56.06	55.09	53.91	54.13	54.54	55.15	55.42	56.16	56.88	57.95
22	54.71	55.60	55.94	55.00	53.88	53.99	54.55	55.13	55.71	56.35	56.95	57.94
23	54.82	55.67	55.69	54.79	53.97	54.00	54.52	55.14	55.58	56.27	56.90	57.87
24	54.79	55.93	55.64	54.77	54.02	54.00	54.38	55.20	55.73	56.19	57.13	57.91
25	55.10	55.93	55.72	54.76	54.05	54.10	54.41	55.23	55.76	56.32	57.13	57.81
26	54.93	55.63	55.72	54.82	54.24	54.01	54.41	55.26	55.73	56.52	57.46	58.08
27	54.96	56.01	55.77	54.92	54.24	54.26	54.40	55.22	55.66	56.53	57.80	57.80
28	55.16	55.99	55.58	54.96	54.09	54.36	54.33	55.23	55.65	56.45	57.90	58.13

## 212-1. Johns-Manville Corporation--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
29	55.17	56.09	55.72	54.76	54.12	54.39	54.48	55.24	55.73	56.41	57.85	57.95
30	55.15	.....	55.56	54.57	53.98	54.38	54.62	55.10	55.82	56.54	57.60	57.95
31	55.02	.....	55.41	.....	53.91	.....	54.63	55.21	.....	56.46	.....	57.85

T-8 (\*886, pp. 583-585; \*906, p. 194; \*936, p. 220; \*944, p. 220; \*986, p. 258). St. Rita School for Deaf Children. Near crossing of Glendale-Milford Road and Pennsylvania Railroad.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	18.87	Apr. 3	19.28	July 3	17.55	Oct. 2	18.48
10	18.94	10	19.14	10	17.61	9	18.55
17	19.02	17	18.99	17	17.69	16	18.63
24	19.10	24	18.21	24	17.74	23	18.70
31	19.20	May 1	17.73	31	17.83	30	18.77
Feb. 2	19.30	8	17.49	Aug. 7	17.92	Nov. 6	18.87
14	19.38	15	17.38	16	17.99	13	18.98
21	19.49	22	17.33	23	18.06	20	19.05
28	19.56	29	17.20	30	18.15	27	19.15
Mar. 6	19.59	June 5	17.25	Sept. 6	18.21	Dec. 4	19.26
13	19.52	12	17.33	13	18.28	11	19.35
20	19.42	19	17.39	18	18.33	18	19.45
27	19.35	26	17.48	25	18.41	28	19.46

214-3 (\*886, pp. 583-585; \*906, p. 195; \*936, p. 220; \*944, p. 220; \*986, p. 258). Tennessee Corporation. Near crossing of Glendale-Milford Road and Big Four Route tracks in Sycamore Township.

Water level, in feet below land-surface datum, 1944

Jan. 10	29.95	Apr. 10	29.98	July 10	28.49	Oct. 16	30.10
17	30.03	17	29.49	17	28.57	23	30.26
24	30.24	24	29.20	24	28.65	30	30.35
31	30.27	May 1	29.08	31	28.79	Nov. 6	30.53
Feb. 7	30.34	8	29.03	Aug. 7	28.89	13	30.63
14	30.56	15	28.94	16	29.03	20	30.70
21	30.55	22	28.74	30	29.30	27	30.77
28	30.48	29	28.38	Sept. 6	29.37	Dec. 4	30.75
Mar. 6	30.55	June 5	28.33	13	29.51	11	30.82
13	29.86	12	28.30	18	29.64	18	30.98
20	29.75	19	28.31	25	29.74	28	31.05
27	29.96	26	28.39	Oct. 2	29.86		
Apr. 3	29.96	July 3	28.42	9	30.04		

215-1 (\*906, p. 196; \*936, p. 221; \*944, p. 221; \*986, p. 258). Pennsylvania Railroad. Harry F. Pittman farm, in Sycamore Township. Measurements temporarily discontinued because of construction work.

Water level, in feet below land-surface datum, 1944

Jan. 3	52.70	Feb. 21	54.14	Apr. 3	54.43	May 15	53.62
10	53.06	28	54.26	10	54.30	22	53.40
17	53.42	Mar. 6	53.84	17	54.52	29	53.55
24	52.52	13	54.65	24	53.87	June 5	53.43
31	53.47	20	54.32	May 1	53.89	12	51.35
Feb. 7	53.56	27	54.54	8	53.80	19	53.13
14	53.37						

215-2 (\*845, p. 383; \*886, pp. 582-583; \*906, p. 196; \*936, p. 221; \*944, p. 221; \*986, p. 258). Pennsylvania Railroad. On Harry F. Pittman farm in Sycamore Township.

## 215-2. Pennsylvania Railroad--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	30.20	Apr. 3	30.65	July 3	29.86	Oct. 2	30.05
10	30.25	10	30.66	10	29.87	9	30.06
17	30.30	17	30.67	17	29.89	16	30.08
24	30.33	24	30.70	24	29.92	23	30.08
31	30.35	May 1	30.69	31	29.97	30	30.09
Feb. 2	30.40	8	30.69	Aug. 7	30.00	Nov. 6	30.10
14	30.43	15	30.69	16	29.98	13	30.12
21	30.47	22	30.67	23	30.01	20	30.12
28	30.50	29	30.09	30	29.94	27	30.12
Mar. 6	30.54	June 5	29.87	Sept. 6	30.04	Dec. 4	30.18
13	30.59	12	29.86	13	30.07	11	30.19
20	30.60	19	29.86	18	30.03	18	30.21
27	30.63	26	29.85	25	30.05	28	30.38

216-C (\*936, p. 223; \*944, p. 222; \*986, p. 259). Wright Aeronautical Corporation. In Lockland.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	82.95	Apr. 3	84.32	July 3	83.35	Oct. 2	83.87
10	83.28	10	84.11	10	83.07	9	83.86
17	83.60	17	84.45	17	83.09	16	84.35
24	83.64	24	83.75	24	83.06	23	84.09
31	83.51	May 1	83.89	31	83.78	30	84.29
Feb. 7	83.52	8	83.85	Aug. 7	83.33	Nov. 6	84.36
14	83.54	15	83.64	16	83.37	13	84.31
21	84.07	22	83.40	23	83.41	20	84.23
28	84.14	29	83.61	30	83.69	27	84.57
Mar. 6	83.62	June 5	83.34	Sept. 6	83.46	Dec. 4	84.75
13	84.49	12	83.26	13	83.46	11	84.30
20	84.08	19	83.12	18	83.80	18	85.00
27	84.31	26	83.22	25	83.90	28	84.97

216-D (\*936, p. 223; \*944, p. 222; \*986, p. 259). Wright Aeronautical Corporation. In Lockland.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	89.90	Apr. 3	90.96	July 3	89.93	Oct. 2	90.48
10	90.32	10	90.56	10	89.71	9	90.41
17	90.46	17	90.83	17	89.71	16	91.02
24	90.51	24	90.23	24	89.67	23	90.78
31	90.12	May 1	90.60	31	89.89	30	90.78
Feb. 7	90.26	8	90.52	Aug. 7	89.88	Nov. 6	90.89
14	90.39	15	90.23	16	90.01	13	90.88
21	90.81	22	89.99	23	90.04	20	90.73
28	90.89	29	90.25	30	90.16	27	90.90
Mar. 6	90.51	June 5	89.97	Sept. 6	90.98	Dec. 4	91.44
13	91.01	12	89.95	13	90.02	11	90.95
20	90.54	19	89.77	18	90.48	18	91.21
27	90.66	26	89.82	25	90.48	28	91.53

216-E (\*936, p. 224; \*944, p. 222; \*986, p. 259). Wright Aeronautical Corporation. In Lockland.

Lowest daily water level, in feet below land-surface datum, 1944												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.33	65.73	66.34	65.99	65.81	65.26	65.25	65.35	65.49	65.87	66.18	67.06
2	65.18	65.59	66.91	66.16	65.85	65.24	65.12	65.31	65.60	65.89	66.24	67.20
3	65.01	65.79	65.94	66.16	65.73	65.24	65.25	65.27	65.61	65.74	66.16	67.14
4	65.29	65.72	65.90	65.86	65.71	65.29	65.23	65.29	65.50	65.86	66.12	66.90
5	65.19	65.53	66.14	65.99	65.66	65.30	65.20	65.24	65.40	65.88	66.26	66.19
6	65.33	65.61	65.94	66.00	65.70	65.35	65.09	65.11	65.56	65.93	66.13	66.54
7	66.10	65.54	65.91	65.77	65.94	65.45	65.03	65.32	65.79	65.90	66.20	66.50
8	65.50	65.62	66.35	65.79	65.85	65.42	65.05	65.44	65.76	65.77	66.03	66.73
9	65.30	65.76	66.48	65.90	65.85	65.34	64.97	65.53	65.53	65.81	65.98	66.99

## 216-E. Wright Aeronautical Corporation--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	65.21	66.44	66.41	65.83	65.97	65.26	65.00	65.44	65.57	65.86	66.29	66.98
11	65.35	65.78	66.17	65.81	65.95	65.24	64.94	65.29	65.53	65.86	66.46	66.51
12	65.61	66.15	66.07	65.99	65.82	65.16	64.99	65.19	65.39	65.89	66.41	66.80
13	.....	66.17	66.28	66.64	66.17	65.18	65.16	65.24	65.43	65.81	66.30	66.90
14	.....	65.65	66.24	65.89	.....	65.20	65.21	65.34	65.44	66.34	66.15	67.07
15	.....	65.91	65.91	65.45	.....	.....	65.66	65.98	66.28	66.39	66.46	67.58
16	.....	65.87	66.34	65.97	65.44	.....	64.96	65.40	65.87	66.31	66.50	66.95
17	.....	65.62	65.33	66.42	65.44	.....	64.99	65.36	65.89	66.10	66.62	66.94
18	65.48	66.63	66.22	66.38	65.56	.....	64.99	65.62	65.78	65.90	66.62	66.97
19	65.17	66.16	66.17	66.25	65.61	.....	64.98	65.75	65.63	65.86	66.49	67.15
20	65.88	65.83	66.12	66.07	65.62	65.16	65.02	65.64	65.54	65.81	66.30	67.14
21	65.47	65.95	66.40	66.14	65.43	65.21	65.23	65.48	65.56	66.02	66.49	67.24
22	65.49	65.64	66.40	66.10	65.36	65.11	65.26	65.49	65.75	66.25	66.50	67.26
23	65.51	65.79	65.96	65.38	65.45	65.00	65.07	65.41	65.84	66.19	66.46	67.05
24	65.52	66.50	65.78	65.81	65.51	65.11	65.02	65.60	65.88	65.86	66.75	67.06
25	65.53	65.93	66.07	65.98	65.59	65.12	65.06	65.64	65.70	65.96	66.75	67.15
26	65.54	65.85	66.20	66.06	65.71	65.14	64.99	65.57	66.92	66.19	66.51	67.44
27	66.00	66.67	66.26	66.27	65.69	65.27	64.99	65.54	65.80	66.37	66.69	67.24
28	65.41	66.22	66.32	66.40	65.58	65.37	65.01	65.45	65.60	66.32	66.91	67.29
29	65.49	66.26	65.84	66.04	65.54	65.31	65.16	65.55	65.69	66.11	66.53	67.20
30	65.52	.....	66.47	66.83	65.41	65.82	65.16	66.09	66.15	66.73	67.13	66.96
31	65.58	.....	65.88	.....	65.97	.....	65.43	65.40	.....	66.11	.....	66.87

236-4 (\*936, p. 226; \*994, pp. 223, 224; \*986, p. 260). E. I. du Pont de Nemours Co., Grasselli Chemicals Division. In Lockland.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	123.44	Apr. 10	124.14	July 10	124.97	Oct. 9	123.74
17	123.38	17	124.82	17	122.88	16	124.25
24	123.31	24	122.27	24	122.07	23	123.95
31	124.84	May 1	123.42	31	122.39	30	123.96
Feb. 7	122.48	8	121.33	Aug. 7	123.55	Nov. 6	124.14
14	122.00	15	122.43	16	123.32	13	123.74
21	124.14	22	123.14	23	122.78	20	123.73
28	122.54	29	123.50	30	122.99	27	124.16
Mar. 6	123.30	June 5	122.73	Sept. 6	122.75	Dec. 4	124.53
13	125.09	12	123.48	13	122.93	11	124.92
20	123.33	19	124.51	18	123.65	18	124.24
27	123.14	26	122.43	25	123.40	28	124.85
Apr. 4	124.29	July 3	123.98	Oct. 2	123.35		

237-3 (\*845, Op. 377-378; \*886, p. 578 -579; \*906, pp. 200-201; \*936, pp. 226-227; \*944, pp. 224-225; \*986, p. 260). Village of Wyoming. At municipal water plant, in Wyoming.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	142.42	142.87	143.34	141.66	140.78	140.92
2	141.05	142.80	143.29	141.97	140.70	140.86
3	141.86	142.68	143.00	141.64	140.65	140.84
4	142.25	142.98	142.54	141.71	140.45	141.09
5	142.06	142.89	142.37	141.78	140.54	141.06
6	142.25	142.76	142.38	141.61	140.45	141.15
7	142.40	142.47	142.54	141.23	140.82	141.33
8	142.40	142.78	143.08	141.54	140.74	141.42
9	141.90	143.00	143.15	141.73	140.94	141.86
10	141.94	143.13	143.11	142.07	140.89	141.64
11	142.41	143.00	.....	141.96	141.15	140.89
12	142.70	143.57	.....	142.16	141.05	141.03
13	142.66	143.66	142.92	142.21	140.62	142.41
14	142.46	143.19	142.98	142.03	140.83	142.56
15	141.99	143.35	142.65	141.74	140.75	141.32

## 237-3. Village of Wyoming--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
16	141.86	143.37	142.26	141.86	140.74	142.04
17	142.17	143.16	142.34	142.42	140.74	142.66
18	142.22	143.57	142.19	142.39	140.96	142.73
19	141.99	143.61	141.16	142.57	140.97	142.56
20	142.07	143.36	142.15	142.47	140.82	142.59
21	142.25	143.42	142.78	142.60	140.80	142.75
22	142.24	142.38	142.74	.....	140.67	142.71
23	142.43	143.07	142.39	142.24	140.85	142.62
24	142.28	142.93	142.11	142.26	140.93	142.99
25	142.29	142.96	142.13	142.43	140.90	142.87
26	142.38	142.71	142.30	142.53	141.16	142.90
27	142.26	143.11	142.25	142.53	140.71	143.31
28	142.04	143.02	142.54	141.17	140.54	143.25
29	142.27	143.29	141.85	141.21	140.81	143.55
30	142.40	.....	141.62	140.79	140.84	143.61
31	142.37	.....	141.64	.....	140.86	.....

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	143.48	143.96	144.17	144.62	144.79	145.45
2	143.59	143.95	144.36	144.42	144.90	145.61
3	143.77	143.97	143.85	144.47	144.92	145.13
4	143.87	143.96	144.01	144.57	144.81	145.14
5	143.86	143.95	144.11	144.60	144.94	145.02
6	143.71	143.90	144.30	144.72	144.74	144.92
7	143.66	144.05	144.48	144.60	144.75	144.86
8	143.79	144.16	144.51	144.12	144.63	144.88
9	143.78	144.17	144.48	144.48	144.50	145.15
10	143.67	144.16	144.05	144.57	144.42	144.38
11	143.58	144.05	144.15	144.60	144.70	144.41
12	143.59	144.01	144.14	144.62	144.38	144.76
13	143.74	144.01	144.29	144.58	144.58	144.93
14	143.83	144.10	144.37	144.81	144.53	145.15
15	143.80	144.19	144.52	144.74	144.38	145.15
16	143.69	144.14	144.46	144.81	144.66	145.05
17	143.73	144.17	144.12	144.81	144.90	144.65
18	143.69	144.40	144.26	144.75	144.97	144.98
19	143.67	144.60	144.30	144.65	144.12	145.27
20	143.83	144.53	144.36	144.52	144.28	145.27
21	143.89	144.52	144.93	144.83	.....	145.46
22	143.92	144.56	144.62	144.58	144.75	145.47
23	143.87	144.35	144.90	144.64	144.84	145.34
24	143.76	144.42	144.36	144.52	145.14	144.75
25	143.73	144.51	144.52	144.71	145.14	144.77
26	143.70	144.57	144.58	144.91	144.34	144.65
27	143.63	144.89	144.61	145.01	144.85	144.79
28	143.66	144.15	144.59	144.92	144.97	145.11
29	143.71	144.26	144.55	144.41	144.84	145.12
30	143.86	144.22	144.61	144.55	145.06	144.88
31	143.94	144.20	.....	144.65	.....	144.86

241-3 (\*845, p. 378; \*885, pp. 579-580; \*906, pp. 201-202; \*936, pp. 228-229; \*944, pp. 225-226; \*986, p. 262). Garner-Richardson Co. On South Cooper Ave., in Lockland.

Lowest daily water level, in feet above land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	124.16	124.47	125.06	126.32	124.70	127.19
2	123.73	124.57	124.91	125.29	124.90	127.31
3	123.96	124.99	124.50	125.14	124.71	127.55
4	124.49	125.06	125.09	124.77	124.72	127.63

## 241-3. Gardner-Richardson Co.--Continued.

Lowest daily water level, in feet above land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
5	124.19	124.98	125.54	124.87	125.17	127.22
6	124.24	124.47	125.68	124.82	125.80	127.67
7	124.51	124.19	125.95	124.61	126.00	127.82
8	124.46	124.37	126.52	125.28	125.30	127.97
9	123.67	124.04	126.65	125.48	125.06	127.99
10	123.41	124.11	126.20	125.77	125.14	128.08
11	124.02	123.99	125.65	125.50	125.10	128.11
12	124.43	124.26	125.07	126.41	124.99	127.82
13	124.65	124.25	125.17	126.52	124.79	128.10
14	124.12	124.22	125.34	126.30	124.90	128.37
15	123.39	124.91	124.69	125.24	124.64	128.54
16	123.51	124.96	124.50	125.34	125.46	128.82
17	123.98	125.16	124.57	125.53	125.87	129.09
18	124.31	125.80	124.94	125.31	126.16	129.15
19	124.19	125.78	124.91	125.06	126.30	128.87
20	124.57	124.75	124.76	124.89	126.45	129.19
21	124.62	124.98	124.96	125.26	126.45	129.35
22	124.64	125.10	125.02	125.10	126.06	129.49
23	124.68	125.49	125.30	124.94	126.47	129.65
24	124.31	125.81	125.67	125.78	126.73	129.95
25	124.03	125.90	125.81	125.54	126.95	129.94
26	124.33	125.99	125.51	125.23	127.11	130.15
27	124.38	126.26	125.99	125.29	127.16	130.29
28	123.80	125.51	126.17	125.39	127.17	130.50
29	123.82	125.06	125.91	125.19	126.74	130.22
30	123.78	.....	126.13	124.91	126.93	130.27
31	123.71	.....	125.90	.....	127.03	.....

Lowest daily water level, in feet above land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	130.20	130.99	130.36	131.23	131.23	131.26
2	130.16	131.06	130.45	131.36	131.45	131.54
3	129.61	130.40	130.47	131.29	131.32	131.00
4	129.56	129.66	130.21	131.38	131.09	130.65
5	129.13	130.00	130.16	130.92	130.91	130.27
6	128.91	129.83	130.21	131.45	130.73	130.86
7	128.78	129.87	130.44	131.59	130.43	131.17
8	128.75	130.71	130.41	131.67	130.23	132.09
9	128.46	130.96	130.29	131.31	130.48	132.43
10	128.29	130.91	130.28	131.34	130.78	132.23
11	128.30	131.34	130.58	130.91	130.89	131.50
12	128.56	130.96	131.04	130.75	130.79	132.16
13	128.71	131.16	131.37	130.61	130.56	132.40
14	128.76	130.77	131.63	130.83	131.51	.....
15	128.74	130.88	131.95	131.04	130.57	.....
16	128.66	130.31	132.09	130.83	130.66	.....
17	128.39	130.49	132.16	130.75	130.38	.....
18	128.40	130.50	131.49	131.06	131.50	.....
19	128.44	130.55	131.60	131.17	130.87	.....
20	129.04	130.45	131.67	131.24	130.40	.....
21	129.73	130.89	131.84	130.94	130.50	.....
22	129.89	130.69	131.99	130.96	130.50	.....
23	129.96	130.56	132.31	130.93	130.42	.....
24	130.04	131.07	132.43	130.73	130.62	.....
25	130.17	131.19	131.74	130.51	130.60	.....
26	130.23	131.03	132.05	130.91	130.34	.....
27	130.43	130.92	132.08	130.81	130.39	.....
28	130.73	130.37	131.94	130.57	130.82	131.05
29	130.94	130.35	131.44	130.45	131.35	130.94
30	131.05	130.30	131.16	130.50	131.61	130.69
31	130.96	130.25	.....	130.76	.....	130.65

242-T-1 (\*944, p. 226; \*986, p. 263). Philip Carey Manufacturing Co. On South Wayne Ave., in Lockland.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	133.68	Apr. 3	136.07	July 10	137.92	Oct. 9	139.17
10	134.43	10	136.10	17	138.23	16	139.63
17	134.67	17	136.15	24	138.63	23	139.64
24	134.55	24	135.77	31	139.08	30	140.18
31	134.79	May 1	135.90	Aug. 7	139.03	Nov. 6	140.48
Feb. 7	134.95	8	135.96	16	139.41	13	140.35
14	134.86	15	135.98	23	139.80	20	140.15
21	135.46	22	135.94	30	139.85	27	140.20
28	135.30	29	136.28	Sept. 6	139.96	Dec. 4	140.25
Mar. 6	134.99	June 5	136.43	13	139.52	11	140.33
13	135.82	19	137.23	18	139.49	18	140.77
20	135.67	26	137.62	25	139.30	28	141.18
27	135.95	July 3	138.06	Oct. 2	139.17		

246-1. National Distiller Corporation. At Company's plant at Wayne Ave. and 78th St. in Carthage. Drilled well. Diameter 8 inches, depth 170 feet. Measuring point, top of casing, 8 feet above land surface and 552.7 feet above sea level. Automatic water-stage recorder installed Jan. 7, 1944.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	115.65	116.21	117.11	117.73	118.70
2	.....	115.77	116.41	117.30	117.82	118.91
3	.....	116.00	116.53	117.29	118.02	118.70
4	.....	.....	116.52	117.65	117.93	118.93
5	.....	.....	116.68	117.55	117.99	118.43
6	.....	.....	116.22	117.64	117.82	118.93
7	113.83	111.95	116.52	117.65	117.54	119.03
8	.....	.....	116.38	117.74	117.31	119.11
9	.....	115.93	116.49	117.65	117.51	119.04
10	110.95	116.15	116.00	117.72	117.79	118.89
11	.....	116.03	116.01	117.59	117.81	118.91
12	.....	116.21	115.99	117.83	118.10	119.07
13	.....	114.01	116.29	117.71	118.20	119.14
14	.....	115.41	116.33	117.71	118.32	119.21
15	.....	115.72	115.69	117.80	118.31	119.22
16	.....	116.08	116.01	117.59	118.48	119.20
17	114.99	115.90	116.10	117.70	118.50	119.30
18	115.42	116.20	116.49	117.59	118.61	119.32
19	115.61	116.18	116.49	117.33	118.53	119.29
20	.....	115.99	116.32	117.60	118.32	119.31
21	.....	115.99	116.21	117.82	118.31	119.32
22	.....	115.79	116.25	117.65	118.21	119.41
23	.....	116.02	116.12	117.15	118.42	119.32
24	115.15	115.83	116.23	117.17	118.52	119.33
25	115.55	116.11	116.41	117.28	118.60	119.41
26	115.84	116.29	116.36	117.55	118.73	119.54
27	116.00	116.28	116.98	117.70	118.73	119.63
28	116.05	116.31	117.03	118.01	118.80	119.73
29	.....	116.41	116.99	118.11	118.80	119.74
30	.....	.....	117.11	118.01	118.51	119.72
31	115.46	.....	117.12	.....	118.62	.....

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	119.70	119.73	117.91	117.95	118.12	115.02
2	119.70	117.90	117.62	117.85	117.61	114.80
3	119.80	117.69	115.42	117.72	117.75	112.45
4	119.73	117.62	117.48	117.81	117.95	114.32



## 246-1. National Distiller Corporation--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	119.74	117.69	117.51	117.89	116.03	114.19
6	119.71	117.36	117.71	117.96	118.02	114.01
7	119.29	117.58	117.91	118.01	118.02	113.78
8	119.51	117.62	117.55	115.81	117.99	113.72
9	118.30	117.78	117.60	117.91	117.90	113.41
10	119.09	117.68	117.61	117.88	118.29	113.39
11	119.29	117.71	117.61	118.08	118.28	113.10
12	119.10	117.51	117.48	118.29	117.98	113.08
13	119.18	115.38	117.68	118.30	118.40	113.09
14	119.13	117.55	117.80	118.40	118.30	113.05
15	119.09	117.58	117.96	116.32	118.41	112.85
16	119.19	117.75	117.89	118.22	118.62	112.57
17	119.45	117.74	115.71	118.28	118.81	110.22
18	119.51	117.98	117.91	118.25	118.81	112.18
19	119.63	117.91	117.99	118.32	116.65	112.11
20	119.69	117.55	117.89	118.21	118.40	112.00
21	119.39	117.60	117.90	118.21	118.66	111.99
22	119.31	117.61	117.82	116.18	118.45	111.91
23	119.70	117.79	117.41	117.91	117.83	111.65
24	119.82	117.81	115.41	117.92	116.30	109.48
25	119.92	117.80	117.44	117.98	116.40	109.21
26	119.93	117.92	117.51	118.11	113.88	111.61
27	119.88	117.82	117.58	118.22	115.51	111.31
28	119.92	117.38	117.80	118.25	115.51	111.55
29	119.38	117.59	117.72	117.99	115.15	111.38
30	119.62	117.70	117.73	117.90	115.06	111.15
31	119.82	117.91	.....	117.95	.....	108.90

252 (#845, p. 383; #866, p. 575; #906, pp. 204-205; #936, p. 229; #944, p. 227, #987, p. 263). Flintkote Co. At 75th St. and Longview Ave., in Carthage.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	109.03	Apr. 17	110.37	July 17	111.31	Oct. 9	111.92
10	109.17	24	110.18	24	111.37	16	112.11
17	109.29	May 1	110.36	31	111.49	23	112.07
24	109.49	8	110.50	Aug. 7	111.54	30	112.18
31	109.42	15	110.48	16	111.53	Nov. 6	112.24
Feb. 7	109.43	22	110.52	23	111.57	13	112.23
14	109.35	29	110.72	30	111.65	20	112.15
21	109.70	June 5	110.77	Sept. 6	111.63	27	112.28
28	109.75	12	110.85	13	111.67	Dec. 4	112.20
Mar. 6	109.62	19	110.81	18	111.80	11	111.97
13	109.90	26	111.06	25	111.85	18	111.84
Apr. 3	110.14	July 3	111.20	Oct. 2	111.90	28	111.73
10	110.15	10	111.22				

265 (#886, pp. 575-576; #906, p. 205; #936, p. 229; #944, p. 227; #986, p. 263). Cities Service Oil Co. In Cincinnati.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	131.68	Apr. 3	130.80	July 3	131.43	Oct. 2	134.27
10	132.54	10	130.35	10	131.15	9	134.41
17	132.96	17	130.45	17	131.58	16	133.97
24	133.01	24	129.58	24	131.70	23	133.71
31	132.46	May 1	129.58	31	132.21	30	133.85
Feb. 7	132.54	8	129.61	Aug. 7	132.39	Nov. 6	133.49
14	132.62	15	129.25	16	132.57	13	132.86
21	133.17	22	129.75	23	132.65	20	132.16
28	132.57	29	130.45	30	133.27	27	131.98
Mar. 6	132.64	June 5	130.80	Sept. 6	132.85	Dec. 4	131.68
13	132.22	12	131.11	13	132.96	11	131.07
20	131.97	19	131.34	18	133.25	18	131.24
27	131.02	26	131.72	25	133.35	28	131.08

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270-A-4 (\*886, p. 574; \*906, p. 206; \*936, p. 230; \*944, p. 227; \*986, p. 264). Procter & Gamble Co. In Cincinnati.

Water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	92.54	92.45	91.75	90.14	89.56	89.01	90.16	91.23	91.71	91.86	91.81	90.64
2	92.22	92.36	91.70	90.20	89.51	89.35	90.01	91.27	91.77	91.60	91.83	90.68
3	92.37	92.43	91.48	90.17	89.46	89.61	90.10	91.28	91.45	91.60	91.79	90.60
4	92.54	92.64	91.54	89.98	89.46	89.71	90.24	91.33	91.43	91.65	91.80	90.42
5	92.49	92.50	91.65	90.14	89.45	89.83	90.12	91.30	91.36	91.65	91.84	90.22
6	92.61	92.62	91.46	90.00	89.45	89.99	90.08	91.28	91.55	91.68	91.88	90.19
7	92.65	92.62	91.43	89.85	89.53	90.05	89.94	91.41	91.64	91.65	91.79	90.16
8	92.64	92.64	91.54	89.87	89.51	90.05	90.10	91.45	91.63	91.60	91.49	90.29
9	92.53	92.67	91.55	89.87	89.50	90.05	90.17	91.48	91.60	91.65	91.21	90.37
10	92.42	92.69	91.47	89.88	89.56	90.10	90.24	91.41	91.61	91.66	91.24	90.34
11	92.65	92.71	91.29	89.82	89.52	90.13	90.39	91.39	91.41	91.65	91.26	90.03
12	92.75	92.87	91.41	89.94	89.44	90.14	90.60	91.43	91.51	91.65	91.16	90.24
13	92.78	92.87	91.43	89.94	89.30	90.15	90.70	91.47	91.59	91.61	91.04	90.24
14	92.59	92.56	91.34	89.77	89.30	90.19	90.75	91.56	91.66	91.84	90.90	90.32
15	92.46	92.77	91.06	89.52	89.30	90.14	90.75	91.58	91.77	91.94	90.83	90.26
16	92.68	92.73	90.90	89.87	89.28	90.29	90.79	91.55	91.80	91.76	90.94	90.21
17	92.67	92.62	90.74	90.03	89.28	90.44	90.89	91.61	91.80	91.66	90.94	90.17
18	92.67	92.90	90.84	89.96	89.34	90.50	90.90	91.73	91.55	91.58	90.91	90.14
19	92.47	92.89	90.64	89.86	89.34	90.69	90.94	91.75	91.60	91.64	90.79	90.20
20	92.63	92.26	90.67	89.76	89.28	90.69	91.09	91.70	91.63	91.64	90.63	90.19
21	92.70	92.07	90.74	89.81	89.22	90.71	91.16	91.64	91.71	91.82	90.68	90.21
22	92.70	91.82	90.68	89.76	89.18	90.73	91.16	91.64	91.79	91.93	90.67	90.21
23	92.71	91.89	90.28	89.62	89.22	90.75	91.11	91.63	91.81	91.85	90.64	89.98
24	92.70	91.83	90.26	89.67	89.23	90.84	91.06	91.71	91.84	91.68	91.71	89.98
25	92.67	91.81	90.42	89.73	89.24	90.86	91.11	91.71	91.82	91.80	91.70	90.04
26	92.67	91.67	90.43	89.74	89.29	90.77	91.10	91.71	91.77	91.86	90.53	90.16
27	92.66	91.81	90.44	89.82	89.25	90.85	91.18	91.71	91.73	91.94	90.63	89.96
28	92.56	91.79	90.44	89.88	89.17	90.55	91.26	91.65	91.71	91.83	90.61	90.05
29	92.60	91.75	90.15	89.74	89.15	90.55	91.27	91.67	91.75	91.80	90.43	90.00
30	92.14	.....	90.15	89.60	89.09	90.31	91.06	91.70	91.83	91.80	90.54	89.90
31	92.32	.....	90.10	.....	89.05	.....	91.14	91.59	.....	91.77	.....	89.87

270-T-7 (\*886, p. 574; \*906, pp. 205-206; \*936, p. 230; \*944, p. 228; \*986, p. 264). Procter & Gamble Co. At Ivorydale, a suburb of Cincinnati.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	124.90	Apr. 3	122.50	July 3	124.12	Oct. 2	126.54
10	125.40	10	121.88	10	123.78	9	126.78
17	125.67	17	121.58	17	124.59	16	127.03
24	125.62	24	121.17	24	124.97	23	127.05
31	125.27	May 1	121.14	31	125.26	30	127.15
Feb. 7	125.25	8	121.22	Aug. 7	125.49	Nov. 6	126.18
14	124.99	15	120.95	16	125.83	13	125.15
21	125.34	22	122.14	23	125.98	20	123.90
28	125.65	29	123.19	30	126.23	27	123.32
Mar. 6	125.45	June 5	123.73	Sept. 6	125.94	Dec. 4	123.15
13	124.20	12	124.22	13	126.06	11	122.47
20	122.93	19	124.63	18	126.39	18	122.25
27	122.47	26	124.69	25	126.54	28	121.73

288-A. Burger Brewing Co. In coal room of company's plant, 6 feet east of the East-building line of Providence St. and 150 feet south of south building line of Wade St., in Cincinnati. Drilled well, diameter 10 inches, depth 173 feet. Measuring point, top of opening in pump base, 9.3 feet above land surface. Well is pumped but measurements are made when pump is shut down. Water levels, in feet below land-surface datum, 1944: Mar. 31, 83.63; Apr. 8, 83.10; Apr. 14, 86.79.

294-A. Rollman Co. Test well, in sidewalk south side of Opera Place between Race and Vine Sts., in Cincinnati. Drilled well, diameter 6 inches, depth 165 feet. Measuring point, top of casing, at land surface.

## 294-A. Rollman Co.--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 3	112.90	Mar. 25	107.84	May 5	105.10	Sept. 15	121.38
18	113.13	31	106.80	18	108.64	Oct. 5	127.98
26	112.51	Apr. 8	108.37	July 7	116.88	Nov. 9	126.10
Mar. 9	105.61	14	108.39	Aug. 5	135.38	Dec. 16	113.81
18	109.39	20	100.79				

298-2. Hudepohl Brewing Co. In company's storage yard, 19.5 feet west of the west building line of Stone St. and 136 feet south of the south building line of Sixth St., in Cincinnati. Drilled well, diameter 10 inches, reported depth 150 feet. Measuring point, top of casing, 3.2 feet above land surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	78.50	Apr. 20	71.99	July 7	74.10	Oct. 5	78.25
31	77.43	May 5	71.09	Aug. 5	77.05	Nov. 9	78.54
Apr. 8	73.09	18	71.15	Sept. 15	77.72	Dec. 16	78.49
14	72.51						

301-A. Palace Theater. In sub-basement of theater building, 93 feet east of the east building line of Vine St. and 108 feet north of the north building line of Sixth St., in Cincinnati. Abandoned drilled well, diameter 8 inches, depth 138 feet. Formerly used for air-conditioning purposes. Measuring point, top of opening in pump base, 10.3 feet below land-surface.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	112.20	Mar. 31	109.45	May 5	106.18	Sept. 15	120.41
Mar. 9	99.18	Apr. 8	106.60	18	113.63	Oct. 5	130.69
18	109.30	14	109.72	July 7	123.28	Nov. 9	124.13
25	107.92	20	105.23	Aug. 5	134.14	Dec. 16	108.87

315-3 (#845, p. 379; #886, p. 573; #906, p. 207; #936, p. 231; #944, p. 228; #986, p. 264). Globe-Wernicke Co. At Norwood and Carthage Aves., in Norwood.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	185.95	Apr. 17	185.75	July 19	183.93	Nov. 20	186.75
Feb. 21	186.20	May 15	185.95	Aug. 14	184.15	Dec. 18	187.29
Mar. 13	186.23	June 12	185.85	Oct. 23	187.17		

326 (#906, p. 209; #936, p. 232; #944, p. 228; #986, p. 265). Cincinnati Milling Machine Co. At Madison and Marburg Roads, in Oakley, a suburb of Cincinnati. Measurements discontinued after Sept. 13, 1944.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	168.84	Apr. 17	168.91	June 12	169.65	Aug. 14	170.22
Feb. 21	164.95	May 15	169.31	July 17	169.96	Sept. 13	170.27
Mar. 13	169.32						

## Montgomery County

Dayton 1 (#944, p. 190; #986, p. 265). City of Dayton water department. In Rohrer's Island well field.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.43	11.03	12.47	14.17	9.76	17.00	14.58	12.68	13.40	9.46	10.32	8.27
2	10.15	11.16	9.17	14.25	10.39	16.80	10.82	13.17	11.39	10.00	9.03	9.20
3	9.99	11.17	8.32	14.75	10.75	15.79	8.37	13.41	11.11	10.21	7.37	9.36
4	10.14	10.97	10.18	15.15	10.96	17.01	8.40	13.40	11.16	9.56	7.06	9.02
5	9.59	10.91	12.31	15.34	10.89	18.12	7.83	13.87	11.29	8.96	7.09	10.31
6	9.49	11.22	13.11	15.20	11.61	18.27	8.38	15.28	11.34	8.51	8.96	10.86
7	9.40	11.07	12.45	12.63	12.45	18.44	8.42	13.63	11.55	8.41	9.04	10.39
8	10.01	10.65	13.21	13.35	15.00	18.20	8.91	13.44	11.56	9.40	10.45	11.24

## Dayton 1. City of Dayton water department--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	11.58	10.04	14.77	13.34	12.89	18.36	8.87	13.25	10.69	9.91	10.97	11.55
10	11.63	10.02	13.79	13.69	12.15	19.17	8.67	12.65	10.79	11.01	11.35	12.31
11	11.38	10.00	8.80	12.80	12.75	19.22	8.69	12.36	10.79	11.28	11.59	13.65
12	12.34	9.34	6.86	11.32	13.17	19.56	9.52	14.85	11.22	11.06	11.46	14.36
13	13.41	9.71	6.48	8.79	13.19	20.08	10.55	17.68	11.54	11.04	11.42	14.96
14	13.43	9.59	5.75	8.13	12.85	19.84	10.00	15.75	10.98	11.26	11.75	15.49
15	13.43	9.60	6.26	7.10	13.32	19.14	9.87	11.75	11.41	11.46	12.28	15.67
16	13.44	9.34	7.20	5.50	13.92	20.41	10.66	12.26	11.33	10.30	12.45	15.71
17	14.05	10.61	9.94	5.33	13.90	21.23	10.70	14.17	10.91	9.80	11.67	15.92
18	14.04	10.22	11.95	6.29	14.14	21.42	9.87	15.71	11.45	9.31	9.90	15.80
19	13.72	10.55	12.55	6.82	13.35	21.91	10.89	16.33	11.45	9.15	9.51	13.97
20	13.72	10.28	13.93	7.39	13.11	21.05	11.32	12.80	11.46	8.86	9.41	13.91
21	13.14	9.21	14.66	8.61	13.36	18.10	11.21	11.75	11.36	8.36	7.95	14.59
22	13.68	10.95	12.45	9.04	14.06	16.49	11.50	11.09	11.65	8.20	8.04	15.34
23	13.63	12.34	8.06	9.26	14.30	15.32	12.09	11.56	11.76	8.78	8.08	15.66
24	14.14	12.70	11.99	9.26	14.10	15.52	12.33	11.84	11.20	9.37	8.43	15.57
25	14.14	13.13	13.91	8.81	13.70	15.52	12.46	12.80	11.14	9.62	8.43	15.89
26	13.16	14.59	14.06	9.91	13.27	15.20	12.49	12.89	10.94	9.53	7.73	15.91
27	11.38	14.96	15.50	10.57	14.90	15.18	13.06	12.95	12.40	9.17	.....	14.89
28	11.41	15.57	16.40	9.71	15.63	15.40	12.78	14.71	13.41	8.99	6.94	14.97
29	11.08	14.93	16.64	8.71	11.80	15.16	12.52	13.61	11.65	9.31	7.86	16.11
30	11.08	.....	16.96	8.24	16.86	14.93	12.06	14.04	10.24	9.38	8.12	16.62
31	11.11	.....	16.16	.....	17.20	.....	12.77	13.96	.....	10.32	.....	15.94

Dayton 2 (#944, p. 191; #986, p. 265). Dayton Power &amp; Light Co. At stream distribution plant, 118 Fourth St., in fan room.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.19	27.49	26.86	24.64	23.45	26.86	28.59	29.69	29.34	29.66	29.10	28.73
2	27.11	27.53	26.81	24.60	23.56	26.95	28.54	29.79	29.33	29.56	29.14	28.73
3	27.04	27.55	26.79	24.49	23.74	27.04	28.30	29.86	29.26	29.60	29.16	28.66
4	27.01	27.47	26.80	24.44	23.88	27.00	28.20	29.94	29.04	29.62	29.16	28.56
5	27.00	27.53	26.72	24.40	23.99	26.97	28.27	29.97	29.07	29.67	29.06	28.62
6	27.03	27.47	26.57	24.45	24.04	27.05	28.41	29.94	29.22	29.72	29.94	28.67
7	27.05	27.39	26.43	24.50	23.99	27.09	28.66	29.83	29.27	29.76	28.95	28.70
8	27.03	27.40	26.32	24.63	23.94	27.11	28.76	29.91	29.28	29.62	28.99	28.71
9	26.96	27.43	26.14	24.62	24.06	27.18	28.67	30.00	29.24	29.47	29.01	28.70
10	26.91	27.45	25.93	24.37	24.20	27.25	28.74	30.08	29.13	29.46	29.05	28.64
11	26.97	27.48	25.75	24.24	24.30	27.22	28.86	30.22	29.01	29.44	29.05	28.49
12	27.09	27.49	25.56	24.14	24.45	27.25	29.01	30.27	29.09	29.44	28.97	28.52
13	27.17	27.46	25.40	24.06	24.58	27.39	29.05	30.16	29.17	20.43	28.85	28.52
14	27.55	27.33	25.31	23.86	24.58	27.54	29.11	30.06	29.24	29.41	28.91	28.54
15	27.26	27.37	25.29	23.57	24.80	27.64	29.15	30.14	29.31	29.28	28.98	28.54
16	27.17	27.43	25.33	23.05	25.03	27.91	29.07	30.25	29.36	29.24	29.05	28.49
17	27.22	27.43	25.35	22.77	25.26	27.78	29.07	30.50	29.30	29.32	29.07	28.41
18	27.29	27.46	25.37	22.76	25.43	27.75	29.19	30.31	29.25	29.31	29.10	28.53
19	27.35	.....	25.34	22.84	25.55	27.74	29.30	30.25	29.36	29.32	28.99	28.36
20	27.39	.....	25.18	22.81	25.69	27.80	29.38	30.12	29.53	29.32	28.87	28.39
21	27.44	.....	25.14	.....	25.61	27.91	29.38	29.90	29.64	29.27	28.90	28.42
22	27.55	.....	25.17	23.16	25.81	28.01	29.44	29.96	29.70	29.19	28.93	28.42
23	27.52	.....	25.17	23.06	25.98	28.14	29.39	30.01	29.89	29.11	28.93	28.44
24	27.42	.....	25.17	23.11	26.19	28.16	29.35	30.00	29.74	29.14	28.78	28.37
25	27.44	27.15	25.21	23.17	26.34	28.12	29.46	29.93	29.66	29.17	28.80	28.23
26	27.49	27.19	25.04	23.24	26.54	28.13	29.56	29.81	29.68	29.20	28.72	28.17
27	27.54	27.00	24.97	23.33	26.66	28.24	29.64	29.68	29.71	29.24	28.66	28.19
28	27.58	26.97	24.85	23.38	26.61	28.36	29.69	29.41	29.74	29.22	28.70	28.22
29	27.58	26.87	24.75	23.42	26.71	28.46	29.73	29.39	29.74	29.12	28.73	29.27
30	27.50	.....	24.72	23.42	26.65	28.56	29.62	29.37	29.66	29.06	28.74	29.26
31	27.44	.....	24.65	.....	26.74	.....	29.59	29.34	.....	29.05	.....	28.22

Vandalia 1. Vandalia waterworks observation well. In flood plain of the Little Miami River, Dayton quadrangle, NE  $\frac{1}{4}$  sec. 14, T. 3 N; R. 6 E. Drilled well, diameter 6 inches, depth 69 feet. Measuring point, top of casing, 3.2 feet above land surface. Automatic water-stage recorder installed July 21, 1944.

## Vandalia 1. Vandalia waterworks observation well--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 20	20.26	Sept. 1	20.84	Oct. 22	20.74	Nov. 30	19.87
21	20.40	2	20.98	23	20.52	Dec. 1	19.86
22	20.63	3	20.92	24	20.51	2	19.93
23	20.89	4	20.95	25	20.54	3	19.96
24	20.89	5	20.98	26	20.56	4	20.09
25	20.95	6	20.99	27	20.56	5	20.18
26	20.96	7	20.70	28	20.56	6	20.18
27	20.95	8	20.31	29	20.56	7	20.07
28	20.95	9	20.66	30	20.35	8	19.99
29	20.95	10	20.90	Nov. 6	20.44	9	20.13
30	20.95	11	21.05	7	20.65	10	20.14
31	20.97	12	21.13	8	20.65	11	19.93
Aug. 1	20.96	13	21.20	9	20.55	12	19.94
2	21.09	14	21.25	10	20.49	13	19.99
3	21.18	15	21.31	11	20.59	14	20.12
4	21.07	16	21.20	12	20.69	15	20.18
5	21.07	17	20.82	13	20.56	16	20.17
6	21.07	18	20.73	14	20.26	17	20.02
7	20.83	19	20.93	15	20.02	18	20.10
8	21.03	20	21.00	16	19.98	19	20.10
9	21.25	Oct. 7	22.45	17	19.77	20	20.06
10	21.26	8	22.16	18	19.69	21	20.15
11	21.22	9	21.49	19	19.64	22	20.26
12	21.23	10	21.44	20	19.74	23	20.26
13	21.12	11	21.05	21	19.85	24	20.01
14	21.27	12	20.98	22	19.89	25	19.79
15	21.28	13	20.77	23	19.94	26	19.66
17	21.11	16	20.51	24	19.91	27	19.79
24	20.45	17	20.54	25	19.79	28	19.87
28	20.69	18	20.53	26	19.80	29	20.01
29	20.72	19	20.62	28	24.83	30	20.00
30	20.77	20	20.74	29	19.87	31	19.89
31	20.92	21	20.80				

## Muskingum County

Zanesville 1 (\*944, p. 192; \*986, p. 266). City of Zanesville water department. On east bank of Muskingum River, 0.5 mile north of north corporation line.

## Lowest daily water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.27	25.82	26.56	24.45	.....	22.24	24.37	26.25	27.74	28.30	27.86	28.94
2	24.21	25.97	26.62	24.46	.....	22.41	.....	26.40	27.72	28.19	27.93	29.08
3	24.18	25.95	26.68	24.38	.....	22.46	.....	26.52	27.75	28.20	27.97	29.11
4	24.25	26.01	26.73	24.49	22.17	22.36	.....	26.64	27.61	28.31	28.01	29.19
5	24.28	25.99	26.74	24.66	22.20	22.14	.....	26.75	27.59	28.40	28.01	29.24
6	24.29	25.93	26.66	24.90	22.25	22.13	.....	26.79	27.75	28.41	27.82	29.37
7	24.30	25.93	26.57	24.87	22.25	22.27	.....	26.86	27.85	28.37	28.01	29.54
8	24.30	26.00	26.43	24.96	21.99	22.43	.....	26.97	27.87	28.36	27.91	29.55
9	24.27	26.06	26.24	25.02	21.99	22.64	.....	27.06	27.89	28.14	27.97	29.69
10	24.29	26.02	25.99	24.34	22.03	22.73	.....	27.19	27.82	28.15	27.99	29.69
11	24.46	26.12	25.68	24.67	22.13	22.79	.....	27.24	27.72	28.15	28.10	29.72
12	24.59	26.27	25.41	24.44	22.22	22.80	.....	27.29	27.82	28.21	28.21	29.79
13	24.70	26.34	25.23	24.21	22.36	22.90	25.60	27.35	27.95	28.22	28.10	29.89
14	24.99	26.36	25.17	23.79	22.43	23.04	25.49	27.40	28.04	28.20	28.14	30.07
15	25.02	26.47	25.17	23.29	22.33	23.15	25.46	27.46	28.06	28.16	28.24	30.22
16	25.10	26.68	25.17	22.72	22.30	23.23	25.22	.....	28.05	27.97	28.31	30.25
17	25.18	26.68	25.20	22.00	22.33	23.32	25.34	27.49	28.06	28.01	28.35	30.32
18	25.24	26.83	25.22	21.75	22.30	23.43	25.39	27.53	27.96	28.02	28.40	30.38
19	25.40	26.85	25.17	21.74	22.17	23.50	25.44	27.55	28.04	28.10	28.45	30.46
20	25.46	26.89	25.00	21.96	22.17	23.59	25.72	27.55	28.10	28.14	28.44	30.54
21	25.53	26.90	25.07	21.82	22.07	23.66	25.82	27.36	28.20	28.22	28.44	30.59
22	25.62	26.97	25.13	21.99	21.74	23.75	25.76	27.47	28.27	27.98	28.60	30.68

## Zanesville 1. City of Zanesville water department--Continued.

Lowest daily water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	25.64	26.92	25.18	21.95	21.75	23.72	25.72	27.57	28.29	27.84	28.65	30.74
24	25.63	26.94	25.24	21.84	21.73	23.72	25.87	27.57	28.24	27.86	28.67	30.92
25	25.71	26.73	25.26	21.88	21.80	23.69	26.04	27.56	28.08	27.90	28.69	30.84
26	25.74	26.75	25.12	21.76	21.86	23.56	26.17	27.57	28.15	27.93	28.67	30.80
27	25.69	26.69	24.63	21.68	21.94	23.50	26.24	27.47	28.21	27.95	28.69	30.88
28	25.76	26.59	24.55	.....	22.01	23.52	26.23	27.35	28.22	27.96	28.75	30.94
29	25.81	26.55	24.41	.....	22.00	23.91	26.25	27.40	28.27	27.92	28.84	30.99
30	25.76	.....	24.36	.....	22.00	24.16	26.06	27.51	28.30	27.90	28.89	31.03
31	25.77	.....	24.40	.....	22.02	.....	26.09	27.71	.....	27.94	.....	31.05

## Richland County

Mansfield 1 (#944, p. 193; #986, p. 267). City of Mansfield. At North Main St. pumping station.

Lowest daily water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	40.44	38.71	39.72	40.83	44.16	48.08	47.25	50.53	49.26
2	.....	.....	40.71	39.45	39.36	39.14	40.28	.....	47.70	47.20	49.96	49.16
3	.....	.....	40.66	37.90	39.66	38.55	32.34	.....	47.29	48.36	37.80	.....
4	.....	.....	40.34	.....	39.86	37.91	30.49	.....	45.30	48.73	46.32	.....
5	.....	.....	40.04	40.60	39.88	36.84	29.78	.....	46.55	48.54	44.85	.....
6	.....	.....	.....	40.32	39.46	38.08	29.69	.....	47.53	48.72	46.80	.....
7	.....	.....	.....	40.22	.....	38.49	29.84	.....	48.41	48.70	48.43	.....
8	.....	39.07	.....	40.03	.....	39.45	30.21	.....	48.50	48.03	48.99	.....
9	.....	39.41	39.05	39.16	.....	39.03	29.84	.....	.....	47.01	47.68	49.77
10	.....	39.38	39.91	37.64	.....	38.39	36.66	.....	.....	48.46	48.67	49.41
11	.....	39.65	39.75	38.77	.....	.....	39.14	.....	.....	48.86	48.51	48.85
12	.....	39.35	39.55	39.66	.....	.....	39.82	45.37	.....	48.99	48.63	49.09
13	.....	38.56	38.03	.....	40.01	38.31	40.43	.....	.....	49.25	45.80	49.86
14	.....	37.50	40.11	.....	39.22	38.71	40.72	46.97	.....	48.50	48.50	50.20
15	.....	38.97	40.04	38.31	38.11	38.29	40.36	47.35	.....	48.25	49.76	50.05
16	.....	39.80	40.45	37.52	39.30	38.20	39.95	.....	.....	48.39	49.94	50.05
17	.....	40.65	40.62	36.91	40.02	37.93	38.60	.....	.....	48.91	50.19	49.65
18	.....	41.07	40.47	38.20	40.12	37.72	40.20	.....	47.07	49.20	49.66	50.21
19	.....	40.58	40.08	38.93	40.70	37.90	41.37	.....	47.84	49.89	49.21	50.78
20	.....	39.97	38.32	38.36	39.78	39.42	41.64	.....	48.51	49.88	46.92	50.86
21	.....	.....	39.88	41.06	38.56	40.29	41.62	46.50	48.56	49.61	49.26	51.16
22	.....	.....	40.36	39.35	38.07	40.47	41.30	47.24	48.50	48.70	50.34	50.70
23	.....	40.27	40.91	37.97	39.14	40.16	41.30	.....	48.24	46.51	.....	50.80
24	.....	40.39	40.68	37.17	39.56	40.25	40.70	.....	47.97	48.51	.....	47.25
25	.....	40.63	40.48	38.76	39.56	40.06	42.95	.....	48.19	49.64	48.11	41.72
26	.....	40.44	40.13	39.01	39.62	38.99	43.62	48.27	48.84	49.91	47.62	47.13
27	.....	36.64	38.05	39.14	39.56	40.39	43.94	47.58	49.22	50.00	48.39	48.40
28	.....	.....	39.91	38.66	38.52	41.28	44.36	47.80	48.71	49.85	49.50	50.05
29	.....	.....	39.99	39.45	38.40	41.27	43.70	48.20	48.35	48.85	49.12	50.06
30	.....	.....	40.41	39.00	38.74	41.13	43.29	48.98	48.16	47.48	48.86	49.69
31	.....	.....	40.81	.....	38.57	.....	43.38	48.20	.....	49.25	.....	49.13

## Ross County

Chillicothe 1. Chillicothe Water Department. In City Park, Chillicothe, about 150 feet southwest of Baltimore & Ohio Railroad tracks and about 1,800 feet west of centerline of Bridge Street highway bridge. Abandoned well, diameter 36 inches, reported depth 70 feet. Measuring point, top of steel casing, at land surface and 613.18 feet above sea level. Automatic water-stage recorder installed Mar. 15, 1944.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	15.72	14.66	16.19	17.54	18.35	18.91	19.34	20.09	20.41
2	.....	15.86	14.86	16.20	17.58	18.42	18.85	19.41	20.09	20.44
3	.....	15.96	14.98	16.09	17.62	18.47	18.88	19.46	20.11	20.45
4	.....	16.12	15.07	16.02	.....	18.52	18.91	19.54	20.11	20.46
5	.....	16.25	15.13	15.91	.....	18.56	18.95	19.56	20.12	20.49

## Chillicothe 1. Chillicothe Water Department--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	.....	16.34	15.14	15.99	17.72	18.61	19.03	19.56	20.14	20.51
7	.....	16.41	15.16	16.05	17.78	18.63	19.06	19.58	20.16	20.52
8	.....	16.42	15.15	16.16	17.84	18.66	19.10	19.61	20.17	20.53
9	.....	16.13	15.25	16.29	17.89	18.74	19.13	19.64	20.19	20.54
10	.....	14.27	15.31	16.36	17.91	18.76	19.16	19.66	20.20	20.54
11	.....	13.15	15.38	16.40	17.96	18.78	19.19	19.68	20.20	20.56
12	.....	13.08	15.41	16.50	18.03	18.80	19.21	.....	20.18	20.56
13	.....	12.19	15.47	16.56	18.06	18.81	19.24	.....	20.20	20.56
14	.....	9.98	15.50	16.60	18.06	18.81	19.26	.....	20.21	20.54
15	16.33	9.84	15.55	16.62	18.03	18.75	19.28	.....	20.23	20.58
16	16.53	10.84	15.64	16.69	18.05	18.75	19.30	.....	20.24	20.59
17	16.63	11.43	15.69	16.75	18.10	18.46	19.32	.....	.....	20.61
18	16.56	11.91	15.69	16.81	18.12	18.37	19.34	19.80	.....	20.62
19	16.06	12.39	15.61	16.86	18.18	18.47	19.37	19.82	.....	.....
20	16.26	12.84	15.61	.....	18.20	18.55	19.41	19.79	20.28	.....
21	16.45	13.29	15.66	.....	18.24	18.62	19.44	19.79	20.28	.....
22	16.53	13.60	15.80	.....	18.25	18.64	19.46	19.85	20.28	.....
23	16.53	13.79	15.92	.....	18.28	18.66	19.49	19.86	20.29	.....
24	16.06	13.88	16.00	.....	18.30	18.66	19.51	.....	20.30	.....
25	15.11	13.86	16.07	.....	18.36	.....	19.53	.....	20.31	.....
26	14.87	13.86	16.09	17.28	18.38	.....	19.56	19.99	20.34	.....
27	15.24	14.06	16.06	17.35	18.38	.....	19.57	20.02	20.36	.....
28	15.45	14.25	16.04	17.39	18.40	.....	19.56	20.03	20.37	20.50
29	15.56	14.42	16.05	17.43	18.40	.....	19.32	20.04	20.38	20.49
30	15.59	14.56	.....	17.49	18.38	.....	19.28	20.06	20.40	20.49
31	15.59	.....	.....	.....	18.29	18.91	.....	20.07	.....	20.50

Chillicothe 2. Chillicothe Water Department. In Chillicothe, 40 feet south of the centerline of Chestnut St. and 100 feet east of the centerline of Park St. Production well, diameter 26 inches, depth 105 feet. Reported yield 2,700 gallons a minute. Measuring point, top of opening in pump base, 1.5 feet above land surface. Water-level measurements given below are measurements of static level furnished by A. S. Hibbs, manager, Chillicothe Water Department.

Water level, in feet below land-surface datum, 1943

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	38.3	40.0	39.7	....	....	37.7	39.3	39.7	....	41.6	42.3	42.5
2	38.3	....	39.7	34.9	37.3	37.7	39.3	39.7	40.3	41.6	42.3	42.5
3	36.3	....	39.7	34.9	37.3	37.7	39.3	39.9	....	41.6	42.1	....
4	37.4	....	39.7	35.3	37.6	38.3	....	39.9	40.6	41.5	42.3	42.5
5	37.4	40.5	39.7	35.4	37.3	38.3	39.3	39.7	40.7	41.6	42.3	42.5
6	37.6	40.1	39.7	35.6	37.3	38.3	39.8	39.8	....	41.7	42.3	42.7
7	36.4	40.1	39.7	35.6	37.3	38.1	40.3	39.5	41.0	41.7	....	42.7
8	36.5	40.0	39.7	....	37.7	....	39.5	39.0	40.9	41.7	42.3	42.7
9	36.9	....	39.8	36.1	37.7	38.1	39.7	38.6	40.9	41.9	42.4	42.8
10	37.1	40.0	....	36.1	37.7	38.3	....	38.6	41.0	41.7	42.4	42.8
11	38.7	40.0	....	36.3	37.7	38.5	39.4	38.6	41.0	41.7	42.4	42.9
12	38.7	39.8	39.8	36.3	37.7	38.4	39.4	38.7	40.8	41.9	....	....
13	38.1	39.7	39.8	36.3	38.0	38.3	39.3	38.6	40.9	41.8	42.5	42.9
14	37.6	40.0	....	36.4	....	....	39.1	39.0	40.9	41.9	42.5	43.1
15	38.7	39.7	39.8	36.6	38.0	38.3	39.4	38.9	41.0	41.8	42.5	42.9
16	38.7	39.7	39.8	36.4	37.9	38.3	39.1	39.2	41.0	41.8	42.6	42.9
17	38.1	....	39.6	36.4	38.1	38.3	39.1	39.3	41.3	41.8	42.6	42.9
18	38.7	....	39.5	....	38.1	38.3	....	39.7	41.4	41.9	42.6	43.0
19	39.6	39.6	....	36.6	38.3	38.3	39.6	39.7	41.6	41.9	....	....
20	40.3	....	37.8	36.5	38.1	38.6	39.6	39.7	41.6	42.0	42.6	....
21	37.8	39.7	35.5	36.7	38.1	38.6	39.5	39.8	41.1	42.0	42.6	43.1
22	37.5	39.7	34.0	36.7	37.7	38.6	39.5	39.7	40.7	42.1	43.0	43.1
23	38.0	39.7	33.5	36.7	37.7	38.6	39.6	39.9	40.7	42.1	42.6	43.1
24	....	39.6	32.8	36.7	37.5	....	39.4	39.8	40.7	42.0	42.6	....
25	....	....	33.1	36.7	37.7	39.3	38.6	40.0	....	42.0	42.4	....
26	38.5	39.9	....	36.7	37.7	38.7	39.7	40.0	....	42.1	42.4	43.1
27	38.5	39.9	33.6	36.8	37.5	39.1	39.6	40.0	....	42.1	42.4	....

## Chillicothe 2. Chillicothe Water Department--Continued.

Water level, in feet below land-surface datum, 1943												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	39.8	39.6	33.7	37.1	37.6	39.3	39.7	40.1	....	42.1	43.3	....
29	39.9	....	34.1	37.6	37.6	39.1	39.5	40.3	41.7	42.1	43.3	43.3
30	40.0	....	34.1	37.3	37.7	39.0	39.7	40.3	41.4	42.1	42.6	43.3
31	40.0	....	34.1	....	37.7	....	39.7	40.4	....	42.3	....	43.3

Water level, in feet below land-surface datum, 1944												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.3	43.3	43.5	40.8	38.4	40.5	42.0	....	....	44.2	44.6	45.25
2	43.3	43.3	43.3	40.8	38.5	40.6	41.7	42.9	....	44.1	44.7	44.84
3	43.4	....	43.6	40.7	....	40.5	41.9	....	43.7	44.1	....	45.44
4	....	....	43.6	40.8	38.5	40.5	41.8	....	43.6	44.0	44.9	44.85
5	43.4	43.5	43.3	40.7	38.7	40.6	....	....	43.2	44.1	44.8	44.93
6	....	43.5	43.4	40.7	38.7	41.8	....	....	44.0	44.2	44.8	44.92
7	....	43.5	43.2	40.7	38.7	41.7	....	....	43.6	44.1	44.8	44.89
8	43.5	41.6	43.0	40.7	38.8	41.9	....	....	....	44.1	44.9	44.88
9	43.3	43.5	42.6	41.0	....	41.9	....	....	43.8	44.0	44.8	44.90
10	43.3	43.5	42.6	40.5	38.9	41.0	42.2	....	43.8	44.1	44.7	44.89
11	....	....	42.2	40.2	39.0	41.1	....	....	43.7	44.1	44.8	44.90
12	43.4	43.5	42.2	39.8	39.0	41.2	....	44.0	43.8	44.1	44.8	44.89
13	43.4	43.5	....	40.5	39.0	41.3	....	44.1	43.7	44.1	44.7	45.00
14	43.4	44.8	41.2	38.6	39.2	41.4	42.4	....	43.8	44.1	44.8	45.02
15	43.4	43.5	41.3	....	39.1	41.0	....	....	43.8	44.3	44.8	45.16
16	43.4	43.5	41.3	37.0	....	41.1	42.7	43.4	43.7	44.1	44.8	44.89
17	43.4	43.5	40.6	37.0	39.2	41.1	....	43.4	43.8	44.3	44.9	....
18	43.4	43.7	41.5	36.8	39.2	41.3	....	....	43.8	44.2	44.8	44.90
19	43.5	43.8	41.3	36.9	39.3	41.2	....	43.2	43.8	44.1	44.8	44.89
20	....	43.8	41.3	37.0	39.3	41.3	....	43.1	43.8	44.1	45.0	45.07
21	....	43.6	41.4	37.4	39.5	41.3	....	....	43.9	44.5	44.8	45.07
22	....	43.6	41.4	37.6	39.7	41.4	42.7	43.4	43.9	44.2	44.8	45.09
23	43.4	43.6	41.3	37.9	39.9	41.4	....	43.4	44.0	44.5	....	45.08
24	43.5	43.6	41.3	38.1	40.0	40.5	42.8	43.4	44.0	44.3	....	45.93
25	43.5	43.6	41.2	38.1	40.1	40.6	....	43.6	44.0	44.2	44.73	....
26	43.5	43.5	41.1	38.1	40.3	41.7	....	44.3	43.9	44.5	45.00	44.75
27	43.4	43.6	41.0	38.1	40.3	41.7	42.8	....	44.0	....	45.00	44.80
28	43.4	43.3	40.9	38.1	40.2	41.8	42.8	44.3	44.1	45.0	44.75	45.50
29	43.4	43.3	40.8	38.3	40.2	41.9	42.9	44.2	....	44.5	44.92	45.30
30	....	....	40.8	38.2	40.2	41.9	42.9	43.4	44.1	44.6	45.00	45.39
31	43.3	....	....	....	40.5	....	42.7	44.2	....	44.6	....	45.50

Stark County

3 (\*886, p. 589; \*906, p. 210; \*936, p. 236; \*944, p. 195; \*986, p. 267). City of Canton. Measurements discontinued.

5 (\*886, p. 589; \*906, p. 210; \*936, p. 236; \*944, p. 195; \*986, p. 267). City of Canton. Measurements discontinued.

9 (\*886, p. 590; \*906, p. 210; \*936, p. 236; \*944, p. 195; \*986, p. 268). City of Canton. Measurements discontinued.

11 (\*886, p. 590; \*906, p. 210; \*936, p. 236; \*944, p. 195; \*986, p. 268). City of Canton. Measurements discontinued.

12 (\*936, p. 236; \*944, p. 195; \*986, p. 268). Goughnour well. Adessi Bros. In Canton quadrangle. Casing extended 3.6 feet on Aug. 10, 1944. New measuring point, top of casing, 4.0 feet above land surface. Automatic water-stage recorder installed Aug. 10, 1944.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	....	....	al7.39	....	....	....	19.86	20.18	20.73	21.29
2	....	....	....	....	....	....	....	....	19.90	20.20	20.75	21.30
3	20.60	....	....	al8.80	....	....	al8.65	....	19.91	20.22	20.77	21.32

a Tape measurement.



## 12. Goughnour well--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	.....	.....	.....	.....	.....	.....	.....	.....	19.91	20.24	20.78	21.34
5	.....	.....	.....	.....	.....	a17.85	.....	.....	19.91	20.25	20.79	21.35
6	.....	.....	a20.60	.....	.....	.....	.....	.....	19.88	20.27	20.83	21.37
7	.....	a21.00	.....	.....	.....	.....	.....	a19.55	19.81	20.29	20.85	21.39
8	.....	.....	.....	.....	a17.48	.....	.....	.....	19.79	20.31	20.86	21.40
9	.....	.....	.....	.....	.....	.....	.....	.....	19.78	20.32	20.88	21.42
10a	20.30	.....	.....	a19.00	.....	.....	a18.92	.....	19.79	20.33	20.90	21.45
11	.....	.....	.....	.....	.....	.....	.....	19.49	19.81	20.35	20.92	21.47
12	.....	.....	.....	.....	.....	a18.01	.....	19.49	19.82	20.37	20.93	21.48
13	.....	.....	a20.70	.....	.....	.....	.....	19.53	19.84	20.39	20.94	21.50
14	.....	a21.00	.....	.....	.....	.....	.....	19.54	19.85	20.41	20.96	21.52
15	.....	.....	.....	.....	a17.58	.....	.....	19.58	19.86	20.44	20.98	21.54
16	.....	.....	.....	.....	.....	.....	.....	19.60	19.88	20.45	21.01	21.56
17a	20.40	.....	.....	a18.60	.....	.....	a19.16	.....	19.89	20.46	21.03	21.57
18	.....	.....	.....	.....	.....	.....	.....	.....	19.91	20.48	21.05	21.58
19	.....	.....	.....	.....	.....	a18.17	.....	.....	19.90	20.50	21.07	21.60
20	.....	.....	a19.40	.....	.....	.....	.....	.....	19.90	20.53	21.07	21.61
21	.....	a20.90	.....	.....	.....	.....	.....	19.74	19.90	20.55	21.09	21.62
22	.....	.....	.....	.....	a17.72	.....	.....	.....	19.91	20.57	21.11	21.64
23	.....	.....	.....	.....	.....	.....	.....	.....	19.94	20.59	21.12	21.65
24a	20.60	.....	.....	a17.25	.....	.....	a19.35	.....	19.95	20.60	21.15	21.67
25	.....	.....	.....	.....	.....	.....	.....	.....	20.09	20.62	21.17	21.70
26	.....	.....	.....	.....	.....	a18.41	.....	.....	20.10	20.64	21.18	21.71
27	.....	.....	a18.90	.....	.....	.....	.....	.....	20.11	20.66	21.23	21.73
28	.....	a20.70	.....	.....	.....	.....	.....	19.84	20.12	20.68	21.23	21.74
29	.....	.....	.....	.....	a17.73	.....	.....	19.83	20.15	20.70	21.25	21.76
30	.....	.....	.....	.....	.....	.....	.....	19.85	20.17	20.71	21.27	21.77
31a	20.70	.....	.....	.....	.....	.....	a19.54	19.85	.....	20.72	.....	.....

a Tape measurement.

13 (#936, p. 237; #944, p. 196; #986, p. 269). City of Canton. In Canton water department's Northeast well field. Measuring point beginning Aug. 9, 1944, 4.3 feet above land surface. Automatic water-stage recorder installed Apr. 5, 1944.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	40.10	42.30	42.60	41.30	40.38	41.12	43.11	40.06	38.01	38.43	38.75	39.27
2	40.00	42.00	42.30	41.10	40.44	41.14	42.70	39.87	37.93	38.34	38.76	39.58
3	39.90	42.50	42.30	40.80	40.39	41.38	42.19	40.24	37.97	38.60	38.78	39.30
4	40.60	42.10	42.70	41.20	40.75	41.54	42.25	40.30	37.97	38.61	38.80	39.18
5	40.09	41.50	42.70	41.13	40.81	41.30	42.55	40.70	37.85	38.76	38.81	39.29
6	40.80	42.10	42.00	41.45	40.81	41.35	42.65	40.36	38.01	38.79	38.66	39.37
7	41.40	41.70	42.40	41.45	40.09	41.43	42.31	40.03	37.95	39.24	38.64	39.41
8	41.10	42.10	42.10	41.16	39.94	41.16	42.28	40.13	37.84	39.24	38.68	39.43
9	41.00	41.70	42.00	41.21	40.32	41.16	41.94	40.10	37.77	38.45	38.80	39.55
10	41.20	41.90	42.60	40.91	40.05	41.36	41.91	40.35	37.73	38.56	38.76	39.57
11	41.10	42.10	42.30	41.04	40.12	41.25	42.34	40.65	37.47	38.43	38.82	39.33
12	41.30	42.10	42.00	41.36	40.38	41.12	42.29	40.68	37.61	38.44	38.97	39.49
13	41.30	42.10	41.90	41.36	40.50	41.51	41.61	40.28	37.66	38.54	38.70	39.71
14	41.50	42.50	42.30	40.36	40.50	41.74	41.20	40.61	37.55	38.65	38.70	39.65
15	41.40	42.30	42.00	41.36	40.10	41.86	41.09	40.36	37.79	38.65	38.80	39.37
16	41.50	42.50	42.50	40.91	40.60	41.94	40.91	40.59	37.89	38.28	38.85	39.66
17	41.20	42.80	42.20	40.69	40.71	42.04	40.71	40.34	37.97	38.49	38.91	39.63
18	41.70	42.30	42.10	41.04	40.89	42.15	40.74	39.35	38.01	38.66	39.00	39.40
19	41.50	42.60	42.00	40.69	40.89	42.23	40.82	39.79	38.25	38.69	38.92	39.37
20	41.40	42.10	42.00	40.90	40.50	42.30	40.59	39.81	38.76	38.64	39.06	39.38
21	41.70	42.00	41.50	40.86	40.41	42.44	40.30	39.25	38.77	38.55	38.89	39.40
22	41.50	42.20	42.00	40.66	40.26	42.50	40.30	39.35	38.29	38.47	38.93	39.44
23	41.30	42.70	41.60	40.71	40.74	42.56	39.76	39.33	38.32	38.41	38.97	39.41
24	41.80	42.70	41.80	40.19	40.69	42.58	39.94	39.25	38.29	38.43	38.99	39.29
25	41.90	42.70	41.70	40.62	40.96	42.21	40.04	39.28	38.15	38.51	38.94	39.11
26	41.50	42.30	41.30	40.45	41.00	41.95	40.28	38.69	38.20	38.56	38.87	39.05
27	42.10	42.20	.....	40.11	40.71	42.45	40.25	38.76	38.27	38.85	38.79	39.27

## 13. City of Canton--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	41.70	42.00	41.50	40.67	40.70	42.73	40.18	38.32	38.32	38.90	38.80	39.34
29	41.90	42.10	41.40	40.64	40.66	42.91	40.21	38.26	38.40	38.95	39.02	39.64
30	42.10	.....	41.50	40.06	40.88	43.06	40.26	38.42	38.50	38.91	39.19	40.26
31	41.90	.....	41.70	.....	40.87	.....	39.80	38.35	.....	38.81	.....	40.40

14 (\*936, p. 237; \*944, p. 196; \*986, p. 271). Ninth Street well. City of Canton. In city park. Air-line measurements to Apr. 1, 1944; tape measurements thereafter. Measurements made by Canton Water Department.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	31	May 1	33.50	Aug. 1	36.00	Nov. 1	39.28
Feb. 1	32	June 1	32.64	Sept. 1	37.60	Dec. 1	41.00
Mar. 1	34	July 1	33.68	Oct. 1	38.00	31	42.00
Apr. 1	32						

14A. Canton Water Department. In West Park, Canton, along the east bank of the West Branch of Nimishillen Creek about 1,000 feet south of Ninth St. Diameter 6 inches, depth 81 feet. Measuring point, top of casing, 4 feet above land surface.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Sept. 20	29.57	Oct. 16	30.60	Nov. 11	31.56	Dec. 7	32.06
21	29.57	17	30.04	12	31.58	8	32.06
22	29.63	18	29.99	13	31.60	9	32.04
23	29.69	19	30.02	14	31.61	10	32.04
24	29.73	20	30.26	15	31.64	11	32.01
25	29.75	21	30.39	16	31.66	12	31.99
26	29.79	22	30.50	17	31.70	13	31.98
27	29.85	23	30.94	18	31.72	14	32.01
28	29.89	24	30.98	19	31.73	15	32.03
29	29.91	25	31.00	20	31.74	16	32.05
30	29.95	26	31.06	21	31.76	17	32.07
Oct. 1	29.99	27	31.10	22	31.80	18	32.11
2	30.06	28	31.14	23	31.83	19	32.15
3	30.10	29	31.16	24	31.85	20	32.16
4	30.14	30	31.20	25	31.87	21	32.19
5	30.17	31	31.24	26	31.90	22	32.20
6	30.21	Nov. 1	31.27	27	31.90	23	32.21
7	30.25	2	31.31	28	31.91	24	32.24
8	30.29	3	31.34	29	31.94	25	32.25
9	30.34	4	31.38	30	31.95	26	32.25
10	30.39	5	31.39	Dec. 1	31.99	27	32.27
11	30.44	6	31.41	2	32.01	28	32.29
12	30.47	7	31.44	3	32.05	29	32.30
13	30.51	8	31.46	4	32.06	30	32.34
14	30.56	9	31.51	5	32.06	31	32.35
15	30.60	10	31.54	6	32.06		

Grovemiller 1. Canton Water Department. SE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 12, Perry Township; about 340 feet west of township line and 400 feet northwest of Tuscarawas St. extended. Diameter 2 inches. Measuring point, top of casing, 1 foot above land surface. Measurements by Canton Water Department.

Water level, in feet below land-surface datum, 1944

Apr. 10	94.79	May 22	94.79	July 3	92.42	Aug. 14	95.27
17	94.84	29	94.83	10	94.12	21	95.39
24	94.59	June 5	94.88	17	94.54	28	95.51
May 1	94.66	12	94.90	24	94.76	Sept. 4	95.62
8	94.73	19	94.98	31	95.02	10	95.84
15	94.71	26	93.49	Aug. 7	95.17	18	95.12

## Grovemiller 1. Canton Water Department--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 25	93.40	Oct. 23	94.62	Nov. 20	94.84	Dec. 11	95.02
Oct. 2	94.70	30	94.77	27	92.97	18	95.24
9	94.66	Nov. 6	94.85	Dec. 4	95.03	25	95.30
16	94.87	13	94.90				

Grovemiller 2. Canton Water Department. SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 12, Perry Township; about 400 feet west of township line and 310 feet northwest of Tuscarawas St. extended. Diameter 2 inches. Measuring point, top of casing, 1 foot above land surface. Measurements by Canton Water Department.

Water level, in feet below land-surface datum, 1944

Apr. 10	93.90	June 19	93.92	Aug. 28	94.42	Oct. 30	93.35
17	93.96	26	92.78	Sept. 4	94.54	Nov. 6	93.41
24	93.70	July 3	93.05	10	94.74	13	93.46
May 1	93.77	10	93.07	18	93.65	20	93.41
8	93.83	17	93.52	25	94.90	27	93.55
15	93.81	24	93.78	Oct. 2	93.31	Dec. 4	93.62
22	93.86	31	93.93	9	93.20	11	93.22
29	93.92	Aug. 7	94.15	16	93.40	18	93.80
June 5	93.86	14	93.90	23	93.19	25	93.75
12	93.96	21	94.35				

Grovemiller 3. Canton Water Department. SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 12, Perry Township; about 200 feet west of township line and 280 feet northwest of Tuscarawas St. extended. Measuring point, top of casing, 1 foot above land surface. Measurements by Canton Water Department.

Water level, in feet below land-surface datum, 1944

Apr. 10	109.90	June 19	110.21	Aug. 28	111.37	Oct. 30	110.71
17	110.04	26	106.48	Sept. 4	111.40	Nov. 6	110.75
24	109.77	July 3	106.05	10	111.65	13	110.77
May 1	109.90	10	109.77	18	111.20	20	110.73
8	109.99	17	110.18	25	111.06	27	110.86
15	110.00	24	110.94	Oct. 2	110.63	Dec. 4	110.96
22	110.92	31	110.72	9	110.46	11	110.92
29	110.11	Aug. 7	110.86	16	110.74	18	111.05
June 5	110.28	14	111.03	23	110.53	25	110.96
12	110.24	21	111.16				

20 (\*886, p. 590; \*906, p. 210; \*936, p. 237; \*944, p. 196; \*966, p. 271). Republic Steel Corporation. At Lippert St. and Warner Road, N.E., in Canton.

Water level, in feet below land-surface datum, 1944

Jan. 4	48.60	Apr. 5	49.46	July 21	49.68	Oct. 10	51.89
11	48.79	19	49.27	29	49.93	17	52.00
18	49.02	26	49.18	Aug. 4	50.10	Nov. 2	52.39
25	49.12	May 2	49.10	10	50.22	9	52.56
Feb. 1	49.93	10	49.02	18	50.52	16	52.68
10	49.25	17	49.02	25	50.60	22	52.77
15	49.52	June 17	49.10	30	50.79	Dec. 1	52.91
Mar. 3	49.68	23	49.16	Sept. 7	50.99	7	53.06
15	49.62	30	49.27	13	51.10	14	53.18
23	49.60	July 7	49.41	20	51.27	22	53.31
29	49.41	14	49.52	29	51.52	28	53.52

Boron well (City of Canton test well 50). SW  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec. 3, T. 10 N., R. 9 W., in Perry Township, 970 feet north of the centerline of Twelfth St. extended and 2,280 feet west of the east section line of section 3. Originally drilled 218 feet; bed rock reached at 195 feet. Casing now extends to 135 feet below land surface. Measuring point, top of base of recorder shelter, 3.8 feet above land surface.

Boron well (City of Canton test well 50)--Continued.

Lowest daily water level, in feet below land-surface datum, 1944											
Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
1	....	2.35	2.36	2.76	3.55	4.15	4.55	4.92	5.28		
2	....	2.37	2.37	2.79	3.57	4.17	4.60	4.93	5.29		
3	....	2.39	2.33	2.84	3.59	4.18	4.60	4.93	5.29		
4	....	2.44	2.26	2.86	3.61	4.19	4.61	4.93	5.31		
5	....	2.45	2.20	2.88	3.63	4.20	4.62	4.95	5.31		
6	2.89	2.45	2.18	2.90	3.65	4.21	4.62	....	5.31		
7	2.91	2.46	2.21	2.92	3.69	4.23	4.63	....	5.31		
8	2.93	2.47	2.24	2.95	3.70	4.23	4.65	....	5.33		
9	2.94	2.45	2.26	2.98	3.72	4.25	4.67	....	5.36		
10	2.95	2.47	2.28	3.01	3.74	4.27	4.68	....	5.36		
11	2.94	2.48	2.29	3.03	3.76	4.30	4.69	....	5.36		
12	2.73	2.49	2.31	3.06	3.79	4.31	4.69	....	5.38		
13	2.56	2.50	2.33	3.08	3.92	4.33	4.70	5.07	5.38		
14	2.46	2.52	2.34	3.10	3.84	4.34	4.73	5.08	5.35		
15	2.54	2.56	2.36	3.12	3.86	4.34	4.74	5.10	5.33		
16	2.27	2.57	2.38	3.15	3.88	4.38	4.76	5.11	5.32		
17	2.25	2.60	2.42	3.17	3.88	4.39	4.77	5.12	5.34		
18	2.24	2.63	2.45	3.19	3.90	4.39	4.77	5.13	5.35		
19	2.21	2.65	2.47	3.20	3.92	4.40	4.78	5.13	5.39		
20	2.20	2.65	2.50	3.24	3.92	4.41	4.78	5.15	5.40		
21	2.23	2.67	2.53	3.25	3.93	4.42	4.80	5.16	5.42		
22	2.24	2.70	2.55	3.27	3.95	4.44	4.81	5.17	5.42		
23	2.23	2.73	2.56	3.30	3.96	4.44	4.81	5.18	5.44		
24	2.20	2.74	2.59	3.36	3.98	4.45	4.82	5.20	5.45		
25	2.21	2.74	2.60	3.39	3.99	4.48	4.83	5.20	5.46		
26	2.23	2.73	2.64	3.40	4.01	4.48	4.84	5.21	5.46		
27	2.27	2.73	2.67	3.43	4.03	4.49	4.86	5.23	5.46		
28	2.30	2.45	2.69	3.45	4.08	4.50	4.87	5.26	5.46		
29	2.30	2.39	2.72	3.47	4.10	4.52	4.88	5.25	5.46		
30	2.32	2.34	2.74	3.49	4.11	4.52	4.90	5.27	5.46		
31	....	2.33	....	3.53	4.13	....	4.91	....	5.47		

21A (#986, p. 273). Ohio Power Co. On Second St. at Savannah St. S.E., in Canton.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	51.59	51.89	52.33	52.45	52.61	52.80	53.10	54.13	55.07	56.05	56.94	57.33
2	51.80	52.00	52.34	52.45	52.61	52.82	53.15	54.14	55.12	56.06	56.97	57.38
3	51.60	52.02	52.36	52.46	52.62	52.84	53.16	54.17	55.18	56.08	57.00	57.43
4	51.62	52.03	52.39	52.47	52.63	52.84	53.16	54.22	55.21	56.11	57.01	57.44
5	51.63	52.05	52.41	52.49	52.65	52.82	53.17	54.27	55.20	56.14	57.01	57.45
6	51.65	52.06	52.41	52.49	52.66	52.77	53.19	54.32	55.21	56.18	56.97	57.47
7	51.67	52.06	52.41	52.51	52.67	52.78	53.22	54.32	55.24	56.24	56.97	57.48
8	51.69	52.07	52.42	52.53	52.66	52.77	53.27	54.32	55.28	56.28	56.84	57.51
9	51.70	52.08	52.41	52.54	52.62	52.77	54.32	54.34	55.32	56.30	56.84	57.54
10	51.73	52.09	52.40	52.55	52.64	52.78	53.33	54.37	55.36	56.32	56.86	57.58
11	51.74	52.10	52.41	52.55	52.66	52.79	53.36	54.39	55.36	56.34	56.90	57.62
12	51.76	52.12	52.41	52.56	52.67	52.78	53.38	54.43	....	56.37	56.91	57.63
13	51.77	52.13	52.39	52.57	52.69	52.75	53.39	54.48	....	56.40	56.92	57.65
14	51.80	52.13	52.39	52.56	52.70	52.77	53.43	54.48	....	56.44	56.90	57.67
15	51.82	52.14	52.39	52.55	52.70	52.80	53.51	54.51	....	56.49	56.93	57.69
16	51.83	52.15	52.39	52.55	52.70	52.83	53.58	54.54	....	56.50	56.95	57.74
17	51.83	52.16	52.40	52.53	52.72	52.85	53.60	54.58	....	56.52	56.96	57.77
18	51.82	52.18	52.41	52.50	52.73	52.85	53.59	54.61	55.65	56.55	56.99	58.30
19	51.83	52.19	52.41	52.52	52.74	52.85	53.62	54.66	55.67	56.58	57.00	57.82
20	51.84	52.21	52.41	52.54	52.75	52.82	53.66	54.71	55.70	56.62	57.01	57.85
21	51.86	52.22	52.40	52.56	52.76	52.84	53.70	54.72	55.74	56.66	57.01	57.88
22	51.87	52.23	52.40	52.56	52.76	52.85	53.76	54.75	55.77	56.70	57.03	57.92
23	51.89	52.25	52.41	52.57	52.77	52.86	53.81	54.79	55.82	56.70	57.08	57.96
24	51.90	52.26	52.42	52.57	52.78	52.98	53.85	54.83	55.95	56.73	57.09	58.00
25	51.91	52.28	52.41	52.56	52.79	52.93	53.88	54.86	55.86	56.75	57.13	58.02
26	51.93	52.30	52.39	52.58	52.81	52.95	53.90	54.91	55.86	56.78	57.18	58.03
27	51.94	52.32	52.39	52.58	52.83	52.96	53.94	54.96	55.88	56.81	57.20	58.04

## 21A. Ohio Power Co.--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	51.95	52.32	52.37	52.59	52.85	52.99	53.98	54.96	55.92	56.96	57.22	58.07
29	51.98	52.32	52.40	52.60	52.84	53.01	54.04	54.97	55.95	56.90	57.26	58.09
30	52.00	.....	52.41	52.61	52.79	53.04	54.10	55.00	56.00	56.90	57.29	58.14
31	52.00	.....	52.43	.....	52.78	.....	54.10	55.03	.....	56.91	.....	58.18

Massillon 1 (\*944, p. 197; \*986, p. 274). Republic Steel Corporation.  
On Oberlin Ave., in Massillon.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	46.94	47.79	48.53	48.39	47.79	47.98	48.24	.....	49.94	50.55	50.84	51.40
2	46.97	47.82	48.57	48.39	47.83	48.03	48.29	.....	49.96	50.51	50.87	51.41
3	46.98	47.87	48.64	48.32	47.88	48.03	48.29	.....	49.94	50.55	50.96	51.42
4	46.98	47.90	48.67	48.40	47.91	47.96	48.26	49.02	49.91	50.56	50.96	51.41
5	46.99	47.90	48.68	48.46	47.96	47.81	48.26	49.05	49.99	50.57	50.97	51.44
6	47.02	47.92	48.65	48.51	47.98	.....	48.21	49.04	.....	50.59	51.01	51.47
7	47.05	47.92	48.66	48.54	47.98	47.77	48.26	49.04	50.01	50.61	51.04	51.49
8	47.08	47.93	.....	48.55	47.80	47.74	48.30	49.07	50.05	50.61	51.07	51.51
9	47.10	47.95	.....	48.53	47.84	47.74	.....	49.13	50.09	50.48	51.11	51.54
10	47.11	48.00	48.55	48.49	47.85	47.75	48.34	49.20	50.13	50.56	51.12	51.55
11	47.15	48.05	48.55	48.53	47.87	47.75	48.39	49.27	50.13	50.60	51.13	51.56
12	47.19	48.05	48.48	48.51	47.88	47.71	48.42	49.35	50.07	50.62	51.12	51.58
13	47.22	48.04	48.44	48.43	47.86	47.76	48.45	49.35	50.15	50.64	51.10	51.59
14	47.23	48.05	48.39	48.29	47.82	47.83	.....	49.37	50.19	50.66	51.14	.....
15	47.26	48.09	48.46	48.20	47.75	.....	.....	49.42	.....	50.67	51.17	.....
16	47.30	48.13	48.47	48.14	47.78	.....	.....	49.48	.....	50.60	51.20	.....
17	47.32	48.16	48.48	48.04	47.80	47.85	48.56	49.50	.....	.....	51.22	.....
18	47.34	48.19	48.44	47.98	47.82	47.88	48.60	49.54	50.19	50.69	51.25	51.55
19	47.36	48.21	48.38	47.96	47.83	47.88	48.64	49.59	50.25	50.71	.....	51.58
20	47.40	48.21	48.48	47.95	47.88	47.82	48.68	.....	50.29	50.74	51.21	51.60
21	47.51	48.23	48.52	47.95	47.79	47.86	48.71	.....	50.33	50.76	51.25	51.61
22	47.60	48.23	48.53	.....	47.98	47.90	48.75	49.63	50.36	50.76	51.28	51.64
23	47.64	48.21	48.53	.....	48.01	47.92	48.75	49.66	50.40	50.66	51.31	51.66
24	47.61	48.24	48.50	.....	48.02	47.96	.....	49.69	50.40	50.73	51.34	51.66
25	47.62	48.28	48.50	47.83	48.04	47.99	.....	49.73	50.39	50.76	51.36	51.60
26	47.68	48.29	48.40	47.84	48.03	47.99	.....	49.76	50.44	50.77	51.37	51.49
27	47.73	48.29	48.31	47.87	48.03	48.00	.....	49.77	50.46	50.80	51.35	51.57
28	47.75	48.43	48.30	47.89	48.00	48.06	.....	49.74	50.50	50.82	51.36	51.63
29	47.76	48.50	48.35	47.90	47.97	48.12	.....	49.81	50.51	50.85	51.38	51.66
30	47.75	.....	48.35	47.90	47.91	48.19	.....	49.85	50.54	50.85	51.40	51.69
31	47.76	.....	48.39	.....	47.94	.....	.....	49.89	.....	50.76	.....	51.70

Summit County

Goodyear 4. Goodyear Rubber Co. Along the north side of Springfield Road, 1,480 feet east of the centerline of Seiberling Ave., in Akron.  
Abandoned drilled well, diameter 20 inches, depth 140 feet. Drilled May 5, 1919. Automatic water-stage recorder installed Feb. 4, 1944. Recorder is serviced by employees of the Goodyear Rubber Co.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	25.27	22.54	19.83	33.55	.....	55.04	55.65	55.74	55.84	55.76
2	.....	.....	25.20	22.44	19.76	34.16	.....	55.05	55.66	55.74	55.83	55.76
3	.....	.....	25.06	22.38	20.59	34.84	.....	55.06	55.67	55.75	55.81	55.75
4	.....	28.00	24.95	22.24	21.34	35.45	.....	55.15	55.69	55.75	55.80	55.73
5	.....	27.93	24.86	22.13	22.06	36.04	.....	55.16	55.69	55.75	55.80	55.70
6	.....	27.77	24.90	22.06	22.29	36.66	.....	55.17	55.71	55.81	55.80	55.67
7	.....	27.66	24.56	21.96	22.32	37.28a	52.10	55.20	55.70	55.83	55.80	55.64
8	.....	27.59	24.41	21.84	22.32	37.88	.....	55.21	55.70	55.84	55.80	55.61
9	.....	27.46	24.36	21.79	22.11	38.47	.....	55.22	55.70	55.84	55.80	55.60
10	.....	27.38	24.30	21.69	21.90	39.03	.....	55.24	55.70	55.84	55.79	55.56
11	.....	27.23	24.23	21.63	22.14	39.58	.....	55.25	55.70	55.84	55.80	55.50
12	.....	27.06	24.06	21.35	22.46	40.19	.....	55.26	55.70	55.85	55.80	55.45

a Tape measurement.

## Goodyear 4. Goodyear Rubber Co.--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	.....	27.04	23.96	21.28	22.90	40.49	.....	55.27	55.70	55.85	55.90	55.41
14	.....	26.89	23.90	21.14	23.43	41.31	53.75	55.29	55.70	55.85	55.81	55.29
15	.....	26.74	23.76	21.01	23.98	41.81	.....	55.29	55.70	55.85	55.91	55.14
16	.....	26.69	23.62	20.87	24.59	42.40	.....	55.30	55.69	55.96	55.82	54.93
17	.....	26.57	23.48	20.84	25.23	42.95	.....	55.30	55.69	55.86	55.82	54.59
18	.....	26.40	23.48	20.79	25.86	43.47	54.51	55.30	55.69	55.97	55.82	54.17
19	.....	26.37	23.45	20.68	26.42	43.99	54.58	55.31	55.70	55.87	55.82	55.69
20	.....	26.24	23.37	20.60	27.01	44.50	54.64	55.32	55.70	55.87	55.82	53.18
21	.....	26.14	23.28	20.49	27.54	45.04	54.69	55.32	55.71	55.86	55.82	52.59
22	.....	26.08	23.31	20.44	28.09	45.56	54.73	55.35	55.69	55.86	55.83	52.15
23	.....	25.89	23.54	20.34	28.61	46.20	54.75	55.35	55.68	55.86	55.82	51.60
24	.....	25.81	23.50	20.24	29.14	46.72	54.80	55.35	55.68	55.86	55.81	51.09
25	.....	25.74	23.43	20.16	29.67	47.24	54.82	55.35	55.68	55.86	55.81	50.58
26	.....	25.64	23.33	20.14	30.23	47.75	54.86	55.35	55.68	55.87	55.81	50.08
27	.....	25.51	23.15	20.08	30.78	48.25	54.90	55.35	55.69	55.87	55.81	49.60
28a28.79	.....	25.46	23.08	20.05	31.34	48.70	54.94	55.37	55.70	55.87	55.81	49.07
29	.....	25.33	22.89	20.02	31.85	49.27	54.96	55.38	55.73	55.86	55.79	48.61
30	.....	.....	22.76	19.92	32.39	.....	54.99	55.44	55.73	55.86	55.77	48.04
31	.....	.....	22.60	.....	32.95	.....	55.01	55.54	.....	55.86	.....	47.53

a Tape measurement.

Goodyear 7. Goodyear Rubber Co. 140 feet south of the south bank of Little Cuyahoga River and 110 feet west of the centerline of Seiberling Ave., in Akron. Diameter 24 inches, depth 89 feet. The following are measurements of static level made with a steel tape by employees of the Goodyear Rubber Co.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	26.57	May 12	38.10	July 21	54.50	Sept. 8	54.50
31	25.55	19	38.46	28	54.50	15	54.50
Apr. 7	24.69	26	39.72	Aug. 4	55.50	22	56.50
14	23.81	June 2	44.45	11	56.00	29	56.50
21	26.71	9	47.45	18	56.00	Oct. 6	54.50
28	29.85	26	50.50	Sept. 1	54.50	Dec. 29	45.04
May 5	30.86	July 14	53.50				

## Washington County

Marietta 1 (\*944, p. 198; \*986, p. 275). Marietta Osteopathic Clinic. At Fourth and Putnam Sts., in Marietta.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	29.68	26.30	26.22	26.45	.....	30.66	30.80	30.73	30.65	30.76
2	.....	.....	29.59	26.34	26.44	28.57	.....	30.68	30.76	30.71	30.66	30.76
3	.....	.....	29.56	26.51	26.56	28.61	29.76	30.71	30.92	30.71	30.66	30.76
4	.....	30.52	29.69	26.56	26.82	28.60	29.80	30.74	30.97	30.92	30.67	30.76
5	.....	30.50	29.62	26.66	26.83	28.61	29.88	30.76	30.89	30.73	30.67	30.76
6	.....	30.53	29.41	26.76	26.87	28.66	29.95	30.79	30.88	30.72	30.66	30.79
7	.....	30.53	29.31	26.82	26.91	28.40	29.95	30.86	30.76	30.71	30.66	30.79
8	.....	30.52	28.93	26.86	26.91	28.41	30.04	30.88	30.71	30.71	30.65	30.82
9	.....	30.54	28.61	26.89	26.87	28.79	30.08	30.88	30.69	30.71	30.68	30.81
10	.....	.....	28.37	26.81	26.87	28.86	30.12	30.80	30.67	30.71	30.68	30.80
11	.....	.....	28.31	26.71	26.95	28.86	.....	30.88	30.66	30.71	30.68	30.79
12	.....	.....	28.36	26.51	27.04	28.94	.....	30.95	30.68	30.71	30.67	30.81
13	.....	.....	28.42	26.16	27.17	29.01	.....	30.98	30.70	30.71	30.66	30.84
14	.....	.....	28.36	25.80	27.55	29.04	.....	31.00	30.70	30.75	30.65	31.14
15	.....	30.55	28.23	25.32	27.69	29.11	.....	31.01	30.69	30.74	30.67	30.88
16	.....	30.59	28.04	25.17	27.31	29.22	.....	30.84	30.69	30.74	30.68	30.89
17	.....	30.63	28.37	25.09	27.89	29.28	30.25	30.80	30.70	30.75	30.68	30.89
18	.....	30.64	28.18	25.46	27.95	29.30	30.29	30.74	30.68	30.70	30.70	30.90
19	.....	30.70	27.61	25.67	27.95	29.36	30.28	30.85	30.82	30.71	30.69	30.91
20	.....	30.58	27.13	25.85	28.06	29.11	30.06	30.78	30.89	30.72	30.71	30.89

## Marietta 1. Marietta Osteopathic Clinic--Continued.

Lowest daily water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	.....	30.62	27.01	25.94	28.10	29.21	30.04	30.78	30.84	30.73	30.73	30.93
22	.....	30.59	26.92	26.06	28.14	29.16	30.30	30.66	30.74	30.72	30.72	30.91
23	.....	30.63	26.83	26.15	28.15	29.41	30.32	30.79	30.72	30.66	30.73	30.93
24	30.56	30.55	26.61	26.14	28.20	29.40	30.31	30.81	30.71	30.63	30.75	30.91
25	.....	30.44	26.52	26.09	28.24	29.42	30.39	30.62	30.71	30.64	30.75	30.93
26	.....	30.15	25.99	25.98	28.22	29.41	30.37	30.59	30.71	30.64	30.74	30.90
27	.....	30.09	25.80	25.91	28.23	29.15	30.37	30.57	30.75	30.65	30.77	30.93
28	.....	29.99	25.98	25.91	28.24	.....	30.55	30.56	30.71	30.64	30.76	30.51
29	.....	29.80	26.09	25.96	28.24	.....	30.51	30.57	30.73	30.64	30.74	30.10
30	.....	.....	26.10	26.04	28.31	.....	30.59	30.57	30.74	30.64	30.78	29.89
31	.....	.....	26.20	.....	28.37	.....	30.63	30.83	.....	30.65	.....	29.80

## PENNSYLVANIA

By J. B. Graham

### PROGRAM OF WORK

The program of water-level measurements in observation wells in Pennsylvania, begun in 1931, was continued in 1944 in cooperation with the Topographic and Geologic Survey of the Pennsylvania Department of Internal Affairs. A detailed study of ground-water conditions in the Philadelphia area, begun in 1943, was continued. Work in Philadelphia was centered chiefly in the Philadelphia Navy Yard area. In December 1944 a report concerning water levels in the Navy Yard well field was submitted to the Navy Department through the engineering firm charged with the study of water-supply conditions in the Navy Yard.

About 4,000 measurements of water level, distributed among 44 wells, were made in the State during 1944. Measurements in 5 of the wells were made monthly, weekly in 24 wells, daily in 10 wells, and irregularly in 4 wells. Six automatic water-stage recorders were in use by the end of 1944, three of them in the Philadelphia Navy Yard.

Weekly measurements of 14 observation wells situated in the Susquehanna River Basin were made available to the Pennsylvania Water and Power Company at Baltimore, Maryland. These measurements are used regularly by this concern as a means of predicting minimum stream flow of the Susquehanna River at their hydroelectric plants.

### FLUCTUATIONS OF WATER LEVEL

Precipitation is the predominant factor determining the fluctuations of water level in observation wells in Pennsylvania. Pumpage may affect Luzerne County well 75, near Wapwallopen, and Perry County well 61, at Newport. Pumpage undoubtedly affects the wells in and near the Philadelphia Navy Yard. By the end of 1944, water levels in wells kept in operation in the Navy Yard were lowered slightly as compared to water levels at the end of 1943. However, measurements of observation wells bordering the Navy Yard well field did not indicate a decline in water levels as compared to the previous year.



Figure 18 shows the fluctuations of the weekly average water levels in 1944 in all the observation wells in Pennsylvania exclusive of those in Philadelphia, and the highest and lowest weekly averages prior to 1944. The figure also shows the monthly average precipitation in 1944 and the normal precipitation based on records over a period of 57 years.

In the following table, the 12-year weekly average (1932-43) of water levels in observation wells in Pennsylvania is shown with the average of the water levels in observation wells for each week in 1944. The average for each week in 1944 is based on records of from 17 to 24 wells. This number does not include any of the wells in Philadelphia.

Average of water levels in observation wells in Pennsylvania, by weeks,  
in feet above assumed datum planes

Date	12-Year Average	1944 Average	Date	12-Year Average	1944 Average
Jan. 4	13.69	12.18	July 5	12.76	13.42
11	13.71	12.25	12	12.53	13.26
18	13.54	11.89	19	12.22	12.66
25	13.62	11.80	26	12.17	12.57
Feb. 1	13.67	11.97	Aug. 2	12.03	12.04
8	13.59	12.05	9	11.85	12.15
15	13.80	11.70	16	11.90	11.73
22	13.82	11.70	23	11.77	11.31
Mar. 1	14.09	12.46	30	11.72	11.09
8	14.24	13.12	Sept. 6	11.60	11.40
15	14.73	13.99	13	11.46	11.36
22	15.21	15.20	20	11.43	11.15
29	15.32	15.79	27	11.32	10.78
Apr. 5	15.38	15.81	Oct. 4	11.21	10.54
12	15.47	15.83	11	11.15	10.76
19	15.33	16.00	18	11.17	10.54
26	15.00	16.51	25	11.44	11.01
May 3	14.58	16.59	Nov. 1	11.96	10.84
10	14.23	16.48	8	12.17	10.52
17	14.05	15.07	15	12.49	10.43
24	14.06	15.62	22	12.61	10.58
31	13.80	15.36	29	12.64	11.16
June 7	13.57	14.28	Dec. 6	12.64	11.88
14	13.15	14.02	13	12.86	12.29
21	13.12	14.27	20	13.02	12.93
28	12.86	13.81	27	13.25	13.64

In January 1944 the weekly average water levels were lower than the 12-year weekly averages for January. During the last week in February, the average water level reached the lowest level recorded for that week during the period of record. The lower average water levels for the months of January and February 1944 resulted from deficient precipitation at the end of 1943 and for the months of January and February 1944. Precipitation for the months of March, April, May, and June was considerably above normal in Pennsylvania and weekly average water levels rose correspondingly.

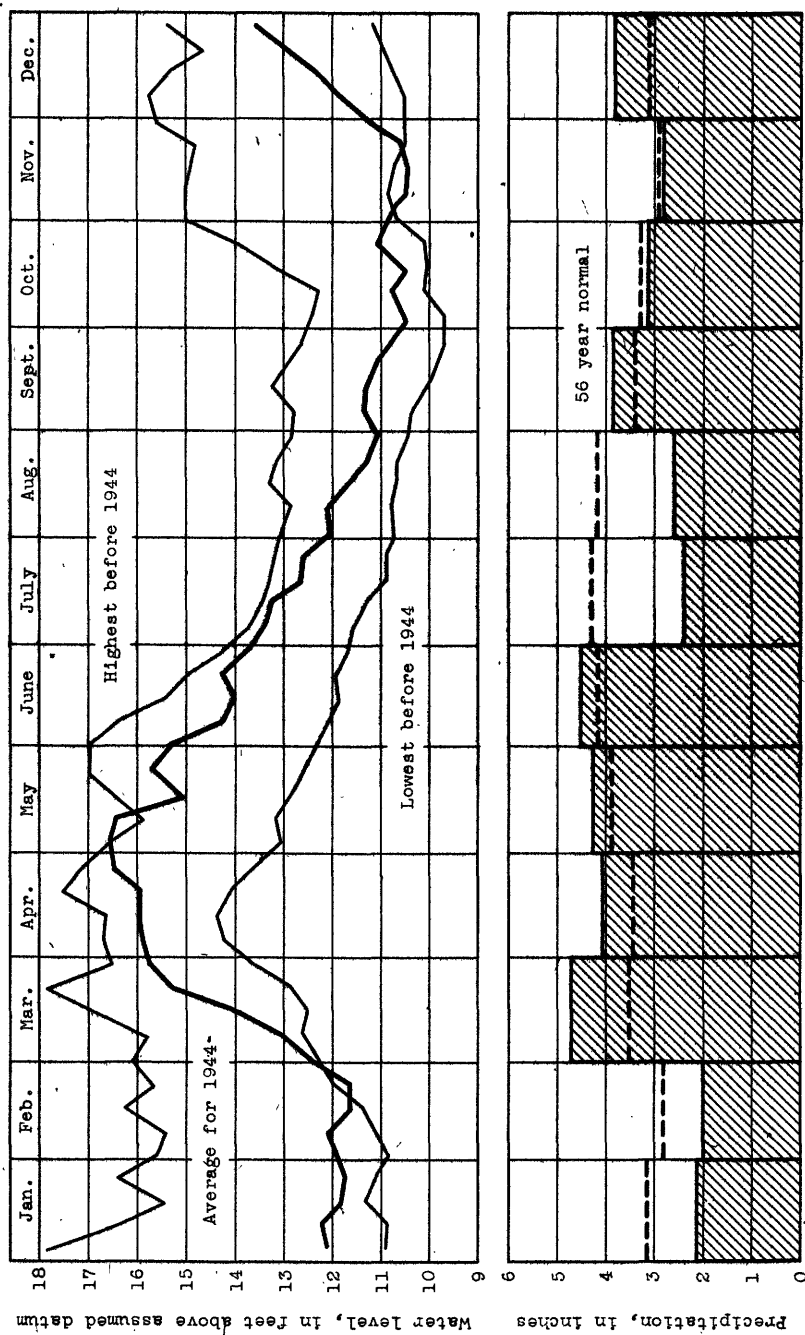


Figure 18.--Graphs showing average ground-water levels and precipitation in Pennsylvania in 1944 in comparison with previous years of record.

During the second week of May, average water levels were the highest recorded for the period of record. Below-normal precipitation during the months of July and August caused the average water levels to fall below the 12-year average where they remained until the last week of 1944. For two successive weeks in November, average water levels were lower than previously recorded.

During December, precipitation in excess of the 57-year average caused the average water levels to rise to a stage nearly equal to the 12-year average for the last week of December.

## WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Bedford County

116 (\*936, p. 241; 944, p. 233; \*986, p. 279). At West Saxton. Extremes of observed water level, in feet below land-surface datum: Highest, Jan. 1, 1943, 45.49; lowest, Dec. 22, 1944, 53.78.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	53.44	Apr. 7	50.90	July 7	52.10	Oct. 6	53.57
14	53.65	14	51.20	14	52.20	13	53.62
21	53.74	21	51.50	21	52.39	20	53.68
28	53.66	28	48.90	28	52.54	27	53.46
Feb. 4	53.47	May 5	50.25	Aug. 4	52.72	Nov. 3	53.53
11	53.46	12	49.40	11	52.85	10	53.55
18	53.60	19	50.80	18	53.02	17	53.59
25	53.71	26	51.05	25	53.09	24	53.60
Mar. 3	53.34	June 2	51.17	Sept. 1	53.24	Dec. 1	53.63
10	52.10	9	51.22	8	53.28	8	53.68
17	49.22	16	51.50	15	53.38	15	53.71
24	49.37	23	51.70	22	53.41	22	53.78
31	50.10	30	51.85	29	53.56	29	53.74

Berks County

114 (\*817, p. 268; 845, p. 417; 886, p. 628; 906, p. 217; 936, p. 241; 944, p. 233; \*986, p. 279). At Bally. Extremes of observed water level, in feet below land-surface datum: Highest, Aug. 14, 1942, 4.37; lowest, Feb. 9, 1940, 19.92.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	17.00	Apr. 8	15.33	July 8	16.93	Oct. 7	18.87
15	17.39	15	15.78	15	17.26	14	19.00
22	17.82	22	15.18	22	17.60	21	18.85
29	18.01	29	12.08	29	17.71	28	18.84
Feb. 5	18.08	May 6	14.01	Aug. 5	17.93	Nov. 4	19.01
12	18.19	13	15.09	12	18.06	11	19.22
19	17.94	20	15.81	19	18.22	18	19.25
26	17.78	27	16.27	26	18.39	25	18.94
Mar. 4	17.41	June 3	16.62	Sept. 2	19.00	Dec. 2	17.66
11	16.92	10	16.94	9	18.69	9	17.81
18	15.30	17	16.88	16	18.22	16	17.41
25	12.71	24	16.22	23	19.20	23	17.91
Apr. 1	15.46	July 1	16.60	30	18.71	30	17.94

Bradford County

81 (\*817, p. 268; 845, p. 417; 886, p. 628; 906, p. 217; 936, p. 242; 944, p. 233; \*986, p. 280). At Monroeton. Extremes of observed water level, in feet below land-surface datum: Highest, Apr. 6, 1941, 1.45; lowest, Sept. 24 to Oct. 8, 1932; Oct. 3-17, 1936, Aug. 20 to Oct. 29, 1939; Oct. 5-19, Oct. 26 to Nov. 29, 1941; Sept. 21, 1942; Sept. 6 to Oct. 24, 1943, when well was dry.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.57	Jan. 16	3.27	Feb. 6	3.18	Feb. 29	3.49
7	3.63	23	3.15	14	3.60	Mar. 6	3.32
9	3.47	30	3.00	20	3.57	Sept. 22	4.87

82 (\*817, p. 268; 845, p. 418; 886, p. 629; 906, p. 219; 936, p. 242; 944, p. 234; \*986, p. 280). At East Towanda. Extremes of observed water level, in feet below land-surface datum: Highest, May 23, 1943, 26.00; lowest, Feb. 15, 1942, 61.70.

Water level, in feet below land-surface datum, 1944

Jan. 2	48.80	Apr. 9	35.24	July 9	42.39	Oct. 8	52.40
9	48.00	16	35.45	16	43.79	15	53.01
16	48.88	23	33.30	23	44.97	22	53.57
23	49.65	30	29.01	30	45.79	29	54.10
30	50.30	May 7	37.00	Aug. 6	46.69	Nov. 5	54.63
Feb. 6	50.65	14	29.60	13	47.50	12	55.07
13	51.77	21	34.97	20	48.15	19	55.69
20	51.60	28	38.25	27	48.78	26	55.91
27	49.95	June 4	39.25	Sept. 3	49.32	Dec. 3	56.02
Mar. 5	51.00	11	41.21	10	49.91	10	55.76
12	51.65	18	42.67	17	50.60	17	43.88
19	52.18	25	42.26	24	51.22	24	39.98
26	44.95	July 2	41.13	Oct. 1	51.84	31	37.81
Apr. 2	35.25						

Butler County

120 (\*936, p. 242; 944, p. 234; \*986, p. 280). At West Sunbury. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 14, 1942, 6.84; lowest, Oct. 7 and 14, 1944, 11.06.

Water level, in feet below land-surface datum, 1944

Jan. 1	9.51	Apr. 8	8.58	July 8	9.81	Oct. 7	11.06
8	9.02	15	8.10	15	9.88	14	11.06
15	9.29	22	8.81	22	10.10	21	10.97
22	9.52	29	8.57	29	10.03	28	10.86
29	9.31	May 6	8.82	Aug. 5	10.02	Nov. 4	10.80
Feb. 5	9.21	13	8.90	12	10.17	11	10.77
12	9.39	20	9.20	19	10.21	18	10.70
19	9.13	27	8.40	26	10.39	25	10.62
26	8.38	June 3	8.91	Sept. 2	10.42	Dec. 2	10.32
Mar. 4	8.86	10	9.15	9	10.50	9	10.24
11	8.40	17	9.35	16	10.67	16	10.13
18	7.62	24	9.45	23	10.84	23	10.07
25	7.46	July 1	9.40	30	10.90	31	9.76
Apr. 1	8.33						

Centre County

38 (\*817, p. 271; 845, p. 418; 886, p. 629; 906, p. 219; 936, p. 243; 944, p. 234; \*986, p. 281). At Central City. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 21, 1936, when well was flooded; lowest, Sept. 9, 1944, 7.12.

## 38. At Central City--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	5.46	Apr. 8	5.14	July 8	5.70	Oct. 7	6.35
8	5.24	15	5.08	15	5.66	14	5.96
15	5.55	22	5.20	22	5.86	21	5.71
22	5.54	29	4.80	29	6.06	28	5.65
29	4.78	May 6	5.05	Aug. 5	6.34	Nov. 4	5.70
Feb. 5	5.27	13	4.40	12	6.50	11	5.71
12	5.50	20	5.20	19	6.67	18	5.78
19	5.52	27	4.84	26	6.78	25	5.60
Mar. 4	5.22	June 3	5.12	Sept. 2	6.95	Dec. 2	5.50
11	5.27	10	5.60	9	7.12	9	5.43
18	3.72	17	5.08	16	6.98	16	5.50
25	3.90	24	5.25	23	6.78	23	5.60
Apr. 1	4.73	July 1	5.50	30	6.57	30	5.40

Clarion County

103 (\*817, p. 272; 845, p. 419; 886, p. 629; 906, p. 219; 936, p. 243; 944, p. 235; \*986, p. 281). At Clarion. Extremes of observed water level, in feet below land-surface datum: Highest, Apr. 9, 1938, 11.36; lowest, Sept. 23, 1944, 20.76.

Water level, in feet below land-surface datum, 1944

Jan. 8	17.66	Apr. 8	14.06	July 8	18.97	Oct. 7	20.59
15	18.20	15	12.25	15	19.27	14	20.41
22	19.14	22	13.65	22	19.38	21	20.43
29	18.58	29	13.11	29	19.71	28	19.07
Feb. 5	16.72	May 6	15.20	Aug. 5	19.19	Nov. 11	20.31
12	16.72	13	13.76	12	20.12	18	20.33
19	17.98	20	16.00	19	20.30	25	19.07
26	15.40	27	12.65	26	20.41	Dec. 2	18.40
Mar. 4	14.31	June 3	15.16	Sept. 2	20.27	9	18.22
11	13.35	10	17.30	9	20.44	16	17.15
18	12.01	17	17.86	16	20.61	23	17.44
25	11.99	24	18.05	23	20.76		
Apr. 1	12.62	July 1	18.36				

Columbia County

75 (\*817, p. 274; 845, p. 420; 886, p. 630; 906, p. 220; 936, p. 244; 944, p. 235; \*986, p. 281). At Fernville. Extremes of observed water level, in feet below land-surface datum: Highest, Sept. 2, 1933, 7.28; lowest, Dec. 15, 1931, 16.91.

Water level, in feet below land-surface datum, 1944

Jan. 1	14.89	Apr. 8	13.05	July 8	13.49	Oct. 7	15.15
8	14.98	15	14.97	15	13.65	14	14.98
15	13.40	22	12.55	22	14.05	21	13.18
22	13.10	29	12.83	29	14.26	28	13.40
29	14.52	May 6	12.06	Aug. 5	14.49	Nov. 4	13.92
Feb. 5	14.37	13	13.95	12	14.18	11	14.14
12	14.67	20	13.08	19	14.78	18	14.35
19	14.60	27	12.68	26	14.82	25	14.40
26	13.68	June 3	12.80	Sept. 2	15.40	Dec. 2	13.92
Mar. 5	13.42	10	13.32	9	15.51	9	13.04
12	12.64	17	13.09	16	14.02	16	13.24
18	12.91	24	12.91	23	14.57	23	13.18
25	12.10	July 1	13.13	30	14.92	30	13.10
Apr. 1	12.85						

Elk County

118 (\*936, p. 244; 944, p. 236; \*986, p. 282). At Kersey. Extremes of observed water level, in feet below land-surface datum: Highest, June 11, 1943, 8.12; lowest, Sept. 22, 1944, 12.49.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	11.57	Apr. 7	10.34	July 7	10.68	Oct. 6	12.41
14	11.56	14	9.60	14	10.86	13	12.21
21	11.66	21	10.14	21	11.12	20	12.20
28	11.56	28	10.20	28	11.39	27	12.20
Feb. 4	11.72	May 5	10.22	Aug. 4	11.55	Nov. 3	12.12
11	11.66	12	10.02	11	11.74	10	12.11
18	11.82	19	10.15	18	11.60	17	12.34
25	11.62	26	10.01	25	12.16	24	12.28
Mar. 3	11.32	June 2	9.50	Sept. 1	12.19	Dec. 1	12.29
10	11.61	9	10.26	8	12.32	8	11.40
17	10.55	16	10.30	15	12.44	15	11.86
24	10.58	23	10.20	22	12.49	22	12.01
31	10.45	30	10.45	29	12.44	29	11.80

Erie County

1 (\*817, p. 276; 845, p. 420; 886, p. 630; 906, p. 220; 936, p. 244; 944, p. 236; \*986, p. 282). Near Carters Corner. Extremes of observed water level, in feet below land-surface datum: Highest, Apr. 4, 1940, 8.92; lowest, Sept. 8 to Dec. 1, 1934, when well was dry.

Water level, in feet below land-surface datum, 1944

Jan. 15	16.15	May 20	14.08	July 30	18.64	Nov. 4	18.93
Feb. 12	15.25	July 1	18.41	Aug. 26	18.79	11	18.54
Mar. 18	10.65	8	18.32	Sept. 2	18.85	18	18.55
May 13	13.08	17	18.65	30	19.07	25	17.92

Huntingdon County

47 (\*817, p. 279; 845, p. 421; 886, p. 631; 906, p. 221; 936, p. 245; 944, p. 236; \*986, p. 282). Near Trexler Bridge. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 15, 1941, when well was full; lowest, Oct. 1, 1932, 26.25.

Water level, in feet below land-surface datum, 1944

Jan. 1	24.09	Apr. 8	20.28	July 8	22.36	Oct. 7	24.39
8	23.53	15	20.29	15	22.54	14	24.43
15	22.71	22	21.53	22	22.70	21	21.69
22	22.40	29	17.90	29	22.82	28	21.52
29	22.68	May 6	19.39	Aug. 5	23.02	Nov. 4	22.01
Feb. 5	21.81	13	19.37	12	23.16	11	22.66
11	22.03	20	20.55	19	23.33	18	23.19
19	22.21	27	21.22	26	23.54	26	23.71
26	21.77	June 3	21.02	Sept. 2	23.66	Dec. 2	23.39
Mar. 4	20.77	10	21.50	9	23.76	9	23.49
11	20.11	17	21.91	16	23.97	16	23.57
18	16.25	24	21.68	23	24.09	23	23.23
24	16.87	July 1	22.07	30	24.21	30	22.69
Apr. 1	18.88						

50 (\*817, p. 281; 845, p. 422; 886, p. 631; 906, p. 221; 936, p. 245; 944, p. 237; \*986, p. 283). Near Petersburg. Extremes of observed water level, in feet below land-surface datum: Highest, Jan. 3, 1942, 0.05; lowest, Sept. 28, 1940, 6.96.

Water level, in feet below land-surface datum, 1944

Jan. 1	4.36	Jan. 22	4.01	Feb. 12	2.69	Mar. 11	1.20
8	4.05	29	2.16	19	3.05	18	.50
15	4.02	Feb. 5	2.65	Mar. 4	2.70	25	.90

## 50. Near Petersburg--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 8	1.20	June 17	3.80	Aug. 26	4.90	Nov. 4	4.60
15	1.40	24	1.80	Sept. 2	6.00	11	4.50
22	2.30	July 1	2.90	9	6.10	18	5.00
29	1.20	8	3.30	16	5.00	25	4.80
May 6	1.20	15	3.30	23	5.60	Dec. 2	3.50
13	.50	22	3.25	30	5.30	9	3.30
23	1.00	29	4.10	Oct. 7	5.10	16	4.80
27	1.20	Aug. 5	5.30	14	5.10	23	4.80
June 3	1.65	12	4.30	21	4.50	30	4.80
10	1.79	19	4.80	28	4.30		

Indiana County

200. State of Pennsylvania. In Indiana, on campus of State Teachers' College, in cement well pit near driveway entrance to basement of Women's Dormitory. Altitude about 1,305 above mean sea level. Unused drilled well, diameter 6-inches. Measuring point, top edge of iron collar on top of casing 1.0 foot above pit floor and 5 feet below manhole cover in top of pit, at land-surface datum. Water-stage recorder installed Oct. 28, 1944.

Daily noon water level, in feet below land-surface datum, 1944							
Oct. 29	82.78	Nov. 14	82.90	Nov. 30	82.21	Dec. 16	81.62
30	82.80	15	82.82	Dec. 1	82.52	17	81.62
31	82.80	16	82.94	2	82.60	18	81.63
Nov. 1	82.83	17	83.10	3	82.50	19	81.64
2	82.85	18	83.09	4	82.30	20	81.58
3	82.81	19	82.94	5	82.17	21	81.60
4	82.72	20	82.66	6	82.10	22	81.72
5	82.83	21	82.78	7	82.11	23	81.50
6	82.92	22	82.79	8	81.88	24	81.53
7	82.93	23	82.68	9	82.06	25	81.26
8	82.88	24	82.80	10	81.98	26	81.51
9	82.77	25	82.88	11	81.58	27	80.80
10	82.82	26	82.65	12	81.30	28	80.80
11	83.10	27	82.48	13	81.80	29	80.62
12	83.02	28	82.70	14	81.80	30	80.50
13	82.93	29	82.40	15	81.72	31	80.58

Lackawanna County

101 (\*817, p. 283; 845, p. 422; 886, p. 631; 906, p. 221; 936, p. 245; 944, p. 237; \*986, p. 283). At Waverly. Extremes of observed water level, in feet below land-surface datum; Highest, Mar. 17, 18, 19, 1936; Mar. 30, 1940, when well was flooded; lowest, Sept. 30, 1939, 8.43.

Water level, in feet below land-surface datum, 1944							
Sept. 21	6.25	Oct. 10	6.30	Nov. 1	5.94	Nov. 23	4.95
26	6.37	17	6.15	8	6.20	23	4.95
Oct. 4	6.60	24	5.75	15	6.35		

102 (\*817, p. 284; 845, p. 423; 886, p. 632; 906, p. 222; 936, p. 246; 944, p. 237; \*986, p. 283). Near Carbondale. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 21, 1936, 1.17; lowest, Oct. 15, 1943, 13.10.

Water level, in feet below land-surface datum, 1944							
Jan. 1	9.18	Feb. 12	10.40	Mar. 24	7.70	May 5	6.00
8	9.59	19	10.40	Apr. 1	7.20	13	5.41
15	9.85	25	9.90	7	6.75	19	7.82
22	10.20	Mar. 4	9.86	14	5.05	27	5.78
29	9.75	10	9.83	22	5.10	June 2	6.45
Feb. 4	9.59	18	8.59	29	4.10	10	7.05

## 102. Near Carbondale--Continued.

## Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 16	6.61	Aug. 11	9.43	Sept. 29	8.00	Nov. 17	7.77
24	7.11	18	9.85	Oct. 7	8.59	24	6.95
July 1	5.85	26	10.09	13	7.50	Dec. 2	4.25
7	6.91	Sept. 1	10.23	21	7.99	8	4.95
14	8.44	8	10.68	28	6.80	16	5.05
22	7.30	16	9.80	Nov. 4	7.20	21	5.80
29	7.87	21	8.95	10	7.85	29	5.70
Aug. 4	8.90	23	7.93				

Lancaster County

119 (\*936, p. 246; 944, p. 238; \*986, p. 284). At West Quarryville. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 21, 1943, 6.64; lowest, Jan. 31, 1942, 25.10.

## Water level, in feet below land-surface datum, 1944

Jan. 2	19.23	Apr. 2	11.05	July 9	17.62	Oct. 15	22.46
9	15.04	9	12.08	16	18.06	22	22.61
16	17.88	16	12.53	23	18.54	29	22.80
23	18.69	23	10.34	30	18.95	Nov. 5	23.00
30	19.00	30	7.40	Aug. 6	19.33	12	23.17
Feb. 6	19.28	May 7	9.82	13	19.72	19	23.33
12	19.62	21	12.75	20	20.14	26	23.43
20	19.33	31	14.15	27	20.50	Dec. 3	23.21
27	19.54	June 4	14.82	Sept. 10	21.19	10	23.12
Mar. 5	19.52	13	15.69	17	21.41	17	21.82
12	17.00	18	16.06	24	21.71	25	22.04
19	13.34	25	16.53	Oct. 1	21.98	31	21.82
26	9.85	July 2	17.19	8	22.22		

Luzerne County

76 (\*817, p. 287; 845, p. 424; 886, p. 632; 906, p. 222; 936, p. 247; 944, p. 238; \*986, p. 284). Near Wapwallopen. Extremes of observed water level, in feet below land-surface datum: Highest, Aug. 5, 1935, 18.17; lowest, Sept. 3, 1941, 29.89.

## Water level, in feet below land-surface datum, 1944

Jan. 6	24.55	Apr. 2	23.60	July 2	25.70	Oct. 1	28.85
11	24.68	9	24.45	9	27.00	2	28.63
12	25.15	17	24.15	15	27.30	8	28.45
19	25.45	23	23.95	18	26.85	15	28.35
25	25.80	27	22.52	23	26.90	22	28.20
30	26.03	30	23.15	30	27.25	29	28.65
Feb. 6	26.50	May 7	23.90	Aug. 8	27.45	Nov. 5	28.65
14	26.93	14	23.45	13	28.20	6	27.89
15	26.85	21	24.70	20	28.55	12	28.25
20	27.20	28	24.65	27	28.80	19	28.50
27	27.60	June 3	25.10	29	28.47	26	28.60
Mar. 5	27.85	11	25.75	Sept. 6	28.15	Dec. 10	23.00
12	27.90	20	24.21	10	28.82	11	22.67
19	27.35	21	24.15	17	27.30	17	23.45
25	22.12	25	24.55	24	28.80	31	24.70
26	22.60						

Northumberland County

57 (\*817, p. 291; 845, p. 425; 886, p. 633; 906, p. 223; 936, p. 247; 944, p. 239; \*986, p. 285). At Sunbury. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 28, 1936, 6.31; lowest, Dec. 21, 1941, 20.71.



## 57. At Sunbury--Continued.

Water level, in feet below land-surface datum, 1944							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	18.88	Apr. 3	17.27	July 13	16.47	Sept. 19	18.76
29	16.98	May 22	16.10	Aug. 8	17.55	Nov. 28	19.45

Perry County

61 (\*817, p. 292; 845, p. 425; 886, p. 633; 906, p. 223; 936, p. 248; 944, p. 238; \*986, p. 285). At Newport. Measuring point lowered 0.02 foot on Sept. 30, 1945. Extremes of observed water level, in feet below land-surface datum: Highest, June 7, 1940, 7.92; lowest, Dec. 12, 1941, 17.54.

Water level, in feet below land-surface datum, 1944							
Jan. 1	15.88	Apr. 1	13.97	June 30	13.94	Oct. 1	15.96
8	15.66	8	13.62	July 1	13.99	5	15.99
15	15.64	13	13.69	9	14.30	12	16.14
22	15.66	17	13.69	13	14.40	20	16.18
29	15.78	21	13.75	23	14.75	27	15.93
Feb. 5	15.93	29	12.71	30	14.94	Nov. 4	15.86
7	15.95	May 6	12.13	Aug. 5	15.13	11	15.94
14	16.07	13	11.68	10	15.23	19	16.11
19	16.06	20	12.24	15	14.96	23	16.13
26	16.21	23	12.48	19	15.41	25	16.20
Mar. 4	16.20	27	12.78	25	15.46	Dec. 6	16.30
11	16.03	June 3	13.00	Sept. 6	15.75	10	15.89
15	15.69	10	13.39	14	14.93	17	15.90
18	15.43	17	13.71	17	15.62	31	15.60
25	14.71	24	13.46	25	15.61		

110 (\*840, p. 359; 845, p. 426; 886, p. 634; 906, p. 223; 936, p. 248; 944, p. 239; \*986, p. 285). Near Millerstown. Extremes of observed water level, in feet below land-surface datum: Highest, May 7, 1943, 1.63; lowest, Dec. 11, 1939, 9.33.

Water level, in feet below land-surface datum, 1944							
Feb. 1	2.68	Apr. 13	2.59	Aug. 15	3.17	Oct. 19	6.15
Mar. 15	2.49	May 23	2.57	Sept. 17	5.04	Nov. 20	5.94
25	2.45	June 30	2.59				

Philadelphia County

P1 (\*986, p. 285). City of Philadelphia. Formerly owned by Girard Estate. In Philadelphia, at southwest corner of 20th Street and Oregon Avenue, in yard of Passayunk power station, just north of main building at plant, in concrete well pit.

Water level, in feet below land-surface datum, 1944							
Jan. 25	31.04	Apr. 28	31.03	July 29	32.69	Nov. 11	32.48
Feb. 28	31.21	May 24	31.69	Aug. 28	32.82	Dec. 9	32.46
Mar. 28	31.28	June 28	32.10	Oct. 3	33.16		

P2 (\*986, p. 285). City of Philadelphia. Formerly owned by Atlantic Refining Co. In Philadelphia, at projected intersection of Pattison Avenue and 27th Street, at refinery, just west and inside boundary fence enclosing oil-storage tanks.

Water level, in feet below land-surface datum, 1944							
Jan. 25	38.22	Apr. 28	38.75	June 28	37.62	Aug. 28	39.12
Feb. 28	38.50	May 24	37.36	Aug. 3	38.63	Oct. 3	39.26
Mar. 28	38.44						

P3 (\*986, p. 286). City of Philadelphia. In south Philadelphia, in League Island Park, just east of asphalt driveway bordering east side of swimming pool, in concrete well pit.

Daily noon water level, in feet below land-surface datum, 1944

(From recorder charts)											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	.....	29.89	30.32	.....	.....	29.92	34.40	33.80	.....	26.85	.....
2	.....	30.02	30.57	.....	.....	29.90	31.62	33.40	31.70	26.60	.....

## P3. City of Philadelphia--Continued.

Daily noon water level, in feet below land-surface datum, 1944  
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	.....	29.77	30.50	.....	.....	29.82	34.35	33.80	29.60	27.40	.....	.....
4	.....	29.90	30.33	.....	.....	28.90	34.50	33.70	31.00	27.35	.....	28.90
5	.....	29.95	30.21	29.95	.....	29.15	34.51	33.70	29.80	27.60	.....	27.90
6	.....	29.88	30.42	30.25	.....	29.78	35.32	33.20	.....	27.30	29.00	27.65
7	.....	.....	29.93	30.02	.....	29.83	35.47	33.20	.....	27.20	27.80	27.60
8	.....	.....	.....	.....	.....	29.99	33.80	33.10	.....	27.05	27.65	27.30
9	.....	.....	.....	.....	.....	30.14	31.70	.....	30.05	26.85	27.70	27.70
10	.....	.....	.....	.....	.....	29.85	32.10	.....	30.15	27.05	27.45	28.00
11	.....	.....	30.68	.....	30.31	32.49	32.60	.....	29.10	27.10	27.55	27.55
12	.....	.....	30.56	29.70	30.20	32.98	32.80	33.45	27.65	27.15	27.65	26.95
13	.....	30.80	30.22	29.98	29.90	33.52	33.50	31.80	27.40	27.00	27.55	27.70
14	.....	30.45	30.47	30.29	27.40	33.63	32.90	31.70	27.35	26.85	27.50	27.90
15	.....	30.34	30.34	.....	28.60	30.32	33.10	31.70	27.50	27.35	27.40	28.05
16	.....	30.60	30.14	.....	30.58	29.90	32.10	.....	27.75	27.30	27.30	27.75
17	29.99	30.38	30.00	.....	30.97	29.84	31.80	.....	28.20	27.40	27.80	27.75
18	29.96	30.30	30.29	30.32	30.82	31.68	32.60	.....	27.60	27.35	27.70	27.60
19	30.03	30.69	30.50	30.32	30.20	.....	32.70	.....	27.50	27.40	.....	27.65
20	30.66	30.30	30.15	30.15	30.03	.....	33.20	.....	27.40	27.30	27.90	27.80
21	30.93	30.29	30.52	30.29	27.08	29.68	33.60	.....	27.20	26.95	28.30	27.75
22	31.04	30.32	30.70	.....	30.20	32.42	32.20	.....	27.40	26.90	28.75	28.10
23	31.21	30.02	30.23	.....	31.30	33.77	.....	.....	27.45	27.40	28.90	27.75
24	31.50	30.21	30.22	.....	29.90	34.08	.....	.....	.....	27.75	28.90	27.75
25	31.64	30.32	30.36	29.72	29.15	32.63	.....	.....	.....	27.70	29.25	25.60
26	31.64	30.36	29.40	30.15	30.00	34.38	33.80	30.00	27.15	27.60	28.55	.....
27	.....	30.07	29.80	29.80	30.07	34.57	33.40	29.70	27.25	27.65	27.60	.....
28	.....	29.95	30.42	31.15	29.20	34.77	33.50	29.40	27.10	27.60	.....	.....
29	.....	29.99	30.10	.....	29.40	33.70	33.70	29.50	27.00	26.85	.....	.....
30	29.95	.....	30.18	.....	30.00	34.35	33.50	31.50	26.95	27.60	.....	27.70
31	29.81	.....	29.00	.....	29.95	.....	32.80	31.70	.....	.....	.....	26.60

P4. (\*986, p. 286). City of Philadelphia. In south Philadelphia at Municipal Airport, in frame well house just southeast of passenger office.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	11.37	Apr. 28	10.14	July 29	12.52	Nov. 11	12.09
Feb. 28	11.10	May 24	11.15	Aug. 28	12.87	Dec. 9	11.35
Mar. 28	10.59	June 28	11.89	Oct. 3	12.07		

P5. Philadelphia Naval Hospital. In south Philadelphia, on Pattison Avenue between 16th and 19th Streets, in brick pump house, east of main hospital unit. Altitude about 15 feet above mean sea level. Unused drilled well, diameter 10 inches, depth 147 feet. Measuring point, upper edge of hole in north side of pump base, at land-surface datum.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	26.94	May 24	26.85	Aug. 28	27.70	Nov. 11	26.99
Mar. 28	27.24	June 28	29.31	Oct. 3	26.78	Dec. 9	27.03
Apr. 28	27.35	July 29	29.11				

P6. Philadelphia Naval Hospital. In south Philadelphia, on Pattison Avenue between 16th and 19th Streets, in brick pump house, west of main hospital unit. Altitude about 15 feet above mean sea level. Unused drilled well, diameter 10 inches, depth 151 feet. Measuring point, upper edge of hole in south side of pump base, at land-surface datum.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	25.50	May 24	25.23	Aug. 28	26.11	Nov. 11	25.73
Mar. 28	25.66	June 28	25.39	Oct. 3	25.49	Dec. 9	25.69
Apr. 28	25.71	July 29	27.20				

P7. Morgenthaler Bros. Ice. Co. In south Philadelphia on Second Street between Jackson and Snyder Streets, in wood pump house along east fence of Morgenthaler property. Altitude about 18 feet above mean sea level. Used drilled well, diameter 12 inches, depth 158 feet. Used occasionally in summer. Measuring point, bottom edge of west side of pump base, 0.5 feet above land-surface datum.

## P7. Morganthaler Bros. Ice. Co.--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 13	45.41	June 17	47.98	Sept. 16	52.04	Oct. 23	46.71
20	46.64	24	47.63	Oct. 3	47.48	Nov. 6	47.09
June 2	48.35	July 1	47.88	10	47.40	11	46.51
10	47.45	Sept. 9	51.66	16	47.50	Dec. 23	44.98

P8. McCahan Sugar Co. In south Philadelphia, on Water Street between Morris and Tasker Streets, in pit covered by concrete slab at west edge of sidewalk, about 100 feet north of Morris Street. Altitude about 15 feet above mean sea level. Unused drilled well, diameter 6 inches, depth 105 feet. Measuring point, top of  $\frac{3}{4}$ -inch pipe set in cement cover of well pit, at land-surface datum.

Water level, in feet below land-surface datum, 1944

June 11	46.48	July 25	56.84	Sept. 9	61.50	Nov. 6	59.06
17	55.08	Aug. 2	60.85	16	61.57	11	59.32
24	54.43	5	60.70	Oct. 3	59.49	Dec. 9	54.68
July 1	55.39	12	60.72	10	57.94	17	54.76
8	53.41	26	61.20	16	58.12	23	53.96
15	55.84	Sept. 2	60.10	23	59.35	30	56.11

N1 (#986, p. 286). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage. Well pumping when measured.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	99	99	99	...	109	102	102	106	104	...	106	107
2	..	100	99	...	109	104	...	106	104	104	107	109
3	99	102	99	off	104	103	102	106	...	104	107	...
4	99	99	99	off	104	...	102	106	102	105	106	107
5	99	100	..	104	104	106	103	115	104	105	...	106
6	99	...	99	102	104	105	102	...	104	104	106	109
7	99	99	99	102	...	103	103	106	104	104	106	107
8	99	99	99	102	99	104	102	104	104	...	106	109
9	..	99	99	..	102	103	...	102	104	104	107	109
10	99	99	99	99	102	103	99	102	...	104	106	...
11	99	99	99	99	102	...	102	104	104	105	106	115
12	99	99	..	99	102	102	100	104	104	104	...	107
13	99	..	99	99	102	103	104	...	104	104	106	109
14	99	99	99	102	...	103	102	104	104	104	106	115
15	98	99	99	102	102	104	102	104	104	...	106	118
16	..	99	99	...	102	104	...	104	104	105	106	115
17	99	99	99	99	102	104	100	104	...	105	106	...
18	99	99	99	102	104	...	102	104	104	105	106	113
19	99	99	..	102	103	104	102	104	104	104	...	113
20	99	..	99	102	102	103	103	...	102	105	106	111
21	99	99	102	102	...	...	103	102	104	104	105	113
22	102	99	102	102	102	102	104	104	104	...	106	113
23	...	99	102	...	103	102	...	104	104	105	109	113
24	102	99	102	102	103	102	102	102	...	106	109	...
25	102	99	102	100	100	...	106	104	102	106	111	...
26	102	99	...	102	103	102	104	104	102	106	...	111
27	104	..	100	99	102	103	108	...	104	106	107	111
28	104	98	102	102	...	102	108	102	104	106	107	111
29	102	99	102	102	99	102	104	106	104	...	107	111
30	...	..	102	...	102	102	...	104	104	107	107	111
31	100	..	...	...	103	...	106	104	...	106	...	...

N2 (#986, p. 286). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage. Well pumping when measured. Yield of well reduced from September to end of year due to leaks in casing.

## N2. United States Navy--Continued.

Water level, in feet below land-surface datum, 1944												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	111	115	118	109	115	118	115	115	115	...	111	106
2	...	115	118	...	115	118	...	115	115	104	113	106
3	111	115	118	109	115	118	115	115	...	106	113	...
4	111	115	119	115	115	...	115	115	112	107	113	106
5	111	115	...	115	117	117	115	115	115	107	...	107
6	111	...	118	115	115	117	115	...	113	106	112	106
7	111	115	118	115	...	119	115	118	113	106	113	106
8	111	115	118	115	115	119	114	115	113	...	112	106
9	...	115	118	...	115	119	...	113	113	103	113	106
10	111	115	118	115	115	119	113	115	...	104	110	...
11	111	117	118	115	115	...	114	115	111	105	111	110
12	111	115	...	115	115	117	114	113	113	104	...	106
13	111	...	118	115	115	118	115	...	111	103	107	106
14	111	117	118	115	...	119	114	115	113	105	110	111
15	111	117	118	115	115	119	115	115	113	...	107	109
16	...	115	118	...	118	118	...	115	113	103	107	106
17	111	117	118	113	115	120	114	115	...	103	109	...
18	111	115	115	115	119	...	115	115	111	101.5	107	104
19	111	118	...	115	118	115	114	115	113	104	...	106
20	111	...	115	115	118	117	114	...	111	105	107	106
21	112	117	115	115	...	113	114	113	113	104	107	104
22	115	118	115	115	115	117	115	115	111	...	107	104
23	...	118	115	...	117	117	...	113	113	104	109	104
24	115	118	115	115	119	117	115	113	...	111	107	...
25	115	118	115	115	115	...	115	113	103	113	110	...
26	117	118	...	115	119	117	115	113	109	113	...	106
27	115	...	115	115	118	118	115	...	109	112	109	106
28	115	118	115	115	...	117	115	113	106	112	106	104
29	117	118	115	115	115	114	115	113	106	...	106	104
30	...	...	115	...	117	115	...	113	109	111	106	104
31	115	...	111	...	118	...	115	115	...	111	...	...

N3 (\*986, p. 286). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage. Well pumping when measured.

Water level, in feet below land-surface datum, 1944												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	85	86	78	82	..	84	86	88	84	..	82	82
2	..	89	78	..	84	85	..	93	84	79	83	84
3	85	85	85	83	85	84	86	92	..	79	83	..
4	85	85	85	85	85	..	88	96	83	82	82	83
5	87	85	..	85	85	83	88	95	84	81	..	83
6	85	..	85	85	85	84	87	..	84	81	82	82
7	85	85	85	85	..	84	87	98	84	82	82	82
8	85	85	85	85	79	84	85	86	84	..	82	82
9	..	86	85	..	85	84	..	84	83	80	82	82
10	86	86	85	85	85	84	83	84	..	80	82	..
11	86	86	86	85	85	..	86	84	84	81	82	82
12	85	85	..	85	85	84	83	84	84	81	..	81
13	87	..	85	85	85	84	84	..	82	81.5	82.5	83
14	85	85	85	85	..	84	84	83	83	81	82	83
15	85	85	85	85	85	84	83	84	82	..	82	83
16	..	85	85	..	85	84	..	84	82	82	82	83
17	85	85	85	83	85	84	83	84	..	81	82	..
18	85	85	85	85	86	..	83	86	87	81.5	82	82
19	85	86	..	85	84	82	84	84	83	81	..	82
20	88	..	85	85	84	84	86	..	82	81.5	81.5	83
21	88	85	85	85	..	87	87	84	82	81	82	83
22	88	85	85	85	84	84	87	84	82	..	82	82
23	..	87	85	..	85	87	..	84	82	81	87	83
24	90	86	85	85	84	85	85	84	82	82	86	..
25	89	86	85	84	83	..	79	84	78	82	88	..
26	89	90	..	85	84	86	87	85	83	82	..	78
27	89	..	85	83.5	84	87	78	..	81	82	82	83
28	89	78	85	86	..	86	78	86	81	82	82	82
29	88	78	35	86	81	87	86	82	81	..	83	83
30	..	..	85	..	84	87	..	83	82	82	83	83
31	85	..	85	..	84	..	85	84	..	82	..	..

N4 (#986, p. 286). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage. Well pumping when measured.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	77	95	86	76	..	75	78	87	74	..	72	72
2	..	87	86	..	76	76	..	86	74	69	74	77
3	76	80	85	78	76	75	78	84	..	69	72	..
4	76	80	86	78	76	..	80	85	74	72	72	74
5	76	78	..	78	76	75	80	92	74	72	..	73
6	76	..	78	78	76	76	80	..	74	72	72	72
7	76	80	80	78	..	76	80	100	74	72	73	72
8	77	80	85	78	81	76	80	78	74	..	72	72
9	..	78	80	..	76	76	..	75	74	71	72	72
10	78	78	83	78	76	75	73	74	..	72	72	..
11	77	78	80	78	75	..	74	74	74	71	72	72
12	77	78	..	78	76	74	75	74	74	72	..	71
13	78	..	78	78	76	76	76	..	73	71	72	73
14	77	78	76	78	..	76	78	74	73	72	72	73
15	77	78	78	78	76	74	76	74	72	..	72	73
16	..	78	77	..	77	76	..	74	73	72.5	72	73
17	78	85	77	75	76	76	75	74	..	72	72	..
18	77	78	76	78	79	..	74	78	72	72	72	73
19	77	78	..	77	77	73	76	75	75	72	..	72
20	79	..	78	78	78	74	79	..	72	72	70	72
21	80	78	78	78	..	76	78	74	73	72	72	72
22	85	78	78	78	73	76	79	74	72	..	72	72
23	..	78	78	..	74	79	..	74	72	72	78	72
24	82	80	78	78	75	77	78	74	..	73	77	..
25	85	78	78	75	..	..	86	74	68	72	79	..
26	82	86	..	76	76	78	88	74	72	72	..	75
27	90	..	78	74	76	78	86	..	71	72	72	74
28	82	88	78	78	..	78	86	75	71	72	74	72
29	90	85	78	78	73	78	78	73	72	..	72	73
30	..	..	78	..	75	78	..	74	71	72	72	73
31	88	..	78	..	75	..	78	74	..	71	..	..

N5 (#986, p. 287). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	45	45	45	45	59	43	a69	a68	45	..	40.90	42.60
2	..	45	45	..	43	44	..	a68	45	40	41.25	42.00
3	59	45	45	43	45	44	a70	a68	..	40	41.00	41.40
4	49	45	45	45	45	..	a71	a68	45	43	40.70	(b)
5	55	45	..	45	45	43	a70	a68	45	43	40.90	41.00
6	56	..	45	45	45	44	a70	..	45	43	40.65	40.60
7	49	45	45	45	..	43	a70	a68	45	43	40.50	40.45
8	47	45	45	45	40	44	46	66	45	..	40.50	39.80
9	..	45	45	..	45	45	..	45	45	47	40.00	40.65
10	52	45	45	40	45	44	44	45	..	45	40.40	40.80
11	45	45	45	45	45	..	43	..	45	43	40.50	40.30
12	45	45	..	46	45	43	43	..	45	43	40.40	39.80
13	45	..	45	45	45	44	a68	..	43	43	40.35	40.70
14	45	49	45	43	..	45	47	..	43	39.60	40.35	41.00
15	45	45	..	45	45	43	45	..	43	40.35	40.25	40.85
16	..	45	45	..	a65	45	..	..	43	40.10	39.95	40.55
17	45	45	45	40	a66	45	45	..	..	40.05	40.00	40.60
18	45	45	45	45	a67	..	45	..	43	39.95	40.50	40.55
19	43	45	..	45	46	42	45	..	43	40.10	40.50	40.60
20	a68	..	45	45	45	43	a70	..	43	39.75	40.95	40.70
21	a70	45	45	45	..	43	a69	45	43	40.10	42.80	40.80
22	a72	45	45	45	40	43	a69	45	43	38.90	(b)	41.05
23	a72	45	45	..	44	a72	..	45	43	40.05	(b)	40.80
24	a74	45	45	45	44	a72	a68	45	..	40.70	(b)	40.50
25	a74	45	45	43	41	..	a70	45	38	40.60	(b)	37.50
26	a74	45	..	45	44	a69	a70	45	40	40.60	.....	.....

a Pumping.

b Below 43.00 feet.

## N5. United States Navy--Continued.

Water level, in feet below land-surface datum, 1944.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	a74	..	45	45	44	a69	a68	..	40	40.70	40.55	40.30
28	a74	43	45	a64	..	a70	a70	45	40	41.10	42.50	40.40
29	a74	45	45	a65	39	a69	a70	40	40	39.20	.....	40.70
30	..	..	45	..	43	a69	..	43	40	40.15	(b)	40.55
31	54	..	45	..	43	..	a68	45	..	40.55	.....	37.80

a Pumping.

b Below 43.00 feet.

N6 (\*986, p. 287). United States Navy. In south Philadelphia, on League Island, at Navy Yard. Measured by air-line pressure gage.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	94	101	105	105	103	108	111	105	90	..	50	54
2	..	101	105	..	105	109	..	105	89	75	47	61
3	91	99	105	105	108	108	112	103	..	75	47	..
4	94	98	105	105	108	..	111	103	88	90	47	54
5	96	101	..	105	108	109	111	103	96	89	..	47
6	94	..	109	105	108	110	111	..	94	89	51	47
7	94	99	105	105	..	110	110	105	91	89	47	47
8	96	99	105	105	105	110	109	103	94	..	47	47
9	..	99	106	..	108	110	..	96	90	64	47	47
10	96	105	108	103	108	109	108	94	..	66	52	..
11	94	104	108	105	108	..	109	98	87	66	47	47
12	96	103	..	105	108	109	109	94	a82	61	..	47
13	96	..	106	108	108	110	111	..	82	61	47	..
14	96	105	105	108	..	110	108	94	84	64	47	..
15	96	104	105	108	108	110	109	94	84	..	47	..
16	..	104	105	..	110	110	..	94	84	57	47	..
17	96	105	105	103	111	110	108	94	..	64	47	..
18	96	103	105	108	111	..	108	96	84	73	47	..
19	96	105	..	105	109	109	106	94	84	59	..	..
20	98	..	105	108	110	109	109	..	84	47	47	..
21	94	105	106	108	..	110	109	101	89	50	47	..
22	96	105	106	108	105	110	108	96	89	..	47	..
23	..	105	106	..	109	112	..	94	89	49	47	..
24	103	105	106	105	108	111	108	94	..	45	50	..
25	103	106	106	101	107	..	105	96	98	66	50	..
26	105	105	..	106	109	110	105	..	98	59	..	..
27	105	..	106	106	109	111	105	..	96	64	52	..
28	103	105	106	108	..	112	105	94	93	47	52	..
29	103	105	106	108	105	111	103	82	88	..	54	..
30	..	..	106	..	109	111	..	91	89	47	57	..
31	98	..	106	..	108	..	103	91	..	50	..	..

a Not operated for remainder of year.

N02. United States Navy. In south Philadelphia, on League Island, at Navy Yard. Altitude 10.44 feet above mean sea level. Drilled observation well, diameter 8 inches, depth 105 feet. Measuring point, top of casing, at land-surface datum. Automatic water-stage recorder installed Nov. 30, 1944.

Daily noon water level, in feet below land-surface datum, 1944

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 30	32.44	Dec. 8	31.90	Dec. 18	32.50	Dec. 25	31.60
Dec. 1	32.88	9	32.29	19	32.42	26	32.03
2	33.21	10	32.63	20	32.72	27	32.43
3	33.19	11	32.50	21	32.52	28	32.28
4	33.39	12	31.43	22	33.00	29	32.73
5	32.84	13	32.17	23	32.78	30	32.63
6	32.53	17	32.57	24	32.63	31	31.93
7	32.36						

M1. United States Navy. At Naval Ammunition Depot, Fort Mifflin. Altitude 9.61 feet above mean sea level. Drilled observation well, diameter 10 inches, depth 75 feet. Measuring point, top edge of collar on well casing, at land-surface datum. Automatic water-stage recorder installed July 29, 1944.

Daily noon water levels, in feet below land-surface datum, 1944  
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 29	19.20	Aug. 28	20.25	Oct. 1	20.30	Nov. 11	20.75
30	19.35	29	20.10	2	20.30	12	21.10
31	19.45	30	20.10	3	20.25	13	20.80
Aug. 1	19.55	Sept. 2	20.30	4	20.50	14	20.65
2	19.30	3	18.25	5	20.45	15	20.35
3	19.20	4	17.40	6	20.45	16	20.20
4	19.30	5	15.70	7	20.40	17	20.60
5	19.10	6	15.60	8	20.50	18	20.80
6	19.10	7	19.05	10	20.40	Dec. 10	21.55
7	19.15	8	20.20	11	20.50	11	21.20
8	19.15	9	20.80	12	20.55	12	20.15
9	19.00	10	21.05	13	20.45	13	21.50
10	18.75	11	21.10	14	20.20	14	21.70
11	18.70	12	20.70	15	21.25	15	21.65
12	18.60	13	20.55	16	21.10	16	21.35
13	18.70	14	20.40	17	20.90	17	21.40
14	19.00	15	20.65	18	20.70	18	21.60
15	19.90	16	20.90	19	20.65	19	21.55
16	20.05	17	21.05	20	20.65	20	21.60
17	20.05	18	20.80	21	20.20	21	21.60
18	20.30	19	20.55	22	21.00	22	22.00
19	19.20	20	20.40	23	21.00	23	21.55
20	18.85	21	20.20	24	20.90	24	21.55
21	18.45	22	20.45	25	20.85	25	21.20
22	18.40	23	20.70	Nov. 6	21.40	26	21.50
23	18.25	26	20.20	7	21.15	27	21.60
24	18.90	27	20.60	8	20.90	28	21.55
25	19.75	28	20.40	9	20.80	29	21.90
26	20.15	29	20.45	10	20.50	30	21.50
27	20.35	30	20.40				

#### Schuylkill County

72 (\*817, p. 204; 845, p. 427; 886, p. 634; 906, p. 224; 936, p. 248; 944, p. 240; \*986, p. 287). Near Pine Grove. Extremes of observed water levels, in feet below land-surface datum: Highest, Aug. 31, 1940, 4.14; lowest, Nov. 5, 1944, 31.78.

Marked rise in water level between measurements made on Nov. 26 and Dec. 3, 1944, resulted from unusually dry conditions lasting until late in November, when unusually heavy rains occurred.

Water level, in feet below land-surface datum, 1944

Sept. 29	30.80	Oct. 22	31.60	Nov. 19	31.22	Dec. 17	14.42
Oct. 1	31.02	29	31.71	26	30.82	26	16.67
8	31.20	Nov. 5	31.78	Dec. 3	17.32	31	14.20
15	31.71	12	31.62	10	15.22		

#### Somerset County

16 (\*817, p. 296; 845, p. 427; 886, p. 635; 906, p. 224; 936, p. 249; 944, p. 240; \*986, p. 287). At Markleton. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 28, 1936, 11.98; lowest, Sept. 24, 1944, 16.99.

## 16. At Markleton--Continued.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.14	Apr. 11	14.24	July 9	15.65	Oct. 8	16.25
9	16.20	18	13.15	19	15.90	15	16.45
16	16.18	23	12.70	23	15.52	23	15.89
23	16.08	30	12.96	30	15.85	Nov. 1	16.15
30	15.58	May 7	12.23	Aug. 6	16.10	5	16.12
Feb. 7	15.37	14	13.29	13	16.38	12	16.16
14	15.55	21	13.29	20	16.56	23	15.57
22	15.25	27	14.17	28	16.71	29	15.50
28	14.45	June 4	14.50	Sept. 4	16.80	Dec. 3	15.60
Mar. 6	14.34	12	15.04	10	16.92	10	16.15
13	13.55	19	14.84	20	16.94	17	15.16
20	13.50	27	14.95	24	16.99	26	14.90
28	13.60	July 2	15.37	Oct. 1	16.83	31	14.39
Apr. 2	13.18						

115 (\*840, p. 360; 845, p. 428; 886, p. 635; 906, p. 224; 936, p. 249; 944, p. 240; \*986, p. 287). Near Trent. Extremes of observed water level, in feet below land-surface datum: Highest, Dec. 19, 1942, 33.47; lowest, Apr. 17, 1937, 41.70

Water level, in feet below land-surface datum, 1944

Jan. 1	35.22	Apr. 8	34.20	July 8	34.13	Oct. 7	35.55
8	35.20	15	34.08	15	34.22	14	35.36
15	35.16	22	34.15	22	34.32	21	35.25
22	35.26	29	34.09	29	34.51	28	35.48
29	35.10	May 6	33.96	Aug. 5	34.18	Nov. 4	35.46
Feb. 5	35.08	13	33.97	12	34.77	11	35.42
12	35.10	20	33.95	19	35.01	18	35.36
19	35.00	27	33.83	26	35.26	25	35.25
26	34.80	June 3	33.74	Sept. 2	35.31	Dec. 2	35.18
Mar. 4	34.71	10	33.79	9	35.47	9	35.04
11	34.69	17	33.83	16	35.57	16	34.96
18	34.42	24	33.69	23	35.56	23	34.88
25	34.34	July 1	34.05	30	35.57	30	34.65
Apr. 1	34.33						

Sullivan County

105 (\*817, p. 298; 845, p. 428; 886, p. 635; 906, p. 225; 936, p. 249; 944, p. 240; \*986, p. 288). Near Millview. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 16, 1936, 19.18; lowest, Aug. 31 to Oct. 9, 1935; June 13 to Oct. 31, 1936; June 12 to June 26; July 31, Sept. 18 to Oct. 16, 1937; Aug. 6 to Sept. 10, 1938; July 23, Sept. 2 to Oct. 28, 1939; Oct. 25 to Nov. 1, 1941; Sept. 25 to Oct. 16, 1943; Aug. 10 to Oct. 13, 1944, when well was dry.

Water level, in feet below land-surface datum, 1944

Jan. 8	25.38	Apr. 20	24.08	July 20	26.29	Oct. 13	(a)
15	25.59	27	21.77	28	26.41	20	27.28
22	25.72	May 4	23.38	Aug. 3	26.73	27	26.27
29	25.06	11	22.05	10	(a)	Nov. 3	26.55
Feb. 5	25.19	18	23.24	18	(a)	10	26.69
12	25.36	25	23.55	25	(a)	18	26.38
19	25.40	June 1	24.44	Sept. 1	(a)	24	25.93
26	25.02	8	25.16	8	(a)	Dec. 2	24.13
Mar. 4	25.06	15	25.58	15	(a)	9	24.28
11	24.54	22	25.74	22	(a)	16	24.44
18	23.70	29	24.21	29	(a)	23	24.39
25	22.73	July 6	25.62	Oct. 6	(a)	30	24.35
Apr. 13	23.86	13	26.18				

a Dry.



Susquehanna County

100 (\*777, p. 167-169; 817, p. 298; 845, p. 429; 886, p. 636; 906, p. 225; 936, p. 250; 944, p. 241; \*986, p. 288). At Montrose. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 18, 1936, 1.80; lowest, Oct. 6 and 15, 1939, 11.06.

Water level, in feet below land-surface datum, 1944

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	9.10	9.19	6.28	4.44	7.45	7.86	8.89	9.85	10.06	9.99	9.54
2	8.20	9.07	9.23	6.41	4.52	7.61	7.82	8.95	9.88	10.06	9.99	9.50
3	8.29	9.11	9.29	6.53	4.62	7.79	7.80	9.01	9.88	10.06	9.98	9.46
4	8.36	9.21	9.33	6.61	4.73	7.87	7.79	9.07	9.90	10.07	9.97	9.40
5	8.43	9.26	9.33	6.70	4.82	8.02	7.79	9.13	9.92	10.07	9.97	9.32
6	8.51	9.31	9.36	6.80	4.96	8.12	7.79	9.16	9.94	10.08	9.97	9.26
7	8.58	9.37	9.14	6.90	3.21	8.24	7.81	9.19	9.96	10.09	9.97	9.19
8	8.65	9.43	9.04	6.99	3.20	8.34	7.86	9.24	9.99	10.09	9.97	9.09
9	8.70	9.49	9.08	7.02	3.51	8.44	7.88	9.28	10.01	10.09	9.97	9.00
10	8.79	9.52	9.14	6.95	3.85	8.54	7.92	9.31	9.99	10.09	9.97	8.92
11	8.86	9.58	9.18	6.89	3.90	8.54	7.96	9.35	9.99	10.09	9.97	8.83
12	8.94	9.60	8.85	6.76	4.03	8.60	8.00	9.38	10.01	10.10	10.02	8.74
13	9.02	9.69	8.25	6.46	4.22	8.67	7.99	9.40	10.02	10.11	10.02	8.67
14	9.08	9.70	8.26	6.29	4.33	8.74	8.02	9.44	10.03	10.12	10.02	8.61
15	9.10	9.71	8.34	6.18	4.50	8.80	8.05	9.48	10.03	10.12	10.02	8.55
16	9.18	9.70	8.16	6.14	4.63	8.86	8.06	9.51	10.03	10.12	10.02	8.48
17	9.23	9.70	6.89	6.09	4.79	8.92	8.07	9.55	10.03	10.11	10.01	8.44
18	9.33	9.73	6.75	6.07	4.94	8.96	8.10	9.59	10.03	10.11	10.01	8.39
19	9.39	9.73	6.77	6.04	5.12	8.90	8.15	9.62	10.03	10.11	10.00	8.34
20	9.45	9.74	6.90	6.03	5.30	8.85	8.20	9.62	10.03	10.10	9.96	8.30
21	9.47	9.75	7.00	6.02	5.44	8.79	8.26	9.62	10.03	10.10	9.92	8.27
22	9.48	9.75	7.07	6.00	5.57	8.72	8.33	9.62	10.02	10.10	9.88	8.21
23	9.49	9.35	7.22	5.93	5.77	8.63	8.36	9.63	10.02	10.10	9.84	8.20
24	9.52	9.31	6.34	4.17	5.97	8.51	8.44	9.64	10.03	10.09	9.80	8.20
25	9.56	9.06	5.63	3.60	6.06	8.47	8.49	9.65	10.03	10.07	9.75	8.13
26	9.48	9.03	5.08	3.72	6.39	8.36	8.52	9.66	10.03	10.06	9.74	8.03
27	9.32	9.05	5.31	3.93	6.61	8.27	8.59	9.68	10.04	10.05	9.71	7.99
28	9.06	9.10	5.49	4.13	6.68	8.18	8.66	9.71	10.04	10.04	9.67	7.96
29	8.89	9.15	5.71	4.33	6.91	8.08	8.74	9.75	10.05	10.02	9.64	7.92
30	8.88	....	5.92	4.33	7.08	7.97	8.77	9.78	10.05	10.01	9.60	7.87
31	8.95	....	6.10	....	7.27	....	8.83	9.81	....	10.00	....	7.75

Tioga County

106 (\*817, p. 299; 845, p. 431; 886, p. 636; 906, p. 226; 936, p. 251; 944, p. 241; \*986, p. 289). At Gaines. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 21, 1936, 8.45; lowest, Sept. 16, 1939, 24.98.

Water level, in feet below land-surface datum, 1944

Date.	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	20.04	Apr. 1	11.95	July 1	12.77	Sept. 23	20.99
8	20.94	8	12.87	8	14.55	30	21.02
15	21.57	15	10.65	15	16.62	Oct. 7	21.43
22	21.90	22	15.40	22	18.58	14	19.74
29	21.38	29	11.57	29	19.32	21	20.32
Feb. 5	19.52	May 6	13.17	Aug. 5	20.42	28	18.93
12	20.53	13	10.00	12	21.34	Nov. 4	19.33
19	21.22	20	12.08	19	21.98	11	19.79
26	18.22	27	12.40	26	22.12	18	20.19
Mar. 4	15.40	June 3	13.40	Sept. 2	22.93	25	19.25
11	15.66	10	15.88	9	19.22	Dec. 23	14.11
18	13.32	17	15.65	16	20.08	30	13.95
25	12.58	24	11.73				

Washington County

112 (\*817, p. 299; 845, p. 432; 886, p. 637; 906, p. 226; 936, p. 251; 944, p. 242; \*986, p. 289). At Amity. Extremes of observed water level, in feet below land-surface datum: Highest, Mar. 19, 1938, 9.46; lowest, Oct. 1, 1938, 34.84.

Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	30.56	Apr. 1	16.80	July 1	20.80	Sept. 30	30.50
8	30.60	8	19.60	8	21.90	Oct. 7	31.10
15	30.61	15	13.70	15	22.50	14	31.10
22	31.30	22	15.80	22	22.80	21	31.20
29	31.10	29	16.50	29	24.50	28	31.30
Feb. 5	30.90	May 6	20.50	Aug. 5	24.70	Nov. 1	31.39
12	31.20	13	30.50	12	24.70	4	31.39
19	31.30	20	29.50	19	27.20	11	31.40
26	28.70	29	16.70	26	27.30	18	31.30
Mar. 4	20.50	June 3	17.80	Sept. 2	25.50	25	31.40
11	19.00	10	23.70	9	27.70	Dec. 2	31.40
18	15.80	17	20.50	16	28.50	9	31.40
25	13.80	24	21.10	23	29.50	16	31.20

Wayne County

83 (\*817, p. 300; 936, p. 251; \*986, p. 290). Near Hawley. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 25.82. Well reconditioned in October 1944; measurements resumed. Extremes of observed water level, in feet below land-surface datum: Highest, May 23, 1942, 2.08; lowest, Oct. 25, Nov. 15 to Dec. 20, 1941, when well was dry.

Water level, in feet below land-surface datum, 1944

Oct. 14	15.05	Nov. 11	15.45	Dec. 2	14.60	Dec. 23	12.12
28	15.49	18	15.48	9	14.02	30	12.00
Nov. 4	15.46	25	15.25	16	12.15		

# VERMONT

By H. N. Halberg

## PROGRAM OF WORK

Periodic measurements of water level were continued in Vermont in 1944 on a monthly basis in one shallow observation well in the town of Middlesex, Washington County, near Wrightsville, which is about 3 miles north of Montpelier. Twelve measurements were made during the year.

### FLUCTUATIONS OF WATER LEVEL

The water level in the well at Wrightsville appears to fluctuate with the precipitation. In 1943 the net rise in water-level was about 1.3 feet with 37.50 inches of precipitation as measured at nearby Northfield. In 1944 there was a net drop in water level of about 1.1 feet (the water level on January 1, 1945, was 9.32 feet below land-surface datum) with 35.39 inches of precipitation. Normal precipitation at Northfield is 33.84 inches.

The sharp rise in March is partly due to melting snow, as precipitation was below normal at nearby Northfield. Deficient precipitation, abnormally high temperatures and the demand for water by growing plants are the causes of the sharp drop in May. Although there was heavy rain in July, the water level fell, probably due to vegetation needs. No real recovery of the water-table was observed until after the end of the growing season.

### WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

#### Washington County

U. S. 90 (\*986, p. 291). Burton Peterson. Montpelier 1. About 0.7 mile west of the North Branch of Winooski River and 3.0 miles north of Montpelier.

#### Water level, in feet below land-surface datum, 1944

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.26	Apr. 4	4.75	June 29	7.90	Sept. 29	(a)
Feb. 2	7.94	May 3	5.97	Aug. 5	10.62	Oct. 27	10.90
Mar. 1	7.93	June 3	8.04	Sept. 1	(a)	Dec. 5	9.78

a Well dry. Water level below 11.9 feet below land-surface datum.





