

Water Levels and Artesian Pressure in Observation Wells in the United States in 1948

Part 1. Northeastern States

Prepared under the direction of C. G. PAULSEN, Chief Hydraulic Engineer

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of Connecticut, Delaware, Indiana,
Maine, Massachusetts, Michigan, New
Hampshire, New Jersey, New York,
Ohio, Pennsylvania, Rhode Island,
and Vermont, and other agencies*



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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Connecticut, Delaware, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont, and other agencies, by personnel of the Water Resources Division under the direction of:

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WATER LEVELS AND ARTESIAN PRESSURE IN OBSERVATION WELLS IN THE UNITED STATES IN 1948

Part 1. NORTHEASTERN STATES

INTRODUCTION

By A. N. Sayre and others

The ground-water investigations of the United States Geological Survey are primarily concerned with the location and appraisal of the ground-water resources of the Nation. They are carried on principally in financial cooperation with States and municipalities, or at the request of other Federal agencies. Most of the investigations have to do with the availability of usable water supplies, but a few deal with drainage, flood control, construction of waterways and dams, mine drainage, and other problems to which the principles of ground-water geology are pertinent. Water-Supply Paper 992 lists about 1,800 papers and reports describing ground-water investigations made by the Survey in cooperation with States and municipalities through 1945.

Significance of records of water level and artesian pressure

An essential part of the ground-water investigations is the measurement of fluctuations of water level and artesian pressure in wells. The rock formations of the earth are great natural 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 indicate 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 recorded changes of pressure in flowing wells indicate depletion or replenishment of the artesian supplies. .

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. This series of water-supply papers is in a sense an inventory of ground-water supplies. Prior to 1940 the records were published in a single volume. 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 introduction to the chapter on each State contains an outline of the general program of work and special features of the program in the current year, such as preliminary reports issued or put on file during the year or of work done in preparation for such a report. A general discussion of the fluctuations of water level and statements in regard to precipitation, pumpage, and other factors affecting water level are included. The following table gives the numbers of water-level reports from 1935 through 1948.

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
1945	1023	1024	1025	1026	1027	1028
1946	1071	1072	1073	1074	1075	1076
1947	1096	1097	1098	1099	1100	1101
1948	1126	1127	1128	1129	1130	1131

Scope of present volume

The present volume covers the northeastern States and gives records of water level and artesian pressure in about 1050 observation wells of the Geological Survey and cooperating agencies in Connecticut, Delaware, Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and Vermont. Of these wells, 310

are equipped with automatic water-stage recorders. For some wells not previously reported complete records of water level are given. 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

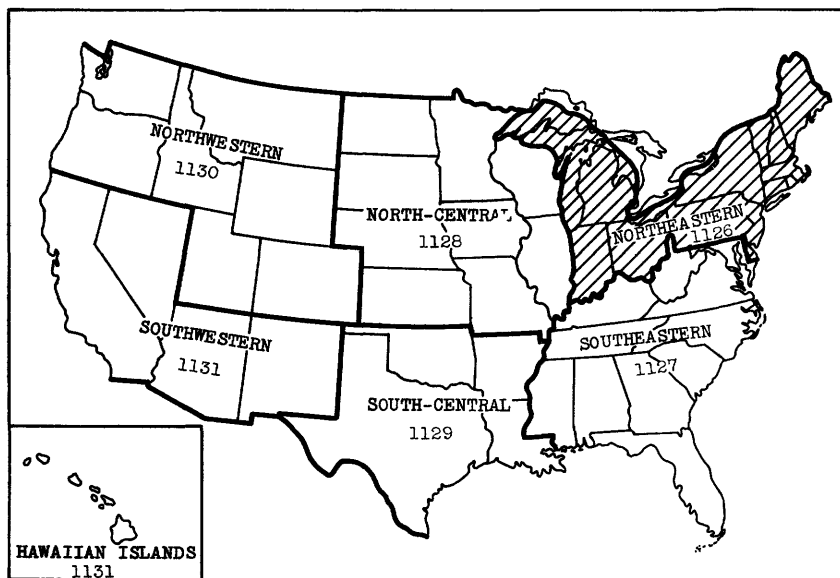


Figure 1.--Outline map of the United States, showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1948. The shaded section represents the part of the country covered by this volume.

description are given in this report. This report includes about 34,000 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. In 1943, it was decided that uniform practice should be adopted. Accordingly, a precise datum plane was established approximating the land surface at each well. The water levels and artesian heads for all wells listed in this report are given in feet below land-surface datum unless preceded by a plus (+) sign, or otherwise indicated in the descriptive text for each State. When 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.

Network of Federal observation wells

In 1942 and 1943 the Geological Survey established a network of 60 Federal observation wells. These wells were selected because the fluctuations of water level in them are believed to be typical and represent the general fluctuations that occur in the parts of the country in which the wells are situated. At the end of 1948 the network comprised about 360 wells in 45 States, including 300 wells measured regularly in connection with cooperative ground-water investigations.

Changes in ground-water level in 1948 in the northeastern part of the United States

In 1948 the average annual precipitation for the New England States was 42.21 inches, 0.18 inch above the mean for the past 61 years. Precipitation was above normal in Delaware, Indiana, and New Jersey. In Michigan, the year's rainfall was about 2 inches less than normal. The average precipitation for New York was 40.57 inches. There was abundant rainfall in Ohio. The average annual precipitation for Pennsylvania was 46.31 inches, 4.25 inches above the mean for the past 61 years. The fluctuations of both water level and artesian pressure in wells, however, depend on many factors besides the amount of precipitation. In certain of the observation wells there are fluctuations caused by difference 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

Miss Dorothy M. Ireland and, later, Miss Verda M. Dougherty had general charge of the assembling of the several reports and did the editing; Mr. Rodney Hart edited the illustrations; and Mrs. Nauvoo Ragland, Mrs. Frances Dowell, and Miss Beulah B. Brunson did the offset typing.

Penn P. Livingston had general supervision of the observation-well program. The measurements were made under the direction of the district supervisors of the ground water branch in the several States.

CONNECTICUT

By R. V. Cushman

PROGRAM OF WORK

The observation-well program in Connecticut was continued in 1948, in cooperation with the Connecticut State Water Commission, as a part of the State-wide investigation of ground-water resources.

Observations were made in 1948 at 40 wells and a total of about 600 individual water-level measurements was taken. One well was added and two wells were dropped from the program during the year. Of the 39 wells being measured at the end of 1948, 37 were measured at monthly intervals and 2 at more frequent intervals. Of the total, measurements of water level were made in 11 wells in and adjacent to heavily pumped areas in the city of New Haven, in 9 wells in and adjacent to heavily pumped areas in the city of Waterbury, and in a network of 20 other wells scattered throughout the State.

In addition to the water-level observations, samples of water were collected at the beginning of the year from 20 ground-water pumping plants in New Haven for determination of chloride content (salinity) in order to show the trend of salt-water contamination with pumpage. At monthly intervals sampling was continued at five of these plants throughout 1948. In Waterbury, bimonthly samples of ground water were collected from five pumping plants for determination of sulfate content resulting from inflow of acid-contaminated water from the Naugatuck River.

As a part of the long-range survey of ground-water conditions throughout the State, detailed field studies of the ground-water resources of the valuable tobacco and potato-growing area in north-central Connecticut were begun early in 1948. A report dealing with the occurrence, availability, and usage of ground water in this area is being prepared to furnish the data to those growers desiring to use well water for supplemental irrigation.

PRECIPITATION

The annual precipitation for Connecticut during 1948, as recorded at 22 stations of the U. S. Weather Bureau, averaged 47.04 inches, or about 1 inch above normal for the period of record. Precipitation was above normal at most stations for the months of April, May, June, November, and December. The year began under the domination of a weather pattern consisting of frequent alternations of heavy snowstorms and cold waves. The deep cover of snow deposited in the storms just before and after Christmas 1947, was increased so that by the end of January maximum depths of 30 to 40 inches had accumulated in western and southwestern Connecticut. Frost penetration was held to a minimum by the early arrival and insulating effect of the thick snow blanket.

Below-normal precipitation during the first 3 months of 1948, together with an early thaw in the middle of February and a more general thaw in mid-March, served to dissipate the snow cover without threat of serious floods. Precipitation was above normal during the early part of the growing season and favorable weather conditions continued through July. An extended dry period began in mid-August and continued into October, causing severe crop damage and a general lowering of water-storage supplies. Several moderate to heavy storms occurred during November and December. These storms, coupled with extraordinary warm temperatures, culminated the year with major floods in most sections of the State. Record floods occurred in the Housatonic and Naugatuck Rivers. The year ended with the ground free of snow.

FLUCTUATIONS OF WATER LEVEL

Water levels in observation wells in Connecticut were about at normal stages at the beginning of 1948. Early melting of the unusually heavy snow blanket, together with the almost complete absence of ground frost made available large amounts of water for recharge of ground-water aquifers. As a result, ground-water levels rose rapidly in February and March and record high levels were recorded in many wells at the end of March. During the period of above-normal precipitation at the beginning of the growing season water levels throughout the State remained at high stages or continued to rise. In June the average levels in the residential and industrial areas of New Haven reached record highs for the 10-year period of

observation. The record drought in August and September brought about marked declines in water levels in all wells and record lows were recorded in 12 wells at the end of October. Excessive precipitation in November and December served to check the seasonal decline and recoveries commenced in most wells by the end of the year. The full effect of these late rains, however, was not reflected in water levels until early in 1949. A net drop in water levels, therefore, was recorded in most wells for 1948. Levels in the three pumping areas in New Haven, however, showed a net rise for the year.

The following tables summarize the pertinent data pertaining to water levels in 39 observation wells in Connecticut. To permit a more convenient means of presentation and analysis, data for the wells in New Haven are summarized separately.

All measurements of water level in Connecticut are in feet below land-surface datum, except for those wells within the city limits of New Haven, which are in feet with reference to mean sea level.

Summary of data on water levels in observation wells in Connecticut
(Measurements are in feet below land-surface datum)

(measurements are in feet below land-surface datum)

Well	First measured	Lowest observed water level		Highest observed water level		Water level at end of 1948
		Water level	Date	Water level	Date	
<u>Fairfield County</u>						
Be 1	July 18, 1946	23.43	Dec. 27, 1948	17.20	Mar. 30, 1948	23.43
<u>Hartford County</u>						
Bu 2	Apr. 13, 1946	37.41	Dec. 22, 1948	15.08	July 5, 1948	37.41
EHd 21	Nov. 22, 1934	18.98	Oct. 26, 1948	14.10	June 24, 1947	17.55
<u>Litchfield County</u>						
FV 4	Sept. 11, 1946	15.90	Nov. 22, 1948	1.77	May 6, 1947	13.41
FV 5	Sept. 11, 1946	24.63	Oct. 24, 1947	12.78	Mar. 30, 1948	19.41
W 1	Oct. 4, 1913	33.5	Oct. 10, 1914	19.89	Mar. 30, 1948	29.28
<u>Middlesex County</u>						
E 1	July 16, 1946	3.97	Oct. 26, 1948	.57	May 27, 1947	1.54
M 1	July 17, 1946	12.27	Oct. 23, 1948	4.10	Feb. 26, 1948	8.75
<u>New Haven County</u>						
N 10 a/	Jan. 10, 1946	16.45	Oct. 24, 1947	3.90	Mar. 30, 1948	16.03
N 11 a/	Jan. 10, 1946	16.64	Oct. 24, 1947	3.86	Mar. 30, 1948	16.37
S 1	Oct. 4, 1913	21.70	Oct. 14, 1916	13.17	June 6, 1946	15.34
Wb 1	Apr. 29, 1943	10.99	Sept. 11, 1944	6.85	Mar. 23, 1948	10.35
Wb 16 a/	Feb. 2, 1944	17.80	Feb. 27, 1947	8.68	Mar. 30, 1948	13.05
Wb 25	Feb. 3, 1944	8.62	Aug. 29, 1944	4.27	June 6, 1946	5.58
Wb 93	Feb. 18, 1944	28.39	Aug. 29, 1944	25.28	Mar. 30, 1948	27.44

a Affected by pumping from nearby wells.

Summary of data on water levels in observation wells in Connecticut
(Measurements are in feet below land-surface datum)

(Measurements are in feet below land-surface datum)						
Well	First measured	Lowest observed water level		Highest observed water level		Water level ^c at end of 1948
		Water level	Date	Water level	Date	
<u>New Haven County--Cont.</u>						
Wb 119	Feb. 18, 1944	13.85	Oct. 27, 1948	2.93	Nov. 30, 1944	5.62
Wb 176	Feb. 18, 1944	14.83	Oct. 27, 1948	3.14	Mar. 4, 1945	10.03
Wb 198	Feb. 18, 1944	18.83	Dec. 1, 1948	5.49	Jan. 10, 1946	18.31
Wb 236	Feb. 18, 1944	8.55	Oct. 26, 1948	2.27	Nov. 30, 1944	b 8.55
Wb 336 a/	June 20, 1944	20.40	Aug. 29, 1944	11.14	May 1, 1947	17.57
Wb 340 a/	Aug. 8, 1944	24.87	Sept. 27, 1945	15.83	May 19, 1945	22.69
<u>New London County</u>						
NL 2	July 1, 1937	17.99	Aug. 16, 1937	12.88	Feb. 26, 1948	15.40
NWH 4	July 16, 1946	14.66	Sept. 29, 1948	5.13	Feb. 26, 1948	5.20
<u>Tolland County</u>						
U 3	July 18, 1946	23.77	Oct. 27, 1947	14.60	Mar. 29, 1948	20.96
<u>Windham County</u>						
A 1	July 18, 1946	14.72	Oct. 26, 1948	3.83	Mar. 29, 1948	12.59
P 1	Oct. 1, 1942	31.72	Feb. 3, 1944	28.10	Apr. 27, 1948	30.81
W11 1	July 17, 1946	8.90	Oct. 27, 1947	5.45	Mar. 29, 1948	7.16

a Affected by pumping from nearby wells.

b Measurements discontinued Oct. 26, 1948.

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

(measurements refer to mean sea level)

Well	First measured	Lowest observed water level (feet)		Highest observed water level (feet)		Water level at end of 1948 (feet)
		Water level	Date	Water level	Date	
<u>Residential area</u>						
NHn 170	June 23, 1939	+15.64	Jan. 14, 1942	+18.63	June 25, 1948	+16.99
NHn 175	June 23, 1939	+2.27	Dec. 17, 1941	+4.51	June 23, 1939	+3.44
NHn 183	Dec. 13, 1939	+2.67	Dec. 3, 1941	+5.88	June 12, 1940	+4.33
NHn 270	May 21, 1941	+3.78	Dec. 17, 1941	+6.72	Aug. 25, 1948	+5.49
<u>Air-conditioning area</u>						
NHn 250	Oct. 9, 1940	+ .67	Sept. 25, 1947	+4.79	Oct. 9, 1940	+3.55
<u>Cold-storage area</u>						
NHn 108	May 12, 1939	-3.40	Aug. 26, 1946	+1.26	May 8, 1940	+ .47
NHn 110	May 12, 1939	-2.20	Oct. 27, 1944	+ .51	May 12, 1939	-1.41
<u>Industrial area</u>						
NHn 131	June 1, 1939	-5.65	May 26, 1944	-1.14	May 25, 1948	-2.01
NHn 138	Feb. 28, 1940	-5.70	June 23, 1944	- .50	July 26, 1948	-1.27
NHn 160	June 7, 1939	-19.59	Nov. 1, 1945	+4.15	Mar. 6, 1940	+1.05
NHn 178	July 21, 1939	-6.98	Oct. 28, 1947	+ .04	June 12, 1940	-5.59
NHn 235	Oct. 2, 1940	-3.59	Feb. 1, 1945	+1.03	May 25, 1948	+ .26

a Measurements discontinued Aug. 25, 1948.

The summary tables show that of the 39 wells for which records of water level for more than 1 year are available, the highest observed water levels occurred in 22 wells during 1948. The lowest observed water levels for the period of record occurred in 12 wells in 1948. It is to be noted,

however, that the period of record at 12 out of the 39 wells is less than 3 years in length and that some of the wells, indicated by footnotes, are in areas of large withdrawals and are affected by pumping at nearby wells. For the wells in New Haven, which have a period of record of 10 years, the highest observed water levels on record occurred in 1948 in 2 out of the 4 observation wells in the residential area and in 3 out of the 5 wells in the industrial area.

The greater annual fluctuations of water level are noted in the wells that penetrate glacial till. The latter is more clayey and less permeable material than the stratified sands and gravels that supply wells in such areas as New Haven and Plainfield. At well Bu 2 in Burlington, which penetrates glacial till, a maximum fluctuation of 22.33 feet was recorded between July 5 and December 22, 1948. This is in contrast to a well in stratified material, such as well Wb 1 in Waterbury, in which a maximum over-all fluctuation of 4.14 feet has been observed during the period of record.

The net changes in water level in observation wells during 1948 are given in the following tables. The net change is the difference in the water level obtained by comparing measurements made nearest to December 31, 1947, and December 31, 1948. The tables show that with the notable exception of the New Haven area, water levels in most sections of Connecticut showed a net decline for the year, despite above-normal precipitation during the same period. In general, the net decline, where it was not related to pumpage from nearby wells, can be attributed principally to the effect of the lag in time between precipitation and recharge to the groundwater aquifer. This lag between precipitation and recharge was influenced in part by the topography, the local geology, and the effect of the record drought. Water levels in most wells, which were at about normal stages at the beginning of the year, had reached exceptionally low stages by the end of the drought period. Though precipitation was, in general, above normal for November and December, the full effect of this precipitation was not felt until early in 1949. Thus, though water levels in all wells had begun to rise by the end of the year, the rise was not sufficient to again reach normal stages by December 31.

In New Haven, however, where water levels were somewhat above normal on January 1, 1948, precipitation in 1948 was in excess of normal by nearly 6 inches and the full impact of the record drought was thus abated.

Net change, in feet, in water levels in observation wells
in Connecticut, 1948

Well	Net rise (+) or net decline (-)
<u>Fairfield County</u>	
Be 1	-4.03
<u>Hartford County</u>	
Bu 2	.....
EHd 21	-.33
<u>Litchfield County</u>	
FV 4	-8.14
FV 5	-2.98
W 1	-.49
<u>Middlesex County</u>	
E 1	-.26
M 1	-2.75
<u>New Haven County</u> (see following table for wells in the city of New Haven)	
N 10 a/	-8.14
N 11 a/	-8.57
S 1	-.20
Wb 1	-1.33
Wb 16 a/	+.59
Wb 25	-.11
Wb 93	-.87
Wb 119	-.41
Wb 176	-3.51
Wb 198	-4.93
Wb 236	(b)
Wb 336 a/	-2.70
Wb 340 a/	-1.79
<u>New London County</u>	
NL 2	-1.34
NWH 4	+.18
<u>Tolland County</u>	
U 3	+1.49
<u>Windham County</u>	
A 1	-5.12
P 1	+.23
Wil 1	+.61

a Affected by pumping from nearby wells.

b Measurements discontinued Oct. 26, 1948.

Net change, in feet, in water level in observation wells
in New Haven, Conn. 1948

Area	Well	Net rise
Residential	NHn 170	0.20
	NHn 175	.28
	NHn 183	.42
	NHn 270	.38
Air-conditioning	NHn 250	1.60
	NHn 108	1.36
	NHn 110	.42
Industrial	NHn 131	1.50
	NHn 138	1.36
	NHn 160	(a)
	NHn 178	.89
	NHn 235	.85

a Measurements discontinued Aug. 25, 1948.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

All measurements of water level in Connecticut are in feet below land-surface datum except for those wells within the city limits of New Haven, which are in feet with reference to mean sea level.

The number assigned to each well is its number in the town in which it is situated.

Fairfield County

Be 1. Fred Andrews, 248 Greenwood Ave., Bethel. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	18.13	May 27	19.14	Aug. 27	21.51	Dec. 1	23.07
Mar. 30	17.20	June 29	19.71	Sept. 30	22.30	27	23.43
Apr. 29	18.38	July 28	20.69	Oct. 27	22.93		

Hartford County

Bu 2. E. E. Edman. State Route 116. About 1,000 feet west of Burlington Center, Burlington. Records available: 1946-48.

Mar. 30	15.97	June 21	15.89	Aug. 16	19.74	Oct. 17	30.90
Apr. 23	15.83	29	15.45	23	20.61	27	32.11
May 1	16.70	July 5	15.08	30	21.55	31	32.79
10	16.80	20	16.01	Sept. 6	22.59	Nov. 14	33.78
24	16.17	26	17.14	13	23.71	Dec. 5	34.78
31	15.59	Aug. 2	17.89	26	26.01	22	37.41
June 9	16.03	8	18.67	Oct. 13	28.37		

BHd 21. Burnside Ice Co., 790 Tolland St., East Hartford. Records available: 1946-48.

Mar. 29	15.65	June 28	14.94	Sept. 28	18.59	Nov. 30	17.57
Apr. 27	15.63	July 27	16.10	Oct. 4	18.76	Dec. 23	17.55
May 26	15.49	Aug. 26	17.05	26	18.98		

FV 4. Kellogg. In Falls Village, on northwest slope of Beebe Hill, about 0.5 mile southeast of Falls Village and 300 feet southeast of U. S. Highway 7, about 30 feet east of well FV 5. Records available: 1946-48.

Feb. 3	6.97	June 29	2.16	Sept. 30	10.37	Nov. 22	15.90
Mar. 30	2.25	July 28	5.29	Oct. 28	14.32	Dec. 22	13.41
Apr. 30	3.66	Aug. 22	6.70				

FV 5. Kellogg. In Falls Village, on northwest slope of Beebe Hill, about 0.5 mile southeast of Falls Village and 300 feet southeast of U. S. Highway 7, about 30 feet west of well FV 4. Records available: 1946-48.

Mar. 30	12.78	July 28	16.10	Sept. 30	21.16	Nov. 22	23.16
Apr. 30	13.85	Aug. 22	18.02	Oct. 28	24.00	Dec. 22	19.41
June 29	13.03						

W 1. James Crowfut, Woodbury. Records available: 1944-48.

Feb. 27	28.62	May 27	21.09	Aug. 27	25.82	Dec. 1	29.33
Mar. 30	19.89	June 29	21.84	Sept. 30	29.22	27	29.28
Apr. 30	20.07	July 22	22.75	Oct. 27	28.90		

Middlesex County

E 1. John Giza, 53 Warsaw St. About 100 feet west of State Route 80 and 0.5 mile north of Ivoryton. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	1.28	Apr. 26	1.18	July 27	1.09	Oct. 26	3.97
Feb. 26	1.26	May 26	1.03	Aug. 31	2.23	Nov. 30	1.40
Mar. 29	1.25	June 28	1.01	Sept. 29	3.70	Dec. 23	1.54

M 1. Lyman Gunsight Corporation, Middlefield. Records available: 1946-48.

Jan. 28	7.89	May 27	5.38	Sept. 10	9.60	Oct. 23	12.27
Feb. 26	4.10	June 28	5.75	24	10.45	Dec. 2	11.26
Mar. 30	4.56	July 23	6.85	Oct. 1	10.96	23	8.75
Apr. 26	6.07	Aug. 30	8.82	10	12.05		

New Haven County

N 10. Naugatuck Water Co., Beacon Valley Road, Naugatuck. One of group of 8 test wells of Naugatuck public ground-water supply in valley of Beacon Hill Brook about 2 miles above junction with Naugatuck River about 200 feet southeast of pumping station. Records available: 1946-48.

Mar. 30	3.90	June 29	10.49	Sept. 30	16.26	Dec. 1	15.84
Apr. 28	4.45	July 28	14.87	Oct. 27	16.16	27	16.03
May 27	4.63	Aug. 27	15.55				

N 11. Naugatuck Water Co., Beacon Valley Road, Naugatuck. One of group of 8 test wells at site of Naugatuck public ground-water supply in valley of Beacon Hill Brook about 2 miles above junction with Naugatuck River about 200 feet west of pumping station. Records available: 1946-48.

Jan. 27	6.17	Apr. 28	4.43	July 28	15.16	Oct. 27	16.44
Feb. 27	5.40	May 27	4.65	Aug. 28	15.81	Dec. 1	16.21
Mar. 30	3.86	June 29	10.66	Sept. 30	16.52	27	16.37

NHn 108. Whiting Realty Co. About 100 feet south of Whiting Street and about 100 feet west of State Street, New Haven. Records available: 1939-48.

Water level, in feet, with reference to mean sea level

Jan. 26	-0.81	Apr. 26	+0.19	July 26	-0.43	Oct. 25	-0.70
Feb. 25	-.71	May 25	+.55	Aug. 25	-.91	Nov. 24	-.01
Mar. 25	-.41	June 25	+.37	Sept. 27	-.97	Dec. 24	+4.47

NHn 110. Federal Packing Co. On east side of State Street at Whiting Street, New Haven. Records available: 1939-48.

Water level, in feet below mean sea level

Feb. 25	1.78	Apr. 26	1.72	July 26	1.58	Oct. 25	1.50
Mar. 17	1.76	May 25	1.66	Aug. 25	1.52	Nov. 24	1.46
25	1.74	June 25	1.47	Sept. 27	1.52	Dec. 24	1.41

NHn 131. New Haven Clock Co. On west side of Wallace Street, about 120 feet north of St. John Street, New Haven. Records available: 1939-48.

Water level, in feet below mean sea level

Jan. 26	3.21	Apr. 26	1.41	July 26	1.17	Oct. 25	1.74
Feb. 25	2.90	May 25	1.14	Aug. 25	1.34	Nov. 24	1.89
Mar. 25	2.14	June 25	1.31	Sept. 27	1.55	Dec. 24	2.01

NHn 138. Associated Realty Co. On south side of Greene Street, about 130 feet west of East Street, New Haven. Records available: 1940-48.

NHn 138--Continued.

Water level, in feet below mean sea level

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	2.33	Apr. 26	1.03	July 26	0.50	Oct. 25	1.14
Feb. 25	2.09	May 25	.75	Aug. 25	.69	Nov. 24	1.19
Mar. 25	1.64	June 25	.55	Sept. 27	.96	Dec. 24	1.27

NHn 160. National Folding Box Co. About 25 feet south of Alton Street and about 315 feet west of James Street, New Haven. Records available: 1939-48. Measurements discontinued Aug. 25, 1948.

Water level, in feet above mean sea level

Jan. 26	2.20	Mar. 25	3.12	May 25	3.00	Aug. 25	1.05
Feb. 25	2.74	Apr. 26	2.52	June 25	2.05		

NHn 170. Yale University. About 100 feet southwest of Grove Street and about 200 feet northwest of College Street, New Haven. Records available: 1939-48.

Water level, in feet above mean sea level

Jan. 26	16.79	Apr. 26	18.46	July 26	18.34	Oct. 25	17.29
Feb. 25	16.85	May 25	18.49	Aug. 25	17.99	Nov. 24	17.10
Mar. 25	17.50	June 25	18.63	Sept. 27	17.59	Dec. 24	16.99

NHn 175. Monarch Laundry. About 200 feet north of Derby Avenue and about 70 feet west of Ellsworth Street, New Haven. Records available: 1939-48.

Water level, in feet above mean sea level

Jan. 26	3.12	Apr. 26	3.91	July 26	4.43	Oct. 25	3.68
Feb. 25	3.09	May 25	4.32	Aug. 25	4.20	Nov. 24	3.55
Mar. 25	3.44	June 25	4.50	Sept. 27	3.87	Dec. 24	3.44

NHn 178. Connecticut Co. About 40 feet south of Grand Avenue and about 200 feet west of Haven Street, New Haven. Records available: 1939-48.

Water level, in feet below mean sea level

Jan. 26	6.08	Apr. 26	5.08	July 26	3.43	Oct. 25	4.86
Feb. 25	6.17	May 25	4.74	Aug. 25	4.19	Nov. 24	5.52
Mar. 25	6.01	June 25	4.44	Sept. 27	4.28	Dec. 24	5.59

NHn 183. Frank X. Hald Storage Co. On south side of Davenport Avenue, about 500 feet west of West Street, New Haven. Records available: 1940-48.

water level, in feet above mean sea level

Jan. 26	3.80	Apr. 26	5.54	July 26	5.43	Oct. 25	4.66
Feb. 25	4.09	May 25	5.74	Aug. 25	5.12	Nov. 24	4.44
Mar. 25	4.76	June 25	5.86	Sept. 27	4.84	Dec. 24	4.33

NHn 235. C. Cowles & Co. About 100 feet north of Water Street and about 70 feet west of Chestnut Street, New Haven. Records available: 1940-48.

Water level, in feet with reference to mean sea level

Jan. 26	-0.56	Apr. 26	+0.65	July 26	+0.57	Oct. 25	+0.11
Feb. 25	-.28	May 25	+1.03	Aug. 25	+3.35	Nov. 24	+1.10
Mar. 25	+.20	June 25	+.84	Sept. 27	+.13	Dec. 24	+.26

NHn 250. I. Newman & Sons. On north side of Oak Street, about 180 feet east of Factory Street, New Haven. Records available: 1940-48.

Water level, in feet above mean sea level

Jan. 26	1.93	Apr. 26	3.61	July 26	4.03	Oct. 25	3.33
Feb. 25	2.11	May 25	4.49	Aug. 25	3.28	Nov. 24	3.69
Mar. 25	2.56	June 25	3.65	Sept. 27	2.91	Dec. 24	3.55

NHn 270. Carl E. Altmann. On east side of Auburn Street, about 190 feet south of Legion Avenue, New Haven. Records available: 1941-48.

Water level, in feet above mean sea level

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	4.85	Apr. 26	6.77	July 26	7.03	Oct. 25	5.97
Feb. 25	4.98	May 25	6.89	Aug. 25	6.72	Nov. 24	5.78
Mar. 25	5.43	June 25	7.23	Sept. 27	6.31	Dec. 24	5.49

S 1. James Fleming, Southbury. Records available: 1944-48.

Feb. 27	15.27	May 27	13.27	Aug. 27	14.75	Dec. 1	15.26
Mar. 30	13.60	June 29	13.35	Sept. 30	15.44	27	15.34
Apr. 30	13.35	July 28	13.98	Oct. 27	15.26		

Wb 1. Waterbury Ash Removal Co., Thomaston Avenue, Waterbury. Records available: 1943-48.

Jan. 6	9.34	May 10	9.20	Aug. 2	10.02	Oct. 9	10.56
17	9.63	22	8.71	9	10.07	22	10.66
Feb. 18	9.15	June 1	8.63	16	10.02	Nov. 1	10.70
Mar. 4	9.10	7	9.08	23	10.15	11	10.32
12	8.87	21	8.87	30	10.28	22	10.04
23	6.85	30	8.78	Sept. 8	10.42	29	10.11
Apr. 8	8.17	July 6	9.20	14	10.46	Dec. 9	10.29
20	8.44	15	9.46	22	10.53	15	10.32
26	8.80	26	9.80	30	10.48	28	10.35
May 1	9.05						

Wb 16. Chase Brass Co., Thomaston Avenue, Waterville. Records available: 1944-48.

Feb. 27	12.47	May 27	11.16	Aug. 27	17.61	Dec. 1	13.44
Mar. 30	8.68	June 29	11.82	Oct. 27	15.16	27	13.05
Apr. 28	11.53	July 28	12.38				

Wb 25. U. S. Time Corporation. On northwest corner of Cherry Street and Cherry Avenue, Waterbury. Records available: 1944-48.

Jan. 27	5.71	Apr. 28	5.04	July 28	5.71	Oct. 27	6.05
Feb. 27	4.76	Mar. 27	5.05	Aug. 27	6.25	Dec. 1	5.22
Mar. 30	4.40	June 29	5.09	Sept. 30	6.67	27	5.58

Wb 93. Mrs. William Nichols, Sr., 118 Pearl Lake Road, Waterbury. Records available: 1944-48.

Jan. 27	27.53	Apr. 28	25.94	July 28	27.41	Oct. 27	27.64
Feb. 27	25.82	May 27	26.51	Aug. 27	27.60	Dec. 1	27.20
Mar. 30	25.28	June 29	26.71	Sept. 30	27.97	27	27.44

Wb 119. James O'Connor, 947 Pearl Lake Road, Waterbury. Records available: 1944-48.

Feb. 27	4.67	June 29	4.91	Sept. 30	12.69	Dec. 1	5.45
Apr. 28	5.09	July 28	6.54	Oct. 27	13.85	27	5.62
May 27	4.94	Aug. 27	9.15				

Wb 176. Mrs. Frank Bergin, 535 Scott Road, Waterbury. Records available: 1944-48.

Feb. 27	5.14	June 29	7.07	Sept. 30	14.20	Dec. 1	10.71
Mar. 30	4.17	July 28	10.06	Oct. 27	14.83	27	10.03
May 27	6.85	Aug. 27	11.82				

Wb 198. E. L. Bronson, Pierpont Road, Waterbury. Records available: 1944-48.

Wb 198--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	13.99	Apr. 28	8.97	July 28	12.72	Oct. 27	18.15
Feb. 27	13.05	May 27	10.20	Aug. 27	13.94	Dec. 1	18.83
Mar. 30	5.82	June 29	11.34	Sept. 30	16.90	27	18.31

Wb 236. C. W. Faber, 864 Woodtick Road, Waterbury. Records available: 1944-48. Measurements discontinued Oct. 26, 1948.

Date	Water level	Date	Water level	Date	Water level
Feb. 27	3.01	Apr. 28	2.50	Oct. 26	8.55
Mar. 30	2.60	May 27	3.37		

Wb 336. The Bristol Co., Platts Mills Road, Waterbury. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	15.62	Apr. 28	12.87	July 28	14.16	Oct. 27	18.84
Feb. 27	14.42	May 27	12.40	Aug. 27	16.95	Dec. 1	17.93
Mar. 30	11.32	June 29	12.78	Sept. 30	17.91	27	17.57

Wb 340. Connecticut Light & Power Co., Eagle Street, Waterbury. Records available: 1944-48.

Mar. 30	18.40	June 29	21.08	Sept. 30	22.70	Dec. 1	22.56
Apr. 28	19.83	July 28	21.94	Oct. 27	22.12	27	22.69
May 27	20.19	Aug. 27	19.89				

New London County

NL 2. New London Historical Society, 11 Blinman Street, New London. Records available: 1946-48.

Jan. 28	14.06	Apr. 27	14.55	July 27	16.15	Oct. 26	16.76
Feb. 26	12.88	May 26	13.65	Aug. 31	17.08	Nov. 30	15.52
Mar. 29	13.32	June 28	14.98	Sept. 29	17.31	Dec. 23	15.40

NWH 4. A. Duch, 20 Church Street, Norwich. Records available: 1946-48.

Jan. 28	5.38	Apr. 27	5.27	July 27	7.85	Oct. 26	10.80
Feb. 26	5.13	May 26	5.20	Aug. 31	12.04	Nov. 30	5.27
Mar. 29	5.24	June 28	5.28	Sept. 29	14.66	Dec. 23	5.20

Tolland County

U 3. Yale University Forest, Union. Records available: 1946-48.

Mar. 29	14.60	June 28	15.59	Sept. 28	21.26	Nov. 30	21.66
Apr. 26	15.01	July 27	17.65	Oct. 26	22.43	Dec. 23	20.96
May 26	14.87	Aug. 26	19.47				

Windham County

A 1. Yale University Forest, Ashford. Records available: 1946-48.

Feb. 26	7.23	May 26	4.34	Aug. 26	11.85	Nov. 30	12.96
Mar. 29	3.83	June 28	5.40	Sept. 28	13.90	Dec. 23	12.59
Apr. 27	4.54	July 27	9.41	Oct. 26	14.72		

Pl. W. P. Lewis, Pleasant Street, Plainfield. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	31.20	Apr. 27	28.10	July 27	29.03	Oct. 26	30.89
Feb. 26	30.50	May 26	28.40	Aug. 28	29.72	Nov. 30	30.92
Mar. 29	30.12	June 28	28.50	Sept. 29	30.50	Dec. 23	30.81

Will 1. American Thread Co., Union and Lower Main Streets, Willimantic. Records available: 1946-48.

Jan. 28	7.77	Apr. 27	5.89	July 27	6.78	Oct. 26	7.02
Feb. 26	6.30	May 26	5.68	Aug. 26	7.16	Nov. 30	7.12
Mar. 29	5.45	June 28	6.08	Sept. 29	7.86	Dec. 23	7.16

DELAWARE

By J. M. Birdsall

PROGRAM OF WORK

The program of ground-water investigations which was begun in 1943 in cooperation with the Town of Lewes, was continued through 1948. The two observation wells comprising the water-level program are at the Fort Miles pumping station, near the Town of Lewes. Test well 1 is equipped with a Friez weekly water-stage recorder and test well 2 is measured manually once a week.

FLUCTUATIONS OF WATER LEVEL

The precipitation at Lewes, was above normal each month during 1948 except February, April, and September, and the total precipitation for the year was reported to be 72.75 inches. For the State, precipitation averaged over 12 inches more than normal. There were record high water levels in both wells on June 3 and 4 (well 1) and on June 4 and 11 (well 2). These highs probably reflect the precipitation in May which was 14.62 inches, and the greatest during any month in the year.

The wells reflect a tidal fluctuation and the record of one shows the effect of pumping.

The hydrographs representing the lowest daily water levels in test well 1 and the weekly measurements of well 2 indicate that in general the levels for 1948 are slightly above those for 1947 and likewise above those for 1945, the first full year of record. From an analysis of the water-level data from these two wells it would appear that no trend has developed either downward or upward.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Sussex County

S-1. Dept. of the Army. Fort Miles test well 1. Records available: 1944-48. Extremes of observed water level, in feet below land surface: Highest 14.9 June 3 and 4, 1948; lowest, 19.3 Sept. 15, 16 and 25, 1945.

S-1--Continued.

Lowest daily water level, from recorder charts									
Day	Jan.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.8	....	16.7	17.4	17.5	17.8	....	17.6	17.2
2	18.1	....	16.6	17.3	17.5	17.5	....	17.4	17.3
3	18.2	....	16.2	17.5	....	17.7	17.5	17.3	17.3
4	18.3	....	16.2	17.5	....	17.6	17.7	17.4	16.5
5	17.4	....	16.4	17.5	....	17.5	16.9	....	16.4
6	18.0	17.4	16.5	17.6	....	17.4	16.4	....	16.5
7	17.0	17.4	16.6	....	....	17.5	16.5	....	16.7
8	18.5	17.7	16.6	....	....	17.4	16.7	....	16.9
9	18.1	17.2	16.8	17.4	....	17.4	....	....	16.7
10	18.3	18.3	16.5	17.5	17.1	17.3	....	....	16.8
11	18.4	18.1	16.6	17.5	17.0	....	....	....	16.9
12	18.2	17.7	16.7	17.5	16.9	....	....	....	17.0
13	....	17.6	16.6	17.5	17.0	....	....	17.8	17.1
14	....	17.3	16.7	17.4	17.0	....	17.6	18.2	17.0
15	17.9	17.4	16.7	17.3	17.1	....	17.5	18.2	17.0
16	17.8	17.5	....	17.4	17.1	....	17.5	17.9	16.7
17	17.6	17.3	....	17.5	17.1	....	17.5	17.7	16.7
18	17.4	17.3	....	17.4	17.0	....	17.7	17.8	16.9
19	17.6	....	....	17.5	17.1	....	17.5	17.6	16.9
20	18.4	....	....	17.6	17.2	....	....	17.6	16.5
21	17.6	18.2	....	17.5	17.2	....	....	17.6	16.7
22	17.9	17.2	....	....	17.2	....	....	17.8	16.9
23	17.9	17.3	16.9	....	17.4	....	....	17.5	....
24	18.0	17.3	16.9	....	17.3	....	....	17.4	....
25	17.5	17.3	16.9	....	17.5	....	....	17.4	....
26	17.7	17.0	17.0	....	17.6	....	....	....	17.0
27	17.9	....	16.9	....	17.8	....	....	17.4	17.5
28	....	....	17.5	....	17.6	....	....	17.5	17.5
29	....	17.2	....	....	17.6	....	....	17.3	17.7
30	....	17.1	....	17.9	....	....	17.5	16.9	17.8
31	....	16.9	....	17.7	....	....	17.5	....	17.8

S-2. Dept. of the Army. Fort Miles test well 2. Records available: 1944-48. Extremes of observed water level, in feet below land-surface datum: Highest, 14.8 June 4, and 11, 1948; lowest, 18.0 July 1, 1945.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	16.4	June 11	14.8	Aug. 19	15.6	Nov. 12	16.5
14	16.2	22	15.4	26	15.9	19	16.3
21	16.0	30	15.6	Sept. 4	15.9	26	16.2
May 5	16.1	July 8	15.7	14	16.4	Dec. 3	15.9
12	16.3	15	16.0	Oct. 2	16.3	10	15.5
20	16.2	29	16.1	13	16.3	17	15.3
28	15.7	Aug. 12	16.4	29	17.0	25	15.5
June 4	14.8						

INDIANA

By F. H. Klaer, Jr. and B. W. Swartz

PROGRAM OF WORK

The observation-well program in Indiana was continued during 1948 in cooperation with the Indiana Department of Conservation, Division of Water Resources, C. H. Bechert, Director, as a part of the State-wide investigation of ground-water resources. On January 1, 1948, the program included 166 wells. During the year the following wells were added:

Bartholomew 2	Jasper 3	Marshall 1	Starke 11
Hendricks 2	Marion 29	Miami 1	Tippecanoe 11
Hendricks 3	Marion 30	Porter 6	White 3

Measurements were also resumed in wells Marion 13 and 14, and Porter 3. During the year measurements were discontinued in wells Crawford 4, Grant 6, and Marion 16. On December 31, 1948, the observation-well program included 174 wells, of which 121 were measured weekly, 5 were measured semi-monthly, 2 were measured daily, 12 were measured at irregular intervals, and 34 were equipped with automatic water-stage recorders. The locations of these wells are shown in figure 2. During 1948, a total of about 6,800 measurements of water levels were made and about 9,900 water levels were computed from recorder charts.

Measurements of water levels in six wells in Clark and Floyd Counties were continued by the Louisville office of the Geological Survey, U. S. Department of the Interior, in connection with ground-water investigations in Louisville, Kentucky. These wells are included in this report as Clark 5, Floyd 1, 2, 3, 4, and 6.

PRECIPITATION

The average precipitation for the State as a whole during 1948 was 42.11 inches, 2.82 inches above the average for the period 1887-1948, inclusive. Rainfall was especially heavy in March, July, and November, and was considerably below normal during January, August, and September.

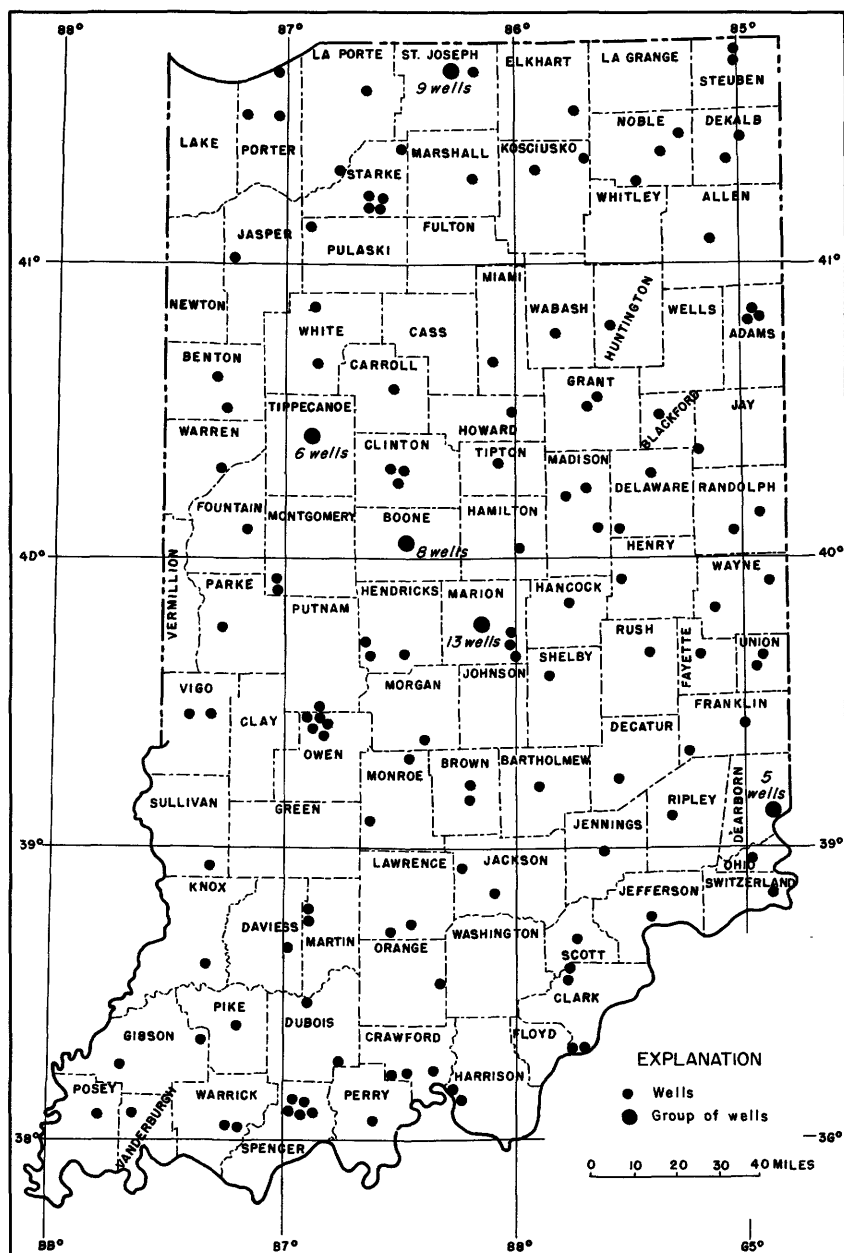


Figure 2.--Map of Indiana showing locations of observation wells, 1948.

Precipitation, in inches, in Indiana, 1948
(U. S. Weather Bureau data)

Division	Precipitation 1948	Departure from 62-year average	Driest month	Precipitation	Wettest month	Precipitation
Northern	36.52	+0.66	October	1.28	June	5.00
Central	44.50	+5.34	August	1.94	March	5.61
Southern	47.11	+4.29	August	1.84	November	7.29
Entire State	42.11	+2.82	August	1.95	November	5.24

It should be noted that the heaviest precipitation in the northern and central divisions of the State occurred in June and March, respectively, when conditions for recharge were favorable. The heavy precipitation during November in the southern part of the State had considerable effect in speeding up the seasonal rise in ground-water levels.

FLUCTUATIONS OF WATER LEVEL

Water levels in observation wells in Indiana, 1948

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 1a/	May 27, 1944	55.90	Nov. 10, 1945	42.20	Mar. 23, 1946	52.45
Adams 2a/	June 23, 1945	83.71	July 13, 1946	45.60	July 12, 1947	73.22
Adams 3	Apr. 9, 1947	29.65	Oct. 21, 1948	23.27	Apr. 14, 1948	25.66
			Nov. 2, 1948			
Allen 3a/	May 25, 1944	12.72	Sept. 6, 1946	7.83	Mar. 27, 1948	11.03
Bartholomew 2	Dec. 3, 1948	15.64	Dec. 3, 1948	14.81	Dec. 31, 1948	14.81
Benton 1a/	May 25, 1944	47.98	Sept. 12, 1946	37.38	June 1, 1944	45.00
Benton 2	May 25, 1944	19.05	Mar. 18, 1948	6.42	Mar. 1, 1946	7.25
Blackford 1	Sept. 27, 1945	7.98	Dec. 28, 1946	.72	Mar. 23, 1946	2.69
Boone 2	Oct. 15, 1935	11.00	Oct. 18, 1940	2.00	Apr. 6, 1948	3.93
			Nov. 2, 1940			
Boone 4a/	May 24, 1945	71.30	Sept. 8, 1945	41.55	Feb. 22, 1947	60.70
Boone 10a/	May 24, 1945	53.50	Aug. 15, 1947	13.59	May 10, 1946	32.20
Boone 11a/	Oct. 26, 1945	53.42	Aug. 8, 1947	18.18	May 15, 1946	32.54
Boone 12a/	May 24, 1945	33.73	Sept. 29, 1948	23.15	May 17, 1946	28.85
Boone 13	May 24, 1945	13.47	Dec. 6, 1946	2.33	Apr. 14, 1948	9.58
Boone 14a/	Oct. 26, 1945	50.14	Aug. 23, 1946	35.78	Oct. 4, 1947	42.42
Boone 16	Sept. 17, 1946	11.00	Nov. 1, 1948	.56	Apr. 21, 1947	3.90
Brown 2	Dec. 8, 1936	17.65	Jan. 1, 1940	.33	Apr. 11, 1948	8.01
			Feb. 1, 1940			
Brown 3	Dec. 8, 1936	9.84	Nov. 2, 1947	+.3	Feb. 2, 1945	8.85
Carroll 1	Sept. 28, 1945	11.20	Oct. 5, 1946	2.72	Mar. 16, 1946	7.68
Clark 1	Dec. 2, 1936	26.69	Dec. 31, 1944	.72	Apr. 21, 1947	8.24
Clark 2	Dec. 2, 1936	24.86	Nov. 29, 1944	.45	June 3, 1943	10.66
Clark 3a/	Aug. 26, 1943	33.99	May 12, 1944	19.55	Apr. 22, 1948	24.03
Clark 5	Feb. 21, 1944	17.86	Feb. 21, 1944	4.58	May 2, 1948	10.66
Clinton 1a/	Feb. 7, 1944	54.38	Dec. 2, 1944	23.97	Jan. 2, 1948	32.48
Clinton 2a/	Feb. 7, 1944	71.11	Dec. 3, 1944	41.23	Jan. 12, 1948	50.56
Clinton 3a/	Apr. 20, 1944	41.50	Sept. 12, 1947	13.87	May 15, 1946	32.98
Crawford 1	Mar. 3, 1944	12.26	Oct. 29, 1948	1.99	Feb. 16, 1946	2.47
Crawford 2	July 27, 1944	7.26	Dec. 22, 1944	+.10	Mar. 2, 1945	1.77
Crawford 3	July 27, 1944	18.50	Oct. 27, 1946	5.90	Mar. 8, 1945	12.2
Crawford 4	Aug. 22, 1944	31.76	Sept. 3, 1947	30.33	Mar. 13, 1945	(b)
Daviess 1	Feb. 24, 1944	28.30	Mar. 2, 1944	18.53	June 11, 1947	22.76
Dearborn 1-8a/	Oct. 6, 1944	107.89	Oct. 12, 1944	59.15	Apr. 26, 1948	87.70
Dearborn 1-10a/	Feb. 26, 1946	44.39	Nov. 6, 1948	4.48	Apr. 12, 1948	35.90
Dearborn 2a/	Sept. 21, 1944	67.25	Nov. 20, 1944	32	Mar. 12, 1945	65.00
			Dec. 4, 1944			

* See footnotes at end of table.

Water levels in observation wells in Indiana, 1948--Continued

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	
Dearborn 4	Sept. 21, 1944	45.68	Nov. 7, 1948	(d)	Mar. 12, 1945	45.58
Dearborn 5	Aug. 29, 1945	41.90	Nov. 7, 1948	18.76	Jan. 14, 1946	41.43
Decatur 1	Sept. 8, 1944	9.71	Sept. 17, 1948	.76	Mar. 14, 1947	1.69
De Kalb 1a/	Nov. 24, 1936	14.5	Aug. 15, 1944	4.5	June 2, 1947	10.5
De Kalb 2	Sept. 7, 1945	17.10	Dec. 6, 1946	1.27	Apr. 4, 1947	3.58
Delaware 2	Mar. 30, 1945	14.80	Dec. 7, 1946	4.12	Apr. 17, 1948	10.55
Delaware 3	Dec. 11, 1946	13.00	Oct. 2, 1948	5.95	Mar. 27, 1948	8.64
			Oct. 30, 1948			
Dubois 2	Dec. 1, 1936	18.45	Nov. 13, 1944	5.47	May 15, 1943	11.86
Dubois 5	July 28, 1944	22.16	Dec. 29, 1944	8.28	Mar. 9, 1945	19.71
Elkhart 2	Sept. 10, 1945	6.64	Sept. 9, 1946	.86	Oct. 1, 1945	5.65
Fayette 2	Apr. 24, 1946	14.54	Dec. 27, 1946	2.50	Apr. 13, 1948	2.63
Floyd 1	Dec. 21, 1943	47.06	Nov. 13, 1944	8.75	Feb. 19, 1948	17.53
			Nov. 14, 1944			
Floyd 2	Dec. 21, 1943	(e)	Aug. 20, 1945	6.11	Feb. 19, 1948	16.17
			Aug. 10, 1946			
			Nov. 21, 1946			
Floyd 3	Dec. 21, 1943	22.23	Feb. 18, 1944	5.95	Apr. 1, 1948	9.58
Floyd 4	Dec. 21, 1943	30.23	Feb. 18, 1944	9.21	Apr. 1, 1948	18.44
Floyd 6	Feb. 4, 1944	20.08	Feb. 28, 1944	1.53	Feb. 27, 1945	12.22
Fountain 1	May 26, 1944	42.45	Feb. 14, 1945	34.32	June 14, 1944	41.17
			Mar. 7, 1945			
Franklin 1a/	Dec. 9, 1936	31.71	Oct. 16, 1939	21.50	May 3, 1947	27.50
Franklin 4	Feb. 18, 1944	44.28	Jan. 26, 1945	16.96	Apr. 7, 1944	27.18
Gibson 1	Aug. 24, 1944	20.64	Oct. 12, 1944	11.05	Jan. 20, 1947	19.32
Gibson 2	Feb. 20, 1947	26.78	Dec. 26, 1947	3.60	Oct. 10, 1947	24.45
Grant 2a/	Mar. 8, 1945	86.1	Apr. 30, 1945	58.0	May 13, 1946	70.20
Grant 5a/	Apr. 16, 1945	61.53	Sept. 27, 1947	46.21	Apr. 5, 1946	51.09
Grant 6	June 2, 1945	17.67	Dec. 22, 1946	6.36	May 3, 1947	(f)
Hamilton 2a/	Nov. 2, 1935	27.33	Sept. 15, 1941	14.71	May 19, 1942	22.95
Hancock 1	Apr. 24, 1945	27.91	Nov. 6, 1946	12.95	June 20, 1946	25.57
			Aug. 7, 1947		Mar. 31, 1939	
			Sept. 4, 1947		Apr. 15, 1939	
					Feb. 25, 1939	
					Feb. 28, 1939	
Harrison 1	Dec. 2, 1936	5.65	Nov. 15, 1941	.00		.98
Harrison 3	Oct. 25, 1938	7.8	Sept. 30, 1941	2.00	Mar. 21, 1939	3.05
Hendricks 1	Feb. 25, 1944	8.46	Jan. 29, 1945	(d)	Apr. 17, 1944	3.75
					Apr. 24, 1944	
Hendricks 2	Oct. 9, 1948	24.11	Oct. 17, 1948	20.82	Dec. 5, 1948	21.43
Hendricks 3	Oct. 9, 1948	8.46	Oct. 23, 1948	3.33	Dec. 26, 1948	3.33
			Oct. 31, 1948			
Henry 2	July 31, 1946	18.15	Nov. 17, 1946	11.25	Apr. 11, 1948	13.78
Howard 4	Mar. 28, 1945	15.22	Jan. 25, 1947	.96	Apr. 10, 1948	9.65
Huntington 1	Sept. 27, 1945	38.80	Sept. 12, 1948	1.85	Mar. 17, 1946	4.25
Jackson 1a/	Dec. 3, 1936	16.35	Nov. 8, 1948	1.2	Apr. 15, 1939	7.95
Jackson 2	Feb. 16, 1944	18.87	Feb. 16, 1944	10.70	May 20, 1946	13.06
Jasper 3	June 10, 1948	11.43	Dec. 6, 1948	9.40	June 10, 1948	10.50
Jay 2a/	July 16, 1947	38.29	Dec. 6, 1947	33.04	July 31, 1948	33.91
Jefferson 2	Mar. 3, 1937	32.5	Aug. 16, 1943	15.33	Apr. 1, 1946	29.10
Jennings 1	Dec. 3, 1936	16.98	Dec. 15, 1943	.97	Mar. 27, 1948	7.37
Johnson 1	Feb. 22, 1944	10.45	Oct. 25, 1944	2.61	Apr. 11, 1944	6.48
			Oct. 31, 1944			
Knox 1	Aug. 24, 1944	37.22	Feb. 22, 1945	32.77	July 10, 1947	33.55
					July 17, 1947	
Kosciusko 2	Nov. 3, 1938	+1.35	Nov. 3, 1938	+3.25	May 1, 1944	+1.35
Kosciusko 3	Sept. 11, 1945	14.29	Dec. 27, 1948	10.60	Feb. 14, 1946	14.29
La Porte 1a/	July 4, 1942	17.30	Aug. 23, 1947	.45	Nov. 6, 1948	.62
					Nov. 20, 1948	
					Dec. 4, 1948	
La Porte 2	July 2, 1942	7.22	Oct. 11, 1946	1.07	June 1, 1943	6.28
Lawrence 1	Feb. 24, 1944	22.45	Sept. 18, 1947	9.09	Mar. 8, 1945	12.10

* See footnotes at end of table.

Water levels in observation wells in Indiana, 1948--Continued

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on date of last record
		Water level	Date	Water level	Date	
Lawrence 2	Feb. 23, 1944	22.26	Jan. 7, 1948	8.22	Mar. 7, 1945	20.01
Madison 3	Sept. 23, 1935	25.3+	Oct. 15, 1940	18.39	June 16, 1939	22.91
			Nov. 29, 1940			
			Dec. 18, 1940			
			Dec. 30, 1940			
Madison 6	Apr. 1, 1947	12.51	Oct. 27, 1948	3.33	Apr. 8, 1948	6.12
Madison 7	Jan. 1, 1946	13.9	Aug. 7, 1946	(g)	Apr. 9, 1948	6.17
Marion 1a/	Aug. 1, 1935	37.46	Aug. 5, 1941	13.85	Apr. 16, 1938	18.60
Marion 2a/	Oct. 15, 1935	70.55	Sept. 21, 1941	46.40	Mar. 18, 1936	50.24
Marion 3a/	Oct. 15, 1935	71.06	Oct. 7, 1941	44.50	May 3, 1948	47.06
Marion 4a/	Dec. 3, 1937	15.72	May 27, 1941	+3.92	Apr. 16, 1938	3.35
Marion 9a/	July 26, 1939	62.48	Oct. 3, 1942	43.38	Mar. 26, 1941	44.26
Marion 10a/	Aug. 2, 1939	70.78	Aug. 28, 1941	50.64	Feb. 13, 1940	55.56
Marion 13a/	Jan. 12, 1928	(h)	Sept. 20, 1930	+2.19	Jan. 20, 1932	3.91
			Jan. 12, 1945			
			Feb. 14, 1945			
			Sept. 9, 1946			
			July 16, 1948			
			Aug. 20, 1948			
			Sept. 30, 1948			
			Oct. 25, 1948			
Marion 14a/	June 3, 1929	(1)	Nov. 1, 1930	11.75	Jan. 18, 1937	20.39
			Feb. 14, 1945			
Marion 16a/	Mar. 19, 1940	114.38	May 1, 1944	56.90	Jan. 28, 1941	(j)
Marion 18	Oct. 11, 1943	28.33	Feb. 5, 1945	13.41	Mar. 20, 1946	22.35
			Feb. 13, 1945			
			Feb. 14, 1945			
Marion 19	Oct. 18, 1943	21.48	Feb. 5, 1945	15.96	June 24, 1946	19.47
Marion 21a/	Mar. 28, 1944	67.28	Aug. 4, 1944	52.50	Feb. 2, 1948	53.18
Marion 22a/	Apr. 11, 1944	90.40	July 14, 1944	61.48	Feb. 1, 1948	63.47
Marion 25a/	May 7, 1945	53.12	Jan. 31, 1947	18.30	May 27, 1946	28.80
Marion 26	Aug. 5, 1947	9.80	Oct. 4, 1948	2.15	Mar. 22, 1948	5.62
Marion 27	Aug. 5, 1947	5.37	Oct. 11, 1948	2.10	Apr. 5, 1948	3.20
					May 17, 1948	
Marion 28	Aug. 5, 1947	13.37	Oct. 16, 1948	2.31	Apr. 15, 1948	8.01
Marion 29a/	Jan. 10, 1948	53.60	Sept. 5, 1948	46.26	Mar. 15, 1948	47.18
Marion 30a/	Mar. 25, 1948	58.06	Sept. 18, 1948	48.27	Apr. 5, 1948	48.66
					Apr. 19, 1948	
Marshall 1	May 20, 1948	9.34	Oct. 28, 1948	3.82	May 20, 1948	7.79
Martin 3	Mar. 1, 1944	22.71	Feb. 15, 1945	18.02	June 2, 1947	20.27
Martin 4	Mar. 1, 1944	12.56	Dec. 2, 1944	2.40	Mar. 8, 1944	3.07
Miami 1	June 3, 1948	48.20	Sept. 20, 1948	40.94	June 14, 1948	43.23
Monroe 2	Sept. 15, 1944	25.10	Sept. 11, 1945	6.47	June 3, 1947	20.79
Monroe 3	Sept. 15, 1944	27.44	Feb. 27, 1945	16.10	Apr. 10, 1948	26.54
Montgomery 1	Sept. 27, 1935	15.45	Nov. 16, 1940	3.66	May 17, 1945	7.32
Montgomery 4	Sept. 27, 1935	17.33	Oct. 15, 1940	1.33	Apr. 4, 1938	11.41
Morgan 3	Aug. 14, 1945	8.80	Sept. 11, 1945	2.51	Aug. 14, 1945	2.87
Noble 5	May 1, 1942	9.20	Feb. 3, 1945	.49	May 17, 1943	7.72
			Feb. 17, 1945			
Noble 6a/	May 28, 1946	25.28	Feb. 28, 1947	18.33	May 24, 1947	21.47
Noble 7	Aug. 10, 1947	22.52	Nov. 24, 1947	20.05	June 13, 1948	21.73
Ohio 1	Sept. 7, 1944	14.94	Oct. 30, 1948	.63	Mar. 3, 1945	10.83
Orange 1	Mar. 1, 1944	14.49	Mar. 1, 1944	(d)	Apr. 9, 1944	10.38
Owen 2	Sept. 10, 1946	25.65	Oct. 15, 1946	10.00	Apr. 12, 1947	16.01
Owen 3	June 5, 1946	109.94	July 17, 1946	108.30	Apr. 1, 1948	108.88
Owen 4	June 20, 1946	84.58	Sept. 20, 1946	68.81	Apr. 19, 1947	77.89
Owen 5	June 5, 1946	13.39	Aug. 3, 1946	1.54	Mar. 27, 1948	3.46
Owen 6	June 5, 1946	9.57	Oct. 2, 1948	2.83	Mar. 7, 1948	5.46
Parke 1	June 14, 1945	8.47	Sept. 30, 1945	2.38	June 21, 1945	4.85
Perry 1	Mar. 3, 1944	10.12	Aug. 13, 1944	1.36	May 25, 1947	4.27
Pike 1	Dec. 1, 1936	12.94	Dec. 30, 1944	3.50	Mar. 31, 1945	6.90

* See footnotes at end of table.

Water levels in observation wells in Indiana, 1948--Continued

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on date of last record
		Water level	Date	Water level	Date	
Porter 1a/	Oct. 16, 1935	58.05	Mar. 31, 1945	50.63	Aug. 3, 1943	53.35
Porter 3	Oct. 18, 1935	17.3	Dec. 23, 1940	11.19	July 2, 1945	16.85
Porter 6	June 11, 1948	21.89	Dec. 18, 1948	6.79	June 11, 1948	21.37
Posey 2	Feb. 19, 1947	9.90	Dec. 7, 1947	3.38	Apr. 19, 1947	5.52
					May 4, 1947	
Pulaski 1	Dec. 1, 1935	12.14	Dec. 1, 1935	5.75	June 9, 1947	8.38
Putnam 3	Sept. 10, 1946	52.29	Oct. 21, 1946	124.33	Mar. 2, 1948	131.43
Randolph 1a/	Feb. 8, 1942	18.43	Jan. 31, 1945	12.39	Apr. 15, 1944	13.17
Randolph 2	Dec. 19, 1946	12.84	Dec. 28, 1946	.37	Mar. 27, 1948	10.84
Ripley 1	Sept. 7, 1944	13.10	Jan. 15, 1945	1.58	May 3, 1947	12.43
Rush 1	July 12, 1945	10.03	Oct. 29, 1948	2.05	Apr. 9, 1948	5.30
St. Joseph 1a/	Oct. 16, 1935	14.59	Aug. 1, 1946	4.46	May 25, 1943	9.75
St. Joseph 4a/	Feb. 16, 1945	20.64	July 26, 1945	15.15	June 12, 1947	19.93
			Aug. 2, 1946			
St. Joseph 4T-2	Feb. 16, 1945	9.08	Sept. 20, 1946	4.77	June 2, 1947	8.78
St. Joseph 10-2a/	Jan. 26, 1946	38.09	Feb. 22, 1947	34.45	July 26, 1947	37.75
			Mar. 1, 1947		July 27, 1947	
					July 30, 1947	
					July 31, 1947	
St. Joseph 16-1a/	June 28, 1944	32.25	Sept. 27, 1946	23.2	Mar. 1, 1946	29.50
St. Joseph 22a/	June 8, 1944	46.92	Aug. 28, 1948	28.83	June 2, 1947	34.50
St. Joseph 53a/	Mar. 23, 1945	9.05	Oct. 27, 1946	2.10	June 4, 1947	6.10
St. Joseph 85a/	Jan. 19, 1945	15.86	Dec. 5, 1946	10.62	June 12, 1947	15.02
St. Joseph 89a/	Mar. 17, 1945	47.40	Sept. 7, 1946	38.38	June 4, 1947	45.45
Scott 1a/	May 4, 1942	27.84	Oct. 22, 1948	16.23	May 21, 1946	21.98
Shelby 1	Apr. 23, 1946	10.56	Jan. 4, 1948	6.05	June 15, 1947	8.35
Spencer 4	Mar. 2, 1944	18.02	July 18, 1948	.44	Jan. 27, 1945	3.17
Spencer 5	Mar. 2, 1944	31.88	Nov. 21, 1945	23.50	Mar. 8, 1944	30.83
Spencer 6	Aug. 23, 1944	30.25	Nov. 22, 1944	22.20	June 5, 1946	24.75
			Dec. 20, 1944			
Spencer 7	Aug. 23, 1944	11.31	Dec. 23, 1944	1.31	June 1, 1944	7.52
Spencer 8	Aug. 23, 1944	8.23	Nov. 11, 1944	1.57	Mar. 17, 1945	6.86
Starke 2	Oct. 3, 1935	5.59	Sept. 15, 1941	1.15	Mar. 16, 1944	3.86
Starke 11	July 1, 1948	17.25	Nov. 7, 1948	13.58	Sept. 23, 1948	17.25
Steuben 1	Sept. 16, 1935	4.72	Nov. 1, 1935	+1.00	June 1, 1943	3.03
Steuben 2	Sept. 16, 1935	6.7	Oct. 19, 1946	.03	Apr. 15, 1939	5.86
			Oct. 26, 1946			
			Nov. 2, 1946			
Sullivan 1	Aug. 24, 1944	15.38	Nov. 5, 1944	.70	Apr. 15, 1945	4.67
Switzerland 1	Sept. 7, 1944	21.90	Dec. 2, 1944	3.15	Apr. 12, 1947	9.62
			Dec. 15, 1944			
Tippecanoe 4a/	Apr. 24, 1944	22.16	Aug. 13, 1944	+1.00	May 19, 1945	9.00
Tippecanoe 5a/	Apr. 24, 1944	89.36	Apr. 7, 1947	87.83	May 1, 1944	88.41
Tippecanoe 7	Aug. 10, 1945	166.25	Jan. 17, 1947	164.00	June 4, 1948	165.70
			Jan. 22, 1947			
Tippecanoe 8a/	Nov. 28, 1945	14.05	Oct. 18, 1946	4.16	Apr. 18, 1948	11.39
Tippecanoe 9a/	Feb. 15, 1946	76.53	Oct. 26, 1946	69.05	Jan. 2, 1948	72.60
Tippecanoe 11	May 1, 1948	98.39	Dec. 25, 1948	96.17	May 28, 1948	98.39
					June 4, 1948	
Tipton 1	Mar. 27, 1945	5.40	Sept. 23, 1945	+6.00	June 10, 1946	1.71
Union 3	Apr. 24, 1946	14.30	Dec. 9, 1946	3.86	May 27, 1947	15.30
Vanderburg 1	Feb. 20, 1947	10.39	Dec. 12, 1948	.91	May 4, 1947	10.17
Vigo 2a/	Feb. 13, 1946	60.94	Dec. 18, 1948	46.47	June 15, 1947	60.04
			Dec. 19, 1948		June 16, 1947	
Vigo 3	June 15, 1945	9.19	Nov. 22, 1946	.55	Jan. 11, 1946	3.04
Wabash 2	June 1, 1945	14.05	Sept. 5, 1946	1.50	May 13, 1948	11.53
Warren 1	May 26, 1944	19.43	Oct. 16, 1948	5.71	Mar. 27, 1948	12.60
Warrick 1	Dec. 1, 1936	20.30	Apr. 2, 1947	14.39	Dec. 28, 1948	14.39
Warrick 2	Feb. 18, 1944	15.47	Feb. 18, 1944	(d)	Mar. 16, 1945	6.34
					Apr. 4, 1945	
Wayne 1	July 11, 1945	31.84	Dec. 17, 1946	25.77	June 16, 1947	31.17

* See footnotes at end of table.

Net changes, in feet, in water levels in observation wells
in Indiana, 1948--Continued

Well	Net rise (+) or net decline (-)	Well	Net rise (+) or net decline (-)	Well	Net rise (+) or net decline (-)
Franklin 4 ^a /	+4.50	Marion 19	-0.01	St. Joseph 4T-2	-0.76
Gibson 1	-2.89	Marion 21 ^a /	+2.46	St. Joseph 16-1 ^a /	+4.40
Grant 2 ^a /	-3.67	Marion 22 ^a /	+6.78	St. Joseph 22 ^a /	-2.01
Grant 5 ^a /	+6.48	Marion 25 ^a /	+1.05	St. Joseph 53 ^a /	-6.66
Hamilton 2 ^a /	+1.02	Marion 26	+2.68	St. Joseph 85 ^a /	-1.76
Hancock 1	+8.81	Marion 27	+2.24	Scott 1 ^b /	+4.42
Harrison 1	+1.28	Marion 28	+4.14	Shelby 1	+1.72
Harrison 3	+3.85	Martin 3	+1.19	Spencer 4	+4.67
Hendricks 1	+3.16	Martin 4	+7.69	Spencer 5	+7.79
Henry 2	+1.17	Monroe 2	+3.51	Spencer 6	+2.18
Howard 4	+2.20	Monroe 3	-3.32	Spencer 7	+1.75
Huntington 1 ^a /	+30.60	Montgomery 1	+4.41	Spencer 8	+1.18
Jackson 1 ^b /	+2.25	Montgomery 4	-2.22	Starke 2	-2.28
Jackson 2	+3.19	Morgan 3	+1.28	Steuben 1	-1.38
Jay 2 ^a /	+3.68	Noble 5	-1.88	Steuben 2	-1.34
Jefferson 2	-.84	Noble 7	+7.77	Sullivan 1	+7.41
Jennings 1	+5.69	Ohio 1	+3.19	Switzerland 1	+8.38
Johnson 1	+1.15	Owen 2	+3.26	Tippecanoe 4 ^a /	+4.98
Knox 1	+2.25	Owen 3	+0.09	Tippecanoe 5 ^a /	+1.16
Kosciusko 2	-.23	Owen 4	-.05	Tippecanoe 7	-.08
Kosciusko 3	-.77	Owen 5	+8.70	Tippecanoe 8 ^a /	+1.72
La Porte 1 ^a /	+10.06	Owen 6	+2.46	Tippecanoe 9 ^a /	-1.29
La Porte 2	-.88	Parke 1	+0.05	Tipton 1	+5.55
Lawrence 1	+9.57	Perry 1	+4.49	Vanderburgh 1	-.38
Lawrence 2	+1.42	Pike 1	+2.65	Vigo 2 ^a /	-4.46
Madison 3	+1.07	Porter 1 ^a /	-1.54	Vigo 3	+4.64
Madison 6	+1.18	Posey 2	+4.08	Wabash 2	+4.03
Marion 1 ^a /	+8.84	Pulaski 1	-1.13	Warren 1	+4.99
Marion 2 ^a /	+2.60	Putnam 3	-.03	Warrick 1	+4.02
Marion 3 ^a /	+1.31	Randolph 1 ^a /	+2.25	Warrick 2	+7.03
Marion 4 ^a /	+1.57	Ripley 1	-.15	Wayne 1	-.23
Marion 9 ^a /	+3.28	Rush 1	+1.22	Wayne 2	+8.94
Marion 10 ^a /	+1.65	St. Joseph 1 ^a /	-.58	White 1 ^a /	-2.98
Marion 18	+1.47	St. Joseph 4T-1 ^a /	-1.82		

a Affected by pumping.

b No change.

Of the 143 wells, for which records are available, 100 showed net rises in water level ranging from a few hundredths of a foot to more than 30 feet, 42 wells showed net declines ranging from a few hundredths of a foot to more than 15 feet, and 1 well showed no net change in water level.

The graphs of three wells in widely spaced areas of the State are shown in figure 3. These wells reflect natural fluctuations in water level. The water levels in these wells followed the same general trend through 1948.

The graphs of two wells in the downtown area of Indianapolis, shown in figure 4, are rather typical of wells in other areas of heavy groundwater pumpage and show that the general rising trend since 1944 was continued through 1948. It is interesting to note that the high level reached in Marion 2 in 1948 was almost as high as that reached in 1940.

Water levels in observation wells in Indiana, 1948--Continued

Well	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on date of last record
		Water level	Date	Water level	Date	
Wayne 2	Dec. 18, 1946	19.97	Nov. 15, 1948	2.36	June 2, 1947	8.89
White 12/	Dec. 4, 1935	20.34	Oct. 3, 1941	(k)	Apr. 3, 1936	17.32
White 3	June 4, 1948	33.58	Sept. 14, 1948	32.97	June 5, 1936	33.40

- a Affected by pumping.
 b Measurements discontinued May 13, 1948.
 c Measurements made by airline to nearest quarter foot.
 d Flowing.
 e Dry at 49.02+ feet.
 f Measurements discontinued Apr. 3, 1948.
 g Full at measuring point which is 0.5 foot below land-surface datum.
 h Dry at 6.00 feet.
 i Dry at 22.96 feet.
 j Measurements discontinued Jan. 19, 1948.
 k Overflowing at measuring point, 8.00 feet below land-surface datum.

Of the 156 wells for which records of water level are for 2 years or longer, 39 wells reached the highest stage of record and 23 wells reached the lowest stage of record during 1948.

Water levels in January were moderately low, although in most wells they were rising fairly rapidly. Water levels continued to rise in January, February, and March, and most wells reached their highest stages for the year during the last week of March and the first 2 weeks of April. During the rest of the spring and summer, water levels followed the usual seasonal decline, generally reaching the lowest stage for the year in October or November. In areas of heavy ground-water withdrawal water levels in wells affected by pumping generally reached their low stages for the year during August or September and then rose fairly rapidly during the remainder of the year.

Net changes, in feet, in water levels in observation wells in Indiana, 1948

Well	Net rise (+) or net decline (-)	Well	Net rise (+) or net decline (-)	Well	Net rise (+) or net decline (-)
Adams 1 ^a /	-1.29	Carroll 1	+1.85	De Kalb 1 ^a /	-1.00
Adams 2 ^a /	-15.29	Clark 1	+16.15	De Kalb 2	-.50
Adams 3	+2.91	Clark 2	+1.39	Delaware 2	+3.11
Allen 3 ^a /	(b)	Clark 3 ^a /	-1.29	Delaware 3	+2.58
Benton 2	+1.51	Clark 5	+4.94	Dubois 5	+1.65
Blackford 1	+5.11	Clinton 1 ^a /	-6.28	Elkhart 2	-.29
Boone 2	+2.13	Clinton 2 ^a /	-8.20	Fayette 2	+6.06
Boone 4 ^a /	-9.50	Clinton 3 ^a /	+5.04	Floyd 1	+27.35
Boone 10 ^a /	+2.25	Crawford 1	+9.15	Floyd 2	+28.67
Boone 11 ^a /	+3.50	Crawford 2	+4.89	Floyd 3	+9.14
Boone 12 ^a /	-2.25	Crawford 3	+3.72	Floyd 4	+8.32
Boone 13	+1.63	Dearborn 1-8 ^a /	+1.12	Floyd 6	+5.29
Boone 14 ^a /	-2.88	Dearborn 1-10 ^a /	-3.68	Fountain 1	+.78
Boone 16	+2.05	Decatur 1	+1.08	Franklin 1	+2.75

- a Affected by pumping.
 b No change.

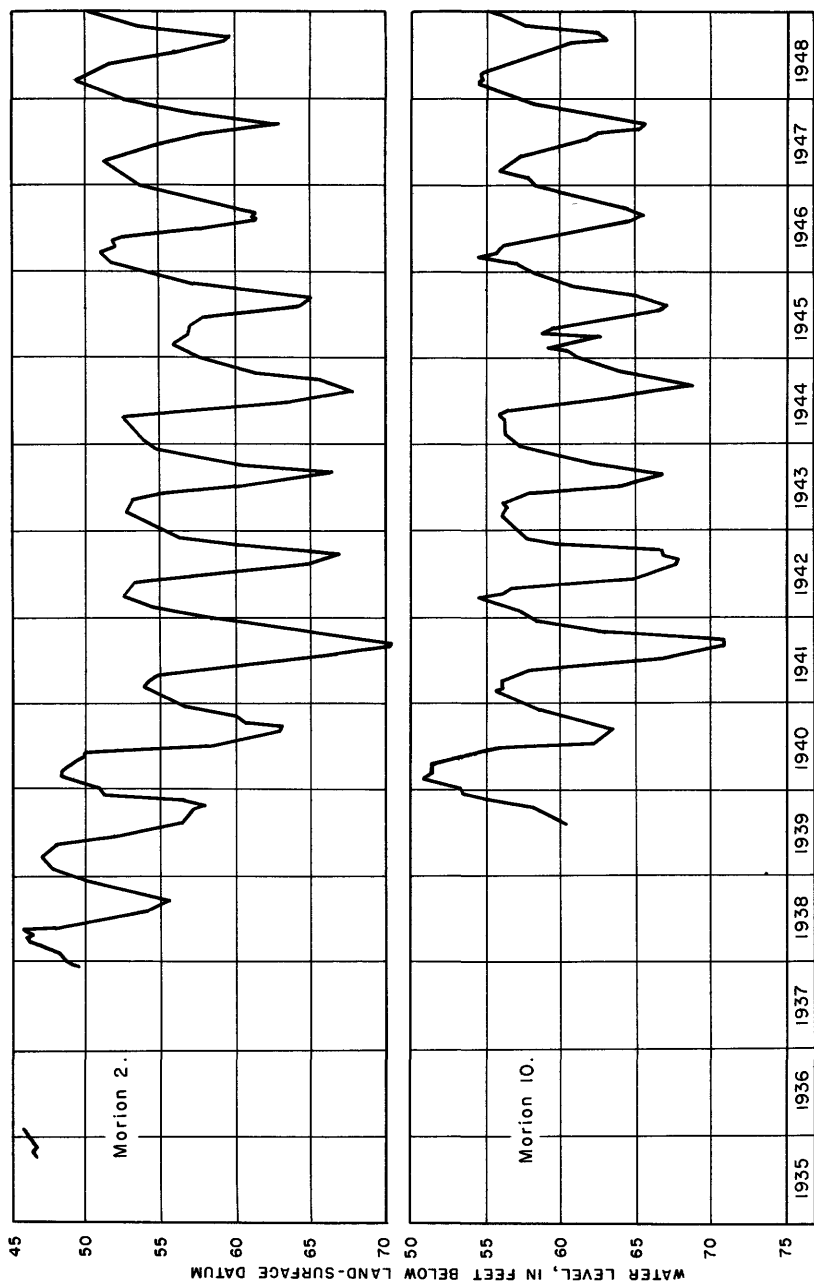


Figure 4.--Graphs showing fluctuations of water level in two wells in the downtown area of Indianapolis.

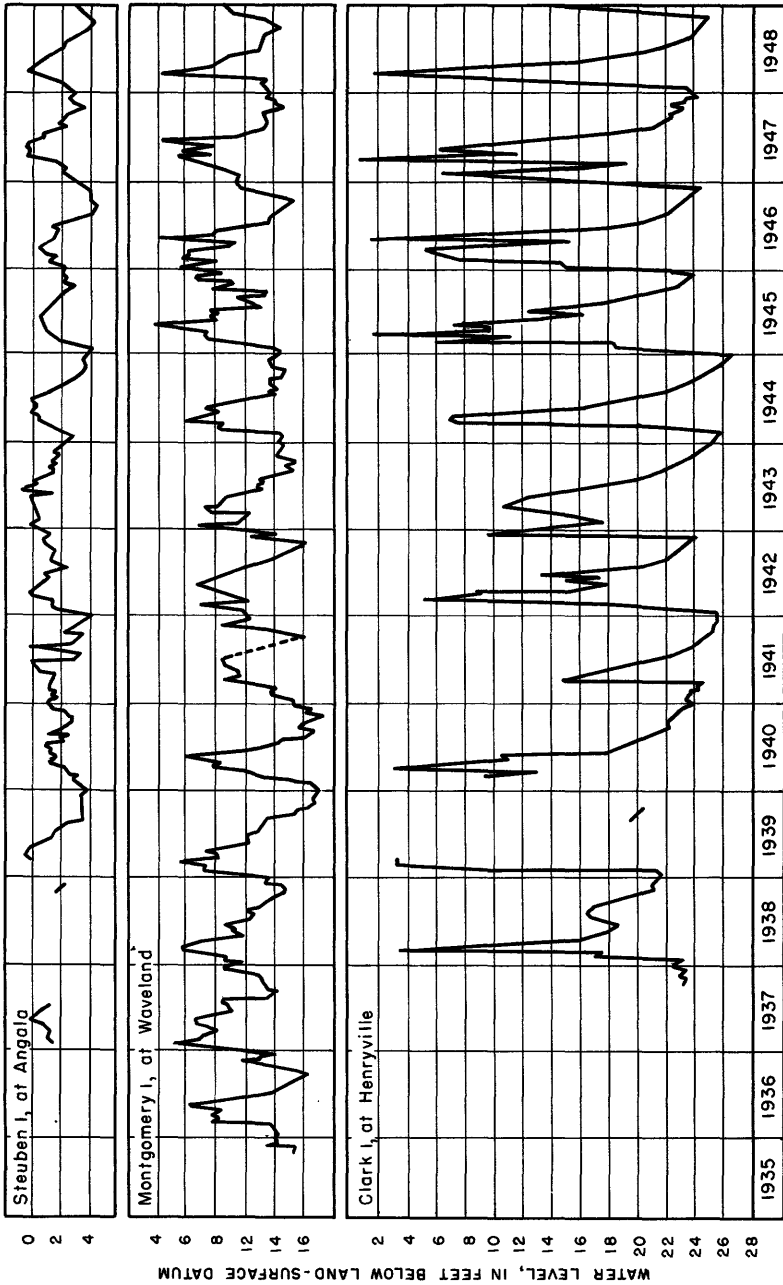


Figure 3.--Graphs showing fluctuations of water level in three wells in Indiana, not affected by pumping, that represent widely separated parts of the State.

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 St. Measurements made by personnel of Water Dept., Ralph E. Roop, superintendent. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	52.37	Apr. 5	49.95	July 10	50.20	Oct. 9	51.03
12	50.93	10	50.28	17	45.20	16	51.59
17	52.16	19	49.78	24	49.87	23	51.78
27	52.56	24	50.70	31	50.20	Nov. 1	52.45
Feb. 3	52.20	May 1	49.52	Aug. 7	49.28	6	52.78
10	51.28	8	50.10	14	49.53	13	52.95
19	51.87	15	49.95	21	50.03	20	52.28
24	52.47	22	50.01	28	51.87	27	52.37
Mar. 1	51.56	June 5	50.37	Sept. 4	49.95	Dec. 4	52.95
6	50.66	12	50.28	11	50.63	11	52.87
15	50.06	19	49.78	18	50.20	18	51.87
20	49.66	26	50.12	25	49.91	25	52.45
27	49.12	July 3	49.03	Oct. 2	51.20		

Adams 2. City of Decatur, "7th and Dayton well". In Decatur, at southwest corner of intersection of 7th and Dayton Sts., about 1 foot south of concrete sidewalk. Measurements made by personnel of Water Dept., Ralph E. Roop, superintendent. Records available: 1945-48.

Jan. 3	72.13	Apr. 5	69.63	July 10	57.55	Oct. 9	72.30
12	64.35	10	70.72	17	71.53	16	72.79
17	74.26	19	70.13	24	56.47	23	64.63
27	73.24	24	70.72	31	69.63	Nov. 1	73.80
Feb. 3	73.78	May 1	70.88	Aug. 8	50.22	6	73.55
10	55.80	8	72.20	14	50.97	13	68.05
19	76.63	15	73.26	21	59.63	20	73.63
24	74.13	22	72.58	28	60.47	27	77.22
Mar. 1	71.97	June 5	75.13	Sept. 4	58.63	Dec. 1	74.55
6	53.55	12	72.80	11	70.23	11	74.97
15	60.84	19	54.38	18	70.72	18	65.05
20	52.47	26	59.13	25	69.93	25	73.22
27	66.63	July 3	58.30	Oct. 2	71.55		

Adams 3. St. Joseph Cemetery. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 28 N., R. 14 E., on north side of State Highway 224, about 1.2 miles west of U. S. Highway 27, west of Decatur. Measurements made by Francis J. Geels, sexton, Decatur. Records available: 1947-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.26	27.61	25.53	25.26	26.01	26.72	27.35	28.12	29.17	29.41	29.60	28.24
2	25.60	27.68	25.70	25.47	26.14	26.75	....	28.20	29.13	29.44	29.65	28.23
3	26.04	27.72	25.99	25.85	25.89	26.74	....	28.25	29.14	29.50	29.54	28.16
4	26.13	27.53	26.32	25.98	25.60	26.67	....	28.23	29.19	29.48	29.60	28.23
5	26.57	27.75	26.69	25.82	25.68	26.72	....	28.25	29.23	29.39	29.44	28.14
6	26.59	27.74	26.57	25.84	25.78	26.87	....	28.33	29.22	29.41	29.23	28.11
7	26.70	27.77	26.26	25.89	25.40	26.69	....	28.33	29.20	29.38	29.18	28.24
8	26.65	27.76	26.44	25.51	24.00	26.61	....	28.37	29.25	29.37	29.19	28.28
9	26.52	28.01	26.64	25.73	24.67	26.80	27.74	28.43	29.26	29.42	29.02	28.43
10	26.20	28.04	26.75	25.48	25.09	26.93	27.74	28.46	29.37	29.47	28.97	28.46
11	26.40	28.04	26.84	25.69	25.32	27.03	27.73	28.43	29.37	29.46	29.04	28.48
12	26.27	27.97	26.99	25.61	24.31	27.01	27.72	28.43	29.38	29.53	29.00	28.27
13	26.40	27.85	26.98	25.68	25.70	26.93	27.72	28.49	29.45	29.55	28.81	28.46
14	26.46	27.22	26.92	23.27	24.19	26.92	27.76	28.57	29.50	29.58	28.95	28.50
15	26.57	27.37	26.48	24.02	24.66	26.79	27.82	28.58	29.52	29.61	28.88	28.23
16	26.59	27.04	25.97	24.29	24.97	27.13	27.79	28.55	29.57	29.51	28.86	26.88
17	26.87	26.61	25.96	24.88	25.12	27.19	27.84	28.55	29.60	29.56	28.81	26.81
18	26.92	26.24	26.10	25.27	25.43	27.21	27.87	28.53	29.61	29.63	28.85	27.09

Adams 3--Continued.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	26.94	25.96	25.83	25.42	25.71	27.17	27.93	28.63	29.62	29.50	28.70	26.93
20	26.96	26.30	25.18	25.53	25.79	27.35	27.95	28.71	29.59	29.63	28.33	27.20
21	26.75	26.61	25.27	25.78	25.68	27.35	27.96	28.75	29.60	29.65	28.09	27.18
22	26.72	26.65	.....	25.99	.....	27.31	27.91	28.77	29.60	29.61	28.04	27.46
23	27.13	26.80	23.52	25.95	25.99	27.34	27.87	28.85	29.64	29.55	28.10	27.50
24	27.40	26.96	24.34	25.99	26.18	27.35	28.00	28.86	29.53	29.63	28.04	27.47
25	27.40	26.94	25.06	26.04	26.32	27.29	28.00	28.86	29.56	29.61	28.09	27.42
26	27.51	26.83	25.24	26.07	26.31	27.25	27.88	28.92	29.57	29.51	28.07	27.73
27	27.52	26.83	24.70	26.12	26.33	27.26	27.99	28.99	29.54	29.57	28.17	27.52
28	27.61	25.30	24.23	25.85	26.34	27.03	28.00	29.04	29.48	29.58	28.28	27.58
29	27.44	24.69	24.80	25.89	26.40	27.13	28.03	29.04	29.47	29.60	28.10	27.22
30	27.50		25.15	25.98	26.54	27.19	27.99	29.04	29.43	29.59	28.17	25.66
31	27.63		25.30		26.65		28.04	29.09		29.56	.....

Allen County

Allen 3. City of Fort Wayne. In Fort Wayne, Lawton Park, about 700 feet east of Clinton St. and about 800 feet north of East Fourth St. Measurements made by Earl P. Cox. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.80	Mar. 27	7.83	June 19	10.73	Oct. 2	12.42
10	10.51	Apr. 2	7.98	26	10.91	9	12.54
17	10.40	10	8.33	July 26	11.39	16	12.41
24	10.49	17	8.30	31	11.49	23	12.46
31	10.58	25	8.73	Aug. 14	11.40	30	12.21
Feb. 7	10.67	May 2	9.06	21	11.80	Nov. 13	12.03
14	10.68	8	9.11	28	11.95	21	11.81
21	10.15	16	8.95	Sept. 5	12.05	27	11.67
28	9.57	22	9.31	11	12.27	Dec. 5	11.62
Mar. 6	9.29	29	9.70	18	12.42	11	11.46
13	9.61	June 5	10.22	25	12.48	20	11.03
19	9.42	12	10.40				

Bartholomew County

Bartholomew 2. V. E. Sprouse Co., Inc. In Columbus, NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 9 N., R. 6 E., 1804 East 22d St. Unused drilled well, diameter 6 inches, depth 52 feet. Measuring point, 1-inch hole in recorder base, 3.0 feet above land-surface datum. Equipped with automatic water-stage recorder. Measured by Joseph McAuliffe, North Vernon.

From recorder charts							
Dec. 3	15.64	Dec. 11	15.59	Dec. 18	15.36	Dec. 25	14.90
4	15.63	12	15.58	19	15.25	26	14.89
5	15.62	13	15.58	20	15.15	27	14.87
6	15.61	14	15.57	21	15.06	28	14.85
7	15.61	15	15.55	22	15.03	29	14.83
8	15.60	16	15.50	23	14.98	30	14.82
9	15.60	17	15.45	24	14.93	31	14.81
10	15.59						

Benton County

Benton 1. Northern Indiana Public Service Co. In Fowler, in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 25 N., R. 8 W., South Van Buren St., 2 $\frac{1}{2}$ blocks south of U. S. Highway 52. Measurements made by D. C. Daily, chief engineer, Northern Indiana Public Service Co. Records available: 1944-48.

Jan. 8	42.00	Mar. 18	41.00	May 6	41.97	June 3	42.57
15	42.7	25	42.26	13	41.46	July 23	43.20
29	37.96	Apr. 8	42.00	27	38.97	Sept. 30	45.00
Mar. 4	42.8	15	43.00				

Benton 2. City of Boswell. In Boswell, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 24 N., R. 9 W., near northwest corner of intersection of U. S. Highway 41 and State Highway 352. Measurements made by Charles W. Brady. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.33	Apr. 8	8.55	July 16	12.30	Oct. 15	10.59
9	8.75	15	8.56	24	9.69	23	10.76
16	11.63	23	9.60	Aug. 4	10.72	28	11.88
26	7.53	May 6	11.94	13	10.63	Nov. 5	10.71
30	9.96	13	10.63	19	10.76	12	9.96
Feb. 5	7.70	20	8.86	26	9.98	19	9.19
12	7.87	27	11.18	Sept. 3	10.45	27	9.00
19	7.73	June 3	11.40	9	10.36	Dec. 3	8.51
27	8.05	18	11.91	23	10.64	10	8.31
Mar. 12	17.16	24	13.02	30	11.23	16	8.11
18	19.06	July 9	13.62	Oct. 6	10.78	31	7.25
Apr. 1	8.57						

Blackford County

Blackford 1. Owner unknown. In Hartford City, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 24 N., R. 10 E., about 500 feet east of State Highway 3 and about 1 $\frac{1}{2}$ blocks north of north corporation line. Measurements made by Harry A. Miles. Records available: 1945-48.

Jan. 3	6.38	Apr. 3	1.91	July 3	3.77	Oct. 2	5.84
10	5.59	10	1.18	10	3.95	9	5.97
17	5.18	17	1.10	17	4.04	15	6.26
24	5.10	24	2.32	24	4.06	23	6.23
31	5.18	May 1	2.76	31	4.22	30	6.62
Feb. 7	5.59	8	1.75	Aug. 7	4.46	Nov. 6	6.54
14	5.51	15	1.79	14	4.40	14	6.44
21	5.22	22	2.39	21	4.77	20	6.07
28	4.92	29	2.95	28	4.94	27	5.68
Mar. 6	4.97	June 5	3.19	Sept. 4	5.14	Dec. 4	5.29
13	4.92	12	3.24	11	5.27	11	5.21
20	4.33	19	3.48	18	5.58	18	3.00
27	1.74	26	3.64	25	5.71	25	2.69

Boone County

Boone 2. Elmer P. Slipper. In NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 18 N., R. 1 E., about 2.5 miles east of intersection of U. S. Highway 52 and State Highway 32, 5 feet east of northeast corner of abandoned school building, 43 feet south of center of State Highway 32, and 94 feet west of center of section road. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1935-42, 1945-48.

Jan. 3	3.22	Apr. 14	2.60	July 14	6.40	Oct. 13	8.75
9	3.56	21	4.40	21	6.44	20	7.55
16	4.65	28	5.42	28	6.03	27	8.05
23	5.67	May 5	4.10	Aug. 4	6.67	Nov. 3	8.18
Feb. 10	6.59	12	2.93	11	7.10	12	3.75
17	5.90	19	4.09	18	7.14	19	4.03
24	5.66	26	5.36	25	7.54	26	4.55
Mar. 2	4.07	June 2	5.80	Sept. 1	7.57	Dec. 3	4.69
9	4.30	9	6.05	8	8.32	10	5.27
17	3.73	16	6.23	15	8.60	17	3.30
24	2.15	23	6.49	22	8.64	24	3.73
31	3.43	30	4.57	29	8.80	31	3.93
Apr. 6	2.00	July 6	5.73	Oct. 6	8.98		

Boone 4. Lebanon Utilities, Inc. At city water works, 100 feet south of center of Chicago Ave., 42 feet east of center of drive immediately west of boiler room. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	49.08	.....	43.60	43.80	53.20	58.15	56.28	65.40	65.70	65.15	57.15	59.20
2	48.20	.....	53.20	42.00	56.90	58.40	56.30	65.50	.....	60.00	63.00	62.52
3	48.20	.....	46.20	49.20	48.20	58.86	56.20	65.40	.....	65.15	55.20	58.80
4	53.50	52.20	49.20	48.00	56.80	59.35	56.15	65.48	65.75	58.90	.....	61.28
5	48.20	55.00	48.20	51.50	55.20	59.36	52.20	65.60	65.50	65.12	63.52	62.10
6	47.20	57.00	53.60	43.20	56.80	59.40	55.88	65.72	65.40	64.80	63.72	59.20
7	48.20	49.40	50.20	57.48	45.80	59.35	55.95	65.79	66.16	64.55	59.20	62.09
8	50.20	57.20	45.80	54.90	53.80	58.80	56.18	65.45	65.40	59.20	51.40	52.60
9	48.00	56.20	51.20	49.20	54.10	58.82	56.22	65.20	65.46	59.40	58.00	61.23
10	51.60	58.20	46.20	55.20	57.30	58.92	56.20	65.12	65.50	57.20	53.80	64.00
11	50.40	49.60	51.00	56.65	57.45	58.90	55.90	65.45	65.30	57.00	58.40	59.20
12	48.20	59.45	46.80	47.20	57.84	58.95	56.07	65.30	65.25	58.10	.....	61.75
13	53.40	59.25	48.00	46.20	.....	58.75	56.10	65.28	65.90	64.15	55.80	61.80
14	47.60	59.25	57.92	45.20	.....	58.88	56.02	64.20	65.35	64.20	62.98	56.80
15	59.20	59.42	50.20	49.20	.....	60.30	56.09	65.20	65.30	64.10	50.20	55.20
16	55.20	58.95	48.20	43.60	.....	60.40	56.10	65.20	65.19	58.40	59.60	54.75
17	56.80	58.95	.....	44.40	.....	60.20	56.10	65.19	65.28	63.70	55.20	57.20
18	53.50	59.05	46.40	47.00	.....	.....	55.99	65.12	65.12	63.10	55.40	57.00
19	57.70	58.80	50.70	44.20	.....	.....	51.65	65.66	64.98	58.30	63.00	61.30
20	50.40	58.95	55.20	52.20	.....	.....	55.92	65.68	65.92	64.00	62.88	55.80
21	54.40	54.20	58.25	57.45	.....	.....	55.95	66.19	65.70	63.65	62.98	55.20
22	58.40	49.20	46.20	51.10	.....	.....	55.82	65.65	65.00	63.42	54.20	56.20
23	55.00	49.20	55.95	47.20	.....	.....	55.85	65.95	58.20	63.35	56.70	61.60
24	49.20	55.50	51.20	55.50	.....	.....	56.03	66.01	65.28	63.25	58.20	61.60
25	46.80	58.65	53.20	53.90	.....	.....	55.88	65.85	65.90	58.10	62.68	61.10
26	53.00	58.50	56.50	44.20	.....	.....	55.70	67.15	54.20	57.20	50.60	61.10
27	49.20	58.55	52.20	57.35	57.62	.....	55.65	67.35	64.00	59.50	52.80	59.20
28	54.20	58.60	55.15	57.35	57.60	.....	55.72	67.42	65.33	59.00	63.10	58.10
29	51.20	56.80	54.85	46.20	57.58	.....	59.20	66.59	65.10	63.00	62.63	60.50
30	50.40	.....	48.20	49.20	57.55	.....	60.28	65.93	65.08	62.92	56.60	60.60
31	.....	.....	54.20	.....	57.62	.....	63.40	65.73	.....	62.55	.....	60.70

Boone 10-A. Lebanon Utilities, Inc. Near city water works, 165 feet south of center of Chicago Ave., and 148 feet east of center of Kersey St. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.70	.....	45.80	50.12	48.75	48.61	.....	43.07	.....	37.20	35.50	34.00
2	32.06	.....	46.50	50.05	48.18	48.60	.....	42.45	.....	36.70	35.58	34.15
3	35.10	.....	46.80	51.38	46.03	48.56	.....	41.45	.....	37.41	35.10	33.70
4	32.32	35.68	48.20	51.42	46.35	49.07	.....	40.27	38.92	36.68	.....	33.95
5	31.42	35.54	51.32	47.15	46.70	49.10	.....	40.95	38.90	37.09	35.10	33.75
6	33.60	35.78	49.10	49.03	49.15	49.00	.....	40.90	38.48	36.98	35.04	33.10
7	33.26	37.60	49.75	49.87	49.05	48.55	.....	40.67	37.71	36.68	35.00	33.60
8	32.53	36.65	48.10	50.35	49.38	48.28	.....	41.26	38.70	36.10	34.75	33.15
9	32.27	35.84	49.80	48.65	49.33	48.32	50.62	40.15	38.66	36.35	34.55	33.63
10	31.94	38.70	52.25	50.62	47.10	48.28	51.10	.....	38.19	36.40	34.70	33.45
11	30.96	40.00	50.65	50.12	48.86	49.05	50.60	41.40	37.84	35.65	35.17	33.68
12	29.95	35.25	49.90	50.06	49.25	49.25	51.05	40.98	37.60	35.80	35.18	33.28
13	32.80	33.15	53.20	47.62	47.70	49.22	49.85	40.76	37.50	36.50	34.25	33.26
14	31.50	31.96	53.00	47.50	48.90	49.90	50.75	40.10	37.89	36.72	34.86	33.32
15	31.57	31.63	49.55	49.85	48.92	49.87	50.32	40.65	37.79	36.77	34.10	32.30
16	31.65	30.75	49.10	48.00	47.20	49.20	49.48	40.80	37.70	36.00	34.65	32.15
17	31.02	30.12	.....	47.55	48.25	49.62	48.60	40.83	38.52	36.61	34.50	32.60
18	31.30	29.60	52.70	46.55	48.82	49.76	49.84	40.38	38.26	36.76	34.20	32.60
19	30.00	36.95	52.25	48.00	49.07	49.70	49.00	40.28	38.22	36.35	34.33	32.80
20	32.00	41.10	52.45	47.60	48.85	49.35	49.90	40.38	38.70	36.73	34.08	32.00
21	30.93	43.46	52.10	.....	48.63	47.70	49.70	40.10	37.92	36.71	34.32	32.50
22	30.49	44.88	49.25	49.80	48.65	48.92	.....	40.04	37.34	36.54	32.26	32.90
23	29.56	46.08	49.00	48.85	48.70	49.70	.....	40.47	36.75	36.45	33.22	33.10

a Estimated.

Boone 10-A--Continued.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	31.98	47.08	50.90	49.60	48.33	.....	.....	40.15	37.32	36.44	33.89	33.10
25	31.55	45.50	.....	46.70	48.48	.....	.....	39.95	37.35	36.34	33.90	32.90
26	29.96	47.18	.....	46.22	48.60	.....	.....	.....	36.70	35.70	33.08	33.25
27	32.05	47.74	.....	48.82	48.58	.....	.....	.....	37.44	36.25	33.17	32.85
28	32.67	44.20	.....	49.00	48.50	.....	.....	.....	37.49	36.23	34.17	32.55
29	33.21	45.60	.....	46.97	48.57	.....	50.50	.....	37.23	36.10	33.96	32.00
30	33.10	.....	.....	47.05	48.60	.....	46.40	.....	37.09	35.92	33.70	32.20
31	.....	.....	.....	.....	48.63	.....	44.25	.....	.....	35.65	.....	32.20

Boone 11. Lebanon Utilities, Inc. At city water works, about 110 feet south of center of Chicago Ave., 35 feet west of center of Kersey St. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	38.25	Apr. 6	48.14	July 6	50.27	Oct. 6	41.07
9	36.94	14	47.58	14	50.87	12	40.46
16	36.30	21	47.45	21	49.60	20	40.97
23	36.17	28	47.59	28	49.68	27	40.39
Feb. 2	39.30	May 5	47.55	Aug. 5	43.29	Nov. 3	39.24
10	42.27	12	48.36	11	45.56	12	39.10
17	34.29	19	47.25	18	43.76	19	38.52
24	47.96	26	48.90	25	43.65	26	37.89
Mar. 2	49.90	June 2	49.15	Sept. 1	43.10	Dec. 3	38.20
9	51.53	9	49.51	8	42.35	10	37.97
17	52.00	16	50.35	15	41.87	17	37.44
24	49.53	23	50.12	22	41.56	24	37.39
31	49.26	30	50.40	29	41.44	31	32.54

Boone 12. Lebanon Utilities, Inc. Near city water works, about 35 feet south of center of Franklin St., and 18 feet east of center of Klotz St., extended. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

Jan. 3	25.43	Apr. 6	24.48	July 6	30.00	Oct. 6	33.48
9	26.04	14	24.30	14	30.24	13	33.53
16	26.31	21	24.97	21	30.58	20	32.85
23	25.92	28	25.28	28	30.31	27	31.16
Feb. 3	25.53	May 5	25.72	Aug. 4	30.58	Nov. 3	30.89
10	25.42	12	26.07	11	31.04	12	31.35
17	25.15	19	26.58	18	31.27	19	30.52
24	25.07	26	27.02	25	31.58	26	30.42
Mar. 2	25.16	June 2	27.54	Sept. 1	31.81	Dec. 3	30.39
9	25.55	9	27.97	8	32.53	10	30.22
17	25.18	16	28.55	15	33.35	17	29.65
24	24.71	23	28.68	22	33.53	24	30.85
31	24.74	30	29.44	29	33.73	31	28.85

Boone 13. Lebanon Utilities, Inc. In Memorial Park, about 300 feet east of State Highway 39, 4 feet south of southeast corner of tool shop, and about 20 feet north of center of road east of park entrance, at west side and near northern end of park. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

Jan. 3	10.15	Apr. 6	3.40	July 6	7.52	Oct. 6	12.56
9	9.80	14	2.33	14	8.67	13	12.77
16	9.73	21	3.97	21	8.69	20	12.89
23	9.83	28	4.92	28	8.82	27	13.10
Feb. 3	9.85	May 5	5.25	Aug. 4	9.20	Nov. 3	13.19
10	10.07	12	4.58	11	9.52	12	12.57
17	9.90	19	3.92	18	9.79	19	12.24
24	9.90	26	4.85	25	10.18	26	12.08
Mar. 2	9.00	June 2	5.88	Sept. 1	10.60	Dec. 3	12.02
9	9.03	9	6.73	8	10.88	10	12.06
17	8.76	16	7.78	15	11.24	17	11.09
24	6.77	23	8.11	22	11.79	24	10.37
31	5.42	30	7.13	29	12.21	31	9.58

Boone 14. Lebanon Utilities, Inc. About 187 feet east, along north sidewalk of Big Four right-of-way, 82 feet north of center of East Elm St. Measurements made by Fred Price, Lebanon Utilities, Inc. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	39.23	Apr. 6	38.15	July 6	48.96	Oct. 6	48.06
9	38.83	14	37.40	14	48.39	13	47.33
16	39.26	21	39.75	21	48.46	20	46.28
23	38.58	28	41.00	28	48.60	27	44.13
Feb. 3	38.55	May 5	41.33	Aug. 4	48.50	Nov. 3	45.53
10	38.20	12	41.98	11	47.50	12	45.55
17	37.90	19	42.50	18	47.28	19	44.99
24	37.90	24	43.37	25	47.88	26	44.69
Mar. 2	39.77	June 2	44.10	Sept. 1	48.48	Dec. 3	45.43
9	39.65	9	43.73	8	48.56	10	44.04
17	38.34	16	45.29	15	49.10	17	43.80
24	37.64	23	45.64	22	49.84	24	44.57
31	40.32	30	46.71	29	49.70	31	42.42

Boone 16. Leland H. Dale. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 18 N., R. 1 W., about 3 miles south of Lebanon and about 1 mile west of State Highway 39. Measurements made by Leland H. Dale. Records available: 1946-48.

Jan. 17	2.70	Apr. 2	1.46	Aug. 2	6.80	Oct. 25	10.20
23	2.80	24	2.70	9	5.90	Nov. 1	11.00
30	4.05	May 13	1.90	16	7.40	8	10.00
Feb. 6	4.20	June 1	3.80	23	8.00	17	8.60
18	4.56	25	4.99	30	8.65	Dec. 1	7.90
29	3.78	July 2	5.10	Sept. 6	8.80	9	7.80
Mar. 8	2.70	12	5.40	8	9.00	23	3.90
15	2.00	21	4.60	Oct. 18	10.00		

Brown County

Brown 2. Brown County State Park. Near head of valley northwest of blockhouse. Measurements made by Ray Skinner, Brown County State Park. Records available: 1936-48.

Jan. 5	2.13	Apr. 11	0.33	June 5	3.31	Aug. 22	5.11
12	1.83	19	2.32	12	2.27	30	5.09
Feb. 2	2.11	25	2.83	21	3.27	Sept. 6	5.09
29	1.37	May 3	3.63	27	3.49	12	5.09
Mar. 14	1.08	9	3.83	July 6	3.49	19	5.09
21	1.27	16	3.91	11	3.49	Oct. 10	5.09
28	.73	23	3.10	18	3.13	23	8.01
Apr. 4	1.37	30	3.62	26	2.71		

Brown 3. Brown County State Park. In front of Hoosier's Nest cabin, near tower at entrance to Brown County Game Preserve. Measurements made by Ray Skinner, Brown County State Park. Records available: 1936-48.

Jan. 5	2.70	Apr. 4	2.13	May 30	3.29	July 26	4.77
12	2.13	11	1.27	June 5	3.13	Aug. 22	8.57
Feb. 2	5.53	19	2.19	12	4.06	30	8.53
29	3.21	25	2.63	21	4.39	Sept. 6	8.53
Mar. 14	2.86	May 3	3.16	27	4.57	12	8.53
18	2.62	9	3.47	July 6	4.58	19	8.51
21	2.81	16	3.63	11	4.58	Oct. 10	8.51
28	1.83	23	3.77	18	4.53	23	8.85

Carroll County

Carroll l. Roy R. Richter, Flora. SW. corner SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 25 N., R. 1 W., in building about 15 feet east of owner's residence. Measurements made by Roy R. Richter. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.24	Apr. 3	5.29	July 3	7.83	Oct. 2	9.15
10	6.25	10	4.84	10	8.36	9	6.55
17	7.15	17	5.12	17	8.77	16	8.90
24	7.80	24	6.26	24	8.12	23	9.70
31	8.25	May 1	3.50	31	8.56	30	10.05
Feb. 7	8.60	8	4.42	Aug. 7	9.10	Nov. 6	5.63
14	6.08	15	3.80	14	8.27	13	7.37
21	7.32	22	5.02	21	7.45	20	7.62
28	5.01	29	7.17	28	9.00	27	8.05
Mar. 6	6.77	June 5	6.35	Sept. 4	9.54	Dec. 4	8.40
13	7.15	12	7.17	11	9.72	11	9.13
20	4.45	19	8.05	18	10.11	18	7.72
27	3.65	26	5.45	25	8.45	25	7.68

Clark County

Clark l. 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. Measurements made by Kenneth Cook and R. C. Collings. Records available: 1936-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.39	23.72	7.16	3.51	12.31	17.54	20.91	22.55	23.52	24.25	24.86	20.14
2	22.72	23.78	7.78	4.27	12.68	17.98	20.99	22.59	23.56	24.27	24.88	20.02
3	22.45	23.84	4.02	5.55	13.04	18.12	21.07	22.63	23.58	24.39	24.89	19.99
4	22.37	.....	5.72	6.64	13.38	18.24	21.15	22.67	23.60	24.33	24.89	20.00
5	22.33	.....	7.07	7.26	13.64	18.34	21.23	22.70	23.63	24.36	24.90	20.04
6	22.32	23.99	7.88	7.80	13.86	18.46	21.31	22.74	23.66	24.37	24.87	20.02
7	22.33	24.03	7.01	8.00	14.03	18.57	21.36	22.79	23.67	24.39	24.89	19.76
8	22.36	24.07	6.27	1.81	14.21	18.69	21.42	22.82	23.70	24.39	24.92	19.61
9	22.38	24.12	6.89	2.38	14.37	18.77	21.48	22.87	23.71	24.41	24.94	19.56
10	22.42	24.18	7.49	....	14.52	18.89	21.55	22.90	23.73	24.42	24.96	19.57
11	22.50	24.23	8.12	....	14.68	19.01	21.62	22.88	23.76	24.44	24.98	19.55
12	22.56	24.27	8.93	....	14.82	19.12	21.67	22.90	23.79	24.46	24.99	19.74
13	22.62	24.31	9.68	....	14.97	19.22	21.73	22.94	23.81	24.48	25.01	19.86
14	22.66	21.39	10.34	....	15.12	19.32	21.80	22.97	23.84	24.51	25.04	19.97
15	22.69	19.22	10.92	....	15.21	19.42	21.84	23.00	23.87	24.50	25.06	16.59
16	22.75	18.27	7.94	2.27	....	19.55	21.89	23.04	23.92	24.52	25.09	10.29
17	22.80	16.89	3.22	3.14	....	19.65	21.95	23.07	23.96	24.54	25.10	10.23
18	22.86	15.66	4.54	4.34	....	19.75	22.00	23.09	23.99	24.57	25.11	10.66
19	22.92	14.74	5.34	5.44	15.93	19.85	22.05	23.14	24.02	24.60	24.89	11.09
20	22.99	14.27	....	6.44	16.10	19.94	22.09	23.17	24.04	24.62	22.27	10.74
21	23.05	14.06	....	7.14	16.25	20.04	22.11	23.20	24.06	24.65	22.30	11.16
22	23.10	14.00	....	7.80	16.39	20.13	22.15	23.22	24.12	24.64	22.39	11.35
23	....	14.06	....	8.37	16.54	20.22	22.19	23.27	24.07	24.66	22.49	11.89
24	....	14.09	....	8.94	16.70	20.32	22.24	23.30	24.09	24.69	22.59	12.21
25	....	13.64	....	9.49	16.83	20.41	22.28	23.32	24.11	24.72	22.69	12.68
26	....	11.59	3.63	10.01	17.00	20.51	22.33	23.34	24.14	24.75	22.77	13.14
27	....	9.95	....	10.55	17.15	20.60	22.37	23.36	24.18	24.77	22.85	13.47
28	23.48	4.64	....	11.07	17.29	20.68	22.40	23.40	24.21	24.80	22.79	13.74
29	23.54	5.78	2.06	11.52	17.42	20.76	22.44	23.53	24.23	24.81	21.54	13.24
30	23.60	....	3.38	11.92	17.56	20.82	22.47	23.47	24.23	24.82	20.44	7.80
31	23.66	....	4.56	....	17.69	16.17	22.52	23.50	....	24.84	....	8.24

a Estimated.

Clark 2. Clark State Forest. NW $\frac{1}{4}$ lot 282, Clark Military Grant, at former Purdue camp site. Measurements made by Kenneth Cook and R. C. Collings. Records available: 1936-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	11.79	Apr. 15	1.27	July 13	8.66	Oct. 7	13.24
13	11.80	22	2.08	20	9.23	14	13.35
20	11.88	29	2.54	27	9.49	21	13.39
27	11.93	May 7	1.31	Aug. 3	10.07	Nov. 4	13.49
Feb. 12	12.06	18	2.52	10	10.62	11	11.72
19	11.58	25	3.28	18	11.34	18	13.12
26	11.35	June 1	4.16	25	11.91	25	12.13
Mar. 4	9.62	8	4.78	Sept. 1	12.35	Dec. 2	12.03
11	8.58	15	5.41	8	12.54	9	12.10
18	5.90	22	6.1	15	12.81	16	11.13
25	1.85	29	6.65	22	12.98	23	11.23
Apr. 1	1.14	July 6	7.79	29	13.1	30	10.66
8	.90						

Clark 3. Indiana Gas & Water Co. Formerly owned by Public Service Co. of Indiana. In Jeffersonville, in public water-supply well field, Tenth and Fulton Sts. Measurements made by T. Himmel, Indiana Gas & Water Co. Records available: 1943-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.53	.....	23.84	20.96	20.55	23.75	27.69	25.85	25.34	26.34	25.33	24.39
2	22.52	24.53	23.33	20.47	20.21	24.55	27.70	26.27	25.45	25.60	25.52	24.43
3	21.33	24.41	22.92	20.95	21.15	23.73	27.71	26.55	25.43	26.21	25.75	24.47
4	22.62	24.47	23.65	20.93	21.75	23.75	27.17	26.35	25.01	25.75	25.27	24.45
5	23.05	24.21	22.45	21.00	21.95	24.75	27.69	26.05	25.59	25.77	25.23	24.58
6	23.40	24.53	23.64	20.95	22.10	24.53	27.30	26.05	25.45	26.21	24.75	24.53
7	23.15	24.64	22.56	20.90	22.36	24.65	28.65	25.55	25.13	26.17	24.93	24.55
8	23.43	24.37	22.12	20.46	22.75	25.05	28.75	.....	25.43	25.63	24.17	24.49
9	23.41	24.75	22.37	20.53	22.55	25.65	28.40	25.90	25.66	25.35	25.27	24.43
10	22.37	24.74	21.89	20.50	22.75	25.15	28.15	25.76	25.51	25.59	25.61	24.39
11	22.29	24.75	22.61	20.37	22.85	24.65	28.25	25.75	25.35	25.65	25.59	24.17
12	23.25	24.45	22.63	20.45	22.90	25.05	28.64	25.74	25.58	25.75	25.39	24.39
13	23.45	24.64	22.65	19.95	22.85	.....	27.89	26.65	25.23	25.68	24.87	24.27
14	23.75	24.75	22.61	19.90	22.65	24.85	28.64	25.25	25.27	25.75	25.21	24.75
15	23.64	24.75	22.06	19.95	22.55	25.27	27.90	25.57	25.19	25.86	25.09	24.77
16	23.38	24.75	21.86	19.91	22.03	25.75	27.75	24.90	25.75	25.40	23.97	24.47
17	23.17	24.95	21.83	19.88	22.25	25.35	27.19	25.70	25.75	25.48	23.86	24.39
18	23.45	24.75	21.75	19.95	22.13	25.00	26.41	25.75	25.17	25.30	24.98	24.35
19	23.81	24.44	21.45	19.75	22.75	25.40	26.75	26.00	25.33	25.40	24.76	24.29
20	23.70	24.14	21.20	19.84	23.15	25.36	26.75	26.15	25.75	25.19	24.75	24.35
21	23.27	24.65	21.39	19.75	23.75	25.75	26.90	25.00	25.77	25.33	.....	.....
22	23.99	.....	21.64	19.55	24.15	26.29	26.50	25.10	26.24	25.65	24.57	24.19
23	24.05	24.69	21.55	19.67	22.43	26.92	26.95	24.85	26.37	25.34	24.61	23.75
24	23.95	23.75	21.50	19.95	23.15	26.92	26.23	25.62	26.43	25.37	24.67	23.75
25	.....	23.65	20.86	20.10	23.75	27.17	.....	25.75	25.75	25.34	24.75	23.86
26	24.81	23.70	21.05	19.95	24.15	26.92	26.01	25.76	25.73	25.35	24.99	23.98
27	24.64	23.71	20.65	20.17	24.33	25.75	26.75	25.95	25.75	26.64	24.47	23.93
28	24.74	23.68	20.87	20.26	23.45	26.55	26.27	25.75	25.86	26.19	24.59	23.87
29	25.45	21.89	20.84	20.45	23.37	26.75	26.65	25.73	25.90	26.27	24.61	24.09
30	24.27	.....	20.95	20.40	22.95	27.64	26.47	.....	26.23	26.75	24.45	23.95
31	24.05	.....	20.93	.....	23.00	.....	26.94	25.37	.....	25.73	.....	24.03

Clark 5. Owner unknown. About 40 feet north of Kenwood Ave., about 100 feet east of intersection with Gutford Road. Maintained in connection with Louisville, Ky., project, by Geological Survey, U. S. Dept. of Interior. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	4.79	June 28	10.61	Oct. 8	14.72	Dec. 22	10.66
May 2	4.58	Aug. 25	12.96	Nov. 24	13.11		

Clinton County

Clinton 1. Frankfort Water Co. In Frankfort, about 380 feet north of Washington St. and about 240 feet east of Jackson St. Measurements made by S. E. Stern, Frankfort Water Co. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	23.97	Apr. 2	29.38	July 2	36.66	Oct. 8	40.47
8	24.86	9	29.16	9	32.35	15	40.48
16	25.00	16	25.92	16	34.06	22	39.18
23	25.55	23	24.47	23	36.72	29	39.07
30	26.32	30	24.92	30	37.47	Nov. 5	38.73
Feb. 6	25.42	May 7	25.60	Aug. 6	38.20	12	38.55
13	24.96	14	26.34	13	38.45	19	38.30
20	27.11	21	29.04	20	40.76	26	37.90
27	27.10	28	29.06	Sept. 3	41.24	Dec. 3	37.20
Mar. 5	26.95	June 4	34.62	10	42.38	10	36.78
12	26.56	11	35.86	17	42.66	17	35.92
19	24.61	18	36.63	24	41.80	24	34.99
26	29.76	25	37.25	Oct. 1	41.67	31	32.48

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, and Western Railroad Co. Measurements made by S. E. Stern, Frankfort Water Co. Records available: 1944-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	42.17	43.96	44.71	47.89	42.68	47.36	53.18	53.95	57.84	58.34	56.17	55.22
2	41.49	43.62	43.95	47.27	42.52	48.63	52.99	53.89	51.87	58.56	56.32	55.03
3	42.25	43.70	44.17	47.52	41.94	49.63	53.22	54.43	57.95	58.36	55.97	54.97
4	41.90	43.09	44.48	46.71	42.62	50.30	52.88	54.55	58.18	57.78	56.94	55.08
5	41.82	43.08	45.02	45.45	42.65	51.20	51.98	54.74	57.93	57.73	56.93	54.09
6	42.32	43.15	44.70	45.36	42.87	51.13	50.98	54.84	57.27	57.87	55.84	53.58
7	42.32	43.20	43.41	45.88	43.07	50.05	50.70	54.90	56.84	57.50	56.12	53.95
7	42.35	43.04	43.05	45.87	43.64	50.18	.....	54.52	57.56	57.63	55.96	54.20
9	42.17	42.91	43.47	46.14	43.13	51.42	.....	53.67	57.74	57.85	55.98	54.37
10	43.00	43.13	43.68	45.85	42.64	51.44	50.17	54.42	58.02	57.45	56.13	54.52
11	42.50	43.36	44.87	44.05	43.40	51.88	49.70	54.68	58.18	56.93	56.38	54.44
12	41.23	43.46	44.19	43.30	43.69	52.45	50.01	.....	57.93	57.34	56.55	53.40
13	41.57	43.39	44.15	.....	43.90	52.24	50.75	.....	57.69	57.33	56.20	53.00
14	41.90	42.98	43.35	.....	44.26	51.87	50.44	55.46	53.42	57.47	56.20	53.46
15	42.27	43.21	42.43	.....	44.10	52.62	50.54	.....	58.57	57.82	55.84	53.10
16	42.49	42.40	42.55	.....	43.83	52.74	50.72	.....	58.83	57.34	56.09	53.30
17	42.93	42.92	43.50	43.85	43.20	53.40	50.96	.....	59.08	57.12	56.13	53.62
18	41.99	43.17	43.84	42.98	43.87	53.20	51.07	.....	59.03	56.92	56.66	53.84
19	41.74	43.09	43.60	41.88	44.42	53.65	51.27	55.41	58.61	56.79	56.05	52.57
20	41.98	44.53	44.75	41.93	45.49	53.79	52.28	55.66	58.67	57.22	56.05	52.05
21	41.88	45.07	44.43	42.15	45.85	53.07	52.42	55.85	58.33	57.25	55.95	52.23
22	42.05	45.09	44.05	42.35	45.86	53.18	52.62	55.99	58.43	57.10	55.39	52.98
23	42.69	44.96	45.19	42.36	45.67	53.73	52.88	55.90	58.48	56.94	55.73	53.28
24	43.24	45.97	45.84	42.39	45.21	54.10	53.37	56.59	58.61	56.88	55.73	53.23
25	42.86	46.00	46.70	42.05	45.73	53.93	53.08	56.46	58.97	56.52	55.66	52.55
26	42.53	46.65	46.77	41.26	46.18	53.88	52.12	57.01	58.66	56.68	54.82	51.90
27	42.92	45.50	46.59	42.00	46.58	53.45	52.60	57.41	58.14	56.74	55.10	50.99
28	43.36	44.85	47.43	42.33	47.12	52.64	53.25	57.39	58.24	56.89	55.11	51.00
29	43.88	44.85	46.88	42.48	47.65	53.17	53.70	57.71	58.20	57.05	54.47	50.25
30	44.15		47.78	42.64	47.82	52.95	53.95	57.15	58.28	56.96	54.86	50.64
31	44.28		47.24		47.36		54.28	57.59		56.50		50.56

Clinton 3. Frankfort Light Plant. In Frankfort, at southeast corner of settling ponds at municipal light plant. Measurements made by S. E. Stern, Frankfort Water Co. Records available: 1944-48.

Clinton 3--continued:

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	37.36	35.75	34.65	32.10	33.21	32.85	33.94	34.63	35.15	34.88	33.42	.....
2	36.58	35.45	34.37	32.62	33.14	33.15	33.70	34.56	35.34	35.24	32.55	.....
3	36.91	35.93	34.37	32.17	32.15	33.29	33.76	34.58	35.15	35.33	32.21a	31.77
4	36.68	35.95	34.41	32.02	31.20	33.38	34.00	34.59	35.40	34.78	32.68	31.76
5	36.21	35.85	34.73	31.53	31.26	33.45	34.01	34.64	35.40	33.54	33.36	.....
6	36.52	36.08	35.22	31.10	30.89	33.46	34.29	35.75	34.84	33.50	33.76	.....
7	36.65	35.85	35.03	31.18	30.76	33.33	34.13	35.28	34.83	34.17	.....	.....
8	37.43	35.82	35.19	31.51	31.09	33.29	34.26	34.89	34.84	34.30	.....	.....
9	36.59	35.61	35.97	32.04	32.18	33.38	33.58	35.25	35.18	34.55	.....	.....
10	36.67	35.58	36.45	32.90	32.50	33.35	34.05	35.10	35.28	34.59	.....a	31.89
11	36.46	35.63	35.87	33.03	32.86	33.41	33.46	35.00	35.25	33.73	.....	31.82
12	36.22	35.52	35.08	33.08	33.17	34.43	32.93	35.00	35.16	32.71a	32.52	31.58
13	36.30	35.81	34.89	32.83	33.15	34.43	33.20	35.01	34.63	32.75	33.01	.....
14	36.78	36.34	34.40	32.01	32.70	35.42	33.02	35.13	34.38	33.56	.....	.....
15	37.47	36.91	34.02	31.87	31.84	35.28	33.28	35.53	35.06	33.97	.....	.....
16	37.77	36.82	34.27	31.40	30.84	35.75	33.71	34.94	35.23	34.10	.....	.....
17	37.93	36.32	34.17	31.37	30.38	35.07	34.10	33.78	35.41	33.95	.....	31.20
18	37.99	36.28	34.41	31.29	30.78	34.55	34.22	33.79	35.43	32.77	.....	31.29
19	36.60	36.45	34.65	30.71	31.53	34.59	34.20	34.20	35.33	32.30	31.50	31.05
20	36.76	36.98	35.58	30.59	32.17	34.61	34.58	34.29	35.02	32.00	31.94	30.82
21	36.41	36.90	33.00	30.99	32.30	34.05	35.18	.....	34.56	32.03	.....	30.70
22	36.17	36.08	33.22	32.05	32.71	34.96	34.84	.....	34.66	32.60	.....	31.05
23	36.28	36.82	32.09	32.48	32.82	34.14	34.66	.....	34.88	33.41	.....	31.46
24	36.14	36.67	31.73	32.80	32.73	34.03	34.71	.....	35.09	33.58	.....	32.46
25	36.02	35.70	31.27	32.17	32.87	33.97	34.53	.....	35.24	32.55	.....	33.01
26	35.77	35.58	30.68	31.08	33.00	34.04	34.28	.....	35.30	32.28a	31.88	33.13
27	36.61	35.35	29.75	31.03	32.97	34.10	34.42	.....	34.78	31.91	.....	32.89
28	36.18	34.73	29.70	31.45	32.99	33.78	34.48	35.12	33.49	31.93	.....	32.23
29	35.84	34.78	29.12	32.40	33.12	33.83	34.61	35.45	33.35	32.57	.....	32.52
30	36.00	.....	29.66	33.00	32.99	33.90	34.81	34.56	33.34	33.52	.....	33.00
31	35.96	.....	30.62	.....	32.81	.....	34.85	34.74	.....	33.83	.....	32.99

a Tape measurement.

Crawford County

Crawford 1. J. F. Blevins. In English, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 3 S., R. 1 W., west of State Highway 37, 2.3 miles south of junction with State Highway 64. Measurements made by Everett Enlow. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	2.60	July 8	11.16	Sept. 2	11.78	Oct. 29	12.26
May 13	4.97	15	11.52	9	11.77	Nov. 5	10.89
20	5.73	22	11.03	16	11.87	18	7.46
27	7.78	29	11.24	23	11.97	25	6.58
June 3	8.94	Aug. 5	11.27	Oct. 1	12.09	Dec. 2	4.71
10	9.72	12	11.55	6	12.15	9	5.19
17	10.13	19	11.49	14	12.13	16	2.86
24	10.38	26	11.30	22	12.21	29	2.47
July 1	10.79						

Crawford 2. Zenis R. Parkhill. SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 of edge of road. Measurements made by Zenis R. Parkhill. Records available: 1944-48.

Jan. 2	5.11	Feb. 20	2.67	Apr. 9	1.58	May 28	4.24
9	3.99	27	.57	16	.57	June 4	4.46
16	3.13	Mar. 5	1.16	23	2.77	11	4.58
23	3.66	12	1.82	30	3.21	18	4.87
30	4.15	19	.90	May 7	3.53	25	4.90
Feb. 6	4.68	26	.57	14	3.74	July 2	5.14
13	2.89	Apr. 2	1.89	21	3.89	9	5.31

Crawford 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 16	5.30	Sept. 3	5.28	Oct. 15	6.10	Nov. 26	1.54
23	5.27	10	5.55	22	6.31	Dec. 3	1.28
30	4.85	17	5.69	29	5.33	10	.84
Aug. 6	5.04	24	5.82	Nov. 5	5.88	17	.62
13	5.72	Oct. 1	6.02	12	4.13	26	1.50
20	5.28	8	5.88	19	2.02	31	1.77
27	5.42						

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. Measurements made by J. Elmer Faulkenburg. Records available: 1944-48.

Feb. 22	16.00	Apr. 4	7.50	June 21	15.92	Oct. 28	16.14
29	16.10	23	12.3	30	15.50	Nov. 21	14.00
Mar. 8	15.50	May 11	16.20	July 12	15.20	29	13.2
15	14.50	June 7	15.03	26	16.80	Dec. 11	12.2
28	7.20						

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. Measurements made by Everett Enlow. Records available: 1944-48. Mar. 19, 31.25; May 13, 31.28. Measurements discontinued May 13, 1948.

Davies County

Davies 1. John Harbin. In Cannelburg, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 3 N., R. 5 W., 50 feet south of post office. Measurements made by Virgil J. Seal. Records available: 1944-48.

Jan. 7	23.17	Apr. 12	21.64	May 25	20.70	July 13	21.00
14	23.28	20	21.30	June 9	20.30	20	21.50
21	23.31	27	21.63	15	20.80	27	21.02
Apr. 1	22.09	May 11	21.61	22	20.87	Aug. 10	21.28
6	21.97	18	20.50	29	20.97	Oct. 29	22.76

Dearborn County

Dearborn 1-8. Schenley Distillers, Inc. Old Quaker Plant, Greendale, Lawrenceburg. Measurements made by Frank C. Caveman. Records available: 1944-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	86.60	.....	83.90	.....	.....	74.10	85.50	80.10	85.40	93.20a	98.00	97.25
2	85.65	.....	84.97	.....	a66.34	.....	85.75	79.16	87.75	95.05	97.93	.....
3	88.09	88.10	85.15	.....	64.90	.....	85.10	79.42	87.80	94.20	.....	95.70
4	87.50	88.25	84.30	.....	64.78	.....	84.30	79.05	89.55	91.90	.....	.....
5	85.80	89.76	84.68a	72.75	.....	.....	84.05	78.96	90.20	92.00	.....	.....
6	88.65	92.46	84.05	68.90	.....	.....	83.95	79.00	89.08	93.10	.....	96.50
7	88.48	93.33	.....	68.90	.....	a80.21	85.30	78.90	90.70	93.10	.....	.....
8	87.22	93.55	.....	70.10	.....	.....	86.10	78.70	90.97	.....	a94.40	94.70
9	88.60	90.64	81.68	71.90	.....	.....	.....	78.40	91.20	.....	83.55	93.70
10	85.52	83.43	82.08	68.90a	72.06	.....	82.10	78.80	91.30	.....	93.70	93.40
11	86.80	95.15	81.03	68.80	69.20	.....	.....	78.77	92.65a	95.64	94.10	94.65
12	85.05	.....	81.08	68.90	70.10	.....	.....	78.77	91.65	93.40	.....	94.35
13	84.30	.....	.....	71.52	70.92	.....	a85.10	79.04	91.90	93.60	.....	a96.21
14	87.25	.....	.....	71.50	70.90	82.30	82.90	79.26	93.30	95.00	.....	94.60
15	84.48	.....	a78.57	68.20	71.04	81.70	82.70	79.33	92.10	97.05a	98.36	94.20
16	83.80	.....	.....	67.22	71.00	82.80	84.95	78.70	92.85	95.18	96.20	94.80
17	83.80	.....	.....	66.95	68.58	85.00	83.65	79.10	93.33	95.50	96.30	95.20
18	83.26	.....	.....	66.40	73.40	83.80	83.00	79.10	93.60	94.40	96.80	94.95
19	82.60	.....	.....	66.68	72.28	83.80	82.80	81.65	92.70	94.40	96.60	.....

a Tape measurement.

Dearborn 1-3--Continued.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
20	82.17	.....	a80.90	.....	71.00	83.45	80.40	79.75	93.60	95.13	.....a93.78
21	81.89	92.10	.....	.....	72.38	81.98	80.80	81.30	93.70	94.20	..... 90.40
22	86.20	89.20	a80.90	.....	.....	84.25	81.40	80.28	94.80	95.30	a97.72 91.45
23	87.64	88.70	.....	.....	.....	84.70	81.30	80.00	93.90	94.06	97.30 90.40
24	88.26	89.05	.....	.....	a76.65	84.30	80.15	81.00	94.75	.....	..... 89.35
25	88.05	88.70	.....	.....	76.00	83.80	79.00	86.10	94.90	a93.50	97.50 90.30
26	88.16	87.85	.....	a59.15	.....	85.75	78.65	86.10	93.55	93.80	96.65 90.60
27	.....	87.70	.....	.....	.....	83.75	79.24	88.55	93.37	95.00	97.45 89.30
28	.....	86.30	.....	.....	.....	84.00	78.70	88.60	93.80	.....	..... 89.05
29	.....	84.95	a77.30	.....	.....	84.90	78.82	88.70	93.50	.....	a98.38 88.20
30	.....	.....	75.06	.....	.....	84.45	81.90	85.92	93.65	.....	98.40 87.70
31	.....	.....	.....	.....	a75.92	.....	83.20	89.20	.....	.....	87.70

a Tape measurement.

Dearborn 1-10. Schenley Distillers, Inc. Old Quaker Plant, Lawrenceburg. 10 feet east of well 10 and 170 feet west of well 11. Measurements made by personnel of Schenley Distillers, Inc. Records available: 1946-48.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	32.67	.....	24.90	12.13	.....	.....	.....	33.10	.....	.....	38.10 43.40
2	32.69	27.83	23.97	12.13	.....	.....	.....	33.45	.....	.....	42.96
3	32.68	.....	24.00	7.16	.....	.....	25.40	33.45	.....	.....	43.94
4	32.69	.....	24.02	4.51	.....	.....	25.27	33.19	.....	41.72	44.30
5	32.68	.....	24.03	4.52	.....	.....	25.28	32.92	.....	42.05	44.35
6	32.70	.....	24.04	4.87	.....	.....	25.18	32.47	.....	39.95	44.39
7	32.70	.....	.....	5.10	.....	17.86	25.35	33.80	32.28	42.82	42.86 41.66
8	32.70	.....	.....	5.30	.....	.....	25.60	32.96	.....	43.01	42.25 41.95
9	32.69	31.35	17.86	5.79	.....	.....	.....	32.60	.....	43.19	44.14 43.10
10	32.68	.....	18.14	6.22	.....	.....	.....	32.04	.....	35.35	42.48 37.95
11	25.32	.....	18.40	6.34	.....	.....	.....	33.70	40.68	34.12	.....
12	30.08	.....	18.66	4.48	.....	.....	.....	32.90	.....	41.85	.....
13	30.72	.....	18.89	.....	.....	.....	30.06	33.50	.....	43.10	.....
14	31.51	.....	19.00	.....	.....	27.97	30.75	34.03	40.60	43.52	..... 35.60
15	.....	.....	17.38	.....	.....	.....	31.66	33.80	40.90	43.78	.....
16	.....	.....	17.57	.....	.....	.....	32.34	33.32	41.07	43.84	42.50 33.85
17	.....	34.08	.....	.....	.....	.....	31.60	33.41	41.30	36.35	42.46 34.00
18	.....	34.21	.....	.....	.....	.....	31.56	33.48	41.50	35.13	42.28 37.10
19	.....	.....	.....	.....	.....	.....	32.08	34.53	.....	43.07	42.02 29.80
20	33.98	.....	.....	.....	.....	23.20	31.75	33.62	40.35	43.44	..... 35.40
21	34.38	.....	.....	.....	.....	23.00	31.98	35.10	41.53	43.51	..... 39.75
22	28.30	26.62	.....	.....	.....	.....	32.36	34.80	41.87	43.51	..... 36.60
23	.....	25.30	15.65	.....	.....	.....	32.10	33.80	41.78	43.51	42.18 38.40
24	.....	23.80	15.86	.....	18.83	.....	32.23	35.38	42.29	36.00	39.08 38.35
25	.....	24.14	16.05	.....	18.94	.....	32.30	35.11	42.32	42.65	.....
26	a26.72	24.41	16.25	.....	.....	.....	30.25	35.60	.....	37.50	.....
27	.....	24.63	16.39	.....	.....	.....	27.75	36.18	.....	37.56	.....
28	.....	24.80	14.10	.....	.....	24.87	33.20	36.54	.....	43.37	..... 35.10
29	.....	24.90	11.62	.....	.....	.....	33.90	36.03	.....	43.44	..... 36.10
30	.....	.....	11.98	.....	.....	.....	33.40	37.12	.....	43.46	41.83 35.70
31	.....	.....	12.12	.....	15.20	.....	33.72	37.24	.....	35.75	..... 35.90

a Tape measurement.

Dearborn 2. City of Lawrenceburg. In Lawrenceburg, at municipal water plant, Third and Shipping Sts. Measured by air gage to nearest foot. Measurements made by R. C. Patton, Lawrenceburg Water Dept. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 8	59	Mar. 14	50	Sept. 19	62	Nov. 7	65
15	57	21	42	26	62	14	65
22	49						

Dearborn 4. City of Lawrenceburg. In Lawrenceburg, 43.4 feet north of centerline of High St. and 2.5 feet east of curb line of Mulberry St. Measurements made by R. C. Patton, Lawrenceburg Water Dept. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 8	41.18	Mar. 14	30.48	Aug. 21	42.62	Sept. 26	44.39
15	37.06	21	26.59	Sept. 12	44.00	Nov. 7	45.68
22	21.60	July 18	41.48	19	44.23	14	45.58
Mar. 7	25.39						

Dearborn 5. City of Lawrenceburg. In Lawrenceburg, at north side of east Center St., in northeast corner of alley between Arch and St. Clair Sts. Measurements made by R. C. Patton, Lawrenceburg Water Dept. Records available: 1945-48.

Mar. 7	21.60	July 18	37.57	Sept. 19	40.09	Nov. 7	41.90
14	26.51	Aug. 21	38.64	26	40.60	14	41.43
21	22.88	Sept. 12	40.09				

Decatur County

Decatur 1. Decatur County "public well", Letts. Measurements made by M. S. Elliott. Records available: 1944-48.

Jan. 2	3.53	Apr. 16	2.66	July 16	5.19	Oct. 8	6.62
9	1.44	23	5.89	23	5.53	15	6.70
16	1.51	30	3.42	30	6.48	22	7.59
23	1.90	May 7	2.22	Aug. 6	3.60	29	5.88
30	2.28	15	2.89	13	3.13	Nov. 5	3.61
Feb. 20	2.80	22	2.95	20	3.79	12	3.89
27	2.66	28	3.40	27	3.73	20	1.50
Mar. 5	2.53	June 4	3.63	Sept. 3	3.79	26	1.27
12	2.06	11	5.73	10	5.40	Dec. 3	1.11
19	2.42	18	4.62	17	9.71	17	1.69
26	2.40	25	5.53	24	7.53	24	1.80
Apr. 2	2.27	July 2	6.17	Oct. 1	5.40	31	1.69
9	2.52	9	4.90				

De Kalb County

De Kalb 1. Auburn Water Dept. well 3. At Auburn Water Works. Measurements made by Ted Haynes, Auburn Water Dept. Records available: 1936-48.

Jan. 5	8.5	Apr. 5	6.5	July 5	8.5	Oct. 4	9.5
12	9.5	12	6.5	12	10.5	11	9.5
19	9.5	19	6.5	19	8.5	18	7.5
26	9.5	26	7.5	26	6.5	25	9.5
Feb. 2	9.5	May 3	6.5	Aug. 2	9.5	Nov. 1	10.5
9	10.5	10	7.5	9	10.5	8	9.5
16	9.5	17	9.5	16	11.5	15	11.5
23	6.5	24	7.5	23	9.5	22	8.5
Mar. 1	6.5	31	7.5	30	13.5	29	8.5
8	6.5	June 7	9.5	Sept. 6	6.5	Dec. 6	9.5
15	6.5	14	8.5	13	9.5	13	9.5
22	5.5	21	9.5	20	10.5	20	11.5
29	8.5	28	9.5	27	8.5	27	10.5

De Kalb 2. Worth Wareham. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 34 N., R. 13 E., about 0.3 mile north of U. S. Highway 6 and 100 feet east of U. S. Highway 27. Measurements made by Worth Wareham. Records available: 1945-48.

De Kalb 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.13	Apr. 9	2.31	July 9	6.10	Oct. 8	12.33
9	2.31	16	3.10	16	6.29	15	14.37
16	2.59	23	3.13	23	6.38	22	15.20
23	2.61	30	3.11	30	6.42	29	15.17
30	4.10	May 7	4.00	Aug. 7	6.40	Nov. 5	14.18
Feb. 6	4.35	14	2.20	13	6.37	12	13.50
13	4.58	21	2.17	20	7.10	19	12.40
20	4.30	28	4.50	27	8.70	26	12.35
27	4.22	June 4	5.60	Sept. 3	8.90	Dec. 3	12.38
Mar. 5	4.61	11	5.55	10	9.20	10	6.98
12	4.68	18	5.57	17	9.30	17	4.70
19	3.65	25	5.90	24	12.20	24	3.50
26	2.30	July 2	6.25	Oct. 1	12.29	31	3.58
Apr. 2	2.24						

Delaware County

Delaware 2. Merlin V. Painter. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 19 N., R. 8 E.
Measurements made by Merlin V. Painter. Records available: 1945-48.

Jan. 3	11.62	Apr. 24	5.64	July 24	10.64	Oct. 18	13.75
10	9.19	May 1	6.67	31	10.45	23	13.95
17	9.08	15	6.62	Aug. 7	10.89	Nov. 6	13.85
24	9.45	22	7.35	14	11.27	16	13.75
Feb. 14	10.50	June 1	8.32	21	11.62	20	13.48
22	9.76	7	8.71	28	11.80	29	13.50
28	9.03	11	9.04	Sept. 4	12.80	Dec. 4	13.02
Mar. 13	8.58	18	9.25	10	12.47	11	12.96
29	3.79	25	9.09	18	12.79	18	13.55
Apr. 3	5.24	July 2	8.65	25	13.10	24	11.36
10	3.80	10	9.32	Oct. 2	13.32	31	10.55
17	4.12	17	9.88	9	13.40		

Delaware 3. Harry C. Stafford. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 21 N., R. 10 E.,
about 2 miles east of U. S. Highway 35 and about 1 mile north of State
Highway 28. Measurements made by Harry C. Stafford. Records available:
1946-48.

Jan. 3	7.26	Apr. 3	6.36	July 3	9.67	Oct. 2	13.00
10	8.01	10	6.15	10	10.27	9	12.97
17	9.18	17	7.13	17	10.53	16	12.87
24	9.18	24	8.70	24	10.87	23	12.90
31	10.56	May 1	7.87	31	11.41	30	13.00
Feb. 7	10.10	8	7.75	Aug. 7	11.57	Nov. 6	11.93
14	10.58	15	6.87	14	11.92	13	11.58
21	10.07	22	8.35	20	12.16	20	10.55
28	8.51	29	9.28	28	12.52	27	11.38
Mar. 8	8.99	June 5	9.85	Sept. 4	12.58	Dec. 4	10.31
13	7.52	12	9.93	11	12.65	11	11.54
20	6.30	19	10.30	18	12.88	18	7.68
27	5.95	26	9.79	25	12.97	25	8.64

Dubois County

Dubois 2. Ferdinand State Forest. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 3 S., R. 3 W.,
north side of road near foot of hill at entrance to forest. Measurements
made by H. A. Miller, and Earl L. Daunhauer, Ferdinand State Forest.
Records available: 1936-37; 1942-48.

Dubois 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	13.96	Apr. 5	10.19	July 6	(a)	Oct. 4	(a)
12	14.36	12	6.39	12	(a)	13	(a)
19	13.41	19	9.21	20	13.10	19	17.74
26	15.29	26	10.72	26	13.80	25	(a)
Feb. 4	15.79	May 3	10.80	Aug. 1	15.06	Nov. 3	17.10
9	15.84	10	11.71	9	15.16	8	16.12
16	12.38	18	11.54	17	15.38	15	15.31
24	12.33	24	11.96	23	15.61	23	12.74
Mar. 2	11.36	June 1	12.73	30	15.71	29	11.98
8	11.41	7	12.71	Sept. 7	15.89	Dec. 6	11.86
15	12.47	15	13.55	13	15.81	16	10.44
22	9.86	21	14.73	20	16.03	27	11.86
29	8.72	28	14.54	27	(a)		

a Dry.

Dubois 5. Harry Baker. In Haysville, in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 1 N., R. 5 W., near southeast corner of intersection of State Highway 45 and Main St. Measurements made by Joe M. Popp. Records available: 1944-48.

Jan. 3	20.81	Apr. 3	16.34	July 3	19.75	Oct. 2	21.25
10	20.36	10	16.20	10	19.86	9	21.27
17	20.14	17	13.39	17	20.15	16	21.39
24	20.06	24	14.74	24	19.70	23	21.69
31	20.47	May 1	15.76	31	19.61	30	21.51
Feb. 7	20.64	8	15.78	Aug. 7	19.86	Nov. 6	21.56
14	20.34	15	16.86	14	20.32	13	21.58
21	19.74	21	15.57	21	20.58	20	21.29
28	18.73	29	16.26	28	20.76	27	21.24
Mar. 6	18.39	June 6	17.36	Sept. 4	20.83	Dec. 4	21.05
13	18.23	12	17.84	11	21.09	11	20.89
20	18.14	19	18.69	18	21.12	18	19.06
27	17.23	26	19.80	25	21.14	25	19.71

Elkhart County

Elkhart 2. Grace Leer. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 36 N., R. 7 E., about 1,000 feet south of New York Central Railroad, 3 miles west and 1-5/8 miles north of Millersburg. Measurements made by Gerald W. Leer. Records available: 1945-48.

Jan. 4	4.20	Apr. 4	4.20	July 11	5.62	Oct. 4	6.14
11	4.42	11	4.54	18	5.46	10	6.14
18	4.82	21	4.89	26	5.43	17	6.15
26	5.16	26	4.98	Aug. 2	5.62	25	6.16
Feb. 2	5.44	May 2	5.14	8	5.73	Nov. 1	6.16
10	5.56	9	4.75	16	5.65	7	5.99
15	5.62	23	4.74	23	5.90	15	6.03
22	4.83	30	5.12	30	5.98	22	5.99
29	3.76	June 6	5.35	Sept. 6	6.04	29	6.05
Mar. 7	4.76	14	5.20	13	6.07	Dec. 6	6.04
14	5.08	20	5.40	20	6.13	12	6.11
21	2.94	28	5.42	26	6.14	20	5.65
28	3.80	July 5	5.80				

Fayette County

Fayette 2. Irene Kerr. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 14 N., R. 12 E., about 5.5 miles northwest of Connersville. Measurements made by Mrs. Irene Kerr. Records available: 1946-48.

Fayette 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.66	Apr. 9	2.75	July 7	7.64	Oct. 6	11.70
14	4.94	13	2.50	13	8.00	14	12.11
20	5.12	20	3.37	20	8.22	21	12.22
29	5.60	27	4.22	28	7.99	27	12.53
Feb. 3	5.85	May 6	4.42	Aug. 3	8.44	Nov. 2	12.75
10	6.20	13	2.71	11	8.87	12	10.74
18	5.13	18	3.77	18	9.20	16	10.61
24	5.64	26	4.77	26	9.66	29	4.59
Mar. 2	3.39	June 1	5.38	Sept. 1	9.89	Dec. 8	4.22
10	3.95	8	5.73	11	10.40	16	2.73
16	3.85	18	6.48	16	10.70	21	2.96
24	2.57	23	6.80	24	11.01	29	2.63
30	2.74	30	7.19	30	11.36		

Floyd County

Floyd 1. Mr. Shane. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 3 S., R. 6 E., in field 110 feet west of Ohio River bank, 240 feet east of a point on River Road about 0.23 mile north of an east-west line through the Middle Creek stone bridge. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level
Feb. 19	8.75	May 2	30.32	Nov. 24	45.55
Apr. 1	9.29	June 28	42.61	Dec. 22	17.53

Floyd 2. Mr. Randall. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 3 S., R. 6 E., on land beside electric fence about 150 feet west of a point on River Road, 0.7 mile north of Middle Creek stone bridge. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	6.11	May 2	21.98	Aug. 25	41.84	Nov. 24	44.02
Apr. 1	8.36	June 28	38.00	Oct. 8	44.00	Dec. 22	16.17

Floyd 3. Mr. Heil. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 3 S., R. 6 E., about 150 feet west of River Road and 150 feet north of fence, about 2.2 miles north of Middle Creek stone bridge, and about 2.3 miles south of New Albany city limits. Records available: 1943-48.

Feb. 19	8.17	May 2	10.80	Aug. 25	18.25	Nov. 24	15.10
Apr. 1	5.95	June 28	15.86	Oct. 8	19.87	Dec. 22	9.58

Floyd 4. Mr. Shane. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 3 S., R. 6 E., in open field 60 feet west of River Road, and 1.1 miles north of Middle Creek stone bridge, and about 2.4 miles south of New Albany city limits. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level
Feb. 19	15.64	May 2	15.80	Nov. 24	26.10
Apr. 1	9.21	June 28	23.71	Dec. 22	18.44

Floyd 6. Mr. Royse. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 3 S., R. 1 E., about 150 feet west of River Road and about 1.4 miles south of New Albany city limits. Records available: 1944-48.

Floyd 6--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 19	16.97	May 2	3.30	Aug. 25	15.35	Nov. 24	16.90
Apr. 1	5.21	June 28	13.88	Oct. 8	16.55	Dec. 22	12.22

Fountain County

Fountain 1. City of Hillsboro. In Hillsboro, at northeast corner of Regal Store, north of intersection of State Highways 34 and 341. Measurements made by L. E. Davidson. Records available: 1944-48.

Jan. 6	41.76	Apr. 8	39.50	July 6	39.28	Oct. 13	41.18
13	41.72	14	35.40	13	38.85	19	41.08
21	41.55	21	40.60	20	39.23	26	40.86
28	41.60	27	38.71	27	38.72	Nov. 2	40.72
Feb. 3	41.92	May 5	39.06	Aug. 3	39.42	10	40.85
10	42.02	12	38.88	10	39.83	16	40.54
17	41.88	18	38.72	17	39.90	23	40.28
24	41.99	25	38.74	24	40.10	30	41.07
Mar. 2	41.72	June 1	39.05	Sept. 1	40.44	Dec. 8	41.20
10	41.92	8	39.04	7	40.37	15	41.06
16	41.90	16	39.72	21	40.20	21	41.32
25	41.29	23	39.75	28	40.92	28	41.17
Apr. 1	40.71	29	38.72	Oct. 5	40.95		

Franklin County

Franklin 1. Brookville Water Dept. In Brookville, at south end of pumping plant. Public-supply well. Measurements made by Walter Cleaver, Brookville Water Dept. Records available: 1936-48.

Jan. 3	27.00	Apr. 3	26.50	July 3	29.00	Oct. 2	30.50
10	27.50	10	25.50	10	29.25	9	30.25
17	28.75	17	25.50	17	29.50	16	30.00
24	29.00	24	26.25	24	28.25	23	30.50
31	29.50	May 1	27.25	31	29.00	30	30.50
Feb. 7	29.75	8	27.50	Aug. 7	29.50	Nov. 6	28.25
14	25.50	15	27.25	14	29.25	13	28.00
21	28.00	22	27.50	21	30.50	20	25.50
28	27.25	29	25.00	28	30.75	27	27.00
Mar. 6	27.75	June 5	29.00	Sept. 7	31.00	Dec. 5	28.50
13	28.00	12	29.25	11	30.75	11	28.50
20	27.25	19	29.50	18	30.50	25	27.50
27	23.50	26	29.50	25	30.25		

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. Measurements made by Henry H. Harmeyer and Alvin A. Harmeyer. Records available: 1944-48.

Jan. 2	32.98	Mar. 26	28.66	Aug. 14	21.85	Oct. 23	29.89
9	31.22	Apr. 2	26.96	21	21.18	30	30.37
16	31.48	9	28.40	28	20.77	Nov. 6	30.08
23	31.79	16	26.80	Sept. 4	22.69	13	30.74
30	29.88	23	26.08	11	22.78	20	30.39
Feb. 6	31.46	30	26.22	18	25.79	27	28.87
13	28.64	July 15	21.79	25	26.68	Dec. 4	28.74
20	28.94	24	21.77	Oct. 2	24.38	11	28.41
27	31.12	31	21.80	9	22.69	18	26.79
Mar. 5	30.06	Aug. 9	21.73	16	29.02	25	27.18
19	29.92						

Gibson County

Gibson 1. Oakland City College Farm. In Oakland City, on West St., south of State Highway 64. Measurements made by John D. McCarty. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	16.80	Apr. 5	17.50	July 6	18.30	Oct. 4	18.70
12	16.86	12	16.40	12	18.76	11	18.65
19	17.13	19	17.05	19	17.99	18	19.03
26	17.32	26	17.05	26	18.03	25	19.00
Feb. 2	17.40	May 3	17.14	Aug. 2	18.15	Nov. 1	18.80
9	17.55	12	17.10	9	18.22	8	19.20
16	17.60	17	17.20	16	18.25	15	19.22
23	17.70	24	17.27	23	18.38	22	19.07
Mar. 1	17.55	31	17.47	30	18.38	29	19.19
8	17.59	June 7	17.37	Sept. 7	18.47	Dec. 6	19.05
15	17.55	14	17.55	13	18.57	13	19.14
22	17.59	21	17.66	20	18.51	20	18.80
29	18.88	28	17.10	27	18.80	27	19.32

Gibson 2. James C. Gardner. $W\frac{1}{2}$ NE $\frac{1}{4}$ sec. 12, T. 3 S., R. 12 W., about $3\frac{1}{2}$ blocks west of center of Owensville. Measurements made by Ivan P. Creek and James C. Gardner, Jr. Records available: 1947-48.

Jan. 3	26.72	Feb. 20	24.50	Apr. 9	20.02	Aug. 19	22.45
9	25.99	27	22.18	16	18.85	26	23.40
15	25.15	Mar. 4	22.70	22	19.44	Sept. 2	23.25
22	32.10	11	21.75	July 22	20.65	9	23.75
29	25.45	19	22.48	29	20.20	17	24.25
Feb. 5	25.15	26	20.85	Aug. 5	20.70	23	24.45
13	25.25	Apr. 1	20.85	12	21.50		

Grant County

Grant 2. Marlon Water Works. At pumping station, west of reservoir, and north of railroad. Measurements made by personnel of Marlon Water Works, Ray Surber, superintendent. Records available: 1945-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.76	62.95	61.69	62.60	64.40	65.57	70.90	76.00	79.25	78.38	72.54	69.73
2	65.36	62.51	62.40	62.91	67.00	67.42	71.58	75.23	77.42	77.18	72.49	71.50
3	65.50	62.22	61.40	63.23	65.76	67.17	72.30	74.88	77.60	76.41	72.20	72.58
4	64.97	61.65	62.35	64.45	65.25	67.78	72.82	74.71	79.80	75.84	72.20	72.28
5	65.09	.....	62.86	63.61	65.20	69.30	71.22	74.74	80.05	76.16	72.08	69.35
6	68.62	.....	62.72	63.48	64.25	70.02	71.55	74.75	77.84	75.56	72.12	68.40
7	66.30	.....	62.61	64.60	65.93	67.60	72.50	74.68	79.00	76.15	72.36	70.50
8	66.30	.....	62.92	63.72	65.60	67.54	71.17	74.66	80.48	75.64	72.26	72.07
9	69.20	.....	63.07	63.58	67.70	68.76	71.10	74.67	79.18	75.26	71.84	73.06
10	67.70	.....	63.09	63.25	65.92	68.30	70.88	74.63	77.78	76.30	71.82	73.70
11	66.43	.....	59.90	62.60	66.40	69.77	72.80	74.54	79.90	75.12	72.00	.....
12	65.39	.....	61.06	62.82	66.08	70.20	.....	74.55	77.85	77.77	71.89	71.50
13	67.95	63.57	61.86	62.71	66.10	71.00	73.15	75.19	77.20	76.57	71.58	70.15
14	66.17	.....	62.03	62.40	66.05	69.08	72.58	74.95	79.78	75.66	71.70	71.80
15	65.98	.....	61.99	63.01	65.96	70.15	72.25	77.21	77.76	75.17	71.55	72.75
16	65.70	.....	62.00	62.48	65.70	70.60	70.34	75.78	77.88	74.62	71.40	72.60
17	66.55	.....	59.75	62.70	65.62	69.72	72.58	75.22	76.89	74.56	71.35	70.50
18	64.89	.....	59.48	62.37	65.50	70.35	72.72	74.91	77.75	74.44	71.40	71.85
19	63.89	.....	60.61	62.14	66.28	70.55	73.01	74.95	76.15	73.92	71.06	.....
20	63.76	.....	62.91	61.92	65.97	71.40	73.95	75.00	74.36	74.08	71.15	.....
21	63.25	.....	62.30	61.68	68.05	71.44	73.64	74.88	74.63	73.86	71.35	69.25
22	64.62	.....	62.33	61.85	66.90	71.26	73.66	76.84	76.20	73.66	71.12	71.80
23	63.99	.....	61.95	62.15	67.75	70.66	73.77	75.68	76.88	73.45	71.15	.....
24	63.60	.....	64.04	62.06	66.10	71.18	74.06	76.68	76.39	73.50	70.97	.....
25	64.50	62.87	63.20	64.10	65.56	71.20	74.07	78.30	76.09	73.30	70.99	.....
26	63.63	63.05	62.71	62.95	66.82	71.46	73.87	77.80	78.52	73.10	70.82	.....

Grant 2--Continued.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
27	63.18	62.16	62.49	62.51	65.46	71.86	73.60	78.45	77.50	73.01	70.95
28	62.95	61.20	63.96	63.46	68.15	71.65	73.15	77.90	78.89	72.91	71.00
29	66.51	62.22	62.95	63.88	66.56	72.52	75.05	76.73	77.66	73.84	69.66 68.10
30	64.33		62.85	64.80	68.00	72.90	74.48	78.82	76.62	72.74	68.80 67.50
31	63.50		62.36		66.32		75.21	79.80		72.56	70.20

Grant 5. Anaconda Wire & Cable Co. In Marion, about 150 feet east of main track of Big Four Railroad and 130 feet south of East 8th St. Measurements made by C. C. Bishop, plant engineer, Anaconda Wire & Cable Co. Records available: 1945-48.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	58.11	59.20	57.59	52.39	51.10	50.25	55.04	55.59	58.19	57.10	54.07 53.27
2	58.45	59.07	57.48	52.73	49.88	51.74	55.32	54.70	58.51	57.04	54.52 53.62
3	56.48	59.20	57.48	52.83	49.15	52.74	55.43	55.46	58.82	55.98	54.68 53.90
4	55.82	59.26	57.58	51.35	50.40	53.40	55.25	55.80	59.04	55.14	55.02 54.25
5	54.21	59.34	57.67	50.17	50.83	54.42	53.17	56.09	57.96	55.06	55.22 53.21
6	55.25	59.37	56.88	51.51	51.36	52.72	52.33	56.48	57.06	55.25	55.08 52.57
7	56.26	59.33	55.39	52.42	51.41	51.63	53.31	56.79	56.21	55.55	54.12 53.18
8	56.51	59.21	54.05	52.28	51.51	52.29	54.36	55.63	57.20	55.59	53.14 53.65
9	54.86	59.13	54.80	52.17	50.28	52.94	54.66	54.81	57.81	55.67	53.66 54.09
10	55.72	59.25	55.65	52.12	49.47	53.76	55.18	55.70	58.20	54.61	53.75 54.33
11	55.71	59.38	56.36	50.42	50.50	54.48	53.83	56.30	58.59	53.95	..... 54.50
12	54.02	59.43	56.87	49.37	51.10	54.74	52.85	56.55	58.57	53.20	54.34 53.46
13	55.20	59.48	57.24	50.71	51.24	53.09	53.95	58.73	57.58	53.70	54.38 52.78
14	56.12	59.50	56.00	51.23	.....	52.00	54.45	57.04	58.63	54.36	53.16 53.35
15	56.51	59.33	54.52	51.92	.....	53.18	54.84	55.90	59.20	54.79	52.38 53.72
16	56.97	59.18	55.27	52.23	.....	53.76	55.46	55.12	59.54	55.09	52.91
17	57.45	58.90	55.95	52.92	.....	54.38	55.68	56.10	59.86	54.18	53.40
18	57.52	58.84	56.12	51.40	.....	54.90	54.45	56.63	60.12	53.46	53.78 53.98
19	57.35	59.26	56.36	49.85	.....	55.39	53.38	57.00	60.41	54.14	54.09 53.60
20	57.83	59.17	55.35	50.96	52.09	54.04	54.30	57.35	60.63	54.47	54.47 53.31
21	58.04	58.86	54.68	51.25	52.43	52.92	55.62	57.56	60.69	54.61	53.58 52.15
22	58.33	58.74	53.18	51.40	52.68	53.80	55.96	56.38	60.51	54.94	52.78 51.42
23	58.57	58.35	54.24	51.54	51.36	54.38	56.21	55.54	60.27	55.28	53.29 52.05
24	58.70	58.43	54.37	51.42	50.55	54.85	56.44	56.51	59.90	54.39	53.72 52.42
25	58.74	58.46	54.30	50.44	51.65	55.04	55.25	58.18	59.62	53.65	54.18 51.85
26	58.62	58.45	54.16	49.52	52.11	54.96	54.33	57.60	58.59	54.35	53.16 51.03
27	58.94	58.49	54.06	50.44	52.58	53.71	.....	58.06	57.43	54.89	52.72 50.39
28	59.14	58.36	52.28	50.90	52.98	53.19	.....	58.36	57.56	55.30	52.33 50.83
29	59.20	58.12	50.84	51.00	53.68	.....	56.14	58.24	57.43	55.56	51.92 51.12
30	59.26		51.63	51.02	52.11	.....	56.60	57.20	57.28	55.58	52.62 51.25
31	59.31		52.01		51.18		56.79	57.84		54.73	51.09

a Estimated.

Grant 6. Joseph Wesco. SW 1/4 Sec. 18, T. 23 N., R. 8 E. Measurements made by Blanch Rush. Well destroyed Apr. 5, 1948. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.68	Jan. 31	15.60	Feb. 25	14.83	Mar. 20	11.72
10	17.04	Feb. 7	14.73	28	14.56	27	8.30
17	16.69	14	14.79	Mar. 6	14.45	Apr. 3	8.20
24	16.45	21	14.76	13	14.90		

Hamilton County

Hamilton 2. Indiana Gas & Water Co. Formerly owned by Public Service Co. of Indiana. In Noblesville, at water plant, "old ice plant well". Measurements made by Glenn Beaver and Homer Virgin, Indiana Gas & Water Co. Records available: 1935-48.

Hamilton 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	23.09	May 11	20.45	July 26	21.49	Oct. 18	23.34
Mar. 8	23.40	17	19.89	Aug. 2	21.85	25	23.41
15	23.17	24	20.92	10	22.45	Nov. 2	23.59
22	22.73	June 1	20.47	16	22.68	8	23.34
29	21.70	7	20.56	23	22.81	15	23.35
Apr. 5	21.10	14	20.66	31	22.76	22	23.24
12	19.90	21	20.91	Sept. 7	23.51	29	23.42
19	19.30	28	20.95	20	22.71	Dec. 6	23.52
26	19.65	July 6	20.96	Oct. 5	23.29	13	23.54
May 3	19.50	12	21.41	11	23.46	20	22.91
10	19.90	19	21.68	13	23.57	27	22.95

Hancock County

Hancock 1. Cleveland, Cincinnati, Chicago, and St. Louis Railway Co. In Maxwell, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 16 N., R. 7 E. Measurements made by J. L. Gant. Records available: 1946-48.

Feb. 25	26.02	May 16	25.10	June 28	26.06	Aug. 30	26.72
Mar. 1	26.28	23	25.52	July 16	26.04	Sept. 28	27.15
10	27.14	27	25.55	20	25.95	Oct. 13	27.24
15	27.26	June 11	26.06	24	25.69	Nov. 26	26.69
May 7	24.82	14	26.31	30	25.98	Dec. 28	25.57
8	25.20	21	26.13				

Harrison County

Harrison 1. Harrison County State Forest. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, 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. Records available: 1936-48.

Jan. 4	1.00	Apr. 11	1.60	July 19	2.90	Oct. 11	3.70
11	2.05	18	1.48	25	2.09	17	3.29
18	2.10	25	2.24	Aug. 1	2.74	24	2.97
25	2.31	May 2	1.13	8	3.00	31	2.90
Feb. 1	2.33	9	2.13	15	2.30	Nov. 7	1.07
15	.77	16	2.40	22	3.05	14	1.15
23	1.30	23	2.67	29	3.46	21	1.16
29	.86	30	2.74	Sept. 5	3.45	28	1.04
Mar. 8	.86	June 6	4.86	12	3.10	Dec. 5	.98
15	1.33	14	3.05	19	3.51	12	1.08
21	.83	20	3.22	26	3.64	19	.75
29	.85	27	3.37	Oct. 3	3.78	27	.98
Apr. 4	1.53						

Harrison 3. 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. Records available: 1938-48.

Jan. 4	6.50	Apr. 11	3.10	July 19	6.41	Oct. 11	7.26
11	6.96	18	3.09	25	5.85	17	7.20
18	6.82	26	3.38	Aug. 1	6.06	24	7.25
24	6.81	May 2	3.89	8	6.20	31	7.28
Feb. 11	6.82	9	3.21	15	6.17	Nov. 7	7.02
15	2.97	16	3.79	22	6.30	14	7.08
23	3.12	23	4.60	29	6.40	21	3.70
29	2.90	30	4.99	Sept. 5	6.60	28	2.96
Mar. 8	3.03	June 6	5.36	12	6.70	Dec. 5	2.94
15	3.20	14	5.63	19	6.85	12	3.10
21	3.05	20	5.92	26	7.08	19	2.90
29	3.10	27	6.10	Oct. 3	7.10	27	3.05
Apr. 4	3.13						

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. Measurements made by B. A. Smith. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.70	Apr. 5	1.07	June 28	4.88	Sept. 27	7.26
12	3.90	12	.80	July 5	4.98	Oct. 4	7.35
19	4.10	19	.70	12	5.25	11	7.49
26	4.52	26	1.77	19	5.60	18	7.55
Feb. 2	3.90	May 3	2.37	26	5.45	24	7.67
9	5.32	11	2.37	Aug. 2	5.73	Nov. 1	7.75
16	5.46	17	2.26	16	6.16	8	7.28
23	5.50	24	2.91	23	6.35	15	6.60
Mar. 1	4.90	31	3.36	29	6.59	21	5.90
8	4.10	June 7	3.85	Sept. 6	6.79	29	5.50
15	3.93	14	4.27	12	6.92	Dec. 6	5.00
23	1.16	21	4.60	20	7.09	27	3.75
29	.70						

Hendricks 2. John C. Gambold. N $\frac{1}{2}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 15 N., R. 2 W., 1 mile north of Coatsville. Unused drilled well, diameter 4 inches, depth 49.5 feet. Measuring point, top of 4-inch coupling, 0.30 foot above land-surface datum. Measured by John C. Gambold, Jr., and Richard L. Trumpp, Coatesville. Records available: 1948.

Oct. 9	23.53	Oct. 31	24.07	Nov. 22	21.16	Dec. 18	21.09
17	24.11	Nov. 7	23.25	27	21.04	26	21.43
23	23.97	13	22.18	Dec. 5	20.82		

Hendricks 3. John C. Gambold. In Coatesville, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 15 N., R. 2 W., about 500 feet north of Coatesville State Bank. Unused dug well, diameter 36 inches, depth 17.5 feet. Measuring point, top course of brick at northeast corner, 0.10 foot above land-surface datum. Measured by John C. Gambold, Jr. and Richard L. Trumpp, Coatesville. Records available: 1948.

Oct. 9	8.28	Oct. 31	8.46	Nov. 22	3.96	Dec. 19	4.23
17	8.42	Nov. 7	6.20	27	4.40	26	3.33
23	8.46	13	4.95	Dec. 5	3.96		

Henry County

Henry 2. Gilbert M. Casey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 17 N., R. 9 E., about 2 miles west of Cadiz, about 20 feet west of road fence. Measurements made by G. M. Casey. Records available: 1946-48.

Jan. 4	13.85	Apr. 4	11.75	July 4	14.40	Oct. 3	17.25
11	12.80	11	11.25	11	14.60	10	17.35
18	13.25	18	11.90	18	14.85	17	17.60
25	13.35	25	12.25	25	15.10	24	17.55
Feb. 1	13.88	May 2	12.85	Aug. 1	15.40	31	17.70
8	14.35	9	12.69	8	15.55	Nov. 7	16.65
16	14.20	16	12.62	15	15.80	14	16.07
22	14.03	23	13.05	22	16.08	21	15.55
29	13.85	31	13.47	29	16.40	28	15.05
Mar. 7	13.12	June 6	13.82	Sept. 5	16.50	Dec. 5	14.53
14	13.20	13	14.15	12	16.75	12	14.67
21	12.00	20	14.55	19	17.90	19	14.88
28	11.45	27	14.37	26	17.22	26	13.78

Howard County

Howard 4. Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 24 N., R. 4 E., 0.75 mile north of Vermont, 30 feet east of road. Measurements made by Abe D. Bontroger. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.99	Apr. 3	1.41	June 26	6.32	Oct. 2	10.20
10	4.91	10	.96	July 17	7.28	9	10.55
17	5.17	17	2.57	24	7.53	16	10.90
24	6.43	24	3.69	30	7.80	23	11.05
31	6.64	May 1	3.68	Aug. 7	8.19	30	11.35
Feb. 7	7.30	8	3.90	14	8.48	Nov. 6	11.58
14	7.62	15	2.15	21	8.65	13	11.75
21	7.94	22	4.07	28	8.85	20	11.84
28	7.78	29	4.42	Sept. 4	9.18	27	11.92
Mar. 6	7.35	June 7	4.95	11	9.55	Dec. 4	11.95
13	7.40	12	5.44	18	9.70	11	11.80
20	1.49	19	6.01	25	9.85	24	9.65
27	1.55						

Huntington County

Huntington 1. S. Woodward Schell. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 27 N., R. 8 E. Measurements made by S. Woodward Schell. Records available: 1945-48.

Jan. 4	34.80	Apr. 4	2.45	July 4	6.89	Oct. 3	36.80
11	34.68	11	2.70	11	7.50	10	34.10
18	34.20	18	3.15	18	15.45	18	34.20
25	32.00	25	3.20	25	24.30	24	32.45
Feb. 1	28.40	May 3	2.72	Aug. 1	31.90	31	32.20
8	24.05	9	2.70	8	29.40	Nov. 5	31.50
15	8.25	17	2.90	15	38.20	14	30.40
22	5.75	23	3.30	22	37.90	21	15.75
29	2.75	30	6.50	29	32.90	28	7.20
Mar. 6	2.47	June 6	6.15	Sept. 5	37.75	Dec. 5	5.85
14	2.75	13	6.25	12	38.80	12	5.75
21	2.45	20	6.85	19	38.25	19	4.30
28	2.70	27	7.50	26	34.70	26	4.25

Jackson County

Jackson 1. Jackson State Forest. NW $\frac{1}{4}$ 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 T. K. Rosinbarger, Indiana Dept. of Conservation. Records available: 1936-48.

Jan. 5	8.23	Apr. 12	3.10	July 12	11.10	Oct. 11	14.80
12	8.09	19	4.56	19	11.80	18	15.05
19	8.30	27	6.65	Aug. 2	12.44	25	15.40
26	8.80	May 3	7.06	9	12.40	Nov. 1	15.66
Feb. 2	9.13	10	7.29	16	13.40	8	16.35
9	9.50	17	6.95	23	13.15	15	16.20
16	8.30	24	8.25	30	13.69	22	11.35
Mar. 1	6.26	June 1	9.01	Sept. 7	13.70	29	10.10
8	5.73	7	9.16	13	14.00	Dec. 6	10.08
15	6.36	14	9.43	20	14.20	13	9.70
23	5.95	21	9.74	27	14.30	20	7.15
29	3.89	28	10.70	Oct. 4	14.80	27	7.95
Apr. 5	5.57	July 6	11.17				

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. Measurements made by Ralph Fish. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	15.78	Apr. 5	12.41	July 5	13.20	Oct. 4	16.00
11	15.77	12	11.07	12	13.63	11	15.87
19	15.32	19	11.75	19	13.39	18	16.57
24	14.90	26	11.55	26	13.61	25	16.66
Feb. 1	15.00	May 3	11.42	Aug. 2	14.00	Nov. 1	16.77
9	15.33	10	11.92	9	13.70	8	16.76
16	15.50	17	11.85	16	14.10	14	16.06
23	14.79	24	11.72	23	14.27	22	14.91
Mar. 1	14.10	31	12.08	30	14.69	29	14.71
8	13.35	June 7	12.28	Sept. 6	14.79	Dec. 6	14.06
15	13.20	14	12.72	13	14.90	13	13.19
22	12.62	21	12.92	20	15.18	20	13.04
29	12.19	27	12.95	27	15.79	27	13.06

Jasper County

Jasper 3. Harry E. Brunton. In Parr, in $NE\frac{1}{4}NE\frac{1}{4}$ sec. 28, T. 30 N., R. 7 W., at elevator and lumber yard. Unused drilled well, diameter 4 inches, depth 36 feet. Measuring point, top of 4-inch casing, 1.0 foot above land-surface datum. Measured by Harry E. Brunton, Parr. Records available: 1948.

June 10	9.40	Aug. 2	10.07	Sept. 20	10.59	Nov. 8	11.37
14	9.53	9	10.19	27	11.00	15	11.24
21	9.48	16	10.10	Oct. 4	11.15	22	11.20
28	9.66	23	10.16	11	10.87	29	11.40
July 5	9.68	30	10.51	18	11.00	Dec. 6	11.43
12	9.62	Sept. 6	10.33	25	11.14	13	11.33
19	9.72	13	10.92	Nov. 1	11.13	20	10.50
26	9.71						

Jay County

Jay 2. Armstrong Cork Co. In Dunkirk, in $NE\frac{1}{4}SW\frac{1}{4}$ sec. 9, T. 22 N., R. 12 E. Measured by J. T. Martin, plant engineer, Armstrong Cork Co. Records available: 1947-48.

Jan. 3	37.29	June 19	34.69	Aug. 14	34.61	Sept. 25	34.24
10	37.08	26	34.79	21	34.55	Oct. 2	33.85
Feb. 2	34.96	July 3	34.50	28	33.65	9	33.97
May 29	35.65	10	34.24	Sept. 4	33.58	16	34.07
June 5	35.55	17	34.35	11	33.78	23	33.82
12	34.66	31	33.04	18	33.99	Nov. 2	33.91

Jefferson County

Jefferson 2. Clifty Falls State Park. At superintendent's house. Measurements made by Owen H. Vestal, Clifty Falls State Park. Records available: 1938-48.

Jan. 5	28.25	Mar. 15	28.37	May 24	27.43	Sept. 13	28.52
12	28.24	22	27.00	June 14	27.49	27	28.60
19	28.24	29	27.01	21	27.48	Oct. 25	28.70
26	28.28	Apr. 5	28.46	July 6	28.49	Nov. 8	28.70
Feb. 9	28.30	19	27.48	19	28.44	16	28.60
23	28.39	26	27.42	Aug. 2	28.44	22	28.80
Mar. 1	28.40	May 10	27.45	9	28.48	29	29.10
8	28.38	17	27.42	23	28.49	Dec. 13	29.10

Jennings County

Jennings 1. Muscatatuck State Park. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 6 N., R. 8 E.
Measurements made by Max Whitcomb and Joseph McAuliffe. Records available:
1936-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.04	11.13	....	3.26	5.82	8.95	11.82	12.59	14.04	15.23	15.93	10.84
2	8.64	11.19	....	3.54	5.98	9.19	11.92	12.66	14.10	15.26	15.95	10.72
3	7.95	11.37	3.97	3.91	6.14	9.35	11.99	12.72	14.14	15.29	15.97	10.66
4	7.82	11.42	4.35	4.16	6.42	9.47	12.05	12.78	14.19	15.31	15.98	10.69
5	7.90	11.45	4.88	4.21	6.58	9.57	12.01	12.78	14.24	15.34	15.99	10.74
6	8.12	11.53	5.09	4.30	6.77	9.79	12.16	12.79	14.28	15.37	15.95	10.74
7	8.30	11.62	5.02	4.39	6.75	9.92	12.20	12.84	14.32	15.39	15.92	10.83
8	8.44	11.66	4.87	4.35	6.85	10.00	12.26	12.89	14.37	15.42	15.91	10.89
9	8.49	11.79	4.97	4.41	6.90	10.14	12.33	12.94	14.41	15.45	15.92	10.99
10	8.72	11.89	5.09	4.48	6.91	10.34	12.39	12.99	14.45	15.47	15.91	11.10
11	8.99	11.93	5.25	4.34	6.97	10.53	12.44	13.05	14.50	15.50	15.86	11.23
12	9.07	11.97	5.52	....	7.07	10.66	12.52	13.09	14.52	15.53	15.83	11.27
13	9.14	11.99	5.74	....	7.09	10.74	12.57	13.13	14.55	15.56	15.81	11.32
14	9.22	6.33	5.81	1.52	7.01	10.88	12.62	13.17	14.61	15.58	15.80	11.40
15	9.32	6.69	5.75	1.91	6.93	10.99	12.67	13.21	14.65	15.60	15.75	6.62
16	9.32	6.87	5.36	2.19	6.80	10.95	12.72	13.25	14.68	15.63	15.74	3.32
17	9.44	6.71	5.14	2.54	6.67	10.89	12.75	13.30	14.72	15.64	15.68	4.55
18	9.55	6.62	5.16	2.94	6.70	10.92	12.79	13.35	14.77	15.65	15.59	5.52
19	9.65	6.46	5.02	3.24	6.79	10.96	12.84	13.39	14.81	15.67	14.37	6.01
20	9.73	6.45	5.02	3.51	6.90	11.05	12.88	13.44	14.85	15.70	....	6.52
21	9.78	6.67	5.02	3.77	6.87	11.15	12.89	13.49	14.88	15.72	12.22	7.94
22	9.72	6.72	4.97	4.10	6.88	11.20	12.80	13.52	14.91	15.74	12.19	7.40
23	9.80	6.81	4.10	4.29	7.06	11.28	12.57	13.56	14.95	15.77	12.18	7.87
24	10.09	6.96	2.50	4.50	7.23	11.35	12.37	13.61	14.99	15.78	12.21	8.10
25	10.26	6.95	2.82	4.71	7.49	11.43	12.32	13.66	15.02	15.81	12.25	....
26	10.50	6.71	3.11	4.87	7.74	11.50	12.31	13.71	15.05	15.83	12.26	....
27	10.69	5.97	.97	5.07	7.93	11.57	12.34	13.77	15.09	15.84	12.36	8.86
28	10.86	....	1.84	5.25	8.10	11.64	12.38	13.82	15.13	15.86	12.35	8.98
29	10.94	....	2.27	5.49	8.27	11.70	12.33	13.87	15.17	15.88	11.82	9.00
30	11.01	....	2.63	5.69	8.47	11.75	12.48	13.94	15.20	15.90	11.12	7.50
31	11.06	....	2.99	....	8.74	....	12.53	13.99	....	15.92	....	7.37

a Estimated.

Johnson County

Johnson 1. City of Bargsville. W $\frac{1}{2}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 13 N., R. 3 E.
Measurements made by D. D. Core. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	5.09	Apr. 6	4.88	July 20	8.38	Oct. 12	10.08
13	5.66	13	4.69	28	5.61	19	9.91
20	6.15	20	4.76	Aug. 3	6.94	27	9.76
27	6.85	27	5.20	10	7.81	Nov. 2	9.91
Feb. 3	6.90	May 4	5.57	17	8.35	9	7.74
10	7.54	11	5.20	24	8.96	16	7.76
17	6.70	18	5.41	31	9.22	24	7.36
24	6.86	25	5.71	Sept. 8	9.54	30	7.30
Mar. 2	6.70	June 1	6.05	14	9.71	Dec. 8	7.58
10	6.46	8	6.36	21	9.84	14	7.69
16	6.40	15	6.59	29	9.89	22	7.00
23	5.83	22	6.66	Oct. 5	9.97	29	6.48
30	4.00	July 13	8.17				

Knox County

Knox 1. William M. Downey. In Monroe City, 1 block north of State Highway 61 on lot 60. Measurements made by William M. Downey. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	33.86	Apr. 8	34.12	July 8	33.47	Oct. 7	33.40
8	33.92	15	33.92	15	33.49	14	33.50
15	33.88	22	33.80	22	33.44	21	33.54
22	34.06	29	33.72	29	33.35	28	33.55
29	33.95	May 6	33.66	Aug. 5	33.32	Nov. 4	33.56
Feb. 5	34.06	13	33.60	12	33.25	11	33.65
12	34.04	20	33.55	19	33.22	18	33.60
19	34.05	27	33.50	26	33.21	25	33.61
26	34.08	June 3	33.45	Sept. 2	33.20	Dec. 2	33.62
Mar. 4	34.12	10	33.46	9	33.27	9	33.63
11	34.13	17	33.42	16	33.34	16	33.62
18	34.18	24	33.42	23	33.39	23	33.57
25	34.08	July 1	33.45	30	33.38	30	33.55
Apr. 1	34.07						

Kosciusko County

Kosciusko 2. Wawasee State Fish Hatchery. Flowing well at sunken garden. Measurements made by George Fry. Records available: 1938-48.

Jan. 3	+1.50	Apr. 3	+2.08	July 3	+2.15	Oct. 9	+1.57
10	+1.48	10	+2.06	10	+2.08	16	+1.50
17	+1.48	17	+2.12	17	+2.02	23	+1.42
24	+1.50	24	+2.19	24	+2.04	30	+1.33
31	+1.48	May 1	+2.12	31	+2.05	Nov. 6	+1.52
Feb. 7	+1.50	8	+2.08	Aug. 7	+1.96	13	+1.50
14	+1.50	15	+2.23	14	+1.92	20	+1.42
21	+1.55	22	+2.20	21	+1.88	27	+1.38
28	+1.54	29	+2.21	28	+1.79	Dec. 4	+1.38
Mar. 3	+1.58	June 5	+2.21	Sept. 4	+1.75	11	+1.38
12	+1.91	12	+2.22	11	+1.75	18	+1.33
20	+1.92	19	+2.23	18	+1.69	25	+1.35
27	+2.21	26	+2.21	25	+1.51		

Kosciusko 3. Millard G. Stookey. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 33 N., R. 5 E. Measurements made by Millard G. Stookey. Records available: 1945-48.

Jan. 31	13.52	Mar. 27	12.58	May 22	12.56	July 23	12.89
Feb. 13	13.62	Apr. 3	12.42	June 5	12.61	Aug. 7	12.91
20	13.08	10	12.38	26	12.76	28	13.04
27	13.01	17	12.35	July 3	12.80	Oct. 23	13.52
Mar. 13	12.81	24	12.36	9	12.84	Nov. 6	13.90
20	11.70	May 15	12.54	16	12.86	Dec. 27	14.29

La Porte County

La Porte 1. City of La Porte. Well 4 at pumping station of La Porte Water Works. Measurements made by Arthur C. Baker, La Porte Water Works, Ray D. Gangwer, superintendent. Records available: 1942-48.

Jan. 3	8.28	Mar. 6	9.70	May 8	10.12	July 10	13.70
10	11.70	13	12.87	15	9.03	17	16.53
17	12.28	20	11.20	22	15.20	24	12.53
24	14.70	27	9.28	29	14.53	31	10.03
31	13.72	Apr. 3	12.70	June 5	13.87	Aug. 7	14.70
Feb. 7	10.70	10	12.45	12	12.70	14	12.78
14	10.03	17	12.37	19	12.28	21	14.03
21	11.20	24	10.70	26	12.45	28	12.78
28	11.95	May 1	14.95	July 3	10.95	Sept. 4	8.53

La Porte 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11	7.78	Oct. 16	11.03	Nov. 13	0.49	Dec. 11	0.54
18	13.53	23	3.20	20	.45	18	.62
25	12.28	30	.66	27	.70	24	.53
Oct. 2	10.03	Nov. 6	.45	Dec. 4	.45	31	.62
9	8.53						

La Porte 2. 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. Measurements made by Herbert Busse and Arthur L. Cole, superintendent, Kankakee State Game Preserve. Records available: 1942-48.

Jan. 2	5.15	Mar. 26	2.90	June 25	4.90	Oct. 23	7.05
9	5.05	Apr. 2	2.85	July 6	4.90	30	6.98
16	5.10	9	2.80	16	5.60	Nov. 6	6.89
23	5.07	16	3.15	23	5.70	13	6.40
29	5.07	23	3.20	30	6.80	20	6.67
Feb. 6	5.25	30	4.00	Aug. 6	5.40	27	6.86
20	5.10	May 11	3.50	27	6.60	Dec. 4	6.65
27	4.50	14	2.80	Sept. 3	6.70	11	6.68
Mar. 5	4.17	21	2.80	10	6.70	18	6.30
12	4.33	June 4	4.07	17	7.00	25	6.28
20	4.20	11	4.50	Oct. 15	7.00		

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. Measurements made by David S. Cox. Records available: 1944-48.

Jan. 1	21.53	Apr. 8	15.00	July 8	21.57	Oct. 7	21.73
8	21.47	15	10.61	15	21.72	14	21.75
15	21.55	22	16.56	22	15.79	21	21.74
22	21.58	29	18.31	29	17.87	28	21.76
29	21.62	May 6	19.18	Aug. 5	19.07	Nov. 4	21.71
Feb. 5	21.64	13	19.79	12	20.16	11	17.24
12	21.60	20	18.15	19	20.50	18	16.26
19	19.38	27	19.15	26	20.72	25	16.78
26	19.55	June 3	20.21	Sept. 2	21.05	Dec. 2	15.87
Mar. 4	17.95	10	20.51	9	21.07	9	17.42
11	18.17	17	20.65	16	21.40	16	9.63
18	18.54	24	20.88	23	21.72	24	15.46
25	16.72	July 1	21.26	30	21.75	30	12.10
Apr. 1	13.52						

Lawrence 2. Roscoe Ingram. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 4 N., R. 1 W., north of Mitchell between Monon Railroad and Robertsville Pike. Measurements made by Roscoe Ingram. Records available: 1944-48.

Jan. 7	22.26	Apr. 21	19.88	July 21	21.13	Oct. 13	21.42
14	21.38	28	21.40	28	20.93	20	21.41
21	21.41	May 5	21.42	Aug. 4	21.38	27	21.40
28	21.42	12	21.41	11	21.38	Nov. 3	21.38
Feb. 4	21.45	19	21.11	18	21.39	10	21.31
13	21.41	26	21.39	25	21.40	17	20.71
18	21.13	June 2	21.41	Sept. 2	21.42	24	20.31
Mar. 3	21.11	9	21.41	8	21.43	Dec. 1	19.26
10	21.26	15	21.41	15	21.42	8	21.01
17	21.39	23	21.42	22	21.39	15	19.51
24	20.99	30	21.42	29	21.42	22	19.02
31	18.66	July 8	21.41	Oct. 6	21.39	29	20.01
Apr. 14	15.18	14	21.36				

Madison County

Madison 3. Albert Glosser. In Frankton, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 20 N., R. 7 E., about 2 blocks east of old Civilian Conservation Corps Camp. Measurements made by Helen I. Whitcomb, Frankton. Records available: 1935-42, 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	23.98	Mar. 26	22.40	June 21	21.50	Sept. 6	22.69
8	23.90	Apr. 3	22.48	29	21.30	13	22.84
14	23.89	9	21.72	July 6	21.59	22	22.92
21	23.52	18	20.90	12	21.73	25	22.97
30	23.72	24	20.88	19	21.80	Oct. 3	22.97
Feb. 6	23.70	May 1	20.99	28	21.89	19	23.59
14	23.81	9	21.08	Aug. 3	21.95	24	23.79
20	23.68	15	20.83	7	21.98	Dec. 5	23.29
28	23.33	23	21.15	17	22.29	13	23.32
Mar. 5	23.65	29	21.10	24	22.40	20	22.91
12	23.50	June 7	21.24	31	22.69	27	22.78
19	23.06	14	21.29				

Madison 6. Russel Wann. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 21 N., R. 7 E., about 110 feet west of county road, near old house foundation. Measurements made by Ivan O. Moorman and Joseph Brenner, Alexandria. Records available: 1947-48.

Apr. 8	3.33	Oct. 27	12.51	Dec. 3	8.37	Dec. 19	7.30
May 7	5.85	Nov. 5	11.60	12	8.13	26	6.12
Oct. 13	12.45	27	7.30				

Madison 7. Mounds State Park. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 19 N., R. 8 E., on west side of State Highway 32 about 0.3 mile south of entrance to park. Measurements made by personnel of Mounds State Park. Records available: 1944-48.

Jan. 19	4.63	May 4	0.20	Sept. 20	5.47	Nov. 10	6.36
26	4.36	10	.40	27	4.64	16	6.50
Feb. 2	4.69	24	1.06	Oct. 4	5.80	22	6.48
10	4.85	June 3	1.87	12	6.03	30	5.76
17	4.62	14	2.60	13	6.02	Dec. 6	6.10
Mar. 1	4.22	July 6	2.99	19	6.10	13	6.90
15	3.82	Sept. 7	5.10	24	6.27	20	6.27
Apr. 19	.00	13	5.37	Nov. 1	6.40	27	6.17

Marion County

Marion 1. Indianapolis Water Co. "Motor well 15" in Riverside well field, Indianapolis. Measurements made by personnel of Indianapolis Water Co., L. S. Finch, chief engineer. Records available: 1935-48.

Day	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	.....	.....	19.02	.....	19.86	.....	.....	.....
2	18.94	a19.60	.....	.....	.....	21.08	.....	19.82	.....	.....	18.78
3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	.....	19.58	.....	.....	21.40	.....	.....	.....	.....	a36.26	.....
5	.....	.....	.....	17.42	.....	.....	a18.94	.....	.....	a35.56	.....
6	.....	.....	.....	20.90	.....	21.86	a19.08	.....	.....	a25.40	.....
7	.....	a19.88	.....	.....	18.13	.....	.....	19.22	.....	.....	.....
8	.....	.....	a22.30	a17.24	.....	a19.98	.....	20.18	.....	19.03	.....
9	a23.50	.....	a22.15	.....	.....	.....	19.00	21.10	.....	.....	.....
10	a21.26	.....	a21.72	.....	.....	.....	a19.42	20.65	.....	19.40	.....
11	a18.70	.....	19.48	.....	.....	.....	a19.38	20.49	19.82	.....	.....
12	a18.98	.....	.....	16.54	.....	.....	19.20	.....	.....	.....	.....
13	.....	.....	.....	.....	.....	.....	a21.28	19.43	.....	.....	a18.82
14	.....	.....	.....	.....	.....	a18.50	.....	a20.50	.....	.....	.....
15	.....	.....	.....	.....	18.06	18.30	.....	.....	.....	.....	19.32
16	.....	.....	.....	.....	18.04	.....	18.95	a20.98	.....	.....	19.00

a Gravel wells in service.

Marion 1--Continued.

Day	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	19.82	.....	18.98	.....	18.15	.....	23.08	23.04	.....	.....	18.60
18	.....	.....	18.84	.....	18.28	.....	19.28	.....	.....	.....	.....
19	.....	.....	.....	.....	.....	18.40	20.30	.....	.....	.....	.....
20	.....	.....	18.74	.....	.....	18.46	19.20	.....	19.42	.....	.....
21	19.24	.....	.....	16.72	.....	18.60	.....	.....	.....	.....	.....
22	.....	.....	18.40	.....	.....	.....	.....	20.30	.....	18.82	.....
23	.....	.....	18.44	16.70	.....	19.50	19.22	20.46	.....	.....	.....
24	.....	.....	17.98	.....	.....	.....	24.40	20.03	.....	.....	.....
25	.....	20.22	21.80	.....	.....	.....	25.70	.....	.....	.....	.....
26	.....	19.94	.....	16.94	.....	18.30	24.36	.....	.....	.....	.....
27	.....	19.76	.....	16.30	.....	18.52	26.36	.....	.....	.....	.....
28	.....	19.56	.....	17.04	18.84	19.56	.....	.....	.....	.....	.....
29	.....	.....	22.22	17.08	21.56	18.66	.....	.....	.....	.....	.....
30	21.50	.....	19.99	16.93	19.04	20.20	19.28	.....	.....	.....	.....
31	21.20	.....	.....	.....	.....	21.21	.....	.....	.....	.....	.....

a Gravel wells in service.

Marion 2. Security Trust Bank Building, 130 East Washington St.
Indianapolis. Measurements made by personnel of Geological Survey, U. S.
Dept. of Interior. Records available: 1935-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	52.78	51.11	49.99	49.96	50.76	51.59	55.68	.....	59.48	57.81	53.51	51.68
2	52.64	51.04	49.90	50.04	50.70	51.62	55.67	58.33	59.42	57.82	53.50	51.63
3	52.66	50.99	49.88	50.09	50.69	51.76	55.62	58.36	59.50	57.83	53.44	51.56
4	52.53	50.90	49.90	50.05	50.52	52.06	.....	58.37	59.60	57.73	53.43	51.53
5	52.52	50.88	49.96	49.94	50.54	52.34	.....	58.37	59.71	57.48	53.43	51.50
6	52.46	50.86	49.88	49.97	50.50	52.60	.....	58.38	59.68	57.22	53.43	51.44
7	52.42	50.83	49.75	50.05	50.44	52.62	54.95	58.39	59.48	56.99	53.44	51.43
8	52.54	50.78	49.69	50.17	50.47	52.49	55.07	58.41	59.43	56.78	53.37	51.39
9	52.27	50.74	49.68	50.32	50.49	52.40	55.19	58.39	59.48	56.61	53.23	51.37
10	52.29	50.67	49.65	50.32	50.53	52.40	55.31	58.35	59.43	56.42	53.11	51.34
11	52.27	50.61	49.63	50.19	50.67	52.70	55.44	58.36	59.37	56.21	53.08	51.29
12	52.16	50.56	49.65	50.21	50.94	52.98	55.52	58.42	59.42	56.02	53.02	51.18
13	52.10	50.50	49.63	50.17	51.00	53.18	56.50	58.53	59.44	55.82	52.92	51.10
14	52.08	50.39	49.56	50.07	50.94	53.23	56.57	58.63	59.41	55.64	52.85	51.07
15	52.06	50.51	49.45	50.00	50.84	53.38	56.70	58.74	59.25	55.49	52.70	51.03
16	51.93	50.41	49.39	49.93	50.32	53.57	56.82	58.74	59.11	55.33	52.59	51.02
17	51.93	50.30	49.51	50.01	50.94	53.52	56.99	58.68	59.12	55.25	52.48	51.15
18	51.87	50.27	49.56	50.01	50.86	53.55	57.16	58.69	59.23	55.14	52.42	51.13
19	51.79	50.20	49.52	49.96	50.39	53.81	57.22	58.79	59.48	54.96	52.33	51.05
20	51.70	50.28	49.71	50.00	50.92	54.10	.....	58.88	59.53	54.80	52.28	50.95
21	51.59	50.34	49.91	50.10	51.03	54.26	.....	58.96	59.55	54.64	52.31	50.87
22	51.52	50.23	50.09	50.12	51.40	54.39	.....	59.02	59.54	54.43	52.23	50.88
23	51.56	50.19	50.04	50.08	51.36	54.52	.....	59.04	59.38	54.34	52.15	50.86
24	51.61	50.17	50.04	50.16	51.34	54.70	.....	59.00	59.13	54.23	52.06	50.80
25	51.54	50.12	50.10	50.42	51.21	54.90	.....	59.03	58.91	54.09	51.99	50.71
26	51.46	50.06	50.10	50.60	51.06	55.10	57.81	59.12	58.75	53.94	51.91	50.66
27	51.38	50.04	50.11	50.78	50.98	55.27	.....	59.25	58.57	53.81	51.84	50.51
28	51.35	49.91	50.24	51.02	51.09	55.36	.....	59.33	58.31	53.70	51.84	50.40
29	51.26	50.01	50.16	50.94	51.33	55.41	.....	59.49	58.09	53.63	51.74	50.29
30	51.20	.....	50.05	50.83	51.64	55.53	.....	59.50	57.92	53.57	51.71	50.27
31	51.16	.....	49.95	.....	51.70	.....	.....	59.50	.....	53.54	.....	50.24

a Estimated.

b Tape measurement.

Marion 3. Emerich Manual Training High School, Indianapolis. Measure-
ments made by personnel of Geological Survey, U. S. Dept. of Interior.
Records available: 1935-48.

Marion 3--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	47.56	Apr. 5	45.51	July 6	46.99	Oct. 4	50.80
12	47.28	12	44.63	12	49.08	11	49.67
19	46.95	19	44.64	19	47.74	18	50.17
26	46.52	26	45.03	26	49.30	25	49.73
Feb. 2	46.82	May 3	44.50	Aug. 2	49.94	Nov. 1	48.94
9	46.44	10	44.95	9	50.25	8	49.28
16	46.18	17	44.59	16	50.36	15	50.31
24	46.69	24	45.52	23	51.19	22	49.23
Mar. 1	46.23	June 1	44.55	30	51.11	29	49.94
8	45.54	7	46.35	Sept. 7	50.69	Dec. 6	48.21
15	45.02	14	46.98	13	51.27	20	47.69
22	45.50	21	47.37	20	51.43	27	47.06
29	44.91	28	47.99	27	50.17		

Marion 4. Layne-Northern Co., Inc. In Indianapolis, in valley of Lick Creek, about 100 feet north of creek, about 700 feet west of South Meridian St., and about 350 feet south of Edwards Ave. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1937-43.

Jan. 5	4.90	Apr. 19	2.25	July 12	3.86	Oct. 4	4.37
19	4.96	26	2.19	19	3.97	18	4.53
Feb. 2	5.09	May 3	2.14	26	3.90	25	4.42
16	4.39	10	2.05	Aug. 2	4.01	Nov. 1	4.31
24	4.23	17	2.21	9	4.12	8	4.15
Mar. 1	4.38	24	2.53	16	4.25	15	4.12
8	4.43	June 1	3.41	23	4.74	22	4.09
15	4.48	7	3.83	30	5.64	29	4.03
22	4.25	14	3.97	Sept. 7	5.84	Dec. 6	3.62
29	3.60	21	4.09	13	4.60	20	3.40
Apr. 5	3.14	28	3.47	20	4.60	27	3.35
12	2.57	July 6	3.54	27	4.77		

Marion 9. In Indianapolis, at former American Brewery, West Ohio St., at Indianapolis Water Co. canal. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1939-48.

Jan. 5	47.26	Apr. 5	45.56	July 6	46.64	Oct. 4	47.15
12	46.95	12	45.51	12	47.19	11	46.84
19	46.78	19	45.28	19	47.56	18	46.68
26	46.52	26	45.23	26	48.00	25	46.41
Feb. 2	46.10	May 3	45.11	Aug. 2	48.22	Nov. 1	46.26
9	45.69	10	44.78	9	48.35	8	46.17
16	45.44	17	44.82	16	48.49	15	45.90
24	45.26	24	45.04	23	48.82	22	45.56
Mar. 1	45.20	June 1	45.11	30	49.02	29	45.27
8	45.72	7	45.44	Sept. 7	49.18	Dec. 6	45.02
15	45.48	14	45.74	13	48.16	20	44.49
22	45.75	21	45.96	20	48.33	27	44.26
29	45.52	28	46.42	27	48.07		

Marion 10. Federal Building, Meridian & Ohio Sts., Indianapolis. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1939-48.

Jan. 5	56.80	Mar. 15	54.58	May 24	57.15	Aug. 2	62.09
12	56.39	22	54.87	June 1	57.21	9	62.12
19	56.00	29	54.88	7	57.59	16	62.40
26	55.63	Apr. 5	54.58	14	58.44	23	62.87
Feb. 2	55.28	12	54.89	21	58.88	30	63.41
9	55.00	19	55.04	28	59.37	Sept. 7	62.95
16	54.90	26	55.57	July 6	59.82	13	61.83
24	54.84	May 3	55.19	12	60.99	20	62.97
Mar. 1	54.89	10	55.06	19	61.86	27	62.14
8	54.83	17	55.84	26	60.45	Oct. 4	60.83

Marion 10--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 11	59.53	Nov. 1	58.04	Nov. 22	57.14	Dec. 20	56.19
18	58.36	8	57.74	29	56.73	27	55.56
25	58.40	15	57.47	Dec. 6	56.59		

Marion 13. Indianapolis Sanitation Plant east observation well. In Indianapolis, about 500 feet east of power plant in E $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 15 N., R. 3 E. Measurements made by W. R. Curran. Records available: 1929-48.

Date	Water level	Date	Water level	Date	Water level
Oct. 14, 1946	(a)	July 29, 1947	3.99	June 18, 1948	3.91
Nov. 25	(a)	Aug. 30	4.38	July 16	(a)
Dec. 30	9.37	Sept. 30	(a)	Aug. 20	(a)
Jan. 31, 1947	2.57	Nov. 11	(a)	Sept. 30	(a)
Mar. 31	3.16	Jan. 31, 1948	4.28	Oct. 25	(a)
Apr. 30	1.79	Mar. 2	3.73	Nov. 23	3.90
May 31	2.67	Apr. 20	+4.6	Dec. 28	3.91
June 30	3.50	May 29	3.74		

a Dry.

Marion 14. Indianapolis Sanitation Plant, "Resettler" observation well. In Indianapolis, about 400 feet southeast of power plant, at south-east edge of resettler tank, in E $\frac{1}{2}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 15 N., R. 3 E. Measurements made by W. R. Curran. Records available: 1928-48.

Oct. 14, 1946	21.94	July 29, 1947	21.12	June 18	21.18
Nov. 25	22.00	Aug. 30	21.35	July 16	21.33
Dec. 30	21.50	Sept. 30	21.84	Aug. 30	21.77
Jan. 31, 1947	19.83	Nov. 7	22.07	Sept. 30	21.50
Mar. 31	20.36	Jan. 31, 1948	21.35	Oct. 25	22.10
Apr. 30	19.15	Mar. 2	20.02	Nov. 23	21.14
May 31	19.65	Apr. 20	17.21	Dec. 28	20.39
June 30	20.53	May 29	20.93		

Marion 16. In Indianapolis, at former American Hominy Co., plant B, Madison Ave. and Palmer St. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1940-43. Jan. 5, 96.09; Jan. 12, 100.26; Jan. 19, 99.42. Measurements discontinued Jan. 19, 1948.

Marion 18. Anna M. Stelzner. In Speedway City, at 4943 Vermont St., in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 15 N., R. 3 E., 500 feet north of Vermont St. and west of junction with Cassell Drive. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1943-48.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	23.82	22.87	.....	19.88	20.17	19.53	.....	21.48	23.45	23.99	24.42
2	23.65	22.92	22.37	20.06	20.16	19.65	.....	21.53	23.54	24.01	24.42
3	23.53	22.92	22.28	20.22	20.12	19.76	.....	21.58	23.60	24.06	24.41 23.03
4	23.42	22.95	22.26	20.36	20.14	19.84	.....	21.62	23.65	24.10	..... 23.01
5	23.27	22.94	22.29	20.40	20.13	19.91	.....	21.68	23.68	24.11	..... 22.98
6	23.17	22.94	22.29	20.44	20.13	20.04	.....	21.74	23.70	24.10	..... 22.92
7	23.05	22.97	22.21	20.44	20.05	20.15	20.84	21.80	23.67	24.10	..... 22.90
8	22.94	23.00	22.13	20.26	20.04	20.22	20.86	21.86	23.66	24.10	..... 22.90
9	22.80	23.04	22.12	20.18	20.02	20.27	20.92	21.92	23.63	24.11	24.23 22.93
10	22.75	23.10	22.09	20.20	19.91	20.36	20.98	22.01	23.63	24.14	24.16 22.98
11	22.72	23.13	22.09	20.15	19.80	20.45	21.04	22.07	23.63	24.16	24.09 23.03
12	22.66	23.14	22.10	20.10	19.70	20.57	21.10	22.14	23.62	24.18	23.71 23.03
13	22.59	23.14	22.12	20.15	19.62	20.68	21.18	22.22	23.62	24.21	23.94 23.03
14	22.56	23.04	22.11	20.17	19.51	20.77	21.25	22.30	23.64	24.23	23.87 23.05
15	22.54	23.05	22.05	20.17	19.37	20.83	21.31	22.37	23.67	24.26	23.80 23.06
16	22.49	23.06	21.98	20.15	19.18	20.90	21.39	22.40	23.72	24.28	23.73 23.01

a Estimated.

b Tape measurement.

Marion 18--Continued.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	22.50	23.01	21.96	20.13	18.97	20.97	21.45	22.40	23.78	24.28	23.63	22.99
18a	22.51a	22.93	21.97	20.14	18.89	20.99	21.50	22.40	23.85	24.32	23.58	22.96
19a	22.54	22.83	21.94	20.11	18.87	20.99	21.55	22.41	23.88	24.33a	23.51	22.85
20	22.55	22.76	21.86	20.12	18.85	21.00	21.61	22.45	23.88	24.32	.....	22.75
21a	22.53	22.74	21.82	20.12	18.75	21.05	21.63	22.49	23.87	24.34	.....	22.67
22	22.46a	22.72	21.74	20.15	18.65	21.07	21.61	22.53	23.87	24.35	.....	22.64
23	22.45a	22.69	21.69	20.16	18.68	21.08	21.57	22.59	23.87	24.35a	23.25	22.64
24	22.52	22.66	21.42	20.16	18.70	21.08	21.54	22.66	23.88	24.35	23.22	22.63
25	22.58	22.63	21.31	20.17	18.77	21.07	21.53	22.73	23.90	24.37	23.19	22.59
26	22.66	22.59	21.23	20.16	18.85	21.06	21.50	22.73	23.94	24.39	23.17	22.58
27	22.83	22.48	19.48	20.16	18.95	21.06	21.46	22.96	23.97	24.40	23.15	22.58
28	22.79	.....	19.20	20.16	19.04	21.04	21.44	23.10	23.99	24.40	23.12	22.53
29	22.83	.....	19.50	20.17	19.13	20.99	21.44	23.23	23.99	24.41	23.10	22.44
30	22.84	.....	19.55	20.13	19.25	20.94	21.45	23.31	23.99	24.41	.....	22.37
31	22.85	.....	19.78	.....	19.39	.....	21.45	23.36	.....	24.42	.....	22.35

a Estimated.

b Tape measurement.

Marion 19. Peoria & Eastern Railway Co. In Indianapolis, on Tenth St. at Big Four Railroad tracks, 60 feet south of centerline of Tenth St. and 250 feet west of Exeter Ave. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	19.22	Apr. 5	17.90	July 2	17.66	Oct. 11	19.21
12	19.19	12	17.38	19	17.78	18	19.35
19	19.23	19	16.94	26	17.80	25	19.62
26	19.33	26	16.70	Aug. 2	17.95	Nov. 1	19.50
Feb. 2	19.42	May 3	16.70	9	18.08	8	19.43
9	19.49	10	16.68	16	18.20	15	19.45
16	19.43	17	16.71	23	18.35	22	19.43
24	19.54	24	16.86	30	18.51	29	19.43
Mar. 1	19.58	June 1	17.02	Sept. 7	18.67	Dec. 6	19.44
8	19.59	7	17.11	13	18.79	13	19.45
15	19.60	14	17.28	20	18.90	20	19.43
22	19.52	21	17.42	27	19.03	27	19.47
29	18.48	28	17.56	Oct. 4	19.13		

Marion 21. Continental Baking Co., 339 East Market St., Indianapolis. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1944-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.06	53.04	53.49	53.74	54.88	.....	59.47	59.98	61.82	59.86	56.58	56.73
2	53.34	52.50	53.64	54.12	54.28	55.01	59.61	59.34	61.75	59.99	56.86	56.81
3	53.97	53.24	.....	54.44	53.56	55.34	59.71	60.12	61.74	59.82	56.72	56.60
4	53.34	53.30	54.56	53.46	54.29	55.56	59.31	60.32	61.86	59.20	56.78	56.72
5	53.22	53.78	55.00	52.90	54.51	55.83	58.34	60.56	61.28	59.32	56.62	55.93
6	53.84	53.94	54.74	53.54	54.58	56.10	.....	60.68	60.44	59.31	56.69	55.37
7	54.19	53.95	53.62	53.69	54.52	55.38	58.97	60.76	.....	59.11	56.71	56.21
8	54.24	53.36	53.07	53.95	54.89	55.99	59.36	60.43	61.04	59.12	56.26	56.57
9	54.28	52.94	53.98	54.41	54.03	56.02	59.70	59.93	61.11	59.14	56.26	56.81
10	54.82	53.59	54.16	54.25	53.44	56.70	59.35	60.41	61.21	58.82	56.78	57.02
11	54.17	53.84	54.33	52.90	54.41	56.96	59.63	60.50	61.18	58.19	57.39	56.94
12	53.11	.....	54.66	52.75	54.86	57.16	59.01	60.66	60.82	58.58	57.48	56.18
13	53.81	53.80	54.69	53.50	55.05	57.02	59.60	60.72	60.28	58.60	57.28	55.96
14	53.97	53.77	53.80	53.58	55.15	56.23	59.83	60.92	60.82	58.64	56.90	56.57
15	54.08	53.71	53.03	53.84	55.09	57.12	60.06	60.86	60.92	58.66	56.18	56.50
16	54.02	52.99	53.44	53.79	54.22	57.46	60.14	60.33	61.10	58.43	56.64	56.71
17	54.29	53.63	54.14	54.24	53.49	57.68	60.37	60.86	61.15	.....	56.71	57.12
18	53.63	53.82	54.39	53.66	54.30	58.08	60.00	60.90	61.00	.....	56.83	56.94
19	52.95	53.80	54.13	52.95	54.66	58.18	59.18	61.18	60.54	57.92	56.71	55.51
20	53.35	54.46	54.58	53.67	54.89	58.17	59.52	61.22	60.00	58.18	56.90	55.22

Marion 21--Continued.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
21	53.17	54.65	53.59	54.20	54.92	57.15	59.48	61.33	60.53	58.17	56.65 55.83
22	53.20	53.81	53.00	54.37	55.30	58.18	59.34	61.22	60.62	58.05	56.04 56.41
23	53.60	53.20	53.45	54.39	55.72	58.54	59.42	60.50	60.70	57.85	56.61 56.62
24	53.90	53.91	54.06	54.54	55.14	58.86	59.70	61.26	60.66	57.68	56.57 56.18
25	53.13	54.18	54.32	53.92	54.88	59.10	59.40	61.40	60.62	56.96	56.67 55.31
26	.....	54.17	54.05	53.31	54.98	59.30	58.60	61.53	60.22	57.44	55.72 55.06
27	52.97	54.34	53.63	54.37	55.07	58.97	59.62	61.76	59.70	57.48	56.23 54.37
28	53.21	54.01	53.70	54.81	55.24	57.97	59.64	61.92	59.91	57.46	56.06 54.07
29	53.24	53.92	53.00	54.93	55.38	58.91	60.00	61.48	59.80	57.50	55.45 53.38
30	53.38	.....	53.37	54.96	54.95	59.18	60.14	60.89	59.82	57.49	56.31 53.47
31	53.61	.....	53.24	.....	54.31	.....	60.29	61.64	.....	57.00	53.18

a Estimated.

Marion 22. Arthur Baxter. In Indianapolis, about 290 feet north of Georgia St. and about 160 feet east of East St. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1944-48.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	63.50	61.43	64.37	69.94	71.00	.....	79.51	77.70	81.20	78.90	..... 77.75
2	64.65	64.42	69.85	70.33	65.50	70.77	79.85	75.40	81.16	79.13	73.03 77.95
3	65.50	67.26	70.13	67.00	67.75	71.87	80.20	78.52	81.09	77.00	72.83 76.30
4	62.32	70.27	70.82	64.18	69.46	71.87	76.75	79.29	81.13	76.13	72.58 76.50
5	63.75	69.83	71.35	67.00	70.22	73.12	70.20	79.83	78.32	78.00	73.20 71.00
6	70.00	70.17	70.15	68.92	70.05	71.20	.....	80.01	75.59	78.15	72.75
7	70.64	69.11	63.25	69.40	70.58	70.16	73.23	80.02	.....	78.26	70.50 77.54
8	70.54	62.85	62.75	70.12	68.75	72.05	78.55	79.45	80.15	78.18	70.42 78.02
9	70.58	65.15	70.20	70.40	64.34	73.45	78.93	79.25	80.44	77.60	72.52 78.03
10	70.95	.....	71.30	66.50	68.50	74.25	79.05	80.01	80.49	75.50	79.60 78.15
11	63.68	.....	71.42	62.23	69.33	74.28	78.65	80.11	80.43	78.80	80.57 77.60
12	65.42	.....	71.55	66.17	70.95	74.50	78.27	80.31	77.43	77.43	80.89 74.25
13	69.29	.....	70.59	67.50	71.20	73.00	78.67	80.43	76.65	77.87	78.60 74.50
14	69.93	.....	65.15	69.02	71.34	71.50	79.16	80.59	79.63	78.10	..... 77.72
15	67.50	.....	65.00	69.32	69.05	75.10	79.41	79.80	80.14	78.07	..... 78.30
16	68.70	.....	68.60	69.43	64.88	74.90	79.42	79.43	80.27	75.95	76.26 77.86
17	65.75	69.55	69.75	68.70	67.50	76.20	79.68	80.52	80.53	73.35	76.25 78.21
18	.....	69.86	71.48	64.55	68.70	77.36	77.65	80.55	79.50	74.10	76.63 74.50
19	.....	70.00	71.17	71.10	69.50	77.55	74.03	80.78	76.75	76.20	77.15 68.80
20	67.00	70.95	69.55	68.92	70.83	75.60	73.79	80.50	77.50	76.38	76.45 71.20
21	63.32	70.85	62.83	71.01	71.44	73.35	73.50	81.03	79.73	76.15	70.75 76.42
22	68.25	64.00	.....	70.60	70.46	77.00	73.30	79.90	79.88	76.00	72.45 76.95
23	69.20	69.99	68.86	71.00	66.55	77.63	73.24	78.00	79.93	74.85	76.52 77.45
24	70.00	.....	69.90	69.70	68.75	78.63	76.40	80.76	79.93	72.00	76.55 71.75
25	61.62	70.75	70.42	74.75	69.51	78.54	76.02	81.18	79.25	72.50	73.68 67.73
26	62.00	70.90	66.78	68.05	69.70	78.85	75.05	81.22	76.05	75.15	65.50 66.80
27	67.08	70.90	65.45	71.00	70.55	76.87	78.35	81.47	75.75	75.45	69.02 66.23
28	68.20	70.10	63.58	72.00	71.73	74.87	78.15	81.36	78.63	75.50	65.65 65.15
29	68.75	64.37	63.68	71.52	70.70	79.04	79.05	79.17	78.96	75.62	71.38 64.00
30	68.12	.....	68.00	71.25	67.12	79.40	79.54	77.85	78.96	75.48	76.80 64.35
31	68.50	.....	66.60	.....	65.88	.....	79.67	80.95	.....	.....	63.47

a Tape measurement.

Marion 25. Electric Steel Castings Co. In Speedway City, on Main St. just north of Tenth St., 532 feet east of centerline of Main St. and 393 feet north of centerline of Tenth St. Measurements made by personnel of Geological Survey, U. S. Dept. of Interior. Records available: 1945-48.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	29.62	26.08	23.32	33.30	30.23	32.90	44.60	40.94	41.00	39.45	24.90 30.50
2	24.31	23.35	23.95	34.90	24.90	.....	44.80	34.15	41.35	39.10	28.10 31.25
3	27.80	29.05	30.60	34.90	21.30	.....	45.95	35.40	42.83	37.65	28.00 35.70
4	24.05	30.80	31.50	27.90	26.94	.....	37.40	.....	43.77	37.00	28.05 32.30
5	21.85	31.80	32.26	26.50	23.30	.....	29.55	.....	40.90	35.40	28.50 26.05
6	28.00	31.90	31.40	31.00	28.95	.....	.....	37.15	39.00	34.10	28.50 23.30

Marion 25--Continued.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	30.00	30.75	25.98	31.86	29.30	.....	31.30	33.80	.....	34.80	24.25	30.60
8	31.18	26.03	23.23	33.25	30.00	40.15	32.85	28.10	47.60	34.15	22.45	30.30
9	31.64	23.35	29.00	25.92	24.18	40.15	32.00	25.05	49.35	33.15	25.60	30.65
10	30.95	29.08	30.45	32.15	21.18	40.50	32.65	32.80	48.85	33.85	28.10	32.45
11	26.90	30.85	31.05	25.80	31.45	40.90	28.45	32.90	50.20	29.32	28.60	31.80
12	23.03	31.70	31.80	22.46	.....	41.30	26.30	34.30	41.00	35.70	28.20	26.35
13	28.55	32.00	30.90	27.38	.....	37.50	32.87	36.20	36.00	35.97	28.74	24.15
14	30.35	35.65	26.45	29.60	43.28	33.00	33.70	35.80	43.50	37.06	26.10	28.50
15	31.00	26.10	23.40	30.30	43.00	40.00	34.50	27.75	43.80	38.00	23.30	31.79
16	31.23	23.50	28.70	31.15	38.50	41.90	32.98	25.90	44.00	38.16	32.34	.....
17	30.10	29.45	30.45	31.15	34.90	42.00	33.60	38.53	43.40	35.70	35.60	.....
18	25.55	31.00	32.00	25.45	41.88	43.00	30.35	41.05	45.60	31.00	37.35	.....
19	22.90	31.85	33.50	21.98	44.00	42.80	26.70	42.15	45.10	34.70	38.50	.....
20	23.64	32.27	33.80	29.05	45.50	36.60	41.65	42.60	43.10	34.40	35.60	.....
21	30.30	31.30	27.38	32.20	45.07	32.68	42.80	40.40	46.00	36.70	31.10	31.10
22	31.20	25.55	24.00	32.95	45.35	41.70	45.34	.....	50.85	35.20	29.66	33.40
23	31.67	23.14	29.15	33.70	39.00	46.05	45.85	.....	52.70	37.15	32.52	32.80
24	30.45	29.65	30.25	33.80	36.50	45.70	45.70	36.30	51.70	32.28	33.20	34.50
25	25.87	30.50	31.37	26.32	43.50	47.15	36.50	37.90	47.80	28.00	33.70	32.50
26	24.05	31.48	31.60	23.75	45.50	44.00	30.08	38.60	42.70	30.10	27.80	28.00
27	27.40	32.00	30.20	26.10	46.30	36.50	41.94	39.00	39.00	31.70	32.50	26.20
28	31.15	30.70	24.46	36.70	46.95	35.20	45.50	42.80	40.00	31.05	29.10	28.15
29	31.80	26.00	22.10	32.50	44.40	40.72	35.38	43.10	40.00	32.20	25.80	28.50
30	32.00		28.00	31.50	38.35	44.50	46.90	40.10	40.58	31.00	27.45	29.10
31	30.70		29.80		35.57		46.60	40.25		26.20		28.80

Marion 26. Otto Schakel. E $\frac{1}{2}$ SE $\frac{1}{4}$ sec. 26, T. 15 N., R. 4 E., 50 feet west of southwest corner of house. Measurements made by Louis Schakel, R. R. 5, Indianapolis. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	7.20	Apr. 5	7.55	July 5	8.80	Oct. 11	9.65
12	6.24	12	5.20	12	8.20	18	9.11
19	6.84	19	6.50	19	8.40	24	9.01
26	7.53	26	6.75	26	7.10	Nov. 1	9.05
Feb. 2	7.60	May 3	6.63	Aug. 1	7.90	8	8.02
9	7.74	10	5.20	9	7.90	15	8.20
17	7.33	17	7.30	16	8.21	22	6.10
23	7.52	24	7.50	22	8.47	29	7.26
Mar. 1	5.98	31	7.70	30	7.94	Dec. 6	6.50
8	6.20	June 7	7.90	Sept. 6	9.16	13	6.86
15	6.56	14	7.20	13	8.90	20	5.62
22	2.15	21	8.40	27	9.40	27	5.62
29	3.95	28	7.70	Oct. 4	9.80		

Marion 27. Otto Schakel. E $\frac{1}{2}$ SE $\frac{1}{4}$ sec. 26, T. 15 N., R. 4 E., 200 feet west of house. Measurements made by Louis Schakel, R. R. 5, Indianapolis. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	3.07	Apr. 5	2.10	July 5	3.60	Oct. 11	5.37
12	3.18	12	2.90	12	3.70	18	4.70
19	3.25	19	3.00	19	3.90	24	4.79
26	3.60	26	3.15	26	2.20	Nov. 1	4.91
Feb. 2	3.66	May 3	3.00	Aug. 1	3.40	8	3.01
9	3.76	10	2.90	9	3.54	15	3.20
17	3.09	17	2.10	16	3.50	22	2.90
23	3.37	24	3.20	22	4.08	29	3.06
Mar. 1	3.04	31	3.40	30	4.50	Dec. 6	3.20
8	3.09	June 7	3.60	Sept. 6	4.80	13	3.23
15	2.65	14	3.60	13	4.70	20	3.12
22	2.70	21	4.00	27	5.06	27	3.20
29	2.82	28	3.70	Oct. 4	5.26		

Marion 28. Manuel W. Rabourn. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 14 N., R. 5 E., at rear of owners' house. Measurements made by Manuel W. Rabourn, R. R. 1, Acton. Records available: 1947-48.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	10.62	....	3.37	6.62	8.28	10.65	11.83	12.73	13.10	13.10	10.66
2	.....	10.64	....	3.60	6.79	8.40	10.70	11.86	12.77	13.12	13.09	10.61
3	.....	10.67	....	3.90	6.93	8.51	10.76	11.92	12.81	13.15	13.07	10.56
4	.....	10.69	9.75	4.19	7.10	8.62	10.82	11.95	12.79	13.18	13.03	10.51
5	.....	10.70	9.70	4.46	7.24	8.72	10.88	11.92	12.82	13.20	12.99	10.48
6	.....	10.72	9.65	4.70	7.38	8.83	10.93	12.00	12.81	13.21	12.85	10.43
7	.....	10.75	9.57	4.33	7.31	8.92	10.98	12.04	12.78	13.23	12.78	10.41
8	10.72	10.77	9.47	3.61	6.93	9.00	11.03	12.08	12.78	13.24	12.71	10.38
9	10.65	10.80	9.39	3.66	6.83	9.09	11.09	12.13	12.78	13.26	12.61	10.38
10	10.61	10.83	9.31	3.89	6.79	9.19	11.16	12.17	12.78	13.28	12.47	10.38
11	10.58	10.86	9.27	4.11	6.80	9.29	11.22	12.23	12.79	13.29	12.38	10.38
12	10.54	10.89	9.24	4.09	6.85	9.39	11.23	12.25	12.80	13.30	12.28	10.38
13	10.50	10.90	9.22	....	6.90	9.47	11.32	12.29	12.81	13.31	12.16	10.36
14	10.48	10.73	9.18	....	6.93	9.56	11.37	12.26	12.83	13.33	12.05	10.36
15	10.47	10.75	8.75	2.31	6.94	9.64	11.40	12.28	12.85	13.35	11.94	10.34
16	10.45	10.76	....	2.46	6.95	9.72	11.45	12.29	12.89	13.37	11.86	10.31
17	10.44	10.75	....	2.75	6.97	9.80	11.50	12.30	12.92	13.32	11.75	10.26
18	10.44	10.74	8.00	3.10	7.01	9.89	11.55	12.31	12.95	13.33	11.66	10.21
19	10.45	10.73	7.80	3.45	7.06	9.97	11.60	12.30	12.98	13.31	11.56	10.15
20	10.45	10.72	....	3.79	7.12	10.50	11.64	12.32	13.01	13.29	11.43	10.08
21	10.45	10.74	....	4.11	7.18	10.13	11.68	12.34	13.00	13.28	11.32	10.01
22	10.44	10.76	....	4.42	7.24	10.19	11.68	12.36	12.99	13.26	11.22	9.92
23	10.43	10.77	....	4.73	7.33	10.26	11.67	12.39	12.99	13.23	11.13	9.83
24	10.45	10.78	....	5.01	7.42	10.32	11.69	12.42	12.99	13.22	11.06	9.75
25	10.47	10.80	4.27	5.28	7.52	10.37	11.70	12.46	13.01	13.20	10.99	9.68
26	10.49	10.80	4.39	5.53	7.62	10.43	11.72	12.49	13.02	13.19	10.94	9.64
27	10.52	10.80	....	5.77	7.74	10.48	11.73	12.53	13.05	13.17	10.86	9.62
28	10.55	.....	....	6.00	7.84	10.53	11.73	12.57	13.07	13.16	10.84	9.59
29	10.57	.....	....	6.21	7.94	10.57	11.74	12.62	13.08	13.14	10.78	8.46
30	10.58	.....	....	6.42	8.05	10.60	11.76	12.65	13.09	13.13	10.72	8.09
31	10.60	.....	3.20	.....	8.17	.....	11.78	12.69	.....	13.12	.....	8.01

a Estimated.

Marion 29. Indiana Amusement Co. In Indianapolis, at 134 West Washington St., in basement of Indiana Theater Building. Unused drilled well, diameter 12 inches, depth 88.9 feet. Measuring point, top edge of well casing 12.50 feet below land-surface datum. Automatic water-stage recorder installed Jan. 7, 1948. Measured by personnel of the Geological Survey, U. S. Dept. of Interior. Records available: 1948.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	48.11	46.78	47.00	47.88	.....	50.81	52.72	53.22	52.71	49.85	48.34
2	.....	47.95	46.74	46.99	47.45	47.89	50.90	.....	53.30	52.67	49.95	48.32
3	.....	47.89	46.82	47.05	47.15	48.07	50.97	52.27	53.41	52.70	49.95	48.24
4	.....	47.85	46.86	47.06	47.18	48.20	51.08	52.31	53.51	52.31	50.00	48.39
5	.....	47.82	46.80	46.83	47.13	48.43	50.60	52.35	53.60	52.07	50.04	.....
6	.....	47.80	46.70	46.99	47.12	48.64	50.43	52.41	53.15	52.00	50.11	.....
7	.....	47.69	46.59	47.11	47.22	48.33	50.71	52.47	.....	51.95	50.99	48.17
8	.....	47.66	46.52	47.28	47.08	48.46	50.97	52.30	53.09	51.84	49.75	48.09
9	.....	47.57	46.49	47.40	47.09	48.47	51.15	52.94	53.24	51.64	49.63	48.07
10	49.27	47.51	46.45	.....	46.87	48.53	51.36	52.16	53.37	51.76	49.73	48.00
11	49.21	47.47	46.46	.....	47.16	48.73	51.34	52.18	53.31	51.37	49.61	47.98
12	49.01	47.47	46.50	.....	47.45	48.98	51.02	52.33	53.37	51.20	49.47	47.89
13	48.99	47.35	46.41	46.88	47.56	49.18	51.30	52.49	52.94	51.05	49.34	47.74
14	48.96	47.35	46.42	46.78	47.48	48.97	51.47	52.64	53.11	51.05	49.26	47.93
15	48.91	47.42	46.26	46.75	47.36	49.16	51.65	52.54	53.21	51.19	49.06	47.81
16	48.87	47.24	46.41	46.86	47.52	49.32	51.80	52.46	53.20	50.96	49.02	48.10
17	48.89	47.29	46.52	47.04	47.30	49.48	51.94	52.52	53.26	51.13	49.01	48.32
18	48.84	47.20	46.50	46.96	47.33	49.58	51.96	52.57	53.34	50.82	58.99	48.13
19	48.72	47.19	46.55	46.71	47.52	49.76	51.62	52.68	53.45	50.60	48.92	47.34
20	48.67	47.46	46.92	46.80	47.60	49.93	51.87	52.79	53.01	50.47	49.15	47.67
21	48.53	47.35	47.15	47.04	47.57	49.55	52.03	52.89	53.18	50.36	49.03	47.62
22	48.57	47.27	46.90	46.93	47.76	49.77	52.24	52.89	53.23	50.32	48.82	47.63

a Estimated.

Marion 29--Continued.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	48.69	47.14	47.04	46.95	47.81	49.97	52.37	52.60	53.31	50.34	48.77	47.61
24	48.64	47.10	47.01	47.71	47.53	50.14	52.51	52.78	53.37	50.21	48.68	47.55
25	48.58	47.04	47.10	47.38	47.63	50.31	52.41	52.85	53.31	50.06	48.60	47.46
26	48.39	46.97	47.23	47.20	47.59	50.49	52.08	52.98	53.25	49.95	48.40	47.37
27	48.33	46.94	47.32	47.43	47.72	50.69	52.18	53.10	52.83	49.86	48.72	47.33
28	48.31	46.86	47.28	47.67	47.82	.....	52.28	53.24	52.80	49.98	48.61	47.42
29	48.23	46.95	47.00	47.58	47.89	.....	52.47	53.22	52.94	50.07	48.39	47.23
30	48.21		47.04	47.48	48.12	50.64	52.79	52.88	52.82	50.15	48.38	47.25
31	48.17		46.91		47.87		52.87	53.11		50.15		47.18
a Estimated.												

a Estimated.

Marion 30. L. S. Ayres & Co., 1 W. Washington St., Indianapolis. At 30 South Meridian St., about 75 feet south of alley. Unused drilled well, diameter 12 inches, depth 400 feet. Measuring point, top of 6-inch casing in basement floor, 29.5 feet below land-surface datum. Automatic water-stage recorder installed Mar. 24, 1948. Measured by W. W. Hoffman. Records available: 1948.

From recorder charts											
Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1	.....	48.80	49.33	49.23	53.43	56.90	56.95	56.13	52.00	50.13	
2	.....	48.66	49.30	49.53	53.61	55.50	57.20	56.25	52.00	50.20	
3	.....	48.61	48.84	50.15	53.62	55.36	57.54	56.20	52.26	50.02	
4	.....	48.58	48.80	50.48	53.77	a56.40	57.73	55.09	52.08	50.27	
5	.....	48.27	49.01	50.74	53.13	.....	57.80	54.66	52.15	50.35	
6	.....	48.44	49.12	51.00	52.75	56.22	56.55	55.15	52.26	49.92	
7	.....	48.81	49.16	50.36	53.37	56.15	55.90	55.00	52.18	49.90	
8	.....	49.03	48.93	50.29	53.65	56.15	56.76	54.85	51.70	49.85	
9	.....	49.20	49.02	50.58	53.86	55.09	57.12	54.23	51.49	a49.80	
10	.....	48.91	48.59	50.70	54.10	55.01	57.30	54.25	51.97	.....
11	.....	48.74	48.76	51.05	54.20	a55.70	57.28	53.65	51.64	49.62	
12	.....	48.45	49.28	51.32	53.55	56.15	57.25	53.40	51.46	49.52	
13	.....	48.39	.....	51.52	53.75	56.40	56.16	53.37	51.30	49.40	
14	.....	48.55	49.48	50.91	a54.14	56.53	56.00	53.52	51.19	49.62	
15	.....	48.31	49.40	51.09	54.55	56.62	56.85	53.50	50.91	49.50	
16	.....	48.48	49.58	52.01	54.95	55.50	57.12	53.50	50.87	50.35	
17	.....	48.76	49.00	51.95	55.25	a55.48	57.48	53.58	51.12	50.02	
18	.....	48.75	48.92	52.01	55.38	56.25	58.06	53.06	a51.06	50.05	
19	.....	48.75	49.25	52.16	54.38	56.58	57.90	52.77	51.01	49.80	
20	.....	48.58	49.41	52.44	54.37	56.75	56.53	52.59	51.23	49.50	
21	.....	48.83	49.53	51.83	55.16	56.82	57.03	52.50	51.03	49.45	
22	.....	48.83	49.79	51.89	55.50	56.88	a57.76	52.59	50.65	49.50	
23	.....	48.86	49.25	52.32	55.71	55.74	57.35	52.52	50.57	49.45	
24	.....	49.06	49.24	52.64	55.88	55.66	57.20	52.54	50.53	49.20	
25	49.19	49.27	49.18	52.39	55.87	a56.70	56.95	52.07	50.60	49.10	
26	49.02	48.81	49.43	53.48	54.81	.....	56.80	51.90	50.35	49.00	
27	49.11	48.98	49.50	53.50	54.78	57.25	55.73	a52.00	50.75	48.75	
28	48.95	49.50	49.68	52.74	a55.50	57.76	55.41	.....	50.80	48.75	
29	48.56	49.50	49.86	52.76	55.97	57.50	55.95	a52.30	50.36	48.75	
30	48.46	49.44	50.07	53.24	56.32	56.26	56.00	.....	50.50	48.80	
31	48.62		49.56		56.68	56.16		52.42		48.65	

a Estimated.

Marshall County

Marshall 1. Howard Lemler. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 33 N., R. 3 E., 100 feet west of road and opposite lane leading to house near Inwood. Unused dug well, diameter 12 inches, depth 18.6 feet. Measuring point, top of pipe on east side, 0.30 foot above land-surface datum. Measured by Richard W. Becker, R. R. 2, Bourbon. Records available: 1948.

Marshall 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 20	3.82	Aug. 5	7.59	Sept. 30	8.90	Nov. 18	9.21
27	5.12	12	7.56	Oct. 7	9.01	25	9.20
June 24	6.67	19	7.85	14	9.13	Dec. 2	9.17
July 1	6.56	26	8.06	21	9.24	9	8.76
8	6.85	Sept. 2	8.29	28	9.34	16	8.40
15	7.13	9	8.50	Nov. 4	9.29	23	9.07
22	7.22	16	8.64	11	9.25	30	7.79
29	7.40	23	8.75				

Martin County

Martin 3. John Ketcham. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 4 N., R. 5 W., on west side of State Highway 45, 1.3 miles south of intersection with State Highway 58. Measurements made by George W. Melton. Records available: 1944-48.

Jan. 11	21.81	Apr. 12	20.37	July 5	21.09	Oct. 11	21.66
26	21.84	19	20.32	11	21.36	18	21.86
Feb. 2	21.89	26	19.48	19	21.38	25	21.91
8	21.90	May 3	19.49	26	19.64	Nov. 1	21.85
16	21.68	10	20.43	Aug. 8	20.68	8	21.28
23	21.69	17	20.46	17	21.08	14	21.27
29	21.67	24	20.34	23	21.09	21	21.39
Mar. 7	21.65	31	20.59	30	21.32	28	22.28
14	21.64	June 7	20.62	Sept. 6	21.36	Dec. 5	21.32
22	21.59	13	20.96	13	21.35	13	21.28
29	20.83	21	20.99	21	21.48	20	20.30
Apr. 5	20.57	29	21.08	Oct. 3	21.64	27	20.27

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 58, about 300 feet north of Martin 3. Measurements made by George W. Melton. Records available: 1944-48.

Jan. 11	3.35	Apr. 12	3.03	July 5	4.04	Oct. 11	9.72
26	4.29	19	2.98	11	4.72	18	7.79
Feb. 2	5.39	26	2.79	19	4.61	25	8.08
8	5.53	May 3	2.78	26	3.02	Nov. 1	6.45
16	3.47	10	3.09	Aug. 8	3.59	8	3.09
23	4.08	17	3.12	17	4.08	14	3.04
29	3.31	24	3.19	23	4.58	21	3.11
Mar. 7	3.23	31	3.26	30	5.61	28	3.04
14	3.21	June 7	3.39	Sept. 6	5.72	Dec. 5	3.55
22	3.04	13	3.39	13	6.55	13	3.97
29	2.79	21	3.43	21	6.64	20	3.05
Apr. 5	3.14	29	3.43	Oct. 3	9.65	27	3.07

Miami County

Miami 1. Edna Fish & Clark McConnell. In Bunker Hill, SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 26 N., R. 4 E., about 200 feet northeast of Baptist Church on State Highway 32. Unused drilled well, diameter 4 inches, depth 149 feet. Measuring point, top edge of casing, 0.20 foot above land-surface datum. Measured by George H. Koerner, Bunker Hill. Records available: 1948.

June 3	43.24	July 19	45.30	Sept. 13	45.70	Nov. 8	45.17
7	41.80	26	44.83	20	48.20	15	45.39
14	40.94	Aug. 2	44.48	27	46.40	22	43.60
21	41.90	9	45.17	Oct. 4	44.86	29	45.52
24	45.34	16	43.16	11	44.74	Dec. 6	43.32
28	41.44	23	47.40	18	45.63	13	45.99
July 5	44.82	30	47.81	25	45.19	20	43.70
12	45.75	Sept. 6	47.32	Nov. 1	46.87	27	43.23

Monroe County

Monroe 2. State of Indiana, Morgan-Monroe State Forest. On Maggie Farr farm, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 10 N., R. 1 W. Measurements made by Fred O. Hacker, superintendent, Morgan-Monroe State Forest. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	24.42	May 1	19.18	Aug. 17	21.50	Oct. 25	24.47
13	24.48	11	20.57	24	23.50	Nov. 2	24.18
20	24.38	18	21.19	31	23.18	9	23.78
27	24.38	25	22.08	Sept. 7	23.30	16	22.93
Feb. 3	24.28	June 1	22.44	14	23.48	23	21.31
Mar. 2	22.11	15	23.00	21	23.99	30	20.84
16	19.50	22	23.18	28	24.55	Dec. 7	21.08
24	21.07	29	23.36	Oct. 5	24.54	14	20.20
Apr. 6	14.51	July 6	23.39	12	24.34	21	20.58
13	12.40	26	23.47	19	23.95	28	20.79

Monroe 3. Dustin McDonald. 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. Measurements made by Ward Harp. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	26.06	Mar. 12	26.89	June 19	25.30	Oct. 31	26.88
10	25.98	20	26.14	Aug. 5	25.67	Nov. 7	26.87
17	25.96	27	24.00	12	26.00	14	26.93
24	25.98	Apr. 3	24.03	19	26.12	21	26.96
31	25.94	10	16.10	26	26.20	28	26.90
Feb. 7	25.89	17	17.94	Sept. 2	26.29	Dec. 5	27.05
14	26.73	24	22.83	9	26.35	13	27.09
21	26.75	May 29	24.88	16	26.31	19	27.05
28	26.80	June 5	24.92	23	26.52	26	26.54
Mar. 6	26.89	12	25.17				

Montgomery 1. W. H. Moore. In Waveland, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 17 N., R. 6 W., at site of burned house. Measurements made by Clarhud H. Moore and G. W. Newell. Records available: 1935-48.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	11.64	8.87	5.94	9.05	9.98	8.96	10.24	12.21	12.56	11.66	10.18
2	....	all.74	8.47	6.08	9.17	10.12	9.17	10.40	12.24	12.61	11.83	10.23
3	....	all.80	8.29	6.46	9.18	10.22	9.33	10.56	12.25	12.70	11.72	10.20
4	....	11.67	8.44	6.70	9.27	10.27	9.51	10.67	12.32	12.71	11.53	.....
5	9.29	all.77	8.70	6.79	9.24	10.37	9.70	10.80	12.37	12.60	10.94	.....
6	9.40	11.88	8.64	6.28	9.26	10.53	9.84	10.92	12.37	12.57	9.75	.....
7	9.50	11.90	8.42	5.71	8.73	.....	9.97	11.01	12.37	12.55	9.56	.....
8	9.61	11.91	8.51	4.57	8.58	.....	10.17	11.08	12.41	12.57	9.62	.....
9	9.66	12.08	8.75	5.36	8.33	.....	10.36	11.18	12.42	12.65	9.53	.....
10	10.04	12.10	8.88	5.85	8.27	.....	10.50	11.28	12.50	12.71	9.45	.....
12	10.23	12.10	9.03	5.93	8.38	.....	10.59	11.34	12.50	12.43	9.33	10.81
12	10.07	12.09	9.26	6.30	8.44	10.86	10.66	11.38	12.51	12.32	9.30	10.61
13	10.19	12.00	9.36	5.22	6.97	10.85	10.76	11.46	12.59	12.20	9.21	10.70
14	10.35	11.80	9.30	5.02	6.28	10.90	10.87	10.84	12.66	12.12	9.37	10.78
15	10.45	12.12	9.02	5.46	6.38	10.92	10.97	10.76	12.71	12.15	9.37	10.62
16	10.31	12.05	8.70	5.78	6.38	10.99	11.06	10.72	12.75	12.06	9.46	9.71
17	10.70	11.78	8.75	6.34	6.56	11.06	11.16	10.69	12.82	11.66	9.37	9.02
18	10.76	11.55	8.65	6.67	6.99	11.06	11.22	10.67	12.83	11.43	9.30	8.75
19	10.80	11.27	8.25	6.92	7.35	.....	11.30	10.67	12.80	11.11	9.12	8.48
20	10.81	11.34	7.43	7.20	7.57	.....	11.35	10.70	12.82	11.15	8.93	8.56
21	10.69	11.44	6.98	7.52	7.65	.....	11.38	11.46	12.40	11.23	9.15	8.59
22	10.66	11.38	6.17	7.78	7.92	.....	11.35	11.52	12.55	11.26	9.19	8.83
23	10.88	11.37	6.03	7.88	8.21	11.35	11.32	11.62	12.53	11.32	9.26	.....
24	.....	11.46	5.21	8.04	8.46	11.34	11.43	11.68	12.53	11.46	9.30	8.58
25	.....	11.50	5.69	8.23	8.73	11.25	11.46	11.71	12.60	11.53	9.37	8.74
26	.....	11.42	5.94	8.35	8.92	10.87	11.40	11.78	12.69	11.54	9.46	9.05
27	.....	11.25	4.09	8.54	9.07	10.48	11.46	11.89	12.71	11.57	9.65	8.97

a Estimated.

b Tape measurement.

Montgomery 1--Continued.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	.....	.....	5.25	8.70	9.22	10.11	10.76	11.97	12.67	11.61	9.92	8.87
29	.....	9.27	5.65	8.88	....	9.39	10.29	12.01	12.60	11.67	9.88	7.85
30	.....	.....	6.09	8.99	9.59	8.93	10.06	12.03	12.55	11.70	10.06	7.44
31	11.58	.....	8.34	.....	9.80	.....	10.10	12.09	.....	11.70	.....	7.32

a Estimated.

Montgomery 4. Mrs. W. L. Glenn. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 17 N., R. 6 W., 2.2 miles north of State Highway 47 on State Highway 59. Measurements made by Clarhud R. Moore and Glenn R. Newell. Records available: 1935-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.17	11.19	10.77	3.17	4.53	5.42	.....	10.95	13.00	13.27	12.52	11.69
2	11.13	11.22	10.73	2.87	4.62	5.64	.....	11.02	13.09	13.24	12.43	11.69
3	11.10	11.25	10.70	3.14	4.70	5.85	.....	11.12	13.18	13.23	12.53	11.69
4	11.07	11.27	10.67	3.32	4.79	6.07	.....	11.23	13.23	13.22	12.51	11.69
5	11.04	11.29	10.66	3.48	4.86	6.27	.....	11.25	13.31	13.21	12.47	11.70
6	11.02	11.31	10.64	1.74	4.92	6.46	9.65	11.33	13.38	13.22	12.42	11.69
7	10.99	11.32	10.61	2.41	4.82	6.53	9.75	.....	13.41	13.23	12.36	11.69
8	10.97	.....	10.59	1.99	4.06	6.62	9.86	.....	13.45	13.24	12.30	11.69
9	10.94	.....	10.57	2.52	3.77	6.76	9.98	.....	13.50	13.25	12.25	12.23
10	10.92	.....	10.56	2.67	3.66	6.91	10.09	.....	13.54	13.28	12.20	11.70
11	10.90	.....	10.55	2.81	3.66	7.10	10.22	.....	13.60	13.29	12.15	11.72
12	10.88	.....	10.54	2.81	3.61	7.25	10.29	.....	13.66	13.23	12.10	11.72
13	10.87	.....	10.54	1.65	2.24	7.32	10.38	.....	13.72	13.16	12.04	11.72
14	10.86	.....	10.53	2.29	2.48	7.44	10.42	12.34	13.79	13.12	12.00	11.72
15	10.86	11.36	10.51	2.45	2.56	7.56	10.46	12.32	13.85	13.08	11.97	11.72
16	10.86	11.34	10.50	2.53	2.42	7.64	10.53	12.28	13.92	13.06	11.94	11.70
17	10.87	11.30	10.49	2.73	2.38	7.77	10.60	12.29	13.98	13.00	11.91	11.67
18	10.88	11.24	10.48	2.88	2.80	7.90	10.64	12.27	14.05	12.92	11.88	11.64
19	10.89	11.14	10.46	3.02	3.03	8.04	10.71	12.35	14.12	12.84	11.85	11.61
20	10.92	11.13	10.45	3.17	3.23	8.18	10.76	12.45	14.18	12.77	11.82	11.58
21	10.94	11.09	10.43	3.34	3.39	8.29	10.80	11.81	14.09	12.81	11.87	11.55
22	10.95	11.06	10.41	3.48	3.56	8.40	10.82	11.90	13.93	12.67	11.78	11.53
23	10.97	11.03	10.30	3.60	3.74	8.56	10.80	12.00	13.79	12.63	11.76	11.50
24	10.99	11.00	8.43	3.73	3.95	8.74	10.78	12.12	13.67	12.60	11.75	11.49
25	11.00	10.96	8.20	3.86	4.13	8.82	10.80	12.24	13.61	12.56	11.74	11.47
26	all.03	10.92	8.16	3.98	4.30	.....	10.85	12.36	13.52	12.54	11.73	11.46
27	all.05	10.88	5.00	4.11	4.48	.....	10.86	12.48	13.44	12.52	11.71	11.46
28	all.08	10.83	3.54	4.22	4.67	.....	10.87	12.60	13.39	12.51	11.70	11.47
29	all.10	10.80	3.54	4.33	4.88	.....	10.86	12.70	13.34	12.51	11.70	11.46
30	11.13	.....	3.74	4.44	5.04	.....	10.86	12.80	13.30	12.51	11.69	11.43
31	11.15	.....	3.96	.....	5.23	.....	10.89	12.90	.....	12.51	.....	11.41

a Estimated.

Morgan County

Morgan 3. State of Indiana, Morgan-Monroe State Forest. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 11 N., R. 1 E. Measurements made by Fred O. Hacker, superintendent, Morgan-Monroe State Forest. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	4.24	May 11	4.03	Aug. 17	3.90	Oct. 25	4.57
13	4.06	18	3.70	24	4.45	Nov. 2	4.25
20	4.65	25	3.98	31	4.00	9	4.10
27	4.45	June 1	4.24	Sept. 7	3.96	16	3.75
Feb. 3	4.62	15	3.95	14	4.66	23	3.10
Mar. 2	4.15	22	3.86	21	4.70	30	3.11
16	3.20	29	4.05	28	5.68	Dec. 7	3.14
24	2.89	July 6	4.58	Oct. 5	4.68	14	2.86
Apr. 6	3.50	13	4.45	12	4.50	21	2.95
13	3.10	20	4.64	19	3.70	28	2.87
May 1	3.71	27	3.40				

Noble County

Noble 5. Rolla Becker. N $\frac{1}{2}$ W $\frac{1}{2}$ 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. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.22	Apr. 3	1.48	July 3	4.50	Oct. 2	7.74
16	3.34	15	2.96	16	4.95	16	7.95
Feb. 3	4.41	May 8	2.70	Aug. 2	5.56	Nov. 2	8.09
18	2.31	15	2.87	16	5.90	15	8.05
Mar. 3	3.60	June 3	3.85	Sept. 4	6.86	Dec. 15	7.72
16	1.58	15	4.60	17	7.15		

Noble 6. City of Kendallville. At municipal water plant, about 73 feet west of west shore of Bixler Lake and 182 feet north of centerline of Diamond St., and about 68 feet west of Noble 1. Measurements made by Don S. Deibele, chief engineer, Kendallville Water Dept. Records available: 1946-48.

From recorder charts

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.58	23.24	22.65	.....	21.23	20.74	21.57	21.40	21.75	21.74
2	22.47	23.28	22.49	.....	21.28	20.72	21.50	.....	21.75	21.84
3	22.46	.....	21.85	.....	.....	20.74	.....	.....	21.75	21.98
4	20.73	21.65	.....	21.87	22.07
5	20.70	21.66	.....	21.79	22.14
6	22.52	23.18	.....	.....	20.85	20.68	21.63	.....	.....	22.19
7	22.59	23.25	.....	.....	21.00	20.66	21.52	.....	22.00	22.24
8	22.71	23.30	.....	.....	20.96	20.63	21.68	.....	22.06	22.31
9	22.77	23.33	.....	21.78	21.02	20.63	21.74	21.48	22.08	22.32
10	22.74	23.30	.....	21.86	21.90	20.67	21.63	21.38	22.20	22.17
11	22.79	23.21	.....	21.86	20.85	20.73	21.71	21.47	22.25	22.13
12	22.84	23.27	.....	21.66	20.83	20.82	21.62	21.38	22.27	22.03
13	21.43	20.80	20.81	21.53	21.60	.....	22.00
14	21.42	20.98	20.89	21.69	21.64	.....	22.08
15	21.40	20.98	20.88	21.60	21.71	.....	21.99
16	21.38	20.85	20.84	21.68	21.53	.....	21.95
17	23.04	.....	21.37	20.79	20.92	21.84	21.63	.....	21.90
18	22.78	.....	21.41	20.73	.....	21.94	21.51	.....	21.87
19	22.85	22.62	.....	21.37	20.68	.....	21.82	21.60	.....	21.88
20	22.77	22.64	.....	21.41	20.61	20.92	21.72	21.74	21.90	21.86
21	22.81	22.65	.....	21.21	20.56	20.95	21.67	21.60	21.81	21.85
22	22.68	23.65	.....	21.26	20.75	20.80	21.60	21.73	21.72	21.93
23	22.70	22.70	.....	.....	20.67	20.72	21.67	.....	21.82	22.03
24	22.83	.....	.....	.....	20.80	.....	21.59	21.70	21.75	21.98
25	23.01	.....	.....	.....	20.95	.....	21.52	21.61	21.74	21.92
26	22.30	.....	.....	.....	21.20	20.90	.....	21.49	21.70	21.73	21.95
27	22.39	23.15	22.60	.....	21.13	20.88	.....	21.47	21.69	21.72	21.68
28	22.45	23.22	22.52	.....	20.93	20.85	21.41	21.45	21.79	21.72	21.70
29	22.55	23.18	22.47	.....	21.22	20.73	21.43	21.42	21.79	21.71	21.53
30	23.18	22.62	.....	21.44	20.72	21.36	21.41	21.75	21.73	21.50
31	23.17	.....	.....	.....	20.77	21.48	.....	21.74	.....	21.47

a Estimated.

Noble 7. Arthur McClellan. 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 former observation well Noble 3. Measurements made by Arthur McClellan. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	22.42	Feb. 29	21.57	Apr. 18	20.32	June 13	20.05
18	22.34	Mar. 8	21.20	25	20.31	20	20.12
25	22.23	14	21.06	May 3	21.38	July 4	20.37
Feb. 8	22.20	22	20.99	9	20.33	18	20.57
15	22.23	28	20.91	16	20.24	26	20.77
22	21.94	Apr. 4	20.65	June 6	20.16	Aug. 1	20.79

Noble 7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 8	20.89	Sept. 19	21.42	Nov. 2	21.46	Dec. 5	21.63
15	20.98	26	21.54	7	21.48	12	21.70
29	21.15	Oct. 3	21.62	14	21.53	19	21.72
Sept. 5	21.26	10	21.67	21	21.57	26	21.73
12	21.36	24	21.33	28	21.60		

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. Measurements made by Arthur H. Hannah. Records available: 1944-48.

Jan. 3	13.89	Apr. 3	4.14	June 26	11.57	Oct. 2	14.51
10	13.84	10	2.75	July 5	12.08	9	14.57
17	13.91	17	1.89	17	12.34	16	14.54
24	13.94	24	2.12	24	13.49	23	14.71
31	13.99	May 1	3.62	31	13.87	30	14.94
Feb. 2	14.02	8	5.17	Aug. 7	14.06	Nov. 6	14.88
14	13.52	15	5.35	21	14.29	13	14.84
21	12.76	22	6.19	28	14.36	20	14.79
28	9.86	29	8.35	Sept. 4	14.31	27	14.28
Mar. 6	7.57	June 5	9.14	11	14.40	Dec. 4	14.09
13	7.34	12	9.69	18	14.43	11	14.53
20	6.51	19	11.34	25	14.48	18	10.83
27	4.79						

Orange County

Orange 1. Herman D. Wininger. 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. Measurements made by Edward M. Couch and Merle C. Wilson. Records available: 1944-48.

Jan. 3	11.43	Apr. 7	0.35	June 16	5.20	Aug. 25	5.62
12	11.92	14	.26	23	7.23	Sept. 1	6.23
19	12.02	21	.23	30	7.23	2	8.69
26	12.42	28	.13	July 7	7.28	8	9.43
Feb. 2	12.72	May 6	.26	14	6.53	15	7.61
9	12.62	12	3.11	21	8.07	22	6.67
16	10.20	13	3.75	23	7.32	29	6.72
23	9.38	19	3.36	28	3.58	Oct. 13	6.18
Mar. 18	.89	26	4.21	Aug. 4	6.37	20	6.67
24	.70	June 2	2.38	11	10.45	28	10.38
31	.60	12	6.43	18	9.48		

Owen County

Owen 2. Agnes Stuckey. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 12 N., R. 4 W., at Lower Cataract Falls, near Cataract. Measurements made by Agnes Stuckey. Records available: 1946-48.

Jan. 1	18.34	Mar. 16	17.39	June 1	18.57	Aug. 18	20.40
8	18.20	23	10.40	9	18.69	25	21.18
15	18.70	30	11.90	15	18.59	31	21.48
21	18.83	Apr. 6	17.91	22	19.16	Sept. 8	20.48
27	19.04	13	15.01	29	17.86	15	21.36
Feb. 4	19.20	20	17.70	July 6	19.26	22	19.76
11	19.40	27	18.20	14	18.90	29	21.01
17	16.04	May 4	18.30	20	20.27	Oct. 6	21.10
25	16.50	12	15.67	28	19.87	12	21.01
Mar. 2	17.18	18	18.06	Aug. 3	18.35	20	18.99
9	18.31	25	18.38	10	19.60	27	21.80

Owen 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 3	19.21	Nov. 24	18.93	Dec. 8	19.11	Dec. 22	18.50
10	15.76	Dec. 1	19.05	15	13.45	29	16.01
17	18.63						

Owen 3. Ben Lambert. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 12 N., R. 4 W., about 2 miles west of Cataract. Measurements made by Glendon C. Bandy. Records available: 1946-48.

Jan. 1	108.85	Apr. 8	108.60	July 8	109.04	Oct. 7	109.11
8	103.84	15	108.61	15	109.04	14	109.18
15	108.93	22	108.80	22	109.01	21	109.20
22	108.70	29	108.77	29	109.01	29	109.15
29	108.90	May 6	108.61	Aug. 5	109.03	Nov. 4	109.00
Feb. 5	108.89	13	108.77	12	108.99	11	109.04
12	108.94	20	108.80	19	109.04	18	108.94
19	108.34	27	108.80	26	109.10	25	108.86
26	108.70	June 3	108.89	Sept. 2	109.16	Dec. 2	108.97
Mar. 4	108.60	10	108.77	9	109.11	9	108.89
11	108.60	17	108.88	16	109.23	16	108.86
18	108.47	24	108.94	23	109.11	23	108.92
25	108.50	July 1	109.02	30	109.17	30	108.88
Apr. 1	108.30						

Owen 4. Jackson Township School. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 12 N., R. 4 W., about 1 mile southwest of Cunot. Measurements made by Pauline P. Coffey. Records available: 1946-48.

Jan. 3	76.45	Apr. 5	77.40	July 5	79.58	Oct. 4	84.47
10	76.68	12	77.68	12	80.14	11	83.23
17	76.42	19	77.49	19	80.02	18	83.62
24	76.51	26	77.03	26	80.76	25	82.29
31	77.87	May 3	77.22	Aug. 2	80.29	Nov. 1	81.53
Feb. 9	78.73	10	77.31	9	80.56	8	81.74
16	76.46	17	77.44	16	80.81	15	80.70
22	75.69	24	77.33	23	80.89	22	79.03
Mar. 1	76.42	31	77.70	29	80.86	30	79.27
8	76.48	June 7	77.81	Sept. 7	80.74	Dec. 5	78.19
15	74.52	17	77.77	13	81.79	13	78.02
22	76.54	21	78.03	20	84.58	21	78.08
29	77.29	28	79.79	27	84.52	27	77.89

Owen 5. Ed Laudig. W $\frac{1}{2}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 12 N., R. 4 W., about 2.5 miles west of Cunot. Measurements made by Ed Laudig. Records available: 1946-48.

Jan. 3	6.25	Apr. 3	3.23	July 10	9.07	Oct. 2	8.99
10	5.87	12	1.76	17	8.88	9	10.77
17	6.94	17	2.55	24	10.45	16	10.81
24	6.32	24	4.59	31	7.88	23	10.74
31	7.24	May 1	4.80	Aug. 7	8.47	30	9.27
Feb. 7	8.10	8	3.89	14	8.37	Nov. 6	8.66
14	8.92	22	3.23	22	9.97	13	4.69
21	8.49	30	5.79	28	9.53	20	1.97
28	3.78	June 5	7.07	Sept. 4	9.77	27	3.37
Mar. 7	3.54	12	7.79	11	9.78	Dec. 4	3.37
13	3.27	19	6.73	18	10.07	11	4.63
20	1.91	26	7.82	24	10.07	25	3.46
27	1.54	July 3	8.81				

Owen 6. Ed Laudig. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 12 N., R. 5 W. Measurements made by Ed Laudig. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.36	Apr. 10	4.48	July 10	7.77	Oct. 2	9.57
10	4.07	17	4.94	17	7.95	9	7.55
24	6.14	24	6.07	24	7.29	16	8.56
31	6.85	May 1	5.76	31	6.09	23	8.38
Feb. 7	7.55	8	4.75	Aug. 7	7.32	30	7.73
14	7.54	22	6.41	14	7.75	Nov. 6	3.53
21	8.57	30	7.43	22	7.83	13	5.01
23	5.05	June 5	7.37	28	8.85	20	3.49
Mar. 7	2.83	12	7.98	Sept. 4	8.12	27	5.47
13	4.87	19	7.39	11	7.58	Dec. 6	6.23
20	3.43	26	8.38	18	8.33	11	5.58
27	3.28	July 3	7.87	24	8.46	25	5.46
Apr. 3	4.72						

Parke County

Parke 1. Donald C. Stutler. E $\frac{1}{2}$ SE $\frac{1}{4}$ sec. 3, T. 15 N., R. 8 W. Measurements made by Donald C. Stutler. Records available: 1945-48.

Jan. 1	4.85	Apr. 7	4.65	July 8	5.05	Oct. 7	5.38
8	4.96	14	4.80	15	5.02	14	5.38
15	5.00	21	5.05	22	5.05	21	5.16
22	5.10	28	5.20	29	5.10	28	5.01
29	5.14	May 6	5.12	Aug. 7	4.95	Nov. 4	4.92
Feb. 5	5.22	13	5.10	12	5.11	18	4.85
12	5.30	20	5.35	19	5.24	25	4.78
19	5.02	27	5.35	26	5.45	Dec. 2	4.85
26	4.90	June 3	5.42	Sept. 2	5.25	9	4.94
Mar. 4	4.95	10	5.35	9	5.37	16	5.10
11	4.87	17	5.28	16	5.46	23	4.98
18	4.77	24	5.14	30	5.32	30	4.85
25	4.55	July 1	4.98				

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. Measurements made by Charles E. Goffinet. Records available: 1944-48.

Jan. 4	3.40	Apr. 4	3.62	June 27	8.46	Oct. 10	9.17
11	4.43	11	3.24	July 4	8.46	17	6.50
18	4.36	18	3.48	11	8.92	24	6.80
25	5.49	25	5.01	18	8.35	31	9.02
Feb. 1	8.28	May 2	5.80	25	4.35	Nov. 7	3.24
8	6.09	9	5.47	Aug. 15	7.20	14	3.69
15	2.38	16	5.12	29	8.38	21	3.13
22	3.65	23	6.10	Sept. 5	8.63	28	2.80
29	2.61	30	7.92	12	8.79	Dec. 5	3.55
Mar. 7	2.79	June 6	7.65	19	9.01	12	3.01
14	3.73	13	7.80	26	9.09	19	2.99
21	2.79	20	8.20	Oct. 3	9.17	26	4.27
28	2.63						

Pike County

Pike 1. A. J. Huring. In Winslow, in front of residence at Lafayette and Main St. Measurements made by Howard Gayhart and Earl Barnett, Pike County State Forest. Records available: 1936-48.

Pike 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.1	Mar. 30	6.70	July 6	8.79	Oct. 5	9.44
7	8.6	Apr. 1	6.38	13	8.90	12	9.47
14	8.6	5	6.40	20	8.10	19	9.60
20	8.1	12	6.60	27	8.14	26	9.57
27	8.22	26	6.40	Aug. 3	7.60	Nov. 1	9.61
Feb. 5	8.5	May 4	7.00	10	7.68	9	8.70
10	8.5	11	7.10	17	7.70	16	8.27
17	8.1	18	6.90	24	8.40	23	7.74
24	7.8	25	6.80	31	8.77	30	7.40
Mar. 2	7.3	June 1	7.15	Sept. 7	7.90	Dec. 7	7.23
9	7.1	8	7.66	13	8.70	14	7.30
15	7.1	15	7.95	21	8.50	21	6.85
19	7.14	22	8.23	28	9.30	28	6.90
22	7.25	29	8.51				

Porter County

Porter 1. Valparaiso Water Dept. test well. At well 1 pumphouse at Flint Lake, about 3 miles north of Valparaiso, along State Highway 49. Measurements made by J. F. Bradley, engineer, Valparaiso Water Dept. Records available: 1931-33, 1935-48.

Jan. 11	52.80	Apr. 18	51.45	July 18	51.48	Oct. 3	53.20
18	52.25	25	51.40	25	51.83	10	53.60
25	52.10	May 3	51.30	Aug. 1	51.60	17	53.40
Feb. 1	51.95	9	51.30	8	51.85	24	53.50
8	52.20	16	51.30	15	51.70	31	53.90
15	51.95	24	51.25	22	52.45	Nov. 7	53.85
23	51.87	31	51.34	29	53.05	14	53.65
Mar. 14	51.82	June 6	52.14	Sept. 5	52.95	21	53.45
21	51.68	13	51.69	12	52.82	28	53.25
28	51.36	20	51.78	19	53.25	Dec. 12	53.30
Apr. 4	51.60	July 4	51.50	26	52.75	26	53.35
11	51.76	11	51.75				

Porter 3. Indiana Dunes State Park. At Waverly Beach, near grocery store on picnic ground. Measuring point, top of $1\frac{1}{2}$ -inch coupling, at land-surface datum. Measurements resumed July 3, 1948. Measured by Earl Wheeler, Chesterton. Records available: 1935-46, 1948.

July 2	14.62	Aug. 27	15.80	Oct. 9	16.35	Nov. 12	16.67
14	14.99	Sept. 3	15.97	16	16.45	19	16.97
Aug. 6	15.30	10	16.05	22	16.52	Dec. 3	16.80
13	15.47	24	16.18	29	16.59	11	16.85
20	15.67						

Porter 6. Indiana Associated Telephone Corporation. In Wheeler, in NE $\frac{1}{4}$ sec. 2, T. 35 N., R. 7 W., between State Highway 130 and school-house. Unused dug well, diameter 60 inches, depth 44.5 feet. Measuring point, top edge of pump floor, west side, 0.30 foot above land-surface datum. Measured by Leslie E. Abraham, Wheeler. Records available: 1948.

June 11	6.79	July 31	14.60	Sept. 26	21.48	Nov. 13	21.59
19	8.26	Aug. 7	16.07	Oct. 2	21.10	20	21.62
25	9.41	14	16.72	9	21.02	27	21.65
26	9.19	21	17.40	16	21.37	Dec. 4	21.37
July 3	10.81	28	18.93	23	21.40	11	22.03
10	11.96	Sept. 4	20.12	30	21.37	18	21.89
17	12.76	11	20.56	Nov. 6	21.58	25	21.37
24	13.73	18	21.76				

Posey County

Posey 2. Warren Wade Estate. Porter Cox, trustee. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 5 S., R. 12 W., at Civilian Conservation Corps camp site near Wadesville. Measurements made by Paul G. Wiggins and Kenneth O. Eisterhold. Poseyville. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	8.44	May 5	4.49	July 21	5.46	Oct. 6	7.24
11	8.43	12	4.62	28	5.41	13	7.76
18	8.1	19	4.67	Aug. 4	5.42	20	7.32
25	8.2	26	4.58	11	5.51	27	7.89
Feb. 1	7.3	June 2	4.82	18	5.48	Nov. 3	7.69
8	6.5	9	4.72	25	5.83	10	8.10
Apr. 2	5.34	16	4.89	Sept. 1	6.01	17	8.29
7	4.78	23	4.08	8	5.86	26	7.02
14	4.56	30	5.32	15	6.62	Dec. 8	6.76
21	4.50	July 7	5.22	22	6.56	15	5.81
28	4.44	14	5.32	29	6.22	29	5.52

Pulaski County

Pulaski 1. Jasper-Pulaski State Game Preserve. In basement of superintendent's residence. Measurements made by Frank Shortz, superintendent, Jasper-Pulaski State Game Preserve. Records available: 1935-42, 1944-48.

Jan. 5	8.30	Apr. 5	6.68	July 5	6.60	Sept. 20	8.78
14	8.11	19	6.54	12	6.87	27	9.17
27	8.44	26	6.69	19	7.22	Oct. 5	9.07
Feb. 2	8.47	May 4	6.65	26	7.28	11	9.05
9	8.71	10	6.27	Aug. 2	7.57	18	9.45
16	8.58	17	5.79	9	7.75	Nov. 23	8.90
23	8.55	24	6.14	16	7.86	29	8.80
Mar. 1	8.16	31	6.59	23	8.13	Dec. 6	8.78
8	8.71	June 7	6.61	30	8.28	13	8.86
15	7.64	14	6.65	Sept. 7	8.43	20	8.32
22	7.27	21	6.76	14	8.85	27	8.38
29	6.67	28	6.32				

Putnam County

Putnam 3. Frederic A. Danforth. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 12 N., R. 4 W., about 1 mile north of Cunot. Measurements made by Frederic A. Danforth. Records available: 1946-48.

Feb. 17	125.24	May 7	131.20	July 6	131.52	Sept. 6	131.98
24	125.01	11	131.20	14	131.37	Oct. 2	131.74
Mar. 2	124.33	18	130.90	26	131.37	12	130.98
9	124.29	25	131.20	Aug. 3	131.41	27	130.97
30	131.37	June 1	130.96	10	131.41	Nov. 27	130.72
Apr. 7	132.10	21	131.39	17	131.93	Dec. 11	130.90
20	131.66	25	131.41	24	132.01	14	130.90
30	131.40	29	131.31	31	132.02	30	131.43

Randolph County

Randolph 1. 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. Records available: 1942-48.

Randolph 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	14.21	Apr. 15	12.77	July 15	14.90	Oct. 15	16.55
31	14.69	30	13.79	31	15.24	31	16.41
Feb. 15	14.82	May 10	13.60	Aug. 15	15.57	Nov. 15	13.62
29	13.87	31	14.47	31	16.24	30	13.15
Mar. 15	13.65	June 15	14.57	Sept. 15	16.51	Dec. 15	12.96
31	12.66	30	14.61	30	16.67	31	13.17

Randolph 2. James A. Lane. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 19 N., R. 13 E., about 1 mile northeast of Huntsville. Measurements made by James A. Lane. Records available: 1946-48.

Jan. 3	7.90	Mar. 13	3.46	May 29	3.79	Aug. 14	8.75
10	7.79	20	3.12	June 5	5.83	21	8.22
17	6.35	27	.37	15	5.69	Sept. 4	8.90
24	6.30	Apr. 3	2.13	19	5.70	11	9.13
31	6.21	10	1.82	July 3	5.90	18	8.57
Feb. 7	6.00	17	2.02	10	5.98	25	9.83
14	5.86	May 1	3.98	17	6.30	Oct. 2	10.18
21	6.07	8	2.08	24	6.53	9	9.41
28	2.97	15	2.69	31	6.63	16	10.84
Mar. 6	2.63	22	3.60				

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. Measurements made by Cleve Fagan. Records available: 1944-48.

Jan. 3	11.20	Apr. 3	6.30	July 3	9.44	Oct. 2	12.21
10	10.90	10	5.40	10	10.33	9	12.47
17	10.22	17	6.00	16	10.22	16	11.80
24	10.70	24	5.24	24	9.94	23	12.54
31	9.70	May 1	5.41	31	10.38	30	12.22
Feb. 7	9.90	8	5.24	Aug. 7	11.22	Nov. 6	12.56
14	8.40	15	6.23	14	11.18	13	12.45
21	9.70	22	6.22	21	11.34	20	12.52
28	9.70	29	6.32	28	11.80	27	12.54
Mar. 6	9.90	June 5	8.70	Sept. 4	11.90	Dec. 4	12.53
13	8.90	12	8.90	11	12.29	12	12.53
20	8.20	19	9.29	18	12.21	18	12.29
27	7.20	26	9.37	25	12.23	25	12.43

Rush County

Rush 1. Wilbert H. Hahn. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 14 N., R. 10 E. Measurements made by Wilbert H. Hahn. Records available: 1945-48.

Jan. 9	4.47	Mar. 26	2.49	June 25	6.47	Sept. 24	8.77
16	4.75	Apr. 9	2.05	July 2	6.62	Oct. 8	9.25
23	5.60	16	2.68	9	6.80	29	10.03
30	5.46	23	3.82	18	7.03	Nov. 5	9.24
Feb. 6	6.13	30	5.04	23	6.93	15	8.22
13	6.48	May 14	4.28	Aug. 13	7.02	20	6.80
27	7.12	21	5.07	20	7.17	26	6.74
Mar. 5	4.42	28	5.96	27	7.54	Dec. 10	6.30
12	4.41	June 4	5.91	Sept. 3	7.79	17	5.09
19	2.64	18	6.15	10	8.02	24	5.30

St. Joseph County

St. Joseph 1-29. Mishawaka Water & Light Dept. In Mishawaka, at pumping plant. Measurements made by A. R. Klein, superintendent, Mishawaka Water & Light Dept. Records available: 1935-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.83	Apr. 18	9.67	July 16	11.57	Oct. 15	11.58
17	10.34	May 1	10.34	Aug. 2	9.75	Nov. 1	11.34
Feb. 15	11.08	15	6.75	8	10.50	15	11.32
Mar. 1	8.59	31	9.67	Sept. 4	11.32	Dec. 1	10.67
15	9.75	June 15	10.58	15	12.84	15	9.35
Apr. 1	6.92	July 1	11.08	Oct. 1	11.42	31	9.75

St. Joseph 4T-2. City of South Bend. On east curb line of Lombardy Dr., 1 block south of Sample St., 900 block. Measurements made by John J. Micinski city engineering dept. Records available: 1945-48.

Apr. 23	6.50	Aug. 24	8.21	Oct. 12	8.68	Nov. 23	8.94
May 27	6.36	31	8.58	19	8.68	30	8.80
June 24	6.92	Sept. 7	8.50	26	8.72	Dec. 7	8.97
July 27	7.73	14	8.62	Nov. 2	8.82	14	8.88
Aug. 3	7.78	21	8.65	9	8.72	21	8.79
10	7.81	28	8.62	15	8.68	28	8.78
17	8.05	Oct. 5	8.54				

St. Joseph 10-2. City Dairy Co. In South Bend, on South Main St., about 175 feet west of centerline of Main St. and 14 feet north of centerline of east-west alley, 4 feet inside building. Measurements made by Webster H. Gray. Records available: 1946-48.

From recorder charts

Jan. 9	36.17	Sept. 5	36.12	Nov. 21	37.47	Dec. 7	37.63
10	36.16	6	36.14	22	37.49	8	37.64
11	36.19	7	36.16	23	37.49	18	37.72
12	36.20	8	36.19	25	37.50	19	37.72
13	36.21	Oct. 16	37.21	26	37.51	20	37.73
14	36.23	17	37.24	27	37.52	21	37.73
15	36.24	18	37.25	28	37.53	22	37.74
Aug. 27	35.98	19	37.27	29	37.54	23	37.74
28	36.00	20	37.30	30	37.54	24	37.74
29	36.01	21	37.32	Dec. 1	37.57	25	37.74
30	36.02	22	37.35	2	37.58	26	37.74
31	36.04	Nov. 17	37.44	3	37.59	27	37.74
Sept. 1	36.05	18	37.45	4	37.60	28	37.74
2	36.06	19	37.45	5	37.61	29	37.74
3	36.08	20	37.46	6	37.62	30	37.75
4	36.10						

St. Joseph 16-1. Singer Manufacturing Co. In South Bend, at Olive St. and Western Ave. Measurements made by personnel of Singer Manufacturing Co., J. R. Kerr, chief engineer. Records available: 1944-48.

Jan. 5	29.1	Apr. 5	28.30	July 5	28.40	Oct. 4	29.35
12	30.16	12	27.60	12	28.60	11	28.94
19	28.97	19	28.40	19	29.42	18	29.32
26	28.87	26	28.90	26	30.10	25	29.20
Feb. 2	28.94	May 3	29.00	Aug. 2	29.20	Nov. 1	28.90
9	29.19	10	28.40	9	28.58	8	29.36
16	29.21	17	28.03	16	29.61	15	29.40
23	29.01	24	29.01	23	28.86	22	29.00
Mar. 1	29.42	31	28.98	30	29.03	29	29.20
8	28.40	June 7	28.00	Sept. 6	30.10	Dec. 6	29.10
15	29.53	14	28.67	13	30.40	13	29.58
22	29.27	21	28.40	20	29.94	20	29.30
29	28.02	28	28.53	27	29.90	26	29.50

St. Joseph 22. Palace Theater. In South Bend, at Colfax Ave. and Michigan St., west well in basement of theater. Measurements made by O. A. Lambert, engineer, Palace Theater. Records available: 1944-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.06	33.18	31.50	31.93	34.10	36.55	37.78	43.08	44.74	37.51	34.00	33.58
2	31.47	31.57	32.34	32.50	34.58	38.28	38.43	41.20	.....	38.27	34.00	34.63
3	31.21	32.14	32.58	32.89	32.35	40.70	38.35	41.88	44.92	37.54	34.72	35.62
4	30.97	32.93	32.89	32.31	33.13	42.56	39.19	42.98	45.33	34.85	35.10	36.00
5	30.73	33.47	33.25	31.54	33.28	44.00	38.85	40.60	44.75	36.12	35.40	34.58
6	31.50	33.98	33.28	31.72	33.45	41.80	36.63	39.20	42.50	36.98	35.46	35.90
7	31.96	34.10	32.56	32.36	.....	37.08	38.50	39.04	39.60	36.54	34.98	34.08
8	32.45	32.75	31.67	32.78	33.93	36.00	40.39	39.40	40.11	36.77	33.32	34.37
9	32.28	31.80	31.95	33.44	33.32	36.12	42.41	37.30	40.30	37.08	33.27	35.51
10	32.62	32.85	31.97	33.65	32.48	36.75	43.93	.....	40.20	35.92	33.88	35.92
11	31.86	33.33	32.07	32.86	32.50	37.93	43.95	.....	39.63	33.92	35.08	36.09
12	31.03	33.13	32.76	31.25	32.65	39.47	42.57	.....	39.05	34.68	35.69	35.43
13	31.55	33.32	33.05	31.64	33.27	38.25	43.57	41.70	37.90	35.55	35.83	34.50
14	32.07	33.64	33.20	32.26	33.34	35.68	44.54	42.18	39.97	35.92	34.00	35.59
15	32.82	33.32	32.05	32.07	34.25	36.30	44.56	41.75	40.82	36.27	32.76	36.29
16	33.13	32.05	31.90	32.14	33.53	37.45	45.10	39.50	41.38	36.02	33.50	35.73
17	33.46	.....	32.62	32.00	32.23	38.25	45.40	40.54	42.42	35.44	33.59	36.05
18	33.11	.....	33.17	32.10	33.13	39.32	44.60	41.68	43.45	33.60	33.45	35.79
19	31.50	.....	33.52	31.05	33.30	40.00	41.83	42.23	41.95	34.33	34.00	34.50
20	31.71	.....	33.07	31.47	34.22	39.20	43.22	42.65	40.65	34.78	34.07	33.08
21	32.57	33.11	32.38	32.27	34.32	37.73	44.84	42.94	40.05	35.08	34.21	34.91
22	32.75	33.18	31.07	32.68	35.18	37.58	43.90	42.96	39.07	36.17	31.95	35.98
23	33.31	31.70	31.30	33.15	35.31	38.65	42.38	42.18	38.00	36.16	32.54	36.48
24	33.44	32.85	31.77	34.38	34.75	39.28	40.93	42.91	38.17	35.47	33.13	35.98
25	32.63	33.40	32.50	33.47	34.98	39.85	39.75	44.81	36.74	34.00	33.50	36.10
26	31.78	33.72	32.90	32.92	35.71	40.88	.....	45.75	35.92	34.70	32.68	34.04
27	31.62	33.98	32.04	35.24	37.46	40.35	.....	46.38	34.25	34.69	32.37	32.12
28	32.23	33.49	32.27	35.60	38.56	36.90	.....	46.92	36.04	35.03	32.10	32.65
29	31.68	32.98	31.23	34.85	39.27	37.87	.....	46.59	37.25	35.36	31.50	34.22
30	32.36	.....	31.68	34.35	38.33	38.50	41.63	45.09	37.99	35.51	32.42	34.00
31	32.68	.....	31.97	.....	36.58	.....	42.57	44.30	.....	35.38	.....	34.50

a Estimated.

St. Joseph 53. St. Mary's Convent, Holy Cross. About half a mile west of U. S. Highway 31, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 38 N., R. 2 E., 3 feet south and 118.5 feet west of southwest corner of power house. Measurements made by Thomas Bowland. Records available: 1945-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.45	6.00	.....	.....	7.30	4.10	4.26	8.10	9.00	5.31	5.80	6.85
2	6.13	5.92	.....	.....	4.10	4.03	5.60	8.40	5.62	5.55	5.33	6.90
3	5.98	5.75	.....	4.60	4.06	6.60	6.90	8.64	8.30	5.26	5.40	6.97
4	6.26	5.85	.....	3.83	4.11	7.90	4.27	5.20	8.80	5.50	5.36	6.80
5	6.25	6.17	.....	3.89	7.68	7.80	4.27	4.85	5.55	5.55	5.44	6.60
6	6.38	6.11	4.20	3.93	4.16	7.77	6.81	4.87	8.30	5.37	5.55	6.80
7	6.58	6.08	.....	3.96	4.02	7.10	4.00	4.88	5.46	5.37	5.34	7.05
8	5.65	6.07	.....	3.96	7.35	6.60	5.60	3.95	6.40	5.38	6.50	6.80
9	5.43	5.98	.....	4.34	6.85	7.20	7.10	4.08	8.74	5.40	5.45	6.70
10	5.64	5.92	.....	6.35	6.60	4.58	4.85	3.91	5.58	8.35	8.70	6.75
11	5.44	6.13	.....	4.30	4.45	4.43	4.90	4.60	8.10	5.54	5.38	6.50
12	5.53	5.98	.....	4.31	3.33	7.60	4.76	3.20	5.39	8.80	5.34	6.15
13	5.29	7.55	.....	5.90	3.35	4.46	4.90	3.87	6.60	5.40	8.30	5.93
14	5.67	7.35	.....	4.28	2.97	4.38	8.10	7.40	5.90	5.35	.....	5.93
15	5.40	6.56	.....	4.30	3.03	4.46	8.25	4.98	6.60	5.60	.....	6.10
16	5.62	6.05	.....	4.10	2.95	4.60	7.40	8.50	5.50	8.70	.....	6.23
17	5.85	6.08	.....	4.60	3.05	4.46	4.75	7.60	5.34	7.10	.....	6.25
18	5.63	6.05	.....	4.35	3.18	4.41	4.74	5.00	5.34	4.80	.....	5.83
19	5.48	5.97	.....	4.10	3.33	4.50	4.78	5.07	5.60	4.30	.....	5.70
20	5.35	5.71	.....	4.55	3.27	7.95	5.20	8.10	5.90	4.50	.....	5.60
21	5.73	5.45	6.04	7.53	3.25	8.10	4.93	5.01	9.10	7.60	6.30	5.90
22	5.85	.....	6.15	4.15	6.83	4.60	4.81	5.16	7.60	4.55	6.10	5.80
23	5.79	.....	5.77	5.35	5.60	4.60	4.30	8.10	5.36	4.60	6.25	5.80

a Tape measurement.

St. Joseph 53--Continued.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	5.86	....	5.63	6.85	4.40	4.60	5.63	8.78	5.34	9.00	6.30	6.75
25	5.80	....	5.21	3.87	3.62	4.68	4.85	8.75	8.68	5.55	5.94	7.40
26	5.82	....	4.53	7.30	3.87	8.05	5.00	8.90	5.26	5.80	6.10	7.30
27	5.72	....	4.35	3.80	4.50	4.46	4.94	5.40	5.65	5.50	6.04	7.30
28	5.75	a4.85	....	6.10	3.81	4.30	5.05	5.40	5.43	5.70	6.05	7.70
29	5.75	....	....	4.35	3.76	4.40	4.96	9.25	5.48	5.40	7.00	5.50
30	5.15	....	....	4.95	4.60	4.40	4.97	5.75	6.60	5.50	7.04	6.10
31	5.81	....	....	....	4.28	....	8.20	5.85	....	5.40	....	....

a Tape measurement.

St. Joseph 85. New Jersey, Indiana, and Illinois Railroad. In South Bend, near intersection of Indiana Ave. and Olive St., in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 37 N., R. 2 E. Automatic water-stage recorder installed July 28, 1948. Measurements made by Don L. Henry. Records available: 1945-48.

From recorder charts

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.36	14.35	14.36	14.70	14.87
2	13.39	14.34	14.37	....	14.88
3	13.42	14.34	14.39	14.71	14.88
4	13.46	14.34	14.40	14.73	14.89
5	14.35	14.40	14.74	14.89
6	14.34	14.41	14.74	14.90
7	14.33	14.42	14.75	14.91
8	14.32	....	14.76	14.91
9	14.31	....	14.77	14.91
10	14.30	14.37	14.77	14.92
11	14.29	14.37	14.78	14.93
12	14.29	14.38	14.78	14.94
13	14.29	14.39	14.79	15.01
14	14.29	14.40	14.79	15.02
15	14.30	14.41	....	15.02
16	14.30	14.42	....	15.03
17	14.30	b14.44	....	15.04
18	14.31	....	....	15.04
19	14.31	14.45	....	15.05
20	14.31	14.46	....	15.00
21	14.32	14.46	....	15.00
22	14.32	14.47	14.85	15.00
23	a12.22	....	....	....	....	b14.34	14.48	14.85	b15.01
24	a12.55	....	....	14.36	14.49	14.85	b15.02
25	14.36	14.50	14.86	b15.02
26	14.36	14.60	14.86	b15.02
27	a12.02	....	....	14.15	14.36	14.61	14.86	b15.02
28	a13.25	14.20	14.35	14.63	14.86	....
29	13.25	14.28	14.35	14.66	b14.85	....
30	13.29	14.31	14.36	14.68	14.86	....
31	13.32	14.34	....	14.69	....	....

a Tape measurement.

b Estimated.

St. Joseph 39. Mr. Morgan. In South Bend, about $1\frac{1}{2}$ blocks west of Ironwood Dr. and half a block south of U. S. Highway 20. Measurements made by Ved D. Morgan, city engineering department. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 23	43.05	July 29	44.15	Sept. 30	45.75	Nov. 18	45.85
May 27	43.26	Aug. 5	44.05	Oct. 7	45.00	25	41.95
June 24	43.24	12	44.35	14	45.05	Dec. 2	45.30
July 1	43.20	19	44.95	21	45.15	8	45.50
8	45.80	25	45.44	28	45.10	16	45.40
15	44.40	Sept. 2	45.80	Nov. 4	45.25	23	45.60
22	44.10	16	45.60	11	45.30	30	45.45
27	43.49	23	45.00				

Scott County

Scott 1. Scottsburg Water Dept. well 3. Near northeast corner of intersection of Hyland and Thomas Sts. Measurements made by John A. Robbins, superintendent, Scottsburg Water Dept. Records available: 1942-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	26.17	27.24	21.90	21.60	21.20a	23.94	23.71	24.06	.....	27.36	27.69	22.71
2	25.93	27.62	23.29	22.43	21.29	24.29	23.85	24.13	27.49	27.41	.....	23.22
3	25.98	27.21	23.10	22.98	21.44	24.23	23.63a	24.08	27.42	27.45	.....	23.32
4	25.70	27.10	24.23	22.92	21.38	24.82	23.77	.....	27.42	27.37	.....	23.55
5	25.93	27.30	22.72	22.13	22.37	25.24	24.46	24.24	27.42	27.29	.....	23.45
6	25.71	27.27	21.87	22.27	23.14	24.47a	23.40	24.20	27.27	27.33	.....	23.92
7	25.83	27.17	21.28	22.12	22.00	24.13	.....	24.12a	27.05	27.33	.....	23.24
8	25.74	27.32	20.35	20.81	21.95a	23.59	24.53	24.09	26.82	27.33	.....	23.36
9	25.73	27.29a	20.92	19.53	22.87	24.03	24.63	24.08	26.84	27.46	26.99	23.91
10	26.08	27.28	23.31	18.95	21.35	23.93	24.63a	24.05	27.44	27.49	27.00	24.24
11	26.25	27.25	22.82	19.30	22.44	23.62	24.59	.....	27.47	27.53	27.02	23.90
12	25.77	27.24	22.90	18.67	22.54	23.52	24.65	.....	27.43a	27.53	26.81	23.50
13	26.24	27.23	22.97	20.65	22.40	23.88a	24.72	.....	27.45	27.48	26.52	22.75
14	26.21	27.19	22.55	17.70	22.48	23.70	24.69	.....a	27.41	27.54	26.62	23.65
15	26.24	27.41	21.00	13.47	22.47	23.45	24.61	.....	27.53	27.63	26.42	23.25
16	26.31	27.13	22.12	18.35	22.55	23.53	24.51	.....	27.29	27.66a	26.40	21.98
17	26.53	27.01	21.79	13.85	21.04	23.28	24.54	.....	27.63	27.75	26.67	21.87
18	26.52	26.28	21.78	18.96	22.00	23.48	24.26	.....	27.64	27.64	26.64	21.74
19	26.45	25.78	21.53	19.13	22.23	23.47	24.41	.....	27.64	27.47	26.21	21.71
20	26.49	.....	21.58	19.53	22.57	23.73a	24.15	.....	27.62	27.70	25.10	22.11
21	26.37	.....	21.64	20.78	22.69	23.53	24.13	.....a	27.55	27.81	24.60a	22.38
22	26.47	.....	20.73	20.71	23.56a	23.68	23.99	.....	27.35	27.84	23.45	22.57
23	26.82	.....	20.33	20.59	.....	.....	23.72	.....	27.41	27.72a	22.85	22.55
24	26.76	25.30	20.33	20.80	.....	.....	24.06	.....	27.47	27.76	.....	22.40
25	26.91	25.02	21.05	20.95	.....	24.66	24.03	.....	27.54	27.68	.....	22.25
26	26.38	24.93	21.74	19.55	23.23	24.46	23.80	.....	27.52	27.68	.....	22.16
27	26.36	23.13	20.91a	20.90	23.26	23.83	24.03	.....	27.43	27.71	.....	21.00
28	27.05	23.34	21.35	.....	23.28	23.79	23.96	.....	27.30	27.71	.....	22.32
29	26.98	23.57	21.32	21.15	23.06	23.73	23.30	.....	27.30	27.70	.....	22.25
30	27.08	.....	21.82	21.33	23.60	23.13	23.71	.....	27.34	27.38	22.77	22.25
31	27.12	.....	21.76	.....	23.90	.....	23.83	.....	.....	27.63	.....	21.98

a Estimated.

Shelby County

Shelby 1. Clarence Milner. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 13 N., R. 6 E., about half a mile south of Fairland. Measurements made by Clarence C. Milner. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	10.56	Apr. 4	6.80	July 4	9.23	Oct. 2	9.83
12	9.27	11	6.76	11	9.34	10	9.88
18	9.33	18	6.10	18	9.32	17	9.84
25	9.40	25	6.69	25	8.17	24	9.73
Feb. 1	9.56	May 5	7.25	Aug. 1	8.46	Nov. 7	9.46
7	9.57	9	7.44	8	8.73	14	9.18
15	9.38	16	7.67	15	8.70	21	8.98
23	9.57	23	7.70	22	9.17	28	8.70
29	9.07	30	8.28	29	9.33	Dec. 5	8.52
Mar. 7	9.03	June 6	8.50	Sept. 5	9.49	12	8.65
14	8.98	13	8.76	12	9.59	19	8.40
21	8.86	20	8.91	19	9.70	26	8.35
28	6.71	27	9.09	26	9.76		

Spencer County

Spencer 4. 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. Measurements made by Raymond J. F. Meier. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.82	Apr. 3	3.20	July 3	15.46	Oct. 2	17.43
10	8.09	10	3.61	10	18.02	9	17.42
17	7.59	17	3.50	17	17.92	16	17.41
24	7.68	24	4.46	24	17.82	23	17.35
31	7.08	May 1	4.83	31	17.84	30	17.35
Feb. 7	6.97	8	5.11	Aug. 7	17.70	Nov. 6	17.08
14	2.06	15	5.30	14	17.64	13	15.25
21	2.83	22	5.44	21	17.84	20	2.98
28	2.97	29	5.92	28	17.86	27	2.82
Mar. 6	2.18	June 5	7.12	Sept. 4	17.73	Dec. 4	2.81
13	3.20	12	8.76	11	17.59	11	2.82
20	3.02	19	10.72	20	17.88	18	2.78
27	2.92	26	12.46	27	17.51	25	3.17

Spencer 5. Lincoln State Park. In Lincoln City, in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 4 S., R. 5 W., at caretaker's house. Measurements made by C. F. Heady and Edward Ayers. Records available: 1944-48.

Jan. 9	31.56	Mar. 18	30.14	May 24	29.46	Aug. 11	30.84
14	31.53	24	29.46	27	29.58	18	30.94
21	31.49	30	27.69	June 4	29.82	Nov. 3	31.49
29	31.66	Apr. 7	28.84	14	30.06	10	31.46
Feb. 4	31.65	14	24.31	16	30.14	17	31.42
18	31.30	22	27.93	24	30.29	24	31.27
25	31.33	29	28.86	July 1	30.41	Dec. 2	31.18
Mar. 4	30.83	May 6	28.99	16	30.59	29	30.83
10	30.61	13	29.04	22	30.68		

Spencer 6. Lincoln State Park. In Lincoln City, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 5 S., R. 5 W., about 300 feet southwest of memorial building in pump-house. Measurements made by C. F. Heady and Edward Ayers. Records available: 1944-48.

Jan. 9	26.21	Mar. 4	24.24	Apr. 22	22.74	Nov. 3	27.46
14	26.09	10	23.92	29	23.19	10	28.06
21	25.81	18	23.62	May 6	23.60	17	27.23
29	25.93	24	23.34	13	23.91	24	26.49
Feb. 4	26.07	30	22.91	24	24.28	Dec. 2	25.77
19	25.17	Apr. 7	22.98	27	24.52	29	24.75
25	24.99	14	22.74				

Spencer 7. Lincoln State Park. In Lincoln City, in 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. Measurements made by Raymond J. F. Meier. Records available: 1944-48.

Jan. 3	9.26	Apr. 3	1.68	July 3	8.08	Oct. 2	9.29
10	9.27	10	1.69	10	8.13	9	9.29
17	8.81	17	2.81	17	8.18	16	9.29
24	9.13	24	2.86	24	8.58	23	9.27
31	9.08	May 1	2.87	31	8.69	30	9.27
Feb. 7	9.08	8	2.87	Aug. 7	8.70	Nov. 6	10.09
14	8.42	15	2.92	14	8.71	13	10.08
21	8.42	22	4.10	21	8.70	20	8.92
28	6.86	29	5.82	28	9.08	27	10.09
Mar. 6	6.85	June 5	6.08	Sept. 4	9.09	Dec. 4	8.47
13	6.24	12	7.78	11	9.11	11	8.47
20	6.24	19	7.92	20	9.10	18	7.52
27	1.66	26	8.06	27	9.32	25	7.52

Spencer 8. Lincoln State Park. In Lincoln City, in 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 northeast of Spencer 7, near east boundary of park. Measurements made by Raymond J. F. Meier. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.01	Apr. 3	2.86	July 3	4.62	Oct. 2	7.22
10	7.08	10	2.86	10	4.68	9	7.22
17	7.18	17	2.16	17	4.71	16	7.22
24	7.04	24	2.20	24	5.87	23	7.20
31	6.38	May 1	2.22	31	5.92	30	7.20
Feb. 7	6.32	8	2.24	Aug. 7	5.92	Nov. 6	7.31
14	5.08	15	2.32	14	5.92	13	7.30
21	5.08	22	3.16	21	5.92	20	7.24
28	5.35	29	3.41	28	6.68	27	7.31
Mar. 6	5.32	June 5	3.42	Sept. 4	6.68	Dec. 4	7.14
13	6.51	12	3.97	11	7.01	11	7.14
20	6.48	19	4.27	20	6.66	18	6.86
27	2.84	26	4.62	27	7.23	25	6.86

Starke County

Starke 2. 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 Ernest Warkentien, Bass Lake State Fish Hatchery. Records available: 1935-48.

Jan. 2	3.12	Apr. 8	2.31	July 15	4.11	Oct. 14	5.36
8	3.06	15	2.87	22	2.07	19	5.07
15	3.17	22	3.33	29	3.66	21	5.08
22	3.34	28	3.57	Aug. 5	3.74	28	5.08
29	3.69	May 6	3.37	12	4.49	Nov. 4	4.86
Feb. 5	3.88	13	2.23	19	4.54	11	4.57
12	3.94	20	3.03	26	4.59	18	4.46
19	3.29	27	3.46	Sept. 2	5.09	26	4.53
26	2.47	June 3	3.71	9	4.95	Dec. 4	4.57
Mar. 4	3.03	10	3.79	16	5.03	9	4.62
11	3.22	18	3.94	23	5.13	16	3.81
18	3.06	24	3.56	Oct. 1	5.08	23	3.91
25	2.36	July 1	3.67	7	5.29	30	3.86
Apr. 1	2.18	8	4.08				

Starke 11. David Bergstrom. In Groverton, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 34 N., R. 1 W., 300 feet south of church, 100 feet east of road. Unused jetted well, diameter $1\frac{1}{2}$ inches, depth 67 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum. Measured by Jacob Kuchel, Groverton. Records available: 1948.

July 1	15.51	Aug. 3	16.03	Sept. 7	15.58	Oct. 15	17.60
9	15.69	10	16.14	14	16.92	Nov. 7	17.25
27	15.92	18	16.03	23	13.58		

Steuben County

Steuben 1. 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 M. B. Cooper, Pokagon State Park. Records available: 1935-48.

Jan. 3	1.47	Mar. 6	0.68	May 8	0.17	June 26	1.27
17	1.49	13	.75	15	+.20	July 3	1.50
31	2.08	20	.20	22	.24	17	1.92
Feb. 7	2.10	27	+.33	29	.88	24	2.10
21	.99	Apr. 17	.32	June 5	.60	31	2.32
25	.93	24	.34	12	.87	Aug. 7	2.58
28	.90	May 1	.45	19	1.12	14	2.68

Steuben 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 21	2.86	Sept. 25	3.99	Oct. 30	4.25	Dec. 4	3.66
28	2.52	Oct. 2	2.66	Nov. 13	3.98	11	3.72
Sept. 4	3.51	9	3.46	20	3.67	18	3.16
11	3.70	16	4.00	27	3.62	25	3.03
18	3.78						

Steuben 2. 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 M. B. Cooper, Pokagon State Park. Records available: 1936-48.

Jan. 3	4.24	Apr. 24	1.29	July 17	4.43	Oct. 2	6.35
17	4.28	May 1	1.73	24	4.62	9	6.44
31	4.27	8	1.40	31	4.90	16	6.42
Feb. 7	4.26	15	.77	Aug. 7	5.06	30	6.45
21	2.98	22	1.25	14	5.25	Nov. 13	6.44
25	2.89	29	2.35	21	5.39	20	6.33
28	2.85	June 5	2.12	28	5.66	27	6.18
Mar. 6	1.97	12	2.72	Sept. 4	5.92	Dec. 4	6.24
13	2.12	19	3.23	11	6.15	11	6.31
20	1.17	26	3.50	18	6.20	18	6.05
27	2.19	July 3	3.91	25	6.30	25	5.86
Apr. 17	1.26						

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. Measurements made by John R. Howard. Records available: 1944-48.

Jan. 3	11.79	Feb. 27	7.06	July 22	8.82	Sept. 26	10.53
9	7.86	Mar. 5	6.79	Aug. 8	7.70	Nov. 4	11.08
16	7.64	14	4.45	15	8.49	22	4.92
23	7.79	19	4.08	23	10.03	28	2.95
30	9.10	Apr. 1	2.37	29	9.47	Dec. 5	5.36
Feb. 6	9.76	8	2.36	Sept. 6	9.75	12	1.94
13	9.69	15	2.37	12	9.77	19	4.67
20	9.54	May 14	4.98	19	10.66		

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 north side of State Highway 250. Measurements made by Nellie M. Walker. Records available: 1944-48.

Jan. 2	16.90	Apr. 5	8.60	July 10	17.05	Oct. 9	20.44
10	14.70	10	8.55	17	16.25	16	20.76
17	13.00	17	3.55	24	12.45	25	20.36
24	15.80	24	9.00	31	13.70	30	20.32
31	16.20	May 1	12.60	Aug. 7	14.20	Nov. 6	17.62
Feb. 6	15.65	8	13.20	14	15.36	14	16.96
14	13.70	15	14.25	22	16.32	20	15.57
21	10.60	22	15.15	28	17.05	26	14.82
28	3.75	29	16.00	Sept. 4	17.64	Dec. 4	11.10
Mar. 6	7.35	June 6	16.55	11	18.08	11	13.35
13	8.70	12	16.85	18	18.92	20	6.34
20	7.35	19	17.05	26	19.70	26	9.62
27	6.30	July 4	16.95	Oct. 2	20.10		

Tippecanoe County

Tippecanoe 4. Lafayette Water Dept. well 7. At city well field, Canal St. at Tippecanoe St. (extended), on east bank of Wabash River. Measurements made by Norman Todd. Records available: 1944-48.

From recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sent.	Oct.	Nov.	Dec.
1	.....	13.64	2.78	3.43	11.04	.....	17.35	19.12	20.12	19.92	15.60	14.25
2	.....	13.66	3.03	9.43	11.36	.....	16.95	15.00	20.13	20.01	16.00	14.40
3	.....	13.77	4.98	4.75	11.15	.....	17.50	19.23	21.70	16.05	15.77	14.35
4	.....	13.90	6.74	5.30	11.06	.....	16.60	19.40	20.20	15.45	15.99	14.15
5	.....	13.82	7.70	6.36	10.72	13.80	12.60	15.50	20.20	20.02	15.74	14.20
6	.....	.....	8.42	6.85	10.45	14.80	17.45	15.70	19.97	20.13	15.00	14.25
7	.....	13.92	9.13	6.43	10.20	18.00	17.80	19.42	19.96	19.86	14.30	14.70
8	.....	13.95	9.56	....	8.75	15.81	18.15	15.20	19.96	20.23	13.75	14.55
9	.....	14.00	10.00	....	5.00	16.00	18.10	15.20	19.99	20.18	13.43	15.00
10	11.00	14.35	10.42	1.12	....	17.23	19.15	18.60	19.99	15.72	13.66	15.10
11	10.20	14.30	11.00	2.03	....	18.30	19.30	19.55	16.35	15.75	14.00	14.85
12	9.82	14.20	11.14	4.01	....	18.00	18.90	19.27	16.20	19.94	14.15	15.20
13	10.39	14.40	11.55	4.25	....	17.66	19.05	19.34	19.95	16.50	14.00	14.90
14	11.00	13.96	12.05	2.50	....	16.30	19.05	20.57	20.11	20.00	13.88	15.00
15	all.25	13.75	11.82	1.70	3.34	17.70	18.90	20.54	16.20	20.00	13.90	14.90
16	11.50	13.04	11.50	.05	4.15	17.46	19.05	15.13	19.71	20.00	14.00	14.80
17	.....	12.10	11.00	.36	5.03	18.60	18.00	20.50	15.54	15.50	14.11	12.50
18	.....	9.56	10.12	2.51	6.35	18.63	18.50	20.54	21.85	19.22	14.44	10.70
19	.....	13.40	10.00	4.27	7.06	.....	19.50	19.23	20.35	16.50	14.24	10.00
20	.....	8.72	8.44	....	8.18	18.04	19.60	19.62	20.42	19.94	14.55	10.30
21	.....	9.57	6.78	....	8.90	17.80	19.52	19.95	20.12	19.50	14.45	11.00
22	.....	10.22	4.98	....	9.96	17.90	18.62	19.08	19.46	19.96	13.53	11.85
23	.....	10.88	1.60	....	10.66	17.47	18.64	14.64	15.35	19.93	13.00	12.35
24	12.50	11.40	-1.46	8.90	11.03	18.66	18.16	19.30	19.64	15.45	13.32	12.20
25	12.48	11.70	.....	9.18	11.36	18.60	17.59	19.14	19.79	15.60	13.72	12.50
26	12.53	16.50	.....	9.42	11.05	18.20	18.50	19.92	15.83	16.30	13.42	12.40
27	12.70	12.45	1.48	9.91	.....	17.46	18.40	19.38	16.10	16.20	13.98	12.75
28	12.84	11.50	.45	10.40	.....	15.53	13.70	20.92	19.90	19.96	13.95	13.00
29	13.29	5.30	-.72	10.64	12.07	15.91	18.41	19.97	15.80	20.00	.....	13.10
30	13.21	.....	-.05	10.76	.....	13.23	18.35	19.91	16.55	20.05	14.08	9.00
31	13.65	.....	1.80	.....	.....	.....	19.15	20.02	.....	15.58	.....	.....

a Estimated.

Tippecanoe 5. Fairfield Manufacturing Co. In Lafayette, in main building, Earl Ave. and Wallace St. Measurements made by personnel of Fairfield Manufacturing Co., C. C. Crook, chief engineer. Records available: Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	88.91	Apr. 5	88.42	July 6	88.39	Oct. 4	88.62
12	88.40	12	88.55	12	88.45	11	88.51
19	88.53	19	88.49	19	88.55	18	88.79
26	88.80	26	88.47	26	88.35	25	88.65
Feb. 2	88.57	May 3	88.75	Aug. 2	88.70	Nov. 1	88.58
9	88.81	10	88.59	9	88.58	9	88.26
16	88.58	17	88.39	16	88.55	16	88.44
23	88.69	24	88.55	23	88.54	22	88.64
Mar. 1	88.81	June 1	88.68	Sept. 7	89.41	Dec. 7	88.66
8	88.53	7	88.45	13	88.75	14	88.77
15	88.20	14	88.59	20	88.39	20	88.32
22	88.62	21	88.35	27	88.71	27	88.41
29	88.32	28	88.45				

Tippecanoe 7. State of Indiana, Purdue University. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 23 N., R. 5 W., at research housing pump house. Measurements made by Norman Todd, West Lafayette. Records available: 1945-48.

From recorder charts						
Day	Jan.	Feb.	Mar.	Apr.	May	June
1	165.48	165.51	165.57	165.09	164.20	164.18
2	165.52	165.52	.....	a165.14	164.18	164.14
3	165.75	165.54	.....	165.26	164.41	164.09
4	165.53	165.32	.....	165.09	164.28	164.00

a Estimated.

Tipppecanoe 7--Continued.

From recorder charts						
Day	Jan.	Feb.	Mar.	Apr.	May	June
5	165.81	165.45	.....	164.91	164.32	164.01
6	165.67	165.51	165.46	164.91	164.22	164.11
7	165.70	165.41	165.27	164.06	164.19	164.05
8	165.60	165.56	165.36	164.90	164.31	164.00
9	165.63	165.59	165.44	165.03	164.24	164.14
10	165.83	165.56	165.43	164.89	164.25	164.18
11	165.75	165.47	165.37	.....	164.32	164.20
12	165.51	165.50	165.49	.....	164.31	164.17
13	165.66	165.26	165.42	.....	164.28	164.20
14	165.64	165.32	165.28	.....	164.29	164.21
15	165.53	165.67	165.15	.....	164.24	164.20
16	165.71	165.45	165.11	.....	164.22	164.21
17	165.73	165.50	165.45	164.80	164.19	164.20
18	165.68	165.44	165.41	164.61	164.32	.....
19	165.60	165.24	165.05	164.56	164.37	.....
20	165.57	165.66	165.38	164.50	164.26	164.32
21	165.36	165.62	165.19	164.63	164.06	164.22
22	165.35	165.53	165.23	164.51	164.20	164.21
23	165.62	165.53	165.15	164.44	164.13	164.26
24	165.60	165.56	165.33	164.44	164.21	164.26
25	165.65	165.49	165.28	164.42	164.21	164.29
26	165.64	165.58	165.04	164.36	164.17	164.27
27	165.62	165.39	164.94	164.38	164.12	164.30
28	165.65	165.12	165.33	164.36	164.09	164.25
29	165.47	165.58	165.06	164.36	164.02	164.26
30	165.49		165.16	164.34	164.15	164.30
31	165.49		164.79		164.18	

a Estimated.

From recorder charts						
Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	164.42	164.54	164.86	165.05	165.35	165.37
2	164.40	164.62	164.78	165.17	165.36	165.53
3	164.38	164.57	164.79	165.21	165.21	165.50
4	164.39	164.55	164.81	165.17	165.27	165.54
5	164.37	164.61	164.82	165.04	165.21	165.37
6	164.32	164.64	164.75	165.07	165.30	165.47
7	164.35	164.62	164.77	164.93	165.55	165.46
8	164.42	164.60	164.83	165.01	165.52	165.56
9	164.41	164.63	164.90	165.11	165.37	165.64
10	164.42	164.61	164.90	165.13	165.48	165.71
11	164.38	164.57	164.85	165.05	165.57	165.58
12	164.34	164.59	164.89	165.20	165.57	165.42
13	164.34	164.61	164.95	165.20	165.42	165.62
14	164.39	164.67	164.99	165.26	165.51	165.67
15	164.41	.....	164.97	165.27	165.54	165.45
16	164.39	.....	165.01	165.15	165.50	165.62
17	.....	.....	165.02	a165.31	165.50	165.73
18	.....	.....	a164.96	165.35	165.51	165.68
19	164.44	.....	.....	165.15	165.29	165.41
20	164.42	.....	164.90	165.36	165.39	165.48
21	164.38	.....	164.85	165.32	165.58	165.49
22	164.38	164.72	164.95	165.30	165.52	165.79
23	164.43	164.77	164.99	165.27	165.55	165.83
24	164.55	164.72	165.05	165.40	165.46	165.75
25	164.52	164.72	165.14	165.36	165.49	165.72
26	164.41	164.76	165.16	165.33	165.41	165.90
27	164.47	164.80	165.13	165.33	165.56	165.66
28	164.51	164.81	165.04	165.34	.....	165.64
29	164.52	164.79	164.97	165.35	.....	165.38
30	164.46	164.75	164.98	165.33	165.55	165.76
31	164.52	164.82		165.29		165.70

a Estimated.

Tippecanoe 8. West Lafayette Water Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 23 N., R. 4 W., at West Lafayette waterworks. Measurements made by Norman Todd. Records available: 1945-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.11	11.70	....	5.07	6.47	8.19	10.34	11.42	12.49	13.18	13.61	12.73
2	13.09	11.74	....	5.03	6.67	8.36	10.34	11.45	12.53	13.20	13.62	12.73
3	13.00	11.78	....	5.03	6.85	8.54	10.34	11.50	12.58	13.24	13.65	....
4	12.69	11.81	....	5.05	7.03	8.72	10.34	11.55	12.62	13.25	13.66	....
5	....	11.85	....	5.10	7.18	8.69	10.35	11.59	12.67	13.26	13.65	....
6	....	11.89	8.91	5.17	7.31	9.05	10.37	11.63	12.69	13.28	13.64	12.78
7	....	11.95	8.86	5.26	7.42	9.17	10.41	11.67	12.70	13.30	13.61	12.80
8	....	12.00	8.86	5.29	7.50	9.24	10.47	11.73	12.72	13.31	13.55	12.81
9	....	12.04	8.88	5.21	7.46	9.30	10.54	11.77	12.74	13.33	13.49	12.83
10	11.51	12.10	....	5.03	7.31	9.37	10.62	11.31	12.75	13.36	13.42	12.85
11	....	12.16	....	4.83	7.23	9.46	10.70	11.86	12.76	13.37	13.36	12.86
12	....	12.21	....	4.74	7.18	9.54	10.77	11.90	12.78	13.39	13.30	12.91
13	....	12.27	9.19	4.76	7.12	9.62	10.85	11.93	12.80	13.40	13.27	12.93
14	....	12.31	9.29	4.76	6.97	9.68	10.91	11.97	12.82	13.41	13.23	12.95
15	....	12.35	9.39	4.65	6.78	9.74	10.95	12.00	12.85	13.42	13.18	12.97
16	11.14	12.36	9.48	4.43	6.61	9.80	10.99	12.03	12.88	13.44	13.15	12.99
17	....	12.32	9.56	4.24	6.49	9.86	11.02	12.06	12.91	13.45	13.12	12.97
18	....	12.23	9.60	4.16	6.44	9.92	....	12.08	12.75	13.45	13.09	12.82
19	....	12.00	9.61	4.17	6.45	10.00	11.11	12.08	12.98	13.46	13.07	12.60
20	....	11.75	9.61	4.27	6.49	10.08	11.20	....	13.02	13.47	13.06	12.38
21	....	11.51	8.51	4.41	6.56	10.15	11.26	....	13.06	....	13.05	12.22
22	....	11.39	9.30	4.58	6.65	....	11.30	12.07	13.08	....	13.03	12.18
23	....	11.32	8.90	4.77	6.77	....	11.32	12.09	13.08	....	12.99	12.02
24	....	11.29	8.25	4.98	6.90	....	....	12.11	13.08	....	12.93	11.95
25	....	11.27	7.55	5.19	7.03	....	11.30	12.15	13.09	....	12.87	11.98
26	....	11.27	7.02	5.19	7.18	....	11.30	12.19	13.10	....	....	11.85
27	....	11.29	6.66	5.62	7.54	10.40	11.31	12.23	13.11	....	....	11.82
28	....	....	6.30	5.84	7.51	10.39	11.31	12.28	13.13	....	....	11.80
29	....	....	5.88	6.05	7.68	10.38	11.33	12.35	13.15	....	....	11.79
30	....	....	5.47	6.26	7.85	10.36	11.35	12.39	13.17	....	12.72	11.70
31	11.66	....	5.20	....	8.01	....	11.38	12.44	....	13.60	....	11.39

a Estimated.

Tippecanoe 9. Aluminum Co. of America well 1. At Lafayette, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 23 N., R. 4 W., near intersection of Earl Ave. and U. S. Highway 52. Measurements made by M. M. Ross, Aluminum Co. of America. Records available: 1946-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	70.85	70.30	71.11	71.30	70.80	70.30	71.80	71.05	72.72	71.45	70.00	72.05
2	69.05	70.00	71.30	72.34	70.05	72.85	71.80	71.23	71.40	71.48	72.00	71.80
3	70.30	70.87	71.80	72.28	70.92	72.55	72.25	71.31	71.55	71.55	71.55	71.80
4	70.45	71.05	73.20	70.45	71.10	72.45	70.30	72.09	71.04	71.75	72.14	71.68
5	70.77	71.22	72.20	70.72	71.30	72.75	69.90	72.75	70.30	71.65	71.55	70.10
6	72.36	71.80	72.43	71.33	71.87	71.05	70.83	72.24	70.37	71.55	71.30	70.92
7	71.26	70.97	70.05	72.57	70.93	71.02	71.35	71.30	70.50	71.70	70.55	71.41
8	71.52	70.30	69.95	70.82	72.39	70.85	....	70.46	72.22	72.30	72.34	72.46
9	71.86	71.15	71.05	71.48	70.80	71.53	....	70.35	72.38	71.30	70.90	72.55
10	70.80	71.46	71.12	71.38	70.07	71.33	....	72.14	71.85	71.23	71.34	72.05
11	71.99	72.11	70.80	70.08	72.30	71.36	....	72.30	71.65	71.30	72.06	72.05
12	70.13	70.93	71.55	70.26	71.45	71.93	....	71.80	70.73	71.40	71.67	71.37
13	71.80	71.18	71.24	71.65	70.98	70.88	....	72.80	71.55	71.15	71.94	71.55
14	72.27	71.07	70.30	71.80	72.80	70.31	70.93	72.05	72.42	72.05	70.32	71.80
15	71.59	71.15	69.81	71.22	72.55	71.50	72.55	70.80	72.42	71.50	71.44	72.11
16	71.40	70.80	70.49	70.83	70.10	71.23	71.55	70.28	72.13	71.55	72.07	71.55
17	72.75	71.31	71.49	72.30	70.18	71.48	72.36	71.30	71.80	70.75	70.80	72.59
18	70.30	....	72.25	70.80	70.59	72.94	70.67	71.34	71.80	71.70	71.15	72.45
19	71.02	71.33	70.90	71.30	71.85	71.80	70.30	71.87	70.55	72.16	70.84	70.75
20	71.09	71.45	70.80	71.26	70.98	70.56	71.33	71.64	70.80	71.63	70.70	70.31
21	70.26	71.30	70.75	71.71	71.97	70.38	72.06	71.67	70.95	72.05	70.80	71.30
22	70.36	71.55	70.08	71.83	72.55	71.80	71.80	70.30	70.72	70.73	71.30	71.45
23	70.87	71.48	70.95	71.10	71.05	72.05	71.24	70.95	71.55	71.29	71.70	73.06

a Estimated.

Tippecanoe 9--Continued.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
24	70.80	72.12	71.42	70.84	71.36	72.30	71.12	72.11	72.02	70.64	71.22 72.30
25	70.75	71.20	72.49	70.45	71.05	71.95	71.31	72.60	71.80	71.88	70.80 70.33
26	70.55	71.55	71.80	71.08	71.30	73.07	70.18	72.35	71.05	70.75	70.80 70.65
27	71.76	72.48	70.86	71.65	71.05	71.64	72.48	73.05	70.75	72.15	71.32 70.80
28	71.25	70.75	70.75	71.80	71.83	70.56	72.30	73.14	72.21	71.18	71.38 72.42
29	70.30	70.80	70.50	71.18	70.66	71.05	71.30	71.27	70.94	72.00	71.32 70.78
30	71.05		71.49	71.06	70.20	71.70	72.05	71.10	71.45	70.04	71.05 72.30
31	70.60		70.67		70.30		71.55	72.39		70.05	72.60

Tippecanoe 11. Purdue University. In West Lafayette, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 23 N., R. 4 W., in Russell Field near west end of 3d St., extended. Unused drilled test well, diameter 6 inches, depth 216 feet. Measuring point, top of shelter base, 2.0 feet above land-surface datum. Automatic water-stage recorder installed Apr. 30, 1948. Measurements made by Norman E. Todd, West Lafayette. Records available: 1948.

From recorder charts							
Day	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	96.30	96.30	96.64	96.90	97.26	97.64	97.99 98.14
2	96.29	96.20	96.65	96.91	97.26	97.68	97.99
3	96.35	96.19	96.66	96.92	97.27	97.71	97.95
4	96.30	96.17	96.68	96.92	97.30	97.72	97.96
5	96.31	96.19	96.68	96.96	97.31	97.70	97.93
6	96.28	96.24	96.65	96.97	97.30	97.70	97.99 98.08
7	96.29	96.23	96.67	96.98	97.31	97.68	..... 98.08
8	96.32	96.21	96.69	96.98	97.34	97.71	..... 98.11
9	96.29	96.24	96.71	97.00	97.35	97.72	..... .....
10	96.30	96.30	96.72	96.99	97.38	97.75	..... .....
11	96.33	96.32	96.71	96.99	97.38	97.74	..... .....
12	96.34	96.33	96.70	97.00	97.40	97.78	..... 98.11
13	96.33	96.36	96.70	97.01	97.41	97.80	..... 98.18
14	96.35	96.37	96.72	97.05	97.41	97.82	..... 98.21
15	96.34	96.38	96.74	97.07	97.43	97.83	..... 98.14
16	96.34	96.42	96.74	97.08	97.45	97.80	..... 98.22
17	96.33	.....	.....	97.08	97.48	a97.85	..... 98.25
18	96.37	.....	.....	97.07	a97.49	97.87	98.16
19	96.39	.....	96.77	97.12	97.51	97.85	98.05 98.19
20	96.33	96.50	96.76	97.13	97.51	97.87	98.08 98.22
21	96.27	96.46	96.76	a97.14	97.52	97.90	98.12 98.22
22	96.25	96.48	96.76	97.15	97.56	97.91	98.09 98.31
23	96.26	96.50	96.79	97.15	97.57	97.91	98.11
24	96.26	96.52	96.84	97.15	97.60	97.95	98.09
25	96.25	96.54	96.84	97.16	97.63	97.96	98.08 b98.39
26	96.23	96.55	96.80	97.17	97.64	97.96	98.06
27	96.19	96.58	96.83	97.19	97.64	97.96	98.10
28	96.17	96.57	96.85	97.21	97.62	97.97	a98.11
29	96.18	96.57	96.86	97.22	97.60	97.98	..... .....
30	96.19	96.60	96.85	97.22	97.61	97.97	98.10
31	96.21		96.88	97.23		97.97	.....

a Estimated.

b Tape measurement.

Tipton County

Tipton 1. William B. Richardson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 22 N., R. 4 E. Measurements made by William B. Richardson. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	0.30	Feb. 7	2.68	Mar. 13	2.02	Apr. 17	0.73
10	.69	14	2.75	20	.65	24	2.14
17	2.19	21	1.92	27	.21	May 1	2.29
24	2.35	28	.29	Apr. 3	1.54	8	1.29
31	2.65	Mar. 6	1.53	10	.73	15	.72

Tipton 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 22	2.30	July 17	2.55	Sept. 11	3.38	Nov. 6	3.58
29	2.58	25	2.12	18	3.62	13	1.70
June 5	2.80	31	2.59	25	3.60	20	.61
12	2.73	Aug. 6	2.64	Oct. 2	3.74	27	1.67
19	2.89	14	2.82	9	3.89	Dec. 4	1.84
26	2.20	21	2.07	15	3.91	13	1.79
July 3	2.04	28	2.63	23	3.11	18	1.04
10	2.51	Sept. 4	3.12	30	3.26	24	1.71

Union County

Union 3. Joe Cannell. SW $\frac{1}{4}$ sec. 13, T. 11 N., R. 2 W., 1.5 miles south of Liberty and about half a mile east of State Highway 101. Measurements made by Henry Carnes. Records available: 1946-48.

Jan. 14	11.80	Mar. 22	10.10	June 1	9.20	Sept. 20	12.15
22	11.40	29	12.25	30	9.10	27	12.15
Feb. 2	12.66	Apr. 5	13.09	July 9	8.77	Oct. 4	12.15
20	10.00	17	12.45	13	8.77	11	12.15
29	9.85	May 9	9.90	Aug. 20	11.85	18	12.15
Mar. 8	9.85	16	9.79	Sept. 5	12.15	Nov. 11	15.30
14	10.10	24	10.62				

Vanderburgh County

Vanderburgh 1. Flora Buente. E $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 8, T. 5 S., R. 11 W., 0.75 mile west of Armstrong. Measurements made by Gilbert Fehrenbacher, R. R. 7, Evansville. Records available: 1947-48.

Jan. 4	9.93	Apr. 4	5.40	July 4	8.38	Oct. 10	9.75
11	10.04	11	3.11	11	8.52	17	9.82
18	9.99	18	2.87	18	8.88	24	9.97
25	10.02	25	3.80	25	8.50	31	10.12
Feb. 1	9.98	May 2	4.29	Aug. 1	8.61	Nov. 7	10.10
8	10.00	9	4.86	8	8.78	14	10.18
16	9.98	16	3.21	15	8.93	21	10.22
22	9.78	23	4.00	29	9.19	28	10.17
29	9.57	30	5.05	Sept. 12	9.24	Dec. 5	10.15
Mar. 7	8.78	June 13	7.20	19	9.40	12	10.39
14	8.13	20	7.97	28	9.52	19	10.20
21	7.54	27	8.26	Oct. 3	9.61	26	10.17
28	5.83						

Vigo County

Vigo 2. Commercial Solvents Corporation test hole 1. In Terre Haute, on Washington Ave. at First St., 156 feet west of centerline of South First St. and 177 feet south of centerline of Washington Ave. extended. Measurements made by personnel of Commercial Solvents Corporation, A. C. Miller, plant engineer. Records available: 1946-48.

From recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	55.68	57.42	56.54	52.23	53.30	54.06	55.28	54.69	55.88	58.87	.....	59.95
2	55.98	57.38	56.14	52.22	53.28	54.25	55.07	54.77	55.92	58.95	.....	60.12
3	55.93	57.50	55.89	52.07	53.17	54.52	54.91	54.84	56.01	58.88	.....	60.19
4	55.80	57.61	55.68	51.82	53.40	54.72	54.79	54.88	56.06	58.74	.....	60.24
5	55.69	57.71	55.46	51.60	53.72	54.85	53.72	54.74	56.06	58.82	57.40	60.25
6	55.48	57.85	53.30	51.57	53.95	54.76	54.68	54.64	56.10	58.97	59.10	60.03
7	55.37	57.93	53.17	51.72	54.12	54.61	54.73	54.51	56.17	59.08	58.10	60.12
8	55.25	57.84	55.18	51.84	54.17	54.82	55.83	54.49	56.32	59.12	57.29	60.25
9	55.34	57.92	55.30	51.57	53.85	54.98	55.88	54.49	56.48	59.24	56.98	60.43

Vigo 2--Continued.

From recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
10	55.57	57.99	55.52	51.28	53.46	55.11	56.00	54.50	56.67	59.30	58.68 60.54
11	55.68	58.02	55.78	50.86	53.28	55.24	55.94	54.50	56.88	59.13	59.00 60.58
12	55.74	.....	56.07	50.61	53.31	55.40	56.03	.....	57.07	59.28	59.18 60.72
13	55.83	58.14	56.37	50.77	53.36	55.30	56.09	.....	57.07	59.43	59.33 60.47
14	55.91	58.18	56.32	50.83	53.30	55.16	56.10	.....	57.28	59.54	59.45 60.64
15	.....	58.19	56.27	50.91	53.12	55.36	55.06	.....	57.52	59.69	59.36 60.75
16	56.13	58.12	56.41	50.70	52.70	55.09	55.16	.....	57.75	.....	59.38 60.87
17	56.30	58.18	56.63	50.59	52.25	55.40	55.04	.....	57.94	.....	59.48 60.94
18	56.41	58.11	56.84	50.42	52.13	55.20	54.90	.....	58.15	.....	59.63 60.94
19	56.50	57.90	56.86	50.21	52.10	55.80	54.82	55.51	58.32	.....	59.76 60.81
20	56.65	57.62	56.65	50.20	52.20	55.74	54.85	55.53	58.25	.....	59.87 60.37
21	56.78	57.36	56.26	50.37	52.44	55.62	54.95	55.46	58.24	57.27	59.91 60.07
22	56.86	57.04	55.91	50.69	52.72	55.83	54.91	55.45	58.28	57.30	59.69 60.06
23	.....	56.87	55.67	51.00	52.70	56.04	54.80	55.44	58.36	.....	59.74 60.08
24	57.06	56.93	55.52	51.44	52.69	56.30	54.67	55.51	58.45	.....	59.87 60.24
25	57.06	56.98	55.22	51.61	52.96	56.42	54.60	55.55	58.49	.....	59.90 60.33
26	57.07	56.98	54.76	51.66	53.33	56.46	54.60	55.60	58.46	.....	59.84 60.17
27	57.08	57.07	54.34	52.01	53.60	56.43	54.71	55.67	58.30	57.15	59.93 59.91
28	57.18	57.15	53.94	52.51	53.88	56.09	54.60	55.74	58.45	.....	59.98 59.94
29	57.23	56.94	53.33	52.91	54.04	55.85	54.57	55.78	58.62	.....	59.75 60.17
30	57.31	.....	52.80	53.15	53.98	55.52	54.54	55.81	58.67	.....	59.85 60.29
31	57.38	.....	52.27	.....	53.88	.....	54.61	55.80	.....	.....	60.04

a Estimated.

b Tape measurement.

Vigo 3. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 12 N., R. 8 W. Measurements made by Robert May. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	2.05	Apr. 7	1.92	July 6	5.13	Oct. 11	8.29
14	2.84	12	1.40	12	5.38	18	7.77
19	3.57	19	2.97	19	5.58	25	7.27
27	4.06	24	3.72	26	5.29	Nov. 1	7.22
Feb. 2	4.27	May 3	4.03	Aug. 9	6.12	8	3.14
9	4.40	10	2.99	16	6.40	15	2.62
16	3.25	17	2.59	23	6.97	23	2.65
23	3.25	25	3.68	30	7.51	29	2.88
Mar. 1	1.73	June 2	4.09	Sept. 7	8.04	Dec. 6	2.98
8	1.82	7	4.24	13	8.43	13	3.29
15	1.11	14	4.55	20	8.85	20	1.77
22	1.03	21	4.70	27	7.84	27	3.04
29	1.35	27	4.91	Oct. 4	8.07		

Wabash County

Wabash 2. Mrs. Robert S. Gearhart. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 27 N., R. 6 E. Measurements made by Robert S. Gearhart. Records available: 1945-48.

Jan.	1	11.46	Apr.	1	1.64	July	1	5.80	Oct.	7	13.26
	8	10.44		8	1.85		8	7.89		14	13.30
	15	9.55		15	1.89		15	8.54		21	13.39
	22	8.56		22	3.01		22	9.12		28	13.43
	29	8.50		29	2.60		29	9.53	Nov.	4	13.45
Feb.	4	8.48	May	6	2.32	Aug.	4	10.10		11	13.46
	12	8.71		13	1.50		12	10.49		18	13.37
	19	8.48		20	2.81		19	10.90		25	13.22
	26	8.40		27	4.29		26	11.39	Dec.	2	13.14
Mar.	4	6.48	June	3	5.61	Sept.	9	12.14		9	13.01
	11	6.20		10	4.80		16	12.69		16	12.89
	18	5.34		17	5.70		23	13.06		23	12.41
	25	2.27		24	6.66		30	13.19		30	11.53

Warren County

Warren 1. City of Williamsport. In Williamsport, on Market St., 200 feet east of Main St. Measurements made by Oscar D. George. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.64	Apr. 3	6.53	July 3	12.10	Oct. 2	18.75
10	9.46	10	6.25	10	13.69	9	18.82
17	10.70	17	6.79	17	14.74	16	19.43
24	10.85	24	8.29	24	12.95	23	18.83
31	11.99	May 1	10.00	31	13.10	30	19.16
Feb. 7	14.59	8	8.92	Aug. 7	14.75	Nov. 6	16.72
14	14.95	15	6.75	14	16.67	13	15.02
21	13.30	22	8.09	21	17.45	20	14.36
28	10.05	29	10.04	28	17.46	27	14.82
Mar. 6	7.16	June 5	12.25	Sept. 4	17.45	Dec. 4	15.63
13	7.69	12	14.20	11	16.73	11	15.73
20	6.59	19	15.16	18	18.53	18	12.90
27	5.71	26	12.98	25	18.30	25	12.60

Warrick County

Warrick 1. 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 W. H. Beard and Emmitt E. Lewis, Scales Lake State Forest. Records available: 1936-38, 1942-45, 1947-48.

Jan. 15	19.0	Mar. 17	18.0	May 5	17.58	Aug. 19	15.61
22	18.9	24	18.0	13	17.57	25	15.59
28	18.1	Apr. 3	18.3	20	16.18	Sept. 8	15.35
Feb. 4	17.85	7	18.0	26	16.18	Oct. 4	16.14
18	17.4	15	17.98	June 24	16.39	Nov. 17	16.10
25	18.4	21	18.01	July 19	15.97	24	15.55
Mar. 3	17.8	28	18.27	28	15.51	Dec. 28	14.39
10	18.0						

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. Measurements made by W. H. Beard and Emmitt E. Lewis, Scales Lake State Forest. Records available: 1944-48.

Jan. 15	13.3	Mar. 17	3.0	May 5	4.39	Aug. 19	11.79
22	11.9	24	3.0	13	4.34	25	12.06
28	11.1	Apr. 3	3.1	20	4.32	Sept. 8	12.85
Feb. 4	12.1	7	3.19	26	4.32	Oct. 4	14.31
18	7.7	15	3.0	June 24	8.05	Nov. 17	14.10
25	7.0	21	3.89	July 19	9.98	24	13.47
Mar. 3	3.0	28	4.25	28	10.53	Dec. 28	6.34
10	2.7						

Wayne County

Wayne 1. C. E. Rodenberg. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 16 N., R. 12 E. Measurements made by Marshall B. Rodenberg. Records available: 1945-48.

Jan. 7	30.90	Mar. 23	30.47	Aug. 16	30.00	Oct. 19	31.10
19	30.97	30	30.67	23	30.15	Nov. 9	31.25
26	31.02	Apr. 12	29.10	30	30.30	15	31.30
Feb. 2	31.16	19	28.38	Sept. 7	30.45	22	31.18
10	31.10	26	27.60	13	30.58	29	31.13
16	30.83	May 4	27.70	21	30.73	Dec. 7	31.14
23	30.60	24	27.95	27	30.81	15	31.17
Mar. 1	30.54	June 14	28.45	Oct. 4	30.93	22	31.19
8	30.41	Aug. 9	29.80	14	31.05	30	31.17
16	30.40						

Wayne 2. Lewis W. Hormel. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 14 N., R. 1 W., about 2 miles north of Chester. Measurements made by Lewis W. Hormel. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	15.88	Apr. 5	5.33	July 5	14.41	Oct. 4	17.88
12	14.86	12	5.41	12	14.67	11	18.06
16	13.97	19	5.79	19	14.79	18	18.43
26	13.80	26	8.51	26	15.26	25	18.41
Feb. 2	13.40	May 3	10.72	Aug. 2	15.87	Nov. 1	18.97
9	14.14	10	10.36	9	15.30	8	19.93
16	13.54	17	10.34	16	15.60	15	19.97
23	13.86	24	10.78	23	16.37	22	16.56
Mar. 1	12.48	31	11.60	30	16.23	29	15.84
8	11.43	June 7	12.33	Sept. 6	16.87	Dec. 6	14.84
15	11.64	14	13.19	13	17.16	13	13.47
22	8.52	21	13.65	20	17.44	20	10.07
29	3.10	28	14.78	27	17.63	27	8.89

White County

White 1. Town of Monon. In basement of municipal building. Measurements made by John M. Winkley. Records available: 1935-36, 1941-48.

Jan. 5	14.45	Apr. 5	11.03	July 5	13.31	Oct. 4	17.31
12	14.07	12	12.48	12	13.51	11	17.62
19	13.86	19	12.02	19	13.83	18	17.67
26	15.34	26	12.36	26	13.86	25	17.54
Feb. 2	16.16	May 3	13.21	Aug. 2	14.47	Nov. 1	17.83
9	16.54	10	12.24	9	14.90	8	17.68
16	16.67	17	10.08	16	14.29	15	17.52
23	16.75	24	11.28	23	16.06	22	16.38
Mar. 1	14.85	31	12.21	30	16.54	29	16.69
8	15.04	June 7	13.08	Sept. 6	16.73	Dec. 6	17.65
15	14.40	14	12.88	13	18.36	13	18.38
22	11.33	21	13.31	20	17.45	20	17.19
29	11.82	28	11.09	27	17.71	27	17.32

White 3. Archie Compton. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 26 N., R. 4 W., 1.75 miles west of Chalmers, 200 feet north of road, 150 feet west of ditch. Unused drilled well, diameter 6 inches, depth 200+ feet. Measuring point, top edge of reducer hole in cap, 11.30 feet above land-surface datum. Measured by Harold Watkins, Chalmers. Records available: 1948.

June 4	33.35	July 6	33.42	Aug. 10	33.23	Sept. 14	33.58
9	33.33	13	33.18	17	33.27	21	32.97
15	33.34	20	33.14	24	33.27	28	33.03
22	33.39	27	33.10	31	33.24	Oct. 19	33.32
29	33.16	Aug. 3	33.37	Sept. 7	33.48	26	33.40

MAINE

By H. L. Pree, Jr.

PROGRAM OF WORK

The program of periodic measurements of water level was continued in 1948 at five observation wells in Maine. Three of the wells are in the southern part of the State, at Amherst, Cornish, and Mercer; two are in the northern part of the State, at Portage and Sherman Mills. Readings were made about once a week and, in all, 239 measurements were made during the year.

The wells in Maine have been renumbered according to the counties in which they are situated--well Ar 1, Aroostook County, formerly Portage 1; well Ar 2, Aroostook County, formerly Sherman Mills 1; H 1, Hancock County, formerly Amherst 1; Sm 1, Somerset County, formerly Mercer 1; Y 1, York County, formerly Cornish 1.

FLUCTUATIONS OF WATER LEVEL

The water levels in wells in Maine, as in the rest of northern New England, usually show a definite seasonal pattern which is different from that found in southern New England. During the winter, when the ground is frozen and covered with snow, the water levels fall steadily. In March or April a sharp rise usually occurs as a result of temperatures high enough to melt the snow cover and to partially thaw out the ground. During the growing season a drop usually begins after the spring thaw and continues until September or October. This is followed by a rise which continues until cold weather, after which water levels usually decline throughout the winter.

Fluctuations of water level in the five wells in Maine during 1948 followed, in general, the usual seasonal pattern. Cold weather and the continuous snow cover which predominated throughout January, contributed to a drop in water levels at all the wells. The heavy snow cover, which prevented deep penetration of frost, held over into the latter third of

February and, upon melting, aided the replenishment of ground-water supplies in the vicinity of all the wells except Ar 1, which was dry throughout the month. In the middle of March the water level in well Ar 2 was near its lowest recorded level. The abrupt change in the temperature pattern in the middle of March from very cold and snowy to pleasantly mild melted much of the snow, causing a sharp rise in water level which began in the middle of the month in all the wells except Ar 1. The rise in water level in well Ar 1, at Portage, beginning early in the month, continued through the early part of April. Precipitation and temperatures well above freezing resulted in an abrupt rise in water level in well H 1 during the middle of March, and in a rise in water level nearly to the highest recorded stage in well Sm 1 on March 28. The slight fluctuation of the water level in well Ar 2, at Sherman Mills, in April corresponds closely to the varying amounts of precipitation in that vicinity during the month. Following the abrupt rise during the first third of April the water table in well Ar 1 dropped appreciably. At the end of the month, however, it was higher than it was at the end of March. The water levels in wells H 1, Sm 1, and Y 1 fluctuated during April with the precipitation. Precipitation changes throughout May, when the total rainfall for the month, which was excessive in places, was well above normal, were reflected generally in the variations in water level during the month. The water level in well Sm 1, at Mercer, approached its highest recorded stage on May 23 as a result of very heavy precipitation, which totaled about 7 inches during the month.

The fairly steady drop in water levels at all the wells, which began late in May, can be attributed to the growing season. This decline continued at all the wells until the end of the summer, except for a slight rise late in June and early in July in well Sm 1 resulting from rain. The water level in well Ar 2 was near its lowest recorded stage at the end of August. Well H 1, at Amherst, was dry from the latter part of September until the early part of November and the water level in well Y 1, at Cornish, reached its lowest observed level on November 14 as a result of deficient rainfall. The water levels in all the wells rose from their low stages as a result of November rains, far above normal, falling on unfrozen ground, thereby replenishing ground-water supplies. The water levels, in general, declined from late November, or early December, until the end of

the belated mild weather which continued over most of the State through the first half of December. During the last five days of December and the first two days of January 1949 water levels in all the wells, except well Ar 1, rose as a result of the storms which were prevalent over most of the State at the end of December.

At the end of 1948 water levels in all the wells indicated a large increase in ground-water storage during the year.

Precipitation for the State as a whole during 1948 was 37.45 inches, or 2.65 inches below normal, and 0.79 inch more than in 1947. Normal for the State is 40.10 inches. During May, October, November, and December precipitation for the State as a whole was above normal; it was below normal for the remainder of the year, particularly during August and September when drought conditions prevailed.

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

Summary of water levels in observation wells in Maine

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record, 1948
		Water level	Date	Water level	Date	
US 103 - Ar 1	Nov. 4, 1942	(a)	(a)	0.68	Apr. 1, 1945	4.27
US 105 - Ar 2	July 14, 1939	16.00	Nov 10, 1946	.68	May 6, 1940	7.65
US 158 - H 1	Nov. 5, 1943	(b)	(b)	3.40	Jan. 1, 1945	6.66
US 102 - Sm 1	Nov. 5, 1942	11.67	Feb 2, 1948	4.30	Mar. 24, 1946	6.15
US 159 - Y 1	Nov. 6, 1943	18.40	Nov 14, 1948	8.10	May 6, 1945	12.10

a Dry Sept. 21 to Nov. 2, 1947, Feb. 15, to Mar. 7, 1948. Water level below 10.5 feet.

b Dry Sept. 10, 17, 1944, Sept. 26 to Oct. 31, 1948. Water level below 14.0 feet.

Net change, in feet, in water levels in observation wells in Maine, 1948

Well	Net change
US 103 - Ar 1	+2.35
US 105 - Ar 2	+5.70
US 158 - H 1	+2.90
US 102 - Sm 1	+5.37
US 159 - Y 1	+2.50

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

Aroostook County

US 103. Ar 1. H. L. Stevens. On west side of State Route 11, about 1.0 mile north of Portage Lake post office, in Portage Lake. Penetrates sand. Records available: 1942-48.

US 103--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	6.86	Mar. 21	3.01	May 30	2.28	Aug. 15	6.54
11	7.54	28	2.97	June 6	3.34	22	7.17
18	7.16	Apr. 4	1.67	13	3.74	29	7.74
25	8.23	11	1.42	27	5.03	Sept. 5	8.53
Feb. 15	(a)	19	1.77	July 11	5.81	19	9.51
22	(a)	May 2	2.45	18	6.35	Dec. 13	2.58
29	(a)	16	2.25	25	6.68	19	3.19
Mar. 7	(a)	23	1.71	Aug. 8	6.49	26	4.27
14	5.14						

a Well dry. Water level below 10.5 feet.

US 105. Ar 2. C. C. Young. On west side of U. S. Route 2, about 6 miles south of Island Falls, in Sherman Mills. Penetrates sand and rock. Records available: 1939-48.

Jan. 4	14.40	Apr. 3	1.10	July 4	12.54	Oct. 3	15.25
11	14.75	11	1.30	11	13.00	10	14.30
18	15.00	18	1.10	18	13.50	17	9.60
25	15.15	25	1.20	25	13.85	24	9.65
Feb. 1	15.43	May 1	1.30	Aug. 1	14.10	31	12.25
8	15.60	9	2.55	8	14.43	Nov. 7	9.25
15	15.15	16	2.96	15	14.52	11	1.10
22	14.50	23	1.10	22	14.80	21	1.23
29	14.87	30	1.80	29	15.55	28	1.10
Mar. 7	15.35	June 6	3.80	Sept. 5	15.00	Dec. 5	1.63
14	15.80	13	6.20	12	15.30	12	2.25
21	1.15	20	10.50	19	15.40	19	4.55
28	1.10	26	11.55	26	15.45	26	7.65

Hancock County

US 158. H 1. George C. Orcutt. On south side of State Route 9, about 0.3 mile west of junction with State Route 181, in Amherst. Penetrates overburden. Records available: 1943-48.

Jan. 4	9.93	Apr. 4	4.66	July 4	7.76	Oct. 10	(a)
11	10.16	11	5.24	18	9.09	17	(a)
18	10.44	19	4.88	25	9.79	24	(a)
25	10.56	25	5.00	Aug. 1	10.37	31	(a)
Feb. 1	10.82	May 2	5.40	15	11.44	Nov. 7	(a)
8	10.95	10	5.80	22	11.96	14	11.88
15	9.32	16	4.87	29	12.46	21	8.46
22	7.04	23	4.02	Sept. 5	12.99	28	5.56
29	6.96	30	4.90	14	13.61	Dec. 5	5.70
Mar. 7	7.18	June 6	5.65	19	13.90	12	5.88
14	7.56	13	6.06	26	(a)	19	6.13
21	4.03	20	6.56	Oct. 3	(a)	26	6.66
28	4.93	28	7.24				

a Well dry. Water level below 14.0 feet.

Somerset County

US 102. Sm 1. J. Harrison Farrand. On northwest side of Bog Stream Road, about 2.2 miles north of Mercer. Penetrates sand. Records available: 1942-48.

Jan. 4	11.60	Feb. 15	11.63	Mar. 28	4.67	May 9	4.98
11	11.62	23	11.56	Apr. 4	4.80	16	4.70
19	11.64	29	11.49	11	5.28	23	4.63
25	11.66	Mar. 6	11.41	18	5.02	31	5.35
Feb. 2	11.67	15	11.31	25	5.23	June 6	5.77
9	11.64	22	5.75	May 2	5.10	13	5.87

US 102--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 19	6.15	Aug. 8	7.50	Sept. 26	9.37	Nov. 14	9.15
27	6.43	15	7.71	Oct. 3	9.57	21	6.57
July 3	6.14	22	7.99	11	9.76	28	5.14
12	6.32	29	8.17	17	10.01	Dec. 5	5.57
18	6.72	Sept. 6	8.51	24	10.27	12	5.46
25	7.00	12	8.73	31	10.48	19	5.82
Aug. 4	7.51	19	9.03	Nov. 7	10.44	26	6.15

York County

US 159. Y 1. J. P. Small. On south side of Main Street, about 0.2 mile west of Little River Crossing, in Cornish. Penetrates sandy overburden. Records available: 1943-48.

Jan. 4	14.70	Apr. 4	9.20	July 4	11.40	Oct. 3	17.10
11	15.10	11	10.20	11	12.10	11	17.20
18	15.40	18	10.10	18	12.40	17	17.50
25	15.90	25	9.50	25	12.90	24	17.80
Feb. 1	16.20	May 2	10.50	Aug. 1	13.30	31	18.10
8	16.40	9	10.80	8	14.00	Nov. 7	18.10
15	16.70	16	10.30	15	14.30	14	18.40
22	16.50	23	8.70	22	14.80	21	18.10
29	16.40	30	9.10	29	15.10	28	13.20
Mar. 7	16.30	June 6	9.60	Sept. 5	15.30	Dec. 5	10.70
14	16.20	13	10.10	13	15.90	12	11.10
21	10.60	20	10.40	19	16.10	19	11.40
28	8.80	27	10.90	26	16.70	26	12.10

MASSACHUSETTS

By H. N. Halberg

PROGRAM OF WORK

Investigations of the ground-water resources of Massachusetts, begun in 1938, were continued in 1948 in cooperation with the Massachusetts Department of Public Works. Periodic observations of water level were continued in 34 wells in Middlesex County, in the vicinity of Lowell, in the Aberjona Valley area, and in the vicinity of Fresh Pond, Cambridge; in 2 wells each in Berkshire and Essex Counties; in 1 each in Hampden and Franklin Counties, and in 3 in Worcester County. One observation well was established at Fall River, Bristol County, and one at Springfield, Hampden County. Water-stage recorders were operated throughout the year on three wells, at Wilmington, in Middlesex County, and at Leominster and Winchendon, in Worcester County. Water-level measurements were made weekly in nine wells and monthly in the remaining wells, except in three wells in Lowell and four in Woburn in which measurements were made once during the year.

FLUCTUATIONS OF WATER LEVEL

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

Summary of water levels in observation wells in Massachusetts

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record, 1948
		Water level	Date	Water level	Date	
Arlington 174	July 29, 1944	13.76	Sept. 11, 1944	5.82	Mar. 12, 1948	11.85
Brimfield 12	Feb. 6, 1936	(a)	(a)	4.55	Mar. 30, 1948	
Cambridge 667	Oct. 30, 1944	22.40	Oct. 30, 1944	5.71	May 18, 1948	16.54
Cambridge 798	Aug. 7, 1944	17.46	Jan. 31, 1948	.93	May 18, 1948	10.94
Chelmsford 68	July 27, 1939	10.98	Oct. 2, 1948	5.69	Apr. 23, 1940	10.38
Chelmsford 69	Aug. 22, 1939	6.05	Aug. 23, 1941	.11	Feb. 24, 1943	2.32
Cheshire 1	Apr. 1, 1947	12.6	Oct. 31, 1948	7.20	May 2, 1947	
Fall River 67	Apr. 27, 1948	10.96	Oct. 18, 1948	6.42	June 7, 1948	9.46
Great Bar-						
ington 1	Mar. 4, 1936	22.89	Sept. 29, 1947	15.51	Aug. 1, 1945	21.50
Ipswich 1	Oct. 15, 1947	17.42	Nov. 10, 1947	7.98	Mar. 22, 1948	15.19
Ipswich 2	Oct. 15, 1947	11.80	Nov. 3, 1947	5.07	Mar. 22, 1948	9.74

* See footnotes at end of table.

Summary of water levels in observation wells in Massachusetts--Continued

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record, 1948
		Water level	Date	Water level	Date	
Leominster 11	July 13, 1939	9.21	Oct. 31, 1939	0.81	May 22, 1943	2.90
Lowell 4	May 26, 1939	12.55	Oct. 31, 1947	7.56	May 7, 1940	
Lowell 14	May 29, 1939	22.46	Nov. 7, 1939	8.80	Apr. 3, 1948	16.20
Lowell 26	Aug. 9, 1939	12.65	Oct. 18, 1941	1.97	Apr. 2, 1940	
					May 7, 1940	
Lowell 33	May 29, 1939	11.33	Oct. 4, 1941	6.29	Mar. 1, 1945	
Lowell 41	Aug. 22, 1939	20.74	Oct. 17, 1942	4.66	Feb. 15, 1941	18.48
Lowell 43	May 28, 1940	25.76	Dec. 30, 1948	10.62	June 4, 1940	25.76
Montague 5	Jan. 16, 1936	5.10	Aug. 30, 1944	2.00	May 31, 1948	4.29
Reading 1	Aug. 25, 1939	(b)	Dec. 26, 1941	13.02	Apr. 3, 1948	20.79
Reading 3	June 20, 1940	5.63	Nov. 1, 1941	1.14	Nov. 30, 1944	2.63
Springfield 4028	July 14, 1948	9.45	Dec. 27, 1948	8.98	Aug. 16, 1948	9.45
Sterling 1	Apr. 3, 1947	12.01	Oct. 31, 1947	2.64	Feb. 20, 1948	3.25
Wilmington 10	July 18, 1940	(c)	Dec. 13, 1941	.73	Nov. 30, 1944	4.00
Wilmington 29	July 24, 1940	11.70	Sept. 27, 1941	8.40	Mar. 28, 1942	10.57
Wilmington 44	July 26, 1940	7.61	Oct. 11, 1941	.24	Mar. 17, 1948	4.56
Wilmington 56	Aug. 12, 1940	7.97	Oct. 4, 1941	2.06	Mar. 1, 1945	4.61
Wilmington 58	July 27, 1940	12.65	Nov. 1, 1941	2.77	Mar. 23, 1942	8.44
Winchendon 13	July 18, 1939	12.76	Nov. 21, 22, 23, 1947	1.97	Mar. 9, 1946	7.53
Winchester 4	Aug. 22, 1939	(d)	Dec. 27, 1941	6.67	Apr. 3, 1948	11.27
Winchester 14	June 13, 1940	14.99	Dec. 14, 1941	5.62	Mar. 23, 1942	10.34
Winchester 18	July 15, 1940	(e)	(e)	1.15	Mar. 23, 1942	8.85
Woburn 1	Aug. 14, 1939	9.73	Sept. 29, 1943	4.47	Nov. 30, 1944	5.71
Woburn 3	Aug. 18, 1939	2.41	Aug. 16, 1941	.93	Oct. 31, 1947	
Woburn 4	Sept. 12, 1939	2.57	Sept. 26, 1939	.73	Feb. 28, 1948	1.37
Woburn 5	Sept. 12, 1939	1.00	Sept. 19, 1939	.22	Dec. 24, 1942	
Woburn 17	July 15, 1940	(g)	Dec. 26, 1941	4.13	Nov. 30, 1944	5.98
Woburn 19	June 20, 1940	14.85	Oct. 18, 1941	4.71	Feb. 28, 1948	6.12
Woburn 21	June 21, 1940	9.69	Oct. 25, 1941	4.97	Apr. 3, 1948	7.92
Woburn 23	July 15, 1940	3.10	Sept. 27, 1941	.53	Mar. 1, 1945	
Woburn 36	June 28, 1940	6.14	Jan. 31, 1948	1.77	May 10, 1941	
Woburn 38	June 28, 1940	18.15	Dec. 14, 1941	7.62	Mar. 2, 1945	11.72
Woburn 49	July 10, 1940	4.25	Dec. 5, 1941	1.97	Apr. 3, 1948	.19
Woburn 53	July 13, 1940	10.69	Sept. 27, 1941	7.93	Mar. 23, 1942	

a Dry Nov. 6, Dec. 4, 1944, Oct. 31, 1947, Feb. 5, 1948. Water level below 16.3 feet.

b Dry. Water level below 21.9 feet.

c Dry. Water level below 9.0 feet.

d Dry. Water level below 22.6 feet.

e Dry Dec. 26, 1941, Nov. 28, 1942, Oct. 30, 1943, Aug. 31, 1944, Sept. 28, Oct. 30, 1945, Aug. 29, Sept. 30, Oct. 31, 1947, Oct. 2, Oct. 30, 1948. Water level below 14.1 feet below land-surface datum.

g Dry. Water level below 12.0 feet.

Net change, in feet, in water levels in observation wells in Massachusetts, 1948

Well	Net change	Well	Net change	Well	Net change
Arlington 174	+0.69	Ipswich 2	+0.06	Wilmington 29	+0.08
Brimfield 12	+1.70	Leominster 11	+1.34	Wilmington 44	+1.16
Cambridge 667	+4.74	Lowell 14	-2.06	Wilmington 56	-.10
Cambridge 798	+5.28	Lowell 41	-2.06	Wilmington 58	-.17
Chelmsford 68	-.80	Lowell 43	-1.26	Winchendon 13	+2.64
Chelmsford 69	-.19	Montague 5	-.29	Winchester 4	+0.08
Cheshire 1	b-4.0	Reading 1	-.23	Winchester 14	-.21
Great Barrington 1	c+3.09	Reading 3	-.33	Winchester 18	+6.67
Ipswich 1	+2.24	Sterling 1	+6.61	Woburn 1	+1.55
		Wilmington 10	+4.49	Woburn 4	-.15

a Net change to Oct. 18, 1948.

b Net change to Oct. 31, 1948.

c Net change to Jan. 1, 1949.

Net change, in feet, in water levels in observation wells
in Massachusetts, 1947--Continued

Well	Net change	Well	Net change	Well	Net change
Woburn 17	+0.08	Woburn 21	-0.22	Woburn 38	-0.49
Woburn 19	+.23	Woburn 36	a +1.24	Woburn 49	+.31

a Net change to Oct. 2, 1948.

As shown in the preceding table, there was a net rise in water level in 18 of the wells in the State in which readings were made throughout the year, and a net decline in 14 of them. The net rise in four of the former wells was 0.1 foot or less and the net drop in one of the latter wells was only 0.1 foot. Hence, the net change in stage during the year in these five wells can be considered to be negligible. At the end of the year water levels throughout the State were, in general, above the levels at the end of 1947, indicating a net increase of ground-water storage.

Precipitation for the State as a whole during the year was 45.58 inches, according to records of the U. S. Weather Bureau, or 4.63 inches more than in 1947 and 2.55 inches above normal. Total precipitation at Boston was 40.51 inches, or 2.60 more than in 1947 and 0.37 inch above normal. At Amherst the total precipitation for the year was 40.03 inches, which was 1.71 inches greater than in 1947 and 3.93 inches below normal. Precipitation was very heavy in May, June, and November and above normal in January, July, and October. It was below normal the remainder of the year and very low in September, resulting in low ground-water levels in September. Although precipitation was below normal in December, heavy rains at the end of the month furnished sufficient recharge to cause a net increase in ground-water storage for the year in many of the aquifers.

At the beginning of the year the water table was at low stage for that time of year throughout the State and continued so through January. By the end of February water levels had risen to high February stages in the eastern part, but remained low in the western sections of the State. The continuation of the rise in March, as the result of further snow melt, brought water levels to their highest March stages of record in the eastern part, to well above average in the central part, and to about average in the western part. A decline in April brought water levels to below average in the western part, but they remained a little above in eastern Massachusetts. As a result of excessive precipitation in May (6.81 inches for the State as a whole), water levels rose to high stages for this time

of year throughout the State, with the water level in the well at Leominster slightly higher than its previous end-of-May maximum, and at an all-time high in the well at Montague.

Above-normal precipitation in June, much of which occurred as local showers or thunderstorms, failed to keep water levels at high stages, resulting in a seasonal decline during the month. However, at the end of the month they were well above average throughout the State and at their highest June levels in the northeastern section of the State and in the well at Brimfield. The decline continued in July, but water levels were still seasonally high at the end of the month. During August and September water levels continued to drop, but, despite precipitation of about 60 percent of normal at the end of the month, were still above average in the eastern part and only slightly below in the western sections of the State.

The deficiency in rainfall continued into September, and water levels continued their decline, dropping to a little below average in eastern Massachusetts, and well below average in western Massachusetts. In October water levels dropped throughout most of the State, except in certain sections of central Massachusetts where, at Montague and Leominster, levels remained unchanged at the end of the month. All water levels were below average except in northeastern Massachusetts and in one well in Brimfield, in eastern Hampden County. Due to the cessation of use of water by plants and high precipitation of about 153 percent of normal in November, water levels rose, and generally were well above average at the end of the month, except in a few places where they were about average. The heavy rainfall at the end of December resulted in a rise during the month and a net gain in storage in most areas in the State.

Water-level observations were made once a month in three wells in the vicinity of Cambridge, Arlington 174, Cambridge 667, and Cambridge 798. The water levels in these wells are affected by fluctuations in nearby Fresh Pond, which is artificially controlled as the pond is part of the water supply of the city of Cambridge. In all three wells water levels were very low at the beginning of the year as the result of drawdown of the pond, but rose in the spring and were kept at high levels through June, after which there was a steady decline until the end of the year. There was, however, an appreciable net increase in ground-water storage in this

area during the year, as indicated by the net rise in water level in all three wells.

Water levels in 15 wells reached new high stages for their periods of record during February or at the end of March, most of them in the northeastern part of the State. New low levels were reached in seven wells and were reached or approached in two others. Most of these wells so affected are in the eastern part of the State, with the low levels occurring as the result of the low precipitation in the summer and autumn. In one well, Lowell 43, at the city of Lowell pumping station on Pawtucket Boulevard, a new low water level was reached at the end of December. The data on which all wells first were read are shown in the table containing the summary of water levels.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Berkshire County

Cheshire 1. Adams Fire District. About 0.25 mile southeast of State Highway 8, about 2.25 miles south of Adams. Penetrates glacial drift. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 27	8.8	Aug. 1	10.7	Sept. 5	12.2	Oct. 10	11.4
July 4	8.7	8	10.6	12	11.7	17	12.3
11	8.2	15	10.45	19	11.8	24	12.0
18	9.3	22	11.0	Oct. 3	12.0	31	12.6
25	9.75	29	11.3				

Great Barrington 1. US 96. Mrs. Dora A. Campbell. Formerly owned by E. L. Kopf. On northwest corner of North Plains Road and Division Street (State Highway 41). Penetrates glacial drift. Records available: 1936-48.

Jan. 29	21.84	May 17	19.75	Oct. 19	21.34	Nov. 16	21.60
Feb. 26	21.45	June 19	18.79	25	21.45	23	21.10
Mar. 30	19.01	Aug. 30	20.31	Nov. 2	21.24	Dec. 1	20.50
Apr. 24	19.25	Sept. 27	21.06	9	21.20	8	21.50

Bristol County

Fall River 67. Bristol County Superior Court House. About 200 feet east of North Main Street and about 50 feet north of Walnut Street. Unused dug well, diameter $2\frac{1}{2}$ inches, depth 12.0 feet below land surface. Penetrates glacial drift. Measuring point, arrow on north side of cement casing, at land-surface datum. Land surface is about 140 feet above mean sea level. Records available: 1948.

Apr. 27	8.30	June 28	8.68	Sept. 6	9.96	Nov. 8	10.35
May 3	8.63	July 12	8.97	13	9.97	15	9.96
10	8.95	19	8.25	20	10.09	22	8.99
17	8.31	26	9.22	27	10.26	29	9.47
24	7.01	Aug. 2	9.16	Oct. 4	10.52	Dec. 6	9.39
31	6.99	9	9.45	11	10.72	13	9.46
June 7	6.42	16	9.57	18	10.96	20	8.95
14	7.69	23	9.97	25	10.67	27	9.46
21	7.99	30	9.99	Nov. 1	10.19		

Essex County

Ipswich 1. Massachusetts Department of Conservation. About 60 feet south of south side of Linebrook Road, about 3.5 miles west of Ipswich. Penetrates gravel. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	15.53	Apr. 5	11.17	July 5	12.67	Oct. 4	15.15
12	15.65	12	11.05	12	12.77	11	15.37
19	15.88	19	11.42	19	13.07	18	15.59
26	15.62	26	11.94	26	13.29	25	15.93
Feb. 2	15.58	May 3	12.34	Aug. 2	13.59	Nov. 1	16.11
9	15.56	10	12.60	9	13.87	8	16.25
16	14.82	17	12.74	16	14.12	15	15.97
23	12.69	24	12.29	23	14.39	22	15.29
Mar. 1	11.12	31	12.31	30	14.45	29	14.62
8	12.17	June 7	12.29	Sept. 6	13.72	Dec. 6	14.59
15	12.06	14	11.81	13	12.85	13	14.77
22	7.98	21	12.14	20	13.97	20	14.97
29	10.25	28	12.55	27	14.64	27	15.19

Ipswich 2. Massachusetts Department of Conservation. About 18 feet north of north side of Gravelly Brook Road, about 0.6 mile west of junction with Topsfield-Ipswich Road, and about 4.0 miles southwest of Ipswich. Penetrates gravel. Records available: 1947-48.

Jan. 5	9.76	Apr. 5	6.97	July 5	8.29	Oct. 4	11.39
12	9.66	12	7.41	12	8.47	11	11.49
19	9.62	19	7.31	19	8.76	18	11.53
26	9.48	26	7.85	26	8.89	25	11.58
Feb. 2	9.48	May 3	8.20	Aug. 2	9.25	Nov. 1	11.26
9	9.45	10	8.21	9	9.52	8	11.09
16	8.75	17	8.35	16	9.75	15	10.76
23	7.78	24	7.81	23	9.98	22	9.87
Mar. 1	6.01	31	7.80	30	10.28	29	9.50
8	8.19	June 7	7.82	Sept. 6	10.49	Dec. 6	9.59
15	8.10	14	7.35	13	10.73	13	9.59
22	5.07	21	7.88	20	11.00	20	9.64
29	6.26	28	8.29	27	11.22	27	9.74

Franklin County

Montague 5. US 114. C. A. Kurtyka. On west side of Turners Falls-Montague road, about 1.3 miles north of Montague. Penetrates glacial drift. Records available: 1936-48.

Jan. 31	4.30	July 19	3.38	Sept. 13	4.60	Nov. 8	3.98
Feb. 29	3.10	26	3.79	20	4.64	15	3.90
Mar. 31	2.09	Aug. 2	3.87	27	4.74	22	3.00
Apr. 30	2.84	9	4.04	Oct. 4	4.71	29	3.26
May 31	2.00	16	3.86	11	4.48	Dec. 6	3.60
June 21	2.09	23	4.30	18	4.54	13	3.71
28	2.19	30	4.42	25	4.62	20	4.02
July 5	2.38	Sept. 6	4.59	Nov. 1	4.68	27	4.29
12	3.03						

Hampden County

Brimfield 12. US 95. Norman 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. Penetrates glacial drift. Records available: 1936-48.

Feb. 5	(a)	Jun. 23	5.74	Aug. 11	10.11	Sept. 27	12.96
Mar. 30	4.35	Jul. 13	7.73	23	10.89	Oct. 4	13.14
May 6	9.60	23	8.20	Sept. 13	12.19	14	13.32
June 4	9.42	Aug. 2	9.25	20	12.54	18	13.54
14	4.24	6	9.62				

a Dry. Water level below 16.3 feet.

Springfield 4028. Chapman Valve Co. About 150 feet east of Pinevale Street and about 280 feet north of Essex Street. Unused driven industrial well, diameter 2 inches, depth 22.17 feet below land surface. Penetrates glacial drift. Measuring point, top of 1-inch steel bar across top of well, at land-surface datum. Land surface is about 210 feet above mean sea level. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 14	9.38	Aug. 30	9.08	Oct. 11	9.10	Nov. 22	9.29
19	9.15	Sept. 7	9.05	18	9.12	29	9.32
26	9.15	13	9.03	23	9.14	Dec. 6	9.33
Aug. 2	9.11	20	9.06	Nov. 1	9.19	13	9.35
9	9.14	27	9.06	8	9.22	20	9.44
16	8.98	Oct. 4	9.04	15	9.25	27	9.45
23	9.07						

Middlesex County

Arlington 174. Massachusetts Department of Public Health. At northwest corner of Margaret and Dorothy Roads. Penetrates coarse gravel and sand. Records available: 1944-48.

Jan. 1	12.54	May 1	7.33	July 30	7.92	Oct. 29	9.89
31	12.75	June 1	7.38	Aug. 30	7.96	Nov. 26	10.19
Feb. 28	11.73	28	6.99	Oct. 2	8.98	Dec. 31	11.85
Apr. 4	8.55						

Cambridge 667. Cambridge Water Department. On Fresh Pond golf course, 270 feet east of Blanchard Road and 950 feet south of Concord Avenue. Penetrates sand and gravel. Records available: 1944-48.

Jan. 1	21.28	May 1	6.97	July 30	6.58	Oct. 29	12.80
31	22.02	June 1	6.29	Aug. 30	8.00	Nov. 26	14.68
Feb. 28	16.58	28	6.17	Oct. 2	11.07	Dec. 31	16.54
Apr. 4	11.71						

Cambridge 798. Massachusetts Department of Public Health. On Fresh Pond golf course, 450 feet south of Concord Avenue, 970 feet east of Blanchard Road. Penetrates sand and gravel. Records available: 1944-48.

Jan. 5	16.22	May 1	2.31	July 30	1.93	Oct. 29	8.16
31	17.46	June 1	1.65	Aug. 30	3.32	Nov. 26	9.76
Feb. 28	9.52	28	1.55	Oct. 2	6.27	Dec. 31	10.94
Apr. 4	6.79						

Chelmsford 68. 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. Penetrates glacial drift. Records available: 1939-48.

Jan. 31	9.77	May 1	8.03	July 29	8.30	Oct. 30	10.69
Feb. 29	8.21	June 1	6.93	Aug. 30	9.63	Nov. 27	9.81
Apr. 3	7.13	28	7.24	Oct. 2	10.98	Dec. 30	10.38

Chelmsford 69. City of Lowell, Washington test well 2. About 2,100 feet southeast of Chelmsford Street, 300 feet southwest of Ecuador Road, and 1.7 miles northeast of Chelmsford Center, Chelmsford. Penetrates glacial drift. Records available: 1939-48.

Jan. 31	1.82	May 1	1.84	Aug. 30	2.54	Nov. 27	1.75
Feb. 29	.69	July 20	2.05	Oct. 2	2.79	Dec. 30	2.32
Apr. 3	1.07	29	1.76	30	2.57		

Lowell 4. U. S. Rubber Co. About 135 feet north of Marginal Street, and about 1,000 feet east of Pawtucket Street bridge over Boston & Maine Railroad tracks, Lowell. Penetrates glacial drift. Records available: 1939-48. Oct. 2, 12.44.

Lowell 14. Rogers Hall School. About 90 feet north of Rogers Street and 2,000 feet east of Fort Hill, Lowell. Penetrates glacial drift. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	16.04	May 1	9.51	July 29	12.34	Nov. 27	17.08
Feb. 29	13.78	June 1	9.66	Oct. 2	15.70	Dec. 30	16.20
Apr. 3	8.80	28	9.83	30	16.80		

Lowell 26. Alfred Cimon (well 1). About 55 feet northeast of Pawtucket Boulevard Extension and 4,500 feet west of East Avenue, Lowell. Penetrates glacial drift. Records available: 1939-48. Oct. 2, 11.80.

Lowell 33. Thomas Varnum. About 400 feet south and 50 feet west of intersection of Varnum Avenue and West Meadow Road, Lowell. Penetrates glacial drift. Records available: 1939-48. Oct. 2, 10.17.

Lowell 41. 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, which is about 1,300 feet southwest of intersection of Plain and Manufacturers Streets, Lowell. Penetrates glacial drift. Records available: 1939-48.

Jan. 31	16.28	May 1	15.80	July 29	16.17	Oct. 30	18.70
Feb. 29	13.43	June 1	14.49	Aug. 30	16.86	Nov. 27	17.75
Apr. 3	12.85	28	13.85	Oct. 2	18.52	Dec. 30	18.48

Lowell 43. 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. Penetrates sand and gravel. Records available: 1940-48.

Jan. 31	23.71	May 1	24.55	July 29	21.40	Oct. 30	25.20
Feb. 29	21.09	June 1	22.16	Aug. 30	23.01	Nov. 27	24.04
Apr. 3	23.79	28	21.70	Oct. 2	24.83	Dec. 30	25.76

Reading 1. William Kelch. About 50 feet northwest of West Street, 1,000 feet northwest of intersection of West and Willow Streets, and about 1.4 miles northwest of Reading. Penetrates glacial drift. Records available: 1939-48.

Jan. 30	20.31	May 1	15.56	July 29	18.50	Oct. 30	20.59
Feb. 28	17.67	June 1	17.00	Aug. 30	19.94	Nov. 27	20.40
Apr. 3	13.02	28	16.57	Oct. 1	20.83	Dec. 30	20.79

Reading 3. Merle W. Farr. About 500 feet southeast of intersection of West Street and County Road and about 1.2 miles southwest of Reading. Penetrates gravel. Records available: 1940-48.

Jan. 30	2.17	May 1	1.70	July 29	2.07	Oct. 30	3.51
Feb. 28	1.45	June 1	1.51	Aug. 30	3.94	Nov. 27	2.35
Apr. 3	1.45	28	1.78	Oct. 1	4.55	Dec. 30	2.63

Wilmington 10. L. Chisholm. About 75 feet southeast of Hopkins Street, 1,100 feet southwest of Shawsheen Avenue, and 2.1 miles west of Wilmington Center. Penetrates sand. Records available: 1940-48.

Jan. 30	4.63	May 1	1.72	July 29	3.38	Oct. 30	7.50
Feb. 28	2.33	June 1	1.23	Aug. 30	5.78	Nov. 27	3.75
Apr. 3	1.02	28	2.20	Oct. 1	7.09	Dec. 30	4.00

Wilmington 29. 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. Penetrates coarse gravelly sand. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	10.37	May 1	10.01	July 29	10.29	Oct. 30	11.00
Feb. 28	9.73	June 1	9.93	Aug. 30	10.97	Nov. 27	10.48
Apr. 3	9.38	28	10.00	Oct. 1	11.34	Dec. 30	10.57

Wilmington 44. US 1. Mrs. Anne M. McMahon. About 700 feet northwest of intersection of Federal Street and Middlesex Avenue and 0.4 mile northeast of Wilmington Center. Penetrates gravel and sand. Records available: 1940-48.

Water level at noon, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.71	....	2.99	2.94	3.94	3.02	4.16	4.88	6.22	6.97	6.33	4.20
2	4.71	....	3.08	2.44	3.96	3.28	4.08	4.95	6.26	7.01	6.32	4.23
3	4.72	....	3.19	2.60	3.99	3.50	4.09	5.01	6.29	7.04	6.32	4.26
4	4.73	....	3.28	2.83	4.04	3.65	4.18	5.05	6.33	7.07	6.30	4.29
5	4.72	....	3.35	2.98	4.09	3.77	4.27	5.11	6.36	7.09	6.12	4.33
6	4.70	....	3.38	3.09	4.14	3.10	4.02	5.16	6.39	7.07	5.83	4.34
7	4.67	4.70	3.42	2.87	4.17	3.27	3.16	5.19	6.42	7.10	5.67	4.30
8	4.69	4.68	3.27	2.99	3.92	2.83	3.34	5.24	6.46	7.13	5.58	4.24
9	4.65	4.72	3.23	3.10	3.77	2.74	3.64	5.29	6.49	7.11	5.50	4.30
10	4.66	4.74	3.04	3.27	3.82	2.90	3.81	5.35	6.54	7.06	5.47	4.34
11	4.67	4.77	2.66	3.38	3.91	3.13	3.95	5.42	6.58	7.05	5.39	4.41
12	4.67	4.74	2.79	3.10	3.96	3.32	4.05	5.46	6.60	7.03	5.07	4.44
13	4.65	4.76	2.93	3.03	4.04	3.32	4.16	5.45	6.63	6.98	4.94	4.44
14	4.62	4.32	3.08	3.18	4.04	3.13	4.20	5.44	6.67	6.97	4.96	4.43
15	4.64	3.20	3.18	2.83	3.99	3.38	4.21	5.48	6.71	6.97	5.00	4.47
16	4.65	3.36	1.60	2.67	4.02	3.57	4.28	5.53	6.75	6.97	5.06	4.49
17	4.65	3.44	24	2.90	3.93	3.70	4.36	5.58	6.78	....	5.10	4.49
18	4.65	2.77	.98	3.12	3.53	3.82	4.45	5.61	6.80	....	5.16	4.47
19	4.66	2.68	1.33	3.07	3.20	3.88	4.52	5.65	6.80	....	5.21	4.45
20	4.67	1.98	1.30	3.36	3.40	3.53	4.58	5.68	6.79	....	4.98	4.48
21	4.69	2.19	1.54	3.45	3.62	3.65	4.64	5.72	6.80	....	3.88	4.53
22	4.55	2.44	1.62	3.32	3.50	3.82	4.70	5.75	6.82	....	3.85	4.55
23	4.56	2.66	1.85	3.58	3.22	3.94	4.76	5.80	6.85	6.98	....	4.58
24	4.56	2.85	a2.01	3.64	3.44	3.84	4.52	5.85	6.88	6.98	....	4.60
25	4.55	2.94	a2.17	3.70	3.63	3.75	4.44	5.89	6.91	6.93	....	4.62
26	4.56	2.66	a2.32	3.76	3.74	3.85	4.50	5.95	6.93	6.80	....	4.66
27	4.56	2.73	2.40	3.81	3.80	3.97	4.58	6.01	6.95	6.61	4.00	4.71
28	4.57	2.56	2.50	3.86	3.86	4.05	4.62	6.07	6.96	6.48	4.05	4.74
29	4.57	2.78	2.64	3.90	3.93	4.07	4.68	6.11	6.95	6.40	4.10	4.79
30	4.59	2.75	3.93	3.84	4.09	4.75	6.17	6.94	6.37	4.16	4.74	
31	4.63	2.87	2.93			4.80	6.21		6.34	4.56		

a Estimated.

Wilmington 56. D. P. Falkner. East side of Woburn Street, about 700 feet north of Lowell Street and 1.4 miles southeast of Wilmington Center, Wilmington. Penetrates sand and gravel. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	4.57	May 1	4.18	July 29	4.75	Oct. 30	5.95
Feb. 28	2.24	June 1	2.66	Aug. 30	6.68	Nov. 27	3.88
Apr. 3	2.95	28	4.00	Oct. 1	7.40	Dec. 30	4.61

Wilmington 58. 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. Penetrates bedrock. Records available: 1940-48.

Jan. 30	8.41	May 1	7.05	July 29	9.08	Oct. 30	12.36
Feb. 28	5.70	June 1	6.14	Aug. 30	10.98	Nov. 27	9.49
Apr. 3	4.48	28	7.20	Oct. 1	12.26	Dec. 30	8.44

Winchester 4. 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. Penetrates glacial drift. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	11.83	May 1	8.69	July 29	9.40	Oct. 30	13.11
Feb. 29	10.28	June 1	9.45	Aug. 30	10.45	Nov. 27	11.53
Apr. 3	6.67	28	8.40	Oct. 2	12.27	Dec. 31	11.27

Winchester 14. K. W. B. Cox. About 105 feet north of Forest Street, 360 feet northeast of west intersection of Forest Street and Forest Circle, and 1.7 miles northeast of Winchester. Penetrates glacial drift. Records available: 1940-48.

Jan. 30	9.86	May 1	9.90	July 29	10.85	Oct. 30	13.78
Feb. 28	6.38	June 1	9.55	Aug. 30	12.50	Nov. 27	10.72
Apr. 3	8.50	28	9.52	Oct. 1	13.19	Dec. 30	10.34

Winchester 18. Thomas N. Vinson. About 60 feet east of Ridge Street, 40 feet north of High Street, about 1.9 miles west of Winchester. Penetrates gravel. Records available: 1940-48.

Jan. 31	10.44	May 1	8.86	July 30	11.39	Oct. 30	(a)
Feb. 29	8.77	June 1	7.67	Aug. 30	12.60	Nov. 27	11.50
Apr. 3	4.91	28	8.69	Oct. 2	(a)	Dec. 31	8.85

a Dry. Water level below 14.1 feet.

Woburn 1. E. P. Fox. About 225 feet south of Green Street, 250 feet west of Highland Street, 0.5 mile south of Woburn. Penetrates glacial drift. Records available: 1939-48.

Jan. 31	7.74	May 1	6.85	Oct. 2	8.62	Nov. 27	5.94
Feb. 29	6.43	June 1	6.30	30	7.52	Dec. 31	5.71
Apr. 3	5.93	Aug. 30	8.17				

Woburn 3. New England Dressed Poultry Co. Formerly owned by 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. Penetrates glacial drift. Records available: 1939-48. Oct. 2, 0.90.

Woburn 4. 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. Penetrates glacial drift. Records available: 1939-48.

Jan. 30	1.31	May 1	1.19	July 29	1.42	Oct. 30	1.63
Feb. 28	+.73	June 1	.89	Aug. 30	1.95	Nov. 27	1.20
Apr. 3	.80	28	1.26	Oct. 1	1.89	Dec. 30	1.37

Woburn 5. 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. Penetrates glacial drift. Records available: 1939-48. Oct. 2, 0.11.

Woburn 17. 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. Penetrates fine gravelly sand. Records available: 1940-48.

Jan. 30	6.15	May 1	6.02	July 29	6.75	Oct. 30	8.33
Feb. 28	4.64	June 1	6.06	Aug. 30	7.20	Nov. 27	5.93
Apr. 3	4.86	28	5.60	Oct. 1	7.60	Dec. 30	5.98

Woburn 19. Tanner's Degreasing Co., Inc. About 230 feet north of Montvale Avenue and 300 feet west of Albany Street, East Woburn. Penetrates sand, hardpan, gravel. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	6.29	May 1	5.70	July 29	5.88	Oct. 30	6.96
Feb. 28	4.71	June 1	5.26	Aug. 30	7.29	Nov. 27	5.70
Apr. 3	4.97	28	5.60	Oct. 1	8.64	Dec. 30	6.12

Woburn 21. Morris Kaplan. About 150 feet south of Webster Street, 1,100 feet west of Kimball Lane, North Woburn. Penetrates sand. Records available: 1940-48.

Jan. 30	7.83	May 1	6.02	July 29	6.68	Oct. 30	8.73
Feb. 28	6.30	June 1	6.30	Aug. 30	7.75	Nov. 27	8.03
Apr. 3	4.97	28	6.17	Oct. 1	8.50	Dec. 30	7.92

Woburn 23. F. H. Bowser. About 490 feet southwest of intersection of Main and Elm Streets, 0.6 mile south of North Woburn. Penetrates sand and gravel. Records available: 1940-48. Oct. 2, 2.35.

Woburn 36. 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, 1.2 miles southwest of Woburn. Penetrates sand and gravel. Records available: 1940-48.

Jan. 31	6.14	May 1	3.92	June 28	3.53	Aug. 30	3.80
Feb. 29	4.43	June 1	3.74	July 30	3.41	Oct. 2	4.62
Apr. 3	4.08						

Woburn 38. Town of Woburn. On Woburn Country Club gold course, about 300 feet northwest of owner's Unit D pump house, which is about 60 feet west of Woburn Parkway and 1.1 miles southwest of Woburn. Penetrates glacial drift. Records available: 1940-49.

Feb. 29	9.34	June 1	9.34	Aug. 30	11.17	Nov. 27	12.03
Apr. 3	8.00	28	8.59	Oct. 2	12.67	Dec. 31	11.72
May 1	9.58	July 29	9.89	30	13.66		

Woburn 49. Leo Pias. About 260 feet south of Locust Street, 560 feet east of Cambridge Road, and 1.3 miles west of Woburn. Penetrates gravel. Records available: 1940-48.

Jan. 31	0.27	May 1	+1.79	July 29	+1.41	Oct. 30	2.55
Feb. 29	+0.81	June 1	+1.73	Aug. 30	.00	Nov. 27	.36
Apr. 3	+1.97	28	+1.71	Oct. 2	1.46	Dec. 30	+1.19

Woburn 53. P. Flowers. About 240 feet north of Kilby Street, 550 feet west of Hart Street, about 0.6 mile north of Woburn. Penetrates glacial drift. Records available: 1940-48. Oct. 2, 9.90.

Worcester County

Leominster 11. US 128. 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. Penetrates glacial drift. Records available: 1939-48.

Water level at noon, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.24	4.16	1.97	2.33	3.28	2.58	3.46	4.83	6.89	8.13	8.04	2.92
2	4.19	4.14	2.04	1.67	3.40	2.81	3.66	4.97	6.89	8.16	8.00	2.94
3	4.21	4.15	2.09	1.95	3.52	3.02	3.86	5.08	6.91	8.20	7.98	2.97
4	4.23	4.18	2.17	2.24	3.63	3.19	4.03	5.18	6.95	8.23	7.95	3.06
5	4.22	4.18	2.26	2.36	3.72	3.17	4.18	5.28	7.00	8.26	7.93	3.15
6	4.21	4.17	2.29	2.47	3.80	2.26	3.30	5.34	7.05	8.28	7.87	3.15
7	4.15	4.16	2.29	2.27	3.86	2.27	2.99	5.33	7.09	8.31	7.75	2.91
8	4.16	4.12	2.17	2.40	1.97	1.68	3.30	5.41	7.14	8.33	7.63	2.95

Leominster 11--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	4.10	4.20	2.17	2.47	2.31	1.67	3.58	5.52	7.20	8.32	7.48	3.10
10	4.10	4.21	1.98	2.65	2.53	1.88	3.81	5.62	7.24	8.34	7.34	3.16
11	4.14	4.22	1.72	2.76	2.60	2.12	4.01	5.72	7.29	8.35	7.17	3.28
12	4.15	4.15	1.85	1.99	2.76	2.30	4.19	5.80	7.35	8.33	6.75	3.32
13	4.13	4.20	1.98	2.24	2.85	1.77	4.33	5.60	7.40	8.31	6.29	3.15
14	4.11	3.22	2.12	2.31	2.57	2.02	4.10	5.45	7.45	8.29	6.02	3.20
15	4.14	2.41	2.15	1.68	2.38	2.37	4.17	5.50	7.51	8.28	5.86	3.33
16	4.14	2.43	1.50	1.82	2.62	2.59	4.36	5.65	7.56	8.27	5.80	3.36
17	4.15	2.18	1.55	2.10	1.48	2.80	4.47	5.80	7.61	8.26	5.74	3.30
18	4.15	1.82	1.62	2.37	1.39	3.04	4.58	5.89	7.64	8.26	5.73	3.24
19	4.21	1.66	1.65	2.53	1.64	2.28	4.69	5.98	7.68	8.27	5.72	3.31
20	4.20	1.68	1.54	2.59	1.83	2.29	4.78	6.06	7.72	8.28	5.00	3.39
21	4.16	1.73	1.63	2.64	1.96	2.68	4.87	6.13	7.76	8.30	3.65	3.46
22	4.12	1.73	1.63	2.73	1.52	3.00	4.92	6.21	7.80	8.32	3.40	3.48
23	4.17	1.79	1.77	2.84	1.71	3.18	4.99	6.29	7.84	8.33	3.05	3.41
24	4.22	1.96	1.89	2.92	2.02	2.39	4.04	6.35	7.88	8.34	2.93	3.45
25	4.17	2.01	2.11	3.04	1.97	2.49	4.02	6.43	7.92	8.35	2.86	3.57
26	4.17	1.70	2.23	3.15	1.98	2.91	4.16	6.51	7.96	8.35	2.94	3.72
27	4.15	1.77	2.24	3.25	2.18	3.13	4.23	6.59	8.00	8.33	2.88	3.84
28	4.13	1.66	1.87	3.35	2.42	3.26	4.26	6.67	8.03	8.28	2.77	3.95
29	4.11	1.76	2.12	3.41	2.62	3.36	4.39	6.74	8.07	8.21	2.84	3.98
30	4.12		2.26	3.47	2.53	3.53	4.52	6.82	8.10	8.15	2.96	3.40
31	4.16		2.38		2.38		4.67	6.97		8.08		2.90

Sterling 1. Nunzio Lanciani. About 45 feet north of north side of Justice Hill Road, about 0.8 mile northwest of junction with South Nelson Road, and about 3 miles northwest of Sterling. Penetrates till. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.58	Apr. 9	3.27	July 9	3.81	Oct. 8	11.65
9	3.42	16	3.29	16	3.88	15	11.78
16	3.48	23	3.37	23	5.48	22	11.85
23	3.50	30	3.59	30	5.05	29	11.89
30	3.51	May 7	3.89	Aug. 6	6.35	Nov. 5	11.63
Feb. 6	3.65	14	3.19	13	6.69	12	9.68
13	3.79	21	3.31	20	7.52	19	7.96
20	2.64	28	3.34	27	8.45	26	4.10
27	3.29	June 4	3.61	Sept. 3	9.21	Dec. 3	3.86
Mar. 5	3.29	11	3.30	10	9.73	10	3.90
12	3.21	18	3.48	17	9.85	17	3.88
19	2.88	25	3.31	24	10.78	24	4.09
26	3.28	July 2	3.88	Oct. 1	11.27	31	3.25
Apr. 2	3.20						

Winchendon 13. 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. Penetrates glacial drift. Records available: 1939-48.

Water level at noon, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.06	9.49	6.72	3.24	3.81	3.35	4.95	7.32	9.93	11.37	12.26	12.12
2	9.94	9.51	6.67	2.76	3.87	3.63	5.08	7.47	9.99	11.41	12.29	11.96
3	9.84	9.52	6.60	3.02	3.99	3.84	5.22	7.61	10.05	11.46	12.30	11.74
4	9.76	9.54	6.64	3.24	4.11	4.00	5.39	7.74	10.10	11.49	12.32	11.50
5	9.68	9.57	6.71	3.32	4.19	4.02	5.55	7.86	10.16	11.52	12.35	11.21
6	9.61	9.58	6.71	3.41	5.30	3.27	4.85	7.96	10.21	11.55	12.37	10.86
7	9.55	9.60	6.61	3.41	4.34	3.45	3.58	8.08	10.27	11.59	12.39	10.49
8	9.50	9.61	6.55	3.42	3.44	2.55	3.91	8.19	10.33	11.62	12.41	10.07
9	9.45	9.63	6.64	3.46	3.37	2.89	4.24	8.30	10.38	11.65	12.43	9.64
10	9.42	9.66	6.65	3.64	3.54	3.14	4.49	8.40	10.44	11.67	12.45	9.26
11	9.41	9.69	6.66	3.72	3.72	3.32	4.73	8.50	10.49	11.71	12.45	8.95
12	9.40	9.69	6.68	3.07	3.82	3.42	4.96	8.59	10.55	11.73	12.47	9.67

Winchendon 13--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	9.38	9.71	6.70	3.16	3.97	3.00	5.16	8.66	10.60	11.76	12.49	8.44
14	9.36	9.60	6.74	3.32	3.76	3.02	4.50	8.73	10.65	11.79	12.51	8.27
15	9.36	9.57	6.68	2.58	3.81	3.33	4.49	8.82	10.71	11.82	12.52	8.19
16	9.37	9.57	6.01	2.70	4.00	3.60	4.72	8.90	10.76	11.85	12.55	8.06
17	9.37	9.44	3.37	2.97	2.87	3.82	4.94	8.97	10.81	11.88	12.56	7.95
18	9.37	9.21	3.03	3.21	2.45	4.01	5.14	9.03	10.85	11.92	12.58	7.88
19	a9.39	8.93	2.94	3.33	2.69	4.02	5.35	9.09	10.89	11.95	12.59	7.81
20	a9.39	8.50	1.86	3.34	2.98	3.73	5.54	9.15	10.95	11.97	12.59	7.73
21	9.39	8.07	2.60	3.38	3.13	3.98	5.71	9.21	10.99	12.00	12.60	7.72
22	9.40	7.62	2.20	3.48	2.84	4.23	5.90	9.28	11.03	12.03	12.61	7.69
23	9.38	7.32	2.65	3.57	3.05	4.38	6.07	9.34	11.07	12.05	12.60	7.68
24	9.40	7.13	2.86	3.64	3.10	4.04	6.16	9.40	11.11	12.07	12.60	7.68
25	9.41	6.87	3.07	3.75	3.12	3.98	6.28	9.46	11.15	12.09	12.57	7.69
26	9.42	6.74	3.14	3.84	2.63	4.28	6.41	9.53	11.19	12.12	12.54	7.72
27	9.43	6.70	3.03	3.91	2.95	4.46	6.53	9.60	11.23	12.14	12.48	7.74
28	9.45	6.65	2.77	3.97	3.17	4.57	6.66	9.67	11.27	12.17	12.42	7.76
29	9.45	6.60	3.07	4.02	3.35	4.69	6.81	9.73	11.31	12.19	12.34	7.79
30	9.45		3.19	4.07	3.47	4.81	6.96	9.80	11.34	12.22	12.24	7.74
31	9.47		3.28		3.10		7.15	9.87		12.24		7.53

a Estimated.

MICHIGAN

By J. G. Ferris, E. A. Moulder, and Norman Billings

PROGRAM OF WORK

The investigation of the ground-water resources of the Southern Peninsula of Michigan was continued during 1948 in cooperation with the Geological Survey Division of the Michigan Department of Conservation. One phase of this work includes the maintenance of a State-wide network of observation wells to determine the trends and changes of storage in principal ground-water reservoirs. About 6,000 measurements of water level were made during the year in about 230 observation wells. Of this group, 47 were equipped with automatic water-stage recorders from which continuous records of water level were obtained. In the remainder of the wells, water levels were measured at periods ranging from semiweekly to annually. Most of the 10 automatic water-stage recorders that were added to the program during the year were installed on unused wells in State and Federal forests, through the northern part of the Southern Peninsula. The majority of these wells are finished in sand and gravel formations within the thick section of drift deposits that mantle the bedrock through this area. Records obtained from the new recorder wells form an important part of a research program that is aimed at the correlation of ground-water levels with the base flow of streams in this region.

At the end of the year a report entitled "Ground-water hydraulics as a geophysical aid" was published by the Michigan Geological Survey, as Technical Bulletin No. 1. This report summarized the methods employed and the results obtained in the course of cooperative studies of the flow of ground water in areally limited aquifers which are of common occurrence in the southern part of the State. Research phases of the State-wide program in 1948 included studies of the effect of agricultural drains on regional water tables. In addition to the development of methods for the solution of practical problems in land drainage, the objectives of this

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work are pointed specifically to determining the interrelation of stream flow and attendant changes in the ground-water level. The establishment of key recorder-well sites in the northern part of the Southern Peninsula during the past year was aimed at the collection of basic data for the application of these drain functions as research develops.

PRECIPITATION

Total State-wide precipitation in 1948 was 28.00 inches, or 2.17 inches below normal. On a State-wide basis, above-normal precipitation occurred during March, April, June, and November. An extended drought of considerable magnitude accumulated in the period July through October. State-wide average temperatures were above normal for April, July, August, September, November, and December. Greatest temperature departures were January at 5.6° F. below normal and April, September, and November with departures above normal of 4.8°, 3.0°, and 4.8° F., respectively. The net departure of temperature for the year was 4.6° above normal.

The most favorable conditions for ground-water recharge probably occurred during the months of March, April, June, and November which combined near or above-normal precipitation and temperature. The drought period July through October was also a period of temperature excess which would encourage above-average evapotranspiration withdrawals.

FLUCTUATIONS OF WATER LEVEL

For those areas in the southern part of the Southern Peninsula which are under intensive study, detailed discussions of water-level fluctuations, pumpage, and precipitation are included with the tabulation of water-level measurements for that area. In the northern part of the Southern Peninsula the recorder well Cr Gr 6, in Crawford County near Grayling, may be used as an index of the trends of ground-water level in the shallow water-table aquifers which cover this area. The stage in the Grayling recorder well on the first of the year was 6.86 feet below land-surface datum. As a consequence of below-normal precipitation and temperature through January and most of February, ground-water levels declined to a stage of 7.30 feet below land surface by February 25. A warm front, coupled with heavy rains, moved through the area about February 24 and recharged the water table during the last few days of February and the first part of March. Water levels rose from February 25 to March 3 to a stage of 7.09 feet below land

surface. Following this thaw, water levels declined slightly to 7.14 feet below land surface by March 16.

Moderate to warm temperatures in the last part of March coupled with heavy rainfall on March 16 caused considerable recharge to the water table. Continued recharge from rains in the first part of April carried water levels to a stage of 4.88 feet below land surface by April 12. Thereafter the water table receded to a stage of 5.34 feet by April 27. Rains during the last week of April returned water levels to the 4.88-foot stage on April 29.

Below-average precipitation through May and most of June resulted in a decline of the water table of 1.32 feet to a stage of 6.20 feet below land surface on June 26. Widespread rains during the last week of June caused considerable recharge and water levels rose to the high for the year of 4.63 feet below land surface on June 30. Recession of the water table followed to July 22 reaching a stage of 5.93 feet. Rains on July 21 and 22 raised the water table to 5.63 feet below land surface on July 23 and 24.

Above-normal temperatures and below-normal precipitation through August, September, and October resulted in a progressive decline of water level from the July 24 stage to the low for the year--8.18 feet below land surface--in the period October 10-12. Moderate rainfall in the period October 8-14, coupled with warm weather resulted in recharge and a rise of ground-water level to a stage of 7.95 feet by October 24. Above-normal precipitation and temperature during November recharged the water table to bring ground-water levels to the high for the month--6.49 feet below land surface on November 24 and 25. Below-normal precipitation and sub-freezing temperatures in December limited recharge, and water levels declined to 6.90 feet below land surface by the end of the year. As indicated by the small net decline of 0.04 foot in the Grayling recorder well during 1948, conditions of precipitation and temperature favorable to ground-water recharge in the spring and late fall of 1948 approximately offset the effect of the summer drought.

Mid-December measurements of water level in 43 shallow wells, which are finished in the drift deposits of the north-central part of the Southern Peninsula, indicate that the average ground-water stage was 0.67 foot below the mid-December stage of 1947. A review of the water-level

records for this group of wells shows that net declines of water level ranged from 0.1 foot to as much as 1.7 feet. A comparison of these data with water-level records for observation wells which are in the southern part of the Southern Peninsula, and are of comparable depth, indicates about the same range and average decline of water level during the year.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Alpena County

Green Township

Ap Gn 1. Julius E. Maxfield. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 30 N., R. 6 E., 90 feet south of north section line and 310 feet east of quarter section line. Unused dug well, diameter 18 inches, measured depth 18.7 feet below land surface. Measuring point, top of recorder base, 2.0 feet above land-surface datum. Automatic water-stage recorder installed Oct. 20, 1948. Records available: 1948.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 20	a 8.43	Nov. 8	8.72	Nov. 26	8.92	Dec. 14	9.25
21	8.44	9	8.74	27	8.94	15	9.27
22	8.46	10	8.75	28	8.96	16	9.27
23	8.47	11	b 8.77	29	8.99	17	9.29
24	8.49	12	8.80	30	9.01	18	9.30
25	8.51	13	8.81	Dec. 1	9.03	19	9.32
26	8.54	14	8.83	2	9.04	20	9.33
27	8.55	15	8.85	3	9.06	21	9.34
28	8.57	16	8.87	4	9.08	22	9.36
29	8.58	17	a 8.88	5	9.09	23	9.37
30	8.60	18	8.89	6	9.10	24	9.38
31	8.61	19	8.92	7	9.12	25	9.39
Nov. 1	8.63	20	8.82	8	9.14	26	9.41
2	8.65	21	8.81	9	b 9.17	27	9.42
3	8.66	22	8.84	10	9.19	28	9.43
4	8.67	23	8.86	11	9.21	29	9.44
5	8.68	24	8.88	12	9.22	30	9.45
6	8.69	25	8.90	13	9.23	31	9.46
7	8.70						

a Wetted-tape measurement.

b Estimated.

Calhoun County

City of Battle Creek

Ch BC 140. Oliver Farm Implement Co., 423 East Michigan Avenue. About 150 feet northeast of Michigan Avenue and about 470 feet southeast of Union Street. Records available: 1946-48.

June 11	19.42	Aug. 6	22.34	Oct. 1	21.95	Nov. 26	20.47
25	20.51	20	22.20	15	21.62	Dec. 10	20.85
July 9	20.98	Sept. 3	22.32	29	21.53	23	20.54
23	21.88	17	22.24	Nov. 12	21.31		

Ch BC 150. H. B. Sherman Manufacturing Co., 22 Barney Street. About 430 feet southeast of Washington Avenue and 80 feet northeast of Kalamazoo Street. Records available: 1946-48.

Ch BC 150--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	16.36	May 1	14.70	July 23	16.19	Oct. 15	16.86
24	16.48	15	12.69	Aug. 6	16.34	29	16.92
Feb. 21	15.50	29	14.90	20	16.63	Nov. 12	16.93
Mar. 13	15.19	June 11	16.30	Sept. 3	17.14	26	16.15
Apr. 10	14.13	25	16.17	17	16.70	Dec. 10	17.11
24	14.38	July 9	16.25	Oct. 1	16.68	23	16.69

Ch BC 160. Post Cereals Division, General Foods Corporation. About 400 feet northwest of Angell Street and 240 feet southwest of Lafayette Street. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	7.17	6.26	7.03	6.95	7.55	8.31	8.86	8.93	8.91	8.88	8.88
2	.....	7.15	6.33	7.04	7.09	7.63	8.33	8.87	8.94	9.00	8.95	8.95
3	.....	7.19	6.42	6.87	7.17	7.57	8.46	8.91	8.83	9.02	8.98	8.98
4	.....	7.27	6.40	6.91	7.23	7.52	8.47	8.92	8.78	9.03	8.99	8.99
5	.....	7.29	6.38	6.91	7.34	7.52	8.45	8.85	8.85	9.03	8.89	8.89
6	.....	7.29	6.49	6.99	7.36	7.54	8.52	8.79	8.91	9.06	8.83	8.83
7	as.84	7.23	6.54	6.96	7.35	7.73	8.50	8.74	8.93	8.93	8.94	8.94
8	.....	8.78	7.30	6.55	6.91	7.44	7.81	8.40	8.89	8.93	8.90	9.01
9	.....	8.74	7.42	6.62	6.88	7.50	7.88	8.37	8.85	8.91	8.98	9.05
10	as.61	8.87	7.40	6.61	6.63	7.56	7.93	8.52	8.84	8.83	9.02	9.08
11	bs.55	8.90	b7.52	6.51	6.06	7.60	7.81	8.53	8.83	8.77	9.01	9.08
12	.....	8.93	.....	6.20	5.82	7.59	7.77	8.48	8.75	8.88	9.01	8.95
13	.....	8.89	a7.63	6.27	5.67	7.55	7.93	8.47	8.71	8.95	9.00	8.89
14	.....	8.88	7.53	6.27	5.65	7.55	7.98	8.51	8.83	8.98	8.90	9.00
15	.....	8.81	7.47	6.33	5.68	7.62	8.00	8.42	8.90	9.01	8.85	8.96
16	.....	8.72	7.45	6.35	5.73	7.67	8.04	8.38	8.86	8.99	8.96	8.71
17	as.67	8.61	7.45	6.50	5.79	7.69	8.09	8.50	8.88	8.90	8.97	8.65
18	8.64	8.43	7.37	6.51	5.96	7.74	8.02	8.54	8.91	8.85	8.98	8.61
19	bs.60	8.28	7.22	6.53	6.08	7.75	8.00	8.58	8.84	8.96	8.97	8.48
20	.....	8.17	5.99	6.63	6.15	7.73	8.13	8.63	8.79	9.06	8.89	8.44
21	.....	8.12	5.75	6.72	6.18	7.70	8.18	8.65	8.90	9.04	8.76	8.58
22	.....	8.05	5.52	6.79	6.32	7.76	8.20	8.61	8.91	9.07	8.69	8.59
23	.....	7.98	5.51	6.85	6.34	7.84	8.22	8.60	8.94	9.05	8.76	8.64
24	as.73	bs.05	5.59	6.85	6.42	7.85	8.21	8.70	8.95	8.98	8.79	8.63
25	.....	8.01	5.70	6.84	6.54	a7.91	8.15	8.75	8.95	8.88	8.84	8.52
26	.....	7.95	5.78	6.88	6.62	7.81	8.11	.....	8.86	9.00	8.72	8.51
27	.....	7.96	5.88	6.97	6.71	7.79	8.26	as.88	8.80	9.04	8.81	8.48
28	.....	7.64	5.99	6.96	6.75	7.70	8.33	8.83	8.89	9.08	8.73	8.66
29	.....	7.31	6.01	6.99	6.85	7.33	8.37	8.77	8.96	9.12	8.68	8.63
30	.....	.....	6.22	7.02	6.86	7.40	8.40	8.73	8.94	9.11	8.80	8.52
31	.....	.....	6.20	.....	6.89	.....	8.44	8.83	.....	8.98	.....	8.49

a Wetted-tape measurement.

b Estimated.

Ch BC 168. Guy Elliott. About 400 feet west of Waubascon Road and about 2,600 feet south of Morley Road. Measurements discontinued May 29, 1948. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	26.62	Feb. 21	26.73	Apr. 3	25.29	May 15	24.12
17	26.64	Mar. 13	26.40	17	24.89	29	23.89
24	26.69	27	25.89	May 1	24.71		

Ch BC 170. Honer Brewing Co. 39 feet north of Hamblin Street and 290 feet west of McCambly Street. Records available: 1945-48.

Ch BC 170--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	7.87	Apr. 10	6.60	July 23	9.60	Oct. 15	10.12
17	8.65	24	7.38	Aug. 6	10.57	29	10.37
24	8.16	May 1	7.44	20	9.92	Nov. 12	9.77
Feb. 21	7.45	15	5.42	Sept. 3	10.49	26	8.15
Mar. 13	7.37	29	7.55	17	10.01	Dec. 10	9.30
Apr. 3	6.98	June 11	9.50	Oct. 1	9.34	23	9.46

Ch BC 172. Kellogg Cereal Food Co. 90 feet north of Porter Street and 110 feet east of Stiles Street. Records available: 1945-48.

Water level at 2:00 a.m., from recorder charts^a

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	37.15	37.91	41.05	.....	43.58	45.62	44.45a	44.70	38.13	39.40
2	.....	.....	37.25	38.18	40.97	35.69	43.73	.....	44.60	44.10	40.97	39.91
3a	35.88	.....	38.87	38.42	37.08	39.48	43.45	.....	44.60	44.65	41.37	40.05
4	35.70	.....	38.85	38.40	40.82	40.13	41.89	.....	45.45	40.88	41.59	40.34
5	34.81	.....	.....	.....	41.24	40.54	39.06	.....	40.67	39.77	41.66	39.40
6	.....	.....	38.98	38.05	41.46	40.32	38.47a	45.89	40.18	39.10	41.80	36.36
7	.....	42.30	39.00	38.46	41.56	36.94	39.23	45.80	39.67	38.82	37.95	36.67
8	.....	42.24	.....	38.82	41.65	38.71	42.55	45.43	40.52	38.60	37.19	38.40
9	.....	39.94	.....	39.09	41.40	40.71	43.12	.....	42.55	38.35	37.54	38.98
10a	40.95	41.07	39.12	39.10	37.80	40.92	43.58	.....	43.54	37.62	40.71	38.34
11	40.59	42.11	39.60	38.91	.....	40.82	43.57	.....	44.82	36.60	41.15	39.54
12	.....	42.43	39.78	.....	.....	41.29	43.58	.....	45.00	38.15	41.44	39.55
13	40.42	42.42	39.90	38.39	.....	41.00	44.03a	45.49	45.75	41.25	41.40	36.56
14	40.81	42.44	39.94	38.63	.....	37.95	43.99	45.42	.....	41.71	40.70	36.50
15	41.08	42.31	.....	39.66a	38.93	41.16	44.05	40.65	44.42	42.05	37.25	39.13
16	41.26	38.88	.....	39.83	39.04	41.39	44.11	40.10	44.55	42.07	37.50	40.19
17	41.30	41.39	38.64	40.12	.....	41.51	44.30	40.35	44.70	41.87	39.50	40.53
18	41.35	42.10	39.82	40.19	38.84	41.69	44.20	44.35	44.90	37.70	39.85	40.64
19	.....	42.28	39.59	.....	39.51	42.28	43.70	44.72	.....	37.41	39.95	40.29
20	41.01	42.48	39.54	39.26	39.77	38.33	44.43	45.21	.....	40.77	40.05	37.31
21	41.51	42.45	38.67	40.18	39.92	37.86	44.65	45.40	.....	41.25	39.93	39.00
22	41.67	42.32	.....	40.43a	39.69	41.45	44.30	45.10	.....	41.47	37.35	40.08
23	41.76	38.58	.....	40.66	39.50	41.92	45.05	40.35	.....	41.60	39.56	40.43
24	42.08	39.78	.....	40.86	.....	42.31	45.05	41.25a	45.10	41.55	39.86	40.46
25	38.04	41.44	36.82	40.73	39.63b	42.65	44.81	44.10	.....	37.52	40.06	36.65
26	37.50	41.62	36.95	.....	39.97	42.85	44.55	44.50	.....	37.20	36.64	36.15
27	37.42	41.80	37.07	40.65	40.43	42.80	45.35	44.80	.....	40.90	36.11	35.72
28	40.96	41.69	37.21	40.75	40.73	41.55	45.48	44.93	.....	42.80	35.75	35.58
29	41.48	41.39	.....	40.19	40.84	43.37	45.60	44.64	.....	43.20	35.43	35.37
30	41.91	.....	36.99	40.87	.....	43.87	45.76	41.78	.....	43.59	36.18	36.15
31	42.01	.....	37.51	.....	.....	.....	45.70	43.65	.....	43.52	.....	35.98

a Wetted-tape measurement.

b Estimated.

Total precipitation in the Battle Creek area during 1948 was 31.55 inches, or 1.93 inches above normal. Above-normal precipitation occurred in February, March, April, May, November, and December. Interpreting cover and temperature conditions, the greatest opportunities for recharge probably occurred in the months of March, April, and May.

The time of occurrence of peak water levels ranged from January 5 to June 14. A greater number of wells, however, reached peaks during either the latter part of March or the latter part of May. In general, the occurrence of peak water level agrees with the peak-precipitation periods of March and May. Lowest observed water levels occurred during the periods

August 6 to October 29 or February 5 to March 13. Wells near centers of pumping generally reached their minimum stage near the end of the summer season of peak pumpage. Coupled with the peak pumping of the summer months was an extended period of below-normal precipitation from June through October. Wells reaching minimum stages during the February-March period were generally at considerable distances from the areas of pumping and the minimum stage recorded at this time marked the end of a prolonged period of winter drought. Excluding observation wells affected by year-end adjustments in pumping distribution, ground-water levels in the Battle Creek area, on the average, declined less than 1 foot during the year.

Battle Creek Township

Ch Bc 2. City of Battle Creek. Armstrong test well 3 at Goguac pumping station of city waterworks. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 2 S., R. 8 W. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	17	Mar. 23	16	June 10	a 19	Aug. 11	14
12	a 21	Apr. 5	a 17	15	17	19	14.9
16	a 20	8	16	17	a 19.1	24	a 16.9
26	17	14	a 18	23	16	30	14.9
31	a 20	19	16	23	a 18.9	Sept. 7	13
Feb. 5	a 21	21	a 16	30	16	14	13
13	a 20	27	15	July 8	16	21	13.2
19	17	27	a 17	14	a 18.8	22	a 13.9
20	a 20	May 9	18	15	15.9	28	13.0
26	17	10	a 19	22	15	Nov. 5	12.75
Mar. 8	a 19	17	17	28	a 18	19	12.60
11	16	20	a 20	29	15.1	Dec. 3	12.67
15	a 18	26	a 19	Aug. 5	15.1	17	12.76
19	16	30	17	7	a 16	29	12.74
23	a 18	June 8	17				

a Nearby wells operating.

The average daily withdrawal of ground water from wells at the Goguac pumping station in 1943 ranged from no pumpage in November and December to 1.58 million gallons in February and averaged 0.66 million gallons for the year.

Ch Bc 50. E. H. Arnett, 447 North Twenty-second Street. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 2 S., R. 8 W., about 400 feet south of Upton Avenue and about 700 feet west of Twenty-second Street. Records available: 1946-48.

Jan. 10	4.56	May 8	2.87	July 30	5.60	Oct. 22	6.17
17	4.60	22	2.52	Aug. 13	5.77	Nov. 5	6.04
24	5.11	June 14	3.99	27	6.13	19	5.94
Feb. 21	3.51	17	4.54	Sept. 10	6.26	Dec. 3	5.98
28	3.36	July 2	4.51	24	6.26	17	5.61
Mar. 13	3.81	16	5.14	Oct. 8	6.21	29	5.45
Apr. 24	3.17						

Ch Bc 55. Dominic Conto, 630 Upton Avenue. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 2 S., R. 8 W., about 200 feet north of Upton Avenue and 30 feet west of Twentieth Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.36	Mar. 27	3.02	July 2	3.58	Oct. 8	5.41
10	4.39	Apr. 10	3.06	16	4.06	22	5.32
17	4.48	24	2.99	30	4.55	Nov. 5	5.11
24	4.53	May 8	3.08	Aug. 13	4.80	19	4.93
Feb. 14	4.67	22	2.70	27	5.01	Dec. 3	4.88
21	4.23	June 4	3.12	Sept. 10	5.50	17	4.67
28	3.32	17	3.47	24	5.59	29	4.48
Mar. 6	3.84						

Ch Bc 60. Eaton Manufacturing Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 2 S., R. 8 W., about 490 feet north of Avenue C and 30 feet west of Twentieth Street. Records available: 1946-48.

June 4	16.97	July 30	18.29	Sept. 24	19.52	Nov. 19	19.46
17	17.68	Aug. 13	18.68	Oct. 8	19.75	Dec. 3	19.44
July 2	18.00	27	19.14	22	19.87	17	18.92
16	17.85	Sept. 10	19.19	Nov. 5	19.70	29	18.97

Ch Bc 137. City of Battle Creek. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 2 S., R. 8 W., about 530 feet west of Capital Avenue SW. and 70 feet north of George B. Place. Records available: 1945-48.

Jan. 10	11.22	Mar. 27	10.72	July 2	8.74	Oct. 8	9.78
17	11.30	Apr. 10	10.32	16	8.63	22	9.37
24	11.45	24	9.96	30	9.21	Nov. 5	9.87
Feb. 7	11.48	May 8	9.57	Aug. 13	9.28	19	9.89
14	11.70	22	3.76	27	9.70	Dec. 3	9.99
21	11.84	June 4	8.98	Sept. 10	9.71	17	10.00
Mar. 6	11.81	17	8.98	24	9.76	29	9.98
13	11.95						

Ch Bc 159. Phillip E. Slayton. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 2 S., R. 8 W., about 70 feet west of Twentieth Street and about 100 feet south of Avenue A. Records available: 1945-48.

Jan. 3	5.79	Mar. 13	4.78	July 2	3.71	Oct. 8	5.90
10	5.88	Apr. 3	3.15	16	4.69	22	5.93
17	5.99	24	2.99	30	5.25	Nov. 5	6.06
24	6.13	May 8	3.12	Aug. 13	5.11	19	5.94
Feb. 14	6.37	22	2.15	27	5.59	Dec. 3	6.03
28	5.43	June 4	3.64	Sept. 10	5.81	17	5.72
Mar. 6	4.97	17	3.98	24	5.83	29	5.58

Ermet Township

Ch Em 10. C. W. Cronkhite, 1302 East Michigan Avenue. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 2 S., R. 7 W., about 150 feet south of East Michigan Avenue (U. S. Highway 12), and about 1.3 miles east of Raymond Avenue. Records available: 1946-48.

Jan. 10	14.05	Apr. 3	13.10	July 23	12.79	Oct. 15	13.80
17	14.11	17	12.92	Aug. 6	13.02	29	13.91
24	14.16	May 1	12.86	20	13.17	Nov. 12	13.99
Feb. 14	14.35	15	12.65	Sept. 3	13.42	26	14.10
Mar. 6	13.98	29	12.45	17	13.49	Dec. 10	14.20
20	13.65	June 11	12.47	Oct. 1	13.63	23	14.29

Ch Em 60. City of Battle Creek test well. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 2 S., R. 7 W., 53 feet south of Golden Avenue and about 530 feet west of Union City Road. Records available: 1945-48.

Ch Em 60--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	1.64	Mar. 27	+0.03	July 2	1.10	Oct. 8	2.34
17	1.73	Apr. 10	.43	16	1.57	22	2.23
24	1.83	24	.62	30	1.92	Nov. 5	2.17
Feb. 7	1.54	May 8	.55	Aug. 13	1.90	19	2.17
14	1.60	22	.44	27	2.55	Dec. 3	1.99
21	.83	June 4	1.10	Sept. 10	2.51	17	1.56
Mar. 6	.33	17	1.47	24	2.44	29	1.37
13	1.03						

Ch Em 64. City of Battle Creek test well. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 2 S., R. 7 W., about 350 feet east of Overton Street and about 1,060 feet north of Golden Avenue. Records available: 1915-48.

Jan. 10	9.97	Mar. 27	6.99	July 2	3.98	Oct. 8	10.50
17	9.02	Apr. 10	8.00	16	9.45	22	10.56
24	10.06	24	8.30	30	9.77	Nov. 5	10.59
Feb. 14	10.43	May 8	8.47	Aug. 13	9.96	19	10.45
28	9.08	22	7.67	27	10.69	Dec. 3	10.52
Mar. 6	8.32	June 4	8.64	Sept. 10	10.40	17	10.30
20	7.78	17	9.05	24	10.45	29	10.18

Pennfield Township

Ch Pf 1. City of Battle Creek. Well 22 at Verona pumping station of city waterworks. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 1 S., R. 7 W. Records available: 1939-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.41	....	4.22	4.81	4.27	3.66	4.42	6.61	7.62	6.34	6.32	6.28
2	4.95	....	4.44	4.87	....	4.16	4.92	6.07	7.63	7.07	6.60	6.59
3	4.91	a6.14	4.27	3.94	....	5.56	5.51	6.54	7.61	6.78	6.46	6.41
4	5.33	5.31	4.33	3.88	....	5.64	5.08	6.61	7.01	6.63	6.01	6.42
5	4.84	5.89	4.70	3.49	....	4.61	4.37	5.68	7.21	7.13	6.66	6.11
6	5.01	6.02	4.24	3.79	....	4.23	4.41	b5.33	6.86	7.14	6.49	5.57
7	5.21	5.91	4.61	5.10	....	3.86	4.59	6.11	6.43	7.38	6.25	6.08
8	5.27	5.89	5.06	3.91	a5.21	3.97	4.85	6.46	6.89	7.43	5.89	6.00
9	5.44	5.40	4.53	3.81	4.39	4.50	4.76	5.41	7.34	7.09	6.43	6.20
10	5.51	5.32	4.44	4.26	3.65	4.48	5.86	5.16	a7.13	6.81	6.46	6.15
11	5.73	5.72	4.62	3.71	3.48	a4.59	6.45	6.12	7.01	6.17	6.62	6.35
12	5.76	5.41	4.51	3.83	3.11	4.51	5.46	....	6.91	6.69	6.13	6.17
13	5.23	5.36	4.66	3.87	3.47	5.00	6.12	6.11	6.55	6.70	6.58	6.10
14	5.41	5.16	4.44	3.52	3.32	....	4.68	6.00	6.25	6.73	6.07	6.23
15	5.56	5.13	4.32	3.53	3.75	4.11	....	6.31	6.91	6.56	6.15	6.30
16	5.59	5.00	4.59	3.64	3.27	4.28	5.10	5.63	6.79	6.42	6.50	....
17	5.31	5.39	4.51	3.46	2.96	4.48	6.01	6.73	6.66	6.06	6.30	6.06
18	4.94	5.51	4.63	3.59	3.27	4.68	6.01	5.51	6.96	5.76	6.44	6.00
19	5.01	5.24	4.49	3.41	3.36	4.54	6.03	6.76	6.31	6.56	6.55	5.95
20	5.56	4.96	4.00	3.77	3.51	4.31	5.34	6.85	5.66	6.62	5.38	6.39
21	5.41	5.42	3.99	3.93	3.30	4.00	....	6.91	6.51	....	6.01	6.45
22	5.59	....	3.49	4.81	4.13	4.31	....	7.01	6.78	6.76	5.80	....
23	5.49	....	3.40	3.93	4.19	4.46	5.97	6.35	....	6.75	6.14	a6.64
24	5.65	....	3.71	3.76	3.24	4.26	5.81	6.26	6.51	5.96	6.13	6.14
25	....	....	3.62	4.23	3.51	a5.33	5.88	7.76	6.91	6.48	6.25	5.80
26	....	....	3.80	3.29	3.40	4.55	5.84	7.26	6.16	6.54	5.65	5.96
27	....	....	3.78	3.89	4.78	4.31	6.08	8.11	5.78	6.66	5.94	5.56
28	....	a5.60	3.69	5.13	3.83	4.59	6.44	6.71	6.13	....	5.89	5.89
29	....	4.41	3.55	4.13	4.41	4.76	....	7.83	7.10	b6.56	5.75	6.45
30	....	....	3.41	5.21	3.76	4.61	6.74	6.41	7.21	6.60	5.85	6.25
31	....	....	3.46	....	4.08	....	6.66	6.92	....	6.14	....	....

a Wetted-tape measurement.

b Estimated.

The average daily withdrawal of ground water in 1948 from the wells at the Verona pumping station ranged from 4.40 million gallons in January to 8.58 million gallons in August and averaged 6.09 million gallons for the year.

Ch Pf 58. City of Battle Creek test well. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 1 S., R. 7 W., about 5,300 feet west of Capital Avenue NE., and 42 feet north of Roosevelt Avenue. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	2.46	Apr. 3	1.61	June 11	1.00	Sept. 17	2.88
17	2.58	10	1.48	25	1.54	Oct. 1	2.88
24	2.52	17	1.38	July 9	1.69	15	2.82
Feb. 14	2.84	24	1.32	23	1.99	29	2.84
21	2.62	May 1	1.30	Aug. 5	2.09	Nov. 12	2.78
Mar. 6	2.34	15	.81	20	2.39	26	2.77
13	2.34	29	1.00	Sept. 3	2.67	Dec. 10	2.83
27	1.69						

Ch Pf 102. Kenneth N. Sabin. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 1 S., R. 7 W., about 200 feet south of State Highway M-78 and about 730 feet east of State Highway M-66. Records available: 1946-48.

Jan. 10	4.11	Apr. 10	2.30	July 16	3.07	Oct. 22	4.05
17	4.15	24	2.61	30	3.30	Nov. 5	4.15
24	4.20	May 8	3.32	Aug. 13	3.38	19	4.20
Feb. 7	4.39	22	2.85	27	4.27	Dec. 3	4.27
21	3.38	June 4	2.27	Sept. 10	3.75	17	4.21
Mar. 13	3.13	17	2.59	24	3.85	29	4.16
Apr. 3	3.04	July 2	2.75	Oct. 8	3.97		

Ch Pf 105. Mrs. Harriet Rice, 1601 Capital Avenue NE. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 1 S., R. 7 W., about 120 feet east of Capital Avenue and 1,500 feet north of Bridge Street. Records available: 1946-48.

Jan. 3	12.98	Apr. 3	11.92	July 2	12.34	Oct. 8	14.16
10	12.73	10	10.52	16	12.76	22	14.04
17	12.84	24	10.81	30	13.25	Nov. 5	13.93
24	12.90	May 8	10.71	Aug. 13	13.55	19	13.75
Feb. 7	13.19	22	9.33	27	13.69	Dec. 3	13.71
21	12.72	June 4	10.47	Sept. 10	14.13	17	13.61
Mar. 6	12.23	17	11.71	24	14.41	29	13.54
20	11.98						

Ch Pf 110. Mrs. Ernestine H. Bean. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 1 S., R. 7 W., about 120 feet east of North Avenue and 20 feet south of Alton Avenue. Records available: 1946-48. Measurements discontinued Aug. 27, 1948.

Jan. 10	54.26	Mar. 6	54.37	May 8	53.21	July 16	52.55
17	54.44	13	54.46	22	52.55	30	52.74
24	54.47	27	53.87	June 4	52.36	Aug. 13	53.00
Feb. 14	54.66	Apr. 10	53.56	17	52.36	27	53.17
28	54.51	24	53.56	July 2	52.36		

Cass County

Mason Township

Cs Ma 1. Vernie Allen. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 8 S., R. 14 W. Records available: 1945-48.

Jan. 4	49.92	Feb. 15	50.34	Mar. 28	49.90	May 9	49.33
11	50.09	22	50.33	Apr. 4	49.90	16	49.26
18	50.11	29	50.49	11	49.66	23	49.10
28	50.11	Mar. 7	50.17	18	49.65	30	48.94
Feb. 1	50.28	14	50.13	25	49.53	June 7	48.68
8	50.28	21	50.26	May 2	49.52	13	48.65

Cs Ma 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 20	48.65	Aug. 8	48.67	Sept. 26	49.18	Nov. 14	49.72
27	48.55	15	48.76	Oct. 3	49.20	21	49.89
July 4	48.52	22	48.82	10	49.28	28	49.93
11	48.47	29	48.88	17	49.40	Dec. 5	49.87
18	48.52	Sept. 5	48.95	24	49.50	12	49.85
25	48.56	12	48.95	Nov. 1	49.52	19	49.95
Aug. 1	48.60	17	48.94	7	49.60	26	50.07

Charlevoix County

Hudson Township

Cv Hu 1. Records available: 1934-41. No measurements made in 1948.

Cv Hu 33. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 32 N., R. 4 W. Records available: 1934-41; 1948. Oct. 28, 4.50.

Cv Hu 34. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 32 N., R. 4 W. Records available: 1934-41; 1948. Oct. 28, 1.25.

Chandler Township

Cv Ch 1. Michigan Department of Conservation. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 33 N., R. 4 W., 226 feet east of quarter section line and 2,220 feet south of county line. Unused drilled well, diameter 6 inches, measured depth 93.5 feet below land surface. Measuring point, top of recorder base, 2.0 feet above land-surface datum. Automatic water-stage recorder installed Oct. 22, 1943. Records available: 1943.

Water level at 2:00 a.m., from recorder charts

Oct. 22	a 72.98	Nov. 9	73.10	Nov. 28	73.45	Dec. 15	73.65
23	72.89	10	73.10	29	73.45	16	73.65
24	72.91	11	73.15	30	73.45	17	73.68
25	72.91	12	73.19	Dec. 1	73.48	18	73.71
26	72.92	13	73.16	2	73.49	19	73.70
27	72.93	14	73.21	3	73.50	20	73.71
28	72.95	15	73.22	4	73.50	21	73.72
29	72.97	16	73.22	5	73.51	22	73.75
30	72.98	17	73.15	6	73.49	23	73.77
31	72.99	18	73.29	7	73.54	24	73.78
Nov. 1	73.01	19	73.29	8	73.55	25	73.80
2	73.02	20	73.23	9	73.58	26	73.82
3	73.03	21	73.32	10	73.60	27	73.80
4	73.03	22	73.33	11	73.61	28	73.83
5	73.05	23	73.34	12	73.60	29	73.85
6	73.05	24	73.35	13	73.64	30	73.87
7	73.09	26	73.59	14	73.66	31	b 73.87
8	73.12	27	73.42				

a Wetted-tape measurement.

b Estimated.

Cv Ch 31. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 33 N., R. 4 W. Records available: 1937-41; 1948. Oct. 28, 13.16.

Melrose Township

Cv Mr 12. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 33 N., R. 5 W. Records available: 1937-41; 1948. Oct. 29, 1.62.

Cheboygan County

Nunda Township

Cb Nd 2. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 33 N., R. 1 W. Records available: 1935-41; 1948. Oct. 28, 6.84.

Cb Nd 4. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 33 N., R. 1 W. Records available: 1935-41; 1948. Oct. 28, 7.71.

Cb Nd 5. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 33 N., R. 1 E. Records available: 1935-41; 1948. Oct. 23, 3.92.

Cb Nd 7. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 33 N., R. 1 E. Records available: 1935-41; 1948. Oct. 28, 4.08.

Cb Nd 8. Records available: 1935-44. No measurements made in 1948.

Cb Nd 11. Records available: 1935-41. No measurements made in 1948.

Cb Nd 17. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 33 N., R. 1 E. Records available: 1935-41; 1948. Oct. 28, 8.76.

Walker Township

Cb Wk 11. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 34 N., R. 1 W. Records available: 1935-41; 1948. Oct. 28, 5.32.

Cb Wk 33. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 34 N., R. 1 W. Records available: 1935-41; 1948. Oct. 28, 7.26.

Clinton County

City of St. Johns

Ct SJ 1. City of St. Johns waterworks well A. 75 feet south of Gibbs Street and 96 feet east of Ottawa Street. Records available: 1947-48. Measurements discontinued Aug. 5, 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 25	41.90	June 14	41.82	July 5	41.82	July 30	51.25
June 1	41.22	21	41.70	17	52.26	Aug. 5	51.28
7	41.22	28	41.94	22	51.27		

Village of Elsie

Ct ES 1. Village of Elsie. About 70 feet north of northeast corner of bridge over Baker Creek and 230 feet east of Ovid Street. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.47	20.42	18.48	20.58	22.78	25.70	29.38	.....	30.33	31.09	16.59	3.49
2	23.17	20.52	18.02	20.65	22.91	26.05	29.45	.....	30.43	31.13	15.53	3.54
3	22.78	20.82	18.16	21.25	22.59	26.53	29.16	.....	30.53	31.35	14.47	3.27
4	.....	20.79	18.72	21.43	22.51	27.09	29.06	30.04	30.66	31.28	13.63	3.08
5	22.77	20.87	19.33	21.48	22.46	27.65	.....	29.91	30.76	31.26	12.88	2.84
6	22.83	21.03	19.61	21.25	22.61	28.09	.....	29.69	30.84	31.12	12.12	2.54
7	22.80	20.75	19.51	21.46	22.67	27.66	29.70	29.30	30.90	31.15	11.61	2.50
8	22.35	20.75	19.35	21.25	22.88	27.74	.....	29.10	31.05	31.15	11.17	2.35
9	21.35	21.24	19.23	21.51	22.23	27.91	.....	29.19	31.08	31.14	10.40	2.30
10	20.69	21.03	19.23	21.43	22.09	27.97	.....	29.22	31.10	31.18	9.75	2.23
11	20.50	20.70	.....	21.06	22.69	28.30	.....	29.16	30.74	30.99	9.27	2.15
12	19.79	20.66	.....	20.94	22.93	28.26	.....	28.93	30.77	31.08	8.30	1.90
13	19.32	20.62	.....	21.13	22.83	28.11	.....	28.93	30.87	31.18	8.19	1.84
14	18.83	20.34	.....	21.26	22.66	27.62	30.44	28.74	31.03	31.29	7.84	1.97
15	18.13	20.90	22.07	21.15	22.49	27.90	30.28	28.50	31.06	31.37	7.37	1.87

a Wetted-tape measurement.

b Estimated.

Ct ES 1--Continued.

Water level at 2:00 a.m., from rechrdr charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	17.55	20.23	21.71	20.97	22.42	28.29	29.89	28.30	31.08	31.07	7.03	2.10
17	18.28	19.83	23.07	21.02	22.50	28.07	29.96	28.42	31.00	31.17	6.55	2.30
18	18.47	19.89	23.50	21.20	22.60	28.34	30.07	28.48	31.06	30.97	6.39	2.23
19	18.40	19.35	23.72	21.30	23.00	28.56	30.05	28.31	31.13	30.75	6.07	1.90
20	18.35	16.42	15.89	21.34	22.93	28.67	29.90	28.53	31.22	30.48	5.61	1.56
21	18.36	14.82	18.38	21.75	23.11	28.37	30.03	28.26	31.43	30.79	5.45	1.36
22	19.07	15.11	18.79	21.73	23.56	28.36	.....	27.94	31.53	30.98	5.14	....
23	19.78	15.86	19.10	21.67	23.45	28.34	.....	27.81	31.60	30.83	4.90	....
24	20.10	16.40	19.46	21.67	23.61	28.65	.....	27.85	31.64	29.48	....	....
25	20.30	17.11	19.80	21.87	23.89	28.93	.....	27.93	31.51	28.39	.....	....
26	20.66	17.96	19.93	22.02	24.29	29.18	.....	28.24	31.56	27.00	.....	....
27	20.81	18.32	20.24	22.04	24.55	29.21	.....	28.30	31.29	24.43	.....	....
28	20.95	17.91	20.31	22.43	24.69	28.97	29.42	28.74	31.31	22.55	....	(c)
29	20.58	18.57	20.12	22.81	25.07	28.84	29.11	29.19	31.27	20.61	....	(c)
30	20.87		20.32	22.99	25.33	29.13	.....	29.66	31.12	19.32	a5.44	(c)
31	20.81		20.43		25.35		.....	30.00		17.84		(c)

a Wetted-tape measurement.

b Estimated.

c Flowing.

Ct ES 2. Village of Elsie. About 40 feet east of First Street and 120 feet south of Maple Street. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	72.10	71.23	73.50	73.13	46.20	32.87
2	.....	72.03	71.67	73.23	73.29	45.08	32.73
3	.....	71.22	71.72	73.30	73.72	43.90	32.45
4	.....	71.15	72.33	73.39	73.42	42.82	32.27
5	.....	71.82	72.13	73.47	73.43	42.00	32.04
6	.....	71.78	71.57	73.63	73.18	41.13	31.68
7	.....	72.19	70.85	73.74	73.35	40.63	31.70
8	.....	72.17	70.60	73.96	73.38	40.17	31.53
9	.....	71.89	70.87	73.82	73.32	39.40	31.55
10	.....	72.33	71.00	73.67	73.40	38.62	31.45
11	.....	72.52	70.95	72.85	72.95	38.30	31.39
12	.....	72.75	70.53	73.10	73.33	37.90	31.08
13	.....	72.99	70.45	73.32	73.58	37.22	31.88
14	.....	73.08	70.28	73.61	73.68	.....	31.48
15	.....	72.72	69.55	73.66	73.68	.....	31.26
16	a69.03	71.75	69.55	73.52	73.23	a35.94	.....
17	70.13	72.32	69.90	73.40	73.40	35.59	.....
18	70.79	72.53	70.01	73.65	72.77	35.55	.....
19	71.09	72.43	69.15	73.69	72.45	35.22	.....
20	70.40	72.07	70.37	74.05	72.21	34.62	.....
21	70.26	72.58	69.45	74.33	72.95	34.55	.....
22	70.37	72.82	68.65	74.41	73.21	34.32	.....
23	70.54	72.77	68.95	74.33	71.47	34.04	.....
24	71.22	72.27	69.12	74.21	67.79	.....	.....
25	71.69	71.60	69.50	73.80	66.90	.....	.....
26	72.03	71.28	69.99	73.90	61.04	.....	.....
27	71.66	71.00	69.90	73.27	56.50	.....	.....
28	71.01	71.35	70.09	73.60	53.47	.....	a30.01
29	71.27	70.67	72.02	72.51	51.12	.....	29.88
30	71.61	70.70	72.70	73.20	49.22	a32.83	29.97
31		71.09	72.95		47.57		31.07

a Wetted-tape measurement.

Ct ES 3. Village of Elsie. About 60 feet east of Ovid Street and about 110 feet north of south corporate limits. Records available: 1947-48.

Ct ES 3--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.0	23.6	21.8	21.7	22.3	23.5	23.2	23.9	21.6	21.3	11.7	21.5
2	22.8	23.6	21.8	22.0	22.9	23.6	23.2	24.0	21.3	21.5	11.6	14.9
3	23.0	23.6	21.9	22.1	22.9	23.3	23.2	24.1	21.4	21.5	20.4	14.0
4	23.0	23.6	22.1	22.2	23.0	22.9	23.3	24.0	21.3	21.5	21.7	13.5
5	23.1	23.6	22.3	22.1	23.0	23.8	23.4	23.9	21.4	21.3	21.1	12.6
6	23.2	23.6	22.4	22.3	23.0	23.6	23.5	23.9	21.4	21.4	21.5	12.9
7	23.5	23.7	22.3	22.3	23.0	23.6	23.4	23.9	21.4	21.5	....	13.0
8	24.1	23.7	22.4	22.2	22.9	23.5	23.4	23.9	21.6	21.3	....	13.6
9	23.6	23.7	22.5	22.2	22.9	23.6	23.5	23.9	21.4	21.5	16.9	13.3
10	24.0	23.9	22.6	22.3	22.8	23.6	23.7	24.0	21.2	21.4	13.1	14.0
11	23.5	23.7	22.7	22.2	22.2	23.7	23.6	23.8	21.4	21.4	11.8	14.0
12	23.2	23.7	22.8	22.0	21.9	23.6	23.8	23.7	21.3	21.5	11.5	13.0
13	23.2	23.7	22.8	22.1	22.1	23.5	23.9	23.8	21.4	21.9	11.3	12.5
14	23.1	23.6	22.8	22.2	22.2	23.6	23.8	23.8	21.4	21.9	11.3	15.8
15	23.1	23.7	22.8	22.2	22.4	23.6	23.7	23.8	21.4	21.9	11.1	14.7
16	23.0	23.7	22.2	22.2	22.4	23.6	23.7	23.9	21.2	21.9	11.9	12.6
17	23.1	23.6	22.0	22.4	22.5	23.8	23.8	23.9	21.4	21.9	11.9	14.4
18	23.2	23.6	22.0	22.5	22.6	23.8	23.7	23.8	21.5	22.0	12.5	14.5
19	23.1	24.3	22.0	22.4	22.7	23.8	23.8	22.9	21.4	21.8	13.0	13.7
20	23.1	24.6	21.0	22.4	22.3	23.7	23.9	23.6	21.6	21.7	12.5	12.1
21	23.0	24.1	21.1	22.5	22.6	23.8	24.0	23.6	21.6	22.0	13.0	13.2
22	23.0	22.9	21.3	22.6	22.8	23.7	24.0	23.6	21.6	22.0	11.6	....
23	23.2	22.7	21.6	22.7	22.8	23.6	23.7	23.8	21.6	23.1	12.7	....
24	23.5	22.8	21.7	22.7	23.0	23.5	23.8	23.7	21.5	23.5	....	....
25	23.5	22.6	....	22.7	23.1	23.5	23.7	23.6	21.5	24.2	....	....
26	23.5	22.2	21.2	22.7	23.1	23.5	23.8	24.0	21.4	14.6	....	....
27	23.5	22.2	21.8	22.8	23.1	23.3	23.9	22.0	21.4	20.6	....	....
28	23.6	21.9	22.1	22.8	23.1	23.3	23.8	21.5	21.4	13.4	....	17.3
29	23.5	21.6	22.0	22.7	23.3	23.3	23.9	21.6	21.5	19.4	....	13.4
30	23.5	....	21.9	22.7	23.3	23.1	23.9	21.6	21.4	14.0	20.5	12.8
31	23.6	....	21.9	....	23.4	....	23.9	21.5	....	12.2	....	13.2

a Wetted-tape measurement.

b Estimated.

Ct ES 10. Village of Elsie. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 8 N., R. 1 W., about 1,500 feet east of Ovid Street and 150 feet north of quarter section line. Drilled test well, diameter $1\frac{1}{4}$ inches, reported depth 19.1 feet below land surface. Measuring point, top of $1\frac{1}{4}$ -inch pipe, 5.9 feet above land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 25	8.72	Sept. 21	7.64	Oct. 19	7.79	Nov. 16	15.53
Sept. 1	7.67	28	7.74	26	9.97	30	13.82
8	7.61	Oct. 5	7.71	Nov. 2	11.79	Dec. 7	13.60
14	7.65	12	7.77	9	15.64	28	16.79

Ct ES 11. Village of Elsie. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 8 N., R. 1 W., about 1,500 feet east of Ovid Street and 150 feet north of quarter section line. Drilled test well, diameter $1\frac{1}{4}$ inches, reported depth 53.0 feet below land surface. Measuring point, top of $1\frac{1}{4}$ -inch pipe, 7 feet above land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 25	8.19	Sept. 21	7.95	Oct. 19	7.97	Nov. 16	8.78
Sept. 1	8.18	28	7.97	26	8.13	30	9.13
8	8.06	Oct. 5	7.90	Nov. 2	8.43	Dec. 7	9.30
14	8.03	12	7.99	9	8.65	28	9.85

DeWitt Township

Ct Dw 159. Michigan Department of Health, Quarantine Farm. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 5 N., R. 2 W., about 220 feet west of DeWitt Road and 670 feet north of Sheridan Road. Records available: 1944-48.

Ct Dw 159--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	53.25	Apr. 2	53.25	July 1	51.65	Sept. 16	54.36
15	52.95	9	52.84	8	52.01	23	54.00
22	53.19	16	53.11	15	52.47	30	53.60
29	53.52	23	52.70	22	52.44	Oct. 7	53.52
Feb. 6	53.51	30	52.57	29	52.70	14	53.62
11	53.52	May 7	52.29	Aug. 5	52.74	21	53.82
19	53.84	21	52.02	12	52.89	28	54.04
26	53.64	27	51.92	19	53.22	Nov. 12	53.97
Mar. 4	53.77	June 3	51.57	26	53.67	18	53.92
12	53.55	10	51.02	Sept. 2	54.19	29	53.63
18	53.61	18	51.35	9	54.03	Dec. 27	53.42
25	53.43	25	51.13				

Olive Township

Ct Oe 1. Michigan State Highway Department. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 6 N., R. 2 W., on right-of-way of U. S. Highway 27. Unused crock well, diameter 14 inches, measured depth 21.45 feet below land surface. Measuring point, top of recorder base, 1.30 feet above land-surface datum. Automatic water-stage recorder installed Aug. 30, 1948. Records available: 1948.

Water levels at 2:00 a.m., from recorder charts

Day	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.45	17.73	18.00	18.21
2	17.42	17.79	18.03	18.23
3	17.43	17.83	18.00	18.21
4	17.45	17.85	17.95	18.21
5	17.47	17.82	17.96	18.19
6	17.47	17.82	17.92	18.13
7	17.45	17.78	18.00	18.21
8	17.48	17.76	18.08	18.20
9	17.77	18.03	18.27
10	17.78	17.97	18.29
11	17.78	18.06	18.31
12	17.81	18.09	18.24
13	17.83	18.03	18.29
14	17.87	18.10	18.34
15	a17.62	17.89	18.08	18.30
16	17.64	17.86	18.09	18.24
17	17.65	17.89	18.01	18.29
18	17.93	18.10	18.33
19	17.82	18.09	18.26
20	17.84	18.00	18.23
21	a17.64	17.97	18.08	18.19
22	a17.65	17.97	18.10	18.29
23	17.95	18.12	18.34
24	18.00	18.11	18.36
25	18.00	18.11	18.35
26	17.99	18.09	18.43
27	17.99	18.12	18.37
28	a17.77	18.00	18.20	18.38
29	b17.76	18.00	18.17	18.30
30	a17.38	17.72	18.00	18.18	18.35
31	17.43		17.99		18.35

a Wetted-tape measurement.

b Estimated.

Crawford County

Beaver Creek Township

Cr Bc 1. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 25 N., R. 3 W. Previously reported in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29. Records available: 1934-48.

Cr Bc 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	10.45	Apr. 15	9.72	July 16	10.35	Oct. 14	10.48
Feb. 12	10.53	May 17	9.72	Aug. 16	10.23	Nov. 10	10.51
Mar. 15	10.63	June 15	9.95	Sept. 15	10.44	Dec. 13	10.59

Frederic Township

Cr Fr 1. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 27 N., R. 4 W. Records available: 1934-48.

Jan. 13	5.48	Apr. 16	4.44	July 17	5.42	Oct. 15	5.91
Feb. 13	5.62	May 18	4.91	Aug. 17	5.62	Nov. 11	5.92
Mar. 16	5.43	June 15	5.20	Sept. 16	5.84	Dec. 14	5.72

Cr Fr 2. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 27 N., R. 4 W. Records available: 1939-48.

Jan. 13	12.99	Apr. 16	11.98	July 17	12.59	Oct. 15	13.35
Feb. 13	13.22	May 18	12.21	Aug. 17	12.80	Nov. 11	13.46
Mar. 16	13.35	June 15	12.43	Sept. 15	13.11	Dec. 14	13.25

Cr Fr 3. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 28 N., R. 4 W. Records available: 1938-41. No measurements made in 1948.

Grayling Township

Cr Gr 1. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 26 N., R. 2 W. Records available: 1934-48.

Jan. 13	1.97	Apr. 16	1.98	July 17	2.22	Oct. 14	2.08
Feb. 13	2.10	May 18	1.93	Aug. 17	2.20	Nov. 11	2.03
Mar. 16	1.87	June 15	2.05	Sept. 9	2.26	Dec. 14	2.07

Cr Gr 2. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 26 N., R. 3 W. Records available: 1934-48.

Jan. 14	10.55	Apr. 15	9.19	July 16	9.60	Oct. 18	10.57
Feb. 12	10.76	May 17	9.35	Aug. 16	9.60	Nov. 10	10.60
Mar. 15	10.86	June 15	9.70	Sept. 15	10.32	Dec. 13	10.21

Cr Gr 3. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 26 N., R. 3 W. Records available: 1934-48.

Jan. 13	8.68	May 18	7.63	Aug. 17	7.64	Nov. 11	8.55
Feb. 13	8.87	June 15	7.93	Sept. 16	8.09	Dec. 14	8.53
Apr. 16	7.74	July 17	8.09	Oct. 15	8.39		

Cr Gr 4. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 26 N., R. 4 W. Records available: 1934-48.

Jan. 13	3.10	Apr. 16	0.91	July 17	1.74	Oct. 15	3.53
Feb. 13	3.43	May 17	1.13	Aug. 16	2.25	Nov. 11	3.60
Mar. 16	3.43	June 15	2.13	Sept. 9	3.09	Dec. 14	2.87

Cr Gr 5. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 26 N., R. 4 W. Measuring point lowered 0.1 foot Nov. 5, 1948. New measuring point, top of 2-inch tube, 1.4 feet above land-surface datum. Records available: 1934-48.

Jan. 13	5.52	Apr. 16	3.88	July 17	4.69	Oct. 15	6.57
Feb. 13	5.78	May 17	3.93	Aug. 16	5.48	Nov. 11	6.15
Mar. 16	5.49	June 15	4.85	Sept. 15	6.47	Dec. 13	5.34

Cr Gr 6. Michigan Department of Conservation Game Refuge Tile well.
NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 26 N., R. 4 W. Records available: 1942-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.86	7.14	7.11	5.08	4.93	5.75	4.69	5.85	7.18	8.05	7.95	6.54
2	6.87	7.15	7.10	5.04	4.97	5.78	4.79	5.88	7.21	8.10	7.95	6.55
3	6.88	7.16	7.09	5.05	5.02	5.81	4.86	5.92	7.25	8.11	7.95	6.56
4	6.89	7.17	7.10	5.06	5.07	5.85	4.90	5.97	7.28	8.12	7.95	6.58
5	6.90	7.17	7.10	5.08	5.12	5.88	4.94	6.02	7.32	8.14	7.94	6.59
6	6.91	7.18	7.11	5.09	5.17	5.90	5.00	6.07	7.35	8.15	7.90	6.60
7	6.92	7.19	7.11	5.10	5.21	5.93	5.06	6.12	7.38	8.16	7.83	6.61
8	6.93	7.20	7.11	5.00	5.23	5.96	5.12	6.17	7.42	8.17	7.78	6.62
9	6.94	7.21	7.11	4.97	5.27	5.94	5.19	6.22	7.45	8.17	7.74	6.64
10	6.94	7.22	7.12	4.99	5.29	5.95	5.26	6.27	7.48	8.18	7.71	6.65
11	6.96	7.22	7.12	5.01	5.31	5.96	5.33	6.32	7.51	8.18	7.68	6.67
12	6.96	7.23	7.13	4.88	5.32	5.97	5.39	6.37	7.54	8.18	7.64	6.68
13	6.97	7.24	7.13	4.90	5.33	5.99	5.45	6.42	7.57	8.14	7.60	6.70
14	6.98	7.24	7.14	4.94	5.35	6.02	5.50	6.46	7.60	8.08	7.57	6.71
15	6.99	7.25	7.14	4.98	5.37	6.04	5.55	6.51	7.63	8.04	7.54	6.72
16	7.00	7.26	7.14	5.02	5.38	6.07	5.61	6.55	7.66	8.02	7.51	6.74
17	7.01	7.26	6.83	5.05	5.39	6.10	5.67	6.59	7.68	8.01	7.47	6.75
18	7.02	7.26	6.67	5.10	5.39	6.13	5.73	6.63	7.71	8.00	7.29	6.76
19	7.03	7.27	6.56	5.13	5.41	6.17	5.79	6.67	7.74	7.99	7.13	6.77
20	7.04	7.27	6.10	5.14	5.43	6.17	5.85	6.72	7.77	7.97	7.04	6.78
21	7.05	7.27	5.59	5.16	5.45	6.18	5.90	6.76	7.80	7.97	6.70	6.79
22	7.05	7.28	5.11	5.19	5.47	6.19	5.93	6.80	7.82	7.96	6.54	6.81
23	7.06	7.29	5.12	5.22	5.49	6.21	5.63	6.84	7.85	7.96	6.50	6.82
24	7.07	7.29	5.13	5.26	5.52	6.19	5.63	6.88	7.88	7.95	6.49	6.83
25	7.08	7.30	5.16	5.28	5.55	6.20	5.65	6.91	7.91	7.95	6.49	6.84
26	7.09	7.34	5.19	5.31	5.57	6.20	5.67	6.95	7.93	7.95	6.50	6.85
27	7.10	7.18	5.21	5.34	5.60	4.86	5.69	6.99	7.96	7.95	6.50	6.86
28	7.11	7.12	5.23	4.90	5.63	4.79	5.72	7.03	7.98	7.95	6.61	6.87
29	7.12	7.11	5.26	4.88	5.66	4.82	5.75	7.07	8.00	7.95	6.52	6.88
30	7.13		5.27	4.91	5.69	4.63	5.80	7.10	8.03	7.95	6.53	6.89
31	7.13		5.27		5.72		5.83	7.14		7.95		6.90

a Estimated.

b Wetted-tape measurement.

Cr Gr 7. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 26 N., R. 4 W. Records available: 1934-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	5.62	Apr. 16	3.60	July 17	4.20	Oct. 15	6.20
Feb. 13	5.92	May 17	3.86	Aug. 17	4.77	Nov. 11	6.14
Mar. 16	5.97	June 15	4.57	Sept. 15	4.72	Dec. 14	5.42

Cr Gr 13. Michigan Department of Conservation Hartwick Pines Park, roadside well. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 27 N., R. 3 W., 100 feet south of north section line and 25 feet west of center line of State Highway M-93. Unused driven well, diameter 1 $\frac{1}{4}$ inches; measured depth 16.7 feet below land surface. Records available: 1948. Oct. 15, 9.37; Nov. 11, 9.28; Dec. 14, 8.89.

Cr Gr 14. Michigan Department of Conservation Hartwick Pines Park, Pines well. NW $\frac{1}{4}$ sec. 15, T. 27 N., R. 3 W., 1.150 feet south of north section line and 610 feet northwest of center line of State Highway M-93. Diameter 1 $\frac{1}{4}$ inches, measured depth 12.5 feet below land surface. Records available: 1948. Oct. 15, 3.30; Nov. 11, 3.17; Dec. 14, 2.82.

Lovells Township

Cr Lv 1. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 27 N., R. 1 W. Records available: 1934-48.

Cr Lv 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	4.37	Apr. 16	2.83	July 17	3.51	Oct. 15	4.41
Feb. 13	4.67	May 18	2.63	Aug. 17	3.39	Nov. 11	4.60
Mar. 16	4.82	June 15	3.18	Sept. 16	4.08	Dec. 14	4.59

Cr Lv 2. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 27 N., R. 1 W. Records available: 1934-48.

Jan. 13	5.13	Apr. 16	3.97	July 17	4.72	Oct. 15	5.11
Feb. 13	5.35	May 18	3.88	Aug. 17	4.38	Nov. 11	5.26
Mar. 16	5.43	June 15	4.34	Sept. 16	4.87	Dec. 14	5.32

Cr Lv 3. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T. 27 N., R. 1 W. Records available: 1934-48.

Jan. 13	3.91	Apr. 16	3.17	July 17	3.91	Oct. 15	4.13
Feb. 13	3.98	May 18	3.41	Aug. 17	3.99	Nov. 11	4.12
Mar. 16	4.01	June 15	3.69	Sept. 16	4.15	Dec. 14	4.10

Cr Lv 4. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 28 N., R. 1 W. Records available: 1934-48.

Jan. 13	6.96	Apr. 16	5.60	July 17	6.52	Oct. 15	7.67
Feb. 13	7.27	May 18	5.74	Aug. 17	6.89	Nov. 11	7.92
Mar. 16	7.45	June 15	6.07	Sept. 16	7.32	Dec. 14	7.91

Cr Lv 5. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 28 N., R. 1 W. Records available: 1934-48.

Jan. 13	6.09	Apr. 16	4.58	July 17	5.49	Oct. 15	6.63
Feb. 13	6.29	May 18	4.50	Aug. 17	5.92	Nov. 11	6.78
Mar. 14	6.19	June 15	4.98	Sept. 16	6.34	Dec. 14	6.71

Cr Lv 6. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 28 N., R. 2 W. Records available: 1933-48.

Jan. 13	3.30	Apr. 16	1.96	July 17	3.54	Oct. 15	4.09
Feb. 13	3.52	May 18	2.47	Aug. 17	3.63	Nov. 11	3.93
Mar. 16	3.48	June 15	3.06	Sept. 16	4.09	Dec. 14	3.49

South Branch Township

Cr Sb 1. Michigan Department of Conservation. In Huron National Forest. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 25 N., R. 1 W., 738 feet west and 164 feet north of southeast section corner. Unused drilled well, diameter 6 inches, measured depth 50 feet below land surface. Measuring point, top of 6-inch casing, 0.8 foot above land-surface datum. Automatic water-stage recorder installed Nov. 2, 1948. Records available: 1948.

Nov. 2	a	32.75	Nov. 17	32.89	Dec. 2	33.10	Dec. 17	33.27
3		32.76	18	32.94	3	33.11	18	33.28
4		32.75	19	32.95	4	33.12	19	33.28
5		32.77	20	32.94	5	33.13	20	33.29
6		32.77	21	32.97	6	33.13	21	33.30
7		32.80	22	32.98	7	33.15	22	33.32
8		32.83	23	32.99	8	33.16	23	33.34
9		32.82	24	b 33.1	9	33.18	24	33.34
10		32.82	25	b 33.1	10	33.19	25	33.35
11		32.85	26	b 33.1	11	33.21	26	a 33.41
12		32.87	27	b 33.1	12	33.21	27	33.41
13		32.86	28	33.06	13	33.22	28	33.42
14		32.89	29	33.07	14	33.24	29	33.43
15		32.89	30	33.08	15	33.25	30	33.44
16		32.91	Dec. 1	33.09	16	33.25	31	33.45

a Wetted-tape measurement.

b Estimated.

Eaton County

City of Charlotte

Ea CH 1. City of Charlotte. About 250 feet east of U. S. Highway 27 and 320 feet south of Territorial Road. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.76	.....	b10.95	b12.07	13.20	12.26	b12.52	13.49	14.56	14.16	14.63	14.67
2	15.77	.....	b10.88	b12.21	13.35	12.21	b12.57	13.51	14.57	14.14	14.63	14.69
3	15.51	.....	b10.99	b12.27	13.43	12.24	12.52	13.56	14.61	14.12	14.63	14.71
4	15.03	.....	b11.17	b12.30	13.49	12.29	12.49	13.63	14.66	14.09	14.62	14.73
5	14.65	.....	b11.39	12.32	13.53	12.31	12.48	13.62	14.71	14.09	14.61	14.73
6	14.31	.....	b11.59	12.41	13.56	12.34	12.51	13.64	14.70	14.07	14.60	14.73
7	13.98	a12.71	b11.75	12.35	13.60	12.33	12.65	13.67	14.61	14.05	14.57	14.75
8	13.72	b12.72	b11.92	12.33	13.52	12.34	12.61	13.72	14.55	14.05	14.55	14.78
9	13.51	b12.74	b12.08	12.29	13.56	12.33	12.68	13.76	14.47	14.05	14.54	14.61
10	13.33	b12.79	b12.23	12.34	13.58	12.33	12.74	13.82	14.35	14.07	14.53	14.35
11	13.21	b12.84	b12.40	12.41	12.77	12.35	12.78	13.88	14.30	14.10	14.51	14.88
12	13.11	b12.89	b12.63	12.09	11.72	12.34	12.78	13.84	14.27	14.14	14.51	14.91
13	13.07	b12.95	b12.72	11.51	10.94	12.32	12.83	13.82	14.23	14.17	14.52	14.93
14	13.03	b12.97	b12.82	11.19	10.51	12.30	12.85	13.82	14.24	14.19	14.52	14.96
15	13.05	b12.97	b12.90	11.16	10.46	12.35	12.89	13.84	14.24	14.20	14.54	14.97
16	13.04	b12.99	b12.90	11.27	10.53	12.37	12.95	13.84	14.25	14.21	14.56	14.95
17	13.06	b13.01	b12.57	11.42	10.72	12.44	13.01	13.88	14.25	14.20	14.57	14.91
18	13.06	b13.04	b12.59	11.61	11.01	12.50	13.05	13.93	14.25	14.10	14.57	14.86
19	13.07	b13.01	b12.56	11.80	11.30	12.53	13.07	13.97	14.25	14.13	14.58	14.82
20	13.08	b12.63	b11.76	12.01	11.56	12.54	13.12	14.03	14.25	14.20	14.59	14.79
21	13.09	b12.14	b10.59	12.21	11.80	12.54	13.17	14.07	14.26	14.28	14.55	14.77
22	13.10	b11.83	.....	12.41	11.98	12.56	13.19	14.13	14.26	14.35	14.53	14.76
23	13.13	b11.79	.....	12.59	12.12	12.56	13.19	14.16	14.26	14.40	14.54	14.75
24	13.16	b11.85	.....	12.71	12.24	12.50	13.19	14.25	14.27	14.45	14.56	14.75
25	13.19	b11.88	.....	12.81	12.38	a12.51	13.20	14.30	14.29	14.48	14.58	14.75
26	13.20	b11.79	.....	12.90	12.51	12.51	13.20	14.40	14.28	14.53	14.60	14.78
27	13.25	b11.71	.....	13.01	12.63	12.55	13.27	14.47	14.26	14.56	14.61	14.81
28	13.28	b11.62	b11.04	13.09	12.74	12.56	13.31	14.52	14.25	14.58	14.63	14.86
29	13.33	b11.29	b11.31	13.02	12.85	b12.57	13.37	14.55	14.23	14.59	14.63	14.91
30	13.37	b11.62	13.04	12.74	b12.50	13.43	14.54	14.21	14.61	14.65	14.64	14.90
31	13.31	b11.90	.....	12.43	.....	13.45	14.55	.....	14.63	.....	14.90	.....

a Wetted-tape measurement.

b Estimated.

City of Grand Ledge

Ea GL 1. Layne Northern Co., Grand Ledge chair factory, 365 feet west of Perry Street, and 310 feet north of Jefferson Street. Unused drilled well, diameter 12 inches, measured depth 376 feet below land surface. Measuring point, top of recorder base, 1.0 foot above land-surface datum. Automatic water-stage recorder installed Sept. 3, 1948. Records available: 1948.

Day	Sept.	Oct.	Nov.	Dec.
1	.....	25.72	26.67	27.33
2	.....	26.03	26.81	27.35
3	a 25.19	26.22	26.65	27.26
4	25.26	26.20	26.43	27.28
5	25.32	25.96	26.53	27.19
6	25.34	25.94	26.42	26.98
7	25.30	25.52	26.78	27.25
8	25.47	25.79	27.02	27.21
9	25.58	25.84	26.68	27.40
10	25.60	25.90	26.49	27.43
11	25.54	25.88	26.87	27.46
12	25.40	26.02	26.95	27.23
13	25.63	26.06	26.60	27.42
14	25.93	a 26.30	26.97	27.50

a Wetted-tape measurement.

Ea GL 1--Continued.

Day	Sept.	Oct.	Nov.	Dec.
15	25.81	.....	26.86	27.33
16	25.79	.....	26.89	27.17
17	25.77	.....	26.60	27.41
18	25.59	.....	27.04	27.49
19	25.51	.....	26.93	27.22
20	25.62	.....	26.60	27.16
21	25.85	a26.50	26.98	a27.20
22	25.91	b26.51	27.00	27.46
23	25.89	b26.39	27.01	27.58
24	25.92	.....	26.96	27.58
25	26.08	.....	26.97	27.54
26	26.16	.....	26.92	27.80
27	26.09	b26.5	27.04	27.56
28	25.96	a26.54	27.25	27.61
29	25.82	26.62	27.13	27.41
30	25.68	26.64	27.17	27.72
31		26.57		27.69

a Wetted-tape measurement.

b Estimated.

Delta Township

Ea Dt 214. John Schneeberger. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 4 N., R. 3 W., 160 feet west of Greitz Road and 0.5 mile north of Saginaw Street. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	32.58	Apr. 16	31.71	July 15	31.99	Sept. 30	32.63
15	32.57	23	31.87	22	31.87	Oct. 7	32.57
29	32.54	30	31.70	29	32.13	14	33.15
Feb. 6	32.78	May 7	31.64	Aug. 5	32.30	21	33.17
11	32.79	27	31.28	12	32.24	28	33.11
19	32.56	June 3	31.39	19	32.49	Nov. 4	32.99
26	32.63	10	31.62	26	32.60	12	33.25
Mar. 18	32.68	18	31.63	Sept. 2	32.97	18	33.35
25	32.41	25	31.71	9	32.62	29	33.47
Apr. 2	32.23	July 1	31.91	16	32.80	Dec. 27	33.65
9	32.28	8	32.01	23	32.74		

Ea Dt 215. Bernard B. Bosworth. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 4 N., R. 3 W., about 90 feet north of Saginaw Street and about 500 feet east of Broadbent Road. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	12.11	Apr. 2	7.37	July 1	10.94	Sept. 23	14.09
15	12.31	9	7.88	8	11.55	30	14.13
22	12.29	16	7.46	15	11.79	Oct. 7	14.17
29	12.58	23	8.27	22	12.09	14	15.04
Feb. 6	12.75	30	6.60	29	12.61	21	15.13
11	12.92	May 7	7.43	Aug. 5	12.60	28	15.00
19	12.68	21	5.87	12	12.60	Nov. 4	14.79
26	12.34	27	7.44	19	12.99	12	15.10
Mar. 4	11.40	June 3	8.57	26	13.25	18	15.22
12	11.35	10	9.57	Sept. 2	13.38	29	15.33
18	10.95	18	10.26	9	13.69	Dec. 27	15.52
25	8.30	25	10.55	16	13.99		

Ea Dt 217. F. B. Marsh. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 4 N., R. 3 W., 250 feet northwest of U. S. Highway 27 and 300 feet southwest of Waverly Road, along highway. Records available: 1944-48.

Ea Dt 217--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	18.63	Apr. 9	1.82	July 8	13.98	Sept. 23	18.90
15	18.56	15	1.59	15	14.97	30	18.98
22	18.58	23	3.32	22	15.63	Oct. 7	19.07
29	18.67	30	3.38	29	16.37	14	19.11
Feb. 6	18.98	May 7	5.60	Aug. 5	17.08	21	19.49
12	18.99	14	.68	12	17.57	28	19.42
20	1.19	21	2.61	19	17.98	Nov. 4	19.33
26	1.76	27	4.08	26	19.30	12	19.30
Mar. 11	3.20	June 3	8.28	Sept. 2	18.54	18	19.34
18	1.66	10	9.50	9	18.64	29	19.41
25	1.08	25	11.52	16	18.80	Dec. 27	19.60
Apr. 2	.80	July 1	13.73				

Genesee County

Total precipitation in the Flint area during 1948 was 29.45 inches, or 0.88 inch above normal. Months of above-normal precipitation included February, March, June, November, and December. Probably the most opportune for recharge were the months of March, May, and June.

Highest observed water levels in the Flint area occurred during the period March 29 to June 29 which correlates with the months of peak precipitation. Lowest observed water levels occurred during the period September 5 to October 5. The time of occurrence of minimum water-level stage coincides with the end of the summer season of peak pumpage and marks the close of the July to October drought period. The net decline of water level in the Flint area during 1948 averaged about 1.5 feet.

City of Flint

Ge FL 352. City of Flint. About 325 feet north of Atherton Road and 30 feet west of its intersection with Day Street. Records available: 1947-48.

Jan. 5	3.00	Mar. 1	3.16	Apr. 20	2.54	June 8	3.16
12	3.09	8	3.24	27	2.59	Nov. 9	3.68
19	3.29	15	3.12	May 4	2.75	16	3.67
26	3.46	22	2.90	11	2.09	30	3.92
Feb. 9	3.31	29	2.58	18	2.18	Dec. 21	3.45
16	3.46	Apr. 6	2.52	25	2.28	28	3.52
23	3.27	13	2.45	June 1	2.36		

Ge FL 353. City of Flint, community well. 23 feet south of Brandon Street and 25 feet west of Barney Avenue. Records available: 1946-48.

Jan. 5	55.04	Apr. 6	54.01	June 29	54.80	Sept. 21	56.58
12	54.95	13	54.11	July 6	55.12	28	56.60
19	55.05	27	54.40	13	56.07	Oct. 5	57.22
26	55.18	May 4	54.43	20	56.26	12	56.22
Feb. 9	55.29	11	53.60	27	56.08	19	56.26
16	55.21	18	53.85	Aug. 3	56.38	26	56.31
23	54.51	25	54.37	10	56.18	Nov. 2	56.31
Mar. 1	53.91	June 1	54.80	24	56.38	9	56.14
8	54.04	8	54.86	31	56.73	16	56.14
15	54.18	15	55.09	Sept. 7	56.79	30	56.20
29	53.54	22	55.22	14	56.76	Dec. 28	56.15

Ge FL 354. City of Flint. About 100 feet north of Atherton Road and 30 feet west of its intersection with Day Street. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	2.24	Apr. 6	1.31	June 29	2.18	Sept. 21	3.63
12	2.36	13	1.71	July 6	2.34	28	3.07
19	2.54	20	1.84	13	2.71	Oct. 5	3.57
26	2.74	27	1.83	20	2.84	12	3.49
Feb. 9	2.57	May 4	1.97	27	2.67	19	3.42
16	2.72	11	1.48	Aug. 3	2.77	26	3.29
23	2.54	18	1.40	10	2.89	Nov. 2	3.31
Mar. 1	2.40	25	1.54	17	2.94	9	2.94
8	2.50	June 1	1.63	24	3.30	16	2.93
15	2.40	8	1.95	31	3.70	30	3.17
22	2.16	15	2.16	Sept. 7	3.72	Dec. 21	2.71
29	1.86	22	2.49	14	3.68	28	2.80

Ge FL 491. Consumers Power Co. 130 feet south of Sunnyside Avenue and 140 feet east of Franklin Avenue. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.09	26.61	26.30	25.45	26.05	25.88	27.31	28.63	29.59	29.19	28.62	28.03
2	26.56	26.48	26.15	25.67	26.15	25.86	27.41	28.67	29.47	29.30	28.65	28.01
3	26.65	26.54	26.16	25.79	26.11	25.38	27.34	28.64	29.48	29.40	28.56	27.85
4	26.48	26.44	26.28	25.75	25.95	25.91	27.55	28.58	29.52	29.37	28.36	27.81
5	26.42	26.44	26.47	25.49	25.90	26.11	27.78	28.58	29.61	29.23	28.33	27.77
6	26.31	26.35	26.32	25.50	26.07	26.35	27.80	28.58	29.45	29.13	28.26	27.71
7	26.26	26.23	25.98	25.51	26.02	26.30	27.77	28.53	29.34	29.09	28.42	27.36
8	26.20	26.11	25.96	25.49	25.97	26.00	27.81	28.59	29.42	29.03	28.56	27.75
9	26.02	26.21	26.05	25.69	26.06	26.20	27.86	28.68	29.45	29.03	28.34	27.83
10	26.27	26.20	26.14	25.79	25.88	26.32	27.93	28.69	29.49	29.04	28.12	27.31
11	26.25	26.18	26.22	25.45	25.56	26.41	28.03	28.58	29.46	29.00	28.50	27.85
12	25.96	26.14	26.18	25.41	25.53	26.43	28.15	28.58	29.38	28.97	28.34	27.67
13	25.03	26.05	26.02	25.46	25.50	26.36	28.25	28.65	29.43	28.99	28.10	27.84
14	25.02	25.70	25.93	25.42	25.51	26.39	28.38	28.71	29.57	29.02	28.24	27.84
15	25.07	26.10	25.74	25.43	25.59	26.19	28.39	28.77	29.54	29.07	28.13	27.67
16	24.96	26.01	25.61	25.35	25.60	26.38	28.37	28.80	29.54	28.94	28.15	27.45
17	25.17	25.94	25.90	25.67	25.59	26.40	28.40	28.79	29.52	28.95	27.90	27.44
18	25.10	26.12	25.94	25.64	25.55	26.42	28.46	28.71	29.44	29.00	28.20	27.51
19	26.41	26.07	25.77	25.48	25.75	26.41	28.55	28.80	29.41	28.82	28.20	27.29
20	26.50	26.26	25.61	25.26	25.78	26.50	28.50	28.89	29.49	28.90	28.01	27.27
21	26.31	26.43	25.59	.....	25.69	26.47	28.48	28.89	29.57	28.96	28.24	27.21
22	26.28	26.37	25.50	.....	25.35	26.22	28.49	28.94	29.52	28.93	28.26	27.29
23	26.50	26.28	25.61	.....	25.83	26.15	28.53	29.06	29.47	28.82	28.23	27.36
24	26.69	26.22	25.65	.....	26.00	26.22	28.60	29.03	29.45	28.91	28.19	27.33
25	26.57	26.13	25.83	.....	25.80	26.44	28.57	29.03	29.48	28.87	28.22	27.22
26	26.58	26.08	25.68	.....	25.86	.....	28.42	29.13	29.52	28.76	28.13	27.44
27	26.58	26.21	25.43	25.64	25.89	.....	28.43	29.30	29.45	28.73	28.07	27.35
28	26.63	25.93	25.63	25.77	25.89	.....	28.45	29.37	29.35	28.73	28.17	27.27
29	26.52	26.10	25.51	25.99	25.94	27.06	28.51	29.42	29.26	28.73	28.13	27.04
30	26.62	.....	25.52	26.06	26.03	27.10	28.51	29.46	29.17	28.75	28.09	27.19
31	26.70	.....	25.51	.....	26.06	.....	28.60	29.53	.....	28.65	.....	27.12

a Wetted-tape measurement.

b Estimated.

Ge FL 500. Consumers Power Co. About 2,500 feet east of Dort Highway and 540 feet north of Court Street. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.10	18.66	17.70	17.92	18.75	19.81	21.55	22.62	22.99	22.23	21.91
2	19.08	18.57	17.78	18.00	18.78	19.82	21.54	22.65	23.06	22.27	21.98
3	19.12	18.52	17.88	17.97	18.83	19.93	21.56	22.69	23.11	22.29	21.97
4	19.06	18.60	17.87	18.07	18.39	19.99	21.60	22.77	23.05	22.25	21.98
5	19.06	19.07	18.72	17.85	18.09	19.00	19.98	21.65	22.78	22.96	22.30	21.89

a Wetted-tape measurement.

Ge FL 500--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	19.02	19.06	18.64a	17.77	18.15	19.12	19.95	21.71	22.73	22.95	22.23	21.71
7	18.99	18.94	18.46	17.75	18.15	19.02	20.05	21.74	22.62	22.94	22.32	21.80
8	18.99	19.02	18.45	17.66	18.17	19.95	20.18	21.77	22.62	22.92	22.39	21.80
9	18.92	18.08	18.51	17.75	18.24	19.06	20.29	21.79	22.64	22.93	22.29	21.90
10	19.03	19.07	18.57	17.32	18.15	19.13	20.38	21.79	22.70	22.90	22.21	21.90
11	19.11	19.05	18.60	17.64	18.11	19.28	20.44	21.74	22.72	22.82	22.33	21.94
12	18.99	18.93	18.60	17.61	18.16	19.33	20.44	21.78	22.65	22.76	22.39	21.82
13	19.00	18.94	18.58	17.70	18.22	19.33	20.52	21.82	22.61	22.79	22.29	21.82
14	18.97	18.73	18.55	17.61	18.28	19.33	20.72	21.88	22.67	22.85	22.36	21.84
15	19.00	18.95	18.42	17.59	18.35	19.38	20.37	21.89	22.70	22.91	22.24	21.80
16	18.91	18.90	18.31	17.51	18.31	19.49	20.94	21.83	22.74	22.87	22.17	21.68
17	19.06	18.85	18.45	17.69	18.24	19.55	21.05	21.80	22.77	22.34	22.00	.....
18	19.05	18.97	18.46	17.63	18.34	19.62	21.15	21.81	22.77	22.79	22.15	.....
19	19.01	18.79	18.30	17.59	18.43	19.65	21.20	21.91	22.72	22.66	22.17	.....
20	18.98	18.88	18.12	17.57	18.42	19.69	21.21	21.99	22.68	22.71	21.98a	21.44
21	18.39	18.92	18.11	17.69	18.35	19.67	21.27	22.05	22.74	22.77	22.06	21.41
22	18.81	18.37	18.03	17.77	18.46	19.67	21.24	22.05	22.85	22.78	22.04	21.51
23	18.94	18.85	18.06	17.83	18.44	19.56	21.27	22.08	22.93	22.74	21.93	21.59
24	19.02	18.36	18.03	17.79	18.48	19.56	21.37	22.08	22.99	22.78	21.97	21.59
25	18.99	18.76	18.03	17.79	18.48	19.61	21.43	22.11	23.08	22.71	21.97	21.50
26	19.02	18.66	17.97	17.76	18.50	19.69	21.33	22.21	23.12	22.63	21.90	21.53
27	19.03	18.70	17.82	17.76	18.55	19.72	21.35	22.30	23.03	22.55	21.37	21.42
28	19.07	18.48	17.90	17.70	18.61	19.65	21.41	22.39	23.01	22.50	21.98	21.57
29	18.99	18.53	17.33	17.82	18.71	19.62	21.51	22.43	22.99	22.44	21.89	21.24
30	19.04		17.33	17.98	18.74	19.68	21.53	22.46	22.96	22.38	21.37	21.25
31	19.10		17.78		18.75		21.55	22.52		22.26		21.23

a Wetted-tape measurement.

Burton Township

Ge Bu 8. City of Flint. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 7 N., R. 7 E., 240 feet south of Hemphill Road and 260 feet east of Saginaw Street. Records available: 1947-48. Automatic water-stage recorder removed Jan. 6, 1943, and measurements discontinued.

Date	Water level	Date	Water level	Date	Water level
Jan. 1	25.71	Jan. 3	25.53	Jan. 5	25.45
2	25.38	4	25.49	6	25.48

Ge Bu 11. City of Flint. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 7 N., R. 7 E., 35 feet north of Maple Road and 1,900 feet west of Saginaw Street. Records available: 1947-48. Automatic water-stage recorder removed Aug. 10, 1948, and measurements discontinued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	25.65	26.13	a26.05	25.45	25.33	25.49	26.71	26.37
2	25.43	26.12	26.00	25.50	25.39	25.57	26.62	26.91
3	25.52	26.17	25.08	25.60	25.38	25.65	26.46	26.90
4	25.52	26.12	26.00	25.65	25.41	25.72	26.45	26.06
5	25.55	26.10	26.12	25.53	25.42	25.82	26.47	26.85
6	25.55	25.03	26.08	a25.55	25.50	25.97	26.41	26.91
7	25.56	26.01	25.91	25.54	25.48	25.96	26.44	26.39
8	25.67	26.04	25.89	25.45	25.34	25.84	26.47	26.93
9	25.58	26.24	25.93	25.40	25.36	25.94	26.51	26.99
10	25.78	26.21	25.95	25.44	25.21	25.36	26.55	27.02
11	25.80	26.17	26.01	25.26	25.19	25.90	26.63	.....
12	25.76	26.11	26.02	25.24	25.17	26.10	26.73	.....
13	25.91	26.06	26.02	25.36	25.13	26.22	26.91	.....
14	25.74	25.82	26.02	25.32	25.07	b26.33	26.90	.....
15	25.79	26.10	25.91	25.23	25.05	26.47	26.90	.....
16	25.79	26.17	25.79	25.23	25.01	26.54	26.37	.....
17	25.35	26.16	25.98	25.48	24.94	26.47	26.87	.....

a Wetted-tape measurement.

b Estimated.

Ge Bu 11--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
18	25.99	26.19	25.89	25.66	25.01	26.58	26.92	.....
19	25.87	26.12	25.91	25.56	25.14	26.71	27.01	.....
20	25.89	26.22	26.15	25.52	25.18	26.92	27.07	.....
21	25.74	26.33	26.11	25.54	25.15	.....	27.11	.....
22	25.68	26.31	26.04	25.60	25.17	a27.02	27.05	.....
23	25.80	26.30	25.97	25.55	25.15	26.90	26.96	.....
24	25.93	26.31	25.91	25.46	25.20	26.98	26.94	.....
25	26.00	26.20	25.97	25.45	25.23	27.06	26.39	.....
26	26.06	26.14	25.83	25.46	25.23	27.16	26.85	.....
27	26.06	26.13	25.61	25.44	25.25	27.09	26.88	.....
28	26.07	25.94	25.68	25.33	25.25	26.92	26.33	.....
29	25.99	.....	25.63	25.39	25.31	26.77	26.87	.....
30	26.03	.....	25.60	25.36	25.37	26.69	26.90	.....
31	26.10	.....	25.56	.....	25.42	.....	26.84	.....

a Wetted-tape measurement.

b Estimated.

Ge Bu 300. William F. Brooks, Jr., 3505 Columbine Avenue. About 280 feet north of Bristol Road and 75 feet east of Columbine Avenue. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	3.37	Apr. 6	3.10	June 29	4.82	Sept. 21	5.36
12	3.77	13	2.91	July 6	3.74	28	5.52
19	3.94	20	3.35	13	4.23	Oct. 5	5.38
26	4.14	27	3.37	20	4.57	12	5.33
Feb. 9	4.37	May 4	3.55	27	4.55	19	5.21
16	4.25	11	2.13	Aug. 3	4.39	26	5.12
23	3.34	18	3.04	10	4.69	Nov. 2	5.08
Mar. 1	2.96	25	3.62	17	4.50	9	4.50
8	3.62	June 1	4.00	24	4.73	16	4.50
15	3.17	8	4.06	31	5.04	30	4.27
22	2.33	15	4.21	Sept. 7	5.19	Dec. 28	4.15
29	2.75	22	4.19	14	5.21		

Ge Bu 301. City of Flint. NE $\frac{1}{4}$ sec. 30, T. 7 N., R. 7 E., 140 feet south of Hemphill Road and 260 feet east of Saginaw Street. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	21.71	Apr. 6	21.74	July 6	22.40	Sept. 28	23.90
12	22.26	13	21.32	13	23.04	Oct. 5	23.61
19	22.56	20	21.80	20	23.23	12	23.53
26	22.54	27	21.56	27	22.76	19	23.51
Feb. 9	22.49	May 4	21.86	Aug. 3	22.91	26	23.61
16	22.99	11	21.07	10	22.98	Nov. 2	23.24
23	22.31	18	21.41	17	23.10	9	22.71
Mar. 1	22.44	June 1	21.59	24	23.85	16	22.35
8	22.38	8	22.20	31	24.29	30	23.16
15	22.30	15	23.30	Sept. 7	24.30	Dec. 21	22.81
22	22.45	22	24.21	14	23.92	28	23.06
29	22.02	29	22.99	21	23.83		

Ge Bu 303. Clifford Clute. SW $\frac{1}{4}$ sec. 29, T. 7 N., R. 7 E., about 360 feet east of Fern Avenue and 80 feet north of Bristol Road. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	2.66	Apr. 6	1.75	June 1	3.10	July 27	3.65
12	2.61	13	1.72	8	2.94	Aug. 3	3.61
19	2.91	20	2.19	15	3.19	10	3.30
26	2.98	27	2.00	22	3.08	17	3.76
Feb. 9	3.02	May 4	2.56	29	+2.0	24	4.02
16	2.62	11	.71	July 6	.97	31	4.29
Mar. 22	.90	18	1.95	13	3.37	Sept. 7	4.42
29	1.51	25	2.63	20	3.59	14	4.55

Ge Bu 303--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sent. 21	4.69	Oct. 12	4.72	Nov. 2	4.62	Nov. 30	3.83
28	4.35	19	4.69	9	4.04	Dec. 28	3.48
Oct. 5	4.71	26	4.60	16	4.02		

Ge Bu 492. Arthur W. Arndt. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 32, T. 7 N., R. 7 E., 710 feet west of Saginaw Street and 120 feet north of Maple Road. Records available: 1946-48.

Jan. 5	19.32	Apr. 13	19.15	July 6	20.23	Sept. 21	21.72
12	19.56	20	19.30	13	20.64	28	21.75
19	19.67	27	19.23	20	20.87	Oct. 5	21.45
26	19.83	May 4	19.25	27	20.66	12	21.25
Feb. 9	19.95	18	18.36	Aug. 3	20.70	19	21.26
16	19.89	25	19.05	10	20.85	26	21.44
23	19.83	June 1	19.33	17	20.32	Nov. 2	21.31
Mar. 8	19.62	8	19.66	24	21.20	9	21.01
15	19.73	15	20.34	31	21.95	16	20.99
29	19.39	22	20.83	Sept. 7	21.97	30	21.02
Apr. 6	19.36	29	20.54	14	21.78	Dec. 28	21.05

Grand Traverse County

Blair Township

Gv Br 2. $NW\frac{1}{4}SW\frac{1}{4}$ sec. 27, T. 26 N., R. 11 W. Records available: 1935-37; 1941-44; 1948. Oct. 29, 3.15.

Gv Br 4. Records available: 1935-37; 1941-44. No measurements made in 1948.

Gv Br 7. Records available: 1935-37. No measurements made in 1948.

Gv Br 14. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 21, T. 26 N., R. 11 W. Records available: 1935-37; 1941-44; 1948. Oct. 29, 2.80.

Fife Lake Township

(No measurements made in 1948.)

Mayfield Township

Gv My 19. $SE\frac{1}{4}NW\frac{1}{4}$ sec. 2, T. 25 N., R. 11 W. Records available: 1935-37; 1941-44; 1948. Oct. 29, 5.79.

Paradise Township

Gv Pr 25. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 2, T. 25 N., R. 10 W. Records available: 1936-37; 1941-44; 1948. Oct. 29, 1.58.

Gv Pr 26. $NW\frac{1}{4}NW\frac{1}{4}$ sec. 8, T. 25 N., R. 10 W. Records available: 1936-37; 1941-44; 1948. Oct. 29, 0.49.

Union Township

Gv Un 2. $SW\frac{1}{4}SW\frac{1}{4}$ sec. 13, T. 26 N., R. 9 W. Records available: 1936-37; 1941-44; 1948. Oct. 29, 7.72.

Whitewater Township

Gv Ww 1. $SE\frac{1}{4}NW\frac{1}{4}$ sec. 36, T. 27 N., R. 9 W. Records available: 1934-37; 1941-44, 1948. Oct. 29; 12.17.

Gv Ww 6. $SE\frac{1}{4}SW\frac{1}{4}$ sec. 25, T. 27 N., R. 9 W. Records available: 1934-37; 1941-44; 1948. Oct. 29, 3.63.

Gv Ww 15. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 27 N., R. 9 W. Records available: 1934-37; 1941-44; 1948. Oct. 29, 14.77.

Gv Ww 18. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 27 N., R. 9 W. Records available: 1934-37; 1941-44; 1948. Oct. 29, 1.53.

Gv Ww 25. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 27 N., R. 9 W. Records available: 1935-37; 1941-44; 1948. Oct. 29, 16.57.

Gratiot County

Total precipitation in the Alma area during 1948 was 26.37 inches, or 4.41 inches above normal. Months of precipitation excess included March, April, June, and November. Considering conditions of cover and temperature, the greatest opportunities for recharge to the ground-water table probably occurred during the months of March and April. The July-to-October period of below-normal precipitation included the months of peak evapotranspiration discharge.

Withdrawals of ground-water for industrial and municipal supply in the Alma area averaged about 2 million gallons per day. Peak withdrawal occurred in January at an estimated rate of 2.2 million gallons per day. Minimum withdrawal occurred in April at an estimated rate of 1.3 million gallons per day.

Water levels in the Alma area reached highest observed stages between February 9 and May 17 with the majority of wells cresting at the end of April. The high water levels followed the above-normal precipitation of March and April and the winter period of minimum pumpage. Lowest observed water levels occurred during the period August 4 to December 29 with the greatest number of low stages during the period October 27 to November 10. The low water levels occurred at the close of a prolonged summer drought period and shortly after the close of the peak-pumping season. Excluding those observation wells which were effected by year-end changes in pumpage distribution, ground-water levels in the Alma area generally showed a net decline of about 1.5 feet during the year.

City of Alma

Gr AL 5. City of Alma. 50 feet east of River Avenue and 125 feet north of Chatterton Street. Unused supply well, diameter 18 inches, reported depth 90 feet below land surface. Measuring point, top of recorder shelf, 0.70 foot above land-surface datum. Automatic water-stage recorder installed Dec. 16, 1948.

Gr AL 5--Continued.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 13	a 23.62	Dec. 17	25.35	Dec. 22	25.19	Dec. 27	25.06
20	a 23.39	18	25.60	23	25.49	28	25.07
Nov. 17	a 24.99	19	25.14	24	25.47	29	a 24.55
Dec. 1	a 25.14	20	24.97	25	25.31	30	24.98
16	a 25.22	21	24.68	26	25.70	31	24.91

a Wetted-tape measurement.

Gr AL 23. City of Alma. About 380 feet east of Lincoln Avenue and 65 feet south of Elizabeth Street. Records available: 1946-48.

Jan. 6	a 54.80	Feb. 24	a 53.67	Apr. 5	a 51.50	Nov. 3	a 58.13
13	28.61	Mar. 2	a 53.50	12	a 51.09	10	a 58.20
20	24.48	9	a 52.99	19	a 51.61	17	a 57.44
26	24.71	16	a 52.15	Oct. 20	a 58.28	Dec. 1	a 59.97
Feb. 9	23.99	23	a 53.87	27	a 60.42	29	25.14
17	a 53.26	30	a 52.04				

a Nearby well operating.

Gr AL 42. Leonard Refineries. About 490 feet east of Elmwood Avenue and 480 feet south of Eastward Street extended. Records available: 1947-48.

Jan. 6	56.25	Apr. 12	49.30	July 7	52.07	Sept. 22	59.79
13	56.10	19	47.57	14	56.13	29	61.03
20	57.36	26	26.58	21	57.35	Oct. 6	61.31
26	51.87	May 3	45.27	28	55.65	13	61.41
Feb. 9	49.77	10	48.13	Aug. 4	57.15	20	61.66
17	54.13	17	51.25	11	57.07	27	62.59
24	51.47	24	47.38	18	51.10	Nov. 3	62.16
Mar. 9	57.97	June 2	53.94	25	59.79	10	62.19
16	55.30	9	55.60	Sept. 1	61.45	17	62.46
23	59.04	16	53.67	8	60.21	Dec. 1	63.06
30	48.66	23	53.08	15	61.30	29	63.30
Apr. 5	47.84	30	54.08				

Gr AL 45. Leonard Refineries. About 700 feet east of Elmwood Avenue and 300 feet south of Eastward Street extended. Records available: 1947-48.

Jan. 6	55.68	Apr. 19	47.86	July 7	53.52	Sept. 22	60.05
13	55.61	26	25.62	14	57.60	29	61.22
20	55.87	May 3	47.05	21	58.78	Oct. 6	61.60
26	51.16	10	49.42	28	57.25	13	61.70
Feb. 9	49.32	17	52.72	Aug. 4	58.44	20	61.92
17	53.56	24	49.27	11	57.82	27	62.60
24	51.44	June 2	55.61	18	52.43	Nov. 3	62.27
Mar. 9	57.10	9	57.28	25	60.15	10	62.54
23	58.31	16	55.21	Sept. 1	61.50	17	62.30
30	48.83	23	54.32	8	60.49	Dec. 1	63.01
Apr. 5	47.94	30	55.57	15	61.08	29	64.00
12	49.47						

Gr AL 54. Leonard Refineries. About 260 feet east of Elmwood Avenue and 90 feet south of Eastward Street extended. Records available: 1947-48.

Day	Jan.	Feb.	Mar.	Apr.	May	Sept.	Oct.	Nov.	Dec.
1	58.1	54.3	51.7	43.1	b30.9	a62.8	....	....	64.3
2	57.4	56.0	52.0	48.8	....	62.9	....	....	....
3	56.6	53.9	51.4	48.5	a45.6	62.9	....	a63.9	....
4	55.6	53.0	51.5	46.8	46.2	63.0	....	....	....
5	54.7	52.8	51.9	a43.5	47.2	63.1	....	....	....
6	54.2	51.8	53.8	47.7	47.3	62.7	a62.9	....	....
7	54.1	50.6	53.4	48.5	45.4	62.3	....	....	....
8	54.2	49.7	53.5	48.4	48.0	61.6	....	....	a65.1

a Wetted-tape measurement.

b Estimated.

Gr AL 54--Continued

Day	Jan.	Feb.	Mar.	Apr.	May	Sept.	Oct.	Nov.	Dec.
9	54.6	48.9	54.0	48.3	49.1	61.3	....	....	65.2
10	55.1	48.3	53.7	48.8	48.8	61.1	....	a64.0	65.2
11	54.3	49.8	56.2	48.1	48.6	62.2	....	....	65.2
12	54.3	49.1	59.9	47.8	51.2	62.8	....	....	64.9
13	54.4	49.3	57.1	47.6	52.5	63.1	a62.9	....	....
14	53.9	50.9	57.7	47.3	53.1	63.2	....	....	a65.2
15	54.6	52.0	56.8	47.3	53.3	62.8	....	....	65.0
16	54.4	52.0	54.0	47.3	52.4	62.5	....	....	64.8
17	54.3	a52.1	52.7	48.1	52.0	62.4	....	a64.2	65.5
18	54.3	52.6	53.7	48.3	51.6	62.0	....	64.3	65.5
19	53.6	52.2	52.3	47.8	51.7	61.9	....	64.0	65.0
20	53.7	51.2	52.6	45.4	....	....	a63.1	63.5	64.8
21	54.4	51.9	53.5	39.6	....	....	....	64.2	64.9
22	54.9	51.5	54.6	36.8	....	a60.8	....	64.1	a65.4
23	55.4	49.6	55.6	37.3	....	....	....	64.1	65.6
24	56.0	49.7	53.9	....	....	....	....	64.1	65.5
25	56.2	50.9	b51.5	....	....	....	....	64.3	65.5
26	51.6	50.4	....	a26.9	....	....	....	64.4	65.5
27	50.8	50.3	....	26.0	....	....	a64.5	64.7	64.9
28	50.7	49.5	....	25.5	....	....	....	65.1	65.1
29	50.1	51.3	....	26.9	....	a62.5	....	64.9	a65.2
30	50.9	....	a47.2	23.0	....	....	....	64.7	....
31	53.0	....	47.6	....	....	....	....	....	....

a Wetted-tape measurement.

b Estimated.

Gr AL 95. Robert McKee. 115 feet west of Gratiot Avenue and 220 feet south of Hastings Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.37	Apr. 5	9.72	July 7	12.58	Sept. 22	15.30
13	13.25	12	9.88	14	12.38	29	15.66
20	13.54	26	9.14	21	12.83	Oct. 6	15.48
26	14.37	May 3	9.57	23	12.96	13	15.62
Feb. 9	13.71	10	10.60	Aug. 4	14.16	20	16.08
17	13.26	17	10.80	11	13.60	27	16.83
24	12.37	24	11.22	18	13.48	Nov. 3	16.61
Mar. 2	11.89	June 2	12.33	25	14.35	10	16.01
9	11.98	9	12.60	Sept. 1	15.83	17	14.12
16	11.50	16	12.75	8	15.05	Dec. 1	16.71
23	10.50	23	12.69	15	15.51	29	15.38
30	9.94	30	12.75				

Gr AL 98. Marshall Dallas, Superior Sign Shop. 190 feet south of Superior Street and 100 feet east of State Street. Records available: 1946-48.

Jan. 6	24.38	Apr. 12	16.78	July 14	22.02	Sept. 29	26.08
13	22.81	19	17.11	Aug. 4	23.88	Oct. 6	24.42
20	25.68	May 10	21.66	11	22.76	13	24.25
26	27.93	24	22.93	18	22.33	20	25.91
Feb. 9	23.53	June 2	20.83	25	25.93	27	30.34
Mar. 9	20.53	16	26.71	Sept. 1	30.09	Nov. 3	26.32
16	19.95	23	26.77	8	24.85	17	25.12
23	19.45	30	26.72	15	26.15	Dec. 1	28.08
30	18.47	July 7	23.07	22	25.12	29	24.26
Apr. 5	17.27						

Gr AL 99. Emily Hercik. 85 feet west of Court Avenue and 140 feet north of Downie Street. Records available: 1947-48.

Gr AL 99--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	28.98	Apr. 5	8.54	June 30	19.33	Sept. 22	13.76
13	26.06	12	8.77	July 7	15.53	29	13.60
20	28.79	19	8.67	14	14.61	Oct. 6	17.63
26	31.79	26	6.08	21	17.55	13	16.95
Feb. 9	25.78	May 3	7.03	28	16.41	20	19.48
17	24.56	10	13.65	Aug. 4	21.74	27	24.08
24	24.75	17	16.09	11	17.31	Nov. 3	39.42
Mar. 2	13.59	24	15.62	18	16.07	10	13.50
9	13.47	June 2	19.95	25	19.43	17	19.71
16	12.90	9	20.68	Sept. 1	34.08	Dec. 1	22.92
23	11.13	16	20.09	8	19.46	29	37.88
30	8.77	23	19.92	15	19.89		

Gr AL 103. Vane Mills. 95 feet north of Chatterton Street and 115 feet east of Pine Avenue. Records available: 1946-48.

Jan. 6	6.76	Apr. 5	5.46	June 30	7.00	Sept. 22	8.41
13	6.91	12	5.50	July 7	7.41	29	3.49
20	7.05	19	5.77	14	7.63	Oct. 6	3.29
26	7.19	26	6.11	21	7.76	13	3.20
Feb. 9	7.28	May 3	6.23	28	7.93	20	3.18
17	7.08	10	5.86	Aug. 4	8.09	27	3.13
24	6.38	17	6.09	11	7.70	Nov. 3	3.10
Mar. 2	6.05	24	6.51	18	7.99	10	7.91
9	6.43	June 2	6.92	Sept. 1	8.30	17	7.83
16	5.40	9	6.74	8	8.40	Dec. 1	7.70
23	4.47	16	7.08	15	8.46	29	7.40
30	5.06	23	6.98				

Gr AL 106. Harold J. Farwell. 90 feet west of Euclid Avenue and 140 feet north of Walnut Street. Records available: 1946-48.

Jan. 6	16.69	Apr. 5	3.50	June 30	14.76	Sept. 22	13.66
13	16.24	12	3.60	July 7	13.27	29	17.55
20	17.28	19	3.50	14	12.53	Oct. 6	15.86
26	19.03	26	6.27	21	13.64	13	15.29
Feb. 9	16.04	May 3	6.60	28	23.59	20	15.99
17	15.43	10	10.27	Aug. 4	29.73	27	18.53
24	15.28	17	11.98	11	28.36	Nov. 3	26.40
Mar. 2	11.96	24	18.61	18	25.70	10	17.44
9	11.70	June 2	16.04	25	25.71	17	17.02
16	11.11	9	17.74	Sept. 1	29.69	Dec. 1	13.17
23	10.28	16	15.91	8	27.67	29	21.30
30	8.68	23	15.03	15	23.61		

Gr AL 135. Thomas Thompson. About 350 feet north of Ely Street and 70 feet west of Wheeler Avenue. Records available: 1947-48.

Jan. 6	37.80	Apr. 12	29.96	July 7	36.22	Sept. 22	39.92
13	36.68	19	30.11	14	36.75	29	41.51
20	38.00	26	24.35	21	39.71	Oct. 6	39.97
26	39.73	May 3	27.32	28	35.36	13	39.88
Feb. 9	33.97	10	32.94	Aug. 4	40.13	20	41.30
17	34.70	17	35.40	11	37.02	27	45.64
24	34.69	24	33.20	18	36.05	Nov. 3	42.15
Mar. 2	34.44	June 2	38.66	25	40.09	10	40.26
9	34.97	9	40.05	Sept. 1	44.31	17	40.70
23	32.85	16	39.01	8	40.12	Dec. 1	44.97
30	30.07	23	39.01	15	41.60	29	38.37
Apr. 5	29.78	30	38.97				

Gr AL 148. Alvin F. Tennent. About 300 feet south of Michigan Avenue and 65 feet west of Hayes Avenue. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.34	Apr. 5	11.68	July 7	12.30	Sept. 29	12.80
13	12.33	12	11.68	14	12.37	Oct. 6	12.77
20	12.40	19	11.78	21	12.38	13	12.74
26	12.40	26	11.86	28	12.44	20	12.75
Feb. 9	12.47	May 3	11.83	Aug. 4	12.51	27	12.75
17	12.45	10	11.89	18	12.50	Nov. 3	12.74
24	12.27	17	10.60	25	12.58	10	12.72
Mar. 9	12.21	June 9	12.12	Sept. 1	12.62	17	12.72
16	12.02	16	12.15	8	12.68	Dec. 1	12.71
23	11.74	23	12.21	15	12.72	29	12.71
30	11.75	30	12.25	22	12.73		

Gr AL 174. Donald Cramer. About 230 feet north of Ely Street and 90 feet west of Grover Avenue. Records available: 1947-48.

Jan. 6	10.33	Apr. 5	8.29	June 30	9.47	Sept. 22	11.30
13	10.40	12	8.19	July 7	9.69	29	11.41
20	10.48	19	8.24	14	9.87	Oct. 6	11.42
26	10.56	26	8.43	21	10.03	13	11.48
Feb. 9	10.73	May 3	8.39	28	10.27	20	11.50
17	10.73	10	8.35	Aug. 4	10.47	27	11.35
24	10.37	17	8.23	11	10.41	Nov. 3	11.43
Mar. 2	10.17	24	8.60	18	10.59	10	11.49
9	10.03	June 2	8.93	25	10.79	17	11.48
16	9.78	9	9.05	Sept. 1	10.96	Dec. 1	11.51
23	9.04	16	9.25	8	11.12	29	11.51
30	8.51	23	9.35	15	11.23		

Gr AL 230. Fred M. Taylor. 290 feet south of Eastward Street and 65 feet east of Linwood Avenue. Records available: 1946-48.

Jan. 13	7.67	Mar. 23	5.00	July 7	7.39	Sept. 1	8.07
20	7.91	May 17	6.24	14	7.51	8	8.17
26	7.82	24	6.68	21	7.61	15	8.30
Feb. 9	7.99	June 2	7.05	28	7.72	29	8.34
17	7.99	9	7.12	Aug. 4	7.85	Oct. 6	8.35
24	7.58	16	7.20	10	7.90	Nov. 3	8.46
Mar. 9	7.39	23	7.27	25	7.98	10	8.47
16	6.78	30	7.28				

Gr AL 240. C. V. Feet. 100 feet south of Superior Street and 65 feet west of Pleasant Avenue. Records available: 1947-48.

Jan. 6	9.68	Mar. 30	8.03	June 23	8.87	Sept. 15	10.20
13	9.65	Apr. 5	7.89	July 7	9.09	22	10.29
20	9.75	12	7.88	14	9.20	29	10.38
26	9.79	19	8.00	21	9.34	Oct. 6	10.43
Feb. 9	9.93	26	8.20	Aug. 4	9.64	20	10.47
17	9.92	May 3	8.09	11	9.72	27	10.57
24	9.58	10	8.17	18	9.77	Nov. 17	10.63
Mar. 9	9.30	24	8.31	25	9.87	Dec. 1	10.72
16	9.10	June 2	8.57	Sept. 8	10.10	29	10.65
23	8.24						

Gr AL 249. Mary J. Patterson. 140 feet east of Grove Avenue and 90 feet south of Eastward Street. Records available: 1947-48.

Jan. 6	8.07	Mar. 16	8.04	May 17	6.55	July 21	7.67
13	8.11	23	6.94	24	6.61	28	7.81
20	8.23	30	6.51	June 2	6.77	Aug. 4	7.92
26	8.26	Apr. 5	6.27	9	6.92	11	8.04
Feb. 9	8.42	12	6.28	16	7.05	18	8.14
17	8.46	19	6.31	23	7.20	25	8.24
24	8.41	26	6.43	30	7.34	Sept. 1	8.33
Mar. 2	8.24	May 3	6.47	July 7	7.45	8	8.44
9	8.11	10	6.57	14	7.56	15	8.54

Gr AL 249--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 22	8.63	Oct. 13	8.79	Nov. 3	9.05	Dec. 1	9.17
29	8.71	20	8.93	10	9.09	29	9.24
Oct. 6	8.79	27	8.99	17	9.13		

Gr AL 252. Elwin E. Peterson. 120 feet west of Wright Avenue and 50 feet north of Virginia Street. Records available: 1947-48.

Jan. 6	12.28	Apr. 5	10.13	June 30	11.54	Sept. 22	13.11
13	12.36	12	10.00	July 7	11.71	29	13.16
20	12.41	19	10.05	14	11.90	Oct. 6	13.25
26	12.48	26	10.38	21	12.05	13	13.29
Feb. 9	12.63	May 3	10.22	28	12.24	20	13.34
17	12.66	10	10.26	Aug. 4	12.32	27	13.38
24	12.28	17	9.88	11	12.47	Nov. 3	13.41
Mar. 2	11.79	24	10.40	18	12.57	10	13.43
9	11.81	June 2	10.83	25	12.68	17	13.41
16	11.60	9	11.01	Sept. 1	12.80	Dec. 1	13.34
23	10.71	16	11.19	8	12.91	29	13.36
30	10.37	23	11.37	15	13.03		

Gr AL 253. John Hilsinger. 95 feet west of Moyer Avenue and 75 feet north of Marshall Street. Measurements discontinued May 17, 1948. Records available: 1947-48.

Jan. 6	5.87	Feb. 17	5.91	Mar. 23	4.87	Apr. 26	5.58
13	5.88	24	5.66	30	5.07	May 3	5.56
20	5.93	Mar. 2	5.57	Apr. 5	5.27	10	5.53
26	5.92	9	5.76	12	5.42	17	5.41
Feb. 9	5.96	16	4.94	19	5.51		

Gr AL 254. Clifford H. Gould. 85 feet east of Pennsylvania Avenue and 45 feet north of Maryland Street. Measurements discontinued Aug. 11, 1948. Records available: 1947-48.

Jan. 6	9.01	Mar. 9	8.94	May 3	6.94	June 23	8.18
13	9.05	16	8.48	10	6.93	30	8.28
20	9.04	23	7.83	17	6.75	July 7	8.45
26	9.23	30	7.39	24	7.27	14	8.60
Feb. 9	9.38	Apr. 5	6.87	June 2	7.65	21	8.65
17	9.44	12	7.03	9	7.96	28	8.85
24	9.00	19	6.89	16	8.10	Aug. 11	8.91
Mar. 2	8.65	26	7.13				

Gr AL 255. Mattie J. Patterson. 130 feet south of Hastings Street and 85 feet west of River Avenue. Records available: 1946-48.

Jan. 6	21.69	Apr. 5	7.15	June 30	18.11	Sept. 22	16.88
13	20.78	12	7.18	July 7	13.29	29	17.64
20	23.58	19	7.12	14	13.66	Oct. 6	15.78
26	26.10	26	5.17	21	15.63	13	14.89
Feb. 9	20.26	May 3	6.80	28	14.76	20	17.90
17	18.96	10	12.70	Aug. 4	20.15	27	21.87
24	19.13	17	14.56	11	15.04	Nov. 3	29.94
Mar. 2	12.01	24	14.35	18	14.02	10	16.18
9	11.99	June 2	18.23	25	17.63	17	17.27
16	11.39	9	18.65	Sept. 1	28.33	Dec. 1	20.34
23	9.52	16	18.29	8	17.19	29	28.24
30	7.51	23	18.14	15	17.23		

Gr AL 256. L. A. Halker. About 500 feet north of Michigan Avenue and 100 feet east of Bridge Avenue. Records available: 1947-48.

Gr AL 256--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	16.89	Apr. 5	12.28	June 30	16.71	Sept. 22	17.81
13	16.49	12	12.38	July 7	16.08	29	18.03
20	16.73	19	12.47	14	15.73	Oct. 6	17.44
26	18.07	26	10.36	21	16.29	13	17.50
Feb. 9	16.38	May 3	10.07	28	16.62	20	17.57
17	16.10	10	13.21	Aug. 4	18.56	27	18.92
24	15.70	17	15.02	11	18.14	Nov. 3	18.97
Mar. 2	14.46	24	15.05	18	16.69	10	18.95
9	14.56	June 2	16.73	25	17.22	17	18.51
16	14.84	9	17.14	Sept. 1	20.35	Dec. 1	19.10
23	13.26	16	16.90	8	19.19	29	19.06
30	13.19	23	16.88	15	18.95		

Gr AL 258. Joel R. McCartey. 100 feet west of Prospect Avenue and 50 feet north of north track of Ann Arbor Railroad. Records available: 1946-48.

Jan. 6	20.90	Apr. 5	15.54	June 30	20.99	Sept. 22	21.79
13	20.23	12	14.38	July 7	20.19	29	21.52
20	21.29	19	15.13	14	19.27	Oct. 6	20.63
26	21.86	26	14.63	21	20.82	13	21.62
Feb. 9	20.83	May 3	13.13	28	17.94	20	21.35
17	17.20	10	17.65	Aug. 4	20.72	27	24.35
24	17.59	17	19.17	11	19.94	Nov. 3	21.16
Mar. 2	17.20	24	18.93	18	19.63	10	19.67
9	16.65	June 2	20.79	25	21.65	17	19.84
16	14.96	9	22.01	Sept. 1	24.23	Dec. 1	23.82
23	17.31	16	20.88	8	20.83	29	19.69
30	15.32	23	21.24	15	22.91		

Gr AL 260. R. V. Brown. About 300 feet south of Hastings Street and 115 feet west of River Avenue. Records available: 1946-48.

Jan. 6	5.06	Apr. 5	2.28	June 30	5.16	Sept. 22	16.09
13	4.90	12	2.29	July 7	14.30	29	17.30
20	4.15	19	2.66	14	13.38	Oct. 6	15.53
26	23.41	26	2.96	21	15.39	13	15.45
Feb. 9	17.49	May 3	3.22	28	14.10	20	16.69
17	16.23	10	2.30	Aug. 4	19.43	27	20.44
24	3.73	17	2.89	11	14.80	Nov. 3	19.90
Mar. 2	2.67	24	3.74	18	14.12	10	16.44
9	3.29	June 2	5.06	25	16.64	17	17.42
16	1.08	9	4.61	Sept. 1	24.23	Dec. 1	21.81
23	.63	16	9.40	8	16.65	29	22.78
30	1.40	23	10.01	15	17.95		

City of St. Louis

Gr ST 1. City of St. Louis. 290 feet north of North Street and 45 feet east of Mill Street. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	24.6	26.4	26.1	24.5	24.7	25.2	24.5	....	a40.3	....	23.4	23.9
2	23.8	26.2	25.8	24.7	....	25.4	24.7	....	36.5	....	24.8	....
3	23.9	26.4	26.7	....	a30.7	25.5	24.3	....	36.5	....	25.2	....
4	23.1	26.4	25.8	....	24.7	26.0	23.9	a33.8	37.2	....	25.4	....
5	21.9	26.8	26.6	a29.7	24.8	25.2	23.9	25.9	36.4	....	25.2	....
6	23.1	26.7	27.4	23.4	24.4	24.8	23.3	25.2	35.5	a33.6	24.7	....
7	23.0	26.8	27.4	25.3	25.5	24.6	a31.0	25.4	....	27.7	24.2	....
8	23.5	27.0	26.8	24.0	24.6	24.7	24.3	24.7	a40.9	....	22.7	a32.2
9	23.8	26.5	27.1	24.2	24.1	24.6	24.0	24.1	36.3	....	23.8	25.0
10	24.4	26.8	27.0	23.9	22.5	25.2	25.3	24.9	36.5	....	24.9	24.6
11	22.9	27.3	27.2	23.3	23.6	24.7	25.1	24.3	35.8	....	24.9	24.6

a Wetted-tape measurement.

Gr ST 1--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
12	22.3	27.1	26.5	22.7	24.1	24.6	25.3	....	31.8	....	25.1	....
13	23.2	26.7	27.2	23.5	23.7	24.3	25.1	....	34.9	a32.1	24.6	....
14	22.1	26.3	26.3	....	25.9	23.9	a32.9	....	31.8	26.6	24.0	a26.2
15	23.3	26.7	25.7	....	24.5	24.5	....	....	36.2	27.9	23.4	24.2
16	23.5	26.1	25.1	....	24.0	24.6	....	....	36.7	25.9	25.2	23.4
17	24.2	a32.7	26.7	....	a30.2	25.7	....	....	37.7	25.7	23.2	23.6
18	24.0	25.6	25.3	....	24.6	26.0	....	a30.5	36.4	24.7	24.0	23.2
19	23.8	27.1	....	a30.0	26.2	25.4	....	....	36.3	24.9	23.7	22.8
20	24.0	26.6	....	23.2	25.4	24.6	....	....	36.0	25.2	....	21.2
21	24.3	26.4	....	....	26.1	24.5	a28.9	....	36.2	25.3	....	21.8
22	24.2	26.4	....	....	26.2	23.9	....	....	a36.4	25.2	....	a25.9
23	25.0	26.5	a31.8	....	25.1	23.9	....	....	....	25.8	....	23.6
24	27.1	26.5	26.5	....	25.1	24.7	....	....	....	25.3	a31.2	....
25	29.9	26.4	25.6	....	25.0	24.6	....	a39.3	....	....	23.9	....
26	25.8	28.3	....	a29.7	24.6	24.6	....	....	....	....	22.6	....
27	25.7	26.9	....	23.2	25.5	24.3	....	....	....	a32.9	23.2	....
28	26.1	26.1	....	23.8	25.4	23.5	a33.3	....	....	25.5	23.5	....
29	26.2	27.1	....	24.5	25.5	23.9	32.5	....	a33.7	25.6	22.5	a31.8
30	26.6	a31.8	24.9	....	27.2	a32.5	....	....	36.4	24.6	23.8	28.0
31	26.4	24.6	....	....	24.6	....	....	....	....	25.2	....	27.5

a Wetted-tape measurement.

Village of Ithaca

Gr IH 1. Village of Ithaca. 180 feet north of Center Street and 45 feet east of Maple Street. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	80.09	79.92	80.04	79.40	79.44	79.52	80.37	81.77	82.08	80.87	81.57	81.24
2	79.57	79.77	79.85	79.68	79.52	79.80	80.35	81.87	82.02	81.30	81.33	81.30
3	79.92	79.92	79.78	79.97	79.47	79.83	80.79	81.72	81.87	81.31	81.17	81.08
4	79.85	79.80	80.05	79.97	79.47	79.81	81.56	81.62	81.92	81.29	80.86	81.09
5	79.99	79.91	80.56	79.63	79.41	79.87	81.52	81.09	82.62	81.12	80.85	80.98
6	79.97	79.87	80.13	79.71	79.47	80.27	81.14	80.96	82.47	81.04	80.96	80.62
7	79.97	79.82	79.58	79.71	79.25	80.24	81.19	81.39	81.97	80.90	81.04	80.90
8	79.93	79.81	79.55	79.47	79.36	79.44	81.15	81.97	82.52	80.77	81.32	80.86
9	79.70	80.03	79.71	79.70	79.48	79.82	81.22	82.07	82.47	80.77	81.07	81.10
10	80.21	80.06	79.82	79.87	79.47	79.70	81.27	81.49	82.47	80.75	80.77	81.15
11	80.27	80.01	79.90	79.36	79.47	80.03	81.79	81.49	82.22	80.72	81.11	81.29
12	79.82	79.88	79.89	79.42	79.51	80.00	81.77	81.47	82.67	80.76	81.25	80.95
13	80.02	79.81	79.84	79.74	79.47	79.70	81.28	80.95	82.35	80.85	80.94	81.07
14	79.91	79.32	79.75	79.67	79.40	80.30	81.27	81.51	81.92	80.97	81.21	81.26
15	79.93	79.98	79.46	79.62	79.37	79.81	81.39	82.02	81.52	81.07	81.08	81.18
16	79.72	79.83	79.22	79.37	79.23	79.87	81.22	82.12	81.39	80.89	81.11	80.91
17	80.10	79.64	79.69	79.76	79.15	79.81	81.22	81.73	81.77	80.97	80.74	b81.10
18	80.07	79.71	79.84	79.67	79.38	79.77	81.82	81.57	81.87	81.09	81.14	a81.03
19	79.97	79.46	79.47	79.48	79.58	79.67	81.72	81.62	82.52	80.89	81.09	81.00
20	79.90	79.88	79.62	79.38	79.51	79.80	81.47	81.57	82.42	81.09	80.66	80.84
21	79.52	80.03	79.52	79.62	79.22	79.75	81.29	82.32	81.47	....	81.03	80.74
22	79.41	79.98	79.51	79.73	79.35	79.68	81.27	82.37	81.29	....	81.15	81.00
23	79.81	79.97	79.67	79.65	79.27	79.87	81.30	82.27	81.18	....	81.09	81.23
24	80.09	80.02	79.76	79.50	79.42	80.20	81.42	81.97	81.14	....	81.04	81.27
25	80.04	79.91	79.97	79.53	79.42	80.09	81.92	81.97	81.23	....	80.95	81.20
26	80.04	79.75	79.75	80.34	79.39	80.34	81.69	81.97	81.33	....	80.81	81.47
27	80.05	79.83	79.37	79.67	79.41	81.01	80.94	82.01	81.25	a81.13	80.95	81.09
28	80.09	79.38	79.77	79.97	79.30	81.03	81.22	82.07	81.19	81.57	81.20	81.10
29	79.77	79.67	79.57	79.57	79.75	80.57	81.52	82.62	81.10	81.17	81.06	81.00
30	79.94	79.62	79.49	79.52	80.84	81.27	82.32	80.94	81.16	81.06	81.51	....
31	80.04	79.54	....	....	79.52	....	81.32	82.02	....	81.04	....	81.32

a Wetted-tape measurement.

b Estimated.

Village of Perrinton

Gr PE 1. Glenn Corson. 100 feet east of Robinson Street and 70 feet north of South Street. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.45	16.79	16.65	11.46	12.27	12.93	15.64	16.77	17.98	19.03	20.01	20.54
2a	15.43	16.82	16.59	11.16	12.26	13.05	15.72	16.83	18.01	19.05	20.04	20.59
3a	15.47	16.86	16.50	11.09	12.27	13.20	15.76	16.91	18.03	19.13	20.07	20.59
4	15.55	16.90	.....	11.11	12.33	13.30	15.81	16.98	18.06	19.21	20.05	20.59
5	15.60	16.92	.....	11.11	12.38	13.39	15.86	17.05	18.09	19.25	20.04	20.58
6	15.69	16.97	.....	11.15	12.45	13.54	15.89	17.11	18.12	19.25	20.00	20.51
7	15.73	17.00	.....	11.25	12.49	13.65	15.91	17.16	18.14	19.26	20.02	20.51
8	15.78	17.00	.....	11.28	12.51	13.74	15.97	17.21	18.15	19.23	20.11	20.53
9	15.78	17.08	b16.11	11.36	12.51	13.83	16.04	17.26	18.18	19.22	20.16	20.57
10	15.85	16.91	16.10	11.49	12.47	13.97	16.10	17.32	18.21	19.21	20.13	20.63
11	15.97	.....	16.10	11.53	12.29	14.12	16.14	17.17	18.25	19.22	20.18	20.69
12	15.98	.....	16.11	11.48	12.01	14.25	16.17	17.20	18.26	19.24	20.24	20.68
13	16.00	17.02	16.10	11.55	11.73	14.37	16.13	17.23	18.30	19.28	20.24	20.67
14	16.02	16.95	16.09	11.57	11.53	14.49	16.18	17.27	18.37	19.34	20.28	20.71
15	16.06	16.96	16.08	11.58	11.39	14.60	.....	17.33	18.44	19.41	20.29	20.76
16a	16.04	17.05	15.81	11.58	11.30	14.72	.....	17.37	18.50	19.46	20.32	b20.72
17	.....	17.28	15.77	11.59	11.25	14.83	.....	17.39	18.55	19.48	20.28	20.74
18	.....	17.27	15.77	a11.60	11.29	14.94	.....	17.40	18.59	19.55	20.32	20.78
19	.....	17.25	15.68	b11.83	11.38	15.02	.....	17.44	18.59	19.58	20.37	20.75
20b	16.27	17.19	15.08	.....	11.50	15.12	.....	17.49	18.59	19.62	20.30	20.71
21	16.24	17.26	14.91	.....	11.55	15.21	b16.37	17.53	18.61	19.70	20.31	20.66
22	16.18	17.27	14.59	.....	11.65	15.27	16.37	17.57	18.64	19.76	20.37	20.66
23	16.19	17.26	a14.09	.....	11.76	15.32	16.38	17.61	18.68	19.78	20.38	.....
24	16.29	17.25	13.75	.....	11.90	15.36	.....	17.65	18.72	19.82	20.40	.....
25	16.37	17.19	13.50	.....	12.04	15.40	.....	17.67	18.78	19.88	20.40	.....
26	16.46	17.11	13.32	b12.35	12.17	15.46	.....	17.70	18.86	19.91	20.40	.....
27	16.53	17.01	a13.03	12.38	12.28	15.50	.....	17.75	18.94	19.92	20.39	.....
28	16.59	16.82	a12.87	12.40	12.39	15.54	b16.64	17.80	19.00	19.94	20.46	.....
29a	16.63	16.65	b12.60	12.40	12.51	15.56	16.66	17.84	19.03	19.97	20.49	b20.70
30	16.65	.....	a12.25	12.34	12.64	15.58	16.70	17.88	19.04	20.00	20.52	20.69
31	16.73	.....	12.02	.....	12.78	.....	16.72	17.92	.....	20.01	.....	.....

a Wetted-tape measurement.

b Estimated.

Pine River Township

Gr Pr 16. Thomas Thompson. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 12 N., R. 3 W., 330 feet south of Ann Arbor Railroad crossing and 90 feet west of Smith Road. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	22.78	Mar. 23	22.35	Aug. 18	22.24	Oct. 13	22.79
13	22.79	30	22.17	25	22.30	20	22.88
20	22.76	Apr. 5	22.09	Sept. 1	22.35	27	22.89
26	22.88	12	22.09	8	22.44	Nov. 3	22.91
Feb. 9	22.98	19	21.90	15	22.53	10	23.07
17	22.97	26	21.90	22	22.60	17	23.11
24	22.85	May 3	21.82	29	22.65	Dec. 1	23.23
Mar. 9	22.78	Aug. 11	22.24	Oct. 6	22.71	29	23.35
16	22.70						

Ingham County

City of Lansing

Ig LS 3. City of Lansing well P-5. Northwest corner of crossing of Pennsylvania Avenue and Grand Trunk Western Railway tracks. Records available: 1930-47; 1948.

Ig LS 3--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	31.43	Apr. 9	30.03	July 1	30.68	Sept. 23	35.05
19	30.78	15	29.42	8	30.65	30	36.01
26	31.24	23	29.89	15	31.71	Oct. 7	35.70
Feb. 6	33.13	30	29.10	22	32.59	14	35.97
13	33.10	May 7	29.74	29	33.11	21	36.08
20	34.15	14	26.63	Aug. 5	34.29	28	35.70
27	33.58	21	25.61	12	34.90	Nov. 4	35.45
Mar. 5	33.44	27	27.52	19	35.36	12	34.82
12	33.29	June 3	27.97	Sept. 2	36.64	18	34.51
18	33.12	10	28.82	9	36.05	29	30.08
25	29.19	18	29.67	16	35.83	Dec. 27	33.28
Apr. 2	29.90	25	30.51				

Ig LS 4. City of Lansing, well P-9. About 500 feet east of Pennsylvania Avenue and just north of Grand Trunk Western Railway tracks. Records available: 1930-47; 1948.

Jan. 16	37.80	Apr. 9	36.17	July 1	38.22	Sept. 23	46.40
19	37.01	15	35.60	8	38.31	30	46.19
26	37.52	23	35.81	15	39.56	Oct. 7	45.61
Feb. 6	39.39	30	35.52	22	40.56	14	45.63
13	38.98	May 7	35.95	29	41.21	21	45.51
20	40.73	14	33.81	Aug. 5	42.57	28	45.09
27	40.14	21	32.77	12	43.21	Nov. 4	44.72
Mar. 5	39.98	27	33.65	19	43.89	12	43.69
12	39.68	June 3	34.88	Sept. 2	47.92	18	43.22
18	39.49	10	36.72	9	46.58	29	40.74
25	36.10	18	37.16	16	46.39	Dec. 27	41.17
Apr. 2	36.20	25	37.61				

Ig LS 5. City of Lansing well RS-7. Just north of Red Cedar River, on approximate line of Mifflin Avenue. Records available: 1930, 1932, 1936-48.

Date	Water level	Date	Water level	Date	Water level
Feb. 1	39.28	Apr. 28	57.61	Nov. 4	60.28
Mar. 12	40.86	June 10	71.47	Dec. 30	41.61

Ig LS 6. City of Lansing. Logan well at Lapeer and Logan Streets. Records available: 1929, 1931, 1933-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	116.92	Apr. 23	118.44	July 8	120.84	Sept. 23	123.87
26	117.44	30	118.93	15	121.95	30	123.60
Feb. 5	118.16	May 7	118.50	22	122.53	Oct. 7	123.03
12	117.33	14	118.49	29	122.81	14	123.36
19	115.70	21	118.88	Aug. 5	122.66	21	123.84
26	117.92	27	118.71	12	122.92	28	123.51
Mar. 18	118.40	June 3	118.50	19	123.40	Nov. 4	122.76
25	118.80	10	118.68	26	124.04	12	122.19
Apr. 2	118.69	18	118.64	Sept. 2	123.82	18	122.09
9	118.78	25	118.60	9	123.58	29	120.78
15	118.38	July 1	121.37	16	124.03	Dec. 27	120.31

Ig LS 7. City of Lansing. Seymour well, about 500 feet east of Grand River Avenue, on north side of Josephine Street. Records available: 1919, 1929-48.

Ig LS 7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	110.42	May 21	all16.9	Aug. 5	116.65	Oct. 7	all15.8
26	108.48	27	all17.4	12	all17.1	14	117.02
Feb. 12	112.27	June 3	all13.2	19	117.36	21	116.10
19	107.56	10	109.90	26	117.46	28	115.05
26	112.78	18	105.04	Sent. 2	119.03	Nov. 4	111.84
Mar. 5	115.45	July 1	111.88	9	119.20	12	108.74
12	114.79	8	111.13	16	115.36	18	109.03
18	114.70	15	115.67	23	112.89	29	97.24
Apr. 30	all14.5	22	116.33	30	111.27	Dec. 27	92.00
May 7	all14.9	29	116.25				

a Estimated.

Ig LS 8. City of Lansing. Townsend Street well, 110 feet east of Townsend Street and 14 feet north of Olds Avenue extended. Records available: 1919, 1929-48.

Jan. 8	37.79	Apr. 16	34.79	July 8	39.23	Sept. 30	41.18
15	36.79	23	34.86	15	40.02	Oct. 7	40.27
23	34.49	30	34.87	22	40.48	14	40.28
26	34.63	May 7	35.24	29	40.59	21	40.01
Feb. 12	36.03	21	35.24	Aug. 5	41.12	28	39.97
20	35.57	27	35.69	12	41.85	Nov. 4	39.82
27	35.19	June 3	36.71	19	41.60	12	39.23
Mar. 18	35.31	10	37.74	26	42.70	18	39.04
25	34.78	18	37.96	Sept. 9	41.33	29	37.92
Apr. 2	34.82	25	37.84	16	40.96	Dec. 27	36.78
9	34.69	July 1	38.69	23	41.21		

Ig LS 9. City of Lansing. 280 feet west of Cedar Street and 250 feet south of Jay Street. Records available: 1945-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.55	57.28	57.43	56.19	54.36	52.07	55.39	57.45	57.97	58.02	57.66a	56.20
2	53.51	56.91	57.81	55.00	53.97	52.66	55.22	57.30	57.80	.....	57.55	.....
3	54.18a	57.00	58.09	55.50	53.56	53.10	55.11	57.40	58.03	57.90	57.50	.....
4	54.06	.....	58.10	53.88	53.99	53.47	55.35	57.40a	58.10	57.20	57.56	.....
5	53.65a	57.52	58.17	53.14	54.31	53.97	55.07	57.35a	58.20	57.00	57.68	55.60
6	53.97	57.55	58.09	53.80	54.61	53.70	54.79	57.30	58.02	56.95	56.81a	55.20
7	54.50	57.64	57.92	53.94	54.64	53.00	55.22	57.10a	57.07	56.87	56.30	56.12
8a	54.85	57.70	57.86	53.91	54.80	53.29	55.36	57.47	.....	56.90	55.70	56.30
9	55.05	57.65	57.87	54.20	54.16	52.87	55.41	57.35b	57.41	57.00	56.30	56.60
10	55.62	57.67	57.93	54.15	53.11	53.67	55.45	57.60	57.38	57.20	56.50	56.74
11	55.59	57.85	57.98	53.38	54.04	54.20	55.60	57.45	57.17	56.95	56.85	56.86
12	55.13	58.02	58.03	52.67	54.39	54.33	55.42	57.59	57.17	56.93	57.13	55.50
13	55.55	58.25	58.15	53.34	54.20	54.12	55.75	57.55	57.20	57.02	57.15	55.55
14	55.84	58.40	58.10	53.25	54.33	53.84	55.85	57.40	57.55	57.17	57.37	56.40
15	56.10	58.49	58.01	53.40	54.36	54.11	55.88	57.44	57.30	57.32	56.41	56.45
16b	56.51	58.10	58.24	53.32	53.04	53.98	55.95	57.18	57.26	57.27	56.90	56.54
17	56.62	57.80	58.51	53.85	53.30	54.05	56.25	57.40	57.47	56.38	57.03	56.80
18	56.63	57.82	58.61	53.09	53.71b	54.01	56.50	57.40	58.05	56.00	57.54	56.90
19	56.35	57.97	58.51	.....	53.77	54.25	56.55	57.70	58.50	56.40	57.52	.....
20	.....	58.52	58.86	.....	53.45	54.25	56.80	57.70	58.60	56.70	57.56b	55.83
21	.....	58.54	58.34	.....	53.02	54.07	56.85	57.69	58.70	57.05	.....	56.02
22	.....	58.45	57.85	.....	52.21a	54.45	56.98	57.77	58.20	57.01	56.20	56.45
23	.....	58.33	57.52b	53.38	52.31	54.57	57.20	57.59	58.08	57.04	56.74	56.61
24	.....	58.52	57.33	53.36	51.31b	54.98	57.10	57.80	57.80	57.48	56.90	56.61
25	.....	58.67	57.10	53.84	51.61	55.12	57.34	57.97	57.69	57.13	57.05	55.86
26b	56.58	58.73	56.69	53.85	51.66	55.20	56.36	58.13	57.80	57.05	55.85	55.23
27	56.74	58.80	57.16	54.28	52.14	55.35	57.09	58.14	57.95	57.11	56.48	54.50
28	57.00	58.46	57.26	54.03	52.51	54.89	57.10	58.16	58.01	57.30	55.45	55.45
29	57.00	58.64	56.65	54.09	53.08	55.21	57.25	58.33	57.66	57.43	55.20	55.64
30	57.28		56.56	54.03	52.95	55.22	57.20	58.16	57.65	57.49	55.90	56.09
31	57.40		56.23		52.10		57.32	58.27	*	57.38		56.16

a Estimated.

b Wetted-tape measurement.

Ig LS 51. General Motors Corporation, Oldsmobile Drop Forge. 65 feet west of Verlinden Avenue and 30 feet south of Osborn Road. Records available: 1946-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	113.4	114.6	113.8	117.8	120.1	.....	al23.7	120.6	.....	.....	.....	123.3
2	111.7	113.2	114.3	116.4	115.3	.....	123.7	.....	al23.8	.....	.....	123.7
3	111.8	113.9	114.8	117.4	114.4	al18.1	.....	.....	124.2	.....	.....	124.2
4	112.1	116.7	115.6	114.9	115.4	118.2	.....	.....	124.4	.....	.....	121.3
5	111.2	114.7	117.1	113.4	118.4	119.6	.....	al23.0	120.4	.....	.....	120.0
6	111.4	117.0	118.2	114.1	120.4	114.7	al17.2	122.0	.....	.....	.....	al19.5
7	111.9	114.8	114.0	116.6	117.6	108.6	120.8	.....	.....	al19.9	.....	119.8
8	al12.3	116.7	112.8	115.6	115.5	114.2	120.4	.....	.....	119.3	.....	121.8
9	115.1	113.6	116.1	117.9	114.9	.....	122.1	.....	al22.5	118.9	.....	120.8
10	116.8	114.4	115.5	118.2	113.6	al16.5	123.6	.....	122.8	.....	.....	121.6
11	113.5	114.4	117.3	114.1	115.3	.....	119.7	.....	122.7	.....	al22.1	121.5
12	112.0	114.0	118.3	113.2	117.6	.....	118.8	al22.3	120.0	.....	123.0	.....
13	112.6	113.5	117.5	116.8	117.4	.....	121.7	123.7	.....	.....	122.2	al22.4
14	115.7	113.2	114.6	114.5	117.7	.....	122.8	124.5	.....	al21.8	119.2	120.6
15	113.8	113.5	113.5	118.1	115.6	.....	122.0	120.8	.....	.....	122.1	.....
16	116.0	112.8	114.2	118.1	113.9	.....	122.2	119.4	al23.2	123.3	.....	.....
17	114.1	110.7	116.3	119.0	113.0	.....	123.5	122.0	124.9	.....	.....	.....
18	113.4	110.0	116.7	114.5	117.0	al17.7	120.2	125.0	.....	.....	al22.0	.....
19	112.8	114.4	115.7	113.2	118.8	.....	119.0	125.4	.....	.....	122.9	.....
20	115.2	117.4	115.3	113.7	119.7	.....	124.1	125.8	.....	.....	122.7	al21.7
21	116.3	118.4	114.4	117.4	121.4	.....	125.2	125.7	.....	al24.5	119.6	123.2
22	117.6	118.2	113.3	119.2	120.3	.....	125.3	122.0	.....	125.7	119.0	124.4
23	117.3	113.9	117.9	119.9	115.7	.....	125.7	.....	al25.0	125.0	122.5	.....
24	117.9	117.9	118.8	119.2	114.4	.....	125.2	.....	124.4	.....	124.1	.....
25	114.1	118.5	118.9	115.3	118.2	al23.3	120.2	.....	.....	.....	124.4	.....
26	113.0	118.7	118.5	144.0	119.2	.....	119.2	al26.8	.....	.....	120.5	.....
27	114.5	117.2	118.4	118.7	al19.7	.....	124.4	126.9	.....	.....	119.5	al21.3
28	117.4	117.6	117.3	119.8	al20.7	.....	.....	127.3	.....	al21.7	119.0	.....
29	117.0	114.8	114.4	120.2	al16.4	.....	al25.7	122.0	.....	119.7	118.6	.....
30	115.7	.....	118.6	120.6	al14.6	.....	125.9	.....	.....	119.1	122.5	.....
31	117.7	.....	118.3	al13.5	.....	125.5	.....	.....	.....	118.6	.....	.....

a Wetted-tape measurement.

b Estimated.

Ig LS 60. Consumers Power Co. gas plant. About 480 feet west of Chestnut Street and 15 feet south of Grand River. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	104.70	Aug. 2	107.90	July 8	104.90	Sept. 23	108.81
15	104.37	9	107.43	15	108.77	30	107.73
22	104.74	16	106.58	22	108.24	Oct. 7	109.70
29	105.50	23	106.68	29	108.02	14	110.43
Feb. 5	104.45	30	106.81	Aug. 5	108.58	21	109.65
11	104.86	May 7	106.38	12	108.45	28	109.00
19	101.54	21	105.74	19	110.70	Nov. 4	105.89
26	107.14	27	104.89	26	111.03	12	103.96
Mar. 5	108.75	June 3	104.11	Sept. 2	112.74	18	103.22
11	107.27	10	103.62	9	112.03	29	97.03
18	107.74	18	101.28	16	111.26	Dec. 27	93.30
25	107.78	July 1	106.39				

Ig LS 75. Motor Wheel Corporation. On northwest corner of Saginaw and Summit Streets. Records available: 1944-46. No measurements made in 1948.

Ig LS 76. Lansing Co. About 230 feet west of Cedar Street and 255 feet south of Saginaw Street. Records available: 1944-48.

Ig LS 76--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	102.33	Apr. 16	a102.7	July 15	102.01	Sept. 30	103.09
29	102.54	23	a102.46	22	98.65	Oct. 7	103.61
Feb. 11	102.53	30	a101.76	29	a101.85	14	102.70
19	102.52	May 14	102.04	Aug. 5	a 98.57	21	102.93
26	102.34	21	a102.7	12	a100.63	28	104.97
Mar. 5	102.87	27	a101.19	19	a102.3	Nov. 4	104.98
11	102.92	June 3	a102.33	26	a101.78	12	104.99
18	102.91	10	a104.54	Sept. 2	a108.08	18	104.88
25	102.93	18	a101.16	9	a102.96	29	103.81
Apr. 2	102.75	July 1	a103.40	16	a102.31	Dec. 27	101.18
9	a102.9	8	102.58	23	a102.79		

a Estimated.

Ig LS 110. City of Lansing. About 150 feet west of Cedar Street and 50 feet south of Jay Street. Records available: 1944-48.

Jan. 19	66.53	Apr. 15	62.35	July 8	61.93	Sept. 23	66.30
26	67.02	23	61.70	15	62.43	30	66.21
Feb. 5	67.89	30	61.76	22	62.98	Oct. 7	65.71
12	32.52	May 7	61.22	29	63.72	14	66.48
19	81.68	14	60.16	Aug. 5	64.07	21	66.07
26	86.16	21	58.21	12	64.39	28	66.83
Mar. 4	85.11	27	58.23	19	64.67	Nov. 4	69.39
11	86.19	June 3	58.78	26	65.46	11	66.39
18	87.73	10	59.64	Sept. 2	65.26	18	71.49
25	82.54	18	60.15	9	65.50	29	68.20
Apr. 1	78.12	July 1	61.68	16	65.69	Dec. 27	65.06
8	64.49						

Ig LS 157. City of Lansing well PM-12. 145 feet north of Main Street and 36 feet west of Fairview Street. Records available: 1944-48.

Jan. 23	61.12	Apr. 15	64.52	July 15	87.05	Sept. 30	55.59
26	62.08	23	63.90	22	89.46	Oct. 7	91.14
Feb. 13	62.96	30	62.95	29	90.89	14	88.17
20	69.18	May 7	63.29	Aug. 5	92.37	21	84.61
27	67.79	14	63.43	12	90.99	28	82.64
Mar. 5	65.19	21	62.79	19	93.51	Nov. 4	79.06
12	63.86	27	63.47	26	99.91	12	74.95
18	63.48	June 3	73.24	Sept. 2	100.85	18	72.48
25	63.59	18	82.30	9	99.42	29	68.94
Apr. 2	63.77	July 1	83.82	16	97.43	Dec. 27	65.36
9	63.76	8	83.06	23	96.17		

Ig LS 182. Atlas Drop Forge Co. Well 2 in southwest quadrant of intersection of Davis Avenue extended and Mt. Hope Avenue. Records available: 1944-46; 1948.

Jan. 8	32.19	Mar. 25	32.59	July 15	a 51.13	Sept. 30	a 54.10
15	31.19	Apr. 9	30.83	22	34.79	Oct. 7	36.23
22	31.29	16	30.40	Aug. 5	a 52.49	14	a 52.42
29	33.56	23	30.28	12	a 52.82	21	35.19
Feb. 12	32.35	30	31.92	19	a 54.40	28	35.63
19	32.37	May 7	32.49	26	a 52.29	Nov. 4	a 49.97
27	32.15	21	30.47	Sept. 2	35.18	12	a 50.60
Mar. 4	32.28	27	32.07	9	34.89	18	35.73
12	32.92	June 3	31.76	16	34.20	29	34.87
18	32.20	July 8	a 50.36	23	a 53.48	Dec. 27	34.75

a Pumping.

Ig LS 183. Atlas Drop Forge Co. Well 1 on south side of Mt. Hope Avenue between Todd and Davis Avenues extended. Records available: 1944-48. Measurements discontinued Feb. 12, 1948.

Ig LS 183--Continued.

Date	Water level	Date	Water level	Date	Water level
Jan. 8	32.28	Jan. 22	31.44	Feb. 12	32.60
15	31.32	29	33.24		

Total precipitation in the Lansing area during 1948 was 28.58 inches, or 3.38 inches below the average of the 1941-47 period. Months of excess precipitation included March, April, May, November, and December. An extended drought occurred from June through October. The March through May period of above-normal precipitation was particularly favorable for re-charge to the ground-water reservoir.

The withdrawal of ground water in the Lansing area ranged from about 14 million gallons a day in November to more than 20 million gallons a day in August, with an average daily withdrawal of 16.6 million gallons. The greatest part of this pumping was from wells which are finished in the Saginaw and Parma sandstones and are in a narrow belt trending northwest to southeast through the central part of the Lansing area.

Ground-water levels reached highest observed stages in the period between January 8 and May 24 with the greatest number of highs clustered near the end of May. In general, the timing of the peak water-level stage marks the close of a 3-month period of above-normal precipitation and follows the winter period of reduced pumping. Minimum ground-water stages occurred within the period August 19 to September 9, which marks the close of the summer season of peak pumping and high evapotranspiration demand. Excluding fluctuations of water level due to year-end adjustments in pumping distribution, ground-water levels declined on the average about 2.0 feet during the year.

City of Mason

Ig MS 30. City of Mason. 40 feet west of Jefferson Avenue and 675 feet north of its intersection with Okemos Street. Unused supply well, diameter 6 inches, reported depth 150 feet below land surface. Measuring point, top of 6-inch casing, 3.9 feet above land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 1	3.74	Sept. 22	4.95	Dec. 8	3.30	Dec. 22	2.59
8	3.57	Nov. 24	2.64	15	3.25	29	3.14
15	4.48	Dec. 1	2.50				

City of Williamston

Ig WM 1. City of Williamston. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 3 N., R. 1 E. 55 feet north of Pere Marquette Railway and 290 feet east of Corwin Road. Unused test well, diameter 8 inches, measured depth 167.6 feet below land surface. Measuring point, top of recorder shelf, 2.2 feet above land-surface datum. Records available: 1948.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 2	a 4.94	Nov. 17	4.86	Dec. 2	4.88	Dec. 17	4.83
3	4.94	18	4.98	3	4.83	18	4.90
4	4.85	19	4.94	4	4.82	19	4.81
5	4.86	20	4.78	5	4.78	20	4.76
6	4.76	21	4.83	6	4.69	21	4.72
7	4.83	22	4.85	7	4.76	22	4.79
8	4.95	23	4.82	8	4.71	23	4.86
9	4.88	24	4.80	9	4.78	24	4.88
10	4.82	25	4.81	10	4.82	25	4.86
11	4.94	26	4.81	11	4.86	26	4.97
12	5.00	27	4.81	12	4.79	27	4.83
13	4.92	28	4.90	13	4.83	28	4.85
14	5.01	29	4.85	14	4.88	29	4.76
15	4.98	30	4.82	15	4.86	30	4.78
16	4.99	Dec. 1	4.86	16	a 4.77	31	4.78

a Wetted-tape measurement.

Lansing Township

Ig Ls 10. Glen A. Ballans. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 4 N., R. 2 W., 86 feet south of Washtenaw Street and 70 feet east of Hungerford Street. Records available: 1945-48.

Jan. 8	84.63	May 14	a 87.30	July 29	89.68	Oct. 7	87.80
Feb. 12	84.85	21	a 88.07	Aug. 5	88.73	14	88.16
19	85.40	June 3	87.22	12	88.86	21	89.57
26	85.19	10	87.02	19	a 89.13	28	88.85
Mar. 18	85.43	18	86.72	26	90.33	Nov. 4	88.09
Apr. 9	a 87.38	25	a 88.78	Sept. 2	a 89.87	12	88.62
15	a 87.22	July 1	a 88.79	9	88.60	18	88.08
23	a 87.43	8	a 88.25	16	89.40	29	87.48
30	a 87.19	15	89.11	23	89.61	Dec. 27	87.60
May 7	86.59	22	89.53	30	89.54		

a Estimated.

Ig Ls 35. Tank Bros. Dairy. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 4 N., R. 2 W., about 0.5 mile east of Waverly Road and 280 feet north of Willow Street. Records available: 1944-48.

Jan. 8	64.82	Apr. 2	65.38	July 1	65.20	Sept. 16	65.71
15	64.67	9	65.15	8	64.87	23	65.55
22	64.49	16	64.49	15	66.15	30	65.95
29	64.88	23	64.78	22	64.95	Oct. 7	65.62
Feb. 6	65.21	30	64.61	29	65.73	14	66.36
11	65.33	May 7	65.35	Aug. 5	65.09	21	66.55
19	64.56	21	64.50	12	64.96	28	66.25
26	65.37	27	64.87	19	65.89	Nov. 12	65.85
Mar. 4	65.56	June 3	64.56	26	66.12	18	66.04
12	65.66	10	64.63	Sept. 2	65.90	29	66.07
18	65.15	18	64.58	9	65.60	Dec. 27	66.08
25	65.08	25	64.61				

Ig Ls 265. Frank Clever. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 4 N., R. 2 W., about 900 feet west of Harrison Road, 350 feet south of main line of Grand Trunk Western Railway and about 1.2 miles south of East Lansing. Records available: 1945-48.

Ig Ls 265--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	40.03	43.60	44.07	40.50	41.88	45.20	45.62	49.40	59.95	55.10	45.95	42.35
2	39.85	43.37	43.79	40.78	41.80	45.77	46.92	47.99	60.33	52.96	45.68	44.25
3	40.31	.....	43.65	41.26	41.70	47.53	45.88	49.37	60.70	52.60	46.32	43.36
4	40.30	.....	43.83	41.30	41.64	49.63	46.90	51.19	61.00	51.70	46.03	44.45
5	40.69	41.03	44.09	41.20	41.72	.....	44.50	52.84	60.50	50.95	47.45	43.50
6	40.75	.....	43.91	41.17	41.76	.....	43.00	53.30	58.85	52.35	46.13	42.65
7	41.00	.....	43.46	41.30	41.71	.....	44.20	53.65	57.30	52.75	46.50	43.70
8	41.10	.....	43.22	41.45	41.79	.....	43.67	54.30	56.57	50.39	45.45	43.11
9	41.21	.....	43.28	41.70	41.84	.....	47.10	54.10	55.80	50.77	44.82	44.95
10	41.80	.....	43.42	41.87	41.33	52.87	49.20	53.56	55.97	49.17	45.65	43.77
11	42.01	.....	43.33	41.47	41.37	53.10	50.18	53.65	55.45	47.75	44.98	43.50
12	41.87	43.76	43.40	41.41	41.29	53.68	49.21	53.30	53.60	48.65	46.60	43.08
13	41.99	43.69	43.42	41.62	41.36	53.10	50.64	54.57	.....	48.98	45.01	42.76
14	42.12	43.45	43.38	41.63	41.35	51.82	50.17	54.40	.....	48.95	45.35	43.82
15	42.25	43.87	43.15	41.77	41.32	50.95	51.86	51.17	.....	49.42	44.15	43.15
16	42.37	43.65	42.85	42.15	41.22	50.70	52.85	49.20	51.68	49.85	45.00	44.05
17	42.69	43.76	43.06	42.54	40.92	49.78	53.48	48.15	52.92	49.27	43.93	43.02
18	40.91	45.28	42.95	42.35	41.05	50.21	53.30	51.04	52.69	48.60	44.08	43.84
19	38.56	45.60	42.60	42.15	41.12	50.65	49.95	52.55	50.47	47.17	45.22	42.40
20	39.48	45.79	42.63	41.90	41.14	50.23	50.98	50.88	48.95	49.17	44.07	41.62
21	41.22	46.01	42.45	42.10	40.99	49.19	52.05	53.07	49.23	47.49	44.84	40.99
22	41.96	45.75	41.78	42.31	42.10	47.60	50.22	51.22	48.75	48.40	43.73	40.80
23	42.65	45.30	42.05	42.15	42.80	45.75	51.80	49.77	51.76	47.28	44.66	40.70
24	43.11	45.05	41.90	42.07	42.85	46.20	.....	49.52	50.77	47.73	43.70	40.55
25	43.10	44.78	41.82	41.82	42.89	45.53	.....	53.15	50.32	46.27	44.80	40.30
26	43.00	44.53	41.28	41.75	42.89	47.42	.....	55.30	49.83	45.21	43.39	40.15
27	43.00	44.27	40.83	41.90	42.47	45.75	.....	57.80	50.90	47.02	42.62	39.73
28	42.54	44.02	40.90	41.69	43.20	44.08	.....	59.50	52.70	46.40	42.25	39.60
29	43.15	44.19	40.58	41.85	44.77	43.49	48.89	60.40	53.20	49.37	41.74	39.30
30	43.48	.....	40.44	41.80	45.64	46.55	50.19	59.77	54.05	49.61	42.77	39.55
31	43.67	.....	40.40	.....	45.73	.....	51.02	58.97	.....	47.23	.....	39.40

a Estimated.

b Wetted-tape measurement.

Ig Ls 266. Michigan State College. NW¹/₄ sec. 25, T. 4 N., R. 2 W., about 360 feet south of Mt. Hope Avenue, 190 feet east of Harrison Road, and 1.7 miles south of East Lansing. Records available: 1944-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.09	29.60	32.59	.....	.....	30.97
3	26.17	.....	.....	28.29	29.53	32.73	.....	.....	31.13
3	27.68	28.24	29.60	32.85	.....	.....	31.11
4	27.76	28.30	29.73	32.99	.....	31.01	31.22
5	28.02	26.17	.....	28.11	28.20	30.08	33.07	.....	31.22	31.23
6	27.99	.....	.....	.....	28.55	27.94	30.31	33.00	.....	31.22	30.99
7	28.87	27.88	30.44	32.80	32.10	31.37	31.11
8	26.45	.....	28.86	27.85	30.50	32.59	.....	31.48	31.15
9	26.23	.....	28.99	28.06	30.75	32.35	.....	31.32	31.36
10	29.16	28.43	30.80	32.21	.....	31.21	31.47
11	29.27	28.72	30.71	32.09	.....	31.32	31.47
12	28.29	.....	.....	29.43	28.88	30.70	31.89	.....	.....	31.27
13	27.34	.....	26.18	.....	29.45	29.12	30.66	31.56	.....	.....	31.21
14	26.24	25.29	29.54	29.32	30.80	31.36	31.33	.....	31.30
15	26.16	25.14	29.43	29.44	30.71	31.34	.....	.....	31.34
16	28.79	.....	.....	26.12	24.98	29.45	29.63	30.53	31.28	.....	.....	31.27
17	24.80	29.38	29.86	.....	31.26	.....	31.12	31.29
18	27.84	26.11	24.76	29.21	30.00	30.34	.....	.....	31.18	31.41
19	27.64	28.53	.....	26.08	24.79	29.17	29.91	30.24	.....	.....	31.31	31.27
20	25.96	24.82	29.25	29.75	30.35	.....	.....	.....	31.01
21	25.99	.....	29.23	29.81	30.43	.....	31.47	31.25	30.76
22	26.15	24.82	29.03	30.00	30.52	.....	.....	31.29	30.75
23	28.70	29.63	30.38	30.97	.....	31.26	.....
24	25.75	28.52	29.83	30.32	.....	.....	31.21	30.81

a Wetted-tape measurement.

b Estimated.

Ig Ls 266--Continued

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	a26.86	.....	b26.01	.....	29.89	30.44	.....	.....	31.27	30.71	
26	a28.57	a28.36	.....	b26.02	.....	29.64	30.82	.....	.....	31.19	.....
27	25.83	.....	29.38	31.37	.....	.....	31.04	30.60
28	29.43	31.31	.....	a31.15	31.04	30.47
29	a26.22	.....	.....	.....	29.44	32.16	.....	.....	b30.90	30.32
30	b27.94	.....	29.47	32.46	.....	.....	30.95	30.31
31	29.62	32.47	.....	.....	.....	30.40

a Wetted-tape measurement.

b Estimated.

Ig Ls 270. Harris L. Fleming. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 4 N., R. 2 W., about 90 feet north of Irvington Street and 100 feet west of Pennsylvania Avenue. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	22.61	Apr. 2	21.39	June 25	22.09	Sept. 16	23.92
15	22.69	9	21.56	July 1	22.08	23	23.97
22	22.69	15	21.25	8	22.39	30	23.95
29	22.89	23	21.52	15	22.62	Oct. 7	23.88
Feb. 6	23.06	30	21.50	22	22.61	14	24.06
12	23.07	May 7	21.39	29	23.05	21	23.99
20	22.42	14	20.31	Aug. 5	23.33	28	23.99
26	22.05	21	20.60	12	23.25	Nov. 4	23.85
Mar. 5	22.11	27	21.10	19	23.63	12	23.81
11	22.18	June 3	21.70	26	24.00	18	23.81
18	21.74	10	21.98	Sept. 2	24.13	29	23.75
25	21.30	18	22.40	9	23.89	Dec. 27	24.02

Ig Ls 271. Harry DeLaere. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 4 N., R. 2 W., about 305 feet east of Waverly Road and 25 feet north of Maybel Street. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	22.08	Apr. 9	20.59	July 8	20.76	Sept. 23	22.18
15	22.08	15	20.30	15	20.93	30	22.17
22	22.07	23	20.33	22	20.92	Oct. 7	22.17
29	21.88	30	20.28	29	21.11	14	22.56
Feb. 6	22.36	May 7	20.28	Aug. 5	21.39	21	22.66
12	22.39	14	19.44	12	21.35	28	22.65
20	22.57	21	19.02	19	21.62	Nov. 4	22.44
26	22.02	27	19.40	26	21.82	12	22.81
Mar. 11	21.75	June 3	19.81	Sept. 2	21.89	18	22.87
18	21.56	10	20.19	9	21.97	29	22.98
25	20.86	18	20.45	16	22.15	Dec. 27	23.12
Apr. 2	20.64	25	20.53				

Ig Ls 805. Waverly Hills Association. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 4 N., R. 2 W., about 500 feet east of Waverly Road and 20 feet north of bank of Grand River. Records available: 1947-48. Nov. 18, 1.25; Nov. 29, 1.27; Dec. 27, 1.35.

Meridian Township

Ig Mr 1. City of East Lansing. Northside Park well 1. About 1,400 feet south of Saginaw Street (State Highway M-78) and 350 feet east of Alton Road. Unused public-supply well, diameter 14 inches, reported depth 380 feet below land surface. Measuring point, top of recorder base, 1.40 feet above land-surface datum. Automatic water-stage recorder installed Nov. 24, 1948, and removed Dec. 20, 1948. Well placed in active service and measurements discontinued. Records available: 1948.

Ig Mr 1--Continued.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 24	a 60.11	Nov. 30	59.29	Dec. 6	59.60	Dec. 11	60.33
25	60.13	Dec. 1	59.74	7	59.96	12	60.14
26	59.92	2	59.82	8	59.90	13	60.21
27	59.87	3	59.75	9	60.10	14	b 60.43
28	59.65	4	59.88	10	60.27	20	a 58.94
29	b 59.32	5	59.87				

a Wetted-tape measurement.

b Estimated.

Ig Mr 2. City of East Lansing. Northside Park well 2. About 400 feet south of State Highway M-78 and about 350 feet east of Alton Road. Unused public-supply well, diameter 14 inches, reported depth 385 feet below land surface. Measuring point, top of recorder base, 1.60 feet above land-surface datum. Automatic water-stage recorder installed May 4, 1948, and removed Dec. 20, 1948. Well placed in active service and measurements discontinued. Records available: 1948.

Water level at 2:00 a.m., from recorder charts

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	57.36	55.83	58.48	61.12	59.63	58.53	58.83
2	.....	57.47	55.77	58.87	60.88	59.64	58.98	58.99
3	.....	58.13	55.64	59.30	61.10	59.37	59.31	58.95
4	a58.03	58.65	55.57	58.14	61.45	59.18	59.30	59.09
5	58.08	59.12	55.35	58.00	61.66	59.09	59.52	59.13
6	57.92	59.02	55.25	58.13	61.15	59.05	59.49	58.81
7	57.62	58.37	55.44	59.05	60.70	59.03	59.78	59.07
8	57.77	58.35	55.74	59.39	59.91	59.01	59.36	59.04
9	57.99	58.38	56.01	59.46	59.28	58.77	59.13	59.25
10	57.60	58.38	56.13	59.35	58.88	58.73	.....	59.40
11	57.70	57.82	56.25	59.65	58.75	58.96	a59.10	59.50
12	57.66	57.46	56.16	58.80	58.56	59.07	.....	59.38
13	57.65	57.06	56.25	58.08	58.64	59.00	.....	59.28
14	57.57	56.69	56.45	57.56	58.64	58.94	.....	.....
15	57.59	56.49	56.33	57.80	58.58	58.47	.....	.....
16	57.50	56.52	56.33	57.33	58.08	58.48	.....	.....
17	57.53	56.40	56.59	57.92	58.34	58.70	.....	.....
18	57.56	a56.49	57.70	58.13	58.28	58.79	.....	.....
19	57.74	56.23	57.94	58.50	58.57	58.52	.....	.....
20	57.74	55.91	57.21	58.66	58.68	58.54	.....	a59.00
21	56.83	55.55	57.45	59.02	58.95	58.60	.....	.....
22	57.38	55.30	57.26	59.27	58.84	59.57	.....	.....
23	57.50	55.18	57.06	59.38	59.02	59.46	.....	.....
24	57.25	55.38	56.99	59.80	59.35	59.36	a59.16	.....
25	57.22	55.46	56.45	60.55	59.71	59.08	59.31	.....
26	57.15	55.62	.....	61.19	59.93	59.11	59.08	.....
27	57.40	55.71	.....	61.54	60.27	59.61	58.94	.....
28	57.66	55.64	.....	61.88	60.27	59.53	58.57	.....
29	57.76	55.56	a57.58	61.91	59.99	59.94	a58.44	.....
30	57.69	55.69	57.55	61.67	59.85	59.82	a58.51	.....
31	57.40	.....	57.70	61.27	.....	58.89	.....	.....

a Wetted-tape measurement.

Iosco County

Ic Wr 1. Forest Service, U. S. Dept. of Agriculture. NE $\frac{1}{4}$ sec. 7, T. 23 N., R. 7 E. 610 feet west of east section line and 302 feet north of Gordon Creek. Unused drilled well, diameter 6 inches, reported depth 341 feet below land surface. Measuring point, top of recorder base, 1.30 feet above land-surface datum. Automatic water-stage recorder installed Nov. 23, 1948. Records available: 1948.

Ic Wr 1--Continued.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 23	a 27.15	Dec. 3	27.22	Dec. 13	27.23	Dec. 23	27.29
24	27.11	4	27.23	14	27.32	24	27.33
25	27.10	5	27.19	15	27.34	25	27.32
26	27.08	6	27.02	16	27.19	26	27.44
27	27.09	7	27.14	17	27.24	27	27.30
28	27.24	8	27.13	18	27.32	28	27.32
29	27.21	9	27.22	19	27.23	29	27.24
30	a 27.18	10	27.24	20	27.17	30	27.33
Dec. 1	27.24	11	27.30	21	27.13	31	27.31
2	27.30	12	27.19	22	27.21		

a Wetted-tape measurement.

Kalamazoo County

City of Kalamazoo

Ko KO 1. City of Kalamazoo. Well B at Burdick Street pumping station, about 400 feet north of Lake Street and 110 feet east of Burdick Street. Records available: 1939-46. No measurements made in 1948.

Ko KO 2. City of Kalamazoo. Well C at Burdick Street pumping station, about 410 feet south of Born Court and 170 feet west of Burdick Street. Records available: 1939-46. No measurements made in 1948.

Ko KO 114. City of Kalamazoo, Burdick Street Station. 165 feet east of Burdick Street and 40 feet south of Wall Street extended. Records available: 1946-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.64	20.08	19.60	15.33	16.03	15.50	.....	18.60	21.98	.....	20.16	19.7
2	19.55	20.02	19.54	15.52	16.07	15.54	.....	18.55	21.90a	21.44	20.11	19.7
3	19.59	20.03	19.55	15.60	16.03	15.77a	17.22	18.65	21.90	21.39	20.01	19.7
4	19.52	20.03	19.60	15.60	16.03	16.46	17.23	19.41	22.07	21.40	20.12	19.7
5	19.36	20.11	19.67	15.53	16.09	17.16	17.20	19.15	21.79	21.30	20.00	19.6
6	.....	20.15	19.62	.....	16.13	16.62	17.12	19.11	21.56	.....	b20.10	19.5
7	.....	20.18	19.55	.....	16.15	16.39	17.34	19.05	21.30	.....	20.18	19.5
8	.....	20.19	19.54	15.81	16.15	16.25	17.35	18.93	21.62	.....	20.08	19.4
9	.....	20.16	19.49	15.89	16.10	16.25	17.35	18.85	21.58a	21.49	20.00	19.5
10a	19.74	20.14	19.53	15.95	15.93	16.29	17.41	18.93	21.40	21.49	20.08	19.5
11	19.79	20.20	19.56	15.77	15.47	16.80	17.45	19.07	21.35	21.37	20.19	19.5
12	19.66	20.25	19.61	15.70	14.99	16.65	17.43	19.32	21.28	21.31	20.23	19.4
13	19.69	20.28	19.60	15.69	14.80	16.50	17.39	19.26	21.23	21.30	21.0	19.4
14	19.51	20.30	19.59	15.69	14.67	16.43	17.40	19.32	21.21	21.35	20.6	19.4
15	19.67	20.37	19.51	15.79	14.57	16.47	17.45	19.19	21.53	21.37	20.3	19.4
16	19.74	20.36	19.45	15.85	14.45	16.53	17.51	19.09	21.37	21.47	20.3	19.3
17	19.84	20.37	19.48	16.01	14.38	16.62b	17.57	19.09	21.35	21.52	20.2	19.3
18	19.92	20.33	19.46	15.96	14.48	16.65	17.59	19.53	21.33	21.37	20.3	19.3
19	19.88	20.22	19.37	15.87	14.58	16.45	17.62	19.78	21.32	21.37	20.2	19.3
20	19.87	20.21	17.85	15.85	14.64	16.75	17.72	19.97	21.29	21.43a	20.1	19.2
21	19.77	20.19	16.47	15.94	14.70	16.73	17.93	20.10	21.27	21.47	20.1	19.2
22	19.83	20.16	15.86	15.95	14.83	16.77	18.05	19.93	21.34	20.82	20.0	19.2
23	19.97	20.11b	14.92	15.95	14.92	16.79	18.05	19.82	21.39	20.54	19.9	19.2
24	20.04	.....	.....	15.88	14.95	16.80	18.01	20.70	21.42	21.40	19.9	19.2
25	20.02	.....	.....	a15.90	.....	16.82	18.01	21.17	21.47	21.23	19.9	19.2
26	20.00	.....	.....	15.87	.....	16.89	17.93	20.66	.....	21.13	19.9	.....
27	19.99	.....	a14.82	15.88	.....	16.92	18.05	21.55	.....	21.18	19.8	.....
28	20.04a	19.97	14.93	15.90	15.23	16.91	18.18	21.76	.....	20.50	19.8	.....
29	20.04	19.78	15.04	15.95	15.37	16.93	18.33	22.45	.....	20.64	19.7	a21.0
30	20.09	.....	15.15	16.00	15.52	.....	18.44	21.76	.....	20.51	19.7	.....
31	20.15	.....	15.20	15.47	.....	.....	18.55	21.98	.....	b20.38	.....	.....

a Wetted-tape measurement.

b Estimated.

Ko KO 136. Sutherland Paper Co. About 1,900 feet west of Pitcher Street and 640 feet north of Patterson Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	13.75	Apr. 3	7.10	July 23	12.23	Oct. 15	14.71
17	14.40	17	9.11	Aug. 6	12.87	29	14.70
24	14.79	May 1	11.02	20	13.75	Nov. 12	11.71
Feb. 14	15.77	15	4.22	Sept. 3	14.21	26	11.39
28	10.35	29	10.85	17	13.85	Dec. 10	10.28
Mar. 13	11.24	June 11	12.09	Oct. 1	14.19	23	9.11
27	6.59	July 9	7.77				

Ko KO 137. Sutherland Paper Co. 195 feet east of Pitcher Street and 145 feet south of Prouty Street extended. Records available: 1946-48. Measurements discontinued Oct. 22, 1948.

Jan. 10	19.12	Mar. 19	17.26	June 4	14.51	Aug. 27	18.33
17	19.35	27	11.27	17	15.87	Sept. 10	18.36
24	19.48	Apr. 10	14.13	July 2	16.83	24	19.89
Feb. 14	19.93	24	14.76	16	16.69	Oct. 8	19.52
21	19.58	May 8	15.17	30	17.36	22	20.83
Mar. 6	17.88	22	13.57	Aug. 13	17.92		

Ko KO 186. Sutherland Paper Co. 540 feet south of Michigan Avenue and 130 feet west of Wallace Avenue extended. Records available: 1946-48.

Jan. 10	16.37	Apr. 17	15.59	July 23	15.19	Oct. 15	15.31
17	16.40	May 1	15.53	Aug. 6	15.21	29	15.31
24	16.36	15	15.38	20	15.22	Nov. 12	15.30
Feb. 21	16.49	29	15.24	Sept. 3	15.25	26	15.31
Mar. 6	16.37	June 11	14.32	17	15.27	Dec. 10	15.31
19	16.19	25	15.22	Oct. 1	15.30	23	15.31
Apr. 3	15.78	July 9	15.18				

Ko KO 211. Consumers Power Co. 150 feet east of King's Highway extended and 65 feet north of Michigan Avenue. Records available: 1946-48.

Jan. 10	13.03	Apr. 3	9.69	July 23	12.46	Oct. 15	13.87
17	13.28	17	9.94	Aug. 6	13.00	29	13.98
24	13.39	May 1	10.94	20	13.33	Nov. 12	13.75
Feb. 14	13.53	29	10.96	Sept. 3	13.70	26	13.60
28	11.50	June 11	11.76	17	13.63	Dec. 10	13.88
Mar. 13	11.90	July 9	12.50	Oct. 1	13.71	23	13.40
19	9.92						

Ko KO 222. Eck-Rich Sausage Co. 360 feet east of Portage Street and 130 feet north of Second Street. Records available: 1946-48.

Jan. 10	14.82	July 2	12.29	Sept. 10	17.31	Nov. 19	17.34
24	14.74	16	13.11	24	14.95	Dec. 3	17.47
28	14.75	30	16.01	Oct. 8	15.56	17	17.89
June 4	13.28	Aug. 13	16.58	22	16.20	29	17.20
17	13.09	27	14.28	Nov. 5	17.00		

Ko KO 227. Hanselman Building Corporation. 100 feet north of Michigan Avenue and 25 feet west of Burdick Street. Records available: 1946-48.

Jan. 10	23.62	Apr. 24	21.57	July 30	22.20	Oct. 22	24.11
17	23.65	8	22.06	Aug. 13	21.90	Nov. 5	23.51
24	23.25	22	21.17	27	22.69	19	24.03
Feb. 21	23.73	June 4	20.15	Sept. 10	22.57	Dec. 3	24.35
Mar. 6	24.02	17	21.51	24	24.00	17	24.58
27	22.98	July 2	21.48	Oct. 8	23.78	29	23.97
Apr. 10	21.83	16	21.43				

Ko KO 228. Wiggington Co. 275 feet north of Kalamazoo Avenue and 140 feet east of Church Street. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.3	....	22.1	21.4	21.1	19.8	20.8	21.1	21.7	21.4	21.7	22.5
2	22.2	....	22.2	21.4	21.0	20.0	20.8	21.0	21.7	21.4	22.2	22.4
3	22.2	....	22.2	21.3	20.8	19.7	20.5	21.2	21.8	21.2	22.2	22.5
4	21.7	....	22.2	20.6	21.0	19.8	20.3	21.2	21.6	21.2	22.3	22.2
5	22.1	....	22.2	21.0	21.0	20.1	20.5	21.3	20.9	21.4	22.3	22.0
6	22.3	....	22.2	21.3	21.0	20.0	20.5	21.3	21.1	21.3	22.3	21.9
7	22.3	a21.9	21.5	21.2	21.0	19.9	20.6	21.1	21.0	21.4	21.8	22.0
8	22.4	21.7	22.0	21.0	21.1	20.0	20.7	21.2	21.1	a22.2	21.8	22.0
9	22.4	21.6	22.1	21.2	20.9	20.1	20.7	21.3	21.1	21.4	22.3	21.9
10	22.5	21.7	22.2	21.2	20.8	20.3	....	21.3	21.3	21.3	22.3	21.9
11	22.2	21.8	22.2	20.4	20.4	20.3	....	21.4	21.0	21.2	22.2	21.8
12	21.6	21.8	22.1	20.9	20.3	20.4	....	21.3	21.1	21.4	22.4	21.6
13	21.7	21.9	22.2	21.0	20.2	20.2	....	21.4	21.0	21.5	22.4	21.6
14	21.8	21.9	21.5	21.0	20.2	20.2	....	21.4	21.1	21.5	21.8	21.8
15	21.9	21.8	21.9	20.9	20.0	20.3	....	21.4	21.1	21.6	21.7	21.9
16	21.9	21.6	22.0	20.9	19.8	20.4	a21.4	21.2	21.1	21.6	22.3	21.9
17	22.0	22.4	22.1	20.9	19.8	20.4	20.6	21.5	21.0	21.5	21.8	21.9
18	21.8	22.3	22.1	20.3	20.3	20.5	20.5	21.6	21.2	21.5	22.3	21.8
19	21.7	22.5	22.1	20.7	20.4	20.5	20.7	21.2	21.1	21.6	22.4	21.6
20	21.8	22.6	21.9	20.9	20.4	20.1	21.1	21.3	21.1	21.6	22.5	21.6
21	21.8	22.1	21.4	20.8	20.5	20.3	21.0	21.1	21.2	21.6	21.9	21.7
22	22.0	21.8	21.6	21.0	20.4	20.5	21.1	21.0	21.3	21.7	21.8	21.7
23	21.9	22.2	21.7	21.1	20.2	20.6	21.2	21.0	21.3	21.7	22.4	22.3
24	22.0	22.3	21.7	21.1	20.1	20.7	21.2	21.5	21.4	21.7	22.4	21.7
25	21.8	22.5	21.6	20.6	20.3	a21.0	21.0	21.6	21.5	21.6	22.5	21.6
26	21.7	22.4	21.6	21.0	20.4	20.6	21.0	21.7	21.3	22.1	22.3	21.5
27	21.9	22.5	21.6	21.1	20.5	20.5	21.2	21.3	21.2	22.2	22.4	21.4
28	21.9	22.5	21.0	21.1	20.3	20.5	21.2	21.5	21.3	21.9	21.9	22.1
29	21.9	21.8	21.4	21.1	20.3	20.7	21.4	21.5	21.4	22.2	21.8	22.2
30	22.0	....	21.5	21.1	20.0	20.8	21.4	21.5	21.4	22.1	22.4	22.2
31	22.0	....	21.4	....	19.9	....	21.3	21.7	....	21.1	....	22.2

a Wetted-tape measurement.

Ko KO 240. Reed Land Co. About 300 feet east of Factory Street and 280 feet north of Lane Court extended. Records available: 1947-48.

Water level at 2:00 a.m., from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.12	....	7.24	6.46	a6.87	6.63	7.60	7.79	8.48	8.87	8.90	8.81
2	8.08	....	7.25	6.52	6.86	6.71	7.69	7.81	8.49	8.89	8.90	8.84
3	8.17	....	7.32	6.60	6.63	6.77	7.67	7.87	8.51	8.87	8.91	8.84
4	8.18	....	7.40	6.57	6.64	6.84	7.66	7.90	....	8.86	8.93	8.83
5	8.15	....	7.47	6.51	6.72	6.89	7.67	7.90	....	8.88	8.94	8.81
6	8.20	....	7.49	6.58	6.80	6.91	7.69	7.92	....	8.89	8.99	8.76
7	8.23	a8.58	7.42	6.58	6.69	6.90	7.74	7.94	....	8.90	8.87	8.75
8	8.25	8.57	7.43	6.50	6.38	6.96	7.79	7.94	....	8.92	8.86	8.77
9	8.26	8.55	7.50	6.54	6.37	7.01	7.81	7.96	....	8.93	8.85	8.77
10	8.28	8.60	7.51	6.60	5.91	7.06	7.51	8.01	a8.63	8.90	8.84	8.78
11	8.19	8.62	7.55	....	5.18	7.09	7.27	8.07	8.63	8.89	8.84	8.83
12	8.12	8.64	7.60	....	5.09	7.10	7.30	8.07	8.62	8.91	8.87	8.79
13	8.21	8.65	7.63	....	5.24	7.08	7.10	8.10	8.64	8.93	8.86	8.78
14	8.28	8.65	7.55	....	5.39	7.09	6.98	8.12	8.66	8.95	8.83	8.78
15	8.30	8.63	7.43	....	5.49	7.11	7.06	8.11	8.67	8.93	8.81	8.76
16	8.33	8.56	7.35	....	5.56	7.15	7.14	8.11	8.69	8.94	8.83	8.49
17	8.32	8.48	7.15	a6.50	5.64	7.17	7.21	8.15	8.70	8.92	8.84	8.42
18	8.30	8.33	7.16	....	5.84	7.22	7.27	8.18	8.71	8.91	8.84	8.39
19	8.27	8.17	7.17	....	6.00	7.25	7.33	8.21	8.71	8.92	8.85	8.36
20	8.35	8.00	5.75	....	6.09	7.28	7.44	8.23	8.72	8.95	8.73	8.35
21	8.37	7.94	5.73	....	6.06	7.28	7.50	8.25	8.74	8.96	8.66	8.38
22	8.40	7.89	5.67	....	6.16	7.30	7.55	8.26	8.76	8.95	8.64	8.40
23	8.43	7.87	5.81	....	6.20	7.34	7.60	8.28	8.77	8.93	8.65	8.42
24	8.41	7.94	5.99	a6.78	6.27	7.28	7.42	8.30	8.80	8.91	8.65	8.43
25	8.39	7.97	6.14	6.76	6.35	a7.77	7.49	8.32	8.82	8.89	8.69	8.40
26	8.38	7.93	6.21	6.74	6.41	7.76	7.53	8.35	8.80	8.90	8.69	8.41

a Wetted-tape measurement.

Ko K0 240--Continued.

Water level at 2:00 a.m., from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	8.43	7.94	6.25	6.86	6.47	7.75	7.61	8.38	8.80	8.90	8.72	8.40
28	8.48	7.74	6.35	6.84	6.52	7.73	7.67	8.41	8.82	8.90	8.75	8.41
29	8.49	7.40	6.31	6.84	6.58	7.42	7.72	8.40	8.85	8.91	8.73	8.42
30	8.52		6.42	6.88	6.58	7.47	7.75	8.41	8.86	8.92	8.78	8.30
31	8.53		6.46		6.61		7.79	8.45		8.90		8.29

Ko K0 242. Kalamazoo Creamery. 200 feet east of Portage Street and 180 feet south of Lake Street. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.66	.....	21.95	18.37	17.84	16.66	18.27	19.23	20.73	21.97	22.66	22.88
2	21.63	.....	21.82	18.38	17.89	16.71	18.31	19.29	20.77	22.02	22.68	22.86
3	21.92	.....	21.78	18.40	17.89	16.75	18.34	19.33	20.83	22.06	22.67	22.85
4	21.89	.....	21.78	18.18	17.97	16.77	18.37	19.38	.....	22.07	22.67	22.87
5	21.98	.....	21.73	18.06	18.00	16.88	18.39	19.43	.....	22.08	22.70	22.84
6	21.76	.....	21.70	18.04	18.00	16.97	18.39	19.48	.....	22.12	22.71	22.83
7	21.89a	22.39	21.41	18.06	17.96	16.98	18.45	19.52	.....	22.13	22.76	22.86
8	21.95	22.46	21.37	18.02	17.96	17.12	18.51	19.57	.....	22.16	22.77	22.85
9	21.91	22.28	21.49	18.08	17.93	17.23	18.53	19.62	.....	22.19	22.72	22.88
10	21.91	22.31	21.39	18.03	17.81	17.34	.....	19.66a	21.21	22.21	22.75	22.87
11	21.83	22.50	21.32	17.83	17.59	17.40	.....	19.69	21.23	22.22	22.79	22.86
12	21.72	22.39	21.30	17.86	17.38	17.46	.....	19.73	21.28	22.27	22.80	22.81
13	21.85	22.35	21.27	17.84	17.17	17.52	.....	19.79	21.32	22.29	22.78	22.85
14	21.86	22.34	21.21	17.80	17.00	17.58	.....	19.85	21.39	22.33	22.82	22.87
15	21.83	22.46	21.15	17.80	16.84	17.64	.....	19.89	21.42	22.35	22.82	22.80
16	21.86	22.41	21.12	17.70	16.71	17.73	18.60	19.91	21.46	22.36	22.82	22.78
17	22.09	22.43	21.15	17.84	16.60	17.78	18.63	19.95	21.50	22.40	22.84	22.79
18	21.89	22.38	21.08	17.80	16.58	17.83	18.66	19.99	21.54	22.43	22.87	22.78
19	21.87	22.27	20.99	17.76	16.44	17.88	18.69	20.06	21.56	22.42	22.84	22.70
20	21.91	22.36	20.70	17.76	16.38	17.86	18.73	20.11	21.58	22.48	22.83	22.67
21	21.87	22.32	20.28	17.86	16.30	17.88	18.76	20.15	21.60	22.50	22.88	22.65
22	21.88	22.28	19.98	17.87	16.35	17.91	18.81	20.19	21.68	22.52	22.85	22.71
23	22.03	22.25	19.67	17.80	16.30	17.97	18.85	20.24	21.72	22.52	22.86	22.71
24	22.06	22.36	19.37	17.82	16.36	18.00	18.91	20.27	21.76	22.56	22.84	22.69
25	22.05	22.14	19.12	17.84	16.30a	18.08	18.93	20.32	21.81	22.56	22.85	22.67
26	22.06	22.09	18.87	17.85	16.40	18.09	18.94b	20.38	21.84	22.57	22.82	22.68
27	22.09	22.25	18.64	17.89	16.42	18.13	19.00b	20.44	21.86	22.59	22.85	22.61
28	22.24	22.10	18.60	17.90	16.44	18.14	19.05	20.49	21.89	22.62	22.88	22.61
29	22.11	22.02	18.41	17.89	16.54	18.16	19.11	20.54	21.91	22.62	22.84	22.56
30	22.16		18.37	17.85	16.58	18.21	19.12	20.59	21.93	22.64	22.83	22.62
31	22.21		18.22		16.62		19.19	20.66		22.64		22.59

a Wetted-tape measurement.

b Estimated.

Ko K0 284. St. Regis Paper Co. 240 feet north of Alcott Street and 230 feet west of Portage Street. Records available: 1946-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	47.2	....	42.3	45.3	45.0	43.6	....	45.1	46.1	46.0	42.4	46.0
2	47.2	....	46.7	45.3	45.0	43.8	a44.7	40.2	46.0	46.0	45.8	45.9
3	47.4	....	46.9	45.3	39.9	43.8	44.7	45.0	46.1	45.9	45.9	45.9
4	47.3	....	47.0	45.3	44.7	43.9	44.7	45.2	46.1	42.0	45.8	46.0
5	42.2	....	47.0	40.4	44.9	44.0	39.7	45.3	46.0	45.8	45.9	42.3
6	47.1	....	46.9	45.0	44.9	43.9	39.2	45.3	41.5	45.9	46.0	41.9
7	47.2	a47.0	46.9	45.2	44.9	43.7	39.1	45.3	41.0	45.9	45.9	45.6
8	47.3	47.1	42.1	45.3	45.0	43.9	39.0	45.3	45.6	45.9	42.4	45.9
9	47.3	42.5	46.5	45.4	44.9	44.0	38.8	42.1	45.8	45.9	45.6	46.1
10	47.4	46.8	46.8	45.2	39.8	44.0	....	45.2	45.9	45.8	45.7	46.2
11	47.4	46.9	46.7	45.1	44.4	44.0	....	45.3	46.0	42.0	45.8	46.2
12	42.1	46.9	46.8	40.3	44.4	44.1	....	45.3	46.0	45.7	45.9	42.2
13	46.9	46.9	46.7	45.0	44.2	44.1	....	45.4	41.6	45.9	45.8	41.9
14	47.1	46.8	46.7	45.1	44.2	39.2	....	45.5	45.9	45.9	45.8	45.6
15	47.2	47.0	41.9	45.1	44.1	43.8	....	45.4	46.1	45.9	42.4	45.9
16	47.2	42.5	46.4	45.0	44.0	44.0	a44.8	40.6	46.2	45.8	45.6	46.0

a Wetted-tape measurement.

Ko KO 284--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
17	47.3	46.7	46.6	45.2	38.9	44.1	44.9	45.2	46.1	45.8	45.7	46.1
18	47.3	46.8	46.7	45.1	43.8	44.2	44.9	45.4	46.1	42.1	45.8	46.3
19	42.1	46.6	46.5	40.0	43.9	44.2	39.9	45.5	46.0	45.7	45.8	42.2
20	46.9	46.8	46.6	44.8	43.9	44.0	44.7	44.0	41.6	45.9	45.9	41.9
21	47.1	47.0	46.1	45.0	43.9	39.3	44.9	43.9	45.8	45.9	45.9	45.6
22	47.1	47.2	41.2	45.0	44.0	44.0	45.0	45.4	45.9	45.9	42.5	46.1
23	47.3	42.6	45.6	45.0	43.8	44.2	45.0	40.8	46.0	45.8	45.8	46.2
24	47.3	47.0	45.7	45.0	38.8	44.3	45.1	45.3	46.0	45.7	45.9	46.2
25	47.3	47.1	45.7	45.1	43.6	44.3	44.9	45.9	46.0	42.2	45.9	42.5
26	42.5	47.2	45.5	40.0	43.7	....	40.0	44.7	46.0	45.7	45.9	42.0
27	47.0	47.1	45.4	44.7	43.8	....	44.8	45.2	42.0	45.9	45.9	41.6
28	47.2	47.1	45.5	44.9	43.8	....	45.0	45.3	45.8	46.0	42.5	45.8
29	47.1	47.2	40.5	45.0	44.1	....	45.1	46.7	45.9	46.0	42.0	46.0
30	47.2		45.1	45.0	43.9	....	45.1	41.4	45.9	46.0	45.6	46.1
31	47.2		45.1		38.8		45.2	45.9		45.9		42.1

a Wetted-tape measurement.

b Estimated.

Ko KO 311. Columbian Hotel. 90 feet south of Michigan Avenue and 90 feet west of Pitcher Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	17.69	Mar. 27	14.49	July 2	15.74	Oct. 8	17.83
17	18.02	Apr. 10	14.20	16	16.34	22	19.06
24	17.53	24	14.91	30	16.92	Nov. 5	18.42
Feb. 7	17.84	May 8	14.79	Aug. 13	16.72	19	18.40
14	18.33	22	13.99	27	17.64	Dec. 3	18.40
28	18.09	June 4	14.47	Sept. 10	17.64	17	18.30
Mar. 13	16.92	17	15.22	24	18.27	29	18.05

Total precipitation in the Kalamazoo area during 1948 was 32.16 inches, or 3.05 inches above normal. Excess precipitation occurred in February, March, April, May, July, and December. The greatest opportunities for recharge in the above months were obtained in March, April, and May. The period August through October marked a 3-month drought of appreciable magnitude.

The withdrawal of ground water in the Kalamazoo area for municipal supply ranged from 8.3 million gallons a day in February to 13.4 million gallons a day in August and averaged 9.7 million gallons a day during 1948. Ground-water withdrawals by industrial users in the area are estimated at about four times the magnitude of the municipal pumpage. The average daily withdrawal in 1948 was about 6 percent greater than in 1947 and reflects about a 14 percent increase for the last 5 years.

The time of occurrence of peak water-level stage in the Kalamazoo area ranged from March 27 to July 9 with the greatest number of high stages occurring near the end of May which marked the close of a 4-month period of above-normal precipitation. Minimum stages occurred during the period from September 17 to December 23 and a second period about the end of

February. The lowest observed stages correlate with either the close of the season of peak pumpage, the end of the summer drought period, or the end of a winter drought period. Excluding fluctuations of water level, due principally to year-end adjustments in pumpage, the net decline of water level in the Kalamazoo area during 1948 averaged about 0.5 foot.

City of Parchment

Ko PT 6. Kalamazoo Vegetable Parchment Co. test well 6. About 950 feet north of Oak Grove Avenue and 75 feet west of Wilson Avenue.

Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	12.38	Mar. 27	9.98	June 25	11.62	Oct. 29	12.96
10	12.40	Apr. 10	10.59	Aug. 20	12.87	Nov. 12	12.84
17	12.51	May 1	10.83	Sept. 17	13.15	26	12.68
24	12.65	15	9.51	Oct. 1	13.04	Dec. 10	12.75
Feb. 21	12.21	29	10.69	15	12.97	23	12.53
Mar. 6	11.35	June 11	11.19				

Ko PT 13. Kalamazoo Vegetable Parchment Co. 400 feet south of Superior Avenue and 350 feet west of Riverview Drive. Unused industrial well, diameter 12 inches, measured depth 63.46 feet below land surface. Measuring point, top of recorder base, 1.70 feet above land-surface datum. Automatic water-stage recorder installed May 1, 1948. Records available: 1948.

Water level at 2:00 a.m., from recorder charts

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	a14.01	14.15	14.36	15.55	16.38	15.59	15.46	15.29
2	13.78	14.38	14.44	15.18	16.46	15.58	15.51	15.33
3	13.67	14.50	14.42	15.52	16.48	15.52	15.56	15.36
4	13.87	14.56	14.22	15.64	16.43	15.41	15.53	15.37
5	13.88	14.75	14.13	15.45	16.32	15.50	15.44	15.29
6	13.96	14.58	14.15	15.52	16.06	15.56	15.43	15.26
7	13.96	14.40	14.23	15.58	15.81	15.61	15.41	15.31
8	13.90	14.45	14.31	15.54	16.09	15.60	15.25	15.32
9	13.61	14.68	14.41	15.33	16.03	15.52	15.31	15.42
10	13.44	14.67	.....	15.67	15.93	15.45	15.37	15.44
11	13.29	14.73	.....	15.80	15.88	15.36	15.35	15.42
12	13.11	14.76	.....	15.69	15.85	15.48	15.35	15.28
13	12.87	14.51	.....	15.73	15.72	15.45	15.30	15.14
14	12.46	14.35	.....	15.63	15.88	15.55	15.31	15.26
15	12.30	14.64	.....	15.52	15.95	15.54	15.33	15.26
16	12.21	14.78	b14.86	15.38	15.95	15.55	15.24	15.09
17	12.18	14.76	.....	15.59	15.93	15.48	15.30	15.03
18	12.62	14.88	.....	15.78	15.85	15.36	15.33	14.98
19	12.60	b15.00	.....	15.86	15.79	15.46	15.25	14.87
20	12.71	14.72	.....	15.93	15.84	15.55	15.22	14.88
21	12.89	14.58	.....	15.90	15.73	15.57	15.18	14.91
22	13.04	14.53	.....	15.80	15.68	15.55	15.08	15.10
23	12.96	14.70	a14.99	15.63	15.68	15.51	15.07	15.13
24	13.05	14.54	14.95	16.00	15.66	15.47	15.11	14.89
25	13.38	a14.56	14.74	16.10	15.64	15.38	15.13	14.79
26	13.50	14.51	14.72	16.20	15.60	15.41	15.18	14.74
27	13.64	14.32	15.00	16.23	15.50	15.51	15.25	14.94
28	13.83	14.29	15.22	16.18	15.62	15.53	15.20	15.15
29	13.94	14.33	15.45	16.02	15.64	15.52	15.13	15.14
30	13.80	14.24	15.47	15.83	15.61	15.58	15.21	15.06
31	13.80	.....	15.55	16.15	.....	15.56	.....	15.06

a Wetted-tape measurement.

b Estimated.

Ko PT 40. Kalamazoo Vegetable Parchment Co. About 520 feet west of Riverview Drive and 390 feet south of Superior Avenue. Well placed in active service and measurements discontinued May 2, 1948. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	15.59	Jan. 30	16.20	Mar. 5	13.85	Apr. 3	13.47
2	15.49	31	16.33	6	13.90	4	13.31
3	15.62	Feb. 7	16.09	7	13.93	5	13.45
4	15.52	8	15.96	8	14.05	6	13.60
5	15.46	9	15.95	9	14.37	7	13.71
6	15.48	10	16.03	10	14.55	8	13.80
7	15.57	11	16.05	11	14.65	9	13.87
8	15.70	12	16.13	12	14.74	10	13.90
9	15.72	13	16.27	13	14.82	11	13.60
10	15.72	14	16.20	14	14.72	12	13.46
11	15.50	15	16.05	15	14.59	13	13.59
12	15.20	16	15.98	16	14.58	14	13.60
13	15.58	17	16.21	17	14.46	15	13.63
14	15.61	18	16.04	18	14.37	16	13.54
15	15.90	19	15.77	19	14.34	17	13.65
16	15.84	20	15.70	20	13.88	18	13.45
17	15.57	21	15.60	21	13.25	19	13.62
18	15.85	22	15.49	22	12.65	20	13.95
19	15.71	23	15.22	23	12.25	21	14.15
20	15.77	24	15.14	24	12.03	22	14.23
21	15.86	25	15.19	25	12.00	23	14.31
22	15.91	26	15.18	26	12.02	24	14.34
23	16.17	27	15.05	27	12.27	25	14.06
24	16.07	28	14.90	28	12.37	26	13.98
25	16.05	29	14.68	29	12.45	27	14.22
26	16.02	Mar. 1	14.32	30	12.85	28	14.28
27	16.26	2	14.08	31	13.01	29	14.22
28	16.39	3	13.93	Apr. 1	13.30	30	14.22
29	16.38	4	13.85	2	13.38	May 1	14.28

a Wetted-tape measurement.

Village of Vicksburg

Ko VB 6. Lee Paper Co. well 6A. About 400 feet west of west edge of mill pond and 200 feet south of Washington Street extended. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Jan. 23	a	2.75	Feb. 20	1.80	Mar. 3	1.33	May 9	+1.25
Feb. 9	a	2.14	21	1.85	4	1.45	11	a +1.17
10		2.04	22	+2.26	19	a +.77	12	+1.20
11		2.08	23	+3.38	May 2	a +.65	13	+1.30
12		2.15	26	a 1.78	3	+7.0	14	+1.30
13		2.15	27	1.82	4	+6.8	15	+1.31
14		2.12	28	1.57	5	+7.0	16	+1.27
15		2.30	29	1.41	6	+7.0	17	+1.25
16		2.16	Mar. 1	1.36	7	+7.4	18	+1.19
19	a	2.56	2	1.35	8	+7.6		

a Wetted-tape measurement.

Ko VB 7. Lee Paper Co. well 7A. About 500 feet west of west edge of mill pond and 250 feet south of Washington Street extended. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Jan. 23	a	2.62	Feb. 9	a	2.63	Mar. 23	2.05	May 4	3.25
24		2.56	10		2.80	24	2.10	5	3.26
25		1.08	Mar. 19	a	2.41	25	2.10	6	3.31
26		.95	20		2.41	26	2.14	7	3.08
27		2.21	21		2.37	May 2	a 3.28	8	3.05
28		2.25	22		.48	3	3.18	9	.80

a Wetted-tape measurement.

Ko VB 7--Continued.

Water level at 2:00 a.m., from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 11	a 2.13	Aug. 16	a 1.56	Aug. 27	2.15	Sept. 24	a 2.31
12	2.16	17	1.59	28	2.19	25	2.34
13	2.15	18	1.62	29	2.23	26	2.37
14	2.23	19	1.67	30	1.47	27	2.38
15	2.30	20	1.69	31	2.07	28	2.39
16	2.35	21	1.73	Sept. 1	2.20	29	2.40
17	2.40	22	1.75	2	2.25	30	2.35
18	2.49	23	1.79				

a Wetted-tape measurement.

Kalamazoo Township

Ko Ko 5. City of Kalamazoo, Henson property. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 2 S., R. 11 W., about 1,380 feet east and 450 feet north of center of section. Records available: 1946-48.

Jan. 10	8.75	May 1	8.22	July 23	8.03	Oct. 15	8.61
17	8.78	15	7.57	Aug. 6	8.20	29	8.66
24	8.76	29	7.91	20	8.34	Nov. 12	8.68
Feb. 21	8.58	June 11	7.98	Sept. 3	8.48	26	8.72
Mar. 13	8.62	25	7.95	17	8.54	Dec. 10	8.81
Apr. 3	8.16	July 9	8.00	Oct. 1	8.56	23	8.81
17	8.22						

Ko Ko 15. City of Kalamazoo, Michigan Avenue Station. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 2 S., R. 11 W., about 290 feet east of Wallace Avenue and 30 feet south of Schipper's Lane. Records available: 1946-48.

Jan. 3	13.28	Mar. 19	11.85	June 25	18.08	Oct. 1	20.64
10	14.31	Apr. 3	9.00	July 9	21.84	15	16.73
17	14.38	17	9.68	23	(a)	29	16.30
24	14.29	May 1	14.64	Aug. 6	(a)	Nov. 12	14.28
Feb. 14	14.41	15	9.94	20	(a)	26	14.39
28	13.69	29	9.48	Sept. 3	(a)	Dec. 10	13.60
Mar. 13	12.14	June 11	20.52	17	(a)	23	14.64

a Dry.

Ko Ko 42. Western Michigan College of Education, Gateway golf course. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 2 S., R. 11 W., about 1,000 feet north of U. S. Highway 12 and 500 feet west of Vande Giessen Road. Records available: 1946-48.

Feb. 21	34.75	May 15	34.06	Aug. 6	34.42	Oct. 29	34.94
Mar. 13	34.67	29	34.15	20	34.49	Nov. 12	34.93
19	34.58	June 11	34.22	Sept. 3	34.60	26	35.03
Apr. 3	34.44	25	34.27	17	34.69	Dec. 10	35.16
17	34.37	July 9	34.31	Oct. 1	34.77	23	35.17
May 1	34.46	23	34.33	15	34.81		

Ko Ko 43. Oakwood, Inc. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 2 S., R. 11 W., about 350 feet west of Oakland Drive and 20 feet north of Whites Road extended. Records available: 1946-48.

Jan. 10	27.33	Apr. 3	27.34	July 9	26.76	Oct. 15	27.40
17	27.41	17	27.22	23	26.77	29	27.47
24	27.48	May 1	27.12	Aug. 6	26.84	Nov. 12	27.51
Feb. 21	27.70	15	26.96	20	26.96	26	27.60
Mar. 6	27.64	29	26.87	Sept. 3	27.07	Dec. 10	27.72
13	27.68	June 11	26.86	17	27.18	23	27.76
19	27.56	25	26.79	Oct. 1	27.30		

Ko Ko 121. Allied Paper Co., Monarch Division. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 2 S., R. 11 W., about 160 feet west of New York Central railroad spur on east side of building and 150 feet south of Cork Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	8.96	Mar. 19	8.98	June 25	8.63	Oct. 1	8.93
10	8.97	Apr. 3	8.87	July 9	8.62	15	8.94
17	9.01	17	8.79	23	8.65	29	8.97
24	9.03	May 1	8.76	Aug. 6	8.71	Nov. 12	8.96
Feb. 14	9.05	15	8.66	20	8.76	26	9.01
28	9.04	29	8.60	Sept. 3	8.85	Dec. 10	9.05
Mar. 6	9.02	June 11	8.61	17	8.86	23	9.03
13	9.01						

Ko Ko 136. Millwood Community well 1. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 2 S., R. 11 W., about 100 feet south of Winton Avenue and 90 feet east of Moreland Street. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.52	.....	39.62	38.72	37.52	37.97	37.72	.....	40.59a	39.68	39.77	40.15
2	39.35	.....	39.77	38.17	37.97	38.52	37.16	.....	40.27	39.37	39.87	40.15
3	40.12	.....	40.17	38.35	37.75	38.72	37.22	.....	40.55	39.82	39.62	40.15
4	39.57	.....	40.22	38.47	37.57	39.07	37.37	.....	40.54	39.67	39.57	40.13
5	39.64	.....	40.12	38.27	38.17	38.47	37.37	.....	40.75	39.77	39.57	42.85
6	39.62	.....	40.02	38.32	37.97	38.72	37.39a	38.91	40.29	39.67	39.77	40.12
7	39.62	42.99	39.37	38.17	38.07	37.17	38.38	38.62	40.27	39.54	39.77	40.22
8	39.60	40.17	39.38	38.02	38.22	36.74	38.38	39.12	40.42	39.28	39.78	40.15
9	39.57	40.62	39.70	38.22	38.17	36.90	38.77	38.97	39.29	39.42	39.66	40.20
10	39.73	40.07	39.55	38.52	37.72	37.47	39.22	39.37	39.67	39.91	39.61	40.15
11	39.80	40.02	39.44	38.27	38.02	38.32	40.42	39.47	39.22	39.72	39.72	40.30
12	39.64	40.09	39.42	38.57	37.82	38.17	37.57	38.27	39.87	39.82	39.75	42.75
13	39.74	40.37	39.37	38.59	37.44	36.97	37.33	38.32	40.07	39.37	39.75	40.21
14	39.74	39.92	39.61	38.42	37.92	37.12	37.37	38.42	40.22	39.87	39.79	40.50
15	39.77	40.77	39.39	37.97	37.44	37.62	37.32	39.47	39.92	40.17	39.75	40.35
16	39.82	40.04	39.32	37.62	37.67	37.72	37.37	39.27	39.17	40.07	39.83	40.35
17	39.87	40.08	39.47	37.85	37.42	38.57	37.62	39.57	39.37	39.32	.....	40.40
18	.....	40.16	39.47	37.89	37.37	38.27	38.04	39.62	39.72	39.67	.....	40.40
19	.....	39.90	39.35	38.02	37.47	37.27	37.90	39.67	39.97	39.57	39.83	40.50
20	.....	40.47	39.25	37.72	37.32	38.27	39.84	39.82	40.20	39.57	41.25	40.37
21	39.65	39.96	39.17	37.82	37.27	37.57	39.72	40.02	39.25	39.52	39.96	40.40
22	39.92	40.47	38.95	37.89	37.27	37.22	37.75	40.34	39.52	39.47	.....	40.40
23	39.84	39.92	38.97	37.82	36.67	37.47	37.72	40.27	39.52	39.57	.....	40.40
24	40.00	39.88	39.07	37.69	36.66	38.90	.....	40.52	39.52	40.02	.....	40.50
25	39.87	40.27	38.92	37.82	37.02a	38.59	.....	40.37	39.72	39.87	.....	40.65
26	39.87	39.79	38.72	37.77	36.97	38.77	.....	40.97	40.72	39.92	40.36	40.45
27	40.22	39.90	38.62	37.87	37.47	38.07	.....	41.97	39.82	39.80	40.04	40.50
28	40.15	39.58	38.90	37.77	37.97	37.22	.....	40.79	39.57	39.82	40.13	40.50
29	40.02	39.73	38.87	38.24	37.52	37.21	.....	40.81	39.97	39.77	40.10	40.35
30	39.87	.....	38.22	38.22	37.97	37.10a	51.68	40.42	.....	39.92	40.25	40.36
31	40.02	.....	38.92	.....	37.52	.....	40.43	.....	.....	40.26	.....	40.31

a Wetted-tape measurement.

Schoolcraft Township

Ko Sc 4. H. H. Chamberlain. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 11 W., about 1.5 miles east of Schoolcraft and 0.5 mile south of the Schoolcraft-Vicksburg Road. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.72	Feb. 15	14.14	Mar. 22	12.28	Apr. 26	11.76
12	13.79	23	13.66	29	12.04	May 2	11.73
20	13.85	Mar. 1	13.28	Apr. 5	12.01	10	11.75
Feb. 2	13.98	8	13.08	12	12.02	17	11.22
9	14.10	15	13.18	19	11.95	24	11.04

Ko Sc 4--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 31	11.06	Aug. 16	11.86	Oct. 3	12.58	Nov. 22	13.30
June 7	11.08	23	11.83	11	12.68	29	13.36
14	11.23	30	12.12	19	12.79	Dec. 6	13.42
28	11.46	Sept. 6	12.20	24	12.90	13	13.54
July 26	11.73	13	12.32	Nov. 1	12.95	20	13.60
Aug. 2	11.70	20	12.38	8	12.90	27	13.64
9	11.97	27	12.48	15	13.18		

Kalkaska County

Clearwater Township

Ka Cw 13. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 27 N., R. 5 W. Records available: 1942-48.

Jan. 13	15.64	Apr. 16	15.21	July 17	15.38	Oct. 13	15.80
Feb. 13	15.90	May 17	14.98	Aug. 17	15.37	Nov. 11	16.03
Mar. 16	16.15	June 15	15.15	Sept. 15	15.57	Dec. 13	15.92

Ka Cw 100. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 27 N., R. 5 W. Records available: 1939-48.

Jan. 13	13.30	Apr. 16	12.56	July 17	12.90	Oct. 14	13.61
Feb. 13	13.40	May 17	12.45	Aug. 16	13.06	Nov. 11	13.76
Mar. 16	13.60	June 15	12.70	Sept. 15	13.10	Dec. 13	13.94

Missaukee County

(No measurements made in 1948.)

Montmorency County

Albert Township

My Ab 1. Michigan Department of Conservation. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 29 N., R. 2 E., 155 feet north of county road 612 and about 4,000 feet east of Avery Lake road. Unused drilled well, diameter 6 inches, measured depth 66 feet below land surface. Measuring point, top of 6-inch nipple, 1.55 feet above land-surface datum. Automatic water-stage recorder installed Nov. 3, 1948. Records available: 1948.

Nov.	3	a	3.37	Nov.	17	3.15	Dec.	5	3.25	Dec.	19	3.32	
	4		3.35		18	3.40		6	3.13		20	3.29	
	5		3.38		19	3.42		7	3.28		21	3.28	
	6		3.26		24	a	3.28		8		22	3.37	
	7		3.35		25		3.29		9	b	3.34	23	3.43
	8		3.50		26		3.27	10			24	3.44	
	9		3.36		27		3.28	11			25	3.42	
	10		3.23		28		3.38	12			26	3.49	
	11	b	3.34		29		3.33	13			27	3.34	
	12	b	3.37		30		3.31	14			28	3.34	
	13		3.29	Dec.	1		3.34	15			29	3.30	
	14		3.38		2		3.37	16			30	3.45	
	15		3.34		3		3.30	17			31	3.43	
	16		3.37		4		3.31	18					

a Wetted-tape measurement.

b Estimated.

My Ab 7. Michigan Department of Conservation. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 29 N., R. 2 E., about 200 feet east of Avery Lake Road and 20 feet south of county road 612. Records available: 1945-48.

My Ab 7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 5	+0.80	June 3	+0.43	Aug. 22	0.88	Nov. 23	0.55
May 7	+.81	July 8	+.01	Sept. 23	1.60	Dec. 22	.80
19	+.68	29	+.16	Oct. 23	1.49		

Briley Township

My Br 6. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 31 N., R. 2 E. Records available: 1934-38.

Apr. 5	9.22	June 3	9.47	Aug. 22	10.99	Nov. 23	11.22
May 7	8.84	July 8	9.95	Sept. 23	11.38	Dec. 22	11.34
19	9.13	29	10.37	Oct. 23	(a)		

a Dry.

My Br 8. Michigan Department of Conservation. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 30 N., R. 2 E., 150 feet south and 40 feet east of 90-degree bend in road. Records available: 1946-48.

May 7	2.15	July 8	2.55	Sept. 23	2.99	Nov. 23	3.31
19	2.24	29	2.55	Oct. 8	3.09	Dec. 22	3.48
June 3	2.44	Aug. 22	2.70				

My Br 15. Records available: 1934-44. No measurements made in 1948.

My Br 18. Records available: 1938-40; 1942-44. No measurements made in 1948.

My Br 28. Records available: 1938-42. No measurements made in 1948.

Hillman Township

My Hm 1. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 31 N., R. 4 E. Records available: 1935-48.

Apr. 5	1.97	June 3	2.28	Aug. 22	1.69	Nov. 23	0.90
May 7	1.81	July 8	2.16	Sept. 23	1.46	Dec. 22	1.42
19	2.10	29	2.25	Oct. 23	1.15		

My Hm 12. Records available: 1935-44. No measurements made in 1948.

My Hm 22. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 31 N., R. 3 E. Records available: 1936-44; 1948. Oct. 28, 7.20; Nov. 12, 7.22; Dec. 20, 7.34.

My Hm 23. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 31 N., R. 4 E. Records available: 1935-37; 1946-48.

Apr. 5	0.44	June 3	0.60	Aug. 22	0.93	Nov. 23	0.76
May 7	.38	July 8	.70	Sept. 23	.90	Dec. 22	.84
19	.47	29	.76	Oct. 23	.83		

My Hm 30. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 31 N., R. 3 E. Records available: 1936-43. No measurements made in 1948.

Loud Township

My Ld 6. Michigan Department of Conservation. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 29 N., R. 3 E., about 2.3 miles west of State Highway M-33 and 230 feet south of county road 612. Records available: 1946-48.

Apr. 5	4.55	June 3	3.65	Aug. 22	4.67	Nov. 23	5.39
May 7	3.67	July 8	4.10	Sept. 23	5.18	Dec. 22	5.58
19	3.52	29	4.35	Oct. 23	5.39		

Rust Township

My Rs 4. Michigan Department of Conservation. About the center of SW $\frac{1}{4}$ sec. 5, T. 29 N., R. 4 E., about 2.3 miles east of State Highway M-33 and 50 feet northwest of dirt road. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 5	12.44	May 19	10.82	July 8	10.78	Aug. 22	11.15
May 7	11.14	June 3	10.62	29	10.99		

My Rs 18. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 30 N., R. 4 E. Records available: 1935; 1946-48.

Apr. 5	+0.90	June 3	0.06	Aug. 22	1.19	Nov. 23	+0.58
May 7	+.97	July 8	.48	Sept. 23	1.51	Dec. 22	+.51
19	+.80	29	.14	Oct. 23	1.15		

Oakland County

City of Pontiac

Oa PT 1. City of Pontiac. Well 6 at Walnut Street pumping station, about 200 feet west of supply well 1. Records available: 1939-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	88.9	....	....	....	....	....	....	101.3	98.9	99.8
2	89.6	87.9	....	86.8	....	88.3	90.8	96.1	....	....	....	....
3	....	....	92.0	....	85.3	....	....	....	....	....	100.5	99.9
4	....	91.1	....	....	....	91.3	....	95.6	....	99.8	....	....
5	....	....	92.3	82.8	84.5	....	88.2	....	....	....	100.8	....
6	....	91.2	....	....	....	....	....	95.5	....	100.8	....	97.2
7	88.4	....	....	87.3	83.6	86.6	94.4	....	99.4	....	....	....
8	....	....	90.0	....	....	....	....	....	....	101.0	96.3	100.7
9	87.0	97.8	....	86.9	....	88.8	94.4	94.9	....	....	....	....
10	....	....	91.2	....	....	....	....	....	102.2	....	100.3	100.8
11	....	91.0	....	....	....	89.7	....	....	....	98.4	....	....
12	85.7	....	91.3	83.1	82.5	....	94.3	....	....	....	98.5	....
13	....	90.0	....	....	....	....	....	....	101.1	101.2	....	....
14	89.1	....	....	84.0	86.1	86.6	94.2	....	....	....	....	....
15	....	....	88.6	....	....	....	....	....	101.7	101.5	97.5	....
16	91.6	91.5	....	85.9	....	86.2	97.3	95.9	....	....	....	....
17	....	....	91.5	....	80.3	....	....	....	102.3	....	97.8	....
18	....	91.3	....	....	....	87.2	....	98.5	....	99.3	....	....
19	....	....	91.7	82.3	85.7	....	93.1	....	....	....	99.3	....
20	....	91.9	....	....	....	....	....	97.3	101.1	100.8	....	98.5
21	94.3	....	....	88.9	84.5	85.9	96.7	....	....	....	....	....
22	....	....	89.6	....	....	....	....	....	101.7	101.7	97.2	99.6
23	84.4	89.3	....	86.2	....	90.6	95.2	....	....	....	....	....
24	....	....	91.3	....	81.4	....	....	....	101.9	....	97.7	99.9
25	....	89.3	....	....	....	92.8	....	....	....	100.4	....	....
26	82.7	....	91.5	82.6	82.9	....	94.1	....	....	....	96.8	....
27	....	90.9	....	....	....	....	....	....	100.3	99.4	....	96.9
28	82.7	....	....	85.0	84.8	92.1	95.8	....	....	....	....	....
29	....	....	88.0	....	....	....	....	....	101.5	100.8	97.4	92.6
30	82.7	....	....	86.5	....	91.0	97.5	....	....	....	....	....
31	....	....	89.3	....	81.2	....	....	....	....	....	....	98.4

Oa PT 2. City of Pontiac. Well 21 in Walnut Street well group, about 40 feet northwest of supply well 3. Records available: 1939-48. Measurements discontinued June 21, 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	95.8	Apr. 2	93.9	Apr. 12	91.4	Apr. 23	94.4
9	94.8	5	92.8	14	92.5	26	94.8
12	92.9	7	95.6	16	93.2	28	95.3
19	92.0	9	95.1	19	90.8	30	95.8

Oa PT 2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 3	93.8	May 14	94.9	May 26	92.8	June 7	96.0
5	93.8	17	88.1	28	92.9	16	95.7
7	92.8	19	94.0	31	90.6	18	95.8
10	88.7	21	93.7	June 2	97.1	21	94.8
12	91.9	24	90.8				

Oa PT 3. City of Pontiac. Just outside pump house of East Boulevard supply well, near intersection of East Boulevard and Mount Clemens Street. Records available: 1939-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	43.3	....	....	....	....	....	....	42.7	44.1	41.8
2	47.6	42.6	....	39.9	....	29.5	30.2	35.1	....	....	....	....
3	....	....	43.7	....	30.2	....	....	....	....	....	44.1	42.0
4	....	41.4	....	....	....	30.2	....	35.4	....	43.0	....	....
5	48.6	....	43.6	37.8	30.4	....	30.7	....	....	....	43.0	....
6	....	44.4	....	....	....	....	....	....	....	43.3	....	42.2
7	....	....	....	37.4	30.2	30.1	31.0	....	40.9	....	....	....
8	....	....	43.8	....	....	....	....	....	....	43.2	42.2	42.2
9	46.0	42.4	....	36.9	....	32.6	31.3	36.4	....	....	....	....
10	....	....	44.0	....	28.1	....	....	....	41.1	....	42.1	42.2
11	....	43.1	....	....	....	30.4	....	36.3	....	43.0	....	....
12	....	....	44.4	34.0	27.8	....	31.9	....	....	....	42.2	....
13	....	43.3	....	....	....	....	....	....	41.3	43.2	....	....
14	....	....	....	34.1	28.2	30.7	31.9	....	....	....	....	....
15	....	....	44.2	....	....	....	....	....	41.5	43.5	42.5	....
16	....	43.1	....	34.2	....	30.6	32.3	37.5	....	....	....	....
17	....	....	44.2	....	26.9	....	....	....	41.7	....	42.3	....
18	....	43.5	....	....	....	31.1	....	37.8	....	43.5	....	....
19	53.0	....	43.6	33.7	27.8	....	32.8	....	....	....	42.1	....
20	....	43.1	....	....	....	....	....	38.2	42.1	42.6	....	42.4
21	50.8	....	....	32.4	28.4	31.2	33.9	....	....	....	....	....
22	....	....	41.8	....	....	....	....	....	42.3	43.7	41.5	42.4
23	52.1	43.6	....	31.9	....	29.3	33.4	....	....	....	....	....
24	....	....	41.7	....	28.8	....	....	....	42.6	....	41.7	42.5
25	....	43.9	....	....	....	29.4	....	....	....	43.7	....	....
26	52.2	....	41.8	31.9	28.8	....	33.8	....	....	....	41.8	....
27	....	43.8	....	....	....	....	....	....	42.8	43.8	....	42.6
28	52.5	....	....	31.2	28.9	29.8	34.5	....	....	....	....	....
29	....	....	40.3	....	....	....	....	....	42.9	43.5	41.8	42.1
30	52.0	....	....	30.8	....	29.8	34.6	....	....	....	....	....
31	....	....	40.2	....	28.8	....	....	....	....	....	....	42.2

Oa PT 4. G. A. Blaylock. Old Pierce well, about 150 feet west of Lake Avenue and 120 feet north of Grand Trunk railroad tracks. Records available: 1946-48.

Water level at 2:00 a.m. from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	93.2	....	92.5	89.1	....	....	95.8	....	....	103.8	99.0	101.4
2	90.3	....	....	....	....	....	96.0	b98.3	....	103.2	101.9	100.1
3	93.0	....	....	88.6	b85.7	....	96.6	b102.0	....	102.3	a102.5	103.0
4	91.4	....	....	86.0	86.5	....	94.7	98.9	....	101.0	102.1	102.7
5	88.9	....	....	85.0	86.9	....	93.8	98.8	....	102.0	103.1	101.0
6	90.6	....	....	87.3	87.5	....	b92.6	99.4	a106.4	103.0	102.6	99.8
7	....	....	....	88.9	86.9	....	95.4	101.1	b103.0	102.9	100.1	101.2
8	90.9	....	b91.9	88.4	86.7	b93.1	95.7	98.9	103.0	a104.7	99.8	102.5
9	89.0	....	a93.0	88.6	84.2	92.2	98.4	97.9	....	102.8	101.2	102.4
10	90.4	....	a94.0	88.5	81.8	92.9	....	....	....	100.6	101.8	103.5
11	90.2	....	a94.7	86.2	84.7	93.8	....	....	....	99.1	101.6	103.4
12	87.8	....	a93.9	84.9	85.9	94.0	b99.2	....	102.5	102.6	102.5	100.4
13	89.8	....	a94.8	....	....	91.0	96.4	....	102.8	102.1	102.6	100.7
14	91.9	....	a92.6	b86.0	....	91.0	....	....	....	a104.1	100.7	100.7
15	92.9	....	a91.3	....	....	91.0	....	....	....	a104.6	98.5	101.0

a Estimated.

b Wetted-tape measurement.

Oa PT 4--Continued.

Water level at 2:00 a.m.											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
16	a92.6	....	b91.9	....	....	90.8	....	....	....	103.3b	100.4 101.5
17	....	....	93.7	....	b85.0	90.7	....	100.0	....	102.3	99.1 101.9
18	....	....	93.6	....	87.9	92.5	....	100.7	....	101.6	101.7 101.9
19	b90.6	....	93.7	b83.7	90.3	92.2	b95.9	100.4	....	a102.4	101.6 101.3
20	92.1	....	93.8	85.4	89.1	88.2	....	101.9	103.1b	103.2	101.8 100.3
21	92.0	....	92.3	....	88.9	88.0	....	102.9	104.1a	103.5	100.4 99.6
22	92.4	....	91.9	....	88.0	91.9	....	102.0	104.0	....	98.2 102.0
23	92.8	b93.3	92.5	....	86.6	94.5	....	101.7	104.2a	103.7	99.8 102.9
24	94.7	92.6	92.8	....	85.6	....	....	102.2	....	a103.0	100.6 103.1
25	90.9	92.2	93.2	....	....	....	....	....	....	a100.8	101.1 101.0
26	93.0	92.3	93.1	b84.7	....	....	b96.2	....	102.9	102.8	99.3 100.8
27	....	94.0	92.9	a88.1	....	....	96.8	....	101.6	102.4	100.4 100.0
28	....	94.1	91.4	....	....	b91.4	97.0	....	103.1	103.2	100.0 99.1
29	....	92.8	90.3	....	....	95.7	98.6	....	103.9	102.7	99.1
30	....	....	90.8	....	....	95.3	99.0b	106.2	102.9	102.8	100.4
31	....	....	91.6	....	....	....	....	....	....	100.9	....

a Estimated.

b Wetted-tape measurement.

Total precipitation in the Pontiac area during 1948 was 34.25 inches, or 4.80 inches above normal. Excess precipitation occurred during the months of March, April, May, June, September, and November. The most favorable months of this group for recharge opportunity were March, April, May, and June. Considerable deficiencies in precipitation occurred in the Months of July, August, and October.

Withdrawal of ground water by municipal-supply wells ranged from 4.4 million gallons a day in January to 6.5 million gallons a day in September, or an average for the year of 5.4 million gallons a day.

Ground-water levels reached highest-observed stages for the year during the latter part of May and lowest-observed stages at about mid-September. Although the end-of-May peak stage was followed by above-normal precipitation in June, the start of the summer season of peak pumping caused water levels to decline after the May high. The uptrend of water level following mid-September reflects the large reduction in pumping demand following the close of the summer pumping season. On the average, ground-water levels in the Pontiac area declined about 3 feet during the year.

Otsego CountyOtsego Lake Township

Os Ok 105. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 29 N., R. 3 W. Records available: 1933-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	2.51	Apr. 16	1.47	July 17	2.67	Oct. 15	3.15
Feb. 13	2.69	May 18	1.85	Aug. 17	2.94	Nov. 11	3.09
Mar. 16	2.58	June 15	2.30	Sept. 16	3.16	Dec. 14	2.98

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Os Ok 106. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 29 N., R. 3 W. Records available: 1933-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	7.93	Apr. 16	6.67	July 17	7.75	Oct. 15	8.38
Feb. 13	8.03	May 18	7.00	Aug. 17	8.02	Nov. 11	8.49
Mar. 16	8.10	June 15	6.41	Sept. 16	8.22	Dec. 14	8.44

Ottawa County

Holland Township

Ot Ho 2. City of Holland. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., 507 feet west of Waverly Road and 28 feet south of 8th street. Records available: 1945-48.

Jan. 6	40.46	Apr. 6	39.44	July 6	39.61	Oct. 5	(a)
13	40.42	13	39.54	14	40.36	12	(a)
20	40.02	20	39.12	20	40.80	19	(a)
27	40.38	27	38.94	27	40.84	26	(a)
Feb. 3	40.16	May 4	39.00	Aug. 3	41.15	Nov. 2	(a)
10	40.11	11	38.78	10	41.78	9	(a)
17	39.88	18	38.75	17	42.11	16	(a)
24	39.52	25	38.45	24	42.33	23	(a)
Mar. 2	39.30	June 1	38.97	31	43.29	30	(a)
9	39.61	8	39.55	Sept. 7	(a)	Dec. 7	(a)
16	39.67	15	39.88	14	(a)	14	(a)
23	39.60	22	39.79	21	(a)	21	(a)
30	39.52	29	39.84	28	(a)	28	(a)

a Dry.

Ot Ho 3. City of Holland. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., about 1,200 feet west of Waverly Road and 85 feet south of 8th Street. Records available: 1947-48. Well put in active service Mar. 23, 1948, and measurements discontinued.

Water level at 2:00 a.m., from recorder charts

Jan. 1	45.63	Jan. 22	45.41	Feb. 12	45.25	Mar. 4	45.35
2	45.51	23	45.94	13	45.05	5	45.47
3	45.78	24	45.90	14	44.83	6	45.10
4	45.56	25	45.85	15	45.40	7	44.75
5	46.03	26	45.87	16	45.25	8	45.00
6	45.95	27	45.77	17	45.18	9	45.02
7	46.19	28	45.56	18	45.16	10	45.09
8	46.09	29	45.40	19	44.90	11	45.05
9	45.98	30	45.48	20	45.42	12	45.00
10	46.18	31	45.47	21	45.29	13	44.87
11	46.02	Feb. 1	45.34	22	45.20	14	44.72
12	45.30	2	45.52	23	45.30	15	44.72
13	45.95	3	45.56	24	45.28	16	44.87
14	45.97	4	45.27	25	45.13	17	45.62
15	45.83	5	45.50	26	44.95	18	45.65
16	45.35	6	45.39	27	45.13	19	45.05
17	45.95	27	45.25	28	44.62	20	45.48
18	45.96	8	45.40	29	45.25	21	45.16
19	45.95	9	45.48	Mar. 1	45.46	22	45.16
20	45.84	10	45.54	2	45.12	23	45.45
21	45.51	11	45.34	3	45.23		

Ot Ho 4. City of Holland. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 5 N., R. 15 W., about 840 feet north of 16th Street and 80 feet east of Waverly Road. Records available: 1947-48.

Ot Ho 4--Continued.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	61.36	61.50	61.90	61.23	61.06	61.18	61.83	61.90	62.75	63.02	.....	63.50
2	60.80	61.35	61.38	61.62	61.20	61.10	61.83	62.13	62.58	63.38	63.17	63.41
3	61.47	61.50	61.45	62.06	61.27	60.98	61.61	62.12	62.61	63.59	63.04	63.39
4	61.25	61.23	61.86	61.82	61.33	60.78	61.64	62.10	62.69	63.51	62.75	63.21
5	61.69	61.55	62.20	61.27	61.20	60.92	61.58	62.15	62.77	63.15	62.87	63.01
6	61.48	61.45	61.66	61.48	61.13	61.16	61.37	62.13	62.69	63.09	62.82	62.71
7	61.50	61.35	60.80	61.38	61.00	60.96	61.55	62.05	62.61	62.95	63.38	63.30
8	61.30	61.45	61.02	61.25	61.24	60.78	61.71	62.04	62.83	62.92	63.77	63.22
9	61.10	61.75	61.30	61.73	61.28	61.15	61.69	62.12	62.91	63.05	63.23	63.54
10	61.88	61.75	61.50	61.72	61.20	61.35	61.62	62.10	62.97	63.13	62.97	63.54
11	61.81	62.52	61.60	60.65	61.35	61.39	61.53	61.90	62.95	63.07	63.48	63.56
12	61.07	61.34	61.60	61.30	61.40	61.35	61.48	61.90	62.90	63.23	63.63	63.03
13	61.50	61.13	61.46	61.75	61.28	61.31	61.53	62.10	63.07	63.31	63.15	63.35
14	61.43	60.63	61.30	61.50	61.19	61.39	61.65	62.23	63.41	63.45	63.55	63.62
15	61.36	61.78	61.02	61.44	61.12	61.42	61.68	62.29	63.30	63.47	63.32	63.25
16	61.26	61.44	60.82	61.01	60.94	61.60	61.52	62.20	63.26	63.07	63.30	63.01
17	61.76	61.36	61.62	61.73	60.92	61.57	61.60	62.13	63.26	63.37	62.76	63.45
18	61.71	61.34	61.76	61.45	61.24	61.50	61.62	62.10	63.10	63.49	63.33	63.60
19	61.48	60.89	61.01	61.13	61.43	61.35	61.70	62.42	62.93	63.06	63.65	63.08
20	61.38	61.77	61.50	61.03	61.21	61.64	61.65	62.47	62.98	63.47	62.64	62.92
21	60.90	61.90	61.16	61.50	60.74	61.45	61.55	62.40	63.15	63.46	63.20	62.83
22	60.81	61.67	61.28	61.52	61.02	61.37	61.55	62.42	63.20	63.38	63.38	63.48
23	61.55	61.60	61.41	61.32	60.93	61.36	61.66	62.55	63.26	63.17	63.28	63.73
24	61.90	61.57	61.51	61.07	61.20	61.40	61.98	62.48	63.33	63.48	63.16	63.67
25	61.75	61.35	61.71	61.15	61.20	61.51	61.93	62.35	63.57	63.35	63.11	63.45
26	61.70	61.10	61.23	61.10	61.09	61.61	61.65	62.50	63.68	63.15	63.00	.....
27	61.70	61.25	60.82	61.15	60.98	61.57	61.77	62.60	63.54	.....	63.19	.....
28	61.71	60.48	61.70	61.08	60.83	61.45	61.90	62.61	63.36	.....	63.65	63.02
29	61.25	61.45	61.25	61.22	61.06	61.41	62.00	62.56	63.12	.....	63.34	62.75
30	61.48	.....	61.45	61.19	61.11	61.49	61.68	62.55	63.00	.....	63.25	63.43
31	61.70	.....	61.10	.....	61.17	.....	61.88	62.69	.....	.....	.....	63.40

a Wetted-tape measurement.

Ot Ho 5. City of Holland. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., 730 feet west of Waverly Road and 28 feet south of 8th Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	41.93	Apr. 6	41.64	July 6	41.33	Oct. 12	45.00
13	41.94	13	41.74	14	42.62	19	44.86
20	41.66	20	40.53	20	42.82	26	44.70
27	41.77	27	40.38	27	43.02	Nov. 2	44.68
Feb. 3	41.59	May 4	40.35	Aug. 3	43.39	9	44.56
10	41.51	11	40.21	10	43.89	16	44.44
17	41.27	18	40.10	17	43.13	23	44.78
24	41.23	25	39.90	24	44.35	30	45.61
Mar. 2	40.97	June 1	40.75	Sept. 7	(a)	Dec. 7	45.06
9	41.23	8	41.59	14	(a)	14	45.01
16	41.16	15	41.69	21	(a)	21	44.70
23	41.10	22	41.63	28	45.25	28	44.26
30	41.72	29	41.56	Oct. 5	44.82		

a Dry.

Ot Ho 6. City of Holland. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., about 1,020 feet north of 16th Street and 430 feet west of Waverly Road. Measurements discontinued Feb. 24, 1948. Records available: 1946-48.

Jan. 6	56.03	Jan. 20	55.86	Feb. 3	56.04	Feb. 17	55.93
13	55.97	27	56.21	10	56.20	24	55.97

Ot Ho 7. City of Holland. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., about 30 feet west of Waverly Road and 30 feet north of 16th Street. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	72.93	Apr. 6	72.50	July 6	71.91	Oct. 5	72.87
13	72.87	13	72.91	14	72.05	12	73.26
20	72.39	20	72.31	20	71.92	19	73.23
27	72.94	27	72.20	27	71.98	26	73.17
Feb. 3	72.80	May 4	72.29	Aug. 3	72.32	Nov. 2	73.24
10	72.96	11	72.01	10	72.18	9	73.02
17	72.61	18	72.50	17	72.20	16	72.98
24	72.71	25	72.25	24	72.37	23	73.54
Mar. 2	72.21	June 1	72.18	31	72.71	30	73.59
9	72.62	8	71.71	Sept. 7	72.58	Dec. 7	73.44
16	72.55	15	72.18	14	73.18	14	73.84
23	72.60	22	71.80	21	72.88	21	73.29
30	72.58	29	71.96	28	73.01	28	73.51

Ot Ho 8. City of Holland. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 5 N., R. 15 W., about 3,970 feet east of Waverly Road and 15 feet south of 24th Street. Records available: 1946-48.

Date	Water level		Date	Water level	
	6-inch	8-inch		6-inch	8-inch
Jan. 6	+2.67	+3.11	June 8	+4.31	+3.57
13	+2.54	+3.01	15	+4.12	+3.21
20	+2.53	.....	22	+3.99	+3.04
Feb. 17	.....	+2.56	29	+3.86	+2.79
24	+2.52	+3.71	July 6	+3.76	+2.73
Mar. 23	+3.00	+4.80	14	+3.46	+2.34
30	+3.40	+5.12	20	+3.32	+2.12
Apr. 6	+3.61	+4.84	27	+3.18	+1.96
13	+3.90	+4.92	Aug. 3	+2.98	+1.77
20	+3.95	+4.56	Sept. 21	+1.76	.....
27	+4.06	+4.61	Nov. 9	+ .75	.....
May 11	+4.58	+5.72	23	+ .73	.....
18	+4.70	+5.56	Dec. 14	+ .39	.68
25	+4.66	+4.75	21	+ .46	.32
June 1	+4.51	+3.95	28	+ .36	.29

Ot Ho 9. City of Holland. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 5 N., R. 15 W., about 960 feet north of 16th Street and 60 feet west of Waverly Road. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	58.89	Apr. 6	58.78	July 6	58.92	Oct. 5	60.65
13	58.80	13	59.02	14	59.12	12	60.85
20	58.60	20	58.53	20	59.13	19	60.84
27	59.12	27	58.44	27	59.28	26	60.66
Feb. 3	58.90	May 4	58.48	Aug. 3	59.62	Nov. 2	60.67
10	59.04	11	58.65	10	59.59	9	60.40
17	58.72	18	58.72	17	59.73	16	60.35
24	58.79	25	58.44	24	59.96	23	60.26
Mar. 2	58.16	June 1	58.50	31	60.40	30	60.94
9	58.77	8	58.44	Sept. 7	60.44	Dec. 7	60.84
16	58.74	15	59.00	14	61.06	14	61.13
23	58.68	22	58.78	21	60.85	21	60.70
30	58.69	29	58.99	28	60.87	28	60.56

Ot Ho 10. City of Holland. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T. 5 N., R. 15 W., about 750 feet north of 16th Street and 150 feet east of Waverly Road. Records available: 1946-48.

Ot Ho 10--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	62.43	Apr. 6	62.39	July 6	62.40	Oct. 5	64.00
13	62.40	13	62.64	14	62.60	12	64.26
20	62.09	20	62.18	20	62.78	19	64.20
27	62.68	27	62.03	27	62.69	26	64.03
Feb. 3	62.47	May 4	62.10	Aug. 3	63.05	Nov. 2	64.05
10	62.62	11	62.23	10	62.96	9	63.79
17	62.30	18	62.37	17	63.05	16	63.74
24	62.38	25	62.08	24	63.30	23	64.26
Mar. 2	61.98	June 1	62.10	31	63.70	30	64.33
9	62.35	8	61.92	Sept. 7	63.68	Dec. 7	64.20
16	62.28	15	62.04	14	64.32	14	64.55
23	62.30	22	62.22	21	64.10	21	64.09
30	62.30	29	62.46	28	64.15	28	63.98

Total precipitation for the Holland area during 1948 was 33.79 inches, or 1.13 inches above normal. Excess precipitation occurred in January, March, April, May, July, and December. The most opportune months for re-charge were probably March, April, and May. A period of extended drought occurred from August through November.

Ground-water withdrawals in the Holland area ranged from 1.5 million gallons a day in February to as much as 3.6 million gallons a day in August with an average for the year of 2.2 million gallons a day.

Ground-water levels in the Holland area reached highest observed stages for the year in the period February 28 to June 8 with the greatest number of highs recorded about the end of May. Timing of these peak water-level stages correlates with the close of an extended period of above-normal precipitation and the end of the winter period of reduced pumping demand. Lowest observed stages occurred in the period November 8 to December 29, which marks the close of an extended drought period and the end of the summer season of peak pumpage.

Presque Isle County

Allis Township

Pr As 13. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 33 N., R. 2 E. Records available: 1936-44; 1948. Oct. 28, 9.60.

Pr As 16. Records available: 1942-43. No measurements made in 1948.

Pr As 17. Records available: 1938-41; 1944. Measurements discontinued; well destroyed.

Pr As 18. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 33 N., R. 2 E. Records available: 1934-44; 1948. Oct. 28, 5.25.

Pr As 19. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 33 N., R. 2 E. Records available: 1934-44; 1948. Oct. 28, 10.31.

Pr As 20. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 33 N., R. 2 E. Records available: 1934-44; 1948. Oct. 28, 5.10.

Pr As 23. Records available: 1938-44. No measurements made in 1948.

Roscommon County

Au Sable Township

Ro As 30. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 24 N., R. 1 W. Records available: 1934-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	(a)	Apr. 15	16.18	July 16	16.25	Oct. 14	(a)
Feb. 12	(a)	May 17	16.32	Aug. 16	16.85	Nov. 10	(a)
Mar. 15	(a)	June 14	16.40	Sept. 15	(a)	Dec. 13	(a)

a Dry.

Backus Township

Ro Ek 3. Records available: 1934-43. No measurements made in 1948.

Ro Ek 9. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 22 N., R. 2 W. Records available: 1936-48.

Jan. 14	5.39	Apr. 15	3.25	July 17	5.35	Oct. 14	7.35
Feb. 12	5.64	May 17	4.50	Aug. 16	6.28	Nov. 10	7.04
Mar. 15	5.53	June 14	4.83	Sept. 15	7.12	Dec. 13	6.21

Ro Ek 15. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 22 N., R. 2 W. Records available: 1936-48.

Jan. 14	3.17	Apr. 15	1.86	July 17	3.10	Oct. 14	(a)
Feb. 12	3.58	May 17	2.09	Aug. 16	4.12	Nov. 10	(a)
Mar. 15	3.56	June 14	2.56	Sept. 15	5.01	Dec. 13	4.45

a Dry.

Ro Ek 16. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 22 N., R. 2 W. Records available: 1936-48.

Jan. 14	4.57	Apr. 15	2.92	July 17	4.20	Oct. 14	6.36
Feb. 12	4.89	May 17	3.11	Aug. 16	5.25	Nov. 10	6.22
Mar. 15	4.94	June 14	3.57	Sept. 15	6.14	Dec. 13	5.79

Denton Township

Ro Dt 7. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 22 N., R. 3 W. Records available: 1934-48.

Jan. 14	6.16	Apr. 15	4.33	July 17	5.18	Oct. 14	7.50
Feb. 12	6.51	May 17	4.24	Aug. 17	6.14	Nov. 10	7.69
Mar. 15	6.68	June 14	4.51	Sept. 15	7.05	Dec. 14	7.65

Ro Dt 20. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 22 N., R. 3 W. Records available: 1934-48.

Jan. 14	7.23	Apr. 15	6.20	July 17	6.88	Oct. 14	8.31
Feb. 12	7.77	May 17	6.34	Aug. 16	8.16	Nov. 10	7.96
Mar. 16	7.82	June 14	6.65	Sept. 15	8.59	Dec. 13	7.64

Ro Dt. 26. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 22 N., R. 3 W. Records available: 1934-48.

Jan. 14	6.85	May 17	4.78	Aug. 16	5.90	Nov. 10	7.42
Feb. 12	7.09	June 14	4.76	Sept. 15	6.63	Dec. 13	7.49
Apr. 15	5.36	July 17	5.26	Oct. 14	7.13		

Gerrish Township

Ro Gr 1. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 24 N., R. 3 W., Records available: 1934-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	10.27	June 14	8.69	Sept. 15	9.91	Nov. 10	10.46
Apr. 15	9.17	July 17	9.07	Oct. 14	10.36	Dec. 13	10.90
May 17	8.69	Aug. 16	9.39				

Ro Gr 7. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 24 N., R. 3 W. Records available: 1934-48.

Jan. 14	12.30	Apr. 15	10.06	July 17	11.04	Oct. 14	12.91
Feb. 12	12.54	May 17	9.91	Aug. 16	11.59	Nov. 10	13.02
Mar. 15	12.55	June 14	10.42	Sept. 15	12.47	Dec. 13	12.78

Ro Gr 17. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 24 N., R. 3 W. Records available: 1934-48.

Jan. 14	12.59	Apr. 15	11.84	July 16	12.07	Oct. 14	12.75
Feb. 12	12.77	May 17	11.80	Aug. 16	12.17	Nov. 10	12.84
Mar. 15	12.90	June 14	11.99	Sept. 15	12.50	Dec. 13	12.75

Higgins Township

Ro Hg 1. Michigan Department of Conservation, Roscommon recorder well. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 24 N., R. 2 W., about 0.6 mile east of U. S. Highway 27 and 82 feet south of section road. Records available: 1934-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.37	5.50	5.55	4.33	3.92	a4.12	4.55	5.00	5.63	6.02	6.05	5.67
2	5.38	5.50	5.56	4.31	3.93	a4.14	4.57	5.02	5.65	6.02	a6.04	5.68
3	5.39	5.50	5.57	4.28	3.93	a4.16	4.57	5.04	5.66	6.03	6.05	5.68
4	5.39	5.50	5.58	4.25	....	a4.17	4.59	5.05	5.68	6.03	6.04	5.69
5	5.40	5.51	5.59	4.21	....	4.18	4.60	5.07	5.70	6.03	6.04	5.70
6	5.40	5.51	5.60	4.18	3.96	4.21	4.62	5.09	a5.73	6.04	6.01	5.70
7	5.40	5.51	a5.60	4.13	3.94	4.22	4.63	5.12	5.74	6.04	6.00	5.71
8	5.40	5.51	a5.60	4.09	3.96	4.21	4.66	5.13	5.75	6.04	5.99	5.71
9	5.42	5.52	a5.61	4.07	3.96	4.23	4.68	5.16	5.76	6.03	5.99	5.72
10	a5.42	5.52	a5.62	4.06	3.96	4.25	4.70	5.18	5.77	6.03	5.99	5.73
11	a5.42	5.53	a5.62	4.03	3.93	4.27	4.72	5.19	5.78	6.03	5.99	5.74
12	5.42	5.53	a5.63	4.01	3.90	a4.30	4.75	5.22	5.79	6.03	5.99	5.74
13	5.42	a5.54	a5.63	4.02	a3.88	a4.31	4.77	5.23	5.81	6.02	5.98	a5.74
14	5.42	5.53	a5.64	4.01	a3.90	4.32	4.79	5.24	5.83	6.01	5.99	5.75
15	5.42	5.54	5.62	3.99	3.89	4.34	4.82	5.27	5.84	6.01	5.98	5.76
16	5.42	5.55	5.58	3.96	3.88	4.37	4.84	5.30	5.85	6.01	5.99	5.76
17	5.43	5.55	5.18	3.98	3.88	4.39	4.86	5.32	5.86	6.02	5.99	5.77
18	5.44	5.55	5.15	3.96	3.89	4.40	4.89	5.34	5.88	6.02	5.95	5.78
19	....	5.55	5.10	3.95	3.90	4.41	4.92	5.36	5.90	6.02	5.95	5.78
20	....	5.56	a4.66	3.95	3.90	4.42	4.94	5.39	a5.91	6.02	5.88	5.78
21	....	a5.57	a4.59	3.96	3.88	a4.44	4.96	5.41	5.92	6.02	5.78	5.78
22	....	5.58	4.43	3.97	a3.91	4.44	4.94	5.43	5.93	6.02	5.72	5.79
23	....	5.58	4.35	a3.97	3.91	4.44	4.73	5.45	5.94	6.02	5.69	5.80
24	....	5.58	4.32	....	3.94	4.46	4.76	5.46	5.95	6.02	5.67	5.80
25	....	5.57	4.33	....	3.95	4.47	a4.80	5.48	5.97	a6.02	5.66	5.81
26	a5.48	5.49	4.32	3.96	3.96	4.49	4.84	5.51	5.98	6.03	5.65	5.81
27	5.48	5.49	4.32	3.97	3.98	4.51	4.89	5.54	5.99	6.03	5.65	5.82
28	5.48	5.50	4.35	3.95	3.99	4.52	4.93	5.56	6.00	6.03	5.65	5.83
29	5.48	5.52	a4.34	3.93	4.04	4.53	4.96	5.58	6.01	6.04	5.65	5.83
30	5.49	....	4.35	3.92	a4.09	4.53	4.97	5.59	6.02	6.04	5.66	5.84
31	5.50	....	4.34	....	a4.09	....	4.99	5.61	....	6.04	....	5.84

a Estimated.

Ro Hg 81. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 24 N., R. 2 W. Records available:
1934-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	4.38	Apr. 16	4.00	July 16	3.57	Oct. 14	4.23
Feb. 12	4.62	May 17	3.65	Aug. 16	3.79	Nov. 10	4.42
Mar. 15	4.85	June 14	3.50	Sept. 15	4.04	Dec. 13	4.65

Ro Hg 88. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 24 N., R. 2 W. Records available:
1934-48.

Jan. 14	9.93	Apr. 15	8.17	July 16	8.69	Oct. 14	10.48
Feb. 12	10.12	May 17	7.90	Aug. 16	9.23	Nov. 10	10.75
Mar. 15	10.03	June 14	8.19	Sept. 15	9.98	Dec. 13	10.45

Ro Hg 107. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 24 N., R. 2 W. Records available:
1934-48.

Jan. 14	7.48	Apr. 15	6.22	July 16	7.10	Oct. 14	7.90
Feb. 12	7.55	May 17	6.33	Aug. 16	7.39	Nov. 10	7.89
Mar. 15	7.69	June 14	6.68	Sept. 15	7.73	Dec. 13	7.76

Ro Hg 150. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 24 N., R. 2 W. Records available:
1934-48.

Jan. 14	4.57	Apr. 15	2.39	July 17	4.26	Oct. 14	5.47
Feb. 12	5.03	May 17	2.25	Aug. 16	4.72	Nov. 10	5.33
Mar. 15	4.89	June 14	2.27	Sept. 15	5.32	Dec. 13	4.90

Ro Hg 1000. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 24 N., R. 2 W. Records available:
1939-48.

Jan. 14	6.32	Apr. 15	3.45	July 17	3.29	Oct. 14	6.60
Feb. 12	6.66	May 17	2.18	Aug. 16	4.49	Nov. 10	7.00
Mar. 15	6.82	June 14	2.74	Sept. 15	5.79	Dec. 13	6.94

Markey Township

Ro Mk 5. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 23 N., R. 3 W. Records available:
1934-48.

Jan. 14	5.27	Apr. 15	4.06	July 17	5.30	Oct. 14	6.57
Feb. 12	5.53	May 17	4.42	Aug. 16	6.08	Nov. 10	6.34
Mar. 15	5.41	June 14	4.90	Sept. 15	6.64	Dec. 13	5.96

Ro Mk 75. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 23 N., R. 3 W. Records available:
1938-48.

Jan. 14	8.56	Apr. 15	7.69	July 17	8.19	Oct. 14	9.23
Feb. 12	8.77	May 17	7.70	Aug. 16	8.49	Nov. 10	9.39
Mar. 15	8.85	June 14	7.86	Sept. 15	8.94	Dec. 13	9.26

Richfield Township

Ro Rf 5. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 22 N., R. 1 W. Records available:
1934-48.

Jan. 14	4.86	Apr. 15	2.64	July 16	3.63	Oct. 14	5.81
Feb. 12	5.47	May 17	2.55	Aug. 16	4.90	Nov. 10	5.53
Mar. 15	5.29	June 14	3.00	Sept. 15	5.61	Dec. 13	5.29

Ro Rf 50. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 31, T. 23 N., R. 1 W. Records available:
1939-48.

Jan. 14	5.54	May 17	3.82	Aug. 16	5.28	Nov. 10	6.80
Mar. 15	6.12	June 14	4.19	Sept. 15	6.00	Dec. 13	6.44
Apr. 15	3.75	July 16	4.67	Oct. 14	6.51		

Roscommon Township

Ro Ro 3. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 21 N., R. 3 W. Records available: 1936-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	15.78	Apr. 15	15.14	July 17	14.72	Oct. 14	15.60
Feb. 12	15.96	May 17	14.70	Aug. 16	14.95	Nov. 10	15.82
Mar. 15	16.04	June 14	14.63	Sept. 15	15.26	Dec. 13	16.05

Ro Ro 4. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 22 N., R. 4 W. Records available: 1934-46; 1948. June 14, 2.07; July 17, 3.13.

Ro Ro 8. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 21 N., R. 4 W. Records available: 1935-48.

Jan. 14	3.84	July 17	3.69	Sept. 15	5.65	Nov. 10	5.72
May 17	2.46	Aug. 16	4.75	Oct. 14	5.95	Dec. 13	4.75
June 14	2.98						

Ro Ro 15. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 21 N., R. 3 W. Records available: 1936-48.

Jan. 14	9.89	Apr. 15	9.27	July 17	9.72	Oct. 14	10.22
Feb. 12	10.00	May 17	9.41	Aug. 16	10.00	Nov. 10	10.16
Mar. 15	9.98	June 14	9.48	Sept. 15	10.25	Dec. 13	10.17

Ro Ro 50. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 21 N., R. 4 W. Records available: 1939-48.

Jan. 14	5.42	Apr. 15	2.36	July 17	4.78	Oct. 14	7.01
Feb. 12	5.69	May 17	2.93	Aug. 16	6.03	Nov. 10	6.86
Mar. 15	5.42	June 14	3.68	Sept. 15	6.91	Dec. 13	6.77

Saginaw County

Village of Chesaning

Sg CH 8. A. B. Adelman. Community well, 30 feet east of Clark Street and 20 feet south of Church Street. Records available: 1947-48. Nov. 29, 32.96; Dec. 8, 33.21; Dec. 17, 35.38.

Sanilac County

Moore Township

Sa Mr 1. Michigan Highway Department. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 12 N., R. 13 E. 72 feet west of State Highway M-19 and 57 feet north of State Highway M-46. Unused driven well, diameter 3 inches, measured depth 151.1 feet below land surface. Measuring point, top of $\frac{1}{4}$ -inch pipe, 1.0 foot above land-surface datum. Records available: 1948. Dec. 3, 22.25; Dec. 13, 22.18; Dec. 22, 22.35.

Shiawassee County

Village of Perry

Sh PR 8. Arthur B. Cobb. 170 feet west of Main Street and 100 feet south of Second Street. Unused domestic well, diameter $1\frac{1}{8}$ inches, measured depth 25.8 feet below land surface. Measuring point, top of $1\frac{1}{8}$ -inch casing, 1.20 feet above land-surface datum.

Nov. 16	20.69	Nov. 30	20.75	Dec. 14	20.80	Dec. 28	20.90
26	20.70	Dec. 8	20.80	21	20.85		

St Joseph County

City of Three Rivers

Sp TR 1. 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. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	0.65	May 22	0.45	July 31	+0.15	Oct. 23	1.00
10	+0.05	29	+2.40	Aug. 7	+0.85	30	1.15
17	.10	June 5	+0.95	14	.65	Nov. 6	3.40
Feb. 7	2.40	19	+0.30	Sept. 11	1.15	13	1.30
21	.60	26	.06	18	.80	20	2.45
28	2.27	30	+0.95	25	2.83	27	2.10
Mar. 6	+1.20	July 3	+0.40	Oct. 2	2.65	Dec. 4	1.05
20	+1.20	10	2.50	9	1.50	21	+1.30
Apr. 24	+0.45	17	.10	16	4.15	29	1.05
May 8	+1.30						

Florence Township

Sp Fr 2. J. C. Barnhart. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 7 S., R. 11 W. Records available: 1945-48.

Jan. 1	13.05	Apr. 8	11.64	July 8	11.43	Oct. 7	13.18
8	13.15	15	11.46	15	11.56	14	13.34
15	13.20	22	11.34	22	11.65	21	13.42
22	13.26	29	11.21	29	11.81	28	13.53
29	13.33	May 6	11.18	Aug. 5	11.94	Nov. 4	13.62
Feb. 5	13.39	13	11.20	12	12.07	11	13.74
12	13.40	20	11.01	19	12.23	18	13.85
19	13.09	27	10.85	26	12.38	25	13.95
26	13.10	June 3	10.83	Sept. 2	12.54	Dec. 2	14.02
Mar. 4	12.92	10	10.97	9	12.65	9	14.08
11	12.87	17	10.99	16	12.81	16	14.19
18	12.85	24	11.19	23	12.95	23	14.28
25	12.26	July 1	11.30	30	13.05	30	14.33
Apr. 1	11.87						

Washtenaw County

Pittsfield Township

Wa Pf 1. City of Ann Arbor. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 3 S., R. 6 E., about 200 feet south of main building of Steere Farm pumping station of city waterworks. Measurements by city personnel. Records available: 1940-48.

Jan. 1	1.52	Feb. 12	2.52	Mar. 19	1.00	Apr. 28	0.16
2	2.56	14	2.18	20	.95	29	.20
3	2.62	16	2.66	22	.34	May 2	(a)
5	2.16	18	2.41	24	.42	3	(a)
7	2.33	19	(a)	26	.07	6	(a)
8	2.12	20	(a)	30	+0.05	7	(a)
9	2.17	21	(a)	Apr. 1	+0.27	8	(a)
10	2.23	Mar. 1	(a)	2	(a)	10	(a)
12	2.22	3	1.32	8	(a)	12	(a)
15	2.24	6	1.18	9	(a)	14	(a)
16	2.38	8	1.20	11	(a)	15	(a)
18	2.36	10	(a)	14	(a)	17	(a)
21	2.37	11	(a)	17	(a)	19	(a)
28	2.39	12	(a)	18	(a)	22	(a)
29	2.37	14	.90	22	+0.54	26	(a)
Feb. 1	2.38	15	.95	23	+0.52	28	(a)
2	2.36	17	.98	24	+0.50	29	(a)
4	2.37	18	1.05	26	+0.20	31	(a)

a Flowing.

Wa Pf 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 1	(a)	July 14	1.10	Aug. 19	1.55	Sept. 25	3.06
4	(a)	16	.80	20	1.76	27	2.10
7	(a)	17	.80	23	1.50	29	3.31
8	(a)	20	.93	24	1.51	Oct. 2	2.7
9	(a)	28	1.11	25	1.52	9	3.32
10	(a)	29	1.17	26	1.53	16	(a)
13	(a)	30	1.01	30	1.60	18	(a)
18	(a)	Aug. 1	1.02	Sept. 1	1.80	Nov. 10	5.2
19	(a)	3	1.39	2	1.80	15	3.32
21	+ .15	6	1.34	3	1.80	25	6.36
22	+ .15	7	1.35	7	2.11	27	5.57
23	+ .09	8	1.37	10	2.21	Dec. 4	6.09
July 1	.19	9	1.37	13	2.94	20	3.91
3	.43	14	1.40	14	2.97	23	3.91
9	.80	16	1.38	16	2.42	23	5.39
13	1.00	18	1.57	23	3.00		

a Flowing.

York Township

Wa Yk 20. Ypsilanti State Hospital. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 4 S., R. 6 E., about 1,050 feet south of Willis Road and 110 feet east of Moon Road. Records available: 1946-48.

Water level at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	52.30	52.10	.....	.....	51.63	51.44	51.46	51.59	.....	52.57	52.57	.....
2	51.99	52.09	.....	.....	51.70	51.44	51.50	51.63	.....	.....	52.62	.....
3	52.18	52.13	.....	.....	51.62	51.44	51.40	51.67	.....	.....	52.55	52.36
4	52.11	52.07	.....	.....	51.71	51.38	51.43	51.70	.....	52.69	52.44	52.39
5	52.18	52.12	.....	.....	51.66	51.39	51.45	51.71	.....	52.74	52.45	52.35
6	52.16	52.12	.....	.....	51.70	51.49	51.38	51.76	.....	52.69	52.25	52.21
7	52.18	52.09	.....	.....	51.52	51.35	51.47	51.75	.....	52.66	52.36	52.33
8	52.16	52.08	51.91	.....	51.56	51.22	51.56	51.75	.....	52.58	52.47	52.30
9	52.04	52.19	51.94	51.93	51.62	51.31	51.56	51.78	.....	52.57	52.34	52.44
10	52.27	52.21	51.98	51.95	51.52	51.38	51.53	51.80	52.39	52.56	52.25	52.44
11	52.29	52.20	52.02	51.70	51.41	51.41	51.48	51.75	.....	52.51	52.40	52.48
12	52.08	52.12	52.04	51.74	51.42	51.38	51.48	51.71	.....	52.51	52.45	52.32
13	52.16	.....	52.01	51.98	51.42	51.36	51.47	51.74	.....	52.54	52.28	52.38
14	52.13	.....	51.95	51.79	51.40	51.39	51.53	51.77	.....	52.61	52.42	52.46
15	52.20	.....	51.82	51.95	51.22	51.40	51.59	51.80	.....	52.67	52.35	52.38
16	52.08	.....	51.67	51.77	51.34	51.47	51.57	51.78	.....	52.57	52.37	52.26
17	52.22	.....	51.92	51.93	51.27	51.50	51.55	51.78	52.60	52.60	52.21	52.36
18	52.21	.....	52.00	51.87	51.37	51.51	51.54	51.77	.....	52.65	52.39	52.42
19	52.17	.....	51.79	51.78	51.47	51.45	51.56	51.87	.....	52.54	52.32	52.23
20	52.14	51.98	51.81	51.74	51.42	51.51	51.59	51.92	.....	52.66	52.20	52.20
21	51.98	52.03	51.73	51.79	51.28	51.49	51.51	51.92	.....	52.72	52.36	52.18
22	51.90	52.01	51.66	51.87	51.36	51.34	51.52	51.93	.....	52.70	52.33	52.32
23	52.08	52.04	.....	51.83	51.31	51.34	51.41	51.98	.....	52.64	52.38	52.43
24	52.21	52.08	.....	51.77	51.39	51.35	51.54	51.99	52.60	52.71	52.35	52.47
25	52.13	51.97	.....	51.76	51.39	51.35	51.53	52.05	.....	52.58	52.35	52.43
26	52.16	51.87	.....	51.76	51.40	51.38	51.44	52.18	.....	52.65	52.28	.....
27	52.15	51.91	.....	51.72	51.40	51.37	51.50	52.24	.....	52.66	.....	52.39
28	52.18	.....	.....	51.60	51.38	51.34	51.52	52.29	.....	52.67	.....	52.45
29	52.05	.....	.....	51.66	51.41	51.35	51.60	52.25	.....	52.67	.....	52.31
30	52.09	.....	.....	51.66	51.43	51.36	51.56	52.24	.....	52.65	.....	52.38
31	52.17	.....	.....	.....	51.44	.....	51.56	52.31	.....	52.58	.....	52.38

a Wetted-tape measurement.

b Estimated.

Wa Yk 22. Ypsilanti State Hospital. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 4 S., R. 6 E., about 2,200 feet south of Willis Road and 15 feet east of Warner Road. Records available: 1946-48.

Wa Yk 22--Continued.

Water level, at 2:00 a.m., from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	71.87	.....	70.62	69.73	b69.71	70.65	72.59	73.08	72.76	.....	.....
2a	71.00	.....	71.77	.....	70.58	69.69	b69.83	70.74	72.53	73.15	72.30	.....
3	71.07	.....	71.69	.....	70.48	69.60	.....	70.84	b72.59	73.27	72.73	72.66
4	71.10	.....	71.30	.....	70.49	a69.47	.....	.....	.....	73.32	72.58	72.68
5	71.13	.....	.....	.....	70.35	b69.45	b69.93	.....	.....	73.25	72.55	72.63
6	71.18	a71.90	.....	.....	b70.24	69.48	69.88	a70.98	.....	73.21	72.35	72.47
7	71.17	.....	.....	.....	b70.02	69.38	69.91	.....	.....	73.15	72.45	72.55
8	71.16	.....	a71.63	.....	69.90	69.24	70.00	.....	.....	73.05	72.60	72.50
9	71.04	.....	71.64	a71.90	69.85	69.28	b70.11	.....	.....	73.03	72.52	72.59
10	71.25	.....	71.68	b71.93	69.69	69.36	70.14	.....	.....	73.01	72.36	72.61
11	71.34	.....	71.71	b71.73	b69.61	69.41	70.13	.....	a72.70	73.00	72.49	72.65
12	71.20	.....	b71.75	b71.66	69.54	69.40	70.15	.....	72.68	72.98	72.57	72.49
13	71.20	.....	71.73	b71.81	69.54	69.38	70.17	.....	72.75	73.01	72.46	72.51
14	71.18	.....	71.69	b71.74	b69.52	69.43	.....	.....	72.87	73.03	72.53	72.56
15	71.24	.....	71.54	b71.73	69.53	69.44	.....	.....	72.92	73.09	72.52	72.51
16	71.14	.....	71.42	b71.60	69.50	69.50	a70.32	.....	72.95	73.02	72.57	72.36
17	71.32	.....	71.60	71.63	69.48	69.54	70.32	a71.74	72.98	73.01	72.39	72.45
18	.....	.....	b71.73	71.60	69.57	69.55	.....	71.75	72.95	73.07	72.55	72.55
19	.....	.....	b71.58	71.48	69.71	69.53	.....	71.88	72.88	72.99	72.53	72.41
20	.....	a71.98	b71.57	71.40	b69.73	69.56	70.44	72.01	72.35	73.03	72.36	72.33
21	.....	72.02	b71.62	71.34	b69.63	69.60	70.42	72.07	72.91	73.08	72.49	72.27
22	.....	72.00	.....	71.39	69.68	69.44	70.40	72.13	72.92	73.06	72.54	72.38
23a	71.39	72.00	.....	71.33	69.69	69.46	a70.37	72.24	72.93	72.97	72.53	72.50
24	.....	72.02	.....	b71.18	69.79	69.47	70.43	72.27	72.95	72.98	72.53	72.56
25	.....	71.93	.....	71.12	69.83	69.47	70.50	72.28	73.02	72.98	72.52	b72.54
26	.....	71.85	.....	71.06	69.84	69.51	70.48	72.34	73.12	72.93	72.51	.....
27	.....	71.83	.....	70.98	69.81	69.55	70.49	72.38	73.17	72.89	b72.50	a72.63
28	.....	71.54	.....	70.79	69.77	69.57	b70.55	72.41	73.19	72.87	.....	72.65
29	.....	71.70	.....	70.78	69.74	b69.59	a70.63	72.41	73.17	72.85	.....	72.54
30a	71.72	.....	.....	70.69	69.75	b69.61	70.60	72.44	73.07	72.85	.....	72.55
31	.....	.....	.....	.....	69.75	.....	70.59	72.50	.....	72.79	.....	72.61

a Wetted-tape measurement.

b Estimated.

Wexford County

Greenwood Township

We Gw 2. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 24 N., R. 10 W. Records available: 1935-44; 1948. Oct. 29, 3.46.

We Gw 3. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 24 N., R. 10 W. Records available: 1935-44; 1948. Oct. 29, 8.42.

We Gw 4. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 24 N., R. 10 W. Records available: 1935-44; 1948. Oct. 29, 2.75.

We Gw 42. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 24 N., R. 10 W. Records available: 1935-44; 1948. Oct. 29, 4.87.

Henderson Township

We Hn 1. Michigan Department of Conservation. NE $\frac{1}{4}$ sec. 13, T. 21 N., R. 11 E., 256 feet south of north line and 1,640 feet west of east line section 13. Unused drilled well, diameter 6 inches, measured depth 61.9 feet below land surface. Measuring point, top of 6-inch casing, 1.0 foot above land-surface datum. Automatic water-stage recorder installed Nov. 17, 1948.

We Hn 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 17	a 47.17	Dec. 5	47.31	Dec. 16	b 47.38	Dec. 24	b 47.46
18	47.19	6	47.31	17	b 47.39	25	47.49
29	a 47.28	7	47.36	18	b 47.40	26	a 47.50
30	47.26	8	47.36	19	b 47.41	27	47.51
Dec. 1	47.29	9	47.37	20	b 47.42	28	47.51
2	47.28	13	a 47.40	21	47.42	29	47.55
3	47.30	14	b 47.41	22	47.50	30	47.54
4	47.32	15	b 47.38	23	47.49	31	47.54

a Wetted-tape measurement.

b Estimated.

Liberty Township

(No measurements made in 1948.)

NEW HAMPSHIRE

By H. L. Free, Jr.

PROGRAM OF WORK

Periodic measurements of water level, begun in New Hampshire in 1942 at one observation well in the town of Hill, near Bristol, in Merrimack County, were continued in 1948. Thirty-four water-level measurements were made in this well during the year.

The Manchester Water Works continued periodic measurements of water level, begun in 1942, at one observation well in Auburn, Rockingham County. A water-stage recorder was in operation on this well throughout the year.

An observation well was established at New London, Merrimack County, in 1947. Fifty-one water-level measurements were made in this well during the current year.

FLUCTUATIONS OF WATER LEVEL

The fluctuations of water level in the well near Bristol appear to reflect precipitation and seasonal variations in temperature. Precipitation at nearby Franklin was 35.09 inches during the year, which is 4.83 inches below normal and 5.38 inches less than in 1947. The water level in this well was below average at the end of the months of January, March, April, and August through November. It was above average at the end of May and December and at average at the end of June and July.

The rapid rise in water level in the well near Bristol in March, in spite of precipitation far below normal, was the result of temperatures high enough to melt most of the snow cover. Ground absorption of melted snow and rain was rapid because early and continuous snow cover had prevented deep penetration of frost. The highest recorded water level of the year, which was 0.8 foot below the highest level for the period of record, occurred at the end of March. From that time except for a slight rise during April, it declined steadily until the latter part of September, when the well was dry. The well remained dry throughout October and

November. Several moderate to heavy November rainstorms, falling on unfrozen ground, resulted in a marked rise in the water level in this well during the first week of December. The drop in water level during the middle of December occurred during a period of little precipitation and was followed by a rise in water level as a result of considerable precipitation and temperatures above freezing. An increase of ground-water storage during 1948 was indicated by a rise of 1.0 foot in water level during the year.

The water level in the well at Auburn also apparently reflects changes in precipitation and seasonal fluctuations in temperature. Precipitation at nearby Manchester during 1948 was 40.40 inches, or 1.25 inches above normal, and 0.17 inch less than in 1947. Although the total precipitation for 1948 was slightly less than that for 1947, there was a net rise in water level during the year of about 0.3 foot. The water level in this well was above average at the end of the months of March through June and below average at the end of the remaining months.

In the well at Auburn the water level rose from the first of January until the end of March. The abrupt rise in water level on March 20 reflected the precipitation which occurred on the previous day as well as the unseasonably high temperatures which had prevailed since March 15, and had melted much of the snow. The highest water level recorded in this well occurred on March 22. The water table in the vicinity of this well declined from the end of March throughout the growing season until the early part of November, except for rises caused by brief periods of fairly heavy rainfall. The water level rose from the early part of November until the end of December as a result of far above normal precipitation and temperature during November.

The water level in the well in New London dropped during January and the early part of February. The lowest recorded water level was measured on February 8. During the middle of March the water level, which had been rising since early in February, rose abruptly as a result of precipitation and the unseasonably high temperatures which characterized the weather during that period. The start of the growing season caused a drop in water level which began at the end of May and continued until the latter part of November. The rains which marked November weather replenished ground-water

storage at this well, as indicated by the rise in water level during the latter part of November and the first of December. The period of record of this well is not long enough to indicate any trends in water level.

The following table summarizes the data pertaining to ground-water levels in New Hampshire:

Summary of water levels in observation wells in New Hampshire

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record 1948
		Water level	Date	Water level	Date	
Auburn 8	Sept. 2, 1942	a 6.61	Nov. 3, 1948	a 0.50	Mar. 22, 1948	a 2.37
Bristol 1, US 91	Oct. 8, 1942	(b)	Nov. 4, 1948	3.20	Apr. 30, 1947	9.95
New London 1	Oct. 6, 1947	16.43	Feb. 8, 1948	3.10	Apr. 4, 1948	12.78

a Water level at noon, from recorder charts.

b Well dry Sept. 30, Oct. 6, 30, Nov. 29, Dec. 30, 1947, Jan. 30, Sept. 19 to Nov. 28, 1948. Water level below 10.8 feet.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Merrimack County

US 91. Bristol 1. J. E. Norcross. In town of Hill, about 0.2 mile south of Smith River, 1.0 mile west of U. S. Route 3A and 2 miles south of Bristol. Penetrates sandy glacial till. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	(a)	July 11	8.70	Sept. 12	9.97	Nov. 7	(a)
Mar. 13	9.30	18	8.70	19	(a)	14	(a)
30	4.00	25	8.85	26	(a)	21	(a)
Apr. 29	7.40	Aug. 1	8.77	Oct. 3	(a)	28	(a)
May 31	7.10	8	8.81	11	(a)	Dec. 5	9.88
June 13	7.80	15	9.09	17	(a)	12	9.88
20	8.10	23	9.93	25	(a)	19	9.89
27	8.20	29	9.34	Nov. 1	(a)	26	9.85
July 5	8.50	Sept. 5	9.56				

a Dry. Water level below 10.8 feet.

New London 1. W. S. Mariner. About 750 feet northeast of State Route 114, 2.1 miles southeast of New London. Penetrates sandy glacial till. Records available: 1947-48.

Jan. 4	15.81	Apr. 4	3.10	July 4	6.83	Oct. 3	12.64
11	15.85	11	5.14	11	7.38	10	12.95
18	16.06	18	4.83	18	7.95	17	13.25
25	16.18	25	4.68	25	8.52	24	13.58
Feb. 1	16.29	May 2	5.58	Aug. 1	9.13	31	13.83
8	16.43	9	6.13	8	9.67	Nov. 7	14.09
15	16.33	16	5.80	15	10.25	14	14.33
22	16.25	23	4.13	22	10.70	21	14.45
29	15.80	30	3.72	29	10.50	28	13.77
Mar. 7	15.36	June 6	4.88	Sept 5	11.45	Dec. 5	13.02
14	14.90	13	5.18	12	11.67	12	12.74
21	4.58	20	5.20	19	12.00	19	12.73
28	3.61	27	6.04	26	12.33	26	12.78

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. Measurements made by Manchester Water Works. Penetrates unconsolidated deposits. Records available: 1942-48.

Water level at noon, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.69	2.43	1.88	1.08	1.40	1.42	1.68	2.75	4.78	6.18	6.56	3.27
2	2.63	2.43	1.87	.98	1.49	1.48	1.78	2.87	4.87	6.21	6.59	3.30
3	2.66	2.44	1.86	1.07	1.54	1.53	1.84	2.97	4.94	6.24	6.61	3.29
4	2.66	2.45	1.85	1.14	1.57	1.56	1.86	3.04	5.02	6.26	6.61	3.30
5	2.61	2.44	1.86	1.16	1.61	1.25	1.86	3.13	5.08	6.28	6.48	3.30
6	2.60	2.44	1.86	1.20	1.63	1.33	1.75	3.07	5.14	6.30	6.28	3.28
7	2.58	2.44	1.82	1.16	1.65	1.42	1.68	3.00	5.22	6.34	6.18	3.06
8	2.58	2.43	1.81	1.21	1.28	1.27	1.81	3.22	5.27	6.36	6.08	3.01
9	2.53	2.45	1.82	1.24	1.47	1.35	1.92	3.33	5.32	6.35	6.01	3.05
10	2.53	2.46	1.78	1.29	1.53	1.42	1.98	3.44	5.38	6.26	5.98	3.05
11	2.53	2.45	1.78	1.32	1.54	1.45	2.04	3.55	5.43	6.23	5.38	3.08
12	2.52	2.38	1.77	1.18	1.57	1.46	2.11	3.63	5.47	6.23	5.16	3.08
13	2.51	2.41	1.76	1.32	1.59	1.24	2.07	3.09	5.53	6.24	5.11	3.04
14	2.50	1.91	1.76	1.33	1.56	1.43	1.63	3.10	5.58	6.22	5.12	3.01
15	2.52	2.02	1.72	.99	1.53	1.47	1.78	2.83	5.63	6.24	5.12	3.03
16	2.53	2.06	1.53	1.18	1.60	1.49	1.87	3.08	5.68	6.27	a5.12	3.03
17	2.52	2.02	1.40	1.27	1.14	1.55	1.90	3.32	5.73	6.30	a5.16	3.00
18	2.51	1.92	1.43	1.30	1.17	1.61	1.96	3.46	5.77	6.33	5.19	2.93
19	2.52	1.89	1.39	1.33	1.37	1.34	2.02	3.58	5.78	6.34	5.20	2.93
20	2.52	1.86	.66	1.38	1.42	1.51	2.03	3.67	5.81	6.37	4.24	2.95
21	2.49	1.87	.90	1.42	1.44	1.61	2.05	3.74	5.84	6.39	3.73	a2.99
22	2.48	1.89	.50	1.49	1.11	1.67	2.16	3.83	5.87	6.42	3.68	a3.02
23	2.47	1.90	.78	1.31	1.33	1.67	2.18	3.93	5.92	6.43	3.43	a3.05
24	2.49	1.91	.78	1.37	1.39	1.60	1.98	4.02	5.95	6.48	3.30	a3.08
25	2.47	1.90	.88	1.44	1.26	1.67	2.14	4.13	5.98	6.50	3.19	a3.11
26	2.45	1.89	.94	1.48	1.29	1.73	2.26	4.23	6.02	6.51	3.22	a3.14
27	2.44	1.90	.87	1.50	1.37	1.74	a2.15	4.33	6.05	6.50	3.23	a3.17
28	2.43	1.86	.82	1.51	1.45	1.73	2.23	4.43	6.07	6.48	3.16	3.21
29	2.42	1.87	.97	1.53	1.48	1.68	2.38	4.53	6.12	6.49	3.20	3.23
30	2.42		1.04	1.54	1.24	1.73	2.49	4.62	6.14	6.52	3.25	2.82
31	2.43		1.08		1.36		2.60	4.70		6.54		2.37

a Estimated.

NEW JERSEY

By J. M. Birdsall and J. M. Ludlow

PROGRAM OF WORK

The cooperative investigation of the ground-water resources of New Jersey was continued throughout 1948 in cooperation with the New Jersey Department of Conservation, Division of Water Policy and Supply. During the year about 3,000 individual measurements of water levels were made in addition to the continuous records obtained by the use of water-stage recorders. At the end of the year approximately 150 wells were being observed. Measurements were made monthly or less frequently in some of the wells, biweekly and weekly in others, and several times a day in one. Continuous records from water-stage recorders were obtained from 47 wells during the year. The State and Federal Governments owned 44 of these recorders, and the other 3 were owned by public-water supply companies and by industries.

PRECIPITATION

The average precipitation in New Jersey for the year was 52 inches compared with a normal of 45.58 inches. May was the wettest month with more than twice its normal rainfall and was the wettest May since 1894. During this month rain fell in the State nearly every day, and a number of stations recorded a total of more than 10 inches. (Belleplain 10.06; Bridgeton 10.83; Cane Brook 10.12; Canton 10.69; Mays Landing 11.96; Rahway 10.91.) June, August, and December were considerably wetter than normal. During the last 3 days in December, heavy rains brought the Delaware River to flood stage at Trenton for the first time in 6 years. In general, during the year water-table observation wells not affected by pumping responded to precipitation.

FLUCTUATIONS OF WATER LEVEL

The Morrell well (29.11.1.2.3), a shallow dug key observation well, is considered to be a reasonably reliable index of the amount of water stored in the ground, particularly during the growing season. The water level in

this well responds quickly to precipitation, and it is so situated that it is not affected by pumping. From an examination of the Morrell well hydrograph for 1948, it would appear that the ground-water storage through the first 6 months of the year was uniformly high, averaging about 74 feet above mean sea level. In July the total precipitation at Runyon, the nearest Weather Bureau station to the Morrell well, was 5.11 inches--0.42 inch above normal. The recorded low for the month was 72.16 feet above mean sea level. The greatest precipitation in 24 hours occurred on the 23d of the month, and amounted to 1.87 inches. Following this, the water level rose to 74.38 feet above mean sea level. The highest recorded water level for the year was 74.89 feet above mean sea level on August 5. In September and October the precipitation departures were -2.36 inches and -2.04 inches, respectively, and the lowest recorded water level was 71.23 feet above mean sea level on October 5. From then on, due to reduced transpiration, the water level continued to rise, and in December with a precipitation departure of 3.74 feet, the water level at the end of the year was about 74 feet above mean sea level.

In the Atlantic City area, the artesian pressure in the Atlantic City Water Works 600-foot well, at the Pleasantville pumping station, which taps the Atlantic City 800-foot sand (a part of the Kirkwood formation), showed a seasonal fluctuation almost identical with that for 1947. In the Longport well, which also taps the Atlantic City 800-foot sand and is perhaps more typical of wells tapping this artesian aquifer, the average daily water level was 39.1 feet below mean sea level. At the beginning of the year this fell to an average daily depth of 58.6 feet below mean sea level, with an extreme low of 59.8 feet on September 7. Thereafter the daily average rose until it was 40.3 feet below mean sea level on December 31. These fluctuations of artesian pressure are believed to be the result of pumping.

In Salem County a new high water level was observed on March 16 of 2.88 feet below land surface in well 72, the previous high having been 3.12 feet below land surface on March 8, 1945. This probably reflects a local condition.

In the Camden area a new low of 26.9 feet below mean sea level was recorded in well 10 of the New Jersey Water Company on May 24, 1948. The previous low for this well was 26.2 feet below mean sea level on July 1, 1947. This probably reflected a shift in the distribution of pumpage.

In the Runyon area, Middlesex County, new lows in Duhermal wells 4 and 5 of 2.42 feet below mean sea level on December 16, 18, and 19, 1948, and 3.34 feet above mean sea level on December 15 and 16, 1948, respectively, were recorded. Each of these wells taps the Old Bridge (No. 3 sand) member of the Raritan formation and both are equipped with water-stage recorders. These lows probably indicate a shift in the distribution of pumpage as well as some over-all increase in pumpage from the No. 3 sand.

At Bradley Beach, in the Asbury Park area of Monmouth County, a record high on January 26, 1948, of 11.38 feet above mean sea level was noted in the Bradley Beach 650-foot well. The preceding high was 11.28 feet above mean sea level on November 13, 1947. During that year repairs were made on this well in an attempt to revive its productiveness and this may be a result.

All measurements are in feet above mean sea level unless preceded by a minus (-) sign.

WELL-NUMBERING SYSTEM

An explanation of the well-numbering system used in New Jersey may be found in Water-Supply Paper 986, page 83.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Atlantic County

Atlantic City area

36.13.2.9.1. Atlantic City Water Dept. 600-foot well. Highest observed water level, -3.05, Mar. 28, 1925; lowest, -25.47, Sept. 28-29, 1929. Records available: 1925-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-21.1	-20.8	-20.7	-20.6	-20.8	-22.1	....	-24.9	-24.9	-23.8
2	-21.1	-20.8	-20.7	-20.6	-20.9	-22.2	....	-25.0	-24.8	-23.8
3	-21.1	-20.8	-20.7	-20.6	-20.9	-22.2	....	-25.0	-24.8	-23.8
4	-21.1	-20.8	-20.7	-20.6	-20.9	-22.3	....	-25.0	-24.8	-23.7
5	-20.8	-20.7	-20.6	-20.9	-22.3	....	-25.0	-24.8	-23.7
6	-20.8	-20.7	-20.6	-21.0	-22.3	....	-25.0	-24.8	-23.6
7	-20.8	-20.7	-20.6	-21.0	-22.4	....	-25.0	-24.8	-23.6
8	-20.8	-20.7	-20.6	-21.0	-22.4	....	-25.0	-24.8	-23.5
9	-20.8	-20.7	-20.6	-21.1	-22.5	....	-25.0	-24.8	-23.5
10	-20.8	-20.7	-20.6	-21.1	-22.5	....	-25.0	-24.8	-23.5
11	-20.8	-20.7	....	-21.1	-22.5	....	-25.0	-24.8	-23.5
12	-20.8	-20.7	....	-21.2	-22.6	....	-25.1	-24.7	-23.5
13	-20.8	-20.7	....	-21.2	-22.6	-24.1	-25.1	-24.7	-23.5
14	-20.8	-20.7	....	-21.3	-22.7	-24.2	-25.1	-24.7	-23.5
15	-20.8	-20.7	....	-21.3	-22.7	-24.2	-25.1	-24.7	-23.5
16	-20.8	-20.7	....	-21.3	-22.8	-24.3	-25.1	-24.6	-23.4
17	-20.8	-20.7	....	-21.4	-22.8	-24.4	-25.1	a-24.5	-23.3
18	-20.8	-20.7	....	-21.4	-22.9	-24.5	-25.1	a-24.5	-23.3
19	-20.8	-20.6	....	-21.5	-22.9	-24.5	....	a-24.4	-23.3
20	-21.5	-20.9	-20.8	-20.6	....	-21.5	-22.9	-24.5	....	a-24.3	-23.3
21	-22.0	-21.5	-20.9	-20.8	-20.6	....	-21.6	-23.0	-24.6	-25.1	a-24.3	-23.3

a Estimated.

36.13.2.9.1--Continued.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
22	-21.9	-21.5	-20.9	-20.8	-20.6	.....	-21.6	-23.0	-24.6	-25.1a-24.3	-23.3	
23	-21.9	-21.5	-20.9	-20.8	-20.6	.....	-21.7	-23.0	-24.7	-25.1a-24.2	-23.3	
24	-21.5	-20.9	-20.8	-20.6	.....	-21.7	-23.0	-24.7	-25.1a-24.2	....
25	-21.5	-20.9	-20.8	-20.6	.....	-21.8	-23.1	-24.7	-25.0a-24.1	....
26	-21.4	-20.9	-20.8	-20.6	.....	-21.8	-23.1	-24.8	-25.0a-24.1	....
27	-21.3	-20.8	-20.8	-20.6	.....	-21.9	-23.2	-24.8	-24.9a-24.1	....
28	-21.1	-20.8	-20.7	-20.6	-20.8	-21.9	-23.2	-24.9	-24.9a-24.0	.....
29	-21.1	-20.8	-20.7	-20.6	-20.8	-22.0	-23.3	-24.9	-24.9	-23.8	....
30	-20.8	-20.7	-20.6	-20.8	-22.0	....	-24.9	-24.9	-23.8	....
31	-20.8	....	-20.6	....	-22.1	....	....	-24.9	....	....

a Estimated.

36.23.1.9.6. Longport Water Dept. Longport 14th Avenue well. Highest observed water level, about 19 in 1895; lowest, -60.1, Aug. 14, 1947. Records available: 1924-48.

Average daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-39.1	-38.4	-37.4	....	-38.8	-41.5a-46.4	a-53.6	....	-52.6	-45.9a-43.0		
2	-38.4	-38.6	-37.3	....	-39.2	-41.6a-46.4	a-53.5	-56.9	-52.1	-45.4a-43.0		
3	-39.1	-39.0	-37.3	-38.4	-39.1	-41.2	....	a-53.2	-57.3	-51.9	-45.3a-42.7	
4	-38.8	-38.5	-37.1	-38.5	-39.1	-41.1	....	-52.6	-57.6	-51.7	-45.4	....
5	-38.5	-38.2	....	-38.4	-38.8	-41.4	-49.0	-51.8	-57.9	-50.3	-45.4	....
6	-39.0	-38.3	....	-38.2	-38.7	-41.7	-49.6	-51.9	-58.4	-49.6	-45.3	....
7	-39.3	-38.5	-37.8	-37.9	-38.7	-41.9	-48.7	-52.4	-58.6	-49.6	-45.2	....
8	-39.2	-38.4	-37.9	-37.7	-39.2	-41.6	....	a-52.7a-58.3	-49.5	-45.4	-42.4	
9	-39.1	-38.6	-37.8	-38.0	-39.7	-41.4	-49.3	-53.1	....	-49.7	-45.4	-42.2
10a	-39.5	-38.1	-37.4	-38.5	-40.0	....	-49.8a	a-53.0	....	-49.9	-45.1	-42.0
11a	-39.6	-38.3	-37.3	-38.0	-39.8	....	a-50.8	a-53.2a-57.0	-49.7	-45.1	-42.1	
12	-39.2	-38.6	-37.3	-38.2	-39.8	-42.3	....	a-53.3a-56.8	-49.4	-44.9	-41.9	
13	-38.7	-38.2	-37.4	-38.1	-39.4	-42.7	....	a-52.9a-56.8	-49.3	-44.6	-41.8	
14	-38.8	-38.4	-37.5	-37.7	-39.2	....	....	-53.2	-56.7	-49.2	-45.0a-41.7	
15	-39.0	-39.6	-37.6	-38.0	-39.4	....	....	a-53.8	-56.3	-48.8	-44.5a-41.5	
16	-39.2	-39.2	-37.7	-38.0	-39.6	....	....	a-54.2	-56.1	-48.8	-44.6	-40.6
17	-39.1	-38.6	-37.7	-38.1	-39.3	....	....	a-54.2	-56.0	-48.7	-44.3	-40.9
18	-38.8	-38.8	-37.5	-38.3	-39.4	....	....	a-54.0a-56.0	-48.7	-44.2	-41.3	
19	-38.9	-38.6	-37.3	-38.6	-39.5	....	....	a-54.4	-55.9	-48.1	-44.0	-40.6
20	-39.3	-38.5	-37.6	-38.5	-39.4a-43.5	....	....	a-54.7a-55.4	-48.0	-43.8	-40.2	
21	-38.6	-38.1	-37.3	-38.5	-39.3a-43.8	....	....	-54.6a-55.1	-47.8	-43.8	-40.6	
22	-38.9	-37.4	-37.2	-38.2	-39.6a-43.9	....	....	a-54.9a-54.3	-47.7	-43.5	-41.1	
23	-39.3	-37.5	-36.8	-38.7	-40.3a-43.7	....	....	a-55.0a-54.1	....	-43.4	-41.1	
24	-38.6	-37.9	-36.5	-38.7	-40.8a-43.7	....	....	a-55.3a-53.5	....	-43.4	-41.0	
25	-38.4	-38.0	-37.1	-38.6	-41.0a-44.1	....	....	a-55.4a-53.9	....	-43.3	-40.7	
26	-39.2	-37.7	-37.1	-38.5	-40.8	-45.0	....	a-55.7a-53.9	....	-43.2	-40.8	
27	-39.3	-37.6	-37.0	-38.5	-40.6	-45.3	....	a-55.9a-54.0	....	-43.3	-40.8	
28	-39.3	-37.1	-37.3	-38.0	-40.7	-45.2	....	a-56.7a-53.7	....	-43.4	-41.3	
29	-39.2	-37.3	-37.2	-38.3	-41.0	-45.5	....	a-57.1a-53.3	....	-42.4	-40.9	
30	-39.1	....	-37.4	-38.3	-41.7a-46.0	....	....	a-57.4	-53.3	-46.2	-42.5	-40.6
31	....	....	....	....	-41.7	....	....	a-57.5	....	-46.1	....	-40.3

a Estimated.

Bergen County

East Paterson area

26.3.1.7.3. City of Garfield well 11. Highest observed water level, 56.2, Mar. 8, 1926; lowest, -3.9, Oct. 26-29, 1947. Records available: 1926-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.1	0.2	10.0	19.7	14.8	13.4	12.5	8.4	5.6	2.7	1.1	-2.1
2	4.2	.2	9.9	20.0	14.7	12.4	12.5	7.9	5.1	2.7	.8	-2.2
3	4.7	.1	10.6	17.9	15.1	12.1	12.9	7.9	4.8	4.4	.4	-2.4

26.3.1.7.3--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	4.7	0.0	11.2	18.5	14.5	12.1	13.6	9.0	4.8	3.9	0.0	-2.6
5	4.8	-1.1	12.2	19.5	14.6	12.0	14.2	8.6	7.7	3.8	-1.1	-2.6
6	4.3	-2	12.5	20.2	13.9	12.0	13.5	7.9	7.9	2.8	-3	-2.2
7	4.1	-2	12.5	21.3	14.2	12.7	13.1	7.6	7.1	2.8	-4	-2.5
8	3.3	.0	12.4	23.9	13.8	13.5	12.8	7.6	5.8	2.0	-4	-2.9
9	3.0	.1	12.4	19.7	14.5	13.0	12.4	7.7	4.9	1.5	-5	-3.0
10	2.7	.2	13.4	21.0	14.5	13.0	12.1	6.9	4.2	1.5	-5	-3.0
11	2.4	.2	13.7	23.0	12.5	13.5	12.1	6.6	4.2	3.2	...	-3.0
12	3.1	.4	13.9	24.0	11.4	13.4	12.3	6.6	6.9	2.2	...	-2.8
13	2.6	.9	14.3	19.8	11.4	13.3	11.8	11.3	6.1	1.7	...	-9
14	2.6	.4	16.0	22.5	12.9	14.2	11.2	10.6	4.9	1.6	...	-1.8
15	2.3	.3	16.1	22.6	12.9	14.1	11.3	12.5	4.0	1.2	...	-1.8
16	2.3	.4	15.9	20.0	13.2	14.1	11.4	10.5	3.6	1.2	...	-1.7
17	2.3	.4	15.5	19.2	13.8	14.4	15.0	9.8	3.6	1.3	...	-2.3
18	2.4	.2	15.5	19.4	12.6	13.8	17.2	8.5	3.6	1.3	...	-2.3
19	2.5	.2	17.4	18.7	12.0	13.8	16.6	7.9	3.7	1.3	...	-2.3
20	2.0	.6	15.7	19.4	11.9	14.0	16.6	7.5	4.7	1.0	...	-1.0
21	1.9	.8	15.5	17.5	11.9	14.0	16.2	7.2	3.9	.6	...	-1.7
22	1.6	1.1	15.1	17.0	12.3	13.9	15.1	7.1	3.7	.4	...	-2.3
23	1.3	1.9	14.8	17.0	12.3	13.9	13.4	7.7	3.2	.4	-8	-2.6
24	1.4	2.9	14.8	16.0	11.9	15.3	11.9	7.5	3.1	.4	-1.4	-2.9
25	1.4	3.9	14.6	16.6	11.8	14.6	11.9	6.5	2.9	1.8	-1.4	-3.0
26	1.2	5.4	15.5	16.0	12.8	14.6	11.0	5.8	4.2	.7	-9	-1
27	1.0	6.3	15.0	15.4	12.6	15.4	10.4	5.3	3.8	.3	-1.5	-4
28	.9	7.3	18.4	15.6	11.8	15.1	9.5	5.0	3.3	.0	-1.6	-1.3
29	.8	7.9	16.4	15.4	11.2	13.4	8.7	4.9	2.7	-2	-1.1	-1.3
30	.6		16.7	15.7	11.1	12.7	8.6	6.8	2.5	-4	-1.7	-1.4
31	.2		17.0		13.5		8.5	5.9		-4		-1.4

Camden County

Camden area

31.2.2.5.2. City of Camden. Morris Station test well 3. Highest observed water level, -0.3, Mar. 19, 1936; lowest, -35.84, June 14, 1926. Records available: 1924-43, 1945-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	Sept.	Oct.	Nov.	Dec.
1	-6.7	-6.8	-6.4	-6.2	-6.9	-6.8	-6.9	-6.8	-6.3	-6.6
2	-6.6	-7.1	-6.8	-6.3	-6.9	-7.1	-6.9	-6.4	-6.5	-6.5
3	-6.6	-7.1	-6.9	-6.0	-7.3	-6.8	-6.7	-5.9	-6.4	-6.6
4	-6.1	-6.3	-6.8	-5.1	-7.5	-6.9	-6.6	-6.4	-6.4	-6.7
5	-6.5	-6.3	-7.0	-5.9	-7.1	-6.4	-6.6	-6.5	-6.6	-6.7
6	-6.8	-6.3	-7.3	-6.4	-7.0	-6.3	-6.2	-6.4	-6.0	-5.5
7	-6.8	-5.9	-7.3	-6.5	-6.8	-6.6	-6.6	-5.6	-5.6	-5.8
8	-7.1	-5.5	-6.4	-6.4	-6.3	-6.9	-6.9	-5.2	-6.5	...
9	-6.9	-6.1	-7.3	-6.5	-6.4	-7.0	-7.2	-4.5	-6.8	...
10	-6.5	-6.4	-7.1	-6.4	-7.0	-7.1	-7.2	-4.8	-6.9	...
11	-6.6	-7.2	-6.9	-5.7	-7.3	-6.9	-7.2	-5.3	-7.1	...
12	-6.9	-7.1	-6.8	-6.3	-7.3	-6.0	-7.2	-5.5	-7.0	...
13	-7.0	-6.1	-6.9	-6.5	-7.1	-5.7	-7.2	-5.5	-6.6	...
14	-7.0	-6.7	-6.5	-6.2	-6.7	-6.5	-7.2	-5.6	-5.3	-6.9
15	-7.2	-7.2	-6.2	-6.1	-6.7	-6.6	-7.2	-5.6	-6.1	-6.9
16	-7.0	-5.8	-6.7	-5.8	-6.2	-6.9	-7.2	-4.0	-6.5	-5.6
17	-6.9	-5.8	-6.9	-5.7	...	-7.1	-7.1	-5.0	-6.5	-6.5
18	-7.0	-5.7	-7.1	-5.7	...	-7.1	-7.1	-5.2	-6.4	-6.2
19	-7.1	-5.7	-6.9	-6.3	...	-6.1	-7.0	-5.6	-6.5	-5.7
20	-7.1	-5.9	-6.7	-6.5	...	-5.9	-6.7	-5.7	-6.4	-6.2
21	-7.1	-5.8	-6.3	-7.0	-6.8	-6.4	...	-5.9	-5.2	-6.5
22	-7.1	-5.5	-6.4	-7.5	-6.2	-6.6	...	-6.0	-5.6	-6.8
23	-7.5	-5.4	-6.6	-7.3	-6.0	-6.6	...	-6.0	-6.0	-6.9
24	-6.5	-6.2	-6.2	-6.8	-6.6	-6.5	...	-6.2	-6.3	-7.1

31.2.2.5.2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	Sept.	Oct.	Nov.	Dec.
25	-6.7	-6.9	-6.3	-6.5	-6.7	-6.8	....	-6.5	-6.4	-6.2
26	-7.1	-7.1	-6.3	-7.0	-6.8	....	....	-6.7	-6.4	-6.2
27	-7.2	-7.2	-6.3	-6.6	-6.9	....	....	-6.7	-6.8	-6.5
28	-7.4	-7.2	-5.9	-6.8	-6.9	....	....	-6.6	-5.7	-7.0
29	-7.4	-6.3	-6.4	-7.0	-6.2	....	....	-6.6	-5.7	-6.8
30	-7.6		-6.3	-7.2	-6.2	....	-6.5	-5.4	-6.4	-6.5
31	-7.1		-6.4		-6.2			-5.6		-6.0

31.2.4.5.1. New Jersey Water Co. well 10. Highest observed water level, 1.26, Mar. 19, 1933; lowest, -26.9, May 24, 1948. Records available: 1932-48.

Lowest daily water level, from recorder charts

Day	Jan.	May	Sept.	Oct.	Nov.	Dec.
1	-19.2	....	-26.0	-23.5	-22.4	....
2	-20.2	....	-25.6	-22.4	-23.3	....
3	-20.1	....	-26.0	-20.5	-22.2	....
4	-19.3	....	-25.5	-23.7	-22.4	....
5	-25.1	-21.9	-22.8	....
6	-25.2	-24.2	-21.9	....
7	-25.7	-22.4	-20.9	....
8	-25.7	-21.3	-24.2	....
9	-25.9	-21.8	-22.2	....
10	-23.0	-20.8	-22.2	....
11	-22.0	-21.5	....	....
12	-21.9	-22.7	....	....
13	-23.1	....	....
14	-23.1	....	-22.3
15	-26.2	-23.3	....	-22.2
16	-23.6	-22.4	....	-22.1
17	-23.4	-21.1	....	-22.2
18	-25.8	-22.5	....	-21.1
19	-22.2	-22.7	....	-20.1
20	-25.5	-23.0	....	-23.8
21	-24.7	-23.5	-22.9	....	-22.2
22	-24.3	-23.3	-22.6	....	-24.0
23	-24.6	-25.4	-21.1	....	-22.1
24	-26.9	-22.6	-20.5	....	-22.2
25	-25.0	-22.6	-22.3	....	-21.8
26	-21.5	-22.5	....	-23.0
27	-25.0	-22.8	....	-23.9
28	-23.0	-22.9	....	-23.8
29	-23.3	-22.7	....	-23.6
30	-22.8	-21.5	....	-22.9
31	-21.5	....	-22.9

Cape May County

Atlantic City area

36.31.9.1.9. Sea Isle City Water Dept. well 1. Highest observed water level, 3.5, Apr. 7, 1930; lowest, 10.1, Sept. 13, 1931. Records available: 1930-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-8.6	-8.4	-8.2	....	-7.8	-7.7	-8.2	-8.8	-9.3	-9.4	-9.2	....
2	-8.2	-8.4	-8.1	....	-7.8	-7.8	-8.3	-8.9	-9.3	-9.4	-9.2	....
3	-8.3	-8.4	-8.0	....	-7.8	-7.8	-8.3	-8.9	-9.3	-9.4	-9.1	....
4	-8.3	-8.4	-8.0	....	-7.9	-7.7	-8.4	-8.8	-9.4	-9.4	-9.0	....
5	-8.2	-8.3	....	....	-7.8	-7.8	-8.4	-8.7	-9.4	-9.3	-9.1	....
6	-8.2	-8.3	....	....	-7.8	-7.9	-8.4	-8.8	-9.4	-8.6	-9.1	....
7	-8.3	-8.3	....	....	-7.7	-7.9	-8.3	-8.8	-9.4	-8.9	-9.2	....

36.31.9.1.9--Continued.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	-8.3	-8.4	....	....	-7.8	-7.8	-8.4	-8.9	-9.4	-8.9	-9.2	-8.9
9	-8.3	-8.4	....	....	-7.9	-7.8	-8.5	-8.9	-9.3	-9.1	-9.2	-8.9
10	-8.5	-8.4	....	....	-8.0	-7.8	-8.5	-8.9	-9.3	-9.2	-9.1	-9.0
11	-8.6	-8.4	....	....	-8.0	-7.9	-8.5	-8.9	-9.3	-9.2	-9.2	-9.0
12	-8.6	-8.3	....	....	-8.0	-7.9	-8.5	-8.9	-9.4	-9.2	-9.2	-9.0
13	-8.5	-8.4	....	....	-7.9	-7.8	-8.5	-8.9	-9.4	-9.3	-9.3	-9.0
14	-8.4	-8.3	....	....	-7.8	-7.9	-8.4	-8.9	-9.4	-9.3	-9.3	-9.1
15	-8.5	-8.6	....	....	-7.9	-7.9	-8.4	-8.9	-9.4	-9.3	-9.3	-9.1
16	-8.5	-8.6	....	....	-7.9	-7.9	-8.5	-9.0	-9.5	-9.4	-9.3	-8.9
17	-8.5	-8.4	....	....	-7.8	-7.9	-8.5	-9.0	-9.6	-9.3	-9.2	-8.9
18	-8.4	-8.5	....	....	-7.9	-8.0	-8.5	-9.0	-9.6	-9.3	....	-8.9
19	-8.4	-8.4	....	....	-7.9	-7.9	-8.5	-9.0	-9.6	-9.3	....	-8.9
20	-8.5	-8.5	....	....	-7.9	-7.9	-8.5	-9.0	-9.4	-9.4	....	-8.7
21	-8.4	-8.5	....	-8.1	-7.8	-8.0	-8.5	-9.0	-9.4	-9.4	....	-8.8
22	-8.3	-8.4	....	-8.2	-7.8	-8.1	-8.5	-9.0	-9.3	-9.4	....	-8.9
23	-8.5	-8.3	....	-8.2	-7.9	-8.0	-8.5	-9.1	-9.3	-9.3	....	-8.9
24	....	-8.4	....	-8.1	-7.9	-8.0	-8.5	-9.1	-9.2	-9.1	....	-8.9
25	....	-8.4	....	-8.1	-7.9	-8.0	-8.6	-9.1	-9.3	-8.9	....	-9.0
26	....	-8.3	....	-8.1	-7.9	-8.1	-8.6	-9.2	-9.4	-9.0	....	-9.0
27	....	-8.3	....	-8.0	-7.8	-8.1	-8.6	-9.2	-9.5	-9.1	....	-9.0
28	....	-8.2	....	-7.8	-7.8	-8.1	-8.7	-9.2	-9.5	-9.1	....	-9.0
29	-8.5	-8.1	....	-7.8	-7.8	-8.1	-8.7	-9.2	-9.5	-9.2	....	-9.0
30	-8.6	....	....	-7.8	-7.8	-8.2	-8.7	-9.2	-9.5	-9.2	....	-8.9
31	-8.6	....	....	....	-7.7	....	-8.8	-9.2	....	-9.2	....	-8.7

Essex County

Canoe Brook area

25.15.7.5.4. Commonwealth Water Co. well 30. Highest observed water level, 152.8, Aug. 25, 1931; lowest, 111.2, Sept. 5, 1929. Records available: 1925-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1	118.4	....	125.3	124.1	122.2	....	121.3	120.7	119.4	....	....	....
2	130.5	121.7	125.5	124.6	122.1	....	121.4	119.7	120.1	123.0	113.0	....
3	142.9	121.2	125.0	124.6	119.9	....	120.7	118.7	121.2	....	111.6	....
4	146.2	121.5	124.9	124.8	118.1	....	121.8	118.5	122.5	....	111.4	....
5	145.3	121.3	124.9	....	118.0	....	121.0	118.5	121.7	....	115.4	....
6	145.3	121.3	124.9	....	117.6	....	121.3	118.9	120.6	123.7	118.0	....
7	....	121.4	125.4	....	117.6	....	120.5	118.8	120.4	....	118.8	....
8	....	121.7	125.4	....	120.7	....	120.0	114.0	120.2	....	114.5	....
9	....	121.7	125.8	....	118.9	....	120.0	114.9	120.1	123.4	112.1	....
10	....	121.6	124.5	....	118.5	....	119.9	119.5	120.0	....	111.5	....
11	....	121.4	124.3	124.7	112.9	....	119.9	120.7	117.8	....	112.0	....
12	....	121.6	124.2	126.2	112.9	....	119.9	120.9	116.7	....	112.6	....
13	....	121.6	124.0	125.1	118.4	....	....	114.3	116.2	....	111.6	....
14	....	....	124.1	125.1	122.1	122.8	....	112.4	115.7	116.0	111.4	....
15	....	....	123.9	124.9	121.9	122.7	....	113.7	115.4	115.8	112.8	....
16	....	....	123.8	123.8	122.0	122.4	....	118.7	115.4	115.3	113.4	....
17	....	....	123.9	123.7	....	122.4	....	119.5	115.7	114.7	113.5	....
18	....	....	123.6	123.2	....	122.7	....	119.8	115.9	114.6	....	....
19	....	....	123.5	123.3	....	120.8	....	120.0	122.9	144.7	....	....
20	....	....	....	122.8	....	119.7	....	120.1	125.0	....	....	....
21	....	....	....	122.5	....	119.4	....	120.0	123.5	....	....	....
22	....	....	....	122.2	....	119.4	....	120.1	123.6	115.4	....	....
23	....	....	....	121.9	....	123.2	121.7	120.0	....	117.0	....	....
24	....	....	....	121.9	....	123.9	120.1	120.1	....	116.0	....	....
25	....	125.4	....	121.8	....	124.9	119.6	120.3	....	116.0	....	....
26	....	125.0	....	122.5	....	123.0	114.8	120.8	121.0	113.3	....	....
27	....	124.4	....	121.4	....	121.2	114.7	116.4	123.3	113.1	....	....
28	121.8	124.9	124.6	121.4	....	120.2	118.6	117.8	....	112.0	....	....
29	121.7	125.5	124.4	121.4	....	119.7	118.6	116.2	....	....	....	....
30	121.5	....	124.3	121.5	....	119.6	118.8	118.3	....	....	....	....
31	....	....	124.1	....	....	119.7	119.3	....	....	....	....	....

26.21.1.5.6. Short Hills Water Co. test well 10. Highest observed water level, 89.60, May 12, 1933; lowest, 64.22, Oct. 31, 1941. Records available; 1930-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	75.41	May 11	78.14	Aug. 12	81.96	Oct. 6	78.60
Feb. 24	75.77	July 1	83.19	Sept. 23	78.42	Dec. 1	74.94

Middlesex County

Runyon area

29.1.4.6.8. Clyde Bowne. Browntown test well. Highest observed water level, 28.14, Apr. 9-10, 1939; lowest, 21.83, Nov. 18, 1932. Records available; 1932-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.65	24.12	25.08	25.71	25.94	26.28	26.33	26.27	26.23	25.94	25.26	24.86
2	23.66	24.11	25.13	25.86	25.94	26.28	26.33	26.27	26.23	25.93	25.24	24.85
3	23.66	24.11	25.24	25.87	25.94	26.28	26.33	26.27	26.22	25.91	25.22	24.84
4	23.70	24.11	25.26	25.87	25.94	.....	26.33	26.27	26.22	25.89	25.21	24.83
5	23.74	24.10	25.27	25.88	25.95	26.28	26.33	26.26	26.21	25.86	25.19	24.83
6	23.77	24.10	25.26	25.89	25.95	26.28	26.33	26.26	26.21	25.84	25.18	24.83
7	23.80	24.09	25.35	25.89	25.95	26.28	26.32	26.26	26.20	25.82	25.17	24.82
8	23.81	24.09	25.39	25.90	25.95	26.28	26.32	26.27	26.19	25.80	25.15	24.82
9	.....	.....	25.39	25.90	25.95	26.28	26.32	26.27	26.18	25.78	25.13	24.81
10	23.84	.....	25.40	25.90	25.95	26.28	26.31	26.27	26.17	25.75	25.12	24.80
11	23.83	.....	25.43	25.90	25.95	26.27	26.31	26.27	26.17	25.73	25.11	24.79
12	23.83	.....	25.43	25.90	25.95	.....	26.31	26.27	26.16	25.71	25.10	24.79
13	23.92	.....	25.43	25.90	25.95	26.28	26.30	26.27	26.15	25.68	25.08	24.78
14	23.96	24.04	25.43	25.90	26.04	26.28	26.30	26.27	26.15	25.66	25.07	24.78
15	23.97	24.04	25.44	25.91	26.08	26.28	26.29	26.28	26.14	25.64	25.05	24.77
16	23.97	24.05	25.48	25.92	26.11	26.27	26.28	26.27	26.13	.....	25.04	24.77
17	23.96	24.23	25.50	25.93	26.23	26.27	26.28	26.27	26.12	.....	25.03	24.76
18	23.99	24.44	25.51	25.93	26.28	26.27	26.28	26.27	26.11	25.56	25.01	24.75
19	24.02	24.62	25.51	25.93	26.28	26.26	26.28	26.27	26.10	25.53	25.00	24.74
20	24.05	24.73	25.52	25.93	26.28	26.26	.....	26.27	26.09	25.51	.....	24.74
21	24.07	24.75	25.52	25.94	26.28	26.26	.....	26.26	26.08	25.48	24.97	24.72
22	24.10	24.81	25.53	25.94	26.28	26.26	.....	26.26	26.07	25.45	24.96	24.72
23	24.13	24.81	25.53	25.94	26.28	26.26	.....	26.26	26.06	25.43	24.95	24.72
24	.....	.....	25.53	25.93	26.28	26.31	.....	26.26	26.05	25.41	24.94	24.72
25	24.14	.....	25.53	25.94	26.28	26.34	.....	26.26	.....	25.39	24.93	.....
26	24.14	.....	25.54	25.94	26.28	26.34	.....	26.24	26.03	25.37	24.92	.....
27	24.13	.....	25.62	25.94	26.28	26.34	.....	26.24	26.01	25.36	24.90	.....
28	24.13	25.03	25.64	25.94	26.28	26.33	.....	26.24	25.99	25.33	24.89	.....
29	24.13	25.08	25.64	25.94	26.28	26.33	.....	26.24	25.97	25.30	24.89	.....
30	24.13	...	25.65	25.94	26.28	26.33	26.26	26.24	25.96	25.30	24.87	.....
31	24.12	..	25.65	.....	26.28	.....	26.26	26.24	.....	25.28	.....	25.28

28.5.4.8.1. Duhermal observation well 1. Highest observed water level, 7.67, July 31, 1945; lowest, 4.06, Dec. 12, 1941. Records available; 1938-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.36	6.26	....	6.09	5.78	5.86	5.48	5.16	4.82
2	a6.04	6.31	6.23	6.58	6.09	5.76	5.88	5.48	5.18	....
3	a5.27	....	6.29	6.21	6.58	6.08	5.76	5.88	5.48	....	....
4	6.31	6.20	6.58	6.08	5.78	5.87	5.50	....	....
5	6.33	6.21	6.53	6.10	5.84	5.85	5.56	....	....
6	a5.16	....	....	....	6.25	6.49	6.11	5.87	5.82	5.58	....	....
7	6.39	....	6.50	....	5.88	5.61	5.58	....	....
8	6.45	....	6.47	6.10	5.89	5.80	5.56	....	....
9	a6.15	6.45	....	....	6.08	5.88	5.78	5.49	....	....
10	a5.22	....	6.46	....	....	6.05	5.86	5.76	5.43	4.97	....

a Supplied by the Duhermal Water System.

28.5.4.8.1--Continued.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	6.51	....	....	6.02	5.88	5.74	5.40	4.94	....
12	6.19	....	5.99	5.87	5.72	5.38	4.92	....
13	a5.11	....	....	6.52	6.21	....	5.99	5.88	5.70	5.37	4.89	....
14	6.59	6.24	....	6.01	5.86	5.69	5.34	4.86	....
15	6.57	6.21	....	6.00	5.84	5.67	5.32	4.85	....
16	a5.34	6.57	6.23	6.30	5.99	5.83	5.66	5.30	4.84	....
17	a5.20	6.25	6.53	6.29	6.27	5.98	5.85	5.65	5.29	4.86	....
18	6.24	6.52	6.30	6.26	5.97	5.85	5.62	5.26	4.84	....
19	6.28	6.51	6.33	6.25	5.96	5.87	5.62	5.25	4.85	....
20	a5.14	....	6.25	6.52	6.39	6.26	5.95	5.89	5.62	5.24	4.83	....
21	6.29	6.48	6.46	6.24	5.93	5.93	5.61	5.22	4.81	....
22	6.30	6.49	6.50	6.23	5.92	5.98	5.58	5.20	4.81	4.78
23	6.34	6.48	6.54	6.22	5.92	6.00	5.58	5.20	4.80	4.74
24	a5.58	6.37	6.48	6.57	....	5.91	6.00	5.57	5.22	4.79	4.70
25	6.38	6.44	6.51	....	5.89	5.98	5.55	5.24	....	....
26	6.41	6.43	6.62	....	5.87	5.94	5.52	5.23	....	....
27	a5.29	....	6.42	6.42	....	....	5.85	5.91	5.49	5.21	....	....
28	6.37	6.40	....	....	5.83	5.68	5.47	5.19	....	....
29	6.37	6.36	....	....	5.81	5.86	5.48	5.17	....	....
30	6.34	6.31	....	6.12	5.80	5.84	5.48	5.17	....	....
31	6.33	....	....	....	5.78	5.85	....	5.16	....	....

a Supplied by the Duhernal Water System.

28.5.4.8.7. Duhernal observation well 2. Records available: 1938-44. No measurement made in 1948.

28.4.9.3.5. Duhernal observation well 4. Highest observed water level, 11.75, Apr. 20, 1939; lowest, -2.42, Dec. 16, 18, 19, 1948. Records available: 1938-48.

Water level at end of day, from recorder charts

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	1.95	3.13	3.13	3.50	4.33	0.29	-0.56	....
2	....	2.74	2.80	3.15	2.99	4.16	.46	-.75	....
3	....	1.81	2.50	3.58	2.87	4.37	.98	-.81	....
4	....	1.76	2.51	3.53	2.87	4.45	.52	-1.03	....
5	....	1.65	2.64	3.54	2.87	4.69	.34	-1.17	....
6	3.78	1.72	2.98	2.99	3.25	4.80	.28	-1.11	....
7	3.45	1.77	2.90	2.68	3.83	3.90	.23	-.80	....
8	3.30	1.90	3.02	2.47	4.02	3.77	.02	-1.02	-1.52
9	3.02	2.67	3.05	2.34	3.72	3.60	.00	-1.04	-1.76
10	3.50	2.04	2.97	2.86	3.47	3.95	.66	-1.18	-2.04
11	4.62	2.65	2.40	3.28	3.56	4.15	.25	-1.28	-2.10
12	3.33	2.75	3.09	2.68	3.54	4.31	.08	-1.44	-1.94
13	2.95	2.39	3.67	2.98	3.40	3.54	.03	-1.47	-2.24
14	2.79	2.42	2.95	2.64	3.60	3.16	.00	-1.10	-2.26
15	2.95	2.49	2.86	2.56	3.62	2.49	-.17	-1.28	-2.34
16	2.96	3.08	3.05	2.52	3.40	2.20	-.09	-1.51	-2.30
17	3.93	2.68	3.08	2.52	3.15	3.20	.29	-1.56	-2.40
18	4.42	3.10	2.66	2.58	3.05	3.51	-.22	-1.57	-2.38
19	3.50	3.40	3.69	4.61	2.86	2.65	-.17	-1.65	-2.23
20	3.30	3.80	4.50	2.80	2.80	1.86	-.34	-1.62	-2.33
21	2.95	3.80	3.85	2.50	4.30	1.55	-.35	-1.50	....
22	2.76	3.92	3.35	2.30	5.04	1.30	-.34	-1.56	....
23	2.65	4.17	3.17	3.52	4.99	1.10	-.45	-1.66	....
24	2.99	3.33	3.05	4.63	5.07	.93	.16	-1.78	....
25	3.45	2.97	2.91	5.12	5.08	.80	-.15	-1.75	....
26	2.65	2.75	3.27	3.55	5.02	1.13	-.38	-1.65	....
27	2.30	2.62	3.86	3.27	4.95	.89	-.52	-1.42	....
28	2.00	2.60	3.25	3.10	4.95	.60	-.57	-1.24	....
29	1.81	2.79	3.40	2.94	5.22	.45	-.67	-1.22	....
30	1.66	3.70	3.29	2.80	4.72	.34	-.69	....	....
31	....	3.95	....	3.15	4.47	....	-.11	....	....

28.5.7.1.5. Duhermal observation well 5. Highest observed water level, 14.94, Apr. 7-8, 1939; lowest, 3.34, Dec. 15-16, 1948. Records available: 1939-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.56	10.10	11.36	10.20	8.39	9.07	9.01	8.34	8.67	6.48	5.04	3.48
2	9.61	10.03	10.88	10.34	8.46	8.91	8.96	8.26	8.54	6.40	4.96	3.45
3	9.75	9.87	10.85	10.43	8.31	8.75	9.03	8.22	8.40	6.38	4.89	3.43
4	9.83	9.83	10.65	10.48	8.24	8.64	8.94	8.24	8.34	6.30	4.84	3.43
5	9.86	9.72	10.48	10.26	8.25	8.60	8.88	8.31	8.34	6.25	4.76	3.43
6	9.94	9.64	10.47	10.14	8.25	8.67	....	8.56	8.30	6.19	4.70	3.48
7	9.69	9.64	10.52	10.03	8.29	8.60	8.49	8.79	8.14	6.14	4.68	3.54
8	9.96	9.57	10.36	9.98	8.36	8.60	8.33	8.85	8.02	6.06	4.62	3.51
9	9.91	9.50	10.30	9.76	8.57	8.50	8.20	8.82	7.97	5.96	4.54	3.49
10	9.92	9.46	10.36	9.81	8.42	8.43	8.20	8.73	7.94	5.98	4.48	3.45
11	9.92	9.47	10.32	9.92	8.52	8.38	8.20	8.68	7.88	5.92	4.44	3.42
12	9.98	9.41	10.28	9.72	8.48	8.52	8.04	8.83	7.86	5.85	4.37	3.43
13	10.16	9.56	10.18	9.62	8.60	8.74	8.14	8.76	7.76	5.80	4.32	3.40
14	10.15	9.64	10.28	9.60	8.67	8.66	8.11	8.81	7.62	5.73	4.30	3.37
15	10.18	9.87	10.12	9.61	8.67	8.64	8.04	8.82	7.54	5.68	4.24	3.34
16	10.15	10.02	10.00	9.56	9.10	8.66	....	8.61	7.48	5.63	4.16	3.38
17	10.15	10.06	10.08	9.72	9.19	8.40	8.06	8.44	7.42	5.66	4.08	3.41
18	10.14	10.52	10.05	9.63	9.26	8.38	8.12	8.28	7.38	5.58	4.02	3.43
19	....	10.88	10.02	9.64	9.32	8.70	....	8.14	7.50	5.54	3.97	3.50
20	10.13	11.12	9.98	9.50	9.30	9.14	7.96	8.06	7.33	5.48	3.90	....
21	10.18	11.19	10.23	9.26	9.27	9.04	7.80	9.15	7.25	5.44	3.67	3.54
22	10.18	11.29	10.06	9.16	9.26	9.10	7.70	9.50	7.17	5.40	3.62	3.50
23	10.08	11.24	10.08	9.06	9.92	9.14	8.28	9.52	7.09	5.36	3.78	3.50
24	10.16	11.26	10.04	9.09	9.41	9.51	8.60	9.50	7.00	5.40	3.72	....
25	10.17	11.20	10.03	9.09	9.28	9.13	8.21	9.48	6.94	5.37	3.66	....
26	10.18	11.12	10.08	8.92	9.23	9.54	8.60	9.37	6.93	5.28	3.60	....
27	10.12	11.04	10.25	8.79	9.15	9.88	9.55	9.24	6.88	5.23	3.56	....
28	10.10	11.30	10.36	8.67	9.04	9.46	8.48	9.19	6.75	5.32	3.54	3.72
29	10.05	11.53	10.74	8.56	9.10	9.27	8.34	9.21	6.65	5.20	3.54	3.71
30	9.96	....	9.98	8.42	9.22	9.11	8.22	8.96	6.57	5.13	3.50	4.04
31	9.97	....	9.81	....	9.24	....	8.22	8.79	....	5.12	....	4.64

28.4.9.5.1. Duhermal observation well 9. Records available: 1939-44. No measurement made in 1948.

28.4.9.8.2. Duhermal observation well 10. Records available: 1939-46. No measurement made in 1948.

28.4.9.3.1. Duhermal observation well 11. Highest observed water level, 14.23, June 1, 1940; lowest, -1.90, Jan. 22, 23, 24, 1943. Records available: 1939-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.6	9.4	9.5	10.2	9.7	9.9	9.6	9.4	9.9	9.4	9.1	10.4
2	9.4	9.2	9.6	....	9.8	9.8	9.6	9.3	9.9	9.4	9.3	10.4
3	9.4	9.1	9.6	....	9.7	9.8	9.6	...	9.9	9.5	9.5	10.4
4	9.4	9.1	9.5	....	9.7	9.7	9.6	9.3	9.9	9.4	9.5	10.4
5	...	9.0	9.5	....	9.7	9.7	9.7	9.3	9.9	9.4	9.6	10.5
6	9.4	9.0	9.6	10.2	9.7	9.8	9.6	9.4	10.0	9.3	9.6	10.5
7	9.3	9.1	9.9	10.1	9.8	9.8	9.5	9.4	9.8	9.3	9.7	10.6
8	9.4	9.0	9.7	10.2	9.7	9.7	9.5	9.3	9.8	9.3	9.8	10.4
9	9.4	8.9	9.6	10.0	9.8	9.7	9.4	9.3	9.8	9.3	9.8	10.5
10	9.4	8.8	9.6	10.0	9.7	9.7	9.5	9.3	10.0	9.3	9.8	10.4
11	9.4	8.9	9.6	10.3	9.7	9.6	9.5	9.3	10.0	9.3	9.6	10.4
12	9.4	8.8	9.6	10.0	9.7	9.8	9.4	9.4	10.0	9.2	9.7	10.5
13	9.5	8.9	9.7	10.0	9.7	9.9	9.5	9.4	10.0	9.2	9.8	10.5
14	9.4	...	9.6	10.0	9.8	9.7	9.6	9.4	9.9	9.1	9.9	10.4
15	9.3	...	9.8	10.0	...	9.8	9.6	9.3	9.9	9.0	9.9	10.5
16	9.3	...	9.7	10.0	9.8	9.8	9.5	9.4	9.8	9.0	9.9	10.5
17	9.3	9.2	9.7	10.0	...	9.8	9.5	9.2	9.9	9.1	9.9	10.6
18	9.4	9.3	9.7	10.1	9.8	...	9.4	9.2	10.0	9.0	10.0	10.6
19	9.4	9.4	9.9	10.0	9.8	...	9.7	9.2	9.9	8.9	10.0	10.6
20	9.4	9.3	9.8	10.0	9.9	...	9.5	9.2	9.9	8.8	10.1	10.5

28.4.9.3.1--Continued.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	9.5	9.3	10.0	9.9	9.9	...	9.5	9.9	9.8	8.8	10.1	10.5
22	9.5	9.4	9.9	9.8	9.8	9.8	9.5	9.9	9.7	8.8	10.2	10.5
23	9.3	9.4	10.0	9.8	9.8	9.8	9.6	9.8	9.7	8.8	10.1	10.5
24	9.3	9.3	10.0	9.9	9.7	9.8	9.8	9.9	9.6	8.9	10.1	10.6
25	9.4	9.4	10.0	9.9	9.7	9.7	9.7	9.8	9.5	8.9	10.1	10.6
26	9.3	9.4	10.0	9.8	9.8	9.7	9.6	9.8	9.5	8.9	10.1	10.6
27	9.3	9.4	10.1	9.8	9.8	9.8	9.5	9.8	9.5	8.8	10.1	....
28	9.3	9.5	10.2	9.8	9.8	9.8	9.5	9.8	9.5	8.7	10.3	10.6
29	9.3	9.4	10.2	9.8	9.8	9.8	9.4	9.8	9.4	8.1	10.3	10.6
30	9.2		10.1	9.7	9.9	9.6		...	9.4	8.4	10.4	10.9
31	9.2		10.0		10.0		9.4	9.9		8.5		11.2

28.4.4.2.1. Robert D. Fischer test well. Highest observed water level, 64.12, Apr. 26, 27, 1939; lowest, 58.41, Jan. 30, 1942. Records available: 1936-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	57.54	57.76	58.42	59.46	59.94	60.35	60.47	60.14	59.59	58.99	58.30	57.72
2	57.54	57.77	58.48	59.46	59.94	60.35	60.47	60.12	59.58	58.96	58.28	57.70
3	57.52	57.77	58.52	59.46	59.93	60.37	60.49	60.09	59.56	58.93	58.27	57.68
4	57.53	57.78	58.54	59.50	59.92	60.38	60.49	60.08	59.54	58.90	58.25	57.67
5	57.52	57.79	58.57	59.56	59.94	60.38	60.51	60.15	59.51	58.89	58.24	57.65
6	57.53	57.79	58.63	59.50	59.92	60.38	60.53	60.07	59.50	58.87	58.22	57.64
7	57.53	57.81	58.71	59.63	59.97	60.42	60.49	60.04	59.48	58.85	58.19	57.62
8	57.54	57.80	58.75	59.68	59.91	60.42	60.49	60.01	59.47	58.83	58.17	57.60
9	57.56	57.80	58.80	59.70	59.90	60.40	60.49	59.99	59.45	58.81	58.15	57.58
10	57.54	57.80	58.85	59.71	59.90	60.37	60.50	59.97	59.44	58.78	58.13	57.56
11	57.54	57.81	58.89	59.74	59.89	60.37	60.51	59.96	59.42	58.76	58.10	57.54
12	57.56	57.82	58.92	59.74	59.90	60.37	60.50	59.96	59.40	58.73	58.08	57.54
13	57.58	57.82	58.95	59.74	59.94	60.37	60.51	59.94	59.38	58.71	58.06	57.52
14	57.58	57.84	58.99	59.78	59.95	60.34	60.48	59.92	59.34	58.69	58.04	57.50
15	57.58	57.81	59.04	59.80	59.95	60.34	60.44	59.90	59.32	58.66	58.02	57.48
16	57.60	57.84	59.07	59.82	59.99	60.32	60.43	59.88	59.30	58.64	58.00	57.47
17	57.63	57.86	59.09	59.80	60.03	60.29	60.42	59.87	59.28	58.63	57.98	57.45
18	57.63	57.86	59.11	59.82	60.04	60.29	60.41	59.85	59.28	58.60	57.95	57.44
19	57.64	57.89	59.17	59.84	60.09	60.30	60.38	59.83	59.26	58.58	57.95	57.43
20	57.66	57.92	59.19	59.87	60.13	60.32	60.38	59.82	59.24	58.55	57.92	57.40
21	57.69	58.00	59.22	59.86	60.18	60.29	60.36	59.81	59.21	58.53	57.90	57.40
22	57.70	58.07	59.25	59.87	60.19	60.28	60.35	59.79	59.19	58.51	57.90	57.38
23	57.69	58.12	59.26	59.88	60.21	60.34	60.36	59.77	59.17	58.49	57.87	57.36
24	57.70	58.18	59.29	59.91	60.23	60.38	60.31	59.75	59.14	58.47	57.85	57.34
25	57.71	58.24	59.29	59.92	60.26	60.36	60.28	59.74	59.11	58.45	57.82	57.33
26	57.71	58.28	59.33	59.93	60.27	60.38	60.26	59.71	59.08	58.43	57.81	57.31
27	57.73	58.32	59.36	59.94	60.28	60.42	60.25	59.68	59.06	58.40	57.79	57.30
28	57.73	58.37	59.35	59.94	60.30	60.44	60.22	59.67	59.04	58.38	57.78	57.28
29	57.75	58.40	59.36	59.96	60.31	60.44	60.20	59.36	59.02	58.36	57.77	57.28
30	57.75		59.38	59.96	60.32	60.45	60.18	59.63	59.02	58.34	57.74	57.38
31	57.75		59.42		60.33		60.16	59.62		58.33		57.45

29.11.1.2.3. Joseph Morrell. Highest observed water level, 75.08, Mar. 28, 1932; lowest, 68.05, Oct. 6, 1932. Records available: 1923-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	73.61	74.17	....	....	74.00	73.66	....	72.62	71.36	73.14	73.98
2	....	73.57	74.49	....	73.44	73.80	....	73.84	....	....	73.13	73.90
3	....	73.54	74.35	....	73.93	73.70	....	74.26	....	71.27	73.25	73.87
4	74.18	73.53	74.26	74.06	73.82	....	73.10	74.29	72.61	71.24	....	....
5	74.16	73.50	....	73.99	74.40	....	72.98	74.55	72.54	71.24	....	74.05
6	74.14	....	74.33	73.90	74.16	....	72.89	....	72.47	71.28	73.67	73.94
7	74.08	....	74.19	73.86	74.35	73.48	72.85	....	72.44	71.24	73.59	73.88
8	74.05	73.47	74.37	73.82	74.14	73.46	72.73	....	72.38	....	73.51	73.77
9	74.18	73.46	74.37	....	74.02	73.41	....	73.61	....	....	73.83	73.80

29.11.1.2.3--Continued.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	....	....	74.35	....	73.92	73.34	....	73.44	....	71.43	....	73.73
11	74.04	....	....	74.05	73.82	73.20	72.35	73.34	....	71.43	....	....
12	74.00	....	....	74.02	73.80	....	72.22	73.99	72.53	71.43	....	73.70
13	74.43	....	....	73.97	74.43	73.89	73.08	73.74	72.17	71.43	....	73.69
14	74.35	....	74.09	74.30	74.29	73.68	73.31	....	72.02	71.43	....	73.64
15	....	74.19	74.04	74.25	74.14	73.71	....	73.35	71.93	....	73.55	73.68
16	....	74.33	74.20	....	74.40	73.83	....	73.21	71.85	....	73.52	74.39
17	....	74.43	74.24	....	74.29	73.62	72.89	73.20	....	71.41	73.48	74.32
18	74.00	74.43	74.11	73.85	74.08	....	72.79	73.13	....	71.53	73.46	74.15
19	....	74.42	74.16	73.81	73.92	....	72.63	....	71.73	71.61	73.73	74.08
20	....	74.28	....	73.77	73.80	74.27	72.48	....	71.73	71.70	....	74.04
21	....	74.23	74.09	73.69	73.71	73.98	72.36	....	71.63	....	73.80	73.99
22	....	74.10	74.00	73.65	....	73.97	....	74.54	71.58	....	73.75	73.97
23	....	74.04	74.31	73.63	....	74.05	....	74.20	....	....	73.72	73.97
24	74.00	....	74.13	....	73.43	....	....	74.00	....	....	....	....
25	73.91	....	74.04	73.63	74.51	....	73.81	73.81	....	....	....	....
26	73.88	....	....	73.61	74.27	....	73.61	....	71.40	....	....	....
27	73.83	....	74.43	73.56	74.04	74.19	74.35	....	71.56	....	....	....
28	73.79	74.42	74.20	73.54	73.58	73.95	74.02	....	71.32	73.16	....	....
29	73.75	74.22	74.10	73.54	73.72	73.70	....	73.09	71.28	73.16	74.24	....
30	....	....	74.00	73.50	74.29	73.64	....	72.96	71.31	73.14	74.09	....
31	....	....	73.94	....	74.24	....	....	72.80	....	73.14	....	....

28.5.4.3.9. Perth Amboy Water Dept. Runyon Old Deep Well 1. Highest observed water level, 12.8, Mar. 1, 1943 and Mar. 26, 1944; lowest, -54.9 Sept. 26, 27, 1947. Records available: 1930-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	....	-34.6	....	-30.0	-41.7	-28.6	-27.8	....	-45.6	-31.6
2	....	....	....	-34.0	....	-30.2	-44.5	-27.3	-32.4	....	-45.3	-30.6
3	....	....	....	-33.7	....	-30.1	-45.1	-27.4	-28.8	....	-44.9	-29.8
4	....	....	....	-32.8	....	-29.7	-45.4	-27.5	-28.9	....	-44.9	-29.4
5	....	....	....	-32.4	....	....	-45.3	....	-28.4	....	-44.9	-28.8
6	....	....	....	-32.0	....	....	-46.7	....	-27.6	....	-44.4	-29.7
7	-37.0	....	....	-32.5	....	....	-47.2	....	-26.6	....	-44.1	-32.4
8	-37.5	....	....	-32.1	....	....	-47.7	....	-27.4	....	-43.9	-33.2
9	-37.9	....	....	-32.0	....	....	....	....	-28.1	....	-43.7	....
10	-37.9	....	....	-32.3	....	....	....	....	-28.2	....	-43.5	....
11	-37.9	....	....	-32.0	....	....	....	....	-28.1	....	-43.8	....
12	-38.0	....	....	-31.0	....	....	....	....	-28.0	....	-43.7	....
13	-38.9	....	....	-30.8	....	....	....	....	-27.3	....	....	....
14	-39.3	....	....	-30.7	....	....	....	-27.0	-27.9	....	....	....
15	-39.0	....	....	-30.9	....	....	-45.4	-26.5	-28.3	....	....	....
16	-38.4	....	....	-30.9	....	....	-31.6	-25.5	-28.7	....	-43.3	....
17	-37.8	....	-35.0	-30.7	....	....	-30.3	-25.9	-29.2	....	-43.4	....
18	-37.3	....	-35.1	-30.4	....	....	-29.0	-26.3	-29.2	....	-44.3	....
19	....	....	-35.1	-29.8	....	....	-32.7	-26.6	-30.3	....	-44.5	....
20	....	-40.9	-34.7	-30.0	-31.6	....	-33.3	-26.8	-29.7	....	-44.5	....
21	....	-40.6	-34.4	-30.3	-31.7	....	-32.6	-26.8	-28.5	....	-44.5	....
22	....	-39.4	-34.0	-30.2	-31.8	....	-31.3	-33.1	-28.2	....	-44.4	....
23	....	-38.3	-34.2	-30.2	-31.7	....	-30.4	-32.8	-44.3	....	-44.1	....
24	....	....	-34.5	-30.2	-32.1	-31.9	-29.8	-26.6	-45.8	....	-44.0	....
25	....	....	-34.9	-29.6	-32.1	-32.2	-28.9	-27.2	-46.5	....	-43.8	....
26	....	....	-35.0	-29.1	-31.6	-32.2	-28.1	-26.0	-46.5	....	-43.7	....
27	....	....	-34.9	-29.6	-31.2	-32.0	-28.5	-28.1	-46.7	....	-43.5	....
28	....	....	-34.8	....	-31.1	-31.9	-28.9	-28.1	....	....	-43.7	....
29	....	....	-34.5	....	-30.7	-32.6	-29.1	-27.5	....	-46.5	-42.9	....
30	....	....	-34.8	....	-30.2	-33.0	-29.1	-27.7	....	-46.4	-34.6	....
31	....	....	-34.8	....	-29.6	....	-29.0	-27.3	....	-46.3	....	....

29.1.4.1.1. Perth Amboy Water Dept. Runyon Old Deep Well 8. Highest observed water level, 12.2, Apr. 8, 1943; lowest, -48.3, Sept. 15, 1947. Records available: 1929-48.

29.1.4.1.1--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	.....	-25.2	-24.9	-22.8	.....	-16.3	.....	.....	-28.2	-35.1	-33.6 -19.3
2	.....	-24.4	-24.3	.....	-17.4	-17.9	.....	-27.8	-28.4	-35.1	-33.3 -18.2
3	.....	-24.9	-24.6	.....	-16.9	.....	.....	-27.7	-29.1	-35.1	-33.0 -17.4
4	.....	.....	-24.6	-21.5	-17.1	.....	.....	-27.8	-29.3	-34.8	-32.7 -16.9
5	.....	.....	-24.7	-20.9	-17.3	.....	.....	-27.8	-29.3	-34.6	-32.7 -16.4
6	.....	.....	-24.7	-20.4	-17.4	-17.6	.....	-27.8	-28.5	-34.7	-32.3 -19.5
7	.....	.....	-23.9	-21.0	-17.5	-16.5	.....	-27.8	-27.5	-34.7	-32.0 -22.3
8	.....	-37.7	-22.9	-21.0	.....	-17.0	.....	-27.4	-27.3	-34.7	-31.8 -23.0
9	.....	-37.7	-22.7	-20.8	-17.4	-17.8	.....	-26.5	-26.4	-34.8	-31.6 -21.0
10	.....	-38.3	-23.2	-20.8	-17.0	-18.2	.....	-26.8	-28.7	-34.7	-31.4 -18.3
11	-26.9	-39.0	-23.2	-20.6	-17.8	-18.7	-35.9	-27.1	-26.5	-34.3	-31.5 -17.1
12	-27.0	-39.5	-23.0	-19.5	-18.5	.....	-35.8	-27.2	-28.3	-34.3	-31.5 -15.9
13	-28.2	.....	-23.0	-19.2	.....	.....	-36.3	-27.3	-27.6	-34.4	-31.4 -14.9
14	-28.5	-40.3	-22.9	-19.0	.....	-18.8	-36.7	-27.3	-28.3	-34.6	-31.2 -14.5
15	-28.1	-40.3	-22.3	-19.3	-18.8	-19.1	-33.9	.....	-26.7	-34.0	-31.0 -14.0
16	-27.1	-39.9	-22.5	-19.3	.....	-19.3	-32.0	.....	-29.1	.....	-30.9 -13.5
17	-26.4	-39.7	-23.2	.....	-19.8	-19.4	-30.8	.....	-29.5	.....	-30.9 -13.2
18	-25.7	-31.6	-23.3	-18.4	-19.3	-19.5	-29.4	.....	-29.5	-34.8	-31.6 -13.0
19	-25.0	-30.2	.....	-18.2	.....	-19.4	-35.0	.....	-31.7	-34.5	-31.6 -12.8
20	-24.9	.....	.....	-18.3	.....	-18.9	-36.2	.....	-31.0	-34.8	..... -12.2
21	-24.8	.....	-22.5	-18.3	.....	-18.8	-34.2	-27.1	-26.9	-34.9	-31.6 -12.5
22	.....	-26.3	-22.0	-18.5	.....	-19.3	-32.4	-26.9	-26.4	-34.9	-31.5 -12.5
23	.....	-27.0	-22.3	-18.5	-19.4	-19.6	.....	-25.9	-32.2	-34.9	-31.3 -12.7
24	.....	-26.5	-22.6	-18.5	-20.0	-19.6	.....	-27.0	-33.4	-34.9	-31.1 -12.7
25	.....	-26.5	-22.9	-17.4	-20.0	-20.2	.....	-27.5	.....	-35.4	-31.0 -12.5
26	-24.3	-26.4	-23.2	-18.0	-19.4	-20.2	.....	-28.3	-34.1	-35.4	-30.8
27	-24.4	-26.4	-23.2	-18.0	-19.0	-20.0	.....	-28.4	-34.9	-35.0	-30.8
28	-24.9	-26.4	-23.0	-18.1	-19.0	-19.7	.....	-26.4	-34.9	-34.9	-30.8
29	-25.0	-25.5	-22.6	-18.1	-18.3	.....	.....	-28.0	-35.1	-34.4	-30.6
30	-25.2	.....	-22.8	.....	-17.8	.....	.....	-27.1	-35.1	-34.3	-21.9
31	-25.5	.....	-22.5	.....	-17.2	.....	.....	-27.7	.....	-34.2	.....

28.5.4.7.3. Perth Amboy Water Department. Runyon Well 123. Records available: 1938-47. No measurement made in 1948.

28.5.4.6.3.A. Perth Amboy Water Dept. test well A-2. Records available: 1932-45. No measurement made in 1948.

28.5.4.6.6. Perth Amboy Water Dept. test well A-3. Records available: 1932-45. No measurement made in 1948.

28.5.4.6.6.A. Perth Amboy Water Dept. test well A-40. Records available: 1932-45. No measurement made in 1948.

28.5.4.6.2.A. Perth Amboy Water Dept. test well B-2. Records available: 1932-45. No measurement made in 1948.

28.5.4.6.2.B. Perth Amboy Water Dept. test well B-3. Records available: 1932-37, 1939-45. No measurement made in 1948.

28.5.4.6.5. Perth Amboy Water Dept. test well B-4. Records available: 1932-45. No measurement made in 1948.

28.5.4.5.9. Perth Amboy Water Dept. test well B-5. Records available: 1933-43, 1945. No measurement made in 1948.

28.5.4.3.7. Perth Amboy Water Dept. test well C-1. Records available: 1932-45. No measurement made in 1948.

28.5.4.3.6. Perth Amboy Water Dept. test well D-1. Records available: 1932-45. No measurement made in 1948.

28.5.4.3.2. Perth Amboy Water Dept. test well D-2. Records available: 1932-45. No measurement made in 1948.

- 29.1.4.5.2. H. C. Perrine farm well F-2. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.4.3.9. Clyde Bowne farm well F-3. Records available: 1923-45. No measurement made in 1948.
- 29.1.5.1.4. A. R. Brown farm well F-4. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.5.1.9. A. Hanley farm well F-5. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.5.6.3. Owner unknown. Farm well F-9. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.5.6.3.A. Maude Lamberton farm well F-10. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.5.4.6. Charles Schnuck farm well F-11. Records available: 1923-29, 1931-44. No measurement made in 1948.
- 29.1.5.4.8. George Burlew farm well F-12. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.5.4.8.A. George Burlew farm well F-13. Records available: 1923-29, 1931-40. No measurement made in 1948.
- 29.1.5.7.2. William Jurman farm well F-14. Records available: 1923-29; 1931-45. No measurement made in 1948.
- 29.1.5.7.5.A. Amos Burlew farm well F-16. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.4.7.6. A. Fredda farm well F-20. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.4.9.8. Mrs. A. Green farm well F-21. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.7.3.5. Reuben Miller farm well F-22. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.11.1.2.5. Ambrose Green farm well F-26. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.11.1.2.5.A. Mrs. J. Green farm well F-27. Records available: 1923-29, 1931-45. No measurement made in 1948.
- 29.1.1.7.8. Perth Amboy Water Dept. test well G-1. Records available: 1932-45. No measurement made in 1948.
- 29.1.1.7.8.A. Perth Amboy Water Dept. test well G-2. Records available: 1932-45. No measurement made in 1948.
- 29.1.1.7.9. Perth Amboy Water Dept. test well G-3. Records available: 1932-45. No measurement made in 1948.
- 29.1.1.8.4. Perth Amboy Water Dept. test well G-4. Records available: 1935-45. No measurement made in 1948.
- 29.1.1.7.9.A. Perth Amboy Water Dept. test well G-20. Records available: 1935-45. No measurement made in 1948.
- 29.1.4.2.4. Owner unknown. Test well H-1. Records available: 1932-33, 1935-45. No measurement made in 1948.
- 29.1.4.1.4. Owner unknown. Test well J-1. Records available: 1932-45. No measurement made in 1948.
- 29.1.4.1.6. Owner unknown. Test well J-2. Records available: 1932-45. No measurement made in 1948.

29.1.4.2.7. Owner unknown. Test well J-3. Records available: 1932-45. No measurement made in 1948.

29.1.4.2.7.A. Owner unknown. Test well J-4. Records available: 1932-45. No measurement made in 1948.

29.1.4.5.2.A. Owner unknown. Test well J-5. Records available: 1932-45. No measurement made in 1948.

28.5.4.5.6. Perth Amboy Water Dept. test well L-1. Records available: 1932-45. No measurement made in 1948.

28.5.4.6.7.A. Perth Amboy Water Dept. test well L-2. Records available: 1932-39, 1941-45. No measurements made in 1948.

28.5.4.6.7.B. Perth Amboy Water Dept. test well L-3. Records available: 1932-39, 1942-45. No measurement made in 1948.

28.5.4.4.9.A. Perth Amboy Water Dept. test well N-1. Records available: 1932-45. No measurement made in 1948.

28.5.4.4.9.B. Perth Amboy Water Dept. test well N-2. Records available: 1935-45. No measurement made in 1948.

28.5.4.8.1.A. Perth Amboy Water Dept. test well N-3. Records available: 1933, 1941-45. No measurement made in 1948.

29.1.1.7.5.A. Owner unknown. Test well P-1. Records available: 1935-38, 1941-45. No measurement made in 1948.

29.1.1.7.5.B. Owner unknown. Test well P-2. Records available: 1935-45. No measurement made in 1948.

29.1.4.1.8. Perth Amboy Water Dept. test well R-1. Records available: 1935-45. No measurement made in 1948.

29.1.4.4.2.A. Perth Amboy Water Dept. test well R-2. Records available: 1935-45. No measurement made in 1948.

29.1.4.4.1.A. Perth Amboy Water Dept. test well S-1. Records available: 1924-45. No measurement made in 1948.

28.5.1.8.4. Sayreville Borough test well 4. Highest observed water level, 11.55, Mar. 27, 1944; lowest, -32.9, Oct. 25, 1935. Records available: 1931-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-18.20	-17.00	-16.69	-15.12	-11.26	-11.28	-16.16	-17.00	-16.38	-19.55	-18.07	-11.71
2	-16.42	-16.41	-16.70	-14.78	-10.75	-12.15	-17.89	-15.85	-16.60	-19.51	-18.00	-10.92
3	-16.98	-17.55	-17.22	-14.27	-9.81	-12.29	-18.10	-16.43	-17.95	-19.07	-17.26	-11.22
4	-16.50	-19.82	-17.10	-13.80	-9.84	-12.19	-17.87	-16.45	-18.05	-18.83	-18.40	-9.72
5	-16.27	-21.32	-17.32	-12.93	.....	-12.00	-17.52	-16.33	-16.87	-18.72	-17.12	-8.93
6	-17.75	-22.56	-16.84	.....	.....	-10.92	-19.15	-16.45	-15.50	-18.82	-16.48	-13.38
7	-18.51	-22.68	-16.18	-13.88	.....	-10.17	.....	-16.18	-15.20	-18.80	-16.20	-17.25
8	-19.18	-22.68	-14.93	-13.65	.....	-11.28	-21.02	-14.98	-16.56	-18.80	-16.12	-18.08
9	-19.87	-22.23	-15.22	-13.55	.....	-12.12	-22.40	-14.62	-17.72	-18.88	-15.88	-14.75
10	-19.67	-23.52	-15.77	-13.42	.....	-11.85	-21.25	-15.42	-17.00	-18.45	-15.80	-11.97
11	-19.60	-23.81	-15.66	-13.02	.....	-12.94	-20.30	-15.77	-16.55	-18.37	-16.15	-10.20
12	-19.75	-24.43	-15.67	-11.71	.....	-13.17	-20.41	-15.77	-15.95	-18.65	-16.00	-8.72
13	-21.16	-25.14	-15.55	-11.55	-12.12	-12.08	-21.35	-16.00	-15.62	-18.68	-15.90	.....
14	-21.66	-25.07	-15.05	-11.35	-11.85	-12.52	-21.43	-15.87	-16.62	-18.79	-15.84	.....
15	-20.35	-24.88	-14.38	-12.02	-11.84	-12.62	-20.80	-15.05	-16.80	-19.20	-15.58	.....
16	-19.35	-23.97	-15.06	-11.91	-15.37	-12.82	-20.17	-14.18	-17.95	-19.28	-15.67	-6.82
17	-18.55	-24.18	-16.04	-11.62	-14.00	-12.92	-19.05	-14.79	-18.83	-19.10	-15.35	-6.60
18	-18.08	-22.95	-16.07	-10.85	-12.58	-13.07	-17.14	-15.12	-18.10	-18.84	-16.24	-6.53
19	-17.11	-21.92	-15.63	-10.72	-13.80	-12.92	-25.16	-15.54	-20.40	-19.05	-16.33	-5.90
20	-17.20	-21.55	-15.02	-11.45	-12.85	-12.17	-25.60	-15.80	-18.65	-19.15	-16.24	.....
21	-17.19	-21.13	-14.80	-11.42	-12.76	-12.13	-22.88	-15.64	-16.85	-19.05	-16.20	.....
22	-17.77	-19.90	-14.71	-11.56	-12.98	-12.50	.....	-14.81	-16.06	-19.07	-16.12	.....

28.5.1.8.4--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	-17.76	-18.57	-14.82	-11.76	-12.50	-12.89	.....	-13.74	-16.12	-18.97	-16.15	- 6.67
24	-17.45	-18.60	-15.22	-11.45	-12.83	-13.09	.....	-15.07	-17.52	-18.81	-15.70	.....
25	-16.50	-18.70	-15.70	-10.49	-12.72	.....	.....	-15.78	-18.60	-19.33	-15.53	.....
26	-16.13	-18.57	-16.09	- 9.98	-12.34	.....	.....	-17.49	-18.12	-19.50	-15.35	.....
27	-16.34	-18.95	-15.60	-11.12	-12.42	-12.71	.....	-17.03	-19.70	-19.63	-15.58	.....
28	-17.43	-18.05	-15.51	-11.35	-12.00	-13.60	.....	-16.43	-19.05	-19.17	-15.58	.....
29	-17.35	-17.32	-15.00	-11.36	-11.35	-15.00	-18.30	-15.63	-19.65	-19.20	-15.42	.....
30	-17.65	.....	-15.46	-11.34	-10.90	-14.76	-18.21	-15.48	-19.08	-19.06	-14.00	.....
31	-17.90	.....	-15.52	.....	-10.00	.....	-17.70	-16.05	.....	-18.37	.....	.....

Monmouth County

Asbury Park area

29.24.7.1.6. Avon-By-The-Sea Water Dept. well 1. Highest observed water level, -4.46, Apr. 12, 1937; lowest, -132.00, Aug. 4, 1925, pumping. Records available: 1924-48. Jan. 26, -33.38; July 15, -92.27; Nov. 3, -56.45.

29.24.4.8.4. Monmouth Consolidated Water Co. Bradley Beach 650-foot well. Highest observed water level, 11.38, Jan. 26, 1948; lowest, -136.68, Aug. 27, 1925. Records available: 1924-48. Jan. 26, 11.38; July 15, 10.62; Nov. 13, 9.29.

Runyon area

29.11.2.1.1. Edward Huffrey farm well F-30. Records available: 1923-29, 1931-45. No measurement made in 1948.

29.1.8.9.4. W. Gibson farm well F-31. Records available: 1923-29, 1931-45. No measurement made in 1948.

29.11.1.2.9. Rulif Hulsart well. Highest observed water level, 100.40, April 19, 1939; lowest, 95.47, Feb. 18, 1940. Records available: 1936-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	96.20	96.73	97.62	98.68	99.01	99.48	99.40	99.02	99.15	98.36	97.60	97.20
2	96.20	96.73	97.66	98.70	99.00	99.50	99.38	99.00	99.12	98.33	97.60	97.20
3	96.22	96.73	97.68	98.72	98.98	99.51	99.33	99.01	99.10	98.31	97.59	97.22
4	96.30	96.74	97.70	98.60	98.98	99.52	99.30	99.03	99.07	98.28	97.56	97.20
5	96.31	96.75	97.72	98.88	98.99	99.50	99.28	99.08	99.02	98.26	97.53	97.21
6	96.34	96.76	.....	98.90	99.00	99.51	99.27	99.16	99.00	98.23	97.52	97.20
7	96.37	96.76	97.82	98.96	99.07	99.57	99.20	99.20	99.00	98.22	97.50	97.22
8	96.39	96.73	97.82	99.00	99.00	99.56	99.16	99.20	98.98	98.20	97.50	97.18
9	96.40	96.73	97.87	99.00	99.00	99.52	99.13	99.20	98.93	98.16	97.49	97.18
10	96.40	96.72	97.90	99.02	99.00	99.50	99.11	99.20	98.93	98.13	97.47	97.14
11	96.41	96.72	97.92	99.08	99.00	99.50	99.10	99.19	98.93	98.12	97.43	97.13
12	96.43	96.72	97.99	99.08	98.98	99.50	99.07	99.20	98.90	98.10	97.44	97.13
13	96.46	96.73	.....	99.10	99.00	99.50	99.05	99.20	98.87	98.06	97.42	97.12
14	96.48	96.78	98.07	99.13	99.07	99.48	99.04	99.18	98.83	98.03	97.40	97.10
15	96.51	96.88	98.13	99.14	99.08	99.48	99.02	99.17	98.80	98.02	97.39	97.10
16	96.54	97.01	98.18	99.18	99.11	99.47	99.00	99.13	98.75	97.98	97.38	97.10
17	.....	97.11	98.20	99.14	99.17	99.42	98.98	99.11	98.74	97.97	97.35	97.10
18	.....	97.22	98.27	99.17	99.16	99.40	98.95	99.10	98.73	97.93	97.32	97.11
19	.....	97.31	98.30	99.18	99.18	99.42	98.92	99.08	98.72	97.92	97.32	97.14
20	.....	97.35	.....	99.20	99.20	99.48	98.90	99.07	98.70	97.87	97.30	97.11
21	.....	97.58	98.31	99.14	99.19	99.50	98.88	99.18	98.65	97.86	97.29	97.11
22	.....	97.40	98.39	99.13	99.15	99.52	98.83	99.28	98.63	97.84	97.29	97.10
23	.....	97.45	98.43	99.17	99.16	99.53	98.96	99.31	98.61	97.83	97.28	97.10
24	.....	.....	98.42	99.18	99.18	99.57	99.17	99.33	98.55	97.83	97.24	97.10
25	.....	.....	98.45	99.12	99.20	99.52	99.20	99.35	98.53	97.81	97.21	97.09
26	96.70	.....	98.49	99.13	99.28	99.48	99.20	99.32	98.50	97.77	97.21	97.08
27	96.71	.....	.....	99.12	99.31	99.48	99.20	99.30	98.46	97.75	97.20	97.09
28	96.72	.....	.....	99.10	99.36	99.50	99.17	99.29	98.44	97.70	97.20	97.08

29.11.1.2.9--Continued.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
29	96.73	.....	.....	99.10	99.38	99.50	99.11	99.27	98.43	97.68	97.19	97.10
30	96.73	.....	99.08	99.40	99.45	99.10	99.22	98.41	97.67	97.20	97.23	
31	96.73		98.62		99.43		99.04	99.20		97.63		97.48

Salem County

Penns Grove area

30.23.1.8.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 6. Highest observed water level, 2.59, Aug. 14, 1942; lowest, -0.19, Sept. 27, 1941. Records available: 1940-48. May 26, 1.54; July 16, 1.12; Sept. 2, 1.05; Nov. 18, 1.04.

30.23.4.1.9. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 7. Highest observed water level, 11.09, Aug. 14, 1942; lowest, 6.84, Nov. 22, 1941. Records available: 1940-48.

Date	Water Level	Date	Water Level	Date	Water Level
Mar. 16	10.17	July 16	9.62	Nov. 18	8.28
May 26	10.06	Sept. 2	9.60		

30.22.6.6.7. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 9. Highest observed water level, 24.04, Mar. 25, 1944; lowest, 19.80, Sept. 25, 1943. Records available: 1940-48.

Jan. 29	23.09	May 26	23.32	Sept. 2	22.14
Mar. 16	23.68	July 16	22.23	Nov. 18	21.67

30.22.6.9.3. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 10. Highest observed water level, 24.10, Mar. 13, 1941; lowest, 18.84, Oct. 24, 1943. Records available: 1940-48.

Jan. 29	22.88	May 26	22.97	Sept. 2	21.69
Mar. 16	23.44	July 16	21.92		

30.23.4.7.8. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 11. Highest observed water level, 24.40, Dec. 11, 1940; lowest, 18.83, Feb. 12, 1942. Records available: 1940-48.

Jan. 29	21.81	May 26	23.62	Sept. 3	22.86
Mar. 16	22.78	July 16	23.54	Nov. 18	21.31

30.22.8.3.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 12. Highest observed water level, 4.44, May 27, 1947; lowest, 1.22, Oct. 11, 1941. Records available: 1940-48.

Mar. 16	4.09	July 16	2.92	Nov. 18	2.30
May 26	3.79	Sept. 3	2.76		

30.22.9.2.1. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 13. Highest observed water level, 21.26, Mar. 13, 1941; lowest, 15.01, Oct. 24, 1943. Records available: 1940-48.

Jan. 29	19.72	May 26	20.11	Sept. 2	18.34
Mar. 16	19.84	July 16	18.74	Nov. 18	16.74

30.22.9.6.2. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 14. Highest observed water level, 22.59, Feb. 24, 1945; lowest, 16.55, Oct. 24, 1943. Records available: 1940-48.

30.22.9.6.2--Continued.

Date	Water Level	Date	Water Level	Date	Water Level
Jan. 29	20.63	May 26	21.36	Sept. 2	19.59
Mar. 16	22.04	July 16	19.81	Nov. 18	16.28

30.22.9.5.8. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 15. Highest observed water level, 12.00, June 10, 1947; lowest, 3.15, Nov. 6, 1942. Records available: 1941-48.

Mar. 16	8.45	July 16	8.11	Nov. 18	4.00
May 26	9.66	Sept. 2	6.51		

30.22.9.4.9. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove Water Co. observation well 22. Highest observed water level, 14.42, Aug. 18, 1939; lowest, dry on various dates in 1942, 1943, 1944, and 1945. Records available: 1939-48.

Jan. 29	1.28	May 26	2.99	Sept. 3	1.86
Mar. 16	2.23	July 16	2.85	Nov. 18	.71

30.22.9.7.3. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 24. Highest observed water level, 7.83, June 14, 1947; lowest, -5.62, Nov. 30, Dec. 3, 1942. Records available: 1941-48.

Water level at end of day, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Nov.	Dec.
1	....	-0.53	0.23	1.14	0.95	1.89	1.45	0.35	-0.67	....	-4.13
2	....	-.53	.34	1.06	.94	1.88	1.42	.32	-.70	....	-4.15
3	....	-.57	....	1.04	.89	1.81	....	.29	....	....	-4.16
4	-.82	-.54	....	1.12	.86	1.93	....	....	....	....	-4.19
5	-.83	-.60	....	1.19	.84	1.87	....	....	....	....	-4.21
6	-.80	-.62	....	1.18	.83	1.86	....	....	....	....	-4.23
7	-.81	-.56	....	1.18	.91	1.95	....	....	....	....	-4.25
8	-.75	-.68	....	1.23	.83	1.92	....	.13	....	....	-4.28
9	-.72	-.69	.56	1.14	.88	1.84	....	.09	....	....	-4.31
10	-.63	-.70	.58	1.15	.88	1.78	....	.04	....	....	-4.34
11	-.74	-.69	.60	1.26	.87	1.77	1.23	.01	....	....	-4.36
12	-.66	-.70	.64	1.16	.87	1.77	1.21	-.02	....	....	-4.37
13	-.63	-.65	.67	1.14	.89	1.71	1.18	-.06	....	....	-4.39
14	-.64	-.71	.73	1.21	1.02	1.67	1.13	-.11	....	....	-4.42
15	-.63	-.64	.81	1.17	1.07	1.66	1.09	-.15	....	....	-4.43
16	-.59	-.45	.86	1.24	1.18	1.63	1.06	-.18	....	....	-4.46
17	-.54	-.32	.84	1.12	1.27	1.59	....	-.21	....	....	-4.48
18	-.54	-.16	.88	1.11	1.31	1.56	....	-.25	....	-3.74	-4.49
19	-.51	.00	.98	1.15	1.38	1.57	....	....	....	-3.75	-4.49
20	-.48	.04	.98	1.22	1.47	1.58	....	....	....	-3.80	-4.51
21	-.40	.10	1.04	1.11	1.57	1.61	....	....	....	-3.84	-4.53
22	-.46	.12	1.03	1.07	1.59	1.59	....	-.36	....	-3.85	-4.54
23	-.56	.09	1.08	1.08	1.65	....	....	....	....	-3.88	-4.56
24	-.47	.14	1.02	1.12	1.70	....	....	....	....	-3.91	-4.58
25	-.52	.20	.99	1.07	1.74	....	.70	....	....	-3.96	-4.59
26	-.50	.20	1.11	1.09	1.78	....	....	....	....	-3.98	-4.60
27	-.49	.22	1.13	1.05	1.81	1.53	....	....	....	-4.02	-4.60
28	-.48	.26	1.04	1.04	1.84	1.52	....	....	....	-4.04	-4.61
29	-.45	.17	1.05	1.04	1.85	1.51	....	-.52	....	-4.08	-4.60
30	-.54	....	1.05	1.02	1.86	1.47	....	-.56	....	-4.10	-4.56
31	-.52	....	1.12	....	1.87	....	....	-.62	....	....	-4.46

30.32.2.2.3. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 31. Highest observed water level, 2.41, May 27, 1947; lowest, -4.23, Nov. 22, 1941 and Oct. 24, 1943. Records available: 1940-48.

30.32.2.2.3--Continued.

Date	Water Level	Date	Water Level	Date	Water Level
Jan. 29	1.33	May 26	2.03	Sept. 3	0.61
Mar. 16	2.25	July 16	.87	Nov. 18	.24

30.22.8.9.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 32. Highest observed water level, 2.10, May 27, 1947; lowest, -1.06, Nov. 22, 1941. Records available: 1940-48.

Jan. 29	0.84	May 26	1.49	Sept. 3	0.59
Mar. 16	1.45	July 16	.75	Nov. 18	-.17

30.22.9.8.6. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 35. Highest observed water level, 18.66, Nov. 29, 1940; lowest, 0.35, Oct. 9, 1942. Records available: 1940-48.

Mar. 16	6.03	July 16	5.77	Nov. 18	2.49
May 26	6.66	Sept. 2	5.02		

30.32.9.8.4. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 36. Highest observed water level, 5.56, June 10, 1947; lowest, -9.39, Dec. 4, 1942. Records available: 1940-48.

Mar. 16	-3.17	July 16	-2.29	Nov. 18	-6.84
May 26	-2.54	Sept. 2	-3.67		

30.32.2.3.3. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 41. Highest observed water level, 11.26, June 3, 1946; lowest, 4.66, Oct. 15, 1943. Records available: 1941-48.

Water level at end of day, from recorder charts

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
May 26	10.66	June 8	10.66	June 21	10.80	July 4	10.16
27	10.62	9	10.50	22	10.70	5	10.08
28	10.53	10	10.38	23	10.66	6	10.22
29	10.50	11	10.30	24	10.59	7	10.18
30	10.74	12	10.28	25	10.46	8	10.08
31	10.66	13	10.22	26	10.36	9	9.86
June 1	10.80	14	10.12	27	10.38	10	9.77
2	10.68	15	10.13	28	10.44	11	9.66
3	10.66	16	10.45	29	10.36	12	9.56
4	10.75	17	10.44	30	10.40	13	9.54
5	10.88	18	10.38	July 1	10.51	14	9.58
6	10.56	19	10.89	2	10.38	15	9.47
7	10.64	20	10.94	3	10.28		

30.32.2.3.9. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 51. Highest observed water level, 11.05, Mar. 3, 1947; lowest, 3.94, Oct. 24, 1943. Records available: 1940-48.

Date	Water Level	Date	Water Level	Date	Water Level
Jan. 29	10.27	May 26	10.14	Sept. 2	6.59
Mar. 16	10.71	July 16	6.63	Nov. 18	7.56

30.32.2.5.1. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 52. Highest observed water level, 2.00, Mar. 29, 1946; lowest, -13.65, Feb. 12, 1942. Records available: 1940-48.

30.32.2.5.1--Continued.

Date	Water Level	Date	Water Level	Date	Water Level
Jan. 29	-1.03	ay 26	0.46	Sept. 3	-2.66
Mar. 16	.01	July 16	-2.36	Nov. 18	-2.21

30.32.2.6.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 54. Highest observed water level, well flowing Mar. 13, 1941, reference point 13.69 feet above mean sea level; lowest, 5.63, Oct. 24, 1943. Records available: 1940-48.

Mar. 16	11.86	July 16	10.10	Nov. 18	8.47
May 26	11.44	Sept. 2	9.81		

30.32.3.5.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 55. Highest observed water level, 7.22, Dec. 2, 1940 and Dec. 1, 1944; lowest, 1.93, Oct. 20 and 24, 1943. Records available: 1940-48.

Mar. 16	6.77	July 16	5.84	Nov. 18	4.91
May 26	6.41	Sept. 2	5.44		

30.32.2.5.8. Department of Conservation and Economic Development, Division of Water Policy and Supply. Highest observed water level, 2.65, Mar. 29, 1946; lowest, -10.55, Feb. 13, 1942. Records available: 1940-48.

Jan. 29	-2.23	May 26	1.20	Nov. 18	-1.38
Mar. 16	.60	Sept. 3	-3.20		

30.32.2.9.1. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 63. Highest observed water level, 15.73, Apr. 15, 1947; lowest, 8.09, Oct. 24, 1943. Records available: 1941-48.

Jan. 29	14.06	May 26	14.33	Sept. 2	12.43
Mar. 16	14.86	July 16	12.56	Nov. 18	10.77

30.32.2.9.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 64. Highest observed water level, 2.06, Feb. 24, 1945; lowest, -1.42, Sept. 25, 1943. Records available: 1940-48.

Jan. 29	0.97	May 26	1.22	Sept. 2	0.76
Mar. 16	1.30	July 16	.86	Nov. 18	.90

30.32.6.1.6. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 65. Highest observed water level, 8.80, Mar. 25, 1944; lowest, 1.88, Oct. 24, 1943. Records available: 1940-48. Mar. 16, 8.52; May 26, 8.05; July 16, 6.05, Nov. 18, 4.11.

30.32.1.9.5. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 71. Highest observed water level, 7.90, May 13, 1947; lowest, 1.33, Dec. 6, 1941. Records available: 1940-48.

Jan. 29	6.52	May 26	7.82	Sept. 3	5.85
Mar. 16	7.56	July 16	6.59	Nov. 18	4.03

30.32.5.1.3. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 72. Highest observed water level, 5.55, Mar. 16, 1948; lowest, -0.70, Oct. 24, 1943. Records available: 1940-48.

Jan. 29	4.55	May 26	4.82	Sept. 2	3.34
Mar. 16	5.55	July 16	3.47	Nov. 18	1.99

30.32.4.6.4. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 73. Highest observed water level, 2.61, July 22, 1947; lowest, -2.01, Sept. 25, 1943. Records available: 1940-48.

Jan. 29	2.01	May 26	2.07	Sept. 2	0.78
Mar. 16	2.29	July 16	1.18	Nov. 18	1.18

30.32.5.4.6. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 74. Highest observed water level, 7.07, Dec. 3, 1940; lowest, 0.37, Oct. 24, 1943. Records available: 1940-48.

Date	Water Level	Date	Water Level	Date	Water Level
Jan. 29	3.13	May 26	3.45	Sept. 2	2.14
Mar. 16	3.54	July 16	2.62	Nov. 18	1.17

30.32.5.7.7. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 84. Highest observed water level, 11.44 at land surface Feb. 14, 1946; lowest, 4.74, Oct. 24, 1943. Records available: 1940-48. Mar. 16, 11.26; May 26, 10.10; Sept. 2, 8.55; Nov. 18, 6.70.

30.31.9.6.6. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 91. Highest observed water level, 6.88, Mar. 25, 1944; lowest, 2.19, Oct. 11, 1941. Records available: 1940-48.

Jan. 29	5.89	May 26	5.80	Sept. 2	4.86
Mar. 16	6.40	July 16	4.80	Nov. 18	5.14

30.32.7.6.9. Department of Conservation and Economic Development, Division of Water Policy and Supply. Penns Grove observation well 92. Highest observed water level, 14.75, Feb. 14, 1943; lowest, 5.33, Dec. 6, 1941. Records available: 1940-48.

Mar. 16	14.45	July 16	10.33	Nov. 18	6.50
May 26	12.70	Sept. 2	9.10		

30.22.9.4.3. Penns Grove observation well E-14. Logwood Inn. Highest observed water level, 16.69, May 24, 1940; lowest, 9.54, Oct. 20, 1943. Records available: 1940-48.

Jan. 29	14.24	May 26	15.72	Sept. 3	12.84
Mar. 16	15.84	July 16	13.69	Nov. 18	10.51

30.22.9.5.4. Penns Grove observation well E-15. George Schmid. Highest observed water level, 15.12, Apr. 23, 1940; lowest, 5.79, Nov. 7, 1943. Records available: 1940-48.

Jan. 29	9.73	May 26	11.83	Sept. 3	8.91
Mar. 16	11.33	July 16	10.13	Nov. 18	6.63

30.32.2.6.4. Owner unknown. Penns Grove observation well E-16. Highest observed water level, 14.85, Mar. 14, 1943; lowest, 10.21, Oct. 24, 1943. Records available: 1940-48.

Mar. 16	14.68	July 16	13.06	Nov. 18	11.79
May 26	14.15	Sept. 2	13.12		

30.32.9.9.8. Penns Grove Water Supply Co. observation well R-5. Highest observed water level, 10.30, Apr. 24, 1940; lowest, 4.10, Oct. 24, 1943. Records available: 1940-48.

Mar. 16	9.03	July 16	8.03	Nov. 18	6.59
May 26	8.99	Sept. 2	7.70		

30.23.7.1.4. Penns Grove Water Supply Co. observation well R-7. Highest observed water level, 24.05, Feb. 24, 1945; lowest, 18.82, Oct. 20, 1943. Records available: 1940-48.

Jan. 29	22.82	May 26	23.13	Sept. 3	20.78
Mar. 16	23.47	July 16	22.05	Nov. 18	20.66

30.32.3.6.5. Penns Grove Water Supply Co. observation well R-8. Highest observed water level, 7.31, Feb. 24, 1945; lowest, 2.09, Oct. 10, 1943. Records available: 1940-48.

Jan. 29	5.57	May 26	6.28	Sept. 2	5.28
Mar. 16	6.20	July 16	5.25	Nov. 18	4.22

NEW YORK

UPSTATE NEW YORK

By E. S. Simpson and G. R. Ayer

PROGRAM OF WORK

Periodic measurement of water levels in observation wells in Upstate New York was continued during 1948. Records for 22 wells are included in this report. Of these, four are equipped with weekly-type automatic water-stage recorders and are operated in cooperation with the New York State Department of Conservation. Seven others, similarly equipped, and 11, which are measured periodically with a tape or tape gage, are operated in cooperation with the New York Water Power and Control Commission, and under the active sponsorship of the New York Departments of Commerce, Health, and Public Works, and Office of the Geologist, New York State Science Service.

Records for two wells, G 2 and Sb 250, which appeared in previous reports, have been discontinued and do not appear in this report. Records for wells Bm 105, Sb 240, and Wn 29 appear for the first time in this report, and a brief description is given of the principal geologic and topographic features affecting ground-water levels in the general areas in which each of these wells is situated.

Well Bm 105 is situated on the west side of the flood plain of the Chenango River, about 1.4 miles north of its confluence with the Susquehanna River. The land-surface datum at the well is approximately 20 feet above river stage. The well is drilled into unconsolidated material, consisting principally of coarse glacial outwash, 135 feet thick. The well-casing is slotted from 100 feet to 105 feet below land-surface datum. On both sides of the river, flat-lying shales and sandstones rise to elevations approximately 600 feet above the flood-plain elevation. The water level in the well is affected by river stage and by nearby industrial pumpage.

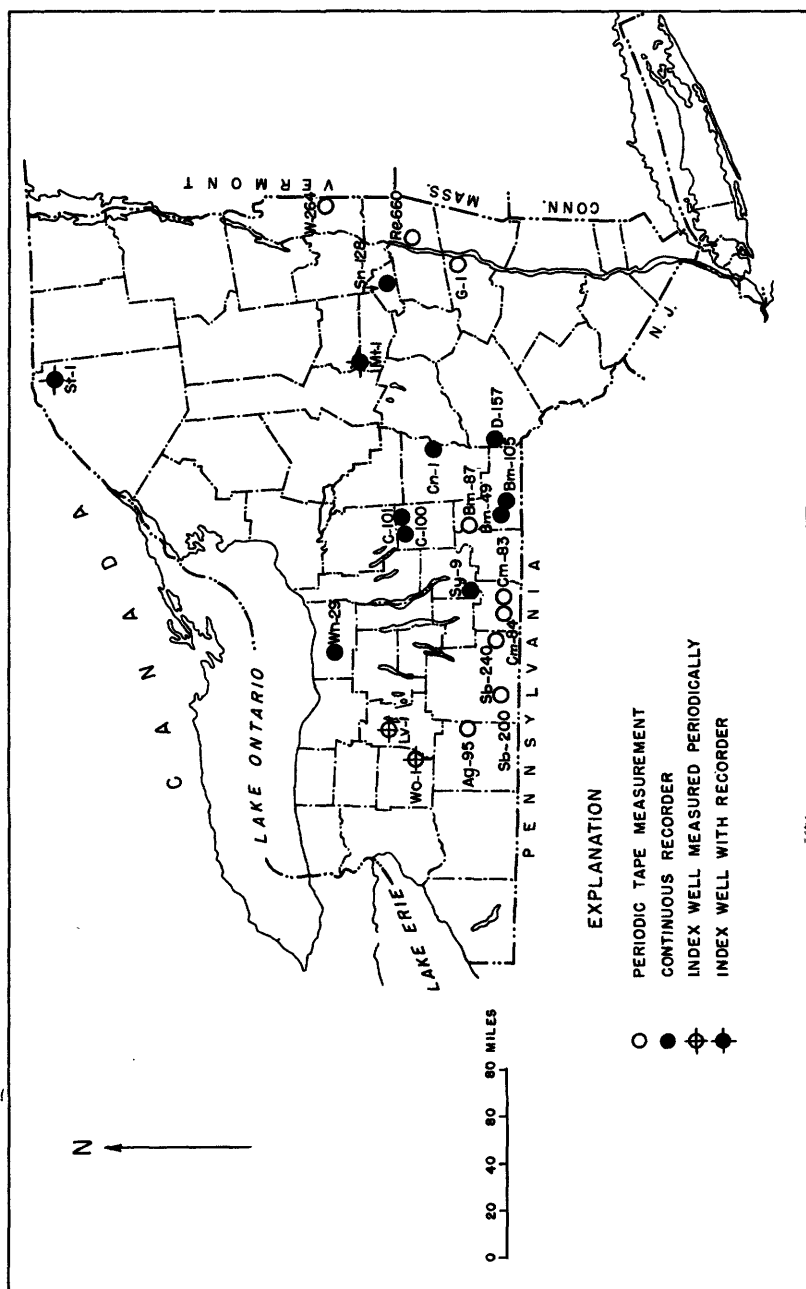
Well Sb 240 is situated on the south side of the flood plain of the Chemung River, and the land-surface datum at the well is approximately 30 feet above river stage. The well is drilled 77.8 feet into unconsolidated material of unknown thickness. Flat-lying shales and sandstones rise, on all sides, to elevations approximately 800 feet above the flood-plain elevation. The water level in the well is affected by nearby industrial pumpage and possibly by river stage.

Well Wn 29 is situated on the interior lowland which extends in a belt south of Lake Ontario. The general direction of drainage is northward, across the lowland belt, to the lake. The well is located about 10 miles south of the lake and near the north end of one of the many well-developed drumlins in the area. The well is drilled through about 25 feet of compact and heterogeneous unconsolidated material into a series of gently southward dipping limestones and dolomites which contain water under artesian pressure.

The location of all wells in this report is shown on the map in figure 5.

FLUCTUATIONS OF WATER LEVEL

At the beginning of the year, below freezing temperatures prevented significant recharge to ground water from the unusually heavy snow cover, until the middle of February, when a thaw and rain brought high ground-water levels to most parts of the State. From March through June precipitation was generally normal or above normal, and ground-water levels declined seasonally at about average rates, except for the northern portion of the State, where both precipitation and water levels were lower than elsewhere. Beginning in July and continuing through October, precipitation averaged only 77 percent of normal for the State as a whole. As a result, ground-water levels declined to below normal stages and recovery, which ordinarily begins in October, did not occur until heavy rains early in November brought rapidly rising levels. December precipitation, mostly in the form of rain, was 141 per cent of normal for the State as a whole, but distribution was uneven. A heavy excess in the Hudson Valley caused floods and record high ground-water levels, but deficiencies in the Great Lakes area prevented full recovery of ground-water levels there. In the central portion of the State most wells ended the year with near average levels.



End of month water levels for 1948 compared with averages for 6 years of record in wells Lv 1, Mt 1, St 1, and Wo 1 are plotted on the graph in figure 6.

WELL-NUMBERING SYSTEM

Following a practice established on Long Island by the New York State Water Power and Control Commission and the Geological Survey, wells in Upstate New York are being numbered consecutively, beginning with "1", in each county. To distinguish numbers in any one county from those in another a letter or combination of two letters, taken from the name of the county, is prefixed to all the well numbers in that county. Thus, the letters "Cn" represent Chenango County and are prefixed to all well numbers in Chenango County. Similarly the letter "C", representing Cortland County, is prefixed to all well numbers in that county.

Summary of data on ground-water levels in Upstate New York

Well No.	Date of first measurement	Lowest observed water level		Highest observed water level		Water level on last date of record 1948
		Water level	Date	Water level	Date	
Ag 95	Aug. 27, 1946	5.12	Feb. 14, 1948	10.36	Feb. 21, 1948	3.71
Bm 49	Feb. 8, 1946	15.27	Jan. 10, 1948	5.88	Mar. 22, 1948	c 9.54
Bm 87	Jan. 30, 1947	8.88	Nov. 1, 1947	1.59	Nov. 27, 1948	3.09
Bm 105	Dec. 1, 1947	19.78	Oct. 8, 1948	11.25	Dec. 31, 1948	c11.25
Cm 83	Aug. 29, 1946	11.55	Oct. 30, 1948	2.76	Apr. 3, 1948	4.80
			Nov. 6, 1948			
Cm 84	Feb. 20, 1947	17.99	Oct. 25, 1948	15.43	May 26, 1947	17.13
Cn 1	Oct. 27, 1934	6.13	Oct. 10, 1936	.00	(d)	c .61
C 100	Oct. 22, 1933	6.15	Oct. 26, 1939	.00	(d)	e 1.00
C 101	Aug. 26, 1933	(f)	Aug. 17 to Oct. 12, 1936	.00	(d)	c .19
			Sept. 7 to Nov. 1, 1939			
D 157	Oct. 24, 1934	9.24	Oct. 27, 1935	.00	(d)	c 1.06
G 1	Dec. 13, 1945	12.75	Nov. 1, 1948	1.90	May 5, 1947	6.36
Lv 1	Nov. 17, 1942	8.51	Nov. 25, 1944	.3	Mar. 15, 1945	5.80
Mt 1	Oct. 3, 1942	9.89	Sept. 17, 1946	4.10	Apr. 15, 1948	7.46
Re 660	Apr. 7, 1946	13.33	Oct. 10, 1948	4.52	Dec. 31, 1948	4.52
			Oct. 15, 1948			
St 1	Oct. 4, 1942	17.00	Sept. 28, 1946	3.00	Apr. 6, 1947	c10.76
Sn 128	Apr. 10, 1946	37.39	Feb. 15, 1948	21.15	Mar. 23, 1948	b,c25.8
Sy 9	Oct. 1, 1946	9.01	Oct. 25 to Oct. 28, 1947	1.03	Mar. 22, 1948	c 2.43
			Nov. 21, 1948			
Sb 200	Sept. 16, 1946	12.03	Nov. 21, 1948	4.36	Mar. 15, 1948	8.07
Sb 240	Dec. 6, 1943	29.10	Oct. 27, 1947	22.39	Apr. 7, 1947	27.30
					May 26, 1947	
W 264	July 26, 1946	11.15	Sept. 27, 1948	7.70	Mar. 29, 1948	10.42
Wn 29	Dec. 4, 1947	19.90	Sept. 16, 1948	17.20	Mar. 22, 1948	c17.77
Wo 1	Nov. 18, 1942	12.40	Dec. 3, 1944	.5	Apr. 5, 1947	8.68

a Snow melt water entered well.

b Affected by nearby pumpage.

c Water level at noon on Dec. 31, 1948, from recorder chart.

d This level observed many times during period of record.

e Estimated; based on records for nearby wells.

f Dry.

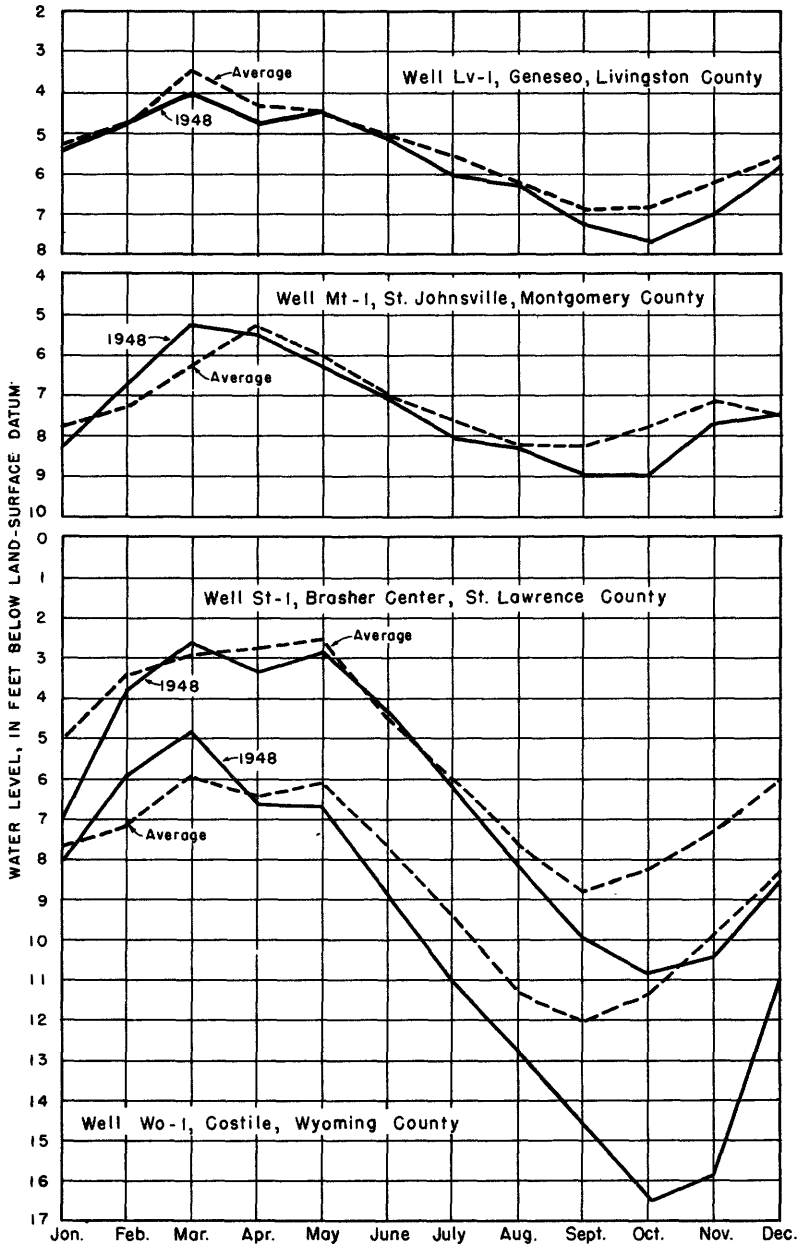


Figure 6.--Graphs showing month-end water levels as compared with average for 6 years of record in four wells in upstate New York, 1948.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Allegheny County

Ag 95. On Mullikin farm, 100 feet north of farmhouse, and 30 feet west of gravel road between Almond and Bishopville. Kinnison type float-tape gage installed Aug. 25, 1948. Aquifer is glacial till. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.14	Apr. 3	1.95	July 3	3.20	Oct. 2	4.38
10	4.11	10	2.23	10	3.38	9	4.34
17	4.33	17	2.37	17	3.47	16	4.60
24	4.37	24	2.71	24	3.89	23	4.50
31	4.67	May 1	2.49	31	4.10	30	4.47
Feb. 7	5.10	8	2.16	Aug. 7	3.68	Nov. 6	4.47
14	5.12	15	2.50	14	3.80	13	4.17
21 a	.36	22	2.45	21	3.87	20	3.95
28	1.50	29	2.04	28	4.01	27	3.72
Mar. 6	1.48	June 5	2.64	Sept. 4	4.17	Dec. 4	3.74
13	1.46	12	2.70	11	4.24	11	3.67
20	1.50	19	3.41	17	4.36	18	3.80
27	1.75	26	3.18	24	4.40	25	3.71

a Snow melt water entered well.

Broome County

Bm 49. Latitude 42° 07' 11", longitude 75° 57' 24". Johnson City. Aquifer is glacial outwash and water level is possibly affected by pumped wells in general area. Records available: 1946-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.59	13.99	10.74	9.67	10.07	9.86	10.61	10.69	12.05	13.45	13.97	11.62
2	13.58	13.99	10.67	9.54	10.12	9.94	10.67	10.79	12.12	13.50	14.03	11.64
3	13.66	14.01	10.79	9.55	10.17	10.01	10.69	10.86	12.19	13.55	14.08	11.63
4	13.67	13.99	10.90	9.61	10.23	10.06	10.74	10.94	12.28	13.59	14.12	11.66
5	13.70	13.99	11.05	9.62	10.26	10.06	10.77	10.96	12.37	13.61	14.18	11.69
6	13.70	13.97	11.05	9.68	10.26	10.11	10.78	10.51	12.43	13.64	14.22	11.64
7	13.71	13.96	11.01	9.66	10.19	10.02	10.81	10.53	12.49	13.68	13.72	11.54
8	13.73	13.96	11.06	9.70	10.15	10.00	10.88	10.59	12.56	13.71	13.33	11.51
9	13.72	13.99	11.13	9.83	10.20	10.08	10.93	10.66	12.61	13.70	13.10	11.55
10a	15.27	14.00	10.86	9.94	10.24	10.18	10.94	10.73	12.69	13.74	12.95	11.57
11a	13.86	13.99	10.75	9.93	10.26	10.22	10.96	10.76	12.74	13.73	12.90	11.64
12a	13.76	13.97	10.85	9.88	10.28	10.26	11.01	10.78	12.79	13.76	12.83	11.62
13	13.73	13.96	10.90	9.93	10.26	10.26	11.06	10.82	12.85	13.79	12.72	11.66
14a	13.99	13.85	10.96	9.28	10.15	10.31	11.05	10.87	12.91	13.83	12.76	11.67
15a	13.82	13.75	10.88	8.64	10.09	10.34	11.11	10.94	12.97	13.89	12.73	11.65
16a	13.83	13.59	10.00	8.92	10.03	10.38	11.14	10.98	13.03	13.94	12.74	11.64
17	13.80	13.36	8.57	9.23	9.81	10.42	11.16	11.03	13.07	13.97	12.71	11.53
18	13.81	12.28	8.91	9.39	9.85	10.48	10.84	11.09	13.10	13.78	12.75	11.48
19a	13.88	10.94	9.02	9.50	9.91	10.45	10.70	11.14	13.11	13.68	12.72	11.40
20	13.87	9.62	8.70	9.59	9.93	10.51	10.77	11.22	13.00	13.63	12.41	11.41
21	13.83	9.67	8.63	9.61	9.85	10.55	10.76	11.30	12.98	13.60	12.11	11.45
22	13.84	9.85	5.88	9.67	9.99	10.58	10.23	11.36	13.03	13.57	11.97	11.53
23a	14.15	10.14	6.42	9.73	10.04	10.52	10.22	11.45	13.09	13.55	11.81	11.60
24a	14.00	10.35	7.25	9.78	7.81	10.51	10.11	11.51	13.16	13.56	11.67	11.66
25	13.95	10.43	8.03	9.71	8.37	10.37	10.18	11.58	13.23	13.59	11.64	11.67
26	13.95	10.55	8.52	9.72	8.92	10.39	10.25	11.68	13.28	13.62	11.63	11.78
27	13.94	10.76	8.84	9.80	9.21	10.42	10.32	11.76	13.32	13.67	11.62	11.78
28	13.95	10.70	9.18	9.87	9.41	10.45	10.39	11.81	13.36	13.71	11.66	11.84
29	13.95	10.71	9.37	9.94	9.54	10.49	10.48	11.80	13.41	13.79	11.62	11.84
30	13.98		9.54	9.98	9.67	10.54	10.53	11.87	13.42	13.86	11.60	10.68
31	14.00		9.64		9.77		10.60	11.95		13.91		9.54

a Affected by nearby pumping.

Bm 87. Latitude 42° 19' 40", longitude 76° 05' 58". On Frawley property, about 120 feet north of Frawley garage, 0.5 mile west of county road 517, and 1.9 miles south of Center Lisle. Aquifer is glacial till. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.32	Apr. 3	2.35	July 3	8.06	Oct. 2	7.40
10	7.74	10	3.75	10	7.15	9	7.50
17	7.39	17	2.74	17	7.27	16	7.59
24	8.00	24	3.98	24	7.55	23	7.64
31	8.11	May 1	5.19	31	7.43	30	7.72
Feb. 7	8.21	8	6.19	Aug. 7	7.31	Nov. 6	7.76
14	8.14	15	3.36	14	6.79	13	3.33
21	4.20	22	2.97	22	6.46	20	2.89
28	3.81	29	5.01	28	6.68	27	1.59
Mar. 7	4.71	June 5	7.15	Sept. 4	6.87	Dec. 4	2.18
13	5.36	12	6.22	11	7.07	11	2.27
28	1.82	19	6.73	18	7.22	18	2.63
27	2.99	26	7.65	26	7.29	25	3.09

Bm 105. Latitude 42° 06' 43", longitude 75° 54' 39". At northwest corner Prospect and Front Streets, Binghamton. U. S. Geological Survey test boring, diameter 6 inches, depth 143.2 feet, drilled to rock and casing slotted from 100 to 105 feet. Measuring point, top of brass strip fastened to recorder shelf, 2.70 feet above land-surface datum, and about 850 feet above mean sea-level datum. Stevens Type F weekly water-stage recorder installed on December 1, 1947, and record begins Dec. 2, 1947. Aquifer is glacial outwash, and water level is affected by river stage and by nearby pumped wells. Records available: 1947-48.

Daily noon water level, from recorder charts

Dec. 1	a 18.76	Dec. 9	16.59	Dec. 17	16.07	Dec. 25	18.46
2	18.53	10	17.14	18	16.54	26	18.46
3	18.60	11	17.54	19	17.46	27	18.23
4	18.07	12	17.81	20	17.92	28	18.28
5	17.52	13	18.01	21	18.05	29	18.61
6	17.91	14	18.08	22	17.88	30	18.59
7	17.98	15	18.23	23	17.99	31	18.38
8	17.85	16	17.86	24	18.13		

a Estimated.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.42	18.37	16.77	.....	17.01	17.49	17.66	19.02	19.18	19.69	19.70	17.74
2	18.47	18.43	17.15	.....	17.05	17.70	18.05	19.08	19.24	19.69	19.70	17.89
3	18.31	18.44	17.26	.....	17.34	17.86	18.30	19.14	19.28	19.70	19.70	18.03
4	18.30	18.29	17.27	.....	17.51	18.01	18.48	19.19	19.32	19.73	19.69	18.13
5	18.46	18.23	17.48	14.35	17.63	17.95	18.60	19.18	19.36	19.73	19.67	18.23
6	18.48	18.02	17.68	14.69	17.54	17.48	18.30	18.50	19.39	19.74	19.65	18.23
7	18.56	18.08	17.67	14.47	17.68	17.72	17.55	17.24	19.41	19.76	17.82	17.30
8	18.43	18.33	17.55	15.23	16.67	16.26	17.90	18.01	19.45	19.78	17.11	17.50
9	18.56	18.27	17.58	15.78	17.00	15.83	18.23	18.37	19.47	19.73	17.99	17.82
10	18.59	18.21	17.60	16.18	17.32	16.54	18.47	18.58	19.46	19.74	18.39	18.04
11	18.69	17.96	17.56	16.52	16.37	17.04	18.65	18.74	19.46	19.69	18.52	18.21
12	18.44	18.10	17.89	15.18	16.77	17.38	18.76	18.80	19.40	19.68	18.39	18.32
13	18.50	18.10	18.04	15.24	17.06	17.30	18.80	15.61	19.44	19.69	18.57	18.15
14	18.24	18.23	17.72	14.70	14.23	17.58	18.37	16.35	19.49	19.69	18.72	17.80
15	18.65	17.65	17.87	13.14	13.55	17.85	18.43	17.25	19.54	19.67	18.75	18.05
16	18.43	16.60	15.75	13.90	14.37	17.99	18.67	17.70	19.59	19.67	18.79	18.24
17	18.07	16.22	.....	14.39	14.26	18.13	18.81	18.02	19.63	19.70	18.82	18.09
18	18.81	15.58	.....	15.11	14.71	18.26	18.88	18.23	19.66	19.55	18.89	18.05
19	18.15	15.19	.....	15.75	14.87	18.32	18.88	18.37	19.63	19.17	18.92	18.25
20	17.82	14.49	.....	16.15	15.31	18.41	18.91	18.48	19.55	19.02	18.16	18.40
21	18.00	14.26	.....	15.55	15.55	18.50	18.96	18.51	19.44	19.16	15.84	18.39
22	18.16	14.79	.....	15.40	15.43	18.56	18.90	18.11	19.47	19.31	16.82	18.35
23	18.20	15.53	.....	16.13	15.60	18.49	18.56	18.20	19.55	19.40	16.40	18.31
24	18.25	16.09	.....	16.49	13.67	18.14	18.39	18.35	19.60	19.46	16.50	18.42
25	18.65	16.54	.....	15.22	14.72	17.63	18.28	18.54	19.64	19.50	17.12	18.70
26	18.52	16.70	.....	15.71	15.64	17.87	18.59	18.66	19.67	19.57	17.50	18.96

a Estimated.

Bm 105--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	18.19	16.91	.....	16.44	16.21	18.24	18.74	18.77	19.69	19.60	17.68	18.63
28	18.35	17.00	.....	16.80	16.63	18.39	18.63	18.88	19.70	19.53	16.95	18.45
29	18.17	16.97	.....	17.01	16.83	17.11	18.77	18.98	19.72	19.66	17.39	18.35
30	18.25		13.6	17.10	16.93	17.06	18.90	19.05	19.70	19.67	17.56	14.29
31	18.33		.....		17.18		18.97	19.10		19.69		11.25

a Estimated.

Chemung County

Cm 83. Latitude 42° 04' 43", longitude 76° 41' 01". In yard of Daly residence, 40 feet east of paved county road, about 4.2 miles north of State Route 17 at Lowman. Occasionally pumped at 12 gallons per day or less. Aquifer is glacial till. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.60	Apr. 3	2.76	July 3	6.00	Oct. 2	11.15
10	8.50	10	3.37	10	6.46	9	11.24
17	9.10	17	3.26	17	7.50	23	10.40
24	9.40	24	3.45	24	8.78	30	11.55
31	9.90	May 1	3.90	31	9.45	Nov. 6	11.55
Feb. 7	10.35	8	5.00	Aug. 7	8.57	13	11.52
14	10.58	15	3.20	14	8.12	20	6.66
21	8.05	22	3.56	21	8.54	27	4.46
28	6.16	29	3.76	28	9.36	Dec. 4	3.95
Mar. 6	4.66	June 5	5.05	Sept. 4	9.94	11	4.74
13	4.45	12	4.07	11	10.40	18	4.67
20	3.30	19	5.59	18	10.89	25	4.80
27	3.17	26	6.77	25	10.98		

Cm 84. Latitude 42° 04' 17", longitude 76° 47' 47". In Remington Rand plant, South Main Street, Elmira, 260 feet north of water tower and 144 feet west of wire boundary fence. Aquifer is glacial outwash and water level is possibly affected by river stage. Records available: 1947-48.

Jan. 5	16.96	Apr. 5	16.59	July 5	16.60	Oct. 4	17.77
12	17.00	11	16.68	12	16.58	11	17.80
19	17.03	18	16.48	19	16.65	18	17.83
26	17.05	26	16.45	26	16.69	25	17.99
Feb. 2	17.08	May 3	16.49	Aug. 2	16.84	Nov. 1	17.83
9	17.11	10	16.54	9	16.63	8	17.70
16	17.07	17	16.20	16	16.73	15	17.33
23	16.64	24	15.97	23	16.85	22	16.90
Mar. 1	16.53	31	15.97	30	16.94	29	16.75
8	16.36	June 7	16.09	Sept. 7	17.06	Dec. 6	16.81
15	16.35	14	16.16	13	17.30	13	17.01
22	16.41	21	16.32	20	17.36	20	17.10
29	16.55	29	16.30	27	17.48	27	17.13

Chenango County

Cn 1. Latitude 42° 31' 55", longitude 75° 25' 30". Aquifer is glacial till. Records available: 1934-48.

Jan. 5	0.82	Mar. 8	0.73	May 10	0.67	July 12	1.07
12	.76	15	.66	17	.74	19	.89
19	.82	22	.40	24	.68	26	.96
26	.82	29	.70	31	.80	Aug. 2	1.52
Feb. 2	.83	Apr. 5	.72	June 7	.60	9	.92
9	.84	12	.66	14	.87	16	1.02
16	.64	19	.76	21	.98	23	1.05
23	.61	26	.71	28	.86	30	1.68
Mar. 1	.76	May 3	.79	July 5	.99	Sept. 6	2.41

Cn 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 13	2.70	Oct. 11	3.98	Nov. 8	0.73	Dec. 6	0.54
20	3.13	18	3.02	15	.90	13	.71
27	3.38	25	2.86	22	.71	20	.73
Oct. 4	3.76	Nov. 1	3.31	29	.70	27	.74

Cortland County

C 100. Latitude 42° 42' 00", longitude 76° 06' 50". Aquifer is glacial till. Records available: 1938-48.

Jan. 3	1.15	Apr. 4	0.50	June 27	2.35	Sept. 22	3.93
10	1.30	13	.41	July 4	2.74	30	4.34
19	1.73	18	.82	12	2.69	Oct. 7	4.67
25	2.17	25	.51	21	2.58	19	3.93
Feb. 8	2.53	May 2	2.14	25	2.31	24	3.43
15	.97	9	1.10	Aug. 5	.00	Nov. 2	3.21
21	.52	16	.00	10	2.56	9	1.33
29	.83	23	1.12	16	2.28	28	.04
Mar. 7	1.99	31	1.55	25	2.49	Dec. 5	.91
15	2.01	June 6	1.52	31	2.80	14	.96
22	.47	13	.35	Sept. 7	3.27	21	1.64
28	.45	20	2.56	14	3.55	27	2.15

C 101. Latitude 42° 46' 00", longitude 76° 01' 10". Aquifer is glacial till. Records available: 1933-48.

Jan. 3	1.10	Apr. 11	0.10	July 14	1.14	Oct. 5	3.17
10	1.20	18	.10	20	1.47	12	3.42
18	1.26	25	.12	27	1.77	22	3.64
25	1.28	May 2	.21	Aug. 4	2.00	31	3.85
Feb. 8	1.53	9	.45	12	2.05	Nov. 8	3.04
21	.43	16	.10	20	2.05	14	2.10
29	.48	23	.12	26	2.10	21	.60
Mar. 7	.50	31	.19	31	2.19	28	.55
15	.57	June 6	.31	Sept. 8	2.38	Dec. 5	.78
22	.01	13	.36	14	2.52	13	.78
27	.00	27	.61	20	2.70	20	.93
Apr. 4	.04	July 4	.73	28	2.90	26	1.14

Delaware County

D 157. Latitude 42° 09' 35", longitude 75° 23' 35". Aquifer is glacial till. Records available: 1934-48.

Jan. 5	4.59	Apr. 4	1.42	July 4	4.37	Oct. 3	7.41
13	4.07	11	3.12	11	4.80	10	7.59
20	4.37	18	1.54	18	5.26	16	7.76
27	4.78	25	1.85	25	2.01	24	7.34
Feb. 4	5.18	May 2	3.75	Aug. 1	4.34	31	7.60
11	5.46	9	2.44	8	4.64	Nov. 7	2.23
17	1.37	16	1.20	15	5.28	14	3.02
24	1.84	23	2.75	22	5.84	21	2.08
Mar. 2	2.64	30	3.98	29	6.25	28	1.91
9	3.64	June 6	4.02	Sept. 5	6.57	Dec. 5	2.61
16	.52	13	3.58	12	6.76	12	2.63
23	1.10	20	4.40	19	7.00	19	2.40
28	1.85	27	2.03	26	7.18	26	3.26

Greene County

G 1. Latitude 42° 23' 20", longitude 73° 48' 19". Aquifer probably is glacial till. Records available: 1946-48.

G 1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	6.25	Apr. 5	3.06	July 19	4.68	Oct. 11	11.99
12	6.68	12	3.73	26	5.66	18	12.48
19	7.03	19	3.34	Aug. 2	6.52	25	12.60
26	6.98	26	3.93	9	6.82	Nov. 1	12.75
Feb. 2	6.91	May 3	4.64	16	7.45	8	12.03
9	6.82	17	2.78	23	8.07	15	10.41
16	6.36	24	2.10	30	8.70	22	8.94
23	3.02	31	3.60	Sept. 6	9.33	29	6.62
Mar. 1	3.44	June 7	3.54	13	9.88	Dec. 6	5.66
7	4.00	14	2.36	20	10.33	13	5.85
15	3.88	21	3.58	27	10.88	20	6.09
22	1.99	30	3.18	Oct. 4	11.38	27	6.36
29	2.78	July 5	3.10				

Livingston County

Lv 1. Latitude 42° 48' 00", longitude 77° 48' 46". Aquifer probably is glacial till. Records available: 1942-48.

Jan. 27	5.45	Apr. 26	4.78	July 26	6.10	Oct. 25	7.70
Mar. 2	4.74	May 25	4.54	Aug. 26	6.30	Nov. 24	7.00
26	4.10	June 25	5.20	Sept. 27	7.30	Dec. 29	5.80

Montgomery County

Mt 1. Latitude 43° 01' 43", longitude 74° 42' 38". Aquifer is glacial till. Records available: 1942-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.77	a8.42	6.93	5.44	6.11	6.50	7.29	8.11	8.44	9.12	8.94	7.52
2	7.78	a8.44	6.95	5.40	6.18	6.58	7.34	8.15	8.47	9.13	8.95	7.51
3	7.84	a8.46	6.99	5.34	6.23	6.65	7.38	8.20	8.50	9.14	8.97	7.51
4	7.88	a8.47	7.05	5.37	6.29	6.70	7.42	8.24	8.54	9.15	8.98	7.50
5	7.90	a8.48	7.11	5.39	6.35	6.75	7.46	8.28	8.56	9.17	8.98	7.52
6	7.93	a8.49	7.13	5.47	6.41	6.78	7.49	8.23	8.57	9.19	8.99	7.52
7	7.93	8.50	7.13	5.44	6.45	6.81	7.37	8.16	8.59	9.20	8.91	7.52
8	7.95	8.50	7.17	5.39	6.43	6.69	7.30	8.14	8.62	9.21	8.78	7.51
9	7.94	8.50	7.23	5.41	6.43	6.46	7.28	8.14	8.64	9.15	8.69	7.51
10	7.97	8.51	7.25	5.53	6.40	6.13	7.29	8.16	8.68	9.03	8.61	7.51
11	7.98	8.51	7.26	5.59	6.38	5.93	7.33	8.19	8.70	9.00	8.55	7.52
12	7.99	8.52	7.28	4.61	6.34	6.00	7.37	8.19	8.71	8.99	8.51	7.52
13	7.99	a8.52	7.30	4.61	6.33	6.12	7.43	8.03	8.74	8.95	8.48	7.50
14	8.01	a8.31	7.33	4.69	6.09	6.26	7.48	7.91	8.77	8.94	8.46	7.48
15	8.03	7.58	7.37	4.10	5.65	6.37	7.53	7.86	8.81	8.94	8.42	7.46
16	8.05	7.25	7.02	4.28	5.44	6.47	7.57	7.84	8.85	....	8.42	7.42
17	8.07	7.14	4.67	4.51	5.44	6.56	7.61	7.84	8.88	....	8.39	7.39
18	8.08	6.82	4.94	4.72	5.45	6.65	7.65	7.86	8.91	....	8.39	7.38
19	8.11	6.43	4.91	4.90	5.52	6.75	7.69	7.89	8.91	....	8.39	7.37
20	8.12	6.02	4.21	5.05	5.62	6.80	7.73	7.94	8.92	....	8.32	7.36
21	8.12	6.02	4.46	5.17	5.68	6.86	7.77	7.97	8.92	....	8.22	7.37
22	8.12	6.22	4.48	5.27	a5.83	6.93	7.81	8.00	8.92	....	8.13	7.38
23	8.15	6.41	4.70	5.36	5.91	6.99	7.86	8.06	8.94	....	8.03	7.41
24	8.19	6.51	4.90	5.46	5.95	7.02	7.86	8.10	8.95	....	7.92	7.44
25	8.20	6.61	5.10	5.57	5.96	7.06	7.87	8.13	8.97	a8.83	7.83	7.46
26	a8.24	6.66	5.23	5.68	6.01	7.11	7.90	8.19	9.00	a8.85	7.77	....
27	a8.28	6.74	5.28	5.79	6.08	7.15	7.93	8.24	9.03	8.87	7.70	....
28	a8.32	6.78	5.26	5.88	6.18	7.19	7.96	8.29	9.05	8.88	7.64	....
29	a8.35	6.83	5.29	5.96	6.26	7.22	8.00	8.33	9.08	8.91	7.58	....
30	a8.38		5.35	6.03	6.34	7.25	8.03	8.37	9.10	8.92	7.53	....
31	a8.41		5.42		6.42		8.07	8.40		8.93	....	....

a Estimated.

Rensselaer County

Re 660. Latitude 42° 37' 11", longitude 73° 39' 20". About 75 feet west of Hardgrove residence on State Highway 152, 3.0 miles east of State Highway 40, at De Freestville. Aquifer is glacial till. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 2	9.82	May 17	10.36	Aug. 2	11.58	Oct. 15	13.33
6	10.08	24	8.80	8	11.85	25	13.19
12	10.38	31	8.86	17	12.10	Nov. 1	13.30
22	5.42	June 6	9.63	27	12.37	8	13.22
28	7.83	13	9.59	30	12.46	19	12.99
Apr. 5	9.31	21	10.03	Sept. 6	12.66	28	12.46
12	9.90	28	10.27	13	12.84	Dec. 4	12.22
20	9.08	July 5	10.21	21	13.01	12	12.12
26	9.64	12	10.51	23	13.13	23	12.12
May 1	9.96	20	10.93	Oct. 4	13.26	30	11.63
8	10.32	26	11.25	10	13.33	31	4.52

St. Lawrence County

St 1. Latitude 44° 51' 52", longitude 74° 46' 53". Aquifer is glacial till. Records available: 1942-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	a7.28	a8.81	6.06	5.23	6.60	6.89	9.05	11.45	12.93	14.94	16.60	a14.5
2	a7.33	a8.87	a6.19	5.27	6.54	6.98	9.12	11.52	12.98	15.01	16.64	a14.2
3	a7.39	a8.93	a6.30	5.28	6.51	7.05	9.18	11.59	13.03	15.10	16.68	a13.9
4	a7.44	a9.00	a6.49	a5.37	6.55	7.11	9.26	a11.65	13.05	15.21	16.73	a13.5
5	a7.46	a9.08	a6.62	a5.45	6.60	7.19	9.32	11.70	a13.12	15.28	16.76	.....
6	a7.51	a9.15	6.70	5.53	6.66	7.28	9.38	11.77	a13.19	15.36	a16.72	.....
7	7.55	9.20	6.77	5.62	6.70	7.35	9.46	11.82	a13.25	15.44	.....	.....
8	7.61	9.26	a6.87	5.68	6.73	7.42	9.54	11.87	13.32	15.50	.....	.....
9	7.63	a9.32	6.95	5.77	6.72	7.50	9.61	11.93	13.38	15.57	.....	a12.34
10	a7.70	a9.38	7.03	5.88	6.69	7.57	9.68	12.00	13.45	15.62	.....	12.14
11	7.75	a9.43	7.11	5.95	6.61	7.63	9.76	12.07	13.51	15.65	.....	11.97
12	7.77	a9.48	7.15	6.01	6.67	7.69	9.84	12.14	13.57	15.71	.....	11.80
13	7.83	9.53	7.23	6.08	6.56	a7.75	9.92	12.21	13.64	15.75	.....	11.65
14	7.87	9.59	7.26	6.14	6.59	a7.81	10.01	12.28	13.81	15.84	.....	11.49
15	a7.92	9.65	7.33	6.16	6.64	7.87	10.09	12.34	13.78	15.89	.....	11.39
16	a7.98	9.70	a5.04	6.15	6.65	7.95	10.18	12.40	13.85	15.95	.....	11.27
17	a8.03	9.74	.....	6.21	6.64	8.02	10.27	12.44	13.93	15.01	.....	11.18
18	a8.07	9.46	.....	6.26	6.57	8.10	10.36	12.48	14.00	16.06	.....	11.05
19	a8.12	8.87	.....	6.31	6.37	8.18	10.46	12.51	a14.06	16.11	.....	10.96
20	a8.17	6.02	.....	6.36	6.24	8.26	10.55	12.54	14.15	16.16	.....	10.89
21	a8.22	5.59	.....	6.32	6.23	8.33	10.65	12.57	14.22	16.21	.....	10.83
22	a8.26	5.82	.....	6.14	6.26	8.41	10.76	12.59	14.30	16.26	.....	10.85
23	a8.32	6.03	5.05	6.12	6.24	8.49	10.83	12.62	14.37	16.30	.....	.....
24	a8.38	6.17	5.06	6.18	6.23	8.57	10.92	12.64	14.44	16.33	.....	.....
25	a8.44	6.30	5.14	6.27	6.26	8.65	11.00	12.67	14.51	16.36	.....	10.80
26	a8.48	a5.29	5.23	6.36	6.34	8.73	a11.07	12.70	14.58	16.39	.....	10.80
27	a8.54	5.46	5.25	6.42	6.43	8.80	11.13	12.73	14.64	16.42	a15.8	10.78
28	a8.59	5.70	4.96	6.48	6.54	8.86	11.19	12.76	14.71	16.45	a15.5	10.78
29	a8.64	a5.89	4.97	6.53	6.64	8.92	11.26	12.79	14.79	16.48	a15.1	10.78
30	a8.69	.....	4.97	6.58	6.73	8.98	11.32	12.83	14.86	16.50	a14.8	10.78
31	a8.75	.....	5.13	.....	6.82	.....	11.38	12.88	.....	16.55	.....	10.76

a Estimated.

Schenectady County

Sn 128. Latitude 42° 49' 26", longitude 73° 59' 22". City of Schenectady. Aquifer is glacial outwash, and water level is affected by river stage and by nearby pumped wells. Records available: 1946-48.

Sn 128--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.43	34.93	33.80	30.44	32.37	30.12	30.47	31.33	31.35	31.52	31.00	31.12
2	33.52	34.95	34.15	30.26	32.18	30.62	31.16	30.90	30.98	31.63	31.07	30.95
3	33.54	35.14	34.33	28.92	32.37	30.60	31.29	31.95	.....	31.10	31.00	31.15
4	33.57	35.41	34.49	29.31	32.30	31.01	31.40	31.06	.....	30.78	31.34	31.73
5	33.87	35.54	34.66	30.06	32.14	31.20	31.25	31.04	.....	31.07	31.43	31.62
6	33.43	35.66	34.85	31.41	31.72	31.87	30.74	31.23a	30.91	31.59	31.66	31.39
7	33.90	35.80	34.77	30.50	31.60	30.50	29.47	30.29	30.92	31.72	30.93	31.18
8	33.74	35.92	34.83	31.33	31.47	29.78	31.10	29.93	31.11	32.04	30.29	30.85
9	33.70	36.10	35.07	31.35	30.77	29.83	30.51	30.48	.....	31.78	30.46	30.94
10	33.49	36.35	35.18	31.41	30.24	28.19	30.68	30.90	.....a	31.63	30.78	31.31
11	33.46	36.60	35.26	31.37	30.21	29.77	30.79	31.01	.....a	31.93	30.75	30.92
12	33.26	36.84	35.13	31.23	30.15	29.63	30.92	31.20	.....	31.09	31.31	30.64
13	33.54	37.01	34.90	30.52	30.07	29.96	31.05	30.71a	30.77	31.01	31.39	30.64
14	33.67	37.23	34.91	30.68	29.15	29.88	30.46	30.30	30.98	31.20	31.16	30.87
15	33.87	37.39	34.90	28.64	28.33	30.17	30.67	30.66	31.06	31.06	31.34	31.16
16	33.76	36.87	35.26	29.16	28.80	30.38	30.90	30.71	31.32	31.18	31.15	31.45
17	33.92	36.36	30.86	29.93a	28.85	29.77	31.57	30.85	31.52	31.13	31.39	31.79
18	33.61	35.82	27.09	30.68	29.08	31.49	30.61	30.88	32.07	30.76	31.55a	32.2
19	33.77	34.51	27.24	31.02	29.24	31.62	30.49	31.09a	31.59	31.00	31.68a	32.4
20	33.97	33.37	25.96	31.45	29.51	31.24	30.58	31.53a	31.43	31.08	31.86a	32.4
21	34.17	32.31	21.91	31.29	29.80	30.85	30.32	31.73	31.69	31.21	30.22a	32.6
22	34.13	31.74	22.53	30.95	29.78	30.87	31.02	31.66	31.71	31.17	30.23a	32.7
23	34.33	31.66	21.15	31.17	29.80	30.85	31.32	30.83	31.57a	31.3	30.45a	32.8
24	34.20	32.32	24.05	31.55	29.20	30.78	31.04	31.28	31.94a	31.2	30.35a	32.9
25	34.36	32.85	25.74	31.76	29.21	30.46	30.06	31.57	31.58	30.83	30.42a	33.0
26	34.34	33.26	27.21	31.97	29.53	30.26	30.59	31.38	31.00	31.11	30.54a	33.1
27	34.50	33.47	28.15	32.10	29.85	29.93	30.64	31.58	31.69	31.18	30.71a	33.2
28	34.63	33.60	27.79	32.38	30.06	30.53	30.95	31.68	31.05	31.31	29.97a	32.1
29	34.74a	33.48	26.65	32.49	30.80	30.25	31.28	31.58	31.03	31.50	30.20a	33.0
30	34.85		28.12	32.44	30.62	30.27	31.62	31.30	31.19	31.60	30.77a	27.9
31	35.08		29.60		29.97		31.59	31.46		31.18		a25.8

a Estimated.

Schuyler County

Sy 9. Latitude 42° 16' 40", longitude 76° 39' 41". Arnot Forest experimental area. About 16 feet west of Soil Conservation Service observer's house. Aquifer is glacial till. Records available: 1946-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.97	8.64	.....	3.21	5.29	5.22	7.68	8.55	8.05	8.68	8.85	3.75
2	7.97	8.65	.....	2.39	5.64	5.55	7.89	8.68	8.12	8.70	8.86	3.87
3	8.10	.....	.....	2.42	5.95	5.84	8.06	8.80	8.16	8.74	8.86	3.96
4	8.18	.....	.....	2.60	6.29	6.13	8.19	8.85	8.14	8.78	8.84	4.11
5	8.25	.....	.....	2.84	6.53	6.17	8.28	8.86	8.17	8.79	8.80	4.27
6	8.31	.....	.....	3.03	6.74	6.41	8.18	7.70	8.25	8.79	8.77	4.34
7	8.34	.....	.....	3.03	6.87	6.54	7.90	7.11	8.29	8.79	7.94	4.51
8	8.40	.....	.....	3.17	6.97	5.96	8.07	6.63	8.32	8.79	7.62	4.59
9	8.40	a3.77	.....	3.47	7.20	5.40	8.31	6.23	8.35	8.68	7.42	4.76
10	8.46	8.80	.....	3.81	7.35	5.13	8.44	6.04	8.59	8.61	7.16	4.89
11	8.52	8.82	.....	3.95	7.40	5.11	8.50	5.97	8.41	8.62	6.53	5.10
12	8.53	8.79	.....	3.55	7.46	5.22	8.52	5.78	8.44	8.66	6.05	5.24
13	8.53	8.80	.....	3.33	7.45	5.27	8.40	5.41	8.48	8.69	5.64	5.40
14	8.55	8.51	.....	2.31	7.11	5.54	8.13	5.23	8.52	8.69	5.46	5.58
15	8.59	8.17	.....	2.30	6.52	5.84	8.25	5.11	8.57	8.68	5.30	5.80
16	8.60	a7.73	.....	2.33	6.02	6.15	8.41	5.11	8.61	8.72	5.26	5.92
17	8.62	.....	.....	2.41	5.47	6.45	8.51	5.23	8.65	8.74	5.17	5.97
18	8.63	.....	.....	2.51	4.89	6.75	8.54	5.39	8.64	8.49	5.27	6.06
19	8.64	.....	.....	2.81	4.00	6.97	8.58	5.62	8.60	8.20	5.33	6.04
20	8.64	.....	.....	3.11	3.72	7.16	8.62	5.89	8.52	8.19	4.78	6.06
21	8.59	.....	.....	3.22	3.11	7.43	8.64	6.12	8.44	8.26	2.97	6.18
22	8.51	.....	1.03	3.38	3.20	7.61	8.39	6.42	8.47	8.35	2.69	6.35
23	8.53	.....	1.17	3.58	3.32	7.62	8.37	6.74	8.52	8.45	2.50	6.56

a Estimated.

Sy 9--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	8.61	....	1.30	3.79	2.76	7.69	8.25	7.00	8.53	8.52	2.53	6.78
25	8.62	....	1.62	3.98	2.99	7.78	8.42	7.17	8.58	8.57	2.74	6.93
26	8.64	....	1.89	4.15	3.37	8.02	8.60	7.37	8.62	8.63	3.00	7.14
27	8.63	....	2.09	4.34	3.72	8.17	8.72	7.54	8.66	8.69	3.15	7.25
28	8.63	....	2.44	4.54	4.03	7.79	8.69	7.67	8.68	8.74	3.29	7.36
29	8.61	....	2.83	4.78	4.28	7.57	8.66	7.75	8.69	8.79	3.38	7.41
30	8.62	....	3.12	5.00	4.60	7.56	8.75	7.87	8.69	8.82	3.60	5.98
31	8.64	....	3.31	....	4.92	....	8.58	7.96	....	8.84	....	2.43

a Estimated.

Steuben County

Sb 200. Latitude 42° 05' 34", longitude 77° 25' 18". In field on Calkins farm, 135 feet east of residence, 45 feet north of old State Route 17, and 1.5 miles west of Woodhull. Aquifer is glacial till. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.89	Apr. 12	4.53	July 10	10.43	Oct. 2	11.66
10	11.37	18	5.17	17	10.38	10	11.75
17	11.39	26	5.40	24	11.25	16	11.80
31	11.98	May 3	6.97	31	10.86	23	11.83
Feb. 7	11.05	10	5.44	Aug. 7	10.99	Nov. 6	11.97
15	11.50	16	5.24	15	11.00	14	12.00
23	5.42	22	5.38	23	10.90	21	12.03
27	5.69	29	5.54	28	10.82	28	11.71
Mar. 8	5.12	June 5	7.92	Sept. 4	11.28	Dec. 5	11.74
15	4.36	12	7.99	11	11.33	12	9.59
20	5.06	20	3.89	18	11.44	20	8.76
29	5.12	28	9.73	27	11.56	28	8.07
Apr. 6	5.27	July 3	10.57				

Sb 240. Latitude 42° 08' 37", longitude 77° 03' 18". In city of Corning, in manhole at north edge of sidewalk on north side of W. Market Street, about 9 feet west of southwest corner of Corning Glass Works Memorial Club, at northwest corner of intersection of Walnut and W. Market Streets. Abandoned drilled industrial-supply well, diameter 10 inches, depth 77.8 feet. Measuring point, top edge of manhole rim, 3.70 feet above top of well casing, at land-surface datum, and approximately 940 feet above mean sea-level datum. Aquifer is glacial outwash and water level is affected by nearby pumped wells and possibly by river stage. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level
Dec. 6, 1943	26.00	Sept. 30, 1946	27.0	Feb. 10, 1947	25.9
27	26.71	Oct. 7	27.2	17	25.78
Jan. 3, 1944	26.79	14	26.44	24	26.00
19	27.19	28	26.1	Mar. 3	27.20
17	27.40	Nov. 4	26.2	10	27.25
24	27.59	11	26.9	17	26.60
Feb. 1	26.84	18	27.0	24	26.20
7	26.94	25	27.4	31	25.68
15	27.27	Dec. 2	27.29	Apr. 7	22.39
July 29, 1946	23.03	9	27.6	14	25.86
Aug. 6	24.5	16	27.6	21	23.33
14	25.4	23	27.5	28	23.36
19	25.6	30	27.6	May 6	23.22
27	26.4	Jan. 6, 1947	26.90	12	24.03
Sept. 3,	26.9	11	26.40	19	23.31
9	27.3	20	25.89	26	22.39
16	27.4	27	26.37	June 2	23.71
23	27.3	Feb. 3	25.68	9	22.72

Sb 240--Continued.

Date	Water level	Date	Water level	Date	Water level
June 16, 1947	24.09	Dec. 22, 1947	27.90	June 28, 1948	26.44
23	25.33	29	28.20	July 5	26.60
30	26.22	Jan. 5, 1948	28.40	12	27.40
July 7	25.7	12	28.40	19	27.60
14	24.82	19	28.50	26	27.20
21	25.68	26	28.80	Aug. 2	27.50
28	26.50	Feb. 2	28.60	9	26.80
Aug. 4	27.25	9	28.70	16	27.00
11	27.50	16	28.40	23	27.50
18	27.40	23	25.70	30	28.00
25	25.70	Mar. 1	24.90	Sept. 7	28.60
Sept. 1	25.95	8	25.80	13	28.80
8	26.50	15	26.10	20	28.90
15	27.30	22	(a)	27	29.00
22	27.70	29	22.44	Oct. 4	29.00
29	27.80	Apr. 5	23.50	11	28.80
Oct. 6	28.30	12	23.80	18	28.80
13	28.60	19	23.20	25	28.70
20	28.90	26	24.10	Nov. 1	28.90
27	29.10	May 3	25.10	8	28.00
Nov. 7	28.90	10	25.60	15	27.70
10	28.50	17	24.10	22	26.80
17	28.40	24	23.70	29	27.00
24	28.64	31	24.50	Dec. 6	27.20
Dec. 1	28.50	June 3	25.50	13	27.35
8	28.50	14	25.90	20	27.00
15	28.30	21	26.40	27	27.30

a Flood conditions.

Washington County

W 264. Latitude 43° 10' 27", longitude 73° 19' 43". In village of Salem, on east side of State Highway 22, about 100 feet south of Delaware & Hudson Railroad crossing. Aquifer is glacial outwash and water level is possibly affected by river stage. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	10.77	Apr. 5	8.29	July 5	10.28	Oct. 4	11.13
13	10.78	12	8.64	12	10.30	11	11.14
19	10.80	19	9.15	19	10.36	18	11.12
26	10.81	26	9.26	26	10.45	25	11.11
Feb. 2	10.85	May 3	9.49	Aug. 2	10.55	Nov. 1	10.88
9	10.86	10	9.78	9	10.67	8	10.77
16	10.41	17	9.82	16	10.76	15	10.50
23	8.36	24	8.64	23	10.90	22	10.49
Mar. 1	8.92	31	8.80	30	11.04	29	10.44
8	9.91	June 7	8.87	Sept. 6	11.02	Dec. 6	10.43
15	9.79	14	9.15	13	11.03	13	10.41
22	8.95	21	9.74	20	11.07	20	10.40
29	7.70	28	9.95	27	11.15	27	10.42

Wayne County

Wn 29. Latitude 43° 08' 14", longitude 77° 11' 19". In town of Marlon, in wooden pump house on town property, about 270 feet southwest of Bremner residence at 55 Mill Street. Abandoned drilled public-supply well, diameter 8 inches, depth 107 feet. Measuring point, top of casing, 0.80 foot above land-surface datum and about 460 feet above mean sea-level datum. Aquifer is Lockport dolomite.

Wn 29--Continued.

Daily noon water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level
Dec. 4, 1947	18.25	Dec. 14, 1947	17.93	Dec. 23, 1947	17.80
5	18.00	15	17.93	24	17.90
6	18.05	16	17.73	25	17.82
7	18.04	17	17.87	26	17.74
8	17.87	18	17.85	27	17.75
9	17.96	19	17.89	28	17.76
10	17.97	20	17.87	29	17.88
11	17.95	21	17.81	30	17.93
12	17.96	22	17.83	31	19.90
13	17.96				

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.92	18.19	17.54	17.54	17.69	17.82	18.48	18.96	19.49	19.78	19.11	18.33
2	17.78	18.13	17.43	17.53	17.77	17.89	18.55	19.03	19.52	19.81	19.16	18.34
3	17.94	18.20	17.61	17.69	17.79	17.92	18.55	19.05	19.55	19.88	19.11	18.32
4	17.92	18.16	17.63	17.72	17.86	17.91	18.57	19.10	19.60	19.85	19.05	18.29
5	17.97	18.21	17.75	17.63	17.86	17.90	18.53	19.13	19.62	19.80	19.06	18.28
6	17.95	18.17	17.68	17.55	17.89	17.96	18.52	19.09	19.59	19.80	19.02	18.20
7	17.93	18.16	17.54	17.52	17.81	17.85	18.60	19.12	19.60	19.83	19.00	18.26
8	17.95	18.18	17.55	17.44	17.82	17.76	18.65	19.10	19.64	19.77	19.05	18.29
9	17.84	18.27	17.62	17.56	17.90	17.85	18.69	19.11	19.64	19.64	18.98	18.38
10	17.99	18.31	17.61	17.66	17.83	17.92	18.69	19.14	19.67	19.60	18.93	18.40
11	18.01	18.28	17.62	17.51	17.82	17.93	18.69	19.10	19.68	19.55	18.89	18.45
12	17.90	18.23	17.67	17.53	17.75	17.96	18.72	19.03	19.68	19.56	18.86	18.36
13	17.92	18.15	17.70	17.70	17.69	17.97	18.70	19.03	19.67	19.55	18.68	18.40
14	17.92	17.97	17.70	17.57	17.62	18.03	18.72	19.05	19.77	19.62	18.76	18.45
15	18.01	18.14	17.61	17.51	17.64	18.03	18.76	19.03	19.83	19.69	18.69	18.41
16	16.99	18.02	17.37	17.42	17.62	18.13	18.78	19.07	19.90	19.64	18.75	18.30
17	18.05	17.90	17.47	17.61	17.61	18.17	18.79	19.10	19.87	19.52	18.68	18.30
18	18.08	17.77	17.53	17.62	17.65	18.22	18.31	19.12	19.84	19.41	18.81	18.31
19	18.07	17.55	17.38	17.61	17.65	18.22	18.37	19.12	19.81	19.28	18.30	18.18
20	18.06	17.62	17.34	17.57	17.63	18.28	18.39	19.09	19.72	19.29	18.53	18.17
21	17.91	17.65	17.26	17.61	17.40	18.33	18.38	19.09	19.74	19.31	18.51	18.15
22	17.89	17.66	17.20	17.65	17.50	18.36	18.37	19.03	19.74	19.27	18.41	18.21
23	18.08	17.77	17.27	17.65	17.53	18.28	18.32	19.09	19.74	19.23	18.35	18.22
24	18.15	17.78	17.33	17.64	17.60	18.25	18.34	19.11	19.78	19.22	18.32	18.24
25	18.13	17.68	17.48	17.54	17.64	18.30	18.36	19.17	19.85	19.18	18.33	18.17
26	18.15	17.58	17.43	17.52	17.69	18.38	18.34	19.30	19.84	19.16	18.29	18.29
27	18.14	17.67	17.26	17.55	17.71	18.39	18.36	19.32	19.81	19.17	18.26	18.19
28	18.13	17.44	17.43	17.56	17.73	18.37	18.35	19.30	19.78	19.16	18.32	18.23
29	18.08	17.45	17.46	17.61	17.65	18.38	18.37	19.29	19.78	19.13	18.26	18.11
30	18.19		17.53	17.58	17.69	18.40	18.35	19.33	19.76	19.14	18.29	17.99
31	18.23		17.51		17.74		18.91	19.42		19.12		17.77

Wyoming County

Wo 1. Latitude 42° 37' 39", longitude 78° 00' 03". Aquifer is glacial till. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.09	Apr. 3	1.93	July 4	4.49	Sept. 26	9.92
10	6.19	10	2.72	11	4.30	Oct. 5	8.70
17	6.14	17	2.31	18	5.38	12	9.14
24	7.00	24	2.92	25	6.15	19	9.58
31	6.11	May 1	3.32	Aug. 1	6.80	26	9.92
Feb. 7	6.12	9	3.37	7	7.09	Nov. 7	10.96
14	5.70	16	2.28	15	6.74	14	11.07
21	3.40	23	3.11	22	7.40	21	10.92
28	3.75	30	2.82	26	7.91	27	10.45
Mar. 6	3.96	June 6	3.54	29	8.20	Dec. 4	10.32
13	4.13	13	2.81	Sept. 5	8.70	11	10.21
20	1.06	20	3.70	12	9.14	18	9.91
27	2.60	27	4.29	19	9.58	25	8.68

LONG ISLAND

By N. J. Lusczynski and H. D. Wilson, Jr.

PROGRAM OF WORK

The investigation of ground-water conditions on Long Island was continued during 1948 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. The basic phase of this investigation comprised the periodic measurements of water levels in about 240 observation wells, 33 of which were equipped with automatic water-stage recorders. During the year about 4,500 individual measurements were made, manual readings being made approximately 1 month apart.

GEOLOGY AND HYDROLOGY

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 beds of Cretaceous sands and gravels 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 in contact with the overlying beds of glacial outwash, whereas around the borders of the island they are covered by either the Gardiners clay, the Jameco gravel, or beds of recent clay. The fourth zone, 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 almost everywhere covered by thick beds of Raritan clay. The Lloyd sand, also of Cretaceous age, consists of beds of sand and gravel which extend throughout most 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 and from which water can be readily and economically withdrawn. As a result, the fluctuation of the water table in these beds reflects chiefly changes in rates of precipitation. However, in localities where the safe yield has been exceeded, it responds more to changes in rate of pumpage. In contrast, water in the deeper sands that lie beneath clay beds is under artesian pressure and is recharged at a more or less constant rate by water percolating down from the overlying formations, through relatively small intake areas. Because of these features the fluctuation of water levels, in wells that penetrate the deeper sands, is controlled chiefly by changes in rate of withdrawal. Thus, the safe yield of the upper glacial beds is governed more or less by the average rate of precipitation whereas that of the deeper beds is limited by the capacity of the beds to receive and transmit water from the areas of intake to points of withdrawal.

FLUCTUATIONS OF WATER LEVEL

The relation between precipitation and the fluctuation of water levels has been discussed at considerable length by Leggette¹ and by Jacob,² and the effect of ground-water withdrawal on water levels in deep wells has been reported by Leggette.³ The position of water table for May 1943 for most of Long Island has been defined by Jacob.⁴

1 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.

2 Jacob, C. E., "Correlation of ground-water levels and precipitation on Long Island," State of New York Water Power and Control Commission Bull. GW-14, 1945.

3 Leggette, R. M., "The mutual interference of artesian wells on Long Island, New York," Am. Geophys. Union Trans., pp. 490-494, 1937.

4 Jacob, C. E., "The water table in the western and central parts of Long Island, New York," State of New York Water Power and Control Commission Bull. GW-12, 1945.

Most of the observation wells on Long Island are screened in the upper Pleistocene 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		
Jameco gravel (J)	Magothy sands (M)	Lloyd sand (L)
K19	N9	K521
K519	N157	K1057
K523	N180	N7
K525	N575	N67
K533	N844	N511
K1591	N1244	N657
Q350	N1245	N2071
Q1152	N1613	Q64
Q1237	N2052	Q273
Q1459	N2400	Q278
	N2413	Q282
	N2528	Q283
	N2602	Q287
	N2635	Q470
	Q471	Q543
	S58	Q577
	S203	Q1222
	S2314	S202
	S4134	

J Jameco Gravel of Pleistocene age.

M Sands of Magothy (?) formation of Upper Cretaceous age.

L Lloyd sand member of Raritan formation of Upper Cretaceous age.

Generally speaking, Long Island may be divided into two hydrologic provinces with regard to the water-table aquifer. 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. 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 shores where local overdevelopment 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 rapidly to changes in the distribution of pumping and also the over-all rate of withdrawal, whereas in other parts of the island, the major fluctuations of the water table are chiefly the result of variations in amount and distribution of precipitation.

The fluctuation of the water table in Queens, Nassau, and Suffolk Counties is believed to be represented closely by the trend of the composite average water level for 14 selected wells in Nassau and Suffolk Counties (see fig. 7). During the first seven months of 1948, this composite level rose more than $2\frac{1}{2}$ feet to a stage 49.17 feet above mean sea level in July, the highest on record for the month. The composite level then declined continuously during the remainder of the year, but at that time was at the highest year-end level since 1938. In 1948, peak levels at many observation wells were not reached until mid-summer, two or three months later than usual, chiefly because of heavy rains that fell in May and June. The net rise in the water table on Long Island of over 1 foot during 1948 resulted in an increase in storage of many billions of gallons of ground-water.

Prior to 1942, overdevelopment of the ground-water resources in Kings County (Brooklyn) had produced progressively declining water levels. As a result of this overdevelopment a "crater-like" depression was formed on the water table, the bottom of which was as much as 30 feet below sea level with water levels in pumping wells being at even greater depths. The decline of water levels was arrested in 1942 after which time the water table began to recover slowly at many localities in Brooklyn. The reversal of trend expressed a more favorable balance between recharge (natural and artificial) and pumpage. This can be attributed to the beneficial effects of the State law passed in 1933 which resulted in a regulation by the New York State Water Power and Control Commission that water pumped from new wells, for purposes of cooling, be returned to the ground. The gradual reduction in industrial pumpage in Brooklyn as indicated by Johnson⁵ was another important factor. The water table in Brooklyn has recovered very rapidly as the result of a complete shut-down in June 1947 of a private water supply company whose average daily withdrawals had amounted to about 27 million gallons per day, or approximately 50 percent of the total pumpage in Brooklyn. By the end of 1948, 18 months after the shut-down, recoveries as large as 15 feet had been measured in Flatbush in central Brooklyn, the former franchise area of the private water-supply company.

⁵ Johnson, A. H., Ground-water recharge on Long Island; Jour. Am. Water Works Assoc., pp. 1159-66, November 1948.

The sudden and large rise of water level at observation well K1264 (fig. 7), beginning in July 1947 and continuing through the following 18 months, is representative of the recoveries which occurred at many observation wells in the Flatbush area. Water level records for the following observation wells in Flatbush appear in the present report:

K196	K533
K519	K1263
K521	K1264
K523	K1479
K525	K1511

In other sections of Brooklyn, smaller recoveries were observed as evidenced by water levels at wells K1237 and K1266 (fig. 7) located to the north and east respectively of the Flatbush area. An improvement in levels was noted also in the highly industrialized area in the north-western part of Brooklyn, where overdevelopment has always been the greatest. At well K30 (fig. 7), an index well located near the center of the "crater", the recovery amounted to 4.49 feet in 18 months, 3.69 feet of which occurred in 1948. By the end of 1948, the water level at this well was 0.83 foot above the previous high measured on the first day of record on June 14, 1935. The water levels in Brooklyn had recovered by such appreciable amounts in the 18-month period ending December 1948, that the water table had returned to stages above mean sea level in the entire southern half of Kings County.

On Long Island, most of the water-level records since 1932 have been collected by the United States Geological Survey. All of the records prior to 1932 and some of the data between 1932 and 1936 were obtained by the New York City Board of Water Supply and the New York City Department of Water Supply, Gas and Electricity.

Tables presented below include a summary of data pertaining to ground-water levels for Long Island, the net change in water levels during 1948, and monthly, weekly, or daily water-level records. All readings are referred to mean sea level (Sandy Hook datum). Minus (-) signs indicate levels below mean sea level.

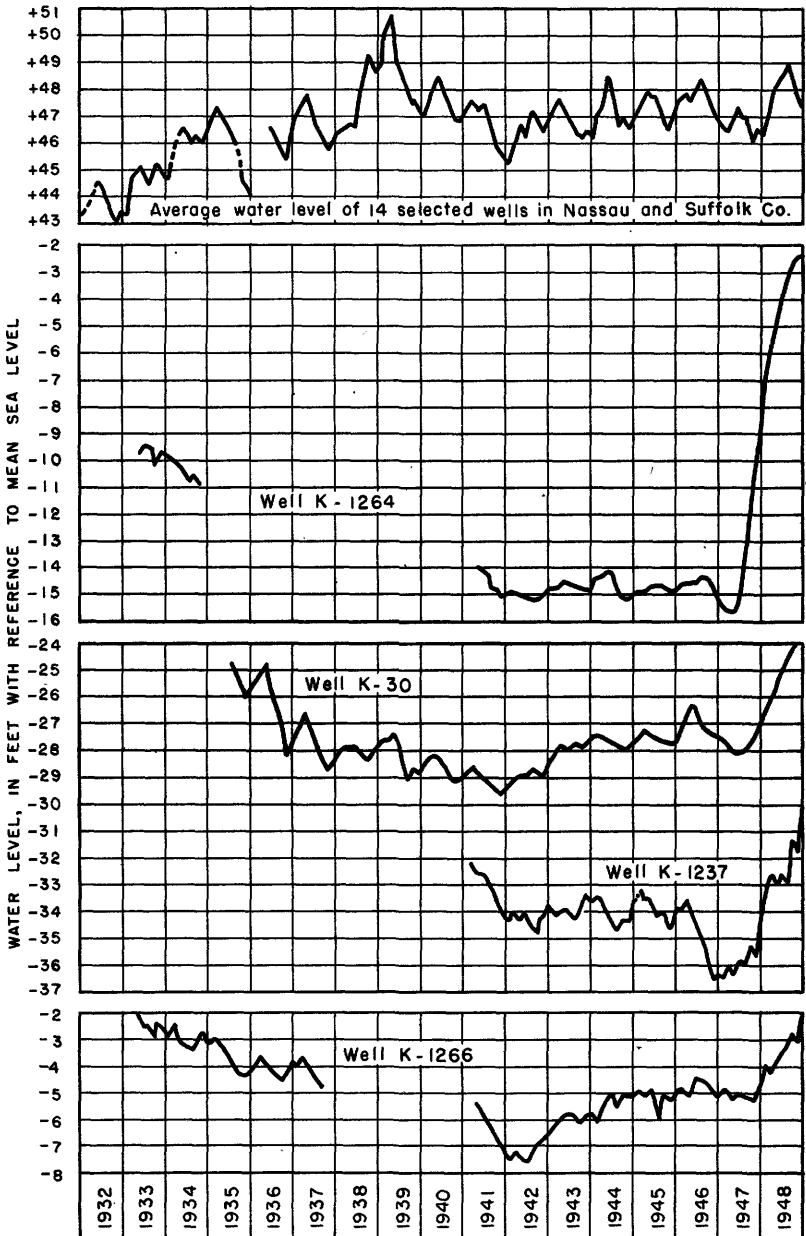


Figure 7.--Trend of water levels in selected water-table wells, 1932-48.

Summary of data on ground-water levels on Long Island

Well No. (1)	Date of first measurement (2)	Lowest level		Highest level		Water level on last date of record in 1948 (feet) (7)
		Water level (3)	Date (4)	Water level (5)	Date (6)	
K19	Sept. 10, 1940	a-26.80	Sept. 26, 1941	a-16.68	Dec. 31, 1948	a-16.68
K30	June 14, 1935	a-29.75	Nov. 8, 1941	a-23.51	Dec. 31, 1948	a-23.51
K65	Nov. 8, 1937	-28.34	Aug. 25, 1939	-22.46	Dec. 28, 1948	-22.46
K67	Nov. 8, 1937	-20.91	Sept. 15, 1947	-18.04	Dec. 28, 1948	-18.04
K92	Dec. 11, 1937	-29.69	Dec. 11, 1937	-18.68	Dec. 28, 1948	-18.68
K97	Apr. 5, 1944	-26.58	Oct. 27, 1944	-19.29	Dec. 28, 1948	-19.29
K196	Sept. 12, 1942	-4.76	Mar. 5, 1944	3.55	Dec. 28, 1948	3.55
K519	June 24, 1947	-41.60	June 24, 1947	a -6.13	Dec. 31, 1948	a -6.13
K521	Jan. 1, 1947	2.62	Feb. 12, 1947	a 5.94	Dec. 31, 1948	a 5.94
K523	Mar. 6, 1944	1.91	Feb. 6, 1945	3.03	Sept. 3, 1948	2.91
					Sept. 10, 1948	
K525	Dec. 13, 1945	a .46	Mar. 10, 1947	4.78	Sept. 8, 1948	a 4.71
			Mar. 14, 1947		Sept. 9, 1948	
K533	Sept. 8, 1932	a-23.89	Sept. 16, 1942	7.51	Aug. 20, 1948	d -7.51
K539	May 3, 1932	-8.28	Feb. 21, 1942	-1.10	Sept. 1, 1948	-1.66
K899	June 4, 1945	-39.01	Jan. 25, 1947	-20.51	Oct. 5, 1946	-27.87
K1057	Mar. 29, 1939	(b)		(b)		a 9.6
K1141	Oct. 24, 1936	-7.76	July 1, 1947	-7.71	Sept. 1, 1948	-9.93
K1173	May 16, 1945	-6.58	Sept. 28, 1945	-1.22	June 30, 1948	d -1.22
K1194	Nov. 2, 1940	-3.64	Oct. 31, 1947	-1.54	Aug. 30, 1948	-2.01
K1198	Nov. 2, 1940	-8.45	May 14, 1942	-2.64	Aug. 30, 1948	-2.65
					Dec. 9, 1948	
K1199	Nov. 16, 1940	-17.17	Jan. 1, 1944	-10.52	Dec. 9, 1948	-10.70
K1235	Jan. 25, 1941	-10.65	June 27, 1942	-4.26	Nov. 3, 1948	-4.82
K1236	Jan. 25, 1941	-19.42	Oct. 4, 1941	-13.72	Dec. 28, 1948	-13.72
K1237	Jan. 18, 1941	-36.53	Jan. 24, 1947	-29.76	Dec. 28, 1948	-30.73
K1263	Apr. 21, 1933	-11.97	July 21, 1936	.78	Nov. 3, 1948	.71
K1264	Apr. 21, 1933	-15.56	Apr. 3, 1947	-2.08	Dec. 28, 1948	-2.08
			May 7, 1947			
K1265	Apr. 21, 1933	-11.55	Aug. 22, 1942	-3.13	Dec. 28, 1948	-3.13
K1266	Apr. 21, 1933	-7.49	June 27, 1942	-2.02	Apr. 21, 1933	-2.06
K1296	Sept. 6, 1941	-8.27	Mar. 7, 1942	1.28	July 27, 1948	.40
K1347	Oct. 15, 1942	-24.16	Sept. 10, 1945	-19.12	Dec. 28, 1948	-19.12
K1479	Dec. 7, 1946	a-10.79	Feb. 27, 1947	a 1.16	Dec. 31, 1947	a 1.16
			Feb. 28, 1947			
			Mar. 1, 1947			
K1495	Nov. 5, 1936	1.80	Aug. 13, 1947	3.59	Dec. 28, 1948	3.59
			Dec. 17, 1947			
K1511	Oct. 24, 1946	a-20.33	Apr. 6, 1947	a-13.34	Jan. 3, 1948	d-13.34
			Apr. 8, 1947			
A1591	June 27, 1947	a -2.10	Oct. 27, 1947	a .57	July 23, 1948	a .55
			Oct. 28, 1947			
N7	July 24, 1936	a 3.00	Aug. 18, 1947	a 12.75	Mar. 9, 1941	a 9.17
N9	July 3, 1936	20.99	Sept. 11, 1936	23.57	Sept. 23, 1938	22.11
N53	Jan. 21, 1934	12.05	Feb. 17, 1940	16.49	Apr. 15, 1939	14.47
N67	Mar. 16, 1932	11.26	Sept. 9, 1947	15.51	Dec. 5, 1946	d 11.76
N157	Sept. 22, 1932	75.71	May 5, 1933	a 88.84	Oct. 31, 1939	85.90
N180	Oct. 30, 1945	a 18.17	Jan. 13, 1947	a 21.00	July 23, 1948	a 19.17
			Oct. 24, 1947			
N511	Jan. 9, 1947	19.23	Aug. 6, 1947	21.52	Dec. 31, 1948	21.52
N575	Nov. 30, 1946	54.97	Aug. 15, 1947	59.42	May 7, 1948	57.41
N657	Feb. 12, 1945	11.63	Nov. 10, 1947	a 15.4	Dec. 31, 1948	a 15.4
N844	Oct. 3, 1939	a 78.87	Apr. 16, 1942	a 85.48	Aug. 5, 1939	82.33
N1102	Apr. 21, 1939	53.81	July 31, 1942	58.64	July 28, 1939	57.17
N1103	Apr. 21, 1939	54.06	Nov. 1, 1943	60.46	June 30, 1939	59.42
N1104	Apr. 21, 1939	55.27	May 1, 1942	61.15	June 2, 1939	59.47
N1105	Apr. 21, 1939	52.88	Mar. 30, 1942	58.85	June 2, 1939	56.28
N1107	Apr. 21, 1939	41.64	Feb. 27, 1942	48.21	Apr. 28, 1939	44.53
N1108	Apr. 21, 1939	36.94	Jan. 30, 1942	43.62	Apr. 28, 1939	40.02
N1109	Apr. 21, 1939	25.28	Jan. 30, 1942	30.04	Apr. 21, 1939	27.24
N1110	Apr. 21, 1939	18.68	Dec. 1, 1941	21.05	Apr. 21, 1939	20.07
					June 6, 1948	

* See footnotes at end of table.

Summary of data on ground-water levels on Long Island--Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
N1111	Apr. 21, 1939	1.62	Oct. 25, 1947	14.79	June 6, 1946	13.07
N1112	Jan. 6, 1939	6.84	Dec. 13, 1941	10.24	June 6, 1946	10.11
N1126	Mar. 12, 1938	55.27	Jan. 31, 1942	62.21	Apr. 29, 1939	59.52
N1132	Apr. 2, 1938	6.06	Feb. 24, 1940	9.77	Sept. 23, 1938	8.46
N1140	Jan. 7, 1939	58.32	Feb. 7, 1942	66.09	Apr. 29, 1939	62.44
N1147	Jan. 6, 1939	16.62	Dec. 13, 1941	19.72	Apr. 8, 1939	18.22
N1160	Jan. 7, 1939	63.37	Jan. 31, 1942	70.90	Apr. 15, 1939	66.09
N1167	Mar. 12, 1938	9.56	Oct. 25, 1947	12.92	Apr. 15, 1939	10.97
N1185	Apr. 2, 1938	10.36	Feb. 7, 1945	15.39	Apr. 8, 1939	11.65
N1204	Jan. 6, 1939	5.58	Feb. 17, 1940	12.26	Apr. 8, 1939	9.92
N1212	Jan. 1, 1943	a 83.72	Jan. 20, 1943	a 88.18	Nov. 22, 1946	a 87.12
N1222	Jan. 6, 1939	1.27	Jan. 31, 1942	9.67	Apr. 8, 1939	6.02
N1234	Jan. 7, 1939	59.01	Feb. 14, 1942	66.64	May 6, 1939	62.81
N1240	Jan. 6, 1939	-1.08	Jan. 24, 1942	11.29	Apr. 8, 1939	6.09
N1244	May 31, 1940	71.31	Oct. 30, 1942	76.50	May 31, 1940	73.81
N1245	Feb. 2, 1940	75.96	Oct. 30, 1942	82.88	Feb. 2, 1940	79.23
N1246	May 31, 1940	77.14	Aug. 31, 1942	82.12	May 31, 1940	80.08
N1247	Apr. 21, 1939	70.52	July 31, 1942	76.98	July 28, 1939	73.79
N1249	Apr. 21, 1939	50.34	Jan. 30, 1942	58.18	Apr. 21, 1939	53.51
N1250	Apr. 21, 1939	43.20	Jan. 30, 1942	49.64	Apr. 21, 1939	45.76
N1251	Apr. 21, 1939	35.57	Jan. 30, 1942	40.54	Apr. 29, 1944	37.70
N1252	Apr. 21, 1939	22.48	Jan. 30, 1942	26.29	May 30, 1948	24.47
N1253	Jan. 6, 1939	11.31	Jan. 31, 1942	16.89	June 5, 1946	
N1255	May 12, 1913	58.57	Nov. 11, 1918	65.59	Apr. 8, 1939	14.14
N1256	May 12, 1913	70.30	Feb. 27, 1933	80.97	Apr. 15, 1939	61.05
N1257	Aug. 17, 1932	5.83	Dec. 13, 1941	10.17	May 20, 1939	78.83
N1259	Feb. 5, 1909	47.83	Jan. 24, 1933	56.43	Apr. 8, 1939	7.94
N1260	June 6, 1903	16.62	Dec. 20, 1916	23.68	Apr. 29, 1939	52.82
N1262	Oct. 5, 1931	32.66	Oct. 5, 1942	36.20	Apr. 8, 1939	20.04
N1263	Nov. 3, 1911	46.22	Oct. 31, 1932	54.98	Apr. 8, 1939	34.91
N1264	Mar. 7, 1932	2.70	Feb. 17, 1940	9.41	Apr. 22, 1939	51.43
N1265	Mar. 9, 1939	2.43	Dec. 1, 1941	4.34	Apr. 8, 1939	7.16
N1269	Mar. 9, 1939	3.41	Mar. 1, 1945	9.57	Dec. 31, 1942	d 3.19
N1271	Mar. 9, 1939	1.19	Sept. 5, 1944	3.66	Mar. 14, 1939	d 6.34
N1273	Nov. 1, 1939	4.34	Jan. 2, 1940	8.03	Dec. 31, 1942	d 1.43
N1275	Nov. 1, 1939	1.89	Oct. 31, 1941	4.87	Mar. 17, 1948	d 6.56
N1278	Nov. 3, 1939	4.87	Jan. 30, 1942	8.13	June 5, 1946	d 2.56
N1280	Jan. 2, 1940	2.22	Jan. 30, 1942	10.79	June 5, 1946	d 6.15
N1282	Nov. 1, 1939	.34	Apr. 1, 1940	2.58	June 5, 1946	d 9.27
N1285	Nov. 1, 1939	2.12	Jan. 31, 1940	4.16	Jan. 2, 1942	d 1.37
N1288	Nov. 1, 1939	2.21	Jan. 2, 1940	5.21	Dec. 7, 1945	d 2.94
N1461	Apr. 27, 1943	a 74.34	Oct. 10, 1943	a 77.77	June 5, 1946	d 3.02
N1462	May 6, 1943	61.26	Nov. 1, 1947	a 65.70	Nov. 20, 1948	a 77.52
N1463	May 6, 1943	36.61	Oct. 28, 1947	a 41.26	Aug. 13, 1948	a 64.00
N1464	May 13, 1943	a 13.13	Nov. 21, 1944	a 17.59	Aug. 21, 1948	
N1613	oJune 8, 1940	21.73	Dec. 6, 1941	24.56	July 22, 1948	a 38.92
N1614	Apr. 2, 1913	61.90	Feb. 27, 1933	71.03	Apr. 29, 1944	15.12
N1615	Mar. 17, 1913	41.49	Oct. 27, 1932	47.17	July 28, 1948	24.09
N1616	Mar. 17, 1913	74.05	Feb. 27, 1933	85.42	May 1, 1914	69.20
N1682	Nov. 30, 1940	41.29	Feb. 28, 1942	45.03	Mar. 28, 1939	44.05
N1683	Dec. 3, 1940	53.46	Jan. 31, 1942	58.76	June 1, 1939	82.56
N1684	Nov. 30, 1940	55.33	Feb. 7, 1942	60.71	Aug. 30, 1948	43.94
N1828	oJan. 7, 1939	58.35	Nov. 28, 1947	a 62.93	Aug. 3, 1948	57.61
N1829	oMar. 5, 1938	66.10	Nov. 1, 1947	a 62.93	May 7, 1944	60.32
N1830	cJan. 6, 1939	a 49.05	June 7, 1942	53.12	Sept. 15, 1944	67.70
N2052	Mar. 14, 1946	30.46	Aug. 20, 1947	33.00	Aug. 30, 1948	51.95
N2071	Feb. 12, 1946	8.29	Jan. 10, 1948	14.62	Aug. 5, 1948	32.80
N2400	July 7, 1947	71.05	Mar. 12, 1948	73.22	Mar. 15, 1946	11.43
N2413	Feb. 14, 1948	27.50	Feb. 14, 1948	29.72	July 7, 1947	71.92
N2528	Dec. 4, 1947	a 68.92	Feb. 15, 1948	a 71.02	Aug. 13, 1948	29.20
N2602	Aug. 17, 1948	a 19.84	Sept. 16, 1948	a 24.02	July 6, 1948	a 70.35
					July 18, 1948	
					July 21, 1948	
					Dec. 31, 1948	a 24.02

*See footnotes at end of table.

Summary of data on ground-water levels on Long Island--Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
N2635	July 16, 1948	a 26.03	Dec. 28, 1948	a 27.11	July 22, 1948	a 26.26
Q64	Mar. 26, 1947	a-68.90	Nov. 2, 1947	-14.34	Dec. 31, 1948	-14.3
Q273	Mar. 15, 1935	a 1.12	Mar. 21, 1942	a 8.47	Apr. 20, 1939	a 4.95
Q278	June 4, 1946	-2.60	Aug. 30, 1948	5.11	Nov. 29, 1946	2.94
Q292	June 10, 1946	-10.26	Sept. 3, 1947	-4.65	Nov. 29, 1946	-5.72
Q283	June 10, 1946	-10.26	Sept. 3, 1947	-4.69	Nov. 29, 1946	-5.75
Q287	Apr. 13, 1939	(b)		(b)		a 8.8
Q350	Mar. 17, 1937	a - .74	Feb. 7, 1948	3.51	Apr. 29, 1939	a .44
			Feb. 10, 1948			
			Feb. 11, 1948			
Q470	Sept. 21, 1933	a-12.75	July 15, 1937	a 6.78	Jan. 8, 1938	a 2.37
Q471	Mar. 31, 1939	13.69	Mar. 31, 1939	17.45	Sept. 30, 1946	a 16.22
Q543	May 17, 1932	(b)		(b)		a 9.7
Q577	Feb. 28, 1946	a-14.50	Aug. 14, 1947	a 6.83	Apr. 15, 1948	ad -3.11
Q1027	Jan. 1, 1942	a 4.08	Mar. 20, 1942	a 7.53	Dec. 31, 1948	a 7.53
Q1089	Oct. 10, 1911	-4.42	Oct. 17, 1932	4.04	Sept. 23, 1938	1.37
Q1090	Oct. 10, 1911	1.19	Oct. 17, 1932	6.29	May 12, 1913	2.02
Q1152	June 27, 1947	-3.46	July 2, 1947	.36	May 6, 1948	-1.69
Q1222	Apr. 1, 1940	-9.19	Feb. 28, 1942	4.35	Dec. 1, 1945	1.90
Q1223	Jan. 28, 1933	4.65	Dec. 30, 1948	10.23	Apr. 4, 1939	4.65
Q1224	Apr. 20, 1933	5.76	Nov. 25, 1947	12.41	May 29, 1939	7.52
Q1225	Apr. 20, 1933	26.37	Nov. 25, 1947	32.19	Apr. 4, 1939	27.26
Q1237	Feb. 10, 1939	a -6.38	Mar. 1, 1942	a 5.03	May 4, 1939	a -2.14
Q1248	Oct. 12, 1940	34.25	Nov. 3, 1947	37.10	May 30, 1944	36.16
Q1249	Oct. 19, 1940	30.25	Jan. 7, 1948	33.41	Sept. 26, 1946	31.51
Q1250	Oct. 19, 1940	19.36	Feb. 7, 1942	22.52	Aug. 31, 1948	20.64
Q1251	Oct. 19, 1940	9.85	Feb. 14, 1942	13.98	Aug. 31, 1948	12.65
Q1252	Oct. 26, 1940	11.07	Nov. 3, 1947	13.92	Nov. 2, 1948	12.34
Q1253	Nov. 2, 1940	.57	Mar. 2, 1948	4.58	Apr. 26, 1941	1.62
Q1254	Oct. 26, 1940	-3.26	Oct. 8, 1947	.29	Apr. 12, 1941	-2.14
Q1255	Oct. 12, 1911	-6.30	Nov. 3, 1947	12.03	May 12, 1914	-4.50
Q1256	Oct. 26, 1940	-6.98	Mar. 14, 1942	-2.44	Aug. 8, 1945	-2.96
Q1266	Oct. 25, 1946	a -6.68	Sept. 23, 1947	a -2.77	Dec. 6, 1948	a -5.28
Q1281	Oct. 11, 1911	-3.62	Mar. 7, 1942	8.59	June 4, 1913	-1.51
Q1282	Jan. 31, 1933	-7.72	Jan. 6, 1948	2.43	May 10, 1941	.16
Q1283	Oct. 12, 1911	1.75	Dec. 30, 1948	13.33	Nov. 10, 1911	1.75
Q1284	Oct. 12, 1911	4.67	Nov. 3, 1947	11.55	June 2, 1913	5.64
Q1285	Apr. 20, 1933	4.29	Mar. 2, 1948	8.05	May 31, 1941	4.46
Q1286	Apr. 20, 1933	8.05	Nov. 3, 1947	11.29	Apr. 26, 1941	9.05
Q1287	Apr. 20, 1933	10.85	Oct. 9, 1945	15.80	Oct. 5, 1934	12.59
Q1288	Apr. 20, 1933	16.12	Nov. 3, 1947	22.06	Oct. 5, 1934	17.64
Q1289	Apr. 20, 1933	30.10	Feb. 7, 1942	34.56	Nov. 8, 1934	31.56
Q1290	Apr. 20, 1933	13.61	Mar. 4, 1947	19.48	Oct. 5, 1934	16.69
Q1292	May 10, 1941	26.41	Feb. 28, 1942	29.07	Aug. 29, 1946	d 26.68
Q1459	June 27, 1947	a -1.39	Oct. 25, 1947	a -.51	Feb. 28, 1948	d -.51
			Oct. 28, 1947			
S58	Aug. 14, 1944	a 22.39	Aug. 30, 1944	a 25.50	June 11, 1948	a 23.29
			Oct. 27, 1947			
			Oct. 28, 1947			
S202	Nov. 25, 1936	a 36.93	Feb. 1, 1939	a 47.17	Apr. 10, 1937	40.33
S203	Nov. 13, 1936	a 70.59	Apr. 28, 1948	a 77.13	Oct. 31, 1939	73.18
S1803	Oct. 18, 1912	14.93	Oct. 25, 1941	18.19	Apr. 22, 1913	16.05
S1805	Oct. 16, 1912	37.90	Oct. 27, 1932	47.01	Apr. 8, 1939	41.65
S1806	Oct. 18, 1912	50.61	Jan. 5, 1933	61.69	Apr. 22, 1939	55.26
S1807	Oct. 19, 1912	20.59	Sept. 12, 1932	23.48	Oct. 14, 1938	21.33
S1808	Oct. 21, 1912	9.45	Sept. 12, 1932	12.94	Sept. 23, 1938	10.82
S1809	Oct. 21, 1912	25.00	Nov. 2, 1932	32.56	Apr. 15, 1939	27.36
S1810	Oct. 21, 1912	45.24	Feb. 23, 1933	56.19	Apr. 29, 1939	50.33
S1811	Feb. 28, 1937	51.41	Aug. 28, 1941	55.56	Apr. 20, 1940	52.68
S1812	Apr. 17, 1937	44.52	Feb. 5, 1948	51.09	May 27, 1939	46.71
S1813	Nov. 4, 1939	36.82	Oct. 30, 1947	39.64	June 15, 1940	38.04
S1814	Nov. 4, 1939	35.01	Feb. 14, 1942	38.96	July 29, 1948	36.65
S1815	Dec. 2, 1939	43.39	Apr. 1, 1947	47.81	June 29, 1940	45.75
S1816	Dec. 2, 1939	54.72	Mar. 3, 1947	59.93	June 1, 1940	56.28
S1817	Dec. 2, 1939	50.10	Oct. 27, 1947	53.95	June 1, 1940	51.41
S2314	Mar. 27, 1943	58.64	Oct. 27, 1947	60.82	July 29, 1948	59.84

*See footnotes at end of table.

Summary of data on ground-water levels on Long Island--Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
S2454	Sept. 21, 1940	6.70	Oct. 4, 1941	8.56	June 5, 1946	7.38
S2455	June 23, 1933	a 19.98	Nov. 6, 1937	a 24.85	Sept. 23, 1938	21.20
S3112	Aug. 30, 1941	51.55	Feb. 7, 1942	56.41	May 30, 1944	53.36
S3496	Nov. 2, 1942	45.97	Feb. 27, 1948	50.28	Oct. 1, 1948	49.29
S3497	Nov. 2, 1942	45.43	Feb. 26, 1948	49.32	Aug. 27, 1948	48.37
S3498	Sept. 11, 1942	43.28	Jan. 28, 1948	46.54	Aug. 3, 1948	45.14
S3512	Apr. 24, 1942	65.68	Feb. 6, 1948	69.47	Aug. 27, 1948	66.88
S3513	Apr. 24, 1942	a 59.86	Feb. 15, 1948	63.32	May 27, 1943	a 62.17
			Feb. 21, 1948			
			Feb. 23, 1948			
S3514	May 15, 1942	a 65.06	Feb. 15, 1948	68.18	Sept. 27, 1944	a 67.62
					Mar. 27, 1945	
S3515	Mar. 5, 1947	31.03	Jan. 2, 1947	34.83	June 29, 1948	32.03
S3516	Mar. 5, 1907	35.76	Dec. 2, 1909	40.26	June 29, 1948	37.13
S3517	Apr. 2, 1907	11.60	Dec. 4, 1909	14.00	Apr. 1, 1948	12.67
S3518	Mar. 22, 1907	30.15	Oct. 27, 1947	33.60	June 29, 1948	31.01
S3519	Mar. 22, 1907	23.69	Dec. 3, 1909	27.20	June 29, 1948	25.04
S3521	Feb. 28, 1907	36.07	Apr. 2, 1947	38.62	June 30, 1948	36.95
S3522	Feb. 6, 1907	18.11	Nov. 1, 1944	20.23	June 30, 1948	19.49
S3524	Mar. 8, 1907	21.47	Dec. 30, 1943	23.28	Apr. 6, 1908	22.23
S3526	Jan. 30, 1943	26.11	Mar. 31, 1944	30.57	Dec. 30, 1948	28.72
S3527	Mar. 7, 1907	31.28	Jan. 26, 1948	35.69	June 4, 1908	33.29
S3529	Mar. 8, 1907	24.07	Nov. 29, 1944	28.15	July 2, 1948	26.26
S3530	Mar. 8, 1907	31.68	Nov. 29, 1944	34.78	Aug. 5, 1908	33.18
S3531	Aug. 9, 1907	9.14	Dec. 11, 1909	10.64	July 2, 1948	9.90
S3532	Apr. 21, 1907	45.59	Dec. 23, 1947	51.74	June 8, 1908	47.68
S3533	Apr. 4, 1907	44.82	Oct. 29, 1947	48.48	June 8, 1908	46.39
S3534	June 9, 1907	26.73	Dec. 31, 1942	32.55	July 30, 1948	28.79
S3535	Aug. 13, 1907	18.06	Apr. 3, 1947	21.75	Aug. 13, 1908	19.86
S3536	Apr. 10, 1907	22.83	Nov. 29, 1944	28.62	June 5, 1908	25.79
S3537	Jan. 11, 1908	14.46	Oct. 28, 1947	16.48	June 2, 1948	15.22
S3538	Jan. 11, 1908	14.79	Nov. 30, 1942	17.93	Aug. 5, 1948	16.72
S3539	Apr. 12, 1907	22.24	Apr. 3, 1947	26.72	June 5, 1908	24.43
S3540	cMar. 9, 1907	18.91	Apr. 3, 1947	23.02	May 8, 1908	20.61
S3541	cMar. 9, 1907	11.38	Nov. 30, 1942	14.23	July 6, 1948	12.18
S3542	Apr. 12, 1907	18.55	Apr. 3, 1947	22.89	June 10, 1908	20.71
S3543	Mar. 18, 1907	15.84	Dec. 31, 1942	19.49	June 10, 1908	17.84
S3544	Mar. 18, 1907	10.27	Nov. 30, 1942	13.45	July 6, 1948	11.52
S3545	Mar. 12, 1907	34.16	Apr. 4, 1947	38.40	Aug. 3, 1948	36.09
S3727	July 13, 1943	29.80	Oct. 30, 1947	33.58	Aug. 3, 1948	31.27
S3728	May 28, 1943	19.47	Apr. 3, 1947	23.26	Aug. 4, 1948	21.05
S3729	Sept. 10, 1943	27.34	Apr. 4, 1947	31.09	Aug. 4, 1948	28.97
S3730	Sept. 21, 1943	33.52	Feb. 6, 1948	37.25	Aug. 4, 1948	35.58
					Aug. 27, 1948	
S3731	May 28, 1943	22.43	Apr. 3, 1947	26.32	Aug. 4, 1948	24.01
S3732	Oct. 5, 1943	51.55	Jan. 9, 1948	57.38	Feb. 28, 1945	53.95
S3735	Oct. 1, 1943	63.02	Feb. 26, 1948	66.88	Dec. 1, 1948	65.78
S3736	July 19, 1943	41.72	Feb. 5, 1948	46.03	Aug. 27, 1948	45.03
S3737	Aug. 17, 1943	54.35	Feb. 27, 1948	57.71	Oct. 1, 1948	57.19
S3738	Aug. 19, 1943	53.99	Feb. 27, 1948	57.54	Oct. 1, 1948	56.77
S3739	July 20, 1943	26.41	Oct. 30, 1947	29.89	June 30, 1948	27.62
S3760	Nov. 6, 1943	24.75	Jan. 30, 1945	26.89	Sept. 30, 1948	26.55
S3868	June 26, 1944	37.18	Mar. 1, 1945	39.50	Oct. 26, 1948	39.44
S3869	June 22, 1944	53.11	Jan. 28, 1948	56.32	Aug. 3, 1948	55.11
S3870	June 16, 1944	53.06	Jan. 28, 1948	55.77	Aug. 27, 1948	55.02
S3871	June 15, 1944	46.17	Feb. 26, 1948	49.32	Sept. 30, 1948	48.67
S3955	May 31, 1944	52.28	Apr. 1, 1948	55.20	Oct. 26, 1948	54.83
S3956	May 31, 1944	30.67	Mar. 30, 1948	33.27	Oct. 26, 1948	33.04
S4134	Mar. 10, 1945	a 11.35	Oct. 25, 1945	a 13.66	June 8, 1948	a 12.77
S4268	Aug. 2, 1945	48.05	Feb. 26, 1948	50.56	Oct. 1, 1946	49.76
S4269	Aug. 2, 1945	12.78	Oct. 29, 1947	15.42	Aug. 5, 1948	14.65
S4270	Aug. 1, 1945	51.19	Apr. 1, 1947	54.64	July 29, 1948	53.78
					Aug. 26, 1948	
S4271	Aug. 2, 1945	a 9.24	Oct. 27, 1947	a 11.14	July 30, 1948	a 10.80
			Oct. 29, 1947		July 31, 1948	
					Aug. 1, 1948	
					Aug. 5, 1948	
					Aug. 9, 1948	
					Aug. 10, 1948	

*See footnotes at end of table.

Summary of data on ground-water level on Long Island--Continued

(1)	(2)	(3)	(4)	(5)	(6)	(7)
S4367	Aug. 2, 1945	54.08	Apr. 1, 1948	57.35	Oct. 28, 1948	57.06
S4377	Aug. 1, 1945	59.64	Feb. 6, 1948	62.59	Aug. 27, 1948	61.87
S4523	Aug. 2, 1945	8.25	Oct. 29, 1947	9.77	Mar. 31, 1948	9.18
S4524	Aug. 2, 1945	5.57	Oct. 29, 1947	8.20	Apr. 30, 1948	6.74
S4525	Oct. 4, 1945	16.76	Oct. 29, 1947	20.52	July 6, 1948	19.53
S4526	Aug. 2, 1945	7.60	Oct. 29, 1947	10.07	July 6, 1948	9.19
S4529	Oct. 4, 1945	11.05	Oct. 29, 1947	13.00	July 6, 1948	12.64
					Aug. 25, 1948	
S4530	Aug. 2, 1945	14.34	Oct. 3, 1947	17.86	May 28, 1948	15.58
S4827	Dec. 4, 1946	55.11	May 4, 1948	57.67	Dec. 4, 1946	56.81
S4828	Dec. 4, 1946	66.30	May 4, 1948	68.61	Jan. 8, 1947	67.91
S4829	Sept. 30, 1946	37.13	Jan. 23, 1948	39.74	Sept. 30, 1948	39.68
					Oct. 27, 1948	

a Based on instrumental records.

b Water levels affected by tidal fluctuation; extremes not determined as water levels were computed on different bases for period of record.

c Previously listed incorrectly.

d No readings obtained during latter part of year.

Net change in water level in wells on Long Island, 1948

Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)
K19 J	4.66	N1105	1.80	N1615	0.55	Q1283	-.61
K30	3.69	N1107	.74	N1616	2.35	Q1284	-.27
K65	3.10	N1108	1.48	N1682	1.25	Q1285	-.34
K67	2.01	N1109	.38	N1683	2.40	Q1286	1.95
K92	2.87	N1110	.07	N1684	1.95	Q1287	-.28
K97	5.26	N1111	.61	N1828	1.97	Q1288	.70
K196	4.36	N1112	.61	N1829	1.11	Q1289	1.34
K519 J	6.61	N1126	2.54	N1830	1.52	Q1290	.85
K521 L	2.62	N1132	-.05	N2052 M	(a)	S58 M	.03
K523 J	2.55	N1140	2.85	N2071 L	-.99	S202 L	1.08
K525 J	2.46	N1147	.10	N2400 M	(a)	S203 M	1.68
K539	1.67	N1160	1.39	N2528 M	1.20	S1803	-.29
K889	8.06	N1167	.05	Q64 L	34.9	S1805	.13
K1057	1.20	N1185	.29	Q273 L	1.90	S1806	.56
K1141	4.64	N1204	.54	Q278 L	2.47	S1807	-.30
K1194	1.42	N1212	2.13	Q282 L	1.90	S1808	-.17
K1198	2.35	N1222	-.92	Q283 L	1.90	S1809	-.19
K1199	3.81	N1234	2.02	Q287 L	1.1	S1810	1.51
K1235	2.83	N1240	-.60	Q350 J	.86	S1811	.71
K1236	3.42	N1244 M	.86	Q470 L	1.47	S1812	2.05
K1237	3.83	N1245 M	1.76	Q471 M	.97	S1813	1.12
K1263	6.31	N1246	1.92	Q543 L	1.4	S1814	1.13
K1264	7.10	N1247	2.41	Q1089	-.27	S1815	2.07
K1265	5.57	N1249	.44	Q1090	-.26	S1816	.41
K1266	2.86	N1250	-.08	Q1152 J	-.70	S1817	.36
K1296	.59	N1251	-.37	Q1222 L	.30	S2314 M	1.12
K1347	2.73	N1252	-.36	Q1223	-1.97	S2454	.03
K1479	5.34	N1253	-.22	Q1224	1.76	S2455	-.57
K1495	.80	N1255	1.44	Q1225	.89	S3112	.49
K1591 J	1.16	N1256	2.67	Q1237 J	.31	S3496	2.96
N7 L	.17	N1257	.11	Q1243	1.69	S3497	2.57
N9 M	.03	N1259	1.39	Q1249	.93	S3498	1.76
N53	.61	N1260	-.26	Q1250	.56	S3512	.99
N157 M	1.46	N1262	.54	Q1251	2.13	S3513	2.06
N180 M	-.40	N1263	1.81	Q1252	.95	S3514	2.23
N511 L	1.20	N1264	1.33	Q1253	.96	S3515	-.07
N575 M	2.16	N1461	2.48	Q1254	1.11	S3516	.32
N657 L	1.30	N1462	2.39	Q1255	1.54	S3517	.06
N844 M	2.30	N1463	1.18	Q1256	1.24	S3518	-.12
N1102	.37	N1464	-.38	Q1266	-1.26	S3519	-.20
N1103	1.27	N1613 M	1.11	Q1281	.69	S3521	.61
N1104	1.98	N1614	2.05	Q1282	.67	S3522	.07

* See footnotes at end of table.

Net change in water level in wells on Long Island--Continued

Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)	Well No.	Net change (feet)
S3524	0.01	S3540	1.33	S3737	2.25	S4270	2.19
S3526	2.00	S3541	.33	S3738	(a)	S4271	1.21
S3527	1.91	S3542	1.82	S3739	.65	S4367	2.64
S3529	.95	S3543	1.30	S3760	1.67	S4377	1.81
S3530	1.14	S3544	.24	S3868	1.86	S4523	.18
S3531	.25	S3545	1.66	S3869	1.68	S4524	.38
S3532	2.09	S3727	1.10	S3870	1.64	S4525	+2.29
S3533	1.53	S3728	.91	S3871	1.97	S4526	1.17
S3534	(a)	S3729	1.45	S3955	2.03	S4529	1.26
S3535	1.79	S3730	2.03	S3956	1.94	S4530	.57
S3536	2.21	S3731	.97	S4134 M	.60	S4827	1.31
S3537	.38	S3732	2.20	S4268	1.22	S4828	1.25
S3538	1.31	S3735	2.53	S4269	1.41	S4829	2.33
S3539	1.99	S3736	3.13				

a No reading latter part of 1947.

NOTE: Most of above wells screened in upper Pleistocene formations except those indicated by J (Jameco), L (Lloyd), and M (Magothy).

PRECIPITATION AND PUMPAGE

Precipitation in 1948 on Long Island was even greater than that in 1947 and was above normal for the second consecutive year. It ranged from 42.80 inches at Orient to 61.24 inches at Cutchogue, and averaged over 50 inches for Long Island. At the Battery in New York City, a total of 54.25 inches (11.26 inches above normal) was measured, this being the highest recorded since 1889. The accumulated excess during the first six months at this station was over 9 inches. At Setauket, 48.63 inches of precipitation was recorded during 1948, this being the greatest fall since 1942. Excessive precipitation occurred during May, June, and December in most parts of Long Island, and in some localities above normal rainfall fell in July and November. At some U. S. Weather Bureau stations, the rainfall recorded for May and June was more than twice normal. For instance, the highest monthly precipitation of 10.85 inches was measured at Cutchogue in May. At Lake Ronkonkoma, 10.18 inches fell in December.

According to records furnished by the New York State Water Power and Control Commission, by the New York City Department of Water Supply, Gas and Electricity, by the Nassau County Department of Public Works, and other agencies and water districts, the combined pumpage for public water supply in 1948 in Kings, Queens, and Nassau Counties averaged 136 million gallons per day, or 6 percent below that in 1947. The decrease is attributed primarily to the complete cessation of pumpage in Kings County by the New York Water Service Corporation. A recent complete compilation of pumpage

for Suffolk County reveals a total of nearly 19 million gallons per day for public water supply which when added to that for the other three counties amounts to a total for Long Island of 155 million gallons per day. The total withdrawals for all uses, public water supply, industrial, agricultural, and domestic, is estimated to have been over 260 million gallons per day.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Kings County

K19. Formerly Kew Pacific Garage. Dean Street and Fifth Avenue, Brooklyn. Records available: 1940-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-21.24	-20.79	-20.40	-19.95	-19.54	-19.04	-19.09	-18.68	-18.54	-18.23	-17.66	-17.25
2	-21.15	-20.75	-20.35	-19.97	-19.47	-19.11	-19.12	-18.66	-18.52	-18.23	-17.73	-17.24
3	-21.23	-20.80	-20.39	-19.99	-19.44	-19.10	-19.06	-18.64	-18.49	-18.19	-17.69	-17.20
4	-21.18	-20.79	-20.40	-19.90	-19.50	-19.07	-18.97	-18.62	-18.45	-18.15	-17.67	-17.17
5	-21.17	-20.80	-20.42	-19.83	-19.48	-19.07	-18.89	-18.62	-18.39	-18.14	-17.68	-17.12
6	-21.20	-20.78	-20.34	-19.89	-19.49	-19.05	-18.87	-18.64	-18.33	-18.11	-17.63	-17.07
7	-21.21	-20.76	-20.22	-19.91	-19.43	-18.98	-19.03	.....	-18.35	-18.12	-17.59	-17.12
8	-21.23	-20.69	-20.21	-19.87	-19.44	-19.06	-19.05	.....	-18.40	-18.09	-17.58	-17.13
9	-21.17	-20.70	-20.27	-19.89	-19.38	-19.12	-19.04	.....	-18.41	-18.08	-17.59	-17.15
10	-21.21	-20.75	-20.25	-19.91	-19.33	-19.14	-18.97	.....	-18.44	-18.02	-17.57	-17.13
11	-21.14	-20.71	-20.26	-19.77	-19.38	-19.12	-18.89	.....	.....	-17.99	-17.63	-17.13
12	-21.07	-20.66	-20.25	-19.75	-19.39	-19.08	-18.89	.....	.....	-18.04	-17.60	-17.02
13	-21.08	-20.64	-20.24	-19.86	-19.39	-18.99	-18.93	-18.60	-18.30	-18.03	-17.50	-17.00
14	-21.12	-20.63	-20.18	-19.81	-19.36	-19.01	-18.96	-18.59	-18.37	-18.02	-17.49	-17.06
15	-21.15	-20.70	-20.13	-19.81	-19.32	-19.05	-18.98	-18.55	-18.42	-18.04	-17.44	-17.06
16	-21.10	-20.59	-20.16	-19.78	-19.25	-19.08	-18.95	-18.54	-18.43	-18.01	-17.50	-17.02
17	-21.06	-20.57	-20.19	-19.78	-19.20	-19.09	-18.90	-18.59	-18.41	-17.90	-17.45	-17.00
18	-21.01	-20.59	-20.20	-19.72	-19.25	-19.09	-18.82	-18.60	-18.33	-17.89	-17.50	-16.99
19	-20.99	-20.57	-20.15	-19.65	-19.27	-19.02	-18.83	-18.60	-18.28	-17.93	-17.45	-16.86
20	-21.01	-20.58	-20.12	-19.65	-19.25	-18.93	-18.88	-18.61	-18.25	-17.94	-17.39	-16.88
21	-20.96	-20.58	-20.04	-19.71	-19.21	-18.91	-18.88	-18.58	-18.33	-17.96	-17.39	-16.93
22	-20.97	-20.48	-20.02	-19.75	-19.25	-18.99	-18.86	-18.51	-18.34	-17.93	-17.33	-16.94
23	-21.02	-20.47	-20.08	-19.70	-19.17	-18.99	-18.85	-18.48	-18.32	-17.86	-17.35	-16.95
24	-20.97	-20.49	-20.06	-19.66	-19.16	-18.87	-18.85	-18.54	-18.30	-17.78	-17.34	-16.90
25	-20.90	-20.45	-20.10	-19.88	-19.18	-18.99	-18.78	-18.56	-18.28	-17.74	-17.30	-16.80
26	-20.88	-20.46	-20.05	-19.56	-19.18	-19.01	-18.72	-18.60	-18.20	-17.79	-17.25	-16.82
27	-20.90	-20.49	-19.98	-19.58	-19.19	-18.93	-18.79	-18.60	-18.18	-17.81	-17.25	-16.79
28	-20.91	-20.42	-19.98	-19.56	-19.17	-18.91	-18.81	-18.56	-18.22	-17.80	-17.24	-16.84
29	-20.89	-20.40	-19.94	-19.55	-19.13	-19.03	-18.80	-18.46	-18.24	-17.79	-17.19	-16.82
30	-20.91	.....	-19.98	-19.53	-19.07	-19.07	-18.77	-18.45	-18.25	-17.77	-17.25	-16.77
31	-20.88	.....	-19.99	.....	-19.03	.....	-18.75	-18.51	.....	-17.68	.....	-16.68

K30. Detecto Scales Inc. Formerly owned by C. J. Tagliabue Manufacturing Co. Park and Nostrand Avenues. Records available: 1935-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-27.19	-26.84	-26.45	-25.89	-25.51	-25.12	-24.89	-24.61	-24.30	-24.16	-24.03	-23.85
2	-27.15	-26.80	-26.40	-25.89	-25.49	-25.11	-24.91	-24.59	-24.31	-24.17	-24.04	-23.86
3	-27.18	-26.79	-26.41	-25.92	-25.46	-25.11	-24.91	-24.57	-24.31	-24.17	-24.03	-23.83
4	-27.15	-26.77	-26.42	-25.88	-25.45	-25.10	-24.88	-24.56	-24.31	-24.15	-24.01	-23.81
5	-27.13	-26.78	-26.43	-25.82	-25.43	-25.10	-24.84	-24.55	-24.30	-24.12	-24.02	.....
6	-27.11	-26.77	-26.39	-25.81	-25.44	-25.10	-24.81	-24.54	-24.26	-24.11	-24.00	.....
7	-27.11	-26.77	-26.34	-25.81	-25.42	-25.05	-24.84	-24.54	-24.23	-24.13	-24.00	.....
8	-27.12	-26.74	-26.33	-25.79	-25.42	-25.02	-24.87	-24.52	-24.22	-24.13	-23.99	.....
9	-27.09	-26.73	-26.32	-25.80	-25.42	-25.03	-24.88	-24.50	-24.22	-24.13	-23.96	.....
10	-27.12	-26.71	-26.30	-25.81	-25.38	-25.05	-24.86	-24.48	-24.24	-24.12	-23.95	-23.82
11	-27.09	-26.69	-26.29	-25.77	-25.37	-25.06	-24.81	-24.47	-24.24	-24.10	-24.02	-23.84
12	-27.05	-26.68	-26.29	-25.73	-25.36	-25.05	-24.78	-24.45	-24.22	-24.10	-24.01	-23.76
13	-27.03	-26.67	-26.27	-25.74	-25.36	-25.02	-24.77	-24.44	-24.19	-24.10	-23.95	-23.73

K30--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	-27.03	-26.66	-26.25	-25.71	-25.35	-24.99	-24.78	-24.44	-24.19	-24.10	-23.95	-23.74
15	-27.06	-26.70	-26.19	-25.71	-25.35	-24.97	-24.81	-24.45	-24.22	-24.14	-23.92	-23.75
16	-27.04	-26.64	-26.16	-25.70	-25.34	-24.96	-24.81	-24.41	-24.25	-24.15	-23.93	-23.73
17	-27.02	-26.60	-26.15	-25.72	-25.28	-24.97	-24.79	-24.39	-24.25	-24.10	-23.91	-23.75
18	-27.00	-26.60	-26.17	-25.70	-25.27	-24.99	-24.76	-24.39	-24.21	-24.07	-23.96	-23.75
19	-26.97	-26.60	-26.14	-25.65	-25.28	-24.98	-24.73	-24.38	-24.19	-24.07	-23.93	-23.68
20	-26.95	-26.61	-26.12	-25.61	-25.26	-24.96	-24.72	-24.39	-24.17	-24.08	-23.90	-23.68
21	-26.90	-26.61	-26.10	-25.61	-25.24	-24.94	-24.71	-24.39	-24.16	-24.11	-23.93	-23.68
22	-26.91	-26.57	-26.06	-25.64	-25.26	-24.94	-24.71	-24.37	-24.16	-24.13	-23.88	-23.68
23	-26.95	-26.56	-26.05	-25.62	-25.25	-24.94	-24.71	-24.35	-24.16	-24.12	-23.87	-23.68
24	-26.92	-26.53	-26.03	-25.60	-25.22	-24.92	-24.72	-24.33	-24.18	-24.07	-23.88	-23.68
25	-26.90	-26.49	-26.06	-25.57	-25.20	-24.92	-24.72	-24.32	-24.22	-24.04	-23.89	-23.66
26	-26.87	-26.48	-26.03	-25.55	-25.20	-24.94	-24.68	-24.33	-24.21	-24.04	-23.88	-23.66
27	-26.86	-26.50	-25.98	-25.53	-25.20	-24.91	-24.65	-24.34	-24.17	-24.06	-23.84	-23.61
28	-26.87	-26.46	-25.98	-25.52	-25.20	-24.88	-24.64	-24.34	-24.14	-24.08	-23.86	-23.60
29	-26.86	-26.47	-25.95	-25.50	-25.19	-24.86	-24.64	-24.30	-24.15	-24.08	-23.81	-23.58
30	-26.88		-25.92	-25.50	-25.17	-24.87	-24.63	-24.28	-24.16	-24.09	-23.84	-23.55
31	-26.87		-25.91		-25.15		-24.62	-24.28		-24.06		-23.51

K65. A. Ludwig Co. well 2. At 123 Middleton Street. Records available: 1937-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	-25.10	Apr. 27	-24.29	July 23	-23.50	Nov. 4	-22.89
Feb. 3	-24.96	June 2	-23.92	Aug. 30	-23.18	Dec. 9	-22.77
Mar. 2	-24.74	30	-23.67	Oct. 4	-23.16	28	-22.46
26	-24.62						

K67. Young Mens' Christian Association. 179 Marcy Avenue. Records available: 1937-48.

Apr. 27	-19.68	July 26	-19.32	Oct. 4	-18.80	Dec. 9	-18.25
June 1	-19.32	Aug. 30	-18.97	Nov. 4	-18.32	28	-18.04
30	-19.22						

K92. St. John's University. 75 Lewis Avenue. Records available: 1937-48.

Jan. 7	-21.16	Apr. 27	-20.19	July 26	-19.83	Nov. 4	-19.04
Feb. 3	-20.77	June 2	-19.95	Aug. 30	-19.58	Dec. 9	-18.80
Mar. 2	-20.33	July 1	-19.90	Oct. 4	-19.30	28	-18.68
26	-20.17						

K97. Formerly owned by Colony Foods. Grand and Lexington Avenues. Records available: 1944-48.

Jan. 7	-23.95	Apr. 27	-22.10	July 26	-20.96	Nov. 4	-19.96
Feb. 3	-23.50	June 2	-21.56	Aug. 30	-20.51	Dec. 14	-19.46
Mar. 2	-22.98	30	-21.32	Oct. 6	-20.26	28	-19.29
26	-22.56						

K196. Knickerbocker Ice Co. well 1. Twelfth Avenue and 37th Street. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	-0.36	Apr. 27	1.29	Sept. 1	3.10	Nov. 3	3.33
30	-.06	June 2	1.76	Oct. 6	3.25	Dec. 13	3.29
Mar. 3	.24	30	1.42	21	3.42	28	3.55
26	-.09	July 27	2.55				

K519. New York Water Service Corporation. 543-545 Troy Avenue. Abandoned public-supply well, diameter 18 inches, depth 238 feet. Measuring point, hole in recorder shelf, 29.05 feet above mean sea level and about 2 feet below land-surface datum. Two previous measuring points used prior to Oct. 7, 1948. First measured by Geological Survey June 24, 1947. Readings by tape measurements prior to Oct. 9, 1948. Records available: 1947-48.

Mean daily water level, from recorder charts, 1947							
June 24	-41.60	July 7	-17.66	Aug. 28	-15.55	Oct. 20	-14.06
30	-18.78	15	-17.14	Sept. 16	-15.06	29	-13.83
July 1	-18.18	21	-16.82	29	-14.63	Nov. 18	-13.34
2	-18.06	31	-16.45	Oct. 6	-14.46	28	-13.03
3	-17.95	Aug. 14	-15.97	13	-14.22	Dec. 18	-12.74

Mean daily water level, from recorder charts, 1948							
Jan. 5	a-12.22	Oct. 16	-7.01	Nov. 11	-6.78	Dec. 7	-6.46
30	a-11.76	17	-6.90	12	-6.77	8	-6.45
Feb. 14	a-11.33	18	-6.91	13	-6.63	9	-6.51
Mar. 6	a-10.97	19	-6.94	14	-6.69	10	-6.47
20	a-10.69	20	-6.94	15	-6.64	11	-6.51
Apr. 3	a-10.45	21	-6.99	16	-6.70	12	-6.38
17	a-10.10	22	-6.98	17	-6.63	13	-6.37
May 8	a-9.60	23	-6.89	18	-6.71	14	-6.43
22	a-9.34	24	-6.82	19	-6.65	15	-6.42
June 10	a-9.00	25	-6.81	20	-6.56	16	-6.36
30	a-8.69	26	-6.83	21	-6.65	17	-6.36
July 14	a-8.46	27	-6.87	22	-6.59	18	-6.38
27	a-8.22	28	-6.86	23	-6.56	19	-6.24
Aug. 10	a-7.94	29	-6.84	24	-6.56	20	-6.30
23	a-8.01	30	-6.83	25	-6.55	21	-6.34
Sept. 7	a-7.46	31	-6.76	26	-6.55	22	-6.35
23	a-7.34	Nov. 1	-6.77	27	-6.50	23	-6.36
Oct. 5	-7.13	2	-6.84	28	-6.55	24	-6.34
8	-7.03	3	-6.79	29	-6.47	25	-6.28
9	-7.03	4	-6.75	30	-6.56	26	-6.32
10	-7.01	5	-6.77	Dec. 1	-6.56	27	-6.28
11	-6.99	6	-6.73	2	-6.56	28	-6.29
12	-7.00	7	-6.73	3	-6.49	29	-6.27
13	-6.99	8	-6.77	4	-6.47	30	-6.21
14	-6.99	9	-6.73	5	-6.46	31	-6.13
15	-7.03	10	-6.68	6	-6.40		

a Wetted-tape measurement.

K521. New York Water Service Corporation. 1065 Utica Avenue. Records available: 1947-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.79	3.30	3.88	4.10	a4.41	4.51	4.43	4.41	4.32	4.22	4.74	4.72
2	4.52	3.49	4.02	4.15	....	4.51	4.35	4.36	4.34	a4.24	4.69	4.58
3	4.59	3.45	4.10	a3.87	....	4.53	4.32	4.34	4.34	4.23	4.74	4.61
4	4.56	3.46	4.08	3.66	....	4.62	4.35	4.41	4.30	4.23	4.80	4.71
5	4.42	3.59	3.86	3.74	....	4.61	4.41	4.50	4.31	4.35	4.70	4.81
6	4.24	....	3.84	3.83	....	4.50	4.54	4.58	4.30	4.60	4.66	4.97
7	4.12	a3.65	3.95	3.82	....	4.54	4.56	4.49	4.34	....	4.68	4.82
8	3.93	3.70	4.03	3.97	a4.74	4.61	4.55	4.50	4.36	4.79	4.49	4.71
9	3.93	3.50	3.89	4.05	4.50	4.61	4.49	4.53	4.40	4.74	4.44	4.50
10	3.62	3.44	3.96	a3.80	4.45	4.59	4.49	4.49	4.39	4.62	4.55	4.51
11	3.33	3.46	3.95	3.85	4.33	4.55	4.47	4.46	4.36	4.55	4.48	4.43
12	3.38	3.55	3.90	4.07	4.32	4.53	4.44	4.52	4.33	4.55	4.31	4.52
13	3.55	3.50	3.86	3.91	4.36	4.62	4.43	4.57	4.29	4.50	a4.46	4.54
14	3.58	a3.88	3.82	3.98	4.49	4.57	4.51	4.55	4.24	4.40	4.20	4.45
15	3.43	3.31	3.88	4.13	4.48	4.53	4.42	4.51	4.16	4.36	4.23	4.40
16	3.42	3.14	....	4.10	4.49	4.48	4.49	4.51	4.09	4.45	4.25	4.64
17	3.40	3.30	....	a4.02	4.64	4.44	4.40	4.51	4.07	4.64	4.39	4.76
18	3.42	3.38	....	3.99	4.65	4.37	4.47	4.54	4.14	4.67	4.33	4.65
19	3.36	3.39	....	4.02	4.50	....	4.49	4.57	4.17	4.64	4.33	4.77
20	3.37	3.49	a3.77	4.04	4.48	....	4.47	4.56	4.29	4.65	4.55	5.01
21	3.49	a3.37	3.80	4.05	4.63	....	4.50	4.52	4.34	4.55	4.47	4.98
22	3.63	....	3.92	3.99	....	....	4.60	4.49	4.34	4.50	4.48	4.80
23	3.44	....	3.90	4.05	....	....	4.62	4.47	4.33	4.55	4.60	4.64
24	a3.32	....	4.12	4.11	a4.52	....	4.59	4.42	4.36	4.79	4.65	4.53
25	3.56	....	3.96	4.19	4.50	a4.51	4.55	4.38	4.34	5.03	4.68	4.81
26	3.54	....	3.94	4.25	4.46	4.43	4.54	4.28	4.26	5.09	4.65	4.97
27	3.46	....	4.13	4.30	4.41	4.48	4.53	4.23	4.21	5.00	4.78	5.19
28	3.33	3.97	4.09	4.42	4.41	4.55	4.51	4.24	4.16	4.93	4.62	5.21
29	3.30	3.99	3.94	4.48	4.45	4.53	4.43	4.31	4.14	4.84	4.68	5.58
30	3.14	....	3.97	4.50	4.48	4.49	4.41	4.33	4.19	4.74	4.76	5.64
31	a3.08	....	3.93	....	4.49	....	4.42	4.35	....	4.76	....	5.94

a Wetted-tape measurement.

K523. New York Water Service Corporation. 267 Newkirk Avenue. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	0.38	Apr. 10	1.65	July 9	2.53	Oct. 9	2.90
10	.44	17	1.76	16	2.62	16	2.84
17	.51	24	1.86	23	2.73	23	2.88
24	.58	May 1	1.95	30	2.83	30	2.85
31	.65	8	2.01	Aug. 6	2.90	Nov. 6	2.87
Feb. 7	.74	15	2.06	13	2.98	13	2.87
14	.84	24	2.12	20	3.01	20	2.88
21	.90	29	2.16	27	3.02	27	2.84
28	1.02	June 5	2.23	Sept. 3	3.03	Dec. 4	2.83
Mar. 6	1.10	11	2.25	10	3.03	11	2.78
13	1.22	18	2.26	17	2.91	18	2.81
20	1.34	25	2.33	24	2.93	24	2.78
27	1.47	July 2	2.45	Oct. 2	2.89	31	2.91
Apr. 3	1.55						

K525. New York Water Service Corporation. 363 Dahill Road. Records available: 1945-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.26	2.51	2.79	3.28	3.65	3.89	4.15	4.54	4.73	4.74	4.71	4.64
2	2.27	2.53	2.84	3.29	3.66	3.89	4.16	4.55	4.74	4.72	4.68	4.63
3	2.25	2.53	2.83	3.28	3.67	3.90	4.18	4.56	4.75	4.69	4.70	4.67
4	2.27	2.56	2.84	3.30	3.68	3.92	4.19	4.57	4.75	4.68	4.73	4.69
5	2.28	2.57	2.83	3.32	3.69	3.92	4.21	4.59	4.74	4.72	4.71	4.67
6	2.29	2.58	2.86	3.34	3.70	3.91	4.24	4.59	4.74	4.74	4.72	4.70
7	2.29	2.59	2.90	3.35	3.72	3.95	4.23	4.60	4.77	4.73	4.70	4.69
8	2.29	2.60	2.91	3.37	3.71	3.96	4.23	4.61	4.78	4.75	4.66	4.69
9	2.31	2.60	2.92	3.38	3.71	3.95	4.25	4.62	4.78	4.74	4.69	4.65
10	2.30	2.60	2.94	3.39	3.73	3.95	4.26	4.62	4.76	4.73	4.73	4.65
11	2.31	2.62	2.95	3.42	3.73	3.96	4.28	4.63	4.76	4.73	4.67	4.62
12	2.33	2.64	2.95	3.43	3.74	3.96	4.29	4.65	4.76	4.74	4.67	4.66
13	2.35	2.66	2.97	3.42	3.75	3.97	4.30	4.67	4.76	4.74	4.72	4.67
14	2.35	2.66	2.99	3.45	3.76	3.96	4.31	4.67	4.76	4.73	4.68	4.64
15	2.34	2.61	3.01	3.46	3.76	3.98	4.31	4.68	4.73	4.70	4.69	4.64
16	2.36	2.65	3.03	3.48	3.77	3.98	4.33	4.68	4.71	4.69	4.67	4.66
17	2.38	2.69	3.04	3.48	3.79	3.99	4.35	4.69	4.72	4.73	4.70	4.66
18	2.39	2.70	3.04	3.48	3.80	3.99	4.37	4.70	4.76	4.72	4.66	4.64
19	2.39	2.70	3.07	3.51	3.80	4.01	4.38	4.71	4.76	4.72	4.68	4.69
20	2.40	2.70	3.09	3.53	3.81	4.01	4.39	4.71	4.76	4.70	4.72	4.67
21	2.43	2.71	3.11	3.54	3.84	4.02	4.41	4.71	4.75	4.66	4.67	4.65
22	2.44	2.72	3.13	3.54	3.82	4.02	4.42	4.71	4.75	4.66	4.68	4.63
23	2.41	2.72	3.14	3.56	3.83	4.03	4.44	4.72	4.74	4.68	4.70	4.61
24	2.44	2.73	3.16	3.58	3.83	4.05	4.44	4.72	4.72	4.72	4.69	4.60
25	2.44	a2.75	3.15	3.59	3.84	4.06	4.46	4.73	4.69	4.72	4.68	4.63
26	2.45	a2.77	3.18	3.60	3.84	4.07	4.48	4.73	4.67	4.72	4.66	4.59
27	2.47	a2.80	3.22	3.62	3.85	4.09	4.48	4.73	4.69	4.70	4.69	4.61
28	2.48	2.81	3.21	3.63	3.86	4.11	4.50	4.74	4.71	4.69	4.66	4.60
29	2.49	2.80	3.22	3.65	3.87	4.12	4.51	4.75	4.71	4.70	4.69	4.63
30	2.49		3.24	3.66	3.88	4.14	4.52	4.75	4.72	4.69	4.65	4.68
31	2.50		3.25		3.88		4.53	4.75		4.71		4.71

a Estimated.

K533. New York Water Service Corporation. Near southwest corner of East 98th Street and Rutland Road. Records available: 1932-48. Destroyed, measurements discontinued, Aug. 20, 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	-11.21	Mar. 13	-10.21	May 8	-9.08	July 2	-8.32
24	-11.15	20	-10.06	15	-8.98	9	-8.26
31	-11.01	27	-9.85	24	-8.82	16	-8.13
Feb. 7	-10.86	Apr. 3	-9.83	29	-8.70	23	-7.99
14	-10.62	10	-9.68	June 5	-8.57	30	-7.88
21	-10.65	17	-9.54	11	-8.54	Aug. 6	-7.74
28	-10.41	24	-9.35	18	-8.52	13	-7.63
Mar. 6	-10.34	May 1	-9.22	25	-8.33	20	-7.51

K539. New York City Department of Water Supply, Gas and Electricity. Atlantic Avenue and Logan Street. Records available: 1932-48.

Jan. 7	-3.28	Apr. 27	-2.40	July 27	-1.51	Nov. 3	-1.53
Feb. 3	-3.14	June 1	-2.16	Sept. 1	-1.10	Dec. 9	-1.61
Mar. 3	-2.93	July 2	-2.02	Oct. 4	-1.40	28	-1.66
26	-2.71						

K889. Finest Steam Laundry. 199 Bogart Street. Records available: 1945-48.

Jan. 7	-35.55	Apr. 27	-32.12	July 26	-30.22	Nov. 4	-28.60
Feb. 3	-34.37	June 2	-31.35	Aug. 30	-29.46	Dec. 14	-28.03
Mar. 2	-33.43	30	-30.77	Oct. 6	-28.94	28	-27.87
26	-32.84						

K1057. U. S. Navy, Floyd Bennett Airport, Barren Island. Water levels affected by tidal fluctuation. Records available: 1939-42, 1944-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	8.8	...	9.2	9.3	9.3	8.7	8.2	8.0	7.7	8.4	8.8
2	...	8.9	...	9.2	9.2	9.3	8.6	8.1	8.0	7.7	8.4	8.8
3	...	8.6	...	...	9.4	9.4	8.6	8.0	7.9	7.7	8.4	8.9
4	9.2	8.8	...	8.5	9.3	9.4	8.7	8.2	7.9	7.8	8.4	9.2
5	9.2	9.0	...	8.8	a9.4	a9.4	a8.7	8.2	7.8	8.0	8.4	9.3
6	9.1	9.0	...	8.9	9.5	9.1	a8.9	8.3	7.8	8.4	8.4	9.4
7	8.8	8.9	8.9	9.0	9.6	9.3	a9.0	8.2	7.9	8.3	8.4	8.9
8	...	8.9	...	9.2	...	9.4	a8.8	8.2	8.0	8.3	8.0	8.9
9	...	8.7	...	9.0	9.0	...	8.7	8.3	8.1	8.0	8.2	8.8
10	...	8.7	9.0	8.5	9.0	...	...	8.2	7.9	7.9	8.5	8.9
11	...	8.7	...	9.0	9.0	...	...	8.2	7.8	7.9	8.3	8.7
12	...	8.6	8.8	9.1	9.2	9.2	...	8.3	7.7	8.0	8.0	8.9
13	...	8.9	8.8	8.8	9.2	9.4	...	8.4	7.6	7.9	8.4	8.9
14	...	9.2	3.7	9.2	9.5	9.2	...	8.2	7.6	7.8	8.0	8.8
15	...	8.0	8.8	...	9.3	9.1	...	8.2	7.5	7.8	8.5	8.8
16	...	8.2	8.8	...	9.2	...	...	8.2	7.4	7.8	8.5	9.4
17	...	8.8	8.6	9.1	9.5	9.0	8.5	8.3	7.3	8.0	8.7	9.2
18	...	8.7	8.5	8.9	9.4	8.9	8.6	8.3	7.4	7.9	8.4	8.8
19	...	8.7	8.7	8.9	9.2	...	a8.6	8.3	7.7	8.0	8.6	9.4
20	...	8.8	...	9.0	9.3	9.0	a8.6	8.2	8.0	7.8	8.9	9.8
21	...	8.6	8.8	9.1	...	8.9	a8.6	8.2	7.9	7.7	8.6	9.4
22	...	9.0	9.1	9.0	...	...	a8.7	8.1	7.8	7.6	8.7	9.0
23	...	9.0	9.2	8.9	...	8.9	8.7	8.0	7.9	7.8	9.0	8.8
24	...	8.7	9.4	9.0	...	9.0	8.5	8.0	8.0	8.4	9.0	8.8
25	...	8.8	...	9.2	9.2	8.9	8.4	8.0	7.7	8.6	9.0	9.1
26	...	8.9	...	9.3	9.2	8.8	8.4	7.9	7.4	8.5	9.0	8.7
27	...	9.0	9.3	...	9.1	8.9	8.4	7.9	7.4	8.3	9.2	8.8
28	...	...	9.0	9.5	9.1	9.0	8.4	7.9	7.4	8.2	8.7	8.6
29	8.4	...	9.0	9.5	a9.2	8.9	8.3	8.0	7.6	8.1	9.2	9.0
30	8.4	...	9.0	9.5	9.2	9.0	8.2	8.1	7.7	8.1	9.2	9.3
31	8.4	9.0	...	...	9.2	...	8.2	8.2	...	8.5	...	9.6

a Estimated.

K1141. New York City Department of Water Supply, Gas and Electricity. Former Canarsie pumping station well 17. Avenue D and Remsen Avenue. Records available: 1936-41, 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	-4.98	June 30	-1.44	Oct. 4	-0.97	Nov. 24	-1.01
Mar. 3	-4.08	July 27	-.78	Oct. 21	-1.04	Dec. 13	-.96
Apr. 28	-2.39	Sept. 1	-.71	Nov. 3	-1.02	Dec. 28	-.93
June 2	-1.88						

K1173. Rugby Can Co. 5819 Foster Avenue. Records available: 1945-48. Destroyed, measurements discontinued, June 30, 1948.

Jan. 5	-4.43	Feb. 28	-2.98	Apr. 28	-2.05	June 30	-1.22
Feb. 2	-3.78	Mar. 26	-2.32	June 2	-1.57		

K1194. New York City Department of Water Supply, Gas and Electricity. Atlantic and Nichols Avenues. Records available: 1940-43, 1945-48.

Jan. 9	-3.32	Apr. 27	-2.59	July 26	-1.85	Nov. 3	-1.90
Feb. 3	-3.10	June 1	-2.40	Aug. 30	-1.54	Dec. 9	-1.92
Mar. 3	-3.05	30	-2.23	Oct. 4	-1.79	Dec. 28	-2.01
26	-2.85						

K1198. New York City Department of Water Supply, Gas and Electricity. Cleveland and Fulton Streets. Records available: 1940-48.

Jan. 8	-4.88	Apr. 27	-4.02	July 26	-2.99	Nov. 3	-2.66
Feb. 2	-4.49	June 1	-3.67	Aug. 30	-2.64	Dec. 9	-2.64
Mar. 3	-4.50	30	-3.46	Oct. 4	-2.75	Dec. 28	-2.65
26	-4.32						

K1199. New York City Department of Water Supply, Gas and Electricity. Jefferson and Howard Avenues. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	-14.48	Apr. 27	-13.15	July 26	-12.05	Nov. 4	-11.30
Feb. 3	-13.44	June 2	-12.64	Aug. 30	-11.65	Dec. 9	-10.52
Mar. 3	-13.91	30	-12.32	Oct. 4	-11.42	29	-10.70
26	-13.26						

K1235. New York City Department of Water Supply, Gas and Electricity. Fulton Street and Pennsylvania Avenue. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	-8.01	Apr. 27	-6.92	July 23	-6.25	Nov. 3	-4.26
Feb. 2	-7.40	June 1	-6.60	Aug. 30	-5.70	Dec. 9	-4.41
Mar. 3	-7.51	30	-6.45	Oct. 4	-4.98	28	-4.82
26	-7.11						

K1236. New York City Department of Water Supply, Gas and Electricity. Lexington and Patchen Avenues. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	-17.10	Apr. 27	-16.00	July 26	-15.19	Nov. 4	-14.42
Feb. 3	-16.47	June 2	-15.74	Aug. 30	-14.95	Dec. 9	-14.04
Mar. 3	-16.33	30	-15.47	Oct. 4	-14.31	28	-13.72
26	-15.99						

K1237. New York City Department of Water Supply, Gas and Electricity. Delmonico Place and Hopkins Street. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	-33.79	Mar. 26	-32.58	June 30	-33.01	Oct. 4	-31.73
Feb. 3	-33.11	Apr. 27	-32.95	July 26	-32.56	Nov. 4	-31.37
Mar. 2	-32.65	June 2	-32.78	Aug. 30	-31.53	Dec. 9	-30.73

K1263. New York City Department of Water Supply, Gas and Electricity. East 16th Street and Cortelyou Road. Records available: 1933-36, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	-4.84	Apr. 27	-2.17	Sept. 1	0.24	Nov. 24	0.71
30	-4.41	June 2	-1.42	Oct. 4	.41	Dec. 13	.73
Mar. 3	-3.62	30	-.89	21	.52	28	.71
26	-3.03	July 27	-.27	Nov. 3	.78		

K1264. New York City Department of Water Supply, Gas and Electricity. East 37th Street and Snyder Avenue. Records available: 1933-35, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	-8.42	Apr. 28	-5.48	Sept. 1	-2.80	Nov. 24	-2.18
Feb. 3	-7.72	June 2	-4.58	Oct. 4	-2.52	Dec. 13	-2.13
28	-7.02	30	-4.09	21	-2.37	28	-2.08
Mar. 26	-6.36	July 27	-3.59	Nov. 3	-2.25		

K1265. New York City Department of Water Supply, Gas and Electricity. Riverdale Avenue and Thatford Street. Records available: 1933-35, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	-7.98	Apr. 28	-5.98	Aug. 30	-4.53	Nov. 24	-3.89
Feb. 2	-7.78	June 2	-5.66	Oct. 4	-4.35	Dec. 9	-3.53
Mar. 3	-7.21	30	-5.28	21	-4.01	28	-3.13
26	-6.98	July 26	-5.21	Nov. 3	-4.08		

K1266. New York City Department of Water Supply, Gas and Electricity. Vermont Street and Livonia Avenue. Records available: 1933-37, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	-4.82	Apr. 28	-3.66	July 26	-3.05	Nov. 3	-3.16
Feb. 2	-3.94	June 2	-3.61	Aug. 30	-2.80	Dec. 9	-2.59
Mar. 3	-4.32	30	-3.54	Oct. 4	-3.10	28	-2.06
26	-3.94						

K1296. New York City Department of Water Supply, Gas and Electricity. Blake Avenue and Crystal Street. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	-1.23	Apr. 28	-0.35	July 27	1.28	Nov. 3	-0.29
Feb. 3	-1.07	June 2	-.14	Sept. 1	.43	Dec. 9	-.51
Mar. 3	-.70	July 6	.21	Oct. 4	-.14	28	-.40
26	-.54						

K1347. R. K. O. Albee Theatre. DeKalb Avenue and Fulton Street.
Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	-21.93	Apr. 27	-20.64	July 26	-20.91	Nov. 4	-19.58
Feb. 3	-21.77	June 2	-20.66	Aug. 30	-22.10	Dec. 14	-19.15
Mar. 2	-21.45	30	-21.66	Oct. 4	-20.82	28	-19.12
26	-21.12						

K1479. New York Water Service Corporation. Foster and New York Avenues. Records available: 1946-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-4.17	-3.49	-2.80	.....	-1.22	-0.64	-0.08	0.46	0.78	0.90	0.84	0.82
2	-4.14	-3.45	-2.72	.....	-1.20	-.62	-.10	.46	.80	.88	.78	.80
3	-4.14	-3.43	-2.69	.....	-1.17	-.61	-.08	.49	.82	.84	.81	.86
4	-4.11	-3.41	.....	.....	-1.16	-.58	-.07	.55	.82	.81	.86	.89
5	-4.08	-3.38	.....	.....	-1.14	-.58	-.05	.57	.82	.86	.84	.87
6	-4.06	-3.36	.....	.....	-1.13	-.60	-.01	.58	.83	.89	.85	.91
7	-4.04	-3.35	.....	.....	.....	-.53	-.05	.58	.85	.88	.82	.88
8	-4.02	-3.32	.....	.....	.....	-.51	-.06	.59	.86	.91	.76	.91
9	-3.98	-3.33	.....	.....	.....	-.52	-.04	.60	.87	.92	.82	.85
10	-3.98	-3.31	.....	-1.68	.....	-.52	.00	.60	.85	.90	.87	.86
11	-3.97	-3.28	.....	-1.65	-1.07	-.50	.03	.61	.87	.90	.80	.81
12	-3.94	-3.24	.....	-1.63	-1.05	-.49	.04	.65	.87	.90	.78	.88
13	-3.91	-3.22	.....	-1.64	-.98	-.46	.06	.66	.87	.91	a .89	.89
14	-3.88	-3.11	.....	-1.60	-.93	-.46	.23	.66	.88	.90	.....	.86
15	-3.87	-3.12	.....	.....	-.93	-.43	.22	.66	.85	.84	...	.84
16	-3.84	-3.10	.....	.....	-.91	-.42	.30	.67	.81	.81	...	.90
17	-3.81	-3.04	.....	-1.54	-.86	-.41	.22	.68	.84	.90	...	.92
18	-3.79	-2.96	.....	-1.52	-.85	-.41	.23	.69	.90	.89	...	.89
19	-3.78	-2.94	.....	-1.48	-.85	-.37	.22	.70	.91	.89	...	.96
20	-3.75	-2.93	.....	-1.43	-.82	-.33	.23	.71	.92	.88	a .92	.91
21	-3.70	-2.94	.....	-1.42	-.78	-.30	.26	.72	.91	.80	.82	.89
22	-3.66	.....	.....	-1.43	-.81	-.31	.45	.72	.91	.80	.83	.88
23	-3.68	.....	.....	-1.40	.....	-.29	.44	.73	.91	.82	.89	.87
24	-3.66	.....	.....	-1.36	-.78	-.26	.44	.75	.89	.86	.89	.86
25	-3.64	.....	.....	-1.34	-.76	-.09	.42	.77	.83	.87	.86	.87
26	-3.61	.....	.....	-1.32	-.74	-.13	.43	.77	.81	.87	.82	.80
27	-3.59	.....	.....	-1.30	-.73	-.13	.44	.77	.83	.83	.87	.85
28	-3.57	-2.75	.....	-1.26	-.71	-.08	.44	.79	.86	.81	.82	.85
29	-3.52	-2.78	.....	-1.23	-.68	-.08	.43	.81	.86	.82	.88	.91
30	-3.51	.....	.....	-1.21	-.67	-.08	.45	.82	.88	.81	.83	1.02
31	-3.50	.....	.....	.....	-.66	.....	.47	.82	.....	.84	.....	1.16

a Wetted-tape measurement.

K1495. New York City Department of Water Supply, Gas and Electricity. Avenue S and E 16th Street. Records available: 1936-43 (as K 535), 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.66	Apr. 27	3.00	July 26	3.34	Nov. 3	3.51
Feb. 2	2.96	June 6	3.06	Aug. 30	3.29	Dec. 14	3.48
Mar. 3	3.09	30	3.26	Oct. 4	3.25	28	3.59
26	3.10						

K1511. New York Water Service Corporation, 517 Utica Avenue. Records available: 1946-48. Destroyed, measurements discontinued, Jan. 3, 1948. Jan. 3, -13.34.

K1591. New York City Department of Water Supply, Gas and Electricity. Blake Avenue and Crystal Street. Records available: 1947-48.

K1591--Continued.

Mean daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-1.69	-1.47	-1.28	-0.89	-0.76	-0.60	-0.33	0.49	0.08	-0.26	-0.53	-0.66
2	-1.60	-1.46	-1.20	-.85	-.79	-.60	-.33	.47	.07	-.28	-.55	-.68
3	-1.66	-1.46	-1.16	-.87	-.77	-.60	-.33	.45	.07	-.31	-.54	-.64
4	-1.65	-1.46	-1.16	-.88	-.80	-.58	-.33	.49	.06	-.32	-.51	-.61
5	-1.64	-1.46	-1.20	-.84	-.78	-.58	-.32	.52	.05	-.30	-.53	-.62
6	-1.63	-1.46	-1.16	-.82	-.79	-.64	-.29	.51	.03	-.26	-.53	-.59
7	-1.60	-1.46	-1.11	-.82	-.74	-.61	....	.49	.02	-.29	-.55	-.62
8	-1.62	-1.45	-1.10	-.79	-.74	-.57	....	.47	.02	-.28	-.59	-.62
9	-1.58	-1.51	-1.14	-.78	-.80	-.60	-.38	.46	.02	-.29	-.58	-.68
10	-1.62	-1.53	-1.09	-.82	-.78	-.64	-.36	.43	.00	-.31	-.54	-.69
11	-1.65	-1.54	-1.08	-.79	-.79	-.64	....	.41	-.02	-.33	-.58	-.74
12	-1.64	-1.48	-1.09	-.76	-.78	-.63	....	.43	-.04	-.34	-.60	-.71
13	-1.58	-1.47	-1.08	-.82	-.76	-.61	....	.43	-.06	-.34	-.55	-.70
14	-1.55	-1.42	-1.08	-.79	-.70	-.63	....	.40	-.06	-.36	-.61	-.74
15	-1.59	-1.52	-1.05	-.75	-.70	-.63	....	.37	-.09	-.40	-.62	-.76
16	-1.57	-1.50	-1.02	-.75	-.70	-.63	-.02	.35	-.12	-.42	-.64	-.72
17	-1.53	-1.40	-1.04	-.78	-.65	-.64	.00	.33	-.13	-.39	-.61	-.71
18	-1.51	-1.36	-1.08	-.82	-.63	-.66	.02	.32	-.09	-.41	-.64	-.73
19	-1.54	-1.34	-1.03	-.80	-.65	-.61	.03	.31	-.11	-.43	-.64	-.66
20	-1.52	-1.33	-1.01	-.76	-.62	-.57	.03	.29	-.12	-.44	-.58	-.66
21	-1.45	-1.34	-1.00	-.75	-.58	-.57	.03	.27	-.12	-.48	-.64	-.70
22	-1.44	-1.30	-.97	-.81	-.60	-.57	.42	.24	-.14	-.49	-.65	-.72
23	.....	-1.30	-.99	-.81	....	-.56	.57	.22	-.16	-.49	-.61	-.74
24	-1.52	-1.30	-.94	-.77	-.62	-.51	.54	.21	-.18	-.46	-.63	-.75
25	-1.48	-1.25	-.99	-.76	-.59	-.39	.51	.22	-.22	-.46	-.65	-.74
26	-1.49	-1.21	-.96	-.78	-.59	-.41	.51	.19	-.24	-.47	-.67	-.77
27	-1.46	-1.23	-.89	-.76	-.59	-.39	.51	.15	-.25	-.49	-.62	-.76
28	-1.45	-1.19	-.92	-.74	-.59	-.36	.52	.14	-.26	-.51	-.67	-.76
29	-1.43	-1.21	-.98	-.73	-.58	-.35	.52	.15	-.27	-.51	-.63	-.75
30	-1.46	.....	-.96	-.72	-.58	-.33	.51	.13	-.27	-.53	-.66	-.66
31	-1.49	.....	-.95	.....	-.59	.....	.52	.12	.....	-.52	.....	-.55

Nassau County

N7. Citizens Water Supply Co. About 130 feet north of Remsen Street and 150 feet west of Corona Avenue, Valley Stream. Records available: 1936-48.

Mean daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.56	....	8.50	8.89	8.82	7.06	6.21	4.49	4.35	4.28	6.53	7.62
2	8.88	....	8.62	8.98	8.61	7.06	6.07	4.48	4.21	4.28	6.53	7.52
3	8.73	....	8.81	8.79	8.51	7.02	6.00	4.53	4.08	4.22	6.60	7.57
4	8.68	....	8.72	8.60	8.33	7.05	5.93	4.70	4.00	4.20	6.76	7.73
5	8.75	....	8.47	8.52	8.27	7.06	5.88	4.84	3.89	4.56	6.80	7.74
6	8.77	....	8.45	8.50	8.15	6.87	5.98	4.95	3.82	4.61	6.84	7.92
7	8.86	a8.56	8.68	8.31	8.14	....	5.89	4.94	3.84	4.73	6.89	7.99
8	8.76	....	8.87	8.26	8.12	....	5.66	4.96	3.86	4.97	6.77	8.14
9	8.90	....	8.74	8.28	7.84	....	5.54	4.99	3.86	5.15	6.78	8.04
10	8.77	....	8.83	8.12	7.79	....	....	5.00	3.83	5.16	6.95	8.03
11	8.69	....	8.82	8.15	7.72	6.83	....	5.02	3.81	5.16	7.06	7.93
12	8.67	....	8.75	8.38	7.67	6.80	....	5.19	3.75	....	6.93	8.02
13	8.72	....	8.69	8.25	7.63	6.82	....	5.30	....	....	7.10	8.17
14	8.77	a8.97	8.63	8.31	7.64	6.73	....	5.33	....	....	7.12	8.19
15	....	....	8.70	8.45	7.60	6.72	....	5.31	a5.59	....	7.11	8.12
16	....	....	8.76	8.47	7.49	6.70	a5.09	5.30	3.52	a5.10	7.09	8.28
17	a8.70	....	8.77	8.46	7.60	6.64	....	5.30	3.52	....	7.20	8.40
18	....	....	8.59	8.30	7.66	6.54	....	5.29	3.74	....	7.20	8.39
19	....	....	8.59	8.33	7.53	6.59	....	5.29	3.82	5.34	7.18	8.55
20	....	....	8.70	8.52	7.51	6.59	a5.10	5.28	3.91	5.42	7.46	8.78
21	....	a8.35	8.70	8.64	7.63	6.52	5.02	5.27	4.00	5.52	7.38	8.75
22	....	8.38	8.80	8.46	7.57	6.45	5.06	5.22	4.04	5.28	7.34	8.78
23	....	8.34	8.77	8.44	7.42	6.40	4.94	5.18	4.08	5.41	7.51	8.75

a Wetted-tape measurement.

N7--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	a8.55	8.29	8.87	8.49	7.56	6.44	4.84	5.16	4.10	5.64	7.55	8.69
25	....	8.50	8.70	8.59	7.34	6.32	4.70	5.16	4.00	5.99	7.59	8.70
26	....	8.73	8.66	8.56	....	6.39	4.63	5.08	3.97	6.09	7.52	....
27	....	8.70	8.94	8.64	....	6.28	4.63	4.90	4.01	6.16	7.69	....
28	....	8.79	8.96	8.73	....	6.28	4.61	4.81	4.11	6.22	7.62	....
29	....	8.81	8.76	8.84	7.19	6.27	4.52	4.77	4.14	6.32	7.72	....
30	....	....	8.74	8.93	7.15	6.27	4.49	4.64	4.19	6.37	7.68	....
31	a8.45	....	8.74	....	7.11	....	4.51	4.50	....	6.43	....	a9.17

a Wetted-tape measurement.

N9. Citizens Water Supply Co. well Valley Stream 7. West side of Corona Avenue, 650 feet north of Remsen Street. Records available: 1936-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	22.01	May 6	22.28	July 28	22.70	Nov. 1	21.93
24	21.77	30	22.48	Aug. 30	23.33	Dec. 6	22.21
Feb. 27	22.48	June 28	22.72	Sept. 29	21.76	27	22.11
Mar. 25	22.46						

N53. Village of Rockville Centre. In basement of municipal power station, Morris and Maple Avenues. Records available: 1934-48.

Jan. 2	13.53	May 7	15.11	July 28	15.78	Nov. 1	14.25
24	14.20	30	15.39	Aug. 30	15.14	Dec. 6	14.62
Feb. 27	14.74	June 28	15.68	Sept. 29	14.40	27	14.47
Mar. 25	15.26						

N67. Village of Freeport. Sunrise Highway about 200 feet west of Long Beach Avenue. Records available: 1932-44, 1946-49.

Jan. 8	15.11	Feb. 26	15.20	May 7	15.10	Oct. 1	11.76
27	15.17	Mar. 18	14.94	July 15	12.70		

N157. J. N. Hill. About 0.4 mile south of Cedar Swamp Road and 450 feet west of Wheatley Road, Wheatley Hills. Records available: 1932-48.

Jan. 10	84.04	May 10	83.83	Aug. 3	84.79	Nov. 3	85.79
31	84.63	June 1	83.95	30	85.15	Dec. 7	85.43
Feb. 27	84.00	29	84.53	Sept. 30	84.62	28	85.90
Mar. 26	83.55						

N180. New York City Department of Water Supply, Gas and Electricity. Northeast corner of Condit Street and Seamans Neck Road, Seaford. Records available: 1945-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.97	....	19.71	20.54	20.34	20.59	20.62	20.74	20.07	19.13	18.86	....
2	19.19	....	19.98	20.55	20.30	20.58	20.55	20.70	19.92	19.10	18.81	....
3	19.17	....	20.11	20.32	20.33	20.58	20.56	20.72	19.77	19.03	18.88	....
4	19.21	....	20.06	20.19	20.29	20.63	20.55	20.79	19.67	19.01	18.92	18.95
5	19.26	....	....	20.25	20.36	20.59	20.57	20.84	19.61	19.09	18.86	18.88
6	19.31	....	a20.46	20.36	20.36	20.46	20.68	20.84	19.60	19.17	18.84	18.94
7	19.30	....	20.53	20.42	20.49	20.54	20.59	20.77	19.57	19.17	18.76	18.86
8	19.25	18.93	20.49	20.56	20.46	20.57	20.54	20.74	19.54	19.22	18.61	18.83
9	19.34	....	20.42	20.53	20.33	20.50	20.52	20.70	19.51	19.15	18.84	18.70
10	19.16	....	20.50	20.38	20.33	20.46	20.52	20.62	19.46	19.07	19.16	18.71
11	19.08	....	20.33	20.42	20.29	20.46	20.52	20.57	19.45	19.03	19.05	18.64
12	19.09	18.86	20.36	20.52	20.29	20.45	20.48	20.59	19.39	19.04	18.95	18.72
13	19.29	18.84	20.42	20.39	20.34	20.51	20.52	20.58	19.35	19.01	19.27	18.73
14	19.32	18.98	20.44	20.48	20.37	20.45	....	20.53	19.32	18.96	19.23	18.65
15	....	18.71	20.52	20.50	20.34	20.45	....	20.45	19.26	18.88	19.27	18.64
16	....	18.77	20.57	a20.49	20.36	20.42	20.84	20.42	19.21	18.86	19.06	18.76
17	19.31	18.95	20.49	20.41	20.52	20.38	20.91	20.41	19.23	18.94	19.05	18.81

a Wetted-tape measurement.

N180 --Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
18	19.34	18.99	20.38	20.35	20.57	20.32	20.97	20.41	19.30	18.89	18.91	18.75
19	.....	19.09	20.47	20.40	20.53	20.40	20.93	20.41	19.28	18.86	18.93	18.88
20	.....	19.19	20.50	20.48	20.58	20.45	20.89	20.41	19.30	18.84	19.08	18.90
21	19.47	19.24	20.49	20.43	20.70	20.45	20.92	20.38	19.27	18.75	.....	18.85
22	19.48	19.43	20.53	20.35	20.65	20.42	20.98	20.33	19.25	18.90	.....	18.79
23	.....	19.49	20.48	20.38	20.61	20.46	21.00	20.30	19.23	18.95	.....	18.71
24	.....	.....	20.59	20.40	20.61	20.57	20.99	.....	19.19	19.02	.....	18.65
25	.....	19.75	20.45	20.39	20.64	20.61	20.93	.....	19.12	19.12	.....	.....
26	.....	19.79	20.49	20.37	20.63	20.55	20.90	.....	19.08	19.09	.....	.....
27	.....	19.73	20.67	20.37	20.60	20.56	.....	20.17	19.07	19.01	18.87	.....
28	.....	19.86	20.56	20.41	20.59	20.61	.....	20.18	19.06	18.96	.....	18.67
29	.....	19.81	20.42	20.42	20.59	20.62	.....	20.20	19.05	18.94	.....	18.70
30	.....	.....	20.43	20.43	20.58	20.63	20.80	20.15	19.08	18.90	.....	18.88
31	.....	.....	20.41	.....	20.59	.....	20.79	20.13	.....	18.91	.....	19.17

a Wetted-tape measurement.

N511. Irving Cox Estate. 1,000 feet west of Horseshoe Road, 0.5 mile north of Clefts Road, Mill Neck. Water levels are affected by tidal fluctuations. Measurements made at or near high tide. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	20.01	Apr. 28	20.48	July 26	20.88	Nov. 5	20.73
31	19.95	May 27	20.48	Sept. 1	19.66	Dec. 7	20.83
Feb. 25	20.49	July 6	19.82	30	20.13	31	21.52
Mar. 27	20.65						

N575. Frederick Loeser & Co., 833 Franklin Avenue, Garden City. Records available: 1946-48.

Feb. 7	56.13	May 7	59.42	Aug. 3	58.67	Nov. 3	57.55
Mar. 6	58.22	June 1	58.90	30	56.77	Dec. 7	57.64
26	58.03	July 1	58.74	Oct. 4	55.65	28	57.41

N657. Town of North Hempstead. West Shore Road, Bar Beach. Water levels affected by tidal fluctuations. Records available: 1945-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.4	.....	14.1	14.4	14.4	14.7	14.7	14.6	14.4	14.4	14.8	14.6
2	14.9	13.6	14.2	14.2	14.4	14.7	14.6	14.6	14.4	14.5	14.8	14.7
3	14.4	13.3	14.2	13.7	14.6	14.8	14.6	14.7	14.2	14.5	14.8	14.7
4	14.5	.....	14.1	13.9	14.5	14.9	14.5	14.8	14.2	14.5	14.8	15.0
5	14.5	.....	13.8	14.2	14.8	14.8	14.5	15.0	14.1	14.8	14.6	15.0
6	14.4	.....	13.9	14.2	14.7	14.7	14.5	14.9	14.2	14.9	14.6	14.9
7	14.3	.....	14.2	14.2	14.8	14.9	14.6	14.7	14.2	14.8	14.6	14.6
8	14.2	14.0	14.1	14.4	14.5	14.9	14.4	14.7	14.3	14.9	14.3	14.7
9	14.2	.....	14.1	14.0	14.4	15.0	14.6	14.8	14.3	14.6	14.5	14.6
10	13.6	.....	14.2	14.0	14.5	14.8	14.6	14.7	14.2	14.6	14.6	14.7
11	13.9	.....	14.1	14.3	14.5	14.6	14.6	14.7	14.2	14.6	14.3	14.5
12	14.0	13.8	14.0	14.3	14.5	14.7	14.6	14.7	14.3	14.6	14.3	14.6
13	14.2	13.9	14.0	14.2	14.3	14.8	14.6	14.9	14.3	14.5	14.4	14.5
14	14.2	14.0	14.0	14.5	14.8	14.6	14.6	14.9	14.5	14.5	14.2	14.3
15	13.9	13.2	14.0	14.3	14.6	14.6	14.6	14.8	14.4	14.6	14.6	14.6
16	14.0	13.6	13.9	14.4	14.6	14.6	14.6	14.9	14.3	14.6	14.5	15.0
17	14.0	13.8	13.9	14.3	14.9	14.6	14.7	14.9	14.2	14.5	14.6	14.8
18	14.0	13.7	14.0	14.3	14.8	14.5	14.8	14.9	14.3	14.6	14.5	14.4
19	13.9	13.9	14.0	14.3	14.7	14.7	14.8	14.9	14.6	14.6	14.6	14.8
20	13.8	13.8	14.0	14.4	14.8	14.6	14.7	14.8	14.6	14.6	14.8	15.0
21	14.3	13.9	14.2	14.4	14.9	14.5	14.8	14.7	14.6	14.5	14.7	14.6
22	14.2	14.2	14.2	14.4	14.8	14.6	14.8	14.6	14.5	14.4	14.8	14.4
23	.....	14.0	14.5	14.3	14.7	14.6	14.8	14.6	14.6	14.5	14.9	14.4
24	14.1	14.0	14.3	14.2	14.7	14.7	14.8	14.6	14.7	14.8	15.0	14.4
25	14.1	13.9	14.1	14.5	14.7	14.7	14.7	14.6	14.4	14.9	14.8	14.6

N657--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	14.1	14.2	14.5	14.7	14.7	14.7	14.6	14.3	14.6	14.8	14.5
27	14.0	14.4	14.5	14.7	14.8	14.7	14.6	14.3	14.5	14.8	14.4
28	14.4	14.3	14.6	14.7	14.8	14.7	14.5	14.4	14.6	14.5	14.4
29	13.7	14.2	14.2	14.5	14.6	14.8	14.6	14.4	14.4	14.6	15.0	14.6
30		14.2	14.6	14.6	14.7	14.6	14.5	14.4	14.7	14.8	14.8
31		14.1		14.7		14.7	14.5		14.7		15.4

N844. Long Island Railroad. Jerusalem Avenue about 110 feet north of railroad tracks, Hicksville. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	79.97	May 7	81.67	July 30	82.72	Nov. 3	82.60
Jan. 31	79.80	May 30	82.13	Aug. 30	82.85	Dec. 7	82.50
Feb. 27	79.76	June 29	82.46	Sept. 29	82.78	28	82.33
Mar. 26	80.27						

N1102. Nassau County Department of Public Works. Willets and Valley Roads, Lake Success. Records available: 1939-48.

Jan. 24	56.25	May 5	56.76	July 28	57.10	Nov. 1	57.43
Feb. 25	56.51	25	56.82	Aug. 30	57.22	Dec. 6	57.76
Mar. 25	56.09	June 28	56.95	Sept. 30	57.40	27	57.17

N1103. County Department of Public Works. North side of Marcus Avenue and 253 feet east of Lakeville Road. Records available: 1939-48.

Feb. 17	57.76	May 5	58.05	July 28	58.66	Nov. 1	59.58
25	57.82	25	58.23	Aug. 30	59.17	Dec. 6	59.67
Mar. 25	57.70	June 28	57.55	Sept. 30	59.19	27	59.42

N1104. County Department of Public Works. Rhodes Street and 80th Avenue, New Hyde Park. Records available: 1939-48.

Jan. 24	57.20	May 5	58.28	July 28	60.16	Nov. 1	59.96
Feb. 25	57.14	25	58.93	Aug. 30	60.55	Dec. 6	59.74
Mar. 25	57.27	June 28	59.65	Sept. 30	60.33	27	59.47

N1105. County Department of Public Works. Emerson and Whittier Avenues, New Hyde Park. Records available: 1939-48.

Feb. 4	54.09	May 6	55.62	July 28	57.05	Nov. 1	56.80
25	54.03	25	56.16	Aug. 30	57.40	Dec. 6	56.55
Mar. 25	54.52	June 28	56.74	Sept. 30	57.08	27	56.28

N1107. County Department of Public Works. Bertha Street and Kingston Avenue, South Floral Park. Records available: 1939-48.

Jan. 2	43.48	May 6	44.93	July 28	45.79	Nov. 1	45.62
Feb. 4	43.33	26	45.06	Aug. 30	45.90	Dec. 6	44.73
27	43.38	June 28	45.33	Sept. 29	46.24	27	44.53
Mar. 25	44.28						

N1108. County Department of Public Works. Jacob Street and Rosalind Avenue, Elmont. Records available: 1939-48.

Jan. 2	37.94	May 6	40.33	July 28	40.99	Nov. 1	40.55
24	38.34	26	40.31	Aug. 30	40.95	Dec. 6	40.16
Feb. 27	38.62	June 28	40.77	Sept. 29	40.93	27	40.02
Mar. 25	39.49						

N1109. County Department of Public Works. Dutch Broadway and Henry Street, Elmont. Records available: 1939-48.

Jan. 2	26.55	May 6	28.08	July 28	29.12	Nov. 1	27.48
Feb. 4	26.76	30	28.51	Aug. 30	28.62	Dec. 6	27.25
27	27.57	June 28	28.55	Sept. 29	27.90	27	27.24
Mar. 25	28.23						

N1110. County Department of Public Works. East side of Henry Street about 500 feet south of Southern State Parkway, North Valley Stream. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	19.71	May 6	20.39	July 28	21.03	Nov. 1	20.09
24	20.06	30	20.77	Aug. 30	20.80	Dec. 6	19.97
Feb. 27	20.56	June 28	20.96	Sept. 29	20.63	27	20.07
Mar. 25	20.70						

N1111. County Department of Public Works. Fletcher and Teneyck Avenues, Valley Stream. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	12.20	May 7	13.11	July 28	13.54	Nov. 1	12.80
24	12.51	30	13.37	Aug. 30	13.13	Dec. 6	13.09
Feb. 27	12.71	June 28	13.71	Sept. 29	13.02	27	13.07
Mar. 25	12.65						

N1112. County Department of Public Works. Sunrise Highway and 2d Street, Valley Stream. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.41	May 7	9.31	July 28	10.04	Nov. 1	9.93
24	9.71	30	9.44	Aug. 30	9.98	Dec. 6	10.01
Feb. 27	9.56	June 28	10.17	Sept. 29	10.01	27	10.11
Mar. 25	9.78						

N1126. County Department of Public Works. At northwest corner of Stewart Avenue and Sackville Road, Garden City. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	57.10	May 10	58.51	Aug. 3	59.59	Nov. 3	59.74
25	56.99	26	58.79	30	59.90	Dec. 7	59.63
Mar. 26	57.56	July 1	59.19	Sept. 29	59.95	28	59.52

N1132. County Department of Public Works. West side of Lakewood Boulevard, 111 feet south of Sunrise Highway, Lynbrook. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.93	May 7	8.76	July 28	9.21	Nov. 1	8.06
24	8.72	30	9.05	Aug. 30	8.63	Dec. 6	8.51
Feb. 27	8.85	June 28	9.29	Sept. 29	8.21	27	8.46
Mar. 25	9.35						

N1140. County Department of Public Works. West side of Kellum Place, 37 feet north of Ninth Street, Garden City. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	59.89	May 7	61.30	Aug. 3	62.76	Nov. 3	62.83
25	59.79	26	61.61	30	63.08	Dec. 7	62.62
Mar. 26	60.51	July 1	62.24	Sept. 29	63.14	28	62.44

N1147. County Department of Public Works. North side of Seaman Avenue, 310 feet east of Knollwood Road, Baldwin. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	17.78	May 7	18.73	July 28	19.31	Nov. 1	18.05
Feb. 4	18.40	30	19.13	Aug. 30	18.82	Dec. 6	18.37
27	19.04	June 28	19.29	Sept. 29	18.26	27	18.22
Mar. 25	19.03						

N1160. County Department of Public Works. South side of Stewart Avenue, about 75 feet east of Mitchel Field, Mineola. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	65.09	May 7	67.14	Aug. 3	68.01	Nov. 3	66.13
25	65.68	26	67.45	30	67.59	Dec. 6	66.29
Mar. 26	66.67	July 1	67.62	Sept. 29	67.15	28	66.09

N1167. County Department of Public Works. East side of North Ocean Avenue, 38 feet north of Brooklyn Avenue, Freeport. Records available: 1938-48.

N1167--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.74	May 7	11.64	July 28	12.03	Nov. 1	10.36
Feb. 4	11.41	30	11.93	Aug. 30	11.61	Dec. 6	10.71
27	11.84	June 28	11.83	Sept. 29	10.89	27	10.97
Mar. 25	12.12						

N1185. County Department of Public Works. Northwest corner of West Grand Avenue and Lindgren Street, Merrick. Records available: 1938-48.

Jan. 2	11.38	May 7	12.78	July 28	13.58	Nov. 1	11.58
Feb. 4	11.90	30	13.04	Aug. 30	13.22	Dec. 6	11.63
27	12.19	June 28	13.28	Sept. 29	12.43	27	11.65
Mar. 25	12.87						

N1204. County Department of Public Works. Northwest corner of Harris Court and John Street, Bellmore. Records available: 1939-48.

Feb. 4	11.44	May 7	11.20	July 28	12.07	Nov. 1	8.52
27	11.75	30	11.86	Aug. 30	11.43	Dec. 6	9.49
Mar. 25	12.07	June 28	11.85	Sept. 29	10.81	28	9.92

N1212. County Department of Public Works. Jericho Turnpike about 1.3 miles east of Broadway, Locust Grove. Records available: 1943-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	85.11	84.78	84.31	84.68	84.68	85.16	85.57	86.01	86.31	86.71	86.73	86.70
2	85.28	84.84	84.60	84.58	84.68	85.16	85.55	86.00	86.39	86.62	86.63	86.69
3	84.87	84.75	84.45	84.35	84.77	85.20	85.62	86.07	86.42	86.52	.....	86.86
4	84.94	84.82	84.32	84.38	84.71	85.29	85.63	86.14	86.41	86.54	.....	86.90
5	84.95	84.76	84.17	84.59	84.83	85.24	85.70	86.18	86.39	86.71	.....	86.80
6	84.98	84.79	84.67	84.59	84.74	85.09	85.83	86.14	86.44	86.74	86.78	86.93
7	85.02	84.76	84.87	84.48	84.98	85.38	85.60	86.07	86.52	86.68	86.71	86.82
8	84.91	84.79	84.69	84.68	84.80	85.37	85.56	86.12	86.54	86.77	86.60	86.85
9	85.13	.....	89.51	84.60	84.68	85.23	85.64	86.14	86.53	86.70	86.77	.....
10	84.81	.....	84.58	84.43	84.79	85.19	85.79	86.14	86.46	86.65	86.88	.....
11	.....	.....	84.55	84.59	84.77	85.27	85.85	86.19	86.47	86.66	86.58	86.55
12	.....	.....	84.46	84.61	84.83	85.32	85.84	86.29	86.47	86.73	86.66	86.86
13	.....	.....	84.47	84.36	84.86	85.35	85.88	86.29	86.49	86.74	86.94	86.82
14	.....	.....	84.43	84.61	84.90	85.27	85.85	86.23	86.50	86.70	86.67	86.70
15	.....	84.49	84.64	84.57	84.86	85.37	85.77	86.19	86.41	86.57	86.76	86.73
16	.....	84.71	84.70	84.65	84.87	85.37	85.83	86.20	86.38	86.59	86.68	86.84
17	.....	84.87	84.48	84.48	85.05	85.36	85.89	86.24	86.52	86.80	86.86	86.80
18	.....	84.87	84.36	84.41	85.00	85.33	85.95	86.25	86.71	86.69	86.64	86.72
19	.....	84.80	84.61	84.57	84.89	85.50	85.89	86.28	86.62	86.70	86.78	87.02
20	.....	84.63	84.56	84.76	85.01	85.39	85.90	86.28	86.65	86.68	87.01	86.78
21	.....	84.48	84.63	84.68	85.17	85.42	86.00	86.27	86.57	86.57	86.70	86.73
22	.....	84.61	84.67	84.49	84.96	85.40	85.94	86.27	86.59	86.62	86.81	86.72
23	.....	84.43	84.50	84.60	84.90	85.48	85.96	86.29	86.59	86.77	86.88	86.70
24	84.78	84.50	84.60	84.72	84.94	85.61	85.90	86.36	86.53	86.88	86.86	86.69
25	.....	84.86	84.32	84.70	.....	85.57	85.91	86.41	86.61	86.84	86.79	.....
26	.....	84.83	84.55	84.65	.....	85.47	85.95	86.32	86.45	86.79	86.73	.....
27	.....	84.62	84.88	84.71	.....	85.52	86.00	86.30	86.56	86.69	86.89	.....
28	.....	84.83	84.58	84.73	.....	85.60	86.01	86.38	86.63	86.71	86.72	.....
29	.....	84.45	84.43	84.78	85.16	85.59	85.96	86.46	86.62	86.76	86.87	.....
30	.....	.....	84.51	84.83	85.14	85.61	86.05	86.40	86.67	86.75	86.69	.....
31	84.75	.....	84.51	.....	85.11	.....	86.06	86.39	.....	86.80	.....	87.12

N1222. County Department of Public Works. Southwest corner of Cecelia Place and John Street, Seaford. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	8.34	May 3	8.93	July 28	9.53	Nov. 3	6.13
27	9.23	30	9.36	Aug. 30	9.12	Dec. 6	5.78
Mar. 25	9.26	June 28	9.28	Sept. 29	8.70	28	6.02

N1234. County Department of Public Works. Southwest side of Plainview Road, 400 feet northwest of Bethpage State Parkway, Central Park. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	60.99	May 7	63.65	Aug. 3	64.74	Nov. 3	63.36
31	60.84	30	64.08	30	64.57	7	63.11
Feb. 27	61.03	June 29	64.32	Sept. 29	64.09	28	62.81
Mar. 25	62.23						

N1240. County Department of Public Works, 44 feet south of Sunrise Highway and 62 feet east of Manhattan Avenue. Massapequa Park. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	9.27	May 3	10.23	July 29	11.01	Nov. 3	5.25
27	10.39	30	10.98	Aug. 30	10.46	7	5.88
Mar. 25	10.78	June 29	10.87	Sept. 29	9.88	28	6.09

N1244. County Department of Public Works. North side of Jericho Turnpike, 60 feet west of Avery Road, about 2.5 miles east of Syosset. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	72.71	May 10	72.08	July 30	72.65	Nov. 3	73.44
31	72.59	30	72.16	Aug. 30	72.95	7	73.67
Feb. 27	72.46	June 29	72.39	Sept. 29	73.25	28	73.81
Mar. 25	72.24						

N1245. County Department of Public Works. West side of Plainview-Cold Spring Harbor Road, about 1 mile south of Jericho Turnpike and about 2 miles northeast of Plainview. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	77.62	May 7	76.85	July 30	77.54	Nov. 3	70.65
31	77.07	30	76.92	Aug. 30	77.71	7	78.60
Feb. 27	76.99	June 29	77.14	Sept. 29	78.42	28	79.23
Mar. 25	76.78						

N1246. County Department of Public Works. East side of Plainview-Melville Road, just west of Suffolk County Line, Plainview. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	78.39	May 7	78.25	Aug. 3	79.22	Nov. 3	80.24
31	77.80	30	78.37	30	79.59	7	80.25
Feb. 27	77.70	June 29	78.76	Sept. 29	79.92	28	80.08
Mar. 25	77.54						

N1247. County Department of Public Works. 500 feet north of Motor Parkway, 200 feet west of Suffolk County Line, Bethpage. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	71.52	May 7	72.31	Aug. 3	73.75	Nov. 3	73.96
Feb. 27	71.17	30	72.81	30	74.15	7	73.86
Mar. 25	71.46	June 29	73.26	Sept. 29	74.23	28	73.79

N1249. County Department of Public Works. Northeast corner of Secatogue Avenue and Wall Street, Farmingdale. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	52.60	May 3	55.39	July 29	56.25	Nov. 3	54.89
Feb. 7	53.20	30	56.04	Aug. 30	55.69	7	53.63
27	54.39	June 29	55.99	Sept. 29	54.71	28	53.51
Mar. 25	55.14						

N1250. County Department of Public Works. 37 feet northwest of Old Carmans Road and about 2,200 feet northwest of Great Neck Road, Farmingdale. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	45.54	May 3	47.99	July 29	48.58	Nov. 3	45.97
Feb. 7	46.20	30	48.57	Aug. 30	47.66	7	45.93
27	47.63	June 29	48.90	Sept. 29	46.79	28	45.76
Mar. 25	48.14						

N1251. 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. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	37.91	May 3	39.60	July 29	39.94	Nov. 3	37.70
Feb. 7	38.58	30	40.11	Aug. 30	39.14	Dec. 7	37.84
27	39.77	June 29	40.03	Sept. 29	38.43	28	37.70
Mar. 25	40.01						

N1252. County Department of Public Works. Southwest corner of County Line Road and Smith Street, about 1 mile north of Amityville. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	25.00	May 3	24.92	July 29	26.08	Nov. 3	24.52
Feb. 7	25.32	30	26.29	Aug. 30	25.58	Dec. 7	24.46
27	25.93	June 29	26.08	Sept. 29	25.05	28	24.47
Mar. 25	26.16						

N1253. County Department of Public Works. Northeast corner of Clocks Boulevard and Pine Street, about 1 mile east of Massapequa Park. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.59	May 3	15.87	July 29	16.57	Nov. 3	14.37
Feb. 7	15.24	30	16.44	Aug. 30	15.74	Dec. 7	14.06
27	16.19	June 29	16.24	Sept. 29	15.15	28	14.14
Mar. 25	16.45						

N1255. County Department of Public Works. East side of Clinton Road near St. James Street, Garden City. Records available: 1913-18, 1934-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	60.24	May 7	62.35	Aug. 3	63.01	Nov. 3	61.18
Feb. 25	61.12	26	62.70	30	62.57	Dec. 6	61.36
Mar. 26	61.60	July 1	62.73	Sept. 29	62.22	28	61.05

N1256. County Department of Public Works. At junction of Hillside Avenue and Bacon Road, Westbury. Records available: 1913-18, 1932-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	76.10	May 10	77.91	July 29	78.56	Nov. 3	78.85
Feb. 25	76.25	30	78.25	Aug. 30	78.70	Dec. 8	78.59
Mar. 26	77.37	June 29	78.28	Sept. 30	78.86	28	78.83

N1257. New York City Department of Water Supply, Gas and Electricity. Carman and Scranton Avenues, East Rockaway. Records available: 1932-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.79	May 7	8.74	July 28	8.45	Nov. 1	7.49
Feb. 4	8.23	30	8.89	Aug. 30	8.39	Dec. 6	7.70
27	8.18	June 28	8.57	Sept. 29	7.73	27	7.94
Mar. 25	9.63						

N1259. 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. Records available: 1909-10, 1912-16, 1930-35, 1937-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	51.65	May 3	54.31	Aug. 3	55.14	Nov. 1	53.44
Feb. 25	52.44	June 1	54.38	30	54.80	Dec. 6	52.96
Mar. 26	53.80	29	54.59	Sept. 29	54.23	28	52.82

N1260. County Department of Public Works. West side of Main Street, 100 feet south of Pittsburgh Avenue, Massapequa. Records available: 1903-07, 1911-16, 1931-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	20.90	May 3	22.08	July 28	22.77	Nov. 3	20.09
27	22.08	30	22.54	Aug. 30	21.61	Dec. 6	20.17
Mar. 25	22.48	June 29	22.83	Sept. 29	20.70	28	20.04

N1262. 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. Records available: 1931-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	34.70	May 3	35.27	Aug. 3	35.64	Nov. 1	34.83
Feb. 7	34.75	June 1	35.36	Aug. 30	35.49	Dec. 6	34.81
27	35.38	29	35.45	Sept. 29	35.16	28	34.91
Mar. 26	35.47						

N1263. County Department of Public Works. 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. Records available: 1911-15, 1931-48.

Jan. 29	49.88	May 3	52.73	Aug. 3	53.71	Nov. 1	51.84
Mar. 10	51.74	June 1	52.77	Aug. 30	53.29	Dec. 6	51.68
26	52.37	29	53.05	Sept. 29	52.70	28	51.43

N1264. New York City Department of Water Supply, Gas and Electricity. West side of Newbridge Road about 300 feet south of Sunrise Highway, Bellmore. Records available: 1932-36, 1937-48.

Feb. 4	7.18	May 7	7.83	July 28	8.74	Nov. 1	7.53
27	7.79	30	8.55	Aug. 30	8.61	Dec. 6	7.20
Mar. 25	8.62	June 28	8.65	Sept. 29	8.18	28	7.16

N1265. County Department of Public Works. Southwest corner of Albany Avenue and Merrick Road, Freeport. Records available: 1939-48. Mar. 17, 3.85; June 18, 3.50; Sept. 10, 3.19.

N1269. County Department of Public Works. Southwest corner of Babylon Turnpike and Poplar Street, Merrick. Records available: 1939-48. Mar. 17, 7.87; June 18, 7.99; Sept. 9, 6.34.

N1271. County Department of Public Works. Northeast corner of Beach Drive and Florence Street, Merrick. Records available: 1939-48. Mar. 17, 3.02; June 18, 2.56; Sept. 9, 1.43.

N1273. County Department of Public Works. Northwest corner of Cypress Street and Walters Avenue, Wantagh. Records available: 1939-48. Mar. 17, 8.03; June 18, 7.18; Sept. 13, 6.56.

N1275. County Department of Public Works. Northeast corner of Byron and Willow Streets, Wantagh. Records available: 1939-48. Mar. 17, 3.97; June 18, 3.25; Sept. 13, 2.56.

N1278. County Department of Public Works. Southeast corner of Nassau Street and Bay Drive, Massapequa. Records available: 1939-48. Mar. 17, 7.69; June 18, 6.95; Sept. 10, 6.15.

N1280. County Department of Public Works. Northwest corner of Harmony Drive and Park Boulevard, Massapequa. Records available: 1940-48. Mar. 17, 10.66; June 18, 9.89; Sept. 10, 9.27.

N1282. County Department of Public Works. West side of Wantagh State Parkway, about 0.9 mile south of Merrick Road, Wantagh. Records available: 1939-48. Mar. 17, 1.31; June 18, 1.28; Sept. 10, 1.37.

N1285. County Department of Public Works. Northwest corner of Spruce and Melvin Streets, Wantagh. Records available: 1939-48. Mar. 17, 3.50; June 18, 3.14; Sept. 13, 2.94.

N1288. County Department of Public Works. West side of Bay View Avenue and St. Regis Street, Wantagh. Records available: 1939-48. Mar. 17, 4.37; June 18, 3.69; Sept. 10, 3.02.

N1461. County Department of Public Works. Along tracks of Long Island Railroad about 235 feet southeast of New South Road, South Hicksville. Records available: 1943-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	75.06	74.94	75.15	76.05	76.96	77.40	77.52	77.54	77.62	77.67	77.74	77.64
2	75.10	74.94	75.18	76.08	76.98	77.40	77.50	77.54	77.62	77.67	77.72	77.61
3	75.08	74.95	75.21	76.09	77.00	77.40	77.51	77.53	77.62	77.65	.....	.....
4	75.05	74.94	75.22	76.11	77.02	77.41	77.51	77.55	77.62	77.63	.....	77.64
5	75.06	74.94	75.22	76.14	77.05	77.42	77.51	77.55	77.61	77.64	.....	77.63
6	75.05	74.93	75.25	76.19	77.07	77.39	77.53	77.56	77.61	77.67	77.74	77.64
7	75.05	74.93	75.30	76.21	77.11	77.41	77.51	77.55	77.63	77.68	77.75	77.61
8	75.04	74.94	75.33	76.25	77.14	77.43	77.45	77.56	77.64	77.69	77.71	77.62
9	75.06	74.91	75.35	76.29	77.15	77.42	77.44	77.57	77.65	77.70	77.70	77.57
10	75.04	74.88	75.38	76.31	77.17	77.41	77.44	77.57	77.63	77.70	77.73	77.57
11	75.01	74.88	75.40	.....	77.19	77.40	77.47	77.57	77.62	77.70	77.72	77.52
12	75.01	74.92	75.43	.....	77.21	77.41	77.48	77.60	77.62	77.70	77.71	77.54
13	75.04	74.92	75.45	.....	77.22	77.43	77.49	77.61	77.63	77.71	77.75	77.57
14	75.04	74.97	75.47	.....	77.24	77.42	77.50	77.61	77.63	77.71	77.75	77.55
15	.....	74.90	75.51	.....	77.26	77.43	77.48	77.61	77.61	77.69	77.75	77.51
16	.....	74.87	75.56	.....	77.27	77.44	77.47	77.61	77.60	77.68	77.74	77.53
17	74.98	74.93	75.59	76.51	77.29	77.45	77.49	77.61	77.60	77.70	77.75	77.56
18	74.99	74.95	75.61	76.52	77.31	77.44	77.51	77.61	77.65	77.72	77.74	77.51
19	74.97	74.96	75.64	76.56	77.31	77.46	77.52	77.61	77.67	77.72	77.73	77.54
20	74.96	74.99	75.68	76.60	77.32	77.47	77.51	77.61	77.68	77.72	77.77	77.58
21	75.01	74.98	75.71	76.65	77.35	77.47	77.52	77.61	77.68	77.70	77.75	77.54
22	75.05	75.00	75.75	76.67	77.36	77.47	77.52	77.61	77.68	77.70	77.72	77.51
23	75.01	75.02	75.77	76.70	77.34	77.47	77.51	77.62	77.68	77.70	77.74	77.48
24	74.96	75.02	75.81	76.73	77.35	77.50	.....	77.65	77.68	77.73	77.74	77.47
25	74.96	75.08	75.83	76.77	77.37	77.51	.....	77.64	77.66	77.73	77.73	77.47
26	74.96	75.12	75.86	76.80	77.38	77.50	77.44	77.64	77.63	77.73	77.70	77.45
27	74.96	75.13	75.91	76.83	77.38	77.50	77.47	77.62	77.63	77.72	77.71	77.44
28	74.97	75.15	75.94	76.87	77.38	77.52	77.46	77.62	77.65	77.72	77.68	77.44
29	74.98	75.16	75.95	76.90	77.39	77.52	77.44	77.64	77.65	77.72	77.69	77.44
30	74.96	.....	75.97	76.94	77.40	77.53	77.54	77.65	77.65	77.72	77.66	77.47
31	74.93	.....	76.00	.....	77.40	.....	77.55	77.64	.....	77.73	.....	77.52

N1462. County Department of Public Works. Along tracks of Long Island Railroad at Bloomingdale Road, Island Trees. Records available: 1943-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	61.61	61.63	62.58	63.71	64.50	64.59	64.90	65.58	65.63	65.19	64.61	64.26
2	61.63	61.64	62.64	63.72	64.49	64.60	64.91	65.59	65.60	65.18	64.58	64.23
3	61.62	61.65	62.69	63.75	64.50	64.60	64.94	65.60	65.59	65.18	64.56	64.22
4	61.61	61.66	62.74	63.76	64.50	64.62	64.96	65.61	65.58	65.15	64.55	64.21
5	61.60	61.66	62.78	63.79	64.50	64.62	65.00	65.63	65.56	65.15	64.52	64.21
6	61.60	61.67	62.85	.....	64.50	64.61	65.04	65.64	65.55	65.13	64.49	64.20
7	61.60	61.69	62.90	.....	64.51	64.63	65.04	65.64	65.54	65.12	64.48	64.18
8	61.59	61.69	62.93	.....	64.51	64.65	65.05	65.64	65.54	65.10	64.48	64.17
9	61.60	61.69	62.96	.....	64.48	64.65	65.08	65.65	65.53	65.08	64.46	64.15
10	61.59	61.65	63.00	.....	64.48	64.64	65.09	65.67	65.51	65.06	64.45	64.13
11	61.57	61.69	63.03	64.04	64.48	64.63	65.13	65.67	65.49	65.03	64.47	64.11
12	61.57	61.75	63.07	64.09	64.48	64.63	65.15	65.69	65.48	65.04	64.48	64.10
13	61.57	61.78	63.11	64.10	64.48	64.64	65.17	65.70	65.47	65.00	64.53	64.09
14	61.57	61.75	63.14	64.15	64.48	64.63	65.19	65.70	65.46	64.97	64.51	64.08
15	61.55	61.77	63.17	64.18	64.48	64.63	65.21	65.70	65.44	64.94	64.50	64.06
16	61.53	61.81	63.21	64.21	64.47	64.64	65.24	65.70	65.43	64.91	64.46	64.05
17	61.52	61.83	63.24	64.23	64.48	64.64	65.26	65.70	65.41	64.91	64.45	64.04
18	61.52	61.86	63.26	64.25	64.50	64.64	65.30	65.70	65.42	64.90	64.44	64.01
19	61.52	61.90	63.31	64.28	64.49	64.66	65.31	65.70	65.41	64.88	64.43	64.01
20	61.52	61.93	63.38	64.33	64.50	64.66	65.34	65.70	65.40	64.85	64.42	63.99
21	61.53	61.98	63.41	64.36	64.53	64.66	65.37	65.70	65.38	64.81	64.40	63.97
22	61.54	62.04	63.45	64.37	64.52	64.67	65.40	65.69	65.36	64.79	64.38	63.96
23	61.54	62.10	63.46	64.39	64.50	64.68	65.42	65.68	65.35	64.77	64.37	63.95
24	61.53	62.16	63.49	64.42	64.49	64.70	65.43	65.68	65.32	64.77	64.36	63.95
25	61.54	62.23	63.50	64.43	64.50	64.71	65.44	65.69	65.29	64.76	64.36	63.94

a Estimated.

N1462--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	61.54	62.50	63.52	64.44	64.52	64.72	65.46	65.69	65.28	64.73	64.33	63.95
27	61.56	62.37	63.58	64.45	64.52	64.75	65.50	65.67	65.26	64.69	64.32	63.93
28	61.58	62.47	63.61	64.47	64.53	64.79	65.52	65.66	65.24	64.67	64.32	63.91
29	61.61	62.53	63.61	64.48	64.56	64.83	65.53	65.65	65.23	64.65	64.51	63.90
30	61.62		63.64	64.49	64.57	64.86	65.55	65.65	65.22	64.63	64.27	63.92
31	61.63		63.66		64.58		65.56	65.65		64.63		64.00

a Estimated.

N1463. County Department of Public Works. Southern State Parkway and Seamans Neck Road, Jerusalem. Records available: 1943-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	37.73	.....	39.72	40.54	40.33	40.49	40.57	41.04	40.24	39.26	38.53	38.49
2	37.76	.....	39.81	40.67	40.30	40.47	40.55	41.00	40.21	39.22	38.51	38.51
3	37.76	.....	39.90	40.66	40.28	40.45	40.56	41.01	40.17	39.20	38.49	38.53
4	37.78	.....	39.95	40.66	40.25	40.44	40.56	41.04	40.13	39.17	38.47	38.55
5	37.80	.....	39.96	40.67	40.25	40.42	40.57	41.03	40.09	39.16	38.44	38.55
6	37.81	.....	40.00	40.68	40.21	40.36	40.62	40.99	40.05	39.13	38.42	38.55
7	37.81	38.50	40.06	40.68	40.24	40.36	40.59	40.95	40.01	39.10	38.41	38.53
8	37.81	38.50	40.10	40.71	40.21	40.36	40.55	40.93	39.98	39.07	38.38	38.53
9	37.82	.....	40.11	40.72	40.16	40.31	40.52	40.91	39.94	39.04	38.57	38.51
10	37.82	.....	40.18	40.69	40.15	40.27	40.51	40.87	39.92	39.03	38.41	38.49
11	.....	.....	40.21	40.71	40.13	40.25	40.49	40.85	39.88	39.01	38.63	.....
12	.....	.....	40.25	40.73	40.12	40.24	40.47	40.83	39.84	38.98	38.65	38.47
13	.....	38.22	40.27	40.66	40.15	40.29	40.57	40.81	39.80	38.96	38.65	38.47
14	.....	38.31	40.30	40.68	40.12	40.22	41.20	40.79	39.77	38.94	38.63	38.45
15	.....	38.37	40.33	40.70	40.10	40.20	41.16	40.77	39.72	38.90	38.62	38.43
16	.....	38.44	40.38	40.68	40.12	40.18	41.14	40.75	39.69	38.87	38.61	38.44
17	38.02	38.50	40.38	40.66	40.32	40.16	41.15	40.72	39.67	38.85	38.60	38.44
18	38.04	38.62	40.37	40.62	40.41	40.13	41.16	40.69	39.65	38.82	38.57	38.43
19	.....	38.79	40.40	40.60	40.42	40.18	41.15	40.66	39.63	38.80	38.55	38.46
20	.....	38.99	40.41	40.60	40.43	40.30	41.14	40.63	39.61	38.77	38.58	38.45
21	.....	39.19	.....	40.58	40.47	40.33	41.15	40.61	39.57	38.74	38.54	38.44
22	.....	39.51	.....	40.53	40.47	40.32	41.26	40.58	39.53	38.70	38.52	38.43
23	.....	39.39	.....	40.50	40.47	40.33	41.24	40.55	39.50	38.68	38.52	38.42
24	.....	39.46	.....	40.49	40.48	40.35	41.22	40.52	39.46	38.68	38.51	38.41
25	.....	39.54	.....	40.48	40.50	40.46	41.20	40.49	39.41	38.66	38.50	38.41
26	.....	39.60	.....	40.45	40.52	40.48	41.18	40.45	39.39	38.64	38.47	38.40
27	38.22	39.63	40.50	40.43	40.52	40.50	41.18	40.41	39.37	38.62	38.48	38.39
28	.....	39.69	40.46	40.41	40.52	40.51	41.16	40.39	39.34	38.60	38.45	38.38
29	.....	39.71	40.41	40.39	40.52	40.53	41.11	40.37	39.31	38.58	38.48	38.39
30	.....	.....	40.40	40.37	40.52	40.53	41.09	40.34	39.28	38.56	38.46	38.52
31	38.29	.....	40.39	.....	40.52	.....	41.06	40.29	.....	38.55	.....	38.92

N1464. County Department of Public Works. About 100 feet east of Grant Avenue on northside of Franklin Avenue, Seaford. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 7	16.11	May 3	16.70	July 28	17.02	Nov. 3	15.27
29	17.09	30	16.80	Aug. 30	16.14	Dec. 6	15.17
Mar. 25	17.17	June 28	16.65	Sept. 29	15.65	28	15.12

N1613. 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. Records available: 1940-48.

Jan. 24	22.95	May 7	23.87	July 28	24.56	Nov. 1	23.21
Feb. 27	23.59	30	24.10	Aug. 30	23.98	Dec. 6	23.34
Mar. 25	23.78	June 28	24.39	Sept. 29	23.40	27	24.09

N1614. New York City Department of Water Supply, Gas and Electricity. East side of Herricks Road, about 150 feet north of Florence Road, Mineola. Records available: 1913-17, 1932-35, 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	66.83	May 7	69.78	July 30	70.71	Nov. 3	69.58
25	67.16	30	70.14	Aug. 30	70.55	Dec. 6	69.44
Mar. 26	68.77	July 1	70.21	Sept. 30	70.01	28	69.20

N1615. New York City Department of Water Supply, Gas and Electricity. East side of Merrick Avenue, 324 feet north of Luddington Road, East Meadow. Records available: 1913-15, 1932-48.

Jan. 29	44.11	May 7	45.55	Aug. 3	46.14	Nov. 3	44.05
Feb. 25	45.10	June 1	46.06	30	45.55	Dec. 6	44.06
Mar. 26	45.85	July 1	46.17	Sept. 29	44.75	28	44.05

N1616. New York City Department of Water Supply, Gas and Electricity. East side of Post Avenue at Argyle Road, Westbury. Records available: 1913-15, 1932-48.

Jan. 29	80.18	May 7	82.15	Aug. 3	82.83	Nov. 3	82.61
Feb. 25	80.12	30	82.50	30	82.85	Dec. 8	82.35
Mar. 26	81.06	June 29	82.65	Sept. 30	82.96	28	82.56

N1682. County Department of Public Works. Southwest corner of Crocus and Elm Avenues, Bellerose. Records available: 1940-48.

Feb. 4	42.24	May 6	44.04	July 28	44.81	Nov. 1	44.54
27	42.45	26	44.31	Aug. 30	45.03	Dec. 6	44.32
Mar. 25	43.29	June 28	44.59	Sept. 29	44.92	27	43.94

N1683. County Department of Public Works. Northwest corner of Sixth Street and Stewart Avenue, New Hyde Park. Records available: 1940-48.

Feb. 7	55.24	May 10	57.33	Aug. 3	58.35	Nov. 3	58.22
25	55.46	26	57.46	30	58.76	Dec. 7	57.78
Mar. 26	56.54	July 1	57.83	Sept. 29	58.66	28	57.61

N1684. County Department of Public Works. About 150 feet west of Madison Avenue and 690 feet north of Stewart Avenue, Garden City. Records available: 1940-48.

Feb. 7	57.22	May 10	59.98	Aug. 3	60.71	Nov. 3	59.32
25	57.57	26	59.92	30	60.64	Dec. 7	59.08
Mar. 26	59.07	July 1	60.26	Sept. 29	60.17	28	58.89

N1828. County Department of Public Works. Northwest side of Melville Road near Suffolk County line and about 40 feet northeast of well N1248, Farmingdale. Records available: 1939-42 (as N1248), 1942-48.

Jan. 2	59.06	May 3	61.88	July 29	62.70	Nov. 3	60.79
31	59.48	30	62.51	Aug. 30	62.27	Dec. 7	60.71
Feb. 27	60.65	June 29	62.41	Sept. 29	61.56	28	60.32
Mar. 25	61.34						

N1829. County Department of Public Works. South side of Stewart Avenue, 700 feet west of Newbridge Avenue about 15 feet southeast of well N1180, Salisbury. Records available: 1938-42 (as N1180), 1942-48.

Feb. 7	66.68	May 7	68.52	Aug. 3	68.24	Nov. 3	67.31
25	67.90	26	68.62	30	67.97	Dec. 6	67.39
Mar. 26	68.09	July 1	68.27	Sept. 29	67.53	28	67.70

N1830. County Department of Public Works. West side of Tyson Avenue, just north of Creedmoor spur of Long Island Railroad, Floral Park. Records available: 1939-42 (as N1106), 1942-48.

Jan. 24	50.14	May 6	51.58	July 28	52.91	Nov. 1	52.53
Feb. 25	50.11	26	51.99	Aug. 30	53.12	Dec. 6	52.24
Mar. 25	50.62	June 28	52.39	Sept. 30	52.78	27	51.95

N2052. Port Washington Water District. About 800 feet south of east end of Hewlett Lane, Port Washington. Public supply well, diameter 12 inches to 8 inches to 6 inches, depth 305 feet. Measuring point, hole in pump base, 157.90 feet above mean sea level. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level
Mar. 14, 1946	29.71	June 13, 1947	30.72	May 27, 1948	32.02
May 5, 1947	30.95	Aug. 20	30.46	July 1	32.20
6	30.80	Feb. 18, 1948	30.71	Aug. 5	33.00
7	31.06	Mar. 12	31.08	Sept. 1	32.89
June 2	30.77	Apr. 13	31.31	Oct. 6	32.96
9	30.97	May 25	31.85	27	32.62
10	30.57	26	31.87	Dec. 31	32.80
11	30.72				

N2071. Appleby Estate, 50 feet south of Herb Hill Road, about 2,000 feet west of Columbia Ribbon & Carbon Co., Glen Cove. Water level affected by tidal fluctuations. Measurements made at or near high tide. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	8.29	Apr. 28	13.28	July 26	11.29	Nov. 5	11.19
31	13.51	May 27	12.77	Sept. 1	10.87	Dec. 7	12.85
Feb. 25	13.98	July 6	12.73	30	10.22	31	11.43
Mar. 27	14.35						

N2400. Roslyn Water District. Old Westbury Road and Locust Lane. Public-supply well, diameter 18 inches, depth 439 feet. Measuring point, hole in pump base, 165.64 feet above mean sea level. First measured by Geological Survey July 7, 1947. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level
July 7, 1947	73.22	Aug. 22, 1947	71.82	Feb. 18, 1948	71.56
22	72.00	29	71.77	Mar. 12	71.05
25	71.84	Sept. 19	71.78	Oct. 21	73.04
Aug. 1	71.87	27	71.69	Nov. 16	72.63
8	71.85	Oct. 4	71.63	Dec. 31	71.92
15	71.81	Nov. 1	71.45		

N2413. Jamaica Water Supply Co. Miriam and Lenox Streets, Elmont. Public-supply well, diameter 8 inches, depth 509 feet. Measuring point, top of 1-inch coupling, 52.23 feet above mean sea level. Measurements discontinued, Aug. 27, 1948. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 14	27.50	Mar. 27	28.73	May 22	29.05	July 9	29.12
18	27.68	Apr. 3	28.77	29	29.10	16	29.38
21	27.86	10	28.75	June 4	29.03	23	29.59
28	28.28	17	28.90	11	28.97	30	29.64
Mar. 6	28.45	24	28.93	18	28.85	Aug. 13	29.72
13	28.54	May 1	28.84	25	29.19	20	29.53
20	28.63	17	29.01	July 2	29.17	27	29.20

N2528. County Department of Public Works. Southwest corner Chicken Valley and Wolver Hollow Roads, Upper Brookville. Observation well, diameter 6 inches, depth 288 feet. Measuring point, hole in wooden shelf of recorder shelter, 93.53 feet above mean sea level and 1.55 feet above land-surface datum. Records available: 1947-48.

Mean daily water level, from recorder charts, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 4	69.43	Dec. 15	69.30	Dec. 20	69.23	Dec. 25	69.20
5	69.45	16	69.34	21	69.24	26	69.24
6	69.44	17	69.37	22	69.22	27	69.22
7	69.41	18	69.27	23	69.23	30	69.15
8	69.44	19	69.24	24	69.20	31	69.15
14	69.31						

N2528--Continued.

Mean daily water level, from recorder charts, 1948

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	69.16	69.01	69.23	69.98	70.42	70.74	70.96	70.96	70.82	70.61	70.41	70.29
2	69.19	69.01	69.29	70.01	70.41	70.75	70.96	70.94	70.81	70.60	70.38	70.29
3	69.13	69.00	69.30	70.02	70.43	70.76	70.98	70.94	70.81	70.58	70.40	70.31
4	69.13	69.01	69.31	70.04	70.42	70.78	70.98	70.96	70.80	70.57	70.42	70.33
5	69.12	69.00	69.30	70.10	70.44	70.78	70.99	70.97	70.78	70.58	70.39	70.30
6	69.12	69.00	69.33	70.14	70.43	70.75	71.02	70.96	70.78	70.60	70.39	70.32
7	69.13	68.99	69.39	70.16	70.46	70.80	70.98	70.93	70.78	70.57	70.38	70.30
8	69.11	68.99	69.41	70.23	70.44	70.80	70.95	70.94	70.79	70.58	70.35	70.30
9	69.13	68.96	69.41	70.24	70.41	70.79	70.96	70.93	70.79	70.57	70.36	70.27
10	69.10	68.95	69.44	70.23	70.43	70.77	70.98	70.92	70.76	70.56	70.40	70.26
11	69.08	68.96	69.46	70.26	70.43	70.78	71.00	70.92	70.76	70.55	70.36	70.24
12	69.09	68.98	69.47	70.28	70.45	70.80	71.00	70.96	70.74	70.55	70.36	70.26
13	69.12	68.97	69.50	70.25	70.46	70.81	71.01	70.97	70.74	70.55	70.42	70.26
14	69.10	69.02	69.52	70.30	70.48	70.80	71.01	70.96	70.73	70.54	70.38	70.23
15	69.06	68.92	69.56	70.31	70.47	70.82	70.99	70.93	70.71	70.51	70.38	70.22
16	69.06	68.93	69.60	70.33	70.47	70.83	70.99	70.92	70.69	70.50	70.35	70.23
17	69.07	68.99	69.60	70.32	70.51	70.83	71.00	70.92	70.70	70.52	70.38	70.22
18	69.07	68.99	69.61	70.30	70.53	70.82	71.02	70.91	70.74	70.51	70.34	70.20
19	69.05	68.99	69.66	70.34	70.54	70.84	71.01	70.91	70.73	70.49	70.34	70.25
20	69.06	69.01	69.70	70.37	70.57	70.84	71.00	70.91	70.73	70.48	70.40	70.24
21	69.12	69.02	69.74	70.37	70.61	70.84	71.02	70.90	70.70	70.45	70.35	70.21
22	69.13	69.08	69.78	70.34	70.61	70.84	71.01	70.89	70.69	70.44	70.35	70.20
23	69.06	69.10	69.78	70.36	70.62	70.85	71.00	70.88	70.68	70.45	70.37	70.19
24	69.06	69.12	69.83	70.39	70.63	70.88	70.99	70.89	70.67	70.47	70.35	70.17
25	69.06	69.20	69.82	70.40	70.65	70.89	70.98	70.90	70.63	70.47	70.34	70.18
26	69.04	69.24	69.85	70.40	70.67	70.89	70.98	70.88	70.62	70.46	70.32	70.15
27	69.05	69.24	69.92	70.41	70.68	70.90	70.99	70.86	70.62	70.43	70.35	70.15
28	69.04	69.27	69.92	70.43	70.70	70.93	70.99	70.86	70.62	70.42	70.30	70.14
29	69.05	69.26	69.90	70.44	70.72	70.94	70.97	70.88	70.61	70.42	70.33	70.16
30	69.02		69.93	70.44	70.73	70.96	70.97	70.86	70.61	70.42	70.29	70.22
31	69.01		69.94		70.73		70.98	70.85		70.42		70.35

N2602. Westbury Water District. Tennyson and Dryden Streets, Westbury. Public-supply well, diameter 10 inches, depth 821 feet. Measuring point, hole in shelf of steel shelter, 118.55 feet above mean sea level and about 0.5 foot above land-surface datum. First measured by Geological Survey Aug. 17, 1948. Records available: 1948.

Mean daily water level, from recorder charts

Day	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	20.66	20.39	21.44	22.29
2	.....	20.57	20.36	21.31	22.26
3	.....	20.49	20.24	21.37	22.41
4	.....	20.39	20.18	21.51	22.53
5	.....	20.25	20.29	21.51	22.52
6	.....	20.19	20.44	21.56	22.68
7	.....	20.21	20.46	21.58	22.68
8	.....	20.22	20.59	21.43	22.84
9	.....	20.21	20.69	21.53	22.74
10	.....	20.13	20.69	21.75	22.80
11	.....	20.10	20.72	21.69	22.69
12	.....	20.03	20.81	21.63	22.86
13	.....	20.01	20.90	21.88	22.95
14	.....	20.01	20.94	21.79	22.93
15	.....	19.92	20.84	21.83	22.90
16	.....	19.84	20.82	21.77	23.08
17	a20.84	19.87	20.97	21.91	23.15
18	.....	20.07	21.03	21.82	23.12
19	a20.94	20.14	21.04	21.87	23.40
20	20.96	20.20	21.05	22.17	23.48
21	20.96	20.23	20.94	22.04	23.43
22	20.92	20.25	20.92	22.07	23.44
23	20.90	20.28	21.05	22.20	23.42
24	20.94	20.23	21.23	22.24	23.41
25	21.04	20.11	21.36	22.25	.....

a Tape measurement.

N2602--Continued.

Mean daily water level, from recorder charts					
Day	Aug.	Sept.	Oct.	Nov.	Dec.
26	21.02	20.06	21.41	22.18	.....
27	20.97	20.10	21.36	22.35	.....
28	20.98	20.17	21.34	22.25	.....
29	21.03	20.21	21.38	22.41	.....
30	20.95	20.28	21.37	22.31	.....
31	20.85		21.43		a24.02

a Tape measurement.

N2635. County Department of Public Works. About 50 feet east of Washington Street and 650 feet south of intersection of Washington Street and Webster Avenue, Port Washington. Observation well, diameter 6 inches, depth 154 feet. Measuring point, mark on top of casing, 42.77 feet above mean sea level. First measured by Geological Survey, July 16, 1948. Records available: 1948.

Mean daily water level, from recorder charts					
Day	July	Aug.	Sept.	Oct.	Dec.
1	.....	27.01	26.82	26.63	26.28
2	.....	27.00	26.81	26.61	26.27
3	.....	27.03	26.81	26.57	26.28
4	.....	27.05	26.79	26.54	26.30
5	.....	27.06	26.79	26.54	26.28
6	.....	27.06	26.79	26.57	26.29
7	.....	27.03	26.79	26.56	26.27
8	.....	27.02	26.79	26.63	26.26
9	.....	27.00	26.79	26.67	26.22
10	.....	26.99	26.79	26.67	26.20
11	.....	26.97	26.80	26.66	26.16
12	.....	27.01	26.79	26.66	26.17
13	.....	27.04	26.76	26.64	26.18
14	.....	27.03	26.74	26.64	26.15
15	.....	27.01	26.70	.....	26.13
16	27.07	26.98	26.66	.....	26.19
17	27.07	26.96	26.66	.....	26.18
18	27.08	26.94	26.69	.....	26.15
19	27.08	26.96	26.71	.....	26.22
20	27.07	26.98	26.72	.....	26.31
21	27.08	26.98	26.70	.....	26.26
22	27.11	26.98	26.69	.....	26.22
23	27.10	26.97	26.68	.....	26.17
24	.....	26.95	26.65	.....	26.13
25	.....	26.96	26.60	.....	26.11
26	.....	26.94	26.57	.....	26.06
27	.....	26.90	26.57	.....	26.05
28	.....	26.89	26.59	.....	26.03
29	.....	26.90	26.59	.....	26.05
30	a27.01	26.89	26.61	.....	26.09
31	.....	26.86		.....	26.26

a Wetted-tape measurement.

Queens County

Q64. American Ice Co. 83d Street and 45th Avenue, Elmhurst. Records available: 1947-48. From recorder charts until June 14, from tape readings thereafter.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-48.4	-37.1	-30.9	-26.8	-25.1	-21.5	.....	.....	.....	.....	.....	.....
2	-47.2	-36.6	-30.6	-26.7	-25.1	-21.3	-20.5	.....	.....	.....	.....	.....
3	-47.0	-36.2	-30.5	-26.9	-24.9	-21.2	.....	.....	-19.9	.....	.....	-16.8
4	-47.2	-35.8	-30.5	-26.9	-24.8	-21.0	.....	.....	.....	-20.5	.....	.....
5	-47.6	-35.5	-30.5	-26.5	-24.7	-21.0	.....	.....	.....	.....	-18.9	.....
6	-47.7	-35.3	-30.3	-26.3	-24.7	-21.0	.....	.....	.....	.....	.....	.....
7	-48.9	-35.0	-30.0	-26.3	-24.5	-20.7	.....	-19.8	.....	.....	.....	.....

Q64--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	-49.5	-34.7	-29.8	-26.1	-24.4	-20.5	.....	.....	.....	.....	.....	.....
9	-49.4	-34.6	-29.8	-26.0	-24.5	-20.5	-19.7	.....	.....	-20.2	.....	.....
10	-49.2	-34.3	-29.7	-26.1	-24.3	-20.6	.....	.....	-20.0	.....	.....	-16.1
11	-48.8	-34.0	-29.6	-26.0	-24.2	-20.6	.....	.....	.....	.....	.....	.....
12	-48.3	-33.5	-29.5	-25.9	-24.0	-20.5	.....	.....	.....	.....	-18.7	.....
13	-47.5	-33.2	-29.4	-26.1	-23.9	-20.4	.....	-19.7	.....	.....	.....	.....
14	-46.8	-32.7	-29.4	-26.0	-23.8	-20.4	.....	.....	.....	.....	.....	.....
15	-45.4	-32.8	-29.2	-25.9	-23.7	.....	.....	.....	.....	-20.3	.....	.....
16	-45.7	-32.6	-29.0	-25.9	-23.6	.....	-19.2	.....	.....	.....	.....	.....
17	-45.1	-32.2	-29.0	-25.8	-23.3	.....	.....	.....	.....	.....	.....	-15.5
18	-44.5	-31.9	-29.0	-25.8	-23.1	-21.9	.....	.....	-20.6	.....	.....	.....
19	-44.1	-31.7	-28.9	-25.6	-23.0	.....	.....	.....	.....	.....	-18.0	.....
20	-43.5	-31.6	-28.7	-25.4	-22.8	.....	.....	-19.1	.....	.....	.....	.....
21	-42.7	-31.7	-28.6	-25.3	-22.6	.....	.....	.....	.....	.....	.....	.....
22	-42.0	-31.5	-28.3	-25.5	-22.5	.....	.....	.....	.....	-19.8	.....	.....
23	-41.6	-31.6	-28.2	-25.4	-22.5	.....	.....	.....	.....	.....	.....	.....
24	-41.1	-31.6	-28.1	-25.3	-22.4	.....	.....	.....	-20.5	.....	.....	-14.8
25	-40.5	-31.3	-28.1	-25.3	-22.2	-20.8	.....	.....	.....	.....	.....	.....
26	-40.0	-31.1	-28.0	-25.3	-22.1	.....	-19.0	.....	.....	.....	-17.4	.....
27	-39.4	-31.1	-27.7	-25.3	-22.0	.....	.....	-19.1	.....	.....	.....	.....
28	-38.9	-30.8	-27.6	-25.2	-22.0	.....	.....	.....	.....	.....	.....	.....
29	-38.3	-30.8	-27.4	-25.1	-21.9	.....	.....	.....	.....	-19.1	.....	.....
30	-37.9	.....	-27.2	-25.1	-21.8	.....	-19.2	.....	.....	.....	.....	.....
31	-37.5	.....	-27.1	.....	-21.7	.....	.....	.....	.....	.....	.....	-14.3

Q273. New York City Department of Water Supply, Gas and Electricity.
On south side of Grand Central Parkway about 1,000 feet east of Queens
Boulevard, Forest Hills. Records available: 1935-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.13	3.00	3.02	3.46	4.08	3.80	3.83	4.07	4.15	4.24	5.08	4.93
2	3.35	3.05	3.12	3.53	3.88	3.80	3.74	4.11	4.12	....	5.00	4.83
3	3.19	3.08	3.24	3.38	3.84	3.78	3.72	4.24	4.13	4.14	5.01	4.85
4	....	3.08	3.15	3.28	3.76	3.83	3.72	4.37	4.12	4.07	5.14	4.91
5	....	3.12	2.99	3.36	3.80	3.85	3.74	4.47	4.08	4.17	5.16	4.84
6	....	3.12	3.04	3.49	3.77	3.70	3.86	4.53	4.08	4.40	5.17	4.84
7	....	3.12	3.30	3.46	3.84	3.74	3.82	4.51	4.14	4.51	5.19	4.79
8	....	3.17	3.44	3.52	3.88	3.87	3.67	4.53	4.20	4.63	5.05	4.79
9	....	3.02	3.32	3.58	3.70	3.84	3.62	4.56	4.22	4.65	5.07	4.64
10	3.05	2.95	3.33	3.47	3.67	3.72	3.66	4.58	4.18	4.58	5.23	4.59
11	2.93	2.96	3.30	3.47	3.67	3.68	3.73	4.62	4.13	4.52	5.19	4.50
12	2.92	3.15	3.24	3.59	3.69	3.70	3.77	4.74	4.10	4.53	5.08	4.55
13	3.12	3.23	3.19	3.48	3.75	3.77	3.83	4.81	4.09	4.55	5.20	4.65
14	3.19	3.44	3.16	3.47	3.77	3.69	3.91	4.82	4.10	4.57	5.21	4.61
15	3.06	3.14	3.24	3.59	3.75	3.68	3.80	4.78	4.02	4.46	5.19	4.54
16	3.01	2.96	3.38	3.66	3.72	3.71	3.75	4.75	3.94	4.37	5.13	4.64
17	3.05	3.13	3.35	3.62	3.82	3.71	3.78	4.74	3.95	4.43	5.17	4.70
18	3.13	3.20	3.17	3.47	3.86	3.67	3.84	4.75	4.13	4.49	5.14	4.66
19	3.03	3.18	3.18	3.45	3.79	3.77	3.86	4.77	4.22	4.47	5.12	4.79
20	3.05	3.17	3.30	3.58	3.80	3.81	3.85	4.78	4.25	4.45	5.31	4.92
21	3.29	3.03	3.31	3.66	3.92	3.76	3.87	4.75	4.24	4.34	5.25	4.77
22	3.47	3.05	3.39	3.51	3.89	3.74	3.99	4.68	4.20	4.33	5.17	4.71
23	3.29	3.00	3.32	3.57	3.76	3.76	3.94	4.61	4.19	4.47	5.25	4.64
24	3.11	2.95	3.32	3.82	3.71	3.87	3.90	4.58	4.16	4.72	5.26	4.59
25	3.10	3.17	3.18	4.01	3.74	3.99	3.84	4.57	4.05	4.91	5.23	4.58
26	3.03	3.36	3.17	4.06	3.77	3.89	3.83	4.50	3.97	4.95	5.14	4.51
27	3.08	3.32	3.44	4.15	3.76	3.82	3.87	4.34	4.00	4.93	5.22	4.50
28	3.11	3.35	3.48	4.22	3.78	3.84	3.89	4.24	4.08	4.92	5.16	4.55
29	3.17	3.28	3.30	4.29	3.84	3.86	3.85	4.25	4.12	4.97	5.19	4.59
30	3.12	.....	3.26	4.26	3.86	3.87	3.88	4.26	4.17	4.99	5.06	4.75
31	3.00	.....	3.27	.....	3.82	.....	3.99	4.23	.....	5.04	.....	4.95

Q278. New York City Department of Water Supply, Gas and Electricity. Alley Pond Parkway and Horace Harding Boulevard, Douglaston. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.68	May 5	0.19	July 26	-1.51	Nov. 4	0.40
Feb. 3	-.11	25	-.68	Aug. 30	-2.60	Dec. 8	2.23
28	1.46	June 29	2.41	Oct. 5	-2.36	30	2.94
Mar. 26	1.76						

Q282. New York City Department of Water Supply, Gas and Electricity. Underhill Avenue and 171st Street, Flushing. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	-7.17	May 5	-6.63	July 26	-8.92	Nov. 4	-4.97
29	-7.51	25	-7.98	Aug. 30	-8.06	Dec. 8	-5.77
Feb. 28	-7.16	June 29	-7.94	Oct. 5	-9.18	30	-5.72
Mar. 26	-7.11						

Q283. New York City Department of Water Supply, Gas and Electricity. Underhill Avenue and 171st Street, Flushing. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	-7.20	May 5	-6.66	July 26	-8.93	Nov. 4	-5.00
29	-7.56	25	-7.99	Aug. 30	-8.06	Dec. 8	-5.79
Feb. 28	-7.20	June 29	-7.95	Oct. 5	-9.18	30	-5.75
Mar. 26	-7.17						

Q287. Broad Channel Corporation. Southeast side of Shad Creek Road, about 100 feet southwest of Ninth Road, Broad Channel. Water levels affected by tidal fluctuations. Records available: 1939-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.9	...	...	...	...	...	7.4	6.6	6.6	6.3	7.6	8.2
2	8.7	...	...	...	...	...	7.3	6.5	6.5	6.4	7.6	8.2
3	8.0	7.8	...	7.7	8.4	...	7.3	6.6	6.6	6.3	7.7	8.4
4	8.4	8.0	...	...	...	8.2	7.3	6.8	6.5	6.2	7.7	8.5
5	8.3	8.2	...	...	...	8.1	7.4	7.1	6.2	6.7	7.5	8.5
6	8.2	...	...	7.8	8.5	7.9	7.5	7.1	6.1	7.0	7.7	8.6
7	8.0	...	8.1	7.8	8.6	8.2	7.7	6.8	6.3	6.8	7.8	8.0
8	8.1	7.8	8.2	8.1	8.3	8.3	7.4	6.9	6.4	7.0	7.3	8.2
9	8.2	...	8.0	...	8.0	8.3	7.2	...	6.5	6.7	7.6	8.1
10	7.4	...	8.1	...	8.0	8.0	7.1	...	6.3	6.6	7.9	8.2
11	7.4	...	8.1	...	8.1	8.0	7.1	...	6.1	6.6	7.5	7.9
12	7.7	...	8.0	8.0	...	8.0	7.2	...	6.0	6.7	7.4	8.1
13	7.9	...	7.9	...	...	8.2	7.2	...	6.0	6.6	7.7	8.1
14	...	...	7.9	...	8.4	8.0	7.2	7.1	6.0	6.6	7.3	7.9
15	...	7.1	8.0	...	...	7.9	7.0	7.0	6.0	6.6	7.9	8.0
16	...	7.3	7.9	...	...	7.9	7.0	7.0	5.8	6.7	7.9	8.6
17	...	7.8	7.7	...	...	7.8	7.0	7.1	5.8	6.8	8.1	8.3
18	7.8	7.9	...	...	...	7.6	7.1	7.1	5.8	6.7	7.8	8.0
19	7.8	8.0	8.0	...	...	7.7	7.0	7.0	6.1	6.8	8.0	8.8
20	...	7.9	...	...	...	7.6	6.9	7.1	6.3	6.7	8.4	8.9
21	8.3	...	8.0	...	8.3	7.5	7.0	7.0	6.2	6.5	8.1	8.5
22	8.3	...	7.9	...	...	7.5	7.1	6.9	6.2	6.5	8.3	8.2
23	7.9	...	8.1	...	...	7.6	7.1	6.8	6.3	6.7	8.5	8.1
24	8.2	...	8.1	...	...	7.7	6.8	6.8	6.5	7.5	8.6	8.1
25	...	...	7.5	...	...	7.7	6.7	6.7	6.3	7.6	8.5	8.2
26	...	...	7.5	...	...	7.6	6.7	6.6	6.0	7.6	8.6	8.0
27	...	...	...	...	...	7.6	6.7	6.7	6.0	7.4	8.6	8.0
28	...	...	...	...	...	7.7	6.7	6.6	6.0	7.3	8.1	7.9
29	...	...	8.1	...	...	7.6	6.6	6.6	6.2	7.4	8.7	8.3
30	...	...	8.0	...	...	7.7	6.6	6.6	6.4	7.4	8.6	8.6
31	...	...	8.0	...	...	...	6.6	6.6	...	7.5	...	8.8

Q350. New York Water Service Corporation. Deep test well, 700 feet east of Centerville Street, 200 feet north of Aqueduct pumping station and about 0.5 mile south of Rockaway Boulevard, Aqueduct. Records available: 1937-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-0.48	-0.61	-0.45	-0.22	0.02	0.50	-0.03	....	0.45	....	0.43	0.24
2	....	-.63	-.41	-.08	-.07	.36	-.03	....	....	....	.43	.24
3	....	-.68	-.35	-.09	-.02	.24	-.03	....	....	.26	.43	.25
4	....	-.71	-.32	-.08	.01	.22	-.04	....	.44	.30	.44	.25
5	....	-.70	-.33	-.06	.04	.24	.03	....	.49	.36	.44	.22
6	....	-.71	-.31	-.10	.10	.30	-.13	....	.53	.42	.42	.23
7	....	-.74	-.29	-.08	.13	.29	-.15	....	.41	.45	.38	.23
8	....	-.72	-.31	-.06	.15	....	-.19	....	.34	.51	.36	.24
9	....	-.72	-.38	-.01	.13	....	-.29	....	....	.53	.37	.26
10	....	-.74	-.35	....	.16	.30	-.33	1.15	....	.51	.39	.30
11	-.35	-.74	-.34	-.06	.01	.29	-.47	1.13	.46	.54	.39	.30
12	-.32	-.69	-.32	.01	-.06	.21	-.33	1.23	.50	.48	.37	.31
13	-.30	-.72	-.29	.00	-.02	.16	-.38	1.24	.46	.38	.40	.33
14	....	-.67	-.31	.00	.15	.30	-.01	1.17	.32	.46	.38	.33
15	....	-.68	-.28	.05	.18	.20	.24	1.15	.30	.50	.35	.32
16	....	-.69	-.25	.04	.18	.22	.29	1.12	.33	.49	.32	.33
17	....	-.65	-.24	.03	.27	.21	.34	1.00	.36	.45	.33	.35
18	-.42	....	-.27	-.02	.25	.09	.45	.99	.55	.49	.31	.35
19	....	....	-.26	-.01	.25	.09	.50	1.04	.51	.50	.31	.37
20	....	....	....	-.01	.24	.17	.34	1.11	.54	.50	.33	.39
21	....	-.59	-.24	.00	.28	.28	.35	1.16	.52	.49	.30	.38
22	....	-.56	-.24	-.02	....	.18	.52	1.18	.28	.46	.29	.38
23	....	-.51	-.30	-.04	....	.26	.79	1.17	.25	.46	.30	.37
24	....	-.34	-.26	-.04	....	.25	.84	1.10	.24	.44	.28	.36
25	-.52	-.30	-.25	-.02	.20	.23	.87	1.02	.25	.47	.24	.36
26	-.51	....	-.26	.01	.29	.17	.93	.71	.22	.48	.24	.34
27	-.52	-.37	-.23	-.03	.30	.17	.90	.46	.22	.47	.24	.33
28	....	-.35	-.23	-.03	.28	.33	....	.42	.14	.47	.22	.32
29	....	-.41	-.18	.03	.27	.16	....	.42	.14	.46	.23	.31
30	....	....	-.23	.06	.33	.01	....	.45	....	.45	.24	.35
31	....	....	-.20	....	.47	....	....	.45	....	.43	....	.44

Q470. New York City Department of Water Supply, Gas and Electricity. About 325 feet south of Northern Boulevard and 110 feet west of Cross Island Parkway (Belt Parkway), Bayside. Records available: 1933-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.88	0.15	0.74	1.48	1.77	-0.13	1.50	-0.96	-0.85	-1.63	1.68	2.13
2	.96	.10	.77	1.52	1.67	-.13	1.53	-.94	-.98	-1.65	1.84	1.93
3	.99	.06	.83	1.51	1.55	-.15	1.55	-.90	-1.09	-1.66	1.96	1.78
4	1.00	.01	.86	1.45	1.42	-.17	1.57	-.81	-1.17	-1.66	1.89	1.78
5	1.03	-.02	.84	1.40	1.28	-.17	1.60	-.71	-1.26	-1.63	1.62	1.87
6	1.05	-.04	.81	1.36	1.15	-.19	1.64	-.60	-1.36	-1.58	1.54	2.01
7	1.05	-.07	.83	1.30	1.02	-.19	1.68	-.53	-1.43	-1.53	1.66	2.04
8	1.01	-.09	.90	1.21	.93	-.15	1.67	-.47	-1.48	-1.46	1.78	2.01
9	.99	-.11	.93	1.14	.79	-.14	1.63	-.41	-1.52	....	1.90	1.94
10	.95	-.13	.95	1.02	.72	-.18	1.56	-.36	-1.54	....	2.02	1.95
11	.87	-.13	.96	.96	.66	-.23	1.30	-.31	-1.55	....	2.11	2.01
12	.82	-.08	.94	1.00	.60	-.28	.96	-.24	-1.57	....	2.14	2.08
13	.82	-.03	.90	1.03	.52	-.30	.63	-.16	-1.60	....	2.20	2.18
14	.82	.08	.86	1.05	.48	-.31	.36	-.07	-1.60	....	2.24	2.28
15	.80	.11	.85	1.12	.41	-.32	.11	.02	-1.62	-1.08	2.28	2.26
16	.77	.07	.88	1.17	.32	-.34	-.12	.09	-1.65	-1.10	2.33	2.29
17	.72	.11	.91	1.23	.26	-.37	-.29	.15	-1.68	-1.11	2.35	2.37
18	.71	.20	.94	1.26	....	-.42	-.42	.18	-1.68	-1.09	2.18	2.40
19	.68	.26	.98	1.30	....	-.45	-.49	.19	-1.65	-1.07	1.92	2.45
20	.65	.32	1.07	1.36	....	-.45	-.57	.18	-1.60	-1.04	1.87	2.56
21	.65	.33	1.15	1.41	....	-.46	-.63	.17	-1.56	-1.04	1.94	2.62
22	.71	.35	1.28	1.42	.15	-.47	-.68	.15	-1.55	-1.02	2.00	2.65
23	.71	.41	1.39	1.41	.12	-.49	-.71	.13	-1.54	-.70	1.95	2.64
24	.66	.45	1.47	1.39	.10	-.27	-.73	.09	-1.53	-.20	1.80	2.62

Q470--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	0.63	0.50	1.47	1.41	0.08	-0.14	-0.76	0.04	-1.54	0.26	1.78	2.59
26	.56	.59	1.44	1.46	.03	.49	-.79	-.03	-1.56	.65	1.86	2.57
27	.49	.65	1.44	1.52	-.04	.77	-.81	-.13	-1.58	.89	1.99	2.52
28	.43	.69	1.46	1.61	-.10	1.03	-.83	-.27	-1.59	1.06	2.09	2.44
29	.37	.74	1.47	1.69	-.13	1.26	-.88	-.43	-1.60	1.23	2.20	2.35
30	.31		1.48	1.78	-.15	1.42	-.93	-.57	-1.62	1.33	2.27	2.32
31	.22		1.49		-.15		-.96	-.71		1.50		2.37

Q471. 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. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	15.32	May 5	15.62	July 29	15.93	Nov. 4	16.16
Feb. 3	14.90	25	15.70	Aug. 31	15.84	Dec. 8	16.06
28	15.42	June 29	16.66	Oct. 5	15.56	30	16.22
Mar. 27	15.77						

Q543. New York City Department of Water Supply, Gas and Electricity well 3. Rockaway Beach Boulevard and Beach 110th Street, Rockaway Park. Water level affected by tidal fluctuations. Records available: 1932, 1936-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.7	8.8	...	9.4	9.5	9.4	8.8	7.9	8.0	7.5	8.4	9.2
2	9.6	9.0	9.1	9.5	9.4	9.5	8.6	7.7	7.9	7.6	8.4	9.1
3	9.0	8.8	...	8.6	9.5	9.7	8.7	7.8	7.8	7.5	8.5	9.4
4	9.2	9.2	...	8.6	9.3	9.6	8.7	7.9	7.8	7.4	8.5	9.6
5	9.2	9.4	...	9.0	9.6	9.5	8.6	8.2	7.4	7.8	8.4	9.7
6	9.0	9.3	...	9.2	9.6	9.4	8.8	8.0	7.5	8.1	8.6	9.6
7	8.8	9.3	...	9.2	9.6	9.5	9.1	7.9	7.7	8.1	8.3	9.2
8	8.9	9.1	...	9.4	9.4	9.7	8.7	8.0	7.9	8.1	8.0	9.4
9	9.1	8.8	...	8.7	9.1	9.7	8.5	8.0	8.0	7.9	8.3	9.3
10	8.2	8.9	...	8.2	9.2	9.6	8.5	8.0	7.8	7.7	8.6	9.3
11	8.2	8.7	9.0	9.0	9.3	9.4	8.6	8.0	7.4	7.7	8.2	9.0
12	8.5	8.7	8.8	9.3	9.3	9.5	8.6	8.2	7.2	7.8	8.2	9.2
13	8.9	9.0	8.8	9.1	9.4	9.8	8.8	8.3	7.2	7.7	8.5	9.1
14	9.0	8.9	8.7	9.5	9.4	9.5	8.8	8.2	7.2	7.6	8.2	8.9
15	8.7	...	8.7	9.3	9.4	9.5	8.6	8.1	7.2	7.7	8.6	9.0
16	8.7	...	8.7	9.3	9.4	9.3	8.5	8.1	7.0	7.7	8.6	9.7
17	8.8	...	8.5	9.3	9.6	9.2	8.4	8.1	7.1	7.8	8.9	9.5
18	8.9	...	8.5	9.2	9.4	9.0	8.6	8.2	7.1	7.7	8.6	9.1
19	8.9	...	8.8	9.1	9.2	9.0	8.6	8.2	7.6	7.8	8.8	9.8
20	8.7	...	8.5	9.2	9.5	9.1	8.5	8.1	7.7	7.8	9.2	10.0
21	9.4	...	8.8	9.2	9.8	8.9	8.6	8.0	7.6	7.6	9.0	9.6
22	9.5	9.3	9.0	9.2	9.6	8.8	8.6	7.9	7.6	7.5	9.1	9.3
23	...	9.1	9.4	9.0	...	9.0	8.6	7.9	7.8	7.9	9.4	9.0
24	...	8.5	9.5	9.2	...	9.2	8.3	7.9	7.9	8.5	9.5	8.9
25	...	8.7	9.0	9.4	9.4	9.2	8.3	7.9	7.6	8.7	9.4	9.0
26	...	8.9	9.0	9.4	9.4	9.0	8.2	7.8	7.2	8.6	9.4	8.7
27	8.6	8.9	9.4	9.5	9.3	9.1	8.3	7.9	7.1	8.3	9.4	8.8
28	8.5	9.4	9.1	9.7	9.4	9.1	8.2	7.8	7.2	8.2	8.8	8.6
29	8.7	9.1	9.1	9.6	9.5	9.2	8.1	7.8	7.4	8.2	9.4	9.2
30	8.5		9.1	9.7	9.4	9.0	8.0	7.9	7.5	8.2	9.5	9.4
31	8.5		9.2		9.3		8.0	8.1		8.3		9.7

Q577. State Hospital. Hillside Avenue and Winchester Boulevard, Creedmoor. Water levels affected by nearby pumpage. Measurements discontinued, July 2, 1948. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	-4.70	-4.02	.....	-3.50	-5.00	-8.30	-8.75
2	-4.33	-4.33	-3.60	-3.91	-5.22	-9.17	.....
3	-4.33	-4.64	.....	-4.77	-5.88	-9.38	.....
4	-3.13	-4.65	.....	-4.92	-6.62	-9.11	.....
5	-3.38	-4.67	.....	-5.18	-6.92	-8.13	.....
6	-4.41	-4.30	-3.60	-6.11	-7.22	-8.32	.....
7	-4.60	-4.26	-2.84	-6.40	-8.13	-7.94	.....
8	-4.26	-3.81	-3.21	-6.31	-6.89	-8.27	.....
9	-4.82	-4.50	-3.59	-6.62	-6.58	-9.29	.....
10	-4.05	-4.75	-3.75	-5.10	-6.98	-8.38	.....
11	-3.66	-4.60	-3.79	-4.30	-7.36	-9.29	.....
12	-3.80	-4.20	-3.95	-4.30	-7.70	-8.91	.....
13	-4.12	-4.57	-3.99	-4.33	-7.80	-8.45	.....
14	-4.11	-4.29	-3.15	-4.12	-7.70	-8.70	.....
15	-4.12	-4.40	-3.41	-5.08	-8.07	-9.78	.....
16	-5.10	-4.43	-3.55	-3.98	-7.35	-9.74	.....
17	-4.84	-4.68	-3.87	-3.98	-7.53	-9.35	.....
18	-3.64	-4.70	-3.92	-3.50	-7.89	-9.32	.....
19	-4.08	-4.70	-4.00	-3.50	-8.12	-9.98	.....
20	-4.11	.....	.....	-3.50	-9.49	-8.48	.....
21	-3.94	.....	-2.39	-3.64	-9.33	-8.80	.....
22	-4.16	.....	.....	-3.89	-8.70	-9.20	.....
23	-4.56	.....	.....	-3.90	-7.60	-9.34	.....
24	-4.10	.....	.....	-3.63	-8.02	-9.19	.....
25	-3.92	.....	.....	-3.21	-8.27	-8.81	.....
26	-3.95	.....	.....	-3.10	-9.10	-8.60	.....
27	-4.35	.....	-3.23	-3.04	-9.48	-7.90	.....
28	-4.30	.....	-2.86	-2.87	-8.63	-8.00	.....
29	-4.40	.....	-3.10	-3.14	-8.51	-8.32	.....
30	-4.68	.....	-3.60	-4.40	-8.11	-8.53	.....
31	-3.90	.....	-3.72	.....	-7.99	.....	.....

Highest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	2.39	1.46	....	3.00	1.30	-3.76	-2.90
2	3.31	1.81	....	.90	1.14	-2.60	-3.11
3	2.98	-.17	2.53	1.92	.83	-3.13	.....
4	3.09	1.19	2.05	1.48	-.86	-3.02	.....
5	1.22	1.01	2.19	1.03	-.65	-2.72	.....
6	2.77	1.30	2.31	-.05	-1.25	-2.30	.....
7	2.61	-.40	2.58	-.19	-3.12	-3.61	.....
8	2.35	-.01	3.02	-.86	-1.08	-2.15	.....
9	2.09	.16	2.41	.04	-.69	-2.70	.....
10	.33	1.30	.68	.27	-.30	-2.58	.....
11	2.26	.90	2.23	1.52	-3.36	-2.88	.....
12	2.28	-.09	2.05	1.73	-1.89	-3.51	.....
13	1.99	1.29	2.02	1.60	-1.71	-2.91	.....
14	1.87	1.61	2.57	1.61	-1.54	-2.36	.....
15	1.78	-.20	.94	2.02	-2.62	-2.84	.....
16	1.21	1.70	.98	2.26	-1.90	-3.51	.....
17	.0	-.29	2.17	1.62	-1.24	-3.54	.....
18	1.81	-.06	1.91	1.91	-1.82	-3.61	.....
19	.67	.59	1.66	2.29	-2.21	-3.40	.....
20	2.29	.98	1.95	2.00	-2.01	-2.82	.....
21	.26	1.49	2.24	2.40	-2.57	-5.93	.....
22	2.46	.....	2.91	2.34	-2.09	-4.52	.....
23	.05	.....	2.35	1.91	-2.16	-4.52	.....
24	1.73	.....	.71	1.78	-1.90	-3.95	.....
25	1.81	.....	2.30	2.50	-4.10	-4.62	.....
26	2.33	.....	2.08	2.15	-2.41	-3.31	.....
27	.15	.....	2.07	2.96	-2.80	-2.56	.....
28	1.86	.....	2.45	2.82	-2.91	-1.88	.....
29	1.37	.....	2.82	3.10	-4.27	-2.49	.....
30	1.13	.....	2.42	2.32	-2.49	-2.84	.....
31	.71	.....	.64	.....	-1.98	.....	.....

Q1027. New York City Department of Parks. About 370 feet west of Rodman Street and 35 feet north of 58th Avenue extended, Flushing Meadow Park, Flushing. Measurements resumed Feb. 21, 1946. Records available: 1942-43, 1946-48. Tape measurements prior to June 24. From recorder charts thereafter. Feb. 21, 1946, 5.90; Mar. 26, 1947, 5.39; Apr. 17, 1947, 5.97.

Mean daily water level, from recorder charts								
Day	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.55	5.94	....	7.07	7.37	7.41
2	5.27	6.06	....	7.05	7.33	7.38
3	5.15	6.27	a5.68	7.00	7.37	7.45
4	5.08	6.47	5.67	6.99	7.42	7.46
5	5.06	6.53	5.62	7.08	7.37	7.41
6	5.11	6.53	5.68	7.16	7.37	7.44
7	5.00	6.00	5.77	7.14	7.37	7.36
8	a4.79	6.55	5.87	7.21	7.28	7.36
9	6.40	....	a4.82	6.62	5.98	7.19	7.35	7.23
10	4.77	6.64	6.09	7.21	7.44	7.20
11	4.82	6.77	6.17	7.26	7.37	7.14
12	4.85	6.92	6.22	7.32	7.33	7.23
13	4.91	7.01	6.32	7.36	7.43	7.27
14	5.01	7.00	6.41	7.40	7.33	7.22
15	4.89	7.00	6.44	7.36	7.37	7.19
16	4.85	7.02	6.44	7.35	7.34	7.34
17	4.85	7.05	6.48	7.40	7.41	7.36
18	4.88	7.07	6.59	7.40	7.34	7.28
19	4.89	7.08	6.67	7.40	7.37	7.45
20	4.88	7.05	6.75	7.38	7.48	7.51
21	4.86	6.90	6.79	7.30	7.38	7.43
22	5.02	6.75	6.81	7.27	7.40	7.36
23	5.01	6.61	6.85	7.30	7.46	7.30
24	a6.40	4.98	6.47	6.88	7.38	7.45	7.25
25	6.48	4.97	6.36	6.84	7.45	7.41	7.27
26	6.33	5.00	6.21	6.83	7.43	7.38	7.18
27	6.19	5.10	6.06	6.87	7.38	7.44	7.21
28	6.10	5.25	5.94	6.93	7.35	7.36	7.19
29	5.98	5.42	....	6.96	7.35	7.50	7.26
30	5.74	5.59	....	7.02	7.34	7.45	7.37
31	5.80	....	....	7.36	....	7.53

a Wetted-tape measurement.

Q1089. New York City Department of Water Supply, Gas and Electricity. North side of North Conduit Avenue, about 800 feet east of Far Rockaway Branch of Long Island Railroad, Aqueduct. Records available: 1911-17, 1932-39, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	1.50	May 6	1.82	July 27	2.01	Nov. 2	1.60
Feb. 11	1.60	June 2	2.10	Aug. 30	1.96	Dec. 9	1.57
Mar. 2	1.60	28	1.69	Sept. 28	1.64	30	1.37
25	1.69						

Q1090. New York City Department of Water Supply, Gas and Electricity. East side of Hawktree Creek Road, about 350 feet south of 133d Avenue, Aqueduct. Records available: 1911-17, 1932-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.42	May 6	2.83	July 27	3.28	Nov. 2	2.76
Feb. 10	2.38	June 2	3.03	Aug. 30	3.59	Dec. 9	2.20
Mar. 3	2.17	29	2.98	Sept. 28	3.16	30	2.02
25	2.43						

Q1152. New York City Department of Water Supply, Gas and Electricity. Oconee pumping station well 1 east leg. Sunrise Highway and 131st Street. Unused public-supply well, diameter 8 inches, depth 210 feet. Measuring point, top of coupling, 13.59 feet above mean sea level. First measured by Geological Survey June 27, 1947. Records available: 1947-48.

Q1152--Continued.

Date	Water level	Date	Water level	Date	Water level
June 27, 1947	-2.09	Nov. 3, 1947	-1.00	June 29, 1948	-0.05
29	-.86	26	-.99	July 27	-1.67
30	-2.53	Jan. 6, 1948	-1.42	Aug. 30	-3.22
July 2	-3.46	Feb. 10	-1.84	Sept. 28	-2.42
14	-2.24	Mar. 2	-2.33	Nov. 2	-3.13
30	-1.95	25	-2.82	Dec. 9	-1.64
Sept. 2	.30	May 6	.36	30	-1.69
Oct. 8	-.83	June 2	.05		

Q1222. 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 levels are affected by tidal fluctuations. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.35	May 6	2.09	July 26	1.43	Nov. 4	1.90
29	1.22	25	1.88	Aug. 31	1.66	Dec. 8	2.23
Feb. 28	1.49	June 29	1.64	Oct. 5	.88	30	1.90
Mar. 26	1.70						

Q1223. New York City Department of Water Supply, Gas and Electricity. Northeast corner of Rockaway Boulevard and 142d Place, South Ozone Park. Records available: 1933-48.

Jan. 6	5.94	May 6	5.75	July 27	7.48	Nov. 8	5.21
Feb. 6	6.51	June 2	6.07	Aug. 30	7.32	Dec. 9	4.81
Mar. 3	6.63	28	6.55	Sept. 28	6.05	30	4.65
25	6.80						

Q1224. New York City Department of Water Supply, Gas and Electricity. North side of 102d Avenue, about 100 feet east of Van Wyck Boulevard, Jamaica. Destroyed, measurements discontinued, Nov. 8. Records available: 1933-48.

Jan. 6	6.26	Mar. 25	6.43	June 28	7.08	Sept. 28	7.53
Feb. 6	5.86	Apr. 27	6.41	July 27	7.31	Nov. 8	7.52
Mar. 2	6.05	May 25	6.83	Aug. 30	7.51		

Q1225. New York City Department of Water Supply, Gas and Electricity. Southeast corner of 109th Avenue and 200th Street, Hollis. Records available: 1933-48.

Jan. 7	26.71	Apr. 27	27.74	July 27	28.40	Nov. 2	27.84
Feb. 6	26.79	May 25	27.98	Aug. 31	28.51	Dec. 8	27.35
Mar. 2	26.83	June 28	28.16	Sept. 28	28.18	30	27.26
25	27.33						

Q1237. New York City Department of Water Supply, Gas and Electricity. Belt (Southern) Parkway about 1,450 feet west of 150th Street, Baisley Park. Records available: (1939-40 as Q337); 1940-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-2.36	-2.75	-3.41	-4.11	-0.24	0.73	0.17	-1.15	-1.14	-0.69	.....	-0.21
2	-2.02	-2.65	-3.29	-4.09	-.07	.53	.06	-1.11	.....	-.79	.....	-.54
3	-2.02	-2.65	-3.34	-4.29	.13	.39	-.01	-1.13	.....	-.70	.....	-1.14
4	-2.01	-2.60	-3.07	-4.44	.26	.38	-.09	-.69	-1.20	-.60	.....	-1.11
5	-1.86	.....	-3.36	-4.42	.42	.33	-.13	-.61	-1.43	-.63	.....	-1.12
6	-1.85	.....	-3.51	-4.25	.55	.18	-.49	-.51	-1.23	-.57	.....	-1.15
7	-1.79	-2.65	-3.54	.....	.74	.19	-.02	-.72	-1.22	-.55	.....	-1.32
8	-1.90	-2.71	-3.57	.....	.85	.23	.41	-.84	-1.41	-.20	.....	-1.52
9	-1.83	-2.92	-3.67	.....	.70	.16	-.32	-.54	-1.50	.13	.....	-1.72
10	-1.97	-2.76	.....	.....	.64	.45	.09	-.79	-1.15	-.37	-1.31	-1.74
11	-2.28	-2.75	.....	-3.16	.51	.63	-.51	-.94	-.92	-.48	-1.29	-1.81
12	-2.32	-2.76	.....	-2.66	.43	.37	-.64	-.73	-.92	-.38	-1.39	-1.81
13	-2.09	-3.01	.....	-2.79	.51	.26	-1.16	-.26	-.93	-.57	-1.31	-1.72

Q1237--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	-2.06	-2.87	-3.94	-2.72	0.69	0.22	-0.66	-0.59	-1.24	-0.80	-1.44	-1.72
15	-2.12	....	-4.01	-2.52	.77	.14	-.31	-.83	-1.45	-1.08	-1.54	-1.84
16	-2.07	-2.90	-3.95	-2.52	.78	.11	-.12	-.95	-1.25	-.99	-1.54	-1.70
17	-2.05	-2.83	-4.02	-2.98	.98	.07	.01	-1.07	-1.16	-1.12	-1.43	-1.54
18	-2.08	-2.82	-3.99	-3.40	.08	.01	.33	-1.05	-.99	-.71	-1.42	-1.17
19	-2.19	-2.78	-4.00	-3.57	.02	.08	.24	-1.00	-1.29	-.48	-1.46	-1.30
20	-2.10	-2.69	-3.94	-3.61	.99	.14	-.07	-.84	-1.05	-.34	-1.25	-1.17
21	-2.28	-2.78	-3.91	-3.64	.09	.10	-.49	-.46	-.97	-.42	-1.34	-1.13
22	-2.38	-2.70	-3.85	-3.78	.11	.03	-.61	-.42	-.88	-.93	-1.36	-1.29
23	-2.63	-2.56	-3.98	-3.88	...	.11	-.15	-.30	-.79	-1.01	-1.33	-1.52
24	-2.93	-2.49	-3.79	-3.90	...	.46	.13	-.45	-.77	....	-1.35	-1.78
25	-2.66	-2.28	-3.88	-3.86	.89	.73	.20	-.53	-.78	....	-1.38	-1.85
26	-2.64	-2.40	-4.12	-3.73	.91	.54	.11	-1.03	-.93	....	-1.59	-1.88
27	-2.74	-3.04	-4.08	-3.65	.91	.42	-.15	-1.51	-.95	....	-1.44	-1.96
28	-2.87	-3.22	-4.15	-3.48	.90	.81	-.26	-1.66	-1.00	....	-1.50	-2.03
29	-2.92	-3.24	-4.32	-2.51	.89	.57	-.38	-1.55	-.99	....	-.99	-2.14
30	-3.01		-4.29	-.78	.76	.33	-.84	-1.54	-.93	....	-.28	....
31	-2.95		-4.33		.97		-1.06	-1.46		....		....

Q1248. New York City Department of Water Supply, Gas and Electricity.
100th Road and Belt (Cross Island) Parkway, Queens Village. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	34.87	Apr. 27	36.31	July 27	36.72	Nov. 2	36.69
Feb. 11	34.78	May 25	36.71	Aug. 31	36.76	Dec. 8	36.46
27	35.03	June 28	37.07	Sept. 28	36.79	30	36.16
Mar. 25	35.59						

Q1249. New York City Department of Water Supply, Gas and Electricity.
Northwest corner of 106th Avenue and 216th Street, Queens Village. Records available: 1940-46, 1948.

Jan. 7	30.25	Apr. 27	31.77	July 27	32.62	Nov. 2	31.98
Feb. 6	30.48	May 25	32.16	Aug. 31	32.75	Dec. 8	31.96
Mar. 2	30.51	June 28	32.44	Sept. 28	32.39	30	31.31
25	31.00						

Q1250. New York City Department of Water Supply, Gas and Electricity.
Southwest corner of Liberty and Camden Avenues, Hollis. Records available: 1940-48.

Jan. 7	19.79	Apr. 27	21.35	July 27	22.26	Nov. 2	21.13
Feb. 6	20.47	May 25	21.54	Aug. 31	22.52	Dec. 8	20.82
27	20.47	June 28	21.56	Sept. 28	21.61	30	20.64
Mar. 25	20.76						

Q1251. New York City Department of Water Supply, Gas and Electricity.
Northwest corner of 107th Avenue and 172d Street, Jamaica. Records available: 1940-48.

Jan. 7	10.75	Apr. 27	11.93	July 27	13.86	Nov. 2	12.97
Feb. 6	11.05	May 25	13.03	Aug. 31	13.98	Dec. 8	12.86
27	11.35	June 28	13.20	Sept. 28	13.47	30	12.65
Mar. 25	12.21						

Q1252. New York City Department of Water Supply, Gas and Electricity.
Northeast corner of Liberty Avenue and 157th Street, Jamaica. Records available: 1940-48.

Jan. 8	11.33	Apr. 27	12.29	July 27	13.16	Nov. 2	13.92
Feb. 11	11.42	May 25	12.55	Aug. 30	13.90	Dec. 8	12.52
Mar. 2	11.65	June 29	12.86	Sept. 28	12.47	30	12.34
25	11.93						

Q1253. New York City Department of Water Supply, Gas and Electricity. Northeast corner of 101st Avenue and 121st Street, Richmond Hill. Records available: 1940-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	1.11	Mar. 25	1.08	July 27	2.32	Nov. 2	2.19
Feb. 10	1.41	June 2	1.71	Aug. 30	2.36	Dec. 9	2.34
Mar. 2	.57	28	1.93	Sept. 28	2.53	31	1.62

Q1254. New York City Department of Water Supply, Gas and Electricity. Northwest corner of 101st Avenue and 108th Street, Richmond Hill. Records available: 1940-48.

Jan. 6	-3.04	Apr. 27	-2.65	July 27	-1.76	Nov. 2	-1.97
Feb. 10	-2.86	June 2	-2.30	Aug. 30	-1.57	Dec. 9	-2.00
Mar. 3	-2.93	28	-2.28	Sept. 28	-1.97	31	-2.14
25	-3.01						

Q1255. New York City Department of Water Supply, Gas and Electricity. Northwest corner of Atlantic Avenue and Woodhaven Boulevard, Woodhaven. Records available: 1911-17, 1932-40, 1941-48.

Jan. 6	-5.50	Apr. 27	-4.69	July 27	-4.45	Nov. 2	-3.91
Feb. 18	-4.97	June 2	-4.52	Aug. 30	-4.39	Dec. 9	-4.09
Mar. 3	-4.86	28	-4.37	Sept. 28	-4.04	30	-4.50
25	-4.59						

Q1256. New York City Department of Water Supply, Gas and Electricity. Southeast corner of 95th Avenue and 82d Street, Woodhaven. Records available: 1940-43, 1945-48.

Jan. 6	-4.04	May 6	-3.09	July 27	-2.62	Nov. 2	-2.78
Mar. 3	-3.24	June 2	-3.00	Aug. 30	-2.52	Dec. 9	-2.79
27	-4.37	28	-2.88	Sept. 28	-2.74	30	-2.96

Q1266. New York Water Service Corporation well 6. 91st Street between 101st and 97th Avenues, Woodhaven. Records available: 1946-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-4.02	-3.83	-3.69	-3.35	-3.10	-2.96	-2.82	-4.68	-4.78	-5.13	-2.81	-2.81
2	-4.01	-3.82	-3.67	-3.33	-3.10	-2.95	-2.81	-4.70	-4.78	-5.14	-2.81	-2.81
3	-4.01	-3.82	-3.65	-3.33	-3.10	-2.95	-2.80	-4.69	-4.77	-5.12	-2.81	-2.80
4	-4.01	-3.80	-3.64	-3.33	-3.10	-2.94	-2.80	.....	-4.73	-5.14	-2.80	-2.78
5	-4.00	-3.79	-3.63	-3.32	-3.09	-2.94	-2.78	.....	-4.78	-5.14	-2.80	-2.79
6	-4.00	-3.78	-3.59	-3.30	-3.08	-2.95	-3.70	.....	-4.79	-5.15	-2.80	-2.77
7	-3.99	-3.78	-3.57	-3.28	-3.08	-2.94	-4.49	-4.67	.....	-5.16	-2.81	-2.78
8	-3.99	-3.78	-3.56	-3.27	-3.08	-2.92	-4.72	-4.66	.....	-5.16	-2.83	-3.22
9	-3.98	-3.78	-3.55	-3.26	-3.08	-2.92	-4.80	-4.66	.....	-5.16	-2.82	-4.53
10	-3.99	-3.78	-3.53	-3.26	-3.08	-2.92	-4.86	-4.67	.....	-4.87	-2.80	-4.72
11	-4.00	-3.77	-3.52	-3.25	-3.08	-2.92	-4.91	-4.67	-4.86	.....	-2.81	-4.81
12	-3.99	-3.76	-3.52	-3.24	-3.07	-2.92	-4.97	-4.66	-4.87	.....	-2.82	-4.89
13	-3.98	-3.76	-3.52	-3.23	-3.06	-2.92	-4.98	-4.67	-4.87	.....	-2.79	-4.95
14	-3.97	-3.75	-3.51	.....	-3.06	-2.92	-4.99	-4.68	.....	.....	-2.80	-4.99
15	-3.97	-3.78	-3.50	.....	-3.05	-2.91	-4.99	-4.67	.....	.....	-2.80	-5.04
16	-3.97	-3.76	-3.48	.....	-3.05	-2.91	-4.99	-4.67	.....	-3.02	-2.81	-5.08
17	-3.96	-3.74	-3.47	-3.20	-3.04	-2.91	-4.97	-4.68	.....	-2.98	-2.80	-5.09
18	-3.96	-3.74	-3.47	-3.20	-3.03	-2.92	-4.96	-4.67	-4.92	-2.96	-2.81	-5.11
19	-3.95	-3.73	-3.45	-3.19	-3.03	-2.91	-4.96	-4.67	-4.92	-2.93	-2.81	-5.12
20	-3.94	-3.72	-3.44	-3.18	-3.02	-2.91	-4.96	-4.65	-4.93	-2.91	-2.79	-5.14
21	-3.91	-3.72	-3.44	-3.18	-3.02	-2.91	-4.95	-4.68	-4.94	-2.89	-2.81	-5.17
22	-3.90	-3.72	-3.43	-3.17	-3.01	-2.92	-4.85	-4.69	-4.95	-2.87	-2.82	-5.19
23	-3.90	...	-3.43	-3.16	-3.01	-2.91	-4.78	-4.70	-4.96	-2.86	-2.81	-5.21
24	-3.90	.....	3.41	-3.14	-3.00	-2.90	-4.76	-4.70	-4.96	-2.84	-2.80	-5.23
25	-3.90	.....	3.41	-3.13	-3.00	-2.89	-4.75	-4.71	-5.01	-2.83	-2.80	-5.24
26	-3.89	.....	-3.40	-3.13	-3.00	-2.89	-4.74	-4.73	-5.02	-2.82	-2.80	-5.26
27	-3.88	-3.68	-3.58	-3.13	-3.00	-2.88	-4.73	-4.71	-5.05	-2.82	-2.81	-5.27
28	-3.87	-3.69	-3.58	-3.11	-2.99	.....	-4.71	-4.72	-5.07	-2.82	-2.82	-5.28
29	-3.86	-3.69	-3.58	-3.10	-2.98	.....	-4.71	-4.71	-5.09	-2.81	-2.80	-5.28
30	-3.84	.....	-3.58	-3.10	-2.98	2.81	-4.70	-4.73	-5.11	-2.81	-2.81	-5.28
31	-3.84	.....	-3.56	.....	-2.98	.....	-4.69	-4.75	.....	-2.81	.....	.....

Q1281. New York City Department of Water Supply, Gas and Electricity.
At southwest corner of Liberty Avenue and Woodhaven Boulevard, Ozone Park.
Records available: 1911-17, 1933, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	-2.18	May 6	-1.37	July 27	-1.02	Nov. 2	-1.36
Feb. 11	-1.70	June 2	-1.30	Aug. 30	-.86	Dec. 9	-1.10
Mar. 3	-2.08	28	-1.26	Sept. 28	-1.25	30	-1.51
25	-1.70						

Q1282. New York City Department of Water Supply, Gas and Electricity.
Northeast corner of Liberty Avenue and 113th Street, Richmond Hill. Records available: 1933-37, 1941-48.

Jan. 6	-0.72	Mar. 25	-0.13	June 28	0.14	Sept. 28	0.58
Feb. 10	-.14	May 6	.21	July 29	.15	Nov. 2	.38
Mar. 2	-.36	June 2	.32	Aug. 30	.44	Dec. 9	.16

Q1283. New York City Department of Water Supply, Gas and Electricity.
Southeast corner of Rockaway Boulevard and 121st Street, South Ozone Park.
Records available: 1911-16, 1933-35, 1941-48.

Jan. 6	2.43	May 6	2.44	July 29	3.14	Nov. 2	2.81
Feb. 10	2.56	June 2	2.73	Aug. 30	3.28	Dec. 9	1.83
Mar. 2	2.51	28	2.95	Sept. 28	3.11	30	1.75
25	2.62						

Q1284. New York City Department of Water Supply, Gas and Electricity.
Northwest corner of Rockaway Boulevard and Lincoln Street, South Ozone Park. Records available: 1911-14, 1933-34, 1941-48.

Jan. 6	5.48	May 6	5.35	July 29	6.27	Nov. 8	5.52
Mar. 3	5.42	June 2	5.01	Aug. 30	6.13	Dec. 9	5.00
25	6.03	29	5.76	Sept. 28	5.59	30	5.54

Q1285. New York City Department of Water Supply, Gas and Electricity.
Northwest corner of 132d Street and 111th Avenue, South Ozone Park. Records available: 1933-34, 1941-48.

Jan. 6	5.01	May 6	5.63	July 29	5.14	Nov. 8	4.88
Feb. 6	4.52	June 2	5.76	Aug. 30	5.56	Dec. 9	4.39
Mar. 2	4.29	28	5.48	Sept. 28	5.68	30	4.46
25	4.88						

Q1286. New York City Department of Water Supply, Gas and Electricity.
East side of 144th Place about 315 feet south of Jamaica Avenue, Jamaica. Records available: 1933-34, 1941-48.

Jan. 6	8.20	Apr. 27	8.70	July 29	9.82	Nov. 8	9.28
Feb. 11	8.70	May 25	8.96	Aug. 31	9.83	Dec. 8	9.27
Mar. 2	8.31	June 28	9.35	Sept. 28	9.46	30	9.05
25	8.51						

Q1287. New York City Department of Water Supply, Gas and Electricity.
Northeast corner of Merrick Boulevard and 116th Avenue, St Albans. Records available: 1933-34, 1941-48.

Jan. 7	12.35	Apr. 27	13.38	July 29	14.64	Nov. 2	12.47
Feb. 6	12.61	May 25	13.89	Aug. 30	13.29	Dec. 8	12.59
27	13.24	June 29	14.13	Sept. 28	12.76	30	12.59
Mar. 25	13.30						

Q1288. New York City Department of Water Supply, Gas and Electricity.
Northwest corner of Murdock Avenue and 180th Street, St. Albans. Records available: 1933-35, 1941-43.

Jan. 7	16.92	Apr. 27	18.77	July 29	19.93	Nov. 2	17.94
Feb. 6	17.22	May 25	18.96	Aug. 31	19.33	Dec. 8	17.72
27	17.66	June 29	19.10	Sept. 28	18.56	30	17.64
Mar. 25	18.41						

Q1289. New York City Department of Water Supply, Gas and Electricity. Northwest corner of Springfield Boulevard and 110th Avenue, Queens Village. Records available: 1933-38, 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	30.14	Apr. 27	31.77	July 29	32.81	Nov. 2	32.09
Feb. 6	30.36	May 25	32.13	Aug. 30	32.96	Dec. 8	32.06
27	30.40	June 28	32.46	Sept. 28	32.51	30	31.56
Mar. 25	30.93						

Q1290. New York City Department of Water Supply, Gas and Electricity. Southwest corner of Merrick Road and Springfield Boulevard, Springfield. Records available: 1933-36, 1940, 1941-48.

Jan. 7	15.46	Apr. 27	17.28	July 29	18.08	Nov. 2	16.69
Feb. 11	15.68	May 25	17.59	Aug. 30	17.63	Dec. 8	16.60
27	16.40	June 29	18.13	Sept. 28	17.07	30	16.69
Mar. 25	17.06						

Q1292. 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. Destroyed, measurements discontinued, Apr. 6. Records available: 1941-48. Jan. 7, 26.50; Feb. 11, 26.47; Mar. 2, 26.58; Apr. 6, 26.68.

Q1459. New York City Department of Water Supply, Gas and Electricity. Spring Creek pumping station well 17 east leg. Sunrise Highway and 79th Street. Destroyed, measurements discontinued, Feb. 28. Records available: 1947-48.

Jan. 3	1.00	Jan. 24	0.85	Feb. 7	0.91	Feb. 21	0.68
10	.92	31	.90	14	.85	28	.51
17	.84						

Suffolk County

S58. New York City Board of Water Supply, Gas and Electricity. California Stovepipe well 6. Southwest corner of Grand Boulevard and 44th Street, Islip. Records available: 1944-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.26	23.63	24.33	24.35	23.96	24.41	24.40	23.76	23.21	22.85	22.87	23.06
2	23.29	23.61	24.36	24.43	23.93	24.62	24.38	23.74	23.19	22.83	22.85	23.08
3	23.33	23.59	24.42	24.46	23.92	24.81	24.34	23.73	23.18	22.82	22.85	23.10
4	23.36	23.56	24.47	24.51	23.89	24.93	24.29	23.72	23.16	22.80	22.85	23.12
5	23.38	23.54	24.53	24.53	23.98	24.92	24.24	23.71	23.14	22.80	22.85	23.13
6	23.39	23.52	24.60	24.61	23.85	24.81	24.22	23.70	23.12	22.80	22.86	23.14
7	23.41	23.50	24.67	24.62	23.84	24.75	24.20	23.68	23.10	22.78	22.86	23.14
8	23.41	23.49	24.63	24.61	23.83	24.69	24.18	23.67	23.09	22.78	22.85	23.14
9	23.43	23.46	24.63	24.57	23.81	24.62	24.14	23.66	23.08	22.78	22.85	23.14
10	23.42	23.43	24.60	24.48	23.77	24.56	24.11	23.63	23.07	22.77	22.87	23.13
11	23.42	23.42	24.58	24.42	23.76	25.50	24.09	23.61	23.09	22.76	22.94	23.12
12	23.43	23.41	24.57	24.39	23.75	24.45	24.05	23.60	23.07	22.77	23.00	23.12
13	23.46	23.40	24.57	24.33	23.74	24.43	24.03	23.59	23.05	22.78	23.03	23.11
14	23.51	23.44	24.57	24.31	23.76	24.40	24.06	23.57	23.05	22.78	23.04	23.10
15	23.55	23.52	24.59	24.28	23.81	24.36	24.08	23.55	23.03	22.77	23.04	23.09
16	23.58	23.59	24.59	24.26	23.82	24.33	24.05	23.53	23.02	22.77	23.03	23.10
17	23.63	23.64	24.55	24.23	23.91	24.29	24.03	23.51	23.00	22.77	23.02	23.13
18	23.67	23.70	24.51	24.19	24.00	24.25	24.03	23.50	22.99	22.77	23.00	23.14
19	23.70	23.76	24.49	24.17	24.09	24.23	24.00	23.49	22.98	22.78	22.99	23.16
20	23.73	23.85	24.46	24.17	24.20	24.23	23.98	23.48	22.97	22.78	22.99	23.16
21	23.76	23.97	24.43	24.15	24.33	24.25	23.96	23.47	22.96	22.78	22.99	23.17
22	23.78	24.16	24.42	24.12	24.41	24.25	23.96	23.45	22.95	22.78	22.99	23.17
23	23.79	24.32	24.38	24.10	24.44	24.26	23.95	23.44	22.94	22.78	22.99	23.17
24	23.79	24.41	24.37	24.09	24.44	24.29	23.93	23.41	22.92	22.81	22.98	23.17
25	23.79	24.47	24.33	24.07	24.43	24.33	23.91	23.39	22.90	22.87	22.96	23.17

S58--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	23.76	24.48	24.32	24.05	24.39	24.35	23.89	23.35	22.89	22.90	22.95	23.17
27	23.75	24.43	24.35	24.02	24.35	24.37	23.86	23.33	22.88	22.91	22.96	23.17
28	23.75	24.40	24.32	24.02	24.30	24.39	23.84	23.32	22.86	22.91	22.98	23.16
29	23.72	24.38	24.31	24.00	24.26	24.40	23.82	23.29	22.85	22.90	23.01	23.17
30	23.69		24.30	23.99	24.22	24.39	23.80	23.27	22.84	22.89	23.04	23.20
31	23.65		24.30		24.23		23.77	23.25		22.87		23.29

S202. New York Water Service Corporation. Abandoned well at Spring Street pumping station, 450 feet south of Gains Avenue, Huntington. Records available: 1936-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	39.25	May 4	39.91	Aug. 4	40.22	Oct. 25	40.37
26	39.39	June 1	39.95	27	40.00	Dec. 1	40.34
Apr. 2	39.81	30	40.13	Sept. 29	40.11	29	40.33

S203. C. A. Gould. About 125 feet north of Wolf Hill Road and about 1.4 miles west of Deer Park Avenue, Dix Hills. Records available: 1936-48.

Feb. 5	71.29	Apr. 28	70.59	Aug. 6	72.31	Oct. 27	73.01
26	71.38	June 1	71.59	26	72.55	Dec. 7	73.24
Apr. 1	71.27	29	71.90	Oct. 1	72.95	28	73.16

S1803. 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. Records available: 1912-14, 1932, 1936-48.

Jan. 29	16.73	Apr. 28	16.77	July 29	17.09	Oct. 25	15.44
Feb. 26	17.30	May 26	17.04	Aug. 26	16.28	Dec. 2	15.98
Mar. 29	17.17	June 29	17.04	Sept. 28	15.57	28	16.05

S1805. 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. Records available: 1912-14, 1932-48.

Jan. 29	42.22	Apr. 28	44.89	July 29	45.34	Oct. 25	42.57
Feb. 26	43.60	May 26	45.34	Aug. 26	44.66	Dec. 2	41.84
Mar. 29	44.62	June 29	45.25	Sept. 28	43.51	28	41.65

S1806. New York City Department of Water Supply, Gas and Electricity. On northeast corner of Wellwood and Long Island Avenues, Pinelawn. Records available: 1912-14, 1932-48.

Jan. 29	54.76	Apr. 28	58.00	July 29	58.42	Oct. 25	56.42
Feb. 26	55.67	May 26	57.88	Aug. 26	57.99	Dec. 2	55.70
Mar. 29	57.22	June 29	58.01	Sept. 28	57.15	28	55.26

S1807. 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. Records available: 1912-14, 1932-33, 1936-48.

Jan. 29	21.97	Apr. 28	22.22	July 29	22.46	Oct. 25	21.36
Feb. 26	22.51	May 26	22.51	Aug. 26	21.92	Dec. 2	21.39
Mar. 29	22.40	June 29	22.47	Sept. 28	21.43	28	21.33

S1808. 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. Records available: 1912-14, 1932-48.

Jan. 29	11.23	Apr. 28	11.09	July 29	11.24	Oct. 25	10.28
Feb. 26	11.65	May 26	11.46	Aug. 26	10.59	Dec. 2	11.08
Mar. 29	11.55	June 29	11.45	Sept. 28	10.05	28	10.82

S1809. New York City Department of Water Supply, Gas and Electricity. At northwest corner of Sagtikos Manor Lane Road and 0.1 mile south of Bayshore Road, about 1.5 miles northwest of Bayshore. Original well destroyed, after July 29. Replacement well installed about 50 feet east of original well on Dec. 2. Records available: 1912-14, 1932-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	28.11	Apr. 28	30.23	June 29	30.70	Dec. 2	27.51
Feb. 26	28.92	May 26	30.54	July 29	30.67	28	27.36
Mar. 29	30.12						

S1810. Geological Survey, U. S. Dept. of Interior. On east side of Sagtikos Manor Lane Road, about 1,000 feet south of main line of Long Island Railroad and 1.5 miles southwest of Brentwood. Records available: 1912-14, 1932-48.

Jan. 29	48.84	Apr. 28	51.94	July 29	53.08	Oct. 25	51.53
Feb. 26	49.22	May 26	52.13	Aug. 26	52.68	Dec. 2	50.83
Mar. 29	51.00	June 29	52.66	Sept. 28	52.08	28	50.33

S1811. Geological Survey, U. S. Dept. of Interior. At north shore of Lake Ronkonkoma. Measurements show the level of Lake Ronkonkoma, a water-table Lake. Records available: 1937-48.

Feb. 5	52.18	May 4	52.39	July 29	52.84	Oct. 26	52.51
26	52.41	June 1	52.96	Aug. 27	52.60	Dec. 1	52.83
Apr. 2	52.86	July 2	52.90	Oct. 1	52.34	27	52.88

S1812. 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. Records available: 1937-48.

Feb. 5	44.52	May 4	46.95	July 29	48.38	Oct. 26	47.46
26	44.90	June 1	47.43	Aug. 27	48.17	Dec. 1	46.89
Apr. 2	46.15	July 2	48.05	Oct. 1	47.81	27	46.71

S1813. Geological Survey, U. S. Dept. of Interior. On south side of Johnson Avenue about 1.5 miles west of Ocean Avenue, Ronkonkoma. Records available: 1939-48.

Jan. 30	36.96	Apr. 28	38.66	July 29	39.54	Oct. 25	38.62
Feb. 26	37.39	May 26	39.00	Aug. 26	39.25	Dec. 2	38.31
Apr. 1	38.20	June 29	39.51	Oct. 1	38.85	28	38.04

S1814. Geological Survey, U. S. Dept. of Interior. On northwest corner of Suffolk and Lowells Avenues, Central Islip. Records available: 1939-48.

Jan. 30	35.45	Apr. 28	37.71	July 29	38.96	Oct. 25	37.59
Feb. 26	35.77	May 26	37.98	Aug. 26	38.61	Dec. 2	37.03
Mar. 29	37.03	June 29	38.87	Sept. 28	38.07	28	36.65

S1815. Geological Survey, U. S. Dept. of Interior. On northwest corner of Suffolk and Eastern Avenues, Brentwood. Records available: 1939-48.

Feb. 26	43.90	May 26	46.49	Aug. 26	47.60	Dec. 2	46.26
Mar. 29	45.16	June 29	47.12	Sept. 28	47.24	28	45.75
Apr. 28	46.05	July 29	47.64	Oct. 25	46.90		

S1816. Geological Survey, U. S. Dept. of Interior. On northeast corner of Brentwood and Commack Road, Deer Park. Records available: 1939-48.

Jan. 30	55.70	Apr. 28	58.75	July 29	59.37	Oct. 25	57.57
Feb. 26	56.37	May 26	58.76	Aug. 26	58.86	Dec. 2	57.82
Mar. 29	57.91	June 29	59.14	Sept. 28	58.17	28	56.28

S1817. Geological Survey, U. S. Dept. of Interior. Southeast corner of Long Island Avenue and 18th Street, Wyandanch. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	51.37	Apr. 28	52.85	July 29	52.85	Oct. 25	51.47
Feb. 26	52.19	May 26	53.06	Aug. 26	52.22	Dec. 2	51.90
Mar. 29	52.86	June 29	53.22	Sept. 28	51.53	28	51.41

S2314. Foundation Sand & Gravel Co. On west side of Burr's Lane about 1,500 feet north of Straight Path, Wyandanch. Records available: 1943-48.

Feb. 26	59.26	May 26	60.40	Aug. 26	60.73	Dec. 2	60.00
Mar. 29	59.73	June 29	60.75	Sept. 28	60.49	28	59.84
Apr. 28	60.24	July 29	60.82	Oct. 25	60.36		

S2454. Long Island Railroad. On south side of railroad tracks, about 80 feet east of Deer Park Avenue, Babylon. Records available: 1940-48.

Jan. 29	7.63	Apr. 28	7.51	July 29	8.02	Dec. 2	7.62
Feb. 26	7.91	May 26	7.95	Nov. 8	7.16	28	7.38
Mar. 29	7.90	June 29	7.94				

S2455. 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 Bayshore. Records available: 1933-40 (as S-38), 1940-48.

Jan. 29	22.41	Apr. 28	23.75	July 29	23.77	Oct. 25	21.27
Feb. 26	23.32	May 26	23.81	Aug. 26	22.96	Dec. 2	21.14
Mar. 29	23.74	June 29	23.94	Sept. 28	21.88	28	21.20

S3112. New York City Department of Water Supply, Gas and Electricity. On northeast corner of Long Island Avenue and Little East Neck Road, Wyandanch. Records available: 1941-48.

Jan. 30	53.06	Apr. 28	56.10	July 29	56.32	Oct. 25	54.36
Feb. 26	53.92	May 26	56.16	Aug. 26	55.84	Dec. 2	53.70
Mar. 29	55.34	June 29	56.19	Sept. 28	55.07	28	53.36

S3496. Geological Survey, U. S. Dept. of Interior. East side of Coates Avenue about 100 feet north of Long Island Railroad, Holbrook. Records available: 1942-48.

Feb. 5	46.08	May 4	47.43	Aug. 3	49.80	Oct. 26	50.06
27	45.97	June 1	48.37	27	50.20	Dec. 1	49.70
Apr. 1	46.29	30	48.98	Oct. 1	50.28	29	49.29

S3497. Geological Survey, U. S. Dept. of Interior. Northeast corner of Waverly and Long Island Avenues, Holtsville. Records available: 1942-48.

Feb. 5	45.49	Apr. 29	46.87	Aug. 3	48.98	Oct. 26	49.08
26	45.43	May 27	47.71	27	49.32	Dec. 1	48.74
Apr. 1	45.96	June 30	48.39	Sept. 29	49.29	29	48.37

S3498. Geological Survey, U. S. Dept. of Interior. South side of Long Island Avenue about 1,000 feet west of State Highway 112, Medford. Records available: 1942-48.

Jan. 28	43.28	Apr. 30	45.42	Aug. 3	46.54	Oct. 26	45.81
Feb. 26	43.43	May 27	45.79	27	46.44	Dec. 1	45.46
Mar. 31	44.59	June 30	46.21	Sept. 29	46.11	27	45.14

S3512. State Division of Highways. On south side of Middle Country Road (State Highway 25), about 0.6 mile east of Lake Avenue, Lake Grove. Records available: 1942-48.

Feb. 6	65.68	May 4	68.00	July 29	69.27	Oct. 26	68.63
26	65.78	June 1	68.55	Aug. 27	69.47	Dec. 1	68.29
Mar. 31	66.95	30	68.86	Oct. 1	68.98	29	66.88

S3513. State Department of Public Works. Middle Country Road (State Highway 25), about 0.9 mile west of Selden. Records available: 1942-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	60.10	59.94	60.00	60.68	61.46	62.04	62.64	63.18	63.27	63.03	62.69	62.35
2	60.13	59.94	60.05	60.71	61.47	62.05	62.66	63.18	63.27	63.01	62.67	62.33
3	60.08	59.93	60.07	60.71	61.50	62.07	62.68	63.20	63.27	62.99	62.67	62.34
4	60.08	59.93	60.08	60.73	61.52	62.09	62.70	63.21	63.26	62.97	62.67	62.33
5	60.08	59.92	60.08	60.77	61.55	62.10	62.72	63.22	63.75	62.98	62.65	62.33
6	60.08	59.92	60.11	60.80	61.57	62.10	62.76	63.23	63.25	62.99	62.64	62.34
7	60.07	59.92	60.15	60.82	61.61	62.13	62.76	63.23	63.26	62.97	62.63	62.33
8	60.06	59.92	60.15	60.85	61.62	62.15	62.77	63.24	63.27	62.97	62.60	62.33
9	60.08	59.90	60.16	60.88	61.62	62.16	62.79	63.25	63.28	62.95	62.60	62.31
10	60.05	59.89	60.19	60.88	61.65	62.16	62.81	63.25	63.26	62.94	62.61	62.30
11	60.03	59.90	60.21	60.92	61.67	62.19	62.84	63.26	63.25	62.93	62.57	62.29
12	60.04	59.91	60.22	60.94	61.69	62.21	62.86	63.28	63.23	62.92	62.56	62.30
13	60.05	59.91	60.24	60.95	61.71	62.23	62.88	63.30	63.22	62.92	62.59	62.30
14	60.03	59.92	60.25	60.99	61.74	62.24	62.90	63.30	63.23	62.90	62.55	62.28
15	60.02	59.86	60.28	61.01	61.75	62.27	62.91	63.30	63.20	62.87	62.54	62.26
16	60.02	59.88	60.31	61.04	61.77	62.24	62.92	63.30	63.17	62.85	62.52	62.26
17	60.02	59.90	60.33	61.06	61.80	62.31	62.95	.....	63.16	62.87	62.52	62.25
18	60.01	59.88	60.33	61.08	61.81	62.32	62.97	.....	63.20	62.85	62.49	62.23
19	60.00	59.88	60.36	61.11	61.82	62.36	62.98	.....	63.20	62.83	62.49	62.26
20	60.00	59.87	60.39	61.16	61.84	62.38	63.00	63.26	63.20	62.82	62.51	62.23
21	60.03	59.86	60.42	61.18	61.88	62.41	63.03	63.26	63.19	62.79	62.48	62.21
22	60.01	59.87	60.45	61.18	61.88	62.42	63.04	63.26	63.18	62.78	62.47	62.20
23	59.98	59.86	.....	61.22	61.89	62.46	63.06	63.27	63.17	62.77	62.47	62.18
24	59.98	59.87	60.49	61.25	61.91	62.49	63.07	63.28	63.14	62.78	62.45	62.18
25	59.96	59.93	60.49	61.28	61.93	62.52	63.08	63.29	63.10	62.77	62.44	62.17
26	59.96	59.96	60.53	61.31	61.94	62.53	63.09	63.28	63.09	62.75	62.41	62.14
27	59.96	59.96	60.58	61.34	61.95	62.55	63.11	63.27	63.08	62.74	62.41	62.14
28	59.95	60.00	60.59	61.38	61.97	62.58	63.13	63.27	63.08	62.73	62.39	62.13
29	59.96	60.00	60.59	61.42	61.99	62.60	63.13	63.29	63.07	62.72	62.39	62.13
30	59.94	.....	60.61	61.44	62.01	62.62	63.15	63.29	63.07	62.71	62.36	62.14
31	59.93	.....	60.64	.....	62.02	.....	63.17	63.29	.....	62.70	.....	62.17

a Wetted tape measurement.

S3514. Herman Jurgens. On south side of Jericho Turnpike (State Highway 25), about 0.5 mile east of Lakefield Avenue, Commack. Records available: 1942-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	65.42	.....	65.10	65.37	65.68	66.38	66.94	67.29	67.35	67.45	.....	67.57
2	65.52	65.29	65.32	65.30	65.72	66.37	66.93	67.32	67.36	67.42	.....	67.57
3	65.29	65.23	65.18	65.23	65.77	66.42	66.97	67.37	67.39	67.39	67.62	67.66
4	65.39	65.28	65.16	65.33	65.76	66.46	66.98	67.40	67.37	67.44	67.62	67.63
5	65.36	65.25	65.09	65.38	65.82	66.43	67.04	67.42	67.38	67.55	67.59	67.69
6	65.40	65.25	65.24	65.31	65.79	66.40	67.10	67.40	67.46	67.55	67.64	67.66
7	65.38	65.24	65.37	65.39	65.95	66.57	66.96	67.40	67.52	.....	67.56	67.61
8	65.33	65.26	65.22	65.44	65.81	66.53	67.01	67.42	67.54	67.58	67.54	67.58
9	65.46	65.14	65.18	65.39	65.83	66.49	67.05	67.42	67.52	67.55	67.64	67.55
10	65.28	65.17	65.24	65.30	65.93	66.51	67.09	67.41	67.50	67.55	67.67	67.54
11	65.27	65.24	65.21	65.27	65.91	66.57	67.11	67.46	67.55	67.58	67.50	67.51
12	65.58	65.30	65.16	65.18	65.97	66.59	67.09	67.52	67.57	67.62	67.59	67.64
13	65.44	65.37	65.17	65.13	65.98	66.61	67.11	67.51	67.58	67.56	67.70	67.57
14	65.36	65.34	65.18	65.37	66.04	66.59	67.10	67.48	67.55	.....	67.56	67.49
15	65.26	65.06	65.26	65.26	66.00	66.66	67.09	67.47	67.49	67.46	67.61	67.56
16	65.34	65.26	65.28	65.30	66.04	66.66	67.14	67.49	67.38	67.40	67.57	67.58
17	65.37	65.32	65.17	65.29	66.13	66.67	67.19	67.53	67.43	67.59	67.66	67.54
18	65.34	65.24	65.15	65.35	66.10	66.67	67.19	67.52	67.48	67.52	67.53	67.51
19	65.29	65.26	65.30	65.48	66.09	66.77	67.17	67.54	67.45	67.57	67.66	67.69
20	65.35	65.18	65.23	65.58	66.16	66.72	67.19	67.54	67.54	67.30	67.67	67.48
21	65.52	65.16	65.31	65.51	66.23	66.75	67.27	67.53	67.42	67.33	67.54	67.50
22	65.40	65.22	65.28	65.50	66.11	66.74	67.22	67.55	67.42	67.18	67.66	67.49
23	65.24	65.11	65.23	65.58	66.14	66.82	67.27	67.56	67.43	67.39	67.63	67.47
24	65.30	65.17	65.28	65.63	66.19	66.89	67.24	67.60	67.47	67.50	67.64	67.45
25	65.27	65.35	65.14	65.62	66.23	66.84	67.26	67.58	67.38	.....	67.60	67.49
26	65.28	65.30	65.30	65.66	66.23	66.80	67.30	67.47	67.41	.....	67.60	67.36
27	65.33	65.19	65.42	65.68	66.25	66.87	67.33	67.46	67.43	.....	67.65	67.46

S3514--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	65.30	65.32	65.23	65.71	66.30	66.92	67.34	67.50	.....	.....	67.58	67.39
29	65.34	65.14	65.22	65.71	66.33	66.93	67.32	67.57	.....	67.53	67.64	67.49
30	65.22		65.28	65.76	66.32	66.95	67.38	67.56	67.43	.....	67.55	67.56
31	.....		65.29		66.33		67.32	67.47	.....	.....		67.62

S3515. 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. Records available: 1907-09, 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	32.43	Apr. 28	34.29	July 29	34.63	Oct. 25	32.67
Feb. 26	33.15	May 26	34.55	Aug. 26	34.00	Dec. 2	32.27
Mar. 29	33.26	June 29	34.63	Sept. 28	33.18	28	32.03

S3516. New York City Board of Water Supply test well 58. On east side of East Third Avenue, about 105 feet south of Walbridge Avenue, Bayshore. Records available: 1907-09, 1942-48.

Jan. 30	36.96	Apr. 28	39.50	July 29	40.12	Oct. 25	38.13
Feb. 26	37.79	May 26	39.64	Aug. 26	39.53	Dec. 2	37.50
Mar. 29	39.05	June 29	40.26	Sept. 28	38.73	28	37.13

S3517. New York City Board of Water Supply test well 60. On southwest corner of Lakeland Avenue and Tariff Street, Sayville. Records available: 1907-09, 1942-48.

Feb. 5	12.93	May 4	13.81	Aug. 3	13.67	Oct. 26	12.58
27	13.75	June 1	13.86	27	13.29	Dec. 1	12.54
Apr. 1	14.00	30	13.94	Oct. 1	13.73	27	12.67

S3518. New York City Board of Water Supply test well 79. East side of Islip Avenue, about 190 feet north of Locust Street, Central Islip. Records available: 1907-09, 1942-48.

Jan. 30	31.28	Apr. 28	32.98	July 29	33.35	Oct. 25	31.49
Feb. 26	31.92	May 26	33.11	Aug. 26	32.72	Dec. 2	31.16
Mar. 29	32.95	June 29	33.60	Sept. 28	31.96	28	31.01

S3519. 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. Records available: 1907-09, 1942-48.

Jan. 30	25.65	Apr. 28	26.57	July 29	26.68	Oct. 25	25.19
Feb. 26	26.53	May 26	26.75	Aug. 26	26.05	Dec. 2	25.18
Mar. 29	26.72	June 29	27.20	Sept. 28	25.41	28	25.04

S3521. 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. Records available: 1907-09, 1942-48.

Jan. 28	36.29	Apr. 30	38.22	Aug. 3	38.55	Oct. 26	37.44
Feb. 26	36.59	May 27	38.19	27	38.23	Dec. 1	37.16
Mar. 31	37.73	June 30	38.62	Sept. 29	37.77	27	36.95

S3522. New York City Board of Water Supply test well 166. East side of Waverly Avenue, 1.0 mile north of Main Street, Patchogue. Records available: 1907-09, 1942-48.

Jan. 26	19.42	Apr. 29	20.10	Aug. 27	19.73	Dec. 1	19.56
Feb. 26	19.75	May 27	19.99	Sept. 29	19.47	29	19.49
Apr. 1	20.15	June 30	20.23	Oct. 26	19.55		

S3524. New York City Board of Water Supply test well 215. 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. Records available: 1907-09, 1942-48.

S3524--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	22.69	Apr. 29	23.11	Aug. 4	22.93	Oct. 28	22.19
Feb. 24	23.02	May 26	22.90	27	22.75	Nov. 30	22.37
Mar. 30	23.06	July 2	23.02	Sept. 29	22.37	Dec. 30	22.23

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. Records available: 1943-48.

Jan. 26	27.02	Apr. 29	27.84	Aug. 4	29.58	Oct. 28	29.02
Feb. 24	26.78	May 27	28.60	25	29.59	Nov. 30	28.72
Mar. 30	26.76	July 2	29.73	Sept. 29	29.29		

S3527. New York City Board of Water Supply test well 222. South side of Horseblock Road, 1.6 miles west of Yaphank Avenue and about 1.7 miles southeast of Plainfield. Records available: 1907-09, 1942-48.

Jan. 26	31.28	Apr. 29	33.45	Aug. 4	34.86	Oct. 28	34.25
Feb. 24	31.61	May 27	34.08	27	34.97	Nov. 30	33.77
Mar. 30	32.49	July 2	34.46	Sept. 29	34.63	Dec. 29	33.29

S3529. New York City Board of Water Supply test well 238. North side of Horseblock Road, about 0.7 mile west of Yaphank Avenue, and about 1.3 miles northwest of Brookhaven Railroad Station, Brookhaven. Records available: 1907-09, 1942-48.

Jan. 26	25.59	Apr. 29	27.38	Aug. 4	27.69	Oct. 28	26.50
Feb. 24	26.17	May 27	27.78	27	27.39	Nov. 30	26.33
Mar. 30	26.89	July 2	28.15	Sept. 29	26.83	Dec. 29	26.26

S3530. New York City Board of Water Supply test well 240. 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. Records available: 1907-09, 1942-48.

Apr. 2	33.50	July 2	34.56	Sept. 29	34.11	Dec. 7	33.31
29	34.00	Aug. 4	34.66	Oct. 28	33.74	30	33.18
May 27	34.12	27	34.48				

S3531. New York City Board of Water Supply test well 254. 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. Records available: 1907-09, 1942-48.

Feb. 24	9.96	May 27	10.57	Aug. 25	10.26	Nov. 30	10.08
Mar. 30	10.24	July 2	10.64	Sept. 29	10.04	Dec. 30	9.90
Apr. 29	10.40	Aug. 4	10.40	Oct. 28	10.13		

S3532. 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. Records available: 1907-09, 1942-48.

Jan. 28	45.62	Apr. 30	48.04	Aug. 5	49.65	Oct. 27	48.62
Feb. 26	45.95	May 28	48.62	25	49.53	Nov. 29	48.19
Mar. 30	46.99	July 6	49.33	Sept. 30	49.09	Dec. 30	47.68

S3533. New York City Board of Water Supply test well 272. 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. Records available: 1907-09, 1942-48.

Feb. 26	45.28	June 1	47.60	Aug. 27	47.72	Nov. 29	46.69
Mar. 30	46.50	July 6	47.94	Sept. 30	47.29	Dec. 30	46.39
Apr. 30	47.27	Aug. 5	47.94	Oct. 27	46.95		

S3534. New York City Board of Water Supply test well 276. 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. Records available: 1907-09, 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 30	32.55	Nov. 15	29.76	Nov. 30	29.62	Dec. 17	29.30
Sept. 22	31.50	22	29.69	Dec. 8	29.21	22	28.79
Nov. 5	29.86						

S3535. New York City Board of Water Supply test well 284. South side of Chichester Avenue, about 1,000 feet southeast of Brookfield Avenue, Center Moriches. Records available: 1907-09, 1942-48.

Feb. 25	18.69	May 27	20.78	Aug. 25	21.17	Nov. 30	20.22
Mar. 30	19.62	July 2	21.17	Sept. 29	21.03	Dec. 23	19.86
Apr. 29	20.38	Aug. 4	21.34	Oct. 28	20.35		

S3536. New York City Board of Water Supply test well 289. 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. Records available: 1907-09, 1942-48.

Feb. 6	23.47	Apr. 29	25.20	Aug. 4	26.95	Oct. 28	26.50
25	23.67	May 27	25.94	25	27.07	Nov. 30	26.12
Mar. 30	24.34	July 2	26.53	Sept. 29	26.77	Dec. 23	25.79

S3537. New York City Board of Water Supply test well 331. West side of trail, about 1,000 feet north of Old Country Road, about 1 mile west of Speonk-Riverhead Road, and about 1.1 miles northwest of Speonk. Records available: 1908-09, 1942-43, 1948.

Jan. 27	15.11	Apr. 29	16.27	Aug. 4	16.26	Oct. 28	15.55
Feb. 25	15.79	May 27	16.33	25	16.10	Nov. 30	15.37
Mar. 31	16.11	July 2	16.48	Sept. 29	15.74	Dec. 23	15.22

S3538. New York City Board of Water Supply test well 339. 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. Records available: 1908-09, 1942-48.

Mar. 31	16.64	July 6	17.86	Sept. 30	17.52	Nov. 30	16.96
Apr. 30	17.09	Aug. 5	17.93	Oct. 27	17.26	Dec. 30	16.72
May 28	17.43	25	17.84				

S3539. New York City Board of Water Supply test well 403. On west side of trail, about 0.4 mile west of Speonk-Riverhead Road, about 1.8 miles north of Old Country Road, and about 2.3 miles north of Speonk. Records available: 1907-09, 1942-43, 1947-48.

Jan. 27	22.50	Apr. 29	24.03	Aug. 4	25.31	Oct. 28	24.95
Feb. 25	22.85	May 27	24.50	25	25.35	Nov. 30	24.67
Mar. 31	23.52	July 2	24.95	Sept. 29	25.15	Dec. 23	24.43

S3540. New York City Board of Water Supply test well 404. On west side of trail, about 0.4 mile west of Speonk-Riverhead Road, 1.0 mile north of Old Country Road, and 1.6 miles north of Speonk. Records available: 1907-09, 1942-43, 1947-48.

Feb. 6	19.43	Apr. 29	20.82	Aug. 4	21.92	Oct. 28	21.22
25	19.66	May 27	21.23	25	21.84	Nov. 30	20.88
Mar. 31	20.31	July 2	21.71	Sept. 30	21.54	Dec. 23	20.61

S3541. New York City Board of Water Supply test well 410. About 200 feet west of trail, about 0.2 mile north of Old Country Road, and about 1.3 miles northeast of Speonk. Records available: 1907-09, 1942-43, 1947-48.

Jan. 27	12.21	Apr. 29	13.81	Aug. 5	13.90	Oct. 28	12.73
Feb. 25	13.01	May 28	13.86	25	13.69	Nov. 30	12.37
Mar. 31	13.49	July 6	14.23	Sept. 30	13.13	Dec. 23	12.18

S3542. New York City Board of Water Supply test well 413. On west side of trail, about 1.5 miles north of Old Country Road, and about 2.1 miles northeast of Speonk. Records available: 1907-09, 1942-43, 1947-48.

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Mar. 31	20.29	Aug. 5	22.29	Sept. 30	21.88	Nov. 30	21.14
Apr. 29	20.92	25	22.22	Oct. 28	21.57	Dec. 30	20.71
May 28	21.46						

S3543. New York City Board of Water Supply test well 418. West side of Bishops Lane, about 0.9 mile north of Montauk Division of Long Island Railroad at Station, Westhampton. Records available: 1907-09, 1942-43, 1947-48.

Jan. 27	16.68	Apr. 30	18.30	Aug. 5	19.34	Oct. 27	18.55
Feb. 25	17.33	May 28	18.64	25	19.22	Nov. 30	18.14
Mar. 31	17.85	July 6	19.20	Sept. 30	18.87	Dec. 23	17.84

S3544. New York City Board of Water Supply test well 421. About 200 feet north of Montauk Division of Long Island Railroad and 0.7 mile east of Old Riverhead Road, Westhampton. Records available: 1907-09, 1942-43, 1948.

Feb. 6	11.99	Apr. 30	13.02	Aug. 5	13.10	Oct. 27	11.94
25	12.70	May 28	13.12	25	12.85	Nov. 30	11.69
Mar. 31	12.77	July 6	13.45	Sept. 30	12.27	Dec. 23	11.52

S3545. 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. Records available: 1907-09, 1942-48.

Feb. 5	34.49	May 4	37.14	Aug. 3	38.40	Oct. 26	37.19
27	34.86	June 1	37.37	27	38.11	Dec. 1	36.55
Apr. 1	36.38	30	37.93	Oct. 1	37.59	27	36.09

S3727. New York City Board of Water Supply test well 129. North side of Church Street, 0.1 mile east of Lincoln Avenue, North Sayville. Records available: 1943-48.

Feb. 27	30.91	June 1	33.06	Aug. 27	33.20	Dec. 1	31.64
Apr. 1	32.27	30	33.53	Oct. 1	32.55	27	31.27
May 4	32.81	Aug. 3	33.58	26	32.17		

S3728. New York City Board of Water Supply test well 186. About 0.2 mile east of Taylor Avenue and 0.2 mile north of Montauk Highway, Hagerman. Records available: 1943-48.

Feb. 5	20.35	Apr. 29	22.81	Aug. 4	23.26	Oct. 28	21.77
24	20.91	May 27	22.79	27	22.96	Nov. 30	21.26
Mar. 30	22.12	July 2	23.15	Sept. 29	22.32	Dec. 23	21.05

S3729. New York City Board of Water Supply test well 204. Barton and Dunston Avenues, North Hagerman. Records available: 1943-48.

Feb. 6	27.74	Apr. 29	30.22	Aug. 4	31.09	Oct. 26	29.82
26	28.06	May 27	30.39	27	30.80	Nov. 30	29.32
Mar. 30	29.45	June 30	30.80	Sept. 30	30.24	Dec. 23	28.97

S3730. New York City Board of Water Supply test well 207. Dunston Avenue and South Haven Road, South Plainfield. Records available: 1943-48.

Feb. 6	33.52	May 27	36.35	Aug. 27	37.25	Nov. 30	35.94
Mar. 30	34.88	June 30	36.70	Sept. 30	36.83	Dec. 23	35.58
Apr. 29	35.83	Aug. 4	37.25	Oct. 26	36.46		

S3731. New York City Board of Water Supply test well 244. About 30 feet east of Taylor Avenue, 0.5 mile north of Montauk Highway, Hagerman. Records available: 1943-48.

Feb. 6	23.18	Apr. 29	25.75	Aug. 4	26.32	Oct. 28	24.85
24	23.52	May 27	25.78	27	25.98	Nov. 30	24.34
Mar. 30	25.02	July 2	26.18	Sept. 29	25.39	Dec. 23	24.01

S3732. New York City Board of Water Supply test well 259. Mt. Sinai Road, 2.6 miles north of Route 25, Coram. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	51.55	May 4	53.37	Aug. 3	53.24	Oct. 26	54.13
Feb. 26	51.94	June 1	52.98	27	53.38	Nov. 30	54.32
Mar. 30	54.27	30	53.23	Oct. 1	54.02	Dec. 27	53.95

S3735. New York City Board of Water Supply test well 1214. Old Town Road, about 0.6 mile east of Dare Road, Selden. Records available: 1943-48.

Jan. 9	63.45	Apr. 1	63.75	June 30	65.42	Oct. 1	66.61
28	64.05	May 4	64.74	Aug. 3	66.33	Dec. 1	66.88
Feb. 26	63.02	June 1	65.20	27	66.57	27	65.78

S3736. Geological Survey, U. S. Dept. of Interior. Northwest corner of Schmidt Street and Lincoln Avenue, about 0.7 mile south of Holbrook. Records available: 1943-48.

Feb. 5	41.72	May 4	43.93	Aug. 3	45.84	Oct. 26	45.50
27	41.80	June 1	44.51	27	46.03	Dec. 1	45.03
Apr. 1	42.86	30	45.12	Oct. 1	45.77		

S3737. Geological Survey, U. S. Dept. of Interior. 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. Records available: 1943-48.

Jan. 9	54.61	May 4	55.42	Aug. 4	57.25	Oct. 27	57.63
28	54.49	June 1	55.94	27	57.54	Dec. 1	57.43
Feb. 27	54.35	30	56.52	Oct. 1	57.71	27	57.19
Apr. 1	54.77						

S3738. Geological Survey, U. S. Dept. of Interior. 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. Records available: 1943-48.

Feb. 27	53.99	June 1	56.24	Aug. 27	57.49	Dec. 1	57.01
Apr. 1	54.62	July 6	56.77	Oct. 1	57.54	27	56.77
May 4	55.61	Aug. 4	57.29	27	57.38		

S3739. Geological Survey, U. S. Dept. of Interior. West side of Lincoln Avenue, about 0.4 mile south of Church Street and 1.5 miles north of Sayville. Records available: 1943-48.

Feb. 5	27.13	May 4	29.39	Aug. 3	29.86	Oct. 26	28.40
27	27.78	June 1	29.52	27	29.49	Dec. 1	27.95
Apr. 1	29.06	30	29.89	Oct. 1	28.82	27	27.62

S3760. W. L. Miller. About 200 feet north of Port Jefferson-Riverhead Road (State Highway 25A) and 600 feet west of Manorville-Wading River Road (north Country Road), Wading River. Records available: 1943-48.

Jan. 27	24.78	Apr. 30	25.54	Aug. 5	26.72	Oct. 27	26.85
Feb. 26	24.86	May 28	25.94	25	26.85	Nov. 29	26.68
Mar. 30	25.14	July 6	26.45	Sept. 30	26.89	Dec. 30	26.55

S3868. Geological Survey, U. S. Dept. of Interior. South side of Upper Sheep Pasture Road, 0.4 mile east of Pond Road, Setauket Station. Records available: 1944-48.

Jan. 28	37.34	May 4	37.51	Aug. 3	38.76	Oct. 26	39.50
Feb. 26	37.53	June 1	37.93	27	38.97	Dec. 1	39.43
Apr. 1	37.55	30	38.36	Oct. 1	39.42	27	39.44

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. Records available: 1944-48.

S3869--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	53.22	May 4	54.99	Aug. 3	56.32	Oct. 26	55.79
28	53.11	June 1	55.39	27	56.31	Nov. 30	55.40
Feb. 26	53.31	30	55.97	Oct. 1	56.02	Dec. 27	55.11
Mar. 30	54.13						

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. Records available: 1944-48.

Jan. 9	53.16	May 4	54.52	Aug. 3	55.64	Oct. 26	55.58
28	53.06	June 1	54.81	27	55.77	Nov. 30	55.24
Feb. 26	53.19	30	55.27	Sept. 30	55.61	Dec. 27	55.02
Mar. 30	53.88						

S3871. Geological Survey, U. S. Dept. of Interior. South side of Fire Road about 0.6 mile west of Bellport Road, North Plainfield. Records available: 1944-48.

Jan. 9	46.37	Apr. 30	46.90	Aug. 3	48.80	Oct. 26	49.20
28	46.23	May 27	47.55	27	49.14	Nov. 30	48.96
Feb. 26	46.17	June 30	48.21	Sept. 30	49.32	Dec. 29	48.67
Mar. 30	46.56						

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. Records available: 1944-48.

Feb. 26	52.51	June 1	53.46	Aug. 27	54.83	Dec. 1	55.03
Apr. 1	52.28	30	54.05	Oct. 1	55.13	27	54.83
May 4	52.83	Aug. 3	54.53	26	55.20		

S3956. Geological Survey, U. S. Dept. of Interior. Southeast corner of Millers Place and Yaphank Road, South Millers Place. Records available: 1944-48.

Jan. 9	30.96	May 4	30.93	Aug. 3	32.37	Oct. 26	33.27
28	30.84	June 1	31.31	27	32.79	Nov. 30	33.23
Feb. 26	30.70	30	31.82	Oct. 1	33.14	Dec. 27	33.04
Mar. 30	30.67						

S4134. Riverhead Water District. Northeast corner of old fair grounds, Riverhead. Records available: 1945-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.21	12.50	13.09	13.43	13.45	13.63	13.46	13.13	12.67	12.42	12.42	12.46
2	12.34	12.52	13.14	13.50	13.40	13.63	13.43	13.13	12.64	12.41	12.37	12.45
3	12.36	12.52	13.24	13.41	13.40	13.62	13.42	13.12	12.63	12.38	12.36	12.48
4	12.35	12.51	13.21	13.39	13.36	13.64	13.40	13.15	12.60	12.37	12.43	12.53
5	12.31	12.53	13.15	13.45	13.38	13.66	13.38	13.15	12.58	12.41	12.45	12.51
6	12.31	12.52	13.18	13.49	13.41	13.61	13.40	13.15	12.61	12.44	12.44	12.53
7	12.35	12.52	13.29	13.48	13.45	13.62	13.42	13.11	12.63	12.40	12.44	12.51
8	12.33	12.54	13.34	13.46	13.53	13.66	13.37	13.09	12.63	12.40	12.39	12.52
9	12.35	12.48	13.23	13.50	13.46	13.63	13.34	13.08	12.62	12.43	12.38	12.47
10	12.34	12.42	13.26	13.47	13.45	13.59	13.33	13.05	12.61	12.41	12.43	12.46
11	12.27	12.41	13.30	13.49	13.43	13.58	13.32	13.03	12.64	12.40	12.46	12.43
12	12.27	12.52	13.31	13.58	13.43	13.58	13.50	13.03	12.64	12.46	12.43	12.45
13	12.35	12.53	13.30	13.47	13.45	13.62	13.25	13.06	12.63	12.44	12.48	12.50
14	.....	12.66	13.31	13.45	13.51	13.62	13.31	13.03	12.63	12.42	12.48	12.46
15	.....	12.59	13.34	13.52	13.52	13.60	13.30	12.99	12.57	12.38	12.46	12.41
16	.....	12.59	13.37	13.49	13.47	13.60	13.28	12.97	12.53	12.35	12.42	12.48
17	.....	12.73	13.36	13.49	13.55	13.58	13.28	12.92	12.51	12.38	12.44	12.50
18	.....	12.78	13.29	13.44	13.59	.....	13.29	12.92	12.55	12.41	12.42	12.48
19	12.45	12.81	13.29	13.44	13.55	.....	13.29	12.90	12.54	12.37	12.41	12.55
20	12.47	12.87	13.34	13.45	13.54	.....	.....	12.89	12.56	12.36	12.51	12.67
21	12.58	12.85	13.35	13.48	13.58	13.56	.....	12.86	12.54	12.33	12.49	12.61
22	12.66	12.90	13.40	13.42	13.59	13.53	.....	12.82	12.50	12.31	12.46	12.59

S4134--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	12.68	12.94	13.34	13.39	13.52	13.52	.....	12.82	12.47	12.33	12.60	12.55
24	12.61	12.94	13.36	13.42	13.51	13.58	.....	12.80	12.46	12.42	12.49	12.54
25	12.57	13.02	13.31	13.47	13.53	13.61	.....	12.81	12.41	12.50	12.48	12.54
26	12.56	13.10	13.28	13.46	13.56	13.54	13.21	12.78	12.38	12.51	12.45	12.53
27	12.52	13.11	13.40	13.45	13.57	13.49	13.19	12.71	12.40	12.46	12.49	12.52
28	12.54	13.14	13.45	13.45	13.56	13.50	13.20	12.67	12.42	12.43	12.47	12.51
29	12.55	13.18	13.39	13.45	13.57	13.49	13.17	12.68	12.40	12.43	12.52	12.51
30	12.54	.....	13.36	13.46	13.58	13.48	13.16	12.70	12.38	12.42	12.49	12.60
31	12.50	.....	13.35	.....	13.61	.....	13.15	12.68	.....	12.43	.....	12.77

S4268. County of Suffolk, Superintendent of Highways. West side of Town Line, about 1,300 feet south of Kings Park-East Northport Road, West Kings Park. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	48.27	May 4	48.38	Aug. 4	49.31	Oct. 26	49.88
26	48.05	June 1	48.63	27	49.53	Dec. 1	49.87
Apr. 2	48.14	30	48.80	Sept. 29	49.76	29	49.76

S4269. County of Suffolk, Superintendent of Highways. North side of Reeves Avenue, 2,000 feet west of Roanoke Avenue, North Riverhead. Records available: 1945-48.

Feb. 25	14.95	May 28	15.21	Aug. 25	15.06	Nov. 29	14.75
Mar. 31	14.85	July 6	15.40	Sept. 30	14.98	Dec. 22	14.65
Apr. 30	15.02	Aug. 5	15.42	Oct. 27	14.82		

S4270. County of Suffolk, Superintendent of Highways. Crooked Hill Road, about 0.8 mile northwest of intersection with Wicks Road, Brentwood Park. Records available: 1945-48.

Jan. 30	51.30	Apr. 28	52.98	July 29	54.64	Oct. 25	54.29
Feb. 26	51.36	May 26	53.65	Aug. 26	54.64	Dec. 2	54.07
Apr. 1	52.15	June 29	54.08	Oct. 1	54.62	28	53.78

S4271. County of Suffolk, Superintendent of Highways. About 500 feet south of Sound Avenue, and 0.8 mile west of Roanoke Avenue, Baiting Hollow. Records available: 1945-48.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.60	9.58	9.83	10.18	10.46	10.79	11.07	11.14	10.88	10.77	10.86	10.80
2	9.61	9.58	9.84	10.19	10.47	10.80	11.08	11.13	10.88	10.77	10.86	10.79
3	9.60	9.58	9.84	10.20	10.47	10.81	11.09	11.13	10.87	10.76	10.86	10.80
4	9.60	9.58	9.86	10.21	10.47	10.82	11.09	11.13	10.87	10.76	10.86	10.81
5	9.62	9.58	9.87	10.22	10.49	10.83	11.09	11.14	10.87	10.77	10.86	10.80
6	9.62	9.58	9.87	10.22	10.50	10.85	11.10	.....	10.87	10.79	10.86	10.81
7	9.62	9.58	9.89	10.23	10.51	10.86	11.10	.....	10.87	10.79	10.86	10.80
8	9.63	9.58	9.91	10.25	10.53	10.87	11.10	.....	10.87	10.78	10.85	.....
9	9.63	9.58	9.92	10.26	10.53	10.88	11.10	11.14	10.85	10.79	10.86	.....
10	9.63	9.58	9.94	10.26	10.55	10.89	11.10	11.14	10.83	10.80	10.86	.....
11	9.63	9.58	9.95	10.27	10.55	10.89	11.10	11.13	10.82	10.79	10.85	10.77
12	9.63	9.58	9.95	10.28	10.57	10.90	11.08	11.10	10.82	10.80	10.85	10.76
13	9.64	9.58	9.96	10.29	10.59	10.93	11.06	11.07	10.83	10.81	10.86	10.79
14	9.63	9.58	9.97	10.31	10.60	10.93	11.05	11.07	10.84	10.82	10.85	10.77
15	9.63	9.54	9.99	10.31	10.60	10.94	11.06	11.06	.....	10.82	10.84	10.77
16	9.63	9.61	10.02	10.32	10.61	10.96	11.06	11.05	.....	10.82	10.83	10.78
17	9.63	9.64	10.02	10.33	10.63	10.96	11.08	11.04	.....	10.82	10.82	10.77
18	9.63	9.64	10.03	10.33	10.64	10.97	11.11	11.03	.....	10.83	10.81	10.77
19	9.62	9.65	10.05	10.34	10.65	10.98	11.12	11.03	10.82	10.83	10.81	10.79
20	9.61	.....	10.06	10.35	10.65	11.00	11.12	11.02	10.82	10.83	10.82	10.77
21	9.62	.....	10.07	10.37	10.66	11.00	11.13	11.01	10.82	10.82	10.80	10.74
22	9.61	.....	10.08	10.37	10.68	11.00	11.12	11.00	10.82	10.81	10.80	10.75
23	9.60	9.75	10.08	10.38	10.69	11.02	11.12	10.98	10.82	10.81	10.80	10.75
24	9.60	9.76	10.09	10.38	10.70	11.02	11.12	10.95	10.81	10.84	10.80	10.76

S4271--Continued.

Mean daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	9.60	9.78	10.09	10.39	10.71	11.03	11.12	10.83	10.81	10.85	10.81	10.77
26	9.59	9.79	10.11	10.40	10.73	11.03	11.12	10.92	10.80	10.85	10.80	10.77
27	9.58	9.80	10.14	10.41	10.74	11.05	11.13	10.92	10.80	10.85	10.81	10.77
28	9.59	9.82	10.13	10.43	10.75	11.05	11.13	10.92	10.80	10.85	10.80	10.76
29	9.59	9.82	10.14	10.44	10.76	11.05	11.13	10.92	10.79	10.85	10.81	10.76
30	9.58		10.16	10.46	10.78	11.07	11.14	10.92	10.78	10.85	10.80	10.77
31	9.57		10.17		10.78		11.14	10.90		10.86		10.80

S4367. M. E. Geotzinger. 200 feet north of Florida Avenue, 1.0 mile east of Babylon. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	54.08	June 1	54.96	Aug. 6	56.41	Dec. 1	56.80
May 4	54.41	29	55.60	Oct. 28	57.35	29	57.06

S4377. Jacob Zimmerman. About 1.2 miles north of Middle Country Road on Moriches Road, St. James. Abandoned dug well, diameter about 3 feet, depth 60 feet. Measuring point, bottom of pump base at arrow, at land-surface datum, 104.68 feet above mean sea level. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level
Aug. 1, 1945	62.39	Aug. 4, 1947	60.27	May 4, 1948	61.48
31	62.28	Sept. 4	60.18	June 1	61.88
Oct. 4	61.92	Oct. 3	60.00	30	62.21
31	61.73	29	59.74	July 29	62.50
Nov. 27	61.44	Nov. 25	60.00	Aug. 27	62.59
Dec. 26	61.21	Dec. 23	59.86	Oct. 1	62.37
Jan. 31, 1946	61.36	Feb. 6, 1948	59.64	26	62.20
Mar. 5	62.05	26	60.01	Dec. 1	61.92
July 8, 1947	60.11	Mar. 31	60.73	29	61.67

S4523. Geological Survey, U. S. Dept. of Interior. Northville Turnpike and Route 58, Riverhead. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.19	Apr. 30	9.63	Aug. 5	9.32	Oct. 27	8.86
Feb. 25	9.60	May 28	9.73	25	9.10	Nov. 30	9.21
Mar. 31	9.77	July 6	9.51	Sept. 30	8.73	Dec. 22	9.18

S4524. Geological Survey, U. S. Dept. of Interior. Tuthills Lane, 0.15 mile north of Main Road (State Highway 25), Riverhead. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	6.91	Apr. 30	8.20	Aug. 5	7.68	Oct. 27	6.76
Feb. 25	7.95	May 28	8.16	25	7.44	Nov. 29	6.77
Mar. 31	8.13	July 6	7.97	Sept. 30	6.82	Dec. 22	6.74

S4525. Geological Survey, U. S. Dept. of Interior. Twomey Avenue and Deep Hole Road, Riverhead. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	17.14	Apr. 30	20.11	Aug. 5	20.51	Oct. 27	19.78
Feb. 25	18.87	May 28	20.35	25	20.33	Nov. 29	19.67
Mar. 31	19.78	July 6	20.52	Sept. 30	20.00	Dec. 22	19.53

S4526. J. T. Downe. Southeast corner of West Lane and Sound Avenue, Jamesport. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	8.04	Apr. 30	9.77	Aug. 5	9.96	Oct. 27	9.41
Feb. 25	8.76	May 28	9.92	25	9.82	Nov. 29	9.29
Mar. 31	9.48	July 6	10.07	Sept. 30	9.55	Dec. 22	9.19

S4529. J. Gresseck. Sound Avenue and Twomey Avenue intersection, Riverhead. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	11.38	Apr. 30	12.33	Aug. 5	12.97	Oct. 27	12.67
Feb. 25	11.56	May 28	12.59	25	13.00	Nov. 29	12.73
Mar. 31	11.94	July 6	13.00	Sept. 30	12.67	Dec. 22	12.64

S4530. Geological Survey, U. S. Dept. of Interior. Roanoke Avenue and Midde Road, Riverhead. Records available: 1945-48.

Jan. 27	15.39	Apr. 30	17.76	Aug. 5	17.30	Oct. 27	15.79
Feb. 25	16.68	May 28	17.86	25	16.92	Nov. 30	15.78
Mar. 31	17.47	July 6	17.70	Sept. 30	16.07	Dec. 22	15.58

S4827. Geological Survey, U. S. Dept. of Interior. East side of Broadway, 164 feet north of Cuba Hill Road, Greenlawn. Records available: 1948.

Feb. 5	55.32	May 4	55.11	Aug. 4	55.81	Oct. 26	56.49
26	55.40	June 1	55.29	27	55.91	Dec. 1	56.66
Apr. 2	55.24	30	55.52	Sept. 29	56.25	29	56.81

S4828. Geological Survey, U. S. Dept. of Interior. Southwest corner of Broadway and Park Avenue, Greenlawn. Records available: 1948.

Feb. 5	66.49	May 4	66.30	Aug. 3	67.23	Oct. 26	67.83
26	66.59	June 1	66.63	27	67.41	Dec. 1	67.86
Apr. 2	66.32	July 6	67.11	Oct. 1	67.75	29	67.91

S4829. Geological Survey, U. S. Dept. of Interior. West side of Randall Road, 0.95 mile south of Port Jefferson-Riverhead Road (State Highway 25A), Shoreham. Records available: 1947-48.

Jan. 28	37.13	Apr. 30	37.86	Aug. 5	39.22	Oct. 27	39.74
Feb. 26	37.30	May 28	38.29	25	39.45	Nov. 29	39.68
Mar. 30	37.46	July 6	38.81	Sept. 30	39.74		

OHIO

By D. W. Van Tuyl

PROGRAM OF WORK

Ground-water investigations in Ohio were continued in 1948 in cooperation with the Ohio Water Resources Board, the Ohio Engineering Experiment Station, the Commissioners of Hamilton County, and the city of Canton. Field work was started on the investigation of the ground-water resources of Franklin, Clark, Ross, and Champaign Counties. The investigations were being continued in Lucas, Mahoning, Summit, Greene, and Stark Counties. Special studies, including pumping tests, were made in Delaware County, Muskingum County (New Concord), and Shelby County (Sidney). Infiltration studies were continued at Canton.

During 1948 automatic water-stage recorders were installed on 14 observation wells and removed from 5 observation wells in Ohio. At the end of the year 122 recorders were being maintained in 54 counties. In addition, weekly or periodic measurements were being made in 59 observation wells in 7 counties.

The 1948 water-level records for 178 observation wells are tabulated alphabetically by counties. The wells in Butler and Hamilton Counties are designated by numbers as given in Water-Supply Paper 999.¹ The wells in other counties are designated by letter symbols, corresponding to the county names, followed by numbers for successive wells in each county.

FLUCTUATIONS OF WATER LEVEL

The records of water levels in observation wells throughout Ohio showed that in 1948 only moderate recharge was received during the late winter and spring in the important ground-water formations. In general, the water levels rose during February, March, and April to approximately the same elevations as in 1947, but from elevations which were higher at the

1. Klaer, F. H., and Thompson, D. G., Ground-water resources of the Cincinnati area, Butler and Hamilton Counties, Ohio: U. S. Geol. Survey Water-Supply Paper 999.

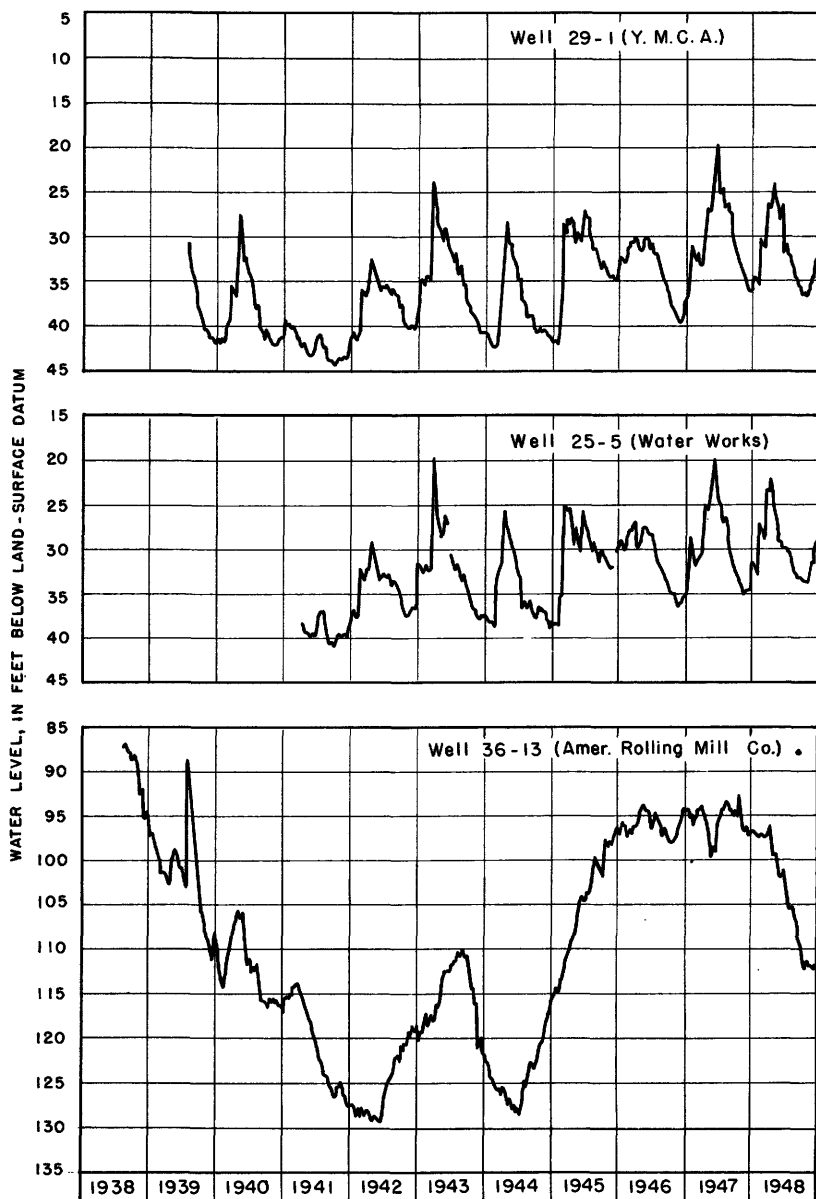


Figure 8.-- Graphs showing water levels in three observation wells at Middletown, Butler County, Ohio.

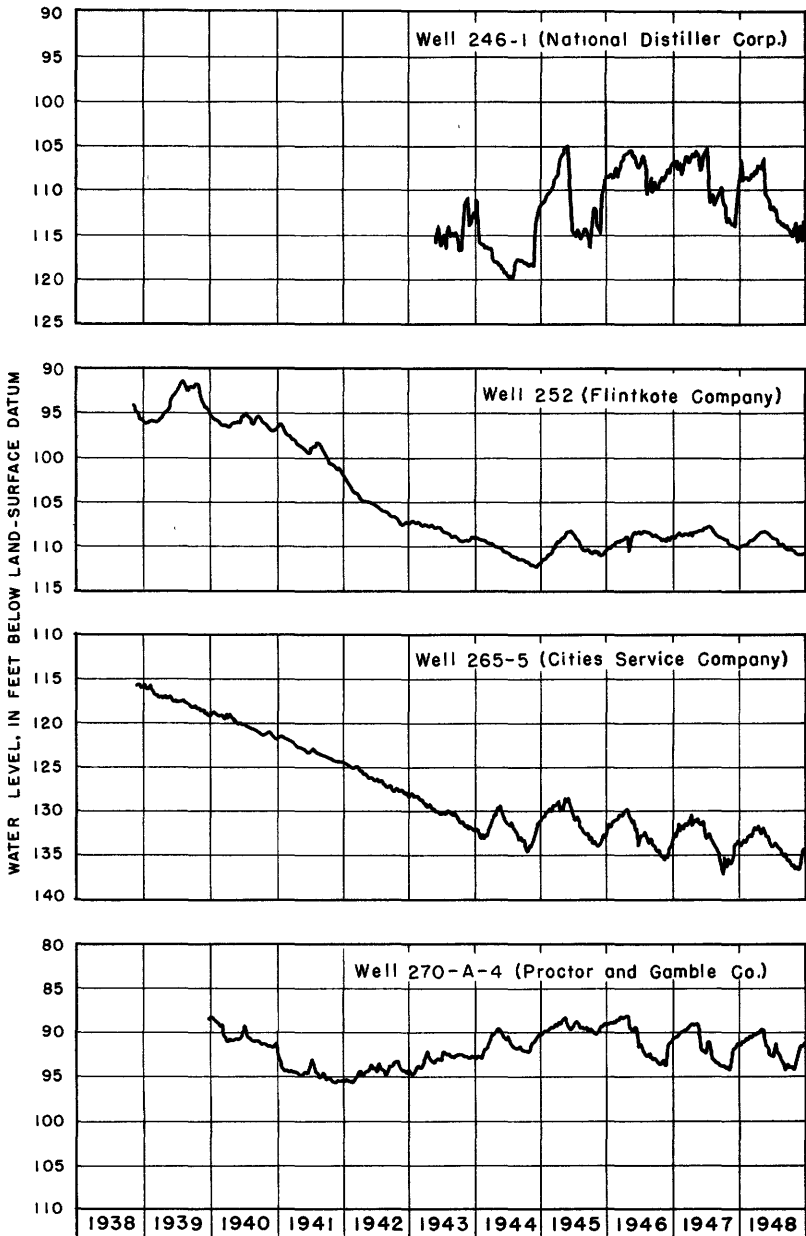


Figure 9.--Graphs showing water levels in observation wells in lower Mill Creek Valley, Hamilton County, Ohio.

beginning of 1948 than at the beginning of 1947. The normal recession during the summer and fall of 1948 brought water levels much lower than for the same period in 1947 and about to the elevations observed at the end of 1946. Most of the records showed some additions to ground-water storage from rains in November and December 1948.

Discussions of the fluctuations of water levels in specific areas are included in a detailed report² for 1948 published by the Ohio Department of Natural Resources, Division of Water (formerly Ohio Water Resources Board). Eight of the 27 plates of well hydrographs from that bulletin are included in this report. Figures 8 to 12 show graphs of water levels in 5 areas of heavy ground-water pumpage. Graphs of water levels in 20 selected observation wells in other areas are shown in figures 13 to 15.

In the Middletown area the records for wells 29-1 and 25-5 show that good recharge was received in the spring. (See fig. 8.) High flows in the adjacent Miami River caused water levels in the business section to rise to near-record elevations in April. A net decline of about 15 feet occurred in the American Rolling Mill area, southeast of Middletown, during 1948. This area receives recharge only indirectly and after considerable delay from the Miami River to the northwest and southwest. It is probable that local pumping rates were higher in 1948 than in the previous 4 to 6 years and that withdrawals exceeded the recharge.

Ground-water levels in the lower Mill Creek Valley, north of Cincinnati, continued to decline slightly during 1948, as shown in figure 9. This is evident especially in the records of wells 252 and 265-5 in which recovery in the spring of 1948 was less than in 1946 and 1947. In spite of decreased pumping by industries, no substantial net recoveries are occurring in the area.

The records of two wells in the Dayton area (Mt-2 and Mt-3) show the lowest water levels of record in the business section, and only moderate recharge during 1948. (See fig. 10.) The water level in the shallow gravels in the Rohrer's Island well field (Mt-1) was maintained from 5 to 10 feet below land-surface datum during the year.

² Kaser, Paul, Ground-water levels in Ohio, 1948: Ohio Dept. Natural Resources, Div. Water, Bull. 21, 1949.

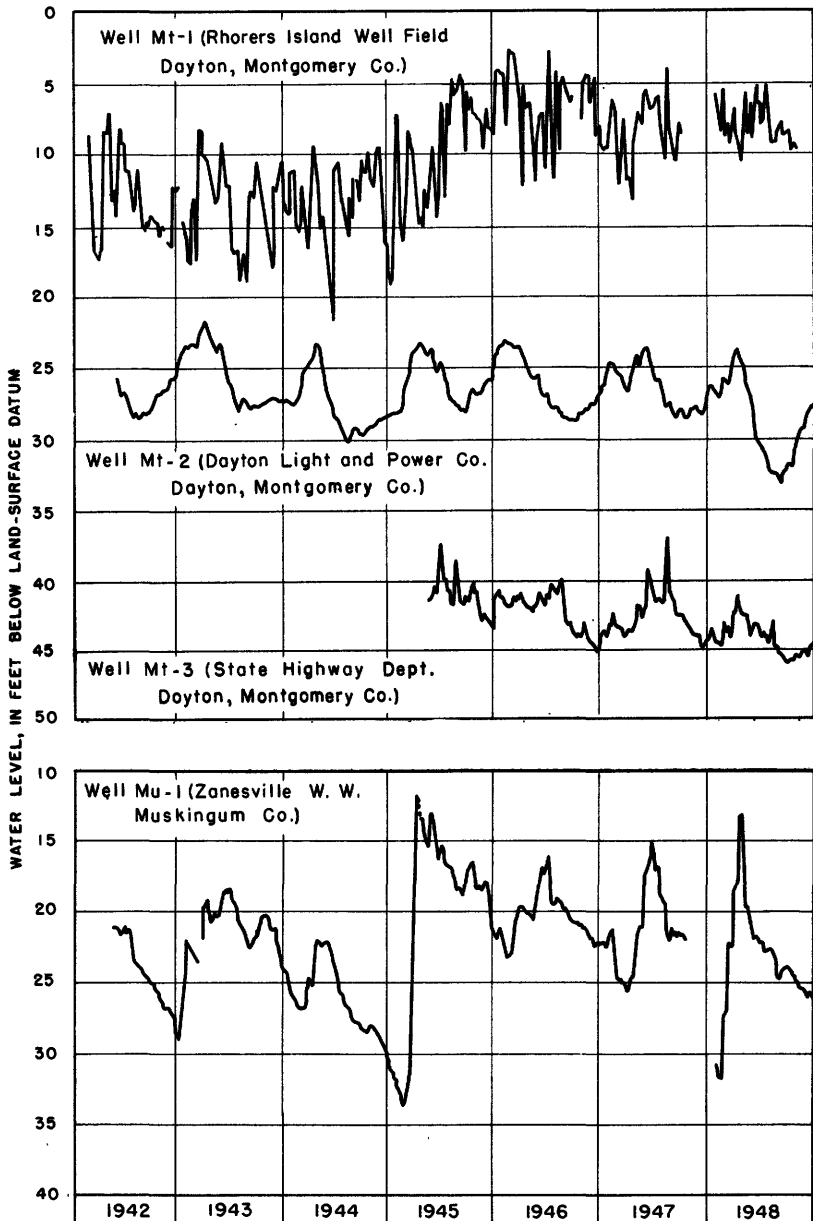


Figure 10.--Graphs showing water levels in observation wells in Montgomery and Muskingum Counties, Ohio.

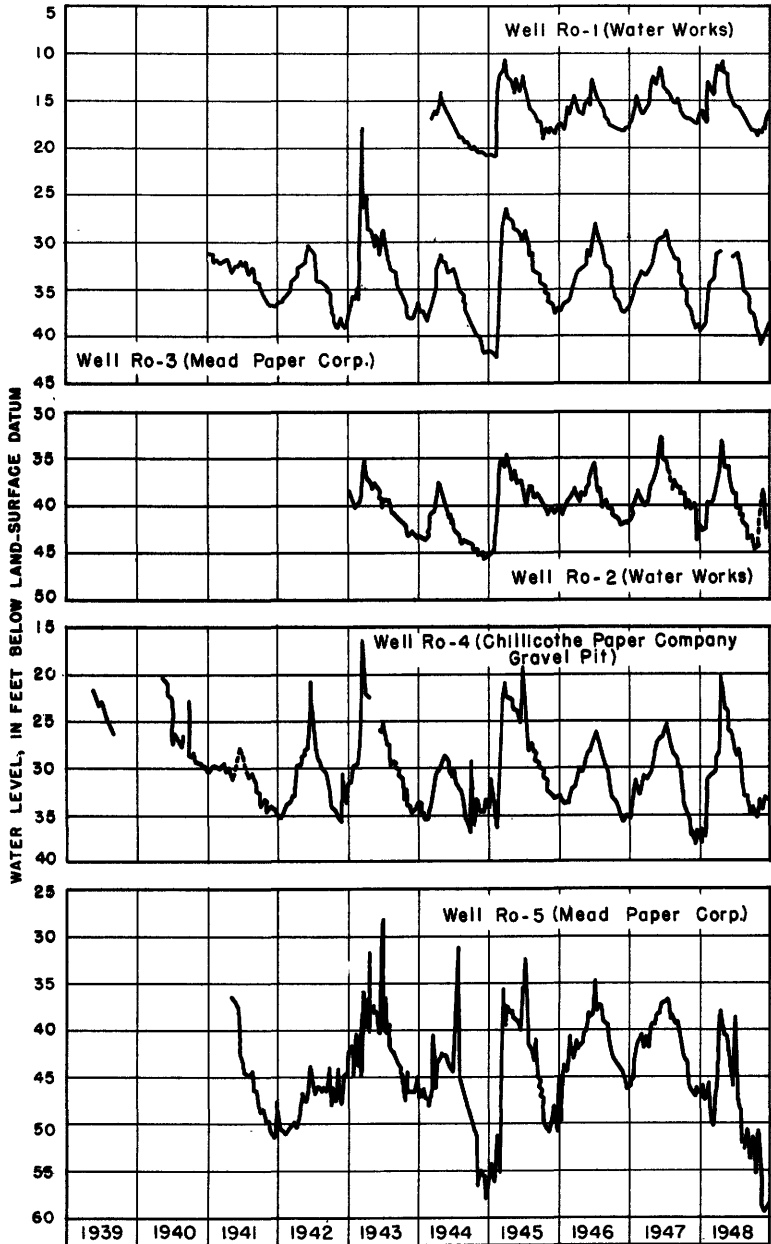


Figure 11.--Graphs showing water levels in observation wells at Chillicothe, Ross County, Ohio.

Fluctuations of ground-water levels in the Chillicothe area are shown in figure 11. In the spring, substantial recharge from the Scioto River and from Paint Creek caused large rises in all wells measured. In general, water levels were about the same at the end of 1948 as at the beginning, except in well Ro-5, which is only 20 feet from and is affected by a large production well.

Records of water levels in three wells in the Canton area are shown in figure 12. Wells St-2 and St-3, in the business section, showed slight changes during 1948, indicating only moderate recharge to the glacial materials. Water levels outside the area of heavy pumping, indicated by the records for wells St-4 and St-10, fluctuated only a few feet during the year.

The graphs of water levels shown in figures 13-15 represent mostly rural wells and wells in small communities where ground-water pumping is not heavy. Although the records are less than 3 years in length, no progressive declines in water levels are indicated. Observation wells Fr-1 and Fn-1, figure 13, show fluctuations caused by changes in barometric pressure and wells Fr-3 and Fr-8 show fluctuations in response to changes in stage of nearby streams.

Observation well Ma-1, figure 14, is in a municipal well field from which pumping was discontinued in August 1947. The water level in this field has recovered about 75 feet since that time. Wells Mn-1 and Md-1 are in municipal well fields, and the records show fluctuations caused by local pumping. Well Mi-1 is at an industrial plant where wells are pumped during the week and shut down over week-ends. The pumping fluctuations are superimposed on the natural seasonal fluctuations.

The water levels in four municipal well fields are shown in figure 15. The wells at Kent (observation well Po-2) are drilled in gravel, and wells at Columbus Grove (Pu-1), Woodville (S-1), and Green Springs (Se-1) are drilled in limestone aquifers.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Allen County

A1-1. Standard Oil Co. At Lima. Records available: 1946-48.

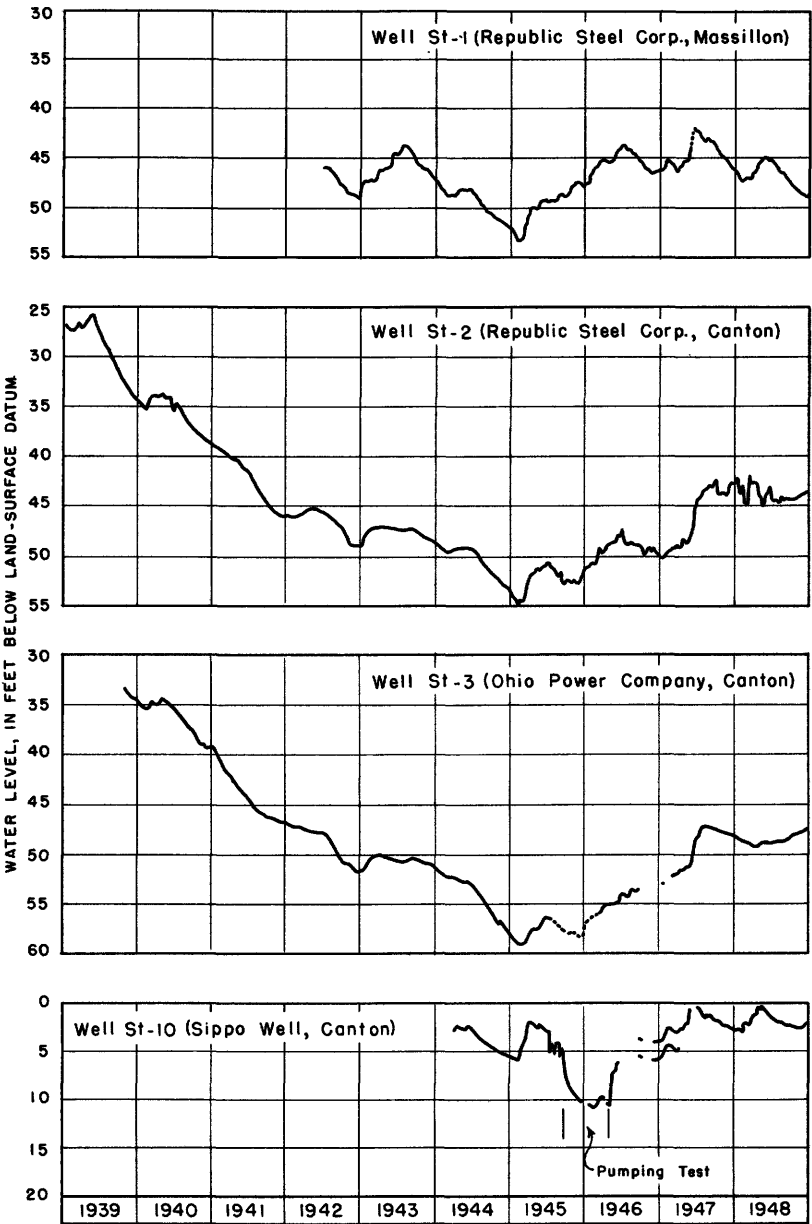


Figure 12.--Graphs showing water levels in observation wells in Stark County, Ohio.

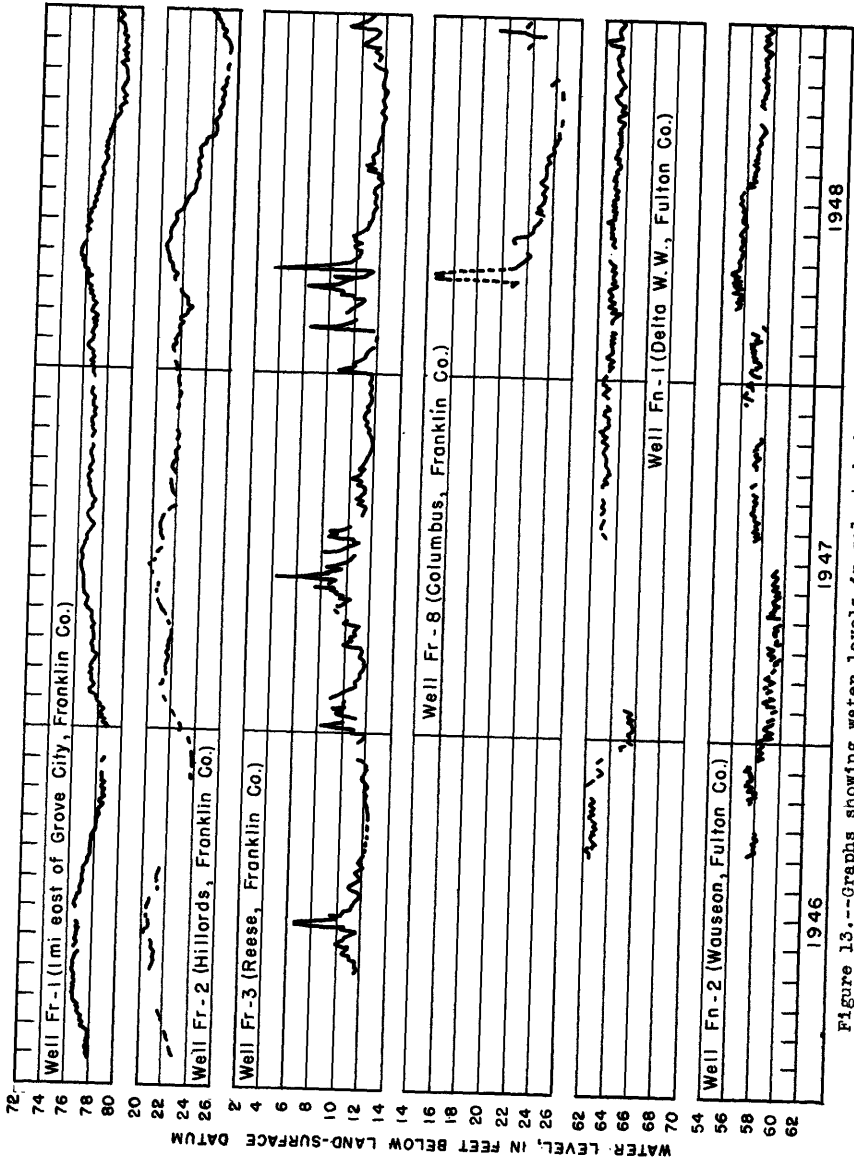


Figure 13.--Graphs showing water levels in selected observation wells in Ohio.

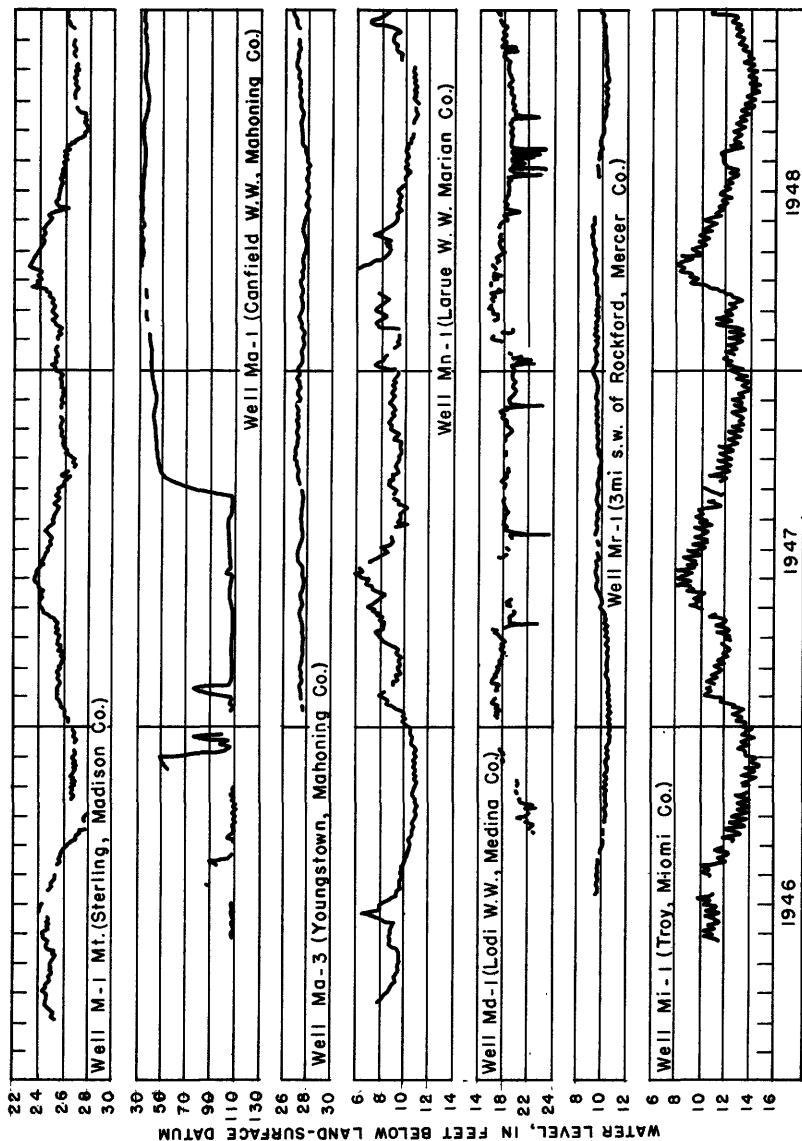


Figure 14.--Graphs showing water levels in selected observation wells in Ohio.

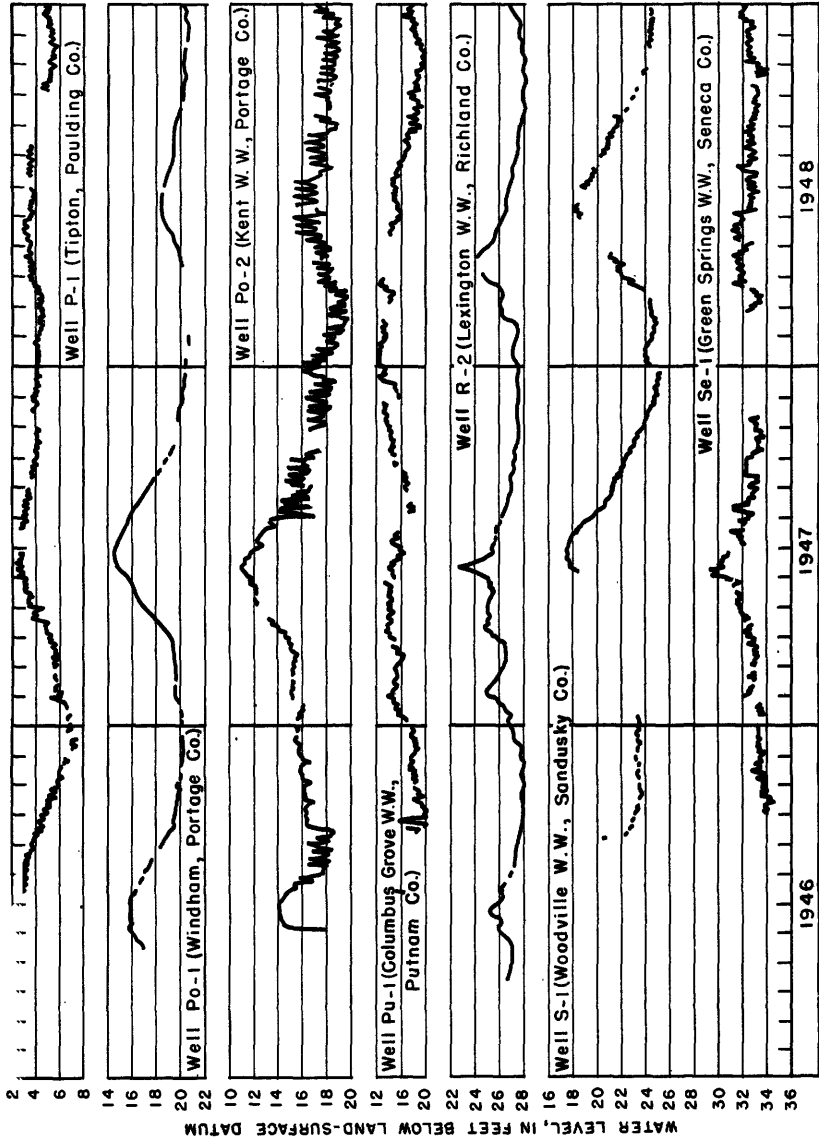


Figure 15.--Graphs showing water levels in selected observation wells in Ohio.

A1-1--Continued.

Lowest daily water level, from recorder charts						
Day	Jan.	Feb.	Mar.	Apr.	May	June
1	137.50	.....	144.72	145.68	143.06	143.37
2	134.20	.....	144.30	145.60	138.59	146.80
3	134.38	.....	145.42	143.42	130.80	147.14
4	133.80	.....	145.42	140.85	120.55	147.16
5	135.05	.....	143.82	141.26	122.05	144.60
6	138.30	.....	141.90	142.63	120.90	142.10
7	140.40	.....	139.51	143.43	123.47	144.78
8	142.03	.....	143.73	143.80	117.13	145.30
9	141.52	.....	142.81	142.90	114.80	147.41
10	139.52	.....	145.01	142.96	114.73	147.10
11	132.86	.....	142.67	140.58	115.51	147.80
12	141.60	.....	142.70	138.32	130.03	146.23
13	142.66	.....	140.60	140.97	.....	141.93
14	140.60	.....	141.70	140.33	127.40	144.90
15	141.00	.....	140.35	144.07	127.40	145.28
16	141.16	.....	139.70	144.02	128.20	145.75
17	137.60	.....	143.05	141.30	141.92	147.27
18	138.87	.....	145.30	138.30	143.61	146.21
19	138.85	.....	145.30	141.92	144.60	144.90
20	139.68	.....	140.51	142.48	146.22	142.81
21	.....	.....	141.41	140.73	146.04	145.51
22	.....	.....	138.10	140.98	144.71	147.30
23	.....	.....	145.01	138.05	141.85	146.85
24	.....	142.42	144.40	135.40	146.21	147.41
25	.....	142.53	145.30	137.05	142.95	146.77
26	.....	144.85	145.30	137.85	143.83	146.23
27	.....	144.95	139.82	144.30	146.70	143.20
28	.....	142.53	139.60	142.73	145.97	145.77
29	.....	139.80	142.21	144.68	145.00	146.92
30	.....	.....	142.35	145.18	142.70	149.19
31	.....	.....	145.32	.....	140.46	.....

Lowest daily water level, from recorder charts						
Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	148.90	145.60	149.08	148.71	144.20	147.97
2	150.00	148.44	148.74	148.15	147.61	147.98
3	147.58	146.70	148.90	146.10	147.62	147.70
4	144.40	148.58	148.51	147.90	147.80	146.85
5	144.20	148.68	144.22	148.52	147.45	146.30
6	147.71	148.79	143.60	148.69	145.92	146.45
7	147.02	148.40	147.80	148.58	146.08	147.32
8	146.90	145.33	148.10	148.67	143.35	147.26
9	147.20	148.43	148.68	148.33	136.15	147.43
10	146.28	148.50	147.78	146.47	134.12	148.32
11	143.95	148.70	147.40	146.08	.....	146.50
12	147.68	148.60	146.32	147.71	.....	144.92
13	147.92	148.75	148.23	147.70	.....	146.10
14	148.03	147.40	148.60	148.24	.....	147.78
15	148.09	144.22	148.47	148.72	.....	147.73
16	148.12	148.32	148.81	146.90	143.13	147.93
17	147.42	148.60	147.32	145.36	145.30	147.94
18	145.55	148.82	148.72	148.19	147.12	146.40
19	147.07	148.99	146.77	147.50	146.80	146.11
20	147.88	148.97	148.40	147.40	143.20	142.72
21	147.37	148.76	148.73	147.72	145.06	133.70
22	146.11	148.97	148.84	148.01	145.12	129.50
23	145.83	148.82	148.73	146.00	147.51	139.40
24	146.47	149.00	148.70	143.95	146.52	146.85
25	144.43	149.06	148.11	146.10	146.52	143.35
26	145.01	148.96	146.00	146.72	145.05	142.16
27	146.16	149.02	148.39	146.42	142.85	146.12
28	145.72	148.72	147.98	145.03	141.40	145.75
29	147.00	146.73	148.53	145.02	143.71	144.10
30	147.43	148.31	147.27	145.00	146.41	144.30
31	147.41	148.57	.....	143.90	.....	146.82

Ashland County

As-1. Faultless Rubber Co. At Ashland, in old boiler room of factory. Abandoned drilled well, diameter 8 inches, depth 77 feet. Measuring point, base of recorder platform, 5.0 feet below land-surface datum. Equipped with automatic water-stage recorder. Records available: 1947-48.

Lowest daily water level, from recorder charts, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	36.20	35.00	21.38	14.28	.....	35.25	29.95	35.97	33.07	30.20
2	.....	.....	28.80	34.85	22.66	18.70	.....	35.27	29.65	35.97	29.75	31.13
3	.....	.....	35.12	34.80	20.75	19.36	.....	27.15	35.63	35.42	33.42	32.47
4	.....	.....	35.80	34.50	16.17	.....	.....	33.40	37.22	34.82	34.36	32.72
5	.....	.....	35.82	33.34	20.57	20.98	.....	35.32	37.45	31.05	33.55	32.80
6	.....	.....	34.97	31.25	22.71	21.05	.....	36.80	37.43	31.36	33.29	28.95
7	.....	.....	34.85	36.23	21.60	17.80	.....	36.65	36.45	35.49	35.86	29.70
8	.....	31.70	34.84	36.25	21.42	14.75	.....	36.22	30.35	35.48	35.18	31.62
9	32.17	32.20	29.30	34.64	20.40	19.24	.....	35.92	35.47	35.20	27.38	31.34
10	32.15	34.96	33.86	34.68	20.10	20.59	.....	29.40	37.08	34.92	31.68	32.82
11	31.85	35.40	34.17	33.95	15.60	26.38	.....	31.95	37.08	34.77	32.17	32.75
12	27.15	34.94	34.63	33.60	19.84	25.85	.....	35.58	36.67	32.85	32.17	27.50
13	30.50	36.04	34.54	32.45	20.88	.....	.....	36.50	37.48	32.50	32.37	30.20
14	31.11	35.30	34.47	31.70	23.17	.....	.....	36.70	36.47	.....	31.50	34.92
15	31.02	34.45	34.30	32.98	21.08	.....	.....	36.68	38.22	.....	25.85	34.96
16	31.02	28.68	28.95	32.55	21.44	.....	.....	36.72	39.00	.....	26.20	34.71
17	30.95	35.15	33.38	33.95	19.40	.....	.....	31.85	37.85	.....	29.08	34.20
18	30.71	35.44	33.55	30.45	15.98	.....	.....	35.05	37.77	.....	29.87	.....
19	.....	35.09	.....	29.05	21.77	.....	27.54	36.91	36.02	.....	29.82	.....
20	.....	35.12	33.58	20.37	22.15	.....	31.13	37.07	35.41	.....	29.27	.....
21	.....	35.32	33.65	23.75	22.20	.....	31.59	37.42	30.35	35.57	28.73	.....
22	.....	34.75	33.65	23.75	21.80	.....	31.48	37.30	36.21	35.50	25.25	31.88
23	.....	27.75	28.50	23.35	21.00	.....	33.77	37.37	36.83	35.30	28.00	32.73
24	.....	36.05	31.74	24.20	18.42	.....	33.54	33.10	39.26	35.52	29.70	31.80
25	.....	36.63	32.62	23.42	16.32	.....	33.35	34.25	38.96	35.50	30.50	30.65
26	.....	37.87	32.47	22.08	20.30	.....	25.50	36.38	36.90	29.95	33.12	30.92
27	.....	37.50	32.48	16.61	19.98	.....	22.76	37.77	35.93	35.90	33.12	27.27
28	.....	36.93	32.40	21.12	20.30	.....	32.50	37.69	29.94	35.94	30.67	30.37
29	.....	.....	32.27	20.75	20.48	.....	33.08	37.80	34.15	35.42	30.98	32.26
30	.....	.....	26.75	22.40	20.47	.....	34.43	37.82	34.73	35.95	27.05	32.42
31	.....	.....	34.97	.....	15.53	.....	34.85	35.39	.....	33.38	.....	32.38

Lowest daily water level, from recorder charts, 1948

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	29.70	31.06	29.67	31.80	22.30	26.60	.....	30.10	30.32	32.40	28.05	24.15
2	30.02	29.03	30.37	25.05	20.16	23.23	.....	35.42	.....	32.40	29.53	24.52
3	28.40	29.00	30.54	23.10	22.70	23.60	22.57	35.43	.....	30.20	30.75	24.82
4	27.45	30.14	30.52	20.80	22.45	22.80	22.02	35.21	.....	30.40	31.08	24.85
5	29.67	30.70	30.00	24.73	22.33	21.30	21.15	34.77	.....	32.00	30.55	22.64
6	30.30	.....	29.52	24.73	22.19	23.16	21.06	32.46	.....	32.00	29.00	22.78
7	30.07	.....	25.47	23.55	22.16	23.92	23.58	31.50	.....	32.50	25.25	31.72
8	31.73	.....	27.30	23.31	22.00	27.32	22.80	27.20	.....	31.65	26.81	31.40
9	31.69	.....	28.73	23.24	19.77	24.45	31.23	30.20	.....	31.35	30.18	33.55
10	31.32	.....	29.45	28.40	21.53	25.05	28.60	32.17	.....	32.25	28.20	34.20
11	31.42	33.51	30.02	28.36	21.70	.....	24.50	32.85	.....	32.60	29.52	33.71
12	27.45	33.43	30.22	21.80	21.88	.....	27.28	35.45	.....	.....	30.46	25.48
13	29.45	33.13	30.42	21.78	21.71	21.37	26.62	34.30	30.20	.....	29.38	23.02
14	30.00	32.93	24.30	22.00	21.62	22.95	27.35	34.00	31.15	32.08	24.90	31.95
15	30.27	29.55	26.57	21.78	21.50	23.15	27.45	29.12	31.70	32.05	23.19	35.00
16	30.62	29.05	31.80	31.50	20.32	25.67	34.70	29.87	31.90	32.02	25.45	32.86
17	30.69	34.42	31.58	.....	21.65	27.18	31.94	33.07	31.97	30.52	26.22	33.60
18	32.91	34.46	31.35	.....	21.50	30.60	25.20	33.27	31.95	29.75	25.78	32.05
19	29.85	34.05	31.05	19.74	21.78	30.25	.....	31.80	29.40	30.42	26.48	23.25
20	26.77	33.53	31.12	23.00	23.00	22.82	.....	33.00	30.55	31.14	24.40	22.40
21	29.45	33.47	.....	22.70	22.76	25.73	35.03	33.16	31.35	30.95	22.46	23.55
22	30.10	27.40	.....	22.39	22.60	26.90	35.23	29.18	31.55	31.35	23.24	27.57
23	30.35	30.15	.....	23.31	20.00	.....	35.14	30.40	31.10	30.20	24.55	26.33
24	30.15	30.72	.....	22.60	22.12	28.20	31.40	32.35	31.17	28.68	26.55	27.33
25	30.53	31.24	28.87	19.95	22.51	28.18	27.47	32.95	31.22	26.65	22.95	22.35

As-1--Continued.

Lowest daily water level, from recorder charts, 1948

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	29.31	31.33	27.33	22.06	31.40	23.99	34.07	33.47	29.35	27.90	22.53	22.35
27	30.58	31.00	26.80	22.65	31.10	22.40	34.30	33.22	30.64	28.82	22.40	22.57
28	30.90	30.25	.....	22.70	28.50	25.02	34.16	31.30	30.85	31.78	22.50	22.37
29	30.89	27.30	22.57	22.70	21.60	25.32	34.04	28.54	33.35	32.78	23.80	21.98
30	30.82		22.58	22.78	20.50	.....	38.96	30.66	33.50	28.85	24.20	22.57
31	30.97		32.88		30.45		36.30	30.40		26.10		21.98

Ashtabula County

Ab-1. K. K. Tisch. 3 miles south of Jefferson. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.63	.....	7.63	6.04	.....	.....	7.22	7.94	8.19	9.39	9.25	7.94
2	8.40	.....	7.53	6.27	5.55	.....	7.28	8.09	8.18	9.51	9.27	7.94
3	8.49	8.46	7.30	6.45	5.59	.....	7.26	8.12	8.14	9.62	9.21	7.80
4	8.49	8.45	7.49	6.49	5.60	.....	7.27	8.12	8.22	9.64	9.09	7.70
5	8.41	8.47	7.49	6.45	5.58	.....	7.28	8.12	8.29	9.64	9.07	7.65
6	8.41	8.50	7.49	6.35	5.58	.....	7.23	8.17	8.31	9.59	9.01	7.40
7	8.28	8.50	7.24	6.37	5.49	.....	7.32	8.18	8.50	9.59	9.16	7.40
8	8.28	8.67	7.07	6.33	5.45	.....	.....	8.22	8.33	9.55	9.19	7.47
9	8.11	.....	7.10	6.38	5.45	.....	.....	8.31	8.42	9.53	9.16	7.54
10	8.26	8.82	7.09	6.44	5.44	.....	.....	8.35	9.47	9.60	9.03	.....
11	8.28	8.82	7.12	6.33	.....	.....	.....	8.34	8.50	9.61	9.09	.....
12	8.19	8.73	.....	6.36	.....	.....	.....	8.17	8.56	9.64	9.09	.....
13	7.99	8.73	.....	6.44	.....	.....	7.44	8.07	8.64	9.64	8.99	.....
14	8.07	8.60	.....	6.42	.....	.....	7.46	8.07	8.77	9.71	8.92	7.58
15	.....	8.71	.....	6.32	.....	.....	7.50	8.07	8.83	9.76	8.83	7.57
16	.....	8.68	6.76	6.24	.....	.....	7.50	8.06	8.91	9.75	8.83	7.23
17	.....	8.38	6.91	6.26	.....	.....	7.51	8.05	8.93	9.73	8.69	7.24
18	.....	8.30	6.95	6.25	5.14	.....	7.58	8.02	8.92	9.66	8.74	7.29
19	.....	8.15	6.82	6.11	5.19	.....	7.62	7.94	8.88	9.57	8.73	7.18
20	.....	8.14	6.62	6.04	5.17	.....	7.66	7.94	8.87	9.45	8.44	6.90
21	7.93	8.15	6.58	6.05	4.90	.....	7.66	7.90	8.89	9.45	8.50	6.94
22	7.89	8.11	6.36	6.06	5.00	6.95	7.65	7.89	8.92	9.45	8.50	7.07
23	7.71	8.10	6.36	6.04	5.15	6.95	7.69	7.89	8.99	9.41	8.32	7.16
24	8.04	8.10	6.30	5.92	.....	6.93	7.77	7.85	9.20	9.36	8.30	7.17
25	.....	8.00	6.34	5.83	.....	6.91	7.80	7.86	9.34	9.36	8.20	7.29
26	.....	7.79	6.29	5.80	.....	6.98	7.79	7.94	9.42	9.35	8.19	7.42
27	8.29	7.66	5.99	5.76	.....	7.01	7.78	7.98	9.44	9.27	8.14	7.42
28	8.31	7.42	6.10	.....	.....	7.01	7.81	7.98	9.44	9.27	8.14	7.36
29	8.27	7.61	6.10	.....	.....	7.01	7.86	7.98	9.41	9.27	7.98	7.30
30	8.37		6.09	.....	.....	7.03	7.86	7.98	9.38	9.27	7.91	7.11
31	.....		6.09	.....	.....		7.86	8.11		9.26		7.10

Athens County

At-1. Athens State Hospital. In Athens. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.54	18.83	12.88	12.56	15.13	17.92	19.99	17.29	19.90	18.97	19.89	18.96
2	20.43	18.84	12.95	12.61	15.37	18.06	20.02	17.31	19.97	18.87	19.93	18.77
3	20.08	18.86	13.11	12.96	15.47	18.17	20.05	.....	20.06	18.82	19.94	18.62
4	19.70	18.91	13.40	13.31	15.47	18.30	20.10	.....	20.12	18.81	19.94	18.51
5	19.41	18.94	13.54	13.70	15.44	18.43	20.18	.....	20.18	18.84	19.94	18.43
6	19.20	18.98	13.64	14.07	15.27	18.53	20.13	.....	20.24	18.89	19.94	18.37
7	19.03	18.99	13.90	14.26	15.06	18.60	20.12	.....	20.27	18.96	19.89	18.35
8	18.90	19.04	14.07	14.57	15.03	18.68	20.12	17.91	20.30	19.02	19.75	18.35
9	18.80	19.08	14.24	14.81	14.86	18.76	20.14	18.02	20.33	19.08	19.63	18.37
10	18.75	19.10	14.47	14.95	14.99	18.85	20.17	18.11	20.36	19.14	19.54	18.43
11	18.70	19.14	14.70	15.23	15.18	18.93	20.19	18.22	20.38	19.20	19.51	18.44

At-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
12	18.64	19.17	14.88	15.24	15.35	19.01	20.24	18.30	20.41	19.26	19.47	18.52
13	18.63	19.17	15.06	11.90	15.35	19.07	20.27	18.37	20.45	19.32	19.41	18.56
14	18.62	19.10	15.22	2.65	15.28	19.14	20.28	18.45	20.48	19.39	19.39	18.59
15	18.64	18.18	15.38	....	15.16	19.22	20.27	18.52	20.52	19.45	19.36	18.57
16	18.73	.....	15.46	....	15.08	19.27	20.26	18.61	.....	19.51	19.35	18.12
17	18.77	.....	15.38	7.81	15.20	19.33	.....	18.70	.....	19.55	19.39	.....
18	18.82	.....	14.20	9.18	15.30	19.37	20.36	18.79	.....	19.57	19.42	.....
19	18.86	.....	13.13	10.08	15.37	19.45	20.36	18.88	20.68	19.55	19.42	13.59
20	18.91	13.96	13.94	10.72	15.37	19.49	20.38	18.97	20.67	19.55	19.47	13.57
21	18.95	14.04	13.79	11.31	14.76	19.54	20.41	19.05	20.43	19.58	19.49	13.41
22	19.02	14.41	14.09	11.70	15.57	19.59	20.41	19.14	19.98	19.60	19.51	13.67
23	19.08	14.60	14.33	12.06	15.80	19.65	20.28	19.22	19.58	19.62	19.51	13.85
24	19.10	14.85	14.53	12.40	15.94	19.70	19.94	19.30	19.33	19.66	19.53	14.02
25	19.14	15.01	14.57	12.71	.....	19.74	18.84	19.39	19.19	19.68	19.55	14.36
26	19.20	15.04	14.70	13.00	.....	19.77	17.91	19.48	19.09	19.72	19.58	14.83
27	19.26	15.03	14.72	14.14	.....	.....	17.51	19.53	19.05	19.74	19.60	15.06
28	19.28	13.73	14.20	.....	.....	.....	17.32	19.63	19.03	19.78	19.55	15.24
29	19.34	13.30	11.54	14.57	17.58	.....	17.22	19.70	19.05	19.80	19.36	15.46
30	19.34	.....	11.60	14.90	17.64	20.00	17.19	19.78	19.05	.....	19.19	15.46
31	18.86	.....	12.42	.....	17.78	.....	17.21	19.85	.....	19.86	.....	15.45

Auglaize County

Au-1. C. W. Manchester. At New Hampshire, 3 miles west of U. S. Highway 33. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.47	15.48	15.70	14.93	14.73	15.00	15.77	16.47	17.55	18.52	19.36	18.83
2	15.33	15.52	15.64	14.96	14.71	15.07	15.81	16.57	17.77	18.55	19.36	18.72
3	15.43	15.50	15.71	14.97	14.69	15.08	15.82	16.66	17.66	18.61	19.32	18.60
4	15.33	15.52	15.76	14.95	14.68	15.27	15.89	16.62	17.64	18.60	19.32	18.52
5	15.30	15.57	15.79	14.92	14.67	15.40	15.88	16.56	17.62	18.60	19.33	18.44
6	15.28	.....	15.77	14.96	14.70	15.20	15.93	16.59	17.68	18.66	19.28	18.33
7	15.27	15.58	15.76	14.74	14.62	15.06	15.96	16.61	17.64	18.66	19.32	18.30
8	15.26	15.67	15.72	14.77	14.68	15.05	15.96	16.71	17.67	18.68	19.33	18.22
9	15.22	15.71	15.68	14.81	14.68	15.09	16.00	16.80	17.76	18.74	19.32	.....
10	15.26	15.69	15.57	14.79	14.73	15.32	16.15	16.95	17.76	18.79	19.32	.....
11	15.26	15.60	15.51	14.69	14.76	15.27	16.20	16.97	17.82	18.72	19.37a	18.07
12	15.21	15.65	15.46	14.66	14.65	15.20	16.08	17.01	17.85	18.74	19.35	.....
13	15.20	.....	15.43	14.64	14.64	15.12	16.10	17.06	17.93	18.76	19.30	.....
14	15.15	15.68	15.41	14.50	14.55	15.17	16.12	17.02	17.94	18.83	19.35	.....
15	15.15	15.73	15.34	14.58	14.59	15.19	16.17	17.00	18.03	18.85	19.35	.....
16	15.22	15.69	15.47	14.60	14.54	15.29	16.17	16.95	18.05	18.90	19.34	.....
17	15.22	15.72	15.39	14.71	14.55	15.33	16.19	16.98	18.11	18.90	19.29	.....
18	15.29	15.72	15.38	14.61	14.59	15.31	16.17	16.98	18.12	18.91	19.29a	17.59
19	15.30	15.73	.....	14.63	14.64	15.45	16.22	16.95	18.12	18.93	19.26	.....
20	15.24	15.76	15.24	14.63	14.62	15.43	16.28	16.97	18.10	18.99	19.12	.....
21	15.23	15.76	15.23	14.67	14.60	15.48	16.40	17.05	18.07	18.99	19.14	.....
22	15.23	15.79	15.20	14.72	14.81	15.49	16.27	17.07	18.09	18.99	19.13	.....
23	15.31	15.81	15.20	14.72	14.66	15.63	16.25	17.13	18.32	19.03	19.13	.....
24	15.32	15.82	15.12	14.72	14.66	15.58	16.26	17.19	18.18	19.07	19.06	.....
25	15.40	15.90	15.11	14.70	14.71	15.54	16.28	17.28	18.25	19.08	19.03a	17.10
26	15.38	15.89	15.06	14.70	14.73	15.66	16.30	17.41	18.30	19.13	19.01	.....
27	15.37	15.72	14.91	14.67	14.97	15.58	16.27	17.40	18.41	19.16	18.97	.....
28	15.37	15.61	14.97	14.70	14.88	15.61	16.37	17.56	18.43	19.19	18.95	.....
29	15.35	15.71	14.94	14.70	14.80	15.65	16.38	17.51	18.39	19.24	19.13	.....
30	15.41	.....	14.95	14.70	14.89	15.72	16.37	17.50	18.64	19.29	19.00	.....
31	15.47	.....	14.92	.....	14.95	.....	16.47	17.62	.....	19.33	.....	.....

a Estimated.

Au-2. City of St. Marys. In St. Marys. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.43	4.50	3.30	3.80	3.91	3.67	5.45	3.00	6.16	6.33	6.52	5.54
2	3.90	4.52	3.23	4.24	3.30	4.84	5.52	3.11	6.02	6.40	6.66	5.54
3	4.26	4.62	3.50	4.24	3.54	4.88	5.46	3.23	6.05	6.40	6.54	5.56
4	4.12	4.58	3.96	4.09	3.65	4.81	5.45	3.25	6.08	6.38	6.55	5.51
5	4.36	4.70	4.06	3.70	3.89	4.90	3.82	3.28	5.97	6.28	6.54	4.86
6	4.40	4.73	3.96	3.76	3.89	4.88	4.82	2.26	5.27	6.28	6.46	5.28
7	4.50	4.72	3.51	....	3.80	4.74	5.22	3.13	5.65	6.18	6.40	5.33
8	4.42	4.20	3.45	....	4.00	4.77	5.52	3.80	5.80	6.18	6.33	5.61
9	4.46	....	3.55	....	3.94	5.02	5.56	4.86	5.95	6.18	6.18	5.73
10	4.65	4.62	3.70	....	3.90	5.12	5.53	5.14	6.02	6.14	6.22	5.89
11	4.60	4.64	3.86	....	4.12	5.14	5.48	5.28	5.98	6.17	6.34	5.83
12	4.29	4.72	....	....	4.33	5.06	5.15	5.37	6.00	6.28	6.31	4.85
13	4.40	4.58	....	....	4.23	4.87	5.32	5.50	6.13	6.32	6.26	5.23
14	4.56	3.86	....	....	4.24	4.90	5.46	5.62	6.26	6.44	6.26	5.42
15	4.56	3.73	....	....	4.21	5.07	5.50	5.60	6.29	6.48	6.04	5.31
16	4.69	3.82	....	....	4.00	5.20	5.50	5.42	6.33	6.29	6.04	4.32
17	4.66	3.88	3.59	....	3.98	5.25	5.55	5.58	6.32	6.10	6.12	4.75
18	4.22	3.82	3.67	....	4.28	5.23	5.43	5.64	6.20	6.22	6.12	4.72
19	4.32	3.78	3.44	....	4.50	5.22	5.31	5.79	6.98	6.29	6.03	3.92
20	4.39	3.98	3.20	....	4.46	5.30	5.45	5.85	6.07	6.43	5.65	4.27
21	4.20	3.90	2.75	....	4.26	5.32	5.45	5.87	6.04	6.40	5.74	4.62
22	4.35	3.37	3.00	4.00	4.46	5.30	5.48	5.82	6.06	6.35	5.74	5.08
23	4.74	3.77	3.03	4.00	4.29	5.32	5.60	5.70	6.10	6.31	5.77	5.14
24	4.68	3.90	3.07	3.90	4.42	5.30	5.68	5.75	6.22	6.25	5.77	5.03
25	4.12	3.85	3.36	3.56	4.60	5.36	5.58	5.83	6.34	6.16	....	2.61
26	4.60	3.65	3.27	3.57	4.73	5.40	2.73	5.93	6.34	6.26	5.16	2.27
27	4.66	3.61	2.84	3.74	4.73	5.28	2.39	6.02	6.38	6.29	5.00	2.40
28	4.69	2.97	2.28	3.90	4.76	5.08	3.13	6.04	6.30	6.31	4.98	2.44
29	4.64	2.99	2.75	4.00	4.91	5.16	3.26	5.98	6.20	6.28	5.25	2.31
30	4.72	....	3.22	4.03	4.88	5.26	3.65	5.86	6.20	6.08	5.45	2.22
31	4.66	....	3.39	....	4.45	....	3.28	6.06	....	6.02	....	2.21

Belmont County

B-1. City of Martins Ferry. At Martins Ferry, in pump house at municipal water works, west of Ohio Valley pike, near Ohio River lock and dam No. 12. Drilled well, diameter 40 inches, depth 79 feet. Measuring point, floor of recorder platform, 14.0 feet above land-surface datum. Automatic water-stage recorder installed June 6, 1948. Records available: 1948.

Lowest daily water level, from recorder charts

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.44	35.46	36.70	36.88	36.47	....
2	34.57	35.80	36.58	36.75	36.56	....
3	35.30	35.68	36.63	36.85	36.35	....
4	35.15	35.45	36.67	36.88	....	....
5	34.35	34.97	36.30	36.80	....	....
6	35.06	33.45	36.52	36.88	....	....
7	35.39	33.82	36.56	37.45	....	....
8	35.16	34.37	36.48	37.40	....	....
9	35.40	34.68	36.47	37.21	....	....
10	34.97	35.14	36.60	36.59	....	....
11	35.76	34.95	36.61	37.15	....	....
12	36.00	33.74	36.40	37.17	....	....
13	35.94	33.50	36.60	37.39	....	....
14	35.19	33.85	36.30	37.14	....	....
15	34.76	34.75	36.61	37.04	....	....
16	34.67	35.26	36.77	37.24	....	....
17	34.15	35.40	36.67	37.05	....	....
18	34.10	35.84	36.62	....	....	....
19	34.87	35.82	35.92	....	....	....
20	34.84	35.59	36.45	....	....	....
21	34.97	35.68	36.56	....	....	....

B-1--Continued.

Lowest daily water level, from recorder charts

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
22	.....	34.77	35.57	.....	.....	.....	.....
23	.....	33.46	35.84	36.70	.....	.....	29.35
24	33.83	32.12	35.83	36.16	.....	.....	30.16
25	34.07	31.80	35.83	36.60	.....	.....	31.51
26	33.54	33.95	36.50	36.28	.....	.....	32.10
27	33.10	33.60	36.44	36.57	36.50	.....	33.25
28	34.02	33.92	36.55	36.78	36.73	.....	33.70
29	34.52	34.33	36.42	36.74	36.50	.....	33.51
30	34.43	34.47	36.17	36.70	36.26	.....	32.73
31		35.07	36.51		36.13		31.01

Butler County

12-1. Village of Trenton. Municipal water-supply well. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level
Jan. 13	33.39	May 18	30.55	Dec. 21	34.23
Mar. 2	32.37	June 29	33.63		

25-5. Middletown Waterworks. In Middletown. Records available: 1941-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.80	32.35	27.75	22.40	23.49	26.81	29.19	30.42	32.57	33.40	33.84	31.75
2	34.80	32.40	27.54	22.78	23.54	27.05	29.15	30.47	32.67	33.44	33.87	31.67
3	34.62	32.50	27.60	23.08	23.75	27.28	29.17	30.56	32.72	33.45	33.85	31.60
4	33.50	32.60	27.67	23.27	23.77	27.51	29.17	30.58	32.72	33.45	33.90	31.56
5	32.36	32.70	27.70	23.56	23.92	27.77	29.02	30.61	32.72	33.48	33.93	31.50
6	31.77	32.76	27.74	23.64	23.95	27.87	29.08	30.67	32.69	33.57	33.92	31.47
7	31.45	32.81	27.83	23.56	24.07	28.00	29.20	30.71	32.52	33.67	33.74	31.50
8	31.30	32.88	27.90	22.00	24.20	28.10	29.37	30.81	32.60	33.68	33.43	31.54
9	31.23	32.90	27.95	21.95	24.18	28.24	29.53	30.91	32.63	33.67	33.19	31.60
10	31.21	32.94	28.05	22.13	24.30	28.40	29.65	31.02	32.67	33.73	33.00	31.72
11	31.17	32.97	28.17	22.40	24.54	28.54	29.73	30.93	32.66	33.75	32.87	31.74
12	31.08	33.07	28.27	22.40	24.68	28.70	29.80	31.02	32.67	33.72	32.77	31.65
13	30.98	33.08	28.39	22.08	24.70	28.70	29.83	31.10	32.76	33.78	32.74	31.67
14	31.00	33.05	28.45	18.90	24.66	28.80	29.82	31.10	32.88	33.78	32.72	32.67
15	31.03	31.20	28.50	18.65	24.63	28.89	29.83	31.23	32.97	33.72	32.72	32.72
16	31.10	26.90	28.58	19.29	24.61	28.97	29.83	31.28	33.09	33.80	32.70	32.72
17	31.18	25.96	28.58	19.81	24.50	29.07	29.82	31.38	33.15	33.80	32.70	32.32
18	31.28	26.12	28.50	20.25	24.60	29.16	29.72	31.45	33.18	33.67	32.74	31.55
19	31.35	26.41	28.37	20.61	24.76	29.16	29.68	31.50	33.23	33.58	32.76	30.95
20	31.33	26.60	28.37	20.47	24.87	29.13	29.65	31.62	33.33	33.54	32.78	30.67
21	31.46	26.77	28.27	21.99	25.01	28.04	29.62	31.75	33.45	33.60	32.72	30.51
22	31.55	26.97	28.16	21.31	25.13	29.16	29.61	31.75	33.57	33.69	32.58	29.47
23	31.64	27.15	28.00	21.62	25.13	29.31	29.60	31.79	33.40	33.72	32.35	29.46
24	31.70	27.40	27.85	21.90	25.35	29.32	29.68	31.92	33.36	33.74	32.22	29.45
25	31.78	27.57	27.57	22.13	25.52	29.25	29.70	32.00	33.38	33.74	32.12	29.35
26	31.90	27.75	25.60	22.43	25.76	29.39	29.83	32.14	33.40	33.72	32.10	29.30
27	32.00	27.88	25.10	22.68	25.99	29.43	29.84	32.34	33.35	33.77	32.05	29.23
28	32.08	27.96	22.79	22.92	26.23	29.49	29.98	32.38	33.27	33.77	32.02	29.30
29	32.14	27.95	21.12	23.14	26.44	29.48	30.07	32.40	33.32	33.77	31.94	29.30
30	32.22		21.50	23.38	26.55	29.40	30.22	32.47	33.36	33.77	31.90	29.33
31	32.30		21.95		26.70		30.34	32.50		33.77		29.22

29-1. Young Men's Christian Association. In Middletown. Records available; 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	35.31	Apr. 13	25.44	July 13	31.74	Oct. 12	36.53
13	34.28	20	23.66	20	31.83	19	36.38
20	34.36	27	24.94	27	31.99	26	36.61
27	34.75	May 4	25.83	Aug. 3	32.68	Nov. 2	36.63
Feb. 3	35.26	11	26.33	10	33.08	9	36.36
10	35.69	18	26.63	17	33.51	16	35.64
17	30.81	25	27.27	24	34.06	23	35.45
24	30.90	June 1	28.23	31	34.52	30	34.76
Mar. 9	31.08	8	26.32	Sept. 7	34.86	Dec. 7	34.47
16	31.47	15	30.16	14	35.06	14	34.49
23	30.99	22	30.77	21	35.72	21	32.80
30	26.19	29	31.41	28	35.73	28	32.22
Apr. 6	27.08	July 6	31.06	Oct. 6	36.11		

29-2. Young Men's Christian Association. In Middletown. Records available: 1942-48.

Feb. 3	46.83	May 11	34.14	Aug. 10	44.35	Oct. 19	46.35
10	47.15	18	34.98	17	43.76	26	47.18
17	34.14	20	35.72	24	45.15	Nov. 2	46.38
Mar. 9	43.26	June 1	35.62	31	45.21	9	46.79
16	42.05	8	37.02	Sept. 7	45.18	16	45.55
23	41.52	15	39.51	14	45.96	23	45.47
Apr. 13	35.46	22	40.45	21	46.30	30	43.65
20	34.09	July 6	40.34	28	45.93	Dec. 7	44.73
27	33.87	13	41.83	Oct. 12	46.61	28	42.39
May 4	33.38	27	42.73				

33-1. Prairie State Paper Mills. In Middletown. Records available: 1939-48.

Jan. 6	40.23	Apr. 6	32.56	July 6	34.17	Oct. 6	40.20
13	39.77	13	31.02	13	34.93	12	40.28
20	39.53	20	28.55	20	35.60	19	40.33
27	39.44	27	28.06	27	35.82	26	40.18
Feb. 3	39.72	May 4	28.39	Aug. 3	36.38	Nov. 2	40.44
10	40.07	11	28.64	10	36.85	9	40.48
17	39.80	18	29.26	17	36.72	16	40.45
24	38.23	25	29.64	24	37.57	23	40.17
Mar. 2	37.31	June 1	30.18	31	38.50	30	39.64
9	36.98	8	30.76	Sept. 7	38.43	Dec. 7	39.01
16	36.85	15	31.83	14	39.22	14	38.80
23	36.63	22	32.68	21	39.81	21	38.27
30	34.99	29	33.75	28	40.02	28	37.07

36-13. American Rolling Mill Co. In Middletown. Records available: 1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	97.05	96.43	97.30	97.87	97.95	100.74
2	97.40	96.45	97.30	97.82	97.80	100.80
3	97.38	96.60	97.35	97.83	97.95	100.84
4	97.13	96.80	97.51	97.62	98.13	100.74
5	97.30	97.01	97.50	97.38	98.20	100.92
6	97.08	97.17	97.40	97.57	98.02	100.91
7	97.03	97.19	97.00	97.65	98.34	100.97
8	96.73	97.20	96.92	97.83	98.42	101.24
9	96.47	96.81	97.40	97.91	98.43	101.40
10	96.25	96.90	97.18	97.80	98.53	101.55
11	95.56	97.04	97.39	97.30	98.55	101.64
12	95.63	97.14	97.46	97.10	98.55	101.65
13	96.27	97.17	97.50	97.10	99.88	101.51

36-13--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
14	96.60	97.40	97.22	97.24	99.58	101.23
15	96.85	97.25	96.90	97.24	99.68	101.43
16	97.24	96.99	97.23	97.39	99.07	101.58
17	97.30	97.17	97.36	97.37	99.00	101.66
18	97.10	97.20	97.40	97.15	99.15	101.77
19	96.60	97.50	97.60	96.80	99.31	101.82
20	96.62	97.52	97.57	96.82	99.47	101.67
21	96.64	97.46	97.52	97.00	99.73	101.12
22	96.99	96.93	97.26	97.01	99.75	101.51
23	97.12	97.05	97.55	97.02	99.45	101.74
24	97.10	97.20	97.68	97.05	99.21	101.96
25	96.65	97.26	97.70	96.88	99.70	102.07
26	96.38	97.43	97.75	96.61	99.92	102.23
27	96.71	97.46	97.93	96.66	100.17	102.10
28	96.71	97.73	97.80	97.17	100.34	101.96
29	96.70	97.50	97.50	97.61	100.50	101.66
30	96.90		97.50	97.91	100.52	101.82
31	96.86		97.52		100.66	

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	101.90	104.32	106.46	109.62	112.52	112.40
2	101.94	104.08	106.62	109.76	112.52	111.80
3	100.97	104.35	106.76	109.75	112.57	111.61
4	101.90	104.56	106.89	109.43	112.55	111.72
5	101.33	104.77	106.89	109.69	112.53	111.72
6	101.25	104.95	106.34	109.84	112.64	111.36
7	100.83	105.09	105.91	110.05	112.30	111.45
8	100.78	105.10	106.19	110.24	111.73	111.82
9	101.04	105.10	106.52	110.34	111.54	112.05
10	101.17	105.23	106.75	110.32	111.67	112.22
11	101.16	105.36	106.95	110.14	111.70	112.31
12	100.98	105.54	106.97	110.26	111.68	112.30
13	101.18	105.71	106.68	110.37	111.77	112.46
14	101.35	105.84	107.12	110.55	111.69	112.46
15	101.49	105.83	107.52	110.72	111.40	112.23
16	101.68	105.30	107.83	110.91	111.46	112.42
17	101.81	105.41	108.06	110.99	111.69	112.53
18	101.78	105.54	108.18	110.72	111.85	112.52
19	101.90	.....	108.17	111.07	112.07	112.41
20	102.26	.....	108.00	111.26	112.17	112.03
21	102.54	.....	108.32	111.52	112.15	112.28
22	102.85	.....	108.57	111.76	111.74	112.44
23	103.16	.....	108.82	111.97	111.82	112.53
24	103.27	106.05	109.03	112.01	112.02	112.55
25	103.26	106.20	109.14	111.77	112.16	112.31
26	103.17	106.19	109.14	112.05	112.32	111.86
27	103.46	106.08	108.91	112.30	112.45	111.28
28	103.75	106.20	109.09	112.55	112.39	112.30
29	103.98	.....	109.28	112.76	112.28	111.66
30	104.22	.....	109.44	112.86	112.32	111.74
31	104.32	106.35		112.85		111.62

85-7. Hamilton Waterworks. In Fairfield Township. Records available: 1939-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.63	28.11	24.41	21.12	21.59	24.69	25.38	28.11	30.20	28.65	28.71	26.17
2	27.46	28.05	24.43	21.56	21.58	24.92	25.28	.....	30.20	28.64	28.77	27.05
3	26.45	28.11	.....	21.87	21.61	25.10	25.83	28.42	30.20	28.45	28.82	27.25
4	26.07	28.28	.....	22.00	21.42	25.77	26.62	28.42	30.20	28.42	28.82	26.44
5	26.05	28.37	.....	22.37	21.43	25.50	27.30	28.37	29.61	28.50	28.72	26.28
6	26.22	28.40	.....	22.45	22.04	26.03	27.40	28.06	29.50	28.50	28.41	26.40

85-7--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	.....	28.44	.....	21.61	22.21	25.58	27.52	28.10	30.10	28.53	27.94	27.47
8	.....	28.45	.....	.....	22.28	25.26	27.14	27.68	30.17	28.29	27.54	.....
9	.....	28.45	27.10	.....	22.30	24.29	27.70	27.58	30.17	27.98	27.59	.....
10	.....	28.60	25.70	.....	22.24	24.34	27.84	28.18	30.17	27.98	27.74	.....
11	.....	28.70	25.97	.....	21.92	24.39	27.92	28.28	30.17	27.88	27.78	27.25
12	25.90	28.75	25.92	.....	21.97	26.10	27.94	28.50	30.12	28.77	28.04	27.54
13	26.94	28.60	26.01	18.69	21.90	26.35	27.99	28.68	30.12	29.15	28.25	27.67
14	27.07	27.75	26.05	18.25	21.70	26.42	27.88	28.69	30.12	29.32	28.08	27.75
15	26.65	24.32	25.92	17.84	21.66	26.52	27.28	28.55	29.73	29.37	28.14	27.20
16	27.38	22.68	25.94	17.96	21.64	26.39	27.51	28.50	29.74	28.55	28.20	27.20
17	27.60	22.90	25.25	18.22	21.70	26.15	27.55	28.62	29.75	28.51	28.20	25.95
18	27.08	23.20	24.86	18.58	21.88	26.12	27.57	28.71	29.75	29.00	28.20	25.77
19	27.62	23.70	25.03	19.02	22.01	26.26	27.30	28.77	28.90	29.17	28.20	25.67
20	27.40	24.77	24.47	19.45	22.14	26.32	28.00	28.86	29.48	29.25	28.08	25.12
21	27.51	25.35	24.15	19.71	22.30	26.24	27.42	28.90	29.50	29.33	27.41	28.84
22	27.93	25.68	24.05	20.07	22.40	26.37	27.50	28.81	29.55	29.38	25.10	.....
23	28.10	.....	24.05	20.32	22.42	26.62	27.51	28.81	29.40	29.27	27.58	26.95
24	28.22	26.13	23.85	20.50	22.46	26.66	27.62	29.16	28.69	28.90	27.70	27.28
25	28.30	26.23	23.18	20.81	22.70	27.00	27.66	29.35	28.78	28.87	26.76	27.07
26	28.30	25.36	22.77	21.00	24.30	27.13	27.12	29.37	28.49	28.97	26.53	27.14
27	28.40	25.40	22.70	22.53	24.45	27.24	27.27	29.37	28.43	29.09	26.68	27.20
28	28.55	.....	19.93	22.67	23.20	27.25	27.42	29.38	28.57	29.13	25.12	27.45
29	28.58	24.65	19.71	22.57	23.25	27.25	27.45	29.38	28.68	29.13	24.17	27.54
30	28.19	.....	20.10	21.55	23.30	25.40	28.74	29.38	28.75	29.02	26.14	27.18
31	.....	20.74	.....	23.45	.....	29.10	30.20	.....	28.51	.....	26.82	.....

86-7. City of Hamilton. In Fairfield Township. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.60	Apr. 13	8.30	July 13	11.48	Oct. 12	14.74
13	13.44	20	7.22	20	11.78	19	14.95
20	13.79	27	7.48	Aug. 3	12.41	26	15.08
27	13.90	May 4	7.79	10	11.74	Nov. 2	15.27
Feb. 3	14.29	11	8.10	17	13.00	9	14.88
17	12.65	18	8.27	24	13.35	16	14.86
24	12.45	25	8.60	31	13.70	23	14.59
Mar. 2	12.10	June 1	9.06	Sept. 7	13.98	30	14.37
9	12.15	8	9.52	14	14.20	Dec. 7	14.25
16	12.18	22	10.52	21	14.44	14	14.46
23	11.82	29	10.98	28	14.50	21	13.70
30	9.97	July 6	11.24	Oct. 6	14.58	28	13.62

104-2. McGreevy Dairy Co. In Hamilton. Records available: 1942-48.
Jan. 13, 35.00.

B-1. Ohio State Highway Department. Along State Highway 4. in Fairfield Township. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	31.84	Apr. 6	33.47	July 20	31.43	Oct. 12	33.30
13	32.07	13	32.04	27	31.52	19	33.52
20	32.28	20	32.08	Aug. 3	31.63	26	33.75
27	32.52	27	31.35	10	31.73	Nov. 2	33.96
Feb. 3	32.69	May 4	31.00	17	31.86	9	34.19
10	32.87	11	30.96	24	32.00	16	34.40
17	33.00	18	30.95	31	32.17	23	34.62
24	33.16	25	30.95	Sept. 7	32.32	30	34.79
Mar. 2	33.23	June 1	30.97	14	32.52	Dec. 7	35.01
9	33.32	8	31.01	21	32.70	14	35.18
16	33.39	22	31.10	28	32.87	22	35.33
23	33.43	29	31.16	Oct. 5	33.13	28	35.45
30	33.45	July 13	31.32				

B-2. Ohio State Highway Department. Along U. S. Highway 127, in Fairfield Township. Measurements discontinued after Sept. 14. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	32.69	Mar. 9	31.31	May 11	27.14	July 20	30.70
13	32.59	16	31.15	18	27.31	27	30.70
20	32.60	23	30.78	25	27.60	Aug. 3	30.96
27	32.78	30	29.88	June 1	28.00	10	31.19
Feb. 3	32.83	Apr. 6	29.28	8	28.37	17	31.49
10	32.96	13	28.56	22	29.25	24	31.58
17	31.98	20	27.37	29	29.66	31	32.30
24	31.82	27	26.99	July 6	30.02	Sept. 7	37.64
Mar. 2	31.65	May 4	27.00	13	30.39	14	37.86

B-4. A. H. Kollstadt. In Fairfield Township. Records available: 1942-48.

Jan. 6	26.06	Apr. 13	21.27	July 20	26.90	Oct. 12	28.83
13	25.92	20	20.73	27	27.07	19	28.83
20	26.56	27	23.02	Aug. 3	27.05	26	28.92
27	27.09	May 4	23.44	10	27.28	Nov. 2	29.52
Feb. 3	27.39	11	23.51	17	27.59	9	28.20
10	27.59	18	23.42	24	28.23	16	28.13
17	23.78	25	24.14	31	28.01	23	27.47
24	24.49	June 1	24.96	Sept. 7	28.24	30	27.22
Mar. 2	24.50	8	25.48	14	28.40	Dec. 7	27.10
16	25.62	22	26.26	21	28.54	14	27.57
23	24.56	29	26.34	28	28.61	22	25.76
30	20.62	July 6	26.53	Oct. 5	28.72	28	26.30
Apr. 6	22.58	13	26.98				

B-11. Fred Bandtel. In Fairfield Township. Records available: 1942-48.

Jan. 6	30.93	Apr. 6	23.61	July 6	26.16	Oct. 5	32.23
13	30.62	13	22.27	13	27.23	12	32.78
20	30.77	20	21.66	20	27.78	19	33.13
27	31.30	27	21.97	27	27.05	26	33.58
Feb. 3	31.43	May 4	22.14	Aug. 3	27.59	Nov. 2	33.88
10	31.83	11	22.47	10	28.00	9	33.41
17	29.31	18	22.87	17	28.70	16	33.36
24	28.05	25	23.20	24	29.28	23	33.57
Mar. 2	26.57	June 1	23.70	31	30.52	30	33.27
9	26.32	8	23.99	Sept. 7	30.32	Dec. 7	32.64
16	26.06	15	24.63	14	30.99	14	32.90
23	25.23	22	25.18	21	31.29	22	30.97
30	23.74	29	25.61	28	31.79	28	30.48

B-23. Carl E. Schiering. In Fairfield Township. Records available: 1943-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.57	21.17	19.45	17.06	16.04	18.26	.....	21.07	22.28	23.06	23.60	23.52
2	21.53	21.20	19.30	17.09	16.13	.....	.....	21.12	22.31	23.08	23.60	23.45
3	21.48	21.20	19.23	17.12	16.23	.....	.....	21.15	22.34	23.10	23.60	23.38
4	21.35	21.22	19.20	17.12	16.27	.....	.....	21.17	22.36	23.11	23.62	23.34
5	21.23	21.25	19.20	17.12	16.31	.....	.....	21.18	22.38	23.15	23.63	23.30
6	21.15	21.27	19.17	17.13	16.32	.....	20.45	21.22	22.42	23.16	23.62	23.25
7	21.12	21.28	19.13	17.02	16.42	.....	20.50	21.25	22.48	23.18	23.51	23.25
8	21.06	21.33	19.15	16.86	16.47	.....	20.55	21.29	22.52	23.21	23.39	22.22
9	21.00	21.35	19.18	16.75	16.55	.....	20.61	21.37	22.53	23.22	23.27	22.22
10	21.00	21.37	19.20	16.71	16.60	.....	20.67	21.50	22.57	23.24	23.19	22.22
11	20.97	21.39	19.25	16.63	16.71	.....	20.72	21.58	22.58	23.26	23.18	22.22
12	20.90	21.40	19.27	16.62	16.78	.....	20.77	21.67	22.60	23.30	23.16	22.22
13	20.86	21.40	19.29	16.39	16.79	.....	20.84	21.74	22.64	23.31	23.13	22.25
14	20.85	21.35	19.29	15.90	16.80	.....	20.88	21.73	22.65	23.32	23.11	22.27

B-23--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	20.85	20.78	19.29	15.46	16.81	.....	20.92	21.72	22.66	23.33	23.10	22.25
16	20.86	20.20	19.50	15.09	16.85	.....	20.96	21.74	22.70	23.36	23.10	22.16
17	20.86	19.93	19.30	14.90	16.93	.....	20.97	21.79	22.72	23.37	23.10	22.00
18	20.87	19.76	19.27	14.84	17.01	.....	20.98	21.82	22.74	23.37	23.10	21.82
19	20.87	19.65	19.20	14.85	17.07	.....	20.97	21.85	22.77	23.38	23.10	21.62
20	20.88	19.64	19.18	14.96	17.11	.....	20.97	21.88	21.80	23.42	23.05	21.50
21	20.87	19.63	19.10	15.06	17.20	.....	20.95	21.90	22.95	23.42	22.98	21.45
22	20.90	19.61	19.01	15.13	17.30	.....	20.94	21.94	22.95	23.42	22.88	21.37
23	20.95	19.64	18.95	15.22	17.38	.....	20.80	21.97	22.96	23.44	23.75	21.33
24	20.96	19.65	18.90	15.32	17.50	.....	20.73	22.00	22.98	23.47	23.74	21.27
25	21.01	19.65	18.78	15.42	17.61	.....	20.73	22.01	23.01	23.48	23.72	21.24
26	21.03	19.65	18.57	15.52	17.69	.....	20.80	22.05	23.04	23.50	23.71	21.23
27	21.06	19.65	18.58	15.64	17.77	.....	20.89	22.08	23.00	23.50	23.71	21.22
28	21.07	19.60	17.96	15.75	17.87	.....	20.96	22.12	23.02	23.54	23.69	21.24
29	21.09	19.56	17.50	15.85	17.97	.....	20.98	22.15	23.01	23.56	23.65	21.24
30	21.12		17.20	15.94	18.06	.....	21.02	22.18	23.05	23.57	23.58	21.22
31	21.15		17.11	.....	.....	.....	21.03	22.24		23.57		21.16

B-30-D. City of Hamilton. On Pleasant Ave., in Hamilton. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	31.15	Apr. 6	31.40	July 13	30.02	Oct. 12	32.45
13	31.30	13	31.20	20	30.22	19	32.62
20	31.42	20	30.70	27	30.35	26	32.80
27	31.52	27	30.24	Aug. 3	30.52	Nov. 2	32.96
Feb. 3	31.63	May 4	29.96	10	30.67	9	33.09
10	31.76	11	29.75	17	30.85	16	33.76
17	30.85	18	29.58	24	32.00	23	33.23
24	31.84	25	29.48	31	32.21	30	33.24
Mar. 2	31.82	June 1	29.35	Sept. 7	31.43	Dec. 7	33.22
9	31.76	8	29.28	14	31.64	14	33.20
16	31.71	22	29.48	21	31.85	21	33.15
23	31.65	29	29.66	28	32.06	28	33.08
30	31.57	July 6	29.82	Oct. 6	32.25		

B-30-M. City of Hamilton. On Pleasant Ave., in Hamilton. Records available: 1943-48.

Jan. 6	32.92	Apr. 6	30.22	July 13	30.80	Oct. 12	33.41
13	32.70	13	29.63	20	31.03	19	33.54
20	32.60	20	28.77	27	30.99	26	33.69
27	32.73	27	28.40	Aug. 3	31.19	Nov. 2	33.85
Feb. 3	32.93	May 4	28.55	10	31.36	9	33.74
10	33.75	11	28.70	17	31.59	16	33.63
17	31.47	18	28.79	24	31.86	23	33.57
24	32.20	25	28.90	31	32.13	30	33.37
Mar. 2	31.85	June 1	29.13	Sept. 7	32.39	Dec. 7	33.20
9	31.66	8	29.43	14	32.63	14	33.14
16	31.69	22	29.98	21	32.85	21	32.87
23	30.60	29	30.28	28	33.05	28	32.53
30	31.03	July 6	30.52	Oct. 6	33.24		

B-30-S. City of Hamilton. On Pleasant Ave., in Hamilton. Records available: 1943-48.

Jan. 6	33.20	Mar. 2	32.41	Apr. 27	29.43	June 29	30.40
13	33.07	9	32.13	May 5	29.29	July 6	30.63
20	32.96	16	32.05	11	29.26	13	30.90
27	32.97	23	31.96	18	29.27	20	31.15
Feb. 3	33.09	30	31.65	25	29.30	27	31.26
10	32.62	Apr. 6	31.05	June 1	29.44	Aug. 3	31.41
17	33.16	13	30.55	8	29.63	10	31.57
24	32.76	20	29.98	22	30.12	17	31.78

B-30-S--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 24	31.99	Sept. 28	33.15	Nov. 2	33.96	Dec. 7	33.65
31	33.25	Oct. 6	33.35	9	33.99	14	33.55
Sept. 7	32.49	12	32.54	16	33.95	21	33.35
14	32.74	19	33.68	23	33.92	28	33.10
21	32.95	26	33.81	30	33.78		

B-40. Federal Works Agency. In Fairfield Township. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	50.80	50.76	46.70	43.15	41.38	42.87	45.01	46.63	49.24	51.32	53.19	52.67
2	50.71	50.80	46.10	43.45	41.38	42.85	45.06	46.72	49.19	51.50	53.17	52.47
3	50.70	50.80	46.17	43.55	41.58	42.83	45.05	46.74	49.28	51.55	53.10	52.20
4	50.38	50.78	46.45	43.40	41.57	42.78	45.17	46.84	49.37	51.54	53.20	52.20
5	50.46	50.93	46.45	43.00	41.67	43.05	45.18	46.90	49.42	51.50	53.23	52.02
6	50.20	50.98	46.05	42.96	41.57	43.07	45.24	46.94	49.45	51.57	53.33	52.10
7	50.20	50.90	45.57	42.90	41.60	42.98	45.55	46.92	49.56	51.58	53.42	52.06
8	50.03	51.19	45.73	42.90	41.70	43.14	45.74	47.03	49.62	51.72	53.26	52.22
9	50.18	51.18	45.73	43.04	41.63	43.35	45.87	47.12	49.82	51.80	52.82	52.25
10	50.35	51.20	45.74	42.92	41.70	43.45	45.95	47.17	49.86	51.83	52.93	52.44
11	50.27	51.15	45.89	42.38	41.74	43.49	46.02	47.22	49.91	51.96	53.00	52.30
12	49.85	51.12	45.95	42.42	41.75	43.44	46.20	47.33	50.05	52.05	52.92	52.14
13	49.93	50.95	45.83	42.17	41.76	43.60	46.36	47.44	50.12	52.08	52.90	52.23
14	50.08	50.94	45.67	41.59	41.84	43.65	46.56	47.60	50.23	52.23	52.90	52.32
15	50.08	50.90	45.35	41.36	41.87	43.71	46.66	47.65	50.32	52.28	52.87	52.07
16	50.20	50.00	45.55	41.11	41.80	43.86	46.83	47.67	50.43	52.22	52.78	51.75
17	50.22	49.20	45.67	41.32	41.95	43.90	46.92	47.75	50.47	52.47	52.87	51.62
18	50.29	48.78	45.64	41.08	42.13	43.85	46.94	47.92	50.41	52.50	52.89	51.26
19	50.24	48.25	45.25	41.01	42.24	44.05	46.92	48.05	50.37	52.52	52.73	50.50
20	50.16	48.35	45.27	40.98	42.11	44.14	46.90	48.12	50.45	52.66	52.95	50.46
21	49.90	48.15	45.00	41.19	41.96	44.12	46.87	48.19	50.55	52.65	53.05	50.47
22	50.16	47.75	44.78	41.17	42.15	44.20	46.63	48.35	50.64	52.65	52.90	50.57
23	50.52	47.67	44.70	41.07	42.20	44.28	46.44	48.43	50.77	52.75	52.92	50.53
24	50.50	47.60	44.76	41.14	42.31	44.36	46.44	48.44	51.00	52.85	52.83	50.35
25	50.65	47.42	44.65	41.12	42.40	44.45	46.33	48.54	51.10	52.82	52.93	50.47
26	50.65	47.10	44.25	41.11	42.44	44.58	46.17	48.68	51.17	52.84	52.83	50.47
27	50.62	47.02	43.79	41.10	42.40	44.63	46.20	48.81	51.14	52.90	53.08	50.11
28	50.71	46.70	43.79	41.25	42.45	44.65	46.30	48.87	51.03	52.95	53.06	49.96
29	50.48	46.80	43.42	41.28	42.58	44.70	46.35	48.88	51.11	53.02	52.82	49.78
30	50.62		43.13	41.33	42.72	44.87	46.37	48.84	51.21	53.03	52.77	49.99
31	50.60		42.93		42.83		46.50	49.20		53.03		49.96

Pit D. Paul Benninghofen gravel pit. At Symmes, Symmes Lake, in Fairfield Township. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.65	Apr. 20	10.68	July 27	15.59	Oct. 12	17.02
13	13.32	27	12.78	Aug. 3	15.88	19	16.95
20	13.95	May 4	12.50	10	16.13	26	16.88
Feb. 17	8.90	11	12.85	17	16.32	Nov. 2	16.95
24	12.20	18	12.43	24	16.38	9	15.48
Mar. 2	11.38	25	13.85	31	16.67	16	15.95
9	12.95	June 1	14.73	Sept. 7	16.88	23	14.90
16	13.44	29	15.18	14	16.90	30	14.85
23	12.44	July 6	15.60	21	16.85	Dec. 7	15.01
30	8.36	13	16.00	28	16.98	14	15.70
Apr. 6	11.28	20	15.26	Oct. 5	17.00	28	14.37
13	8.00						

117. Anna Magie. At Symmes, in Fairfield Township. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	24.85	Apr. 6	20.62	July 6	23.05	Oct. 5	26.24
13	24.50	13	19.97	13	23.45	12	26.55
20	24.45	20	18.66	20	23.74	19	26.61
27	24.64	27	18.75	27	23.57	26	26.77
Feb. 3	24.83	May 4	19.17	Aug. 3	23.88	Nov. 2	26.92
10	25.01	11	19.53	10	24.15	9	26.84
17	24.10	18	19.82	17	24.48	16	26.64
24	23.43	25	20.26	24	24.85	23	26.47
Mar. 2	23.08	June 1	20.84	31	25.12	30	26.26
9	22.78	8	21.39	Sept. 7	25.34	Dec. 7	25.88
16	22.75	15	21.89	14	25.70	14	25.85
23	22.46	22	22.35	21	25.84	22	25.27
30	21.18	29	22.74	28	26.02	28	24.95

T-50. Mary Gerber. On River Road, in Fairfield Township. Records available: 1939-48.

Jan. 6	14.05	Apr. 6	10.08	July 13	13.50	Oct. 12	15.25
13	13.76	13	9.67	20	13.62	19	14.34
20	13.88	20	8.67	27	14.02	26	15.41
27	14.10	27	9.64	Aug. 3	13.71	Nov. 2	15.50
Feb. 3	14.27	May 4	10.44	10	13.87	9	15.26
10	14.42	11	10.75	17	14.07	16	15.08
17	12.71	18	10.88	24	14.25	23	14.80
24	12.52	25	11.30	31	14.42	30	14.64
Mar. 2	12.53	June 1	11.50	Sept. 7	14.58	Dec. 7	14.40
9	12.64	8	12.25	14	14.74	14	14.50
16	12.93	22	12.89	21	14.88	22	13.93
23	12.57	29	13.07	28	15.01	28	13.68
30	10.16	July 6	13.26	Oct. 5	15.13		

T-51. Miami Conservancy District. On River Road, in Hamilton. Records available: 1939-48.

Jan. 6	13.82	Apr. 6	11.64	July 13	16.76	Oct. 12	17.66
13	14.65	13	8.07	20	15.99	19	17.40
20	14.79	20	11.95	27	16.49	26	17.60
27	16.30	27	14.03	Aug. 3	16.71	Nov. 2	17.55
Feb. 3	16.53	May 4	13.32	10	16.90	9	15.81
10	16.62	11	14.08	17	17.07	16	16.40
17	10.63	18	13.37	24	17.13	23	15.00
24	14.38	25	14.87	31	17.34	30	14.59
Mar. 2	13.04	June 1	11.90	Sept. 7	17.51	Dec. 7	15.67
9	14.62	8	15.60	14	17.54	14	16.22
16	14.57	22	16.34	21	17.50	21	13.86
23	12.70	29	15.89	28	17.58	28	15.33
30	9.40	July 6	16.44	Oct. 6	17.60		

133. J. E. Ryan. At Schenck, in Fairfield Township. Measurements discontinued after Sept. 7. Records available: 1939-48.

Jan. 6	33.85	Mar. 23	30.45	May 25	26.60	July 20	30.10
13	33.38	30	29.40	June 1	26.88	27	30.06
20	34.30	Apr. 6	28.65	8	27.15	Aug. 3	30.17
27	33.70	20	26.45	15	27.70	10	30.56
Feb. 3	33.65	27	25.78	22	28.21	17	31.02
10	34.11	May 4	25.82	29	28.61	24	31.45
17	33.24	11	25.64	July 6	28.80	31	31.92
Mar. 16	31.65	18	26.32	13	29.72	Sept. 7	32.19

150-2. Harry A. Morris. At Flockton, in Fairfield Township. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	7.32	Apr. 13	1.31	July 20	13.26	Oct. 12	15.20
13	6.55	20	2.93	27	13.00	19	15.07
20	6.45	27	4.00	Aug. 3	13.21	26	14.92
27	6.65	May 4	4.20	10	13.45	Nov. 2	14.93
Feb. 3	7.02	11	4.58	17	13.73	9	14.06
10	7.40	18	4.70	24	14.05	16	13.30
17	3.11	22	5.96	31	14.10	23	12.12
24	2.92	June 1	7.70	Sept. 7	14.77	30	5.80
Mar. 2	1.82	8	8.07	14	15.00	Dec. 7	3.71
16	2.00	22	10.93	21	15.53	14	4.16
23	1.36	29	12.09	28	15.41	22	2.45
30	2.25	July 6	12.44	Oct. 5	15.36	28	3.04
Apr. 6	2.35	13	13.15				

151-1. Harry A. Morris. At Flockton, in Fairfield Township. Records available: 1940-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.55	15.10	9.44	6.12	5.55	7.32	9.40	11.13	14.12	16.37	18.20	16.98
2	15.16	15.13	9.03	6.48	5.55	7.31	9.46	11.23	14.15	16.23	18.27	16.82
3	15.05	15.14	9.02	6.60	5.75	7.30	9.50	11.31	14.26	16.30	18.31	16.62
4	14.70	15.19	9.25	6.55	5.73	7.28	9.64	11.38	14.35	16.29	18.36	16.61
5	14.55	15.26	9.25	6.36	5.75	7.50	9.67	11.42	14.41	16.61	18.38	16.57
6	14.37	15.33	9.04	6.37	5.66	7.53	9.86	11.45	14.45	16.65	18.39	16.36
7	14.30	15.32	8.70	6.33	5.70	7.47	10.15	11.50	14.55	16.70	18.26	16.32
8	14.15	15.49	8.82	6.18	5.79	7.63	10.36	11.62	14.61	16.78	18.06	16.44
9	14.13	15.50	8.84	6.31	5.75	7.81	10.55	11.72	14.76	16.86	17.76	16.47
10	14.22	15.56	8.91	6.25	5.83	7.92	10.67	11.80	14.83	16.88	17.62	16.57
11	14.19	15.55	9.08	5.88	5.93	7.95	10.80	11.87	14.91	16.99	17.62	16.52
12	13.93	15.56	9.15	5.77	5.95	7.94	10.97	12.00	15.02	17.07	17.57	16.47
13	13.96	15.51	9.10	4.74	6.00	8.08	11.14	12.10	15.09	17.12	17.55	16.54
14	14.10	15.06	9.01	3.95	6.10	8.12	11.34	12.26	15.27	17.22	17.54	16.58
15	14.10	14.32	8.80	3.73	6.13	....	11.49	12.33	15.36	17.25	17.52	16.48
16	14.27	13.31	8.88	4.01	6.11	....	11.66	12.42	15.46	17.30	17.47	16.10
17	14.34	12.46	8.96	4.18	6.26	....	11.79	12.51	15.50	17.42	17.55	15.70
18	14.40	11.95	8.93	4.25	6.45	....	11.79	12.66	15.52	17.45	17.55	15.27
19	14.40	11.37	8.65	4.37	6.54	....	11.75	12.81	15.55	17.53	17.45	14.73
20	14.42	11.21	8.50	4.53	6.47	....	11.72	12.90	15.60	17.59	17.53	14.52
21	14.30	11.05	8.16	4.80	6.40	....	11.67	13.01	15.67	17.64	17.57	14.33
22	14.42	10.74	7.95	4.84	6.55	8.69	11.23	13.16	15.75	17.67	17.48	14.36
23	14.68	10.63	7.85	4.89	6.64	8.76	10.82	13.24	15.93	17.75	17.49	14.31
24	14.71	10.60	7.70	4.98	6.76	8.85	10.70	13.32	15.97	17.82	17.42	14.18
25	14.85	10.46	7.60	5.02	6.82	8.92	10.61	13.42	16.08	17.85	17.47	14.22
26	14.87	10.20	7.30	5.10	6.86	9.07	10.54	13.55	16.13	17.88	17.43	14.22
27	14.95	10.12	6.87	5.17	6.86	9.11	10.62	13.67	16.17	17.94	17.55	14.20
28	14.96	9.61	6.04	5.32	6.92	8.17	10.75	13.75	16.16	17.99	17.51	13.92
29	14.87	9.55	5.75	5.40	7.04	9.20	10.82	13.80	16.20	18.06	17.25	13.82
30	14.97		5.72	5.45	7.16	9.29	10.87	13.88	16.28	18.08	17.02	13.85
31	15.00		5.76		7.27		10.99	14.06		18.12		13.82

158-1. Ralph Miller. On Seward Road, in Fairfield Township. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	31.60	July 13	28.37	Sept. 7	31.60	Nov. 2	33.33
13	31.27	20	28.96	14	32.30	16	34.83
20	31.50	27	28.18	21	32.80	23	34.80
27	31.88	Aug. 10	28.99	Oct. 5	33.64	30	34.53
Feb. 3	31.99	17	29.59	12	34.16	Dec. 7	33.89
June 29	27.14	24	30.28	19	34.56	22	32.30
July 6	27.40	31	31.03	26	34.95	28	32.65

158-2. Ralph Miller. On Seward Road, in Fairfield Township. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.06	July 20	3.97	Sept. 14	5.88	Nov. 16	2.82
13	2.34	27	3.82	21	4.69	23	2.36
20	3.40	Aug. 3	4.30	Oct. 5	6.00	30	1.58
27	3.99	10	3.27	12	6.45	Dec. 7	2.10
Feb. 3	4.35	17	3.79	19	5.82	14	2.45
June 29	4.79	24	4.55	26	6.30	22	1.67
July 6	5.05	31	5.20	Nov. 2	7.02	28	2.69
13	5.94	Sept. 7	5.54	9	3.29		

160-1. Orin James. On Seward Road, in Union Township. Records available: 1940-48.

Jan. 6	21.40	Apr. 14	13.26	July 6	17.63	Sept. 22	22.92
13	20.87	20	12.97	13	18.43	28	22.92
20	20.88	27	14.80	20	19.60	Oct. 5	24.63
27	21.64	May 4	14.10	27	18.79	12	23.97
Feb. 3	31.47	11	14.52	Aug. 3	19.74	Nov. 9	24.54
10	22.00	25	15.40	10	19.13	23	24.00
24	18.58	June 1	15.87	17	19.49	30	24.07
Mar. 9	16.82	8	16.02	24	20.23	Dec. 7	23.00
16	16.60	15	16.79	31	20.95	14	23.10
23	16.02	22	17.05	Sept. 7	21.41	22	23.52
Apr. 6	15.00	29	17.44	14	22.61	28	21.97

160-2. Orin James. 0.9 mile east of Flockton, in Union Township. Records available: 1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	8.92	1.96	1.78	3.60	4.72	7.77	9.35	6.84	9.52	....	1.31
2	.....	8.95	1.94	2.00	3.62	4.82	7.86	9.30	6.98	9.57	9.65	1.39
3	.....	9.00	1.68	2.15	3.62	4.94	7.94	9.22	7.13	9.63	9.64	1.47
4	.....	9.00	1.88	2.22	3.62	5.06	8.02	9.17	7.27	9.65	9.55	1.52
5	.....	9.04	2.08	2.30	3.62	5.18	8.10	7.90	7.40	9.67	9.41	1.51
6	11.39	9.07	2.09	2.32	3.40	5.29	8.19	6.70	7.53	9.68	7.50	1.61
7	11.30	9.10	1.84	1.85	3.00	5.37	8.26	6.23	7.64	9.71	4.15	1.70
8	11.00	9.15	1.81	1.67	2.80	5.49	8.34	5.93	7.74	9.74	2.90	1.83
9	10.72	....	1.88	1.87	2.79	5.58	8.42	5.75	7.84	9.78	2.32	1.91
10	10.45	9.24	2.02	1.97	2.94	5.69	8.50	5.60	7.95	9.85	2.20	1.97
11	10.23	9.26	2.23	2.01	3.06	5.80	8.57	5.60	8.06	9.90	1.85	1.99
12	10.00	9.27	2.40	1.84	3.15	5.91	8.64	5.57	8.17	10.02	1.88	1.96
13	9.74	9.27	2.50	1.02	3.17	6.02	8.72	5.45	8.27	10.07	1.84	1.85
14	9.44	9.00	2.50	.89	3.22	6.12	8.80	5.33	8.41	10.15	1.87	1.75
15	9.25	8.63	2.48	1.26	3.29	6.20	8.87	5.17	8.53	10.22	1.93	1.25
16	9.12	8.33	1.44	1.58	3.36	6.30	8.95	5.09	8.65	10.30	1.95	.65
17	9.01	7.96	1.60	1.75	3.36	6.40	9.02	5.03	8.77	10.32	1.92	1.04
18	8.95	7.50	1.70	1.89	3.41	6.50	9.10	5.05	8.88	10.30	1.92	1.15
19	8.90	6.98	1.70	2.03	3.50	6.60	9.18	5.10	9.00	10.24	1.92	1.14
20	8.85	6.37	1.27	2.25	3.56	6.70	9.26	5.17	9.11	10.19	1.38	1.22
21	8.80	5.90	1.46	2.43	3.64	6.80	9.32	5.26	9.19	10.16	1.61	1.40
22	8.75	5.53	1.47	2.54	3.74	6.87	9.37	5.37	9.20	10.13	1.70	1.55
23	8.74	5.25	1.24	2.60	3.83	6.98	9.43	5.52	9.22	10.11	1.77	1.62
24	8.74	5.03	1.25	2.79	3.94	7.09	9.48	5.67	9.25	10.08	1.79	1.62
25	8.75	4.80	1.46	2.94	4.05	7.20	9.50	5.82	9.30	10.06	1.84	1.83
26	8.78	4.05	1.52	3.08	4.14	7.31	9.52	5.95	9.35	10.02	1.85	2.00
27	8.81	3.00	1.05	3.21	4.24	7.41	9.55	6.10	9.35	.....	1.20	2.16
28	8.83	2.00	1.38	3.32	4.32	7.50	9.54	6.27	9.35	.....	1.14	2.20
29	8.84	1.90	1.57	3.42	4.40	7.60	9.52	6.42	9.40	.....	.80	2.17
30	8.85		1.77	3.52	4.52	7.68	9.52	6.56	9.45	.....	1.08	1.07
31	8.87		1.78		4.63		9.46	6.69	.....			1.47

165-1. E. C. Sheperd. 0.7 mile north of Port Union, in Union Township. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	37.47	Apr. 6	34.80	July 6	37.70	Sept. 28	40.62
13	37.74	14	33.57	13	38.05	Oct. 6	41.46
20	37.94	20	33.68	20	38.08	19	41.85
27	38.09	27	34.22	27	37.73	26	42.27
Feb. 3	38.24	May 4	34.60	Aug. 3	37.94	Nov. 2	42.54
10	38.49	11	34.99	10	38.03	9	41.37
17	36.40	18	35.21	17	38.32	23	39.32
24	36.09	25	35.41	24	38.36	30	38.56
Mar. 2	35.38	June 1	35.73	31	39.82	Dec. 7	38.22
9	35.86	8	36.01	Sept. 7	39.98	14	38.50
16	36.00	14	36.43	14	40.43	22	37.39
24	35.25	22	36.82	21	40.40	28	37.92
30	34.45	29	37.07				

165-2. E. C. Sheperd. 0.7 mile north of Port Union, in Union Township. Records available: 1938-48.

Jan. 6	12.47	Apr. 6	6.20	July 6	11.49	Oct. 6	16.19
13	12.35	14	4.47	13	11.79	12	15.77
20	12.19	20	5.23	20	12.11	19	16.71
27	11.94	27	6.43	27	12.22	26	15.92
Feb. 3	11.70	May 4	7.36	Aug. 3	12.32	Nov. 2	16.20
10	11.64	11	7.71	10	12.48	9	15.53
17	11.25	18	8.11	17	12.60	16	15.69
24	11.30	25	8.54	24	12.92	23	15.99
Mar. 2	10.94	June 1	9.19	31	14.19	30	16.05
9	10.34	8	9.51	Sept. 7	14.49	Dec. 7	15.83
16	9.69	14	10.17	14	15.95	14	15.57
24	8.31	22	10.88	21	16.95	22	14.64
30	5.70	29	11.25	28	16.16	28	14.65

168-1. M. Haughbers. In Port Union, in Union Township. Records available: 1940-48.

Jan. 6	23.44	Mar. 16	27.07	Apr. 13	20.78	May 11	24.52
Feb. 10	33.01	23	25.69	20	22.67	25	25.55
24	33.33	30	23.34	27	23.61	June 1	26.05
Mar. 2	27.07	Apr. 6	23.50	May 4	24.21	8	26.32
9	27.09						

175. J. W. Margonett. At Rialto, in Union Township. Records available: 1938-48.

Jan. 6	6.62	Apr. 4	5.86	July 13	11.47	Oct. 12	12.12
13	7.52	14	4.48	20	11.40	19	11.66
20	8.45	20	6.94	27	11.15	26	11.75
27	9.48	27	7.41	Aug. 3	11.34	Nov. 3	11.67
Feb. 3	10.45	May 4	7.74	10	11.00	9	10.67
10	10.17	11	8.04	17	11.34	16	10.32
17	6.50	18	8.88	24	11.50	23	9.78
24	6.87	25	9.59	31	11.79	30	7.73
Mar. 2	5.74	June 1	10.25	Sept. 14	11.95	Dec. 7	8.17
9	6.61	8	10.52	21	11.80	14	7.95
16	5.68	22	12.72	28	11.92	22	6.35
24	5.26	29	11.09	Oct. 8	11.80	28	6.96
30	5.78	July 6	11.27				

180. Fox Paper Co. At Crescentville, in Union Township. Records available: 1938-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.75	10.13	6.68	5.92	7.21	10.80	13.44	13.57	14.95	15.93	17.02	10.35
2	8.97	10.24	6.40	6.32	7.24	10.94	13.38	13.68	14.87	16.16	16.99	10.22

180--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	8.97	10.35	6.61	6.48	7.47	10.85	13.30	13.67	14.89	16.23	16.78	9.90
4	8.69	10.50	6.97	6.45	7.46	10.84	13.33	13.71	15.00	16.18	16.89	9.88
5	8.80	10.64	7.05	6.38	7.44	11.19	13.33	13.74	15.03	16.98	16.90	9.64
6	8.60	10.74	6.81	6.44	7.07	11.24	13.22	13.75	15.01	16.06	16.86	9.64
7	8.60	10.67	6.67	6.47	7.22	11.20	13.44	13.66	15.07	15.97	15.84	9.57
8	8.45	11.00	6.86	6.60	7.32	11.39	13.55	13.55	15.12	16.14	14.03	9.67
9	8.60	11.00	6.97	6.74	7.30	11.61	13.61	13.57	15.06	16.22	12.97	9.72
10	8.76	11.02	7.10	6.70	7.40	11.72	13.61	13.57	15.10	16.22	12.70	9.84
11	8.72	10.92	7.40	6.39	7.52	11.76	13.56	13.52	15.07	16.37	12.79	9.72
12	8.39	10.65	7.52	6.32	7.54	11.72	13.56	13.56	15.20	16.47	12.67	9.54
13	8.49	10.25	7.54	5.78	7.70	11.88	13.66	13.60	15.27	16.47	12.37	9.58
14	8.66	8.19	7.43	5.20	7.77	11.98	13.77	13.71	15.35	16.64	12.37	....
15	8.66	8.14	7.25	4.98	7.82	12.00	13.85	13.75	15.40	16.67	12.22	8.75
16	8.75	7.53	7.25	5.01	7.85	12.17	13.92	13.72	15.52	16.52	12.10	8.62
17	8.79	7.00	7.35	5.16	8.03	12.22	14.00	13.77	15.52	16.78	12.02	8.62
18	8.88	6.85	....	5.28	8.23	12.15	14.02	13.85	15.40	16.81	12.02	8.45
19	8.86	6.77	7.00	5.44	8.35	12.36	14.03	14.00	15.25	16.82	11.85	7.96
20	8.89	6.95	7.05	5.56	8.38	12.47	14.02	14.06	15.28	16.83	11.45	7.97
21	8.67	6.91	6.90	5.80	8.92	12.45	13.93	14.13	15.23	16.78	11.50	8.12
22	8.85	6.86	6.88	5.87	8.98	12.52	13.76	14.28	....	16.81	11.30	8.31
23	9.19	7.03	6.85	6.03	9.25	12.60	13.72	14.37	15.59	16.92	11.17	8.35
24	9.19	7.12	6.77	6.15	9.47	12.67	13.73	14.36	15.84	16.93	11.00	8.27
25	9.32	7.00	....	6.23	9.69	12.75	13.60	14.38	15.99	16.87	10.99	8.57
26	9.42	6.90	6.28	6.42	9.80	12.91	13.31	14.50	16.07	16.81	10.85	8.59
27	9.50	6.88	6.04	6.56	9.95	12.95	13.30	14.63	15.99	16.87	10.83	8.40
28	9.52	6.60	5.76	6.72	10.11	12.95	13.30	14.65	15.81	16.88	10.80	8.37
29	9.40	6.70	5.48	6.95	10.34	13.00	13.36	14.67	15.73	16.94	10.38	8.20
30	9.66	....	5.45	7.04	10.57	13.20	13.33	14.67	15.82	16.93	10.46	8.37
31	9.79	....	5.55	....	10.74	....	13.45	14.89	....	16.86	....	8.37

Champaign County

Ch-1. Ohio Water Resources Board test well. South side of U. S. Highway 36, 100 feet west of Mad River, and 2.17 miles west of Urbana. Drilled well, diameter 6 inches, depth 45 feet. Measuring point, floor of recorder shelter, 4.5 feet above land-surface datum. Automatic water-stage recorder installed Apr. 21. Records available: 1948.

Lowest daily water level, from recorder charts

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.12	7.53	7.74	8.01	8.42	8.59	8.69	7.57
2	7.56	7.71	8.03	8.43	8.59	8.70	7.63
3	7.59	7.74	8.05	8.44	8.60	8.70	7.69
4	7.62	7.78	8.07	8.45	8.61	8.70	7.74
5	7.65	7.82	8.08	8.47	8.62	8.69	7.78
6	7.06	7.67	7.85	8.10	8.48	8.63	8.63	7.85
7	7.07	7.68	7.88	....	8.49	8.63	7.41	7.89
8	7.10	7.70	7.91	....	8.49	8.64	7.54	7.95
9	7.13	7.72	7.94	....	8.51	8.65	7.64	7.99
10	7.75	7.97	8.17	8.51	8.66	7.73	8.03
11	7.77	7.99	8.18	8.52	8.66	7.81	8.06
12	7.79	8.01	8.18	8.53	8.66	7.87	8.08
13	7.09	7.80	8.02	....	8.55	8.67	7.91	8.09
14	6.86	7.82	8.00	....	8.56	8.68	7.93	8.11
15	6.70	7.84	7.94	....	8.57	8.69	7.96	8.10
16	6.69	7.85	7.94	....	8.58	8.69	7.97	7.60
17	6.70	7.87	7.93	8.26	8.59	8.69	8.01	7.52
18	6.76	7.89	7.91	8.25	8.59	8.62	8.04	7.50
19	6.84	7.90	7.89	8.25	8.60	8.58	8.04	7.55
20	6.92	7.91	7.90	8.26	8.60	8.57	7.90	7.61
21	5.19	6.98	7.92	7.92	8.28	8.60	8.58	7.66	7.67
22	5.91	7.05	7.93	7.92	8.24	8.59	8.59	7.69	7.72
23	6.30	7.12	7.94	7.92	8.31	8.60	8.60	7.70	7.76
24	6.53	7.19	7.96	7.93	8.32	8.61	8.61	7.82	7.79

Ch-1--Continued.

Lowest daily water level, from recorder charts

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	....	7.24	7.98	7.94	8.33	8.62	8.62	7.87	7.85
26	....	7.30	7.99	7.96	8.35	8.63	8.63	7.91	....
27	....	7.34	7.99	7.97	8.36	8.63	8.65	7.91	7.91
28	6.95	7.38	7.90	7.97	8.37	8.63	8.66	7.89	7.93
29	7.01	7.42	7.91	7.94	8.39	8.64	8.67	7.83	7.93
30	7.07	7.46	7.84	7.96	8.40	8.63	8.67	7.55	7.60
31		7.50		7.98	8.41		8.68		7.65

Clark County

Cl-1. E. L. Shuey. Ohio Water Resources Board test well. About 0.6 mile southeast of State Highway 4, 80 feet from Buck Creek, and about 2 miles southwest of New Morefield. Diameter 6 inches, depth 57 feet. Measuring point, floor of recorder shelter, 3.0 feet above land-surface datum. Automatic water-stage recorder installed Apr. 18. Records available: 1948.

Lowest daily water level, from recorder charts

Day	Mar.	Apr.	May	June	Aug.	Sept.	Oct.	Nov.
1	....	2.30	2.40	2.73	....	2.95	2.94	....
2	....	2.35	2.34	2.73	....	2.90	....	....
3	....	2.40	2.31	2.74	2.90	2.90	....	....
4	....	2.42	2.32	2.74	2.90	2.90	....	3.35
5	....	2.45	2.28	2.74	2.87	2.88	....	3.35
6	....	1.90	2.30	....	2.90	2.88	....	2.42
7	....	1.88	2.28	....	2.90	2.87	....	2.87
8	....	2.15	2.30	....	2.93	2.87	....	3.05
9	....	2.29	2.38	....	2.95	2.88	....	3.15
10	....	2.35	2.41	....	2.95	....	....	3.16
11	....	2.35	2.43	....	2.92	....	....	3.25
12	....	....	2.43	....	2.91	....	....	....
13	....	....	2.37	....	2.93	....	....	....
14	....	....	2.40	....	2.95	....	....	....
15	....	1.70	2.45	....	2.96	....	....	....
16	....	2.00	2.48	....	2.97	....	....	....
17	....	2.17	2.48	2.80	2.98	....	....	....
18	2.63	2.25	2.51	2.80	2.88	....	....	....
19	2.63	2.30	2.52	2.80	2.83	....	....	....
20	1.08	2.40	2.53	2.80	2.85	....	....	....
21	1.30	2.41	2.60	2.80	2.87	....	....	....
22	1.29	2.41	2.60	2.81	2.88	....	....	....
23	+1.00	2.41	2.61	2.84	2.88	....	....	....
24	2.78	2.44	2.63	2.85	2.88	3.00	....	....
25	2.13	2.45	2.63	....	2.93	2.82	....	....
26	2.22	2.47	2.64	....	2.94	2.89	....	....
27	1.96	2.49	2.65	....	2.95	2.91	....	....
28	2.87	2.37	2.67	....	2.96	2.93	....	....
29	2.12	2.40	2.70	....	2.95	2.94	....	....
30	2.25	2.40	2.70	....	2.95	2.93	....	....
31	2.26		2.72		2.96		....

Clinton County

Cn-1. 4 miles north of Melvin, at abandoned brick school house.

Gage removed Nov. 4, 1948. Records available: 1946-48.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	7.03	Jan. 9	7.14	June 7	8.49	June 11	8.65
6	7.15	10	7.23	8	8.53	12	8.64
7	7.26	11	7.29	9	8.62	13	8.69
8	7.31	12	7.42	10	8.65	14	8.71

Cn-1--Continued.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 15	8.73	July 5	9.19	July 25	8.84	Aug. 16	9.50
16	8.73	6	9.17	26	8.87	17	9.55
17	8.75	7	9.28	27	8.90	Sept. 9	10.32
18	8.75	8	9.30	28	8.93	10	10.33
19	8.75	9	9.33	29	8.98	11	10.34
20	8.83	10	9.34	30	9.00	12	10.38
21	8.82	11	9.34	31	9.04	13	10.39
22	8.86	12	9.36	Aug. 1	9.10	14	10.39
23	8.89	13	9.39	2	9.17	15	10.39
24	8.91	14	9.42	3	9.20	16	10.39
25	8.95	15	9.46	4	9.22	17	10.39
26	8.98	16	9.48	5	9.23	18	10.39
27	9.01	17	9.50	6	9.18	19	10.39
28	9.03	18	9.53	7	9.20	20	10.39
29	9.04	19	9.56	10	9.31	21	10.37
30	9.04	20	9.56	11	9.32	22	9.91
July 1	9.11	21	9.43	12	9.34	23	9.84
2	9.13	22	8.90	13	9.39	24	9.94
3	9.12	23	8.73	14	9.43	25	10.02
4	9.16	24	8.79	15	9.46		

Delaware County

Dl-1. Oscar Case. 2½ miles north of Delaware. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.49	14.03	12.70	8.29	11.66	12.31	15.93	16.79	17.20	18.07	18.27	13.57
2	13.85	14.14	11.82	8.73	11.68	12.43	16.01	16.82	17.20	18.10	18.20	12.83
3	13.82	14.28	11.35	8.92	12.14	12.51	16.06	16.81	17.20	18.13	18.18	11.93
4	13.11	14.16	11.53	8.88	12.14	12.49	16.13	16.80	17.24	18.14	18.16	11.51
5	12.21	14.48	11.54	8.70	12.25	12.99	16.15	16.79	17.27	18.14	18.16	.....
6	11.86	14.66	11.10	8.83	12.25	13.10	16.04	16.80	17.28	18.14	18.12	.....
7	.....	14.66	10.38	8.40	12.10	12.96	16.13	16.80	17.32	18.13	18.16	.....
8	11.24	15.09	10.73	8.17	12.15	13.16	16.22	16.78	17.33	18.14	18.11	.....
9	10.96	.....	10.88	8.54	12.00	13.60	16.29	16.76	17.39	18.13	.....	.....
10	10.72	15.29	11.10	8.57	11.72	13.86	15.50	16.75	17.42	18.14	.....	.....
11	10.92	15.29	11.45	8.24	11.64	13.94	15.50	16.73	17.44	18.21	.....	.....
12	10.84	15.25	11.62	8.29	11.62	13.98	16.30	16.68	17.49	18.21	17.90	.....
13	10.30	15.18	11.70	8.08	11.51	14.23	16.33	16.66	17.56	18.23	17.85	12.49
14	10.20	15.24	11.64	7.35	.....	14.36	16.38	16.70	17.63	18.25	17.83	12.72
15	10.54	15.38	11.38	7.35	.....	14.50	16.42	16.72	.....	18.26	17.71	12.56
16	10.57	15.21	11.16	7.46	.....	14.72	16.47	16.72	.....	18.27	17.63	12.00
17	10.92	14.79	11.16	7.67	8.76	14.81	16.50	16.72	.....	18.29	17.48	11.53
18	11.09	14.60	10.87	7.80	8.71	14.84	16.52	16.72	.....	18.30	17.35	.....
19	.....	14.30	10.02	8.12	8.80	14.94	16.55	16.76	.....	18.31	17.20	.....
20	11.49	14.55	9.70	8.50	8.67	15.14	.....	16.79	.....	18.30	17.01	.....
21	11.27	14.50	9.20	9.14	8.80	15.17	.....	16.81	.....	18.31	16.95	.....
22	11.65	14.17	8.73	9.40	9.15	15.22	.....	16.86	.....	18.30	16.83	.....
23	12.44	14.16	8.65	9.65	9.72	15.29	.....	17.00	.....	18.30	16.63	.....
24	12.48	14.18	8.51	9.94	10.13	15.34	.....	17.00	.....	18.30	16.50	.....
25	13.00	14.01	8.38	10.19	10.46	15.45	.....	17.02	.....	18.30	16.32	.....
26	13.14	13.69	7.87	10.43	10.69	15.60	16.70	17.04	.....	.....	16.13	.....
27	13.40	13.65	7.86	10.53	10.88	15.67	16.77	17.08	18.06	18.30	16.94	10.86
28	13.48	12.84	7.95	10.92	11.14	15.63	16.77	17.09	18.06	18.30	15.80	10.93
29	13.40	12.86	7.77	11.16	11.49	15.61	16.79	17.10	18.09	18.29	14.96	10.98
30	13.76	.....	7.69	11.31	11.82	15.79	16.78	17.11	18.06	18.28	14.48	11.11
31	13.76	.....	7.93	.....	12.12	.....	16.77	17.17	.....	18.27	.....	11.06

D1-3. Corps of Engineers, U. S. Army. About 100 feet downstream from crest of Delaware Dam, on left bank of Olentangy River, about 3 miles north of Delaware. Drilled well, diameter 12 inches, depth 135 feet. Measuring point, floor of recorder shelter, at land-surface datum. Automatic water-stage recorder installed Oct. 28. Records available: 1948.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 28	36.90	Nov. 15	36.28	Nov. 30	35.41	Dec. 17	33.73
29	36.95	16	36.28	Dec. 1	36.52	18	34.02
30	36.95	17	36.40	2	35.74	19	34.49
31	36.96	18	36.41	3	35.86	20	34.73
Nov. 1	37.04	19	36.32	4	35.93	21	34.98
2	37.02	20	36.18	5	35.92	22	35.08
3	36.97	21	36.03	6	36.06	23	35.21
4	36.90	22	36.12	7	36.07	24	35.27
5	36.84	23	36.14	8	36.21	25	35.55
6	36.70	24	36.24	9	36.25	26	35.53
7	36.05	25	36.31	10	36.36	27	35.53
8	36.00	26	36.31	11	36.34	28	35.63
12	36.17	27	36.30	12	36.34	29	35.41
13	36.32	28	35.85	13	36.24	30	35.19
14	36.29	29	35.57	16	34.67	31	35.10

Fairfield County

F-1. Charles E. Howdyshell. At West Rushville. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.23	14.03	13.47	11.40	10.36	11.22	12.57	12.80	13.63	14.42	14.72	14.25
2	15.17	14.04	13.50	11.44	10.37	11.27	12.65	12.81	13.66	14.43	14.75	14.22
3	15.18	14.06	13.14	11.46	10.45	11.37	12.66	12.79	13.71	14.46	14.73	14.09
4	15.18	14.06	13.10	11.45	10.46	11.39	12.71	12.76	13.78	14.47	14.68	14.00
5	15.09	14.03	13.10	11.35	10.53	11.48	12.74	12.73	13.86	14.44	14.69	13.92
6	15.08	14.07	13.03	11.27	10.54	11.52	12.69	12.72	13.88	14.42	14.67	13.76
7	14.99	14.07	12.85	11.19	10.54	11.45	12.75	12.72	13.83	14.41	14.75	13.76
8	14.94	14.12	12.73	11.14	10.60	11.47	12.81	12.72	13.85	14.38	14.76	13.66
9	14.82	14.15	12.71	11.19	10.60	11.56	12.86	12.73	13.94	.....	14.72	13.65
10	14.80	14.18	12.65	11.15	10.59	11.65	12.89	12.75	13.98	14.40	14.65	13.64
11	14.79	14.19	12.62	11.06	10.57	11.70	12.91	12.75	14.03	14.42	14.67	13.63
12	14.68	14.19	12.62	10.96	10.53	11.73	12.95	12.74	14.11	14.46	14.67	13.55
13	14.57	14.19	12.59	10.95	10.46	11.75	12.96	12.78	14.16	14.48	14.62	13.49
14	14.51	14.29	12.55	10.78	10.44	11.80	12.96	12.82	14.21	14.53	14.60	13.48
15	14.47	14.32	12.48	10.55	10.43	11.83	12.99	12.85	14.26	14.56	14.56	13.47
16	14.36	14.32	12.39	10.36	10.42	11.85	13.02	12.89	14.33	14.56	14.56	13.33
17	14.36	14.24	12.44	10.23	10.41	11.89	13.06	12.92	14.40	14.55	14.47	13.34
18	14.31	14.22	12.43	10.20	10.48	11.94	13.08	12.94	14.40	14.55	14.50	13.29
19	14.28	14.16	12.36	10.12	10.52	11.97	13.11	12.99	14.41	14.57	14.47	13.12
20	14.22	14.12	12.26	10.06	10.53	12.03	13.13	13.02	14.32	14.57	14.40	12.98
21	14.14	14.11	12.26	10.04	10.51	12.12	13.14	13.06	14.30	14.60	14.43	12.88
22	14.03	14.02	12.16	10.05	10.59	12.15	13.08	13.12	14.30	14.60	14.43	12.83
23	14.10	13.95	12.11	10.07	10.62	12.20	13.09	13.16	14.32	14.59	14.42	12.81
24	14.10	13.93	12.03	10.07	10.70	12.24	13.10	13.20	14.38	14.61	14.40	12.76
25	14.05	13.85	12.03	10.09	10.76	12.28	13.09	13.24	14.42	14.63	14.41	12.63
26	14.07	13.74	11.97	10.15	10.81	12.34	13.05	13.30	14.45	14.63	14.41	12.63
27	14.05	13.67	11.80	10.14	10.87	12.38	12.99	13.40	14.46	14.64	14.37	12.57
28	14.06	13.50	11.78	10.13	10.93	12.43	12.95	13.45	14.45	14.65	14.37	12.49
29	14.02	13.48	11.74	10.21	10.98	12.44	12.89	13.48	14.44	14.68	14.30	12.42
30	14.02		11.61	10.27	11.04	12.48	12.86	13.50	14.40	14.68	14.30	12.32
31	14.00		11.55		11.17		12.82	13.56		14.68		12.31

F-2. Pickerington Creamery. At Pickerington. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.63	20.84	20.56	20.23	20.29	20.53	21.22	21.27	22.27	21.86	21.81	.....
2	21.46	20.84	20.52	20.28	20.30	20.53	21.26	21.36	22.26	21.85	21.80	.....
3	21.44	20.86	20.48	20.24	20.28	20.54	21.27	21.43	22.24	21.85	21.79	.....
4	21.40	20.85	20.55	.....	20.28	20.55	.....	21.44	22.23	21.86	21.74	.....
5	21.32	20.81	20.54	20.24	20.29	20.60	21.23	21.42	22.21	21.86	21.74	.....
6	21.29	21.79	20.48	20.25	20.29	20.60	21.23	21.34	22.15	21.87	21.73	.....
7	21.25	20.76	.....	20.24	20.24	20.46	21.28	21.34	22.04	21.87	21.73	.....
8	21.25	20.73	20.48	20.26	20.25	20.48	21.28	21.31	22.04	21.84	21.74	.....
9	21.25	20.75	20.54	20.29	20.25	20.58	21.28	21.28	22.06	21.82	21.73	.....
10	21.25	20.72	20.56	20.31	20.25	20.63	21.25	21.32	22.07	21.82	21.77	.....
11	21.23	20.73	20.53	20.29	20.26	20.65	.....	21.34	22.09	21.78	21.79	.....
12	21.15	20.72	20.49	20.19	20.26	20.67	21.23	21.34	22.12	21.83	21.80	.....
13	21.12	20.69	20.45	20.19	20.25	20.68	21.31	21.34	22.12	21.83	21.78	.....
14	21.11	20.67	.....	20.15	20.30	20.75	21.35	21.36	22.12	21.85	21.79	.....
15	21.11	20.67	20.39	20.21	20.31	20.82	21.37	21.37	22.20	21.85	21.73	.....
16	21.11	20.62	20.36	20.28	20.31	20.91	.....	21.37	22.21	21.83	21.73	.....
17	21.15	20.64	20.39	20.28	20.27	20.94	.....	21.39	22.20	21.80	21.79	.....
18	21.15	20.67	20.40	20.25	20.30	21.01	.....	21.39	22.16	21.71	21.79	.....
19	21.12	20.68	20.39	20.17	20.31	21.12	21.44	21.36	22.13	21.75	21.76	.....
20	21.07	20.72	20.49	20.16	20.31	21.15	21.45	21.34	22.04	21.78	21.67	.....
21	21.04	20.72	20.49	20.21	20.31	21.17	21.44	21.32	21.97	21.79	21.68	.....
22	20.96	20.70	20.44	.....	20.35	21.20	21.29	21.30	21.95	21.76	21.68	.....
23	20.95	20.70	20.40	.....	20.39	21.21	21.26	21.32	21.97	21.73	21.71	.....
24	20.94	20.69	20.38	.....	20.41	21.22	21.18	21.37	21.99	21.70	.....	.....
25	20.92	20.69	20.38	.....	20.44	21.22	21.18	21.40	21.99	21.67	.....	.....
26	20.91	20.60	20.34	20.29	20.44	21.23	21.17	21.50	21.99	21.70	.....	.....
27	20.89	20.60	20.27	20.30	20.44	21.22	21.21	21.56	21.95	21.76	.....	.....
28	20.87	20.58	20.26	20.28	20.44	21.20	21.17	21.50	21.96	21.79	.....	21.32
29	20.84	20.60	20.27	20.28	20.46	21.22	21.21	22.14	21.95	21.80	.....	21.32
30	20.84	.....	20.28	20.29	20.50	21.19	21.22	22.26	21.89	21.82	.....	21.27
31	20.85	.....	20.25	.....	20.53	.....	21.26	22.27	.....	21.82	.....	21.27

Fayette County

Fa-1. Martha L. Slagle. At Jasper Mills. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.26	6.74	6.19	5.60	6.00	6.66	7.31	8.64	8.73	8.76	9.18	8.08
2	6.84	6.74	6.10	5.61	6.00	7.49	7.35	9.50	9.49	8.76	9.17	7.98
3	6.86	6.69	6.08	5.79	6.05	6.92	7.33	9.37	9.00	8.76	8.95	7.87
4	6.88	6.70	6.18	5.75	6.04	7.32	8.09	8.80	8.93	8.88	8.87	7.78
5	6.88	6.68	6.29	5.70	5.94	6.90	7.70	8.07	9.04	8.86	8.86	7.73
6	6.95	6.70	6.24	5.68	5.86	6.76	8.40	7.86	8.80	8.75	8.77	8.30
7	6.91	6.70	6.05	5.53	5.77	6.57	7.96	7.77	8.61	8.70	8.80	8.25
8	6.77	6.72	6.07	5.75	5.79	6.49	8.17	7.77	8.52	8.82	8.77	7.91
9	6.68	6.75	6.07	5.74	5.85	6.54	8.38	7.92	8.51	8.82	....	....
10	6.69	6.79	6.29	5.67	5.88	6.72	8.24	8.06	9.15	8.78	....	8.06
11	6.69	6.82	6.29	....	6.21	6.73	7.92	8.20	8.84	8.74	....	....
12	6.56	6.80	6.23	....	6.19	6.69	8.47	8.05	9.25	8.76	8.62	....
13	6.65	6.69	6.19	....	5.94	6.72	9.07	9.11	9.29	8.84	8.56	....
14	6.64	6.52	6.17	....	5.92	6.93	9.08	9.22	9.16	8.88	....	....
15	6.58	6.65	6.12	....	5.94	6.84	9.19	9.15	8.86	8.86	....	....
16	6.63	6.57	6.08	5.79	5.94	6.80	8.34	9.18	9.22	8.83	....	....
17	6.64	6.64	5.91	5.79	6.01	6.88	9.21	9.47	9.31	8.87	....	6.97
18	6.66	6.68	5.93	5.80	6.11	6.84	9.01	8.60	9.28	8.85	....	6.97
19	6.65	6.76	5.92	....	6.14	6.79	9.38	8.92	9.12	8.80	8.42	6.90
20	6.62	6.77	5.87	....	6.25	7.02	8.74	9.44	8.96	8.83	8.37	7.09
21	6.57	6.64	5.95	....	6.16	7.07	8.01	8.85	8.74	8.83	8.35	7.04
22	6.64	6.63	5.98	....	6.21	7.80	7.69	9.63	8.60	8.84	8.25	6.91
23	6.80	6.57	5.88	5.87	6.25	7.84	7.85	9.97	8.58	8.84	8.22	6.87
24	6.79	6.56	5.76	5.91	6.28	7.50	7.81	9.99	8.58	8.83	8.17	6.82
25	6.70	6.50	5.73	6.16	6.49	7.58	7.62	10.43	8.63	8.90	8.21	6.83

Fa-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	6.69	6.35	5.73	6.15	7.71	7.78	7.54	10.14	8.64	8.90	8.13	6.79
27	6.64	6.32	5.56	6.03	6.63	7.85	7.68	10.79	8.74	8.89	8.17	6.79
28	6.66	6.15	5.80	5.96	6.39	8.18	7.65	10.49	8.64	8.90	8.16	6.78
29	6.60	6.27	5.68	5.95	6.51	7.75	8.77	10.63	8.62	8.97	8.01	6.68
30	6.66		5.60	5.96	6.49	7.45	8.70	9.59	8.60	8.97	8.09	6.60
31	6.65		5.59		6.65		9.54	8.87		8.94		6.64

Franklin County

Fr-1. L. E. Keller. Near Grove City. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	76.80	76.71	76.90	75.98	75.67	76.41	77.10	77.44	78.08	78.70	78.87	78.96
2	76.59	76.87	76.75	76.30	75.71	76.32	77.15	77.54	78.02	78.84	78.92	78.95
3	76.79	76.80	76.72	76.54	75.87	76.27	77.13	77.53	77.94	78.95	78.84	78.78
4	76.77	76.66	77.13	76.51	75.86	76.23	77.14	77.47	78.00	78.95	78.67	78.68
5	76.93	76.68	77.19	76.30	75.94	76.30	77.08	77.48	78.07	78.84	78.67	78.62
6	76.90	76.78	77.14	76.10	75.90	76.40	77.01	77.64	78.12	78.71	78.74	78.55
7	76.77	76.78	76.71	76.02	75.74	76.39	77.02	77.57	78.00	78.66	79.10	78.55
8	76.77	76.89	76.56	76.06	75.95	76.20	77.18	77.53	78.01	78.59	79.10	78.66
9	76.69	76.91	76.63	76.31	76.01	76.37	77.28	77.64	78.15	78.63	78.90	78.72
10	76.99	77.07	76.65	76.30	76.01	76.61	77.23	77.56	78.22	78.68	78.91	78.86
11	76.99	77.02	76.74	76.11	76.09	76.58	77.17	77.52	78.25	78.67	79.05	78.86
12	76.85	76.85	76.88	75.90	76.02	76.50	77.10	77.44	78.35	78.74	79.04	78.70
13	76.65	76.78	76.87	75.95	76.00	76.52	77.20	77.46	78.42	78.73	78.91	78.60
14	76.73	76.80	76.81	75.94	76.04	76.54	77.21	77.57	78.52	78.90	78.92	78.65
15	76.75	77.08	76.55	75.94	76.04	76.56	77.26	77.64	78.57	78.92	78.89	78.60
16	76.82	77.04	76.37	75.94	75.95	76.70	77.25	77.53	78.68	78.85	78.89	78.55
17	76.84	76.83	76.66	75.96	75.93	76.69	77.30	77.49	78.73	78.94	78.82	78.60
18	76.85	76.80	76.71	75.96	76.09	76.63	77.32	77.46	78.65	79.04	78.83	78.62
19	76.84	76.69	76.64	75.89	76.31	76.62	77.30	77.56	78.51	78.98	78.76	78.33
20	76.73	77.04	76.48	75.80	76.17	76.78	77.30	77.60	78.45	79.06	78.66	78.10
21	76.50	77.04	76.48	75.87	75.87	76.74	77.30	77.63	78.45	79.11	78.91	78.24
22	76.22	76.95	76.30	75.87	75.95	76.73	77.15	77.80	78.45	79.09	78.83	78.50
23	76.76	77.06	76.21	75.83	75.98	76.75	77.25	77.78	78.49	78.99	78.74	78.57
24	76.78	77.06	76.47	75.83	76.10	76.71	77.38	77.76	78.69	79.02	78.69	78.57
25	76.88	77.04	76.47	75.76	76.15	76.80	77.40	77.71	78.82	79.00	78.73	78.59
26	76.87	76.78	76.33	75.72	76.15	76.86	77.37	77.83	78.95	78.97	78.70	78.67
27	76.86	76.71	76.05	75.69	76.14	76.86	77.35	77.87	78.95	78.94	78.80	78.56
28	76.88	76.43	76.27	75.65	76.10	76.85	77.39	77.95	78.82	78.92	78.80	78.38
29	76.76	76.87	76.18	75.67	76.10	76.83	77.40	77.90	78.67	78.93	78.80	78.23
30	76.75		76.01	75.68	76.18	76.87	77.39	77.89	78.62	78.93	78.91	78.15
31	76.76		75.91		76.31		77.44	77.99		78.87		78.15

Fr-2. Hilliard High School. At Hilliard. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.71	21.77	22.74	21.40	20.71	21.47	23.03	23.18	24.42	24.82	25.22	25.02
2	21.64	21.83	22.66	21.53	20.69	21.48	23.04	23.26	24.37	24.92	25.26	25.02
3	21.71	21.83	22.73	21.63	20.73	21.51	23.08	23.29	24.56	24.99	25.24	24.89
4	21.68	21.80	22.88	21.61	20.73	21.53	23.11	23.28	24.39	24.98	25.16	24.85
5	21.73	21.82	22.97	21.48	20.70	21.66	23.11	23.23	24.39	24.95	25.16	24.80
6	21.72	21.87	22.75	21.33	20.70	21.67	23.08	23.25	24.37	24.92	25.16	24.86
7	21.68	21.87	22.52	21.31	20.85	21.39	23.15	23.23	24.36	24.88	25.28	24.86
8	21.66	21.91	22.43	21.32	20.95	21.39	23.17	23.23	24.37	24.83	25.28	24.85
9	.....	22.03	22.42	21.38	20.94	21.95	23.16	23.27	24.58	24.88	.....	24.86
10	.....	22.06	22.39	21.38	20.97	21.98	23.15	23.30	24.58	24.88	.....	24.90
11	.....	22.06	22.39	21.19	20.99	22.01	23.14	23.30	24.58	24.84	.....	24.86
12	.....	22.03	22.39	21.15	21.01	22.04	23.14	23.26	24.44	24.88	25.23	24.74
13	.....	21.98	22.36	21.15	21.02	22.06	23.14	23.31	24.50	24.90	25.28	24.68
14	21.54	22.01	22.32	21.05	21.06	22.09	23.13	23.40	24.57	24.96	25.28	24.68

Fr-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	21.54	22.05	22.21	21.03	21.05	22.14	23.14	23.40	24.60	24.98	25.37	24.59
16	21.54	22.03	22.14	21.03	21.00	22.24	23.13	23.51	24.67	24.95	25.37	24.52
17	21.54	21.98	22.21	21.06	21.03	22.29	23.15	23.60	24.67	24.95	25.45	24.56
18	21.58	21.79	22.19	21.02	21.12	22.30	23.15	23.67	24.66	24.95	25.45	24.56
19	21.58	21.87	22.05	20.95	21.13	22.37	23.16	23.78	24.67	24.96	25.41	24.37
20	21.55	22.02	21.96	20.94	21.10	22.44	23.18	23.83	24.67	25.06	25.36	24.29
21	21.46	22.09	21.94	20.93	20.98	22.47	23.15	23.91	24.62	25.07	25.37	24.23
22	21.49	22.16	21.85	20.93	21.04	22.54	23.09	23.97	24.62	25.07	25.35	24.28
23	21.66	22.22	.....	20.85	21.05	22.61	23.08	23.99	24.63	25.07	25.35	24.27
24	21.65	22.46	.....	20.82	21.14	22.67	23.11	24.03	24.69	25.09	25.34	24.25
25	21.67	22.51	.....	20.80	21.20	22.77	23.10	24.13	24.80	25.12	25.34	24.22
26	21.67	22.54	.....	20.77	21.22	22.89	23.06	24.27	24.83	.....	25.28	24.22
27	21.69	22.54	.....	20.76	21.26	22.90	23.06	24.35	24.84	25.17	25.28	24.05
28	21.71	22.58	.....	20.72	21.32	22.93	23.11	24.40	24.84	25.19	25.27	23.95
29	21.67	22.75	.....	21.42	20.70	21.37	22.92	23.13	24.40	24.81	25.22	23.80
30	21.78	.....	21.43	20.69	21.45	22.96	23.13	24.36	24.77	25.23	25.00	23.72
31	21.79	.....	21.37	.....	21.52	.....	23.16	24.40	.....	25.23	.....	23.69

Fr-3. R. C. Hann farm. South of Reese. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.90	11.90	9.36	8.94	10.75	11.36	11.37	11.10	12.02	12.18	12.18	10.49
2	9.94	11.92	9.66	9.18	10.78	11.40	11.38	11.27	12.04	12.20	12.18	10.74
3	8.78	11.93	9.66	9.54	10.65	11.43	11.49	11.37	12.05	12.22	12.18	10.95
4	9.37	11.94	9.88	9.80	10.18	11.46	11.58	11.45	12.06	12.22	12.08	11.10
5	9.79	11.94	10.15	10.00	10.18	11.50	11.66	11.46	12.08	12.21	12.07	11.20
6	10.06	.....	10.34	10.02	10.06	11.61	11.70	11.30	12.09	12.21	12.05	11.34
7	10.50	.....	10.42	8.20	10.05	11.44	11.79	11.29	12.11	12.20	11.56	11.40
8	10.46	.....	10.50	10.89	9.62	11.45	11.83	11.36	12.11	12.21	11.23	11.50
9	10.49	.....	10.60	11.44	9.91	11.49	11.87	11.45	12.12	12.22	.....	11.57
10	10.20	12.00	10.70	11.78	10.16	11.50	11.91	11.52	12.14	12.22	.....	11.64
11	10.43	12.01	10.81	11.98	10.37	11.52	11.93	11.58	12.15	12.22	.....	11.68
12	10.60	12.02	10.93	11.84	10.48	11.55	11.94	11.61	12.17	12.22	11.42	11.73
13	10.74	11.98	11.02	4.68	10.44	11.55	11.94	11.66	12.18	12.23	11.52	11.75
14	10.94	10.26	11.06	3.18	10.05	11.56	11.91	11.71	12.20	12.24	11.56	11.72
15	11.08	6.56	11.07	5.94	9.89	11.58	11.91	11.75	12.21	12.24	11.59	11.52
16	11.14	7.89	11.03	7.40	10.02	11.59	11.77	11.77	12.22	12.22	11.62	10.38
17	11.24	7.99	9.90	8.32	10.02	11.62	11.84	11.79	12.23	12.21	11.68	9.00
18	11.34	8.67	10.03	8.89	9.76	11.64	11.84	11.81	12.23	12.04	11.70	9.58
19	11.43	8.94	10.14	9.25	10.05	11.66	11.87	11.82	12.24	12.04	11.71	10.00
20	11.46	9.22	9.54	9.55	10.29	11.69	11.91	11.84	12.23	12.00	11.64	10.28
21	11.50	9.72	8.85	9.80	10.49	11.71	11.94	11.86	12.07	12.00	11.50	10.45
22	11.55	10.12	9.24	9.98	10.64	11.67	11.90	11.86	12.00	12.02	11.39	10.46
23	11.60	10.40	9.44	10.12	10.78	11.61	11.41	11.83	12.07	12.04	11.48	10.60
24	11.65	10.57	9.43	10.24	10.89	11.67	11.04	11.87	12.10	12.07	11.56	10.76
25	11.70	.....	9.00	10.34	10.99	11.71	11.17	11.90	12.13	12.10	11.63	10.94
26	11.74	.....	8.91	10.46	11.07	11.75	11.34	11.93	12.16	.....	11.67	11.10
27	11.78	.....	8.82	10.52	11.13	11.78	11.46	11.96	12.16	12.14	11.67	11.17
28	.....	.....	6.13	10.55	11.19	11.78	10.98	11.99	12.18	12.15	11.20	11.25
29	11.83	.....	7.77	10.61	11.24	11.73	10.59	12.01	12.19	12.16	10.76	11.26
30	11.86	.....	8.64	10.68	11.29	11.64	10.84	12.01	12.17	12.17	10.16	11.11
31	11.88	.....	9.02	.....	11.34	.....	10.99	12.01	.....	12.16	.....	10.72

Fr-4. R. C. Hann farm. South of Reese. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.55	20.02	15.11	13.82	15.20	17.92	19.37	19.06	20.16	20.61	20.72	18.30
2	20.36	20.07	15.22	13.99	15.37	18.00	19.39	19.03	20.18	20.62	20.72	18.38
3	16.37	20.11	15.30	14.17	15.45	18.07	19.41	19.08	20.21	20.63	20.73	18.46
4	16.58	20.15	15.40	14.36	15.56	18.14	19.43	19.15	20.24	20.64	20.73	18.55
5	16.80	20.19	15.51	14.56	15.67	18.21	19.46	19.20	20.26	20.64	20.72	18.64
6	17.03	.....	15.63	14.68	15.77	18.28	19.52	19.23	20.28	20.66	20.72	18.73

Fr-4--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	17.23	.....	15.75	14.75	15.86	18.33	19.55	19.26	20.31	20.66	20.22	18.82
8	17.44	.....	16.85	14.85	15.93	18.40	19.58	19.29	20.33	20.67	19.46	18.90
9	17.61	.....	16.96	14.98	16.01	18.45	19.61	19.34	20.35	20.68	.....	18.99
10	17.69	20.31	17.00	15.13	16.11	18.51	19.64	19.38	20.36	20.69	.....	19.07
11	17.82	20.34	17.17	15.28	16.21	18.57	19.68	19.43	20.38	20.70	.....	19.15
12	17.96	20.37	17.27	15.33	16.32	18.63	19.70	19.47	20.40	20.70	19.58	19.23
13	18.11	20.38	17.38	14.48	16.41	18.68	19.73	19.51	20.42	20.71	19.62	19.28
14	18.26	20.25	17.48	12.96	16.47	18.71	19.76	19.55	20.44	20.72	19.66	19.33
15	18.41	14.65	17.59	11.83	16.53	18.74	19.77	19.59	20.46	20.72	19.68	19.35
16	18.54	13.99	17.64	12.02	16.60	18.77	19.79	19.66	20.48	20.73	19.72	19.00
17	18.67	14.19	17.63	12.24	16.66	18.82	19.81	19.70	20.49	20.73	19.76	16.91
18	18.80	14.36	17.69	12.47	16.71	18.87	19.83	19.74	20.51	20.73	19.80	16.94
19	18.92	14.54	17.73	12.74	16.78	18.92	19.84	19.78	20.53	20.72	19.83	17.06
20	19.05	14.70	17.73	12.97	16.85	18.96	19.86	19.81	20.53	20.71	19.84	17.14
21	19.16	14.88	16.55	13.21	16.94	19.06	19.89	19.84	20.53	20.70	19.85	17.16
22	19.25	15.10	17.62	13.44	17.02	19.10	19.90	19.87	20.53	20.70	19.85	17.27
23	19.35	15.30	17.70	13.67	17.10	19.13	19.90	19.90	20.54	20.70	19.84	17.38
24	19.44	15.50	17.73	13.87	17.22	.....	19.90	19.93	20.55	20.70	19.86	17.48
25	19.52	.....	15.86	14.08	17.31	.....	19.88	19.96	20.56	20.70	19.88	17.60
26	19.60	.....	15.60	14.30	17.39	.....	19.88	19.99	20.57	20.70	19.92	17.70
27	19.68	.....	15.64	14.50	17.48	.....	19.90	20.02	20.58	20.70	19.93	17.82
28	.....	.....	14.07	14.68	17.57	19.31	19.90	20.05	20.59	20.70	19.85	17.95
29	19.84	.....	13.22	14.86	17.65	19.34	18.90	20.08	20.60	20.71	19.17	18.05
30	19.91	.....	13.43	15.04	17.73	19.35	18.95	20.11	20.60	20.72	18.36	18.14
31	19.96	.....	13.64	.....	17.80	.....	19.01	20.13	.....	20.72	.....	18.22

a Estimated.

Fr-5. R. C. Hann farm. South of Reese. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.38	21.30	18.22	16.91	19.11	20.18	20.79	20.04	21.24	21.45	21.51	19.55
2	20.25	21.32	18.46	17.21	19.23	20.24	20.73	20.14	21.26	21.46	21.52	19.68
3	.....	21.34	18.63	17.51	19.24	20.29	20.70	20.24	21.28	21.47	21.52	19.82
4	.....	21.35	18.78	18.30	19.20	20.35	20.71	20.34	21.29	21.49	21.52	19.98
5	18.68	21.37	18.97	18.20	19.17	20.39	20.75	20.39	21.31	21.50	21.50	20.12
6	18.98	.....	18.17	18.34	19.15	20.44	20.77	20.40	.....	21.51	21.49	20.25
7	19.25	.....	18.35	18.12	19.13	20.46	20.81	20.41	.....	21.52	21.20	20.36
8	19.49	.....	19.48	17.60	19.03	20.48	20.85	20.44	.....	21.52	20.51	20.47
9	19.65	.....	19.60	17.81	18.75	20.50	20.89	20.48	.....	21.53	.....	20.57
10	19.65	21.43	19.72	18.07	18.78	20.53	20.93	20.52	.....	21.54	.....	20.67
11	19.71	21.44	19.83	18.34	17.95	20.55	20.97	20.57	.....	21.54	.....	20.76
12	19.84	21.45	19.93	18.40	18.07	20.58	20.99	20.61	.....	21.54	20.70	20.83
13	19.98	21.45	20.04	16.70	18.14	20.60	21.02	20.65	21.41	21.55	20.74	20.89
14	20.11	21.32	20.14	14.78	18.14	20.61	21.04	20.69	21.42	21.56	20.79	20.92
15	20.26	17.50	20.21	13.64	18.05	20.63	21.04	20.74	21.43	21.56	20.82	20.92
16	20.38	16.57	20.23	14.13	18.04	20.65	21.03	20.78	21.44	21.56	.....	20.45
17	20.48	16.98	19.68	14.71	19.06	20.68	21.03	20.81	21.46	21.56	.....	18.70
18	20.58	17.93	19.13	15.28	19.05	20.70	21.04	20.85	21.47	21.55	.....	18.55
19	20.68	17.66	19.23	15.85	19.00	20.72	21.04	20.88	21.48	21.51	.....	18.75
20	20.79	17.95	19.23	16.33	19.08	20.74	21.05	20.90	21.48	21.49	.....	18.98
21	20.86	18.24	18.00	16.77	19.18	20.76	21.07	20.93	21.46	21.46	.....	19.18
22	20.92	18.58	18.18	17.15	19.29	20.77	21.07	20.94	21.43	21.45	20.90	19.33
23	20.97	18.91	18.37	17.50	19.40	20.77	20.78	21.05	21.41	21.44	20.90	19.47
24	21.02	19.15	18.40	17.80	19.52	20.78	20.68	21.06	21.40	21.44	20.93	19.62
25	.....	.....	17.68	17.06	19.62	20.79	20.38	21.08	21.40	21.44	20.96	19.77
26	.....	.....	17.40	18.31	19.72	20.82	20.40	21.10	21.41	.....	21.00	19.92
27	.....	.....	17.50	18.52	19.82	20.85	20.45	21.12	21.42	21.46	21.01	20.05
28	.....	.....	16.20	18.70	19.90	20.86	20.45	21.15	21.43	21.47	20.90	20.17
29	21.22	.....	15.53	18.84	19.98	20.86	19.75	21.17	21.44	21.48	20.26	20.27
30	21.25	.....	16.04	18.98	20.05	20.86	19.84	21.21	21.45	21.49	19.67	20.28
31	21.28	.....	16.55	.....	20.17	.....	19.94	21.22	.....	21.50	.....	20.27

Fr-6. R. C. Hann farm. South of Reese. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.12	25.05	22.39	21.40	22.61	23.73	24.40	23.87	24.73	25.12	25.27	23.57
2	24.44	25.07	22.62	21.59	22.71	23.78	24.37	23.85	24.74	25.13	25.27	23.67
3	22.69	25.09	22.75	21.82	22.72	23.84	24.33	23.92	24.75	25.14	25.28	23.79
4	22.83	25.10	22.87	22.05	22.66	23.89	24.33	24.00	24.76	25.17	25.27	23.90
5	23.16	25.12	23.03	22.27	22.62	23.93	24.36	24.04	24.78	25.18	25.26	24.02
6	23.40	.....	22.21	22.37	22.60	23.97	24.42	24.04	24.80	25.19	25.25	24.14
7	23.60	.....	22.36	21.99	22.57	23.97	24.46	24.04	24.95	25.19	25.06	24.23
8	23.77	.....	23.46	21.55	22.51	23.97	24.50	24.06	24.96	25.20	24.54	24.32
9	23.85	.....	23.55	21.75	22.29	24.00	24.54	24.11	24.96	25.21	.....	24.40
10	23.85	25.17	23.63	21.99	22.35	24.03	24.58	24.14	24.98	25.22	.....	24.48
11	23.75	25.18	23.72	22.22	22.46	24.05	24.62	24.18	24.99	25.23	.....	24.53
12	23.87	25.19	23.80	22.28	22.57	24.09	24.66	24.21	25.01	25.23	24.50	24.60
13	23.96	25.19	23.88	20.80	22.63	24.10	24.67	24.26	25.02	25.24	24.53	24.76
14	24.08	25.07	23.95	19.25	22.63	24.14	24.69	24.29	25.03	25.25	24.56	24.78
15	24.21	22.17	24.02	18.23	22.59	24.16	24.70	24.34	25.05	25.26	24.61	24.78
16	24.31	21.38	24.02	18.68	22.56	24.18	24.70	24.37	25.07	25.26	24.64	24.40
17	24.38	21.72	23.55	19.17	22.57	24.20	24.69	24.41	25.08	25.26	24.67	23.10
18	24.46	21.97	22.13	19.66	22.54	24.23	24.70	24.44	25.10	25.26	24.71	22.88
19	24.54	22.19	22.22	20.13	22.50	24.25	24.71	24.47	25.11	25.23	24.73	23.01
20	24.62	22.40	22.22	20.51	22.57	24.28	24.72	24.49	25.12	25.21	24.74	23.19
21	24.67	21.61	22.20	20.87	22.67	24.32	24.75	24.52	25.11	25.18	24.74	23.33
22	24.71	21.87	22.35	21.17	22.77	24.32	24.75	24.53	25.08	25.16	24.70	23.44
23	24.76	22.11	22.52	21.45	22.88	24.32	24.54	24.54	25.06	25.16	24.65	23.55
24	22.79	22.33	22.55	21.67	23.05	24.34	24.45	24.55	25.05	25.16	24.25	23.65
25	27.84	.....	21.85	21.88	23.15	24.36	24.23	24.57	25.06	25.17	24.68	23.76
26	27.88	.....	21.70	21.99	23.21	24.39	24.21	24.59	25.07	.....	24.72	23.88
27	27.91	.....	21.74	22.15	23.35	24.42	24.27	24.61	25.08	25.20	24.73	24.01
28	.....	.....	20.68	22.30	23.43	24.42	24.27	24.63	25.09	25.21	24.72	24.10
29	24.98	.....	20.23	22.41	23.50	24.43	23.72	24.66	25.11	25.22	24.19	24.17
30	25.01	.....	20.67	22.50	23.57	24.43	23.73	24.70	25.11	25.24	23.72	24.19
31	25.03	.....	21.11	.....	23.63	.....	23.79	24.71	.....	25.25	.....	24.19

Fr-7. Moores & Ross Dairy Co. In Columbus. Recorder removed and measurements discontinued after May 16. Records available: 1942-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May
1	104.53	102.71	103.85	100.09	104.19
2	103.00	103.36	103.99	100.32	103.45
3	102.89	103.35	103.18	100.57	104.16
4	101.87	103.39	101.29	100.21	104.67
5	103.48	104.21	101.59	99.84	104.81
6	104.11	.....	102.85	100.25	105.40
7	104.38	.....	103.45	100.64	105.61
8	104.78	.....	102.99	100.23	105.58
9	104.48	.....	103.56	101.74	104.88
10	104.28	103.88	103.14	101.93	104.77
11	103.48	103.63	102.56	100.91	106.05
12	103.08	103.38	102.32	101.40	106.69
13	103.58	103.08	101.63	101.48	106.69
14	103.61	103.00	100.73	101.70	106.55
15	103.39	102.03	100.93	101.48	106.33
16	103.78	102.48	101.47	101.23	104.98
17	103.78	102.93	101.73	101.54	.....
18	103.78	103.38	101.73	101.24	.....
19	102.83	103.48	101.35	101.08	.....
20	103.27	103.68	101.35	101.59	.....
21	103.16	103.58	100.70	102.57	.....
22	103.89	102.73	100.79	102.87	.....
23	104.08	103.03	101.22	102.42	.....
24	103.83	103.84	101.78	102.65	.....
25	103.30	104.40	101.33	101.49	.....
26	103.53	104.36	101.32	101.22	.....
27	103.98	104.37	100.36	102.36	.....
28	.....	103.10	99.85	103.66	.....
29	103.69	102.43	100.00	103.82	.....
30	103.53	103.85	100.22	104.15	.....
31	102.96	.....	99.86	.....	.....

Fr-8. City of Columbus. At southeast corner of intersection of Third Ave. and Olentangy River Road, in Columbus. Drilled test well, diameter 6 inches, depth 68 feet. Measuring point, floor of recorder shelter, 3.0 feet above land-surface datum. Automatic water-stage recorder installed Mar. 31. Records available: 1948.

Lowest daily water level, from recorder charts									
Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	20.83	22.32	22.89	23.39	23.49	24.42	.....	21.64
2	21.05	22.35	22.96	23.41	23.60	24.46	.....	22.07
3	21.29	21.90	23.02	22.98	23.69	24.49	.....	.....
4	21.42	21.99	23.09	23.12	23.71	24.54	.....	.....
5	21.56	.....	23.17	23.18	23.68	24.54	.....	.....
6	21.54	.....	23.16	23.24	23.74	24.50	.....	.....
7	23.01	23.30	23.82	24.43	.....	.....
8	14.77	.....	23.14	23.34	23.82	.....	.....	.....
9	15.22	.....	.....	23.37	23.59	.....	.....	.....
10	15.41	.....	.....	23.40	23.71	.....	24.65	.....
11	23.42	23.80	24.65	24.62	.....
12	23.41	23.44	23.84	24.66	24.67	.....
13	14.59	.....	23.31	23.49	23.89	24.65	24.68	23.27
14	23.26	23.51	23.96	24.70	24.69	21.86
15	22.21	23.49	23.96	24.74	24.69	21.50
16	22.65	23.10	23.92	24.74	24.70	20.16
17	21.13	22.87	23.22	23.94	24.73	24.61	18.98
18	20.74	23.01	23.30	23.94	24.75	.....	.....
19	20.98	23.12	23.42	24.00	.....	.....	.....
20	21.11	21.45	23.16	23.46	24.02	.....	.....	21.30
21	21.34	21.76	23.16	23.46	24.04	.....	.....	21.60
22	21.52	21.94	22.76	23.41	.....	.....	23.76	21.78
23	21.66	22.13	22.95	23.46	24.07	.....	23.81	.....
24	21.78	22.25	22.95	23.44	24.16	.....	23.89	.....
25	21.87	22.42	23.09	23.47	24.21	.....	23.95	.....
26	22.00	22.50	23.25	23.50	24.26	.....	24.02	.....
27	22.04	22.61	23.25	23.56	24.31	.....	24.08	.....
28	22.12	22.68	23.30	23.47	24.35	.....	24.10	.....
29	22.20	22.78	23.34	23.57	24.35	.....	24.11	.....
30	22.26	22.78	23.26	23.38	24.33	.....	.....	21.62
31	20.69	.....	22.80	.....	23.39	24.40	.....	.....	21.66

Fr-10. Ohio State University. Near Columbus, 200 feet west of Kenney Road, 600 feet south of Ackerman Road, in farm lot. Abandoned drilled well, diameter 4 inches, depth 75 feet. Measuring point from Mar. 15, 1944, to Dec. 1, 1948, top of casing, 0.6 foot above land-surface datum; after Dec. 1, 1948, floor of recorder shelter, 3.7 feet above land-surface datum. Measured weekly by U. S. Dept. of Agriculture from Mar. 15, 1944, to Dec. 1, 1948. Automatic water-stage recorder installed Dec. 9, 1948. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level
Mar. 15, 1944	44.67	July 20, 1944	45.37	Dec. 13, 1944	46.40
22	44.70	26	45.00	20	46.30
29	43.90	Aug. 9	45.70	27	46.25
Apr. 5	44.17	23	45.80	Jan. 3, 1945	46.40
12	43.61	Sept. 3	45.70	10	46.40
19	43.58	13	46.00	17	46.60
25	43.40	20	46.20	24	46.40
May 3	43.45	27	46.20	31	46.50
10	43.58	Oct. 4	46.23	Feb. 7	46.30
17	43.47	11	46.20	14	46.40
24	43.24	18	46.30	21	46.15
31	43.40	25	46.15	28	45.90
June 10	43.40	Nov. 1	46.30	Mar. 7	45.30
16	43.40	8	46.20	15	44.90
21	43.55	15	46.15	21	44.20
28	44.00	23	46.40	28	44.20
July 7	44.40	29	46.40	Apr. 4	43.80
13	44.20	Dec. 6	46.40	11	44.00

Fr-10--Continued.

Date	Water level	Date	Water level	Date	Water level
Apr. 18, 1945	43.60	Aug. 21, 1946	43.05	Dec. 17, 1947	42.40
25	43.10	28	43.12	31	42.30
May 2	43.00	Sept. 4	43.40	Jan. 7, 1948	42.00
9	43.30	11	43.50	14	41.70
16	42.95	18	43.70	21	41.40
23	43.00	25	43.85	28	41.70
31	43.00	Oct. 2	43.90	Feb. 4	41.50
June 6	43.10	9	43.85	11	41.90
13	43.10	16	43.85	18	41.60
20	43.10	23	43.90	25	41.50
27	43.00	30	44.00	Mar. 3	41.40
July 4	43.05	Nov. 6	44.10	10	41.20
11	42.51	13	44.10	17	41.10
18	43.30	20	44.20	24	40.40
25	43.30	27	44.20	31	39.10
Aug. 8	43.60	Dec. 4	44.20	Apr. 7	39.10
15	43.30	11	44.20	14	38.60
24	43.80	18	44.10	21	38.60
Sept. 5	43.90	26	44.00	28	38.70
12	44.00	Jan. 2, 1947	43.70	May 5	39.00
19	44.05	9	43.40	12	39.10
26	44.25	16	43.30	19	39.40
Oct. 3	44.40	22	43.10	26	39.40
10	44.30	29	43.40	June 2	39.70
17	44.20	Feb. 5	41.90	9	40.10
24	44.25	12	42.20	16	40.50
31	44.30	19	42.10	23	40.90
Nov. 7	44.40	26	42.10	30	41.10
14	44.50	Mar. 5	42.10	July 7	41.40
21	44.40	12	42.26	14	41.60
28	44.40	19	42.25	21	42.00
Dec. 5	44.40	26	42.25	28	42.20
12	44.70	Apr. 2	41.90	Aug. 4	42.40
26	44.40	9	41.80	11	42.60
Jan. 3, 1946	44.60	16	41.50	18	42.85
9	44.30	23	41.20	25	43.20
16	44.40	30	40.20	Sept. 1	43.30
23	44.30	May 7	40.10	8	43.30
30	44.10	14	40.00	15	43.60
Feb. 6	44.10	21	39.20	22	43.60
13	43.80	28	39.20	29	43.60
20	43.70	June 4	39.20	Oct. 6	43.60
27	43.25	11	39.20	13	43.60
Mar. 6	43.10	18	39.60	20	43.80
13	42.85	25	40.00	27	43.70
20	42.55	July 2	40.40	Nov. 7	43.60
27	42.20	9	40.80	10	43.60
Apr. 2	42.10	16	40.20	17	43.70
10	42.00	23	40.20	24	43.70
17	42.10	Aug. 6	40.85	Dec. 1	43.90
24	42.10	20	41.20	9	43.52
May 1	42.40	27	41.90	10	43.68
8	42.30	Sept. 3	41.80	11	43.60
15	42.40	10	42.00	12	43.46
22	42.50	17	42.20	13	43.50
29	42.50	24	42.20	14	43.57
June 5	42.50	Oct. 1	42.20	15	43.34
12	42.65	8	42.00	22	43.23
19	42.20	15	42.10	23	43.27
26	42.10	22	42.30	24	43.22
July 3	42.00	29	42.30	25	43.37
10	42.00	Nov. 5	42.30	26	43.37
17	42.15	12	42.40	27	43.10
24	42.40	19	42.40	28	43.09
31	42.40	26	42.20	29	42.95
Aug. 7	42.80	Dec. 3	42.40	30	42.98
15	42.90	10	42.30	31	42.98

Fulton County

Fn-1. City of Delta. In Delta. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	62.67	63.14	63.31	62.76	62.79	63.19	63.26	63.23	63.59	63.33	63.35	63.54
2	62.69	63.13	63.00	63.20	62.82	63.14	63.33	63.32	63.43	63.65	63.35	63.50
3	62.90	63.25	63.18	63.47	62.94	63.13	63.15	63.31	63.33	63.75	63.17	62.56
4	.....	63.03	63.76	63.42	62.93	62.81	63.20	63.30	63.41	63.72	62.92	62.56
5	.....	63.20	63.82	62.98	62.93	62.99	63.17	63.32	63.42	63.49	62.89	62.40
6	.....	63.13	63.57	62.98	62.89	63.01	63.01	63.36	63.33	63.36	63.04	62.32
7	.....	63.09	62.83	62.92	.....	62.74	63.19	63.31	63.21	63.19	63.49	62.31
8	62.76	63.33	62.91	62.99	62.93	62.61	63.27	63.30	63.25	63.04	63.50	62.54
9	63.00	63.38	63.02	63.35	62.94	62.82	63.29	63.37	63.32	63.05	63.19	63.28
10	63.33	63.45	63.15	63.34	63.00	62.94	63.22	63.37	63.36	63.09	63.25	63.57
11	63.32	63.39	63.26	62.75	63.00	62.98	63.09	63.20	63.30	63.06	63.41	63.52
12	62.98	63.18	63.34	63.14	63.06	62.90	63.01	63.11	63.31	63.15	63.41	63.17
13	62.90	63.00	63.24	63.18	62.99	62.92	63.02	63.19	63.50	63.25	63.36	63.35
14	63.10	63.20	63.16	63.10	62.95	62.95	63.12	63.29	63.60	63.41	63.36	63.52
15	63.07	63.39	62.72	63.15	62.96	63.04	63.13	63.32	63.62	63.49	63.30	63.25
16	63.22	63.28	62.87	63.22	62.77	63.13	63.03	63.26	63.67	63.29	63.25	63.20
17	63.26	63.06	63.17	63.40	62.89	63.12	63.05	63.18	63.66	63.48	63.22	63.45
18	63.36	.....	63.21	63.28	63.17	63.07	63.06	63.17	63.50	63.53	63.30	63.45
19	63.31	.....	62.76	63.03	63.31	63.03	63.07	63.30	63.25	63.40	63.11	62.97
20	63.11	.....	62.95	62.96	63.14	63.17	63.07	63.35	63.21	63.59	63.01	62.84
21	62.66	.....	62.72	63.25	62.76	63.10	63.01	63.35	63.19	63.63	63.20	63.06
22	62.67	.....	62.76	63.27	62.87	63.00	62.88	63.42	63.21	63.61	63.14	63.37
23	63.19	.....	62.75	63.15	62.92	62.97	63.14	63.48	63.22	63.56	63.14	63.50
24	63.19	.....	63.10	63.00	63.01	62.92	63.20	63.40	63.47	63.70	63.02	63.47
25	63.25	.....	63.12	62.97	63.04	62.98	63.21	63.34	63.69	63.67	63.04	63.80
26	63.28	62.95	62.81	62.89	63.06	63.05	63.03	63.43	63.79	63.55	62.92	63.82
27	63.33	62.96	62.79	62.85	62.97	63.05	63.04	63.49	63.75	63.53	63.34	63.98
28	63.38	62.96	62.94	62.81	62.90	62.94	63.14	63.47	63.63	63.49	63.35	63.33
29	63.03	63.29	62.77	62.80	63.00	62.89	63.19	63.41	63.42	63.44	63.27	63.08
30	63.30	.....	62.78	62.78	63.09	63.07	63.07	63.39	63.25	63.40	63.31	63.32
31	63.30	.....	62.59	.....	63.18	.....	63.10	63.52	.....	63.24	.....	63.13

Fn-2. Village of Wauseon. 2 miles south of Wauseon. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	56.67	.....	55.62	55.58	55.40	55.37	56.48	57.01	.....	57.25	57.48
2	.....	56.69	.....	55.27	55.76	55.56	55.46	56.63	56.90	.....	57.24	57.47
3	.....	56.87	.....	54.84	55.70	55.79	55.46	56.63	56.89	.....	57.06	57.23
4	.....	56.87	.....	55.31	55.55	55.63	55.46	56.62	56.95	57.16	56.81	57.22
5	.....	56.64	.....	55.36	55.34	55.70	55.58	56.62	56.95	57.12	56.80	57.04
6	.....	56.65	.....	55.20	55.56	55.87	55.72	56.57	56.81	57.04	56.88	56.98
7	.....	56.92	.....	55.36	55.73	56.13	55.50	56.60	56.76	56.91	57.28	56.98
8	57.27	56.85	.....	55.37	55.48	56.16	55.31	56.68	56.76	56.80	57.28	57.17
9	57.28	56.51	.....	55.02	55.76	55.76	55.30	56.73	56.88	56.82	57.04	57.24
10	56.69	56.67	.....	55.20	55.72	55.70	55.41	56.74	56.88	56.80	57.08	57.38
11	56.70	56.84	.....	55.87	55.60	55.69	55.46	56.59	56.88	56.90	57.27	57.39
12	56.85	56.68	.....	55.52	55.62	55.90	55.55	56.49	56.82	56.86	57.27	57.07
13	56.68	57.83	.....	55.01	55.79	55.83	55.55	56.54	57.01	56.92	57.22	57.26
14	.....	57.85	.....	55.30	55.72	55.71	55.49	56.63	57.08	57.09	57.22	57.30
15	57.15	56.91	.....	55.17	55.68	55.70	55.48	56.53	57.14	57.09	57.14	57.15
16	57.12	57.20	.....	55.57	55.79	55.55	.....	56.49	57.18	56.97	57.14	57.12
17	56.67	57.15	.....	54.90	55.73	55.50	55.83	56.50	57.19	57.06	57.08	57.36
18	56.65	56.99	55.20	55.33	55.49	55.70	55.79	56.59	57.10	57.10	57.06	57.36
19	57.02	57.29	55.84	55.44	55.40	55.70	56.43	56.67	56.92	57.06	57.00	56.96
20	57.55	56.84	55.36	55.65	55.84	55.52	56.43	56.71	56.88	57.13	56.92	56.77
21	.....	56.49	55.81	55.19	55.76	55.70	56.40	56.73	56.87	57.23	57.11	56.99
22	57.39	56.52	55.80	54.96	55.76	55.68	56.31	56.78	.....	57.23	57.08	57.33
23	57.13	56.47	.....	55.10	55.75	55.70	56.51	56.80	.....	57.24	57.05	57.42
24	57.22	.....	55.39	55.27	55.62	55.74	56.55	56.78	.....	57.30	56.98	57.42
25	57.21	.....	55.18	55.39	55.53	55.66	56.56	56.77	.....	57.36	57.00	57.73
26	56.99	.....	55.81	55.21	55.51	55.62	56.28	56.87	.....	57.27	56.94	57.71

Fn-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	56.73	57.70	55.86	55.52	55.66	55.58	56.32	56.93	.....	57.23	57.32	57.34
28	56.70	57.88	55.39	55.48	55.61	55.58	56.44	56.97	.....	57.20	57.32	57.33
29	57.13	57.30	55.60	55.24	55.56	55.67	56.48	56.95	.....	57.26	57.27	56.94
30	56.73		55.55	55.42	55.51	55.62	56.41	56.90	.....	57.26	57.30	57.25
31	56.66		55.85		55.56		56.48	57.01		57.14		57.25

Geauga County

Ge-1. Village of Chardon. In Chardon. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	52.96	53.12	53.24	52.49	52.24	52.15	52.82	53.74	54.86	54.47	54.26	54.43
2	52.91	53.15	52.82	52.89	52.25	52.08	52.87	53.80	54.71	54.64	54.28	54.40
3	53.10	53.44	53.02	53.15	52.34	52.02	52.63	53.90	54.55	54.72	54.19	54.15
4	52.98	53.25	53.59	53.09	52.31	51.82	52.64	53.90	54.65	54.70	54.04	54.16
5	53.18	53.43	53.63	52.60	52.27	52.20	52.61	53.87	54.77	54.49	54.04	54.04
6	53.08	53.40	53.31	52.61	52.24	52.24	52.42	53.95	54.80	54.40	54.11	.....
7	53.10	53.36	52.59	.....	51.96	51.90	52.72	53.97	54.73	54.30	54.50	.....
8	53.04	53.61	52.85	.....	52.25	51.85	52.86	54.00	54.81	54.23	54.54	.....
9	53.15	.....	52.93	.....	52.27	52.17	52.94	54.05	54.87	54.21	54.70	.....
10	53.44	53.71	53.03	.....	52.27	52.27	52.91	54.04	54.87	54.24	.....	.....
11	53.42	53.68	53.14	.....	52.22	52.26	52.82	53.84	54.83	54.22	.....	.....
12	52.99	53.46	53.24	.....	52.18	52.21	52.83	53.65	54.79	54.28	.....	.....
13	52.94	53.33	53.18	52.79	52.04	52.18	52.82	53.62	54.99	54.28	.....	.....
14	53.16	53.71	53.07	52.66	51.99	52.19	.....	53.73	55.05	54.47	.....	54.04
15	53.16	53.78	52.76	52.75	52.03	52.32	.....	53.82	55.10	54.54	.....	53.90
16	53.28	53.59	52.92	52.73	51.83	52.39	.....	53.88	55.15	54.37	54.08	53.65
17	53.29	53.27	53.15	52.87	51.84	52.41	.....	53.94	55.09	54.36	54.27	.....
18	.....	53.15	53.20	52.72	52.12	52.42	.....	53.92	54.90	54.42	54.35	53.80
19	53.31	53.01	52.76	52.52	52.18	52.32	.....	53.97	54.78	54.25	54.23	53.49
20	53.17	53.36	52.93	52.59	52.00	52.47	53.13	54.00	54.75	54.47	54.12	53.45
21	52.78	53.35	52.70	52.70	51.66	52.48	53.11	54.06	54.74	54.52	54.27	53.62
22	52.68	53.15	52.65	52.72	51.80	52.45	53.02	54.16	54.72	54.43	54.24	53.87
23	53.43	53.32	52.49	52.57	51.90	52.38	53.19	54.22	54.66	54.33	54.15	53.97
24	53.47	53.29	52.77	52.46	51.97	52.35	53.27	54.11	54.93	54.40	54.07	53.93
25	53.47	52.99	52.77	52.44	51.98	52.47	53.27	54.27	54.98	54.38	54.18	54.14
26	53.47	52.82	52.43	52.43	52.03	52.57	53.10	54.45	55.04	54.30	54.10	54.18
27	53.43	52.88	52.35	52.36	51.95	52.59	53.13	54.55	54.96	54.29	54.36	53.85
28	53.43	52.67	52.58	52.26	51.87	52.53	53.25	54.58	54.80	54.27	54.34	53.84
29	52.98	53.24	52.52	52.25	51.95	52.54	53.31	54.60	54.65	54.28	54.25	53.57
30	53.47		52.56	52.14	52.04	52.60	53.23	54.69	54.48	54.25	54.26	53.61
31	53.47		52.39		52.14		53.45	54.83		54.16		53.52

Ge-2. D. L. Cameron. 5 miles southwest of Burton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.94	14.85	13.94	12.64	11.97	12.26	13.46	14.38	14.68	15.17	15.19	14.59
2	14.72	14.87	13.73	12.75	11.98	12.75	13.50	14.41	14.69	15.20	15.18	14.53
3	14.71	14.89	13.81	12.88	12.00	12.38	13.53	14.43	14.82	15.21	15.16	14.53
4	14.65	14.91	13.92	12.83	12.01	12.43	13.57	14.42	14.85	15.21	15.15	14.55
5	14.69	14.94	13.92	12.68	11.83	12.64	13.59	14.43	14.86	15.21	15.15	14.52
6	14.59	14.95	13.79	12.79	11.58	12.68	13.64	14.46	14.86	15.22	15.15	14.59
7	14.63	14.94	13.71	12.76	11.34	12.60	13.73	14.49	14.87	15.24	15.13	14.58
8	14.61	15.02	13.81	12.89	11.23	12.51	13.77	14.53	14.88	15.22	15.12	14.61
9	14.62	15.01	13.82	12.99	11.11	12.68	13.79	14.55	14.91	15.22	15.07	14.61
10	14.64	15.01	13.79	12.97	11.18	12.74	13.81	14.55	14.93	15.23	15.11	14.66
11	14.59	15.02	13.83	12.81	11.23	12.77	13.85	14.56	14.95	15.22	15.11	14.63
12	14.56	15.00	13.84	12.76	11.35	12.77	13.36	14.40	14.99	15.22	15.08	14.55
13	14.57	14.69	13.83	12.74	11.32	12.71	13.90	14.41	15.02	15.22	15.07	14.46
14	14.63	14.65	13.80	12.40	11.10	12.86	13.95	14.45	15.05	15.24	15.05	14.45
15	14.64	14.42	13.69	12.01	11.15	12.88	13.99	14.47	15.07	15.25	15.04	14.36

Ge-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	14.67	14.28	13.56	12.04	11.14	13.01	13.98	14.50	15.08	15.23	15.03	14.26
17	14.65	14.27	13.55	12.17	10.83	13.08	14.01	14.52	15.09	15.23	15.05	14.21
18	14.67	14.15	13.43	12.13	.....	13.09	14.06	14.39	15.13	15.13	15.05	14.21
19	14.66	14.06	13.32	12.17	11.09	13.11	14.10	14.41	15.11	15.07	15.00	14.15
20	14.67	14.11	13.25	12.17	10.78	13.15	14.10	14.44	15.05	15.10	14.93	14.15
21	14.61	14.03	13.05	.....	11.03	13.18	14.12	14.48	15.05	15.09	14.88	14.18
22	14.73	14.05	12.62	.....	11.24	13.19	14.12	14.52	15.06	15.08	14.83	14.19
23	14.81	14.09	12.46	.....	11.41	13.23	14.14	14.52	15.08	15.10	14.83	14.17
24	14.79	14.08	12.64	.....	11.48	13.27	14.17	14.55	15.11	15.11	14.81	14.14
25	14.81	13.99	12.64	.....	11.56	13.34	14.18	14.60	15.13	15.11	14.85	14.26
26	14.80	13.94	12.52	.....	11.65	13.37	14.18	14.64	15.13	15.12	14.81	14.25
27	14.80	13.94	12.64	.....	11.73	13.42	14.19	14.65	15.14	15.14	14.76	14.20
28	14.82	13.88	12.72	.....	11.84	13.31	14.24	14.66	15.16	15.15	14.69	14.21
29	14.80	13.97	12.64	.....	11.98	13.42	14.25	14.69	15.17	15.17	14.64	14.09
30	14.87		12.71	11.75	12.10	13.41	14.23	14.72	15.16	15.17	14.55	13.94
31	14.86		12.64		12.20		14.33	14.74		15.17		13.85

Ge-3. Village of Chagrin Falls. In municipal well field about 1 mile southeast of Chagrin Falls. Drilled well, diameter 6 inches, depth 125 feet. Measuring point, floor of recorder shelter, 3.2 feet above land-surface datum. Automatic water-stage recorder installed Apr. 8. Records available: 1948.

Lowest daily water level, from recorder charts

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	70.82	.....	64.05	.....	66.94	64.20	64.80	50.93
2	.....	70.80	.....	63.45	.....	66.95	63.55	61.80	60.05
3	.....	.....	.....	65.05	.....	67.55	64.60	64.27	62.96
4	.....	.....	.....	64.40	.....	67.18	63.50	64.05	.....
5	.....	.....	.....	62.00	65.35	66.35	.....	64.38	57.50
6	.....	.....	.....	64.52	67.48	66.81	60.90	60.20	62.85
7	.....	.....	.....	64.90	63.20	66.95	62.85	62.40	52.65
8	74.37	.....	.....	63.85	66.36	66.30	64.42	60.90	59.70
9	74.73	.....	.....	65.36	66.21	66.28	64.85	63.11	63.30
10	74.60	.....	.....	65.30	67.14	66.28	61.40	60.30	52.32
11	74.00	.....	.....	65.43	65.90	66.12	63.65	62.40	59.80
12	.....	.....	.....	65.51	67.25	66.75	62.35	60.40	62.90
13	73.95	.....	.....	62.72	66.60	66.27	63.73	62.27	51.98
14	74.17	.....	.....	63.80	66.80	65.14	64.30	59.60	58.08
15	74.27	.....	65.10	65.01	67.22	65.09	62.10	61.70	60.20
16	74.15	.....	66.85	61.85	67.36	65.35	.....	51.88	51.13
17	74.34	.....	66.86	64.36	67.47	66.52	64.08	51.72	56.70
18	.....	.....	64.50	64.50	67.46	65.85	64.32	.....	58.64
19	.....	.....	68.01	60.30	66.96	63.00	64.95	.....	50.65
20	.....	.....	68.51	63.32	64.34	65.12	64.00	59.80	.....
21	.....	.....	.....	.....	64.55	66.01	61.80	62.97	61.11
22	70.60	.....	63.80	.....	64.62	64.80	63.65	59.65	51.70
23	70.91	.....	64.73	.....	65.25	63.80	64.20	61.87	58.05
24	71.11	.....	62.75	.....	65.26	66.50	64.65	59.65	61.83
25	.....	.....	65.24	.....	63.80	.....	62.20	62.14	57.65
26	.....	.....	65.73	.....	65.38	.....	63.67	59.40	61.40
27	.....	.....	61.70	.....	66.95	62.05	64.70	61.97	.....
28	.....	.....	64.04	.....	67.28	63.85	64.05	52.80	62.00
29	70.78	.....	65.24	.....	67.53	63.10	62.50	61.05	59.95
30	70.80	.....	64.80	.....	.....	66.70	64.43	53.10	63.00
31	.....	.....	.....	.....	66.59	.....	61.10	.....	56.80

Greene County

Gr-1. Xenia Water Works. About 2.8 miles north of Xenia. Records available: 1944-48.

Gr-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.14	9.58	6.50	5.33	6.30	7.33	7.42	8.00	9.76	8.67	8.61	8.25
2	6.32	9.97	6.35	5.50	6.25	7.50	7.43	8.00	9.95	8.70	8.54	7.65
3	7.05	9.54	7.40	5.67	5.97	7.51	7.57	8.08	9.94	8.76	8.54	7.66
4	6.80	9.73	7.36	5.70	6.04	7.87	7.54	8.06	9.90	8.70	8.53	7.68
5	7.49	9.49	7.31	6.17	5.90	7.71	7.55	7.89	9.40	8.69	8.48	7.70
6	7.62	9.72	7.48	5.45	6.17	7.23	7.93	8.02	9.06	8.62	7.96	7.80
7	7.92	9.66	6.95	5.59	6.12	7.02	7.63	8.07	8.91	8.59	8.34	7.84
8	7.79	9.50	7.60	5.61	6.40	7.41	8.45	8.04	9.47	8.65	8.00	7.92
9	7.81	9.40	7.10	5.89	6.15	7.53	8.40	8.10	9.10	8.68	8.04	8.02
10	7.90	9.96	7.00	6.00	6.26	7.79	8.72	8.20	8.90	8.79	8.00	7.97
11	7.50	10.00	7.01	6.08	6.37	7.15	8.12	8.29	9.67	8.62	7.99	8.02
12	7.40	10.11	7.78	4.42	6.28	7.10	7.72	9.32	9.26	8.50	7.99	8.03
13	8.12	10.00	7.91	3.47	6.00	7.08	8.20	8.88	10.27	8.54	8.07	8.06
14	8.40	.....	7.19	3.73	6.14	7.20	7.30	8.50	10.49	8.50	8.08	8.13
15	7.73	.....	7.70	5.23	6.27	7.18	8.83	8.38	10.50	8.50	8.11	8.08
16	8.62	5.72	7.35	5.71	6.30	7.15	8.26	8.43	10.42	8.57	8.10	6.40
17	8.30	6.23	6.78	5.40	6.12	7.03	7.92	9.20	10.60	8.62	8.11	5.84
18	7.88	6.66	6.70	5.52	7.22	7.10	7.63	8.54	10.82	8.33	8.15	6.40
19	8.84	6.93	6.57	5.84	6.50	7.03	7.67	8.40	10.52	8.47	8.35	6.59
20	8.69	7.02	7.19	5.77	7.35	6.89	7.70	8.44	10.82	8.54	8.49	6.88
21	8.88	7.20	6.90	5.84	6.67	6.93	7.68	9.22	10.66	8.63	8.11	7.01
22	8.83	7.20	6.90	5.92	6.60	7.47	8.59	8.73	9.31	9.31	8.10	6.98
23	9.06	7.55	6.39	5.93	6.60	8.30	7.84	9.45	8.90	8.76	8.10	6.86
24	8.80	7.43	5.61	6.10	6.66	8.48	7.72	9.43	9.52	8.62	8.12	6.90
25	9.07	7.36	6.90	6.16	6.71	8.34	7.80	9.68	8.98	8.40	8.12	7.00
26	9.36	7.31	6.80	6.18	7.24	8.19	7.72	9.97	8.92	8.38	8.14	7.06
27	9.36	6.99	4.00	6.20	7.67	7.60	7.79	10.16	9.50	8.38	8.20	7.16
28	9.40	6.70	3.99	6.11	7.61	8.39	8.29	10.19	8.92	8.42	8.21	7.28
29	9.60	6.12	4.87	6.22	7.58	7.71	9.01	9.70	8.73	8.57	7.83	7.28
30	9.53		4.88	6.22	7.10	7.37	8.60	9.73	9.70	8.63	7.59	7.00
31	9.34		5.30		6.92		8.07	9.65		8.57		7.00

Gr-2. H. K. Ankeney. Ohio Water Resources Board test well. About 0.8 mile west of Trebein, on south side of U. S. Highway 35, in pasture behind farm house. Diameter 6 inches, depth 152 feet. Measuring point, floor of recorder shelter, 4.0 feet above land-surface datum. Automatic water-stage recorder installed June 8. Records available: 1948. Measurements discontinued.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 8	0.88	Sept. 19	0.72	Nov. 20	0.24	Dec. 12	0.34
22	.76	Nov. 3	.55	21	.25	13	.36
23	.69	4	.51	22	.25	14	.38
24	.65	5	.44	23	.26	15	.39
25	.61	6	.38	24	.26	16	.37
26	.56	7	.30	25	.26	17	.34
27	.52	8	.27	30	.27	18	.31
28	.50	9	.25	Dec. 1	.27	19	.28
29	.47	10	.21	2	.27	20	.20
Sept. 9	.50	11	.22	3	.27	21	.18
10	.51	12	.23	4	.26	22	.15
11	.53	13	.23	5	.26	23	.15
12	.56	14	.24	6	.25	24	.15
13	.58	15	.25	7	.25	25	.15
14	.61	16	.25	8	.26	26	.17
15	.65	17	.25	9	.28	27	.17
16	.68	18	.25	10	.31	28	.17
17	.71	19	.25	11	.33	29	.17
18	.72						

Hamilton County

T-74. Frederick Hauck. On Crescentville Road, in Sycamore Township.
Records available: 1940-48.

Date	Water* level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.70	Apr. 12	3.52	July 14	10.43	Oct. 12	12.79
14	7.86	22	5.70	22	9.14	20	14.99
21	7.93	23	6.37	29	9.67	26	13.20
27	8.00	May 6	6.74	Aug. 2	9.35	Nov. 3	13.45
Feb. 4	7.97	14	7.03	13	9.85	9	11.80
12	8.00	22	7.15	28	11.20	17	10.80
18	5.38	29	7.29	31	11.36	23	9.96
25	6.36	June 5	7.88	Sept. 7	11.67	Dec. 1	8.79
Mar. 3	5.71	12	8.24	14	11.92	7	8.47
8	6.59	18	8.73	23	11.82	13	6.25
19	6.05	24	9.34	29	12.25	22	7.03
26	6.55	30	9.35	Oct. 6	12.53	29	7.13
Apr. 8	5.23						

T-75. Frederick Hauck. On Crescentville Road, in Sycamore Township.
Records available: 1940-48.

Jan. 7	7.10	Apr. 15	4.33	July 14	9.10	Oct. 12	10.80
14	7.48	22	6.61	22	8.43	20	10.94
21	7.70	23	7.09	29	8.76	26	11.07
27	7.93	May 6	7.21	Aug. 2	9.75	Nov. 3	11.23
Feb. 4	8.00	14	7.43	13	9.03	9	9.58
12	8.13	22	7.61	28	9.58	17	9.10
18	5.74	29	7.76	31	9.68	23	9.44
25	6.81	June 5	7.99	Sept. 7	9.92	Dec. 1	7.27
Mar. 3	6.25	12	8.15	14	10.16	7	7.58
8	7.09	18	8.83	23	10.02	15	4.51
19	6.53	24	8.59	29	10.34	22	6.77
Apr. 8	5.71	30	8.48	Oct. 6	10.59	29	6.66

T-67. Emmit Ferris. In Sycamore Township. Records available:
1940-48.

Jan. 5	5.23	Mar. 29	1.96	June 28	5.57	Oct. 25	7.55
12	5.31	Apr. 5	3.27	July 5	5.57	18	7.15
19	5.50	12	1.38	12	5.86	Nov. 1	7.65
26	5.69	19	2.84	19	5.67	8	5.42
Feb. 2	5.89	26	3.64	26	5.22	15	6.07
9	5.87	May 3	3.84	Aug. 2	5.46	22	5.87
16	1.83	10	3.97	9	5.27	29	4.65
23	3.38	24	4.27	16	5.98	Dec. 6	5.28
Mar. 1	3.05	31	4.48	Sept. 27	7.09	13	5.64
8	3.60	June 7	4.69	Oct. 4	7.29	20	3.47
15	3.90	21	5.43	11	7.35	27	4.21
22	2.70						

T-8. St. Rita School for Deaf Children. Near crossing of Glendale-Milford Road and Pennsylvania Railroad tracks. Records available:
1939-48.

Jan. 5	18.82	Mar. 29	17.49	June 28	16.70	Sept. 27	18.63
12	18.92	Apr. 5	16.96	July 5	16.88	Oct. 18	18.24
19	19.00	12	16.66	12	17.05	25	18.30
26	19.10	19	15.90	19	17.19	Nov. 1	18.38
Feb. 2	19.12	26	15.18	26	17.36	8	18.41
9	19.23	May 3	15.07	Aug. 2	17.47	15	18.47
16	12.72	10	15.22	9	17.60	22	18.17
23	16.02	17	15.42	16	17.62	29	18.47
Mar. 1	16.95	24	15.61	30	17.88	Dec. 6	18.45
8	17.39	31	15.84	Sept. 6	17.96	20	18.19
15	17.58	June 7	16.06	13	18.07	27	17.81
22	17.67	21	16.50	21	18.16		

207-3. Glendale Waterworks. At municipal water plant. Records available: 1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	46.05	50.15	49.33	47.55	42.12	43.55	48.28	46.79	51.39	51.93	53.87	52.70
2	.....	49.56	49.13	47.70	41.58	43.94	46.65	47.47	51.67	52.60	54.00	53.02
3	.....	53.44	49.46	48.01	42.03	43.73	46.44	47.97	51.67	51.79	52.82	53.24
4	.....	49.95	49.46	47.01	42.53	45.45	48.17	47.76	50.17	51.79	53.35	54.23
5	44.47	49.78	49.77	46.57	43.33	45.59	45.14	47.63	49.38	52.05	53.22	52.55
6	49.14	50.55	49.05	47.54	42.06	42.72	46.23	48.08	49.48	52.13	54.05	52.75
7	49.28	49.80	48.65	46.65	42.64	43.71	45.58	48.11	50.27	51.37	55.08	53.24
8	49.55	50.17	49.65	46.26	44.97	44.33	46.05	47.77	50.13	50.65	54.38	52.87
9	49.72	50.15	49.33	45.75	42.75	44.17	47.01	48.75	50.07	51.53	54.37	53.07
10	50.55	50.52	48.97	47.63	43.70	44.49	46.45	48.15	50.20	54.05	54.05	53.29
11	49.35	51.15	49.58	45.93	43.55	44.34	46.08	48.41	50.25	54.01	53.77	52.92
12	49.78	50.36	49.84	44.72	43.46	45.51	46.43	48.62	50.17	54.14	53.35	52.97
13	50.59	50.53	51.07	45.32	43.39	44.03	46.73	48.16	51.07	51.17	52.47	52.92
14	50.34	50.05	50.91	44.20	43.31	44.67	46.58	48.12	51.35	52.37	53.07	51.03
15	50.43	52.45	49.12	43.97	42.84	45.45	47.09	49.87	51.42	52.55	53.13	52.32
16	50.83	52.85	49.37	43.87	43.15	44.75	46.91	48.42	51.27	52.29	52.56	52.49
17	51.65	49.47	49.49	44.04	43.55	45.18	47.44	48.03	51.43	52.17	53.57	52.55
18	49.55	49.22	49.19	42.95	43.45	45.67	46.17	49.92	51.13	52.50	52.98	53.79
19	49.33	50.21	49.15	43.59	43.46	47.24	47.08	49.25	52.07	52.57	53.37	52.59
20	49.38	49.55	48.99	43.50	42.35	44.37	47.39	49.41	50.70	53.23	55.30	51.07
21	52.09	50.31	48.14	43.41	43.36	45.16	47.13	49.51	50.77	53.04	53.09	53.32
22	49.88	48.95	49.85	43.39	43.35	45.42	47.63	49.32	50.49	53.62	53.65	53.61
23	50.39	49.31	48.35	43.08	43.55	46.39	48.58	49.52	50.62	54.63	53.24	53.80
24	49.20	49.23	49.03	45.46	43.21	46.17	47.97	49.53	51.09	55.48	53.01	53.58
25	49.77	49.75	49.45	42.36	43.17	47.51	46.83	49.88	53.61	54.41	53.42	53.25
26	49.72	49.41	48.61	42.68	43.55	46.03	47.62	50.01	50.37	53.43	52.82	53.55
27	50.32	49.34	51.27	42.69	43.18	45.38	47.33	50.45	51.83	53.78	52.93	53.81
28	49.95	51.73	50.36	42.47	43.50	45.87	47.25	52.70	50.73	53.65	52.51	53.30
29	50.69	48.95	48.47	42.70	43.17	46.67	47.49	50.15	51.27	54.05	53.37	53.28
30	50.30		48.07	42.24	42.98	47.41	47.53	50.66	51.63	53.77	52.72	53.36
31	51.68		47.91		43.17		49.62	51.05		53.15		53.55

212-1. Johns-Manville Corporation. In Sycamore Township. Records available: 1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	49.80	51.41	50.40	48.79	44.47	45.20	47.45	48.81	50.93	52.22	53.92	54.41
2	50.16	51.45	50.02	48.94	44.38	45.29	47.32	48.98	50.97	52.40	53.88	54.30
3	50.25	51.44	50.34	48.97	44.50	45.18	47.31	48.95	51.03	52.40	53.83	54.26
4	50.22	51.35	50.30	48.73	44.48	45.27	47.20	48.98	50.98	52.33	53.90	54.25
5	50.50	51.45	50.74	48.25	44.65	45.67	47.12	49.09	50.87	52.35	53.87	54.12
6	50.41	51.70	50.43	48.32	44.54	45.51	47.10	49.12	50.83	52.35	53.89	54.30
7	50.42	51.65	50.00	48.07	44.56	45.24	47.23	49.10	50.99	52.36	54.35	54.31
8	50.32	51.80	50.23	48.10	44.65	45.42	47.35	49.10	50.98	52.47	54.25	54.51
9	50.60	51.97	50.20	48.16	44.51	45.56	47.55	49.32	51.13	52.45	54.12	54.48
10	50.77	51.96	50.30	47.38	44.71	45.79	47.55	49.29	51.17	52.59	54.28	54.73
11	50.68	51.98	50.49	47.37	44.71	45.74	47.45	49.32	51.23	52.63	54.32	54.50
12	50.49	51.92	50.60	47.47	44.62	45.80	47.55	49.35	51.32	52.61	54.22	54.32
13	50.61	51.75	50.45	47.40	44.65	45.82	47.70	49.41	51.45	52.73	54.17	54.43
14	50.84	51.90	50.22	47.03	44.68	45.92	47.78	49.45	51.50	52.92	54.10	54.35
15	50.75	51.80	49.99	46.85	44.61	46.03	47.89	49.51	51.52	52.95	54.17	54.25
16	50.97	51.20	50.22	46.40	44.48	46.13	47.92	49.62	51.63	52.87	54.03	54.42
17	50.99	50.70	50.85	46.50	44.62	46.14	47.89	49.64	51.67	53.01	54.13	54.47
18	50.90	50.47	50.35	46.13	44.70	46.22	47.92	49.81	51.57	53.09	54.09	54.38
19	50.92	50.39	50.03	45.72	44.90	46.30	48.05	49.91	51.56	53.07	53.85	54.01
20	50.80	50.60	50.08	45.60	44.61	46.31	48.07	50.02	51.53	53.31	54.17	54.01
21	50.70	50.59	49.89	45.66	44.51	46.37	48.05	50.14	51.65	53.32	54.21	54.25
22	50.85	50.37	49.99	45.50	44.64	46.54	47.92	50.15	51.61	53.59	54.22	54.49
23	51.21	50.50	49.90	45.19	44.53	46.67	48.53	50.18	51.75	53.41	54.18	54.52
24	51.08	50.50	50.11	45.17	44.78	46.70	48.55	49.92	51.91	53.48	54.17	54.38
25	51.16	50.31	50.00	44.99	44.83	46.93	48.42	50.25	52.08	53.62	54.17	54.53
26	51.25	50.25	49.77	44.81	44.96	46.92	48.43	50.40	52.00	53.59	54.16	54.53
27	51.29	50.20	49.67	44.73	44.37	46.84	48.44	50.48	51.99	53.53	54.33	54.32

212-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	51.30	50.23	49.65	44.68	44.97	46.89	48.49	50.52	51.95	53.74	54.23	54.18
29	51.25	50.44	49.31	44.62	44.90	46.97	48.65	50.52	52.01	53.81	54.38	54.09
30	51.33		49.06	44.58	45.02	47.13	48.67	50.62	52.09	53.78	54.25	54.42
31	51.35		48.68		45.10		48.73	50.84		53.74		54.29

214-3. Tennessee Corporation. In Sycamore Township. Records available: 1939-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.78	29.24	25.28	22.67	20.20	22.45	24.65	26.18	27.37	28.82	29.12	28.87
2	28.78	29.27	25.27	22.57	20.28	22.51	24.70	26.25	27.41	28.25	29.15	28.87
3	28.78	29.28	25.27	22.58	20.44	22.58	24.75	26.29	27.45	28.50	29.17	28.85
4	28.78	29.30	25.31	22.51	20.46	22.65	24.82	26.32	27.49	.....	29.19	28.81
5	28.88	29.32	25.32	22.45	20.52	22.75	24.87	26.35	27.52	.....	29.21	28.77
6	28.88	29.33	25.32	22.43	20.53	22.80	24.92	26.37	27.56	.....	29.22	28.72
7	28.88	29.35	25.32	22.43	20.63	22.90	24.98	26.40	27.60	.....	29.21	28.70
8	28.88	29.37	25.35	22.50	20.69	22.98	25.04	26.44	27.63	.....	29.19	28.67
9	28.88	29.40	25.36	22.52	20.75	23.07	25.10	26.49	27.67	.....	29.15	28.66
10	28.88	29.42	25.40	22.52	20.82	23.15	25.15	26.52	27.72	.....	29.12	28.64
11	28.88	29.44	25.44	22.46	20.47	23.23	25.20	26.55	27.75	.....	29.09	28.62
12	28.88	29.45	25.46	22.50	20.94	23.29	25.27	26.60	27.78	28.57	29.04	28.60
13	28.88	29.45	25.50	22.27	21.00	23.38	25.33	26.64	27.83	28.60	28.98	28.60
14	28.89	29.45	25.51	21.63	21.08	23.42	25.38	26.68	27.86	28.62	28.94	28.57
15	28.90	26.40	25.55	21.29	21.14	23.49	25.44	26.72	27.90	28.65	28.89	28.57
16	28.92	25.75	25.55	20.90	21.20	23.57	25.48	26.77	27.93	28.67	28.87	28.57
17	28.94	25.55	25.60	20.65	21.30	23.69	25.54	26.80	27.96	28.72	28.84	28.50
18	28.95	25.40	25.61	20.47	21.38	23.71	25.57	26.84	27.99	28.76	28.82	28.36
19	29.01	25.25	25.61	20.33	21.45	23.79	25.66	26.89	28.02	28.78	28.82	28.23
20	29.01	25.15	25.60	20.18	21.50	23.86	25.70	26.93	28.06	28.81	28.80	28.12
21	29.02	25.13	25.60	20.12	21.57	23.95	25.74	26.97	28.05	28.84	28.80	28.04
22	29.03	25.05	25.57	20.12	21.65	24.02	25.78	27.01	27.87	28.86	28.85	27.96
23	29.06	25.00	25.56	20.08	21.74	24.09	25.83	27.05	27.85	28.87	28.85	27.90
24	29.07	25.04	25.55	20.07	21.82	24.15	25.87	27.08	27.91	28.87	28.87	27.83
25	29.10	25.05	25.55	20.07	21.89	.....	25.90	27.12	27.96	28.94	28.89	27.77
26	29.13	25.11	25.50	20.10	21.96	.....	25.95	27.15	28.00	28.96	28.90	27.73
27	29.15	25.14	25.43	20.10	22.03	.....	25.97	27.20	28.07	28.98	28.91	27.68
28	29.15	25.20	24.55	20.12	22.11	24.46	26.02	27.23	28.10	29.02	28.91	27.60
29	29.18	25.27	25.26	20.16	22.20	24.42	26.05	27.27	28.14	29.04	28.92	27.56
30	29.20		25.17	20.18	22.29	24.63	26.10	27.30	28.18	29.06	28.87	27.55
31	29.21		22.86		22.37		26.14	27.34		29.08		27.54

215-2. Pennsylvania Railroad Co. On Harry F. Pittman farm, in Sycamore Township. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	30.27	May 10	26.89	July 5	28.63	Sept. 13	32.21
Apr. 19	27.74	17	27.08	19	28.98	Oct. 25	30.39
26	26.54	31	27.51	Aug. 16	29.53	Dec. 27	30.15
May 3	26.72	June 7	27.71				

216-C. Wright Aeronautical Corporation. In Lockland. Records available: 1941-48.

Jan. 5	81.43	Mar. 15	82.29	May 24	80.20	Aug. 2	81.85
12	81.80	22	82.79	31	80.30	9	82.01
19	81.45	29	83.03	June 7	80.08	16	82.14
26	82.49	Apr. 5	82.26	14	80.57	23	82.58
Feb. 2	82.69	12	81.85	21	80.65	30	82.57
9	82.07	19	81.71	28	80.81	Sept. 6	82.79
16	83.11	26	81.28	July 5	80.97	13	83.23
23	82.65	May 3	81.52	12	81.00	21	83.09
Mar. 1	82.88	10	80.80	19	81.36	27	83.75
8	82.25	17	80.50	26	81.54	Oct. 4	83.85

216-C--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 11	83.94	Nov. 1	84.74	Nov. 22	85.30	Dec. 13	85.91
18	84.47	8	85.12	29	85.67	20	85.62
25	84.66	15	85.27	Dec. 6	85.62	27	86.13

216-E. Wright Aeronautical Corporation. In Lockland. Records available: 1941-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	62.08	63.72	64.16	64.15	62.28	62.06	63.72	63.27	64.41	65.51	66.60	67.77
2	62.70	63.81	63.60	64.46	62.20	61.57	62.87	63.37	64.29	65.70	66.56	67.66
3	62.60	64.09	64.02	64.75	62.66	62.47	62.62	63.77	64.30	65.75	66.38	67.43
4	62.59	63.68	64.37	64.64	62.15	61.80	62.56	63.33	64.42	65.71	66.47	67.60
5	62.98	63.94	64.83	64.13	62.36	61.53	62.50	63.46	64.35	65.50	66.51	67.36
6	62.78	64.00	64.37	64.02	62.74	61.55	63.44	64.47	64.27	....	66.93	67.52
7	62.91	63.92	63.72	63.85	61.82	62.57	62.51	63.57	64.32	....	67.17	67.43
8	62.86	64.29	64.04	63.80	62.43	61.54	63.27	63.46	64.38	....	67.16	67.70
9	63.04	64.25	64.12	64.27	61.89	61.72	62.97	63.56	64.55	....	66.84	67.77
10	63.40	64.28	64.15	64.18	63.93	62.47	62.67	64.57	64.60	....	67.07	68.00
11	63.42	64.13	64.44	63.34	62.18	61.95	62.58	63.51	64.55	65.82	67.20	67.88
12	62.87	64.10	64.40	63.74	61.80	61.85	62.57	63.94	64.64	65.96	67.17	67.56
13	62.92	63.70	64.50	63.82	61.70	63.05	62.66	63.58	64.92	65.94	67.14	67.67
14	63.25	64.24	64.07	63.77	61.66	62.10	63.77	64.15	65.03	66.07	67.14	....
15	63.03	64.55	63.78	63.94	63.19	61.91	62.85	63.80	65.09	66.15	67.12	....
16	63.30	64.18	63.95	63.72	61.48	62.68	62.84	63.80	65.19	65.94	67.04	....
17	63.40	64.18	64.49	63.71	61.52	62.28	62.95	64.35	65.19	66.25	67.07	....
18	63.44	63.95	64.40	63.60	61.65	62.02	63.54	63.85	65.05	66.30	67.10	....
19	63.34	63.70	63.94	63.44	62.97	63.11	62.92	63.97	64.87	66.16	67.89	....
20	63.25	64.40	64.25	63.28	61.73	62.32	62.93	64.04	64.90	66.37	67.14	67.48
21	62.80	64.29	64.02	63.35	61.67	62.12	63.27	64.04	64.93	66.35	67.30	67.88
22	62.90	63.99	64.17	63.27	61.39	62.09	63.92	64.12	65.02	66.31	67.15	68.16
23	63.67	64.10	64.05	63.15	61.30	62.87	63.17	64.22	65.12	66.31	67.17	68.24
24	63.41	64.14	64.65	62.99	62.03	62.26	64.31	64.17	65.41	66.42	67.08	68.13
25	63.80	63.93	64.55	62.84	61.42	62.25	63.27	64.15	65.60	66.46	67.20	68.36
26	63.80	63.71	64.10	62.68	62.55	63.37	63.06	64.24	65.63	66.45	67.10	68.38
27	63.72	63.50	64.15	62.57	61.40	62.42	64.17	64.37	65.55	66.43	67.47	68.07
28	63.83	63.56	64.52	62.64	61.98	62.65	63.12	64.42	65.40	66.44	67.47	67.90
29	63.57	64.18	64.20	62.62	61.35	62.27	63.15	64.30	65.27	66.50	67.59	67.75
30	63.62		64.22	62.54	61.42	64.47	63.64	64.09	65.37	66.47	67.62	68.08
31	63.60		63.76		62.81		63.32	64.34		66.40		68.06

236-4. E. I. du Pont de Nemours Co., Grasselli Chemicals Division. In Lockland. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	125.33	Mar. 29	124.66	July 5	125.47	Oct. 4	127.26
12	124.92	Apr. 5	124.81	12	125.45	11	127.03
19	124.62	12	124.42	19	124.75	18	127.55
26	124.93	14	125.05	26	125.24	25	127.92
Feb. 2	125.12	26	125.05	Aug. 2	125.64	Nov. 1	127.56
9	125.19	May 3	125.92	9	125.52	8	128.25
16	125.08	10	125.46	16	126.91	15	128.50
23	125.43	17	125.57	23	126.59	22	128.52
Mar. 1	125.20	24	125.12	Sept. 6	126.37	29	129.00
8	125.26	June 7	124.63	13	126.87	Dec. 13	128.62
15	124.95	21	125.22	21	126.55	27	129.35
22	125.05	28	125.28	27	127.13		

237-3. Village of Wyoming. At municipal water plant, in Wyoming.
Records available: 1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	144.75	145.93	145.24	145.00	144.11	146.20
2	145.14	144.91	145.04	145.35	143.94	.....
3	144.96	145.60	145.48	145.85	144.40	.....
4	145.30	143.35	146.00	145.22	144.39	.....
5	145.01	144.66	146.35	145.30	144.91	.....
6	144.92	145.18	145.94	145.34	144.55	146.02
7	144.74	145.22	145.30	145.29	145.17	145.85
8	144.85	145.72	145.60	145.52	145.39	145.87
9	144.85	145.76	145.57	145.97	145.52	146.08
10	145.63	145.84	144.70	145.94	145.58	146.21
11	145.25	145.75	144.59	145.25	145.65	146.26
12	145.16	145.49	145.07	145.52	145.67	146.16
13	145.58	145.37	145.37	145.47	145.72	146.23
14	145.83	146.03	145.37	145.70	145.81	146.27
15	145.58	146.12	145.10	145.72	145.85	146.23
16	146.05	145.91	145.20	145.55	145.55	146.36
17	146.06	145.78	145.56	145.80	145.73	145.90
18	145.06	145.72	145.62	145.27	145.90	144.85
19	144.80	145.63	145.14	145.40	146.13	144.53
20	145.09	146.05	145.34	145.40	145.98	144.73
21	145.05	146.05	.....	145.65	145.67	144.85
22	145.06	145.64	145.05	145.65	145.85	145.00
23	144.70	145.93	145.09	145.50	145.82	144.82
24	144.76	146.05	145.51	145.56	145.92	145.17
25	144.75	145.88	145.53	145.36	146.02	145.65
26	145.55	145.03	145.20	145.32	146.04	145.90
27	145.96	144.45	144.55	145.35	145.93	145.94
28	146.04	144.17	145.08	145.29	145.93	145.95
29	145.82	144.53	144.33	145.36	146.00	146.00
30	145.80		144.75	144.58	146.10	146.16
31	145.80		144.73		146.17	

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	146.40	146.67	147.75	148.11	148.27	148.86
2	146.50	146.75	147.56	148.34	148.25	148.77
3	146.42	146.72	147.62	148.37	148.03	148.51
4	146.43	146.72	147.72	148.37	148.02	148.59
5	146.42	146.82	147.68	148.06	147.93	148.37
6	146.27	146.88	147.61	148.06	148.36	148.17
7	146.36	146.82	147.62	147.88	148.67	148.05
8	146.47	146.78	147.80	147.98	148.67	148.17
9	146.52	146.83	147.83	148.02	148.37	147.66
10	146.49	146.82	147.78	148.04	148.55	148.35
11	146.40	146.72	147.78	148.12	148.70	147.97
12	146.29	146.68	147.84	148.23	148.69	147.59
13	146.31	146.72	147.94	148.23	148.67	147.78
14	146.38	146.85	148.01	148.39	148.17	148.04
15	146.45	146.87	148.08	148.46	148.10	147.91
16	146.47	146.81	148.17	148.27	148.14	148.26
17	146.52	146.77	148.22	148.55	148.38	148.32
18	146.54	146.75	148.07	148.57	148.44	148.40
19	146.54	146.83	147.87	148.47	148.25	147.81
20	146.53	146.72	147.68	148.65	148.32	147.80
21	146.48	146.83	147.44	148.64	148.16	148.08
22	146.47	146.98	147.72	148.57	148.33	148.42
23	146.63	147.05	147.80	148.53	148.38	148.52
24	146.69	147.02	148.16	148.65	148.32	148.46
25	146.67	147.17	148.33	147.40	148.45	146.65
26	146.53	147.45	148.46	147.14	148.30	146.62
27	146.44	147.72	148.42	147.81	148.66	147.25
28	146.37	147.66	148.22	148.02	148.02	147.58
29	146.46	147.65	147.99	148.14	148.57	147.66
30	146.45	147.52	148.02	148.18	148.65	147.97
31	146.54	147.72		148.11		147.97

241-3. Gardner-Richardson Co. In Lockland. Records available:
1938-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	134.80	136.15	135.95	135.42	134.90	135.01
2	135.15	136.22	135.51	135.75	134.90	134.97
3	135.33	136.20	135.75	135.84	134.91	134.90
4	135.25	136.16	136.18	135.62	134.86	134.79
5	135.42	136.34	136.22	135.10	134.93	135.12
6	135.24	136.39	135.87	135.11	134.81	135.14
7	135.27	136.27	135.33	135.14	134.86	134.87
8	135.13	136.40	135.52	135.49	135.00	.....
9	135.45	136.25	135.60	135.65	134.91	.....
10	135.70	136.30	135.73	135.47	134.86	.....
11	135.65	136.32	135.89	134.80	134.85	.....
12	135.11	136.00	135.92	135.13	134.83	.....
13	135.34	135.64	135.76	135.11	134.84	.....
14	135.56	136.75	135.62	135.11	134.95	134.78
15	135.56	136.80	135.25	135.14	134.99	134.60
16	135.68	136.00	135.59	135.08	134.87	134.63
17	135.72	135.74	135.75	135.21	134.96	134.60
18	136.01	135.60	135.75	135.05	135.16	134.42
19	135.33	135.70	135.45	134.91	135.28	.....
20	135.36	135.95	135.57	134.81	135.12	.....
21	135.12	135.87	135.45	135.00	134.88	134.24
22	135.44	135.68	135.35	134.95	135.12	134.25
23	135.90	135.74	135.45	134.80	135.10	.....
24	135.86	135.77	135.65	134.82	135.09	.....
25	136.00	135.60	135.60	134.75	135.17	.....
26	135.54	135.40	135.30	134.59	135.20	.....
27	135.80	135.40	135.50	134.67	135.12	.....
28	135.91	135.85	135.60	134.75	135.14	134.58
29	135.80	136.09	135.42	134.78	135.24	134.69
30	135.98		135.27	134.85	135.28	134.92
31	136.01		135.07		135.01	

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	135.08	135.57	134.97	134.88	135.94	135.61
2	135.14	135.57	134.86	135.08	135.88	135.44
3	135.02	135.48	134.85	135.14	135.70	135.15
4	135.07	135.39	134.95	135.06	135.80	135.23
5	134.77	135.43	134.95	134.97	135.82	135.03
6	134.50	135.46	134.85	135.13	136.21	135.07
7	134.75	135.35	134.66	135.18	136.45	135.03
8	134.87	135.30	134.67	135.40	136.37	135.27
9	134.95	135.27	134.78	135.52	135.91	135.33
10	134.97	135.20	134.80	135.56	135.05	135.55
11	134.94	135.07	134.75	135.70	135.15	135.40
12	134.92	135.03	134.64	135.78	136.08	135.00
13	135.01	135.03	134.92	135.77	136.16	135.04
14	135.23	135.08	135.01	135.95	136.16	135.12
15	135.33	135.08	135.06	135.99	136.06	134.81
16	135.32	134.98	135.16	135.82	135.92	135.22
17	135.42	134.92	135.14	136.12	135.85	135.30
18	135.40	134.86	134.98	136.15	135.85	135.23
19	135.24	134.95	134.83	136.05	135.60	134.71
20	135.33	134.94	134.81	136.22	135.85	134.68
21	135.30	134.90	134.83	136.20	135.98	134.95
22	135.47	134.90	134.90	136.17	135.87	135.16
23	135.76	134.86	134.82	136.23	135.89	135.18
24	135.82	134.75	135.06	136.33	135.75	135.29
25	135.78	134.66	135.18	136.33	135.73	135.19
26	135.64	134.72	135.24	136.08	135.53	135.19
27	135.67	134.82	135.10	135.97	135.70	134.74
28	135.64	134.87	134.83	135.93	135.67	134.62
29	135.66	134.82	134.68	135.97	135.55	134.31
30	135.58	134.66	134.77	135.95	135.55	134.53
31	135.57	134.92		135.87		134.53

246-1. National Distillers Corporation. In Carthage. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	106.60	105.70	108.22	106.38	103.87	108.22
2	106.67	108.60	107.90	104.90	103.85	111.04
3	106.70	108.30	108.17	105.00	103.96	108.62
4	106.60	108.42	108.47	104.83	106.31	111.08
5	109.14	108.23	108.51	107.50	103.96	108.80
6	109.32	108.37	105.50	104.79	103.81	109.42
7	109.02	106.30	105.00	107.22	103.81	109.05
8	108.62	105.78	105.12	104.74	103.40	108.93
9	109.00	108.65	107.90	104.87	103.80	112.30
10	106.58	108.22	106.30	104.77	106.83	111.73
11	106.48	108.07	106.34	104.33	107.70	111.92
12	108.70	108.01	105.20	104.57	108.30	109.42
13	108.70	108.00	106.82	104.54	108.53	109.39
14	108.50	105.79	104.90	107.50	108.64	108.97
15	109.08	105.80	106.34	107.55	106.48	109.20
16	106.44	108.05	107.70	107.49	107.11	112.15
17	106.18	108.00	107.99	104.72	109.67	112.10
18	106.15	108.11	105.20	104.47	108.84	111.40
19	106.03	109.05	107.60	107.45	110.15	108.88
20	108.38	108.53	105.00	104.45	110.20	107.92
21	108.78	105.74	104.80	107.93	107.63	111.42
22	108.00	105.43	107.65	107.35	107.93	108.90
23	106.02	108.32	108.46	107.42	108.22	110.63
24	105.92	105.70	105.15	104.50	110.53	111.89
25	105.99	105.50	107.60	104.22	108.00	111.50
26	105.98	105.38	107.60	104.10	110.69	111.44
27	108.38	105.30	104.90	107.10	111.22	108.02
28	108.38	105.35	107.60	104.10	111.03	111.27
29	108.20	105.51	107.56	104.00	108.87	111.84
30	108.60		104.76	103.93	108.78	111.47
31	105.76		107.33		108.62	

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	112.36	110.23	114.32	115.36	113.65	113.52
2	111.77	113.03	113.95	112.83	114.60	113.20
3	108.83	112.77	114.04	111.68	114.60	113.07
4	107.68	113.07	111.34	114.16	115.10	110.40
5	108.17	113.36	110.20	114.97	114.90	110.07
6	111.30	112.89	110.53	115.00	112.97	114.40
7	111.04	110.43	113.71	115.10	113.35	114.88
8	111.94	110.22	113.22	115.33	115.25	115.30
9	111.78	113.14	113.36	112.70	115.26	115.90
10	110.68	113.10	113.82	111.25	115.72	.....
11	109.74	113.50	111.31	114.02	113.41	.....
12	111.92	112.80	109.92	114.52	115.66	.....
13	111.90	113.56	113.00	114.56	115.30	113.18
14	112.56	112.58	114.62	115.13	113.00	113.07
15	112.73	111.25	113.39	115.05	115.40	112.98
16	113.02	113.37	114.20	114.80	115.45	112.63
17	112.16	113.57	114.46	112.50	115.37	112.96
18	110.89	113.82	112.04	112.77	115.78	110.20
19	112.61	114.00	111.35	112.98	116.00	110.77
20	112.58	114.00	114.00	113.20	115.99	114.24
21	113.29	111.97	113.80	113.47	113.32	114.39
22	113.55	111.93	114.27	113.62	113.90	114.70
23	113.36	113.83	114.20	112.33	113.72	115.10
24	110.92	114.12	114.76	112.14	113.65	115.02
25	110.54	114.23	114.50	113.38	111.00	.....
26	113.16	114.38	112.28	113.43	113.20	.....
27	113.58	114.46	114.65	113.98	112.66	112.50
28	113.58	111.93	115.25	113.94	111.63	112.42
29	113.58	111.10	114.79	113.66	114.73	112.01
30	113.09	113.78	114.92	113.63	115.09	112.02
31	112.40	114.12		112.69		111.56

252. National Distillers Corporation. In Carthage. Records available: 1938-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	110.19	Mar. 29	108.86	June 28	109.31	Sept. 13	110.56
12	109.87	Apr. 5	108.83	July 5	109.33	27	110.35
19	109.86	12	108.68	12	109.39	Oct. 11	110.92
26	109.90	19	108.34	19	109.63	Nov. 1	111.02
Feb. 2	109.63	26	108.32	26	109.72	15	111.08
9	109.68	May 3	108.50	Aug. 2	109.94	22	111.12
16	109.43	10	108.43	9	109.71	29	111.23
23	109.56	17	108.46	16	109.99	Dec. 6	111.10
Mar. 1	109.46	24	108.68	23	109.25	13	111.25
8	109.29	June 7	108.90	30	110.30	20	110.70
15	109.10	14	109.09	Sept. 6	110.35	27	111.06
22	109.12	21	109.24				

265. Cities Service Co. In Cincinnati. Records available: 1939-48

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	133.65	Apr. 5	131.70	July 12	133.63	Oct. 11	136.08
12	132.98	12	131.65	19	133.43	18	136.46
19	132.99	19	131.64	26	133.79	25	136.49
26	133.15	26	132.32	Aug. 2	134.39	Nov. 1	136.18
Feb. 2	132.83	May 3	131.62	9	134.56	8	136.87
9	132.78	10	131.86	16	134.68	15	135.85
16	132.44	17	132.13	23	134.99	22	135.10
23	132.51	24	132.54	30	134.85	29	134.76
Mar. 1	132.44	31	132.82	Sept. 6	134.95	Dec. 6	134.41
8	132.14	June 7	132.77	13	135.40	13	134.18
15	131.66	14	133.30	21	135.33	20	134.78
22	131.92	21	133.57	27	135.93	27	135.28
29	131.79	28	133.89	Oct. 4	136.17		

270-A-4. Procter & Gamble Co. In Ivorydale. Records available: 1939-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	90.21	90.00	89.57	89.08	91.03	92.53	92.08	93.28	93.58	92.50	91.20
2	.....	90.22	89.80	89.72	89.08	91.03	92.54	92.27	93.21	93.64	92.32	91.05
3	.....	90.15	89.93	89.78	89.23	91.13	92.32	92.30	93.23	93.46	92.07	90.92
4	.....	90.12	90.10	89.62	89.16	91.21	91.57	92.41	93.23	93.36	91.99	90.97
5	90.73	90.20	90.10	89.34	89.20	91.36	91.24	92.50	93.76	93.48	91.90	90.83
6	90.58	90.15	89.76	89.38	89.10	91.40	90.90	92.54	92.85	93.55	91.97	91.00
7	90.57	90.10	89.60	89.35	89.11	91.52	90.74	92.52	92.85	93.53	92.06	90.92
8	90.46	90.24	89.75	89.52	89.17	91.70	90.74	92.62	92.94	93.63	91.95	90.99
9	90.63	90.21	89.74	89.64	89.07	91.83	90.59	92.70	93.15	93.63	91.64	90.99
10	90.74	90.16	89.74	89.54	89.08	91.90	90.45	92.73	93.17	93.63	91.72	91.10
11	90.65	90.08	89.85	89.20	89.32	91.92	90.32	92.72	93.18	93.73	91.72	90.94
12	90.35	90.00	89.87	89.44	89.55	91.88	90.19	92.77	93.25	93.77	91.64	90.82
13	90.38	89.84	89.78	89.42	89.85	91.98	90.17	92.82	93.33	93.74	91.64	90.83
14	90.50	90.35	89.65	89.42	89.95	92.02	90.12	92.90	93.37	93.82	91.53	90.87
15	90.50	90.35	89.44	89.42	89.85	92.06	90.12	92.82	93.39	93.80	91.49	90.63
16	90.54	90.08	89.73	89.38	89.96	92.15	90.05	92.79	93.47	93.67	91.37	90.90
17	90.50	89.97	89.80	89.45	90.14	92.17	90.03	92.85	93.42	93.67	91.37	90.95
18	90.46	89.90	89.78	89.32	90.25	92.12	90.60	92.93	93.34	93.82	91.34	90.82
19	90.30	90.05	89.64	89.25	90.35	92.15	90.86	92.98	93.14	93.70	91.15	90.62
20	90.30	90.19	89.66	89.16	90.25	91.99	91.32	93.00	93.24	93.64	91.31	90.59
21	90.10	90.03	89.55	89.32	90.39	92.12	91.40	93.02	93.33	93.64	91.37	90.80
22	90.30	89.91	89.55	89.27	90.51	92.19	91.60	92.90	93.40	93.64	91.21	90.91
23	90.55	89.96	89.57	89.16	90.69	92.24	91.90	92.98	93.44	93.63	91.21	90.87
24	90.45	89.95	89.70	89.18	90.97	92.26	91.85	92.98	93.56	93.42	91.10	90.75
25	90.46	89.83	89.68	89.14	91.13	92.33	91.60	93.02	93.64	93.54	91.17	90.91
26	90.40	89.72	89.44	89.08	91.19	92.36	91.76	93.09	93.62	93.55	91.06	90.91
27	90.34	89.70	89.63	89.12	91.23	92.04	91.87	93.14	93.56	93.58	91.24	90.60
28	90.34	89.86	89.65	89.12	91.17	92.23	92.05	93.14	93.46	93.61	91.19	90.48
29	90.15	90.01	89.50	89.12	90.95	92.31	92.13	93.11	93.50	93.65	91.18	90.52
30	90.19		89.45	89.10	90.60	92.43	92.20	93.14	93.53	93.08	91.17	90.60
31	90.17		89.38		90.87		92.21	93.27		92.67		90.59

270-T7. Procter & Gamble Co. In Cincinnati. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	125.39	Apr. 5	123.55	July 19	126.01	Oct. 11	129.51
12	125.04	26	123.35	26	126.91	18	129.71
19	125.16	May 3	123.19	Aug. 2	127.54	25	129.72
26	125.30	10	123.64	9	128.02	Nov. 1	129.32
Feb. 2	124.80	17	123.92	16	128.39	8	128.73
9	124.58	24	124.77	23	128.57	15	127.73
16	124.33	31	125.32	30	128.66	22	127.25
23	124.34	June 7	125.43	Sept. 6	128.52	29	126.39
Mar. 1	124.30	21	126.66	13	128.76	Dec. 6	125.90
8	123.72	28	127.30	21	128.75	13	125.82
15	123.59	July 5	127.23	27	129.47	20	125.35
22	123.74	12	126.36	Oct. 4	129.52	27	125.42
29	123.85						

298-2. Hudepohl Brewing Co. At Stone and 6th Sts., in Cincinnati. Records available: 1944-48.

Jan. 29	72.95	Apr. 22	65.30	July 3	66.55	Nov. 2	72.85
Feb. 26	71.56	May 21	62.71	Oct. 10	74.54	Dec. 24	73.95
Mar. 26	68.50						

301-A. Palace Theater. At Vine and 6th Sts., in Cincinnati. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level
Jan. 29	105.39	Mar. 26	109.66	Nov. 24	114.15
Feb. 26	102.90	Apr. 22	102.07	Dec. 22	105.37

315-3. Globe-Wernicke Co. In Norwood. Records available: 1938-48. Feb. 26, 189.60; Apr. 22, 189.75.

300-3. Union Central Life Insurance Co. In Cincinnati. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	79.26	Apr. 22	73.50	July 3	80.15	Nov. 24	80.94
Feb. 24	78.20	May 21	75.02	Oct. 10	81.30	Dec. 22	80.00
Mar. 26	78.18						

Hancock County

Ha-2. R. W. Ascham, 3.5 miles west of Findlay. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0.62	....	1.66	1.64	2.93	3.16	3.45	4.32	5.46	4.48	5.36	2.13
2	.98	....	1.62	1.34	2.84	3.17	3.47	4.48	5.43	4.93	5.36	2.14
3	1.16	3.30	1.70	1.96	2.59	3.13	3.50	4.58	5.46	5.38	5.31	2.25
4	1.42	3.33	2.10	1.94	2.61	3.16	3.56	4.63	5.52	5.44	5.08	2.30
5	1.55	3.40	2.13	1.91	2.74	....	3.57	4.35	5.54	5.52	4.49	2.29
6	1.56	3.42	2.14	1.55	2.74	....	3.60	4.27	5.54	5.57	2.67	2.47
7	1.68	3.42	2.12	1.36	2.58	....	3.70	4.50	5.58	5.54	2.87	2.49
8	1.68	3.55	2.28	1.76	1.84	3.22	3.75	4.66	5.60	5.70	2.87	2.67
9	1.33	3.57	2.36	2.01	1.97	3.37	3.78	4.77	5.70	....	2.80	2.72
10	1.70	3.57	2.38	2.04	2.10	3.42	3.78	4.79	5.72	....	2.84	2.85
11	1.73	3.52	2.43	1.87	2.17	3.44	3.73	4.32	5.72	4.49	2.93	2.83
12	1.87	3.56	2.50	1.59	.85	3.43	3.78	3.83	5.30	4.54	2.93	2.67
13	1.77	3.46	2.51	....	.93	2.95	3.76	3.94	5.37	4.49	2.80	2.66
14	2.13	2.16	2.49	....	1.10	3.08	3.82	4.02	5.92	4.65	2.79	2.70
15	2.14	2.34	1.61	....	1.26	3.16	3.85	4.26	5.93	5.01	2.93	2.52

Ha-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	2.36	2.20	0.92	....	1.45	3.27	3.35	4.50	5.98	5.13	2.88	1.24
17	1.72	1.13	....	.92	3.31	3.86	4.64	5.95	4.79	3.00	1.56
18	1.57	1.20	....	1.35	3.31	3.66	4.74	5.96	4.25	3.03	1.63
19	1.62	1.13	....	1.55	2.76	4.09	4.85	5.92	4.30	3.01	1.78
20	2.05	.52	....	1.56	2.96	4.20	4.90	6.01	4.39	2.00	1.88
21	2.17	.62	....	1.83	3.03	4.22	4.95	6.01	4.41	2.15	1.94
22	2.34	.37	2.30	2.01	3.03	4.03	5.04	....	4.42	2.29	2.01
23	2.50	.85	2.37	2.24	3.12	3.90	5.08	....	4.46	2.35	2.10
24	2.52	1.20	2.45	2.42	3.18	3.98	5.08	6.26	4.54	2.47	2.15
25	2.50	1.27	2.52	2.54	3.26	4.09	5.17	6.32	4.79	2.54	2.38
26	2.29	1.30	2.57	2.64	3.31	4.20	5.24	6.36	4.95	2.55	....
27	2.19	.63	2.56	....	3.22	4.20	5.28	6.35	5.06	2.14	....
28	1.09	1.03	2.58	2.82	3.32	4.00	5.30	6.31	5.13	2.14	....
29	1.54	1.18	2.64	2.95	3.34	4.14	5.34	6.26	5.20	1.80	....
30	2.69	3.04	3.24	4.17	5.35	4.44	5.22	1.96	....
31	1.42	....	3.13	....	4.15	5.43	....	5.23	....	....

Ha-3. City of Findlay, 11 miles east of Findlay. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.92	16.20	10.18	6.08	5.27	....	14.78	18.09	18.81	....	19.05	15.40
2	10.77	16.34	9.40	6.23	....	....	15.32	18.11	18.76	18.78	19.05	15.39
3	10.78	16.43	9.11	6.31	....	....	15.30	18.15	18.77	18.79	19.00	15.10
4	10.52	16.43	9.10	6.22	....	....	16.17	18.19	18.79	18.78	19.01	15.01
5	10.44	16.62	9.02	6.03	....	....	....	18.18	18.78	18.75	19.05	15.00
6	10.22	16.70	8.50	6.10	....	....	....	18.20	18.77	18.82	19.10	14.90
7	10.00	16.68	7.89	5.93	....	....	16.90	18.16	18.75	18.87	19.10	14.90
8	9.78	16.93	7.96	6.03	....	....	17.04	18.18	....	18.90	....	14.89
9	9.60	17.00	7.98	6.15	....	....	17.15	18.20	....	18.91	....	14.92
10	9.70	17.03	7.80	6.11	....	....	17.39	18.20	....	18.99	....	14.95
11	9.50	16.99	7.70	6.03	....	....	17.59	18.23	....	18.90	....	14.94
12	9.00	17.00	7.70	....	....	....	17.70	18.00	....	18.94	....	14.65
13	9.00	16.84	7.58	....	....	....	17.70	18.20	....	18.93	....	14.68
14	9.00	17.10	7.42	....	....	....	17.95	18.31	....	18.96	....	14.72
15	9.00	17.18	7.04	....	....	....	18.01	18.37	....	18.98	....	14.47
16	9.00	17.02	6.78	....	4.64	5.00	18.08	18.37	18.76	18.97	....	14.07
17	8.98	16.90	6.37	....	4.63	5.00	18.13	18.41	18.76	19.00	....	14.12
18	8.97	16.80	6.80	4.95	4.55	4.99	18.20	18.50	13.72	18.99	17.56	14.10
19	8.95	16.60	6.53	5.01	4.70	5.04	18.20	18.53	18.75	19.00	17.28	13.70
20	8.95	16.99	6.00	5.11	4.68	5.08	18.22	18.55	18.73	19.01	16.89	13.76
21	8.32	16.90	6.00	5.22	4.64	5.05	18.22	18.57	18.73	19.00	16.98	13.80
22	8.25	16.93	5.42	5.24	4.87	5.01	18.23	18.60	18.73	18.98	16.70	14.00
23	8.60	17.08	5.68	5.20	4.90	5.01	18.10	18.60	18.77	....	16.50	14.00
24	8.60	17.09	5.80	5.20	5.00	....	18.12	18.61	18.80	18.99	16.25	13.93
25	....	17.00	6.52	5.21	5.00	....	18.17	18.61	18.81	18.99	16.12	14.00
26	....	14.40	6.03	5.21	5.01	....	18.16	18.65	18.82	18.98	15.98	14.00
27	....	12.61	5.93	5.21	5.00	....	18.01	18.69	18.79	19.00	15.84	13.66
28	....	10.55	5.82	5.24	5.00	....	18.07	18.70	18.76	19.00	15.74	13.68
29	....	10.40	5.37	5.24	5.02	....	18.08	18.71	....	19.01	15.58	13.39
30	....	....	5.96	5.22	....	13.78	18.01	18.72	....	19.00	15.47	13.18
31	....	....	5.90	....	....	....	18.02	18.30	....	19.00	....	13.17

Hardin County

Hn-1. Village of Alger. In Alger. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.70	....	7.75	7.07	7.70	7.87	8.22	8.72	....	11.75	....	9.16
2	7.31	....	7.63	7.18	7.15	7.39	8.24	8.76	....	....	....	8.65
3	7.40	....	7.72	7.39	7.57	8.05	8.40	8.91	....	....	....	8.34
4	7.20	....	7.73	7.28	8.32	8.24	8.46	8.82	....	....	....	8.49

Hn-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	7.55	....	7.57	7.17	8.77	8.23	8.34	8.99	10.80	....	....	8.13
6	7.14	....	7.64	7.15	8.53	8.14	8.40	8.92	11.03	....	....	8.40
7	7.30	....	7.59	6.84	7.59	7.90	8.34	8.71	11.32	11.08	....	8.88
8	7.25	....	7.82	7.09	7.40	7.82	8.46	8.68	11.18	11.08	....	8.89
9	7.24	....	7.65	7.14	7.54	7.89	8.43	8.43	11.24	10.99	....	8.95
10	6.86	....	7.52	7.33	7.59	7.92	8.53	8.67	11.30	11.03	....	8.88
11	7.25	....	8.26	6.96	7.57	8.30	3.66	8.76	11.31	11.03	....	....
12	7.27	....	8.12	7.05	7.55	7.87	7.82	8.62	11.81	11.08	....	8.14
13	7.17	....	8.03	7.00	7.47	8.16	8.53	9.42	11.74	11.08	....	8.14
14	....	....	7.95	7.06	7.28	8.05	7.32	8.98	11.74	11.08	....	7.90
15	....	....	7.77	7.09	7.27	8.13	7.32	9.61	11.73	10.93	....	8.08
16	....	....	7.46	7.07	7.46	7.89	8.61	9.25	11.40	10.87	....	....
17	....	8.62	7.63	7.35	7.22	8.17	7.85	9.27	11.29	....	....	8.13
18	....	8.33	7.54	8.07	7.14	8.21	8.66	9.06	11.72	....	10.00	....
19	....	3.32	7.89	7.37	7.35	8.25	8.44	8.97	11.72	10.90	10.20	7.95
20	....	8.26	7.92	7.30	7.00	8.19	8.82	8.97	....	....	9.32	8.14
21	....	7.96	7.57	7.26	7.09	8.22	8.56	9.20	....	....	9.83	8.07
22	....	8.17	6.35	7.47	7.00	3.14	8.70	9.30	11.65	11.17	8.75	7.75
23	....	8.08	7.37	7.54	7.12	8.25	8.65	9.19	11.63	10.86	8.96	7.96
24	....	8.12	7.48	7.52	7.20	8.18	8.49	9.52	11.67	....	8.66	7.80
25	....	8.00	7.34	7.49	7.21	8.18	8.55	9.75	11.77	....	8.80	7.47
26	....	7.87	7.44	7.54	7.29	8.32	8.39	9.60	11.77	....	8.61	8.67
27	....	7.13	7.22	7.07	7.35	8.25	8.12	9.80	11.68	....	8.49	....
28	....	7.50	7.45	7.47	7.42	8.32	8.25	9.96	11.68	....	9.27	....
29	....	7.64	7.50	7.57	7.65	8.25	8.27	9.94	11.47	....	9.34	....
30	....	....	7.09	7.66	7.57	8.34	8.72	....	11.52	....	9.25	....
31	....	....	6.87	....	7.64	....	8.83	....	....	....	....	....

Hn-2. Edward Abaier. At Dola. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.64	....	15.82	14.32	....	12.70	13.69	14.69	16.18	17.45	....	18.92
2	15.57	....	15.43	14.49	....	12.64	13.77	14.73	16.18	17.60	....	18.80
3	15.46	15.64	15.70	14.59	....	12.58	13.61	14.69	16.29	17.67	....	18.76
4	15.50	15.73	16.04	14.47	....	12.41	13.66	14.63	16.25	17.67	....	18.76
5	15.67	15.83	16.04	14.27	....	12.66	13.70	14.78	16.28	17.69	....	18.69
6	15.46	....	15.72	14.13	....	12.71	13.59	14.82	16.27	17.71	....	18.79
7	15.40	....	15.43	13.85	....	12.54	13.74	14.84	16.30	17.78	....	18.74
8	15.50	....	15.60	13.86	....	12.50	13.79	14.82	16.31	17.81	....	18.74
9	15.36	....	15.69	13.87	....	12.76	13.80	15.00	16.37	17.87	....	18.73
10	15.53	16.03	15.72	13.87	....	12.89	13.85	15.02	16.39	17.97	....	18.76
11	15.41	15.99	15.87	13.83	12.52	12.98	13.73	15.05	16.38	17.88	....	18.72
12	15.16	16.07	15.84	13.91	12.54	12.93	13.71	15.05	16.53	17.96	....	18.75
13	15.16	15.88	15.80	13.81	12.45	12.90	13.66	15.06	16.59	18.00	....	18.79
14	....	16.16	15.67	....	12.43	12.95	13.75	15.16	16.65	18.08	....	18.79
15	....	16.10	15.44	....	12.27	12.93	13.76	15.22	16.69	18.09	....	18.71
16	....	15.79	15.65	....	12.07	13.16	13.74	15.21	16.73	....	....	18.75
17	....	15.79	15.78	....	11.97	13.26	13.79	15.27	16.77	....	....	18.74
18	....	15.66	15.80	....	12.10	13.29	13.93	15.34	16.73	....	19.07	18.70
19	....	15.73	15.55	....	12.23	13.60	13.94	15.40	16.77	....	19.04	18.52
20	15.01	15.90	15.62	....	11.98	13.70	13.93	15.44	16.87	....	19.05	18.50
21	14.95	15.82	15.35	....	11.63	13.64	13.92	15.52	16.84	....	19.13	18.65
22	15.19	15.71	15.10	....	11.80	13.55	13.99	15.62	16.88	....	19.00	18.66
23	....	15.85	15.02	....	11.80	13.51	14.20	15.68	16.96	....	19.01	18.62
24	....	15.81	15.09	....	11.85	13.41	14.28	15.66	17.08	....	18.86	18.56
25	....	15.65	15.07	....	11.97	13.49	14.33	15.75	17.17	....	18.86	18.63
26	....	15.63	14.65	....	12.08	13.55	14.26	15.85	17.21	....	18.89	18.60
27	15.58	15.63	14.60	....	12.05	13.55	14.31	15.85	17.24	....	18.91	18.44
28	....	15.60	14.64	....	12.06	13.48	14.44	15.90	17.26	....	18.90	18.43
29	....	15.85	14.51	....	12.14	13.46	14.52	15.91	17.31	....	18.94	18.36
30	....	....	14.43	....	12.38	13.54	14.46	16.01	17.38	....	18.85	18.39
31	....	....	14.21	....	12.57	....	14.53	16.13	....	....	....	18.34

Henry County

Hy-1. A. F. Bean. In Deshler. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.14	20.19	20.18	20.00	19.87	.....	.....	20.37	20.91	20.37	20.88	20.67
2	20.02	20.20	20.10	20.12	19.87	.....	.....	20.44	20.87	20.93	20.88	20.67
3	20.08	20.19	20.15	20.16	19.84	.....	.....	20.45	20.84	20.96	20.87	20.66
4	20.05	20.16	20.31	20.16	19.84	al9.78	.....	20.46	20.88	20.96	20.79	20.73
5	20.10	20.18	20.31	20.04	19.84	.....	.....	20.43	20.83	20.89	20.79	20.68
6	20.08	20.18	20.26	20.02	19.84	.....	al9.99	20.46	20.86	20.88	20.72	20.64
7	20.13	20.18	20.07	20.01	19.73	.....	.....	20.45	20.81	20.83	20.78	20.65
8	20.12	20.23	20.10	20.04	19.80	.....	20.11	20.46	20.82	20.80	.....	20.65
9	20.20	20.25	20.10	20.12	19.90	.....	20.13	20.48	20.84	20.81	.....	20.65
10	20.27	20.26	20.13	20.10	19.80	.....	20.13	20.50	20.86	20.84	.....	20.73
11	20.27	20.25	20.17	19.96	19.75	.....	20.13	20.43	20.85	20.82	.....	20.72
12	20.15	20.19	20.17	19.98	19.76	.....	20.12	20.37	20.88	20.80	.....	20.68
13	20.16	20.15	20.18	19.97	19.72	.....	20.17	20.43	20.93	20.80	.....	.....
14	20.17	20.13	20.11	19.91	19.69	.....	20.25	20.47	20.99	20.87	.....	.....
15	20.17	20.17	20.04	19.92	19.68	.....	20.28	20.50	21.01	20.92	.....	.....
16	20.20	20.13	.....	19.97	19.66	19.99	20.28	20.50	21.03	20.86	.....	20.53
17	20.21	20.11	.....	20.00	19.66	19.99	20.29	20.52	21.02	20.91	.....	20.57
18	20.21	20.11	.....	20.00	19.73	19.98	20.30	20.51	20.99	20.91	20.81	20.57
19	20.20	20.15	.....	19.93	19.77	20.04	20.31	20.55	20.96	20.90	20.81	20.55
20	20.17	20.28	.....	19.93	19.72	20.04	20.32	20.59	20.95	20.92	20.75	20.49
21	20.07	20.28	.....	20.01	19.65	20.02	20.29	20.61	20.95	20.96	20.78	20.51
22	20.09	20.27	.....	20.02	19.70	19.99	20.29	20.63	20.90	20.94	20.77	20.56
23	20.23	20.27	20.00	19.98	19.70	19.99	20.32	20.65	20.90	20.91	20.77	20.58
24	20.23	20.29	20.12	19.97	19.70	19.98	20.34	20.65	20.98	20.95	20.74	20.58
25	20.22	20.22	20.12	19.95	19.75	19.98	20.34	20.67	21.01	20.94	20.72	20.58
26	20.23	20.13	20.05	19.95	19.75	19.97	20.33	20.73	21.07	20.92	20.70	20.58
27	20.22	20.14	20.03	19.90	.....	.....	20.30	20.77	21.06	20.91	20.67	20.58
28	20.24	20.02	20.11	19.87	.....	.....	20.30	20.81	21.01	20.90	20.67	20.58
29	20.15	20.18	20.05	19.86	.....	.....	20.34	20.83	20.95	20.91	20.67	20.49
30	20.21	.....	20.05	19.86	.....	al9.92	20.33	20.83	20.85	20.91	20.67	20.52
31	20.21	.....	19.99	.....	.....	.....	20.35	20.87	.....	20.89	.....	20.53

a Tape measurement.

Highland County

Hd-1. Harold Wilkin. 1 mile north of Dodsonville. Recorder removed and measurements discontinued after Nov. 3. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	15.34	9.82	3.11	2.97	4.97	7.32	11.12	12.84	14.39	15.49	16.58
2	14.26	9.93	3.10	3.03	5.15	7.54	11.21	12.92	14.43	15.53	16.59
3	12.86	10.12	2.92	3.18	5.37	7.76	11.27	12.98	14.48	15.56	16.60
4	11.65	10.22	2.83	3.22	5.44	7.93	11.33	13.00	14.53	15.59	.....
5	10.61	10.34	2.93	3.26	5.26	8.18	11.41	12.97	14.55	15.64	.....
6	9.84	10.46	2.96	3.27	4.96	8.34	11.45	13.01	14.54	15.67	.....
7	9.19	10.55	2.96	2.96	4.65	8.48	11.49	13.06	14.56	15.68	.....
8	7.70	10.71	2.89	2.95	4.28	8.64	11.54	13.13	14.61	15.73	.....
9	8.25	10.81	2.88	3.18	4.07	8.85	11.61	13.18	14.64	15.76	.....
10	7.93	10.92	2.93	3.22	4.11	9.07	11.65	13.24	14.68	15.81	.....
11	7.67	11.02	3.00	3.21	4.25	9.29	11.71	13.29	14.72	15.84	.....
12	7.59	11.03	3.20	2.09	4.28	9.41	11.77	13.34	14.78	15.88	.....
13	7.38	10.82	3.35	2.24	4.32	9.54	11.86	13.40	14.83	15.90	.....
14	7.27	9.41	3.44	2.47	4.40	9.68	11.92	13.44	14.87	15.94	.....
15	7.23	8.35	.....	2.79	4.50	9.82	12.00	13.46	14.92	15.98	.....
16	7.21	7.81	.....	3.01	4.54	9.95	12.03	13.50	14.99	16.03	.....
17	7.27	7.33	.....	3.17	4.53	10.07	12.09	13.61	15.03	16.04	.....
18	7.40	6.95	.....	3.23	4.56	10.17	12.10	13.67	15.10	16.01	.....
19	7.50	6.61	.....	3.31	4.66	10.25	12.15	13.71	15.14	15.95	.....
20	7.61	6.28	.....	3.42	4.74	10.35	12.20	13.75	15.19	15.92	.....
21	7.61	6.19	3.18	3.59	4.82	10.45	12.22	13.81	15.19	15.93	.....
22	7.67	6.06	3.18	3.72	5.01	10.55	12.24	13.86	15.14	.....	.....
23	7.93	6.00	3.17	3.84	5.19	10.64	12.29	13.97	15.12	.....	.....

Hd-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
24	8.14	6.00	2.92	3.99	5.41	10.70	12.36	14.00	15.14	16.02	.....
25	8.45	5.95	3.01	4.10	5.63	10.77	12.41	14.04	15.17	16.06	.....
26	8.73	5.71	3.02	4.22	5.83	10.84	12.46	14.08	15.21	16.12	.....
27	8.95	4.88	2.60	4.34	6.05	10.89	12.55	14.16	15.25	16.24	.....
28	9.16	3.98	2.91	4.49	6.26	10.95	12.60	14.20	15.29	16.34	.....
29	9.32	3.16	3.01	4.64	6.50	11.01	12.70	14.26	15.35	16.45	.....
30	9.50		3.10	4.79	6.76	11.05	12.74	14.33	15.43	16.86	.....
31	9.65		3.11		7.05		12.78	14.36		16.52	

Huron County

Hu-2. City of New London. At New London. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	14.15	14.24	14.49	14.90	14.96	15.17	15.36	15.38
2	.....	.....	14.15	14.24	14.51	14.92	14.96	15.22	15.36	15.38
3	.....	.....	14.14	14.25	14.50	14.93	14.95	15.25	15.34	15.34
4	.....	.....	14.22	14.22	14.52	14.93	14.96	15.25	15.28	15.32
5	.....	.....	14.26	14.25	14.54	14.96	14.97	15.23	15.28	15.32
6	.....	.....	14.26	14.26	14.51	14.83	14.97	15.23	15.25	15.25
7	.....	.....	14.16	14.20	14.56	14.89	14.93	15.22	15.35	15.20
8	.....	.....	14.21	14.14	14.60	14.90	14.93	15.19	15.36	15.24
9	.....	.....	14.22	14.13	14.62	14.93	14.94	15.21	15.31	15.26
10	.....	.....	14.24	14.21	14.62	14.93	14.95	15.22	15.31	15.30
11	.....	.....	14.26	14.22	14.62	14.92	14.95	15.22	15.35	15.30
12	.....	14.41	14.24	14.22	14.62	14.56	14.99	15.24	15.35	15.24
13	.....	14.41	14.21	14.21	14.62	14.61	15.04	15.25	15.33	15.16
14	.....	14.34	14.22	14.24	14.65	14.69	.....	15.30	15.33	.....
15	.....	14.28	14.22	14.26	14.66	14.72	.....	15.32	15.33	.....
16	.....	14.31	14.20	14.29	14.66	14.75	.....	15.30	.....	15.02
17	.....	14.36	14.12	14.31	14.68	14.77	.....	15.29	15.40	15.07
18	.....	14.36	14.18	14.32	14.70	14.76	.....	15.33	15.41	15.08
19	.....	14.32	14.21	14.32	14.72	14.79	.....	15.34	15.39	15.04
20	.....	14.28	14.19	14.38	14.73	14.81	15.08	15.31	15.32	14.96
21	.....	14.29	14.11	14.40	14.73	14.93	15.08	15.28	15.37	14.98
22	.....	14.29	14.13	14.40	14.73	14.86	15.05	15.23	15.37	15.03
23	.....	14.27	14.15	14.39	14.71	14.98	15.07	15.18	15.38	15.06
24	14.91	14.23	14.17	14.39	14.74	14.97	15.12	15.24	15.36	15.06
25	14.92	14.21	14.19	14.42	14.75	14.86	15.18	15.34	15.37	15.09
26	14.88	14.19	14.19	14.43	14.75	14.88	15.21	15.34	15.36	15.10
27	14.76	14.19	14.19	14.43	14.77	14.89	15.22	15.35	15.33	15.06
28	14.75	14.15	14.17	14.43	14.81	14.90	15.21	15.35	15.38	15.02
29	14.74	14.15	14.19	14.41	14.81	14.90	15.19	15.35	15.33	14.95
30	14.74	14.14	14.21	14.43	14.81	14.90	15.14	15.35	15.34	14.89
31	14.71		14.23		14.85	14.95		15.34		14.85

Hu-3. Willard Water Works. At Willard. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	50.55	49.30	49.22	49.27	43.35	48.88	49.80	50.40	49.06	48.19	49.52	47.19
2	.....	49.65	49.12	49.34	48.10	49.01	49.92	50.42	48.96	48.20	49.59	46.98
3	.....	49.69	49.23	49.35	48.28	49.26	49.91	50.37	48.91	48.18	49.75	46.91
4	.....	49.88	49.31	49.30	48.15	49.37	50.01	50.21	48.97	48.15	49.82	46.80
5	49.55	49.93	49.22	49.21	48.25	49.35	50.07	50.08	48.75	48.03	49.75	46.55
6	49.37	50.07	49.08	49.15	48.25	49.00	50.11	49.92	48.63	48.03	49.61	46.67
7	49.36	50.27	49.00	49.02	48.25	48.91	50.16	49.85	48.60	47.83	49.27	46.55
8	49.20	50.35	49.02	49.02	48.27	49.00	50.32	49.63	48.93	47.93	49.15	46.42
9	49.12	50.53	48.98	49.14	48.15	49.10	50.42	49.67	48.52	47.92	48.93	46.42
10	49.05	50.70	48.97	48.93	48.27	49.11	50.52	49.65	48.42	47.77	48.35	46.58
11	48.95	50.75	48.99	48.87	48.31	49.20	50.52	49.61	48.29	47.87	48.81	46.45
12	48.80	50.75	49.07	49.18	48.25	49.25	50.56	50.35	48.27	47.97	48.67	46.24
13	48.62	50.75	49.00	48.92	48.23	.....	50.42	50.57	48.27	47.95	48.58	46.42

Hu-3--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
14	.....	50.66	48.82	48.92	48.23	49.21	50.36	50.67	48.25	48.02	48.39 46.42
15	.....	50.55	48.80	48.84	48.27	49.17	50.42	49.72	48.20	48.10	48.65 45.97
16	48.61	50.25	49.00	48.96	48.05	49.18	50.37	50.19	48.28	48.25	48.33 46.03
17	48.61	.....	49.00	48.88	48.50	49.33	50.47	49.57	48.55	48.51	48.26 46.03
18	48.38	.....	48.87	48.64	48.71	49.23	50.37	49.42	48.33	48.51	48.17 45.81
19	48.45	.....	48.84	48.81	48.79	49.23	50.59	49.30	48.17	48.59	47.95 45.51
20	48.35	.....	48.82	48.82	48.50	49.21	50.64	49.59	48.57	48.69	47.92 45.60
21	48.20	.....	48.87	48.87	48.49	49.44	50.69	49.54	48.29	48.78	47.85 45.63
22	48.50	.....	49.77	48.71	48.49	49.50	50.67	49.32	48.17	.....	47.82 45.65
23	48.81	49.53	49.65	48.67	48.62	49.67	50.65	49.32	48.20	.....	47.75 45.65
24	48.81	49.52	49.73	48.70	48.88	49.67	50.66	49.18	48.24	.....	47.65 45.71
25	48.99	49.33	49.57	48.70	48.74	49.76	50.57	49.27	48.25	48.53	47.50 45.47
26	48.98	49.35	49.41	48.57	48.76	49.71	50.65	49.34	48.17	48.56	47.41 45.47
27	48.60	49.23	49.53	48.42	48.76	49.70	50.76	49.28	48.49	48.61	47.42 45.73
28	48.67	49.25	.....	48.42	48.72	49.75	50.72	49.25	48.56	48.80	47.25 45.68
29	48.35	49.32	49.31	48.37	48.78	49.75	50.76	49.05	48.27	48.82	47.23 45.55
30	48.99	.....	49.33	48.32	.....	49.81	50.80	49.15	48.29	48.90	47.22 45.21
31	49.54	.....	49.17	.....	48.69	.....	50.51	49.13	.....	48.75	..... 45.15

Jefferson County

Je-1. Steubenville Pottery Co. At Steubenville. Records available: 1947-48.

Lowest daily water level, from recorder charts							
Day	Jan.	Feb.	Mar.	Apr.	May	June	July Aug.
1	.....	.....	43.02	.....	43.35	.....	..... 44.00
2	45.86	.....	43.90	.....	44.42	.....	..... 43.82
3	43.80	.....	.....	.....	44.51	.....	..... 43.78
4	43.70	.....	.....	.....	.....	44.45	..... 43.61
5	44.93	.....	44.58	.....	.....	44.28	.....
6	46.32	.....	45.00	.....	.....	44.27	.....
7	46.75	.....	45.68	.....	.....	44.19	.....
8	45.92	.....	.....	.....	.....	44.50	.....
9	45.52	.....	.....	.....	.....	44.46	.....
10	45.67	.....	.....	.....	.....	44.68	.....
11	45.61	.....	.....	.....	43.55	44.85	.....
12	45.47	.....	.....	.....	44.05	.....	.....
13	45.50	.....	45.50	.....	44.77	.....	.....
14	45.54	.....	45.50	.....	45.28	.....	44.10
15	46.43	.....	45.17	.....	45.85	.....	44.17
16	46.47	.....	45.50	27.57	46.25	.....	44.06
17	.....	.....	45.30	29.85	45.80	.....	43.92
18	.....	.....	45.28	31.70	46.00	.....	43.88
19	44.87	.....	44.07	33.47	.....	.....	44.02
20	44.82	.....	43.30	35.05	.....	.....	44.02
21	44.75	.....	.....	36.65	.....	.....	44.18
22	44.70	.....	39.73	38.10	.....	.....	44.26
23	44.67	.....	39.73	40.00	.....	.....	44.86
24	44.55	41.85	37.57	.....	.....	.....	45.11
25	44.63	43.00	36.77	.....	.....	.....	45.40
26	.....	44.05	36.10	41.82	.....	.....	45.77
27	.....	44.14	37.20	42.20	.....	.....	44.85
28	.....	43.05	.....	42.75	.....	.....	44.44
29	.....	43.37	.....	42.72	.....	.....	44.35
30	.....	.....	.....	43.02	.....	.....	44.25
31	.....	.....	.....	.....	.....	.....	44.16

Knox County

K-1. City of Mt. Vernon. In Mt. Vernon. Records available: 1946-48.

K-1--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	3.88	5.02	7.12	7.90	5.38	10.06	7.38	....	5.34
2	....	....	5.07	3.54	7.25	8.00	6.83	8.42	7.14	....	5.35
3	....	....	3.75	5.33	7.32	8.20	7.46	8.54	6.99	....	5.16
4	....	....	3.75	4.54	8.70	7.00	7.82	8.36	8.61	....	5.43
5	....	....	4.65	5.37	7.50	5.90	7.02	7.52	7.34	....	4.50
6	3.36	....	3.95	6.51	5.43	7.82	7.54	....	7.25	....	5.09
7	....	....	4.45	4.70	7.44	7.88	7.51	....	8.37	....	5.43
8	....	....	4.43	5.33	6.92	7.73	6.50	8.16	8.25	....	5.54
9	....	....	5.37	3.43	6.65	8.00	7.50	7.43	7.50	....	6.23
10	....	....	4.82	5.67	7.73	8.30	7.70	7.50	7.80	....	6.46
11	....	....	3.53	6.31	7.63	6.70	7.68	7.62	7.25	8.20	5.98
12	....	....	3.22	6.20	7.43	7.70	7.70	7.90	8.23	7.16	4.44
13	....	....	2.87	6.06	5.97	8.08	7.44	8.62	8.00	6.87	5.33
14	....	....	4.08	5.57	7.62	8.28	7.38	7.93	9.10	6.55	5.32
15	....	....	4.56	4.90	7.97	8.56	5.90	8.43	8.77	7.34	5.17
16	....	....	2.97	3.99	7.63	8.02	7.45	8.70	8.48	7.63	5.10
17	....	1.78	4.02	6.21	7.93	8.09	8.46	7.65	....	7.75	5.06
18	....	....	2.23	7.08	7.62	7.00	7.91	7.67	....	6.30	5.08
19	....	....	2.97	7.27	7.45	8.44	7.30	7.74	....	5.73	4.04
20	....	....	4.43	6.45	5.82	8.40	7.58	7.89	....	....	5.44
21	....	....	3.56	6.30	7.50	8.58	7.16	8.14	....	....	6.31
22	2.65	....	4.13	6.01	7.98	8.16	5.15	8.57	....	....	5.54
23	2.88	....	3.63	4.40	8.40	8.13	7.35	8.29	....	7.40	5.18
24	2.80	....	3.45	5.92	8.20	7.42	8.93	8.16	....	7.55	4.69
25	2.86	3.60	3.02	6.42	8.50	6.14	9.72	7.71	....	5.39	4.14
26	3.93	4.90	4.54	6.60	8.57	7.62	10.00	7.18	....	7.20	4.00
27	3.62	3.10	4.62	7.32	6.80	8.24	11.40	7.14	....	....	4.74
28	3.46	2.43	5.17	7.29	8.60	8.22	9.70	8.45	....	....	5.13
29	....	3.20	5.72	6.69	8.50	7.50	7.85	8.32	....	5.97	4.98
30	....	3.54	5.27	5.35	8.02	7.54	8.77	8.36	....	5.40	4.63
31	....	3.48	....	5.68	....	6.44	9.59	....	....	....	4.71

Lake County

L-1. Village of Mentor. In municipal well field, at Mentor.
 Abandoned drilled well, diameter 8 inches, depth 32 feet. Measuring point,
 top of concrete block in well pit, 1.5 feet above land-surface datum.
 Automatic water-stage recorder installed Apr. 7. Records available: 1948.

Lowest daily water level, from recorder charts								
Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	....	18.32	18.09	18.90	....	20.47	19.80	19.40
2	....	18.32	18.21	18.86	....	....	19.76	19.56
3	....	18.52	18.37	18.89	....	....	19.66	19.60
4	....	18.54	18.51	18.89	20.46	....	19.60	19.52
5	....	18.39	18.60	18.55	20.94	....	19.69	19.50
6	....	18.30	18.60	18.65	19.97	....	19.67	19.52
7	18.09	18.24	18.64	18.69	20.44	....	19.65	19.56
8	18.16	18.24	18.31	18.68	19.90	....	19.67	19.50
9	18.11	18.23	18.28	18.86	19.74	....	19.68	19.60
10	18.04	18.05	18.27	19.07	19.86	....	19.69	19.66
11	18.03	18.14	18.30	19.15	19.89	....	19.60	19.65
12	17.99	18.21	18.32	19.21	....	....	19.63	19.63
13	17.99	18.17	18.29	20.34	....	....	19.63	19.60
14	17.98	18.03	18.20	19.50	....	....	19.71	19.50
15	18.05	18.05	18.35	20.34	....	....	19.74	19.47
16	18.12	18.02	18.41	20.70	....	....	19.71	19.50
17	18.15	18.09	18.50	20.68	....	....	19.62	19.50
18	18.20	18.20	18.56	20.69	....	....	19.60	19.50
19	18.21	18.34	18.62	20.69	....	20.61	19.66	19.50
20	18.31	18.35	18.59	20.69	....	20.60	19.71	....
21	18.34	18.19	18.48	20.74	....	20.52	19.71	....
22	18.32	18.17	18.60	20.36	....	19.92	19.71	....
23	18.30	18.13	18.59	19.36	....	19.83	19.70	....
24	18.32	17.98	18.81	19.92	....	19.74	19.65	....

L-1--Continued.

Lowest daily water level, from recorder charts									
Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	18.31	18.06	18.81	20.22	20.65	19.72	19.51	19.53	19.19
26	18.33	18.11	18.83	19.35	.....	19.73	19.52	19.50	19.12
27	18.39	18.15	18.83	20.20	.....	19.73	19.65	19.50	19.10
28	18.40	18.18	18.77	20.30	.....	19.82	19.70	19.50	19.19
29	18.50	18.21	18.86	.....	.....	19.88	19.67	19.42	19.21
30	18.52	18.21	18.83	.....	.....	19.80	19.60	19.50	.....
31	.....	18.07	.....	.....	.....	.....	19.60	.....	19.14

Lawrence County

La-1. Crystal Ice Co. In Ironton. Records available: 1947-48.

Lowest daily water level, from recorder charts									
Day	Jan.	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	48.33	.....	.....	48.50	48.76	49.21	49.75	50.05
2	.....	48.52	.....	.....	48.52	48.72	49.20	49.75	50.04
3	52.49	48.28	.....	.....	48.55	48.72	49.20	49.76	50.04
4	52.58	48.22	.....	.....	48.59	48.69	49.28	49.78	50.05
5	52.64	48.15	.....	.....	48.61	48.75	49.35	49.78	50.04
6	52.68	48.10	.....	.....	48.63	48.80	49.38	49.82	50.06
7	52.78	48.02	.....	47.50	48.66	48.78	49.40	49.82	50.04
8	52.75	48.02	.....	47.55	48.69	48.80	49.42	49.82	50.06
9	52.76	.....	.....	47.60	48.72	48.81	49.44	.....	50.07
10	.....	.....	.....	47.60	.....	48.82	49.44	.....	50.09
11	.....	.....	.....	47.72	48.72	48.83	49.49	.....	50.06
12	.....	.....	.....	47.77	48.74	48.85	49.52	.....	50.04
13	.....	.....	.....	47.81	48.78	48.86	49.52	.....	50.05
14	.....	.....	.....	47.86	48.80	48.94	49.54	.....	50.05
15	.....	.....	.....	.....	48.82	48.94	49.55	.....	49.74
16	.....	.....	.....	47.94	48.84	49.04	49.57	.....	49.72
17	.....	.....	.....	48.01	48.86	49.06	49.60	49.96	49.67
18	.....	.....	.....	48.01	48.89	48.93	49.60	49.96	49.60
19	.....	.....	.....	48.04	48.89	48.84	49.60	49.97	49.49
20	.....	.....	.....	48.08	48.91	49.12	49.63	49.98	49.41
21	.....	.....	.....	48.10	48.93	49.17	49.66	50.00	49.32
22	.....	.....	.....	48.14	48.96	49.20	49.67	50.00	49.24
23	.....	.....	46.59	48.18	48.98	49.25	49.68	50.00	49.17
24	.....	.....	46.63	48.21	49.00	49.29	49.70	50.00	48.79
25	.....	.....	46.68	48.24	49.02	49.32	49.71	.....	48.56
26	.....	.....	46.85	48.29	49.05	49.35	49.72	50.00	48.43
27	.....	.....	46.97	48.30	48.84	49.36	49.73	50.02	48.29
28	.....	.....	47.06	48.33	48.84	49.17	49.73	50.02	48.26
29	.....	.....	47.10	.....	48.72	49.26	49.74	50.04	48.20
30	.....	.....	47.17	48.44	48.72	49.25	49.72	50.04	48.11
31	.....	.....	.....	48.48	48.73	.....	49.74	.....	48.20

Logan County

Lo-1. Ohio State Grange. In Bellefontaine. Records available: 1946-48.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	.....	17.46	16.23	14.79	14.26	14.87	15.92	17.31	18.57	19.76	20.82 20.48
2	.....	17.51	16.03	14.99	14.26	14.88	15.99	17.37	18.57	19.84	20.81 20.38
3	.....	17.53	16.14	15.08	14.19	14.89	15.99	17.36	18.62	19.86	20.81 20.38
4	16.68	17.57	16.32	15.02	14.15	14.86	16.04	17.40	18.67	19.86	20.88 20.38
5	16.76	17.62	16.32	14.79	14.18	15.10	16.06	17.46	18.70	19.88	20.89 20.30
6	16.64	17.65	16.14	14.79	14.15	15.12	16.10	17.49	18.75	19.89	20.95 20.44
7	16.66	17.63	16.13	14.43	14.13	15.01	16.22	17.48	18.80	19.95	20.95 20.44
8	16.61	17.75	16.31	14.53	14.20	15.15	16.28	17.52	18.82	20.01	20.89 20.49
9	16.70	17.74	16.42	14.66	14.19	15.27	16.33	17.55	18.88	20.06	20.82 20.50
10	16.77	17.73	16.48	14.63	14.29	14.35	16.35	17.56	18.89	20.09	20.90 20.58

Lo-1--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
11	16.69	17.72	16.56	14.33	14.29	15.35	16.38	17.58	18.95	20.14	20.92 20.53
12	16.53	17.76	16.60	13.91	14.27	15.35	16.47	17.64	18.98	20.17	20.92 20.60
13	16.59	17.66	16.63	13.33	14.20	15.46	16.58	17.69	19.03	20.20	20.95 20.60
14	16.71	17.26	16.59	12.95	14.10	15.47	16.65	17.77	19.09	20.24	20.95 20.63
15	16.71	17.14	16.47	13.00	14.15	15.52	16.67	17.80	19.11	20.26	20.93 20.53
16	16.88	16.71	16.44	13.32	14.12	15.60	16.72	.....	19.20	20.31	20.93 20.13
17	16.91	16.45	16.47	13.42	14.14	15.62	16.76	.....	19.21	20.36	20.96 19.89
18	17.01	16.32	16.43	13.44	14.32	15.62	16.80	.....	19.20	20.36	20.96 19.74
19	16.98	16.37	16.29	13.55	14.42	15.76	16.84	.....	19.23	20.40	20.95 19.50
20	16.97	16.45	16.30	13.67	14.35	15.82	16.85	.....	19.30	20.42	20.96 19.49
21	16.84	16.45	16.16	13.85	14.30	15.80	16.85	.....	19.30	20.42	20.96 19.49
22	17.09	16.53	16.11	13.84	14.39	15.77	16.90	18.19	19.34	20.48	20.87 19.51
23	17.24	16.66	16.06	13.84	14.43	15.73	17.04	18.24	19.40	20.57	20.86 19.50
24	17.23	16.70	15.61	13.91	14.46	15.80	17.07	18.20	19.50	20.59	20.85 19.44
25	17.30	16.67	15.18	13.96	14.49	15.85	17.07	18.21	19.54	20.58	20.86 19.52
26	17.31	16.62	14.85	14.02	14.53	15.91	17.10	18.27	19.57	20.62	20.82 19.52
27	17.53	16.60	14.62	14.03	14.55	15.85	17.11	18.27	19.57	20.64	20.90 19.39
28	17.33	16.23	14.52	14.09	14.60	15.76	17.14	18.36	19.57	20.70	20.87 19.40
29	17.29	16.27	14.47	14.14	14.71	15.80	17.14	18.36	19.61	20.71	20.74 19.32
30	17.38	.....	14.54	14.16	14.76	15.84	17.18	18.43	19.68	20.72	20.61 19.29
31	17.39	.....	14.54	.....	14.84	.....	17.23	18.52	.....	20.74	19.14

Lorain County

In-1. Village of Lagrange. In municipal well field, on west side of State Highway 301, and 1.5 miles north of Lagrange. Drilled test well, diameter 6 inches, depth 54 feet. Measuring point, floor of recorder shelter, 1.5 feet above land-surface datum. Equipped with automatic water-stage recorder. Records available: 1948.

Lowest daily water level, from recorder charts							
Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	28.27	30.45	29.55	31.30	34.00	32.65
2	.....	30.10	31.15	31.00	31.30	33.95	32.65
3	32.77	30.70	31.74	30.50	31.20	33.90	32.75
4	33.25	31.00	31.05	31.85	31.65	33.95	32.30
5	33.50	30.45	31.50	31.10	30.75	33.95	32.50
6	34.10	30.96	31.40	30.60	31.20	33.90	32.35
7	29.78	30.37	31.50	30.80	32.55	33.90	32.80
8	.....	30.11	31.85	31.15	33.65	33.90	32.90
9	29.68	30.32	31.75	30.60	33.70	33.70	32.80
10	32.04	30.74	31.05	30.80	33.95	33.70	32.35
11	31.99	31.68	31.35	31.90	33.95	33.45	30.55
12	31.54	31.38	30.75	31.25	33.90	.....	27.95
13	31.65	30.10	31.05	32.05	33.90	.....	22.35
14	29.01	30.67	30.80	32.50	35.95	.....	22.75
15	28.57	29.25	30.95	31.10	33.90	.....	.....
16	29.83	30.27	31.50	31.20	33.90	.....	27.60
17	29.38	30.73	30.80	31.35	33.90	32.90	26.45
18	28.46	30.80	30.80	33.30	33.90	33.00	26.60
19	24.60	32.29	30.25	33.35	33.85	33.15	28.70
20	24.12	31.39	30.30	32.70	33.85	33.30	17.05
21	28.24	30.72	30.80	33.35	33.85	33.40	20.35
22	28.10	31.99	30.65	32.40	33.80	33.40	27.40
23	30.22	32.30	30.65	33.05	33.80	33.30	31.60
24	29.21	30.89	29.95	31.65	33.85	33.30	31.90
25	28.84	30.47	31.35	32.35	33.85	33.45	19.70
26	29.52	30.41	31.05	32.60	33.80	33.30	28.50
27	29.03	31.22	31.60	32.15	33.85	33.25	30.20
28	28.40	30.22	31.55	33.20	33.55	33.05	20.40
29	27.90	31.00	31.20	33.35	33.80	32.90	29.70
30	28.64	31.05	29.95	31.70	33.85	33.10	24.99
31	.....	30.70	29.45	.....	33.90	.....	26.99

Lucas County

Lu-1. State of Ohio, Toledo Hospital. In Toledo. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
1	86.50	86.07	88.37	85.78	85.54	85.70	96.60	.....	107.78	99.90	93.94
2	86.08	86.06	87.85	86.20	85.54	85.63	96.84	.....	108.08	99.60	93.90
3	86.25	86.11	87.75	86.44	85.67	85.46	96.95	.....	108.08	99.02	93.50
4	86.20	86.31	88.22	86.43	85.66	85.30	94.74	.....	107.87	98.34	93.34
5	86.40	86.30	88.20	86.00	85.65	85.38	93.00	.....	107.99	98.06	93.10
6	86.32	86.15	87.90	85.93	85.63	85.45	93.29	.....	108.07	97.60	92.83
7	86.32	86.05	87.05	85.85	85.37	85.18	95.13	.....	108.20	97.72	92.65
8	86.07	86.22	86.94	85.87	.....	85.13	95.85	.....	108.50	97.73	92.88
9	86.38	86.25	86.96	86.18	.....	85.35	95.53	103.40	108.58	97.16	92.90
10	86.65	86.25	86.98	86.18	85.66	85.43	96.10	103.80	107.87	96.78	93.00
11	86.66	86.21	87.04	85.57	85.71	85.74	96.55	103.95	106.39	96.80	92.91
12	86.23	85.98	87.04	85.87	85.78	35.74	97.27	104.03	107.19	96.72	92.42
13	86.21	85.91	.....	85.96	85.68	85.49	97.90	103.03	108.05	96.27	92.48
14	86.31	87.75	.....	85.78	85.64	85.49	97.73	103.92	108.73	96.25	92.57
15	86.31	88.60	.....	85.63	85.64	86.32	.....	104.45	108.94	95.85	92.30
16	86.37	88.90	.....	85.87	85.45	87.62	.....	105.25	109.12	95.52	92.06
17	86.39	89.40	86.56	86.04	85.50	88.65	.....	105.60	109.15	95.43	92.23
18	86.45	89.63	86.59	85.93	85.76	89.62	.....	105.75	109.13	95.43	92.23
19	86.40	89.95	86.18	85.68	85.94	91.60	.....	105.64	.....	95.17	91.70
20	86.20	90.81	86.28	85.58	85.77	92.50	.....	105.36	.....	94.80	91.44
21	85.75	91.09	86.08	85.83	85.30	92.98	.....	105.95	.....	94.84	91.45
22	85.77	91.42	86.12	85.87	85.49	92.50	.....	106.28	.....	94.80	91.69
23	86.33	91.74	86.10	85.70	85.46	92.64	.....	106.50	.....	94.60	91.77
24	86.32	91.62	86.35	85.56	85.63	93.63	.....	106.95	.....	94.38	91.72
25	86.37	89.40	86.35	85.49	85.63	93.70	.....	.....	103.16	94.25	91.88
26	86.33	89.14	86.04	85.42	85.62	93.65	.....	.....	103.23	94.08	91.88
27	86.40	88.95	85.90	85.34	85.76	94.54	.....	.....	103.24	94.28	91.48
28	86.42	88.05	86.08	85.28	85.75	94.56	.....	107.10	103.20	94.26	91.26
29	86.05	88.41	85.88	.....	85.58	94.58	.....	107.20	102.65	93.94	90.96
30	86.23	.....	85.90	85.46	85.62	95.78	.....	107.44	101.41	93.94	91.07
31	86.24	.....	85.70	.....	85.70	.....	.....	.....	100.52	.....	91.07

Lu-2. Henry Miller. In Toledo. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	63.91	.....	.....	.....	64.80	66.13	65.27	65.28	64.83
2	63.96	63.83	.....	.....	.....	64.82	66.19	65.41	65.28	64.83
3	64.08	63.77	63.08	.....	.....	65.08	66.32	65.41	.....	64.74
4	64.04	63.80	63.43	.....	.....	65.33	66.33	65.36	.....	64.69
5	64.01	63.77	63.48	.....	.....	65.29	66.26	65.24	.....	64.63
6	64.00	63.84	63.48	.....	.....	65.34	65.96	65.20	65.12	64.37
7	63.98	63.88	63.18	62.49	.....	65.43	65.85	65.12	65.29	64.38
8	63.97	63.89	62.90	.....	.....	65.31	65.94	65.10	65.32	64.51
9	63.95	63.95	62.99	.....	.....	65.16	66.00	65.11	65.22	64.54
10	64.08	64.01	63.09	.....	.....	65.29	65.98	65.10	65.13	64.76
11	64.08	64.01	.....	.....	.....	65.44	65.78	65.01	65.22	64.76
12	63.85	63.93	.....	.....	.....	65.36	65.50	.....	65.22	64.57
13	63.71	63.39	.....	.....	.....	65.23	65.59	.....	65.16	64.58
14	63.72	63.77	.....	.....	.....	65.10	65.71	.....	65.16	64.65
15	63.73	63.89	62.76	62.39	.....	65.00	65.85	65.30	65.01	64.63
16	.....	.....	62.86	62.48	.....	64.91	66.04	65.30	65.00	64.59
17	.....	.....	62.80	62.43	.....	65.30	66.18	65.29	65.03	64.73
18	.....	63.60	62.64	62.42	.....	65.55	66.14	65.29	65.03	64.73
19	.....	63.50	62.32	62.28	.....	65.56	65.96	65.30	65.02	64.50
20	.....	63.47	62.47	62.30	.....	65.44	65.86	65.46	64.83	64.28
21	.....	63.47	62.50	62.55	.....	65.40	65.89	65.48	64.85	64.27
22	63.42	63.22	62.46	62.60	.....	65.22	65.72	65.50	64.81	64.46
23	63.73	63.00	.....	.....	64.80	65.24	65.61	65.41	64.76	64.60
24	63.74	62.92	.....	.....	64.66	65.48	65.53	65.45	64.72	64.61
25	63.81	62.84	.....	.....	64.45	65.76	65.58	65.41	64.72	64.71
26	63.83	.....	.....	.....	64.33	66.14	65.60	65.40	64.64	64.71

Lu-2--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	July	Aug.	Sept.	Oct.	Nov.	Dec.	
27	63.89	.....	.....	.....	64.44	66.47	65.50	65.45	64.68	64.56	
28	63.90	.....	.....	.....	64.60	66.60	65.41	65.46	64.38	64.43	
29	63.79	.....	.....	.....	64.72	66.37	65.40	65.47	64.64	64.28	
30	.....	.....	.....	.....	64.72	66.10	65.25	65.47	64.72	64.31	
31	63.89	.....	.....	.....	64.81	66.11	65.38	65.38	64.32	64.32	

Madison County

M-1. Max A. Chenoweth. In Mt. Sterling. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	25.53	25.44	24.99	23.87	23.96	24.66	25.47	25.90	27.56	.....	26.76	26.74
2	25.13	25.43	24.82	24.09	23.96	24.72	25.47	25.99	27.61	.....	27.15	26.71
3	25.20	25.46	24.93	24.12	24.06	24.72	25.49	26.02	27.85	26.79	27.15	26.67
4	25.14	25.41	25.13	24.10	24.02	24.72	25.57	25.98	27.95	26.81	26.80	26.68
5	25.29	25.50	25.18	23.97	24.10	24.35	25.57	25.86	27.72	26.81	26.79	.....
6	25.28	25.55	25.11	23.87	24.09	24.35	25.58	26.11	27.48	26.74	26.72	.....
7	25.30	25.54	24.94	23.74	24.00	24.64	25.66	26.08	27.32	26.69	26.83	.....
8	25.28	25.51	24.83	23.78	24.14	24.60	25.75	25.94	27.50	26.65	26.77	.....
9	25.28	25.62	24.90	23.95	24.14	24.75	25.77	26.22	27.52	26.75	26.69	.....
10	25.39	25.65	24.90	23.95	24.24	24.85	25.74	26.17	27.72	26.73	.....	.....
11	25.38	25.64	25.02	23.82	24.30	24.84	25.79	26.06	27.71	26.75	.....	.....
12	25.21	25.56	25.04	23.60	24.28	25.47	25.74	26.03	27.48	26.79	.....	26.57
13	25.21	25.52	25.04	23.15	24.11	26.39	25.69	.....	27.53	26.85	26.80	26.67
14	25.27	25.15	25.02	22.99	24.12	25.90	25.66	26.12	27.56	26.86	26.76	26.68
15	25.27	25.24	24.88	23.12	24.12	25.40	25.73	26.12	27.60	26.90	26.85	26.61
16	25.34	25.15	24.72	23.19	24.06	25.32	25.73	26.26	27.53	26.90	26.82	26.22
17	25.36	25.13	24.75	23.28	24.05	25.33	25.68	26.43	27.55	26.79	26.78	26.20
18	25.36	25.12	24.74	23.25	24.13	25.30	25.68	26.46	27.48	26.70	26.78	26.18
19	25.35	24.97	24.63	23.40	24.22	25.22	25.73	26.40	27.25	26.72	26.67	26.07
20	25.31	25.10	24.46	23.37	24.20	25.20	25.71	26.56	27.07	26.79	26.71	.....
21	25.22	25.10	24.42	23.46	24.08	25.22	25.68	26.74	26.90	26.84	26.69	26.00
22	25.18	25.05	24.40	23.52	24.16	25.23	25.67	26.55	26.79	26.82	26.76	26.12
23	25.38	25.27	24.32	23.58	24.14	25.30	25.76	27.00	26.76	26.71	26.77	26.13
24	25.37	25.25	23.55	23.66	24.30	25.36	25.84	27.20	26.89	26.72	26.73	26.12
25	25.36	25.20	23.58	23.65	24.40	25.40	25.84	27.45	26.90	26.73	26.77	26.18
26	25.40	25.05	23.51	23.80	24.41	25.44	25.89	27.57	26.90	26.76	26.70	26.18
27	25.40	24.92	23.95	23.82	24.43	25.42	25.90	27.71	.....	26.76	26.74	26.15
28	.....	24.75	24.06	23.83	24.48	25.47	25.78	27.71	.....	26.73	26.70	26.15
29	.....	24.92	23.95	23.87	24.52	25.45	25.82	27.37	.....	26.74	26.69	.....
30	25.40	.....	23.94	23.91	24.58	25.40	25.85	27.42	.....	26.73	26.67	.....
31	25.44	.....	23.88	.....	24.66	.....	25.90	27.53	.....	26.70	.....	.....

Mahoning County

Ma-1. Village of Canfield. In Canfield. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.09	38.20	35.93	.....	32.19	31.31	31.71	32.31	32.87	34.47	34.74	33.90
2	38.90	38.20	35.75	.....	32.19	31.30	31.70	32.36	33.00	34.50	34.60	33.88
3	38.91	38.18	35.70	.....	32.20	31.36	31.63	32.42	33.00	34.70	34.56	33.80
4	38.90	38.12	35.86	.....	32.18	31.52	31.68	32.42	33.08	35.02	34.47	33.73
5	38.93	38.09	35.86	.....	32.38	31.51	31.70	32.38	33.08	34.79	34.48	33.62
6	38.90	37.93	.....	.....	32.29	31.44	31.65	32.62	33.08	34.65	34.42	33.60
7	38.78	37.93	.....	.....	32.16	31.35	31.71	32.89	33.08	34.59	34.46	33.65
8	38.74	37.95	.....	.....	32.06	31.24	31.77	33.09	33.11	34.53	34.48	33.66
9	38.70	37.96	.....	.....	31.93	31.29	31.77	33.23	33.88	34.51	34.50	33.71
10	38.71	37.97	.....	.....	31.83	31.42	31.77	33.28	33.53	34.60	34.50	33.70
11	38.71	37.97	.....	.....	31.80	31.36	31.80	33.06	33.62	34.60	34.48	33.69
12	38.60	37.90	35.40	.....	31.71	31.36	31.88	32.32	33.78	34.53	34.50	33.69

Ma-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	38.50	.....	35.40	.....	31.58	31.34	31.83	32.50	34.00	34.52	34.48	33.72
14	38.50	.....	35.35	.....	31.40	31.39	31.87	32.54	34.60	34.49	34.40	33.72
15	38.50	.....	35.28	31.90	31.34	31.40	31.89	32.54	34.87	34.55	34.37	33.68
16	38.45	.....	35.21	31.90	31.24	31.49	31.90	32.62	35.09	34.50	34.38	32.72
17	38.45	.....	35.26	31.90	31.15	31.50	32.02	32.62	34.92	34.36	34.37	33.31
18	38.50	.....	35.26	31.82	31.11	31.99	32.22	32.58	34.36	34.39	34.40	33.45
19	38.80	36.00	35.20	31.81	31.27	31.92	32.35	32.58	34.30	34.38	34.32	33.51
20	38.67	36.10	34.88	31.79	31.30	31.63	32.35	32.58	34.22	34.37	34.25	33.56
21	38.48	36.10	34.88	31.70	31.32	31.72	32.36	32.60	34.62	34.50	34.28	33.57
22	38.29	36.02	34.88	31.83	31.40	31.79	32.28	32.60	34.87	34.55	34.20	33.60
23	38.41	36.03	34.99	31.95	31.64	31.80	32.26	32.63	35.10	34.56	34.10	33.67
24	38.40	36.03	.....	32.40	31.86	31.77	32.29	32.63	35.08	34.63	33.97	33.67
25	38.27	35.97	.....	32.30	31.68	31.72	32.29	32.65	35.10	34.66	33.98	33.86
26	38.26	35.88	.....	32.30	31.57	31.79	32.28	32.78	34.92	34.66	33.88	33.85
27	38.32	35.87	.....	32.33	31.47	31.78	32.31	32.78	34.80	34.61	33.92	33.72
28	38.22	35.79	.....	32.10	31.39	31.72	32.32	32.78	34.58	34.65	33.92	33.60
29	38.22	35.86	.....	32.18	31.36	31.70	32.30	32.78	34.57	34.66	33.80	33.60
30	38.24	.....	32.18	31.32	31.70	32.30	32.80	34.48	34.61	33.90	33.52	
31	38.23	.....	.....	31.31	.....	32.30	32.82	.....	34.75	.....	33.69	

Ma-3. Tod Hotel. In Youngstown. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.00	27.40	27.33	27.27	27.66	27.69	27.87	27.77	27.41	27.16	27.00	.....
2	26.99	27.36	27.31	27.33	27.66	27.73	27.91	27.77	27.40	27.16	27.00	.....
3	27.04	27.36	27.30	27.39	27.64	27.74	27.88	27.76	27.38	27.18	26.99	.....
4	27.04	27.36	27.35	27.41	27.65	27.75	27.87	27.74	27.38	27.19	26.98	.....
5	27.09	27.38	27.37	27.39	27.62	27.79	27.85	27.72	27.40	27.17	27.00	.....
6	27.10	27.39	27.37	27.36	27.62	27.81	27.80	27.70	27.40	27.15	27.01	.....
7	27.22	27.40	27.32	27.37	27.56	27.79	27.79	27.67	27.38	27.15	27.07	26.93
8	27.23	27.41	27.30	27.37	27.53	27.76	27.80	27.64	27.39	27.13	27.08	26.95
9	27.23	27.42	27.30	27.43	27.53	27.82	27.80	27.64	27.39	27.13	27.05	26.95
10	27.28	27.41	27.30	27.46	27.50	27.85	27.79	27.64	27.40	27.14	27.06	26.99
11	27.29	27.41	27.31	27.44	27.50	27.85	27.78	27.62	27.39	27.12	27.08	26.99
12	27.25	27.38	27.34	27.50	27.51	27.85	27.77	27.57	27.40	27.13	27.08	26.97
13	27.22	27.37	27.35	27.50	27.50	27.84	27.76	27.52	27.42	27.16	27.05	26.93
14	27.23	27.32	27.35	27.50	27.48	27.84	27.77	27.50	27.43	27.18	27.04	26.94
15	27.24	27.36	27.32	27.47	27.48	27.83	27.79	27.49	27.44	27.19	27.01	26.94
16	27.27	27.36	27.30	27.47	27.47	27.82	27.80	27.47	27.43	27.18	27.02	26.89
17	27.28	27.30	27.35	27.51	27.45	27.82	27.80	27.48	27.43	27.16	27.02	26.91
18	27.29	27.29	27.37	27.52	27.47	27.80	27.78	27.46	27.41	27.16	27.06	26.92
19	27.29	27.28	27.36	27.51	27.48	27.77	27.77	27.45	27.36	27.14	27.07	26.89
20	27.27	27.30	27.35	27.49	27.48	27.82	27.79	27.45	27.36	27.11	27.05	26.82
21	27.26	27.30	27.35	27.55	27.44	27.82	27.79	27.45	27.37	27.12	27.08	26.83
22	27.24	27.28	27.31	27.56	27.46	27.82	27.79	27.45	27.36	27.11	27.07	26.87
23	27.34	27.29	27.31	27.56	27.47	27.81	27.80	27.46	27.33	27.08	27.03	26.88
24	27.35	27.31	27.34	27.54	27.50	27.81	27.84	27.45	27.30	27.08	27.03	26.89
25	27.34	27.30	27.35	27.56	27.50	27.81	27.83	27.44	27.30	27.08	27.05	26.88
26	27.35	27.28	27.33	27.59	27.51	27.84	27.80	27.43	27.31	27.06	27.05	26.90
27	27.35	27.28	27.29	27.61	27.53	27.85	27.79	27.44	27.30	27.05	27.04	26.88
28	27.37	27.27	27.32	27.66	27.55	27.85	27.79	27.43	27.27	27.04	27.07	26.83
29	27.37	27.32	27.32	27.66	27.57	27.85	27.80	27.41	27.73	27.04	27.04	26.81
30	27.40	.....	27.30	27.66	27.61	27.85	27.79	27.38	27.17	27.03	27.04	26.77
31	27.42	.....	27.30	.....	27.64	.....	27.77	27.39	.....	27.02	.....	26.76

Marion County

Mn-1. Village of Larue. In Larue. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.00	9.26	7.37	.....	8.59	9.04	9.32	9.87	.....	10.58	10.75	8.68
2	8.12	9.30	7.40	.....	8.53	8.98	9.35	9.98	.....	10.61	10.73	8.75
3	7.20	9.31	7.56	.....	8.60	9.08	9.47	10.08	.....	10.65	10.62	8.88

Mn-1--Continued.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	7.31	9.31	7.77	....	8.37	9.09	9.45	9.95	.....	10.68	10.62	9.03
5	7.55	9.34	7.99	....	8.47	9.12	9.51	9.89	.....	10.69	....	8.99
6	7.66	9.35	8.02	....	8.40	9.08	9.68	9.95	10.57	10.68	....	9.09
7	7.88	9.26	8.09	....	8.43	9.03	9.61	9.98	10.59	10.70	....	9.12
8	7.91	9.37	8.25	....	8.35	9.05	....	....	10.60	10.71	....	9.26
9	7.97	....	8.36	....	8.31	9.10	....	9.98	10.60	10.65	9.52	9.33
10	7.80	....	8.50	....	8.52	9.24	9.92	9.95	10.74	10.65	9.62	9.40
11	7.81	9.41	8.51	....	8.65	9.36	9.82	9.95	10.71	10.61	9.69	9.39
12	8.01	9.38	8.66	....	8.46	9.29	9.79	10.03	10.73	10.69	9.74	9.32
13	8.10	9.24	8.62	....	8.08	9.09	9.74	9.98	10.89	10.71	9.71	9.22
14	8.29	8.69	8.57	5.97	7.73	9.13	9.77	10.04	10.92	10.78	9.72	8.89
15	8.51	7.59	8.48	6.22	7.14	9.18	9.86	10.01	10.89	10.78	9.68	8.83
16	8.49	7.35	8.11	6.48	7.14	9.21	9.91	10.08	10.95	10.70	9.65	7.82
17	8.56	7.25	7.93	6.75	7.03	9.28	9.93	10.13	10.98	10.69	9.80	7.04
18	....	7.25	7.99	6.97	7.20	9.27	9.92	10.11	10.84	10.63	9.74	7.18
19	....	7.30	7.90	7.24	7.42	9.34	9.92	10.13	10.80	10.56	9.63	7.29
20	....	7.52	7.64	7.43	7.60	9.32	9.94	10.17	10.78	10.69	9.36	7.53
21	8.73	7.69	....	7.74	7.82	9.37	9.95	10.18	10.69	10.74	8.96	7.74
22	8.83	7.90	....	7.95	8.01	9.32	9.84	10.19	10.74	10.67	9.05	7.91
23	9.01	8.08	....	7.98	8.13	9.37	9.79	10.26	10.70	10.64	9.14	8.09
24	9.06	8.22	....	8.12	8.38	9.33	9.86	10.24	10.72	10.60	9.23	8.08
25	9.16	8.30	....	8.21	8.50	9.47	9.82	10.31	10.76	10.69	9.30	8.24
26	9.16	8.20	....	8.46	8.61	9.47	9.82	10.41	....	10.67	9.27	8.33
27	9.19	8.11	....	8.37	8.69	9.47	9.95	10.43	10.74	10.68	9.23	8.53
28	9.22	7.73	....	8.47	8.70	9.43	9.82	10.58	10.81	10.69	9.15	8.66
29	9.22	7.14	....	8.50	8.80	9.39	9.84	10.45	10.76	10.65	8.91	8.59
30	9.26	....	....	8.62	8.82	9.26	9.83	10.47	10.69	10.67	8.55	8.13
31	9.22	....	....	....	8.94	....	9.92	10.45	....	10.69	....	8.03

Medina County

Md-1. Village of Lodi. In Lodi. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	19.23	15.88	15.99	16.20	18.06	18.41	18.50	19.20	19.15	19.11	18.40	18.00
2	19.02	16.06	15.97	16.27	18.06	18.43	18.50	19.11	19.12	19.32	18.73	17.74
3	19.33	16.01	15.38	16.81	17.90	18.49	18.50	19.12	19.19	19.19	18.57	17.84
4	18.99	16.01	15.83	16.10	17.66	18.36	18.52	23.39	19.31	19.23	18.49	17.94
5	19.23	16.00	15.50	17.55	17.51	18.48	18.40	18.92	19.00	19.23	18.60	18.13
6	19.03	.....	15.90	16.40	17.43	18.14	18.46	24.68	19.00	19.23	18.60	18.29
7	19.13	17.47	15.39	16.60	.....	18.08	18.43	19.33	19.00	19.25	18.97	18.19
8	19.28	18.99	16.01	16.33	17.34	17.58	18.70	19.42	19.00	19.11	18.41	18.06
9	23.08	19.30	15.80	.....	17.10	21.22	18.72	19.26	18.96	19.15	18.25	18.39
10	19.02	19.40	16.00	16.71	17.25	18.16	18.94	25.81	19.22	18.78	18.33	18.30
11	19.15	.....	.....	16.71	17.55	18.11	19.00	19.70	19.37	19.30	18.23	18.37
12	22.30	19.25	.....	17.02	17.62	18.23	19.05	19.15	19.60	19.17	18.10	18.30
13	19.07	.....	16.05	16.81	17.60	18.00	18.54	19.10	24.30	18.95	18.10	18.40
14	20.56	.....	16.09	16.25	.....	18.01	19.02	19.01	19.85	19.17	17.77	18.02
15	.....	.....	16.37	16.34	17.55	18.18	19.00	19.06	19.89	19.32	17.86	17.88
16	.....	.....	16.75	.....	17.34	18.21	19.07	19.14	19.72	19.22	17.88	17.67
17	18.92	.....	16.24	17.01	17.23	18.11	24.60	19.10	19.55	18.67	17.80	17.74
18	.....	.....	16.77	17.01	17.29	18.21	19.30	18.95	20.20	19.06	20.23	17.52
19	.....	.....	.....	16.90	17.38	18.26	19.32	18.77	19.60	19.07	17.89	17.13
20	.....	16.30	16.16	17.30	17.40	18.26	19.38	18.82	19.72	19.10	19.77	17.35
21	.....	16.30	17.52	17.26	.....	18.41	19.34	18.90	19.57	19.20	17.84	17.27
22	.....	17.43	16.88	17.13	17.37	18.17	18.54	18.95	19.40	19.02	18.02	17.02
23	.....	16.31	.....	.....	17.14	18.32	25.30	19.01	19.50	19.12	17.82	17.48
24	.....	17.21	.....	17.31	17.39	18.42	19.34	18.94	19.43	19.13	17.60	17.27
25	.....	17.04	.....	16.67	17.48	18.52	18.85	19.24	19.51	18.74	17.51	17.01
26	.....	17.21	.....	17.14	17.40	18.80	19.11	19.30	19.17	19.00	17.81	.....
27	.....	16.65	16.03	17.10	17.67	18.38	21.24	19.32	19.26	18.71	18.27	17.31
28	.....	15.80	.....	18.02	17.80	18.58	19.18	19.30	19.45	18.84	17.80	17.26
29	.....	15.95	.....	18.29	17.90	18.54	19.14	19.09	19.30	18.83	18.05	17.20
30	.....	.....	.....	.....	18.03	18.59	19.07	19.12	19.05	18.90	17.81	17.07
31	17.76	.....	.....	.....	18.49	.....	19.12	19.23	.....	18.60	.....	17.24

Mercer County

Mr-1. S. O. Self. In Rockford. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.36	9.51	9.65	9.54	9.32	9.40	....	9.80	10.24	10.36	10.45	10.33
2	9.36	9.52	9.51	9.68	9.30	9.41	....	9.88	10.15	10.45	10.46	10.33
3	9.40	9.52	9.64	9.72	9.30	9.38	....	9.87	10.15	10.45	10.36	10.25
4	9.41	9.46	9.81	9.70	9.30	9.44	....	9.87	....	10.45	10.30	10.25
5	9.48	9.48	9.81	9.54	9.30	9.44	....	9.89	....	10.36	10.29	10.16
6	9.45	9.49	9.71	9.51	9.25	9.42	....	9.91	....	10.36	10.30	10.18
7	9.46	9.48	9.54	9.48	9.18	9.32	....	9.99	....	10.31	10.36	10.17
8	9.46	9.57	9.61	9.52	9.26	9.37	....	9.90	10.18	10.34	10.57	10.22
9	9.55	9.58	9.63	9.64	9.22	9.39	9.72	9.92	10.22	10.34	10.28	10.23
10	9.60	9.57	9.68	9.60	9.25	....	9.72	9.93	10.25	10.34	10.31	10.28
11	9.60	9.55	9.68	9.36	9.24	....	9.64	9.90	10.23	10.34	10.36	10.25
12	9.48	9.54	9.71	9.52	9.26	....	9.63	9.88	10.27	10.34	10.36	10.14
13	9.49	9.45	9.68	9.46	9.19	....	9.62	9.94	10.30	10.36	10.36	10.17
14	9.50	9.57	9.62	9.42	9.20	....	9.62	10.00	10.40	10.43	10.56	10.18
15	9.50	9.59	9.49	9.45	9.17	....	9.69	9.99	10.40	10.43	10.34	10.10
16	9.53	9.53	9.60	9.48	9.13	....	9.67	9.97	10.42	10.36	10.34	10.07
17	9.54	9.50	9.68	9.51	9.22	....	9.70	9.99	10.40	10.37	10.56	10.10
18	9.53	9.48	9.67	9.48	9.25	....	9.72	9.91	10.38	10.37	10.36	10.10
19	9.51	9.61	9.59	9.42	9.30	....	9.73	9.98	10.32	10.37	10.28	9.92
20	9.46	9.70	9.60	9.43	9.20	....	9.73	9.99	10.31	10.44	10.24	9.91
21	9.36	9.70	9.59	9.49	9.24	....	9.70	9.99	10.28	10.55	10.26	9.97
22	9.45	9.66	9.57	9.50	9.24	....	9.67	10.01	10.23	10.44	10.24	10.03
23	9.59	9.70	9.57	9.43	9.29	....	9.74	10.04	10.26	10.43	10.28	10.04
24	9.59	9.70	9.66	9.41	9.30	....	....	10.03	10.32	10.47	10.22	10.04
25	9.57	9.63	9.63	9.40	9.30	....	....	10.06	10.37	10.46	10.25	10.12
26	9.57	9.56	9.51	9.40	9.28	....	....	10.09	10.44	10.44	10.21	10.12
27	9.55	9.55	9.56	9.36	9.26	....	....	10.14	10.42	10.47	10.34	10.00
28	9.57	9.50	9.61	9.36	9.27	....	9.78	10.17	10.34	10.47	10.34	9.96
29	9.46	9.68	9.50	9.33	9.33	....	9.78	10.17	10.31	10.46	10.29	9.84
30	9.52	....	9.53	9.32	9.40	....	9.75	10.14	10.33	10.46	10.32	9.88
31	9.49	....	9.41	....	9.43	....	9.78	10.22	....	10.43	....	9.88

Miami County

Mi-1. Troy Sunshade Co. In Troy. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.35	12.05	11.95	9.64	10.06	10.80	12.46	11.70	13.15	14.48	13.98	13.50
2	12.85	12.76	12.20	9.82	9.21	11.17	12.58	11.70	13.47	14.45	14.29	13.52
3	12.75	12.98	11.60	9.84	9.80	11.39	12.60	11.68	13.67	13.60	14.47	13.42
4	11.97	13.16	11.82	8.92	9.98	11.60	11.75	11.74	13.67	13.96	14.57	13.35
5	12.45	13.26	11.95	9.35	10.08	11.63	....	11.75	13.04	14.31	14.60	12.74
6	12.57	13.36	11.97	9.40	10.19	10.92	11.95	11.76	12.63	14.52	14.42	12.83
7	12.65	13.32	11.20	8.48	10.35	11.09	12.31	11.79	13.12	14.65	13.58	13.07
8	12.66	12.23	11.45	8.65	10.36	11.37	12.50	11.60	13.45	14.68	13.70	13.21
9	12.70	12.85	11.72	8.80	9.40	11.61	12.64	12.13	13.66	14.76	14.17	13.50
10	12.55	13.16	11.88	8.80	10.39	11.80	12.66	12.50	13.79	14.10	14.20	13.58
11	11.72	13.37	12.06	7.95	10.68	11.96	11.90	12.72	13.80	14.03	14.15	13.52
12	12.24	13.47	12.25	8.57	10.65	12.00	12.31	13.22	13.11	14.32	14.15	12.70
13	....	13.50	12.28	8.83	10.46	11.25	12.60	13.42	13.37	14.49	14.14	12.78
14	12.63	13.20	11.56	8.82	10.48	11.56	12.80	13.29	13.74	14.59	13.62	13.26
15	12.67	11.25	12.52	8.95	10.50	11.85	12.95	12.27	13.77	14.60	13.61	13.27
16	12.88	11.90	12.63	8.52	9.53	12.08	13.08	12.46	13.85	14.82	13.80	13.19
17	12.75	11.99	12.68	8.53	10.14	12.25	13.09	12.85	13.87	14.02	13.97	13.20
18	11.72	12.16	12.12	7.74	10.45	12.35	12.28	13.07	13.82	13.94	14.07	13.22
19	12.67	12.36	12.20	8.46	10.57	12.35	12.50	13.20	13.18	14.20	14.19	12.45
20	12.78	12.61	12.23	9.15	10.66	11.58	12.76	13.29	13.37	14.54	14.12	12.45
21	12.90	12.59	11.57	9.02	10.83	11.75	12.80	13.30	13.63	14.57	13.26	12.85
22	12.95	11.15	11.70	9.17	10.86	12.60	12.89	12.55	14.02	14.52	13.37	12.80
23	13.07	12.10	11.79	9.37	9.93	12.62	12.94	12.88	14.20	14.50	13.57	12.86
24	13.05	12.35	11.32	9.40	10.60	12.16	12.96	13.20	14.26	13.97	13.70	12.93

Mt-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	12.00	12.55	10.72	8.45	10.86	12.16	12.41	13.41	14.23	13.94	13.93	12.40
26	12.65	12.76	10.65	9.25	11.02	11.86	11.95	13.42	13.47	14.19	13.55	11.90
27	12.92	12.75	10.58	9.53	11.15	11.36	11.95	13.53	13.77	14.38	13.70	11.72
28	13.10	12.56	9.12	9.80	11.23	11.84	11.94	13.17	14.07	14.48	13.07	10.70
29	13.20	11.23	9.25	9.92	11.25	12.34	11.93	12.50	14.27	14.83	13.00	10.73
30	13.27		9.43	10.04	10.55	12.34	11.93	12.82	14.42	14.80	13.16	10.77
31	13.25		9.58		10.05		11.90	12.84		13.82		10.60

Montgomery County

Mt-1. Dayton Water Department. Records available: 1942-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.87	8.50	4.32	5.97	7.69	8.19	7.88	7.65	10.68	....
2	5.13	8.75	4.17	7.70	7.96	8.48	7.81	8.21	11.18	....
3	4.50	8.87	3.06	8.68	7.62	8.48	7.57	8.27	11.02	....
4	6.92	6.17	8.62	4.74	8.56	7.48	8.85	7.87	9.50	10.75	....
5	6.45	6.73	9.38	5.24	9.12	7.34	8.77	7.87	9.68	10.91	....
6	6.67	6.19	9.00	5.32	8.17	7.68	8.30	7.04	9.74	11.41	....
7	6.83	7.77	6.80	5.60	6.47	5.75	8.82	6.88	9.95	11.67	12.04
8	6.90	8.80	7.54	5.61	6.44	5.50	8.17	7.16	9.57	10.50	12.65
9	7.65	8.67	8.07	5.17	6.72	4.98	8.10	7.40	9.46	9.52	13.18
10	7.45	8.28	8.48	6.60	....	5.28	8.95	7.25	9.10	9.52	13.67
11	8.10	8.28	9.02	6.87	5.12	5.00	8.92	7.34	9.04	10.28	13.64
12	8.62	9.36	9.68	6.84	4.96	5.12	9.09	7.68	9.10	10.48	14.28
13	8.63	9.51	9.51	7.84	3.70	5.02	9.25	8.33	9.31	9.83	14.48
14	4.75	8.35	8.97	8.33	3.92	4.85	9.27	8.60	....	9.43	14.45
1550	7.90	7.62	8.57	4.88	4.05	9.29	8.55	....	9.30	14.35
16	1.20	7.86	8.50	8.62	4.88	4.03	9.26	8.55	....	9.40	14.65
17	1.73	7.14	9.07	8.60	4.85	3.57	8.26	8.76	....	9.50	14.82
18	2.15	6.75	9.30	8.42	5.10	3.94	7.59	8.93	....	9.17	12.00
19	3.37	6.72	9.30	7.98	5.12	6.35	5.75	8.67	....	....	8.00
20	5.14	5.70	8.55	8.34	5.09	6.56	6.30	8.77	8.48	....	8.27
21	5.35	3.50	9.39	8.69	4.97	4.73	6.27	....	9.00	....	9.45
22	5.57	3.90	10.20	8.50	6.30	4.76	6.96	6.70	9.24	....	9.40
23	6.67	3.52	10.57	8.48	6.40	3.75	7.38	6.84	9.26	....	8.94
24	7.45	2.55	10.62	6.32	5.70	3.58	7.37	6.45	9.34	....	9.07
25	8.63	5.75	9.64	5.80	5.00	3.35	8.18	6.45	9.58	....	9.20
26	8.95	6.65	8.65	5.82	5.12	3.82	8.31	5.87	9.69	....	9.29
27	8.30	6.72	5.40	6.22	5.00	3.80	8.17	6.28	10.12	....	9.70
28	5.64	6.08	5.60	3.07	6.45	4.30	4.42	8.55	6.57	9.70	....	9.61
29	3.25	5.90	2.97	6.24	5.57	5.47	8.40	7.16	9.18	....	9.41
30		6.80	3.94	5.82	7.23	7.16	8.31	7.17	9.90	....	8.32
31		7.68		4.99		7.27	7.88		9.85		7.58

Mt-2. Dayton Power & Light Co. In Dayton. Records available: 1942-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.14	26.64	25.70	24.65	24.69	26.65	30.06	31.65	32.51	32.96	31.61	29.43
2	27.98	26.58	25.75	24.63	24.65	26.87	30.19	31.58	32.53	32.94	31.72	29.38
3	....	26.64	25.77	24.60	24.63	27.07	30.22	31.70	32.54	32.82	31.82	29.38
4	....	26.75	25.78	24.50	24.72	27.30	30.20	31.81	32.55	32.50	31.92	29.38
5	26.75	26.84	25.81	24.40	24.86	27.45	29.95	31.90	32.48	32.44	32.02	29.18
6	26.70	26.91	25.77	24.56	24.98	27.43	30.06	32.08	32.20	32.42	32.02	29.05
7	26.62	26.91	25.63	24.60	25.05	27.40	30.21	32.10	32.20	32.42	31.83	29.12
8	26.62	26.84	25.59	24.64	25.02	27.55	30.32	32.02	32.38	32.39	31.47	29.17
9	26.65	26.82	25.70	24.57	24.87	27.67	30.44	32.02	32.55	32.37	....	29.22
10	26.58	26.94	25.77	24.46	24.77	27.82	30.50	32.02	32.67	32.22	....	29.22
11	26.42	27.01	25.84	24.21	....	28.00	30.44	32.13	32.70	32.06	....	29.21
12	26.25	27.09	25.92	23.92	....	28.09	30.40	32.24	32.62	32.09	....	29.03
13	26.31	27.15	25.95	23.85	....	28.09	30.57	32.31	32.53	32.10	....	28.99

Mt-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	26.34	27.15	25.91	23.75	26.19	28.15	30.63	32.31	32.72	32.14	.....	29.10
15	26.35	27.01	25.88	23.61	26.18	28.37	30.73	32.20	32.85	32.17	30.62	29.13
16	26.38	26.70	26.03	23.45	26.12	28.56	30.63	32.07	32.98	32.16	30.65	29.12
17	26.36	26.57	26.11	23.37	25.90	28.73	30.60	32.24	33.07	32.01	30.63	29.08
18	26.25	26.44	26.16	23.13	26.04	28.93	30.56	32.38	33.12	.....	30.65	28.96
19	26.20	26.40	26.23	22.98	26.12	29.02	30.53	32.49	33.02	.....	30.72	28.65
20	26.31	26.36	26.22	23.20	26.18	28.96	30.75	32.57	32.97	.....	30.71	28.30
21	26.40	26.24	26.14	23.32	26.30	28.95	30.85	32.58	33.14	.....	30.49	28.32
22	26.53	26.04	25.97	23.44	26.34	29.13	30.85	32.46	33.22	31.90	30.18	28.36
23	26.62	25.80	26.04	23.63	26.32	29.28	31.21	32.35	33.22	31.89	30.07	28.37
24	26.62	25.91	26.06	23.76	26.22	29.43	31.22	32.40	33.16	31.74	30.01	28.37
25	26.53	25.98	26.00	23.74	26.35	29.58	31.20	32.44	33.09	31.58	29.98	28.15
26	26.49	26.05	25.80	23.88	26.47	29.65	31.11	32.52	32.89	31.62	29.73	27.95
27	26.58	26.12	25.65	24.17	26.62	29.64	31.26	32.55	32.62	31.65	29.68	27.80
28	26.66	26.12	25.46	24.40	26.79	29.59	31.38	32.54	32.68	31.72	29.55	27.89
29	26.73	26.00	24.99	24.51	26.86	29.80	31.52	32.50	32.75	31.80	29.38	27.99
30	26.75		24.72	24.66	26.92	29.91	31.64	32.43	32.85	31.80	29.43	28.03
31	26.74		24.64		26.60		31.69	32.48		31.70		28.02

Mt-3. State Highway Department. In Dayton. Records available: 1945-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44.10	44.36	42.60	42.01	42.49	42.05	44.05	44.60	45.20	46.03	45.14	45.12
2	43.04	44.12	42.87	42.26	41.43	42.59	44.08	43.61	45.28	46.05	45.08	45.15
3	41.55	44.35	43.17	42.27	41.55	42.82	44.09	43.37	45.40	46.05	45.14	45.20
4	40.58	44.48	43.35	41.53	41.96	42.98	43.61	43.17	43.45	45.85	45.23	45.22
5	41.55	44.59	43.47	42.02	42.18	43.07	43.23	43.06	45.45	45.70	45.35	45.22
6	42.25	44.69	43.48	42.28	42.34	41.92	43.31	43.03	45.11	45.70	45.40	45.23
7	42.67	44.65	43.15	42.28	42.51	41.67	43.48	42.97	44.62	45.72	45.41	45.25
8	43.03	44.65	43.38	41.90	42.52	42.33	43.56	42.87	44.91	45.74	45.40	45.33
9	43.40	44.25	43.76	41.83	41.80	42.74	43.62	42.58	45.22	45.75	45.42	45.38
10	43.41	44.41	43.98	41.83	41.90	43.00	43.70	42.65	45.46	45.75	45.47	45.42
11	42.91	44.60	44.08	40.96	42.33	43.16	43.56	42.70	45.57	45.35	45.50	45.45
12	42.85	44.65	44.13	41.08	42.54	43.18	43.50	42.77	45.58	45.29	45.53	45.46
13	43.27	44.71	44.14	41.08	42.54	42.93	43.68	42.86	45.55	45.35	45.55	45.47
14	43.50	44.73	43.56	40.56	42.52	42.77	43.80	42.97	45.47	45.40	45.55	45.50
15	43.68	44.45	43.70	39.80	42.51	43.15	43.92	42.82	45.57	45.47	45.51	45.57
16	43.85	42.81	43.97	40.02	42.07	43.41	44.13	43.85	45.62	45.52	45.46	45.60
17	43.87	42.65	44.03	40.04	41.91	43.56	44.13	44.26	45.66	45.53	45.50	44.65
18	43.30	42.50	44.08	39.66	42.54	43.66	43.92	44.55	45.68	45.53	45.53	44.66
19	43.49	42.75	44.15	40.24	42.70	43.71	43.94	44.67	45.68	45.54	45.56	44.66
20	43.80	42.95	44.16	40.91	44.00	43.43	43.95	44.73	45.69	45.58	45.58	44.62
21	44.00	42.97	43.93	41.40	44.12	43.43	43.93	44.78	45.71	45.60	45.58	44.62
22	44.15	42.60	43.16	41.67	44.13	43.58	43.94	44.78	45.78	45.61	45.08	44.63
23	44.30	42.80	43.23	41.92	44.05	43.70	44.14	44.51	45.82	45.62	44.92	44.64
24	44.32	43.20	43.20	41.92	42.42	43.79	44.14	44.62	.....	45.62	44.98	44.65
25	44.15	43.50	42.65	41.31	42.81	43.90	43.84	44.68	.....	45.25	45.00	44.50
26	43.92	43.70	42.00	41.49	43.09	43.94	43.97	44.75	.....	45.20	45.03	43.74
27	44.15	43.80	44.83	41.49	43.28	43.87	44.22	44.87	.....	45.25	45.05	44.23
28	44.40	43.80	40.95	42.21	43.29	43.64	44.42	44.99	.....	45.27	45.06	44.58
29	44.49	43.20	40.29	42.30	43.23	43.83	44.55	45.01	45.97	45.31	45.05	44.62
30	44.57		40.92	42.48	42.49	43.98	44.62	45.02	46.00	45.34	45.08	44.62
31	44.60		41.62		41.58		44.63	45.08		45.34		44.18

Mt-5. Kuhns Bros. Co. In Dayton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	40.90	40.93	40.51	39.34	36.96	37.55	38.82	.....	41.01	41.95	42.34	41.90
2	40.86	40.95	40.45	39.23	36.98	37.58	38.86	.....	41.05	41.97	42.35	41.88
3	40.85	40.97	40.44	.....	36.98	37.60	38.92	.....	41.09	42.00	42.36	41.37
4	40.83	40.99	40.44	.....	36.95	37.65	38.94	.....	41.12	42.02	42.38	41.86
5	40.84	41.01	40.41	38.93	.....	37.70	38.88	.....	41.16	42.04	42.40	41.83

Mt-5--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	.....	41.00	40.38	38.87	36.92	37.72	38.92	.....	41.17	42.05	42.33	41.82
7	40.82	41.02	40.36	38.77	36.95	37.77	38.97	.....	41.22	42.08	42.20	41.80
8	40.79	41.03	40.34	38.70	36.96	37.81	39.00	.....	41.26	42.11	42.15	41.79
9	40.30	41.06	.....	38.65	36.97	37.85	39.04	.....	41.29	42.12	42.12	.....
10	40.79	41.09	.....	38.58	36.98	37.89	39.08	.....	41.32	42.13	42.12	.....
11	40.88	41.10	.....	38.49	37.00	37.94	.....	.....	41.35	42.16	42.11	.....
12	40.74	41.13	40.37	38.43	37.01	37.88	39.23	.....	41.38	42.17	42.09	.....
13	40.74	41.12	40.36	38.51	37.02	37.91	39.27	.....	41.43	42.19	42.10	.....
14	40.73	40.99	40.35	38.19	37.08	37.96	39.31	.....	41.47	42.20	42.08	.....
15	40.69	40.81	40.34	38.10	37.09	38.01	39.36	.....	41.50	42.21	42.09	.....
16	40.70	40.75	40.35	37.97	37.11	38.05	39.40	.....	41.53	42.23	42.08	.....
17	40.70	40.74	40.36	37.87	37.14	38.09	39.44	.....	41.57	42.23	42.08	41.66
18	40.70	40.71	40.34	37.75	37.17	38.18	39.47	.....	41.60	42.21	42.08	41.62
19	40.70	40.70	40.32	37.63	37.19	38.25	39.52	.....	41.64	42.23	42.08	41.56
20	40.69	40.70	40.27	37.51	37.20	38.28	39.56	.....	41.68	42.26	42.08	41.53
21	40.71	.....	40.28	37.42	37.19	38.33	39.59	.....	41.70	42.27	42.07	41.49
22	40.76	.....	40.25	37.33	37.22	38.38	39.63	.....	41.73	42.27	42.05	41.46
23	40.80	40.67	40.22	37.25	37.24	38.42	39.66	.....	41.76	42.29	42.05	41.42
24	40.80	40.65	40.20	37.18	37.28	38.46	39.67	40.71	41.80	42.28	42.02	41.38
25	40.81	40.63	40.10	37.12	37.31	38.57	39.69	40.76	41.82	42.28	42.01	41.32
26	40.84	40.60	40.11	37.06	37.34	38.61	39.72	40.80	41.84	42.29	42.00	41.28
27	40.86	40.58	40.03	37.01	37.37	38.65	.....	40.84	41.88	42.29	42.00	.....
28	40.86	40.56	39.88	36.99	37.40	38.72	.....	40.87	41.90	42.30	41.98	.....
29	40.88	40.55	39.73	36.97	37.44	38.75	.....	40.90	41.90	42.31	41.95	.....
30	40.90	.....	39.60	36.96	37.48	38.78	.....	40.95	41.92	42.32	41.95	.....
31	40.92	.....	39.45	.....	37.52	.....	.....	40.99	.....	42.33	.....	.....

Mt-6. City of Dayton. In municipal building. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	30.20	29.20	27.78	26.43	27.55	30.68	33.32	34.90	36.15	34.50	33.27	30.42
2	30.00	.....	27.88	26.58	27.42	31.08	33.50	35.18	36.20	34.33	33.32	30.43
3	29.40	29.30	27.97	26.70	27.40	31.30	33.49	35.42	36.39	34.12	33.48	30.52
4	28.87	29.40	27.90	26.51	27.33	31.54	31.90	35.39	36.40	33.92	33.57	30.52
5	28.38	29.44	27.90	26.79	27.32	31.71	32.54	35.42	35.00	33.69	33.69	30.32
6	28.35	29.52	28.05	26.93	27.43	30.00	33.22	35.13	34.16	33.69	33.51	30.33
7	28.20	29.58	27.90	26.60	27.42	31.19	33.40	35.20	35.82	33.62	33.24	30.40
8	28.40	29.52	28.04	26.56	27.43	31.38	33.62	33.67	36.08	33.60	32.66	30.40
9	28.53	29.52	28.15	26.30	27.20	29.90	33.60	35.17	36.00	33.65	32.35	30.49
10	28.56	26.60	28.14	26.24	28.59	31.93	.....	35.44	36.28	33.58	32.13	30.48
11	28.35	29.62	28.21	26.00	29.72	32.17	.....	35.60	36.17	33.59	32.05	30.51
12	28.08	29.70	28.30	25.93	30.25	32.32	.....	35.65	34.61	33.60	31.93	30.39
13	28.39	29.80	28.48	25.72	29.80	30.63	.....	35.80	36.02	33.53	32.02	30.51
14	28.46	29.72	28.35	25.28	29.37	32.33	34.61	35.87	36.10	33.65	31.82	30.56
15	28.52	29.47	28.50	24.99	29.30	32.62	34.70	34.12	36.41	33.60	31.69	30.57
16	28.62	28.89	28.60	25.10	27.85	32.10	34.80	35.45	36.52	33.70	31.72	30.33
17	28.68	28.56	28.50	25.10	28.12	32.54	34.80	35.73	36.67	33.51	31.80	30.01
18	28.62	28.30	28.48	24.85	27.92	32.80	34.42	35.92	36.72	33.38	31.82	29.58
19	28.66	28.38	28.60	25.30	27.95	33.03	34.70	36.04	35.10	33.32	31.87	29.20
20	.....	28.20	28.50	25.64	27.93	31.54	34.84	36.12	36.51	33.29	31.80	28.98
21	.....	28.10	28.21	25.72	30.06	32.90	34.88	36.20	36.73	33.31	31.50	28.12
22	28.88	29.01	23.14	25.92	28.33	33.14	34.98	34.50	36.39	33.39	31.09	29.20
23	29.05	27.98	28.12	26.25	23.14	33.14	35.03	35.88	34.96	33.38	30.88	29.11
24	.....	28.21	27.90	26.95	29.50	32.80	35.00	35.82	34.58	33.22	30.91	29.23
25	.....	28.34	27.56	26.77	28.30	32.97	33.40	36.14	34.42	33.10	30.74	29.06
26	.....	28.47	27.12	27.19	23.39	33.08	34.70	36.30	34.22	33.09	30.80	29.00
27	29.12	28.50	27.02	29.12	30.21	31.30	34.95	36.42	34.02	33.18	30.86	28.98
28	29.20	23.50	26.63	27.40	30.67	32.87	35.12	36.50	34.02	33.30	30.65	29.04
29	29.22	28.22	26.10	27.40	30.92	33.09	35.20	35.82	34.34	33.38	30.58	29.16
30	29.29	.....	26.12	27.49	29.16	33.30	35.37	36.20	34.22	33.40	30.57	29.11
31	29.30	.....	26.23	.....	28.72	.....	35.50	36.29	.....	33.23	.....	28.97

Mt-8. Advance Laundry. In Dayton. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	31.44	Jan. 28	21.44	Feb. 18	21.35	Mar. 10	21.31
14	21.45	Feb. 4	21.55	25	21.34	17	21.30
21	21.45	11	21.60	Mar. 3	21.35		

Mt-10. West Carrollton Parchment Co. In West Carrollton. Records available: 1945, 1948.

Lowest daily water level, from recorder charts

Day	Jan.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1		25.87	23.73	20.81	.....	23.50	23.80	.....	26.02	26.95	27.16
2		26.20	24.10	19.90	.....	23.69	23.80	.....	26.28	26.89	27.55
3		26.51	26.40	24.27	19.96	.....	23.80	23.97	.....	26.52	26.35	27.73
4		26.11	26.60	24.32	19.97	.....	23.92	23.78	.....	26.45	26.40	27.85
5		25.36	26.70	24.37	21.00	.....	23.76	23.19	25.72	25.55	26.92	28.00
6		25.54	26.80	24.32	21.01	.....	23.02	23.62	25.60	25.40	26.91	.....
7		25.85	26.70	23.56	20.91	.....	23.14	24.29	25.08	25.52	27.13	.....
8		25.90	25.98	24.31	20.78	.....	23.60	24.42	24.89	26.00	27.38	.....
9		25.91	26.80	24.55	20.80	.....	23.73	24.80	25.10	26.25	27.52	.....
10		25.87	26.91	24.76	19.49	21.34	24.08	24.50	25.40	26.50	26.72	.....
11		24.80	27.04	24.73	19.46	21.50	24.01	24.22	25.51	26.32	26.81	.....
12		25.40	27.16	24.76	19.84	21.50	23.41	24.46	25.60	25.71	27.18	.....
13		25.65	26.36	23.88	19.35	21.70	23.31	24.86	.....	25.89	27.30	.....
14		25.99	26.00	23.80	19.04	21.80	23.60	24.99	.....	26.24	27.50	.....
15		26.10	25.47	24.10	18.76	21.88	24.02	25.20	.....	26.49	27.65	.....
16		26.22	24.90	24.46	17.71	21.06	24.11	24.68	.....	26.58	27.33	.....
17		26.30	24.68	24.60	17.52	21.78	24.40	.....	.....	26.70	26.70	.....
18		25.20	24.70	24.67	17.60	21.93	24.49	.....	.....	26.40	26.73	.....
19		25.58	24.62	24.55	18.69	22.11	24.10	.....	.....	25.78	27.07	.....
20		25.90	24.68	23.57	18.95	22.22	23.75	.....	.....	26.00	27.24	.....
21		26.04	24.57	23.30	19.10	21.80	23.94	.....	25.47	26.23	27.37	.....
22		26.22	23.80	23.96	19.15	21.58	24.31	.....	25.34	26.43	27.50	.....
23		26.20	24.60	24.00	18.94	21.56	24.34	.....	25.60	26.70	27.48	.....
24		26.11	24.73	24.00	19.10	21.70	24.70	.....	25.84	26.83	26.90	.....
25		25.39	24.78	23.50	19.00	22.33	25.03	.....	26.00	26.21	26.90	.....
26		26.22	24.07	22.40	20.00	22.50	24.90	.....	26.20	26.09	27.40	.....
27		26.30	23.88	21.82	20.29	22.99	24.18	.....	26.50	26.22	27.45	.....
28		26.42	23.80	21.18	20.61	23.15	23.70	.....	26.59	26.36	27.50	.....
29		26.52	23.61	20.70	20.57	22.50	23.71	.....	25.68	26.51	27.60	.....
30		26.72		20.81	20.01	22.40	23.72	.....	25.24	26.72	27.14	.....
31		26.73		20.82		22.60		.....	25.41		26.91	

Mt-16. Geo. Handwerker. In Harrison Township. Records available: 1946-47. No measurements made in 1948.

Mt-35. Montgomery County Infirmary. In Jefferson Township. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.43	Jan. 17	9.54	Feb. 2	10.31	Feb. 18	9.96
2	9.25	18	9.67	3	10.33	19	9.87
3	9.35	19	9.56	4	10.29	20	10.13
4	9.88	20	9.57	5	10.43	21	10.21
5	9.19	21	9.56	6	10.52	22	10.15
6	9.16	22	9.58	7	10.55	23	10.16
7	9.28	23	9.43	8	10.53	24	10.19
8	9.24	24	9.97	9	10.57	25	10.12
9	9.18	25	10.14	10	10.59	26	9.96
10	9.26	26	10.10	11	10.65	27	9.84
11	9.24	27	10.12	12	10.64	28	9.86
12	8.99	28	10.25	13	10.34	29	9.89
13	9.43	29	10.14	14	10.26	Mar. 1	8.98
14	9.26	30	10.23	15	10.47	2	8.96
15	9.31	31	10.27	16	10.15	3	9.87
16	9.46	Feb. 1	10.29	17	10.03	4	8.86

Mt-35--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 5	9.13	Mar. 11	8.84	Mar. 17	8.97	Mar. 23	8.92
6	8.97	12	9.25	18	8.99	24	8.95
7	8.94	13	9.32	19	9.12	25	8.92
8	8.96	14	9.18	20	8.95	26	7.64
9	8.92	15	8.96	21	8.98	27	8.15
10	8.87	16	8.94	22	8.91		

Mt-36. U. S. Air Force. At Wright Field, Dayton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Jan. 26	19.57	Feb. 9	20.04	May 27	17.98	June 9	18.06
27	19.70	10	19.91	28	18.06	11	18.00
28	19.87	11	20.02	29	18.05	12	17.98
29	19.90	12	20.11	30	18.05	13	17.78
30	19.90	13	20.13	31	17.91	14	17.30
31	19.94	14	19.90	June 1	17.94	July 1	18.08
Feb. 1	19.91	15	16.60	2	17.41	2	18.55
2	20.01	16	14.72	4	17.91	3	18.46
5	19.72	17	15.10	5	18.13	4	18.30
6	19.96	18	15.43	6	18.30	5	18.21
7	20.12	19	15.75	7	18.30	6	18.64
8	19.80	May 26	18.03	8	18.33		

Mt-41. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	28.50	Feb. 19	27.59	Apr. 7	23.53	June 17	30.08
14	30.69	25	30.20	14	21.70	28	30.39
21	31.25	Mar. 3	28.86	21	26.07	July 6	30.68
29	31.79	10	29.27	May 5	26.35	21	30.98
Feb. 6	32.03	17	30.37	12	26.79	Aug. 3	32.25
11	32.47	24	24.84	19	26.93	19	32.00
16	25.83	26	24.52	26	28.57	Sept. 14	33.98
17	26.19	29	23.74	June 3	29.41	Oct. 21	33.50
18	26.98	31	24.69	10	29.94		

Mt-42. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	23.31	Feb. 19	25.40	Apr. 7	23.90	June 17	29.69
14	29.54	25	30.33	14	22.29	28	30.18
21	31.81	Mar. 3	27.23	21	25.30	July 6	30.61
29	32.58	10	27.01	May 5	26.03	21	31.38
Feb. 6	32.77	17	29.61	12	26.70	Aug. 3	31.96
11	33.32	24	24.60	19	26.43	19	33.65
16	26.22	26	24.41	26	27.62	Sept. 14	33.22
17	25.72	29	23.76	June 3	28.60	Oct. 21	(a)
18	24.62	31	25.17	10	29.13		

a Dry.

Mt-43. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	33.20	Feb. 19	32.25	Apr. 7	27.85	June 17	33.55
14	34.39	25	33.85	14	26.00	28	33.76
21	35.00	Mar. 3	32.70	21	29.52	July 6	34.22
29	35.49	10	33.81	May 5	30.42	21	34.96
Feb. 6	36.12	17	32.99	12	30.70	Aug. 3	35.69
11	36.45	24	29.25	19	30.66	19	36.41
16	31.52	26	28.48	26	29.70	Sept. 14	(a)
17	30.99	29	27.63	June 3	32.59	Oct. 21	(a)
18	31.61	31	28.84	10	33.27		

a Dry.

Mt-44. State Highway Department. In Dayton. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.28	Feb. 19	20.57	Apr. 7	16.55	June 17	22.12
14	22.73	25	22.28	14	14.33	28	23.46
21	23.65	Mar. 3	21.05	21	18.04	July 8	22.92
29	24.27	10	22.35	May 5	19.10	21	23.58
Feb. 6	24.94	17	21.76	12	19.55	Aug. 3	24.68
11	25.11	24	18.69	19	19.48	19	24.94
16	20.47	26	17.08	26	20.55	Sept. 14	26.27
17	30.03	29	15.78	June 3	21.32	Oct. 21	26.87
18	20.14	31	17.69	10	21.83		

Mt-45. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	21.66	Mar. 3	21.76	Apr. 7	19.13	June 3	22.25
21	26.35	10	22.94	14	16.36	10	22.97
Feb. 16	22.57	17	23.26	21	18.64	17	23.30
17	22.65	24	21.32	May 5	20.12	28	23.50
18	21.21	26	18.54	12	20.62	July 6	23.77
19	21.20	29	17.96	19	20.17	21	24.40
25	22.68	31	18.02	26	20.93		

Mt-46. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	24.26	Feb. 19	23.43	Apr. 7	20.21	June 17	26.44
14	25.34	25	25.38	14	18.16	28	26.52
21	26.28	Mar. 3	24.02	21	22.76	July 6	26.85
29	26.75	10	25.41	May 5	23.34	21	27.18
Feb. 6	27.08	17	24.38	12	24.12	Aug. 3	27.58
11	27.26	24	21.34	19	23.71	19	28.01
16	22.89	26	20.77	26	25.81	Sept. 14	28.69
17	22.48	29	19.82	June 3	25.81	Oct. 21	28.36
18	22.85	31	21.66	10	25.29		

Mt-47. State Highway Department. In Dayton. Records available: 1945-48.

Jan. 7	29.50	Feb. 19	27.35	Apr. 7	26.10	June 17	28.92
14	29.83	25	27.82	14	24.30	28	29.03
21	30.06	Mar. 3	28.06	21	25.40	July 6	26.90
29	30.10	10	28.15	May 5	26.60	21	25.55
Feb. 6	30.01	17	28.55	12	27.03	Aug. 3	27.08
11	29.97	24	28.67	19	26.92	19	27.43
16	27.12	26	26.88	26	27.49	Sept. 14	29.27
17	27.21	29	25.54	June 3	28.30	Oct. 21	28.88
18	27.29	31	25.96	10	28.45		

Mt-49. E. F. Stenger. In Whitfield. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.17	16.83	15.18	12.44	.....	14.15	15.23	16.03	16.86	17.52	17.97	17.12
2	16.84	16.85	15.21	12.48	.....	14.21	15.26	16.08	.....	17.53	18.00	17.08
3	16.52	16.87	15.24	12.53	.....	14.26	15.29	16.12	.....	17.53	18.02	17.07
4	16.48	16.90	15.28	12.54	.....	14.32	15.31	16.13	.....	17.55	18.04	17.06
5	16.46	16.92	15.30	12.61	12.95	14.35	15.31	16.17	.....	17.58	18.05	17.05
6	16.47	16.94	15.30	12.59	12.98	14.37	15.37	16.20	.....	17.62	17.95	17.02
7	16.47	16.94	15.30	12.26	13.03	14.38	15.43	16.20	.....	17.65	17.73	17.03
8	16.47	16.95	15.35	12.12	13.06	14.45	15.49	16.21	17.02	17.67	17.61	17.05
9	16.48	16.99	15.49	12.14	13.09	14.52	15.53	16.25	17.06	17.68	17.60	17.06
10	16.46	17.01	15.43	12.16	13.18	14.58	15.56	16.28	17.10	17.67	17.60	17.08
11	16.39	17.03	15.47	12.16	13.23	14.63	15.57	16.32	17.10	17.69	17.60	17.08
12	16.42	17.05	15.48	12.06	13.27	14.65	15.62	16.35	17.11	17.71	17.59	17.06
13	16.44	17.02	15.49	11.70	13.25	14.67	15.66	16.37	17.13	17.75	17.58	17.06

Mt-49--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	16.48	16.89	15.49	11.61	13.28	14.74	15.69	.....	17.17	17.71	17.56	17.06
15	16.50	15.64	15.49	11.59	13.29	14.79	15.72	16.40	17.22	17.80	17.55	17.01
16	16.54	15.03	15.48	11.58	13.32	14.85	15.74	16.42	17.26	17.80	17.56	16.85
17	16.54	15.03	15.45	.....	13.38	14.91	15.75	16.47	17.28	17.77	17.60	16.59
18	16.54	15.10	15.45	.....	13.45	14.95	15.74	16.50	17.28	17.78	17.62	16.51
19	16.55	15.17	15.44	.....	13.50	14.98	15.79	16.53	17.28	17.81	17.62	16.39
20	16.56	15.21	15.36	.....	13.54	14.99	15.82	16.56	17.29	17.82	17.58	16.33
21	16.59	15.22	15.25	.....	13.59	15.04	15.83	16.56	17.29	17.84	17.45	16.33
22	16.65	15.28	15.23	.....	13.63	15.08	15.85	16.57	17.31	17.85	17.38	16.32
23	16.67	15.35	15.18	.....	13.67	15.09	15.89	16.61	17.35	17.86	17.38	16.28
24	16.68	15.39	15.07	.....	13.70	15.15	15.90	16.63	17.38	17.86	17.39	16.26
25	16.69	15.41	14.59	.....	13.82	15.20	15.90	16.68	17.39	17.87	17.39	16.21
26	16.72	15.42	14.50	.....	13.86	15.21	15.94	16.71	17.40	17.90	17.35	16.20
27	16.76	15.42	13.59	.....	13.89	15.22	15.99	16.76	17.41	17.92	17.34	16.19
28	16.77	15.35	12.80	.....	13.95	15.23	16.00	16.76	17.44	17.94	17.30	16.20
29	16.79	15.21	12.48	.....	13.98	15.24	16.05	16.77	17.47	17.96	17.19	16.18
30	16.82		12.44	.....	14.03	15.23	16.06	16.79	17.49	17.96	17.15	16.15
31	16.83		12.44		14.08		16.02	16.83		17.96		16.05

Mt-50. Hugo Thompson. 3 miles northeast of Dayton. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	32.47	32.30	30.81	28.97	26.96	27.89	29.42	30.68	31.81	32.74	33.55
2	32.49	32.30	30.77	28.91	26.98	27.93	29.46	30.72	31.84	32.77	33.57
3	32.49	32.30	30.77	28.71	27.02	27.98	29.48	30.76	31.88	32.80	33.59
4	32.45	32.31	30.81	28.60	27.02	28.01	29.53	30.81	31.92	32.82	33.61
5	32.42	32.32	30.81	28.49	27.03	28.10	29.57	30.87	31.95	32.82	33.64
6	32.37	32.32	30.80	28.40	27.03	28.14	29.62	30.89	31.98	32.86	33.65
7	32.34	32.32	30.75	28.33	27.03	28.19	29.67	30.92	32.01	32.88	33.67
8	32.31	32.35	30.77	28.27	27.05	28.23	29.71	30.96	32.03	32.90	33.67
9	32.28	32.35	30.78	28.22	27.06	28.30	29.78	31.00	32.07	32.94	33.67
10	32.29	32.37	30.79	28.21	27.08	28.36	29.82	31.02	32.09	32.97	33.67
11	32.28	32.36	30.81	28.10	27.12	28.40	29.87	31.05	32.12	33.00	33.68
12	32.24	32.37	30.82	28.07	27.13	28.46	29.92	31.07	32.15	33.02	33.68
13	32.24	32.36	30.80	28.04	27.15	28.50	29.97	31.13	32.20	33.05	33.68
14	32.24	32.35	30.79	27.96	27.22	28.55	30.02	.....	32.22	33.08	33.68
15	32.24	.....	30.76	27.88	27.23	28.62	30.06	.....	32.25	33.11	33.69
16	32.24	.....	30.31	27.77	27.26	28.67	30.10	.....	32.29	33.14	33.69
17	32.24	.....	30.32	27.65	27.27	28.71	30.14	.....	32.32	33.15	33.71
18	32.24	.....	30.82	27.56	27.32	28.76	30.17	.....	32.34	33.19	33.73
19	32.24	30.45	30.81	27.43	27.35	28.81	30.21	.....	32.37	33.20	33.75
20	32.26	30.51	30.81	27.34	27.35	28.86	30.26	.....	32.43	33.21	.....
21	32.26	30.54	30.80	27.24	27.35	28.93	30.29	.....	32.45	33.22	33.80
22	32.27	30.58	30.75	27.20	27.41	28.97	30.33	.....	32.48	33.27	33.80
23	32.32	30.64	.....	27.13	27.44	29.02	30.38	31.49	32.51	33.31	.....
24	32.32	30.67	.....	27.06	27.50	29.07	30.41	31.52	32.54	33.35	.....
25	32.33	30.69	.....	27.03	27.54	29.12	30.44	31.55	32.57	33.36	.....
26	32.33	30.72	30.44	27.00	27.58	29.21	30.48	31.59	32.60	33.37	.....
27	32.33	30.72	30.38	26.98	27.63	24.23	30.52	31.63	32.64	33.39	.....
28	.....	30.77	30.23	26.95	27.69	29.28	30.56	31.66	32.65	33.40	.....
29	32.30	30.81	29.89	26.95	27.73	29.33	30.60	31.70	32.55	33.43	.....
30	32.30		29.54	26.95	27.79	29.38	30.62	31.74	32.72	33.47	.....
31	32.30		29.19		27.84		30.64	31.78		33.48	

Muskingum County

Mu-1. Zanesville Water Department. In Zanesville. Records available: 1942-48.

Mu-1--Continued.

Lowest daily water level, from recorder charts

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	26.75	17.72	12.78	20.72	22.00	22.62	24.71	23.92	24.70	25.61
2	.....	26.38	17.75	12.84	21.00	21.83	22.65	24.67	23.92	24.70	25.60
3	29.89	22.19	17.66	14.10	21.17	21.38	22.69	24.67	23.89	24.70	.....
4	30.10	22.08	16.99	.....	21.58	21.76	22.77	24.69	23.73	24.80	.....
5	30.23	22.15	17.15	18.74	21.87	21.79	22.71	24.63	23.72	24.92	25.48
6	30.44	22.04	17.37	18.83	21.97	21.87	22.75	24.64	23.80	25.00	25.52
7	30.68	22.07	17.47	18.84	21.57	22.05	22.68	24.40	23.90	24.99	25.55
8	.....	21.80	17.66	18.85	21.66	22.16	22.70	24.27	23.95	24.90	25.71
9	.....	21.87	17.76	18.22	21.73	22.47	22.30	24.24	24.00	25.13	25.77
10	31.08	21.96	17.73	17.99	21.73	22.65	22.45	24.22	23.92	25.07	25.84
11	31.29	22.12	17.77	18.85	21.80	22.82	22.67	24.25	23.78	25.05	25.90
12	31.50	22.18	17.55	19.25	21.90	22.99	22.75	24.10	23.85	25.07	25.95
13	31.70	22.25	17.57	19.51	21.93	22.94	22.81	23.88	23.90	25.07	25.97
14	31.85	22.15	16.55	19.75	21.45	22.96	22.95	23.95	23.97	25.07	26.05
15	31.85	22.15	16.20	19.66	21.50	22.90	22.82	24.00	24.02	24.93	26.10
16	31.60	22.22	.....	19.69	21.37	22.73	22.59	23.95	24.06	25.02	26.15
17	31.35	22.36	.....	19.30	21.47	22.74	22.86	24.00	24.07	25.12	26.18
18	30.90	22.26	.....	19.54	21.61	22.73	23.05	24.06	23.98	25.20	26.06
19	30.35	22.16	.....	19.16	21.62	22.68	23.17	24.04	24.03	25.32	25.81
20	29.80	21.95	13.12	19.17	21.72	22.65	23.22	23.96	24.10	25.35	25.52
21	29.07	21.73	13.00	19.00	21.57	22.68	23.32	23.90	24.16	25.42	25.55
22	28.43	20.84	12.51	19.10	21.60	22.70	23.37	23.93	24.21	25.33	25.65
23	27.52	20.65	12.53	19.00	21.67	22.57	23.39	24.00	24.30	25.34	25.61
24	27.42	20.13	12.50	19.15	21.92	22.57	23.64	24.02	24.33	25.36	25.72
25	27.15	20.07	12.50	19.56	22.04	22.55	23.92	24.07	24.24	25.45	25.81
26	27.12	19.65	12.21	19.62	22.18	22.40	24.14	24.03	24.31	25.45	.....
27	26.95	19.27	12.46	19.92	22.18	22.25	24.35	23.89	24.42	25.48	.....
28	26.96	18.65	12.57	20.32	22.00	22.36	24.48	23.94	24.50	25.53	25.98
29	26.85	18.30	13.14	20.75	22.10	22.39	24.57	23.87	24.60	25.46	26.17
30	.....	17.91	12.55	20.93	22.16	22.43	24.65	23.90	24.70	25.56	26.25
31	.....	17.91	.....	21.02	.....	22.57	24.71	.....	24.75	.....	26.34

Mu-2. Ohio Water Resources Board. In Zanesville. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	6.48	5.50	6.15	7.14	7.45	7.66	8.08	7.88	8.00	7.18
2	.....	.....	6.49	5.61	6.13	7.17	7.51	7.72	8.08	7.94	8.00	7.22
3	.....	7.87	6.49	5.83	6.04	7.20	7.56	7.75	8.08	7.96	8.00	7.30
4	.....	7.86	6.69	5.95	5.98	7.23	7.61	7.76	8.09	7.96	7.96	7.36
5	.....	7.84	6.76	6.08	5.91	7.29	7.64	7.76	8.10	7.96	7.95	7.36
6	7.21	7.86	6.77	6.09	5.93	7.31	7.66	7.78	8.10	7.94	7.93	7.43
7	7.28	.....	6.76	5.69	5.90	7.27	7.70	7.78	8.03	7.92	7.64	7.45
8	7.28	.....	6.79	5.90	5.83	7.23	7.73	7.80	7.98	7.88	7.67	7.54
9	7.23	.....	6.86	6.11	6.00	7.27	7.76	7.82	8.02	7.86	7.68	7.58
10	7.27	.....	6.96	6.20	6.11	7.32	7.77	7.84	8.04	7.86	7.74	7.64
11	7.34	.....	7.05	6.23	6.24	7.35	7.78	7.84	8.05	7.83	7.76	7.63
12	7.34	.....	7.10	6.14	6.31	7.38	7.78	7.80	8.08	7.84	7.74	7.63
13	7.35	.....	7.16	6.13	6.29	7.35	7.76	7.83	8.09	7.90	7.76	7.63
14	7.43	.....	7.17	3.62	6.29	7.38	7.75	7.86	8.11	7.98	7.76	7.63
15	7.49	.....	7.18	3.98	6.32	7.42	7.73	7.88	8.13	8.00	7.76	7.62
16	7.53	.....	7.12	4.27	6.37	7.42	7.76	7.88	8.15	8.00	7.76	7.14
17	7.58	.....	6.64	4.51	6.36	7.45	7.78	7.90	8.15	7.99	7.80	6.79
18	7.68	.....	6.71	4.64	6.34	7.46	7.80	7.92	8.14	7.93	7.80	6.84
19	.....	.....	6.71	4.68	6.42	.....	7.82	7.94	8.13	7.87	7.80	6.90
20	.....	.....	6.45	4.79	6.48	.....	7.82	7.94	8.00	7.91	7.77	7.00
21	.....	.....	6.08	4.91	6.56	.....	7.83	7.95	7.95	7.92	7.66	7.02
22	.....	.....	6.12	4.99	6.64	.....	7.72	7.96	7.91	7.94	7.69	7.03
23	.....	.....	6.20	5.07	6.72	7.60	7.61	7.97	7.94	7.94	7.71	7.10
24	.....	.....	6.16	5.16	6.78	7.62	7.58	7.98	7.99	7.88	7.73	7.13
25	.....	.....	5.88	5.25	6.84	7.62	7.61	7.98	8.03	7.84	7.77	7.27
26	.....	6.42	5.90	5.34	6.89	7.66	7.72	8.00	8.05	7.84	7.78	7.33
27	.....	6.40	5.84	5.47	6.93	7.68	.....	8.02	8.05	7.92	7.70	7.34
28	.....	6.39	5.26	5.74	6.98	7.69	.....	8.02	8.05	7.94	7.38	7.36
29	.....	6.34	5.47	5.92	7.02	7.59	7.52	8.03	8.05	7.98	7.26	7.36
30	.....	.....	5.64	6.02	7.06	7.58	7.54	8.04	7.86	7.98	7.08	.....
31	.....	.....	5.66	.....	7.12	.....	7.56	8.06	.....	7.98	.....	.....

Paulding County

P-1. E. A. Green. In Tipton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.	Nov.	Dec.
1	4.13	4.18	4.14	3.29	3.45	3.41	....	3.22	....	5.20	5.31
2	3.88	4.07	4.44	3.76	3.21	3.93	....	3.70	....	5.21	5.36
3	3.97	4.35	4.10	3.54	3.71	3.44	....	3.26	....	5.16	5.00
4	4.30	4.10	4.53	3.92	3.24	3.83	....	3.62	....	5.54	5.34
5	4.01	4.34	4.34	3.46	3.27	3.43	....	3.30	....	5.07	4.88
6	4.30	4.34	4.63	3.80	3.18	3.42	....	3.56	....	5.51	5.20
7	4.03	4.35	4.08	3.42	3.00	3.79	....	3.67	4.82	5.20	4.79
8	4.24	4.20	4.49	3.34	3.40	3.27	....	3.25	4.35	5.28	5.26
9	3.94	4.42	4.08	3.94	3.10	3.80	3.33	3.77	4.86	5.57	4.92
10	4.39	4.50	4.50	3.48	3.11	3.46	3.74	3.33	4.46	5.20	4.98
11	4.02	4.28	4.59	3.36	3.00	3.43	3.33	3.64	4.40	5.22	5.33
12	4.17	4.56	4.47	3.77	3.45	3.40	3.21	....	4.80	5.24	4.84
13	4.14	4.17	4.21	3.32	2.98	3.71	3.69	....	4.94	5.24	5.25
14	3.89	4.14	4.39	3.56	2.98	3.59	3.65	....	4.63	5.22	4.92
15	4.06	4.55	3.99	3.26	3.04	3.42	3.26	....	5.16	5.28	5.15
16	4.15	4.17	4.35	3.60	2.89	3.91	3.68	....	4.66	5.20	4.69
17	3.93	4.15	4.01	3.32	2.86	3.83	3.24	....	5.19	5.61	4.74
18	4.20	4.52	4.41	3.28	2.93	3.91	3.76	....	4.80	5.58	5.12
19	4.12	4.10	3.94	3.74	3.23	3.44	3.68	....	4.79	5.15	4.94
20	3.88	4.26	3.79	3.19	2.94	3.97	3.32	....	5.28	5.01	4.52
21	3.74	4.68	4.16	3.29	3.23	3.56	3.68	....	4.92	5.07	4.92
22	3.92	4.30	3.84	3.30	2.87	3.95	3.21	....	4.94	5.04	4.58
23	3.88	4.63	3.54	3.73	2.90	3.49	3.20	....	5.40	5.06	5.04
24	3.87	4.36	3.89	3.26	3.24	3.83	3.68	....	5.07	5.48	4.62
25	4.22	4.60	3.62	3.70	2.93	3.66	3.69	....	5.09	5.00	5.08
26	3.97	4.54	3.87	3.23	3.48	3.48	3.25	....	5.54	5.31	4.71
27	4.14	4.23	3.34	3.19	3.30	3.83	3.70	....	5.11	5.01	5.03
28	4.04	3.92	3.79	3.53	3.72	3.78	3.47	....	5.59	5.24	4.59
29	4.21	4.49	3.66	3.24	3.40	3.91	3.14	....	5.16	4.95	4.37
30	4.02	....	3.38	3.22	3.36	3.40	3.15	....	5.14	5.25	4.75
31	4.30	....	3.56	....	3.82	....	3.59	....	5.60	....	4.70

Portage County

Po-1. Edward Tiddle. In Windham. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	20.30	....	19.64	18.30	18.61	19.27	19.56	19.91	20.29	20.50
2	20.33	....	19.60	18.29	18.61	19.31	19.54	19.95	20.29	20.47
3	20.34	....	19.60	18.29	18.65	19.30	19.56	19.96	20.28	20.48
4	20.33	....	19.57	18.26	18.65	19.30	19.57	19.96	20.31	20.49
5	20.36	....	19.56	18.33	18.68	19.33	19.60	19.94	20.30	20.46
6	20.33	....	19.50	18.32	18.68	19.34	19.61	19.96	20.34	20.49
7	20.34	20.02	19.47	18.23	18.76	19.34	19.58	19.98	20.37	20.47
8	20.32	20.05	19.47	18.27	18.81	19.37	19.60	19.99	20.37	20.50
9	20.36	20.07	19.45	18.28	18.85	19.37	19.64	20.02	20.32	20.49
10	20.38	20.05	19.40	18.30	18.85	19.39	19.66	20.02	20.38	20.53
11	....	19.98	19.36	18.29	18.86	19.37	19.58	20.04	20.40	20.52
12	....	20.03	19.33	18.28	18.98	19.36	19.69	....	20.40	20.50
13	....	20.03	19.28	18.30	18.94	19.38	19.71	20.07	20.43	20.48
14	....	19.95	19.26	18.24	18.97	19.39	19.72	20.10	20.42	20.50
15	....	19.94	19.26	18.30	18.99	19.37	19.74	20.11	20.42	20.43
16	....	19.93	19.20	18.32	19.02	19.39	19.76	20.10	20.41	20.42
17	....	19.93	19.14	18.34	19.03	19.40	19.76	20.12	20.46	20.43
18	....	19.88	19.16	18.35	19.07	19.41	19.75	20.13	20.46	20.42
19	....	19.86	19.07	18.35	19.11	19.40	19.76	....	20.42	20.35
20	....	19.82	18.93	18.38	19.12	19.42	19.78	20.17	20.47	20.35
21	....	19.84	18.80	18.41	19.13	19.43	....	20.17	20.47	20.36
22	....	19.83	18.80	18.38	19.14	19.44	19.79	20.17	20.45	20.36
23	20.44	19.80	18.70	18.39	19.20	19.45	19.81	20.18	....	20.36
24	20.49	19.77	18.68	18.42	19.21	19.43	19.85	20.20	....	20.35

Po-1--Continued.

Lowest daily water level, from recorder charts										
Day	Jan.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	20.48	19.75	18.58	18.43	19.23	19.47	19.88	20.20	20.49	20.42
26	20.50	19.75	18.55	18.45	19.23	19.48	19.89	20.21	20.47	20.40
27	20.50	19.72	18.45	18.49	19.25	19.49	19.89	20.22	20.52	20.32
28	20.51	19.67	18.40	.....	19.24	19.50	19.88	20.23	20.51	20.32
29	20.51	19.65	18.36	.....	19.23	19.50	19.88	20.25	20.49	20.29
30	.....	19.61	18.33	18.51	19.24	19.52	19.88	20.25	20.48	20.28
31	.....	.....	18.34	.....	19.25	19.56	.....	20.26	.....	20.30

Po-2. City of Kent Water Department. In Kent. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.60	17.25	19.23	18.20	18.09	16.51	17.12	16.27	18.58	18.05	18.52	18.66
2	15.90	18.60	19.23	18.40	17.17	16.81	17.02	17.62	18.59	17.90	18.65	18.82
3	15.92	18.90	19.35	17.14	17.72	17.41	16.00	17.60	18.55	16.72	18.72	18.88
4	15.90	18.95	19.44	16.70	17.69	17.86	15.00	17.80	18.59	18.00	18.74	17.56
5	17.68	19.14	19.47	18.01	17.50	17.97	15.10	17.88	18.45	18.08	18.79	17.30
6	16.60	19.15	18.50	18.20	17.52	17.37	16.53	17.76	17.08	18.13	17.69	18.56
7	17.84	19.20	18.81	18.33	17.52	16.85	16.62	16.70	18.01	18.16	17.43	18.68
8	17.83	17.87	19.30	18.51	16.48	16.84	16.80	16.30	17.83	18.20	18.61	18.86
9	17.92	18.85	19.48	18.66	15.91	17.10	17.05	17.60	17.80	17.19	18.71	18.85
10	16.92	19.10	19.60	18.60	17.30	17.19	17.18	17.73	17.79	.....	18.81	18.92
11	16.43	19.23	19.70	16.83	17.49	.....	17.20	17.68	16.50	.....	18.86	18.50
12	16.30	19.30	19.75	18.15	17.43	15.50	17.40	17.53	16.40	18.18	18.92	18.32
13	16.75	19.20	19.70	18.27	17.38	15.10	17.40	17.53	17.76	18.23	17.84	18.87
14	16.84	19.26	18.23	18.20	17.28	16.60	17.48	16.10	17.93	.....	17.30	19.00
15	17.92	19.03	19.39	18.15	17.18	16.70	17.49	17.55	18.01	.....	18.63	19.07
16	17.08	18.85	19.46	18.06	15.11	16.79	17.61	17.51	18.12	17.07	18.76	19.07
17	17.09	19.30	19.52	16.45	16.70	16.76	17.71	17.61	18.13	16.90	18.90	19.07
18	17.61	19.33	19.52	.....	16.89	16.80	17.22	17.66	18.20	18.20	18.98	17.93
19	18.00	19.43	19.42	17.39	17.00	16.83	17.81	17.72	17.76	18.34	19.01	17.40
20	18.28	19.56	18.50	17.44	16.91	15.12	18.33	17.80	18.04	18.19	17.95	18.50
21	18.32	18.12	17.70	17.51	17.00	16.63	18.47	17.73	17.93	18.50	17.50	18.43
22	18.49	17.81	18.74	17.48	16.98	16.58	18.04	16.28	17.89	18.60	18.68	18.41
23	18.50	19.10	17.60	17.52	15.30	16.86	18.06	17.70	17.97	17.55	18.83	18.25
24	18.60	19.22	18.64	18.30	16.81	17.00	18.04	17.83	18.10	17.13	18.94	17.27
25	17.70	19.43	18.60	17.00	16.90	17.00	16.37	18.28	17.68	18.39	17.72	17.00
26	18.28	19.50	18.48	18.24	16.99	16.94	17.73	18.48	17.60	18.51	18.57	16.93
27	18.40	19.56	17.40	18.10	17.00	15.11	18.00	18.70	17.90	18.58	17.29	18.10
28	18.40	19.60	17.16	18.12	17.00	16.80	17.78	18.76	17.92	18.55	17.05	16.99
29	18.50	18.10	18.13	18.10	15.31	17.00	17.81	18.40	17.94	18.61	18.40	16.88
30	18.70	.....	18.23	18.09	15.11	17.09	18.09	18.86	18.02	17.47	18.62	16.80
31	18.72	.....	18.10	.....	15.00	.....	17.93	18.81	.....	17.28	.....	16.78

Putnam County

Pu-1. City of Columbus Grove. In Columbus Grove. Records available: 1946-48.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.22	13.38	.....	.....	15.67	15.00	16.35	18.74	17.03	20.09	18.13
2	12.66	13.23	.....	.....	15.70	14.62	16.54	16.78	16.87	20.12	18.02
3	11.98	13.40	.....	.....	16.13	14.91	16.87	19.07	18.40	19.60	18.07
4	12.30	12.93	13.90	.....	16.10	14.77	16.67	18.78	18.25	19.92	17.91
5	12.23	13.30	14.23	.....	16.11	14.96	16.69	18.10	18.40	19.85	17.41
6	12.28	13.33	14.35	.....	15.77	14.64	16.78	18.87	18.74	20.10	17.81
7	12.03	13.09	14.32	.....	15.34	14.90	17.22	16.61	18.59	19.53	18.10
8	12.32	13.10	14.44	.....	15.34	14.73	17.05	18.17	18.61	20.03	17.92
9	12.30	13.35	14.20	.....	15.14	15.22	17.42	18.27	18.60	19.70	17.95
10	12.28	13.60	13.97	.....	15.71	15.63	17.41	18.25	18.14	19.89	18.56
11	12.23	13.68	14.19	14.78	15.52	15.33	17.67	18.60	18.00	20.00	18.04
12	12.28	13.42	14.92	14.28	15.43	15.27	17.38	18.00	18.38	20.21	17.64

Pu-1--Continued.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	12.04	12.93	15.23	14.20	15.25	15.18	17.15	18.86	18.50	20.02	17.51
14	12.45	12.94	15.03	14.30	15.10	15.11	17.22	18.25	18.21	19.68	18.04
15	12.60	12.91	15.11	14.23	14.76	14.83	16.51	18.45	18.23	19.60	17.93
16	12.60	12.76	14.02	14.12	14.86	15.22	16.92	18.53	18.92	19.31	17.68
17	12.75	.....	13.38	14.59	14.98	15.41	17.29	17.55	18.42	18.97	18.15
18	12.97	.....	13.61	14.72	14.65	15.01	16.90	19.67	18.58	19.33	17.79
19	13.20	.....	13.32	14.75	15.04	15.94	17.20	18.65	18.42	19.22	16.00
20	12.92	.....	13.73	14.77	14.60	16.16	17.18	18.40	18.56	18.89	17.18
21	12.33	.....	12.57	14.55	14.70	15.71	17.00	18.24	18.21	17.81	17.40
22	12.59	.....	12.67	14.50	14.82	15.40	16.64	18.31	18.42	18.82	17.67
23	12.82	.....	12.73	14.56	14.92	15.30	17.14	18.70	18.26	18.59	17.44
24	12.88	.....	12.97	14.65	14.62	15.33	16.81	18.10	18.35	19.03	18.26
25	13.20	.....	12.43	14.33	15.00	15.94	18.80	18.00	19.60	19.02	16.80
26	13.30	.....	13.05	15.32	15.00	15.85	16.81	17.27	19.49	18.65	17.37
27	13.26	.....	13.55	15.33	14.92	16.27	19.41	18.26	19.71	19.18	18.03
28	13.08	.....	.....	15.13	15.40	16.22	19.42	18.13	19.72	18.20	17.89
29	13.36	.....	.....	16.10	15.07	16.38	18.39	18.14	19.84	18.66	17.41
30	13.40	.....	.....	15.79	14.92	16.53	18.58	18.00	19.72	18.37	17.15
31	13.50	.....	.....	15.42	.....	16.67	18.12	.....	19.20	.....	17.22

Richland County

R-1. State of Ohio. In Mansfield, at Ohio State Reformatory. Records available: 1946-48.

Lowest daily water level, from recorder charts							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	31.16	Jan. 20	31.55	Mar. 16	31.67	May 26	31.70
15	31.16	21	31.63	17	31.86	27	31.61
16	31.48	Mar. 12	31.85	18	31.87	28	31.58
17	31.46	13	31.82	19	31.80	29	31.63
18	31.45	14	31.77	May 24	31.72	30	31.67
19	31.60	15	31.50	25	31.70	31	(a)

a Recorder removed and measurements discontinued.

R-2. Village of Lexington. In Lexington. Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	27.49	27.35	25.96	24.61	25.28	26.43	26.74	27.28	27.73	27.99	28.04	27.66
2	27.30	27.37	25.94	24.68	25.40	26.46	26.76	27.30	27.74	28.00	28.04	27.63
3	27.18	27.38	25.94	24.70	25.48	26.49	26.78	27.32	27.76	28.01	28.04	27.60
4	27.12	27.39	25.99	.....	25.54	26.52	26.80	27.33	27.76	28.01	28.04	27.57
5	27.10	27.41	26.03	.....	25.60	26.57	26.82	27.34	27.78	28.01	28.03	27.57
6	27.08	27.42	26.04	.....	25.64	26.58	26.84	27.35	27.79	28.02	28.00	27.58
7	27.07	27.43	26.07	.....	25.67	26.59	26.88	27.36	27.79	28.02	27.92	27.59
8	27.06	27.45	26.11	.....	25.70	26.62	26.90	27.37	27.81	28.03	27.90	27.60
9	27.05	27.46	26.14	.....	25.75	26.65	26.93	27.39	27.81	28.03	27.80	27.62
10	27.04	27.48	26.18	.....	25.80	26.67	26.95	27.40	27.82	28.03	27.87	27.64
11	27.04	27.49	26.22	.....	25.85	26.70	26.96	27.42	27.83	28.03	27.87	27.64
12	27.03	27.50	26.26	.....	25.88	26.71	26.98	27.43	27.86	28.03	27.86	27.64
13	27.04	27.50	26.28	.....	25.90	26.55	26.95	27.43	27.87	28.03	27.85	27.59
14	27.05	27.05	26.30	.....	25.92	26.50	26.91	27.44	27.89	28.04	27.85	27.53
15	27.05	26.65	26.30	.....	25.93	26.47	26.94	27.45	27.90	28.04	27.85	27.48
16	27.08	26.39	26.25	.....	25.96	26.51	26.97	27.47	27.91	28.04	27.85	27.39
17	27.10	26.20	26.10	23.97	25.95	26.55	26.99	27.49	27.92	28.04	27.84	27.23
18	27.12	26.08	26.02	24.00	25.91	26.58	27.01	27.51	27.93	27.99	27.84	27.14
19	27.14	26.00	25.97	24.09	25.91	26.59	27.03	27.53	27.94	27.97	27.83	27.06
20	27.15	25.95	25.90	24.19	25.95	26.57	27.05	27.55	27.94	27.97	27.82	27.00
21	27.16	25.93	25.83	24.31	26.00	26.60	27.07	27.56	27.94	27.98	27.81	26.95
22	27.18	25.93	25.77	24.42	26.04	26.61	27.09	27.57	27.94	27.99	27.80	26.91
23	27.21	25.98	25.74	24.55	26.08	26.63	27.09	27.59	27.95	27.99	27.79	26.88

R-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	27.63	26.04	25.48	24.64	26.12	26.66	27.11	27.60	27.96	27.99	27.80	26.85
25	27.26	26.08	25.24	24.76	26.17	26.68	27.14	27.62	27.96	27.99	27.82	26.83
26	27.27	26.11	25.06	24.88	26.20	26.72	27.16	27.64	27.97	27.99	27.83	26.82
27	27.29	26.12	24.94	24.97	26.24	26.73	27.18	27.66	27.98	28.50	27.82	26.80
28	27.29	26.07	24.80	25.07	26.27	26.72	27.20	27.67	27.98	28.01	27.78	26.80
29	27.31	25.98	24.71	25.16	26.32	26.74	27.21	27.68	27.98	28.00	27.74	26.79
30	27.33		24.64	25.24	26.36	26.74	27.23	27.70	27.98	28.03	27.70	26.75
31	27.33		24.61		26.40		27.25	27.72		28.03		26.72

Ross County

Ro-1. Chillicothe Water Department. In Chillicothe. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.18	17.15	12.63	9.52	11.86	13.41	15.13	15.79	17.37	18.02	18.64	16.93
2	14.18	17.19	12.70	10.17	11.95	13.49	15.06	15.88	17.42	18.02	18.69	16.96
3	13.68	17.25	12.78	10.72	11.95	13.57	15.06	15.98	17.46	18.03	18.72	17.08
4	13.93	17.30	13.06	11.18	11.72	13.65	15.15	16.07	17.52	18.06	18.72	17.26
5	14.18	17.34	13.25	11.62	11.40	13.73	15.23	16.12	17.55	18.08	18.71	17.38
6	14.65	17.39	13.45	11.88	11.35	13.81	15.32	16.12	17.59	18.15	18.69	17.50
7	15.00	17.43	13.65	11.86	11.27	13.98	15.42	16.12	17.62	18.18	18.50	17.57
8	15.25	17.46	13.85	11.04	11.23	13.99	15.52	16.17	17.65	18.21	18.07	17.61
9	15.55	17.49	14.00	11.00	11.35	14.07	15.60	16.23	17.68	18.22	17.61	17.69
10	15.62	17.51	14.15	11.18	11.57	14.14	15.68	16.27	17.72	18.25	17.58	17.77
11	15.60	17.53	14.30	11.63	11.80	14.22	15.74	16.36	17.77	18.23	17.68	17.84
12	15.73	17.55	14.43	11.30	11.95	14.30	15.80	16.42	17.80	18.31	17.70	17.91
13	15.90	17.50	14.55	10.20	11.95	14.37	15.85	16.47	17.82	18.33	17.92	18.01
14	16.05	17.00	14.63	6.97	11.65	14.41	15.85	16.53	17.87	18.35	17.95	18.04
15	16.16	18.57	14.70	4.04	11.35	14.46	15.87	16.58	17.90	18.38	18.02	17.99
16	16.30	18.80	14.70	2.88	11.15	14.45	15.88	16.64	17.94	18.40	18.07	17.13
17	16.39	9.30	13.90	4.10	11.19	14.49	15.83	16.68	17.97	18.41	18.13	15.82
18	16.47	9.25	13.38	5.85	11.19	14.56	15.78	16.75	18.01	18.41	18.17	14.67
19	16.55	10.12	13.40	7.14	11.12	14.65	15.82	16.78	18.03	18.27	18.22	14.12
20	16.58	10.94	13.40	8.00	11.26	14.70	15.83	16.83	18.03	18.25	18.13	14.66
21	16.66	11.47	13.02	8.65	11.55	14.74	15.84	16.88	18.00	18.25	18.08	15.13
22	16.59	11.88	12.60	9.16	11.70	14.78	15.78	16.93	17.70	18.22	18.03	15.45
23	16.62	12.48	12.80	9.65	12.05	14.84	15.39	16.97	17.53	18.23	17.97	15.66
24	16.65	13.22	12.80	10.10	12.49	14.92	15.17	17.02	17.63	18.28	18.05	15.86
25	16.70	13.50	13.43	10.50	12.67	14.97	15.22	17.04	17.73	18.33	18.10	16.05
26	16.80	13.62	10.72	10.85	12.82	15.05	15.37	17.09	17.83	18.38	18.15	16.17
27	16.87	13.60	10.52	10.98	12.97	15.10	15.53	17.15	17.93	18.43	18.15	16.33
28	16.94	13.37	9.37	11.28	13.09	15.16	15.60	17.19	17.93	18.48	18.12	16.50
29	17.00	13.15	7.70	11.47	13.20	15.20	15.50	17.24	17.98	18.52	17.95	16.59
30	17.05		7.70	11.67	13.30	15.18	15.60	17.28	18.02	18.56	17.47	16.59
31	17.10		8.95		13.40		15.70	17.34		18.60		16.51

a Estimated.

Ro-2. Chillicothe Water Department. In Chillicothe. Records available: 1943-48.

Daily water level, from electric tape gage

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	42.50	39.51	35.05	34.12	35.81	38.64	40.22	42.01	42.98	.....	.....
2	.....	42.53	39.45	34.96	34.15	35.93	38.62	40.43	.....	42.97	.....	.....
3	41.65	42.57	39.41	36.00	34.05	35.95	38.83	40.02	.....	.....	.....	38.01
4	41.60	42.61	39.53	.....	34.55	35.97	.....	40.85	42.00	.....	.....	.....
5	42.19	42.65	.....	.....	34.45	35.89	38.65	40.90	42.01	.....	.....	.....
6	42.23	42.67	39.51	35.71	34.50	35.95	38.65	40.87	42.00	.....	44.45	.....
7	42.51	42.62	39.50	36.88	34.63	35.97	38.64	40.85	41.97	.....	.....	.....
8	42.49	42.65	39.94	36.86	34.65	35.95	38.60	40.77	41.99	43.54	.....	.....
9	42.53	42.35	39.91	36.80	34.40	35.93	38.65	40.81	42.01	.....	.....	.....
10	42.60	42.35	39.40	37.00	34.89	35.91	38.63	40.78	42.80	.....	.....	42.85

Ro-2--Continued.

Daily water level, from electric tape gage.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	42.51	42.37	39.45	36.97	34.91	35.89	38.65	40.91	42.79	.....	.....	.....
12	42.48	42.35	39.51	36.95	.....	35.91	38.65	40.93	42.85	.....	.....	.....
13	.....	42.40	.....	.....	34.62	35.90	38.45	40.86	42.16	43.82	.....	.....
14	42.50	42.47	39.57	35.00	.....	35.93	38.40	40.95	42.21	.....	.....	.....
15	42.48	42.45	39.59	33.15	.....	38.80	38.56	40.93	42.20	.....	.....	.....
16	42.45	37.92	39.65	32.04	.....	37.53	40.20	40.94	43.40	44.30	42.87	.....
17	42.60	38.98	39.50	.....	34.60	37.48	40.20	40.95	43.50	.....	.....	.....
18	.....	38.95	39.61	31.07	34.65	37.80	40.12	40.94	43.00	.....	.....	.....
19	42.05	38.97	39.58	31.90	35.38	37.78	39.98	41.25	43.70	.....	.....	.....
20	42.61	39.03	39.55	31.96	35.40	37.75	40.00	41.20	43.09	.....	.....	.....
21	42.55	39.05	39.60	.....	35.21	38.00	40.20	41.23	42.87	.....	.....	.....
22	42.57	39.07	39.55	32.62	35.39	37.94	40.05	41.20	42.80	.....	.....	.....
23	42.63	39.10	39.56	32.73	35.37	37.97	40.09	41.73	42.82	.....	.....	.....
24	42.60	39.08	39.60	32.71	35.73	37.98	40.08	41.70	42.82	.....	.....	.....
25	42.63	39.49	39.55	32.83	35.68	37.96	40.05	41.65	42.83	43.88	.....	.....
26	42.64	39.49	.....	.....	36.11	37.96	.....	41.65	42.81	.....	.....	.....
27	42.58	39.45	39.65	.....	36.15	37.98	.....	41.74	42.80	.....	.....	.....
28	42.60	39.49	39.60	33.51	35.81	37.98	40.05	41.75	42.83	.....	.....	.....
29	42.61	39.45	39.01	33.55	35.79	37.98	40.10	41.76	43.03	.....	.....	.....
30	42.61	.....	.....	33.53	35.80	38.65	40.25	41.75	42.95	.....	.....	.....
31	42.55	.....	35.55	.....	35.81	.....	40.23	41.79	.....	44.87	.....	.....

Ro-3. Mead Corporation well 7. In Chillicothe. Records available: 1941-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.46	38.85	34.15	31.62	.....	31.74	32.66	35.37	37.52	34.05	40.95
2	39.55	38.80	33.86	31.61	.....	31.84	32.66	35.48	37.63	38.92	40.98
3	39.57	38.65	33.75	31.50	.....	31.93	32.70	35.57	37.67	34.10	41.00
4	39.57	38.70	33.77	31.48	.....	32.00	32.85	35.67	37.57	39.28	41.00
5	39.55	38.77	33.83	31.37	.....	31.92	32.99	35.68	37.32	39.44	40.99
6	39.41	38.81	33.85	31.15	.....	31.37	33.15	35.60	37.50	39.60	40.91
7	39.45	38.84	33.85	31.15	.....	30.84	33.30	34.80	37.65	34.68	40.93
8	39.46	38.85	33.85	31.18	.....	30.64	33.40	35.04	37.70	39.72	40.93
9	39.45	38.75	33.81	31.35	.....	30.48	33.40	35.25	37.82	39.87	40.90
10	39.45	38.67	33.90	31.35	.....	30.15	33.53	35.47	37.89	40.06	40.92
11	39.45	38.75	33.97	31.30	.....	30.10	33.72	35.63	37.89	40.14	40.95
12	39.35	38.84	34.02	31.18	.....	29.96	33.87	35.74	37.93	40.20	40.96
13	39.16	38.85	34.04	30.87	.....	30.10	34.04	35.74	38.04	40.27	40.92
14	39.20	38.85	34.06	18.15	.....	30.56	34.14	35.85	38.12	40.31	40.60
15	39.20	38.60	34.03	17.54	.....	30.58	34.15	36.00	38.26	40.22	40.63
16	39.12	34.90	33.95	18.23	.....	30.72	34.11	36.14	38.32	39.95	40.64
17	39.13	33.22	33.96	19.12	.....	30.92	34.27	36.34	38.34	40.13	40.60
18	39.15	33.51	33.85	20.11	.....	31.05	34.39	36.45	38.23	40.25	40.40
19	39.10	33.80	33.63	21.24	.....	31.05	34.50	36.52	37.80	40.33	40.10
20	38.90	34.05	33.60	22.21	.....	31.19	34.54	36.52	37.95	40.42	39.82
21	38.90	34.28	33.65	22.99	.....	31.36	34.64	36.55	38.34	40.52	39.56
22	38.93	34.45	33.65	23.52	.....	31.51	34.72	36.62	38.55	40.58	39.37
23	38.99	34.45	33.48	23.81	.....	31.63	34.72	36.68	38.57	40.72	39.20
24	38.98	34.56	33.36	24.18	.....	31.77	34.74	36.83	38.62	40.82	39.06
25	38.95	34.70	33.20	24.42	.....	31.88	34.86	36.92	38.67	40.88	38.86
26	38.90	34.70	33.00	.....	.....	31.88	34.96	37.00	38.83	41.01	38.38
27	38.70	34.61	32.86	.....	.....	31.94	35.06	37.00	38.89	41.09	37.80
28	38.72	34.41	32.75	.....	.....	32.11	35.17	37.02	38.89	41.12	37.39
29	38.75	34.50	32.45	.....	.....	32.26	35.22	37.13	39.02	41.02	37.50
30	38.83	.....	31.93	.....	31.60	.....	32.43	35.20	37.25	39.09	37.58
31	38.85	.....	31.72	.....	.....	32.57	35.26	.....	39.13	.....	37.66

Ro-4. Chillicothe Paper Co. In Chillicothe. Records available: 1939-48.

Daily water level, from staff gage readings

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.1	....	27.7	28.5	20.9	24.3	28.3	29.3	32.6	34.6	31.2	33.8
2	36.5	31.8	29.8	28.6	21.1	25.0	28.4	26.1	32.9	34.7	35.2	33.8
3	36.2	35.8	29.8	28.6	18.8	25.3	28.6	29.1	33.0	34.0	32.6	34.0
4	....	36.5	30.3	28.6	20.9	25.6	28.6	30.0	33.4	30.6	32.5	33.8
5	32.4	36.9	30.4	25.1	21.5	25.8	....	30.1	32.2	34.0	32.5	....
6	37.3	36.9	30.3	27.1	22.0	25.2	24.3	30.6	....	34.7	32.3	32.6
7	37.6	37.1	27.1	27.5	22.0	25.6	27.9	30.9	27.6	35.0	31.2	34.3
8	38.1	36.7	27.5	27.7	22.3	25.3	28.3	30.3	31.9	34.7	31.3	33.7
9	35.6	32.6	29.7	27.7	....	25.7	28.5	25.7	32.5	35.3	34.6	33.7
10	37.9	36.1	30.1	27.8	19.9	25.8	28.5	29.9	32.8	33.5	35.0	34.1
11	35.1	36.8	30.3	....	21.8	25.9	27.7	31.5	33.0	30.9	33.3	34.2
12	32.3	37.4	30.6	24.6	22.5	25.9	23.9	31.4	32.3	34.2	32.9	34.0
13	37.4	37.3	30.6	13.1	22.8	25.6	27.0	31.7	29.6	31.7	33.0	33.8
14	37.9	37.1	30.1	13.1	23.0	23.0	27.3	31.4	32.7	31.3	33.2	33.8
15	35.5	30.6	27.1	10.8	23.1	26.0	28.0	27.2	33.3	31.3	....	33.6
16	35.3	29.2	30.7	10.5	22.6	26.5	28.1	28.1	33.6	31.3	31.8	33.6
17	37.4	30.9	30.7	10.9	20.0	26.5	28.2	31.4	33.4	30.4	33.1	33.6
18	36.9	31.1	30.7	....	22.6	26.7	27.5	31.4	33.7	30.6	33.0	33.6
19	32.2	31.1	30.6	12.4	23.3	26.9	24.6	31.6	32.7	34.5	32.9	31.7
20	36.7	31.3	30.5	15.8	23.5	26.5	27.6	31.9	29.4	33.7	33.1	32.3
21	37.0	31.6	29.8	17.3	23.8	24.1	28.2	32.1	33.0	35.0	32.7	32.9
22	37.2	31.1	26.8	18.2	23.9	26.7	28.6	30.8	32.9	35.5	32.2	32.5
23	37.1	27.5	29.6	18.8	23.8	27.4	28.8	28.1	33.4	32.5	34.5	32.6
24	36.8	30.1	28.0	18.8	20.8	27.6	29.0	31.4	33.7	32.3	33.9	32.4
25	36.2	30.8	27.8	19.6	23.3	28.0	28.4	31.8	34.2	30.1	33.6	....
26	32.9	30.9	27.7	17.1	24.1	28.0	25.2	32.1	33.0	35.0	33.4	....
27	34.7	31.1	27.4	19.4	24.3	27.5	28.5	32.5	30.1	32.2	33.9	30.3
28	36.3	30.8	27.1	20.0	24.5	24.6	29.1	32.8	33.4	31.6	33.6	33.9
29	36.5	30.0	25.0	20.4	24.6	27.8	29.3	32.0	34.0	32.5	33.6	34.1
30	36.6		28.1	20.7	24.0	28.1	29.5	28.5	34.5	32.3	34.1	34.4
31	36.7		28.5		21.6		29.8	32.1		31.8		34.6

Ro-5. The Mead Corporation. In Chillicothe. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	46.09	Apr. 2	46.33	July 2	46.51	Oct. 3	40.93
9	46.59	9	45.68	9	38.36	10	41.35
16	46.53	16	38.68	16	44.43	17	42.68
23	46.27	23	38.18	23	46.59	24	43.18
30	46.01	30	37.53	30	47.43	31	43.01
Feb. 6	45.85	May 7	39.26	Aug. 6	48.76	Nov. 7	43.93
13	47.53	14	40.29	13	50.68	14	45.68
20	45.09	21	40.93	20	51.60	21	45.85
27	49.93	28	40.76	27	52.43	28	46.26
Mar. 5	50.06	June 4	42.58	Sept. 3	52.93	Dec. 5	46.76
12	50.35	11	43.26	12	38.85	12	47.26
19	49.26	18	44.09	19	39.77	19	47.59
26	47.69	25	45.68	26	40.09	26	46.26

Sandusky County

S-1. City of Woodville. In Woodville. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	24.34	24.16	22.06	....	18.53	19.03	20.37	21.74	....	....	24.27
2	24.62	24.36	24.24	22.02	....	18.50	18.74	20.45	21.70	....	....	24.22
3	24.44	24.40	24.24	21.97	....	18.50	19.13	20.65	21.70	....	....	24.19
4	24.32	24.60	24.27	22.01	....	18.37	19.15	20.50	21.84	....	....	24.25
5	24.24	24.50	24.31	21.54	....	18.71	18.95	20.64	21.95	....	....	24.07
6	24.07	24.54	24.10	21.56	....	18.50	19.20	20.56	21.70	....	....	24.30

S-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	24.06	24.64	24.07	21.62	.....	18.00	19.35	20.62	21.90	23.05	.....	24.12
8	24.04	24.66	24.12	21.68	.....	18.07	19.42	20.62	21.90	.....	.....	24.15
9	24.08	24.75	24.15	21.77	.....	18.25	19.55	20.67	21.05	.....	.....	24.34
10	24.00	24.75	24.13	21.75	.....	18.35	19.55	20.87	.....	.....	.....	24.27
11	23.89	24.61	24.12	21.30	.....	18.35	19.56	20.72	.....	.....	.....	24.24
12	23.95	24.80	.....	21.40	.....	18.20	19.65	20.73	.....	.....	.....	24.31
13	23.90	24.68	.....	21.60	.....	18.30	19.68	20.80	.....	.....	.....	24.48
14	23.84	24.85	.....	22.37	.....	18.40	19.70	20.88	.....	.....	.....	24.37
15	23.77	24.71	.....	22.32	.....	18.51	19.66	20.75	.....	.....	.....	24.50
16	23.87	24.61	.....	21.20	.....	18.60	19.65	20.75	22.25	.....	.....	24.45
17	23.92	24.60	.....	21.31	.....	.....	19.78	20.86	.....	.....	24.37	24.43
18	23.80	24.47	23.78	21.31	.....	.....	19.86	20.73	.....	.....	24.36	.....
19	23.84	24.60	23.70	21.89	.....	.....	19.90	20.95	.....	.....	24.27	.....
20	23.74	24.37	23.77	20.95	.....	.....	19.88	21.02	.....	.....	24.29	.....
21	23.80	24.37	23.58	21.06	.....	.....	19.87	21.00	.....	23.53	24.24	.....
22	23.88	24.38	23.45	21.14	.....	.....	.....	21.20	.....	23.55	24.19	24.22
23	23.95	24.44	23.07	.....	.....	.....	.....	21.13	.....	23.57	24.22	24.31
24	23.98	24.49	22.89	.....	.....	.....	.....	21.23	.....	23.58	24.11	24.28
25	24.05	24.32	22.82	.....	.....	18.84	.....	21.27	.....	23.67	24.11	.....
26	24.03	24.46	22.55	.....	.....	18.87	.....	21.45	.....	23.60	24.22	.....
27	24.05	24.29	22.73	.....	.....	18.89	.....	21.52	.....	23.74	24.31	.....
28	24.02	24.40	22.62	.....	.....	19.02	.....	21.56	.....	24.02	24.15	.....
29	24.25	24.32	22.16	.....	18.64	18.97	20.26	21.58	.....	24.02	24.27	.....
30	24.24	.....	22.13	.....	18.65	18.91	20.17	21.54	22.75	.....	24.31	.....
31	24.35	.....	22.11	.....	18.57	.....	20.34	21.71	.....	.....	.....	.....

Seneca County

Se-1. Myers farm. 1.5 miles south of Green Springs. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.99	31.83	32.38	31.45	32.99	32.60	32.60	33.23	33.00	32.02
2	32.76	31.92	31.88	30.75	33.19	33.00	32.53	33.20	31.90	32.47
3	32.82	31.99	32.42	31.18	32.44	33.15	32.80	33.20	32.90	32.12
4	33.10	32.09	33.05	32.15	32.30	33.10	32.72	33.23	32.63	31.93
5	33.62	31.85	.....	33.07	32.15	32.60	32.40	33.23	33.10	32.28
6	33.59	32.00	.....	32.68	32.77	32.65	32.97	33.22	32.82	33.05
7	33.27	31.53	31.82	32.14	32.92	32.04	32.94	33.12	32.21	32.62
8	33.29	31.88	31.13	32.48	32.30	32.79	32.83	33.22	32.41	32.60
9	33.10	32.12	31.70	32.50	32.84	32.70	32.70	32.47	32.12	32.50
10	33.10	31.62	32.09	32.48	33.20	33.00	32.82	.....	32.22	32.60
11	33.21	31.90	31.52	32.77	33.09	33.00	32.96	.....	32.64	32.70
12	33.65	31.60	31.56	32.43	32.90	32.51	32.74	.....	32.10	32.57
13	32.89	31.30	31.65	32.88	33.17	32.20	33.10	.....	31.97	32.12
14	32.85	31.27	31.65	32.57	33.01	32.85	33.12	.....	32.47	32.25
15	33.28	.....	31.58	32.30	33.31	32.27	33.10	.....	32.10	32.38
16	32.43	31.30	31.04	32.89	32.83	32.80	32.90	.....	32.30	31.54
17	32.50	31.76	31.07	32.71	31.69	32.70	33.00	.....	32.60	31.83
18	32.82	31.22	31.38	32.72	31.67	32.49	33.00	32.90	32.41	32.00
19	31.83	31.50	32.88	31.30	32.75	33.12	32.90	32.42	31.85
20	32.25	31.75	31.52	32.69	31.67	32.75	32.60	33.93	32.50	31.83
21	31.77	31.12	31.10	32.17	31.77	32.20	32.81	33.10	31.99	31.60
22	30.84	32.02	31.99	32.53	32.91	31.83	32.97	33.02	32.08	31.96
23	31.22	31.92	32.00	32.69	32.69	32.60	32.96	33.02	32.58	31.92
24	31.85	31.68	31.91	33.00	32.27	32.80	32.96	33.21	32.42	31.81
25	32.00	31.69	31.71	33.22	32.90	33.00	32.93	33.00	32.69	31.91
26	32.03	32.17	32.00	32.00	33.42	32.22	32.69	32.83	33.11	32.33	32.02
27	32.60	31.19	32.33	31.85	32.21	32.38	32.67	32.79	33.30	32.43	32.30
28	32.42	32.00	32.35	31.81	33.13	33.35	33.00	33.12	33.06	32.10	31.88
29	32.56	31.53	32.25	32.20	32.85	32.61	32.25	33.10	33.22	32.31	31.62
30	31.80	32.08	31.70	32.30	32.30	33.00	33.21	33.22	31.93	31.56
31	31.61	.....	32.30	.....	32.14	33.18	.....	32.61	.....	31.87

Shelby County

Sh-1. John Wenger. 3 miles east of Kettlersville. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.72	13.37	12.67	11.50	12.19	12.50	13.07	13.50	13.98	14.23	14.35	13.12
2	13.05	13.41	12.60	11.66	12.20	12.53	13.11	13.55	13.98	14.30	14.37	13.13
3	13.01	13.42	12.60	11.86	12.04	12.53	13.13	13.56	13.97	14.35	14.34	13.13
4	13.04	13.41	12.80	11.93	11.99	12.52	13.13	13.56	13.99	14.35	14.27	13.13
5	13.05	13.38	12.87	11.93	11.85	12.58	13.17	13.56	14.01	14.31	14.27	13.08
6	13.05	13.43	12.87	11.91	11.85	12.58	13.16	13.59	14.01	14.27	14.12	13.05
7	13.05	13.43	12.73	11.59	11.74	12.53	13.20	13.59	13.99	14.27	14.17	13.11
8	13.07	13.49	12.73	11.30	11.72	12.52	13.23	13.59	14.01	14.23	14.18	13.22
9	13.01	13.52	12.78	11.50	11.72	12.62	13.27	13.66	14.05	14.25	14.12	13.32
10	13.02	13.55	12.84	11.58	11.82	12.70	13.27	13.66	14.07	14.28	14.04	13.30
11	13.03	13.55	12.87	11.56	11.87	12.73	13.26	13.66	14.08	14.27	14.10	13.29
12	12.93	13.52	12.96	11.14	11.77	12.73	13.25	13.60	14.10	14.26	14.10	13.28
13	12.95	13.51	12.98	11.11	11.41	12.71	13.25	13.62	14.13	14.27	14.02	13.15
14	13.02	.....	12.98	10.80	11.20	12.76	13.27	13.66	14.18	14.31	14.00	13.00
15	13.03	.....	12.86	10.75	11.15	12.76	13.30	13.68	14.18	14.38	13.97	12.94
16	13.09	.....	12.72	10.85	11.24	12.83	13.30	13.68	14.22	14.34	13.97	12.19
17	13.14	12.87	12.62	11.12	11.28	12.85	13.32	13.68	14.25	14.27	13.91	11.95
18	13.18	12.84	12.63	11.23	11.43	12.88	13.33	13.67	14.22	14.30	13.94	11.99
19	13.18	12.77	12.58	11.33	11.59	12.85	13.36	13.73	14.19	14.28	13.93	11.99
20	13.17	12.95	12.18	11.44	11.65	12.93	13.41	13.75	14.16	14.33	13.51	12.03
21	13.11	12.99	12.02	11.63	11.64	12.96	13.40	13.76	14.15	14.36	13.44	12.13
22	13.05	13.03	11.93	11.74	11.74	12.92	13.35	13.79	14.15	14.36	13.44	12.28
23	13.24	13.12	11.92	11.79	11.83	12.92	13.41	13.83	14.15	14.33	13.42	.....
24	13.26	13.15	11.59	11.87	11.93	12.93	13.45	13.87	14.20	14.36	13.42	.....
25	13.30	13.15	11.57	11.90	12.13	12.97	13.45	13.86	14.28	14.37	13.43	.....
26	13.35	13.12	11.47	12.01	12.20	13.01	13.43	13.89	14.33	14.37	13.43	.....
27	13.37	13.08	11.39	12.04	12.20	13.02	13.48	13.92	14.33	14.36	13.46	.....
28	13.37	12.67	11.14	12.06	12.24	13.01	13.41	13.95	14.32	14.37	13.46	.....
29	13.36	12.64	11.15	12.12	12.35	13.00	13.45	13.95	14.27	14.37	13.30	.....
30	13.36	.....	11.30	12.14	12.42	13.01	13.47	13.95	14.23	14.37	13.19	.....
31	13.37	.....	11.33	.....	12.46	.....	13.47	13.97	.....	14.36	.....	.....

Sh-2. City of Sidney. In municipal well field, near Miami River, at Sidney. Abandoned drilled well, diameter 8 inches, depth 77.5 feet. Measuring point, floor of recorder shelter, 3.0 feet above land-surface datum. Automatic water-stage recorder installed Apr. 7. Records available: 1948. Measurements discontinued Dec. 26, 1948.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 7	23.50	June 25	28.42	July 22	28.96	Aug. 20	30.01
8	24.11	26	28.34	23	29.19	21	29.42
9	23.90	27	26.20	24	29.00	22	26.47
10	23.51	28	27.40	25	27.07	23	29.00
11	16.94	29	27.77	26	28.30	25	29.49
12	17.85	30	27.98	27	28.10	26	29.67
13	13.60	July 1	27.89	28	29.03	27	29.69
14	21.19	2	27.93	29	29.20	28	28.19
15	22.10	6	27.59	30	29.21	29	26.58
16	18.30	7	27.58	31	29.20	30	27.45
17	21.76	8	27.81	Aug. 1	27.68	31	27.76
18	20.56	9	28.08	10	28.59	Sept. 2	27.38
19	20.01	13	28.69	11	29.00	3	26.83
20	20.60	14	28.97	12	28.70	4	26.43
21	21.10	15	28.90	13	29.02	5	25.34
22	21.22	16	29.40	14	28.62	6	23.89
23	21.32	17	29.38	15	26.85	7	27.78
24	20.08	18	27.90	16	28.61	8	28.83
25	15.40	19	29.00	17	28.89	9	28.40
June 23	28.19	20	29.00	18	30.18	10	25.32
24	28.34	21	29.00	19	29.40	11	25.32

Sh-2--Continued.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 12	25.30	Oct. 28	33.39	Dec. 13	30.98	Dec. 20	32.12
13	27.40	29	33.41	14	31.00	21	32.90
14	27.62	30	31.80	15	30.58	22	33.00
18	27.45	31	29.50	16	30.10	23	32.68
19	32.21	Dec. 4	30.58	17	31.12	24	30.21
20	35.94	5	29.42	18	28.88	25	28.65
21	34.89	6	32.80	19	28.30	26	29.07
Oct. 27	33.24						

Stark County

St-1. Republic Steel Corporation. In Massillon. Records available: 1942-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	46.10	47.07	46.83	46.36	45.43	45.11	45.45	46.10	46.82	47.63	48.35	48.72
2	46.07	47.10	46.81	46.39	45.40	45.13	45.47	46.12	46.84	47.67	48.38	48.73
3	46.06	47.15	46.86	46.42	45.37	45.15	45.48	46.14	46.87	47.67	48.39	48.76
4	46.03	47.18	46.94	46.41	45.37	45.15	45.49	46.18	46.90	47.68	48.40	48.77
5	46.10	47.22	46.95	46.32	45.38	45.20	45.49	46.22	46.92	47.72	48.44	48.77
6	46.15	47.25	46.95	46.33	45.34	45.21	45.51	.....	46.90	47.75	48.47	48.79
7	46.16	47.27	46.93	46.35	45.22	45.13	45.55	.....	46.93	47.79	48.47	48.81
8	46.22	47.30	46.98	46.38	45.18	45.13	45.57	.....	46.95	47.82	48.43	48.86
9	46.26	47.32	46.97	.....	45.17	45.20	45.60	.....	47.00	47.87	48.38	48.90
10	46.26	47.35	47.02	.....	45.09	.....	45.60	.....	47.04	47.87	48.42	48.94
11	46.19	47.36	47.06	.....	45.08	.....	45.60	.....	47.06	47.87	48.48	48.94
12	46.24	47.40	47.08	46.25	45.10	45.30	45.54	.....	47.07	47.90	48.53	48.92
13	46.30	47.40	47.09	46.18	45.10	45.27	45.60	46.40	47.07	47.96	48.56	48.90
14	46.34	47.38	47.08	46.07	45.10	45.15	45.64	46.42	47.13	48.00	48.55	48.92
15	46.40	47.28	47.00	45.96	45.11	45.16	45.67	46.42	47.17	48.04	48.53	48.94
16	46.45	47.06	47.03	45.82	45.08	45.21	45.70	46.40	47.21	48.06	48.55	48.94
17	46.50	46.92	.....	45.74	45.00	45.24	45.72	46.43	47.24	48.06	48.59	48.90
18	46.53	46.84	47.03	45.67	44.98	45.25	.....	46.46	47.28	48.04	48.63	48.80
19	46.55	46.83	47.00	45.58	44.98	45.27	.....	46.48	47.29	48.07	48.66	48.70
20	46.58	46.84	47.00	45.52	44.97	45.27	45.78	46.50	47.29	48.12	48.67	48.63
21	46.61	46.82	46.90	45.53	44.98	45.17	45.80	.....	47.32	48.14	48.67	48.65
22	46.68	46.80	46.79	45.53	45.02	45.19	45.83	.....	47.35	48.17	48.68	48.70
23	46.75	46.83	46.73	45.53	45.00	45.22	45.88	.....	47.37	48.20	48.69	48.70
24	46.77	46.83	46.70	45.54	44.95	45.27	45.90	.....	47.42	48.20	48.71	48.72
25	46.82	46.81	46.67	45.50	44.99	45.32	45.90	46.62	47.46	48.19	48.72	48.67
26	46.85	46.85	46.60	45.45	45.03	45.35	45.91	46.66	47.47	48.22	48.75	48.62
27	46.90	46.85	46.54	45.46	45.05	45.35	45.95	46.70	47.49	48.27	48.77	48.55
28	46.92	46.85	46.51	45.46	45.07	45.32	45.99	46.73	47.54	48.29	48.77	48.60
29	46.95	46.85	46.44	45.46	45.10	45.36	46.01	46.73	47.57	48.32	48.67	48.65
30	47.00	.....	46.37	45.43	45.11	45.40	46.05	46.75	47.60	48.34	48.68	48.67
31	47.03	46.35	.....	45.07	.....	46.08	46.80	.....	48.34	.....	48.67	.....

St-2. Republic Steel Corporation. In Canton. Records available: 1939-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	42.85	Mar. 20	42.87	May 31	43.85	Aug. 9	44.64
5	42.81	22	42.92	June 12	43.43	16	44.52
17	41.91	Apr. 3	42.85	16	43.02	23	44.10
20	43.06	7	42.89	21	43.93	30	44.43
30	43.93	16	42.85	28	44.52	Sept. 6	44.27
Feb. 2	43.89	20	42.89	July 6	44.52	13	44.43
10	42.96	May 1	44.27	12	44.52	15	44.31
21	44.91	4	44.34	19	44.43	27	44.47
23	44.85	15	45.10	26	44.60	Oct. 4	44.47
Mar. 6	44.92	17	45.02	Aug. 2	44.68	11	44.43
8	42.00	27	44.02				

St-3. Ohio Power Co. In Canton. Records available: 1939-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	48.39	48.70	48.88	49.22	.....	48.91	49.00	48.89	48.78	48.54	48.05	.....
2	48.39	48.71	48.88	49.23	.....	48.92	49.01	48.89	48.77	48.52	48.04	47.90
3	48.41	.....	48.91	49.25	49.05	48.92	49.01	48.89	48.77	48.49	48.03	47.89
4	48.42	.....	48.94	49.26	49.05	48.92	49.01	48.89	48.76	48.47	48.03	47.88
5	48.43	.....	48.97	49.26	49.04	48.93	49.01	48.89	48.76	48.45	48.02	47.87
6	48.45	.....	48.98	49.26	49.04	48.94	49.01	48.88	48.75	48.43	48.02	47.86
7	48.45	.....	48.98	49.26	49.03	48.94	49.01	48.89	48.75	48.41	48.01	47.85
8	48.46	.....	48.99	49.27	49.02	48.94	49.00	48.89	48.74	48.39	48.00	47.84
9	48.47	.....	49.01	49.29	49.01	48.94	49.00	48.89	48.73	.....	48.00	47.82
10	48.50	.....	49.03	49.30	49.00	48.96	49.00	48.89	48.72	.....	47.99	47.83
11	48.52	.....	49.05	49.30	48.99	48.97	49.00	48.89	48.71	.....	47.99	47.82
12	48.53	.....	49.07	49.29	48.98	48.98	49.00	48.89	48.71	48.29	47.99	47.81
13	48.54	48.78	49.10	49.29	48.98	48.99	48.99	48.90	48.70	48.28	47.99	47.80
14	48.55	48.81	49.10	49.29	48.97	49.00	48.97	48.90	48.70	48.27	47.98	47.78
15	48.57	48.83	49.10	49.29	48.97	49.01	48.96	48.90	48.71	48.25	47.98	47.77
16	48.59	.....	49.11	49.28	48.96	49.01	48.96	48.90	48.71	48.24	47.97	47.75
17	48.61	.....	49.13	49.26	48.95	49.02	48.95	48.89	48.71	48.22	47.96	47.74
18	48.63	.....	49.15	49.25	48.94	49.03	48.95	48.89	48.71	48.21	47.96	47.73
19	48.64	.....	49.16	49.23	.....	49.03	48.95	48.89	48.71	48.20	47.96	47.71
20	48.65	.....	49.17	49.20	.....	49.03	48.94	48.89	48.71	48.18	47.95	47.69
21	48.65	.....	49.18	49.17	.....	49.04	48.93	48.89	48.71	48.16	47.94	47.67
22	48.65	.....	49.18	49.16	.....	49.03	48.92	48.88	48.70	48.15	47.94	47.55
23	48.64	48.77	49.18	49.14	.....	49.03	48.91	48.87	48.69	48.14	47.93	47.63
24	48.64	48.79	49.19	49.13	48.89	49.02	48.91	48.86	48.68	48.13	.....	47.60
25	48.65	48.82	49.20	49.11	48.89	49.02	48.91	48.85	48.66	48.12	.....	47.58
26	48.65	48.82	49.20	49.10	48.89	49.01	48.91	48.84	48.64	48.11	.....	.....
27	48.66	48.85	49.20	49.09	48.89	49.01	48.90	48.83	48.63	48.10	.....	.....
28	48.66	48.87	49.21	.....	48.89	49.01	48.90	48.82	48.61	48.09	.....	.....
29	48.67	.....	49.21	.....	48.90	49.00	48.90	48.81	48.59	48.08	.....	.....
30	48.68	.....	49.21	.....	48.90	49.00	48.90	48.80	48.55	48.07	.....	.....
31	48.69	.....	49.22	.....	48.91	.....	48.90	48.79	48.06	.....	.....	.....

St-4. Adessi Bros. 2 miles northeast of Canton. Records available: 1941-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.14	.....	16.25	15.67	14.16	14.04	15.07	16.28	15.76	16.28	16.59	16.41
2	17.14	.....	16.25	15.72	14.21	14.07	15.10	16.33	15.78	16.31	16.59	16.41
3	17.11	.....	16.29	15.76	14.26	14.10	15.14	16.36	15.80	16.33	16.59	16.40
4	17.09	18.05	16.33	15.77	14.28	14.13	15.18	16.41	15.83	16.34	16.58	16.40
5	17.15	18.08	16.36	15.77	14.30	.....	15.20	16.45	15.87	16.34	16.58	16.40
6	17.17	18.11	16.37	15.80	13.85	.....	15.23	16.49	15.90	16.35	16.56	16.42
7	17.20	18.13	16.39	15.83	13.47	14.23	15.27	16.53	15.92	16.36	16.57	16.42
8	17.21	18.17	16.43	15.86	13.35	14.29	15.33	16.57	15.94	16.38	16.57	16.45
9	17.26	18.19	16.47	15.92	13.31	14.34	15.36	16.59	15.98	16.39	16.53	.....
10	17.30	18.21	16.51	15.94	13.35	14.39	15.40	16.62	15.99	16.41	16.50	.....
11	17.32	18.24	16.55	15.96	13.37	14.43	15.44	16.66	16.01	16.42	16.50	.....
12	17.35	18.26	16.60	15.96	13.41	14.46	15.46	16.66	16.05	16.43	16.50	.....
13	17.37	18.28	16.64	15.30	13.44	14.47	15.49	16.52	16.07	16.45	16.47	16.53
14	17.41	18.27	16.67	14.77	13.49	14.52	15.53	16.13	16.08	16.48	16.47	16.50
15	17.44	.....	16.69	14.17	13.52	14.55	15.58	16.00	16.12	16.49	16.46	16.48
16	17.48	16.30	16.73	13.70	13.58	14.58	15.61	15.99	16.14	16.50	16.45	16.45
17	17.52	16.10	16.73	13.60	13.57	14.63	15.65	15.99	16.16	16.52	16.45	15.60
18	17.55	15.93	16.68	13.59	13.55	14.65	15.69	16.04	16.18	16.52	16.46	14.85
19	17.57	15.90	16.66	13.59	13.55	14.70	15.73	16.08	16.19	16.51	16.46	14.60
20	17.59	15.90	16.64	13.61	13.55	14.71	15.78	16.08	16.18	16.51	16.49	14.52
21	17.62	15.91	16.03	13.71	13.57	14.73	15.81	15.66	16.16	16.51	16.44	14.50
22	17.66	15.94	15.75	13.75	13.62	14.75	15.85	15.56	16.15	16.52	16.43	14.52
23	17.71	16.01	15.67	13.79	13.68	14.77	15.90	15.54	16.17	16.52	16.40	14.53
24	17.74	16.03	15.65	13.84	13.72	14.80	15.93	15.53	16.20	16.53	16.40	14.54
25	17.76	16.07	15.65	13.89	13.75	14.84	15.97	15.55	16.22	16.55	16.40	14.61
26	17.76	16.13	15.64	13.95	13.79	14.88	16.03	15.59	16.23	16.55	16.40	14.62
27	.....	16.16	15.65	13.97	13.84	14.92	16.08	15.63	16.24	16.55	16.42	14.62
28	.....	16.20	15.65	14.04	13.88	14.95	16.11	15.65	16.24	16.55	16.42	14.63

St-4--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
29	16.24	15.62	14.07	13.93	14.98	16.15	15.67	16.25	16.55	16.41	14.66
30		15.61	14.11	13.97	15.02	16.20	15.70	16.26	16.55	16.41	14.67
31		15.62		14.01		16.23	15.73		16.55		14.62

St-5. Canton Water Department. In northeast well field. Records available: 1941-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	39.72	40.85	40.90	41.42	41.24	39.24	39.79	40.27	37.62	36.13	32.04	36.00
2	39.33	40.75	41.07	41.40	41.24	39.15	39.85	39.72	37.49	36.10	32.50	35.87
3	39.65	41.00	41.07	41.41	40.97	39.26	39.79	39.90	37.48	36.16	32.58	35.81
4	39.30	41.16	40.95	41.43	40.88	39.42	39.91	40.37	37.56	36.04	32.97	35.76
5	39.73	41.20	41.10	41.57	40.90	39.53	39.85	40.37	37.45	36.01	33.07	35.72
6	39.75	41.17	41.16	41.74	40.38	39.60	39.65	40.38	37.43	35.97	33.23	35.67
7	39.86	41.32	41.17	41.30	40.00	39.62	39.78	40.14	37.26	35.97	33.27	35.65
8	39.88	41.27	40.90	41.36	39.96	39.52	39.91	.....	37.28	35.95	33.11	35.67
9	39.98	40.90	40.98	41.92	39.72	39.50	40.02	39.86	37.20	35.95	33.42	35.69
10	40.10	41.15	41.00	41.97	39.26	39.42	40.12	40.28	37.13	35.93	33.65	35.52
11	39.47	41.55	41.15	41.94	39.38	39.49	40.25	40.32	37.08	35.87	33.77	35.47
12	39.65	41.43	41.16	41.45	39.60	39.56	40.34	39.68	37.03	34.97	33.81	35.52
13	39.68	41.55	41.19	41.52	39.67	39.44	40.46	40.20	36.92	34.57	33.83	36.44
14	39.69	41.62	41.29	41.57	39.72	39.25	40.62	40.28	36.86	34.14	33.74	36.93
15	39.98	41.54	41.37	41.60	39.70	39.40	40.72	39.78	36.82	33.82	34.47	37.28
16	39.98	41.40	41.46	41.70	39.56	39.50	40.85	39.55	36.80	33.53	34.85	37.58
17	40.09	41.58	41.55	41.72	38.85	39.56	40.97	39.85	36.94	33.23	.....	37.63
18	.....	41.59	41.58	41.70	39.03	39.56	41.05	39.52	36.63	33.27	.....	36.95
19	39.75	41.64	41.71	41.60	39.12	39.60	41.13	39.27	36.56	33.55	.....	36.46
20	40.17	41.65	41.65	41.31	39.15	39.35	41.34	.....	36.58	33.70	34.66	36.98
21	40.40	41.65	41.69	41.32	39.12	38.95	41.50	38.68	36.51	33.00	34.66	37.31
22	40.43	40.95	41.69	41.32	.....	39.20	41.50	38.55	36.48	.....	34.65	37.47
23	40.53	41.14	41.70	41.29	.....	39.42	41.48	38.43	36.44	.....	34.65	37.00
24	40.55	41.26	41.70	41.27	38.51	39.57	40.95	38.34	36.43	.....	34.66	36.41
25	40.12	41.23	41.71	41.25	38.75	39.70	40.72	38.20	36.32	31.79	34.66	36.29
26	40.45	41.15	41.71	41.19	38.85	39.80	40.42	38.10	36.31	31.68	35.35	.....
27	40.65	41.21	41.66	41.23	38.96	39.84	40.75	38.02	36.21	31.51	35.94	36.12
28	40.67	41.22	41.65	41.16	39.01	39.18	40.97	37.97	36.21	31.34	36.23	36.13
29	40.84	40.60	41.43	41.20	39.16	39.57	41.07	37.84	36.18	31.18	36.36	36.84
30	40.85		41.35	41.22	39.26	39.78	41.20	37.77	36.16	31.03	36.51	37.17
31	40.80		41.45		39.30		41.07	37.67		30.87		37.07

St-6. Canton Water Department. In Ninth St. well field. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	21.01	21.46	21.33	22.16	22.00	22.04	21.61	21.20	21.15	20.52	20.17	18.21
2	20.95	21.47	21.42	22.18	22.01	22.06	21.57	21.10	21.15	20.52	20.16	18.15
3	20.98	21.47	21.49	22.21	22.02	22.07	21.56	21.04	21.15	20.53	20.15	18.06
4	20.98	21.46	21.57	22.22	22.02	22.09	21.55	21.11	21.14	20.54	20.13	17.97
5	21.03	21.49	21.64	22.23	22.02	22.10	21.55	21.17	21.14	20.54	20.11	17.89
6	21.03	21.53	21.70	22.24	21.83	22.11	21.54	21.22	21.14	20.53	20.09	17.76
7	21.04	21.54	21.74	22.25	21.75	22.11	21.51	21.26	21.12	20.52	20.10	17.69
8	21.04	21.60	21.30	22.27	21.77	22.08	21.49	21.30	21.09	20.51	20.12	17.61
9	21.05	21.62	21.85	22.29	21.79	22.05	21.48	21.34	21.08	20.50	20.10	17.59
10	21.10	21.65	21.90	22.31	21.81	22.03	21.47	21.37	20.95	20.49	20.06	17.54
11	21.11	21.67	21.94	22.32	21.83	22.02	21.45	21.39	20.96	20.48	20.07	17.51
12	21.07	21.69	21.99	22.32	21.85	22.02	21.44	21.32	20.97	20.47	20.08	17.44
13	21.08	21.69	22.03	22.13	21.86	22.02	21.41	21.12	20.98	20.46	20.07	17.35
14	21.13	.....	22.06	22.08	21.87	21.90	21.34	21.11	20.99	20.46	20.06	17.26
15	21.14	8.21	22.08	22.05	21.87	21.88	21.30	21.14	20.99	20.46	19.91	17.20
16	21.13	11.01	22.11	22.02	21.88	21.88	21.28	21.19	21.01	20.46	19.69	17.07
17	21.20	13.75	22.14	22.02	21.89	21.89	21.26	21.23	21.01	20.44	19.49	16.76
18	21.22	15.59	22.16	22.03	21.88	21.90	21.25	21.26	21.01	20.42	19.41	16.58
19	21.23	16.96	22.16	22.03	21.88	21.90	21.24	21.27	20.98	20.35	19.30	16.58

St-6--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	21.24	17.97	22.16	22.03	21.88	21.89	21.20	21.27	16.60	20.31	19.16	16.54
21	21.22	18.78	22.09	22.03	21.88	21.86	21.19	21.18	18.41	20.32	19.05	16.52
22	21.23	19.38	22.08	22.04	21.88	21.81	21.13	21.15	19.29	20.32	18.97	16.50
23	21.51	19.82	22.08	22.04	21.89	21.78	21.18	21.14	19.79	20.31	18.88	16.50
24	21.32	20.21	22.09	22.04	21.90	21.76	21.17	21.13	20.10	20.23	18.82	16.48
25	21.35	20.52	22.10	22.03	21.92	21.75	21.16	21.13	20.29	20.20	18.75	16.44
26	21.37	20.76	22.10	22.03	21.94	21.74	21.16	21.14	20.42	20.20	18.69	16.41
27	21.39	20.95	22.10	22.03	21.96	21.74	21.18	21.15	20.52	20.20	18.61	16.38
28	21.40	21.08	22.11	22.01	21.98	21.73	21.18	21.16	20.56	20.20	18.55	16.32
29	21.40	21.23	22.12	21.99	22.00	21.70	21.13	21.16	20.57	20.20	18.38	16.27
30	21.44		22.13	21.99	22.01	21.68	21.14	21.15	20.57	20.20	18.30	16.19
31	21.45		22.14		22.02		21.18	21.14		20.19		16.14

St-7. Canton Water Department. In Grovemiller well field. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	83.84	Apr. 5	84.00	July 5	84.98	Oct. 4	80.55
12	83.80	12	84.10	12	84.95	11	80.30
19	84.00	19	83.85	19	83.85	18	80.80
26	84.05	26	83.58	26	82.82	25	80.74
Feb. 2	84.07	May 3	83.70	Aug. 2	82.05	Nov. 1	80.69
9	84.24	10	84.66	9	81.80	8	79.88
16	84.20	17	84.61	16	81.60	15	79.72
23	84.40	24	84.67	23	81.40	22	79.48
Mar. 1	84.33	31	84.83	30	81.30	29	79.53
8	84.22	June 7	85.00	Sept. 6	80.95	Dec. 6	79.40
15	84.11	14	84.85	13	80.95	13	79.43
22	84.22	21	84.87	20	80.85	20	79.40
29	84.04	28	84.92	27	80.42	27	79.05

St-8. Canton Water Department. In Grovemiller well field. Records available: 1944-48.

Jan. 5	82.55	Apr. 5	82.60	July 5	84.19	Oct. 4	79.19
12	82.46	12	82.45	12	83.97	11	79.16
19	82.62	19	82.39	19	82.50	18	78.87
26	82.74	26	82.21	26	81.90	25	78.82
Feb. 2	82.71	May 3	82.10	Aug. 2	81.10	Nov. 1	78.80
9	82.62	10	83.81	9	80.75	8	78.64
16	82.70	17	83.91	16	80.44	15	78.45
23	82.80	24	83.98	23	80.22	22	78.56
Mar. 1	82.94	31	84.08	30	79.93	29	78.13
8	82.70	June 7	84.00	Sept. 6	79.75	Dec. 6	78.10
15	82.71	14	84.09	13	79.75	13	78.14
22	82.70	21	83.15	20	79.82	20	78.05
29	82.73	28	84.15	27	79.34	27	77.80

St-9. Canton Water Department. In Grovemiller well field. Records available: 1944-48.

Jan. 5	99.53	Apr. 5	99.33	July 5	99.62	Oct. 4	93.77
12	99.20	12	99.37	12	99.59	11	93.73
19	99.37	19	99.12	19	99.05	18	93.50
26	99.48	27	99.04	26	96.49	25	93.58
Feb. 2	99.48	May 3	99.11	Aug. 2	95.60	Nov. 1	93.39
9	99.60	10	99.55	9	94.43	8	93.40
16	99.54	17	99.40	16	95.10	15	93.16
23	99.76	24	99.58	23	94.85	22	92.60
Mar. 1	98.60	31	99.62	30	94.82	29	92.96
8	99.63	June 7	99.38	Sept. 6	94.38	Dec. 6	92.82
15	99.43	14	99.60	13	94.38	13	92.88
22	99.50	21	99.60	20	94.34	20	92.70
29	99.37	28	99.50	27	93.86	27	92.45

St-10. Canton Water Department. In Sippo well field, 3 miles west of Canton. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	2.73	2.85	2.20	1.22	0.59	0.72	1.36	1.92	2.13	2.33	2.57	2.56
2	2.65	2.85	2.13	1.25	.60	.74	1.38	1.94	2.14	2.36	2.56	2.55
3	2.66	2.86	2.15	1.29	.67	.76	1.39	1.95	2.15	2.37	2.56	2.52
4	2.62	2.86	2.22	1.23	.68	.78	1.41	1.96	2.17	2.37	2.56	2.53
5	2.66	2.88	2.22	1.23	.62	.84	1.46	1.98	2.18	2.37	2.56	2.52
6	2.64	2.89	2.18	1.25	.40	.86	1.47	2.00	2.18	2.38	2.58	2.56
7	2.64	2.89	2.14	1.26	.29	.88	1.50	2.01	2.17	2.40	2.61	2.55
8	2.63	2.92	2.18	1.30	.27	.92	1.53	2.02	2.13	2.40	2.61	2.59
9	2.66	2.96	2.20	1.36	.25	.97	1.55	2.05	2.20	2.41	2.59	2.60
10	2.69	2.96	2.22	1.36	.27	1.00	1.55	2.06	2.21	2.42	2.63	2.64
11	2.69	2.96	2.25	1.32	.29	1.02	1.57	2.06	2.21	2.44	2.64	2.63
12	2.65	2.98	2.26	1.24	.35	1.03	1.58	1.95	2.23	2.45	2.63	2.61
13	2.66	2.97	2.27	1.02	.33	1.03	1.60	1.87	2.24	2.46	2.62	2.61
14	2.70	2.74	2.26	.78	.35	1.04	1.63	1.85	2.26	2.48	2.62	2.63
15	2.71	2.48	2.24	.52	.37	1.07	1.64	1.86	2.28	2.50	2.61	2.59
16	2.72	2.34	2.22	.33	.37	1.09	1.66	1.88	2.29	2.49	2.60	2.50
17	2.73	2.23	2.22	.28	.34	1.12	1.67	1.90	2.30	2.49	2.62	2.36
18	2.74	2.17	2.18	.24	.30	1.12	1.70	1.91	2.30	2.47	2.62	2.26
19	2.75	2.13	2.10	.22	.33	1.15	1.72	1.93	2.30	2.43	2.60	2.16
20	2.75	2.15	2.01	.23	.29	1.18	1.73	1.92	2.22	2.46	2.60	2.12
21	2.71	2.13	1.84	.30	.32	1.18	1.74	1.93	2.20	2.47	2.60	2.12
22	2.76	2.13	1.74	.33	.37	1.18	1.76	1.95	2.19	2.47	2.60	2.13
23	2.81	2.18	1.68	.36	.43	1.19	1.79	1.96	2.21	2.48	2.61	2.12
24	2.81	2.18	1.63	.39	.46	1.21	1.81	1.98	2.25	2.50	2.60	2.11
25	2.82	2.16	1.58	.44	.48	1.24	1.82	2.00	2.29	2.50	2.62	2.14
26	2.83	2.18	1.50	.48	.51	1.26	1.82	2.02	2.30	2.52	2.61	2.15
27	2.84	2.18	1.44	.50	.53	1.27	1.82	2.03	2.31	2.52	2.64	2.14
28	2.84	2.16	1.40	.50	.58	1.30	1.85	2.04	2.32	2.54	2.63	2.14
29	2.83	2.20	1.33	.52	.61	1.31	1.86	2.06	2.31	2.55	2.58	2.11
30	2.85		1.27	.58	.65	1.33	1.87	2.08	2.30	2.56	2.57	2.11
31	2.85		1.23		.69		1.90	2.12		2.55		2.09

St-11. Canton Water Department. 3 miles northwest of Canton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	4.07	3.35	2.72	2.50	2.79	14.10	20.15	23.42	28.00	28.75
2	....	....	4.07	3.36	2.62	2.51	2.80	14.62	20.24	21.16	25.72	29.10
3	....	4.03	4.10	3.26	2.64	2.52	2.88	12.90	20.39	20.90	25.50	29.57
4	....	4.42	....	3.17	2.64	2.52	2.89	12.20	20.63	20.85	25.33	29.57
5	....	4.38	....	3.43	2.55	2.61	2.90	12.32	20.80	22.70	25.20	29.63
6	....	4.50	....	3.48	2.12	2.62	2.90	12.42	....	23.21	25.04	29.80
7	....	....	....	3.36	2.12	2.62	2.93	12.56	....	23.61	24.86	30.28
8	4.80	....	....	3.36	2.31	2.60	2.95	12.70	....	23.70	24.73	30.31
9	4.84	....	....	....	6.67	2.62	2.96	12.89	....	21.36	24.66	30.54
10	4.55	....	....	3.28	2.22	2.66	2.98	13.02	....	21.25	24.57	30.85
11	4.20	....	....	3.27	2.23	2.67	3.02	13.11	....	23.88	24.51	30.85
12	4.10	....	....	3.00	2.28	2.67	3.02	13.80	....	24.48	24.47	28.08
13	4.05	4.60	....	2.73	2.28	2.60	2.95	12.74	....	....	24.40	27.76
14	4.04	3.90	....	2.60	2.28	2.58	2.95	12.98	....	....	24.37	27.50
15	....	3.23	....	2.40	2.30	2.60	3.00	13.20	22.00	....	24.34	27.25
16	4.00	4.22	....	2.42	2.30	2.64	3.01	13.60	22.49	....	27.01	27.06
17	4.00	4.40	3.70	2.46	....	2.66	3.02	16.07	22.52	....	27.73	26.90
18	....	4.30	3.70	2.43	....	2.72	3.07	16.11	22.90	....	27.89	27.74
19	....	4.15	3.62	2.52	....	2.72	3.08	16.50	22.95	....	28.00	26.00
20	....	4.26	3.38	2.74	....	2.67	6.04	16.83	22.50	26.23	28.42	25.23
21	....	....	3.18	2.56	....	2.68	6.42	16.89	23.02	26.72	28.49	25.12
22	....	....	3.32	2.58	2.32	2.70	6.96	17.10	23.02	27.02	28.20	27.48
23	4.00	....	3.29	2.59	2.35	2.72	7.50	....	....	27.34	28.86	28.34
24	4.00	....	....	2.61	2.38	2.72	7.92	....	....	27.60	29.30	27.90
25	4.00	....	....	2.61	2.40	2.73	8.30	....	....	27.97	29.32	28.80
26	....	....	....	3.40	2.41	2.73	8.75	....	....	28.14	29.16	26.60
27	....	4.10	....	2.87	2.42	2.74	9.09	....	....	28.36	25.38	29.03

St-11--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	4.07	....	2.63	2.43	2.76	9.35	....	....	28.60	25.52	29.12
29	3.82	....	2.62	2.44	2.78	9.60	19.88	20.92	28.82	25.54	26.50
30	3.10	2.48	2.78	....	19.80	23.00	29.04	28.20	26.28
31	2.50	....	....	20.06	....	29.10	....	25.97

St-12. Canton Water Department. 3 miles northwest of Canton. Recorder removed and measurements discontinued after Aug. 22. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	2.49	2.99	3.18	3.09	2.83	1.37
2	2.49	2.94	3.18	3.09	2.83	1.60
3	2.49	2.93	3.15	3.06	2.79	1.52
4	2.33	2.93	3.15	3.05	2.76	1.44
5	2.37	2.89	3.30	3.01	2.74	1.50
6	2.85	3.77	3.00	2.74	1.56
7	2.85	3.76	3.01	2.71	1.62
8	2.21	....	....	2.81	3.64	3.02	2.68	1.68
9	2.15	....	....	....	3.59	3.01	3.67	1.76
10	2.15	....	....	2.76	3.58	2.99	2.64	1.82
11	2.18	....	....	2.76	3.52	2.94	2.60	1.84
12	2.28	....	....	3.10	3.47	6.94	2.60	1.65
13	3.39	3.47	3.03	2.67	1.60
14	3.64	3.45	3.03	2.71	1.73
15	3.79	3.40	2.99	2.69	1.85
16	3.72	3.39	2.95	2.66	1.92
17	2.57	3.72	....	2.94	2.60	2.29
18	2.59	3.62	3.61	2.90	2.58	2.30
19	2.63	3.57	....	2.89	2.57	2.46
20	2.98	3.50	....	2.98	2.49	2.54
21	3.08	3.41	3.43	2.95	1.01	2.62
22	2.42	3.38	3.36	2.92	.69	2.67
23	2.89	3.32	3.32	2.90	.46	....
24	2.99	3.28	3.29	2.89	.28	....
25	3.25	3.26	2.89	.13	....
26	3.22	3.23	2.86	.03	....
27	2.42	....	3.18	3.21	2.86	.15	....
28	2.47	....	3.23	3.19	2.86	.25	....
29	2.50	....	....	3.15	2.83	.38	....
30	3.23	3.13	2.83	.62	....
31	3.11	....	1.06	....

St-13. Canton Water Department. 3 miles northwest of Canton. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Dec.
1	....	....	1.51	1.10	1.07	0.93	1.09	1.65	2.33	....
2	....	....	1.51	1.16	1.07	.93	1.12	1.67	2.39	....
3	....	1.86	1.45	1.21	1.03	.93	1.21	1.70	2.40	....
4	....	1.21	1.55	1.23	1.04	.92	1.25	1.69	2.40	....
5	....	1.83	1.59	1.25	.40	1.00	1.27	1.69	....	....
6	....	1.61	....	1.25	.56	1.00	1.28	1.72	....	....
7	....	1.85	....	1.24	.50	.89	1.32	1.73	....	....
8	1.68	1.87	....	1.28	.69	.93	1.35	1.75	....	4.22
9	1.67	1.86	....	....	.76	.90	1.37	1.76	....	4.29
10	1.72	1.85	....	1.32	.78	.96	1.42	1.77	....	4.35
11	....	....	....	1.32	.84	.99	1.45	1.77	....	4.35
12	....	....	....	.62	.86	.99	1.45	1.36	....	4.36
13	....	1.82	....	.64	.81	.77	1.25	1.53	....	....
14	....	....	....	.34	.80	.87	1.32	1.66	....	....
15	....	1.22	....	.57	.88	.93	1.38	1.73	....	4.47
16	1.80	1.25	....	.71	.90	.96	1.42	1.75	....	4.15
17	1.83	1.27	1.33	.83	.60	1.01	1.46	1.80	....	3.96

St-13--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Dec.
18	1.31	1.38	0.90	0.67	1.02	1.52	1.80	....	4.07
19	1.32	1.39	.93	.77	1.02	1.52	1.81	....	4.10
20	1.45	1.01	.98	.81	1.01	1.56	1.83	....	4.11
21	1.13	1.01	.87	1.01	1.56	1.89	....	4.11
22	1.22	1.04	.92	1.01	1.37	1.91	....	4.08
23	1.53	1.05	.94	1.05	1.35	....	....	4.13
24	1.38	1.10	.95	1.06	1.38	....	....	4.17
25	1.10	.97	1.06	1.41	....	....	4.23
26	1.10	.97	1.07	1.41	....	....	4.23
27	1.53	....	1.10	.97	1.10	1.44	....	....	4.26
28	1.45	....	.83	.98	1.12	1.43	....	....	4.30
29	1.46	....	.94	.97	1.13	1.48	2.22	....	4.31
30	1.00	.93	1.00	1.48	2.28	....	4.24
3193	....	1.56	2.31	....	....

St-21. Canton Water Department. 3 miles northwest of Canton. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	0.98	0.47	0.08	0.07	0.38	7.61	13.63	17.00	....	21.32
2	....	....	1.00	.50	.08	.09	.40	8.24	13.72	16.87	....	21.85
3	....	1.38	1.01	.51	.10	.09	.42	8.20	13.93	16.67	....	22.22
4	....	1.42	1.07	.50	.10	.09	.44	8.07	14.13	16.56	....	22.32
5	....	1.43	1.10	.51	.10	.19	.45	8.17	14.28	16.65	....	22.43
6	....	1.46	....	.54	.32	.20	.46	8.30	....	16.88	....	22.54
7	....	1.48	....	.54	.32	.18	.48	8.43	....	17.15	....	....
8	1.73	1.49	....	.59	.29	.20	.51	8.56	....	17.24	....	22.98
9	1.72	1.48	....	....	.26	.21	.53	8.71	....	17.07	....	....
10	1.66	1.52	....	.59	.22	.23	.55	8.85	....	16.94	....	23.74
11	1.44	....	....	.58	.19	.24	.56	8.95	....	17.36	....	23.75
12	1.36	....	....	.24	.17	.30	.56	8.90	....	17.86	....	23.42
13	1.32	1.52	....	.14	.16	.24	.43	8.86	....	18.31	....	23.11
14	1.29	1.18	....	.08	.15	.24	.47	8.82	....	18.67	....	22.76
15	....	.74	....	.27	.13	.25	.51	9.13	15.67	19.00	....	22.54
16	1.41	.64	....	.22	.06	.32	.53	9.30	16.07	19.32	....	22.29
17	1.41	.68	.97	.20	.10	.33	.55	9.88	16.15	19.50	80.70	20.75
18	1.40	.71	.96	.19	.09	.33	.59	9.88	16.47	19.50	20.90	20.74
19	1.40	.75	.94	.14	.30	.32	.61	10.30	16.54	19.68	21.00	20.74
20	1.39	.80	.69	.14	.12	.20	.87	10.55	16.12	19.63	21.30	20.56
21	1.38	....	.57	.10	.09	.23	2.12	10.75	16.63	....	21.33	20.49
22	1.38	....	.58	.08	.12	.26	2.74	10.87	16.63	....	21.22	20.60
23	1.41	....	.57	.06	.09	.30	3.27	....	....	....	21.75	21.22
24	1.41	....	.53	.04	.07	.30	3.72	....	....	....	22.15	21.24
25	1.42	....	....	.02	.03	.30	4.07	....	....	....	22.22	21.64
26	1.41	....	....	.04	.03	.34	4.45	....	....	....	22.19	21.64
27	1.40	1.01	....	.08	.03	.35	4.78	....	....	....	21.57	21.80
28	1.40	.99	....	.02	.02	.37	5.09	....	....	....	21.57	21.93
29	1.40	.98	....	.01	.07	.40	5.36	13.24	16.72	....	20.75	21.76
30	1.41	....	....	.02	.05	.35	5.60	13.23	16.70	....	20.94	21.50
31	....	....	....	....	.06	....	6.77	13.50	....	....	....	21.20

St-22. Canton Water Department. 3 miles northwest of Canton. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.26	16.93	16.89	16.93	17.16	18.36	20.48	22.21	....	25.25
2	17.26	16.98	16.90	16.98	17.20	18.52	20.54	22.22	....	25.31
3	17.73	17.26	17.03	16.93	17.00	17.21	18.58	20.65	22.22	24.72	25.39
4	17.92	17.32	17.06	16.94	17.01	17.23	18.64	20.75	22.22	24.72	25.44
5	17.93	17.35	17.10	16.71	17.02	17.27	18.68	20.81	....	24.70	25.51
6	17.92	....	17.13	16.07	17.03	17.27	18.74	....	22.26	24.68	25.56
7	17.94	....	17.16	16.08	17.01	17.31	18.78	....	22.33	24.66	25.66
8	17.00	17.94	....	17.20	16.18	16.99	17.35	18.84	....	22.34	....	25.74

St-22-Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	17.14	.....	.....	.....	16.31	17.00	17.38	18.88	.....	22.34	.....	25.83
10	17.12	.....	.....	17.28	16.40	17.03	17.40	18.94	.....	22.35	24.57	25.95
11	17.12	.....	.....	17.28	16.47	17.05	17.46	18.96	.....	22.46	24.56	26.04
12	17.16	.....	.....	16.90	16.51	17.06	17.47	18.82	.....	22.58	24.55	26.08
13	17.22	17.99	.....	16.32	16.54	16.93	17.37	18.74	.....	22.73	24.54	26.09
14	17.20	17.66	.....	15.89	16.57	16.93	17.31	18.80	.....	22.86	24.52	26.09
15	.....	17.05	.....	15.65	16.60	16.97	17.36	18.89	21.54	22.99	24.52	26.09
16	17.28	17.05	.....	15.92	16.60	17.02	17.40	18.95	21.67	23.13	.....	25.85
17	17.32	17.10	17.26	16.12	16.55	17.05	17.44	19.03	21.74	23.20	24.73	.....
18	.....	17.09	17.22	16.27	16.29	17.09	17.46	19.07	21.87	.....	24.78	.....
19	.....	17.12	17.17	16.38	16.36	17.11	17.48	19.17	21.89	.....	24.84	.....
20	.....	17.14	16.75	16.48	16.42	16.96	17.51	19.22	21.78	23.42	21.70	.....
21	.....	.....	16.48	16.58	16.52	17.01	17.56	19.30	21.91	.....	24.94	.....
22	.....	.....	.....	16.64	16.59	17.06	17.41	19.34	21.91	.....	24.98	.....
23	17.47	.....	.....	16.72	16.68	17.08	17.47	.....	.....	.....	25.07	.....
24	17.53	.....	.....	16.76	16.75	17.12	17.56	.....	.....	.....	25.16	.....
25	.....	.....	.....	16.79	16.79	17.12	17.64	.....	.....	.....	25.23	.....
26	.....	.....	.....	16.86	16.83	17.12	17.73	.....	.....	.....	25.27	.....
27	.....	17.36	.....	16.87	16.86	17.16	17.80	.....	.....	24.24	25.26	.....
28	.....	17.34	.....	16.82	16.89	17.17	17.88	.....	.....	.....	25.16	.....
29	.....	17.27	.....	16.72	16.88	17.20	17.97	20.18	22.13	.....	25.15	25.50
30	.....	.....	.....	16.83	16.93	17.15	18.04	20.27	22.15	.....	25.18	25.60
31	.....	.....	.....	.....	16.93	.....	18.22	20.40	.....	.....	.....	25.46

St-23. Canton Water Department. 3 miles northwest of Canton. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	6.55	6.02	5.80	5.81	6.38	7.06	7.35	7.53	7.66	7.62
2	....	....	6.56	6.06	5.79	5.80	6.41	7.08	7.34	7.54	7.64	7.61
3	....	7.05	6.54	6.10	5.82	5.82	6.45	7.12	7.35	7.54	7.64	7.63
4	....	7.05	6.55	6.10	5.81	5.84	6.46	7.12	7.41	7.59	7.64	7.65
5	....	7.07	6.55	6.12	5.71	5.90	6.49	7.12	7.42	7.60	7.64	7.66
6	....	7.08	....	6.12	5.51	5.89	6.52	7.14	....	7.56	7.64	7.68
7	....	7.09	....	6.12	5.43	5.90	6.57	7.16	....	7.57	7.64	7.74
8	6.81	7.10	....	6.14	5.42	5.96	6.60	7.20	....	7.58	7.63	7.72
9	6.82	7.11	....	....	5.41	5.96	6.62	7.24	....	7.60	7.65	7.74
10	6.85	7.17	....	6.18	5.46	5.98	6.64	7.24	....	7.62	7.64	7.75
11	6.87	....	....	6.00	5.50	6.01	6.68	7.24	....	7.64	7.63	7.78
12	6.86	....	....	5.86	5.50	6.01	6.74	7.09	....	7.63	7.62	7.77
13	6.86	7.11	....	5.67	5.51	6.00	6.66	7.04	....	7.63	7.62	7.77
14	6.92	6.90	....	5.48	5.51	6.04	6.70	7.07	....	7.65	7.61	7.77
15	6.88	6.75	....	5.48	5.54	6.07	6.74	7.11	7.52	7.66	7.62	7.80
16	6.90	6.68	....	5.38	5.53	6.11	6.75	7.14	7.52	7.66	7.61	7.69
17	6.91	6.64	6.59	5.40	5.45	6.10	6.80	7.17	7.54	7.63	7.67	7.49
18	6.94	6.66	6.57	5.40	5.46	6.10	6.78	7.13	7.57	7.54	7.66	7.40
19	6.94	6.58	6.54	5.47	5.43	6.11	6.85	7.15	7.56	7.54	7.65	7.35
20	7.00	6.59	6.59	5.47	5.46	6.10	6.82	7.21	7.46	7.52	7.61	7.35
21	6.94	....	6.26	5.52	5.44	6.16	6.85	7.19	7.45	7.53	7.60	7.39
22	6.95	....	6.21	5.60	5.49	6.14	6.86	7.20	7.46	7.54	7.62	7.37
23	6.97	....	6.26	5.58	5.54	6.16	6.88	.....	.....	7.56	7.66	7.40
24	6.96	....	6.18	5.63	5.59	6.19	6.92	.....	.....	7.56	7.64	7.42
25	6.98	....	....	5.66	5.58	6.19	6.92	.....	.....	7.58	7.66	7.44
26	6.98	....	....	5.73	5.62	6.22	6.94	.....	.....	7.62	7.68	7.46
27	7.00	6.63	....	5.71	5.62	6.24	6.97	.....	.....	7.60	7.67	7.48
28	7.05	6.56	....	5.71	5.65	6.29	6.95	.....	.....	7.60	7.64	7.55
29	7.02	6.55	....	5.74	5.70	6.34	6.98	7.31	7.52	7.61	7.63	7.50
30	7.04	....	....	5.75	5.73	6.34	7.01	7.33	7.51	7.62	7.66	7.47
31	....	....	....	....	5.76	....	7.03	7.36	.....	7.62	.....	7.47

Summit County

Su-1. Village of Hudson. In Hudson. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	23.60	24.33	23.90	23.26	23.30	23.29	23.08	22.49	22.24	22.17	22.00	21.70
2	23.60	24.38	23.61	23.50	23.63	23.26	23.01	22.53	22.22	22.23	22.07	21.65
3	23.80	24.40	23.55	23.49	23.79	23.30	22.91	22.52	22.25	22.31	22.02	21.77
4	23.75	24.47	23.80	23.22	23.59	23.60	22.81	22.50	22.38	22.23	22.05	22.10
5	23.90	24.13	23.77	23.29	23.63	23.65	22.82	22.42	22.34	22.32	22.00	22.00
6	23.70	24.17	23.60	23.55	23.53	23.48	22.62	22.51	22.38	22.33	21.96	22.72
7	23.72	24.10	23.70	23.51	23.57	23.00	22.72	22.49	22.30	22.28	22.01	22.28
8	23.37	24.35	23.61	23.60	.....	23.15	22.80	22.47	22.30	22.27	22.00	22.04
9	23.62	24.40	23.60	23.71	.....	23.20	22.80	22.46	22.32	22.30	21.90	21.98
10	23.40	24.42	23.51	23.62	23.70	23.19	22.82	22.41	22.22	22.29	22.04	21.97
11	24.12	24.48	.....	23.42	23.71	23.28	22.88	22.33	22.02	22.16	22.02	21.81
12	23.90	24.40	.....	23.02	23.78	23.21	22.90	.....	22.22	22.15	21.97	21.72
13	23.82	24.23	23.54	23.38	.....	23.20	22.71	.....	22.32	22.13	22.04	21.67
14	24.04	24.58	23.38	22.98	23.90	23.21	22.60	22.26	22.57	22.23	21.85	21.75
15	23.91	24.34	23.60	23.37	23.71	23.11	22.60	22.24	22.40	22.26	21.91	21.60
16	23.98	24.18	23.62	23.22	23.59	22.85	22.59	22.08	22.35	22.18	21.78	21.51
17	24.22	24.15	23.46	23.46	23.59	23.05	22.60	22.02	22.50	22.10	21.83	21.60
18	24.25	24.11	23.32	23.38	23.50	23.15	22.60	21.90	22.63	22.20	21.72	21.49
19	23.84	24.02	23.31	23.40	23.43	23.10	22.61	21.90	22.58	22.11	21.71	21.38
20	23.72	24.21	23.28	23.31	23.30	23.06	22.62	21.91	22.37	22.63	21.80	21.46
21	24.10	24.20	23.08	23.50	23.29	22.89	22.71	21.90	22.28	22.43	21.85	21.46
22	23.92	24.00	23.52	.....	23.37	22.85	22.60	21.92	22.24	22.30	21.62	21.43
23	24.30	24.22	23.16	.....	23.40	22.99	22.72	21.96	22.23	22.19	21.69	21.52
24	24.27	23.95	23.60	.....	23.40	23.22	22.79	21.90	22.24	22.10	21.63	21.46
25	24.30	23.80	23.61	.....	23.32	23.19	22.70	21.90	22.30	22.10	21.70	20.92
26	24.32	23.90	23.24	23.71	23.32	23.13	22.60	22.13	22.30	22.42	21.61	20.88
27	24.44	23.70	22.78	23.64	23.26	23.05	22.53	22.23	22.32	22.28	21.65	20.95
28	24.44	23.90	23.01	23.61	23.24	22.95	22.58	22.25	22.31	22.29	21.58	21.22
29	24.41	24.03	23.00	23.72	23.22	22.95	22.54	22.23	22.23	22.11	21.70	21.20
30	24.21	.....	23.31	23.71	23.30	22.98	22.46	22.30	22.20	22.06	21.65	21.75
31	24.33	.....	23.22	.....	23.26	.....	22.50	22.28	.....	22.02	.....	21.81

Su-2. Firestone Tire & Rubber Co. In Akron. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	16.55	11.42	6.10	5.13	.....	42.37	24.90	46.23	52.60	64.70	.....
2	16.00	11.34	5.88	.....	.....	44.97	24.32	48.13	52.68	64.70	.....
3	15.80	11.29	5.75	.....	.....	46.88	24.10	47.30	52.68	57.10	34.05
4	15.28	11.12	5.97	.....	41.10	46.70	23.36	47.90	52.70	53.20	33.98
5	14.80	11.10	5.97	.....	41.23	47.03	22.50	47.40	52.70	.....	33.50
6	14.54	10.84	5.80	5.02	39.30	46.59	44.39	47.30	56.30	.....	33.10
7	14.12	10.82	5.68	4.91	38.90	46.30	46.10	47.14	56.70	.....	32.86
8	13.93	10.89	5.80	4.94	39.10	47.07	46.29	46.50	56.50	.....	32.30
9	13.70	10.88	5.82	31.00	39.10	46.30	46.20	49.32	56.52	.....	32.13
10	13.70	10.70	5.87	36.60	38.24	46.60	46.30	47.00	56.54	.....	31.83
11	13.66	10.52	5.80	37.70	38.50	46.85	35.10	47.70	56.47	.....	31.54
12	13.31	10.35	5.81	36.87	38.63	46.85	45.87	47.28	55.33	.....	30.58
13	13.20	10.29	5.89	38.22	40.06	46.44	46.24	47.44	59.10	.....	30.10
14	13.10	.....	5.87	38.31	40.83	.....	46.19	48.30	58.92	.....	30.10
15	13.10	.....	5.77	38.32	40.50	45.23	46.13	.....	58.47	.....	29.90
16	12.90	.....	5.71	38.31	40.11	45.50	46.14	49.50	58.49	.....	29.60
17	12.90	6.00	5.70	.....	40.70	46.30	46.19	47.90	59.19	.....	29.23
18	12.73	5.89	5.50	.....	40.70	46.30	46.10	49.40	58.70	.....	28.39
19	12.70	5.70	5.32	.....	40.72	47.50	46.14	49.50	59.50	.....	27.30
20	12.50	5.94	.....	37.34	40.36	46.62	47.10	48.70	.....	.....	26.70
21	12.30	5.90	.....	39.08	40.97	.....	46.30	49.08	.....	.....	.....
22	12.20	6.02	.....	40.36	41.35	46.69	46.30	49.90	.....	.....	.....
23	12.30	6.10	5.00	40.33	41.35	46.70	46.50	50.67	.....	.....	.....
24	12.30	6.10	5.30	40.30	39.75	46.96	46.17	50.10	.....	.....	.....
25	12.10	6.07	5.30	.....	42.33	46.92	38.50	48.50	.....	.....	.....
26	12.08	6.10	5.10	37.51	45.04	46.70	47.13	48.63	.....	.....	.....
27	11.90	6.10	5.30	31.30	44.80	46.59	46.72	49.33	.....	.....	.....

a Estimated.

Su-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
28	11.88	6.00	5.30	.....	46.90	27.50	47.08	49.60	.....	.....	.....
29	11.69	6.10	5.13	.....	46.88	26.50	47.50	46.10	.....	.....	.....
30	11.65		5.20	.....	34.45	25.80	47.80	52.70	.....	.....	.....
31	11.60		5.10		47.20		48.30	52.60	.....	.....	.....

Su-3. Goodyear Rubber Co. In Akron. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.20	27.50	23.57	20.08	19.07	19.73	29.75	42.70	53.12	55.24	55.50	55.05
2	32.86	27.37	23.40	20.02	19.10	19.89	30.20	43.12	53.40	55.23	55.47	54.72
3	32.70	27.25	23.26	19.98	19.06	20.37	30.66	43.52	53.71	55.23	55.46	54.22
4	32.45	27.10	23.20	19.92	19.02	20.97	30.75	43.97	53.98	55.23	55.42	.....
5	32.20	26.95	23.20	19.75	18.86	21.37	30.67	44.42	54.24	55.23	55.42	.....
6	31.98	26.84	23.07	19.60	18.65	21.37	30.37	44.85	54.40	55.23	55.36	.....
7	31.73	26.75	.....	19.52	18.53	21.05	30.84	45.29	54.51	55.27	55.32	.....
8	31.52	26.57	.....	19.51	18.43	20.69	31.34	45.75	54.60	55.35	55.32	.....
9	31.24	26.52	.....	19.51	18.40	20.45	31.84	45.84	54.71	55.37	55.29	.....
10	31.10	26.40	.....	19.45	18.25	20.92	32.38	45.95	54.81	55.37	55.26	48.92
11	30.95	26.30	.....	19.25	18.33	21.70	32.52	46.20	54.88	55.37	55.25	48.55
12	30.69	26.11	.....	19.11	18.42	22.21	32.74	46.47	54.95	55.38	55.25	47.84
13	30.50	25.99	22.30	19.08	18.41	22.21	33.18	46.85	55.01	55.40	55.29	47.19
14	30.27	25.66	22.24	18.92	18.38	22.25	33.68	47.22	55.06	55.41	55.30	46.55
15	30.15	25.34	22.07	18.82	18.30	22.83	34.20	47.55	55.09	55.50	55.30	45.94
16	29.95	25.20	21.94	18.68	18.23	23.47	34.78	47.60	55.12	55.50	55.35	45.25
17	29.85	25.05	21.86	18.66	18.13	24.10	35.32	47.58	55.15	55.50	55.36	44.17
18	29.70	24.95	21.82	18.55	18.07	24.63	35.86	47.90	55.15	55.50	55.38	44.14
19	29.55	24.80	21.67	18.40	18.56	24.96	36.37	48.26	55.17	55.50	55.51	43.60
20	29.35	24.75	21.57	18.30	18.86	25.00	36.90	48.65	55.17	55.50	55.50	43.06
21	29.14	24.66	21.40	18.14	19.25	25.15	37.42	48.98	55.20	55.50	55.52	42.56
22	28.91	24.52	21.25	18.08	19.40	25.46	37.92	49.38	55.21	55.50	55.52	42.06
23	28.80	24.39	21.17	18.00	19.40	25.90	38.43	49.75	55.22	55.50	55.52	41.67
24	28.70	24.30	21.03	17.92	19.18	26.41	38.94	50.11	55.27	55.50	55.52	41.18
25	28.50	24.15	20.98	17.82	19.15	26.93	39.45	50.46	55.27	55.50	55.52	40.63
26	28.40	23.98	20.82	17.85	19.00	27.47	39.88	50.84	55.27	55.50	55.52	40.24
27	28.22	23.88	20.64	18.05	19.35	27.94	40.38	51.23	55.27	55.50	55.50	39.85
28	28.10	23.65	20.56	18.12	19.64	28.37	40.85	51.76	55.27	55.50	55.46	39.45
29	27.90	23.60	20.53	18.59	19.89	28.78	41.30	52.12	55.27	55.50	55.38	39.08
30	27.75		20.34	18.75	20.07	29.25	41.79	52.47	55.27	55.50	55.27	38.69
31	27.68		20.23		20.07		42.25	52.80		55.50		38.37

Su-4. Firestone Tire & Rubber Co. In Akron. Records available: 1947-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.10	8.80	4.04	1.35	8.51	9.59	13.69	19.36	24.46	27.60	29.79	27.76
2	12.88	8.72	3.78	1.40	7.30	9.95	13.60	20.21	24.70	27.73	31.02	27.50
3	12.80	8.60	3.02	1.50	8.03	10.48	13.55	20.51	24.90	27.60	31.52	27.30
4	12.63	8.49	3.75	2.52	8.58	11.09	13.13	20.90	25.06	27.26	31.80	27.00
5	12.43	8.40	3.75	2.02	8.70	11.10	12.81	21.60	25.06	27.60	32.10	26.76
6	12.30	8.30	3.52	1.20	8.50	11.06	14.13	21.59	23.01	27.85	32.20	26.50
7	12.05	8.22	3.24	1.08	8.54	10.60	14.48	21.60	24.10	28.05	29.69	26.31
8	11.90	8.13	3.26	.93	8.59	11.29	14.62	20.58	24.70	28.21	31.10	25.90
9	11.69	8.08	3.20	2.02	7.92	11.62	15.41	21.01	25.02	28.35	32.00	25.80
10	11.63	7.92	3.10	2.43	7.65	11.80	15.41	21.74	25.26	28.10	32.50	25.60
11	11.53	7.80	3.08	1.83	8.39	12.18	15.24	22.01	25.40	28.10	32.76	25.40
12	11.30	7.62	3.08	2.79	8.40	12.45	15.87	22.26	25.00	28.40	32.86	25.18
13	11.17	7.55	2.99	3.36	8.40	12.58	16.80	22.48	24.60	28.60	33.00	24.99
14	10.93	7.21	2.90	4.30	8.70	12.12	17.28	22.51	25.40	28.75	33.00	24.80
15	10.92	6.98	2.70	4.00	8.76	13.12	17.60	21.65	25.70	28.90	32.30	24.60
16	10.74	6.44	2.57	5.32	7.90	13.50	18.00	21.91	25.90	29.03	32.71	24.37
17	10.68	6.00	2.58	5.50	7.85	13.83	18.13	21.90	26.01	29.02	33.02	24.20
18	10.52	5.72	2.50	5.60	8.57	14.10	18.03	21.98	26.14	28.44	33.10	24.00
19	10.42	5.46	2.30	5.35	8.82	14.12	16.22	22.89	26.05	28.95	33.16	23.70

Su-4--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	10.27	5.30	2.14	6.14	8.82	14.10	17.60	23.20	25.02	29.22	33.50	23.50
21	10.00	5.28	1.90	6.45	8.86	13.61	18.38	23.46	26.32	29.30	33.52	23.30
22	9.82	4.90	1.78	6.96	8.91	14.70	18.76	23.50	26.60	29.30	32.73	23.10
23	9.87	4.77	1.73	7.29	8.39	15.25	19.10	22.01	26.78	29.55	33.30	.....
24	9.80	4.68	1.80	7.65	7.90	15.30	19.10	23.44	26.90	29.46	33.20	.....
25	9.62	4.45	1.80	6.99	8.40	15.63	18.01	23.80	27.02	29.00	30.50	.....
26	9.54	4.28	1.60	7.78	8.96	15.91	18.76	24.05	26.60	29.50	29.60	.....
27	9.40	4.20	1.63	8.20	9.57	15.76	18.90	24.22	26.41	29.63	29.00	.....
28	9.30	4.00	1.66	8.13	9.54	14.85	19.99	24.26	26.95	29.08	28.70	21.80
29	9.10	4.03	1.60	8.27	9.72	14.09	20.24	22.90	27.20	28.54	28.39	21.72
30	9.02		1.50	8.58	9.66	13.76	20.50	23.61	27.40	29.41	28.09	21.60
31	8.98		1.36		8.65		20.60	24.18		27.90		21.40

Su-5. Hawthornden State Hospital. 3 miles northwest of Macedonia. Recorder removed and measurements discontinued after Sept. 20. Records available: 1947-48.

Lowest daily water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 5	30.06	June 12	32.52	Aug. 9	34.43	Aug. 28	33.66
6	30.00	18	32.72	10	34.62	30	33.76
7	29.68	19	32.82	11	34.52	31	33.90
8	29.68	July 23	33.54	12	34.45	Sept. 1	34.00
9	29.68	24	33.69	13	34.22	2	33.93
28	31.12	25	33.72	14	33.98	3	34.00
29	31.35	28	33.75	15	33.97	4	34.21
30	31.54	29	33.75	16	34.04	5	34.28
31	31.75	30	33.74	17	33.94	6	34.26
June 1	31.93	31	33.74	18	33.86	7	34.34
2	31.93	Aug. 1	33.82	19	33.56	14	34.91
3	32.02	2	33.94	20	33.30	15	34.92
4	32.06	3	34.22	23	33.36	16	35.01
5	32.38	4	34.16	24	33.28	17	35.08
6	32.45	5	34.12	25	33.34	18	35.06
7	32.31	6	34.16	26	33.54	19	34.97
8	32.26	8	34.33	27	33.60	20	34.96
11	32.54						

Su-6. Goodyear Rubber Co. In Akron. Records available: 1944-48.

Jan. 16	35.00	Apr. 23	26.65	July 16	51.05	Oct. 15	54.85
23	33.58	30	31.10	23	52.16	22	54.60
30	31.67	May 7	31.80	30	54.00	29	54.00
Feb. 6	31.30	14	35.35	Aug. 6	49.00	Nov. 5	54.50
13	30.66	21	44.00	20	49.00	12	55.26
20	29.14	28	36.90	27	55.15	19	55.50
27	30.00	June 4	38.65	Sept. 3	55.50	26	54.08
Mar. 12	29.93	11	42.35	10	55.80	Dec. 3	54.30
19	29.25	18	41.50	17	56.70	12	49.60
26	28.70	25	42.80	24	55.80	17	48.42
Apr. 2	28.35	July 2	42.00	Oct. 1	55.75	24	47.20
9	27.95	9	47.65	8	55.10	31	45.52
16	27.35						

Trumbull County

T-2. Copperweld Steel Co. About 3 miles northwest of Warren. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	36.08	38.39	36.76	33.66	33.11	32.18	35.56	35.50	36.86	41.95	41.15	40.02
2	35.83	37.78	37.00	33.62	32.79	32.89	35.48	35.48	36.38	41.95	41.27	39.88

T-2--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	36.01	37.45	36.96	33.50	33.46	33.58	35.06	35.97	36.43	41.82	41.09	39.96
4	35.58	37.22	36.72	33.34	33.65	34.01	35.06	35.97	36.70	41.52	40.72	39.28
5	35.24	37.65	36.91	33.67	33.63	34.00	34.73	35.72	36.70	41.57	40.88	36.75
6	35.46	38.24	36.58	33.85	33.62	33.43	34.16	35.47	36.58	41.64	40.78	36.24
7	35.31	38.43	35.68	34.03	33.80	32.34	34.27	35.69	36.85	41.80	40.44	38.34
8	35.26	40.22	35.41	34.50	33.68	32.31	34.35	35.60	37.50	41.82	40.09	39.22
9	35.18	41.44	35.47	34.72	33.12	32.43	34.66	35.16	37.85	41.52	39.96	39.76
10	35.93	40.64	35.30	34.66	33.48	33.12	34.71	34.26	37.79	41.20	39.93	40.31
11	35.68	40.65	35.34	34.61	34.44	33.64	34.70	34.70	37.24	41.06	40.11	40.30
12	34.31	40.30	35.63	34.76	34.48	33.60	34.86	34.80	36.78	41.13	39.86	40.25
13	34.80	38.99	35.52	34.94	34.13	33.87	35.03	35.17	37.15	41.12	39.40	40.20
14	35.60	37.88	35.16	34.68	33.13	34.39	35.08	35.18	37.25	41.52	39.17	40.19
15	36.38	37.54	35.09	34.58	32.63	35.07	35.40	35.18	38.06	41.86	39.24	40.06
16	37.36	36.92	35.22	34.08	32.05	35.06	35.82	35.70	38.52	41.86	39.20	39.02
17	37.37	36.88	35.27	33.81	31.75	35.25	35.82	36.01	40.45	41.62	39.62	39.54
18	36.68	37.05	35.40	33.69	31.96	35.43	35.63	36.16	40.57	41.36	39.60	39.51
19	36.48	37.14	35.40	34.67	31.79	35.46	35.88	36.44	40.57	41.03	39.80	39.10
20	36.87	37.59	35.12	35.58	31.75	35.38	36.23	36.43	40.54	41.31	40.26	39.29
21	37.90	37.41	34.70	35.57	32.15	35.12	36.20	36.18	38.86	41.32	40.27	39.59
22	39.20	37.26	34.58	34.32	31.99	35.45	36.09	35.60	40.05	41.59	40.94	39.70
23	39.22	36.89	34.47	34.24	31.46	35.32	36.10	35.60	40.16	41.59	41.66	39.67
24	39.08	36.61	34.71	34.13	31.43	35.39	36.14	36.25	40.60	41.30	41.88	39.38
25	38.27	36.17	34.79	33.88	31.43	35.43	35.93	36.89	40.75	41.42	41.61	38.87
26	38.87	36.67	35.15	34.37	31.74	35.22	35.62	37.27	40.68	41.60	40.90	38.46
27	39.21	36.75	35.17	34.38	31.38	34.91	35.55	37.78	40.82	41.63	40.38	38.66
28	39.36	36.44	34.76	34.29	31.75	35.47	35.76	37.79	41.48	41.51	40.20	38.98
29	39.37	36.41	34.22	33.93	31.74	36.14	35.79	37.65	41.74	41.00	39.88	39.24
30	39.58		34.18	33.20	31.51	35.91	35.82	37.25	41.84	41.12	39.78	39.30
31	39.01		33.99		31.52		35.22	37.17		41.02		39.18

Tuscarawas County

Tu-1. Everett Waltz. About 3 miles north of Strasburg. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.12	12.94	11.26	9.78	8.87	10.17	11.47	12.39	12.77	13.08	13.18	12.97
2	13.07	12.96	11.25	9.81	8.94	10.25	11.51	12.41	12.78	13.08	13.21	12.95
3	12.97	12.97	11.22	9.38	9.07	10.32	11.54	12.43	12.80	13.08	13.20	12.93
4	12.77	12.97	11.22	9.90	9.13	10.38	11.58	12.44	12.82	13.08	13.18	12.90
5	12.74	12.97	11.23	9.96	9.14	10.47	11.60	12.45	12.84	13.09	13.18	12.90
6	12.72	12.97	11.24	10.00	9.05	10.51	11.65	12.47	12.84	13.09	13.17	12.90
7	12.72	12.97	11.26	10.00	8.96	10.55	11.69	12.47	12.84	13.09	13.15	12.89
8	12.72	12.98	11.29	10.05	8.96	10.63	11.74	12.51	12.88	13.09	13.15	12.89
9	12.72	.....	11.31	10.14	8.96	10.70	11.77	12.54	12.89	13.11	13.13	12.89
10	12.72	.....	11.35	10.18	9.02	10.74	11.80	12.58	12.90	13.11	.....	12.90
11	12.72	.....	11.40	10.20	9.09	10.79	11.83	12.58	12.91	13.12	.....	12.91
12	12.72	13.08	11.45	9.97	9.17	10.84	11.87	12.50	12.93	13.16	.....	12.91
13	12.72	13.08	11.48	9.20	9.23	.....	11.90	12.38	12.94	13.16	.....	12.91
14	12.72	12.66	11.49	8.91	9.26	10.82	11.93	12.34	12.97	13.16	.....	12.91
15	.....	12.07	11.52	8.50	9.24	10.83	11.96	12.36	12.97	13.17	.....	12.84
16	.....	11.77	11.52	8.30	9.34	10.92	11.98	12.39	12.97	13.17	.....	12.78
17	12.74	11.61	11.45	8.26	9.43	10.98	12.01	12.44	12.99	13.17	.....	12.48
18	12.75	11.51	11.33	.....	9.29	11.01	12.04	12.47	12.99	13.16	13.17	12.23
19	12.76	11.40	11.23	.....	9.31	11.06	12.07	12.49	13.02	13.07	13.17	12.10
20	12.77	11.28	11.02	.....	9.34	11.10	12.10	12.53	13.02	13.04	13.17	12.04
21	12.77	11.20	10.86	8.25	9.40	11.17	12.12	12.56	13.03	13.04	13.17	12.01
22	12.78	11.25	10.64	8.27	9.47	11.21	12.14	12.59	13.03	13.04	13.14	12.01
23	12.82	11.31	10.56	8.28	9.54	11.25	12.16	12.60	13.03	13.06	13.11	12.01
24	12.82	11.34	10.51	8.30	9.61	11.28	12.18	12.63	13.03	13.07	13.10	12.03
25	.....	11.38	10.41	8.32	9.68	11.32	12.21	12.64	13.04	13.07	13.10	12.05
26	.....	11.39	10.23	8.44	9.75	11.37	12.23	12.66	13.04	13.09	13.10	12.08
27	.....	11.34	10.09	8.54	9.81	11.40	12.24	12.68	13.06	13.11	13.10	12.10

Tu-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
28	.....	11.34	9.95	8.57	9.88	11.43	12.30	12.69	13.08	13.14	13.09	12.12
29	12.90	11.31	9.85	8.64	9.97	11.44	12.32	12.71	13.08	13.16	13.06	12.13
30	12.91	.....	9.75	8.74	10.05	11.44	12.34	12.94	13.08	13.17	13.00	12.13
31	12.92	.....	9.80	.....	10.12	.....	12.37	12.77	.....	13.18	.....	12.06

Union County

U-1. S. F. McIntyre. Formerly owned by Irwin Public School. In Irwin. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	9.45	.....	8.08	.....	8.96	9.18	9.59	9.16	10.06	10.19	.....	.....
2	7.36	.....	8.08	.....	8.97	9.21	9.45	9.22	10.08	10.22	.....	.....
3	7.44	9.10	8.10	8.40	8.16	9.23	9.53	9.28	10.10	10.22	.....	8.48
4	7.74	9.09	8.32	8.52	8.16	9.25	9.58	9.29	10.13	10.22	.....	8.58
5	7.96	9.13	8.40	8.10	8.00	9.29	9.61	9.32	10.16	10.22	9.80	8.62
6	8.10	9.24	8.46	7.28	.....	9.29	9.65	9.37	10.15	10.21	8.00	8.77
7	8.28	9.25	8.64	7.66	.....	9.26	9.70	9.40	10.13	10.21	8.06	8.81
8	8.38	9.27	8.70	7.96	.....	9.29	9.73	9.45	10.16	10.22	8.25	8.91
9	8.38	9.30	8.75	8.14	.....	9.34	9.75	9.49	10.16	10.24	8.44	8.96
10	8.41	9.37	8.81	8.21	8.60	.....	9.78	9.52	10.17	10.24	8.62	9.02
11	8.52	.....	8.87	.....	8.68	9.40	9.80	9.54	10.21	10.22	8.73	.....
12	8.63	10.51	8.90	.....	8.71	9.40	9.80	9.52	10.25	10.24	8.77	.....
13	8.72	10.47	8.92	.....	7.84	9.39	9.81	9.56	10.27	10.25	8.81	.....
14	8.82	7.48	8.94	.....	7.74	9.42	9.74	9.61	10.29	10.26	8.78	.....
15	8.85	7.69	8.76	6.97	8.00	9.44	8.74	9.64	10.30	10.26	8.83	.....
16	8.96	7.79	8.16	7.53	8.21	9.47	8.81	9.67	10.31	10.25	8.84	.....
17	9.02	7.71	8.32	7.82	8.10	9.49	8.76	9.68	10.32	10.23	8.91	.....
18	9.06	7.86	8.37	8.03	.....	9.50	8.66	9.68	10.32	9.81	8.94	.....
19	9.10	8.07	8.36	8.18	8.40	9.52	8.80	9.63	10.34	9.81	8.94	.....
20	9.41	.....	.....	8.33	8.48	9.47	8.95	9.68	10.33	9.92	8.58	.....
21	9.43	8.46	.....	8.54	8.62	9.51	9.02	9.72	10.24	9.94	8.56	.....
22	9.45	8.64	.....	8.64	8.70	9.53	9.02	9.76	10.23	9.95	8.67	8.50
23	9.48	8.76	.....	8.67	8.79	9.56	9.03	9.81	10.26	9.95	8.77	8.48
24	9.48	8.81	.....	8.73	8.85	9.60	9.46	9.83	10.28	9.95	8.85	8.55
25	9.53	8.81	.....	8.77	8.90	9.63	8.67	9.87	10.30	9.95	8.93	8.62
26	9.53	9.70	7.45	8.83	8.95	.....	8.83	9.91	10.32	9.95	8.95	8.76
27	9.53	8.45	7.36	8.85	8.98	.....	8.91	9.93	10.32	9.96	8.90	8.78
28	.....	7.30	6.25	8.89	9.03	.....	8.80	9.97	10.33	.....	8.71	8.84
29	.....	.....	.....	8.92	9.07	9.47	8.80	10.03	10.32	.....	.....	8.87
30	.....	.....	.....	8.93	9.12	9.27	8.94	10.00	10.17	.....	.....	.....
31	.....	.....	.....	.....	9.15	.....	9.06	.....	.....	.....	.....	8.66

U-2. J. B. Gray. About 1 mile north of Byhalia. Records available: 1946-48. Measurements discontinued Nov. 26, 1948.

Lowest daily water level, from recorder charts

Day	Jan.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.
1	.....	.....	.....	.....	.....	12.74	.....	17.50	17.28
2	.....	.....	.....	11.60	.....	12.75	.....	17.52	17.29
3	.....	11.08	11.84	11.70	12.27	12.74	.....	17.56	17.32
4	.....	11.31	11.90	11.67	12.35	12.72	.....	17.52	17.25
5	.....	11.42	11.87	11.68	12.51	12.78	.....	17.47	17.24
6	.....	11.43	11.85	11.67	12.51	12.77	.....	17.47	17.20
7	.....	11.30	11.41	11.71	12.51	.....	.....	17.45	17.07
8	.....	11.42	11.40	11.67	12.59	.....	.....	17.42	16.14
9	.....	11.51	11.62	11.56	12.74	.....	.....	17.44	16.05
10	.....	11.58	11.74	.....	.....	.....	.....	17.47	15.98
11	.....	.....	.....	11.59	.....	.....	.....	17.40	15.97
12	11.09	.....	.....	11.17	.....	.....	.....	17.45	16.07
13	11.08	.....	.....	11.60	.....	.....	.....	17.46	16.09
14	11.24	.....	.....	11.33	.....	.....	.....	17.50	16.05
15	11.29	.....	.....	.....	12.66	.....	.....	17.47	16.04

U-2--Continued.

Lowest daily water level, from recorder charts									
Day	Jan.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.
16	11.43	.....	.....	.....	12.84	.....	.....	17.40	15.99
17	11.48	.....	.....	.....	12.93	.....	.....	17.28	16.03
18	11.60	.....	.....	.....	12.74	.....	.....	17.27	16.00
19	11.66	11.63	10.51	.....	12.64	.....	.....	17.30	16.00
20	.....	11.71	10.64	.....	12.65	.....	.....	.....	15.92
21	.....	11.65	10.89	.....	12.68	.....	.....	17.27	15.28
22	.....	11.57	11.05	.....	12.70	.....	17.70	17.26	15.23
23	.....	11.43	11.11	.....	12.67	.....	17.77	17.24	15.27
24	.....	.....	11.26	.....	12.66	.....	17.80	17.28	15.30
25	.....	.....	11.32	.....	12.63	.....	17.88	17.30	15.35
26	.....	.....	11.43	.....	12.72	.....	17.85	17.28	15.30
27	.....	.....	.....	.....	12.75	.....	17.83	17.29	.....
28	.....	.....	.....	.....	12.72	.....	17.78	17.29	.....
29	.....	.....	.....	.....	12.77	.....	17.75	17.30	.....
30	.....	.....	.....	.....	12.77	.....	17.51	17.32	.....
31	.....	.....	.....	.....	.....	.....	.....	17.30	.....

Warren County

W-1. On farm of radio station WLW, 1 mile southeast of Mason.
Records available: 1946-48.

Lowest daily water level, from recorder charts												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.00	3.88	1.45	1.17	3.70	4.40	4.90	....	....	a5.75	....	....
2	.85	3.93	1.46	1.60	3.70	....	4.85	....	....	....	....	....
3	.95	3.95	1.05	1.85	3.58	....	4.89	....	5.76	....	....	a1.85
4	1.10	3.96	1.47	2.10	3.55	a4.55	4.95	....	5.79	....	....	....
5	1.17	4.00	1.75	2.31	2.97	....	5.06	....	5.80	....	a4.50	....
6	1.08	4.00	1.65	2.31	2.75	....	5.07	a4.45	5.82	....	....	....
7	1.25	4.00	1.05	.99	2.39	....	5.14	....	5.87	....	....	....
8	1.27	4.03	1.28	1.32	2.08	....	....	....	....	a5.70	....	....
9	1.17	4.03	1.49	1.67	2.48	....	5.24	....	....	....	....	....
10	1.37	4.01	1.70	1.90	2.85	....	5.29	....	5.90	....	....	a2.60
11	1.54	4.01	1.94	1.96	3.10	a4.70	5.34	....	5.92	....	....	....
12	1.40	4.00	2.10	.48	3.19	4.77	5.45	....	5.94	....	a3.75	....
13	1.26	3.49	2.17	.52	3.22	4.74	5.48	a4.70	5.96	....	....	....
14	....	.95	2.13	.61	3.31	4.75	....	....	5.98	....	....	....
15	....	1.12	2.09	.96	3.41	4.76	....	....	6.01	a5.90	....	....
16	2.47	1.02	.84	1.52	3.42	4.80	a5.55	....	6.03	....	....	....
17	2.66	.93	1.20	1.85	3.48	4.80	....	....	6.05	....	....	a1.00
18	....	.92	1.47	2.13	3.45	4.83	....	....	....	....	....	....
19	....	1.10	1.45	2.42	3.55	4.87	....	....	....	....	a2.60	....
20	....	1.30	.95	2.68	3.62	4.92	....	a5.05	....	....	....	....
21	....	1.55	1.35	2.88	3.72	4.95	....	....	....	....	....	....
22	....	1.62	1.15	3.02	3.80	5.00	....	....	....	a5.60	....	....
23	....	1.75	.94	3.12	3.87	5.05	a5.00	....	....	....	....	....
24	....	1.20	.85	3.25	3.94	5.10	....	....	a5.90	....	....	a2.30
25	....	.81	1.25	3.35	3.99	5.14	....	....	....	....	....	....
26	....	.75	1.28	3.45	4.04	5.18	....	....	....	....	....	....
27	....	.82	.78	3.51	4.08	5.23	....	a5.50	....	....	a1.70	....
28	....	.97	1.16	3.57	4.16	5.27	....	....	....	....	....	....
29	....	1.30	1.62	3.62	4.22	5.28	....	....	....	a5.70	....	....
30	3.82	....	1.82	3.66	4.30	4.98	a4.75	....	....	....	....	....
31	3.64	....	1.83	....	4.36	....	....	....	....	....	....	a2.10
a Tape measurement.												

a Tape measurement.

W-2. Lebanon Water Department. In Lebanon. Records available: 1947-48.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	17.04	.....	16.54	16.71	15.54	15.54	16.23	17.64	19.67	19.10	19.06
2	17.35	.....	16.32	16.94	15.55	15.74	16.52	17.55	19.72	18.94	19.07
3	17.52	.....	16.43	16.14	15.54	15.75	16.27	16.93	19.84	19.14	18.77
4	17.67	.....	16.44	16.93	15.44	15.94	17.16	17.00	19.72	19.13	18.81
5	17.59	.....	16.29	15.97	16.30	16.49	16.44	17.63	19.72	18.89	18.77 18.39
6	16.16	.....	16.38	15.95	16.64	15.94	16.77	16.93	19.17	19.00	19.27 18.34
7	16.04	.....	16.26	16.04	16.39	15.90	17.25	16.84	19.45	18.94	19.24 19.09
8	16.44	.....	16.50	16.04	15.30	16.05	16.24	16.75	19.83	18.93	19.34 18.45
9	16.24	.....	16.49	15.87	15.64	15.97	16.45	17.54	19.62	21.06	18.74 18.46
10	16.42	.....	16.61	15.94	15.29	16.05	17.34	17.32	18.64	19.67	18.93 18.46
11	.....	.....	16.41	15.80	15.29	15.77	16.84	17.71	18.48	18.75	19.70 18.36
12	.....	.....	16.44	15.86	15.56	17.65	16.29	16.86	18.66	19.60	18.85
13	.....	.....	16.57	15.72	15.54	15.91	16.32	16.76	18.35	18.86	19.01 18.47
14	.....	.....	16.84	15.51	15.44	16.14	16.38	16.84	19.75	18.84	18.94 18.44
15	.....	.....	16.32	15.40	15.44	16.15	16.52	17.04	20.33	19.54	19.22 18.40
16	16.34	.....	16.51	15.83	15.43	15.96	17.56	17.74	18.88	18.74	18.84 18.42
17	16.36	.....	16.54	15.56	15.50	15.95	16.64	17.92	19.80	18.82	19.75 18.36
18	16.33	.....	16.43	15.64	15.59	15.94	17.24	18.31	19.02	18.74	19.22 18.26
19	15.98	16.54	16.42	15.61	15.25	15.92	16.72	18.11	19.14	18.86	18.94 18.08
20	.....	16.51	16.26	15.56	15.14	15.91	17.91	17.42	21.35	19.24	18.84 18.48
21	.....	16.53	16.32	15.44	15.14	15.86	16.97	17.43	20.76	19.75	19.17 18.33
22	.....	16.34	16.30	15.34	15.34	16.07	16.66	17.57	20.59	18.81	18.35 18.36
23	.....	17.06	16.36	15.46	15.44	16.74	16.53	17.26	18.85	18.84	18.34 18.21
24	.....	16.53	17.10	.....	16.34	16.14	16.84	18.52	19.70	18.78	18.34 18.14
25	.....	16.39	17.02	15.65	15.51	17.24	16.72	18.56	.....	18.76	18.44 18.31
26	.....	16.52	15.94	15.44	15.86	17.35	16.94	18.64	19.14	18.94	18.56 17.91
27	.....	16.57	15.93	15.43	15.86	16.38	16.66	19.56	19.74	19.04	18.62 18.61
28	.....	17.72	15.73	15.35	15.80	16.45	16.57	19.64	19.06	18.76	..... 19.13
29	.....	16.54	16.07	15.43	15.96	16.42	16.73	19.61	19.17	18.92	..... 18.30
30	.....	.....	16.07	15.49	15.67	16.32	16.52	19.57	19.72	18.79	..... 18.35
31	.....	.....	15.87	.....	16.35	.....	17.65	19.64	.....	19.14	..... 18.36

Washington County

Wa-1. Marietta Osteopathic Clinic. In Marietta. Records available: 1942-48.

Lowest daily water level, from recorder charts											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	28.85	28.73	26.21	24.47	22.43	25.88	27.97	28.77	29.31	29.17	29.32 28.58
2	28.80	28.76	26.10	24.55	22.60	26.22	27.84	28.79	29.25	29.33	29.32 28.50
3	28.63	28.80	26.10	24.61	22.70	26.30	28.04	28.80	29.27	29.21	29.32 28.47
4	28.46	28.87	26.11	24.52	22.71	26.39	28.10	28.82	29.42	29.21	29.33 28.48
5	28.32	28.89	26.11	24.65	22.87	26.55	28.12	28.53	29.47	29.22	29.38 28.46
6	28.21	28.94	26.07	24.79	22.74	26.72	28.15	28.45	29.43	29.23	29.45 28.47
7	28.20	28.97	26.10	24.82	22.55	26.60	28.20	28.42	29.30	29.27	28.92 28.44
8	28.22	29.01	26.59	24.96	22.42	26.40	28.22	28.80	29.38	29.26	28.90 28.47
9	28.24	29.06	26.37	25.04	22.53	26.50	28.23	28.70	29.32	29.26	28.86 28.45
10	28.25	29.11	26.45	25.08	22.72	26.55	28.34	28.82	29.32	29.27	29.20 28.48
11	28.23	29.14	26.55	25.30	22.96	26.84	28.39	28.87	29.20	29.27	28.89 28.46
12	28.22	29.18	26.61	25.38	23.20	27.08	28.41	29.88	29.52	29.27	28.85 28.52
13	28.22	29.17	26.66	24.80	23.33	27.19	28.44	28.90	29.42	29.28	28.85 28.58
14	28.24	29.20	26.70	23.35	23.57	27.18	28.48	28.96	29.44	29.28	28.84 28.55
15	28.23	28.93	26.76	(a)	23.97	27.05	28.51	28.97	29.37	29.20	28.84 28.49
16	28.23	28.43	26.80	.....	24.05	27.08	28.53	28.94	29.25	29.57	28.85 28.32
17	28.23	27.87	26.74	.....	24.06	26.92	28.57	28.97	29.42	29.30	29.05 28.00
18	28.23	27.68	26.63	.....	24.13	26.95	28.61	28.85	29.45	29.28	28.84 27.40
19	.....	27.29	26.50	.....	24.39	27.42	28.62	28.91	29.59	29.26	28.87 26.70
20	.....	27.11	26.43	.....	24.56	27.41	28.65	29.02	29.26	29.25	28.86 26.58
21	.....	26.87	26.23	19.34	24.66	27.29	28.70	29.09	29.19	29.22	28.86 26.68
22	.....	26.63	25.97	19.72	24.70	27.49	28.55	29.12	29.17	29.22	28.82 26.75
23	.....	26.46	25.71	20.12	.....	27.55	28.57	29.12	29.17	29.21	28.81 26.77
24	28.41	26.43	25.52	20.46	24.82	27.65	28.57	29.15	29.18	29.24	28.88 26.80
25	.....	26.47	25.10	20.87	24.94	27.70	28.55	29.20	29.19	29.25	28.85 26.94
26	.....	26.90	24.75	21.12	25.04	27.77	28.45	29.25	29.20	29.24	28.88 27.00

a Gage removed owing to flood threat.

Wa-1--Continued.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	26.53	24.22	21.32	25.70	27.86	28.50	29.30	29.20	29.30	28.82	27.13
28	26.44	24.13	21.52	25.91	27.95	28.61	29.33	29.20	29.32	28.80	27.18
29	26.33	24.20	21.87	26.00	27.95	28.62	29.36	29.52	29.30	28.75	27.26
30		24.31	22.10	25.90	27.97	28.65	29.39	29.26	29.30	28.65	27.25
31	28.68		24.45		25.98		28.72	29.38		29.30		27.20

Wayne County

Wn-1. Ohio Boxboard Co. In Rittman. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	.....	95.15	97.07	94.39	96.24	98.16
2	.....	95.35	96.10	95.36	96.36	97.34
3	.....	96.22	97.37	95.96	97.13	97.98
4	.....	.....	97.00	95.83	98.01	98.28
5	.....	.....	.....	95.57	98.47	97.86
6	94.53	.....	.....	95.50	96.77	96.02
7	94.79	.....	.....	95.82	96.02	98.71
8	94.76	.....	96.32	96.61	96.12	95.36
9	94.95	.....	96.08	97.42	96.28	.....
10	97.00	.....	96.23	97.66	97.25	.....
11	97.42	.....	97.01	95.99	97.99	.....
12	95.35	97.09	96.77	97.13	97.89	.....
13	95.19	96.07	96.58	97.40	97.44	.....
14	95.17	96.50	96.67	96.36	98.19	.....
15	95.35	97.96	95.38	97.76	98.61	.....
16	96.50	98.80	95.00	96.36	99.77	.....
17	96.66	97.50	95.60	96.45	99.15	.....
18	95.93	97.64	95.35	96.38	99.32	.....
19	95.42	96.95	94.84	96.13	98.61	.....
20	95.43	96.30	95.63	97.42	98.25	.....
21	94.90	96.59	95.86	96.37	98.50	96.25
22	95.18	96.50	94.56	97.67	96.61	97.65
23	95.61	97.00	94.56	96.25	96.42	97.48
24	95.49	97.33	96.25	98.08	96.53	97.07
25	95.76	96.75	94.36	98.75	97.52	97.29
26	95.82	96.67	94.65	98.84	98.19	96.60
27	95.71	98.04	94.59	98.30	97.90	96.70
28	95.74	96.50	95.12	96.84	98.40	98.50
29	95.54	96.60	94.37	97.51	98.38	.....
30	95.30		94.40	97.39	97.85	.....
31	95.35		94.22		97.85	

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	96.16	100.20	99.75	95.95	96.60
2	.....	97.72	100.49	100.50	95.88	96.77
3	.....	98.40	100.61	100.70	96.30	96.92
4	.....	98.58	100.75	98.62	95.86	96.75
5	.....	96.65	100.95	98.51	95.25	95.42
6	.....	94.18	100.98	98.16	95.95	96.63
7	.....	96.37	100.85	97.92	96.73	95.72
8	.....	96.66	100.98	97.82	96.68	96.52
9	.....	97.60	100.71	97.94	96.20	96.87
10	.....	98.38	100.75	97.61	95.75	98.08
11	.....	98.71	100.74	96.00	96.08	98.57
12	98.33	95.15	101.07	98.01	96.67	98.95
13	99.83	95.50	101.23	97.45	96.05	97.65
14	100.00	95.41	.....	97.19	96.89	97.13
15	100.52	94.32	101.50	97.32	96.32	96.39
16	100.98	95.87	101.65	97.32	96.32	95.69
17	101.68	95.86	101.55	96.93	95.63	95.52
18	101.72	96.25	101.40	98.16	96.05	95.93

Wn-1--Continued.

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	102.43	97.34	101.25	98.28	96.50	95.21
20	102.80	97.31	101.20	99.10	95.48	96.36
21	103.15	97.23	101.34	.....	95.63	96.40
22	102.90	95.15	101.10	.....	95.02	97.07
23	.....	96.45	101.32	.....	95.91	96.80
24	.....	96.50	101.82	.....	95.78	96.98
25	.....	94.91	102.31	.....	96.07	92.70
26	.....	94.87	102.34	.....	95.89	94.12
27	.....	97.60	100.27	.....	95.43	95.80
28	.....	98.15	100.42	.....	95.88	95.88
29	96.40	98.81	100.57	95.90	95.73	95.25
30	96.94	99.95	99.45	96.51	96.47	94.64
31	94.40	.....	.....	96.38	.....	95.23

Wood County

Wo-1. Paul W. Kale. 1 mile west of Wingston. Records available: 1946-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	4.17	4.39	3.39	3.51	2.95	3.18	3.26	....	....	....	4.29
2	....	4.20	4.35	3.44	3.50	2.96	3.17	3.29	....	....	....	4.29
3	....	4.23	....	3.48	3.50	3.01	3.18	3.28	....	3.95	....	....
4	....	4.23	....	3.48	3.43	3.01	3.20	3.25	3.57	3.95	....	....
5	....	4.25	....	3.47	3.42	3.04	3.21	3.26	3.58	3.96	....	4.16
6	....	4.25	....	3.49	3.43	3.05	3.24	3.29	3.58	3.96	4.52	4.16
7	....	....	....	3.49	3.42	2.97	3.25	3.30	3.55	3.96	4.58	4.16
8	3.79	4.35	4.26	3.50	3.33	2.95	3.25	3.32	3.54	3.94	4.60	4.17
9	3.83	4.39	4.26	3.54	3.30	2.96	3.24	3.32	3.55	3.94	4.60	4.18
10	3.85	4.44	4.27	3.55	3.28	2.98	3.26	3.33	3.57	3.95	....	4.20
11	3.95	4.44	4.26	3.51	3.23	3.00	3.26	3.15	3.57	....	....	4.22
12	3.81	4.45	4.25	3.51	3.18	3.00	3.26	3.15	....	....	....	4.19
13	3.80	4.41	4.26	3.50	3.13	3.06	3.22	3.17	....	....	4.63	4.21
14	3.80	....	4.24	3.49	3.06	3.09	3.21	3.19	....	....	4.63	4.19
15	3.80	....	4.21	3.49	3.00	3.10	3.22	3.22	....	....	4.64	4.11
16	3.82	4.41	....	3.50	2.94	3.13	3.23	3.24	3.77	....	4.65	4.11
17	3.83	4.49	4.20	3.52	2.87	3.14	3.21	3.24	3.79	4.05	4.59	4.11
18	3.87	4.51	4.20	3.52	2.79	3.16	3.25	3.23	3.80	4.08	4.61	4.06
19	3.88	4.52	4.14	3.51	2.80	3.15	3.24	3.23	3.80	....	4.48	4.00
20	3.88	4.55	4.07	3.53	2.81	3.17	3.25	3.25	3.81	....	4.48	3.96
21	3.88	4.55	4.03	3.55	2.79	3.18	3.21	3.27	3.81	....	4.49	3.97
22	3.86	4.56	3.81	3.55	2.76	3.18	3.21	3.28	3.76	....	4.47	3.99
23	3.91	4.54	3.79	3.54	2.79	3.19	3.20	3.32	3.78	....	4.45	3.99
24	3.91	4.56	3.73	3.55	2.79	3.19	3.23	3.32	....	4.52	4.42	4.04
25	3.96	4.55	3.72	3.55	2.82	3.22	3.22	3.36	3.86	4.55	4.39	4.04
26	4.01	4.50	3.66	3.54	2.82	3.24	3.22	3.38	3.91	4.58	4.36	4.04
27	....	4.49	3.51	3.55	2.84	3.28	3.20	....	3.96	4.40	4.33	4.04
28	....	4.35	3.51	3.54	2.85	3.28	3.20	....	3.98	4.45	4.33	4.02
29	....	4.39	3.49	3.52	2.86	3.27	3.20	....	3.97	4.46	4.29	3.95
30	....	....	3.47	3.52	2.90	3.15	3.19	....	3.84	4.49	4.29	3.95
31	4.14	....	3.45	....	2.93	....	3.20	....	....	4.56	....	3.93

Wo-2. Village of North Baltimore. In rear of treatment plant at municipal well field, at North Baltimore. Abandoned drilled well, diameter 6 inches, depth 82 feet. Measuring point, floor of recorder shelter, at land-surface datum. Automatic water-stage recorder installed July 8. Records available: 1948.

Lowest daily water level, from recorder charts

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	35.84	39.75	39.32	36.60	34.30
2	37.51	40.75	40.20	36.70	34.39
3	37.73	40.85	40.20	36.88	34.22
4	36.60	41.10	38.62	37.85	34.05

Wo-2--Continued.

Lowest daily water level, from recorder charts						
Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	36.65	41.25	39.70	37.94	34.20
6	.....	37.20	41.23	39.80	37.30	33.70
7	.....	37.55	41.18	39.35	37.66	34.32
8	.....	36.90	40.50	39.60	36.65	34.75
9	.....	37.58	40.70	39.60	35.80	34.42
10	.....	37.28	40.75	39.00	37.41	34.38
11	.....	36.30	40.60	37.62	38.15	35.60
12	.....	37.70	.....	37.40	38.22	33.70
13	.....	37.70	40.22	37.75	38.23	34.40
14	.....	38.10	40.50	37.80	37.79	.....
15	32.00	38.19	40.67	37.39	37.15	.....
16	.....	38.05	40.63	37.61	38.10	33.78
17	.....	38.05	40.55	37.20	37.25	34.50
18	.....	38.00	40.30	37.05	37.30	33.60
19	.....	38.30	40.21	36.90	37.83	32.83
20	.....	38.48	40.02	36.90	35.52	33.50
21	36.99	38.20	39.05	37.27	.....	33.30
22	36.50	38.20	39.05	.....	.....	32.98
23	36.60	38.38	39.85	.....	.....	33.40
24	36.41	38.60	40.48	.....	.....	33.10
25	36.51	39.43	40.43	.....	35.60	32.83
26	36.62	39.95	40.15	.....	35.78	32.68
27	36.42	40.21	38.70	.....	35.40	31.79
28	37.10	40.52	38.70	36.52	34.25	32.80
29	37.39	40.35	40.45	37.30	33.70	32.81
30	37.12	40.15	39.98	37.21	34.20	32.15
31	37.12	40.52	.....	37.20	.....	31.43

PENNSYLVANIA

By R. R. Huber

PROGRAM OF WORK

In 1948, as in previous years, the program of water-level measurements in observation wells in Pennsylvania was carried on in cooperation with the Topographic and Geologic Survey of the Pennsylvania Department of Internal Affairs. The State-wide network of wells, begun in 1931, was enlarged during 1948 with the addition of 16 wells. Seven of the new wells are in the Schuylkill Valley, in Schuylkill, Berks, and Montgomery Counties. Of these seven wells, two are being measured weekly and five are being measured at irregular intervals by staff members of the Laboratory of the quality of water branch of the Geological Survey, at Schuylkill Haven. The remaining nine wells are on land owned by the Commonwealth of Pennsylvania, in Bucks, Berks, Pike, Luzerne, and Lackawanna Counties, and are being measured weekly by employees of the Pennsylvania Department of Forests and Waters. These wells were established as part of the Federal observation-well program. Not only will this program make possible a more thorough coverage of observation wells but is designed to insure permanency of records by the location of wells on public rather than private lands.

In addition to the wells added to the State-wide network, three wells were added in Allegheny County by the Pittsburgh office of the ground water branch of the Geological Survey, making a total of 19 wells added to the Pennsylvania program in 1948. Well 112, in Washington County, was re-established in January after a lapse of 1 year. Measurements were discontinued in three wells in 1948.

About 8,000 measurements of water level, distributed among 81 wells, were recorded for the year. Eighteen automatic water-stage recorders were in use in 1948, 15 of them at the Philadelphia Naval Base. Daily measurements are given for all wells equipped with recorders. In 54 of the wells measurements were made weekly, and in 9 of the wells measurements were made at irregular intervals.

Measurements of 21 observation wells in the Susquehanna River Basin in Pennsylvania were made available each week to the Pennsylvania Water and Power Company at Baltimore, Maryland. From these measurements, company engineers computed weekly predictions of the minimum stream flow of the Susquehanna River at the company's hydroelectric plants thereby making possible a more economical operation of the company's hydroelectric plants during periods of low flow in the river. The program of research entailed in making these predictions was begun in 1930 and provides a valuable basis for establishing similar studies in other areas of the State.

FLUCTUATIONS OF WATER LEVEL

Weekly measurements of 30 observation wells distributed over the State have been converted to feet above assumed datum planes and arithmetically averaged. This weekly average for 1948 is shown in figure 16, together with the highest and lowest weekly averages occurring during the period 1932-47. The records for two of the new wells established in 1948 were converted to assumed datum planes and used in computing the weekly averages for the State. The observation wells in Philadelphia and Allegheny Counties have been omitted from this average because they reflect conditions of local municipal and industrial ground-water use and are not representative of conditions elsewhere in Pennsylvania. Figure 16 also shows the monthly mean precipitation for Pennsylvania in 1948, and the normal precipitation based on records over a period of 61 years.

In the following table the 16-year weekly average (1932-47) of water levels in observation wells in Pennsylvania is shown with the average of the water levels in observation wells for each week in 1948. The number of wells reported each week is also tabulated.

Average of water levels in observation wells in Pennsylvania,
by weeks, in feet above assumed datum planes

Date	No. of wells	1948 average	16-year average	Date	No. of wells	1948 average	16-year average
Jan. 4	26	13.71	13.84	Apr. 12	27	17.44	15.53
11	27	13.80	13.88	19	27	18.66	15.31
18	27	13.39	13.75	26	28	17.73	15.11
25	28	13.25	13.76	May 3	28	16.85	14.86
Feb. 1	26	12.95	13.75	10	29	16.97	14.59
8	27	12.82	13.65	17	28	16.85	14.50
15	26	13.55	13.82	24	28	16.54	14.55
22	27	16.00	13.88	31	27	16.15	14.44
Mar. 1	28	15.83	14.25	June 7	29	15.83	14.16
8	28	16.23	14.48	14	29	15.07	13.75
15	28	16.28	15.00	21	29	14.86	13.69
22	27	17.42	15.50	28	28	14.69	13.26
29	28	17.32	15.56	July 5	29	14.77	13.08
Apr. 5	26	17.86	15.58	12	27	14.53	12.89

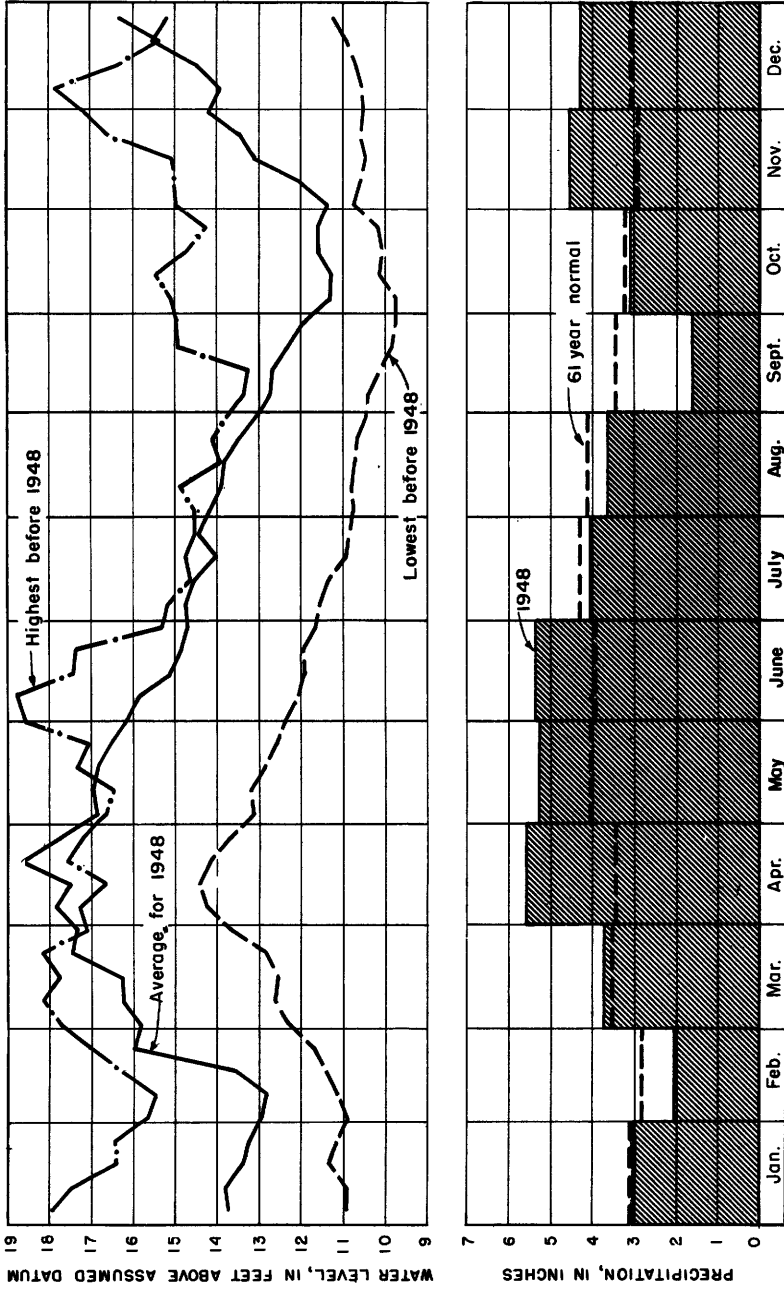


Figure 16.--Graphs showing average ground-water levels and precipitation in Pennsylvania in 1948, in comparison with previous years of record.

Average of water levels in observation wells in Pennsylvania, by weeks, in feet above assumed datum planes--Continued

Date	No. of wells	1948 average	16-year average	Date	No. of wells	1948 average	16-year average
July 19	29	14.00	12.69	Oct. 11	26	11.28	11.52
26	29	14.47	12.61	18	27	11.60	11.49
Aug. 2	28	14.16	12.43	25	28	11.62	11.74
9	29	13.92	12.27	Nov. 1	26	11.34	12.08
16	27	13.88	12.21	8	28	12.03	12.30
23	29	13.47	12.13	15	28	13.09	12.57
30	30	13.47	12.01	22	28	13.47	12.73
Sept. 6	26	12.71	11.88	29	27	14.18	12.86
13	25	12.68	11.68	Dec. 6	28	13.94	12.92
20	25	12.30	11.73	13	26	14.45	13.02
27	26	11.94	11.63	20	26	15.38	13.11
Oct. 4	26	11.30	11.54	27	25	15.20	13.39

The year began with the weekly average water level slightly below normal. A deficiency in rainfall in January and February served to maintain the level below the 16-year average, but a warm period in mid-February caused the snow that had accumulated during January to thaw and a sharp upward trend in the level resulted. This trend continued through March and the second wettest April on record, reaching the maximum for the year in the third week of April. The highest average water-levels ever recorded for the period were reached in the last week of March and the six succeeding weeks. From the year's high in April the average water level followed a slow downward trend during the spring and summer months, culminating in the lowest average for 1948 during the second week in October, following an extremely dry September. Heavy rains in November and December caused another sharp upward trend in the level, climaxed by a record high for the third week in December. As the year ended, the weekly average water level was well above the 16-year average for the period.

The significant features of the weekly average water-level hydrograph may be summarized as a sharp upward trend caused by a February thaw and heavy rains in March and April; a slow downward trend during the summer months culminating in the years low following an unusually dry September; and a second sharp upward trend during the wet fall months. The close relationship during 1948 between fluctuations of the weekly average water level and changes in the State-wide average of precipitation emphasizes once again the relatively low storage capacity of the surface rocks of Pennsylvania. The hold-over capacity of ground-water storage, in the absence of recharge from precipitation, is measured in weeks or a few months at the most, rather than in years.

Philadelphia area

Measurements were continued during 1948 in the 22 observation wells in south Philadelphia. Daily measurements were obtained from the 17 wells equipped with automatic water-stage recorders and weekly tape readings were obtained from the remaining 5 wells. Hydrographs of these wells indicate that during the year water levels, in general, remained fairly constant, showing only the effects of tides and periodic operation of large wells. No persistent downward trend has been recognized for the area, even though the sands and gravels in which the wells are situated constitute the main source of supply for the Philadelphia Naval Base and many industries in the region. It has been estimated that at the prevailing rate of discharge these sands and gravels underlying the Philadelphia area would be dewatered completely within 5 years if there were no recharge. Recharge that normally would occur from precipitation is intercepted to a large extent by the municipal sewerage system. Undoubtedly, the Delaware and Schuylkill Rivers provide much of the recharge to the ground-water supply, but the location of the chief areas of river infiltration and the amount of such infiltration have not been identified. Although levels in observation wells seem to indicate a state of equilibrium between discharge and recharge at the present time, increased withdrawal planned from the formation in adjacent areas is expected to lower water levels in south Philadelphia.

Pittsburgh area

During 1948, 15 wells were measured weekly in the heavily pumped "Triangle area" of Pittsburgh. Analysis of the hydrographs of the wells does not indicate an annual downward trend in water level for the 3-year period of record. The lowest water levels occur during the hot summer months when air-conditioning pumpage, which constitutes one of the main uses of ground water in the area, is at its peak. Although a longer period of record is needed in order to evaluate properly the annual trend in water levels in the gravel stratum underlying downtown Pittsburgh, the available evidence indicates that recharge from the rivers bounding the area on two sides is in equilibrium with present rates of withdrawal. It is probable that an increase in the draft on the aquifer by future expansion of air conditioning in downtown Pittsburgh will result in further lowering of water levels during the summer months.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

The water-level measurements given in the following tables are in feet below land-surface datum unless otherwise indicated.

Allegheny County

A1. City of Pittsburgh. At Liberty Avenue and Short Street. Extremes of observed water level: Highest, Apr. 15, 1948, 17.68; lowest, July 22, 1948, 29.66. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	25.93	Apr. 8	26.78	July 1	28.10	Oct. 7	26.90
8	26.06	13	23.46	8	28.00	14	26.54
15	26.20	15	15.60	15	28.13	21	26.10
22	26.39	16	17.20	22	28.12	28	26.10
29	26.52	22	24.30	29	28.05	Nov. 4	26.17
Feb. 5	26.60	29	25.62	Aug. 5	28.06	11	26.64
12	26.67	May 6	25.75	12	27.90	18	26.46
19	25.18	13	26.40	19	27.78	24	26.43
26	25.72	20	26.80	26	27.74	Dec. 2	25.89
Mar. 4	25.86	27	26.74	Sept. 2	27.64	9	25.94
11	26.00	June 3	27.00	9	27.40	16	25.74
18	26.45	10	27.38	16	27.42	17	22.94
25	24.28	17	27.66	23	27.28	23	25.30
Apr. 1	26.23	24	27.86	30	26.82	30	25.52

A2. City of Pittsburgh. At First Avenue and Short Street. Extreme of observed water level: Highest, Apr. 15, 1948, 18.10; lowest, July 22, 1948, 30.27. Records available: 1945-48.

Jan. 2	27.72	Apr. 8	28.48	July 1	30.20	Oct. 7	28.80
8	27.74	13	28.10	8	30.14	14	28.36
15	27.92	15	18.10	15	30.24	21	28.12
22	28.08	16	19.44	22	30.27	28	28.02
29	28.24	22	25.98	29	30.20	Nov. 4	28.05
Feb. 5	28.33	29	27.42	Aug. 5	30.24	11	28.34
12	28.30	May 6	27.78	12	30.00	18	28.15
19	26.94	13	28.30	19	29.89	24	28.12
26	27.40	20	28.62	26	29.87	Dec. 2	27.84
Mar. 4	27.70	27	28.55	Sept. 2	29.80	9	27.74
11	27.84	June 3	28.85	9	29.53	16	27.70
18	28.12	10	29.28	16	29.54	17	25.87
25	27.14	17	29.60	23	29.42	23	27.00
Apr. 1	28.00	24	29.84	30	28.86	30	27.32

A3. City of Pittsburgh. At Water Street and Short Street. Extremes of observed water level: Highest, Apr. 15, 1948, 15.60; lowest, Mar. 16, 1946, 28.39. Records available: 1945-48.

Jan. 2	26.80	Apr. 13	25.46	July 1	29.60	Oct. 7	27.78
8	27.16	15	17.68	8	29.44	14	27.40
22	27.24	16	19.54	15	29.64	21	27.15
29	27.32	22	25.25	22	29.66	28	27.12
Feb. 5	27.34	29	26.65	29	29.56	Nov. 4	27.19
12	27.40	May 6	26.76	Aug. 5	29.58	11	27.42
19	26.14	13	27.66	12	29.31	18	27.20
26	26.60	17	27.61	19	29.24	24	27.17
Mar. 4	26.70	20	27.54	26	29.20	Dec. 2	26.79
11	26.80	27	27.56	Sept. 2	28.90	9	26.80
18	27.16	June 3	28.12	9	28.76	16	26.64
25	25.57	10	28.50	16	28.74	17	25.16
Apr. 1	27.08	17	28.90	23	28.42	23	26.24
8	27.66	24	29.27	30	27.83	30	26.40

A4. Commonwealth Building. 316 Fourth Avenue, Pittsburgh. Extremes of observed water level: Highest, Jan. 22, 1948, 35.90; lowest, Apr. 3, 1946, 58.91. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	47.33	Apr. 8	46.20	July 8	43.31	Oct. 7	43.02
8	52.08	15	45.00	15	41.43	14	45.26
15	40.94	22	43.78	22	41.85	21	44.16
22	35.90	29	45.00	29	42.22	28	45.95
29	36.00	May 6	45.46	Aug. 5	43.96	Nov. 4	51.50
Feb. 5	36.16	13	48.25	12	47.04	11	44.02
12	50.00	20	44.63	19	45.90	18	48.94
19	49.42	27	47.15	26	41.87	24	46.15
26	48.44	June 3	46.00	Sept. 2	43.30	Dec. 2	46.98
Mar. 4	51.50	10	50.30	9	41.13	9	50.46
11	54.64	17	44.94	16	48.02	16	47.92
18	51.28	24	41.27	23	44.10	23	48.94
Apr. 1	44.04	July 1	42.62	30	42.84	30	53.11

A5. Keystone Building. 324 Fourth Avenue, Pittsburgh. Extremes of observed water level: Highest, Jan. 22, 1948, 34.40; lowest, Apr. 3, 1946, 53.93. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	42.32	Apr. 8	41.95	July 8	41.00	Oct. 7	41.60
8	47.94	15	41.26	15	39.92	14	43.62
15	39.80	22	39.64	22	39.92	21	42.85
22	34.40	29	40.96	29	40.48	28	43.75
29	34.62	May 6	42.35	Aug. 5	42.24	Nov. 4	47.90
Feb. 5	34.70	13	44.00	12	44.02	11	42.90
12	46.45	20	41.55	19	43.29	18	46.60
19	45.26	27	43.24	26	39.94	24	44.41
26	44.36	June 3	41.64	Sept. 2	40.57	Dec. 2	45.14
Mar. 4	46.80	10	45.90	9	39.51	9	47.65
11	48.70	17	42.55	16	45.02	16	44.72
18	45.57	24	39.75	23	42.88	23	46.04
25	48.18	July 1	40.55	30	41.35	30	49.08
Apr. 1	40.48						

A6. Fulton Building. Sixth Street and Duquesne Way, Pittsburgh. Extremes of observed water level: Highest, Dec. 28, 1945, 30.86; lowest, July 15, 1948, 39.05. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	32.64	Apr. 1	32.53	July 22	38.72	Oct. 14	32.95
8	32.55	8	34.85	29	38.73	21	32.71
15	32.75	13	32.05	Aug. 5	38.69	28	32.57
22	33.22	May 13	36.03	12	38.43	Nov. 4	33.89
29	32.99	20	33.17	19	37.91	12	33.50
Feb. 5	33.20	27	34.25	26	38.17	18	32.99
12	33.45	June 3	35.59	Sept. 2	37.55	24	32.92
19	32.45	10	36.13	10	38.35	Dec. 2	32.27
26	32.31	17	36.71	16	37.29	9	31.99
Mar. 4	32.43	24	38.19	23	36.25	16	32.23
11	32.45	July 1	38.52	30	36.05	23	31.51
18	32.57	8	38.27	Oct. 7	33.35	30	31.41
25	31.79	15	39.05				

A7. Stanley Theater. Penn Avenue and Seventh Street, Pittsburgh. Extremes of observed water level: Highest, Apr. 16, 1948, 29.60; lowest, July 22, 1948, 39.88. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	32.34	Mar. 11	32.40	May 13	33.70	July 22	39.88
8	32.68	18	32.62	20	33.18	29	39.65
15	32.90	25	32.72	27	32.90	Aug. 5	39.60
22	32.95	Apr. 1	32.62	June 3	34.40	12	38.92
29	33.10	8	33.34	10	35.82	19	38.85
Feb. 5	33.14	15	30.62	17	36.75	26	38.73
12	33.30	16	29.60	24	37.79	Sept. 2	38.50
19	32.54	22	29.68	July 1	38.64	9	38.45
26	32.17	29	31.42	8	38.56	16	38.12
Mar. 4	32.33	May 6	31.72	15	39.26	23	37.36

A7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 30	36.08	Oct. 28	33.00	Nov. 24	32.69	Dec. 16	32.40
Oct. 7	34.98	Nov. 4	33.00	Dec. 2	32.42	23	31.74
14	33.94	11	33.30	9	32.50	30	31.69
21	33.34	18	32.80				

A8. Pittsburgh Plate Glass Co. 632 Duquesne Way, Pittsburgh. Extremes of observed water level: Highest, Apr. 16, 1948, 25.77; lowest, July 22, 1948, 37.70. Records available: 1946-48.

Jan. 2	31.55	Apr. 8	31.75	July 1	36.50	Oct. 7	32.82
8	31.65	13	30.62	8	36.52	14	32.10
15	31.84	15	25.84	15	37.50	21	31.75
22	32.00	16	25.77	22	37.70	28	31.58
29	32.12	22	27.16	29	37.26	Nov. 4	31.75
Feb. 5	32.20	29	29.20	Aug. 5	37.06	12	31.94
12	32.36	May 6	31.06	12	36.54	18	31.62
19	31.12	13	32.96	19	36.21	24	31.54
26	31.27	20	32.46	26	36.40	Dec. 2	31.30
Mar. 4	31.48	27	32.36	Sept. 2	35.69	9	31.27
11	31.60	June 3	33.30	9	35.94	16	31.30
18	31.75	10	34.35	16	35.57	17	30.10
25	31.04	17	34.73	23	34.64	23	30.64
Apr. 1	31.28	24	35.32	30	34.04	30	30.84

A9. Century Building. 130 Seventh Street, Pittsburgh. Extremes of observed water level: Highest, Apr. 15, 1948, 24.76; lowest, July 22, 1948, 35.48. Records available: 1946-48.

Jan. 2	29.18	Apr. 8	30.63	July 8	34.94	Oct. 7	31.32
8	29.33	15	24.76	15	35.30	14	30.35
15	29.57	22	26.86	22	35.48	21	29.82
22	29.60	29	28.90	29	35.30	28	29.47
29	29.80	May 6	29.02	Aug. 5	35.40	Nov. 4	29.62
Feb. 5	29.84	13	30.94	12	34.90	11	30.04
12	30.00	20	30.52	19	34.79	18	29.44
19	29.04	27	30.25	26	34.72	24	29.32
26	28.96	June 3	31.24	Sept. 2	34.50	Dec. 2	29.17
Mar. 4	29.18	10	32.55	9	34.20	9	28.94
11	29.22	17	33.34	16	34.12	16	28.95
18	29.38	24	34.23	23	33.47	22	28.37
25	28.89	July 1	35.02	30	32.25	30	28.33
Apr. 1	29.40						

A10. Atlas Paste Co. Formerly owned by Duff & Sons, Inc. Garrison Place and Duquesne Way, Pittsburgh. Extremes of observed water level: Highest, Apr. 22, 1948, 28.90; lowest, Aug. 1, 1946, 41.88. Records available: 1946-48.

Jan. 2	32.13	Apr. 8	32.54	July 15	37.18	Oct. 14	33.04
8	32.18	16	29.36	22	37.44	21	32.55
15	32.40	22	28.90	29	37.40	28	32.20
22	32.52	29	30.30	Aug. 5	37.50	Nov. 4	32.10
29	32.60	May 6	30.90	12	36.94	11	32.34
Feb. 5	32.67	13	31.97	19	36.86	18	32.04
12	32.78	20	32.12	26	36.84	24	31.98
19	32.02	27	32.04	Sept. 2	36.66	Dec. 2	31.75
26	31.72	June 3	33.08	9	36.38	9	31.88
Mar. 4	31.88	10	34.32	16	36.25	16	31.77
11	32.00	17	35.06	23	35.82	17	31.18
18	32.16	24	35.72	30	34.67	23	31.18
25	31.68	July 1	36.64	Oct. 7	33.85	30	31.18
Apr. 1	31.95	8	36.76				

A11. Victory Building. Liberty Avenue and Ninth Street, Pittsburgh. Extremes of observed water level: Highest, Apr. 22, 1948, 34.30; lowest, Aug. 28, 1947, 44.38. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	37.55	Apr. 8	37.90	July 8	43.16	Oct. 7	40.08
8	37.62	15	37.00	15	43.78	14	38.98
15	37.80	16	35.60	22	44.10	21	38.30
22	37.90	22	34.30	29	44.06	28	37.84
29	38.06	29	35.92	Aug. 5	44.26	Nov. 4	37.75
Feb. 5	38.00	May 6	36.00	12	43.88	11	38.04
12	38.20	13	37.76	19	43.49	18	37.64
19	37.70	20	37.78	26	43.50	24	37.48
26	37.13	27	37.53	Sept. 2	43.48	Dec. 2	37.26
Mar. 4	37.14	June 3	38.78	9	42.97	9	37.25
11	37.30	10	40.38	16	42.90	16	37.24
18	37.50	17	41.35	23	42.53	23	36.60
25	37.68	24	42.06	30	40.89	30	36.44
Apr. 1	37.34	July 1	43.16				

A13. Columbia Building. Fourth Avenue and Wood Street, Pittsburgh. Extremes of observed water level: Highest, Apr. 16, 1948, 30.94; lowest, July 22, 1948, 41.32. Records available: 1947-48.

Jan. 2	35.70	Apr. 8	36.58	July 1	40.68	Oct. 7	38.00
8	35.76	13	36.25	8	40.64	14	37.10
15	35.95	15	33.12	15	41.07	21	36.56
22	36.10	16	30.94	22	41.32	28	36.36
29	36.22	22	33.46	29	41.18	Nov. 4	36.55
Feb. 5	36.28	29	35.28	Aug. 5	41.27	11	36.80
12	36.44	May 6	35.60	12	40.98	18	36.38
19	35.55	13	36.80	19	40.84	24	36.18
26	35.54	20	36.83	26	40.84	Dec. 2	35.90
Mar. 4	35.62	27	36.62	Sept. 2	40.73	9	35.92
11	35.72	June 3	37.52	9	40.34	16	35.86
18	35.92	10	38.65	16	40.36	23	35.24
25	35.68	17	39.36	23	40.06	30	35.35
Apr. 1	35.90	24	40.11	30	38.72		

A14. City of Pittsburgh. At Earbeau Street and Duquesne Way. Altitude 723.65 feet above mean sea level. Unused drilled well, diameter 12 inches, depth 40 feet. Measuring point, top of sidewalk, at land-surface datum. Records available: 1948.

Feb. 19	11.70	May 13	13.00	July 29	17.76	Oct. 21	15.52
Mar. 4	13.64	17	13.66	Aug. 5	17.90	28	16.05
11	13.76	20	14.08	12	17.54	Nov. 4	16.02
18	13.88	27	14.95	19	17.40	11	16.05
25	9.96	June 3	15.74	26	17.72	18	16.20
Apr. 1	13.44	10	16.56	Sept. 2	17.79	24	16.28
13	3.80	17	16.00	9	17.76	Dec. 2	15.49
15	.33	24	16.89	16	17.87	9	15.80
16	6.04	July 1	17.48	23	17.84	16	14.96
22	9.92	8	17.80	30	17.70	17	8.88
29	10.76	15	17.95	Oct. 7	17.55	23	12.30
May 6	11.77	22	17.22	14	16.38	30	13.58

A15. Hardie Bros. Co. Fourteenth Street and Smallman Street, Pittsburgh. Altitude 711.50 feet above mean sea level. Unused drilled well, diameter 14 inches, depth 60 feet. Measuring point, top of casing, 23.50 feet below land-surface datum. Records available: 1948.

Feb. 12	40.58	May 26	39.00	Aug. 31	41.48	Nov. 11	39.24
Mar. 12	39.50	June 14	40.28	Sept. 20	41.15	24	39.18
Apr. 1	38.45	July 6	41.38	Oct. 14	39.74	Dec. 13	39.02
23	35.72	27	41.75	28	39.25	29	38.10
May 14	38.33						

116. Otto Milk Co. Twenty-fourth Street and Smallman Street, Pittsburgh. Altitude 733.00 feet above mean sea level. Unused drilled well, diameter 12 inches, depth 70 feet. Measuring point, top of casing, at land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	35.55	May 26	34.88	Aug. 31	35.16	Nov. 11	34.14
Mar. 12	35.77	June 14	35.33	Sept. 20	34.82	24	34.11
Apr. 1	33.40	July 6	35.64	Oct. 14	34.32	Dec. 13	34.02
23	32.02	27	35.62	28	34.18	29	33.50
May 14	34.50						

Bedford County

116. At West Saxton. Extremes of observed water level: Highest, Apr. 16, 1948, 44.38; lowest, Feb. 13, 1948, 53.99. Records available: 1941-48.

Jan. 2	53.48	Apr. 9	50.98	July 9	51.40	Oct. 8	53.18
9	53.43	16	44.38	16	51.44	15	53.13
16	53.45	23	49.92	23	51.60	22	53.18
23	53.57	30	50.56	30	51.82	29	53.18
30	53.59	May 7	50.49	Aug. 6	51.85	Nov. 5	53.22
Feb. 6	53.63	14	48.52	13	51.92	12	53.03
13	53.99	21	48.37	20	52.33	19	53.14
20	53.50	28	50.35	27	52.42	26	52.37
27	53.33	June 4	50.79	Sept. 3	52.62	Dec. 3	51.97
Mar. 5	52.60	11	51.08	10	52.85	10	51.55
12	51.78	18	51.28	17	52.86	17	51.26
19	51.29	25	50.99	24	52.98	24	51.17
26	50.91	July 2	51.19	Oct. 1	53.08	31	50.78
Apr. 1	51.02						

Berks County

114. At Bally. Extremes of observed water level: Highest, Aug. 14, 1942, 4.37; lowest, Feb. 9, 1940, 19.92. Records available: 1936-48.

Jan. 3	18.01	Apr. 3	13.78	July 3	16.01	Oct. 2	18.07
10	17.87	10	15.05	10	16.31	9	18.17
17	17.91	17	14.28	17	16.36	16	18.32
26	18.13	24	15.14	24	16.49	23	18.39
31	18.32	May 1	15.84	31	16.71	30	18.50
Feb. 7	18.51	8	9.95	Aug. 7	16.82	Nov. 6	18.56
14	18.55	15	5.83	14	16.84	13	18.46
21	17.28	22	11.31	21	17.09	20	18.08
28	16.38	29	14.11	28	17.13	27	17.96
Mar. 6	15.91	June 5	14.50	Sept. 4	17.39	Dec. 4	17.68
13	16.11	12	15.24	11	17.52	11	17.83
20	16.03	19	15.71	18	17.71	18	17.53
27	15.87	26	15.44	25	17.91	24	17.32

128. Howard Lubois. Near Berne, in barnyard, along dirt road running parallel to the Philadelphia & Reading Railroad, 1.1 miles northeast of the general store in Berne, 150 yards northwest of the railroad, and 600 yards northwest of the Schuylkill River. Altitude about 360 feet above mean sea level. Unused dug well, diameter 4 feet, depth 11.2 feet. Measuring point, edge of metal plate nailed to top of wooden well cover, 0.50 foot above land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level
July 14	8.66	Oct. 14	9.04	Nov. 17	8.28
Sept. 27	8.93	Nov. 4	8.79		

F4a. About 5.4 miles south of Birdsboro, at French Creek State Park, at the southwest corner of an abandoned stone building known as Lacey School, about 1.0 mile east of park headquarters. Altitude about 540 feet above mean sea level. Unused drilled well, diameter 4 inches, depth 39.1 feet. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 22	22.43	Dec. 3	34.10	Dec. 17	34.35	Dec. 31	33.20
Nov. 22	34.84	10	31.30	24	34.29		

F4b. About 2.5 miles north of Elverson, at French Creek State Park, in small wooden pump house, 150 feet northwest of quarters 5, about 2.9 miles southwest of park headquarters. Altitude about 680 feet above mean sea level. Unused dug well, diameter 4 feet, depth 19.9 feet. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level
Dec. 3	12.00	Dec. 17	10.00	Dec. 31	6.40
10	12.20	24	10.99		

Bradford County

81. At Monroeton. Extremes of observed water level: Highest, Apr. 6, 1941, 1.45; lowest, Sept. 24-Oct. 8, 1932, Oct. 3-17, 1936, Aug. 20-Oct. 29, 1939, Oct. 5-19, and Oct. 26-Nov. 29, 1941, Sept. 21, 1942, Sept. 6-Oct. 24, 1943, when well was dry. Records available: 1931-44; 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	2.87	Apr. 5	2.51	July 6	2.95	Oct. 4	5.14
12	2.80	12	2.50	12	3.50	11	5.73
19	2.86	19	2.60	19	3.66	18	4.61
26	2.92	26	2.66	26	2.73	25	4.19
Feb. 2	2.96	May 2	2.81	Aug. 2	3.02	Nov. 1	4.21
9	3.07	10	2.74	9	2.90	8	2.95
16	2.60	17	2.50	16	3.37	15	3.40
23	2.50	25	2.38	23	3.80	22	2.88
Mar. 1	2.39	June 1	2.59	30	4.38	29	2.99
8	2.57	7	2.89	Sept. 7	4.65	Dec. 6	3.18
15	2.20	14	3.08	13	4.78	13	3.22
22	1.78	21	3.21	20	4.88	20	3.08
29	2.50	28	1.90	27	5.05	27	3.30

82. At East Towanda. Extremes of observed water level: Highest, May 25, 1947, 17.00; lowest, Feb. 15, 1942, 61.70. Records available: 1931-48.

Jan. 4	52.43	Apr. 3	24.49	June 28	40.12	Sept. 26	47.03
8	50.60	11	28.18	July 3	36.05	Oct. 4	47.83
11	52.96	18	24.80	11	39.77	10	48.28
17	53.38	24	26.15	18	41.52	17	48.53
25	53.86	28	29.11	25	33.54	25	49.49
Feb. 1	54.22	May 1	31.83	27	30.33	31	49.98
5	55.43	9	35.32	Aug. 1	37.40	Nov. 7	50.55
7	54.61	15	36.70	8	39.45	15	51.06
14	54.95	24	31.49	15	41.08	20	51.37
22	38.97	26	28.18	22	42.76	28	49.42
29	32.47	30	26.44	29	43.80	Dec. 5	49.15
Mar. 6	32.82	June 5	31.31	Sept. 5	44.78	11	49.37
14	31.65	12	35.10	12	45.52	18	48.97
21	27.62	20	38.30	19	46.27	26	46.83
27	25.21						

Bucks County

F3. About 2.2 miles northwest of Point Pleasant, at Ralph Stover State Park, in front yard of Stover Mansion, about 100 yards from Tohickon Creek. Altitude about 265 feet above mean sea level. Unused dug well, diameter 3 feet, depth 9.2 feet. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 20	6.40	Nov. 27	6.10	Dec. 11	6.20	Dec. 26	6.40
Nov. 22	6.46	Dec. 4	6.20		18	6.30	

Butler County

120. At West Sunbury. Extremes of observed water level: Highest, Mar. 14, 1942, 6.84; lowest, Oct. 5, 1946, 11.22. Records available: 1941-48.

Jan. 3	9.15	Apr. 10	8.81	July 10	9.40	Oct. 9	10.44
10	9.15	17	8.00	17	9.48	16	10.34
17	9.25	24	8.80	24	9.47	23	10.30
24	9.40	May 1	8.47	31	9.54	30	10.28
31	9.58	8	7.69	Aug. 8	9.51	Nov. 6	10.26
Feb. 7	9.73	15	8.73	14	8.41	13	10.18
14	8.64	22	8.95	21	8.88	20	10.05
21	8.06	29	9.18	28	9.27	27	9.82
28	7.80	June 5	9.47	Sept. 4	9.62	Dec. 4	9.07
Mar. 6	8.37	12	8.61	11	9.84	11	9.05
13	8.89	19	8.67	18	10.08	18	7.68
20	7.55	26	8.95	25	10.17	25	7.72
27	8.51	July 3	9.15	Oct. 2	10.28		

Centre County

124. At Milesburg. Extremes of observed water level: Highest, Apr. 17, 1948, 1.98; lowest, Oct. 25, 1947, 18.10. Records available: 1946-48.

Jan. 3	11.17	Apr. 3	3.85	July 24	13.92	Oct. 16	17.05
10	12.16	10	3.29	31	14.93	23	16.85
17	13.44	17	1.98	Aug. 7	13.72	30	17.50
24	13.92	24	2.45	14	15.25	Nov. 6	12.14
31	14.32	May 1	2.76	21	15.68	13	12.64
Feb. 7	14.59	June 5	5.89	28	15.75	20	11.02
14	10.28	12	8.02	Sept. 4	16.23	27	13.93
21	5.13	19	9.92	14	16.50	Dec. 4	13.00
Mar. 6	5.12	26	12.46	18	16.86	11	13.46
13	5.30	July 3	13.66	25	17.09	18	6.42
20	4.18	10	13.27	Oct. 2	17.46	25	9.23
27	3.87	17	14.25	10	17.07		

Clarion County

103. At Clarion. Extremes of observed water level: Highest, Apr. 9, 1938, 11.36; lowest, Sept. 23, 1944, 20.76. Records available: 1932-48.

Jan. 3	17.91	Mar. 9	14.51	Apr. 24	14.18	June 19	16.80
10	17.17	13	15.37	May 1	12.50	26	16.67
17	17.24	20	14.55	8	12.48	July 3	16.55
21	18.02	27	13.28	15	14.40	6	17.50
24	18.50	Apr. 3	12.95	22	15.36	10	17.55
Feb. 21	12.68	10	14.52	29	16.91	17	18.57
28	14.70	17	12.02	June 5	17.90	24	18.05
Mar. 6	14.52	20	12.84	12	17.47	31	16.62

103--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 7	15.72	Sept. 11	19.90	Oct. 16	20.55	Nov. 20	18.10
14	15.48	18	20.18	23	19.86	27	16.83
20	16.97	25	20.33	30	20.10	Dec. 4	15.75
21	17.14	29	20.46	Nov. 6	20.12	11	16.57
28	18.65	Oct. 2	20.47	9	19.16	18	12.64
Sept. 4	19.54	9	20.53	13	18.57	20	12.88

Clearfield County

123. At Curwensville. Extremes of observed water level: Highest, May 1, 1948, 18.26; lowest, Aug. 31, 1946, 21.40. Records available: 1946-48.

Jan. 5	20.35	Apr. 5	19.93	July 6	19.22	Oct. 11	20.96
12	20.40	12	18.86	12	20.28	18	20.92
19	20.10	19	18.31	19	20.37	25	20.73
26	19.70	26	19.08	26	20.15	Nov. 1	20.84
Feb. 2	20.80	May 1	18.26	Aug. 2	20.37	8	20.88
9	20.80	10	19.19	9	20.29	15	20.87
16	20.30	17	19.39	16	20.50	22	20.65
23	20.00	24	19.38	23	20.57	29	20.57
Mar. 1	19.20	31	19.98	30	20.62	Dec. 6	20.44
8	19.15	June 7	19.98	Sept. 20	20.72	13	20.42
15	19.30	14	19.00	27	20.80	20	20.35
22	18.30	20	19.05	Oct. 4	20.50	27	20.05
29	18.74	28	19.20				

Columbia County

75. At Fernville. Extremes of observed water level: Highest, Sept. 2, 1933, 7.28; lowest, Dec. 15, 1931, 16.91. Records available: 1931-48.

Jan. 3	14.82	Apr. 3	12.94	July 3	13.28	Oct. 9	15.29
10	13.49	10	14.79	10	13.71	16	15.44
17	13.78	17	12.09	17	13.12	23	15.33
24	14.24	24	12.48	24	12.77	Nov. 1	15.37
31	14.60	May 1	12.95	31	13.52	6	13.59
Feb. 7	15.92	8	12.80	Aug. 7	13.64	13	13.23
14	13.56	15	12.64	21	13.77	20	12.92
21	13.49	22	12.88	28	13.45	27	13.17
28	13.60	29	13.08	Sept. 4	14.79	Dec. 4	13.07
Mar. 6	12.58	June 5	13.28	11	14.65	11	13.21
13	12.77	12	13.48	18	15.09	18	13.53
20	11.82	19	13.74	25	15.43	25	13.05
27	12.54	26	14.94	Oct. 2	15.39		

Cumberland County

125. Near Mt. Holly Springs. Extremes of observed water level: Highest, May 10, 1948, 18.45; lowest, Oct. 11, 1948, 28.63. Records available: 1947-48.

Jan. 3	22.00	Mar. 27	20.30	June 26	22.23	Sept. 13	26.56
10	22.00	Apr. 3	20.12	July 3	22.03	27	28.43
17	21.82	12	19.95	12	23.42	Oct. 4	28.53
26	21.60	24	19.93	19	24.12	11	28.63
31	22.12	May 1	19.96	26	25.83	25	26.43
Feb. 7	23.32	10	18.45	Aug. 2	25.53	Nov. 8	24.42
14	23.13	17	19.24	9	25.54	15	24.31
21	22.21	22	19.93	16	24.73	22	22.11
28	21.63	31	19.54	23	24.74	30	22.40
Mar. 6	21.10	June 7	21.13	30	25.13	Dec. 4	21.38
13	20.56	13	21.12	Sept. 6	25.15	19	21.16
20	20.32	19	22.84				

Elk County

118. At Kersey. Extremes of observed water level: Highest, June 11, 1943, 8.12; lowest, Sept. 22, 1944, 12.49. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.45	Apr. 9	9.65	July 9	9.65	Oct. 8	11.20
9	10.70	16	9.20	16	9.90	15	11.30
16	10.60	23	9.23	23	9.10	22	11.20
23	10.75	30	9.05	30	9.88	29	11.31
30	10.85	May 7	9.06	Aug. 6	10.02	Nov. 5	11.45
Feb. 6	10.95	14	9.15	13	10.06	12	11.30
13	10.90	21	8.89	20	10.10	19	11.15
20	10.55	28	9.15	27	10.12	26	11.12
27	10.25	June 4	9.25	Sept. 3	10.22	Dec. 3	10.85
Mar. 5	10.44	11	9.45	10	10.50	10	10.88
12	10.38	18	9.55	17	10.75	17	10.55
19	10.15	25	9.20	24	10.85	24	10.40
26	9.88	July 2	9.45	Oct. 1	10.80	31	10.20
Apr. 2	9.70						

Erie County

1. Near Carters Corner. Extremes of observed water level: Highest, June 8, 1947, 8.63; lowest, Sept. 8-Dec. 1, 1934, when well was dry. Records available: 1931-48.

Jan. 4	14.72	Apr. 18	12.01	July 4	14.14	Oct. 10	18.14
11	13.97	May 5	12.59	18	16.01	15	17.46
25	15.47	16	13.83	23	16.22	24	14.55
Feb. 1	16.67	23	13.04	Aug. 8	14.14	31	14.42
6	17.18	June 9	16.03	22	14.68	Nov. 20	20.46
15	15.31	13	16.37	Sept. 1	16.16	22	13.97
29	14.18	20	16.71	5	17.48	28	13.46
Mar. 7	14.31	27	16.23	Oct. 3	18.13	Dec. 5	13.07
28	10.61						

Huntingdon County

47. Near Trexler Bridge. Extremes of observed water level: Highest, Mar. 15, 1941, when well was full; lowest, Oct. 1, 1932, 26.25. Records available: 1931-48.

Jan. 3	22.64	Apr. 3	18.90	July 3	17.89	Oct. 2	21.72
10	21.80	10	19.41	10	19.90	16	21.50
17	21.43	17	12.56	17	20.83	23	21.49
25	22.11	24	15.56	24	17.35	30	21.63
31	22.43	May 1	19.76	31	19.11	Nov. 6	21.82
Feb. 7	22.86	8	18.94	Aug. 7	20.34	13	20.05
14	22.13	15	18.36	14	20.52	20	20.56
21	20.68	22	19.00	21	20.84	27	18.31
28	20.35	29	20.54	29	21.17	Dec. 5	18.58
Mar. 6	20.82	June 5	21.13	Sept. 4	21.34	11	18.65
13	20.60	12	21.38	11	19.43	18	17.33
20	21.97	19	21.10	18	21.58	26	18.27
27	19.38	26	18.31	25	21.66		

Lackawanna County

102. Near Carbondale. Extremes of observed water level: Highest, Mar. 21, 1936, 1.17; lowest, Oct. 15, 1943, 13.10. Records available: 1931-48.

102--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.80	Apr. 10	4.83	July 16	5.74	Oct. 13	11.65
8	7.88	16	1.90	24	6.60	22	11.52
15	7.98	23	3.54	30	6.96	28	11.78
23	7.98	29	5.05	Aug. 6	7.74	Nov. 4	11.83
30	8.50	May 8	3.55	13	7.99	5	11.78
Feb. 6	8.41	14	4.05	20	8.50	13	9.32
13	8.53	22	3.80	27	8.97	19	9.17
20	2.00	28	4.58	Sept. 3	9.39	27	8.02
27	4.00	June 5	5.95	10	9.80	Dec. 4	7.83
Mar. 5	4.52	11	6.40	17	10.30	10	7.05
12	4.50	17	6.51	24	10.70	17	6.70
19	2.70	25	5.50	Oct. 1	11.02	24	6.70
26	3.28	July 3	4.41	9	11.44	31	1.83
Apr. 2	3.82	9	4.83				

F8. Along the north side of hard surface road leading from Thornhurst to Dupont, about 4.7 miles northwest of Thornhurst and about 1.0 mile east of the Lackawanna-Luzerne County line, on land owned by the Commonwealth of Pennsylvania, and formerly used as the Bear Lake Rangers Station, in yard of former ranger station, about 20 feet north of white frame house. Altitude about 1,910 feet above mean sea level. Unused drilled well, diameter 6 inches, depth 82.1 feet. Records available: 1948.

June 18	3.64	Dec. 4	4.73	Dec. 17	4.74	Dec. 31	5.01
Nov. 24	5.19	10	4.82	24	4.76		

Lancaster County

119. At West Quarryville. Extremes of observed water level: Highest, June 2, 1946, 0.99; lowest, Jan. 31, 1942, 25.10. Records available: 1941-48.

Jan. 4	16.46	Mar. 28	11.40	June 13	9.91	Sept. 5	16.68
11	18.67	Apr. 4	7.28	20	10.52	13	17.04
18	18.97	11	9.48	July 4	11.62	19	17.30
25	18.89	18	8.83	11	12.73	26	17.71
Feb. 1	18.89	25	9.72	18	14.63	Oct. 4	22.07
8	18.73	May 2	11.90	25	14.60	10	18.25
15	18.06	9	7.00	Aug. 1	15.30	17	18.58
24	14.80	16	7.95	8	15.72	24	18.86
29	13.09	23	7.75	15	15.95	Nov. 2	19.19
Mar. 7	11.58	30	9.68	23	16.35	7	19.32
14	10.77	June 6	7.48	30	16.39	15	19.58
21	11.80						

Luzerne County

76. Near Wapwallopen. Extremes of observed water level: Highest, Aug. 5, 1933, 18.17; lowest, Sept. 3, 1941, 29.89. Records available: 1931-48.

Jan. 6	24.05	May 31	24.10	July 27	23.23	Sept. 30	24.70
Feb. 3	25.14	June 7	24.30	Aug. 3	23.60	Oct. 8	26.40
Mar. 2	24.43	14	24.90	9	24.50	19	26.20
30	23.52	21	23.60	17	24.70	28	24.90
Apr. 25	23.70	22	23.45	26	23.60	Nov. 6	24.60
26	24.29	28	24.20	Sept. 2	24.60	16	23.40
May 3	24.10	July 6	24.20	8	24.80	24	22.50
11	24.60	12	24.20	16	25.30	Dec. 9	23.20
16	23.30	20	23.90	24	24.70	16	22.90
24	24.10	26	23.30	27	25.81	27	24.40
25	23.02						

F9a. Along the north side of State Route 115, about 1.6 miles east of Red Rock, at Ricketts Glen State Park, in picnic area of park, about 50 yards north of highway and about 150 yards east of Kitchen Creek. Altitude about 1,270 feet above mean sea level. Unused dug well, diameter 18 inches, depth 23.7 feet. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level
Nov. 24	17.48	Dec. 10	19.86	Dec. 24	16.64
Dec. 3	21.25	17	19.35	31	9.29

F9b. Along north side of State Route 115, about 1.6 miles east of Red Rock, at Ricketts Glen State Park, in picnic area of park, about 30 yards north of highway and about 125 yards east of Kitchen Creek. Altitude about 1,260 feet above mean sea level. Unused drilled well, diameter 6 inches, depth 195.5 feet. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 23	44.20	Dec. 3	43.20	Dec. 17	42.77	Dec. 31	39.80
Nov. 24	43.22	10	43.87	24	41.47		

Mifflin County

117. At Naginety. Extremes of observed water level: Highest, May 23, 1942, 8.38; lowest, Sept. 25, 1948, 23.66. Records available: 1941-42; 1946-48.

Jan. 3	18.46	Apr. 3	15.52	July 3	21.19	Oct. 2	23.48
10	18.53	10	18.05	10	22.64	10	22.40
17	19.30	17	10.90	17	22.84	16	23.17
23	20.01	24	16.18	24	20.32	23	22.35
31	21.93	May 1	17.16	31	23.22	30	22.62
Feb. 7	22.21	8	15.58	Aug. 7	23.17	Nov. 6	22.17
19	16.54	15	16.15	14	23.19	13	21.14
21	16.42	22	17.16	21	23.22	20	18.66
27	16.98	29	18.69	28	23.28	27	18.57
Mar. 6	17.34	June 5	19.02	Sept. 4	23.50	Dec. 4	19.02
13	18.58	12	19.56	11	23.36	11	18.49
20	13.95	19	20.21	18	23.44	18	17.65
27	14.41	26	19.29	25	23.66	27	19.81

Montgomery County

126. Pottstown. At King and High Streets, on land owned by the Commonwealth of Pennsylvania, and known as Pottsgrove Mansion, near north-east corner of main building. Altitude about 140 feet above mean sea level. Unused dug well, diameter 4 feet, depth 30.2 feet. Records available: 1948.

Jan. 8	24.86	Apr. 16	23.11	July 16	24.13	Oct. 8	26.02
9	24.41	23	25.37	23	24.51	15	25.99
16	24.87	30	25.21	30	25.02	22	26.14
23	24.73	May 7	21.51	Aug. 6	24.98	29	26.22
30	24.85	14	21.04	13	24.87	Nov. 5	26.23
Feb. 6	25.68	21	24.13	20	24.94	12	26.03
13	24.55	28	25.57	27	25.32	19	26.33
20	23.83	June 4	23.97	Sept. 3	25.85	24	26.16
27	24.77	11	24.82	10	24.30	26	25.96
Mar. 5	23.34	18	24.85	17	25.69	Dec. 3	24.90
12	23.65	25	24.43	24	26.23	10	25.56
19	25.16	July 2	25.21	27	26.59	17	24.21
26	23.36	9	25.93	Oct. 1	26.02	24	24.22
Apr. 2	23.31	14	24.99	4	26.39	31	21.05
9	24.73						

131. Gottfried Ott. Near northwest corner of stone residence on north side of dirt road about 100 yards west of State Route 29, and about 1.10 miles north of an iron bridge across the Perkiomen Creek in Gratersford. Altitude about 180 feet above mean sea level. Unused dug well, diameter 4 feet, depth 28.7 feet. Measuring point, top edge of 6-inch terra cotta pipe protruding from concrete well cover, at land-surface datum. July 13, 9.47; Sept. 27, 12.71; Oct. 4, 11.31; Oct. 21, 12.56.

Northumberland County

57. At Sunbury. Extremes of observed water level: Highest, Mar. 28, 1936, 6.31; lowest, Dec. 21, 1941, 20.71. Records available: 1931-48. Measurements discontinued after Sept. 2, 1948.

Date	Water level	Date	Water level	Date	Water level
Jan. 16	18.72	May 7	15.46	Sept. 2	18.02
Mar. 12	18.56	July 2	16.96		

Perry County

61. At Newport. Extremes of observed water level: Highest, June 7, 1940, 7.02; lowest, Dec. 12, 1941, 17.34. Records available: 1931-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	15.64	Apr. 10	14.02	July 18	14.02	Oct. 9	15.36
10	15.99	16	13.05	25	14.31	15	16.01
16	15.97	23	12.48	Aug. 1	14.56	16	15.75
24	16.04	May 1	12.39	8	14.78	24	15.91
31	16.02	8	11.67	14	14.94	31	16.10
Feb. 7	16.04	16	9.83	23	14.25	Nov. 6	15.62
14	15.99	22	10.10	30	15.11	13	16.14
20	15.93	31	11.31	Sept. 5	15.40	20	13.28
29	15.87	June 5	11.21	13	15.61	27	15.26
Mar. 7	15.67	13	12.19	16	15.70	Dec. 5	15.77
13	15.74	19	12.50	19	15.67	11	15.76
20	14.82	26	12.86	25	15.74	19	15.26
28	14.59	July 4	13.35	Oct. 3	15.70	26	15.26
Apr. 4	14.28	9	13.80				

Philadelphia County

P1. Girard Estate. In south Philadelphia, at Passyunk power station. Extremes of observed water level: Highest, Nov. 18, 1943, 30.42; lowest, June 3, Sept. 6, 13, Oct. 25, 1946, greater than 34. Records available: 1943-48. Measurements discontinued after Dec. 23, 1948.

Jan. 5	31.88	Mar. 12	31.81	May 14	31.24	July 9	(a)
12	31.57	19	31.74	21	30.70	16	(a)
16	31.60	26	31.86	27	31.18	23	(a)
23	31.57	Apr. 2	31.55	June 4	30.69	30	(a)
30	31.63	9	31.69	11	30.74	Aug. 6	31.84
Feb. 13	31.53	16	31.64	18	31.24	13	(a)
20	31.64	23	31.68	25	31.40	20	31.63
27	31.44	30	31.59	July 2	31.18	27	(a)
Mar. 4	31.54	May 7	31.66				

a Water level more than 33.17 feet below land-surface datum.

P3. City of Philadelphia. In south Philadelphia, in League Island Park. Extremes of observed water level: Highest, May 12, 1946, 24.38; lowest, June 13, 1946, 36.58. Records available: 1943-48.

P3--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	28.17	30.97	.....	.....	28.41	28.51	.....	.....	32.01	32.26	33.31	32.20
2	28.69	31.79	.....	.....	28.39	30.00	.....	34.26	32.02	32.17	34.26	32.41
3	29.00	31.94	.....	28.41	29.74	30.31	.....	33.59	32.07	.....	35.58	32.30
4	30.16	31.98	32.17	.....	30.07	30.94	.....	34.11	32.07	.....	34.60	31.45
5	30.46	31.93	32.50	.....	29.94	28.50	.....	34.02	30.60	.....	32.36	29.83
6	31.44	31.92	.....	.....	30.34	32.20	.....	33.87	28.19	.....	34.69	30.75
7	.....	.....	.....	.....	30.10	33.60	.....	32.80	30.00	.....	31.73	31.96
8	31.79	.....	.....	.....	28.33	34.50	.....	.....	31.46	.....	35.60	32.00
9	31.53	.....	.....	30.17	.....	34.61	32.87	34.01	31.63	.....	34.54	32.23
10	31.43	.....	.....	28.65	.....	34.40	32.30	34.13	31.93	.....	34.40	32.29
11	31.50	.....	.....	.....	30.40	35.50	31.97	33.66	31.99	.....	34.72	32.40
12	31.71	.....	30.81	30.26	30.52	33.20	32.94	33.90	.....	.....	33.76	30.02
13	31.90	31.90	29.17	30.53	30.34	31.81	34.97	33.52	.....	.....	34.04	31.45
14	31.95	30.71	28.98	30.70	30.60	34.70	34.60	33.54	.....	33.37	28.74	32.27
15	32.17	31.37	30.85	30.84	28.40	35.90	32.42	33.89	.....	33.67	30.26	32.51
16	32.10	.....	30.80	30.30	.....	35.62	34.07	34.08	.....	33.85	32.06	32.21
17	32.00	.....	30.81	28.47	.....	32.98	33.26	34.04	31.93	31.87	32.01	32.37
18	31.84	.....	31.00	28.36	.....	36.48	32.05	34.21	30.79	34.80	32.32	31.90
19	32.15	.....	30.80	29.97	.....	34.61	34.56	33.75	30.53	35.45	32.28	29.59
20	32.14	32.29	28.78	29.72	.....	34.02	34.14	32.07	31.29	35.67	31.29	30.97
21	31.75	32.57	28.41	29.77	29.96	35.16	34.21	34.60	31.11	36.11	29.78	32.11
22	31.65	.....	29.87	29.90	29.43	32.86	34.03	.....	31.82	32.40	30.42	32.49
23	31.94	.....	29.98	30.21	27.98	34.70	34.47	33.97	31.97	34.00	32.01	32.66
24	31.45	32.45	29.88	28.35	29.22	35.28	34.38	33.41	32.02	33.19	32.30	31.57
25	31.04	.....	30.22	28.17	30.23	34.00	30.31	33.57	32.20	34.02	31.50	28.90
26	30.39	.....	.....	30.31	30.17	.....	32.90	34.47	.....	34.22	31.08	28.56
27	31.83	32.09	.....	30.05	31.02	.....	33.60	33.95	.....	33.99	30.50	30.07
28	32.10	31.56	.....	29.96	31.00	.....	32.51	34.16	.....	33.95	28.86	30.07
29	32.05	.....	.....	30.06	28.73	.....	35.61	33.69	.....	32.18	29.72	29.05
30	32.11	.....	.....	30.23	25.78	.....	34.74	33.63	.....	34.71	31.89	30.23
31	32.10	.....	.....	.....	24.82	.....	31.26	32.10	.....	31.46	.....	28.79

P4. City of Philadelphia. In south Philadelphia, at Southwest Airport. Extremes of observed water level: Highest, Dec. 21, 1945, 7.34; lowest, Nov. 19, 1948, 13.61. Records available: 1943-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	11.64	Apr. 9	10.97	July 16	11.46	Oct. 14	12.73
12	11.57	16	10.36	23	11.67	21	13.13
16	10.87	23	11.15	30	11.75	28	13.12
23	10.92	30	11.27	Aug. 6	10.94	Nov. 4	13.56
30	11.56	May 7	10.45	13	11.28	12	13.47
Feb. 13	11.64	14	10.41	20	11.27	19	13.61
20	10.72	21	10.74	27	11.40	26	13.49
27	10.96	27	10.68	Sept. 3	11.70	Dec. 4	12.85
Mar. 4	10.46	June 4	10.93	10	11.69	10	13.13
12	10.62	11	11.32	17	12.13	17	12.62
19	10.56	25	11.10	24	11.99	23	12.81
26	11.02	July 2	11.01	Oct. 1	12.51	30	12.13
Apr. 2	10.17	9	11.43	7	12.55		

P5. United States Navy. In south Philadelphia, at Philadelphia Naval Hospital. Extremes of observed water level: Highest, Jan. 11, 1946, 22.82; lowest, Nov. 9, 1945, 30.70. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	27.26	Apr. 9	26.83	July 9	27.81	Oct. 7	28.17
12	27.80	16	26.73	16	28.48	14	28.01
16	28.05	23	26.90	23	28.86	21	28.96
23	27.98	30	26.52	30	28.78	28	28.49
30	28.13	May 7	26.68	Aug. 6	28.73	Nov. 4	28.62
Feb. 13	27.95	14	26.84	13	28.64	12	28.67
20	28.12	21	26.58	20	28.24	19	28.54
27	28.02	27	26.90	27	28.56	26	27.84
Mar. 4	28.10	June 4	26.93	Sept. 3	28.22	Dec. 4	28.40
12	27.23	11	28.26	10	28.07	10	28.59
19	27.16	18	28.72	17	28.29	17	28.69
26	27.07	25	28.70	24	28.17	23	28.79
Apr. 2	26.55	July 2	28.76	Oct. 1	28.42	30	27.46

P6. United States Navy. In south Philadelphia, at Philadelphia Naval Hospital. Extremes of observed water level: Highest, Apr. 8, 1946, 23.73; lowest, Nov. 9, 1945, 29.19. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	26.11	Apr. 23	25.42	July 23	26.99	Oct. 14	26.57
12	26.48	30	25.18	30	26.93	21	27.26
16	26.68	May 7	25.23	Aug. 6	26.90	28	26.92
30	26.78	14	25.29	13	26.83	Nov. 4	27.06
Feb. 20	26.67	21	25.06	20	26.52	12	27.14
27	26.59	27	25.37	27	26.83	19	27.08
Mar. 4	26.57	June 4	25.24	Sept. 3	26.63	26	26.55
12	25.85	11	26.32	10	26.49	Dec. 4	27.00
19	25.75	18	26.78	17	26.68	10	27.15
26	25.60	25	26.74	24	26.57	17	27.17
Apr. 2	25.27	July 2	26.81	Oct. 1	26.83	23	27.20
9	25.44	9	26.16	7	26.65	30	26.24
16	25.32	16	26.64				

P8. McCahan Sugar Co. In south Philadelphia. Extremes of observed water level: Highest, Dec. 29, 1947, 33.24; lowest, Sept. 16, 1944, 61.57. Records available: 1944-48.

Jan. 5	36.82	Apr. 2	47.45	July 2	50.55	Sept. 24	43.64
12	37.31	9	43.13	9	53.56	Oct. 1	45.68
16	44.04	16	42.19	16	47.96	7	43.91
23	45.72	23	44.16	23	48.34	14	43.61
30	42.96	30	47.17	30	40.39	21	44.54
Feb. 13	44.26	May 7	49.39	Aug. 6	42.40	28	46.94
20	45.31	14	51.49	13	42.03	Nov. 4	45.38
27	46.43	21	46.42	20	46.18	12	46.44
Mar. 4	48.29	27	46.43	27	45.00	19	47.69
12	49.58	June 4	46.19	Sept. 3	45.53	26	46.07
19	48.37	11	41.13	10	44.38	Dec. 10	40.37
26	48.89	25	47.33	17	47.10		

P9. Crown Paperboard Co. Formerly owned by Katham Corporation. In south Philadelphia. Extremes of observed water level: Highest, Dec. 14, 1947, 31.14; lowest, Oct. 10, 1947, 45.72. Records available: 1947-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	.....	.....	40.60	.....	42.58	34.54	39.34	40.48	40.30	36.26
2	.....	.....	.....	40.31	34.42	.....	43.76	.....	39.66	38.18	39.21	38.40
3	.....	.....	.....	38.39	.....	.....	43.11	.....	41.54	35.41	41.67	38.17
4	.....	.....	.....	35.20	.....	42.28	36.31	.....	37.95	.....	.....	.....
5	35.90	.....	.....	35.98	.....	41.78	37.75	.....	35.69	.....	43.65	34.42
6	38.20	.....	.....	.....	.....	35.71	.....	.....	35.32	.....	39.67	.....
7	37.10	.....	.....	.....	42.22	.....	.....	36.75	36.61	.....	36.82	.....
8	38.10	.....	.....	.....	42.94	.....	.....	34.79	38.03	40.75	42.06	.....
9	37.62	.....	.....	38.38	38.52	.....	42.35	35.81	39.40	36.22	.....	.....
10	34.40	.....	.....	34.92	41.20	.....	41.06	.....	38.56	34.43	43.19	.....
11	33.10	.....	.....	33.13	43.08	37.74	36.79	.....	36.42	37.81	43.22	35.42
12	34.10	.....	42.84	.....	42.91	38.11	40.39	37.69	35.56	36.64	43.69	34.43
13	.....	38.97	42.35	.....	44.09	35.00	.....	37.22	37.21	39.27	39.54	34.89
14	.....	37.12	37.81	.....	44.25	37.20	.....	35.58	40.41	40.60	36.72	35.19
15	.....	34.53	40.70	.....	42.93	38.81	.....	35.63	41.79	41.61	40.99	36.00
16	38.19	37.50	42.22	37.50	37.19	41.50	.....	35.81	42.11	37.74	42.60	35.04
17	35.51	38.11	41.90	34.90	.....	.....	39.65	38.10	42.31	35.53	42.10	34.33
18	34.51	38.20	42.04	33.45	.....	41.10	35.31	39.22	37.59	39.68	42.53	34.33
19	34.98	39.34	41.50	35.80	.....	41.02	.....	40.08	35.68	40.26	43.16	33.39
20	37.20	40.25	41.38	37.02	.....	34.80	.....	40.01	37.83	40.65	39.39	34.21
21	37.74	39.35	38.78	38.11	42.20	.....	.....	.....	38.52	.....	36.56	34.38
22	39.53	35.00	40.62	37.00	42.56	.....	.....	.....	40.57	42.11	38.70	34.92
23	39.38	36.06	41.87	40.28	38.60	.....	.....	.....	37.83	39.22	42.44	35.74
24	.....	39.45	41.90	40.43	41.60	.....	.....	.....	39.47	36.89	42.18	35.80
25	.....	39.20	41.56	34.62	43.35	42.62	.....	.....	36.50	39.91	39.48	32.92
26	.....	40.10	42.45	.....	42.94	42.21	.....	.....	35.31	42.00	41.42	33.24
27	.....	40.67	39.30	.....	39.83	35.79	.....	.....	39.30	42.57	39.51	33.12
28	.....	40.31	.....	.....	41.63	38.78	.....	.....	40.34	42.77	37.52	34.18
29	.....	38.30	.....	.....	41.16	39.90	.....	.....	41.05	42.10	38.05	35.32
30	.....	.....	.....	40.91	.....	42.69	35.61	.....	40.71	39.29	37.80	34.33
31	.....	.....	.....	.....	.....	.....	34.87	39.65	.....	36.61	.....	.....

N1. United States Navy. In south Philadelphia, on League Island.
Lowest observed water level (pumping): June 15, 16, 21, 22, and Oct. 12,
1948, 159.5. Records available: 1943-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	O t.	Nov.	Dec.
1	.....	.....	.....	140	142	148.5	.....	.....	147	143	138	146
2	.....	136.5	.....	140	140.5	150.5	155	153	147	133	143	146.5
3	.....	136.5	.....	140.5	141	151.5	.....	153	147.5	133	143.5	146.5
4	.....	137.5	.....	140.5	141	152	...	154.5	147.5	135	144	.....
5	.....	136.5	.....	140	141.5	152	.....	154.5	145	137.5	144.5	.....
6	155	135.5	.....	140	142	149.5	136	154.5	131.5	139.5	144.5	144
7	131.5	143.5	.....	140.5	140.5	152	133	.....	153.5	140	.....	146
8	130.5	144	.....	140.5	141	153	130	.....	150.5	140.5	143	146
9	132.5	135.6	.....	141	140.5	152.5	130.5	137.5	151	.....	143	146.5
10	127	137.5	.....	141.5	140.5	153	132	142	152	.....	143	147
11	128	136.5	138.5	140.5	140.5	153	130	143.5	151.5	.....	144	147
12	139.5	135.5	147.5	141	141.5	...	154	143	.....	159.5	.....	...
13	139.5	135.5	147.5	141.5	141.5	...	157	143.5	135.5	.....	140.5	146.5
14	140	.....	147	141.5	141.5	157	157.5	143.5	136.5	.....	.....	147
15	140	.....	147.5	141.5	147.5	159.5	159	143.5	137	.....	143	147.5
16	142	.....	147.5	141.5	147.5	159.5	158	143.5	137	.....	146	147
17	140	.....	148	142	148.5	.....	...	144	137	.....	146	147.5
18	133.5	.....	148	141	148.5	.....	...	144.5	132.5	144	147	.....
19	142.5	.....	148	141	149.5	157	154	144	133.5	144.5	140.5	.....
20	142.5	.....	147	141	149.5	156	153	147.5	136.5	144.5	.....	144
21	141.5	.....	146.5	141	149	159.5	153.5	148	135.5	145	.....	146
22	143.5	.....	140	141	149.5	159.5	152.5	148	137	145.5	143	147
23	143.5	.....	140	140.5	148	158.5	153.5	147.5	138	.....	146	147.5
24	151.5	.....	140.5	141.5	148.5	159	157	147.5	138	.....	146.5	.....
25	151.5	.....	140.5	140.5	150	160	150	148	138.5	138.5	.....	.....
26	138.5	.....	141	141	150.5	...	...	157	138	138.5	142	.....
27	140.5	.....	140	141	151	...	...	157	129	137.5	...	138.5
28	141	.....	140	141	151.5	157.5	139	132	129	138	...	139
29	141	.....	146	141	151.5	159	147.5	145.5	143	143	143	136
30	140.5	.....	140	140	145	...	.....	146	143.5	143.5	145.5	...
31	155.5	.....	139.5	.....	144	.....	.....	146.5	.....	149	.....	137.5

N2. United States Navy. In south Philadelphia, on League Island.
Lowest observed water level (pumping): June 5, 7, 1946, 161.0. Records
available: 1943-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	...	135.5	150	147.5	147.5	147	141	.....	...
2	...	142.5	149.5	147.5	147.5	147.5	143.5	151.5	...
3	...	143	149.5	146.5	144.5	146.5	.....	150.5	151
4	...	142.5	149.5	147	147	147.5	.....	150.5	151.5
5	...	142.5	150.5	141	144.5	147.5	.....	150.5	.....
6	...	142.5	149	146.5	147	148	147	150.5	.....
7	...	141	149	146	144	147.5	148.5	.....	148
8	...	...	148.5	146	145.5	148.5	.....	.....	150.5
9	...	138	148.5	145.5	146	147	.....	.....	151
10	143	138	144.5	147	147	147	148.5	.....	150.5
11	144	139	149.5	146.5	148	148	148	.....	150.5
12	145	...	.....	148	148	147.5	148	151	150.5
13	...	...	.....	146	145.5	147.5	147.5	151.5	151
14	144.5	138	.....	145	146	147.5	147.5	151.5	151
15	138.5	136.5	149	146.5	146.5	147.5	143.5	.....	...
16	139.5	137.5	147.5	147	147	146	.....	152	...
17	141	138	146.5	147.5	147.5	147.5	.....	151.5	...
18	141.5	138	146.5	...	147	147	.....	151.5	...
19	141	138.5	146	146	146.5	...	135.5	151.5	148
20	141	137	148	147	147	...	.....	151	149.5
21	142.5	136	148	147	147	147.5	146	151	.....
22	141.5	135.5	147.5	146	146.5	146.5	146.5	151.5	.....
23	140.5	136.5	145.5	147	148	147	.....	151	.....
24	.....	136.5	.....	146	148	147.5	.....	151	.....
25	.....	137.5	147	147	147	148	.....	151	.....
26	135.5	137	146.5	146.5	147	153.5	146	151.5	.....
27	136.5	137.5	147	146	148	150	147	152	.....

N2--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
28	135.5	136.5	146	143.5	147.5	146	147.5	151.5	.....
29	140	136.5	...	146	148.5	151.5	147.5	152	.....
30	135.5		147.5	146.5	148	.....	148	...	.....
31	.....		147.5		147		148	....

N3. United States Navy. In south Philadelphia, on League Island.
 Lowest observed water level (pumping): Jan. 24, Feb. 26, 1944, 90.0.
 Records available: 1943-48.

Daily noon water level, from recorder charts

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	74.0	....	80.0	....	....	81.5	75.5	79.5
2	76.0	74.0	....	80.5	78.0	....	80.5	79.5	80.0
3	75.0	75.0	....	73.5	79.0	....	77.0	80.0	79.5
4	75.5	75.5	70.5	72.0	79.0	....	78.5	80.0	78.5
5	76.0	75.5	69.5	....	79.5	....	79.5	80.5	73.0
6	75.5	75.5	....	73.0	79.5	....	80.5	80.0	....
7	75.0	75.0	77.0	72.0	....	....	81.0	....	79.5
8	75.0	74.0	78.0	72.0	....	79.0	81.0	80.0	79.5
9	75.5	74.0	78.0	72.5	77.5	80.0	....	80.5	79.5
10	74.5	75.0	78.0	73.0	77.5	81.0	....	80.5	79.5
11	74.0	75.5	72.5	73.0	79.0	81.0	....	81.0	79.0
12	75.0	75.5	75.0	78.0	79.0	78.0	77.5	78.5	73.0
13	75.0	75.5	....	78.0	78.5	78.5	77.5	79.0	78.5
14	75.5	75.0	....	77.0	79.0	80.5	77.5	....	79.5
15	75.5	74.5	79.5	79.5	79.0	80.5	78.0	76.0	80.0
16	75.5	74.0	77.0	76.0	78.5	80.5	77.0	79.5	79.5
17	80.5	....	74.0	75.0	78.0	74.0	79.0	81.0	72.5	79.5	79.5
18	80.5	....	74.0	75.0	78.5	....	....	72.5	79.0	80.0	76.0
19	75.0	75.5	69.0	78.5	....	77.5	79.5	80.0	....
20	75.5	75.5	67.5	77.5	....	80.0	80.5	74.5	77.5
21	75.5	75.0	76.0	78.5	....	80.0	80.5	73.0	79.5
22	75.5	74.0	74.0	77.5	....	81.0	80.5	77.0	80.0
23	75.5	68.5	....	78.0	79.0	81.0	76.0	80.0	80.0
24	74.0	73.5	....	77.5	....	81.0	73.0	80.0	75.5
25	74.0	75.0	....	....	79.5	81.5	79.5	77.0	67.0
26	75.0	70.5	....	....	80.0	81.5	78.5	77.0	66.5
27	75.0	70.5	....	79.0	80.0	80.5	77.0	73.5	74.5
28	75.0	76.0	....	76.5	79.0	81.0	79.0	67.0	72.0
29	75.5	74.0	77.0	79.0	....	81.0	81.0	....	69.0
30	77.5	75.5	....	80.0	79.5	....	81.0	80.5	79.0	75.0
31	75.0	....	....	....	....	....	....	....	....	....

N4. United States Navy. In south Philadelphia, on League Island.
 Lowest observed water level (pumping): Jan. 27, 29, 1944, 90.0. Records
 available: 1943-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	58.5	....	....	55.5	....	60.0	....	65.0	....	....	65.5	....
2	....	....	....	58.5	....	....	70.5	68.5	....	....	67.5	70.0
3	55.0	....	....	....	....	....	66.0	....	....	....	69.0	....
4	58.0	....	....	59.0	....	....	67.5	64.0	....	....	68.0	69.0
5	....	....	72.0	58.0	69.0	....	68.5	....	....	....	67.5	64.0
6	61.0	....	71.5	54.0	69.5	62.5	....	....	....	....	69.5	61.5
7	62.5	64.0	71.0	60.0	69.5	66.5	....	68.0	....	....	58.5	....
8	....	62.5	....	....	69.0	69.5	....	56.0	69.0	70.5	68.0	....
9	....	63.0	....	....	68.5	70.5	59.5	65.0	....	69.0	....	....
10	....	64.5	....	....	68.5	71.0	56.0	65.0	....	67.5	....	69.0
11	....	....	70.5	....	69.0	70.5	54.0	....	....	....	....	69.0
12	....	....	70.0	61.5	69.0	70.0	....	....	69.5	....	68.0	63.0
13	65.0	....	....	....	69.5	64.5	....	....	68.0	....	69.5	66.5
14	....	....	....	63.5	69.0	64.0	....	....	....	....	65.0	69.0
15	....	....	....	64.0	68.5	72.0	....	....	....	69.0	64.0	69.5
16	66.5	....	....	65.0	69.0	67.5	69.0	....	....	70.0	68.0	69.0
17	68.5	69.0	69.5	....	69.0	71.0	67.0	....	....	65.0	....	69.0
18	68.0	70.0	69.5	....	....	....	64.0	....	....	67.5	....	68.0

N4--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	....	69.5	69.5	....	....	....	68.0	....	....	....	....	62.0
20	....	65.5	69.5	....	70.0	....	67.0	....	....	....	67.5	65.5
21	69.0	....	69.0	....	....	58.5	68.5	....	....	....	63.0	68.5
22	....	....	....	....	....	66.0	67.5	....	69.5	....	63.5	69.5
23	....	....	....	....	68.5	69.5	70.5	....	....	70.0	68.5	70.0
24	69.5	71.5	....	....	58.0	....	69.0	....	....	65.5	....	67.5
25	....	....	....	....	65.0	69.5	....	69.0	....	....	69.0	51.5
26	54.5	....	....	67.0	66.0	....	66.0	....	70.5	....	65.0	54.0
27	62.5	....	....	67.5	67.0	....	....	....	....	....	64.5	....
28	....	....	....	68.0	68.5	63.5	....	....	....	....	64.0	57.0
29	....	....	68.5	68.0	....	....	69.5	67.5	....	69.5	....	56.0
30	....	....	68.0	68.5	59.5	....	70.5	....	....	....	....	64.5
31	....	....	59.0	....	....	....	68.5	....	....	....	....	57.0

N5. United States Navy. In south Philadelphia, on League Island.
 Extremes of observed water level: Highest, May 5, 1946, 35.5; lowest,
 Jan. 3, May 1, 1944, 59.0. Records available: 1943-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	44.0	47.6	....	40.8	44.3	40.8	49.1	46.5	48.3	49.0	46.6	48.1
2	44.8	48.4	....	44.9	44.0	44.6	49.6	47.9	48.2	48.9	47.7	....
3	46.0	48.7	....	44.0	45.1	45.2	47.3	48.2	48.0	47.3	48.5	....
4	46.4	48.6	....	44.1	45.7	45.5	45.8	49.0	48.3	47.1	48.7	....
5	47.6	48.6	....	44.9	45.4	44.3	43.1	49.2	46.3	47.0	49.0	....
6	47.8	48.6	....	43.2	45.8	42.7	43.5	49.6	43.6	48.3	48.8	....
7	48.3	47.9	....	45.0	45.4	45.0	44.0	47.0	45.4	48.5	45.3	48.1
8	48.5	47.1	....	45.2	44.4	46.4	44.4	43.1	47.6	48.6	48.1	48.3
9	48.3	48.0	....	45.5	44.2	47.0	44.8	46.3	48.0	46.9	48.6	48.5
10	48.3	48.4	....	44.8	45.6	47.4	43.2	46.8	48.8	44.3	48.7	48.4
11	48.0	48.6	....	43.8	45.8	47.7	42.4	48.2	48.9	46.2	49.2	48.6
12	48.1	48.6	46.6	45.4	46.0	45.4	43.8	48.2	47.6	47.3	47.9	45.8
13	48.7	48.4	45.0	45.6	45.8	43.6	47.6	48.3	47.2	47.6	48.2	47.0
14	48.8	47.5	45.0	45.6	45.8	45.9	47.2	48.4	48.2	47.8	43.2	48.2
15	48.8	48.0	46.0	45.7	44.2	48.4	48.9	48.3	48.3	48.2	46.3	48.6
16	48.6	48.0	46.0	45.6	43.8	48.3	48.4	48.1	48.5	48.4	47.8	48.2
17	48.8	48.6	46.2	44.4	45.0	49.0	47.4	48.0	48.2	45.7	48.0	48.2
18	48.6	48.4	46.2	43.8	45.2	49.1	46.0	48.2	46.9	47.6	48.4	47.8
19	48.8	47.0	46.0	45.0	45.8	46.3	48.2	48.0	46.5	48.5	48.2	44.9
20	48.8	48.3	44.9	45.2	45.8	44.5	47.6	48.0	47.4	49.0	47.8	45.9
21	48.4	....	44.0	45.4	45.3	46.7	48.4	48.0	47.8	49.0	45.6	47.7
22	48.3	....	45.0	45.2	44.3	48.0	47.9	48.0	48.4	48.9	45.7	48.6
23	48.7	....	45.0	45.5	43.2	46.5	48.0	48.0	48.6	48.5	48.0	48.9
24	48.0	....	45.2	44.2	43.5	47.1	47.9	48.1	48.7	45.4	48.5	48.2
25	42.0	....	45.8	43.9	45.4	48.7	40.8	48.3	49.1	47.1	47.9	43.8
26	45.5	....	46.0	45.1	45.8	47.1	46.4	48.7	49.2	48.2	45.8	42.5
27	48.2	....	44.0	45.5	46.6	45.6	47.2	....	48.4	47.5	46.3	44.5
28	48.8	....	44.0	45.4	46.4	46.8	47.5	48.7	49.0	48.2	43.3	43.8
29	48.8	....	44.8	45.6	44.8	47.2	49.9	47.5	48.9	49.0	44.5	42.7
30	48.9	....	45.2	45.6	59.2	48.8	49.3	47.9	48.8	49.0	47.4	44.7
31	48.8	....	40.2	....	37.0	....	47.3	48.2	....	44.4	....	....

N8. United States Navy. In south Philadelphia, on League Island.
 Lowest observed water level (pumping): Jan. 27, 1945, 91.0. Records
 available: 1945-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	74.5	82.0	84.0	76.0	78.5	73.0	....	76.5	78.5	83.0	79.0	82.0
2	77.0	83.5	84.5	81.0	78.0	77.0	88.0	81.0	78.5	82.0	82.0	83.0
3	78.0	84.0	84.5	80.0	79.0	78.5	81.5	82.0	78.5	78.5	83.0	83.5
4	80.0	84.0	84.5	80.0	79.0	79.5	79.5	82.0	78.5	80.0	83.0	81.0
5	81.0	84.0	85.0	81.0	80.0	....	73.5	82.5	74.0	80.5	83.5	76.0
6	83.0	84.0	83.0	76.0	80.5	....	76.0	82.5	....	82.0	83.0	79.0
7	84.0	81.5	82.0	81.0	80.0	74.5	74.5	76.0	73.5	82.0	74.5	82.0
8	84.0	81.0	82.0	81.0	79.5	72.0	75.0	....	78.0	82.5	82.0	82.0
9	83.5	83.0	83.0	82.0	79.0	71.0	76.0	80.5	78.5	79.0	83.0	82.0

N8--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	83.0	84.0	83.0	81.0	80.0	71.5	72.0	78.5	79.5	74.5	83.0	82.5
11	82.5	84.0	82.5	80.0	80.0	71.5	....	80.0	79.0	78.6	83.0	81.5
12	83.5	84.0	83.0	81.0	81.0	....	77.5	80.0	76.0	79.5	....	76.5
13	84.5	84.0	82.0	81.0	79.0	78.5	81.0	80.0	76.5	80.5	....	81.0
14	84.0	82.0	81.0	81.5	79.0	....	80.0	80.0	78.0	81.0	....	82.0
15	84.0	83.0	82.0	81.0	78.0	....	82.5	79.5	79.0	82.0	....	82.5
16	84.0	83.0	82.0	81.0	78.0	....	80.0	79.5	79.0	79.0	82.0	82.0
17	84.0	84.0	82.5	79.5	79.0	....	78.5	....	79.0	75.5	82.0	82.5
18	84.0	84.0	82.0	79.0	80.0	....	76.5	80.0	78.0	81.5	82.5	80.5
19	84.0	83.0	83.0	80.0	75.5	76.5	81.0	79.5	80.0	83.0	82.5	75.0
20	84.0	85.0	81.0	80.0	76.5	74.0	80.5	79.5	81.5	83.5	79.0	79.5
21	84.0	84.0	80.0	80.0	75.0	78.0	82.0	79.0	82.0	83.0	76.0	82.0
22	84.0	84.0	81.0	79.5	74.5	78.0	81.0	79.0	82.5	83.5	78.5	83.0
23	84.0	84.0	81.0	80.0	70.0	77.5	81.0	79.0	83.0	79.5	82.5	83.0
24	82.0	85.0	81.0	79.0	73.0	79.5	80.0	79.5	82.5	75.5	83.0	79.5
25	81.0	85.0	81.0	78.0	75.0	....	....	79.5	83.0	81.5	81.0	71.0
26	77.0	84.5	82.0	79.5	77.5	79.5	79.5	79.0	82.5	81.5	79.5	....
27	83.5	85.0	....	79.0	77.5	78.0	80.0	80.0	82.5	80.5	77.5	75.5
28	84.0	83.0	80.0	80.0	80.0	....	80.0	78.5	83.0	82.5	....	75.5
29	84.0	83.0	79.0	80.0	78.5	....	82.0	77.0	83.0	84.0	76.5	72.5
30	84.0	....	81.0	80.0	....	....	82.5	77.5	83.0	82.5	81.5	73.0
31	83.0	70.0	....	....	....	....	80.0	78.5	....	75.0	....	....

N0-1. United States Navy. In south Philadelphia, on League Island.
 Extremes of observed water level: Highest, May 5, 1946, 30.13; lowest,
 June 18, 1948, 35.73. Records available: 1945-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.59	34.10	35.21	31.54	33.59	31.82	35.20	33.65	34.76	34.86	33.54	34.79
2	31.81	34.67	35.06	32.94	33.63	33.38	35.70	34.67	34.73	34.70	34.21	34.98
3	32.34	34.76	34.83	33.48	33.49	33.68	34.33	34.79	34.72	34.19	34.58	34.88
4	33.14	34.91	35.01	33.80	33.89	33.72	33.48	35.36	34.57	33.94	34.49	34.42
5	33.10	34.74	35.70	33.65	33.69	33.57	32.54	35.43	33.45	33.74	34.67	33.20
6	33.99	34.84	35.15	33.40	34.10	33.58	32.67	35.50	31.89	34.21	34.60	33.50
7	34.08	....	34.43	33.80	33.80	33.49	32.88	34.60	33.21	34.45	32.70	34.59
8	34.48	....	34.05	33.73	33.55	33.98	33.20	32.59	34.20	34.56	34.46	....
9	34.12	34.61	34.51	33.73	33.78	34.22	32.75	33.92	34.35	33.78	34.69	....
10	34.20	34.93	34.37	33.99	33.74	34.61	32.39	34.68	34.32	32.03	34.52	....
11	34.28	35.00	34.49	33.69	33.93	34.74	31.79	35.03	34.41	33.15	....	....
12	34.48	34.66	34.56	33.45	34.08	34.45	31.91	34.89	33.67	33.50	34.20	....
13	34.55	34.74	34.36	34.00	33.98	33.42	34.29	34.80	33.70	33.53	34.36	....
14	34.55	33.50	34.29	34.40	33.91	34.00	34.17	34.92	34.20	33.49	32.59	....
15	34.84	34.31	34.08	33.92	33.74	35.26	35.08	34.97	34.40	33.89	33.50	....
16	34.91	34.70	33.91	34.00	33.81	35.26	34.68	34.91	34.61	34.52	34.68	....
17	34.86	34.90	33.90	33.71	33.62	35.62	34.19	34.96	34.70	32.65	34.50	34.82
18	34.77	34.92	34.28	33.82	33.72	35.73	33.08	35.19	33.83	33.49	34.90	34.72
19	35.06	34.61	34.25	33.90	34.05	34.67	34.41	35.05	33.16	34.35	34.90	33.07
20	34.99	34.86	33.88	33.89	34.01	33.76	34.39	34.88	33.90	34.51	34.08	33.30
21	34.59	35.42	33.70	33.70	33.67	34.63	34.80	34.91	33.83	35.00	33.00	34.49
22	34.13	35.27	33.50	34.04	33.60	35.28	34.50	34.80	34.22	35.06	33.17	34.82
23	34.63	35.42	33.69	34.04	33.60	34.70	34.96	34.91	34.31	34.64	34.36	35.00
24	34.72	35.66	33.50	33.69	33.09	34.90	34.57	34.81	34.35	32.81	34.67	34.19
25	34.14	35.35	33.93	33.41	33.81	34.69	32.05	34.84	34.59	33.50	34.52	32.53
26	34.06	34.85	33.96	33.71	33.98	33.96	34.08	35.20	34.81	34.37	33.72	32.46
27	34.66	34.84	33.31	33.71	34.18	33.29	34.32	35.07	34.38	33.90	33.62	33.21
28	34.91	34.60	33.13	33.66	34.21	33.78	34.26	34.93	34.85	33.97	32.70	33.08
29	34.93	34.60	33.49	33.79	34.02	34.59	35.14	34.00	34.78	34.78	32.60	32.53
30	34.93	....	33.50	33.60	32.51	35.08	35.27	34.31	34.90	34.82	34.39	33.04
31	35.15	32.51	....	31.63	....	....	34.65	34.50	....	32.47	....	31.80

NO-2. United States Navy. In south Philadelphia, on League Island.
Extremes of observed water level: Highest, May 5, 1946, 30.45; lowest,
July 19, 1945, 35.00. Records available: 1944-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32.00	33.48	34.43	32.00	33.01	32.31	34.16	33.10	34.02	34.00	32.71	33.87
2	31.37	33.79	34.05	32.41	33.12	32.91	34.60	34.11	33.91	33.57	33.39	33.97
3	.....	33.92	33.95	32.94	33.04	33.10	33.41	34.10	33.93	33.16	33.51	34.09
4	.....	33.87	34.16	33.30	33.83	33.16	32.91	.....	33.50	33.36	33.42	33.30
5	.....	33.93	34.83	33.10	33.50	32.94	32.20	.....	32.70	33.51	33.56	32.40
6	33.17	33.82	34.35	32.84	33.65	32.98	32.48	34.90	31.68	33.61	33.47	33.13
7	33.21	.....	33.55	33.51	33.52	33.08	32.40	33.70	31.82	33.73	32.11	34.00
8	33.53	.....	33.44	33.36	33.16	33.45	32.71	32.48	33.05	33.73	33.53	34.00
9	33.12	33.86	33.87	33.50	33.40	33.86	32.61	33.98	33.28	32.50	33.60	33.80
10	.....	34.17	33.62	33.42	33.40	33.89	32.00	33.90	33.61	31.73	33.37	34.24
11	33.52	34.15	33.59	33.04	33.65	34.12	31.58	34.13	33.24	32.57	33.73	34.10
12	33.80	33.76	33.81	33.40	33.54	33.50	32.50	33.92	32.71	32.90	33.39	32.63
13	33.52	33.79	33.76	33.90	33.50	32.80	33.35	33.81	33.20	32.85	33.19	33.62
14	33.60	32.56	33.71	33.98	34.41	33.55	33.90	33.92	33.41	33.00	32.22	34.11
15	34.09	33.67	33.43	33.80	33.27	34.07	33.99	33.97	33.32	33.43	33.14	34.41
16	34.03	33.90	33.23	33.78	33.31	34.17	33.74	33.91	33.65	33.10	34.02	34.09
17	33.90	33.88	33.30	33.29	33.06	34.72	33.25	.....	33.83	31.98	33.40	33.80
18	33.88	33.92	33.66	33.40	33.50	34.65	32.52	.....	32.69	33.17	34.11	33.61
19	34.19	33.79	33.60	33.80	33.57	33.67	33.71	.....	32.36	33.59	34.10	32.10
20	34.07	34.01	33.32	33.70	33.60	33.18	34.10	34.15	33.14	33.72	32.70	32.98
21	33.30	34.44	33.04	33.16	33.03	34.10	33.86	33.89	33.24	34.19	32.45	33.85
22	33.28	34.26	32.93	33.58	33.10	34.37	33.61	33.81	33.44	34.22	33.32	34.10
23	33.77	34.51	33.08	33.52	33.11	34.22	33.92	34.05	33.48	33.30	33.81	33.99
24	33.58	34.90	32.97	33.16	33.00	33.91	33.85	33.74	33.72	32.20	34.00	33.53
25	33.51	34.20	33.48	32.91	33.29	33.90	32.10	33.73	33.60	33.42	33.21	32.21
26	33.55	33.76	33.40	33.72	33.63	33.20	33.57	34.00	33.73	33.54	33.72	32.30
27	33.78	33.98	32.50	33.60	33.67	32.78	33.78	34.03	33.89	33.07	32.54	32.65
28	34.01	33.62	32.71	33.50	33.59	33.37	33.46	33.69	33.80	33.60	32.13	32.70
29	33.80	33.77	33.94	33.60	33.89	33.67	34.13	33.11	33.75	33.61	32.79	32.10
30	34.09	.....	33.00	33.46	32.25	34.33	34.63	33.24	33.82	33.69	33.95	32.03
31	34.16	.....	32.02	.....	31.79	.....	33.70	33.71	.....	32.12	.....	31.33

NO-3. United States Navy. In south Philadelphia, on League Island.
Extremes of observed water level: Highest, Sept. 22, 1947, 25.96; lowest,
Feb. 12, 1947, 31.08. Records available: 1945-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	30.53	30.56	28.78	29.24	29.78	29.82	30.57	29.93	28.90	29.33	29.96
2	.....	30.36	29.62	26.92	30.07	29.78	30.50	30.60	29.91	30.02	29.91	30.12
3	.....	30.41	30.05	29.70	29.97	29.67	30.50	30.59	29.88	30.17	29.77	29.88
4	.....	30.30	30.22	30.32	30.20	29.73	30.36	.....	29.87	30.16	29.62	29.70
5	.....	30.40	30.60	29.48	29.91	29.53	30.20	.....	29.84	29.78	29.80	29.70
6	29.76	30.24	30.52	29.74	30.24	29.92	29.78	30.66	29.70	29.55	29.70	29.32
7	29.79	.....	29.82	30.10	29.76	29.50	29.94	30.72	29.41	29.67	29.81	29.62
8	29.70	.....	29.80	29.88	30.10	29.56	29.90	30.51	29.34	29.50	30.15	29.70
9	29.60	.....	30.27	30.00	30.33	29.85	30.26	30.42	29.40	29.61	29.93	.....
10	30.23	.....	30.00	30.43	30.20	30.10	30.15	30.59	29.26	29.53	.....	.....
11	30.61	.....	30.10	30.09	30.30	30.27	29.91	30.53	29.64	29.52	.....	.....
12	30.40	.....	30.27	29.80	30.16	30.30	29.86	30.31	29.71	29.49	30.18	.....
13	29.63	30.29	30.34	30.41	30.18	30.13	29.90	30.27	29.69	29.54	29.69	.....
14	30.09	29.54	30.30	30.20	30.10	29.87	30.06	30.36	29.64	29.68	30.06	30.08
15	30.64	30.76	29.99	30.10	30.15	30.28	30.09	30.40	29.89	30.01	29.86	29.99
16	30.53	30.72	29.79	30.03	30.16	30.13	30.32	30.26	30.06	30.09	30.10	29.90
17	30.38	29.81	28.20	29.61	29.43	30.53	30.30	30.32	28.69	29.63	29.70	29.96
18	30.43	30.18	30.18	30.37	29.81	30.39	30.09	30.28	29.61	29.37	.....	30.14
19	30.46	30.21	30.09	30.26	30.20	29.94	30.17	30.21	29.57	29.81	30.10	29.50
20	30.54	30.27	30.06	29.99	30.13	29.87	30.26	30.13	29.48	29.89	29.61	29.52
21	29.87	30.60	29.91	29.90	29.69	29.87	30.20	30.16	29.53	30.32	30.03	29.67
22	29.69	30.37	29.67	30.34	29.71	29.96	30.14	30.17	29.57	30.32	29.85	29.84
23	30.30	30.61	29.86	30.27	29.98	29.95	30.23	30.11	29.44	30.10	29.40	30.04
24	30.48	30.67	.....	30.06	30.00	29.71	30.46	30.09	29.69	29.78	29.74	30.19
25	30.53	30.12	.....	29.89	29.99	29.58	30.45	30.07	30.03	29.61	29.80	29.89
26	30.18	29.85	29.99	30.00	30.01	29.88	30.30	30.14	30.20	29.66	29.87	30.29

NO-3--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	30.32	30.17	29.24	29.91	30.20	29.72	30.37	29.87	30.18	29.82	29.60	29.96
28	30.57	29.67	29.65	29.70	30.19	29.57	30.37	30.18	30.10	29.81	29.89	29.82
29	30.30	30.00	30.03	29.75	30.09	29.59	30.52	29.95	30.10	29.50	29.46	29.63
30	30.70		29.80	29.73	30.04	29.21	30.51	29.86	29.99	29.99	29.85	29.08
31	30.79		29.86		29.94		30.53	29.60		29.80		28.79

NO-4. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, Sept. 22, 1947, 29.19; lowest, Feb. 12, 1947, 32.73. Records available: 1945-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.28	.....	32.14	30.59	31.21	31.19	31.68	32.10	31.50	31.43	31.18	31.76
2	30.40	.....	31.60	30.03	31.54	31.14	32.21	32.18	31.49	31.50	31.42	31.95
3	31.00	.....	31.62	31.17	31.34	31.21	.....	32.18	31.39	31.66	31.40	31.70
4	31.09	.....	31.87	31.68	31.66	31.16	.....	32.20	31.39	31.66	31.20	.....
5	31.01	.....	.....	31.38	31.40	31.05	31.73	32.20	31.38	31.41	31.34	.....
6	31.05	.....	32.17	31.06	31.83	31.61	.....	32.31	31.19	31.26	31.52	.....
7	31.06	.....	31.43	31.46	31.86	31.09	31.32	.....	30.74	31.22	31.32	.....
8	31.31	.....	31.40	31.31	31.51	30.98	31.58	.....	30.73	31.22	31.63	.....
9	30.89	.....	31.77	31.30	31.83	31.24	31.67	32.07	30.79	31.16	31.59	.....
10	31.44	32.02	31.56	31.74	31.70	31.59	31.60	32.25	30.93	.....	31.18	31.68
11	31.84	32.05	31.67	31.51	31.72	31.71	31.29	.....	31.03	.....	31.70	32.10
12	31.71	31.66	31.83	31.15	31.73	31.74	31.16	32.06	31.06	.....	31.77	31.57
13	31.30	31.60	31.88	31.78	31.62	31.54	31.29	31.87	31.03	31.01	31.36	31.44
14	31.33	30.80	31.89	31.74	31.63	31.60	31.50	31.90	31.00	31.01	31.46	31.79
15	31.97	32.04	31.56	31.60	31.67	31.72	31.80	31.98	31.27	31.36	31.31	.....
16	31.87	32.04	31.51	31.60	31.71	31.88	31.94	31.97	31.47	31.60	31.66	.....
17	31.74	31.49	30.80	31.55	31.30	32.05	31.87	31.94	31.20	31.09	31.37	31.63
18	31.75	31.53	31.70	31.90	31.30	32.12	31.61	31.95	31.00	30.97	31.69	31.82
19	32.08	31.60	31.62	31.80	31.69	31.93	31.62	31.93	30.81	31.21	31.68	30.98
20	31.94	31.70	31.48	31.59	31.62	31.76	31.77	31.81	30.75	31.30	31.34	31.09
21	31.17	32.12	31.35	31.40	31.21	31.76	31.78	31.84	30.80	31.78	31.50	31.31
22	30.90	31.92	31.07	31.86	31.36	31.91	31.71	31.80	30.84	31.83	31.41	31.50
23	31.63	.....	31.30	31.75	31.55	31.92	31.81	31.78	30.86	31.67	31.39	31.70
24	31.81	.....	31.12	31.53	31.54	31.74	32.01	31.72	31.04	31.35	31.40	31.84
25	31.89	31.81	31.66	31.28	31.51	31.51	31.91	31.58	31.42	31.12	31.42	.....
26	31.96	31.41	31.49	31.41	31.62	31.70	31.81	31.60	31.63	31.18	31.62	31.78
27	31.70	31.69	30.72	31.35	31.65	31.58	31.89	31.65	31.63	31.32	.....	31.42
28	31.89	31.22	30.98	31.20	31.64	31.40	31.90	31.67	31.58	31.40	31.64	31.32
29	31.65	31.53	31.40	31.26	31.53	31.43	32.07	31.33	31.56	31.45	31.16	31.02
30	31.91		31.25	31.21	31.45	31.40	32.14	31.24	31.49	31.53	31.63	30.53
31	.....		31.23		31.32		32.15	31.20		31.41		30.14

NO-5. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, Sept. 22, 1947, 28.13; lowest, Feb. 12, 1947, 32.49. Records available: 1945-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.20	31.44	31.89	.....	30.95	31.32	.....	31.86	31.27	31.22	30.96	31.32
2	30.53	31.28	31.11	29.13	31.27	31.13	31.89	31.88	31.22	31.30	31.26	31.54
3	30.52	31.28	31.38	.....	31.16	31.08	31.86	31.84	31.19	31.37	31.14	.....
4	30.61	31.21	31.64	.....	31.40	31.04	31.70	31.87	31.18	31.42	31.01	.....
5	30.90	31.31	32.07	.....	31.25	30.92	31.53	31.89	31.12	31.08	31.14	.....
6	30.96	31.22	31.88	30.74	31.53	31.28	31.08	31.95	31.00	30.92	31.08	.....
7	30.87	.....	31.12	31.26	31.14	31.02	31.10	32.12	30.63	31.02	31.30	.....
8	31.15	.....	.....	31.28	31.30	30.82	31.21	31.88	30.59	30.96	31.49	31.11
9	30.80	31.73	.....	31.16	31.63	31.04	31.46	31.73	30.63	30.96	31.27	31.40
10	.....	31.80	.....	31.60	31.50	31.40	31.40	31.90	30.71	30.82	30.93	31.40
11	.....	31.70	.....	31.40	.....	31.53	31.19	31.82	30.86	30.79	31.55	31.79
12	31.48	31.31	31.60	30.98	.....	31.57	31.04	31.62	30.89	30.81	31.58	31.35
13	31.28	31.45	31.62	.....	.....	31.44	31.07	31.51	30.86	30.83	31.07	31.25
14	31.10	30.75	31.64	.....	31.42	31.44	31.22	31.58	30.83	30.94	31.19	31.50
15	31.71	.....	31.36	.....	31.46	31.49	31.42	31.60	31.07	31.24	31.12	31.60
16	31.71	.....	31.19	31.37	31.50	31.62	31.64	31.60	31.22	31.42	31.37	31.35
17	31.61	.....	.....	31.32	31.08	31.66	31.52	31.59	30.40	31.07	31.03	31.42

NO-5--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
18	.....	.....	.....	31.63	31.05	31.89	31.37	31.57	30.82	30.84	31.47	31.62
19	.....	.....	31.42	31.60	31.49	31.59	31.34	31.54	30.71	31.09	31.35	30.89
20	.....	31.56	.....	31.38	31.43	31.40	31.49	31.43	30.62	31.17	30.88	30.97
21	31.03	31.90	31.12	31.19	31.07	31.40	31.45	31.49	30.63	31.65	31.18	31.10
22	30.81	31.73	30.94	.....	31.12	.....	31.40	31.47	30.70	31.69	31.04	31.30
23	31.27	32.01	.....	31.57	.....	.....	31.48	31.42	30.69	31.55	30.80	31.51
24	31.51	32.08	.....	31.40	.....	.....	31.64	31.36	30.84	31.17	.....	31.63
25	31.33	31.50	.....	31.14	.....	31.20	31.71	31.28	31.08	30.92	.....	31.30
26	31.42	31.17	31.29	31.28	31.38	31.31	31.52	31.33	31.06	31.01	31.25	31.65
27	31.26	31.48	30.60	31.24	31.46	31.28	31.60	31.23	31.13	31.20	30.99	31.32
28	31.46	31.02	30.80	31.08	31.49	31.09	31.60	31.45	31.33	31.20	31.28	31.21
29	31.19	31.32	31.24	31.08	31.50	31.09	31.78	31.17	31.32	31.16	30.80	30.98
30	31.51	.....	31.10	31.01	31.41	31.00	31.86	31.09	31.24	31.33	31.20	30.40
31	31.64	.....	31.11	.....	31.35	.....	31.87	31.00	.....	31.18	.....	30.08

NO-6. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, Apr. 2, 1948, 27.10; lowest, Feb. 12, 1947, 32.49. Records available: 1945-48. Measurements discontinued Apr. 5, 1948.

Daily noon water level, from recorder charts

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	29.20	Jan. 31	29.73	Feb. 28	28.90	Mar. 18	29.36
2	28.35	Feb. 1	29.52	29	29.01	19	29.25
3	28.91	2	29.34	Mar. 1	29.70	20	29.12
4	28.95	3	29.27	2	29.21	21	29.05
5	28.80	4	29.26	3	29.09	22	28.80
6	28.89	5	29.34	4	29.41	23	28.93
7	28.83	6	29.03	5	29.81	24	28.79
8	27.14	9	29.54	6	29.75	25	29.28
9	28.74	10	29.70	7	29.01	26	29.15
10	29.25	11	29.66	8	29.04	27	28.43
12	29.38	12	29.08	9	29.35	28	28.78
13	28.89	13	29.32	10	29.14	29	29.15
14	27.10	20	29.36	11	29.21	30	28.98
15	29.64	21	29.80	12	29.47	31	28.99
16	29.61	23	29.81	13	29.50	Apr. 1	27.96
17	29.48	24	29.88	14	29.51	2	27.10
18	29.45	25	29.49	15	29.17	3	28.87
23	29.38	26	29.13	16	28.94	4	29.40
24	29.50	27	29.31	17	28.05	5	28.92
30	29.64						

NO-8. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, Jan. 2, 1948, 40.89; lowest, June 19, 1946, 51.45. Records available: 1946-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	40.96	45.39	49.79	.....	47.24	.....	50.83	43.64	49.71	49.87	46.30	48.73
2	40.89	47.58	49.49	46.21	47.30	.....	51.02	49.82	49.69	49.13	48.57	49.30
3	41.37	48.20	49.31	46.45	47.24	.....	45.18	50.04	49.72	46.68	49.12	49.16
4	44.03	48.01	49.90	46.58	48.20	48.39	44.04	50.82	49.79	47.64	50.00	47.50
5	45.44	48.00	50.30	47.06	47.79	48.28	42.42	50.10	46.09	47.73	49.00	.....
6	47.42	47.77	49.25	46.25	47.49	46.22	.....	49.82	41.70	49.03	48.98	.....
7	47.64	45.94	49.01	47.77	47.06	49.25	45.49	44.56	.....	49.33	42.71	.....
8	47.86	45.77	48.40	47.33	46.69	49.50	45.95	42.07	.....	49.94	.....	.....
9	47.94	47.80	49.28	47.36	46.85	49.10	44.10	.....	49.01	44.58	.....	.....
10	46.67	48.72	48.73	47.72	47.04	48.82	42.30	.....	49.66	41.76	.....	48.75
11	46.35	48.83	47.90	46.80	47.93	49.32	41.15	.....	49.75	.....	.....	48.94
12	48.15	48.21	49.90	47.31	48.50	47.21	45.70	.....	46.50	.....	45.98	43.18
13	48.38	48.18	48.53	47.58	49.10	45.30	49.56	48.62	47.90	.....	47.80	47.41
14	48.38	45.30	48.10	47.82	47.90	48.71	49.03	49.32	49.00	46.09	43.27	48.85
15	48.52	45.93	47.70	47.48	46.83	50.35	50.26	49.39	49.32	46.98	46.40	49.46
16	48.44	47.98	48.12	47.48	46.78	50.45	48.20	49.26	49.51	45.42	48.69	.....
17	48.00	49.72	47.88	47.12	47.32	50.93	45.67	49.39	49.52	41.82	48.40	48.88

NO-8--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
18	47.88	47.56	48.36	47.09	47.48	50.95	43.45	49.78	46.42	.....	48.86	47.10
19	.....	48.75	48.09	46.60	48.46	48.12	50.14	49.18	46.02	.....	48.76	43.00
20	.....	49.72	47.47	47.46	48.78	46.00	48.90	49.39	48.56	.....	.....	47.02
21	.....	49.51	46.25	47.80	48.07	49.24	50.49	49.61	48.76	49.39	.....	48.92
22	.....	49.73	46.80	47.79	48.00	49.48	49.20	49.31	49.45	49.27	47.20	49.32
23	48.27	49.50	46.94	48.08	47.86	49.17	49.24	49.37	49.60	45.98	48.94	49.52
24	46.58	50.00	47.54	47.13	46.53	50.21	47.53	49.38	49.41	42.30	49.22	46.44
25	45.93	49.78	48.10	47.30	48.31	50.37	42.81	.....	49.61	.....	44.66	42.03
26	46.13	49.04	48.32	48.06	48.40	45.05	.....	.....	49.55	.....	48.37	41.74
27	43.10	49.11	47.16	47.75	49.06	43.42	.....	50.00	48.78	.....	43.75	44.69
28	48.55	48.90	46.53	47.86	49.00	48.36	.....	49.73	49.52	47.32	41.96	46.88
29	48.42	49.10	46.27	48.40	48.76	49.60	.....	48.07	49.58	48.54	45.50	44.32
30	48.51	.....	46.80	47.56	44.90	50.90	50.00	48.80	49.78	48.86	48.43	45.45
31	47.99	.....	44.60	.....	.....	.....	47.48	49.24	.....	42.48	.....	44.50

NO-9. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, May 5, 1946, 41.41; lowest, Aug. 6, 1948, 56.09. Records available: 1946-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	42.08	49.50	53.70	.....	51.23	46.51	.....	.....	53.42	54.50	.....	.....
2	42.96	51.30	53.71	51.11	50.88	50.93	56.06	.....	53.37	53.19	.....	.....
3	46.06	51.79	53.70	50.71	50.93	51.90	48.62	.....	53.85	48.88	.....	52.85
4	47.41	51.79	53.79	50.72	51.40	52.62	46.17	.....	53.52	50.63	54.00	51.04
5	.....	51.80	54.53	50.60	51.30	52.76	42.92	.....	48.10	.....	54.35	45.30
6	50.92	51.66	53.25	49.31	51.65	49.46	46.90	56.09	44.85	.....	53.83	49.60
7	.....	48.82	52.63	50.96	51.48	52.29	47.61	48.20	47.80	53.76	48.61	52.02
8	52.28	48.02	52.55	51.02	51.17	53.56	48.52	43.16	53.09	54.04	.....	52.42
9	51.62	50.75	52.89	51.73	51.04	53.49	45.91	.....	54.14	48.92	.....	52.40
10	50.99	51.71	52.60	51.52	51.50	53.31	42.70	.....	55.00	45.24	.....	53.12
11	53.42	52.04	51.25	50.69	51.87	53.61	41.43	.....	54.63	48.68	.....	51.75
12	50.94	51.79	.....	51.13	51.96	52.63	46.52	.....	50.50	.....	52.29	45.31
13	53.01	51.80	.....	51.51	52.20	49.34	52.38	53.02	51.19	.....	52.12	50.90
14	52.52	.....	.....	51.72	51.70	51.36	52.50	52.72	53.17	51.29	45.61	52.80
15	52.45	50.12	.....	51.51	51.10	54.71	54.69	52.48	53.49	51.86	46.28	53.28
16	52.27	52.11	.....	51.40	50.92	54.31	51.76	52.31	53.85	52.30	.....	52.55
17	52.09	53.12	.....	51.28	51.00	55.29	48.89	52.68	53.73	45.17	.....	52.74
18	51.89	53.21	.....	50.62	51.34	55.56	.....	52.88	49.07	50.95	.....	49.90
19	51.95	52.61	52.24	51.00	51.90	49.11	.....	.....	.....	52.80	53.31	45.14
20	52.11	53.60	51.60	51.13	51.96	49.05	.....	52.59	.....	.....	50.15	50.08
21	51.76	53.68	50.40	51.35	51.67	.....	.....	.....	.....	53.84	45.69	51.99
22	51.52	54.21	50.79	51.48	51.43	.....	.....	.....	.....	54.48	48.40	53.56
23	52.55	53.72	50.67	51.76	50.40	.....	52.03	.....	.....	51.17	53.11	53.91
24	49.18	54.66	50.80	51.19	49.75	.....	51.20	.....	54.00	45.67	53.81	50.38
25	48.04	53.82	51.31	50.90	52.00	55.09	42.40	.....	54.77	51.18	51.97	43.52
26	47.90	53.16	51.51	51.48	52.70	48.21	51.09	.....	54.12	51.50	51.51	42.20
27	51.41	53.21	50.60	51.58	53.30	46.04	51.02	.....	53.31	.....	47.10	45.26
28	52.13	53.22	50.28	51.65	54.28	.....	51.60	52.76	54.20	52.80	43.41	47.15
29	52.14	53.42	49.00	52.00	52.90	.....	.....	51.16	53.98	54.88	.....	44.77
30	52.19	.....	.....	51.62	46.52	.....	55.29	52.79	54.21	54.05	.....	46.56
31	51.90	.....	.....	.....	44.02	.....	.....	53.14	.....	44.42	.....	44.80

NO-10. United States Navy. In south Philadelphia, on League Island. Extremes of observed water level: Highest, Aug. 31, 1947, 45.01; lowest, June 20, 1948, 59.60. Records available: 1946-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	56.20	58.00	.....	.....	.....	58.70	53.80	57.19	58.40	54.88	57.03
2	52.12	57.50	58.00	54.98	.....	.....	59.60	57.32	57.19	57.80	56.92	57.61
3	53.26	57.82	57.60	53.80	.....	.....	.....	57.55	57.56	55.11	57.91	57.29
4	54.67	57.78	57.79	53.73	.....	.....	.....	58.46	57.27	55.55	58.10	56.40
5	55.35	57.75	58.60	54.59	.....	.....	.....	58.67	54.18	56.03	58.30	52.76
6	56.91	57.58	55.82	51.28	.....	.....	.....	59.44	47.97	57.31	58.12	53.37
7	57.48	56.20	55.00	54.93	55.37	55.96	50.56	54.00	53.60	57.72	53.79	.....

NO-10--Continued.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	57.94	55.54	55.71	55.04	54.19	57.12	51.02	49.30	56.70	57.83	57.23	.....
9	57.51	57.01	56.30	55.31	54.00	57.50	52.60	55.82	57.18	54.74	57.89	.....
10	57.27	57.68	56.13	54.49	55.58	57.78	48.90	56.00	58.03	51.60	57.98	.....
11	56.75	57.90	55.30	53.64	55.98	57.60	47.87	57.29	57.89	54.42	58.31	.....
12	57.36	51.69	55.91	55.24	55.90	55.70	53.50	57.09	55.52	55.67	56.96	.....
13	58.30	57.71	54.71	55.65	55.83	51.75	57.12	57.17	55.76	55.97	57.16	.....
14	58.19	56.18	54.47	55.78	55.27	55.40	57.00	57.12	57.04	56.20	50.48	.....
15	58.02	56.71	55.65	55.55	54.17	58.64	58.53	56.91	57.20	56.78	54.31	.....
16	57.98	57.07	55.60	55.09	53.65	58.11	56.80	56.69	57.48	56.32	56.95	.....
17	58.01	57.91	55.81	54.17	54.73	59.19	55.30	56.90	57.21	56.62	57.20	.....
18	57.79	57.89	55.80	53.62	55.20	59.25	53.34	56.92	53.73	56.52	57.57	.....
19	57.94	56.13	55.42	54.79	55.60	53.52	57.41	56.67	54.68	57.63	57.74	.....
20	57.99	.....	54.47	54.89	55.51	51.01	56.70	56.70	56.42	58.40	55.90	.....
21	57.65	58.36	53.61	55.11	54.17	56.30	57.87	56.80	56.61	58.31	52.92	.....
22	57.53	58.47	54.59	55.10	.....	56.57	57.70	56.64	57.52	58.31	53.90	.....
23	57.70	58.36	54.55	55.40	.....	55.52	57.32	56.67	58.05	56.65	57.32	58.10
24	56.44	58.93	54.76	53.92	.....	54.92	56.29	56.70	57.81	52.98	57.85	56.31
25	55.61	58.59	55.09	53.33	.....	57.54	45.15	57.53	58.28	56.14	56.45	.....
26	51.41	58.02	55.24	55.29	.....	55.10	55.30	57.89	58.21	57.23	55.00	.....
27	57.43	57.88	53.53	55.32	.....	53.30	56.07	57.69	57.40	56.01	54.21	.....
28	58.03	57.40	53.59	55.17	.....	55.54	56.30	57.28	58.25	56.81	48.98	.....
29	58.04	57.45	53.65	55.45	.....	55.70	58.14	56.00	58.04	58.60	51.70	.....
30	58.25	.....	54.52	53.90	.....	58.48	58.70	56.69	58.13	58.39	56.23	52.83
31	57.49	.....	45.20	.....	.....	.....	56.30	57.01	.....	51.21	.....	49.80

Pike County

F5. At Twelvemile Pond, about 10.0 miles north of Marshalls Creek, along east side of State Route 402 at Hunters' Range Rangers Station, in back yard of ranger station, about 10 yards east of white frame house. Altitude about 1,183 feet above mean sea level. Unused dug well, diameter 2 feet, depth 31.7 feet. Measuring point, top edge of flagstone well cover, 1.00 foot above land-surface datum. Records available: 1948. June 12, 9.25; Nov. 23, 16.33; Dec. 7, 13.50; Dec. 21, 12.40.

F6. Near Edgemere, about 7.7 miles northwest of Dingmans Ferry, along south side of hard surface road leading from Dingmans Ferry to Porters Lake, near Edgemere Rangers Station, on camp site formerly operated by Civilian Conservation Corps, about 200 yards east of Little Bushkill Creek, inside old concrete foundation about 100 yards south of road. Altitude about 1,310 feet above mean sea level. Unused drilled well, diameter 4 inches, depth 297 feet. Measuring point, top edge of iron casing, 1.00 foot above land-surface datum. Records available: 1948. Dec. 7, 31.20; Dec. 17, 30.20.

F7. Along north side of U. S. Route 6, about 2.4 miles east of intersection of U. S. Route 6 and State Route 402, and about 4.1 miles northwest of Lords Valley, in basement of main building at Owego Rangers Station, about 100 feet south of U. S. Route 6. Altitude about 1,310 feet above mean sea level. Unused drilled well, diameter 6 inches, depth 43.2 feet. Measuring point, top edge of steel casing, 7.00 feet below land-surface datum. Records available: 1948.

Date	Water level	Date	Water level	Date	Water level
Nov. 23	34.49	Dec. 4	33.34	Dec. 18	35.49
28	34.37	11	32.58	27	34.70

Schuylkill County

72. Near Pine Grove. Extremes of observed water level: Highest, Aug. 31, 1940, 4.14; lowest, Nov. 5, 1944, 31.78. Records available: 1931-48.

72--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	13.10	Apr. 3	14.40	July 5	19.40	Oct. 2	26.80
10	15.50	10	11.80	10	21.00	9	26.50
16	17.20	17	13.30	17	22.00	16	26.80
25	18.40	24	16.30	24	22.90	23	26.40
31	19.20	May 1	17.10	31	23.90	30	26.90
Feb. 7	19.80	8	13.30	Aug. 9	23.80	Nov. 6	20.40
14	18.80	15	14.20	14	24.40	13	17.20
21	14.70	22	14.90	21	24.30	20	12.00
28	13.40	June 1	16.30	28	25.80	27	12.80
Mar. 6	14.90	6	15.00	Sept. 4	27.20	Dec. 4	14.40
13	15.10	12	18.30	11	26.80	11	15.10
20	13.40	19	18.40	18	27.00	18	13.40
27	15.70	26	17.40	25	27.60	25	15.90

127. Ira Kramer. At Dreherstown, in front yard of hotel, in north end of town, about 75 yards east of State Route 895. Altitude about 500 feet above mean sea level. Unused dug well, diameter 4 feet, depth 10.8 feet. Measuring point, top edge of flagstone well cover, 0.75 foot above land-surface datum. Records available: 1948.

Jan. 9	6.69	Apr. 15	6.30	July 14	8.63	Oct. 21	10.63
15	7.27	22	7.08	15	8.86	28	(a)
22	6.66	29	7.68	22	8.62	Nov. 11	7.29
29	6.66	May 6	6.32	29	9.58	17	9.70
Feb. 11	7.38	13	6.44	Aug. 5	9.62	19	9.94
19	6.37	20	6.07	12	9.82	23	6.35
26	6.34	27	7.40	19	10.06	27	6.06
Mar. 4	6.33	June 2	7.06	26	9.58	Dec. 2	6.35
11	6.36	10	7.12	Sept. 2	10.68	10	6.45
18	6.33	17	8.60	27	(a)	16	7.02
25	6.42	24	7.10	30	10.17	23	6.34
Apr. 1	6.28	July 1	6.96	Oct. 14	(a)	31	6.26
7	6.68	8	8.15				

a Dry.

129. John Perla. Near Tamaqua, on southeast corner of hotel porch, along north side of State Route 29 about 4.0 miles southeast of Tamaqua, and about 0.6 mile southeast of intersection of State Routes 29 and 443. Altitude about 820 feet above mean sea level. Unused dug well, diameter 4 feet, depth 37.3 feet. Measuring point, top edge of circular hole in concrete well cover, 2.00 feet above land-surface datum. Records available: 1948.

Jan. 9	23.78	July 14	25.59	Nov. 10	29.56	Dec. 10	24.54
June 10	23.30	Sept. 27	29.28	23	25.86		

130. Paul Fritz. At Adamsdale, on south side of abandoned red brick house in south end of town about 260 yards south of general store and intersection. Altitude about 500 feet above mean sea level. Unused dug well, diameter 5 feet, depth 19.4 feet. Measuring point, top edge of lag bolt driven into plank in well cover foundation, at land-surface datum. Records available: 1948.

Jan. 9	5.04	July 14	5.93	Oct. 15	8.89	Nov. 17	5.89
June 10	5.38	Sept. 27	9.05	Nov. 4	7.00		

132. George Mengle. Near Auburn, along a private lane intersecting State Route 895 at the Auburn Equipment & Supply Co. plant, 2.0 miles southwest of Deer Lake, and parallel to Pennsylvania Railroad tracks to the east bank of the Schuylkill River, 150 feet north of house and 0.4 mile northwest of State Route 895. Altitude about 490 feet above mean sea level. Unused dug well, diameter 3 feet, depth 34.2 feet. Measuring point, top edge of square hole in concrete well cover, at land-surface datum. Records available: 1948. Oct. 15, 29.79; Nov. 4, 29.03; Nov. 17, 28.90.

Somerset County

16. At Markleton. Extremes of observed water level: Highest, Apr. 12, 1948, 11.02; lowest, Sept. 24, 1944, 16.99. Records available: 1931-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	14.48	Apr. 8	13.59	July 12	13.51	Oct. 11	15.28
12	14.40	12	11.02	18	13.62	18	15.30
13	14.19	19	12.76	26	13.85	25	15.34
18	14.58	26	13.50	Aug. 2	14.45	Nov. 1	15.60
26	14.92	May 3	12.60	9	14.70	4	15.64
Feb. 1	14.85	10	12.72	10	14.74	8	15.20
8	14.86	17	12.85	16	14.80	15	14.94
16	14.22	19	12.97	23	15.00	22	14.71
23	14.15	24	13.54	30	15.25	29	14.12
29	13.72	31	14.03	Sept. 6	15.48	Dec. 6	14.05
Mar. 8	13.60	June 7	14.28	13	15.50	13	13.94
15	13.98	14	13.75	20	15.69	14	13.92
21	13.62	21	13.40	23	15.50	19	13.15
29	13.22	28	13.44	27	15.60	27	13.70
Apr. 5	13.62	July 6	13.15	Oct. 4	15.81		

115. Near Trent. Extremes of observed water level: Highest, May 3, 1948, 32.35; lowest, Apr. 17, 1937, 41.70. Records available: 1937-48.

Jan. 5	35.00	Apr. 16	33.95	July 12	34.00	Oct. 11	35.14
12	34.80	20	34.02	19	34.10	18	35.12
26	34.50	26	34.02	26	34.19	25	35.15
Feb. 9	34.30	May 3	32.35	Aug. 2	34.40	Nov. 1	35.11
16	33.90	10	32.40	9	34.51	3	35.35
23	33.00	17	33.44	16	34.65	8	35.08
27	34.52	18	33.88	23	34.82	15	35.02
Mar. 1	32.80	24	33.70	30	35.06	22	34.96
8	33.00	31	33.77	Sept. 6	35.12	29	34.97
15	32.90	June 7	33.71	13	35.22	Dec. 6	34.92
22	32.85	15	33.75	20	35.20	14	34.87
29	33.75	21	33.90	23	35.63	15	34.81
Apr. 5	34.22	28	33.91	27	35.19	20	34.60
8	34.15	July 5	33.90	Oct. 4	35.16	27	34.61

Sullivan County

105. Near Millview. Extremes of observed water level: Highest, Mar. 3, 1945, 18.22; lowest, dry, several periods 1935-1939, 1941, 1943-1944, 1946-1948. Records available: 1935-48.

Jan. 3	23.52	Apr. 3	21.94	July 3	24.88	Oct. 2	(a)
10	23.84	10	22.13	10	25.14	9	(a)
17	24.06	17	20.07	17	25.09	16	26.41
24	24.35	24	21.82	24	22.68	23	26.84
31	24.85	May 1	22.67	31	25.91	30	27.28
Feb. 7	25.27	8	22.33	Aug. 7	24.63	Nov. 6	26.44
14	25.13	15	24.62	14	24.79	13	24.58
21	23.20	22	23.93	21	24.65	20	22.84
28	22.76	29	24.58	28	25.94	27	22.52
Mar. 6	23.58	June 5	25.07	Sept. 4	(a)	Dec. 4	22.05
13	23.70	12	25.23	11	(a)	11	23.14
20	22.26	19	25.41	18	(a)	18	24.02
27	21.64	26	25.36	25	(a)	24	24.13

a Dry.

Susquehanna County

100. At Montrose. Extremes of observed water level: Highest, Mar. 18, 1936, 1.80; lowest, Oct. 6, and 13, 1939, 10.40. Records available: 1931-48.

Daily noon water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.48	9.65	5.43	4.34	5.07	5.51	8.37	7.38	8.91	9.82	9.95	6.59
2	7.60	9.68	5.35	4.30	5.30	5.54	8.33	7.40	8.95	9.83	9.94	6.53
3	7.78	9.69	5.27	4.28	5.48	5.69	8.26	7.48	8.93	9.85	9.93	6.47
4	8.00	9.70	5.19	4.26	5.62	5.82	8.28	7.56	9.00	9.84	9.92	6.38
5	8.12	9.71	5.19	4.32	5.76	5.94	8.27	7.66	9.03	9.87	9.92	6.33
6	8.20	9.72	5.19	4.40	5.90	6.06	8.24	7.74	9.06	9.88	9.91	6.21
7	8.32	9.75	5.20	4.49	6.04	6.19	8.20	7.83	9.08	9.89	9.55	6.00
8	8.50	9.77	5.20	4.58	6.18	6.30	8.19	7.95	9.12	9.90	9.46	5.84
9	8.53	9.76	5.22	4.68	6.30	6.41	8.18	8.00	9.16	9.91	9.30	5.73
10	8.58	9.76	5.25	4.79	6.39	6.51	8.17	8.09	9.18	9.99	9.16	5.68
11	8.62	9.77	5.26	4.89	6.49	6.72	8.17	8.17	9.24	10.00	9.01	5.61
12	8.69	9.77	5.24	4.46	6.57	6.86	8.17	8.23	9.33	10.00	8.88	5.58
13	8.78	9.78	5.24	4.28	6.64	7.02	8.18	8.30	9.37	10.01	8.69	5.58
14	8.88	9.60	5.28	3.70	6.73	7.16	8.18	8.38	9.41	10.01	8.53	5.57
15	8.92	9.46	5.28	....	6.76	7.33	8.19	8.45	9.43	10.02	8.44	5.57
16	8.97	9.41	4.31	....	6.83	7.47	8.19	8.53	9.49	10.02	8.36	5.56
17	9.01	9.33	2.58	....	6.80	7.64	8.20	8.57	9.53	10.05	8.20	5.53
18	9.09	9.18	3.30	3.56	6.70	7.77	8.20	8.60	9.54	10.06	8.10	....
19	9.08	8.90	3.45	3.86	6.66	7.91	8.19	8.65	9.55	10.05	8.02	5.52
20	9.07	6.86	....	4.07	6.59	8.05	8.19	8.69	9.58	10.06	7.90	5.51
21	9.15	6.15	3.46	4.20	6.52	8.14	8.18	8.75	9.60	10.06	7.79	5.51
22	9.25	5.85	3.01	4.25	6.49	8.23	8.17	8.77	9.62	10.06	7.70	5.52
23	9.31	5.77	3.54	4.39	6.42	8.31	8.11	8.80	9.66	10.03	7.53	5.54
24	9.36	5.70	3.76	4.59	6.23	8.37	8.01	8.80	9.69	10.02	7.36	5.58
25	9.41	5.63	....	4.62	5.84	8.38	7.90	8.81	9.71	10.02	7.20	5.52
26	9.46	5.59	....	4.67	5.61	8.41	7.79	8.81	9.73	10.02	7.05	5.74
27	9.49	5.54	....	4.73	5.49	8.48	7.65	8.82	9.78	10.01	6.93	5.78
28	9.52	5.51	4.18	4.80	5.41	8.45	7.54	8.82	9.78	10.00	6.83	5.83
29	9.56	5.48	4.22	4.88	5.40	8.46	7.47	8.83	9.79	9.99	6.75	5.95
30	9.59	....	4.27	4.97	5.42	8.45	7.44	8.84	9.81	9.97	6.68	3.98
31	9.62	....	4.36	....	5.47	....	7.38	8.88	....	9.96	....	3.28

Tioga County

106. At Gaines. Extremes of observed water level: Highest, Mar. 21, 1936, 8.45; lowest, Sept. 16, 1939, 24.98. Records available: 1935-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	14.00	Apr. 3	9.22	July 3	13.04	Sept. 25	19.80
10	13.35	10	10.15	10	13.60	Oct. 9	21.13
17	15.30	17	9.00	17	13.60	23	20.50
24	15.42	24	9.91	24	13.35	30	20.80
31	16.08	May 1	10.65	31	13.75	Nov. 6	21.06
Feb. 7	16.40	8	10.73	Aug. 7	13.85	13	17.67
14	16.43	15	11.20	12	12.85	20	15.62
21	9.50	22	10.32	21	11.30	27	13.60
28	10.42	29	10.42	28	11.98	Dec. 4	13.38
Mar. 6	10.70	June 5	11.50	Sept. 2	14.35	11	13.65
13	11.28	12	13.15	11	16.40	18	12.03
20	9.02	19	13.98	18	18.65	25	13.30
27	9.33	26	13.22				

Union County

122. At Laurelton. Extremes of observed water level: Highest, Apr. 1, 16, Nov. 26, 1948, 5.40; lowest, Oct. 1, 1948, 10.70. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.90	Apr. 2	5.40	July 3	8.35	Oct. 8	10.20
8	6.90	9	6.40	16	8.60	15	9.40
16	6.80	16	5.40	23	8.30	22	8.50
23	6.70	23	6.40	30	8.30	29	8.70
30	8.90	30	6.50	Aug. 6	8.47	Nov. 5	8.80
Feb. 6	8.20	May 7	5.70	13	8.85	12	6.70
13	8.30	15	5.60	20	9.37	20	6.80
19	5.80	21	6.50	27	9.40	26	5.40
27	6.10	28	7.20	Sept. 3	9.90	Dec. 3	7.60
Mar. 5	6.30	June 4	7.40	10	10.30	11	6.90
12	6.30	11	7.60	16	10.40	17	5.70
20	5.50	18	7.60	24	10.60	24	6.40
26	5.60	25	7.65	Oct. 1	10.70		

Washington County

112. At Amity. Measurements resumed in 1948. Extremes of observed water level: Highest, June 22, 1946, 9.09; lowest, Oct. 1, 1938, 34.84. Records available: 1936-46; 1948.

Jan. 2	22.10	Apr. 8	13.50	July 16	21.50	Oct. 14	27.80
8	20.60	15	9.50	22	21.20	21	24.50
15	20.50	22	14.75	29	22.10	29	28.40
21	20.70	29	16.30	Aug. 5	20.10	Nov. 5	28.70
29	21.10	May 6	16.40	12	18.50	12	24.40
Feb. 5	19.60	13	17.50	18	18.15	19	21.50
12	20.50	20	19.70	19	18.05	23	22.68
19	18.10	27	19.90	26	22.10	26	23.60
26	16.70	June 3	22.40	Sept. 2	21.60	Dec. 3	19.80
Mar. 4	17.50	11	22.80	8	21.60	9	20.40
11	16.60	18	24.40	16	22.50	16	14.90
18	15.50	24	22.70	23	21.80	23	14.50
25	15.80	July 1	23.40	30	21.70	30	15.50
Apr. 1	15.40	8	23.60	Oct. 8	28.10	31	14.95
2	12.73	12	25.89				

Wayne County

83. Near Hawley. Extremes of observed water level: Highest, May 23, 1942, 2.08; lowest, Oct. 25, Nov. 15 to Dec. 20, 1941, when well was dry. Records available: 1931-42; 1944-48.

Jan. 3	12.92	Apr. 3	7.18	July 3	9.47	Oct. 2	15.08
10	13.07	10	7.66	10	9.75	9	15.29
17	13.09	17	5.21	17	10.02	16	15.55
24	13.11	24	6.81	24	10.35	23	15.46
31	13.13	May 1	8.31	31	10.88	30	15.65
Feb. 7	13.12	8	8.83	Aug. 7	11.28	Nov. 6	15.47
14	12.95	15	8.91	14	11.48	13	15.45
21	10.46	22	8.96	21	11.98	20	15.43
28	9.93	29	8.35	28	12.63	27	15.45
Mar. 6	9.63	June 5	8.34	Sept. 5	13.44	Dec. 4	15.53
13	8.74	12	8.99	11	14.11	11	15.55
20	4.81	19	9.55	18	14.58	18	15.56
27	5.71	26	9.28	25	14.88	25	15.55

RHODE ISLAND

By W. B. Allen

PROGRAM OF WORK

The investigation of the ground-water resources of Rhode Island was continued in 1948. As a result of a consolidation of various State agencies, the title of the cooperating agency was changed on July 1, 1948, to the Rhode Island Port and Industrial Development Commission.

The program in Rhode Island during 1948 was directed towards the investigation of ground-water conditions in critical areas throughout the State where large quantities of water are pumped for industrial use and public supply. A detailed report on the ground-water resources of the city of Woonsocket, an industrial area to the northwest of Providence, was completed. It is planned to publish this report as a part of Geological Bulletin 4 of the Rhode Island Port and Industrial Development Commission.

During the year, in addition to a detailed investigation of ground-water resources, samples of water were collected monthly from two industrial ground-water pumping plants in Providence for determining chloride content.

One phase of the cooperative work consists of the measurement of water levels in selected observation wells to determine changes in storage in underground reservoirs. About 2,300 individual measurements of water levels were made in 1948. During the year water levels were measured daily in 2 observation wells, weekly in 21 wells, monthly in 22 wells, and annually in 13 wells. Continuous records of water level were obtained during the year by automatic water-stage recorder which operated for 12 months on one well. Well Providence 1051 was added to the program in January 1948. Readings in four of the wells, Burrillville 28, East Greenwich 3, South Kingston 6, and Warwick 33, were discontinued at the end of 1947.

The locations of the observation wells in Rhode Island are shown on an index map published in Water-Supply Paper 1096.

PRECIPITATION

Precipitation for the State as a whole during 1948 was 46.69 inches or about 5.2 inches more than in 1947 and about 3.9 inches greater than normal. The precipitation at Providence during the year was 50.47 inches, or 8.8 inches more than in 1947 and about 11.1 inches greater than the normal for the preceding 44 years.

In general, the temperatures for the State were about average resulting in average losses by evaporation and transpiration. Thus, because of the above-normal precipitation, conditions were unusually favorable for recharge of ground-water reservoirs. The following tables summarize the data pertaining to ground-water levels in Rhode Island for 1948.

Summary of ground-water level data in Rhode Island
in feet below land-surface datum

Well	First measured	Lowest observed water level		Highest observed water level		Water level on last date of record 1948
		Water level	Date	Water level	Date	
Barrington 1	Jan. 10, 1945	46.92	Dec. 15, 1945	42.71	May 29, 1948	44.86
Barrington 7a/	Oct. 20, 1947	9.69	Oct. 11, 1948	4.99	June 1, 1948	8.24
Barrington 10	Oct. 14, 1947	36.68	Dec. 31, 1947	32.81	June 30, 1948	35.54
Burrillville 21	June 5, 1947	11.93	Oct. 31, 1947	7.23	Nov. 28, 1947	b 7.35
Burrillville 29	June 9, 1947	13.94	Oct. 31, 1947	9.84	June 9, 1947	b10.78
Burrillville 54	June 19, 1947	15.36	Dec. 30, 1947	14.61	Nov. 28, 1947	b14.73
Charlestown 18	Oct. 3, 1946	21.19	Oct. 31, 1947	15.39	June 2, 1948	c19.49
Cranston 3	Aug. 22, 1938	33.3	Aug. 26, 1945	24.5	Aug. 26, 1938	d29.2
Cranston 4a/	June 22, 1939	36.6	Dec. 19, 26, 1948	22.3	June 22, 1939	36.6
Cranston 12a/	Oct. 1938	32.4	May 5, 1947	24.0	Oct. 1938	30.7
Cranston 38a/	May 7, 1946	22.5	Dec. 1, 1948	15.1	May 7, 1946	21.5
Cranston 39a/	May 7, 1946	12.82	Aug. 29, 1947	9.2	June 14, 1948	12.1
Cranston 40a/	May 7, 1946	20.60	Nov. 9, 1947	17.3	June 14, 1948	20.0
Cranston 41a/	May 7, 1946	21.94	Oct. 31, 1947	17.54	May 7, 1946	20.8
Cumberland 64	July 5, 1946	11.55	Nov. 26, 1948	7.83	May 4, 1947	b11.55
Cumberland 129	July 18, 1946	15.80	Oct. 31, 1947	5.85	Feb. 26, 1948	7.69
Cumberland 265	Aug. 19, 1946	16.49	Oct. 31, 1947	10.67	Feb. 26, 1948	12.58
Cumberland 315	Aug. 22, 1946	20.48	Oct. 18, 1947	10.68	May 4, 1947	b11.61
E. Providence 1a/	Dec. 14, 1944	22.5	Aug. 15, 1946	22.0	June 22, 1948	22.2
Exeter 16	July 9, 1946	14.86	Dec. 29, 1948	7.86	June 9, 1948	14.86
Foster 1	Oct. 6, 1947	12.71	Sept. 27, 1948	5.92	June 29, 1948	6.29
Foster 2	Oct. 6, 1947	19.14	Nov. 26, 1948	7.01	Mar. 31, 1948	18.49
Foster 3	Oct. 6, 1947	31.35	Nov. 26, 1948	14.38	Mar. 31, 1948	30.56
Foster 4	Oct. 6, 1947	11.63	Oct. 28, 1948	7.56	Feb. 26, 1948	8.85
Foster 5	Oct. 6, 1947	11.26	Sept. 27, 1948	7.66	Mar. 31, 1948	9.36
Glocester 12	June 13, 1947	5.22	Oct. 18, 1947	1.35	Mar. 31, 1948	1.81
Glocester 62	June 23, 1947	17.32	Oct. 31, 1947	10.13	Nov. 26, 1948	b10.13
Lincoln 84a/	June 11, 1946	6.78	Oct. 25, 1947	2.70	Mar. 20, 1948	4.97
Lincoln 181a/	June 4, 1946	3.25	Sept. 29, 1947	.88	May 31, 1948	2.29
Lincoln 199	Mar. 13, 1946	11.47	Nov. 29, 1946	2.56	May 5, 1947	b10.42
N. Kingston 26	Nov. 1, 1946	11.0	Sept. 1, 1948	9.4	June 1, 1948	f10.4
N. Smithfield 2	Mar. 7, 1946	18.09	Oct. 18, 1947	9.77	May 4, 1947	b15.69
N. Smithfield 21	May 21, 1947	10.92	Oct. 31, 1947	5.69	Feb. 26, 1948	8.23
N. Smithfield 103	June 19, 1947	14.04	Oct. 31, 1947	10.06	Nov. 28, 1947	b10.08

Summary of ground-water level data in Rhode Island
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 1948
		Water level	Date	Water level	Date	
Providence 5	Dec. 16, 1944	9.46	Nov. 3, 1945	7.77	May 29, 1948 June 30, 1948	8.28
Providence 48a/	Dec. 16, 1944	10.20	Oct. 20, 1947			6.75
Providence 81a/	May 26, 1946	25.0	Feb. 2, 1947	18.0	July 20, 1947	gl9.0
Providence 82a/	May 25, 1946	22.8	Aug. 4, 1946	14.0	July 20, 1947 Dec. 12, 1948	gl4.0
Providence 94h/	Dec. 23, 1944	28.34	Sept. 1, 1945	10.65	July 29, 1948	16.40
Providence 113	Dec. 16, 1944	49.12	Nov. 9, 1945	46.98	June 30, 1948	47.42
Providence 1051a/	Jan. 2, 1948	16.10	Jan. 16, 1948	5.93	Aug. 11, 1948	10.01
Providence 1110	Nov. 5, 1945	7.23	Nov. 29, 1948	5.94	Dec. 7, 1945	j 7.23
Providence 1111	Nov. 14, 1946	16.33	Nov. 3, 1947	9.24	Jan. 22, 1948	13.53
Portsmouth 72	Sept. 26, 1947	27.01	Oct. 26, 1948	6.96	Feb. 20, 1948	18.28
Scituate 3	June 13, 1947	18.76	Sept. 27, 1948	7.72	June 13, 1947	10.76
Scituate 4	Oct. 6, 1947	15.91	Aug. 30, 1948	13.99	Mar. 31, 1948	15.40
Smithfield 43	Apr. 16, 1946	15.07	Aug. 29, 1947	9.30	Nov. 26, 1948	b 9.30
Smithfield 66	June 12, 1947	14.14	Oct. 31, 1947	8.43	Nov. 26, 1948	b 8.43
Smithfield 71	June 12, 1947	10.38	Oct. 18, 1947	6.47	June 12, 1947	b 8.23
Smithfield 116	June 24, 1947	8.82	Aug. 29, 1947 Nov. 26, 1948	7.36	Mar. 30, 1948	7.89
Tiverton 31a/	Sept. 26, 1947	11.61	Oct. 23, 1948	(k)	Feb. 15, 22, 29 Mar. 7, 14, 1948	m 2.78
Tiverton 47a/	Oct. 8, 1947	16.88	Oct. 16, 1948	(l)	Feb. 15, 22, 29 Mar. 7, 14, 1948	m 1.29
Warwick 39a/	July 1, 1943	39.8	Sept. 10, 1944	9.8	Mar. 21, 1948	16.3
Warwick 40a/	July 1, 1943	22.6	Sept. 6, 1944	4.5	Apr. 2, 1948	10.7
Westerly 4a/	Oct. 3, 1946	8.87	July 17, 1947	7.03	Nov. 13, 1947	b 7.78
Westerly 133a/	Oct. 17, 1946	19.10	Nov. 19, 1948	9.98	Mar. 19, 1948	bl7.70
Westerly 178a/	Oct. 17, 1946	17.13	Nov. 21, 1946 Oct. 17, 1947	2.35	Apr. 8, 1948	b 5.02
Woonsocket 18	June 11, 1947	16.60	Nov. 1, 1947	11.50	May 29, 1948	12.33

a Affected by pumping of nearby wells.

b No measurements made after Nov. 26, 1948.

c No measurements made after Nov. 30, 1948.

d No measurements made after Oct. 24, 1948.

e Pumping.

f No measurements made after Dec. 1, 1948.

g No measurements made after Dec. 12, 1948.

h Affected by tide.

j No measurements made after Nov. 29, 1948.

k Overflowing at measuring point, 3.6 feet above land-surface datum.

l Overflowing at measuring point, 1.8 feet above land-surface datum.

m Above land-surface datum.

FLUCTUATIONS OF WATER LEVEL

Water levels, which were at about normal stages at the end of 1947 and through April 1948, rose to high seasonal stages at the end of May as the result of excessive precipitation in that month. Thereafter the seasonal decline due to evaporation and transpiration losses set in and continued through October. This decline was checked in November by above-normal rainfall and the decreasing needs of plants. Lack of precipitation in December did not materially affect the net rise in the water table during the year.

In the following table are given the net changes in water levels in the observation wells, for which records are available, from the dates of the measurements nearest to December 31, 1947, to those nearest December 31, 1948.

Twenty-three of the wells showed net rises and only 14 showed net declines in water levels during 1948. Eight of the wells in which there were net declines in water level were affected by pumping in nearby wells.

Net change, in feet, in water levels in observation wells
in Rhode Island during 1948

Well	Net change	Well	Net change
Barrington 1	+0.59	Glocester 12	+0.81
Barrington 7a/	+0.51	Lincoln 84a/	+1.42
Barrington 10	+1.14	Lincoln 181a/	+0.96
Charlestown 18	b+1.08	N. Smithfield 21	+0.39
Cranston 4a/	-0.80	Providence 5	+0.66
Cranston 12	+0.20	Providence 48	+3.07
Cranston 38a/	-1.80	Providence 94c/	-3.45
Cranston 39a/	-0.24	Providence 113	+0.32
Cranston 40a/	-0.01	Providence 1111	+0.52
Cranston 41a/	-0.20	Portsmouth 72	-0.68
Cumberland 129	+2.22	Scituate 3	+2.13
Cumberland 265	+0.49	Scituate 4	+0.31
E. Providence 1a/	.0	Smithfield 116	+0.30
Exeter 16	-1.85	Tiverton 31a/	-0.23
Foster 1	+3.28	Tiverton 47a/	+1.60
Foster 2	+0.33	Warwick 39a/	-2.80
Foster 3	-2.60	Warwick 40a/	-2.30
Foster 4	+0.75	Woonsocket 18	+1.87
Foster 5	+0.36		

a Affected by pumping of nearby wells.

b Estimated.

c Affected by tides.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Bristol County

Barrington 1. Town of Barrington. In Department of Public Works Building, about 200 feet east of Upland Way, 2,500 feet north of Foote Street, and 0.9 mile west of Barrington town hall. Records available: 1945-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	45.50	Apr. 24	44.60	July 31	43.60	Nov. 5	43.90
31	45.30	May 29	42.71	Aug. 28	44.60	29	44.84
Mar. 4	44.53	June 26	44.80	31	44.15	Dec. 30	44.86
Apr. 1	43.40	July 9	42.84	Sept. 25	43.90		

Barrington 7. Rhode Island Lace Works, Inc. About 80 feet east of Narragansett Avenue, 300 feet south of Bay Spring Avenue, and 0.5 mile north-west of West Barrington. Pumping well, measurements made 1 hour after pump shut off. Records available: 1947-48.

Jan. 6	8.03	Feb. 29	6.80	Apr. 19	5.96	June 7	5.65
12	8.06	Mar. 8	6.47	26	6.24	14	5.61
19	7.99	15	6.25	May 4	6.42	21	5.88
Feb. 2	7.69	22	5.96	10	6.56	28	6.15
9	8.01	29	5.98	17	6.29	July 19	6.39
16	7.42	Apr. 5	5.88	24	5.83	26	6.82
23	6.97	12	5.76	June 1	4.99	Aug. 2	6.89

Barrington 7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 9	7.44	Sept. 13	8.59	Oct. 18	9.01	Nov. 22	8.46
16	7.36	20	7.44	25	8.39	29	8.46
23	7.55	27	8.57	Nov. 1	8.41	Dec. 13	8.46
30	7.71	Oct. 4	8.78	8	8.55	20	8.82
Sept. 7	7.75	11	9.69	15	8.41	27	8.24

Barrington 10. Charles Douglas. About 100 feet east of Clark Road, 1,150 feet south of intersection of Clark and Nayatt Roads, and 1.1 miles east of Nayatt Point. Records available: 1947-48.

Feb. 2	35.34	May 28	33.20	July 30	33.48	Oct. 28	35.37
27	35.25	June 30	32.81	Aug. 31	34.19	Nov. 29	35.57
Mar. 30	33.69	July 9	33.07	Sept. 28	33.82	Dec. 30	35.54
Apr. 30	33.14						

Kent County

Warwick 39. U. S. Naval Advance Base Depot pumping station 9A, Davisville. About 1,250 feet east of Post Road (U. S. Highway 1), 0.1 mile north of Hunt River, and 1.6 miles southwest of East Greenwich. Records available: 1943-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	a23.3	a22.0	a21.0	11.0	10.5	a20.1	12.5	a24.5	a28.0	a27.9	a25.1	a25.8
2	12.4	a22.1	a21.1	a19.8	10.3	a20.3	a22.1	a24.6	a28.7	a27.9	16.1	a25.9
3	12.3	a22.3	a21.1	10.2	10.7	10.6	12.5	a24.8	16.5	....	a25.3	a26.1
4	12.4	a22.8	11.1	10.2	a20.3	10.8	11.8	a24.8	17.5	a28.1	a25.3	a26.3
5	a23.2	12.7	a20.9	10.1	10.5	a21.0	12.0	a25.0	17.2	a28.0	16.7	a26.3
6	a23.2	12.5	a21.0	a20.0	10.7	10.8	a21.7	a24.8	a28.0	a28.0	a25.2	15.8
7	a23.0	a22.5	10.4	a20.1	10.8	a20.5	a21.8	12.3	a28.5	a27.8	16.4	a25.6
8	a23.1	a22.3	a21.1	a21.3	10.6	10.8	a21.8	12.5	a27.9	a27.9	a26.3	a25.6
9	a23.0	a22.3	a21.3	a20.6	10.8	a21.2	12.1	a25.0	a28.2	a28.6	a26.2	15.9
10	12.2	a22.5	a21.0	11.2	a20.3	a20.8	a21.7	a25.2	a28.3	a28.7	a26.3	a26.3
11	12.1	12.2	a21.2	10.9	a21.0	10.8	12.3	a25.8	18.2	a28.3	16.3	a26.3
12	a22.2	12.4	a21.2	a20.3	a21.0	10.5	a22.0	a25.8	a27.2	a28.2	15.8	a26.5
13	a22.1	a22.3	10.5	10.5	a21.5	10.7	a22.2	14.8	a27.8	a28.3	15.9	a26.5
14	a22.1	a21.7	10.3	a20.5	12.0	a20.8	a22.3	a25.8	a27.9	a17.8	15.5	a26.3
15	12.3	a21.3	10.4	10.1	a21.5	10.6	a23.2	....	a28.0	a28.7	a26.3	a26.3
16	a22.2	11.8	a21.5	9.8	11.5	a21.0	a22.9	a25.2	a29.0	a28.7	16.0	a26.0
17	12.2	11.8	a21.7	10.2	a20.7	10.7	12.6	a25.3	a28.9	18.0	a26.2	16.3
18	a22.2	11.9	a20.5	10.6	a20.5	a21.3	12.3	16.4	a28.5	a28.3	a26.0	a26.6
19	a23.3	a21.6	a20.1	a20.2	a20.6	12.2	a23.2	a25.5	a28.7	a28.3	16.7	....
20	a22.1	a20.9	a20.0	a20.3	11.6	11.0	a23.8	a25.2	a27.9	a28.3	16.7	a26.4
21	a22.3	a21.1	9.8	a20.3	a20.8	a21.0	a24.0	15.2	a27.9	a28.1	16.3	a26.1
22	12.1	11.8	a20.2	10.9	11.2	a21.3	a24.0	a25.3	18.6	18.4	a26.0	a25.4
23	a22.2	a21.2	a20.3	10.5	10.5	a21.9	a24.1	a25.6	17.9	a28.2	a26.2	a25.6
24	12.3	a21.3	a20.5	10.6	a20.5	11.6	13.3	a25.7	17.7	17.4	a25.9	16.0
25	11.6	a21.0	10.6	10.8	a20.6	11.3	a22.3	a25.8	17.3	a28.0	a25.8	15.8
26	a22.3	10.8	a20.0	a21.0	a20.5	12.2	a23.9	a26.5	18.3	a25.8	15.3	16.0
27	a22.5	a20.3	10.5	a20.5	a21.6	12.3	a23.8	a27.0	a28.0	16.5	15.3	15.8
28	a22.2	a20.2	10.5	11.0	11.3	a21.4	a24.1	a28.2	a27.9	a26.0	....	a25.8
29	12.7	10.3	a20.2	11.5	10.5	a22.0	a24.3	a27.5	a28.1	16.8	a25.8	a25.7
30	a22.3		a20.3	10.8	11.3	a22.1	a24.5	a27.8	a28.0	....	a25.9	16.3
31	a21.9		10.5		a21.0		a24.9	a27.9		16.8		16.3

a Pumping.

Warwick 40. U. S. Naval Advance Base Depot pumping station 14A, Davisville. About 1,250 feet east of Post Road (U. S. Highway 1), 200 feet north of Hunt River, and 1.6 miles southwest of East Greenwich. Records available: 1943-48.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.7	6.5	5.3	a7.8	5.3	5.3	6.3	7.4	a12.8	10.9	a12.1	8.7
2	6.6	a8.1	a7.8	4.5	5.2	5.3	a8.3	a10.5	a13.2	11.0	a12.2	8.8
3	6.3	a8.0	a7.8	5.3	5.6	a6.9	5.5	a10.5	a12.3	10.8	a12.2	8.8
4	6.5	7.0	a7.8	5.2	5.3	a6.5	5.7	a10.6	a12.7	11.0	a12.0	8.7
5	a8.3	7.0	5.9	a7.5	a7.8	5.5	a7.8	8.7	a12.8	11.0	10.2	9.2

Warwick 40--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	a8.1	7.0	6.1	a7.7	5.6	5.6	a7.8	a10.5	10.8	10.9	a12.2	8.8
7	a8.1	7.0	5.6	a7.6	a7.2	a7.2	a8.5	a10.0	a13.0	11.3	10.2	a11.4
8	a8.2	a8.1	a7.8	5.3	5.5	a7.1	a8.4	a10.5	a13.2	11.0	10.1	9.3
9	a8.0	a8.1	a7.8	5.2	5.6	a7.0	a8.3	a10.7	a13.3	10.9	10.3	a11.3
10	a8.2	a8.2	a7.7	6.6	a7.5	5.6	a8.5	a10.8	a13.3	10.7	10.2	9.4
11	a8.0	7.3	a7.6	6.8	a7.7	a6.8	5.5	a11.5	11.3	11.3	10.2	9.4
12	6.5	7.4	5.3	5.2	5.7	a7.8	a8.5	a11.5	a13.2	11.0	9.3	9.3
13	a8.1	7.3	5.5	5.3	5.9	a7.6	a8.6	a10.3	a13.3	11.0	9.8	9.3
14	a8.1	7.2	a7.7	5.2	a7.3	a7.0	a8.6	8.5	a13.3	....	9.7	9.5
15	6.7	6.4	5.6	4.8	5.6	a7.1	a9.2	a10.5	a13.3	10.8	10.0	9.5
16	a8.5	a8.0	5.5	4.8	5.5	a7.0	6.8	a10.4	a13.8	11.7	9.8	a11.2
17	6.5	6.5	a7.5	5.2	a7.3	a7.3	7.1	a11.4	a13.5	11.7	9.7	9.7
18	6.7	a8.0	a6.7	a7.5	5.5	5.6	7.0	a11.3	11.5	a13.2	9.8	9.7
19	a8.3	5.7	4.7	5.2	5.6	5.5	a9.4	a11.5	11.3	a13.3	9.9	9.3
20	a8.3	5.7	4.7	a7.4	a7.4	5.7	a9.5	a10.8	a13.3	a13.3	10.0	a11.3
21	a8.3	5.7	a6.5	5.3	5.7	a7.1	a9.1	a11.6	a13.2	a13.2	10.2	a11.2
22	6.2	a7.9	a7.5	a7.6	5.3	a7.2	a9.9	8.5	11.5	11.3	10.0	a11.3
23	a8.3	5.6	a7.5	a7.0	5.5	a7.3	a9.9	a11.6	....	10.7	9.0	a11.1
24	6.0	a7.8	a7.6	5.2	a7.5	a7.7	a10.3	a11.7	10.9	a13.5	a11.2	a11.4
25	a8.2	a7.9	a7.2	5.3	a7.4	a7.6	7.4	a11.7	10.9	a13.0	9.0	a11.3
26	a8.2	a7.7	4.9	a6.7	a7.3	5.5	a10.0	a12.7	10.9	a12.0	8.8	a11.2
27	a8.2	5.7	5.0	5.3	5.6	5.6	a10.0	a12.2	11.0	a12.0	8.7	a11.3
28	6.3	5.5	5.5	a7.0	a7.1	a7.4	a10.1	a12.3	11.1	a12.3	8.8	a11.2
29	6.4	5.2	a7.5	5.3	5.5	a7.5	a10.3	a12.5	a12.5	9.9	8.8	11.0
30	6.3		a7.2	5.9	5.6	a7.6	a10.6	a12.7	11.3	10.3	8.8	....
31	6.6		a7.7		5.5		7.3	a12.8		10.5		10.7

a Pumping.

Newport County

Portsmouth 72. St. Mary's Church (parish house). About 30 feet west of East Main Road, 3,200 feet northeast of intersection of East Main Road and Mitchell Lane, and 3,200 feet northeast of the Portsmouth-Middletown town line. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.39	Apr. 16	14.75	Aug. 3	20.99	Oct. 19	26.78
7	17.20	23	15.17	10	21.62	26	27.01
15	15.43	30	16.96	18	22.38	Nov. 3	26.92
28	13.40	May 9	18.36	24	22.97	9	26.83
Feb. 6	16.40	21	11.36	31	23.50	16	26.20
11	17.28	June 7	11.63	Sept. 7	24.10	23	25.38
20	6.96	21	16.32	14	24.60	30	24.15
25	9.27	July 9	18.49	21	25.01	Dec. 8	22.33
Mar. 17	11.32	13	18.94	28	25.54	14	20.77
24	12.13	20	19.70	Oct. 5	26.03	21	19.43
Apr. 2	12.47	27	20.36	13	26.45	30	18.28

Tiverton 31. North Tiverton Water District test well 31. Boessoneau well field, about 0.1 mile west of Eight Rod Way, 0.7 mile north of intersection of Eight Rod Way and Mile Road, and 1.5 miles northeast of Tiverton. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	+2.98	Apr. 3	+b2.44	July 3	b2.53	Oct. 9	4.77
10	+2.95	10	b1.61	10	b3.09	16	b8.19
17	+3.08	17	b .20	17	+1.82	23	b11.61
24	+2.53	24	b1.69	24	+3.16	30	6.05
31	+2.51	May 1	b2.27	31	b3.00	Nov. 6	b9.60
Feb. 7	+2.58	8	+3.20	Aug. 7	b4.40	13	b9.20
15	(ab)	15	+2.96	21	b4.30	20	b7.15
22	(ab)	22	+b1.46	28	3.90	27	.38
29	(ab)	29	b1.17	Sept. 4	3.59	Dec. 4	+b.67
Mar. 7	(ab)	June 5	(a)	11	6.08	11	+b3.30
14	(ab)	12	b1.45	18	b10.13	18	b3.80
22	+b2.26	19	b1.89	27	b5.78	25	+2.78
27	(a)	26	b2.23	Oct. 2	b5.66		

a Flowing.

b Well field pumping.

Tiverton 47. North Tiverton Water District well 16. McIntyre well field, about 900 feet east of Eight Rod Way, 0.6 mile south of intersection of Eight Rod Way and Mile Road, and about 1 mile east of Tiverton. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	1.73	Apr. 3	a+0.28	July 3	a3.01	Oct. 9	a14.97
10	a1.59	10	a2.55	10	a3.00	16	a16.88
19	1.54	17	a2.30	17	a3.85	23	a16.21
24	a2.48	24	a2.63	24	.72	30	3.65
31	1.82	May 1	a2.68	31	a1.61	Nov. 6	a3.80
Feb. 7	.09	8	a2.00	Aug. 7	a4.06	13	+.62
15	(ab)	15	+1.18	21	a6.40	20	a2.71
22	(ab)	22	a1.66	28	a7.26	27	+.53
29	(ab)	29	a1.22	Sept. 4	a9.47	Dec. 4	a.90
Mar. 7	(ab)	June 5	+1.12	11	a10.95	11	a.55
14	(ab)	12	a.57	18	11.51	18	+.79
22	a+.63	19	a2.54	27	13.89	25	a1.29
27	+.22	26	a2.96	Oct. 2	a13.38		

a Well field pumping.

b Flowing.

Providence County

Burrillville 21. Cyrille Bruynel. About 25 feet north of Tarklin Road, 1.25 miles southwest of intersection of Tarklin Road and Douglas Pike and 1.1 miles south of Oak Valley. Records available: 1947-48. Nov. 26, 7.35.

Burrillville 29. Wanskuck Wool Co. well 5. In shelter 70 feet north-east of Douglas Pike, 600 feet northeast of Wanskuck Wool Co. plant, in Mohegan. Records available: 1947-48. Nov. 26, 10.78.

Burrillville 54. Vernon Rug Mill. About 100 feet northeast of Tarklin Road, 675 feet southwest of Douglas Pike, in Oak Valley. Records available: 1947-48. Nov. 26, 14.73.

Cranston 3. Narragansett Brewing Co. pumping station 1. About 100 feet east of New York, New Haven & Hartford Railroad tracks, and 1,250 feet south of Cranston Street bridge over railroad tracks, Cranston. Pumping well, measurements made $\frac{1}{2}$ hour after pump shut off. Pumping discontinued in October 1948. Records available: 1938-48.

Jan. 4	29.2	Mar. 21	28.0	June 6	27.4	Aug. 24	28.2
11	29.0	28	28.0	13	27.3	29	28.6
18	29.4	Apr. 4	28.0	20	27.2	Sept. 5	28.7
24	29.5	11	27.7	27	27.5	12	28.9
Feb. 1	29.1	18	27.7	July 4	27.5	19	28.7
8	29.2	25	27.5	11	27.9	26	29.5
14	29.5	May 2	27.5	18	27.7	Oct. 3	29.1
22	28.7	9	27.5	25	28.2	10	29.2
29	28.5	16	27.5	Aug. 1	28.0	17	29.1
Mar. 7	28.3	23	27.5	8	28.0	24	29.2
14	28.1	30	27.5	15	28.1		

Cranston 4. Narragansett Brewing Co. pumping station 2. About 175 feet east of New York, New Haven & Hartford Railroad tracks and 1,720 feet south of Cranston Street bridge over railroad tracks, Cranston. Pumping well, measurements made $\frac{1}{2}$ hour after pump shut off. Records available: 1939-48.

Jan. 4	35.6	Mar. 14	34.5	May 23	34.4	Aug. 1	34.7
11	35.7	21	34.3	30	34.1	8	34.5
18	35.4	28	34.2	June 6	33.7	15	34.7
24	35.5	Apr. 4	34.2	13	32.9	24	34.7
Feb. 1	35.3	11	34.0	20	33.7	29	34.9
8	35.5	18	34.0	27	33.9	Sept. 5	35.1
14	35.6	25	34.0	July 4	34.1	12	35.0
22	34.9	May 2	34.1	11	34.1	19	34.7
29	34.7	9	34.2	18	34.0	26	34.9
Mar. 7	34.5	16	34.4	25	34.4	Oct. 3	35.2

Cranston 4--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 10	35.3	Oct. 31	36.0	Nov. 21	36.3	Dec. 12	36.4
17	35.5	Nov. 7	36.3	28	36.2	19	36.6
24	35.4	14	36.2	Dec. 5	36.2	26	36.6

Cranston 12. Narragansett Brewing Co. pumping station 3. About 30 feet east of railroad siding, New York, New Haven & Hartford Railroad tracks, and 1,350 feet south of Cranston Street bridge over railroad tracks, Cranston. Records available: 1938-48.

Jan. 4	31.0	Apr. 4	29.2	July 4	29.2	Oct. 3	29.8
11	30.7	11	29.0	11	28.9	10	29.9
18	31.2	18	29.3	18	28.8	17	30.2
24	30.9	25	28.4	25	28.9	24	30.2
Feb. 1	30.7	May 2	28.7	Aug. 1	29.2	31	30.2
8	30.8	9	28.8	8	29.3	Nov. 7	31.1
14	30.9	16	29.3	15	29.3	14	31.0
22	30.3	23	29.0	24	29.3	21	31.2
29	30.3	30	29.0	29	29.7	28	30.8
Mar. 7	30.3	June 6	28.7	Sept. 5	29.7	Dec. 5	30.7
14	29.8	13	28.7	12	28.9	12	30.5
21	29.8	20	28.5	19	29.8	19	30.4
28	29.8	26	29.0	26	29.7	26	30.7

Cranston 38. Narragansett Brewing Co. pumping station 4. Observation well 1, 4.1 feet west of Cranston 36, about 200 feet east of New York, New Haven & Hartford Railroad tracks, and about 2,600 feet south of Cranston Street bridge over railroad tracks, Cranston. Records available: 1947-48.

Jan. 5	20.1	Apr. 5	18.2	July 6	17.9	Oct. 4	20.2
12	20.5	12	18.1	12	18.2	11	20.7
20	21.8	19	18.9	19	19.0	18	20.1
26	20.4	26	18.4	26	19.5	25	20.2
Feb. 2	20.6	May 3	18.4	Aug. 2	18.8	Nov. 1	20.2
9	20.3	10	18.5	9	19.2	8	20.1
16	20.1	17	18.3	16	19.7	15	20.4
23	19.6	24	18.2	24	21.0	22	20.6
Mar. 1	19.2	June 1	17.9	30	19.7	Dec. 1	22.5
8	19.0	7	18.2	Sept. 7	19.7	6	21.7
15	18.5	14	17.5	13	20.0	13	21.6
22	18.5	21	18.0	20	20.0	20	21.7
29	18.5	28	17.2	27	20.0	27	21.5

Cranston 39. Narragansett Brewing Co. observation well 2. About 200 feet east of New York, New Haven & Hartford Railroad tracks, and 2,500 feet south of Cranston Street bridge over railroad tracks, Cranston. Records available: 1946-48.

Jan. 5	11.6	May 3	10.0	July 26	10.3	Oct. 18	11.4
12	12.1	10	10.1	Aug. 2	10.3	25	11.3
Feb. 23	11.3	17	10.1	9	10.6	Nov. 1	11.3
Mar. 1	11.2	24	10.0	16	10.7	8	11.3
8	11.3	June 1	9.4	24	11.3	15	11.5
15	10.8	7	9.4	30	11.0	22	11.6
22	10.6	14	9.2	Sept. 7	11.0	Dec. 1	12.1
29	10.2	21	9.3	13	11.0	6	12.3
Apr. 5	10.1	28	9.3	20	11.0	13	12.1
12	10.1	July 6	9.4	27	11.0	20	11.9
19	10.1	12	9.6	Oct. 4	11.0	27	12.1
26	10.1	19	10.1	11	11.4		

Cranston 40. Narragansett Brewing Co. observation well 3. About 500 feet east of New York, New Haven and Hartford Railroad tracks, and 2,500 feet south of Cranston Street bridge over railroad tracks, Cranston. Records available: 1946-48

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	19.9	May 3	18.1	July 26	18.3	Oct. 18	19.4
12	19.9	10	18.1	Aug. 2	18.5	25	19.4
Feb. 23	19.3	17	18.2	9	18.6	Nov. 1	19.4
Mar. 1	19.2	24	17.9	16	18.7	8	19.4
8	19.2	June 1	17.7	24	18.7	15	19.5
15	18.7	7	17.5	30	18.9	22	19.5
22	18.5	14	17.3	Sept. 7	19.0	Dec. 1	19.7
29	18.3	21	17.4	13	19.1	6	19.9
Apr. 5	18.2	28	17.6	20	19.2	13	19.9
12	18.2	July 6	17.6	27	19.2	20	20.2
19	18.1	12	17.8	Oct. 4	19.3	27	20.0
26	18.2	19	18.1	11	19.6		

Cranston 41. Narragansett Brewing Co. observation well 4. About 600 feet east of New York, New Haven & Hartford Railroad tracks, and 3,000 feet south of Cranston Street bridge over railroad tracks, Cranston. Records available: 1946-48.

Jan. 5	20.5	May 3	19.1	July 26	19.3	Oct. 18	20.4
12	20.5	10	19.1	Aug. 2	19.3	25	20.3
Feb. 23	20.0	17	19.1	9	19.5	Nov. 1	20.2
Mar. 1	19.9	24	18.8	16	19.6	8	20.2
8	20.1	June 1	18.4	24	20.1	15	20.3
15	19.5	7	18.3	30	19.9	22	20.1
22	19.5	14	18.3	Sept. 7	19.9	Dec. 1	20.6
29	19.2	21	18.4	13	19.9	6	20.8
Apr. 5	19.1	28	18.5	20	20.2	13	20.8
12	19.0	July 6	18.5	27	20.1	20	21.1
19	19.1	12	18.7	Oct. 4	20.2	27	20.8
26	19.1	19	19.2	11	20.5		

Cumberland 64. Rev. W. Bath (parsonage). On north side of Sneece Pond Road, about 0.25 mile west of Arnold Mills. Records available: 1946-48. Nov. 26, 11.55.

Cumberland 129. Thomas Cooney Estate. About 90 feet west of Mendon Road, 0.4 mile south of Cumberland Hill. Records available: 1946-48.

Feb. 2	9.29	May 1	7.84	July 29	9.53	Oct. 29	11.66
26	5.85	29	7.68	Aug. 30	12.75	Nov. 26	6.11
Mar. 31	6.87	June 29	8.50	Sept. 28	13.48	Dec. 30	7.69

Cumberland 265. Clarence Lawton. About 55 feet south of Scott Road, 0.25 mile northeast of Ashton. Records available: 1946-48.

Feb. 2	12.30	May 1	12.78	July 29	13.72	Oct. 29	14.63
26	10.67	29	12.02	Aug. 30	14.92	Nov. 26	12.21
Mar. 31	11.66	June 29	12.76	Sept. 28	15.66	Dec. 30	12.58

Cumberland 315. J. L. Carpenter. Northeast corner of Abbott Run Valley and Bear Hill Roads, and 0.9 mile south of Abbott Run. Records available: 1946-48. Nov. 26, 11.61.

East Providence 1. Rumford Chemical Co. About 120 feet south of Newman Avenue, 800 feet northeast of Greenwood Avenue and 0.6 mile south of Pawtucket Avenue bridge over railroad tracks, Rumford. Pumping well, measurements made 4 hours after pump shut off. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	22.2	Apr. 27	22.1	Aug. 5	22.2	Oct. 26	22.2
Feb. 26	22.1	May 29	22.1	25	22.2	Nov. 23	22.2
Mar. 23	22.1	June 22	22.0	Sept. 23	22.2	Dec. 28	22.2

Foster 1. Old Staples Farm. About 40 feet east of Rams Tail Road, 4,000 feet north of intersection of Rams Tail Road and Central Pike, and 0.5 mile south of South Foster. Records available: 1947-48.

Feb. 26	6.10	May 29	6.64	Aug. 30	11.56	Nov. 26	6.48
Mar. 31	6.09	June 29	5.92	Sept. 27	12.71	Dec. 30	6.29
May 1	7.41	July 29	10.53	Oct. 28	12.11		

Foster 2. Winsor Road well. About 20 feet west of Winsor Road, 3,500 feet southeast of junction of Winsor and Boss Roads, and about 1.75 miles northwest of South Foster. Records available: 1947-48.

Feb. 26	17.00	May 29	7.80	Aug. 30	14.75	Nov. 26	19.14
Mar. 31	7.01	June 29	9.92	Sept. 27	16.25	Dec. 30	18.49
May 1	9.02	July 29	12.90	Oct. 28	17.79		

Foster 3. Clarence S. Cook. About 60 feet north of Danielson Pike, 40 feet west of Cucumber Hill Road, and at the Connecticut-Rhode Island State line. Records available: 1947-48.

Jan. 30	28.25	May 1	15.18	July 29	17.78	Oct. 28	28.66
Feb. 26	24.90	29	14.97	Aug. 30	21.87	Nov. 26	31.35
Mar. 31	14.38	June 29	15.38	Sept. 27	25.52	Dec. 30	30.56

Foster 4. Cucumber Hill well. About 12 feet north of Cucumber Hill Road, 1.5 miles southeast of intersection of Hill and South Killingly Roads, and 1.7 miles southeast of North Sterling church. Records available: 1947-48.

Feb. 26	7.56	May 29	8.33	Aug. 30	10.53	Nov. 26	8.75
Mar. 31	7.76	June 29	8.98	Sept. 27	11.40	Dec. 30	8.85
May 1	9.03	July 29	10.14	Oct. 28	11.63		

Foster 5. S. J. Chatterson. About 20 feet east of Foster Center Road, 3,000 feet southeast of intersection of Foster Center Road and Danielson Pike, and 0.75 mile north of Foster Center. Records available: 1947-48.

Feb. 26	7.81	May 29	8.39	Aug. 30	10.80	Nov. 26	8.67
Mar. 31	7.66	June 29	8.39	Sept. 27	11.26	Dec. 30	9.36
May 1	9.21	July 29	10.32	Oct. 28	10.20		

Glocester 12. Glocester Country Club. About 10 feet east of Philips Lane, 600 feet northeast of intersection of Philips Lane and Putnam Pike, and 1,800 feet east of Harmony. Records available: 1947-48.

Feb. 25	1.61	May 29	1.38	Aug. 30	4.33	Nov. 26	1.83
Mar. 31	1.35	June 29	1.86	Sept. 27	4.62	Dec. 30	1.81
May 1	1.88	July 29	2.39	Oct. 28	3.29		

Glocester 62. Raymond H. Price. About 70 feet south of Douglas Hook Road, 1,300 feet east of intersection of Douglas Hook and Cooper Roads, and 1,800 feet west of Pine Tree Chapel. Records available: 1947-48. Nov. 26, 10.13.

Lincoln 84. Lincoln Bleachery & Dye Works, Lonsdale. About 5 feet north of machine shop, 0.1 mile northwest of Lonsdale. Records available: 1946-48.

Lincoln 84--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.38	Apr. 11	4.62	July 10	5.04	Oct. 8	6.05
10	6.43	18	4.50	17	5.00	15	5.80
17	6.43	24	5.19	24	5.39	22	6.30
24	6.42	May 1	5.52	Aug. 2	5.52	29	5.98
31	6.48	8	5.58	7	5.74	Nov. 5	5.92
Feb. 7	6.50	15	4.95	13	5.60	12	5.68
14	6.02	22	4.17	21	5.48	19	6.25
21	3.78	29	4.74	27	5.83	26	5.48
28	4.83	June 7	4.41	Sept. 4	5.71	Dec. 3	5.62
Mar. 6	5.67	12	4.01	10	5.89	10	5.87
13	5.05	21	4.27	17	5.88	17	5.76
20	2.70	26	4.75	25	5.96	24	5.98
27	3.47	July 3	5.14	Oct. 1	5.78	31	4.97
Apr. 3	3.51						

Lincoln 181. Sayles Finishing Plant, Inc., upper bleachery well. About 0.2 mile southwest of Walker Street, and 0.2 mile southwest of Scott Pond. Records available: 1946-48.

Jan. 26	3.17	Apr. 27	1.50	July 30	1.83	Nov. 29	2.08
Feb. 23	3.00	May 31	.88	Sept. 29	2.46	Dec. 27	2.29
Mar. 29	1.75	June 28	.96	Oct. 25	2.40		

Lincoln 199. Mrs. Mary Greene. 50 feet east of Louisquisset Pike, 0.5 mile south of junction of Washington and Louisquisset Pikes. Records available: 1946-48. Nov. 26, 10.42.

North Smithfield 2. Georges Malfait. About 400 feet west of Louisquisset Pike, 350 feet southeast of Sayles Hill Road and 1.5 miles southwest of Manville. Records available: 1946-48. Nov. 26, 15.69.

North Smithfield 21. James W. Shaw. About 350 feet northeast of Great Road, 0.75 mile northwest of intersection of Great and Pound Hill Roads, in Branch Village. Records available: 1947-48.

Feb. 2	8.55	May 1	8.02	July 29	7.73	Oct. 29	9.90
26	5.69	29	6.97	Aug. 30	9.14	Nov. 26	7.89
Mar. 31	6.48	June 29	8.13	Sept. 28	9.86	Dec. 30	8.23

North Smithfield 103. Douglas Pike well. About 90 feet northeast of Douglas Pike, 0.9 mile northwest of intersection of Douglas and Farnum Pikes, and 0.8 mile west of Primrose. Records available: 1947-48. Nov. 26, 10.08.

Providence 5. American Silk Spinning Co. 339 feet south of Admiral Street, 111 feet southeast of Whipple Street, and 1.1 miles northwest of Providence. Records available: 1944-48.

Jan. 30	9.29	May 1	8.09	July 29	8.00	Oct. 29	8.31
Feb. 26	8.53	29	7.77	Aug. 30	8.14	Nov. 29	8.18
Mar. 30	8.10	June 30	7.77	Sept. 28	9.40	Dec. 30	8.28

Providence 48. Gorham Manufacturing Co. On bank of Mashapaug Pond, 700 feet northwest of Adelaide Avenue, 1,050 feet southwest of New York, New Haven & Hartford Railroad tracks, and 2.2 miles southwest of Providence. Records available: 1944-48.

Lowest daily water level, from recorder charts

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	8.05	7.94	9.29	8.97	7.65	8.28	8.44	8.86	8.78	6.75	6.65	6.66
2	9.87	9.56	9.22	8.96	6.96	8.44	8.44	8.51	8.77	6.72	6.65	6.67
3	8.17	9.73	9.19	8.17	8.83	8.38	6.18	8.58	8.79	6.72	6.66	6.68
4	8.12	9.61	9.17	6.99	8.85	8.46	6.09	8.60	8.23	6.77	6.63	6.67
5	10.05	9.71	9.01	8.97	8.81	8.10	6.08	8.58	7.71	6.75	6.65	6.66
6	10.04	9.78	8.36	8.99	8.82	6.70	6.72	8.65	7.66	6.77	6.64	6.69
7	10.04	8.61	7.26	8.97	8.81	8.27	6.69	8.33	8.79	6.77	6.66	6.75
8	10.03	7.94	9.08	8.95	8.28	8.31	7.58	8.03	8.78	6.75	6.73	6.72
9	10.00	9.74	8.97	8.98	6.73	8.24	7.45	8.61	8.81	6.73	6.76	6.74
10	9.21	9.82	8.94	8.78	8.78	8.30	7.09	8.66	8.82	6.76	6.76	6.75

Providence 48--Continued.

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	8.09	9.77	9.00	7.91	8.73	8.22	6.72	8.66	8.63	6.78	6.67	6.74
12	10.00	9.81	8.84	8.93	8.91	8.18	7.12	8.55	7.75	6.70	6.69	6.70
13	9.91	9.82	8.50	8.90	8.73	6.40	7.11	8.56	8.79	6.68	6.66	6.72
14	9.73	9.62	8.03	8.95	8.61	8.27	7.34	7.43	8.83	6.69	6.67	6.74
15	9.95	7.93	8.80	8.80	8.23	8.35	7.19	7.26	8.86	6.75	6.72	6.74
16	9.97	9.52	8.92	8.77	7.68	8.33	7.26	8.58	8.87	6.72	6.74	6.76
17	9.62	9.57	8.81	8.59	8.51	8.42	7.53	8.60	8.77	6.68	6.76	6.73
18	8.11	9.57	8.76	7.00	8.50	8.41	6.83	8.64	8.66	6.71	6.77	6.74
19	9.93	9.82	8.72	8.73	8.41	7.84	8.45	8.64	7.30	6.71	6.75	6.72
20	9.81	9.60	8.36	8.80	8.49	7.43	8.47	8.63	8.45	6.70	6.72	6.75
21	9.22	9.11	6.88	8.91	8.29	8.33	8.46	7.80	8.49	6.69	6.64	6.75
22	9.76	7.49	8.81	8.77	8.03	8.38	8.55	7.43	8.28	6.68	6.66	6.76
23	9.76	9.28	8.57	8.73	6.54	8.31	8.53	8.61	8.77	6.68	6.67	6.78
24	8.29	9.34	8.77	8.41	8.36	8.33	7.47	8.64	8.83	6.66	6.65	6.77
25	8.06	9.29	8.97	7.01	8.46	8.39	7.04	8.68	7.85	6.66	6.61	6.74
26	8.86	9.30	9.05	8.78	8.46	7.84	8.50	8.65	6.78	6.65	6.64	6.78
27	8.64	9.32	7.98	8.87	8.51	6.62	8.55	8.66	6.79	6.67	6.59	6.75
28	8.57	9.07	7.10	8.79	8.36	8.37	8.56	8.23	6.79	6.66	6.60	....
29	8.41	8.16	8.99	8.90	7.33	8.43	8.48	7.82	6.80	6.67	6.63	....
30	8.25		9.06	8.86	7.81	8.45	8.49	8.75	6.78	6.63	6.65	....
31	8.10		9.02		6.63		8.13	8.74		6.61		....

Providence 81. Nicholson File Co. well 2. About 120 feet west of Acorn Street, 230 feet north of Tingley Street, and 2 miles west of Providence. Pumping well, altimeter measurements made about 12 hours after pump shut off. Records available: 1941-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	22.5	Feb. 29	22.0	May 23	20.0	June 27	22.0
18	23.0	Apr. 25	22.0	30	21.0	Nov. 21	21.0
25	23.0	May 2	22.0	June 6	23.0	28	20.0
Feb. 1	23.0	9	21.0	13	22.0	Dec. 5	20.0
15	22.5	16	22.0	20	21.0	12	19.0

Providence 82. Nicholson File Co. well 1. About 225 feet west of Acorn Street, 360 feet north of Tingley Street, and 2 miles west of Providence. Pumping well, altimeter measurements made about 12 hours after pump shut off. Records available: 1946-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	18.0	Apr. 25	17.0	June 6	18.0	July 11	18.0
18	19.0	May 2	17.0	13	17.0	Nov. 21	15.5
25	18.5	9	16.0	20	16.0	28	17.0
Feb. 1	18.5	16	17.0	27	17.0	Dec. 5	14.8
15	18.5	23	15.0	July 4	16.0	12	14.0
29	18.0	30	16.0				

Providence 94. Providence Gas Co. Sassafras Point plant. About 2,050 feet east of Allens Avenue, 1,100 feet north of Terminal Road, and 2.1 miles south of Providence. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	13.76	May 1	12.07	July 29	10.65	Oct. 29	16.25
27	14.98	28	13.07	Aug. 31	18.91	Nov. 29	17.41
Mar. 30	11.98	June 30	14.91	Sept. 28	19.17	Dec. 30	16.40

Providence 113. Providence Young Men's Christian Association. In boiler room, 153 feet northeast of Stewart Street, 68 feet northwest of Conduit Street, and 0.8 mile southwest of Providence. Records available: 1944-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	47.57	May 1	47.09	July 30	47.27	Oct. 29	47.49
Feb. 26	47.43	28	47.02	Aug. 31	47.62	Nov. 29	47.18
Mar. 30	47.33	June 30	46.98	Sept. 28	27.63	Dec. 30	47.42

Providence 1051. U. S. Rubber Co. About 140 feet south of Valley Street, 330 feet east of Eagle Street, and 2.25 miles west of Providence. Abandoned drilled well, diameter 8 inches, depth 82.2 feet below land surface. Measuring point, top of iron casing at land-surface datum and about 10 feet above mean sea level. Records available: 1948.

Providence 1051--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	12.90	Apr. 7	12.56	July 8	11.07	Oct. 6	10.53
7	14.49	14	12.58	14	12.09	13	8.33
16	16.10	22	12.33	21	11.29	20	8.97
22	15.80	28	12.50	28	10.88	27	11.77
29	15.53	May 5	12.43	Aug. 5	7.39	Nov. 3	12.30
Feb. 4	15.35	12	12.17	11	5.93	10	10.28
18	14.27	20	10.86	18	8.62	17	11.51
25	12.98	26	10.16	25	9.88	24	11.43
Mar. 3	13.30	June 2	8.64	Sept. 1	10.12	Dec. 1	12.03
10	13.15	9	10.49	8	10.89	8	11.57
18	13.17	16	10.44	15	10.60	15	11.26
24	12.45	24	10.80	22	12.41	22	11.22
Apr. 1	12.74	30	10.56	29	11.55	29	10.01

Providence 1110. Roger Williams Brewery, Simon Shatkin, trustee. About 6 feet south of Oak Street, 140 feet west of Troy Street, and 1.9 miles west of Providence. Records available: 1945-48. Nov. 29, 7.23.

Providence 1111. Brown University. Opposite corner of George and Magee Streets, Providence, in basement of Rhode Island Hall. Records available: 1946-48.

Jan. 5	13.46	Feb. 7	11.95	May 3	12.54	Sept. 7	15.28
12	13.40	9	12.11	10	13.22	13	15.49
19	12.31	11	12.30	17	12.81	20	15.74
22	9.24	12	12.28	24	11.50	27	15.36
23	9.49	13	12.21	June 1	11.47	Oct. 4	15.58
25	9.85	14	11.96	7	11.10	11	15.74
26	10.28	18	9.31	15	11.18	18	15.88
27	10.47	23	9.41	July 2	13.06	25	15.95
28	10.63	Mar. 1	9.71	6	13.25	Nov. 1	15.78
29	10.78	8	10.00	13	13.43	8	15.55
30	10.91	15	9.60	20	12.63	15	15.21
31	10.58	22	9.32	27	13.73	22	14.86
Feb. 2	11.36	29	10.39	Aug. 2	13.36	29	14.40
3	11.47	Apr. 4	10.58	12	14.12	Dec. 5	13.93
4	11.61	12	10.94	16	14.26	13	13.69
5	11.72	19	11.56	23	14.64	20	13.61
6	11.85	26	12.02	30	14.95	27	13.55

Scituate 3. Philippe Plante. About 60 feet east of Tucker Road, 0.3 mile northwest of intersection of Tucker and Elmdale Roads, and 1.1 miles south of Waldron Corners. Records available: 1947-48.

Feb. 26	8.64	May 29	9.91	Aug. 30	16.18	Nov. 26	10.44
Mar. 31	8.69	June 29	11.42	Sept. 27	18.76	Dec. 30	10.76
May 1	11.17	July 29	14.20	Oct. 28	17.67		

Scituate 4. City of Providence Water Supply Board. About 6 feet east of Round Hill Road, 3,100 feet northwest of intersection of Round Hill Road and Plainfield Pike, and 1.1 miles north of Clayville. Records available: 1947-48.

Feb. 26	15.05	May 29	14.86	Aug. 30	15.91	Nov. 26	14.55
Mar. 31	13.99	June 29	15.56	Sept. 27	15.90	Dec. 30	15.40
May 1	15.82	July 29	15.90	Oct. 28	15.53		

Smithfield 43. L. M. Gardner. On north side of Washington Pike, 0.1 mile northeast of Jencks Hill Road and 3.3 miles west of Ashton. Records available: 1946-48. Nov. 26, 9.30.

Smithfield 66. F. Sheffield. About 2 feet east of Tarkiln Road, 400 feet south of intersection of Tarkiln and Mapleville Roads, and 2 miles north of West Greenville. Records available: 1947-48. Nov. 26, 8.43.

Smithfield 71. City of Providence Water Supply Board. About 50 feet south of Mountindale Road, 1,650 feet northwest of intersection of Mountindale and Cary Roads, and 0.5 mile southeast of Spragueville. Records available: 1947-48. Nov. 26, 8.23.

Smithfield 116. Semaco Macaroni Co. About 350 feet south of Stillwater Road, 1,300 feet northeast of intersection of Stillwater Road and Farnum Pike, in Georgiaville. Records available: 1947-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 2	8.72	May 1	7.89	July 29	8.07	Oct. 28	8.79
26	7.72	29	7.65	Aug. 30	8.33	Nov. 26	8.82
Mar. 30	7.36	June 29	7.66	Sept. 27	8.26	Dec. 30	7.89

Woonsocket 18. French Worsted Co. About 320 feet southeast of Hamlet Avenue, 160 feet west of Davison Avenue, and 2,910 feet east of Woonsocket court house. Records available: 1947-48.

Jan. 3	13.82	May 1	12.37	July 29	12.26	Oct. 29	12.84
Feb. 2	14.49	29	11.50	Aug. 30	12.91	Nov. 26	12.05
25	11.61	June 29	11.97	Sept. 28	13.01	Dec. 30	12.33
Mar. 31	11.65						

Washington County

Charlestown 18. U. S. Naval Air Base test well 2, Charlestown. About 0.5 mile south of U. S. Highway 1, 1,000 feet south of water towers, and 3 miles southwest of Charlestown. Records available: 1946-48.

Jan. 28	18.92	Apr. 27	16.38	July 29	17.52	Oct. 28	20.88
Feb. 27	18.00	June 2	15.39	Aug. 31	18.77	Nov. 30	19.49
Mar. 29	17.00	28	16.18	Sept. 27	19.72		

Exeter 16. Rhode Island State Department of Social Welfare, Exeter School. About 150 feet south of boiler house, 450 feet west of nurses home, and 3.5 miles south of Exeter. Records available: 1946-48.

Jan. 12	13.06	May 10	8.81	July 14	9.78	Oct. 15	13.74
Mar. 4	9.85	20	8.27	21	10.12	21	14.12
12	9.15	June 1	8.00	27	10.56	Nov. 1	14.29
25	8.67	9	7.86	Aug. 26	11.55	16	14.54
Apr. 5	8.06	14	8.09	30	12.37	23	14.58
15	8.03	22	8.48	Sept. 17	13.17	Dec. 6	14.65
21	8.10	29	8.89	Oct. 1	13.66	29	14.86
29	8.40	July 7	8.33	8	13.80		

North Kingston 26. North Kingston Water Commission pumping station. About 140 feet south of Oak Hill Road, 1.2 miles west of Post Road, and 2 miles southwest of Wickford. Pumping well, measurements made about 10 hours after pump shut off. Records available: 1947-48.

Jan. 1	10.5	Apr. 1	10.0	July 1	10.6	Oct. 1	10.9
Feb. 1	10.5	May 1	10.3	Aug. 1	10.3	Nov. 1	10.8
Mar. 1	10.1	June 1	9.4	Sept. 1	11.0	Dec. 1	10.4

Westerly 4. Westerly Water Works. Varietyville pumping station well 4. On west side of White Rock Road and 2.3 miles north of Westerly. Records available: 1946-48. Nov. 12, 8.05; Nov. 19, 8.15; Nov. 26, 7.78.

Westerly 133. Westerly Water Works. White Rock pumping station well 31. On west side of White Rock Road and 3 miles north of Westerly. Records available: 1946-48.

Jan. 9	13.02	Feb. 13	12.04	Mar. 9	11.66	Apr. 8	10.85
15	12.42	19	11.27	19	9.98	Nov. 12	a19.07
23	12.11	26	11.25	25	10.24	19	a19.10
30	12.09	Mar. 4	11.25	Apr. 4	10.32	26	a17.70
Feb. 6	12.87						

a Pumping.

Westerly 178. Westerly Water Works. Bradford pumping station well 12A. On north side of Bradford Road, and 1 mile southwest of Bradford. Records available: 1946-48.

Jan. 9	4.56	Feb. 13	4.22	Mar. 9	3.06	Apr. 8	2.35
15	4.58	19	3.10	19	2.80	Nov. 12	5.49
23	4.54	26	3.08	25	2.56	19	5.18
30	4.20	Mar. 4	3.08	Apr. 4	2.59	26	5.02
Feb. 6	4.25						

VERMONT

By H. L. Free, Jr.

PROGRAM OF WORK

Periodic measurements of water level in Vermont, begun in October 1942, were continued in 1948. Measurements were made monthly until June 20, 1948, and weekly thereafter in one shallow observation well in the town of Middlesex, Washington County, near Wrightsville, which is about 3 miles north of Montpelier. Thirty-two measurements were made during the year.

FLUCTUATIONS OF WATER LEVEL

The net rise in water level in this well during 1948 was about 1.2 feet through December 27 and about 2.9 feet through January 3, 1949. The precipitation, as measured at nearby Northfield, totaled 34.21 inches in 1948, which was 0.37 inch above normal.

The water level was below average at the end of January, February, April, May, September, and October and near or above average throughout the rest of the year.

The water level dropped during January when cold weather and snow prevented ground-water recharge. Although precipitation during February was far below normal, the water level rose slightly during the month following thawing weather. The rise in water level during March reflected higher temperatures which melted much of the snow cover and precipitation that was more nearly normal than during the preceding month. Below-normal precipitation during April contributed to the drop in water level during that month. The water level continued to drop until after the end of September. The above-normal precipitation during May and August did not appreciably alter the downward trend of water levels during the spring and summer. Below-normal rainfall during October resulted in very low water level, but above-normal precipitation in November and December raised the water level to well above average. At the end of the year the water level was at its highest December stage since the beginning of record.

WELL DESCRIPTION AND WATER LEVEL MEASUREMENTS

Washington County

US 90. Montpelier 1. Burton Peterson. About 0.7 mile west of North Branch of Winooski River and 3.0 miles north of Montpelier, in Middlesex. Penetrates sandy glacial till. Extremes of observed water level: Lowest, dry, water level below 11.9 feet Sept. 1, 29, 1944; Oct. 30, 1947; Sept. 26 to Oct. 17, 1948; highest, 4.72 feet May 2, 1945. Records available: 1942-48.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	9.64	July 11	8.17	Sept. 7	9.43	Nov. 12	10.35
Mar. 5	9.39	18	8.58	12	9.88	15	10.06
31	5.84	25	8.23	19	10.50	21	8.87
Apr. 30	6.82	Aug. 1	8.64	26	(a)	29	8.30
June 1	7.11	8	8.75	Oct. 3	(a)	Dec. 6	8.10
20	7.19	18	7.98	10	(a)	13	7.85
29	7.62	22	8.20	17	(a)	21	8.10
July 4	8.18	29	8.64	Nov. 1	9.10	27	8.24

a Dry. Water level below 11.9 feet.