

Water Levels and Artesian Pressure in Observation Wells in the United States in 1947

Part 3. North-Central States

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1098

*Prepared in cooperation with the States
of Illinois, Iowa, Kansas, Minnesota,
Missouri, Nebraska, North Dakota,
and Wisconsin, and other agencies*



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GEOLOGICAL SURVEY

W. E. Wrather, *Director*

TOP SECRET

PREFACE

This report was prepared by the Geological Survey in cooperation with the States of Illinois, Iowa, **Kansas**, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin, 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 1947

Part 3. NORTH-CENTRAL STATES

INTRODUCTION

By A. N. Sayre and others

Significance of records of water level and artesian pressure

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 register the stages of these natural reservoirs; they show the extent to which water supplies are depleted by drought or by heavy pumping, whether for public waterworks, irrigation, or industrial uses, and the extent to which they are replenished in seasons of abundant rainfall or melting snow. The changes in pressure recorded on flowing wells indicate depletion or replenishment of the artesian reservoirs.

Annual publication of records by Geological Survey

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

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

Year	North-eastern States	South-eastern States	North-central States	South-central States	North-western States	South-western States and Hawaii
1935	777	777	777	777	777	777
1936	817	817	817	817	817	817
1937	840	840	840	840	840	840
1938	845	845	845	845	845	845
1939	886	886	886	886	886	886
1940	906	907	908	909	910	911
1941	936	937	938	939	940	941
1942	944	945	946	947	948	949
1943	986	987	988	989	990	991
1944	1016	1017	1018	1019	1020	1021
1945	1023	1024	1025	1026	1027	1028
1946	1071	1072	1073	1074	1075	1076
1947	1096	1097	1098	1099	1100	1101

Scope of present volume

The present volume covers the north-central States and gives records of water level and artesian pressure in about 1,766 observation wells of the Geological Survey and cooperating agencies in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin. Of these wells, 71 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 identifying description are given in this report. The numbers in parentheses immediately following a well number are those of the water-supply papers in which earlier records of that well are given and the pages on which they appear. An asterisk indicates that a description of the well is given in the paper whose number is so marked. This report includes about 13,516 individual determinations of water level and artesian pressure.

Land-surface datum

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

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

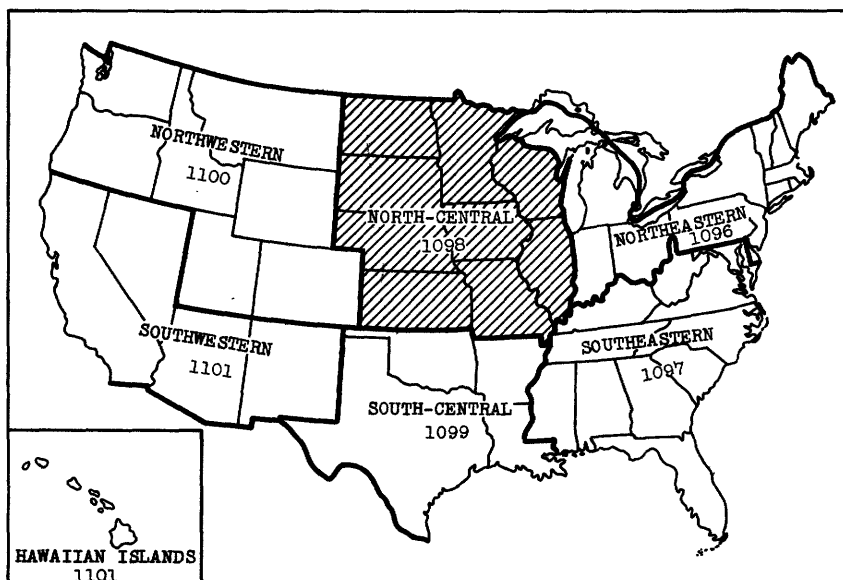


Figure 1.--Outline map of the United States showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1947. The shaded section represents the part of the country covered by this volume.

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

Network of key observation wells

During 1942 the Geological Survey established a network of key observation wells in order to make available current information on general ground-water conditions over the country. These wells were selected because

the fluctuations of water level in them are believed to be typical and they represent the general fluctuations that occur in the parts of the country in which the wells are situated. At the end of 1947 the network included about 160 wells in 45 States. About 40 of the wells were established expressly for the network in 1942 and about 20 were established in 1943; the other 100 were selected from wells measured regularly in connection with cooperative ground-water investigations. The coverage of the country is still far from adequate, and it is expected that some wells not now included will be added to the network from time to time.

Changes in ground-water level in 1947 in the north-central part of the United States

The average precipitation in three of the States in the north-central part of the country--Iowa, Kansas, and Nebraska--was above normal in 1947. It was also above normal in northern North Dakota, but in southern North Dakota and in the other four States in this section precipitation was below normal. The fluctuations of both water level and artesian pressure in wells depend, however, on many factors besides the amount of precipitation. In certain of the observation wells there are fluctuations caused by differences in the rate of pumping or artesian flow from other wells in the area, but most of the observation wells are not noticeably affected by pumping or artesian flow. A summary of the changes in ground-water level is given in the chapter for each State.

Acknowledgments

Acknowledgments for effective services in the preparation of this water-supply paper are due Mrs. Nauvoo Ragland, Mrs. Frances Dowell, and Misses Dorothy M. Ireland and Beulah B. Brunson, and Rodney Hart. Miss Ireland had general charge of the assembling of the several reports and did the editing; Mr. Hart prepared the illustrations; and Mrs. Ragland, Mrs. Dowell, and Miss Brunson did the offset typing.

ILLINOIS

By W. E. Hale and J. B. Cooper

PROGRAM OF WORK

Measurements of water level were continued during 1947 in the well at Princeton, Bureau County, the only well in Illinois in the Nation-wide network of observation wells. It is equipped with a float-tape gage and was first observed in 1942. Since then measurements have been made approximately once a week.

FLUCTUATIONS OF WATER LEVEL

The fluctuations of the water level in the well at Princeton during 1947 varied from a low of 19.40 feet below land-surface datum, on November 15, to the high for the year of 2.85 feet below land-surface datum on April 5. The year closed on December 27 with the water level at 17.09 feet below land-surface datum, or 0.90 foot lower than the water level at the start of the year. The average water level for the last 3 months of the year was 18.37 feet below land-surface datum compared with the average water level of 15.25 feet below land-surface datum for the first 3 months, a difference of 3.12 feet.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Bureau County

US 112 (*946, p. 10; 988, p. 6; 1018, p. 5; 1025, p. 5; 1073, p. 5).
R. E. Neff. In Princeton, in sec. 9, T. 16 N., R. 9 W. Equipped with float-tape gage. Measurements made by Nick Hansen.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.19	Mar. 22	14.85	June 7	5.64	Aug. 16	13.99
11	16.29	28	13.47	14	5.81	23	15.33
18	15.79	29	13.29	21	6.57	29	16.12
23	15.97	Apr. 5	2.85	24	7.02	30	16.19
25	15.99	12	5.85	28	7.50	Sept. 6	16.65
Feb. 1	15.43	19	6.54	July 5	8.63	13	17.01
8	15.29	May 3	5.52	12	9.67	20	17.50
15	15.30	10	6.21	19	10.52	23	17.37
22	15.40	17	6.79	26	11.70	27	17.39
Mar. 1	15.49	22	7.04	31	13.88	Oct. 4	17.56
8	14.99	24	7.19	Aug. 2	12.39	11	17.99
15	14.99	31	5.66	9	13.33	18	18.32

US 112--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 23	18.66	Nov. 8	19.30	Nov. 29	19.11	Dec. 20	17.22
25	18.79	15	19.40	Dec. 6	18.10	27	17.09
Nov. 1	19.09	22	19.19	13	17.41		

IOWA

By J. B. Cooper, W. E. Hale, and C. W. Lane

PROGRAM OF WORK

The State-wide program of investigation of ground-water resources and inventory of ground-water levels in observation wells in Iowa was continued in 1947 in cooperation with the Iowa Geological Survey.

The majority of the observation wells were established in 1938, but additions have been made since that time. The observation wells in the Tarkio Creek Valley area of southwestern Iowa were established in 1934 through a program organized by the U. S. Geological Survey in which the Soil Conservation Service of the United States Department of Agriculture participated for several years. All of these wells are now included in one program for the State.

Past records of the water-level measurements in the wells in the Tarkio Creek area are published in Water-Supply Papers 777, 817, 840, 845, 886, 908, 936, 988, 1018, 1025, and 1073, and those for the wells established in 1938 are given first in Water-Supply Paper 886.

At the beginning of 1947 measurements were being made on 172 wells in 39 counties throughout the State. During the year 14 wells were dropped from the program, and 6 wells were added, making a total of 164 wells in the observation-well program at the end of the year. (Fig. 2.) Automatic water-stage recorders were being maintained on 11 wells at the close of the year.

Water-level measurements were being made weekly on 6 wells, monthly on 47 wells, and quarterly on most of the remaining wells. During the year about 990 wetted-tape water-level measurements were made in the State and are included in this report. In addition, many water-level measurements were made in connection with pumping and production tests and in gathering data on new wells throughout the State. These additional measurements and descriptions of wells are not included in this report.

FLUCTUATIONS OF WATER LEVEL

The average precipitation over the State in 1947 was 35.23 inches which was slightly more than the amount for 1946. The 1947 average was 3.72 inches above normal and 0.08 inch above that of the previous year.

The rainfall in 1947 was very erratic in distribution. For many sections of the State, precipitation in June exceeded that for all previous records for this month. The State average in June was 10.29 inches which exceeded the previous high average by more than 2 inches. The month of August, however, was the second driest August of record. Above-normal precipitation occurred over most of the State during the months of January, April, May, June, October, November, and December. Precipitation was below normal during the other months.

The following table lists the average net change in the water level between December 1946 and December 1947 in groups of shallow wells by counties throughout the State.

Average net change in water levels, in feet, in shallow wells in Iowa and annual precipitation and departure from normal, in inches, at the nearest U. S. Weather Bureau station, 1947

County	No. of wells	Average net change	Precipitation	Departure from normal
Adair	4	-1.67	38.94	+7.45
Buena Vista	4	-1.07	27.55	-.96
Calhoun	4	-.35	38.53	+6.79
Cerro Gordo	8	-1.46	30.63	+1.13
Clay-Palo Alto	a 2	+.26	28.14	-.13
Dickenson	1	+1.10	26.79	-.12
Emmet	1	-1.22	27.68	-.95
Johnson	2	-.74	36.50	+2.00
Linn	6	-2.61	33.93	+3.09
Marion	4	+.07	37.94	+5.12
Montgomery-Page	b 18	-.28	37.46	+5.89
Polk	1	-1.02	42.07	+11.10
Poweshiek	1	-3.37	37.32	+3.83
Sac	4	-1.74	28.40	-.65
Story	2	-.22	38.69	+7.94
Webster	7	+.51	33.13	+2.00

a These wells, one in each county, are in the vicinity of Lost Island Lake.

b These wells are in the Tarkio Creek Valley which occupies parts of both counties.

As indicated, the majority of the wells are at a lower stage by the end of 1947 than at the end of the previous year even though the precipitation was, in most cases, above normal for the year. This condition can be attributed to the heavy rains and subsequent record or near-record floods during June. This short wet period was followed by hot and dry weather that persisted from mid-July until the first weeks of September.

The water table declined rapidly during this interval and remained at a low stage during the remainder of the year. This combination of heat and drought appreciably affected yields of corn and soybeans over the State. Throughout the farming area the yield of domestic and stock wells, which depended upon shallow aquifers for water, was reduced importantly. Locally the water table rose somewhat during the last quarter of the year because precipitation was slightly above normal during that period.

In most areas, however, freezing temperatures began during the first week in November and continued with few interruptions throughout the remainder of the year. Accordingly, little ground-water recharge resulted from precipitation which fell during that period. In general, the water table remained essentially static or was slightly higher than the low stage of the summer.

The Tarkio Creek Valley area, in parts of Montgomery and Page Counties, Iowa, and Atchison County, Missouri, contains a number of shallow observation wells established in 1934. Water-level measurements have been made on this group of wells at least once a month for almost the entire period of record. In 1947, these measurements were made by Dean W. Knox, local observer. Records of the water levels in the Atchison County area, Missouri, are given in the section of this report that relates to observation wells in that State.

Measurements in 8 wells (Nos. 1, 5, 6, 7, 10, 12, 15, and 17) were used in computing the average water level for each month in 1947. These averages are given in the following table.

Average water levels, in feet above assumed datum planes, in 8 observation wells in the Tarkio Creek area, Iowa-Mo., 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan.	14.64	Apr.	16.40	July	19.38	Oct.	14.59
Feb.	13.38	May	.....	Aug.	17.51	Nov.	14.47
Mar.	12.70	June	22.05	Sept.	14.58	Dec.	14.53

Figure 3 shows the fluctuation of the average water level in this area during the period of record as indicated by the 8 wells listed above and the precipitation at Shenandoah, the nearest U. S. Weather Bureau station.

The fluctuation of the water level during 1947 in a shallow unused well (87-28-29N1) in the southern part of Webster County, near Harcourt, is shown in figure 4. The well is 41.8 feet deep, taps water in the

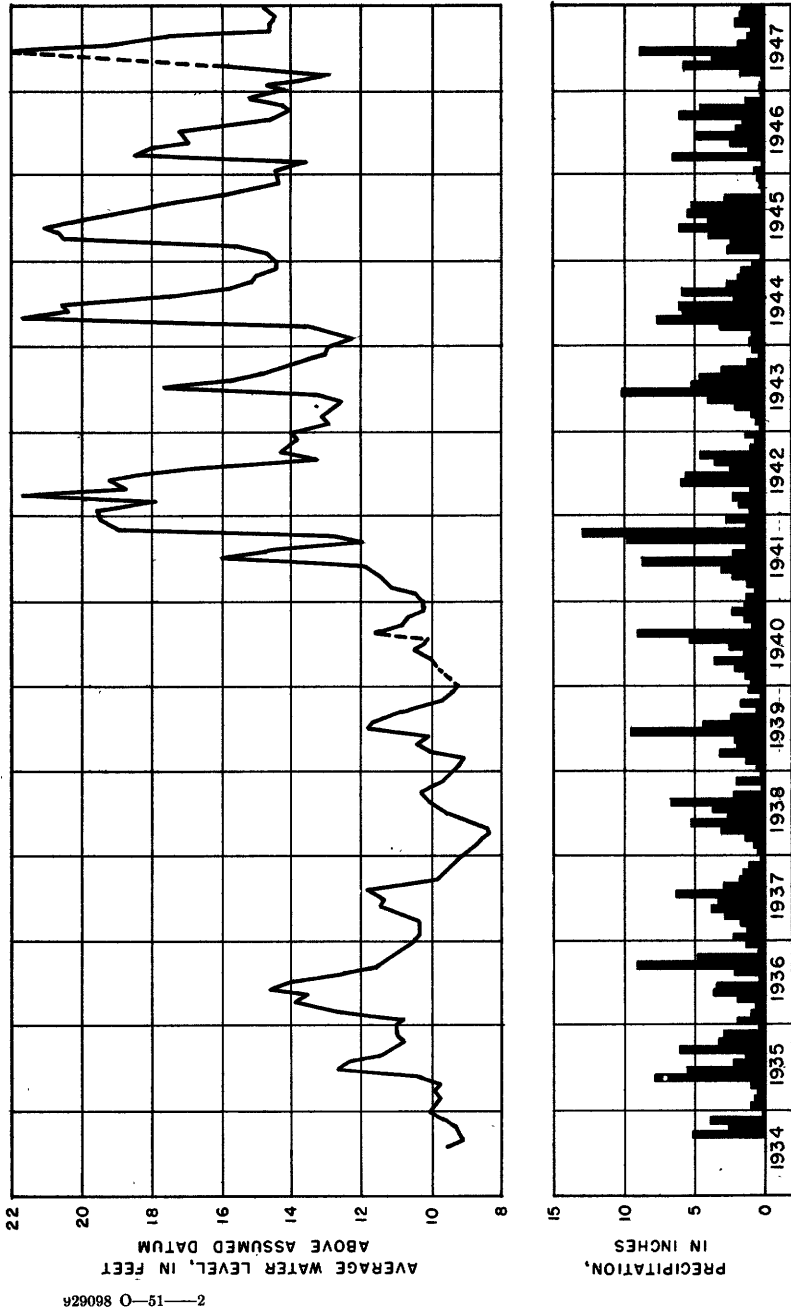


Figure 3.--Graph showing fluctuations of the average water level in 8 wells in the Tarkio Creek Valley, Iowa-Mo., and precipitation at Shenandoah, Iowa, from September 1934 to December 1947.

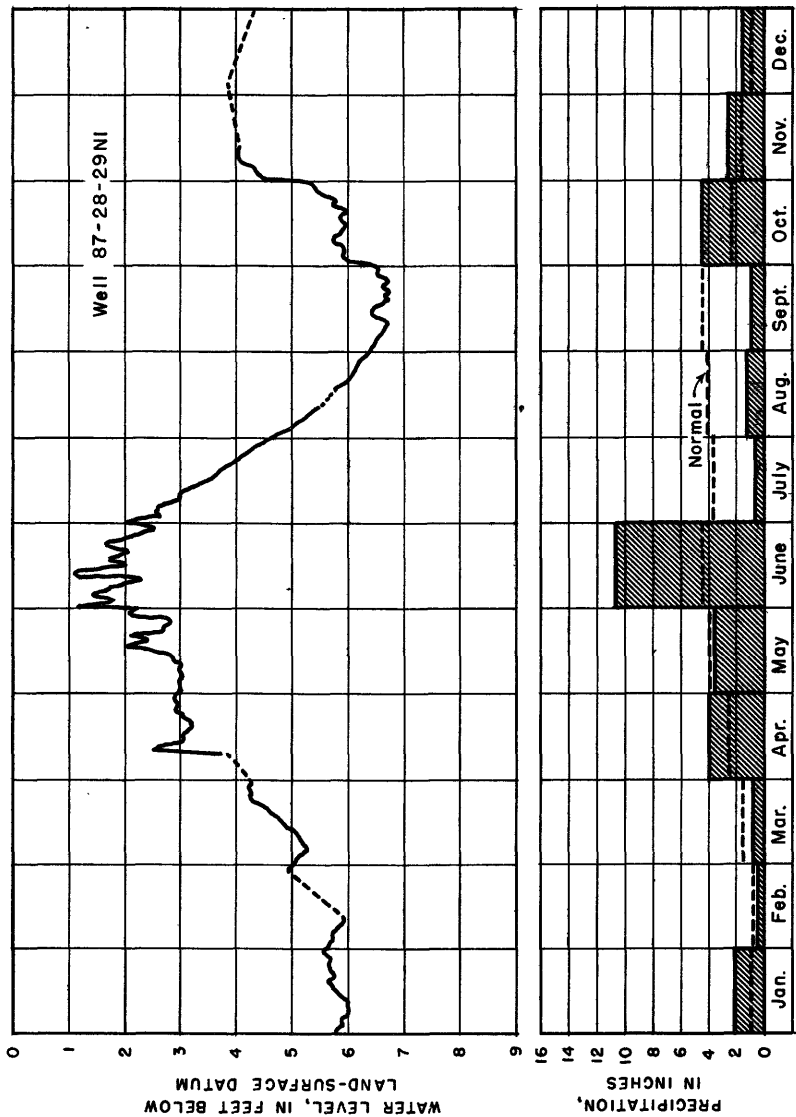


Figure 4.--Hydrograph of well 87-28-29N1, near Harcourt, and monthly precipitation at Fort Dodge, Webster County, Iowa, for 1947.

glacial drift, and is representative of shallow wells in the county which tap the same water-bearing bed. The monthly precipitation at Fort Dodge, shown also on the graph, correlates closely with fluctuations of water level.

Figure 5 shows water-level measurements at the end of the month in well 84-6-20N1 which is an observation well 11.7 feet deep tapping water in the glacial drift. The well is in central Linn County about 5 miles northeast of Cedar Rapids. Close correlation between precipitation as recorded at the U. S. Weather Bureau station at Cedar Rapids and the water-level fluctuation in this well is evident. This well is representative of several shallow observation wells in the county and of many domestic farm wells which tap the same water-bearing bed.

Well 83-7-21K1, figure 6, at Cedar Rapids, Linn County, is illustrative of artesian rock wells affected by industrial and seasonal withdrawals for normal industrial use and air-conditioning purposes. This is an unused well completed at a depth of 156 feet in the upper part of Silurian dolomite which is locally about 400 feet thick. Most wells in Cedar Rapids develop water supplies for air-conditioning and industrial use from these strata. The observation well is about half a mile from the heavily pumped areas of downtown Cedar Rapids. The well was first measured in August 1943. On December 31, 1947, the water level was 59.87 feet below land-surface datum, which is 2.65 feet below its stage of December 31, 1943.

Well 83-7-11E1, at Cedar Rapids, has been used in previous reports to illustrate the effects of seasonal pumping in the Cedar Rapids area, but well 83-7-21K1, because of its closer proximity to the area of heavy pumpage, seems to illustrate better the stage of the artesian water levels in this widely used aquifer.

WELL-NUMBERING SYSTEM

The numbers assigned by the Federal Geological Survey to its observation wells in Iowa, other than those in the Tarkio Creek area, show the location of the wells according to the rectangular system for subdivision of public land. Each well number is made up of three segments, separated by hyphens. The first and second segments indicate the township and range.

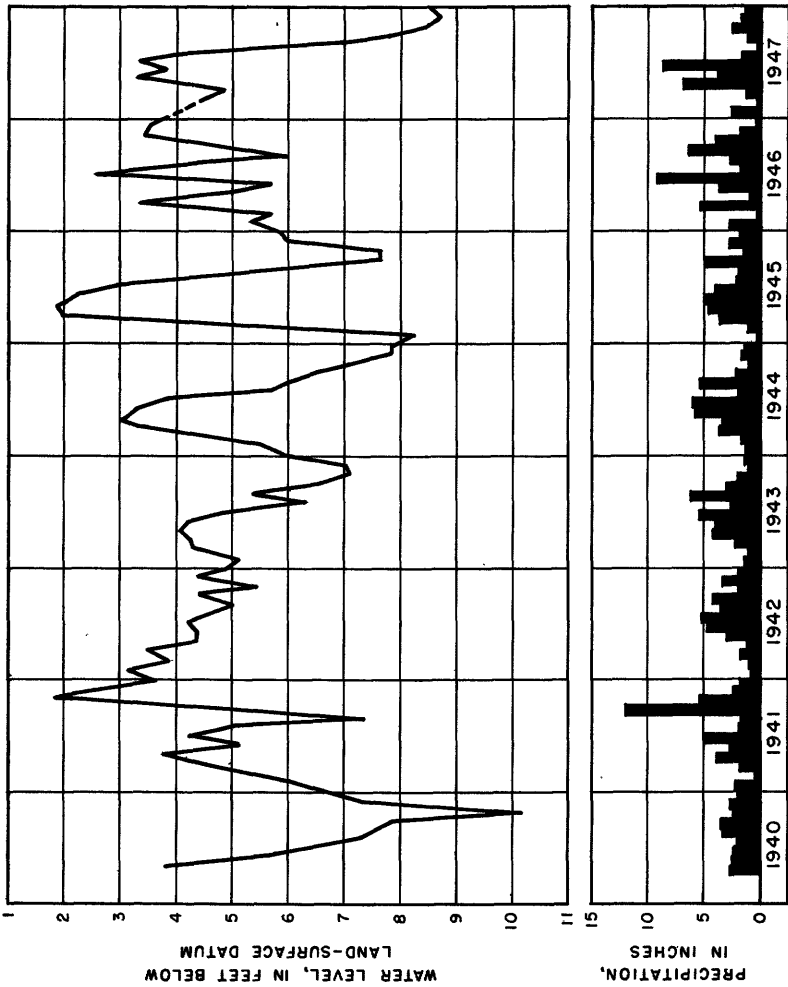


Figure 5.--Hydrograph of well 84-6-20N1, near Marion, and monthly precipitation at Cedar Rapids, Linn County, Iowa, from April 1940 to December 1947.

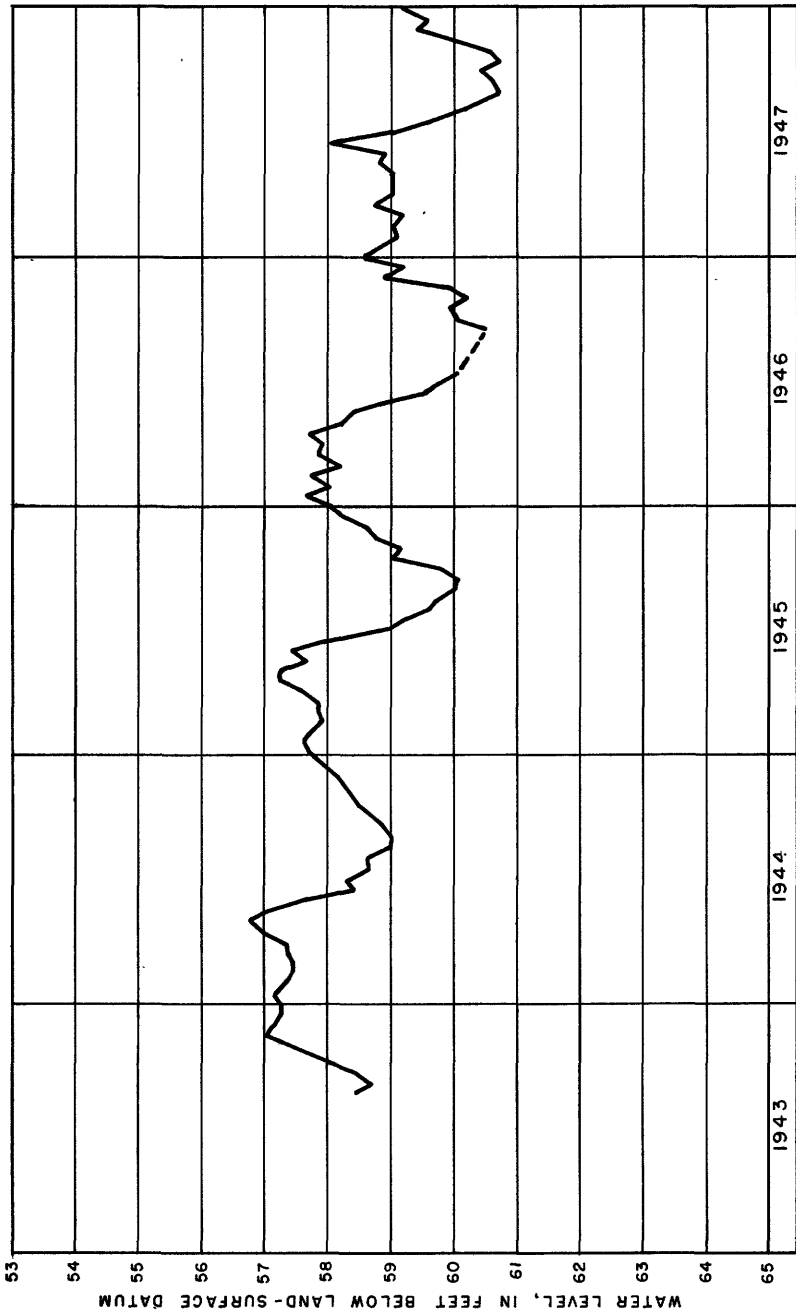


Figure 6.--Hydrograph of well 83-7-21k1 at Cedar Rapids, Linn County, Iowa, showing fluctuations of water level from August 1943 to December 1947 caused by pumping in vicinity.

The third segment includes the section, followed by a letter representing the 40-acre subdivision of the section, as shown by the diagram, and the serial number of the particular well.

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

The letter E is added to the second segment representing the range when a well is east of the fifth principal meridian. In the number of the other wells, it is understood that the range indicated is west of the meridian.

For example, the number 76-31-25P1 indicates a well is in T. 76 N., R. 31 W., in the SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, whose serial number is 1.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adair County

76-31-25P1 (#946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14; 1073, p. 13). SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 76 N., R. 31 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 2.55; Dec. 15, 4.26.

76-31-29P1 (#946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14; 1073, p. 13). SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 76 N., R. 31 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 4.74; Dec. 15, 11.49.

75-31-15B1 (#908, p. 10; 938, p. 9; 946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14; 1073, p. 13). John E. Soderberg. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 75 N., R. 31 W. Water level, in feet below land-surface datum, 1947: Apr. 24, 0.50.

75-31-18B1 (#908, p. 10; 938, p. 9; 946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14; 1073, p. 13). Charles Gillam. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 75 N., R. 31 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 5.30; Dec. 15, 8.70.

75-30-17E1 (#946, p. 18; 988, p. 16; 1018, p. 14; 1025, p. 15; 1073, p. 13). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 75 N., R. 30 W. Water levels, in feet above or below land-surface datum, 1947: Apr. 24, +0.31; Dec. 15, +0.08.

Benton County

85-10-16M3 (#886, p. 116; 908, p. 10; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 14; 1025, p. 15; 1073, p. 13). City of Vinton well 3. No measurements made in 1947.

Buena Vista County

Vicinity of Storm Lake

91-37-32E1 (#908, p. 10; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 13). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 91 N., R. 37 W. Water levels, in feet below land-surface datum, 1947: May 1, 3.28; Dec. 19, 3.78.

90-37-3E1 (#908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 14). Emil Schmitz. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 90 N., R. 37 W. Water level, in feet below land-surface datum, 1947: May 1, 6.55.

90-37-3M1 (*908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 14). L. B. Watt. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 90 N., R. 37 W. Water levels, in feet below land-surface datum, 1947: May 1, 12.40; Dec. 19, 18.89.

90-37-23D1 (*908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 14). Biggens Bros. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 90 N., R. 37 W. Water levels, in feet below land-surface datum, 1947: May 2, 15.29; Dec. 19, 16.53.

90-37-34B1 (*938, p. 11; *946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 14). Ed Zinn. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 90 N., R. 37 W. Water levels, in feet below land-surface datum, 1947: May 2, 6.44; Dec. 19, 9.71.

Calhoun County

Vicinity of Twin Lakes

89-32-28N1 (*908, p. 11; 938, p. 11; 946, p. 19; 988, p. 16; 1018, p. 15; 1025, p. 15; 1073, p. 14). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 89 N., R. 32 W. Water levels, in feet below land-surface datum, 1947: May 1, 2.03; Dec. 19, 5.54.

89-32-33N1 (*908, p. 11; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 15; 1073, p. 14). Ben Burns. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 89 N., R. 32 W. Water levels, in feet below land-surface datum, 1947: May 1, 1.70; Dec. 19, 4.82.

88-33-1B1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 15; 1073, p. 14). Ben Burns. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 88 N., R. 33 W. Water levels, in feet below land-surface datum, 1947: May 1, 7.58; Dec. 19, 10.99.

88-33-1D1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16; 1073, p. 14). George Voss. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 88 N., R. 33 W. Water levels, in feet below land-surface datum, 1947: May 1, 6.56; Dec. 19, 9.27.

Carroll County

85-35-7N1 (*946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16; 1073, p. 14). City of Breda. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 85 N., R. 35 W. Water level, in feet below land-surface datum, 1947: May 2, 188.69.

85-35-18D1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16; 1073, p. 14). City of Breda. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 85 N., R. 35 W. Water levels, in feet below land-surface datum, 1947: Apr. 25, 199.61; May 2, 196.24; Dec. 16, 193.70.

84-34-25F1 (*886, p. 116; *908, p. 12; 946, p. 19; 988, p. 17; 1018, p. 16; 1025, p. 16; 1073, p. 14). City of Carroll test hole 1. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 84 N., R. 34 W. Water levels, in feet below land-surface datum, 1947: Apr. 25, 40.45; May 2, 40.00; Dec. 16, 47.69, nearby well pumping.

Cerro Gordo County

97-21-9E1 (*938, p. 12; 946, p. 20; 988, p. 18; 1018, p. 16; 1025, p. 16; 1073, p. 14). E. H. Phillips. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 97 N., R. 21 W. Water level, in feet below land-surface datum, 1947: May 5, 96.10.

97-20-24H1 (*938, p. 13; 946, p. 20; 988, p. 18; 1018, p. 16; 1025, p. 16; 1073, p. 14). Mrs. Vinnie Shanks. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 97 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: May 5, 4.70; Dec. 20, 9.04.

97-20-28L1 (*988, p. 18; 1018, p. 16; 1025, p. 16; 1073, p. 15). Crystal Sugar Co. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 97 N., R. 20 W. Water level, in feet below land-surface datum, 1947: May 5, 175.7.

97-19-30R1 (*938, p. 14; 946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16; 1073, p. 15). E. Stebbens. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 97 N., R. 19 W. Water levels, in feet below land-surface datum, 1947: May 5, 9.10; Dec. 20, 9.53.

96-22-7Q1 (#938, p. 14; #946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16; 1073, p. 15). W. S. Overgaard. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: Nov. 3, 23.67; Dec. 20, 24.99.

96-22-14C1 (#908, p. 12; 938, p. 14; 946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16; 1073, p. 15). Fred Stephens. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 5, 32.19; Nov. 3, 33.25; Dec. 20, 33.07.

96-22-20C1 (#908, p. 13; 938, p. 14; 946, p. 22; 988, p. 19; 1018, p. 17; 1025, p. 17; 1073, p. 15). The Willow Inn. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 5, 3.79; Nov. 3, 6.92.

96-22-20L1 (#908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17; 1073, p. 15). NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 5, 33.42; Nov. 3, 32.75; Dec. 20, 34.46.

96-22-23Q1 (#908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17; 1073, p. 15). H. R. Anderson. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 5, 18.70; Nov. 3, 20.70; Dec. 20, 21.40.

96-22-25D2 (#908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17; 1073, p. 15). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 5, 5.30; Nov. 3, 7.40; Dec. 20, 7.38.

96-21-13E1 (#908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17; 1073, p. 15). Mason City & Clear Lake Railway. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 96 N., R. 21 W. Water levels, in feet below land-surface datum, 1947: May 5, 4.11; Dec. 20, 6.06.

96-21-17C1 (#908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17; 1073, p. 15). Clear Lake Sand & Gravel Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 96 N., R. 21 W. Water levels, in feet below land-surface datum, 1947: May 5, 17.36; Nov. 3, 17.65.

96-21-17M1 (#908, p. 13; 938, p. 16; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17; 1073, p. 15). NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 96 N., R. 21 W. Water levels, in feet below land-surface datum, 1947: May 5, 2.07; Nov. 3, 2.40; Dec. 20, 3.08.

96-21-18H1 (#908, p. 13; 938, p. 16; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17; 1073, p. 15). Sam Kennedy. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 96 N., R. 21 W. Water levels, in feet below land-surface datum, 1947: May 5, 9.78; Nov. 3, 9.55; Dec. 20, 10.89.

96-20-3I2 (#938, p. 16; 946, p. 23; 988, pp. 21-22; 1018, pp. 18-19; 1025, p. 17; 1073, p. 15). Mason City well 8. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 96 N., R. 20 W. Well abandoned; measurements discontinued.

96-20-3P1 (#938, p. 16; 946, p. 25; 988, p. 22; 1018, p. 19; 1025, p. 19; 1073, p. 16). Minneapolis & St. Louis Railroad Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 96 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: May 5, 41.67; Dec. 20, 46.70.

96-20-16J1 (#886, p. 116; 908, p. 14; 938, p. 17; #946, p. 25; 988, p. 22; 1018, p. 19; 1025, p. 19; 1073, p. 16). Mason City well 11. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 96 N., R. 20 W. Measuring point, top of 16-inch casing, 1.0 foot above land-surface datum, which is 0.5 foot lower than previous measuring point. Recorder installed on Nov. 21.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 21	211.30	Nov. 28	205.40	Dec. 4	204.50	Dec. 11	204.80
22	209.80	29	205.40	5	204.40	12	204.80
23	208.00	30	205.30	6	204.70	13	204.80
24	207.50	31	204.70	7	204.30	14	204.20
25	206.80	Dec. 1	204.70	8	204.50	15	204.30
26	206.60	2	204.50	9	204.50	16	204.60
27	206.20	3	204.90	10	204.65	17	204.40

96-20-16J1--Continued.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 18	204.80	Dec. 22	203.70	Dec. 26	203.70	Dec. 29	202.60
19	205.00	23	204.00	27	203.50	30	202.70
20	205.20	24	204.30	28	203.50	31	203.10
21	204.80	25	204.26				

95-22-5M1 (*938, p. 17; 946, p. 26; 988, p. 23; 1018, p. 20; 1025, p. 19; 1073, p. 16). School District. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 95 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 6, 3.75; Nov. 3, 10.06.

95-22-8C1 (*938, p. 18; 946, p. 26; 988, p. 23; 1018, p. 20; 1025, p. 19; 1073, p. 16). Jurgensen Bros. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 95 N., R. 22 W. Well abandoned; measurements discontinued.

95-21-27Q1 (*938, p. 18; 946, p. 26; *988, p. 24; *1018, p. 20). Dave Blankenship. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 95 N., R. 21 W. Erroneously reported abandoned and measurements discontinued in Water-Supply Paper 1018.

Water level, in feet below land-surface datum, 1944-47

Date	Water level	Date	Water level	Date	Water level
Mar. 31, 1944	21.54	July 3, 1945	17.21	Dec. 22, 1946	19.79
July 29	19.18	Sept. 12	18.82	May 6, 1947	18.42
Oct. 4	20.06	July 19, 1946	20.70	Nov. 3	22.25
Dec. 22	20.89	Oct. 14	19.49	Dec. 20	22.06
Mar. 30, 1945	17.72				

94-22-24J1 (*938, p. 19; 946, p. 27; 988, p. 24; 1018, p. 21; 1025, p. 19; 1073, p. 16). NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 94 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 6, 10.75; Nov. 3, 11.51; Dec. 20, 12.64.

94-22-24J2 (*938, p. 19; 946, p. 27; 988, p. 21; 1018, p. 21; 1025, p. 19; 1073, p. 16). Town of Thornton. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 94 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: Nov. 3, 75.00; Dec. 20, 76.31.

94-22-24J3 (*938, p. 19; 946, p. 28; 988, p. 25; 1018, p. 21; 1025, p. 19; 1073, p. 16). Mel Bowen. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 94 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: May 6, 12.24; Nov. 3, 14.55.

Cherokee County

92-40-26P1 (*886, p. 116; *908, p. 14; 938, p. 21; *946, p. 29; 988, p. 26; 1018, p. 22; 1025, p. 19; 1073, p. 16). City of Cherokee well 2 south. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 92 N., R. 40 W. Well abandoned; measurements discontinued.

Clay County

96-35-3R1 (*908, p. 14; 938, p. 21; 946, p. 29; 988, p. 26; 1018, p. 22; 1025, p. 20; 1073, p. 17). Allis Wilson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 96 N., R. 35 W. Water levels, in feet below land-surface datum, 1947: May 3, 3.46; Dec. 18, 3.86.

Clinton County

81-6E-22H1 (*908, p. 14; 938, p. 21; 946, p. 29; 988, p. 26; 1018, p. 22; 1025, p. 20; 1073, p. 17). E. I. du Pont de Nemours & Co. well 2. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 81 N., R. 6 E. This well is in a well field which contains 5 wells, 4 of which produce from the same aquifer, and 1 of which produces from a higher interconnected aquifer. Each of these wells is pumped at rates up to 2,300 gallons a minute. Interference occurs among the wells. The following water levels of well 2 in this field lists also the number of nearby wells which were pumping at time of measurement. Measurements made with air gage.

81-6E-22H1--Continued.

Water level, in feet below land-surface datum, 1947			
Date	Water level	Pumping (gallons a minute)	No. of nearby wells pumping at time of measurement
Jan. 6	65.00	0	0
13	63.00	0	0
20	83.00	2050	0
27	80.00	1925	0
Feb. 3	65.00	0	1
10	67.00	0	1
17	75.00	1350	1
24	80.00	1300	1
Mar. 3	89.00	1100	2
10	73.00	0	1
17	76.00	950	1
24	73.00	0	2
31	74.00	0	2
Apr. 7	77.00	850	1
14	86.00	1125	1
21	73.00	0	2
May 5	87.00	1000	1
12	80.00	0	1
19	99.00	1850	0
26	89.00	625	1
June 2	93.00	1000	1
9	98.00	1750	1
16	98.00	950	2
23	100.00	1300	2
30	105.00	1625	2
July 7	104.00	1325	2
14	102.00	1000+	2
21	101.00	650	3
28	96.00	0	2
Aug. 4	96.00	0	3
11	99.00	0	3
18	103.00	0	3
25	107.00	0	3
Sept. 2	104.00	0	3
21	103.00	0	3
29	101.00	0	3
Oct. 13	105.00	0	3
20	103.00	0	3
27	100.00	0	3
Nov. 2	105.00	0	3
9	106.00	0	3
17	122.00	1725	3
24	121.00	1700	3
Dec. 1	122.00	1900	3
8	127.00	1900	4
15	128.00	1925	3
22	125.00	1725	2
27	112.00		

81-7E-6K1 (*908, p. 14; 938, p. 21; *946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 20; 1073, p. 17). W. Atlee Burpee Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 81 N., R. 7 E. Water level, in feet below land-surface datum, 1947: Dec. 17, 96.60.

81-7E-7B1 (*1025, p. 20; 1073, p. 17). Clinton Water Works well 5. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 81 N., R. 7 E. Measurements made by Clinton Water Works Co. Water levels, in feet below land-surface datum, 1947: Apr. 23, 75.00; Aug. 24, 102.30; Oct. 22, 100.9.

Decatur County

69-25-29R1 (*908, p. 14; 938, p. 22; *946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 21; 1073, p. 17). Sam Gasset. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 69 N., R. 25 W. No measurements made in 1947.

Dickinson County

99-36-6G1 (*938, p. 22; 946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 21; 1073, p. 17). SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 99 N., R. 36 W. Water levels, in feet with reference to land-surface datum, 1947: May 3, +0.25; Dec. 18, -0.85.

Dubuque County

89-3E-7Q1. City of Dubuque well 2. NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 89 N., R. 3 E. Drilled well, completed in 1899 at a depth of 1,306 feet. Diameter 12 inches from 0 to 900 feet; diameter 8 inches from 900 to 1,306 feet, total depth; 8-inch casing from 5 feet below land surface to 1,000 feet below land surface. Original artesian head was approximately 24 feet above land surface; 1905 artesian flow was approximately 265 gallons a minute with the head approximately 20 feet above land surface; 1908 artesian flow was approximately 120 gallons a minute. This well formerly pumped with air compressor and has not been used for several years. Principal aquifer is Dresbach sandstone of Cambrian age. Land-surface elevation is 611 feet above sea-level datum. Continuous water-stage recorder placed on well Feb. 28, 1947. Measuring point, top of wooden recorder platform over 8-inch casing, 5.00 feet below land-surface datum. Water levels affected by pumping of nearby wells. Highest observed water level, from recorder charts, 17.17 feet below land-surface datum on Apr. 21; lowest, 85.30 feet below land-surface datum on Aug. 23.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	March		April		May		June		July	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	.....	60.10	19.40	.....	22.10	59.30	31.00	50.70	26.30	66.80
2	27.50	.....	22.80	.....	25.00	61.30	18.50	52.00	26.40	67.50
3	.....	.....	.....	.....	21.80	59.70	24.30	59.50	28.10	68.40
4	20.00	.....	21.50	.....	31.30	57.70	24.00	62.60	24.30	61.00
5	20.70	.....	21.40	.....	22.30	57.00	23.70	65.20	20.30	64.60
6	.....	.....	30.00	.....	24.50	64.70	23.00	65.00	24.50	48.80
7	.....	.....	18.10	.....	25.00	60.80	24.50	64.90	21.30	65.70
8	.....	61.70	20.50	.....	24.40	57.50	29.30	52.40	26.50	66.10
9	26.70	53.20	20.70	.....	23.90	56.80	19.00	56.50	22.80	66.40
10	20.30	58.40	20.00	.....	22.30	59.00	22.90	63.20	26.20	67.00
11	21.70	59.80	19.00	.....	33.40	50.70	23.80	63.70	24.00	65.60
12	21.30	56.90	21.60	.....	19.90	59.40	24.20	61.30	25.50	66.50
13	22.50	60.20	29.70	.....	22.00	60.50	23.10	64.70	29.80	67.50
14	23.50	.....	17.50	.....	24.40	59.20	23.70	60.50	23.50	.....
15	24.50	60.50	20.40	.....	24.40	62.80	24.40	59.30	25.50	66.00
16	28.60	51.30	19.50	.....	23.80	60.70	17.70	62.30	29.80	67.20
17	23.20	61.10	20.00	.....	23.20	63.10	23.80	63.50	28.10	67.90
18	21.30	61.30	21.10	.....	31.00	50.30	24.20	64.20	28.30	67.50
19	21.20	51.30	21.50	.....	21.40	53.70	24.80	65.20	27.90	67.70
20	21.70	.....	27.70	.....	24.00	60.00	22.40	64.70	33.70	68.20
21	21.00	.....	17.17	.....	23.30	57.70	23.40	65.90	23.60	65.90
22	21.90	.....	20.30	52.30	24.20	57.70	25.10	60.20	26.80	66.80
23	.....	.....	22.70	55.60	24.20	60.70	19.30	62.80	28.40	68.10
24	19.60	.....	20.80	55.20	23.70	60.50	23.30	64.60	29.20	68.60
25	19.00	.....	21.60	56.70	29.00	50.20	24.00	65.30	29.80	69.40
26	19.40	.....	21.30	56.90	20.10	54.40	28.60	66.70	31.40	69.80
27	20.00	.....	30.70	55.40	24.50	63.10	28.50	68.20	48.00	62.00
28	25.10	.....	17.70	51.70	24.40	65.60	27.70	68.00	26.50	67.80
29	21.20	.....	22.00	60.70	27.70	65.90	49.40	69.80	29.90	68.80
30	32.20	69.10	21.50	56.90	26.20	66.50	29.10	67.60	32.80	70.80
31	29.70	.....	.....	.....	21.50	59.80	.....	.....	32.40	72.00

89-3E-7Q1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	31.80	71.90	33.00	72.30	22.60	.....	29.90	.....	24.00	52.80
2	32.20	71.90	30.30	72.10	29.40	71.60	36.20	.....	27.20	70.60
3	40.40	72.00	33.50	72.60	28.90	72.00	26.30	52.30	27.30	70.80
4	30.00	70.70	45.00	74.10	31.00	72.40	27.20	64.40	29.50	72.70
5	37.20	73.20	38.60	74.60	32.20	67.10	27.30	69.50	29.10	.....
6	37.20	72.50	34.20	74.00	26.80	82.90	28.50	72.00	31.70	72.20
7	48.20	76.60	35.00	72.70	29.80	71.80	28.70	70.00	38.10	.....
8	40.40	76.70	32.80	72.40	31.70	72.50	31.70	67.80	27.80	48.20
9	.....	.....	33.80	75.30	31.20	72.40	.....	67.90	28.60	71.90
10	.....	.....	34.70	76.70	30.90	72.50	25.70	.....	28.40	69.70
11	.....	.....	35.00	78.40	32.30	68.00	28.20	68.90	28.60	71.10
12	.....	.....	33.80	.....	33.20	73.40	26.80	70.00	30.70	73.80
13	.....	.....	.....	74.00	26.70	59.60	27.40	69.50	32.50	67.60
14	.....	.....	38.00	73.70	29.40	72.40	28.20	70.80	39.30	.....
15	39.60	75.00	31.60	58.90	29.50	72.30	30.10	71.20	26.80	46.40
16	42.90	77.70	.....	.....	32.10	73.50	36.60	71.50	30.70	69.30
17	.....	.....	31.20	74.10	30.70	73.30	25.20	53.30	29.40	72.00
18	.....	.....	33.50	75.10	33.20	73.70	29.20	71.30	28.90	69.90
19	.....	.....	32.80	79.10	41.50	73.60	28.60	71.60	31.30	72.80
20	40.70	77.30	33.90	79.50	26.80	60.80	33.70	72.00	30.90	71.30
21	42.90	83.60	.....	.....	30.70	72.80	29.80	72.70	38.60	72.20
22	42.50	79.20	.....	.....	29.80	73.20	33.20	72.70	28.20	69.30
23	42.10	85.30	.....	.....	33.10	73.40	40.10	73.50	28.80	71.50
24	41.60	73.10	.....	.....	33.40	74.30	27.40	54.60	29.90	71.90
25	41.30	77.20	.....	.....	31.70	73.80	26.30	69.30	27.90	69.60
26	35.40	76.00	34.50	73.30	38.80	73.30	28.50	.....	25.80	67.70
27	34.90	75.30	32.60	.....	25.80	61.00	.....	.....	28.20	69.30
28	36.20	76.10	36.20	72.70	27.50	71.00	26.30	.....	34.40	69.80
29	36.20	75.60	30.80	54.00	28.40	71.30	30.40	.....	24.40	66.70
30	35.60	75.00	24.00	69.00	27.40	71.20	36.60	.....	24.10	69.40
31	47.80	59.00	.....	.....	28.10	72.90	.....	.....	29.30	70.50

Emmet County

100-32-11R1 (*886, p. 116; 908, p. 15; 938, p. 22; 946, p. 30; 988, p. 27; 1018, p. 22; 1025, p. 21; 1073, p. 17). Okamanpedan State Park. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 100 N., R. 32 W. Water levels, in feet below land-surface datum, 1947: May 3, 61.06; Dec. 18, 60.82.

99-34-14B1 (*886, p. 116; 908, p. 15; 938, p. 22; 946, p. 30; *988, p. 27; 1018, p. 23; 1025, p. 21; 1073, p. 17). City of Estherville well 3. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 99 N., R. 34 W. Measuring point on and after July 27, top of casing, 1.25 feet above land-surface datum and 0.25 foot above previous measuring point. Water levels, in feet below land-surface datum, 1947: July 22, 110.40; July 25, 110.31.

Harrison County

80-42-11Q1 (*908, p. 15; 938, p. 22; 946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21; 1073, p. 17). City of Woodbine. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 80 N., R. 42 W. Measurements made by Mr. Dean, Woodbine Water Works. Water levels, in feet below land-surface datum, 1947: Mar. 4, 14.45; Apr. 30, 13.50; June 2, 13.25; Nov. 4, 15.50.

79-41-34N1 (*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21; 1073, p. 18). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 79 N., R. 41 W. Water level, in feet below land-surface datum, 1947: May 1, 39.75.

78-42-11A1 (*886, p. 117; 908, p. 15; 938, p. 23; *946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21; 1073, p. 18). Mutual Benefit Life Insurance Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 78 N., R. 42 W. Water level, in feet below land-surface datum, 1947: May 1, 8.26.

78-42-12Q1 (*886, p. 117; *908, p. 15; 938, p. 23; 946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 22; 1073, p. 18). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 78 N., R. 42 W. Water level, in feet below land-surface datum, 1947: May 1, 22.35.

Henry County

71-6-9B1 (*1025, p. 22; 1073, p. 18). City of Mount Pleasant. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 71 N., R. 6 W. Water levels, in feet below land-surface datum, 1947: Apr. 22, 135.60; June 10, 134.95; Sept. 16, 137.06; Dec. 22, 137.60.

71-6-9B2 (*1073, p. 18). City of Mount Pleasant well 4. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 71 N., R. 6 W. Measuring point on and after Apr. 22, top of 1-inch air release pipe in pump base, 2.25 feet above land-surface datum which is 0.55 foot above previous measuring point. Water levels, in feet below land-surface datum, 1947: Apr. 22, 132.45; June 10, 132.35; Sept. 16, 133.84.

71-6-9M1 (*1025, p. 22; 1073, p. 18). City of Mount Pleasant. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 71 N., R. 6 W. Water levels, in feet below land-surface datum, 1947: Jan. 14, 138.80, pumping approximately 200 gallons a minute; Apr. 22, 84.40; Sept. 16, 140.10, pumping approximately 200 gallons a minute.

Ida County

89-40-35D1 (*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31; 988, p. 28; 1018, p. 23; 1025, p. 22; 1073, p. 18). City of Holstein well 3. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 89 N., R. 40 W. No measurements made in 1947.

Iowa County

80-9-3L1 (*946, p. 31; 988, p. 28; 1018, p. 23; 1025, p. 22; 1073, p. 18). NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 80 N., R. 9 W. No measurements made in 1947.

Jasper County

80-18-31C1 (*908, p. 16; 938, p. 23; 946, p. 32; 988, p. 28; 1018, p. 23; 1025, p. 22; 1073, p. 18). P. W. Beukema. Formerly owned by Maynard Lust. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 80 N., R. 18 W. Water levels, in feet below land-surface datum, 1947: Apr. 8, 12.36; June 10, 2.67.

80-17-17K1. Iowa State Conservation Commission core hole 8. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 80 N., R. 17 W. Test hole drilled in March 1947 to depth of 151 feet below land surface. Converted into observation well by installing 2 $\frac{1}{2}$ feet of 1 $\frac{1}{2}$ -inch drive point well screen at bottom of 126 feet of 2-inch iron pipe. Packer placed near 44 feet to seal out water from overlying Pleistocene formations. Taps water in Red Rock sandstone of Pennsylvanian age which occurs in hole from 44 feet to 137.6 feet below surface. Land-surface elevation at well is 915 feet above sea level. Measuring point, top of 2-inch pipe, 0.8 foot below land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 7	70.10	May 6	69.30	Aug. 18	68.66
Apr. 19	69.55	July 7	68.65	23	68.85

Jefferson County

72-10-26A1 (*946, p. 32; 988, p. 28; 1018, p. 23; 1025, p. 22; 1073, p. 18). Dr. Charles Carter. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 72 N., R. 10 W.

Water level, in feet below land-surface datum, 1947

Jan. 15	19.76	June 10	16.95	Dec. 22	24.37
Apr. 22	18.69	Sept. 16	24.46		

Johnson County

80-5-9K2 (*908, p. 16; 938, p. 23; 946, p. 32; 988, p. 29; 1018, pp. 24-25; 1025, p. 23; 1073, p. 19). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 80 N., R. 5 W. Highest observed water level at noon, from recorder charts, for 1947, 0.46 foot below land-surface datum on Apr. 20; lowest, observed water level, from recorder charts, 5.96 feet below land-surface datum on Sept. 19.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	2.88	1.61	1.39	0.67	0.77	3.54	5.34	5.76	4.72	4.99
2	....	....	2.98	1.74	1.26	.70	1.20	3.56	5.45	5.79	4.78	5.00
3	....	....	3.07	1.93	1.53	.84	1.59	3.67	5.53	5.71	4.89	4.97
4	....	....	3.01	.80	1.78	.99	1.84	3.76	5.54	5.51	4.93	4.32
5	4.05	....	2.71	.56	2.02	.68	1.98	3.82	5.64	5.56	4.89	3.56
6	4.09	....	2.72	.80	2.11	.68	.68	5.90	5.68	5.72	4.93	3.54
7	4.11	....	2.32	1.02	2.16	.74	.86	4.01	5.75	5.76	4.96	3.53
8	4.16	....	2.41	1.15	2.32	.76	1.33	4.07	5.82	5.79	5.09	3.48
9	4.18	....	2.45	1.30	2.40	1.00	1.65	4.14	....	5.79	5.20	3.55
10	4.09	....	2.39	.69	2.48	1.46	1.87	4.21	5.92	5.77	5.15	3.63
11	....	3.77	2.42	.97	2.53	1.71	2.09	4.28	5.44	5.76	5.18	3.75
12	....	3.80	2.35	1.20	2.56	1.04	2.25	4.36	5.24	5.80	5.16	3.84
13	....	3.31	1.48	1.39	2.62	.71	.86	4.42	5.38	5.84	5.22	3.89
14	....	2.01	....	1.56	2.70	.85	1.37	4.35	5.62	5.82	5.12	3.88
15	....	1.50	2.00	1.70	2.65	1.26	1.71	4.45	5.76	5.85	5.01	3.98
16	....	1.20	2.20	.83	2.74	1.58	1.99	4.53	5.80	5.85	4.86	4.10
17	....	1.23	2.35	.96	2.72	1.32	2.21	4.60	5.88	5.85	4.72	4.09
18	3.06	....	2.42	1.21	2.80	.76	2.35	4.69	5.95	5.87	4.70	4.18
19	3.03	....	2.52	1.23	2.81	.90	2.52	4.74	5.96	5.93	4.80	4.25
20	3.06	....	2.44	.46	2.89	1.26	2.60	4.80	5.95	5.90	4.83	4.28
21	3.30	....	2.48	.87	2.91	1.56	2.78	4.85	5.29	5.92	4.84	4.32
22	3.29	....	2.25	1.07	2.97	1.45	2.85	4.92	5.46	5.92	4.86	4.30
23	3.25	....	1.55	1.24	3.00	1.25	2.92	4.96	5.52	5.94	4.79	4.42
24	3.21	....	.93	1.51	3.02	1.66	3.00	5.02	5.62	5.91	4.83	....
25	3.13	....	1.17	1.67	2.94	1.82	3.06	5.01	5.74	5.65	4.93	....
26	3.09	....	....	1.77	2.99	2.02	3.11	5.04	5.75	5.44	4.97	....
27	3.15	2.77	....	1.97	3.00	2.20	3.16	5.11	5.74	5.38	4.96	....
28	3.29	2.83	1.70	2.08	2.38	2.36	3.23	5.18	5.49	5.04	4.99	4.54
29	3.26	....	1.93	2.02	.79	1.78	3.31	5.22	5.54	5.17	5.09	4.50
30	3.22	....	2.03	1.69	1.06	.64	3.38	5.29	5.66	5.26	5.07	4.48
31	....	....	1.99	....	1.41	....	3.50	5.33	....	5.14	....	4.63

80-5-22M1 (*938, p. 24; 946, p. 33; 1018, p. 25; 1025, p. 24; 1073, p. 19). Chicago, Rock Island & Pacific Railway. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 80 N., R. 5 W.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	Oct.	Nov.
1	.....	15.61	14.01	11.54	8.55	.....	17.91
2	.....	15.68	14.08	11.53	8.56	.....	17.80
3	.....	15.72	14.18	11.59	8.52	.....	17.67
4	.....	15.55	14.29	11.38	8.45	.....	17.54
5	.....	15.64	14.42	9.80	8.65	.....	17.42
6	.....	15.65	14.38	6.02	8.82	.....	17.33
7	.....	15.57	14.33	(a)	9.09	.....	17.17
8	.....	.....	14.37	(a)	9.35	.....	17.12
9	.....	.....	14.39	6.15	9.59	.....	17.10
10	16.11	15.99	14.42	6.30	9.57	.....	17.05
11	16.08	16.08	14.37	6.42	9.42	.....	17.00
12	16.10	16.03	14.35	6.66	9.34	.....	16.98
13	16.04	15.23	14.19	6.86	9.33	.....	16.98
14	15.89	14.58	13.98	7.00	.....	.....	16.96
15	15.81	14.03	13.91	7.33	.....	.....	16.86
16	15.65	13.66	13.86	7.70	.....	.....	16.85
17	15.63	13.53	13.84	7.69	.....	.....	16.90
18	15.60	13.47	13.86	7.57	.....	.....	16.86
19	15.54	13.38	13.88	7.67	.....	.....	16.81

a Overflows at 5.95 feet.

80-5-22M1--Continued.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	Oct.	Nov.
20	15.39	13.34	13.86	(a)	.....	.....	16.76
21	15.48	13.37	13.77	(a)	.....	.....	16.69
22	15.62	13.37	13.77	(a)	.....	.....	16.62
23	15.57	13.40	13.58	(a)	.....	.....	16.57
24	15.48	13.53	13.15	(a)	.....	18.11	16.44
25	15.48	13.67	12.57	6.07	.....	18.13	16.38
26	15.47	13.81	12.23	6.37	.....	18.14	16.37
27	15.47	13.90	11.93	6.82	.....	18.13	16.34
28	15.57	13.98	11.81	7.45	.....	18.09	16.32
29	15.58		11.60	7.84	.....	18.07	16.30
30	15.47		11.70	8.26	.....	18.04	16.34
31	15.48		11.62		.....	17.97	

a Overflows at 5.95 feet.

80-5-22M2 (*938, p. 24; 946, p. 34; 988, p. 31; 1018, p. 25; 1025, p. 24; 1073, p. 20). Chicago, Rock Island & Pacific Railway. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 80 N., R. 5 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	16.86	Mar. 5	16.45	Oct. 24	18.83
Feb. 9	17.20	27	15.00	Dec. 31	17.02

Linn County85-6-19J1 (*908, p. 17; 938, p. 24; *946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 20). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 85 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	5.04	May 23	4.62	Aug. 28	5.71	Dec. 2	5.30
Apr. 1	4.36	June 27	4.54	Sept. 30	5.62	29	5.30
28	4.61	July 25	5.14	Oct. 24	5.43		

85-6-26D1 (*908, p. 17; 938, p. 24; 946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 20). Geological Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 85 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	3.96	May 23	2.46	Aug. 28	6.40	Dec. 2	8.11
Apr. 1	1.99	June 27	1.92	Sept. 30	7.31	29	6.94
28	2.36	July 25	4.12	Oct. 24	7.71		

85-6-29B1 (*908, p. 17; 938, p. 25; 946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 20). Earl Balderson. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 85 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	59.54	May 23	57.94	Aug. 28	59.30	Dec. 2	61.56
Apr. 1	59.71	June 27	56.67	Sept. 30	60.62	29	61.83
28	58.30	July 25	57.65	Oct. 24	61.00		

85-6-30D1 (*946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 20). Weaver Witwer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 85 N., R. 6 W. No measurements made in 1947.

84-7-13E1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 20). Alfred Rinderknecht. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 84 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	4.78	May 23	3.96	Aug. 28	7.87	Dec. 2	10.88
Apr. 1	4.20	June 27	3.64	Sept. 30	9.69	29	9.92
28	3.27	July 25	4.74	Oct. 24	10.62		

84-6-20N1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 21). Geological Survey, U. S. Dept. of Interior. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 84 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Feb. 26	4.58	May 23	3.83	Aug. 28	6.82	Dec. 2	8.79
Apr. 1	4.90	June 27	3.30	Sept. 30	7.85	29	8.55
28	3.21	July 25	4.19	Oct. 24	8.53		

84-6-22F1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25; 1073, p. 21). C. A. Wissler. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 84 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Feb. 26	5.38	May 23	4.08	Aug. 28	6.92	Oct. 24	8.50
Apr. 1	5.53	June 27	3.74	Sept. 30	6.34	Dec. 29	8.08
28	3.36	July 25	5.00				

83-7-1B1 (*938, p. 25; *946, p. 35; 988, p. 33; 1018, p. 26; 1025, p. 25; 1073, p. 21). City of Marion. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 23	30.00	Apr. 28	3.48	Oct. 24	7.23
Apr. 1	5.90	Sept. 30	6.72	Dec. 29	7.35

83-7-2P1 (*908, p. 18; 938, p. 26; 946, p. 35; 988, p. 33; 1018, p. 27; 1025, p. 26; 1073, p. 21). Mr. Hollenbeck. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	30.60	Apr. 28	23.66	June 27	25.53	Aug. 28	30.95
Feb. 26	31.35	May 23	28.08	July 25	29.36	Sept. 30	31.58
Apr. 1	31.18						

83-7-11E1 (*938, p. 26; 946, p. 35; 988, pp. 32-33; 1018, pp. 27-28; 1025, p. 26; 1073, p. 21). Louis Maresh. In Cedar Rapids, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 83 N., R. 7 W. Highest observed water level during year, 64.64 feet below land-surface datum on June 23; lowest, 76.92 feet below land-surface datum on Sept. 13 and 14.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

January		February		March		April		May		June	
Day	High Low	High Low	High Low	High Low	High Low	High Low	High Low	High Low	High Low	High Low	
1	a71.58 .....a72.59	.....a71.97	.....a71.97	.....a67.68	.....a66.81	.....				
2	a71.51 .....72.14	72.63a72.16	.....a72.12	.....a67.65	.....a66.64	.....				
3	a71.72 .....71.98	72.48a72.10	.....a72.17	.....a67.52	.....a66.40	.....				
4	71.41 71.84a72.40	.....a72.19	.....a71.88	.....a67.46	.....a66.08	.....				
5	a71.30 .....a72.32	.....a72.34	.....a71.60	.....a67.45	66.30 67.03					
6	a71.21 .....a72.29	.....a72.43	.....a71.69	.....a67.35	66.70 67.12					
7	a71.36 .....a72.43	.....a72.42	.....a71.40	.....a67.49	.....a66.87	.....				
8	a71.63 .....a72.59	.....a72.45	.....a71.10	.....a67.49	66.20 67.00					
9	a71.76 .....a72.57	.....a72.45	.....a71.99	.....a67.48	65.91 66.63					
10	a71.61 .....a72.49	.....a72.29	70.35 70.82	a67.44	66.63 67.77					

a Daily fluctuation less than 0.4 foot; water level at noon.

83-7-11El--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
11a	71.80	.....	a72.58	.....	a72.27	.....	a70.38	.....	a67.21	.....	67.20	67.81
12a	71.78	.....	a72.68	.....	a72.33	.....	a70.39	.....	a67.05	.....	66.31	67.20
13a	71.57	.....	a72.61	.....	a72.16	.....	69.64	70.17	67.37	68.00	65.93	66.31
14a	71.87	.....	a72.61	.....	a72.31	.....	a69.60	.....	a67.79	.....	a65.75	.....
15a	71.94	.....	a72.56	.....	a72.34	.....	a69.48	.....	a68.01	.....	a65.51	.....
16a	72.08	.....	a72.45	.....	a72.13	.....	a69.38	.....	a68.15	.....	65.23	65.83
17a	72.13	.....	a72.14	.....	a72.11	.....	a69.11	.....	a68.20	.....	a65.61	.....
18a	72.19	.....	a72.41	.....	a72.16	.....	a68.99	.....	a67.98	.....	a65.45	.....
19a	71.90	.....	a72.29	.....	a72.25	.....	a69.09	.....	a67.61	.....	a65.18	.....
20	71.71	72.19	a72.32	.....	a72.29	.....	a68.75	.....	a67.76	.....	a65.14	.....
21a	72.32	.....	a72.35	.....	a72.39	.....	a68.45	.....	a67.58	.....	a65.06	.....
22a	72.15	.....	a72.33	.....	a72.24	.....	a68.27	.....	a67.89	.....	a64.85	.....
23a	72.03	.....	a72.16	.....	a72.02	.....	a68.13	.....	a67.79	.....	64.64	65.45
24a	72.16	.....	a72.11	.....	a72.01	.....	a68.27	.....	a67.89	.....	65.38	65.95
25a	72.14	.....	a72.17	.....	a72.20	.....	a68.14	.....	a67.53	.....	65.88	66.50
26a	72.04	.....	a72.25	.....	a72.25	.....	a67.94	.....	a67.53	.....	66.33	66.85
27a	72.10	.....	a72.28	.....	a72.25	.....	a67.99	.....	a67.37	.....	66.78	67.30
28a	72.20	.....	a72.25	.....	a72.23	.....	a67.63	.....	a67.35	.....	a67.17	.....
29a	72.12	.....	.....	.....	a73.36	.....	a67.38	.....	a67.42	.....	66.95	67.35
30	71.90	72.42	.....	.....	a72.21	.....	a67.48	.....	a67.28	.....	66.89	67.45
31a	72.49	.....	.....	.....	a71.90	.....	.....	.....	a67.03	.....	.....	.....

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	67.24	67.66	a67.35	.....	75.22	75.64	a72.66	.....	a73.16	.....	a73.19	.....
2	67.50	67.70	a67.14	.....	a75.10	.....	a72.46	.....	a72.93	.....	a73.53	.....
3	67.46	67.86	a67.35	.....	a75.15	.....	a72.37	.....	a72.76	.....	a73.56	.....
4	67.02	67.90	a67.59	.....	75.43	76.10	a72.34	.....	a72.72	.....	a73.43	.....
5	66.58	67.02	a67.09	.....	a76.07	.....	a72.14	.....	a72.87	.....	a73.66	.....
6a	66.29	.....	66.72	67.30	a76.14	.....	72.03	72.64	a72.85	.....	a73.63	.....
7	66.50	67.04	67.31	68.20	74.37	75.17	72.64	73.07	a72.77	.....	a73.38	.....
8	66.81	67.26	68.20	68.76	a73.98	.....	a73.05	.....	a72.93	.....	a73.66	.....
9	66.44	66.99	68.77	69.56	74.31	74.92	a72.92	.....	a73.00	.....	a73.75	.....
10	67.19	67.66	a69.51	.....	74.92	75.56	a72.75	.....	a72.84	.....	a73.75	.....
11	67.36	67.81	69.78	70.52	75.56	76.08	a72.80	.....	a72.96	.....	a73.85	.....
12	67.31	67.89	70.52	71.11	76.09	76.50	a72.60	.....	a73.12	.....	a73.94	.....
13	67.30	67.79	71.12	71.70	76.50	76.92	a72.47	.....	a73.24	.....	a73.90	.....
14	66.77	67.27	71.70	72.28	76.15	76.92	72.53	73.13	a73.19	.....	a73.68	.....
15	67.19	67.69	72.28	72.69	75.36	76.14	73.09	73.48	a73.09	.....	a73.74	.....
16	67.67	68.09	a72.55	.....	74.84	75.35	a73.49	.....	a73.31	.....	a73.94	.....
17a	67.90	.....	a72.43	.....	a74.69	.....	73.65	74.16	a73.21	.....	a73.86	.....
18a	68.25	.....	72.61	73.11	74.79	75.30	a74.18	.....	a73.18	.....	a74.05	.....
19	67.75	68.43	73.11	73.53	75.30	75.93	a73.90	.....	a73.31	.....	a74.21	.....
20	67.23	67.75	72.54	74.09	a75.95	.....	a73.52	.....	a73.36	.....	a74.22	.....
21a	67.13	.....	74.09	74.59	75.73	76.17	a73.57	.....	a73.36	.....	a74.06	.....
22a	66.79	.....	a74.75	.....	75.06	75.73	73.47	73.97	a73.46	.....	a73.85	.....
23a	66.80	.....	a75.14	.....	74.50	75.07	a73.98	.....	a73.27	.....	a74.11	.....
24a	67.06	.....	a75.42	.....	a74.34	.....	a73.84	.....	a73.20	.....	a74.19	.....
25a	67.07	.....	a75.79	.....	a74.08	.....	a73.71	.....	a73.40	.....	a74.06	.....
26a	67.02	.....	a75.81	.....	a73.82	.....	a73.42	.....	a73.49	.....	a74.02	.....
27a	66.99	.....	a75.55	.....	73.25	73.69	a73.14	.....	a73.55	.....	a73.92	.....
28a	66.92	.....	a75.60	.....	a73.04	.....	a73.17	.....	a73.42	.....	a73.88	.....
29a	67.10	.....	a75.68	.....	a72.96	.....	a73.16	.....	a73.53	.....	a73.68	.....
30a	66.86	.....	a75.84	.....	a72.87	.....	a73.14	.....	a73.39	.....	a73.91	.....
31	66.77	67.27	a75.96	.....	.....	.....	a73.10	.....	.....	.....	a74.05	.....

a Daily fluctuation less than 0.4 foot; water level at noon.

83-7-16D1 (*908, p. 19; 938, p. 27; 946, p. 37; 988, p. 34; 1018, p. 29; 1025, p. 27; 1073, p. 23). In Cedar Rapids (Shaver Park), in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	84.30	May 23	83.52	Aug. 28	87.44	Dec. 2	88.90
Apr. 1	82.94	June 27	81.80	Sept. 30	88.22	29	88.50
28	82.22	July 25	83.49	Oct. 24	88.84		

83-7-16J1 (*908, p. 19; 938, p. 27; 946, p. 37; 988, p. 34; 1018, p. 29; 1025, p. 28; 1073, p. 23). City of Cedar Rapids. In Daniels Park, in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 83 N., R. 7 W. No measurements made in 1947.

83-7-17L1 (*908, p. 19; 938, p. 27; 946, p. 37; 988, p. 34; 1018, p. 29; 1025, p. 28; 1073, p. 23). City of Cedar Rapids. In Ellis Park, in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	20.11	Apr. 28	18.38	July 25	19.68	Oct. 24	20.00
Feb. 26	19.86	May 23	18.31	Aug. 28	19.91	Dec. 2	20.34
Apr. 1	19.73	June 27	16.79	Sept. 30	20.50	29	20.51

83-7-21K1 (*988, pp. 34-35; 1018, p. 29; 1025, p. 28; 1073, p. 23). Wapsi Valley Creamery. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W. Highest observed water level, from recorder charts, 57.22 feet below land-surface datum on June 16; lowest, 61.09 feet below land-surface datum on Sept. 11.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	58.43	59.01	59.02	59.52	59.10	58.17	59.34	60.10	59.84	60.44	60.58	59.45
2	58.62	58.87	58.83	59.56	59.15	58.37	59.39	60.03	60.15	60.42	60.00	59.80
3	58.84	58.91	58.84	59.58	59.00	58.64	59.44	59.93	60.73	60.43	60.25	59.89
4	58.87	59.01	59.03	59.57	58.85	58.59	58.97	60.04	60.87	60.31	60.05	59.78
5	58.73	58.95	59.13	59.39	58.82	58.49	58.78	60.21	60.96	59.78	59.89	59.75
6	58.81	59.00	59.16	58.83	58.85	58.43	58.48	60.31	60.88	60.10	59.91	59.65
7	58.96	59.07	59.19	58.98	58.87	58.55	58.89	60.39	60.68	60.56	59.91	59.12
8	59.04	59.06	59.11	59.26	58.92	58.48	59.27	60.35	60.63	60.74	60.50	59.49
9	59.07	58.81	59.04	59.23	58.94	58.41	59.44	60.42	60.97	60.64	59.64	59.80
10	....	58.84	59.02	59.43	58.81	58.99	59.53	60.07	61.08	60.59	59.81	59.87
11	59.02	59.01	59.18	59.38	58.74	....	59.57	60.11	61.09	60.55	60.11	59.91
12	58.88	59.05	59.21	59.15	58.81	....	59.49	60.34	61.06	59.99	60.07	59.96
13	58.79	59.10	58.79	58.81	58.83	58.56	59.26	60.43	60.73	60.15	60.08	59.30
14	....	59.05	58.57	59.02	58.98	58.06	59.31	60.42	60.45	60.46	60.10	59.04
15	....	58.97	58.47	59.11	58.66	57.79	59.58	60.49	60.23	60.67	60.05	59.27
16	....	58.77	58.36	58.98	58.66	57.22	59.68	60.35	60.55	60.80	59.50	59.66
17	....	58.79	58.52	58.89	58.59	57.66	59.76	60.15	60.65	60.78	59.63	59.67
18	58.94	59.08	58.71	58.86	58.43	58.02	59.77	60.32	60.73	60.85	59.95	59.77
19	58.50	58.99	58.75	58.88	58.80	58.18	59.54	60.55	60.92	60.25	60.04	59.78
20	58.78	58.98	58.78	58.63	58.98	58.29	59.01	60.62	60.84	60.31	60.07	59.30
21	59.10	58.95	58.80	58.66	59.06	58.25	59.09	60.67	60.28	60.70	60.10	59.05
22	59.05	58.86	58.75	58.77	59.12	58.12	59.39	60.77	60.45	60.71	59.60	59.29
23	58.99	58.73	58.72	58.90	59.09	58.21	59.49	60.56	60.52	60.74	59.18	59.71
24	59.05	58.87	59.11	59.11	59.01	58.45	59.58	60.41	60.57	60.82	59.48	59.59
25	59.05	59.03	59.43	59.09	58.59	58.75	59.69	60.60	60.64	60.35	59.62	58.94
26	58.90	59.11	59.55	59.02	58.65	58.89	59.67	60.54	60.61	59.90	59.77	59.23
27	58.98	59.14	59.50	58.91	58.92	59.21	59.76	60.60	60.49	60.18	59.31	59.17
28	59.11	59.15	59.58	58.84	58.99	59.16	59.72	60.75	59.86	60.54	59.36	59.45
29	59.03		59.49	59.03	58.93	58.99	59.98	60.81	60.26	60.55	59.73	59.45
30	59.06		59.22	59.11	58.53	59.04	60.09	60.25	60.44	60.57	59.15	59.83
31	59.07		59.21		58.54		60.13	....		60.65		59.87

83-7-2111 (*908, pp. 19-20; 938, p. 28; 946, pp. 37-39; 988, p. 35; 1018, p. 30; 1025, p. 28; 1073, p. 24). City of Cedar Rapids. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W. Highest observed water level, from recorder charts, 33.59 feet below land-surface datum on Jan. 2; lowest, 72.65 feet below land-surface datum on Aug. 29.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	35.32	36.74	39.78	42.40	.....	.....	49.48	54.69	41.82	43.86
2	33.59	40.86	38.85	41.30	.....	.....	49.38	53.77	40.26	54.66
3	37.02	43.36	38.32	43.92	50.48	53.42	48.04	51.68	49.12	54.08
4	38.70	42.20	41.32	43.76	51.14	54.70	43.81	48.98	49.10	53.60
5	37.70	40.30	40.22	42.78	45.85	52.23	44.19	50.57	49.75	52.79
6	37.10	42.95	40.60	43.46	41.24	45.85	44.82	48.57	50.15	61.17
7	41.16	44.19	41.95	44.45	39.80	54.20	44.04	47.82	50.32	57.46
8	41.37	44.77	40.02	42.72	49.28	51.53	43.84	52.58	48.52	55.65
9	42.56	45.40	36.83	40.02	47.92	51.40	46.32	49.45	46.14	63.02
10	42.07	44.80	35.80	42.99	46.69	50.26	44.76	47.42	55.89	65.42
11	41.42	44.10	39.79	47.41	47.41	52.79	44.69	46.42	55.64	61.98
12	38.81	42.74	41.78	47.11	46.63	50.48	44.68	51.58	52.70	58.06
13	38.15	41.81	41.57	49.13	41.80	49.36	46.49	50.66	49.26	55.10
14	40.33	44.20	40.45	46.05	45.62	50.44	46.70	50.79	45.25	50.25
15	42.50	45.40	41.20	45.04	47.04	50.58	44.85	51.13	38.00	45.25
16	42.81	45.17	38.20	40.98	45.24	48.28	45.36	49.34	33.72	41.04
17	43.08	46.11	37.66	50.46	43.62	46.80	45.20	47.65	39.71	51.43
18	37.70	44.98	43.43	48.85	43.50	46.32	42.66	46.16	48.70	57.90
19	35.88	38.16	41.60	46.20	43.70	44.90	44.12	53.47	41.12	56.70
20	35.84	44.86	40.02	44.90	40.12	45.03	43.27	52.44	50.59	55.26
21	43.36	47.36	39.39	44.45	41.67	44.46	48.41	53.11	49.73	52.12
22	43.47	45.60	38.60	41.81	42.94	50.40	49.21	52.33	48.57	50.18
23	42.15	44.85	37.14	40.87	45.86	50.16	49.26	52.58	48.69	59.19
24	42.44	45.02	38.48	44.91	48.23	53.18	48.63	51.94	52.36	63.43
25	42.05	44.20	41.42	49.00	47.98	52.93	42.90	49.50	56.47	64.99
26	39.92	42.05	.....	.....	47.97	51.60	52.33	50.63	57.49	66.12
27	39.14	45.30	.....	.....	45.29	48.58	48.05	52.35	62.49	67.71
28	43.78	45.92	.....	.....	44.24	53.20	49.52	53.41	62.72	66.06
29	41.68	45.00	.....	.....	48.23	54.21	48.78	51.14	59.48	65.95
30	42.03	45.16	.....	.....	49.26	54.33	50.36	53.00	58.82	66.79
31	40.60	44.72	.....	.....	.....	.....	42.29	47.21	.....	.....

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	July		August		September		October		November	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	64.33	68.28	68.37	70.45	56.54	59.50	57.95	64.80	58.91	64.44
2	65.37	68.50	65.66	70.17	55.39	68.90	58.95	64.89	54.08	59.02
3	65.58	68.69	65.32	69.30	67.21	71.54	57.98	65.18	52.73	64.48
4	56.96	66.92	64.13	71.70	68.31	71.71	56.29	63.40	58.42	65.29
5	53.52	58.78	68.27	72.09	69.28	72.04	52.78	56.93	62.90	66.00
6	53.28	57.40	69.04	71.88	67.76	70.12	52.40	65.96	59.17	65.33
7	52.49	66.84	69.60	72.18	65.22	69.16	63.53	68.53	59.50	65.69
8	63.50	69.08	69.50	71.98	63.13	71.09	65.98	66.93	53.46	64.02
9	64.10	69.17	69.12	72.03	69.03	71.86	64.61	66.65	45.52	53.46
10	65.23	69.08	64.22	69.70	68.98	71.81	61.81	65.58	44.56	55.68
11	65.74	68.74	62.07	70.13	69.12	71.93	62.89	64.87	.....	.....
12	63.82	68.01	67.16	70.00	68.46	71.56	62.70	53.05	.....	.....
13	62.51	66.02	68.18	71.45	65.18	69.61	52.01	63.58	.....	.....
14	58.47	67.91	68.30	70.83	59.45	63.10	59.94	66.12	.....	.....
15	64.25	69.25	68.20	71.70	56.20	66.23	64.47	67.89	.....	.....
16	64.20	69.42	67.04	69.62	62.12	66.75	65.52	67.48	.....	.....
17	65.61	69.94	64.09	68.40	63.29	67.43	64.85	67.59	.....	.....
18	65.70	69.60	63.00	70.26	63.68	69.04	64.42	67.98	.....	.....
19	64.02	68.03	68.00	70.57	65.57	70.58	57.16	63.85	.....	.....
20	58.03	65.04	68.10	71.75	65.88	68.63	53.40	65.27	.....	.....
21	55.65	65.90	68.61	71.97	58.19	64.99	63.34	67.09	.....	.....
22	62.53	67.53	69.28	71.32	55.91	66.01	64.31	67.54	.....	.....

83-7-21L1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	July		August		September		October		November	
	High	Low	High	Low	High	Low	High	Low	High	Low
23	63.21	68.34	66.71	69.60	59.29	65.26	63.62	67.07	.....	.....
24	64.95	69.09	65.43	68.20	59.48	66.53	64.02	66.41	.....	.....
25	65.73	68.65	66.13	70.13	63.33	66.03	54.51	65.54	.....	.....
26	64.54	69.08	66.96	70.09	59.60	65.65	51.20	54.51	.....	.....
27	64.91	68.70	66.94	71.45	55.86	63.33	50.70	62.72	.....	.....
28	62.93	69.90	68.30	71.56	55.97	53.96	58.26	65.57	.....	.....
29	66.68	71.12	69.23	72.65	52.50	65.51	59.21	64.86	.....	.....
30	67.65	71.40	69.87	72.31	57.66	65.14	58.98	65.32	.....	.....
31	68.36	70.92	59.60	69.86			59.79	65.57		

83-7-21P1 (*938, p. 28; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30; 1073, p. 26). Kresge Co. In Cedar Rapids, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W. Water levels, in feet below land-surface datum, 1947: Sept. 30, 74.78; Oct. 24, 82.60; Dec. 2, 65.15; Dec. 29, 59.73.

83-7-21Q1 (*938, p. 28; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30; 1073, p. 26). Iowa Theater. In Cedar Rapids, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W., at corner of First Ave., S. E. and Third St., N. E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	61.73	Apr. 28	57.80	Sept. 30	70.80	Dec. 2	62.70
Apr. 1	63.60	May 23	64.70	Oct. 24	77.36	29	65.20

83-7-23G1 (*908, p. 20; 938, p. 29; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30; 1073, p. 26). City of Cedar Rapids. In Bever Park, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	2.46	May 23	1.48	Aug. 28	2.91	Dec. 2	2.58
Apr. 1	3.86	June 27	2.07	Sept. 30	3.00	29	2.55
28	1.51	July 25	2.00	Oct. 24	3.16		

83-7-24A1 (*908, p. 20; 938, p. 29; 946, p. 39; 988, p. 37; 1018, p. 31; 1025, p. 31; 1073, p. 26). John Zrudsky. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	30.68	May 23	26.84	Aug. 28	26.11	Dec. 2	28.94
Apr. 1	30.57	June 27	23.56	Sept. 30	28.19	29	28.94
28	25.90	July 25	25.40	Oct. 24	27.90		

83-7-28G2 (*908, p. 20; 938, pp. 28-29; *946, pp. 39-40; 988, pp. 37-38; 1018, pp. 31-32; 1025, p. 31; 1073, p. 26). Cedar Rapids Gas Co. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 83 N., R. 7 W., at corner of Eighth Ave., S. E. and First St., N. E. Highest observed water level during year, 32.25 feet below land-surface datum on Apr. 21; lowest, 50.78 feet below land-surface datum on Aug. 29.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April		May	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	37.58	39.92	40.66	42.14	39.42	40.88	37.26	39.95	37.68	39.41
2	37.46	40.53	36.65	40.65	37.00	39.55	37.68	39.71	37.36	39.20
3	38.84	41.10	36.27	41.03	36.51	39.84	37.58	39.92	36.79	38.21
4	.....	.....	39.08	41.32	38.11	40.77	38.44	41.57	34.52	36.80
5	.....	.....	38.90	41.64	38.57	40.94	38.60	40.36	34.54	38.39
6	.....	.....	39.32	41.40	38.94	41.39	36.37	38.62	36.68	38.95
7	.....	.....	39.81	41.64	39.15	41.33	35.96	39.33	36.54	38.82
8	.....	.....	.....	.....	38.40	40.14	37.65	39.47	37.09	39.20
9	.....	.....	.....	.....	36.41	38.41	37.07	38.81	37.15	39.31

85-7-2802--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April		May	
	High	Low	High	Low	High	Low	High	Low	High	Low
10	.....	.....	.....	.....	36.37	40.05	36.64	38.76	36.25	37.96
11	.....	.....	.....	.....	38.04	40.68	36.55	39.40	34.91	36.23
12	36.00	38.69	.....	.....	38.69	40.98	36.48	38.13	35.15	40.06
13	36.01	36.70	.....	.....	38.56	40.43	34.21	36.48	36.42	38.84
14	37.93	40.47	.....	.....	37.85	40.09	34.18	37.67	36.13	37.94
15	38.54	42.06	.....	.....	37.54	39.98	35.47	37.04	35.67	38.49
16	40.47	42.96	36.32	37.52	35.22	37.53	34.14	36.76	36.86	39.25
17	39.67	41.33	36.80	40.11	35.10	39.54	34.03	36.51	36.05	38.40
18	38.10	40.45	37.99	41.84	37.37	39.79	34.67	36.90	34.11	36.06
19	36.45	38.10	39.40	40.76	37.40	39.62	34.17	35.95	34.32	38.80
20	36.38	41.49	38.02	40.89	37.36	39.58	32.83	34.16	36.69	39.23
21	39.98	42.60	38.85	41.06	38.08	42.07	32.25	34.88	37.55	39.51
22	40.22	42.10	38.70	39.98	38.32	40.83	33.05	36.59	37.27	39.50
23	38.88	41.50	36.53	38.70	36.89	38.58	34.89	37.58	37.27	39.58
24	.....	.....	36.49	40.50	36.81	40.50	35.13	37.67	37.34	38.65
25	.....	.....	38.53	41.09	38.82	42.89	35.32	37.95	35.50	37.37
26	36.65	38.19	38.81	41.19	39.84	41.90	35.12	37.06	35.53	40.08
27	36.60	40.77	39.26	41.66	39.38	41.42	34.11	35.91	38.92	41.00
28	39.42	41.29	39.37	41.87	39.10	41.42	34.08	37.05	39.15	41.25
29	38.85	41.58	.....	.....	37.42	39.72	35.29	38.17	38.54	40.43
30	39.60	42.69	.....	.....	39.97	37.41	36.21	40.04	36.34	38.97
31	40.89	42.91	.....	.....	34.93	38.45	.....	.....	36.08	38.01

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	.....	.....	44.22	44.96	.....	.....	42.10	42.89	37.77	39.74
2	.....	.....	44.04	48.27	.....	.....	40.00	42.00	38.71	40.32
3	.....	.....	46.10	49.73	.....	.....	39.51	42.15	39.01	40.58
4	.....	.....	47.57	50.14	.....	.....	40.87	42.67	39.20	40.69
5	.....	.....	47.61	50.25	40.53	42.44	41.40	43.08	39.14	40.55
6	.....	.....	47.54	49.40	39.92	43.93	41.49	42.63	38.90	40.52
7	.....	.....	.....	.....	42.01	45.53	41.14	42.47	37.19	38.90
8	.....	.....	.....	.....	43.31	45.16	40.99	41.63	37.44	40.08
9	.....	.....	.....	.....	42.44	44.36	37.34	40.70	38.95	40.66
10	.....	.....	.....	.....	42.02	43.94	37.07	40.56	38.82	40.29
11	.....	.....	.....	.....	41.68	43.20	40.04	41.43	39.31	40.20
12	.....	.....	.....	.....	39.59	41.92	40.35	41.22	39.07	40.85
13	.....	.....	.....	.....	39.30	43.33	39.77	40.75	38.10	40.40
14	.....	.....	46.91	42.70	41.96	45.16	39.25	40.58	36.38	38.55
15	47.34	49.56	.....	.....	42.62	45.05	39.20	39.95	36.19	39.69
16	46.96	48.12	.....	.....	42.91	45.55	37.55	39.24	38.27	40.50
17	44.68	47.33	.....	.....	43.09	45.78	37.41	39.70	38.82	40.28
18	44.73	48.94	.....	.....	43.46	44.60	38.79	40.31	38.61	41.03
19	46.81	49.71	.....	.....	41.60	44.20	39.15	40.51	39.61	41.25
20	47.49	50.16	.....	.....	40.91	43.60	39.27	40.79	38.59	40.57
21	.....	.....	43.47	47.25	42.40	44.72	39.33	40.93	36.50	39.74
22	.....	.....	43.22	44.85	42.86	44.73	39.33	40.73	36.38	39.79
23	.....	.....	43.12	44.32	43.11	44.18	37.05	39.44	39.17	41.19
24	44.70	48.62	42.83	44.83	42.48	43.35	36.96	39.71	38.19	40.73
25	44.52	48.54	43.31	44.66	41.90	42.29	38.63	40.76	34.38	38.19
26	46.26	49.19	43.04	44.12	39.71	41.65	39.10	40.84	34.69	37.32
27	47.02	49.81	42.74	43.50	39.72	42.31	37.65	40.20	36.43	37.93
28	47.51	50.49	38.58	42.27	41.27	43.84	37.39	40.10	35.08	37.31
29	47.99	50.78	.....	.....	41.62	43.36	39.28	40.40	35.32	37.97
30	48.10	49.49	.....	.....	42.93	43.76	38.04	39.80	37.11	40.79
31	45.43	48.91	.....	.....	42.06	43.59	.....	.....	39.29	41.29

83-7-32G1 (*908, p. 21; 938, pp. 29-30; 946, p. 41; 988, p. 38; 1018, p. 32; 1025, p. 32; 1073, p. 28). Floyd Felter. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 83 N., R. 7 W., at corner of Twenty-second Ave., S. W., and Eleventh St., N. E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	82.90	Apr. 28	80.94	July 25	83.70	Oct. 24	84.00
Feb. 26	83.40	May 23	81.14	Aug. 28	84.45	Dec. 2	84.59
Apr. 1	83.35	June 27	79.51	Sept. 30	84.89	29	83.75

83-7-33F1 (*908, p. 21; 938, p. 30; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32; 1073, p. 28). In Cedar Rapids, in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 83 N., R. 7 W., at corner of Twenty-second Ave. and K St., S. W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	71.02	Apr. 28	71.10	July 25	68.28	Oct. 24	68.86
Feb. 26	72.82	May 23	73.00	Aug. 28	67.58	Dec. 2	69.75
Apr. 1	71.36	June 27	69.80	Sept. 30	68.28	29	70.18

83-6-30B1 (*908, pp. 21-22; 938, p. 30; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32; 1073, p. 28). Mr. Katz. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 83 N., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	50.00	May 23	48.63	Aug. 28	49.32	Dec. 2	50.33
Apr. 1	50.39	June 27	44.26	Sept. 30	49.67	29	51.45
28	48.72	July 25	46.92	Oct. 24	50.50		

Lyon County

99-44-26R1 (*908, p. 22; 938, p. 30; 946, p. 41; *988, p. 38). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 99 N., R. 44 W. Measuring point, top of concrete tile casing, 2.0 feet above land-surface datum. Equipped with lift pump. This well abandoned in 1943. The well has been reopened and measurements will be continued. Water levels, in feet below land-surface datum, 1947: May 3, 1.22; Dec. 23, 4.25.

99-43-11H1 (*908, p. 22; 938, p. 31; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32; 1073, p. 28). SE $\frac{1}{4}$ NF $\frac{1}{4}$ sec. 11, T. 99 N., R. 43 W. Well abandoned, measurements discontinued.

98-48-24M1 (*886, p. 118; 908, p. 22; 938, p. 31; 946, p. 41; 988, p. 39; 1018, p. 33; 1025, p. 32; 1073, p. 28). A. C. Hanson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 98 N., R. 48 W. No measurements made in 1947.

Madison County

76-28-2B1 (*908, p. 22; 938, p. 31; *946, p. 41; 988, p. 39; 1018, p. 33; 1025, p. 32; 1073, p. 28). Glen Newton. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 76 N., R. 28 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 13.32; Dec. 15, 13.74.

Marion County

75-20-22H1 (*908, p. 22; 938, p. 31; 946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33; 1073, p. 29). Union Central Life Insurance Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 75 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: Apr. 23, 1.93; June 11, 2.53; Sept. 16, 5.46; Dec. 15, 6.46.

75-20-31O2 (*908, p. 23; 938, p. 31; 946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33; 1073, p. 29). Miss Amanda Elliot. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 75 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: Apr. 23, 2.87; June 11, 2.31; Sept. 16, 11.86; Dec. 15, 4.18.

74-21-11A1 (#946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33; 1073, p. 29). Mr. Riddle. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 74 N., R. 21 W. Water levels, in feet below land-surface datum, 1947: Apr. 23, 2.56; June 11, 5.39; Dec. 15, 12.75.

74-21-11F1 (#1025, p. 33; 1073, p. 29). Town of Melcher. SE $\frac{1}{4}$ SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 74 N., R. 21 W. Test hole No. 5 (1945). No measurements made in 1947.

74-21-11K1 (#1025, p. 34; 1073, p. 30). Town of Melcher test hole 3. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 74 N., R. 21 W. Highest observed water level, from recorder charts, 76.19 feet below land-surface datum on May 22; lowest, 106.68 feet below land-surface datum on Aug. 12.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	81.92	104.77	81.45	102.94	82.87	105.57	81.30	105.14
2	81.30	105.09	82.19	105.41	84.73	104.21	82.09	105.29
3	82.11	105.34	83.37	104.11	82.47	105.25	83.01	105.41
4	82.51	103.19	83.31	105.49	83.39	105.51	82.02	95.52
5	81.55	105.37	83.95	105.05	84.18	105.44	80.55	104.29
6	80.20	87.09	83.65	105.57	84.21	105.54	79.05	83.59
7	79.20	102.09	84.62	100.26	83.91	105.49	78.14	102.57
8	81.71	105.29	82.89	105.44	84.34	105.56	79.57	103.68
9	82.34	104.91	83.14	102.05	81.35	88.39	80.60	105.11
10	82.29	105.39	81.45	100.80	80.54	105.06	81.30	104.09
11	83.21	105.24	82.21	105.36	82.77	105.32	81.40	105.19
12	83.21	105.51	81.74	98.07	82.88	105.38	81.99	104.99
13	83.79	105.41	79.71	103.93	83.51	105.54	82.29	105.53
14	84.24	105.17	82.76	105.41	84.13	105.57	82.09	100.70
15	84.20	105.51	81.76	103.30	.....	.....	80.67	104.71
16	84.39	105.41	83.16	105.57	.....	.....	81.65	105.23
17	83.74	105.42	82.59	102.95	80.60	104.69	82.71	105.09
18	84.42	105.14	83.24	105.41	82.44	105.40	79.35	83.94
19	82.59	101.45	83.44	102.61	82.68	104.36	78.47	102.95
20	80.35	104.74	82.89	105.48	82.85	105.51	77.71	82.20
21	83.71	105.32	83.99	105.20	84.01	105.51	77.20	103.25
22	82.74	104.69	84.14	105.54	84.27	105.59	79.43	99.20
23	82.71	105.43	84.51	102.27	81.40	88.09	.....	.....
24	83.43	105.41	81.99	105.18	80.15	103.19	.....	.....
25	84.17	105.39	83.15	105.41	81.55	105.31	78.55	85.58
26	83.83	105.64	81.65	95.97	82.37	104.77	77.13	102.11
27	81.99	89.59	80.73	105.24	82.85	105.53	79.95	103.65
28	80.69	104.41	82.58	103.45	82.33	95.80	79.14	103.65
29	82.19	104.61			81.40	103.45	80.21	105.14
30	80.20	87.09			81.20	103.54	80.92	105.00
31	79.23	104.44			80.55	103.82		

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	81.52	105.50	81.54	102.94	81.25	105.11	90.05	106.01
2	79.45	86.35	81.43	105.27	82.51	104.26	92.95	106.02
3	78.25	103.90	81.17	105.37	80.27	103.71	93.63	106.14
4	80.83	104.58	82.51	105.42	82.91	105.53	91.72	105.96
5	80.22	100.35	79.55	85.45	82.71	104.30	96.05	106.21
6	78.90	103.55	78.39	102.95	84.30	103.76	96.38	106.29
7	80.34	101.95	80.10	105.53	81.92	105.56	102.61	106.36
8	.....	.....	79.72	89.87	83.69	105.80	103.54	106.52
9	78.40	104.71	77.95	102.54	89.17	105.58	103.79	106.59
10	80.95	105.37	80.80	105.30	84.16	105.40	104.63	106.62
11	77.65	83.05	81.54	105.09	85.22	105.72	104.90	106.65
12	77.58	103.88	81.31	104.22	85.80	105.68	102.90	106.68
13	80.25	105.53	80.12	95.97	86.61	105.81	103.60	106.53
14	80.57	98.02	79.42	105.37	86.44	105.81	97.36	103.61
15	79.80	105.43	80.27	98.84	87.33	105.71	102.75	106.18
16	81.53	105.40	77.89	95.82	86.16	105.65	100.98	106.35

74-21-11K1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
17	81.89	104.42	78.09	104.05	86.51	105.16	102.86	106.31
18	78.95	84.15	79.88	99.92	86.47	105.65	104.27	106.48
19	78.46	104.37	79.82	105.13	86.70	105.77	102.75	106.56
20	79.17	98.17	81.67	102.77	87.18	105.83	101.76	106.52
21	76.90	80.55	80.93	104.81	87.27	105.84	99.27	105.98
22	76.19	103.23	80.63	95.98	87.89	105.40	99.76	105.87
23	79.13	103.86	78.69	100.69	85.45	105.79	104.65	106.53
24	80.03	104.93	78.55	102.98	89.04	105.90	103.07	106.44
25	81.07	104.52	79.78	104.70	88.62	105.88	101.98	106.40
26	80.55	101.63	80.38	104.85	88.12	105.95	101.63	106.05
27	79.68	105.40	81.28	105.18	90.65	105.45	100.49	106.24
28	82.00	103.43	80.55	103.60	86.92	105.83	100.93	106.27
29	79.35	100.61	82.55	105.41	89.80	105.93	100.43	106.14
30	80.48	104.89	81.14	99.41	88.98	106.01	100.27	106.08
31	81.45	105.62			92.48	106.03	99.86	105.71

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	September		October		November	
	High	Low	High	Low	High	Low
1	97.02	103.17	96.47	104.80	92.55	101.88
2	96.78	104.28	94.46	102.51	93.31	103.46
3	99.21	106.04	92.37	100.86	94.86	104.52
4	99.16	105.37	94.63	103.93	90.03	97.20
5	98.60	105.87	95.59	104.31	88.11	94.14
6	98.94	105.31	97.32	101.84	87.49	97.92
7	97.92	105.98	96.24	102.83	90.19	102.10
8	99.53	105.98	93.87	101.94	92.41	99.87
9	99.17	105.96	94.52	104.45	90.56	101.00
10	97.93	105.64	95.64	101.67	92.23	102.97
11	98.89	106.03	93.07	101.55	92.37	102.55
12	99.47	105.89	93.64	103.91	87.60	92.37
13	99.22	105.77	95.62	102.36	89.63	97.91
14	94.84	101.46	92.61	101.55	92.15	101.30
15	93.20	103.76	93.92	104.29	.....	.....
16	96.47	104.58	95.87	101.96	.....	.....
17	96.97	105.23	92.40	100.86	.....	.....
18	97.39	105.37	93.05	101.55	.....	.....
19	98.74	105.73	93.81	102.48	.....	.....
20	98.75	105.75	96.37	103.94	.....	.....
21	99.12	105.67	93.50	100.99	.....	.....
22	96.31	102.61	91.99	100.16	.....	.....
23	95.81	104.94	92.31	99.25	.....	.....
24	94.35	101.29	92.03	103.07	.....	.....
25	94.26	103.09	96.81	104.41	.....	.....
26	96.94	104.64	95.23	104.80	.....	.....
27	96.35	103.95	96.40	104.93	.....	.....
28	96.27	105.07	91.24	98.23	.....	.....
29	.....	.....	87.53	91.24	.....	.....
30	95.57	103.36	86.87	98.72	.....	.....
31			90.62	101.35		

74-21-15H1 (*946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 35; 1073, p. 31). SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 74 N., R. 21 W. Well abandoned; measurements discontinued.

74-20-2M1 (*908, p. 23; 938, p. 32; *946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 35; 1073, p. 31). Iowa Highway Commission. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 74 N., R. 20 W. Well abandoned; measurements discontinued.

74-20-22C1 (*946, p. 43; 988, p. 40; 1018, p. 33; 1025, p. 36; 1073, p. 31). Grant DeWitt. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 74 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: Apr. 23, 2.96; June 11, 3.01; Sept. 16, 14.16; Dec. 15, 14.07.

74-20-33D1 (*908, p. 23; 938, p. 32; 946, p. 43; 988, p. 40; 1018, p. 34; 1025, p. 36; 1073, p. 31). T. V. Beebout. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 74 N., R. 20 W. Water levels, in feet below land-surface datum, 1947: Apr. 23, 2.18; Sept. 16, 10.09; Dec. 15, 11.88.

Montgomery County

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements are by Dean W. Knox.)

7 (*777, p. 63; *817, p. 56; *840, p. 91; 845, p. 86; 886, p. 122; 908, p. 36; 938, p. 39; 946, p. 55; 988, p. 40; 1018, p. 34; 1025, p. 36; 1073, p. 31). E. F. Holquist. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 71 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	20.67	Apr. 24	21.28	July 21	22.43	Sept. 24	11.80
Mar. 28	10.60	June 24	28.61	Aug. 26	14.81	Dec. 26	20.54

72 (*840, p. 93; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 45; *946, p. 55; *988, p. 40; 1018, p. 34; 1025, p. 36; 1073, p. 31). O. A. Milner. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 72 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	12.80	June 24	1.64	Sept. 24	12.67	Nov. 29	10.75
Mar. 28	11.58	Aug. 26	9.25	Oct. 27	12.55	Dec. 26	10.44
Apr. 24	3.39						

73 (*840, p. 93; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 46; *946, p. 55; *988, p. 40; 1018, p. 34; 1025, p. 36; 1073, p. 31). NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 72 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	15.42	Apr. 24	12.10	Aug. 26	15.14	Nov. 29	16.16
Mar. 28	15.38	June 24	3.88	Sept. 22	18.97	Dec. 26	15.76

78 (*840, p. 93; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; *946, p. 55; *988, p. 40; 1018, p. 34; 1025, p. 36; 1073, p. 32). Mr. Mainquist. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 71 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	6.74	Apr. 24	1.17	July 22	2.21	Sept. 24	6.40
Mar. 28	6.24	June 24	.92	Aug. 26	4.76	Dec. 26	6.74

79 (*840, p. 93; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; *946, p. 55; *988, p. 41; 1018, p. 34; 1025, p. 36; 1073, p. 32). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 71 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	15.22	Apr. 24	4.72	July 22	5.10	Sept. 22	12.88
Mar. 28	12.49	June 24	2.15	Aug. 26	9.96	Dec. 26	14.02

81 (*840, p. 93; 845, p. 92; 886, p. 135; 908, p. 37; 938, p. 46; *946, p. 56; *988, p. 41; 1018, p. 35; 1025, p. 37; 1073, p. 32). L. G. Bergren. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 71 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	7.99	Apr. 24	5.09	July 22	5.55	Sept. 24	8.02
Mar. 28	7.58	June 24	4.82	Aug. 26	7.67	Dec. 26	7.82

82 (*840, pp. 93, 98, 99; 845, p. 92; 886, p. 135; 908, p. 37; 938, p. 47; *946, p. 56; *988, p. 41; 1018, p. 35; 1025, p. 37; 1073, p. 32). NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 72 N., R. 37 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	21.07	June 24	4.70	Sept. 24	16.82	Nov. 29	18.45
Mar. 28	22.89	Aug. 26	12.12	Oct. 27	18.44	Dec. 26	18.84
Apr. 24	15.01						

Muscatine County

76-2-14D1 (*886, p. 118; 908, p. 24; 938, p. 32; 946, p. 43; *988, p. 41; 1018, p. 35; 1025, p. 37; 1073, p. 32). City of Muscatine test well 4. In Muscatine, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 76 N., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 15	12.42	June 9	6.40	Dec. 22	12.06
Apr. 21	5.60	Sept. 15	12.58		

76-2-15A1 (*908, p. 24; 938, p. 32; 946, p. 43; *988, p. 41; 1018, p. 35; 1025, p. 37; 1073, p. 32). City of Muscatine test well 5. In Muscatine, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 76 N., R. 2 W. Water levels, in feet below land-surface datum, 1947: Jan. 15, 10.23; Apr. 21, 4.60; Sept. 15, 10.90; Dec. 22, 9.95.

Osceola County

99-41-18C2 (*908, p. 24; 938, p. 33; 946, p. 44; *988, p. 42; 1018, p. 35; 1025, p. 37; 1073, p. 32). City of Sibley. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 99 N., R. 41 W. Water levels, in feet below land-surface datum, 1947: May 3, 8.57; Dec. 18, 12.58.

Page County

69-36-31K1 (*908, p. 24; 938, p. 33; 946, p. 44; *988, p. 42; 1018, pp. 35-36; 1025, p. 37; 1073, p. 32). City of Clarinda. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 69 N., R. 36 W. Highest observed water level at noon, 13.02 feet below land-surface datum on June 24, 1947; lowest, 24.75 feet below land-surface datum on Feb. 9, 1947. Well destroyed; measurements discontinued after July 16.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
1	23.48	23.96	23.40	22.70	19.39	.....	14.38
2	23.48	23.58	23.42	22.78	19.40	.....	14.47
3	23.76	23.26	23.37	22.67	19.35	10.05	14.53
4	23.65	24.15	23.40	.....	19.49	18.85	14.64
5	23.28	23.42	23.61	.....	19.65	.....	14.84
6	23.26	23.04	23.76	.....	19.61	.....	15.16
7	23.35	23.44	23.62	21.24	19.79	.....	15.41
8	23.56	23.58	23.57	20.93	19.87	.....	15.64
9	23.67	24.75	23.65	20.84	19.91	.....	15.81
10	23.16	23.70	23.63	.....	19.90	.....	15.77
11	23.12	23.57	23.41	.....	19.83	.....	15.92
12	23.28	23.69	23.44	.....	19.62	.....	16.17

69-36-31K1--Continued.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July
13	22.99	23.49	23.16	.....	19.82	.....	16.21
14	22.15	23.42	23.10	.....	19.94	.....	.....
15	23.14	23.41	23.11	.....	19.94	.....	16.11
16	23.75	23.49	22.85	.....	20.19	.....	15.98
17	23.67	23.33	23.19	18.96	20.16	14.14	.....
18	23.59	23.59	22.90	18.91	20.21	14.32	.....
19	23.14	23.51	23.02	19.17	20.16	.....	.....
20	23.21	23.45	22.97	19.18	20.27	.....	.....
21	23.80	23.43	22.95	19.20	20.19	.....	.....
22	23.45	23.15	22.79	19.05	20.33	.....	.....
23	23.17	23.44	22.58	18.18	20.52	.....	.....
24	23.18	23.48	22.89	19.58	20.50	13.02	.....
25	23.15	23.58	23.01	19.47	20.35	13.25	.....
26	23.13	23.64	23.20	19.53	20.55	13.50	.....
27	23.31	23.51	23.02	19.40	20.39	13.74	.....
28	23.37	23.38	22.92	19.35	20.30	14.13	.....
29	23.09		23.01	19.08	.....	14.31	.....
30	23.11		22.97	19.24	.....	14.21	.....
31	23.59		22.66		.....		.....

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by Dean W. Knox.)

5 (*777, p. 63; *817, pp. 56, 59; *840, pp. 91, 93; 845, p. 86; 886, p. 122; 908, p. 31; 938, p. 39; *946, p. 56; 988, p. 42; 1018, p. 36; 1025, p. 38; 1073, p. 33). John Toft. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 68 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	15.90	Apr. 23	8.50	Aug. 25	10.17	Nov. 29	8.86
Feb. 27	15.93	June 23	22.76	Sept. 22	9.42	Dec. 22	8.55
Mar. 20	15.38	July 21	15.60	Oct. 20	8.67		

6 (*777, p. 63; *817, pp. 56, 59; *840, pp. 91, 95; 845, p. 86; 886, p. 122; 908, p. 31; 938, p. 39; *946, p. 56; 988, p. 43; 1018, p. 36; 1025, p. 38; 1073, p. 33). T. Slickerveer. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 69 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	4.72	Apr. 24	2.20	Aug. 25	12.42	Nov. 29	12.14
Feb. 28	5.19	June 24	15.62	Sept. 22	11.66	Dec. 26	12.34
Mar. 28	5.02	July 22	14.00	Oct. 27	11.56		

10 (*777, pp. 63, 65; *817, pp. 56, 59; *840, pp. 91, 95; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 39; *946, p. 56; 988, p. 43; 1018, p. 36; 1025, p. 38; 1073, p. 34). R. Palmquist. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 70 N., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 28	10.86	June 24	20.84	Aug. 26	24.19	Nov. 29	11.84
Apr. 24	11.14	July 22	17.99	Sept. 22	12.62	Dec. 26	11.74

11 (*777, p. 64; *817, pp. 56, 61; *840, pp. 91, 95; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 40; *946, p. 56; 988, p. 43; 1018, p. 36; 1025, p. 38; 1073, p. 34). R. Palmquist. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 70 N., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Apr. 24	7.05	July 22	5.36	Sept. 22	6.72
June 24	3.30	Aug. 26	5.69	Oct. 27	7.40

12 (*777, p. 64; *817, pp. 56, 61; *840, pp. 92, 95; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 40; *946, p. 57; 988, p. 43; 1018, p. 36; 1025, p. 38; 1073, p. 34). Amil Windhorst. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 69 N., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	25.84	June 24	15.30	Sept. 24	19.19	Nov. 29	22.30
Mar. 28	29.97	July 22	13.80	Oct. 27	20.76	Dec. 26	24.02
Apr. 24	29.15	Aug. 26	21.37				

13 (*817, pp. 57, 61; *840, pp. 92, 95; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 40; *946, p. 57; 988, p. 43; 1018, p. 37; 1025, p. 38; 1073, p. 34). Amil Windhorst. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 69 N., R. 37 W. Well abandoned; measurements discontinued.

14 (*777, p. 64; *817, pp. 57, 61; *840, pp. 92, 94; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 40; *946, p. 57; 988, p. 43; 1018, p. 37; 1025, p. 39; 1073, p. 34). Floyd Haskins. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 68 N., R. 38 W. Well abandoned; measurements discontinued.

15 (*777, p. 64; *817, pp. 57, 61; *840, pp. 92, 94; 845, p. 86; 886, p. 124; 908, p. 32; 938, p. 40; *946, p. 57; 988, p. 43; 1018, p. 37; 1025, p. 39; 1073, p. 34). Metropolitan Life Insurance Co. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 67 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	7.50	Apr. 23	4.45	Aug. 25	6.17	Nov. 28	7.76
Feb. 27	7.69	June 23	2.90	Sept. 22	7.40	Dec. 22	7.78
Mar. 20	7.48	July 21	3.40	Oct. 20	7.77		

17 (*777, p. 64; *817, pp. 57, 61; *840, pp. 92, 94; 845, p. 86; 886, p. 124; 908, p. 32; 938, p. 40; *946, p. 57; 988, p. 44; 1018, p. 37; 1025, p. 39; 1073, p. 34). Albert Nordholm. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20; T. 67 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	17.49	Apr. 23	15.37	Aug. 25	16.02	Nov. 28	18.60
Feb. 27	17.78	June 23	9.88	Sept. 22	17.10	Dec. 22	17.67
Mar. 20	17.78	July 21	14.19	Oct. 20	17.60		

44A (*886, p. 130; 908, p. 33; 938, p. 43; *946, p. 59; *988, p. 45; 1018, p. 38; 1025, p. 39; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	19.05	Mar. 20	18.42	Aug. 25	16.23	Oct. 20	19.38
Feb. 27	20.59	Apr. 23	15.82	Sept. 22	17.46	Nov. 28	19.24

47 (*840, pp. 92, 97; 845, p. 89; 886, p. 130; 908, p. 33; 938, p. 44; *946, p. 59; *988, p. 45; 1018, p. 38; 1025, p. 40; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	20.12	Apr. 23	13.09	Aug. 25	14.45	Oct. 20	17.26
Mar. 20	25.32	July 30	12.13	Sept. 22	15.72	Nov. 28	17.96

49 (*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 33; 938, p. 44; *946, p. 59; *988, p. 45; 1018, p. 38; 1025, p. 40; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W. Well destroyed; measurements discontinued after April. Water levels, in feet below land-surface datum, 1947: Jan. 25, 23.11; Mar. 20, 25.32; Apr. 23, 21.69.

51 (*840, pp. 92, 97; 845, p. 90; 886, p. 131; 908, p. 34; 938, p. 44; *946, p. 60; *988, p. 46; 1018, p. 39; 1025, p. 40; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W. Well destroyed; measurements discontinued after April. Water levels, in feet below land-surface datum, 1947: Jan. 24, 23.16; Apr. 23, 19.02.

57 (*840, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 45; *946, p. 69; *988, p. 46; 1018, p. 39; 1025, p. 40; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W. Well destroyed; measurements discontinued after April. Water levels, in feet below land-surface datum, 1947: Jan. 24, 18.42; Feb. 27, 19.66; Mar. 20, 18.88; Apr. 23, 13.39.

58 (*840, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 45; *946, p. 61; *988, p. 47; 1018, p. 39; 1025, p. 40; 1073, p. 35). Elsie Nordstrom. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W. Well destroyed; measurements discontinued after April. Water levels, in feet below land-surface datum, 1947: Jan. 24, 13.24; Feb. 27, 13.78; Mar. 20, 13.16; Apr. 23, 11.24.

70 (*840, pp. 93, 98; 845, p. 91; 886, p. 133; 908, p. 34; 938, p. 45; *946, p. 61; *988, p. 47; 1018, p. 39; 1025, p. 40; 1073, p. 35). John Snyder. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 69 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	8.59	Apr. 23	3.56	Aug. 25	6.39	Nov. 29	7.30
Feb. 27	8.19	June 23	2.72	Sept. 22	7.18	Dec. 26	7.08
Mar. 20	6.24	July 21	4.16	Oct. 20	7.48		

71 (*840, pp. 93, 98; 845, p. 91; 886, p. 133; 908, p. 35; 938, p. 45; *946, p. 61; *988, p. 47; 1018, p. 39; 1025, p. 40; 1073, p. 35). John Snyder. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 69 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 24	7.31	Apr. 23	4.89	Aug. 25	6.18	Oct. 20	6.77
Feb. 27	7.34	July 21	5.25	Sept. 22	6.64	Dec. 26	7.18

76 (*840, pp. 93, 98; 845, p. 91; 886, p. 134; 908, p. 35; 938, p. 46; *946, p. 61; *988, p. 47; 1018, p. 40; 1025, p. 41; 1073, p. 36). Metropolitan Life Insurance Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 68 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 24	12.44	Apr. 23	11.38	Sept. 22	13.22	Nov. 28	11.65
Feb. 27	12.88	July 21	11.44	Oct. 20	13.69	Dec. 22	12.42
Mar. 20	12.84	Aug. 25	12.67				

80 (*840, pp. 93, 98; 845, p. 92; 886, p. 135; 908, p. 35; 938, p. 46; *946, p. 62; *988, p. 47; 1018, p. 40; 1025, p. 41; 1073, p. 36). Mr. Burton. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 69 N., R. 38 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	30.38	June 24	12.80	Sept. 24	22.80	Nov. 29	27.54
Feb. 27	32.04	July 22	17.36	Oct. 27	25.68	Dec. 26	28.32
Apr. 24	28.44						

83 (*886, p. 135; 908, p. 35; 938, p. 47; *946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41; 1073, p. 36). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Jan. 24	22.70	Apr. 23	22.26	Aug. 25	18.40	Nov. 28	22.22
Feb. 27	23.38	June 25	17.62	Sept. 22	19.76	Dec. 26	22.72
Mar. 20	22.08	July 22	16.59	Oct. 20	21.04		

84 (*886, p. 136; 908, p. 35; 938, p. 47; *946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41; 1073, p. 36). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	20.74	Apr. 23	21.49	Aug. 25	18.12	Nov. 28	21.40
Feb. 27	22.06	June 23	17.55	Sept. 22	19.22	Dec. 26	21.92
Mar. 20	20.96	July 21	16.33	Oct. 20	20.32		

85 (*886, p. 136; 908, p. 35; 938, p. 47; *946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41; 1073, p. 36). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	20.36	Apr. 23	18.98	Sept. 22	17.38	Nov. 28	20.22
Feb. 27	21.64	July 21	14.00	Oct. 20	18.48	Dec. 26	19.68
Mar. 20	20.42	Aug. 25	17.30				

86 (*886, p. 136; 908, p. 36; 938, p. 47; *946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41; 1073, p. 36). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	16.50	Apr. 23	15.98	Aug. 23	13.86	Nov. 28	15.36
Feb. 27	17.77	June 23	13.35	Sept. 22	14.90	Dec. 26	16.72
Mar. 20	16.68	July 21	12.28	Oct. 20	15.90		

87 (*886, p. 137; 908, p. 36; 938, p. 47; *946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41; 1073, p. 36). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
July 30	8.57	Sept. 22	9.60	Nov. 28	11.54
Aug. 25	8.70	Oct. 20	10.38	Dec. 26	11.00

Palo Alto County

Vicinity of Lost Island Lake

97-34-29N1 (*908, p. 24; 938, p. 33; 946, p. 45; 988, p. 48; 1018, p. 41; 1025, p. 41; 1073, p. 36). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 97 N., R. 34 W. Water levels, in feet below land-surface datum, 1947: May 3, 1.16; Dec. 18, 2.07.

97-34-29N2 (*908, p. 24; 938, p. 34; 946, p. 45; 988, p. 48; 1018, p. 41; 1025, p. 42; 1073, p. 37). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29; T. 97 N., R. 34 W. Well flowing; no measurements in 1947.

97-34-30Q1 (*908, p. 24; 938, p. 34; 946, p. 45; 988, p. 48; 1018, p. 41; 1025, p. 42; 1073, p. 37). Norman Broadwell. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 97 N., R. 34 W., about 150 feet north of shore line of Lost Island Lake. Reported abandoned in 1946. Now reopened for water-level measurements. No measurements made in 1947.

96-34-6J1 (*908, p. 25; 938, p. 34; 946, p. 45; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). Electric Park. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 96 N., R. 34 W. Water levels, in feet below land-surface datum, 1947: May 3, 0.00; Dec. 18, 1.06.

Plymouth County

91-48-19M1 (*886, p. 119; 908, p. 25; 938, p. 34; 946, p. 45; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). Joe Tracy. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 91 N., R. 48 W. Water level, in feet below land-surface datum, 1947: May 3, 52.65.

Polk County

78-24-4P1 (*988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). S. S. Kresge Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T. 78 N., R. 24 W. Water levels, in feet below land-surface datum, 1947: Apr. 8, 27.91; June 10, 26.41.

79-22-22A1 (*908, p. 25; 938, p. 34; 946, p. 45; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). J. G. Reed. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 79 N., R. 22 W. Water levels, in feet below land-surface datum, 1947: Apr. 8, 2.88; Dec. 21, 4.92.

Poweshiek County

78-15-1R1 (*988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). Ben Harding. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 78 N., R. 15 W. Water levels, in feet below land-surface datum, 1947: Apr. 22, 1.37; June 11, 2.75; Aug. 23, 11.28; Dec. 15, 12.88.

Sac County

89-38-11J1 (*946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 89 N., R. 38 W. Water levels, in feet below land-surface datum, 1947: May 2, 1.96; Dec. 17, 5.40.

89-38-26A2 (*906, p. 25; 938, p. 34; 946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). City of Schaller. In Schaller, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 89 N., R. 38 W. Water levels, in feet below land-surface datum, 1947: May 2, 225.02; Dec. 17, 220.16.

86-36-2C1 (*908, p. 25; 938, p. 35; 946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42; 1073, p. 37). John Christian. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 86 N., R. 36 W. Water levels, in feet below land-surface datum, 1947: May 2, 2.05; Dec. 17, 9.30.

86-36-2E1 (*908, p. 25; 938, p. 35; 946, p. 46; 988, p. 49; 1018, p. 42; 1025, p. 42; 1073, p. 37). Albert Culver, Jr. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 86 N., R. 36 W. Water levels, in feet below land-surface datum, 1947: May 2, 0.05; Dec. 17, 1.00.

86-36-4N1 (*908, p. 25; 938, p. 35; 946, p. 46; 988, p. 50; 1018, p. 42; 1025, p. 42; 1073, p. 37). Iowa State Conservation Commission. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T. 86 N., R. 36 W. Water levels, in feet below land-surface datum, 1947: May 2, 3.95; Dec. 17, 5.32.

Sioux County

95-45-5A1 (*866, p. 119; 908, p. 26; 938, p. 35; 946, p. 46; 988, p. 50; 1018, p. 42; 1025, p. 43; 1073, p. 37). City of Sioux Center. In Sioux Center, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 95 N., R. 45 W. No measurements made in 1947.

Story County

83-24-2Q1. City of Ames well 2. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 83 N., R. 24 W. Drilled well, completed in 1929 at an approximate depth of 110 feet. Abandoned as a producing well for public supply in 1935. City wells 1, 3, and 4 are in the same area and produce from the same aquifer as that tapped by well 2. The aquifer is sand and gravel of Pleistocene age. Continuous water-stage recorder installed on well on Nov. 18, 1947. Measuring point, top of wooden recorder platform over well, 4.1 feet above land-surface datum.

83-24-2Q1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1947
(From recorder charts)

Day	November		December	
	High	Low	High	Low
1	.....	.....	52.26	56.20
2	.....	.....	49.66	56.76
3	.....	.....	52.70	53.51
4	.....	.....	53.20	53.38
5	.....	.....	53.18	53.33
6	.....	.....	53.08	53.38
7	.....	.....	52.95	53.30
8	.....	.....	52.60	53.26
9	.....	.....	52.96	55.65
10	.....	.....	49.37	56.11
11	.....	.....	53.00	56.04
12	.....	.....	52.89	53.10
13	.....	.....	52.83	53.11
14	.....	.....	52.82	53.02
15	.....	.....	52.82	53.05
16	.....	.....	52.84	53.13
17	.....	.....	52.78	53.07
18		a 56.88	52.83	55.50
19	50.10	56.95	49.27	56.17
20	49.94	56.92	49.19	53.10
21	50.33	56.98	48.94	52.95
22	50.08	56.94	49.10	52.90
23	49.91	56.83	49.12	52.99
24	50.04	56.86	52.00	53.03
25	50.05	56.88	48.84	52.69
26	49.95	56.77	49.03	52.91
27	49.89	53.83	48.87	53.02
28	52.40	53.75	48.79	52.84
29	49.81	53.89	48.89	52.58
30	49.84	53.74	52.60	53.51
31			52.87	53.14

a Wetted-tape measurement.

83-24-4Q1 (*886, p. 119; 908, p. 26; 938, p. 35; 946, p. 46; 988, p. 50; 1018, p. 42; 1025, p. 43; 1073, p. 38). Iowa State College. In Ames, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 83 N., R. 24 W. Water levels, in feet below land-surface datum, 1947: Apr. 25, 46.69; Nov. 4, 42.42.

83-24-20J1 (*886, p. 120; 908, p. 26; 938, p. 36; 946, p. 47; 988, p. 50; 1018, p. 42; 1025, p. 43; 1073, p. 38). Agricultural Engineering Experiment Station. Near Ames, in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 83 N., R. 24 W. Water levels, in feet below land-surface datum, 1947: Apr. 25, 10.12; Nov. 4, 19.20; Dec. 21, 17.02.

83-24-4R1 (*946, p. 47; 988, p. 51; 1018, p. 42; 1025, p. 43; 1073, p. 38). Iowa State College. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 83 N., R. 24 W. Water levels, in feet below land-surface datum, 1947: Apr. 25, 6.31; Nov. 4, 18.15; Dec. 21, 15.88.

Tama County

82-13-13R1 (*1025, p. 43; 1073, p. 38). City of Belle Plaine. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 82 N., R. 13 W. Water levels, in feet below land-surface datum, 1947: Mar. 10, 6.61; Apr. 25, 4.00; July 28, 6.88; Nov. 5, 8.55.

Warren County

77-25-12R1 (*946, pp. 47-48; 988, p. 51; 1018, p. 42; 1025, p. 43; 1073, p. 38). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 77 N., R. 25 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 1.53; Aug. 1, 0.36; Sept. 17, 1.58.

76-25-8Q1 (#908, p. 26; 938, p. 36; 946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43; 1073, p. 38). Iowa State College. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 76 N., R. 25 W. Water levels, in feet below land-surface datum, 1947: Apr. 24, 6.20; Sept. 17, 21.43.

Wayne County

67-23-20Q1 (#908, p. 26; 938, p. 36; 946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43; 1073, p. 38). L. P. Bryan. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 67 N., R. 23 W. No measurements made in 1947.

Webster County

90-30-26A1 (#946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43; 1073, p. 38). County of Webster. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 90 N., R. 30 W. Water levels, in feet below land-surface datum, 1947: May 1, 7.03; Dec. 19, 7.99.

90-28-1B1 (#946, p. 48; 988, p. 51; 1018, p. 43; 1025, p. 43; 1073, p. 38). Ed Askland. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 90 N., R. 28 W. Water level, in feet below land-surface datum, 1947: May 1, 6.58.

90-28-8Q1 (#946, p. 48; 988, p. 51; 1018, p. 43; 1025, p. 44; 1073, p. 38). Mr. Hovey. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 90 N., R. 28 W. Water levels, in feet below land-surface datum, 1947: May 1, 5.78; Dec. 19, 9.57.

90-27-31N1 (#946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44; 1073, p. 38). C. S. Knudson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 90 N., R. 27 W. No measurements made in 1947.

89-30-18J1 (#946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44; 1073, p. 38). Dan Cain. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 89 N., R. 30 W. Water levels, in feet below land-surface datum, 1947: May 1, 4.72; Dec. 19, 7.02.

89-30-23R1 (#946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44; 1073, p. 39). Johnson Township Consolidated School. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 89 N., R. 30 W. Water level, in feet below land-surface datum, 1947: May 1, 32.83.

89-28-21Q2 (#946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44; 1073, p. 39). Litchfield Real Estate Co. In Fort Dodge, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 89 N., R. 28 W. No measurements made in 1947.

88-29-11C1 (#946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44; 1073, p. 39). Charles Matson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 88 N., R. 29 W. Water levels, in feet below land-surface datum, 1947: May 1, 5.03; Dec. 19, 5.48.

87-30-30R1 (#946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44; 1073, p. 39). School District No. 9. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 87 N., R. 30 W. Water levels, in feet below land-surface datum, 1947: May 1, 3.13; Dec. 19, 11.01.

87-28-5Q1 (#946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44; 1073, p. 39). SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 87 N., R. 28 W. Water levels, in feet below land-surface datum, 1947: May 1, 3.48; Dec. 19, 6.52.

87-28-12Q1 (#946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44; 1073, p. 39). Thomas Timmons, Jr. Near Lehigh, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 87 N., R. 28 W. Well destroyed; measurements discontinued.

87-28-29N1 (#946, p. 51; 988, p. 53; 1018, p. 44; 1025, p. 44; 1073, p. 39). Grant Spangler. About 4 miles northeast of Harcourt, in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 87 N., R. 28 W. Highest observed water level, from recorder charts, 1.04 feet below land-surface datum on June 13; lowest, 6.78 feet below land-surface datum on Sept. 22.

Water level at noon, in feet below land-surface datum, 1947
(from recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.83	5.68	5.05	....	2.95	1.19	2.33	4.71	6.34	6.23	4.56	....
2	5.89	5.68	5.10	....	3.00	1.47	2.53	4.75	6.40	5.98	4.41	a3.89
3	5.95	5.70	5.14	....	3.06	1.77	2.67	4.85	6.43	5.94	4.38	....
4	5.92	5.80	5.23	....	3.02	1.83	2.58	4.95	6.45	5.88	4.35	....
5	5.88	5.77	5.30	....	2.97	1.37	2.64	5.03	6.52	5.86	4.36	....

a Wetted-tape measurement.

87-28-29N1--Continued.

Water level at noon, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	5.89	5.78	5.33	....	3.06	1.72	2.60	5.10	6.54	5.98	4.22	....
7	6.00	5.84	5.27	....	3.00	1.64	2.80	5.18	6.55	5.98	4.10	....
8	6.05	5.89	5.18	....	2.99	1.97	2.96	5.23	6.57	5.99	4.02	....
9	6.08	5.93	5.18	3.83	2.99	2.03	3.01	5.31	6.61	5.67	....	....
10	6.00	5.96	5.13	2.52	3.01	2.18	2.99	5.39	6.64	5.73	....	....
11	6.00	5.98	5.10	2.71	3.00	2.42	2.98	5.48	6.70	5.74	....	....
12	6.02	....	5.08	2.93	2.91	1.07	3.08	....	6.60	5.83	....	....
13	5.93	....	4.97	3.02	2.93	1.04	3.25	....	6.41	5.88	....	....
14	5.85	....	4.86	3.08	2.90	1.54	3.40	....	6.43	5.88	a 4.09	....
15	5.80	....	4.84	3.14	2.61	1.84	3.47	5.66	....	5.95	....	....
16	5.76	....	4.80	3.12	2.48	2.07	3.56	5.67	6.47	5.99	....	....
17	5.74	....	4.78	3.09	1.96	1.65	3.61	5.70	6.53	5.90	....	....
18	5.75	....	4.70	3.10	2.09	1.85	3.66	5.80	6.62	5.85	....	....
19	5.68	....	4.66	3.23	2.28	1.99	3.74	5.85	6.69	5.88	....	....
20	5.71	....	4.60	3.24	2.48	2.07	3.81	5.91	6.68	5.95	....	....
21	5.86	....	4.50	3.18	2.08	1.86	3.92	5.99	6.65	5.99	....	....
22	5.76	....	4.40	3.16	2.63	1.67	3.97	6.03	6.78	5.76	....	....
23	5.70	....	4.26	3.14	2.71	1.69	4.03	6.07	6.60	5.81	....	....
24	5.67	....	4.24	2.90	2.70	2.07	4.10	6.14	6.66	5.68	....	....
25	5.65	....	4.27	2.87	2.72	2.08	4.13	6.18	6.73	5.61	....	....
26	5.65	4.92	4.28	2.92	2.85	2.15	4.20	6.16	6.71	5.56	....	....
27	5.72	4.94	4.24	2.99	2.86	2.30	4.33	6.14	6.63	5.43	....	....
28	5.68	5.02	4.22	2.94	2.83	2.53	4.42	6.21	6.53	5.34	....	....
29	5.61	....	4.27	2.86	2.02	2.58	4.48	6.25	6.61	5.32	....	....
30	5.66	....	4.28	2.87	2.13	1.91	4.61	6.29	6.52	5.27	....	....
31	5.66	....	4.26	....	2.19	....	4.68	6.33	....	4.97	....	....

a Wetted-tape measurement.

87-27-18M1 (*946, p. 51; 988, p. 54; 1018, p. 45; 1025, p. 45; 1073, p. 40). J. B. Marsh. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 87 N., R. 27 W. Water levels, in feet below land-surface datum, 1947: May 1, 130.50; Dec. 19, 126.80.

86-30-5C1 (*946, p. 51; 988, p. 54; 1018, p. 45; 1025, p. 45; 1073, p. 40). E. C. Monson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 86 N., R. 30 W. Water levels, in feet below land-surface datum, 1947: May 1, 58.03; Dec. 19, 58.32.

86-29-14A1 (*946, p. 51; 988, p. 55; 1018, p. 45; 1025, p. 45; 1073, p. 40). F. R. Castenson. Near Harcourt, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 86 N., R. 29 W. Water levels, in feet below land-surface datum, 1947: May 1, 6.03; Dec. 19, 6.17.

86-28-14H1 (*946, p. 51; 988, p. 55; 1018, p. 45; 1025, p. 45; 1073, p. 40). Town of Dayton. In Dayton, in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 86 N., R. 28 W. Water levels, in feet below land-surface datum, 1947: May 1, 76.46; Dec. 19, 143.14, pumping.

86-27-4D1 (*946, p. 52; 988, p. 55; 1018, p. 45; 1025, p. 45; 1073, p. 40). Mr. Davis. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 96 N., R. 27 W. Water levels, in feet below land-surface datum, 1947: May 1, 104.84; Dec. 19, 104.99.

Woodbury County

89-48-23B1 (*886, p. 120; *908, p. 27; 938, p. 36; 946, p. 52; 988, p. 55; 1018, p. 45; 1025, p. 45; 1073, p. 40). City of Sioux City Riverside Station well. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 89 N., R. 48 W. No measurements made in 1947.

89-47-22B1 (*886, p. 120; *908, p. 27; 938, p. 36; 946, p. 52; 988, p. 55; 1018, p. 45; 1025, p. 45; 1073, p. 40). City of Sioux City well Lowell 4. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 89 N., R. 47 W. Water levels affected by nearby pumping wells. Measurements made by Tim Kemper and R. R. Bates of the Sioux City Water Works.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	41.20	May 3	47.10	Sept. 11	45.80	Nov. 8	51.40
Feb. 2	43.00	June 3	48.00	Oct. 3	48.50	Dec. 2	48.40
Apr. 2	40.50	July 2	45.40				

KANSAS

PROGRAM OF WORK

By Wilma P. Howard

The observation-well program in Kansas was continued in 1947 in cooperation with the State Geological Survey of Kansas, the Division of Water Resources of the Kansas State Board of Agriculture, and the Division of Sanitation of the Kansas State Board of Health. In addition to the State agencies names, the city of Wichita cooperated in Harvey, McPherson, and Sedgwick Counties. Also, an observation-well program was carried on in the Missouri Basin in cooperation with the Bureau of Reclamation. Three counties not heretofore included, Lincoln, Mitchell, and Norton, were added to the program in 1947 and 1 county, Dickinson, was dropped, making 49 counties in which wells were observed at the end of the year.

Results of cooperative ground-water investigations in Scott County^{1/} and in Kiowa County^{2/} were published in 1947.

At the beginning of 1947, periodic water-level measurements were being made in 480 observation wells in the State. During the year measurements were discontinued in 20 wells and begun or resumed in 69 wells. At the end of the year 529 wells were under observation. Of the wells measured in 1947, 9 were measured semiannually, 112 were measured quarterly, 372 monthly, 4 semimonthly, 21 weekly, and water-stage recorders were maintained on 12. The recorders on four of these wells--one in Finney County, one in Grant County, and two in Scott County--are maintained by the Division of Water Resources of the Kansas State Board of Agriculture. During the year 5,309 wetted-tape measurements were made in the State. For convenience, the data given in this paragraph have been arranged in tabular form, by counties, as follows:

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- ^{1/} Waite, H. A., Geology and ground-water resources of Scott County, Kansas: Kansas Geol. Survey Bull. 66, 216 pp., 16 pls., 16 figs.
^{2/} Latta, B. F., Geology and ground-water resources of Kiowa County, Kansas: Kansas Geol. Survey Bull. 65, 151 pp., 11 pls., 10 figs.

Observation-well program in Kansas, by counties, in 1947

County	Observer	Wells included at beginning of year	Wells discon- tinued during year	Wells added during year	Wells included at end of year
Barber	(a)	10	0	0	10
Barton	(a)	13	0	0	13
Bourbon	G. E. Abernathy	2	0	0	2
Brown	C. H. Solomon	5	0	0	5
Clark	(a)	4	0	0	4
Comanche	(a)	3	0	0	3
Cowley	C. K. Bayne	4	0	0	4
Crawford	G. E. Abernathy	3	0	0	3
Edwards	(a)	3	0	0	3
Ellis	(a)	2	0	14	16
Finney	(a)	11	1	1	11
Ford	(a)	14	0	0	14
Grant	(a)	9	0	0	9
Gray	(a)	8	1	0	7
Hamilton	(a)	5	0	0	5
Harvey	(b)	129	1	0	128
Haskell	(a)	8	1	0	7
Hodgeman	(a)	3	0	0	3
Jewell	D. W. Berry	21	0	0	21
Kearny	(a)	9	2	0	7
Kingman	(b)	12	0	0	12
Kiowa	(a)	5	0	0	5
Labette	John Wayenberg	4	0	0	4
Lincoln	D. W. Berry	0	0	16	16
Logan	(a)	3	0	0	3
McPherson	C. K. Bayne and D. W. Berry	11	0	0	11
Meade	(a)	8	0	0	8
Mitchell	D. W. Berry	0	0	12	12
Morton	(a)	3	0	0	3
Ness	(a)	2	0	0	2
Norton	D. W. Berry	0	0	11	11
Osborne	D. W. Berry	6	0	9	15
Pawnee	(a)	5	1	0	4
Phillips	D. W. Berry	11	1	4	14
Reno	(b)	1	0	0	1
Republic	Local observer	6	0	0	6
Rice	D. W. Berry	22	0	0	22
Russell	(a)	10	0	0	10
Saline	D. W. Berry	11	0	0	11
Scott	(a)	11	0	0	11
Sedgwick	(b)	30	0	0	30
Seward	(a)	5	0	0	5
Smith	D. W. Berry	8	0	0	8
Stafford	(a)	5	1	0	4
Stanton	(a)	4	0	0	4
Stevens	(a)	7	1	0	6
Sumner	C. A. Posey	2	0	0	2
Thomas	(a)	9	1	1	9
Wyandotte	V. C. Fishel	13	8	0	5
Total		480	20	69	529
a Howard Palmer or Harry F. Ruppel.					
b C. K. Bayne.					

Frequency of measurement of wells and number of wetted-tape measurements made in Kansas, by counties, in 1947

County	Wells measured semi- annually	Wells measured quarterly	Wells measured monthly	Wells measured semi- monthly	Wells measured weekly	Wells equipped with recorders	Wetted- tape measure- ments made during year
Barber	0	10	0	0	0	0	40
Barton	0	0	13	0	0	0	132
Bourbon	0	0	2	0	0	0	2
Brown	0	0	5	0	0	0	52
Clark	0	4	0	0	0	0	11
Comanche	0	a 2	0	0	0	0	7
Cowley	0	0	b 4	0	0	0	28
Crawford	0	c 1	0	0	0	0	1
Edwards	0	0	3	0	0	0	32
Ellis	0	2	14	0	0	0	89
Finney	0	6	5	0	0	1	75
Ford	0	7	7	0	0	0	103
Grant	0	5	3	0	0	1	45
Gray	0	4	3	0	0	0	49
Hamilton	0	3	2	0	0	0	35
Harvey	2	0	107	0	d 152	2	2,081
Haskell	0	7	1	0	0	0	33
Hodgemen	0	2	1	0	0	0	17
Jewell	0	0	20	0	0	1	238
Kearny	0	5	3	0	0	0	53
Kingman	0	0	12	0	0	0	89
Kiowa	0	5	0	0	0	0	20
Labette	0	0	0	4	0	0	90
Lincoln	0	0	16	0	0	0	112
Logan	0	3	0	0	0	0	12
McPherson	7	0	4	0	0	0	50
Meade	0	e 6	0	0	0	1	21
Mitchell	0	0	12	0	0	0	146
Morton	0	3	0	0	0	0	11
Ness	0	2	0	0	0	0	8
Norton	0	0	11	0	0	0	65
Osborne	0	0	14	0	0	1	231
Pawnee	0	0	5	0	0	0	49
Phillips	0	0	15	0	0	0	97
Reno	0	0	1	0	0	0	8
Republic	0	0	f 5	0	0	0	48
Rice	0	0	22	0	0	0	193
Russell	0	10	0	0	0	0	38
Saline	0	0	11	0	0	0	99
Scott	0	0	9	0	0	2	95
Sedgwick	0	0	21	0	6	3	526
Seward	0	1	4	0	0	0	39
Smith	0	0	8	0	0	0	75
Stafford	0	0	5	0	0	0	47
Stanton	0	3	1	0	0	0	22
Stevens	0	7	0	0	0	0	28
Sumner	0	0	2	0	0	0	24
Thomas	0	9	1	0	0	0	34
Wyandotte	0	g 5	0	0	0	0	5
	9	112	372	4	21	12	5,406

- a No measurements made during 1947 for well 7.
b No measurements made during 1947 for well 41.
c No measurements made during 1947 for wells 1 and 88.
d No measurements made during 1947 for wells 2, 1189, and 2088.
e No measurements made during 1947 for well 88.
f No measurements made during 1947 for well 230.
g No measurements made during 1947 for well 138.

Relation between the percentage of wells in Kansas in which the highest and lowest water levels of record were recorded in 1947, the percentage of wells in which there was a net rise in water level during 1947, and the precipitation during 1947, by counties

County	Number of wells observed entire year	Percentage of wells in which highest water levels of record were recorded	Percentage of wells in which lowest water levels of record were recorded	Percentage of wells having a net rise in water level	Precipitation at nearest Weather Bureau station	Percentage of Station normal
Barber	10	50	10	60	114	Medicine Lodge
Barton	13	8	51	15	85	Great Bend
Bourbon	2	0	100	0	95	Fort Scott
Brown	5	40	60	80	118	Horton
Clark	3	33	0	66	88	Ashland
Comanche	3	30	0	66	97	Coldwater
Cowley	4	50	50	75	106	Winfield
Crawford	1	0	100	100	91	Pittsburg
Edwards	3	66	0	33	85	Trousdale
Ellis	2	0	50	50	98	Hays
Finney	9	66	0	56	91	Garden City
Ford	14	29	14	57	101	Dodge City
Grant	9	33	11	11	91	Ulysses
Gray	7	57	0	71	126	Cimarron
Hamilton	5	40	0	60	120	Syracuse
Harvey	a 25	4	24	56	100	Newton
Haskell	7	29	43	71	118	Sublette
Hodgeman	3	33	0	66	104	Jetmore
Jewell	21	62	0	24	92	Burr Oak
Kearny	7	29	0	43	85	Lakin
Kingman	12	25	33	67	112	Norwich
Kiowa	5	40	0	40	100	Greensburg
Labette	4	0	0	0	97	Parsons
Lincoln	16				84	Lincoln
Logan	3	67	33	100	113	Oakley
McPherson	11	9	9	27	105	McPherson
Meade	7	43	0	71	113	Plains
Mitchell	12					
Morton	3	67	0	33	109	Elkhart
Ness	2	50	0	100	94	Ness City
Norton	11					
Osborne	15	73	60	33	96	Osborne
Pawnee	4	75	25	50	92	Larned
Phillips	9	100	22	78	106	Phillipsburg
Reno	1	0	0	100	121	Hutchinson
Republic	5	40	0	40	109	Belleville
Rice	22	73	59	41	97	Alden
Russell	10	0	10	50	106	Russell
Saline	11	9	64	0	89	Salina
Scott	11				91	Scott City
Sedgewick	30	0	30	47	86	Wichita
Seward	5	40	60	40	105	Liberal
Smith	8	88	25	88	106	Smith Center
Stafford	4	25	25	75	96	Hudson
Stanton	4	75	0	50	99	Johnson
Stevens	6	66	33	66	96	Hugoton
Sumner	2	0	0	100	100	Peck
Thomas	7	71	29	100	93	Colby
Wyandote	5	0	60	40	123	Kansas City, Mo.

a Excludes 103 wells which are pumped or affected by pumping.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Barber County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 10 wells in Barber County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	71.46	Sept. 17, 1947	82.99	Oct. 17, 1940
2	7	11.94	Apr. 22, 1942	13.90	Aug. 20, 1943
3	7	8.57	June 19, 1947	15.42	Oct. 21, 1940
4	7	14.04	June 19, 1947	16.50	Aug. 20, 1943
5	7	18.00	Aug. 31, 1944	30.15	Sept. 24, 1941
8	7	8.87	Nov. 21, 1941	17.48	Mar. 21, 1941
9	7	1.82	June 19, 1947	4.54	Aug. 21, 1943
10	7	102.20	Mar. 15, 1945	104.90	Dec. 17, 1947
12	7	2.08	Mar. 15, 1945	11.68	Oct. 22, 1940
13	7	5.96	June 19, 1947	16.99	Oct. 22, 1940

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 10 wells in Barber County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	11.53	+2.11	+11.53
2	1.96	+1.33	+4.42
3	6.85	-2.08	+2.63
4	2.26	+86	+79
5	12.15	+1.27	+9.79
8	8.61	-2.02	+1.98
9	2.72	-.90	+82
10	2.70	-2.21	-1.05
12	9.60	+88	+6.14
13	11.03	+2.61	+9.69

1 (#908, p. 39; 938, p. 53; 946, p. 70; #988, p. 62; 1018, p. 50; 1025, p. 50; 1073, p. 45). D. S. Shaw. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 31 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 73.46; June 19, 71.99; Sept. 17, 71.46.

2 (#908, p. 39; 938, p. 53; 946, p. 70; #988, p. 62; 1018, p. 50; 1025, p. 50; 1073, p. 46). Russell Lake. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 31 S., R. 14 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 12.38; June 19, 12.50; Sept. 17, 12.90; Dec. 17, 12.48.

3 (#908, p. 40; 938, p. 53; 946, p. 70; #988, p. 62; 1018, p. 50; 1025, p. 50; 1073, p. 46). Mrs. Griever. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 32 S., R. 12 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 10.19; June 19, 8.57; Sept. 17, 13.14; Dec. 17, 12.79.

4 (#908, p. 40; 938, p. 53; 946, p. 70; #988, p. 62; 1018, p. 50; 1025, p. 50; 1073, p. 46). Madge Evans. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 32 S., R. 12 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 14.83; June 19, 14.04; Sept. 17, 16.13; Dec. 17, 15.11.

5 (#908, p. 40; 938, p. 53; 946, p. 70; #988, p. 62; 1018, p. 50; 1025, p. 50; 1073, p. 46). R. Kenney. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 33 S., R. 12 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 19.41; June 19, 19.08; Sept. 17, 19.33; Dec. 17, 19.06.

8 (#908, p. 40; 938, p. 54; 946, p. 71; #988, p. 62; 1018, p. 51; 1025, p. 50; 1073, p. 46). P. Brooks. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 34 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 10.34; June 19, 11.02; Sept. 17, 14.04; Dec. 17, 15.15.

9 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50; 1073, p. 46). V. D. Wells. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 34 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 1.97; June 19, 1.82; Sept. 17, 5.73; Dec. 17, 2.94.

10 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50; 1073, p. 46). G. H. Davis. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 35 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 102.91; June 19, 103.17; Sept. 17, 102.67; Dec. 17, 104.90.

12 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50; 1073, p. 46). B. Mills. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 33 S., R. 10 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 3.75; June 19, 3.28; Sept. 17, 6.59; Dec. 17, 5.54.

13 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50; 1073, p. 46). J. A. Brencher. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 32 S., R. 10 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 8.70; June 19, 5.96; Sept. 17, 6.98; Dec. 17, 7.30.

Barton County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 13 wells in Barton County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	5.5	0.76	May 11, 1944	5.49	Aug. 21, 1946
2	5.5	32.19	Nov. 12, 1946	34.64	Jan. 20, 1944
16	5	27.93	May 22, 1943	33.34	July 11, 1947
43	5	16.88	Aug. 8, 1945	21.21	Jan. 19, 1944
100	3.5	30.62	June 5, 1945	35.14	Dec. 7, 1947
101	3.5	23.39	Aug. 28, 1945	24.70	Dec. 8, 1947
103	3.5	1.00	Apr. 27, 1945	7.66	Aug. 21, 1946
105	3.5	30.80	July 12, 1945	32.82	Dec. 21, 1944
107	3.5	98.28	June 11, 1947	101.60	Oct. 26, 1945
109	3.5	9.39	July 13, 1945	14.61	July 10, 1946
110	3.5	16.15	June 6, 1945	22.16	Oct. 15, 1947
112	3.5	96.93	July 12, 1945	130.14	Sept. 12, 1946
131	3.5	9.78	July 13, 1945	14.60	Aug. 20, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 13 wells in Barton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	4.73	-1.00	-2.05
2	2.45	-.01	+.51
16	5.41	-.20	-1.03
43	4.33	+.42	+.81
100	4.52	-.71	-1.71
101	1.31	-.26	-.05
103	6.66	-.51	-3.52
105	2.02	+.58	+.45
107	3.32	-1.12	-.07
109	5.22	-1.99	-.02
110	6.01	-1.40	-4.10
112	33.21	-.82	-7.19
131	4.82	-.97	-1.32

1 (*946, p. 72; *988, p. 64; 1018, p. 52; 1025, p. 51; 1073, p. 47). F. Panning. SE. corner sec. 3, T. 20 S., R. 11 W.

1--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	4.32	Apr. 16	3.65	July 11	2.86	Nov. 16	4.51
Feb. 19	4.46	May 12	3.74	Aug. 27	3.92	Dec. 9	5.00
Mar. 18	4.13	June 11	2.52	Oct. 16	4.94		

2 (*946, p. 72; *988, p. 64; 1018, p. 52; 1025, p. 51; 1073, p. 47). W. Otte. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 19 S., R. 14 W. Water levels, in feet below land-surface datum, 1947: Jan. 23, 33.38; Feb. 19, 33.43; Mar. 18, 33.39; Apr. 16, 33.22. Well destroyed May 12; measurements discontinued.

16 (*946, p. 72; *988, p. 64; 1018, p. 52; 1025, p. 51; 1073, p. 47). Teichmann. NE $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 20 S., R. 13 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	30.49	Apr. 16	30.33	July 11	33.34	Nov. 16	30.33
Feb. 19	30.25	May 12	30.27	Aug. 27	30.29	Dec. 9	30.36
Mar. 18	30.78	June 11	30.36	Oct. 16	30.21		

43 (*946, p. 72; *988, p. 65; 1018, p. 52; 1025, p. 52; 1073, p. 47). M. Hagen. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 20 S., R. 11 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	20.09	Apr. 16	19.99	July 11	18.14	Nov. 16	19.90
Feb. 19	20.09	May 12	19.82	Aug. 27	19.08	Dec. 9	19.72
Mar. 18	20.05	June 11	18.77	Oct. 16	19.95		

100 (*1018, p. 52; 1025, p. 52; 1073, p. 47). Unruh. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 20 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	34.38	Apr. 16	34.33	July 11	32.36	Nov. 16	35.14
Feb. 19	34.58	May 12	33.93	Aug. 26	33.61	Dec. 8	34.61
Mar. 18	34.67	June 11	31.60	Oct. 16	34.26		

101 (*1018, p. 53; 1025, p. 52; 1073, p. 47). D. Converse. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 19 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	24.49	Apr. 16	24.64	Aug. 26	24.08	Nov. 16	24.62
Feb. 19	24.49	May 12		Oct. 16	24.66	Dec. 8	24.70
Mar. 18	24.45	June 11	24.00				

103 (*1018, p. 53; 1025, p. 52; 1073, p. 48). F. Konareck. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 17 S., R. 12 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	6.14	Apr. 16	3.93	July 10	4.33	Nov. 16	5.89
Feb. 19	6.06	May 12	4.64	Aug. 26	5.20	Dec. 9	5.84
Mar. 18	5.32	June 11	2.63	Oct. 16	5.46		

105 (*1018, p. 53; 1025, p. 52; 1073, p. 48). Lizzie Nagel. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 18 S., R. 11 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	31.64	Mar. 18	31.66	May 12	31.62	July 10	31.54
Feb. 19	31.66	Apr. 16	31.63	June 11	31.61	Aug. 26	31.62

107 (*1018, p. 53; 1025, p. 52; 1073, p. 48). Carter Oil Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 17 S., R. 11 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	99.41	Apr. 16	99.58	July 10	98.42	Nov. 16	100.07
Feb. 19	99.57	May 12	98.73	Aug. 26	98.89	Dec. 9	100.05
Mar. 18	99.50	June 11	98.28	Oct. 16	99.03		

109 (*1018, p. 53; 1025, p. 52 ; 1073, p. 48). J. C. Cook. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 18 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	12.04	Apr. 16	10.60	July 10	10.78	Nov. 16	13.82
Feb. 19	12.84	May 12	11.20	Aug. 26	12.56	Dec. 8	13.84
Mar. 18	12.21	June 11	10.18	Oct. 16	13.65		

110 (*1018, p. 53; 1025, p. 52 ; 1073, p. 48). Prudential Life Insurance Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 17 S., R. 14 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	20.07	Apr. 16	19.30	July 10	18.76	Nov. 16	22.14
Feb. 19	19.93	May 12	19.36	Aug. 26	21.02	Dec. 9	21.79
Mar. 18	19.82	June 11	18.83	Oct. 15	22.16		

112 (*1018, p. 54; 1025, p. 53 ; 1073, p. 48). P. P. Kingston. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 16 S., R. 14 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	126.44	Apr. 16	124.88	July 10	121.60	Nov. 16	124.60
Feb. 19	125.90	May 12	121.74	Aug. 26	124.46	Dec. 9	125.14
Mar. 18	126.71	June 11	121.75	Oct. 15	124.59		

131 (*1018, p. 54; 1025, p. 53 ; 1073, p. 48). F. W. Gagleman. SE. corner sec. 22, T. 19 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	13.36	Apr. 16	13.27	July 11	12.03	Nov. 16	14.38
Feb. 19	13.31	May 12	12.67	Aug. 26	13.54	Dec. 8	14.50
Mar. 18	13.20	June 11	12.33	Oct. 16	14.36		

Bourbon County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 2 wells in Bourbon County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	6	130.25	Mar. 29, 1946	136.27	Feb. 20, 1947
2	6	55.90	July 29, 1942	64.92	Feb. 20, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1946 and for period of record, in 2 wells in Bourbon County

Well	Difference between highest and lowest levels	Net decline in 1947	Net decline for period of record
1	6.02	6.02	5.97
2	9.02	1.94	9.02

1 (*946, p. 73; *988, p. 65; 1018, p. 54; 1025, p. 53 ; 1073, p. 49). City of Fort Scott. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 25 S., R. 25 E. Water level, in feet below land-surface datum, 1947: Feb. 20, 136.27.

2 (*946, p. 73; *988, p. 65; 1018, p. 54; 1025, p. 53 ; 1073, p. 49). City of Fort Scott. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 25 S., R. 25 E. Water level, in feet below land-surface datum, 1947: Feb. 20, 64.92.

Brown County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Brown County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	4	13.50	Dec. 1, 1947	27.20	Sept. 30, 1947
3	4	6.60	June 30, 1945	18.90	Aug. 31, 1944 Nov. 30, 1944 Dec. 30, 1946
4	4	14.90	June 30, 1945	30.10	Mar. 31, 1947
5	4	8.60	May 31, 1944	28.80	Mar. 31, 1947
6	4	18.20	Dec. 1, 1947	29.90	June 29, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Brown County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	13.70	+11.70	+8.42
3	12.30	+1.50	-.30
4	15.20	-1.90	+1.05
5	20.20	+4.40	+13.54
6	11.70	+10.20	+2.84

1 (*1025, p. 55 ; 1073, p. 49). City of Hiawatha. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 2 S., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	24.40	Apr. 30	24.70	July 31	25.40	Oct. 30	25.80
Feb. 28	25.40	May 31	24.80	Aug. 30	26.30	Dec. 1	13.50
Mar. 31	25.00	July 1	25.60	Sept. 30	27.20		

3 (*1025, p. 55 ; 1073, p. 50). City of Hiawatha. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 2 S., R. 16 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	18.00	Apr. 30	18.20	July 31	7.90	Oct. 30	15.00
Feb. 28	18.00	May 31	18.50	Aug. 30	13.60	Dec. 1	17.40
Mar. 31	17.10	July 1	17.20	Sept. 30	14.20		

4 (*1025, p. 55 ; 1073, p. 50). City of Hiawatha. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 2 S., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	21.00	July 1	28.90	Aug. 30	26.80	Oct. 30	22.90
Feb. 28	26.10	July 31	25.30	Sept. 30	23.40	Dec. 1	22.90
Mar. 31	30.10						

5 (*1025, p. 55 ; 1073, p. 50). City of Hiawatha. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 2 S., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	15.00	Apr. 30	27.60	July 31	17.50	Oct. 30	18.10
Feb. 28	14.90	May 31	25.60	Aug. 30	18.70	Dec. 1	12.00
Mar. 31	28.80	July 1	23.10				

6 (*1025, p. 56 ; 1073, p. 50). City of Hiawatha. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 2 S., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	29.40	Apr. 30	29.90	July 31	25.50	Oct. 30	20.70
Feb. 28	29.50	May 31	29.30	Aug. 30	26.70	Dec. 1	18.20
Mar. 31	30.60	July 1	25.70	Sept. 30	23.90		

Clark County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 4 wells in Clark County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
5	7	25.68	Nov. 26, 1942	29.36	June 5, 1946
7	7	5.34	Sept. 17, 1947	36.01	Sept. 27, 1946
10	7	14.55	May 8, 1942	17.63	Sept. 27, 1946
12	7	67.02	Nov. 26, 1942	68.59	Oct. 21, 1941

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 4 wells in Clark County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) levels	Net rise (+) or net decline (-) for period of record
5	3.48	+0.75	+0.24
7	30.67	+29.25	+30.41
10	3.08	-1.17	-.30
12	1.57	-5.96	-5.85

5 (*908, p. 42; 938, p. 56; 946, p. 75; *988, p. 67; 1018, p. 55; 1025, p. 56; 1073, p. 50). Winnie Floyd. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 33 S., R. 25 W. Water levels, in feet below land-surface datum, 1947: Mar. 25, 28.61; June 19, 28.49; Sept. 16, 28.49.

7 (*908, p. 42; 938, p. 56; 946, p. 75; *988, p. 67; 1018, p. 55; 1025, p. 56; 1073, p. 50). M. C. Harper. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 33 S., R. 21 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 26.24; Sept. 17, 5.34.

10 (*908, p. 42; 938, p. 56; 946, p. 76; *988, p. 67; 1018, p. 55; 1025, p. 56; 1073, p. 51). J. F. Folks Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 32 S., R. 23 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 17.18; June 19, 16.64. Measurements discontinued Dec. 16, 1947.

12 (*908, p. 42; 938, p. 57; 946, p. 76; *988, p. 67; 1018, p. 55; 1025, p. 56; 1073, p. 51). Ralph Gardner. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 33 S., R. 24 W. Water levels, in feet below land-surface datum, 1947: Mar. 25, 68.23; June 19, 68.01; Sept. 17, 67.90; Dec. 16, 74.05.

Comanche County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Comanche County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	38.55	Aug. 31, 1944	40.52	June 20, 1941
7	7	36.00	May 27, 1942	38.53	Jan. 22, 1941
9	7	85.44	Sept. 17, 1947	98.30	Dec. 20, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Comanche County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
1	1.99	-0.40	1.18
7	22.53	+4.49	13.87
9	12.86	+12.86	3.50

1 (*908, p. 43; 938, p. 58; 946, p. 77; *988, p. 68; 1018, p. 56; 1025, p. 57; 1073, p. 51). A. A. Carpenter. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 33 S., R. 20 W. Water levels, in feet below land-surface datum, 1947: Mar. 28, 39.29; June 19, 38.92; Sept. 17, 38.91; Dec. 16, 38.99.

7 (*908, p. 44; 938, p. 58; 946, p. 77; *988, p. 69; 1018, p. 56; 1025, p. 57; 1073, p. 51). W. D. Aitken. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 34 S., R. 17 W. No measurements made in 1947.

9 (*908, p. 44; 938, p. 58; 946, p. 77; *988, p. 69; 1018, p. 56; 1025, p. 57; 1073, p. 51). H. R. Burnette. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 32 S., R. 17 W. Water levels, in feet below land-surface datum, 1947: Mar. 26, 88.04; June 19, 88.55; Sept. 17, 85.44.

Cowley County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Cowley County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	4.5	11.99	Jan. 2, 1945	27.31	June 1, 1946
2	4	16.19	July 5, 1947	22.86	Feb. 8, 1947
40	3.5	10.82	May 16, 1945	16.06	Feb. 8, 1947
41	3.5	10.15	Jan. 2, 1945	14.54	July 6, 1944
42	3.5	25.23	June 28, 1947	28.98	Aug. 30, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Cowley County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net decline for period of record
1	15.32	+11.93	-0.86
2	6.67	-4.18	-6.45
40	5.24	+1.56	-3.53
41	4.39	-.55	-.69
42	3.75	+5.1	-.18

1 (*1018, p. 56; 1025, p. 57; 1073, p. 52). City of Winfield well 2 east SW corner SE $\frac{1}{4}$ sec. 18, T. 32 S., R. 3 E.

Water level in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.58	Mar. 1	17.66	May 7	14.69	June 28	12.70
Feb. 8	17.62	Apr. 5	14.82	29	14.51		

2. U. S. Army and Fairchild Aircraft Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 33 S., R. 4 E. (Strother Field well 5). Used drilled well. Diameter 12 inches, depth 41.0 feet. Measuring point, hole in pump base, at land-surface datum. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	18.81	Mar. 1	18.99	May 29	21.26
Feb. 8	22.86	Apr. 5	22.39	July 5	16.19

40 (*1018, p. 57; 1025, p. 58; 1073, p. 52). City of Winfield. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 32 S., R. 3 E.

Water level in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.02	Mar. 1	17.49	May 7	14.33	June 28	11.53
Feb. 8	16.06	Apr. 5	14.46	29	14.26		

41 (*1018, p. 57; 1025, p. 58 ; 1073, p. 52). City of Winfield.
NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 32 S., R. 3 E. No measurements made in 1947.

42 (*1018, p. 57; 1025, p. 58 ; 1073, p. 52). Geol. Survey, U. S.
Dept. of Interior. SW. corner sec. 21, T. 32 S., R. 3 E.

Water level in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	26.80	Mar. 1	26.93	May 7	26.30	June 28	25.23
Feb. 8	26.81	Apr. 5	26.67	29	26.16	Oct. 3	26.28

Crawford County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Crawford County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	6	1.06	Oct. 29, 1945	9.12	Aug. 25, 1943
24	6	262.10	Sept. 10, 1942	271.08	Feb. 20, 1947
88	4	219.56	Jan. 24, 1944	230.39	Aug. 31, 1945

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Crawford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net decline for period of record
1	8.06	-2.07	1.76
24	7.44	-1.54	7.57
88	10.83	+3.3	4.33

1 (*946, p. 78; *988, p. 69; 1018, p. 57; 1025, p. 58 ; 1073, p. 53).
John P. Biddle. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 31 S., R. 25 E. No measurements made in 1947.

24 (*946, p. 78; *988, p. 70; 1018, p. 57; 1025, p. 58 ; 1073, p. 53).
City of Girard. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 29 S., R. 23 E. Water level, in feet below land-surface datum, 1947: Feb. 20, 271.08.

88 (*1018, p. 57; 1025, p. 58; 1073, p. 53). Kansas City Railway Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 30 S., R. 25 E. No measurements made in 1947.

Edwards County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Edwards County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	3.5	5.93	Apr. 16, 1947	7.97	Sept. 13, 1946
2	3.5	a .80	Nov. 15, 1946	3.50	Feb. 14, 1945
10	3.5	63.42	July 2, 1947	68.20	Mar. 13, 1946

a Above land-surface datum.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Edwards County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	2.04	-0.65	-1.20
2	4.30	+5.4	+3.66
10	4.78	-.64	-.46

1 (*1018, p. 58; 1025, p. 59; 1073, p. 53). Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 24 S., R. 19 W., north well of a battery of 3 wells.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	6.70	Apr. 16	5.93	July 13	6.29	Nov. 15	7.59
Feb. 18	6.70	June 12	7.00	Aug. 6	6.53	Dec. 12	7.35
Mar. 17	6.67	July 2	6.20	Oct. 16	7.54		

2 (*1018, p. 58; 1025, p. 59; 1073, p. 53). Owner unknown. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 24 S., R. 18 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	0.25	Apr. 16	0.10	July 13	0.14	Nov. 15	a 0.48
Feb. 18	.41	June 12	a .78	Aug. 27	a .65	Dec. 19	a .49
Mar. 17	.21	July 2	a .80	Oct. 16	a .44		

a Above land-surface datum.

10 (*1018, p. 58; 1025, p. 59; 1073, p. 54). Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 23 S., R. 19 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	64.62	Apr. 17	64.53	July 13	64.60	Oct. 9	64.28
Feb. 18	64.56	June 12	63.45	Aug. 27	64.28	Nov. 15	65.26
Mar. 17	64.42	July 2	63.42				

Ellis County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 2 wells in Ellis County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
215	6	13.14	July 11, 1945	17.70	Oct. 15, 1947
218	6	13.00	Sept. 7, 1944	54.67	Dec. 22, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 2 wells in Ellis County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
215	4.56	-0.94	-3.38
218	41.67	+8.25	+16.36

215 (*938, p. 60; 946, p. 70; *988, p. 71; 1018, p. 59; 1025, p. 60; 1073, p. 54). A. H. Romine. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 11 S., R. 16 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 16.83; Apr. 3, 16.19; July 10, 15.10; Oct. 15, 17.70.

218 (*938, p. 60; 946, p. 80; *988, p. 71; 1018, p. 59; 1025, p. 60; 1073, p. 54). W. W. Bemis. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 12 S., R. 17 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 45.90; Apr. 3, 38.46; July 10, 17.55; Oct. 15, 37.58.

Smoky Hill Valley

By D. W. Berry

As part of the Cedar Bluff Reservoir Project, the Federal Geological Survey, in cooperation with the Bureau of Reclamation, organized, in May 1942, an observation well program consisting of 14 wells in the valleys

and adjacent uplands of the Big Creek and Smoky Hill River. These wells tap either the Niobrara formation of the uplands or the alluvium of the valley.

Periodic measurements of the water levels in the 14 wells by the wetted-tape method were started in May 1947, and 81 measurements, in all, were made during the year.

14-16-17cb. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 14 S., R. 16 W. Dug stock well, diameter 60 inches, depth 24.0 feet. Measuring point, top of board platform, 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	18.82	Sept. 11	19.17	Oct. 29	19.54
July 23	18.05	Oct. 8	19.54	Dec. 12	19.39

14-16-36bb. Tony Wagner. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 14 S., R. 16 W. Dug stock well, diameter 48 inches, depth 28.8 feet. Measuring point, top of platform south side, 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	21.74	Sept. 11	19.92	Oct. 29	19.76
July 23	19.69	Oct. 8	19.90	Dec. 12	19.77

14-18-12bb. J. Brull. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 14 S., R. 18 W. Dug domestic and stock well, diameter 48 inches, depth 31.1 feet. Measuring point, top of stone platform, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	25.02	Sept. 11	26.03	Oct. 29	25.85
July 23	25.09	Oct. 8	26.39	Dec. 12	25.00

14-18-26aa. F. J. Befort. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 14 S., R. 18 W. Dug domestic and stock well, diameter 48 inches, depth 24.5 feet. Measuring point, top of manhole west side, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	19.29	Sept. 11	19.71	Oct. 29	20.60
July 23	18.03	Oct. 8	20.30		

14-20-35dd. F. A. Pfannenstiel. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 14 S., R. 20 W. Dug domestic well, diameter 72 inches, depth 20.1 feet. Measuring point, top of platform, 0.6 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	15.65	Sept. 11	15.15	Oct. 29	15.40
July 23	14.93	Oct. 8	15.30	Dec. 12	15.61

15-16-6dd. Ted Thalen. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 15 S., R. 16 W. Dug domestic and stock well, diameter 54 inches, depth 29.55 feet. Measuring point, top of 2- by 4 at manhole, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	22.17	Sept. 11	23.62	Oct. 29	23.64
July 23	22.58	Oct. 8	23.82	Dec. 12	23.06

15-16-13bb. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 15 S., R. 16 W. Dug domestic and stock well, diameter 48 inches, depth 17.5 feet. Measuring point, top of platform, east side, 0.8 foot above land-surface datum.

15-16-13bb--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 10	14.35	Sept. 11	14.21	Oct. 29	14.30
July 23	14.17	Oct. 8	14.26	Dec. 12	14.40

15-17-19ab. Liker. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 15 S., R. 17 W. Drilled well, diameter 6 inches, depth 246.8 feet. Measuring point, top of casing, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	139.78	Sept. 11	139.80	Oct. 29	139.96
July 23	139.69	Oct. 8	140.00	Dec. 12	87.50

15-17-25cb. George Meder. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 15 S., R. 17 W. Dug domestic well, diameter 48 inches, depth 15.2 feet. Measuring point, top of platform at manhole, at land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	12.06	Sept. 11	11.56	Oct. 29	11.67
July 23	11.52	Oct. 8	11.64	Dec. 12	11.76

15-18-1bb. Mat Rohr. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 15 S., R. 18 W. Dug stock well, diameter 36 inches, depth 33.3 feet. Measuring point, pump base, south side, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	20.66	Sept. 11	20.27	Oct. 29	21.36
July 23	19.67	Oct. 8	20.96	Dec. 12	20.28

15-18-16bb. T. W. Wolf. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 15 S., R. 18 W. Dug domestic and stock well, diameter 48 inches, depth 16.4 feet. Measuring point, top of curb, east side, 2.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	6.84	Sept. 11	8.24	Oct. 29	9.25
July 23	5.62	Oct. 8	9.06	Dec. 12	9.17

15-19-6aa. Aug Leiker. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 15 S., R. 19 W. Drilled well, diameter 6 inches, depth 55.4 feet. Measuring point, top of casing, 4.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	52.25	Sept. 11	52.25	Oct. 29	52.23
July 23	52.33	Oct. 8	52.25	Dec. 12	52.18

15-19-13ab. Pete Wolfe. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 15 S., R. 19 W. Dug stock well, diameter 36 inches, depth 13.0 feet. Measuring point, opening in board curb, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: May 10, 8.80; July 23, 6.08; Sept. 11, 7.73; Oct. 8, 9.30.

15-19-35aa. J. Zimmerman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 15 S., R. 19 W. Drilled stock well, diameter 6 inches, depth 150.3 feet. Measuring point, top of casing, north side, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 10	59.52	Sept. 11	59.89	Oct. 29	59.78
July 23	59.65	Oct. 8	59.94	Dec. 12	59.67

Finney County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 12 wells in Finney County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	11.5	5.00	June 1, 1947	11.46	Mar. 8, 1941
2	8	105.33	June 27, 1944	109.82	Oct. 25, 1943
5	8	19.74	June 6, 1947	22.54	Jan. 28, 1940
6	8	15.25	June 21, 1940	20.82	June 22, 1946
7	8	77.20	Aug. 28, 1947	78.79	Sept. 13, 1944
8	8	74.03	Aug. 14, 1946	75.25	June 21, 1940
13	8	.76	May 5, 1942	4.63	Sept. 23, 1939
15	8	8.31	Apr. 25, 1947	14.40	Sept. 20, 1940
17	8	.71	May 5, 1942	7.81	Oct. 26, 1939
23	8	40.73	July 31, 1947	45.30	Feb. 17, 1940
26	8	67.43	July 31, 1947	71.60	Apr. 24, 1941
1002	5	111.51	May 25, 1945	117.46	Jan. 23, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 12 wells in Finney County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	6.46	-0.92	+2.41
2	4.49	-.42	+2.96
5	2.80	+.07	+2.53
6	5.57	-1.19	-2.56
7	1.59	+.49	+.89
8	1.22	+.16	+1.28
13	3.87	-2.15	+1.39
15	6.09	-1.72	+3.43
17	7.10	-.18	+5.40
23	4.57	(a)	+3.96
26	4.17	+1.21	+3.97
1002	5.95	+1.33	-13.33

a No measurements made in 1947.

1 (*886, p. 139; 908, p. 49; 938, p. 62; 946, p. 82; *988, p. 72; 1018, p. 60; 1025, p. 61; 1073, p. 55). Mrs. A. M. Reid. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 24 S., R. 33 W.

Mean daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.89	5.92	5.95	5.70	5.63	5.00	5.45	5.75	6.35	6.65	6.99	6.95
2	5.92	5.89	5.93	5.69	5.63	5.03	5.46	5.73	6.37	6.58	6.98	6.95
3	5.95	5.90	5.92	5.67	5.67	....	5.46	5.67	6.31	6.56	6.98	6.95
4	5.92	5.93	5.92	5.67	5.62	....	5.47	5.67	6.24	6.58	6.98	6.94
5	5.92	5.93	5.95	5.70	5.62	....	5.50	5.71	6.23	6.61	6.98	6.94
6	5.93	5.87	5.97	5.75	5.63	....	5.52	5.73	6.21	6.66	6.97	6.92
7	5.94	5.89	5.96	5.75	5.63	....	5.53	5.76	6.23	6.70	7.00	6.92
8	5.95	5.91	5.95	5.75	5.63	....	5.55	5.78	6.28	6.73	7.00	6.93
9	5.95	5.92	5.95	5.72	5.64	....	5.54	5.81	6.32	6.74	6.98	6.93
10	5.92	5.90	5.95	5.71	5.63	....	5.53	5.85	6.36	6.75	6.99	6.94
11	5.90	5.90	5.93	5.74	5.64	....	5.53	5.88	6.41	6.76	6.99	6.93
12	5.88	5.92	5.93	5.76	5.64	....	5.55	5.93	6.44	6.78	7.00	6.93
13	5.84	5.91	5.92	5.75	5.66	....	5.56	5.97	6.45	6.78	6.99	6.92
14	5.88	5.92	5.89	5.73	5.66	....	5.58	6.01	6.50	6.77	6.96	6.89
15	5.88	5.91	5.86	....	5.43	....	5.59	6.05	6.52	6.73	6.98	6.90
16	5.91	5.90	5.80	....	5.10	5.30	5.60	6.08	6.55	6.74	6.98	6.90
17	5.90	5.89	5.78	5.67	5.10	5.31	5.63	6.12	6.56	6.77	6.91	6.89
18	5.89	5.91	5.73	5.64	....	5.38	5.65	6.15	6.60	6.80	6.98	6.89
19	5.85	5.89	5.71	5.66	....	5.29	5.65	6.18	6.62	6.82	6.97	6.89
20	5.89	5.90	5.70	5.66	....	5.26	5.67	6.20	6.64	6.84	6.96	6.90

1--Continued.

Mean daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	5.91	5.90	5.69	5.64	....	5.27	5.69	6.19	6.66	6.85	6.97	6.86
22	5.89	5.90	5.66	5.63	....	5.33	5.70	6.22	6.67	6.86	6.97	6.86
23	5.87	5.92	5.65	5.65	....	5.33	5.71	6.22	6.69	6.89	6.96	6.87
24	5.87	5.93	5.69	5.66	....	5.33	5.72	....	6.71	6.91	6.96	6.88
25	5.88	5.93	5.70	5.66	....	5.34	5.73	....	6.73	6.93	6.96	6.88
26	5.86	5.94	5.73	5.65	....	5.34	5.75	6.25	6.74	6.92	6.96	6.86
27	5.88	5.91	5.69	5.62	....	5.36	5.77	6.27	6.75	6.94	6.97	6.85
28	5.84	5.90	5.68	5.60	....	5.37	5.78	6.28	6.77	6.94	6.97	6.84
29	5.83		5.70	5.59	....	5.40	5.78	6.30	6.78	6.95	6.98	6.82
30	5.88		5.73	5.59	....	5.43	5.75	6.32	6.77	6.96	6.97	6.84
31	5.89		5.73		....		5.74	6.33		6.98		6.84

2 (*886, p. 141; 908, p. 49; 938, p. 62; 946, p. 82; *988, p. 73; 1018, p. 60; 1025, p. 61; 1073, p. 55). Maggie B. Smith. NE $\frac{1}{4}$ corner NW $\frac{1}{4}$ sec. 30, T. 26 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 105.93; May 6, 106.39; Aug. 28, 106.20.

5 (*886, p. 142; 908, p. 49; 938, p. 63; 946, p. 82; *988, p. 73; 1018, p. 60; 1025, p. 62; 1073, p. 55). E. Alberta Reeves. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 21 S., R. 32 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	20.05	Apr. 4	19.83	July 9	19.79	Oct. 14	19.94
Feb. 6	19.97	May 2	19.79	Aug. 5	19.99	Nov. 19	19.93
Mar. 5	19.97	June 6	19.74	Sept. 5	20.06	Dec. 11	19.92

6 (*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 82; *988, p. 73; 1018, p. 61; 1025, p. 62; 1073, p. 56). T. E. Meakel. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 21 S., R. 29 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	18.35	May 2	18.21	Aug. 5	17.91	Nov. 4	19.66
Feb. 18	18.26	June 10	17.61	Oct. 8	18.75	Dec. 8	18.70
Mar. 17	18.18	July 11	17.80				

7 (*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62; 1073, p. 56). Marion Russell. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 26 S., R. 33 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 77.44; May 6, 77.54; Aug. 28, 77.20.

8 (*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62; 1073, p. 56). O. G. Reeve. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 25 S., R. 33 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 74.11; May 6, 74.30; Aug. 28, 74.15; Nov. 23, 73.76.

13 (*886, p. 143; 908, p. 50; 938, p. 64; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62; 1073, p. 56). Edwin Wehrley. NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 25 S., R. 31 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	1.82	Apr. 24	2.00	July 23	1.82	Oct. 20	3.61
Feb. 20	1.88	May 13	2.34	Aug. 6	2.73	Nov. 29	3.25
Mar. 31	1.50	June 10	2.37	Sept. 16	1.50	Dec. 10	3.24

15 (*886, p. 143; 908, p. 51; 938, p. 64; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62; 1073, p. 56). Floyd A. Edwards. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 24 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.27	Apr. 25	8.31	Aug. 25	9.54	Nov. 25	9.82
Feb. 25	8.60	May 25	7.74	Sept. 20	10.31	Dec. 25	10.43
Mar. 25	8.39	July 25	8.57	Oct. 25	10.15		

17 (*886, p. 144; 908, p. 51; 938, p. 64; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62; 1073, p. 56). SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 24 S., R. 33 W. Water levels, in feet below land-surface datum, 1947: Jan. 17, 2.30; Feb. 21, 2.33. Measurements discontinued Feb. 21, 1947.

23 (*886, p. 144; 908, p. 51; 938, p. 65; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62; 1073, p. 56). J. E. Ely. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 23 S., R. 32 W. Measurements resumed Apr. 27, 1947. Water levels, in feet below land-surface datum, 1947: Apr. 27, 41.31; July 31, 40.73; Oct. 14, 41.23.

26 (*886, p. 145; *908, p. 52; 938, p. 65; 946, p. 85; *988, p. 74; 1018, p. 61; 1025, p. 62; 1073, p. 56). Garden City Experiment Station. SW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 24 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Jan. 22, 68.21; Apr. 9, 67.82; July 31, 67.43; Oct. 14, 68.38.

1002 (*946, p. 85; *988, p. 74; 1018, p. 61; 1025, p. 63; 1073, p. 57). U. S. Army. SW $\frac{1}{4}$ sec. 27, T. 24 S., R. 31 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	113.73	Apr. 24	113.55	Sept. 16	113.63	Nov. 15	114.64
Feb. 20	113.70	May 29	112.63	Oct. 28	113.01	Dec. 11	112.53
Mar. 27	113.92	July 31	114.64				

Ford County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 14 wells in Ford County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
8	9	0.86	May 13, 1942	8.17	Nov. 7, 1939
11	9	7.69	June 3, 1942	12.31	Jan. 24, 1940
38	9	26.73	Jan. 9, 1946	42.08	May 16, 1940
41	9	44.10	July 7, 1945	46.53	July 1, 1939
57	9	4.74	May 15, 1942	13.88	Oct. 26, 1947
59	9	14.12	July 17, 1947	26.98	Aug. 9, 1946
65	9	14.61	May 13, 1942	17.81	Sept. 13, 1946
79C	9	13.25	July 2, 1942	20.19	Sept. 13, 1946
96	9	6.32	Apr. 19, 1945	10.22	Sept. 5, 1939
237	9	83.72	May 25, 1943	86.42	Nov. 8, 1939
343	9	75.58	July 17, 1947	77.25	July 11, 1946
1002	5	101.94	Dec. 10, 1947	1184.09	Nov. 26, 1942
1003	5	94.35	July 4, 1944	109.52	Aug. 19, 1943
1004	5	98.12	Aug. 6, 1947	198.59	Dec. 10, 1947

a Pumping.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 14 wells in Ford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
8	7.31	-1.01	-0.01
11	4.62	+ .55	+ .95
38	15.35	-.03	+4.90
41	2.43	+ .53	+1.35
57	9.14	-.61	-.04
59	12.86	-6.50	-5.19
65	3.20	+ .96	+1.26
79C	6.94	+ .36	-.73
96	3.90	+ .04	+ .92
237	2.70	-.07	+ .10
343	1.67	+1.34	+ .50
1002	82.15	+3.04	+1.74
1003	15.17	+ .97	+2.11
1004	100.47	-99.09	-99.36

8 (*845, p. 96; 886, p. 151; 908, p. 57; 938, p. 67; 946, p. 86; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). F. H. Diehl. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 26 S., R. 25 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 5.64; Apr. 17, 5.30; July 17, 4.55; Oct. 28, 6.40.

11 (*845, p. 96; 886, p. 151; 908, p. 58; 938, p. 67; 946, p. 86; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). George W. Molitor. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 21 S., R. 21 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 11.09; Apr. 17, 10.74; July 17, 10.53; Oct. 28, 10.83.

38 (*845, p. 95; 886, p. 159; 908, p. 56; 936, p. 67; 946, p. 86; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). F. Buns. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 26 S., R. 24 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 36.72; Apr. 25, 36.08; July 17, 35.94; Oct. 16, 36.53.

41 (*845, p. 96; 886, p. 150; 908, p. 57; 938, p. 67; 946, p. 87; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). J. J. Burghardt. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 25 S., R. 21 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 45.19; Apr. 17, 46.06; July 17, 44.88; Oct. 28, 44.70.

57 (*845, p. 98; 886, p. 153; 908, p. 58; 938, p. 67; 946, p. 87; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). Andrew Bogner. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 26 S., R. 26 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	7.58	Apr. 17	6.87	July 17	6.10	Nov. 15	13.77
Feb. 20	7.25	May 13	6.91	Aug. 6	6.50	Dec. 10	7.80
Mar. 27	7.18	June 20	6.43	Oct. 26	13.88		

59 (*945, p. 98; 886, p. 153; 906, p. 58; 938, p. 67; 946, p. 87; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). Ward Byers. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 25 S., R. 26 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	15.28	Apr. 17	14.89	June 20	14.53	Aug. 6	a 21.65
Feb. 20	15.29	May 13	15.09	July 17	14.12	Sept. 18	21.85
Mar. 27	15.18						

a Pumped in past few days.

65 (*845, p. 98; 886, p. 154; 908, p. 59; 938, p. 67; 946, p. 87; *988, p. 76; 1018, p. 63; 1025, p. 64; 1073, p. 58). John N. Clark. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 26 S., R. 25 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	16.46	Apr. 17	16.20	July 17	15.66	Nov. 15	14.68
Feb. 14	16.70	May 13	16.57	Sept. 18	17.19	Dec. 10	15.63
Mar. 27	16.69	June 13	15.62	Oct. 28	16.04		

79C (*845, p. 99; 886, p. 155; 908, p. 59; 939, p. 68; 946, p. 87; *988, p. 77; 1018, p. 63; 1025, p. 64; 1073, p. 58). O. N. Nevins. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 26 S., R. 24 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	19.28	Apr. 17	19.15	July 17	18.73	Oct. 28	19.34
Feb. 20	19.82	May 13	19.01	Aug. 6	b 18.81	Nov. 15	19.42
Mar. 27	a 19.34	June 20	18.76	Sept. 11	19.26	Dec. 10	19.25

a New irrigation well 150 feet north.

b Nearby well pumping.

96 (*845, p. 99; 886, p. 155; 908, p. 60; 938, p. 68; 946, p. 87; *988, p. 77; 1018, p. 63; 1025, p. 64; 1073, p. 58). Henry Hattrup. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 26 S., R. 21 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 8.37; Apr. 17, 7.45; July 17, 8.22; Oct. 28, 8.74.

237 (*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88; *988, p. 77; 1018, p. 63; 1025, p. 64; 1073, p. 58). Atchison, Topeka & Santa Fe Railway Co. NW $\frac{1}{4}$ sec. 28, T. 25 S., R. 22 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 85.82; Apr. 16, 85.63; July 17, 85.69; Oct. 16, 85.89.

343 (*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 64; 1073, p. 59). B. A. Schuette. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 26 S., R. 26 W. Water levels, in feet below land-surface datum, 1947: Jan. 24, 76.92; Apr. 17, 76.02; July 17, 75.58.

1002 (*946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 65; 1073, p. 59). U. S. Army. SE $\frac{1}{4}$ sec. 12, T. 26 S., R. 25 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27	106.10	July 23	104.26	Sept. 11	104.53	Nov. 15	104.53
Apr. 17	105.66	Aug. 6	104.45	Oct. 27	103.82	Dec. 10	101.94
June 20	104.33						

1003 (*946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 65; 1073, p. 59). U. S. Army. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 26 S., R. 26 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 20	102.21	May 29	102.92	Aug. 6	102.04	Nov. 15	103.05
Mar. 27	102.63	June 20	101.94	Sept. 11	102.14	Dec. 10	101.36
Apr. 17	102.03	July 23	101.84	Oct. 27	101.47		

1004 (*946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 65; 1073, p. 59). U. S. Army. Center of NE $\frac{1}{4}$ sec. 13, T. 26 S., R. 26 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27	99.51	June 20	99.00	Sept. 11	99.37	Nov. 15	98.97
Apr. 17	99.18	July 23	98.88	Oct. 27	98.65	Dec. 10	198.59
May 29	99.20	Aug. 6	98.12				

Grant County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 9 wells in Grant County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	31.96	June 18, 1947	45.06	Sept. 16, 1941
4	7	84.26	Mar. 24, 1945	87.52	May 14, 1941
5	7	64.77	Feb. 15, 1946	67.00	Dec. 28, 1943
7	7	81.04	Aug. 13, 1947	82.76	May 14, 1941
8	7	57.43	Nov. 21, 1946	59.56	Apr. 21, 1944
11	7	45.99	May 10, 1945	47.72	Oct. 20, 1947
13	7	104.64	Nov. 21, 1946	106.58	July 14, 1941
14	7	128.66	May 7, 1947	130.47	May 30, 1941
400	3	52.78	Feb. 28, 1945	55.77	Oct. 5, 1947
					6, 1947
					7, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record in 9 wells in Grant County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	13.10	+0.13	+2.39
4	3.26	-.13	+2.31
5	2.23	-.32	+.52
7	1.72	-35.56	-35.35
8	2.21	-.64	+.96

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record in 9 wells in Grant County--Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
11	1.73	-0.77	+0.02
13	1.94	-.41	+1.50
14	1.81	-.61	+.75
400	2.99	-.81	-1.71

1 (*938, p. 69; 946, p. 89; *988, p. 78; 1018, p. 65; 1025, p. 66; 1073, p. 60). F. C. Williams. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 27 S., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	41.39	Apr. 10	41.72	June 18	31.96	Aug. 13	41.93
Feb. 12	42.17	May 7	42.17	July 24	42.08	Oct. 20	42.14
Mar. 7	41.96						

4 (*938, p. 70; 946, p. 89; *988, p. 78; 1018, p. 65; 1025, p. 66; 1073, p. 60). F. J. Andes. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 27 S., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	85.08	Apr. 10	85.10	June 18	85.12	Nov. 25	85.21
Mar. 7	84.81	May 7	85.06	July 24	85.16		

5 (*938, p. 70; 946, p. 89; *988, p. 70; 1018, p. 65; 1025, p. 66; 1073, p. 60). C. L. Jury. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 27 S., R. 37 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 66.06; May 7, 65.92; Aug. 13, 66.02; Nov. 25, 66.48.

7 (*938, p. 70; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66; 1073, p. 60). Ethel W. Hoffman. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 28 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 13, 81.30; Aug. 13, 81.04; Nov. 25, 81.18.

8 (*938, p. 70; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66; 1073, p. 60). E. O. Stuart. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 29 S., R. 35 W. Water levels, in feet below land-surface datum, 1947: Feb. 13, 57.35; May 7, 57.94; Aug. 14, 58.88; Nov. 25, 58.07.

11 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66; 1073, p. 60). J. A. Hoffman. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 28 S., R. 38 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	46.17	Apr. 10	46.10	July 24	46.33	Nov. 25	47.19
Feb. 12	46.17	May 7	46.14	Aug. 13	46.43	Dec. 12	47.21
Mar. 7	46.11	June 18	46.18	Oct. 20	47.72		

13 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66; 1073, p. 60). Fred Powell. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 29 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 13, 104.67; May 7, 104.69; Aug. 13, 104.69; Nov. 25, 105.05.

14 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66; 1073, p. 60). Mr. Hall. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 28 S., R. 26 W. Water levels, in feet below land-surface datum, 1947: Feb. 13, 128.88; May 7, 128.66; Nov. 25, 129.72.

400 (*1018, p. 66; 1025, p. 67; 1073, p. 60). Division of Water Resources, Kansas State Board of Agriculture. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 28 S., R. 38 W.

400--Continued.

Mean daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	54.20	54.28	54.28	.....	54.36	54.35	54.78	55.11	55.60	55.73	55.61	55.16
2	54.23	54.25	54.26	.....	54.38	54.36	54.81	55.14	55.61	55.74	55.62	55.16
3	54.22	54.27	54.24	.....	54.38	54.35	54.84	55.18	55.63	55.74	55.52	55.15
4	54.19	54.29	54.25	.....	54.41	54.35	54.87	55.21	55.63	55.76	55.52	55.14
5	54.19	54.26	54.27	.....	54.42	54.36	54.90	55.23	55.63	55.77	55.51	55.13
6	54.20	54.26	54.27	.....	54.42	54.35	54.93	55.25	55.63	55.77	55.50	55.12
7	54.22	54.29	54.26	.....	54.41	54.36	54.90	55.25	55.64	55.77	55.51	55.11
8	54.23	54.30	.....	.....	54.42	54.36	54.85	55.26	55.65	55.75	55.48	55.11
9	54.21	54.30	.....	.....	54.44	54.35	54.81	55.28	55.66	55.74	55.46	55.09
10	54.19	54.27	.....	.....	54.45	54.38	54.78	55.30	55.67	55.73	55.44	55.09
11	54.19	54.28	.....	54.34	54.44	54.42	54.76	55.32	55.66	55.72	55.42	55.08
12	54.22	54.31	.....	54.35	54.42	54.43	54.73	55.33	55.67	55.72	55.40	55.07
13	54.19	54.29	.....	54.34	54.42	54.43	54.72	55.34	55.67	55.69	55.39	55.07
14	54.23	54.30	.....	54.32	54.40	54.43	54.71	55.34	55.67	55.66	55.37	55.06
15	54.23	54.28	.....	54.32	54.40	54.44	54.69	55.36	55.67	55.62	55.36	55.07
16	54.23	54.28	.....	54.32	54.40	54.46	54.69	55.37	55.67	55.69	55.35	55.06
17	54.22	54.27	.....	54.31	54.39	54.48	54.68	55.39	55.68	55.68	55.32	55.06
18	54.21	54.29	.....	54.32	54.38	54.51	54.69	55.40	55.68	55.67	55.31	55.06
19	54.18	54.27	.....	54.35	54.38	54.54	54.71	55.42	55.69	55.65	55.30	55.05
20	54.21	54.28	.....	54.34	54.38	54.54	54.77	55.43	55.69	55.65	55.28	55.05
21	54.23	54.28	.....	54.32	54.36	54.55	54.83	55.44	55.70	55.65	55.28	55.05
22	54.23	54.28	.....	54.32	54.37	54.57	54.87	55.44	55.71	55.66	55.27	55.05
23	54.22	54.28	.....	54.33	54.38	54.59	54.89	55.45	55.72	55.67	55.26	55.04
24	54.22	54.27	.....	54.35	54.38	54.60	54.91	55.45	55.72	55.68	55.25	55.05
25	54.23	54.27	.....	54.35	54.37	54.61	54.94	55.47	55.72	55.67	55.24	55.05
26	54.23	54.27	.....	54.34	54.36	54.64	54.95	55.49	55.73	55.64	55.23	55.04
27	54.24	54.24	.....	54.33	54.35	54.67	54.96	55.51	55.73	55.62	55.23	55.05
28	54.21	54.24	.....	54.32	54.35	54.69	54.99	55.52	55.73	55.61	55.21	55.03
29	54.23	.....	.....	54.32	54.37	54.72	55.02	55.54	55.73	55.61	55.19	55.03
30	54.27	.....	.....	54.33	54.36	54.75	55.06	55.56	55.73	55.49	55.18	55.04
31	54.27	.....	.....	.....	54.35	.....	55.09	55.58	.....	55.50	.....	55.04

Gray County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 7 wells in Gray County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	8	3.48	June 13, 1941	7.56	Oct. 8, 1940
3	8	162.80	Dec. 15, 1947	165.98	Aug. 18, 1943
7	8	73.47	Dec. 15, 1947	77.70	May 22, 1940
8	8	a .07	May 25, 1945	8.20	Oct. 7, 1939
11	8	57.42	Sept. 16, 1947	59.74	Aug. 18, 1943
20	8	17.55	May 15, 1942	21.53	Nov. 4, 1940
28	8	66.26	Sept. 16, 1947	80.10	Dec. 14, 1939
					Jan. 26, 1940
					July 23, 1940

a Above land-surface datum.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 7 wells in Gray County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
1	4.08	-2.12	0.45
3	3.18	+1.31	2.23
7	4.23	+1.06	4.01
8	8.27	+2.0	5.33
11	2.32	+4.0	1.19
20	3.98	-1.49	1.86
28	13.84	+1.49	13.34

1 (*886, p. 158; 908, p. 63; 938, p. 73; 946, p. 92; *988, p. 80; 1018, p. 67; 1025, p. 68; 1073, p. 61). G. A. Hard. NW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 25 S., R. 29 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	4.96	Apr. 25	4.50	July 23	4.48	Oct. 26	4.50
Feb. 20	5.20	May 13	4.55	Aug. 6	5.73	Nov. 15	6.42
Mar. 21	4.74	June 20	4.48	Sept. 16	6.45	Dec. 10	6.89

3 (*886, p. 159; 908, p. 63; 938, p. 73; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68; 1073, p. 62). N. A. Mans. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 28 S., R. 27 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 164.06; June 20, 163.86; Sept. 16, 163.33; Dec. 15, 162.80.

7 (*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68; 1073, p. 62). P. Brietenbach and others. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 26 S., R. 29 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 74.08; June 20, 73.85; Sept. 16, 73.57; Dec. 15, 73.47.

8 (*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68; 1073, p. 62). NW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 26 S., R. 28 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	3.11	Apr. 24	3.51	July 23	2.83	Oct. 26	2.72
Feb. 20	3.18	May 13	3.77	Aug. 6	2.93	Nov. 15	3.24
Mar. 21	3.33	June 20	3.26	Sept. 17	3.07	Dec. 10	2.87

11 (*886, p. 159; 908, p. 64; 938, p. 74; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68; 1073, p. 62). J. D. Wetmore. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 29 S., R. 28 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 57.70; June 20, 57.51; Sept. 16, 57.42; Dec. 15, 57.45.

20 (*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93; *988, p. 82; 1018, p. 67; 1025, p. 68; 1073, p. 62). H. E. Fischer. SE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 25 S., R. 30 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	18.48	Apr. 25	18.54	June 20	18.58	Aug. 6	18.91
Feb. 20	19.59	May 13	18.68	July 23	18.42	Sept. 16	19.54
Mar. 21	18.50						

23 (*886, p. 160; 908, p. 65; 938, p. 75; 946, p. 93; *988, p. 82; 1018, p. 67; 1025, p. 68; 1073, p. 62). Fry. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 28 S., R. 29 W., in Montezuma. Measurements discontinued Mar. 21, 1947.

28 (*886, p. 161; 908, p. 66; 938, p. 75; 946, p. 94; *988, p. 82; 1018, p. 67; 1025, p. 68; 1073, p. 62). W. H. McLaughton. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 27 S., R. 29 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 68.72; June 20, 66.42; Sept. 16, 66.26; Dec. 15, 66.72.

Hamilton County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Hamilton County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
2	8	12.84	Apr. 11, 1947	27.94	Nov. 22, 1940
3	8	11.57	July 7, 1942	14.67	Nov. 16, 1939
6	8	23.82	July 12, 1947	53.74	Nov. 16, 1939
7	8	42.25	Dec. 2, 1944	46.00	Nov. 27, 1940
16	8	84.38	Dec. 2, 1944	87.99	June 24, 1944

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Hamilton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
2	15.10	-0.26	+13.17
3	3.10	+5.53	+1.56
6	29.92	+5.37	+6.69
7	3.75	+4.44	+2.16
16	3.61	-.77	-1.25

2 (*886, p. 162; 908, p. 69; 938, p. 77; 1018, p. 68; 1025, p. 69 ; 1073, p. 63). R. Holdren. NW $\frac{1}{4}$ sec. 22, T. 23 S., R. 43 W.

Water levels, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 15	14.02	May 17	13.69	Nov. 5	13.84
Apr. 11	12.84	Aug. 20	13.98		

3 (*886, p. 162; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69 ; 1073, p. 63). B. Rees. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	13.11	Apr. 23	13.18	July 12	12.53	Oct. 17	12.06
Feb. 22	13.19	May 17	13.21	Aug. 16	12.69	Nov. 15	12.44
Mar. 8	13.10	June 20	12.71	Sept. 12	12.42	Dec. 19	12.61

6 (*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69 ; 1073, p. 63). Belle Heinlein. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 24 S., R. 39 W. Water levels, in feet below land-surface datum, 1947: Jan. 17, 51.81; Feb. 15, 51.69; Mar. 8, 51.58.

7 (*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69 ; 1073, p. 63). I. E. Martin. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 23 S., R. 40 W. Water levels, in feet below land-surface datum, 1947: Feb. 22, 43.83; May 3, 43.65; Aug. 8, 43.02; Nov. 5, 43.61.

16 (*886, p. 163; 908, p. 70; 938, p. 78; 946, p. 96; *988, p. 83; 1018, p. 68; 1025, p. 70 ; 1073, p. 63). Charles H. Miller. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 25 S., R. 39 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 84.39; Nov. 5, 86.97.

Harvey County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 25 wells in Harvey County that are not affected by pumping

Well	Length of record (years)	Highest level	Date	Lowest level	Date
72	10	13.73	May 31, 1946	25.35	Oct. 7, 1937
294	10	17.15	May 31, 1946	40.92	Apr. 3, 1938
					4, 1938
					5, 1938
325	10	5.16	May 1, 1945	13.01	June 4, 1939
701	10	30.71	May 27, 1947	44.23	Nov. 2, 1938
817	9	6.13	Apr. 20, 1945	17.12	Oct. 25, 1940
824	9	5.77	May 4, 1945	18.16	Nov. 5, 1940
831	9	11.53	May 4, 1945	20.54	Nov. 5, 1940

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 25 wells in Harvey County that are not affected by pumping--Continued

Well	Length of record (years)	Highest level	Date	Lowest level	Date
832	9	12.41	May 4, 1945	20.55	Nov. 5, 1940
833	9	5.11	Oct. 2, 1945	15.79	May 27, 1947
852	9	9.27	May 6, 1944	16.66	Nov. 5, 1940
853	9	6.03	Sept. 30, 1945	11.92	Mar. 10, 1947
854	9	5.24	Apr. 27, 1945	14.87	Nov. 1, 1940
875	9	a .98	Mar. 2, 1945	6.04	Oct. 25, 1940
876	9	21.79	Dec. 22, 1944	27.83	Nov. 8, 1940
877	9	9.95	May 6, 1945	14.95	Jan. 27, 1941
880	9	2.56	Sept. 30, 1945	8.38	Mar. 10, 1947
881	9	3.23	Sept. 30, 1945	8.44	Nov. 24, 1947
888	9	a .43	July 27, 1945	8.95	Oct. 27, 1939
889	9	.89	May 6, 1944	8.95	Oct. 7, 1946
890	9	.10	May 2, 1945	7.07	Nov. 5, 1940
891	9	a .46	May 11, 1942	4.68	Sept. 26, 1946
892	9	a 1.15	May 12, 1944	3.92	Oct. 3, 1940
893	9	a .87	May 4, 1942	3.77	Jan. 27, 1941
1174	7	2.28	May 1, 1945	10.94	Dec. 3, 1947
1187	7	3.68	May 4, 1945	10.44	Dec. 5, 1947

a Above land-surface datum.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 25 wells in Harvey County that are not affected by pumping

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
72	11.62	+1.38	+4.88
294	23.77	+1.59	+6.44
325	7.85	+ .09	+2.51
701	13.52	- .57	+7.23
817	10.99	+ .03	- .76
824	12.39	+3.97	+4.68
831	9.01	+1.98	+2.27
832	7.94	+1.55	+ .59
833	10.88	- .33	-3.51
852	7.39	+ .15	- .76
853	5.89	- .12	-2.55
854	9.63	- .12	+ .90
875	7.02	+ .15	+ .33
876	6.04	- .39	-1.51
877	5.00	- .21	+ .63
880	5.82	+ .05	-2.04
881	5.21	- .33	-2.48
888	9.38	- .98	-2.70
889	8.06	+ .07	-3.75
890	6.97	+1.03	+ .46
891	5.14	- .40	- .70
892	5.07	+ .39	+ .67
893	4.64	+ .33	+ .69
1174	8.66	-2.19	-2.16
1187	6.76	- .13	+ .17

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 104 wells in Harvey County that are pumped or affected by pumping

Well	Length of record (years)	Highest level	Date	Lowest level	Date
2	10	1.53	Apr. 20, 1945	10.17	Nov. 25, 1946
3	9	7.09	June 12, 1940	27.56	Dec. 3, 1947
66d	9	39.31	Jan. 7, 1946	61.14	Sept. 3, 1947
86	7	10.69	Apr. 28, 1944	20.66	Nov. 7, 1947
87	7	8.86	Apr. 28, 1944	32.79	Sept. 8, 1945
87a	7	9.62	Apr. 28, 1944	32.99	May 3, 1946
506	9	3.61	Apr. 28, 1944	16.67	Oct. 4, 1946
507	9	3.23	May 6, 1944	15.73	Sept. 15, 1947
821	9	12.03	Aug. 21, 1939	22.62	Dec. 29, 1947
839	9	9.62	Aug. 21, 1939	18.72	Dec. 3, 1947
872	9	17.65	Mar. 11, 1939	33.88	Apr. 1, 1947
873	9	17.61	Mar. 11, 1939	34.96	Dec. 3, 1947
874	9	20.04	May 27, 1940	45.75	July 31, 1946
878	9	16.25	June 3, 1940	31.05	Oct. 13, 1947
879	9	17.52	May 27, 1940	30.64	Sept. 1, 1947
			June 3, 1940		
883	9	13.35	Aug. 21, 1939	24.02	Apr. 1, 1947
					May 7, 1947
884	9	13.34	Aug. 21, 1939	24.09	Apr. 1, 1947
885	9	13.22	Aug. 21, 1939	24.92	Nov. 8, 1947
886	9	2.34	Aug. 21, 1939	17.89	Sept. 30, 1947
887	9	2.72	May 27, 1940	18.92	Sept. 1, 1947
894	9	9.56	May 27, 1940	23.51	Nov. 8, 1947
895	9	10.04	May 27, 1940	25.94	Sept. 2, 1947
1112	8	3.10	Apr. 1, 1947	17.89	Nov. 4, 1940
1186	7	7.23	Sept. 30, 1945	13.88	Dec. 15, 1947
1189	7	6.50	Apr. 26, 1942	11.66	Mar. 3, 1944
1192	7	14.27	May 3, 1945	17.26	Dec. 3, 1947
2072	6	27.09	May 5, 1947	37.11	May 19, 1947
2088	4	3.90	Apr. 28, 1944	8.69	Mar. 3, 1944
M-1	9	18.56	Apr. 13, 1939	74.82	Sept. 25, 1946
M-1a	9	17.47	June 3, 1940	38.70	Sept. 25, 1946
M-1b	9	15.94	June 3, 1940	36.44	Sept. 25, 1946
M-2	9	18.33	May 4, 1939	103.00	Oct. 3, 1947
M-2a	9	17.84	June 3, 1940	40.90	Sept. 9, 1940
M-2b	9	20.25	May 27, 1940	40.96	Mar. 8, 1944
M-2c	2	31.58	Feb. 6, 1946	39.76	Aug. 1, 1946
M-3	9	23.20	May 8, 1939	77.09	Jan. 7, 1947
M-3a	9	19.93	May 27, 1940	43.35	May 3, 1945
M-3b	9	23.13	May 27, 1940	47.59	May 3, 1945
M-4	9	23.12	May 27, 1940	94.63	July 10, 1947
M-4a	9	22.87	May 27, 1940	51.06	Sept. 2, 1947
M-4b	9	23.91	May 27, 1940	46.29	Sept. 2, 1947
M-5	9	20.33	May 16, 1939	96.52	Aug. 3, 1945
M-5a	9	17.79	June 3, 1940	35.56	Sept. 2, 1947
M-5b	9	17.82	May 27, 1940	43.00	Feb. 27, 1947
M-6	9	19.05	May 27, 1940	96.09	Dec. 4, 1946
M-6a	9	18.63	June 3, 1940	39.43	Dec. 3, 1947
M-6b	9	18.46	June 3, 1940	34.91	May 28, 1947
					Dec. 3, 1947
M-7	9	11.03	June 13, 1939	33.80	May 7, 1947
M-7a	9	11.20	Aug. 21, 1939	25.91	May 7, 1947
M-7b	9	11.24	Aug. 21, 1939	25.32	Dec. 3, 1947
M-8	9	15.93	May 27, 1940	84.47	July 10, 1947
M-8a	9	14.72	June 3, 1940	37.16	Nov. 8, 1947
M-8b	9	13.30	June 3, 1940	30.78	Nov. 8, 1947
M-9	9	10.82	May 27, 1940	57.52	Dec. 30, 1947
M-9a	9	10.40	May 27, 1940	29.08	Dec. 3, 1947
M-9b	9	9.12	May 27, 1940	28.01	Dec. 30, 1947
M-10	9	12.05	May 27, 1940	70.89	Oct. 3, 1947
M-10a	9	11.24	May 27, 1940	35.91	Dec. 3, 1947
M-10b	9	10.44	May 27, 1940	30.62	Nov. 8, 1947
M-11	9	7.11	May 27, 1940	65.79	Aug. 3, 1945

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 104 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Length of record (years)	Highest level	Date	Lowest level	Date
M-11a	9	6.38	May 27, 1940	25.27	Dec. 3, 1947
M-11b	9	7.67	May 27, 1940	25.71	Dec. 3, 1947
M-12	9	11.41	Aug. 21, 1939	65.44	Dec. 30, 1947
M-12a	9	10.73	May 27, 1940	35.09	Sept. 2, 1947
M-12b	9	11.70	Aug. 21, 1939	34.50	Sept. 2, 1947
			Nov. 27, 1940		
M-13	9	8.27	Aug. 21, 1939	49.87	Feb. 5, 1947
M-13a	9	7.89	May 27, 1940	26.43	Dec. 3, 1947
M-13b	9	7.63	May 27, 1940	26.66	Dec. 3, 1947
M-14	9	9.07	May 27, 1940	56.13	Dec. 30, 1947
M-14a	9	8.31	Apr. 4, 1939	35.24	Dec. 30, 1947
M-14b	9	8.16	May 13, 1940	32.08	Sept. 25, 1946
			May 27, 1940		
			June 3, 1940		
M-15	9	13.92	Apr. 17, 1939	80.82	Jan. 7, 1947
M-15a	9	12.49	May 27, 1940	34.86	Dec. 3, 1947
M-15b	9	13.45	May 27, 1940	33.06	May 7, 1947
M-16	9	10.71	Aug. 21, 1939	56.12	Dec. 3, 1947
M-16a	9	10.93	Aug. 21, 1939	30.76	Dec. 3, 1947
M-16b	9	11.02	May 27, 1940	23.94	Dec. 3, 1947
M-17	9	6.58	Aug. 21, 1939	47.60	Sept. 2, 1947
M-17a	9	5.66	Aug. 21, 1939	21.28	Dec. 3, 1947
M-17b	9	4.01	Aug. 21, 1939	15.63	Dec. 3, 1947
M-18	9	10.00	Aug. 21, 1939	50.09	Dec. 3, 1947
M-18a	9	9.62	Aug. 21, 1939	30.51	Dec. 4, 1946
M-18b	9	9.38	Aug. 21, 1939	26.14	Feb. 27, 1947
M-19	9	10.82	Aug. 21, 1939	39.12	Aug. 6, 1947
M-19a	9	13.11	Aug. 21, 1939	26.96	Dec. 3, 1947
M-19b	9	11.47	Aug. 21, 1939	22.86	Sept. 2, 1947
M-20	9	9.74	May 27, 1940	64.20	May 31, 1945
M-20a	9	9.28	May 27, 1940	28.32	Dec. 30, 1947
M-20b	9	8.49	May 27, 1940	30.27	Nov. 8, 1947
M-21	9	8.32	Aug. 21, 1939	33.73	Aug. 6, 1947
M-21a	9	8.50	Aug. 21, 1939	31.89	Dec. 4, 1946
M-21b	9	8.08	Aug. 21, 1939	22.04	Nov. 8, 1947
M-22	9	9.20	Aug. 21, 1939	44.96	Sept. 2, 1947
M-22a	9	8.49	Aug. 21, 1939	23.46	Feb. 6, 1945
M-22b	9	9.28	Aug. 21, 1939	20.63	Sept. 2, 1947
M-23	9	7.85	Aug. 21, 1939	48.98	Sept. 25, 1946
M-23a	9	8.27	Aug. 21, 1939	18.80	Nov. 8, 1947
M-23b	9	7.50	Aug. 21, 1939	17.71	May 7, 1947
M-24	9	8.71	Aug. 21, 1939	48.96	Dec. 3, 1947
M-24a	9	8.88	Aug. 21, 1939	21.38	Dec. 3, 1947
M-24b	9	11.17	Aug. 28, 1939	19.94	Dec. 3, 1947
M-25	9	5.54	Aug. 21, 1939	45.71	Dec. 30, 1947
M-25a	9	5.31	Aug. 21, 1939	14.91	Dec. 30, 1947
M-25b	9	6.89	Aug. 21, 1939	14.97	Dec. 3, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 104 wells in Harvey County that are pumped or affected by pumping

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
2	8.64	a-3.63	a-4.28
3	20.47	-3.02	-18.20
66d	21.83	+4.19	+5.95
86	9.97	-1.06	-1.72
87	23.93	-.22	-1.24
87a	23.37	-.32	-.93
506	13.06	+1.16	-1.10

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 104 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
507	12.50	-2.71	-8.21
821	10.59	-1.40	-10.36
839	9.10	-1.80	-6.73
872	16.23	-1.54	-15.71
873	17.35	-1.88	-17.32
874	25.71	-1.60	-19.63
878	14.80	-1.38	-13.26
879	13.12	-1.03	-9.36
883	10.67	-.81	-8.02
884	10.75	-.97	-8.83
885	11.70	-2.70	-9.86
886	15.55	-.40	-13.52
897	16.20	-1.89	-14.41
894	13.95	-1.40	-12.29
895	15.90	-1.80	-14.46
1112	14.79	b -.26	b +3.39
1186	6.65	-.16	-1.09
1189	5.18	a -.52	a -2.67
1192	2.99	-.93	-.84
2072	10.02	-.14	-3.42
2088	4.79	a -1.27	a +3.18
M-1	56.26	-.43	-52.90
M-1a	21.23	+1.19	-19.03
M-1b	20.50	+4.35	-15.21
M-2	84.67	-53.86	-82.57
M-2a	23.06	+1.07	-18.38
M-2b	20.71	-.85	-16.86
M-3	53.89	+34.05	-18.96
M-3a	23.42	+.64	-17.71
M-3b	24.46	+.19	-14.38
M-4	71.51	-.15	-21.94
M-4a	28.19	-2.78	-20.19
M-4b	22.38	-1.51	-18.46
M-5	76.19	-86.06	-103.44
M-5a	17.77	-3.02	-16.95
M-5b	25.18	-1.24	-14.81
M-6	77.04	+2.92	-70.98
M-6a	20.80	-5.38	-20.15
M-6b	16.45	-1.32	-15.76
M-7	22.77	-11.23	-20.66
M-7a	14.71	-2.04	-12.56
M-7b	14.08	-2.43	-13.17
M-8	68.54	-1.51	-11.76
M-8a	22.44	-.28	-14.44
M-8b	17.48	-.06	-14.35
M-9	46.70	-4.60	-46.02
M-9a	18.68	-1.87	-18.10
M-9b	18.89	-2.35	-18.27
M-10	58.84	-42.65	-57.04
M-10a	24.67	-7.93	-23.95
M-10b	20.18	-2.15	-18.88
M-11	58.68	-17.74	-32.11
M-11a	18.89	-2.55	-18.19
M-11b	18.04	-2.38	-17.29
M-12	54.03	-8.80	-52.29
M-12a	24.36	-2.76	-23.01
M-12b	22.80	+1.71	-18.13
M-13	41.60	-27.23	-38.43
M-13a	18.54	-3.65	-17.49
M-13b	19.03	-3.60	-18.40
M-14	47.06	-7.25	-47.45
M-14a	26.93	-2.40	-26.93

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 104 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
M-14b	23.92	-3.52	-23.69
M-15	66.90	-50.37	-66.47
M-15a	22.37	-7.52	-21.68
M-15b	19.61	+5.64	-8.68
M-16	45.41	-1.46	-44.57
M-16a	19.83	-3.29	-18.90
M-16b	12.92	-1.38	-12.16
M-17	41.02	+19.05	-18.54
M-17a	15.62	-4.31	-13.51
M-17b	11.62	-.88	-10.25
M-18	40.09	-15.05	-39.22
M-18a	20.89	+9.25	-10.62
M-18b	16.76	+4.57	-9.25
M-19	28.30	-6.17	-26.92
M-19a	13.85	-3.10	-11.56
M-19b	11.39	-1.28	-8.25
M-20	54.46	+33.95	-14.93
M-20a	19.04	-1.03	-17.48
M-20b	21.78	+.66	-15.37
M-21	25.41	+12.13	-8.01
M-21a	23.39	+13.53	-7.68
M-21b	13.96	+2.77	-6.67
M-22	35.76	-2.12	-7.72
M-22a	14.97	-1.75	-8.66
M-22b	11.35	-1.26	-8.24
M-23	41.13	+25.36	-4.75
M-23a	10.53	+1.19	-4.99
M-23b	10.21	-.82	-5.63
M-24	40.25	-9.49	-37.75
M-24a	12.50	-1.91	-10.37
M-24b	8.77	-.99	-6.49
M-25	40.17	-34.72	-37.20
M-25a	9.60	-2.65	-5.11
M-25b	8.08	-1.25	-6.60

a No measurements made in 1947.

b Measurements discontinued April 1947.

Pumpage from city of Wichita wells M-1 to M-25, in millions of gallons, in 1947, and since beginning of pumping on Sept. 1, 1940

Well	Pumpage 1947	Total 1940-47
M-1	335.0	2,088.8
M-2	148.4	839.0
M-3	70.7	1,592.6
M-4	208.8	1,308.1
M-5	379.7	1,665.4
M-6	355.1	1,760.4
M-7	349.9	2,118.9
M-8	301.2	1,911.1
M-9	334.0	1,924.7
M-10	243.9	1,772.8
M-11	254.2	1,865.1
M-12	263.6	1,701.7
M-13	320.6	1,819.4
M-14	368.1	2,128.5
M-15	391.9	1,881.1
M-16	414.6	1,746.9
M-17	279.6	2,005.5
M-18	279.7	2,127.7
M-19	351.9	1,434.0
M-20	184.9	1,499.6

Pumpage from city of Wichita wells M-1 to M-25, in millions of gallons, in 1947, and since beginning of pumping on Sept. 1, 1940

Well	Pumpage 1947	Total 1940-47
M-21	367.5	2,310.9
M-22	144.2	947.0
M-23	267.8	1,866.1
M-24	259.4	1,827.5
M-25	241.6	1,761.4
Total	7,116.2	43,904.2

72 (*840, p. 102; 845, p. 118; 886, p. 202; 908, p. 77; 938, p. 83; 946, p. 102; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 69). Anna Hertzler. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 22 S., R. 1 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 20.96; Oct. 8, 20.47.

294 (*840, p. 103; 845, p. 119; 886, p. 202; 908, p. 77; 938, p. 84; 946, p. 102; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 69). Owner of well, J. B. Schmidt; lessee, Hollow Oil Co. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 22 S., R. 3 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 34.86; Oct. 8, 34.20.

325 (*840, p. 103; 845, p. 120; 886, p. 203; 908, p. 78; 938, p. 84; 946, p. 102; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 69). A. L. Gouldner. SW. corner SE $\frac{1}{4}$ sec. 19, T. 23 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	10.24	June 2	10.17	Sept. 4	10.53	Nov. 7	10.07
Feb. 6	10.37	July 12	9.76	Oct. 2	10.27	30	10.26
Mar. 25	10.29	Aug. 2	10.02				

701 (*845, p. 121; 886, p. 204; 908, p. 79; 938, p. 85; 946, p. 102; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 69). Dr. V. E. Cheskey. NE. corner NW $\frac{1}{4}$ sec. 3, T. 23 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	32.18	May 6	30.84	Sept. 4	32.56	Dec. 5	33.86
Feb. 25	32.14	May 27	30.71	Oct. 6	33.48	Dec. 31	32.74
Mar. 25	31.98	July 11	30.52	Nov. 6	33.66		

817 (*845, p. 121; 886, p. 204; 908, p. 79; 938, p. 85; 946, p. 102, 103; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 69). City of Wichita. NW. corner sec. 1, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	16.06	Apr. 7	15.49	July 7	12.77	Oct. 13	16.56
13	15.98	14	14.56	14	12.89	20	16.54
20	15.92	21	14.32	21	12.93	27	16.50
27	16.04	28	13.28	28	12.98	Nov. 3	16.53
Feb. 3	16.11	May 5	13.67	Aug. 4	13.04	10	16.56
10	16.09	12	13.71	11	13.91	17	16.60
17	16.08	19	13.68	Sept. 1	15.90	24	16.58
24	16.06	26	13.41	8	16.01	Dec. 1	16.56
Mar. 3	16.05	June 2	12.73	15	16.27	8	15.99
10	16.24	9	12.78	22	16.33	15	15.93
17	15.46	16	12.21	29	16.41	22	15.98
24	15.43	23	12.00	Oct. 6	16.49	29	16.00
31	15.40	30	12.41				

824 (*845, p. 122; 886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 89; 1018, p. 74; 1025, p. 75; 1073, p. 70). City of Wichita. SE. corner sec. 22, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	13.22	May 6	9.59	July 11	10.00	Dec. 31	9.17
Mar. 25	11.44	27	9.46	Sept. 4	10.24		

831 (*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 70). City of Wichita. NE. corner sec. 19, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	19.35	May 6	18.03	Sept. 4	16.96	Dec. 5	17.53
25	18.85	27	17.87	Oct. 6	17.37	31	17.29
Mar. 25	18.90	July 11	16.68	Nov. 6	17.49		

832 (*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 70). City of Wichita. NE. corner sec. 19, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	19.24	May 6	18.24	Sept. 4	17.31	Dec. 5	17.88
25	19.92	27	18.13	Oct. 6	17.64	31	17.57
Mar. 25	19.78	July 11	16.94	Nov. 6	17.71		

833 (*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 70). City of Wichita. SW. corner sec. 19, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	11.66	Mar. 25	11.36	May 27	15.79	Sept. 4	9.85
25	11.80	May 6	9.92	July 11	9.55	Dec. 31	11.79

852 (*886, p. 206; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 70). City of Wichita. NE. corner sec. 29, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	16.30	May 6	14.34	Sept. 4	13.99	Dec. 5	16.21
25	16.43	27	14.26	Oct. 6	14.08	31	15.98
Mar. 25	15.98	July 11	13.86	Nov. 6	16.00		

853 (*845, p. 122; 886, p. 206; 908, p. 80; 938, p. 87; 946, p. 103; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 70). City of Wichita. NW. corner sec. 13, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	11.39	Apr. 7	11.36	July 7	9.39	Oct. 13	11.61
13	11.50	14	11.04	14	9.43	20	11.60
20	11.56	21	10.77	21	9.46	27	11.64
27	11.69	28	10.26	28	9.51	Nov. 3	11.70
Feb. 3	11.70	May 5	9.84	Aug. 4	9.63	10	11.72
10	11.70	12	9.86	11	9.98	17	11.65
17	11.71	19	9.80	Sept. 1	10.90	24	11.64
24	11.69	26	9.56	8	10.98	Dec. 1	11.69
Mar. 3	11.76	June 2	9.14	15	11.12	8	11.67
10	11.92	9	9.12	22	11.26	15	11.66
17	11.46	16	9.26	29	11.38	22	11.66
24	11.34	23	9.19	Oct. 6	11.58	29	11.69
31	11.29	30	9.20				

854 (*845, p. 122; 886, p. 206; 908, p. 81; 938, p. 87; 946, p. 102; *988, p. 90; 1018, p. 75; 1025, p. 76; 1073, p. 71). City of Wichita. SW. corner sec. 23, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	11.64	Apr. 7	11.64	July 7	8.58	Oct. 13	12.14
13	11.44	14	11.41	14	9.02	20	12.12
20	11.74	21	11.02	21	9.11	27	12.06
27	11.91	28	10.89	28	9.24	Nov. 3	12.08
Feb. 3	11.95	May 5	10.76	Aug. 4	9.38	10	12.06
10	11.93	12	10.79	11	9.69	17	12.05
17	11.92	19	10.56	Sept. 1	11.19	24	12.02
24	11.93	26	9.48	8	11.32	Dec. 1	12.06
Mar. 3	11.96	June 2	9.38	15	11.48	8	11.76
10	12.18	9	9.30	22	11.63	15	11.73
17	11.78	16	9.48	29	11.83	22	11.76
24	11.61	23	9.41	Oct. 6	12.09	29	11.74
31	11.60	30	9.06				

875 (*886, p. 208; 908, p. 82; 938, p. 86; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77; 1073, p. 71). Owner of well, city of Wichita; owner of property, A. B. Havely. SE. corner sec. 17, T. 23 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	4.05	Apr. 7	3.86	July 7	1.85	Oct. 13	5.49
13	3.81	14	2.61	14	1.97	20	5.43
20	4.38	21	1.51	21	2.03	27	5.08
27	4.34	28	1.38	28	2.17	Nov. 3	5.07
Feb. 3	4.36	May 5	1.20	Aug. 4	2.32	10	5.09
10	4.22	12	1.40	11	3.16	17	5.11
17	4.14	19	1.48	Sept. 1	4.49	24	5.16
24	4.21	26	1.52	8	4.61	Dec. 1	5.06
Mar. 3	4.23	June 2	1.49	15	4.80	8	4.33
10	4.44	9	1.52	22	5.19	15	4.33
17	3.71	16	1.46	29	5.32	22	4.28
24	3.66	23	1.38	Oct. 6	5.45	29	4.29
31	4.63	30	1.66				

876 (*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77; 1073, p. 71). Owner of well, city of Wichita; owner of property, A. B. Havely. SE. corner sec. 17, T. 23 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Jan. 6	25.88	Apr. 7	25.93	July 7	23.80	Oct. 13	26.03
13	25.86	14	25.26	14	23.86	20	26.26
20	26.02	21	24.78	21	23.88	27	26.50
27	26.13	28	24.51	28	23.94	Nov. 3	26.82
Feb. 3	26.14	May 5	24.33	Aug. 4	24.03	10	26.89
10	26.11	12	24.42	11	24.33	17	26.92
17	26.10	19	24.40	Sept. 1	25.25	24	26.99
24	26.12	26	24.33	8	25.34	Dec. 1	26.94
Mar. 3	26.13	June 2	24.24	15	25.52	8	26.53
10	26.28	9	24.21	22	25.67	15	26.51
17	26.06	16	24.19	29	25.81	22	26.44
24	25.91	23	24.09	Oct. 6	26.01	29	26.46
31	25.89	30	23.91				

877 (*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77; 1073, p. 71). Owner of well, city of Wichita; owner of property, A. B. Havely. SE. corner sec. 17, T. 23 S., R. 3 W.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	13.91	14.04	14.13	14.08	14.23	12.97	12.73	13.06	13.49	13.77	13.97	14.13
2	13.88	14.04	14.14	14.10	13.23	12.99	12.72	13.09	13.49	13.77	13.97	14.14
3	13.92	14.06	14.16	14.09	13.22	12.98	12.72	13.11	13.49	13.77	13.95	14.14
4	13.92	14.06	14.16	14.05	13.20	12.94	12.70	13.11	13.50	13.80	13.96	14.09
5	13.91	14.06	14.21	14.11	13.22	12.94	12.71	13.10	13.51	13.80	13.97	14.11
6	13.89	14.02	14.22	14.14	13.22	12.90	12.72	13.12	13.51	13.81	13.96	14.11
7	13.92	14.06	14.22	14.14	13.22	12.90	12.74	13.14	13.52	13.83	13.98	14.13
8	13.93	14.08	14.22	14.12	13.22	12.90	12.74	13.16	13.54	13.84	13.99	14.14
9	13.93	14.09	14.23	14.12	13.22	12.89	12.74	13.17	13.58	13.84	13.99	14.14
10	13.93	14.09	14.23	13.92	13.21	12.93	12.73	13.18	13.54	13.85	14.01	14.14
11	13.90	14.09	14.22	13.93	13.21	12.94	12.73	13.21	13.57	13.85	14.01	14.15
12	13.87	14.10	14.22	13.92	13.15	12.93	12.74	13.22	13.59	13.89	14.03	14.16
13	13.86	14.10	14.11	13.82	13.16	12.93	12.75	13.22	13.59	13.89	14.03	14.16
14	13.93	14.09	14.14	13.66	13.16	12.93	.....	13.21	13.64	13.88	14.01	14.13
15	13.96	14.09	14.11	13.64	13.16	12.93	.....	13.21	13.64	13.88	14.02	14.12
16	13.97	14.10	14.13	13.58	13.15	12.93	.....	13.24	13.63	13.86	14.05	14.14
17	13.97	14.11	14.12	13.55	13.15	12.92	.....	13.26	13.66	13.89	14.05	14.14
18	13.96	14.11	14.12	13.48	13.15	12.91	.....	13.31	13.67	13.91	14.05	14.13
19	13.95	14.11	14.11	13.41	13.11	12.80	.....	13.32	13.67	13.91	14.05	14.15
20	13.93	14.12	14.11	13.40	13.11	12.80	.....	13.34	13.67	13.91	14.05	14.16
21	13.98	14.12	14.11	13.39	13.09	12.75	12.85	13.36	13.71	13.93	14.07	14.16
22	13.97	14.13	14.11	13.34	13.08	12.74	.....	13.36	13.73	13.92	14.00	14.14
23	13.94	14.14	14.05	13.34	13.09	12.75	.....	13.37	13.72	13.92	14.08	14.17
24	13.93	14.15	14.11	13.34	13.04	12.74	.....	13.38	13.73	13.93	14.07	14.17
25	13.95	14.16	14.12	13.30	13.04	12.72	.....	13.40	13.75	13.93	14.09	14.17
26	13.95	14.17	14.12	13.30	13.03	12.69	.....	13.41	13.77	13.93	14.10	14.16

877--Continued.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	13.97	14.17	14.11	13.27	13.00	12.66	.....	13.41	13.75	13.93	14.12	14.16
28	13.97	14.14	14.11	13.25	13.00	12.66	13.03	13.42	13.76	13.93	14.12	14.16
29	13.94		14.00	13.20	13.02	12.68	13.03	13.45	13.78	13.93	14.15	14.14
30	14.00		14.00	13.20	13.02	12.71	13.04	13.45	13.78	13.94	14.15	14.19
31	14.04		14.06		13.00		13.06	13.45		13.96		14.19

880 (*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105; *988, p. 92; 1018, p. 77; 1025, p. 78; 1073, p. 72). Owner of well, city of Wichita; owner of property, Peter Miller, SE. corner sec. 11, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	8.18	Apr. 7	8.06	July 7	5.95	Oct. 13	8.07
13	8.01	21	7.49	14	5.99	20	8.09
20	8.01	28	6.47	21	6.03	27	8.06
27	8.16	May 5	6.19	28	6.16	Nov. 3	8.10
Feb. 3	8.19	12	6.22	Aug. 4	6.23	10	8.16
10	8.17	19	6.17	11	6.72	17	8.19
17	8.13	26	5.98	Sept. 1	7.36	24	8.22
24	8.14	June 2	6.47	8	7.48	Dec. 1	8.21
Mar. 3	8.20	9	6.50	15	7.56	8	8.04
10	8.38	16	6.61	22	7.74	15	8.03
17	8.06	23	6.59	29	7.86	22	8.11
24	8.01	30	6.32	Oct. 6	7.99	29	8.09
31	7.94						

881 (*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105; *988, p. 92; 1018, p. 77; 1025, p. 78; 1073, p. 72). Owner of well, city of Wichita; owner of property, Peter Miller, SE. corner sec. 11, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Jan. 6	8.01	Apr. 7	8.28	July 7	6.40	Oct. 13	8.15
13	8.16	21	7.68	14	6.45	20	8.22
20	8.18	28	6.59	21	6.48	27	8.20
27	8.32	May 5	6.58	28	6.53	Nov. 3	8.31
Feb. 3	8.34	12	6.62	Aug. 4	6.59	10	8.37
10	8.32	19	6.56	11	6.96	17	8.43
17	8.31	26	6.33	Sept. 1	7.68	24	8.44
24	8.32	June 2	6.67	8	7.76	Dec. 1	8.42
Mar. 3	8.33	9	6.63	15	7.83	8	8.26
10	8.33	16	6.69	22	7.89	15	8.24
17	8.29	23	6.66	29	8.10	22	8.32
24	8.22	30	6.53	Oct. 6	8.04	29	8.30
31	8.18						

888 (*886, p. 212; 908, p. 85; 938, p. 91; 946, p. 105; *988, p. 92; 1018, p. 77; 1025, p. 78; 1073, p. 72). Owner of well, city of Wichita; owner of property, C. K. Ellis, NW. corner sec. 17, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Jan. 13	6.36	Apr. 14	4.61	July 7	3.09	Oct. 13	7.78
20	6.48	21	4.56	14	3.32	20	7.86
27	6.58	28	4.42	21	3.46	27	7.92
Feb. 3	6.62	May 5	4.26	28	3.51	Nov. 3	8.28
10	6.63	12	4.37	Aug. 4	3.73	10	8.31
17	6.65	19	4.42	11	5.11	17	8.37
24	6.68	26	4.26	Sept. 1	6.94	24	8.36
Mar. 3	6.71	June 2	4.14	8	7.21	Dec. 1	8.33
10	6.94	9	4.09	16	7.29	8	7.72
17	6.29	16	4.30	22	7.48	15	7.71
24	6.21	23	4.18	29	7.59	22	7.71
31	6.24	30	3.56	Oct. 6	7.74	29	7.73
Apr. 7	6.36						

889 (*886, p. 212; 908, p. 85; 938, p. 91; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 73). Owner of well, city of Wichita; owner of property, C. K. Ellis. NW. corner sec. 17, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	7.92	Apr. 14	6.63	July 7	5.13	Oct. 13	8.41
20	7.79	21	6.14	14	5.27	20	8.58
27	8.29	28	5.96	21	5.33	27	8.64
Feb. 3	8.31	May 5	5.84	28	5.40	Nov. 3	8.72
10	8.21	12	5.88	Aug. 4	5.56	10	8.80
17	8.06	19	5.91	11	6.43	17	8.90
24	8.14	26	5.54	Sept. 1	8.67	24	8.92
Mar. 3	8.18	June 2	5.41	8	8.73	Dec. 1	8.83
10	8.55	9	5.38	15	8.76	8	8.09
17	8.04	16	5.41	22	8.52	15	8.11
24	7.94	23	5.35	29	8.43	22	8.12
31	7.92	30	5.20	Oct. 6	8.39	29	8.15
Apr. 7	8.04						

890 (*886, p. 212; 908, p. 85; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 73). Owner of well, city of Wichita; owner of property, J. F. Gorgenson. NE. corner SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Jan. 4	5.59	June 2	3.98	Sept. 4	4.53	Nov. 7	4.76
8	5.50	July 12	2.42	Oct. 2	4.86	30	4.91
Feb. 25	5.48	Aug. 2	3.39				

891 (*886, p. 213; 908, p. 85; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 73). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	3.31	May 6	2.55	Sept. 4	3.46	Dec. 5	3.68
25	3.36	27	2.46	Oct. 6	4.15	31	2.96
Mar. 25	2.87	July 11	2.21	Nov. 6	3.56		

892 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 73). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	2.57	May 6	1.73	Sept. 4	2.76	Dec. 5	2.96
25	2.70	27	1.67	Oct. 6	3.34	31	2.22
Mar. 25	2.07	July 11	1.26	Nov. 6	2.86		

893 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 73). Owner of well, city of Wichita; owner of property, Arthur McMurray. SE. corner sec. 31, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	2.28	May 6	1.12	Sept. 4	2.41	Dec. 5	2.79
25	2.36	27	1.06	Oct. 6	2.95	31	2.01
Mar. 25	1.88	July 11	.78	Nov. 6	2.67		

1174 (*908, p. 87; 938, p. 93; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79; 1073, p. 74). City of Wichita. SW. corner sec. 32, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Jan. 7	8.69	May 7	8.89	Aug. 6	7.61	Nov. 8	8.77
Feb. 5	9.00	28	7.13	Sept. 2	8.02	Dec. 3	10.94
27	9.14	July 10	6.95	Oct. 3	9.07	30	11.04
Apr. 1	8.39						

1187 (*988, p. 94; 1018, p. 79; 1025, p. 79; 1073, p. 74). City of Wichita. NW. corner sec. 29, T. 24 S., R. 1 W.

1187--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	10.25	May 6	7.84	Sept. 4	9.37	Dec. 5	10.44
25	10.41	27	7.63	Oct. 6	10.19	31	10.13
Mar. 25	9.36	July 11	7.65	Nov. 6	10.33		

Wells pumped or affected by pumping

2 (*946, p. 122; *988, p. 94; 1018, p. 79; 1025, p. 80; 1073, p. 74).
Langwalter Estate. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 24 S., R. 2 W. No measurements made in 1947.

3 (*988, p. 94; 1018, p. 79; 1025, p. 80 ; 1073, p. 74). Mrs. Emma Linn Webster. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Feb. 27	24.57	May 28	25.91	Sept. 2	27.09	Dec. 3	27.56
Apr. 1	23.57	July 10	26.16	Nov. 3	17.32	30	27.42
May 7	26.04	Aug. 6	26.76	8	27.48		

66d (*988, p. 94; 1018, p. 79; 1025, p. 80; 1073, p. 74). City of Newton. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 23 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Jan. 9	50.19	Apr. 1	54.09	July 1	51.46	Oct. 2	51.02
Feb. 7	50.86	May 7	48.36	Aug. 6	60.30	Nov. 7	46.88
28	50.48	June 2	49.68	Sept. 3	61.14	Dec. 8	46.55
Mar. 1	50.48						

86 (*988, p. 95; 1018, p. 79; 1025, p. 80 ; 1073, p. 74). City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Jan. 9	18.93	Apr. 1	19.13	July 1	18.36	Oct. 2	20.32
Feb. 7	18.96	May 7	18.46	Aug. 6	17.48	Nov. 7	20.66
28	19.01	June 2	18.39	Sept. 3	17.98	Dec. 8	20.46

87 (*988, p. 95; 1018, p. 79; 1025, p. 80; 1073, p. 74). City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Jan. 9	18.10	Apr. 1	18.72	July 1	18.23	Oct. 2	19.81
Feb. 7	18.33	May 7	18.33	Aug. 6 a	30.28	Nov. 7	20.04
28	18.57	June 2	18.24	Sept. 3	18.48	Dec. 8	19.78

a Pumping.

87a (*988, p. 95; 1018, p. 80; 1025, p. 80; 1073, p. 75). City of Halstead. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Jan. 9	18.31	Apr. 1	18.82	July 1	18.28	Oct. 2	19.88
Feb. 7	18.48	May 7	18.43	Aug. 6 a	30.13	Nov. 7	20.23
28	18.59	June 20	18.32	Sept. 3	18.46	Dec. 8	20.08

a Pumping.

506 (*845, p. 120; 886, p. 203; 908, p. 78; 938, p. 84; 946, pp. 107, 108; *988, p. 95; 1018, p. 80; 1025, p. 81; 1073, p. 75). Owner of well, City of Wichita; owner of property, W. G. Backhaus. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 23 S., R. 2 W.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.81	16.06	16.01	15.36	12.80	11.73	11.90	14.65	15.95	16.35	16.37	16.20
2	15.82	16.03	16.01	15.38	12.87	11.96	12.08	14.75	15.96	16.35	16.37	16.20
3	15.84	16.05	15.99	15.38	12.88	12.02	12.28	14.81	16.00	16.34	16.36	16.20
4	15.84	16.05	15.97	15.40	13.04	12.18	12.41	14.85	16.04	16.34	16.39	16.01
5	15.81	16.05	16.00	15.51	13.16	12.17	12.52	14.91	16.06	16.34	16.39	15.76
6	15.80	15.95	16.00	15.53	13.13	11.69	12.68	14.97	16.09	16.38	16.39	15.65
7	15.89	15.99	15.99	15.53	13.40	10.31	12.78	15.03	16.12	16.42	16.40	15.67

506--Continued.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	15.94	16.03	15.97	15.46	13.51	10.91	12.88	15.09	16.14	16.44	16.41	15.73
9	15.95	16.04	15.97	15.43	13.58	10.31	12.96	15.13	16.16	16.44	16.48	15.73
10	15.94	16.04	15.96	15.21	13.67	11.18	13.04	15.19	16.19	16.50	15.47	15.71
11	15.91	16.02	15.87	15.38	13.71	11.41	13.15	15.24	16.19	16.53	16.41	15.71
12	15.91	16.03	15.81	12.37	13.75	11.67	13.27	15.27	16.17	16.55	16.38	15.67
13	15.90	16.02	15.58	12.22	13.83	11.72	13.39	15.32	16.19	16.55	16.36	15.64
14	15.88	16.01	15.21	11.27	13.86	.....	13.50	15.31	16.19	16.52	16.32	15.55
15	15.88	16.01	14.93	10.89	13.88	.....	13.61	15.31	16.19	16.50	16.35	15.51
16	15.89	16.02	14.79	11.03	13.92	12.62	13.73	15.32	16.22	16.43	16.40	15.54
17	15.89	16.04	14.80	11.19	13.95	12.79	13.85	15.26	16.23	16.42	16.39	15.56
18	15.89	16.07	14.84	11.37	13.96	12.94	13.96	15.30	16.25	16.43	16.38	15.62
19	15.88	16.07	14.90	11.67	13.87	12.68	14.04	15.35	16.28	16.38	16.35	15.66
20	15.89	16.05	14.93	11.86	13.69	11.83	14.11	15.41	16.29	16.36	16.30	15.67
21	15.86	16.04	14.98	11.93	13.45	11.02	14.18	15.47	16.35	16.38	16.25	15.67
22	15.86	16.03	14.98	11.86	13.32	10.82	14.23	15.51	16.37	16.39	16.23	15.61
23	15.86	16.05	14.98	12.13	13.38	10.99	14.24	15.55	16.37	16.39	16.20	15.56
24	15.89	16.07	15.06	12.23	13.39	11.17	14.24	15.60	16.41	16.26	16.18	15.59
25	15.92	16.07	15.07	12.35	13.28	11.23	14.21	15.63	16.41	16.22	16.19	15.59
26	15.92	16.07	15.09	12.36	13.15	11.28	14.24	15.65	16.38	16.22	16.19	15.58
27	15.97	16.06	15.15	12.37	13.08	11.26	14.27	15.68	16.38	16.18	16.21	15.63
28	15.97	16.00	15.18	12.41	12.72	10.93	14.33	15.71	16.35	16.22	16.21	15.65
29	15.94		15.28	12.52	11.76	11.30	14.40	15.74	16.33	16.25	16.23	15.71
30	16.01		15.30	12.68	11.23	11.63	14.50	15.78	16.33	16.30	16.23	15.78
31	16.04		15.31		11.42		14.57	15.92		16.34		15.78

507 (*845, p. 120; 886, p. 203; 908, p. 79; 938, p. 85; 946, p. 108; *988, p. 96; 1018, p. 80; 1025, p. 81; 1073, p. 75). Owner of well, city of Wichita; owner of property, W. G. Backhaus. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.62	Apr. 7	13.50	July 7	10.94	Oct. 13	14.58
13	13.42	14	9.76	14	11.61	20	14.54
20	13.59	21	10.11	21	11.76	27	14.52
27	14.48	28	10.39	28	11.88	Nov. 3	14.50
Feb. 3	14.52	May 5	10.68	Aug. 4	12.01	10	14.41
10	14.41	12	11.01	11	13.68	17	14.46
17	14.23	19	11.76	Sept. 1	15.40	24	14.33
24	14.28	26	11.16	8	15.62	Dec. 1	14.36
Mar. 3	14.24	June 2	10.81	15	15.73	8	13.79
10	13.31	9	10.89	22	15.61	15	13.59
17	13.08	16	10.79	29	14.13	22	13.60
24	13.36	23	10.46	Oct. 6	14.62	29	13.63
31	13.42	30	10.86				

821 (*886, p. 204; 908, p. 79; 938, p. 86; 946, p. 108; *988, p. 96; 1018, p. 81; 1025, p. 81; 1073, p. 76). City of Wichita. NW corner sec. 6, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	21.26	Apr. 7	21.12	July 7	20.90	Oct. 13	21.45
13	21.25	14	20.96	14	20.96	20	21.61
20	21.16	21	20.79	21	20.97	27	21.64
27	21.42	28	20.93	28	21.04	Nov. 3	22.05
Feb. 3	21.43	May 5	21.50	Aug. 4	21.11	10	22.09
10	21.49	12	21.51	11	21.17	17	22.12
17	21.59	19	21.49	Sept. 1	21.58	24	22.16
24	21.62	26	21.33	8	21.63	Dec. 1	22.26
Mar. 3	21.62	June 2	21.18	15	21.79	8	22.58
10	21.69	9	21.10	22	21.56	15	22.54
17	21.14	16	21.19	29	21.40	22	22.58
24	21.08	23	21.23	Oct. 6	21.33	29	22.62
31	21.02	30	21.05				

839 (*845, p. 122; 886, p. 206; 908, p. 80; 938, p. 86; 946, p. 108; *988, p. 96; 1018, p. 81; 1025, p. 82; 1073, p. 76). City of Wichita. NE. corner sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.71	May 7	17.15	Aug. 6	17.23	Nov. 8	18.63
Feb. 5	17.85	28	17.08	Sept. 2	17.87	Dec. 3	18.72
27	17.78	July 10	16.67	Oct. 3	18.51	30	18.10
Apr. 1	17.84						

872 (*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82; 1073, p. 76). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	32.67	Apr. 1	33.88	May 28	33.09	Aug. 6	33.09
Feb. 5	33.41	May 7	33.13	July 10	32.67	Dec. 3	33.41
27	32.87						

873 (*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82; 1073, p. 76). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	33.47	May 7	34.06	Aug. 6	33.90	Nov. 8	34.71
Feb. 5	33.80	28	33.91	Sept. 2	34.47	Dec. 3	34.96
27	33.08	July 10	33.76	Oct. 3	34.64	30	34.98
Apr. 1	33.98						

874 (*886, p. 207; 908, p. 81; 938, p. 88; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82; 1073, p. 76). Owner of well, city of Wichita; owner of property, D. C. Buller. SE. corner sec. 31, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	41.09	May 7	39.08	Aug. 6	39.56	Nov. 8	40.52
Feb. 5	43.39	28	38.99	Sept. 2	40.30	Dec. 3	40.81
27	38.10	July 10	38.77	Oct. 3	40.43	30	40.77
Apr. 1	38.44						

878 (*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 83; 1073, p. 76). Owner of well, city of Wichita; owner of property, C. Cadwell. SE. corner sec. 1, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	29.45	Apr. 7	29.86	July 7	29.97	Oct. 13	31.05
13	29.56	14	29.56	14	30.01	20	30.84
20	29.55	21	29.41	21	30.02	27	29.79
27	29.75	28	29.38	28	30.06	Nov. 3	29.84
Feb. 3	29.78	May 5	29.34	Aug. 4	30.14	10	29.91
10	29.68	12	29.36	11	30.31	17	29.97
17	29.65	19	29.32	Sept. 1	27.06	24	29.98
24	29.66	26	29.18	8	30.91	Dec. 1	29.96
Mar. 3	29.68	June 2	29.60	15	30.96	8	29.71
10	26.67	9	29.57	22	31.01	15	29.76
17	29.81	16	29.48	29	30.99	22	29.76
24	29.83	23	29.35	Oct. 6	30.96	29	29.74
31	29.82	30	29.62				

879 (*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109; *988, p. 97; 1018, p. 82; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, C. Cadwell. SE. corner sec. 1, T. 24 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	25.93	Feb. 24	26.35	Apr. 14	25.46	June 2	26.17
13	26.16	Mar. 3	26.37	21	25.33	9	26.43
20	26.21	10	29.50	28	25.25	16	25.22
27	26.53	17	26.44	May 6	25.21	23	25.18
Feb. 3	26.37	24	26.47	12	25.24	30	25.48
10	26.38	31	26.46	19	25.20	July 7	25.90
17	26.36	Apr. 7	26.49	26	25.13	14	25.93

879--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 21	25.97	Sept. 15	27.09	Oct. 27	27.46	Dec. 1	27.47
28	25.86	22	27.07	Nov. 3	27.50	8	27.19
Aug. 4	26.13	29	27.06	10	27.36	15	27.18
11	26.37	Oct. 6	27.04	17	27.40	22	27.26
Sept. 1	30.64	13	29.17	24	27.46	29	27.24
8	27.01	20	28.81				

883 (*886, p. 210; 908, p. 84; 938, p. 90; 946, p. 110; *988, p. 98; 1018, p. 82; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.62	May 7	24.02	Aug. 6	21.74	Nov. 8	23.11
Feb. 5	23.26	28	23.86	Sept. 2	23.88	Dec. 3	23.15
27	23.14	July 10	21.28	Oct. 3	22.88	30	23.77
Apr. 1	24.02						

884 (*886, p. 211; 908, p. 84; 938, p. 90; 946, p. 110; *988, p. 98; 1018, p. 82; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.74	Apr. 1	24.09	July 10	22.11	Oct. 3	23.76
Feb. 5	23.23	May 7	24.05	Aug. 6	23.46	Nov. 8	23.99
27	23.20	28	23.79	Sept. 2	23.98	Dec. 30	24.31

885 (*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110; *988, p. 98; 1018, p. 82; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, Maggie Holle. NW. corner sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.89	Apr. 1	24.87	July 10	22.56	Oct. 3	24.49
Feb. 5	23.04	May 7	24.56	Aug. 6	24.56	Nov. 8	24.92
27	24.09	28	24.43	Sept. 2	24.68	Dec. 30	24.69

886 (*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, E. H. Halber. NE. corner NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 25	16.71	May 28	16.13	Aug. 2	17.16	Nov. 28	17.44
Apr. 1	16.04	June 2	16.13	Sept. 1	17.67	Dec. 30	16.97
May 7	16.28	July 1	16.08	30	17.89		

887 (*886, p. 211; 908, p. 85; 939, p. 91; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 83; 1073, p. 77). Owner of well, city of Wichita; owner of property, F. H. Halber. NE. corner NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	17.77	May 7	17.24	July 1	17.00	Sept. 30	17.73
25	17.75	28	17.06	Aug. 2	18.43	Nov. 30	17.89
Apr. 1	17.16	June 2	17.06	Sept. 1	18.92	Dec. 30	17.89

894 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 84; 1073, p. 78). Owner of well, city of Wichita; owner of property, H. A. Lawrence. NE. corner sec. 18, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.35	May 7	22.47	Aug. 6	22.61	Nov. 8	23.51
Feb. 5	22.29	28	22.32	Sept. 2	22.82	Dec. 3	23.49
27	22.45	July 10	22.52	Oct. 3	23.39	30	23.38
Apr. 1	22.57						

895 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84; 1073, p. 78). Owner of well, city of Wichita; owner of property, H. A. Lawrence. NE corner sec. 18, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	23.92	May 7	24.90	Aug. 6	25.79	Nov. 8	25.70
Feb. 5	24.52	28	24.81	Sept. 2	25.94	Dec. 3	25.66
27	24.93	July 10	25.02	Oct. 3	24.96	30	25.63
Apr. 1	24.83						

1112 (*886, p. 214; 908, p. 87; 938, p. 93; 946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84; 1073, p. 78). Owner, M. H. Miller; tenant, A. C. Unruh. NW corner NE $\frac{1}{4}$ sec. 51, T. 23 S., R. 2 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 16.34; Feb. 5, 16.94; Feb. 27, 17.01; Apr. 1, 3.10. Measurements discontinued after Apr. 1, 1947.

1186 (*946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84; 1073, p. 78). City of Wichita. SW corner sec. 13, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.15	Apr. 7	13.10	July 7	11.90	Oct. 13	13.07
13	13.04	14	12.38	14	11.96	20	13.09
20	13.12	21	11.86	21	11.99	27	13.06
27	13.18	28	11.77	28	12.04	Nov. 3	13.08
Feb. 3	13.19	5	12.06	Aug. 4	12.13	10	13.12
10	13.20	12	12.06	11	12.28	17	13.18
17	13.21	19	12.06	Sept. 1	12.70	24	13.19
24	13.19	26	11.89	8	12.86	Dec. 1	13.22
Mar. 3	13.23	June 2	11.82	15	12.94	8	13.86
10	13.34	9	11.76	22	12.98	15	13.88
17	13.10	16	12.03	29	13.01	22	13.22
24	13.04	23	11.94	Oct. 6	13.03	29	13.20
31	13.06	30	11.91				

1189 (*946, p. 122; *988, p. 99; 1018, p. 84; 1025, p. 84; 1073, p. 78). City of Wichita. SW corner sec. 16, T. 24 S., R. 2 W. No measurements made in 1947.

1192 (*938, p. 93; 946, p. 112; *988, p. 99; 1018, p. 84; 1025, p. 84; 1073, p. 78). City of Wichita. SW corner sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	16.29	May 7	16.36	Aug. 6	16.51	Nov. 8	17.20
Feb. 5	16.33	28	16.43	Sept. 2	16.72	Dec. 3	17.26
27	16.40	July 10	16.46	Oct. 3	16.91	30	17.14
Apr. 1	16.74						

2072 (*988, p. 100; 1018, p. 84; 1025, p. 85; 1073, p. 78). Owner, Peter Hoops and others; tenant, N. T. Unruh. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	36.25	Apr. 7	36.04	July 7	36.21	Oct. 13	36.28
13	36.25	14	35.71	14	36.24	20	36.30
20	36.27	21	27.27	21	36.26	27	36.31
27	36.32	28	27.13	28	36.28	Nov. 3	36.34
Feb. 3	36.31	5	27.09	Aug. 4	36.36	10	36.36
10	36.30	12	37.13	11	36.28	17	36.37
17	36.32	19	37.11	Sept. 1	36.24	24	36.39
24	36.33	26	37.04	8	36.28	Dec. 1	36.42
Mar. 3	36.36	June 2	36.14	15	36.33	8	36.37
10	36.39	9	36.08	22	36.21	15	36.35
17	36.07	16	36.03	29	36.18	22	36.36
24	36.03	23	36.01	Oct. 6	36.16	29	36.38
31	36.01	30	36.19				

2088 (*1018, p. 84; 1025, p. 85 ; 1073, p. 79). City of Wichita. NW. corner. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 24 S., R. 2 W. No measurements made in 1947.

M-1 (*908, p. 88; 938, p. 93; 946, p. 112; *988, p. 100; 1018, p. 84; 1025, p. 85 ; 1073, p. 79). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	35.18	May 7	a 66.91	Aug. 6	a 70.50	Nov. 8	36.22
Feb. 5	a 67.08	28	29.96	Sept. 2	a 70.76	Dec. 3	a 71.46
27	a 69.14	July 10	a 70.36	Oct. 3	a 71.82	30	a 71.14
Apr. 1	a 67.08						

a Pumping.

M-1a (*908, p. 89; 938, p. 94; 946, p. 112; *988, p. 100; 1018, p. 84; 1025, p. 85 ; 1073, p. 79). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	31.19	May 7	a 37.13	Aug. 6	a 36.71	Nov. 8	33.69
Feb. 5	a 34.65	28	31.03	Sept. 2	a 37.04	Dec. 3	a 37.19
27	a 36.38	July 10	a 37.29	Oct. 3	a 37.26	30	a 33.57
Apr. 1	a 35.19						

a Well M-1 pumping.

M-1b (*908, p. 89; 938, p. 94; 946, p. 112; *988, p. 100; 1018, p. 84; 1025, p. 85 ; 1073, p. 79). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	30.13	May 7	a 34.06	July 6	a 30.01	Nov. 8	32.06
Feb. 5	a 32.57	28	30.21	Sept. 2	a 30.11	Dec. 3	a 31.79
27	a 34.28	July 10	a 34.54	Oct. 3	a 31.81	30	a 33.83
Apr. 1	a 33.52						

a Well M-1 pumping.

M-2 (*908, p. 89; 938, p. 94; 946, p. 113; *988, p. 100; 1018, p. 85; 1025, p. 85; 1073, p. 79). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 5	44.00	May 7	40.32	Aug. 6	a 100.50	Nov. 8	a 100.20
27	44.10	28	36.76	Sept. 2	a 102.60	Dec. 3	a 100.90
Apr. 1	43.09	July 10	a 97.60	Oct. 3	a 103.00	30	46.50

a Pumping.

M-2a (*908, p. 90; 938, p. 94; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 85; 1073, p. 79). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 34.91	May 7	35.71	Aug. 6	a 36.03	Nov. 8	a 36.46
Feb. 5	35.14	28	35.59	Sept. 2	a 36.28	Dec. 3	a 36.71
27	35.44	July 10	a 34.62	Oct. 3	a 36.58	30	36.18
Apr. 1	35.71						

a Well M-2 pumping.

M-2b (*908, p. 90; 938, p. 94; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86; 1073, p. 79). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 36.41	May 7	36.64	Aug. 6	a 36.61	Nov. 8	a 38.09
Feb. 5	38.86	28	36.53	Sept. 2	a 36.79	Dec. 3	a 38.14
27	37.18	July 10	a 36.48	Oct. 3	a 38.47	30	37.48
Apr. 1	36.38						

a Well M-2 pumping.

M-2c (*1073, p. 80). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W., 20 feet southwest of well M-2. Reported depth 71 feet. Measuring point is 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 34.90	May 7	35.73	Aug. 6	a 36.71	Nov. 8	a 38.66
Feb. 5	35.00	28	35.62	Sept. 2	a 37.03	Dec. 3	a 38.53
27	35.61	July 10	a 35.50	Oct. 3	a 38.07	30	38.53
Apr. 1	35.32						

a Well M-2 pumping.

M-3 (*908, p. 91; 938, p. 94; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86; 1073, p. 80). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 77.09	May 7	a 73.91	Aug. 6	a 75.53	Nov. 8	a 76.56
Feb. 5	a 76.96	28	41.63	Sept. 2	a 75.49	Dec. 3	42.16
27	25.94	July 10	41.73	Oct. 3	a 75.68	30	a 76.42
Apr. 1	41.51						

a Pumping.

M-3a (*908, p. 91; 938, p. 95; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86; 1073, p. 80). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 41.58	May 7	a 41.63	Aug. 6	a 41.96	Nov. 8	a 42.46
Feb. 5	a 41.62	28	40.91	Sept. 2	a 42.18	Dec. 3	40.81
27	41.61	July 10	41.00	Oct. 3	a 41.97	30	a 42.24
Apr. 1	40.86						

a Well M-3 pumping.

M-3b (*908, p. 92; 938, p. 95; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86; 1073, p. 80). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 41.24	May 7	a 41.86	Aug. 6	a 41.95	Nov. 8	a 43.28
Feb. 5	a 41.24	28	41.65	Sept. 2	a 42.14	Dec. 3	41.38
27	41.64	July 10	41.71	Oct. 3	a 42.84	30	a 43.17
Apr. 1	41.84						

a Well M-3 pumping.

M-4 (*908, p. 92; 938, p. 95; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86; 1073, p. 80). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	44.76	May 7	46.53	Aug. 6	a 92.38	Nov. 8	46.30
Feb. 5	46.64	28	a 88.76	Sept. 2	55.43	Dec. 3	45.12
27	42.00	July 10	a 94.63	Oct. 3	52.29	30	46.17
Apr. 1	a 89.07						

a Pumping.

M-4a (*908, p. 93; 938, p. 95; 946, p. 114; *988, p. 102; 1018, p. 85; 1025, p. 86; 1073, p. 80). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	40.23	May 7	39.46	Aug. 6	a 47.41	Nov. 8	46.80
Feb. 5	42.92	28	a 47.23	Sept. 2	51.06	Dec. 3	44.37
27	40.04	July 10	a 47.37	Oct. 3	47.96	30	46.61
Apr. 1	a 47.52						

a Well M-4 pumping.

M-4b (*908, p. 93; 938, p. 95; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 86; 1073, p. 80). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

M-4b--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	40.31	May 7	40.58	Aug. 6	a 45.00	Nov. 8	44.06
Feb. 5	43.63	28	a 45.06	Sept. 2	46.29	Dec. 3	43.48
27	40.49	July 10	a 45.12	Oct. 3	43.14	30	43.94
Apr. 1	a 45.35						

a Well M-4b pumping.

M-5 (#908, p. 94; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 86; 1073, p. 81). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 35.86; Feb. 27, 32.38.

M-5a (#908, p. 94; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	32.45	May 7	a 34.66	Aug. 6	a 35.32	Nov. 8	a 35.13
Feb. 5	a 33.43	28	a 34.81	Sept. 2	a 35.56	Dec. 3	a 35.31
27	32.41	July 10	a 34.41	Oct. 3	a 35.41	30	35.17
Apr. 1	a 34.32						

a Well M-5 pumping.

M-5b (#908, p. 95; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	31.99	May 7	a 33.51	Aug. 6	a 32.79	Nov. 8	a 33.12
Feb. 5	a 32.95	28	a 33.57	Sept. 2	a 32.96	Dec. 3	a 33.26
27	43.00	July 10	a 32.02	Oct. 3	a 32.81	30	33.01
Apr. 1	a 33.15						

a Well M-5 pumping.

M-6 (#908, p. 95; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 95.20	May 7	34.71	Aug. 6	a 91.76	Nov. 8	a 92.83
Feb. 5	a 95.29	28	a 94.82	Sept. 2	a 92.00	Dec. 3	a 93.17
27	46.61	July 10	35.82	Oct. 3	a 91.86	30	a 92.62
Apr. 1	a 90.26						

a Pumping.

M-6a (#908, p. 96; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 34.47	May 7	35.71	Aug. 6	a 38.47	Nov. 8	a 39.28
Feb. 5	a 34.84	28	a 35.68	Sept. 2	a 38.53	Dec. 3	a 39.43
27	34.10	July 10	34.71	Oct. 3	a 38.22	30	a 39.17
Apr. 1	a 35.09						

a Well M-6 pumping.

M-6b (#908, p. 96; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 33.81	May 7	34.89	Aug. 6	a 34.87	Nov. 8	a 34.88
Feb. 5	a 34.40	28	a 34.91	Sept. 2	a 35.27	Dec. 3	a 34.91
27	33.69	July 10	33.23	Oct. 3	a 34.23	30	a 34.64
Apr. 1	a 34.45						

a Well M-6 pumping.

M-7 (*908, p. 97; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 86; 1025, p. 87; 1073, p. 81). City of Wichita. NW. corner SW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 31.26	May 7	a 33.80	Aug. 6	a 32.16	Nov. 8	a 32.86
Feb. 5	a 30.72	28	22.36	Sept. 2	a 32.28	Dec. 3	a 32.92
27	21.80	July 10	a 32.26	Oct. 3	a 32.96	30	a 32.64
Apr. 1	23.57						

a Pumping.

M-7a (*908, p. 97; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 87; 1073, p. 81). City of Wichita. NW. corner SW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 24.56	May 7	a 25.91	Aug. 6	a 23.81	Nov. 8	a 24.31
Feb. 5	a 25.23	28	23.31	Sept. 2	a 24.06	Dec. 3	a 24.64
27	23.04	July 10	a 23.75	Oct. 3	a 24.16	30	a 24.19
Apr. 1	24.01						

a Well M-7 pumping.

M-7b (*908, p. 98; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 87; 1073, p. 81). City of Wichita. NW. corner SW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 24.35	May 7	a 24.51	Aug. 6	a 23.89	Nov. 8	a 25.24
Feb. 5	a 24.46	28	23.29	Sept. 2	a 23.97	Dec. 3	a 25.32
27	23.43	July 10	a 23.45	Oct. 3	a 25.19	30	a 25.12
Apr. 1	22.97						

a Well M-7 pumping.

M-8 (*908, p. 98; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 83.67	May 7	30.46	Aug. 6	a 82.71	Nov. 8	a 84.42
Feb. 5	29.01	28	a 81.71	Sept. 2	a 81.86	Dec. 3	29.88
27	28.26	July 10	a 84.47	Oct. 3	a 81.93	30	29.78
Apr. 1	a 81.04						

a Pumping.

M-8a (*908, p. 99; 938, p. 98; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 34.60	May 7	30.97	Aug. 6	a 35.24	Nov. 8	a 37.16
Feb. 5	30.11	28	a 34.99	Sept. 2	a 35.39	Dec. 3	29.74
27	29.60	July 10	a 35.04	Oct. 3	a 36.31	30	29.47
Apr. 1	a 34.92						

a Well M-8 pumping.

M-8b (*908, p. 99; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 28.69	May 7	28.24	Aug. 6	a 30.38	Nov. 8	a 30.78
Feb. 5	28.76	28	a 29.21	Sept. 2	a 30.27	Dec. 3	28.16
27	27.84	July 10	a 29.69	Oct. 3	a 30.56	30	30.21
Apr. 1	a 29.13						

a Well M-8 pumping.

M-9 (*908, p. 99; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6 T. 24 S., R. 2 W.

M-9--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 52.26	May 7	a 54.94	Aug. 6	a 56.20	Nov. 8	a 57.48
Feb. 5	a 51.38	28	a 54.43	Sept. 2	a 56.52	Dec. 3	a 57.48
27	a 54.42	July 10	a 54.01	Oct. 3	a 57.36	30	a 57.52
Apr. 1	a 52.68						

a Pumping.

M-9a (*908, p. 100; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W. Well M-9 pumping at time of each measurement.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	26.96	May 7	27.06	Aug. 6	27.91	Nov. 8	29.06
Feb. 5	27.08	28	26.89	Sept. 2	28.21	Dec. 3	29.08
27	27.05	July 10	27.00	Oct. 3	28.93	30	28.86
Apr. 1	27.01						

M-9b (*908, p. 100; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88; 1073, p. 82). City of Wichita. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W. Well M-9 pumping at time of each measurement.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	25.12	May 7	25.36	Aug. 6	26.69	Nov. 8	27.97
Feb. 5	25.52	28	25.28	Sept. 2	27.06	Dec. 3	27.68
27	25.64	July 10	26.16	Oct. 3	27.82	30	28.01
Apr. 1	25.19						

M-10 (*908, p. 101; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 88; 1025, p. 88; 1073, p. 82). City of Wichita. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	28.96	May 7	29.64	Aug. 6	a 70.08	Nov. 8	a 70.49
Feb. 5	28.82	28	29.77	Sept. 2	a 70.78	Dec. 3	a 70.86
27	28.21	July 10	a 69.48	Oct. 3	a 70.89	30	a 70.41
Apr. 1	29.46						

a Pumping.

M-10a (*908, p. 101; 938, p. 99; 946, p. 116; *988, p. 104; 1018, p. 88; 1025, p. 88; 1073, p. 83). City of Wichita. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	28.14	May 7	28.03	Aug. 6	a 31.34	Nov. 8	a 31.91
Feb. 5	28.06	28	28.12	Sept. 2	a 31.72	Dec. 3	a 35.91
27	28.14	July 10	a 30.56	Oct. 3	a 31.83	30	a 31.82
Apr. 1	27.93						

a Well M-10 pumping.

M-10b (*908, p. 102; 938, p. 99; 946, p. 117; *988, p. 104; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	28.04	May 7	28.16	Aug. 6	a 29.07	Nov. 8	a 30.62
Feb. 5	27.99	28	27.99	Sept. 2	a 29.56	Dec. 3	a 30.03
27	28.02	July 10	a 28.41	Oct. 3	a 30.17	30	a 30.58
Apr. 1	27.26						

a Well M-10 pumping.

M-11 (*908, p. 102; 938, p. 99; 946, p. 117; *988, p. 104; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.15	May 7	23.15	Aug. 6	38.21	Nov. 8	23.83
Feb. 5	20.91	28	a 41.96	Sept. 2	38.38	Dec. 3	39.78
27	a 41.19	July 10	a 42.38	Oct. 3	39.20	30	39.44
Apr. 1	22.85						

a Pumping.

M-11a (*908, p. 103; 938, p. 99; 946, p. 117; *988, p. 106; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.65	May 7	22.83	Aug. 6	24.78	Nov. 8	23.21
Feb. 5	22.69	28 a	24.73	Sept. 2	24.91	Dec. 3	25.27
27 a	24.36	July 10 a	24.84	Oct. 3	25.09	30	23.11
Apr. 1	23.71						

a Well M-11 pumping.

M-11b (*908, p. 103; 938, p. 99; 946, p. 117; *988, p. 105; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	23.86	May 7	23.76	Aug. 6	24.44	Nov. 8	24.11
Feb. 5	23.97	28 a	23.63	Sept. 2	24.12	Dec. 3 a	25.71
27 a	24.01	July 10 a	24.82	Oct. 3	25.29	30	23.24
Apr. 1	23.84						

a Well M-11 pumping.

M-12 (*908, p. 104; 938, p. 99; 946, p. 117; *988, p. 105; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7 a	57.61	May 7 a	59.30	Aug. 6 a	64.04	Nov. 8	28.57
Feb. 5	27.46	28 a	59.36	Sept. 2	64.12	Dec. 3 a	64.83
28 a	58.68	July 10 a	59.83	Oct. 3 a	64.01	30 a	65.44
Apr. 1 a	58.24						

a Pumping.

M-12a (*908, p. 104; 938, p. 100; 946, p. 117; *988, p. 106; 1018, p. 88; 1025, p. 89; 1073, p. 83). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7 a	32.23	May 7 a	33.62	Aug. 6 a	34.86	Nov. 8	29.71
Feb. 5	28.23	28 a	33.56	Sept. 2 a	35.09	Dec. 3 a	34.98
27 a	31.79	July 10 a	33.58	Oct. 3 a	34.87	30 a	34.57
Apr. 1 a	31.68						

a Well M-12 pumping.

M-12b (*908, p. 104; 938, p. 100; 946, p. 117; *988, p. 105; 1018, p. 89; 1025, p. 89; 1073, p. 83). City of Wichita. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7 a	32.32	Apr. 1 a	33.44	Aug. 6 a	34.23	Nov. 8	30.54
Feb. 5	29.26	May 5 a	33.68	Sept. 2 a	34.50	Dec. 3 a	31.08
27 a	33.80	July 10 a	32.98	Oct. 3 a	30.90	30 a	31.14

a Well M-12 pumping.

M-13 (*908, p. 105; 938, p. 100; 946, p. 118; *988, p. 105; 1018, p. 89; 1025, p. 89; 1073, p. 84). City of Wichita. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.12	May 7 a	46.13	Aug. 6 a	46.06	Nov. 8 a	47.73
Feb. 5 a	49.87	28 a	42.81	Sept. 2 a	47.26	Dec. 3 a	48.16
27 a	42.83	July 10 a	45.33	Oct. 3 a	47.56	30	22.31
Apr. 1 a	44.86						

a Pumping.

M-13a (*908, p. 105; 938, p. 100; 946, p. 118; *988, p. 106; 1018, p. 39; 1025, p. 90; 1073, p. 84). City of Wichita. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	23.16	May 7 a	24.36	Aug. 6 a	25.51	Nov. 8 a	26.28
Feb. 5 a	23.73	28 a	24.29	Sept. 2 a	25.83	Dec. 3 a	26.43
27 a	24.16	July 10 a	24.46	Oct. 3 a	25.93	30	24.57
Apr. 1 a	26.03						

a Well M-13 pumping.

M-13b (#908, p. 106; 938, p. 100; 946, p. 118; #988, p. 106; 1018, p. 89; 1025, p. 90; 1073, p. 84). City of Wichita. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	23.91	May 7	a 24.44	Aug. 6	a 25.29	Nov. 8	a 26.41
Feb. 5	a 22.47	28	a 24.51	Sept. 2	a 25.67	Dec. 3	a 26.66
27	a 24.05	July 10	a 24.73	Oct. 3	a 26.08	30	24.85
Apr. 1	a 25.57						

a Well M-13 pumping.

M-14 (#908, p. 106; 938, p. 101; 946, p. 118; #988, p. 106; 1018, p. 89; 1025, p. 90; 1073, p. 84). City of Wichita. NW corner NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	29.20	May 7	a 47.10	Aug. 6	a 54.98	Nov. 8	31.61
Feb. 5	a 46.49	28	a 49.37	Sept. 2	a 55.22	Dec. 3	a 55.69
27	a 49.20	July 10	30.81	Oct. 3	a 55.31	30	56.13
Apr. 1	a 49.38						

a Pumping.

M-14a (#908, p. 107; 938, p. 101; 946, p. 118; #988, p. 106; 1018, p. 89; 1025, p. 90; 1073, p. 84). City of Wichita. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	27.69	May 7	a 30.08	Aug. 6	a 33.93	Nov. 8	30.48
Feb. 5	a 29.66	28	a 30.12	Sept. 2	a 34.11	Dec. 3	a 34.32
27	a 34.00	July 10	30.17	Oct. 3	a 34.18	30	a 35.24
Apr. 1	a 31.36						

a Well M-14 pumping.

M-14b (#908, p. 107; 938, p. 101; 946, p. 118; #988, p. 106; 1018, p. 89; 1025, p. 90; 1073, p. 84). City of Wichita. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	27.19	May 7	a 29.99	Aug. 6	a 31.61	Nov. 8	30.31
Feb. 5	a 26.19	28	a 29.76	Sept. 2	a 31.83	Dec. 3	a 31.87
27	a 29.81	July 10	29.92	Oct. 3	a 31.63	30	a 30.99
Apr. 1	a 29.70						

a Well M-14 pumping.

M-15 (#908, p. 108; 938, p. 101; 946, p. 118; #988, p. 106; 1018, p. 89; 1025, p. 90; 1073, p. 84). City of Wichita. SE corner NE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 80.82	May 7	a 79.92	Aug. 6	a 79.08	Nov. 8	a 79.26
Feb. 5	a 79.60	28	a 80.10	Sept. 2	a 79.86	Dec. 3	a 79.39
27	26.17	July 10	a 80.12	Oct. 3	a 78.28	30	a 79.01
Apr. 1	a 79.39						

a Pumping.

M-15a (#908, p. 108; 938, p. 101; 946, p. 119; #988, p. 106; 1018, p. 90; 1025, p. 90; 1073, p. 84). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 33.24	May 7	a 32.76	Aug. 6	a 34.01	Nov. 8	a 34.59
Feb. 5	a 32.78	28	a 33.01	Sept. 2	a 34.44	Dec. 3	a 34.86
27	26.52	July 10	a 32.97	Oct. 3	a 34.23	30	a 34.39
Apr. 1	a 32.71						

a Well M-15 pumping.

M-15b (#908, p. 109; 938, p. 101; 946, p. 119; #988, p. 107; 1018, p. 90; 1025, p. 90; 1073, p. 85). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

M-15b--Continued.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 32.00	May 7	a 33.06	Aug. 5	a 32.03	Nov. 8	a 22.44
Feb. 5	a 31.66	28	a 32.76	Sept. 2	a 32.49	Dec. 3	a 22.73
27	a 26.82	July 10	a 31.25	Oct. 3	a 29.12	30	a 22.26
Apr. 1	a 31.35						

a Well M-15 pumping.

M-16 (*908, p. 109; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 52.88	May 7	a 48.37	Aug. 6	a 55.72	Nov. 8	a 55.91
Feb. 5	a 23.46	28	a 25.86	Sept. 2	a 55.80	Dec. 3	a 56.12
27	a 55.46	July 10	a 52.48	Oct. 3	a 55.63	30	a 55.77
Apr. 1	a 55.37						

a Pumping.

M-16a (*908, p. 110; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 28.20	May 7	a 28.46	Aug. 6	a 30.18	Nov. 8	a 30.63
Feb. 5	a 24.64	28	a 23.73	Sept. 2	a 30.54	Dec. 3	a 30.76
27	a 27.42	July 10	a 28.16	Oct. 3	a 30.39	30	a 30.31
Apr. 1	a 27.54						

a Well M-16 pumping.

M-16b (*908, p. 110; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 22.92	May 7	a 23.21	Aug. 6	a 23.56	Nov. 8	a 23.83
Feb. 5	a 22.69	28	a 22.87	Sept. 2	a 23.93	Dec. 3	a 23.94
27	a 22.83	July 10	a 22.40	Oct. 3	a 23.61	30	a 23.72
Apr. 1	a 23.40						

a Well M-16 pumping.

M-17 (*908, p. 111; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 44.42	May 7	a 44.83	Aug. 6	a 47.36	Nov. 8	a 27.52
Feb. 5	a 45.51	28	a 43.93	Sept. 2	a 47.60	Dec. 3	a 25.84
27	a 18.46	July 10	a 44.88	Oct. 3	a 27.21	30	a 27.44
Apr. 1	a 17.83						

a Pumping.

M-17a (*908, p. 111; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 16.66	May 7	a 19.19	Aug. 6	a 20.31	Nov. 8	a 20.66
Feb. 5	a 16.67	28	a 19.05	Sept. 2	a 20.71	Dec. 3	a 21.28
27	a 16.68	July 10	a 18.44	Oct. 3	a 20.47	30	a 20.49
Apr. 1	a 16.38						

a Well M-17 pumping.

M-17b (*908, p. 112; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 90; 1025, p. 91; 1073, p. 85). City of Wichita. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

M-17b--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 15.03	May 7	a 14.64	Aug. 6	a 15.21	Nov. 8	15.32
Feb. 5	a 15.00	28	a 14.71	Sept. 2	a 15.38	Dec. 3	15.83
27	15.29	July 10	a 13.25	Oct. 3	15.16	30	15.11
Apr. 1	14.47						

a Well M-17 pumping.

M-18 (*908, p. 112; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 91; 1073, p. 86). City of Wichita. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	26.06	May 7	21.88	Aug. 6	a 47.89	Nov. 8	a 49.71
Feb. 5	21.21	28	a 47.63	Sept. 2	a 48.27	Dec. 3	a 50.09
27	a 48.31	July 10	21.79	Oct. 3	a 49.20	30	a 49.91
Apr. 1	23.17						

a Pumping.

M-18a (*908, p. 113; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 91; 1073, p. 86). City of Wichita. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	19.77	May 7	19.77	Aug. 6	a 20.08	Nov. 8	a 21.02
Feb. 5	19.64	28	a 20.38	Sept. 2	a 20.66	Dec. 3	a 20.74
27	a 30.34	July 10	19.21	Oct. 3	a 20.83	30	a 21.27
Apr. 1	19.58						

a Well M-18 pumping.

M-18b (*908, p. 113; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 92; 1073, p. 86). City of Wichita. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	19.34	May 7	18.11	Aug. 6	a 18.18	Nov. 8	a 19.63
Feb. 5	19.19	28	a 18.09	Sept. 2	a 18.57	Dec. 3	a 19.78
27	a 26.14	July 10	16.88	Oct. 3	a 19.37	30	a 19.27
Apr. 1	19.26						

a Well M-18 pumping.

M-19 (*908, p. 113; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 92; 1073, p. 86). City of Wichita. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 34.71	May 7	a 37.14	Aug. 6	a 39.12	Nov. 8	a 38.41
Feb. 5	a 35.33	28	a 36.18	Sept. 2	a 38.28	Dec. 3	a 38.99
27	a 37.40	July 10	a 36.98	Oct. 3	a 38.06	30	a 38.60
Apr. 1	a 36.08						

a Pumping.

M-19a (*908, p. 114; 938, p. 104; 946, p. 20; *988, p. 108; 1018, p. 91; 1025, p. 92; 1073, p. 86). City of Wichita. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 24 S., R. 2 W. Well M-19 pumping at time of each measurement.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	24.32	May 7	25.38	Aug. 6	25.50	Nov. 8	26.42
Feb. 5	24.68	28	24.99	Sept. 2	26.28	Dec. 3	26.96
27	24.51	July 10	24.76	Oct. 3	26.01	30	26.57
Apr. 1	25.61						

M-19b (*908, p. 114; 938, p. 104; 946, p. 121; *988, p. 108; 1018, p. 91; 1025, p. 92; 1073, p. 86). City of Wichita. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 24 S., R. 2 W. Well M-19 pumping at time of each measurement.

M-19b--Continued.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.09	May 7	21.12	Aug. 6	22.11	Nov. 8	21.89
Feb. 5	21.63	28	20.84	Sept. 2	22.86	Dec. 3	22.09
27	21.69	July 10	20.13	Oct. 5	21.54	30	21.51
Apr. 1	21.83						

M-20 (*908, p. 115; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 92; 1073, p. 86). City of Wichita. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 26.81	May 7	a 61.71	Aug. 6	a 62.28	Nov. 8	a 63.98
Feb. 5	a 59.04	28	a 58.47	Sept. 2	a 63.71	Dec. 3	a 26.16
27	a 26.64	July 10	a 60.76	Oct. 5	a 63.86	30	a 64.10
Apr. 1	a 58.61						

a Pumping.

M-20a (*908, p. 115; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 92; 1073, p. 86). City of Wichita. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 27.16	May 7	a 27.16	Aug. 6	a 27.18	Nov. 8	a 28.26
Feb. 5	a 26.98	28	a 27.04	Sept. 2	a 27.60	Dec. 3	a 26.61
27	a 26.69	July 10	a 27.29	Oct. 3	a 27.73	30	a 28.32
Apr. 1	a 27.51						

a Well M-20 pumping.

M-20b (*908, p. 116; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 92; 1073, p. 87). City of Wichita. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 27.16	May 7	a 27.63	Aug. 6	a 28.71	Nov. 8	a 30.27
Feb. 5	a 27.39	28	a 27.52	Sept. 2	a 29.43	Dec. 3	a 26.95
27	a 27.34	July 10	a 28.30	Oct. 3	a 29.69	30	a 30.19
Apr. 1	a 28.63						

a Well M-20 pumping.

M-21 (*908, p. 116; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 92; 1073, p. 87). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 31.20	May 7	18.42	Aug. 6	a 33.73	Nov. 8	a 33.27
Feb. 5	20.76	28	a 30.61	Sept. 2	a 32.56	Dec. 3	18.56
27	a 32.90	July 10	a 32.56	Oct. 3	a 32.91	30	a 33.21
Apr. 1	18.67						

a Pumping.

M-21a (*908, p. 117; 938, p. 105; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 93; 1073, p. 87). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 23.02	May 7	18.16	Aug. 6	a 25.03	Nov. 8	a 26.23
Feb. 5	17.47	28	a 19.79	Sept. 2	a 22.18	Dec. 3	18.36
27	a 22.74	July 10	a 20.26	Oct. 3	a 22.46	30	a 28.00
Apr. 1	19.86						

a Well M-21 pumping.

M-21b (*908, p. 117; 938, p. 105; 946, p. 122; *988, p. 109; 1018, p. 92; 1025, p. 93; 1073, p. 87). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 20.32	May 7	16.70	Aug. 6	a 20.44	Nov. 8	a 22.04
Feb. 5	17.14	28	a 18.98	Sept. 2	a 20.91	Dec. 3	17.06
27	a 20.52	July 10	a 19.58	Oct. 3	a 19.41	30	a 21.64
Apr. 1	18.35						

a Well M-21 pumping.

M-22 (*908, p. 118; 938, p. 105; 946, p. 122; *988, p. 110; 1018, p. 92; *1025, p. 93; 1073, p. 87). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	18.22	May 7	a 39.76	Aug. 6	a 43.29	Nov. 8	19.91
Feb. 5	18.46	28	19.23	Sept. 2	a 44.96	Dec. 3	20.06
27	20.24	July 10	19.38	Oct. 3	a 44.75	30	19.96
Apr. 1	20.04						

a Pumping.

M-22a (*908, p. 118; 938, p. 105; 946, p. 122; *988, p. 110; 1018, p. 92; 1025, p. 93; 1073, p. 87). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	18.77	May 7	a 19.96	Aug. 6	a 21.73	Nov. 8	19.93
Feb. 5	18.22	28	19.29	Sept. 2	a 21.28	Dec. 3	20.11
27	18.23	July 10	19.45	Oct. 3	a 21.09	30	19.84
Apr. 1	19.21						

a Well M-22 pumping.

M-22b (*908, p. 118; 938, p. 105; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93; 1073, p. 87). City of Wichita. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	19.81	May 7	a 19.23	Aug. 6	a 20.34	Nov. 8	20.25
Feb. 5	19.02	28	19.06	Sept. 2	a 20.63	Dec. 3	20.36
27	19.50	July 10	19.95	Oct. 3	a 19.56	30	20.12
Apr. 1	19.23						

a Pumping.

M-23 (*908, p. 119; 938, p. 106; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93; 1073, p. 87). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.59	May 7	a 43.52	Aug. 6	a 44.73	Nov. 8	a 47.83
Feb. 5	19.96	28	a 42.52	Sept. 2	a 47.32	Dec. 3	16.26
27	a 43.92	July 10	a 42.08	Oct. 3	a 47.46	30	a 47.85
Apr. 1	15.92						

a Pumping.

M-23a (*908, p. 120; 938, p. 106; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93; 1073, p. 88). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	16.56	May 7	a 17.85	Aug. 6	a 17.87	Nov. 8	a 18.80
Feb. 5	16.66	28	a 17.81	Sept. 2	a 18.14	Dec. 3	16.88
27	a 18.06	July 10	a 17.06	Oct. 3	a 18.31	30	a 18.62
Apr. 1	16.42						

a Well M-23 pumping.

M-23b (*908, p. 120; 938, p. 106; 946, p. 123; *988, p. 110; 1018, p. 93; 1025, p. 93; 1073, p. 88). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.49	May 7	a 17.71	Aug. 6	a 15.88	Nov. 8	a 16.81
Feb. 5	17.62	28	a 17.52	Sept. 2	a 16.46	Dec. 3	16.79
27	a 17.05	July 20	a 15.33	Oct. 3	a 16.70	30	a 16.69
Apr. 7	16.44						

a Well M-23 pumping.

M-24 (*908, p. 121; 938, p. 106; 946, p. 123; *988, p. 110; 1018, p. 93; 1025, p. 94; 1073, p. 88). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 39.11	May 7	a 38.52	Aug. 6	a 44.74	Nov. 8	a 48.71
Feb. 5	a 39.33	28	15.73	Sept. 2	a 48.83	Dec. 3	a 48.96
27	a 39.25	July 10	a 42.22	Oct. 3	17.86	30	a 48.91
Apr. 1	17.56						

a Pumping.

M-24a (*908, p. 121; 938, p. 106; 946, p. 123; *988, p. 111; 1018, p. 93; 1025, p. 94; 1073, p. 88). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 19.78	May 7	a 19.38	Aug. 6	a 19.71	Nov. 8	a 21.21
Feb. 5	a 19.73	28	16.31	Sept. 2	a 20.36	Dec. 3	a 21.38
27	a 19.89	July 10	a 19.09	Oct. 3	17.96	30	a 21.37
Apr. 1	18.61						

a Well M-24 pumping.

M-24b (*908, p. 122; 938, p. 107; 946, p. 123; *988, p. 111; 1018, p. 93; 1025, p. 94; 1073, p. 88). City of Wichita. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	a 19.30	Apr. 1	18.58	Aug. 6	a 18.81	Nov. 8	a 19.76
Feb. 5	a 19.28	May 7	a 18.46	Sept. 2	a 19.23	Dec. 3	a 19.94
27	a 18.39	July 10	a 18.29	Oct. 3	18.97	30	a 19.62

a Well M-24 pumping.

M-25 (*908, p. 122; 938, p. 107; 946, p. 123; *988, p. 111; 1018, p. 94; 1025, p. 94; 1073, p. 88). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.39	May 7	a 35.96	Aug. 6	a 42.83	Nov. 8	13.06
Feb. 5	a 33.94	28	a 36.09	Sept. 2	a 44.61	Dec. 3	a 45.16
27	13.49	July 10	a 41.59	Oct. 3	a 44.98	30	a 45.71
Apr. 1	12.49						

a Pumping.

M-25a (*908, p. 123; 938, p. 107; 946, p. 123; *988, p. 111; 1018, p. 94; 1025, p. 94; 1073, p. 88). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	12.05	May 7	a 11.59	Aug. 6	a 12.08	Nov. 8	14.09
Feb. 5	a 13.49	28	a 11.52	Sept. 2	a 12.41	Dec. 3	a 13.41
27	12.59	July 10	a 11.78	Oct. 3	a 12.76	30	a 14.91
Apr. 1	13.43						

a Well M-25 pumping.

M-25b (*908, p. 123; 938, p. 107; 946, p. 124; *988, p. 111; 1018, p. 94; 1025, p. 94; 1073, p. 88). City of Wichita. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	13.25	May 7	a 13.01	Aug. 6	a 12.91	Nov. 8	14.22
Feb. 5	a 14.61	28	a 12.89	Sept. 2	a 13.26	Dec. 3	a 14.97
27	14.17	July 10	a 12.58	Oct. 3	a 14.83	30	a 14.50
Apr. 1	13.57						

a Well M-25 pumping.

Haskell County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in Haskell County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
4	6.5	196.87	May 6, 1947	197.78	Sept. 17, 1941
6	6.5	154.73	Nov. 20, 1946	158.66	Feb. 6, 1946
7	6.5	187.14	Jan. 25, 1944	205.91	Aug. 14, 1947
9	6.5	206.96	May 7, 1947	208.78	Aug. 9, 1943
10	6.5	47.96	Aug. 9, 1943	51.57	Nov. 21, 1946
11	6.5	183.84	Dec. 28, 1943	186.60	May 6, 1947
12	6.5	179.40	Nov. 3, 1941	184.88	Nov. 24, 1947
14	6.5	151.50	Aug. 16, 1945	154.75	Feb. 6, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 8 wells in Haskell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
4	.91	+0.10	+0.78
6	3.93	-1.37	+0.05
7	18.77	+0.04	+0.21
9	1.82	-.51	-.01
10	3.61	+2.97	+1.27
11	2.76	+0.67	-.16
12	5.48	-3.86	-4.22
14	3.25	+3.08	+0.25

4 (*938, p. 108; 946, p. 125; *988, p. 112; 1018, p. 95; 1025, p. 95; 1073, p. 89). Dean Nelson. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 28 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 197.15; May 6, 196.87. Measurements discontinued Nov. 23, 1947.

6 (*938, p. 108; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95; 1073, p. 89). Copeland State Bank. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 29 S., R. 31 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 156.54; May 6, 156.47; Aug. 28, 156.37; Nov. 23, 156.10.

7 (*938, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95; 1073, p. 89). Etta McCoy. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 30 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 187.97; May 6, 187.44; Aug. 14, 205.91; Nov. 24, 187.29.

9 (*938, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95; 1073, p. 89). Bessie Custer. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 30 S., R. 34 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 208.21; May 7, 206.96; Nov. 24, 207.69.

10 (*908, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95; 1073, p. 89). Eli Stoops. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 30 S., R. 34 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	49.97	Apr. 18	50.24	Aug. 14	49.76	Nov. 24	48.38
Feb. 11	50.07	May 7	49.81	Oct. 21	49.96	Dec. 12	48.60
Mar. 7	50.40	July 24	50.31				

11 (*938, p. 109; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96; 1073, p. 89). L. C. Leonard. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 30 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: May 6, 186.60; Aug. 14, 184.24; Nov. 24, 184.20.

12 (*938, p. 109; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96; 1073, p. 90). Sybol Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 30 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Feb. 11, 182.07; May 6, 182.64; Nov. 24, 184.88.

14 (*938, p. 110; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96; 1073, p. 90). William Dreyer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 27 S., R. 34 W. Water levels, in feet below land-surface datum, 1947: May 6, 151.51; Aug. 28, 151.68; Nov. 24, 151.67.

Hodgeman County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Hodgeman County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
3	7	30.04	July 15, 1947	34.77	Sept. 20, 1940
4	7	22.74	June 3, 1944	27.52	Oct. 2, 1941
5	7	27.86	June 3, 1944	33.08	Oct. 29, 1940 Aug. 20, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Hodgeman County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
3	4.73	+0.65	2.89
4	4.78	+ .90	3.39
5	5.22	-2.28	.21

3 (*908, p. 125; 928, p. 110; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96; 1073, p. 90). W. J. Fox. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 21 S., R. 22 W. Water levels, in feet below land-surface datum, 1947: Jan. 22, 30.94; Apr. 2, 30.48; July 15, 30.04; Oct. 8, 31.80.

4 (*908, p. 125; 938, p. 111; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96; 1073, p. 90). William Macey. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 22 S., R. 22 W. Water levels, in feet below land-surface datum, 1947: Jan. 22, 24.38; Apr. 2, 24.50 July 11, 23.64.

5 (*908, p. 125; 938, p. 111; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96; 1073, p. 90). Roy Klein. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 22 S., R. 22 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22	29.81	Apr. 21	30.15	July 11	29.23	Nov. 18	32.28
Feb. 18	30.63	May 13	29.67	Aug. 26	31.86	Dec. 8	31.82
Mar. 17	30.10	June 10	29.00				

Jewell County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 21 wells in Jewell County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
6	13	29.19	Oct. 31, 1944	46.76	Oct. 13, 1937
8	13	3.87	June 24, 1947	68.06	Aug. 23, 1934
12	13	54.62	June 24, 1947	77.79	June 8, 1938
14	13	14.53	June 24, 1947	46.69	Mar. 20, 1934
22	13	9.38	June 24, 1947	25.68	Aug. 10, 1934
25	13	8.50	Sept. 24, 1945	15.72	Mar. 2, 1935
30	13	22.46	June 24, 1947	43.45	Sept. 20, 1940
34	13	10.25	Feb. 19, 1942	33.92	Aug. 19, 1940

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 21 wells in Jewell County--Continued

Well	Length of record (years)	Highest level	Date	Lowest level	Date
40	13	37.64	July 16, 1945	43.13	Oct. 6, 1937
41	12	10.27	June 24, 1947	27.38	May 23, 1941
42	12	23.32	Sept. 17, 1946	31.10	May 11, 1935
44	12	5.00	Aug. 2, 1944	24.03	May 9, 1935
45	12	18.24	June 24, 1947	34.39	Dec. 21, 1940
46	12	.36	June 24, 1947	17.54	Aug. 30, 1934
47	12	.98	June 24, 1947	13.84	May 9, 1935
48	12	6.66	Apr. 25, 1947	27.19	Oct. 25, 1934
49	12	13.15	June 24, 1947	46.83	Nov. 24, 1934
64	11	53.00	June 24, 1947	65.90	Jan. 19, 1938
65	11	9.62	Nov. 23, 1942	38.10	Aug. 20, 1940
66	11	8.67	June 24, 1947	27.55	Oct. 23, 1940
69	10	6.31	Sept. 17, 1946	24.50	Aug. 19, 1940

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 21 wells in Jewell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
6	17.57	+0.06	1.78
8	64.19	-5.18	39.34
12	23.17	-.57	8.35
14	32.16	-2.68	24.05
22	16.30	-1.79	10.25
25	7.22	-1.29	3.49
30	20.99	+3.30	10.57
34	23.67	-4.67	7.86
40	5.49	+3.31	4.13
41	17.11	-.34	12.05
42	7.78	+1.42	4.32
44	19.03	-.54	7.70
45	16.15	+1.11	10.27
46	17.18	-3.36	11.21
47	12.86	-4.66	4.50
48	20.53	-11.35	7.05
49	33.68	-3.30	16.32
64	12.90	-.67	8.01
65	28.48	-.76	19.04
66	18.98	-1.12	8.53
69	18.19	-1.51	7.84

6 (*777, pp. 67-68; *817, pp. 65-67; *840, pp. 110-112; *845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131; *988, p. 116; 1018, p. 97; 1025, p. 98; 1073, p. 91). H. C. Doud. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	48.47	Apr. 25	39.75	July 25	37.18	Oct. 24	39.68
Feb. 25	40.59	May 26	39.32	Aug. 25	38.66	Nov. 24	40.00
Mar. 25	40.32	June 24	38.34	Sept. 26	39.28	Dec. 30	40.32

8 (*777, pp. 67-68; *817, pp. 65-67; *840, pp. 110-112; *845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131; *988, p. 116; 1018, p. 97; 1025, p. 98; 1073, p. 91). Will Zadina. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	18.96	Apr. 25	5.62	July 25	10.06	Oct. 24	19.50
Feb. 25	15.00	May 26	5.80	Aug. 25	15.08	Nov. 24	21.05
Mar. 25	10.28	June 24	3.87	Sept. 26	18.28	Dec. 30	23.33

12 (*777, pp. 67-68; *817, pp. 65-67; *840, pp. 110-112; *845, p. 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 129, 131; *988, p. 116; 1018, p. 97; 1025, p. 98; 1073, p. 91). M. W. Howe. Lot 4 of sec. 30, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	64.78	Apr. 25	59.00	July 25	56.29	Oct. 24	64.14
Feb. 25	64.79	May 26	58.92	Aug. 25	59.70	Nov. 24	64.70
Mar. 25	63.45	June 24	54.62	Sept. 26	62.54	Dec. 30	64.75

14 (*777, p. 67; *817, pp. 65-67; *840, pp. 110-112; *845, pp. 104, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131; *988, p. 116; 1018, p. 98; 1025, p. 98; 1073, p. 92). C. Walker. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	20.40	Apr. 25	15.16	July 25	15.50	Oct. 24	21.27
Feb. 25	20.40	May 26	15.87	Aug. 25	17.76	Nov. 25	22.13
Mar. 25	18.17	June 24	14.53	Sept. 26	20.10	Dec. 30	22.64

22 (*777, pp. 68-69; *817, pp. 65-69; *840, pp. 110, 114, 117; *845, pp. 105, 111, 114; 886, p. 172; 908, p. 130; 938, p. 114; 946, pp. 129, 131; *988, p. 117; 1018, p. 98; 1025, p. 98; 1073, p. 92). Meyer Miles. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 5 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.98	Apr. 25	10.61	July 25	10.07	Oct. 24	12.43
Feb. 25	11.19	May 26	10.60	Aug. 25	11.17	Nov. 25	12.67
Mar. 25	11.19	June 24	9.38	Sept. 26	12.03	Dec. 30	12.63

25 (*777, pp. 68, 69; *817, pp. 65, 69; *840, pp. 110, 112; 845, pp. 105, 109; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131; *988, p. 117; 1018, p. 98; 1025, p. 98; 1073, p. 92). J. N. Sorrell. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 5 S., R. 9 W. Measuring point beginning Sept. 17, 1946, top of rock well curb, north side, 0.4 foot below old measuring point, 1.2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.06	Apr. 25	9.83	July 25	10.12	Oct. 24	10.56
Feb. 25	10.47	May 26	9.95	Aug. 25	10.32	Nov. 24	10.75
Mar. 25	10.30	June 24	9.92	Sept. 26	10.55	Dec. 30	11.00

30 (*777, pp. 68, 69; *817, pp. 65, 69; *840, pp. 110, 114, 117; 845, pp. 105, 111, 114; 886, p. 172; 908, p. 130; 938, p. 114; 945, pp. 129-131; *988, p. 117; 1018, p. 98; 1025, p. 98; 1073, p. 92). Fred Van Wey. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 4 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	25.58	Apr. 25	23.93	July 25	23.39	Oct. 24	27.99
Feb. 25	24.94	May 26	23.55	Aug. 25	25.99	Nov. 25	26.82
Mar. 25	24.58	June 24	22.46	Sept. 26	27.50	Dec. 30	26.23

34 (*817, pp. 65, 77; *840, pp. 110, 114, 118; *845, pp. 105, 111; 886, p. 172; 908, p. 130; 938, p. 114; 946, p. 131; *988, p. 117; 1018, p. 98; 1025, p. 98; 1073, p. 92). Glen Kinder. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 3 S., R. 10 W. Measuring point beginning Sept. 18, 1946, top of platform, 0.4 foot above old measuring point, 1.2 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	14.76	Apr. 25	11.17	July 25	14.47	Oct. 24	19.01
Feb. 25	14.92	May 26	12.50	Aug. 25	16.67	Nov. 24	18.36
Mar. 25	14.07	June 24	12.93	Sept. 26	18.18	Dec. 30	18.34

40 (*777, pp. 68, 69; *817, pp. 65, 69; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, p. 131; *988, p. 118; 1018, p. 98; 1025, p. 98; 1073, p. 92). R. L. McDaniel. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 4 S., R. 9 W. Measuring point beginning Sept. 16, 1946, 0.2 foot below old measuring point, 0.7 foot above land-surface datum.

40--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	38.43	Apr. 25	38.89	Aug. 25	37.77	Nov. 25	39.02
Feb. 25	38.84	May 26	38.36	Sept. 26	37.97	Dec. 30	38.19
Mar. 25	38.63	June 24	37.90	Oct. 24	38.65		

41 (*777, pp. 68, 69; *817, pp. 65, 69; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131; *988, p. 118; 1018, p. 98; 1025, p. 98; 1073, p. 92). Walter Dietz. Lot 16 of sec. 6, T. 5 S., R. 9 W. Measuring point beginning Sept. 17, 1946, 0.2 foot below old measuring point, 1.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	12.89	Apr. 25	11.66	July 25	11.99	Oct. 24	14.23
Feb. 25	12.78	May 26	11.15	Aug. 25	12.65	Nov. 24	13.66
Mar. 25	12.60	June 24	10.27	Sept. 26	13.88	Dec. 30	13.38

42 (*777, pp. 68, 69; *817, pp. 65, 69; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131; *988, p. 118; 1018, p. 98; 1025, p. 98; 1073, p. 92). L. Lowdermilk. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 6 S., R. 9 W. Measurements in this and future reports will be included under Mitchell County, well 6-9-27ab.

44 (*777, pp. 68, 69; *817, pp. 66, 71; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131; *988, p. 118; 1018, p. 98; 1025, p. 99; 1073, p. 92). Cleo Gimple. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 4 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	8.84	Apr. 25	8.65	Aug. 25	9.59	Nov. 25	9.24
Feb. 25	8.89	May 26	8.80	Sept. 26	9.62	Dec. 30	9.30
Mar. 25	8.83	July 25	9.05	Oct. 24	9.45		

45 (*777, pp. 68, 69; *817, pp. 66, 71; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, p. 114; 946, pp. 130, 131; *988, p. 119; 1018, p. 98; 1025, p. 99; 1073, p. 93). Victor Yapp. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 4 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	19.78	Apr. 25	19.62	July 25	18.63	Oct. 24	20.55
Feb. 25	19.84	May 26	18.84	Aug. 25	19.64	Nov. 24	19.93
Mar. 25	19.84	June 24	18.24	Sept. 26	20.33	Dec. 30	19.75

46 (*817, pp. 66, 71; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, pp. 113, 114; 946, pp. 130, 131; *988, p. 119; 1018, p. 99; 1025, p. 99; 1073, p. 93). Ralph Wierenga. Lot 3 of sec. 19, T. 5 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	2.02	Apr. 25	1.68	July 25	2.68	Oct. 24	5.63
Feb. 25	1.81	May 26	2.06	Aug. 25	4.57	Nov. 24	5.50
Mar. 25	1.39	June 24	.36	Sept. 26	5.54	Dec. 30	5.36

47 (*817, pp. 66, 71; *840, pp. 111, 114; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, pp. 113, 114; 946, p. 131; *988, p. 119; 1018, p. 99; 1025, p. 99; 1073, p. 93). Meyer Miles. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 5 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	3.58	Apr. 25	2.25	July 25	3.55	Oct. 24	7.58
Feb. 25	3.98	May 26	2.51	Aug. 25	6.05	Nov. 25	7.43
Mar. 25	3.60	June 24	.98	Sept. 26	7.42	Dec. 30	7.48

48 (*777, pp. 68, 69; *817, pp. 66, 71; *840, pp. 111, 114; *845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132; *988, p. 119; 1018, p. 99; 1025, p. 99; 1073, p. 93). Frank Rogers. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 4 S., R. 10 W.

48--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	7.38	Apr. 25	6.66	July 25	8.33	Oct. 24	13.30
Feb. 25	7.68	May 26	6.82	Aug. 25	8.82	Nov. 24	16.65
Mar. 25	7.76	June 24	7.73	Sept. 26	10.76	Dec. 30	18.80

49 (*777, pp. 68, 69; *817, pp. 66, 71; *840, pp. 111, 114; *845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132; *988, p. 119; 1018, p. 99; 1025, p. 99; 1073, p. 93). E. Underwood. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	17.06	Apr. 25	14.91	July 25	13.95	Oct. 24	19.59
Feb. 25	17.34	May 26	14.47	Aug. 25	16.59	Nov. 24	19.63
Mar. 25	17.02	June 24	13.15	Sept. 26	19.20	Dec. 30	19.83

64 (*840, pp. 111, 114; *845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132; *988, p. 120, 1018, p. 99; 1025, p. 99; 1073, p. 93). Chris Vandeventer, former owner. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 3 S., R. 8 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	56.72	Apr. 25	55.70	July 25	53.35	Oct. 24	55.92
Feb. 25	57.28	May 26	54.90	Aug. 25	54.48	Nov. 24	56.32
Mar. 25	56.79	June 24	53.00	Sept. 26	55.36	Dec. 30	56.81

65 (*840, pp. 111, 114; *845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 114; 946, p. 131; *988, p. 121; 1018, p. 99; 1025, p. 99; 1073, p. 93). Mrs. B. M. Parkhurst. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 3 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	11.10	Apr. 25	10.49	July 25	10.93	Oct. 24	12.20
Feb. 25	11.07	May 26	10.72	Aug. 25	11.69	Nov. 25	11.77
Mar. 25	10.89	June 24	10.42	Sept. 26	12.14	Dec. 30	11.60

66 (*840, pp. 111, 114; *845, pp. 108, 110; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132; *988, p. 121; 1018, p. 99; 1025, p. 99; 1073, p. 93). A. E. Cook farm. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 5 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	13.17	Apr. 25	13.22	July 25	10.70	Oct. 24	14.11
Feb. 25	13.52	May 26	11.28	Aug. 25	12.48	Nov. 24	13.95
Mar. 25	13.76	June 24	8.67	Sept. 26	13.71	Dec. 30	13.88

69 (*840, pp. 111, 119; *845, pp. 109, 115; 886, p. 171; 908, p. 130; 938, p. 115; 946, p. 132; *988, p. 121; 1018, p. 99; 1025, p. 99; 1073, p. 93). Walter Dietz, NW $\frac{1}{4}$ lot 2 of sec. 7, T. 5 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.28	Apr. 25	9.00	July 25	8.88	Oct. 24	11.99
Feb. 25	10.55	May 26	9.62	Aug. 25	10.54	Nov. 24	11.42
Mar. 25	10.29	June 24	7.00	Sept. 26	11.45	Dec. 30	11.53

Kearny County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in Kearny County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	8	6.37	Dec. 6, 1946	12.13	Sept. 10, 1945
2	8	50.39	Dec. 4, 1943	59.74	Sept. 20, 1940
11	8	11.56	Nov. 23, 1946	15.37	Mar. 15, 1941
12	5	5.52	Nov. 23, 1946	11.09	Nov. 6, 1945
13	8	1.47	May 9, 1942	8.93	Dec. 20, 1939
16	8	39.00	Nov. 19, 1947	47.81	July 3, 1941
19	8	130.34	Aug. 16, 1947	134.67	Nov. 15, 1945
28	8	121.41	Nov. 5, 1943	123.85	Feb. 19, 1940
					Oct. 22, 1940

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 8 wells in Kearny County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
1	5.76	-0.55	4.41
2	9.35	+1.82	7.53
11	3.81	-.51	2.11
12	5.57	-1.25	7.25
13	7.46	-.08	3.62
16	8.81	+1.03	6.48
19	4.33	+0.09	.38
28	2.44	-1.02	1.22

1 (*886, p. 164, 908, p. 133; *938, p. 116; 946, p. 133; *988, p. 122; 1018, p. 100; 1025, p. 100; 1073, p. 94). R. T. Beatly. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 24 S., R. 36 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	7.00	Apr. 10	6.95	July 12	7.12	Oct. 13	9.03
Feb. 21	9.14	May 24	7.49	Aug. 16	8.68	Nov. 19	8.42
Mar. 8	8.27	June 18	8.09	Sept. 11	8.83	Dec. 19	6.92

2 (*886, p. 164; 908, p. 133; *938, p. 116; 946, p. 133; *988, p. 122; 1018, p. 100; 1025, p. 100; 1073, p. 94). C. E. Worthen. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 24 S., R. 36 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	53.67	Apr. 23	53.03	July 12	51.30	Oct. 17	51.97
Feb. 21	53.01	May 10	53.07	Aug. 8	50.89	Nov. 19	51.25
Mar. 8	53.05	June 14	52.49	Sept. 11	50.82	Dec. 19	50.95

7 (*886, p. 164; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 122; 1018, p. 100; 1025, p. 100; 1073, p. 94). C. H. Browne. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 25 S., R. 37 W. Measurements discontinued Nov. 19, 1947.

11 (*886, p. 165; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 122; 1018, p. 100; 1025, p. 101; 1073, p. 94). P. J. Fichter. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 25 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 12.02; May 14, 12.07. Measurements discontinued Nov. 19, 1947.

12 (*988, p. 123; 1018, p. 100; 1025, p. 101; 1073, p. 95). J. E. Beymer. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T. 24 S., R. 35 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 7.63; May 14, 7.34; Aug. 16, 7.73; Nov. 19, 6.77.

13 (*886, p. 165; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 123; 1018, p. 101; 1025, p. 101; 1073, p. 95). D. S. Nicholson. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 25 S., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	4.86	Apr. 5	3.80	July 25	3.88	Oct. 10	5.16
Feb. 15	2.99	May 16	4.25	Aug. 20	4.12	Nov. 19	5.04
Mar. 8	5.00	June 21	4.56	Sept. 11	4.68	Dec. 6	4.94

16 (*886, p. 165; *908, p. 134; 938, p. 118; 946, p. 134; *988, p. 123; 1018, p. 101; 1025, p. 101; 1073, p. 95). C. B. Campbell. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 23 S., R. 35 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 40.03; May 3, 40.10; Aug. 16, 39.97; Nov. 19, 39.00.

19 (*886, p. 165; 908, p. 135; *938, p. 118; 946, p. 135; *988, p. 123; 1018, p. 101; 1025, p. 101; 1073, p. 95). E. M. Beymer. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 26 S., R. 38 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 130.40; Aug. 16, 130.34; Nov. 25, 130.49.

28 (*886, p. 166; 908, p. 135; *938, p. 118; 947, p. 135; *988, p. 124; 1018, p. 101; 1025, p. 101; 1073, p. 95). Harry Tate. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 22 S., R. 37 W. Water levels, in feet below land-surface datum, 1947: Feb. 21, 121.60; May 3, 121.59; Aug. 8, 121.54; Nov. 19, 122.55.

Kingman County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 12 wells in Kingman County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	1.6	11.79	July 20, 1945	15.25	Nov. 12, 1946
2	1.6	7.69	Jan. 9, 1946	13.80	Nov. 20, 1946
4	1.6	58.20	July 19, 1947	65.13	Feb. 6, 1947
5	1.6	19.39	Feb. 8, 1946	20.60	Dec. 5, 1946
6	1.6	30.08	July 19, 1947	32.68	Aug. 29, 1946
7	1.6	46.54	Nov. 13, 1945	48.36	Feb. 28, 1947
					Oct. 7, 1947
8	1.6	5.41	Jan. 9, 1946	8.32	Sept. 30, 1946
10	1.6	22.45	May 31, 1947	26.82	Aug. 2, 1946
11	1.6	6.63	July 28, 1945	13.75	July 13, 1946
14	1.6	11.12	July 28, 1945	13.86	Jan. 10, 1947
19	4	24.70	Nov. 13, 1945	32.75	Jan. 3, 1944
20	4	28.77	Nov. 13, 1945	31.60	Feb. 28, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 12 wells in Kingman County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	3.46	+0.59	-1.27
2	6.11	-.51	-.79
4	6.93	+3.72	+5.17
5	1.21	+31	+28
6	2.60	+1.70	+1.06
7	1.82	-.15	-1.82
8	2.91	+.02	-1.66
10	4.37	+.03	+.25
11	7.12	+.71	-1.04
14	2.74	+.43	-2.27
19	8.05	-.31	+2.53
20	2.83	-.32	-.37

1 (*1025, p. 102; 1073, p. 96). A. A. Mueller. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 30 S., R. 8 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	13.71	Feb. 28	13.15	May 9	12.71	July 19	12.58
Feb. 6	13.04	Mar. 26	12.87	31	12.64	Oct. 7	12.96

2 (*1025, p. 102; 1073, p. 96). L. A. Brammer. SE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 30 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	10.18	Feb. 28	9.96	May 9	9.73	July 19	9.43
Feb. 6	9.64	Mar. 26	9.84	31	9.67	Oct. 7	10.66

4 (*1025, p. 102; 1073, p. 96). Owner unknown. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 27 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	65.12	Feb. 28	58.48	May 9	58.39	July 19	58.20
Feb. 6	65.13	Mar. 26	62.37	31	58.27	Oct. 7	58.72

5 (*1025, p. 102; 1073, p. 96). School district. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 29 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	20.56	Feb. 28	20.55	May 9	20.46	July 19	20.32
Feb. 6	20.52	May 26	20.49	31	20.34	Oct. 7	20.29

6 (*1025, p. 102; 1073, p. 96). Jane Garrett. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 29 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	31.97	Feb. 28	30.37	May 31	30.22	Oct. 7	30.23
Feb. 6	30.48	Mar. 26	30.24	July 19	30.08		

7 (*1025, p. 102; 1073, p. 96). S. Schrag. SW $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 27 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	48.15	Feb. 28	48.36	May 9	48.11	July 19	47.94
Feb. 6	48.28	Mar. 26	48.29	31	48.04	Oct. 7	48.36

8 (*1025, p. 103; 1073, p. 96). John McClure. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 27 S., R. 7 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	7.19	Feb. 28	7.13	May 9	7.11	July 19	6.97
Feb. 6	7.09	Mar. 26	7.03	31	7.01	Oct. 7	7.41

10 (*1025, p. 103; 1073, p. 96). W. H. Stephens. SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 30 S., R. 5 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	25.62	Feb. 28	25.79	May 9	25.54	July 19	25.34
Feb. 6	25.03	Mar. 26	25.67	31	22.45	Oct. 7	25.48

11 (*1025, p. 103; 1073, p. 96). S. Bolinger. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 28 S., R. 5 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	8.43	Feb. 28	8.32	May 9	7.73	July 19	7.51
Feb. 6	7.99	Mar. 26	8.26	31	7.67	Oct. 7	7.67

14 (*1025, p. 103; 1073, p. 97). Rilla Marteney. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 28 S., R. 7 W.

Water level, in feet below land-surface datum, 1947

Jan. 10	13.86	Feb. 28	13.44	May 9	13.40	July 19	13.29
Feb. 6	13.40	Mar. 26	13.38	31	13.36	Oct. 7	13.39

19 (*1025, p. 103; 1073, p. 97). Cunningham Helium Plant. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 27 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 6	29.98	Mar. 26	30.01	May 31	29.92
28	30.04	May 9	29.98		

20 (*1025, p. 103; 1073, p. 97). Cunningham Helium Plant. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 27 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Feb. 6	31.67	Mar. 26	31.54	May 31	31.44
28	31.60	May 9	31.53		

Kiowa County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Kiowa County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
4	7	72.89	Dec. 18, 1947	76.07	Aug. 20, 1943
7	7	27.80	June 12, 1947	32.51	Mar. 22, 1941
8	7	22.05	Dec. 20, 1945	26.62	Apr. 28, 1941
10	7	104.67	Sept. 18, 1945	106.77	Oct. 24, 1940
19	7	34.19	Dec. 20, 1945	37.30	June 19, 1945

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Kiowa County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
4	3.18	+0.50	2.63
7	4.71	-.13	3.57
8	4.57	-.23	3.46
10	2.10	-.08	1.60
19	3.11	+1.73	4.71

4 (*908, p. 137; 938, p. 119; 946, p. 136; *988, p. 124; 1018, p. 101; 1025, p. 104; 1073, p. 97). H. E. Davis. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 28 S., R. 16 W. Water levels, in feet below land-surface datum, 1947: Mar. 19, 73.24; June 12, 73.49; Sept. 18, 73.05; Dec. 18, 72.89.

7 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 124; 1018, p. 102; 1025, p. 104; 1073, p. 97). A. C. Weaver. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 27 S., R. 18 W. Water levels, in feet below land-surface datum, 1947: Mar. 19, 28.72; June 12, 27.80; Sept. 18, 28.37; Dec. 18, 28.68.

8 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 125; 1018, p. 102; 1025, p. 104; 1073, p. 97). E. E. Miller. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 27 S., R. 18 W. Water levels, in feet below land-surface datum, 1947: Mar. 19, 22.78; June 12, 23.39; Sept. 18, 22.50.

10 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 125; 1018, p. 102; 1025, p. 104; 1073, p. 97). J. E. Ely. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 30 S., R. 18 W. Water levels, in feet below land-surface datum, 1947: Mar. 19, 105.05; June 12, 104.82; Sept. 17, 105.18; Dec. 18, 105.17.

19 (*1018, p. 102; 1025, p. 104; 1073, p. 98). C. Williamson. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 27 S., R. 17 W. Water levels, in feet below land-surface datum, 1947: Mar. 19, 34.84; June 12, 34.79; Sept. 18, 34.40; Dec. 18, 34.27.

Labette County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 4 wells in Labette County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	5	1.20	Oct. 1, 1945	15.49	Oct. 16, 1946
2	5	a .10	May 1, 1945	15.62	Oct. 17, 1943
3	5	1.20	Oct. 1, 1945	11.52	Sept. 16, 1946
4	5	4.21	May 1, 1945	14.77	Oct. 16, 1946

a Above land-surface datum.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 4 wells in Labette County

Well	Difference between highest and lowest levels	Net decline in 1947	Net decline for period of record
1	14.29	1.43	5.61
2	13.72	1.00	10.68
3	10.32	1.39	4.77
4	10.56	.70	8.07

1 (*946, p. 137; *988, p. 125; 1018, p. 102; 1025, p. 105; 1073, p. 98). J. Ballah. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 31 S., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	13.34	Apr. 4	12.02	July 16	10.42	Oct. 16	14.26
16	13.21	May 1	3.3	Aug. 1	10.06	Nov. 1	14.39
Feb. 1	13.38	18	5.04	16	12.02	16	14.58
16	14.02	June 1	5.86	Sept. 1	13.02	Dec. 1	14.78
Mar. 3	14.19	16	7.48	17	14.18	16	14.32
16	12.56	July 1	8.42	Oct. 1	13.98		

2 (*988, p. 125; 1018, p. 103; 1025, p. 105; 1073, p. 98). C. Givens. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 31 S., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	11.46	Apr. 4	9.10	July 16	3.08	Oct. 16	12.38
16	11.20	May 1	.76	Aug. 1	4.06	Nov. 1	12.72
Feb. 1	11.29	18	.88	16	8.84	16	12.66
16	11.12	June 1	1.08	Sept. 1	10.83	Dec. 1	12.72
Mar. 3	11.31	16	3.64	17	11.94	16	12.32
16	9.19	July 1	2.42	Oct. 1	12.22		

3 (*988, p. 125; 1018, p. 103; 1025, p. 105; 1073, p. 98). B. H. Foster. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 31 S., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	10.02	Apr. 4	7.36	July 1	3.68	Sept. 17	9.56
16	10.03	May 1	1.91	16	4.92	Oct. 1	10.38
Feb. 1	10.22	18	2.36	Aug. 1	4.14	16	10.54
16	10.52	June 1	2.56	16	6.68	Nov. 1	10.68
Mar. 3	10.73	16	3.02	Sept. 1	8.06	16	10.98
16	5.94						

4 (*988, p. 126; 1018, p. 104; 1025, p. 105; 1073, p. 98). Roy Schierenberg. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 32 S., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	12.22	Apr. 4	12.12	July 16	10.05	Oct. 16	12.42
16	12.44	May 1	8.18	Aug. 1	10.13	Nov. 1	12.59
Feb. 1	12.41	18	8.87	16	10.92	16	12.79
16	12.38	June 1	8.02	Sept. 1	11.59	Dec. 1	12.93
Mar. 3	12.49	16	8.76	17	12.02	16	12.92
16	12.06	July 1	9.12	Oct. 1	8.38		

Lincoln County

By D. W. Berry

The Federal Geological Survey, in cooperation with the Bureau of Reclamation, set up an observation-well program during April 1947, as part of the Wilson Reservoir project. Sixteen domestic and stock wells in the valley and adjacent uplands of the Saline River comprise this program. These wells tap either the alluvium of the valley or the Dakota of the uplands.

Periodic measurements of the water levels in the 16 wells by the wetted-tape method were started in April 1947, and 96 measurements, in all, were made during the year.

11-7-32dc. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 11 S., R. 7 W. Drilled domestic well, diameter 6 inches, depth 97.5 feet. Measuring point, top of stone curb at pump base, 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 14	74.34	July 24	74.27	Oct. 2	74.36	Nov. 28	74.63
Apr. 28	74.08	Sept. 8	74.67	31	74.26		

11-8-34cc. School district. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 11 S., R. 8 W. Bored domestic well, diameter 6 inches, depth 29.9 feet. Measuring point, top of board platform, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Feb. 18	5.34	July 24	6.22	Oct. 2	6.90	Nov. 28	7.45
Apr. 28	4.99	Sept. 8	6.77	31	7.08		

12-6-12cd. Harry W. Woody. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 12 S., R. 6 W. Dug well, diameter 48 inches, depth 27.0 feet. Measuring point, top of rock, east side, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Mar. 15	13.59	July 24	12.58	Oct. 2	14.08	Nov. 28	14.80
Apr. 28	12.33	Sept. 8	13.65	31	14.44		

12-6-16cc. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 12 S., R. 6 W. Dug well, diameter 48 inches, depth 25.5 feet. Measuring point, top of concrete, southwest corner, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Feb. 21	21.18	July 24	21.65	Oct. 2	24.14	Nov. 28	24.87
Apr. 28	21.09	Sept. 8	24.07	31	24.70		

12-7-18aa. Reverend Hendrickson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 12 S., R. 7 W. Bored well, diameter 6 inches, depth 49.5 feet. Measuring point, top of platform at pump base, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Feb. 22	20.62	July 24	20.15	Oct. 2	22.79	Nov. 28	23.43
Apr. 28	20.69	Sept. 8	22.21	31	23.26		

12-7-19dd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 12 S., R. 7 W. Dug stock well, diameter 36 inches, depth 16.0 feet. Measuring point, top of board platform, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Mar. 7	12.60	July 24	11.12	Oct. 2	12.17	Nov. 28	12.95
Apr. 28	11.25	Sept. 8	11.90	31	12.55		

12-7-23aa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 12 S., R. 7 W. Dug well, diameter 36 inches, depth 17.9 feet. Measuring point, top of stone curb, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Feb. 21	13.40	July 24	12.30	Oct. 2	12.83	Nov. 28	13.28
Apr. 28	12.47	Sept. 8	12.56	31	13.05		

12-7-34ad. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 12 S., R. 7 W. Dug well, diameter 48 inches, depth 56.0 feet. Measuring point, top of board platform, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Feb. 21	50.84	July 24	50.69	Oct. 2	50.40	Nov. 28	50.71
Apr. 28	50.78	Sept. 8	50.40	31	50.27		

12-8-6aa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 12 S., R. 8 W. Bored domestic well, diameter 6 inches, depth 18.9 feet. Measuring point, top of board platform, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	6.34	July 24	8.16	Oct. 2	9.69	Nov. 28	8.85
Apr. 28	5.92	Sept. 8	10.53	31	8.99		

a Well drilled deeper.

12-8-8cd. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 12 S., R. 8 W. Dug well, diameter 48 inches, depth 34.5 feet. Measuring point, top of board platform, 0.6 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 14	13.67	July 24	12.65	Oct. 2	13.40	Nov. 28	14.10
Apr. 28	13.49	Sept. 8	12.95	31	13.78		

12-8-11cb. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 12 S., R. 8 W. Dug domestic and stock well, diameter 48 inches, depth 32.0 feet. Measuring point, top of concrete platform, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 22	18.37	July 24	16.00	Oct. 2	18.76	Nov. 28	19.20
Apr. 28	17.24	Sept. 8	18.12	31	19.19		

12-9-10ad. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 12 S., R. 9 W. Drilled domestic and stock well, diameter 6 inches, depth 30.9 feet. Measuring point, top of concrete platform, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	19.61	July 24	18.99	Oct. 2	19.69	Nov. 28	19.97
Apr. 28	19.53	Sept. 8	19.60	31	19.86		

12-10-8bb. G. Meitler. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 12 S., R. 10 W. Bored stock well, diameter 6 inches, depth 29.5 feet. Measuring point, top of casing, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	16.20	July 24	14.88	Oct. 2	16.20	Nov. 28	16.55
Apr. 28	15.67	Sept. 8	15.84	31	16.45		

12-10-13aa. Saenger Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 12 S., R. 10 W. Drilled stock well, diameter 6 inches, depth 30.2 feet. Measuring point, top of casing, 1.4 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 13	24.08	July 24	22.02	Oct. 2	23.35	Nov. 28	24.12
Apr. 28	23.60	Sept. 8	22.78	31	23.80		

12-10-17ab. Gorge School district. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 12 S., R. 10 W. Drilled well, diameter 6 inches, depth 45.0 feet. Measuring point, top of casing, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	26.16	July 24	25.61	Oct. 2	26.58	Nov. 28	26.78
Apr. 28	25.82	Sept. 8	26.37	31	26.80		

12-10-21dd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 12 S., R. 10 W. Dug domestic and stock well, diameter 48 inches, depth 31.8 feet. Measuring point, top of concrete platform, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 18	26.87	July 24	25.98	Oct. 2	26.66	Nov. 28	27.00
Apr. 28	26.97	Sept. 8	26.51	31	27.10		

Logan County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Logan County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	5	96.42	Jan. 22, 1944	99.29	Jan. 6, 1947
2	5	59.66	Mar. 19, 1945	66.21	Feb. 27, 1944
4	5	33.23	Apr. 4, 1947	34.85	Aug. 6, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Logan County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	2.87	+0.02	-0.69
2	5.55	+33	-11
4	1.62	+16	+32

1 (*946, p. 138; *988, p. 126; 1018, p. 104; 1025, p. 106; 1073, p. 99). Octon Estate. SE $\frac{1}{4}$ sec. 2, T. 11 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Jan. 6, 99.29; Apr. 4, 97.49; July 9, 97.33; Oct. 14, 97.91.

2 (*946, p. 138; *988, p. 126; 1018, p. 104; 1025, p. 106; 1073, p. 99). J. J. Schultz. SE $\frac{1}{4}$ sec. 34, T. 11 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Jan. 6, 60.03; Apr. 4, 59.86; July 9, 59.80; Oct. 14, 59.88.

4 (*946, p. 138; *988, p. 127; 1018, p. 104; 1025, p. 106; 1073, p. 99). L. L. Garrison Estate. SE $\frac{1}{4}$ sec. 10, T. 13 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Jan. 6, 33.23; Apr. 4, 33.23; July 9, 33.25; Oct. 14, 33.27.

McPherson County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 7 wells in McPherson County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
243	10	82.09	Sept. 2, 1938	83.47	Jan. 5, 1945
249	10	25.26	July 3, 1945	a 36.13	Apr. 2, 1940
260	10	21.18	Oct. 1, 1942	27.85	Nov. 4, 1937
262	10	21.51	Aug. 3, 1945	b 41.35	Nov. 2, 1938
309	10	20.74	Apr. 8, 1944	37.26	Mar. 26, 1938
310	10	7.03	Apr. 8, 1946	19.39	Nov. 4, 1937
311	10	7.09	May 4, 1945	13.06	Dec. 31, 1939

a Pumped recently.

b Pumping.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 7 wells in McPherson County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
243	1.38	-0.06	-0.15
249	10.87	-5.62	+78
260	6.67	+57	+1.62
262	19.84	-.28	+1.41
309	16.52	+2.93	+9.06
310	12.36	-.50	+11.39
311	5.97	+1.02	+1.25

243 (*840, p. 104; 845, p. 123; 886, p. 214; 908, p. 139; 938, p. 121; 946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 106; 1073, p. 100). Emma Bergstrom. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 19 S., R. 3 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 83.33; Oct. 8, 83.24.

249 (*840, p. 104; 845, p. 123; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 107; 1073, p. 100). Prudential Life Insurance Co. SE corner sec. 5, T. 18 S., R. 3 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 35.40; Oct. 8, 35.31.

260 (*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 107; 1073, p. 100). John Rawson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 17 S., R. 4 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 26.15; Oct. 8, 26.23.

262 (*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 121; 946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 107; 1073, p. 100). P. A. Olsen. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 18 S., R. 5 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 28.48; Oct. 8, 28.67.

309 (*840, p. 104; 845, p. 124; 886, p. 215; 908, p. 139; 938, p. 122; *946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 107; 1073, p. 100). Mrs. Ida Tuxhorn. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 21 S., R. 4 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 30.14; Oct. 9, 29.33.

310 (*845, p. 125; 886, p. 216; 908, p. 140; 938, p. 122; 946, p. 139; *988, p. 129; 1018, p. 105; 1025, p. 107; 1073, p. 100). City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 21 S., R. 2 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 7.88; Oct. 8, 7.42.

311 (*845, p. 125; 886, p. 216; 908, p. 140; 938, p. 122; 946, p. 140; *988, p. 129; 1018, p. 105; 1025, p. 107; 1073, p. 100). City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 21 S., R. 2 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 11.21; Oct. 8, 10.95.

Smoky Hill Valley

Highest and lowest recorded water levels for the period of record, in feet below land-surface datum, in 4 wells in McPherson County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
17-3-17dd	1.5	26.24	Nov. 4, 1946	28.18	Dec. 1, 1947
17-3-18dd	1.5	26.42	July 21, 1947	28.37	Sept. 5, 1946
17-3-30dd	1.5	29.40	Dec. 2, 1946	30.94	July 3, 1946
17-4-25dd	1.5	24.30	Apr. 23, 1946	25.64	Dec. 1, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record in 4 wells in McPherson County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947 a/	Net rise (+) or net decline (-) for period of record
17-3-17dd	1.94	-1.68	-1.22
17-3-18dd	1.95	-1.24	-.87
17-3-30dd	1.54	-1.70	-.80
17-4-25dd	1.34	-.82	-1.34

a Between last measurement in 1946 and last measurement in 1947.

17-3-17dd (*1073, p. 101). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 17 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	26.86	May 8	26.93	Sept. 9	27.57	Oct. 30	28.15
Feb. 28	27.07	July 21	26.52	Oct. 2	27.85	Dec. 1	28.18
Mar. 31	27.10						

17-3-18dd (*1073, p. 101). Geol. Survey, U. S. Dept. of Interior.
SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 17 S., R. 3 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	27.24	May 8	27.00	Sept. 9	27.57	Oct. 30	28.22
Feb. 28	27.42	July 21	26.42	Oct. 2	27.95	Dec. 1	28.31
Mar. 31	27.37						

17-3-30dd (*1073, p. 101). Geol. Survey, U. S. Dept. of Interior.
SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 17 S., R. 3 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	29.96	May 8	30.17	Sept. 9	30.68	Oct. 30	31.25
Feb. 28	30.13	July 21	29.77	Oct. 2	31.00	Dec. 1	31.33
Mar. 31	29.98						

17-4-25dd (*1073, p. 101). Geol. Survey, U. S. Dept. of Interior.
SE, corner sec. 25, T. 17 S., R. 4 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	24.91	May 8	25.03	Sept. 9	24.80	Oct. 30	25.72
Feb. 28	25.09	July 21	24.67	Oct. 2	25.63	Dec. 1	25.64
Mar. 31	25.17						

Meade County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in Meade County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
33	8.5	37.33	Nov. 23, 1942	38.75	Nov. 3, 1943
34	8.5	143.28	Dec. 14, 1944	150.39	Oct. 29, 1939
45	8.5	1.33	June 20, 1947	4.10	Aug. 31, 1939
55	8.5	84.78	Dec. 15, 1947	85.92	Sept. 20, 1940
61	8.5	59.40	Sept. 16, 1947	60.77	May 17, 1940
77	8.5	62.00	June 17, 1944	67.12	Sept. 9, 1943
88	8.5	41.95	May 12, 1942	46.20	July 1, 1942
234	8.5	12.98	June 27, 1945	15.52	Aug. 31, 1939

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 8 wells in Meade County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
33	1.42	-0.38	-0.68
34	7.11	-.11	-.60
45	2.09	+.35	+1.06
55	1.05	+.16	+.44
61	1.22	+.01	+.97
77	5.12	+.45	+.50
88	4.25	0	+2.16
234	2.54	+.81	+3.12

33 (*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142; *988, p. 130; 1018, p. 106; 1025, p. 108; 1073, p. 102). W. L. Woodruff, NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 33 S., R. 26 W. Water levels, in feet below land-surface datum, 1947: Mar. 25, 38.15; June 19, 37.97; Sept. 16, 38.22; Dec. 16, 38.18.

34 (*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142; *988, p. 130; 1018, p. 106; 1025, p. 108; 1073, p. 102). District school. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 33 S., R. 27 W. Water levels, in feet below land-surface datum, 1947: Mar. 25, 146.42; June 19, 147.07; Dec. 16, 145.95.

45 (*886, p. 177; 908, p. 144; 938, p. 125; 946, p. 142; *988, p. 131; 1018, p. 107; 1025, p. 108; 1073, p. 102). Joseph Rooke. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 30 S., R. 27 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 2.15; June 20, 1.33; Sept. 16, 1.89; Dec. 15, 1.46.

55 (*886, p. 178; 908, p. 144; 938, p. 125; 946, p. 142; *988, p. 131; 1018, p. 107; 1025, p. 109; 1073, p. 102). C. W. Farris. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 30 S., R. 28 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 85.09; June 20, 84.96; Sept. 16, 84.86; Dec. 15, 84.78.

61 (*886, p. 178; 908, p. 144; 938, p. 125; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109; 1073, p. 102). John Meyer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 31 S., R. 27 W. Water levels, in feet below land-surface datum, 1947: Mar. 21, 59.52; Sept. 16, 59.40; Dec. 15, 61.40.

77 (*886, p. 178; 908, p. 145; 938, p. 126; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109; 1073, p. 102). J. W. Wood. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 32 S., R. 28 W. Water levels, in feet below land-surface datum, 1947: June 18, 62.77; Sept. 16, 63.56; Dec. 15, 62.89.

88 (*886, p. 179; 908, p. 145; 938, p. 126; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109; 1073, p. 102). H. V. Gerlick. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 31 S., R. 28 W. No measurements made in 1947.

234 (*886, p. 279; 908, p. 145; 938, p. 126; 946, pp. 143-144; *988, p. 131; 1018, p. 107; 1025, p. 109; 1073, p. 102). Christopher Sobba. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 30 S., R. 27 W.

Mitchell County

By D. W. Berry

The Federal Geological Survey, in cooperation with the Bureau of Reclamation, set up an observation-well program during November 1946, as part of the Glen Elder Reservoir project. This program consists of 12 wells in the valley of the Solomon River. These wells all tap the alluvium of the valley.

Periodic measurements of the water levels in the 12 wells by the wetted-tape method were started in November 1946, and 149 measurements, in all, were made during 1946 and 1947.

6-8-34cc. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 6 S., R. 8 W. Dug domestic and stock well, diameter 36 inches, depth 24.3 feet. Measuring point, top of board platform, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 19, 1946	17.52	Mar. 27, 1947	a 17.47	Sept. 29, 1947	a 18.30
Dec. 19	17.46	May 5	17.33	Oct. 27	a 18.15
Jan. 8, 1947	a 17.83	July 29	a 16.65	Nov. 26	a 18.27
Feb. 3	17.73	Aug. 26	17.81	Dec. 29	a 18.16
Mar. 3	a 17.89				

a Pumping.

6-9-27ab. L. Lowdermilk. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 6 S., R. 9 W. Dug well, diameter 48 inches, depth 37.2 feet. Measuring point, top of 2-inch hole in wooden platform, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Sept. 17, 1946	23.32	Mar. 25, 1947	26.27	Aug. 26, 1947	25.63
Oct. 15	24.17	Apr. 25	25.89	Sept. 29	26.52
Nov. 15	25.00	May 26	25.63	Oct. 27	26.78
Dec. 21	25.45	June 24	22.36	Nov. 26	26.60
Jan. 25, 1947	25.83	July 29	24.58	Dec. 29	26.58
Feb. 25	26.14				

6-9-30da. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 6 S., R. 9 W. Bored domestic and stock well, diameter 8 inches, depth 37.2 feet. Measuring point, top of casing, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Oct. 26, 1946	27.16	Mar. 3, 1947	27.23	Sept. 29, 1947	27.58
Nov. 20	26.70	27	27.39	Oct. 27	28.02
Dec. 9	26.86	May 5	27.05	Nov. 26	28.28
Jan. 8, 1947	27.30	July 29	27.14	Dec. 29	28.55
Feb. 3	26.89	Aug. 26	26.76		

6-10-19dd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 6 S., R. 10 W. Drilled domestic well, diameter 8 inches, depth 38.3 feet. Measuring point, top of pipe at check valve, 5.5 feet below land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 20, 1946	26.78	Feb. 3, 1947	22.13	Mar. 27, 1947	23.51
Dec. 10	26.78	Mar. 3,	23.60	May 5	17.80
Jan. 7, 1947	27.50				

7-6-30bc. Dan F. Gise. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 7 S., R. 6 W. Dug domestic and stock well, diameter 48 inches, depth 35.0 feet. Measuring point, top of board platform, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1946	28.55	Mar. 27, 1947	a 26.75	Sept. 29, 1947	a 27.94
Dec. 10	20.60	May 5	a 28.14	Oct. 27	26.48
Jan. 8, 1947	a 28.27	July 29	a 26.50	Nov. 26	a 27.65
Feb. 3	a 26.82	Aug. 26	25.82	Dec. 29	a 29.54
Mar. 3	a 28.64				

a Pumping.

7-6-34cb. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 7 S., R. 6 W. Drilled stock well, diameter 6 inches, depth 43.0 feet. Measuring point, top of casing, south side, at land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1946	24.35	Mar. 27, 1947	27.33	Sept. 29, 1947	27.60
Dec. 10	25.58	May 5	26.11	Oct. 27	28.07
Jan. 8, 1947	26.48	July 29	25.60	Nov. 26	28.40
Feb. 3	26.79	Aug. 26	26.63	Dec. 29	28.59
Mar. 3	27.10				

7-7-7aa. A. McDysan. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 7 S., R. 7 W. Drilled domestic and stock well, diameter 6 inches, depth 43.5 feet. Measuring point, top of rock curb at surface, at land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 18, 1946	29.10	Mar. 27, 1947	a 29.55	Aug. 26, 1947	28.63
Dec. 10	29.05	May 5	a 29.04	Sept. 29	a 29.06
Mar. 3, 1947	29.06	July 29	a 28.16	Oct. 27	a 29.06

a Pumping.

7-7-15dc. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 7 S., R. 7 W. Dug abandoned well, diameter 48 inches, depth 28.5 feet. Measuring point, top of stone curb, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 29, 1946	21.36	Mar. 27, 1947	21.42	Sept. 29, 1947	22.09
Dec. 10	21.54	May 5	20.99	Oct. 27	22.52
Jan. 8, 1947	21.18	July 29	20.53	Nov. 26	22.62
Feb. 3	21.23	Aug. 26	21.22	Dec. 29	22.65
Mar. 3	21.27				

7-8-5cb. Paul Meers. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 7 S., R. 8 W. Drilled stock well, diameter 6 inches, depth 47.5 feet. Measuring point, top of casing, west side, 1.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 8, 1946	25.04	Mar. 27, 1947	27.72	Sept. 29, 1947	27.91
Dec. 10	26.45	May 5	26.12	Oct. 27	28.22
Jan. 8, 1947	27.32	July 29	25.99	Nov. 26	28.54
Feb. 3	27.57	Aug. 26	27.13	Dec. 29	28.60
Mar. 3	27.77				

7-9-2bc. F. Day. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 7 S., R. 9 W. Bored domestic and stock well, diameter 12 inches, depth 45.5 feet. Measuring point, top of board platform, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Nov. 12, 1946	28.35	Mar. 27, 1947	29.95	Sept. 29, 1947	29.62
Dec. 10	28.79	May 5	28.19	Oct. 27	30.30
Jan. 8, 1947	29.22	July 29	27.60	Nov. 26	30.76
Feb. 3	29.55	Aug. 26	28.47	Dec. 29	31.09
Mar. 3	29.65				

7-10-10cc. J. P. Kaster. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 7 S., R. 10 W. Bored stock well, diameter 12 inches, depth 41.0 feet. Measuring point, top of board platform, 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Oct. 14, 1946	26.84	Mar. 27, 1947	26.07	Sept. 29, 1947	a 25.98
Dec. 9	28.33	May 5	25.68	Oct. 27	a 26.20
Jan. 8, 1947	25.87	July 29	a 25.47	Nov. 26	26.10
Feb. 3	25.99	Aug. 26	25.65	Dec. 29	26.14
Mar. 3	25.98				

a Pumping.

8-6-12dd. Mrs. R. E. McKee. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 8 S., R. 6 W. Dug domestic and stock well, diameter 48 inches, depth 35.0 feet. Measuring point, top of concrete platform, 0.3 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Dec. 10, 1946	31.90	Mar. 27, 1947	31.89	Sept. 29, 1947	34.13
Jan. 8, 1947	31.88	May 5	31.89	Oct. 27	33.82
Feb. 3	31.88	July 29	31.85	Nov. 26	31.95
Mar. 3	31.87	Aug. 26	31.86	Dec. 29	31.85

Morton County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 3 wells in Morton County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
22	8.5	48.62	May 7, 1947	75.45	Jan. 6, 1941
65	8.5	51.76	Nov. 14, 1945	53.75	Mar. 13, 1941
117	8.5	162.22	Aug. 13, 1947	166.48	Aug. 28, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 3 wells in Morton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
22	26.83	-2.71	-0.64
65	1.99	0	+.81
117	4.26	+1.21	+2.94

22 (*886, p. 181; 908, p. 148; 938, p. 127; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110; 1073, p. 103). A. F. Wilcox. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 51 S., R. 45 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 71.58; May 7, 48.62; Nov. 26, 74.43.

65 (*886, p. 181; 908, p. 149; 938, p. 127; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110; 1073, p. 103). John Hentschel. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 33 S., R. 42 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 52.49; May 7, 52.59; Aug. 13, 52.14; Nov. 26, 52.40.

117 (*886, p. 183; 908, p. 150; 938, p. 128; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110; 1073, p. 103). W. C. Washburn. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T. 34 S., R. 42 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 163.34; May 7, 163.18; Aug. 13, 162.22; Nov. 26, 163.17.

Ness County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 2 wells, in Ness County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	32.97	Apr. 2, 1947	34.91	Aug. 27, 1940
2	7	23.22	Dec. 26, 1944	25.85	Nov. 8, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 2 wells in Ness County

Well	Difference between highest and lowest levels	Net rise for 1947	Net rise for period of record
1	1.94	1.03	1.84
2	2.63	.17	1.36

1 (*908, p. 181; 938, p. 128; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 110; 1073, p. 104). J. E. Ficken. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 20 S., R. 25 W. Water levels, in feet below land-surface datum, 1947: Jan. 22, 33.13; Apr. 2, 32.97; July 15, 33.70; Oct. 8, 33.07.

2 (*908, p. 151; 938, p. 123; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 110; 1073, p. 104). C. L. Whitley. SW. corner of sec. 20, T. 20 S., R. 22 W. Water levels, in feet below land-surface datum, 1947: Jan. 22, 23.77; Apr. 2, 23.60; July 15, 23.27; Oct. 8, 24.04.

Norton County

By D. W. Berry

The observation-well program begun in 1947 in the Prairie Dog Creek Valley of Phillips and Norton Counties is described in the Phillips County report.

1-21-35dc. H. S. Whitaker. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 1 S., R. 21 W. Dug irrigation well, diameter 34 inches, depth 43.0 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 7	32.07	Aug. 29	33.33	Oct. 28	33.18
July 31	32.20	Oct. 7	33.12	Dec. 5	32.34

2-21-1bb. Verner Ross. LW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 2 S., R. 21 W. Drilled irrigation well, diameter 24 inches, depth 70.3 feet. Measuring point, top of pump base, east side, 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	24.40	Oct. 7	23.65	Dec. 5	23.94
Sept. 29	23.22	28	23.83		

2-21-2bd. Vernon J. Hamilton. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 2 S., R. 21 W. Bored irrigation well, diameter 24 inches, depth 57.5 feet. Measuring point, top of casing, south side, at land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	24.16	Aug. 29	23.55	Oct. 28	24.71
July 31	22.53	Oct. 7	24.55	Dec. 5	24.32

2-21-11aa. W. B. Woods. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 2 S., R. 21 W. Drilled irrigation well, diameter 18 inches, depth 82.0 feet. Measuring point, hole in pump base, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	31.05	Oct. 7	32.14	Dec. 5	30.90
July 31	29.03	28	31.53		

2-21-18aa. Hrypkema. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 2 S., R. 21 S. Dug irrigation well, diameter 120 inches, depth 57.5 feet. Measuring point, top of 5-inch plank, north side, 0.41 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	43.04	Aug. 29	42.44	Oct. 28	42.71
July 31	42.49	Oct. 7	42.62	Dec. 5	42.75

2-21-19dd. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 2 S., R. 21 W. Drilled domestic and stock well, diameter 6 inches, depth 78.0 feet. Measuring point, top of casing, east side, 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	63.93	Aug. 29	63.99	Oct. 28	63.82
July 31	64.03	Oct. 7	64.90	Dec. 5	63.93

2-22-11dc. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 2 S., R. 22 W. Drilled domestic well, diameter 6 inches, depth 78.8 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	67.35	Aug. 29	66.00	Oct. 28	66.02
July 31	66.24	Oct. 7	65.95	Dec. 5	66.12

2-22-26ac. Percy G. Whitaker. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 2 S., R. 22 W. Bored domestic well, diameter 6 inches, depth 53.1 feet. Measuring point, top of pit, east side, 0.1 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	28.25	Aug. 29	27.85	Oct. 28	28.72
July 31	27.21	Oct. 7	28.62	Dec. 5	28.68

2-22-28aa. H. E. Fisher. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 2 S., R. 22 W. Drilled well, diameter 5 inches, depth 50.9 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	49.17	Aug. 29	49.10	Oct. 28	49.10
July 31	47.30	Oct. 7	49.11	Dec. 5	49.10

2-23-36cd. R. L. Brooks. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 2 S., R. 23 W. Drilled irrigation well, diameter 18 inches, depth 69.1 feet. Measuring point, lower edge of inspection hole, 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 7	27.47	Aug. 29	27.40	Dec. 5	28.21
July 31	26.93	Oct. 28	27.94		

3-23-8aa. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 3 S., R. 23 W. Drilled well, diameter 6 inches, depth 58.8 feet. Measuring point, top of casing, 0.25 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 7	37.85	Aug. 29	37.57	Oct. 28	38.25
July 31	38.05	Oct. 7	38.05	Dec. 5	38.41

Osborne County

By D. W. Berry and A. R. Leonard

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 6 wells in Osborne County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
6-11-34aa	2	34.67	Aug. 18, 1947	37.07	June 11, 1946
6-11-36aa	2	30.65	July 39, 1947	33.05	Apr. 26, 1946
6-12-20bb	2	36.30	Nov. 26, 1945	43.06	Jan. 28, 1946
6-12-23cd	2	25.27	July 30, 1947	27.17	Apr. 26, 1946
6-12-24aa	2	32.21	July 30, 1947	37.00	Nov. 23, 1945
6-13-12ba	2	39.66	July 30, 1947	40.95	Dec. 15, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 6 wells in Osborne County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
6-11-34aa	2.40	+0.21	+0.62
6-11-36aa	2.40	-.91	+.78
6-12-20bb	6.76	+.96	-4.12
6-12-23cd	1.90	+.19	+1.20
6-12-24aa	4.79	-.65	+2.67
6-13-12ba	1.29	-.44	-.45

6-11-34aa (*1073, p. 105). W. E. Lowdon. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 6 S., R. 11 W. Diameter 28 inches. Measuring point, top of wooden platform over well, 0.1 foot above land-surface datum and 1,481.7 feet above sea level. Water-stage recorder installed Oct. 9, 1946.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Oct. 13, 1946	36.18	Jan. 12, 1947	35.50	Apr. 7, 1947	35.78
20	36.07	21	35.53	14	35.65
27	36.06	27	35.44	21	35.63
31	36.04	Feb. 3	35.53	28	35.60
Nov. 3	36.06	10	35.46	May 5	35.65
11	35.99	17	35.46	12	35.57
17	35.92	26	35.55	19	35.57
24	35.78	Mar. 3	35.49	26	35.62
Dec. 2	35.66	10	35.51	June 2	35.65
9	35.62	16	35.56	9	35.54
16	35.58	22	35.53	16	35.52
23	35.57	27	35.60	23	35.46
Jan. 5, 1947	35.59	31	35.57	30	35.30

6-11-34aa--Continued.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
July 7, 1947	35.19	Sept. 11, 1947	34.87	Nov. 9, 1947	35.21
14	35.08	18	34.95	17	35.22
22	34.90	25	34.97	24	35.22
28	34.88	Oct. 3	35.00	Dec. 1	35.26
Aug. 5	34.71	11	35.00	7	35.38
11	34.72	19	35.10	15	35.38
18	34.67	27	35.15	23	35.34
26	34.80	Nov. 2	35.19	30	35.36
Sept. 3	34.79				

6-11-36aa (*1073, p. 105). J. M. Irey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 6 S., R. 11 W. Measuring point, top of casing, north side, at land-surface datum, and 1,468.3 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	31.63	Mar. 26	31.95	July 30	30.65	Sept. 30	31.74
28	31.78	May 5	31.49	Aug. 28	31.24	Oct. 27	32.02
Feb. 26	31.93						

6-12-20bb (*1073, p. 106). C. M. Storer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 6 S., R. 12 W. Measuring point, top of casing, west side, 1.5 feet above land-surface datum and 1,556.2 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	41.85	Mar. 26	41.32	Aug. 28	40.46	Oct. 27	40.37
28	41.45	May 5	41.26	Sept. 30	40.45	Dec. 15	40.42
Feb. 26	41.56	July 30	40.36				

6-12-23cd (*1073, p. 106). C. Fink. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 6 S., R. 12 W. Measuring point, top of wooden platform, south side, 0.8 foot above land-surface datum and 1,505.8 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	26.12	Mar. 26	26.19	Aug. 28	25.28	Oct. 27	25.57
28	25.98	May 5	25.85	Sept. 30	25.45	Dec. 15	25.64
Feb. 26	26.15	July 30	25.27				

6-12-24aa (*1073, p. 106). L. J. Konzem. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 6 S., R. 12 W. Diameter 12 inches. Measuring point, top of wooden platform, east side, 1.0 foot above land-surface datum and 1,507.6 feet above sea level.

Water level, in feet above land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	33.54	Mar. 26	33.86	July 30	32.21	Sept. 30	33.90
28	33.18	May 5	32.70	Aug. 28	32.79	Oct. 27	34.33
Feb. 26	33.21						

6-13-12ba (*1073, p. 106). F. L. Smith. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 6 S., R. 13 W. Diameter 8 inches. Measuring point, top of wooden platform, east side, 0.2 foot above land-surface datum, and 1,565.4 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	40.30	Mar. 26	40.07	Aug. 28	39.76	Oct. 27	39.75
28	40.15	May 5	39.73	Sept. 30	39.78	Dec. 15	a 40.95
Feb. 26	40.13	July 30	39.66				

a Pumping.

7-11-18cc. Mrs. N. Beaty. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18, T. 7 S., R. 11 W. Dug domestic and stock well, diameter 36 inches, depth 38.0 feet. Measuring point, top of board platform west side, 0.5 foot above land-surface datum.

7-11-18cc--Continued.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Sept. 24, 1946	31.93	Mar. 3, 1947	33.32	Sept. 30, 1947	31.78
Nov. 20	31.83	27	32.48	Oct. 27	32.07
Dec. 9	32.14	May 5	32.05	Dec. 2	32.35
Jan. 7, 1947	a 32.40	July 29	a 31.00	31	32.42
Feb. 4	32.42	Aug. 27	a 31.48		

a Pumping.

7-11-21da. J. O. Harrison. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 7 S., R. 11 W. Dug domestic and stock well, diameter 36 inches, depth 37.5 feet. Measuring point, top of board platform, 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Oct. 3, 1946	33.43	Mar. 27, 1947	32.64	Sept. 30, 1947	33.20
Dec. 9	32.26	May 5	32.65	Oct. 27	33.44
Jan. 8, 1947	32.63	July 29	32.24	Dec. 2	33.60
Feb. 4	32.41	Aug. 27	32.74	31	33.68
Mar. 3	32.48				

7-11-23dd. Owner unknown. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 7 S., R. 11 W. Bored domestic and stock well, diameter 7 inches, depth 26.7 feet. Measuring point, top of plank south of pump, 0.8 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Sept. 9, 1946	19.80	Mar. 3, 1947	23.56	Sept. 30, 1947	20.47
Nov. 20	18.79	27	19.93	Oct. 27	a 24.89
Dec. 9	19.23	May 5	a 25.08	Dec. 2	20.56
Jan. 7, 1947	a 21.46	July 29	a 24.99	31	20.50
Feb. 4	a 22.97	Aug. 27	a 25.67		

a Pumping.

7-12-28ab. C. E. Galley. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 7 S., R. 12 W. Bored domestic and stock well, diameter 12 inches, depth 47.0 feet. Measuring point, top of concrete platform, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Nov. 20, 1946	33.84	Mar. 27, 1947	33.83	Aug. 27, 1947	32.74
Dec. 9	34.15	May 5	a 34.59	Sept. 30	33.12
Jan. 7, 1947	34.60	July 29	32.45	Oct. 27	32.91
Mar. 3	33.78				

a Pumping.

7-13-15da. J. W. Bathurst. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 7 S., R. 13 W. Bored domestic well, diameter 12 inches, depth 52.5 feet. Measuring point, top of board platform, 1.25 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Sept. 23, 1946	36.80	Mar. 3, 1947	37.95	Sept. 30, 1947	a 38.94
Nov. 7	36.20	27	37.84	Oct. 27	38.50
Dec. 9	37.23	May 5	37.65	Dec. 2	38.45
Jan. 7, 1947	37.58	July 29	37.55	31	38.45
Feb. 4	37.80	Aug. 27	38.33		

a Pumped prior to measurement.

7-14-6cb. J. A. Guttery. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 7 S., R. 14 W. Bored stock well, diameter 12 inches, depth 29.0 feet. Measuring point, top of board platform, east side, 0.4 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Aug. 28, 1946	23.70	Mar. 3, 1947	23.83	Sept. 30, 1947	23.80
Nov. 7	23.74	27	23.92	Oct. 27	23.87
Dec. 9	23.65	May 5	23.94	Dec. 2	23.95
Jan. 7, 1947	23.82	July 29	23.66	31	23.92
Feb. 4	23.87	Aug. 27	23.73		

7-14-10dd. John Clark. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 7 S., R. 14 W. Bored domestic well, diameter 12 inches, depth 38.0 feet. Measuring point, top of board platform, 0.7 foot above land-surface datum.

7-14-10dd--Continued.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
Sept. 27, 1946	32.41	Mar. 3, 1947	32.13	Aug. 27, 1947	31.95
Nov. 7	32.18	27	32.15	Sept. 30	32.00
Dec. 9	32.18	May 5	32.10	Oct. 27	32.03
Jan. 7, 1947	32.10	July 29	31.93	Dec. 31	32.15
Feb. 4	32.22				

7-15-8cc. F. Dibble. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 7 S., R. 15 W. Dug domestic and stock well, diameter 48 inches, depth 26.4 feet. Measuring point, top of concrete platform, 1.1 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Sept. 9, 1946	23.29	Mar. 3, 1947	23.16	Sept. 30, 1947	23.07
Nov. 7	23.13	27	23.17	Oct. 27	23.10
Dec. 9	23.10	May 5	a 23.19	Dec. 2	23.10
Jan. 8, 1947	23.18	July 29	22.99	31	23.30
Feb. 4	a 23.17	Aug. 27	22.95		

a Pumping.

7-15-12dc. Tom Hale, Jr. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 7 S., R. 15 W. Drilled domestic and stock well, diameter 12 inches, depth 36.2 feet. Measuring point, top of casing, south side, 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946-47

Aug. 22, 1946	12.34	Mar. 27, 1947	15.99	Sept. 30, 1947	12.32
Dec. 9	11.70	May 5	a 16.54	Oct. 27	a 14.90
Jan. 7, 1947	12.32	July 29	10.85	Dec. 2	a 20.85
Feb. 4	13.59	Aug. 27	11.09	31	a 19.27
Mar. 3	14.96				

a Pumping.

Pawnee County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Pawnee County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
6	7	21.18	June 10, 1947	a 27.25	Oct. 8, 1947
7	7	25.14	June 3, 1944	28.96	Sept. 11, 1946
8	7	b 7.45	Nov. 8, 1947	18.32	Sept. 30, 1940
10	3.5	8.23	June 6, 1945	12.58	Aug. 21, 1946
14	3.5	15.83	May 13, 1947	17.72	July 21, 1944

a Nearby well pumping.

b Pumped recently.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Pawnee County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
6	6.07	+0.18	+1.49
7	3.82	-.76	-.90
8	10.87	-.72	+3.65
10	4.35	-.90	-1.43
14	1.89	+.62	+1.44

6 (*908, p. 151; 938, p. 129; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 111; 1073, p. 107). Frank Elmore. SW. corner of sec. 27, T. 21 S., R. 19 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	22.20	May 13	21.88	Aug. 26	23.00	Nov. 8	21.89
Mar. 17	21.94	June 10	21.18	Oct. 8	a 27.25	Dec. 18	22.10
Apr. 2	22.09	July 11	21.21				

a Nearby well pumping.

7 (*908, p. 151; 938, p. 129; 946, p. 147; *988, p. 134; 1018, p. 109; 1025, p. 111; 1073, p. 107). Ralph Lupfer. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 22 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Jan. 22	28.00	Apr. 16	27.48	July 11	26.64	Nov. 8	28.38
Feb. 18	27.97	May 13	27.41	Oct. 8	28.34	Dec. 18	28.40
Mar. 17	27.88	June 10	26.46				

8 (*908, p. 151; 938, p. 129; 946, p. 147; *988, p. 135; 1018, p. 110; 1025, p. 111; 1073, p. 107). F. B. Reed. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 22 S., R. 16 W.

Water level, in feet below land-surface datum, 1947

Jan. 22	12.90	Apr. 16	12.86	July 11	13.06	Nov. 8	a 7.45
Feb. 19	13.22	May 13	13.14	Aug. 26	14.08	Dec. 18	14.14
Mar. 17	13.31	June 10	13.82				

a Pumped recently.

10 (*1018, p. 110; 1025, p. 111; 1073, p. 107). Townsite. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 23 S., R. 16 W. Measurements discontinued Nov. 17, 1947.

Water level, in feet below land-surface datum, 1947

Jan. 23	10.50	Apr. 16	9.94	June 11	9.19	Aug. 26	11.01
Feb. 18	10.44	May 13	10.08	July 11	9.39	Oct. 16	11.72
Mar. 17	9.95						

14 (*1018, p. 110; 1025, p. 111; 1073, p. 107). B. Unruh. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 21 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Jan. 23	16.78	Apr. 16	16.76	July 11	16.57	Nov. 8	16.31
Feb. 19	16.81	May 13	15.83	Aug. 26	16.33	Dec. 18	16.28
Mar. 17	16.74	June 11	16.60				

Phillips County

By D. W. Berry and A. R. Leonard

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 10 wells in Phillips County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
4-17-25cd	2	83.30	Dec. 15, 1947	86.27	Sept. 25, 1946
4-17-31bc	2	50.59	July 30, 1947	52.06	Sept. 25, 1946
4-18-30ab	2	20.29	Sept. 25, 1946	15.20	July 30, 1947
4-19-21dd	2	10.15	July 30, 1947	15.10	Sept. 25, 1946
4-19-35ab	2	12.17	Aug. 29, 1947	13.44	Sept. 25, 1946
4-20-21cc	2	48.56	Jan. 29, 1947	48.92	Feb. 6, 1946
			Sept. 30, 1947		
5-16-3aa	2	42.43	July 30, 1947	44.76	Dec. 17, 1945
5-17-1aa	2	.94	Feb. 26, 1947	7.60	Nov. 21, 1945
5-17-3cd	2	1.18	May 6, 1947	27.00	June 12, 1946
5-17-12aa	2	52.00	July 30, 1947	54.20	Sept. 30, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 10 wells in Phillips County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
4-17-25cd	2.97	+2.02	+2.82
4-17-31bc	1.47	-.57	-.48
4-18-30ab	5.09	+2.99	+3.66
4-19-21dd	4.95	+1.16	-.35
4-19-35ab	1.27	+.05	-.02
4-20-21cc	.46	+.12	+.31
5-16-3aa	2.33	+.53	+.38
5-17-1aa	6.66	-3.65	-.76
5-17-3cd	25.82	-2.97	+5.10
5-17-12aa	2.20	+.19	+.76

4-17-25cd (*1073, p. 108). Minnie Gray. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 4 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26	85.42	May 6	85.04	Aug. 28	84.04	Dec. 15	83.30
Mar. 26	a 84.80	July 30	84.40	Oct. 28	83.40		

a Pumping.

4-17-31bc (*1073, p. 108). C. B. Brower. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Feb. 26	51.09	May 6	51.10	Aug. 29	a 51.15	Oct. 28	51.87
Mar. 26	51.07	July 30	a 50.59	Sept. 30	51.60		

a Pumping.

4-18-30ab (*1073, p. 108). Sutley Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 4 S., R. 18 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	18.62	Mar. 26	17.76	July 30	15.20	Sept. 30	15.43
Feb. 26	18.67	May 6	16.57	Aug. 29	15.28	Oct. 28	15.64

4-19-21dd (*1073, p. 108). F. Kinter. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 4 S., R. 19 W. Diameter 48 inches.

Water level, in feet below land-surface datum, 1947

Jan. 29	12.33	Mar. 26	10.96	July 30	a 10.15	Sept. 30	11.10
Feb. 26	12.03	May 6	10.60	Aug. 29	10.63	Oct. 29	11.23

a Pumping.

4-19-35ab (*1073, p. 108). Glen Seeger. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 4 S., R. 19 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	12.75	Mar. 26	13.19	July 30	a 12.71	Sept. 30	13.00
Feb. 26	12.94	May 6	12.92	Aug. 29	12.17	Oct. 28	12.68

a Pumping.

4-20-21cc (*1073, p. 108). F. Albright. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 20 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	48.56	Mar. 26	48.64	July 30	48.62	Sept. 30	48.56
Feb. 26	48.71	May 6	48.63	Aug. 29	48.61	Oct. 28	48.61

5-16-3aa (*1073, p. 109). M. W. Hardman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 5 S., R. 16 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	44.04	Mar. 26	43.95	July 30	42.43	Sept. 30	43.93
Feb. 26	44.16	May 6	43.69	Aug. 28	42.84	Oct. 28	43.66

5-17-1aa (*1073, p. 109). Public road. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 5 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	1.37	Mar. 26	1.23	July 30	3.16	Sept. 30	6.47
Feb. 26	.94	May 6	1.91	Aug. 29	5.15	Oct. 28	6.84

5-17-3cd (*1073, p. 109). Owner unknown. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 5 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	3.64	Mar. 26	1.62	July 30	3.75	Sept. 30	6.30
Feb. 26	3.72	May 6	1.18	Aug. 29	5.68	Oct. 28	6.64

5-17-12aa (*1073, p. 109). E. R. Downing and others. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 5 S., R. 17 W.

Water level, in feet below land-surface datum, 1947

Jan. 29	52.18	Mar. 26	52.08	July 30	52.00	Sept. 30	54.20
Feb. 26	52.19	May 6	53.36	Aug. 29	52.02	Oct. 28	52.13

a Pumping.

5-20-10aa (*1073, p. 109). A. Woltman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 5 S., R. 20 W. Measurements discontinued after May 6, 1947. Water levels, in feet below land-surface datum, 1947: Jan. 29, 15.34; Feb. 26, 14.20; Mar. 26, 13.75, pumping; May 6, 14.05.

1-19-19cc. Al Skelton. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 1 S., R. 19 W. Dug stock well, diameter 120 inches to 96 inches, depth 33 feet. Measuring point, top of platform at manhole, west side, 4.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Oct. 10, 17.50; Oct. 28, 17.64; Dec. 5, 17.07.

1-20-13ad. Unknown. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 1 S., R. 20 W. Drilled well, diameter 6 inches, depth 62.8 feet. Measuring point, top of casing, 0.75 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 7	27.71	Aug. 29	26.10	Oct. 28	27.04
July 31	25.05	Oct. 7	26.97	Dec. 5	26.68

1-20-30cc. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 1 S., R. 20 W. Drilled well, diameter 5 inches, depth 85.0 feet. Measuring point, base of pump, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 8, 77.87; Oct. 28, 77.40; Dec. 5, 77.85.

1-20-34ba. Harold Parker. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 1 S., R. 20 W. Drilled well, diameter 6 inches, depth 44.8 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Oct. 10, 28.05; Oct. 28, 27.07; Dec. 5, 27.72.

Reno County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 1 well in Reno County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
86	6	10.30	Oct. 26, 1946	19.04	Nov. 7, 1946 Dec. 6, 1946

Difference between highest and lowest recorded water level, and net change in water level, in feet, in 1947 and for period of record, in 1 well in Reno County

Well	Difference between highest and lowest level	Net rise in 1947	Net decline for period of record
86	8.74	1.53	3.15

86 (*1073, p. 110). Mrs. Barb. SW $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 23 S., R. 6 W. (307 East Sixth Street). Well affected by pumping Main Street well of water company. Measurements by State and Federal Geological Surveys.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	17.37	Mar. 3	17.71	May 9	16.54	June 30	17.19
Feb. 7	17.68	Apr. 1	17.08	27	18.48	Oct. 2	17.41

a Pumping.

Republic County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 6 wells in Republic County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
40	6	33.00	Dec. 25, 1944	35.46	Sept. 6, 1942
158	6	11.17	June 25, 1945	15.97	Feb. 25, 1943
188	6	9.40	June 28, 1947	18.40	Nov. 25, 1943
202	6	25.10	Oct. 27, 1947	35.75	Aug. 29, 1943
209	6	27.35	Aug. 2, 1945	33.74	Jan. 31, 1944
230	6	4.78	Sept. 25, 1942	9.25	Dec. 26, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 6 wells in Republic County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise for period of record
40	2.46	-0.40	1.06
158	4.80	-.83	1.44
188	9.00	+9.0	4.62
202	10.65	+1.0	.45
209	6.39	0	3.13
230	4.47	0	.70

40 (*946, p. 148; *988, p. 135; 1018, p. 110; 1025, p. 112; 1073, p. 111). City of Republic. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 1 S., R. 4 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	34.40	Apr. 23	34.40	July 23	34.40	Oct. 24	34.40
Feb. 24	34.40	May 23	34.80	Aug. 24	34.40	Nov. 24	33.90
Mar. 24	34.40	June 23	34.40	Sept. 23	34.40	Dec. 23	33.90

158 (*946, p. 148; *988, p. 136; 1018, p. 111; 1025, p. 112; 1073, p. 111). A. J. Dickerman. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 3 S., R. 4 W.

Water level, in feet below land-surface datum, 1947

Jan. 25	14.39	Apr. 25	14.13	July 25	12.89	Oct. 25	14.90
Feb. 25	14.48	May 25	13.41	Aug. 25	13.73	Nov. 25	15.03
Mar. 25	14.50	June 25	12.79	Sept. 25	14.55	Dec. 25	15.33

188 (#946, p. 149; #988, p. 136; 1018, p. 111; 1025, p. 112; 1073, p. 111). City of Courtland. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 16, T. 3 S., R. 5 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	13.80	May 25	12.50	Aug. 26	13.00	Nov. 4	16.00
Apr. 25	13.70	June 28	9.40	Sept. 25	14.70	23	15.40
Apr. 21	14.70	July 20	11.00	Oct. 24	13.10	Dec. 24	15.30
24	13.70						

202 (#946, p. 149; #988, p. 136; 1018, p. 111; 1025, p. 113; 1073, p. 111). C. E. Erickson. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 4 S., R. 5 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	34.10	Apr. 27	33.60	Aug. 27	33.70	Nov. 30	35.00
Feb. 28	33.70	June 1	33.60	Oct. 27	25.10	Dec. 30	35.00
Mar. 21	33.60	July 25	33.70				

209 (#946, p. 149; #988, p. 137; 1018, p. 112; 1025, p. 113; 1073, p. 112). Glenn B. Snapp. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 4 S., R. 3 W. Water level, in feet below land-surface datum, 1947: Feb. 1, 29.07.

230 (#946, p. 149; #988, p. 137; 1018, p. 112; 1025, p. 113; 1073, p. 112). Lloyd Blosser. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 4 W. No measurements made in 1947.

Rice County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 22 wells in Rice County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	2	44.25	Sept. 9, 1947	44.68	Dec. 29, 1946
2	2	33.64	July 22, 1947	36.12	Feb. 27, 1947
3	2	40.43	Mar. 31, 1947	41.10	Dec. 29, 1946
4	2	7.83	May 9, 1947	18.83	Feb. 27, 1947
5	2	7.76	May 9, 1947	16.06	Oct. 3, 1947
6	2	4.32	May 9, 1947	8.02	Oct. 4, 1946
7	2	11.85	Mar. 31, 1947	13.00	Dec. 10, 1947
8	2	40.80	Sept. 10, 1947	43.54	Sept. 16, 1946
9	2	40.84	Sept. 10, 1947	42.18	Dec. 5, 1946
10	2	10.43	May 9, 1947	11.50	Dec. 11, 1947
11	2	32.53	Dec. 7, 1946	34.67	Oct. 3, 1947
12	2	4.38	Dec. 8, 1946	8.00	Oct. 4, 1946
13	2	11.62	July 22, 1947	13.39	Oct. 4, 1946
14	2	10.05	July 22, 1947	12.38	Oct. 30, 1947
15	2	6.99	May 9, 1947	8.76	Oct. 3, 1947
16	2	8.23	July 22, 1947	9.74	Sept. 10, 1947
17	2	34.10	July 3, 1946	34.66	Dec. 5, 1946
18	2	31.18	July 21, 1947	31.92	Oct. 4, 1946
19	2	9.29	May 9, 1947	13.17	Oct. 3, 1947
20N	2	34.55	Dec. 5, 1946	35.62	Sept. 10, 1947
20C	2	32.23	Dec. 29, 1946	33.03	Sept. 10, 1947
20S	2	29.27	Dec. 29, 1946	30.40	Sept. 10, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 22 wells in Rice County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	0.43	+0.27	+0.11
2	2.48	+6.7	+7.6
3	.67	-.40	-.37
4	11.00	+3.65	+2.03
5	8.30	+4.08	+2.25

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1947 and for period of record, in 22 wells in Rice County--Continued.

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
6	3.70	+0.85	+1.63
7	1.15	-.85	-1.02
8	2.74	+.63	+.63
9	1.34	+.91	+1.04
10	1.07	-.85	-.80
11	2.14	-.54	-1.70
12	3.62	-.02	-3.10
13	1.77	-.26	+.39
14	2.33	-.92	-.24
15	1.77	-.89	+.13
16	1.51	-.12	+.22
17	.56	-.19	-.45
18	.74	+.31	+.23
19	3.88	-1.58	-.19
20N	1.07	+.21	-.24
20C	.80	-.28	-.44
20S	1.13	-.74	-.49

1 (*1073, p. 112). B. J. Good. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 19 S., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	44.61	May 9	44.53	Sept. 9	44.25	Oct. 30	44.32
Feb. 27	44.61	July 22	44.30	Oct. 3	44.28	Dec. 11	44.34
Mar. 31	44.51						

2 (*1073, p. 112). J. P. Pulliam. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 19 S., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	35.70	Mar. 31	35.57	July 22	33.64	Oct. 3	34.65
Feb. 27	36.12	May 9	34.60	Sept. 9	34.22	30	35.03

3 (*1073, p. 112). W. M. Myers. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 19 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	40.62	May 9	40.98	Sept. 9	40.61	Oct. 30	40.62
Feb. 27	40.66	July 22	40.96	Oct. 3	40.79	Dec. 11	41.02
Mar. 31	40.40						

4 (*1073, p. 112). Public school district. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 20 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	18.77	May 9	7.83	Sept. 9	13.52	Oct. 30	15.53
Feb. 27	18.83	July 22	10.35	Oct. 3	14.57	Dec. 11	14.92
Mar. 31	10.37						

5 (*1073, p. 113). J. W. Harder. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 20 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	12.18	May 9	7.76	Sept. 9	14.45	Oct. 30	10.58
Feb. 27	12.02	July 22	8.61	Oct. 3	16.06	Dec. 11	8.10
Mar. 31	10.00						

6 (*1073, p. 113). J. C. Brown. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 21 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	6.95	May 9	4.32	Sept. 9	6.35	Oct. 30	6.73
Feb. 27	6.10	July 22	4.70	Oct. 3	6.77	Dec. 11	6.10
Mar. 31	5.38						

7 (*1073, p. 113). F. Kasparek. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 18 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	12.15	May 9	12.25	Sept. 10	12.45	Oct. 30	12.50
Feb. 27	12.20	July 21	12.48	Oct. 3	12.62	Dec. 10	13.00
Mar. 31	11.85						

8 (*1073, p. 113). G. J. O'Neill. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 18 S., R. 7 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	43.48	May 9	43.43	Sept. 10	40.80	Oct. 30	42.69
Feb. 27	43.53	July 21	43.01	Oct. 3	42.23	Dec. 10	42.85
Mar. 31	43.40						

9 (*1073, p. 113). C. Dobrinski. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10 T. 18 S., R. 8 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	42.00	May 9	41.87	Sept. 10	40.84	Oct. 29	41.00
Feb. 27	42.15	July 21	40.86	Oct. 3	40.94	Dec. 10	41.09
Mar. 28	42.04						

10 (*1073, p. 113). O. Brownleewe. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 18 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	10.65	Mar. 31	10.46	Sept. 10	10.90	Oct. 29	11.12
Feb. 27	10.73	May 9	10.43	Oct. 3	11.11	Dec. 11	11.50

11 (*1073, p. 113). The Bushton News. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 18 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	33.69	May 9	33.26	Sept. 10	33.60	Oct. 29	34.37
Feb. 27	33.63	July 22	33.67	Oct. 3	34.67	Dec. 11	34.23
Mar. 31	33.46						

12 (*1073, p. 113). J. R. Bowman. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 19 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.46	May 9	6.62	Sept. 10	6.99	Oct. 30	7.45
Feb. 27	7.46	July 22	5.53	Oct. 3	7.35	Dec. 11	7.48
Mar. 31	7.20						

13 (*1073, p. 113). H. Thompson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 20 S., R. 10 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	12.68	May 9	12.48	Sept. 10	13.10	Oct. 30	12.80
Feb. 27	12.66	July 22	11.62	Oct. 3	12.59	Dec. 11	12.94
Mar. 31	12.55						

14 (*1073, p. 114). J. H. Fair. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 21 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	11.07	May 9	10.64	Sept. 10	11.95	Oct. 30	12.38
Feb. 27	11.16	July 22	10.05	Oct. 3	12.27	Dec. 11	11.99
Mar. 31	10.76						

15 (*1073, p. 114). R. J. Dill. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 21 S., R. 8 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.36	May 9	6.99	Sept. 10	8.66	Oct. 30	8.73
Feb. 27	7.43	July 22	7.22	Oct. 3	8.76	Dec. 11	8.25
Mar. 31	7.09						

16 (*1073, p. 114). J. H. Fair. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 20 S., R. 9 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.08	May 9	8.68	Sept. 10	9.74	Oct. 30	9.12
Feb. 27	9.12	July 22	8.23	Oct. 3	8.99	Dec. 11	9.20
Mar. 31	8.96						

17 (*1073, p. 114). J. A. Roesler. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 19 S., R. 8 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	34.36	May 9	34.40	Sept. 10	34.16	Oct. 29	34.35
Feb. 27	34.40	July 21	34.11	Oct. 3	34.25	Dec. 10	34.55
Mar. 28	34.53						

18 (*1073, p. 114). L. M. Richard. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 18 S., R. 8 W.
Measurements discontinued after September 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 27	31.54	Mar. 28	31.36	July 21	31.18
Feb. 27	31.44	May 9	31.70	Sept. 10	31.23

19 (*1073, p. 114). City of Little River. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 19 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	11.04	May 9	9.29	Sept. 10	12.55	Oct. 30	12.97
Feb. 27	10.99	July 21	9.41	Oct. 3	13.17	Dec. 11	12.62
Mar. 31	10.32						

20N (*1073, p. 114). Owner of property, G. G. Green; owner of well, U. S. Geological Survey. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	35.28	May 9	35.27	Sept. 10	36.62	Oct. 30	35.15
Feb. 27	35.06	July 21	35.57	Oct. 3	35.27	Dec. 10	35.07
Mar. 31	34.99						

20C (*1073, p. 114). Owner of property, G. G. Green; owner of well, U. S. Geological Survey. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	32.51	May 9	32.70	Sept. 10	33.03	Oct. 30	32.90
Feb. 27	32.54	July 21	32.88	Oct. 3	32.98	Dec. 10	32.79
Mar. 31	32.56						

20S (*1073, p. 114). Owner of property, G. G. Green; owner of well, U. S. Geological Survey. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	29.35	May 9	30.02	Sept. 10	30.40	Oct. 30	30.10
Feb. 27	29.62	July 21	30.28	Oct. 3	30.19	Dec. 10	30.09
Mar. 31	29.79						

Russell County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 10 wells in Russell County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
45	6	18.39	July 12, 1945	24.28	Aug. 20, 1941
80	6	3.40	Apr. 14, 1942	7.76	June 29, 1943
81	6	101.85	Aug. 29, 1941	134.71	July 10, 1947
95	6	5.83	Sept. 7, 1944	11.38	Dec. 20, 1943
117	6	4.70	Apr. 13, 1942	10.61	Dec. 20, 1943
126	6	31.66	July 10, 1946	38.02	Jan. 13, 1945
146	6	14.59	Apr. 8, 1943	16.20	Sept. 1, 1942
148	6	3.81	Apr. 8, 1943	7.92	Oct. 2, 1941
149	6	18.53	July 12, 1945	21.54	June 29, 1945
152	6	10.98	July 12, 1945	26.45	Sept. 22, 1941

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 10 wells in Russell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
45	5.89	-0.31	+1.28
80	4.36	-1.07	-1.12
81	32.86	+1.14	-23.06
95	5.55	+0.05	+3.32
117	5.91	+8.7	+3.33
126	6.36	-3.33	-.61
146	1.61	-.04	+0.09
148	4.11	-.50	+0.47
149	3.01	+0.25	+1.56
152	15.47	+0.16	+9.75

45 (#938, p. 130; 946, p. 151; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). Jacob Flogler. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 15 S., R. 14 W. Water levels, in feet below land-surface datum, 1947: Jan. 9, 22.71; July 10, 19.54; Oct. 15, 23.00.

80 (#938, p. 130; 946, p. 151; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). Joseph Furthmyer, Jr. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 14 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 4.42; Apr. 2, 4.96; July 10, 4.98; Oct. 15, 5.83.

81 (#938, p. 130; 946, p. 151; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). Joseph Furthmyer, Jr. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 14 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 126.01; Apr. 2, 133.80; July 10, 134.71; Oct. 15, 124.91.

95 (#938, p. 131; 946, p. 151; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). George J. Gobleman. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 11 S., R. 15 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 6.09; Apr. 2, 5.92; July 10, 5.89; Oct. 15, 5.96.

117 (#938, p. 131; 946, p. 152; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). Marie Dutt and others. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 13 S., R. 14 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 7.71; Apr. 2, 5.75; July 10, 5.50; Oct. 15, 6.25.

126 (#938, p. 131; 946, p. 152; #988, p. 138; 1018, p. 113; 1025, p. 114; 1073, p. 115). Bertha Dewald. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 13 S., R. 13 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 32.62; Apr. 2, 32.45; July 10, 31.94; Oct. 15, 35.73.

146 (#938, p. 131; 946, p. 152; #988, p. 138; 1018, p. 113; #1025, p. 114; 1073, p. 116). D. P. Steinle. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 14 S., R. 12 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 15.62; Apr. 2, 15.62; July 10, 15.55; Oct. 15, 15.71.

148 (#938, p. 131; 946, p. 152; #988, p. 138; 1018, p. 113; #1025, p. 114; 1073, p. 116). John Penex. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 14 S., R. 13 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 6.98; July 10, 6.28; Oct. 15, 7.41.

149 (#938, p. 131; 946, p. 152; #988, p. 138; 1018, p. 113; #1025, p. 114; 1073, p. 116). George Boxberger, Jr. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 14 S., R. 14 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 19.58; Apr. 2, 19.61; July 10, 19.27; Oct. 15, 19.30.

152 (#938, p. 132; 946, p. 152; #988, p. 138; 1018, p. 113; #1025, p. 114; 1073, p. 116). D. D. Beisel. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 14 S., R. 12 W. Water levels, in feet below land-surface datum, 1947: Jan. 8, 18.28; Apr. 2, 12.54; July 10, 13.29; Oct. 15, 16.70.

Saline County

By D. W. Berry

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 11 wells in Saline County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
15-2-17cd	2	22.72	Dec. 2, 1946	25.27	Dec. 1, 1947
15-2-18cd	2	22.90	Nov. 4, 1946	25.39	Dec. 1, 1947
15-2-30dc	2	20.96	Dec. 2, 1946	22.42	Sept. 5, 1946
15-3-24dd	2	18.90	Mar. 27, 1946	20.50	Oct. 1, 1946
15-3-36ab	2	25.30	Mar. 26, 1946	27.30	Dec. 1, 1947
16-2-7bb	2	19.81	July 21, 1947	22.08	Aug. 1, 1946
16-2-18cc	2	23.39	Nov. 4, 1946	26.52	Dec. 1, 1947
16-2-19ab	2	21.00	Nov. 4, 1946	24.67	Dec. 1, 1947
16-3-13cd	2	20.70	Apr. 1, 1946	24.33	Sept. 5, 1946
16-3-26dc	2	19.00	Dec. 2, 1946	21.54	Dec. 1, 1947
16-3-34dd	2	20.92	Dec. 2, 1946	23.07	Dec. 1, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record in 11 wells in Saline County

Well	Difference between highest and lowest levels	Net decline in 1947 a/	Net decline for period of record
15-2-17cd	2.55	-2.19	-1.44
15-2-18cd	2.49	-2.12	-1.27
15-2-30dc	1.46	-1.11	-.94
15-3-24dd	1.60	-1.19	-1.57
15-3-36ab	2.00	-.66	-2.00
16-2-7bb	2.27	-.86	-.75
16-2-18cc	3.13	-2.16	-.72
16-2-19ab	3.67	-2.28	-.77
16-3-13cd	3.63	-1.42	-3.50
16-3-26dc	2.54	-2.19	-.94
16-3-34dd	2.15	-1.88	-.51

a Between last measurement in 1946 and last measurement in 1947.

15-2-17cd (*1073, p. 116). Geol. Survey, U. S. Dept. of Interior.
SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 15 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	23.56	May 8	23.60	Sept. 9	23.99	Oct. 30	24.99
Feb. 28	23.96	July 21	22.76	Oct. 2	24.49	Dec. 1	25.27
Mar. 31	24.07						

15-2-18cd (*1073, p. 116). Geol. Survey, U. S. Dept. of Interior.
SE. corner SW $\frac{1}{4}$ sec. 18, T. 15 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	23.70	May 8	24.00	Sept. 9	24.43	Oct. 30	24.98
Feb. 28	24.09	July 21	23.26	Oct. 2	24.86	Dec. 1	25.39
Mar. 31	24.58						

15-2-30dc (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 15 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.43	May 8	21.44	Sept. 9	21.41	Oct. 30	22.24
Feb. 28	21.36	July 21	21.13	Oct. 2	21.91	Dec. 1	22.32
Mar. 31	21.73						

15-3-24dd (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
SE. corner sec. 24, T. 15 S., R. 24 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	19.20	May 8	19.41	Sept. 9	19.81	Oct. 30	20.20
Feb. 28	19.69	July 21	19.24	Oct. 2	20.06	Dec. 1	20.47
Mar. 31	19.76						

15-3-36ab (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
NW. corner NE $\frac{1}{4}$ sec. 36, T. 15 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	26.64	May 8	26.52	Sept. 9	26.93	Oct. 30	27.28
Feb. 28	26.66	July 21	26.64	Oct. 2	27.22	Dec. 1	27.30
Mar. 31	26.77						

16-2-7bb (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
NW. corner sec. 7, T. 16 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	20.18	May 8	20.18	Sept. 9	20.20	Oct. 30	20.76
Feb. 28	20.40	July 21	19.81	Oct. 2	20.49	Dec. 1	20.95
Mar. 31	20.50						

16-2-18cc (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
SW. corner sec. 18, T. 16 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	24.91	May 8	24.98	Sept. 9	25.81	Oct. 30	26.43
Feb. 28	25.29	July 21	24.49	Oct. 2	26.20	Dec. 1	26.52
Mar. 31	25.34						

16-2-19ab (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 16 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	22.98	May 8	22.91	Sept. 9	24.04	Oct. 30	24.64
Feb. 28	23.29	July 21	22.53	Oct. 2	24.43	Dec. 1	24.67
Mar. 31	23.36						

16-3-13cd (*1073, p. 117). Geol. Survey, U. S. Dept. of Interior.
SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 16 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	22.96	May 8	22.87	Sept. 9	23.12	Oct. 30	23.92
Feb. 28	23.24	July 21	22.16	Oct. 2	23.49	Dec. 1	24.20
Mar. 31	23.39						

16-3-26dc (*1073, p. 118). Geol. Survey, U. S. Dept. of Interior.
SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 16 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	19.79	May 8	19.73	Sept. 9	20.55	Oct. 30	21.37
Feb. 28	20.11	July 21	19.25	Oct. 2	21.01	Dec. 1	21.54
Mar. 31	20.18						

16-3-34dd (*1073, p. 118). Geol. Survey, U. S. Dept. of Interior.
SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 16 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26	21.64	May 8	21.76	Sept. 9	22.23	Oct. 30	22.94
Feb. 28	21.94	July 21	21.15	Oct. 2	22.62	Dec. 1	23.07
Mar. 31	22.08						

Scott County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 11 wells in Scott County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	16	55.89	May 14, 1934	68.46	Nov. 4, 1947
1A	7	53.42	May 16, 1934 Aug. 16, 1940 Aug. 18, 1940	57.84	Oct. 10, 1946 Oct. 11, 1946 Oct. 12, 1946
2	14	30.95	Apr. 25, 1939	40.81	Dec. 11, 1947
2A	3.5	31.58	Aug. 10, 1944	38.33	Sept. 16, 1946
3	8	67.94	May 30, 1934	82.74	Nov. 4, 1947
9	8	47.77	Sept. 8, 1939	54.63	Nov. 4, 1947
19	8	45.38	Apr. 18, 1940	53.07	Sept. 6, 1946
32	8	37.79	Apr. 20, 1939 Apr. 22, 1939	43.97	Oct. 3, 1946
39	8	67.00	Mar. 5, 1947	68.76	Apr. 16, 1943
48	8	29.51	June 6, 1947	31.52	Apr. 24, 1944
50	8	95.27	Oct. 14, 1947	97.95	Aug. 6, 1943

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 11 wells in Scott County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
1	12.57	-1.49	-9.79
1A	4.42	-.46	-4.23
2	9.86	-1.55	-9.36
2A	6.75	-.63	-4.84
3	14.80	-5.68	-9.88
9	6.86	-.65	-5.93
19	7.69	-.83	-3.67
32	6.18	-.21	-4.62
39	1.76	+ .02	+ .67
48	2.01	-1.29	+ .16
50	2.68	+1.02	+2.47

1 (#886, p. 187; 908, p. 157; 938, p. 133; 946, p. 154; #988, p. 139; 1018, p. 144; 1025, p. 115; 1073, p. 119). Mrs. Rosine Smith. NW corner sec. 9, T. 20 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	64.89	Apr. 4	64.17	July 9	63.78	Oct. 14	a 67.85
Feb. 6	64.50	May 2	64.09	Aug. 5	65.59	Nov. 4	a 68.46
Mar. 5	64.38	June 6	63.90	Sept. 5	65.86	Dec. 11	66.32

a Nearby well pumping.

1A (#908, p. 157; 938, p. 134; 946, p. 155; #988, p. 140; 1018, p. 114; 1025, p. 115; 1073, p. 119). Division of Water Resources, Kansas State Board of Agriculture. NW $\frac{1}{4}$ sec. 3, T. 20 S., R. 33 W.

Mean daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	57.21	57.11	56.98	56.87	56.76	56.65	56.53	56.44	56.98	.....	57.67
2	57.10	56.97	56.86	56.75	56.65	56.52	56.44	56.99	.....	57.68
3	57.10	56.97	56.85	56.74	56.63	56.52	56.45	57.00	.....	57.69
4	57.09	56.97	56.83	56.74	56.63	56.52	56.45	57.01	.....	57.68
5	57.08	56.96	56.84	56.73	56.62	56.52	56.45	57.02	.....	57.68
6	57.07	56.95	56.85	56.73	56.63	56.52	56.45	57.02	.....	.....
7	57.07	56.95	56.83	56.72	56.63	56.52	56.46	57.03	.....	.....
8	57.07	56.94	56.83	56.72	56.62	56.52	56.47	57.03	.....	.....

1A--Continued.

Mean daily water level, in feet below land-surface datum, 1947											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
9	.....	57.06	56.94	56.81	56.71	56.62	56.52	56.49	57.04	.....	.....
10	.....	57.04	56.93	56.81	56.71	56.62	56.51	56.50	.....	.....	.....
11	.....	57.04	56.93	56.82	56.71	56.62	56.51	56.63	.....	.....	.....
12	.....	57.03	56.93	56.81	56.71	56.61	56.51	56.55	.....	.....	.....
13	.....	57.02	56.92	56.81	56.70	56.61	56.51	56.59	.....	.....	.....
14	.....	57.02	56.92	56.80	56.70	56.60	56.51	56.62	.....	57.49	.....
15	.....	57.02	56.93	56.80	56.70	56.60	56.51	56.64	.....	57.50	.....
16	57.17	57.01	56.93	56.79	56.70	56.59	56.50	56.68	.....	57.51	.....
17	57.17	57.01	56.93	56.78	56.69	56.58	56.50	56.71	.....	57.52	.....
18	57.16	57.01	56.92	56.77	56.69	56.58	56.50	56.73	.....	57.53	.....
19	57.15	57.01	56.93	56.77	56.69	56.57	56.49	56.76	.....	57.54	.....
20	57.15	57.02	56.91	56.77	56.70	56.55	56.49	56.78	.....	57.55	.....
21	57.15	57.01	56.91	56.76	56.69	56.54	56.49	56.79	.....	57.56	.....
22	57.15	57.01	56.91	56.76	56.69	56.55	56.47	56.81	.....	57.58	.....
23	57.14	57.01	56.91	56.77	56.69	56.55	56.47	56.82	.....	57.59	.....
24	57.13	57.01	56.91	56.77	56.69	56.53	56.47	56.85	.....	57.59	.....
25	57.13	57.01	56.91	56.77	56.68	56.53	56.47	56.88	.....	57.60	.....
26	57.12	57.00	56.90	56.76	56.68	56.52	56.47	56.89	.....	57.60	.....
27	57.12	56.99	56.89	56.76	56.67	56.52	56.46	56.90	.....	57.61	.....
28	57.11	56.99	56.88	56.75	56.66	56.52	56.45	56.91	.....	57.62	.....
29	57.11	.....	56.89	56.75	56.67	56.52	56.45	56.93	.....	57.63	.....
30	57.11	.....	56.87	56.75	56.65	56.53	56.45	56.94	.....	57.64	.....
31	57.11	.....	56.88	.....	56.64	.....	56.45	56.96	.....	57.65	.....

2 (*886, p. 191; 908, p. 158; 938, p. 134; 946, p. 155; 988, p. 141; 1018, p. 115; 1025, p. 116; 1073, p. 119). E. E. Coffin. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 18 S., R. 33 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	39.08	Apr. 4	38.46	July 9	37.68	Nov. 4	38.78
Feb. 6	38.92	May 2	38.21	Sept. 5	38.18	Dec. 11	40.81
Mar. 5	38.69	June 6	37.91				

2A (*1018, p. 116; 1025, p. 116; 1073, p. 119). Division of Water Resources, Kansas State Board of Agriculture. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 18 S., R. 33 W.

Mean daily water level, in feet below land-surface datum, 1947											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	35.74	35.48	.....	34.95	34.75	34.56	34.50	34.91	.....	37.28	37.28
2	35.75	35.47	35.22	34.91	34.72	34.55	34.48	35.05	.....	37.28	37.27
3	35.75	35.45	35.21	34.89	34.67	34.53	34.46	35.19	.....	37.30	37.24
4	35.72	35.48	35.20	34.88	34.69	34.51	34.45	35.31	.....	37.33	37.23
5	35.68	35.42	35.24	.....	34.68	34.52	34.47	35.43	.....	37.33	37.22
6	35.66	35.40	35.27	.....	34.69	34.50	34.49	35.56	36.89	37.35	37.20
7	35.67	35.41	.....	.....	34.69	34.50	34.50	35.68	37.00	37.37	37.20
8	35.67	35.42	.....	.....	34.74	34.47	34.51	35.80	37.10	37.39	37.20
9	35.66	35.42	.....	.....	34.78	34.45	34.50	35.92	37.18	37.41	37.18
10	35.62	35.38	.....	.....	34.79	34.48	34.48	36.00	37.26	37.42	37.18
11	35.60	35.37	.....	.....	34.79	34.48	34.47	36.04	37.33	37.42	37.16
12	35.58	35.40	.....	.....	34.78	34.46	34.49	36.13	37.40	37.44	37.16
13	35.57	35.37	.....	.....	34.77	34.47	34.49	36.28	37.37	37.45	37.14
14	35.62	35.38	.....	.....	34.75	34.45	34.48	36.38	37.35	37.45	37.11
15	35.63	35.36	.....	.....	34.74	34.43	34.47	.....	37.28	37.45	37.10
16	35.65	35.34	.....	.....	34.74	34.41	34.46	.....	37.21	37.45	37.10
17	35.64	35.33	.....	.....	34.72	34.38	34.48	.....	37.18	37.44	37.09
18	35.60	35.36	.....	.....	.....	34.42	34.49	.....	37.16	37.43	37.07
19	35.55	35.33	.....	.....	.....	34.42	34.46	.....	37.13	37.42	37.04
20	35.56	35.34	.....	.....	.....	34.38	34.45	.....	37.12	37.39	37.03
21	35.58	35.32	.....	.....	.....	34.36	34.46	.....	37.12	37.37	37.02
22	35.55	35.31	35.06	.....	34.69	34.40	34.45	.....	37.13	37.37	37.01
23	35.53	35.31	35.05	.....	34.68	34.42	34.43	.....	37.13	37.37	36.97
24	35.52	35.31	35.11	.....	34.66	34.38	34.44	.....	37.16	37.37	36.96

2A--Continued.

Mean daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	35.52	.....	35.08	.....	34.63	34.35	34.43	.....	37.19	37.36	36.94	36.53
26	35.49	.....	35.02	.....	34.63	34.34	34.43	.....	37.21	37.33	36.93	36.51
27	35.50	.....	35.04	34.73	34.58	34.36	34.44	.....	37.21	37.32	36.92	36.49
28	35.48	.....	34.99	34.71	34.62	34.40	34.48	.....	37.23	37.31	36.90	36.46
29	35.47	.....	35.00	34.70	34.62	35.42	34.57	.....	37.26	37.29	36.90	36.43
30	35.51	.....	34.94	34.70	34.57	34.49	34.67	.....	37.27	37.28	36.87	36.44
31	35.48	.....	34.95	.....	34.54	.....	34.78	.....	.....	37.28	.....	36.42

3 (*886, p. 194; 908, p. 158; 938, p. 135; 946, p. 156; *988, p. 141; 1018, p. 116; 1025, p. 116; 1073, p. 120). Claude Hughes. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 18 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	74.37	Apr. 4	73.43	June 6	73.27	Nov. 4	82.74
Feb. 6	73.97	May 2	73.34	Sept. 5	82.69	Dec. 11	80.16
Mar. 5	73.79						

9 (*886, p. 159; 908, p. 195; 908, p. 159; 938, p. 135; 946, p. 156; *988, p. 141; 1018, p. 116; 1025, p. 117; 1073, p. 120). Mrs. Rosine Smith. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 19 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 16	52.91	Apr. 4	52.55	July 9	53.44	Oct. 14	a 53.67
Feb. 6	52.80	May 2	52.56	Aug. 5	52.72	Nov. 4	54.63
Mar. 5	52.69	June 6	52.39	Sept. 5	53.12	Dec. 11	53.70

a Nearby well pumping.

19 (*886, p. 195; 908, p. 160; 938, p. 136; 946, p. 156; *988, p. 141; 1018, p. 116; 1025, p. 117; 1073, p. 120). J. Dyer. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 18 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	49.58	Apr. 4	48.84	Aug. 5	50.09	Nov. 4	51.96
Feb. 6	49.37	May 2	48.72	Oct. 14	51.59	Dec. 11	50.76
Mar. 5	49.15	June 6	48.52				

32 (*886, p. 196; 908, p. 160; 938, p. 136; 946, p. 157; *988, p. 142; 1018, p. 116; 1025, p. 117; 1073, p. 120). E. J. Roark. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 19 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	41.84	Apr. 4	41.27	July 9	41.31	Oct. 14	42.33
Feb. 6	41.67	May 2	41.24	Aug. 5	41.46	Nov. 4	42.49
Mar. 5	41.46	June 6	41.20	Sept. 5	41.91	Dec. 11	42.41

39 (*886, p. 197; 908, p. 162; 938, p. 138; 946, p. 157; *988, p. 142; 1018, p. 116; 1025, p. 117; 1073, p. 121). Henry F. Poos Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 18 S., R. 31 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	68.26	Apr. 4	67.87	June 6	67.76	Aug. 5	67.82
Feb. 6	67.81	May 2	67.83	July 9	67.86	Oct. 14	67.86
Mar. 5	67.00						

48 (*886, p. 198; 908, p. 162; 938, p. 138; 946, p. 158; *988, p. 142; 1018, p. 116; 1025, p. 117; 1073, p. 121). F. Roark. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 20 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	29.75	Apr. 4	29.61	July 9	29.52	Oct. 14	30.23
Feb. 6	29.68	May 2	29.62	Aug. 5	29.55	Nov. 4	30.39
Mar. 5	29.67	June 6	29.51	Sept. 5	29.65	Dec. 11	30.36

50 (*886, p. 198; 908, p. 163; 938, p. 138; 946, p. 158; *988, p. 142; 1018, p. 117; 1025, p. 117; 1073, p. 121). F. M. Houston. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 19 S., R. 32 W.,

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	95.58	Apr. 4	95.58	June 6	95.55	Aug. 5	95.38
Feb. 6	95.94	May 2	95.58	July 9	95.45	Oct. 14	95.27
Mar. 5	95.90						

Sedgwick County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 30 wells in Sedgwick County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
11	10	51.34	Aug. 4, 1945	60.34	July 4, 1938
12	10	11.06	May 7, 1944 May 8, 1944	18.99	Apr. 1, 1938 Apr. 2, 1938 Apr. 8, 1938 Apr. 9, 1938 Apr. 11, 1938 Apr. 12, 1938
26	10	6.05	May 7, 1944	23.18	Jan. 29, 1940
307	10	9.08	May 12, 1945 May 13, 1945 May 20, 1945	14.18	Dec. 16, 1946
502	5	12.49	Mar. 20, 1944	26.70	Aug. 30, 1946
800	9	6.80	Jan. 3, 1946	19.69	Apr. 3, 1940
802	9	1.96	May 11, 1942	8.46	Dec. 5, 1947
804	9	.59	May 2, 1945	5.20	Sept. 26, 1946
805	9	1.57	May 2, 1945	6.27	Sept. 26, 1946
807	9	19.45	May 8, 1944	23.04	Jan. 2, 1941
808	9	19.94	Oct. 4, 1945	23.47	Mar. 4, 1941
809	9	6.77	Apr. 29, 1944	14.68	Jan. 2, 1941
810	9	1.94	Apr. 28, 1944	13.38	Aug. 30, 1940
811	9	3.69	May 6, 1944	9.57	July 8, 1946
812	9	6.90	May 4, 1945	18.91	Feb. 10, 1947
814	9	9.72	May 4, 1945	17.11	Dec. 3, 1940 Jan. 2, 1941 Feb. 3, 1941 Mar. 4, 1941 May 1, 1941
815	9	7.65	May 11, 1945	14.04	Jan. 24, 1941 Jan. 31, 1941
816	9	5.32	Oct. 8, 1945	18.47	Mar. 3, 1947
825	9	5.49	May 4, 1945	15.18	Dec. 5, 1947
826	9	2.12	May 9, 1944	13.01	Nov. 5, 1940
830	9	23.79	May 2, 1945	28.62	Oct. 3, 1940
834	9	5.87	May 8, 1944	11.70	Oct. 3, 1940
838	9	20.83	May 29, 1945	26.91	Nov. 5, 1940
840	9	.53	Sept. 30, 1945	8.30	Mar. 10, 1947
842	9	1.39	Oct. 4, 1945	7.62	Sept. 26, 1946
845	9	8.20	May 8, 1944	16.16	Dec. 5, 1947
846	9	11.35	May 8, 1944	18.21	Dec. 5, 1947
847	9	10.55	May 8, 1944	18.36	Dec. 5, 1947
870	9	1.64	Nov. 9, 1945	8.30	Nov. 5, 1940
2039	5	9.91	May 8, 1944	17.78	Feb. 24, 1947

a Affected by pumping in nearby well field.

Difference between highest and lowest recorded water level, and net change in water level, in feet, in 1947 and for period of record, in 30 wells in Sedgwick County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
11	9.00	+0.61	+4.41
12	7.93	-5.05	-2.03
26	17.13	-.98	+4.27
307	5.10	+1.82	+3.30
502	14.21	+3.40	+6.64
800	12.89	-.99	+2.84
802	6.50	-.46	-3.25
804	4.61	+1.17	-1.90
805	4.70	+1.44	-1.71
807	3.59	+1.10	-.37
808	3.83	-.24	+1.35
809	7.91	+1.89	-.38
810	11.44	+1.15	-1.74
811	5.88	-.03	-1.15
812	12.01	+1.55	-.50
814	7.39	+1.15	+1.93
815	6.39	-.10	+1.48
816	13.15	-.21	-.53
825	9.69	-2.61	+1.13
826	10.89	-.24	-1.05
830	4.83	-.15	-3.50
834	5.83	+1.33	+1.85
838	6.08	+1.82	+1.02
840	7.77	+1.55	+3.66
842	6.23	+1.65	+1.78
845	7.96	-.06	+1.34
846	6.86	-.58	-.99
847	7.81	-.57	-1.14
870	6.66	-.72	-.98
2089	7.87	-.51	-5.06

12 (*840, p. 105; 845, p. 126; 886, p. 217; 908, p. 165; 938, p. 140; 946, p. 160; *988, p. 144; 1018, p. 118; 1025, p. 119; 1073, p. 123).
Dr. A. D. Updegraph. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 25 S., R. 1 W.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.58	17.67	17.78	17.38	16.32	16.14	15.72	16.11	16.59	17.00	17.32	17.52
2	17.57	17.67	17.76	17.38	16.31	16.14	15.71	16.12	16.59	17.01	17.33	17.52
3	17.57	17.68	17.76	17.38	16.29	16.13	15.71	16.14	16.61	17.02	17.33	17.54
4	17.57	17.68	17.77	17.37	16.30	16.12	15.70	16.15	16.63	17.04	17.34	17.55
5	17.58	17.67	17.78	17.40	16.31	16.11	15.72	16.16	16.64	17.05	17.35	17.55
6	17.58	17.68	17.78	17.42	16.32	16.11	15.74	16.18	16.65	17.06	17.35	17.54
7	17.60	17.68	17.78	17.42	16.33	16.07	15.75	16.20	16.67	17.07	17.37	17.51
8	17.61	17.68	17.79	17.41	16.34	16.04	15.76	16.21	16.68	17.08	17.37	17.52
9	17.61	17.68	17.79	17.41	16.34	16.01	15.77	16.23	16.70	17.09	17.38	17.51
10	17.60	17.70	17.79	17.39	16.34	15.99	15.77	16.24	16.71	17.10	17.40	17.51
11	17.59	17.71	17.79	17.38	16.35	15.98	15.78	16.26	16.73	17.11	17.40	17.51
12	17.60	17.71	17.80	17.31	16.35	15.96	15.81	16.28	16.74	17.13	17.41	17.52
13	17.60	17.71	17.79	17.23	16.37	15.96	15.83	16.29	16.75	17.14	17.41	17.51
14	17.62	17.71	17.74	17.05	16.38	15.96	15.84	16.31	16.78	17.14	17.41	17.50
15	17.62	17.71	17.66	16.91	16.39	15.96	15.85	16.32	16.79	17.15	17.42	17.51
16	17.63	17.72	17.59	.....	16.40	15.96	15.87	16.34	16.80	17.16	17.43	17.52
17	17.63	17.72	17.54	.....	16.41	15.96	15.89	16.36	16.82	17.17	17.44	17.52
18	17.62	17.72	17.50	.....	16.41	16.00	15.92	16.39	16.83	17.19	17.45	17.53
19	17.61	17.72	17.48	.....	16.41	16.00	15.93	16.40	16.84	17.20	17.45	17.54
20	17.62	17.73	17.46	.....	16.41	15.96	15.95	16.42	16.85	17.20	17.46	17.55
21	.....	17.73	17.44	16.46	16.40	15.91	15.97	16.43	16.87	17.21	17.47	17.53
22	.....	17.74	17.42	16.44	16.38	15.88	15.98	16.45	16.89	17.22	17.47	17.56
23	.....	17.74	17.41	16.41	16.38	15.86	16.00	16.46	16.89	17.23	17.47	17.57
24	.....	17.75	17.41	16.41	16.36	15.85	16.02	16.47	16.91	17.25	17.48	17.57
25	.....	17.75	17.41	16.39	16.35	15.84	16.02	16.49	16.92	17.26	17.49	17.58

12--Continued.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	.....	17.75	17.40	16.37	16.32	15.84	16.03	16.50	16.94	17.26	17.50	17.58
27	17.65	17.75	17.40	16.34	16.29	15.83	16.04	16.51	16.94	17.27	17.51	17.58
28	17.64	17.76	17.39	16.34	16.28	15.78	16.05	16.53	16.96	17.28	17.51	17.58
29	17.63		17.38	16.30	16.28	15.74	16.06	16.54	16.99	17.29	17.52	17.58
30	17.66		17.38	16.32	16.23	15.73	16.07	16.55	16.99	17.30	17.52	17.60
31	17.67		17.37		16.19		16.09	16.57		17.31		17.60

307 (*840, p. 107; 845, p. 128; 886, p. 218; 908, p. 167; 938, p. 142; 946, p. 162; *988, p. 145; 1018, p. 120; 1025, p. 120; 1073, p. 124).
J. R. Clark. NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 25 S., R. 2 W.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.07	13.91	13.77	13.87	13.48	13.00	13.04	13.54	14.10	14.47	14.70	14.69
2	14.08	13.88	13.79	13.88	13.48	13.08	13.11	13.59	14.12	14.49	14.70	14.68
3	14.05	13.87	13.79	13.93	13.47	13.09	13.11	13.61	14.13	14.51	14.68	14.68
4	14.04	13.86	13.78	13.95	13.46	13.09	13.12	13.63	14.16	14.51	14.68	14.65
5	14.04	13.85	13.78	13.97	13.46	13.09	13.12	13.64	14.18	14.50	14.67	14.65
6	14.03	13.84	13.77	13.92	13.46	13.09	13.13	13.65	14.19	14.52	14.68	14.64
7	14.01	13.84	13.77	13.89	13.47	13.08	13.14	13.68	14.20	14.52	14.68	14.59
8	14.00	13.83	13.77	13.89	13.49	13.03	13.14	13.68	14.22	14.53	14.68	14.58
9	14.00	13.83	13.77	13.89	13.50	12.97	13.15	13.70	14.23	14.54	14.68	14.56
10	13.99	13.84	13.79	13.88	13.50	12.96	13.18	13.71	14.24	14.55	14.67	14.53
11	13.99	13.85	13.79	13.85	13.50	12.97	13.22	13.73	14.26	14.56	14.67	14.52
12	13.99	13.85	13.84	13.80	13.45	12.95	13.29	13.73	14.27	14.56	14.68	14.52
13	13.99	13.85	13.88	13.60	13.45	12.95	13.29	13.73	14.28	14.58	14.68	14.50
14	13.97	13.86	13.89	13.52	13.44	12.95	13.30	13.80	14.29	14.58	14.68	14.48
15	13.97	13.86	13.89	13.48	13.43	12.95	13.54	13.80	14.31	14.62	14.68	14.48
16	13.95	13.86	13.89	13.41	13.41	12.95	14.15	13.81	14.32	14.79	14.68	14.51
17	13.95	13.86	13.89	13.34	13.39	12.95	14.05	13.81	14.34	14.73	14.68	14.54
18	13.93	13.86	13.87	13.30	13.36	12.95	13.66	13.81	14.35	14.70	14.68	14.58
19	13.92	13.86	13.85	13.27	13.33	12.94	13.65	13.78	14.36	14.65	14.69	14.60
20	13.92	13.83	13.83	13.25	13.33	12.77	13.63	13.78	14.36	14.63	14.71	14.60
21	13.89	13.81	13.81	13.70	13.31	12.72	13.62	13.79	14.34	14.65	14.73	14.60
22	13.88	13.81	13.79	13.69	13.28	12.70	13.63	13.79	14.36	14.65	14.73	14.62
23	13.88	13.83	13.79	13.65	13.28	12.71	13.63	13.87	14.36	14.63	14.73	14.63
24	13.88	13.83	13.79	13.65	13.27	12.72	13.61	13.87	14.39	14.58	14.75	14.63
25	13.88	13.81	13.75	13.61	13.19	12.72	13.52	13.95	14.40	14.59	14.75	14.63
26	13.89	13.78	13.75	13.60	13.12	12.74	13.44	13.97	14.43	14.63	14.73	14.63
27	13.90	13.77	13.80	13.57	13.10	12.73	13.44	13.98	14.44	14.74	14.72	14.64
28	13.90	13.77	13.84	13.53	13.09	12.76	13.46	14.00	14.44	14.75	14.72	14.65
29	13.91		13.83	13.49	13.08	12.79	13.48	14.03	14.45	14.76	14.71	14.68
30	13.91		13.80	13.48	13.07	12.97	13.50	14.05	14.46	14.76	14.71	14.69
31	13.91		13.85		13.09		13.52	14.08		14.72		14.69

26 (*840, p. 105; 845, p. 127; 886, p. 217; 908, p. 166; 938, p. 141; 946, p. 161; *988, p. 144; 1018, p. 26; 1025, p. 119; 1073, p. 123).
Wichita Water Co. SW $\frac{1}{4}$ sec. 18, T. 27 S., R. 1 W.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.90	12.02	12.11	11.74	12.21	10.75	9.45	11.69	12.80	12.29	12.37	12.14
2	11.91	12.00	11.87	11.72	12.15	10.77	9.30	11.58	13.50	12.30	12.35	12.10
3	11.88	12.01	11.93	11.72	12.21	10.84	9.09	10.78	14.01	12.32	12.31	12.09
4	11.88	12.03	11.88	11.73	12.24	10.89	9.01	11.76	14.37	12.32	12.30	12.03
5	11.90	12.01	12.02	11.83	12.26	10.90	9.72	11.30	14.43	12.32	12.30	11.96
6	12.01	11.85	12.05	11.80	12.28	10.87	9.65	12.09	14.43	12.35	12.28	11.80
7	11.92	11.96	12.08	11.81	12.31	10.62	9.86	11.93	14.42	12.37	12.28	11.72
8	11.90	11.96	12.12	11.80	12.35	10.27	9.00	11.65	14.11	12.36	12.28	12.73
9	11.92	11.81	12.09	11.84	12.38	9.87	9.17	12.78	13.80	12.35	12.26	14.51
10	11.93	11.88	12.06	11.71	12.41	10.01	9.29	12.94	13.11	12.35	12.25	15.58
11	11.93	11.80	12.06	11.53	12.47	10.32	9.37	13.32	12.80	12.38	12.25	16.30
12	11.92	11.85	12.02	10.98	12.45	10.62	9.94	13.00	12.33	12.39	12.25	16.78
13	11.97	11.85	12.34	10.98	12.44	10.86	9.80	13.00	12.24	12.39	12.24	16.86
14	12.16	11.90	11.93	10.15	12.45	11.10	10.99	12.22	12.17	12.37	12.23	16.25
15	12.07	11.90	11.62	9.41	12.47	11.25	11.00	11.53	12.17	12.38	12.20	16.07

26--Continued.

Lowest daily water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	12.02	11.84	11.56	9.50	12.47	11.33	.....	11.33	12.28	12.38	12.18	15.17
17	12.02	11.93	11.54	9.72	12.47	11.41	.....	11.35	13.07	12.32	12.17	14.22
18	12.02	11.95	11.50	9.93	12.47	11.54	.....	11.57	13.80	12.22	12.16	13.60
19	12.02	12.00	11.50	10.11	12.42	.....	.....	11.55	14.06	12.18	12.16	13.21
20	11.99	12.02	11.49	10.14	12.33	.....	.....	12.45	13.53	12.28	12.18	12.95
21	11.94	12.02	11.47	11.34	11.38	.....	9.63	12.99	12.48	12.25	12.21	12.75
22	11.91	12.03	11.47	11.45	11.40	.....	9.53	12.71	12.35	14.65	12.20	12.57
23	11.90	12.05	11.46	11.57	11.14	9.72	9.59	12.41	12.35	14.68	12.19	12.46
24	11.93	12.05	11.51	11.64	11.22	9.88	9.64	12.21	12.35	13.72	12.28	12.36
25	11.92	12.07	11.48	11.72	11.31	9.83	9.71	11.73	12.29	13.09	12.22	12.27
26	11.89	12.08	11.47	11.77	11.43	9.87	9.80	11.66	12.31	12.84	12.29	12.18
27	11.93	12.13	11.54	11.82	11.53	9.75	9.88	11.99	12.29	12.68	12.23	12.11
28	11.91	12.10	11.57	11.90	11.47	9.46	10.06	13.26	12.30	12.57	12.23	12.06
29	11.90		11.66	11.99	11.00	9.51	10.14	13.61	12.31	12.50	12.18	12.02
30	11.96		11.64	12.06	10.85	9.58	10.19	13.86	12.31	12.45	12.17	11.97
31	11.99		11.71		10.85		10.48	13.26		12.40		11.98

11 (*840, p. 105; 845, p. 126; 886, p. 217; 908, p. 165; 938, p. 140; 946, p. 160; *988, p. 144; 1018, p. 118; 1025, p. 119; 1073, p. 122).
J. H. Heim, SE. corner sec. 22, T. 26 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	55.42	Apr. 6	54.79	Sept. 4	55.33	Dec. 5	55.96
25	55.44	May 27	54.67	Oct. 6	55.17	31	54.83
Mar. 25	55.09	July 11	54.47	Nov. 6	55.91		

502 (*988, p. 146; 1018, p. 120; 1025, p. 121; 1073, p. 124). Kansas Gas & Electric Co. NW. corner sec. 29, T. 26 S., R. 1 E. Pumping prior to each measurement.

Water level, in feet below land-surface datum, 1947

Jan. 8	21.20	Apr. 4	20.30	July 2	18.90	Sept. 30	22.80
31	20.50	May 2	19.10	Aug. 5	23.50	Nov. 13	23.20
Mar. 3	20.50	June 12	17.70	29	25.80	Dec. 4	21.10

800 (*845, p. 129; 886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162; *988, p. 146; 1018, p. 120; 1025, p. 121; 1073, p. 125). City of Wichita. SW. corner sec. 33, T. 26 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Feb. 4	15.73	Apr. 6	15.09	Sept. 4	15.16	Dec. 5	17.12
25	15.29	27	14.91	Oct. 6	16.40	31	16.07
Mar. 25	15.67	July 11	14.94	Nov. 6	16.96		

802 (*886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162; *988, p. 146; 1018, p. 120; 1025, p. 121; 1073, p. 125). City of Wichita. NW. corner sec. 1, T. 27 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	7.89	Apr. 6	6.18	Sept. 4	6.13	Dec. 5	8.46
25	7.60	May 27	6.16	Oct. 6	7.11	31	7.98
Mar. 25	7.03	July 11	5.93	Nov. 6	8.42		

804 (*845, p. 130; 886, p. 219; 908, p. 167; 938, p. 142; 946, p. 162; *988, p. 146; 1018, p. 120; 1025, p. 121; 1073, p. 125). City of Wichita. SE. corner sec. 16, T. 26 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	3.83	Apr. 6	2.21	Sept. 4	3.19	Dec. 5	4.66
25	3.80	May 27	2.16	Oct. 6	3.96	31	3.81
Mar. 25	2.91	July 11	2.78	Nov. 6	4.60		

805 (*845, p. 130; 886, p. 219; 908, p. 168; 938, p. 142; 946, p. 162; *988, p. 146; 1018, p. 121; 1025, p. 121; 1073, p. 125). City of Wichita. NW. corner NE $\frac{1}{4}$ sec. 19, T. 26 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	4.93	Apr. 6	3.56	Sept. 4	4.27	Dec. 5	5.53
25	4.38	May 27	3.23	Oct. 6	5.20	31	4.82
Mar. 25	4.00	July 11	3.97	Nov. 6	5.45		

807 (*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163; *988, p. 146; 1018, p. 121; 1025, p. 121; 1073, p. 125). City of Wichita. NW. corner sec. 10, T. 26 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	22.58	Apr. 6	21.77	Sept. 4	21.38	Dec. 5	22.91
25	22.58	May 27	21.47	Oct. 6	22.21	31	22.66
Mar. 25	22.04	July 11	21.09	Nov. 6	22.86		

808 (*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163; *988, p. 147; 1018, p. 121; 1025, p. 121; 1073, p. 125). City of Wichita. SW. corner NW $\frac{1}{4}$ sec. 18, T. 26 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	22.00	Apr. 6	21.13	Sept. 4	21.26	Dec. 5	22.09
25	21.97	May 27	20.93	Oct. 6	21.92	31	22.09
Mar. 25	21.62	July 11	20.92	Nov. 6	21.99		

809 (*845, p. 131; 886, p. 220; 908, p. 168; 938, p. 143; *946, p. 163; *988, p. 147; 1018, p. 121; 1025, p. 122; 1073, p. 126). City of Wichita. NW. corner sec. 21, T. 26 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	13.88	May 27	11.78	Oct. 6	13.26	Dec. 5	14.04
Mar. 25	13.34	July 11	11.62	Nov. 6	13.92	31	13.04
Apr. 6	13.16	Sept. 4	11.84				

810 (*845, p. 131; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163; *988, p. 147; 1018, p. 121; 1025, p. 122; 1073, p. 126). City of Wichita. NE. corner SE $\frac{1}{4}$ sec. 35, T. 26 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.84	Apr. 7	11.86	July 7	10.49	Oct. 13	12.82
13	12.81	21	11.26	14	10.54	20	12.89
20	12.79	28	11.49	21	10.68	27	12.93
27	12.97	May 5	11.57	28	10.73	Nov. 3	12.98
Feb. 3	12.99	12	11.30	Aug. 4	10.79	10	13.01
10	12.98	19	11.27	11	11.08	17	13.09
17	12.97	26	11.08	Sept. 1	12.22	24	13.16
24	12.95	June 2	10.91	8	12.41	Dec. 1	13.21
Mar. 3	13.01	9	11.38	15	12.66	8	13.18
10	13.17	16	10.79	22	12.71	15	12.80
17	11.88	23	10.74	29	12.77	22	12.68
24	11.78	30	10.54	Oct. 6	12.79	29	12.72
31	11.75						

811 (*845, p. 131; 886, p. 221; 908, p. 168; 938, p. 143; 946, p. 163; *988, p. 147; 1018, p. 121; 1025, p. 122; 1073, p. 126). City of Wichita. SE. corner sec. 33, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	8.63	Mar. 10	8.78	May 12	7.31	July 14	7.07
13	8.56	17	8.26	19	7.26	21	7.21
20	8.57	24	8.23	26	7.17	28	7.27
27	8.60	31	8.17	June 2	7.04	Aug. 4	7.36
Feb. 3	8.57	Apr. 7	8.19	9	7.89	11	7.53
10	8.60	14	7.84	16	7.11	Sept. 1	8.04
17	8.62	21	7.07	23	7.09	8	8.21
24	8.56	28	7.29	30	7.02	15	8.42
Mar. 3	8.58	May 5	7.36	July 7	6.98	22	8.46

811--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 29	8.53	Oct. 27	8.69	Nov. 24	8.99	Dec. 15	8.86
Oct. 6	8.59	Nov. 3	8.76	Dec. 1	9.04	22	8.61
13	8.61	10	8.80	8	9.01	29	8.64
20	8.66	17	8.86				

812 (*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164; *988, p. 147; 1018, p. 122; 1025, p. 122; 1073, p. 126). City of Wichita. NW. corner sec. 27, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Jan. 6	12.01	Apr. 7	11.62	July 7	10.30	Oct. 13	11.60
13	11.96	14	11.33	14	10.41	20	11.65
20	12.06	21	11.07	21	10.50	27	11.68
27	12.03	28	11.16	28	10.54	Nov. 3	11.73
Feb. 3	11.68	May 5	11.23	Aug. 4	10.67	10	11.78
10	18.91	12	10.77	11	10.81	17	11.83
17	12.18	19	10.72	Sept. 1	10.99	24	11.91
24	12.16	26	10.58	8	11.16	Dec. 1	11.94
Mar. 3	12.16	June 2	10.49	15	11.58	8	11.89
10	12.29	9	10.51	22	11.42	15	11.79
17	11.59	16	10.40	29	11.48	22	11.91
24	11.54	23	10.43	Oct. 6	11.54	29	11.92
31	11.50	30	10.36				

814 (*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164; *988, p. 148; 1018, p. 122; 1025, p. 123; 1073, p. 127). City of Wichita. SE. corner sec. 14, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	15.12	Apr. 6	14.35	Sept. 4	14.20	Dec. 5	15.17
25	15.19	May 27	14.06	Oct. 6	14.84	31	14.74
Mar. 25	14.02	July 11	14.07	Nov. 6	15.02		

815 (*845, p. 132; 886, p. 221; 908, p. 169; 938, p. 144; 946, p. 164; *988, p. 148; 1018, p. 122; 1025, p. 123; 1073, p. 127). City of Wichita. NE. corner sec. 17, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Jan. 6	12.66	Apr. 7	12.72	July 7	11.03	Oct. 13	11.99
13	12.56	14	12.62	14	11.11	20	12.12
20	12.52	21	12.25	21	11.18	27	12.23
27	12.79	28	11.67	28	11.19	Nov. 3	12.37
Feb. 3	12.85	May 5	11.56	Aug. 4	11.26	10	12.43
10	12.81	12	11.46	11	11.37	17	13.51
17	12.83	19	11.39	Sept. 1	11.59	24	12.59
24	12.88	26	11.26	8	11.71	Dec. 1	12.62
Mar. 3	12.86	June 2	11.16	15	11.90	8	12.61
10	13.03	9	11.22	22	11.92	15	12.64
17	12.64	16	10.99	29	11.95	22	12.70
24	12.59	23	11.02	Oct. 6	11.98	29	12.74
31	12.55	30	10.98				

816 (*845, p. 133; 886, p. 222; 908, p. 169; 938, p. 144; 946, p. 165; *988, p. 148; 1018, p. 122; 1025, p. 123; 1073, p. 127). City of Wichita. SE. corner sec. 7, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Jan. 6	11.25	Mar. 10	11.67	May 5	9.74	June 30	9.50
13	11.23	17	11.16	12	9.71	July 7	9.57
20	11.32	24	11.11	19	9.64	14	9.62
27	11.47	31	11.12	26	9.59	21	9.71
Feb. 3	11.54	Apr. 7	11.11	June 2	9.48	28	9.74
10	11.56	14	11.00	9	9.54	Aug. 4	9.78
24	11.56	21	9.45	16	9.52	11	9.91
Mar. 3	18.47	28	9.68	23	9.51	Sept. 1	10.53

816--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 8	10.72	Oct. 13	11.20	Nov. 10	11.39	Dec. 8	11.56
15	10.86	20	11.26	17	11.43	15	11.49
22	10.93	27	11.28	24	11.55	22	11.65
29	11.06	Nov. 3	11.34	Dec. 1	11.59	29	11.66
Oct. 6	11.14						

825 (*845, p. 133; 886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 148; 1018, p. 123; 1025, p. 123; 1073, p. 127). City of Wichita. NE. corner sec. 3, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	10.80	Apr. 6	9.37	Sept. 4	9.31	Dec. 5	15.18
25	10.93	May 27	9.18	Oct. 6	13.53	31	13.47
Mar. 25	10.38	July 11	9.12	Nov. 6	15.09		

826 (*886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 123; 1073, p. 127). City of Wichita. NE. corner sec. 5, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.99	May 7	8.31	Aug. 6	9.03	Nov. 8	8.27
Feb. 5	11.07	28	8.56	Sept. 2	9.48	Dec. 3	11.14
27	11.19	July 10	8.67	Oct. 3	10.93	30	11.04
Apr. 1	10.53						

830 (*845, p. 133; 886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 124; 1073, p. 128). City of Wichita. SW. corner sec. 30, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	27.12	Apr. 6	25.99	Sept. 4	25.58	Dec. 5	27.56
25	27.14	May 27	25.78	Oct. 6	27.57	31	27.62
Mar. 25	26.65	July 11	25.42	Nov. 6	27.43		

834 (*845, p. 133; 886, p. 223; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 124; 1073, p. 128). City of Wichita. SW. corner sec. 9, T. 25 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	9.87	Apr. 6	8.57	Sept. 4	7.26	Dec. 5	9.89
25	10.24	May 27	8.36	Oct. 6	10.01	31	9.45
Mar. 25	9.48	July 11	6.98	Nov. 6	9.97		

838 (*845, p. 133; 886, p. 223; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 124; 1073, p. 128). City of Wichita. NE. corner NW $\frac{1}{4}$ sec. 33, T. 25 S., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	24.99	Apr. 6	23.98	Sept. 4	21.89	Dec. 5	24.41
25	25.05	May 27	23.77	Oct. 6	24.23	31	24.34
Mar. 25	24.87	July 11	21.66	Nov. 6	24.37		

840 (*908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 124; 1073, p. 128). Owner of property, C. A. Berger; owner of well, City of Wichita. NE. corner sec. 9, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	8.03	Mar. 10	8.30	May 12	5.34	Aug. 4	4.38
13	7.93	17	7.79	19	5.23	11	4.63
20	8.01	24	7.76	26	5.12	Sept. 1	6.62
27	8.14	31	7.73	June 2	4.81	8	6.86
Feb. 3	8.15	Apr. 7	7.86	9	4.89	15	7.24
10	8.14	14	7.46	30	3.62	22	7.01
17	8.13	21	5.24	July 7	3.66	29	6.82
24	8.10	28	5.39	21	4.06	Oct. 6	6.60
Mar. 3	8.12	May 5	5.40	28	4.11	13	6.62

840--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 20	6.65	Nov. 10	7.16	Dec. 1	7.84	Dec. 22	7.66
27	6.68	17	7.47	8	7.82	29	7.42
Nov. 3	6.71	24	7.82	15	7.71		

842 (*886, p. 223; 908, p. 171; 938, p. 145; 946, p. 166; *988, p. 149; 1018, p. 123; 1025, p. 124; 1073, p. 128). City of Wichita. SW, corner sec. 16, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	6.70	Apr. 6	4.19	Sept. 4	4.29	Dec. 5	6.94
25	6.71	May 27	3.86	Oct. 6	5.63	31	5.49
Mar. 25	5.94	July 11	3.97	Nov. 6	6.91		

845 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 124; 1073, p. 129). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 27 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Feb. 4	15.35	Apr. 6	14.04	Sept. 4	13.91	Dec. 5	16.16
25	15.47	May 27	14.01	Oct. 6	14.85	31	14.43
Mar. 25	14.84	July 11	13.55	Nov. 6	15.98		

846 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 124; 1073, p. 129). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 27 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Feb. 4	17.23	Apr. 6	14.54	Sept. 4	15.79	Dec. 5	18.21
25	17.14	May 27	14.39	Oct. 6	17.17	31	17.07
Mar. 25	16.49	July 11	15.54	Nov. 6	18.06		

847 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 125; 1073, p. 129). City of Wichita. SW, corner SE $\frac{1}{4}$ sec. 6, T. 27 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Feb. 4	17.32	Apr. 6	14.62	Sept. 4	15.68	Dec. 5	18.36
25	17.31	May 27	14.43	Oct. 6	17.96	31	17.29
Mar. 25	16.60	July 11	15.46	Nov. 6	18.29		

870 (*908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 125; 1073, p. 129). W. Williams. NW $\frac{1}{4}$ NB $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1947

Feb. 4	6.63	Apr. 6	4.33	Sept. 4	4.72	Dec. 5	7.46
25	6.65	May 27	4.17	Oct. 6	6.16	31	5.97
Mar. 25	5.62	July 11	4.44	Nov. 6	7.36		

2089 (*1018, p. 124; 1025, p. 125; 1073, p. 129). Mrs. G. H. von Hein. At rear of dwelling at 842 Collidge Avenue, Wichita, in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18, T. 27 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Jan. 6	16.25	Jan. 20	16.81	Feb. 10	16.76	Feb. 24	17.78
13	16.86	Feb. 3	16.77	17	16.75	Mar. 3	16.79

Seward County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Seward County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
15	7	15.88	May 3, 1944	18.67	Nov. 24, 1947
106	7	203.89	Jan. 13, 1947	210.08	Dec. 12, 1947
108	7	106.04	Apr. 12, 1945	110.78	Apr. 21, 1941
122	7	200.66	Jan. 22, 1945	205.76	Oct. 21, 1947
159	7	91.76	Nov. 24, 1947	95.55	Dec. 19, 1940

Difference between highest and lowest recorded water levels, net changes in water level, in feet, in 1947 and for period of record, in 5 wells in Seward County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
15	2.79	+0.05	+0.85
106	6.28	-3.36	-1.94
108	4.74	+5.66	+1.57
122	5.10	-3.38	+1.27
159	3.79	-.25	+2.12

15 (#908, p. 173; 938, p. 147; 946, p. 167; #988, p. 151; 1018, p. 125; 1025, p. 126; 1073, p. 130). R. H. Hitch. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 32 S., R. 33 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	17.32	Mar. 7	17.45	July 24	17.28	Oct. 21	18.30
Feb. 11	17.40	May 6	17.51	Aug. 14	17.62	Nov. 24	18.67

106 (#908, p. 173; 938, p. 147; 946, p. 167, 168; #988, p. 151; 1018, p. 125; 1025, p. 126; 1073, p. 130). Kansas City Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 32 S., R. 34 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 13	203.80	Apr. 18	205.46	Nov. 24	206.35
Mar. 7	207.08	Oct. 21	206.35	Dec. 12	210.08

108 (#906, p. 173; 938, p. 147; 946, p. 168; #988, p. 151; 1018, p. 125; 1025, p. 126; 1073, p. 130). C. D. Day. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 31 S., R. 34 W. Water levels, in feet below land-surface datum, 1947: Mar. 7, 107.53; Apr. 18, 107.59; Oct. 21, 107.58; Nov. 24, 107.54. Pumping on Oct. 21 and Nov. 24, 1947.

122 (#908, p. 173; 938, p. 148; 946, p. 168; #988, p. 151; 1018, p. 125; 1025, p. 126; 1073, p. 130). Mrs. Flora Atwell. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 33 S., R. 31 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	203.33	May 6	203.23	Aug. 14	203.44	Nov. 24	203.14
Mar. 7	203.10	June 18	203.23	Oct. 21	205.76	Dec. 12	202.36
Apr. 18	202.84	July 24	203.42				

159 (*908, p. 174; 938, p. 148; 946, p. 168; *988, p. 151; 1018, p. 125; 1025, p. 126; 1073, p. 130). Liberal Gas Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 35 S., R. 34 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	92.74	Apr. 18	92.52	July 24	92.28	Nov. 24	91.76
Feb. 11	92.87	May 6	92.54	Aug. 14	92.18	Dec. 12	92.78
Mar. 7	92.72	June 18	92.40	Oct. 21	91.92		

Smith County

By A. R. Leonard

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in Smith County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
4-14-34bc	2	42.15	Nov. 21, 1945	43.05	Sept. 25, 1946
4-15-31bb	2	34.92	July 30, 1947	36.04	Apr. 27, 1946
4-15-35bc	2	34.10	July 30, 1947	37.99	June 12, 1946
5-13-4dc	2	25.15	July 30, 1947	35.28	Dec. 17, 1945
5-13-25cc	2	43.86	Sept. 30, 1947	46.53	Jan. 28, 1946
5-13-33ba	2	25.64	July 30, 1947	28.38	Mar. 26, 1947
5-14-3bc	2	34.80	Mar. 26, 1947	40.50	Oct. 27, 1947
5-15-2dc	2	31.85	Aug. 28, 1947	33.80	June 12, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record in 8 wells in Smith County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
4-14-34bc	0.90	+0.29	-0.28
4-15-31bb	1.12	+1.19	+4.48
4-15-35bc	3.89	+1.18	-1.55
5-13-4dc	10.13	+5.38	+8.34
5-13-25cc	2.67	+1.99	+1.52
5-13-33ba	1.74	+1.30	+4.42
5-14-3bc	5.70	-3.24	-4.89
5-15-2dc	1.95	+1.09	+1.15

4-14-34bc (*1073, p. 130). Laura Davis. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 4 S., R. 14 W. Diameter 32 inches, depth 46.3 feet.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	42.67	Mar. 26	42.80	Aug. 28	42.49	Oct. 27	42.37
28	42.60	May 6	42.76	Sept. 30	42.39	Dec. 15	42.43
Feb. 26	42.68	July 30	42.65				

a Pumping.

4-15-31bb (*1073, p. 131). W. Lala. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 15 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	35.62	Mar. 26	35.69	Aug. 28	34.94	Oct. 28	35.10
29	35.52	May 6	35.60	Sept. 30	35.10	Dec. 15	35.42
Feb. 26	35.66	July 30	34.92				

4-15-35bc (*1073, p. 131). H. R. Dennenburg. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 4 S., R. 15 W.

4-15-35bc--Continued.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	36.47	Mar. 26	36.63	Aug. 28	34.34	Oct. 27	35.76
29	36.43	May 6	36.52	Sept. 30	35.20	Dec. 15	36.15
Feb. 26	36.63	July 30	34.10				

5-13-4dc (*1073, p. 131). R. Eller. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 5 S., R. 13 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	31.57	Mar. 26	28.30	Aug. 28 a	27.30	Oct. 27	28.06
28	30.10	May 6	26.72	Sept. 30	27.33	Dec. 15	26.76
Feb. 26	31.32	July 30	25.15				

a Pumping.

5-13-25cc (*1073, p. 131). Zelma Carter. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 5 S., R. 13 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	44.67	Feb. 26	44.49	May 6	44.44	Aug. 28	44.48
28	44.51	Mar. 26	44.48	July 30	44.12	Sept. 30	43.86

5-13-33ba (*1073, p. 131). W. L. Gearhart and others. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 5 S., R. 13 W. Hand-operated cylinder pump installed about Feb. 15, 1947.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	27.10	Mar. 26	28.38	July 30	25.64	Sept. 30	26.24
28	28.31	May 6	27.39	Aug. 28	25.96	Oct. 27	26.38
Feb. 26 a	28.11						

a Pumping.

5-14-3bc (*1073, p. 132). Walter Felsburg. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 5 S., R. 14 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	33.00	Mar. 26	33.27	July 30	32.10	Sept. 30	31.90
29	32.91	May 6	33.17	Aug. 28	31.85	Oct. 27	32.00
Feb. 26	33.07						

5-15-2dc (*1073, p. 132). G. K. Wanhoff. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 5 S., R. 15 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	33.00	Mar. 26	33.27	July 30	32.10	Sept. 30	31.90
29	32.91	May 6	33.17	Aug. 28	31.85	Oct. 27	32.00
Feb. 26	33.07						

Stafford County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Stafford County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
3	5.5	15.70	May 16, 1945	22.23	Nov. 16, 1947
19	5.5	2.69	Aug. 7, 1945	11.04	Aug. 1, 1942
25	5.5	11.63	Mar. 18, 1947	25.35	Aug. 1, 1942
26	5.5	9.28	Aug. 8, 1945	20.11	Aug. 3, 1942
29	5.5	15.88	June 6, 1945	22.84	Aug. 4, 1942

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Stafford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
3	6.53	-2.12	-3.84
19	8.35	-.08	+4.21
25	13.72	+1.99	+3.32
26	10.83	+1.53	+6.81
29	6.96	+2.25	+2.86

3 (*946, p. 170; *988, p. 152; 1018, p. 126; 1025, p. 127; 1073, p. 132). B. Fritzmeier. SW corner SW $\frac{1}{4}$ sec. 12, T. 23 S., R. 12 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	19.34	Apr. 24	18.06	July 16	17.83	Oct. 16	20.66
Feb. 19	19.29	May 12	18.21	Aug. 27	19.60	Nov. 16	22.23
Mar. 18	18.74	June 11	17.90				

19 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127; 1073, p. 132). Atlantic Refining Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 21 S., R. 13 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	6.88	Apr. 24	6.18	July 16	4.27	Oct. 16	6.92
Feb. 19	6.99	May 12	5.99	Aug. 27	4.68	Nov. 16	6.83
Mar. 18	6.79	June 11	3.20				

25 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127; 1073, p. 133). Continental Oil Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 25 S., R. 13 W. Measurements discontinued on Aug. 27, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	21.28	Mar. 18	11.63	May 12	19.73	July 16	20.05
Feb. 19	21.58	Apr. 24	20.17	June 11	20.78		

26 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127; 1073, p. 133). Stanolind Oil Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 22 S., R. 12 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	15.04	Apr. 24	15.37	July 16	10.74	Oct. 16	12.89
Feb. 19	15.29	May 12	15.27	Aug. 27	11.60	Nov. 16	13.30
Mar. 18	15.31	June 11	12.67				

29 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127; 1073, p. 133). Atlantic Refining Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 24 S., R. 13 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	20.38	Apr. 24	20.38	July 16	18.59	Oct. 16	19.85
Feb. 19	20.58	May 12	20.94	Aug. 27	19.10	Nov. 16	19.98
Mar. 18	20.56	June 11	19.25				

Stanton County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 4 wells in Stanton County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
13	8.5	47.52	Aug. 13, 1947	51.83	Apr. 23, 1940
47	8.5	69.92	Aug. 17, 1945	71.52	Jan. 24, 1945
93	8.5	174.16	Nov. 28, 1947	175.61	Jan. 7, 1946
146	8.5	39.55	Nov. 26, 1947	46.50	Apr. 22, 1940
					May 14, 1940
					June 18, 1940

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 4 wells in Stanton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
13	4.31	-1.34	+2.16
47	1.60	-.11	-.65
93	1.45	+.46	+1.29
146	6.95	+.01	+7.38

13 (*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 171; *988, p. 154; 1018, p. 127; 1025, p. 128; 1073, p. 134). L. Y. Carrithers. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 27 S., R. 40 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 48.98; May 7, 48.82; Aug. 13, 47.52; Nov. 25, 49.17.

47 (*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 172; *988, p. 154; 1018, p. 127; 1025, p. 128; 1073, p. 134). Southwestern College. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 28 S., R. 39 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	71.30	Apr. 11	70.88	July 24	70.83	Nov. 25	71.33
Feb. 12	71.01	May 7	70.86	Aug. 13	69.97	Dec. 12	71.24
Mar. 7	70.90	June 18	70.83	Oct. 20	71.30		

93 (*886, p. 226; 908, p. 178; 938, p. 149; 946, p. 172; *988, p. 155; 1018, p. 127; 1025, p. 128; 1073, p. 134). J. Plummer. Center NE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 29 S., R. 41 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 174.46; May 7, 174.43; Aug. 13, 174.42; Nov. 26, 174.16.

146 (*886, p. 227; *908, p. 178; 938, p. 149; 946, p. 172; *988, p. 155; 1018, p. 127; 1025, p. 128; 1073, p. 134). C. M. Harrison. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 30 S., R. 43 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 40.22; May 7, 40.14; Nov. 28, 39.35.

Stevens County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 7 wells in Stevens County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
10	5.5	80.30	Jan. 7, 1946	83.20	May 10, 1945
12	5.5	110.25	Nov. 26, 1947	113.38	July 28, 1942
21	5.5	86.32	Aug. 3, 1944	89.21	Nov. 26, 1947
26	5.5	90.10	Aug. 14, 1947	92.20	July 5, 1943
28	5.5	131.17	Nov. 26, 1947	132.64	Sept. 23, 1943
29	5.5	120.78	May 2, 1946	122.44	Nov. 26, 1947
30	5.5	103.09	Nov. 26, 1947	106.84	Sept. 23, 1943

a Affected by pumping.

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 7 wells in Stevens County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
10	12.90	-0.77	-0.07
12	3.13	+.58	+3.13
21	2.89	-1.15	-2.05
26	2.10	+.30	+1.41
28	1.47	+.99	+1.27
29	1.66	-1.48	-.66
30	3.75	+1.26	+2.91

10 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129; 1073, p. 134). T. P. Patterson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 33 S., R. 37 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 12	80.78	May 6	80.65	Nov. 26	81.75
Apr. 10	80.58	Aug. 14	81.65		

12 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129; 1073, p. 135). Mack Greenwood. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 33 S., R. 38 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 110.71; May 6, 110.58; Aug. 14, 110.44; Nov. 26, 110.25.

21 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129; 1073, p. 135). E. W. Parsons. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 31 S., R. 37 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 87.59; May 7, 87.34; Aug. 14, 88.29; Nov. 26, 89.21.

26 (*946, p. 174; *988, p. 156; 1018, p. 128; 1025, p. 129; 1073, p. 135). Panhandle Eastern Pipeline Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 33 S., R. 38 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 90.30; May 6, 90.19; Aug. 14, 90.10. Measurements discontinued Nov. 26, 1947.

28 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129; 1073, p. 135). G. E. Dudley. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 31 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 131.41; May 7, 131.58; Aug. 14, 131.52; Nov. 26, 131.17.

29 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129; 1073, p. 135). Eunice Bateman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 32 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 121.43; May 7, 123.11; Aug. 14, 122.08; Nov. 26, 122.44.

30 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129; 1073, p. 135). Central Life Assurance Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 33 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Feb. 12, 103.46; May 6, 103.33; Aug. 14, 103.20; Nov. 26, 103.09.

Sumner County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 2 wells in Sumner County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	3.5	5.77	June 7, 1944	10.40	Oct. 7, 1946
2	3.5	21.95	Dec. 6, 1945	23.00	Feb. 5, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 2 wells in Sumner County

Well	Difference between highest and lowest levels	Net rise in 1947	Net rise (+) or net decline (-) for period of record
1	4.63	+0.94	-3.39
2	1.05	+0.05	+3.36

1 (*1018, p. 129; 1025, p. 130; 1073, p. 135). Geol. Survey, U. S. Dept. of Interior. On township road right-of-way in NW. corner sec. 1, T. 30 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.80	Apr. 5	9.30	July 9	7.55	Oct. 3	9.64
Feb. 8	9.85	May 9	9.97	Aug. 2	7.82	Nov. 4	9.95
Mar. 1	9.88	June 6	9.74	Sept. 2	8.99	Dec. 6	9.16

2 (*1018, p. 129; 1025, p. 130; 1073, p. 135). Geol. Survey, U. S. Dept. of Interior. On township road right-of-way in NE. corner sec. 6, T. 30 S., R. 1 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.70	Apr. 5	22.80	July 9	22.47	Oct. 3	22.44
Feb. 6	22.75	May 9	22.50	Aug. 2	22.45	Nov. 4	22.46
Mar. 1	22.65	June 6	22.59	Sept. 2	22.40	Dec. 6	22.48

Thomas County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 9 wells in Thomas County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
2	5.5	47.73	July 10, 1947	48.73	July 13, 1943
7	5.5	123.97	Apr. 25, 1945	125.41	Oct. 7, 1942
9	5.5	70.81	July 10, 1947	73.21	Apr. 24, 1944
12	5.5	89.45	July 10, 1947	90.46	Oct. 24, 1945
					July 9, 1946
					Jan. 7, 1947
13	5.5	63.04	July 14, 1942	73.90	July 9, 1946
26	5.5	111.43	Oct. 14, 1947	111.82	Sept. 16, 1942
					Feb. 11, 1943
28	5.5	30.24	Apr. 4, 1947	32.70	Apr. 25, 1945
33	5.5	116.65	May 24, 1944	118.66	Apr. 25, 1946
62	5.5	97.65	Nov. 27, 1942	99.19	Jan. 7, 1947

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 9 wells in Thomas County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
2	1.00	+0.38	+0.88
7	1.44	+1.3	-.41
9	2.40	+89	+1.20
12	.64	+57	+34
13	10.86	(a)	-10.08
26	.39	+10	+35
28	2.46	+72	-.38
33	2.01	-.55	-.50
62	1.54	+1.44	-.10

a Dry throughout the year.

2 (*946, p. 175; *988, p. 158; 1018, p. 130; 1025, p. 131; 1073, p. 136). Lem Fulwider. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 8 S., R. 36 W. Measurements discontinued Oct. 15, 1947. Water levels, in feet below land-surface datum, 1947: Jan. 7, 47.94; Apr. 3, 47.62; July 10, 47.43.

7 (*946, p. 176; *988, p. 158; 1018, p. 130; 1025, p. 131; 1073, p. 136). George Strait. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 8 S., R. 36 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 124.98; Apr. 3, 124.52; July 10, 124.84; Oct. 15, 124.93.

9 (*988, p. 159; 1018, p. 131; 1025, p. 131; 1073, p. 136). Mr. Sloan. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 7 S., R. 33 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 72.31; Apr. 3, 71.46; July 10, 70.81; Oct. 14, 71.23.

12 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131; 1073, p. 136). W. A. Atha. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 7 S., R. 31 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 90.46; Apr. 3, 90.07; July 10, 89.45; Oct. 14, 89.82.

13 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131; 1073, p. 136). H. V. Christensen. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 8 S., R. 31 W. Water levels, in feet below land-surface datum, 1947: Measured on Jan. 7, Apr. 3, and July 10 and reported dry.

26 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131; 1073, p. 137). T. A. Ryan. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 8 S., R. 32 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 111.59; Apr. 3, 111.54; July 10, 111.47; Oct. 14, 111.43.

28 (*1073, p. 137). Catherine B. Hood. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 10 S., R. 31 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 32.06; Apr. 4, 30.24; July 9, 31.14; Oct. 14, 31.25.

33 (*946, p. 177; *988, p. 160; 1018, p. 131; 1025, p. 131; 1073, p. 137). Arch Ball. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 9 S., R. 33 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 117.19; Apr. 3, 116.85; July 9, 116.80; Oct. 15, 117.61.

62 (*946, p. 177; *988, p. 160; 1018, p. 131; 1025, p. 131; 1073, p. 137). H. A. Hills. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 10 S., R. 34 W. Water levels, in feet below land-surface datum, 1947: Jan. 7, 99.19; Apr. 3, 98.13; July 9, 98.47; Oct. 15, 97.84.

Wyandotte County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 5 wells in Wyandotte County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
97	3	15.15	July 11, 1945	27.61	Oct. 8, 1947
100	3	15.82	July 11, 1945	31.36	Oct. 8, 1947
101	3	25.02	July 11, 1945	41.88	Oct. 8, 1947
119	3	21.33	July 11, 1945	34.57	Feb. 2, 1946
121	3	9.38	July 11, 1945	21.44	Feb. 2, 1946

Difference between highest and lowest recorded water levels, and net change in water level, in feet, in 1947 and for period of record, in 5 wells in Wyandotte County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1947	Net rise (+) or net decline (-) for period of record
97	12.46	-2.95	-5.51
100	15.54	-3.42	-7.36
101	16.86	-3.50	-7.39
119	13.24	+4.5	-8.02
121	12.06	+1.57	+6.5

13 (*1018, p. 132; 1025, p. 132; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 10 S., R. 25 E., between Funston and Rickel Roads at their intersection with Seventh Street Trafficway. Well destroyed, measurements discontinued.

86 (*1018, p. 132; 1025, p. 132; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 11 S., R. 25 E., southeast of intersection of Central Avenue with Kansas River, at south end of truck lot at Farmers Union Jobbing Association. Well destroyed, measurements discontinued.

87 (*1018, p. 132; 1025, p. 132; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 11 S., R. 25 E., southwest of the intersection of James Street with Meyers Avenue, 33 feet west and 15 feet north of power pole at curve on Central Avenue viaduct. Well destroyed, measurements discontinued.

97 (*1018, p. 132; 1025, p. 132; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 11 S., R. 25 E., 30 feet south and 21 feet east of center of intersection of Fourth Street with Berger Avenue. Water level, in feet below land-surface datum, 1947: Oct. 8, 27.61.

98 (*1018, p. 132; 1025, p. 133; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 11 S., R. 25 E., at rear of port of entry, about 150 feet north of Kansas Avenue and 125 feet west of Second Street. Well destroyed, measurements discontinued.

100 (*1018, p. 132; 1025, p. 133; 1073, p. 138). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 11 S., R. 25 E., 30 feet south and 102 feet east of center of intersection of Shawnee Avenue with Adams Street. Water level, in feet below land-surface datum, 1947: Oct. 8, 31.56.

101 (*1018, p. 132; 1025, p. 133; 1073, p. 139). Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 11 S., R. 25 E., about 150 feet southeast of river, 30 feet southwest of Kansas City Terminal Railway high-line viaduct, 15 feet west and 15 feet south of first manhole cover south of railroad bridge. Water level, in feet below land-surface datum, 1947: Oct. 8, 41.88.

118 (*1018, p. 132; 1025, p. 133; 1073, p. 139). Geol. Survey, U. S. Dept. of Interior. NW corner sec. 21, T. 11 S., R. 25 E., 72 feet south and 15 feet west of center of intersection of Kansas Avenue with Seventeenth Street. Well destroyed, measurements discontinued.

119 (*1018, p. 132; 1025, p. 133; 1073, p. 139). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 11 S., R. 25 E., southeast of intersection of Osage Avenue with Nineteenth Street, 36 feet south of center of Osage Avenue and between two sets of double railroad tracks. Water level, in feet below land-surface datum, 1947: Oct. 8, 33.32.

120 (*1018, p. 133; 1025, p. 133; 1073, p. 139). Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 11 S., R. 25 E., just northeast of intersection of Miami Avenue extended, with levee. Well destroyed, measurements discontinued.

121 (*1018, p. 133; 1025, p. 133; 1073, p. 139). Geol. Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 11 S., R. 25 E., northeast of intersection of 22d Street with Argentine Boulevard, 24 feet north and 12 feet east of second power pole north of Boulevard. Water level, in feet below land-surface datum, 1947: Oct. 8, 18.78.

138 (*988, p. 160; 1018, p. 133; 1025, p. 133; 1073, p. 139). F. S. J. SE $\frac{1}{4}$ sec. 13, T. 11 S., R. 24 E., 0.1 mile north of Kansas Avenue and 0.65 mile west of Carlile Road. No measurements made in 1947.

147 (*988, p. 160; 1018, p. 133; 1025, p. 133; 1073, p. 139). (South well). Santa Fe Railroad. In Morris, NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 11 S., R. 24 E. Measurements discontinued.

MINNESOTA

By J. B. Cooper, W. E. Hale, and P. D. Akin

PROGRAM OF WORK

Periodic measurements of water level were made in three wells in Minnesota in 1947. A total of 135 wetted-tape measurements was made during the year.

FLUCTUATIONS OF WATER LEVEL

The maximum amount of fluctuation during the year in the well in Brown County was 4.28 feet. The minimum depth to water occurred on April 16, when the reading of 3.67 feet below land-surface datum was made. The lowest recorded water level, 7.95 feet occurred on October 22. The year closed with water levels 1.33 feet lower than at the beginning of the year.

Weekly measurements of water level were also made in the other two wells, one near the town of Deer River, in Itasca County, the other at Eveleth, in St. Louis County.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Brown County

108-30-9 (*946, p. 178; 988, p. 162; 1018, p. 134; 1025, p. 134; 1073, p. 140). Erwin Kjelshus. Near Hanska, in sec. 9, T. 108 N., R. 30. W. Measurements made by Erwin Kjelshus.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	4.66	Apr. 8	4.14	July 16	4.24	Oct. 1	7.42
14	4.78	16	3.67	23	4.48	8	7.63
20	4.93	22	3.84	30	4.85	22	7.95
29	5.03	May 6	3.68	Aug. 6	5.30	29	7.46
Feb. 5	5.08	13	3.68	13	5.45	Nov. 5	6.99
11	5.26	20	3.89	20	6.20	12	6.73
18	5.30	June 3	4.25	27	6.44	25	5.92
24	5.38	10	4.13	Sept. 3	6.54	Dec. 5	5.86
Mar. 4	5.56	18	3.74	10	5.73	10	5.98
11	5.60	23	3.85	17	7.04	17	6.06
24	5.00	July 8	3.86	24	6.34	22	5.99
Apr. 1	4.77						

Itasca County

US 135 (*988, p. 163; 1018, p. 135; 1025, p. 135; *1073, p. 141).
Corps of Engineers, U. S. Army.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	21.43	Apr. 7	21.57	July 7	19.88	Oct. 6	20.42
13	21.48	14	21.50	14	19.50	13	20.48
20	21.48	21	21.46	21	19.65	20	20.56
27	21.52	28	21.42	28	19.60	27	20.61
Feb. 3	21.55	May 5	21.39	Aug. 4	19.60	Nov. 3	20.66
10	21.56	12	21.26	11	19.65	10	20.67
17	21.57	19	21.12	18	19.69	17	20.76
24	21.57	26	20.94	25	19.73	24	20.80
Mar. 3	21.59	June 2	20.76	Sept. 1	19.85	Dec. 1	20.84
10	21.58	9	20.59	6	19.97	8	20.87
17	21.63	16	20.44	15	20.09	15	20.92
24	21.67	23	20.27	22	20.21	22	20.98
31	21.69	30	20.05	29	20.32	29	21.00

St. Louis County

US 136 (*988, p. 163; 1018, p. 135; 1025, p. 135; *1073, p. 141).
Herman A. Katola. Lot 3, sec. 4, T. 58 N., R. 17 W.

Water level, in feet below land-surface datum, 1947

Jan. 5	6.54	Mar. 23	7.54	June 1	5.87	Aug. 3	7.17
12	6.69	30	7.46	8	5.29	10	6.95
19	6.81	Apr. 6	7.13	15	5.09	17	7.20
26	6.85	13	6.46	22	5.71	24	7.34
Feb. 2	6.91	20	6.21	27	6.17	31	7.51
16	7.22	27	6.00	July 6	6.19	Sept. 7	7.69
23	7.29	May 4	5.44	13	6.52	14	6.78
Mar. 2	7.37	11	5.46	20	6.71	21	6.61
9	7.48	18	5.46	27	6.91	28	6.60
16	7.53	25	5.63				

MISSOURI

By W. E. Hale, J. B. Cooper, and Phyllis T. Mosley

PROGRAM OF WORK

Water-level measurements were made in Atchison County in 1947 as part of the Tarkio Creek Valley observation-well program organized by the Federal Geological Survey in 1934 in which the Soil Conservation Service of the United States Department of Agriculture participated for several years. The Atchison County section consisted of 14 wells in 1947 in which 140 single measurements were made by D. W. Knox, observer of the Tarkio Creek well program. The measurements of the observation well in Grundy County were continued on a weekly basis. W. H. Estes, owner of the Grundy County observation well, has been the observer since its establishment.

The water levels in the Phelps County wells were measured monthly by engineers from the Rolla office of the surface water branch through the courtesy of H. C. Bolon, district engineer. A total of 21 measurements was made in these two wells in 1947.

FLUCTUATIONS OF WATER LEVEL

In the Grundy County well the maximum fluctuation of water level was 7.17 feet with the highest reading of 0.03 foot below land-surface datum occurring on June 21, and the lowest reading of 7.20 feet below land-surface datum occurring on January 12. The water level was 3.03 feet higher on December 28 than it was at the close of 1946. Fluctuations of water levels in wells in Atchison County, together with the other wells in the Tarkio Creek area, are discussed in the section of this volume that deals with Iowa.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Atchison County

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements by D. W. Knox.)

1 (*777, p. 63; *817, p. 56; *840, p. 93; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; *946, p. 181; 988, p. 165; 1018, p. 137; 1025, p. 137; 1073, p. 143). W. R. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	8.28	Apr. 23	7.50	Sept. 22	9.50	Nov. 28	11.42
Feb. 27	10.02	July 21	7.85	Oct. 20	10.06	Dec. 22	11.74
Mar. 20	9.24	Aug. 25	8.13				

2 (*777, p. 63; *817, pp. 56, 59; *840, p. 93; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; *946, p. 182; 988, p. 165; 1018, p. 137; *1025, p. 137; 1073, p. 143). H. W. Klutas. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Aug. 25	9.05	Oct. 20	9.98	Dec. 22	10.12
Sept. 22	9.78	Nov. 28	10.08		

20 (*840, p. 92; 845, p. 87; 886, p. 124; 908, p. 181; 938, p. 40; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137; 1073, p. 143). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 65 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	21.14	June 23	8.77	Aug. 25	12.91	Nov. 28	19.56
Feb. 27	21.77	July 21	10.08	Sept. 22	16.16	Dec. 22	19.89
Apr. 23	18.10						

21 (*840, pp. 92, 95; 845, p. 87; 886, p. 124; 908, p. 181; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137; 1073, p. 143). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 65 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	21.31	Apr. 23	16.65	Aug. 25	14.81	Nov. 28	19.22
Feb. 27	20.38	June 23	8.67	Sept. 22	17.01	Dec. 22	18.67
Mar. 20	21.56	July 21	12.37	Oct. 20	17.90		

22 (*840, pp. 92, 95; 845, p. 87; 886, p. 125; 908, p. 182; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137; 1073, p. 143). J. A. McAllister. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	11.09	Apr. 23	9.33	Aug. 25	5.32	Nov. 28	11.02
Feb. 27	12.19	June 23	6.84	Sept. 22	10.09	Dec. 22	11.12
Mar. 20	11.22	July 21	9.62	Oct. 20	10.72		

24 (*840, pp. 92, 95; 886, p. 125; 908, p. 182; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137; 1073, p. 143). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 66 N., R. 40 W.

Water level, in feet with reference to land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	-1.15	Apr. 23	-1.78	Aug. 25	+0.29	Nov. 28	-1.40
Feb. 27	-1.62	June 23	+1.10	Sept. 22	-.20	Dec. 22	-1.65
Mar. 20	-1.83	July 21	+.55	Oct. 20	-.72		

25 (*840, pp. 92, 95; 845, p. 87; 886, p. 125; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 137; 1025, p. 137; 1073, p. 144). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	43.36	Apr. 23	38.92	Aug. 25	38.59	Nov. 28	43.36
Feb. 27	44.37	June 23	31.59	Sept. 22	40.87	Dec. 22	43.02
Mar. 20	44.11	July 21	34.27	Oct. 20	42.00		

29 (*840, pp. 92, 95; 845, p. 88; 886, p. 126; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138; 1073, p. 144). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	12.03	Apr. 23	9.25	Aug. 25	12.16	Nov. 28	13.27
Feb. 27	12.70	June 23	7.30	Sept. 22	13.42	Dec. 22	13.20
Mar. 20	12.88	July 21	8.39	Oct. 20	13.84		

31 (*840, pp. 92, 95; 845, p. 88; 886, p. 126; 908, p. 183; 938, p. 42; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138; 1073, p. 144). W. F. Marshall. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	3.39	Apr. 23	2.72	Aug. 25	4.02	Nov. 28	3.72
Feb. 27	3.70	June 23	2.39	Sept. 22	3.31	Dec. 22	3.76
Mar. 20	3.59	July 21	2.81	Oct. 20	3.60		

32 (*840, pp. 92, 95; 845, p. 88; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 166; 1018, p. 138; 1025, p. 138; 1073, p. 144). W. F. Marshall. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	13.36	Apr. 23	10.18	Aug. 25	13.78	Nov. 28	14.64
Feb. 27	14.54	June 23	3.79	Sept. 22	13.59	Dec. 22	14.90
Mar. 20	14.50	July 21	10.73	Oct. 22	14.17		

33 (*840, pp. 92, 95; 845, p. 88; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 138; 1025, p. 138; 1073, p. 144). W. F. Marshall. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	14.60	Apr. 23	15.04	Aug. 25	15.97	Nov. 28	16.90
Feb. 27	16.54	June 23	9.47	Sept. 22	16.70	Dec. 22	16.92
Mar. 20	16.70	July 21	14.34	Oct. 20	16.83		

34 (*840, pp. 92, 95; 845, p. 88; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 138; 1073, p. 145). W. F. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	4.39	Apr. 23	1.59	Sept. 22	5.90	Nov. 28	6.56
Feb. 27	5.30	Aug. 25	4.49	Oct. 20	6.32	Dec. 22	6.70
Mar. 20	4.94						

35 (*840, pp. 92, 95; 845, p. 88; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 138; 1073, p. 145). W. F. Marshall. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	19.90	Apr. 23	14.17	Aug. 25	16.97	Nov. 28	21.62
Feb. 27	22.50	June 23	8.76	Sept. 22	19.38	Dec. 22	22.03
Mar. 20	21.75	July 21	13.39	Oct. 20	20.78		

36 (*840, pp. 92, 95; 845, p. 88; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 139; 1073, p. 145). George Rolf. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	28.01	July 21	18.55	Sept. 22	26.25	Nov. 28	28.33
Apr. 23	27.56	Aug. 25	21.46	Oct. 20	27.52	Dec. 22	29.16
June 23	18.41						

Grundy County

US 113 (*946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 139; 1073, p. 145). Wiley H. Estes. In Trenton, in sec. 17, T. 61 N., R. 24 W., on property of owner at 105 E. Fourth Street. Measurements made by owner.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	7.20	Apr. 20	2.00	July 19	3.61	Oct. 12	6.64
19	7.02	26	2.08	26	5.24	19	6.82
25	7.00	May 3	5.30	Aug. 2	4.54	26	6.68
Feb. 2	6.92	10	3.45	10	5.01	Nov. 2	6.81
15	6.52	17	4.00	17	5.22	9	6.84
23	6.58	25	4.35	24	2.50	16	6.82
Mar. 2	6.60	31	2.67	31	5.92	23	6.74
9	6.84	June 8	1.16	Sept. 7	2.20	30	6.83
15	5.48	15	1.52	13	6.20	Dec. 7	4.75
22	4.60	21	.03	21	6.10	14	4.46
29	3.92	28	1.93	28	6.30	21	4.64
Apr. 5	.46	July 5	2.02	Oct. 5	6.38	28	4.20
13	6.30	12	2.98				

Phelps County

US 98 (*946, p. 185; *988, p. 167; 1018, p. 139; 1025, p. 139; 1073, p. 145). S. V. Allen. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 37 N., R. 10 W.

Water level, in feet below land-surface datum, 1947

Jan. 31	7.33	Apr. 30	6.65	Aug. 1	8.12	Oct. 31	6.96
Feb. 28	7.54	May 29	7.22	29	8.87	Dec. 31	8.28
Mar. 31	6.76	July 1	6.12				

US 98a (*946, p. 185; *988, p. 168; 1018, p. 139; 1025, p. 139; 1073, p. 145). Fred Pillman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 37 N., R. 10 W.

Water level, in feet below land-surface datum, 1947

Jan. 31	8.45	Apr. 30	4.78	Aug. 1	11.36	Dec. 1	12.15
Feb. 28	10.19	May 29	7.42	29	(a)	31	13.18
Mar. 31	7.77	July 1	5.06	Oct. 31	11.72		

a Dry.

NEBRASKA

By H. A. Waite, W. K. Bach, and R. L. Schreurs

PROGRAM OF WORK

The State-wide program of water-level measurements in observation wells in Nebraska, begun in 1934 in cooperation with the Conservation and Survey Division of the University of Nebraska, was continued in 1947. Records of water levels in the wells and some interpretation of the fluctuations of water levels are given in the annual reports of the Geological Survey on water levels and artesian pressure. The reports already published are Water-Supply Papers 777, 817, 840, 845, 886, 908, 938, 946, 988, 1018, 1025, and 1073.

Measurements of water levels made in 814 wells are given in the present report. Included in this group are 250 wells in the observation of which the following organizations are cooperating informally: Grand Island Water Department, 46 wells in Hall County and 1 in Merrick County; Fish and Wildlife Service, United States Department of the Interior, 9 wells in Garden County; Central Nebraska Public Power and Irrigation District, 1 well in Arthur County, 24 wells in Dawson County, 2 wells in Garden County, 23 wells in Gosper County, 53 wells in Keith County, 66 wells in Lincoln County, and 10 wells in Phelps County; Platte Valley Public Power and Irrigation District, 2 wells in Keith County and 12 wells in Lincoln County. Weekly tape measurements given for well 85, in Morrill County, were furnished by the Nebraska Department of Roads and Irrigation.

Automatic water-stage recorders were in operation on 18 wells. Of these, the following wells are equipped with 60-day continuous recorders:

- 1-11-11ba (near Red Cloud, Webster County)
- 1-40-29bb (near Haigler, Dundey County)
- 3-25-4bb (near Cambridge, Furnas County)
- 9-14-1dc (near Gibbon, Buffalo County)
- 11-11-25cc (near Alda, Hall County)

The remaining wells listed below, are equipped with 8-day recorders:

1-6-30dd (near Superior, Nuckolls County)
 5-15-3ba (near Minden, Kearney County)
 7-20-31bb (in Bertrand, Phelps County)
 9-12-9ba (near Shelton, Hall County)
 13-36-8cc } (near Korty, Keith County)
 13-36-9ad }
 14-33-27da (near O'Fallons, Lincoln County)
 17-16-26dc (near Arcadia, Valley County)
 24-48-10bb }
 24-48-13ba } (near Alliance, Box Butte County)
 25-48-14aa }
 25-45-32ad (near Antioch, Sheridan County)
 30-22-23da (near Ainsworth, Brown County)

The well near Superior is serviced by personnel of the Bureau of Reclamation at Superior. The well in Bertrand is serviced by M. R. Williams, city water commissioner. The two wells near Korty and the one near O'Fallons are serviced each week by Warren Doolittle of the Platte Valley Public Power and Irrigation District. The well near Ainsworth is serviced by personnel of the Bureau of Reclamation at Ainsworth.

Tables have been included showing the total monthly pumpage for the public supplies for the city of Grand Island and for the city of Lincoln at its well field near Ashland. Monthly measurements of the water level in well A13-9-24cc (US 62), just west of the Lincoln city well field near Ashland, are given under the heading Saunders County. This well is one of eight key wells in Nebraska and the water level in the well is measured by personnel of the Ashland pumping station.

Monthly measurements of the water levels in eight key wells in Nebraska were continued during 1947. Measurements from these wells form the basis of statements of water-level conditions in Nebraska that are published currently in the monthly Water Resources Review.

In all, exclusive of automatic water-stage recorder measurements, 4,136 individual measurements of water level were made in Nebraska in 1947.

FLUCTUATIONS OF WATER LEVEL

The precipitation in Nebraska in 1947 was 23.35 inches, 0.79 inch above normal and 1.20 inches below that of 1946.

The following table summarizes for each observation well, the length of record in years, the highest and the lowest water level of record, the net change in water level in 1947, and the net change in water level during the entire period of record.

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise(+) or net decline (-) 1947	Net rise(+) or net decline (-) or period of record
<u>Adams County</u>							
5-11-10bc 11		9.49	Nov. 24, 1947	10.81	Nov. 13, 1940	+0.16	+0.43
6-10-23bb 11		6.41	Dec. 31, 1946	10.43	Apr. 12, 1937	-2.67	+1.35
8-12-8ab 2		7.68	July 16, 1947	9.72	Sept. 7, 1946	-.87	+5.54
<u>Antelope County</u>							
24- 6- 2aa 13		3.31	Mar. 24, 1946 May 30, 1946	7.88	Sept. 12, 1935	.....	+2.81
27- 7-10bb 8		64.34	Oct. 6, 1947	66.40	Oct. 17, 1941	.....	+8.82
<u>Arthur County</u>							
17-39-31dc 12		2.31	May 7, 1942	6.37	Mar. 9, 1945	.....	-1.50
<u>Blaine County</u>							
22-24-33ca 13		2.41	Oct. 14, 1946	5.65	Aug. 4, 1946	-.12	+0.09
<u>Box Butte County</u>							
24-47- 1db 2		11.62	June 3, 1946	12.45	May 14, 1946	.....	+0.02
24-48- 4bb 2		13.32	Apr. 11, 1946	13.93	Oct. 28, 1947	.....	-.61
24-48-10bb 2		10.16	July 12, 1947	11.32	Mar. 16, 1947	.....	+4.41
			July 13, 1947		Mar. 17, 1947		
24-48-11dd 2		4.81	Aug. 28, 1947	7.05	Nov. 12, 1946	.....	-.31
24-48-31ba 2		38.80	Dec. 15, 1946	39.20	June 8, 1946	.....	+1.16
					18, 30, 1946		
24-50-10aa 10		48.68	June 3, 1946	52.02	July 2, 1938	.....	+1.81
24-52-13cb 10		77.60	Mar. 13, 1947	78.26	Sept. 20, 1938	.....	+1.19
24-52-35aa 10		97.61	July 22, 1940	99.13	May 9, 1946	.....	+1.23
25-47-19aa 10		20.35	July 21, 1935	23.32	Oct. 26, 1947	.....	-2.76
25-47-31cc 2		14.29	Aug. 28, 1947	16.25	Feb. 17, 1947	.....	-.75
25-48- 4dd 2		63.15	July 22, 1946	63.91	Dec. 17, 1946	.....	-.09
25-48-14aa 2		48.06	Mar. 6, 1946	50.90	May 16, 1947	.....	-1.29
25-48-25bb2 2		70.76	Mar. 29, 1946	74.76	July 29, 1946	.....	-2.45
25-48-27db2 2		67.90	May 13, 1946	69.45	Sept. 13, 1946	.....	-.56
25-48-30ad 10		12.54	July 11, 1946	15.40	July 22, 1940	.....	+1.90
			July 22, 1946				
25-49-14da 2		31.43	May 13, 1946	32.45	Mar. 12, 1946	.....	+9.90

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for 1947	Net rise (+) or net decline (-) for period of record
<u>Box Butte County--Continued</u>							
25-50-22aa	2	132.01	May 13, 1946	132.54	May 1, 1947	.....	+0.15
25-50-31ab	13	102.80	Feb. 27, 1946	103.41	Oct. 20, 1941	.....	.02
25-51-14aa	10	87.52	July 22, 1940	90.04	Feb. 27, 1946	.....	+31
26-47-17dd	2	52.98	Oct. 26, 1947	52.46	May 1, 1947	.....	+37
26-47-35dd	2	12.13	May 24, 1946	13.63	Sept. 22, 1946	.....	-1.15
26-49-13dc	2	90.46	May 29, 1946	91.21	Aug. 5, 1946	.....	+0.09
26-50-12dc	10	100.73	Oct. 26, 1947	102.38	Nov. 12, 1946	.....	+44
26-51-25bc	10	95.49	July 22, 1940	96.50	Feb. 19, 1947	.....	-39
26-52-10bc	10	93.37	July 22, 1938	99.11	Sept. 13, 1946	.....	-2.61
26-52-17ab	10	73.44	Aug. 26, 1947	75.46	Feb. 18, 1947	.....	+12
27-47-23ba	10	18.21	Oct. 26, 1947	29.94	Nov. 2, 1940	.....	+10.71
27-49-21cb	12	118.00	Feb. 27, 1946	119.41	Oct. 20, 1941	.....	+28
27-50-20ca	10	173.99	Feb. 27, 1946	174.82	Aug. 10, 1938	.....	+42
27-51-6bb	2	220.11	June 5, 1947	220.67	Apr. 1, 1946	.....	+50
28-49-17cc	1	144.64	Sept. 13, 1946	145.03	May 1, 1947	.....	+11
28-51-6dd	12	1.67	Mar. 27, 1936	4.08	July 20, 1940	.....	-14
28-51-8bc	10	85.00	Mar. 13, 1944	86.40	Mar. 30, 1940	.....	+47
<u>Brown County</u>							
29-21-6cd	3	5.0	Nov. 1944	9.0	June 17, 1945	.....	-55
29-22-4ab	3	.90	Nov. 1944	3.12	Nov. 13, 1947	.....	-1.58
30-21-30bc	1	37.09	Dec. 15, 1947	37.70	May 10, 1947	.....	+61
30-22-23dd	3	38.65	Nov. 18, 1944	38.87	Nov. 14, 1947	.....	+0.08
30-22-26db	11	24.95	Nov. 18, 1944	29.0	Aug. 15, 1937	.....	+1.33
30-22-27dc	14	14.02	Aug. 1, 1944	18.87	Aug. 9, 1937	.....	+24
30-23-13bc	7	38.59	Dec. 16, 1947	39.5	Nov. 20, 1944	.....	+91
<u>Buffalo County</u>							
8-16-3cb	2	10.22	Sept. 8, 1947	13.22	Aug. 7, 1946	-1.64	-.01
8-16-10cc	1	1.76	Nov. 7, 1946	3.71	Sept. 5, 1946	-.45	+.92
8-16-12cc	17	1.59	Apr. 25, 1933	7.80	Jan. 7, 1947	-1.96	-1.72
8-17-1da	16	4.18	Oct. 7, 1946	11.90	Nov. 3, 1934	-4.26	+1.51
8-17-4bc	2	5.26	Dec. 3, 1946	10.05	Sept. 5, 1946	-4.54	-1.84
8-17-12dd	16	1.20	Feb. 16, 1932	4.95	Aug. 20, 1936	-.16	+1.23
8-18-4cb	1	7.30	Oct. 7, 1946	9.67	Sept. 8, 1947	-1.50	-.03
9-13-5cb	17	16.54	May 20, 1931	22.54	Sept. 5, 1946	+1.23	-.36
9-13-9cc	17	11.00	July 10, 1947	17.09	Oct. 4, 1946	+1.78	-.02
9-13-22bc	17	7.49	May 12, 1947	12.74	Sept. 5, 1946	.....	+3.27
9-14-1dc	1	16.67	July 9, 1947	19.79	Sept. 15, 1946	+.81	+1.66
9-14-4cc	2	17.68	July 11, 1947	23.11	Sept. 15, 1946	+.60	+.41
9-14-13cb	17	15.30	July 11, 1947	23.05	Oct. 15, 1941	+1.07	+.63
9-14-19dd	17	22.55	June 9, 1931	28.53	Oct. 15, 1941	-.05	-1.64
9-14-21cc	17	17.49	July 11, 1947	22.11	Nov. 24, 1939	+.09	-.94
9-14-22bb	1	15.00	July 11, 1947	19.56	Sept. 5, 1946	.....	+1.50
9-14-34bb	17	9.25	June 20, 1932	15.68	Oct. 27, 1940	-1.91	-1.55
9-15-11cb	16	23.67	July 11, 1947	29.96	Oct. 15, 1941	+2.33	-.26
9-15-16cc	1	32.24	July 11, 1947	35.02	Sept. 5, 1946	.....	+2.78
9-15-34bb	17	16.60	June 16, 1931	21.23	Oct. 29, 1936	.....	-3.71
9-17-31cd	2	8.02	Oct. 7, 1946	11.58	Nov. 4, 1947	+3.15	-.46
9-18-27dd	2	3.63	Oct. 7, 1946	9.39	July 10, 1946	-2.56	+1.56
9-18-31cc	2	7.38	Oct. 8, 1946	12.49	Sept. 6, 1936	+1.70	-.17
10-13-24bc	17	17.91	May 13, 1931	26.28	Sept. 5, 1946	-.42	-5.87

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period or record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for period of 1947	Net rise (+) or net decline (-) for period of record
<u>Burt County</u>							
A21-11-34ab 14	6.42	June 24, 1947	18.03	June 8, 1940	.....	+4.66
A22- 8-35aa 12	.39	June 24, 1947	8.76	Nov. 22, 1939	.....	+1.96
<u>Butler County</u>							
A16- 1-17bc 2	2.80	July 7, 1947	5.47	Sept. 3, 1946	-1.26	-1.34	
A16- 2-14cc 2	3.46	July 7, 1947	6.35	Oct. 12, 1946	-1.14	-1.16	
A16- 2-30bc 2	21.45	Sept. 3, 1947	22.68	Aug. 6, 1946	+6.4	+1.6	
A16- 3- 1dc 2	8.11	July 7, 1947	12.25	Nov. 5, 1946	-.83	-1.37	
A16- 3- 8dd 1	2.93	Dec. 9, 1946	4.86	Sept. 3, 1947	-1.60	-.10	
A16- 3-15cb 2	11.52	July 7, 1947	17.28	Aug. 5, 1946	+6.4	+8.5	
A17- 4-28cd 2	19.55	July 7, 1947	22.10	Oct. 11, 1946	-.47	-.84	
<u>Chase County</u>							
5-36- 7ba 2	15.72	Feb. 27, 1947	16.39	Aug. 15, 1946	-.12	+1.3	
5-36-11dc 13	62.46	Feb. 27, 1947	63.92	Aug. 21, 1935	....	+1.28
<u>Cherry County</u>							
26-32-28ad 13	59.50	Oct. 15, 1937	67.45	Dec. 15, 1944	.....	-4.31
33-27-17cb 12	1.88	Mar. 29, 1940	3.38	Aug. 9, 1937	.....	-.26
34-27-31da 13	97.29	Oct. 7, 1947	100.39	Oct. 19, 1941	.....	+1.0
34-31- 3ad 13	1.25	June 6, 1935	5.47	Oct. 31, 1940	.....	+3.2
34-36- 1dc 13	4.46	June 6, 1935	9.54	Oct. 1, 1941	.....	-.82
34-38-14bc 11	6.19	Aug. 1, 1944	8.14	Aug. 9, 1937	.....	-.72
<u>Cheyenne County</u>							
14-47-26cb 8	18.41	June 20, 1947	20.82	Nov. 9, 1940	.....	+1.87
14-50-35ac 13	29.16	July 18, 1935	32.87	Nov. 17, 1944	.....	-1.47
<u>Colfax County</u>							
A17- 2-16bc 2	24.62	July 8, 1947	26.32	Sept. 4, 1946	+1.1	-.17	
A17- 2-22dd 2	3.52	July 8, 1947	6.39	Nov. 11, 1947	-1.12	-.76	
A17- 3- 4cc 1	5.34	July 8, 1947	6.34	Sept. 4, 1947	-.69	+1.4	
A17- 3-11dd 2	6.60	July 7, 1947	10.50	Jan. 3, 1947	+7.3	-.19	
A17- 3-18dc 2	2.65	Mar. 11, 1946	4.82	Sept. 4, 1946	-1.94	-1.59	
A17- 3-23cc 2	2.84	July 7, 1947	5.27	Sept. 3, 1946	-.84	-.36	
A17- 3-29aa 1	6.97	July 8, 1947	8.78	Nov. 11, 1947	-.63	-.15	
A17- 4- 1cc 8	3.85	July 7, 1947	7.26	Oct. 9, 1941	-.94	-1.41	
A17- 4- 4bb 2	11.19	July 8, 1947	17.11	Aug. 6, 1946	+7.3	-1.33	
<u>Dawes County</u>							
31-52- 3dc 13	16.79	Aug. 22, 1942	21.51	Aug. 27, 1934	+5.2	+3.69	
32-51- 1db 12	19.05	June 16, 1937	20.64	Aug. 7, 1946	....	-.24

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period or record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for 1947	Net rise (+) or net decline (-) for period of record
<u>Dawson County</u>							
9-19-16ab	2	6.50	Dec. 3, 1946	10.68	Sept. 6, 1946	-2.04	-0.21
9-19-25bb	2	5.45	July 11, 1947	9.23	Feb. 14, 1946	-.86	+1.88
9-19-33bb	2	5.03	Oct. 8, 1946	9.04	Sept. 6, 1946	-2.29	+1.11
9-20-3dd	1	8.72	Dec. 3, 1946	12.52	Sept. 6, 1946	-2.91	+1.89
9-20-5bc	2	18.45	July 1, 1947	22.82	Aug. 8, 1946	-2.34	+1.17
9-20-13bc	2	6.90	Dec. 3, 1946	11.45	Sept. 6, 1946	-3.59	-.20
9-20-22cc	2	7.74	Dec. 3, 1946	12.63	Sept. 6, 1946	-3.01	+2.23
9-20-33dd	1	2.41	Nov. 7, 1946	4.59	Sept. 6, 1946	-1.25	+1.87
9-21-6ad	17	1.39	Oct. 8, 1946	8.30	July 11, 1946	-1.88	-1.17
9-21-6da	17	1.01	Oct. 8, 1946	7.45	Aug. 21, 1934	-1.76	-.92
9-21-7aa	17	4.52	Oct. 8, 1946	8.99	Aug. 21, 1934		-.74
9-21-7da	17	4.13	Oct. 8, 1946	7.15	Sept. 6, 1946	-.75	-1.26
9-21-12cb	13	9.29	Oct. 8, 1946	13.19	Aug. 10, 1937	-1.40	-.23
9-21-18aa	17	2.50	Apr. 30, 1944	7.24	Aug. 14, 1934	-1.92	-1.18
9-21-18da	17	2.22	Oct. 8, 1946	6.48	Sept. 21, 1934	-1.82	-1.51
9-21-19aa1	17	1.45	Oct. 8, 1946	5.55	Nov. 14, 1934	-1.27	-1.42
9-21-19aa2	17	1.23	Feb. 25, 1932	2.75	Aug. 10, 1937	-1.10	-1.71
9-21-19da	17	.95	Feb. 25, 1932	5.86	Sept. 16, 1936	-.14	-1.25
9-21-19dd	17	2.83	Feb. 25, 1932	7.64	Nov. 14, 1934	-.36	-1.30
9-21-24aa	17	2.05	July 12, 1947	6.29	Sept. 21, 1934	-1.69	+1.31
9-21-29bc	17	.10	May 3, 1947	5.21	Sept. 30, 1940	-.32	-.82
9-21-30da	17	3.63	Oct. 8, 1946	9.20	Sept. 30, 1940	-.53	-.37
9-21-31aa1	17	11.82	Oct. 8, 1946	19.54	Nov. 2, 1940	-1.20	+2.50
9-21-31aa2	9	9.13	May 15, 1944	15.49	Aug. 29, 1940	.....	+1.47
9-21-31cc	8	24.40	Aug. 7, 1947	54.33	Aug. 29, 1940	.....	+29.14
9-21-31da	17	7.68	July 12, 1947	22.90	July 24, 1940	-1.64	+5.30
9-21-31dd	9	4.16	Oct. 8, 1946	19.82	Nov. 5, 1940	-1.20	+8.70
9-21-32aa	9	2.84	Apr. 6, 1939	6.84	Nov. 2, 1940	.....	-1.41
9-21-32dd	9	9.75	May 5, 1939	14.38	Mar. 5, 1940	.....	-1.45
9-22-1da	9	1.08	May 4, 1945	5.30	Aug. 30, 1940	.....	+2.27
9-22-6cc	9	4.08	Mar. 2, 1939	7.27	Nov. 17, 1947	.....	-2.77
9-22-7ad	9	2.56	Aug. 2, 1947	6.75	Oct. 1, 1940	.....	+1.73
9-22-17dd	18	1.58	July 14, 1947	16.19	Oct. 1, 1940	+5.34	+12.26
9-22-23cb	9	2.96	Jan. 9, 1946	9.04	Sept. 30, 1940	.....	+1.95
9-22-23cd	2	14.42	Dec. 29, 1945	18.86	Sept. 10, 1947	.....	-4.44
9-22-25dc	9	2.70	July 14, 1947	17.28	Nov. 2, 1940	-.04	+11.77
9-22-26aa	9	5.98	Apr. 10, 1946	15.62	Aug. 7, 1943	.....	+2.99
9-23-2dc	2	14.02	July 14, 1947	18.24	Aug. 9, 1946	-.29	+2.05
9-23-3cc	1	10.74	July 14, 1947	12.34	Sept. 10, 1947	.....	+1.03
9-23-12da	9	+8.2	Dec. 5, 1946	9.96	Nov. 4, 1940	.....	.....
9-23-30cd	9	6.32	Apr. 5, 1944	9.57	Oct. 3, 1939	.....	+1.11
9-24-1dc	1	15.77	Nov. 6, 1947	17.90	Sept. 7, 1946	+1.12	+2.13
10-20-21cb	2	22.33	July 12, 1947	25.79	Sept. 6, 1946	-.20	+1.92
10-20-35bb	1	14.80	July 12, 1947	17.78	Sept. 6, 1946	-1.17	+1.03
10-21-6da	17	7.00	May 4, 1931	11.88	Sept. 21, 1934	+1.27	+2.25
10-21-7aa	17	5.63	Apr. 6, 1931	12.55	Sept. 21, 1934	-.02	-1.80
10-21-7da	17	6.10	July 12, 1947	13.44	Sept. 21, 1934	-.07	-1.16
10-21-18aa	17	4.60	July 12, 1947	12.84	Sept. 21, 1934	+1.06	-1.46
10-21-18dd	17	8.92	July 12, 1947	17.27	Sept. 21, 1934	+1.77	-1.26
10-21-19aa	17	11.88	July 20, 1931	18.80	July 24, 1940	+1.77	-1.48
10-21-19da	17	11.68	May 25, 1931	18.81	July 24, 1940	+1.03	-1.36
10-21-23ab	2	8.15	July 12, 1947	13.94	Aug. 8, 1946	-.28	+1.29
10-21-30aa	17	4.37	July 12, 1947	10.02	Aug. 8, 1946	-.31	-1.95
10-21-30da	17	4.37	July 12, 1947	12.35	Aug. 21, 1934	-1.10	-2.36

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for 1947	Net rise (+) or net decline (-) for period of record
<u>Dawson County--Continued</u>							
10-21-31aa	17	1.67	June 12, 1935	8.98	Aug. 12, 1934	-1.57	-2.84
10-21-31da	17	3.29	June 12, 1935	9.27	Sept. 21, 1934	-1.93	-2.26
10-22-11ab	2	4.53	Oct. 9, 1946	9.69	Aug. 8, 1946	-1.23	+1.34
10-22-29aa	16	1.52	July 12, 1947	7.45	Nov. 5, 1940	-.67	+1.60
10-23-5bb	2	4.29	Dec. 4, 1946	8.40	July 11, 1946	-3.01	-.41
10-23-9aa	17	10.00	Oct. 20, 1930	17.98	Aug. 21, 1934	....	-.45
10-23-29bb	1	2.02	Oct. 9, 1946	7.25	Nov. 6, 1947	-2.52	-.74
10-23-30bc	2	5.80	Oct. 9, 1946	10.91	June 4, 1946	-2.41	+ .73
10-24-7bb	2	10.35	Oct. 9, 1946	13.52	July 12, 1946	-.30	+ .68
10-24-15cc	2	3.78	July 14, 1947	7.83	Sept. 7, 1946	-.14	+2.27
10-24-17bb	9	2.72	Nov. 9, 1946	19.78	May 1, 1941	+ .13	+14.20
11-21-31dd	17	22.77	Sept. 8, 1947	33.28	July 24, 1940	+1.38	-.13
11-22-28aa	2	26.08	July 12, 1947	30.89	Sept. 6, 1946	+1.15	+ .66
11-23-21bc	2	12.40	July 12, 1947	15.11	July 11, 1946	-.19	+ .72
11-23-23cc	1	.42	Oct. 8, 1946	5.28	Sept. 6, 1946	-1.18	+1.91
11-24-16bb	2	3.56	Oct. 9, 1946	8.42	Sept. 6, 1946	-2.07	-.11
11-24-20ca	15	9.52	July 12, 1947	14.97	Sept. 22, 1934	-2.05	+ .34
11-24-24cb	2	6.91	Dec. 4, 1946	12.40	June 28, 1946	-2.78	+2.71
11-25-8ad	9	1.03	Apr. 7, 1939	5.04	Aug. 4, 1939	-.94	+ .69
11-25-19cc	9	5.42	July 14, 1947	14.30	Oct. 2, 1939	-1.05	+4.00
11-25-20cc	9	7.74	June 23, 1944	13.78	Sept. 5, 1939	....	+3.32
11-25-21cc	17	4.18	Nov. 17, 1931	20.37	Aug. 2, 1933	-.85	+1.77
11-25-34bc	2	12.12	Dec. 5, 1946	14.35	July 12, 1946	+ .60	+1.56
12-24-30ab	2	42.50	May 9, 1946	44.85	Sept. 9, 1947	-.62	-1.77
12-25-34cc	15	27.50	Nov. 5, 1947	30.40	July 11, 1946	+1.30	+2.13

Dixon County

A30-6 -23cc	12	11.20	Oct. 9, 1938	19.84	Aug. 2, 1936	+1.09
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Dodge County

A17- 5- 2bb	1	2.32	Dec. 10, 1946	4.80	Sept. 3, 1946	-2.01	+ .47
A17- 6- 6aa	11	.68	June 22, 1945	9.65	Mar. 22, 1937	-1.82	+1.28
A17- 6- 8bc	2	2.52	Mar. 4, 1947	6.03	Sept. 3, 1947	-1.97	-2.32
A17- 6-15ad	1	1.90	Mar. 4, 1947	4.30	Sept. 3, 1947	....	-1.24
A17- 8- 4aa	8	3.35	June 22, 1945	12.21	Feb. 3, 1940	-.09	+6.64
A17- 8- 4dd	8	3.70	July 7, 1947	13.33	Feb. 3, 1940	-1.22	+3.66
A17- 8- 9da	8	4.15	June 22, 1945	14.29	Oct. 22, 1940	-.26	+4.37
A17- 8-16ad	8	6.11	June 22, 1945	14.19	Oct. 22, 1940	+ .80	+3.96
A17- 8-22cb	8	1.09	July 7, 1947	8.14	Feb. 3, 1940	-1.75	+3.04
A17- 8-28ad	8	1.19	July 7, 1947	7.29	Feb. 21, 1940	-1.14	+1.75
A17- 8-28dd	8	2.39	Oct. 11, 1946	5.57	Aug. 5, 1946	....	+ .40
A18- 5-23bb	1	6.55	July 7, 1947	8.73	Oct. 11, 1946	....	+ .87
A18- 6-25cc	1	5.07	July 7, 1947	9.87	Nov. 10, 1947	....	-1.19
A18- 7-36cb	1	.84	July 7, 1947	5.13	Nov. 10, 1947	....	-2.13
A18- 8-28da	8	60.86	Oct. 8, 1941	68.72	Mar. 20, 1940	+4.54	+4.56
A18- 8-28dd	8	23.63	Oct. 8, 1941	31.92	Feb. 3, 1940	.00	+6.26
A18- 8-33aa	8	3.00	Oct. 8, 1941	9.36	Mar. 20, 1940	+ .03	+2.76
A18- 9-18ac	11	6.76	July 9, 1940	9.33	Oct. 18, 1940	....	+ .69

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest	Date	Lowest level	Date	Net rise (+) or net decline (-) for 1947	Net rise (+) or net decline (-) for period of record
<u>Dundy County</u>							
1-37- 7ab	2	60.82	July 30, 1947	61.88	Oct. 21, 1946	+0.61	+0.20
1-37-16dd	1	38.34	Dec. 4, 1947	39.02	Oct. 21, 1946	+43	+68
1-37-19ba	1	9.23	Feb. 26, 1947	14.25	Oct. 8, 1947	-1.60	+1.40
1-37-31cd	1	3.75	June 7, 1947	5.85	Oct. 8, 1947	+1.41	-.90
1-38-20bc	12	15.83	June 6, 1947	18.42	Aug. 10, 1936	+29	+2.13
1-38-21cb	12	5.53	June 6, 1947	9.74	Oct. 28, 1938	.....	+2.81
1-38-25bd	2	12.26	Dec. 15, 1946	13.90	Oct. 8, 1947	-1.17	-1.11
1-38-29ad	1	7.94	Feb. 26, 1947	9.00	Aug. 16, 1946	-.51	+48
1-39-21ac	12	4.72	June 12, 1936	6.23	July 29, 1940	-.08	-.63
1-39-22cc	2	11.30	June 6, 1947	13.02	Aug. 16, 1946	-.72	-.66
1-39-26aa	1	25.19	June 6, 1947	26.37	Oct. 8, 1947	-.38	-.43
1-39-30bb	1	11.72	Feb. 26, 1947	13.12	Oct. 8, 1947	-.40	+22
1-40-20cb	1	1.80	June 6, 1947	4.37	Oct. 8, 1947	-1.30	-.08
1-40-24cd	1	8.36	July 30, 1947	9.79	Oct. 8, 1947	-1.09	-.26
1-40-27ab	2	18.66	June 11, 1946	20.87	Aug. 16, 1946	-.95	-.97
1-40-29bb	2	12.00	July 13-18, 1946	12.58	Oct. 3, 1946	-.23	-.26
					Oct. 4, 1946		
1-41-20dd	1	2.58	June 6, 1947	4.26	Aug. 16, 1946	+0.04	+1.59
1-41-27ca	1	3.96	Feb. 26, 1947	5.70	Aug. 16, 1946	-.22	+1.43
1-42-10cd	1	3.41	Feb. 26, 1947	6.01	Aug. 16, 1946	-1.52	+96
1-42-13bb	1	3.71	Feb. 26, 1947	5.62	Aug. 16, 1946	-.36	+1.35
1-42-36aa	1	9.88	Oct. 23, 1946	11.21	June 6, 1947	+53	+87
2-36-24ca	1	14.28	Feb. 27, 1947	15.24	Dec. 5, 1947	-4.81	-.90
2-36-29ac	2	21.32	June 7, 1947	22.94	Aug. 16, 1946	-.58	-.49
2-36-31bc	2	21.47	June 7, 1947	22.48	Oct. 8, 1947	-.24	+11
<u>Franklin County</u>							
1-13- 1cc	2	4.27	June 10, 1947	8.18	Dec. 16, 1947	-3.43	-1.42
1-13- 2bc	2	7.12	Oct. 26, 1946	9.15	Aug. 12, 1946	-.68	+31
1-13- 3ca	2	4.48	Oct. 26, 1946	8.52	Dec. 16, 1947	-1.72	-.34
1-13- 4cb	2	10.13	Aug. 2, 1947	12.97	Oct. 11, 1947	-1.74	-.35
1-13- 7bb	2	2.56	Oct. 26, 1946	6.34	Oct. 9, 1947	-1.82	-.30
1-14- 2cd	2	5.70	Dec. 18, 1946	10.15	Feb. 13, 1946	-3.80	+65
1-14- 3ba	2	.91	Oct. 27, 1946	5.94	Aug. 13, 1946	-3.61	-.51
1-14- 6bc	2	5.34	Oct. 27, 1946	8.87	Dec. 1, 1947	-3.29	-.30
1-14- 7bb1	7	.70	Oct. 27, 1946	5.40	Nov. 13, 1940	-3.17	-.12
1-14- 7bb2	2	3.45	Oct. 27, 1946	7.52	Oct. 9, 1947	-3.00	-2.24
1-15- 5ca	2	.62	Oct. 26, 1946	6.24	Dec. 1, 1947	-4.31	-1.65
1-15- 8cb	2	8.93	Oct. 26, 1946	11.74	Aug. 13, 1946	-1.18	-.38
1-16- 9bc	2	10.25	Oct. 26, 1946	13.68	Mar. 7, 1946	-2.06	-.95
1-16-10bd	2	.70	Oct. 26, 1946	5.19	Aug. 13, 1946	-3.61	-1.07
1-16-14ab	2	37.40	Oct. 26, 1946	42.41	Aug. 13, 1946	-2.34	-.53
2-13-31ad	2	53.10	Oct. 11, 1947	54.80	Mar. 8, 1946	-.35	+72
2-13-32dd	2	2.77	Mar. 1, 1947	8.79	Dec. 1, 1947	-2.86	-1.13
2-15-36bd	13	27.49	June 14, 1946	29.48	Feb. 28, 1947	....	-.38
4-14-10da	13	165.82	June 30, 1936	168.86	Aug. 12, 1947	....	-4.42

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) for period of record
<u>Furnas County</u>							
3-21- 2cc	2	6.47	Oct. 25, 1946	10.32	Oct. 9, 1947	-2.32	-1.60
3-21- 9bd	1	13.82	Dec. 17, 1946	15.48	June 9, 1947	.....	-.73
3-21-12dc	2	3.40	Oct. 25, 1946	6.70	Oct. 9, 1947	-1.98	-.70
3-22- 2ba	2	4.78	July 28, 1947	8.49	Dec. 3, 1947	-3.14	-1.05
3-25- 4bb	2	4.12	June 23, 1947	7.37	Oct. 3, 1946	-1.59	+.57
4-21-32cc	2	11.87	July 31, 1947	16.74	Aug. 31, 1946	-.79	+.84
4-22-25cc	2	8.29	Dec. 17, 1946	11.91	Dec. 2, 1947	-3.62	-.69
4-22-29ad	2	13.64	July 31, 1947	17.60	Aug. 13, 1946	+.47	+1.92
4-22-32dd	2	7.55	July 28, 1947	11.48	Oct. 6, 1947	-2.39	-1.64
4-22-34bb	2	12.22	Dec. 1, 1947	14.77	Oct. 9, 1947	-1.54	-.17
4-23-20ab	2	25.29	July 31, 1947	31.28	Aug. 14, 1946	-.77	+.57
4-23-23bd	12	28.72	July 31, 1947	30.89	Sept. 13, 1943	-.68	-.30
4-23-27dd	2	7.08	July 28, 1947	11.65	Aug. 13, 1946	-1.71	-.77
4-23-30cc	2	51.84	June 5, 1947	53.30	Oct. 6, 1947	-.45	-.58
4-23-36aa	2	17.06	July 28, 1947	23.17	Aug. 13, 1947	-3.03	-.89
4-24-13cd	2	15.14	July 31, 1947	19.73	Aug. 14, 1946	+.61	+1.77
4-24-15cc	2	10.82	July 31, 1947	14.20	Aug. 14, 1946	-1.33	-.65
4-24-19cc	2	12.90	Oct. 25, 1946	15.05	June 12, 1946	-1.22	+.53
4-24-22dd	2	5.00	Oct. 25, 1946	6.78	Aug. 14, 1946	-.78	-.43
4-24-29cd	2	20.38	July 28, 1947	23.57	Aug. 14, 1946	-.72	-.63
4-25-32cd	2	3.66	Oct. 25, 1946	6.58	Oct. 6, 1947	-1.68	-.38
4-25-34ad	2	14.32	July 28, 1947	17.76	Jan. 31, 1946	-2.29	+.29
<u>Garden County</u>							
15-42- 1ca	11	16.19	July 13, 1944	21.45	Jan. 1, 1937	.....	+4.04
15-42- 3cb	11	16.75	June 10, 1941	20.20	Dec. 2, 1947	.....	-.50
20-44- 5db	13	4.30	Oct. 21, 1934	8.04	Jan. 13, 1934	+.90	-1.04
					Dec. 15, 1939		
20-44- 9ca	14	3.16	May 4, 1934	7.18	Nov. 5, 1937	+.81	-1.36
					Nov. 23, 1937		
20-45-13ab	13	2.00	June 6, 1935	5.12	Sept. 29, 1939	+1.12	+2.34
20-45-17ba	13	3.66	June 6, 1935	7.49	Aug. 19, 1937	+.76	+2.98
21-44-29ab	13	2.09	June 20, 1935	5.86	Apr. 2, 1938	+.30	+.77
21-44-35ca	14	.44	Feb. 12, 1934	4.84	Aug. 20, 1937	+.41	-.80
21-45- 3bd	13	2.00	June 22, 1947	7.87	Nov. 30, 1938	+.85	+2.15
21-45-10cd	14	1.70	June 24, 1947	6.66	July 29, 1934	-.28	+1.08
21-45-27cb	13	2.60	June 22, 1947	6.64	Oct. 9, 1937	+.42	+1.82
<u>Gosper County</u>							
8-21- 2cc	9	3.14	May 2, 1940	6.56	Mar. 5, 1940	.....	-.89
8-21- 3ac	7	2.97	Oct. 2, 1942	9.52	Sept. 30, 1940	.....	+5.44
8-21- 3bb	7	3.01	June 4, 1942	10.18	Sept. 30, 1940	.....	+5.01
8-21- 3bc	7	.15	Aug. 7, 1947	10.48	Sept. 30, 1940	.....	+5.80
8-21- 3dc	2	11.10	July 14, 1947	14.50	Sept. 10, 1947	.....	+.85
8-21- 3dd	7	7.95	Aug. 4, 1942	12.72	Nov. 2, 1940	.....	+.53
8-21- 4ad	7	5.51	Oct. 2, 1942	13.97	Sept. 30, 1940	.....	+6.59
8-21- 4ba	9	6.82	Apr. 6, 1939	10.16	Dec. 5, 1939	.....	-1.84
8-21- 4cc	7	26.68	Nov. 17, 1944	34.74	Sept. 30, 1940	.....	+6.87
8-21- 4da	7	7.83	Oct. 2, 1942	15.63	Sept. 30, 1940	.....	+6.69
8-21- 5aa	7	1.90	Aug. 7, 1947	15.76	Sept. 30, 1940	.....	+9.51
8-21- 5ad	7	13.39	Aug. 7, 1943	21.62	Sept. 30, 1940	.....	+6.58
8-21- 5da	7	19.53	Aug. 7, 1943	28.10	Sept. 30, 1940	.....	+6.85

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) period of record
<u>Gosper County--Continued</u>							
8-21- 6aa	7	8.69	May 15, 1947	16.40	Sept. 30, 1940	.....	+7.71
8-21- 6dal	7	24.19	Sept. 30, 1940	32.56	Nov. 2, 1940	.....	-2.49
8-21- 6da2	7	23.56	Aug. 9, 1943	31.96	Sept. 30, 1940	.....	+7.37
8-21- 6dd	7	41.60	Aug. 7, 1947	50.83	Sept. 30, 1940	.....	+9.15
8-21-10da	7	14.36	Nov. 8, 1947	17.96	Sept. 2, 1941	.....	+2.77
8-21-11aa	9	3.09	Aug. 7, 1943	5.98	Oct. 3, 1939	.....	-1.02
8-21-11bb	7	9.21	Aug. 7, 1947	13.27	Nov. 2, 1940	.....	+2.87
8-21-12aa	10	4.99	June 4, 1942	9.11	July 27, 1940	.....	+1.2
8-21-12bc	10	8.36	Mar. 6, 1942	12.30	Nov. 1, 1937	.....	+2.71
8-22- 8cd	7	146.93	Aug. 20, 1946	223.87	Jan. 3, 1941	.....	+72.55
<u>Grant County</u>							
24-37-25ac	13	3.59	June 8, 1935	6.62	July 22, 1940	.....	-1.19
24-40-36bb	13	12.32	June 8, 1935	14.99	Aug. 29, 1947	.....	-1.15
<u>Hall County</u>							
9-10- 4dc	2	4.70	Dec. 6, 1946	6.87	Sept. 7, 1946	-2.00	-1.26
9-11- 8bc	2	4.65	Dec. 2, 1946	7.82	Sept. 5, 1946	-2.74	-1.60
9-11-14cb	2	7.03	July 16, 1947	8.87	Aug. 9, 1946	-.79	-.80
9-11-21bb	2	7.44	Dec. 6, 1946	9.52	Sept. 7, 1946	-1.71	-.91
9-12- 1dc	17	2.47	May 6, 1931	7.78	Sept. 20, 1934	-4.30	-1.81
9-12- 9ba	17	18.83	June 27, 1932	23.35	Sept. 6-12, 1946	-1.24	-2.11
10- 9- 3cb	12	1.95	May 29, 1938	6.70	Dec. 24, 1940	-1.90	-.25
10- 9- 4cb	12	2.46	July 10, 1944	6.55	Dec. 24, 1940	-1.83	+1.0
10- 9- 8cc	12	1.90	May 29, 1938	6.35	Dec. 24, 1940		+2.07
10- 9-10bb	2	7.23	July 10, 1947	9.38	Sept. 11, 1947	-1.69	-1.10
10- 9-27bb	17	13.68	Feb. 29, 1932	17.11	Oct. 29, 1936	....	+6.1
					Oct. 15, 1941		
10- 9-28cc	2	13.77	July 16, 1947	15.32	Sept. 3, 1946	-.32	-.35
10-10- 8cc	17	19.52	June 20, 1932	24.08	Sept. 5, 1946	-.75	-.37
10-10-13dd	2	2.97	Jan. 10, 1947	4.27	Aug. 6, 1946	-.43	-.06
10-11-15dc	17	15.56	July 10, 1947	21.12	Sept. 5, 1946	+1.22	-.53
10-11-30bc	17	15.67	June 23, 1931	23.92	Aug. 18, 1944	+2.68	-3.04
			June 30, 1931				
10-12-21cc	1	28.40	July 10, 1947	29.30	May 8, 1947	.....	+6.8
11- 9- 3bc	12	11.83	May 6, 1946	17.63	Nov. 2, 1940	.....	+9.5
11- 9- 4cc	12	10.08	Oct. 1, 1945	16.70	July 27, 1940	.....	+1.28
11- 9- 4cd	12	11.42	July 12, 1947	19.05	Feb. 5, 1941	.....	-.12
11- 9- 8da	12	13.58	Oct. 1, 1945	23.25	Aug. 28, 1941	.....	+1.58
11- 9- 9aa	12	17.25	Oct. 1, 1945	25.50	July 27, 1940	.....	+2.8
11- 9- 9bd	12	15.08	Oct. 1, 1945	24.25	July 27, 1940	.....	-.40
					Apr. 18, 1941		
11- 9- 9cc	12	17.66	Oct. 1, 1945	26.15	Feb. 5, 1941	.....	+1.92
					Aug. 28, 1941		
11- 9- 9da	12	25.16	Oct. 1, 1945	33.65	Nov. 2, 1940	.....	+1.78
11- 9- 9dd	12	25.42	July 21, 1947	33.70	Dec. 24, 1940	.....	+2.84
11- 9-12dc	12	4.60	July 10, 1944	8.40	Feb. 13, 1937	-2.25	-.20
11- 9-15bb	12	23.75	Oct. 1, 1945	31.40	July 19, 1941	.....	+1.95
11- 9-15bb	12	26.50	Oct. 1, 1945	35.40	July 19, 1940	.....	+3.45
11- 9-15cc	12	3.66	June 10, 1946	17.45	Nov. 2, 1940	.....	+9.29
11- 9-15db	12	5.92	Oct. 1, 1945	18.66	May 21, 1943	.....	+5.5

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) for period of record
Hall County--Continued							
11- 9-15dd 12	5.83	July 14, 1947	11.00	Dec. 24, 1940	.....		-0.21
11- 9-16ad 12	30.06	Jan. 21, 1946	41.95	Aug. 28, 1941	.....		+3.74
11- 9-16bc 12	23.75	June 10, 1946	36.62	Nov. 2, 1940	.....		+1.34
11- 9-16bd 12	31.66	Dec. 18, 1944	45.30	July 27, 1940	.....		+2.90
11- 9-16ca 12	31.25	Dec. 9, 1946	42.45	Nov. 2, 1940	.....		+3.58
11- 9-16cb 12	16.83	Oct. 1, 1945	35.65	Feb. 5, 1941	.....		+3.62
11- 9-16db 12	29.25	Oct. 1, 1945	37.34	Nov. 2, 1940	.....		+2.56
11- 9-17ba 12	11.83	Oct. 1, 1945	21.25	Feb. 5, 1941	.....		+2.13
11- 9-17bd 12	15.25	Oct. 1, 1945	26.35	Feb. 5, 1941	.....		+2.62
11- 9-17cd 12	17.42	Oct. 1, 1945	33.75	Nov. 2, 1940	.....		+1.84
11- 9-21bb 12	24.25	Aug. 5, 1946	33.15	Feb. 5, 1941	.....		-.45
11- 9-21bd 12	27.25	Oct. 1, 1945	36.27	May 29, 1944	.....		-3.72
11- 9-22cb 12	6.95	May 12, 1936	10.42	July 17, 1942	+1.17		-1.20
11- 9-26aa 12	2.56	July 10, 1944	8.75	Dec. 6, 1942	-1.51		+1.11
11- 9-27bc 6	6.00	July 10, 1947	10.70	Feb. 26, 1944	-.68		+8.2
11- 9-27cb 16	1.40	June 6, 1931	9.06	June 26, 1940	.....		-1.94
11- 9-28ba 12	6.15	Mar. 31, 1936	15.60	Feb. 26, 1944	-1.91		-6.86
		May 2, 1936					
11- 9-29bb 12	19.16	July 14, 1947	26.00	Dec. 24, 1940	+1.68		-.06
11- 9-32cc 12	1.90	May 29, 1938	6.05	Oct. 17, 1936	-2.00		-.30
11- 9-34aa 12	2.54	July 10, 1944	7.30	Dec. 24, 1940	-1.25		-.15
11- 9-34cb 12	2.50	July 10, 1944	7.15	Dec. 24, 1940	+1.50		-.38
11- 9-35dc 12	2.08	July 14, 1947	6.10	Dec. 24, 1940	-1.74		-.26
11-10- 1cc 12	5.08	July 14, 1947	12.00	Dec. 24, 1940	+1.25		+2.75
11-10-11dc 12	5.00	July 14, 1947	12.40	Dec. 24, 1940	....		+2.27
				Mar. 26, 1941			
11-10-13ab 12	8.00	July 14, 1947	15.75	Mar. 26, 1941	.00		+2.23
11-10-14dd 2	9.15	July 10, 1947	11.68	Aug. 6, 1946	+7.70		+3.35
11-10-16bb 2	9.79	July 10, 1947	11.07	Mar. 8, 1946	+7.76		+1.27
		Sept 5, 1947					
11-10-24cb 12	12.66	July 14, 1947	19.95	Dec. 24, 1940	+7.76		+1.64
11-10-26dd 12	5.64	July 7, 1944	17.70	Dec. 28, 1935	-.91		+1.04
11-10-27dc 2	15.43	Sept. 5, 1947	17.72	June 7, 1946	+1.15		+1.13
11-11-25cc 1	13.11	June 28, 1947	17.10	Oct. 4, 1946	+5.54		+4.42
11-11-32cb 17	29.04	May 20, 1931	36.75	Sept. 4, 1946	-.40		-7.02
11-11-36cb 17	19.92	Oct. 19, 1930	26.07	Sept. 4, 1946	+5.59		-3.24
		Oct. 21, 1930					
11-12-34dc 2	25.68	July 10, 1946	26.82	Sept. 5, 1946	-.36		-.90
12- 9-27cb 12	5.08	Mar. 11, 1946	9.05	Dec. 24, 1940	+1.42		+9.92
12- 9-32aa1 12	7.58	July 14, 1947	12.80	Dec. 24, 1940	-.33		+1.05
12- 9-32aa2 2	10.67	July 10, 1947	13.35	Sept. 4, 1946	-.14		-.23
12- 9-32cc 12	7.08	July 14, 1947	12.80	Dec. 24, 1940	+4.14		+1.50
12-11-24cd 2	6.42	July 10, 1947	12.26	Oct. 4, 1946	+2.03		+1.88
Hamilton County							
9- 6-34bb 13	38.65	July 7, 1947	44.29	Nov. 14, 1940	.....		+2.77
11- 6-13cb 13	89.06	Jan. 24, 1935	93.99	Jan. 21, 1941	.....		-2.67
11- 8-28bc 2	29.80	July 10, 1947	32.23	Sept. 3, 1946	-.45		-.96
13- 5-19aa 2	24.60	July 7, 1947	27.28	Aug. 5, 1946	-1.75		-1.33
13- 6-27cc 13	6.85	June 30, 1935	11.41	Nov. 14, 1940	-.97		-.04

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) for period of record
<u>Harlan County</u>							
1-17-1da	2	1.95	Oct. 25, 1946	7.79	Oct. 9, 1947	-2.51	-0.53
1-17-12da	2	12.71	Oct. 26, 1946	17.35	Feb. 14, 1946	-3.49	+3.33
1-19-35bc	2	29.52	Dec. 5, 1947	30.05	Oct. 16, 1947	.....	+5.53
2-18-33cd	13	5.68	Aug. 1, 1947	14.52	Sept. 27, 1934	.....	+4.30
2-19-5cb	2	20.32	Dec. 17, 1946	24.19	Apr. 13, 1946	-.98	-.10
2-19-17da	2	18.60	Aug. 1, 1947	22.20	Aug. 13, 1946	-.69	+1.09
2-19-28dd	7	6.82	Dec. 17, 1946	10.74	Nov. 17, 1946	-2.61	+7.77
2-19-34bc	2	20.15	June 9, 1947	23.70	Aug. 13, 1946	-.68	-.51
3-20-7ab	2	29.56	Aug. 1, 1947	32.00	Aug. 13, 1946	+0.06	+5.53
3-20-16bb	2	3.95	Oct. 25, 1946	9.44	Aug. 13, 1946	-2.15	-.66
3-20-18ca	2	13.40	June 9, 1947	16.56	Aug. 13, 1946	-1.05	+1.21
3-20-22dd	2	24.20	Aug. 1, 1947	26.29	Aug. 13, 1946	-.63	+5.53
3-20-25cc	2	10.22	Aug. 1, 1947	16.16	Aug. 13, 1946	+2.40	+1.29
<u>Hayes County</u>							
5-33-30cb	2	18.71	Dec. 16, 1946	20.00	Aug. 15, 1946	-1.50	-.04
5-33-31dc	11	6.64	Apr. 9, 1937	14.82	Oct. 8, 1947	+0.02	-6.75
5-34-28bc	2	57.67	Mar. 19, 1946	58.48	Aug. 15, 1946	.....	-.18
5-34-30ba	2	10.55	Oct. 24, 1946	11.47	Aug. 15, 1946	-.38	-.19
5-35-17da	1	8.22	Oct. 24, 1946	9.18	Aug. 15, 1946	-.40	+4.43
<u>Hitchcock County</u>							
2-33-2aa	2	9.96	Mar. 19, 1946	11.00	Dec. 5, 1947	-.76	-1.24
2-33-6cb	11	9.80	June 7, 1947	11.19	Oct. 8, 1947	-.30	-.07
2-33-10ab	1	7.10	Feb. 24, 1947	8.60	Oct. 6, 1947	-.42	+1.14
			June 5, 1947				
2-34-8da	2	18.47	July 30, 1947	20.22	Oct. 8, 1947	-.40	-.83
2-34-11dc	2	10.10	July 30, 1947	11.35	Dec. 4, 1947	-.60	-.53
2-35-13bb	2	13.55	Aug. 16, 1946	15.74	June 6, 1947	-.18	-1.93
2-35-21bc	13	19.97	June 16, 1935	21.73	Sept. 24, 1946	-.03	+1.20
2-35-24aa	1	4.50	June 6, 1947	8.77	Oct. 8, 1947	-1.11	+2.24
3-31-14bc	2	11.82	Oct. 8, 1947	15.88	Aug. 15, 1946	-.22	+1.14
3-31-15cb	2	7.09	Oct. 21, 1946	8.26	Aug. 14, 1946	.....	+7.79
			Feb. 24, 1947				
3-31-17cd	2	7.42	Feb. 24, 1947	8.78	Aug. 15, 1946	-.31	+9.99
3-31-20da	2	6.58	July 28, 1947	8.40	Aug. 15, 1946	-.35	-.01
3-31-29bb	1	13.32	July 28, 1947	13.50	Dec. 3, 1947	.....	-.18
3-32-11bb	2	13.20	May 29, 1946	14.00	Aug. 15, 1946	+0.03	-.10
3-32-12cc	2	21.20	Oct. 24, 1946	21.97	Mar. 19, 1946	-.07	+5.53
3-32-26dd	2	27.40	July 28, 1947	29.30	Aug. 14, 1946	-.53	-.04
3-32-31aa	1	5.78	Feb. 27, 1947	7.31	Oct. 8, 1947	-1.06	-.24
3-33-35dc	12	9.59	Mar. 4, 1943	11.60	Oct. 8, 1947	-.82	-1.20
4-33-8bb	2	54.85	Feb. 27, 1947	55.74	Aug. 15, 1946	-.14	-.28
					Oct. 8, 1947		
4-33-23ad	1	12.55	Dec. 16, 1946	13.82	Aug. 15, 1946	-.29	+9.98
			Feb. 27, 1947				
<u>Holt County</u>							
27-9-27dd	11	2.62	July 18, 1947	8.96	Oct. 30, 1940	.....	+1.52
27-9-34da	13	4.00	June 4, 1935	9.87	Oct. 8, 1947	-1.09	-.97

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for period of 1947	Net rise (+) or net decline (-) for period of record
<u>Hooker County</u>							
24-35-23dd 13		0.19	June 8, 1935	20.51	Oct. 28, 1947	.....	-8.81
<u>Howard County</u>							
13- 9-26dd 2		5.54	July 10, 1947	9.68	Sept. 4, 1946	-.40	+5.50
<u>Kearney County</u>							
5-15- 3ba	105.29		Dec. 29, 1947	108.15	Aug. 8, 1947	.....	+2.48
8-13-12cb 2	4.84		Dec. 6, 1946	7.12	Aug. 9, 1946	-2.08	-.04
8-13-16bc 1	3.98		July 15, 1947	6.77	Sept. 7, 1946	-1.69	+.31
8-14-13db 17	6.59		Nov. 15, 1946	10.98	Oct. 27, 1940	-1.87	+.06
8-14-19cc 2	2.38		Nov. 15, 1946	6.18	Sept. 7, 1946	-2.23	-.93
8-14-23ba 2	2.63		Nov. 15, 1946	5.75	Sept. 11, 1947	-1.92	-.32
8-15-21dc 2	3.20		Nov. 15, 1946	7.25	Sept. 11, 1947	-2.58	-.39
8-16-23dd 2	2.20		Oct. 10, 1946	5.65	Aug. 9, 1946	-1.98	-.14
8-16-28aa 1	4.36		Oct. 10, 1946	7.60	Sept. 7, 1947	-1.92	+.78
<u>Keith County</u>							
13-35- 5cc 13	6.90		May 8, 1942	15.29	Sept. 17, 1936	.....	+7.03
13-36- 3ca 9	4.61		May 8, 1942	10.25	Sept. 27, 1940	.....	-1.08
13-36- 6bc 11	2.03		May 8, 1942	6.32	Aug. 2, 1943	.....	+1.08
13-36- 8cc 2	2.44		July 1, 1947	5.79	Aug. 17, 1946	+.84	+.45
13-36- 9ad 2	.02		Mar. 16, 1946	3.74	Apr. 17-22, 1946	+.57	+.86
13-37- 3ab 12	10.55		May 8, 1942	15.55	Aug. 6, 1946	.....	-.20
13-37- 5aa 11	8.04		May 8, 1942	13.85	Aug. 2, 1943	.....	+1.06
13-38- 3ba 11	9.27		May 8, 1942	15.79	Aug. 2, 1943	.....	+.63
13-38- 6dc 11	9.94		May 8, 1942	14.75	Aug. 6, 1946	.....	-.41
13-39-10cc 11	1.48		Aug. 12, 1942	7.41	Oct. 31, 1941	.....	+2.23
14-35-13bb 9	2.78		Mar. 2, 1942	6.43	Aug. 30, 1940	.....	+.13
14-35-16db 9	5.20		Apr. 5, 1939	9.24	Aug. 30, 1940	.....	+.60
14-35-24da 9	2.83		Sept. 2, 1942	6.34	Aug. 30, 1940	.....	-.36
14-35-27aa 9	3.94		Sept. 10, 1938	6.42	Aug. 30, 1940	.....	-1.36
14-35-28bb 9	2.80		June 25, 1947	4.94	May 1, 1940	.....	+1.19
14-36- 8cb 9	3.52		May 3, 1946	8.96	Aug. 28, 1940	.....	+1.45
14-36-15bb 9	1.55		Apr. 5, 1939	7.40	Aug. 13, 1944	.....	+2.83
14-37- 4ad 9	3.08		June 2, 1939	6.09	Sept. 30, 1940	.....	-1.15
14-37- 5ab 9	2.60		June 6, 1941	6.79	Aug. 28, 1940	.....	-1.31
14-37- 5bb 9	2.07		Apr. 10, 1946	5.24	Aug. 28, 1940	.....	+.69
14-37-11bb 9	2.80		June 24, 1947	6.73	Aug. 28, 1940	.....	-1.48
14-37-12bb 9	2.52		Apr. 5, 1939	6.59	Aug. 3, 1943	.....	+.65
14-38- 3da 9	2.47		Feb. 27, 1939	5.79	Nov. 5, 1941	.....	-.02
14-38- 7db 11	111.30		Dec. 31, 1947	166.90	Oct. 6, 1940	.....	+54.74
14-38-17ba 11	144.50		Dec. 4, 1947	163.38	Oct. 3, 1941	.....	+14.70
14-39- 2cc 11	157.40		Dec. 2, 1947	182.62	Apr. 2, 1937	.....	+23.45
14-39- 4cc 11	101.59		Mar. 17, 1943	106.42	Aug. 3, 1946	.....	+1.13
15-37-29cc 9	1.33		May 3, 1946	7.56	Sept. 30, 1940	.....	-.89
15-38- 4da 12	.88		June 30, 1938	5.30	Jan. 23, 1946	.....	-1.95
15-38-20aa 12	15.90		Dec. 30, 1947	19.26	Dec. 2, 1941	.....	+1.00
15-38-21dd 11	1.30		Dec. 30, 1947	34.29	Sept. 4, 1941	.....	+30.25
15-38-23cc 11	8.00		June 24, 1947	11.85	Dec. 1, 1937	.....	+2.50

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) for period of record
<u>Keith County--Continued</u>							
15-38-28aa	11	24.70	Dec. 30, 1947	95.17	Nov. 28, 1940	.....	+69.22
15-38-34ac	9	4.40	Apr. 3, 1939	10.08	July 24, 1940	.....	-2.83
15-38-34ad	9	4.47	Apr. 3, 1939	9.30	Dec. 2, 1941	.....	-1.21
15-38-34ca	9	6.17	Apr. 3, 1939	10.31	July 24, 1940	.....	-2.29
15-38-36bb	11	7.68	May 4, 1938	10.60	July 15, 1946	.....	-.30
15-38-36dc	9	4.30	Mar. 2, 1942	8.35	Aug. 28, 1940	.....	-1.50
15-39-17aa	11	5.60	Dec. 30, 1947	8.95	Sept. 2, 1941	.....	+1.60
15-39-24da	11	32.70	Dec. 30, 1947	85.36	Mar. 3, 1942	.....	+41.04
15-39-31bc	11	67.20	Dec. 31, 1947	108.45	Mar. 3, 1941	.....	+40.31
15-40-17cc	11	57.40	Dec. 31, 1947	73.96	Dec. 1, 1941	.....	+14.17
15-40-26aa	11	7.50	Dec. 31, 1947	60.07	Oct. 31, 1940	.....	+52.10
15-40-27dd	11	91.90	Dec. 31, 1947	109.49	Mar. 3, 1941	.....	+16.68
16-38-7aa	12	7.63	May 4, 1942	10.24	Nov. 5, 1943	-.30	-2.20
16-38-7cc	12	5.11	May 4, 1942	8.77	June 3, 1946	.....	-1.90
16-38-28ad	12	10.25	May 4, 1942	13.90	Aug. 2, 1946	.....	-1.30
16-38-30aa	12	8.58	Sept. 29, 1938	11.48	Aug. 28, 1940	.....	-1.10
16-38-33ad	12	.26	May 31, 1938	2.50	July 16, 1936	.....	+.55
16-38-34bc	12	4.94	May 31, 1938	10.32	Oct. 3, 1941	.....	-1.40
16-39-7aa	11	5.87	Aug. 7, 1942	9.80	Feb. 4, 1941	.....	-.70
16-39-20aa	11	8.44	Feb. 2, 1937	10.52	Apr. 30, 1942	.....	-1.00
16-39-32bc	11	7.90	July 30, 1936	11.80	Nov. 21, 1946	.....	-3.30
16-40-2da	11	10.96	July 8, 1937	13.50	June 23, 1947	.....	-2.06
16-41-34dc	11	10.44	May 2, 1941	20.36	Sept. 30, 1936	.....	+7.86

Lincoln County

11-26-15bb	9	6.60	Aug. 3, 1942	16.19	July 29, 1940	.....	+4.58
11-26-15cc	9	8.58	Oct. 10, 1947	21.38	Oct. 2, 1939	.....	+9.01
11-26-16bb	9	8.48	July 24, 1947	21.62	Apr. 6, 1939	+14	+11.77
12-26-31ca	9	1.90	June 14, 1943	5.47	Sept. 5, 1939	.....	+.94
12-26-35db	2	7.32	July 13, 1947	10.38	Nov. 5, 1947	-.64	-.01
12-27-11bd	9	2.53	Feb. 2, 1943	7.87	Aug. 28, 1940	.....	-1.09
12-27-14aa	13	2.98	July 2, 1935	7.07	Aug. 30, 1941	.00	-.38
12-27-16aa	9	2.18	July 2, 1947	5.07	Sept. 6, 1939	-.25	-.97
12-27-20dd	9	13.17	July 13, 1947	18.68	Oct. 1, 1940	+15	+3.27
12-27-26dc	9	5.64	June 17, 1947	14.07	Oct. 2, 1939	.....	+4.93
12-27-27ad	9	1.74	Sept. 11, 1942	7.36	Nov. 1, 1939	-.31	+.17
12-27-34da	7	22.05	June 17, 1947	31.65	Nov. 4, 1940	.....	+8.57
12-27-35aa	9	14.42	June 14, 1934	23.40	Oct. 2, 1939	.....	+6.79
12-27-35ad	7	16.62	June 14, 1947	25.02	Oct. 1, 1940	.....	+7.55
12-27-35bb	9	16.95	May 18, 1944	26.96	Nov. 1, 1939	.....	+4.39
12-27-35bc	7	19.73	Sept. 20, 1944	27.86	Nov. 4, 1940	.....	+6.53
12-27-35cb	9	25.64	Sept. 20, 1944	38.90	Nov. 1, 1939	.....	+7.65
12-27-35da1	9	21.91	Sept. 20, 1944	33.66	Oct. 2, 1939	.....	+9.75
12-27-35da2	7	24.05	Nov. 14, 1947	31.05	Oct. 1, 1940	.....	+6.96
12-27-36ad	9	3.02	July 1, 1941	9.02	Oct. 2, 1939	+07	+2.33
12-28-4ad	9	2.78	May 1, 1942	6.62	Sept. 6, 1939	.....	-.01
12-28-9bc	9	4.35	June 13, 1947	10.65	Nov. 1, 1939	-.64	+3.58
12-28-11aa	9	.75	May 1, 1942	4.33	Aug. 29, 1940	.....	+.75
12-28-14dd	9	27.43	Nov. 14, 1947	37.43	Oct. 1, 1940	-.14	+9.09
12-28-15ba	9	11.05	June 13, 1947	16.85	Oct. 1, 1940	-.27	+3.27
13-27-32bd	9	1.40	May 1, 1942	5.13	Aug. 4, 1939	.....	-.67
13-28-21da	9	.62	June 12, 1947	6.48	Aug. 29, 1940	-2.94	-.05
13-28-25bc	1	3.50	Mar. 14, 1947	6.21	Sept. 9, 1947	.....	-1.49

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) period of record
<u>Lincoln County--Continued</u>							
13-28-29cc	9	3.28	Apr. 7, 1939	6.39	Sept. 9, 1947	-0.79	-1.44
13-28-31cc	9	3.39	Oct. 30, 1946	10.84	Aug. 3, 1939	-1.39	+4.95
13-29-4cc	11	1.56	May 8, 1942	6.24	Sept. 14, 1944	-.06	-.18
13-29-5bc	11	1.42	Feb. 2, 1937	5.04	July 7, 1943	.....	+1.11
13-29-5cb	11	1.03	May 5, 1937	4.72	July 26, 1940	.....	+1.52
13-29-6ba	9	2.14	May 8, 1942	5.13	July 26, 1940	+18	+8.4
13-29-6bb	11	.79	June 17, 1947	5.67	July 26, 1940	.....	+1.90
13-29-6bd	9	2.57	Apr. 18, 1947	6.45	Oct. 2, 1939	.....	+1.30
13-29-6ca	9	2.28	Apr. 18, 1947	7.08	Oct. 2, 1939	.....	+1.60
13-29-6dd	11	2.41	Dec. 3, 1937	6.92	Sept. 1, 1939	.....	+1.11
13-29-9bc	11	2.40	May 8, 1942	5.70	Sept. 4, 1944	.....	-1.24
13-29-16ad	9	3.85	Mar. 3, 1939	6.46	Sept. 30, 1940	.....	-1.37
13-29-17bc	11	1.86	Apr. 30, 1941	8.74	Aug. 3, 1939	-.55	+2.75
13-29-18bb	11	1.37	Apr. 6, 1939	6.35	Nov. 1, 1939	-1.10	+1.00
					Dec. 4, 1942		
13-29-20aa	11	1.57	May 11, 1942	5.45	Aug. 15, 1936	-.42	+1.48
13-29-20bb	11	5.15	Sept. 11, 1942	12.19	Oct. 2, 1936	-.68	+5.07
13-29-21dd	9	.85	Apr. 30, 1941	4.60	Sept. 5, 1939	-.13	+1.89
13-29-25bb	9	3.05	Apr. 7, 1939	6.86	Nov. 22, 1944	-.69	-.83
13-29-35bb	1	15.03	Sept. 10, 1947	17.85	May 14, 1947	+84	+1.10
13-30-1ba	11	4.60	Feb. 2, 1938	7.68	Apr. 4, 1945	.....	-.61
13-30-3ad	9	2.10	May 8, 1942	6.57	Sept. 9, 1947	-.82	-.50
13-30-4cd	2	4.97	Oct. 2, 1946	7.54	Sept. 9, 1947	-.90	-.80
13-30-9cb	2	.90	June 13, 1947	3.24	Aug. 2, 1946	-.80	+1.15
13-30-13bc	11	.65	May 1, 1942	7.28	Sept. 15, 1936	-.66	+3.59
13-30-13dd	11	9.09	Sept. 11, 1942	15.89	Aug. 2, 1937	-.63	+4.69
13-30-14dc	11	2.42	May 11, 1942	10.57	Aug. 28, 1936	-.44	+5.76
13-30-21bb	13	11.19	Dec. 11, 1947	19.92	Sept. 17, 1936	+41	+5.95
13-30-21cd	1	40.10	Nov. 25, 1947	41.20	Jan. 20, 1947	.....	+1.10
13-30-25bb	12	33.70	Dec. 24, 1947	47.51	Nov. 28, 1936	.....	+13.34
13-34-32da	9	9.57	May 8, 1942	13.37	Sept. 27, 1940	.....	-.90
14-30-8cb	9	2.02	May 8, 1942	4.27	Aug. 6, 1939	.....	+5.52
14-30-9ca	2	2.55	June 13, 1947	6.05	Sept. 12, 1946	-1.00	-.50
14-30-16db	2	.10	Feb. 25, 1947	2.69	Sept. 9, 1947	-.05	+6.60
14-30-19bc	9	1.57	May 8, 1942	4.66	Dec. 3, 1945	.....	+5.58
14-30-21cd	2	2.89	Oct. 9, 1946	3.91	Nov. 5, 1947	-.41	-.11
14-30-26bb	9	.28	May 8, 1942	3.34	Aug. 30, 1940	.....	+3.30
14-30-28dc	2	5.30	May 24, 1946	6.10	Sept. 12, 1946	-.25	-.60
14-30-32cd	9	1.94	May 8, 1942	6.11	July 26, 1940	.....	-1.44
14-30-33cd	2	5.90	June 23, 1947	7.86	Sept. 9, 1947	-.89	-.90
14-30-34cc	9	3.49	May 8, 1942	7.96	Oct. 9, 1947	.....	-2.06
14-31-5ba	9	2.52	Apr. 15, 1946	5.69	Aug. 2, 1939	.....	+4.45
14-32-5aa	9	2.62	May 8, 1942	6.00	Aug. 2, 1939	.....	-.25
14-32-18ad	9	1.55	Aug. 6, 1946	6.84	May 7, 1941	.....	-.19
14-32-20dd	9	1.94	Aug. 8, 1942	7.18	Apr. 12, 1945	.....	-1.50
14-33-8bb	9	1.04	Feb. 3, 1941	3.82	July 26, 1940	.....	-.41
14-33-16da	9	.37	Sept. 7, 1942	4.70	Aug. 30, 1940	.....	-.32
14-33-17bc	9	2.15	Sept. 7, 1942	5.48	Aug. 30, 1940	.....	-.50
14-33-27aa	9	8.16	Sept. 10, 1942	10.90	May 8, 1947	-70	-1.32
					May 14, 1947		
14-33-27da	5	2.07	July 2, 1947	5.58	May 15-20, 1947	-.35	-1.88
14-33-29ca	9	6.87	Sept. 10, 1942	11.01	Aug. 30, 1940	.....	+6.66
14-34-21bc	9	2.57	Oct. 6, 1941	5.74	Sept. 3, 1941	.....	+1.09

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for period of 1947	Net rise (+) or net decline (-) for period of record
<u>Madison County</u>							
22- 1-33cb 13		0.04	Aug. 1, 1945	4.25	Aug. 18, 1936	.....	+0.65
23- 2- 5aa 13		2.93	June 4, 1935	4.86	July 16, 1936	.....	+ .68
24- 2-32dc 13		2.89	June 4, 1935	6.55	Aug. 10, 1935	.....	+ .79
<u>Merrick County</u>							
11- 8- 3dd 2		1.04	Nov. 5, 1946	3.32	Sept. 5, 1947	- .39	+ .04
11- 8-18ab 12		3.00	July 11, 1947	7.10	Feb. 26, 1944	-3.16	-1.21
12- 7- 7aa 2		4.34	July 10, 1947	7.32	Sept. 4, 1946	-1.12	- .77
12- 8- 7dc 2		9.44	July 10, 1947	13.79	Sept. 4, 1946	+ .46	+ .21
12- 8-28dc 2		.59	July 10, 1947	3.40	Sept. 4, 1946	-2.06	-1.35
13- 6- 2bc 2		4.41	July 8, 1947	6.91	Nov. 11, 1947	-2.29	-1.46
13- 6- 7bb 2		4.09	July 10, 1947	6.54	Nov. 3, 1947	-1.54	-1.06
13- 6-19cb 2		3.10	July 10, 1947	5.74	Nov. 3, 1947	-1.43	-1.39
13- 6-28bb 2		5.12	Jan. 6, 1947	7.49	Sept. 4, 1946	-1.30	-1.16
13- 7- 4bc 2		5.23	July 10, 1947	7.46	May 7, 1946	+ .42	+1.12
13- 7-29cb 2		1.00	June 4, 1946	4.07	Aug. 6, 1946	-1.14	- .54
14- 4-18bb 2		3.46	July 7, 1947	5.72	Sept. 3, 1946	-1.40	- .94
14- 5- 9cc2 1		4.56	July 8, 1947	7.14	Nov. 11, 1947	.....	-1.64
14- 6-15bb 2		2.60	Dec. 10, 1946	5.64	Sept. 4, 1946	-2.25	- .75
14- 7-21cb 13		5.39	July 10, 1947	9.74	Dec. 20, 1934	-1.92	+1.78
14- 7-26cc 2		11.07	July 10, 1947	13.00	May 7, 1946	+1.42	+1.68
15- 4-15dd 2		5.05	July 8, 1947	8.90	Nov. 11, 1947	-2.62	- .99
15- 4-31cc 2		2.97	May 7, 1947	5.22	Nov. 11, 1947	-2.11	-1.16
15- 5- 8dd 2		11.15	July 8, 1947	14.15	June 4, 1946	+1.26	+2.09
15- 5-27dd 2		1.92	July 8, 1947	4.62	Nov. 11, 1947	-1.59	- .27
16- 3-27cc 13		4.39	July 8, 1947	9.84	Nov. 1, 1934	-1.11	+2.34
<u>Morrill County</u>							
20-49-30ac 2		17.07	Nov. 7, 1946	21.22	June 11, 1946	.....	+2.23
20-50-17bb 2		10.90	Oct. 27, 1947	15.93	May 9, 1946	.....	+5.03
20-50-28bb 13		11.99	Jan. 18, 1947	14.49	July 26, 1940	.....	+ .28
20-50-32aa 18		2.00	May 14, 1942	5.42	Aug. 16-21, 1940	.....	- .56
21-50-33bc 2		29.85	Oct. 27, 1947	47.85	June 11, 1946	.....	+17.33
22-50-14bc 2		.55	May 9, 1946	2.33	Aug. 13, 1946	.....	- .06
22-50-28bc 13		81.42	Apr. 5, 1940	82.46	Aug. 29, 1934	.....	+ .88
			Apr. 16, 1946				
23-51-32bb 2		101.02	June 4, 1947	101.33	June 12, 1946	.....	+ .22
<u>Nance County</u>							
16- 6-14ac 12		26.77	Mar. 21, 1936	30.84	Oct. 26, 1940	.....	- .58
<u>Nuckolls County</u>							
1- 5-31cc 2		.66	June 10, 1947	6.07	Oct. 2, 1947	-4.24	-1.43
1- 6-30dd 2		33.12	Dec. 29, 1947	33.52	Oct. 27, 1946	+ .27	+ .35
1- 6-31cc ..		9.69	Oct. 13, 1947	10.47	Dec. 16, 1947	.....	- .78
1- 6-33cb ..		4.91	Nov. 14, 1947	5.02	Oct. 13, 1947	.....	.00
					Dec. 16, 1947		
1- 6-33cc ..		11.90	Oct. 13, 1947	12.64	Dec. 16, 1947	.....	- .74
1- 6-35cb ..		13.17	Oct. 13, 1947	14.03	Dec. 16, 1947	.....	- .86
1- 6-35cc 2		9.38	Dec. 18, 1946	13.39	Dec. 16, 1947	-3.56	-1.83

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) 1947	Net rise (+) or net decline (-) for period of record
<u>Nuckolls County--Continued</u>							
1- 7-19cb 2	7.30	Aug. 2, 1947	10.92	Dec. 15, 1947	-2.67	-2.26	
1- 7-19dd ..	6.82	Dec. 15, 1947	7.77	Oct. 13, 1947	.....	+.95
1- 7-27cb ..	20.56	Dec. 15, 1947	20.59	Oct. 13, 1947	.....	+.03
1- 7-31da ..	10.64	Oct. 13, 1947	10.97	Dec. 15, 1947	.....	-.33
1- 7-32bb ..	3.66	Dec. 16, 1947	4.59	Oct. 13, 1947	.....	+.93
1- 7-33ad ..	6.10	Dec. 15, 1947	6.22	Oct. 13, 1947	.....	+.12
1- 7-33dd ..	9.08	Dec. 16, 1947	9.39	Oct. 13, 1947	.....	+.31
1- 7-34bb 2	3.61	Dec. 18, 1946	7.40	Oct. 13, 1947	-2.77	-.99	
1- 7-35da 2	5.55	Aug. 2, 1947	8.99	June 10, 1946	-.21	+.52	
1- 7-36da ..	10.00	Oct. 13, 1947	11.20	Dec. 16, 1947	.....	-1.20
1- 8- 7bb ..	5.57	Dec. 15, 1947	6.96	Oct. 13, 1947	.....	+1.39
1- 8- 7dd 2	1.36	June 10, 1947	6.17	Oct. 13, 1947	-3.14	-1.80	
1- 8-14cb ..	15.57	Dec. 15, 1947	15.98	Nov. 13, 1947	.....	+.25
1- 8-17aa ..	6.53	Dec. 15, 1947	6.53	Oct. 13, 1947	.....	+1.00
1- 8-17da ..	7.21	Dec. 15, 1947	7.56	Nov. 13, 1947	.....	+.30
1- 8-18cc ..	12.87	Oct. 13, 1947	13.20	Dec. 15, 1947	.....	-.33
1- 8-21cb ..	12.22	Dec. 13, 1947	12.41	Oct. 13, 1947	.....	+.19
				Nov. 13, 1947			
1- 8-21dc 2	24.52	Aug. 2, 1947	28.19	Dec. 15, 1947	-2.28	-.95	
1- 8-22ab 2	2.39	Oct. 27, 1946	5.56	Oct. 13, 1947	-1.46	-2.39	
1- 8-22ad ..	9.37	Dec. 15, 1947	10.05	Oct. 13, 1947	.....	+.68
1- 8-22dd ..	8.41	Oct. 13, 1947	8.54	Nov. 13, 1947	.....	-.09
1- 8-23aa ..	6.64	Oct. 13, 1947	6.75	Nov. 13, 1947	.....	.00
		Dec. 15, 1947					
1- 8-25ad ..	9.88	Dec. 15, 1947	10.50	Oct. 13, 1947	.....	+.62
1- 8-36aa ..	11.42	Dec. 16, 1947	12.17	Oct. 13, 1947	.....	+.75
<u>Otoe County</u>							
A8-10- 3bb 3	1.20	June 25, 1947	9.73	July 6, 1940	.....	+8.53
A8-11- 7cc 13	1.30	June 25, 1947	14.12	Nov. 17, 1939	.....	+12.43
<u>Phelps County</u>							
7-20-31ed ..	222.76	Dec. 29, 1947	227.40	Aug. 20, 1947	.....	+4.24
8-17-19db 17	10.00	July 15, 1947	15.91	Oct. 27, 1940	-.46	+1.76	
8-17-24bc 17	7.75	May 9, 1933	12.23	Oct. 27, 1940	-1.65	+.06	
		Dec. 6, 1946					
8-18- 9db 16	.94	Feb. 23, 1932	6.05	Nov. 3, 1934	.....	+.35
8-18-16cc 2	6.02	July 15, 1947	9.26	Aug. 9, 1946	-.86	+.54	
8-18-24bb 2	6.85	July 15, 1947	10.05	Sept. 7, 1946	+.08	+1.37	
8-19- 7dc 2	4.24	July 15, 1947	6.48	Aug. 9, 1946	-.97	-.37	
8-19-14dc 2	10.19	July 15, 1947	13.22	Sept. 6, 1946	-.75	+1.07	
8-20- 8cb 10	6.90	May 12, 1944	12.22	Nov. 1, 1937	.....	+3.93
8-20- 8cd 2	5.38	July 15, 1947	8.90	Aug. 9, 1946	+1.35	+.99	
8-20- 9cd 10	2.10	June 4, 1942	7.42	Sept. 30, 1940	-.99	+1.88	
8-20-14bc 9	12.55	July 31, 1947	19.22	Sept. 30, 1940	.....	+3.41
8-20-14db 10	3.48	July 31, 1947	9.19	Nov. 2, 1940	.....	+4.23
8-20-15bb 10	4.39	Nov. 17, 1944	11.01	Sept. 30, 1940	.....	+2.04
8-20-15db 10	6.96	July 31, 1947	13.90	Sept. 30, 1940	.....	+4.93
8-20-17aa 10	7.14	May 15, 1947	16.25	Nov. 1, 1937	.....	+5.20
8-20-17ba 10	6.53	June 15, 1938	12.67	July 2, 1940	.....	+4.55

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline (-) for 1947	Net rise (+) or net decline (-) for period of record
<u>Platte County</u>							
A17- 1-14cc	12	7.44	July 8, 1947	14.10	Aug. 25, 1936	+0.17	+2.26
A17- 1-14dd	12	2.90	July 30, 1945	8.68	Aug. 26, 1936	-.46	+1.14
A17- 1-17dd	12	5.20	July 30, 1945	10.58	Aug. 3, 1937	-.85	-.56
A17- 1-25aa	12	4.00	July 30, 1946	11.00	Apr. 30, 1940	-.25	+.05
A17- 1-29da	12	7.82	July 8, 1947	12.00	Oct. 16, 1943	-.78	-.48
A17- 1-36bc	1	3.93	July 8, 1947	6.77	Nov. 11, 1947	-1.17	-.05
A18- 1-28cd	12	60.80	Mar. 27, 1940 Apr. 24, 1940	71.23	July 30, 1937	-.50	+1.00
16- 2- 2da	1	3.16	July 8, 1947	6.19	Nov. 11, 1947	....	-1.00
16- 2- 9cc	2	1.55	Dec. 10, 1946	4.80	Sept. 4, 1946	-2.36	-.01
16- 2-12ab	13	6.75	July 8, 1947	11.79	Nov. 21, 1939	-1.87	+.96
17- 1- 2cc	12	6.80	Apr. 13, 1942	13.29	Oct. 18, 1936	-.85	+1.96
17- 1- 5ad	12	1.23	July 7, 1947	7.40	Dec. 3, 1935	-1.24	+3.86
17- 1- 7ac	12	4.50	July 23, 1945	9.34	Dec. 21, 1936	-1.52	+1.88
17- 1-14cc	12	9.06	July 7, 1947	11.50	Sept. 10, 1940	-1.58	+.40
17- 1-34dc	2	6.29	July 7, 1947	9.40	Sept. 4, 1946	-1.11	-1.72
17- 2- 2od	13	4.58	July 8, 1947	8.80	Oct. 23, 1936	-1.20	+1.26
17- 2- 4bc	12	7.24	June 11, 1945	12.30	Aug. 31, 1942	-1.77	+.22
<u>Polk County</u>							
14- 4-19ab	2	2.54	Oct. 10, 1946	6.02	Sept. 3, 1947	-1.48	-1.37
15- 2- 4dc	2	4.50	July 7, 1947	7.80	Nov. 10, 1947	-1.31	-1.55
15- 2- 7bb	2	5.98	July 7, 1947	8.43	Nov. 10, 1947	-2.03	-1.59
15- 3-20cc	2	4.20	Dec. 9, 1946	7.63	Nov. 10, 1947	-3.43	-1.94
15- 4-35dc	2	18.45	July 7, 1947	21.00	Sept. 3, 1946	-.51	-.50
16- 1-14bb	2	3.72	July 7, 1947	6.38	Sept. 3, 1946	-1.72	-.32
16- 1-36cd	2	19.32	July 7, 1947	21.71	June 3, 1946	+.15	-.63
16- 2-23dc	2	5.92	July 7, 1947	8.24	Nov. 10, 1947	-1.04	-.37
<u>Red Willow County</u>							
2-29- 4aa	2	8.90	Oct. 25, 1946	11.46	Oct. 9, 1947	-1.91	-0.36
2-29- 5ab	2	16.35	Dec. 7, 1946	19.80	Aug. 14, 1946	-2.22	-.45
2-30- 1aa	2	8.17	Oct. 24, 1946	11.31	Oct. 9, 1947	-1.87	-.35
2-30-12ad	2	27.91	Oct. 9, 1947	30.81	June 12, 1946	+1.01	+2.29
3-26- 5bb	2	43.32	June 9, 1947	47.77	July 31, 1947	-.59	-.96
3-26- 9cb	2	15.35	Dec. 3, 1947	17.02	Aug. 14, 1946	-.44	+.04
3-26-11bb	2	7.92	July 28, 1947	9.42	Oct. 6, 1947	-.75	-.68
3-27- 7dc	2	7.18	Dec. 11, 1946	10.15	Dec. 6, 1947	-2.97	-.95
3-27- 8ac	13	9.21	Oct. 21, 1946	13.49	Oct. 21, 1937	-.69	+2.13
3-27-11aa	2	3.73	Oct. 21, 1946	8.06	Oct. 9, 1947	-3.64	-.75
3-27-11cd	2	16.39	Jan. 30, 1946	17.62	Aug. 14, 1946	-.42	-.60
3-27-17eb	2	8.31	Oct. 25, 1946	10.85	Oct. 6, 1947	-1.08	-1.25
3-28-17da	2	9.83	Oct. 21, 1946	12.28	Oct. 6, 1947	-1.80	-.86
3-28-20bb	2	9.27	Dec. 17, 1946	11.62	Oct. 6, 1947	-2.09	-.94
3-28-21cd	2	8.48	Oct. 21, 1946	9.73	Oct. 6, 1947	-.38	-.76
3-29-32db	8	4.72	Oct. 25, 1946	7.45	Oct. 9, 1947	-1.73	-.12
3-29-35da	2	17.92	July 31, 1947	20.39	June 9, 1947	-.41	+1.00
3-30-19bb	2	6.88	Mar. 6, 1946 June 9, 1947	8.49	Aug. 15, 1946	-.46	-.51
3-30-26cb	2	8.05	Feb. 4, 1946	10.14	Oct. 6, 1947	-.51	-.74
3-30-29aa	2	3.08	Oct. 24, 1946	5.06	Oct. 9, 1947	-1.18	-.35
3-30-34bb	2	12.34	Oct. 24, 1946	14.48	Aug. 14, 1946	-1.26	-.45
4-26-34db	2	19.65	July 31, 1947	20.88	Feb. 1, 1946	-1.09	-.17

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise (+) or net decline or net (-) for decline period of 1947 record	Net rise (+) or net decline or net (-) for decline period of 1947 record
<u>Rock County</u>							
30-17- 8db 13	1.73	June 5, 1935	5.12	Nov. 22, 1935	.....	+2.67	
30-19-10aa 7	.80	May 16, 1945	4.23	July 19, 1940	.....	+2.52	
<u>Saunders County</u>							
A13- 9-24cc 14	.81	June 1, 1947	7.92	Aug. 30, 1934	-2.93	+1.41	
A17- 5-23bb 1	1.09	Dec. 10, 1946	3.35	Sept. 3, 1947	-1.64	-1.60	
<u>Sheridan County</u>							
24-41-34da 13	5.52	June 8, 1935	9.37	Oct. 21, 1941	.....	-1.96	
24-42-27ba 2	12.19	Apr. 4, 1946	13.27	Jan. 21, 1947	.....	-.80	
24-43-15da 2	5.97	Apr. 4, 1946	8.08	Nov. 4, 1940	.....	+1.08	
24-44-14da 7	4.05	Apr. 4, 1946	6.18	Apr. 15, 1946	.....	-1.46	
24-44-18bb 2	4.25	May 14, 1946	5.50	Aug. 15, 1946	.....	-.42	
24-45- 8dd 12	.96	May 14, 1946	3.29	Aug. 15, 1946	.....	+7.72	
24-46-10cb 2	2.26	Apr. 4, 1946	7.35	Aug. 15, 1946	.....	-4.71	
25-41-28ad 1	8.97	June 6, 1947	9.28	Feb. 20, 1947	.....	+0.05	
25-45-32ad 1	32.06	June 23, 24, 1947	33.84	Sept. 16, 1946	.....	-.22	
		June 25, 1947					
26-41-24cd 1	16.70	June 6, 1947	16.85	Sept. 17, 1946	.....	-.15	
				Nov. 15, 1946			
27-41-29ba 1	35.93	Apr. 29, 1947	36.33	Sept. 19, 1946	.....	+1.17	
27-46-34bb 2	21.33	May 17, 1946	21.76	Apr. 30, 1947	.....	-.27	
28-42-15bc 1	4.86	Jan. 21, 1947	5.95	June 6, 1947	.....	-.82	
28-46- 4ac 1	22.93	Dec. 19, 1946	23.10	Apr. 30, 1947	.....	-.07	
28-46-32ad 2	24.60	June 9, 1947	25.33	Aug. 16, 1946	.....	+1.23	
31-44-10dd 12	1.48	Feb. 21, 1947	5.24	Sept. 12, 1936	.....	+1.70	
31-46- 5dd 13	49.08	Oct. 7, 1947	51.38	Oct. 22, 1938	.....	+1.10	
31-46- 8ad 11	2.79	Feb. 21, 1947	6.20	Nov. 1, 1940	.....	+1.13	
33-42-36da 8	34.59	Oct. 7, 1947	36.51	Oct. 19, 1941	.....	+1.39	
<u>Sioux County</u>							
29-55-33cc 13	174.41	Aug. 28, 1934	175.80	May 7, 1947	.....	-1.39	
<u>Stanton County</u>							
A23- 3-11bb 11	3.68	Dec. 26, 1946	6.51	Oct. 27, 1936	.....	-.61	
<u>Thomas County</u>							
23-28- 9da 13	9.79	June 8, 1935	10.98	July 23, 1940	.....	-.15	
24-30-20ab 13	2.33	Mar. 27, 1936	3.12	Apr. 26, 1946	.....	-.13	
<u>Thurston County</u>							
A25- 6-26dc 13	10.55	July 12, 1940	13.12	Oct. 28, 1942	.....	-.05	
A26- 8-13bc 13	8.77	June 23, 1947	13.37	Aug. 1, 1936	.....	+3.32	

Length of record, in years, highest and lowest recorded water levels, in feet below land-surface datum, net change in water level in 1947, and net change in water level during the entire period of record in 741 wells in Nebraska--Continued

Wells	Length of record	Highest level	Date	Lowest level	Date	Net rise(+) or net decline (-) 1947	Net rise(+) or net decline (-) period of record
<u>Valley County</u>							
17-16-26dc	4	2.91	June 12, 1947	6.83	Dec. 26, 1946	+0.31	+0.71
<u>Washington County</u>							
A18-11-3aa	13	19.10	June 24, 1947	30.91	Oct. 18, 1940	.....	+9.19
<u>Wayne County</u>							
A26-3-13cb	13	26.74	July 10, 1938	31.31	Oct. 11, 1941	.....	+2.71
<u>Webster County</u>							
1-9-9cb	..	6.34	Dec. 15, 1947	6.47	Nov. 13, 1947	.....	+0.03
1-9-9cc	..	7.56	Oct. 13, 1947	7.68	Dec. 15, 1947	.....	-.12
1-9-11cb	2	2.05	June 10, 1947	5.47	Nov. 13, 1947	-2.34	-.95
1-9-13ad	2	5.50	Oct. 27, 1946	9.38	Oct. 13, 1947	-2.13	-.77
1-9-14bb	..	7.97	Dec. 15, 1947	8.47	Oct. 13, 1947	.....	+0.50
1-9-14bc	..	11.71	Dec. 15, 1947	12.55	Oct. 13, 1947	.....	+0.84
1-9-16bc	2	8.30	June 10, 1947	12.23	Dec. 15, 1947	-2.09	-1.37
1-10-1dc1	8	9.51	Oct. 29, 1941	10.92	Sept. 25, 1939	-.20	+0.09
1-10-1dc2	8	16.30	June 10, 1947	17.95	Mar. 1, 1947	.....	+0.92
1-10-3ad	2	8.22	Aug. 2, 1947	9.97	Aug. 12, 1946	-.83	-.08
1-10-9ad	2	15.60	Aug. 2, 1947	17.74	Dec. 1, 1947	-1.80	-1.40
1-11-1da	2	5.30	June 10, 1947	9.50	Dec. 1, 1947	-3.78	-.45
1-11-5bc	2	2.64	Dec. 18, 1946	6.92	Dec. 1, 1947	-1.28	-.37
1-11-11ab	2	3.82	Nov. 14, 1946	9.10	June 17, 1946	-1.98	+0.88
1-11-16aa	2	18.95	Aug. 2, 1947	21.25	Aug. 12, 1946	+0.27	+0.69
1-12-2bb	2	2.77	Oct. 26, 1946	6.52	Aug. 12, 1946	-2.90	-.59
1-12-4bb	2	3.10	Oct. 27, 1946	9.22	Oct. 11, 1947	-5.68	-2.54
					Dec. 1, 1947		
1-12-8aa	2	1.95	Oct. 26, 1946	5.91	Oct. 11, 1947	-1.92	-1.14
2-10-36db	8	26.67	Dec. 18, 1946	28.07	Feb. 12, 1946	-.37	-1.06
2-12-34cd	8	17.30	Oct. 26, 1946	19.62	Oct. 2, 1936	+0.44	+2.20

PUMPAGE

The following tables give the total pumpage for the public supplies of Lincoln and Grand Island. The public supply for the city of Lincoln is pumped from nine wells on the flood plain of the Platte River about 3 miles north of Ashland. The first pumping from the Lincoln well field near Ashland began in August 1932 and by the end of 1947 approximately 46,986.8 million gallons of water had been withdrawn from the ground-water reservoir. The public supply at Grand Island is obtained by pumping from a group of wells drilled into the Pleistocene sands and gravels of the Platte Valley and situated for the most part within the city.

Monthly pumpage, in millions of gallons, for public supply of Lincoln, Nebr., from well field north of Ashland, 1932-47

	1932	1933	1934	1935	1936	1937	1938	1939
Jan.	.....	204.2	136.6	181.1	186.2	203.8	208.7	196.1
Feb.	.....	187.0	164.2	167.2	193.0	190.7	192.2	185.6
Mar.	.....	205.0	188.5	199.2	204.4	200.6	211.1	212.9
Apr.	.....	210.0	194.8	193.6	188.8	158.5	189.5	223.7
May	.....	213.8	236.0	188.7	234.8	262.9	216.4	284.6
June	.....	263.6	249.9	192.0	296.4	254.5	245.8	267.4
July	.....	212.6	308.9	236.9	334.5	322.5	304.9	325.0
Aug.	98.5	197.2	278.1	255.8	319.8	317.7	298.9	300.6
Sept.	186.1	169.4	206.5	181.3	228.2	297.6	201.6	324.3
Oct.	204.9	132.6	176.9	154.0	236.4	204.8	207.2	232.7
Nov.	201.8	106.4	196.6	90.1	209.2	217.1	116.3	222.8
Dec.	203.2	133.9	171.7	182.9	201.2	188.8	141.1	203.4
	894.5	2,235.7	2,508.7	2,228.8	2,832.9	2,819.5	2,533.7	2,979.1

	1940	1941	1942	1943	1944	1945	1946	1947
Jan.	195.8	193.4	198.5	248.2	281.4	310.1	286.9	329.1
Feb.	182.8	181.2	178.4	227.6	246.1	283.9	259.6	299.0
Mar.	193.9	195.1	199.3	253.5	274.0	317.7	288.3	333.8
Apr.	177.1	173.8	213.8	246.9	274.3	313.3	330.7	325.5
May	246.5	289.2	243.4	290.0	297.2	319.6	327.2	335.0
June	290.7	286.3	292.4	324.6	353.1	312.1	353.0	326.7
July	374.3	387.4	372.5	379.8	381.0	365.6	374.2	375.4
Aug.	290.7	377.8	399.8	377.1	361.0	361.0	340.0	399.5
Sept.	314.1	277.0	269.3	334.0	343.3	334.7	341.8	380.2
Oct.	264.4	201.2	234.1	304.8	327.1	324.0	341.3	364.7
Nov.	170.8	197.7	200.5	237.4	291.4	311.5	312.8	313.8
Dec.	201.5	205.3	241.8	263.9	307.5	291.9	312.5	325.8
	2,902.3	2,960.4	3,043.8	3,487.8	3,737.4	3,845.4	3,868.3	4,108.5

Average daily pumpage, in millions of gallons, for public supply of Lincoln, Nebr., from Ashland well field, 1932-47

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
1932	a5.84	1936	7.76	1940	7.95	1944	10.20									
1933	6.12	1937	7.72	1941	8.11	1945	10.54									
1934	6.87	1938	6.94	1942	8.34	1946	10.60									
1935	6.10	1939	8.16	1943	9.53	1947	11.25									

a Pumping from the Ashland well field began in August 1932.

Monthly pumpage, in millions of gallons, for the public supply at Grand Island, Nebr., 1936-47

	1936	1937	1938	1939	1940	1941
Jan.	133.8	93.0	98.9	107.4	125.7	100.6
Feb.	95.6	83.3	88.2	89.7	99.8	82.5
Mar.	111.8	96.7	112.5	108.5	100.9	108.1
Apr.	154.3	131.3	140.7	154.8	144.8	111.1
May	172.8	165.1	162.2	195.6	190.6	159.7
June	215.1	173.6	181.9	209.8	229.2	134.9
July	291.2	236.3	242.4	248.2	245.6	254.5
Aug.	241.0	239.3	189.8	251.1	240.6	251.3
Sept.	194.6	194.7	199.0	241.5	198.8	174.3
Oct.	153.6	163.0	191.4	192.2	172.8	148.4
Nov.	104.2	139.3	135.7	144.1	132.6	134.7
Dec.	104.4	101.6	112.2	131.6	118.4	131.1
	1,972.4	1,817.2	1,854.9	2,074.5	1,999.8	1,791.4

Monthly pumpage, in millions of gallons, for the public supply at Grand Island, Nebr., 1936-47--Continued

	1942	1943	1944	1945	1946	1947
Jan.	126.0	156.6	189.7	228.1	210.3	218.3
Feb.	88.4	151.6	178.3	209.3	196.5	195.5
Mar.	132.5	177.0	209.6	269.3	218.7	230.6
Apr.	128.9	212.3	196.1	205.9	258.0	251.9
May	137.2	223.6	224.9	213.4	247.7	298.2
June	251.9	244.3	228.7	225.0	304.4	238.5
July	225.1	301.3	275.2	289.5	342.4	322.5
Aug.	250.4	299.6	320.6	286.3	354.8	399.6
Sept.	202.3	250.1	234.8	271.8	250.6	314.2
Oct.	198.4	235.2	228.8	231.7	245.7	244.8
Nov.	168.9	188.9	227.0	215.6	211.5	206.5
Dec.	161.3	189.4	223.6	214.2	217.6	213.0
	2,071.3	2,629.9	2,737.3	2,860.1	3,058.2	3,133.6

Average daily pumpage, in millions of gallons, for public supply of Grand Island, Nebr., 1918-47

1918	a1.64	1928	a2.51	1938	5.08
1919	a1.53	1929	3.65	1939	5.68
1920	a1.44	1930	3.52	1940	5.47
1921	a1.59	1931	4.16	1941	4.90
1922	a1.76	1932	4.11	1942	5.67
1923	a1.83	1933	4.90	1943	7.20
1924	a2.04	1934	5.72	1944	7.50
1925	a2.15	1935	5.34	1945	7.84
1926	a2.29	1936	5.41	1946	8.38
1927	a2.12	1937	5.00	1947	8.58

a Does not include water pumped for condenser use at municipal electric plant.

WELL-NUMBERING SYSTEM

The following well-numbering system has been adopted in the Missouri Basin and is now being used in Nebraska. The State has been divided into two principal divisions. The numbers of those wells situated east of the sixth principal meridian, which passes through Columbus, are preceded by the capital letter A. Those west of Columbus have no preceding letter. The first number indicates the township, the second the range, and the third the section. The lower-case letters which follow the section number indicate the position of the well within the section, the first letter indicating the quarter section and the second letter the quarter-quarter section. The letters a, b, c, and d are applied counter-clockwise beginning with a in the northeast quadrant. The last numeral indicates the number of the well within the tract of land indicated by the last letter. No number is shown unless more than one well is situated within the given tract of land.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

5-9-9dc. D. McClarry. Drilled irrigation well, diameter 18 inches, reported depth 142 feet. Measuring point, side of turbine, 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 20, 37.70; Nov. 17, 37.52.

5-11-2bb. Dr. Neilson. Drilled irrigation well, diameter 18 inches, depth 170 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 24, 86.22.

5-11-10bc (*1073, p. 182). University of Nebraska. Highest observed stage in period of record, 9.49 on Nov. 24, 1947. Water level, in feet below land-surface datum, 1947: Nov. 24, 9.49.

6-9-4cb. J. Larson. Drilled irrigation well, diameter 18 inches, reported depth 145 feet. Measuring point, turbine base, at land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 103.40.

6-10-8ac. F. Hageman. Drilled irrigation well, diameter 18 inches, reported depth 193 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 24, 90.55.

6-10-23bb (*886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189; 988, p. 187; 1018, p. 163; 1025, p. 158; *1073, p. 183). University of Nebraska. Water level, in feet below land-surface datum, 1947: Nov. 24, 9.08.

7-10-26da. R. Dougherty. Drilled irrigation well, diameter 18 inches, reported depth 186 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 24, 114.05.

7-11-3cb. V. Katzberg. Drilled irrigation well, diameter 18 inches, reported depth 182 feet. Measuring point, turbine base, at land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 112.19.

7-11-22ad. V. Anderson. Drilled irrigation well, diameter 18 inches, reported depth 182 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Aug. 15, 120.60.

7-12-15ca. R. Karr. Drilled irrigation well, diameter 18 inches, reported depth 180 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 98.05.

7-12-24cc. Groff. Drilled irrigation well. Measuring point, side of turbine, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 99.02.

8-9-5cc. C. Hagerroad. Drilled irrigation well, diameter 18 inches, reported depth 185 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 13, 92.12.

8-9-14aa. C. Anderson. Drilled irrigation well, diameter 18 inches, reported depth 152 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 13, 109.60.

8-10-25bb. H. Barchers. Drilled irrigation well, diameter 18 inches, reported depth 158 feet. Measuring point, hole in side of turbine, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 13, 110.88.

8-10-29ab. J. Junkers. Drilled irrigation well, diameter 18 inches, reported depth 190 feet. Measuring point, turbine base, 1.5 feet above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 13, 120.00.

8-11-13aa. E. Kent. Drilled irrigation well, diameter 14 inches, reported depth 152 feet. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 14, 92.68; Nov. 13, 92.06.

8-12-8ab (*1073, p. 183). E. Woodman. Altitude 2,010.14 feet above sea level. Lowest observed stage in period of record, 7.68 on July 16, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	8.23	May 14	8.05	Sept. 11	8.70
Mar. 19	8.33	July 16	7.68	Nov. 7	8.85

8-12-22db. N. Long. Drilled irrigation well, diameter 24 inches, reported depth 130 feet. Measuring point, lower edge of discharge pipe, 3.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 13, 84.10; Nov. 17, 83.75.

Antelope County

24-6-1bb (*817, p. 92; 840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189; *1018, p. 164; 1025, p. 158; *1073, p. 183). University of Nebraska. Water level, in feet below land-surface datum, 1947: Oct. 6, 4.09.

27-7-10bb (*1073, p. 183). Beberniss. Highest observed stage in period of record, 64.34 on Oct. 6, 1947. Water level, in feet below land-surface datum, 1947: Oct. 6, 64.34.

Arthur County

17-38-21bd (*840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189; 988, p. 188; *1018, p. 164; 1025, p. 158; *1073, p. 183). University of Nebraska. No measurements made in 1947.

17-39-31dc (*988, p. 187; 1018, p. 164; 1025, p. 158; *1073, p. 183). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 5.50; Dec. 2, 5.90; Dec. 31, 5.90.

Banner County

No measurements made in 1947.

Blaine County

22-24-33ca (*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189; *988, p. 188; 1018, p. 164; 1025, p. 159; 1073, p. 184). U. S. 57. University of Nebraska.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	3.22	Sept. 3	4.76	Oct. 7	4.58	Nov. 13	3.01
Apr. 24	3.03	9	4.80	14	4.58	Dec. 3	3.64
Aug. 26	4.68	15	4.39	28	4.39	23	3.55
29	4.82	29	4.54				

Boone County

No measurements made in 1947.

Boyd County

No measurements made in 1947.

Box Butte County

24-47-1db (*1073, p. 184). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 16	11.91	Apr. 18	11.76	Aug. 27	11.81
Feb. 17	11.79	June 6	11.79	Oct. 27	11.75

24-48-4bb (*1073, p. 184). Geological Survey, U. S. Dept. of Interior.
Lowest observed stage in period of record, 13.93 on Oct. 28, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	13.78	Mar. 14	13.84	May 27	13.91	Oct. 28	13.93
Feb. 17	13.81	May 1	13.87	Aug. 28	13.85		

24-48-10bb (*1073, p. 185). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period or record, 10.16 on July 12 and 13, 1947.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.	Nov.
1	11.24	11.25	11.30	.....	11.23	11.19	10.42	10.47	.....	10.64
2	11.24	11.25	11.30	.....	11.23	11.19	10.39	10.48	.....	.....
3	11.24	11.25	11.31	.....	11.22	11.19	10.36	10.49	.....	.....
4	11.23	11.26	11.31	.....	11.22	11.18	10.34	10.50	.....	.....
5	11.23	11.26	11.31	.....	.....	11.18	10.32	.....	.....	.....
6	11.22	11.26	11.31	.....	.....	11.17	10.29	.....	.....	.....
7	11.22	11.26	11.31	.....	.....	11.17	10.25	.....	.....	.....
8	11.22	11.27	11.31	.....	.....	11.16	10.23	.....	.....	.....
9	11.22	11.27	11.31	.....	.....	11.16	10.21	.....	.....	.....
10	11.22	11.28	11.31	.....	.....	11.15	10.20	.....	.....	.....
11	11.22	11.28	11.31	.....	.....	11.14	10.18	.....	.....	.....
12	11.22	11.28	11.31	.....	11.22	11.14	10.16	.....	.....	.....
13	11.23	11.28	11.31	11.30	11.22	11.14	10.16	.....	.....	.....
14	11.23	11.28	11.31	11.30	11.22	11.13	.....	.....	.....	.....
15	11.23	11.28	11.31	11.30	11.22	11.13	.....	.....	.....	.....
16	11.23	11.28	11.32	11.30	11.22	11.13	.....	.....	.....	.....
17	11.23	11.29	11.32	11.30	11.21	11.12	.....	.....	.....	.....
18	11.24	11.29	.....	11.29	11.21	11.11	.....	.....	.....	.....
19	11.24	11.29	.....	11.29	11.21	11.10	.....	.....	.....	.....
20	11.25	11.29	.....	11.28	11.21	11.09	.....	.....	.....	.....
21	11.25	11.29	.....	11.28	11.21	11.07	.....	.....	.....	.....
22	11.25	11.29	.....	11.28	11.20	11.06	.....	.....	.....	.....
23	11.25	11.29	.....	11.27	11.20	10.97	.....	.....	.....	.....
24	11.25	11.30	.....	11.27	11.20	10.81	.....	.....	.....	.....
25	11.25	11.30	.....	11.27	11.20	10.71	.....	.....	10.62	.....
26	11.25	11.30	.....	11.27	11.20	10.64	.....	.....	10.62	.....
27	11.25	11.30	.....	11.27	11.20	10.58	.....	.....	10.63	.....
28	11.25	11.30	.....	11.28	11.20	10.53	.....	10.43	10.63	.....
29	11.25	.....	.....	11.23	11.20	10.49	.....	10.44	10.63	.....
30	11.25	.....	.....	11.23	11.20	10.45	.....	10.45	10.63	.....
31	11.25	.....	.....	.....	11.20	.....	.....	10.46	10.63	.....

24-48-11dd (*1073, p. 185). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.81 on Aug. 28, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	6.77	Mar. 14	6.59	June 6	5.95	Oct. 27	5.57
Feb. 17	6.64	May 1	6.18	Aug. 28	4.81		

24-48-31ba (*1073, p. 186). O. A. Odell.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	38.97	39.01	38.93	.....	39.08	39.02	39.05	.....	38.70	.....	38.51
2	38.96	38.89	38.88	.....	39.03	39.02	38.99	.....	38.67	.....	.....
3	38.95	39.02	38.91	.....	38.99	38.96	38.97	.....	38.73	.....	.....
4	38.87	38.98	38.96	.....	39.00	39.01	39.03	.....	.....	.....	.....
5	38.87	38.88	39.00	.....	39.01	39.01	39.05	.....	.....	.....	.....
6	38.88	38.90	38.96	.....	.....	39.02	39.01	.....	.....	.....	.....
7	38.92	38.95	38.88	.....	.....	39.04	38.99	.....	.....	.....	.....
8	38.95	38.94	38.89	.....	.....	38.96	38.99	.....	.....	.....	.....
9	38.91	38.94	38.92	.....	.....	38.95	38.97	.....	.....	.....	.....
10	38.85	38.87	38.88	.....	.....	39.06	38.95	.....	.....	.....	.....
11	38.85	38.94	38.98	.....	.....	39.06	38.92	.....	.....	.....	.....
12	38.81	38.93	39.00	.....	38.98	39.03	38.98	.....	.....	.....	.....
13	38.90	38.94	38.94	38.98	38.97	39.01	38.96	.....	.....	.....	.....
14	38.96	38.94	38.96	38.99	38.99	39.04	.....	.....	.....	.....	.....
15	38.97	38.91	38.96	39.02	39.02	38.99	.....	.....	.....	.....	.....
16	38.97	38.90	38.97	38.97	39.01	39.00	.....	.....	.....	.....	.....
17	38.94	38.92	.....	38.90	39.00	39.03	.....	.....	.....	.....	.....
18	38.92	38.94	.....	39.01	39.01	39.05	.....	.....	.....	.....	.....
19	38.91	38.93	.....	38.99	38.99	39.01	.....	.....	.....	.....	.....
20	38.96	38.91	.....	38.97	39.04	38.96	.....	.....	.....	.....	.....
21	38.96	38.90	.....	.....	39.01	39.04	.....	.....	.....	.....	.....
22	38.89	38.93	.....	.....	39.02	39.05	.....	.....	.....	.....	.....
23	38.87	38.94	.....	.....	39.01	39.05	.....	.....	.....	.....	.....
24	38.88	38.93	.....	.....	38.98	39.02	.....	.....	.....	.....	.....
25	38.93	38.94	.....	.....	39.03	38.99	.....	.....	.....	38.46	.....
26	38.91	38.93	.....	.....	39.02	38.97	.....	.....	.....	38.46	.....
27	38.92	38.86	.....	.....	39.00	38.98	.....	38.75	.....	38.48	.....
28	38.89	38.95	.....	38.89	39.01	39.07	.....	38.70	.....	38.44	.....
29	38.91	.....	.....	38.94	39.01	39.09	.....	38.70	.....	38.43	.....
30	38.91	.....	.....	39.04	39.00	39.08	.....	38.72	.....	38.52	.....
31	39.02	.....	.....	.....	38.97	.....	.....	38.72	.....	38.55	.....

24-50-10aa (*845, p. 170; 886, p. 290; 946, p. 190; 988, p. 189; 1018, p. 165; 1025, p. 159; *1073, p. 186). John Nolan.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	49.94	Mar. 14	49.98	May 29	49.97	Oct. 27	49.47
Feb. 17	49.97	May 1	50.02	Aug. 27	49.50		

24-52-13cb (*845, p. 170; 886, p. 290; 946, p. 190; 988, p. 189; *1018, p. 166; 1025, p. 159; *1073, p. 186). G. D. Shepard.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	77.65	Mar. 13	77.60	June 4	77.81	Oct. 27	77.80
Feb. 19	77.71	May 2	77.62	Aug. 27	77.93		

24-52-35aa (*845, p. 170; 886, p. 291; 946, p. 190; 1018, p. 166; *1073, p. 187). Mr. Bailey.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	98.13	Mar. 13	98.09	June 4	98.13	Oct. 27	97.70
Feb. 19	98.09	May 2	98.07	Aug. 27	98.17		

25-47-19aa (*845, p. 171; *1073, p. 187). John Lawlor. Lowest observed stage in period of record, 23.32 on Oct. 26, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	22.47	Mar. 14	22.42	May 27	22.38
Feb. 18	22.45	May 1	22.42	Oct. 26	23.32

25-47-31cc (*1073, p. 187). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 14.29 on Aug. 28, 1947; lowest, 16.38 on Mar. 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	15.96	Mar. 14	16.38	May 27	15.57	Oct. 28	16.11
Feb. 17	16.25	May 1	15.99	Aug. 28	14.29		

25-48-4dd (*1073, p. 187). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Jan. 16	63.72	Mar. 13	63.40	May 27	63.40	Oct. 26	63.51
Feb. 17	63.46	May 2	63.63	Aug. 27	63.45		

25-48-14aa (*1073, p. 187). L. F. Powell.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.
1	.....	49.04	49.00	.....	49.21	.....	49.19	49.03	.....	49.28
2	48.87	48.86	48.92	.....	49.15	49.15	49.12	48.99	.....	.....
3	48.87	49.06	48.97	.....	49.12	49.12	49.08	49.05	.....	.....
4	48.76	49.00	49.03	.....	49.12	49.21	49.15	.....	.....	.....
5	48.77	48.85	49.07	.....	49.12	49.21	49.17	.....	.....	.....
6	48.82	48.91	49.01	.....	.....	49.21	49.12	.....	.....	.....
7	48.86	48.97	48.91	.....	.....	49.24	49.09	.....	.....	.....
8	48.89	48.94	48.94	.....	.....	49.15	49.08	.....	.....	.....
9	48.83	48.94	48.98	.....	.....	49.12	49.06	.....	.....	.....
10	48.73	48.86	48.96	.....	.....	49.26	.....	.....	.....	.....
11	48.76	48.98	49.06	.....	.....	49.26	.....	.....	.....	.....
12	48.70	48.96	49.08	.....	49.13	49.21	.....	.....	.....	.....
13	48.85	48.98	48.97	49.05	49.10	49.20	.....	.....	.....	.....
14	48.91	49.98	49.03	49.05	49.12	49.21	.....	.....	.....	.....
15	48.95	48.93	49.01	49.14	49.17	49.21	.....	.....	.....	.....
16	48.92	48.93	49.05	49.07	49.15	49.20	.....	.....	.....	.....
17	48.90	48.97	49.04	48.97	49.13	49.24	.....	.....	.....	.....
18	48.86	48.98	.....	49.14	49.16	49.27	.....	.....	.....	.....
19	48.88	48.99	.....	49.14	49.16	49.21	.....	.....	.....	.....
20	48.87	48.98	.....	49.07	49.18	49.16	.....	.....	.....	.....
21	48.87	48.95	.....	49.08	49.17	49.25	.....	.....	.....	.....
22	48.85	48.99	.....	49.09	49.17	49.26	.....	.....	.....	.....
23	48.85	49.00	.....	49.14	49.17	49.25	.....	.....	.....	.....
24	48.85	48.96	.....	49.14	49.13	49.21	.....	.....	.....	.....
25	48.95	48.97	.....	49.15	49.15	49.18	.....	.....	49.19	.....

25-48-14aa--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.
26	48.91	48.97	.....	49.09	49.15	49.14	.....	.....	49.20	.....
27	48.93	48.87	.....	49.09	49.16	49.14	49.00	.....	49.23	.....
28	48.84	49.01	.....	48.98	49.17	49.23	48.98	.....	49.19	.....
29	48.91	.....	.....	49.05	.....	49.25	49.00	.....	49.16	.....
30	48.91	.....	.....	49.16	.....	49.24	49.00	.....	49.31	.....
31	49.06	.....	.....	.....	.....	.....	49.05	.....	49.32	.....

25-48-25bb2 (*1073, p. 188). Dr. George Burnham.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	72.78	Mar. 13	72.55	May 27	72.89
Feb. 17	72.70	May 1	72.65	Oct. 26	74.26

25-48-27db2 (*1073, p. 188). Andrew Pepplar.

Water level, in feet below land-surface datum, 1947

Jan. 17	68.69	Mar. 13	68.62	May 27	68.71
Feb. 18	68.71	May 2	68.69	Oct. 26	68.55

25-48-30ad (*845, p. 169; 886, p. 290; 946, p. 190; 988, p. 189; *1018, p. 165; 1025, p. 159; *1073, p. 188). Mrs. E. A. Wells.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	13.05	Mar. 14	13.12	May 27	14.77	Oct. 26	13.10
Feb. 17	13.06	May 1	13.15	Aug. 27	13.06		

25-49-14da (*1073, p. 189). John Sass.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 16	31.83	Mar. 14	31.88	May 27	32.00
Feb. 17	31.84	May 1	31.94	Oct. 26	31.56

25-50-22aa (*1073, p. 189). Anna Hollister. Lowest observed stage in period of record, 132.54 on May 1, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	132.48	Mar. 13	132.48	June 4	132.17	Oct. 27	132.07
Feb. 19	132.38	May 1	132.54	Aug. 27	132.09		

25-50-31ab (*817, p. 94; 840, p. 191; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190; 988, p. 189; *1018, p. 165; 1025, p. 159; *1073, p. 189). M. Jacobson.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	102.93	Mar. 13	102.86	June 4	102.88	Oct. 27	102.90
Feb. 19	102.90	May 2	102.88	Aug. 27	102.83		

25-51-14aa (*845, p. 170; 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160; *1073, p. 189). C. A. Allen.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	88.50	Mar. 13	88.04	June 4	88.06	Oct. 27	88.02
Feb. 19	88.20	May 1	88.02	Aug. 27	88.10		

26-47-17dd (*1073, p. 189). D. R. Lawrence. Highest observed stage in period of record, 52.89 on Oct. 26, 1947; lowest, 53.46 on May 1.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	53.26	Mar. 14	53.37	May 27	53.42	Oct. 26	52.89
Feb. 17	53.26	May 1	53.46	Aug. 27	53.13		

26-47-35dd. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter $1\frac{1}{4}$ inches, depth 13.8 feet. Measuring point, top of pipe, 0.7 foot above land-surface datum, and 3,901.3 above sea level. Highest observed stage in period of record, 12.09 on May 24, 1946; lowest, 13.63 on Sept. 22, 1946.

Water level, in feet below land-surface datum, 1946-47

Date	Water level	Date	Water level	Date	Water level
May 17, 1946	12.10	July 22, 1946	12.80	Jan. 16, 1947	13.24
24	12.09	29	12.96	Feb. 17	13.18
June 3	12.10	Aug. 5	13.07	Mar. 14	13.29
10	12.13	Sept. 14	13.50	May 1	12.98
17	12.25	22	13.63	27	13.03
24	12.32	Oct. 11	13.57	Aug. 27	12.95
July 1	12.47	Nov. 7	13.43	Oct. 26	13.25
11	12.62	Dec. 17	13.30		

26-49-13dc (*1073, p. 189). A. C. Mabin.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	90.76	Mar. 13	90.55	May 27	90.49	Oct. 27	90.47
Feb. 18	90.65	May 1	90.67	Aug. 26	90.50		

26-50-12dc (*845, p. 171; 946, p. 191; 988, p. 189; 1018, p. 166; 1025, p. 160; *1073, p. 190). Mr. L. A. Rosenberg. Highest observed stage in period of record, 100.73 on Oct. 26, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	100.95	Mar. 13	100.80	May 27	101.05
Feb. 18	100.82	May 1	102.26	Oct. 26	100.73

26-51-25bc (*845, p. 170; 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160; *1073, p. 190). Lowest observed stage in period of record, 96.50 on Feb. 19, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	96.07	Mar. 13	96.04	June 4	96.15	Oct. 27	96.08
Feb. 19	96.50	May 2	96.06	Aug. 27	96.05		

26-52-10bc (*1073, p. 190). G. E. Dyer.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	95.66	Mar. 13	95.32	June 5	95.11
Feb. 18	95.43	May 2	95.20	Oct. 27	96.18

26-52-17ab (*845, p. 170; 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160; *1073, p. 190). Lew Bauer. Highest observed stage in period of record, 73.44 on Aug. 26, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	73.50	Mar. 13	73.47	June 5	73.48	Oct. 27	73.48
Feb. 18	75.46	May 2	73.45	Aug. 26	73.44		

27-47-12da (*817, p. 94; 840, p. 191; *1073, p. 190). F. Krejci. No measurements made in 1947.

27-47-23ba (*845, p. 171; 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 167; 1025, p. 160; *1073, p. 190). Mr. Shremik. Highest observed stage in period of record, 18.21 on Oct. 26, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	21.08	Mar. 14	21.45	May 27	21.72	Oct. 26	18.21
Feb. 17	21.12	May 1	21.84	Aug. 26	18.58		

27-49-21cb (*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190; 988, p. 189; *1018, p. 165; 1025, p. 159; *1073, p. 190). E. Wildy.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	118.45	Mar. 13	118.28	May 27	118.27	Oct. 26	118.20
Feb. 18	118.41	May 1	118.48	Aug. 26	118.34		

27-50-20aa (*845, p. 171; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160; *1073, p. 191).

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	174.35	Mar. 13	174.08	June 5	174.02	Oct. 26	174.08
Feb. 18	174.23	May 2	174.26	Aug. 26	174.22		

27-51-6bb (*1073, p. 191). L. Homrighausen. Highest observed stage in period of record, 220.11 on June 5, 1947. Water levels, in feet below land-surface datum, 1947: May 2, 220.52; June 5, 220.11; Aug., 220.25; Oct. 26, 220.17.

28-49-17cc (*1073, p. 191). Durland Trust Co. Lowest observed stage in period of record, 145.03 on May 1, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	144.98	Mar. 13	144.76	May 27	144.78
Feb. 18	144.90	May 1	145.03	Oct. 26	144.75

28-51-6dd (*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190; 988, p. 189; *1018, p. 165; 1025, p. 159; *1073, p. 191). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	2.42	Mar. 13	1.93	June 5	3.17	Oct. 26	2.32
Feb. 18	1.89	May 2	2.51	Aug. 26	2.99		

28-51-8bc (*845, p. 171; 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160; *1073, p. 191). W. J. Gregg. Highest observed stage in period of record, 85.00 on Mar. 13, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	85.11	Mar. 13	85.00	June 5	85.39	Oct. 26	85.20
Feb. 18	85.04	May 2	85.04	Aug. 26	85.18		

Brown County

29-21-6cd. Libby Deer. Drilled irrigation well, diameter 6 inches, depth 85 feet. Measuring point, top of concrete curb, at land-surface datum. Highest observed stage in period of record, 5.0 in November 1944; lowest, 9.0 on June 17, 1945. Measurement in November 1944 by O. J. Scherer, geologist, Soil Conservation Service, U. S. Dept. of Agriculture, Lincoln. Measurement on June 17, 1945, by M. F. Skinner, Ainsworth, and on Dec. 16, 1947, by personnel of the Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum: Nov. 1944, 5.0; June 17, 1945, 9.0; Nov. 14, 1947, 5.80; Dec. 16, 1947, 5.55.

29-21-7ab. Libby Deer. Drilled stock well, diameter 4 inches. Measuring point, hole in side of pump base, 1.8 feet above land-surface datum. Measurement of Dec. 16, 1947, by personnel of the Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 13, 4.62; Dec. 16, 3.92.

29-22-4ab. Abandoned domestic well, diameter $4\frac{1}{2}$ inches, depth 29 feet. Measuring point, top of casing, 1.1 feet above land-surface datum. Highest observed stage in period of record, 0.90 in Nov. 1944; lowest, 3.12 on Nov. 13, 1947. Measurement in Nov. 1944 by O. J. Scherer, geologist, Soil Conservation Service, U. S. Dept. of Agriculture, Lincoln. Measurement on Dec. 16, 1947, by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum: Nov. 1944, 0.90; Nov. 13, 1947, 3.12; Dec. 16, 1947, 2.48.

30-21-15cd. Abandoned drilled well, diameter 6 inches, depth 76.5 feet. Measuring point, on side of concrete curb, at land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 15, 75.25; Dec. 16, 75.02.

30-21-18bc. Drilled domestic well, diameter 6 inches, depth 61 feet. Measuring point, top of casing, 3 feet below land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 15, 56.08; Dec. 16, 56.04.

30-21-19cc. City of Ainsworth. Abandoned drilled domestic well. Measuring point, hole in side of pump, 1.6 feet above land-surface datum. Measurement on Dec. 15 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 14, 38.29; Dec. 15, 39.79.

30-21-26bb. Drilled stock well, diameter 5 inches, depth 65 feet. Measuring point, top of casing, 1.2 feet above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 16, 47.78; Dec. 16, 47.57.

30-21-30bc. Jay Fling. Drilled irrigation well, diameter 18 inches. Measuring point, hole in pump base, 0.2 foot below land-surface datum. Measurement on May 10 by M. F. Skinner, Ainsworth, and on Dec. 15 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Highest observed stage in period of record, 37.7 on May 10; lowest 37.09 on Dec. 15. Water levels, in feet below land-surface datum, 1947: May 10, 37.7; Nov. 14, 37.13; Dec. 15, 37.09.

30-22-15cc. Dean Clark. Drilled irrigation well, depth 70 feet. Measuring point, hole in pump base, 0.5 foot above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 14, 42.18; Dec. 16, 41.92.

30-22-17cb. Clausen. Drilled irrigation well, diameter 18 inches. Measuring point, hole in pump base, 0.3 foot above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 14, 45.12; Dec. 16, 46.05.

30-22-19aa. Drilled stock well, diameter 5 inches, depth 63 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 16, 38.20; Dec. 16, 38.11.

30-22-23dd. A. G. Rasek. Drilled irrigation well, diameter 24 inches, depth 68 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Stevens Type F, 8-day automatic water-stage recorder installed Dec. 10, 1947. Highest observed stage in period of record, 38.65 on Nov. 18, 1944; lowest 38.87 on Nov. 19, 1947.

Lowest daily water level, in feet below land-surface datum, 1944, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level
Nov. 18, 1944	38.65	Dec. 16, 1947	38.76	Dec. 24, 1947	38.75
19, 1947	38.87	17	38.75	26	38.72
Dec. 10	38.75	18	38.76	27	38.72
11	38.77	19	38.77	28	38.71
12	38.77	20	38.75	29	38.72
13	38.75	21	38.72	30	38.73
14	38.78	22	38.75	31	38.73
15	38.76	23	38.74		

30-22-26db. Morris F. Skinner. Drilled irrigation well, diameter 72 inches, depth 68 feet. Measuring point, top of concrete curb, at land-surface datum. Highest observed stage in period of record, 24.95 on Nov. 18, 1944; lowest, 29.0 on Aug. 15, 1947. Measurement on Nov. 18, 1944, by O. J. Scherer, geologist, Soil Conservation Service, U. S. Dept. of Agriculture, Lincoln; and on Dec. 16, 1947, by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Other measurements by M. F. Skinner, Ainsworth.

Water level, in feet below land-surface datum, 1937, 1939-45, 1947

Mar. 30	27.0	May 30, 1942	26.7	Mar. 21, 1947	25.2
Aug. 15	29.0	Oct. 17	26.5	Apr. 27	25.2
Apr. 23, 1939	26.9	Dec. 28, 1943	26.8	May 10	25.7
May 19, 1940	27.0	Nov. 18, 1944	24.95	Oct. 9	25.7
Sept. 2	27.2	June 17, 1945	25.2	Nov. 14	25.5
Nov. 15, 1941	27.7	Nov. 28	26.0	Dec. 16	25.67

30-22-27dc (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191; 988, p. 190; *1018, p. 167; 1025, p. 160; 1073, p. 192). T. Bower. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Oct. 6, 16.45; Nov. 14, 16.76; Dec. 16, 16.58.

30-23-1cc. Abandoned drilled domestic well, diameter 8 inches, depth 71 feet. Measuring point, top of casing, 0.3 foot below land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 16, 63.40; Dec. 16, 63.37.

30-23-13bc. M. A. Miles. Drilled irrigation well, diameter 18 inches, depth 80 feet. Measuring point, top of casing, 1.5 feet above land-surface datum. Highest observed stage in period of record, 38.59 on Dec. 16, 1947: lowest, 39.5 on Nov. 15, 1941. Measurement on Nov. 15, 1941, by M. F. Skinner, Ainsworth, on Nov. 20, 1944, by O. J. Scherer, geologist, Soil Conservation Service, U. S. Dept. of Agriculture, Lincoln, and on Dec. 16, 1947, by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum: Nov. 15, 1941, 39.5; Nov. 20, 1944, 39.5; Nov. 14, 1947, 38.62; Dec. 16, 1947, 38.59.

30-23-21aa. Drilled stock well, diameter 4 inches. Measuring point, top of casing, 1.3 feet above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 16, 22.82; Dec. 16, 22.90.

31-22-23dd. R. M. Boggy. Drilled domestic well, diameter 5 inches, depth 62 feet. Measuring point, top of casing, 1.2 feet above land-surface datum. Measurement on Dec. 16 by personnel of Bureau of Reclamation, U. S. Dept. of Interior, Ainsworth. Water levels, in feet below land-surface datum, 1947: Nov. 15, 41.95; Dec. 16, 42.04.

Buffalo County

8-16-3cb (*1073, p. 192). A. E. Sheldon. Altitude 2,165.49 feet above sea level. Highest observed stage in period of record, 10.22 on Sept. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.74	May 12	10.95	Sept. 8	10.22
Mar. 12	10.97	July 11	11.15	Nov. 4	12.12

8-16-10cc (*1073, p. 192). Geological Survey, U. S. Dept. of Interior. Altitude 2,155.48 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	3.09	May 12	2.83	Sept. 8	3.68
Mar. 12	1.80	July 11	2.04	Nov. 4	2.79

8-16-12cc (*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 191; 1018, p. 168; 1025, p. 161; *1073, p. 192). M. Garvin. Altitude 2,139.27 feet above sea level. Lowest observed stage in period of record, 7.80 on Jan. 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.80	May 12	5.04	Sept. 11	6.45
Mar. 12	5.10	July 11	4.95	Nov. 4	6.22

8-17-1da (*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 191; 1018, p. 168; 1025, p. 161; *1073, p. 192). University of Nebraska. Altitude 2,186.72 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.62	May 12	6.86	Sept. 8	9.00
Mar. 12	6.74	July 11	6.67	Nov. 4	9.37

8-17-4bc (*1073, p. 192). Henry Richards. Altitude 2,215.16 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.08	May 12	6.04	Nov. 4	9.80
Mar. 12	5.68	July 11	6.54		

8-17-12dd (*817, p. 102; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; 1018, p. 168; 1025, p. 161; *1073, p. 192). University of Nebraska. Altitude 2,175.02 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	1.97	May 12	2.90	Sept. 8	3.47
Mar. 12	1.52	July 11	2.48	Nov. 4	2.92

8-18-4cb (*1073, p. 193). Geological Survey, U. S. Dept. of Interior. Altitude 2,253.45 feet above sea level. Lowest observed stage in period of record, 9.67 on Sept. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	8.66	May 12	8.95	Sept. 8	9.67
Mar. 12	8.68	July 11	7.44	Nov. 4	9.65

9-13-5cb (*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 190; 1018, p. 167; 1025, p. 161; 1073, p. 193). F. Scott.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	20.58	May 12	19.59	Sept. 5	20.75
Mar. 10	20.12	July 10	18.10	Nov. 3	19.35

9-13-9cc (*817, p. 97; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 946, p. 192; 988, p. 190; 1018, p. 167; *1025, p. 161; *1073, p. 193). B. Smith. Altitude 2,040.95 feet above sea level. Highest observed stage in period of record, 11.00 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	13.60	May 12	12.80	Nov. 3	12.44
Mar. 10	13.19	July 10	11.00		

9-13-22bc (*817, p. 97; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 190; 1018, p. 167; 1025, p. 160; *1073, p. 193). E. Stubblefield. Altitude 2,030.69 feet above sea level. Highest observed stage in period of record, 7.49 on May 12. Water levels, in feet below land-surface datum, 1947: Jan. 6, 8.05; Mar. 10, 7.81; May 12, 7.49; July 10, 7.68.

9-14-1dc (*1073, p. 193). Geological Survey, U. S. Dept. of Interior. Altitude 2,061.23 feet above sea level. Highest observed stage in period of record, 16.67 on July 9 and 10.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	18.45	18.29	18.13	17.97	17.79	17.70	16.87	17.04	17.88	17.90	17.86	17.73
2	18.45	18.30	18.13	17.96	17.79	17.72	16.83	17.06	17.92	17.89	17.85	17.77
3	18.45	18.27	18.12	17.95	17.77	17.70	16.78	17.08	17.92	17.89	17.82	17.77
4	18.45	18.28	18.12	17.93	17.77	17.68	16.75	17.07	17.96	17.89	17.82	17.75
5	18.43	18.28	18.13	17.95	17.77	17.69	16.73	17.10	17.98	17.89	17.83	17.75
6	18.42	18.26	18.13	17.98	17.77	17.69	16.72	17.12	18.00	17.89	17.81	17.73
7	18.42	18.26	18.12	18.00	17.77	17.68	16.69	17.16	18.01	17.90	17.81	17.74
8	18.43	18.26	18.11	17.97	17.76	17.68	16.68	17.17	18.03	17.92	17.82	17.76
9	18.43	18.25	18.10	17.94	17.76	17.65	16.67	17.20	18.05	17.88	17.82	17.75
10	18.38	18.25	18.10	17.92	17.74	17.68	16.67	17.23	18.07	17.88	17.82	17.74
11	18.37	18.26	18.08	17.94	17.74	17.71	16.68	17.27	18.10	17.86	17.81	17.73
12	18.36	18.26	18.06	17.95	17.75	17.71	16.72	17.30	18.10	17.90	17.83	17.74
13	18.35	18.24	18.06	17.94	17.77	17.67	16.73	17.35	18.04	17.90	17.82	17.73
14	18.37	18.24	18.06	17.90	17.75	17.65	16.78	17.38	18.04	17.88	17.79	17.70

9-14-l4c--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	18.38	18.25	18.06	17.88	17.76	17.64	16.79	17.42	18.04	17.86	17.80	17.71
16	18.39	18.23	18.06	17.88	17.76	17.63	16.82	17.46	18.00	17.86	17.83	17.72
17	18.38	18.22	18.06	17.87	17.75	17.61	16.86	17.49	17.99	17.86	17.83	17.71
18	18.37	18.22	18.05	17.85	17.75	17.60	16.89	17.53	17.98	17.87	17.80	17.70
19	18.35	18.20	18.05	17.86	17.75	17.60	16.88	17.55	17.98	17.88	17.80	17.71
20	18.37	18.20	18.03	17.86	17.75	17.58	16.92	17.58	17.97	17.86	17.79	17.73
21	18.38	18.20	18.02	17.85	17.73	17.55	16.93	17.61	17.97	17.85	17.81	17.70
22	18.36	18.19	18.00	17.84	17.75	17.55	16.94	17.63	17.98	17.84	17.82	17.70
23	18.33	18.19	18.01	17.84	17.75	17.35	16.96	17.67	17.94	17.86	17.80	17.71
24	18.32	18.18	18.02	17.84	17.75	17.15	16.98	17.70	17.94	17.87	17.78	17.70
25	18.31	18.18	18.03	17.84	17.72	17.06	17.00	17.74	17.94	17.87	17.79	17.71
26	18.31	18.18	18.02	17.83	17.72	17.03	17.00	17.77	17.94	17.85	17.78	17.67
27	18.30	18.17	18.00	17.81	17.71	16.97	17.01	17.80	17.93	17.84	17.79	17.65
28	18.30	18.14	17.99	17.81	17.71	16.94	17.03	17.82	17.93	17.84	17.78	17.65
29	18.28		18.00	17.79	17.72	16.92	17.03	17.84	17.94	17.84	17.80	17.65
30	18.28		17.99	17.78	17.71	16.89	17.04	17.84	17.94	17.82	17.80	17.66
31	18.28		17.97		17.69		17.04	17.87		17.85		17.66

9-14-4cc (*1073, p. 194). Geological Survey, U. S. Dept. of Interior. Altitude 2,088.47 feet above sea level. Highest observed stage in period of record, 17.68 on July 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	19.91	May 14	19.68	Sept. 8	20.65
Mar. 12	20.77	July 11	17.68	Nov. 4	19.65

9-14-13cb (*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 190; 1018, p. 167; 1025, p. 161; *1073, p. 194). M. Davis. Altitude 2,068.60 feet above sea level. Highest observed stage in period of record, 15.30 on July 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	19.08	May 12	18.50	Nov. 3	18.25
Mar. 12	18.83	July 11	15.30		

9-14-19dd (*817, p. 99; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 190; 1018, p. 168; 1025, p. 161; *1073, p. 194). U. S. 129. T. Lewis. Altitude 2,102.86 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	24.44	Apr. 29	24.19	July 29	23.20	Nov. 29	24.69
Mar. 12	24.37	May 29	23.99	Aug. 29	24.74	Dec. 29	24.62
29	24.29	June 27	23.69	Oct. 29	24.93		

9-14-21cc (*817, p. 99; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; 988, p. 190; *1018, p. 168; 1025, p. 161; *1073, p. 194). W. Adair. Altitude 2,089.22 feet above sea level. Highest observed stage in period of record, 17.49 on July 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	18.72	May 12	18.22	Nov. 3	19.08
Mar. 12	18.45	July 11	17.49		

9-14-22bb (*1073, p. 194). Altitude 2,079.81 feet above sea level. Highest observed stage in period of record, 15.00 on July 11. Water levels, in feet below land-surface datum, 1947: Jan. 6, 17.05; Mar. 12, 16.64; May 12, 16.28; July 11, 15.00.

9-14-34bb (*817, p. 98; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; *988, p. 190; 1018, p. 167; 1025, p. 161; *1073, p. 194). C. Nicholson. Altitude 2,077.96 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.50	May 12	10.07	Sept. 8	13.45
May 10	10.33	July 11	10.05	Nov. 3	11.83

9-15-11cb (*817, p. 100; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; 988, p. 191; *1018, p. 168; 1025, p. 161; *1073, p. 194). C. Aldeen. Altitude 2,117.70 feet above sea level. Highest observed stage in period of record, 23.67 on July 11, 1947.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	27.05	May 12	26.75	Sept. 8	24.40
Mar. 12	26.78	July 11	23.67	Nov. 4	24.87

9-15-16cc (*1073, p. 195). Highest observed stage in period of record, 32.24 on July 11. Water levels, in feet below land-surface datum, 1947: Jan. 6, 33.19; Mar. 12, 32.62; July 11, 32.24.

9-15-34bb (*817, p. 100; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; 988, p. 191; 1018, p. 168; *1025, p. 161; *1073, p. 195). J. Wolford. Altitude 2,121.03 feet above sea level. Highest observed stage in period of record, 18.46 on July 11. Water levels, in feet below land-surface datum, 1947: Mar. 12, 19.57; May 12, 19.35; July 11, 18.46; Nov. 4, 21.03.

9-17-31cd (*1073, p. 195). Geological Survey, U. S. Dept. of Interior. Altitude 2,237.75 feet above sea level. Lowest observed stage in period of record, 11.58 on Nov. 4.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.50	May 12	9.30	Sept. 8	9.47
Mar. 12	10.09	July 11	8.30	Nov. 4	11.58

9-18-27dd (*1073, p. 195). Geological Survey, U. S. Dept. of Interior. Altitude 2,256.66 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.47	May 12	5.82	Sept. 8	6.19
Mar. 12	6.02	July 11	4.32	Nov. 4	6.89

9-18-31cc (*1073, p. 195). Mrs. Dworak. Altitude 2,274.59 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.38	May 12	10.45	Sept. 8	11.49
Mar. 12	10.39	July 11	8.82	Nov. 4	11.65

10-13-24bc (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; *1073, p. 195). B. M. Bently. Altitude 2,014.17 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	24.65	May 12	24.17	Nov. 3	25.30
Mar. 10	24.34	July 10	23.44		

10-17-21cd (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192; 988, p. 190; 1018, p. 167; 1025, p. 160; *1073, p. 195). W. Buettner. No measurements made in 1947.

12-14-2cb (*817, p. 96; 840, p. 192; 845, p. 172; 946, p. 192; 988, p. 190; 1018, p. 167; 1025, p. 160; *1073, p. 195). W. Starks. No measurements made in 1947.

Burt County

A21-11-34ab (*946, p. 192; 988, p. 191; *1018, p. 168; 1025, p. 161; *1073, p. 196). Tom Turk. Highest observed stage in period of record, 6.42 on June 24. Water level, in feet below land-surface datum, 1947: June 24, 6.42.

A22-8-35aa (*886, p. 292; 908, p. 190; 938, p. 158; 946, p. 193; 988, p. 191; *1018, p. 168; 1025, p. 162; 1073, p. 196). University of Nebraska. Highest observed stage in period of record, 0.39 on June 24. Water level, in feet below land-surface datum, 1947: June 24, 0.39.

Butler County

A14-3-8ba (*946, p. 193; 988, p. 191; 1018, p. 168; 1025, p. 162; *1073, p. 196). University of Nebraska. No measurements made in 1947.

A16-1-17bc (*1073, p. 196). Walt Deitzler. Altitude 1,443.65 feet above sea level. Highest observed stage in period of record, 2.80 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.37	May 7	3.89	Sept. 3	5.12
Mar. 4	4.52	July 7	2.80	Nov. 10	4.84

A16-2-14cc (*1073, p. 196). University of Nebraska. Altitude 1,420.64 feet above sea level. Highest observed stage in period of record, 3.46 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.51	May 7	4.64	Sept. 3	5.93
Mar. 4	5.35	July 7	3.46	Nov. 10	6.34

A16-2-30bc (*1073, p. 196). John Foel. Altitude 1,461.21 feet above sea level. Highest observed stage in period of record, 21.45 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	22.56	May 7	22.53	Sept. 3	21.45
Mar. 4	22.62	July 7	21.49	Nov. 10	21.80

A16-3-1dc (*1073, p. 196). A. J. Viglicky. Altitude 1,376.67 feet above sea level. Highest observed stage in period of record, 8.11 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	11.65	May 7	10.52	Sept. 3	11.24
Mar. 4	11.45	July 7	8.11	Nov. 10	12.14

A16-3-8dd (*1073, p. 196). Geological Survey, U. S. Dept. of Interior. Altitude 1,393.33 feet above sea level. Lowest observed stage in period of record, 4.86 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.53	May 7	3.28	Sept. 3	4.86
Mar. 4	3.46	July 7	2.98	Nov. 10	4.53

A16-3-15cd (*1073, p. 197). A. C. Fortna. Altitude 1,407.16 feet above sea level. Highest observed stage in period of record, 11.52 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.74	May 7	14.05	Sept. 3	13.56
Mar. 4	14.57	July 7	11.52	Nov. 10	14.00

A17-4-28cd (*1073, p. 197). E. J. Duda. Altitude 1,346.84 feet above sea level. Highest observed stage in period of record, 19.55 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	21.42	May 7	20.85	Sept. 3	21.24
Mar. 4	21.12	July 7	19.55	Nov. 10	21.74

Cass County

No measurements made in 1947.

Cedar County

No measurements made in 1947.

Chase County

5-36-7ba (*1073, p. 197). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 15.72 on Feb. 27.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	15.72	July 30	16.02	Dec. 5	15.92
June 7	16.02	Oct. 8	15.98		

5-36-11dc (*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193; *988, p. 1191; 1018, p. 169; 1025, p. 162; *1073, p. 197). J. Redden. Highest observed stage in period of record, 62.46 on Feb. 27. Water level, in feet below land-surface datum, 1947: Feb. 27, 62.46.

7-38-20dd (*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 193; 988, p. 191; *1018, p. 169; 1025, p. 162; *1073, p. 198). A. Banks. No measurements made in 1947.

Cherry County

26-32-28ad (*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; *1018, p. 169; 1025, p. 163; *1073, p. 198). R. Osbourne. Measurement by C. S. Osbourne, Mullen. Water level, in feet below land-surface datum, 1947: May 30, 64.15.

31-25-20ad (*840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; *988, p. 192; 1018, p. 169; 1025, p. 162; *1073, p. 198). University of Nebraska. No measurements made in 1947.

33-27-17cb (*840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; *988, p. 192; 1018, p. 169; 1025, p. 163; *1073, p. 198). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Apr. 30, 2.07; June 6, 2.33; Oct. 10, 2.49.

34-27-31da (*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; *1018, p. 169; 1025, p. 162; *1073, p. 198). Nebraska Agricultural College. Highest observed stage in period of record, 97.92 on Oct. 7. Water levels, in feet below land-surface datum, 1947: Apr. 30, 97.95; June 6, 97.94; Oct. 7, 97.92.

34-27-32cb (*988, p. 192; 1018, p. 169; 1025, p. 162; *1073, p. 198). University of Nebraska. No measurements made in 1947.

34-31-3ad (*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; *1073, p. 198). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Jan. 22	2.20	Mar. 15	1.73	June 6	1.61
Feb. 21	1.89	Apr. 30	1.63	Oct. 7	3.66

34-36-1dc (*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 195; *988, p. 192; 1018, p. 169; 1025, p. 162; 1073, p. 198). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Jan. 22	7.37	Mar. 15	7.40	June 6	7.09
Feb. 21	7.34	Apr. 30	7.20	Oct. 7	7.49

34-38-14bc (*886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; *1018, p. 169; 1025, p. 163; *1073, p. 198). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Jan. 22	6.64	Mar. 15	6.53	June 6	6.45
Feb. 21	6.49	Apr. 30	6.52	Oct. 7	7.45

Cheyenne County

12-51-22aa (*817, p. 106; 840, p. 196; 845, p. 173; 886, p. 293; 908, p. 192; 938, p. 159; 946, p. 194; 988, p. 192; 1018, p. 170; 1025, p. 163; *1073, p. 198). G. Fay. No measurements made in 1947.

14-47-26cb (*938, p. 159; 946, p. 194; 988, p. 192; *1018, p. 170; 1025, p. 163; *1073, p. 198). University of Nebraska. Highest observed stage in period of record, 18.41 on June 20. Water level, in feet below land-surface datum, 1947: June 20, 18.41.

14-50-35ac (*817, p. 106; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; *1018, p. 170; 1025, p. 163; *1073, p. 199). F. Mather estate. Water level, in feet below land-surface datum, 1947: June 20, 31.63.

14-52-5ca (*817, p. 106; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; 1018, p. 170; 1025, p. 163; *1073, p. 199). W. Goding. No measurements made in 1947.

15-49-2bb (*777, p. 92; 817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; 988, p. 192; 1018, p. 170; 1025, p. 163; *1073, p. 199). A. Linn. No measurements made in 1947.

Clay County

No measurements made in 1947.

Golfax County

A17-2-16bc (*1073, p. 199). T. Stibal. Altitude 1,420.41 feet above sea level. Highest observed stage in period of record, 24.62 on July 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	25.90	May 6	25.50	Sept. 4	25.55
Mar. 6	25.86	July 8	24.62	Nov. 11	25.60

A17-2-22dd (*1073, p. 199). Geological Survey, U. S. Dept. of Interior. Altitude 1,386.01 feet above sea level. Highest observed stage in period of record, 3.52 on July 8; lowest, 6.39 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.22	May 6	4.78	Sept. 4	5.88
Mar. 6	5.55	July 8	3.52	Nov. 11	6.39

A17-3-4cc (*1073, p. 199). Geological Survey, U. S. Dept. of Interior. Altitude 1,731.58 feet above sea level. Highest observed stage in period of record, 5.34 on July 8; lowest, 6.34 on Sept. 4.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.76	May 6	5.54	Sept. 4	6.34
Mar. 6	5.72	July 8	5.34	Nov. 11	6.14

A17-3-11dd (*1073, p. 199). T. O. Bailey. Altitude 1,349.00 feet above sea level. Highest observed stage in period of record, 6.60 on July 7; lowest, 10.50 on Jan. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	10.50	May 6	9.37	Sept. 3	8.37
Mar. 4	10.14	July 7	6.60	Nov. 10	9.19

A17-3-18dc (*1073, p. 200). K. J. Folda. Altitude 1,369.12 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.09	May 6	3.27	Sept. 4	4.68
Mar. 5	3.04	July 8	3.34	Nov. 11	4.77

A17-3-23cc (*1073, p. 200). Geological Survey, U. S. Dept. of Interior. Altitude 1,348.03 feet above sea level. Highest observed stage in period of record, 2.84 on July 7.

A17-3-23cc--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.35	May 6	3.95	Sept. 3	5.05
Mar. 5	4.39	July 7	2.84	Nov. 10	4.84

A17-3-29aa (*1073, p. 200). Geological Survey, U. S. Dept. of Interior. Altitude 1,361.63 feet above sea level. Highest observed stage in period of record, 6.97 on July 8; lowest, 8.78 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.36	May 6	8.07	Sept. 4	8.54
Mar. 5	8.39	July 8	6.97	Nov. 11	8.78

A17-4-1cc (*1025, p. 163; *1073, p. 200). H. Schlemer. Altitude 1,312.26 feet above sea level. Highest observed stage in period of record, 3.85 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.12	May 6	4.65	Sept. 3	6.06
Mar. 4	4.60	July 7	3.85	Nov. 10	5.86

A17-4-4bb (*1073, p. 200). E. Maxes. Altitude 1,340.25 feet above sea level. Highest observed stage in period of record, 11.19 on July 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	15.33	May 6	14.49	Sept. 3	13.70
Mar. 4	15.15	July 8	11.19	Nov. 10	14.47

A20-2-2dd (*938, p. 160; 946, p. 195; 988, p. 193; 1018, p. 170; 1025, p. 163; *1073, p. 200). University of Nebraska. No measurements made in 1947.

A20-4-7aa (*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 194; 988, p. 193; 1018, p. 170; 1025, p. 163; *1073, p. 200). University of Nebraska. No measurements made in 1947.

Cuming County

No measurements made in 1947.

Custer County

No measurements made in 1947.

Dakota County

A27-8-28da (*777, p. 92; 817, p. 109; 840, p. 197; 845, p. 174; 886, p. 245; 908, p. 192; 946, p. 195; 988, p. 193; 1018, p. 171; 1025, p. 164; *1073, p. 201). L. Nelson. Measurements discontinued.

A29-7-21db (*886, p. 295; 908, p. 193; 938, p. 160; 946, p. 195; 988, p. 193; 1018, p. 171; 1025, p. 164; 1073, p. 201). John Boyle. No measurements made in 1947.

Dawes County

31-52-3dc (*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 195; *988, p. 194; 1018, p. 171; 1025, p. 164; *1073, p. 201). U. S. 60. T. Moody.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	18.32	Apr. 30	18.45	July 30	16.85	Oct. 31	17.66
Feb. 28	18.40	June 5	17.94	Aug. 30	17.85	Nov. 30	17.83
Apr. 1	18.45	29	16.85	Sept. 29	18.80	Dec. 30	17.82

32-51-ldb (*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; 988, p. 194; *1018, p. 171; 1025, p. 164; *1073, p. 201). W. Howard. Water level, in feet below land-surface datum, 1947: May 7, 19.52.

34-49-11bc (*1073, p. 201). University of Nebraska. No measurements made in 1947.

Dawson County

9-19-16ab (*1073, p. 202). A. Kapp. Altitude 2,313.07 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.03	May 13	6.98	Sept. 8	9.02
Mar. 12	7.12	July 11	6.99	Nov. 4	8.75

9-19-25bb (*1073, p. 202). E. Bliss. Altitude 2,289.24 feet above sea level. Highest observed stage in period or record, 5.45 on July 11.

Water level, in feet below land-surface datum, 1947

Jan. 7	6.63	May 13	5.95	Sept. 8	6.24
Mar. 12	6.34	July 11	5.45	Nov. 4	7.24

9-19-33bb (*1073, p. 202). R. J. Gamble. Altitude 2,300.17 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	6.02	May 12	5.94	Sept. 8	8.52
Mar. 12	5.94	July 11	5.34	Nov. 4	7.59

9-20-3dd (*1073, p. 202). Geological Survey, U. S. Dept. of Interior. Altitude 2,344.38 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	9.22	May 13	9.38	Sept. 8	11.14
Mar. 13	9.34	July 12	8.79	Nov. 4	11.63

9-20-5bc (*1073, p. 202). M. Rhoadarmer. Altitude 2,374.28 feet above sea level. Highest observed stage in period of record, 18.45 on July 1.

Water level, in feet below land-surface datum, 1947

Jan. 7	19.31	May 13	19.61	Sept. 8	21.15
Mar. 13	19.62	July 1	18.45	Nov. 4	21.35

9-20-13bc (*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; *988, p. 194; 1018, p. 171; 1025, p. 165; *1073, p. 203). J. Brick. Altitude 2,329.22 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	7.65	May 12	7.70	Sept. 8	9.80
Mar. 13	7.78	July 11	7.47	Nov. 4	10.49

9-20-22cc (*1073, p. 203). J. Priel. Altitude 2,338.35 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	8.44	May 12	8.57	Sept. 8	10.50
Mar. 13	8.84	July 12	7.92	Nov. 4	10.75

9-20-33dd (*1073, p. 203). Geological Survey, U. S. Dept. of Interior. Altitude 2,329.02 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	2.68	May 12	3.34	Sept. 8	4.54
Mar. 13	2.85	July 12	2.81	Nov. 4	3.72

9-21-6ad (*817, p. 114; 840, p. 198; 845, p. 174; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 197; 1018, p. 173; 1025, p. 166; *1073, p. 203). University of Nebraska. Altitude 2,404.65 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	4.75	May 13	4.74	Sept. 8	5.53
Mar. 13	4.88	July 12	3.25	Nov. 4	5.85

9-21-6da (*817, p. 115; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 197; 1018, p. 173; 1025, p. 166; *1073, p. 203). University of Nebraska. Altitude 2,401.45 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	3.70	May 13	3.79	Sept. 8	3.91
Mar. 13	3.75	July 12	2.29	Nov. 4	4.78

9-21-7aa (*817, p. 115; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 197; 1018, p. 173; 1025, p. 166; *1073, p. 203). University of Nebraska. Altitude 2,402.61 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.67	May 13	7.00	Sept. 8	6.80
Mar. 13	6.98	July 12	6.06	Nov. 4	7.87

9-21-7da (*817, p. 116; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 197; *988, p. 197; 1018, p. 173; 1025, p. 166; *1073, p. 203). University of Nebraska. Altitude 2,101.38 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.31	May 13	6.33	Sept. 8	6.75
Mar. 13	6.40	July 12	5.93	Nov. 4	6.92

9-21-12cb (*817, p. 121; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198; *988, p. 199; 1018, p. 175; 1025, p. 168; *1073, p. 204). C. Myers. Altitude 2,369.76 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.99	May 13	10.00	Sept. 8	11.12
Mar. 13	10.40	July 12	9.50	Nov. 4	10.85

9-21-18aa (*817, p. 116; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 195; *988, p. 197; 1018, p. 173; 1025, p. 167; *1073, p. 204). University of Nebraska. Altitude 2,400.55 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	4.45	May 13	4.40	Sept. 9	4.89
Mar. 13	4.65	July 12	3.49	Nov. 4	5.70

9-21-18da (*817, p. 116; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 204). University of Nebraska. Altitude 2,399.83 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	4.46	May 13	4.45	Sept. 9	5.32
Mar. 13	4.67	July 12	3.57	Nov. 4	5.71

9-21-19aa1 (*817, p. 117; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 204). University of Nebraska. Altitude 2,398.24 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	3.30	May 13	3.75	Sept. 9	4.85
Mar. 13	3.40	July 12	2.70	Nov. 4	4.52

9-21-19aa2 (*817, p. 117; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 204). University of Nebraska. Altitude 2,396.84 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	0.09	May 13	0.73	Sept. 9	1.92
Mar. 13	.25	July 12	+.16	Nov. 4	1.40

9-21-19da (*817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 204). University of Nebraska. Altitude 2,397.83 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.70	June 19	a3.67	Sept. 9	4.85	Nov. 4	4.23
Mar. 13	2.88	July 12	3.20	15	a4.24	17	a4.14
May 13	3.89	Aug. 7	a4.47	Oct. 7	a4.30	Dec. 17	a3.80

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-19dd (*817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 205). University of Nebraska. Altitude 2,399.98 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	4.62	June 19	a5.37	Sept. 9	6.65	Nov. 4	5.97
Mar. 13	5.32	July 12	4.66	15	a6.15	17	a5.84
May 13	5.64	Aug. 7	a6.12	Oct. 7	a6.07	Dec. 17	a5.68

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-24aa (*817, p. 121; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198; *988, p. 199; 1018, p. 175; 1025, p. 168; *1073, p. 205). University of Nebraska. Altitude 2,359.98 feet above sea level. Highest observed stage in period of record, 1.97 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 7	3.05	Mar. 28	2.90	July 12	2.05	Nov. 4	4.13
Mar. 12	3.10	May 13	3.10	Sept. 8	2.87		

9-21-29bc (*817, p. 118; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 198; 1018, p. 174; 1025, p. 167; *1073, p. 205). University of Nebraska. Altitude 2,394.72 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	2.67	June 19	a2.87	Sept. 9	4.14	Nov. 4	3.35
Mar. 13	2.80	July 12	2.10	15	a3.68	17	a3.25
May 13	3.07	Aug. 7	a3.43	Oct. 7	a3.58	Dec. 17	a3.04

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-30da (*817, p. 119; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 199; 1018, p. 175; 1025, p. 168; *1073, p. 205). University of Nebraska. Altitude 2,398.11 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	6.20	June 19	a6.08	Sept. 9	6.88	Nov. 5	6.45
Mar. 13	6.24	July 12	6.05	15	6.69	17	a6.44
May 13	6.22	Aug. 7	a6.42	Oct. 7	a6.66	Dec. 17	a6.40

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-31aa1 (*817, p. 119; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 161; 946, p. 197; *988, p. 199; 1018, p. 175; 1025, p. 168; *1073, p. 205). University of Nebraska. Altitude 2,405.76 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	12.86	June 19	a12.85	Sept. 9	14.69	Nov. 5	13.86
Mar. 13	13.06	July 12	12.15	15	a14.30	17	a13.94
May 13	12.67	Aug. 7	a14.22	Oct. 7	a14.22	Dec. 17	a13.60

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-31aa2 (*988, p. 206; 1018, p. 177; 1025, p. 171; *1073, p. 205). Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 9.13 on May 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 15	9.13	Aug. 7	9.32	Oct. 7	10.42	Dec. 17	9.93
June 19	9.34	Sept. 15	10.58	Nov. 17	10.28		

9-21-31cc (*988, p. 208; 1018, p. 178; 1025, p. 171; *1073, p. 206). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 24.40 on Aug. 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 15	25.27	Aug. 7	24.40	Oct. 7	25.51	Dec. 17	25.19
June 19	24.76	Sept. 15	25.10	Nov. 17	25.40		

9-21-31da (*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 161; 946, p. 198; *988, p. 199; 1018, p. 175; 1025, p. 168; *1073, p. 206). University of Nebraska. Altitude 2,404.37 feet above sea level. Highest observed stage in period of record, 7.68 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	8.58	May 15	a8.46	Aug. 7	a11.30	Nov. 17	a10.19
Feb. 6	a8.20	June 19	a8.48	Sept. 15	a10.95	Dec. 17	a9.80
Mar. 13	8.84	July 12	7.68	Nov. 5	10.44		

a Measurement supplied through courtesy of Central Nebraska Power and Irrigation District.

9-21-31dd (*988, p. 206; 1018, p. 177; 1025, p. 171; *1073, p. 206). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	5.87	May 13	a5.63	Aug. 7	5.36	Nov. 5	a7.27
Feb. 6	a6.52	June 19	7.98	Sept. 9	a7.56	17	7.15
Mar. 13	a6.02	July 12	a5.02	15	7.39	Dec. 17	6.80

a Measurement by Geological Survey, U. S. Dept. of Interior.

9-21-32aa (*988, p. 207; 1018, p. 178; 1025, p. 171; *1073, p. 206). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	4.48	June 19	3.85	Sept. 15	4.85	Dec. 17	4.31
May 15	4.06	Aug. 7	4.26	Nov. 8			

9-21-32dd (*988, p. 207; 1018, p. 178; 1025, p. 171; *1073, p. 206). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	11.66	June 19	10.97	Sept. 15	11.68	Dec. 17	11.53
May 15	10.98	Aug. 7	10.37	Nov. 8	11.66		

9-22-1da (*988, p. 203; 1018, p. 177; 1025, p. 169; *1073, p. 206). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	2.26	Aug. 7	3.14	Oct. 10	3.30	Dec. 1	2.98
Aug. 2	2.76	Sept. 15	3.38	Nov. 17	3.09		

9-22-6cc (*988, p. 202; 1018, p. 176; 1025, p. 169; *1073, p. 207). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 7.27 on Nov. 17.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	5.64	Aug. 7	6.43	Oct. 10	6.64	Dec. 1	7.14
Aug. 2	6.17	Sept. 15	6.49	Nov. 17	7.27		

9-22-7ad (*988, p. 203; 1018, p. 177; 1025, p. 169; *1073, p. 207). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.56 on Aug. 2.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	2.86	Aug. 7	2.82	Oct. 10	3.79	Dec. 1	3.18
Aug. 2	2.56	Sept. 15	3.79	Nov. 17	3.39		

9-22-17dd (*817, p. 122; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198; *988, p. 200; 1018, p. 176; 1025, p. 168; *1073, p. 207). University of Nebraska. Altitude 2,430.28 feet above sea level. Highest observed stage in period of record, 1.58 on July 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	3.11	June 19	a1.79	Sept. 10	3.90	Nov. 6	3.10
Mar. 18	2.47	July 14	1.58	15	a3.45	17	a2.96
May 14	2.47	Aug. 7	a2.78	Oct. 10	a3.52	Dec. 1	a2.64

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-22-23cb (*988, p. 204; 1018, p. 177; 1025, p. 170; *1073, p. 207). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
June 19	4.19	Sept. 15	5.93	Nov. 17	4.44
Aug. 7	4.27	Oct. 10	4.64	Dec. 1	4.34

9-22-23cd (*1073, p. 207). Mrs. Handley. Altitude 2,420.62 feet above sea level. Lowest observed stage in period of record, 18.86 on Sept. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
June 19	16.26	May 14	15.75	Sept. 10	18.86
Mar. 18	16.10	July 14	15.39		

9-22-25dc (#988, p. 205; 1018, p. 177; 1025, p. 170; *1073, p. 207). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.70 on July 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a3.60	June 19	3.03	Sept. 10	a4.84	Nov. 6	a4.17
Mar. 18	a3.26	July 14	a2.70	15	4.58	17	4.04
May 14	a3.37	Aug. 7	4.59	Oct. 7	4.59	Dec. 1	3.59

a Measurement by Geological Survey.

9-22-26aa (#988, p. 205; 1018, p. 177; 1025, p. 170; *1073, p. 208). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
June 19	6.12	Sept. 15	7.45	Nov. 17	6.79
Aug. 7	6.31	Oct. 10	7.26	Dec. 17	6.59

9-23-2dc (*1073, p. 208). Leon Neil. Altitude 2,465.22 feet above sea level. Highest observed stage in period of record, 14.02 on July 14.

Water level, in feet below land-surface datum, 1947

Jan. 9	15.18	May 14	14.76	Nov. 6	15.35
Mar. 18	15.00	July 14	14.02		

9-23-3cc. R. Rhone. Drilled irrigation well, diameter 30 inches, reported depth 40 feet. Measuring point, turbine base, 1.0 foot above land-surface datum and 2,474.07 feet above sea level. Highest observed stage in period of record, 10.74 on July 14; lowest, 12.34 on Sept. 10.

Water level, in feet below land-surface datum, 1947

Jan. 9	11.78	May 14	11.07	Sept. 10	12.34
Mar. 18	11.42	July 14	10.74	Nov. 6	11.75

9-23-12da (#988, p. 203; 1018, p. 177; 1025, p. 170; *1073, p. 208). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Well flooded, measurements discontinued.

9-23-30cd (#988, p. 202; 1018, p. 176; 1025, p. 169; *1073, p. 208). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

June 17	7.54	Sept. 15	7.87	Nov. 11	7.85
Aug. 7	7.44	Oct. 10	8.04	Dec. 1	8.36

9-24-1dc (*1073, p. 208). Geological Survey, U. S. Dept. of Interior. Altitude 2,523.20 feet above sea level. Highest observed stage in period of record, 15.77 on Nov. 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 9	17.12	May 14	17.52	Sept. 10	16.65
Mar. 18	17.62	July 14	17.30	Nov. 6	15.77

9-25-31db (*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; 988, p. 194; 1018, p. 171; 1025, p. 165; *1073, p. 208). L. Tell Estate. No measurements made in 1947.

10-20-21cb (*1073, p. 208). Harry Hill. Altitude 2,386.87 feet above sea level. Highest observed stage in period of record, 22.33 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 7	23.26	May 13	23.05	Sept. 8	24.10
Mar. 13	23.14	July 12	22.33	Nov. 4	23.60

10-20-35bb (*1073, p. 209). Geological Survey, U. S. Dept. of Interior. Altitude 2,359.50 feet above sea level. Highest observed stage in period of record, 14.80 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 7	15.82	May 13	15.96	Sept. 8	16.72
Mar. 13	16.12	July 12	14.80	Nov. 4	16.75

10-21-6da (*988, p. 195; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,442.70 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	8.56	May 13	7.65	Sept. 8	7.20
Mar. 13	7.82	July 12	7.52	Nov. 4	7.03

10-21-7aa (*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; *988, p. 195; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,437.33 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 7	7.52	May 13	7.44	Sept. 8	6.42
Mar. 13	7.59	July 12	6.10	Nov. 4	7.53

10-21-7da (*817, p. 111; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; *988, p. 195; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,433.07 feet above sea level. Highest observed stage in period of record, 6.10 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 7	8.06	May 13	7.82	Sept. 8	6.75
Mar. 13	8.04	July 12	6.10	Nov. 4	7.89

10-21-18aa (*817, p. 111; 840, p. 198; 908, p. 193; 938, p. 160; 946, p. 196; *988, p. 195; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,431.04 feet above sea level. Highest observed stage in period of record, 4.60 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 7	7.27	May 13	7.07	Sept. 8	5.76
Mar. 13	7.37	July 12	4.60	Nov. 4	7.07

10-21-18dd (*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 245; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 196; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,432.26 feet above sea level. Highest observed stage in period of record, 8.92 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	12.17	May 13	11.90	Sept. 8	10.64
Mar. 13	12.15	July 12	8.92	Nov. 4	11.48

10-21-19aa (*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 196; 1018, p. 172; 1025, p. 165; *1073, p. 209). University of Nebraska. Altitude 2,432.13 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.49	May 13	14.25	Sept. 8	12.88
Mar. 13	14.34	July 12	12.50	Nov. 4	13.55

10-21-19da (*817, p. 112; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 196; 1018, p. 172; 1025, p. 166; *1073, p. 209). University of Nebraska. Altitude 2,429.37 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.21	May 13	14.03	Sept. 8	13.68
Mar. 13	14.18	July 12	11.82	Nov. 4	13.41

10-21-23ab (*1073, p. 210). L. Delop. Altitude 2,399.30 feet above sea level. Highest observed stage in period of record, 8.15 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.80	May 13	9.64	Sept. 8	10.81
Mar. 13	10.04	July 12	8.15		

10-21-30aa (*817, p. 113; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; *988, p. 196; 1018, p. 172; 1025, p. 166; *1073, p. 210). University of Nebraska. Altitude 2,418.74 feet above sea level. Highest observed stage in period of record, 4.37 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.48	May 13	6.40	Sept. 8	6.04
Mar. 13	6.58	July 12	4.37	Nov. 4	6.69

10-21-30da (*817, p. 113; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 196; 1018, p. 173; 1025, p. 166; *1073, p. 210). University of Nebraska. Altitude 2,416.12 feet above sea level. Highest observed stage in period of record, 4.37 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.02	May 13	6.97	Sept. 8	6.12
Mar. 13	7.25	July 12	4.37	Nov. 4	7.65

10-21-31aa (*817, p. 114; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 196; 1018, p. 173; 1025, p. 166; *1073, p. 210). University of Nebraska. Altitude 2,411.47 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	4.12	May 13	4.10	Sept. 8	4.07
Mar. 13	4.47	July 12	2.53	Nov. 4	5.05

10-21-31da (*817, p. 114; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 946, p. 196; *988, p. 197; 1018, p. 173; 1025, p. 166; *1073, p. 210). University of Nebraska. Altitude 2,407.90 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.50	May 13	5.50	Sept. 8	4.48
Mar. 13	6.04	July 12	3.50	Nov. 4	6.74

10-22-11ba (*1073, p. 210). H. J. Brunner. Altitude 2,445.01 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	6.25	May 13	6.78	Nov. 5	6.81
Mar. 13	6.89	July 12	4.57		

10-22-29aa (*817, p. 122; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198; *988, p. 200; 1018, p. 176; 1025, p. 168; *1073, p. 210). University of Nebraska. Altitude 2,436.94 feet above sea level. Highest observed stage in period of record, 1.52 on July 12.

Water level, in feet below land-surface datum, 1947

Jan. 8	3.01	May 13	2.41	Sept. 9	3.20
Mar. 13	2.79	July 12	1.52	Nov. 5	3.86

10-23-5bb (*1073, p. 211). V. Ogorsolka. Altitude 2,494.60 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 8	4.84	May 13	5.22	Sept. 9	6.66
Mar. 13	5.35	July 12	4.57	Nov. 5	7.30

10-23-9aa (*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198; *988, p. 199; 1018, p. 176; 1025, p. 168; *1073, p. 211). E. Fleming. Altitude 2,488.30 feet above sea level. Well destroyed; measurements discontinued Nov. 5.

Water level, in feet below land-surface datum, 1947

Jan. 8	12.00	May 13	12.35	Sept. 9	11.81
Mar. 13	12.76	July 12	11.02		

10-23-29bb (*1073, p. 211). Geological Survey, U. S. Dept. of Interior. Altitude 2,481.30 feet above sea level. Lowest observed stage in period of record, 7.25 on Nov. 6.

Water level, in feet below land-surface datum, 1947

Jan. 9	5.19	May 14	5.55	Sept. 10	6.40
Mar. 18	5.87	July 14	4.19	Nov. 6	7.25

10-23-30bc (*1073, p. 211). G. Heller. Altitude 2,496.10 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 9	8.24	May 14	8.52	Sept. 10	6.42
Mar. 18	8.97	July 14	7.57	Nov. 6	9.57

10-24-7bb (*1073, p. 211). F. C. McDowell. Altitude 2,542.83 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 9	12.46	May 14	12.55	Sept. 10	12.68
Mar. 18	12.70	July 14	11.79	Nov. 6	12.50

10-24-15cc (*1073, p. 211). A. A. Kauffman. Altitude 2,525.71 feet above sea level. Highest observed stage in period of record, 3.78 on July 14.

Water level, in feet below land-surface datum, 1947

Jan. 9	5.03	May 14	4.65	Sept. 10	4.82
Mar. 18	4.85	July 14	3.78	Nov. 6	5.08

10-24-17bb (*988, p. 201; 1018, p. 176; 1025, p. 169; *1073, p. 212). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a4.40	June 17	4.11	Sept. 10	a3.74	Nov. 17	3.93
Mar. 18	a4.90	July 14	a3.00	Oct. 10	4.01	Dec. 1	3.52
May 14	a4.78	Aug. 7	3.74	Nov. 6	a3.05		

a Measurement by Geological Survey, U. S. Dept. of Interior.

11-21-31dd (*988, p. 194; 1018, p. 171; 1025, p. 165; *1073, p. 212). University of Nebraska. Altitude 2,466.34 feet above sea level. Highest observed stage in period of record, 22.77 on Sept. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 7	25.55	May 13	26.05	Sept. 8	22.77
Mar. 13	25.78	July 12	24.57	Nov. 4	23.96

11-22-28aa (*1073, p. 212). B. G. Velte. Altitude 2,490.09 feet above sea level. Highest observed stage in period of record, 26.08 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	27.58	May 13	26.70	Sept. 9	27.54
Mar. 13	27.04	July 12	26.08	Nov. 5	26.72

11-23-21bc (*1073, p. 212). E. Robertson. Altitude 2,525.40 feet above sea level. Highest observed stage in period of record, 12.40 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	13.57	May 13	13.86	Nov. 5	13.36
Mar. 13	13.93	July 12	12.40		

11-23-23cc (*1073, p. 212). Geological Survey, U. S. Dept. of Interior. Altitude 2,496.60 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.42	May 13	2.57	Sept. 9	3.40
Mar. 13	2.00	July 12	2.29	Nov. 5	3.37

11-24-16bb (*1073, p. 212). F. Ballmer. Altitude 2,561.15 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	5.05	May 13	5.12	Sept. 9	6.29
Mar. 14	5.46	July 12	4.70	Nov. 5	6.46

11-24-20ca (*817, p. 120; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 988, p. 199; *1018, p. 175; 1025, p. 168; *1073, p. 212). J. Owings. Altitude 2,544.91 feet above sea level. Highest observed stage in period of record, 9.52 on July 12.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	10.33	May 13	10.44	Sept. 9	10.65
Mar. 14	10.59	July 12	9.52	Nov. 5	12.19

11-24-24cb (*1073, p. 213). W. L. Powell. Altitude 2,533.30 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	7.79	May 13	7.85	Sept. 9	8.20
Mar. 13	8.12	July 12	6.97	Nov. 5	9.69

11-25-8ad (*988, p. 201; 1018, p. 176; 1025, p. 169; *1073, p. 213). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	a1.93	Apr. 18	1.28	July 13	a1.77	Oct. 8	3.50
24	1.78	May 14	a2.28	30	2.11	Nov. 5	a2.98
Feb. 8	1.60	June 11	1.96	Sept. 9	a3.98	Dec. 11	2.27
Mar. 14	a1.71	July 2	1.33				

a Measurement by Geological Survey, U. S. Dept. of Interior.

11-25-16bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 11.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 9, 6.05; Nov. 5, 5.69.

11-25-19cc (*988, p. 200; 1018, p. 176; 1025, p. 169; *1073, p. 213). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 5.42 on July 14.

Water level, in feet below land-surface datum, 1947

Jan. 9	a6.22	May 14	a6.66	Aug. 6	6.14	Nov. 6	a7.08
27	6.35	June 13	6.04	Sept. 10	a6.49	17	6.92
Mar. 17	a6.74	July 14	a5.42	Oct. 10	6.95	Dec. 9	6.74

a Measurement by Geological Survey, U. S. Dept. of Interior.

11-25-20cc (*988, p. 200; 1018, p. 176; 1025, p. 169; *1073, p. 213). Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.68	Aug. 6	8.85	Nov. 17	10.05
June 13	9.45	Oct. 10	10.16	Dec. 9	10.33

11-25-21cc (*817, p. 121; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 938, p. 162; 946, p. 198; *1018, p. 175; 1025, p. 168; *1073, p. 213). E. Clark. Altitude 2,572.69 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 9	8.74	May 14	8.98	Sept. 10	6.92
Mar. 17	9.20	July 14	6.86	Nov. 6	9.27

11-25-34bc (*1073, p. 213). W. E. Clark. Altitude 2,573.89 feet above sea level. Highest observed stage in period of record, 12.12 on Nov. 6.

Water level, in feet below land-surface datum, 1947

Jan. 9	12.84	May 14	13.32	Sept. 10	12.58
Mar. 18	13.18	July 14	12.27	Nov. 6	12.12

12-24-30ab (*1073, p. 213). H. Geiken. Altitude 2,635.35 feet above sea level. Lowest observed stage in period of record, 44.85 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Jan. 8	44.29	May 14	43.30	Sept. 9	44.85
Mar. 14	43.47	July 13	43.12	Nov. 5	44.69

12-25-34cc (*817, p. 121; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 946, p. 198; *1018, p. 175; 1025, p. 168; *1073, p. 214). J. Black. Altitude 2,612.22 feet above sea level. Highest observed stage in period of record, 27.50 on Nov. 5.

Water level, in feet below land-surface datum, 1947

Jan. 8	28.95	May 14	29.08	Sept. 9	27.78
Mar. 14	29.02	July 13	27.72	Nov. 5	27.50

Deuel County

No measurements made in 1947.

Dixon County

A30-6-23cc (*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198; 988, p. 209; 1018, p. 178; 1025, p. 172; *1073, p. 214). F. Mille. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 118.54. Water level, in feet below land-surface datum, 1947: June 23, 16.82.

Dodge County

A17-5-2bb (*1073, p. 214). Geological Survey, U. S. Dept. of Interior.
Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.96	May 6	2.75	Sept. 3	4.72
Mar. 4	2.79	July 7	2.79	Nov. 10	4.33

A17-6-6aa (*886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199; *1018, p. 179; 1025, p. 172; *1073, p. 214). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	1.92	May 6	1.34	Sept. 3	3.57
Mar. 4	1.53	July 7	1.67	Nov. 10	3.40

A17-6-8bc (*1073, p. 214). Highest observed stage in period of record, 2.52 on Mar. 4; lowest, 6.03 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	4.04	May 6	3.07	Sept. 3	6.03
Mar. 4	2.52	July 7	3.00	Nov. 10	5.32

A17-6-15ad. Driven stock well, diameter $1\frac{1}{2}$ inches, depth 14.0 feet. Measuring point, top of pipe 1.5 feet above land-surface datum and 1,252.63 feet above sea level. Highest observed stage in period of record, 1.90 on Mar. 4; lowest, 4.30 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 24	2.24	May 6	2.46	Sept. 3	4.30
Mar. 4	1.90	July 7	2.46	Nov. 10	3.48

A17-8-4aa (*988, p. 210; 1018, p. 179; 1025, p. 172; *1073, p. 214). City of Fremont.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	5.77	May 6	5.02	Sept. 4	5.90
Mar. 4	5.69	July 7	3.40	Nov. 11	5.57

A17-8-4dd (*988, p. 210; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont. Highest observed stage in period of record, 3.70 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	8.51	May 6	7.95	Sept. 4	8.76
Mar. 4	8.59	July 7	3.70	Nov. 11	9.67

A17-8-9da (*988, p. 210; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.74	May 6	8.53	Sept. 4	8.55
Mar. 4	9.88	July 7	5.24	Nov. 11	9.59

A17-8-16ad (*988, p. 210; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.99	May 6	9.55	Sept. 4	7.97
Mar. 4	10.23	July 7	7.15	Nov. 11	9.02

A17-8-22cb (*988, p. 209; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont. Highest observed stage in period of record, 1.09 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.74	May 6	2.26	Sept. 4	3.73
Mar. 4	3.00	July 7	1.09	Nov. 11	5.10

A17-8-28ad (*988, p. 209; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont. Highest observed stage in period of record, 1.19 on July 7.

Water level, in feet below land-surface datum, 1947

Jan. 3	3.62	May 6	2.53	Sept. 4	4.15
Mar. 4	3.18	July 7	1.19	Nov. 11	4.54

A17-8-28dd (*988, p. 209; 1018, p. 179; 1025, p. 172; *1073, p. 215). City of Fremont. Water levels, in feet below land-surface datum, 1947: Jan. 3, 3.83; Mar. 4, 2.52; May 6, well destroyed, measurements discontinued.

A17-9-24dc (*817, p. 124; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 199; *1018, p. 179; *1025, p. 172; 1073, p. 215). No measurements made in 1947.

A18-5-23bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,296.38 feet above sea level. Highest observed stage in period of record, 6.55 on July 7, 1947; lowest, 8.73 on Oct. 11, 1946.

Water level, in feet below land-surface datum, 1946-47

Oct. 11, 1946	8.73	May 6, 1947	6.95	Sept. 3, 1947	8.00
Mar. 4, 1947	7.22	July 7	6.55	Nov. 10	7.86

A18-6-25cc. Drilled irrigation well, diameter 18 inches, depth 37.4 feet. Measuring point, hole in turbine base, 2.0 feet above land-surface datum and 1,252.21 feet above sea level. Highest observed stage in period of record, 5.07 on July 7; lowest, 9.87 on Nov. 10.

Water level, in feet below land-surface datum, 1947

Jan. 23	8.68	May 6	6.92	Sept. 3	9.07
Mar. 4	8.20	July 7	5.07	Nov. 10	9.87

A18-7-36cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum and 1,216.80 feet above sea level. Highest observed stage in period of record, 0.84 on July 7; lowest, 5.13 on Nov. 10. Water levels, in feet below land-surface datum, 1947: Mar. 4, 3.00; May 6, 2.16; July 7, 0.84; Nov. 10, 5.13.

A18-8-28da (*988, p. 210; 1018, p. 179; 1025, p. 173; *1073, p. 216). City of Fremont.

Water level, in feet below land-surface datum, 1947

Jan. 3	64.60	May 6	64.45	Sept. 4	64.25
Mar. 4	64.63	July 7	64.19	Nov. 11	64.00

A18-8-28dd (*988, p. 210; 1018, p. 179; 1025, p. 172; *1073, p. 216). City of Fremont.

Water level, in feet below land-surface datum, 1947

Jan. 3	25.71	May 6	25.72	Sept. 4	25.62
Mar. 4	25.68	July 7	25.64	Nov. 11	25.66

A18-8-33aa (*1073, p. 216). City of Fremont.

Water level, in feet below land-surface datum, 1947

Jan. 3	5.39	May 6	5.46	Sept. 4	5.39
Mar. 4	5.45	July 7	3.80	Nov. 11	5.28

A18-9-18ac (*840, p. 201; 845, p. 174; 886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199; *998, p. 209; 1018, p. 179; *1025, p. 172; 1073, p. 216). Water level, in feet below land-surface datum, 1947: Sept. 5, 8.35.

Douglas County

No measurements made in 1947.

Dundy County

1-37-7ab (*1073, p. 216). R. H. Lingo. Highest observed stage in period of record, 60.82 on July 30.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	61.08	July 30	60.82	Dec. 4	61.00
June 7	60.92	Oct. 8	61.15		

1-37-16dd (*1073, p. 216). M. Jones. Highest observed stage in period of record, 38.34 on Dec. 4. Water levels, in feet below land-surface datum, 1947: Feb. 26, 38.59; June 6, 38.55; Oct. 8, 38.54; Dec. 4, 38.34.

1-37-19ba (*1073, p. 216). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 9.23 on Feb. 26; lowest, 14.25 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 26	9.23	July 30	11.65	Dec. 4	11.05
June 6	9.56	Oct. 8	14.25		

1-37-31ed (*1073, p. 216). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 3.75 on June 7; lowest, 5.85 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 26	4.00	July 30	4.88	Dec. 4	5.19
June 7	3.75	Oct. 8	5.85		

1-38-20bc (*1073, p. 217). E. Morris. Highest observed stage in period of record, 15.83 on June 6. Water levels, in feet below land-surface datum, 1947: Feb. 26, 15.98; June 6, 15.83; Dec. 1, 16.01.

1-38-21cb (*886, p. 298; 908, p. 196; 938, p. 163; 946, p. 199; *998, p. 211; 1018, p. 180; 1025, p. 172; *1073, p. 217). Highest observed stage in period of record, 5.53 on June 6. Water levels, in feet below land-surface datum, 1947: Feb. 26, 5.57; June 6, 5.53.

1-38-25bd (*1073, p. 217). D. Jones. Lowest observed stage in period of record, 13.90 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 26	12.32	July 30	12.97	Dec. 4	13.43
June 6	12.33	Oct. 8	13.90		

1-38-29ad (*1073, p. 217). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 7.94 on Feb. 26.

Water level, in feet below land-surface datum, 1947

Feb. 26	7.94	July 30	8.77	Dec. 4	8.52
June 6	8.00	Oct. 8	8.85		

1-39-21ac (*817, p. 125; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 162; 946, p. 199; 988, p. 211; 1018, p. 180; 1025, p. 173; *1073, p. 217). L. Kruttsinger.

Water level, in feet below land-surface datum, 1947

Feb. 26	5.24	July 30	5.93	Dec. 4	5.50
June 6	5.17	Oct. 8	5.90		

1-39-22cc (*1073, p. 217). Dundy County. Highest observed stage in period of record, 11.30 on June 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	11.43	July 30	12.32	Dec. 4	12.18
June 6	11.30	Oct. 8	12.72		

1-39-26aa (*1073, p. 217). Pringle. Highest observed stage in period of record, 25.19 on June 6; lowest, 26.37 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	25.22	July 30	25.56	Dec. 4	26.02
June 6	25.19	Oct. 8	26.37		

1-39-30bb (*1073, p. 217). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 11.72 on Feb. 26; lowest, 13.12 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	11.72	July 30	12.43	Dec. 4	12.70
June 6	11.82	Oct. 8	13.12		

1-40-20cb (*1073, p. 217). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 1.80 on June 6; lowest, 4.37 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	2.62	July 30	3.80	Dec. 4	3.79
June 6	1.80	Oct. 8	4.37		

1-40-24cd (*1073, p. 218). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 8.36 on Feb. 26; lowest, 9.79 on Oct. 8. Water levels, in feet below land-surface datum, 1947: Feb. 26, 8.36; July 30, 8.98; Oct. 8, 9.79; Dec. 4, 9.61.

1-40-27ab (*1073, p. 218). A. H. Minton.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	18.95	July 30	19.20	Dec. 4	20.05
June 6	18.88	Oct. 8	20.75		

1-40-29bb (*1073, p. 218).

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.28	12.22	12.13	12.09	12.05	.....	11.67	11.91	12.23	12.54	12.63	12.54
2	12.28	12.21	12.13	12.08	12.05	.....	11.67	11.92	12.24	12.55	12.63	12.53
3	12.27	12.21	12.13	12.08	12.04	.....	11.67	11.94	12.25	12.56	12.62	12.53
4	12.27	12.21	12.13	12.08	12.05	.....	11.68	11.95	12.26	12.57	12.62	12.53
5	12.27	12.21	12.13	12.08	12.05	.....	11.69	11.96	12.27	12.58	12.62	12.53
6	12.27	12.21	12.13	12.08	12.06	9.79	11.70	11.97	12.28	12.58	12.62	12.53
7	12.27	12.21	12.12	12.08	12.06	10.50	11.70	11.98	12.29	12.59	12.62	12.53
8	12.27	12.21	12.12	12.08	12.06	11.80	11.70	11.99	12.30	12.59	12.62	12.53
9	12.26	12.20	12.13	12.08	12.06	11.97	11.70	12.00	12.31	12.60	12.61	12.53
10	12.26	12.20	12.13	12.08	12.06	11.97	11.70	12.01	12.32	12.61	12.61	12.53
11	12.25	12.20	12.12	12.08	12.06	11.95	11.73	12.02	12.33	12.61	12.61	12.53
12	12.25	12.20	12.12	12.08	12.06	11.93	11.75	12.03	12.34	12.62	12.60	12.53
13	12.24	12.20	12.12	12.08	12.06	11.91	11.75	12.04	12.35	12.62	12.60	12.53
14	12.24	12.20	12.13	12.09	12.06	11.90	11.76	12.05	12.36	12.62	12.60	12.53
15	12.24	12.20	12.13	12.08	12.06	11.85	11.77	12.06	12.37	12.63	12.60	12.53
16	12.24	12.20	12.12	12.08	12.06	11.85	11.77	12.07	12.38	12.63	12.60	12.53
17	12.24	12.20	12.12	12.08	12.05	11.85	11.78	12.08	12.39	12.63	12.60	12.53
18	12.23	12.20	12.12	12.08	12.05	11.83	11.79	12.09	12.40	12.64	12.59	12.53
19	12.23	12.20	12.12	12.08	12.04	11.81	11.84	12.10	12.41	12.64	12.59	12.53
20	12.23	12.20	12.11	12.08	12.04	11.80	11.88	12.11	12.42	12.64	12.58	12.52
21	12.23	12.20	12.11	12.08	12.04	11.77	11.89	12.12	12.43	12.64	12.58	12.52
22	12.23	12.20	12.10	12.08	12.04	11.74	11.91	12.13	12.44	12.64	12.58	12.52

1-40-29bb--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	12.23	12.20	12.10	12.08	12.04	11.72	11.92	12.14	12.45	12.65	12.57	12.52
24	12.22	12.20	12.10	12.08	12.04	11.70	11.92	12.15	12.46	12.65	12.57	12.52
25	12.22	12.20	12.10	12.07	12.04	11.69	11.88	12.16	12.47	12.64	12.56	12.52
26	12.22	12.13	12.10	12.07	12.05	11.69	11.88	12.17	12.48	12.64	12.56	12.51
27	12.22	12.13	12.10	12.07	.....	11.69	11.88	12.18	12.49	12.64	12.56	12.51
28	12.22	12.13	12.10	12.06	.....	11.68	11.88	12.19	12.50	12.63	12.55	12.51
29	12.22		12.10	12.06	.....	11.68	11.88	12.20	12.51	12.63	12.55	12.50
30	12.22		12.09	12.05	.....	11.67	11.88	12.21	12.52	12.63	12.55	12.50
31	12.22		12.09				11.90	12.22			12.54	12.50

1-41-20dd (*1073, p. 218). Geological Survey, U. S. Dept. of Interior.
Highest observed stage in period of record, 2.58 on June 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 26	2.69	July 30	3.64	Dec. 4	2.67
June 6	2.58	Oct. 8	3.45		

1-41-27ca (*1073, p. 218). Geological Survey, U. S. Dept. of Interior.
Highest observed stage in period of record, 3.96 on Feb. 26.

Water level, in feet below land-surface datum, 1947

Feb. 26	3.96	July 30	4.89	Dec. 4	4.27
June 6	4.12	Oct. 8	4.77		

1-42-10cd (*1073, p. 219). Geological Survey, U. S. Dept. of Interior.
Highest observed stage in period of record, 3.41 on Feb. 26.

Water level, in feet below land-surface datum, 1947

Feb. 26	3.41	July 30	4.34	Dec. 4	5.05
June 6	4.06	Oct. 8	6.79		

1-42-13bb (*1073, p. 219). Geological Survey, U. S. Dept. of Interior.
Highest observed stage in period of record, 3.71 on Feb. 26.

Water level, in feet below land-surface datum, 1947

Feb. 26	3.71	July 30	4.78	Dec. 4	4.27
June 6	4.14	Oct. 8	4.80		

1-42-36aa (*1073, p. 219). Geological Survey, U. S. Dept. of Interior.
Lowest observed stage in period of record, 11.21 on June 6.

Water level, in feet below land-surface datum, 1947

Feb. 26	11.16	July 30	10.90	Dec. 4	9.90
June 6	11.21	Oct. 8	10.02		

2-36-24ca (*1073, p. 219). Geological Survey, U. S. Dept. of Interior.
Highest observed stage in period of record, 14.28 on Feb. 27;
lowest, 15.24 on Dec. 5.

Water level, in feet below land-surface datum, 1947

Feb. 27	14.28	July 30	14.49	Dec. 5	15.24
June 7	14.29	Oct. 8	15.09		

2-36-29ac (*1073, p. 219). A. Howard. Highest observed stage in period of record, 21.32 on June 7.

Water level, in feet below land-surface datum, 1947

Feb. 27	21.48	July 30	21.72	Dec. 5	22.29
June 7	21.32	Oct. 8	22.35		

2-36-31bc (*1073, p. 219). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 21.47 on June 7; lowest, 22.48 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	21.62	July 30	21.80	Dec. 5	22.24
June 7	21.47	Oct. 8	22.48		

Franklin County

1-13-1cc (*1073, p. 219). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 8.52 on June 10; lowest, 8.18 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Mar. 1, 5.15; June 10, 4.27; Dec. 16, 8.18.

1-13-2bc (*1073, p. 219). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Mar. 1	8.19	Aug. 2	7.14	Dec. 1	8.77
June 10	8.10	Oct. 11	8.88		

1-13-3ca (*1073, p. 220). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 8.52 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Mar. 1, 7.08; June 10, 6.92; Aug. 2, 6.50; Dec. 16, 8.52.

1-13-4cb (*1073, p. 220). J. O. Ziegler. Highest observed stage in period of record, 10.13 on Aug. 2; lowest, 12.97 on Oct. 11.

Water level, in feet below land-surface datum, 1947

Mar. 1	11.11	Aug. 2	10.13	Dec. 1	12.28
June 10	10.52	Oct. 11	12.97		

1-13-7bb (*1073, p. 220). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.34 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Mar. 1	4.45	Aug. 2	4.58	Dec. 1	5.78
June 10	3.51	Oct. 9	6.34		

1-14-2cd (*1073, p. 220). W. Sindt.

Water level, in feet below land-surface datum, 1947

Mar. 1	6.74	Aug. 2	6.42	Dec. 1	9.50
June 10	6.62	Oct. 9	9.72		

1-14-3ba (*1073, p. 220). Geological Survey, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: June 10, 3.10; Aug. 1, 3.02; Oct. 9, 5.73; Dec. 1, 5.57.

1-14-6bc (*1073, p. 220). E. Blank. Lowest observed stage in period of record, 8.87 on Dec. 1.

Water level, in feet below land-surface datum, 1947

Mar. 1	6.25	Aug. 1	5.69	Dec. 1	8.87
June 10	6.11	Oct. 9	8.80		

1-14-7bb1 (*1073, p. 220). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Mar. 1	2.25	Aug. 1	3.30	Dec. 1	4.85
June 10	2.18	Oct. 9	5.26		

1-14-7bb2 (*1073, p. 220). H. Blank. Lowest observed stage in period of record, 7.52 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	4.55	Aug. 1	5.15	Dec. 1	7.42
June 10	4.57	Oct. 9	7.52		

1-15-5ca (*1073, p. 221). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.24 on Dec. 1. Water levels, in feet below land-surface datum, 1947: Feb. 28, 3.29; June 9, 3.08; Dec. 1, 6.24.

1-15-8cb (*1073, p. 221). A. E. Townsend.

Water level, in feet below land-surface datum, 1947

Feb. 28	9.91	Aug. 1	9.34	Dec. 1	11.16
June 9	9.24	Oct. 9	11.57		

1-16-9bc (*1073, p. 221). W. Post.

Water level, in feet below land-surface datum, 1947

Feb. 28	12.38	Aug. 1	10.95	Dec. 1	13.65
June 9	12.42	Oct. 9	13.43		

1-16-10bd (*1073, p. 221). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Feb. 28	2.86	Aug. 1	2.85	Dec. 1	4.97
June 9	2.30	Oct. 9	4.92		

1-16-14ab (*1073, p. 221). C. Howell.

Water level, in feet below land-surface datum, 1947

Feb. 28	38.69	Aug. 1	37.82	Dec. 1	40.63
June 9	38.70	Oct. 9	39.49		

2-13-3lad (*1073, p. 221). Highest observed stage in period of record, 53.10 on Oct. 11.

Water level, in feet below land-surface datum, 1947

Mar. 1	53.86	Aug. 2	53.14	Dec. 1	54.08
June 10	53.89	Oct. 11	53.10		

2-13-32dd (*1073, p. 221). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 2.77 on Mar. 1; lowest, 8.79 on Oct. 11.

Water level, in feet below land-surface datum, 1947

Mar. 1	2.77	Aug. 2	5.58	Dec. 1	8.45
June 10	5.64	Oct. 11	8.79		

2-15-36bd (*817, p. 126; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 199; *988, p. 211; 1018, p. 180; 1025, p. 173; *1073, p. 221). J. Wessels. Lowest observed stage in period of record, 29.48 on Feb. 28. Water level, in feet below land-surface datum, 1947: Feb. 28, 29.48; June 10, well destroyed, measurements discontinued.

3-14-36dd (*817, p. 126; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 199; 988, p. 211; 1018, p. 180; 1025, p. 173; *1073, p. 222). University of Nebraska. No measurements made in 1947.

4-14-10da (*817, p. 126; 840, p. 202; 845, p. 176; 886, p. 299; 908, p. 196; 946, p. 199; 988, p. 211; 1018, p. 180; 1025, p. 173; *1073, p. 222). Gilgen Bros. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 267.33. Lowest observed stage in period of record, 168.86 on Aug. 12. Water level, in feet below land-surface datum, 1947: Aug. 12, 168.86.

Frontier County

No measurements made in 1947.

Furnas County

1-25-6ba (*817, p. 127; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 196; 946, p. 200; 988, p. 212; 1018, p. 181; 1025, p. 174; *1073, p. 222). S. Shoemaker. No measurements made in 1947.

2-25-27cc (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; 988, p. 212; 1018, p. 181; 1025, p. 174; *1073, p. 222). E. Hunt. No measurements made in 1947.

2-25-28dc (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 946, p. 200; 988, p. 212; 1018, p. 181; 1025, p. 174; *1073, p. 222). J. Loar. No measurements made in 1947.

3-21-2cc (*1073, p. 222). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 10.32 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	7.94	July 31	8.50	Dec. 7	10.17
June 9	8.14	Oct. 9	10.32		

3-21-9bd. Ralph Ballard. Drilled irrigation well, diameter 24 inches, depth 51 feet. Measureing point, hole in pump base, and 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.82 on Dec. 17, 1946; lowest, 15.48 on June 9, 1947. Water levels, in feet below land-surface datum: Mar. 22, 1946, 14.75; Dec. 17, 1946, 13.82; Feb. 28, 1947, 15.40; June 9, 1947, 15.48.

3-21-12dc (*1073, p. 222). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.70 on Oct. 9. Water levels, in feet below land-surface datum, 1947: Feb. 28, 3.97; June 9, 3.74; Oct. 9, 6.70; Dec. 2, 5.92.

3-22-2ba (*1073, p. 222). Highest observed stage in period of record, 4.78 on July 28; lowest, 8.49 on Dec. 3.

Water level, in feet below land-surface datum, 1947

Feb. 24	6.06	July 28	4.78	Dec. 3	8.49
June 5	4.97	Oct. 6	7.95		

3-23-34cc (*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 200; 988, p. 121; 1018, p. 212; 1025, p. 173; *1073, p. 222). H. Lambert. No measurements made in 1947.

3-25-4bb (*1073, p. 222). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.12 on June 23.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.65	4.83	4.57	4.44	....	4.84	4.58	4.77	6.05	6.53	6.71	6.46
2	4.67	4.82	4.59	4.46	....	4.84	4.64	4.83	6.09	6.53	6.70	6.45
3	4.69	4.82	4.62	4.47	....	4.86	4.71	4.89	6.14	6.54	6.70	6.45
4	4.72	4.82	4.64	4.49	4.55	4.87	4.77	4.95	6.18	6.54	6.70	6.45
5	4.75	4.82	4.65	4.50	4.62	4.88	4.83	5.01	6.22	6.55	6.69	6.45
6	4.77	4.82	4.66	4.50	4.65	4.88	4.89	5.06	6.25	6.55	6.67	6.44
7	4.78	4.77	4.67	4.50	4.68	4.88	4.95	5.11	6.29	6.56	6.65	6.44
8	4.79	4.75	4.67	4.52	4.70	4.89	5.02	5.16	6.34	6.56	6.63	6.43
9	4.80	4.73	4.68	4.54	4.72	4.89	5.09	5.20	6.37	6.57	6.62	6.43
10	4.81	4.73	4.68	4.54	4.75	4.90	5.09	5.25	6.40	6.58	6.62	6.42
11	4.81	4.73	4.68	4.37	4.77	4.92	4.91	5.30	6.42	6.59	6.61	6.40
12	4.81	4.74	4.67	4.25	4.78	4.88	4.78	5.34	6.43	6.59	6.60	6.39
13	4.81	4.74	4.63	4.22	4.79	4.77	4.62	5.38	6.43	6.60	6.59	6.39
14	4.81	4.73	4.58	4.22	4.80	4.76	4.52	5.41	6.43	6.60	6.57	6.39
15	4.81	4.68	4.45	4.21	4.82	4.76	4.51	5.43	6.44	6.62	6.56	6.38
16	4.81	4.63	4.43	4.21	4.82	4.76	4.51	5.45	6.44	6.63	6.56	6.37
17	4.82	4.58	4.41	4.22	4.84	4.76	4.52	5.58	6.45	6.65	6.56	6.37
18	4.82	4.55	4.38	4.23	4.85	4.77	4.52	5.51	6.45	6.67	6.55	6.36

3-25-4bb--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
19	4.83	4.55	4.36	4.23	4.85	4.78	4.53	5.54	6.46	6.68	6.55	6.35
20	4.83	4.55	4.34	4.24	4.83	4.78	4.53	5.58	6.47	6.70	6.54	6.34
21	4.84	4.55	4.33	4.25	4.80	4.78	4.54	5.63	6.49	6.70	6.53	6.33
22	4.84	4.55	4.32	4.27	4.80	4.22	4.55	5.67	6.50	6.70	6.52	6.33
23	4.85	4.54	4.32	4.28	4.80	4.12	4.54	5.71	6.50	6.71	6.50	6.32
24	4.85	4.54	4.32	4.31	4.80	4.17	4.53	5.75	6.51	6.71	6.49	6.31
25	4.85	4.53	4.34	4.32	4.80	4.24	4.52	5.79	6.52	6.71	6.49	6.30
26	4.85	4.55	4.35	4.26	4.80	4.29	4.52	5.82	6.52	6.71	6.48	6.29
27	4.85	4.55	4.35	....	4.80	4.35	4.54	5.86	6.52	6.72	6.47	6.27
28	4.85	4.56	4.38	....	4.80	4.41	4.55	5.90	6.52	6.72	6.49	6.25
29	4.84		4.38	....	4.80	4.47	4.56	5.94	6.52	6.71	6.47	6.23
30	4.83		4.40	....	4.80	4.52	4.64	5.98	6.52	6.71	6.46	6.22
31	4.83		4.42		4.81		4.72	6.01		6.71		6.20

a Interpolated.

4-21-9bd (*1073, p. 223). R. Ballard. No measurements made in 1947.

4-21-32cc (*1073, p. 223). C. Rhynolds. Highest observed stage in period of record, 11.87 on July 31.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	13.29	July 31	11.87	Dec. 1	13.82
June 9	13.18	Oct. 9	14.35		

4-22-25cc (*1073, p. 223). N. H. Hays. Lowest observed stage in period of record, 11.91 on Dec. 2.

Water level, in feet below land-surface datum, 1947

Feb. 28	8.62	July 31	8.78	Dec. 2	11.91
June 9	8.52	Oct. 9	11.62		

4-22-29ad (*1073, p. 223). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 13.64 on July 31.

Water level, in feet below land-surface datum, 1947

Feb. 28	15.62	July 31	13.64	Dec. 2	15.47
June 9	15.29	Oct. 9	14.73		

4-22-32dd (*1073, p. 224). Mrs. E. A. Coker. Highest observed stage in period of record, 7.55 on July 28; lowest, 11.48 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	8.42	July 28	7.55	Dec. 3	10.69
June 5	8.50	Oct. 6	11.48		

4-22-34bb (*1073, p. 224). C. Payne. Highest observed stage in period of record, 12.22 on July 31; lowest, 14.77 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Feb. 28	13.13	July 31	12.22	Dec. 1	14.56
June 9	12.90	Oct. 9	14.77		

4-23-20ab (*1073, p. 224). C. Larson. Highest observed stage in period of record, 25.29 on July 31.

Water level, in feet below land-surface datum, 1947

Feb. 28	26.04	July 31	25.29	Dec. 6	27.19
June 9	25.95	Oct. 9	27.84		

4-23-23bd (*840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; *988, p. 212; 1018, p. 181; 1025, p. 174; *1073, p. 224). Highest observed stage in period of record, 28.72 on July 31.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	29.15	July 31	28.72	Dec. 3	29.82
June 9	29.15	Oct. 9	29.89		

4-23-27dd (*1073, p. 224). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 7.08 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	9.29	July 28	7.08	Dec. 3	10.82
June 5	9.37	Oct. 6	10.45		

4-23-30cc (*1073, p. 224). Brening Bros. Highest observed stage in period of record, 51.84 on June 5; lowest, 53.30 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	52.25	July 28	51.97	Dec. 1	52.95
June 5	51.84	Oct. 6	53.30	3	52.95

4-23-36aa (*1073, p. 224). H. Watson. Highest observed stage in period of record, 17.06 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	18.05	July 28	17.06	Dec. 3	20.46
June 5	18.18	Oct. 6	19.94		

4-24-13cd (*1073, p. 224). C. Thomas. Highest observed stage in period of record, 15.14 on July 31.

Water level, in feet below land-surface datum, 1947

Feb. 28	17.68	July 31	15.14	Dec. 6	17.29
June 9	17.50	Oct. 9	16.69		

4-24-15cc (*1073, p. 225). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 10.82 on July 31.

Water level, in feet below land-surface datum, 1947

Feb. 28	12.56	July 31	10.82	Dec. 6	13.48
June 9	12.47	Oct. 9	12.89		

4-24-19cc (*1073, p. 225). E. T. Purington. Water levels, in feet below land-surface datum, 1947: Feb. 28, 13.64; June 9, 13.85; Oct. 9, 14.64; Dec. 6, 14.24.

4-24-22dd (*1073, p. 225). Geological Survey, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Feb. 24, 5.02; June 5, 5.22; Dec. 16, 6.10.

4-24-29cd (*1073, p. 225). D. Andrews. Highest observed stage in period of record, 20.38 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	20.49	July 28	20.38	Dec. 1	21.57
June 5	20.44	Oct. 6	22.02		

4-25-32cd (*1073, p. 225). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.58 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	4.20	July 28	4.78	Dec. 3	5.95
June 5	4.84	Oct. 6	6.58		

4-25-34ad (*1073, p. 225). J. C. Sayer. Highest observed stage in period of record, 14.52 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	15.22	July 28	14.32	Dec. 3	17.47
June 5	15.45	Oct. 6	17.72		

Gage County

No measurements made in 1947.

Garden County

15-42-1ca (*988, p. 214; 1018, p. 183; 1025, p. 176; *1073, p. 226). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 17.10; Dec. 2, 17.10; Dec. 31, 17.10.

15-42-3cb (*988, p. 214; 1018, p. 183; 1025, p. 175; *1073, p. 226). A. J. Bermall. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 20.20 on Dec. 2. Water levels, in feet below land-surface datum, 1947: June 23, 18.50; Dec. 2, 20.20; Dec. 31, 19.30.

17-44-22cc (*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202; 988, p. 214; *1018, p. 182; 1025, p. 175; *1073, p. 226). No measurements made in 1947.

17-46-34bb (*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202; 988, p. 213; *1018, p. 182; 1025, p. 175; *1073, p. 226). No measurements made in 1947.

20-44-5db (*908, p. 200; 938, p. 165; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 226). Crescent Lake Migratory Bird Refuge. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Mar. 19, 6.60; June 24, 5.60; Dec. 5, 6.10.

20-44-9ca (*777, p. 93; 817, p. 129; 840, p. 203; 845, p. 175; 886, p. 300; 938, p. 163; 946, p. 200; *988, p. 212; 1018, p. 181; 1025, p. 174; *1073, p. 226). Crescent Lake Migratory Bird Refuge. West of Blue Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Mar. 19, 5.60; June 24, 4.60; Dec. 4, 4.80.

20-45-13ab (*886, p. 303; 908, p. 200; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 226). Crescent Lake Migratory Bird Refuge. West of Blue Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Mar. 20, 3.10; June 22, 2.30; Dec. 10, 2.30.

20-45-17ba (*886, p. 302; 908, p. 200; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 226). Crescent Lake Migratory Bird Refuge. One mile southwest of Swan Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Mar. 20, 4.50; June 22, 3.70; Dec. 10, 3.90.

21-44-29ab (*886, p. 304; 908, p. 200; 938, p. 165; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 226). Crescent Lake Migratory Bird Refuge. Half a mile south of Goose Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1947: Mar. 20, 3.26; June 22, 2.26; Dec. 10, 3.16.

21-44-35ca (*886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; *988, p. 212; 1018, p. 182; 1025, p. 174; *1073, p. 227). U. S. 59. Crescent Lake Migratory Bird Refuge. North side of Island Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	2.80	Mar. 19	2.20	June 6	2.40	Oct. 6	3.60
17	2.70	28	2.30	16	2.20	15	3.60
24	2.70	Apr. 3	2.50	24	1.90	30	3.50
31	2.60	8	2.40	July 7	2.20	Nov. 3	3.40
Feb. 7	2.70	19	2.30	18	1.80	11	3.10
13	2.60	28	2.10	27	3.10	Dec. 5	2.80
21	2.50	May 6	2.40	Aug. 3	3.20	8	2.70
28	2.40	16	2.60	13	3.30	16	2.60
Mar. 11	2.30	27	2.70	24	3.50	29	2.50

21-45-3bd (*908, p. 199; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 227). Crescent Lake Migratory Bird Refuge. Northwest of corner of refuge. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 2.00 on June 22.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	3.80	Apr. 7	3.50	June 22	2.00	Oct. 15	3.40
17	4.70	20	3.40	July 7	2.40	30	3.20
24	3.70	28	3.30	18	2.30	Nov. 5	3.40
31	3.60	May 6	3.40	27	2.60	11	3.30
Feb. 13	3.60	16	3.30	Aug. 1	2.70	Dec. 5	3.20
Mar. 11	3.50	27	3.20	13	2.90	10	3.10
19	3.60	June 6	3.20	24	3.10	16	3.10
28	3.50	16	3.10	Oct. 6	3.40	29	3.00
Apr. 3	3.60						

21-45-10cd (*908, p. 197; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 174; *1073, p. 227). Crescent Lake Migratory Bird Refuge. Northwest of Smith Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 1.70 on June 24. Water levels, in feet below land-surface datum, 1947: Mar. 20, 2.20; June 24, 1.70; Dec. 10, 2.70.

21-45-27cb (*886, p. 301; 908, p. 200; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175; *1073, p. 227). Crescent Lake Migratory Bird Refuge. Half a mile south of Bean Lake. Measurements supplied through courtesy of Fish & Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 2.60 on June 22. Water levels, in feet below land-surface datum, 1947: Mar. 20, 3.20; June 22, 2.60; Dec. 10, 3.10.

Garfield County

No measurements made in 1947.

Gosper County

5-22-12ab (*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202; 988, p. 217; 1018, p. 183; 1025, p. 176; *1073, p. 228). M. Berntson. No measurements made in 1947.

5-22-12bb (*886, p. 305; 908, p. 202; 938, p. 166; 946, p. 202; 988, p. 217; 1018, p. 184; 1025, p. 177; *1073, p. 228). University of Nebraska. No measurements made in 1947.

7-22-13bb. Abandoned drilled domestic well, diameter 4 inches, reported depth 255 feet. Measuring point, top of pipe, 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 12, 227.80; Nov. 25, 227.29.

8-21-2cc (*988, p. 215; 1018, p. 183; 1025, p. 176; *1073, p. 228). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	6.56	May 15	6.58	July 31	5.60	Oct. 7	6.22
Feb. 8	6.50	June 20	6.17	Sept. 3	5.88		

8-21-3ac (*988, p. 222; 1018, p. 185; 1025, p. 179; *1073, p. 228). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Feb. 6	4.70	June 19	4.60	Sept. 3	4.24	Dec. 17	4.08
May 15	4.79	Aug. 7	4.30	Nov. 8	4.10		

8-21-3bb (*988, p. 220; 1018, p. 185; 1025, p. 178; *1073, p. 228). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	5.17	June 19	5.17	Sept. 15	5.15	Dec. 17	5.17
May 15	5.18	Aug. 7	5.14	Nov. 8	5.18		

8-21-3bc (*988, p. 220; 1018, p. 185; 1025, p. 178; *1073, p. 228). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 0.15 on Aug. 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	3.40	June 19	1.76	Sept. 15	0.45	Dec. 17	4.68
May 15	2.02	Aug. 7	.15	Nov. 8	4.86		

8-21-3dc (*1073, p. 228). Jeffrey Bros. Altitude 2,378.00 feet above sea level. Highest 11.10 on July 14; lowest, 14.50 on Sept. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	13.51	May 14	12.82	Sept. 10	14.50
Mar. 18	13.79	July 14	11.10	Nov. 6	13.28

8-21-3dd (*988, p. 222; 1018, p. 185; 1025, p. 179; *1073, p. 228). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	9.80	June 20	10.44	Sept. 3	8.85	Dec. 17	12.17
May 15	9.96	Aug. 7	8.85	Nov. 8	12.07		

8-21-4ad (*988, p. 221; 1018, p. 185; 1025, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	7.66	June 19	7.97	Sept. 3	7.58	Dec. 17	7.38
May 15	8.37	Aug. 7	7.44	Nov. 8	7.40		

8-21-4ba (*988, p. 207; 1018, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	9.30	June 19	8.79	Sept. 15	9.06	Dec. 17	9.04
May 15	8.87	Aug. 7	8.50	Nov. 8	9.12		

8-21-4cc (*988, p. 219; 1018, p. 184; 1025, p. 177; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	28.42	June 19	27.87	Sept. 15	28.46	Dec. 17	27.87
May 15	28.10	Aug. 7	27.54	Nov. 17	28.02		

8-21-4da (*988, p. 221; 1018, p. 185; 1025, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	9.18	June 19	8.68	Sept. 3	9.13	Dec. 17	8.94
May 15	8.93	Aug. 7	8.37	Nov. 8	9.11		

8-21-5aa (*988, p. 220; 1018, p. 185; 1025, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 1.90 on Aug. 7.

Water level, in feet below land-surface datum, 1947

Feb. 6	10.41	June 19	10.26	Sept. 15	3.32	Dec. 17	6.05
May 15	10.25	Aug. 7	1.90	Nov. 17	3.30		

8-21-5ad (*988, p. 219; 1018, p. 185; 1025, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Feb. 6	15.12	June 19	14.70	Sept. 15	15.09	Dec. 17	15.04
May 15	14.90	Aug. 7	14.63	Nov. 17	15.19		

8-21-5da (*988, p. 219; 1018, p. 184; 1025, p. 178; *1073, p. 229). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Feb. 6	21.40	June 19	21.05	Sept. 15	21.39	Dec. 17	21.25
May 15	21.30	Aug. 7	20.94	Nov. 17	21.54		

8-21-6aa (*988, p. 217; 1018, p. 184; 1025, p. 177; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 8.69 on May 15. Water levels, in feet below land-surface datum, 1947: Feb. 6, 8.82; May 15, 8.69.

8-21-6da1 (*988, p. 218; 1018, p. 189; 1025, p. 177; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Feb. 6	27.13	June 19	26.48	Sept. 15	26.92	Dec. 17	26.68
May 15	26.84	Aug. 7	26.19	Nov. 17	27.09		

8-21-6da2 (*988, p. 218; 1018, p. 184; 1025, p. 177; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Feb. 6	24.81	June 19	24.16	Sept. 15	24.71	Dec. 17	24.59
May 15	24.59	Aug. 7	23.94	Nov. 17	24.92		

8-21-6dd (*988, p. 218; 1018, p. 184; 1025, p. 177; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 41.60 on Aug. 7.

Water level, in feet below land-surface datum, 1947

Feb. 6	42.15	June 19	41.90	Sept. 15	41.95	Dec. 17	41.68
May 15	42.17	Aug. 7	41.60	Nov. 17	41.95		

8-21-10da (*988, p. 223; 1018, p. 186; 1025, p. 179; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 14.36 on Nov. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 2	14.70	June 20	14.59	Nov. 8	14.36
May 15	14.76	Sept. 3	15.09	Dec. 17	14.55

8-21-11aa (*988, p. 215; 1018, p. 183; 1025, p. 176; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	5.70	May 15	5.66	July 31	4.65	Oct. 7	5.48
Feb. 8	5.71	June 20	5.29	Sept. 3	5.04		

8-21-11bb (*988, p. 222; 1018, p. 186; 1025, p. 179; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 9.21 on Aug. 7.

Water level, in feet below land-surface datum, 1947

Feb. 6	10.80	June 20	10.84	Sept. 3	9.71	Dec. 17	10.27
May 15	10.88	Aug. 7	9.21	Nov. 8	10.19		

8-21-12aa (*988, p. 216; 1018, p. 183; 1025, p. 176; *1073, p. 230). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	7.20	May 15	7.24	July 31	6.74	Oct. 7	7.63
Feb. 8	7.23	June 20	6.58	Sept. 3	7.56		

8-21-12bc (*988, p. 216; 1018, p. 183; 1025, p. 176; *1073, p. 231). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	9.81	May 15	9.97	July 31	9.27	Oct. 7	9.59
Feb. 8	9.90	June 20	9.37	Sept. 3	9.39		

8-22-8cb. Central Nebraska Public Power and Irrigation District. Drilled observation well, diameter 12 inches, reported depth 256 feet. Measuring point, edge of casing, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 12, 129.30; Nov. 25, 126.30.

8-22-8cd (*988, p. 217; 1018, p. 184; 1025, p. 177; *1073, p. 231). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: Oct. 10, 148.82; Nov. 17, 150.82.

Grant County

24-37-25ac (*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202; 988, p. 223; 1018, p. 186; 1025, p. 179; *1073, p. 231). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Jan. 11, 5.47; Apr. 24, 5.15; Aug. 29, 5.97; Oct. 28, 5.90.

24-40-36bb (*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202; 988, p. 223; 1018, p. 186; *1025, p. 179; *1073, p. 231). University of Nebraska. Lowest observed stage in period of record, 14.99 on Aug. 29. Water levels, in feet below land-surface datum, 1947: Jan. 11, 14.02; Apr. 24, 14.05; Aug. 29, 14.99; Oct. 28, 14.02.

Greeley County

No measurements made in 1947.

Hall County

9-10-4dc (*1073, p. 231). L. C. Hilsbeck. Altitude 1,938.1 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	5.25	May 14	5.15	Sept. 11	6.68
Mar. 19	4.72	July 16	4.82	Nov. 7	6.70

9-10-29db. Drilled irrigation well, diameter 18 inches, reported depth 151 feet. Measuring point, hole in turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 14, 70.03.

9-11-8bc (*1073, p. 231). R. Abbot. Altitude 1,957.5 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 6	5.71	May 12	5.80	Nov. 3	7.39
Mar. 7	5.62	July 10	5.60		

9-11-14cb (*1073, p. 232). C. Cox. Altitude 1,941.3 feet above sea level. Highest observed stage in period of record, 7.03 on July 16.

Water level, in feet below land-surface datum, 1947

Jan. 9	7.54	May 10	7.90	Sept. 11	8.77
Mar. 19	7.10	July 16	7.03	Nov. 7	7.92

9-11-21bb (*1073, p. 232). Geological Survey, U. S. Dept. of Interior. Altitude 1,958.8 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 10	7.74	May 14	7.86	Sept. 11	9.44
Mar. 19	7.52	July 16	7.89	Nov. 7	9.15

9-12-1dc (*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 224; 1018, p. 187; 1025, p. 180; *1073, p. 232).

Water level, in feet below land-surface datum, 1947

Jan. 6	4.15	May 12	4.24	Nov. 3	7.59
Mar. 8	4.12	July 10	5.03		

9-12-9ba (*817, p. 134; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 224; 1018, p. 187; 1025, p. 180; *1073, p. 232). S. Spahr. Altitude 2,002.48 feet above sea level. Recorder removed after Mar. 26.

Lowest daily water level, in feet below land-surface datum, 1947

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	21.02	Jan. 9	21.06	Jan. 14	21.04	Jan. 19	21.05
5	20.99	10	20.99	15	21.07	25	21.10
6	20.98	11	21.00	16	21.07	26	21.09
7	21.04	12	20.99	17	21.09	27	21.13
8	21.06	13	20.98	18	21.09	28	21.13

9-12-9ba--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts) .

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	21.08	Feb. 16	21.07	Feb. 27	21.06	Mar. 19	21.14
30	21.12	17	21.05	28	21.05	20	21.14
31	21.13	18	21.07	Mar. 1	21.07	21	21.12
Feb. 8	21.18	19	21.05	8	21.12	22	21.09
9	21.18	20	21.05	9	21.15	23	21.10
10	21.17	21	21.03	10	21.15	24	21.14
11	21.18	22	21.05	11	21.12	25	21.15
12	21.19	23	21.06	12	21.14	26	21.14
13	21.16	24	21.06	13	21.14	May 12	20.68
14	21.15	25	21.07	14	21.14	July 10	19.63
15	21.12	26	21.08	15	21.15	Nov. 3	22.12

10-9-3cb (*836-E, pp. 253, 279; 886, p. 317; 908, p. 205; 938, p. 168; 946, p. 208; *988, p. 229; 1018, p. 191; 1025, p. 184; *1073, p. 233). City of Grand Island. Water levels, in feet below land-surface datum, 1947: Mar. 17, 3.92; July 14, 3.34; Nov. 3, 5.65.

10-9-4cb (*836-E, pp. 253, 279; 886, p. 317; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 229; 1018, p. 192; 1025, p. 184; *1073, p. 233). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 3.66; July 14, 3.00; Nov. 3, 5.25.

10-9-8cc (*836-E, pp. 253, 279; 886, p. 317; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 229; 1018, p. 192; 1025, p. 184; *1073, p. 233). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1947: Mar. 17, 3.08.

10-9-10bb (*1073, p. 233). P. Herman. Altitude 1,863.1 feet above sea level. Highest observed stage in period of record, 7.23 on July 10; lowest, 9.38 on Sept. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	7.75	May 8	7.50	Sept. 11	9.38
Mar. 7	7.68	July 10	7.23	Nov. 3	9.10

10-9-27bb (*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 223; 1018, p. 186; 1025, p. 180; *1073, p. 233). University of Nebraska. Altitude 1,881.45 feet above sea level. Well destroyed; measurements discontinued Sept. 11. Water levels, in feet below land-surface datum, 1947: Jan. 10, 14.62; Mar. 8, 14.35; May 8, 14.25; July 16, 13.78.

10-9-28cc (*1073, p. 233). Altitude 1,887.9 feet above sea level. Highest observed stage in period of record, 13.77 on July 16.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	14.45	May 8	14.24	Sept. 11	14.96
Mar. 8	14.19	July 16	13.77	Nov. 7	14.84

10-10-8cc (*817, p. 132; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 223; 1018, p. 186; 1025, p. 180; *1073, p. 234). F. Dahlstrom. Altitude 1,921.41 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	21.36	May 8	21.20	Nov. 3	21.85
Mar. 8	21.29	July 10	20.11		

10-10-13dd (*1073, p. 234). Geological Survey, U. S. Dept. of Interior. Altitude 1,879.9 feet above sea level. Highest observed stage in period of record, 2.97 on Jan. 10.

10-10-13dd--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	2.97	May 8	3.88	Sept. 11	4.80
Mar. 7	3.54	July 16	3.46	Nov. 7	4.22

10-11-15dc (#988, p. 224; 1018, p. 186; 1025, p. 180; *1073, p. 234). W. A. Bouton. Altitude 1,944.00 feet above sea level. Highest observed stage in period of record, 15.56 on July 10.

Water level, in feet below land-surface datum, 1947

Jan. 6	18.32	May 12	17.97	Sept. 5	18.72
Mar. 7	18.40	July 10	15.56	Nov. 3	17.48

10-11-30bc (#817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 224; 1018, p. 186; 1025, p. 180; *1073, p. 234). J. Weldon. Altitude 1,970.23 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 6	20.40	May 12	19.95	Nov. 3	19.04
Mar. 8	20.21	July 10	18.88		

10-12-20dd (*1073, p. 234). This well destroyed and replaced by well 10-12-21cc.

10-12-21cc. Irrigation well, depth 59.6 feet. Measuring point, hole in concrete floor, 0.1 foot above land-surface datum. Highest observed stage in period of record, 28.40 on July 10; lowest, 29.30 on May 8. Water levels, in feet below land-surface datum, 1947: May 8, 29.30; July 10, 28.40; Nov. 3, 28.62.

11-9-3bc (#836-E, pp. 252, 272; 886, p. 307; 908, p. 203; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 187; 1025, p. 180; *1073, p. 234). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1947: Mar. 17, 12.00.

11-9-4cc (#836-E, pp. 252, 272; 886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 187; 1025, p. 181; *1073, p. 234). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 11.66; June 21, 10.83; Oct. 21, 11.92.

11-9-4cd (#836-E, pp. 252, 272; 886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 187; 1025, p. 181; *1073, p. 234). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 11.42 on July 21. Water levels, in feet below land-surface datum, 1947: May 26, 12.00; June 21, 11.42; Oct. 21, 13.42.

11-9-8da (#836-E, pp. 252, 272; 886, p. 308; 908, p. 203; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 187; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 17.58; July 21, 14.83; Oct. 21, 15.92.

11-9-8db (#836-E, pp. 252, 272; 886, p. 308; 908, p. 203; 938, p. 167; 946, p. 204; *988, p. 225; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. No measurements made in 1947.

11-9-9aal (#836-E, pp. 252, 272; 886, p. 309; 908, p. 203; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 18.75; July 21, 17.58; Oct. 21, 19.42.

11-9-9bd (*836-E, pp. 252, 273; 886, p. 309; 908, p. 263; 938, p. 167; 946, p. 204; *988, p. 226; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 17.08; July 21, 15.92; Oct. 21, 17.25.

11-9-9cc (*836-E, pp. 252, 272; 886, p. 309; 908, p. 204; 938, p. 167; 946, p. 204; *988, p. 226; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 19.83; July 21, 18.66; Oct. 21, 19.58.

11-9-9da (*836-E, pp. 252, 273; 886, p. 309; 908, p. 204; 938, p. 167; 946, p. 204; *988, p. 226; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 25.92; July 21, 25.75; Oct. 21, 26.42.

11-9-9dd (*836-E, pp. 252, 273; 886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 226; 1018, p. 188; 1025, p. 181; *1073, p. 235). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 25.42 on July 21. Water levels, in feet below land-surface datum, 1947: May 26, 26.00; July 21, 25.42; Oct. 21, 26.66.

11-9-12dc (*836-E, pp. 252, 274; 886, p. 310; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 226; 1018, p. 188; *1025, p. 181; 1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 5.50; July 14, 5.00; Nov. 3, 7.25.

11-9-15bb1 (*836-E, pp. 252, 274; 886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 226; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements are supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 25.00; July 21, 23.83; Oct. 21, 25.25.

11-9-15bb2 (*836-E, pp. 252, 274; 886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 226; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 27.00; July 21, 26.58; Oct. 21, 27.25.

11-9-15cc (*836-E, pp. 252, 274; 886, p. 311; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 227; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 5.25; July 21, 4.66.

11-9-15db (*836-E, pp. 252, 275; 886, p. 311; 908, p. 204; 946, p. 205; *988, p. 227; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 7.92; July 21, 7.25; Oct. 21, 8.50.

11-9-15dd (*836-E, pp. 252, 275; 886, p. 312; 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 227; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 5.83 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 7.50; July 14, 5.83; Nov. 3, 8.16.

11-9-16ad (*836-E, pp. 253, 275; 886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206; *988, p. 227; 1018, p. 189; 1025, p. 182; *1073, p. 236). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 30.50; July 21, 30.25; Oct. 21, 30.16.

11-9-16bc (*836-E, pp. 253, 275; 886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206; *988, p. 227; 1018, p. 189; 1025, p. 182; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 28.75; July 21, 28.16; Oct. 21, 28.36.

11-9-16bd (*836-E, pp. 253, 275; 886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206; 988, p. 227; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 36.50; July 21, 36.08; Oct. 21, 35.00.

11-9-16ca (*836-E, pp. 253, 276; 886, p. 313; 908, p. 204; 938, p. 167; 946, p. 206; *988, p. 227; 1018, p. 190; 1025, p. 182; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 35.92; July 21, 34.92; Oct. 21, 35.67.

11-9-16cb (*836-E, pp. 253, 276; 886, p. 313; 908, p. 204; 938, p. 167; 946, p. 206; *988, p. 227; 1018, p. 190; 1025, p. 182; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 29.66; July 21, 29.34; Oct. 21, 29.58.

11-9-16db (*836-E, pp. 253, 276; 886, p. 313; 908, p. 205; 938, p. 167; 946, p. 206; *988, p. 227; 1018, p. 190; 1025, p. 182; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 35.92; July 21, 30.50; Oct. 21, 30.84.

11-9-17ba (*836-E, pp. 253, 276; 886, p. 313; 908, p. 205; 938, p. 167; 946, p. 206; *988, p. 228; 1018, p. 190; 1025, p. 183; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 14.75; July 21, 13.08; Oct. 21, 14.32.

11-9-17bd (*836-E, pp. 253, 276; 886, p. 314; 908, p. 205; 938, p. 167; 946, p. 206; *988, p. 228; 1018, p. 190; 1025, p. 183; *1073, p. 237). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 18.50; July 21, 16.75; Oct. 21, 18.58.

11-9-17cd (*836-E, pp. 253, 277; 886, p. 314; 908, p. 205; 938, p. 167; 946, p. 206; *988, p. 228; 1018, p. 190; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 21.25; July 21, 20.92; Oct. 21, 28.66.

11-9-21bb (*836-E, pp. 253, 277; 886, p. 314; 908, p. 205; 938, p. 167; 946, p. 207; *988, p. 228; 1018, p. 190; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: May 26, 29.92; July 21, 29.08; Oct. 21, 29.50.

11-9-21bd (*836-E, pp. 253, 277; 886, p. 315; 908, p. 205; 938, p. 167; 946, p. 207; *988, p. 228; 1018, p. 191; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1947: May 26, 33.00; July 21, 32.00; Oct. 21, 32.32.

11-9-22cb (*836-E, pp. 253, 277; 886, p. 315; 908, p. 205; 938, p. 167; 946, p. 207; *988, p. 228; 1018, p. 191; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 9.66; July 14, 8.00; Nov. 3, 8.75.

11-9-26aa (*836-E, pp. 253, 278; 886, p. 315; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 228; 1018, p. 191; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 4.16; July 14, 3.08; Nov. 3, 5.34.

11-9-27bc. City of Grand Island. Driven observation well, diameter $1\frac{1}{4}$ inches. Measuring point, top of pipe, 0.3 foot above land-surface datum. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 6.00 on July 10, 1947; lowest, 10.70 on Feb. 26, 1944.

11-9-27bc--Continued.

Water level, in feet below land-surface datum, 1942-47

Date	Water level	Date	Water level	Date	Water level
Feb. 20, 1942	10.53	Jan. 15, 1944	10.62	Sept. 16, 1946	10.28
Apr. 9	10.36	Feb. 26	10.70	Nov. 9	9.03
June 18	10.20	July 10	7.38	Jan. 13, 1947	9.28
July 17	9.95	Sept. 11	9.24	Mar. 17	9.70
Oct. 13	8.78	Jan. 22, 1945	10.36	July 10	a6.00
Dec. 6	9.20	May 14	9.78	July 14	6.03
Mar. 24, 1943	9.12	Mar. 11, 1946	10.03	Sept. 11	a9.02
Aug. 23	7.00	May 6	9.54	Nov. 3	a9.71
Oct. 11	9.88	July 8	9.70		

a Measurement by Geological Survey.

11-9-27cb (*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 223; 1073, p. 238). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Jan. 10, 6.79; Mar. 7, 6.96. Well destroyed and replaced by 11-9-27bc.

11-9-28ba (*836-E, pp. 253, 278; p. 315; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 183; *1073, p. 238). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 13.65; July 14, 14.00; Nov. 3, 13.66.

11-9-29bb (*836-E, pp. 253, 278; 886, p. 316; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 183; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 19.16 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 21.83; July 14, 19.16; Nov. 3, 19.66.

11-9-32cc (*836-E, pp. 253, 278; 886, p. 316; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 183; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 3.34; July 14, 2.25; Nov. 3, 4.75.

11-9-34aa (*836-E, pp. 253, 278; 886, p. 316; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 184; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 4.42; July 14, 3.58; Nov. 3, 5.25.

11-9-34cb (*836-E, pp. 253, 279; 886, p. 316; 908, p. 205; 938, p. 168; 946, p. 208; *988, p. 229; 1018, p. 191; 1025, p. 184; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 4.58; July 14, 2.92; Nov. 3, 5.58.

11-9-35dc (*836-E, pp. 253, 279; 886, p. 317; 908, p. 205; 938, p. 168; 946, p. 208; *988, p. 229; 1018, p. 191; 1025, p. 184; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 2.08 on July 14. Water levels, in feet below land-surface datum, 1947: July 14, 2.08; Nov. 3, 4.66.

11-10-1cc (erroneously reported as 12-10-1cc in previous reports) (*836-E, pp. 253, 280; 886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184; *1073, p. 242). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 5.08 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 6, 6.83; July 14, 5.08; Nov. 3, 5.25.

11-10-11dc (*836-E, pp. 253, 280; 886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 5.00 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 6.75; July 14, 5.00; Nov. 3, 5.83.

11-10-13ab (*836-E, pp. 253, 280; 886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184; *1073, p. 239). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 8.00 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 9.83; July 14, 8.00; Nov. 3, 8.92.

11-10-14dd (*1073, p. 240). H. Thomas. Altitude 1,877.59 feet above sea level. Highest observed stage in period of record, 9.15 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	10.47	May 8	10.50	Sept. 5	9.60
Mar. 7	10.82	July 10	9.15	Nov. 3	9.72

11-10-16bb (*1073, p. 240). Geological Survey, U. S. Dept. of Interior. Altitude 1,893.50 feet above sea level. Highest observed stage in period of record, 9.79 on July 10 and Sept. 5.

Water level, in feet below land-surface datum, 1947

Jan. 6	10.40	July 10	9.79	Nov. 3	9.80
May 8	10.44	Sept. 5	9.79		

11-10-24cb (*836-E, pp. 253, 280; 886, p. 318; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184; *1073, p. 240). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 12.66 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 14.66; July 14, 12.66; Nov. 3, 13.16.

11-10-26dd (*836-E, pp. 253, 280; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184; *1073, p. 240). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 6.83; July 14, 5.66; Nov. 3, 7.66.

11-10-27dc (*1073, p. 240). Geological Survey, U. S. Dept. of Interior. Altitude 1,896.22 feet above sea level. Highest observed stage in period of record, 15.43 on Sept. 5.

Water level, in feet below land-surface datum, 1947.

Jan. 6	16.88	May 8	16.73	Sept. 5	15.43
Mar. 7	16.91	July 10	15.79	Nov. 3	16.00

11-11-25cc (*1073, p. 240). Geological Survey, U. S. Dept. of Interior. Altitude 1,924.0 feet above sea level.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	16.77	16.72	16.70	16.64	16.57	13.44	14.01	15.63	16.05	16.18	16.28
2	.....	16.77	16.72	16.70	16.64	16.57	13.51	14.01	15.65	16.06	16.18	16.29
3	.....	16.77	16.72	16.70	16.64	16.57	13.58	14.03	15.66	16.06	16.17	16.30
4	.....	16.77	16.72	16.70	16.63	16.57	13.64	14.05	15.67	16.07	16.18	16.30
5	.....	16.77	16.72	16.69	16.63	16.57	13.71	14.14	15.67	16.07	16.19	16.30
6	.....	16.77	16.72	16.69	16.63	16.56	13.79	14.25	15.71	16.07	16.18	16.31
7	16.81	16.76	16.72	16.72	16.62	16.57	13.84	14.55	15.73	16.08	16.19	16.32
8	16.80	16.76	16.74	16.72	16.62	16.57	13.90	14.44	15.76	16.08	16.19	16.32
9	16.81	16.76	16.74	16.72	16.62	16.56	13.95	14.50	15.78	16.08	16.20	16.32
10	16.81	16.76	16.73	16.72	16.62	16.55	13.95	14.56	15.80	16.08	16.20	16.32
11	16.81	16.76	16.73	16.69	16.62	16.56	14.35	14.65	15.85	16.08	16.20	16.32
12	16.81	16.76	16.73	16.71	16.62	16.56	14.35	14.71	15.88	16.09	16.20	16.33
13	16.80	16.76	16.73	16.71	16.62	16.55	14.34	14.77	15.89	16.10	16.20	16.33
14	16.80	16.76	16.73	16.71	16.62	16.54	14.31	14.83	15.93	16.09	16.20	16.32
15	16.80	16.76	16.72	16.70	16.62	16.53	14.30	14.90	15.94	16.09	16.21	16.33
16	16.80	16.76	16.72	16.69	16.62	16.52	14.28	14.95	15.95	16.09	16.22	16.34
17	16.79	16.76	16.72	16.68	16.61	16.49	14.27	15.00	15.95	16.10	16.22	16.34
18	16.79	16.75	16.72	16.68	16.61	16.47	14.26	15.05	15.97	16.10	16.22	16.34
19	16.79	16.75	16.72	16.68	16.61	16.45	14.23	15.10	15.98	16.11	16.23	16.35

11-11-25cc--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	16.78	16.74	16.72	16.67	16.61	16.40	14.16	15.18	15.98	16.11	16.23	16.36
21	16.77	16.73	16.72	16.67	16.60	16.37	14.17	15.24	16.00	16.11	16.25	16.37
22	16.77	16.73	16.72	16.67	16.59	16.34	14.14	15.29	16.02	16.12	16.26	16.36
23	16.77	16.72	16.72	16.66	16.59	16.32	14.13	15.34	16.02	16.13	16.26	16.37
24	16.77	16.72	16.71	16.66	16.59	16.04	14.12	15.42	16.03	16.14	16.26	16.38
25	16.77	16.72	16.70	16.66	16.59	15.64	14.10	15.47	16.04	16.15	16.27	16.38
26	16.77	16.72	16.71	16.66	16.58	14.49	14.08	15.48	16.04	16.15	16.27	16.37
27	16.77	16.72	16.71	16.66	16.58	13.14	14.06	15.51	16.04	16.16	16.28	16.37
28	16.77	16.72	16.70	16.66	16.57	13.11	14.05	15.53	16.05	16.17	16.28	16.38
29	16.77		16.70	16.65	16.57	13.23	14.04	15.54	16.05	16.17	16.29	16.37
30	16.77		16.70	16.64	16.57	13.35	14.02	15.57	16.05	16.17	16.29	16.38
31	16.76		16.70		16.57		14.03	15.60		16.18		16.38

a Flood stage, accuracy questionable.

11-11-32cb (*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 224; 1018, p. 186; 1025, p. 184; *1073, p. 241). F. Hughes. Altitude 1,960.0 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	35.90	May 12	35.52	Nov. 3	36.42
Mar. 10	35.77	July 10	35.11		

11-11-36cb (*817, p. 132; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 223; 1018, p. 186; 1025, p. 184; *1073, p. 241). E. Batie. Altitude 1,929.5 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 6	23.55	May 12	23.31	Nov. 3	23.16
Mar. 7	23.45	July 10	21.15		

11-12-34dc (*1073, p. 241). Altitude 1,974.0 feet above sea level.

Water level, in feet below land-surface datum, 1947

Jan. 6	26.17	May 12	26.05	Sept. 5	26.78
Mar. 10	26.17	July 10	25.72	Nov. 3	26.60

12-9-27cb (*836-E, pp. 252, 271; 886, p. 306; 908, p. 203; 988, p. 224; *1018, p. 187; 1025, p. 180; *1073, p. 241). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1947: Mar. 17, 5.16; July 14, 5.25; Nov. 3, 5.83.

12-9-32aa1 (*836-E, pp. 252, 271; 886, p. 307; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 225; 1018, p. 187; 1025, p. 180; *1073, p. 241). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 7.58 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 9.16; July 14, 7.58; Nov. 3, 9.25.

12-9-32aa2 (*1073, p. 241). E. H. Stobbe. Altitude 1,859.8 feet above sea level. Highest observed stage in period of record, 10.67 on July 10.

Water level, in feet below land-surface datum, 1947

Jan. 6	12.30	May 8	11.75	Nov. 3	12.53
Mar. 8	12.21	July 10	10.67		

12-9-32cc (*836-E, pp. 252, 271; 886, p. 307; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 225; 1018, p. 187; 1025, p. 180; *1073, p. 241). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 7.08 on July 14. Water levels, in feet below land-surface datum, 1947: Mar. 17, 8.58; July 14, 7.08; Nov. 3, 8.25.

12-11-24cd (*1073, p. 242). Geological Survey, U. S. Dept. of Interior. Altitude 1,901.80 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	11.29	May 8	10.66	Sept. 5	7.80
Mar. 8	11.30	July 10	6.42	Nov. 3	9.41

Hamilton County

9-6-34bb (*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; *1018, p. 193; 1025, p. 185; *1073, p. 242). T. Wild. Highest observed stage in period of record, 38.65 on July 7. Water level, in feet below land-surface datum, 1947: July 7, 38.65.

9-8-9dc (*817, p. 135; 840, p. 205; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; *1018, p. 192; 1025, p. 185; *1073, p. 242). R. Phillips. No measurements made in 1947.

11-6-13cb (*817, p. 135; 840, p. 205; 845, p. 176; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; *1018, p. 192; 1025, p. 185; *1073, p. 242). O. Swedberg. Water levels, in feet below land-surface datum, 1947: Jan. 2, 93.28; Mar. 3, 93.16; July 7, 93.21.

11-8-28bc (*1073, p. 242). H. J. Rathje. Altitude 1,845.74 feet above sea level. Highest observed stage in period of record, 29.80 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	30.59	May 8	30.35	Sept. 11	31.92	Nov. 3	30.92
Mar. 7	29.95	July 10	29.80	Oct. 23	31.00		

13-5-19aa (*1073, p. 242). E. L. Clayton. Altitude 1,705.39 feet above sea level. Highest observed stage in period of record, 24.60 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	25.28	May 7	24.90	Oct. 22	26.90
Mar. 3	25.16	July 7	24.60	Nov. 10	26.72

13-6-27cc (*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; *1018, p. 193; 1025, p. 185; *1073, p. 243). H. Lock. Altitude 1,714.94 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.29	May 7	8.69	Sept. 3	10.11	Nov. 10	10.00
Mar. 3	8.96	July 7	8.09	Oct. 25	10.15		

Harlan County

1-17-1da (*1073, p. 243). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	5.06	Aug. 1	5.21	Dec. 1	7.07
June 9	5.40	Oct. 9	7.79		

1-17-12da (*1073, p. 243). Mrs. Edna Godeken.

Water level, in feet below land-surface datum, 1947

Feb. 28	13.99	Aug. 1	13.70	Dec. 1	17.02
June 9	15.36	Oct. 9	16.52		

1-19-35bc. P. Rogers. Abandoned observation well, diameter 4 inches, depth 68.2 feet. Measuring point, top of casing, 0.70 foot above land-surface datum. Highest observed stage in period of record, 29.52 on Dec. 5; lowest, 30.05 on Oct. 16. Water levels, in feet below land-surface datum, 1947: Oct. 16, 30.05; Oct. 28, 29.99; Dec. 5, 29.52.

2-18-33cd (*817, p. 136; 840, p. 206; 845, p. 117; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; *1018, p. 193; 1025, p. 185; *1073, p. 243). C. Reese. Highest observed stage in period of record, 5.68 on Aug. 1. Water levels, in feet below land-surface datum, 1947: June 9, 8.55; Aug. 1, 5.68; Oct. 9, 9.50; Dec. 1, 10.12.

2-19-5cb (*1073, p. 243). L. E. Short.

Water level, in feet below land-surface datum, 1947

Feb. 28	20.36	Aug. 1	20.38	Dec. 1	21.30
June 9	20.52	Oct. 9	22.00		

2-19-17da (*1073, p. 243). B. Korte. Highest observed stage in period of record, 18.60 on Aug. 1.

Water level, in feet below land-surface datum, 1947

Feb. 28	19.30	Aug. 1	18.60	Dec. 1	20.80
June 9	19.51	Oct. 9	20.36		

2-19-28dd (*1073, p. 243). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Feb. 28	7.99	Aug. 1	7.71	Dec. 1	9.43
June 9	7.37	Oct. 9	9.71		

2-19-34bc (*1073, p. 243). C. Fishbeck. Highest observed stage in period of record, 20.15 on June 9. Water levels, in feet below land-surface datum, 1947: Feb. 28, 20.49; June 9, 20.15; Oct. 9, 21.95; Dec. 1, 21.37.

3-17-21da (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; 1018, p. 193; 1025, p. 185; *1073, p. 244). No measurements made in 1947.

3-17-27bb (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; 988, p. 230; 1018, p. 193; 1025, p. 185; *1073, p. 244). University of Nebraska. No measurements made in 1947.

3-20-7ab (*1073, p. 244). C. L. Struve. Highest observed stage in period of record, 29.56 on Aug. 1.

Water level, in feet below land-surface datum, 1947

Feb. 28	30.00	Aug. 1	29.56	Dec. 1	30.02
June 9	29.77	Oct. 9	30.36		

3-20-16bb (*1073, p. 244). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	6.53	Aug. 1	5.66	Dec. 1	8.15
June 9	4.52	Oct. 9	8.68		

3-20-18ca (*1073, p. 244). Fish Implement Co. Highest observed stage in period of record, 13.40 on June 9. Water levels, in feet below land-surface datum, 1947: Feb. 28, 13.60; June 9, 13.40; Oct. 9, 14.33; Dec. 2, 14.65.

3-20-22dd (*1073, p. 244). C. Murdock. Highest observed stage in period of record, 24.20 on Aug. 1.

Water level, in feet below land-surface datum, 1947

Feb. 28	24.75	Aug. 1	24.20	Dec. 2	25.42
June 9	24.41	Oct. 9	25.99		

3-20-25cc (*1073, p. 244). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 10.22 on Aug. 1.

Water level, in feet below land-surface datum, 1947

Feb. 28	11.92	Aug. 1	10.22	Dec. 2	13.96
June 9	11.90	Oct. 9	13.40		

Hayes County

5-32-25dc (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 269; 946, p. 209; 988, p. 231; *1018, p. 193; 1025, p. 185; *1073, p. 244). No measurements made in 1947.

5-33-30cb (*1073, p. 244). R. Scott.

Water level, in feet below land-surface datum, 1947

Feb. 27	19.16	July 30	19.48	Dec. 5	19.21
June 7	19.51	Oct. 8	19.65		

5-33-31dc (*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209; *988, p. 231; 1018, p. 193; 1025, p. 185; *1073, p. 244). University of Nebraska. Lowest observed stage in period of record, 14.82 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	13.50	July 30	13.97	Dec. 5	13.39
June 7	13.85	Oct. 8	14.82		

5-34-28bc (*1073, p. 245). T. T. Schrieber. Water levels, in feet below land-surface datum, 1947: July 30, 57.70; Oct. 8, 57.91; Dec. 5, 57.87.

5-34-30ba (*1073, p. 245). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Feb. 27	10.62	July 30	11.09	Dec. 5	11.19
June 7	10.96	Oct. 8	11.30		

5-35-17da (*1073, p. 245). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Feb. 27	8.38	July 30	8.88	Dec. 5	8.75
June 7	8.65	Oct. 8	9.00		

7-34-4ac (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 169; 946, p. 209; 988, p. 231; 1018, p. 193; 1025, p. 185; *1073, p. 245). Laird & Ward Estate. No measurements made in 1947.

Hitchcock County

2-33-2aa (*1073, p. 245). M. O. Wertz. Lowest observed stage in period of record, 11.00 on Dec. 5. Water levels, in feet below land-surface datum, 1947: Feb. 27, 9.91; June 7, 9.79; July 30, 10.12; Dec. 5, 11.00.

2-33-6cb (*1073, p. 245). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 9.80 on June 7; lowest, 11.19 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	9.83	July 30	10.15	Dec. 5	10.52
June 7	9.80	Oct. 8	11.19		

2-33-10ab (*1073, p. 245). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 7.10 on Feb. 24 and June 5; lowest, 8.60 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Feb. 24	7.10	July 28	7.60	Dec. 3	7.87
June 5	7.10	Oct. 6	8.60		

2-34-8da (*1073, p. 245). H. Pollman. Highest observed stage in period of record, 18.47 on July 30; lowest, 20.22 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	19.24	July 30	18.47	Dec. 5	19.77
June 7	19.03	Oct. 8	20.22		

2-34-11dc (*1073, p. 245). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 10.10 on July 30; lowest, 11.34 on Dec. 4.

Water level, in feet below land-surface datum, 1947

Feb. 26	10.81	July 30	10.10	Dec. 4	11.35
June 6	10.45	Oct. 6	10.62		

2-35-13bb (*1073, p. 246). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 15.74 on June 6.

Water level, in feet below land-surface datum, 1947

Feb. 26	14.32	July 30	13.88	Dec. 5	15.48
June 6	15.74	Oct. 8	14.84		

2-35-21bc (*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209; 988, p. 231; 1018, p. 193; 1025, p. 185; *1073, p. 246). O. Bloomfield.

Water level, in feet below land-surface datum, 1947

Feb. 27	20.15	July 30	20.10	Dec. 5	20.53
June 7	20.19	Oct. 8	20.69		

2-35-24aa (*1073, p. 246). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.50 on June 6; lowest, 8.77 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 26	4.61	July 30	4.97	Dec. 4	5.84
June 6	4.50	Oct. 8	8.77		

3-31-14bc (*1073, p. 246). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 11.82 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	14.59	July 30	14.81	Dec. 5	14.37
June 9	14.67	Oct. 8	11.82		

3-31-15cb (*1073, p. 246). J. Kautz. Water level, in feet below land-surface datum, 1947: Feb. 24, 7.09; June 5, measuring point destroyed.

3-31-17cd (*1073, p. 246). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 7.42 on Feb. 24.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 24	7.42	July 30	7.85	Dec. 3	7.79
June 5	7.45	Oct. 6	8.70		

3-31-20da (*1073, p. 246). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 6.58 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	7.79	July 28	6.58	Dec. 3	8.20
June 5	7.45	Oct. 6	7.92		

3-31-29bb. Drilled irrigation well, diameter 18 inches, depth 47 feet. Measuring point, hole in side of turbine, 1.4 feet above land-surface datum. Highest observed stage in period of record, 13.32 on July 28; lowest, 13.50 on Dec. 3. Water levels, in feet below land-surface datum, 1947: July 28, 13.32; Oct. 6, 13.43; Dec. 3, 13.50.

3-32-11bb (*1073, p. 246). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Feb. 27	13.29	July 30	13.39	Dec. 5	13.30
June 7	13.74	Oct. 8	13.80		

3-32-12cc (*1073, p. 246). Mrs. Maude Morthole.

Water level, in feet below land-surface datum, 1947

Feb. 27	21.64	July 30	21.47	Dec. 5	21.36
June 7	21.95	Oct. 8	21.82		

3-32-26dd (*1073, p. 247). E. Meintz. Highest observed stage in period of record, 27.40 on July 28.

Water level, in feet below land-surface datum, 1947

Feb. 24	28.00	July 28	27.40	Dec. 3	28.58
June 5	27.85	Oct. 6	28.80		

3-32-31aa (*1073, p. 247). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.78 on Feb. 27; lowest, 7.31 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	5.78	July 30	6.07	Dec. 5	6.98
June 7	5.87	Oct. 8	7.31		

3-33-35dc (*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 320; 908 p. 207; 938, p. 169; 946, p. 210; *988, p. 231; 1018, p. 194; 1025, p. 185; *1073, p. 247). Lowest observed stage in period of record, 11.60 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	10.22	July 30	10.00	Dec. 5	11.35
June 7	9.97	Oct. 8	11.60		

4-32-33db (*1073, p. 247). J. Bowen. No measurements made in 1947.

4-33-8bb (*1073, p. 247). R. Handel. Highest observed stage in period of record, 54.85 on Feb. 27; lowest, 55.74 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Feb. 27	54.85	July 30	55.00	Dec. 5	55.32
June 7	55.14	Oct. 8	55.74		

4-33-25ad (*1073, p. 247). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 12.55 on Feb. 27.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	12.55	July 30	12.90	Dec. 5	12.84
June 7	13.05	Oct. 8	13.56		

Holt County

26-12-24aa (*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 231; 1018, p. 194; 1025, p. 186; *1073, p. 247). University of Nebraska. No measurements made in 1947.

27-9-27dd (*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; *988, p. 231; 1018, p. 194; 1025, p. 186; *1073, p. 247). University of Nebraska. Highest observed stage in period of record, 2.62 on July 18. Water levels, in feet below land-surface datum, 1947: July 18, 2.62; Oct. 21, 4.94; Dec. 17, 5.52; Dec. 30, 5.68.

27-9-34da (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; *988, p. 231; 1018, p. 194; 1025, p. 186; *1073, p. 247). University of Nebraska. U. S. 56. Lowest observed stage in period of record, 9.87 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	7.90	July 31	8.84	Sept. 17	9.79	Nov. 4	9.60
Mar. 29	7.40	Aug. 6	9.10	24	9.86	18	9.46
June 1	7.71	8	9.34	30	9.83	3	9.41
July 2	4.70	19	9.42	Oct. 8	9.87	17	9.29
18	7.99	26	9.58	21	9.83	30	9.19
23	8.36	Sept. 9	9.78				

27-14-28bc (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 231; 1018, p. 194; 1025, p. 186; *1073, p. 248). L. Nessen. No measurements made in 1947.

28-14-29aa (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 231; 1018, p. 194; 1025, p. 186; *1073, p. 248). University of Nebraska. No measurements made in 1947.

29-11-9bb. Abandoned drilled stock well, diameter 10 inches, depth 14.7 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 19, 7.65; Dec. 15, 7.41.

29-11-21bb. Drilled stock well, diameter 5 inches, depth 55 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 19, 24.45; Dec. 15, 16.87.

29-12-10cb. School district. Drilled domestic well, diameter 6 inches. Measuring point, bolt hole in side of pump, 2.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 18, 27.20; Dec. 15, 27.24.

29-12-14ba (*817, p. 137; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 946, p. 210). G. Shoemaker. Measuring point destroyed. No measurements made in 1947.

29-13-13dd. Abandoned drilled stock well, diameter 6 inches, depth 55 feet. Measuring point, base of pump, 1.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 18, 39.73; Dec. 15, 39.66.

30-13-27cc. Unused drilled stock well, diameter 6 inches, depth 67 feet. Measuring point, 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 18, 30.05; Dec. 15, 29.86.

30-14-23dd. Drilled stock well, diameter 6 inches, depth 46 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 18, 31.72; Dec. 15, 31.69.

31-14-35cb. Abandoned drilled domestic well, diameter 5 inches, depth 28.5 feet. Measuring point, top of casing, 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Nov. 18, 27.77; Dec. 15, 27.77.

Hooker County

24-35-23dd (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 232; *1018, p. 194; 1025, p. 186; *1073, p. 248). University of Nebraska. Lowest observed stage in period of record, 20.51 on Oct. 28. Water levels, in feet below land-surface datum, 1947: Jan. 11, 20.26; Apr. 24, 20.46; Aug. 29, 20.49; Oct. 28, 20.51.

Howard County

13-9-26dd (*1073, p. 248). Geological Survey, U. S. Dept. of Interior. Altitude 1,819.7 feet above sea level. Highest observed stage in period of record, 5.54 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	8.10	May 8	6.98	Sept. 5	7.90
Mar. 7	7.85	July 10	5.54	Nov. 3	8.49

13-9-27ca (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 232; *1018, p. 194; 1025, p. 186; *1073, p. 248). Placke Estate. No measurements made in 1947.

13-12-29ba (*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 210; 988, p. 232; 1018, p. 195; 1025, p. 186; *1073, p. 248). O. Young. No measurements made in 1947.

14-10-14bb (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 232; 1018, p. 194; 1025, p. 186; *1073, p. 248). University of Nebraska. No measurements made in 1947.

16-11-27dc (*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 232; 1018, p. 195; 1025, p. 186; *1073, p. 248). M. Augustyn. No measurements made in 1947.

Jefferson County

No measurements made in 1947.

Johnson County

No measurements made in 1947.

Kearney County

5-13-33cc. Chris Raun. Drilled irrigation well, diameter 18 inches, reported depth 245 feet. Measuring point, turbine base, at land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 24, 138.92.

5-14-16cb. Nels Peterson. Drilled irrigation well, diameter 18 inches, depth 255 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 11, 142.18; Nov. 24, 142.03.

5-15-3ba. Leland Thomsen. Abandoned drilled domestic well, diameter 6 inches, depth 122 feet. Measuring point, edge of casing, 1.0 foot above land-surface datum. Stevens Type F, 8-day automatic water-stage recorder installed Sept. 17, 1947. Highest observed stage in period of record, 105.29 on Dec. 29; lowest, 108.15 on Aug. 8.

5-15-3ba--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 8	108.15	Oct. 17	105.71	Nov. 15	105.69	Dec. 10	105.67
Sept. 18	105.69	24	105.84	16	105.89	11	105.63
26	105.70	25	105.84	17	105.89	12	105.73
27	105.63	26	105.75	18	105.66	13	105.69
28	105.73	27	105.63	19	105.64	14	105.31
29	105.96	28	105.67	20	105.60	15	105.53
30	105.96	29	105.60	21	105.78	16	105.63
Oct. 1	105.59	30	105.68	22	105.83	17	105.63
2	105.46	31	105.84	23	105.63	18	105.61
3	105.80	Nov. 1	105.90	24	105.55	19	105.66
4	105.81	2	105.75	25	105.68	20	105.79
5	105.71	3	105.47	26	105.63	21	105.71
6	105.69	4	105.68	27	105.78	22	105.48
7	105.83	5	105.71	28	105.73	23	105.70
8	105.84	6	105.60	29	105.96	24	105.68
9	105.74	7	105.69	30	105.81	25	105.72
10	105.67	8	105.72	Dec. 1	105.39	26	105.47
11	105.67	9	105.77	2	105.71	27	105.41
12	105.95	10	105.73	3	105.72	28	105.38
13	105.95	11	105.74	7	105.56	29	105.29
14	105.65	12	105.84	8	105.77	30	105.66
15	105.54	13	105.74	9	105.72	31	105.67
16	105.57	14	105.49				

a Tape measurement.

5-16-17bb. Louis Meyers Estate. Drilled irrigation well, diameter 18 inches, depth 15.3 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 16, 91.95.

5-16-30da. R. R. Caswell. Drilled irrigation well, diameter 18 inches, depth 172 feet. Measuring point, turbine base, 0.8 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 6, 136.50; Nov. 18, 136.80.

6-13-16db. V. Youngson. Drilled irrigation well, diameter 18 inches, reported depth 171 feet. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 13, 89.42; Nov. 24, 88.83.

6-14-4dc. J. Olson. Drilled irrigation well, diameter 18 inches, reported depth 174 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 80.59.

6-14-21bb. P. Peterson. Drilled irrigation well, diameter 18 inches. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 11, 107.22; Nov. 24, 106.28.

6-15-22dc. R. Rogers. Drilled irrigation well, diameter 18 inches. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 81.32.

6-15-35cc. J. Stadler. Drilled irrigation well, diameter 18 inches, depth 190 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 8, 113.59; Nov. 14, 112.50.

6-16-20bb1 (*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211; 988, p. 232; 1018, p. 195; 1025, p. 187; *1073, p. 249). E. Carlson. Highest observed stage in period of record, 87.07 on Nov. 19. Water levels, in feet below land-surface datum, 1947: June 17, 88.39; Sept. 9, 87.68; Nov. 19, 87.07.

6-16-20bb2. L. Tilbury. Drilled irrigation well, diameter 18 inches, depth 166 feet. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 5, 100.15; Nov. 19, 99.24.

6-16-25cb. H. Lorenzen. Drilled irrigation well, diameter 24 inches, depth 180 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 99.89.

6-16-30da. G. Anderson. Drilled irrigation well, diameter 18 inches, depth 152 feet. Measuring point, hole in side of base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Aug. 6, 89.52.

7-13-14cc. F. Pantenberg. Abandoned domestic well, diameter 2 inches, depth 100 feet. Measuring point, edge of concrete foundation, 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 13, 64.02; Nov. 17, 65.38.

7-13-20aa. C. Gleason. Drilled irrigation well, diameter 18 inches, depth 168 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Nov. 17, 56.67.

7-14-28cb. O. Warp. Drilled irrigation well, diameter 18 inches, reported depth 142 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Water level, in feet below land-surface datum, 1947: Aug. 8, 77.66.

7-15-11ad. H. Hokser. Drilled irrigation well, diameter 14 inches, reported depth 71 feet. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 7, 34.92; Nov. 24, 35.07.

7-16-8dc. J. Kring Estate. Drilled irrigation well, diameter 14 inches, reported depth 59 feet. Measuring point, lower edge of discharge pipe, 5.4 feet from land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 7, 18.93; Nov. 24, 18.68.

7-16-11dd. H. Black. Drilled irrigation well, diameter 18 inches. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 7, 27.61; Nov. 24, 27.22.

8-13-12cb (*1073, p. 249). O. H. Holl. Altitude 2,024.75 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	5.55	May 14	5.77	Sept. 11	6.84
Mar. 19	5.70	July 15	5.20	Nov. 7	6.92

8-13-16bc (*1073, p. 249). H. Howard. Altitude 2,044.95 feet above sea level. Highest observed stage in period of record, 3.98 on July 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.65	May 14	4.65	Sept. 11	6.30
Mar. 19	4.60	July 15	3.98	Nov. 7	5.84

8-14-13db (*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211; *988, p. 232; 1018, p. 195; 1025, p. 187; *1073, p. 249). H. Howard. Altitude 2,062.07 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	7.52	May 14	7.77	Sept. 10	9.19
Mar. 19	7.36	July 15	6.92	Nov. 7	8.87

8-14-19cc (*1073, p. 250). G. Nielson. Altitude 2,096.97 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.05	May 14	4.29	Sept. 11	5.42
Mar. 19	3.89	July 15	3.50	Nov. 7	5.33

8-14-23ba (*1073, p. 250). Geological Survey, U. S. Dept. of Interior. Altitude 2,068.30 feet above sea level. Lowest observed stage in period of record, 5.75 on Sept. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	3.95	May 14	4.23	Sept. 11	5.75
Mar. 19	3.65	July 15	3.54	Nov. 7	5.37

8-15-21dc (*1073, p. 250). G. Raffety. Altitude 2,119.70 feet above sea level. Lowest observed stage in period of record, 7.25 on Sept. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.97	May 14	5.22	Sept. 11	7.25
Mar. 19	4.68	July 15	4.95	Nov. 7	6.57

8-16-23dd (*1073, p. 250). Geological Survey, U. S. Dept. of Interior. Altitude 2,145.38 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	3.88	May 14	4.17	Sept. 10	5.45
Mar. 19	3.64	July 15	3.59	Nov. 7	5.08

8-16-28aa (*1073, p. 250). Geological Survey, U. S. Dept. of Interior. Altitude 2,160.34 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	5.57	May 14	5.82	Sept. 10	6.96
Mar. 19	5.62	July 15	5.43	Nov. 7	6.82

Keith County

13-35-5cc (*817, p. 141; 840, p. 208; 845, p. 177; 908, p. 208; 938, p. 170; 946, p. 211; *988, p. 233; 1018, p. 195; 1025, p. 187; *1073, p. 250). D. Thiessen. No measurements made in 1947.

13-36-3ca (*988, p. 241; 1018, p. 198; 1025, p. 190; *1073, p. 250). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 7.70; Dec. 3, 10.10.

13-36-6bc (*988, p. 257; 1018, p. 203; 1025, p. 195; *1073, p. 251). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 2.80; Dec. 3, 4.50.

13-36-8cc (*1073, p. 251). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 2.44 on July 1.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.17	3.87	3.75	3.37	4.01	....	2.44	3.17	....	4.63	3.69	3.49
2	4.17	3.83	3.74	3.34	4.03	3.64	2.49	3.30	4.71	4.64	3.68	3.51
3	4.17	3.86	3.76	3.32	4.06	3.60	2.53	3.40	4.72	4.68	3.67	3.52
4	4.17	3.85	3.76	3.30	4.10	3.47	2.53	3.50	4.76	4.70	3.69	3.51
5	4.13	3.76	3.72	3.33	4.12	3.39	2.60	3.57	4.78	4.71	3.69	3.41
6	4.06	3.74	3.68	3.40	4.17	3.31	2.65	3.65	4.80	4.72	3.69	3.32
7	4.06	3.71	3.70	3.43	....	3.23	2.71	3.72	4.82	....	3.69	3.30
8	4.02	3.76	3.73	3.39	4.23	3.20	2.76	3.78	4.85	4.73	3.69	3.31
9	3.98	3.81	3.73	3.35	4.24	3.13	2.79	3.84	4.85	4.73	3.70	....
10	3.91	3.84	3.69	3.31	4.27	3.17	2.82	3.92	4.84	4.73	3.70	....
11	3.89	3.91	3.60	3.24	4.28	3.17	2.85	4.04	4.82	4.67	3.68	....
12	3.87	3.91	3.61	3.30	4.30	3.10	2.92	4.04	4.77	4.65	3.68	....

13-36-8cc--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
13	3.88	3.86	3.61	3.32	4.34	2.91	2.96	4.01	4.74	4.63	3.67	....
14	3.90	3.83	3.63	3.34	4.37	2.96	3.00	4.04	4.72	4.57	3.64	....
15	3.92	3.74	3.65	3.37	4.40	2.99	3.03	4.05	4.72	4.55	3.62	3.30
16	3.95	3.65	3.71	3.38	4.41	2.99	3.05	4.07	....	4.51	3.63	3.28
17	3.98	3.55	3.74	3.39	4.42	2.97	3.04	4.09	....	4.49	3.63	3.25
18	3.99	3.55	3.78	3.46	4.43	2.97	2.96	4.11	....	4.48	3.59	3.25
19	4.00	3.56	3.78	3.51	4.43	2.95	3.03	4.12	....	4.47	3.58	3.24
20	4.06	3.57	3.76	3.53	4.43	2.89	3.13	4.17	....	4.46	3.57	3.22
21	4.06	3.54	3.72	3.57	4.44	2.84	3.19	4.24	....	4.40	3.57	3.24
22	4.00	3.60	3.67	3.61	4.47	2.74	3.18	4.31	....	4.36	3.57	3.25
23	3.98	3.65	3.66	3.66	4.48	2.62	3.10	4.38	....	4.36	3.49	3.25
24	3.94	3.67	3.68	3.70	4.47	2.64	3.08	4.43	....	4.01	3.50	3.25
25	3.84	3.57	3.67	3.75	4.45	2.66	3.02	4.46	....	3.89	3.52	3.25
26	3.75	3.61	3.60	3.78	4.43	2.68	3.00	....	....	3.80	3.51	3.24
27	3.71	3.65	3.48	3.83	....	2.70	3.01	....	....	3.74	3.47	3.26
28	3.66	3.75	3.44	3.85	....	2.71	3.05	....	....	....	3.46	3.26
29	3.68	....	3.43	3.89	....	2.72	3.08	....	4.65	....	3.50	3.29
30	3.74	....	3.40	3.95	....	2.48	3.12	....	4.63	3.67	3.51	3.33
31	3.85	....	3.37	....	....	....	3.14	....	....	3.68	....	3.33

13-36-9ad (*1073, p. 252). Geological Survey, U. S. Dept. of Interior.
Measurements supplied through courtesy of Platte Valley Public Power and
Irrigation District.Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.91	1.45	....	....	1.40	1.39	0.65	1.93	3.07	2.83	2.23	1.68
2	2.00	1.45	....	....	1.43	1.53	.90	2.01	3.08	2.82	2.20	1.65
3	2.00	1.45	1.40	....	1.49	1.53	1.06	2.10	3.08	2.83	2.17	1.67
4	1.95	1.45	1.40	....	....	1.36	.74	2.18	3.10	2.84	2.15	1.67
5	....	1.44	....	....	....	1.44	1.00	2.23	3.11	2.84	2.13	1.65
6	1.88	1.36	....	....	....	1.40	1.16	2.29	3.12	2.84	2.12	1.63
7	1.87	1.35	....	....	....	1.49	1.21	....	3.13	....	2.09	1.62
8	1.83	1.46	....	.42	1.67	....	1.28	....	3.14	2.86	2.08	1.62
9	1.80	1.56	....	.44	1.67	1.50	1.34	....	3.14	2.86	2.05	1.62
10	1.78	1.60	1.20	.28	1.67	1.42	1.41	....	....	2.86	2.04	1.61
11	1.75	1.60	1.18	.42	1.67	1.42	1.42	2.62	....	2.77	2.00	1.63
12	1.71	1.60	1.18	.57	1.67	.55	1.48	2.63	....	2.72	1.97	1.65
13	1.67	1.49	1.12	.66	1.72	.54	1.55	2.60	....	2.68	1.94	1.65
14	1.69	1.43	....	.80	1.77	.81	1.61	2.64	....	2.64	1.92	1.64
15	1.74	1.39	....	.84	1.80	1.01	1.67	2.66	2.81	2.62	1.90	1.60
16	....	1.34	....	.89	1.81	1.15	1.70	....	2.81	2.60	1.90	1.60
17	....	1.30	1.02	.94	....	1.24	1.50	....	2.83	2.59	1.90	1.61
18	....	1.29	1.03	1.03	....	1.08	1.58	2.65	2.85	2.58	1.89	1.61
19	....	1.18	1.03	1.06	....	1.15	1.66	2.65	2.85	2.58	1.87	1.57
20	1.73	....	1.01	1.09	1.86	1.18	1.71	2.73	2.85	2.57	1.81	1.54
21	1.73	....	.99	1.13	1.96	1.17	1.70	2.80	2.86	2.56	1.76	1.50
22	1.72	....	.95	1.12	2.03	.40	1.27	2.86	2.86	2.59	1.82	1.47
23	1.64	....	.93	1.11	2.03	.73	1.38	2.90	2.86	2.55	1.84	1.44
24	....	1.21	.95	1.14	1.96	.89	1.39	2.90	2.86	2.48	1.83	1.38
25	....	....	.98	1.18	2.09	1.06	1.47	2.91	2.86	2.42	1.82	1.30
26	....	....	1.00	1.23	2.08	1.18	1.51	2.92	2.85	2.37	1.74	1.19
27	1.52	....	1.03	1.26	2.09	1.24	1.61	2.95	2.85	....	1.71	1.14
28	1.50	....	1.03	1.26	2.11	1.31	1.70	2.98	2.85	....	1.73	1.18
29	1.46	....	.99	1.22	2.11	.39	1.76	3.00	2.85	....	1.74	1.19
30	1.43	....	.95	1.32	1.20	.36	1.84	3.02	2.85	2.25	1.75	1.30
31	1.45	....	.96	....	1.32	....	1.88	3.05	....	2.25	....	1.34

13-37-3ab (*817, p. 142; 840, p. 209; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211; *988, p. 233; 1018, p. 196; 1025, p. 187; 1073, p. 251). Water levels, in feet below land-surface datum, 1947: Oct. 2, 15.43; Nov. 6, 15.80; Dec. 13, 14.95.

13-37-5aa (*908, p. 217; 938, p. 173; 946, p. 214; *988, p. 256; 1018, p. 203; 1025, p. 195; *1073, p. 251). Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 9.70; Dec. 3, 11.80.

13-38-3ba (*908, p. 216; 938, p. 173; 946, p. 214; *988, p. 256; 1018, p. 203; 1025, p. 195; *1073, p. 252). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 11.50; Dec. 3, 13.80.

13-38-6dc (*988, p. 257; 1018, p. 204; 1025, p. 196; *1073, p. 252). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 26, 13.00; Dec. 3, 13.70.

13-39-10cc (*988, p. 256; 1018, p. 203; 1025, p. 195; *1073, p. 252). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 26, 3.80; Dec. 3, 4.70.

13-39-34dd (*817, p. 132; 840, p. 209; 845, p. 178; 886, p. 322; 908, p. 209; 938, p. 170; 946, p. 212). G. Peters Estate. No measurements made in 1947.

13-40-19cd (*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 322; 908, p. 209; 938, p. 170). G. McGinley. No measurements made in 1947.

14-35-13bb (*988, p. 239; 1018, p. 197; 1025, p. 189; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 3.70; Dec. 3, 4.40.

14-35-16db (*988, p. 238; 1018, p. 197; 1025, p. 189; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 5.90; Dec. 3, 7.30.

14-35-24da (*988, p. 240; 1018, p. 198; 1025, p. 190; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 4.80; Dec. 3, 4.20.

14-35-27aa (*988, p. 229; 1018, p. 198; 1025, p. 190; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 5.10; Dec. 3, 5.30.

14-35-28bb (*988, p. 240; 1018, p. 198; 1025, p. 190; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.80 on June 25. Water levels, in feet below land-surface datum, 1947: June 25, 2.80; Dec. 3, 2.90.

14-36-8cb (*988, p. 237; 1018, p. 197; 1025, p. 189; *1073, p. 253). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 4.10; Dec. 1, 6.30; Dec. 30, 5.80.

14-36-15bb (*988, p. 238; 1018, p. 197; 1025, p. 189; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 3.30; Dec. 1, 5.80; Dec. 30, 2.80.

14-37-4ad (*988, p. 236; 1018, p. 197; 1025, p. 189; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 4.10; Dec. 1, 5.80; Dec. 30, 5.90.

14-37-5ab (*988, p. 236; 1018, p. 197; 1025, p. 188; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 4.30; Dec. 1, 5.90; Dec. 30, 6.30.

14-37-5bb (*988, p. 235; 1018, p. 196; 1025, p. 188; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 2.80; Dec. 1, 4.60; Dec. 30, 3.90.

14-37-11bb (*988, p. 237; 1018, p. 197; 1025, p. 189; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.80 on June 24. Water levels, in feet below land-surface datum, 1947: June 24, 2.80; Dec. 1, 6.10; Dec. 30, 6.10.

14-37-12bb (*988, p. 227; 1018, p. 197; 1025, p. 189; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 3.00; Dec. 1, 4.70; Dec. 30, 4.30.

14-38-3cd (*908, p. 213; 938, p. 172; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 194; *1073, p. 254). Central Nebraska Public Power and Irrigation District. No measurements made in 1947.

14-38-3da (*988, p. 240; 1018, p. 198; 1025, p. 190; *1073, p. 254). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: July 3, 4.50; Dec. 4, 4.40.

14-38-7db (*908, p. 214; 938, p. 172; 946, p. 213; *988, p. 225; 1018, p. 202; 1025, p. 194; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 111.30 on Dec. 31. Water levels, in feet below land-surface datum, 1947: June 26, 118.90; Dec. 2, 111.60; Dec. 31, 111.30.

14-38-17ba (*886, p. 323; 908, p. 214; 938, p. 172; 946, p. 213; *988, p. 255; 1018, p. 202; 1025, p. 194; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 144.50 on Dec. 4. Water levels, in feet below land-surface datum, 1947: June 26, 147.30; Dec. 4, 144.50.

14-39-2cc (*908, p. 215; 938, p. 172; 946, p. 214; *988, p. 225; 1018, p. 202; 1025, p. 194; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 157.40 on Dec. 2. Water levels, in feet below land-surface datum, 1947: June 26, 163.40; Dec. 2, 157.40; Dec. 31, 158.80.

14-39-4cc (*886, p. 323; 908, p. 215; 938, p. 172; 946, p. 214; *988, p. 255; 1018, p. 203; 1025, p. 194; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 104.40; Dec. 2, 104.30; Dec. 31, 104.00.

14-39-32dc (*908, p. 217; 938, p. 173; 946, p. 214; *988, p. 258; 1018, p. 204; 1025, p. 196; *1073, p. 255). Central Nebraska Public Power and Irrigation District. No measurements made in 1947.

15-37-29cc (*988, p. 235; 1018, p. 197; 1025, p. 188; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 1.70; Dec. 1, 5.30; Dec. 30, 5.70.

15-38-4da (*908, p. 210; 938, p. 170; 946, p. 212; *988, p. 242; 1018, p. 198; 1025, p. 191; *1073, p. 255). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 2.10; Dec. 1, 5.20; Dec. 30, 5.20.

15-38-20aa (*908, p. 209; 938, p. 170; 946, p. 212; *988, p. 241; 1018, p. 198; 1025, p. 190; *1073, p. 256). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 15.90 on Dec. 30. Water levels, in feet below land-surface datum, 1947: June 24, 16.40; Dec. 1, 16.00; Dec. 30, 15.90.

15-38-21dd (*908, p. 211; 938, p. 171; 946, p. 212; *988, p. 247; 1018, p. 200; 1025, p. 192; *1073, p. 256). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 1.30 on Dec. 30. Water levels, in feet below land-surface datum, 1947: June 24, 5.70; Dec. 1, 2.80; Dec. 30, 1.30.

15-38-23cc (*988, p. 247; 1018, p. 200; 1025, p. 192; *1073, p. 256). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 8.00 on June 24. Water levels, in feet below land-surface datum, 1947: June 24, 8.00; Dec. 1, 8.40; Dec. 30, 8.40.

15-38-28aa (*908, p. 213; 938, p. 172; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 194; *1073, p. 256). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 24.70 on Dec. 30. Water levels, in feet below land-surface datum, 1947: June 24, 30.80; Dec. 1, 26.00; Dec. 30, 24.70.

15-38-34ac (*988, p. 234; 1018, p. 196; 1025, p. 188; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 29, 7.80; Dec. 4, 7.60; Dec. 30, 7.70.

15-38-34ad (*988, p. 233; 1018, p. 196; 1025, p. 188; *1073, p. 256). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 6.80; Dec. 1, 6.90; Dec. 30, 6.90.

15-38-34ca (*988, p. 234; 1018, p. 196; 1025, p. 188; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 9.60; Dec. 4, 9.60; Dec. 30, 9.70.

15-38-36bb (*988, p. 248; 1018, p. 200; 1025, p. 192; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 9.10; Dec. 1, 10.20; Dec. 30, 10.20.

15-38-36dc (*988, p. 234; 1018, p. 196; 1025, p. 188; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 7.20; Dec. 1, 8.10; Dec. 30, 8.20.

15-39-1aa (*988, p. 246; 1018, p. 200; 1025, p. 192; *1073, p. 257). Central Nebraska Public Power and Irrigation District. No measurements made in 1947.

15-39-5bc (*908, p. 212; 938, p. 171; 946, p. 213; *988, p. 250; 1018, p. 201; 1025, p. 193; *1073, p. 257). Central Nebraska Public Power and Irrigation District. No measurements made in 1947.

15-39-17aa (*988, p. 249; 1018, p. 200; 1025, p. 192; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 5.60 on Dec. 30. Water levels, in feet below land-surface datum, 1947: June 23, 5.70; Dec. 1, 5.70; Dec. 30, 5.60.

15-39-24da (*908, p. 213; 938, p. 171; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 193; *1073, p. 257). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 32.70 on Dec. 30. Water levels, in feet below land-surface datum, 1947: June 24, 40.70; Dec. 1, 33.10; Dec. 30, 32.70.

15-39-31bc (*908, p. 215; 938, p. 172; 946, p. 214; *988, p. 255; 1018, p. 203; 1025, p. 195; *1073, p. 258). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 67.20 on Dec. 31. Water levels, in feet below land-surface datum, 1947: June 23, 73.80; Dec. 2, 68.20; Dec. 31, 67.20.

15-40-17cc (*908, p. 216; 938, p. 173; 946, p. 214; *988, p. 256; 1018, p. 203; 1025, p. 195; *1073, p. 258). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 57.40 on Dec. 31. Water levels, in feet below land-surface datum, 1947: June 23, 63.30; Dec. 2, 58.10; Dec. 31, 57.40.

15-40-26aa (*938, p. 258; 1018, p. 204; 1025, p. 196; *1073, p. 258). Mary Paul. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 7.50 on Dec. 31. Water levels, in feet below land-surface datum, 1947: June 23, 12.80; Dec. 2, 9.70; Dec. 31, 7.50.

15-40-27dd (*986, p. 323; 908, p. 216; 938, p. 173; 946, p. 214; *988, p. 255; 1018, p. 203; 1025, p. 195; *1073, p. 258). C. Samuelson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 91.90 on Dec. 31. Water levels, in feet below land-surface datum, 1947: June 23, 96.00; Dec. 2, 92.20; Dec. 31, 91.90.

16-38-7aa (*988, p. 244; 1018, p. 199; 1025, p. 191; *1073, p. 258). Central Nebraska Public Power and Irrigation District. U. S. 58. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.70	June 1	9.70	July 1	9.70	Dec. 1	10.00
May 1	9.70	24	9.70	Oct. 8	10.10	30	10.00

16-38-7cc (*988, p. 244; 1018, p. 199; 1025, p. 191; *1073, p. 258). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 7.10; Dec. 1, 8.40; Dec. 30, 8.10.

16-38-28ad (*908, p. 211; 938, p. 171; 946, p. 212; *988, p. 243; 1018, p. 199; 1025, p. 191; *1073, p. 258). Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 13.30; Dec. 1, 13.40; Dec. 30, 13.40.

16-38-30aa (*988, p. 245; 1018, p. 199; 1025, p. 191; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 10.40; Dec. 1, 10.40; Dec. 30, 10.30.

16-38-30ab (*817, p. 141; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211; 988, p. 233; *1018, p. 196; 1025, p. 196; *1073, p. 259). University of Nebraska. No measurements made in 1947.

16-38-33ad (*988, p. 242; 1018, p. 199; 1025, p. 191; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 2.00; Dec. 1, 1.60; Dec. 30, 1.60.

16-38-34bc (*908, p. 210; 938, p. 170; 946, p. 212; *988, p. 242; 1018, p. 199; 1025, p. 187; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 24, 9.70; Dec. 1, 9.90; Dec. 30, 9.90.

16-39-7aa (*988, p. 251; 1018, p. 201; 1025, p. 193; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 8.60; Dec. 2, dry; Dec. 31, dry.

16-39-20aa (*988, p. 250; 1018, p. 201; 1025, p. 193; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 9.80; Dec. 2, 9.80; Dec. 31, 9.90.

16-39-32bc (*988, p. 250; 1018, p. 201; 1025, p. 193; *1073, p. 259). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 11.30; Dec. 2, 11.10; Dec. 31, 11.20.

16-40-2da (*988, p. 252; 1018, p. 201; 1025, p. 193; *1073, p. 260). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 13.50 on June 23. Water levels, in feet below land-surface datum, 1947: June 23, 13.50; Dec. 2, 13.10; Dec. 31, 13.20.

16-40-14bb (*988, p. 253; 1018, p. 201; 1025, p. 193; *1073, p. 260). Central Nebraska Public Power and Irrigation District. No measurements made in 1947.

16-41-34dc (*988, p. 323; 938, p. 171; 908, p. 213; 946, p. 213; *988, p. 253; 1018, p. 201; 1025, p. 193; *1073, p. 260). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 23, 11.90; Dec. 2, 13.50; Dec. 31, 12.50.

Keya Paha County

32-20-19dc (*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 214; *988, p. 259; 1018, p. 204; 1025, p. 196; *1073, p. 260). University of Nebraska. No measurements made in 1947.

Kimball County

15-55-17cc (*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215; 988, p. 259; 1018, p. 204; 1025, p. 196; *1073, p. 260). Kimball Irrigation District. No measurements made in 1947.

15-57-32bb (*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215; *988, p. 259; 1018, p. 204; 1025, p. 196; *1073, p. 260). W. Settlemyre. Water levels, in feet below land-surface datum, 1947: Apr. 3, 34.32; Apr. 29, 34.28.

16-54-12aa (*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215; 988, p. 259; 1018, p. 204; 1025, p. 196; *1073, p. 260). H. McGowan. No measurements made in 1947.

Knox County

No measurements made in 1947.

Lancaster County

No measurements made in 1947

Lincoln County

9-29-4cb (*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216; 988, p. 260; *1018, p. 205; 1025, p. 197; *1073, p. 262). G. Roethemeyer. No measurements made in 1947.

10-32-17cc (*817, p. 174; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216; 988, p. 260; *1018, p. 205; 1025, p. 197; *1073, p. 262). J. Fristo. No measurements made in 1947.

11-26-15bb (*988, p. 285; 1018, p. 214; 1025, p. 208; *1073, p. 262). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.97	Aug. 6	6.93	Nov. 17	7.14
June 17	7.74	Oct. 10	7.00	Dec. 17	6.60

11-26-15cc (*908, p. 224; 938, p. 177; 946, p. 219; *988, p. 285; 1018, p. 214; 1025, p. 208; *1073, p. 262). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 8.58 on Oct. 10.

Water level, in feet below land-surface datum, 1947

Jan. 29	10.61	Aug. 6	9.50	Nov. 17	9.26
June 17	9.78	Oct. 10	8.58	Dec. 17	9.03

11-26-16bb (*908, p. 224; 938, p. 171; 946, p. 219; *988, p. 285; 1018, p. 214; 1025, p. 207; *1073, p. 262). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 8.48 on July 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a 9.62	May 14	a 10.32	Aug. 6	8.53	Nov. 6	a 9.23
29	9.77	June 17	10.00	Sept. 10	a 9.07	17	9.30
Mar. 17	a 10.13	July 14	a 8.48	Oct. 10	9.07	Dec. 17	9.03

a Measurement by Geological Survey, U. S. Dept. of Interior.

12-26-31ca (*988, p. 286; 1018, p. 214; 1025, p. 208; *1073, p. 262). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

12-26-31ca--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	3.28	Oct. 9	3.00	Dec. 17	2.05
June 17	2.11	Nov. 17	3.18		

12-26-35db (*1073, p. 262). R. D. McWha. Altitude 2,610.43 feet above sea level. Highest observed stage in period of record, 7.32 on July 13; lowest, 10.38 on Nov. 5.

Water level, in feet below land-surface datum, 1947

Jan. 8	10.09	May 14	9.94	Sept. 9	9.94
Mar. 14	10.08	July 13	7.32	Nov. 5	10.38

12-27-11bd (*988, p. 284; 1018, p. 213; 1025, p. 207; *1073, p. 262). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	6.40	May 16	6.47	July 30	6.21	Nov. 6	7.02
Feb. 8	6.11	June 11	6.53	Sept. 4	7.12	Dec. 11	6.68
Apr. 18	5.80	July 2	6.23	Oct. 8	7.14		

12-27-14aa (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216; *988, p. 260; 1018, p. 205; 1025, p. 197; *1073, p. 263). University of Nebraska. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 8	a5.56	Apr. 18	5.00	July 13	a5.30	Oct. 8	5.99
24	5.69	May 14	a5.80	30	5.50	Nov. 5	a6.04
Feb. 8	5.51	June 11	5.74	Sept. 4	6.07	Dec. 11	5.73
Mar. 14	a5.86	July 2	3.50	9	a6.10		

a Measurement by Geological Survey.

12-27-16aa (*988, p. 282; 1018, p. 213; 1025, p. 206; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.18 on July 2.

Water level, in feet below land-surface datum, 1947

Jan. 8	a4.39	Apr. 18	4.87	July 13	a3.35	Oct. 8	4.78
24	4.37	May 13	a4.45	30	4.68	Nov. 5	a5.05
Feb. 8	4.40	June 11	4.10	Sept. 4	4.62	Dec. 11	4.43
Mar. 14	a4.43	July 2	2.18	9	a4.73		

a Measurement by Geological Survey.

12-27-20dd (*908, p. 223; 938, p. 177; 946, p. 218; *988, p. 283; 1018, p. 213; 1025, p. 206; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 13.17 on July 13.

Water level, in feet below land-surface datum, 1947

Jan. 9	a14.13	May 14	a14.05	Aug. 1	13.55	Nov. 6	a14.09
29	14.07	June 13	13.34	Sept. 10	a14.05	14	14.13
Mar. 17	a14.16	July 13	a13.17	Oct. 9	14.12	Dec. 17	13.95

a Measurement by Geological Survey.

12-27-26dc (*908, p. 224; 938, p. 177; 946, p. 219; 988, p. 284; 1018, p. 214; 1025, p. 207; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	6.79	Aug. 6	6.02	Nov. 14	6.89
June 17	a5.64	Oct. 9	6.79	Dec. 17	6.50

a Measurement by Geological Survey.

12-27-27ad (*988, p. 282; 1018, p. 213; 1025, p. 206; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a4.49	May 14	a4.44	Aug. 1	4.32	Nov. 7	a4.59
29	4.53	June 13	2.54	Sept. 10	a5.02	14	4.49
Mar. 17	a4.52	July 14	a2.68	Oct. 9	4.75	Dec. 17	4.68

a Measurement by Geological Survey, U. S. Dept. of Interior.

12-27-28dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 23.5 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 10, 12.50; Nov. 7, 12.62.

12-27-34da (*988, p. 286; 1018, p. 215; 1025, p. 208; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 22.05 on June 17.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	24.58	Oct. 9	23.65	Dec. 17	22.95
June 17	22.05	Nov. 14	24.62		

12-27-35aa (*908, p. 221; 938, p. 17; 946, p. 217; *988, p. 269; 1018, p. 209; 1025, p. 202; *1073, p. 263). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	15.73	Aug. 1	14.49	Nov. 14	15.58
June 17	15.02	Oct. 9	15.48	Dec. 17	14.91

12-27-35ad (*988, p. 287; 1018, p. 215; 1025, p. 208; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	18.85	Aug. 1	17.66	Nov. 14	18.88
June 17	18.20	Oct. 9	18.40	Dec. 17	17.47

12-27-35bb (*908, p. 221; 938, p. 175; 946, p. 217; *988, p. 268; 1018, p. 209; 1025, p. 202; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	18.93	Aug. 1	17.75	Nov. 14	18.88
June 17	17.92	Oct. 9	18.60	Dec. 17	17.96

12-27-35bc (*988, p. 287; 1018, p. 215; 1025, p. 208; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	22.53	Aug. 1	21.25	Nov. 14	22.40
June 17	21.77	Oct. 9	21.80	Dec. 17	20.87

12-27-35cb (*908, p. 221; 938, p. 175; 946, p. 217; *988, p. 268; 1018, p. 209; 1025, p. 201; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	26.89	Aug. 1	26.03	Nov. 14	26.70
June 17	26.43	Oct. 9	26.45	Dec. 17	26.03

12-27-35da1 (*908, p. 221; 938, p. 176; 946, p. 217; 988, p. 268; 1018, p. 209; 1025, p. 202; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	23.22	Aug. 1	22.06	Nov. 14	22.96
June 17	22.62	Oct. 9	22.60	Dec. 17	21.96

12-27-35da2 (*988, p. 287; 1018, p. 215; 1025, p. 209; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 24.05 on Nov. 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	24.19	Aug. 1	24.15	Nov. 14	24.05
June 17	24.19	Oct. 9	24.08	Dec. 17	24.09

12-27-36ad (*988, p. 284; 1018, p. 214; 1025, p. 207; *1073, p. 264). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a4.53	May 14	a4.90	Aug. 6	5.13	Nov. 7	a4.93
29	4.86	June 17	4.54	Sept. 10	a4.75	17	4.96
Mar. 17	a5.00	July 14	a5.02	Oct. 9	4.82	Dec. 17	4.79

a Measurement by Geological Survey.

12-28-4ad (*988, p. 281; 1018, p. 212; 1025, p. 206; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	4.29	May 16	4.31	July 30	5.70	Nov. 6	4.94
Feb. 8	4.16	June 11	3.94	Sept. 4	5.58	Dec. 11	4.69
Apr. 18	3.66	July 2	4.63	Oct. 8	5.02		

12-28-9bc (*988, p. 278; 1018, p. 212; 1025, p. 205; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 4.35 on June 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a5.00	May 14	a5.24	Aug. 1	5.54	Nov. 5	a5.14
29	4.88	June 13	a4.35	Sept. 10	a5.82	14	5.04
Mar. 17	a5.07	July 13	a5.06	Oct. 9	5.55	Dec. 17	5.41

a Measurement by Geological Survey.

12-28-11aa (*988, p. 281; 1018, p. 212; 1025, p. 206; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	2.25	May 16	2.28	July 30	2.83	Nov. 6	3.28
Feb. 8	2.15	June 11	1.72	Sept. 4	3.72	Dec. 11	2.92
Apr. 18	1.52	July 2	1.60	Oct. 8	3.45		

12-28-14dd (*908, p. 223; 938, p. 177; 946, p. 218; *988, p. 283; 1018, p. 213; 1025, p. 206; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 27.43 on Nov. 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a27.60	May 14	a27.70	Aug. 1	27.53	Nov. 5	a27.48
29	27.45	June 13	27.68	Sept. 10	a27.82	14	27.43
Mar. 17	a27.59	July 13	a27.50	Oct. 9	27.68	Dec. 17	27.73

a Measurement by Geological Survey.

12-28-15ba (*908, p. 223; 938, p. 176; 946, p. 218; *988, p. 282; 1018, p. 213; 1025, p. 206; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 11.05 on June 13.

Water level, in feet below land-surface datum, 1947

Jan. 9	a12.04	May 14	a12.22	Aug. 1	11.80	Nov. 5	a12.29
29	12.03	June 13	11.05	Sept. 10	a11.35	14	12.15
Mar. 17	a12.25	July 13	a11.22	Oct. 9	12.38	Dec. 17	12.26

a Measurement by Geological Survey.

13-27-32bd (*988, p. 283; 1018, p. 213; 1025, p. 207; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 8	a3.15	Apr. 18	2.48	July 30	3.49	Oct. 8	4.14
24	3.08	May 13	a3.19	Sept. 4	4.80	Nov. 5	a3.88
Feb. 8	2.90	June 11	3.02	9	a4.32	Dec. 11	3.50
Mar. 14	a3.00	July 13	a2.81				

a Measurement by Geological Survey.

13-28-16dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.7 feet. Measuring point, top of pipe, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 9, 6.16; Nov. 5, 5.85.

13-28-21da (*988, p. 280; 1018, p. 212; 1025, p. 205; *1073, p. 265). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 0.62 on June 12.

Water level, in feet below land-surface datum, 1947

Jan. 9	a2.55	June 12	a0.62	July 30	3.66	Oct. 8	5.55
Mar. 14	a1.76	July 2	2.19	Sept. 4	5.61	Nov. 5	a5.15
Apr. 18	1.30	13	2.92	9	a5.74	Dec. 11	4.53
May 13	a2.35						

a Measurement by Geological Survey.

13-28-25bc (*1073, p. 266). M. Roberts. Altitude 2,695.73 feet above sea level. Highest observed stage in period of record, 3.50 on Mar. 14; lowest, 6.21 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.24	July 13	4.63	Nov. 5	5.97
Mar. 14	3.50	Sept. 9	6.21		

13-28-28cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.1 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 9, 3.33; Nov. 5, 3.07.

13-28-29cc (*988, p. 280; 1018, p. 212; 1025, p. 205; *1073, p. 266). Langford. Formerly owned by Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 6.39 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 8	5.18	May 13	5.50	Sept. 9	6.39
Mar. 17	5.29	July 13	5.27	Nov. 5	5.79

13-28-31cc (*908, p. 223; 938, p. 176; 946, p. 218; *988, p. 278; 1018, p. 212; 1025, p. 205; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a4.23	July 13	a5.58	Oct. 9	4.91	Nov. 14	4.72
Mar. 17	a4.66	Aug. 1	5.49	Nov. 5	a4.82	Dec. 17	5.05
May 14	a5.62	Sept. 10	a5.19				

a Measurement by Geological Survey.

13-29-4cc (*988, p. 272; 1018, p. 210; 1025, p. 203; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Well destroyed and measurements discontinued after Dec. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a5.48	May 13	a5.18	July 13	a4.45	Oct. 8	6.22
Mar. 14	a5.59	June 11	5.14	30	5.22	Nov. 6	6.02
Apr. 18	4.92	July 2	4.21	Sept. 9	a6.17	Dec. 11	5.18

13-29-5bc (*988, p. 271; 1018, p. 210; 1025, p. 202; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.19	June 12	1.64	Sept. 13	2.85	Nov. 14	2.68
Apr. 18	2.21	July 30	2.68	Oct. 9	2.38	Dec. 11	2.49
May 16	2.45						

13-29-5cb (*988, p. 270; 1018, p. 210; 1025, p. 202; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.57	June 12	2.60	Sept. 13	3.13	Nov. 14	2.91
Apr. 18	1.78	July 30	2.97	Oct. 9	3.08	Dec. 11	2.83
May 16	2.41						

13-29-6ba (*988, p. 276; 1018, p. 211; 1025, p. 204; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a3.50	May 13	a3.17	Aug. 1	3.06	Nov. 5	a4.70
Mar. 14	a3.05	June 11	2.19	Sept. 9	a4.40	14	2.77
Apr. 18	2.98	July 13	a3.61	Oct. 8	3.18	Dec. 11	2.56

a Measurement by Geological Survey.

13-29-6bb (*988, p. 269; 1018, p. 209; 1025, p. 202; *1073, p. 266). Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 0.79 on June 17.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.87	June 17	0.79	Sept. 13	3.56	Nov. 14	3.12
Apr. 18	2.10	Aug. 1	2.41	Oct. 9	3.50	Dec. 11	3.00
May 16	2.90						

13-29-6bd (*988, p. 277; 1018, p. 211; 1025, p. 204; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.57 on Apr. 18.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	3.15	June 11	2.95	Sept. 13	3.95	Nov. 14	3.18
Apr. 18	2.57	Aug. 1	3.69	Oct. 8	3.93	Dec. 11	3.30
May 16	3.25						

13-29-6ca (*988, p. 277; 1018, p. 211; 1025, p. 204; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 2.28 on Apr. 18.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.98	June 11	2.64	Sept. 13	3.04	Nov. 14	2.75
Apr. 18	2.28	Aug. 1	3.12	Oct. 8	3.26	Dec. 11	2.79
May 16	2.86						

13-29-6dd (*988, p. 269; 1018, p. 210; 1025, p. 202; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.50	June 11	4.38	Sept. 13	4.02	Nov. 14	5.18
Apr. 18	4.18	Aug. 1	5.19	Oct. 8	4.86	Dec. 11	5.09
May 16	4.64						

13-29-9bc (*988, p. 271; 1018, p. 210; 1025, p. 203; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 5.81 on Oct. 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.70	June 11	5.44	Sept. 13	5.25	Nov. 6	5.44
Apr. 18	5.24	July 2	3.82	Oct. 8	5.81	Dec. 11	5.54
May 16	5.43	30	5.29				

13-29-16ad (*988, p. 279; 1018, p. 212; 1025, p. 205; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	5.88	May 16	5.80	July 30	5.72	Nov. 6	6.22
Feb. 8	5.80	June 11	5.89	Sept. 4	5.84	Dec. 11	6.10
Apr. 18	5.68	July 2	5.05	Oct. 8	6.18		

13-29-17bc (*988, p. 274; 1018, p. 211; 1025, p. 203; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	3.25	June 17	4.14	Sept. 13	3.83	Nov. 6	4.19
May 16	3.70	Aug. 1	3.95	Oct. 9	4.13	Dec. 11	3.95

13-29-18bb (*988, p. 273; 1018, p. 210; 1025, p. 203; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	3.81	June 17	3.81	Sept. 13	4.38	Nov. 6	4.69
May 16	3.89	Aug. 1	3.92	Oct. 9	3.79	Dec. 11	3.90

13-29-20aa (*988, p. 275; 1018, p. 211; 1025, p. 204; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

13-29-20aa--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	3.66	June 13	2.24	Sept. 13	3.50	Nov. 6	3.74
May 16	3.57	Aug. 1	3.56	Oct. 9	3.73	Dec. 11	3.72

13-29-20bb (*908, p. 222; 938, p. 176; 946, p. 218; *988, p. 276; *1073, p. 267). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	a6.28	June 13	5.39	Sept. 10	a6.80	Nov. 5	a6.93
Mar. 17	a6.42	July 13	a6.23	Oct. 9	6.85	Dec. 11	6.83
May 13	a6.23	Aug. 1	6.30				

a Measurement by Geological Survey.

13-29-21dd (*988, p. 278; 1018, p. 211; 1025, p. 204; *1073, p. 268). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	2.20	June 13	0.88	Sept. 13	2.20	Nov. 6	2.00
May 16	2.17	Aug. 1	2.79	Oct. 9	2.55	Dec. 11	1.93

13-29-25bb (*988, p. 279; 1018, p. 212; 1025, p. 205; *1073, p. 268). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	a4.59	Apr. 18	4.39	July 13	a4.31	Oct. 8	5.22
24	4.71	May 13	a5.07	30	4.61	Nov. 5	a5.16
Feb. 8	4.60	June 11	4.72	Sept. 9	a5.30	Dec. 11	5.03
Mar. 17	a4.85	July 2	4.04				

a Measurement by Geological Survey.

13-29-35bb (*1073, p. 268). Highest observed stage in period of record, 15.03 on Sept. 10; lowest, 17.85 on May 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 9	16.56	May 14	17.85	Sept. 10	15.03
Mar. 17	17.68	July 13	15.85	Nov. 5	15.29

13-30-1ba (*988, p. 276; 1018, p. 211; 1025, p. 204; *1073, p. 268). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	6.85	June 12	6.84	Sept. 13	5.99	Nov. 14	7.05
Apr. 18	6.76	Aug. 1	7.28	Oct. 9	7.14	Dec. 11	6.91
May 16	7.17						

13-30-3ad (*1073, p. 268). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 6.57 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Jan. 9	a4.41	May 13	a4.47	Aug. 1	4.47	Nov. 5	a4.93
Mar. 14	a4.45	June 12	3.22	Sept. 9	a6.57	Dec. 11	4.79
Apr. 18	3.82	July 13	a4.40	13	5.13		

a Measurement by Geological Survey.

13-30-4cd (*1073, p. 269). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 7.54 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Jan. 9	6.64	Mar. 17	7.11	June 13	a6.35	Sept. 9	7.54
21	a7.50	27	a7.10	July 13	5.42	Nov. 5	7.50
Feb. 25	a6.90	May 13	7.15	24	a6.50	25	a7.50

a Measurement by Geological Survey.

13-30-9cb (*1073, p. 269). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 0.90 on June 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.20	Mar. 17	2.05	June 13	a0.90	Sept. 9	3.14
20	a1.20	27	a1.70	July 13	2.30	Nov. 5	2.69
Feb. 25	a2.00	May 13	2.11	24	a2.10	28	a2.55

a Measurement by Geological Survey.

13-30-13bc (*988, p. 272; 1018, p. 210; 1025, p. 203; *1073, p. 269). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.72	June 13	1.34	Sept. 13	4.01	Nov. 6	3.49
May 16	2.68	Aug. 1	3.37	Oct. 9	3.90	Dec. 11	3.26

13-30-13dd (*908, p. 222; 938, p. 176; 946, p. 218; *988, p. 274; 1018, p. 210; 1025, p. 203; *1073, p. 269). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 8.99 on June 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a9.71	June 13	8.99	Sept. 10	a11.46	Nov. 5	a10.87
Mar. 17	a9.75	July 13	a9.49	Oct. 9	11.18	Dec. 11	10.41
May 13	a9.51	Aug. 1	9.71				

a Measurement by Geological Survey.

13-30-14dc (*988, p. 273; 1018, p. 210; 1025, p. 203; *1073, p. 269) Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	4.45	June 13	3.19	Sept. 13	5.55	Nov. 6	4.98
May 16	4.18	Aug. 1	4.29	Oct. 9	5.28	Dec. 11	4.79

13-30-21bb (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 235; 908, p. 219; 938, p. 175; 946, p. 216; *988, p. 260; 1018, p. 206; 1025, p. 198; *1073, p. 269). Nebraska Agricultural College. Altitude 2,821.80 feet above sea level. Highest observed stage in period of record, 11.19 on Dec. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	11.57	Mar. 27	a11.40	July 24	a11.20	Oct. 9	b12.02
20	a11.50	May 13	11.42	Aug. 1	b11.30	Nov. 5	11.94
Feb. 25	a11.30	June 13	a11.25	Sept. 9	12.32	25	a11.65
Mar. 17	11.44	July 13	11.22	13	b12.19	Dec. 11	b11.19

a Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District.

b Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

13-30-21ed. University of Nebraska. Drilled observation well, diameter 3 inches, depth 54 feet. Measuring point, top of casing, 0.5 foot above land-surface datum, 2,869.84 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 40.10 on Nov. 25; lowest, 41.20 on Jan. 20.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20	41.20	Mar. 27	40.90	June 13	40.90	Sept. 10	40.60
Feb. 25	40.90	May 15	40.85	July 24	40.75	Nov. 25	40.10

13-30-25bb (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216; 988, p. 260; 1018, p. 206; 1025, p. 198; *1073, p. 270). Lech Bros. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 147.28. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 33.70 on Dec. 24. Water levels, in feet below land-surface datum, 1947: Jan. 10, 34.20; Mar. 19, 33.90; Dec. 24, 33.70.

13-34-32da (*908, p. 220; 938, p. 175; 946, p. 217; *988, p. 267; 1018, p. 209; 1025, p. 201; *1073, p. 270). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 13.30; Dec. 3, 12.90.

14-30-8cb (*988, p. 265; 1018, p. 208; 1025, p. 200; *1073, p. 270). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 2.10; Dec. 3, 2.90.

14-30-9ca (*1073, p. 270). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 2.55 on June 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a4.17	Mar. 27	3.60	June 13	2.55	Sept. 9	a5.61
21	4.20	May 13	a3.63	July 13	a4.00	Nov. 5	a5.30
Feb. 25	3.90	15	3.40	24	3.70	22	5.00
Mar. 17	a3.74						

a Measurement by Geological Survey.

14-30-16db (*1073, p. 270). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 0.10 on Feb. 25; lowest, 2.69 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a0.38	Mar. 27	0.50	June 13	0.25	Sept. 9	a2.69
21	.30	May 13	a .88	July 13	a1.79	Nov. 5	a1.35
Feb. 25	.10	15	.40	24	.90	22	.90
Mar. 17	a .40						

a Measurement by Geological Survey.

14-30-19bc (*988, p. 266; 1018, p. 208; 1025, p. 201; *1073, p. 270). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 1.80; Dec. 3, 2.90.

14-30-21cd (*1073, p. 271). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Lowest observed stage in period of record, 3.91 on Nov. 5.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a3.41	Mar. 27	3.35	June 13	2.90	Sept. 9	a3.87
21	3.20	May 13	a3.52	July 13	a3.80	Nov. 2	3.70
Feb. 25	3.25	15	3.40	24	3.50	5	a3.91
Mar. 17	a3.35						

a Measurement by Geological Survey.

14-30-26bb (*988, p. 226; 1018, p. 208; 1025, p. 200; *1073, p. 271). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 0.30; Dec. 3, 1.60.

14-30-28dc (*1073, p. 271). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a5.95	Mar. 17	a6.03	June 13	5.60	Sept. 9	a6.05
21	5.80	27	6.00	July 13	a5.61	Nov. 5	a6.05
Feb. 25	5.90	May 13	a6.04	24	5.40	22	5.90

a Measurement by Geological Survey.

14-30-29db (*988, p. 267; 1018, p. 208; 1025, p. 201; *1073, p. 271). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: Jan. 8, 5.56; Apr. 18, 5.14; June 25, 4.90. Well destroyed, measurements discontinued.

14-30-32cd (*988, p. 267; 1018, p. 208; 1025, p. 201; *1073, p. 271). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 8	4.06	June 12	3.63	Sept. 13	4.90	Nov. 6	5.10
Apr. 18	3.78	Aug. 1	5.32	Oct. 9	5.80	Dec. 11	5.33

14-30-33cd (*1073, p. 271). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 5.90 on June 23; lowest, 7.86 on Sept. 9.

Water level, in feet below land-surface datum, 1947

Jan. 9	a6.75	Apr. 10	6.50	June 23	5.90	Sept. 12	7.50
Feb. 15	6.80	May 13	a6.68	July 13	a6.99	Nov. 5	a7.35
Mar. 17	a6.88	June 4	6.40	25	6.30	25	7.20
27	6.90	12	6.00	Sept. 9	a7.86		

a Measurement by Geological Survey.

14-30-34cc (*988, p. 268; 1018, p. 209; 1025, p. 201; 1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 7.96 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Jan. 8	7.07	June 12	6.69	Sept. 13	7.78	Nov. 6	7.74
Apr. 18	6.99	Aug. 1	7.10	Oct. 9	7.96	Dec. 11	7.82

14-31-5ba (*988, p. 265; 1018, p. 208; 1025, p. 200; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 2.70; Dec. 3, 3.50.

14-32-5aa (*988, p. 264; 1018, p. 208; 1025, p. 200; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 2.90; Dec. 3, 4.50.

14-32-18ad (*988, p. 264; 1018, p. 208; 1025, p. 200; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 3.90; Dec. 3, 3.90.

14-32-20dd (*988, p. 264; 1018, p. 207; 1025, p. 200; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 6.10; Dec. 3, 6.10.

14-32-21bb (*817, p. 146; 908, p. 219; 938, p. 174; 946, p. 216; 988, p. 260; 1018, p. 204; 1025, p. 197; *1073, p. 272). Great Western Sugar Co. No measurements made in 1947.

14-33-8bb (*988, p. 262; 1018, p. 207; 1025, p. 199; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 2.90; Dec. 3, 2.70.

14-33-16da (*988, p. 263; 1018, p. 207; 1025, p. 199; *1073, p. 272). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 1.90; Dec. 3, 1.60.

14-33-17bc (*988, p. 262; 1018, p. 207; 1025, p. 199; *1073, p. 273). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 3.40; Dec. 3, 3.70.

14-33-17da (*986, p. 325; 908, p. 220; 938, p. 175; 946, p. 216; *988, p. 261; 1018, p. 206; 1025, p. 198; *1073, p. 273). University of Nebraska. No measurements made in 1947.

14-33-27aa (*908, p. 220; 938, p. 175; 946, p. 217; *988, p. 263; 1018, p. 207; 1025, p. 199; *1073, p. 273). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Lowest observed stage in period of record, 10.90 on May 8 and 14.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	10.36	Apr. 29	10.82	July 21	8.87	Oct. 8	9.40
28	10.53	May 8	10.90	28	8.97	Nov. 3	9.80
Feb. 17	10.61	14	10.90	Aug. 18	8.80	10	9.90
Mar. 3	10.65	26	10.75	25	8.74	24	10.15
10	10.70	June 2	10.60	Sept. 2	8.82	Dec. 1	10.25
18	10.74	10	10.30	9	8.90	15	10.45
26	10.75	16	9.95	15	8.98	22	10.50
Apr. 14	10.83	25	8.70	29	9.30	29	10.60

14-33-27da (*988, p. 261; 1018, p. 206; 1025, p. 198; *1073, p. 273). Geological Survey, U. S. Dept. of Interior. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.22	5.43	5.46	5.54	5.53	5.42	2.23	4.25	4.94	4.97	....	5.37
2	5.23	5.43	....	5.54	5.53	5.41	2.07	4.28	4.96	4.97	....	5.38
3	5.24	5.44	5.46	5.55	5.54	5.40	2.09	4.32	4.97	4.98	5.21	5.39
4	5.25	5.44	5.47	5.55	5.54	5.37	2.21	4.36	4.98	4.99	5.21	5.40
5	5.26	5.44	5.47	5.55	5.54	5.30	2.32	....	4.99	5.00	5.22	5.41
6	5.27	5.44	5.48	5.55	5.54	5.24	2.45	....	5.00	5.02	5.23	5.41
7	....	5.44	5.48	5.55	....	5.17	2.59	4.51	5.01	....	5.24	5.41
8	5.29	5.44	5.48	5.54	5.55	5.08	2.72	4.54	5.03	5.02	5.25	5.42
9	5.29	5.44	5.49	5.53	5.56	4.88	2.86	4.58	5.04	5.03	5.26	5.43
10	5.30	5.44	5.49	5.52	5.56	4.67	2.98	4.61	....	5.03	5.26	5.44
11	5.30	5.44	5.50	5.50	5.56	4.58	3.08	4.64	....	5.05	5.27	5.44
12	5.31	5.45	5.50	5.48	5.57	4.50	3.20	....	....	5.06	5.28	5.45
13	5.32	5.45	5.50	5.47	5.57	4.38	3.30	....	....	5.07	5.28	5.46
14	5.32	5.44	5.51	5.45	5.57	4.29	....	....	....	5.08	5.28	5.46
15	5.33	5.43	5.51	5.44	5.58	4.26	3.49	....	4.93	5.09	5.29	5.47

14-33-27da--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	5.34	5.42	5.51	5.43	5.58	4.25	3.57	....	4.93	....	5.30	5.48
17	5.35	5.41	5.51	5.43	5.58	4.26	3.65	....	4.92	....	5.31	5.48
18	5.35	5.41	5.51	5.43	5.58	4.26	3.71	4.81	4.93	....	5.31	5.49
19	5.36	5.39	5.52	5.44	5.58	4.25	3.77	4.83	4.93	....	5.32	5.50
20	5.36	5.38	5.52	5.44	5.58	4.17	3.83	4.84	4.94	....	5.32	5.50
21	5.37	5.39	5.52	5.45	5.57	3.99	3.87	4.86	4.95	....	5.32	5.50
22	5.37	5.39	5.52	5.46	....	3.69	3.89	4.88	4.95	....	5.32	5.51
23	5.38	5.40	5.52	5.47	....	3.40	3.93	4.88	....	....	5.32	5.51
24	5.38	5.42	5.52	5.48	....	....	3.97	....	....	....	5.33	5.51
25	5.39	5.43	5.53	5.49	....	....	4.01	4.88	....	....	5.33	5.52
26	5.39	5.44	5.53	5.49	5.57	2.92	4.05	4.88	....	....	5.34	5.52
27	5.39	5.44	5.54	5.50	5.57	2.84	4.09	4.88	....	....	5.35	5.52
28	5.40	5.45	5.54	5.50	5.57	2.79	4.13	4.89	....	....	5.36	5.53
29	5.41	....	5.54	5.51	5.53	2.74	4.17	4.90	4.97	....	5.37	5.53
30	5.42	....	5.54	5.52	5.48	2.52	4.20	4.92	4.97	....	5.37	5.54
31	5.42	....	5.54	....	5.44	....	4.22	4.93	....	....	....	5.54

14-33-29ca (*908, p. 200; 938, p. 175; 946, p. 217; *988, p. 263; 1018, p. 207; 1025, p. 200; *1073, p. 274). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 9.50; Dec. 3, 9.60.

14-33-32cd (*886, p. 327; 908, p. 220; 938, p. 175; 946, p. 217; 988, p. 261; 1018, p. 206; 1025, p. 198; *1073, p. 274). University of Nebraska. No measurements made in 1947.

14-34-21bc (*988, p. 261; 1018, p. 207; 1025, p. 199; *1073, p. 274). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1947: June 25, 3.20; Dec. 3, 2.80.

15-31-13dd (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216; 988, p. 260; 1018, p. 206; 1025, p. 198; *1073, p. 274). University of Nebraska. No measurements made in 1947.

16-31-4ab (*817, p. 174; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216; 988, p. 260; 1018, p. 206; 1025, p. 198; *1073, p. 274). University of Nebraska. No measurements made in 1947.

Logan County

No measurements made in 1947.

Loup County

No measurements made in 1947.

Madison County

21-4-34eb (*817, p. 149; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; 988, p. 288; 1018, p. 215; 1025, p. 209; *1073, p. 274). O. Engelsgard. No measurements made in 1947.

22-1-33cb (*817, p. 149; 840, p. 212; 845, p. 178; 886, p. 32; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 228; 1018, p. 215; 1025, p. 209; *1073, p. 274). A. Christian. Water level, in feet below land-surface datum, 1947: Oct. 6, 0.39.

23-2-5aa (*817, p. 149; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; 988, p. 288; *1018, p. 216; 1025, p. 109; *1073, p. 274). J. Bredehoft. Water levels, in feet below land-surface datum, 1947: June 21, 2.95; Oct. 6, 4.03.

24-2-32dc (*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 220; 988, p. 228; *1018, p. 216; 1025, p. 108; *1073, p. 275). F. Prauner. Water levels, in feet below land-surface datum, 1947: June 2, 3.20; Oct. 6, 4.98.

McPherson County

No measurements made in 1947.

Merrick County

11-8-3dd (*1073, p. 275). Geological Survey, U. S. Dept. of Interior. Altitude 1,796.73 feet above sea level. Lowest observed stage in period of record, 3.32 on Sept. 5.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	1.95	May 8	2.34	Sept. 5	3.32
Mar. 7	1.54	July 10	1.85	Nov. 3	2.27

11-8-18ab (*836-E, pp. 252, 270; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 228; 1018, p. 216; 1025, p. 210; *1073, p. 275). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 3.00 on July 14. Water level, in feet below land-surface datum, 1947: Mar. 17, 4.00; July 14, 3.00; Nov. 3, 6.66.

11-8-19dc (*836-E, pp. 252, 271; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 289; 1018, p. 216; 1025, p. 210; *1073, p. 275). City of Grand Island. No measurements made in 1947.

12-7-7aa (*1025, p. 210; 1073, p. 275). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.34 on July 10.

Water level, in feet below land-surface datum, 1947

Jan. 6	6.24	May 8	5.62	Sept. 5	6.55
Mar. 6	6.25	July 10	4.34	Nov. 3	7.12

12-8-7dc (*1073, p. 275). Highest observed stage in period of record, 9.44 on July 10.

Water level, in feet below land-surface datum, 1947

Jan. 6	11.26	May 8	10.92	Nov. 3	10.98
Mar. 7	11.15	July 10	9.44		

12-8-28dc (*1073, p. 275). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 0.59 on July 10.

Water level, in feet below land-surface datum, 1947

Jan. 6	1.52	May 8	1.00	Sept. 5	3.02
Mar. 7	1.52	July 10	.59	Nov. 3	3.30

13-6-2bc (*1073, p. 275). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.41 on July 8; lowest, 6.91 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Jan. 3	5.09	May 7	5.57	Sept. 4	6.72
Mar. 7	5.10	July 8	4.41	Nov. 11	6.91

13-6-7bb (*1073, p. 276). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.09 on July 10; lowest, 6.54 on Nov. 3.

Water level, in feet below land-surface datum, 1947

Jan. 6	5.15	May 8	4.47	Sept. 5	5.98
Mar. 7	5.26	July 10	4.09	Nov. 3	6.54

13-6-19cb (*1073, p. 276). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 3.10 on July 10; lowest, 5.74 on Nov. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	4.50	May 8	3.68	Sept. 5	5.13
Mar. 7	4.39	July 10	3.10	Nov. 3	5.74

13-6-28bb (*1073, p. 276). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.12 on Jan. 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	5.12	May 7	5.80	Sept. 4	7.40
Mar. 7	5.16	July 8	5.47	Nov. 3	7.15

13-7-4bc (*1025, p. 210; *1073, p. 276). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.23 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	6.57	May 8	6.29	Sept. 5	5.95
Mar. 6	6.88	July 10	5.23	Nov. 3	6.06

13-7-29cb (*1073, p. 276). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.50	May 8	2.52	Sept. 5	3.64
Mar. 7	2.20	July 10	2.75	Nov. 3	3.02

14-4-18bb (*1073, p. 276). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 3.46 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.06	May 7	3.97	Sept. 3	5.45
Mar. 7	3.68	July 7	3.46	Nov. 10	4.92

14-5-9cc2. Drilled irrigation well, diameter 18 inches, depth 30.0 feet. Measuring point, top of casing, 0.60 foot above land-surface datum, and 1,650.30 feet above sea level. Highest observed stage in period of record, 4.56 on July 8; lowest, 7.14 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 7	5.50	July 8	4.56	Nov. 11	7.14
May 7	4.80	Sept. 4	6.65		

14-6-15bb (*1025, p. 210; 1073, p. 276). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.18	May 7	2.93	Sept. 4	5.48
Mar. 7	3.00	July 8	3.02	Nov. 11	4.85

14-7-21cb (*817, p. 149; 940, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; 988, p. 288; 1018, p. 216; 1025, p. 210; *1073, p. 277). H. Trudy. Highest observed stage in period of record, 5.39 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	6.47	May 8	5.87	Sept. 4	8.02
Mar. 6	6.33	July 10	5.39	Nov. 3	7.96

14-7-26cc (*1073, p. 277). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 11.07 on July 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 6	12.48	May 8	12.04	Sept. 5	11.17
Mar. 6	12.46	July 10	11.07	Nov. 3	11.27

15-4-15dd (*1025, p. 210; 1073, p. 277). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.50 on July 8; lowest, 8.90 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.79	May 7	6.16	Sept. 4	8.29
Mar. 6	7.06	July 8	5.50	Nov. 11	8.90

15-4-31cc (*1025, p. 210; 1073, p. 277). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 2.97 on May 7; lowest, 5.22 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Jan. 3	3.52	May 7	2.97	Sept. 4	4.89
Mar. 7	3.38	July 8	3.00	Nov. 11	5.22

15-5-8dd (*1073, p. 277). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 11.15 on July 8.

Water level, in feet below land-surface datum, 1947

Jan. 3	13.07	May 7	13.00	Sept. 4	11.19
Mar. 7	13.37	July 8	11.15	Nov. 11	11.93

15-5-27dd (*1073, p. 277). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 1.92 on July 8; lowest, 4.62 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Jan. 3	3.32	May 7	2.64	Sept. 4	4.04
Mar. 7	3.46	July 8	1.94	Nov. 11	4.62

16-3-7dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 10.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 4, 4.94; Nov. 11, 4.97.

16-3-27cc (*817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; 988, p. 288; *1018, p. 216; 1025, p. 209; *1073, p. 277). P. Pearson. Highest observed stage in period of record, 4.39 on July 8.

Water level, in feet below land-surface datum, 1947

Jan. 3	6.44	May 7	5.67	Sept. 4	7.50
Mar. 6	6.40	July 8	4.39	Nov. 11	7.35

Morrill County

20-49-30ac (*1073, p. 278). A. Stewart.

Water level, in feet below land-surface datum, 1947

Jan. 18	17.84	Mar. 12	18.92	June 4	20.29
Feb. 18	18.47	May 5	19.92	Oct. 27	17.58

20-50-17bb (*1073, p. 278). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 10.90 on Oct. 27.

Water level, in feet below land-surface datum, 1947

Jan. 18	14.00	Mar. 12	14.94	June 4	15.48
Feb. 19	14.60	May 5	15.66	Oct. 27	10.90

20-50-28bb (*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 179; 946, p. 221; 988, p. 289; *1018, p. 217; 1025, p. 211; *1073, p. 278). F. Smith. Highest observed stage in period of record, 11.99 on Jan. 18; lowest, 14.74 on Mar. 12.

Water level, in feet below land-surface datum, 1947

Jan. 18	11.99	Mar. 12	13.74	June 4	13.44
Feb. 19	13.65	May 5	13.96	Oct. 27	13.77

20-50-32aa (*817, p. 150; 840, p. 213; 845, p. 179; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 289; 1018, p. 217; 1025, p. 211; *1073, p. 278). State Dept. of Roads and Irrigation.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3.10	....	....	....	....	....
2	5.00	....	3.23	....	....	....	....	....
3	4.82	....	....	3.31	....	....	....	....	....
4	4.70	3.41	....	....	....	....	....
5	4.56	4.67	4.79	4.86	5.02	....	3.47	5.02	4.89	....	4.49	....
6	4.62	3.53	....	....	....	....	....
7	3.59	....	....	....	....	....
8	4.65	....	....	....	....	....	4.48
9	4.53	3.72	....	....	....	....	....
10	4.70	4.79	....	5.07	4.51	3.77	5.11	4.77	....	....	....
11	4.56	....	....	....	....	4.47	....	....	....	....	4.50	4.51
12	4.98	4.24	....	4.95	....	....	....	....
13	4.95	4.07	3.98	....	....	....	....	....
14	4.86	4.83	....	....	....	....	....	....	....
15	4.62	4.66	4.82	....	....	4.05	4.11	4.93	4.66	4.46	....	4.55
16	4.09	....	....	....	....	4.49	....
17	4.13	....	....	....	....	....	....
18	4.05	....	....	....	....	....	....
19	4.05	....	....	....	....	....	....
20	4.51	....	4.81	....	4.82	....	4.37	4.94	4.54	4.50	4.48	....
21	4.93	....	3.24	....	....	....	....	....	....
22	4.70	....	....	....	2.26	....	....	....	....	....	....
23	2.61	....	....	....	....	....	....
24	2.87	....	....	....	....	....	....
25	4.50	....	4.84	....	4.98	2.92	4.45	4.79	4.57	....	4.48	....
26	3.02	....	....	....	....	....	....
27	4.96	....	3.09	....	....	....	....	....	....
28	4.76	....	....	....	3.22	....	....	....	....	....	....
29	2.73	....	....	....	....	....	....
30	4.59	....	....	....	....	2.94	4.63	4.81	4.57	....	4.40	....
31	5.27	....	....	....	....	....	....	....	....	4.61

21-50-33bc (*1073, p. 278). L. Winters. Highest observed stage in period of record, 29.85 on Oct. 27.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 18	37.97	Mar. 12	42.31	June 4	41.34
Feb. 19	39.04	May 5	42.20	Oct. 27	29.85

22-50-14bc (*1073, p. 279). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	1.18	Mar. 12	0.91	June 4	0.97
Feb. 18	.95	May 5	1.26	Oct. 27	.72

22-50-28bc (*817, p. 150; 840, p. 212; 845, p. 197; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; 988, p. 289; *1018, p. 216; *1073, p. 279). J. Jenson.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	81.61	Mar. 12	81.67	June 4	81.58
Feb. 19	81.57	May 5	81.58	Oct. 27	81.58

23-51-32 bb (*1073, p. 279). E. Green. Highest observed stage in period of record, 101.02 on June 4.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 17	101.21	Mar. 13	101.13	June 4	101.02
Feb. 19	101.25	May 5	101.19		

Nance County

16-6-14ac. C. A. Aldrich. Drilled irrigation well, diameter 10 inches, depth 51 feet. Measuring point, edge of brick curb, 0.5 foot above land-surface datum, and 1,642.69 feet above sea level. Highest observed stage in period of record, 26.77 on Mar. 31, 1936; lowest, 30.84 on Oct. 26, 1940.

Water level, in feet below land-surface datum, 1936-37, 1939-42, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 21, 1936	26.77	Mar. 26, 1937	27.75	Oct. 26, 1940	30.84
July 12	28.75	Nov. 24, 1939	29.46	14, 1941	29.74
Aug. 19	28.09	Mar. 23, 1940	29.09	31, 1942	29.22
Nov. 8	27.92	July 13	30.17	10, 1947	27.35

17-4-24db (*617, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 197; 946, p. 221; 988, p. 289; 1018, p. 217; 1025, p. 211; *1073, p. 279). Greek Estate. No measurements made in 1947.

17-6-34ad (*617, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 228; 938, p. 179; 946, p. 221; 988, p. 289; 1018, p. 217; 1025, p. 211; *1073, p. 279). W. Christiansen. No measurements made in 1947.

Nemaha County

No measurements made in 1947.

Nuckolls County

1-5-31cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 23 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 1,541.14 feet above sea level. Water levels, in feet below land-surface datum, 1947: Oct. 13, 19.82; Nov. 14, 19.78.

1-5-31cc (*1073, p. 279). Geological Survey, U. S. Dept. of Interior. Altitude 1,515.95 feet above sea level. Highest observed stage in period of record, 0.66 on June 10; lowest, 6.07 on Oct. 2.

Water level, in feet below land-surface datum, 1947

Mar. 1	2.11	Aug. 2	4.17	Nov. 14	5.59
June 10	.66	Oct. 2	6.07	Dec. 15	5.38

1-6-30dd (*1073, p. 279). M. Day. Altitude 1,572.94 feet above sea level. Automatic water-stage recorder installed Dec. 15.

Lowest daily water level, in feet below land-surface datum, 1947

(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 1	a33.60	Dec. 16	33.17	Dec. 22	33.15	Dec. 27	33.14
June 10	a33.36	17	33.16	23	33.15	28	33.13
Aug. 2	a33.25	18	33.16	24	33.15	29	33.12
Oct. 13	a33.19	19	33.16	25	33.15	30	33.14
Nov. 14	a33.12	20	33.17	26	33.14	31	33.15
Dec. 15	33.18	21	33.17				

a Tape measurement.

1-6-31cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13 feet. Measuring point, top of pipe, 0.5 foot above land-surface datum, and 1,547.11 feet above sea level. Highest observed stage in period of record, 9.69 on Oct. 13; lowest, 10.47 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Oct. 13, 9.69; Nov. 14, 10.23; Dec. 16, 10.47.

1-6-33cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 11.55 feet. Measuring point, top of pipe, 1.7 feet above land-surface datum, and 1,538.85 feet above sea level. Water levels, in feet below land-surface datum, 1947: Oct. 13, 5.02; Nov. 14, 4.91; Dec. 16, 5.02.

1-6-33cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.74 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, 1,541.60 feet above sea level. Highest observed stage in period of record, 11.90 on Oct. 13; lowest, 12.64 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Oct. 13, 11.90; Nov. 14, 12.41; Dec. 16, 12.64.

1-6-35cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum, and 1,544.37 feet above sea level. Highest observed stage in period of record, 13.17 on Oct. 13; lowest, 14.03 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Oct. 13, 13.17; Nov. 14, 13.61; Dec. 16, 14.03.

1-6-35cc (*1073, p. 280). Geological Survey, U. S. Dept. of Interior. Altitude 1,534.25 feet above sea level. Lowest observed stage in period of record, 13.39 on Dec. 16.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	10.59	Aug. 2	10.15	Nov. 14	13.23
June 10	10.31	Oct. 13	13.35	Dec. 16	13.39

1-7-19cb (*1073, p. 280). Geological Survey, U. S. Dept. of Interior. Altitude 1,589.79 feet above sea level. Highest observed stage in period of record, 7.30 on Aug. 2; lowest, 10.92 on Dec. 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	8.36	Aug. 2	7.30	Nov. 13	10.76
June 10	8.28	Oct. 13	10.36	Dec. 15	10.92

1-7-19dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,578.40 feet above sea level. Highest observed stage in period of record, 6.82 on Dec. 15; lowest, 7.77 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 7.77; Nov. 13, 7.49; Dec. 15, 6.82.

1-7-27cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 27.0 feet. Measuring point, is 1.0 foot above land-surface datum and 1,585.07 feet above sea level. Water levels, in feet below land-surface datum, 1947: Oct. 13, 20.59; Nov. 13, 20.58; Dec. 15, 20.56.

1-7-31da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 22.0 feet. Measuring point, top of pipe, 1.50 feet above land-surface datum and 1,582.40 feet above sea level. Water levels, in feet below land-surface datum, 1947: Oct. 13, 10.64; Nov. 13, 10.92; Dec. 15, 10.97.

1-7-32bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.8 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum and 1,575.39 feet above sea level. Highest observed stage in period of record, 4.59 on Oct. 13; lowest, 3.66 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Oct. 13, 4.59; Nov. 13, 4.29; Dec. 16, 3.66.

1-7-33ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.0 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum and 1,575.39 feet above sea level. Highest observed stage in period of record, 6.10 on Dec. 15; lowest, 6.31 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 6.22; Nov. 13, 6.31; Dec. 15, 6.10.

1-7-33dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.7 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum and 1,566.13 feet above sea level. Highest observed stage in period of record, 9.08 on Dec. 16, lowest, 9.39 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 9.39; Nov. 13, 9.33; Dec. 16, 9.08.

1-7-34bb (*1073, p. 280). Geological Survey, U. S. Dept. of Interior. Altitude 1,567.91 feet above sea level. Lowest observed stage in period of record, 7.40 on Oct. 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	3.84	Aug. 2	4.98	Nov. 13	7.05
June 10	3.89	Oct. 13	7.40	Dec. 15	6.38

1-7-35da (*1073, p. 280). Geological Survey, U. S. Dept. of Interior. Altitude 1,553.41 feet above sea level. Highest observed stage in period of record, 5.55 on Aug. 2.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	8.06	Aug. 2	5.55	Nov. 14	7.61
June 10	7.78	Oct. 13	7.32	Dec. 16	8.05

1-7-36cc (*886, p. 329; 908, p. 228; 938, p. 179; 946, p. 222; 988, p. 240; 1018, p. 218; 1025, p. 212; *1073, p. 280). University of Nebraska. No measurements made in 1947.

1-7-36da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.2 feet. Measuring point, top of pipe, 1.5 feet above land-surface datum and 1,548.79 feet above sea level. Highest observed stage in period of record, 10.00 on Oct. 13; lowest, 11.20 on Dec. 16. Water levels, in feet below land-surface datum, 1947: Oct. 13, 10.00; Nov. 14, 10.75; Dec. 16, 11.20.

1-8-7bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.0 feet. Measuring point is 2.0 feet above land-surface datum and 1,631.79 feet above sea level. Highest observed stage in period of record, 5.57 on Dec. 15; lowest, 6.96 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 6.96; Nov. 13, 6.28; Dec. 15, 5.57.

1-8-7dd (*1073, p. 280). Geological Survey, U. S. Dept. of Interior. Altitude 1,611.31 feet above sea level. Highest observed stage in period of record, 1.36 on June 10; lowest, 6.17 on Oct. 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	3.05	Aug. 2	4.59	Nov. 13	5.86
June 10	1.36	Oct. 13	6.17	Dec. 15	5.57

1-8-14cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.2 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum and 1,614.36 feet above sea level. Highest observed stage in period of record, 15.57 on Dec. 15; lowest, 15.98 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 15.82; Nov. 13, 15.98; Dec. 15, 15.57.

1-8-17aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,607.98 feet above sea level. Highest observed stage in period of record, 5.53 on Dec. 15; lowest, 6.53 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 6.53; Nov. 13, 6.49; Dec. 15, 5.53.

1-8-17da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,614.36 feet above sea level. Highest observed stage in period of record, 7.21 on Dec. 15; lowest, 7.56 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 7.51; Nov. 13, 7.56; Dec. 15, 7.21.

1-8-18cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 20.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,621.37 feet above sea level. Highest observed stage in period of record, 12.87 on Oct. 13; lowest, 13.20 on Dec. 15. Water levels, in feet below land-surface datum, 1947: Oct. 13, 12.87; Nov. 13, 13.12; Dec. 15, 13.20.

1-8-21cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 19.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,609.81 feet above sea level. Highest observed stage in period of record, 12.22 on Dec. 13; lowest, 12.41 on Oct. 13 and Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 12.41; Nov. 13, 12.41; Dec. 13, 12.22.

1-8-21dc (*1073, p. 280). K. Teachworth. Altitude 1,621.29 feet above sea level. Highest observed stage in period of record, 24.52 on Aug. 2; lowest 28.19 on Dec. 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	26.02	Aug. 2	24.52	Nov. 13	27.84
June 10	24.92	Oct. 13	27.69	Dec. 15	28.19

1-8-22ab (*1073, p. 280). L. Smith. Altitude 1,592.57 feet above sea level. Lowest observed stage in period of record, 5.56 on Oct. 13.

Water level, in feet below land-surface datum, 1947

Mar. 1	4.71	Aug. 2	3.95	Nov. 13	5.06
June 10	2.70	Oct. 13	5.56	Dec. 15	4.83

1-8-22ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.1 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,594.68 feet above sea level. Highest observed stage in period of record, 9.37 on Dec. 15; lowest, 10.05 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 10.05; Nov. 13, 9.75; Dec. 15, 9.37.

1-8-22dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 0.5 foot above land-surface datum and 1,591.91 feet above sea level. Highest observed stage in period of record, 8.41 on Oct. 13; lowest, 8.54 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 8.41; Nov. 13, 8.54; Dec. 15, 8.50.

1-8-25aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,581.64 feet above sea level. Highest observed stage in period of record, 6.64 on Oct. 13 and Dec. 15; lowest, 6.75 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 6.64; Nov. 13, 6.75; Dec. 15, 6.64.

1-8-25ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.7 feet. Measuring point, top of pipe, 1.5 feet above land-surface datum and 1,584.59 feet above sea level. Highest observed stage in period of record, 9.88 on Dec. 15; lowest, 10.50 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 10.50; Nov. 13, 10.25; Dec. 15, 9.88.

1-8-36aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 11.42 on Dec. 16; lowest, 12.17 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 12.17; Nov. 13, 11.94; Dec. 16, 11.42.

2-5-8dd (*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179; 946, p. 222; 988, p. 290; 1018, p. 217; 1025, p. 211; *1073, p. 281). E. Dillon. No measurements made in 1947.

4-7-26aa (*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179; 946, p. 22; 988, p. 290; 1018, p. 217; 1025, p. 212; *1073, p. 281). W. Statz. No measurements made in 1947.

Otoe County

A7-12-35aa (*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222; 988, p. 290; 1018, p. 218; 1025, p. 212; *1073, p. 281). L. Dammé: No measurements made in 1947.

A8-10-3bb (*946, p. 222; 988, p. 290; 1018, p. 218; 1025, p. 212; *1073, p. 281). University of Nebraska. Highest observed stage in period of record, 1.20 on June 25. Water level, in feet below land-surface datum, 1947: June 25, 1.20.

A8-11-7cc (*817, p. 152; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222; 988, p. 290; 1018, p. 218; 1025, p. 212; *1073, p. 281). W. Gellerman. Highest observed stage in period of record, 1.30 on June 25. Water level, in feet below land-surface datum, 1947: June 25, 1.30.

Pawnee County

No measurements made in 1947.

Perkins County

No measurements made in 1947.

Phelps County

5-18-2cc. C. M. Brown. Drilled irrigation well, diameter 18 inches, depth 185 feet. Measuring point, base of pump, 0.50 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: July 25, 159.17; Nov. 26, 159.17.

5-18-4ab (*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 22; 988, p. 290; 1018, p. 219; 1025, p. 213; *1073, p. 281). Western Public Service Co. No measurements made in 1947.

5-18-6ab. Christian Children's Home. Drilled irrigation well, diameter 16 inches, depth 258 feet. Measuring point, hole in pump base, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: July 24, 159.57; Nov. 26, 158.92.

5-19-22da. Warp. Unused drilled well, diameter 12 inches, depth 246 feet. Measuring point, edge of concrete base, 1.50 feet above land-surface datum, 1947: July 24, 203.86; Nov. 18, 203.65.

5-19-35db. E. Gray. Drilled irrigation well, diameter 14 inches, depth 216 feet. Measuring point, hole in pump base, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: July 24, 198.84; Nov. 18, 199.93.

6-17-15ad. Carl Ramste. Drilled irrigation well, diameter 18, depth 170 feet. Measuring point, hole in pump base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 6, 90.08; Nov. 19, 89.04.

6-18-12bc. Harley Welk. Drilled irrigation well, diameter 18 inches, depth 141 feet. Measuring point, hole in pump, 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 5, 89.92; Nov. 19, 89.63.

6-18-33aa. C. Burgeson. Drilled irrigation well, diameter 18 inches, depth 182 feet. Measuring point, hole in side of pump, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: July 25, 137.42; Nov. 26, 137.27.

7-17-11cb. W. D. Just. Drilled irrigation well, diameter 18 inches, depth 60 feet. Measuring point, hole in side of pump, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 7, 28.78; Nov. 24, 28.25.

7-17-30bb. A. Solderholm. Drilled irrigation well, diameter 24 inches, depth 100 feet. Measuring point, hole in pump base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 5, 54.17; Nov. 19, 52.42.

7-18-27ab. R. J. Getty. Drilled irrigation well, diameter 24 inches, depth 114 feet. Measuring point, hole in pump base, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Aug. 5, 64.15; Nov. 19, 52.42.

7-19-12cc. Central Nebraska Public Power and Irrigation District. Drilled observation well, diameter 1 inch, depth 91 feet. Measuring point, top of pipe, 1.0 foot below land-surface datum. Water levels, in feet below land-surface datum, 1947: July 24, 54.07; Nov. 18, 52.25.

7-20-31d. E. Peterson. Abandoned drilled domestic well, diameter 6 inches, depth 241 feet. Measuring point, edge of casing, 0.8 foot above land-surface datum. Stevens Type F, 8-day automatic water-stage recorder installed Sept. 17, 1947. Highest observed stage in period of record, 222.76 on Dec. 29; lowest, 227.40 on Aug. 20.

Water level, in feet below land-surface datum, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 20	227.40	Oct. 11	223.49	Nov. 4	223.20	Nov. 28	223.40
Sept. 18	223.73	12	223.85	5	223.30	29	223.57
19	223.77	13	223.86	6	223.11	30	223.57
20	223.80	14	223.68	7	223.26	Dec. 1	223.11
21	224.00	15	223.47	8	223.33	2	223.11
22	224.16	16	223.37	9	223.43	3	223.31
23	223.97	17	223.53	10	223.44	4	223.10
24	223.96	18	223.72	11	223.41	5	223.17
25	223.98	19	223.73	12	223.56	6	223.02
26	223.98	20	223.64	13	223.53	16	223.12
27	223.86	21	223.57	14	223.26	17	223.15
28	223.76	22	223.56	15	223.23	18	223.13
29	223.97	23	223.67	16	223.54	19	223.24
30	223.98	24	223.75	17	223.55	20	223.44
Oct. 1	223.71	25	223.77	18	223.45	21	223.43
2	223.49	26	223.73	19	223.35	22	223.07
3	223.51	27	223.53	20	223.29	23	223.28
4	223.60	28	223.50	21	223.44	24	223.38
5	223.56	29	223.48	22	223.47	25	223.48
6	223.50	30	223.27	23	223.37	27	223.09
7	223.71	31	223.62	24	223.12	28	223.00
8	223.75	Nov. 1	223.72	25	223.23	29	222.76
9	223.70	2	223.67	26	223.23	30	223.09
10	223.63	3	223.31	27	223.40	31	223.16

a Tape measurement.

8-17-19db (*817, p. 154; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 222; *988, p. 290; 1018, p. 219; 1025, p. 213; *1073, p. 281). W. Bamford. Altitude 2,223.22 feet above sea level. Highest observed stage in period of record, 10.00 on July 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	11.54	May 14	11.25	Sept. 10	11.12
Mar. 18	11.79	July 15	10.00	Nov. 7	11.50

8-17-21bc. Drilled irrigation well, diameter 18 inches, depth 45 feet. Measuring point, hole in turbine side, 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 10, 6.52; Nov. 7, 6.28.

8-17-24bc (*817, p. 154; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; *988, p. 290; 1018, p. 219; 1025, p. 213; *1073, p. 282). F. Skiles. Altitude 2,189.39 feet above sea level. Measuring point raised 1.0 foot on July 15.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 10	8.27	May 14	8.35	Sept. 10	10.52
Mar. 18	8.23	July 15	7.98	Nov. 7	9.40

8-18-9db (*817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; *988, p. 290; 1018, p. 219; 1025, p. 213; *1073, p. 282). University of Nebraska. Altitude 2,242.58 feet above sea level. Water levels, in feet below land-surface datum, 1947: Mar. 10, 3.75; Mar. 18, 3.79.

8-18-16cc (*1073, p. 282). G. Nelson. Altitude 2,252.82 feet above sea level. Highest observed stage in period of record, 6.02 on July 15.

Water level, in feet below land-surface datum, 1947

Jan. 10	7.10	May 14	7.19	Sept. 10	8.68
Mar. 14	7.30	July 15	6.02	Nov. 7	7.55

8-18-24bb (*1073, p. 282). W. Skiles. Altitude 2,232.83 feet above sea level. Highest observed stage in period of record, 6.85 on July 15.

Water level, in feet below land-surface datum, 1947

Jan. 10	7.60	May 14	7.49	Sept. 10	8.08
Mar. 18	7.82	July 15	6.85	Nov. 7	8.20

8-19-7dc (*1073, p. 282). M. Labart. Altitude 2,300.78 feet above sea level. Highest observed stage in period of record, 4.24 on July 15.

Water level, in feet below land-surface datum, 1947

Jan. 10	4.46	May 14	5.33	Sept. 10	6.19
Mar. 18	4.47	July 15	4.24	Nov. 6	5.49

8-19-14dc (*1073, p. 282). H. Crawford. Altitude 2,280.81 feet above sea level. Highest observed stage in period of record, 10.19 on July 15.

Water level, in feet below land-surface datum, 1947

Jan. 10	11.39	May 14	11.23	Sept. 10	12.02
Mar. 18	11.23	July 15	10.19	Nov. 7	11.70

8-20-8cb (*988, p. 291; 1018, p. 218; 1025, p. 212; *1073, p. 282). Andrew O. Matson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	8.30	May 15	8.17	Sept. 3	7.60
Feb. 8	8.21	July 31	7.16	Oct. 7	8.29

8-20-8cd (*1073, p. 282). A. D. Matson. Altitude 2,339.45 feet above sea level. Highest observed stage in period of record, 5.38 on July 15.

Water level, in feet below land-surface datum, 1947

Jan. 10	6.78	May 14	6.80	Sept. 10	6.89
Mar. 18	7.27	July 15	5.38	Nov. 6	7.23

8-20-9cd (*988, p. 292; 1018, p. 219; 1025, p. 213; *1073, p. 283). Lewis W. Jones. Measurements made through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	a2.95	May 14	a3.78	July 31	3.27	Oct. 7	3.89
Feb. 8	3.95	June 20	3.14	Sept. 3	4.24	Nov. 6	a3.69
Mar. 18	a3.47	July 15	a2.72	10	a4.36		

a Measurement by Geological Survey.

8-20-14bc (*1073, p. 283). Altitude 2,327.06 feet above sea level. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 12.55 on July 31.

Water level, in feet below land-surface datum, 1947

Jan. 9	14.49	Mar. 18	a13.72	June 20	13.58	Sept. 3	13.68
Feb. 8	14.40	May 15	13.74	July 31	a12.55	Oct. 7	13.81

a Measurement by Geological Survey.

8-20-14db (*988, p. 293; 1018, p. 219; 1025, p. 213; *1073, p. 283). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 3.48 on July 31.

Water level, in feet below land-surface datum, 1947

Jan. 9	4.87	Mar. 18	3.85	June 20	3.54	Sept. 3	4.58
Feb. 8	4.80	May 15	4.21	July 31	3.48	Oct. 7	4.48

8-20-15bb (*988, p. 293; 1018, p. 219; 1025, p. 213; *1073, p. 283). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 9	7.38	May 15	6.95	Sept. 3	7.60
Feb. 8	7.35	July 31	6.40	Oct. 7	7.20

8-20-15db (*988, p. 293; 1018, p. 219; 1025, p. 213; *1073, p. 283). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 6.96 on July 31.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	9.18	May 15	8.25	July 31	6.96	Oct. 7	8.00
Feb. 8	8.90	June 20	7.70	Sept. 3	8.02		

8-20-17aa (*988, p. 291; 1018, p. 218; 1025, p. 212; *1073, p. 283). B. W. Nelson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 7.14 on May 15.

Water level, in feet below land-surface datum, 1947

Jan. 9	10.90	May 15	7.14	July 31	10.32	Oct. 7	11.05
Feb. 8	10.20	June 20	10.87	Sept. 3	11.66		

8-20-17ba (*988, p. 292; 1018, p. 218; 1025, p. 212; *1073, p. 283). A. S. Hanson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1947

Jan. 9	7.98	May 15	7.68	July 31	6.79	Oct. 7	7.85
Feb. 8	7.95	June 20	7.03	Sept. 3	7.64		

Pierce County

No measurements made in 1947.

Platte County

A17-1-14cc (*1073, p. 284). Loup River Public Power District.
Highest observed stage in period of record, 7.44 on July 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.58	May 6	9.17	Sept. 4	8.59
Mar. 6	9.45	July 8	7.44	Nov. 11	9.14

A17-1-14dd (*1073, p. 285). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 2	5.11	May 6	4.58	Sept. 4	5.20
Mar. 6	5.07	July 8	3.15	Nov. 11	5.46

A17-1-17dd (*1073, p. 285). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 2	8.41	May 6	7.46	Sept. 4	8.50
Mar. 6	8.23	July 8	5.41	Nov. 11	8.96

A17-1-25aa (*1073, p. 286). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 2	7.99	May 6	7.54	Sept. 4	7.51
Mar. 6	8.20	July 8	5.40	Nov. 11	8.15

A17-1-29da (*1073, p. 286). Loup River Public Power District.
Highest observed stage in period of record, 7.82 on July 8.

Water level, in feet below land-surface datum, 1947

Jan. 2	10.48	May 6	9.84	Sept. 4	10.66
Mar. 6	10.29	July 8	7.82	Nov. 11	11.28

A17-1-36bc. Loup River Public Power District.. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.6 feet. Measuring point, top of pipe 2.8 feet above land-surface datum, and 1,415.6 feet above sea level.
Highest observed stage in period of record, 3.93 on July 8, 1947; lowest, 6.77 on Nov. 11, 1947.

Water level, in feet below land-surface datum, 1947

Oct. 11, 1946	6.72	Jan. 2, 1947	5.82	July 8, 1947	3.93
Nov. 5	6.10	Mar. 6	5.42	Nov. 11	6.77
Dec. 10	5.60	May 6	5.05		

A18-1-28cd (*988, p. 294; 1018, p. 200; 1025, p. 214). U. S. 150.
Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 27	69.10	Aug. 27	68.90	Nov. 29	69.20
June 26	69.00	Sept. 26	69.00	Dec. 30	69.50

A20-1-18eb (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; 988, p. 294; 1018, p. 220; 1025, p. 214; *1073, p. 287). University of Nebraska. No measurements made in 1947.

16-2-21a. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.0 feet. Measuring point, top of pipe, 2.5 feet above land-surface datum. Highest observed stage in period of record, 3.16 on July 8; lowest, 6.19 on Nov. 11.

Water level, in feet below land-surface datum, 1947

Mar. 5	5.19	July 8	3.16	Nov. 11	6.19
May 7	4.14	Sept. 4	5.99		

16-2-9cc (*1073, p. 287). J. Nyffeler. Altitude 1,590.37 feet above sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	3.59	May 7	2.77	Sept. 4	4.53
Mar. 6	3.33	July 8	2.87	Nov. 11	3.91

16-2-12ab (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; 988, p. 294; *1018, p. 220; 1025, p. 214; *1073, p. 287). H. Ernst. Altitude 1,489.63 feet above sea level. Highest observed stage in period of record, 6.75 on July 8.

Water level, in feet below land-surface datum, 1947

Jan. 3	8.72	May 7	7.53	Sept. 4	10.20
Mar. 6	8.64	July 8	6.75	Nov. 11	10.20

17-1-2cc (*1073, p. 288). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 2	10.19	May 7	10.05	Sept. 4	10.64
Mar. 6	10.29	July 7	9.00	Nov. 11	10.74

17-1-5ad (*1073, p. 288). Loup River Public Power District. Highest observed stage in period of record, 1.23 on July 7.

Water level, in feet below land-surface datum, 1947

Jan. 2	2.07	May 7	1.70	Sept. 4	2.86
Mar. 6	2.00	July 7	1.23	Nov. 11	2.74

17-1-7ac (*1073, p. 289). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Jan. 2	6.06	May 7	5.58	Sept. 4	6.18
Mar. 6	6.28	July 7	3.60	Nov. 11	7.32

17-1-14cc (*1073, p. 290). Loup River Public Power District. Highest observed stage in period of record, 9.06 on July 7.

Water level, in feet below land-surface datum, 1947

Jan. 2	9.53	May 7	9.65	Sept. 4	10.77
Mar. 6	9.72	July 7	9.06	Nov. 11	11.00

17-1-34dc (*1073, p. 290). J. Ernst. Altitude 1,459.16 feet above sea level. Highest observed stage in period of record, 6.29 on July 7.

Water level, in feet below land-surface datum, 1947

Jan. 3	8.36	May 7	7.59	Sept. 4	9.05
Mar. 6	8.14	July 7	6.29	Nov. 11	9.25

17-2-2cd (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; 988, p. 294; 1018, p. 220; 1025, p. 214; *1073, p. 290). E. Schacher. Altitude 1,484.34 feet above sea level. Highest observed stage in period of record, 4.58 on July 8.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.79	May 7	5.81	Sept. 4	6.83	Nov. 11	6.73
Mar. 6	6.11	July 8	4.58	Oct. 22	6.92		

17-2-4bc (*1073, p. 291). Loup River Public Power District.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.51	May 7	9.16	Sept. 4	11.12
Mar. 6	9.52	July 8	7.60	Nov. 11	10.98

Polk County

13-4-34cc (*1073, p. 291). University of Nebraska. No measurements made in 1947.

14-4-19ab (#1073, p. 292). Geological Survey, U. S. Dept. of Interior. Altitude 1,627.55 feet above sea level. Lowest observed stage in period of record, 6.02 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.54	May 7	4.37	Sept. 3	6.02	Nov. 10	5.50
Mar. 3	4.38	July 7	4.28	12	5.75		

15-2-4dc (#1073, p. 292). Altitude 1,522.13 feet above sea level. Highest observed stage in period of record, 4.50 on July 7; lowest, 7.80 on Nov. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.79	May 7	5.80	Sept. 3	7.21		
Mar. 3	6.72	July 7	4.50	Nov. 10	7.80		

15-2-7bb (#1073, p. 292). Geological Survey, U. S. Dept. of Interior. Altitude 1,530.23 feet above sea level. Highest observed stage in period of record, 5.98 on July 7; lowest, 8.43 on Nov. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.84	May 7	6.22	Sept. 3	8.06		
Mar. 3	6.66	July 7	5.98	Nov. 10	8.43		

15-3-3dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 9.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 3, 5.44; Nov. 10, 6.42.

15-3-20cc (#1073, p. 292). R. Norris. Altitude 1,583.03 feet above sea level. Lowest observed stage in period of record, 7.63 on Nov. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.76	May 7	5.20	Sept. 3	7.48		
Mar. 3	5.49	July 7	5.08	Nov. 10	7.63		

15-3-23dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.6 feet. Measuring point, top of pipe, at land-surface datum. Water levels, in feet below land-surface datum, 1947: Sept. 3, 9.84; Nov. 10, 10.45.

15-4-35dc (#1073, p. 292). C. Carlson. Altitude 1,613.01 feet above sea level. Highest observed stage in period of record, 18.45 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	20.11	May 7	19.42	Sept. 3	20.44	Nov. 10	20.49
Mar. 3	19.77	July 7	18.45	12	20.01		

16-1-14bb (#1073, p. 292). J. Czafka. Altitude 1,459.13 feet above sea level. Highest observed stage in period of record, 3.72 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.15	May 7	4.74	Sept. 3	6.14	Nov. 10	6.35
Mar. 3	5.10	July 7	3.72	Oct. 21	6.35		

16-1-36cd (*1073, p. 292). H. Bugham. Altitude 1,496.86 feet above sea level. Highest observed stage in period of record, 19.32 on July 7.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	21.03	May 7	20.91	Sept. 3	20.27
Mar. 3	21.15	July 7	19.32	Nov. 10	20.76

16-2-23dc (*1073, p. 293). R. Nitsch. Altitude 1,498.78 feet above sea level. Highest observed stage in period of record, 5.92 on July 7; lowest, 8.24 on Nov. 10.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.35	May 7	6.80	Sept. 3	8.05
Mar. 3	7.14	July 7	5.92	Nov. 10	8.24

Red Willow County

2-29-4aa (*1073, p. 293). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 11.46 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	9.12	July 31	9.40	Dec. 6	10.84
June 9	9.20	Oct. 9	11.46		

2-29-5ab (*1073, p. 293). R. Wilcox.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	16.65	July 31	18.15	Dec. 6	18.57
June 9	17.18	Oct. 9	19.35		

2-30-1aa (*1073, p. 293). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 11.31 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	8.78	July 31	9.65	Dec. 6	10.38
June 9	9.02	Oct. 9	11.31		

2-30-12ad (*1073, p. 293). C. Schmidt. Highest observed stage in period of record, 27.91 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	29.32	July 31	29.62	Dec. 6	28.09
June 9	29.53	Oct. 9	27.91		

3-26-5bb (*1073, p. 293). H. Carr. Highest observed stage in period of record, 43.32 on June 9; lowest, 47.77 on July 31.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	43.85	July 31	47.77	Dec. 6	45.26
June 9	43.32	Oct. 9	47.40		

3-26-9cb (*1073, p. 293). C. Pucha. Highest observed stage in period of record, 15.35 on July 28.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 24	16.08	July 28	15.35	Dec. 3	16.69
June 5	16.02	Oct. 6	16.50		

3-26-11bb (*1073, p. 294). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 7.92 on July 28; lowest, 9.42 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 24	8.22	July 28	7.92	Dec. 3	9.30
June 5	8.33	Oct. 6	9.42		

3-27-7dc (*1073, p. 294). A. Helm. Lowest observed stage in period of record, 10.15 on Dec. 6.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 28	7.90	July 31	8.23	Dec. 6	10.15
June 9	8.02	Oct. 9	10.11		

3-27-8ac (*817, p. 156; 840, p. 217; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; *988, p. 295; 1018, p. 220; 1025, p. 214; *1073, p. 294). F. Duckworth.

Water level, in feet below land-surface datum, 1947

Feb. 28	11.05	July 31	10.54	Dec. 6	11.21
June 9	11.21	Oct. 9	11.90		

3-27-11aa (*1073, p. 294). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 8.06 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Feb. 28	5.79	July 31	6.20	Dec. 6	7.90
June 9	6.07	Oct. 9	8.06		

3-27-11cd (*1073, p. 294). J. Tiller.

Water level, in feet below land-surface datum, 1947

Feb. 24	16.52	July 28	16.69	Dec. 3	16.99
June 5	16.57	Oct. 6	17.60		

3-27-17cb (*1073, p. 294). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 10.85 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	9.00	July 28	9.53	Dec. 3	10.35
June 5	9.35	Oct. 6	10.85		

3-28-17da (*1073, p. 294). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 12.28 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	9.95	July 28	10.70	Dec. 3	11.65
June 5	10.35	Oct. 6	12.28		

3-28-20bb (*1073, p. 294). K. Tridle. Lowest observed stage in period of record, 11.62 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	9.39	July 28	10.18	Dec. 3	11.36
June 5	9.77	Oct. 6	11.62		

3-28-21cd (*1073, p. 295). P. Vogue. Lowest observed stage in period of record, 9.73 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	8.89	July 28	9.14	Dec. 3	9.32
June 5	9.05	Oct. 6	9.73		

3-29-32db (*988, p. 295; 1018, p. 220; 1025, p. 214; *1073, p. 295). University of Nebraska. Lowest observed stage in period of record, 7.45 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Feb. 27	5.06	July 31	6.01	Dec. 5	6.56
June 9	5.13	Oct. 9	7.45		

3-29-35da (*1073, p. 295). L. Hickman. Highest observed stage in period of record, 17.92 on July 31; lowest, 20.39 on June 9.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Feb. 27	18.28	July 31	17.92	Dec. 6	18.53
June 9	20.39	Oct. 9	18.59		

3-30-19bb (*1073, p. 295). Mrs. F. Cain. Highest observed stage in period of record, 6.88 on June 9.

Water level, in feet below land-surface datum, 1947

Feb. 27	6.90	July 30	7.32	Dec. 5	7.41
June 9	6.88	Oct. 8	7.83		

3-30-26cb (*1073, p. 295). O. Brown. Lowest observed stage in period of record, 10.14 on Oct. 6.

Water level, in feet below land-surface datum, 1947

Feb. 24	8.13	July 28	8.75	Dec. 3	8.79
June 5	8.49	Oct. 6	10.14		

3-30-29aa (*1073, p. 295). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 5.06 on Oct. 9.

Water level, in feet below land-surface datum, 1947

Feb. 27	3.35	July 31	3.18	Dec. 5	4.35
June 9	3.25	Oct. 9	5.06		

3-30-34bb (*1073, p. 295). J. Hauxwell.

Water level, in feet below land-surface datum, 1947

Feb. 27	12.75	July 31	13.28	Dec. 5	13.75
June 9	13.01	Oct. 9	14.45		

4-26-34db (*1073, p. 295). J. Selover. Highest observed stage in period of record, 19.65 on July 31.

Water level, in feet below land-surface datum, 1947

Feb. 28	20.10	July 31	19.65	Dec. 6	21.05
June 9	19.97	Oct. 9	21.10		

Richardson County

No measurements made in 1947.

Rock County

30-17-8db (*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 233; 938, p. 181; 988, p. 296; 1018, p. 221; 1025, p. 215; *1073, p. 296). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Oct. 6, 3.80; Dec. 15, 2.23.

30-19-10aa (*1073, p. 296). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Oct. 6, 2.13; Dec. 15, 1.71.

Saline County

No measurements made in 1947.

Sarpy County

No measurements made in 1947.

Saunders County

A13-9-11dd (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; 988, p. 297; *1018, p. 222; 1025, p. 216; *1073, p. 297). City of Lincoln. No measurements made in 1947.

A13-9-12dc (*1073, p. 297). City of Lincoln. No measurements made in 1947.

A13-9-24cc (*988, p. 297; 1018, p. 222; 1025, p. 216; *1073, p. 297). U. S. 62. City of Lincoln. Highest observed stage in period of record, 0.81 on June 1.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	4.45	Mar. 28	4.95	Aug. 31	5.57	Oct. 31	6.45
Feb. 1	4.50	June 1	.81	Sept. 29	6.32	Dec. 1	6.33
Mar. 1	4.90	30	1.10				

A13-9-24dc (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; 988, p. 297; *1018, p. 222; 1025, p. 216; *1073, p. 297). City of Lincoln. No measurements made in 1947.

A14-5-35cd (*817, p. 160; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; 988, p. 297; *1018, p. 222; 1025, p. 216; *1073, p. 297). Union Pacific Railroad Co. No measurements made in 1947.

A17-5-23bb (*1073, p. 298). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 3.35 on Sept. 3.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 3	1.26	May 6	1.41	Sept. 3	3.35
Mar. 4	1.23	July 7	1.59	Nov. 10	2.73

Scottsbluff County

No measurements made in 1947.

Seward County

No measurements made in 1947.

Sheridan County

24-41-34da (*817, p. 161; 840, p. 229; 845, p. 192; 886, p. 33; 908, p. 235; 938, p. 182; 946, p. 226; 988, p. 298; *1018, p. 223; 1025, p. 217; *1073, p. 298). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	8.35	Apr. 29	8.03	Aug. 29	8.59
Feb. 19	8.24	June 6	8.04	Oct. 28	8.68

24-42-27ba (*1073, p. 298). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 13.27 on Jan. 21.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	13.27	Apr. 29	13.21	Aug. 29	13.10
Feb. 20	13.26	June 6	13.18	Oct. 28	12.99

24-43-15da (*1073, p. 298). University of Nebraska.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	6.70	Apr. 29	6.70	Aug. 29	6.96
Feb. 20	6.78	June 6	6.52	Oct. 28	6.82

24-44-14da (*1073, p. 299). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	4.73	Apr. 29	4.31	Aug. 29	6.09
Feb. 20	4.42	June 6	4.09	Oct. 28	5.51

24-44-18bb (*1073, p. 299). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	5.04	Apr. 29	4.78	Aug. 29	4.71
Feb. 20	4.87	June 6	4.54	Oct. 28	4.72

24-45-8dd (*817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226; 1073, p. 299).

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	2.00	June 6	1.35	Oct. 28	2.34
Apr. 29	1.75	Aug. 29	3.00		

24-46-10cb (*1073, p. 299). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 21	6.97	Apr. 29	6.75	Aug. 29	7.04
Feb. 20	6.92	June 6	6.82	Oct. 28	6.97

25-41-28ad (*1073, p. 299). Ballinger. Highest observed stage in period of record, 8.97 on June 6; lowest, 9.28 on Feb. 20. Water levels, in feet below land-surface datum, 1947: Jan. 21, 9.26; Feb. 20, 9.28; Apr. 29, 9.00; June 6, 8.97.

25-45-32ad (*1073, p. 299). Joe Herrian. Highest observed stage in period of record, 32.06 on June 23, 24, and 25.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	.....	32.74	32.69	.....	32.73	32.61	32.20	.....	33.78
2	32.89	32.74	32.69	.....	32.77	32.65	32.25	.....	33.78
3	32.89	32.71	32.69	.....	32.82	32.65	32.29	.....	33.79
4	32.89	32.71	32.69	.....	32.83	32.55	32.41	.....	33.81
5	32.89	32.71	32.69	.....	32.76	32.53	32.41	.....	.....
6	32.89	32.77	32.69	.....	.....	32.54	32.49	.....	.....
7	32.85	32.76	32.69	.....	.....	32.60	32.56	.....	.....
8	32.85	32.76	32.67	.....	.....	32.65	32.56	.....	.....
9	32.85	32.76	32.68	.....	.....	32.64	.....	.....	.....
10	.....	32.76	32.69	.....	.....	32.56	.....	.....	.....
11	.....	32.77	32.65	.....	.....	32.57	.....	.....	.....
12	.....	32.77	32.68	.....	32.66	32.53	.....	.....	.....
13	32.79	32.77	32.67	32.57	32.61	32.38	.....	.....	.....
14	32.79	32.76	32.67	32.58	32.63	32.31	.....	.....	.....
15	32.79	32.75	32.67	32.65	32.68	32.34	.....	.....	.....
16	32.83	32.72	32.64	32.65	32.71	.....	.....	.....	.....
17	32.83	32.68	32.64	32.63	32.76	.....	.....	.....	.....
18	32.84	32.68	.....	32.69	32.77	.....	.....	.....	.....
19	32.84	32.69	.....	32.69	32.78	.....	.....	.....	.....
20	32.84	32.69	.....	32.69	32.76	.....	.....	.....	.....
21	32.84	32.66	.....	32.71	32.84	.....	.....	.....	.....
22	32.83	32.65	.....	32.71	32.88	32.28	.....	.....	.....
23	32.81	32.65	.....	32.69	32.92	32.06	.....	.....	.....

25-45-32ad--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
24	32.80	32.64	.....	32.65	32.92	32.06	.....	.....	.....
25	32.80	32.65	.....	32.64	32.93	32.06	.....	.....	.....
26	32.76	32.65	.....	32.67	32.92	32.09	.....	.....	.....
27	32.77	32.66	.....	32.71	32.92	32.15	.....	.....	.....
28	32.76	32.68	.....	.....	32.91	.....	.....	33.70	.....
29	32.75	.....	.....	32.69	32.75	32.21	.....	33.72	.....
30	32.75	.....	.....	32.68	32.64	32.18	.....	33.72	.....
31	32.74	.....	.....	.....	32.58	.....	.....	33.78	.....

25-45-33bc (*1073, p. 300). Geological Survey, U. S. Dept. of Interior. Staff gage at north end of Bower Lake. Water level, in feet above 0.00 on staff gage, 1947: Aug. 28, 1.14.

26-41-24cd (*1073, p. 300). Lowest observed stage in period of record, 16.85 on June 6. Water levels, in feet below land-surface datum, 1947: Jan. 21, 16.81; Feb. 20, 16.79; Apr. 29, 16.79; June 6, 16.85.

27-41-29ba (*1073, p. 300). L. Bixby. Highest observed stage in period of record, 35.93 on Apr. 29. Water levels, in feet below land-surface datum, 1947: Jan. 21, 36.16; Feb. 20, 36.04; Apr. 29, 35.93; June 6, 36.16.

27-46-34bb (*1073, p. 300). F. Messersmith. Lowest observed stage in period of record, 21.76 on Apr. 30. Water levels, in feet below land-surface datum, 1947: Jan. 22, 21.57; Feb. 21, 21.60; Apr. 30, 21.76; June 9, 21.66.

28-42-15bc (*1073, p. 300). Highest observed stage in period of record, 4.86 on Jan. 21; lowest, 5.95 on June 6. Water levels, in feet below land-surface datum, 1947: Jan. 21, 4.86; Feb. 20, 5.55; June 6, 5.95.

28-46-4ac (*1073, p. 300). H. Nickels. Lowest observed stage in period of record, 23.10 on Apr. 30.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 22	23.01	Mar. 15	23.06	June 9	23.08
Feb. 20	23.01	Apr. 30	23.10		

28-46-32ad (*1073, p. 301). H. Jaggers. Highest observed stage in period of record, 24.60 on June 9. Water levels, in feet below land-surface datum, 1947: Jan. 22, 24.89; Feb. 21, 24.81; June 9, 24.60.

31-44-10dd (*817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226; 988, p. 298; *1018, p. 223; 1025, p. 217; *1073, p. 301). University of Nebraska. Highest observed stage in period of record, 1.48 on Feb. 21.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 22	2.12	Mar. 15	1.81	June 6	1.84
Feb. 21	1.48	Apr. 30	1.85	Oct. 7	3.05

31-46-5dd (*817, p. 161; 840, p. 229; 845, p. 192; 908, p. 235; 938, p. 182; 946, p. 226; 988, p. 298; 1018, p. 223; 1025, p. 217; *1073, p. 300). C. Johnson. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 150.56. Highest observed stage in period of record, 49.08 on Oct. 7. Water level, in feet below land-surface datum, 1947: Oct. 7, 49.08.

31-46-8ad (*1073, p. 300). University of Nebraska. Highest observed stage in period of record, 2.79 on Feb. 21.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 22	2.94	Mar. 15	2.84	June 6	3.16
Feb. 21	2.79	Apr. 30	3.12	Oct. 7	3.67

33-42-36da. Abandoned well, diameter 4 inches, depth 51 feet. Measuring point, top of casing, 1.5 feet above land-surface datum. Highest observed stage in period of record, 34.59 on Oct. 7, 1947; lowest, 36.51 on Oct. 19, 1941.

Water level, in feet below land-surface datum, 1940-41, 1945, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 29, 1940	35.98	Aug. 2, 1945	35.09	Apr. 29, 1947	34.68
July 19	36.32	Jan. 21, 1947	34.79	June 6	34.65
Nov. 1	36.48	Feb. 20	34.78	Oct. 7	34.59

Sherman County

No measurements made in 1947.

Sioux County

29-55-33cc (*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226; 988, p. 229; 1018, p. 223; 1025, p. 217; *1073, p. 301). J. Cook. Lowest observed stage in period of record, 175.80 on May 7. Water levels, in feet below land-surface datum, 1947: Jan. 6, 175.73; May 7, 175.80.

31-56-10da (*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 946, p. 226; 988, p. 299; 1018, p. 224; 1025, p. 217; *1073, p. 301). Village of Harrison. No measurements made in 1947.

Stanton County

A23-3-11bb (*886, p. 333; 908, p. 235; 946, p. 226; 988, p. 299; 1018, p. 224; 1025, p. 217; *1073, p. 301). University of Nebraska. Water level, in feet below land-surface datum, 1947: Feb. 10, 5.25.

Thayer County

No measurements made in 1947.

Thomas County

23-28-9da (*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 946, p. 226; 988, p. 299; *1018, p. 224; 1025, p. 218; *1073, p. 302). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Jan. 11, 10.51; Apr. 24, 10.56; Oct. 28, 10.65.

24-30-20ab (*817, p. 164; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227; 988, p. 299; *1018, p. 224; 1025, p. 218; *1073, p. 302). University of Nebraska. Water levels, in feet below land-surface datum, 1947: Jan. 11, 2.52; Apr. 24, 2.83; Oct. 28, 2.73.

Thurston County

A25-6-26dc (*817, p. 164; 840, p. 231; 908, p. 236; 938, p. 182; 946, p. 227; 988, p. 299; 1018, p. 224; 1025, p. 218; *1073, p. 302). S. French. Water level, in feet below land-surface datum, 1947: June 23, 11.89.

A26-5-12bb (Well 102 in previous reports) (*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 946, p. 227; 988, p. 299; 1018, p. 224; 1025, p. 218). University of Nebraska. No measurements made in 1947.

A26-8-13bc (*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227; 988, p. 299; 1018, p. 224; 1025, p. 218; *1073, p. 302). D. Leap. Highest observed stage in period of record, 8.77 on June 23. Water level, in feet below land-surface datum, 1947: June 23, 8.77.

Valley County

17-16-26dc (*1018, p. 225; 1025, p. 218 ; *1073, p. 302). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 2.91 on June 12.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	....	4.55	4.49	4.89	4.71	4.29	5.81	6.28	5.92	5.64	4.99
2	....	....	4.56	4.52	4.95	4.68	4.46	5.86	6.32	5.90	5.63	4.97
3	5.29	....	4.56	4.52	5.00	4.77	4.59	5.91	6.35	5.89	5.61	5.01
4	5.33	4.55	4.54	4.27	5.07	4.77	4.71	5.96	6.37	5.88	5.60	5.05
5	5.33	4.55	4.52	4.28	5.14	3.79	4.81	6.00	6.40	5.87	5.57	5.04
6	5.31	4.52	4.50	4.08	5.18	3.88	4.91	6.06	6.43	5.87	5.54	5.04
7	5.22	4.52	4.48	4.19	5.21	4.14	4.98	6.09	6.44	5.86	5.60	5.00
8	5.12	4.62	4.43	4.10	5.25	4.44	5.07	6.12	6.46	5.86	5.48	4.97
9	5.02	4.68	4.40	3.84	5.28	4.60	5.15	6.15	6.47	5.86	5.46	4.98
10	4.92	4.69	4.39	4.35	5.31	4.60	5.20	6.19	6.47	5.85	5.43	4.99
11	....	4.69	4.30	....	5.35	....	5.18	6.22	6.44	5.85	5.41	5.02
12	....	4.68	4.31	....	5.37	2.91	5.21	6.24	6.32	5.86	5.37	5.05
13	....	4.45	4.30	....	5.39	3.26	5.28	6.26	6.10	5.87	5.35	5.05
14	4.63	4.35	4.26	4.08	5.42	3.56	5.32	6.28	5.98	5.87	5.32	5.05
15	4.67	3.91	4.29	4.20	5.43	3.77	5.37	6.29	5.94	5.86	5.30	5.01
16	4.73	3.63	4.29	4.28	5.35	3.87	5.42	6.30	5.93	5.86	5.28	4.96
17	4.74	3.77	4.32	4.36	5.34	4.05	5.42	6.32	5.93	5.84	5.25	5.00
18	4.74	3.99	4.33	4.45	5.38	4.09	5.28	6.34	5.94	5.82	5.22	5.00
19	4.71	4.12	4.34	4.52	5.37	3.24	5.36	6.36	5.96	5.82	5.19	4.96
20	4.63	4.20	4.33	4.60	4.85	3.44	5.37	6.37	5.97	5.81	5.14	4.91
21	4.65	4.25	4.30	....	4.89	3.61	5.36	6.38	5.97	5.80	5.07	4.87
22	4.65	4.28	4.25	....	5.00	3.61	5.39	6.40	5.97	5.79	5.01	4.83
23	4.64	4.33	4.22	....	5.10	....	5.42	6.42	5.97	5.79	5.03	4.81
24	4.59	4.41	4.31	....	5.18	....	5.46	6.43	5.97	5.78	5.07	4.79
25	4.55	4.48	4.38	....	5.25	....	5.48	6.43	5.97	5.77	5.08	4.78
26	4.51	4.55	4.43	....	5.35	....	5.50	6.33	5.95	5.75	5.06	4.74
27	4.48	4.56	4.44	....	5.37	....	5.54	6.27	5.94	5.74	4.99	4.70
28	4.47	4.55	4.24	....	5.32	....	5.58	6.25	5.93	5.72	4.97	4.65
29	4.45	....	4.36	....	4.89	....	5.66	6.24	5.94	5.68	4.98	4.62
30	....	....	4.40	4.83	4.51	....	5.72	6.24	5.94	5.68	4.99	4.70
31	....	....	4.40	....	4.63	....	5.77	6.25	....	5.66	....	4.82

18-13-23dd (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; 1018, p. 225; 1025, p. 218; *1073, p. 303). W. T. Hutchins. No measurements made in 1947.

19-14-6dc (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; 1018, p. 225; 1025, p. 218; *1073, p. 303). C. Verzal. No measurements made in 1947.

Washington County

A17-11-5da (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; *1018, p. 225; 1025, p. 219; 1073, p. 303). A. Matzen. No measurements made in 1947.

A18-11-3aa (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; *1018, p. 225; 1025, p. 219; 1073, p. 303). E. Jensen. Highest observed stage in period of record, 9.10 on June 24. Water level, in feet below land-surface datum, 1947: June 24, 9.10

Wayne County

A26-3-13cb (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 226; 1018, p. 300; 1025, p. 219; *1073, p. 303). W. Andrews. Water level, in feet below land-surface datum, 1947: June 21, 26.95.

Webster County

1-9-9cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,635.18 feet above sea level. Highest observed stage in period of record, 6.34 on Dec. 15; lowest, 6.47 on Nov. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 6.37; Nov. 13, 6.47; Dec. 15, 6.34.

1-9-9cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,637.21 feet above sea level. Highest observed stage in period of record, 7.56 on Oct. 13; lowest, 7.68 on Dec. 15. Water levels, in feet below land-surface datum, 1947: Oct. 13, 7.56; Nov. 13, 7.66; Dec. 15, 7.68.

1-9-11cb (*1073, p. 303). Geological Survey, U. S. Dept. of Interior. Altitude 1,628.34 feet above sea level. Highest observed stage in period of record, 2.05 on June 10; lowest, 5.47 on Nov. 13.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	2.89	Aug. 2	3.33	Nov. 13	5.47
June 10	2.05	Oct. 13	5.23	Dec. 15	4.84

1-9-13ad (*1073, p. 303). Geological Survey, U. S. Dept. of Interior. Altitude 1,628.34 feet above sea level. Lowest observed stage in period of record, 9.38 on Oct. 13.

Water level, in feet below land-surface datum, 1947

Mar. 1	6.91	Aug. 2	6.90	Nov. 13	9.24
June 10	6.90	Oct. 13	9.38	Dec. 15	8.95

1-9-14bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.0 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum and 1,627.31 feet above sea level. Highest observed stage in period of record, 7.97 on Dec. 15; lowest, 8.47 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 8.47; Nov. 13, 8.35; Dec. 15, 7.97.

1-9-14bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.0 feet. Measuring point, top of pipe, 0.5 foot above land-surface datum and 1,629.21 feet above sea level. Highest observed stage in period of record, 11.71 on Dec. 15; lowest, 12.55 on Oct. 13. Water levels, in feet below land-surface datum, 1947: Oct. 13, 12.55; Nov. 13, 12.13; Dec. 15, 11.71.

1-9-16bc (*1073, p. 304). G. Ohmsted. Altitude 1,643.62 feet above sea level. Highest observed stage in period of record, 8.30 on June 10; lowest, 12.23 on Dec. 15.

Water level, in feet below land-surface datum, 1947

Mar. 1	10.12	Aug. 2	8.57	Nov. 13	12.08
June 10	8.30	Oct. 13	11.79	Dec. 15	12.23

1-10-1dc1 (*886, p. 336; 908, p. 236; *1073, p. 304).

Water level, in feet below land-surface datum, 1947

Mar. 1	10.09	Aug. 2	9.85	Dec. 1	10.39
June 10	10.75	Oct. 11	10.47		

1-10-1dc2 (*886, p. 336; 908, p. 236; *1073, p. 304). Highest observed stage in period of record, 16.30 on June 10; lowest, 17.95 on Mar. 1. Water levels, in feet below land-surface datum, 1947: Mar. 1, 17.95; June 10, 16.30. Caved in, measurements discontinued.

1-10-3ad (*1073, p. 304). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 8.22 on Aug. 2.

1-10-3ad--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	8.90	Aug. 2	8.22	Dec. 1	9.50
June 10	8.42	Oct. 11	9.64		

1-10-9ad (*1073, p. 304). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 15.60 on Aug. 2; lowest, 17.74 on Dec. 1.

Water level, in feet below land-surface datum, 1947

Mar. 1	16.03	Aug. 2	15.60	Dec. 1	17.74
June 10	15.73	Oct. 11	17.27		

1-11-1da (*1073, p. 304). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.30 on June 10; lowest, 9.50 on Dec. 1.

Water level, in feet below land-surface datum, 1947

Mar. 1	6.75	Aug. 2	6.10	Dec. 1	9.50
June 10	5.30	Oct. 11	9.00		

1-11-5bc (*1073, p. 304). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.92 on Dec. 1.

Water level, in feet below land-surface datum, 1947

Mar. 1	3.92	Aug. 2	3.18	Dec. 1	6.92
June 10	3.58	Oct. 11	5.87		

1-11-11ab (*1073, p. 305). Geological Survey, U. S. Dept. of Interior.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.00	6.50	6.31	....	5.46	....	5.29	6.56	....	7.76	7.92
2	6.02	6.53	6.37	....	5.48	....	5.40	6.58	....	7.76	7.94
3	6.02	6.51	6.37	5.48	5.52	....	5.49	6.62	....	7.75	7.96
4	6.10	6.50	6.28	5.53	5.57	....	5.56	6.67	....	7.78	7.94
5	6.12	6.55	6.20	5.59	5.64	....	5.66	6.70	....	7.79	7.97
6	6.13	6.58	6.20	5.68	5.68	....	5.73	6.74	....	7.78	7.96
7	6.08	6.58	6.30	5.69	5.57	....	5.80	6.78	....	7.81	7.96
8	6.03	6.57	6.28	5.73	5.60	....	5.86	6.82	....	7.83	7.98
9	6.02	6.58	6.27	5.74	5.70	....	5.93	6.84	....	7.84	7.98
10	5.97	6.60	....	5.77	5.80	....	6.02	6.87	7.45	7.85	7.99
11	6.03	6.55	....	5.78	5.84	....	6.09	6.90	7.47	7.86	7.99
12	6.05	6.52	....	5.82	5.87	....	6.11	6.92	7.50	7.88	8.00
13	6.07	6.43	....	5.83	4.93	....	6.13	6.92	7.51	7.88	8.00
14	6.07	6.27	....	5.88	4.93	....	6.16	7.00	7.50	7.88	7.98
15	6.09	6.26	....	5.90	5.05	....	6.18	7.00	7.52	7.90	8.01
16	6.07	6.24	....	5.90	5.12	....	6.22	7.03	7.53	7.92	8.02
17	6.14	6.18	....	5.87	5.27	....	6.27	7.05	7.55	7.93	8.02
18	6.18	6.23	....	5.15	5.32	....	6.32	7.09	7.58	7.93	8.03
19	6.14	6.22	....	5.14	5.36	....	6.34	7.10	7.59	7.93	8.04
20	6.13	6.24	....	5.16	5.38	....	6.38	7.12	7.60	7.93	8.04
21	6.15	6.17	....	5.26	5.44	4.72	6.43	7.15	7.61	7.95	8.03
22	6.15	6.17	....	5.42	5.46	4.69	6.47	....	7.63	7.95	8.00
23	6.15	6.13	....	5.49	5.38	4.57	6.52	....	7.65	7.94	8.02
24	6.17	6.12	....	5.54	....	4.64	6.54	....	7.67	7.91	8.02
25	6.17	6.23	....	5.63	....	4.69	6.43	....	7.68	7.93	8.03
26	....	6.28	....	5.65	....	4.78	6.15	....	7.68	7.94	8.00
27	....	6.26	....	5.65	....	4.87	6.15	....	7.69	7.96	7.99
28	....	6.30	....	5.66	....	4.96	6.23	....	7.70	7.96	7.99
29	....	6.28	....	5.45	....	5.05	6.31	....	7.71	7.98	7.94
30	....	6.34	....	5.36	....	5.15	6.39	....	7.72	7.98	7.98
31	....	6.28	....	5.38	....	5.22	6.48	....	7.75	....	7.98

b Flash flood.

1-11-16aa (*1073, p. 305). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 18.95 on Aug. 2.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 1	19.59	Aug. 2	18.95	Dec. 1	19.68
June 10	19.05	Oct. 11	19.80		

1-12-2bb (*1073, p. 305). Geological Survey, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1947

Mar. 1	3.82	Aug. 2	3.12	Dec. 1	6.04
June 10	3.28	Oct. 11	5.57		

1-12-4bb (*1073, p. 306). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 9.22 on Oct. 11 and Dec. 1.

Water level, in feet below land-surface datum, 1947

Mar. 1	4.14	Aug. 2	5.04	Dec. 1	9.22
June 10	3.64	Oct. 11	9.22		

1-12-8aa (*1073, p. 306). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 5.91 on Oct. 11.

Water level, in feet below land-surface datum, 1947

Mar. 1	3.62	Aug. 2	3.70	Dec. 1	5.20
June 10	3.17	Oct. 11	5.91		

2-9-24bd (*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 228; 988, p. 300; 1018, p. 226; 1025, p. 219; *1073, p. 306). H. Pederson. No measurements made in 1947.

2-10-36db (*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; 1018, p. 226; 1025, p. 219; *1073, p. 306). H. Somerhalder.

Water level, in feet below land-surface datum, 1947

Mar. 1	26.79	Aug. 2	26.80	Dec. 1	27.04
June 10	26.72	Oct. 11	27.13		

2-12-34cd (*886, p. 336; 908, p. 236; *1073, p. 306). B. McNenny. Water levels, in feet below land-surface datum, 1947: Mar. 1, 17.80; June 10, 17.45 Aug. 2, 17.38; Dec. 16, 17.31.

3-10-34cb (*817, p. 166; 840, p. 232; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 227; 988, p. 300; 1018, p. 226; 1025, p. 219; *1073, p. 306). R. Adams. No measurements made in 1947.

Wheeler County

No measurements made in 1947.

York County

No measurements made in 1947.

NORTH DAKOTA

By J. E. Powell

PROGRAM OF WORK

Ground-water investigations and the measurement of water levels in observation wells in North Dakota were continued in 1947 in cooperation with the North Dakota State Geological Survey and the North Dakota State Water Conservation Commission. At the end of 1947, water levels were being measured in 154 observation wells of which 10 were equipped with automatic water-stage recorders. Water levels in 22 wells were being measured weekly by local observers. Measurements were discontinued in nine wells. Records of a total of 1,163 water-level measurements are included in this report, and, in addition, 1,677 water-level determinations obtained from wells equipped with automatic water-stage recorders.

Field work was done in connection with studies of ground-water conditions in the vicinities of the towns of Minnewaukan, Michigan, New Rockford, Aneta, Hope, Sharon, Wimbledon, Kindred, Litchville, Wyndmere, Mohall, Flaxton, and Columbus, all in North Dakota, and in the Fargo-Moorhead area in Cass County, North Dakota, and Clay County, Minnesota. Reports on ground water conditions in the vicinities of Minot, Sharon, Buxton, and Aneta, were published in mimeographed form.

PRECIPITATION

The average annual precipitation for North Dakota in 1947, as reported by the United States Weather Bureau, was 18.18 inches or, 1.06 inches above the 1892-1947 average. Departures from normal precipitation ranged from -5.25 inches to +6.98 inches at various stations in the State. The maximum positive departures from the normal occurred in the western and west-central parts of the State, and the greatest negative departure took place in the southeastern part of the State. In general, precipitation was below normal in the southern half of the State and above normal in the northern half. Average precipitation for the State was above normal

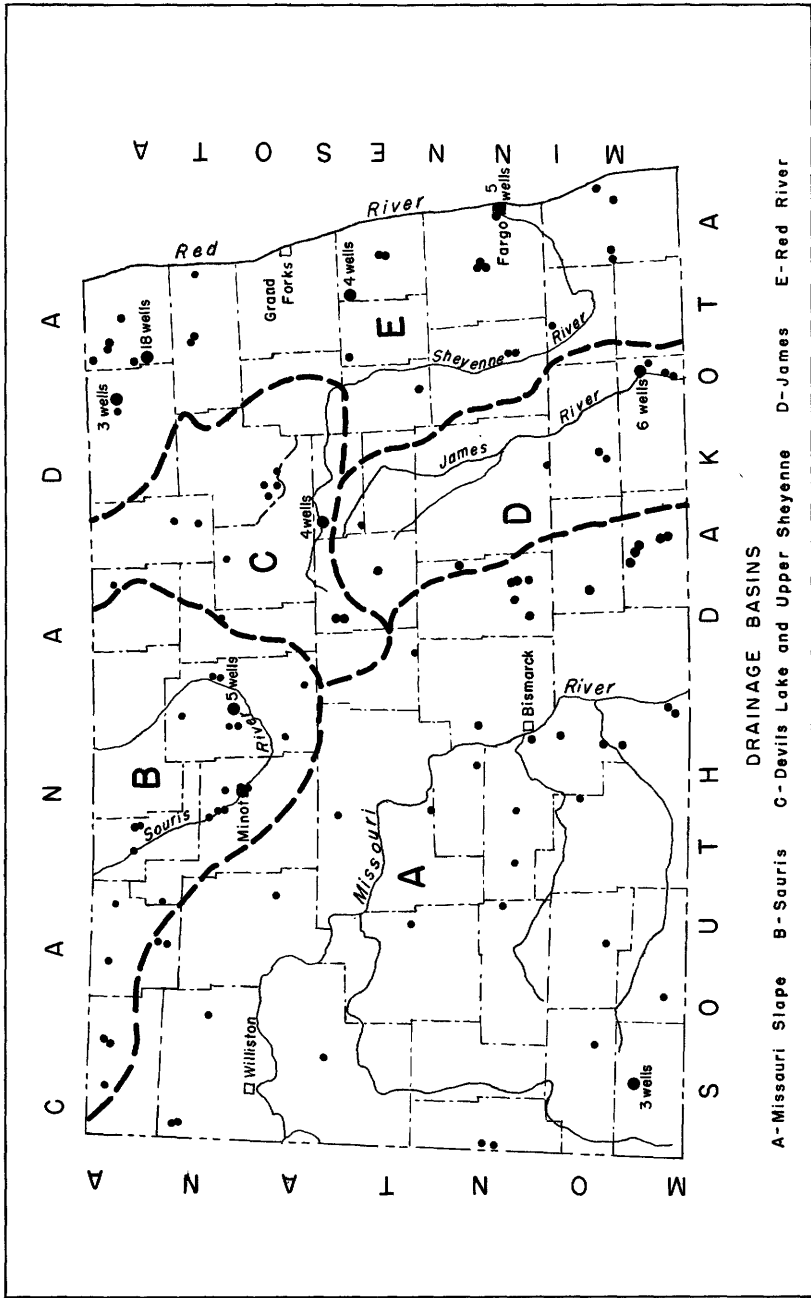


Figure 7.--Map of North Dakota showing drainage basins and distribution of observation wells at end of 1947.

during the months of April, June, August, October, and November. The greatest monthly departures were -1.17 inches in May and +2.29 inches in June.

FLUCTUATIONS OF WATER LEVEL

The average monthly water levels for the State from 1937 through 1947 are shown in the following table. These averages are based on water-level measurements in selected observation wells. The averages for 1947 were computed from records from 8 wells distributed throughout the State, and in which water levels were measured weekly. Three of these wells are in the Red River drainage basin, one in the Devils Lake region, one in the Souris River drainage basin and three in the Missouri River drainage basin. Figure 8 is a graphical presentation of these data.

Average monthly water levels, in feet above assumed datum planes, in observation wells in North Dakota, 1937-47

Year	Jan.	Feb.	Mar.	Apr.	May	June
1937						
1938	99.97	99.93	100.12	100.41	100.68	100.35
1939	99.49	99.38	99.38	99.95	99.98	100.07
1940	99.24	99.14	99.13	99.16	99.43	99.52
1941	98.84	98.74	98.83	99.76	99.97	100.43
1942	100.68	100.41	100.45	101.40	101.45	101.67
1943	100.51	100.44	100.40	101.30	102.09	102.73
1944	100.40	100.24	100.02	100.22	100.52	101.15
1945	101.04	100.96	101.06	101.49	101.74	101.71
1946	100.01	100.24	100.18	101.18	101.55	100.97
1947	100.48	100.49	100.33	101.35	101.74	102.25

Year	July	Aug.	Sept.	Oct.	Nov.	Dec.
1937			100.31	100.19	100.13	100.05
1938	99.99	99.61	99.59	99.44	99.51	99.54
1939	99.89	99.62	99.41	99.37	99.34	99.31
1940	99.34	99.24	99.07	98.96	98.95	98.92
1941	100.39	99.89	100.16	100.73	100.64	100.26
1942	101.42	101.48	101.48	101.35	100.98	100.73
1943	102.68	102.19	101.91	101.50	100.37	101.26
1944	101.28	101.37	101.67	101.36	101.55	101.59
1945	101.27	100.95	100.71	100.71	100.70	100.54
1946	100.60	100.36	100.07	100.70	100.84	100.67
1947	102.37	101.93	101.49	101.48	101.57	101.51

As in previous years, the water levels were low during the winter, the lowest stage of the year occurring in March. The water levels remained about the same during January and February, and declined slightly in March, but rose rapidly during April and May due to recharge from melting snow in conjunction with the thawing of the ground surface. The highest water levels of the year were attained in July, after which they declined until November, when there was a slight rise followed by a corresponding decline in December. At the end of 1947 the average water level was 0.84 foot higher than at the end of 1946.

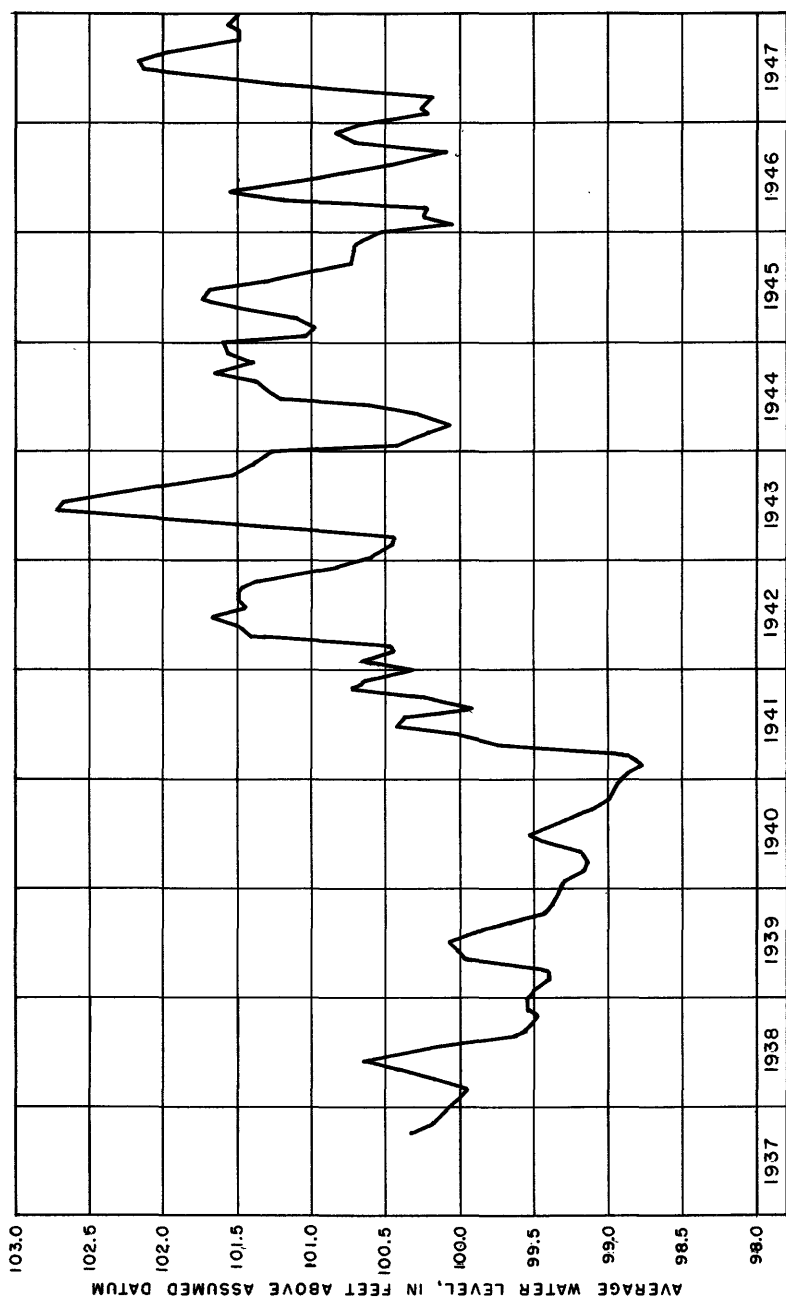


Figure 8.--Graph showing average monthly water level in 8 to 42 selected observation wells in North Dakota, 1937-47.

The following table shows the general fluctuations and net changes in the ground-water levels during 1947 in several regions in the State according to drainage basins. The regions are (1) the Red River basin exclusive of the Souris and the upper part of the Sheyenne, (2) the Devils Lake and upper Sheyenne River basin, (3) the James River basin, (4) the Souris River basin, and (5) the Missouri River basin exclusive of the James. This table indicates a net rise in water levels for the year in all regions except the James River basin where the precipitation for the year was less than average.

Basin	Number of wells	High	Low	Fluctuation	Net change
Red River	11	5.64	9.52	4.03	+1.61
Devils Lake and Upper Sheyenne River	4	15.17	14.76	.41	+.26
James River	4	19.05	21.14	2.09	-1.70
Souris River	12	53.44	54.38	.93	+.52
Missouri River	6	35.78	42.12	6.36	+1.83

WELL-NUMBERING SYSTEM

The well numbers in this report conform to a well-numbering system now being adopted for reports in all the Missouri Basin States. The numbering system is based upon the common land subdivisions and has been used previously with minor variations in reporting records of wells in many of the States outside the Missouri Basin. The numbers given to the wells according to this system serve the dual purpose of designating one well from another and of giving its location within the coordinate net of townships and ranges. In this report the number is reported first in the well description of each individual well.

In North Dakota, the land descriptions are referred to the base line which follows the Kansas-Nebraska State lines and to the fifth principal meridian. Thus, all of North Dakota is in the northwest quadrant of the coordinate system, that is, all townships are north and all ranges are west.

The numbers are divided into parts by numbers and letters. The first number gives the township, the second the range, and the third the section in which the well is situated. The subdivisions of the section are the quarter section, the 40-acre tract within the quarter section, and the 10-acre tract within the 40-acre tract. These are indicated by lower-case letters following the third number. The first letter gives the quarter

section, the letters a, b, c, and d referring to the NE $\frac{1}{4}$, the NW $\frac{1}{4}$, the SW $\frac{1}{4}$, and the SE $\frac{1}{4}$, respectively. Likewise, the second letter refers to the 40-acre tract within the quarter section and the third letter refers to the respective 10-acre tract within the 40-acre tract.

The lower-case letters are again followed by a number which refers to the numerical order in which the wells were scheduled in the smallest tract of land indicated by the last lower-case letter. If, for instance, two wells were scheduled in a tract of land and the locations of the wells were given by the same lower-case letters, then the wells would be designated by the numbers 1 and 2 following the letter.

In this report, the locations of most of the wells are given only to the nearest 40-acre tract but the locations of some are given to the nearest 10-acre tract. As an example of the use of the well number to designate the location of the well, the first well scheduled in the SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 130 N., R. 97 W. is numbered 130.97.14cc1. If a second well is scheduled in this same tract of land, it is numbered 130.97.14cc2.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

130.97.14cc1 (*908, p. 240; 938, p. 187; 946, p. 232; *988, p. 307; 1018, p. 233; 1025, p. 223; 1073, p. 312). Mrs. Halverson. Water levels, in feet below land-surface datum, 1947: Jan. 28, 49.85; Oct. 7, 49.29.

Barnes County

138.57.5cb1 (*886, p. 531; 908, p. 240; 938, p. 187; 946, p. 232; *988, p. 307; 1018, p. 233; 1025, p. 223; *1073, p. 312). H. H. Wilkins. Water level, in feet below land-surface datum, 1947: Sept. 4, 38.23.

138.57.5cb2 (*886, p. 531; 908, p. 240; 938, p. 188; 946, p. 233; *988, p. 307; 1018, p. 233; 1025, p. 223; *1073, p. 312). H. H. Wilkins. Water level, in feet below land-surface datum, 1947: Sept. 4, 35.66.

Benson County

156.69.36ca1 (*908, p. 240; 938, p. 188; 946, p. 233; *988, p. 307; 1018, p. 233; 1025, p. 224; *1073, p. 313). H. Biltinsrud. Water level, in feet below land-surface datum, 1947: Sept. 10, 14.60.

Bottineau County

161.78.25dd1 (*908, p. 241; 938, p. 188; 946, p. 233; *988, p. 308; 1018, p. 234; 1025, p. 224; *1073, p. 313). Frank Churchill. Well filled in with rocks. Measurements discontinued.

Bowman County

131.102.11ba1 (*908, p. 241; 938, p. 189; 946, p. 233; 988, p. 308; *1018, p. 234; 1025, p. 224; *1073, p. 313). City of Bowman. No measurements made in 1947.

131.102.11cal (*908, p. 242; 938, p. 189; 946, p. 233; *988, p. 308; 1018, p. 234; 1025, p. 224; *1073, p. 313). City of Bowman. Water levels, in feet below land-surface datum, 1947: Jan. 24, 21.83; Oct. 7, 19.80.

131.102.11ca2 (*908, p. 242; 938, p. 189; 946, p. 233; 988, p. 308; *1018, p. 234; 1025, p. 224; *1073, p. 313). City of Bowman. No measurements made in 1947.

Burke County

159.91.4ddl (*908, p. 243; 938, p. 190; 946, p. 234; *988, p. 308; 1018, p. 234; 1025, p. 224; *1073, p. 313). Fish & Wildlife Service, Dept. of Interior. No measurements made in 1947.

160.91.21cd1 (*908, p. 243; 938, p. 190; 946, p. 234; *988, p. 308; 1018, p. 234; 1025, p. 224; *1073, p. 313). Fish & Wildlife Service, Dept. of Interior. Water level, in feet below land-surface datum, 1947: Oct. 6, 56.91.

162.89.5ddl (*840, p. 320; 845, p. 348; 886, p. 532; 908, p. 243; 938, p. 189; 946, p. 234; *988, p. 308; 1018, p. 234; 1025, p. 224; *1073, p. 313). Mrs. P. M. Peterson. Water levels, in feet below land-surface datum, 1947: Apr. 18, 70.23; July 7, 69.76; Nov. 4, 70.35.

163.93.34cc2 (*1073, p. 313).

Daily noon water level, in feet below land-surface datum, 1947
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 2	15.43	June 15	14.63	July 1	13.44	July 23	13.07
3	15.39	16	14.63	2	13.36	24	13.06
4	15.37	17	14.62	3	13.27	25	13.05
5	15.35	18	14.61	4	13.27	26	13.06
6	15.33	19	14.60	5	13.27	27	13.08
7	15.31	20	14.56	6	13.27	28	13.07
8	15.29	21	14.55	7	13.22	29	13.03
9	15.26	22	14.54	8	13.20	Aug. 27	13.14
15	14.93	23	14.48	9	13.18	28	13.14
27	14.87	24	14.23	10	13.16	29	13.09
June 2	14.72	25	13.93	11	13.12	30	13.11
10	14.63	26	13.67	12	13.08	31	13.11
11	14.64	27	13.55	13	13.11	Sept. 1	13.12
12	14.66	28	13.49	14	13.13	2	13.11
13	14.65	29	13.50	15	13.12	3	13.09
14	14.64	30	13.46	22	13.07		

Burleigh County

141.80.35cd1 (*908, p. 244; 938, p. 190; 946, p. 234; *988, p. 309; 1018, p. 234; 1025, p. 225; *1073, p. 314). Celia De Long. No measurements made in 1947.

Cass County

139.48.6ccd1 (*908, p. 246; 938, p. 191; 946, p. 236; *988, p. 310; 1018, p. 235; 1025, p. 225; 1073, p. 314). The Pierce Co., 1019 First Avenue North, Fargo.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.14	32.84	32.66	.....	32.23	.....	.....	38.78	.....	35.77	.....
2	33.13	32.85	32.65	.....	32.24	.....	.....	38.83	.....	.....	.....
3	33.15	32.82	32.63	.....	.....	.....	.....	38.89	.....	.....	.....
4	33.14	32.81	32.61a	32.49	.....	.....	.....	38.97	.....	.....	.....
5	33.09	32.81	.....	32.48	.....	.....	.....	.....	.....	.....	.....
6	33.05	32.80	.....	32.40	.....	.....	.....	.....	.....	.....	.....
7	33.02	32.76a	32.65	32.36	.....	.....	.....	.....	.....	35.49	.....

a Tape measurement.

139.48.6ccdlI--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	33.00	32.75	32.64	32.36	.....	.....	.....	.....	.....	35.48	.....
9	33.01	32.75	32.64	32.36	.....	.....	.....	.....	.....	35.45	.....
10	33.01	32.75	32.64	32.35	.....	.....	.....	.....	.....	35.45	.....
11	32.94	32.75	32.62	32.32	.....	.....	.....	.....	.....	35.44	.....
12	32.93	32.74	32.60	32.34	.....	.....	.....	.....	.....	35.41	34.71
13	32.87	32.74	32.60	32.34	.....	.....	.....	.....	.....	35.40	34.70
14	32.89	32.72	32.59	32.33	.....	32.35	.....	.....	.....	35.38	34.70
15	32.89	32.71	.....	32.33	.....	32.36	.....	38.21	.....	.....	34.69
16	32.89	32.71	.....	32.33	32.27	32.38	.....	38.15	.....	.....	34.67
17	32.89	32.68	.....	32.28	32.26	32.43	.....	38.09	.....	.....	34.66
18	32.89	32.69	.....	32.24	32.26	32.52	.....	38.02	.....	35.27	34.66
19	32.88	32.69	.....	32.24	32.27	32.61	.....	37.95	.....	35.26	34.66
20	32.84	32.69	.....	32.25	32.26	32.71	37.97	37.85	.....	35.26	34.55
21	32.87	32.68	.....	32.24	32.26	32.85	38.07	37.76	.....	35.25	34.55
22	32.87	32.68	.....	32.24	32.25	.....	38.14	37.71	.....	35.23	34.54
23	32.86	32.68	.....	32.24	32.28	.....	38.23	37.64	.....	35.21	34.51
24	32.81	32.68	.....	32.26	.....	.....	38.34	.....	.....	35.17	34.50
25	32.81	32.67	.....	32.29	.....	.....	38.42	.....	36.02	35.16	34.49
26	32.79	32.67	.....	32.29	.....	.....	38.48	.....	35.99	.....	34.48
27	32.78	32.66	.....	32.29	.....	.....	38.50	.....	35.96	.....	34.44
28	32.82	32.65	32.54	32.29	.....	.....	38.52	.....	35.91	.....	.....
29	32.84	.....	32.54	32.28	.....	.....	38.59	.....	35.87	.....	34.40
30	32.84	.....	32.55	32.25	.....	.....	38.64	.....	35.84	.....	34.39
31	32.82	.....	32.55	.....	.....	.....	38.71	.....	35.80	.....	34.39

139.48.6ccdlI (*908, p. 248; 938, p. 193; 946, p. 237; *988, p. 310; 1018, p. 236; 1025, p. 225; *1073, p. 314). Gardner Hotel, First Street North and Roberts Street, Fargo. Measurements discontinued.

139.48.7acblI (*908, p. 247; 938, p. 192; 946, p. 236; *988, p. 310; 1018, p. 236; 1025, p. 225; *1073, p. 315). City of Fargo. In Island Park.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	41.02	41.02	.....	.....	.....	42.67	42.42	42.31	.....
2	.....	.....	41.02	41.03	.....	41.49	.....	42.67	42.37	42.31	.....
3	41.04	.....	41.00	41.02	.....	41.49	.....	42.68	42.34	42.27	.....
4	41.03	.....	41.00	40.99	.....	41.50	.....	.....	42.34	42.26	.....
5	40.96	.....	41.05	.....	.....	41.54	.....	.....	.....	42.22	.....
6	40.96	.....	41.05	.....	.....	41.59	.....	.....	.....	42.23	.....
7	40.93	40.99	41.05	.....	.....	41.63	.....	.....	.....	42.23	.....
8	40.97	40.99	41.05	.....	.....	41.63	.....	.....	.....	42.18	.....
9	40.98	41.01	41.05	.....	.....	41.63	.....	42.58	.....	42.20	.....
10	40.95	41.02	41.05	.....	.....	.....	.....	42.57	.....	42.23	.....
11	40.97	41.03	41.00	40.60	.....	.....	.....	42.58	.....	42.23	.....
12	40.97	41.03	41.01	40.40	.....	.....	.....	42.56	.....	42.23	41.99
13	40.96	41.01	41.01	40.40	.....	.....	.....	42.53	.....	.....	41.99
14	40.93	41.02	41.00	38.58	.....	41.71	.....	42.52	.....	.....	41.92
15	40.98	41.01	41.01	38.68	.....	41.73	.....	42.55	.....	.....	41.95
16	40.97	41.00	41.01	38.92	41.00	41.73	.....	42.57	.....	.....	41.94
17	41.00	41.02	41.01	39.28	41.01	41.77	.....	42.51	.....	.....	41.95
18	41.00	41.04	41.02	39.82	41.02	41.81	.....	.....	.....	42.15	41.94
19	40.94	41.04	41.04	.....	41.04	41.82	.....	.....	.....	42.18	41.96
20	40.99	41.03	41.04	.....	41.04	41.88	42.50	.....	42.30	42.18	.....
21	.....	41.02	41.01	.....	41.02	41.90	42.50	.....	42.29	42.11	.....
22	.....	41.02	40.97	.....	41.02	.....	42.51	.....	42.34	42.11	.....
23	.....	41.02	41.00	.....	.....	.....	42.54	.....	42.34	42.10	.....
24	40.93	41.02	41.00	.....	.....	.....	42.61	.....	42.32	.....	.....
25	40.93	41.02	41.03	41.15	.....	.....	42.64	.....	42.33	.....	.....
26	40.92	41.02	41.03	41.11	.....	.....	42.64	42.42	42.33	.....	.....
27	40.98	41.02	41.01	41.07	.....	.....	42.70	42.47	42.29	.....	.....
28	.....	41.02	40.98	41.06	.....	.....	42.74	42.50	.....	.....	.....
29	.....	.....	41.02	.....	.....	.....	42.71	42.50	.....	.....	.....
30	.....	.....	41.02	.....	.....	.....	42.69	42.46	.....	.....	.....
31	.....	.....	41.02	.....	.....	.....	42.69	.....	.....	.....	.....

a Tape measurement.

139.48.18abl (*845, p. 352; 886, p. 533; *908, p. 252; 938, p. 197; 946, p. 240; *988, p. 315; 1018, p. 239; 1025, p. 227; *1073, p. 316).
City of Fargo.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	34.82	34.71	34.59	.....	34.58	.....	.....	.....	36.25	36.05	.....
2	34.85	34.71	34.58	.....	34.60	.....	.....	.....	36.20	36.04	.....
3	34.85	34.69	34.56	.....	.....	.....	.....	.....	36.17	36.00	.....
4	34.80	34.69	34.60	.....	.....	.....	.....	.....	.....	35.97	.....
5	34.77	34.68	34.61	.....	.....	35.04	.....	.....	.....	35.93	.....
6	34.74	34.61	34.62	.....	.....	35.06	.....	.....	.....	35.95	.....
7	34.73	34.63	34.62	.....	.....	35.06	.....	.....	.....	35.93	.....
8	34.77	34.66	34.60	.....	.....	35.10	.....	.....	.....	35.88	.....
9	34.79	34.66	34.60	.....	.....	35.13	.....	.....	.....	35.93	.....
10	34.69	34.65	34.60	.....	.....	35.15	.....	.....	.....	35.93	.....
11	34.74	34.65	34.56	.....	.....	35.20	.....	.....	.....	35.92	.....
12	34.74	34.65	34.59	.....	.....	35.23	.....	.....	.....	35.92	.....
13	34.68	34.61	34.59	.....	.....	.....	.....	.....	.....	35.92	.....
14	34.69	34.65	34.58	.....	.....	.....	.....	.....	.....	35.89	.....
15	34.72	34.63	34.60	.....	.....	.....	.....	36.42	.....	.....	35.58
16	34.71	34.63	34.58	.....	34.73	.....	.....	36.43	.....	.....	35.58
17	34.75	34.64	34.58	.....	34.72	.....	.....	36.43	.....	.....	35.57
18	34.75	34.67	34.58	33.77	34.74	.....	.....	36.40	.....	35.86	35.59
19	34.66	34.64	34.58	34.02	34.77	.....	.....	36.39	.....	35.87	35.59
20	34.73	34.63	34.58	34.21	34.76	.....	36.22	36.37	36.08	35.85	35.60
21	34.74	34.61	34.58	34.37	34.73	.....	36.23	36.35	36.08	35.80	.....
22	34.73	34.62	.....	34.54	34.73	.....	36.23	36.43	36.13	35.77	.....
23	34.67	34.62	.....	34.63	34.74	.....	36.26	.....	36.13	35.76	.....
24	34.62	34.61	.....	34.65	.....	.....	36.26	.....	36.09	35.71	.....
25	34.60	34.61	.....	34.65	.....	.....	36.26	.....	36.10	35.72	.....
26	34.60	34.60	.....	34.60	.....	.....	36.26	36.25	36.08	.....	.....
27	34.68	34.60	.....	34.61	.....	.....	36.25	36.31	36.04	.....	35.61
28	34.68	34.59	.....	34.60	.....	.....	36.22	36.34	.....	.....	35.61
29	34.68	.....	.....	34.53	.....	.....	36.18	36.33	.....	.....	35.60
30	34.66	.....	.....	34.55	.....	.....	36.21	36.27	.....	.....	35.60
31	34.69	.....	.....	.....	.....	.....	36.22	.....	.....	.....	35.59

a Tape measurement.

139.49.1cbl (*840, p. 321; 845, p. 350; 886, p. 533; 908, p. 250; 938, p. 195; 946, p. 239; *988, p. 313; 1018, p. 238; 1025, p. 227; *1073, p. 316). City of Fargo. Measurements discontinued.

139.49.1cc1 (*840, p. 321; 845, p. 349; 886, p. 532; *908, p. 249; *938, p. 195; 946, p. 238; *988, p. 310; 1018, p. 237; 1025, p. 228; *1073, p. 317). City of Fargo.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Apr.	May	June	Aug.	Sept.	Oct.	Nov.	Dec.
1	43.30	.....	41.36	.....	.....	.....	.....	49.86	.....
2	43.29	.....	41.44	.....	.....	.....	.....	49.72	.....
3	43.28	.....	.....	.....	.....	.....	.....	49.66	.....
4	43.11	41.60	.....	.....	.....	.....	.....	49.58	.....
5	43.10	41.58	.....	.....	.....	.....	.....	49.40	.....
6	43.08	41.46	.....	.....	.....	.....	.....	49.35	.....
7	43.07	41.44	.....	a41.32	.....	.....	.....	49.28	.....
8	43.07	41.45	.....	41.31	.....	.....	.....	49.12	.....
9	.....	41.45	.....	41.28	.....	.....	.....	49.08	.....
10	42.98	41.44	.....	41.28	.....	.....	.....	50.26	.....
11	43.04	.....	.....	.....	.....	.....	.....	49.10	.....
12	43.00	.....	.....	.....	.....	.....	.....	48.98	a46.70
13	42.84	.....	.....	.....	.....	.....	.....	48.88	46.68
14	42.89	.....	.....	.....	.....	.....	.....	48.76	46.55
15	42.95	.....	.....	.....	.....	a61.05	.....	.....	46.56
16	43.00	.....	a41.39	.....	.....	.....	.....	.....	46.54
17	43.00	.....	41.31	.....	.....	.....	.....	.....	46.47
18	42.91	.....	41.35	.....	1018	.....	.....	a48.32	46.45
19	42.80	.....	41.34	.....	.....	.....	.....	48.31	46.45

a Tape measurement.

139.49.1ccl--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Apr.	May	June	Aug.	Sept.	Oct.	Nov.	Dec.
20	42.81	.....	41.38	.....	a84.00	.....	.....	48.24	46.57
21	42.83	41.58	41.36	.....	.....	.....	.....	48.16	46.55
22	42.83	41.59	41.32	.....	.....	.....	.....	48.03	46.47
23	42.72	41.50	41.31	.....	.....	.....	.....	47.96	46.49
24	42.69	41.50	.....	.....	.....	.....	.....	47.83	46.45
25	42.60	41.51	.....	.....	.....	.....	a50.54	47.77	46.42
26	42.60	41.50	.....	.....	.....	a55.84	50.50	.....	46.35
27	42.64	41.49	.....	.....	a83.20	.....	50.34	.....	46.31
28	42.65	41.48	.....	.....	.....	.....	50.18	.....	46.19
29	42.63	41.42	.....	.....	.....	.....	50.13	.....	46.21
30	42.60	41.38	.....	.....	.....	.....	50.07	.....	46.18
31	42.62	.....	.....	.....	.....	.....	49.90	.....	46.03

a Tape measurement.

139.49.6ad1 (*845, p. 351; 886, p. 533; 908, p. 251; 938, p. 197;
946, p. 239; *988, p. 314; 1018, p. 238; 1025, p. 228; *1073, p. 317).
Union Stockyards.Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	Aug.	Sept.	Oct.
1	61.41	61.03	60.20	.....	58.28	.....	64.54	67.36
2	61.37	61.03	60.18	.....	58.38	.....	64.52	67.38
3	61.33	60.95	60.03	.....	.....	.....	64.50	67.34
4	61.39	60.83	59.90	60.37	.....	.....	.....	.....
5	61.42	60.78	59.88	60.32	.....	.....	.....	.....
6	61.32	60.75	59.92	60.05	.....	.....	.....	.....
7	61.23	60.70	60.10	59.50	.....	.....	.....	.....
8	61.27	60.67	60.16	59.23	.....	.....	.....	.....
9	61.42	60.67	60.16	59.13	.....	.....	.....	.....
10	61.70	60.68	60.16	59.08	.....	.....	.....	.....
11	61.75	60.63	60.25	59.10	.....	.....	.....	.....
12	61.75	60.63	60.28	59.10	.....	.....	.....	.....
13	61.72	60.65	60.28	59.10	.....	.....	.....	.....
14	61.75	60.75	60.28	.....	.....	.....	.....	.....
15	61.58	60.75	60.28	.....	.....	.....	64.61	.....
16	61.59	60.75	60.24	.....	58.65	.....	64.61	.....
17	61.60	60.62	60.07	.....	58.66	.....	64.63	.....
18	61.61	60.45	59.97	a58.27	58.66	.....	64.65	.....
19	61.60	60.45	59.93	58.10	58.62	.....	64.77	.....
20	61.44	60.48	59.93	57.91	58.64	64.40	64.84	.....
21	61.29	60.60	59.97	57.69	58.67	64.60	64.85	.....
22	61.20	60.60	59.97	57.61	58.70	64.43	64.85	.....
23	61.13	60.60	59.90	57.60	58.80	64.48	.....	.....
24	61.05	60.45	59.72	57.76	.....	64.52	.....	.....
25	61.05	60.32	60.15	58.00	.....	64.51	.....	.....
26	61.03	60.25	60.48	58.08	.....	64.53	67.31	.....
27	60.92	60.20	60.88	58.08	.....	64.51	67.30	.....
28	60.70	60.20	61.16	58.09	.....	64.51	67.29	.....
29	60.73	.....	.....	58.13	.....	64.52	67.30	.....
30	60.77	.....	.....	58.20	.....	64.54	67.31	.....
31	61.00	.....	.....	.....	.....	64.54	.....	.....

a Tape measurement.

140.52.14dd1 (*840, p. 320; 845, p. 348; 886, p. 532; 908, p. 249;
938, p. 194; 946, p. 238; *988, p. 312; 1018, p. 237; 1025, p. 226; *1073,
p. 318). Mrs. Arthur D. South. Water level, in feet below land-surface
datum, 1947: Aug. 20, 10.92.140.52.14dd3 (*840, p. 321; 845, p. 349; 886, p. 532; 908, p. 249;
938, p. 194; 946, p. 238; *988, p. 312; *1018, p. 237; 1025, p. 226; *1073,
p. 318). Mrs. Arthur D. South. Water level, in feet below land-surface
datum, 1947: Aug. 20, 11.17.

140.52.14dd4 (*840, p. 321; 845, p. 350; 886, p. 533; 908, p. 251; 938, p. 196; 946, p. 239; *988, p. 314; 1018, p. 238; 1025, p. 227; *1073, p. 318). Mrs. Arthur D. South. Water level, in feet below land-surface datum, 1947: Aug. 20, 10.65.

Cavalier County

161.60.14cd1 (*840, p. 322; *845, p. 352; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 242; *988, p. 316; 1018, p. 240; 1025, p. 229; *1073, p. 318). City of Langdon.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	18.34	Apr. 12	20.19	July 12	17.08	Oct. 4	17.96
11	18.50	15	19.34	19	17.17	11	18.01
18	19.35	19	18.94	26	17.25	18	18.06
25	18.58	26	18.85	Aug. 2	17.29	25	18.09
Feb. 1	18.82	May 6	18.83	9	17.37	Nov. 1	18.19
10	18.90	10	18.77	16	17.46	8	18.04
15	18.92	17	18.46	23	17.54	15	18.15
22	19.13	24	18.46	30	17.69	22	18.23
Mar. 1	19.15	31	18.31	Sept. 6	17.77	29	18.31
8	19.23	June 7	18.27	15	17.88	Dec. 6	18.35
15	19.13	14	18.19	18	18.00	13	18.42
22	19.04	21	18.06	20	17.90	20	18.44
29	19.35	30	17.54	27	17.98	27	18.42
Apr. 5	18.90	July 5	17.39				

161.60.14dal (*840, p. 322; *845, p. 354; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243; *988, p. 317; 1018, p. 241; 1025, p. 229; *1073, p. 318). City of Langdon.

Water level, in feet below land-surface datum, 1947

Jan. 4	7.73	Apr. 15	8.74	July 12	4.67	Oct. 4	6.04
11	8.31	19	9.40	19	4.77	11	6.12
18	8.77	26	9.65	26	4.81	18	5.40
25	8.98	May 6	8.12	Aug. 2	5.23	25	5.42
Feb. 1	9.34	10	7.98	9	4.98	Nov. 1	5.50
10	9.50	17	7.89	16	4.75	8	5.33
15	9.65	24	7.83	23	5.15	15	5.58
22	9.98	31	7.67	30	5.73	22	5.75
Mar. 1	10.15	June 7	7.29	Sept. 6	6.25	29	5.98
8	10.21	14	6.08	15	6.48	Dec. 6	6.23
15	10.50	21	5.73	18	6.67	13	6.29
22	10.29	28	4.81	20	6.52	20	6.62
29	10.65	July 5	4.06	27	6.31	27	6.81
Apr. 5	8.65						

161.60.14dcl (*840, p. 322; *845, p. 353; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243; *988, p. 316; 1018, p. 240; 1025, p. 229; *1073, p. 319). City of Langdon.

Water level, in feet below land-surface datum, 1947

Jan. 4	21.06	Apr. 12	19.60	July 12	19.45	Oct. 4	20.14
11	21.06	15	19.34	19	19.76	11	20.12
18	21.58	19	19.33	26	19.85	18	19.73
25	21.06	26	19.37	Aug. 2	20.14	25	19.73
Feb. 1	21.18	May 6	19.58	9	20.81	Nov. 1	19.82
10	21.23	10	19.60	16	19.62	8	19.82
15	21.23	17	19.62	23	19.85	15	19.95
22	21.27	24	19.72	30	20.27	22	20.14
Mar. 1	21.27	31	19.72	Sept. 6	20.62	29	20.18
8	21.27	June 7	19.54	15	20.52	Dec. 6	20.23
15	21.10	14	19.45	18	20.52	13	20.23
22	21.08	21	19.56	20	20.59	20	20.43
29	20.98	30	19.08	27	20.27	27	20.52
Apr. 5	20.57	July 5	19.37				

161.60.23bcl (*840, p. 322; *845, p. 353; 886, p. 534; 908, p. 254; 938, p. 200; 946, p. 243; *988, p. 316; 1018, p. 240; 1025, p. 230; *1073, p. 319). City of Langdon.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	23.97	Apr. 12	19.76	July 12	10.01	Oct. 4	14.93
11	23.09	15	30.50	19	10.38	11	14.09
18	23.13	19	27.85	26	10.63	18	36.55
25	26.80	26	26.63	Aug. 2	10.99	25	41.13
Feb. 1	25.91	May 6	14.03	9	11.13	Nov. 1	13.72
10	37.89	10	13.17	16	11.34	8	24.13
15	20.47	17	18.47	23	11.61	15	25.55
22	18.55	24	12.40	30	12.10	22	25.97
Mar. 1	27.57	31	12.90	Sept. 6	13.72	29	28.13
8	22.49	June 7	10.97	15	12.63	Dec. 6	22.51
15	24.91	14	14.17	18	12.28	13	20.03
22	24.59	21	11.63	20	12.78	20	28.88
29	22.21	28	10.09	27	13.30	27	23.42
Apr. 5	25.80	July 5	10.30				

Dickey County

129.59.7bal (*908, p. 256; *938, p. 202; 946, p. 244; *988, p. 318; 1018, p. 241; 1025, p. 230; *1073, p. 319). D. C. Botts. Water levels, in feet below land-surface datum, 1947: May 7, 6.98; Aug. 28, 8.82; Oct. 14, 8.71.

129.60.24ccl (*908, p. 258; 938, p. 204; 946, p. 246; 988, p. 319; *1073, p. 319). V. S. Doyen. No measurements made in 1947.

130.59.3bcl (*938, p. 203; 946, p. 245; *988, p. 318; 1018, p. 242; 1025, p. 231; *1073, p. 320). M. J. Reinhart. Water levels, in feet below land-surface datum, 1947: May 8, 5.14; Aug. 28, 5.28; Oct. 14, 6.30.

130.59.9bcl (*908, p. 256; 938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 242; 1025, p. 230; *1073, p. 320). H. G. Martin, administrator. Water levels, in feet below land-surface datum, 1947: May 7, 7.61; Oct. 14, 8.17.

131.59.16ddl (*908, p. 256; 938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 241; 1025, p. 230; *1073, p. 320). State of North Dakota. Water level, in feet below land-surface datum, 1947: Aug. 30, 21.92.

131.59.28bal (*908, p. 257; 938, p. 203; 946, p. 246; *988, p. 318; 1018, p. 242; 1025, p. 231; *1073, p. 320). City of Oakes.

Water level, in feet below land-surface datum, 1947

Jan. 6	8.17	May 26	7.36	Aug. 11	7.99	Oct. 20	8.36
Feb. 19	8.32	June 2	7.61	18	8.05	27	8.27
Mar. 4	8.37	9	8.58	25	8.13	Nov. 3	8.26
12	8.35	16	7.09	28	8.22	10	8.27
Apr. 1	8.32	23	7.05	Sept. 8	8.29	19	8.28
15	7.91	30	7.31	15	8.33	24	8.25
21	7.93	July 7	7.37	22	8.35	Dec. 1	8.22
29	7.58	15	7.50	29	8.39	9	8.21
May 8	7.50	21	7.63	Oct. 5	8.41	16	8.25
12	7.39	28	7.74	13	8.35	22	8.23
19	7.41	Aug. 4	7.87	14	8.64	29	8.21

131.59.29aal (*938, p. 319; 1018, p. 242; 1025, p. 231; *1073, p. 320). Fred Sletvold. Water level, in feet below land-surface datum, 1947: Aug. 28, 10.58.

131.59.33ccl (*938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 241; 1025, p. 230; *1073, p. 320). Lynus Sitts, Jr. Water levels, in feet below land-surface datum, 1947: May 8, 6.97; Aug. 28, 7.48; Oct. 14, 8.17.

300 WATER LEVELS AND ARTESIAN PRESSURE, 1947, NORTH-CENTRAL STATES

131.64.36al (*886, p. 535; 908, p. 235; 938, p. 201; 946, p. 244; *988, p. 317; 1018, p. 241; 1073, p. 320). State of North Dakota. No measurements made in 1947.

Divide County

162.97.6dal (*1073, p. 320). Adolf Carlson.

Daily noon water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.96	.....	17.85	12.60	14.00	14.11	16.01	15.12	16.01	16.32	16.40
2	17.96	.....	17.86	12.57	14.04	14.14	16.07	15.15	16.02	16.31	16.41
3	17.97	.....	17.87	12.57	14.06	14.16	16.14	15.22	16.02	16.30	16.42
4	17.98	.....	17.87	12.60	14.11	14.23	16.22	15.27	16.04	16.28	16.43
5	18.01	.....	17.87	12.61	14.17	14.31	16.27	15.32	16.07	16.27	16.43
6	18.02	.....	17.87	12.65	14.22	14.37	16.29	15.39	16.10	16.28	16.41
7	18.03	.....	17.87	12.65	14.26	14.44	16.24	15.44	16.14	16.26	16.42
8	18.04	.....	17.85	12.70	14.29	14.49	16.14	15.47	16.15	16.26	16.42
9	.....	.....	17.79	12.71	14.29	14.57	16.05	15.53	16.15	16.28	16.43
10	.....	.....	17.71	12.76	14.29	14.63	16.00	15.54	16.15	16.28	16.44
11	.....	.....	17.60	12.82	14.30	14.67	15.96	15.60	16.15	16.30	16.45
12	.....	.....	17.42	12.91	14.30	14.74	15.93	15.65	16.16	16.32	16.47
13	.....	.....	17.62	12.99	14.31	14.61	15.85	15.67	16.18	16.32	16.47
14	.....	.....	16.66	13.01	14.32	14.88	15.59	15.70	16.19	16.33	16.46
15	.....	.....	16.25	13.08	14.37	14.93	15.31	15.75	16.20	16.35	16.49
16	.....	.....	15.86	13.12	14.41	15.00	15.06	15.77	16.21	16.37	16.51
17	.....	.....	15.41	13.17	14.46	15.08	14.90	15.80	16.21	16.40	16.52
18	.....	.....	14.99	13.24	14.49	15.15	14.77	15.82	16.23	16.40	16.52
19	.....	.....	14.56	13.30	14.53	15.20	14.72	15.82	16.26	16.41	16.54
20	.....	.....	14.16	13.35	14.55	15.26	14.69	15.82	16.26	16.41	16.56
21	.....	.....	13.80	13.37	14.59	15.32	14.61	15.83	16.27	16.41	16.58
22	.....	.....	13.45	13.47	14.49	15.27	14.62	15.85	16.30	16.41	16.58
23	.....	.....	13.19	13.52	14.34	15.42	14.70	15.85	16.32	16.38	16.60
24	.....	18.72	13.01	13.57	14.24	15.48	14.76	15.89	16.32	16.37	16.61
25	.....	18.72	12.87	13.60	14.14	15.55	14.82	15.91	16.32	16.37	16.63
26	.....	18.68	12.73	13.66	14.09	15.63	14.82	15.93	16.31	16.38	16.63
27	.....	17.32	12.67	13.72	14.05	15.69	14.88	15.93	16.29	16.39	16.63
28	.....	17.51	12.56	13.78	14.05	15.75	14.92	15.95	16.29	16.40	16.66
29	.....	17.65	12.54	13.81	14.08	15.81	14.95	16.00	16.28	16.41	16.64
30	.....	17.74	12.56	13.83	14.08	15.89	15.01	16.00	16.29	16.40	.....
31	.....	17.71	.....	13.90	.....	15.96	15.07	.....	16.31	.....	.....

163.97.22cd1 (*845, p. 355; 886, p. 536; 908, p. 259; 938, p. 204; 946, p. 246; *988, p. 319; 1018, p. 242; 1025, p. 242; *1073, p. 321). J. M. Johnson. Water levels, in feet below land-surface datum, 1947: Apr. 28, 8.16; July 9, 8.87; Nov. 6, 10.11.

163.100.34aal (*908, p. 259; 938, p. 204; 946, p. 246; *988, p. 319; 1018, p. 242; 1025, p. 242; *1073, p. 321). A. U. Anderson. No measurements made in 1947.

Dunn County

145.92.25ad1 (*946, p. 246; *988, p. 319; 1018, p. 242; 1025, p. 242; *1073, p. 321). S. F. Lesmeister.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	8.83	June 7	7.80	Aug. 22	11.83	Oct. 10	8.25
31	8.91	9	7.81	29	8.25	Nov. 14	7.19
Feb. 14	9.50	16	7.64	Sept. 5	9.33	21	8.58
21	9.83	July 5	6.08	26	8.17	Dec. 12	8.17
28	9.75	Aug. 8	10.19	Oct. 1	11.97	19	8.50
Apr. 2	7.75	15	9.19	3	8.69	26	8.60
May 11	9.64						

Eddy County

148.67.28dal (*908, p. 260; 938, p. 205; 946, p. 247; 988, p. 320; 1018, p. 243; 1025, p. 232; *1073, p. 321). Pfau Estate. Flow, in gallons per minute, 1947: Sept. 2, 14.

150.66.9bal (*817, p. 230; *845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247; *988, p. 320; 1018, p. 243; 1025, p. 232; *1073, p. 321). Elmer Moe. No measurements made in 1947.

150.66.9bd1 (*817, p. 230; *845, p. 356; 886, p. 537; 908, p. 260; 938, p. 205; 946, p. 247; *988, p. 320; 1018, p. 243; 1025, p. 231; *1073, p. 321). Gilbert Olson. Water level, in feet below land-surface datum, 1947: Sept. 2, 15.48.

150.66.9cbl (*817, p. 230; *840, p. 323; 845, p. 356; 886, p. 537; 908, p. 259; 938, p. 205; 946, p. 247; *988, p. 319; 1018, p. 242; 1025, p. 231; *1073, p. 322). U. S. 49. Stockyards. Water level, in feet below land-surface datum, 1947: Sept. 2, 7.84.

150.66.9cd1 (*817, p. 230; *845, p. 355; 886, p. 537; 908, p. 259; 938, p. 205; 946, p. 247; *988, p. 319; 1018, p. 242; 1025, p. 231; *1073, p. 322). L. S. Rude. Water level, in feet below land-surface datum, 1947: Sept. 2, 10.61.

Golden Valley County

139.106.2dd1 (*908, p. 260; 938, p. 206; 946, p. 248; *1073, p. 322). Mrs. Tangen. Water level, in feet below land-surface datum, 1947: Oct. 7, 69.84.

140.106.25cbl (*946, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232; *1073, p. 322). City of Beach. Water level, in feet below land-surface datum, 1947: Oct. 7, 24.70.

Grant County

134.85.10aal (*908, p. 260; 938, p. 206; 946, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232; *1073, p. 322). R. O. Ozburn. Water level, in feet below land-surface datum, 1947: May 21, 21.15; Oct. 2, 21.21.

Griggs County

144.59.20bcl (*908, p. 260; 938, p. 206; 946, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232; *1073, p. 322). Griffith Loan & Investment Co. Water level, in feet below land-surface datum, 1947: Sept. 5, 18.78.

Hettinger County

133.93.5bd1 (*845, p. 357; 886, p. 538; 908, p. 260; 938, p. 206; 946, p. 248; 988, p. 320; *1073, p. 322). L. F. Everhart. Water level, in feet below land-surface datum, 1947: Jan. 24, 50.75.

Kidder County

138.73.9cc1 (*840, p. 323; 845, p. 357; 886, p. 538; 908, p. 260; 938, p. 206; 946, p. 248; *988, p. 321; 1018, p. 243; 1025, p. 232; *1073, p. 322). U. S. 53. Herman Peterson. Water level, in feet below land-surface datum, 1947: Sept. 4, 7.71.

139.71.3cc1 (*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 233; *1073, p. 323). Jake Schaurer. Water level, in feet below land-surface datum, 1947: Sept. 4, 11.65.

139.71.10bcl (*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 243; 1025, p. 232; *1073, p. 323). Village of Tappen. Water level, in feet below land-surface datum, 1947: Sept. 4, 8.95.

139.71.27cc1 (*908, p. 261; 938, p. 207; 946, p. 248; *988, p. 321; 1018, p. 243; 1025, p. 232; *1073, p. 323). Phillip Mittelsider. Water level, in feet below land-surface datum, 1947: Sept. 4, 6.72.

139.72.10cal (*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 243; 1025, p. 232; *1073, p. 323). Chas. Woesnner. Water level, in feet below land-surface datum, 1947: Sept. 4, 13.23.

142.70.23abl (*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232; *1073, p. 323). Mrs. Fagereng. Water level, in feet below land-surface datum, 1947: Sept. 4, 18.39.

LaMoore County

133.64.3bcl (*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232; *1073, p. 323). Town of Edgeley. Water level, in feet below land-surface datum, 1947: Sept. 3, 23.60.

134.64.24dcl (*886, p. 538; 908, p. 262; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232; *1073, p. 323). Mrs. Fidela Davis. Water level, in feet above land-surface datum, 1947: Sept. 3, .50.

Logan County

135.72.17cc1 (*908, p. 262; 938, p. 208; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232; *1073, p. 323). Oscar France. Measurements discontinued in 1947.

135.72.21bcl (*908, p. 262; 938, p. 208; 946, p. 249; 988, p. 321; *1073, p. 323). Pete Draeger. No measurements made in 1947.

135.72.27bb1 (*908, p. 262; 938, p. 208; 946, p. 249; *988, p. 322; 1018, p. 244; 1025, p. 232; *1073, p. 323). George Dummland. Well filled; measurements discontinued in 1947.

McHenry County

151.77.1dcl (*908, p. 263; 938, p. 209; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234; *1073, p. 323). Mrs. H. Notbohm. No measurements made in 1947.

152.79.6bcl (*908, p. 263; *938, p. 209; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234; *1073, p. 323). Minneapolis, St. Paul & Sault Ste. Marie Railway Co. Water level, in feet below land-surface datum, 1947: Sept. 9, 16.33.

155.79.8aal (*908, p. 263; 938, p. 210; 946, p. 250; 988, p. 322; *1073, p. 324). Cities Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 9.72.

156.76.11bd1 (*908, p. 264; 938, p. 210; 946, p. 250; *988, p. 323; 1018, p. 245; 1025, p. 234; *1073, p. 324). Village of Towner. Water level, in feet below land-surface datum, 1947: Sept. 11, 12.89.

156.78.36bcl (*886, p. 539; 908, p. 262; 938, p. 208; 946, p. 250; *988, p. 322; 1018, p. 244; 1025, p. 232; *1073, p. 324). Denbigh Forest Experimental Station well 1. U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 5.40.

156.78.36bc2 (*886, p. 540; 908, p. 263; 938, p. 208; 946, p. 250; *988, p. 322; 1018, p. 244; 1025, p. 232; *1073, p. 324). U. S. 50. Denbigh Forest Experimental Station well 2. U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 4.12.

156.78.36bc3 (*886, p. 541; 908, p. 263; 938, p. 208; 946, p. 250; 988, p. 322; 1018, p. 244; 1025, p. 232; *1073, p. 324). Denbigh Forest Experimental Station well 3. U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 3.93.

156.78.36bc4 (*886, p. 542; 908, p. 263; 938, p. 209; 946, p. 250; 988, p. 322; *1018, p. 244; 1025, p. 232; *1073, p. 324). Denbigh Forest Experimental Station well 4. U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 3.82.

156.78.36ddl (*886, p. 543; 908, p. 263; 938, p. 209; 946, p. 250; 988, p. 322; *1018, p. 245; 1025, p. 234; *1073, p. 324). Denbigh Forest Experimental Station well 5. U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 9, 3.71.

156.79.33dcl (*908, p. 263; 938, p. 210; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234; *1073, p. 324). Harold H. Sullwold. Water level, in feet below land-surface datum, 1947: Sept. 9, 9.27.

157.75.31dcl (*908, p. 263; 938, p. 210; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234; *1073, p. 325). U. S. Dept. of Agriculture, Forest Service. Water level, in feet below land-surface datum, 1947: Sept. 11, 3.70.

158.78.3dcl (*908, p. 264; 938, p. 210; 946, p. 250; *988, p. 323; 1018, p. 245; 1025, p. 234; *1073, p. 325). Walter Arneson. Water level, in feet below land-surface datum, 1947: Sept. 10, 11.70.

McIntosh County

130.69.7cd1 (*845, p. 357; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251; *988, p. 323; 1018, p. 245; 1025, p. 234; *1073, p. 325). Freida Forrest. Water level, in feet below land-surface datum, 1947: Sept. 3, 13.26.

130.69.7cd2 (*845, p. 358; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251; *988, p. 323; 1018, p. 245; 1025, p. 234; *1073, p. 325). Freida Forrest. Water level, in feet below land-surface datum, 1947: Sept. 3, 12.09.

132.70.28dal (*908, p. 265; 938, p. 211; 946, p. 251; *988, p. 323; 1018, p. 246; 1025, p. 235; *1073, p. 325). Dan Nigisch. Water level, in feet below land-surface datum, 1947: Sept. 3, 16.98.

132.71.15aal (*908, p. 265; *938, p. 211; 946, p. 251; *988, p. 323; 1018, p. 246; 1025, p. 235; *1073, p. 325). U. S. 55. No measurements made in 1947.

132.71.24ad1 (*908, p. 264; 938, p. 211; 946, p. 251; *988, p. 323; 1018, p. 245; 1025, p. 235; *1073, p. 325). Federal Land Bank. Water level, in feet below land-surface datum, 1947: Sept. 3, 7.77.

McKenzie County

150.100.12ccl (*845, p. 358; 886, p. 545; 908, p. 265; 938, p. 211; 946, p. 252; *988, p. 324; 1018, p. 246; 1025, p. 235; *1073, p. 325). Chas. E. Fleck.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	113.82	Apr. 12	114.24	July 12	114.10	Oct. 11	114.10
11	114.03	19	113.90	19	113.93	18	114.07
18	113.92	26	113.89	26	114.10	24	114.00
25	114.10	May 3	114.09	Aug. 2	113.98	Nov. 1	113.86
Feb. 15	114.03	10	113.92	9	113.88	8	114.00
22	114.24	17	114.01	16	114.00	15	114.04
Mar. 1	114.07	24	114.01	23	114.11	22	113.84
8	113.95	31	114.08	30	114.07	29	114.04
15	113.95	June 7	114.13	Sept. 6	114.01	Dec. 6	113.94
22	113.90	14	113.95	13	113.91	13	113.75
29	114.09	28	114.15	27	113.88	20	114.07
Apr. 5	114.10	July 5	114.05	Oct. 4	114.03	27	114.00

McLean County

149.84.15bcl (*840, p. 323; 845, p. 358; 886, p. 546; 908, p. 266; 938, p. 212; 946, p. 252; *988, p. 324; 1018, p. 246; 1025, p. 235; *1073, p. 326). State of North Dakota.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	45.31	Mar. 21	45.41	May 30	45.22	Aug. 1	45.02
11	45.35	28	45.39	June 6	45.27	9	44.93
24	45.29	Apr. 4	45.39	13	45.31	15	44.93
31	45.31	11	45.51	20	45.18	22	44.90
Feb. 10	45.39	18	45.43	27	45.22	29	44.93
15	45.43	25	45.58	July 5	45.22	Sept. 5	44.87
21	45.43	May 2	45.51	12	45.51	12	45.02
28	45.47	9	45.40	18	45.10	19	44.93
Mar. 7	45.40	16	45.43	25	45.02	25	44.93
14	45.56	23	45.27				

Mercer County

144.85.22ad1 (*908, p. 266; 938, p. 212; 946, p. 252; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 326). Maichel Bros. Water levels, in feet below land-surface datum, 1947: May 13, 16.79; Oct. 2, 17.03.

Morton County

134.82.36cbl (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 326). Albrecht & Johnson. Water levels, in feet below land-surface datum, 1947: May 20, 15.80; Oct. 1, 16.08.

136.81.6dcl (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 326). Joe Lenz, Jr. Water levels, in feet below land-surface datum, 1947: May 21, 22.06; Oct. 1, 22.66.

138.81.4bb1 (*840, p. 324; *845, p. 359; 886, p. 546; 908, p. 266; 938, p. 213; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 326). U. S. 54. U. S. Dept. of Agriculture, Soil Conservation Service. No measurements made in 1947.

139.85.15ccl (*938, p. 212; 946, p. 252; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 326). Fred Lehde.

Water level, in feet below land-surface datum, 1947

Jan. 4	36.75	Apr. 5	31.67	July 5	31.54	Oct. 11	32.65
11	36.72	12	29.92	12	30.84	19	32.69
19	36.66	19	30.24	19	31.57	26	32.82
25	36.67	26	31.92	26	27.98	Nov. 1	32.85
Feb. 1	34.10	May 3	31.80	Aug. 3	31.67	8	32.86
8	35.83	11	32.09	9	31.57	15	32.85
15	35.95	17	31.56	23	32.16	22	33.00
22	32.64	24	32.22	30	32.13	29	32.96
Mar. 1	34.34	31	32.33	Sept. 6	32.34	Dec. 6	32.98
8	34.96	June 7	31.80	14	32.39	13	33.02
15	35.26	14	31.56	27	32.61	22	32.94
22	31.10	21	31.57	Oct. 4	32.59	27	33.06
29	31.64	28	30.53				

139.88.32ab1 (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 327). Henry Polenbergl. Water levels, in feet below land-surface datum, 1947: May 22, 6.85; Oct. 1, 9.14.

Mountrail County

152.89.6aal (*845, p. 359; 886, p. 546; 908, p. 266; 938, p. 213; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236; *1073, p. 327). Emil Molter. Water level, in feet below land-surface datum, 1947: Oct. 8, 47.15.

Oliver County

141.82.10bal (*908, p. 267; 938, p. 213; 946, p. 253; *988, p. 326; *1018, p. 248; 1025, p. 237; *1073, p. 327). Otis Tye. No measurements made in 1947.

Pembina County

160.56.8dcal (*1073, p. 327). Paul B. Olafson. Water levels, in feet below land-surface datum, 1947: May 1, 3.06; Sept. 16, 5.06; Jan. 1, 6.42; Jan. 13, 5.88.

160.56.9ccb1 (*1073, p. 327). Ole Soli. Water levels, in feet below land-surface datum, 1947: May 1, 1.78; Sept. 16, 9.32.

160.56.9dccc1 (*1073, p. 327). J. Anderson. Water levels, in feet below land-surface datum, 1947: May 1, 5.08; Sept. 16, 6.47.

160.56.16aaal (*1073, p. 328). S. J. Hanson. Water levels, in feet below land-surface datum, 1947: May 1, 6.01; Sept. 16, 8.85.

160.56.16aaa2 (*1073, p. 328). Gritherun Thorstenson. Water levels, in feet below land-surface datum, 1947: May 1, 22.11; Sept. 16, 22.38.

160.56.16aabl (*1073, p. 328). S. J. Hallgrimson. Water levels, in feet below land-surface datum, 1947: May 1, 8.73; Sept. 16, 11.97.

160.56.16aab2 (*1073, p. 328). Lutheran parsonage. Water levels, in feet below land-surface datum, 1947: May 1, 8.76; Sept. 16, 11.76.

160.56.16aab3 (*1073, p. 328). H. J. Hallgrimson.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	10.67	Apr. 14	10.50	July 27	10.58	Oct. 13	10.67
12	10.75	28	10.50	Aug. 10	10.50	20	10.50
20	10.83	May 5	10.83	18	10.67	28	11.00
Feb. 2	10.50	11	10.33	25	10.67	Nov. 3	10.50
9	10.96	17	10.41	Sept. 1	10.67	10	10.67
16	11.00	June 1	10.67	7	11.17	17	10.50
23	10.86	9	10.50	13	11.14	Dec. 1	10.50
Mar. 9	11.04	16	10.67	15	11.50	8	10.58
17	10.87	23	10.00	16	11.13	15	10.58
23	11.08	30	10.17	29	10.83	22	10.50
30	10.83	July 7	10.33	Oct. 7	11.00	29	10.67
Apr. 7	10.79	14	10.50				

160.56.16aab4 (*1073, p. 328). H. J. Hjaltalin. Water levels, in feet below land-surface datum, 1947: May 1, 7.34; Sept. 16, 11.57.

160.56.16aacl (*1073, p. 328). Mountain school. Water levels, in feet below land-surface datum, 1947: May 1, 7.18; Sept. 16, 9.48.

160.56.16aad1 (*1073, p. 328). Mr. Paulson. Water levels, in feet below land-surface datum, 1947: May 1, 19.21; Sept. 16, 18.98.

160.56.16adal (*1073, p. 328). Oscar Byron. Water level, in feet below land-surface datum, 1947: Sept. 16, 11.90.

160.56.16ada2 (*1073, p. 329). Oscar Byron. Water levels, in feet below land-surface datum, 1947: May 1, 11.13; Sept. 16, 11.93.

160.59.16ada3 (*1073, p. 329). Walter Hallison. Water levels, in feet below land-surface datum, 1947: May 1, 12.26; Sept. 16, 12.62.

160.59.16ada4 (*1073, p. 329). Mr. Olafson. Water levels, in feet below land-surface datum, 1947: May 1, 10.52; Sept. 16, 13.26.

160.56.16adbl (*1073, p. 329). H. Olafson. Water levels, in feet below land-surface datum, 1947: May 1, 9.41; Sept. 16, 13.02.

160.56.16accl (*1073, p. 329). H. Olafson. Water levels, in feet below land-surface datum, 1947: May 1, 3.02; Sept. 16, 7.25.

160.56.16bdal (*1073, p. 329). H. T. Hjaltalin. Water levels, in feet below land-surface datum, 1947: May 1, 6.42; Sept. 16, 9.52.

161.56.22bb1 (*938, p. 213; 946, p. 253; *988, p. 326; 1018, p. 248; 1025, p. 237; *1073, p. 329). E. J. Lander & Co.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	8.43	Apr. 12	8.33	July 12	6.14	Oct. 4	7.48
11	9.00	16	8.18	19	6.56	11	7.40
18	8.58	19	8.06	26	6.67	18	7.23
25	8.64	26	7.85	Aug. 2	6.85	25	7.16
Feb. 1	8.75	May 3	7.64	9	7.01	Nov. 1	7.09
8	8.83	10	7.38	16	6.87	8	7.04
15	8.92	17	7.25	23	7.10	15	7.06
22	8.96	24	7.14	30	7.25	22	7.06
Mar. 1	9.02	31	7.10	Sept. 6	7.48	29	7.08
8	9.08	June 7	7.04	13	7.62	Dec. 6	7.12
15	9.12	14	6.43	18	7.74	13	7.14
22	9.09	21	6.39	20	7.72	20	7.19
29	8.77	28	6.08	27	7.66	27	7.21
Apr. 5	8.56	July 5	6.03				

162.53.31cc1 (*938, p. 214; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 237; *1073, p. 329). Garnett A. Snell.

Water level, in feet below land-surface datum, 1947

Jan. 4	10.08	Apr. 5	9.99	July 5	7.83	Sept. 27	10.18
11	10.14	12	9.89	12	8.27	Oct. 4	9.96
18	10.25	16	10.00	19	8.62	11	9.99
25	10.17	26	10.25	26	8.89	18	9.84
Feb. 1	10.38	May 3	9.36	Aug. 2	9.18	25	9.73
8	10.41	10	8.56	9	7.56	Nov. 1	9.73
15	10.39	17	8.43	16	9.48	8	9.60
22	10.41	24	8.46	23	9.43	15	9.72
Mar. 1	10.48	31	8.46	30	9.98	22	9.77
8	10.57	June 7	8.32	Sept. 6	10.31	29	9.95
15	10.64	14	8.17	13	10.37	Dec. 6	9.89
22	10.57	21	8.07	16	10.46	13	9.74
29	10.53	28	8.14	20	10.32		

162.55.3dd1 (*938, p. 214; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 237; *1073, p. 330). Albert C. McCurdy.

Water level, in feet below land-surface datum, 1947

Jan. 5	9.18	Apr. 13	8.39	July 6	7.20	Sept. 28	9.05
11	9.18	16	8.29	13	7.37	Oct. 4	9.03
19	9.18	20	8.13	20	7.63	12	8.97
26	9.68	27	8.02	27	7.84	19	8.90
Feb. 2	9.80	May 4	7.90	Aug. 10	8.22	25	8.84
9	9.90	11	7.73	17	8.30	Nov. 2	8.84
16	10.08	18	7.61	24	8.42	9	8.84
23	10.23	25	7.55	30	8.49	16	8.88
Mar. 2	10.35	June 1	7.57	Sept. 3	8.05	23	8.87
9	10.48	8	7.42	7	8.82	30	8.90
16	10.53	15	7.16	14	8.97	Dec. 7	8.92
23	10.49	22	7.03	18	8.51	14	8.95
30	9.80	29	7.15	21	9.09	21	9.00
Apr. 6	8.97						

162.55.3dd2 (*1073, p. 330). A. C. McCurdy. Water levels, in feet below land-surface datum, 1947: Apr. 16, 9.73; Sept. 18, 13.45.

163.56.9aal (*1073, p. 330). Herman Tesmer. Water levels, in feet below land-surface datum, 1947: Apr. 16, 9.93; Sept. 18, 7.34.

Pierce County

156.72.10bal (*908, p. 267; 938, p. 215; 946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 330). Eric Hammel. Water level, in feet below land-surface datum, 1947: Sept. 10, 23.01.

Ramsey County

153.64.5aal (*946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 330). Ray Young. Water level, in feet below land-surface datum, 1947: Sept. 11, 27.39.

153.64.20ccl (*946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 331). W. H. Summers. Water level, in feet below land-surface datum, 1947: Sept. 11, 49.84.

153.64.25cal (*988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 331). Camp Grafton Military Reserve. Water level, in feet below land-surface datum, 1947: Sept. 11, 54.49.

153.65.14acl (*840, p. 324; 845, p. 360; 886, p. 547; 908, p. 267; 938, p. 215; 946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 331). Mrs. Bonnie Boland. Water level, in feet below land-surface datum, 1947: Sept. 11, 57.64.

Ransom County

136.56.3abl (*908, p. 268; 938, p. 215; 946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238; *1073, p. 331). Melfird Skramstad. No measurements made in 1947.

Renville County

161.84.13cd2 (*908, p. 269; 938, p. 216; 946, p. 256; *988, p. 328; 1018, p. 250; 1025, p. 238; *1073, p. 331). Fred Paris.

Daily noon water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.
1	....	8.11	5.93	6.84	7.83	8.47	8.64
2	....	8.11	5.87	6.92	7.87	8.44	8.61
3	7.99	8.09	5.82	7.00	7.94	8.42	8.60
4	8.00	8.08	5.86	7.07	7.98	8.43	8.59
5	8.01	8.09	5.87	7.16	....	8.43	8.60
6	8.02	8.10	5.89	7.25	8.12	8.47	8.60
7	8.01	8.11	5.92	7.27	8.16	8.51	8.61
8	8.03	8.09	5.94	7.22	8.18	8.51	8.61
9	8.00	8.08	5.97	7.26	8.25	8.49	8.63
10	8.00	8.07	6.00	7.25	8.25	8.49	8.65
11	7.98	8.11	6.06	7.24	8.30	8.46	8.64
12	8.00	8.12	....	7.25	8.33	8.50	8.66
13	8.00	8.11	....	7.24	8.36	8.50	8.64
14	7.99	8.11	....	7.26	....	8.53	8.64
15	8.00	8.12	....	7.26	....	8.54	8.64
16	8.00	8.12	....	7.25	8.47	8.52	8.67
17	7.99	8.13	....	7.29	8.50	8.52	8.68
18	7.98	8.15	....	7.30	8.51	8.55	8.67
19	7.99	8.16	....	7.32	8.49	8.57	8.69
20	7.98	8.15	....	7.37	8.46	8.58	8.69
21	7.97	8.13	6.32	7.37	8.51	8.58	8.69
22	7.99	8.09	6.30	7.40	8.54	8.60	....
23	7.99	8.00	6.32	7.47	8.52	8.62	....
24	8.00	7.69	6.36	7.54	....	8.62	....
25	7.98	7.25	6.42	7.56	....	8.63	....
26	7.99	6.85	6.49	7.55	....	8.61	....
27	8.00	6.52	6.54	7.61	....	8.60	....
28	8.01	6.28	6.58	7.65	....	8.61	....
29	7.98	6.14	6.70	7.67	....	8.59	....
30	8.05	6.02	6.78	7.74	8.49	8.59	....
31	8.07	....	6.82	7.77	....	8.63	....

161.84.24ab1 (*908, p. 268; 938, p. 216; 946, p. 255; *988, p. 328; 1018, p. 250; 1025, p. 238; *1073, p. 331). J. Dighton Taylor. No measurements made in 1947.

161.85.20aal (*840, p. 324; 845, p. 361; 886, p. 548; 908, p. 268; 938, p. 215; 946, p. 255; *988, p. 328; 1018, p. 249; 1025, p. 238; *1073, p. 331). Minnesota Trust Co. Water levels, in feet below land-surface datum, 1947: Apr. 9, 82.65; July 2, 82.41; Oct. 29, 82.67.

Richland County

132.49.12dal (*845, p. 361; 886, p. 548; 908, p. 269; 938, p. 216; 946, p. 256; *988, p. 328; 1018, p. 250; 1025, p. 238; *1073, p. 332). Ira Madden. No measurements made in 1947.

133.52.32cd1 (*1073, p. 332). Water level, in feet below land-surface datum, 1947: Aug. 28, 6.38.

133.52.33dc1 (*840, p. 325; 845, p. 362; 886, p. 548; 908, p. 269; *938, p. 216; 946, p. 256; *988, p. 328; 1018, p. 250; 1025, p. 239; *1073, p. 332). U. S. 52. John Liljemark.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	6.10	Apr. 5	7.35	July 5	1.93	Oct. 11	5.75
11	6.60	12	7.25	19	3.43	18	5.64
18	6.77	19	2.10	26	3.49	25	5.60
25	7.10	26	4.28	Aug. 9	4.27	Nov. 1	5.52
Feb. 1	7.18	May 3	3.22	17	4.52	8	5.50
8	7.27	10	3.08	25	4.66	15	5.43
15	7.40	17	3.08	28	4.75	22	5.41
21	7.52	24	2.97	Sept. 6	4.43	Dec. 1	5.10
Mar. 1	7.56	31	2.98	14	5.50	6	5.22
8	7.64	June 7	2.64	20	5.85	13	5.18
15	7.48	14	1.93	27	5.91	20	5.27
22	7.48	21	1.91	Oct. 4	5.93	27	5.51
29	7.48	28	1.84				

Rolette County

162.69.17al (*908, p. 269; *938, p. 217; 946, p. 256; *988, p. 329; 1018, p. 250; 1025, p. 239; *1073, p. 332). Town of Rolla well 4. Water level, in feet below land-surface datum, 1947: Sept. 10, 25.30.

Sheridan County

145.75.28bb1 (*845, p. 362; 886, p. 549; 908, p. 270; 938, p. 217; 946, p. 256; *988, p. 329; 1018, p. 250; 1025, p. 239; *1073, p. 332). Bank of North Dakota. No measurements made in 1947.

Sioux County

130.79.7cl (*908, p. 270; 938, p. 217; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 239; *1073, p. 333). Mrs. Lookingout. Water levels, in feet below land-surface datum, 1947: May 25, 10.71; Oct. 4, 10.81.

130.80.23dal (*938, p. 217; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 239; *1073, p. 333). Mrs. Mulache. Water levels, in feet below land-surface datum, 1947: May 25, 24.04; Oct. 4, 24.07.

133.82.25bal (*1073, p. 333). Water levels, in feet below land-surface datum, 1947: May 21, 4.35; Oct. 4, 5.68.

Slope County

134.100.14ad1 (*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 240; *1073, p. 333). Arthur Nesseth. Water level, in feet below land-surface datum, 1947: Oct. 7, 14.07.

Stark County

139.91.2bal (*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 240; *1073, p. 333). Roland and George Funk. Water level, in feet below land-surface datum, 1947: May 22, 3.37; Oct. 1, 3.81.

Steele County

148.57.15aal (*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 330; 1018, p. 251; 1025, p. 240; *1073, p. 333). Mrs. Snortland. Water level, in feet below land-surface datum, 1947: Sept. 15, 9.00.

Stutsman County

137.64.33ecl (*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 330; 1018, p. 251; 1025, p. 240; *1073, p. 333). Union Central Life Insurance Co. Water levels, in feet below land-surface datum, 1947: Sept. 3, 43.21; Oct. 11, 42.94.

Towner County

158.66.20dl (*946, p. 258; *988, p. 330; 1018, p. 252; 1025, p. 240; *1073, p. 333). S. L. Isaacson. Water level, in feet below land-surface datum, 1947: Sept. 10, 23.66.

160.66.28bal (*840, p. 325; 845, p. 363; 886, p. 549; 908, p. 271; 938, p. 218; 946, p. 257; *988, p. 330; 1018, p. 251; 1025, p. 240; *1073, p. 333). Bank of North Dakota.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	15.17	Apr. 5	14.96	July 5	14.87	Oct. 4	14.90
11	15.15	12	14.95	12	14.86	11	14.91
18	15.13	19	14.97	19	14.84	18	14.92
25	15.10	26	14.97	26	14.81	25	14.92
Feb. 1	15.09	May 3	14.98	Aug. 2	14.80	Nov. 1	14.92
8	15.07	10	14.98	9	14.80	8	14.90
15	15.05	17	14.98	16	14.82	15	14.88
22	15.02	24	14.98	23	14.83	22	14.87
Mar. 1	15.01	31	14.98	30	14.85	29	14.86
8	14.98	June 7	14.99	Sept. 6	14.88	Dec. 6	14.85
15	14.96	14	14.96	13	14.88	13	14.83
22	14.96	21	14.92	20	14.87	20	14.80
29	14.94	28	14.88	27	14.88	27	14.76

Traill County

145.51.14bal (*1073, p. 334). Carl Nelson. Measurements discontinued.

146.51.24cdl (*840, p. 326; 845, p. 363; 886, p. 549; 908, p. 271; 938, p. 218; 946, p. 258; *988, p. 330; 1018, p. 252; 1025, p. 240; *1073, p. 334). A. C. Skyberg. Water level, in feet below land-surface datum, 1947: Sept. 5, 17.62.

146.51.24bcl (*1073, p. 334). A. C. Peterson. Water level, in feet below land-surface datum, 1947: Sept. 5, 13.10.

148.53.18aal (*840, p. 326; 845, p. 366; 908, p. 272; 938, p. 219; 946, p. 258; *988, p. 331; 1018, p. 252; 1025, p. 241; *1073, p. 334). City of Hatton.

Water level, in feet below land-surface datum, 1947

May 5	7.76	July 12	7.16	Aug. 30	10.78	Sept. 28	11.62
18	7.64	27	8.14	Sept. 5	11.54	Oct. 4	11.62
June 1	8.74	Aug. 2	8.78	7	11.69	11	11.88
15	5.84	10	8.14	14	11.84	18	11.46
22	6.16	16	9.48	21	12.04	25	11.26
29	6.54	24	10.34				

148.53.18abl (*845, p. 365; 886, p. 550; 908, p. 272; 938, p. 219; 946, p. 259; *988, p. 331; 1018, p. 253; 1025, p. 241; *1073, p. 335). City of Hatton. Water level, in feet below land-surface datum, 1947: Sept. 5, 10.09.

148.53.18ad1 (*1073, p. 335). City of Hatton. Water level, in feet below land-surface datum, 1947: Sept. 5, 10.15.

148.53.18ad2 (*1073, p. 335). City of Hatton. Water level, in feet below land-surface datum, 1947: Sept. 5, 11.16.

148.53.18ad3 (*845, p. 364; 886, p. 550; 908, p. 271; 938, p. 219; 946, p. 258; *988, p. 331; 1018, p. 252; 1025, p. 241; *1073, p. 335). City of Hatton.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 5	11.20	July 12	10.62	Aug. 30	11.09	Sept. 28	11.00
18	11.26	27	10.72	Sept. 5	12.45	Oct. 4	11.95
June 1	10.46	Aug. 2	10.97	7	12.43	11	12.68
15	10.18	10	11.35	14	12.22	18	12.26
22	8.96	16	11.52	21	11.22	23	12.06
29	8.24	24	11.94				

Walsh County

157.51.16dc2 (*840, p. 327; 845, p. 366; 886, p. 551; 908, p. 272; 938, p. 220; 946, p. 259; *988, p. 332; 1018, p. 253; 1025, p. 242; *1073, p. 335). U. S. 48. Henry Dipple. Water levels, in feet below land-surface datum, 1947: Apr. 16, 4.85; Sept. 16, 2.54.

157.55.17cc1 (*886, p. 551; 908, p. 273; 938, p. 220; 946, p. 260; *988, p. 332; 1018, p. 253; 1025, p. 242; *1073, p. 335). C. D. Lewis.

Water level, in feet below land-surface datum, 1947

Jan. 4	6.18	Apr. 12	5.92	July 12	5.46	Oct. 4	6.59
11	6.29	19	5.83	19	5.68	11	6.46
18	6.26	26	5.69	26	5.08	18	6.10
25	6.34	May 3	5.44	Aug. 2	5.38	25	6.01
Feb. 1	6.40	10	5.17	9	5.62	Nov. 1	5.83
8	6.46	17	5.12	16	5.86	8	5.90
15	6.52	24	5.10	23	6.04	15	5.85
22	6.58	31	5.13	30	6.22	22	5.82
May 1	6.64	June 7	5.08	Sept. 6	6.52	29	5.70
8	6.71	14	4.67	13	6.61	Dec. 6	5.73
15	6.68	21	4.70	16	5.92	13	5.70
22	6.63	28	4.77	20	6.73	20	5.65
29	6.34	July 5	5.17	27	6.67	27	5.62
Apr. 5	6.07						

157.55.17cd1 (*840, p. 326; 845, p. 365; 886, p. 550; *1073, p. 336). C. D. Lewis. Water levels, in feet below land-surface datum, 1947: Apr. 16, 4.02; Sept. 16, 5.30.

Ward County

155.83.13cddl (*1025, p. 245; *1073, p. 336). Minot Flour Milling Co. Measurements discontinued.

155.83.14dcal (*1025, p. 245; *1073, p. 336). People's Ice Co. Recorder not operating. No measurements made in 1947.

155.83.23baal (*1025, p. 243; 1073, p. 337). Minot City supply well 2.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Feb.	Mar.	Apr.	June	July	Aug.	Sept.
1	48.28	48.47	.....	50.32	51.03	47.90
2	48.25	48.44	.....	50.19	50.58	48.32
3	48.23	48.35	.....	50.29	50.18	48.41
4	48.44	48.45	.....	50.28	50.43	47.88
5	48.51	48.35	.....	50.08	50.45	48.38

155.83.23baal--Continued.

Lowest daily water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Feb.	Mar.	Apr.	June	July	Aug.	Sept.
6	.....	48.62	48.44	.....	50.13	50.49	48.21
7	.....	48.40	48.43	.....	50.13	49.43	47.66
8	.....	48.41	48.28	.....	50.20	49.68	.....
9	.....	48.30	48.25	.....	50.20	51.50	.....
10	.....	48.53	48.18	.....	50.20	50.95	.....
11	48.08	48.90	48.43	.....	50.11	49.58	.....
12	48.50	48.95	48.06	.....	50.08	49.46	.....
13	48.48	48.96	48.17	.....	50.26	50.53	.....
14	48.48	48.83	48.20	.....	50.14	47.53	.....
15	48.18	48.75	48.13	.....	50.24	47.66	.....
16	48.16	48.65	48.08	.....	50.21	50.78	.....
17	48.43	48.86	.....	.....	50.18	49.82	.....
18	48.27	48.90	.....	.....	50.21	47.75	.....
19	48.44	48.08	.....	.....	50.24	51.63	.....
20	48.40	49.22	.....	.....	50.28	51.63	.....
21	48.39	49.20	.....	.....	50.13	51.38	.....
22	48.17	48.66	.....	.....	50.38	51.78	.....
23	48.25	48.81	.....	.....	50.52	51.83	.....
24	48.29	48.71	.....	49.73	50.63	51.38	.....
25	48.23	48.63	47.91	49.63	50.63	48.83	.....
26	48.49	48.63	48.03	50.07	50.63	48.95	.....
27	48.42	48.56	48.03	50.43	50.48	48.85	.....
28	48.28	48.29	.....	50.38	50.67	48.43	.....
29	.....	48.56	.....	50.38	50.33	48.55	.....
30	.....	48.50	.....	50.30	50.26	48.88	.....
31	.....	48.38	.....	.....	50.21	48.56	.....

156.83.14aal (*1073, p. 337). Marie Selfors.

Daily noon water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	17.87	18.30	18.11	.....	15.42	15.20	15.37	15.34
2	18.16	18.25	17.94	.....	15.32	14.99	15.03	15.48
3	17.99	17.99	18.71	.....	15.29	14.84	14.98	15.64
4	18.16	18.02	17.83	.....	15.30	14.87	14.87	15.60
5	18.21	18.51	.....	.....	15.18	14.76	14.98	15.37
6	18.29	18.13	.....	.....	15.32	15.12	15.09	15.15
7	18.40	18.16	17.17	.....	15.27	15.86	14.96	15.24
8	18.13	18.30	17.99	18.70	.....	15.02	15.21	14.95	15.51
9	17.85	18.11	17.91	18.60	.....	15.09	15.06	15.10	.....
10	17.78	17.91	18.60	18.45	.....	15.04	14.93	15.18	.....
11	17.78	17.98	18.32	.....	.....	15.30	14.81	15.12	.....
12	18.09	18.09	18.31	.....	.....	15.24	15.08	15.26	.....
13	18.00	17.96	18.19	.....	.....	14.76	14.97	15.11	15.22
14	18.08	18.02	18.17	.....	.....	14.91	15.00	15.10	14.88
15	18.19	18.20	18.23	.....	.....	15.12	14.95	15.07	15.34
16	18.09	18.01	18.21	.....	.....	15.11	14.71	15.34	.....
17	17.86	18.08	18.21	.....	.....	15.23	14.76	15.39	.....
18	17.81	18.11	18.17	17.21	.....	15.30	14.95	15.35	.....
19	18.02	18.08	18.17	17.02	.....	15.27	14.87	15.47	15.42
20	17.84	18.06	17.95	17.06	.....	15.13	15.00	15.44	15.73
21	17.91	18.01	18.03	17.06	.....	15.20	15.80	15.44	15.10
22	18.08	18.26	17.95	16.80	.....	15.44	15.24	15.44	15.10
23	17.35	18.02	18.21	17.91	16.71	.....	15.19	15.34	15.13	15.15
24	17.65	18.08	18.16	18.03	16.66	.....	15.52	15.27	14.97	15.13
25	17.85	18.24	18.19	17.26	.....	.....	15.49	15.40	15.26	15.26
26	17.97	17.99	18.16	17.83	.....	.....	15.47	15.12	15.14	15.00
27	18.18	18.32	17.81	.....	15.18	15.20	15.20	15.37	15.19
28	17.93	18.29	17.85	.....	15.54	15.24	15.15	15.38	15.13
29	17.76	18.15	18.11	.....	15.36	15.64	15.04	15.63	15.86
30	17.75	17.87	18.05	.....	15.47	15.43	15.00	15.23	15.28
31	18.15	.....	.....	15.40	.....	15.28	.....	15.33

157.84.5cd1 (*840, p. 327; 845, p. 367; 886, p. 553; 908, p. 274; 938, p. 221; 946, p. 261; *988, p. 333; 1018, p. 254; 1025, p. 242; *1073, p. 338). U. S. 51. U. S. Dept. of Interior, Fish & Wildlife Service. No measurements made in 1947.

157.84.21cal (*840, p. 328; 845, p. 367; 886, p. 553; 908, p. 274; 938, p. 222; 946, p. 261; *988, p. 334; 1018, p. 254; 1025, p. 242; *1073, p. 338). U. S. Dept. of Interior, Fish & Wildlife Service. No measurements made in 1947.

157.84.21ddl (*840, p. 327; 845, p. 367; 886, p. 563; 908, p. 274; 938, p. 221; 946, p. 261; *988, p. 333; 1018, p. 254; 1025, p. 242; *1073, p. 338). U. S. Dept. of Interior, Fish & Wildlife Service. No measurements made in 1947.

160.89.31abl (*946, p. 261; *988, p. 333; 1018, p. 254; 1025, p. 242; *1073, p. 338). U. S. Dept. of Interior, Fish & Wildlife Service. No measurements made in 1947.

Wells County

147.70.23aal (*908, p. 275; 938, p. 222; 946, p. 262; *988, p. 334; 1018, p. 254; 1025, p. 246; *1073, p. 338). Hayden Jones. Water level, in feet below land-surface datum, 1947: Sept. 11, 5.89.

150.72.21cd1 (*817, p. 229; *840, p. 328; 845, p. 368; 886, p. 554; 908, p. 274; 938, p. 222; 946, p. 261; *988, p. 334; 1018, p. 254; 1025, p. 246; *1073, p. 338). City of Harvey. Water level, in feet below land-surface datum, 1947: Sept. 11, 2.11.

150.72.28bal (*840, p. 328; 845, p. 368; 886, p. 554; 908, p. 274; 938, p. 222; 946, p. 262; *988, p. 334; 1018, p. 254; 1025, p. 246; *1073, p. 338). City of Harvey. Water level, in feet below land-surface datum, 1947: Sept. 11, 15.95.

Williams County

157.96.29cd1 (*845, p. 369; 886, p. 555; 908, p. 276; 938, p. 223; 946, p. 262; *988, p. 335; 1018, p. 255; 1025, p. 246; *1073, p. 338). Mrs. Gus B. Swanson Estate. No measurements made in 1947.

159.103.24ad1 (*886, p. 554; 908, p. 275; 938, p. 223; 946, p. 262; *988, p. 334; 1018, p. 255; 1025, p. 246; *1073, p. 338). Hans O. Lottestad.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	27.12	Apr. 12	9.13	July 12	15.43	Oct. 5	22.53
19	27.18	19	8.74	23	16.70	20	22.73
26	27.39	26	9.63	26	17.33	27	23.48
Feb. 2	27.54	May 4	10.63	Aug. 2	17.97	Nov. 2	23.66
9	27.40	10	11.18	10	18.66	10	23.82
16	27.54	17	11.77	16	19.19	16	24.11
23	27.72	24	12.51	23	19.88	23	24.32
Mar. 2	27.96	31	12.97	31	20.40	30	24.53
9	29.09	June 7	13.68	Sept. 6	20.80	Dec. 6	24.70
16	29.32	15	14.71	13	21.01	12	24.88
23	29.48	23	14.81	21	21.71	21	25.12
29	25.58	29	14.56	27	22.05	27	25.38
Apr. 6	24.24	July 5	14.48				

159.103.24ad2 (*845, p. 368; 886, p. 555; 908, p. 275; 938, p. 223; 946, p. 262; *988, p. 334; 1018, p. 255; 1025, p. 246; *1073, p. 339). Hans O. Lottestad.

Water level, in feet below land-surface datum, 1947

Jan. 5	20.56	Feb. 9	21.04	Mar. 9	20.23	Apr. 6	18.05
19	20.53	16	20.89	16	20.35	12	8.46
26	20.69	23	19.98	23	20.55	19	6.07
Feb. 2	21.75	Mar. 2	20.06	29	19.70	26	7.00

159.103.24ad2--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 4	7.64	July 5	9.67	Sept. 6	14.33	Nov. 10	16.85
10	8.16	12	10.12	13	14.63	16	17.07
17	8.57	23	10.73	21	15.22	23	17.23
24	9.05	26	11.37	27	15.41	30	17.45
31	9.33	Aug. 2	11.88	Oct. 5	15.81	Dec. 6	17.63
June 7	9.65	10	12.47	20	16.25	12	17.81
15	10.06	16	13.00	27	16.56	21	18.05
23	9.54	23	13.45	Nov. 2	16.65	27	18.32
29	9.40	31	14.02				

WISCONSIN

By F. C. Foley

PROGRAM OF WORK

Measurements of water level in observation wells in Wisconsin were continued during 1947 and the program was expanded during the year. Measurements were started in 9 wells in 1934, in 10 wells in 1944 and in 77 wells in 1946. During the year 44 wells were added to the observation-well program and measurements were discontinued in 2 wells. Automatic water-stage recorders were installed on 8 wells during 1947, one was removed, and a total of 20 were in operation at the end of the year. Measurements of water levels in five wells in northern Wisconsin were made by the Wisconsin Conservation Department.

Investigation of the ground-water resources of Wisconsin in cooperation with the University of Wisconsin was continued during 1947 with emphasis on the artesian aquifers of the eastern part of the State.

FLUCTUATIONS OF WATER LEVEL

Precipitation in Wisconsin during 1947 averaged 29.99 inches which is 0.63 inch below average. The northern part of the State was considerably drier than the southern part with a recorded maximum of 7.94 inches below average at Park Falls.

Of 13 water-table wells in the northern half of Wisconsin, all showed a net lowering of water levels during 1947 ranging from 2.32 feet in well Mr 28, in Marathon County, to 0.09 foot in well Da-1, in Douglas County. The average for the 13 wells is a net lowering of 0.86 foot. Six water-table wells in the Coon Creek area, in Vernon and Monroe Counties, showed an average net rise in water levels of 0.29 foot. Four of the wells showed a net rise ranging from 0.13 foot to 1.06 feet and two showed a net lowering of 0.16 and 0.13 foot. Precipitation at LaCrosse was 0.80 inch above average, at Sparta, 0.06 inch below average, and at Viroqua, 3.25 inches above average. Fluctuations of water level in shallow water-table wells

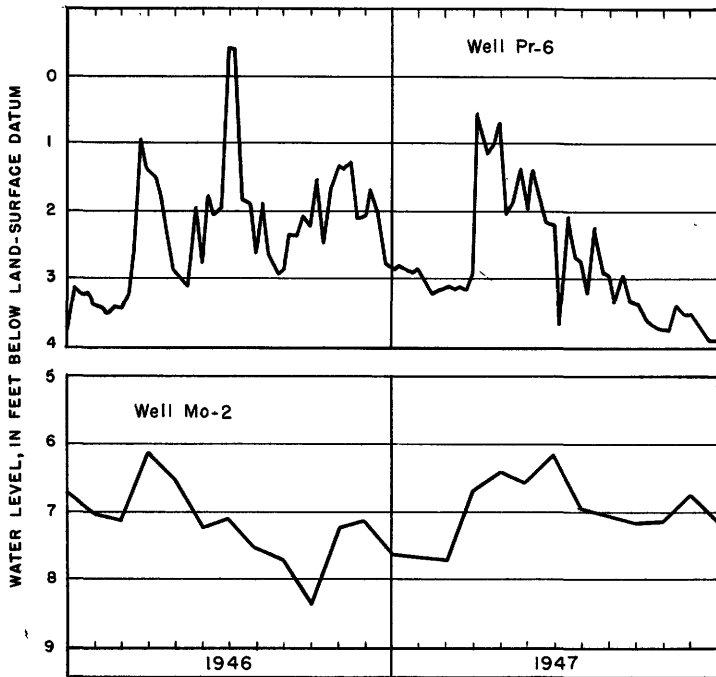


Figure 9.--Graph showing fluctuations of water levels in two water-table wells, Pr-6, at Park Falls, and Mo-2, near Cash-ton, Wis.

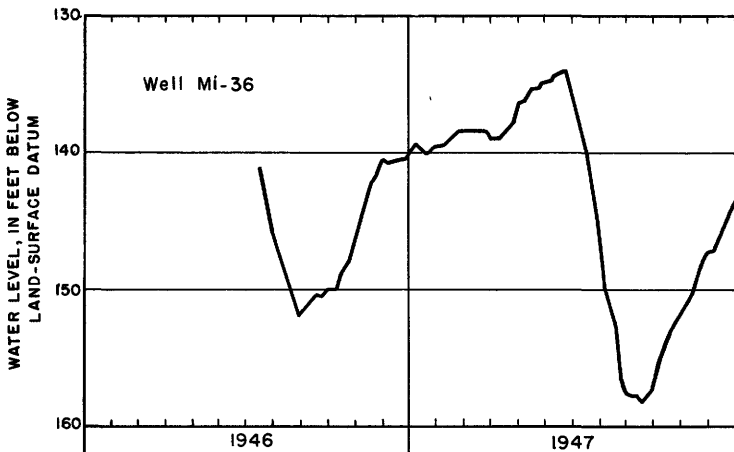


Figure 10.--Graph showing fluctuations of water level in well M1 36, a deep artesian well at 27th and Hopkins Sts., Milwaukee, Wis.

show a close relationship to precipitation. Figure 9 shows hydrographs of two representative water-table wells.

Water levels in deep artesian wells in the Milwaukee-Waukesha area were at approximately the same levels at the end of 1947 as they were at the end of 1946. There was seasonal fluctuation in 1947 ranging from about 9 to about 65 feet in the area, with the greatest fluctuation occurring in the downtown and industrial areas of Milwaukee where pumping was heaviest. Highest water levels in the area were recorded from May 10 to June 25, the range in dates depending largely on the proximity of the observation wells to wells pumped for air conditioning and cooling purposes. Lowest water levels were recorded between September 5 and 26. Recovery was rapid during late September and October, and then more gradual until the end of the year. Figure 10 shows the hydrograph of well M1 36, a representative artesian well in Milwaukee County.

One recorder-equipped deep well on the eastern edge of the city of Fond du Lac showed a net lowering of water level of 4.09 feet during 1947. The highest water level of the year was recorded on January 30 and the lowest on August 22. There was a general decline until mid-April, a slight recovery in late April and early May, a decline until the end of August, then a slow recovery until the end of the year. The total seasonal fluctuation was 6.69 feet with daily fluctuations of 0.5 to 1 foot due to pumping of the city and private wells, the nearest of which is about 0.4 mile away.

Well Bn 9, at 320 North Broadway, Green Bay, and owned by the Larson Canning Company, was equipped with an automatic water-stage recorder in August 1947. Static water level reached a low of 295.28 feet below land-surface datum on September 20. By the end of the year the water level had risen 68.98 feet to 226.30 feet below land-surface datum. Though the record is not complete for the year, undoubtedly the water level was lowest in September and highest prior to August.

Artesian wells away from the most heavily pumped areas showed nearly the same water levels at the end of 1947 as at the beginning. Well Ra 5, at Sturtevant in Racine County, showed a net lowering of water level during the year of 2.33 feet; wells Dg 9 and Dg 10, in Ashippun in Dodge County, showed net rises of 3.55 and 1.99 feet; well Mt 5, in Peshtigo in Marinette County, showed a net rise of 1.32 feet.

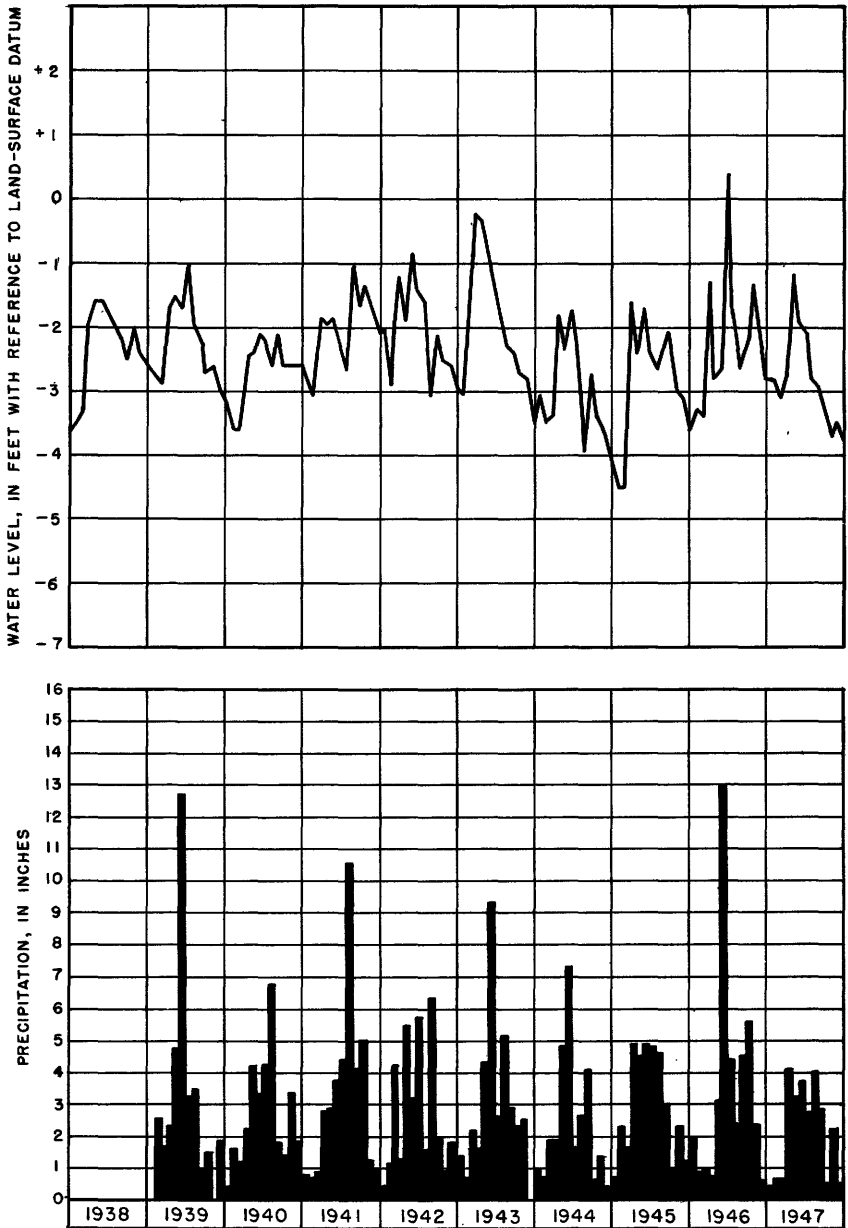


Figure 11.--Graph showing fluctuations of water level in well Pr-6, at Park Falls, Price County, Wis., and precipitation at the well site, 1938-47.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Ashland County

As 1 (*988, p. 351; 1018, p. 272; 1025, p. 255; 1073, p. 341). Lake Superior District Power Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 47 N., R. 4 W., 6 miles south of Ashland, near power dam.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	2.19	May 19	2.45	July 7	3.30	Oct. 15	3.35
14	1.83	26	2.40	14	3.30	Nov. 1	3.25
21	2.20	June 10	2.45	21	3.25	Dec. 1	3.05
28	2.20	16	2.20	Sept. 15	3.55	12	2.95
May 5	2.20	24	2.75	Oct. 1	3.35	31	3.10
12	2.45	30	3.10				

Brown County

Bn 8 (*1073, p. 341). Wisconsin Public Service. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 24 N., R. 21 E. Measurements discontinued after June 18, 1947.

Daily high and low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	January		February		March	
	High	Low	High	Low	High	Low
1	119.94	121.33	115.93	116.68	.....	.....
2	119.13	121.21	115.07	116.34	117.84	118.68
3	118.59	119.49	114.67	116.04	117.58	119.02
4	117.52	118.72	115.12	116.58	118.31	119.41
5	117.16	117.83	115.28	116.33	118.51	119.60
6	116.91	118.43	115.20	116.15	118.72	119.71
7	117.73	119.20	115.01	116.21	118.53	119.72
8	118.56	119.97	115.13	116.08	118.23	119.33
9	117.87	118.99	115.09	115.80	118.37	119.01
10	.....	.....	114.95	116.00	118.17	119.21
11	.....	.....	115.27	116.36	118.48	119.38
12	.....	.....	115.57	116.60	118.56	119.50
13	.....	.....	115.48	116.91	118.70	119.62
14	.....	.....	116.47	117.94	118.13	119.16
15	.....	.....	117.12	118.20	118.18	119.08
16	.....	.....	117.34	118.26	117.82	118.62
17	.....	.....	117.44	118.75	117.71	118.80
18	116.42	117.59	118.08	119.38	117.90	118.95
19	116.07	117.00	118.34	119.40	117.85	118.80
20	116.74	117.68	118.38	119.38	117.92	119.01
21	116.88	117.89	118.12	119.19	.....	.....
22	116.82	117.88	118.95	119.09	118.43	118.55
23	116.27	116.87	117.90	118.73	118.00	118.82
24	115.80	117.02	117.79	119.08	117.83	118.94
25	115.91	116.69	118.31	119.39	118.07	119.11
26	115.76	117.42	118.62	119.53	118.11	118.98
27	116.90	117.65	118.69	119.68	118.32	118.65
28	116.70	117.65	.....	.....	118.23	118.94
29	116.29	117.45			117.97	118.99
30	115.85	117.11			117.82	118.68
31	.....	.....			117.58	118.61

Daily high and low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	April		May		June	
	High	Low	High	Low	High	Low
1	118.10	118.77	117.26	118.48	117.94	118.90
2	117.82	119.10	117.22	118.63	117.68	119.28
3	118.24	121.10	117.41	118.68	118.37	119.62
4	117.92	118.81	117.03	118.27	118.70	119.68
5	117.59	118.38	116.99	118.62	118.27	119.76

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	April		May		June	
	High	Low	High	Low	High	Low
6	117.10	118.08	117.47	118.98	118.71	120.17
7	117.21	118.48	117.81	119.13	118.96	120.20
8	117.47	118.01	117.95	119.23	119.10	120.06
9	117.68	118.76	.....	.....	118.69	120.92
10	117.39	118.12	.....	.....	119.05	123.50
11	117.07	118.30	117.25	118.32	120.50	127.05
12	117.52	118.63	117.03	118.70	112.27	121.09
13	117.23	118.22	117.48	118.94	111.50	122.69
14	117.13	118.48	117.77	118.99	111.30	127.31
15	117.36	118.61	117.75	118.86	110.48	113.69
16	117.38	118.69	117.77	119.10	110.06	114.33
17	.....	.....	117.91	118.41	111.27	127.23
18	.....	.....	117.49	118.39	111.45	.....
19	.....	.....	117.51	118.47	.....	.....
20	.....	.....	117.75	118.35	.....	.....
21	.....	.....	117.77	119.07	.....	.....
22	.....	.....	118.01	119.31	.....	.....
23	.....	.....	118.24	119.69	.....	.....
24	.....	.....	118.53	119.55	.....	.....
25	117.43	118.88	118.03	119.12	.....	.....
26	117.41	118.22	117.84	119.53	.....	.....
27	117.18	118.43	118.58	119.78	.....	.....
28	116.96	118.34	118.65	119.58	.....	.....
29	117.02	118.38	118.12	119.41	.....	.....
30	117.27	118.72	118.25	119.22	.....	.....
31			118.12	119.37		

En 9. Larson Canning Co. 320 North Broadway, Green Bay. Unused drilled industrial well, diameter 8 inches, depth 800 feet. Measuring point, top of wood recorder base, 5.0 feet below land-surface datum. Water-stage recorder maintained on well since Aug. 12, 1947.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

[illegible]

Bn 11. City of DePere. Corner of Broadway and George Streets. Used drilled public-supply well, diameter 12 inches, depth 835 feet. Measuring point, top of breather hole in pump base, 6.0 feet below land-surface datum. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	87.70	May 28	86.52	July 22	88.32	Oct. 14	101.24
Apr. 14	86.71	June 24	87.15	Sept. 16	98.75	Dec. 2	101.58
May 12	85.32						

Bn 12. City of DePere. On Reid Street. Unused drilled public-supply well, diameter 8 inches, depth 800 feet. Measuring point, top of breather hole in pump base, 2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	74.87	May 28	74.15	Aug. 18	83.40	Oct. 14	87.99
Apr. 14	72.18	June 24	74.39	Sept. 16	86.26	Dec. 2	86.85
May 12	73.28	July 22	77.53				

Bn 13. William Herber. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 24 N., R. 20 E. Used drilled stock well, diameter 6 inches, depth 250 feet. Measuring point, top of hole in pump base, 0.1 foot above top of casing and 1.0 foot above land-surface datum. Equipped with cylinder pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	13.04	June 25	12.13	Aug. 19	14.91	Oct. 14	15.68
May 13	12.45	July 22	13.55	Sept. 17	15.35	Dec. 3	15.38
28	12.33						

Bn 14. Village of Pulaski. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 25 N., R. 19 E. Used drilled public-supply well, diameter 12 inches, depth 330 feet. Measuring point, top of breather hole in pump base, 1.0 foot above land-surface datum. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	33.31	June 25	35.01	Aug. 19	33.00	Oct. 15	33.57
May 13	32.34	July 23	34.02	Sept. 18	34.48	Dec. 4	33.93
29	31.89						

Bn 15. Larsen Canning Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 N., R. 19 E. Unused drilled well, diameter 6 inches, depth 500 feet. Measuring point, after Oct. 14, 1947, inside edge of thread on elbow of 2-inch pipe standing within casing, 1.80 feet above land-surface datum. Water levels, in feet with reference to land-surface datum, 1947: Aug. 19, +0.03; Sept. 17, -1.50; Oct. 14, -2.43; Dec. 3, -3.43.

Bn 16. Larsen Canning Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 24 N., R. 19 E. Used drilled domestic and stock well, diameter 8 inches, depth 300 feet. Measuring point, top of 8-inch coupling on casing, 1.0 foot above land-surface datum. Equipped with centrifugal pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	6.72	June 26	3.40	Aug. 19	6.89	Oct. 14	13.24
May 13	3.98	July 22	5.83	Sept. 17	10.85	Dec. 3	12.45
28	4.30						

a Pumping.

Buffalo County

Bf 1. Owner unknown. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 21 N., R. 12 W. Unused drilled domestic well, diameter 4 inches, depth unknown. Measuring point, top of casing, 1.5 feet above land-surface datum. Equipped with hand pump. Water levels, in feet below land-surface datum, 1947: Oct. 17, 30.45; Nov. 7, 30.38; Dec. 31, 30.62.

Burnett County

Bt 2 (*840, p. 642; 845, p. 716; *1073, p. 342). Wisconsin Conservation Department. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 39 N., R. 16 W. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	32.82	Apr. 30	32.79	July 31	33.21	Oct. 31	33.35
Feb. 28	32.93	May 31	33.09	Aug. 31	33.31	Nov. 30	33.33
Mar. 31	33.08	June 30	33.03	Sept. 29	33.30	Dec. 31	33.41

Calumet County

Ca 1 (*1073, p. 343). Carnation Milk Co. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 18 N., R. 20 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 12	53.16	May 12	53.54	July 21	52.49	Oct. 13	52.34
24	52.60	26	52.40	Aug. 18	52.50	Dec. 1	52.50
Apr. 14	52.44	June 23	52.21	Sept. 15	53.34		

Ca 4. Harold Krueger. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 20 N., R. 19 E. Unused drilled well, diameter 12 inches, depth 518 feet. Measuring point, top of casing, 1.0 foot above land-surface datum, and 845 feet above mean sea level. Equipped with hand pump. Water level, in feet below land-surface datum, 1947: Oct. 30, 26.34.

Ca 5. R. A. Huebner. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 20 N., R. 20 E. Used drilled domestic and stock well, diameter 6 inches, depth 327 feet. Measuring point, top of wood base under pump, 1.0 foot above land-surface datum. Equipped with lift pump. Water level, in feet below land-surface datum, 1947: Oct. 30, 97.27.

Dane County

Dn 1 (*1073, p. 343). Robert Tollafson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 7 N., R. 6 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Mar. 27	48.55	May 21	45.74	July 16	44.05
Apr. 24	46.91	June 16	43.47		

Dn 3 (*1073, p. 343). Gerald Hendrickson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 5 N., R. 8 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	67.26	June 14	65.07	Sept. 6	65.04	Dec. 2	66.27
Apr. 23	66.48	July 16	63.39	Oct. 9	65.62	23	67.46
May 21	66.00	Aug. 14	63.65	Nov. 3	65.91		

Dn 4 (*1073, p. 343). J. N. Hanley. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 9 N., R. 11 E.

Daily low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	48.42	47.40	45.51	44.45	41.56	41.70	42.51	43.01	.....	44.63
2	48.43	47.30	45.52	44.79	41.62	41.64	42.56	42.90	.....	44.64
3	48.4f	47.27	45.47	44.82	41.52	41.73	42.60	42.85	.....	44.89
4	48.38	48.64	47.25	45.31	44.66	41.42	41.69	42.60	42.96	43.82	44.89
5	48.34	48.69	47.02	45.19	44.52	41.39	41.65	42.45	42.99	44.01	44.73
6	48.23	48.71	46.55	45.24	44.51	41.53	41.70	42.47	43.04	44.05	44.77
7	48.41	48.67	45.56	45.39	44.46	41.59	41.84	42.65	43.18	43.88	44.60
8	48.56	48.64	46.37	45.37	44.44	41.59	41.88	42.60	43.23	44.01	44.96
9	48.57	48.66	46.65	45.38	44.37	41.52	41.85	42.49	43.23	44.24	44.95

Dn 4--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	48.66	48.63	46.53	45.32	44.25	41.41	41.86	42.40	43.22	44.23	44.74
11	48.71	48.47	44.36	45.21	44.54	41.42	41.91	42.45	43.17	44.15	44.88
12	48.73	48.29	46.27	44.99	44.54	41.46	41.92	42.45	43.30	44.32	44.89
13	48.63	48.03	46.40	45.04	44.28	41.47	41.86	42.33	43.35	44.37	44.87
14	48.58	47.37	46.29	45.09	38.89	41.40	41.98	42.54	43.26	44.32	44.60
15	48.60	47.62	46.29	45.03	41.29	41.46	42.07	42.58	43.32	44.10	44.73
16	48.60	47.59	46.12	45.11	42.04	41.49	41.90	42.63	43.31	44.48	44.96
17	48.42	47.66	45.98	45.03	42.59	41.46	41.90	42.71	43.29	44.52	44.91
18	48.47	47.73	46.08	44.94	42.72	41.56	42.15	42.70	43.42	44.45	45.03
19	48.43	47.73	46.11	44.92	42.66	41.58	42.17	42.67	43.50	44.48	45.08
20	48.29	47.64	45.97	45.01	42.45	41.52	42.20	42.60	43.50	44.50	45.00
21	48.26	47.59	45.99	44.91	42.29	41.63	42.26	42.76	43.53	44.47	45.02
22	48.25	47.59	45.91	44.95	42.16	41.65	42.26	42.93	43.61	44.48	44.95
23	48.19	47.31	45.85	45.02	41.99	41.64	42.24	42.71	43.77	44.45	45.09
24	48.33	45.71	45.38	45.01	41.84	41.72	42.29	42.91	43.74	44.51	45.11
25	48.39	45.34	45.81	44.86	41.71	41.69	42.37	42.97	43.74	44.45	44.90
26	48.41	47.40	45.71	44.95	41.64	41.62	42.39	43.02	43.69	44.51	44.98
27	48.44	47.38	45.78	44.95	41.53	41.60	42.38	42.99	43.58	44.56	45.03
28	49.70	48.47	47.24	45.67	44.98	41.61	41.65	42.51	42.79	43.77	44.69	45.12
29	49.51		47.47	45.53	44.81	41.62	41.62	42.51	43.11	43.80	44.84	45.04
30		47.49	45.52	43.40	41.41	41.63	42.52	43.12	.....	44.84	45.10
31		43.83		41.75	42.58	.....	.....	.....	45.14

Dn 5 (*1073, p. 343). State of Wisconsin. In State Capitol building, in basement of southwest wing.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	101.63	Apr. 14	98.13	July 3	94.90	Sept. 26	94.94
Mar. 18	100.11	May 12	100.07	31	96.73	Oct. 23	94.55
24	99.62	June 5	94.08	Aug. 28	97.06	Dec. 11	91.36

Dodge CountyDg 3 (*1073, p. 343). A. A. Corrigan. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 15, T. 13 N., R. 13 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	7.77	May 29	8.80	July 23	8.72	Sept. 18	10.31
May 13	8.97	June 26	7.78	Aug. 21	9.61	Oct. 15	10.33

Dg 4. City of Horicon. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 11 N., R. 16 E. Unused drilled public-supply well, diameter 8 inches, depth 650 feet. Measuring point, top of casing, 5.0 feet below land-surface datum and 975.12 feet above mean sea level. Water-stage recorder maintained on well since Aug. 5, 1947.

Daily low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	.....	117.37	118.04	116.99
2	.....	.....	117.09	117.14	117.08
3	.....	.....	117.22	117.32	117.50
4	.....	.....	117.93	117.28	117.21
5	.....	.....	117.27	117.16	116.62
6	.....	.....	117.69	117.42	117.07
7	.....	116.71	117.29	117.36	116.52
8	117.09	117.67	117.06	116.78	116.39
9	116.98	117.21	117.30	117.01	116.71
10	116.73	117.93	117.98	117.54	116.77
11	116.84	117.40	117.35	117.14	116.42
12	116.97	117.94	117.17	117.34	116.92
13	117.10	117.13	117.14	117.33	116.83
14	117.21	117.11	117.88	117.78	116.23

Dg 4--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Aug.	Sept.	Oct.	Nov.	Dec.
15	117.17	117.76	118.29	117.41	116.65
16	116.93	117.49	117.64	116.92	116.96
17	117.25	118.51	118.29	117.22	116.35
18	117.28	118.01	117.53	117.13	117.10
19	117.30	117.93	117.65	117.08	116.56
20	117.67	117.54	118.07	117.55	116.83
21	117.91	116.99	117.55	117.10	116.50
22	.....	116.84	117.61	116.66	116.92
23	.....	116.80	118.32	116.78	116.65
24	.....	117.45	118.40	117.04	117.07
25	117.07	116.97	117.69	116.85	116.45
26	117.70	116.97	117.44	117.55	116.90
27	117.07	116.90	117.27	116.99	116.32
28	117.82	116.67	118.00	116.82	116.61
29	117.52	116.77	117.39	117.29	116.41
30	117.25	116.79	117.40	116.90	116.86
31	117.16		117.50		116.94

Dg 9 (*1073, p. 343). Ashippun Fire Department. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30,
T. 9 N., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 3	6.70	June 5	4.83	Aug. 27	8.56	Nov. 19	6.99
Apr. 16	5.79	July 3	6.23	Sept. 24	6.75	Dec. 11	6.73
May 14	5.70	30	6.83	Oct. 22	9.30		

Dg 10 (*1073, p. 343). Ashippun Fire Department. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30,
T. 9 N., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	10.75	June 5	9.00	Aug. 27	9.81	Nov. 19	9.65
Apr. 16	10.09	July 3	9.18	Sept. 24	9.99	Dec. 11	9.38
May 14	9.80	30	9.28	Oct. 22	9.76		

Dg 11 (*1073, p. 344). F. C. Etscheid. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 9 N.,
R. 13 E.Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	46.31	47.24	47.62	45.95	40.67	.....	23.04	29.46	39.11	36.10	36.99	38.43
2	46.17	47.27	47.64	45.94	40.44	.....	23.25	29.55	39.14	35.91	37.01	38.44
3	46.33	.....	47.73	45.93	40.34	28.95	23.39	29.89	39.04	36.07	37.08	38.57
4	46.33	.....	47.85	45.76	39.98	28.45	23.66	30.11	39.05	36.26	37.14	38.57
5	46.12	.....	47.90	45.56	39.89	27.88	24.00	30.31	39.07	36.28	37.44	38.56
6	46.16	47.00	47.93	45.66	39.72	27.66	24.32	30.72	38.96	36.44	37.55	38.40
7	46.18	47.05	47.87	45.67	.....	27.42	24.51	30.98	38.69	36.56	37.45	38.22
8	46.42	47.18	47.83	45.39	.....	27.32	24.76	31.14	38.40	36.65	37.45	38.42
9	46.54	47.22	47.91	45.04	.....	27.15	25.08	31.34	38.16	36.59	37.55	38.43
10	46.44	47.32	47.91	44.81	.....	26.88	25.37	31.62	37.97	36.40	37.55	38.23
11	46.46	47.39	47.85	44.41	.....	26.92	25.65	31.80	37.92	36.12	37.60	38.15
12	46.53	47.40	47.74	44.53	.....	26.91	25.87	32.10	37.93	36.34	37.70	38.09
13	46.42	47.34	47.54	44.43	37.90	26.54	26.10	32.38	37.85	36.43	37.80	38.09
14	46.46	47.30	47.35	43.95	37.86	.....	26.41	32.74	37.51	36.45	37.81	37.94
15	46.74	47.35	47.33	42.89	37.63	.....	26.49	33.36	37.43	36.54	37.86	38.01
16	46.70	47.45	47.32	43.55	37.36	.....	26.58	33.46	37.34	36.59	38.26	38.17
17	46.70	47.48	47.22	43.28	36.94	20.89	26.77	33.87	37.20	36.65	38.34	38.16
18	46.73	47.63	47.21	43.11	.....	20.59	27.10	34.51	37.01	36.72	38.27	38.24
19	46.60	47.63	47.14	43.00	.....	20.55	27.24	35.05	37.01	36.85	38.27	38.19
20	46.62	47.53	47.00	42.79	35.62	20.59	27.42	35.45	36.96	36.97	38.38	38.23
21	46.92	47.51	46.82	42.66	34.94	20.65	27.91	36.01	36.95	37.11	38.47	38.26
22	46.92	47.53	46.82	42.46	34.49	20.85	27.96	36.54	37.04	37.27	38.60	38.11
23	46.65	47.49	46.51	42.18	34.09	21.31	27.93	37.12	36.94	37.50	38.61	38.21

Dg 11--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	46.71	47.61	46.41	42.14	33.61	21.53	28.06	37.87	36.69	37.51	38.47	38.22
25	46.73	47.69	46.43	41.91	33.03	21.73	28.16	38.33	36.64	37.43	38.53	38.16
26	46.73	47.65	46.43	41.58	32.66	21.87	28.49	38.48	36.34	37.35	38.67	38.21
27	46.98	47.64	46.34	41.40	32.49	22.14	28.86	38.53	36.29	36.98	38.67	38.28
28	47.07	47.65	46.11	41.32	32.07	22.58	28.94	38.68	36.30	36.89	38.63	38.34
29	46.95		46.16	40.93	31.44	22.88	29.89	38.79	36.35	36.89	38.75	38.31
30	46.89		46.18	40.75	.....	22.88	29.25	38.88	36.35	36.73	38.77	38.61
31	47.17		46.09	.....	.....		29.46	39.07		36.86		38.70

Dg 12 (*1073, p. 344). Baker Canning Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 12 N., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	43.16	June 4	44.70	Sept. 24	50.06	Nov. 17	46.59
Apr. 14	42.75	July 2	50.99	Oct. 20	47.04	Dec. 11	46.30
May 12	47.33	Aug. 27	55.96				

Dg 14 (*1073, p. 344). Chicago & Northwestern Railroad. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 10 N., R. 15 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	a 50.91	June 4	44.92	Aug. 27	47.07	Nov. 19	45.83
Apr. 14	a 46.32	July 2	44.11	Sept. 24	51.90	Dec. 11	46.92
May 12	44.99	30	48.08	Oct. 22	49.83		

a Pumped recently.

Dg 15 (*1073, p. 344). Mayville Construction Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 12 N., R. 16 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	20.59	June 4	20.49	Aug. 27	21.00	Nov. 17	20.77
Apr. 14	20.42	July 2	20.86	Sept. 24	21.00	Dec. 11	20.09
May 12	20.66	30	20.21	Oct. 10	21.28		

Door CountyDr 5 (*1073, p. 344). City of Sturgeon Bay. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 27 N., R. 26 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	7.85	May 12	1.90	July 22	2.70	Oct. 14	5.78
Mar. 24	3.21	27	2.35	Aug. 19	5.10	Dec. 2	6.58
Apr. 14	.44	June 24	1.35	Sept. 16	6.30		

Dr 7 (*1073, p. 344). Fred Peterson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 29 R. 27 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	36.92	May 12	35.54	July 22	46.38	Oct. 14	46.41
Mar. 24	12.18	28	38.52	Aug. 19	43.10	Dec. 2	46.45
Apr. 14	28.49	June 24	39.04	Sept. 16	46.31		

Douglas CountyDs 1 (*840, p. 642; 845, p. 715; 1073, p. 344). Wisconsin Conservation Department. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 47 N., R. 10 W. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	28.20	Apr. 26	28.20	July 26	28.26	Oct. 25	28.25
Feb. 22	28.23	May 31	28.24	Aug. 30	28.27	Nov. 29	28.23
Mar. 29	28.37	June 28	28.21	Sept. 27	28.27	Dec. 27	28.26

Fond du Lac County

FL 10 (*1073, p. 345). City of Fond du Lac. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 15 N., R. 17 E.

Daily low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	45.89	46.13	47.07	48.69	48.47	48.53	49.53	50.09	50.21	50.69	49.87	.....
2	46.17	45.86	46.66	48.75	48.49	48.75	49.60	49.75	50.61	50.12	49.43	49.76
3	46.38	45.88	46.92	48.98	48.55	48.99	49.88	49.46	50.94	50.40	49.88	49.91
4	.....	46.18	47.25	48.85	48.17	48.98	49.71	50.02	50.96	50.33	49.66	50.03
5	.....	46.14	47.40	48.64	48.38	48.95	49.94	50.59	51.13	50.41	49.81	49.87
6	.....	46.10	47.63	48.44	48.57	49.13	49.44	50.73	51.34	50.67	50.01	49.77
7	46.38	46.20	47.71	48.78	48.56	49.29	49.79	50.59	51.28	50.85	49.61	49.25
8	46.40	46.52	47.77	48.90	48.81	48.85	49.81	50.80	51.29	50.83	.....	49.47
9	46.46	46.03	47.41	49.00	48.83	49.04	49.93	50.71	51.33	50.91	.....	50.03
10	46.24	46.43	47.82	48.79	48.83	49.16	49.92	49.93	51.37	50.83	.....	50.01
11	46.23	46.63	47.89	48.92	48.40	49.46	49.90	50.40	51.37	50.92	49.80	49.86
12	45.95	46.74	47.48	49.26	48.53	49.59	50.06	50.71	51.39	50.57	49.71	49.94
13	45.97	46.58	47.18	48.60	48.51	49.16	49.97	50.88	.....	50.27	49.92	.....
14	46.15	46.43	47.74	48.72	48.76	49.19	49.93	50.86	50.93	50.53	50.02	.....
15	46.35	46.65	48.02	48.97	48.42	48.82	50.14	50.65	51.14	50.25	49.61	.....
16	46.29	46.31	47.71	48.80	48.73	48.95	50.22	50.72	51.16	50.61	49.33	50.02
17	46.27	46.49	47.97	48.71	48.75	48.95	50.31	50.30	51.11	50.88	49.48	49.83
18	46.35	.....	48.24	48.86	48.27	49.21	50.25	50.66	51.17	50.28	49.77	50.23
19	45.90	.....	48.30	48.90	48.57	49.27	50.23	51.23	51.24	49.87	49.90	50.46
20	45.92	.....	48.17	48.51	48.48	49.17	49.75	51.42	51.25	50.02	50.44	50.42
21	.....	.....	48.33	48.57	48.77	49.42	49.99	51.09	50.81	50.56	50.05	49.94
22	.....	.....	48.39	48.61	48.79	48.96	50.04	51.66	51.07	50.95	49.95	49.89
23	.....	.....	48.07	48.56	48.73	49.14	50.11	51.53	50.96	50.53	49.49	50.08
24	.....	.....	48.22	48.71	48.94	49.35	50.21	51.28	51.08	51.06	49.32	50.16
25	.....	46.85	48.53	48.80	.....	49.29	49.69	51.17	51.02	50.43	49.58	49.73
26	.....	46.93	48.66	48.70	48.72	49.32	49.80	52.01	50.99	49.81	49.62	49.46
27	.....	47.00	48.69	48.38	48.76	49.30	49.31	51.92	50.31	49.72	49.42	49.67
28	46.41	47.12	48.58	48.54	48.85	49.64	49.35	52.13	50.04	50.45	49.44	49.40
29	46.25	.....	48.96	48.47	48.83	49.27	49.56	51.77	50.57	50.74	.....	49.57
30	45.86	.....	48.71	48.47	48.92	49.45	50.09	52.01	50.88	50.49	.....	49.74
31	46.07	.....	48.83	.....	48.71	.....	50.49	50.55	.....	50.23	.....	49.98

FL 16 (*1073, p. 345). Mrs. Amanda Kohn. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 13 N., R. 18 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	4.20	June 2	5.65	Aug. 25	8.14	Nov. 18	6.95
Apr. 14	5.35	30	7.16	Sept. 23	7.20	Dec. 9	6.94
May 12	6.58	July 28	7.72	Oct. 21	7.95		

Grant County

Gr 1 (*1073, p. 345). Carl Doeringfeld. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	10.01	Feb. 24	9.02	Apr. 7	6.05	May 12	9.01
27	9.06	Mar. 10	8.03	21	8.05	26	9.02
Feb. 10	10.01	24	8.97	May 5	8.01	July 16	8.64

Gr 2 (*1073, p. 345). Carl Doeringfeld. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	5.03	Feb. 24	5.01	Apr. 7	2.01	May 12	3.99
27	4.03	Mar. 10	3.98	21	3.01	26	3.99
Feb. 10	5.03	24	3.98	May 5	3.00	July 16	2.26

Gr 3 (*1073, p. 346). Chester H. Graham. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 6 N., R. 2 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13	19.86	Feb. 24	19.80	Apr. 7	19.77	May 12	17.83
27	19.85	Mar. 10	19.84	21	19.85	26	17.84
Feb. 10	19.86	24	19.80	May 5	17.86	July 16	18.88

Gr 4 (*1073, p. 346). Henry Jones Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 6 N., R. 1 W.

Water level, in feet below land-surface datum, 1947

Mar. 20	65.28	June 16	64.67	Sept. 7	62.32	Dec. 3	62.82
Apr. 24	65.16	July 16	63.31	Oct. 10	62.22	24	62.96
May 21	64.95	Aug. 14	61.92	Nov. 4	62.22		

Gr 5 (*1073, p. 346). Clarence Gratz. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 5 N., R. 2 W.

Water level, in feet below land-surface datum, 1947

Mar. 20	14.98	June 16	8.91	Sept. 7	10.60	Dec. 3	12.97
Apr. 24	12.48	July 16	8.90	Oct. 10	11.80	24	13.65
May 21	13.01	Aug. 14	9.87	Nov. 4	12.40		

Green County

Gn 1 (*1073, p. 346). Charles Segner. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 2 N., R. 7 E.

Water level, in feet below land-surface datum, 1947

Mar. 19	60.29	June 15	56.06	Sept. 6	60.73	Dec. 2	62.75
Apr. 23	55.10	July 16	58.12	Oct. 9	61.94	23	62.08
May 21	59.87	Aug. 14	60.02	Nov. 3	63.63		

Gn 2 (*1073, p. 346). Earl Waddington. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 3 N., R. 6 E.

Water level, in feet below land-surface datum, 1947

Mar. 19	136.30	June 15	133.90	Sept. 6	134.61	Dec. 3	134.45
Apr. 23	136.02	July 16	135.36	Oct. 9	134.34	23	134.53
May 21	136.11	Aug. 14	134.84	Nov. 3	134.17		

Gn 3. Owner unknown. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 2 N., R. 7 E. Unused drilled domestic well, diameter 6 inches, depth 103 feet. Measuring point, top of bent edge of casing on north side, at land-surface datum. Equipped with hand pump.

Water level, in feet below land-surface datum, 1947

Mar. 19	32.79	June 14	32.62	Sept. 6	33.17	Dec. 2	33.72
Apr. 23	31.72	July 16	32.43	Oct. 9	33.38	23	33.82
May 21	32.59	Aug. 14	32.90	Nov. 3	33.47		

Iowa County

Iw 1 (*1073, p. 346). Raymond Crook. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 7 N., R. 3 E.

Water level, in feet below land-surface datum, 1947

Apr. 24	31.70	June 16	30.42	Aug. 14	32.08	Oct. 10	32.18
May 21	32.14	July 16	31.30	Sept. 7	33.20	Nov. 4	31.96

a Pumping.

Jackson County

Ja 1. L. Epstein. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 20 N., R. 2 E. Used drilled domestic well, diameter 6 inches, depth 140 feet. Measuring point, top of casing, 5.0 feet below land-surface datum. Equipped with electric pump. Water levels, in feet below land-surface datum, 1947: Oct. 15, 15.90; Nov. 11, 15.82.

Jefferson County

Je 1 (#1073, p. 346). Owner unknown. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 6 N., R. 13 E. Measuring point to July 2, 1947, top of 1 $\frac{1}{2}$ -inch drive pipe on south side, 3.5 feet above land-surface datum, since July 2, 1947, top of 1-inch connection, 0.7 foot below land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	2.57	June 5	1.63	Aug. 27	3.61	Oct. 22	3.84
Apr. 16	1.56	July 3	1.86	Sept. 24	3.48	Nov. 19	3.17
May 14	2.14	30	2.68				

Je 7 (#1073, p. 347). Village of Johnson Creek. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 7 N., R. 14 E.

Water level, in feet with reference to land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	-2.84	May 14	-3.47	Aug. 27	-3.44	Nov. 19	-3.88
Mar. 25	-3.52	July 3	+3.35	Sept. 24 a	-3.01	Dec. 11	-3.17
Apr. 16	-1.44	30	-2.34	Oct. 22	-3.48		

a Pumped recently.

Je 9 (#1073, p. 347). Chicago & Northwestern Railroad. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 7 N., R. 14 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	22.06	June 5	24.46	Aug. 27	29.78	Nov. 19	18.95
Apr. 16	26.45	July 30	29.34	Sept. 24	22.29	Dec. 11	16.41
May 14	28.34						

Kenosha County

Ke 1 (#1073, p. 347). Standard Products Laboratories. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 1 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 10	50.00	Aug. 7 a	60.51	Sept. 24	61.51	Dec. 3	59.30
May 7	56.92	Sept. 3	53.68	Oct. 29	59.44	17	46.63
June 11	49.16						

a Nearby well pumping.

Ke 3 (#1073, p. 347). Stanley Ruzicki and William Schutzen. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 1 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	100.25	June 11	98.20	Sept. 3	99.35	Dec. 3	95.80
Apr. 10	98.20	July 9	98.62	24	100.07	17	97.02
May 7	98.11	Aug. 7	98.23	Oct. 29	97.01		

Ke 4 (#1073, p. 347). Sunset Ridge Memorial Park. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 2 N., R. 22 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	75.53	June 11	74.56	Sept. 3	76.41	Oct. 29	75.89
Apr. 10	76.43	July 10	74.41	24	76.38	Dec. 17	75.18
May 7	75.25	Aug. 7	75.48				

Ke 5 (*1073, p. 347). J. Bishop. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 2 N., R. 22 E.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	2.64	June 11	2.58	Sept. 3	4.93	Dec. 3	3.22
Apr. 10	1.73	July 9	3.64	24	3.90	17	3.00
May 7	3.22	Aug. 7	4.80	Oct. 29	4.03		

Ke 6 (*1073, p. 348). Kenosha County. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 2 N., R. 22 E.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	25.14	June 11	25.18	Sept. 4	25.75	Dec. 3	21.10
Apr. 10	25.00	July 10	25.37	24	26.90	18	26.77
May 7	25.49	Aug. 7	26.58	Oct. 29	27.27		

Lafayette County

Lf 1 (*1073, p. 348). Erickson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 3 N., R. 5 E.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 23	19.67	July 16	20.70	Oct. 10	22.09	Dec. 3	22.16
May 21	20.44	Aug. 14	21.24	Nov. 4	23.00	24	21.49
June 15	16.00	Sept. 6	21.45				

Lf 10. Owner unknown. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 2 N., R. 1 E. Unused drilled domestic well, diameter 6 inches, depth unknown. Measuring point, top edge of casing on south side, at land surface. Equipped with hand pump.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	20.99	June 16	15.20	Sept. 7	18.05	Dec. 3	20.18
Apr. 24	18.40	July 16	16.30	Oct. 10	18.92	24	20.17
May 21	18.74	Aug. 14	17.51	Nov. 4	19.33		

Lf 11. Owner unknown. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 2 N., R. 1 E. Unused drilled domestic well, diameter 6 inches, depth unknown. Measuring point, edge of pump base at east side, 1.0 foot above land-surface datum. Equipped with hand pump.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	30.25	June 16	24.00	Sept. 7	24.90	Dec. 3	26.77
Apr. 24	28.32	July 16	23.40	Oct. 10	25.47	24	27.04
May 21	26.86	Aug. 14	24.16	Nov. 4	26.00		

Lf 12. Owner unknown. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 2 N., R. 4 E. Unused drilled domestic well, diameter 6 inches, depth unknown. Measuring point, top edge of casing on east side, 0.5 foot above land-surface datum. Equipped with hand pump.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 19	29.48	June 16	20.17	Sept. 7	32.74	Dec. 3	36.75
Apr. 23	27.26	July 16	28.67	Oct. 10	35.48	24	37.13
May 21	29.04	Aug. 14	30.87	Nov. 4	36.02		

Langlade County

La 26 (*1018, p. 272; 1025, p. 256; 1073, p. 348). Geological Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 31 N., R. 11 E.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.79	Feb. 22	8.59	Apr. 8	6.80	May 24	6.49
11	7.81	Mar. 1	8.73	12	6.68	June 1	6.33
18	8.12	9	8.85	20	6.78	8	6.47
26	8.19	15	8.41	27	6.65	14	5.83
Feb. 1	8.38	23	8.21	May 4	6.51	21	5.88
9	8.48	30	7.79	12	6.68	29	6.11
15	8.51	Apr. 5	7.22	18	6.55	July 6	6.27

La 26--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 14	6.44	Sept. 7	7.57	Oct. 19	8.19	Nov. 30	8.61
20	6.53	14	7.59	26	8.27	Dec. 6	8.63
28	6.74	21	7.68	Nov. 2	8.37	14	8.66
Aug. 3	6.87	28	7.78	8	8.26	20	8.85
10	6.76	Oct. 5	8.01	15	8.35	27	8.66
19	7.32	12	8.06	23	8.46		

Lincoln County

In 25 (*1018, p. 273; 1025, p. 256; 1073, p. 348). Geological Survey,
U. S. Dept. of Interior. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 34 N., R. 6 E.

Water level, in feet below land-surface datum, 1947

Jan. 5	5.65	Apr. 6	4.86	June 23	5.48	Oct. 6	6.37
21	5.70	8	4.95	29	5.61	13	6.38
26	5.63	14	4.86	July 6	5.25	21	6.52
Feb. 2	5.72	20	4.95	15	5.98	26	6.43
10	5.84	28	4.90	27	6.26	Nov. 3	6.18
17	5.77	May 4	4.87	Aug. 10	6.70	9	5.77
24	5.92	13	4.75	18	6.00	24	5.70
Mar. 3	5.97	18	4.70	Sept. 1	6.24	Dec. 1	5.91
9	5.96	25	4.87	8	6.57	7	5.86
17	5.80	June 2	5.13	15	6.23	15	5.96
23	5.30	8	5.20	22	6.48	29	5.99
30	5.04	16	5.08				

Marathon County

Mr 27 (*1018, p. 273; 1025, p. 256; 1073, p. 349). Conrad Kreamsreiter.
SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 29 N., R. 3 E.

Water level, in feet below land-surface datum, 1947

Jan. 6	6.57	Apr. 14	7.91	July 14	5.01	Oct. 8	7.87
13	6.75	21	7.75	21	5.59	13	7.89
20	6.79	28	7.51	28	5.91	21	8.01
27	7.17	May 6	7.13	Aug. 5	6.33	30	8.03
Feb. 3	7.05	12	6.71	11	6.64	Nov. 3	7.86
12	7.78	18	4.29	19	6.95	9	8.01
17	7.62	25	3.53	24	7.04	16	8.04
Mar. 3	7.82	June 2	3.39	Sept. 1	6.95	30	7.73
10	8.06	9	3.91	9	7.29	Dec. 10	7.73
17	8.01	15	3.25	19	7.51	15	7.61
24	7.97	26	4.03	22	7.64	22	8.01
31	8.12	30	4.29	30	7.87	29	7.89
Apr. 7	8.14	July 7	5.01				

Mr 28 (*1018, p. 273; 1025, p. 257; 1073, p. 349). Geological Survey,
U. S. Dept. of Interior. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 27 N., R. 9 E.

Water level, in feet below land-surface datum, 1947

Jan. 6	19.02	Apr. 8	19.70	July 7	19.66	Oct. 6	20.81
13	19.10	14	19.60	14	20.38	13	20.86
20	19.22	21	19.69	21	20.43	20	20.89
27	19.27	28	19.75	28	21.44	27	20.92
Feb. 3	19.33	May 5	19.84	Aug. 11	20.56	Nov. 3	20.97
10	19.42	12	19.88	18	20.63	10	21.00
17	19.49	19	19.92	25	20.64	17	21.06
24	19.55	26	19.96	Sept. 2	20.65	Dec. 1	21.17
Mar. 3	19.63	June 2	20.02	8	20.68	9	21.20
10	19.72	9	20.07	15	20.72	15	21.23
24	19.79	16	20.16	22	20.76	22	21.25
31	19.80	23	20.22	29	20.79	29	21.32
Apr. 7	19.67	30	20.27				

Marinette County

Mt 1 (*1073, p. 349). Mr. Skidmore. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 30 N., R. 24 E.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	8.95	May 13	7.21	July 22	13.16	Sept. 17	12.97
Mar. 26	7.16	28	9.47	Aug. 19	14.68	Oct. 14	7.35
Apr. 14	7.53	June 25	9.35				

Mt 5. City of Peshtigo. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 30 N., R. 23 E. Unused drilled public-supply well, diameter 5 inches, depth 700 feet. Measuring point, top of cap or casing, 0.5 foot above land-surface datum.

Water level, in feet below land-surface datum, 1947							
Jan. 15	25.26	May 13	23.59	July 22	23.77	Oct. 14	24.19
Mar. 25	25.00	28	24.38	Aug. 19	25.69	Dec. 3	24.21
Apr. 14	22.97	June 25	24.61	Sept. 17	24.87		

Milwaukee County

Mt 7. Milwaukee County. In Brown Deer Park. Used drilled public-supply well, diameter 8 to 10 inches, depth 1,526 feet. Measuring point to Aug. 26, 1947, top of casing, 11.0 feet below land-surface datum, since Aug. 26, 1947, outside edge of air-line pipe using -1.40 correction on tape, 11.0 feet below land-surface datum and 693 feet above mean sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1947							
Mar. 24	48.47	May 13	44.54	July 29	48.47	Dec. 9	38.85
Apr. 15	44.60	June 4	43.86	Nov. 18	50.12		

Mt 8 (*1073, p. 349). Milwaukee County. In McGovern Park, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 8 N., R. 21 E.

Water level, in feet below land-surface datum, 1947							
Jan. 28	63.60	May 13	52.85	July 24	65.32	Oct. 21	62.13
Mar. 25	58.48	June 4	50.54	Aug. 26	69.57	Nov. 18	57.16
Apr. 15	56.88	July 1	53.80	Sept. 23	62.51	Dec. 9	54.88

Mt 36 (*1073, p. 350). A. O. Smith Corporation, 3533 North 27th Street, Milwaukee.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	140.51	139.99	138.85	139.10	136.46	134.92
2	140.30	139.98	138.66	139.32	136.42	134.74
3	140.39	139.69	138.55	139.40	136.46	134.83
4	140.39	139.62	138.59	139.30	136.31	134.70
5	140.10	139.62	138.77	138.99	136.33	134.59
6	140.07	139.61	138.85	139.33	136.21	134.71
7	139.83	139.56	138.85	139.50	136.31	134.78
8	140.00	139.73	138.83	139.34	136.46	134.80
9	140.08	139.75	138.83	139.25	136.53	134.69
10	140.06	139.71	138.75	139.11	136.51	134.39
11	139.99	139.70	138.53	138.77	136.36	134.93
12	140.06	139.71	138.51	139.28	135.91	135.07
13	139.87	139.62	138.40	139.25	135.47	134.95
14	139.67	139.36	138.40	138.86	135.62	134.85
15	139.85	139.26	138.57	138.68	135.59	134.98
16	139.03	139.24	138.55	138.47	135.74	134.93
17	139.06	139.19	138.57	138.27	135.69	134.65
18	139.08	139.11	138.68	138.29	135.55	134.75
19	139.97	139.11	138.67	138.37	135.34	134.82
20	139.52	138.96	138.64	138.21	135.31	134.83
21	140.04	138.81	138.76	138.12	135.15	134.82

M1 36--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
22	140.04	138.72	138.77	137.89	135.31	134.74
23	139.87	138.52	138.57	137.57	135.54	134.58
24	139.88	138.37	138.46	137.70	135.54	134.35
25	139.92	138.50	138.69	137.67	135.33	134.33
26	139.87	138.63	138.87	137.52	135.21	134.47
27	139.88	138.79	138.95	137.41	135.16	134.68
28	140.01	138.91	138.90	137.28	135.18	135.02
29	139.90		139.18	136.81	135.19	135.33
30	139.61		139.29	136.49	135.27	135.53
31	139.99		139.26		135.25	

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	135.90	146.30	158.17	157.22	151.72	147.93
2	136.32	146.68	158.03	156.78	151.72	147.67
3	136.62	147.02	158.02	156.33	151.53	147.72
4	136.90	147.14	158.03	155.91	151.17	147.75
5	137.07	147.40	158.07	155.67	150.88	147.37
6	137.40	147.81	158.23	155.23	150.99	147.47
7	137.71	148.45	158.34	154.90	150.70	147.24
8	137.99	148.98	158.38	154.80	150.70	147.27
9	138.22	149.48	158.22	154.68	150.89	147.25
10	138.50	149.83	158.15	154.47	150.82	147.23
11	138.87	150.07	158.18	154.23	150.41	147.24
12	139.19	150.07	158.25	154.01	150.47	147.24
13	139.14	150.38	158.18	153.77	150.52	147.19
14	139.66	151.31	158.25	153.42	150.52	146.76
15	140.12	151.93	158.29	153.14	150.24	146.36
16	140.59	152.45	158.39	153.04	150.19	146.16
17	140.92	152.80	158.51	152.85	150.22	146.14
18	141.54	153.21	158.55	152.75	150.01	146.02
19	141.96	153.63	158.58	152.76	149.86	146.03
20	142.27	154.19	158.58	152.67	149.82	145.92
21	142.67	154.80	158.42	152.49	149.75	145.70
22	142.95	155.29	158.67	152.45	149.47	145.32
23	143.31	155.71	158.52	152.67	149.41	145.08
24	143.66	156.08	158.58	152.69	148.87	145.04
25	143.84	156.47	158.72	152.62	148.57	144.85
26	144.01	156.89	158.73	152.50	148.55	144.48
27	144.28	157.28	158.61	152.19	148.50	144.32
28	144.55	157.74	158.27	151.82	148.35	144.22
29	144.82	157.90	157.69	151.82	148.34	143.15
30	145.33	158.15	158.62	151.69	148.35	143.76
31	145.94	158.30		151.69		143.75

M1.45 (*1073, p. 350). Milwaukee Journal, 333 West State Street, Milwaukee.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	98.50	98.98	96.37	96.53	94.00	94.61	94.78	95.07
2	98.12	98.52	95.48	96.50	93.47	93.98	95.00	95.32
3	98.17	98.65	94.60	95.48	93.64	93.93	94.88	95.32
4	98.09	98.65	94.79	95.02	93.94	94.48	94.14	95.97
5	97.62	98.08	94.15	94.99	94.49	94.76	94.18	100.81
6	97.41	97.85	93.76	94.15	94.67	94.90	92.04	97.85
7	97.01	97.56	93.42	93.92	94.68	94.92	89.93	92.07
8	97.15	97.53	93.53	93.65	94.42	94.72	88.44	89.91
9	97.34	97.50	93.28	93.69	94.60	94.69	87.69	88.43
10	97.20	97.53	93.25	93.38	94.58	94.70	86.82	94.15
11	97.23	97.46	93.44	93.58	94.54	94.73	91.20	98.45

M1 45--Continued.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
12	97.04	97.56	93.53	93.88	94.46	95.28	89.56	95.53
13	96.78	97.04	93.52	93.84	94.52	95.44	86.94	89.53
14	96.79	97.18	93.17	93.59	94.51	95.78	86.00	89.24
15	97.19	97.58	93.12	93.39	94.79	95.92	85.61	88.22
16	97.59	98.07	92.68	93.22	94.69	94.88	84.53	85.56
17	97.84	98.07	92.57	92.96	94.79	95.06	84.27	92.68
18	97.85	98.15	92.97	93.28	95.06	95.37	86.78	92.15
19	97.11	97.86	93.05	93.31	95.18	95.37	85.75	86.33
20	96.73	97.20	93.16	93.40	95.21	95.41	83.99	85.81
21	97.21	97.84	93.41	93.83	95.28	95.77	83.34	83.99
22	97.52	97.86	93.77	93.90	95.30	95.81	83.32	83.64
23	97.05	97.63	93.28	93.78	94.91	95.29	83.02	92.80
24	96.93	97.27	93.34	93.80	94.62	95.20	87.50	97.78
25	96.70	97.11	93.82	94.17	94.88	95.44	88.15	96.70
26	96.29	96.78	94.18	94.30	95.45	95.70	86.31	95.03
27	96.06	96.46	94.31	94.66	95.41	95.78	86.69	93.21
28	96.47	96.67	94.62	94.74	95.21	97.02	85.24	90.90
29	96.34	96.55			95.28	96.88	89.00	95.53
30	96.07	96.37			95.79	96.25	89.98	97.48
31	96.21	96.46			95.75	96.01		

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	89.50	100.57	86.60	93.73	100.00	111.36	.....	.....
2	88.33	98.90	85.12	93.74	102.45	112.83	.....	.....
3	86.58	92.36	87.38	96.83	103.42	115.22	119.44	.....
4	86.18	90.00	88.93	95.35	101.02	113.37	118.25	130.56
5	84.86	89.02	89.94	104.52	99.63	111.83	122.44	132.91
6	84.25	87.45	96.57	106.22	99.24	107.64	123.91	133.37
7	83.36	84.25	95.55	104.56	98.23	110.27	123.92	135.52
8	82.64	83.36	92.11	99.87	102.29	113.17	126.87	135.69
9	82.13	82.64	91.14	103.67	104.00	114.09	125.82	135.46
10	82.00	88.22	95.78	107.08	104.52	116.80	122.04	130.64
11	83.65	86.27	97.50	106.30	108.24	117.12	119.87	132.47
12	83.76	96.05	95.56	102.00	107.10	117.32	124.36	134.57
13	83.21	97.48	94.67	100.68	102.91	112.81	.....	135.61
14	86.92	93.55	92.71	100.69	101.52	113.80	126.47	138.13
15	85.08	93.58	89.04	96.72	105.51	116.05	130.01	139.02
16	90.14	100.00	87.83	99.19	106.93	117.10	129.03	138.43
17	86.81	95.99	92.48	102.83	107.94	120.34	124.83	133.50
18	85.15	86.80	93.64	103.00	113.12	123.50	123.84	133.43
19	85.39	99.03	95.70	105.70	113.83	123.45	124.83	134.23
20	90.81	96.36	95.52	103.61	111.14	118.59	124.76	134.78
21	88.29	97.10	95.39	103.75	109.83	121.79	126.58	136.34
22	91.00	104.92	92.55	99.95	113.04	123.98	127.18	135.17
23	93.96	103.22	91.45	102.76	114.19	125.25	127.13	137.30
24	93.24	101.01	95.10	107.78	116.18	129.17	125.23	132.83
25	89.22	96.69	90.11	109.53	120.38	129.68	124.42	136.09
26	88.73	97.53	89.52	101.20	119.63	129.74	127.48	137.53
27	89.88	94.42	92.47	101.79	115.51	129.74	128.80	138.76
28	86.45	92.70	92.47	102.45	114.47	127.07	130.07	.....
29	85.10	91.63	98.55	107.90	118.32	129.13	.....	.....
30	85.65	91.15	97.25	109.20	119.57	132.04	.....	.....
31	84.65	86.14						

M1 45--Continued.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	.....	.....	102.84	105.35	100.12	106.05	94.00	95.77
2	.....	.....	101.88	111.27	99.52	104.02	95.77	96.89
3	.....	.....	106.23	115.97	98.42	99.53	96.89	97.73
4	.....	.....	109.23	118.58	97.84	98.67	97.73	98.00
5	.....	.....	108.14	115.00	97.46	98.39	97.79	98.43
6	.....	.....	107.17	117.70	97.27	98.23	98.43	98.64
7	.....	.....	111.02	120.85	96.60	98.02	98.10	98.57
8	.....	.....	108.21	116.50	96.22	96.67	98.28	99.00
9	.....	140.60	105.90	108.21	96.01	96.23	98.73	99.00
10	131.51	141.42	103.98	110.12	95.53	96.05	98.67	99.00
11	132.33	143.38	104.50	111.35	95.24	95.52	98.90	99.19
12	134.83	143.46	106.13	109.40	95.01	95.33	98.91	99.20
13	133.56	142.82	104.79	111.10	95.03	95.23	98.61	99.04
14	129.70	137.94	105.51	115.59	94.63	95.17	98.19	98.62
15	127.79	146.81	108.92	119.37	93.96	94.62	98.02	98.26
16	128.53	137.60	111.15	122.44	94.08	94.21	98.18	98.37
17	130.06	138.62	114.60	122.93	93.84	94.22	97.95	98.37
18	129.05	139.49	113.80	122.33	93.55	93.89	98.20	98.38
19	130.42	137.94	110.11	118.50	93.39	93.58	98.20	98.32
20	127.69	136.17	108.23	117.98	93.18	93.43	98.07	98.30
21	121.66	131.50	111.50	122.72	93.18	93.46	97.93	98.18
22	116.66	121.67	115.60	123.68	92.85	96.84	97.68	97.92
23	114.15	117.49	113.70	120.79	93.25	96.85	97.85	98.17
24	113.35	118.53	110.94	119.04	92.26	93.25	97.80	98.17
25	111.64	115.84	107.20	114.58	91.82	92.25	96.92	97.80
26	109.23	111.64	106.23	111.00	91.54	91.82	96.63	96.92
27	107.44	109.23	106.16	113.73	91.08	91.60	96.27	96.74
28	105.03	107.44	106.36	111.21	90.66	91.08	95.92	96.45
29	105.08	105.84	104.68	108.50	90.69	92.22	95.22	95.93
30	104.00	105.35	103.18	106.00	92.22	93.99	94.82	95.24
31			101.36	103.20			94.74	95.01

M1 56 (*1073, p. 351). National Enamelling. North 10th St. and West St. Paul Avenue, Milwaukee.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	80.45	June 4	78.78	July 29	94.15	Oct. 21	88.21
Mar. 25	82.54	July 2	84.73	Aug. 26	100.10	Nov. 25	82.09
May 14	78.14	8	84.04	Sept. 23	95.02	Dec. 9	85.01

M1 79 (*1073, p. 351). Forest Home Cemetery. SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 21 E.Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	169.33	170.78	.....	.....	167.39	168.90	168.96	169.42
2	168.94	170.52	.....	.....	165.61	167.39	169.19	170.91
3	170.42	171.56	.....	.....	165.25	166.88	169.64	169.90
4	169.88	170.88	167.04	167.40	166.80	167.72	168.19	169.88
5	168.66	169.88	167.29	167.90	167.65	168.78	166.42	168.10
6	168.26	169.94	167.02	167.82	168.73	169.27	165.62	166.46
7	169.87	171.00	166.88	167.28	169.19	169.72	165.31	166.97
8	170.90	171.80	166.53	167.51	168.75	169.96	166.98	167.54
9	171.76	172.30	165.41	166.51	167.59	168.80	167.43	168.16
10	171.92	172.28	165.20	166.76	167.43	169.07	167.77	168.13
11	171.22	172.26	166.76	167.74	169.03	169.84	167.31	167.69
12	169.97	171.26	167.70	168.20	169.85	170.59	.....	.....
13	169.73	170.80	167.84	168.10	170.29	170.62	.....	.....
14	170.66	171.52	167.75	168.12	170.31	170.89	.....	.....
15	171.40	172.00	166.62	168.14	170.35	170.57	.....	.....

M1 79--Continued.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
16	171.89	172.46	165.04	166.64	168.18	170.39	163.85	164.19
17	172.26	172.62	164.50	167.04	167.78	169.20	163.37	163.86
18	170.80	172.58	166.00	167.02	169.16	170.02	163.26	163.60
19	.....	.....	166.97	167.58	169.91	170.62	161.44	163.46
20	.....	.....	167.50	167.88	170.54	171.06	.....	.....
21	.....	.....	167.61	167.96	170.75	171.28	.....	.....
22	171.13	171.34	167.06	167.75	170.84	171.32	161.37	161.71
23	170.96	171.24	164.44	166.10	168.38	170.84	161.29	161.51
24	170.95	171.48	164.10	166.01	167.84	169.18	161.39	161.69
25	169.68	171.52	165.98	167.28	169.25	169.97	161.29	161.52
26	168.20	169.72	167.26	167.98	169.93	170.58	.....	.....
27	.....	.....	167.88	168.62	170.52	170.98	.....	.....
28	170.53	170.84	168.46	168.98	170.72	171.20	.....	.....
29	170.63	171.21	.....	.....	170.74	171.06	.....	159.51
30	169.07	170.70	.....	.....	168.80	170.96	159.18	159.73
31	167.74	169.07	.....	.....	168.20	169.33	.....	.....

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	159.22	159.44	154.05	155.08	158.74	160.02	169.10	169.66
2	159.09	159.66	153.90	156.15	159.86	160.72	.....	169.68
3	157.80	159.46	156.15	156.77	159.92	160.80	.....	.....
4	156.53	157.70	156.56	156.82	159.23	159.96	.....	.....
5	156.30	158.24	156.40	156.89	158.64	159.29	169.34	.....
6	158.09	159.52	156.51	157.07	158.53	158.73	169.16	170.14
7	158.33	158.76	155.72	157.09	158.43	158.88	169.67	171.48
8	158.50	159.00	154.27	155.71	158.98	158.74	171.42	172.45
9	158.97	159.75	154.23	155.90	158.68	159.27	.....	172.48
10	158.83	160.00	154.00	156.90	159.16	159.68	.....	.....
11	156.99	158.83	156.82	157.94	159.02	159.53	.....	171.94
12	156.62	158.30	157.83	158.24	158.99	159.46	171.94	173.08
13	158.12	158.94	157.98	158.24	158.89	159.23	173.06	173.98
14	157.68	159.19	156.71	158.15	159.07	161.62	173.86	174.96
15	156.43	157.68	154.93	156.71	161.61	162.98	174.74	176.18
16	155.90	156.43	154.59	157.08	162.88	163.69	174.90	176.32
17	154.58	155.90	156.95	157.66	163.43	164.05	173.45	174.01
18	153.58	154.58	157.56	158.20	163.77	164.54	173.37	174.95
19	153.24	153.94	158.05	158.60	162.98	164.62	174.85	176.01
20	153.82	154.13	158.45	158.92	161.53	162.99	175.94	177.52
21	153.67	154.09	157.46	158.97	161.29	163.50	177.45	178.78
22	153.90	156.34	155.99	157.50	163.50	164.14	178.73	179.63
23	156.34	157.76	155.77	157.49	163.95	164.50	178.00	179.63
24	157.45	157.83	157.42	158.11	164.45	165.06	177.00	178.07
25	155.72	157.47	157.92	158.63	164.99	165.47	176.96	179.37
26	155.56	157.16	158.53	159.13	164.11	165.45	179.28	180.46
27	157.08	157.43	158.99	159.42	163.53	164.18	180.35	180.96
28	157.20	157.54	158.12	159.34	163.55	165.98	180.81	181.78
29	157.07	157.77	157.42	158.13	165.99	167.18	181.62	182.57
30	156.20	157.75	157.10	158.74	167.05	168.28	181.24	182.32
31	155.07	156.20	.....	.....	168.18	169.16	180.01	181.24

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	179.09	180.08	183.62	183.97	184.23	185.59	172.51	173.80
2	178.89	181.02	183.67	184.00	182.58	184.32	173.76	174.26
3	180.96	182.64	183.70	183.96	182.10	183.55	174.03	174.64
4	182.63	183.86	182.66	184.02	183.46	184.05	173.93	174.69
5	183.58	184.91	.....	182.66	183.90	184.80	173.87	174.55
6	183.66	185.01	.....	.....	184.80	185.40	174.02	174.66

M1 79--Continued.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
7	182.53	183.75	.....	.....	185.18	185.52	171.68	174.05
8	182.35	184.31	182.89	183.48	184.19	185.72	171.51	173.54
9	184.26	185.30	183.57	184.03	183.23	184.19	173.43	174.03
10	185.21	186.31	183.87	184.44	182.86	184.38	173.68	174.10
11	186.22	187.64	182.91	184.35	184.26	191.63	173.84	174.29
12	187.51	188.11	181.54	182.91	185.39	186.75	173.96	174.29
13	186.28	188.22	181.12	182.87	184.51	185.51	173.50	174.28
14	184.64	186.27	182.82	183.56	183.24	184.60	171.97	173.63
15	184.07	185.98	183.48	184.32	180.35	183.34	171.96	173.85
16	185.83	186.96	183.13	184.63	178.86	180.43	173.78	175.40
17	186.96	187.61	184.43	184.75	178.47	179.55	175.40	176.48
18	187.49	187.96	183.24	184.71	179.28	179.57	176.48	177.75
19	.....	.....	181.55	183.24	179.25	179.53	177.62	178.61
20	.....	.....	181.09	182.50	179.05	179.42	178.45	178.84
21	.....	.....	182.44	183.26	178.57	179.17	176.89	178.75
22	.....	.....	183.15	183.84	.....	178.58	176.58	177.81
23	.....	186.54	183.84	184.79	.....	.....	177.76	178.44
24	186.42	186.73	184.67	185.26	.....	.....	176.84	178.25
25	186.28	186.61	183.87	185.36	.....	176.20	174.40	176.84
26	186.09	186.36	182.09	183.96	176.00	176.63	173.70	174.42
27	183.76	186.22	181.61	182.97	174.86	176.56	172.40	173.70
28	182.06	183.84	182.88	183.95	174.25	175.26	171.10	172.52
29	181.73	183.60	183.79	184.46	174.93	175.58	170.62	171.82
30	183.48	183.88	184.33	184.95	172.81	175.38	171.67	172.56
31			184.86	185.44			172.12	172.97

M1 88 (*1073, p. 352). Milwaukee Vinegar Works. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 6 N., R. 22 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	120.63	May 14	113.88	July 30	114.55	Oct. 22	119.28
Mar. 25	119.35	June 3	113.85	Aug. 27	116.98	Nov. 19	118.34
Apr. 16	114.39	July 2	114.27	Sept. 24	122.25	Dec. 10	125.48

M1 91 (*1073, p. 352). U. S. Government. In Greendale, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 6 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	206.34	May 13	203.12	July 30	202.93	Oct. 22	210.18
Mar. 25	203.54	June 3	202.12	Aug. 27	208.05	Nov. 19	210.81
Apr. 15	204.47	July 2	200.77	Sept. 24	209.38	Dec. 16	210.81

M1 94 (*1073, p. 353). Milwaukee County. In Whitnall Park, in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 6 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	204.54	June 3	201.55	Aug. 27	205.98	Oct. 28	207.87
Mar. 25	202.66	July 1	202.23	Sept. 23	212.11	Nov. 19	208.44
Apr. 16	202.62	29	213.03	Oct. 24	210.53	Dec. 10	207.81
May 13	201.60						

M1 118 (*1073, p. 353). A. Schaefer, 5465 North 51st Street, Milwaukee.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	39.90	May 13	36.18	July 29	42.71	Oct. 21	42.16
Mar. 25	39.33	June 6	33.53	Aug. 26	45.29	Nov. 18	41.38
Apr. 15	37.77	July 1	36.89	Sept. 23	43.00	Dec. 9	39.16

M1 119 (*1073, p. 353). Robert Cerletty. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 8 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 28	10.75	July 29	9.11	Sept. 23	10.12
July 1	8.40	Aug. 26	10.48	Oct. 21	10.91

M1 120 (*1073, p. 353). Nunn Bush Shoe Co., North 5th and West Hadley Streets, Milwaukee.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	86.22	.....	85.23	85.22	84.91	83.46	86.02	89.45	90.25	89.87	88.49	86.30
2	85.93	.....	85.06	85.43	84.10	83.38	86.27	89.51	90.02	89.60	88.43	86.18
3	85.97	.....	84.98	85.49	85.20	83.55	86.39	89.29	90.12	89.30	88.14	86.28
4	85.94	.....	85.22	85.46	85.07	83.44	86.43	89.21	90.12	89.11	87.88	86.35
5	85.58	84.12	85.45	85.13	85.21	83.43	86.29	89.52	90.29	89.14	87.61	85.98
6	85.37	84.66	85.59	85.11	85.28	83.75	86.20	89.48	90.40	88.95	87.74	86.06
7	85.00	84.47	85.60	85.32	84.30	83.98	86.30	89.76	90.48	89.06	87.51	85.81
8	85.06	84.66	85.60	85.22	84.25	84.11	86.56	89.90	90.45	89.18	87.31	85.81
9	85.09	84.68	85.60	85.28	.....	84.02	86.68	89.98	90.53	89.22	87.51	86.01
10	85.07	84.80	85.58	85.17	.....	84.17	86.91	90.00	90.59	89.15	87.46	85.98
11	84.76	85.03	85.52	84.89	84.18	84.80	87.09	90.84	90.68	89.02	87.36	86.07
12	84.83	85.18	85.53	85.42	83.81	84.97	87.24	89.96	90.81	88.87	87.47	86.13
13	84.68	85.14	85.42	85.42	83.96	84.84	87.21	89.99	90.70	88.76	87.57	86.13
14	84.62	85.00	85.29	85.15	84.21	84.52	87.18	90.22	90.57	88.74	87.56	85.82
15	84.87	.....	85.35	85.19	84.19	84.46	87.50	90.35	90.60	88.66	87.36	85.49
16	85.11	.....	85.29	85.07	84.41	84.43	87.75	90.44	90.69	88.72	87.16	85.74
17	85.26	84.89	85.16	84.98	84.41	84.38	87.92	90.29	90.79	88.70	87.22	85.79
18	85.29	85.26	85.32	85.10	84.25	84.66	88.18	90.23	90.89	88.70	87.25	86.08
19	85.26	85.31	85.30	85.21	84.09	84.85	88.41	90.56	91.01	88.74	87.23	86.30
20	84.78	85.31	85.28	85.09	84.30	84.91	88.24	90.43	91.05	88.70	87.27	86.31
21	85.38	85.29	85.34	85.02	84.11	84.94	88.18	90.52	90.84	88.75	87.26	86.24
22	85.38	85.27	85.34	84.98	84.30	84.89	88.42	90.55	90.84	88.85	87.12	85.97
23	85.32	85.08	85.10	84.78	84.57	84.74	88.53	90.56	90.75	89.11	87.05	86.12
24	85.17	85.10	84.80	85.08	84.57	84.72	88.76	90.40	90.68	89.13	86.59	86.17
25	85.20	85.93	84.99	85.22	84.27	84.89	88.84	90.30	90.78	89.04	86.49	86.08
26	.....	85.06	85.18	85.11	84.10	85.10	88.84	90.41	90.77	88.88	86.56	85.69
27	85.16	85.19	85.25	85.17	84.07	85.29	88.85	90.50	90.68	88.54	86.54	85.68
28	85.41	85.20	85.16	84.97	84.11	85.59	.....	90.62	90.68	88.51	86.52	85.68
29	.....	.....	85.29	84.86	83.92	85.70	.....	90.65	89.95	88.51	86.67	85.62
30	.....	.....	85.35	84.94	83.93	85.79	89.13	90.46	89.95	88.51	86.68	85.51
31	.....	.....	85.28	.....	83.79	.....	89.37	90.45	.....	88.51	.....	85.57

M1 121 (*1073, p. 354). F. M. Nimphius, 311 Marion Street, Milwaukee

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	57.85	May 14	57.33	July 30	57.00	Oct. 22	57.48
Mar. 25	57.56	June 3	57.27	Aug. 27	57.36	Nov. 19	58.06
Apr. 16	57.53	July 2	57.39	Sept. 24	57.57	Dec. 10	57.83

M1 124 (*1073, p. 354). Good Hope Cemetery. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 6 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Jan. 28	117.05	June 3	116.93	Sept. 24	122.84	Nov. 19	124.88
Mar. 25	117.98	July 2	118.59	Oct. 22	133.45	Dec. 10	125.98
Apr. 15	116.58						

M1 130 (*1073, p. 354). Milwaukee County. In Greenfield Park, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 6 N., R. 21 E.

M1 130--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	59.10	Apr. 16	57.24	June 3	55.52	July 29	57.93
Feb. 11	58.75	May 13	57.36	July 1	57.87	Aug. 26	b 60.18
Mar. 25	a 57.02						

a Pumped recently.

b Pumping.

M1 132 (*1073, p. 355). White Manor Water Cooperative. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 6 N., R. 21 E.

Daily low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	200.21	197.79	196.88	198.92	191.98	.....
2	199.87	197.45	196.99	198.61	192.17	.....
3	199.08	196.65	196.96	198.64	192.27	.....
4	198.95	195.88	196.86	198.51	192.34	191.36
5	198.45	195.48	197.08	197.83	192.45	191.03
6	198.28	195.32	197.53	197.95	192.39	191.15
7	197.97	195.06	197.80	.....	191.93	191.32
8	197.86	195.49	198.20	.....	192.05	191.52
9	197.86	195.55	198.46	196.83	192.26	.....
10	197.83	195.64	198.52	196.75	192.45	.....
11	198.15	195.11	198.57	196.50	192.68	.....
12	198.33	195.29	198.74	196.84	192.64	191.24
13	198.05	195.31	198.73	196.79	192.46	191.35
14	197.79	195.49	199.04	196.14	192.52	191.65
15	197.92	195.78	199.20	196.62	192.50	191.92
16	198.07	196.02	199.17	194.90	192.52	191.92
17	198.15	196.01	199.13	194.62	192.51	191.62
18	198.12	195.88	198.84	194.68	192.23	191.78
19	198.19	195.88	198.86	194.54	192.02	191.98
20	197.76	195.72	199.02	194.44	191.54	192.05
21	198.22	195.91	199.29	194.43	191.18	192.25
22	198.23	196.14	199.34	194.18	191.38	192.37
23	198.23	196.15	199.20	192.61	191.92	.....
24	198.39	196.02	199.03	192.97	192.24	.....
25	198.48	195.92	198.76	193.20	192.31	192.40
26	198.47	195.87	198.76	193.15	192.44	192.85
27	198.27	196.29	198.94	193.29	192.38	193.04
28	198.25	196.72	198.98	193.17	192.13	193.85
29	197.99		199.27	192.80	192.25	194.10
30	197.59		199.41	192.00	192.40	194.28
31	197.94		199.36		.....

Daily water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	194.19	199.91	202.59	201.11	202.74	197.45
2	196.08	200.30	202.09	200.81	202.23	197.09
3	195.86	200.41	201.38	200.86	200.95	197.02
4	196.39	200.50	202.09	201.06	200.08	197.02
5	196.55	200.84	203.40	201.10	200.64	197.11
6	196.47	201.15	203.51	201.04	201.57	197.28
7	196.33	201.41	203.37	200.82	202.16	197.27
8	196.32	201.53	203.40	201.14	202.75	197.51
9	196.36	201.71	203.23	201.62	201.75	197.53
10	196.82	201.80	202.98	201.87	201.85	197.45
11	197.42	202.10	203.39	202.09	200.67	197.64
12	197.48	202.28	203.39	202.08	200.82	197.74
13	197.49	202.20	203.35	202.08	201.66	197.75
14	197.65	199.94	203.38	201.01	201.68	197.53
15	197.70	198.77	203.38	200.69	201.61	197.73
16	197.72	200.68	202.76	201.09	201.41	198.14
17	198.24	201.29	202.05	201.96	201.35	197.19

M132--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
18	198.53	202.35	202.18	202.53	200.82	198.76
19	198.75	203.02	202.58	202.88	200.13	199.60
20	198.52	202.90	202.60	202.89	199.90	200.02
21	198.22	201.01	202.48	201.73	199.80	200.33
22	197.95	201.31	202.49	202.01	199.44	200.14
23	197.64	202.94	201.90	202.80	199.25	200.64
24	197.89	203.57	201.21	202.81	198.60	200.62
25	198.14	203.34	200.79	201.56	198.04	200.40
26	198.35	202.28	201.27	200.76	197.93	200.06
27	198.40	201.92	201.46	200.20	197.97	199.64
28	198.65	201.89	201.44	200.56	197.98	199.22
29	198.87	202.71	201.29	201.15	197.96	198.88
30	198.64	203.25	201.29	201.93	197.98	198.21
31	199.54	203.06		202.60		198.22

M1 135 (*1073, p. 355). Leonard Budzein, 920 West Armour Avenue, Town of Lake.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	12.44	May 14	3.99	July 30	4.96	Oct. 22	5.66
Mar. 25	9.25	June 3	1.25	Aug. 27	6.71	Nov. 19	4.50
Apr. 16	7.71	July 2	4.36	Sept. 24	5.60	Dec. 10	3.00

M1 146 (*1073, p. 355). Mr. Huel, 9090 Lake Drive, Milwaukee.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	60.54	May 13	59.12	July 29	60.55	Oct. 21	61.59
Mar. 24	59.60	June 4	58.78	Aug. 26	64.14	Nov. 18	60.86
Apr. 15	59.51	July 1	59.62	Sept. 23	61.40	Dec. 6	60.49

M1 148 (*1073, p. 356). Milwaukee County. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 6 N., R. 21 E.

Daily low water level, in feet below land-surface datum, 1947

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	33.22	33.16	32.99	31.39	30.19	29.66	28.85	29.51	30.12	30.57	31.01	30.77
2	32.97	33.16	32.94	31.50	30.28	29.68	28.90	29.54	30.17	30.74	31.01	30.78
3	33.19	32.81	33.04	31.53	30.27	29.71	28.89	29.89	30.24	30.47	30.92	31.05
4	33.15	32.86	33.18	31.30	30.33	29.48	28.89	29.93	30.24	30.52	30.80	31.05
5	33.01	32.83	33.28	31.00	30.48	29.14	28.85	29.84	30.20	30.52	30.96	30.70
6	33.01	32.71	33.27	31.46	30.39	29.14	28.91	29.89	30.26	30.56	31.06	30.74
7	33.04	32.90	33.21	31.52	30.58	29.06	29.02	29.87	30.31	30.66	30.82	30.46
8	33.20	33.09	33.16	31.34	30.41	29.04	28.99	29.89	30.31	30.75	31.06	30.79
9	33.31	33.13	33.23	31.11	30.42	28.98	28.95	29.80	30.21	30.72	31.45	30.79
10	33.19	33.22	33.23	30.98	30.42	28.74	28.85	29.90	30.19	30.69	31.36	30.55
11	33.08	33.28	33.10	30.89	30.32	29.11	28.88	30.09	30.21	30.61	31.14	30.37
12	33.18	33.27	32.97	31.28	30.17	29.11	29.30	30.00	30.26	30.68	31.25	30.37
13	32.99	33.11	32.70	31.21	30.22	28.82	29.17	29.84	30.18	30.75	31.28	30.27
14	33.06	32.90	32.40	30.79	30.34	28.63	28.97	29.91	30.35	30.68	31.23	29.95
15	33.10	32.97	32.33	30.86	30.32	28.77	29.00	29.98	30.45	30.72	30.95	29.96
16	33.08	33.01	32.24	30.67	30.45	28.75	29.19	29.97	30.48	30.72	31.25	30.31
17	32.98	32.96	32.20	30.63	30.34	28.56	29.21	30.07	30.57	30.67	31.26	30.24
18	32.98	33.16	32.25	30.82	30.40	28.63	29.30	30.16	30.50	30.77	31.13	30.30
19	32.78	33.14	32.22	30.87	30.29	28.67	29.53	30.31	30.44	30.88	30.98	30.31
20	32.79	33.00	32.02	30.75	30.42	28.61	29.25	30.21	30.58	30.87	30.96	30.21
21	33.19	32.92	31.97	30.80	30.28	28.58	29.34	30.31	30.49	30.87	30.89	30.20
22	33.19	32.89	31.97	30.79	30.32	28.59	29.35	30.25	30.72	30.90	30.82	30.07
23	32.87	32.80	31.62	30.59	30.40	28.57	29.33	30.25	30.50	31.06	30.81	30.31
24	32.85	32.98	31.60	30.75	30.33	28.49	29.39	30.17	30.56	31.03	30.63	30.30
25	32.86	32.95	31.75	30.67	30.10	28.48	29.55	30.16	30.63	30.94	30.81	30.13
26	32.78	33.05	31.92	30.51	30.20	28.54	29.42	30.15	30.63	30.89	30.85	30.21

M1 148--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	33.00	33.04	31.76	30.60	30.17	28.63	29.35	30.13	30.58	30.77	30.85	30.26
28	33.13	33.05	31.52	30.49	30.11	28.85	29.42	30.15	30.39	30.95	30.97	30.29
29	32.89		31.68	30.21	30.01	28.81	29.40	30.13	30.66	30.95	31.11	30.26
30	32.72		31.70	30.22	30.00	28.80	29.46	30.16	30.74	30.98	31.12	30.26
31	33.14		31.57		29.92		29.59	30.25		31.00		30.31

Monroe County

Mo 2 (777, p. 267; 817, p. 506; *840, p. 651; 845, p. 720; 886, p. 930; 908, p. 287; 938, p. 232; 946, p. 276; *988, p. 351; 1018, p. 273; 1025, p. 257; 1073, p. 356). Joe Anderson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 15 N., R. 4 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	7.70	May 26	6.54	July 26	6.95	Oct. 25	7.17
Mar. 1	7.37	June 29	6.15	Aug. 25	7.00	Nov. 25	6.76
28	6.69	July 17	6.53	Sept. 25	7.17	Dec. 27	7.10
Apr. 26	6.38						

Mo 10 (777, p. 267; 817, p. 507; *840, p. 655; 845, p. 723; 886, p. 932; 908, p. 287; 938, p. 232; 946, p. 276; *988, p. 351; 1018, p. 273; 1025, p. 257; 1073, p. 356). Dennis Shea. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 15 N., R. 3 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	9.92	May 29	5.87	July 28	9.30	Oct. 27	9.97
Mar. 1	9.88	June 30	5.40	Aug. 30	9.90	Nov. 28	9.00
31	8.66	July 17	8.98	Sept. 30	9.97	Dec. 27	9.37
Apr. 26	3.50						

Mo 11 (777, p. 267; 817, p. 507; *840, p. 655; 845, p. 723; 886, p. 932; 908, p. 287; 938, p. 232; 946, p. 277; *988, p. 351; 1018, p. 273; 1025, p. 257; 1073, p. 357).

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	6.60	May 29	5.40	July 29	5.90	Oct. 29	6.25
Mar. 1	6.61	June 29	3.90	Aug. 29	6.52	Nov. 29	6.35
29	4.30	July 17	5.77	Sept. 29	6.40	Dec. 29	6.60
Apr. 29	5.30						

Mo 12 (777, p. 267; 817, p. 507; *840, p. 565; 845, p. 724; 886, p. 933; 908, p. 287; 938, p. 232; 946, p. 277; *988, p. 351; 1018, p. 273; 1025, p. 257; 1073, p. 357). Melvin Olson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 16 N., R. 4 W.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	27.12	May 31	27.10	July 26	27.04	Oct. 30	27.04
Feb. 27	27.17	June 27	27.02	Aug. 29	27.03	Nov. 29	27.07
Mar. 29	27.11	July 17	27.02	Sept. 29	27.03	Dec. 29	27.07
Apr. 28	27.12						

Mo 13 (777, p. 267; 817, p. 507; *840, p. 656; 845, p. 724; 886, p. 933; 908, p. 288; 938, p. 232; 946, p. 277; *988, p. 352; 1018, p. 274; 1025, p. 257; 1073, p. 357).

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	10.03	Apr. 26	9.63	July 30	9.25	Oct. 24	10.91
24	10.12	May 27	9.89	Aug. 27	9.94	Oct. 31	9.89
Mar. 11	9.97	June 16	9.27	Oct. 2	9.09	Nov. 28	9.75
25	9.78	July 7	9.46				

Oconto County

Oc 1 (*1073, p. 357). Oconto Utilities. NW $\frac{1}{4}$ sec. 19, T. 28 N., R. 22 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 26	2.20	May 28	2.95	July 22	5.21	Sept. 16	8.57
Apr. 14	6.47	June 25	3.92	Aug. 19	6.88	Oct. 14	1.25
May 12	1.60						

Oneida County

On 8 (*817, p. 504; *840, p. 647; 845, p. 717; 1073, p. 357). Wisconsin Conservation Department. At McNaughton State Forestry Camp, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 38 N., R. 7 E. Measurements supplied through courtesy of Wisconsin Conservation Department. Water levels, in feet below land-surface datum, 1947: Jan. 1, 0.72; Jan. 31, 0.73; Feb. 28, 0.93; Mar. 16, 1.37.

On 22 (*1018, p. 274; 1025, p. 258; 1073, p. 358). Wisconsin Valley Improvement Co. On Rainbow snow course, in NW $\frac{1}{4}$ sec. 18, T. 39 N., R. 8 E. Measurements supplied through courtesy of Wisconsin Valley Improvement Co.

Daily noon water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.86	16.04	16.62	17.18	16.76	15.49	15.26	15.64	16.19	16.62	17.13	17.44
2	15.85	16.06	16.63	17.19	16.73	15.49	15.26	15.65	16.21	16.63	17.14	17.45
3	15.85	16.02	16.66	17.21	16.68	15.48	15.24	15.67	16.23	16.64	17.15	17.46
4	15.84	16.04	16.68	17.21	16.62	15.45	15.23	15.69	16.24	16.66	17.16	17.47
5	15.81	16.06	16.72	17.21	16.59	15.42	15.22	15.70	16.25	16.68	17.17	17.45
6	15.83	16.06	16.74	17.21	16.52	15.42	15.24	15.73	16.27	16.69	17.20	17.46
7	15.82	16.07	16.75	17.26	16.57	15.41	15.28	15.76	16.29	16.72	17.18	17.45
8	15.85	16.12	16.77	17.26	16.52	15.40	15.32	15.79	16.30	16.74	17.20	17.47
9	15.87	16.15	16.79	17.26	16.37	15.37	15.33	15.81	16.31	16.75	17.24	17.48
10	15.87	16.17	16.82	17.24	16.31	15.35	15.33	15.83	16.32	16.76	17.27	17.47
11	15.86	16.20	16.83	17.21	16.25	15.36	15.35	15.85	16.33	16.77	17.27	17.47
12	15.90	16.22	16.85	17.25	16.19	15.39	15.36	15.87	16.35	16.79	17.28	17.48
13	15.90	16.23	.....	17.24	16.14	15.35	15.37	15.88	16.35	16.82	17.30	17.48
14	15.88	16.25	.....	17.22	16.12	15.32	15.38	15.91	16.36	16.82	17.31	17.46
15	15.94	16.28	.....	17.22	16.06	15.33	15.41	15.94	16.38	16.85	17.31	17.47
16	15.96	16.32	16.89	17.19	16.04	15.33	15.42	15.96	16.40	16.86	17.34	17.48
17	15.98	16.32	16.93	17.17	15.99	15.31	15.43	15.97	16.42	16.87	17.36	17.48
18	16.01	16.37	16.95	17.17	15.95	15.31	15.43	16.00	16.42	16.89	17.36	17.49
19	15.98	16.40	16.97	17.17	15.90	15.31	15.46	16.02	16.44	16.91	17.38	17.50
20	15.96	16.42	16.98	17.14	15.88	15.30	15.44	16.03	16.45	16.93	17.38	17.48
21	16.00	16.44	16.99	17.13	15.83	15.30	15.47	16.04	16.46	16.95	17.39	17.48
22	16.01	16.46	17.00	17.10	15.80	15.30	15.48	16.05	16.49	16.96	17.39	17.46
23	15.97	16.46	17.02	17.06	15.78	15.30	15.48	16.06	16.48	17.00	17.40	17.47
24	15.95	16.50	17.04	17.05	15.74	15.30	15.49	16.08	16.51	17.01	17.40	17.46
25	15.95	16.53	17.07	17.04	15.68	15.30	15.50	16.10	16.53	17.02	17.41	17.43
26	15.94	16.56	17.08	16.98	15.64	15.31	15.50	16.11	16.55	17.03	17.42	17.43
27	15.95	16.57	17.10	16.97	15.63	15.30	15.51	16.12	16.57	17.04	17.42	17.42
28	16.00	16.60	17.11	16.92	15.60	15.31	15.53	16.14	16.56	17.06	17.43	17.42
29	16.01		17.12	16.85	15.55	15.31	15.56	16.15	16.59	17.08	17.45	.....
30	15.99		17.15	16.82	15.54	15.29	15.57	16.16	16.62	17.09	17.45	.....
31	16.02		17.17		15.51		15.62	16.18		17.11	.....	.....

On 23 (*1018, p. 274; 1025, p. 258; 1073, p. 359). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 37 N., R. 6 E.

On 23--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	28.80	Apr. 8	29.27	July 7	28.63	Oct. 6	29.03
13	28.80	15	29.29	14	28.60	13	29.06
20	28.83	20	29.33	20	28.57	20	29.07
27	28.85	27	29.30	27	28.56	27	29.10
Feb. 3	28.87	May 4	29.21	Aug. 3	28.54	Nov. 3	29.18
10	29.01	12	29.12	11	28.59	10	29.25
17	29.02	18	29.01	17	28.55	17	29.35
24	29.15	26	28.90	25	28.60	24	29.32
Mar. 3	29.12	June 2	28.84	Sept. 1	28.70	Dec. 1	29.40
10	29.16	9	28.76	8	28.80	8	29.44
17	29.20	16	28.78	15	28.87	15	29.47
24	29.20	23	28.69	22	29.01	22	29.55
31	29.22	30	28.64	29	29.01	29	29.60
Apr. 6	29.15						

On 24 (*1018, p. 274; 1025, p. 259; 1073, p. 359). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 36 N., R. 9 E.

Water level, in feet below land-surface datum, 1947

Jan. 5	20.00	Apr. 13	20.40	July 14	19.30	Oct. 12	20.75
14	20.05	20	20.32	21	20.35	19	20.75
20	20.87	28	20.25	27	20.40	27	20.80
Feb. 2	20.13	May 5	20.20	Aug. 4	20.44	Nov. 4	20.85
10	20.20	11	19.70	12	20.50	10	21.65
16	20.25	20	20.11	20	20.53	17	20.86
24	20.35	27	20.10	25	20.53	24	20.85
Mar. 2	20.37	June 2	20.10	Sept. 1	20.55	Dec. 1	20.90
10	20.45	9	20.10	10	20.67	7	20.90
22	20.50	16	20.13	16	20.60	15	20.95
30	20.60	22	20.15	22	20.60	23	20.95
Apr. 7	20.51	30	20.15	28	20.60	29	20.45
8	20.54	July 6	20.40	Oct. 7	20.72		

Outagamie County

On 2 (*1073, p. 359). City of Kaukauna. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 21 N., R. 18 E.

Daily high water level, in feet with reference to land-surface datum, 1947
(From recorder charts)

Day	Jan.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	+1.20	+3.15	.....	-2.32	-5.20	-14.28	-14.03	-11.18	.....	.....
2	.....	+2.45	.....	+0.1	-4.62	-13.93	-13.51	-10.93	.....	-4.50
3	.....	+1.45	.....	-2.74	-3.23	-13.03	-15.35	-12.24	.....	-5.41
4	.....	+2.46	.....	-3.26	-3.78	-12.24	-15.88	-13.74	-12.99	-5.99
5	.....	+3.43	+1.18	-4.99	-3.33	-14.69	-16.22	-12.69	-13.50	-5.79
6	.....	+6.10	+1.53	-5.39	-3.17	-15.29	-16.53	-12.25	-13.38	-6.19
7	+1.35	+6.44	+1.33	-6.53	-8.60	-15.61	-15.49	-14.77	-10.91	-1.08
8	+2.30	+5.47	+0.92	-4.64	-9.08	-16.57	-14.66	-15.61	-9.42	-3.52
9	+2.06	+2.96	+0.88	-4.05	-9.74	-17.00	-15.03	-15.68	-5.73	-4.25
10	+2.46	+2.84	+1.39	-5.42	-10.55	.....	-16.10	-15.77	-4.65	-4.89
11	+2.62	+3.08	+1.68	-7.03	-10.57	-17.28	-16.41	-15.82	-5.48	-4.70
12	+3.12	+1.61	+1.49	-5.93	-10.35	-17.23	-17.00	-14.50	-5.29	-4.95
13	+3.61	+5.74	-1.70	-6.30	-8.75	-18.17	-16.73	-13.17	-6.58	-4.67
14	+2.85	+6.30	-1.20	-6.08	-8.33	-18.57	-14.83	-15.08	-7.27	-1.18
15	+1.20	+2.72	-2.13	-4.30	-10.27	-18.70	-13.82	-15.88	-5.50	+6.3
16	+1.12	+2.49	-3.12	-2.80	-10.75	-18.73	-15.73	-16.05	-2.67	-2.54
17	+1.01	+2.36	-3.73	.....	-11.18	-17.04	-15.86	-15.44	-2.19	-3.51
18	+0.93	+2.24	-1.91	.....	-12.23	-15.92	-17.13	-15.53	-5.03	-4.18
19	+2.92	+2.66	-1.19	.....	-12.02	.....	-17.57	-12.62	-6.20	-4.12
20	+3.87	+5.20	-3.37	.....	-9.54	.....	-17.32	-12.05	-6.90	-4.05
21	+2.33	+6.38	-3.53	.....	-8.72	.....	-16.90	-13.99	-7.43	-0.9
22	.....	+3.47	-3.97	.....	-10.75	.....	-16.18	-14.23	-5.69	+0.90
23	.....	+3.49	-4.35	.....	-11.21	.....	-15.15	-15.34	-1.17	-2.07

Ou 2--Continued.

Daily high water level, in feet with reference to land-surface datum, 1947
(From recorder charts)

Day	Jan.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	+3.11	-4.48	-8.22	-12.33	.....	-17.10	-15.59	-0.37	-0.31
25	+2.40	-3.15	-8.98	-13.43	-17.43	-16.53	-15.64	-3.45	+2.56
26	+3.57	-1.57	-9.29	-13.50	-16.63	-16.15	-12.86	-4.31	+3.31
27	+5.57	-2.99	-9.34	-11.78	-16.61	-15.99	-12.13	-4.91	+1.17
28	+6.21	-3.22	.....	-11.72	-16.90	-11.45	-14.05	-5.34	+3.08
29	+3.51	-3.21	.....	-12.62	-16.68	-10.19	-14.06	.....	+4.03
30	-3.48	-6.50	-13.20	-16.50	-11.43	.....	.....	-.82
31	-3.32	.....	-14.20	-15.20	.....	.....	.....	-2.55

Ou 3. Vanden Huefel. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 23 N., R. 18 E. Used drilled stock well, diameter 5 inches, depth 110 feet. Measuring point, top of hole in pump base, 1.5 feet above land-surface datum. Equipped with cylinder pump.

Water level, in feet above land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	26.67	June 25	23.09	Aug. 19	26.99	Oct. 14	28.10
May 13	25.56	July 22	25.23	Sept. 17	26.83	Dec. 3	27.80
28	25.46						

Ou 5. Kaukauna Water & Electric Co. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 4, T. 21 N., R. 19 E. Used drilled domestic well, diameter 6 inches, depth 408 feet. Measuring point, top of 3/8-inch hole in plate over casing, 2.0 feet below land-surface datum and 660 feet above mean sea level. Water level, in feet above land surface datum, 1947: Oct. 30, 21.19 feet.

Ozaukee County

Oz 18 (*1073, p. 359). Canning Co. In Cedarburg, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 10 N., R. 21 E. Measurements discontinued after May 12, 1947. Water levels, in feet above land-surface datum, 1947: Mar. 24, 52.53; Apr. 14, 52.89; May 12, 52.79.

Portage County

Pt 50 (*1018, p. 275; 1025, p. 259; 1073, p. 359). Geological Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 22 N., R. 8 E.

Water level, in feet below land-surface datum, 1947

Jan.	5	9.11	Apr.	7	10.99	July	6	9.88	Oct.	5	10.33
	12	10.11		13	10.22		13	9.88		12	10.66
	19	10.11		20	9.88		20	9.99		19	10.88
	26	9.66		27	9.55		27	10.91		26	10.88
Feb.	2	9.44	May	4	9.66	Aug.	3	10.11	Nov.	2	10.99
	9	10.77		10	9.66		10	10.22		9	10.11
	16	10.55		19	9.66		17	10.11		16	11.08
	23	10.66		26	9.55		24	10.33		23	10.55
Mar.	2	10.77	June	1	9.77		31	10.33		30	10.11
	9	10.88		8	9.66	Sept.	7	10.44	Dec.	7	10.07
	16	10.66		15	9.44		15	10.33		14	10.11
	23	10.33		22	9.55		21	10.55		22	11.22
	30	10.66		29	9.77		28	10.55		28	11.11

Price County

Pr 6 (*840, p. 645; 845, p. 717; 1073, p. 360). Wisconsin Conservation Department. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 40 N., R. 1 W. Measurements supplied through courtesy of Wisconsin Conservation Department.

Pr 6--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	2.87	Apr. 26	1.03	July 31	2.81	Oct. 31	3.75
Feb. 28	3.13	May 31	1.97	Aug. 31	2.96	Nov. 30	3.51
Mar. 31	2.86	June 30	2.17	Sept. 30	3.36	Dec. 31	3.93

Racine CountyRa 3 (*1073, p. 361). City of Burlington. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 3 N., R. 19 E.

Water level, in feet below land-surface datum, 1947

Mar. 24	20.26	June 11	15.11	Sept. 3	16.37	Dec. 3	15.73
Apr. 10	19.23	July 9	12.86	24	17.08	17	16.18
May 7	19.70	Aug. 7	16.08	Oct. 29	17.16		

Ra 4 (*1073, p. 361). Pure Milk Association. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 3 N., R. 20 E.

Water level, in feet below land-surface datum, 1947

Jan. 29	50.44	May 7	48.52	Sept. 3	48.49	Dec. 3	50.39
Mar. 24	50.30	June 11	45.35	24	49.05	17	48.90
Apr. 10	49.40	Aug. 7	46.93	Oct. 29	48.84		

Ra 5 (*1073, p. 361). Chicago, Milwaukee, & St. Paul Railway Co. In Sturtevant, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 3 N., R. 22 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Jan. 29	112.24	Sept. 4	113.86	Oct. 29	115.51
June 11	113.00	24	115.87	Dec. 18	114.58

Ra 6 (*1073, p. 361). LeRoy Radtke. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 4 N., R. 22 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	21.40	June 10	18.44	Sept. 4	20.09	Oct. 29	20.05
Apr. 11	19.90	July 10	18.38	25	21.30	Dec. 3	20.42
May 6	20.96	Aug. 7	19.57				

Ra 8 (*1073, p. 361). Harold Wollmer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 4 N., R. 21 E.

Water level, in feet below land-surface datum, 1947

Apr. 11	65.07	July 10	67.67	Sept. 25	69.67	Dec. 3	67.61
May 6	64.60	Aug. 7	68.48	Oct. 29	69.66	18	68.71
June 10	63.18	Sept. 4	69.22				

Rock County

Ra 3. School for the Blind, Janesville. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 2 N., R. 12 E. Unused drilled well, diameter 10 inches, depth 113 feet. Measuring point, $\frac{1}{4}$ -inch hole in pump, 2.0 feet above land-surface datum and 815 feet above mean sea level. Equipped with air-lift pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
Aug. 6	58.09	Sept. 24	58.17	Dec. 3	58.13
Sept. 8	58.29	Oct. 29	58.27	17	57.91

St. Croix County

SC 2. Owner unknown. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 28 N., R. 19 W. Unused drilled domestic well, diameter 5 inches, depth unknown. Measuring point, top of east edge of pump base, 0.5 foot above land-surface datum. Equipped with hand pump. Water levels, in feet below land-surface datum, 1947: Oct. 17, 46.44; Nov. 7, 46.58; Dec. 30, 47.14.

Sauk County

Sk 1 (*1073, p. 361). Badger Ordnance Works. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 10 N., R. 6 E.

Daily low water level, in feet below land-surface datum, 1947

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	75.27	76.55	78.19	76.89	78.81	.....	76.30	79.05	77.13	76.29	76.56	76.13
2	75.18	76.55	77.69	77.85	78.83	.....	77.05	78.89	76.11	76.73	76.20	75.90
3	75.54	75.94	76.80	78.00	78.66	77.65	77.61	78.29	76.99	76.78	75.33	76.87
4	75.59	76.05	76.80	78.16	78.03	78.19	77.65	77.34	77.65	76.75	75.00	77.15
5	75.36	76.74	77.69	78.15	77.13	78.96	77.27	76.99	77.39	76.45	75.79	77.35
6	74.81	76.82	77.83	77.67	76.64	79.53	77.89	77.69	78.60	75.61	76.05	77.49
7	74.84	77.37	78.11	77.37	77.30	79.61	79.13	78.35	77.37	75.59	76.28	77.43
8	75.93	78.10	78.16	77.07	77.98	79.20	80.25	78.50	76.60	76.42	76.34	.....
9	76.16	78.64	77.92	77.86	78.59	78.45	80.92	78.52	76.23	76.65	76.19	.....
10	76.34	79.13	76.45	77.89	79.02	77.69	81.54	78.00	76.88	76.72	75.70	.....
11	76.55	79.54	76.92	78.46	79.51	78.59	82.13	77.12	77.12	76.74	75.36	.....
12	76.49	79.56	77.61	78.76	79.61	78.79	82.29	77.87	77.29	76.45	75.36	.....
13	75.69	79.11	77.45	77.67	80.72	78.30	81.81	77.41	77.25	75.77	75.91	.....
14	75.60	79.09	77.79	77.48	81.70	.....	81.99	78.17	76.88	75.63	76.53	.....
15	76.33	78.86	77.80	77.29	82.47	.....	82.54	78.37	76.48	76.40	76.92	75.89
16	76.47	78.29	77.56	78.03	83.12	.....	82.99	78.28	76.46	76.44	76.95	75.96
17	75.85	77.36	76.74	78.86	83.10	76.86	83.09	78.71	77.05	76.42	76.75	76.65
18	76.86	77.27	76.82	79.69	82.17	77.66	82.84	76.80	77.10	76.38	76.49	76.89
19	76.55	77.86	77.58	79.81	80.84	77.87	82.68	77.55	76.90	76.09	77.15	77.11
20	75.53	77.89	77.68	79.39	81.32	77.75	82.31	77.31	76.78	75.37	77.27	77.13
21	75.86	78.25	78.04	78.43	82.09	77.52	.....	78.03	76.27	75.27	77.40	76.83
22	76.35	78.30	78.04	77.92	82.75	77.02	.....	79.59	75.65	76.11	77.39	76.44
23	76.79	77.96	77.61	78.63	83.31	76.11	.....	78.78	75.50	76.43	77.02	77.26
24	76.91	77.04	76.80	79.32	83.31	76.99	.....	78.54	76.38	76.54	76.05	77.84
25	76.94	76.84	76.94	79.86	82.66	76.99	.....	77.68	77.66	76.55	75.94	77.87
26	76.52	77.51	77.74	80.88	.....	77.22	.....	77.28	76.70	76.19	76.67	77.87
27	75.70	78.21	77.89	79.32	.....	77.46	.....	77.86	76.73	75.30	76.72	77.45
28	75.92	78.29	78.13	78.58	.....	77.54	79.14	78.53	76.31	75.35	76.69	77.45
29	76.48	.....	78.23	77.57	.....	77.06	78.34	78.80	75.46	76.15	76.64	.....
30	76.48	.....	78.04	78.39	.....	76.42	78.92	78.55	75.67	76.29	76.69	.....
31	76.39	.....	77.16	.....	.....	.....	79.10	78.10	76.55	.....	.....	.....

Sk 6 (*1073, p. 362). Baraboo Iron Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 11 N., R. 6 E. Measurements supplied through courtesy of Leland Shaw, water superintendent, Baraboo.

Water level, in feet above land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	2.45	May 9	2.83	July 27	2.50	Oct. 13	2.96
15	2.52	15	2.99	Aug. 5	2.52	21	2.77
24	2.64	23	2.87	15	2.96	31	2.94
Feb. 20	2.49	June 5	2.80	22	2.55	Nov. 5	2.99
Mar. 10	2.55	12	2.75	29	2.20	17	3.00
19	2.35	20	2.82	Sept. 9	2.29	29	3.11
24	2.45	24	2.90	15	2.50	Dec. 5	3.07
Apr. 3	2.48	30	2.92	25	2.52	17	2.85
15	2.90	July 10	2.80	Oct. 1	2.68	26	3.59
28	2.61	21	2.42				

Sawyer County

Sw 7 (*840, p. 646; 845, p. 717; 1073, p. 362). Wisconsin Conservation Department. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 41 N., R. 9 W. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	16.47	July 26	16.44	Sept. 27	16.58	Nov. 29	16.60
Feb. 28	16.57	Aug. 30	16.47	Oct. 25	16.67	Dec. 27	16.61

Shawano County

Sh 1. Harry Sievert. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 26 N., R. 18 E. Unused drilled stock well, diameter 6 inches, depth 132 feet. Measuring point, top of hole in pump base, 1.0 foot above land-surface datum. Equipped with cylinder windmill pump.

Water level, in feet below land-surface datum, 1947

Apr. 15	59.24	June 25	58.55	Aug. 19	61.50	Oct. 15	60.90
May 13	59.18	July 23	60.07	Sept. 18	61.37	Dec. 4	61.17
29	58.40						

Sh 2. District school. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 26 N., R. 16 E. Unused drilled school well, diameter 5 inches, depth 85 feet. Measuring point, top of concrete pump base at edge of casing, 0.5 foot above land-surface datum. Equipped with hand pump.

Water level, in feet below land-surface datum, 1947

Apr. 15	48.40	June 25	48.89	Aug. 19	50.74	Oct. 15	50.61
May 13	47.70	July 23	49.89	Sept. 18	50.21	Dec. 4	51.67
29	48.39						

Sh 3. George Martin. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 26 N., R. 16 E. Unused drilled well, diameter 4 inches, depth 30 feet. Measuring point, top of casing, 1 foot below land-surface datum.

Water level, in feet below land-surface datum, 1947

Apr. 15	5.51	June 25	9.05	Aug. 19	11.91	Oct. 15	12.74
May 13	8.10	July 23	10.47	Sept. 18	12.11	Dec. 4	13.21
29	8.83						

Sh 4. John Short. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 25 N., R. 17 E. Unused drilled domestic well, diameter 4 inches, depth 50 feet. Measuring point, top of old pump flange and casing, 2 feet above land-surface datum.

Water level, in feet below land-surface datum, 1947

May 14	4.03	June 25	4.70	Aug. 20	6.44	Oct. 15	6.59
29	3.83	July 23	5.82	Sept. 18	6.35	Dec. 4	5.98

Trempealeau County

Tr 1. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 19 N., R. 8 W. Used drilled domestic and stock well, diameter 6 inches, depth unknown. Measuring point, top of casing, 1 foot above land surface. Equipped with windmill pump. Water levels, in feet below land-surface datum, 1947: Oct. 17, 142.12; Nov. 7, 139.79; Dec. 31, 141.09.

Vernon County

Ve 4 (777, p. 287; 817, p. 506; *840, p. 651; 845, p. 720; 886, p. 930; 908, p. 288; 938, p. 232; 946, p. 277; *988, p. 352; 1018, p. 275; 1026, p. 259; 1073, p. 363). Albert Storbakken. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 14 N., R. 5 W.

Water level, in feet below land-surface datum, 1947

Jan. 21	9.90	Apr. 19	8.74	July 17	10.13	Aug. 30	9.54
Feb. 28	9.94	May 24	9.41	26	9.20		

Ve 8 (777, p. 267; 817, p. 506; *840, p. 654; 845, p. 722; 886, p. 931; 908, p. 288; 938, p. 232; 946, p. 277; *988, p. 352; 1018, p. 275; 1025, p. 259; 1073, p. 363). M. H. Willenberg. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 14 N., R. 7 W.

Water level, in feet below land-surface datum, 1947							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	48.50	May 22	48.47	July 22	48.48	Oct. 21	48.26
Feb. 27	48.50	June 26	48.45	Aug. 25	48.27	Nov. 22	48.25
Mar. 22	48.48	July 18	48.01	Sept. 23	48.27	Dec. 22	48.25
Apr. 22	48.48						

Ve 9 (777, p. 267; 817, p. 506; *840, p. 654; 845, p. 722; 886, p. 932; 908, p. 288; 938, p. 232; 946, p. 277; *988, p. 352; 1018, p. 275; 1025, p. 259; 1073, p. 363). F. Lenser. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 14 N., R. 7 W.
Water level, in feet below land-surface datum, 1947: July 18, 12.86.

Ve 14 (777, p. 267; 817, p. 507; *840, p. 656; 845, p. 724; 886, p. 932; 908, p. 288; 938, p. 232; 946, p. 278; *988, p. 352; 1018, p. 275; 1025, p. 260; 1073, p. 364). Chris Benrud. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 14 N., R. 4 W. Water level, in feet above land-surface datum, 1947: July 17, 7.22.

Vilas County

V1 21 (*1018, p. 275; 1025, p. 260; 1073, p. 364). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 40 N., R. 10 E.

Water level, in feet below land-surface datum, 1947							
Jan. 6	15.20	Apr. 8	15.10	July 7	14.50	Oct. 5	14.86
12	15.22	14	14.96	15	14.51	14	14.90
19	15.25	21	14.95	21	14.53	20	15.04
27	15.30	28	14.90	27	14.54	28	15.09
Feb. 3	15.32	May 5	14.86	Aug. 5	14.58	Nov. 4	15.14
10	15.38	13	14.80	11	14.63	10	15.16
17	15.40	19	14.75	18	14.69	18	15.21
24	15.45	26	14.68	25	14.73	24	15.24
Mar. 3	15.48	June 2	14.64	Sept. 1	14.76	Dec. 1	15.30
10	15.52	9	14.58	8	14.72	8	15.33
17	15.55	16	14.54	15	14.85	15	15.38
24	15.59	23	14.51	22	14.90	22	15.38
31	15.62	July 1	14.50	29	14.92	29	15.48

Walworth County

Ww 1 (*1073, p. 364). Village of Genoa Junction. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 1 N., R. 18 E.

Water level, in feet below land-surface datum, 1947							
Mar. 24	27.49	June 11	25.22	Sept. 3 a	52.77	Oct. 29	26.76
Apr. 10	25.45	July 9	25.51	24	26.64	Dec. 3	27.00
May 7	25.53	Aug. 6	25.85				

a Pumping.

Ww 2 (*1073, p. 364). G. Bergstram. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 1 N., R. 16 E.

Water level, in feet below land-surface datum, 1947							
Mar. 24	66.02	June 11	65.59	Sept. 3	64.80	Dec. 3	65.71
Apr. 10	65.96	July 9	65.20	24	64.80	17	65.33
May 7	65.85	Aug. 6	65.86	Oct. 29	64.96		

Ww 3 (*1073, p. 364). War Assets Administration. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 2 N., R. 15 E.

Water level, in feet below land-surface datum, 1947							
May 7	42.69	July 9	41.42	Sept. 3	41.43	Oct. 29	41.44
June 11	41.89	Aug. 6	41.28	24	41.57		

Ww 4 (*1073, p. 364). United Milk Products. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 1 N., R. 15 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 24	53.94	June 11	48.47	Sept. 3	51.43	Oct. 29	53.17
Apr. 10	52.47	July 9	49.00	24	52.50	Dec. 17	53.12
May 7	51.22	Aug. 6	50.21				

Ww 5. H. Phillips. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 4 N., R. 16 E. Used drilled domestic well, diameter 8 inches, depth 303 feet. Measuring point, top of casing, 3 feet below land-surface datum and 923 feet above mean sea level. Equipped with force pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level
May 23	34.60	Aug. 6	37.35	Sept. 24	35.37
July 9	34.79	Sept. 3	35.02	Oct. 29	34.88

a Pumping.

Ww 9. Stewart Bros. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 3 N., R. 15 E. Used drilled stock well, diameter 6 inches, depth 287 feet. Measuring point, top of hole in pump base, 1.0 foot above land-surface datum. Equipped with lift pump.

Water level, in feet below land-surface datum, 1947

May 29	77.34	Sept. 3	77.80	Dec. 17	77.02
July 9	76.96	Dec. 3	77.12		

Washington County

Wn 1 (*1073, p. 365) John Thiesen. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 11 N., R. 18 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	50.15	May 12	48.75	July 30	46.98	Oct. 21	48.33
Mar. 24	51.98	June 4	47.59	Aug. 27	47.39	Nov. 19	48.95
Apr. 14	50.94	July 2	47.01	Sept. 24	47.85	Dec. 11	49.41

Wn 2 (*1073, p. 365). City of Hartford. In Hartford, between powerhouse and railroad.

Water level, in feet below land-surface datum, 1947

Mar. 24	35.63	June 4	37.79	Aug. 27	38.55	Nov. 19	30.73
Apr. 14	35.28	July 2	39.01	Sept. 24	37.50	Dec. 11	39.69
May 12	37.37	30	39.61	Oct. 22	40.24		

Wn 3 (*1073, p. 365). City of West Bend. In basement of city police station.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	13.23	14.68	13.87	15.84	14.41	15.74	14.22	16.03	14.81	16.53	12.99	13.79
2	13.24	15.25	13.71	14.72	13.62	15.26	14.13	16.05	14.67	16.44	12.82	15.06
3	13.80	15.82	13.09	15.28	13.32	15.51	14.50	16.28	14.47	15.76	13.50	14.82
4	13.71	15.18	13.58	14.84	14.14	15.69	14.69	15.99	13.36	14.40	13.00	16.17
5	13.33	14.33	13.68	14.22	14.22	16.10	14.00	15.28	12.97	15.61	13.57	15.34
6	13.25	15.30	13.64	15.33	14.50	16.27	13.60	15.06	14.23	15.63	13.90	16.25
7	13.95	15.80	13.94	15.89	14.88	16.26	13.57	15.72	13.88	15.38	14.17	15.65
8	13.64	15.10	14.25	15.29	14.74	15.67	13.79	15.73	13.75	16.00	13.00	14.40
9	13.47	15.43	13.35	14.63	13.77	14.47	13.93	15.75	13.93	16.01	12.61	15.41
10	13.91	15.49	13.15	15.43	13.34	15.48	13.91	15.39	13.77	15.47	13.02	15.34
11	14.00	15.27	14.46	16.39	14.30	16.12	13.70	15.64	12.79	14.20	13.63	15.26
12	13.70	14.62	14.25	16.14	14.63	16.01	13.81	15.70	12.59	14.84	13.67	15.96

Wn 3--Continued.

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	January		February		March		April		May		June	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
13	13.36	15.02	13.68	14.64	14.33	15.78	13.67	14.72	12.98	14.80	13.73	15.40
14	13.58	15.22	13.12	14.72	14.25	15.62	12.94	15.37	13.14	15.07	13.97	15.63
15	13.64	15.07	13.51	14.87	13.65	15.01	13.95	16.98	13.68	15.92	13.68	15.08
16	13.99	15.76	13.37	14.07	13.59	14.39	14.30	16.59	14.30	16.38	13.03	15.64
17	13.92	15.35	12.94	14.50	13.14	15.22	14.15	16.60	14.00	15.10	13.81	15.50
18	13.79	14.71	13.51	15.43	13.82	15.72	14.40	16.30	13.13	14.10	13.67	15.35
19	13.05	13.71	14.12	15.40	14.07	15.65	14.29	16.17	12.70	15.23	13.46	15.54
20	12.89	14.84	14.11	15.90	13.91	15.76	13.70	15.28	13.59	15.88	13.62	15.58
21	13.53	15.53	14.61	15.97	13.96	15.84	13.52	16.26	13.90	15.73	13.52	15.61
22	14.20	15.36	14.09	15.45	14.59	15.79	14.16	16.50	14.01	16.37	13.13	14.45
23	13.61	15.28	13.06	14.37	13.75	15.00	13.74	16.58	14.25	15.79	12.60	15.11
24	13.78	14.99	12.96	14.76	13.07	15.23	14.50	16.88	13.95	15.81	13.50	16.06
25	13.48	14.43	13.51	15.32	13.97	15.87	14.46	16.85	13.36	15.10	14.14	15.69
26	13.02	13.75	13.82	15.10	14.30	15.99	14.09	16.07	13.00	15.47	13.85	16.20
27	12.78	14.95	13.60	15.56	14.26	15.94	13.65	15.93	13.66	15.52	14.29	16.34
28	13.76	15.74	14.30	15.90	14.29	15.80	13.58	16.44	13.77	16.24	14.86	16.18
29	14.05	15.02			14.37	15.94	13.98	16.87	14.04	16.47	13.80	15.52
30	13.48	14.50			14.06	15.32	14.30	17.20	14.04	15.59	13.28	15.16
31	13.55	14.83			13.66	15.62			13.24	14.73		

Daily high and low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	July		August		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
1	13.30	15.32	16.11	18.32	13.56	15.11	14.67	15.90	13.25	14.51	12.86	15.00
2	13.66	15.64	15.83	17.57	13.82	16.01	14.34	16.32	13.03	14.20	13.75	15.32
3	13.60	15.44	14.61	16.85	14.35	15.81	14.76	16.48	13.23	15.19	13.47	15.02
4	13.83	15.27	13.94	17.97	14.68	16.69	14.86	16.82	13.41	14.74	13.88	15.49
5	13.32	14.60	16.59	18.57	15.07	17.07	13.94	15.12	13.33	14.64	14.11	16.80
6	13.06	14.40	16.16	18.64	15.31	16.44	13.52	15.50	13.90	15.32	14.73	15.90
7	12.88	15.51	17.08	19.73	14.29	15.38	13.86	15.80	13.38	14.53	13.59	15.12
8	13.95	17.23	16.99	18.99	13.71	16.00	14.48	15.61	13.42	14.28	13.22	14.88
9	15.01	17.41	16.50	18.57	14.96	17.00	14.53	16.68	13.39	14.00	13.51	15.04
10	15.42	17.93	15.79	18.06	15.25	16.63	14.81	15.96	12.99	14.50	13.78	14.99
11	15.74	18.73	15.21	17.54	15.26	16.71	14.18	15.70	13.15	15.01	13.33	15.24
12	15.85	18.00	.....	18.78	14.98	16.25	13.69	14.45	13.36	14.73	13.52	15.37
13	14.64	17.61	16.41	19.58	14.74	16.47	13.43	15.51	14.08	15.50	13.80	15.00
14	13.96	16.50	17.23	19.88	14.39	15.61	14.28	16.05	13.53	14.93	12.83	13.80
15	14.96	17.80	17.13	19.08	13.97	16.09	14.53	15.91	13.05	14.19	12.70	14.61
16	16.32	18.50	16.83	18.68	14.48	16.34	13.98	15.77	12.92	14.22	13.37	15.40
17	16.39	19.61	16.03	18.04	14.71	16.12	13.98	15.65	13.17	15.61	13.82	15.31
18	17.07	18.92	15.35	17.96	15.42	16.42	13.63	14.85	13.99	15.10	13.62	15.26
19	16.58	18.45	15.27	19.18	14.87	16.75	13.28	14.17	13.53	14.82	13.87	15.79
20	14.75	17.80	16.63	18.71	15.26	17.04	12.97	14.93	13.51	15.54	13.95	15.39
21	14.13	17.60	16.18	18.53	14.45	15.50	13.65	15.33	14.15	15.60	13.33	14.24
22	16.06	19.45	16.50	18.36	14.19	15.94	14.28	15.01	13.77	15.37	13.06	15.40
23	16.36	18.48	16.46	18.42	14.44	16.20	13.92	15.85	13.51	14.38	14.04	15.33
24	16.53	18.76	16.23	18.23	14.70	16.11	13.88	15.13	12.78	14.89	13.73	14.82
25	16.97	18.70	15.39	17.28	14.92	16.83	13.83	14.97	14.00	16.30	12.85	13.73
26	16.89	18.69	14.96	16.40	15.30	16.94	13.04	14.05	14.58	15.83	12.71	14.73
27	15.01	17.79	14.65	15.86	15.28	16.52	12.85	14.33	13.92	15.42	13.15	14.38
28	14.48	16.89	14.60	16.58	13.97	15.73	13.32	14.68	13.52	15.34	13.20	14.00
29	14.94	18.84	14.73	16.67	13.55	15.67	13.41	14.63	13.57	15.25	12.85	14.72
30	16.55	17.93	14.56	16.68	14.25	16.25	13.19	14.38	13.22	14.20	13.28	15.05
31	16.02	18.14	13.95	15.22			13.12	14.52			13.73	15.54

Waukesha County

Wk 2 (*1073, p. 365). Sisters of Notre Dame. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 7 N., R. 20 E.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	74.39	73.16	71.83	71.01	69.18	67.64	68.73	72.28	75.39	74.88	74.54	74.01
2	74.31	73.03	71.90	70.81	69.32	67.85	69.09	72.26	75.43	74.73	74.48	73.91
3	74.38	72.61	71.96	70.81	69.37	67.95	68.88	72.59	75.16	74.67	74.39	73.90
4	74.23	72.32	72.40	70.71	69.49	67.34	68.75	73.37	75.18	74.62	74.12	73.82
5	73.72	72.26	72.57	70.30	69.74	67.12	68.79	73.56	75.08	74.75	74.11	73.53
6	73.72	72.17	72.47	70.78	69.53	67.19	68.91	74.07	75.09	74.67	74.23	73.43
7	73.75	72.15	72.37	70.93	68.83	67.10	68.14	73.85	75.14	73.93	74.02	73.12
8	73.86	72.27	72.19	70.86	68.78	67.19	68.98	73.58	75.20	73.99	74.20	73.71
9	74.10	72.42	72.37	70.79	68.81	67.05	69.19	73.41	75.17	74.07	74.32	73.71
10	74.00	72.63	72.42	70.78	68.69	67.00	69.34	73.20	74.93	74.03	74.48	73.35
11	73.64	72.83	72.25	70.74	68.68	67.24	69.48	73.79	74.80	74.03	.....	73.38
12	73.76	72.78	72.13	71.31	68.68	67.29	69.95	73.64	74.86	74.35	.....	73.33
13	73.72	72.62	71.81	71.20	68.55	66.91	69.82	74.47	74.77	74.47	.....	73.12
14	73.82	72.39	71.53	71.04	68.37	66.96	69.88	75.02	74.83	74.36	.....	72.84
15	74.00	72.57	71.38	71.03	68.28	67.31	69.93	74.59	75.33	74.07	.....	72.86
16	74.06	72.52	71.24	70.56	68.48	67.42	69.95	74.84	75.43	74.03	.....	73.34
17	73.96	72.46	71.51	70.38	68.24	67.45	70.22	75.24	75.43	74.06	.....	73.07
18	73.63	72.61	71.50	70.26	68.22	67.53	69.97	75.90	76.05	74.17	74.60	73.37
19	73.61	72.57	71.33	70.34	69.20	67.64	70.37	76.35	75.75	74.41	74.42	73.55
20	73.59	72.48	71.06	70.12	68.53	67.63	70.30	76.60	75.81	74.46	74.40	73.32
21	73.86	72.27	71.01	70.24	67.98	67.74	70.48	76.45	75.70	74.62	74.10	73.38
22	73.82	72.24	71.03	70.29	68.00	67.95	70.58	76.72	76.08	74.50	73.95	73.39
23	73.02	72.13	70.97	69.78	68.07	68.06	70.99	76.69	75.79	74.81	73.99	73.56
24	72.86	72.07	70.83	70.01	68.04	68.43	71.30	77.18	75.77	74.83	73.86	73.40
25	72.88	72.00	70.94	69.83	67.94	68.21	71.13	77.10	75.69	74.92	73.96	73.11
26	72.99	72.04	71.25	69.72	68.16	68.35	71.45	76.72	75.48	74.98	73.92	73.31
27	73.05	71.85	71.14	70.15	67.99	68.46	71.67	76.08	75.29	74.82	73.86	73.22
28	73.16	71.96	70.95	69.93	67.78	68.59	71.73	75.78	75.04	74.82	73.99	73.45
29	72.88	.....	71.07	69.45	67.77	68.79	71.51	75.61	75.33	74.62	74.22	73.31
30	72.60	.....	71.16	69.42	67.77	68.81	71.17	75.46	75.32	74.50	74.12	73.36
31	73.03	.....	71.15	.....	67.70	.....	72.06	75.51	.....	74.40	.....	73.15

Wk 3 (*1073, p. 366). Village of Menomonie Falls. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 8 N., R. 20 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	24.44	Apr. 21	22.61	Aug. 26	25.69	Nov. 25	22.59
27	24.23	May 13	21.76	Sept. 23	22.76	Dec. 9	22.45
Mar. 25	22.90	July 29	21.61	Oct. 21	23.05		

Wk 14 (*1073, p. 366). Veterans Administration Hospital. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 6 N., R. 19 E. Water-stage recorder maintained on well since Mar. 20, 1947.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	259.28	259.15	253.42	251.22	266.55	269.64	271.84	274.77	273.63
2	260.04	259.61	253.78	252.15	266.56	269.14	271.97	274.56	273.81
3	260.14	259.46	254.45	252.49	266.39	269.21	272.04	274.05	274.52
4	259.94	258.41	254.33	252.49	266.30	269.60	272.04	273.79	274.56
5	259.71	258.05	254.81	251.32	266.83	270.19	271.80	274.31	274.61
6	258.27	258.62	255.13	251.03	267.39	270.22	271.36	274.42	274.73
7	258.47	258.94	255.05	252.18	267.80	270.14	271.73	274.18	274.39
8	258.88	259.42	254.13	253.06	268.10	270.03	272.10	274.03	274.37
9	259.39	259.87	259.52	253.09	268.14	270.28	272.53	274.07	274.61
10	259.22	259.78	261.32	253.64	267.85	270.46	272.73	274.01	274.65
11	259.67	258.69	262.24	254.86	267.65	270.93	272.72	273.86	274.74
12	259.73	257.49	262.51	256.30	267.93	271.06	272.60	274.42	274.91
13	259.08	258.07	258.70	256.62	268.18	271.06	272.59	274.81	274.91

Wk 14--Continued.

Daily low water level, in feet below land-surface datum, 1947
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	.....	258.56	258.44	256.72	258.04	268.56	270.79	272.86	274.81	274.49
15	.....	259.00	258.41	256.04	259.75	268.96	270.88	273.08	274.59	274.13
16	.....	259.31	258.73	254.54	260.80	268.96	271.04	273.12	274.31	274.81
17	.....	259.52	258.52	254.84	261.41	268.83	271.47	273.37	274.45	274.91
18	.....	259.87	257.12	254.89	261.92	268.86	271.69	273.38	274.82	275.09
19	.....	259.80	256.22	255.19	262.60	269.28	271.84	273.33	275.16	275.32
20	.....	258.78	256.67	255.16	262.33	269.59	271.85	273.30	275.37	275.26
21	.....	257.98	256.84	255.11	263.14	269.87	271.35	273.64	275.37	274.94
22	.....	258.48	257.12	253.96	264.02	270.13	271.42	273.68	275.06	274.39
23	.....	258.70	257.31	253.40	264.82	270.14	271.45	274.37	274.93	274.84
24	.....	259.44	257.00	253.40	265.32	269.81	271.90	274.40	274.00	274.82
25	258.99	259.70	255.71	252.50	265.65	269.72	272.29	274.42	274.36	274.59
26	259.41	259.52	255.37	252.37	265.68	270.06	272.55	274.25	274.84	274.07
27	259.83	258.69	255.78	252.46	265.51	270.27	272.56	273.71	274.84	273.91
28	260.14	258.27	256.10	252.49	265.63	270.47	271.97	274.09	274.62	273.92
29	259.89	258.46	256.25	252.12	265.80	270.45	271.62	274.40	274.46	273.69
30	259.23	259.00	256.08	251.34	265.75	270.32	271.72	274.70	274.37	273.98
31	258.64		254.63		266.48	270.16		274.75		274.03

Wk 20 (*1073, p. 366). G. W. Aeppler. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 7 N., R. 17 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	29.97	June 5	31.30	Aug. 27	29.56	Nov. 19	29.03
Apr. 16	30.97	July 3	25.70	Sept. 24	30.04	Dec. 11	27.72
May 14	31.40	30	31.20	Oct. 22	30.64		

Wk 22 (*1073, p. 366). Mrs. Bartholomew. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 5 N., R. 19 E.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 11	25.72	July 9	25.22	Sept. 25	25.69	Dec. 2	25.42
May 6	25.64	Aug. 6	26.89	Oct. 29	25.65	17	25.11
June 10	25.17	Sept. 3	25.85				

Wk 29. Mr. Roese, Riviera Tavern. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 7 N., R. 18 E. Used drilled domestic well, diameter 6 inches, depth 475 feet. Measuring point, top of casing, at land-surface datum. Equipped with jet pump.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 25	69.77	June 5	58.06	Aug. 27	61.27	Nov. 19	59.30
Apr. 16	65.06	July 3	66.07	Sept. 24	60.84	Dec. 10	61.84
May 14	a 60.05	30	61.06	Oct. 22	65.44		

a Pumped recently.

Wk 31. Fulton. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 5 N., R. 19 E. Unused drilled stock well, diameter 6 inches, depth 600 feet. Measuring point, top of casing, 1 foot above land-surface datum and 963 feet above mean sea level.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 22	133.87	Aug. 6	132.90	Sept. 25	133.35	Dec. 17	132.87
July 9	132.75	Sept. 3	133.11	Dec. 2	133.15		

Wk 32. Western United Dairy Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 5 N., R. 18 E. Unused drilled industrial well, diameter unknown, depth 189 feet. Measuring point, top of casing, at land-surface datum.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 22	46.93	Aug. 6	46.30	Sept. 25	46.68	Dec. 2	46.48
July 9	46.06	Sept. 3	46.61	Oct. 29	46.57	17	46.26

Wk 34. A. N. McGeoch Co. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 5 N., R. 18 E. Used drilled industrial well, diameter 6 inches, depth 618 feet. Measuring point, top of 3/8-inch nipple in pump base, 7 feet below land-surface datum and 895 feet above mean sea level. Equipped with jet pump.

Wk 34--Continued.

Water level, in feet below land-surface datum, 1947

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 22	35.11	Aug. 6	35.20	Sept. 25	33.83	Dec. 2	35.47
July 9	34.39	Sept. 3	35.80	Oct. 29	36.34	17	34.66

Waushara County

Ws 1. University of Wisconsin Experiment Farm, Hancock. Unused driven observation well, diameter $1\frac{1}{4}$ inches, depth unknown. Measuring point, top of casing, 1.0 foot above land-surface datum. Measurements supplied through courtesy of University of Wisconsin Experiment Farm.

Water level, in feet below land-surface datum, 1947

June 14	5.23	July 22	6.02	Aug. 12	6.24	Oct. 1	6.80
21	6.10	29	6.05	22	6.36	29	7.07
July 7	5.99	Aug. 5	6.11	25	6.38	Dec. 26	7.47
12	5.94						

Winnebago County

W1 1 (*1073, p. 366). Oak Hill Cemetery. SE $\frac{1}{4}$ sec. 20, T. 20 N., R. 17 E.

Water level, in feet below land-surface datum, 1947

Mar. 25	46.30	May 29	47.83	Aug. 20	47.60	Oct. 15	54.43
Apr. 16	38.75	June 26	48.31	Sept. 18	57.21	Dec. 4	58.24
May 13	40.06	July 23	52.14				

Wood County

Wd 29 (*1018, p. 276; 1025, p. 260; 1073, p. 366). Elmer Aschenbrenner. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 23 N., R. 4 E.

Water level, in feet below land-surface datum, 1947

Jan. 6	9.90	Apr. 14	5.93	June 30	5.86	Oct. 21	6.30
14	8.74	22	5.90	July 16	6.42	Nov. 3	6.44
21	8.15	28	5.76	21	6.37	12	6.37
27	6.74	May 5	5.23	28	6.15	17	6.28
Feb. 3	6.76	12	6.19	Aug. 18	6.22	24	6.20
18	6.70	19	5.62	25	6.14	Dec. 1	6.22
24	6.64	26	5.64	Sept. 8	6.74	8	6.40
Mar. 4	6.83	June 2	6.04	15	6.32	15	6.37
17	6.84	9	5.99	29	6.11	22	6.39
26	6.24	18	4.62	Oct. 6	6.14	29	6.42
Apr. 7	5.89	23	5.38	15	6.24		