

Water Levels and Artesian Pressure in Observation Wells in the United States in 1946

PLANNING FILES
HYDROLOGY

Part 3. North-Central States

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1073

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



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

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1849—A CENTURY OF CONSERVATION—1949

UNITED STATES DEPARTMENT OF THE INTERIOR

J. A. Krug, *Secretary*

GEOLOGICAL SURVEY

W. E. Wrather, *Director*

**For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price \$1.00 (paper cover)**

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 1946

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

Annual publication of records by Geological Survey

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

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

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

Scope of present volume

The present volume covers the north-central States and gives records of water level and artesian pressure in about 1,685 observation wells of the Geological Survey and cooperating agencies in Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Wisconsin. Of these wells, 60 are equipped with automatic water-stage recorders. For some wells not previously reported complete records of water level are given in this volume, including those of the years before 1945. 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 15,345 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.

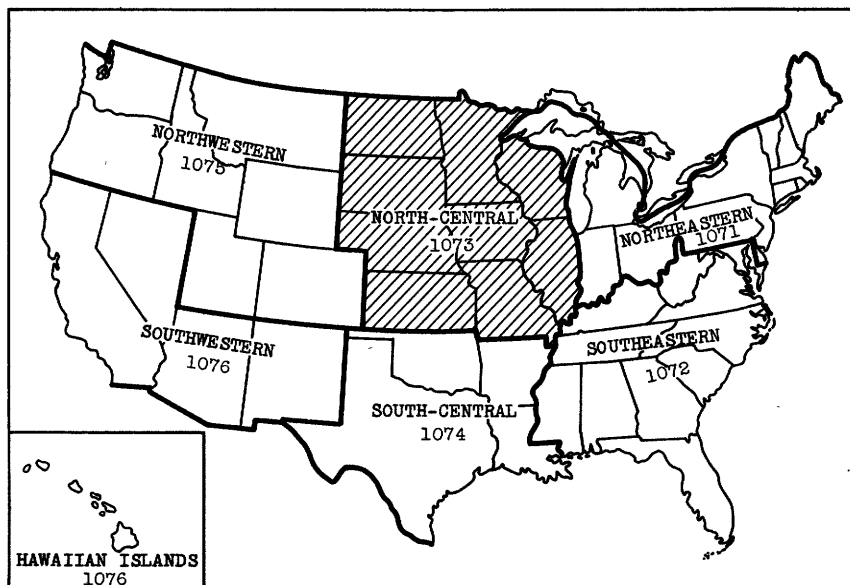


Figure 1.--Outline map of the United States showing sections of the country covered by the six water-supply papers on water levels and artesian pressure in observation wells in 1946. The shaded section represents the part of the country covered by this volume.

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 1946 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 1946 in the north-central part of the
United States

In 1946 the precipitation in the north-central section of the country was average or above with the exception of North Dakota and Wisconsin where it was somewhat 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. A summary of 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 Misses Dorothy M. Ireland and Baulah B. Brunson, Mrs. Nauvoo Ragland and Frances Dowell, 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 and Dowell, and Miss Brunson did the offset typing.

ILLINOIS

By H. G. Hershey

PROGRAM OF WORK

Measurements of water level were continued in 1946 in a 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 1946 varied from a low of 19.11 feet below land-surface datum, on October 19, to the high for the year of 4.65 feet below land-surface datum on January 5. The year closed on December 28 with the water level at 15.78 feet below land-surface datum or 11.13 feet lower than the water level at the start of the year. The average water level for the last 3 months of the year was 18.06 feet below land-surface datum compared with the average water level of 6.71 feet below land-surface datum for the first 3 months, a difference of 11.35 feet.

WELL DESCRIPTIONS AND WATER LEVEL MEASUREMENTS

Bureau County

R. E. Neff (#946, p. 10; 988, p. 6; 1018, p. 5; 1025, p. 5). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.65	Apr. 20	7.39	July 13	9.55	Oct. 5	18.68
12	5.11	27	7.99	20	11.19	12	18.99
19	6.61	May 4	7.59	27	12.19	19	19.11
Feb. 2	8.00	11	7.41	Aug. 3	13.09	22	18.94
9	8.31	18	7.55	10	13.69	26	18.98
16	8.73	24	7.70	17	14.79	Nov. 2	19.00
23	8.85	25	7.79	23	14.41	9	18.65
Mar. 2	8.86	June 1	8.33	24	15.33	16	18.39
8	7.15	8	8.13	31	16.19	23	18.19
9	6.39	15	6.79	Sept. 7	16.99	30	18.04
16	5.40	22	5.00	14	17.50	Dec. 7	17.78
23	5.48	29	6.71	21	18.00	14	16.15
30	5.99	July 3	7.48	28	18.35	21	15.79
Apr. 6	6.48	6	8.09	Oct. 4	18.41	28	15.78
13	7.00						

IOWA

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

PROGRAM OF WORK

Measurements of the water level in observation wells in Iowa were continued in 1946 in cooperation with the Iowa Geological Survey. Most of the observation wells were established in 1938. In a few observation wells in the Tarkio Creek Valley, in southwestern Iowa, measurements were begun in 1934 through a program organized by the Federal 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 made in the wells in the Tarkio Creek area are published in Water-Supply Papers 777, 817, 840, 845, 886, 908, 936, 988, 1018, and 1025, and those for the wells established in 1938 first appear in Water-Supply Paper 886.

At the beginning of 1946 measurements were being made on 174 wells in 39 counties throughout the State. (See figure 2 for map showing location of observation wells in 1946.) During the year 4 wells were dropped from the program, and 1 well was added to the program, making a total of 171 wells in the observation-well program at the end of the year. Automatic water-stage recorders were being maintained on 10 wells at the close of the year. Water-level measurements were being made weekly on 7 wells, monthly on 51 wells, and quarterly on most of the remaining wells. Approximately 1,250 water-level measurements were made in 1946 as contributions to the observation-well program. In addition, many water-level measurements were made in connection with pumping tests and in gathering data on new wells throughout the State. These additional measurements and descriptions of wells are not included in this report.

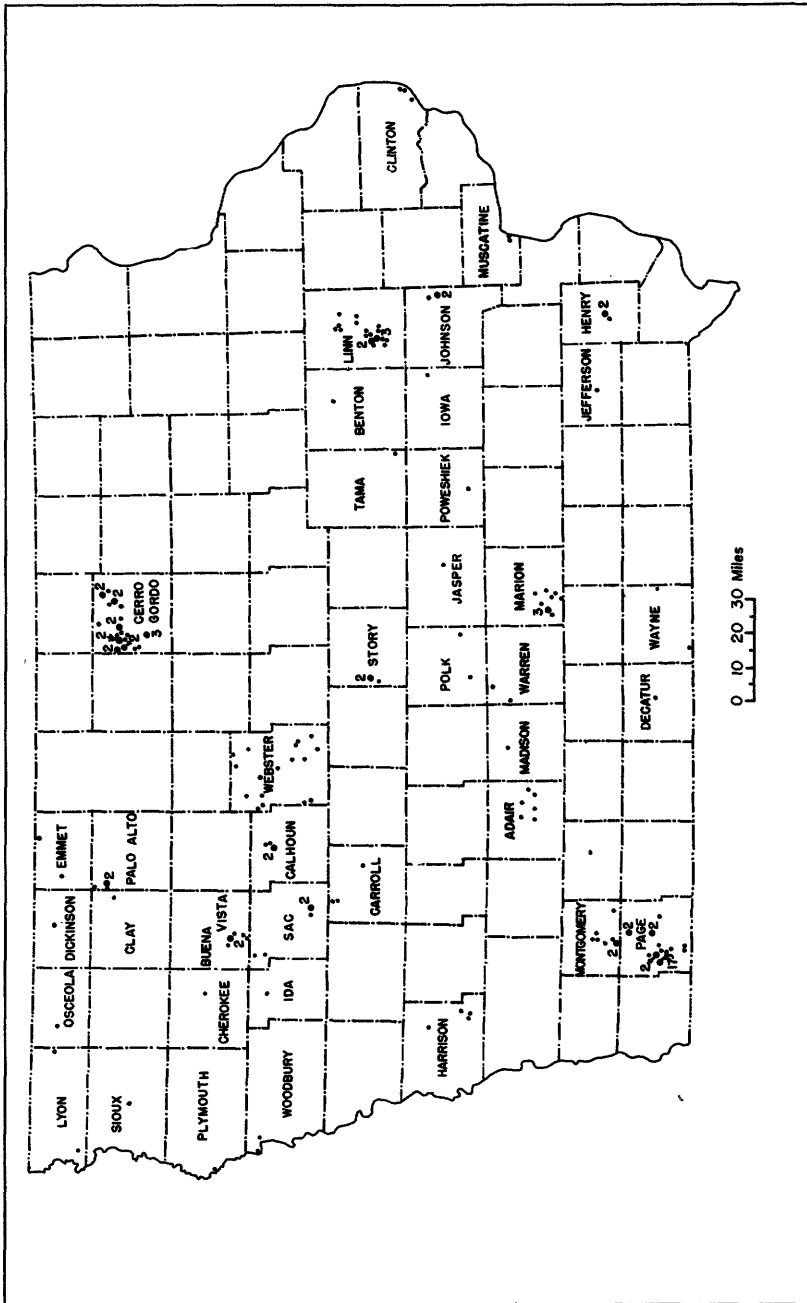


Figure 2.--Map showing location of observation wells in Iowa in 1946.

FLUCTUATIONS OF WATER LEVEL

The average precipitation over the State in 1946 was 35.15 inches, about 3.45 inches above normal and about 1.5 inches above the average for 1945. Above-normal precipitation occurred over most of the State during the months of January, March, May, June, September, and October. During August and November the precipitation was normal, but was below normal during the other months.

Water levels in shallow wells in Iowa fluctuated in phase with rainfall. The highest water levels occurred in March, April, May, and June; the water levels then declined in general during the remainder of the year.

The following table shows the average net change in the water level between December 1945 and December 1946 in groups of shallow wells, by counties, throughout the State. The precipitation for 1946 at the nearest U. S. Weather Bureau station and the departure from normal is also shown.

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, 1946

County	No. of wells	Average net change	Precipitation	Departure from normal
Buena Vista	4	-1.76	33.67	+5.16
Calhoun	4	-.31	32.80	+1.06
Cerro Gordo	6	+1.28	34.96	+4.46
Johnson	1	+.19	35.17	+.67
Linn	5	+1.02	40.25	+9.41
Lyon	1	+1.79	31.04	+5.50
Montgomery	7	+1.49	38.87	+7.39
Osceola	1	-5.09	26.96	+.05
Page	11	-1.26	33.35	+1.00
Poweshiek	1	+1.71	46.67	+13.27
Sac	2	-1.66	28.84	+.13
Webster	7	-.39	29.57	-1.56

Shallow observation wells were established in 1934 in the Tarkio Creek area, which covers parts of Montgomery and Page Counties, in Iowa, and Atchison County, Missouri. Water-level measurements have been made on this group of wells at least once a month for almost the entire period of record. In 1946 these measurements were made by Daniel L. Hummel and Dean W. Knox. Records of the water levels in wells in the Missouri part of the area are given in the section of this report which deals with that State.

Measurements in 10 wells (Nos. 1, 5, 6, 7, 10, 12, 13, 14, 15, and 17) were used in computing the average water level for each month in 1946. These averages are given in the following table.

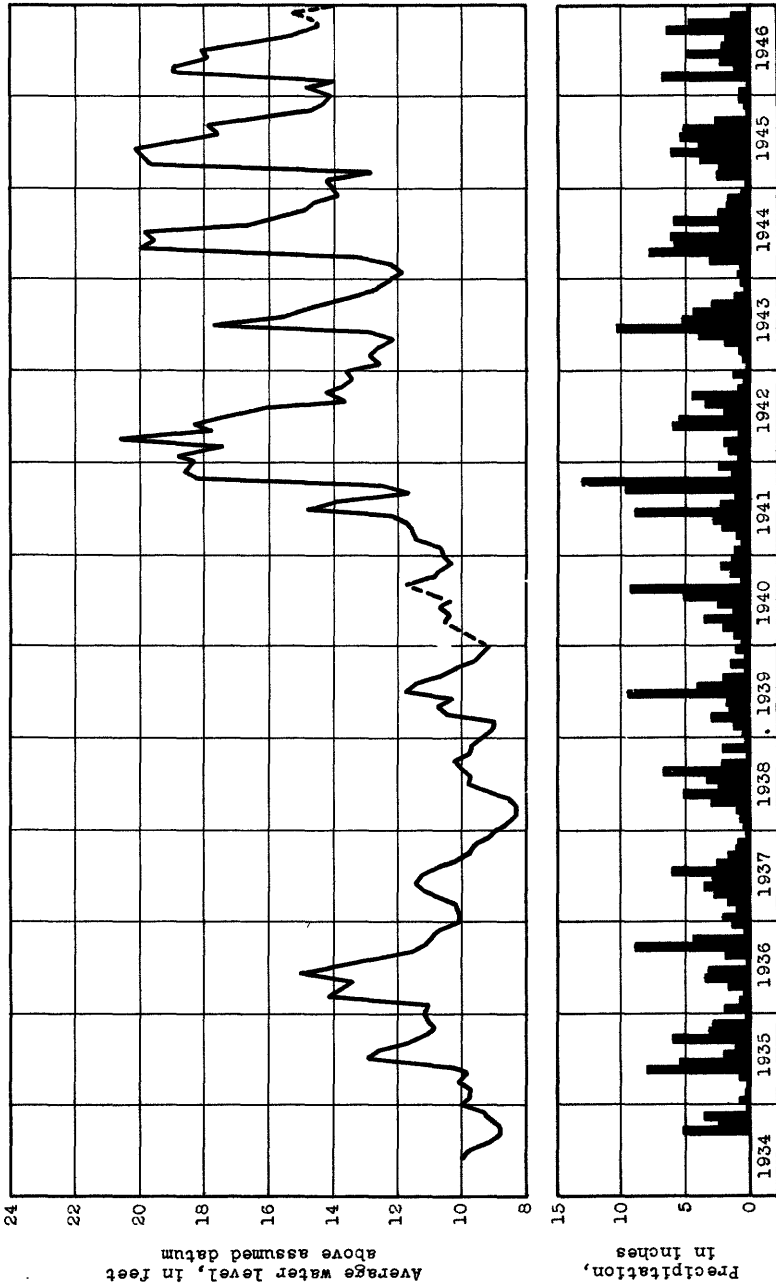


Figure 3.--Graph showing fluctuations of the average water level in 9 to 12 wells in the Tarkio Creek Valley, Iowa-Mo., and precipitation at Shenandoah, Iowa.

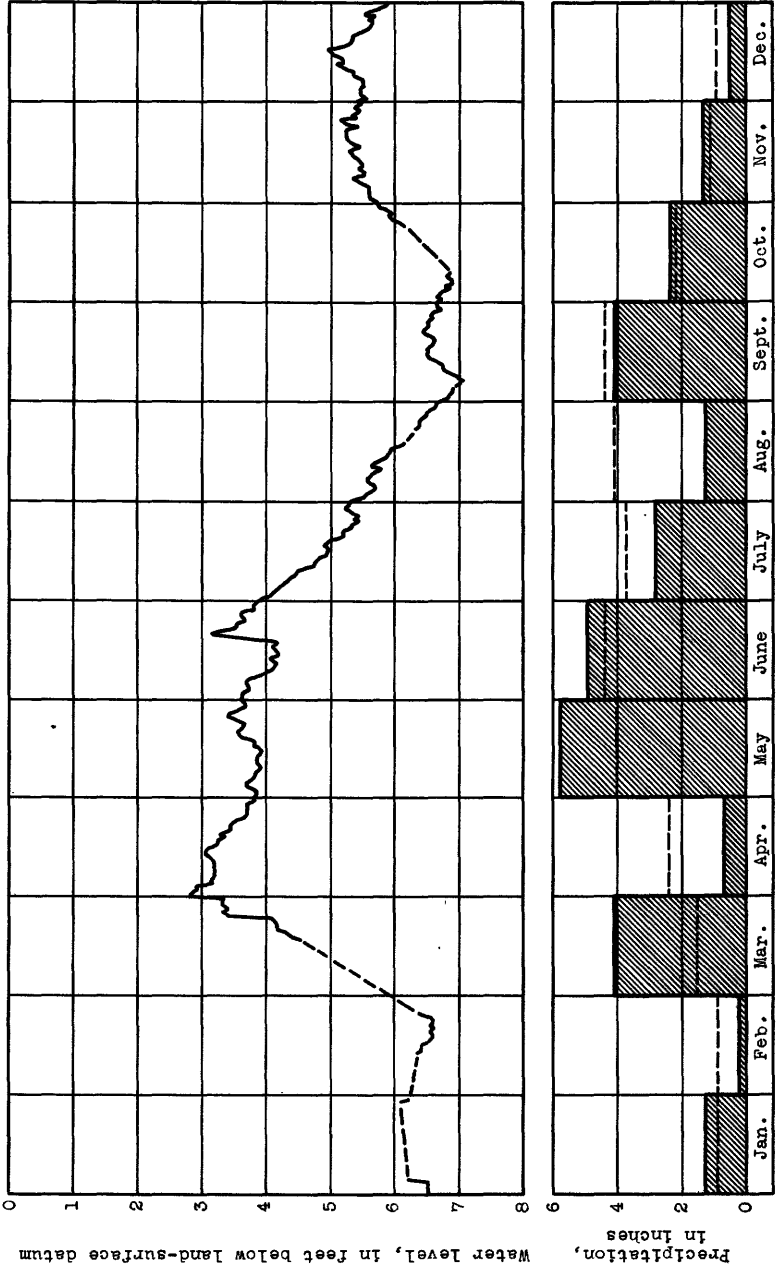


Figure 4.--Graph showing fluctuations of water level during 1946 in well 87-28-29N1, near Harcourt, Webster County, and precipitation at Fort Dodge, Webster County, Iowa.

Average water levels, in feet above assumed datum planes, in 10 observation wells in the Tarkio Creek area, Iowa-Mo., 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan.	14.93	Apr.	18.97	July	16.94	Oct.	14.58
Feb.	14.00	May	17.95	Aug.	15.38	Nov.	15.35
Mar.	18.99	June	18.04	Sept.	14.58	Dec.	14.00

The fluctuation of the average water level in this area as indicated by 10 to 11 wells and the precipitation at Shenandoah since 1934 are shown by months in figure 3.

The fluctuation of the water level in 1946 in a shallow unused well in the southern part of Webster County, near Harcourt, is shown in figure 4. This well is 41.8 feet deep, taps water in the glacial drift, and is representative of several shallow observation wells in the county which tap the same water-bearing bed.

Well 83-7-11E1, at Cedar Rapids, Linn County, is illustrative of wells affected by seasonal draft on aquifers such as those pumped for air-conditioning. Figure 5 shows the fluctuations of the water level in this well for the year 1946. In this graph the daily noon water level is shown as a point unless the fluctuation is more than 0.4 foot, in which case it is shown as a vertical line connecting the high and low water level for the day. The well is finished at a depth of 195 feet in the upper part of a dolomite strata which is locally about 400 feet thick. Most of the wells in Cedar Rapids develop water supplies for air-conditioning and industrial use from these strata. The observation well is about 3 miles from the heavily pumped area and about half a mile from two wells used for air-conditioning and industrial purposes.

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. 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.

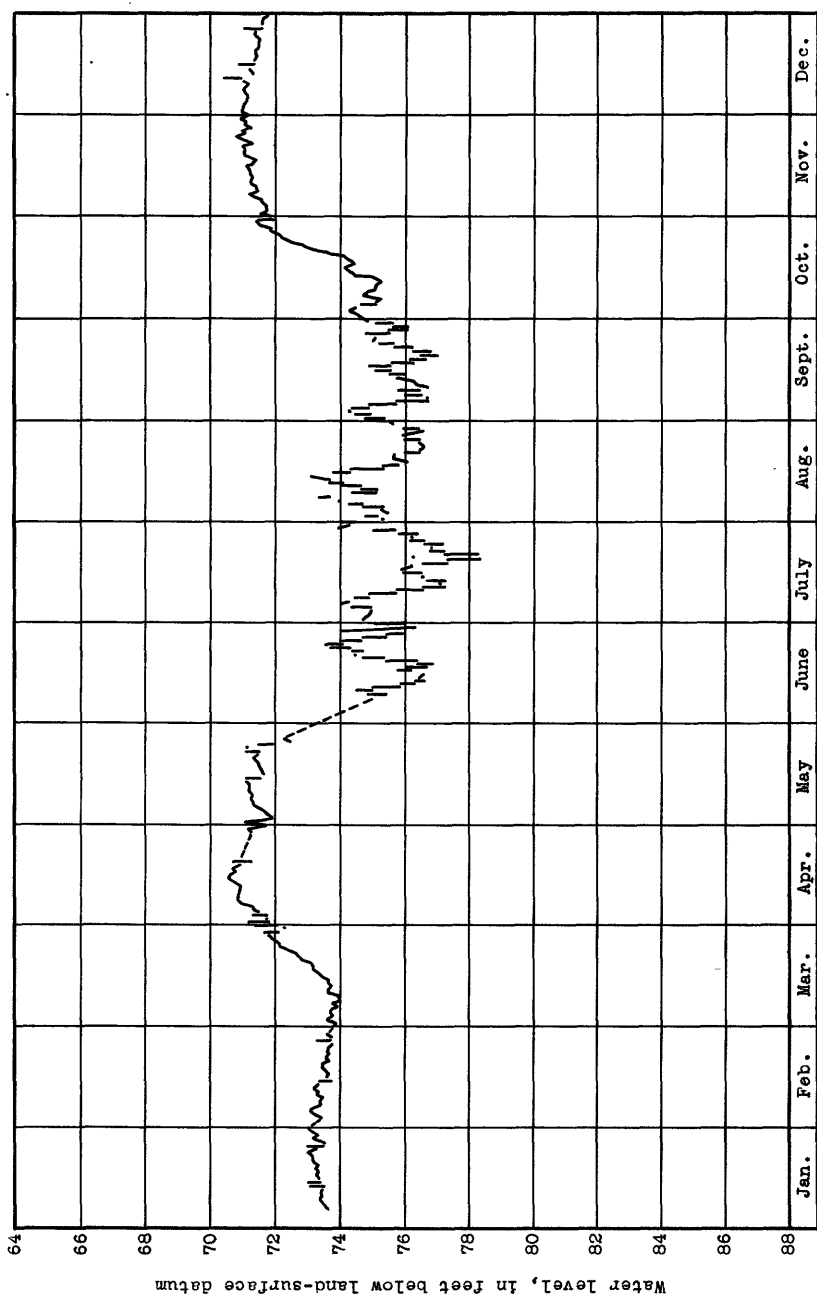


Figure 5.--Graph showing fluctuations of water level in 1946 in well 83-7-11E1, at Cedar Rapids, Iowa, caused by pumping in the vicinity.

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 located 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 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). SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 76 N., R. 31 W. Water levels, in feet below land-surface datum, 1946: Jan. 3, 3.24; July 19, 3.75; Oct. 23, 2.07; Dec. 17, 2.44.

76-31-29F1 (*946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14). SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 76 N., R. 31 W. Water levels, in feet below land-surface datum, 1946: Jan. 3, 14.44; July 19, 13.40; Oct. 23, 4.64; Dec. 17, 7.50.

75-31-15B1 (*908, p. 10; 938, p. 9; 946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14). John E. Soderberg. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 75 N., R. 31 W. Water levels, in feet below land-surface datum, 1946: Jan. 3, 4.42; July 19, 5.41; Oct. 23, 3.28; Dec. 17, 3.98.

75-31-18B1 (*908, p. 10; 938, p. 9; 946, p. 17; 988, p. 15; 1018, p. 14; 1025, p. 14). 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, 1946: Jan. 3, 11.19; July 19, 13.18; Oct. 23, 6.30; Dec. 17, 6.42.

75-30-17E1 (*946, p. 18; 988, p. 16; 1018, p. 14; 1025, p. 15). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 75 N., R. 30 W. Water levels, in feet below land-surface datum, 1946: Jan. 3, 0.79; July 19, 1.99; Oct. 23, 0.21; Dec. 17, 0.32.

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). City of Vinton well 3. No measurements made in 1946.

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). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 91 N., R. 37 W. Water levels, in feet below land-surface datum, 1946: July 15, 3.22; Oct. 15, 4.02; Dec. 18, 3.95.

90-37-3E1 (*908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15). Emil Schmitz. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 90 N., R. 37 W. Water levels, in feet below land-surface datum, 1946: July 15, 7.62; Oct. 15, 9.94; Dec. 18, 11.40.

90-37-3M1 (*908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15). 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, 1946: July 15, 11.95; Oct. 15, 18.29; Dec. 18, 15.64.

90-37-23D1 (*908, p. 11; 938, p. 10; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15). 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, 1946: July 15, 12.10; Oct. 15, 14.37; Dec. 18, 15.64.

90-37-34B1 (*938, p. 11; 946, p. 18; 988, p. 16; 1018, p. 15; 1025, p. 15). 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, 1946: July 15, 8.53; Oct. 15, 3.77; Dec. 18, 9.40.

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). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 89 N., R. 32 W. Water levels, in feet below land-surface datum, 1946: July 15, 3.88; Oct. 13, 3.51; Dec. 20, 4.26.

89-32-33N1 (*908, p. 11; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 15). 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, 1946: July 15, 4.19; Oct. 13, 3.60; Dec. 20, 4.12.

88-33-1E1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 15). 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, 1946: July 15, 9.35; Oct. 13, 12.39; Dec. 20, 10.68.

88-33-1D1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16). 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, 1946: July 15, 7.99; Oct. 13, 11.99; Dec. 20, 11.42.

Carroll County

85-35-7N1 (*946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16). 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, 1946: Oct. 15, 195.2.

85-35-18D1 (*908, p. 12; 938, p. 11; 946, p. 19; 988, p. 17; 1018, p. 15; 1025, p. 16). 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, 1946: July 14, 192.60; Oct. 15, 203.90, nearby well pumping.

84-34-25F1 (*886, p. 116; *908, p. 12; 946, p. 19; 988, p. 17; 1018, p. 16; 1025, p. 16). 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, 1946: July 14, 42.65; Oct. 15, 43.10.

Cerro Gordo County

97-21-9E1 (*938, p. 12; 946, p. 20; 988, p. 18; 1018, p. 16; 1025, p. 16). E. H. Phillips. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 97 N., R. 21 W. Water levels, in feet below land-surface datum, 1946: July 19, 100.19; Oct. 13, 97.29; Dec. 23, 97.95.

97-20-24H1 (*938, p. 13; 946, p. 20; 988, p. 18; 1018, p. 16; 1025, p. 16). 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, 1946: July 19, 8.01; Oct. 13, 5.91; Dec. 22, 5.63.

97-20-24H2 (*938, p. 13; 946, p. 20; 988, p. 18; 1018, p. 16; 1025, p. 16). Mrs. Vinnie Shanks. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 97 N., R. 20 W. Well abandoned; measurements discontinued.

97-20-28L1 (*988, p. 18; 1018, p. 16; 1025, p. 16). American 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, 1946: July 19, 178.0.

97-19-30R1 (*938, p. 14; 946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16). 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, 1946: July 19, 12.55; Oct. 13, 7.55; Dec. 23, 8.70.

96-22-7Q1 (*938, p. 14; *946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16). 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, 1946: July 19, 21.7; Oct. 14, 22.28; Dec. 23, 20.25.

96-22-12P1 (*908, p. 12; 938, p. 14; 946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16). Daughters of American Revolution Camp. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 96 N., R. 22 W. Well abandoned; measurements discontinued.

96-22-14C1 (*908, p. 12; 938, p. 14; 946, p. 21; 988, p. 19; 1018, p. 17; 1025, p. 16). 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, 1946: July 14, 32.99; Oct. 14, 32.91; Dec. 23, 32.20.

96-22-20C1 (*908, p. 13; 938, p. 14; 946, p. 22; 988, p. 19; 1018, p. 17; 1025, p. 17). 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, 1946: July 19, 6.30; Oct. 14, 4.75; Dec. 23, 4.88.

96-22-20L1 (*908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17). NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 96 N., R. 22 W. Water levels, in feet below land-surface datum, 1946: July 19, 39.85; Oct. 14, 33.89; Dec. 23, 31.79.

96-22-23Q1 (*908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17). 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, 1946: July 19, 20.45; Oct. 14, 19.33; Dec. 23, 19.40.

96-22-25D2 (*908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 17; 1025, p. 17). 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, 1946: July 19, 6.60; Oct. 13, 6.01; Dec. 23, 6.14.

96-21-13E1 (*908, p. 13; 938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17). 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, 1946: July 19, 5.51; Oct. 13, 4.42; Dec. 23, 4.59.

96-21-17C1 (*908, p. 13; *938, p. 15; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17). 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, 1946: July 19, 17.73; Oct. 14, 18.00.

96-21-17M1 (*908, p. 13; 938, p. 16; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17). NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 96 N., R. 21 W. Water levels, in feet below land-surface datum, 1946: July 19, 2.59; Oct. 13, 2.45; Dec. 23, 2.68.

96-21-18H1 (*908, p. 13; 938, p. 16; 946, p. 22; 988, p. 20; 1018, p. 18; 1025, p. 17). 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, 1946: July 19, 10.59; Oct. 13, 9.72; Dec. 23, 10.11.

96-20-3L2 (*938, p. 16; 946, p. 23; 988, pp. 21-22; 1018, pp. 18-19; 1025, p. 17). City of Mason City well 8. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 96 N., R. 20 W. Water-stage recorder removed after Jan. 28.

96-20-3L2--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Date	High	Low	Date	High	Low
Jan. 1	175.2	189.5	Jan. 15	184.2	199.5
2	175.5	201.3	16	176.3	195.5
3	180.4	201.9	17	179.6	188.5
4	184.0	203.3	18	172.0	188.1
5	183.0	202.7	19	169.1	189.7
6	172.9	190.0	20	170.0	198.2
7	180.2	201.2	21	169.4	189.5
8	184.8	201.2	22	171.5	186.2
9	189.9	203.3	23	169.8	188.5
10	178.3	203.4	24	169.3	185.7
11	193.7	204.0	25	166.0	190.4
12	184.3	204.2	26	167.9	189.0
13	177.2	201.4	27	167.2	186.5
14	174.0	202.7	28	167.5	187.0

96-20-3P1 (#938, p. 16; 946, p. 25; 988, p. 22; 1018, p. 19; 1025, p. 19). 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, 1946: July 19, 44.55; Oct. 13, 41.39; Dec. 23, 43.84.

96-20-16J1 (#886, p. 116; 908, p. 14; 938, p. 17; *946, p. 25; 988, p. 22; 1018, p. 19; 1025, p. 19). City of Mason City well 11. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 96 N., R. 20 W. No measurements made in 1946.

95-22-5M1 (#938, p. 17; 946, p. 26; 988, p. 23; 1018, p. 20; 1025, p. 19). 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, 1946: July 19, 6.16; Oct. 14, 6.19; Dec. 22, 4.50.

95-22-8C1 (#938, p. 18; 946, p. 26; 988, p. 23; 1018, p. 20; 1025, p. 19). Jurgensen Bros. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 95 N., R. 22 W. Water level, in feet below land-surface datum, 1946: July 19, 14.80.

94-22-24J1 (#938, p. 19; 946, p. 27; 988, p. 24; 1018, p. 21; 1025, p. 19). NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 94 N., R. 22 W. Water levels, in feet below land-surface datum, 1946: July 19, 11.2; Oct. 14, 11.49; Dec. 22, 11.62.

94-22-24J2 (#938, p. 19; 946, p. 27; 988, p. 21; 1018, p. 21; 1025, p. 19). Town of Thornton. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 94 N., R. 22 W. No measurements made in 1946.

94-22-24J3 (#938, p. 19; 946, p. 28; 988, p. 25; 1018, p. 21; 1025, p. 19). 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, 1946: July 19, 13.3; Oct. 14, 12.58; Dec. 22, 12.60.

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). City of Cherokee well 2 south. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 92 N., R. 40 W. Measurements by D. Kennedy, Cherokee Water Works.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 2	23.5	Mar. 4	22.1	May 1	23.9
Feb. 3	22.4	Apr. 2	19.6	June 10	24.1

Clay County

96-35-3R1 (*908, p. 14; 938, p. 21; 946, p. 29; 988, p. 26; 1018, p. 22; 1025, p. 20). 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, 1946: Jan. 1, 2.76; July 18, 4.66; Oct. 11, 2.53; Dec. 20, 4.30.

Clinton County

81-6E-22H1 (*908, p. 14; 938, p. 21; 946, p. 29; 988, p. 26; 1018, p. 22; 1025, p. 20). 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.

Water level, in feet below land-surface datum, 1946
(From air gage)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	82.6	May 13	73.0	Aug. 5	76.4	Oct. 21	70.7
18	76.4	20	70.7	12	74.1	28	73.0
26	77.4	27	72.5	19	73.0	Nov. 4	73.0
Mar. 7	81.8	June 10	75.7	25	84.5	12	78.7
14	78.8	17	81.7	Sept. 2	79.0	18	81.1
19	82.6	24	82.2	9	61.4	26	62.6
Apr. 1	68.4	July 1	82.2	15	81.1	Dec. 2	62.6
9	76.4	8	82.2	22	77.2	9	61.4
15	73.0	15	77.6	30	76.4	17	63.8
22	74.1	22	84.5	Oct. 7	79.9	23	62.6
29	71.2	29	74.1	14	77.6	30	63.8
May 6	67.9						

81-7E-6K1 (*908, p. 14; 938, p. 21; *946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 20). W. Atlee Burpee Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 81 N., R. 7 E. No measurements made in 1946.

81-7E-7B1 (*1025, p. 20). Clinton Water Works Co. 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, 1946: Feb. 10, 69.3; Apr. 14, 75.3; Aug. 11, 82.97.

Decatur County

69-25-29R1 (*908, p. 14; 938, p. 22; *946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 21). Sam Gasset. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 69 N., R. 25 W. No measurements made in 1946.

Dickinson County

99-36-6G1 (*938, p. 22; 946, p. 30; 988, p. 26; 1018, p. 22; 1025, p. 21). SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 99 N., R. 36 W. Water levels, in feet below land-surface datum, 1946: Jan. 1, 3.63; July 18, 1.03; Oct. 12, 1.05; Dec. 19, 1.95.

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). 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, 1946: July 18, 61.28; Oct. 12, 59.95; Dec. 19, 59.60.

99-34-14B1 (*886, p. 116; 908, p. 15; 938, p. 22; 946, p. 30; *988, p. 27; 1018, p. 23; 1025, p. 21). City of Estherville well 3. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 99 N., R. 34 W. No measurements in 1946.

Harrison County

80-42-11Q1 (*908, p. 15; 938, p. 22; 946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21). 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 level, in feet below land-surface datum, 1946

Jan. 2	16.33	Apr. 8	14.83	Sept. 1	12.42	Dec. 1	14.83
31	15.00	June 30	12.41	30	14.71	31	14.96
Mar. 1	14.75	Aug. 1	14.33	Oct. 4	14.50		

79-41-34N1 (*886, p. 117; 908, p. 15; 938, p. 23; 946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 79 N., R. 41 W. Water levels, in feet below land-surface datum, 1946: July 14, 40.75; Oct. 15, 40.36; Dec. 17, 31.89.

78-42-11A1 (*886, p. 117; 908, p. 15; 938, p. 23; *946, p. 31; 988, p. 27; 1018, p. 23; 1025, p. 21). Mutual Benefit Life Insurance Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 78 N., R. 42 W. Water levels, in feet below land-surface datum, 1946: July 14, 10.15; Oct. 15, 11.45; Dec. 17, 11.97.

78-42-12Q1 (*886, p. 117; *908, p. 15; 938, p. 23; 946, p. 31; 938, p. 27; 1018, p. 23; 1025, p. 22). Mutual Benefit Life Insurance Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 78 N., R. 42 W. Water levels, in feet below land-surface datum, 1946: July 14, 23.8; Oct. 15, 26.05; Dec. 17, 22.84.

Henry County

71-6-9B1 (*1025, p. 22). City of Mount Pleasant. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 71 N., R. 6 W. Water levels, in feet below land-surface datum, 1946: July 9, 153.80; Oct. 23, 187.20, nearby well pumping.

71-6-9B2. City of Mount Pleasant. NE $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 71 N., R. 6 W. Owner's well 4. Drilled well, completed in 1946 at a depth of 2,648 feet. Casing record: 50 feet of 38-inch curbing from 0 foot to 50 feet; 68 feet of 34-inch casing from 0 foot to 68 feet; 623 feet of 20-inch pipe from 0 foot to 623 feet; open 19-inch hole from 623 feet to 2,248 feet; 190 1/6 feet of 16-inch liner from 2,248 feet to 2,438 feet; 178 11/12 feet of 12-inch liner from 2,405 feet to 2,584 feet; 64 feet of 12-inch open hole from 2,584 feet to 2,648 feet. Because of high chloride content of bottom waters, hole was plugged back to 1,860 feet. Principal aquifer is St. Lawrence dolomite of Cambrian age. Measuring point, hole in pump base, 1.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 29, 142.20; Apr. 30, 167.50, pumping 1,070 gallons a minute at end of 15-hour pumping test; May 5, 132.00.

71-6-9M1 (*1025, p. 22). 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, 1946: July 9, 155.40, pumping approximately 200 gallons a minute; Oct. 23, 73.92.

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). 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 1946.

Iowa County

80-9-3L1 (*946, p. 31; 988, p. 28; 1018, p. 23; 1025, p. 22). NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 80 N., R. 9 W. Water levels, in feet below land-surface datum, 1946: Jan. 5, 3.02; July 10, 3.97.

Jasper County

80-18-31C1 (*908, p. 16; 938, p. 23; 946, p. 32; 988, p. 28; 1018, p. 23; 1025, p. 22). 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, 1946: Jan. 4, 16.28; July 11, 6.96; Oct. 4, 14.55.

Jefferson County

72-10-26A1 (*946, p. 32; 988, p. 28; 1018, p. 23; 1025, p. 22). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 7	21.31	May 18	18.14	June 30	17.15	July 28	20.47
30	19.59	June 2	18.34	July 14	21.22	Oct. 29	19.69
Apr. 29	19.15	20	18.53				

Johnson County

80-5-9K2 (*908, p. 16; 938, p. 23; 946, p. 32; 988, p. 29; 1018, pp. 24-25; 1025, p. 23). 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, 0.64 foot below land-surface datum on Mar. 17; lowest, 5.38 feet below land-surface datum on Sept. 6.

Water level, at noon in feet below land-surface datum, 1946

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.28	3.50	3.96	1.87	3.52	3.81	2.69	5.04	5.16	4.17	3.35	3.43
2	4.24	3.64	3.37	2.07	3.50	3.84	2.88	4.84	5.18	4.19	3.41	3.42
3	4.29	3.70	....	2.14	3.46	3.90	3.04	4.81	5.20	4.24	3.12	3.40
4	4.24	3.70	....	2.39	2.46	3.94	3.16	4.95	5.24	4.32	2.99	3.44
5	1.64	3.21	....	2.49	2.65	3.96	3.26	4.93	5.31	4.38	3.04	3.48
6	1.35	2.85	....	2.54	2.81	4.00	3.38	5.03	5.38	4.43	3.02	3.50
7	1.74	3.13	....	2.62	2.92	4.04	3.46	5.08	5.37	4.41	2.95	3.51
8	1.91	3.18	....	2.45	2.99	4.16	3.53	5.07	4.58	4.42	3.00	3.53
9	1.81	3.32	2.00	2.59	3.08	4.22	3.61	5.17	4.50	4.43	2.98	3.59
10	1.75	3.36	2.16	2.71	3.11	4.25	3.72	5.30	4.45	4.39	2.38	3.61
11	1.77	3.47	2.11	2.78	3.17	4.30	3.84	5.30	4.47	4.40	2.43	3.56
12	2.04	3.49	1.10	2.70	3.27	3.97	3.94	5.36	4.56	4.41	2.51	3.55
13	2.18	3.54	.84	2.70	3.32	3.44	4.01	5.36	4.57	4.44	2.57	3.67
14	2.33	3.57	.95	2.77	3.37	3.49	4.10	5.34	4.63	4.47	2.63	3.67
15	2.59	3.70	.89	2.88	....	3.47	4.16	4.77	4.70	4.46	2.69	3.68
16	2.71	3.64	.90	2.99	....	3.34	4.20	4.76	4.77	4.49	2.80	3.61
17	2.85	3.72	.64	3.00	....	3.37	4.17	4.07	4.85	4.44	2.82	3.77
18	2.91	3.77	.66	3.08	....	.83	4.22	4.10	4.91	3.36	2.77	3.78
19	3.02	3.77	.75	3.06	3.36	.72	4.30	4.21	4.94	3.30	2.77	3.76
20	3.08	3.81	.87	3.16	3.38	.78	4.36	4.30	4.66	3.40	2.84	3.76
21	3.1 ^o	3.81	1.07	3.18	3.45	1.00	4.42	4.36	4.55	3.45	2.83	3.79
22	3.23	3.84	1.11	3.20	3.48	1.38	4.48	4.45	4.58	3.52	3.02	3.85
23	3.21	3.88	1.37	3.21	3.51	1.85	4.56	4.54	3.91	3.56	2.97	3.87
24	3.36	3.91	.79	3.22	3.50	2.19	4.68	4.63	3.90	3.51	2.93	3.89
25	3.28	3.84	.94	3.27	3.55	1.14	4.70	4.70	3.96	2.91	3.14	3.87
26	3.53	3.89	.66	3.33	3.57	1.73	4.72	4.79	3.99	2.98	3.14	3.94
27	3.53	3.95	.83	3.37	3.62	2.07	4.77	4.84	4.06	3.04	3.27	3.83
28	3.61	3.93	1.04	3.38	3.69	2.35	4.76	4.89	4.09	3.20	3.21	3.94
29	3.59	....	1.28	3.45	3.71	2.59	4.84	4.97	4.14	3.20	3.32	3.94
30	3.54	....	1.58	3.49	3.74	2.49	4.91	4.99	4.15	3.32	3.28	4.01
31	3.47	....	1.75	....	3.73	....	4.99	5.06	....	3.40	....	4.05

80-5-22M1 (*938, p. 24; 946, p. 33; 1018, p. 25; 1025, p. 24).

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, 1946

(From recorder charts)

(From Recorder charts)											
Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	15.15	8.64	12.63	.....	10.24	16.48	.....	15.40	13.74	13.28
2	.....	15.13	9.08	12.68	.....	10.61	16.54	.....	15.36	13.75	13.53
3	.....	14.98	9.37	12.66	.....	10.91	16.55	.....	15.36	13.75	13.58
4	.....	14.88	9.76	12.09	.....	11.17	16.57	.....	15.43	13.65	13.56
5	.....	14.75	10.11	11.72	.....	11.43	16.55	.....	15.50	13.43	13.62
6	.....	14.30	10.31	11.58	.....	11.68	16.55	.....	15.59	13.13	13.69
7	.....	14.94	10.47	11.53	.....	11.97	16.57	.....	15.65	12.78	13.78
8	.....	13.40	10.59	11.50	.....	11.23	16.57	.....	15.68	12.77	13.85
9	.....	13.17	10.77	11.52	.....	11.48	16.58	.....	15.70	12.82	13.94
10	.....	12.97	10.89	.....	.....	12.74	16.65	16.60	15.72	12.56	14.08
11	.....	12.68	10.99	.....	.....	13.07	16.71	16.58	15.79	12.43	14.18
12	.....	12.01	11.11	.....	.....	13.40	16.75	16.58	15.92	12.26	14.22
13	.....	11.28	11.06	.....	.....	13.66	16.79	16.55	16.00	12.02	14.19
14	.....	10.60	11.07	.....	.....	13.90	16.82	16.50	16.08	11.84	14.43
15	14.56	10.12	11.23	.....	.....	14.18	16.77	16.48	16.12	11.73	14.45
16	14.54	9.68	11.46	.....	.....	14.42	16.70	16.47	16.11	11.75	14.57
17	14.69	9.02	11.52	.....	.....	14.57	16.48	16.50	16.12	12.08	14.57
18	14.78	7.83	11.61	.....	.....	14.74	15.98	16.55	16.04	12.18	14.60
19	14.75	7.15	11.64	.....	.....	14.92	15.72	16.56	15.83	12.08	14.78
20	14.87	6.96	11.79	.....	.....	15.10	15.60	16.55	15.59	12.08	14.87
21	14.92	6.98	11.88	.....	.....	15.25	15.53	16.53	15.33	12.11	14.88

80-5-22M1--Continued.

Water level at noon, in feet below land-surface datum, 1946
(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
22	14.93	7.21	11.93	.....	.....	15.38	15.53	16.50	15.13	12.52	14.87
23	15.01	7.47	12.02	.....	.....	15.52	15.55	16.32	15.00	12.00	14.88
24	15.05	7.58	12.07	.....	.....	15.67	15.57	15.93	15.80	12.43	15.05
25	15.01	7.48	12.09	.....	.....	15.84	15.62	15.70	14.58	12.48	15.08
26	14.93	7.52	12.20	.....	7.88	15.96	15.68	15.53	14.29	12.79	15.18
27	15.09	7.54	12.28	.....	8.43	16.07	.....	15.38	14.17	13.58	15.26
28	15.14	7.56	12.32	.....	8.94	16.15	.....	15.37	13.98	13.10	15.30
29		7.72	12.44	.....	9.43	16.24	.....	15.42	13.80	13.13	15.31
30		8.14	12.54	.....	9.79	16.31	.....	15.42	13.70	13.25	15.32
31		8.50	.....	.....		16.40	.....		13.79		15.43

80-5-22M2 (*938, p. 24; 946, p. 34; 988, p. 31; 1018, p. 25; 1025, p. 24). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 15	16.76	July 29	16.77	Sept. 23	17.16	Nov. 14	15.95
June 25	14.89	Sept. 10	17.05	29	16.94		

Linn County

85-6-19J1 (*908, p. 17; 938, p. 24; *946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Jan. 29	4.81	Apr. 27	4.60	July 25	5.08	Oct. 28	4.25
Feb. 28	4.84	May 31	5.10	Aug. 27	5.05	Nov. 20	4.42
Mar. 30	4.61	June 30	4.73	Sept. 25	3.90	Dec. 31	4.98

85-6-26D1 (*908, p. 17; 938, p. 24; 946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Jan. 29	4.50	May 31	5.03	Aug. 27	5.95	Nov. 20	2.58
Feb. 28	4.99	June 30	1.74	Sept. 25	4.83	30	3.15
Mar. 30	1.97	July 25	4.55	Oct. 28	3.25	Dec. 31	3.95
Apr. 27	3.02						

85-6-29B1 (*908, p. 17; 938, p. 25; 946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Jan. 29	60.43	May 31	59.85	Oct. 28	59.46	Nov. 30	58.40
Feb. 28	60.61	Sept. 25	60.01	Nov. 20	58.75	Dec. 31	59.00
Mar. 30	61.15						

85-6-30D1 (*946, p. 34; 988, p. 31; 1018, p. 26; 1025, p. 25). Weaver Witwer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 85 N., R. 6 W. Water levels, in feet below land-surface datum, 1946: Jan. 29, 13.92; Feb. 28, 14.39; Mar. 30, 11.68; Apr. 27, 13.50.

84-7-13E1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Jan. 29	5.17	May 31	5.10	Aug. 27	7.30	Nov. 20	4.18
Feb. 28	6.07	June 30	4.36	Sept. 25	5.95	30	4.46
Mar. 30	3.42	July 25	5.16	Oct. 28	4.60	Dec. 31	5.11
Apr. 27	4.50						

84-6-20N1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	5.22	May 31	5.71	Aug. 27	5.95	Nov. 20	3.49
Feb. 28	5.68	June 30	2.49	Sept. 25	4.95	30	4.07
Mar. 30	3.25	July 25	4.38	Oct. 28	3.40	Dec. 31	4.82
Apr. 27	5.00						

84-6-22F1 (*908, p. 18; 938, p. 25; 946, p. 35; 988, p. 31; 1018, p. 26; 1025, p. 25). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	5.55	May 31	4.42	Aug. 27	6.70	Nov. 20	3.89
Feb. 28	6.27	June 30	3.52	Sept. 25	5.42	30	4.40
Mar. 30	3.30	July 25	5.38	Oct. 28	3.52	Dec. 31	4.29
Apr. 27	4.72						

83-7-1B1 (*938, p. 25; *946, p. 35; 988, p. 33; 1018, p. 26; 1025, p. 25). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	6.58	Apr. 27	6.02	July 25	5.50	Nov. 20	5.51
Feb. 28	6.78	May 31	6.56	Aug. 27	6.41	Dec. 31	6.15
Mar. 30	5.29	June 30	5.58	Oct. 28	5.80		

83-7-2P1 (*908, p. 18; 938, p. 26; 946, p. 35; 988, p. 33; 1018, p. 27; 1025, p. 26). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	31.54	May 31	29.67	Aug. 27	30.99	Nov. 20	29.59
Feb. 28	31.44	June 30	28.60	Sept. 25	31.35	30	29.76
Mar. 30	23.88	July 25	29.70	Oct. 28	30.55	Dec. 31	30.99
Apr. 27	28.97						

83-7-11E1 (*938, p. 26; 946, p. 35; 988, pp. 32-33; 1018, pp. 27-28; 1025, p. 26). 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, 70.34 feet below land-surface datum on Apr. 20; lowest, 78.29 feet below land-surface datum on July 19.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	.....	.....	.....	a 73.77	.....	71.14	71.82	
2	.....	.....	.....	a 73.85	.....	a 71.75	.....
3	.....	.....	a 73.40	.....	a 73.56	.....	71.25	71.71
4	.....	.....	a 73.19	.....	a 73.75	.....	a 71.49	.....
5	.....	.....	a 73.07	.....	a 73.70	.....	a 71.28	.....
6	a 73.65	.....	a 73.12	.....	a 73.69	.....	a 71.23	.....
7	a 73.57	.....	a 73.39	.....	a 73.90	.....	a 70.89	.....
8	a 73.45	.....	a 73.36	.....	a 73.73	.....	a 70.81	.....
9	a 73.36	.....	a 73.47	.....	a 73.97	.....	a 70.83	.....
10	a 73.41	.....	a 73.24	.....	a 73.92	.....	a 70.85	.....
11	a 73.32	.....	a 73.31	.....	a 73.59	.....	a 70.88	.....
12	a 73.46	.....	a 73.17	.....	a 73.59	.....	a 70.91	.....
13	73.08	73.52	73.28	.....	a 73.67	.....	a 70.75	.....
14	73.01	73.42	73.28	73.73	a 73.60	.....	a 70.54	.....
15	a 73.37	.....	a 73.54	.....	a 73.61	.....	a 70.60	.....
16	a 73.24	.....	a 73.62	.....	a 73.41	.....	a 70.75	.....
17	a 73.31	.....	a 73.53	.....	a 73.28	.....	a 70.68	.....
18	a 73.22	.....	a 73.43	.....	a 73.13	.....	a 70.87	.....
19	a 73.32	.....	a 73.42	.....	a 73.11	.....	70.63	71.26
20	a 73.16	.....	a 73.65	.....	a 73.03	.....	a 70.54	.....
21	a 73.17	.....	a 73.51	.....	a 72.82	.....	a 71.04	.....
22	a 73.13	.....	a 73.66	.....	a 72.73	.....	70.84	71.33

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

83-7-11E1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
23	a 72.98	.....	a 73.61	.....	a 72.58	.....	a 71.34	.....
24	a 73.29	.....	a 73.65	.....	a 72.36	.....	a 71.46	.....
25	72.93	73.48	a 73.25	.....	a 72.12	.....	.....	.....
26	a 73.53	.....	73.24	73.71	a 72.11	.....	.....	.....
27	a 73.18	.....	a 73.71	.....	a 71.90	.....	.....	.....
28	a 73.28	.....	a 73.58	.....	a 71.79	.....	a 71.23	.....
29	a 73.10	.....	.....	.....	71.64	72.14	a 71.15	.....
30	a 72.97	.....	.....	.....	a 72.21	.....	a 71.94	.....
31	.....	.....	.....	.....	71.36	72.05	.....	.....

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

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	a 71.05	.. ..	.....	.....	a 74.70	.....	a 75.26	.....
2	a 71.93	.....	.....	.....	a 74.81	.....	74.73	75.14
3	a 71.77	.....	.....	.....	a 74.89	.....	a 75.47	.....
4	a 71.62	.....	.....	.....	a 74.91	.....	a 75.27	.....
5	a 71.45	.....	.....	.....	74.28	74.96	74.68	75.32
6	a 71.32	.....	.....	.....	a 74.01	.....	74.18	74.68
7	a 71.29	.....	.....	.....	a 74.11	.....	a 73.98	.....
8	a 71.25	.....	.....	.....	74.41	74.85	73.31	73.71
9	a 71.27	.....	74.82	75.43	74.85	75.72	74.31	75.12
10	a 71.18	.....	74.48	74.94	75.72	76.52	74.63	75.11
11	.....	.....	74.94	75.87	76.52	77.26	74.03	74.63
12	a 71.19	.....	75.85	76.29	a 77.07	.....	73.64	74.03
13	a 71.04	.....	76.27	76.60	76.69	77.24	a 73.65	.....
14	71.04	71.51	a 76.42	.....	a 76.53	.....	a 73.03	.....
15	a 71.63	.....	a 76.55	.....	75.93	76.54	73.77	74.27
16	a 71.62	.....	75.74	76.17	a 75.89	.....	74.27	75.27
17	a 71.51	.....	75.99	76.70	a 76.18	.....	75.27	75.80
18	a 71.49	.....	76.31	76.84	76.55	77.32	a 76.08	.....
19	a 71.37	.....	75.36	76.31	77.32	78.29	a 75.58	.....
20	a 71.30	.....	74.67	75.36	a 76.19	.....	a 75.63	.....
21	a 71.45	.....	a 74.39	.....	77.22	78.22	75.96	76.44
22	71.09	71.44	74.28	74.68	76.78	77.22	a 76.46	.....
23	a 71.08	.....	73.68	74.25	a 76.83	.....	a 76.59	.....
24	71.44	71.96	73.51	74.05	76.59	77.19	a 76.40	.....
25	a 72.46	.....	74.04	74.65	76.12	76.59	75.96	76.46
26	a 72.19	.....	74.65	75.40	a 76.15	.....	a 75.91	.....
27	.....	.....	75.39	75.93	75.80	76.37	a 76.16	.....
28	.....	.....	a 74.00	.....	74.94	75.70	a 76.54	.....
29	.....	.....	a 76.27	.....	a 74.93	.....	75.91	76.41
30	.....	.....	75.03	76.00	a 75.14	.....	a 75.60	.....
31	.....	.....	.....	.....	74.98	75.41	a 75.45	.....

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

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	74.72	75.33	a 74.50	.....	a 71.66	.....	a 71.21	.....
2	74.41	74.92	a 74.26	.....	a 71.79	.....	a 70.96	.....
3	a 74.21	.....	a 74.45	.....	a 71.75	.....	a 70.97	.....
4	74.30	74.86	74.61	75.08	a 71.62	.....	a 70.96	.....
5	74.86	75.75	a 75.07	.....	a 71.62	.....	a 71.11	.....
6	75.75	76.73	a 75.23	.....	a 71.40	.....	a 71.12	.....
7	a 76.71	.....	a 74.71	.....	a 71.22	.....	a 71.14	.....
8	75.95	76.50	a 74.80	.....	a 71.48	.....	a 71.09	.....
9	75.75	76.47	a 75.02	.....	a 71.40	.....	a 71.06	.....
10	a 76.72	.....	a 75.08	.....	a 71.24	.....	a 71.14	.....
11	a 76.31	.....	a 75.25	.....	a 71.27	.....	a 70.99	.....

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

83-7-11E1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
12	a 76.22	.....	a 74.97	.....	a 71.29	.....	70.37	70.90
13	a 75.74	.....	a 74.55	.....	a 71.22	.....	a 71.31	.....
14	75.52	75.98	a 74.25	.....	a 71.22	.....	a 71.30	.....
15	75.01	75.52	a 74.08	.....	a 71.11	.....	a 71.19	.....
16	74.83	75.56	a 74.41	.....	a 71.32	.....	70.85	71.34
17	75.56	76.26	a 74.19	.....	a 71.39	.....	a 71.35	.....
18	76.11	76.65	a 74.05	.....	a 71.04	.....	a 71.42	.....
19	76.48	76.99	a 73.65	.....	a 71.02	.....	a 71.39	.....
20	a 76.80	.....	a 73.34	.....	a 71.04	.....	a 71.38	.....
21	76.20	76.78	a 73.01	.....	a 70.98	.....	a 71.45	.....
22	75.66	76.20	a 72.82	.....	a 71.31	.....	a 71.47	.....
23	75.20	75.66	a 72.55	.....	a 71.02	.....	a 71.42	.....
24	a 74.96	.....	a 72.17	.....	a 70.76	.....	a 71.48	.....
25	a 75.07	.....	a 72.03	.....	a 71.06	.....	a 71.33	.....
26	74.74	75.50	a 71.86	.....	a 70.92	.....	a 71.39	.....
27	75.47	76.09	a 71.88	.....	a 71.24	.....	71.00	71.57
28	75.64	76.09	a 71.52	.....	a 71.00	.....	a 71.58	.....
29	75.08	75.64	a 71.39	.....	a 71.02	.....	a 71.60	.....
30	a 74.82	.....	71.45	71.97	a 70.90	.....	a 71.63	.....
31	.....	.....	a 71.88	.....	.....	.....	a 71.79	.....

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). City of 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	86.72	Apr. 27	84.98	July 25	86.75	Oct. 28	85.64
Feb. 28	86.60	May 31	85.48	Aug. 27	87.15	Nov. 20	84.57
Mar. 30	82.65	June 30	84.05	Sept. 25	86.88	Dec. 31	85.74

83-7-16J1 (*908, p. 19; 938, p. 27; 946, p. 37; 988, p. 34; 1018, p. 29; 1025, p. 28). 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 1946.83-7-17L1 (*908, p. 19; 938, p. 27; 946, p. 37; 988, p. 34; 1018, p. 29; 1025, p. 28). City of Cedar Rapids. In Ellis Park, in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1946

Jan. 29	19.89	Apr. 27	20.05	July 25	20.89	Oct. 28	19.94
Feb. 28	19.55	May 31	19.88	Aug. 27	20.84	Nov. 20	19.90
Mar. 30	18.51	June 30	15.00	Sept. 25	20.10	Dec. 31	21.18

83-7-21K1 (*938, pp. 34-35; 1018, p. 29; 1025, p. 28). 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, 57.30 feet below land-surface datum on Jan. 13; lowest, 60.75 feet below land-surface datum on Sept. 19.

Water level at noon, in feet below land-surface datum, 1946

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
1	57.70	57.98	58.24	57.60	58.27	58.78	59.44	.....	59.97	60.23	58.67
2	57.93	57.68	58.29	57.90	58.51	58.54	59.71	.....	59.97	60.19	58.88
3	58.16	57.47	57.91	57.96	58.47	58.77	59.80	.....	59.99	59.66	59.11
4	58.21	57.72	58.12	58.08	58.18	59.09	59.34	.....	60.15	59.91	59.12
5	57.93	57.79	58.29	58.16	57.82	59.22	59.32	.....	60.00	60.00	59.14
6	57.53	57.82	58.18	57.99	58.12	59.31	59.41	.....	59.90	59.93	59.20
7	57.67	57.87	58.17	57.59	58.23	59.56	59.28	.....	59.94	60.05	59.13
8	57.72	57.82	58.12	57.89	58.25	59.33	59.75	.....	60.12	60.16	58.99
9	57.73	57.52	58.11	57.97	58.27	59.18	59.96	.....	60.44	60.07	59.01
10	57.69	57.35	.....	57.75	58.26	59.45	60.15	.....	60.72	59.88	59.17

83-7-21K1--Continued.

Water level at noon, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
11	57.69	57.56	.....	57.63	58.22	59.80	60.20	60.58	60.18	59.89	59.14
12	57.46	57.74	.....	57.60	57.86	59.78	60.27	60.58	60.07	59.95	59.19
13	57.30	57.84	.....	57.57	58.08	59.82	59.93	60.56	59.57	59.94	59.19
14	57.55	57.84	.....	57.48	58.19	59.85	59.80	60.52	59.56	59.89	59.22
15	57.82	57.97	.....	57.84	58.34	59.46	60.02	60.06	59.85	59.90	58.65
16	57.81	57.61	.....	58.13	59.35	59.34	60.13	60.24	59.93	59.76	58.85
17	57.85	57.40	.....	58.16	58.35	59.69	60.26	60.69	59.99	59.38	59.21
18	57.84	57.60	.....	58.27	58.00	59.89	60.44	60.72	60.23	59.44	59.14
19	57.82	57.90	.....	58.23	57.97	59.69	60.55	60.75	60.15	59.78	59.14
20	57.68	58.05	.....	58.19	58.23	59.56	60.08	60.67	59.67	59.83	59.13
21	57.71	58.05	.....	58.00	58.39	59.42	.....	60.55	59.76	59.80	59.09
22	57.77	58.18	.....	58.03	58.46	59.21	.....	60.19	60.12	59.66	58.90
23	57.83	58.17	.....	58.25	58.44	59.15	.....	60.25	60.17	59.33	58.97
24	57.91	58.07	57.53	58.29	58.45	59.45	.....	60.31	60.05	59.15	59.07
25	57.97	58.00	57.76	58.30	58.08	59.63	.....	60.56	60.00	59.21	.....
26	57.92	58.22	57.86	58.30	57.94	59.76	.....	60.37	59.96	59.34	.....
27	57.67	58.24	57.87	58.00	58.16	59.88	.....	60.56	59.86	59.44	.....
28	57.66	58.20	57.86	57.85	58.47	59.94	.....	60.48	59.92	58.93	.....
29	57.82	.....	57.92	58.17	58.69	59.63	.....	59.87	60.11	58.96	58.44
30	57.89	.....	57.90	58.27	58.57	59.20	.....	59.96	60.28	58.76	58.48
31	58.01	.....	57.48	.....	58.74	.....	.....	.....	60.26	.....	58.50

83-7-21L1 (*908, pp. 19-20; 938, p. 28; 946, pp. 37-39; 988, p. 35; 1018, p. 30; 1025, p. 28). 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, 26.47 feet below land-surface datum on Jan. 28; lowest 65.43 feet below land-surface datum on Aug. 1.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	28.78	38.08	34.40	37.69	37.62	41.74	28.71	39.37
2	26.93	37.03	30.30	35.60	37.35	41.45	35.36	41.62
3	34.04	37.67	28.69	30.81	34.26	37.35	37.10	43.14
4	34.27	37.88	27.56	35.17	33.96	40.25	37.86	43.84
5	32.88	35.38	32.77	36.44	37.36	41.17	38.28	46.27
6	28.21	33.53	33.01	35.86	36.18	40.69	34.75	40.64
7	27.13	36.90	33.25	36.41	36.15	40.74	39.80	43.70
8	32.29	36.07	32.86	35.48	36.13	40.09	33.04	43.01
9	32.01	37.58	30.06	34.16	34.26	38.35	35.37	42.70
10	32.04	36.58	27.66	30.18	32.43	34.26	34.84	39.81
11	32.85	36.80	27.17	33.54	32.20	38.77	32.64	40.93
12	29.63	34.58	31.25	36.77	33.80	38.99	32.24	37.65
13	27.58	29.63	32.93	36.93	34.34	38.73	32.75	37.16
14	26.58	35.75	32.60	35.96	34.08	39.05	31.68	33.80
15	33.48	36.03	33.14	37.06	33.50	38.70	31.56	41.05
16	31.81	35.98	29.93	34.92	33.54	38.92	35.70	46.00
17	31.72	37.82	28.26	30.32	31.94	35.20	39.37	46.64
18	32.28	38.05	27.37	37.58	32.18	38.70	39.67	46.10
19	32.18	35.73	33.83	39.89	33.07	38.95	38.41	46.10
20	29.67	32.40	35.39	40.82	35.89	39.35	36.77	41.40
21	29.17	35.52	34.96	40.26	34.70	39.63	34.37	37.70
22	30.69	36.32	37.49	41.56	34.86	40.37	34.30	46.16
23	32.27	36.21	37.15	40.68	34.23	37.32	38.46	45.50
24	33.37	35.98	35.07	38.07	30.96	34.23	40.21	46.73
25	34.86	37.60	33.84	40.88	30.69	39.93	39.70	46.14
26	31.82	35.43	37.93	41.26	35.50	41.26	40.02	44.65
27	28.12	32.11	38.09	40.10	35.94	42.12	36.69	40.24
28	26.47	34.27	38.39	41.36	34.33	41.40	35.48	37.50
29	32.83	35.96	.....	.....	35.46	41.19	35.09	46.35
30	34.74	37.74	.....	.....	34.67	38.63	39.13	51.33
31	35.55	37.87	.....	.....	28.76	33.85	.....	.....

83-7-2111--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	46.01	54.98	49.23	52.45	.....	.....	58.34	65.43
2	45.74	55.14	43.88	49.23	.....	.....	58.99	64.96
3	39.62	46.98	43.34	53.41	.....	.....	57.23	64.59
4	36.01	41.65	48.51	56.68	.....	.....	55.82	61.19
5	33.85	36.21	50.89	57.14	.....	.....	52.23	59.35
6	34.54	43.52	49.98	58.74	.....	.....	52.71	64.23
7	37.19	44.72	.....	.....	.....	.....	55.17	64.55
8	38.33	45.49	.....	.....	.....	.....	55.19	64.76
9	39.08	46.24	.....	.....	.....	.....	56.59	65.07
10	37.68	43.80	.....	.....	.....	63.75	57.68	64.54
11	35.83	41.13	.....	.....	58.02	64.54	53.97	63.93
12	34.29	36.31	.....	.....	58.42	64.23	53.36	58.53
13	34.07	41.99	.....	.....	56.52	63.53	53.42	63.54
14	38.12	45.38	.....	.....	55.52	62.20	54.80	59.28
15	39.09	44.42	.....	.....	54.86	59.52	53.96	64.24
16	39.97	43.37	.....	.....	55.65	63.56	56.49	65.06
17	39.69	42.71	.....	.....	56.40	64.30	57.24	64.75
18	38.89	46.50	.....	.....	57.83	65.19	56.56	63.23
19	36.11	37.97	.....	.....	59.45	65.10	51.53	58.96
20	35.96	46.70	.....	.....	56.70	63.55	52.66	63.78
21	40.19	44.34	.....	.....	54.38	58.70	54.86	64.59
22	41.41	45.35	.....	.....	51.12	64.48	55.92	64.31
23	40.69	45.89	.....	.....	58.13	64.98	54.75	64.01
24	39.38	44.90	.....	.....	58.18	64.86	53.53	60.93
25	37.33	40.82	.....	.....	56.34	64.30	51.85	57.17
26	35.52	37.70	.....	.....	56.66	64.30	50.01	63.33
27	34.74	46.48	.....	.....	54.38	64.27	53.68	63.90
28	42.22	46.49	.....	.....	50.80	55.70	55.46	61.60
29	42.43	53.84	.....	.....	50.66	62.86	51.85	56.19
30	47.41	52.30	.....	.....	55.79	64.10	51.50	56.12
31	48.09	56.18	.....	.....	56.83	64.71	50.54	56.90

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	49.55	54.50	47.04	49.80	54.28	57.00	35.11	36.37
2	47.80	49.55	46.52	52.00	50.50	55.70	34.68	43.70
3	47.10	55.61	46.84	52.18	45.72	50.50	40.25	45.89
4	51.02	58.87	48.40	53.30	46.30	57.03	41.06	44.31
5	51.58	59.70	46.40	54.32	50.50	53.63	40.54	45.86
6	52.66	64.02	44.27	52.40	50.00	53.81	41.98	46.15
7	54.69	63.96	43.89	51.90	52.09	54.50	40.25	45.15
8	52.46	58.90	48.80	57.15	51.40	54.72	38.39	41.95
9	51.02	64.14	55.00	58.68	48.92	52.67	37.91	47.13
10	54.20	58.98	49.10	56.35	48.36	50.11	41.50	45.89
11	53.45	59.50	45.70	49.95	50.05	53.82	41.58	46.93
12	55.12	57.74	48.65	53.90	51.07	52.70	42.32	46.86
13	54.75	58.81	53.90	58.74	48.50	52.10	41.79	47.32
14	53.32	57.53	46.90	58.74	49.86	52.48	39.54	47.45
15	49.72	55.25	47.16	51.75	.....	.....	35.33	38.31
16	48.82	63.60	47.94	50.18	.....	.....	35.09	47.43
17	58.20	64.60	46.96	56.41	.....	.....	43.23	47.87
18	57.27	64.45	53.50	56.80	.....	.....	41.96	46.23
19	57.65	63.55	51.00	55.23	.....	.....	42.32	44.70
20	56.00	63.25	39.87	51.00	.....	.....	42.35	45.42
21	54.50	58.35	40.42	55.28	.....	.....	38.70	43.70
22	51.43	56.70	51.66	55.88	.....	.....	37.35	40.42
23	49.20	56.63	51.24	55.41	.....	.....	36.32	42.67
24	51.72	56.34	.....	.....	.....	.....	36.30	42.61
25	53.18	56.64	.....	.....	.....	.....	34.15	36.30
26	52.80	57.78	.....	.....	.....	.....	32.58	41.56
27	54.70	63.45	.....	.....	.....	.....	37.19	41.80
28	51.02	56.83	53.88	55.10	.....	.....	36.77	40.32
29	46.60	51.00	53.82	56.96	.....	.....	32.38	36.80
30	46.55	51.78	53.90	59.44	.....	.....	34.78	37.68
31	.....	.....	54.48	57.24	.....	.....	35.85	38.58

83-7-21P1 (*938, p. 28; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30). Kresge Co. In Cedar Rapids, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 20	47.77	Apr. 27	55.39	Nov. 30	54.88
Feb. 28	52.77	Sept. 25	77.45		

83-7-21Q1 (*938, p. 28; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30). Iowa Theater. In Cedar Rapids, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1946

Jan. 29	45.09	Mar. 30	50.20	Sept. 25	75.15
Feb. 28	51.16	Aug. 27	92.25	Nov. 30	53.60

83-7-23G1 (*908, p. 20; 938, p. 29; 946, p. 39; 988, p. 36; 1018, p. 31; 1025, p. 30). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	2.90	Apr. 27	2.84	July 25	2.79	Oct. 28	2.48
Feb. 28	2.70	May 31	2.42	Aug. 27	2.90	Nov. 30	2.42
Mar. 30	2.44	June 30	2.12	Sept. 25	2.85	Dec. 31	2.52

83-7-24A1 (*908, p. 20; 938, p. 29; 946, p. 39; 988, p. 37; 1018, p. 31; 1025, p. 31). 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, 1946

Jan. 29	28.49	Apr. 27	30.89	Aug. 27	30.20	Nov. 20	27.76
Feb. 28	28.84	May 31	28.60	Sept. 25	28.86	Nov. 30	28.16
Mar. 30	27.57	July 25	29.24	Oct. 28	28.90	Dec. 31	29.50

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). Cedar Rapids Gas Co. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 83 N., R. 7 W. Highest observed water level, 33.66 feet below land-surface datum on Jan. 7; lowest, 57.94 feet below land-surface datum on June 28.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
1	36.49	39.89	40.17	42.27	40.34	42.94	35.44	40.21
2	36.51	37.65	40.73	42.20	39.68	41.64	37.69	41.72
3	36.38	38.21	36.52	40.54	37.67	39.68	40.28	44.13
4	36.44	38.12	36.31	40.55	37.62	41.71	41.46	44.62
5	34.95	37.00	38.01	41.86	39.52	41.79	42.17	45.39
6	33.81	34.95	40.49	42.51	39.42	41.86	39.30	44.24
7	33.66	37.37	38.82	41.70	39.85	43.13	35.07	39.30
8	36.17	37.50	38.51	41.60	39.59	42.35	35.00	41.45
9	34.79	36.73	40.10	42.13	38.06	41.78	40.45	44.44
10	35.06	36.91	34.14	40.58	36.97	39.75	41.91	44.52
11	35.73	38.37	33.89	37.98	37.40	40.81	41.69	44.71
12	37.70	40.30	36.71	40.52	38.50	41.64	42.01	44.96
13	35.60	38.00	39.79	42.40	38.86	41.69	41.30	43.98
14	35.57	40.95	41.23	43.39	38.69	41.65	36.29	41.30
15	39.87	42.70	40.67	42.18	38.81	41.38	36.29	42.44
16	37.73	40.49	37.98	39.98	38.44	39.95	41.69	44.87
17	37.12	39.67	36.25	39.15	34.36	37.37	42.98	46.07
18	37.33	40.70	36.04	40.90	34.24	39.24	43.52	46.63
19	39.24	41.32	39.12	42.51	37.47	40.80	43.40	46.23
20	39.20	40.18	41.14	43.82	38.30	41.20	40.00	45.52
21	39.55	42.80	40.58	42.21	39.07	41.90	36.55	40.00
22	40.56	42.71	40.21	42.24	39.34	42.48	36.54	44.59
23	39.96	42.98	39.88	41.40	38.42	41.20	42.89	46.28
24	41.01	42.36	38.26	39.89	34.95	38.42	43.58	46.92

83-7-2862--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		April	
	High	Low	High	Low	High	Low	High	Low
25	39.27	42.51	38.11	41.93	34.83	38.61	43.73	46.44
26	38.43	41.19	39.48	43.06	36.71	39.61	43.85	46.05
27	34.78	38.43	40.82	43.02	37.22	39.88	42.92	44.46
28	34.19	37.15	41.04	42.63	37.35	40.43	41.16	43.07
29	37.16	38.71			37.88	40.92	41.37	45.23
30	36.07	40.09			37.46	39.42	42.92	46.37
31	39.43	42.20			35.84	37.46		

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	May		June		July		August	
	High	Low	High	Low	High	Low	High	Low
1	43.65	46.22	45.24	50.86	47.41	54.73	52.41	56.32
2	43.11	45.82	39.70	45.24	50.00	54.72	52.01	55.84
3	42.92	47.02	39.55	44.88	51.33	54.20	51.43	54.76
4	39.32	45.84	44.09	47.39	46.18	52.52	48.88	53.07
5	36.40	39.32	45.35	48.08	45.24	51.25	49.33	52.46
6	36.53	42.08	45.10	51.89	45.88	49.33	49.39	54.27
7	40.46	43.51	47.98	54.42	43.76	47.76	51.31	54.87
8	41.91	46.13	50.09	53.91	43.38	52.03	51.55	55.73
9	42.62	45.52	41.18	44.66	48.00	53.90	52.48	56.23
10	42.47	46.02	43.32	51.99	47.90	54.59	52.26	55.58
11	38.75	43.84	48.86	55.83	51.05	55.59	47.66	52.38
12	34.75	38.75	51.11	55.06	51.46	56.21	46.73	51.01
13	34.71	40.75	50.89	56.55	51.38	54.48	49.02	52.69
14	39.63	44.39	53.00	57.27	48.59	52.83	50.11	52.41
15	41.51	44.01	52.94	56.56	48.02	52.84	49.80	53.64
16	41.51	43.92	49.28	53.27	50.57	54.52	51.17	55.15
17	41.92	45.80	48.53	57.03	51.46	56.31	51.42	53.48
18	38.52	42.53	52.31	56.48	53.17	57.65	46.95	52.30
19	34.78	38.52	50.30	55.04	53.96	57.72	45.77	51.02
20	34.75	40.59	48.80	50.95	53.34	56.34	48.52	52.19
21	39.73	43.31	48.13	51.29	48.46	53.35	49.82	53.50
22	42.07	45.60	48.31	51.27	47.42	54.13	49.87	52.87
23	42.73	45.93	46.55	50.77	51.88	56.24	49.72	52.49
24	43.19	45.31	45.30	53.92	52.88	55.94	48.88	51.30
25	37.61	43.48	48.98	55.39	52.08	55.09	46.16	50.20
26	35.30	37.61	50.24	56.16	51.93	55.54	45.37	51.00
27	35.19	43.44	50.87	57.37	50.48	54.33	48.41	52.73
28	41.24	47.22	52.07	57.94	47.00	50.50	49.97	52.26
29	44.07	48.70	52.47	57.19	46.69	53.01	48.63	50.33
30	45.01	48.29	52.38	57.89	50.13	55.27	47.99	49.85
31	45.57	51.19			51.54	55.65	47.63	48.86

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	45.25	48.41	44.26	47.50	43.32	45.83	.....	.....
2	42.64	45.26	44.21	47.63	42.50	44.42	.....	.....
3	42.62	47.32	44.34	46.42	40.61	42.50	.....	.....
4	46.23	49.08	44.61	47.67	40.55	44.52	.....	.....
5	47.20	50.41	.....	.....	42.35	45.11	.....	.....
6	48.29	53.10	.....	.....	42.36	44.71	.....	.....
7	50.43	53.03	.....	.....	42.23	45.88	.....	.....
8	48.21	52.21	.....	.....	42.84	45.38	35.22	37.13
9	47.38	52.41	.....	.....	41.07	44.00	35.18	38.91
10	49.34	51.43	.....	.....	38.99	41.08	37.23	39.49
11	48.60	50.87	.....	.....	38.82	42.17	37.25	39.14
12	47.55	49.58	.....	.....	40.53	42.96	37.00	40.63
13	46.75	48.90	40.55	42.95	40.75	43.60	39.45	40.93
14	46.15	47.27	40.55	44.16	41.03	44.72	37.91	39.76
15	44.03	46.15	42.52	45.17	41.58	44.11	35.35	39.16
16	44.31	49.13	43.49	45.72	38.72	42.36	35.12	39.96

83-7-28G2--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
17	46.92	50.47	43.11	45.05	.....	.....	39.16	41.17
18	47.58	50.34	43.16	45.43	.....	.....	39.03	41.06
19	47.61	50.17	42.98	44.59	.....	.....	38.34	40.16
20	47.15	49.17	41.09	42.99	.....	.....	37.30	39.47
21	46.31	47.80	40.90	44.32	.....	.....	36.23	37.79
22	44.30	47.10	41.91	44.71	.....	.....	34.59	36.25
23	43.15	45.07	42.09	44.32	.....	.....	34.50	38.76
24	42.60	45.80	41.97	44.88	.....	.....	36.32	38.68
25	44.41	46.40	42.04	45.14	.....	.....	34.14	37.99
26	45.01	48.73	42.90	44.60	.....	.....	34.10	37.27
27	46.43	50.18	41.30	42.90	.....	.....	36.37	39.56
28	46.43	48.80	41.30	44.45	.....	.....	38.05	39.82
29	43.21	46.44	42.21	45.49	.....	.....	38.62	39.59
30	43.18	46.30	43.18	46.43	.....	.....	38.50	41.36
31			43.60	46.00			39.27	41.45

83-7-32G1 (*908, p. 21; 938, pp. 29-30; 946, p. 41; 988, p. 38; 1018, p. 32; 1025, p. 32). Floyd Felter. In Cedar Rapids, in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	81.16	May 31	81.67	Aug. 27	83.50	Nov. 30	82.41
Feb. 28	81.81	June 30	83.35	Sept. 25	84.72	Dec. 31	82.98
Mar. 30	81.39	July 25	84.65	Oct. 28	80.55		

83-7-33F1 (*908, p. 21; 938, p. 30; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32). In Cedar Rapids, in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 83 N., R. 7 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	71.79	Apr. 27	73.79	July 25	71.66	Oct. 28	71.78
Feb. 28	71.90	May 31	71.93	Aug. 27	74.20	Nov. 30	70.94
Mar. 30	71.97	June 30	71.98	Sept. 25	71.02	Dec. 31	73.59

83-6-30B1 (*908, pp. 21-22; 938, p. 30; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	50.18	May 31	50.50	Aug. 27	50.75	Nov. 30	50.31
Feb. 28	50.52	June 30	49.01	Sept. 25	53.16	Dec. 31	50.66
Mar. 30	49.57	July 25	49.95	Oct. 28	50.37		

Lyon County

99-43-11H1 (*908, p. 22; 938, p. 31; 946, p. 41; 988, p. 38; 1018, p. 33; 1025, p. 32). SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 11, T. 99 N., R. 43 W. Water levels, in feet below land-surface datum, 1946: July 17, 4.99; Oct. 11, 3.99; Dec. 19, 3.49.

98-48-24M1 (*886, p. 118; 908, p. 22; 938, p. 31; 946, p. 41; 988, p. 39; 1018, p. 33; 1025, p. 32). A. C. Hanson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 98 N., R. 48 W. No measurements made in 1946.

Madison County

76-28-2B1 (*908, p. 22; 938, p. 31; 946, p. 41; 988, p. 39; 1018, p. 33; 1025, p. 32). 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, 1946: Jan. 3, 15.76; July 12, 15.88; Oct. 23, 9.93; Dec. 15, 13.94.

Marion County

75-20-22H1 (*908, p. 22; 938, p. 31; 946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33). 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, 1946: Oct. 23, 4.74; Dec. 15, 5.81.

75-20-31C2 (*908, p. 23; 938, p. 31; 946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33). 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, 1946: July 10, 11.40; Oct. 13, 10.90; Dec. 15, 9.60.

74-21-11A1 (*946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 33). 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, 1946: July 11, 8.90; Oct. 23, 8.33.

74-21-11F1 (*1025, p. 33). 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).

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	High	Low	Day	High	Low
Feb. 13	.....	65.46	Oct. 30	68.60	70.10
14	62.36	65.43	31	68.15	71.30
15	62.34	65.61	Nov. 1	68.28	70.50
16	62.45	66.20	2	67.60	70.40
17	63.57	65.39	3	68.40	70.80
18	61.88	65.31	4	67.55	72.20
19	62.18	65.87	5	68.60	72.60
20	62.79	.....	6	68.60	.....
Mar. 13	.....	64.40	7	66.60	.....
14	61.40	65.00	8	67.90	.....
15	62.00	65.40	9	68.74	.....
16	62.20	65.80	11	69.50	71.00
17	62.60	66.10	12	68.30	70.60
18	62.90	66.00	13	67.60	.....
19	62.30	66.40	15	67.70	.....
21	.....	66.60	16	65.10	.....
22	63.50	66.40	17	64.60	68.00
23	63.50	66.20	18	65.95	.....
24	63.60	66.40	19	67.10	71.70
25	63.70	66.20	20	68.20	73.70
26	63.50	66.40	27	.....	75.60
July 10	.....	75.00	28	72.40	73.40
11	70.20	74.25	29	69.11	74.50
29	a 74.90	.....	30	72.60	74.80
30	70.60	.....	Dec. 1	71.60	.....
31	71.20	.....	3	70.75	.....
Aug. 1	69.60	.....	4	71.30	.....
2	69.40	.....	5	70.40	.....
5	67.30	.....	7	.....	75.40
Sept. 10	a 67.11	.....	8	71.50	.....
11	64.60	.....	9	71.30	.....
18	68.00	69.80	15	a 70.07	.....
19	67.60	69.50	16	68.20	.....
20	67.30	69.70	19	70.65	.....
Oct. 22	70.72	.....	20	70.10	.....
23	66.65	71.02	21	69.80	.....
24	67.07	71.82	23	70.00	.....
25	68.56	73.20	24	70.40	.....
26	69.65	72.50	26	69.65	.....
27	70.45	73.70	27	70.20	74.00
28	68.86	.....	28	69.00	.....
29	68.36	.....		

a Tape measurement; not necessarily the high or low water level for the day.

74-21-11K1 (*1025, p. 34). Town of Melcher. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 74 N., R. 21 W. Test hole No. 3 (1945). Highest observed water level, from recorder charts, 69.37 feet below land-surface datum on Jan. 6; lowest, 106.48 feet below land-surface datum on Aug. 8.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	January		February		March		July		August	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	69.55	85.86	75.55	93.28	72.89	89.28	.....	.....	80.27	.....
2	69.67	85.73	74.23	90.47	72.96	89.53	.....	.....	80.00	.....
3	69.53	86.10	74.05	90.11	73.13	87.98	.....	.....	.....	.....
4	69.73	85.80	73.80	89.90	73.30	88.90	.....	.....	.....	.....
5	69.55	85.37	73.45	89.46	73.24	89.45	.....	.....	.....	.....
6	69.37	89.30	73.10	89.75	72.85	89.81	.....	.....	79.46	99.40
7	71.40	88.20	73.50	89.77	73.65	90.19	.....	.....	78.30	104.43
8	71.85	87.98	71.37	75.00	72.45	86.85	.....	.....	79.80	106.48
9	71.10	87.15	70.65	87.51	71.85	88.43	.....	.....	81.95	105.88
10	70.60	87.78	71.65	88.11	72.25	88.54	.....	.....	82.90	104.15
11	71.08	87.61	71.93	88.55	72.13	88.61	83.85	104.96	80.56	104.14
12	70.97	88.60	72.21	88.60	69.80	72.50	.....	.....	82.16	104.58
13	72.47	86.47	72.27	88.60	69.72	86.55	.....	.....	82.52	104.52
14	71.35	87.85	72.37	88.75	70.65	87.29	.....	.....	82.90	104.48
15	71.23	87.90	72.30	88.80	71.15	87.82	.....	.....	83.34	104.54
16	71.23	89.25	72.40	89.37	71.43	88.13	.....	.....	81.82	105.01
17	83.86	91.45	73.13	88.06	71.72	88.50	.....	.....	82.15	105.38
18	73.44	89.92	71.65	88.22	72.17	88.35	.....	.....	82.30	105.38
19	73.00	89.25	72.07	88.95	71.41	90.70	.....	.....	83.57	105.40
20	72.60	89.03	72.75	89.01	74.40	92.05	.....	.....	80.45	88.06
21	72.43	88.60	72.57	88.61	74.27	90.35	.....	.....	79.03	.....
22	72.01	87.75	70.47	73.95	73.45	89.75	.....	.....	.....	.....
23	76.60	92.07	69.88	87.54	72.93	89.65	.....	.....	.....	.....
24	74.21	90.12	71.85	88.48	72.93	89.70	.....	.....	.....	.....
25	73.50	86.20	72.03	89.01	73.11	89.93	.....	.....	.....	.....
26	77.85	93.27	.....	.....	73.17	89.75	.....	.....	.....	.....
27	75.35	90.95	.....	.....	72.98	90.03	.....	.....	.....	.....
28	74.39	91.90	74.25	89.50	73.45	90.03	.....	.....	.....	.....
29	78.50	93.87	.....	.....	73.25	89.96	.....	.....	.....	.....
30	76.15	91.67	.....	.....	76.84	93.91	81.60	.....	.....	.....
31	74.95	90.67	.....	.....	76.97	93.47	82.30	.....	.....	.....

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	.....	.....	.....	.....	78.80	97.80	82.40	105.22
2	.....	.....	.....	.....	77.85	103.20	82.90	98.92
3	.....	.....	.....	.....	78.99	100.13	81.00	104.90
4	.....	.....	.....	.....	77.70	102.99	81.55	102.80
5	.....	.....	.....	.....	79.11	103.27	81.72	105.17
6	.....	.....	.....	.....	78.90	98.21	82.45	104.31
7	.....	.....	.....	.....	76.83	101.73	81.44	105.21
8	.....	.....	.....	.....	78.37	103.98	83.18	104.92
9	.....	.....	.....	.....	79.42	103.75	82.10	105.09
10	76.05	.....	.....	.....	79.59	105.02	82.64	105.06
11	74.70	99.45	.....	.....	80.72	96.20	82.25	98.20
12	75.45	99.30	.....	.....	78.70	98.55	79.54	103.12
13	75.50	103.90	.....	.....	77.66	104.05	80.60	105.02
14	78.45	105.07	.....	.....	78.80	97.74	81.80	104.32
15	77.15	84.95	.....	.....	77.41	95.18	79.11	85.50
16	76.10	103.75	.....	.....	74.96	77.16	78.17	105.04
17	78.55	102.40	.....	.....	73.85	97.29	80.60	103.87
18	77.95	101.03	.....	.....	75.91	102.92	81.15	105.25
19	77.45	100.63	.....	.....	77.09	102.35	81.55	104.76
20	77.15	99.05	.....	.....	78.46	103.90	80.87	100.95
21	74.80	78.10	.....	.....	80.03	105.04	80.52	104.99
22	74.15	101.59	.....	.....	86.28	101.32	82.04	103.09
23	75.60	101.45	.....	.....	76.70	102.40	80.65	104.09
24	75.37	101.97	.....	.....	79.88	104.88	.....	105.19
25	76.76	.....	.....	.....	80.00	104.98	81.05	98.45

74-21-11K1--Continued.

Daily high and low water levels, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
26	81.12	104.80	79.55	99.53
27	80.43	105.21	79.83	104.91
28	80.80	99.15	81.40	104.89
29	79.36	105.26	82.04	98.94
30	81.55	98.41	84.20	104.74	80.55	102.67
31			78.65	99.97			81.25	105.27

74-21-15H1 (*946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 35).
SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 74 N., R. 21 W. Water levels, in feet below land-surface datum, 1946: July 11, 3.74; Oct. 23, 2.83; Dec. 15, 3.91.

74-20-2M1 (*908, p. 23; 938, p. 32; 946, p. 42; 988, p. 39; 1018, p. 33; 1025, p. 35). Iowa Highway Commission. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 74 N., R. 20 W. Water level, in feet below land-surface datum, 1946: July 11, 3.39.

74-20-22C1 (*946, p. 43; 988, p. 40; 1018, p. 33; 1025, p. 36).
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, 1946: July 11, 5.59; Oct. 23, 9.98; Dec. 15, 10.80.

74-20-33D1 (*908, p. 23; 938, p. 32; 946, p. 43; 988, p. 40; 1018, p. 34; 1025, p. 36). 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, 1946: July 11, 6.24; Oct. 23, 10.30; Dec. 15, 10.65.

Montgomery County

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by D. L. Hummel through October; by Dean W. Knox remainder of year.)

7 (*777, pp. 63-64; *817, pp. 56, 57-59; *840, pp. 91, 94-95; 845, p. 86-87; 886, p. 122; 908, p. 36; 938, p. 39; 946, p. 55; 988, p. 40; 1018, p. 34; 1025, p. 36). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	22.54	Apr. 29	15.02	July 26	17.38	Oct. 21	21.09
Feb. 20	23.00	May 26	15.92	Aug. 26	21.11	Nov. 28	19.76
Mar. 25	16.30	June 25	15.04	Sept. 26	22.55	Dec. 23	20.06

72 (*840, pp. 93, 98-99; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 45; 946, p. 55; 988, p. 40; 1018, p. 34; 1025, p. 36). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.94	Apr. 29	6.24	July 27	6.86	Oct. 21	11.28
Feb. 20	11.59	May 26	5.39	Aug. 24	10.92	Nov. 28	11.90
Mar. 25	6.18	June 25	7.85	Sept. 25	11.78	Dec. 21	12.27

73 (*840, pp. 93, 98-99; 845, p. 92; 886, p. 133; 908, p. 36; 938, p. 46; 946, p. 55; 988, p. 40; 1018, p. 34; 1025, p. 36). NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 72 N., R. 38 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	16.41	Apr. 29	13.56	July 27	14.80	Oct. 21	14.00
Feb. 20	16.30	May 26	13.45	Aug. 24	15.83	Nov. 28	14.14
Mar. 25	11.08	June 25	12.12	Sept. 26	16.30	Dec. 21	14.65

78 (*840, pp. 93, 98-99; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; 946, p. 55; *988, p. 40; 1018, p. 34; 1025, p. 36). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	6.73	Apr. 29	3.06	July 27	4.72	Oct. 22	5.29
Feb. 20	7.08	May 26	3.49	Aug. 24	6.23	Nov. 28	6.40
Mar. 25	2.08	June 25	3.21	Sept. 26	6.66	Dec. 23	6.51

79 (*840, pp. 93, 98-99; 845, p. 92; 886, p. 134; 908, p. 36; 938, p. 46; 946, p. 55; *988, p. 41; 1018, p. 34; 1025, p. 36). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 71 N., R. 38 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	12.92	Apr. 29	8.36	July 27	13.46	Oct. 21	11.90
Feb. 20	13.24	May 26	10.10	Aug. 24	15.00	Nov. 28	12.97
Mar. 25	8.04	June 25	8.82	Sept. 26	15.87	Dec. 21	13.98

81 (*840, pp. 93, 98-99; 845, p. 92; 886, p. 135; 908, p. 37; 938, p. 46; 946, p. 56; *988, p. 41; 1018, p. 35; 1025, p. 37). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	8.05	Apr. 29	7.82	Aug. 24	9.37	Nov. 28	6.81
Feb. 20	6.96	May 26	7.55	Sept. 26	8.69	Dec. 21	7.77
Mar. 25	5.12	June 25	7.75	Oct. 22	6.08		

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). NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 29, T. 72 N., R. 37 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	20.28	Apr. 29	15.64	July 27	16.09	Oct. 21	19.42
Feb. 20	20.70	May 26	15.56	Aug. 24	20.06	Nov. 28	19.61
Mar. 25	14.34	June 25	13.99	Sept. 26	20.85	Dec. 21	20.44

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). City of Muscatine test well 4. In Muscatine, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 76 N., R. 2 W. Water level, in feet below land-surface datum, 1946: Oct. 24, 6.45.

76-2-15A1 (*908, p. 24; 938, p. 32; 946, p. 43; *988, p. 41; 1018, p. 35; 1025, p. 37). 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 level, in feet below land-surface datum, 1946: Oct. 24, 11.99.

Osceola County

99-41-18C2 (*908, p. 24; 938, p. 33; 946, p. 44; *988, p. 42; 1018, p. 35; 1025, p. 37). City of Sibley. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 99 N., R. 41 W. Water levels, in feet below land-surface datum, 1946: July 17, 10.65; Oct. 12, 8.60; Dec. 19, 13.80.

Page County

69-36-31K1 (*908, p. 24; 938, p. 33; 946, p. 44; *988, p. 42; 1018, pp. 35-36; 1025, p. 37). 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, 14.25 feet below land-surface datum on Mar. 29; lowest, 23.84 feet below land-surface datum on Sept. 11.

69-36-31K1--Continued.

Water level at noon, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	22.08	20.99	21.12	14.44	17.65	19.32	19.75	21.27	22.38	23.46	23.21	23.34
2	21.79	21.11	21.01	14.70	17.71	19.53	19.77	21.24	22.80	23.34	23.25	23.11
3	21.90	21.01	21.30	14.62	17.52	19.61	19.78	21.35	22.78	23.32	23.46	22.95
4	21.68	20.83	21.05	15.16	.....	19.59	19.79	21.50	22.67	23.29	23.66	22.85
5	21.06	20.57	21.11	15.19	.....	19.47	19.84	21.42	22.69	.....	23.58	22.86
6	21.33	20.94	20.91	15.23	.....	19.33	19.90	21.58	22.85	.....	23.09	22.79
7	21.41	20.98	21.87	15.16	18.01	19.39	19.99	21.57	22.84	.....	22.85	22.77
8	21.11	21.06	20.84	15.47	17.91	19.85	20.04	21.61	22.82	23.55	23.27	22.77
9	20.95	21.19	20.49	15.62	17.87	19.99	20.01	21.73	22.82	23.52	23.21	23.01
10	21.00	20.92	20.47	15.70	17.89	19.87	20.18	21.91	22.96	23.32	23.09	23.09
11	20.80	21.10	19.78	15.88	18.12	19.84	20.37	21.90	23.84	23.66	.....	22.84
12	21.16	20.89	19.42	16.00	.....	19.85	20.37	21.83	23.81	23.66	.....	22.75
13	20.95	21.00	19.41	15.75	.....	20.17	20.35	21.87	23.07	23.69	.....	23.17
14	20.73	21.04	19.20	15.80	.....	20.25	20.38	21.84	23.04	23.75	23.08	23.11
15	21.11	21.17	19.09	.....	18.25	20.15	20.54	21.90	23.09	23.59	22.87	22.94
16	20.86	21.18	18.83	16.37	18.30	20.22	20.50	21.96	23.11	23.65	23.20	22.79
17	20.95	21.34	18.32	16.37	18.21	20.30	20.30	.....	23.20	23.34	23.41	23.50
18	20.73	21.16	.....	16.50	18.22	20.22	20.32	.....	23.28	23.45	23.04	23.44
19	20.73	21.82	.....	16.41	18.44	19.80	20.55	.....	23.25	23.48	22.75	23.14
20	20.82	21.29	.....	16.62	18.59	19.18	20.68	22.27	23.22	23.49	22.82	22.95
21	20.97	21.02	.....	16.75	.....	19.24	20.64	22.23	23.08	23.29	22.70	23.14
22	20.74	21.12	17.01	16.79	.....	19.22	20.60	22.19	23.05	23.33	23.07	23.22
23	20.45	21.24	17.04	17.00	18.47	19.18	20.61	22.56	23.42	23.22	22.57	23.31
24	20.91	21.25	16.74	17.00	18.66	19.25	20.89	22.31	23.30	23.03	22.23	23.40
25	20.48	20.74	16.50	17.09	18.94	19.20	20.99	22.40	23.41	23.06	22.95	23.32
26	21.16	20.95	15.33	17.28	19.02	19.28	20.96	22.44	23.29	23.08	22.84	23.28
27	20.94	21.00	14.50	17.37	19.02	19.28	20.88	22.59	23.31	23.43	23.15	22.71
28	21.08	21.00	14.33	.....	19.04	19.34	21.01	22.49	21.62	23.35	22.90	23.36
29	20.72	.....	14.25	.....	19.01	19.40	21.07	22.66	21.78	23.27	22.96	23.55
30	20.57	.....	14.59	17.57	18.99	19.46	21.10	22.57	23.66	23.39	22.85	23.67
31	21.08	.....	14.51	.....	19.07	.....	21.20	22.97	.....	23.50	.....	23.81

Tarkio Creek area

(Wells in the Tarkio Creek area are numbered consecutively beginning with 1; measurements made by D. L. Hummel through October; by Dean W. Knox remainder of year.)

5 (*777, pp. 63, 64; *817, pp. 56-59; *840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 31; 938, p. 39; 946, p. 56; *988, p. 42; 1018, p. 36; 1025, p. 38). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	14.43	Apr. 29	8.43	July 27	14.36	Oct. 25	16.70
Feb. 22	15.28	May 27	10.66	Aug. 26	15.39	Nov. 27	8.24
Mar. 26	2.09	June 26	12.54	Sept. 25	15.62	Dec. 21	15.40

6 (*777, pp. 63-64; *817, pp. 56-59; *840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 122; 908, p. 31; 938, p. 39; 946, p. 56; *988, p. 43; 1018, p. 36; 1025, p. 38). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	3.20	Apr. 29	1.18	July 27	2.11	Oct. 21	3.74
Feb. 20	3.08	May 27	1.49	Aug. 26	4.13	Nov. 27	3.83
Mar. 25	1.02	June 26	1.37	Sept. 26	4.42	Dec. 23	4.26

10 (*777, pp. 63-65; *817, pp. 56-59; *840, pp. 91, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 39; 946, p. 56; *988, p. 43; 1018, p. 36; 1025, p. 38). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	25.24	Apr. 29	22.46	July 26	24.75	Oct. 22	25.27
Feb. 20	26.06	May 26	23.52	Aug. 26	24.80	Dec. 23	25.67
Mar. 25	24.43	June 25	23.95	Sept. 26	25.06		

11 (*777, pp. 64-65; *817, pp. 56, 59-61; *840, pp. 91, 94-95; 945, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 56; *988, p. 43; 1018, p. 36; 1025, p. 38). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	8.08	Mar. 25	4.56	May 26	7.04	July 27	7.82
Feb. 20	8.40	Apr. 29	6.60	June 25	7.37		

12 (*777, pp. 64-65; *817, pp. 56, 59-61; *840, pp. 92, 94-95; 945, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 57; *988, p. 43; 1018, p. 36; 1025, p. 38). Aml 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	21.76	Apr. 29	16.36	July 27	16.46	Sept. 25	19.78
Feb. 20	23.20	May 27	17.25	Aug. 24	18.50	Oct. 21	20.56
Mar. 25	20.54	June 25	16.68				

13 (*817, pp. 57, 59-61; *840, pp. 92, 94-95; 845, pp. 86-87; 886, p. 123; 908, p. 31; 938, p. 40; 946, p. 57; *988, p. 43; 1018, p. 37; 1025, p. 38). Aml 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	18.28	Apr. 29	13.09	July 27	14.37	Oct. 21	18.14
Feb. 20	19.66	May 27	14.40	Aug. 24	16.12	Nov. 30	20.69
Mar. 25	15.31	June 25	13.86	Sept. 25	17.30	Dec. 23	23.98

14 (*777, pp. 64-65; *817, pp. 57, 59-61; *840, pp. 92-94; 845, p. 86; 886, p. 123; 908, p. 31; 938, p. 14; 946, p. 57; *988, p. 43; 1018, p. 37; 1025, p. 39). Floyd Haskins. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19, T. 68 N., R. 38 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	19.61	Apr. 29	14.05	July 27	17.46	Oct. 22	23.59
Feb. 22	21.78	May 27	14.67	Aug. 21	19.80	Nov. 27	24.64
Mar. 26	16.21	June 29	15.15	Sept. 25	21.99	Dec. 23	24.80

15 (*777, pp. 64-65; *817, pp. 57, 59-61; *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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	5.91	Apr. 29	4.09	July 27	6.20	Oct. 22	7.15
Feb. 22	7.37	May 27	4.99	Aug. 26	7.15	Nov. 15	7.02
Mar. 26	2.04	June 26	4.64	Sept. 25	7.49	Dec. 23	7.34

17 (*777, pp. 64-65; *817, pp. 57, 59-61; *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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	17.40	Apr. 29	15.47	July 27	16.33	Oct. 22	17.31
Feb. 22	17.74	May 27	16.31	Aug. 26	17.07	Nov. 27	16.61
Mar. 25	15.09	June 26	15.54	Sept. 25	17.44	Dec. 21	16.89

44A (*840, p. 130; 908, p. 33; 938, p. 43; 946, p. 59; *988, p. 45; 1018, p. 38; 1025, p. 39). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	13.77	Apr. 29	5.65	July 27	13.65	Oct. 22	16.96
Feb. 20	15.15	May 27	8.27	Aug. 26	15.63	Nov. 28	17.32
Mar. 26	4.18	June 27	9.86	Sept. 25	16.74		

47 (*840, pp. 92, 96-97; 845, pp. 89-90; 886, p. 130; 908, p. 33; 938, p. 44; 946, p. 59; *988, p. 45; 1018, p. 38; 1025, p. 40). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	10.18	Apr. 29	4.57	July 27	11.04	Oct. 22	14.22
Feb. 20	11.69	May 27	7.26	Aug. 26	11.79	Nov. 28	11.59
Mar. 26	4.71	June 27	8.96	Sept. 25	13.85		

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	17.94	Apr. 29	12.26	July 27	17.42	Oct. 22	21.88
Feb. 20	18.07	May 27	14.70	Aug. 26	19.25	Nov. 27	21.48
Mar. 26	13.07	June 27	15.14	Sept. 25	21.06	Dec. 21	19.14

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	12.82	Apr. 29	7.44	July 27	13.96	Oct. 25	19.19
Feb. 20	13.12	May 27	10.28	Aug. 26	16.21	Nov. 27	21.48
Mar. 26	6.00	June 27	12.00	Sept. 25	18.02	Dec. 21	20.10

57 (*840, pp. 93, 97; 845, p. 90; 886, p. 132; 908, p. 34; 938, p. 45; 946, p. 69; *988, p. 47; 1018, p. 39; 1025, p. 40). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	12.29	Apr. 29	3.90	July 27	13.57	Oct. 22	16.34
Feb. 20	13.77	May 27	6.77	Aug. 26	14.78	Nov. 27	17.02
Mar. 26	4.78	June 27	11.95	Sept. 25	15.68	Dec. 21	15.54

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	11.49	Apr. 29	8.49	July 27	12.49	Oct. 22	14.39
Feb. 20	11.76	May 27	9.30	Aug. 26	13.59	Nov. 27	13.02
Mar. 26	5.67	June 27	10.87	Sept. 22	13.90	Dec. 21	11.26

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	4.72	Apr. 29	2.45	July 27	6.86	Nov. 27	6.49
Feb. 20	6.50	May 27	3.65	Aug. 26	7.51	Dec. 21	7.37
Mar. 26	1.42	June 26	4.92	Sept. 25	7.77		

71 (*840, pp. 93, 98; 845, p. 91; 886, p. 133; 908, p. 35; 938, p. 45; 936, p. 61; *988, p. 47; 1018, p. 39; 1025, p. 40). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	6.70	Apr. 29	4.46	July 27	6.30	Oct. 22	6.80
Feb. 20	5.58	May 27	5.14	Aug. 26	6.62	Nov. 27	5.86
Mar. 26	1.42	June 27	6.33	Sept. 25	6.99	Dec. 21	7.27

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	13.22	Apr. 29	10.37	July 27	12.62	Oct. 22	12.41
Feb. 22	12.50	May 27	11.59	Aug. 26	12.88	Nov. 27	11.50
Mar. 26	8.74	June 26	11.89	Sept. 26	12.96	Dec. 21	12.07

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	27.24	May 27	20.69	July 27	22.37	Sept. 26	27.57
Mar. 25	17.37	June 25	19.06	Aug. 24	25.07	Oct. 21	20.09
Apr. 29	18.63						

83 (*886, p. 135; 908, p. 35; 938, p. 47; 946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	20.45	Apr. 29	14.83	July 27	18.04	Oct. 22	21.50
Feb. 20	20.88	May 27	15.99	Aug. 26	19.37	Nov. 28	21.96
Mar. 25	18.54	June 27	17.15	Sept. 26	20.59	Dec. 23	22.26

84 (*886, p. 136; 908, p. 35; 938, p. 47; 946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	19.67	Apr. 29	14.60	July 27	17.56	Oct. 22	21.58
Feb. 20	19.99	May 27	15.74	Aug. 26	18.77	Nov. 28	21.08
Mar. 26	17.90	June 27	16.86	Sept. 25	19.53	Dec. 23	21.33

85 (*886, p. 136; 908, p. 35; 938, p. 47; 946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	18.03	May 27	13.47	Aug. 26	16.41	Nov. 28	18.76
Feb. 20	17.40	June 27	14.74	Sept. 25	17.33	Dec. 21	18.98
Apr. 29	12.37	July 27	15.32	Oct. 22	18.28		

86 (*886, p. 136; 908, p. 36; 938, p. 47; 946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	14.12	May 27	11.18	Sept. 25	14.69	Nov. 28	15.89
Feb. 20	14.56	June 27	12.36	Oct. 22	15.43	Dec. 23	16.10
Apr. 29	10.01						

87 (*886, p. 137; 908, p. 36; 938, p. 47; 946, p. 62; *988, p. 48; 1018, p. 40; 1025, p. 41). Elsie Nordstrom. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 69 N., R. 39 W. Water levels, in feet below land-surface datum, 1946: Jan. 24, 9.33; Feb. 20, 9.74; Apr. 29, 5.81; May 27, 6.82.

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). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 97 N., R. 34 W. Water levels, in feet below land-surface datum, 1946: July 18, 2.09; Oct. 11, 1.99; Dec. 20, 2.33.

97-34-29N2 (*908, p. 24; 938, p. 34; 946, p. 45; 988, p. 48; 1018, p. 41; 1025, p. 42). SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 97 N., R. 34 W. Well flowing; no measurements made in 1946.

97-34-30Q1 (*908, p. 24; 938, p. 34; 946, p. 45; 988, p. 48; 1018, p. 41; 1025, p. 42). Norman Broadwell. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 97 N., R. 34 W. Well abandoned; measurements discontinued.

96-34-6J1 (*908, p. 25; 938, p. 34; 946, p. 45; 988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: Jan. 1, 1.46; July 18, 2.80; Oct. 11, 2.15.

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). Joe Tracy. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 91 N., R. 48 W. Water levels, in feet below land-surface datum, 1946: July 17, 54.65; Oct. 15, 55.39; Dec. 18, 57.78.

Polk County

78-24-4P1 (*988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: Jan. 4, 28.22; July 17, 29.58; Oct. 15, 28.99; Dec. 16, 27.97.

79-22-22A1 (*908, p. 25; 938, p. 34; 946, p. 45; 988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: Jan. 4, 5.34; July 12, 5.05; Oct. 4, 5.75; Dec. 16, 3.90.

Poweshiek County

78-15-1R1 (*988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: July 10, 6.48; Oct. 23, 7.41; Dec. 15, 9.50.

Sac County

89-38-11J1 (*946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42). NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 89 N., R. 38 W. Water levels, in feet below land-surface datum, 1946: July 16, 3.51; Oct. 15, 3.89; Dec. 18, 4.25.

89-38-26A2 (*908, p. 25; 938, p. 34; 946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: July 16, 220.46; Oct. 15, 220.45; Dec. 18, 221.24.

86-36-2C1 (*908, p. 25; 938, p. 25; 946, p. 46; 988, p. 49; 1018, p. 41; 1025, p. 42). 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, 1946: July 24, 2.20; Oct. 15, 5.02; Dec. 18, 4.62.

86-36-2E1 (*908, p. 25; 938, p. 35; 946, p. 46; 988, p. 49; 1018, p. 42; 1025, p. 42). 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, 1946: July 16, 1.45; Oct. 15, 0.35; Dec. 31, 0.31.

86-36-4N1 (*908, p. 25; 938, p. 35; 946, p. 46; 988, p. 50; 1018, p. 42; 1025, p. 42). 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, 1946: July 16, 4.70; Oct. 15, 4.81; Dec. 18, 4.89.

Sioux County

95-45-5A1 (*886, p. 119; 908, p. 26; 938, p. 35; 946, p. 46; 988, p. 50; 1018, p. 42; 1025, p. 43). 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 1946.

Story County

83-24-4Q1 (*886, p. 119; 908, p. 26; 938, pp. 35-36; 946, pp. 46-47; 988, p. 50; 1018, p. 42; 1025, p. 43). 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, 1946: Jan. 4, 41.22; July 12, 42.44; Oct. 9, 41.85; Dec. 17, 41.50.

83-24-20J1 (*886, p. 120; 908, p. 26; 938, p. 36; 946, p. 47; 988, p. 50; 1018, p. 42; 1025, p. 43). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 4	18.64	July 12	8.33	Dec. 17	17.29
Feb. 5	16.40	Oct. 9	19.29		

83-24-4R1 (*946, p. 47; 988, p. 51; 1018, p. 42; 1025, p. 43). 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, 1946: Jan. 4, 17.16; July 12, 10.30; Oct. 9, 15.44; Dec. 17, 15.17.

Tama County

82-13-13R1 (*1025, p. 43). 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, 1946: Jan. 17, 6.67; July 10, 4.28; Aug. 19, 5.98; Oct. 8, 4.60.

Warren County

77-25-12R1 (*946, pp. 47-48; 988, p. 51; 1018, p. 42; 1025, p. 43). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 77 N., R. 25 W. Water levels, in feet below land-surface datum, 1946: Jan. 4, 2.65; July 12, 2.17; Oct. 22, 0.84; Dec. 16, 1.21.

76-25-8Q1 (*908, p. 26; 938, p. 36; 946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43). 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, 1946: July 12, 9.96; Oct. 22, 8.57; Dec. 16, 9.14.

Wayne County

67-23-20Q1 (*908, p. 26; 938, p. 36; 946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43). L. P. Bryan. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 67 N., R. 23 W. No measurements made in 1946.

Webster County

90-30-26A1 (*946, p. 48; 988, p. 51; 1018, p. 42; 1025, p. 43). 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, 1946: July 15, 9.20; Oct. 10, 12.79; Dec. 21, 12.88.

90-28-1B1 (*946, p. 48; 988, p. 51; 1018, p. 43; 1025, p. 43). Ed Askland. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 90 N., R. 28 W. Water levels, in feet below land-surface datum, 1946: Apr. 28, 4.60; July 15, 9.12; Oct. 10, 7.09; Dec. 21, 6.96.

90-28-8Q1 (*946, p. 48; 988, p. 51; 1018, p. 43; 1025, p. 44). 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, 1946: Apr. 28, 6.84; July 15, 6.90; Oct. 10, 9.28; Dec. 21, 9.02.

90-27-31N1 (*946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44). C. S. Knudson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 90 N., R. 27 W. No measurements made in 1946.

89-30-18J1 (*946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44). 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, 1946: July 15, 7.09; Oct. 9, 12.64; Dec. 21, 10.85.

39-30-23R1 (*946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44).
Johnson Township Consolidated School. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 89 N., R. 30 W.
No measurements made in 1946.

89-28-21Q2 (*946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44).
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 1946.

88-29-11C1 (*946, p. 49; 988, p. 52; 1018, p. 43; 1025, p. 44).
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, 1946: Apr. 28, 4.64; July 16, 4.00; Oct. 9,
8.80; Dec. 20, 8.80.

87-30-30R1 (*946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44).
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, 1946: Apr. 28, 3.60; July 15, 6.98;
Oct. 9, 9.06; Dec. 20, 3.47.

87-28-5Q1 (*946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44).
SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 87 N., R. 28 W. Water levels, in feet below land-sur-
face datum, 1946: Apr. 28, 3.36; July 15, 3.60; Oct. 9, 6.43; Dec. 21,
5.79.

87-28-12Q1 (*946, p. 50; 988, p. 53; 1018, p. 44; 1025, p. 44).
Thomas Timmons, Jr. Near Lehigh, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 87 N., R. 28 W.
Water levels, in feet below land-surface datum, 1946: Apr. 28, 4.70;
July 15, 6.65; Oct. 9, 11.66; Dec. 20, 12.13.

87-28-29N1 (*946, p. 51; *988, p. 53; 1018, p. 44; 1025, p. 44).
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,
2.79 feet below land-surface datum on Mar. 30; lowest, 7.03 feet below
land-surface datum on Sept. 7.

Water level at noon, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6.54	....	....	2.85	3.85	3.60	3.96	5.45	6.79	6.70	5.60	5.54
2	6.52	....	....	2.93	3.87	3.62	4.05	5.51	6.84	6.68	5.58	5.47
3	6.56	....	....	2.93	3.80	3.70	4.11	5.57	6.88	6.70	5.59	5.44
4	6.56	....	....	3.15	3.68	3.68	4.18	5.65	6.88	6.78	5.59	5.44
5	6.20	....	....	3.13	3.69	3.71	....	5.66	....	6.80	5.56	5.48
6	....	....	....	3.18	3.76	3.67	4.32	5.58	....	6.88	5.45	5.48
7	....	....	....	3.18	3.81	3.78	4.35	5.53	7.03	6.88	5.33	5.50
8	....	....	....	3.18	3.83	3.94	4.42	5.58	6.96	6.83	5.51	5.55
9	....	....	....	3.18	3.89	4.04	4.49	5.65	6.85	6.83	5.52	5.55
10	....	....	....	3.20	3.88	4.08	4.60	5.77	6.74	....	5.42	5.26
11	....	....	....	3.14	3.84	4.15	4.71	5.60	6.69	....	5.49	5.10
12	....	6.35	....	3.08	3.85	4.10	4.77	5.71	6.62	....	5.46	5.19
13	....	6.40	....	3.03	3.85	4.06	4.83	5.80	6.55	....	5.37	5.19
14	....	6.40	....	3.08	3.92	4.19	4.92	....	6.50	....	5.33	5.02
15	....	6.42	....	3.19	3.91	4.15	4.95	....	6.49	....	5.27	5.00
16	....	6.53	....	3.26	3.82	4.07	4.94	5.95	6.50	....	5.36	4.92
17	....	6.58	4.53	3.25	3.81	4.15	4.88	6.04	6.55	....	5.44	5.18
18	....	6.58	4.38	3.35	3.80	4.14	4.98	6.14	6.59	....	5.32	5.30
19	....	6.55	4.28	3.30	3.58	3.60	5.10	....	6.59	....	5.25	5.32
20	....	6.60	4.18	3.43	3.54	3.13	5.18	....	6.52	....	5.25	5.34
21	....	6.55	4.13	3.43	3.57	3.55	5.18	....	6.45	....	5.25	5.45
22	....	6.58	4.13	3.48	3.61	3.50	5.28	6.31	6.44	....	5.38	5.53
23	....	6.58	4.08	3.54	3.63	3.54	5.32	6.37	6.52	6.14	5.25	5.60
24	....	6.40	3.41	3.63	3.49	3.64	5.41	6.37	6.49	6.06	5.16	5.65
25	....	....	3.33	3.68	3.37	3.60	5.35	6.40	6.57	5.95	5.37	5.61
26	....	....	3.38	3.68	3.41	3.58	5.40	6.47	6.55	5.88	5.32	5.69
27	....	....	3.33	3.69	3.50	3.69	5.30	6.50	6.58	5.93	5.45	5.53
28	6.10	....	3.33	3.69	3.57	3.81	5.22	6.55	6.70	5.83	5.36	5.76
29	6.21	....	3.33	3.83	3.65	3.81	5.25	6.62	6.64	5.75	5.43	5.79
30	....	....	2.79	3.83	3.64	3.84	5.31	6.63	6.64	5.73	5.38	5.85
31	....	....	....	....	3.58	....	5.39	6.67	....	5.72	....	5.91

87-27-18M1 (*946, p. 51; 988, p. 54; 1018, p. 45; 1025, p. 45). 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, 1946: Apr. 28, 123.80; July 15, 123.86; Oct. 9, 126.90; Dec. 20, 126.28.

86-30-5C1 (*946, p. 51; 988, p. 54; 1018, p. 45; 1025, p. 45). 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, 1946: Apr. 28, 55.67; July 15, 58.48; Oct. 9, 60.20; Dec. 20, 57.65.

86-29-14A1 (*946, p. 51; 988, p. 55; 1018, p. 45; 1025, p. 45). F. E. 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, 1946: Apr. 28, 4.98; July 15, 7.92; Oct. 9, 147.40, pumping; Dec. 20, 6.50.

86-28-14H1 (*946, p. 51; 988, p. 55; 1018, p. 45; 1025, p. 45). 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, 1946: Apr. 28, 147.40, pumping; July 15, 74.8; Oct. 9, 147.40, pumping; Dec. 20, 75.70.

86-27-4D1 (*946, p. 52; 988, p. 55; 1018, p. 45; 1025, p. 45). Mr. Davis. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 86 N., R. 27 W. Water levels, in feet below land-surface datum, 1946: Apr. 28, 104.52; July 15, 103.68; Oct. 9, 104.95; Dec. 20, 104.71.

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). City of Sioux City. Riverside Station well 1. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 89 N., R. 48 W. No measurements made in 1946.

89-47-22B1 (*886, p. 120; *908, p. 27; 938, p. 36; 946, p. 52; 988, p. 55; 1018, p. 45; 1025, p. 45). City of Sioux City 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	37.00	Apr. 2	38.00	July 2	39.16	Oct. 2	41.33
Feb. 2	37.50	May 2	38.00	Aug. 6	45.00	Nov. 4	40.50
Mar. 2	37.66	June 2	37.82	Sept. 2	41.92	Dec. 3	39.75

KANSAS

By Phyllis Mosley

PROGRAM OF WORK

The observation-well program in Kansas was continued in 1946 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 named, the city of Wichita cooperated in Harvey, McPherson, and Sedgwick Counties. Six counties not heretofore included, Osborne, Phillips, Reno, Rice, Saline, and Smith, were added to the program in 1946 and one county, Cherokee, was dropped making 47 counties in which wells were observed at the end of the year. Also an observation-well program was started in the Smoky Hill Valley in McPherson County.

Results of cooperative ground-water investigations in the following areas were published in 1946: Geology and ground-water resources of Thomas County;^{1/} The Cheyenne sandstone and adjacent formations of a part of Russell County;^{2/} Geology and ground-water resources of Grant, Haskell, and Stevens Counties;^{3/} Ground-water conditions in Elm Creek Valley, Barber County;^{4/} Ground-water conditions in Arkansas River Valley in the vicinity of Hutchinson;^{5/} and Cretaceous stratigraphy of the Belvidere area, Kiowa County.^{6/}

^{1/} Fry, John C., Geology and ground-water resources of Thomas County, Kansas: Kansas Geol. Survey Bull. 59, 110 pp., 6 pls., 13 figs.

^{2/} Swineford, Ada, and Williams, Harold, L., The Cheyenne sandstone and adjacent formations of a part of Russell County, Kansas: Kansas Geol. Survey Bull. 60, pt. 4, pp. 101-168, pls. 1-2, figs. 1-9.

^{3/} McLaughlin, Thad G., Geology and ground-water resources of Grant, Haskell, and Stevens Counties, Kansas: Kansas Geol. Survey Bull. 61, 221 pp., 12 pls., 18 figs.

^{4/} Williams, Charles C., and Bayne, Charles K., Ground-water conditions in Elm Creek Valley, Barber County, Kansas: Kansas Geol. Survey Bull. 64, pt. 3, pp. 77-124, pls. 1-2, figs. 1-9.

^{5/} Williams, Charles C., Ground-water conditions in Arkansas River Valley in the vicinity of Hutchinson, Kansas: Kansas Geol. Survey Bull. 64, pt. 5, pp. 145-216; pls. 1-6, figs. 1-11.

^{6/} Latta, Preece F., Cretaceous stratigraphy of the Belvidere area, Kiowa County, Kansas: Kansas Geol. Survey Bull. 64, pt. 6, pp. 217-260, pls. 1-3, figs. 1-4.

At the beginning of 1946, periodic water-level measurements were being made in 444 observation wells in the State. During the year measurements were discontinued in 31 wells and begun or resumed in 67 wells. At the end of the year 480 wells were under observation. Of the wells measured in 1946, 130 were measured quarterly, 314 monthly, 4 semimonthly, 23 weekly, and water-stage recorders were maintained on 10. 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 4,887 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:

Observation-well program in Kansas, by counties, in 1946					
County	Observer	Wells included at beginning of year	Wells discontinued during year	Wells added during year	Wells included at end of year
Barber	(a)	10	0	0	10
Barton	(a)	15	2	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	1	1	4
Crawford	G. E. Abernathy	3	0	0	3
Dickinson		1	1	0	0
Edwards	(a)	3	0	0	3
Ellis	(a)	3	1	0	2
Finney	(a)	14	3	0	11
Ford	(a)	15	1	0	14
Grant	(a)	9	0	0	9
Gray	(a)	9	1	0	8
Hamilton	(a)	6	1	0	5
Harvey	(b)	128	0	1	129
Haskell	(a)	9	1	0	8
Hodgeman	(a)	3	0	0	3
Jewell	(c)	26	5	0	21
Kearny	(a)	9	0	0	9
Kingman	C. K. Bayne	12	0	0	12
Kiowa	(a)	5	0	0	5
Labette	John Wayenberg	4	0	0	4
Logan	(a)	3	0	0	3
McPherson	C. K. Bayne & J. Sears	9	2	4	11
Meade	(a)	9	1	0	8
Morton	(a)	3	0	0	3
Ness	(a)	2	0	0	2
Osborne	(c)	0	0	6	6
Pawnee	(a)	6	1	0	5
Phillips	(c)	0	0	11	11
Reno	(d)	0	0	1	1
Republic	Local observer	7	1	0	6
Rice	(e)	0	0	22	22

a Howard Palmer or Frank Hoppes.

b C. K. Bayne, Norbert, or O. K. Brandon.

c A. R. Leonard, John Sears, or Milton Sears.

d Local observer or C. K. Bayne

e John Sears or O. S. Fent.

Observational-well program in Kansas, by counties, in 1946--Continued

County	Observer	Wells included at beginning of year	Wells discontinued during year	Wells added during year	Wells included at end of year
Russell	(a)	11	1	0	10
Saline	John Sears	0	0	11	11
Scott	(a)	11	0	0	11
Sedgwick	(b)	32	2	0	30
Seward	(a)	5	0	0	5
Smith	(c)	0	0	8	8
Stafford	(a)	6	1	0	5
Stanton	(a)	4	0	0	4
Stevens	(a)	7	0	0	7
Sumner	C. A. Posey	2	0	0	2
Thomas	(a)	11	4	2	9
Wyandotte	(d)	14	1	0	13
		444	31	67	480

a Howard Palmer or Frank Hoppes.

b C. K. Bayne, Norbert, or O. K. Brandon.

c A. R. Leonard, John Sears, or Milton Sears.

d Philip Kaiser or George Magee.

Frequency of measurement of wells and number of wetted-tape measurements made in Kansas, by counties, in 1946

County	Wells measured quarterly	Wells measured monthly	Wells measured semi-monthly	Wells measured weekly	Wells equipped with recorders	Wetted tape measurements made during year
Barber	10	0	0	0	0	39
Barton	0	13	0	0	0	154
Bourbon	0	2	0	0	0	2
Brown	0	5	0	0	0	55
Clark	4	0	0	0	0	15
Comanche	3	0	0	0	0	9
Cowley	0	4	0	0	0	53
Crawford	3	0	0	0	0	3
Dickinson	0	0	0	0	0	0
Edwards	0	3	0	0	0	33
Ellis	2	0	0	0	0	7
Finney	4	6	0	0	1	80
Ford	8	7	0	0	0	96
Grant	5	3	0	0	1	50
Gray	5	3	0	0	0	53
Hamilton	3	2	0	0	0	33
Harvey	0	111	0	16	2	2,031
Haskell	7	1	0	0	0	34
Hodgeman	2	1	0	0	0	20
Jewell	0	21	0	0	0	84
Kearny	5	4	0	0	0	64
Kingman	0	12	0	0	0	136
Kiowa	5	0	0	0	0	18
Labette	0	0	4	0	0	94
Logan	3	0	0	0	0	12
McPherson	4	7	0	0	0	73
Meade	a 6	0	0	0	0	20
Morton	3	0	0	0	0	11
Ness	4	0	0	0	0	8
Osborne	0	5	0	0	1	85
Pawnee	0	5	0	0	0	53
Phillips	0	11	0	0	0	137
Reno	0	1	0	0	0	12
Republic	0	b 4	0	0	0	45

a No measurements made in 1946 for well 88.

b No measurements made in 1946 for wells 209 and 230.

Frequency of measurement of wells and number of wetted-tape measurements made in Kansas, by counties, in 1946--Continued

County	Wells measured quarterly	Wells measured monthly	Wells measured semi-monthly	Wells measured weekly	Wells equipped with recorders	Wetted tape measurements made during year
Rice	0	22	0	0	0	92
Russell	10	0	0	0	0	35
Saline	0	11	0	0	0	87
Scott	0	9	0	0	2	93
Sedgwick	0	22	0	7	3	568
Seward	3	2	0	0	0	35
Smith	0	8	0	0	0	111
Stafford	0	5	0	0	0	70
Stanton	3	1	0	0	0	23
Stevens	7	0	0	0	0	26
Sumner	0	2	0	0	0	24
Thomas	8	1	0	0	0	39
Wyandotte	13	0	0	0	0	65
	130	314	4	23	10	4,887

Relation between the percentage of wells in Kansas in which the highest and lowest water levels of record were recorded in 1946, the percentage of wells in which there was a net rise of water level in 1946, and the precipitation during 1946, 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 normal Station
Barber	10	10	0	40	103 Medicine Lodge
Barton	13	8	62	31	74 Great Bend
Bourbon	2	50	0	100	77 Fort Scott
Brown	5	0	60	40	93 Horton
Clark	4	25	75	50	96 Ashland
Comanche	3	33	33	67	96 Coldwater
Cowley	5	40	60	20	85 Winfield
Crawford	3	0	33	67	75 Pittsburg
Edwards	3	33	67	67	86 Trosdale
Ellis	2	0	50	0	115 Hays
Finney	11	27	18	82	132 Garden City
Ford	15	7	27	47	95 Dodge City
Grant	9	44	11	66	182 Ulysses
Gray	8	63	0	88	110 Cimarron
Hamilton	5	20	0	80	101 Syracuse
Harvey	a 25	12	16	4	97 Newton
Haskell	8	38	50	75	156 Sublette
Hodgeman	3	0	33	67	109 Jetmore
Jewell	21	33	0	33	99 Burr Oak
Kearny	9	56	0	56	167 Lakin
Kingman	12	50	83	8	87 Norwich
Kiowa	5	20	0	20	82 Greensburg
Labette	4	0	75	0	74 Parsons
Logan	3	0	33	67	182 Oakley
McPherson	8	13	0	13	82 McPherson
Meade	8	13	0	62	116 Plains
Morton	3	67	0	33	143 Elkhart
Ness	2	0	0	100	120 Ness City
Osborne	6				121 Osborne
Pawnee	5	40	40	40	65 Larned
Phillips	6				132 Phillipsburg
Reno	1	100	100	0	117 Hutchinson
Republic	6	17	0	33	118 Belleville

a Excludes 104 wells which are pumped or affected by pumping.

Relation between the percentage of wells in Kansas in which the highest and lowest water levels of record were recorded in 1946, the percentage of wells in which there was a net rise of water level in 1946, and the precipitation during 1946, by counties--Continued

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 normal	Station
Rice	6				85	Alden
Russell	10	10	0	40	109	Russell
Scott	11	18	64	36	133	Scott City
Sedgwick	32	3	28	16	78	Wichita
Seward	5	40	0	60	131	Liberal
Smith	7				156	Smith Center
Stafford	5	0	20	0	72	Hudson
Stanton	4	50	25	50	131	Johnson
Stevens	7	86	14	57	180	Hugoton
Sumner	2	0	100	0	84	Peck
Thomas	9	22	33	33	156	Colby
Wyandotte	13	0	92	31	87	Kansas City, Mo.

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	6	73.08	June 5, 1946	82.99	Oct. 17, 1940
2	6	11.94	Apr. 22, 1942	13.90	Aug. 20, 1943
3	6	9.05	May 26, 1942	15.42	Oct. 21, 1940
4	6	14.25	Nov. 20, 1941	16.30	Aug. 20, 1943
5	6	18.00	Aug. 31, 1944	30.15	Sept. 24, 1941
8	6	8.87	Nov. 21, 1941	17.48	Mar. 21, 1941
9	6	1.97	May 8, 1941	4.54	Aug. 21, 1943
10	6	102.20	Mar. 15, 1945	103.85	Oct. 22, 1940
12	6	2.08	Mar. 15, 1945	11.68	Oct. 22, 1940
13	6	7.89	Mar. 15, 1945	16.99	Oct. 22, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 10 wells in Barber County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	9.91	-0.10	+9.42
2	1.96	-.14	+.29
3	6.37	+1.36	+4.71
4	2.05	-.96	-.07
5	12.15	-.06	+8.52
8	8.61	+1.42	+4.00
9	2.57	+.40	+1.72
10	1.65	-.07	+1.16
12	9.60	+.30	+5.26
13	9.10	-1.33	+7.08

1 (*908, p. 39; 938, p. 53; 946, p. 70; *988, p. 62; 1018, p. 50; 1025, p. 50). D. S. Snaw. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 31 S., R. 15 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 73.45; June 5, 73.08; Sept. 26, 73.47; Dec. 20, 73.57.

2 (*908, p. 39; 938, p. 53; 946, p. 70; *988, p. 62; 1018, p. 50; 1025, p. 50). Russell Lake. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 31 S., R. 14 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 12.50; June 5, 12.64; Sept. 26, 13.14; Dec. 20, 12.61.

3 (*908, p. 40; 938, p. 53; 946, p. 70; *988, p. 62; 1018, p. 50; 1025, p. 50). 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, 1946: Mar. 26, 12.04; June 5, 12.94; Sept. 26, 14.51; Dec. 20, 10.71.

4 (*908, p. 40; 938, p. 53; 946, p. 70; *988, p. 62; 1018, p. 50; 1025, p. 50). 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, 1946: Mar. 26, 14.97; June 5, 15.07; Sept. 26, 16.11; Dec. 20, 15.97.

5 (*908, p. 40; 938, p. 53; 946, p. 70; *988, p. 62; 1018, p. 50; 1025, p. 50). R. Kenny. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 33 S., R. 12 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 20.80; June 5, 19.64; Sept. 26, 20.33.

8 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 62; 1018, p. 51; 1025, p. 50). P. Brook. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 34 S., R. 15 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 15.07; June 5, 15.46; Sept. 26, 16.55; Dec. 20, 13.11.

9 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 62; 1018, p. 51; 1025, p. 50). 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, 1946: Mar. 26, 2.14; June 5, 2.32; Sept. 26, 4.01; Dec. 20, 2.04.

10 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50). 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, 1946: Mar. 26, 102.48; June 5, 102.60; Sept. 26, 102.75; Dec. 20, 102.69.

12 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50). 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, 1946: Mar. 26, 6.38; June 5, 6.06; Sept. 26, 9.05; Dec. 20, 6.42.

13 (*908, p. 40; 938, p. 54; 946, p. 71; *988, p. 63; 1018, p. 51; 1025, p. 50). J. A. Hrencher. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 32 S., R. 10 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 9.03; June 5, 10.38; Sept. 26, 12.70; Dec. 20, 9.91.

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	4.5	0.76	May 11, 1944	5.49	Aug. 21, 1946
2	4.5	32.19	Nov. 12, 1946	34.64	Jan. 20, 1944
16	4	27.93	May 22, 1943	30.16	Dec. 12, 1946
43	4	16.88	Aug. 8, 1945	21.21	Jan. 19, 1944
100	2.5	30.62	June 5, 1945	34.65	Sept. 12, 1946
101	2.5	23.39	Aug. 28, 1945	24.65	July 7, 1944
103	2.5	1.00	Apr. 27, 1945	7.66	Aug. 21, 1946
105	2.5	30.80	July 12, 1945	32.82	Dec. 21, 1944
107	2.5	98.32	June 6, 1945	101.60	Oct. 26, 1945
109	2.5	9.39	July 13, 1945	14.61	July 10, 1946
110	2.5	16.15	June 6, 1945	21.71	Aug. 20, 1946
112	2.5	96.93	July 12, 1945	130.14	Sept. 12, 1946
131	2.5	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 1946 and for period of record, in 13 wells in Barton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	4.73	+0.72	-1.05
2	2.45	-.63	+.52
16	2.23	-.49	-.83
43	4.33	-2.34	+.39
100	4.03	-.52	-1.00
101	1.26	-.84	+.21
103	6.66	-1.93	-3.01
105	2.02	-.63	-.13
107	3.28	+.83	+1.05
109	5.22	+.95	+1.97
110	5.56	-1.58	-2.70
112	33.21	+.40	-6.57
131	4.82	-1.70	-.35

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.62	Apr. 23	4.71	July 22	5.25	Oct. 24	3.90
Feb. 20	4.55	May 23	4.66	Aug. 21	5.49	Nov. 26	3.78
Mar. 13	4.43	June 21	5.05	Sept. 12	4.71	Dec. 12	4.00

2 (*946, p. 72; *988, p. 64; 1018, p. 52; 1025, p. 51). W. Otte. NW $\frac{1}{4}$ sec. 16, T. 19 S., R. 14 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	32.81	Apr. 23	33.21	July 22	33.58	Nov. 12	32.19
Feb. 21	33.03	May 23	33.46	Aug. 20	33.77	Dec. 12	33.21
Mar. 14	32.93	June 22	33.37	Sept. 12	33.56		

16 (*946, p. 72; *988, p. 64; 1018, p. 52; 1025, p. 51). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	29.70	Apr. 23	29.85	July 22	29.96	Oct. 24	30.08
Feb. 20	29.76	May 23	29.90	Aug. 21	30.00	Nov. 26	30.12
Mar. 13	29.12	June 21	29.95	Sept. 12	30.06	Dec. 12	30.16

43 (*946, p. 72; *988, p. 65; 1018, p. 52; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	17.90	Apr. 23	18.49	July 22	19.78	Oct. 24	20.45
Feb. 20	18.08	May 23	18.66	Aug. 21	20.23	Nov. 26	20.25
Mar. 13	18.11	June 21	19.27	Sept. 12	20.48	Dec. 12	20.14

100 (*1018, p. 52; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	33.69	Apr. 23	34.20	July 22	34.48	Oct. 24	34.56
Feb. 21	33.95	May 22	34.34	Aug. 20	34.57	Nov. 26	33.56
Mar. 14	34.03	June 22	34.49	Sept. 12	34.65	Dec. 12	33.90

101 (*1018, p. 52; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	23.64	Apr. 23	23.74	July 10	24.01	Oct. 23	24.57
Feb. 20	23.69	May 22	23.78	Aug. 20	24.33	Nov. 26	24.49
Mar. 14	23.64	June 22	23.93	Sept. 12	24.44	Dec. 12	24.44

103 (*1018, p. 53; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.35	Apr. 23	5.22	July 22	7.30	Oct. 24	7.05
Feb. 20	4.49	May 23	6.24	Aug. 21	7.66	Nov. 26	6.37
Mar. 13	4.42	June 21	7.11	Sept. 12	7.57	Dec. 12	6.35

104 (*1018, p. 53; 1025, p. 52). J. Hennessy. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 17 S., R. 13 W. Water level, in feet below land-surface datum, 1946: Jan. 10, 34.40. Measurements discontinued after Jan. 10, 1946.

105 (*1018, p. 53; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	31.54	Apr. 23	31.60	July 22	31.70	Oct. 24	31.70
Feb. 20	31.54	May 23	31.56	Aug. 21	31.96	Nov. 26	31.71
Mar. 13	31.56	June 21	31.78	Sept. 12	31.76	Dec. 12	32.20

107 (*1018, p. 53; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	99.33	Apr. 23	99.58	July 22	99.27	Oct. 23	99.64
Feb. 20	101.60	May 23	98.60	Aug. 21	99.75	Nov. 26	99.50
Mar. 13	99.00	June 21	99.30	Sept. 12	99.88	Dec. 12	98.93

109 (*1018, p. 53; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	12.86	Apr. 4	13.23	July 10	14.61	Nov. 26	11.71
Feb. 20	12.99	May 22	13.64	Aug. 20	15.38	Dec. 12	11.85
Mar. 14	13.05	June 22	14.26	Sept. 12	12.78		

110 (*1018, p. 53; 1025, p. 52). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	18.72	Apr. 4	18.68	July 10	20.43	Oct. 23	21.14
Feb. 21	18.52	May 22	18.95	Aug. 20	21.71	Nov. 26	20.53
Mar. 14	18.39	June 22	19.57	Sept. 12	21.42	Dec. 12	20.39

111 (*1018, p. 53; 1025, p. 53). Continental Oil Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 17 S., R. 12 W. Measurements discontinued after Sept. 12, 1945.

112 (*1018, p. 54; 1025, p. 53). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	126.59	Apr. 24	126.85	July 10	126.29	Oct. 23	126.14
Feb. 21	126.37	May 22	126.27	Aug. 20	127.58	Nov. 26	125.00
Mar. 14	126.24	June 22	125.74	Sept. 12	130.14	Dec. 12	124.32

131 (*1018, p. 54; 1025, p. 53). F. W. Gagleman. SE. corner sec. 22, T. 17 S., R. 15 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	11.83	Apr. 23	12.28	July 22	14.07	Oct. 24	14.13
Feb. 21	11.94	May 22	12.69	Aug. 20	14.60	Nov. 26	13.63
Mar. 14	11.94	June 22	13.41	Sept. 12	14.23	Dec. 12	13.53

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	5	180.25	Mar. 29, 1946	184.35	Apr. 25, 1945
2	5	55.90	July 29, 1942	63.69	Oct. 29, 1945

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 rise in 1946	Net rise (+) or net decline (-) for period of record
1	4.10	0.37	+0.05
2	7.79	1.02	-7.08

1 (*946, p. 73; *988, p. 65; 1018, p. 54; 1025, p. 53). 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, 1946: Mar. 29, 180.25.

2 (*946, p. 73; *988, p. 65; 1018, p. 54; 1025, p. 53). 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, 1946: Mar. 29, 62.98.

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	3	20.30	Apr. 29, 1944	26.80	June 29, 1946
3	3	6.60	June 30, 1945	18.90	Aug. 31, 1944
					Nov. 30, 1944
					Dec. 30, 1946
4	3	14.90	June 30, 1945	26.90	Dec. 30, 1944
5	3	8.60	May 31, 1944	28.20	Dec. 30, 1944
6	3	19.80	Sept. 30, 1944	29.90	June 29, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 5 wells in Brown County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	6.50	-1.60	-3.28
3	12.30	-12.10	-1.80
4	12.00	+1.10	+2.95
5	19.60	+1.80	+9.14
6	10.10	-.40	-7.36

1 (*1025, p. 55). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	21.30	Apr. 30	20.90	July 31	25.60	Nov. 30	24.60
Feb. 28	23.60	May 31	23.10	Aug. 31	26.10	Dec. 30	25.20
Mar. 30	21.70	June 29	26.80	Oct. 31	25.00		

3 (*1025, p. 55). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	16.00	Apr. 30	17.20	July 31	17.00	Nov. 30	18.40
Feb. 28	16.90	May 31	17.30	Aug. 31	17.60	Dec. 30	18.90
Mar. 30	7.80	June 29	18.70	Oct. 31	18.00		

4 (*1025, p. 55). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	24.20	Apr. 30	25.00	July 31	24.90	Nov. 30	21.30
Feb. 28	24.00	May 31	24.40	Aug. 31	20.90	Dec. 30	21.00
Mar. 30	23.50	June 29	25.80	Oct. 31	24.10		

5 (*1025, p. 55). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	18.10	Apr. 30	27.20	July 31	19.10	Nov. 30	15.40
Feb. 28	17.30	May 31	19.80	Aug. 31	19.80	Dec. 30	16.40
Mar. 30	23.20	June 29	19.70	Oct. 31	19.40		

6 (*1025, p. 56). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	29.10	Apr. 30	28.70	July 31	28.90	Nov. 30	28.70
Feb. 28	28.70	May 31	29.80	Aug. 31	29.70	Dec. 30	28.40
Mar. 30	29.20	June 29	29.90	Oct. 31	28.70		

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	6	25.88	Nov. 26, 1942	29.36	June 5, 1946
7	6	34.57	Dec. 21, 1946	36.01	Sept. 27, 1946
10	6	14.55	May 8, 1942	17.83	Sept. 27, 1946
12	6	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 1946 and for period of record, in 4 wells in Clark County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
5	3.48	-0.32	-0.51
7	1.44	+1.11	+1.18
10	3.08	+1.38	+0.87
12	1.57	-0.18	+0.11

5 (*908, p. 42; 938, p. 56; 946, p. 75; *988, p. 67; 1018, p. 55; 1025, p. 56). 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, 1946: June 5, 29.36; Sept. 27, 29.31; Dec. 21, 29.24.

7 (*908, p. 42; 938, p. 56; 946, p. 75; *988, p. 67; 1018, p. 55; 1025, p. 56). 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, 1946: Mar. 26, 35.81; June 5, 35.88; Sept. 27, 36.01; Dec. 21, 34.57.

10 (*908, p. 42; 938, p. 56; 946, p. 76; *988, p. 67; 1018, p. 55; 1025, p. 56). 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, 1946: Mar. 25, 16.95; June 5, 17.14; Sept. 27, 17.63; Dec. 21, 15.47.

12 (*908, p. 42; 938, p. 57; 946, p. 76; *988, p. 67; 1018, p. 55; 1025, p. 56). 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, 1946: Mar. 25, 68.04; June 5, 68.00; Sept. 20, 68.19; Dec. 21, 68.09.

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	6	38.53	Aug. 31, 1944	40.52	June 20, 1941
7	6	36.00	May 27, 1942	58.53	Jan. 22, 1941
9	6	88.48	Mar. 26, 1946	98.30	Dec. 20, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 3 wells in Comanche County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	1.99	+0.19	+1.58
7	22.53	+4.9	+13.87
9	9.82	-8.01	-9.36

1 (*908, p. 43; 938, p. 58; 946, p. 77; *988, p. 68; 1018, p. 56; 1025, p. 57). 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, 1946: Mar. 26, 38.93; June 5, 38.98; Sept. 27, 39.08; Dec. 20, 38.59.

7 (*908, p. 44; 938, p. 58; 946, p. 77; *988, p. 69; 1018, p. 56; 1025, p. 57). W. D. Aitken. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 34 S., R. 17 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 36.32; June 5, 36.52.

9 (*908, p. 44; 938, p. 58; 946, p. 77; *988, p. 69; 1018, p. 56; 1025, p. 57). H. R. Burnette. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 32 S., R. 17 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 88.48; June 5, 88.88; Dec. 20, 98.30.

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	3.5	11.99	Jan. 2, 1945	27.31	June 1, 1946
2	3	16.27	Apr. 11, 1946	20.50	July 1, 1944
40	2.5	10.82	May 16, 1945	15.91	Nov. 30, 1946
41	2.5	10.15	Jan. 2, 1945	14.54	July 6, 1944
42	2.5	25.87	Feb. 21, 1946	28.98	Aug. 30, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 5 wells in Cowley County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	15.32	-15.31	-12.79
2	4.23	-1.29	-2.27
40	5.09	-3.85	-5.09
41	4.39	-.55	-.69
42	3.11	+.79	+1.68

1 (*1018, p. 56; 1025, p. 57). City of Winfield well 2 east. SW. corner SE $\frac{1}{4}$ sec. 18, T. 32 S., R. 3 E. Water levels, in feet below land-surface datum, 1946: Apr. 11, 14.54; May 4, 14.57; June 1, 27.31. Measurements discontinued after June 1, 1946.

2. United States 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 turbine pump base, which is at land-surface datum. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1943-46

Date	Water level	Date	Water level	Date	Water level
Oct. 31, 1943	17.5	Sept. 1, 1944	17.5	May 4, 1946	16.67
Nov. 30	17.5	Nov. 1	17.5	June 1	16.78
Dec. 31	18.0	Dec. 1	17.5	July 6	16.72
Feb. 1, 1944	19.5	Feb. 1, 1945	17.5	Aug. 3	17.73
Mar. 1	19.5	Mar. 1	17.5	Aug. 30	17.82
31	19.5	June 4	17.5	Oct. 3	18.55
May 31	19	July 2	17.5	Nov. 9	18.76
July 1	20.5	Feb. 21, 1946	16.33	30	18.79
Aug. 1	17.5	Apr. 11	16.27		

40 (*1018, p. 56; 1025, p. 58). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	12.45	May 4	13.12	Aug. 3	14.88	Nov. 9	15.86
Feb. 21	12.13	June 1	13.16	30	14.96	30	15.91
Apr. 11	13.11	July 6	15.34	Oct. 3	15.76		

41 (*1018, p. 56; 1025, p. 58). City of Winfield. NE $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 32 S., R. 3 E. Water levels, in feet below land-surface datum, 1946: Jan. 21, 11.62; Feb. 21, 11.42.

42 (*1018, p. 57; 1025, p. 58). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21	26.06	May 4	26.28	Aug. 30	28.98	Nov. 9	26.78
Feb. 21	25.87	July 6	26.25	Oct. 3	26.74	30	26.79
Apr. 11	26.24	Aug. 3	28.92				

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	5	1.06	Oct. 29, 1945	9.12	Aug. 25, 1943
24	5	262.10	Sept. 10, 1942	269.54	Mar. 29, 1946
88	3	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 1946 and for period of record, in 3 wells in Crawford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net decline for period of record
1	8.06	-2.07	1.76
24	7.44	+6.1	6.03
88	10.83	+3.33	4.33

1 (*946, p. 78; *988, p. 69; 1018, p. 57; 1025, p. 58). John P. Biddle. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 31 S., R. 25 E. Water level, in feet below land-surface datum, 1946: Mar. 29, 6.01.

24 (*946, p. 78; *988, p. 70; 1018, p. 57; 1025, p. 58). 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, 1946: Mar. 29, 269.54.

88 (*1018, p. 58; 1025, p. 58). Kansas City Southern Railway Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 30 S., R. 25 E. Water level, in feet below land-surface datum, 1946: Mar. 29, 226.99.

Dickinson County

53 (*988, p. 70; 1018, p. 58; 1025, p. 59). City of Enterprise. SW $\frac{1}{4}$ SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 13 S., R. 3 E. Measurements discontinued Jan. 1, 1946.

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	2.5	6.23	Mar. 8, 1945	7.97	Sept. 13, 1946
2	2.5	.11	Nov. 15, 1946	3.50	Feb. 14, 1945
10	2.5	64.11	Dec. 7, 1944	68.20	Mar. 13, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 3 wells in Edwards County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	1.74	+0.44	-0.55
2	3.79	+2.11	+3.12
10	4.09	-.32	+1.8

1 (*1018, p. 58; 1025, p. 59). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	7.12	Apr. 23	7.26	July 11	7.65	Oct. 24	7.29
Feb. 19	7.04	May 23	7.42	Aug. 21	7.91	Nov. 15	7.03
Mar. 13	7.04	June 12	7.47	Sept. 13	7.97	Dec. 11	6.83

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	1.48	Apr. 23	3.06	July 10	3.47	Oct. 24	1.91
Feb. 19	3.01	May 23	3.24	Aug. 21	3.32	Nov. 15	.11
Mar. 13	1.58	June 12	3.32	Sept. 13	3.47	Dec. 11	.05

10 (*1018, p. 58; 1025, p. 59). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	64.52	Apr. 3	65.34	Aug. 21	64.61	Oct. 8	64.44
Feb. 19	64.53	May 23	64.58	Sept. 13	64.53	Dec. 11	64.75
Mar. 13	68.20						

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	5	13.14	July 11, 1945	16.76	Oct. 23, 1946
218	5	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 1946 and for period of record, in 2 wells in Ellis County

Well	Difference between highest and lowest levels	Net decline in 1946	Net rise (+) or net decline (-) for period of record
215	3.62	3.62	-2.44
218	41.67	8.56	+8.11

190 (*938, p. 60; 946, p. 79; *988, p. 71; 1018, p. 59; 1025, p. 60). Ben Schulte. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 14 S., R. 16 W. Measurements discontinued Jan. 1, 1946.

215 (*938, p. 60; 946, p. 79; *988, p. 71; 1018, p. 59; 1025, p. 60). 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, 1946: Jan. 17, 15.02; Apr. 24, 15.57; Oct. 23, 16.76.

218 (*938, p. 60; 946, p. 80; *988, p. 71; 1018, p. 59; 1025, p. 60). W. W. Bemis. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 12 S., R. 17 W. Water levels, in feet below land-surface datum, 1946: Jan. 17, 43.95; Apr. 24, 47.13; July 10, 48.34; Oct. 23, 45.83.

Finney County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 11 wells in Finney County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	10.5	5.43	June 9, 1943	11.46	Mar. 8, 1941
2	7	105.33	June 27, 1944	109.82	Oct. 25, 1943
5	7	20.09	Dec. 19, 1946	22.54	Jan. 28, 1940
6	7	15.25	June 21, 1940	20.82	June 22, 1946
7	7	77.24	May 9, 1945	78.79	Sept. 13, 1944
8	7	74.03	Aug. 14, 1946	75.25	June 21, 1940
13	7	.76	May 5, 1942	4.63	Sept. 23, 1939
15	7	8.71	Dec. 25, 1946	14.40	Sept. 20, 1940
17	7	.71	May 5, 1942	7.81	Oct. 26, 1939
26	7	68.34	Apr. 10, 1945	71.60	Apr. 24, 1941
1002	4	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 1946 and for period of record, in 11 wells in Finney County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	6.03	+1.12	+3.33
2	4.49	+0.06	+3.38
5	2.45	+0.85	+2.36
6	5.57	+2.53	-1.37
7	1.55	-1.89	+1.40
8	1.22	+1.31	+1.12
13	3.87	+1.78	+3.54
15	5.69	+1.05	+5.15
17	7.10	+1.23	+5.58
26	3.26	-.30	+2.76
1002	5.95	+0.40	-.86

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

Main daily water level in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.04	6.99	6.94	....	....	7.06	7.36	7.29	8.07	7.94	6.85	5.91
2	7.02	6.99	6.93	....	....	7.04	7.35	7.34	8.09	7.96	6.86	5.88
3	7.01	6.99	6.91	....	....	7.03	7.36	7.39	8.11	7.96	6.84	5.89
4	7.00	6.98	6.92	....	....	7.00	7.36	7.43	8.12	7.96	6.23	5.87
5	6.98	6.98	6.91	....	....	6.98	7.37	7.46	8.13	7.80	6.11	5.87
6	7.01	6.99	6.92	....	....	6.97	7.38	7.49	8.14	7.70	6.10	5.85
7	7.03	6.97	6.92	....	....	6.98	7.38	7.51	8.16	....	5.97	5.85
8	7.00	6.99	6.94	....	....	7.01	7.38	7.52	8.11	....	5.87	5.86
9	7.02	7.00	6.93	....	....	7.03	7.39	7.55	8.11	....	5.82	5.87
10	7.00	6.97	6.93	....	....	7.05	7.40	7.58	....	....	5.83	5.87
11	6.99	6.97	6.91	....	....	7.07	7.42	7.50	....	....	5.84	5.84
12	7.02	6.97	6.90	....	....	7.11	7.42	7.43	....	....	5.85	5.83
13	7.00	6.98	6.91	....	....	7.14	7.43	7.52	....	....	5.84	5.84
14	6.99	6.98	6.89	....	....	7.16	7.43	7.59	8.08	....	5.83	5.84
15	7.00	6.97	6.89	....	....	7.18	7.44	7.63	8.07	....	5.83	5.83
16	6.99	6.97	6.90	....	....	7.21	7.44	7.65	8.07	....	5.90	5.83
17	6.99	6.98	6.93	....	....	7.24	7.41	7.68	....	....	5.90	5.88
18	6.97	6.95	....	....	7.25	7.26	7.43	7.73	....	....	5.87	5.86
19	6.96	6.97	....	....	7.26	7.26	7.45	7.76	....	6.68	5.86	5.84
20	6.97	6.95	....	....	7.28	7.23	7.46	7.78	....	6.69	5.84	5.85
21	6.98	6.95	....	....	7.27	7.24	7.41	7.84	....	6.71	5.89	5.86
22	6.98	6.94	....	7.10	7.26	7.26	7.36	7.88	....	6.72	5.89	5.85
23	6.99	6.95	....	7.12	7.27	7.28	7.35	7.92	....	6.73	5.85	5.87
24	....	6.93	....	7.13	7.29	7.29	7.32	7.92	7.80	6.76	5.85	5.89
25	....	6.91	....	7.13	7.28	7.31	7.30	7.93	7.84	6.77	5.90	5.88
26	7.01	6.93	....	7.15	7.25	7.32	7.25	7.96	7.88	6.78	5.89	5.85
27	6.99	6.93	....	7.16	7.20	7.33	7.19	7.97	7.80	6.81	5.91	5.83
28	6.99	6.92	....	....	7.15	7.34	7.20	8.00	7.91	6.82	5.89	5.88
29	6.95	....	6.95	....	7.11	7.34	7.17	8.02	7.91	6.83	5.88	5.91
30	6.98	....	6.97	....	7.09	7.35	7.16	8.04	7.93	6.85	5.89	5.91
31	6.98	....	6.96	....	7.07	....	7.22	8.06	....	6.86	....	5.92

2 (*886, p. 141; 908, p. 49; 938, p. 62; 946, p. 82; *988, p. 73; 1018, p. 60; 1025, p. 61). Maggie B. Smith. NE corner NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 26 S., R. 32 W. Water levels, in feet below land-surface datum, 1946: Feb. 6, 106.35; Nov. 21, 105.78.

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

5--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 16	21.02	Apr. 26	21.09	July 8	21.19
Feb. 14	21.06	May 8	21.09	Aug. 8	21.29
Mar. 20	21.05	June 7	21.14	Sept. 6	21.37
				Dec. 19	20.09

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

Water level, in feet below land-surface datum, 1946					
Apr. 22	20.53	June 22	20.82	Oct. 17	18.91
May 22	20.69	July 21	20.29	Nov. 25	18.53
				Dec. 6	17.51

7 (*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62). 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, 1946: Feb. 6, 77.56; May 1, 77.53; Aug. 14, 77.78; Nov. 21, 77.69.

8 (*886, p. 142; 908, p. 50; 938, p. 63; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62). 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, 1946: Feb. 6, 74.18; May 1, 74.18; Aug. 14, 74.03; Nov. 21, 73.92.

13 (*886, p. 143; 908, p. 50; 938, p. 64; 946, p. 83; *988, p. 73; 1018, p. 61; 1025, p. 62). 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, 1946					
Jan. 9	2.74	Apr. 26	3.02	July 11	3.52
Feb. 25	2.55	May 1	3.43	Aug. 9	4.10
Mar. 12	2.57	June 6	3.11	Sept. 13	3.34
				Dec. 13	1.09

15 (*886, p. 143; 908, p. 51; 938, p. 64; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62). 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, 1946					
Jan. 25	9.69	Apr. 25	10.03	July 25	10.57
Feb. 25	9.63	May 25	10.46	Aug. 25	11.45
Mar. 25	9.62	June 25	10.48	Sept. 25	11.44
				Dec. 25	8.71

16 (*886, p. 143; 908, p. 51; 938, p. 64; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62). George L. Meeker. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 24 S., R. 34 W. Measurements discontinued Jan. 1, 1946.

17 (*886, p. 144; 908, p. 51; 938, p. 64; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62). SE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 24 S., R. 35 W.

Water level, in feet below land-surface datum, 1946					
Jan. 23	2.79	Apr. 19	3.15	July 20	4.06
Feb. 25	2.72	May 25	3.69	Aug. 27	6.76
Mar. 15	2.82	June 6	3.70	Sept. 21	5.08
				Oct. 19	3.11
				Nov. 23	2.15

23 (*886, p. 144; 908, p. 51; 938, p. 65; 946, p. 84; *988, p. 74; 1018, p. 61; 1025, p. 62). J. E. Ely. SE $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 23 S., R. 32 W. Measurements discontinued Jan. 1, 1946.

26 (*886, p. 145; *908, p. 52; 938, p. 65; 946, p. 85; *988, p. 74; 1018, p. 61; 1025, p. 62). Garden City Experiment Station. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 24 S., R. 32 W. Water levels, in feet below land-surface datum, 1946: Jan. 11, 68.83; Apr. 26, 69.27; July 25, 69.94; Oct. 17, 69.59.

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	117.46	May 24	114.27	Aug. 22	114.74	Nov. 21	113.90
Mar. 12	114.21	June 6	113.98	Sept. 19	114.40	Dec. 24	113.86
Apr. 26	114.04	July 25	114.44	Oct. 31	113.98		

a Affected by pumping.

1005 (*946, p. 85; *988, p. 74; 1018, p. 62; 1025, p. 63). United States Army. SW $\frac{1}{4}$ sec. 27, T. 24 S., R. 31 W. Measurements discontinued Jan. 1, 1946.

Ford County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 15 wells in Ford County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
2	8	26.03	Sept. 1, 1944	27.78	Sept. 5, 1939
8	8	.86	May 13, 1942	8.17	Nov. 7, 1939
11	8	7.69	June 3, 1942	12.31	Jan. 24, 1940
38	8	26.73	Jan. 9, 1946	42.08	May 16, 1940
41	8	44.10	July 7, 1945	46.53	July 1, 1939
57	8	4.74	May 15, 1942	9.93	Oct. 2, 1939
59	8	14.49	May 15, 1942	26.98	Aug. 9, 1946
65	8	14.61	May 13, 1942	17.81	Sept. 13, 1946
79C	8	13.25	July 2, 1942	20.19	Sept. 13, 1946
96	8	6.32	Apr. 19, 1945	10.22	Sept. 5, 1939
237	8	83.72	May 25, 1943	86.42	Nov. 8, 1939
343	8	75.64	Dec. 4, 1941	77.25	July 11, 1946
1002	4	103.92	Sept. 18, 1945	1184.09	Nov. 26, 1942
1003	4	94.35	July 4, 1944	109.52	Aug. 19, 1943
1004	4	98.54	Nov. 26, 1942	1120.81	May 25, 1943

a Pumping.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 15 wells in Ford County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
2	1.75	-0.35	+0.52
8	7.31	+ .90	+1.00
11	4.62	-.86	+ .40
38	15.35	+ .52	+4.93
41	2.43	-1.13	+ .82
57	5.19	+ .65	+ .57
59	12.49	+1.23	+1.31
65	3.20	-.17	+ .30
79C	6.94	-.49	-1.09
96	3.90	-.69	+ .88
237	2.70	-1.85	+ .17
343	1.61	-.90	-.84
1002	80.17	+4.19	-1.30
1003	15.17	+1.47	+1.14
1004	22.27	+1.72	-.27

2 (*845, p. 96; 886, p. 151; 908, p. 57; 938, p. 66; 946, p. 86; *988, p. 75; 1018, p. 62; 1025, p. 63). L. A. Lamb. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4, T. 28 S., R. 22 W. Water levels, in feet below land-surface datum, 1946: Mar. 27, 26.70; July 11, 26.97. Measurements discontinued after July 11, 1946.

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). 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, 1946: Jan. 1, 6.05; Oct. 25, 5.39.

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). 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, 1946: Jan. 9, 10.53; Apr. 30, 10.58; July 11, 10.95; Oct. 25, 11.38.

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). F. Buns. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 26 S., R. 24 W. Water levels, in feet below land-surface datum, 1946: Jan. 9, 26.73; Apr. 30, 37.87; July 23, 37.90; Oct. 25, 36.50.

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). 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, 1946: Jan. 9, 44.39; Apr. 30, 44.55; July 23, 44.84; Oct. 25, 45.23.

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	7.86	Apr. 30	7.90	July 11	7.87	Oct. 25	7.26
Feb. 19	7.74	May 24	7.57	Aug. 9	9.15	Nov. 27	7.05
Mar. 12	7.70	June 20	7.69	Sept. 13	7.72	Dec. 10	7.19

59 (*845, p. 98; 886, p. 153; 906, p. 58; 938, p. 67; 946, p. 87; *988, p. 76; 1018, p. 63; 1025, p. 64). Ward Byers. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 25 S., R. 26 W.

Water level, in feet below land-surface datum, 1946

Jan. 9	16.56	Apr. 30	24.11	July 11	a 24.81	Oct. 25	15.48
Feb. 19	16.47	May 24	a 25.70	Aug. 9	26.98	Nov. 27	15.28
Mar. 12	16.31	June 20	16.84	Sept. 13	25.73	Dec. 10	15.35

a Nearby well pumping.

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). 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, 1946

Jan. 9	16.35	Apr. 30	16.63	July 11	17.26	Oct. 25	16.83
Feb. 19	16.30	May 24	16.79	Aug. 9	17.42	Nov. 27	16.68
Mar. 12	16.27	June 20	17.07	Sept. 13	17.81	Dec. 10	16.59

79C (*845, p. 99; 886, p. 155; 908, p. 59; 938, p. 68; 946, p. 87; *988, p. 77; 1018, p. 63; 1025, p. 64). 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, 1946

Jan. 9	19.12	Apr. 30	19.22	July 11	19.74	Nov. 27	19.69
Feb. 19	19.11	May 24	19.52	Sept. 13	20.19	Dec. 10	19.61
Mar. 12	19.07	June 20	19.63	Oct. 25	19.97		

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). Henry Hattrup. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 26 S., R. 21 W. Water levels, in feet below land-surface datum, 1946: Jan. 9, 7.79; Apr. 30, 7.89; July 11, 8.54; Oct. 25, 8.78.

237 (*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88; *988, p. 77; 1018, p. 63; 1025, p. 64). Atchison Topeka & Santa Fe Railway. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 25 S., R. 22 W. Water levels, in feet below land-surface datum, 1946: Jan. 9, 85.41; Apr. 30, 85.47; July 11, 85.69; Oct. 25, 85.82.

343 (*886, p. 150; 908, p. 57; 938, p. 68; 946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 64). 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, 1946: Jan. 9, 75.97; Apr. 30, 77.24; July 11, 77.25; Oct. 25, 76.92.

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	104.86	Apr. 30	104.81	Aug. 9	106.20	Nov. 27	106.46
Feb. 19	104.88	May 24	105.05	Oct. 25	106.04	Dec. 10	104.98

1003 (*946, p. 88; *988, p. 77; 1018, p. 64; 1025, p. 65). United States 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	104.46	Apr. 30	102.41	Aug. 9	103.50	Nov. 27	103.33
Feb. 19	105.49	May 24	102.62	Oct. 25	103.18	Dec. 10	102.33

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	99.44	Apr. 30	99.61	June 20	100.56	Nov. 27	100.09
Feb. 19	99.65	May 24	99.91	Oct. 25	100.04	Dec. 10	99.50

a Pumping.

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	6	41.80	Mar. 24, 1945	45.06	Sept. 16, 1941
4	6	84.26	Mar. 24, 1945	87.52	May 14, 1941
5	6	64.77	Feb. 15, 1946	67.00	Dec. 28, 1943
7	6	81.91	Jan. 24, 1945	82.76	May 14, 1941
8	6	57.43	Nov. 21, 1946	59.56	Apr. 21, 1944
11	6	45.99	May 10, 1945	47.32	July 12, 1943
13	6	104.64	Nov. 21, 1946	106.58	July 14, 1941
14	6	129.03	Aug. 15, 1946	130.47	May 30, 1941
400	2	52.78	Feb. 28, 1945	55.73	Aug. 22, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record in 9 wells in Grant County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	3.26	+0.25	+2.26
4	3.26	-.53	+2.44
5	2.23	+.48	+.84
7	.85	+.16	+.21
8	2.13	+1.43	+1.60
11	1.33	-.26	+.79
13	1.94	+.74	+1.91
14	1.44	+.22	+1.36
400	2.95	-.27	-.90

1 (*938, p. 69; 946, p. 89; *988, p. 78; 1018, p. 65; 1025, p. 66).
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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	42.13	Apr. 1	42.34	July 18	42.38	Oct. 18	42.21
Feb. 15	42.11	May 29	42.26	Aug. 15	42.46	Nov. 22	42.37
Mar. 8	42.58	June 26	42.40	Sept. 21	42.38	Dec. 23	42.27

4 (*938, p. 70; 946, p. 89; *988, p. 78; 1018, p. 65; 1025, p. 66).
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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	84.53	May 29	84.70	Sept. 21	84.85	Nov. 22	85.09
Feb. 7	84.56	July 18	84.80	Oct. 18	84.95	Dec. 23	85.08
Mar. 6	84.56						

5 (*938, p. 70; 946, p. 89; *988, p. 79; 1018, p. 65; 1025, p. 66).
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, 1946: Feb. 15, 64.77; May 28, 66.86; Aug. 15, 66.85; Nov. 22, 66.16.

7 (*938, p. 70; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66).
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, 1946: Aug. 15, 82.05; Nov. 21, 81.92.

8 (*938, p. 70; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66).
E. C. 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, 1946: Feb. 7, 59.00; June 4, 58.97; Aug. 15, 58.79; Nov. 21, 57.43.

11 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66).
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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	46.18	Apr. 1	46.22	July 18	46.66	Oct. 18	46.90
Feb. 7	46.17	May 28	46.48	Aug. 16	46.86	Nov. 22	46.44
Mar. 6	46.21	June 26	46.58	Sept. 21	47.02		

13 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66).
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, 1946: Feb. 7, 105.32; May 28, 105.25; Aug. 15, 105.12; Nov. 21, 104.64.

14 (*938, p. 71; 946, p. 90; *988, p. 79; 1018, p. 65; 1025, p. 66).
Mr. Hall. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 28 S., R. 36 W. Water levels, in feet below land-surface datum, 1946: Feb. 7, 129.21; May 28, 129.10; Aug. 15, 129.03; Nov. 21, 129.11.

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

Mean daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	53.95	54.29	54.23	54.46	54.89	54.90	54.58	55.44	.....	53.94	54.16	54.25
2	53.95	54.33	54.21	54.47	54.90	54.89	54.60	55.45	.....	53.97	54.16	54.23
3	53.95	54.36	54.20	54.50	54.90	54.88	54.67	55.47	.....	53.99	54.19	54.24
4	53.97	54.37	54.20	54.52	54.91	54.87	54.74	55.48	.....	54.01	54.19	54.22
5	53.98	54.37	54.19	54.54	54.92	54.84	54.81	55.50	.....	.....	54.18	54.22
6	53.97	54.34	54.19	54.56	54.92	54.79	54.87	55.52	.....	.....	54.15	54.21
7	53.96	54.34	54.17	54.57	54.93	54.76	54.92	55.53	.....	.....	54.19	54.21
8	53.94	54.35	54.16	54.58	54.94	54.74	54.94	55.55	.....	.....	54.19	54.22
9	53.94	54.36	54.16	54.59	54.94	54.72	54.98	55.56	.....	.....	54.19	54.23
10	53.93	54.37	54.15	54.60	54.95	54.71	55.02	.....	.....	.....	54.20	54.22
11	53.92	54.38	54.15	54.60	54.96	54.69	55.05	.....	.....	.....	54.21	54.20
12	53.93	54.38	54.17	54.61	54.96	54.67	55.06	.....	.....	.....	54.21	54.21
13	53.94	54.39	54.22	54.62	54.97	54.65	55.08	55.63	.....	.....	54.20	54.22
14	53.94	54.41	54.26	54.64	54.98	54.64	.....	55.64	.....	.....	54.19	54.22
15	53.95	54.43	54.30	54.65	54.98	54.63	.....	55.66	.....	.....	54.20	54.21

400--Continued.

Mean daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	53.97	54.44	54.31	54.66	54.98	54.63	.....	55.67	.....	.....	54.24	54.22
17	53.99	54.46	54.32	54.67	54.99	54.64	.....	55.68	.....	.....	54.22	54.24
18	54.02	54.46	54.50	54.69	55.00	54.67	55.18	55.68	.....	54.16	54.21	54.22
19	54.04	54.43	54.29	54.71	55.01	54.72	55.19	55.69	.....	54.18	54.22	54.20
20	54.06	54.36	54.29	54.72	55.02	54.72	55.20	55.71	.....	54.18	54.22	54.21
21	54.08	54.31	54.33	54.74	55.02	54.70	55.23	55.72	53.74	54.17	54.24	54.21
22	54.10	54.29	54.36	54.76	55.02	54.66	55.25	55.73	53.79	54.17	54.24	54.20
23	54.12	54.27	54.40	54.78	55.02	54.64	55.27	55.72	53.80	54.16	54.21	54.22
24	54.15	54.25	54.42	54.80	55.03	54.62	55.29	55.68	53.82	54.16	54.22	54.23
25	54.17	54.24	54.43	54.81	55.04	54.61	55.31	55.62	53.84	54.15	54.25	54.21
26	54.20	54.24	54.43	54.83	55.05	54.60	.....	55.43	53.85	54.14	54.24	54.19
27	54.21	54.24	54.43	54.86	55.06	54.60	.....	55.20	53.88	54.15	54.25	54.19
28	54.20	54.24	54.44	54.87	55.06	54.59	.....	55.04	53.91	54.15	54.23	54.23
29	54.19		54.45	54.88	55.03	54.58	.....	.....	53.93	54.14	54.23	54.23
30	54.21		54.43	54.89	54.96	54.57	.....	.....	53.93	54.17	54.24	54.23
31	54.25		54.43		54.92		55.43	.....		54.17		54.23

Gray County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in Gray County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	3.48	June 13, 1941	7.56	Oct. 8, 1940
3	7	163.99	June 4, 1946	165.98	Aug. 18, 1943
7	7	75.04	Sept. 19, 1946	77.70	May 22, 1940
8	7	a +.07	May 25, 1945	8.20	Oct. 7, 1939
11	7	57.75	Dec. 10, 1946	59.74	Aug. 18, 1943
20	7	17.55	May 15, 1942	21.53	Nov. 4, 1940
23	7	107.55	Sept. 20, 1946	114.76	July 19, 1943
28	7	68.21	Dec. 13, 1946	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 1946 and for period of record, in 8 wells in Gray County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
1	4.08	+1.23	2.57
3	1.99	+1.16	.92
7	2.66	+7.75	2.95
8	8.27	-1.01	5.13
11	1.99	+1.29	.79
20	3.98	+1.92	3.35
23	7.21	+8.2	1.25
28	11.89	+7.27	11.85

1 (*886, p. 158; 908, p. 63; 938, p. 73; 946, p. 92; *988, p. 80; 1018, p. 67; 1025, p. 68). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	5.50	Apr. 30	5.98	July 11	6.32	Oct. 25	4.68
Feb. 19	5.50	May 24	6.13	Aug. 9	6.62	Nov. 27	4.48
Mar. 12	5.59	June 6	6.03	Sept. 13	6.89	Dec. 10	4.77

3 (*886, p. 159; 908, p. 63; 938, p. 73; 946, p. 92; *988, p. 80; 1018, p. 67; 1025, p. 68). N. A. Mans. NE $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 28 S., R. 27 W. Water levels, in feet below land-surface datum, 1946: Mar. 19, 164.22; June 4, 163.99; Sept. 20, 164.07; Dec. 13, 164.11.

7 (*886, p. 158; 908, p. 64; 938, p. 73; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68). 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, 1946: Mar. 25, 75.13; June 4, 75.16; Sept. 19, 75.04; Dec. 13, 74.53.

8 (*886, p. 159; 908, p. 64; 938, p. 73; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	1.93	Apr. 30	2.47	July 11	2.73	Oct. 25	3.06
Feb. 19	2.09	May 24	2.61	Aug. 9	2.90	Nov. 27	3.17
Mar. 12	2.26	June 6	2.61	Sept. 13	2.98	Dec. 10	3.07

11 (*886, p. 159; 908, p. 64; 938, p. 74; 946, p. 92; *988, p. 81; 1018, p. 67; 1025, p. 68). 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, 1946: Mar. 25, 58.19; June 4, 58.22; Sept. 20, 58.32; Dec. 10, 57.75.

17 (*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93; *988, p. 81; 1018, p. 67; 1025, p. 68). V. E. Yeager. NE. corner NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 28 S., R. 29 W. Measurements discontinued Jan. 1, 1946.

20 (*886, p. 160; 908, p. 65; 938, p. 74; 946, p. 93; *988, p. 82; 1018, p. 67; 1025, p. 68). H. and 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	19.87	Apr. 30	19.72	July 11	20.12	Oct. 25	18.66
Feb. 19	19.70	May 24	19.88	Aug. 9	20.35	Nov. 27	17.88
Mar. 12	19.63	June 6	19.92	Sept. 13	20.56	Dec. 10	18.05

23 (*886, p. 160; 908, p. 65; 938, p. 75; 946, p. 93; *988, p. 82; 1018, p. 67; 1025, p. 68). Fry. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 28 S., R. 29 W., in Montezuma. Water levels, in feet below land-surface datum, 1946: Mar. 25, 112.37; June 4, 113.49; Sept. 20, 107.55; Dec. 13, 110.74.

28 (*886, p. 161; 908, p. 66; 938, p. 75; 946, p. 94; *988, p. 82; 1018, p. 67; 1025, p. 68). W. H. McLaughton. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 27 S., R. 29 W. Water level, in feet below land-surface datum, 1946: Dec. 13, 68.21.

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	7	13.22	Feb. 15, 1946	a 27.94	Nov. 22, 1940
3	7	11.57	July 7, 1942	14.67	Nov. 16, 1939
6	7	49.74	May 20, 1942	53.74	Nov. 16, 1939
7	7	42.25	Dec. 2, 1944	46.00	Nov. 27, 1940
16	7	84.38	Dec. 2, 1944	87.99	June 24, 1944

a Incorrectly reported as 28.14 in 1945.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 5 wells in Hamilton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
2	14.72	+0.48	+13.43
3	3.10	+0.04	+1.03
6	4.00	+1.17	+1.32
7	3.75	-.80	+1.72
16	3.61	+.48	-.48

2 (*886, p. 162; 908, p. 69; 938, p. 77; 1025, p. 69). R. Holdren. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 23 S., R. 43 W. Water levels, in feet below land-surface datum, 1946: Feb. 15, 13.22; May 10, 13.32; Nov. 23, 13.58.

3 (*886, p. 162; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	13.17	Apr. 5	13.32	July 6	12.85	Oct. 19	13.99
Feb. 9	13.24	May 18	13.43	Aug. 2	13.68	Nov. 22	13.30
Mar. 8	13.30	June 26	12.99	Sept. 14	14.18	Dec. 6	13.14

6 (*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69). Belle Heinlein. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 24 S., R. 39 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	51.93	Apr. 5	52.09	July 6	52.49	Oct. 19	52.24
Feb. 9	51.93	May 18	52.30	Aug. 17	53.05	Nov. 22	52.00
Mar. 8	52.01	June 26	52.41	Sept. 14	53.70	Dec. 6	51.92

7 (*886, p. 163; 908, p. 69; 938, p. 77; 946, p. 95; *988, p. 83; 1018, p. 68; 1025, p. 69). 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, 1946: Feb. 8, 43.54; May 10, 43.76; Aug. 2, 44.95; Nov. 22, 44.05.

16 (*886, p. 163; 908, p. 70; 938, p. 78; 946, p. 96; *988, p. 83; 1018, p. 68; 1025, p. 70). 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, 1946: Feb. 15, 86.59; Nov. 22, 86.20.

17 (*886, p. 163; 908, p. 70; 938, p. 78; 946, p. 96; *988, p. 83; 1018, p. 67; 1025, p. 70). Thomas A. Wells. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 25 S., R. 39 W. Measurements discontinued Jan. 1, 1946.

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	9	13.73	May 31, 1946	25.35	Oct. 7, 1937
294	9	17.15	May 31, 1946	40.92	Apr. 3, 1938
					Apr. 4, 1938
					Apr. 5, 1938
325	9	5.16	May 1, 1945	13.01	June 4, 1939
701	9	32.19	Dec. 3, 1946	44.23	Nov. 2, 1938
817	8	6.13	Apr. 20, 1945	17.12	Oct. 25, 1940
824	8	5.77	May 4, 1945	18.16	Nov. 5, 1940
831	8	11.53	May 4, 1945	20.54	Nov. 5, 1940
832	8	12.41	May 4, 1945	20.35	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
833	8	5.11	Oct. 2, 1945	11.49	Mar. 1, 1944
852	8	9.27	May 6, 1944	16.66	Nov. 5, 1940
853	8	6.03	Sept. 30, 1945	11.69	Jan. 14, 1944
854	8	5.24	Apr. 27, 1945	14.87	Nov. 1, 1940
875	8	a +.98	Mar. 2, 1945	6.04	Oct. 25, 1940
876	8	21.79	Dec. 22, 1944	27.83	Nov. 8, 1940
877	8	9.95	May 6, 1945	14.95	Jan. 27, 1941
880	8	2.56	Sept. 30, 1945	8.29	Dec. 9, 1946
881	8	3.23	Sept. 30, 1945	8.17	Dec. 2, 1946
888	8	a +.43	July 27, 1945	8.95	Oct. 27, 1939
889	8	.89	May 6, 1944	8.95	Oct. 7, 1946
890	8	.10	May 2, 1945	7.07	Nov. 5, 1940
891	8	a +.46	May 11, 1942	4.68	Sept. 26, 1946
892	8	a +1.15	May 12, 1944	3.92	Oct. 3, 1940
893	8	a +.87	May 4, 1942	3.77	Jan. 27, 1941
1174	6	2.28	May 1, 1945	9.04	July 8, 1943
1187	6	3.68	May 4, 1945	10.31	Mar. 1, 1944

a Above land-surface datum.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 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 1946	Net rise (+) or net decline (-) for period of record
72	11.62	-2.97	+3.50
294	23.77	-1.00	+4.85
325	7.85	-1.98	+2.42
701	12.04	+3.45	+7.80
817	10.99	-2.02	-.79
824	12.39	-4.76	+.71
831	9.01	-2.89	+.29
832	7.94	-3.08	-.96
833	6.38	-4.11	-3.18
852	7.39	-3.56	-.91
853	5.66	-2.76	-2.43
854	9.63	-2.20	+1.02
875	7.02	-2.60	+.18
876	6.04	-3.20	-1.12
877	5.00	-2.14	+.84
880	5.73	-2.66	-2.09
881	4.94	-2.08	-2.15
888	9.38	-4.35	-1.72
889	8.06	-3.24	-3.82
890	6.97	-2.80	-.57
891	5.14	-1.23	-.30
892	5.07	-.94	+.28
893	4.64	-.91	+.56
1174	6.76	-3.59	+.03
1187	6.63	-3.13	+.30

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 103 wells in Harvey County that are pumped or affected by pumping.

Well	Length of record (years)	Highest level	Date	Lowest level	Date
2	9	1.53	Apr. 20, 1945	10.17	Nov. 25, 1946
3	8	7.09	June 12, 1940	24.28	Nov. 8, 1946
66d	8	39.31	Jan. 7, 1946	58.29	Aug. 3, 1946
86	6	10.69	Apr. 28, 1944	19.62	Nov. 8, 1946
87	6	8.86	Apr. 28, 1944	32.79	Sept. 8, 1945
87a	6	9.62	Apr. 28, 1944	32.99	May 3, 1946
506	8	3.61	Apr. 28, 1944	16.67	Oct. 4, 1946
507	8	3.23	May 6, 1944	15.07	Oct. 28, 1946
821	8	12.03	Aug. 21, 1939	21.22	Dec. 30, 1946
839	8	9.62	Aug. 21, 1939	17.94	Mar. 7, 1944
872	8	17.65	Mar. 11, 1939	32.44	Aug. 27, 1946
873	8	17.61	Mar. 11, 1939	33.95	Sept. 25, 1946
874	8	20.04	May 27, 1940	45.75	July 31, 1946
878	8	16.25	June 3, 1940	29.65	Dec. 9, 1946
879	8	17.52	May 27, 1940	29.18	Nov. 18, 1946
			June 3, 1940		
883	8	13.35	Aug. 21, 1939	22.46	Nov. 2, 1944
884	8	13.34	Aug. 21, 1939	23.02	Dec. 6, 1946
885	8	13.22	Aug. 21, 1939	23.05	Mar. 7, 1944
886	8	2.34	Aug. 21, 1939	16.41	Nov. 2, 1946
887	8	2.72	May 27, 1940	18.10	Sept. 25, 1946
894	8	9.56	May 27, 1940	22.09	Dec. 4, 1946
895	8	10.04	May 27, 1940	24.45	Aug. 27, 1946
1112	7	14.23	May 3, 1945	17.89	Nov. 4, 1940
1186	6	7.23	Sept. 30, 1945	13.04	Dec. 30, 1946
1189	6	6.50	Apr. 26, 1942	11.66	Mar. 3, 1944
1192	6	14.27	May 3, 1945	16.45	Mar. 8, 1944
2072	5	32.96	Oct. 25, 1941	36.24	Dec. 30, 1946
2088	3	3.90	Apr. 28, 1944	8.69	Mar. 3, 1944
M-1	8	18.56	Apr. 13, 1939	74.82	Sept. 25, 1946
M-1a	8	17.47	June 3, 1940	38.70	Sept. 25, 1946
M-1b	8	15.94	June 3, 1940	36.44	Sept. 25, 1946
M-2	8	18.33	May 4, 1939	45.00	Oct. 5, 1943
					Mar. 8, 1944
M-2a	8	17.84	June 3, 1940	40.90	Sept. 9, 1940
M-2b	8	20.25	May 27, 1940	40.96	Mar. 8, 1944
M-3	8	23.20	May 8, 1939	76.88	Sept. 25, 1946
M-3a	8	19.93	May 27, 1940	43.35	May 3, 1945
M-3b	8	23.13	May 27, 1940	47.59	May 3, 1945
M-4	8	23.12	May 27, 1940	85.33	Jan. 4, 1946
					Mar. 7, 1946
M-4a	8	22.87	May 27, 1940	45.40	May 3, 1945
M-4b	8	23.91	May 27, 1940	46.09	Aug. 1, 1946
M-5	8	20.33	May 16, 1939	96.52	Aug. 3, 1945
M-5a	8	17.79	June 3, 1940	33.47	Aug. 1, 1946
M-5b	8	17.82	May 27, 1940	32.54	Sept. 25, 1946
M-6	8	19.05	May 27, 1940	96.09	Dec. 4, 1946
M-6a	8	18.63	June 3, 1940	35.39	Aug. 1, 1946
M-6b	8	18.46	June 3, 1940	34.40	Sept. 25, 1946
M-7	8	11.03	June 13, 1939	31.78	Aug. 1, 1946
M-7a	8	11.20	Aug. 21, 1939	25.46	Sept. 25, 1946
M-7b	8	11.24	Aug. 21, 1939	24.36	Sept. 25, 1946
M-8	8	15.93	May 27, 1940	87.06	Feb. 3, 1945
M-8a	8	14.72	June 3, 1940	29.95	Nov. 8, 1946
M-8b	8	13.30	June 3, 1940	29.30	Sept. 25, 1946
M-9	8	10.82	May 27, 1940	53.20	Mar. 1, 1945
M-9a	8	10.40	May 27, 1940	27.21	Dec. 4, 1946
M-9b	8	9.12	May 27, 1940	25.84	Aug. 27, 1946
M-10	8	12.05	May 27, 1940	69.29	Sept. 25, 1946
M-10a	8	11.24	May 27, 1940	30.22	Sept. 25, 1946
M-10b	8	10.44	May 27, 1940	29.44	Aug. 27, 1946
M-11	8	7.11	May 27, 1940	65.79	Aug. 3, 1945
M-11a	8	6.38	May 27, 1940	23.98	Aug. 27, 1946

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 103 wells in Harvey County that are pumped or affected by pumping--Continued

Well	Length of record (years)	Highest level	Date	Lowest level	Date
M-11b	8	7.67	May 27, 1940	24.38	Aug. 1, 1946
M-12	8	11.41	Aug. 21, 1939	61.51	Sept. 25, 1946
M-12a	8	10.73	May 27, 1940	33.27	Aug. 27, 1946
M-12b	8	11.70	Aug. 21, 1939	32.79	Dec. 4, 1946
			Nov. 27, 1940		
M-13	8	8.27	Aug. 21, 1939	46.20	Aug. 27, 1946
M-13a	8	7.89	May 27, 1940	24.64	Aug. 27, 1946
M-13b	8	7.63	May 27, 1940	24.12	Aug. 27, 1946
M-14	8	9.07	May 27, 1940	52.70	Aug. 1, 1946
					Aug. 27, 1946
M-14a	8	8.31	Apr. 4, 1939	34.22	Sept. 6, 1946
M-14b	8	8.16	May 13, 1940	32.08	Sept. 25, 1946
			May 27, 1940		
			June 3, 1940		
M-15	8	13.92	Apr. 17, 1939	78.58	Nov. 8, 1946
M-15a	8	12.49	May 27, 1940	34.59	Aug. 1, 1946
M-15b	8	13.45	May 27, 1940	32.66	Aug. 27, 1946
M-16	8	10.71	Aug. 21, 1939	55.32	Sept. 25, 1946
M-16a	8	10.93	Aug. 21, 1939	28.11	Aug. 27, 1946
M-16b	8	11.02	May 27, 1940	22.56	Dec. 4, 1946
M-17	8	6.58	Aug. 21, 1939	45.90	Sept. 25, 1946
M-17a	8	5.66	Aug. 21, 1939	16.37	Dec. 4, 1946
M-17b	8	4.01	Aug. 21, 1939	14.75	Dec. 4, 1946
M-18	8	10.00	Aug. 21, 1939	45.43	Aug. 1, 1946
M-18a	8	9.62	Aug. 21, 1939	30.51	Dec. 4, 1946
M-18b	8	9.38	Aug. 21, 1939	24.35	Dec. 4, 1946
M-19	8	10.82	Aug. 21, 1939	36.28	Aug. 1, 1946
M-19a	8	13.11	Aug. 21, 1939	23.86	Dec. 4, 1946
M-19b	8	11.47	Aug. 21, 1939	20.81	Dec. 4, 1946
M-20	8	9.74	May 27, 1940	64.20	May 31, 1946
M-20a	8	9.28	May 27, 1940	27.56	Aug. 27, 1946
M-20b	8	8.49	May 27, 1940	27.76	Aug. 27, 1946
M-21	8	8.32	Aug. 21, 1939	32.48	Aug. 1, 1946
M-21a	8	8.50	Aug. 21, 1939	31.89	Dec. 4, 1946
M-21b	8	8.08	Aug. 21, 1939	20.48	Sept. 25, 1946
M-22	8	9.20	Aug. 21, 1939	44.18	Aug. 1, 1946
M-22a	8	8.49	Aug. 21, 1939	23.46	Feb. 6, 1946
M-22b	8	9.28	Aug. 21, 1939	20.54	Aug. 1, 1946
M-23	8	7.85	Aug. 21, 1939	48.98	Sept. 25, 1946
M-23a	8	8.27	Aug. 21, 1939	18.07	Dec. 4, 1946
M-23b	8	7.50	Aug. 21, 1939	16.39	Sept. 25, 1946
M-24	8	8.71	Aug. 21, 1939	44.50	Aug. 1, 1946
M-24a	8	8.88	Aug. 21, 1939	19.47	Dec. 4, 1946
M-24b	8	11.17	Aug. 28, 1939	18.95	Dec. 4, 1946
M-25	8	5.54	Aug. 21, 1939	42.17	Aug. 1, 1946
M-25a	8	5.31	Aug. 21, 1939	13.01	Sept. 25, 1946
M-25b	8	6.89	Aug. 21, 1939	14.30	Sept. 25, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 103 wells in Harvey County that are pumped or affected by pumping

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
2	8.64	-3.83	-4.28
3	17.19	-1.52	-15.18
66d	18.98	-4.75	+1.76
86	8.93	-2.37	-.66
87	23.93	-2.85	-1.02
87a	23.37	-2.58	-.61
506	13.06	-1.59	-1.26
507	11.84	-1.70	-5.50

* See footnotes at end of table.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 103 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 1946	Net rise (+) or net decline (-) for period of record
821	9.19	-1.72	-8.96
839	8.32	-4.24	-5.93
872	14.79	-.67	-14.17
873	16.34	-1.01	-15.44
874	25.71	+1.43	-18.03
878	13.40	+.06	-12.88
879	11.66	-1.44	-8.33
883	9.11	-4.46	-7.21
884	9.68	-4.81	-7.86
885	9.83	-3.74	-7.16
886	14.07	-4.16	-13.12
887	15.38	-2.81	-12.52
894	12.53	-1.33	-10.89
895	14.41	-1.81	-12.66
1112	3.66	-.64	+.65
1186	5.81	-1.73	-.93
1189	5.16	b -.52	-2.67
1192	2.18	-1.49	+.09
2072	3.28	-1.06	-3.28
2088	4.79	c -1.27	+3.18
M-1	56.26	-43.05	-52.47
M-1a	21.23	-11.40	-20.22
M-1b	20.50	-10.07	-19.56
M-2	26.67	a -10.41	-28.71
M-2a	23.06	-6.21	-19.45
M-2b	20.71	-.98	-16.01
M-3	53.68	-36.33	-53.01
M-3a	23.42	-3.82	-18.35
M-3b	24.46	+.30	-14.57
M-4	62.21	-.17	-21.79
M-4a	22.53	-1.17	-17.41
M-4b	22.18	-.49	-16.95
M-5	76.19	d +60.78	-17.38
M-5a	15.68	-1.07	-13.93
M-5b	14.72	-1.67	-13.57
M-6	77.04	-4.77	-73.90
M-6a	16.76	-.19	-14.77
M-6b	15.94	-.28	-14.44
M-7	20.75	+8.57	-9.43
M-7a	14.26	+1.34	-10.52
M-7b	13.12	-.33	-10.74
M-8	71.13	+1.06	-10.25
M-8a	15.23	-1.60	-14.16
M-8b	16.00	-1.24	-14.29
M-9	42.38	-1.73	-41.42
M-9a	16.81	-1.03	-16.23
M-9b	16.72	-.90	-15.92
M-10	57.24	+37.68	-14.39
M-10a	18.98	+1.65	-16.12
M-10b	19.00	-1.44	-16.73
M-11	58.68	-.18	-14.37
M-11a	17.60	-1.85	-15.64
M-11b	16.71	-1.67	-14.91
M-12	50.10	-29.93	-43.49
M-12a	22.54	-7.84	-20.25
M-12b	21.09	-6.55	-19.84
M-13	37.73	+21.93	-11.20
M-13a	16.75	-1.44	-13.84
M-13b	16.49	-1.77	-14.80
M-14	43.63	-21.92	-40.20
M-14a	25.91	-3.80	-24.53
M-14b	23.92	-3.42	-20.17
M-15	64.66	-7.86	-16.10

* See footnotes at end of table.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 103 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 1946	Net rise (+) or net decline (-) for period of record
M-15a	22.10	-7.28	-14.16
M-15b	19.21	-7.26	-14.22
M-16	44.61	-35.41	-43.11
M-16a	17.18	-8.94	-15.61
M-16b	11.54	-3.74	-10.78
M-17	39.32	-3.69	-37.59
M-17a	10.71	-4.10	-9.20
M-17b	10.74	-3.61	-9.37
M-18	35.43	+3.51	-24.17
M-18a	20.89	-5.46	-19.87
M-18b	14.97	-5.71	-13.82
M-19	25.46	-17.48	-20.75
M-19a	10.75	-5.88	-8.46
M-19b	9.34	-5.12	-6.97
M-20	54.46	-1.83	-48.88
M-20a	18.28	-3.11	-16.45
M-20b	19.27	-1.75	-16.03
M-21	24.16	-15.99	-20.14
M-21a	23.39	-17.89	-21.21
M-21b	12.40	-6.35	-9.44
M-22	34.98	+18.42	-5.60
M-22a	14.97	+1.20	-6.81
M-22b	11.26	-2.52	-6.98
M-23	41.13	-1.37	-30.11
M-23a	9.80	-4.25	-6.18
M-23b	8.89	-3.50	-4.81
M-24	35.79	-26.56	-28.26
M-24a	10.59	-4.33	-8.46
M-24b	7.78	-5.13	-5.50
M-25	36.63	-3.01	-2.48
M-25a	7.70	-4.71	-2.46
M-25b	7.41	-5.36	-5.35

a Net decline from November 1945 to December 1946.

b Net decline from June 1945 to January 1946.

c Net decline from October 1945 to January 1946.

d Net rise from August 1945 to December 1946.

Pumpage from city of Wichita wells M-1 to M-25, in millions of gallons, in 1946, and since beginning of pumping on Sept. 1, 1940

Well	Pumpage 1946	Total 1940-46
M-1	273.3	1,753.8
M-2	152.2	690.6
M-3	234.0	1,521.9
M-4	417.1	1,099.3
M-5	356.2	1,285.7
M-6	364.9	1,405.3
M-7	355.6	1,769.0
M-8	263.6	1,609.9
M-9	264.0	1,590.7
M-10	251.8	1,528.9
M-11	326.6	1,610.9
M-12	247.4	1,438.1
M-13	266.5	1,498.8
M-14	372.7	1,760.4
M-15	250.6	1,489.2
M-16	242.3	1,332.3
M-17	283.1	1,725.9
M-18	325.8	1,848.0
M-19	178.0	1,082.1
M-20	236.8	1,314.8
M-21	414.4	1,943.4

Pumpage from city of Wichita wells M-1 to M-25, in millions of gallons, in 1946, and since beginning of pumping on Sept. 1, 1940--Continued

Well	Pumpage 1946	Total 1940-46
M-22	137.2	802.8
M-23	291.7	1,598.3
M-24	268.8	1,568.1
M-25	261.8	1,519.8
Total	7,016.4	36,788.0

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). Anna Hertzler. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 22 S., R. 1 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	18.86	Apr. 2	18.76	May 31	13.73	Aug. 3	21.51
Feb. 7	19.00	May 3	19.04	July 5	19.77	Sept. 26	21.85
Mar. 5	18.97						

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). 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 level, in feet below land-surface datum, 1946							
Jan. 8	34.71	Apr. 11	33.72	May 31	17.15	Aug. 3	34.22
Feb. 7	34.24	May 3	34.22	July 5	34.16	Sept. 26	35.79
Mar. 5	34.14						

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). 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, 1946											
Jan.	3	8.34	Apr.	2	8.56	July	1	7.66	Oct.	2	9.08
Feb.	1	8.43	May	1	8.64		31	7.94	Nov.	7	10.16
Mar.	5	8.52		31	7.59	Aug.	29	7.86	Dec.	6	10.35

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). 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, 1946											
Jan.	3	33.68	Apr.	2	32.51	July	2	34.89	Nov.	7	32.89
Feb.	8	34.34	May	2	34.54	Aug.	3	35.02	Dec.	3	32.19
Mar.	6	34.43		28	34.65	Sept.	26	34.19			

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

Water level, in feet below land-surface datum, 1946											
Jan.	7	13.64	Apr.	8	13.88	July	15	15.60	Oct.	7	16.56
	14	13.61		15	13.91		22	15.81		14	16.47
	21	13.24		22	13.96		29	16.08		21	16.41
	28	13.30		29	14.20		Aug. 5	16.24		28	16.38
Feb.	4	13.06	May	6	14.24		12	16.39	Nov.	4	16.37
	11	13.23		13	14.28		19	16.40		18	16.07
	18	13.30		20	14.48		26	16.50		25	16.10
	25	13.33		27	14.59	Sept.	2	16.44	Dec.	2	16.15
Mar.	4	13.85	June	3	14.66		9	16.27		9	16.21
	11	13.88		17	14.76		16	16.39		16	16.16
	18	13.81	July	1	15.20		23	16.48		23	16.06
	25	13.76		8	15.31		30	16.60		30	16.03
Apr.	1	13.88									

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). City of Wichita. SE. corner sec. 22, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 8	10.24	May 2	10.24	July 30	10.62
Mar. 6	10.02	28	9.28	Sept. 26	13.11
Apr. 2	8.19	July 2	10.44	Nov. 7	12.83
				Dec. 3	13.48

831 (*886, p. 205; 908, p. 80; 938, p. 86; 946, p. 103; *988, p. 89; 1018, p. 75; 1025, p. 75). City of Wichita. NE. corner sec. 19, T. 24 S., R. 1 W.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 3	16.00	Apr. 11	16.80	July 2	17.46
Feb. 8	16.03	May 2	15.96	30	17.98
Mar. 6	15.84	28	15.90	Sept. 26	18.36
				Nov. 7	18.09
				Dec. 3	18.56

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

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.11	Apr. 2	16.80	July 2	18.48
Feb. 8	17.15	May 2	17.24	30	18.94
Mar. 6	17.02	28	17.28	Sept. 26	19.57
				Nov. 7	19.36
				Dec. 3	19.64

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

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 3	8.21	Apr. 2	7.26	July 2	9.39
Feb. 8	8.28	May 2	8.10	30	9.61
Mar. 6	8.14	28	8.65	Sept. 26	11.09
				Nov. 7	10.82
				Dec. 3	11.44

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

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 8	12.58	May 2	12.68	July 30	14.88
Mar. 6	12.40	28	13.76	Sept. 26	15.66
Apr. 2	12.89	July 2	14.46	Nov. 7	15.44
				Dec. 3	16.06

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). City of Wichita. NW. corner sec. 13, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 7	8.72	Apr. 8	8.70	July 15	10.24
14	8.70	15	8.74	22	10.38
21	7.91	22	8.76	29	10.48
28	7.93	29	9.14	Aug. 5	10.66
Feb. 4	8.02	May 6	9.13	12	10.76
11	8.31	13	9.16	19	10.90
18	8.32	20	9.44	26	10.99
25	8.54	27	9.60	Sept. 2	11.08
Mar. 4	8.62	June 3	9.64	9	11.16
11	8.64	17	9.69	16	11.19
18	8.41	July 1	9.95	23	11.27
25	8.24	8	10.02	30	11.42
Apr. 1	8.87				
				Oct. 7	11.26
				14	11.37
				21	11.40
				28	11.47
				Nov. 4	11.46
				18	11.39
				25	11.45
				Dec. 2	11.48
				9	11.58
				16	11.58
				23	11.50
				30	11.57

854 (*845, p. 122; 886, p. 206; 908, p. 81; 938, p. 87; 946, p. 104; *988, p. 90; 1018, p. 75; 1025, p. 76). City of Wichita. SW. corner sec. 23, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	9.37	Apr. 8	9.30	July 15	11.02	Oct. 7	10.12
14	9.36	15	9.35	22	10.93	14	12.24
21	9.33	22	9.37	29	11.45	21	12.17
28	9.35	29	9.74	Aug. 5	11.56	28	12.29
Feb. 4	9.19	May 6	9.76	12	11.71	Nov. 4	12.36
11	9.03	13	9.78	19	11.82	18	11.99
18	9.05	20	10.08	26	11.94	25	12.09
25	9.06	27	10.21	Sept. 2	11.99	Dec. 2	11.15
Mar. 4	9.29	June 3	10.28	9	12.07	9	12.23
11	9.26	17	10.33	16	12.02	16	12.23
18	9.18	July 1	10.31	23	12.17	23	11.66
25	9.21	8	10.46	30	11.91	30	11.62
Apr. 1	9.08						

875 (*886, p. 208; 908, p. 82; 938, p. 86; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77). 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, 1946

Jan. 7	1.71	Apr. 8	1.07	July 1	1.72	Oct. 7	5.07
14	1.66	15	1.13	8	1.78	14	5.13
21	1.63	22	1.15	15	3.46	21	4.85
28	1.68	29	1.88	22	3.66	28	5.94
Feb. 4	1.36	May 6	1.91	29	4.19	Nov. 4	5.01
11	1.39	13	1.88	Aug. 19	4.79	18	4.55
18	1.42	20	1.89	26	4.75	25	4.72
25	.53	27	2.18	Sept. 2	5.13	Dec. 2	4.57
Mar. 4	1.03	June 3	2.23	9	4.94	9	4.65
11	1.01	10	2.78	16	5.10	16	4.61
18	.32	17	2.82	23	5.21	23	4.39
25	.25	24	2.08	30	5.30	30	4.44
Apr. 1	.68						

876 (*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77). 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, 1946

Jan. 7	22.89	Apr. 8	22.78	July 8	24.01	Oct. 7	25.79
14	22.84	15	22.81	15	24.14	14	25.71
21	22.81	22	22.84	22	24.31	21	25.77
28	22.83	29	23.19	29	24.53	28	25.75
Feb. 4	22.58	May 6	23.22	Aug. 5	24.54	Nov. 4	25.74
11	22.60	13	23.21	12	24.64	18	25.78
18	22.62	20	23.43	19	24.72	25	25.77
25	22.46	27	23.64	26	24.76	Dec. 2	25.77
Mar. 4	22.65	June 3	23.70	Sept. 2	24.76	9	25.88
11	22.66	10	23.77	9	24.72	16	25.79
18	22.68	17	23.81	16	25.01	23	26.09
25	22.66	24	23.87	23	25.07	30	26.07
Apr. 1	22.62	July 1	23.94	30	25.14		

877 (*886, p. 208; 908, p. 82; 938, p. 88; 946, p. 104; *988, p. 91; 1018, p. 76; 1025, p. 77). 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, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.79	11.77	11.78	11.75	12.02	12.31	12.44	12.85	13.13	13.48	13.66	13.83
2	11.79	11.77	11.81	11.74	12.02	12.35	12.44	12.88	13.13	13.46	13.68	13.83
3	11.77	11.77	11.81	11.79	12.02	12.36	12.44	12.87	13.13	13.47	13.72	13.80
4	11.76	11.74	11.78	11.82	12.03	12.36	12.44	12.88	13.12	13.50	13.72	13.80
5	11.67	11.74	11.78	11.82	12.03	12.35	12.45	12.88	13.14	13.51	.....	13.80

877--Continued.

Lowest daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	11.75	11.78	11.76	11.79	12.05	12.32	12.45	12.85	13.14	13.51	.....	13.80
7	11.79	11.78	11.76	11.78	12.08	12.33	12.47	12.85	13.14	13.45	.....	13.80
8	.....	11.79	11.82	11.82	12.08	12.37	12.50	12.86	13.16	13.49	.....	13.82
9	.....	11.81	11.83	11.83	12.05	12.39	12.50	12.91	13.16	13.50	.....	13.83
10	.....	11.81	11.86	11.85	12.05	12.39	12.52	12.93	13.19	13.51	13.74	13.85
11	.....	11.79	11.85	11.88	12.07	12.38	12.58	12.93	13.20	13.53	13.75	13.84
12	.....	11.74	11.76	11.89	12.08	12.39	12.58	12.93	13.20	13.53	13.75	13.79
13	.....	11.76	11.75	11.88	12.08	12.42	12.57	12.96	13.20	13.56	13.73	13.82
14	11.68	11.79	11.75	11.83	11.97	12.42	12.57	12.96	13.20	13.59	13.70	13.82
15	11.72	11.80	11.74	11.87	12.00	12.41	12.59	12.97	13.20	13.58	13.72	13.81
16	11.72	11.78	11.71	11.88	12.02	12.43	12.59	12.98	13.20	13.58	13.74	13.86
17	11.70	11.80	11.76	11.89	11.96	12.43	12.62	12.99	13.21	13.57	13.74	13.87
18	11.70	11.80	11.80	11.89	11.94	12.43	12.65	13.02	13.22	13.56	13.71	13.87
19	11.65	11.78	11.80	11.89	11.99	12.38	12.69	13.02	13.23	13.60	13.71	13.86
20	11.67	11.79	11.80	11.92	12.22	12.36	12.70	13.03	13.23	13.61	13.69	13.85
21	11.71	11.77	11.77	11.94	12.23	12.36	12.71	13.04	13.22	13.60	13.75	13.86
22	11.71	11.75	11.74	11.94	12.22	12.36	12.70	13.06	13.26	13.60	13.75	13.86
23	11.68	11.78	11.74	11.96	12.19	12.36	12.72	13.07	13.28	13.60	13.74	13.87
24	11.71	11.78	11.74	11.96	12.25	12.36	12.74	13.07	13.28	13.61	13.74	13.88
25	11.68	11.76	11.70	11.96	12.27	12.36	12.76	13.07	13.29	13.61	13.75	13.88
26	11.76	11.74	11.69	11.97	12.28	12.38	12.76	13.09	13.29	13.63	13.76	13.86
27	11.76	11.77	11.75	11.97	12.28	12.39	12.76	13.09	13.32	13.66	13.79	13.85
28	11.76	11.77	11.76	11.97	12.28	12.40	12.80	13.11	13.36	13.66	13.79	13.89
29	11.76	.....	11.74	11.99	12.24	12.40	12.83	13.12	13.37	13.66	13.78	13.90
30	11.72	.....	11.76	11.99	12.26	12.42	12.83	13.12	13.37	13.67	13.81	13.92
31	11.75	.....	11.76	.....	12.28	.....	12.85	13.11	.....	13.67	.....	13.92

880 (*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105; *988, p. 92; 1018, p. 77; 1025, p. 78). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.50	Apr. 1	5.24	July 15	6.86	Sept. 30	8.06
14	5.45	8	5.41	22	6.96	Oct. 7	7.90
21	5.42	22	5.54	29	6.86	14	7.89
28	5.46	29	5.79	Aug. 5	7.49	21	7.96
Feb. 4	5.42	May 6	5.84	12	7.55	Nov. 4	7.93
11	5.47	13	5.82	19	7.66	18	7.88
18	5.44	27	6.28	26	7.72	Dec. 2	7.99
25	5.41	June 3	6.32	Sept. 2	7.79	9	8.29
Mar. 4	5.61	17	6.41	9	7.80	16	8.26
11	5.58	July 1	6.59	16	7.93	23	8.16
18	5.56	8	6.63	23	7.97	30	8.14
25	5.53						

881 (*886, p. 210; 908, p. 83; 938, p. 90; 946, p. 105; *988, p. 92; 1018, p. 77; 1025, p. 78). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	5.93	Mar. 25	5.68	July 8	6.94	Sept. 23	7.79
14	5.91	Apr. 1	5.52	15	7.09	30	7.84
21	5.90	8	5.75	22	7.21	Oct. 7	7.32
28	5.92	22	5.86	29	7.32	14	8.05
Feb. 4	5.59	29	6.08	Aug. 5	7.24	21	8.12
11	5.62	May 6	6.13	12	7.38	Nov. 18	8.06
18	5.60	13	6.11	19	7.32	Dec. 2	8.17
25	5.56	27	6.56	26	7.55	9	8.11
Mar. 4	5.76	June 3	6.57	Sept. 2	7.59	16	8.07
11	5.73	17	6.66	9	7.68	23	7.97
18	5.71	July 1	7.88	16	7.77	30	7.97

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

888--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 7	2.40	Mar. 25	1.32	July 1	4.29
14	2.36	Apr. 1	.98	8	4.33
21	2.34	8	.89	15	5.65
28	2.37	15	.94	22	6.11
Feb. 4	1.60	22	1.02	29	6.73
11	1.66	29	1.44	Aug. 5	7.09
18	1.67	May 6	1.58	12	7.11
25	1.46	13	1.46	19	7.61
Mar. 4	1.36	27	1.81	26	7.60
11	1.38	June 3	2.06	Sept. 2	7.80
18	1.35	17	2.55	9	7.88
				Sept. 16	7.90
				23	7.87
				30	8.03
				Oct. 7	7.79
				14	7.81
				21	7.41
				Dec. 2	7.35
				9	7.49
				16	7.46
				23	7.06
				30	6.75

889 (*886, p. 212; 908, p. 85; 938, p. 91; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 7	4.99	Mar. 25	4.94	July 1	6.07
14	4.95	Apr. 1	4.43	8	6.14
21	4.94	8	4.36	15	7.13
28	4.98	15	4.40	22	7.79
Feb. 4	5.07	22	4.46	29	8.20
11	5.14	29	4.81	Aug. 5	8.38
18	5.16	May 6	4.86	12	8.58
25	5.08	13	4.81	19	8.60
Mar. 4	4.97	27	5.11	26	8.51
11	5.01	June 3	5.17	Sept. 2	8.29
18	4.99	17	5.36	9	8.14
				Sept. 16	7.85
				23	8.69
				30	8.69
				Oct. 7	8.95
				14	8.54
				21	8.54
				Dec. 2	8.69
				9	8.84
				16	8.82
				23	8.51
				30	8.22

890 (*886, p. 212; 908, p. 85; 939, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 3	2.01	Apr. 2	1.83	July 2	4.21
23	2.01	May 1	3.08	31	4.74
Mar. 5	2.91	31	3.41	Aug. 29	4.76
				Oct. 2	6.20
				Nov. 7	5.80
				Dec. 6	5.94

891 (*886, p. 213; 908, p. 85; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.36	Apr. 2	2.68	July 2	3.74
Feb. 5	2.51	May 2	3.16	30	4.49
Mar. 6	2.47	28	3.27	Sept. 26	4.68
				Nov. 6	4.42
				Dec. 3	3.50

892 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.89	Apr. 2	1.85	July 2	2.92
Feb. 5	1.67	May 2	2.35	30	3.69
Mar. 6	1.61	28	2.73	Sept. 26	3.82
				Nov. 6	3.64
				Dec. 3	2.79

893 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 106; *988, p. 93; 1018, p. 78; 1025, p. 79). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.64	Apr. 2	1.43	July 2	2.63
Feb. 5	1.21	May 2	1.99	30	2.29
Mar. 6	1.16	28	2.29	Sept. 26	3.55
				Nov. 6	3.36
				Dec. 3	2.54

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	4.65	Apr. 3	4.34	July 3	6.79	Sept. 25	8.58
Feb. 5	4.50	30	5.57	Aug. 1	7.57	Nov. 8	8.58
Mar. 7	4.65	May 29	5.83	27	8.18	Dec. 4	8.75

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

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	7.32	Apr. 2	6.86	July 2	8.39	Nov. 7	9.59
Feb. 8	7.56	May 2	7.53	30	9.08	Dec. 3	10.00
Mar. 6	7.21	28	7.69	Sept. 26	9.82		

Wells pumped or affected by pumping

2 (*946, p. 112; *988, p. 94; 1018, p. 79; 1025, p. 80). Langwalter Estate. NW $\frac{1}{4}$ SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	6.51	Mar. 11	6.64	May 13	7.74	July 29	8.46
14	6.47	18	6.51	20	7.54	Aug. 5	8.51
21	6.42	25	6.21	27	7.81	12	8.76
28	6.47	Apr. 1	7.68	June 3	7.90	19	8.81
Feb. 4	6.19	8	7.51	17	7.62	26	8.93
11	6.46	15	7.52	July 1	7.81	Oct. 21	9.96
18	6.51	22	7.63	8	7.98	Nov. 18	10.10
25	6.48	29	7.66	15	8.12	25	10.17
Mar. 4	6.67	May 6	7.72	22	8.28		

3 (*988, p. 94; 1018, p. 79; 1025, p. 80). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	21.86	Apr. 3	22.42	Aug. 1	24.18	Nov. 8	24.28
Feb. 1	22.28	May 1	22.78	27	23.69	Dec. 4	24.54
Mar. 5	22.52	29	22.91	Sept. 25	24.27		

66d (*988, p. 94; 1018, p. 79; 1025, p. 80). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	39.81	Apr. 3	47.80	July 2	46.35	Oct. 5	51.54
Feb. 7	40.10	May 3	41.55	Aug. 3	58.29	Nov. 8	53.43
Mar. 5	40.80	31	48.00	Sept. 6	48.22	Dec. 6	50.74

86 (*988, p. 95; 1018, p. 79; 1025, p. 80). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.13	Apr. 3	17.06	July 2	18.01	Oct. 5	18.44
Feb. 7	17.51	May 3	17.55	Aug. 3	18.36	Nov. 8	19.62
Mar. 5	17.59	31	17.72	Sept. 6	18.38	Dec. 6	19.40

87 (*988, p. 95; 1018, p. 79; 1025, p. 80). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	16.78	Apr. 3	17.43	July 2	18.06	Oct. 5	18.58
Feb. 7	a 32.26	May 3	a 32.69	Aug. 3	18.37	Nov. 8	19.91
Mar. 5	17.43	31	17.56	Sept. 6	18.51	Dec. 6	19.56

a Pumping.

87a (*988, p. 95; 1018, p. 80; 1025, p. 80). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.21	Apr. 3	17.76	July 2	18.32	Oct. 5	18.77
Feb. 7	a 32.61	May 3	a 32.99	Aug. 3	18.61	Nov. 8	20.13
Mar. 5	17.76	31	17.84	Sept. 6	18.69	Dec. 6	19.76

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). 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, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	14.25	14.22	14.12	14.29	14.75	15.13	15.15	16.21	16.27	16.62	16.52	16.29
2	14.23	14.22	14.12	14.28	14.77	15.17	15.18	16.21	16.27	16.64	16.52	16.30
3	14.19	14.21	14.10	14.26	14.80	15.19	15.21	16.22	16.25	16.66	16.53	16.33
4	14.19	14.15	14.08	14.27	14.82	15.21	15.24	16.22	16.23	16.67	16.53	16.33
5	14.06	14.12	14.08	14.24	14.84	15.23	15.28	16.21	16.23	16.66	.....	16.33
6	13.99	14.13	14.02	14.19	14.87	15.27	15.33	16.24	16.22	16.66	.....	16.33
7	14.01	14.13	14.03	14.18	14.89	15.29	15.38	16.27	16.18	16.52	.....	16.35
8	14.00	14.16	14.09	14.20	14.89	15.30	15.41	16.31	16.17	16.48	.....	16.34
9	13.98	14.16	14.06	14.20	14.89	15.29	.....	16.34	16.04	16.43	.....	16.33
10	13.98	14.15	14.06	14.19	14.86	15.25	.....	16.35	16.03	16.35	15.91	16.29
11	13.90	14.12	14.01	14.22	14.86	15.27	.....	16.35	16.03	16.33	15.94	16.24
12	13.91	14.07	13.91	14.22	14.83	15.30	.....	16.35	16.03	16.28	15.93	16.13
13	13.91	14.04	13.88	14.20	14.81	15.34	.....	16.33	15.99	16.22	15.90	15.93
14	13.88	14.06	13.85	14.20	14.76	15.37	.....	16.33	16.00	16.20	15.93	15.82
15	13.91	14.06	13.92	14.25	14.76	15.41	15.72	16.31	16.02	16.15	16.08	15.75
16	13.91	14.01	13.99	14.28	14.77	15.44	15.76	16.29	16.19	16.16	16.15	15.77
17	13.92	14.01	14.12	14.29	14.77	15.47	15.80	16.33	16.26	16.17	16.16	15.79
18	13.92	14.00	14.14	14.29	14.78	15.48	15.84	16.36	16.30	16.21	16.16	15.79
19	13.88	14.02	14.14	14.29	14.82	15.38	15.88	16.36	16.32	16.27	16.19	15.76
20	13.96	14.03	14.15	14.37	14.83	14.96	15.82	16.36	16.32	16.28	16.19	15.77
21	13.99	14.00	14.14	14.43	14.82	14.95	15.94	16.35	16.37	16.11	16.28	15.79
22	14.00	14.00	14.16	14.48	14.82	14.97	15.97	16.34	16.47	16.23	16.28	15.79
23	14.07	14.04	14.17	14.52	14.79	14.98	16.01	16.34	16.49	16.27	16.22	15.80
24	14.10	14.04	14.16	14.55	14.77	14.92	16.04	16.36	16.49	16.35	16.17	15.80
25	14.10	14.02	14.14	14.59	14.83	14.86	16.07	16.39	16.47	16.39	16.17	15.80
26	14.18	14.08	14.19	14.62	14.88	14.98	16.08	16.41	16.48	16.45	16.17	15.76
27	14.18	14.10	14.21	14.63	14.94	14.99	16.10	16.40	16.52	16.49	16.17	15.76
28	14.15	14.09	14.23	14.68	14.97	15.00	16.12	16.21	16.56	16.51	16.18	15.81
29	14.12		14.25	14.71	15.01	15.00	16.15	16.22	16.58	16.52	16.21	15.81
30	14.17		14.30	14.73	15.04	15.07	16.16	16.24	16.59	16.54	16.27	15.83
31	14.19		14.31		15.09		16.19	16.25		16.54		15.84

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	10.33	Apr. 8	10.31	July 8	12.04	Oct. 7	13.74
14	10.27	15	10.36	15	14.31	14	12.22
21	10.26	22	10.56	22	14.72	21	13.73
28	10.29	29	12.92	29	14.86	28	15.07
Feb. 4	11.60	May 6	13.00	Aug. 5	14.69	Nov. 4	14.34
11	11.61	13	12.91	12	14.84	18	14.19
18	11.64	20	11.64	19	14.26	25	13.41
25	11.66	27	12.14	26	14.54	Dec. 2	14.35
Mar. 4	10.88	June 3	12.26	Sept. 2	13.40	9	13.37
11	10.81	10	12.27	9	12.67	16	13.11
18	11.32	17	12.31	16	13.03	23	12.60
25	11.26	24	11.83	23	14.53	30	12.63
Apr. 1	11.52	July 1	11.93	30	14.57		

821 (*886, p. 204; 908, p. 79; 938, p. 86; 946, p. 108; *988, p. 96; 1018, p. 81; 1025, p. 81). City of Wichita. NW. corner sec. 6, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	19.26	Apr. 1	19.79	July 15	20.26	Oct. 7	20.87
14	19.24	8	19.73	22	20.36	14	20.89
21	19.22	15	19.76	29	20.36	21	20.96
28	19.23	22	19.77	Aug. 5	20.38	28	21.02
Feb. 1	19.68	29	19.81	12	20.43	Nov. 4	21.02
4	19.68	6	19.82	19	20.49	18	21.10
11	19.72	13	19.81	26	20.42	25	21.14
18	19.74	20	20.05	Sept. 2	20.62	Dec. 2	20.96
25	19.73	27	20.12	9	20.32	9	20.94
Mar. 4	19.74	June 3	20.17	16	20.73	16	20.90
11	19.72	17	20.22	23	20.78	23	21.14
18	19.67	July 1	20.12	30	20.80	30	21.22
25	18.74	8	20.18				

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). City of Wichita. NE. corner sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	14.00	Apr. 2	14.39	July 3	15.39	Sept. 25	17.41
Feb. 1	13.30	May 1	14.73	31	16.46	Nov. 8	17.67
Mar. 5	13.94	31	14.54	Aug. 27	17.08	Dec. 4	17.92

872 (*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109; *988, p. 96; 1018, p. 81; 1025, p. 82). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	32.24	Apr. 2	29.90	July 3	31.80	Nov. 8	30.50
Feb. 1	28.71	May 1	31.27	31	31.65	Dec. 6	31.87
Mar. 5	29.26	31	31.46	Aug. 27	32.44		

873 (*886, p. 207; 908, p. 81; 938, p. 87; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	32.47	Apr. 2	30.10	July 3	32.14	Sept. 25	33.95
Feb. 1	29.18	May 1	32.22	31	33.84	Nov. 8	31.53
Mar. 5	29.41	31	31.61	Aug. 27	32.80	Dec. 6	33.08

874 (*886, p. 207; 908, p. 81; 938, p. 88; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	42.60	Apr. 2	42.04	July 3	38.65	Sept. 25	41.36
Feb. 1	34.27	May 1	41.95	31	45.75	Nov. 8	41.21
Mar. 5	34.61	31	41.60	Aug. 27	39.45	Dec. 6	39.21

878 (*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 82). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	28.06	Apr. 1	27.45	July 15	29.06	Sept. 30	29.32
14	28.01	8	28.10	22	28.82	Oct. 7	29.11
21	27.97	15	28.13	29	29.06	14	29.24
28	27.98	22	28.16	Aug. 5	29.09	21	26.02
Feb. 4	27.74	29	28.04	12	29.24	Nov. 4	29.39
11	27.76	May 6	28.06	19	23.14	18	26.17
18	27.74	13	28.07	26	29.13	Dec. 2	29.42
25	27.72	27	28.19	Sept. 2	29.24	9	29.65
Mar. 4	27.85	June 3	28.26	9	29.37	16	29.61
11	27.83	17	28.34	16	29.41	23	29.31
18	27.81	July 1	28.48	23	29.23	30	29.36
25	27.79	8	28.53				

879 (*886, p. 209; 908, p. 83; 938, p. 89; 946, p. 109; *988, p. 97; 1018, p. 81; 1025, p. 83). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	24.82	Apr. 1	24.66	July 15	25.54	Sept. 30	25.71
14	24.77	8	24.83	22	25.23	Oct. 7	25.77
21	24.74	15	24.86	29	25.23	14	25.73
28	24.77	22	24.89	Aug. 5	25.33	21	29.03
Feb. 4	24.79	29	24.71	12	25.36	Nov. 4	25.95
11	24.75	May 6	24.72	19	25.46	18	29.18
18	24.73	13	24.73	26	25.43	Dec. 2	26.07
25	24.71	27	25.02	Sept. 2	25.45	9	26.14
Mar. 4	24.83	June 3	25.08	9	25.58	16	26.11
11	24.79	17	25.21	16	25.64	23	26.19
18	24.74	July 1	26.31	23	25.70	30	26.21
25	24.71	8	26.35				

883 (*886, p. 210; 908, p. 84; 938, p. 90; 946, p. 110; *988, p. 98; 1018, p. 82; 1025, p. 83). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.96	Apr. 2	20.07	July 3	20.77	Sept. 25	21.30
Feb. 1	18.12	May 1	19.83	31	21.88	Nov. 8	22.17
Mar. 5	18.00	31	18.79	Aug. 27	21.80	Dec. 6	22.34

884 (*886, p. 211; 908, p. 84; 938, p. 90; 946, p. 110; *988, p. 98; 1018, p. 82; 1025, p. 83). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	17.77	Apr. 2	20.06	July 3	20.61	Sept. 25	21.43
Feb. 1	18.44	May 1	18.90	31	21.59	Nov. 8	22.68
Mar. 5	18.36	31	19.08	Aug. 27	21.74	Dec. 6	23.02

885 (*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 83). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	18.99	Apr. 2	19.74	July 3	22.03	Sept. 25	21.19
Feb. 1	18.18	May 1	20.94	31	21.88	Nov. 8	21.84
Mar. 5	18.46	31	18.75	Aug. 27	22.58	Dec. 6	22.22

886 (*886, p. 211; 908, p. 84; 938, p. 91; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 83). Owner of well, city of Wichita; owner of property, E. H. Haiber. NE. corner NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	12.53	Apr. 30	14.06	July 30	16.34	Nov. 1	15.99
Feb. 1	13.89	May 1	14.04	Aug. 29	16.32	2	16.41
25	12.95	June 1	14.01	Sept. 25	16.04	Dec. 2	15.24
Apr. 1	12.50	July 1	14.84	Oct. 1	16.08		

887 (*886, p. 211; 908, p. 85; 938, p. 91; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 83). Owner of well, city of Wichita; owner of property, F. H. Haiber. NE. corner NW $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	13.28	Apr. 1	13.02	July 1	15.40	Sept. 25	18.10
Feb. 1	14.92	May 1	14.66	31	17.08	Nov. 1	16.44
25	13.88	31	14.91	Aug. 29	16.87	Dec. 2	16.00

894, (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 110; *988, p. 98; 1018, p. 83; 1025, p. 84). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	20.67	Apr. 3	20.79	July 3	20.85	Sept. 25	21.69
Feb. 1	20.72	May 1	20.72	Aug. 1	20.95	Nov. 8	21.96
Mar. 5	20.94	29	20.72	27	21.38	Dec. 4	22.09

895 (*886, p. 213; 908, p. 86; 938, p. 92; 946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	22.73	Apr. 3	22.92	July 3	23.55	Sept. 25	23.62
Feb. 1	22.78	May 1	21.95	Aug. 1	24.12	Nov. 8	24.15
Mar. 5	23.11	29	22.52	27	24.45	Dec. 4	23.86

1112 (*886, p. 214; 908, p. 87; 938, p. 93; 946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84). Owner, M. H. Miller; tenant, A. C. Unruh. NW. corner NE $\frac{1}{4}$ sec. 31, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	16.34	Apr. 3	14.55	July 3	15.39	Sept. 25	16.99
Feb. 6	16.32	30	14.58	Aug. 1	15.24	Nov. 8	16.78
Mar. 7	14.39	May 29	15.29	27	14.84	Dec. 4	16.75

1186 (*946, p. 111; *988, p. 99; 1018, p. 83; 1025, p. 84). City of Wichita. SW. corner sec. 13, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	11.40	Apr. 8	11.34	July 15	12.06	Oct. 7	12.76
14	11.36	15	11.38	22	12.22	14	12.83
21	10.98	22	11.43	29	12.29	21	12.85
28	11.01	29	11.55	Aug. 5	12.24	28	12.88
Feb. 4	11.19	May 6	11.58	12	12.46	Nov. 4	12.84
11	11.21	13	11.56	19	12.49	18	12.90
18	11.23	20	11.68	26	12.49	25	12.93
25	11.71	27	11.81	Sept. 2	12.65	Dec. 2	12.96
Mar. 4	11.91	June 3	11.85	9	12.68	9	13.02
11	11.94	17	11.98	16	12.73	16	12.99
18	11.31	July 1	11.60	23	12.73	23	13.00
25	11.00	8	11.69	30	12.89	30	13.04
Apr. 1	11.46						

1189 (*946, p. 112; *988, p. 99; 1018, p. 84; 1025, p. 84). City of Wichita. SW. corner sec. 16, T. 24 S., R. 2 W. Water level, in feet below land-surface datum, 1946: Jan. 19, 10.52.

1192 (*938, p. 93; 946, p. 112; *988, p. 99; 1018, p. 84; 1025, p. 84). City of Wichita. SW. corner sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	14.98	Apr. 3	15.18	July 3	15.64	Sept. 25	16.33
Feb. 6	14.99	30	15.39	Aug. 1	15.21	Nov. 8	16.31
Mar. 7	17.21	May 29	15.52	27	15.84	Dec. 4	16.33

2072 (*988, p. 100; 1018, p. 84; 1025, p. 85). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	35.13	Mar. 4	35.33	Apr. 29	35.74	July 15	35.96
14	35.11	11	35.32	May 6	35.78	22	35.94
21	35.09	18	35.32	13	35.79	29	35.91
28	35.12	25	35.33	20	35.43	Aug. 5	35.95
Feb. 4	35.22	Apr. 1	35.34	27	35.84	12	36.00
11	35.26	8	35.22	June 3	35.90	19	36.01
18	34.98	15	35.23	17	34.09	26	36.12
25	35.26	22	35.26	July 8	33.89	Sept. 2	36.02

2072--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 9	36.04	Oct. 7	36.11	Nov. 4	36.15	Dec. 16	36.23
16	36.01	14	36.03	18	35.90	23	36.23
23	36.05	21	35.76	Dec. 2	36.19	30	36.24
30	36.05	28	35.77	9	36.22		

2088 (*1018, p. 84; 1025, p. 85). City of Wichita. NW. corner NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 24 S., R. 2 W. Water level, in feet below land-surface datum, 1946: Jan. 19, 5.51.

M-1 (*908, p. 88; 938, p. 93; 946, p. 112; *988, p. 100; 1018, p. 84; 1025, p. 85). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	a 65.44	Apr. 3	a 69.84	July 3	a 67.29	Sept. 25	a 74.82
Feb. 6	28.04	30	32.76	Aug. 1	a 70.59	Nov. 8	35.54
Mar. 7	a 70.20	May 29	a 71.50	27	a 71.69	Dec. 4	a 71.03

a Pumping.

M-1a (*908, p. 89; 938, p. 94; 946, p. 112; *988, p. 100; 1018, p. 84; 1025, p. 85). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	a 33.26	Apr. 3	a 32.69	July 3	a 31.78	Sept. 25	a 38.70
Feb. 6	27.03	30	29.41	Aug. 1	a 38.33	Nov. 8	31.47
Mar. 7	a 33.56	May 29	a 34.01	27	a 36.48	Dec. 4	a 38.38

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). City of Wichita. NW. corner sec. 29, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	a 31.42	Apr. 3	a 30.93	July 3	a 29.86	Sept. 25	a 36.44
Feb. 6	27.11	30	28.37	Aug. 1	a 36.35	Nov. 8	30.32
Mar. 7	a 31.26	May 29	a 32.09	27	a 34.03	Dec. 4	a 36.14

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	38.80	May 29	42.30	Sept. 25	44.15
Apr. 3	40.00	Aug. 27	44.04	Dec. 4	47.04

M-2a (*908, p. 90; 938, p. 94; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 85). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 34.99	Apr. 3	35.87	July 3	a 33.56	Sept. 25	38.31
Feb. 6	a 31.66	30	a 32.12	Aug. 1	a 34.34	Nov. 8	a 34.67
Mar. 7	32.88	May 29	34.14	27	34.53	Dec. 4	37.78

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). 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, 1946

Jan. 4	a 38.29	Apr. 3	33.14	July 3	a 34.22	Sept. 25	38.24
Feb. 6	a 36.33	30	a 30.69	Aug. 1	a 34.38	Nov. 8	a 37.36
Mar. 7	36.41	May 29	32.38	27	33.88	Dec. 4	37.29

a Well M-2 pumping.

M-2c. City of Wichita. NW $\frac{1}{4}$ 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, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 8, 1945	32.02	Apr. 30, 1946	a 32.87	Aug. 27, 1946	35.74
Jan. 4, 1946	a 34.38	May 29	33.52	Sept. 25	38.18
Feb. 6	a 31.58	July 3	a 34.02	Nov. 8	a 33.91
Mar. 7	32.92	Aug. 1	a 39.76	Dec. 4	38.11
Apr. 3	33.40				

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	40.70	Apr. 3	a 75.88	July 3	a 75.96	Sept. 25	a 76.88
Feb. 6	a 75.86	30	40.86	Aug. 1	a 76.14	Nov. 8	41.23
Mar. 7	a 75.91	May 29	41.17	27	a 76.24	Dec. 4	a 76.21

a Pumping.

M-3a (*908, p. 91; 938, p. 95; 946, p. 113; *988, p. 101; 1018, p. 85; 1025, p. 86). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	38.54	Apr. 3	a 41.26	July 3	a 41.91	Sept. 25	a 42.32
Feb. 6	a 41.02	30	39.24	Aug. 1	a 42.29	Nov. 8	40.43
Mar. 7	a 41.14	May 29	39.91	27	a 42.24	Dec. 4	a 41.45

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	41.91	Apr. 3	a 45.12	July 3	a 42.94	Sept. 25	a 43.20
Feb. 6	a 45.18	30	41.98	Aug. 1	a 43.28	Nov. 8	41.61
Mar. 7	a 45.26	May 29	41.88	27	a 43.26	Dec. 4	a 41.57

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). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 85.33	Apr. 3	42.92	July 3	40.44	Sept. 25	41.97
Feb. 6	44.87	30	46.77	Aug. 1	49.41	Nov. 8	41.43
Mar. 7	a 85.33	May 29	45.05	27	44.49	Dec. 4	44.97

a Pumping.

M-4a (*908, p. 93; 938, p. 95; 946, p. 114; *988, p. 101; 1018, p. 85; 1025, p. 86). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 43.04	Apr. 3	39.52	July 3	39.14	Sept. 25	42.94
Feb. 6	41.16	30	43.37	Aug. 1	43.39	Nov. 8	40.31
Mar. 7	a 39.12	May 29	41.94	27	44.09	Dec. 4	41.59

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). City of Wichita. SE. corner sec. 30, T. 23 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 43.51	Apr. 3	39.78	July 3	39.14	Sept. 25	41.22
Feb. 6	41.37	30	42.30	Aug. 1	46.09	Nov. 8	40.70
Mar. 7	a 41.28	May 29	42.17	27	42.37	Dec. 4	41.97

a Well M-4 pumping.

M-5 (*908, p. 94; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 86). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	35.45	Aug. 27	42.88	Dec. 4	35.74
July 3	37.70	Sept. 25	39.89		

M-5a (*908, p. 94; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 31.32	Apr. 3	29.69	July 3	31.04	Sept. 25	32.89
Feb. 6	a 31.48	30	a 32.61	Aug. 1	a 33.47	Nov. 8	a 31.04
Mar. 7	31.99	May 29	29.77	27	32.51	Dec. 4	32.29

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 30.98	Apr. 3	29.24	July 3	30.86	Sept. 25	32.54
Feb. 6	a 31.06	30	a 31.36	Aug. 1	a 31.82	Nov. 8	a 30.62
Mar. 7	30.04	May 29	29.49	27	31.24	Dec. 4	32.02

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 88.12	Apr. 3	32.25	July 3	a 90.00	Sept. 25	a 95.79
Feb. 6	a 89.14	30	a 89.60	Aug. 1	a 88.50	Nov. 8	37.22
Mar. 7	a 91.40	May 29	34.00	27	a 95.02	Dec. 4	a 96.09

a Pumping.

M-6a (*908, p. 96; 938, p. 96; 946, p. 114; *988, p. 102; 1018, p. 86; 1025, p. 87). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 33.36	Apr. 3	30.34	July 3	a 32.92	Sept. 25	a 34.86
Feb. 6	a 33.78	30	a 32.70	Aug. 1	a 35.39	Nov. 8	32.40
Mar. 7	a 33.98	May 29	29.74	27	a 34.01	Dec. 4	a 34.05

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 32.33	Apr. 3	30.49	July 3	a 32.58	Sept. 25	a 34.40
Feb. 6	a 32.56	30	a 32.60	Aug. 1	a 34.45	Nov. 8	30.25
Mar. 7	a 31.71	May 29	30.48	27	a 32.78	Dec. 4	a 33.59

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 28.26	Apr. 3	20.35	July 3	a 30.30	Sept. 25	a 31.35
Feb. 6	20.18	30	a 29.02	Aug. 1	a 31.78	Nov. 8	23.82
Mar. 7	20.60	May 29	21.45	27	23.89	Dec. 4	21.69

a Pumping.

M-7a (*908, p. 97; 938, p. 97; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 87). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 21.45	Apr. 3	19.86	July 3	a 23.69	Sept. 25	a 25.46
Feb. 6	19.62	30	a 22.76	Aug. 1	a 24.89	Nov. 8	24.16
Mar. 7	19.68	May 29	20.86	27	23.12	Dec. 4	22.59

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 20.74	Apr. 3	21.27	July 3	a 21.38	Sept. 25	a 24.36
Feb. 6	20.36	30	a 21.98	Aug. 1	a 23.83	Nov. 8	24.27
Mar. 7	20.55	May 29	21.14	27	23.38	Dec. 4	22.89

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). 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, 1946

Jan. 4	29.26	Apr. 3	a 84.10	July 3	29.22	Sept. 25	a 85.80
Feb. 6	23.26	30	31.62	Aug. 1	a 84.20	Nov. 8	a 84.67
Mar. 7	30.32	May 29	30.74	27	31.89	Dec. 4	28.37

a Pumping.

M-8a (*908, p. 99; 938, p. 98; 946, p. 115; *988, p. 103; 1018, p. 87; 1025, p. 88). 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, 1946

Jan. 4	27.65	Apr. 3	a 28.23	July 3	28.78	Sept. 25	a 30.67
Feb. 6	27.66	30	28.44	Aug. 1	a 28.84	Nov. 8	a 29.95
Mar. 7	27.84	May 29	28.04	27	29.54	Dec. 4	29.46

a Well M-8 pumping.

M-8b (*908, p. 99; 938, p. 98; 946, p. 116; *988, p. 103; 1018, p. 87; 1025, p. 88). 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, 1946

Jan. 4	26.74	Apr. 3	a 26.64	July 3	26.94	Sept. 25	a 29.30
Feb. 6	26.79	30	27.09	Aug. 1	a 27.72	Nov. 8	a 28.43
Mar. 7	26.83	May 29	26.52	27	28.54	Dec. 4	28.10

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). 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, 1946

Jan. 4	25.62	Apr. 3	a 50.63	July 3	a 51.48	Sept. 25	27.84
Feb. 6	a 51.26	30	a 51.31	Aug. 1	a 50.95	Nov. 8	a 52.52
Mar. 7	a 51.51	May 29	a 53.08	27	33.01	Dec. 4	a 52.92

a Pumping.

M-9a (*908, p. 100; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88). City of Wichita. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	24.96	Apr. 3	a 25.42	July 3	a 26.37	Sept. 25	26.68
Feb. 6	a 26.24	30	a 25.52	Aug. 1	a 26.84	Nov. 8	a 26.99
Mar. 7	a 26.41	May 29	a 25.67	27	27.02	Dec. 4	a 27.21

a Well M-9 pumping.

M-9b (*908, p. 100; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88). City of Wichita. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	23.73	Apr. 3	a 23.94	July 3	a 24.66	Sept. 25	25.59
Feb. 6	a 24.81	30	a 24.04	Aug. 1	a 25.31	Nov. 8	a 25.38
Mar. 7	a 24.98	May 29	a 24.19	27	25.84	Dec. 4	a 25.66

a Well M-9 pumping.

M-10 (*908, p. 101; 938, p. 98; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88). 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, 1946

Jan. 4	a 66.12	Apr. 3	27.32	July 3	a 67.28	Sept. 25	a 69.29
Feb. 6	27.86	30	a 66.64	Aug. 1	a 68.71	Nov. 8	28.23
Mar. 7	27.96	May 29	27.86	27	28.24	Dec. 4	28.21

a Pumping.

M-10a (*908, p. 101; 938, p. 99; 946, p. 116; *988, p. 104; 1018, p. 87; 1025, p. 88). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 29.84	Apr. 3	27.84	July 3	a 29.04	Sept. 25	a 30.22
Feb. 6	27.91	30	a 28.04	Aug. 1	a 29.44	Nov. 8	28.10
Mar. 7	28.08	May 29	27.93	27	28.14	Dec. 4	28.08

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 27.11	Apr. 3	26.91	July 3	a 27.80	Sept. 25	a 28.12
Feb. 6	27.06	30	a 26.99	Aug. 1	a 28.04	Nov. 8	a 40.35
Mar. 7	27.18	May 29	26.46	27	29.44	Dec. 4	27.88

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 39.25	Apr. 3	a 40.58	July 3	a 42.44	Sept. 25	23.48
Feb. 6	a 39.39	30	22.05	Aug. 1	a 41.86	Nov. 8	a 40.35
Mar. 7	a 41.30	May 29	22.46	27	a 44.39	Dec. 4	22.04

a Pumping.

M-11a (*908, p. 103; 938, p. 99; 946, p. 117; *988, p. 105; 1018, p. 88; 1025, p. 89). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 23.71	Apr. 3	a 23.02	July 3	a 23.13	Sept. 25	22.24
Feb. 6	a 23.76	30	21.67	Aug. 1	23.39	Nov. 8	a 23.78
Mar. 7	a 22.74	May 29	21.22	27	23.98	Dec. 4	22.72

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 22.77	Apr. 3	a 22.57	July 3	a 23.24	Sept. 25	23.24
Feb. 6	a 22.82	30	21.72	Aug. 1	24.38	Nov. 8	a 24.04
Mar. 7	a 22.16	May 29	21.34	27	24.28	Dec. 4	23.33

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	25.73	Apr. 3	a 52.57	July 3	a 57.25	Sept. 25	a 61.51
Feb. 6	a 54.71	30	a 55.28	Aug. 1	a 57.74	Nov. 8	a 60.62
Mar. 7	a 53.47	May 29	a 56.20	27	a 60.00	Dec. 4	a 56.64

a Pumping.

M-12a (*908, p. 104; 938, p. 100; 946, p. 117; *988, p. 105; 1018, p. 88; 1025, p. 89). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	24.21	Apr. 3	a 30.25	July 3	a 30.72	Sept. 25	a 32.44
Feb. 6	a 30.36	30	a 29.76	Aug. 1	a 31.40	Nov. 8	a 29.69
Mar. 7	27.32	May 29	a 28.80	27	a 33.27	Dec. 4	a 32.22

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	25.36	Apr. 3	a 31.01	July 3	a 31.01	Sept. 25	a 31.33
Feb. 6	a 29.46	30	a 30.48	Aug. 1	a 31.24	Nov. 8	a 30.61
Mar. 7	28.19	May 29	a 30.29	27	a 29.82	Dec. 4	a 32.79

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 41.86	Apr. 3	a 43.78	July 3	a 44.28	Sept. 25	24.54
Feb. 6	21.86	30	22.41	Aug. 1	a 44.58	Nov. 8	22.82
Mar. 7	a 43.64	May 29	a 44.92	27	a 46.20	Dec. 4	20.93

a Pumping.

M-13a (*908, p. 105; 938, p. 100; 946, p. 118; *988, p. 105; 1018, p. 89; 1025, p. 90). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 21.94	Apr. 3	a 21.57	July 3	a 23.39	Sept. 25	22.99
Feb. 6	21.08	30	21.86	Aug. 1	a 23.91	Nov. 8	22.91
Mar. 7	a 22.18	May 29	a 21.94	27	a 24.64	Dec. 4	22.78

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 22.13	Apr. 3	a 22.58	July 3	a 23.49	Sept. 25	24.02
Feb. 6	21.17	30	21.69	Aug. 1	a 22.79	Nov. 8	24.11
Mar. 7	a 23.63	May 29	a 22.33	27	a 24.12	Dec. 4	23.60

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 50.16	Apr. 3	a 47.75	July 3	a 48.50	Sept. 25	a 49.12
Feb. 6	a 50.38	30	a 47.00	Aug. 1	a 52.70	Nov. 8	31.02
Mar. 7	a 47.82	May 29	a 47.80	27	a 52.70	Dec. 4	a 48.88

a Pumping.

M-14a (*908, p. 107; 938, p. 101; 946, p. 118; *988, p. 106; 1018, p. 89; 1025, p. 90). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 31.38	Apr. 3	a 31.89	July 3	a 33.54	Sept. 25	a 32.23
Feb. 6	a 31.46	30	a 31.21	Aug. 1	a 33.59	Nov. 8	30.47
Mar. 7	a 31.80	May 29	a 31.14	27	a 33.94	Dec. 4	a 32.84

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). City of Wichita. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	a 27.51	Apr. 3	a 28.02	July 3	a 29.28	Sept. 25	a 32.08
Feb. 6	a 27.60	30	a 27.43	Aug. 1	a 30.14	Nov. 8	a 29.70
Mar. 7	a 27.96	May 29	a 27.34	27	a 31.03	Dec. 4	a 28.35

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	23.85	Apr. 3	23.79	July 3	22.31	Sept. 25	29.00
Feb. 6	23.91	30	23.94	Aug. 1	a 75.20	Nov. 8	a 78.58
Mar. 7	22.46	May 29	23.16	27	a 78.24	Dec. 4	29.02

a Pumping.

M-15a (*908, p. 108; 938, p. 101; 946, p. 119; *988, p. 106; 1018, p. 90; 1025, p. 90). City of Wichita. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

M-15a--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	19.74	Apr. 3	22.73	July 3	21.46	Sept. 25	27.52
Feb. 6	19.81	30	22.10	Aug. 1	a 34.59	Nov. 8	a 32.00
Mar. 7	22.00	May 29	21.88	27	a 33.71	Dec. 4	27.34

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). 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, 1946

Jan. 4	20.48	Apr. 3	23.87	July 3	23.72	Sept. 25	28.66
Feb. 6	20.54	30	21.49	Aug. 1	a 32.50	Nov. 8	a 30.97
Mar. 7	23.07	May 29	21.33	27	a 32.66	Dec. 4	28.37

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). City of Wichita. SE. corner SE $\frac{1}{4}$ sec. 9, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	18.85	Apr. 3	a 48.62	July 3	21.00	Sept. 25	a 55.32
Feb. 6	18.88	30	a 48.88	Aug. 1	a 52.18	Nov. 8	a 52.76
Mar. 7	a 48.60	May 29	20.85	27	a 54.47	Dec. 4	a 54.66

a Pumping.

M-16a (*908, p. 110; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91). 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, 1946

Jan. 4	18.48	Apr. 3	a 23.59	July 3	20.69	Sept. 25	a 27.73
Feb. 6	18.51	30	a 23.74	Aug. 1	a 28.02	Nov. 8	a 27.16
Mar. 7	a 23.49	May 29	20.23	27	a 28.11	Dec. 4	a 27.47

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). 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, 1946

Jan. 4	18.83	Apr. 3	a 19.12	July 3	19.51	Sept. 25	a 22.19
Feb. 6	18.86	30	a 19.27	Aug. 1	a 22.02	Nov. 8	a 21.64
Mar. 7	a 19.38	May 29	18.64	27	a 22.52	Dec. 4	a 22.56

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). City of Wichita. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	13.33	Apr. 3	14.06	July 3	15.07	Sept. 25	a 45.90
Feb. 6	13.38	30	14.00	Aug. 1	a 42.74	Nov. 8	a 44.79
Mar. 7	13.92	May 29	a 42.20	27	a 44.49	Dec. 4	a 44.89

a Pumping.

M-17a (*908, p. 111; 938, p. 102; 946, p. 119; *988, p. 107; 1018, p. 90; 1025, p. 91). City of Wichita. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	11.92	Apr. 3	11.74	July 3	13.22	Sept. 25	a 15.97
Feb. 6	11.96	30	12.58	Aug. 1	a 14.34	Nov. 8	a 15.16
Mar. 7	11.79	May 29	a 13.70	27	a 15.88	Dec. 4	a 16.37

a Well M-17 pumping.

M-17b (*908, p. 112; 938, p. 103; 946, p. 120; *988, p. 107; 1018, p. 90; 1025, p. 91). City of Wichita. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 4	11.21	Apr. 3	10.39	July 3	11.89	Sept. 25	a 14.48
Feb. 6	11.24	30	10.81	Aug. 1	a 13.74	Nov. 8	a 14.68
Mar. 7	10.39	May 29	a 11.44	27	a 14.23	Dec. 4	a 14.75

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	14.72	Apr. 3	15.64	July 3	a 43.65	Sept. 25	a 43.40
Feb. 6	a 38.61	30	15.30	Aug. 1	a 45.43	Nov. 8	a 41.39
Mar. 7	16.98	May 29	a 41.30	27	20.70	Dec. 4	a 35.04

a Pumping.

M-18a (*908, p. 113; 938, p. 103; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 91). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	13.56	Apr. 3	14.63	July 3	a 28.66	Sept. 25	a 29.41
Feb. 6	a 25.08	30	14.27	Aug. 1	a 30.13	Nov. 8	a 29.57
Mar. 7	15.97	May 29	a 27.65	27	19.44	Dec. 4	a 30.51

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	13.15	Apr. 3	14.20	July 3	a 21.98	Sept. 25	a 23.00
Feb. 6	a 18.68	30	13.98	Aug. 1	a 23.64	Nov. 8	a 23.44
Mar. 7	15.85	May 29	a 21.36	27	17.39	Dec. 4	a 24.35

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 31.52	Apr. 3	16.61	July 3	a 35.10	Sept. 25	19.81
Feb. 5	15.38	30	a 33.78	Aug. 1	a 36.28	Nov. 8	17.80
Mar. 7	16.71	May 29	a 32.52	27	a 34.80	Dec. 4	a 32.82

a Pumping.

M-19a (*908, p. 114; 938, p. 104; 946, p. 120; *988, p. 108; 1018, p. 91; 1025, p. 92). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 19.46	Apr. 3	18.68	July 3	a 21.32	Sept. 25	21.08
Feb. 5	18.02	30	a 21.24	Aug. 1	a 22.54	Nov. 8	19.36
Mar. 7	16.64	May 29	a 20.52	27	a 23.12	Dec. 4	a 23.86

a Well M-19 pumping.

M-19b (*908, p. 114; 938, p. 104; 946, p. 121; *988, p. 108; 1018, p. 91; 1025, p. 92). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 17.86	Apr. 3	18.22	July 3	a 18.79	Sept. 25	19.95
Feb. 5	15.70	30	a 17.71	Aug. 1	a 19.89	Nov. 8	20.46
Mar. 7	17.53	May 29	a 17.64	27	a 20.00	Dec. 4	a 20.81

a Well M-19 pumping.

M-20 (*908, p. 115; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 91; 1025, p. 92). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	26.56	Apr. 3	a 57.63	July 3	28.17	Sept. 25	a 62.21
Feb. 6	26.54	30	a 59.15	Aug. 1	a 58.26	Nov. 8	a 63.71
Mar. 7	26.89	May 29	a 59.29	27	a 62.09	Dec. 4	a 60.11

a Pumping.

M-20a (*908, p. 115; 938, p. 104; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 92). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	25.07	Apr. 3	a 25.28	July 3	25.81	Sept. 25	a 26.32
Feb. 6	25.10	30	a 25.14	Aug. 1	a 26.92	Nov. 8	a 26.02
Mar. 7	25.51	May 29	a 25.28	27	a 27.56	Dec. 4	a 27.29

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	26.78	Apr. 3 a	26.06	July 3	26.07	Sept. 25 a	27.29
Feb. 6	26.84	30 a	25.54	Aug. 1 a	27.17	Nov. 8 a	27.34
Mar. 7	27.32	May 29 a	25.68	27 a	27.76	Dec. 4 a	27.61

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). 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, 1946

Jan. 5	14.46	Apr. 3 a	29.00	July 3 a	30.50	Sept. 25 a	32.20
Feb. 5 a	29.86	30	14.86	Aug. 1 a	32.48	Nov. 8 a	29.60
Mar. 7 a	28.20	May 29 a	27.98	27 a	31.62	Dec. 4 a	30.69

a Pumping.

M-21a (*908, p. 117; 938, p. 105; 946, p. 121; *988, p. 109; 1018, p. 92; 1025, p. 93). 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, 1946

Jan. 5	13.99	Apr. 3 a	19.83	July 3 a	21.32	Sept. 25 a	22.84
Feb. 5 a	20.42	30 a	14.22	Aug. 1 a	22.78	Nov. 8 a	22.26
Mar. 7 a	18.56	May 29 a	14.38	27 a	22.03	Dec. 4 a	31.89

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). 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, 1946

Jan. 5	13.34	Apr. 3 a	17.49	July 3 a	18.58	Sept. 25 a	20.48
Feb. 5 a	17.82	30	14.01	Aug. 1 a	21.79	Nov. 8 a	19.77
Mar. 7 a	16.57	May 29 a	16.58	27 a	19.57	Dec. 4 a	19.83

a Well M-21 pumping.

M-22 (*908, p. 118; 938, p. 105; 946, p. 122; *988, p. 109; 1018, p. 92; 1025, p. 93). 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, 1946

Jan. 5 a	36.63	Apr. 3	16.04	July 3	17.21	Sept. 25	19.08
Feb. 5	17.36	30 a	37.40	Aug. 1 a	44.18	Nov. 8 a	38.59
Mar. 7	15.56	May 29	16.08	27	19.53	Dec. 4	17.94

a Pumping.

M-22a (*908, p. 118; 938, p. 105; 946, p. 122; *988, p. 110; 1018, p. 92; 1025, p. 93). 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, 1946

Jan. 5 a	19.51	Apr. 3	15.02	July 3	16.24	Sept. 25	18.20
Feb. 5	17.92	30 a	20.76	Aug. 1 a	17.94	Nov. 8 a	22.17
Mar. 7	14.56	May 29	15.02	27	17.89	Dec. 4	18.36

a Well M-22 pumping.

M-22b (*908, p. 119; 938, p. 105; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93). 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, 1946

Jan. 5 a	16.53	Apr. 3	15.86	July 3	17.08	Sept. 25	19.12
Feb. 5	16.39	30 a	17.23	Aug. 1 a	20.54	Nov. 8 a	20.20
Mar. 7	14.34	May 29	14.98	27	18.79	Dec. 4	19.10

a Well M-22 pumping.

M-23 (*908, p. 119; 938, p. 106; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93). City of Wichita. SE $\frac{1}{4}$ NB $\frac{1}{4}$ sec. 35, T. 24 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 5 a	40.02	Apr. 3 a	41.70	July 3	14.44	Sept. 25 a	48.98
Feb. 5	10.56	30 a	43.02	Aug. 1 a	48.79	Nov. 8	14.79
Mar. 7 a	42.54	May 29	13.39	27 a	45.30	Dec. 4 a	41.62

a Pumping.

M-23a (*908, p. 120; 938, p. 106; 946, p. 122; *988, p. 110; 1018, p. 93; 1025, p. 93). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 13.78	Apr. 3	a 14.36	July 3	14.24	Sept. 25	a 17.71
Feb. 5	10.41	30	a 14.82	Aug. 1	a 17.44	Nov. 8	16.43
Mar. 7	a 14.46	May 29	15.03	27	a 17.54	Dec. 4	a 18.07

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 12.43	Apr. 3	a 10.49	July 3	11.94	Sept. 25	16.39
Feb. 5	9.99	30	a 10.76	Aug. 1	16.19	Nov. 8	16.28
Mar. 7	a 10.26	May 29	11.04	27	16.26	Dec. 4	15.97

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	12.83	Apr. 3	a 38.60	July 3	a 40.50	Sept. 25	17.28
Feb. 5	a 39.38	30	18.70	Aug. 1	a 44.50	Nov. 8	16.74
Mar. 7	12.68	May 29	a 37.71	27	15.04	Dec. 4	a 39.47

a Pumping.

M-24a (*908, p. 121; 938, p. 106; 946, p. 123; *988, p. 111; 1018, p. 93; 1025, p. 94). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	14.97	Apr. 3	a 16.36	July 3	a 17.70	Sept. 25	15.37
Feb. 5	a 16.08	30	12.17	Aug. 1	a 19.14	Nov. 8	15.82
Mar. 7	12.19	May 29	a 15.57	27	16.23	Dec. 4	a 19.47

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	13.51	Apr. 3	a 15.60	July 3	a 16.63	Sept. 25	16.80
Feb. 5	a 14.96	30	15.10	Aug. 1	a 17.72	Nov. 8	17.74
Mar. 7	13.73	May 29	a 15.07	27	17.20	Dec. 4	a 18.95

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 34.40	Apr. 3	8.24	July 3	a 36.25	Sept. 25	a 36.31
Feb. 5	a 8.98	30	a 34.36	Aug. 1	a 42.17	Nov. 8	a 36.40
Mar. 7	a 32.69	May 29	9.10	27	a 38.25	Dec. 4	10.99

a Pumping.

M-25a (*908, p. 123; 938, p. 107; 946, p. 123; *988, p. 111; 1018, p. 94; 1025, p. 94). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 9.32	Apr. 3	7.43	July 3	a 10.94	Sept. 25	a 13.01
Feb. 5	8.47	30	a 10.31	Aug. 1	a 12.87	Nov. 8	a 11.92
Mar. 7	a 9.50	May 29	9.78	27	a 12.86	Dec. 4	12.26

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	a 10.01	Apr. 3	9.57	July 3	a 12.21	Sept. 25	a 14.30
Feb. 5	9.41	30	a 11.57	Aug. 1	a 14.14	Nov. 8	a 13.99
Mar. 7	a 9.92	May 29	9.82	27	a 14.14	Dec. 4	13.72

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	5.5	196.88	May 1, 1946	197.78	Sept. 17, 1941
6	5.5	154.73	Nov. 20, 1946	158.66	Feb. 6, 1946
7	5.5	187.14	Jan. 25, 1944	189.06	Feb. 6, 1946
9	5.5	207.10	Aug. 14, 1946	208.78	Aug. 9, 1943
10	5.5	47.96	Aug. 9, 1943	51.57	Nov. 21, 1946
11	5.5	183.84	Dec. 28, 1943	185.33	Nov. 6, 1945
12	5.5	179.40	Nov. 3, 1941	182.05	Nov. 13, 1942
14	5.5	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 1946 and for period of record, in 8 wells in Haskell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
4	0.90	+0.77	+0.68
6	3.93	+2.33	+1.42
7	1.92	+ .71	+ .17
9	1.68	+ .10	+ .50
10	3.61	-1.40	-1.70
11	1.49	+ .46	- .83
12	2.65	+ .02	- .56
14	3.25	- .02	-2.83

1 (*938, p. 108; 946, p. 125; *988, p. 112; 1018, p. 95; 1025, p. 95). E. A. Davis. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 27 S., R. 33 W. Measurements discontinued Jan. 1, 1946.

4 (*938, p. 108; 946, p. 125; *988, p. 112; 1018, p. 95; 1025, p. 95). 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, 1946: Feb. 6, 196.92; May 1, 196.88; Aug. 14, 196.92; Nov. 20, 196.97.

6 (*938, p. 108; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95). 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, 1946: Feb. 6, 158.66; May 1, 156.36; Aug. 14, 156.44; Nov. 20, 154.73.

7 (*938, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95). 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, 1946: Feb. 6, 189.06; May 1, 188.27; Aug. 14, 187.50; Nov. 20, 187.33.

9 (*938, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95). 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, 1946: Feb. 6, 208.10; May 2, 207.12; Aug. 14, 207.10; Nov. 21, 207.18.

10 (*908, p. 109; 946, p. 125; *988, p. 113; 1018, p. 95; 1025, p. 95). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	50.27	May 2	50.24	Aug. 14	50.64	Oct. 18	49.92
Feb. 6	50.50	June 6	49.46	Sept. 20	50.60	Nov. 21	51.57
Mar. 6	49.67	July 18	50.50				

11 (*938, p. 109; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96). 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, 1946: Feb. 6, 184.77; May 1, 185.30; Aug. 14, 184.48; Nov. 21, 184.87.

12 (*938, p. 109; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96). 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, 1946: Feb. 2, 180.96; May 1, 181.02; Aug. 14, 181.02.

14 (*938, p. 110; 946, p. 126; *988, p. 113; 1018, p. 95; 1025, p. 96). William Dreyer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 27 S., R. 34 W. Water level, in feet below land-surface datum, 1946: Feb. 6, 154.75.

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	6	31.19	Sept. 8, 1944	34.77	Sept. 20, 1940
4	6	22.74	June 3, 1944	27.52	Oct. 2, 1941
5	6	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 1946 and for period of record, in 3 wells in Hodgeman County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period or record
3	3.58	-0.27	2.24
4	4.78	+1.59	2.49
5	5.22	+1.26	2.49

3 (*908, p. 125; 938, p. 110; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96). 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, 1946: Jan. 11, 31.97; Apr. 22, 31.83; July 22, 32.13; Oct. 22, 32.45.

4 (*908, p. 125; 938, p. 111; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96). 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, 1946: Jan. 11, 25.68; Apr. 22, 25.48; July 22, 26.27; Oct. 22, 24.54.

5 (*908, p. 125; 938, p. 111; 946, p. 126; *988, p. 114; 1018, p. 96; 1025, p. 96). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	30.75	Apr. 22	30.76	July 22	31.70	Oct. 22	28.73
Feb. 21	30.65	May 22	31.31	Aug. 20	33.08	Nov. 15	29.08
Mar. 14	30.58	June 23	31.30	Sept. 11	32.29	Dec. 13	29.54

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	4.16	Apr. 26, 1943	68.06	Aug. 23, 1934
12	13	57.09	July 16, 1945	77.79	June 8, 1938
14	13	16.25	May 26, 1942	46.69	Mar. 20, 1934
22	13	10.24	Sept. 29, 1944	25.68	Aug. 10, 1934
25	13	8.50	Sept. 24, 1945	15.72	Mar. 2, 1935
30	13	26.54	Dec. 21, 1946	43.45	Sept. 20, 1940
34	13	10.25	Feb. 19, 1942	33.92	Aug. 19, 1940
40	13	37.64	July 16, 1945	43.13	Oct. 6, 1937

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
41	12	13.04	Dec. 21, 1946	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	19.87	Dec. 21, 1946	34.39	Dec. 21, 1940
46	12	.75	Jan. 26, 1942	17.54	Aug. 30, 1934
47	12	1.02	Nov. 15, 1946	13.84	May 9, 1935
48	12	7.19	July 16, 1945	27.19	Oct. 25, 1934
49	12	16.34	June 27, 1944	46.83	Nov. 24, 1934
			Sept. 29, 1944		
64	11	54.90	Nov. 15, 1946	65.90	Jan. 19, 1938
65	11	9.62	Nov. 23, 1942	38.10	Aug. 20, 1940
66	11	11.29	Oct. 28, 1942	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 1946 and for period of record, in 21 wells in Jewell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
6	17.57	(a)	1.72
8	63.90	(a)	44.52
12	20.70	-1.08	8.92
14	30.44	(a)	26.73
22	15.44	+ .66	13.18
25	7.22	- .81	4.78
30	16.91	+4.67	10.27
34	23.67	(a)	12.53
40	5.49	+ .84	3.82
41	14.34	(a)	12.39
42	7.78	+1.42	4.32
44	19.03	(a)	8.24
45	14.52	+2.64	10.16
46	16.79	(a)	14.57
47	12.82	(a)	9.16
48	20.00	+3.17	18.40
49	30.49	(a)	19.62
64	11.00	(a)	8.68
65	28.48	+ .79	19.80
66	16.26	(a)	9.65
69	18.19	(a)	9.35

a No measurement made in 1945.

4 (*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). Harvey Sloan. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 W. Measurements discontinued Jan. 1, 1946.

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). H. C. Doud. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 12, 41.02; Oct. 16, 40.81; Nov. 15, 40.63; Dec. 21, 40.38.

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). Will Zadina. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 12, 29.64; Oct. 15, 29.50; Nov. 15, 21.47; Dec. 21, 18.65.

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). M. W. Howe. Lot 4 of sec. 30, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 65.67; Oct. 16, 65.52; Nov. 15, 64.41; Dec. 21, 64.22.

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). C. Walker. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 23.80; Oct. 16, 23.34; Nov. 15, 22.73; Dec. 21, 19.96.

18 (*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. 117; 1018, p. 98; 1025, p. 98). Martin Johaneck. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 3 S., R. 10 W. Measurements discontinued Jan. 1, 1946.

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). Meyer Miles. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 5 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 10.60; Oct. 15, 10.96; Nov. 15, 10.69; Dec. 21, 10.84.

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). J. N. Sorrell. NW $\frac{1}{4}$ NW $\frac{1}{4}$ 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. Water levels, in feet below land-surface datum, 1946: Sept. 17, 9.40; Oct. 15, 9.90; Nov. 15, 9.66; Dec. 21, 9.71.

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; 946, pp. 129-131; *988, p. 117; 1018, p. 98; 1025, p. 98). Fred Van Wey. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 4 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 23, 29.20; Oct. 15, 29.20; Nov. 15, 27.27; Dec. 21, 26.54.

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). Glen Kindler. 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. Water levels, in feet below land-surface datum, 1946: Sept. 18, 17.28; Oct. 16, 14.18; Nov. 15, 12.33; Dec. 21, 14.07.

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). 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. Water levels, in feet below land-surface datum, 1946: Sept. 16, 39.10; Oct. 15, 38.80; Nov. 15, 38.50; Dec. 21, 38.50.

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). 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 feet above land surface. Water levels, in feet below land-surface datum, 1946: Sept. 17, 13.74; Oct. 15, 13.82; Nov. 15, 13.18; Dec. 21, 13.04.

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). L. Lowdermilk. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 27, T. 6 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 23.32; Oct. 15, 24.17; Nov. 15, 25.00; Dec. 21, 25.45.

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). Cleo Gimple. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 4 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 8.86; Oct. 15, 8.73; Nov. 15, 8.39; Dec. 21, 8.76.

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. 99; 1025, p. 99). Victor Yapp. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 4 S., R. 10 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 20.67; Oct. 15, 20.43; Nov. 15, 19.97; Dec. 21, 19.87.

46 (*817, pp. 66, 71; *840, pp. 111, 113; *845, pp. 106, 110; 886, p. 170; 908, p. 129; 938, pp. 113, 114; 946, p. 130; 131; *988, p. 119; 1018, p. 99; 1025, p. 99). Ralph Wierenga. Lot 3 of sec. 19, T. 5 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 1.18; Oct. 15, 2.16; Nov. 15, 0.80; Dec. 21, 2.00.

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). Meyer Miles. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 5 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 1.47; Oct. 15, 3.23; Nov. 15, 1.02; Dec. 21, 2.82.

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). Frank Rogers. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 4 S., R. 10 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 15.77; Oct. 15, 11.29; Nov. 15, 7.50; Dec. 21, 7.45.

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). E. Underwood. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 12, 18.90; Oct. 16, 18.09; Nov. 15, 16.79; Dec. 21, 16.53.

50 (*777, pp. 68, 69; *817, pp. 66, 71; *840, pp. 111, 114; *845, pp. 107, 110; 886, p. 171; 908, p. 130; 938, p. 114; 946, pp. 130, 131; *988, p. 119; 1018, p. 99; 1025, p. 99). S. Strom. Lot 15 of sec. 31, T. 3 S., R. 9 W. Measurements discontinued Jan. 1, 1946.

51 (*817, pp. 66, 76; *840, pp. 111, 116, 119; *845, pp. 107, 113, 115; 886, p. 173; 908, p. 131; 938, pp. 113, 114; 946, p. 131; *988, p. 120; 1018, p. 99; 1025, p. 99). L. C. Beeler Estate. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 17, T. 4 S., R. 9 W. Measurements discontinued Jan. 1, 1946.

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). Chris Vandeventer, former owner. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 3 S., R. 8 W. Water levels, in feet below land-surface datum, 1946: Sept. 12, 55.51; Oct. 16, 55.87; Nov. 15, 54.90; Dec. 21, 56.14.

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). Mrs. B. M. Parkhurst. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 3 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 16, 10.93; Oct. 16, 10.95; Nov. 15, 10.47; Dec. 21, 10.84.

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). A. E. Cook farm. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 5 S., R. 10 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 13.03; Oct. 15, 11.83; Nov. 15, 12.69; Dec. 21, 12.76.

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). Walter Dietz. NW $\frac{1}{4}$ lot 2 of sec. 7, T. 5 S., R. 9 W. Water levels, in feet below land-surface datum, 1946: Sept. 17, 6.31; Oct. 15, 9.01; Nov. 15, 8.53; Dec. 21, 9.82.

Kearny County

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

Well	Length of record (years)	Highest level	Date	Lowest level	Date
1	7	6.37	Dec. 6, 1946	12.13	Sept. 10, 1943
2	7	50.39	Dec. 4, 1943	59.74	Sept. 20, 1940
7	7	49.38	Oct. 2, 1945	53.37	Oct. 16, 1939
11	7	11.56	Nov. 23, 1946	15.37	Mar. 15, 1941
12	4	5.52	Nov. 23, 1946	11.09	Nov. 6, 1943
13	7	1.47	May 9, 1942	8.93	Dec. 20, 1939
16	7	40.03	Nov. 23, 1946	47.81	July 3, 1941
19	7	130.35	May 29, 1946	134.67	Nov. 15, 1945
28	7	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 1946 and for period of record, in 9 wells in Kearny County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
1	5.76	+2.59	4.96
2	9.35	-1.49	5.71
7	3.99	-1.06	2.04
11	3.81	+1.03	2.62
12	5.57	+1.55	8.50
13	7.46	-.16	3.70
16	7.78	+.82	5.45
19	4.32	+4.09	.29
28	2.44	-.03	2.24

1 (*886, p. 164; 908, p. 133; *938, p. 116; 946, p. 133; *988, p. 122; 1018, p. 100; 1025, p. 100). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	8.61	Apr. 5	8.85	July 5	9.23	Oct. 19	8.46
Feb. 2	8.59	May 29	8.78	Aug. 17	9.94	Nov. 23	6.61
Mar. 8	8.73	June 26	9.14	Sept. 21	9.98	Dec. 6	6.37

2 (*886, p. 164; 908, p. 133; *938, p. 116; 946, p. 133; *988, p. 122; 1018, p. 100; 1025, p. 100). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	52.05	Apr. 5	52.87	July 5	51.57	Oct. 19	52.76
Feb. 2	52.32	May 15	54.71	Aug. 17	53.87	Nov. 23	52.48
Mar. 8	50.93	June 26	51.72	Sept. 6	53.10	Dec. 21	52.77

7 (*886, p. 164; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 122; 1018, p. 100; 1025, p. 100). C. H. Browne. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 25 S., R. 37 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	50.37	Mar. 8	50.63	May 29	50.84	July 6	50.81
Feb. 2	50.52	Apr. 5	50.57	June 26	50.88	Aug. 17	51.33

11 (*886, p. 165; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 122; 1018, p. 100; 1025, p. 101). 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, 1946: Feb. 23, 12.81; May 29, 12.69; Aug. 17, 12.85; Nov. 23, 11.56.

12 (*988, p. 123; 1018, p. 100; 1025, p. 101). J. E. Beymer. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 24 S., R. 35 W. Water levels, in feet below land-surface datum, 1946: Feb. 23, 7.79; May 29, 8.03; Aug. 17, 8.91; Nov. 23, 5.52.

13 (*886, p. 165; 908, p. 134; *938, p. 117; 946, p. 134; *988, p. 123; 1018, p. 101; 1025, p. 101). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12	4.76	Apr. 5	4.22	July 6	4.85	Oct. 19	4.37
Feb. 9	4.74	May 18	4.14	Aug. 17	5.75	Nov. 23	4.75
Mar. 8	4.56	June 26	4.90	Sept. 21	5.12	Dec. 6	4.86

16 (*886, p. 165; *908, p. 134; 938, p. 118; 946, p. 134; *988, p. 123; 1018, p. 101; 1025, p. 101). C. E. 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, 1946: Feb. 8, 41.06; May 10, 41.29; Aug. 17, 40.98; Nov. 23, 40.03.

19 (*886, p. 165; 908, p. 135; *938, p. 118; 946, p. 135; *988, p. 123; 1018, p. 101; 1025, p. 101). 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, 1946: May 29, 130.35; Aug. 16, 130.50; Nov. 22, 130.58.

28 (*886, p. 166; 908, p. 135; *938, p. 118; 946, p. 135; *988, p. 123; 1018, p. 101; 1025, p. 101). 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, 1946: Feb. 8, 121.57; May 10, 121.61; Aug. 2, 121.47; Nov. 23, 121.53.

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	1.5	11.79	July 20, 1945	15.25	Nov. 12, 1946
2	1.5	7.69	Jan. 9, 1946	13.80	Nov. 20, 1946
4	1.5	62.44	Dec. 5, 1946	63.91	Mar. 8, 1946
5	1.5	19.39	Feb. 8, 1946	20.60	Dec. 5, 1946
6	1.5	30.22	June 1, 1946	32.68	Aug. 29, 1946
7	1.5	46.54	Nov. 13, 1945	48.21	Dec. 5, 1946
8	1.5	5.41	Jan. 9, 1946	8.32	Sept. 30, 1946
10	1.5	25.06	May 7, 1946	26.82	Aug. 2, 1946
11	1.5	6.63	July 28, 1945	13.75	July 13, 1946
14	1.5	11.12	July 28, 1945	13.82	Dec. 5, 1946
19	3	24.70	Nov. 13, 1945	32.75	Jan. 5, 1944
20	3	28.77	Nov. 13, 1945	31.32	Jan. 5, 1944

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 12 wells in Kingman County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	3.46	-0.09	-1.86
2	6.11	-.38	-.29
4	1.47	+1.29	+1.45
5	1.21	-.27	-.07
6	2.46	-1.40	-.64
7	1.67	-.85	-1.67
8	2.91	-1.98	-1.68
10	1.76	-.02	+.22
11	7.12	-.71	-1.75
14	2.70	-1.80	-2.70
19	8.05	-4.73	+2.84
20	2.55	-2.23	-.05

1 (*1025, p. 102). A. A. Mueller. $SESW\frac{1}{4}SW\frac{1}{4}$ sec. 1, T. 30 S., R. 8 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	13.51	Apr. 13	15.16	July 13	14.21	Sept. 30	15.20
Feb. 8	14.89	May 7	14.60	Aug. 2	14.32	Nov. 12	15.25
Mar. 8	14.96	June 1	14.67	29	14.29	Dec. 5	13.65

2 (*1025, p. 102). L. A. Brammer. $SESE\frac{1}{4}SW\frac{1}{4}$ sec. 3, T. 30 S., R. 6 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	7.69	Apr. 13	9.38	July 13	10.95	Sept. 30	13.60
Feb. 8	9.94	May 7	9.23	Aug. 2	11.36	Nov. 20	13.80
Mar. 8	10.01	June 1	9.35	29	11.30	Dec. 5	10.15

4 (*1025, p. 102). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	63.71	Apr. 13	62.84	July 13	62.71	Sept. 30	62.51
Feb. 8	63.88	May 7	62.88	Aug. 2	62.69	Nov. 12	62.58
Mar. 8	63.91	June 1	62.93	29	62.67	Dec. 5	62.44

5 (*1025, p. 102). School District. $SWSW\frac{1}{4}SW\frac{1}{4}$ sec. 6, T. 29 S., R. 6 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	20.29	Apr. 13	20.34	July 13	20.39	Sept. 30	20.39
Feb. 8	19.39	May 7	20.30	Aug. 2	20.47	Nov. 12	20.34
Mar. 8	19.42	June 1	20.33	29	20.42	Dec. 5	20.60

6 (*1025, p. 102). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	30.48	Apr. 13	30.26	July 13	32.06	Sept. 30	32.62
Feb. 8	30.74	May 7	30.24	Aug. 2	32.66	Nov. 12	32.57
Mar. 8	30.76	June 1	30.22	29	32.68	Dec. 5	31.93

7 (*1025, p. 102). S. Schrag. $SW\frac{1}{4}SE\frac{1}{4}SW\frac{1}{4}$ sec. 5, T. 27 S., R. 5 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	47.31	Apr. 13	47.25	July 13	47.59	Sept. 30	47.99
Feb. 8	47.77	May 7	47.46	Aug. 2	47.74	Nov. 12	47.94
Mar. 8	47.86	June 1	47.48	29	47.71	Dec. 5	48.21

8 (*1025, p. 103). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	5.41	Apr. 13	5.45	July 13	7.13	Sept. 30	8.32
Feb. 8	5.51	May 7	5.51	Aug. 2	7.76	Nov. 12	8.27
Mar. 8	5.53	June 1	5.48	29	7.79	Dec. 5	7.43

10 (*1025, p. 103). W. H. Stephens. $SWSW\frac{1}{4}SW\frac{1}{4}$ sec. 11, T. 30 S., R. 5 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	25.46	Apr. 13	25.12	July 13	26.61	Sept. 30	26.21
Feb. 8	25.62	May 7	25.06	Aug. 2	26.82	Nov. 12	26.13
Mar. 8	25.66	June 1	25.14	29	26.76	Dec. 5	25.51

11 (*1025, p. 103). S. Bolinger. $SESE\frac{1}{4}SW\frac{1}{4}$ sec. 12, T. 28 S., R. 5 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	7.62	Apr. 13	7.46	July 13	13.75	Sept. 30	8.82
Feb. 8	7.79	May 7	7.59	Aug. 2	8.87	Nov. 12	8.86
Mar. 8	7.82	June 1	7.64	29	8.74	Dec. 5	8.38

14 (*1025, p. 103). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	11.98	Apr. 13	12.68	July 13	13.34	Sept. 30	13.60
Feb. 8	12.64	May 7	12.70	Aug. 2	13.53	Nov. 12	13.64
Mar. 8	12.71	June 1	12.73	29	13.59	Dec. 5	13.82

19 (*1025, p. 103). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	24.84	Apr. 13	28.01	June 1	28.13	Aug. 2	29.64
Feb. 8	25.02	May 7	30.43	July 13	29.48	29	29.61

20 (*1025, p. 103). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	28.87	Apr. 13	29.30	June 1	29.42	Aug. 2	31.15
Feb. 8	29.07	May 7	29.36	July 13	31.00	29	31.12

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	6	73.39	Dec. 19, 1946	76.07	Aug. 20, 1943
7	6	27.82	Dec. 20, 1945	32.51	Mar. 22, 1941
8	6	22.05	Dec. 20, 1945	26.62	Apr. 28, 1941
10	6	104.67	Sept. 18, 1945	106.77	Oct. 24, 1940
19	6	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 1946 and for period of record, in 5 wells in Kiowa County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
4	2.68	+0.65	2.13
7	4.69	-.73	3.70
8	4.57	-.02	3.69
10	2.10	-.23	1.68
19	3.11	-1.81	2.98

4 (*908, p. 137; 938, p. 119; 946, p. 136; *988, p. 124; 1018, p. 101; 1025, p. 104). 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, 1946: Mar. 27, 73.89; June 20, 73.68; Sept. 13, 73.44; Dec. 19, 73.39.

7 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 124; 1018, p. 102; 1025, p. 104). A. C. Weaver. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 27 S., R. 18 W. Water levels, in feet below land-surface datum, 1946: Mar. 27, 28.10; June 20, 28.22; Sept. 13, 28.44; Dec. 19, 28.55.

8 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 125; 1018, p. 102; 1025, p. 104). 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, 1946: June 20, 22.26; Sept. 13, 22.42; Dec. 19, 22.27.

10 (*908, p. 137; 938, p. 120; 946, p. 136; *988, p. 125; 1018, p. 102; 1025, p. 104). J. E. Ely. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 30 S., R. 18 W. Water levels, in feet below land-surface datum, 1946: Mar. 26, 105.17; June 5, 104.86; Sept. 26, 105.09.

19 (*1018, p. 102; 1025, p. 104). 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, 1946: Mar. 27, 34.31; June 20, 34.50; Sept. 13, 34.53; Dec. 19, 36.00.

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	4	1.20	Oct. 1, 1945	15.49	Oct. 16, 1946
2	4	a +.10	May 1, 1945	13.62	Oct. 17, 1943
3	4	1.20	Oct. 1, 1945	11.52	Sept. 16, 1946
4	4	4.21	May 1, 1945	14.77	Oct. 16, 1946

a Water level above land-surface datum.

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 4 wells in Labette County

Well	Difference between highest and lowest levels	Net decline in 1946	Net decline for period of record
1	14.29	1.91	3.58
2	13.72	8.20	9.68
3	10.32	5.30	3.38
4	10.56	2.72	7.37

1 (*946, p. 137; *988, p. 125; 1018, p. 102; 1025, p. 105). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.14	Apr. 1	7.90	July 1	11.37	Oct. 2	15.24
16	5.14	17	8.52	16	12.40	16	15.49
Feb. 1	7.96	May 1	9.36	Aug. 1	13.34	Nov. 2	13.90
17	7.86	16	10.42	15	13.79	16	12.18
Mar. 1	7.20	June 2	10.98	Sept. 1	14.04	Dec. 1	12.98
17	7.24	16	11.89	16	15.24	16	12.89

2 (*988, p. 125; 1018, p. 103; 1025, p. 105). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	1.88	Apr. 1	1.09	July 1	7.40	Oct. 2	12.92
16	.89	17	1.33	16	9.73	16	13.32
Feb. 1	.86	May 1	1.95	Aug. 1	11.28	Nov. 2	12.84
17	.34	16	2.72	15	11.72	16	11.69
Mar. 1	.82	June 2	2.56	Sept. 1	12.34	Dec. 1	12.29
17	.48	16	5.91	16	12.72	16	11.32

3 (*988, p. 125; 1018, p. 103; 1025, p. 105). B. H. Foster. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 31 S., R. 21 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.55	Apr. 1	2.52	July 1	7.14	Sept. 16	11.52
16	1.88	17	3.48	16	8.39	Nov. 2	10.29
Feb. 1	2.22	May 1	3.72	Aug. 1	9.49	16	7.39
17	1.64	16	4.46	15	10.21	Dec. 1	9.06
Mar. 1	2.16	June 2	4.44	Sept. 1	10.82	16	9.59
17	2.14	16	5.94				

4 (*988, p. 125; 1018, p. 103; 1025, p. 105). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.20	Feb. 17	6.98	Apr. 1	7.71	May 16	8.52
16	7.17	Mar. 1	7.02	17	8.16	June 2	8.48
Feb. 1	7.76	17	7.64	May 1	8.08	16	9.27

4--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 1	9.78	Aug. 15	11.78	Oct. 2	12.94	Nov. 16	12.20
16	10.68	Sept. 1	11.98	16	14.77	Dec. 1	12.22
Aug. 1	11.12	16	13.24	Nov. 2	13.68	16	12.02

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	4	96.42	Jan. 22, 1944	97.93	Oct. 4, 1946
2	4	59.66	Mar. 19, 1943	65.21	Feb. 27, 1944
4	4	33.41	Jan. 16, 1945	34.85	Aug. 6, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 3 wells in Logan County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	1.51	-0.26	-0.71
2	5.55	+0.01	-.44
4	1.44	+0.02	+.16

1 (*946, p. 138; *988, p. 126; 1018, p. 104; 1025, p. 106). Octon Estate. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 11 S., R. 32 W. Water levels, in feet below land-surface datum, 1946: Jan. 16, 97.61; Apr. 25, 97.64; July 8, 97.69; Oct. 4, 97.93.

2 (*946, p. 138; *988, p. 126; 1018, p. 104; 1025, p. 106). J. J. Schultz. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 11 S., R. 32 W. Water levels, in feet below land-surface datum, 1946: Jan. 16, 60.25; Apr. 25, 60.32; July 8, 60.16; Oct. 4, 60.21.

4 (*946, p. 138; *988, p. 127; 1018, p. 104; 1025, p. 106). L. L. Garrison Estate. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 13 S., R. 32 W. Water levels, in feet below land-surface datum, 1946: Jan. 16, 33.50; Apr. 25, 33.50; July 8, 33.51; Oct. 3, 33.43.

McPherson County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 8 wells in McPherson County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
243	9	82.09	Sept. 2, 1938	83.47	Jan. 5, 1945
249	9	25.26	July 3, 1945	a 36.13	Apr. 2, 1940
260	9	21.18	Oct. 1, 1942	27.85	Nov. 4, 1937
262	9	21.51	Aug. 3, 1945	b 41.35	Nov. 2, 1938
309	9	20.74	Apr. 8, 1944	37.26	Mar. 26, 1938
310	9	7.03	Apr. 8, 1946	19.39	Nov. 4, 1937
311	9	7.09	May 4, 1945	13.06	Dec. 31, 1939
1501a	3.5	25.57	Aug. 8, 1945	b 64.08	Feb. 2, 1945

a Had been pumped.

b Pumping.

100 WATER LEVELS AND ARTESIAN PRESSURE, 1946, NORTH-CENTRAL STATES

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 8 wells in McPherson County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
243	1.38	0.0	-0.09
249	10.87	+0.01	+6.40
260	6.67	-2.10	+1.25
262	19.84	-4.10	+1.69
309	16.52	-8.74	+6.13
310	12.36	-.20	+11.89
311	5.97	-1.86	+2.3
1501a	38.51	-.09	-6.76

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. 107). 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, 1946: Jan. 8, 83.02; Apr. 11, 82.91; July 5, 83.34; Oct. 1, 83.18.

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). Prudential Life Insurance Co. SE. corner sec. 5, T. 18 S., R. 3 W. Water levels, in feet below land-surface datum, 1946: Apr. 11, 29.51; July 5, 29.69.

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). 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, 1946: Jan. 8, 24.41; Apr. 11, 24.26; July 5, 24.34; Oct. 1, 26.60.

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). 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, 1946: Jan. 8, 24.15; Apr. 11, 24.06; July 5, 24.20; Oct. 1, 28.39.

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). Mrs. Ida Tuxhorn. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 21 S., R. 4 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	24.86	Apr. 11	26.08	May 31	27.56	Aug. 3	28.54
Feb. 7	25.08	May 3	26.32	July 5	27.74	Sept. 26	33.62
Mar. 5	26.19						

310 (*845, p. 125; 886, p. 216; 908, p. 140; 938, p. 122; 946, p. 139; *988, p. 128; 1018, p. 105; 1025, p. 107). City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 21 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 8	7.25	Apr. 11	7.03	May 31	7.58	Aug. 3	7.95
Feb. 7	7.23	May 3	7.21	July 5	7.69	Sept. 26	7.50
Mar. 5	7.16						

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). City of Moundridge. SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 21 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 8	10.07	Apr. 11	9.78	May 31	9.60	Aug. 3	11.21
Feb. 7	9.99	May 3	9.94	July 5	9.72	Sept. 26	11.97
Mar. 5	9.88						

1501a (*988, p. 129; 1018, p. 105; 1025, p. 107). City of Moundridge. NE $\frac{1}{4}$ NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 21 S., R. 2 W. Water levels, in feet below land-surface datum, 1946: Jan. 8, 35.15; Feb. 7, 34.26 (nearby well pumping). Measurements discontinued after Feb. 7, 1946.

Smoky Hill Valley

By B. F. Latta

The observation-well program begun during 1946 in the Smoky Hill River Valley of Saline and McPherson Counties is described in the chapter on Saline County.

17-3-17. Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17, T. 17 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 38.9 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum, and 1,532.7 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	26.96	Aug. 1	27.57	Oct. 1	27.38	Dec. 2	26.28
July 3	27.34	Sept. 5	27.86	Nov. 4	26.24	23	26.5

17-3-18. 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. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 52.9 feet. Measuring point, top of pipe, 1.1 feet above land-surface datum, and 1,535.9 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 19	27.44	Aug. 1	27.29	Oct. 1	28.04	Dec. 2	26.97
July 3	27.98	Sept. 5	28.37	Nov. 4	27.22	23	27.07

17-3-30. Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 17 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 57 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 1,546.1 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 23	30.53	Aug. 1	31.05	Oct. 1	30.69	Dec. 2	29.4
July 3	30.94	Sept. 5	31.23	Nov. 4	29.5	23	29.63

17-4-25. Geol. Survey, U. S. Dept. of Interior. SE. corner sec. 25, T. 17 S., R. 4 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 49.8 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum, and 1,545.2 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 23	24.3	Aug. 1	25.3	Oct. 1	25.34	Dec. 2	24.74
July 3	24.96	Sept. 5	25.49	Nov. 4	24.82	23	24.82

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	7.5	37.33	Nov. 23, 1942	38.75	Nov. 3, 1943
34	7.5	143.28	Dec. 14, 1944	150.39	Oct. 29, 1939
45	7.5	2.01	June 17, 1944	4.10	Aug. 31, 1939
55	7.5	84.87	Sept. 30, 1939	85.92	Sept. 20, 1940
61	7.5	59.55	June 5, 1946	60.77	May 17, 1940
77	7.5	62.00	June 17, 1944	67.12	Sept. 9, 1943
88	7.5	41.95	May 12, 1942	46.20	July 1, 1942
234	7.5	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 1946 and for period of record, in 8 wells in Meade County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
33	1.42	-0.38	-0.68
34	7.11	-.11	-.60
45	2.09	+3.35	+1.06
55	1.05	+1.16	+4.44
61	1.22	+0.01	+9.97
77	5.12	+4.45	+5.50
88	4.25	.0	+2.16
234	2.54	+8.1	+3.12

33 (*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142; *988, p. 130; 1018, p. 106; 1025, p. 108). 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, 1946: Mar. 25, 38.07; Sept. 20, 38.27.

34 (*886, p. 176; 908, p. 143; 938, p. 124; 946, p. 142; *988, p. 130; 1018, p. 106; 1025, p. 108). 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, 1946: June 4, 147.00; Sept. 20, 147.06; Dec. 21, 147.28.

36 (*886, p. 177; 908, p. 143; 938, p. 124; 946, p. 142; *988, p. 130; 1018, p. 107; 1025, p. 108). Tony Steinke. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 32 S., R. 27 W. Measurements discontinued Jan. 1, 1946.

45 (*886, p. 177; 908, p. 144; 938, p. 125; 946, p. 142; *988, p. 131; 1018, p. 107; 1025, p. 108). Joseph Rocke. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 30 S., R. 27 W. Water levels, in feet below land-surface datum, 1946: Mar. 25, 2.80; June 4, 3.85; Sept. 20, 3.74; Dec. 21, 2.31.

55 (*886, p. 176; 908, p. 144; 938, p. 125; 946, p. 142; *988, p. 131; 1018, p. 107; 1025, p. 109). 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, 1946: Mar. 25, 85.44; June 4, 85.51; Sept. 20, 85.64; Dec. 21, 85.33.

61 (*886, p. 178; 908, p. 144; 938, p. 125; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109). 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, 1946: Mar. 25, 59.57; June 5, 59.55; Sept. 20, 59.57; Dec. 21, 59.59.

77 (*886, p. 178; 908, p. 145; 938, p. 126; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109). 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, 1946: June 4, 63.44; Sept. 20, 63.60; Dec. 21, 62.62.

88 (*886, p. 179; 908, p. 145; 938, p. 126; 946, p. 143; *988, p. 131; 1018, p. 107; 1025, p. 109). H. V. Gerlick. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 31 S., R. 28 W. No measurements made during 1946.

234 (*886, p. 279; 908, p. 145; 938, p. 126; 946, pp. 143-144; *988, p. 131; 1018, p. 88; 1025, p. 109). Christopher Sobba. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 30 S., R. 27 W.

Lowest daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June
1	13.26	13.34	13.41	13.42	.....	14.10
2	13.25	13.34	13.41	13.41	.....	14.10
3	13.24	13.32	13.38	13.44	.....	14.09
4	13.23	13.32	13.39	13.45	.....	14.07
5	13.27	13.35	13.38	13.43	.....	14.02
6	13.31	13.36	13.37	13.42	.....	13.99
7	13.31	13.39	13.38	13.42	.....	13.96
8	13.30	13.40	13.40	13.46	.....	14.00
9	13.31	13.41	13.42	13.46	.....	14.02
10	13.31	13.38	13.42	13.48	.....	14.02

234--Continued.

Lowest daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June
11	13.34	13.36	13.39	13.52	.....	14.01
12	.....	13.34	13.35	13.51	.....	14.03
13	.....	13.36	13.34	13.47	.....	14.05
14	.....	13.36	13.33	13.47	.....	14.02
15	.....	13.35	13.31	13.53	.....	.....
16	.....	13.33	13.36	13.56	.....	.....
17	.....	13.34	13.42	13.59	.....	.....
18	.....	.....	13.43	13.65	.....	.....
19	.....	.....	13.43	13.76	.....	.....
20	13.34	.....	13.41	13.87	.....	.....
21	13.34	.....	13.39	13.92	.....	.....
22	13.34	13.35	13.40	13.93	.....	.....
23	13.33	13.36	13.42	14.06	.....	.....
24	13.33	13.37	13.41	14.07	.....	.....
25	13.29	13.34	13.41	14.10	.....	.....
26	13.33	13.36	13.44	14.18	.....	.....
27	13.33	13.38	13.44	14.30	.....	.....
28	13.33	13.36	13.45	14.36	.....	.....
29	.....	.....	13.42	14.36	.....	.....
30	13.33	.....	13.44	14.32	.....	.....
31	13.31	.....	13.43	.....	14.08	.....

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	7.5	71.65	Feb. 7, 1946	75.45	Jan. 6, 1941
65	7.5	51.76	Nov. 14, 1945	53.75	Mar. 13, 1941
117	7.5	163.24	May 3, 1946	166.48	Aug. 28, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 3 wells in Morton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
22	3.80	+0.15	2.07
65	1.99	-.64	.81
117	3.24	-.24	1.73

22 (*886, p. 181; 908, p. 148; 938, p. 127; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110). A. F. Wilcox. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 31 S., R. 45 W. Water levels, in feet below land-surface datum, 1946: Feb. 7, 71.65; May 3, 71.76; Aug. 16, 71.68; Nov. 22, 71.72.

65 (*886, p. 181; 908, p. 149; 938, p. 127; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110). 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, 1946: Feb. 7, 51.82; May 3, 52.22; Aug. 16, 52.36; Nov. 22, 52.40.

117 (*886, p. 183; 908, p. 150; 938, p. 128; 946, p. 145; *988, p. 133; 1018, p. 108; 1025, p. 110). 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, 1946: Feb. 7, 165.38; May 3, 163.24; Aug. 16, 164.38.

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	6	33.16	June 6, 1941	34.91	Aug. 27, 1940
2	6	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 1946 and for period of record, in 2 wells in Ness County

Well	Difference between highest and lowest levels	Net rise in 1946	Net rise for period of record
1	1.75	0.04	0.81
2	2.63	.75	1.19

1 (*908, p. 181; 938, p. 128; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 110). J. E. Ficken. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 20 S., R. 23 W. Water levels, in feet below land-surface datum, 1946: Jan. 11, 33.27; Apr. 22, 34.17; July 22, 34.37; Oct. 22, 34.10.

2 (*908, p. 151; 938, p. 123; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 110). C. L. Whitley. SW. corner sec. 20, T. 20 S., R. 22 W. Water levels, in feet below land-surface datum, 1946: Jan. 11, 24.92; Apr. 22, 25.03; July 22, 25.67; Oct. 22, 24.21.

Osborne County

By A. R. Leonard

During the fall of 1945 an investigation of the geology and ground-water conditions along the North Fork of Solomon River was started by the Federal Geological Survey as a part of the program of development of the Missouri Basin by the Bureau of Reclamation and other Federal agencies. This investigation was coordinated with the ground-water program that was being carried on in Kansas in cooperation with the State Geological Survey of Kansas, the Division of Sanitation of the Kansas State Board of Health, and the Division of Water Resources of the Kansas State Board of Agriculture. This investigation was continued during the early months of 1946 and ultimately included a narrow area along the North Fork of Solomon River extending from the western edge of Phillips County east and southeast across southern Phillips County, southwestern Smith County, northeastern Osborne County, and northwestern Mitchell County to the confluence of the North and South Forks of the Solomon River, in northwestern Mitchell County.

Quaternary terrace deposits occur along the Solomon River and it is from these sediments and from Recent alluvium that most of the wells along the valley obtain water supplies. Exceptions are wells along the outer slopes of Solomon Valley which may obtain meager water supplies from

weathered or broken chalks or shales of Cretaceous age or from coarse sand and gravel deposits that occur at the base of the Pleistocene Sanborn formation. In the areas bordering the valley, where Cretaceous chalks and shales crop out or occur near the surface, it is extremely difficult to obtain more than a meager supply of water. Many farm ponds have been constructed in these areas to serve as water-supply reservoirs for stock and also to furnish recharge to shallow wells.

In December 1945 biweekly measurements of water levels by the wetted-tape method were started. Two measurements were made in 1945 in five wells in Osborne County, five in Phillips County, and seven in Smith County.

During 1946 the number of observation wells was increased to 6 in Osborne County, 11 in Phillips County, and 8 in Smith County. Biweekly measurements were continued until April, and one measurement was made in June. In September monthly measurements were started and continued until the end of 1946. In October a water-stage recorder was installed on well 6-11-34aa.

Measurements were made by Milton Sears, John Sears, and the writer. In all, 35 individual measurements of water levels were made during 1945 and 298 during 1946.

6-11-34aa. W. E. Lowdon. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 6 S., R. 11 W. Unused dug well, depth 40.8 feet. Measuring point, top of stone platform over well, 0.5 foot above land-surface datum. Water-stage recorder installed in well Oct. 9, 1946; measuring point beginning Oct. 9, top of wooden platform, 0.1 foot above land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 26, 1945	35.98	Feb. 11, 1946	36.69	Apr. 26, 1946	36.92
Dec. 17	36.02	25	36.65	June 11	37.07
Jan. 4, 1946	36.02	Mar. 11	36.70	Sept. 25	36.20
16	35.99	25	36.76	Oct. 31	36.04
28	36.63	Apr. 7	36.82		

6-11-36aa. J. M. Irey. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 36, T. 6 S., R. 11 W. Unused drilled well, diameter 8 inches, depth 35.5 feet. Measuring point, top of casing, north side, at land-surface datum. Equipped with hand-operated cylinder pump.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 15, 1945	32.80	Feb. 11, 1946	32.92	Apr. 26, 1946	33.05
Dec. 17	32.98	25	32.93	June 11	32.82
Jan. 4, 1946	32.91	Mar. 11	32.98	Sept. 25	31.44
16	32.85	25	32.97	Oct. 31	30.98
28	32.90	Apr. 7	32.93	Nov. 25	31.11

6-12-20bb. C. M. Storer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 6 S., R. 12 W. Unused drilled well, diameter 12 inches, depth 55.4 feet. Measuring point, top of casing, west side, 1.5 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Nov. 26, 1945	36.30	Mar. 11, 1946	42.90	June 12, 1946	42.76
Jan. 28, 1946	43.06	25	42.90	Sept. 25	41.68
Feb. 11	43.02	Apr. 7	42.84	Oct. 31	41.57
25	42.89	26	42.85	Nov. 25	41.38

6-12-23cd. C. Fink. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 6 S., R. 12 W. Dug farm well, diameter 36 inches, depth 31.8 feet. Measuring point, top of wooden platform, south side, 0.8 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Nov. 26, 1945	26.84	Feb. 11, 1946	26.94	Apr. 26, 1946	27.17
Dec. 17	26.70	25	26.75	June 12	26.95
Jan. 4, 1946	26.67	Mar. 11	26.77	Sept. 25	25.77
16	26.75	25	26.86	Oct. 31	25.69
28	26.94	Apr. 7	26.84	Nov. 25	25.83

6-12-24aa. L. J. Konzem. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 6 S., R. 12 W. Drilled farm well, depth 49.3 feet. Measuring point, top of wooden platform, 1.0 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Nov. 23, 1945	37.00	Feb. 11, 1946	36.15	Apr. 26, 1946	34.93
Dec. 17	35.36	25	35.10	June 12	34.98
Jan. 4, 1946	35.33	Mar. 11	35.07	Sept. 25	34.09
16	35.34	25	34.76	Oct. 31	33.76
25	36.78	Apr. 7	34.72	Nov. 25	33.68

6-13-12ba. F. L. Smith. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 6 S., R. 13 W. Unused drilled well, depth 47.9 feet. Measuring point, top of wooden platform, east side, 0.2 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Nov. 19, 1945	40.50	Feb. 25, 1946	40.63	June 12, 1946	40.75
Dec. 17	40.80	Mar. 11	40.59	Sept. 25	40.72
Jan. 16, 1946	39.70	25	40.62	Oct. 31	40.47
28	40.64	Apr. 6	40.64	Nov. 25	40.51
Feb. 11	40.67	26	40.69		

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	6	21.33	May 15, 1945	24.02	Nov. 28, 1940
7	6	25.14	June 3, 1944	28.96	Sept. 11, 1946
8	6	12.17	Nov. 25, 1946	18.32	Sept. 20, 1940
10	2.5	8.23	June 6, 1945	12.58	Aug. 21, 1946
14	2.5	16.87	Nov. 25, 1946	17.72	July 21, 1944

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 5 wells in Pawnee County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
6	2.69	-0.30	+1.31
7	3.82	-.73	-.14
8	6.15	+1.10	+4.37
10	4.35	-.71	-.53
14	.85	+.21	+.82

5 (*1018, p. 109; 1025, p. 111). Townsite. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 20 S., R. 17 W. Measurements discontinued Jan. 1, 1946.

6 (*908, p. 151; 938, p. 129; 946, p. 146; *988, p. 134; 1018, p. 109; 1025, p. 111). Frank Elmore. SW. corner sec. 27, T. 21 S., R. 19 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	22.00	Apr. 22	22.19	Aug. 20	23.44	Nov. 25	22.34
Feb. 21	22.35	June 22	22.62	Sept. 11	23.04	Dec. 13	22.28
Mar. 14	22.03	July 22	22.84	Oct. 23	22.83		

7 (*908, p. 151; 938, p. 129; 946, p. 147; *988, p. 134; 1018, p. 109; 1025, p. 111). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	26.93	June 22	28.05	Sept. 11	28.96	Nov. 25	28.02
Mar. 14	26.98	July 22	28.26	Oct. 23	28.34	Dec. 12	27.64
May 22	27.55						

8 (*908, p. 151; 938, p. 129; 946, p. 147; *988, p. 134; 1018, p. 110; 1025, p. 111). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	14.44	Apr. 22	14.49	Sept. 11	16.35	Nov. 25	12.17
Feb. 21	14.33	June 22	16.68	Oct. 22	12.41	Dec. 12	13.42
Mar. 14	14.27						

10 (*1018, p. 110; 1025, p. 111). Townsite. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 23 S., R. 16 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	10.53	Apr. 22	10.24	July 22	12.25	Oct. 24	11.56
Feb. 20	9.95	May 23	9.51	Aug. 21	12.58	Nov. 25	11.09
Mar. 14	9.85	June 22	11.25	Sept. 12	12.30	Dec. 11	10.82

14 (*1018, p. 110; 1025, p. 111). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	17.14	Apr. 22	17.19	July 22	17.18	Oct. 24	16.90
Feb. 21	17.14	May 22	17.17	Aug. 20	17.03	Nov. 25	16.87
Mar. 14	17.22	June 22	17.17	Sept. 12	16.98	Dec. 12	16.90

Phillips County

By A. R. Leonard

The observation-well program which was begun during 1946 in Phillips County, is limited to the Solomon Valley area and is described in the chapter on Osborne County.

4-17-25cd. Minnie Gray. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 4 S., R. 17 W. Drilled farm well, diameter 10 inches, depth 91.0 feet. Measuring point, top of wooden platform, north side, 1.1 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 8	86.12	Apr. 27	85.89	Sept. 25	86.27	Nov. 25	85.99
Apr. 6	85.94	June 12	85.63	Oct. 31	85.98	Dec. 31	85.32

4-17-31bc. C. B. Brower. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 17 W. Bored farm well, diameter 8 inches, depth 61.3 feet. Measuring point, top of concrete curb, south side of pump, 0.8 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 4	51.30	Apr. 27	51.52	Sept. 25	52.06	Nov. 25	51.18
Mar. 25	51.39	June 12	51.56	Oct. 31	51.32	Dec. 31	51.30
Apr. 6	51.36						

4-18-30ab. Owner unknown. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 4 S., R. 18 W. Abandoned dug well, depth 36.5 feet. Measuring point, top of curb, 0.2 foot above land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 4, 1945	19.30	Feb. 25, 1946	19.61	June 12, 1946	19.60
17	19.33	Mar. 11	19.62	Sept. 25	20.29
Jan. 4, 1946	19.35	25	19.54	Oct. 31	18.39
16	19.49	Apr. 6	19.62	Nov. 25	17.95
28	19.48	27	19.56	Dec. 31	18.63
Feb. 11	19.54				

4-19-21dd. F. Kinter. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 4 S., R. 19 W. Dug stock well, depth 20.5 feet. Measuring point, top of wooden platform, 4.0 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 4, 1945	10.88	Feb. 25, 1946	11.50	June 12, 1946	11.86
17	11.40	Mar. 11	11.52	Sept. 25	15.10
Jan. 4, 1946	11.37	25	11.60	Oct. 31	12.73
16	11.45	Apr. 6	11.39	Nov. 25	12.24
28	11.50	27	11.69	Dec. 31	12.39
Feb. 11	11.45				

4-19-35ab. Owner unknown. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 4 S., R. 19 W. Drilled farm well, diameter 10 inches, depth 35.0 feet. Measuring point, top of casing, east side, 1.5 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 21	12.66	Apr. 27	12.54	Sept. 25	13.44	Nov. 25	12.67
Mar. 25	12.57	June 12	12.77	Oct. 31	12.78	Dec. 31	12.73
Apr. 6	12.63						

4-20-21cc. F. Albrecht. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 20 W. Abandoned drilled well, diameter 8 inches, depth 152 feet. Measuring point, top of casing, north side, 1.0 foot above land-surface datum. No pump in well.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6	48.92	Mar. 25	48.75	June 12	48.78	Nov. 25	48.75
25	48.78	Apr. 6	48.76	Sept. 25	48.80	Dec. 31	48.73
Mar. 11	48.79	27	48.79	Oct. 31	48.75		

5-16-3aa. M. W. Hardman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 5 S., R. 16 W. Abandoned dug well, diameter 30 inches, depth 49.5 feet. Measuring point, top of wooden platform, 0.6 foot above land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 20, 1945	44.04	Feb. 25, 1946	44.45	June 12, 1946	44.57
Dec. 17	44.76	Mar. 11	44.48	Sept. 25	44.61
Jan. 4, 1946	44.58	25	44.49	Oct. 31	44.40
16	44.64	Apr. 6	44.50	Nov. 25	44.37
28	44.75	27	44.47	Dec. 31	44.19
Feb. 11	44.65				

5-17-1aa. Public road. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 1, T. 5 S., R. 17 W. Abandoned oil test well, diameter 4 inches, depth 33.8 feet. Measuring point, top of iron pipe, at land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1945	7.60	Feb. 25, 1946	5.67	June 12, 1946	5.39
Dec. 17	6.80	Mar. 11	5.76	Sept. 25	2.26
Jan. 4, 1946	5.62	25	5.91	Oct. 31	1.94
16	5.59	Apr. 6	6.28	Nov. 25	1.45
28	5.54	27	6.98	Dec. 31	3.19
Feb. 11	5.57				

5-17-3cd. Owner unknown. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 5 S., R. 17 W. Abandoned dug well, diameter 60 inches, depth 65.6 feet. Measuring point, top of stone curb, east side, 1.0 foot above land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 23, 1945	11.74	Feb. 25, 1946	22.16	June 12, 1946	27.00
Dec. 17	14.09	Mar. 11	23.35	Sept. 25	6.47
Jan. 4, 1946	15.88	25	24.37	Oct. 31	4.40
16	17.28	Apr. 6	25.21	Nov. 25	4.05
28	18.78	27	26.52	Dec. 31	3.67
Feb. 11	20.76				

5-17-12aa. E. R. Downing and others. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 5 S., R. 17 W. Dug farm well, diameter 36 inches, depth 55.0 feet. Measuring point, top of wooden platform, east side, 1.0 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	52.89	Apr. 27	52.34	Sept. 25	52.26	Nov. 25	52.27
Mar. 25	52.32	June 12	52.25	Oct. 31	52.64	Dec. 31	52.32
Apr. 6	52.21						

5-20-10aa. A. Woltman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 5 S., R. 20 W. Dug farm well, diameter 52 inches, depth 22.8 feet. Measuring point, top of wooden platform, north side, 0.8 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	17.42	Mar. 25	15.89	June 12	14.30	Nov. 25	17.00
Feb. 25	17.60	Apr. 6	14.60	Sept. 25	18.78	Dec. 31	15.73
Mar. 11	15.50	27	15.53	Oct. 31	17.55		

Reno County

By C. C. Williams

An investigation of ground-water conditions in the Arkansas River Valley, in the vicinity of Hutchinson was made in the fall of 1945 in cooperation with the Kansas Geological Survey, the city of Hutchinson, the

Kansas State Board of Health, and the Kansas State Board of Agriculture. A report of the investigation was published by the Kansas Geological Survey in December 1946 (Bull. 64, pt. 5).

As a result of the Survey's investigation, a location for a new and much softer city supply was discovered, and development of the new area is planned by the city. As development proceeds, additional observation wells will be located and measurements reported.

The water level in well 86, in the city, had been observed for several years by the Hutchinson Water Company and measurements are being continued by the Geological Survey.

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	5	10.30	Oct. 26, 1946	19.04	Nov. 7, 1946 Dec. 6, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 1 well in Reno County

Well	Difference between highest and lowest levels	Net decline in 1946	Net decline for period of record
86	8.74	4.84	4.68

86. Mrs. Barb. SWSE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 23 S., R. 6 W. (307 East Sixth Street). Measuring point, top of $\frac{1}{2}$ -inch pipe, 0.2 foot above land-surface datum. No pump on well. Well affected by pumping of Main Street well of water company. Measurements through Sept. 1, 1945, made by Mr. Phillips, of the Hutchinson Water Co.; subsequent measurements made by State and Federal Geological Surveys.

Water level, in feet below land-surface datum, 1941-46

Date	Water level	Date	Water level	Date	Water level
Sept. 1, 1941	17.3	Mar. 1, 1942	12.97	Aug. 1, 1944	15.55
8	17.46	Apr. 1	13.30	Sept. 1	15.55
17	17.63	May 1	12.63	Oct. 1	15.22
23	17.8	June 1	12.8	Nov. 1	15.05
Oct. 7	17.63	July 1	12.97	Jan. 1, 1945	14.22
13	17.55	Aug. 1	13.47	Mar. 1	14.97
23	16.38	Sept. 1	13.22	Apr. 1	14.8
26	10.30	Oct. 1	12.72	May 1	14.38
27	10.55	Nov. 1	12.38	June 1	13.8
31	10.27	Dec. 1	12.46	Sept. 1	14.22
Nov. 1	11.05	Jan. 1, 1943	12.46	Oct. 1	14.20
11	11.30	Feb. 1	12.55	Jan. 1, 1946	14.24
17	11.55	Mar. 1	12.55	Feb. 7	15.03
26	11.55	Apr. 1	13.05	Mar. 5	15.02
Dec. 1	11.55	May 1	13.55	Apr. 11	15.05
15	11.88	June 1	13.72	May 3	15.24
28	11.88	July 1	14.22	31	15.43
Jan. 1, 1942	12.13	Sept. 1	16.55	July 5	15.63
16	12.30	Dec. 1	15.72	Aug. 3	17.40
26	12.55	Feb. 1, 1944	15.97	30	17.68
Feb. 4	12.55	Mar. 1	15.97	Sept. 2	17.74
15	12.63	Apr. 1	15.97	Nov. 7	19.04
22	12.72	July 1	15.72	Dec. 6	19.04

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	5	33.00	Dec. 25, 1944	35.46	Sept. 6, 1942
158	5	11.17	June 25, 1945	15.97	Feb. 25, 1943
188	5	10.70	May 25, 1945	18.40	Nov. 25, 1943
202	5	33.50	Aug. 3, 1943	35.75	Aug. 29, 1943
			Apr. 27, 1946		
209	5	27.35	Aug. 2, 1945	33.74	Jan. 31, 1944
230	5	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 1946 and for period of record, in 6 wells in Republic County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
40	2.46	-0.40	1.06
158	4.80	-.83	1.44
188	7.70	+.90	4.62
202	2.25	+.10	.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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24	34.40	Apr. 23	34.40	July 24	33.90	Nov. 23	34.20
Feb. 23	34.40	May 23	34.20	Aug. 23	34.70	Dec. 23	34.40
Mar. 23	34.00	June 24	34.40	Oct. 23	34.40		

95 (*946, p. 148; *988, p. 135; 1018, p. 111; 1025, p. 112). H. E. Nixon. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 2 S., R. 3 W. Measurements discontinued Jan. 1, 1946.

158 (*946, p. 148; *988, p. 136; 1018, p. 111; 1025, p. 112). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	13.80	Apr. 25	13.98	July 25	13.98	Oct. 25	14.37
Feb. 25	13.84	May 25	14.08	Aug. 25	14.35	Nov. 25	14.54
Mar. 25	13.85	June 25	13.72	Sept. 25	14.42	Dec. 25	14.51

188 (*946, p. 149; *988, p. 136; 1018, p. 111; 1025, p. 112). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	14.20	Apr. 22	14.70	July 28	14.20	Nov. 25	13.50
Feb. 24	14.30	May 20	15.20	Aug. 23	16.10	Dec. 22	13.70
Mar. 1	14.40	June 26	15.40	Oct. 26	15.20		

202 (*946, p. 149; *988, p. 136; 1018, p. 111; 1025, p. 113). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	34.20	Apr. 27	33.50	Aug. 27	34.10	Nov. 28	34.10
Feb. 26	34.30	May 28	34.00	Sept. 30	33.60	Dec. 24	34.10
Mar. 31	34.20	July 1	34.30	Oct. 29	34.10		

209 (*946, p. 149; *988, p. 137; 1018, p. 112; 1025, p. 113). 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, 1946.

Date	Water level	Date	Water level	Date	Water level
Jan. 6	29.70	Mar. 8	29.58	June 6	29.90
Feb. 8	29.50	Apr. 24	29.50	28	30.00

230 (*946, p. 149; *988, p. 137; 1018, p. 112; 1025, p. 113). Lloyd Blosser. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 4 S., R. 4 W. No measurements made in 1946.

Rice County

By O. S. Fent

A survey of the geology and ground-water resources of Rice County, was begun in the fall of 1945 by the State Geological Survey of Kansas and the Federal Geological Survey, in cooperation with the Division of Sanitation of the Kansas State Board of Health and the Division of Water Resources of the Kansas State Board of Agriculture.

Wells in Rice County obtain water from gravel, sand, and silt of alluvial and terrace deposits and from Cretaceous sandstone and Permian shale. Periodic water-level measurements by the wetted-tape method were made in 22 observation wells in 1946 by John M. Sears and the writer.

1. B. J. Good. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 19 S., R. 7 W. Unused dug well, diameter 36 inches, depth 53 feet. Water is obtained from a Cretaceous sandstone. Measuring point, top of wooden platform, west side of pump, 1.0 foot above land-surface datum. Equipped with hand-operated lift pump.

Water level, in feet below land-surface datum, 1946

July 27	44.45	Oct. 4	44.52	Dec. 29	44.68
Sept. 3	44.55	Dec. 5	44.64		

2. J. P. Pulliam. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 19 S., R. 7 W. Unused dug well, diameter 36 inches, depth 41.2 feet. Water is obtained from a sandstone in the Kiowa shale. Measuring point, top of brick curb, southwest side, 0.1 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 20, 35.79; Oct. 4, 35.79; Dec. 5, 35.88.

3. W. M. Myers. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13, T. 19 S., R. 6 W. Unused drilled well, diameter 8 inches, depth 74.2 feet. Water is obtained from Permian shale. Measuring point, top of galvanized-iron casing, south side, 3.0 feet above land surface. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Dec. 14, 1945	40.65	Oct. 4, 1946	40.52	Dec. 29, 1946	41.10
Sept. 17, 1946	40.80	Dec. 5	40.69		

4. Public school district. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 23, T. 20 S., R. 6 W. Unused drilled well, depth 74.7 feet. Water is obtained from the Minnescah shale. Measuring point, top of concrete curb, east side of well opening, 0.3 foot above land-surface datum. Equipped with hand-operated lift pump. Water levels, in feet below land-surface datum, 1946: Sept. 4, 16.95; Oct. 4, 17.55; Dec. 5, 15.33; Dec. 29, 17.98.

5. J. W. Harder. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 20 S., R. 6 W. Unused dug well, diameter 48 inches, depth 21.4 feet. Water is obtained from the Minnescah shale. Measuring point, top of concrete curb, south side, 1.3 feet above land-surface datum. Equipped with windmill and lift pump.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 29, 1945	8.35	Oct. 4, 1946	13.38	Dec. 29, 1946	12.39
Sept. 20, 1946	13.15	Dec. 5	12.20		

6. J. C. Brown. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 21 S., R. 3 W. Unused driven well, diameter 1 $\frac{1}{4}$ inches, depth 13.20 feet. Water is obtained from terrace deposits. Measuring point, top of pitcher pump, north side, 2.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 31, 7.73; Sept. 4, 8.02; Dec. 5, 6.98; Dec. 29, 7.09.

7. F. Kasperek. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 18 S., R. 6 W. Unused drilled well, diameter 6 inches, depth 107.4 feet. Water is obtained from sandstone in the Kiowa shale. Measuring point, top of steel casing, south side, 0.9 foot above land-surface datum.

Water level, in feet below land-surface datum, 1945-46

Nov. 10, 1945	11.98	Oct. 4, 1946	12.31	Dec. 29, 1946	12.32
Sept. 16, 1946	12.32	Dec. 5	11.92		

8. G. J. O'Neill. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 18 S., R. 7 W. Unused dug well, diameter 48 inches, depth 47 feet. Water is obtained from Cretaceous sandstone. Measuring point, top of concrete curb, south side, 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 16, 43.53; Oct. 4, 43.52; Dec. 5, 43.50; Dec. 29, 43.50.

9. C. Dobrinski. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 18 S., R. 8 W. Unused dug well, diameter 36 inches, depth 59.2 feet. Water is obtained from Cretaceous sandstone. Measuring point, top of wooden cover at east side of pump base, at land-surface datum. Equipped with windmill and lift pump. Water levels, in feet below land-surface datum, 1946: Sept. 13, 42.13; Oct. 4, 42.11; Dec. 5, 42.18; Dec. 29, 42.16.

10. O. Brownleewe. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 18 S., R. 9 W. Unused dug well, diameter 36 inches, depth 13.1 feet. Water obtained from terrace deposits. Measuring point, top of concrete curb, southeast corner of manhole, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 3, 10.70; Oct. 4, 11.05; Dec. 5, 10.52; Dec. 29, 10.76.

11. The Bushton News. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 2, T. 18 S., R. 10 W. Unused drilled well, diameter 6 inches, depth 51 feet. Water is obtained from Dakota formation. Measuring point, top of casing, south side, at land-surface datum. Equipped with lift pump.

Water level, in feet below land-surface datum, 1945-46

Dec. 7, 1945	32.53	Sept. 11, 1946	34.66	Dec. 5, 1946	32.76
July 29	34.46	Oct. 4	34.44	29	33.87

12. J. R. Bowman. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 19 S., R. 10 W. Unused drilled well, diameter 8 inches, depth 68 feet. Water is obtained from terrace deposits. Measuring point, top of steel casing, south side, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Dec. 8, 1945, 4.38; July 29, 1946, 7.19; Oct. 4, 1946, 8.00; Dec. 29, 1946, 7.50.

13. H. Thompson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 20 S., R. 10 W. Unused drilled well, diameter 8 inches, depth 29.2 feet. Water is obtained from terrace deposits. Measuring point, top of casing, west side, 0.8 foot above land-surface datum. Equipped with lift pump. Water levels, in feet below land-surface datum, 1946: Sept. 17, 13.33; Oct. 4, 13.59; Dec. 5, 12.85; Dec. 29, 12.70.

14. J. H. Fair. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 28, T. 21 S., R. 9 W. Unused driven well, diameter 1 $\frac{1}{4}$ inches, depth 17.6 feet. Water is obtained from terrace deposits. Measuring point, top of driven pipe, 1.6 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 20, 11.75; Dec. 5, 10.98; Dec. 29, 11.16.

15. R. J. Dill. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 21 S., R. 8 W. Unused drilled well, diameter 14 inches, depth 39 feet. Water is obtained from alluvium. Measuring point, top of concrete block curb, at land-surface datum. Equipped with 8-inch centrifugal pump. Water levels, in feet below land-surface datum, 1946: July 30, 8.38; Oct. 4, 8.53; Dec. 5, 7.43; Dec. 29, 7.55.

16. J. H. Fair. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 20 S., R. 9 W. Unused driven well, diameter 1 $\frac{1}{4}$ inches, depth 17.93 feet. Water is obtained from alluvium. Measuring point, top of concrete platform, east side of opening, 1.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 17, 9.42; Oct. 4, 9.28; Dec. 5, 9.04; Dec. 29, 9.15.

17. J. A. Roesler. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 19 S., R. 8 W. Unused dug well, diameter 30 inches, depth 38.4 feet. Water is obtained from the Dakota formation. Measuring point, top of concrete curb, south side of manhole at land-surface datum. Equipped with windmill and lift pump. Water levels, in feet below land-surface datum, 1946: July 3, 34.10; Oct. 4, 34.32; Dec. 5, 34.66; Dec. 29, 34.52.

18. L. M. Richard. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 18 S., R. 8 W. Unused drilled well, diameter 8 inches, depth 41.15 feet. Water is obtained from the Dakota formation. Measuring point, top of concrete curb, north side, at land-surface datum. Water levels, in feet below land-surface datum: Nov. 19, 1945, 31.46; Oct. 4, 1946, 31.92; Dec. 5, 1946, 31.87; Dec. 29, 1946, 31.63.

19. City of Little River. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 17, T. 19 S., R. 6 W. Unused drilled well, diameter 12 inches, depth 39 feet. Water is obtained from alluvium. Measuring point, top of tile casing, north side, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Oct. 4, 12.43; Dec. 5, 10.78; Dec. 12, 10.28.

20-N. Owner of property, G. G. Green; owner of well, Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W., 288 feet south of Little River city supply well 2. Drilled observation well, diameter 1 $\frac{1}{4}$ inches, depth 50 feet. Water is obtained from sandstone of the Kiowa shale. Measuring point, top of 1 $\frac{1}{4}$ -inch pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 22, 34.83; Oct. 4, 34.69; Dec. 5, 34.55; Dec. 29, 34.57.

20-C. Owner of property, G. G. Green; owner of well, Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W., 288 feet south of well 20-N. Drilled observation well, diameter 1 $\frac{1}{4}$ inches, depth 50 feet. Water is obtained from a sandstone in the Kiowa shale. Measuring point, top of 1 $\frac{1}{4}$ -inch pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 22, 32.35; Oct. 4, 32.30; Dec. 5, 32.25; Dec. 29, 32.23.

20-S. Owner of property, G. G. Green; owner of well, Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 18 S., R. 6 W., 288 feet south of well 20-C. Drilled observation well, diameter 1 $\frac{1}{4}$ inches, depth 50 feet. Water is obtained from a sandstone in the Kiowa shale. Measuring point, top of 1 $\frac{1}{4}$ inch pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 22, 29.60; Oct. 4, 29.57; Dec. 5, 29.43; Dec. 29, 29.27.

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	5	18.39	July 12, 1945	24.28	Aug. 20, 1941
80	5	3.40	Apr. 14, 1942	7.76	June 29, 1943
81	5	101.85	Aug. 29, 1941	134.35	June 29, 1943
95	5	5.83	Sept. 7, 1944	11.38	Dec. 20, 1943
117	5	4.70	Apr. 18, 1942	10.61	Dec. 20, 1943
126	5	31.66	July 10, 1946	38.02	Jan. 13, 1943
146	5	14.59	Apr. 8, 1943	16.20	Sept. 1, 1942
148	5	3.81	Apr. 8, 1943	7.92	Oct. 2, 1941
149	5	18.53	July 12, 1945	21.54	June 29, 1943
152	5	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 1946 and for period of record, in 10 wells in Russell County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
45	5.89	-1.21	+1.59
80	4.36	+1.59	-.05
81	32.50	+7.31	-24.20
95	5.55	+3.16	+3.27
117	5.91	-.83	-.54
126	6.36	+2.53	+2.72
146	1.61	-.24	+1.13
148	4.11	-1.09	+1.97
149	3.01	-1.02	+1.31
152	15.47	-3.57	+9.59

8 (*938, p. 130; 946, p. 150; *988, p. 138; 1018, p. 112; 1025, p. 113). F. C. and A. Ptacek. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 15 S., R. 12 W. Measurements discontinued Jan. 1, 1946.

45 (*938, p. 130; 946, p. 151; *988, p. 138; 1018, p. 113; 1025, p. 114). Jacob Flogler. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 15 S., R. 14 W. Water levels, in feet below land-surface datum, 1946: Jan. 18, 20.99; Apr. 24, 21.47; July 10, 23.56; Oct. 23, 22.69.

80 (*938, p. 130; 946, p. 151; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 17, 5.21; Apr. 24, 5.08; July 10, 5.14; Oct. 23, 4.76.

81 (*938, p. 130; 946, p. 151; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 17, 128.42; July 10, 127.78; Oct. 23, 126.05.

95 (*938, p. 131; 946, p. 151; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 17, 10.51; Apr. 24, 9.70; July 10, 9.22; Oct. 23, 6.01.

117 (*938, p. 131; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 17, 6.73; Apr. 24, 9.21; July 10, 10.13; Oct. 23, 7.12.

126 (*938, p. 131; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 17, 31.70; Apr. 24, 31.68; July 10, 31.66; Oct. 23, 32.40.

146 (*938, p. 131; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 18, 15.56; Apr. 24, 15.52; July 10, 15.65; Oct. 23, 15.67.

148 (*938, p. 131; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: July 10, 6.70; Oct. 23, 6.91.

149 (*938, p. 131; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: July 10, 19.46; Oct. 23, 19.55.

152 (*938, p. 132; 946, p. 152; *988, p. 138; 1018, p. 113; 1025, p. 114). 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, 1946: Jan. 18, 13.48; Apr. 24, 14.57; July 10, 15.96; Oct. 23, 16.86.

Saline County

By E. F. Latta

Fifteen observation wells were constructed in the Smoky Hill River Valley in Saline and McPherson Counties during March and April 1946 in cooperation with the Bureau of Reclamation, as part of the Kanopolis Reservoir project. Of the 15 wells, 11 are in Saline County and 4 are in McPherson County. They consist of 1 $\frac{1}{4}$ -inch galvanized-iron pipe and screened drive points and were put down by John Sears using a hand auger and driving block. Altitudes of the measuring points were determined with a plane table and alidade by C. K. Bayne and Norbert Riebel. All of the wells tap alluvium in the Smoky Hill River Valley.

Periodic measurements of the water level in the 15 wells by the wetted-tape method were started in July 1946, and 116 measurements, in all, were made during the year by John Sears.

15-2-17. Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 15 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 30.7 feet. Measuring point, top of pipe, 0.4 foot above land-surface datum, and 1,261.6 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 28	23.73	Aug. 1	24.75	Oct. 1	23.92	Dec. 2	22.72
July 3	24.56	Sept. 5	24.49	Nov. 4	22.79	23	23.08

15-2-18. Geol. Survey, U. S. Dept. of Interior. SE. corner SW $\frac{1}{4}$ sec. 18, T. 15 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 43.7 feet. Measuring point, top of pipe, 1.4 feet above land-surface datum, and 1,262.7 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 29	24.12	Aug. 1	24.82	Oct. 1	24.25	Dec. 2	22.92
July 3	24.73	Sept. 5	24.98	Nov. 4	22.9	23	23.27

15-2-30. Geol. Survey, U. S. Dept. of Interior. SE. corner SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 15 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 37 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 1,267.8 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27	21.38	Aug. 1	22.35	Oct. 1	21.89	Dec. 2	20.96
July 3	22.05	Sept. 5	22.42	Nov. 4	20.99	Dec. 23	21.21

15-3-24. Geol. Survey, U. S. Dept. of Interior. SE. corner sec. 24, T. 15 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 36.8 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum, and 1,264.9 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27	18.9	Aug. 1	19.88	Oct. 1	20.5	Dec. 2	19.19
July 3	19.48	Sept. 5	19.75	Nov. 4	19.76	Dec. 23	19.28

15-3-36. Geol. Survey, U. S. Dept. of Interior. NW. corner NE $\frac{1}{4}$ sec. 36, T. 15 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 45.9 feet. Measuring point, top of pipe, 1.1 feet above land-surface datum, and 1,275.4 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 26	25.3	Aug. 1	27.12	Oct. 1	26.96	Dec. 2	26.62
July 3	26.7	Sept. 5	27.16	Nov. 4	26.81	Dec. 23	26.64

16-2-7. Geol. Survey, U. S. Dept. of Interior. NW. corner sec. 7, T. 16 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 31.2 feet. Measuring point, top of pipe, 0.8 foot above land-surface datum, and 1,279.6 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	20.2	Aug. 1	22.08	Oct. 1	20.84	Dec. 2	19.97
July 3	20.84	Sept. 5	21.25	Nov. 4	20.22	Dec. 23	20.09

16-2-18. Geol. Survey, U. S. Dept. of Interior. SW. corner sec. 18, T. 16 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 38.1 feet. Measuring point, top of pipe, 0.9 foot above land-surface datum, and 1,284.2 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	25.8	Aug. 1	26.18	Oct. 1	25.32	Dec. 2	23.74
July 3	26.3	Sept. 5	26.35	Nov. 4	23.39	Dec. 23	24.36

16-2-19. Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 19, T. 16 S., R. 2 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 38 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 1,279.8 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21	23.9	Aug. 1	24.18	Oct. 1	23.18	Dec. 2	21.59
July 3	23.38	Sept. 5	24.35	Nov. 4	21.00	Dec. 23	22.39

16-3-13. Geol. Survey, U. S. Dept. of Interior. Sk $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 16 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{4}$ inches, depth 47.4 feet. Measuring point, top of pipe, 1.3 feet above land-surface datum, and 1,283.9 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	20.7	Aug. 1	24.17	Oct. 1	23.92	Dec. 2	22.77
July 3	23.96	Sept. 5	24.33	Nov. 4	23.14	Dec. 23	22.78

16-3-26. Geol. Survey, U. S. Dept. of Interior. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 26, T. 16 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{2}$ inches, depth 27.8 feet. Measuring point, top of pipe, 1.3 feet above land-surface datum, and 1,304.3 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	20.6	Aug. 1	21.27	Oct. 1	20.57	Dec. 2	19.0
July 3	21.13	Sept. 5	21.39	Nov. 4	19.06	23	19.35

16-3-34. Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 34, T. 16 S., R. 3 W. Driven observation well, diameter 1 $\frac{1}{2}$ inches, depth 45.9 feet. Measuring point, top of pipe, 1.1 feet above land-surface datum, and 1,311.2 feet above sea level.

Water level, in feet below land-surface datum, 1946

July 3	22.56	Sept. 5	22.98	Nov. 4	21.14	Dec. 23	21.19
Aug. 1	22.74	Oct. 1	22.31	Dec. 2	20.92		

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	15	55.89	May 14, 1934	68.05	Aug. 8, 1946
1-A	6	53.42	May 16, 1934 Aug. 16, 1940 Aug. 18, 1940	57.84	Oct. 10, 1946 Oct. 11, 1946 Oct. 12, 1946
2	13	30.95	Apr. 25, 1939	39.44	Oct. 3, 1946
2-A	2.5	31.58	Aug. 10, 1944	38.33	Sept. 16, 1946
3	7	67.94	May 30, 1934	77.93	Aug. 21, 1945
9	7	47.77	Sept. 8, 1939	54.12	Sept. 6, 1946
19	7	45.38	Apr. 18, 1940	53.07	Sept. 6, 1946
32	7	37.79	Apr. 20, 1939 Apr. 22, 1939	43.97	Oct. 3, 1946
39	7	67.88	Dec. 18, 1946	68.76	Apr. 16, 1943
48	7	30.12	Aug. 10, 1944	31.52	Apr. 24, 1944
50	7	96.29	Dec. 18, 1946	97.95	Aug. 6, 1943

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 11 wells in Scott County.

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
1	12.16	-1.02	-8.30
1A	4.42	-.63	-3.80
2	8.49	-1.33	-7.81
2A	6.75	-.82	-4.21
3	9.99	-3.21	-4.20
9	6.35	-1.12	-5.28
19	7.69	-1.48	-2.84
32	6.18	+.70	-4.41
39	.88	+.63	+.65
48	1.40	+.74	+.36
50	1.66	+.66	+1.45

1 (*886, p. 187; 908, p. 157; 938, p. 133; 946, p. 154; *988, p. 139; 1018, p. 114; 1025, p. 115). Mrs. Rosine Smith. NW. corner sec. 9, T. 20 S., R. 33 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	63.70	Apr. 26	63.57	July 8	64.17	Oct. 3	65.28
Feb. 14	63.63	May 8	63.74	Aug. 8	68.05	Nov. 13	64.98
Mar. 21	63.54	June 8	64.47	Sept. 6	65.96	Dec. 18	64.83

1A (*908, p. 157; 938, p. 134; 946, p. 155; *988, p. 140; 1018, p. 114; 1025, p. 115). Division of Water Resources, Kansas State Board of Agriculture. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 20 S., R. 33 W.

Mean daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	56.60	56.53	56.64	56.66	56.68	56.79	56.96	57.07	57.43	57.68	57.61	57.40
2	56.60	56.54	56.65	56.66	56.68	56.80	56.97	57.08	57.45	57.70	57.60	57.40
3	56.60	56.54	56.65	56.67	56.68	56.80	56.97	57.09	57.46	57.72	57.59	57.39
4	56.59	56.54	56.66	56.67	56.69	56.81	56.98	57.10	57.48	57.79	57.59	57.39
5	56.59	56.54	56.66	56.67	56.69	56.82	56.98	57.12	57.51	57.80	57.57	57.39
6	56.59	56.54	56.66	56.67	56.69	56.82	56.98	57.13	57.53	57.81	57.54	57.38
7	56.59	56.54	56.66	56.67	56.69	56.83	56.99	57.14	57.52	57.81	57.54	57.37
8	56.58	56.55	56.66	56.67	56.68	56.84	56.99	57.15	57.52	57.82	57.53	57.36
9	56.58	56.55	56.66	56.67	56.69	56.85	57.00	57.16	57.53	57.82	57.53	57.35
10	56.58	56.54	56.66	56.67	56.69	56.85	57.00	57.17	57.53	57.84	57.52	57.34
11	56.58	56.54	56.66	56.66	56.69	56.86	57.00	57.18	57.53	57.84	57.52	57.33
12	56.57	56.55	56.67	56.65	56.69	56.87	57.00	57.19	57.54	57.84	57.52	57.33
13	56.57	56.57	56.67	56.65	56.68	56.88	57.01	57.20	57.55	57.83	57.51	57.32
14	56.57	56.57	56.67	56.65	56.68	56.88	57.01	57.21	57.55	57.82	57.50	57.32
15	56.57	56.57	56.67	56.66	56.69	56.88	57.01	57.22	57.55	57.82	57.50	57.32
16	56.56	56.58	56.67	56.66	56.70	56.88	57.02	57.22	57.55	57.81	57.50	57.32
17	56.56	56.59	56.67	56.67	56.69	56.89	57.02	57.23	57.55	57.82	57.49	57.32
18	56.55	56.61	56.67	56.67	56.70	56.89	57.03	57.24	57.56	57.81	57.48	57.31
19	56.56	56.62	56.68	56.67	56.70	56.90	57.03	57.26	57.57	57.81	57.47	57.30
20	56.56	56.62	56.67	56.67	56.70	56.90	57.03	57.27	57.57	57.80	57.45	57.30
21	56.55	56.63	56.67	56.67	56.70	56.90	57.04	57.28	57.58	57.79	57.45	57.30
22	56.54	56.63	56.67	56.67	56.70	56.91	57.04	57.29	57.59	57.77	57.44	57.30
23	56.54	56.63	56.66	56.67	56.70	56.90	57.04	57.31	57.60	57.75	57.43	57.29
24	56.53	56.63	56.66	56.67	56.71	56.90	57.04	57.32	57.62	57.73	57.43	57.29
25	56.53	56.63	56.66	56.67	56.72	56.91	57.04	57.33	57.63	57.71	57.42	57.28
26	56.52	56.64	56.66	56.68	56.73	56.92	57.05	57.33	57.64	57.70	57.42	57.27
27	56.52	56.64	56.66	56.68	56.74	56.92	57.05	57.35	57.65	57.69	57.42	57.25
28	56.52	56.64	56.65	56.68	56.74	56.93	57.05	57.36	57.66	57.67	57.41	57.25
29	56.52		56.65	56.68	57.75	56.94	57.06	57.38	57.66	57.64	57.41	57.24
30	56.52		56.66	56.68	56.77	56.95	57.06	57.40	57.67	57.62	57.41	57.24
31	56.52		56.66		56.78		57.07	57.42		57.62		57.22

2 (*886, p. 191; 908, p. 158; 938, p. 134; 946, p. 155; *988, p. 140; 1018, p. 115; 1025, p. 116). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	38.01	May 8	38.72	Aug. 8	39.35	Nov. 8	36.99
Feb. 14	37.81	June 8	39.03	Sept. 6	39.11	Dec. 18	39.26
Mar. 21	38.08	July 8	38.38	Oct. 3	39.44		

2A (*1018, p. 115; 1025, p. 116). Division of Water Resources, Kansas State Board of Agriculture.

Mean daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
1	34.96	34.62	34.86	35.21	35.37	36.29	36.23	36.90	38.25	38.01	.....
2	34.95	34.60	34.91	35.21	35.46	36.27	36.24	37.00	38.24	37.96	.....
3	34.94	34.59	34.94	35.22	35.57	36.25	36.26	37.07	38.24	37.95	.....
4	34.92	34.57	34.99	35.22	35.65	36.22	36.23	37.10	38.25	37.92	.....

2A--Continued.

Mean daily water level, in feet below land-surface datum, 1946											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Dec.
5	34.91	34.55	35.03	35.21	35.72	36.18	36.21	37.12	38.27	37.89	.....
6	34.90	34.57	35.05	35.20	35.78	36.15	36.19	37.17	38.28	37.88	.....
7	34.90	34.55	35.08	35.19	35.82	36.12	36.17	37.24	38.29	37.84	.....
8	34.88	34.55	35.10	35.17	35.82	36.11	36.15	37.30	38.30	37.82	.....
9	34.86	34.54	35.10	35.14	35.82	36.10	36.13	37.36	38.31	37.80	.....
10	34.84	34.53	35.10	35.13	35.82	36.11	36.11	36.42	38.32	37.76	.....
11	34.83	34.51	35.08	35.15	35.84	36.10	36.10	37.46	38.32	37.75	.....
12	34.83	34.50	35.08	35.15	35.85	36.13	36.08	37.47	38.31	37.72	.....
13	34.81	34.50	35.08	35.13	35.87	36.21	36.06	37.48	38.31	37.70	.....
14	34.80	34.50	35.08	35.11	35.89	36.25	36.05	37.49	38.32	37.66	.....
15	34.79	34.50	35.07	35.10	35.92	36.26	36.05	37.53	38.32	37.63	.....
16	34.76	34.48	35.07	35.09	35.94	36.28	36.05	37.60	38.33	37.60	.....
17	34.75	34.48	35.09	35.09	35.97	36.29	36.03	37.66	38.32	37.55	.....
18	34.73	34.47	35.10	35.08	35.99	36.30	36.04	37.69	38.32	37.51	.....
19	34.72	34.48	35.10	35.12	36.01	36.30	36.06	37.75	38.32	37.50	35.94
20	34.71	34.51	35.09	35.17	36.02	36.32	36.09	37.80	38.32	37.46	35.94
21	34.71	34.56	35.09	35.20	36.03	36.32	36.13	37.87	38.30	37.41	35.93
22	34.69	34.61	35.11	35.21	36.05	36.30	36.16	37.95	38.28	37.38	35.90
23	34.68	34.67	35.13	35.22	36.06	36.31	36.21	38.02	38.26	37.35	35.89
24	34.69	34.73	35.14	35.21	36.08	36.30	36.26	38.11	38.24	.....	35.88
25	34.68	34.75	35.15	35.20	36.13	36.28	36.30	38.17	38.21	.....	35.85
26	34.70	34.78	35.16	35.20	36.18	36.25	36.34	38.21	38.16	.....	35.82
27	34.67	34.81	35.16	35.21	36.23	36.23	36.42	38.21	38.13	.....	35.79
28	34.66	34.83	35.16	35.23	36.27	36.22	36.50	38.21	38.11	.....	35.81
29	34.64		35.16	35.27	36.30	36.24	36.60	38.21	39.07	.....	35.81
30	34.64		35.18	35.33	36.30	36.25	36.70	38.21	38.05	.....	35.79
31	34.64		35.19		36.30		36.80	38.22	.....	35.79	

3 (*886, p. 194; 908, p. 158; 938, p. 135; 946, p. 156; *988, p. 141; 1018, p. 116; 1025, p. 116). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	71.15	May 8	72.79	July 8	72.85	Nov. 8	76.58
Feb. 14	72.45	June 8	73.02	Oct. 3	77.23	Dec. 18	74.48
Mar. 20	71.53						

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). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	51.95	Apr. 26	52.20	July 8	51.72	Oct. 3	53.64
Feb. 14	52.02	May 8	52.33	Aug. 8	53.39	Nov. 13	53.18
Mar. 21	53.03	June 8	52.68	Sept. 6	54.12	Dec. 18	53.05

19 (*886, p. 195; 908, p. 160; 938, p. 136; 946, p. 156; *988, p. 141; 1018, p. 116; 1025, p. 117). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	48.40	June 8	49.93	Sept. 6	53.07	Nov. 8	50.64
Mar. 20	48.98	July 8	49.56	Oct. 3	51.82	Dec. 18	49.93
Apr. 25	49.79						

32 (*886, p. 196; 908, p. 160; 938, p. 136; 946, p. 157; *988, p. 141; 1018, p. 116; 1025, p. 117). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	42.77	Apr. 26	42.36	July 8	43.25	Oct. 3	43.97
Feb. 14	42.73	May 8	42.96	Aug. 8	43.50	Nov. 8	42.91
Mar. 21	42.68	June 8	43.24	Sept. 6	43.93	Dec. 18	42.20

39 (*886, p. 197; 908, p. 162; 938, p. 138; 946, p. 157; *988, p. 142; 1018, p. 116; 1025, p. 117). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 16	68.35	Apr. 26	68.35	Nov. 8	68.04
Feb. 14	68.33	July 8	68.37	Dec. 18	67.88

48 (*886, p. 198; 908, p. 162; 938, p. 138; 946, p. 158; *988, p. 142; 1018, p. 116; 1025, p. 117). P. 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 16	30.99	Mar. 20	30.82	Nov. 8	30.16
Feb. 14	31.02	Oct. 3	31.13		

50 (*886, p. 198; 908, p. 163; 938, p. 138; 946, p. 158; *988, p. 142; 1018, p. 117; 1025, p. 117). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	96.94	Apr. 26	97.00	Oct. 4	97.16	Dec. 18	96.29
Feb. 14	96.98	July 8	97.00	Nov. 8	96.78		

Sedgwick County

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 32 wells in Sedgwick County

Well	Length of record (years)	Highest level	Date	Lowest level	Date
11	9	51.34	Aug. 4, 1945	60.34	July 4, 1938
12	9	11.06	May 7, 1944	18.99	Apr. 1, 2, 8, 9, 11, 12, 1938
26	9	6.05	May 8, 1944	23.18	Jan. 29, 1940
28	9	9.99	May 7, 1944	19.08	Feb. 1, 1938
307	9	9.08	May 4, 1945	14.18	Dec. 16, 1946
			May 12, 1945		
			May 13, 1945		
			May 20, 1945		
502	4	12.49	Mar. 20, 1944	26.70	Aug. 30, 1946
800	8	6.80	Jan. 3, 1946	19.69	Apr. 3, 1940
802	8	1.96	May 11, 1942	8.20	July 30, 1946
804	8	.59	May 2, 1945	5.20	Sept. 26, 1946
805	8	1.57	May 2, 1945	6.27	Sept. 26, 1946
806	8	14.57	May 2, 1945	17.61	Nov. 5, 1940
807	8	19.45	May 8, 1944	23.04	Jan. 2, 1941
808	8	19.94	Oct. 4, 1945	23.47	Mar. 4, 1941
809	8	6.77	Apr. 29, 1944	14.68	Jan. 2, 1941
810	8	1.94	Apr. 28, 1944	13.38	Aug. 30, 1940
811	8	3.69	May 6, 1944	9.57	July 8, 1946
812	8	6.90	May 4, 1945	12.62	Jan. 10, 1941
814	8	9.72	May 4, 1945	17.11	Dec. 3, 1940
					Jan. 2, 1941
					Feb. 3, 1941
					Mar. 4, 1941
					May 1, 1941
815	8	7.65	May 11, 1945	14.04	Jan. 24, 1941
816	8	5.32	Oct. 8, 1945	12.51	Jan. 31, 1941
					Jan. 24, 1941
					Jan. 31, 1941
825	8	5.49	May 4, 1945	14.53	Nov. 5, 1940
826	8	2.12	May 9, 1944	13.01	Nov. 5, 1940
830	8	23.79	May 2, 1945	28.62	Oct. 3, 1940

a Affected by pumping in nearby well field.

Highest and lowest water levels for the period of record, in feet below land-surface datum, in 32 wells in Sedgwick County--Continued

Well	Length of record (years)	Highest level	Date	Lowest level	Date
834	8	5.87	May 8, 1944	11.70	Oct. 3, 1940
838	8	20.83	May 29, 1945	26.91	Nov. 5, 1940
840	8	.53	Sept. 30, 1945	8.28	Dec. 9, 1946
842	8	1.39	Oct. 4, 1945	7.62	Sept. 26, 1946
845	8	8.20	May 8, 1944	15.95	Apr. 3, 1940
846	8	11.35	May 8, 1944	17.35	Apr. 3, 1940
847	8	10.55	May 8, 1944	17.59	Apr. 3, 1940
870	8	1.64	Nov. 9, 1945	8.30	May 1, 1941
2089	4	9.91	May 8, 1944	16.32	Nov. 5, 1940
					Dec. 9, 1946

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 32 wells in Sedgwick County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
11	9.00	-0.08	+3.80
12	7.93	-2.25	+1.02
26	17.13	+4.0	+5.25
28	9.09	-1.99	+3.57
307	5.10	-4.00	-1.52
502	14.21	+2.90	+3.24
800	12.89	-3.96	+3.83
802	6.24	-.19	-2.79
804	4.61	-1.01	-2.07
805	4.70	-1.95	-2.15
806	3.04	+.11	+1.12
807	3.59	-2.40	-.47
808	3.53	-1.66	+1.59
809	7.91	-4.12	-1.27
810	11.44	-1.40	-1.89
811	5.88	-1.61	-1.12
812	5.72	-3.39	-1.05
814	7.39	-3.71	+1.78
815	6.39	-3.61	+.58
816	7.19	-4.69	-.32
825	9.04	-2.79	+2.74
826	10.89	-2.94	-.79
830	4.83	-2.50	-3.35
834	5.83	-1.74	+.52
838	6.08	-3.81	+.20
840	7.75	-3.76	+3.11
842	6.23	-3.36	-.89
845	7.75	+.45	+.40
846	6.00	+.16	-.41
847	7.04	-.08	-.57
870	6.66	-1.70	-.26
2089	6.41	-1.63	-4.45

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). J. H. Heim. SE. corner sec. 22, T. 26 S., R. 3 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	55.39	Apr. 2	55.05	July 2	55.40	Nov. 6	55.52
Feb. 5	55.43	May 2	55.21	30	55.59	Dec. 3	55.44
Mar. 6	55.22	28	55.36	Sept. 26	55.54		

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). 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, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.34	15.53	15.78	15.97	16.19	16.48	16.64	16.88	17.12	17.36	17.48	17.55
2	15.35	15.54	15.80	15.97	16.20	16.49	16.64	16.87	17.12	17.36	17.49	17.57
3	15.37	15.54	15.79	15.98	16.20	16.50	16.64	16.89	17.13	17.37	17.51	17.57
4	15.37	15.54	15.81	16.00	16.21	16.51	16.65	16.90	17.14	17.37	17.51	17.57
5	15.37	15.57	15.81	15.99	16.21	16.51	16.65	16.89	17.15	17.38	.....	17.57
6	15.41	15.58	15.83	16.01	16.28	16.52	16.66	16.90	17.16	17.39	.....	17.57
7	15.42	15.58	15.84	16.01	16.24	16.52	16.67	16.90	17.17	17.40	.....	17.57
8	15.39	15.60	15.85	16.02	16.24	16.53	16.68	16.92	17.17	17.40	.....	17.58
9	15.42	15.62	15.86	16.03	16.25	16.54	16.69	16.92	17.17	17.41	.....	17.59
10	15.43	15.61	15.87	16.04	16.25	16.55	16.70	16.93	17.19	17.42	17.50	17.60
11	15.44	15.62	15.84	16.06	16.27	16.56	16.72	16.93	17.18	17.43	17.51	17.60
12	15.45	15.63	15.86	16.06	16.27	16.56	16.72	16.94	17.19	17.43	17.50	17.61
13	15.43	15.64	15.87	16.05	16.28	16.58	16.73	16.96	17.19	17.44	17.46	17.61
14	15.42	15.66	15.88	16.07	16.29	16.58	16.74	16.97	17.19	17.44	17.44	17.57
15	15.45	15.66	15.88	16.08	16.30	16.58	16.75	16.98	17.19	17.45	17.47	17.53
16	15.42	15.67	15.89	16.09	16.31	16.59	16.75	16.98	17.20	17.45	17.49	17.54
17	15.46	15.69	15.91	16.10	16.32	16.60	16.75	16.99	17.21	17.46	17.48	17.55
18	15.44	15.68	15.91	16.11	16.33	16.60	16.77	17.00	17.21	17.47	17.48	17.54
19	15.44	15.70	15.92	16.11	16.36	16.61	16.78	17.01	17.23	17.48	17.48	17.51
20	15.47	15.71	15.92	16.12	16.41	16.62	16.79	17.02	17.22	17.47	17.51	17.51
21	15.48	15.71	15.91	16.13	16.41	16.60	16.78	17.03	17.23	17.45	17.53	17.52
22	15.47	15.71	15.92	16.13	16.41	16.59	16.78	17.04	17.24	17.46	17.51	17.51
23	15.48	15.73	15.93	16.14	16.42	16.59	16.80	17.04	17.25	17.46	17.53	17.52
24	15.50	15.74	15.92	16.15	16.43	16.57	16.81	17.05	17.25	17.46	17.53	17.53
25	15.51	15.71	15.93	16.16	16.44	16.58	16.82	17.06	17.26	17.46	17.52	17.53
26	15.53	15.75	15.94	16.16	16.44	16.60	16.82	17.07	17.27	17.47	17.52	17.52
27	15.53	15.76	15.96	16.16	16.44	16.61	16.83	17.08	17.27	17.47	17.53	17.53
28	15.54	15.77	15.96	16.17	16.45	16.61	16.84	17.09	17.28	17.46	17.53	17.55
29	15.47		15.95	16.17	16.45	16.63	16.85	17.11	17.30	17.46	17.54	17.56
30	15.51		15.97	16.18	16.46	16.63	16.86	17.10	17.35	17.47	17.55	17.58
31	15.52		15.97		16.46		16.86	17.11		17.48		17.58

26 (*840, p. 105; 845, p. 127; 886, p. 217; 908, p. 166; 938, p. 141; 946, p. 161; *988, p. 144; 1018, p. 119; 1025, p. 119). 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, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.38	11.18	11.11	11.64	11.96	.....	11.71	13.07	12.11	11.62	10.77	10.80
2	11.39	11.18	11.12	11.65	11.98	.....	11.68	12.26	12.10	11.63	10.82	10.82
3	11.35	11.16	11.08	11.71	11.98	11.66	11.60	12.26	12.14	11.65	10.85	10.84
4	11.34	11.18	.....	11.73	12.01	11.57	11.46	13.14	12.11	11.65	10.88	10.85
5	11.25	11.20	.....	.....	11.99	11.65	11.51	13.51	12.11	11.65	.....	10.86
6	11.17	11.20	.....	.....	12.01	11.59	11.57	13.41	12.36	11.47	.....	10.86
7	11.14	11.19	.....	.....	12.07	11.59	11.59	12.98	12.23	11.32	.....	10.87
8	11.13	11.23	.....	11.74	12.02	11.59	11.59	13.70	12.13	11.30	.....	10.88
9	11.10	11.26	.....	11.75	12.05	11.51	11.69	13.79	12.14	11.28	.....	10.93
10	11.07	11.20	.....	11.78	12.04	11.51	11.67	13.58	12.05	11.23	10.81	10.90
11	11.02	11.27	.....	11.80	12.03	11.33	11.68	12.63	12.00	11.13	10.61	10.90
12	11.00	11.22	11.67	11.77	12.00	11.35	11.69	12.43	12.00	10.34	10.50	10.90
13	11.00	11.24	11.69	11.79	12.00	11.38	12.87	12.37	11.56	9.84	10.32	10.87
14	11.01	11.24	11.69	11.80	.....	11.39	.....	12.30	11.10	9.48	10.20	10.83
15	11.03	11.27	11.67	11.82	.....	11.41	12.51	13.58	10.99	9.12	10.26	10.84
16	11.02	11.24	11.67	11.83	.....	11.42	12.13	13.39	11.01	9.26	10.30	10.90
17	11.07	11.24	11.67	11.81	.....	12.72	12.82	13.10	11.10	9.50	10.36	10.92
18	11.13	11.22	11.67	11.82	.....	12.84	13.56	12.33	11.18	9.72	10.36	10.92
19	11.05	11.20	11.66	11.83	.....	12.16	13.50	12.31	11.23	9.91	10.37	10.93
20	11.07	11.20	11.66	11.85	11.47	11.80	13.03	12.29	11.29	9.97	10.41	10.96
21	11.12	11.16	11.64	11.87	11.48	11.64	12.07	12.20	11.28	9.97	10.49	11.00
22	11.08	11.16	11.64	11.90	.....	11.60	13.21	12.20	11.33	9.93	10.51	11.01
23	11.12	11.18	11.63	11.87	.....	11.60	13.70	12.19	11.40	10.01	10.52	11.02
24	11.12	11.14	11.62	11.87	.....	11.60	13.71	12.18	11.42	10.05	10.58	11.06
25	11.12	11.13	11.63	11.89	.....	11.62	13.80	12.17	11.45	10.26	10.69	11.05
26	11.14	11.09	11.62	11.90	.....	11.64	13.76	12.16	11.47	10.38	10.67	11.10

26--Continued.

Lowest daily water level, in feet below land-surface datum, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	11.13	11.09	11.62	11.92	.....	11.64	12.99	12.16	11.50	10.47	10.71	11.08
28	11.19	11.08	11.62	11.96	.....	11.65	12.98	12.14	11.54	10.62	10.72	11.11
29	11.13		11.63	11.94	.....	11.65	13.03	12.13	11.54	10.64	10.78	11.11
30	11.19		11.67	11.95	.....	11.66	13.33	12.12	11.58	10.71	10.78	11.09
31	11.19		11.65		.....		13.26	12.11		10.74		11.12

28 (*840, p. 106; 845, p. 127; 886, p. 218; 908, p. 167; 938, p. 141; 946, p. 161; *988, p. 145; 1018, p. 119; 1025, p. 120. Ada M. Davis.
NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 1, T. 25 S., R. 1 W. Measurements discontinued after
July 30, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	12.40	Mar. 6	12.23	May 2	12.15	July 2	13.46
Feb. 8	12.43	Apr. 2	11.52	28	12.53	30	14.72

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. 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, 1946

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.07	9.70	10.06	10.17	10.43	10.74	11.48	12.39	13.01	13.51	13.77	13.95
2	10.03	9.70	10.06	10.19	10.43	10.77	11.50	12.39	13.01	13.53	13.77	13.97
3	10.02	9.66	10.05	10.25	10.44	10.78	11.52	12.42	13.01	13.53	13.77	13.99
4	10.02	9.66	10.04	10.27	10.45	10.81	11.52	12.43	13.04	13.55	13.77	.....
5	9.90	9.73	10.04	10.26	10.45	10.82	11.56	12.48	13.08	13.58	.....	.....
6	9.83	9.74	10.02	10.29	10.49	10.86	11.60	12.51	13.10	13.58	.....	.....
7	9.84	9.74	10.02	10.28	10.49	10.91	11.60	12.54	13.13	13.56	.....	.....
8	9.81	9.81	10.06	10.34	10.49	10.96	11.63	12.58	13.15	13.57	.....	.....
9	9.76	9.81	10.06	10.34	10.48	10.99	11.64	12.62	13.17	13.57	.....	.....
10	9.73	9.85	10.06	10.33	10.48	11.03	11.69	12.65	13.16	13.57	13.78	.....
11	9.65	9.85	10.00	10.34	10.47	11.07	11.72	12.66	13.17	13.57	13.79	.....
12	9.68	9.83	9.92	10.34	10.46	11.12	11.75	12.66	13.18	13.58	13.81	.....
13	9.65	9.86	9.93	10.32	10.44	11.15	11.77	12.68	13.20	13.58	13.81	.....
14	9.68	9.90	9.94	10.32	10.44	11.17	11.77	12.71	13.22	13.61	13.81	.....
15	9.67	9.92	9.95	10.34	10.46	11.22	11.82	12.71	13.21	13.62	13.81	.....
16	9.65	9.95	9.95	10.35	10.47	11.26	11.86	12.75	13.23	13.62	13.82	14.18
17	9.70	9.96	10.09	10.36	10.46	11.29	11.89	12.77	13.26	13.62	13.84	.....
18	9.69	9.95	10.10	10.36	10.46	11.30	11.91	12.76	13.26	13.62	13.84	.....
19	9.64	9.98	10.11	10.36	10.47	11.27	11.96	12.79	13.26	13.63	13.84	.....
20	9.69	9.99	10.11	10.36	10.53	11.25	12.00	12.82	13.25	13.65	13.85	.....
21	9.72	9.97	10.09	10.36	10.53	11.23	12.01	12.85	13.25	13.67	13.88	.....
22	9.71	9.97	10.11	10.38	10.52	11.24	12.05	12.86	13.24	13.68	13.88	.....
23	9.74	10.01	10.11	10.38	10.49	11.28	12.09	12.86	13.25	13.69	13.89	14.13
24	9.74	10.01	10.10	10.38	10.57	11.28	12.13	12.89	13.27	13.69	13.91	14.12
25	9.69	9.97	10.11	10.39	10.61	11.32	12.17	12.89	13.28	13.69	13.91	14.11
26	9.75	10.02	10.14	10.39	10.62	11.37	12.20	12.87	13.32	13.72	13.89	14.11
27	9.74	10.04	10.14	10.39	10.65	11.38	12.23	12.90	13.34	13.72	13.90	14.10
28	9.73	10.02	10.14	10.41	10.65	11.41	12.28	12.91	13.35	13.73	13.92	14.07
29	9.69		10.16	10.42	10.64	11.42	12.30	12.94	13.36	13.75	13.94	14.06
30	9.71		10.19	10.42	10.67	11.44	12.32	12.96	13.38	13.75	13.95	16.06
31	9.71		10.19		10.70		12.37	12.98		13.75		14.06

502 (*988, p. 146; 1018, p. 120; 1025, p. 121). Kansas Gas & Electric Co. NW corner sec. 29, T. 26 S., R. 1 E. Pumping during all measurements.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	23.60	May 2	25.70	July 31	23.20	Nov. 7	24.50
31	24.50	June 7	26.60	Aug. 30	26.70	Dec. 3	21.00
Apr. 1	24.60	July 1	26.50	Oct. 1	22.40		

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). City of Wichita. SW. corner sec. 33, T. 26 S., R. 1 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	6.80	Apr. 2	12.12	July 2	13.20	Nov. 6	14.86
Feb. 8	11.21	May 2	12.30	30	13.73	Dec. 3	15.08
Mar. 6	12.56	28	12.72	Sept. 26	14.50		

802 (*836, p. 219; 908, p. 167; 938, p. 142; 946, p. 162; *988, p. 146; 1018, p. 120; 1025, p. 121). City of Wichita. NW. corner sec. 1, T. 27 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.05	Apr. 2	6.22	July 2	7.97	Nov. 6	7.52
Feb. 5	7.11	May 2	6.89	30	8.20	Dec. 3	7.52
Mar. 6	7.13	28	7.02	Sept. 26	7.84		

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). City of Wichita. SE. corner sec. 16, T. 26 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.10	Apr. 2	1.44	July 2	4.13	Nov. 6	4.61
Feb. 5	3.12	May 2	3.23	30	4.65	Dec. 3	4.16
Mar. 6	2.26	28	3.69	Sept. 26	5.20		

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.49	Apr. 2	2.96	July 2	4.84	Nov. 6	5.06
Feb. 5	3.51	May 2	3.77	30	5.55	Dec. 3	5.26
Mar. 6	3.01	28	4.36	Sept. 26	6.27		

806 (*845, p. 130; 886, p. 220; 908, p. 168; 938, p. 143; 946, p. 163; *988, p. 146; 1018, p. 121; 1025, p. 121). City of Wichita. NW. corner SW $\frac{1}{4}$ sec. 15, T. 26 S., R. 2 W. Measurements discontinued after May 2, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 2	15.21	Mar. 6	15.38	May 2	15.08
Feb. 5	15.28	Apr. 2	15.15		

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). City of Wichita. NW. corner sec. 10, T. 26 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	19.83	Apr. 2	20.37	July 2	21.44	Nov. 6	22.55
Feb. 5	19.91	May 2	20.71	30	21.79	Dec. 3	22.76
Mar. 6	19.61	28	20.99	Sept. 26	19.54		

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	20.15	Apr. 2	19.98	July 2	20.89	Nov. 6	21.68
Feb. 5	20.19	May 2	20.19	30	21.02	Dec. 3	21.85
Mar. 6	20.04	28	20.50	Sept. 26	21.48		

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). City of Wichita. NW. corner sec. 21, T. 26 S., R. 1 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3	9.94	Apr. 2	9.47	July 2	11.64	Nov. 6	13.86
Feb. 8	9.94	May 2	10.28	30	12.34	Dec. 3	13.93
Mar. 6	10.50	28	10.64	Sept. 26	13.43		

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). 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, 1946

Jan. 7	11.13	Apr. 1	11.39	July 8	12.41	Sept. 30	13.22
14	11.30	8	11.42	15	12.62	Oct. 7	13.25
21	11.14	15	11.47	22	12.72	14	13.00
28	11.16	22	11.52	29	12.84	21	13.16
Feb. 4	11.12	29	11.85	Aug. 5	12.90	Nov. 4	13.16
11	11.41	May 6	11.89	12	12.99	18	12.90
18	11.45	13	11.92	19	13.08	25	12.99
25	11.46	20	12.12	26	13.12	Dec. 2	13.53
Mar. 1	11.61	27	12.36	Sept. 2	13.12	9	13.15
4	11.58	June 3	12.39	9	13.11	16	13.10
18	11.58	17	12.43	16	13.12	23	12.87
25	11.31	July 1	12.35	23	13.17	30	12.79

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). City of Wichita. SE. corner sec. 33, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Jan. 7	6.92	Apr. 1	7.06	July 8	9.57	Sept. 30	9.14
14	6.88	8	7.12	15	9.49	Oct. 7	9.08
21	6.84	15	7.14	22	9.25	14	9.10
28	6.86	22	7.19	29	8.98	21	8.99
Feb. 4	6.93	29	7.37	Aug. 5	8.94	Nov. 4	8.85
11	6.81	May 6	7.42	12	8.86	18	8.72
18	6.84	13	7.43	19	8.75	25	8.67
25	6.88	20	7.60	26	8.57	Dec. 2	8.68
Mar. 1	7.05	27	7.71	Sept. 2	8.65	9	8.69
4	7.01	June 3	7.76	9	8.61	16	8.63
18	7.04	17	7.82	16	8.48	23	8.61
25	7.03	July 1	7.91	23	8.50	30	8.59

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). City of Wichita. NW. corner sec. 27, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Jan. 7	9.09	Apr. 1	9.27	July 8	10.42	Sept. 30	11.61
14	9.06	8	9.18	15	10.58	Oct. 7	11.67
21	8.92	15	9.22	22	10.67	14	11.71
28	8.98	22	9.24	29	10.83	21	11.79
Feb. 4	8.94	29	9.51	Aug. 5	10.88	Nov. 4	11.88
11	9.08	May 6	9.59	12	10.99	18	11.89
18	9.12	13	9.60	19	11.10	25	11.94
25	9.10	20	9.79	26	11.16	Dec. 2	11.98
Mar. 1	9.07	27	9.97	Sept. 2	11.29	9	12.07
4	9.01	June 3	10.03	9	11.38	16	12.04
18	9.06	17	10.16	16	11.49	23	12.47
25	9.03	July 1	10.31	23	11.54	30	12.52

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). City of Wichita. SE. corner sec. 14, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 8	12.04	May 2	12.08	July 30	13.72	Nov. 7	14.39
Mar. 6	11.89	28	12.31	Sept. 26	14.39	Dec. 3	14.89
Apr. 2	12.17	July 2	12.69				

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). City of Wichita. NE. corner sec. 17, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Jan. 7	8.98	Apr. 8	9.67	July 15	10.81	Oct. 7	12.11
14	8.97	15	9.71	22	11.04	14	12.21
21	8.91	22	9.73	29	11.02	21	12.24
28	8.95	29	9.81	Aug. 5	11.31	28	12.30
Feb. 4	9.33	May 6	9.86	12	11.36	Nov. 4	12.34
11	9.38	13	9.88	19	11.45	18	12.42
18	9.41	20	10.14	26	11.65	25	12.48
25	9.43	27	10.29	Sept. 2	11.67	Dec. 2	12.52
Mar. 1	9.36	June 3	10.32	9	11.73	9	12.61
4	9.68	17	10.44	16	11.87	16	12.58
18	9.67	July 1	10.74	23	11.94	23	12.64
25	9.64	8	10.82	30	12.06	30	12.63
Apr. 1	9.61						

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). City of Wichita. SE. corner sec. 7, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Jan. 7	6.76	Apr. 8	7.19	July 15	8.81	Oct. 7	10.49
14	6.74	15	7.23	22	8.93	14	10.58
21	6.35	22	7.27	29	9.15	21	10.69
28	6.34	29	7.37	Aug. 5	9.27	28	10.78
Feb. 4	6.56	May 6	7.46	12	9.47	Nov. 4	10.80
11	6.53	13	7.44	19	9.61	18	10.96
18	6.55	20	7.77	26	9.80	25	10.99
25	6.55	27	7.82	Sept. 2	9.91	Dec. 2	11.03
Mar. 1	6.87	June 3	7.88	9	10.07	9	11.20
4	6.90	17	7.93	16	10.20	16	11.12
18	6.93	July 1	8.40	23	10.26	23	11.45
25	6.86	8	8.53	30	10.28	30	11.48
Apr. 1	6.90						

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). City of Wichita. NE. corner sec. 3, T. 25 S., R. 1 W.

Water level, in feet below land-surface datum, 1946

Jan. 3	9.36	Apr. 2	7.51	July 2	9.36	Nov. 7	10.75
Feb. 8	8.68	May 2	8.00	30	10.23	Dec. 3	10.86
Mar. 6	8.29	28	8.56	Sept. 26	10.98		

826 (*886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 123). City of Wichita. NE. corner sec. 5, T. 25 S., R. 1 W.

826--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	7.92	Apr. 3	8.27	July 3	9.76	Sept. 25	10.97
Feb. 5	8.14	30	7.95	Aug. 1	10.46	Oct. 8	10.73
Mar. 7	8.25	May 29	9.49	27	10.76	Dec. 4	11.05

830 (*845, p. 133; 886, p. 222; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 123). City of Wichita. SW. corner sec. 30, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 2	25.20	Apr. 2	24.83	July 2	26.41	Nov. 6	27.48
Feb. 5	24.79	May 2	25.46	30	27.20	Dec. 3	27.47
Mar. 6	24.92	28	25.39	Sept. 26	27.88		

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). City of Wichita. SW. corner sec. 9, T. 25 S., R. 3 W.

Water level, in feet below land-surface datum, 1946

Jan. 2	8.59	Apr. 2	8.48	July 2	10.09	Nov. 6	10.17
Feb. 5	8.27	May 2	9.08	30	10.65	Dec. 3	9.78
Mar. 6	8.21	28	9.49	Sept. 26	11.12		

838 (*845, p. 133; 886, p. 223; 908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 124). 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, 1946

Jan. 2	21.41	Apr. 2	21.94	July 2	23.49	Nov. 6	24.76
Feb. 5	21.69	May 2	22.47	30	24.12	Dec. 3	25.16
Mar. 6	21.58	28	23.00	Sept. 26	25.03		

840 (*908, p. 170; 938, p. 145; 946, p. 165; *988, p. 149; 1018, p. 123; 1025, p. 124). 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, 1946

Jan. 7	4.20	Apr. 1	3.22	July 8	5.53	Sept. 30	7.97
14	4.20	8	3.34	15	5.64	Oct. 7	7.96
21	4.16	15	3.36	22	6.23	14	8.05
28	4.21	22	3.39	29	6.70	21	8.12
Feb. 4	3.72	29	3.78	Aug. 5	6.87	Nov. 4	8.12
11	3.62	May 6	3.82	12	7.18	18	8.13
18	3.60	13	3.76	19	7.39	Dec. 2	8.16
25	3.43	20	4.87	26	7.50	9	8.28
Mar. 1	3.71	27	4.94	Sept. 2	7.59	16	8.21
4	3.77	June 3	4.97	9	7.61	23	7.97
10	3.74	17	6.26	16	7.80	30	8.01
25	3.67	July 1	5.50	23	7.88		

842 (*886, p. 223; 908, p. 171; 938, p. 145; 946, p. 166; *988, p. 149; 1018, p. 123; 1025, p. 124). City of Wichita. SW. corner sec. 16, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Jan. 2	3.99	Apr. 2	3.79	July 2	4.67	Nov. 6	7.37
Feb. 5	4.03	May 2	4.08	30	6.55	Dec. 3	7.14
Mar. 6	3.98	28	4.12	Sept. 26	7.62		

845 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 124). City of Wichita. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 27 S., R. 1 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	14.91	Apr. 2	14.29	July 2	14.26	Nov. 6	14.30
Feb. 5	14.97	May 2	15.09	30	14.86	Dec. 3	14.37
Mar. 6	14.79	28	14.36	Sept. 26	14.58		

846 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 124). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	16.73	Apr. 2	16.68	July 2	16.38	Nov. 6	16.49
Feb. 5	16.78	May 2	17.02	30	17.01	Dec. 3	16.49
Mar. 6	16.64	28	16.42	Sept. 26	16.84		

847 (*886, p. 223; 908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 125). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	16.70	Apr. 2	16.53	July 2	16.36	Nov. 6	16.78
Feb. 5	16.74	May 2	16.80	30	17.04	Dec. 3	16.72
Mar. 6	16.59	28	16.12	Sept. 26	16.98		

870 (*908, p. 171; 938, p. 146; 946, p. 166; *988, p. 150; 1018, p. 124; 1025, p. 125). W. Williams. NW $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 25 S., R. 2 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.06	Apr. 2	4.65	July 2	5.59	Nov. 6	6.88
Feb. 5	5.09	May 2	5.24	30	6.04	Dec. 3	6.69
Mar. 6	5.01	28	5.30	Sept. 26	6.99		

2089 (*1018, p. 124; 1025, p. 125). Mrs. G. H. von Hein. At rear of dwelling at 842 Coolidge 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	14.57	Apr. 1	14.61	July 8	15.02	Sept. 23	15.93
14	14.53	8	14.59	15	15.09	30	16.03
21	14.45	15	14.61	22	15.17	Oct. 7	16.08
28	14.51	22	14.64	29	15.56	14	16.06
Feb. 4	14.66	29	14.67	Aug. 5	15.61	21	13.47
11	14.81	May 6	14.71	12	15.91	Nov. 4	16.07
18	14.86	13	14.73	19	15.97	Dec. 2	16.31
25	14.83	20	14.41	26	15.99	9	16.32
Mar. 1	14.92	27	14.56	Sept. 2	15.49	16	16.22
4	14.91	June 3	14.69	9	15.66	23	16.18
18	14.91	17	14.76	16	15.91	30	16.22
25	14.86	July 1	14.97				

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	6	15.88	May 3, 1944	18.00	Aug. 26, 1940
106	6	206.66	Jan. 2, 1946	203.32	July 19, 1941
			Aug. 14, 1946		
108	6	106.04	Apr. 12, 1945	110.73	Apr. 21, 1941
122	6	200.66	Jan. 22, 1945	203.63	Aug. 5, 1940
159	6	93.01	Nov. 22, 1946	95.55	Dec. 19, 1940

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 5 wells in Seward County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise for period of record
15	2.12	+0.01	0.30
106	1.66	-.03	1.42
108	4.74	-.56	2.13
122	2.97	+.17	1.65
159	2.54	+.70	2.37

15 (*908, p. 173; 938, p. 147; 946, p. 167; *988, p. 151; 1018, p. 125; 1025, p. 126). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 2	16.75	Mar. 7	16.95	May 1	17.35
Feb. 6	17.21	Apr. 2	17.09	Nov. 22	17.02

106 (*908, p. 173; 938, p. 147; 946, pp. 167, 168; *988, p. 151; 1018, p. 125; 1025, p. 126). 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, 1946

Jan. 2	206.66	June 4	206.68	Oct. 18	206.72
Mar. 7	206.96	Aug. 14	206.66		

108 (*908, p. 173; 938, p. 147; 946, p. 168; *988, p. 151; 1018, p. 125; 1025, p. 126). C. D. Day. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 31 S., R. 34 W.
Water level, in feet below land-surface datum, 1946: May 2, 108.10.

122 (*908, p. 173; 938, p. 148; 946, p. 168; *988, p. 151; 1018, p. 125; 1025, p. 126). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	202.74	Apr. 2	202.45	June 4	202.76	Aug. 14	203.26
Feb. 6	202.88	May 2	202.95	July 17	202.65	Nov. 2	202.74
Mar. 7	202.91						

159 (*908, p. 174; 938, p. 148; 946, p. 168; *988, p. 151; 1018, p. 125; 1025, p. 126). 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, 1946

Jan. 2	93.63	Apr. 2	93.46	July 18	93.36	Oct. 18	93.02
Feb. 6	93.60	May 2	93.48	Aug. 14	93.31	Nov. 22	93.01
Mar. 7	93.54	June 4	93.42	Sept. 20	93.20		

Smith County

By A. R. Leonard

The observation-well program begun during 1946 in Smith County is limited to the Solomon Valley and is described in the chapter on Osborne County.

4-14-34bc. Laura Davis. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 34, T. 4 S., R. 14 W. Dug stock well, depth 46.3 feet. Measuring point, top of wooden platform, west side, 0.1 foot above land-surface datum. Equipped with cylinder pump and windmill.

4-14-34bc--Continued.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1945	42.15	Feb. 11, 1946	42.52	Apr. 26, 1946	42.86
Dec. 17	42.25	25	42.48	June 12	42.88
Jan. 4, 1946	42.22	Mar. 11	42.56	Sept. 25	43.05
16	42.40	25	42.58	Oct. 31	42.78
28	42.47	Apr. 6	42.66	Nov. 25	42.72

4-15-31bb. W. Lala. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 31, T. 4 S., R. 15 W. Unused drilled well, diameter 8 inches, depth 43.5 feet. Measuring point, top of wooden platform, 1.7 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1945	35.90	Feb. 11, 1946	36.00	Apr. 27, 1946	36.04
Dec. 17	35.92	25	35.94	June 12	35.90
Jan. 4, 1946	35.89	Mar. 11	35.96	Sept. 25	35.87
16	35.96	25	35.97	Oct. 31	35.65
28	36.00	Apr. 6	36.01	Nov. 25	35.61

4-15-35bc. H. R. Dannenburg. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 4 S., R. 15 W. Dug stock well, depth 39.6 feet. Measuring point, top of wooden platform, 0.8 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 21, 1945	35.60	Feb. 11, 1946	36.57	Apr. 27, 1946	36.31
Dec. 17	36.33	25	36.77	June 12	37.99
Jan. 4, 1946	36.43	Mar. 11	36.63	Sept. 25	37.93
16	36.37	25	36.71	Oct. 31	36.54
28	36.57	Apr. 6	36.72	Nov. 25	36.33

5-13-4dc. R. Eller. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 5 S., R. 13 W. Dug farm well, depth 43.0 feet. Measuring point, top of concrete curb, west side, 0.4 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 20, 1945	35.10	Feb. 11, 1946	33.27	Apr. 26, 1946	33.70
Dec. 17	35.28	25	32.78	June 12	34.23
Jan. 4, 1946	33.30	Mar. 11	33.54	Sept. 25	33.05
16	33.40	25	32.82	Oct. 31	32.58
23	33.66	Apr. 6	32.94	Nov. 25	32.14

5-13-25cc. Zelma Carter. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 5 S., R. 13 W. Drilled farm well, diameter 10 inches, depth 51.5 feet. Measuring point, top of wooden platform, 0.2 foot above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 19, 1945	45.30	Feb. 11, 1946	45.23	Apr. 26, 1946	46.48
Dec. 17	45.24	25	45.12	June 12	45.14
Jan. 4, 1946	45.55	Mar. 11	45.12	Sept. 25	45.05
16	46.11	25	45.11	Oct. 31	44.93
28	46.53	Apr. 6	45.15	Nov. 25	44.85

5-13-33ba. W. L. Geerhart and others. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 33, T. 5 S., R. 13 W. Abandoned drilled well, depth 38.7 feet. Measuring point, top of wooden platform, at land-surface datum. No pump on well.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 27, 1945	26.80	Feb. 25, 1946	27.27	June 12, 1946	27.66
Dec. 17	26.98	Mar. 11	27.34	Sept. 25	26.19
Jan. 16, 1946	27.11	25	27.39	Oct. 31	26.49
28	27.15	Apr. 6	27.46	Nov. 25	26.68
Feb. 11	27.27	26	27.42		

5-14-3bc. Walter Felsburg. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 5 S., R. 14 W. Drilled farm well, diameter 12 inches, depth 48.8 feet. Measuring point, top of casing, north side, 0.6 foot above land-surface datum. Equipped with cylinder pump, windmill and pumpjack.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 29	35.61	Apr. 26	35.69	Sept. 25	37.76	Nov. 25	37.26
Apr. 6	35.67	June 12	36.56	Oct. 31	37.51		

5-15-2dc. G. K. Wamhoff. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 5 S., R. 15 W. Unused drilled well, diameter 10 inches, depth 42.2 feet. Measuring point, top of wooden platform, west side, 1.2 feet above land-surface datum. Equipped with cylinder pump and windmill.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Nov. 20, 1945	33.15	Feb. 11, 1946	33.43	Apr. 27, 1946	33.68
Dec. 17	33.22	25	33.39	June 12	33.80
Jan. 4, 1946	33.27	Mar. 11	33.49	Sept. 25	33.72
16	33.31	25	33.51	Oct. 31	33.22
28	33.37	Apr. 6	33.36	Nov. 25	33.09

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	4.5	15.70	May 16, 1945	20.77	Sept. 12, 1946
19	4.5	2.69	Aug. 7, 1945	11.04	Aug. 1, 1942
25	4.5	16.09	June 6, 1945	25.35	Aug. 1, 1942
26	4.5	9.28	Aug. 8, 1945	20.11	Aug. 3, 1942
29	4.5	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 1946 and for period of record, in 5 wells in Stafford County

Well	Difference between highest and lowest levels	Net decline in 1946	Net rise (+) or net decline (-) for period of record
3	5.07	2.32	-1.72
19	8.35	2.76	+4.29
25	9.26	2.96	+4.31
26	10.83	4.10	+5.28
29	6.96	2.28	+2.61

3 (*946, p. 170; *988, p. 152; 1018, p. 126; 1025, p. 127). B. Fritzmeier. SW. corner SW $\frac{1}{4}$ sec. 12, T. 23 S., R. 12 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	17.60	Apr. 23	18.08	July 22	19.76	Oct. 24	20.18
Feb. 20	17.26	May 23	17.67	Aug. 21	20.48	Nov. 25	19.61
Mar. 13	17.36	June 21	18.75	Sept. 12	20.77	Dec. 11	20.11

19 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127). Atlantic Refining Co. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 21 S., R. 13 W.

19--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	4.13	Apr. 23	4.37	July 22	6.40	Oct. 24	7.20
Feb. 20	3.95	May 23	4.79	Aug. 21	7.00	Nov. 25	6.79
Mar. 13	3.59	June 21	5.70	Sept. 12	7.25	Dec. 11	6.75

25 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127).
Continental Oil Co. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 25 S., R. 13 W.

Water level, in feet below land-surface datum, 1946

Jan. 10	18.24	Apr. 23	19.23	July 22	20.07	Oct. 24	20.98
Feb. 20	18.50	May 23	19.09	Aug. 21	20.49	Nov. 25	21.11
Mar. 13	19.45	June 21	19.70	Sept. 12	20.65	Dec. 11	21.04

26 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127). Stano-
lind 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, 1946

Jan. 10	11.03	Apr. 23	11.78	July 22	13.26	Oct. 24	14.70
Feb. 20	11.31	May 23	11.98	Aug. 21	13.96	Nov. 25	14.70
Mar. 13	11.82	June 21	12.59	Sept. 12	14.30	Dec. 11	14.83

29 (*946, p. 170; *988, p. 153; 1018, p. 126; 1025, p. 127).
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, 1946

Jan. 10	18.40	Apr. 23	18.81	July 22	19.82	Oct. 24	20.31
Feb. 20	18.76	May 23	18.76	Aug. 21	20.16	Nov. 25	20.32
Mar. 13	18.45	June 21	19.34	Sept. 12	20.29	Dec. 11	20.23

63 (*946, p. 171; *988, p. 154; 1018, p. 127; 1025, p. 127). G. W.
Buckle. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 24 S., R. 11 W. Measurements discontinued
Jan. 1, 1946.

Stanton CountyHighest 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	7.5	47.55	Dec. 14, 1944	51.83	Apr. 23, 1940
47	7.5	69.92	Aug. 17, 1945	71.52	Jan. 24, 1945
93	7.5	174.40	May 3, 1946	175.61	Jan. 7, 1946
146	7.5	39.36	Nov. 22, 1946	46.30	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 1946 and for period of record, in 4 wells
in Stanton County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
13	4.28	+0.02	+3.50
47	1.60	-1.12	-.54
93	1.21	-.01	+.83
146	6.94	+.63	+7.37

13 (*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 171; *988, p. 154; 1018, p. 127; 1025, p. 128). L. Y. Carrithers. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 27 S., R. 40 W. Three measurements for 1945 were omitted in the report for that year and are included below.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Feb. 27, 1945	47.56	Feb. 7, 1946	47.92	Aug. 16, 1946	47.88
Aug. 17	47.83	May 3	48.13	Nov. 22	47.83
Nov. 14	47.85				

47 (*886, p. 225; 908, p. 177; 938, p. 149; 946, p. 172; *988, p. 154; 1018, p. 127; 1025, p. 128). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 3	70.17	May 28	70.39	Aug. 16	71.05
Feb. 7	70.03	June 26	70.56	Sept. 21	71.10
Apr. 1	70.01	July 18	70.69	Oct. 18	71.43
				Nov. 22	71.22
				Dec. 23	71.13

93 (*886, p. 226; 908, p. 178; 938, p. 149; 946, p. 172; *988, p. 155; 1018, p. 127; 1025, p. 128). J. Plummer. Center NE $\frac{1}{4}$ sec. 11, T. 29 S., R. 41 W. Water levels, in feet below land-surface datum, 1946: Jan. 7, 175.61; May 3, 174.40; Aug. 16, 174.76; Nov. 22, 174.62.

146 (*886, p. 227; *908, p. 178; 938, p. 149; 946, p. 172; *988, p. 155; 1018, p. 127; 1025, p. 128). 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, 1946: Feb. 7, 39.93; May 3, 40.13; Aug. 16, 40.07; Nov. 22, 39.36.

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	4.5	80.30	Jan. 7, 1946	a 93.20	May 10, 1945
12	4.5	110.83	Nov. 21, 1946	113.38	July 28, 1942
21	4.5	86.32	Aug. 3, 1944	89.11	Aug. 15, 1946
26	4.5	90.40	Nov. 21, 1946	92.20	July 5, 1943
28	4.5	131.80	Jan. 7, 1946	132.64	Sept. 23, 1943
29	4.5	120.78	May 2, 1946	122.41	Nov. 17, 1943
30	4.5	104.35	Nov. 21, 1946	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 1946 and for period of record, in 7 wells in Stevens County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
10	12.90	-0.53	+0.70
12	2.55	+7.7	+2.55
21	2.79	-.73	-.90
26	1.80	+3.0	+1.11
28	1.84	-.11	+.28
29	1.63	+.10	+.32
30	2.49	+.42	+1.65

10 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129). T. P. Patterson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 33 S., R. 37 W. Water levels, in feet below land-surface datum, 1946: Jan. 7, 80.30; Aug. 15, 81.94; Nov. 21, 80.98.

12 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129). 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, 1946: Jan. 7, 111.39; May 2, 111.24; Aug. 15, 111.03; Nov. 21, 110.83.

21 (*946, p. 173; *988, p. 156; 1018, p. 128; 1025, p. 129). B. 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, 1946: Jan. 7, 88.23; May 2, 88.43; Aug. 15, 89.11; Nov. 11, 88.06.

26 (*946, p. 174; *988, p. 156; 1018, p. 128; 1025, p. 129). 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, 1946: Jan. 7, 90.65; May 2, 90.57; Aug. 15, 90.48; Nov. 21, 90.40.

28 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129). C. 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, 1946: Jan. 7, 131.80; May 2, 132.14; Aug. 15, 132.16.

29 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129). 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, 1946: Jan. 7, 122.00; May 2, 120.78; Aug. 15, 120.80; Nov. 21, 120.96.

30 (*946, p. 174; *988, p. 157; 1018, p. 129; 1025, p. 129). 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, 1946: Jan. 7, 104.41; May 2, 104.59; Aug. 15, 104.46; Nov. 21, 104.35.

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	2.5	5.77	June 7, 1944	10.40	Oct. 7, 1946
2	2.5	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 1946 and for period of record, in 2 wells in Sumner County

Well	Difference between highest and lowest levels	Net decline in 1946	Net rise (+) or net decline (-) for period of record
1	4.63	1.94	-4.33
2	1.05	.58	+3.1

1 (*1018, p. 129; 1025, p. 130). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	7.75	Apr. 9	8.90	July 5	8.75	Oct. 7	10.40
Feb. 5	8.32	May 2	9.05	Aug. 5	9.90	Nov. 1	10.14
Mar. 3	8.30	June 5	9.00	Sept. 5	10.18	Dec. 6	10.10

2 (*1018, p. 129; 1025, p. 130). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	22.24	Apr. 7	22.30	July 5	22.37	Oct. 7	22.48
Feb. 5	23.00	May 2	22.29	Aug. 5	22.48	Nov. 1	22.40
Mar. 1	22.00	June 15	22.33	Sept. 5	22.47	Dec. 6	22.53

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	4.5	47.81	Oct. 4, 1946	48.73	July 13, 1943
7	4.5	123.97	Apr. 25, 1945	125.41	Oct. 7, 1942
9	4.5	72.10	Oct. 24, 1945	73.21	Apr. 24, 1944
12	4.5	89.87	Nov. 27, 1944	90.46	Oct. 24, 1945
					July 9, 1946
13	4.5	63.04	July 14, 1942	73.90	July 9, 1946
26	4.5	111.53	Apr. 25, 1946	111.82	Sept. 16, 1942
			Oct. 3, 1946		Feb. 11, 1943
28	4.5	30.93	Nov. 27, 1942	32.70	Apr. 25, 1945
33	4.5	116.65	May 24, 1944	118.66	Apr. 25, 1946
62	4.5	97.65	Nov. 27, 1942	98.40	Apr. 24, 1945

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 9 wells in Thomas County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
2	0.92	+0.29	+0.50
7	1.44	-.53	-.54
9	1.11	-.02	+.31
12	.59	+.07	-.23
13	10.86	(a)	-10.08
26	.29	+.01	+.25
28	1.77	-.10	-1.10
33	2.01	-.16	+.05
62	.75	-.88	-1.54

a No measurements made in 1945.

1 (*946, p. 175; *988, p. 158; 1018, p. 130; 1025, p. 131). Earl W. Dawes. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 9 S., R. 36 W. Measurements discontinued Jan. 1, 1946.

2 (*946, p. 175; *988, p. 158; 1018, p. 130; 1025, p. 131). Lem Fulwider. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 8 S., R. 36 W. Water levels, in feet below land-surface datum, 1946: Jan. 17, 48.19; Apr. 25, 48.28; July 9, 48.34; Oct. 4, 47.81.

4 (*988, p. 158; 1018, p. 130; 1025, p. 131). Will Guise. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 35, T. 7 S., R. 36 W. Measurements discontinued Jan. 1, 1946.

7 (*946, p. 176; *988, p. 158; 1018, p. 130; 1025, p. 131). 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, 1946: Jan. 17, 124.96; Apr. 25, 124.89; July 9, 124.81; Oct. 4, 125.06.

9 (*988, p. 158; 1018, p. 131; 1025, p. 131). 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, 1946: Jan. 17, 72.69; Apr. 25, 72.93; July 9, 72.88; Oct. 4, 72.12.

12 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131). 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, 1946: Jan. 17, 90.27; Apr. 25, 89.89; July 9, 90.46; Oct. 4, 90.39.

13 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131). H. V. Christensen. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 13, T. 8 S., R. 31 W. Measurements resumed July 9, 1946. Water levels, in feet below land-surface datum, 1946: July 9, 73.90; Oct. 4, 73.12.

21 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131). W. J. Campbell. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 7 S., R. 34 W. Measurements discontinued Jan. 1, 1946.

25 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131). Roy Zeiglemeyer. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 6 S., R. 32 W. Measurements discontinued Jan. 1, 1946.

26 (*946, p. 176; *988, p. 159; 1018, p. 131; 1025, p. 131). 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, 1946: Jan. 17, 111.57; Apr. 25, 111.53; July 9, 111.54; Oct. 3, 111.53.

28. Katherine B. Hood. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 10 S., R. 31 W. Unused drilled well, diameter 6 inches, depth 36.8 feet. Measuring point, top of casing, on north side, 1.3 feet above land-surface datum.

Water level, in feet below land-surface datum, 1942-46

Date	Water level	Date	Water level	Date	Water level
Nov. 27, 1942	30.93	Dec. 18, 1944	31.60	Jan. 17, 1946	31.86
May 5, 1943	31.01	Apr. 25, 1945	32.70	Apr. 25	31.97
June 12, 1944	31.41	July 10	32.62	July 9	31.97
Sept. 6	31.48	Oct. 24	31.87		

33 (*946, p. 177; *988, p. 160; 1018, p. 131; 1025, p. 131). 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, 1946: Jan. 17, 117.09; Apr. 25, 118.66; July 9, 116.95; Oct. 4, 117.06.

62 (*946, p. 177; *988, p. 160; 1018, p. 131; 1025, p. 131). 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, 1946: Apr. 25, 99.32; Oct. 4, 99.28.

Wyandotte County

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

Well	Length of record (years)	Highest level	Date	Lowest level	Date
13	2	8.98	July 11, 1945	16.80	Feb. 2, 1946
86	2	19.63	July 11, 1945	29.91	May 4, 1946
87	2	16.07	July 11, 1945	25.39	Feb. 28, 1946
97	2	15.15	July 11, 1945	24.66	Apr. 1, 1946
98	2	19.10	July 11, 1945	29.10	May 4, 1946
100	2	15.82	July 11, 1945	27.94	May 4, 1946
101	2	25.02	July 11, 1945	38.58	May 4, 1946
118	2	23.55	July 11, 1945	34.20	Jan. 10, 1946
119	2	21.33	July 11, 1945	34.57	Feb. 2, 1946
120	2	20.34	July 10, 1944	29.00	Feb. 2, 1946
121	2	9.38	July 11, 1945	21.44	Feb. 2, 1946
138	3	12.08	Oct. 1, 1944	27.98	Mar. 30, 1946
147	3	26.50	Aug. 15, 1945	27.77	Apr. 19, 1945

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 13 wells in Wyandotte County

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
13	7.82	+0.41	-1.65
86	10.28	-1.42	-3.83
87	9.32	-1.72	-4.36
97	9.51	-1.98	-2.56
98	10.00	-1.86	-2.70

Difference between highest and lowest recorded water levels and net change in water level, in feet, in 1946 and for period of record, in 13 wells in Wyandotte County--Continued.

Well	Difference between highest and lowest levels	Net rise (+) or net decline (-) in 1946	Net rise (+) or net decline (-) for period of record
100	12.12	-1.79	-4.28
101	13.56	-1.73	-5.17
118	10.65	-.34	-4.30
119	13.24	+.37	-3.33
120	8.66	+.76	-3.19
121	12.06	+.73	-.92
138	15.90	-2.16	-4.07
147	1.27	-.01	+.01

13 (*1018, p. 132; 1025, p. 132). Geol. Survey, U. S. Dept. of Interior. NW $\frac{1}{4}$ 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.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	16.67	Feb. 28	16.44	May 4	14.87
Feb. 2	16.80	Mar. 30	15.21		

86 (*1018, p. 132; 1025, p. 132). Geol. Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ 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.

Water level, in feet below land-surface datum, 1946

Jan. 10	29.02	Feb. 28	29.62	May 4	29.91
Feb. 2	29.83	Mar. 30	29.00		

87 (*1018, p. 132; 1025, p. 132). Geol. Survey, U. S. Dept. of Interior. SW $\frac{1}{4}$ 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.

Water level, in feet below land-surface datum, 1946

Jan. 10	24.98	Feb. 28	25.39	May 4	25.21
Feb. 2	25.37	Mar. 30	25.03		

97 (*1018, p. 132; 1025, p. 132). 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, 1946

Jan. 10	24.30	Feb. 28	24.29	Apr. 1	24.66
Feb. 2	24.37	Mar. 30	24.57		

98 (*1018, p. 132; 1025, p. 133). 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 the rear of the port of entry, about 150 feet north of Kansas Avenue and 125 feet west of Second Street.

Water level, in feet below land-surface datum, 1946

Jan. 10	28.78	Feb. 28	28.66	May 4	29.10
Feb. 2	28.77	Mar. 30	28.82		

100 (*1018, p. 132; 1025, p. 133). 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, 1946

Jan. 10	26.80	Feb. 28	26.85	May 4	27.94
Feb. 2	26.85	Mar. 30	26.65		

101 (*1018, p. 132; 1025, p. 133). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	36.80	Feb. 28	36.81	May 4	38.58
Feb. 2	37.14	Mar. 30	36.68		

118 (*1018, p. 132; 1025, p. 133). 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.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	34.20	Feb. 28	33.97	May 4	33.04
Feb. 2	33.72	Mar. 30	32.86		

119 (*1018, p. 132; 1025, p. 133). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	33.61	Feb. 28	34.16	May 4	33.77
Feb. 2	34.57	Mar. 30	31.80		

120 (*1018, p. 133; 1025, p. 133). 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.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	27.68	Feb. 28	28.41	May 4	28.14
Feb. 2	29.00	Mar. 30	25.43		

121 (*1018, p. 133; 1025, p. 133). 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 Twenty-second 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	20.85	Feb. 28	21.00	May 4	20.35
Feb. 2	21.44	Mar. 30	18.40		

138 (*988, p. 160; 1018, p. 133; 1025, p. 133). P. S. Judy. SE $\frac{1}{4}$ 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.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 10	27.03	Feb. 28	27.71	May 4	27.82
Feb. 2	27.30	Mar. 30	27.98		

147 (South well). (*988, p. 160; 1018, p. 133; 1025, p. 133). Santa Fe Railway. In Morris, NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 28, T. 11 S., R. 24 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 30	27.52	Apr. 8	27.51	June 18	27.52
Mar. 5	27.52	May 6	27.51		

165 (Northwest well). (*988, p. 160; 1018, p. 133; 1025, p. 133). City of Bonner Springs. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 11 S., R. 23 E. Measurements discontinued Jan. 1, 1946.

MINNESOTA

By J. B. Cooper and P. D. Akin

PROGRAM OF WORK

Periodic measurements of water level were made in three wells in Minnesota in 1946. A total of 143 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 2.93 feet. The minimum depth to water occurred on October 15, when the reading of 3.78 feet below land-surface was made. The greatest depth to water occurred on September 3, when the depth was 6.71 feet. The year closed with water levels 1.39 feet higher 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, pp. 178-179; 988, p. 162; 1018, p. 134; 1025, p. 134). Erwin Kjelshus. Near Hanska, 1st sec. 9, T. 108 N., R. 30 W. Measurements made by Erwin Kjelshus.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	5.58	Mar. 19	4.39	June 4	4.38	Sept. 17	4.50
10	5.57	26	3.80	11	4.55	24	4.36
15	5.64	Apr. 2	3.88	July 23	4.75	Oct. 1	4.54
22	5.63	9	4.04	29	4.95	8	4.06
29	5.75	16	4.13	Aug. 5	5.31	15	3.78
Feb. 5	5.40	22	4.19	12	5.75	23	4.10
12	5.82	30	4.34	19	6.07	Nov. 5	4.30
19	6.08	May 7	4.27	26	6.41	13	3.84
26	5.96	14	4.39	Sept. 3	6.71	25	3.98
Mar. 5	5.69	22	4.30	10	5.02	Dec. 3	4.19
12	5.27	27	4.15				

Itasca County

US 135 (*988, p. 163; 1018, p. 135; 1025, p. 135). Corps of Engineers,
U. S. Army. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 146 N., R. 27 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	21.49	Apr. 8	21.68	July 8	20.78	Oct. 7	21.34
14	21.52	15	21.61	15	20.76	14	21.38
21	21.49	22	21.51	22	20.73	21	21.43
28	21.52	29	21.37	29	20.75	28	21.47
Feb. 4	21.53	May 6	21.29	Aug. 5	20.77	Nov. 4	21.51
11	21.58	13	21.18	12	20.86	11	21.53
18	21.57	20	21.09	19	20.94	18	21.52
25	21.61	27	21.03	26	20.94	25	21.52
Mar. 4	21.67	June 3	20.99	Sept. 2	21.05	Dec. 2	21.54
11	21.66	10	20.94	9	21.15	9	21.51
18	21.70	17	20.95	16	21.24	16	21.54
25	21.62	24	20.90	23	21.27	23	21.53
Apr. 1	21.68	July 1	20.85	30	21.33		

St. Louis County

US 136 (*988, p. 163; 1018, p. 135; 1025, p. 135). Herman A. Katola.
Lot 3, sec. 4, T. 56 N., R. 17 W.

Water level, in feet below land-surface datum, 1946

Jan. 6	7.13	Apr. 7	5.55	July 21	6.29	Oct. 13	5.79
13	7.13	14	5.50	28	6.46	20	6.85
20	7.25	21	5.60	Aug. 4	6.50	27	6.04
27	7.33	28	5.38	11	6.90	Nov. 3	5.85
Feb. 3	7.33	May 5	5.69	18	7.00	10	5.56
10	7.44	12	5.93	26	7.12	17	5.58
17	7.52	June 2	6.54	Sept. 1	7.33	24	5.58
28	7.56	9	6.71	8	7.50	30	5.89
Mar. 3	7.62	16	6.40	15	7.54	Dec. 8	5.99
10	7.69	23	6.51	22	7.58	15	5.99
17	7.37	30	4.45	29	7.28	22	6.28
24	6.44	July 7	5.08	Oct. 6	6.50	29	6.45
31	6.32	14	5.83				

MISSOURI

By J. B. Cooper and Phyllis T. Mosley

PROGRAM OF WORK

Water-level measurements were made in Atchison County in 1946 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 consists of 17 wells in 1946 in which 158 single measurements were made by D. L. Hummel and D. W. Knox, observers 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 Survey's division of surface water, through the courtesy of H. C. Bolon, district engineer. A total of 26 measurements was made in these two wells in 1946.

FLUCTUATIONS OF WATER LEVEL

In the Grundy County well the maximum fluctuation of water levels was 5.32 feet with the highest reading of 1.92 feet below land-surface datum occurring on March 11 and 18, and the lowest reading of 7.24 feet below land-surface datum occurring on December 8. The water level was 1.19 feet lower on December 29 than it was at the close of 1945. 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. L. Hummel and D. W. Knox.)

1 (*777, pp. 63-64; *817, pp. 56-59; *840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; *946, p. 181; 988, p. 165; 1018, p. 137; 1025, p. 137). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	9.94	Apr. 29	7.82	July 27	8.85	Sept. 25	10.18
Feb. 22	10.52	May 27	8.40	Aug. 26	9.78	Oct. 22	8.26
Mar. 26	4.75	June 5	7.50				

2 (*777, pp. 63-64; *817, pp. 56-59; *840, pp. 91, 93-94; 845, p. 86; 886, p. 122; 908, p. 181; 938, p. 39; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137). H. W. Klutas. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 66 N., R. 40 W. No measurements made in 1946.

20 (*840, p. 92; 845, pp. 87-88; 886, p. 124; 908, p. 181; 938, p. 40; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137). SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 65 N., R. 40 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	19.62	Apr. 29	16.26	July 27	17.67	Oct. 22	19.50
Feb. 22	20.74	May 27	18.48	Aug. 26	19.12	Nov. 27	20.18
Mar. 26	15.33	June 25	16.56	Sept. 25	19.78	Dec. 21	19.54

21 (*840, pp. 92, 95; 845, pp. 87-88; 886, p. 124; 908, p. 181; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137). SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 65 N., R. 40 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	16.81	Apr. 29	16.64	July 27	18.88	Oct. 22	19.47
Feb. 22	20.49	May 27	18.56	Aug. 26	19.79	Dec. 21	20.47
Mar. 26	12.70	June 25	16.27	Sept. 25	20.05		

22 (*840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 908, p. 182; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	11.19	Apr. 29	10.83	July 27	11.00	Nov. 28	9.97
Feb. 22	11.12	May 27	10.99	Aug. 26	11.30	Dec. 21	10.82
Mar. 26	9.63	June 25	10.51	Oct. 22	10.55		

23 (*840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 938, p. 41; *946, p. 182; 988, p. 165; 1018, p. 137; 1025, p. 137). J. A. McAllister. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 66 N., R. 40 W. Well abandoned; measurements discontinued after Nov. 27.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	10.80	Apr. 29	12.53	June 25	11.38	Nov. 27	11.78
Mar. 26	12.48	May 27	12.46	July 27	12.20		

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	-2.97	Apr. 29	-2.83	Sept. 25	-3.02	Nov. 27	-1.13
Feb. 22	-3.21	May 27	-2.84	Oct. 22	+.3	Dec. 21	-1.57
Mar. 26	-2.94						

25 (*840, pp. 92, 95; 845, pp. 87-88; 886, p. 125; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 137; 1025, p. 137). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	41.58	Apr. 29	39.22	July 27	42.09	Oct. 22	40.18
Feb. 22	43.20	May 27	40.81	Aug. 26	43.21	Nov. 27	41.69
Mar. 26	38.88	June 25	40.37	Sept. 25	42.66	Dec. 21	42.45

27 (*840, pp. 92, 95-96; 845, pp. 87-88, 886, p. 126; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138). 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, 1946: Jan. 23, 39.31. Well destroyed; measurements discontinued.

28 (*840, pp. 92, 95; 845, pp. 87-88; 886, p. 126; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138). Edwin Rolf. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 66 N., R. 40 W. Water levels, in feet below land-surface datum, 1946: Jan. 23, 18.43; Feb. 22, 17.89; Mar. 26, 13.72. Well destroyed; measurements discontinued.

29 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 126; 908, p. 182; 938, p. 41; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138). Edwin Rolf. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 12, T. 66 N., R. 40 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	13.19	Apr. 29	11.10	July 27	11.63	Oct. 22	8.02
Feb. 22	13.09	May 27	12.53	Aug. 26	13.15	Dec. 21	10.82
Mar. 26	10.97	June 25	10.37	Sept. 25	10.75		

31 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 126; 908, p. 183; 938, p. 42; *946, p. 183; 988, p. 166; 1018, p. 138; 1025, p. 138). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	2.86	Apr. 29	2.67	July 27	3.37	Oct. 22	2.64
Feb. 22	3.15	May 27	2.93	Aug. 26	3.60	Nov. 27	2.99
Mar. 26	1.26	June 25	2.84	Sept. 25	3.29	Dec. 21	2.86

32 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; *946, pp. 183-184; 988, p. 166; 1018, p. 138; 1025, p. 138). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	13.93	Apr. 29	11.73	July 27	12.77	Oct. 22	10.92
Feb. 22	14.99	May 27	13.02	Aug. 26	14.00	Nov. 27	12.94
Mar. 26	7.30	June 25	12.58	Sept. 25	13.45	Dec. 21	13.00

33 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 138; 1025, p. 138). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	16.40	Apr. 29	14.79	July 27	16.48	Oct. 22	15.39
Feb. 22	16.87	May 27	16.31	Aug. 26	16.88	Nov. 28	16.00
Mar. 26	13.24	June 25	15.50	Sept. 25	16.57	Dec. 21	16.28

34 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 138). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	4.98	Apr. 29	4.08	July 27	4.87	Oct. 22	2.56
Feb. 22	5.96	May 27	4.64	Aug. 26	5.95	Nov. 27	7.96
Mar. 26	1.17	June 25	2.18	Sept. 25	5.84	Dec. 21	4.10

35 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 138). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	21.17	Apr. 29	16.92	July 27	19.49	Oct. 22	19.20
Feb. 22	22.65	May 27	18.73	Aug. 26	21.07	Nov. 27	18.58
Mar. 26	15.71	June 25	18.16	Sept. 25	21.85	Dec. 21	18.36

36 (*840, pp. 92, 95-96; 845, pp. 88-89; 886, p. 127; 908, p. 183; 938, p. 42; *946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 139). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	27.39	Apr. 29	23.33	July 27	26.07	Oct. 22	28.00
Feb. 22	28.00	May 27	20.12	Aug. 26	27.04	Nov. 27	27.45
Mar. 26	27.00	June 25	26.19	Sept. 25	27.94	Dec. 21	27.07

Grundy County

US 113 (*946, p. 184; 988, p. 167; 1018, p. 139; 1025, p. 139). Wiley H. Estes. In Trenton, in sec. 17, T. 61 N., R. 24 W., on property of owner at 105 E. Fourth Street. Measurements by owner.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	4.50	Apr. 14	2.82	July 20	4.84	Oct. 13	6.92
19	3.92	20	3.24	28	5.24	20	6.64
26	4.10	27	3.98	Aug. 4	5.56	27	6.86
Feb. 2	4.58	May 11	1.92	11	5.72	Nov. 3	6.70
9	4.94	18	1.92	17	6.26	10	6.54
16	5.06	26	2.98	25	5.82	17	7.06
23	5.04	June 1	3.32	Sept. 1	6.16	24	6.92
Mar. 2	4.87	8	4.30	7	6.18	Dec. 1	7.16
9	3.48	15	3.92	14	6.48	8	7.24
16	3.02	22	4.74	22	6.78	15	7.00
24	2.03	30	2.90	28	6.70	22	7.02
31	1.96	July 7	4.31	Oct. 5	6.67	29	7.13
Apr. 6	2.34	13	5.02				

Phelps County

US 98 (*946, p. 185; *988, p. 167; 1018, p. 139; 1025, p. 139). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	7.85	May 1	6.51	Aug. 1	8.50	Oct. 31	8.08
Feb. 1	7.37	31	6.24	30	7.86	Nov. 29	6.78
Mar. 1	7.00	July 1	7.71	Oct. 1	7.70	Dec. 31	7.00
Apr. 1	7.12						

US 98A (*946, p. 185; *988, p. 168; 1018, p. 139; 1025, p. 139). Fred Pillman. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 37 N., R. 10 W.

US 98A--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	11.50	May 1	8.00	Aug. 1	11.84	Oct. 31	12.49
Feb. 2	9.38	31	6.48	30	9.29	Nov. 29	7.03
Mar. 1	7.40	July 1	9.78	Oct. 1	10.04	Dec. 31	6.77
Apr. 1	7.54						

NEBRASKA

By H. A. Waite 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 1946. Records of water levels in the wells and some interpretation of the fluctuations of the 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, and 1025.

Measurements of water levels made in 753 wells are given in the present report. Included in this group are 258 wells in the observation of which the following organizations are cooperating informally: Grand Island Water Department, 46 wells in Hall County and 2 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, 22 wells in Dawson County, 2 wells in Garden County, 22 wells in Gosper County, 56 wells in Keith County, 69 wells in Lincoln County, and 8 wells in Phelps County; Loup River Public Power District, 10 wells in Platte County; Platte Valley Public Power and Irrigation District, 2 wells in Keith County, 9 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 14 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, Dundy 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:

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)
 24-48-31ba) (near Alliance, Box Butte County)
 25-48-14aa)
 25-45-32ad (near Antioch, Sheridan County)

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.

A staff gage was installed near well 25-48-14aa at the north end of Bower Lake, near Antioch, in Sheridan County, for the purpose of making comparisons between the fluctuations of the water level in the lake and in well 25-48-14aa, which is equipped with an automatic water-stage recorder. The staff-gage readings are included with the water-level measurements of wells in Sheridan County.

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 1946. 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, 5,500 individual measurements of water level were made in Nebraska in 1946.

FLUCTUATIONS OF WATER LEVEL

The precipitation in Nebraska in 1946 was 24.55 inches, 1.99 inches above normal and 1.85 inches above that of 1945. Water levels in many wells were the highest ever recorded as a result of heavy rains in late September and in early October.

The following tables summarize for each observation well the highest and the lowest water level of record and the difference between them, the net change in water level in 1946, the length of record, and the net change in water level during the entire period of record.

Highest and lowest recorded water levels, in feet below land-surface datum, in 731 observation wells in Nebraska

Well	Highest level	Date	Lowest level	Date
<u>Adams County</u>				
5-11-10bc	9.65	Dec. 31, 1946	10.81	Nov. 13, 1940
6-10-23bb	6.41	Dec. 31, 1946	10.43	Apr. 12, 1937
8-12-8ab	7.98	Dec. 6, 1946	9.72	Sept. 7, 1946
<u>Antelope County</u>				
24-6-1bb	3.31	Mar. 24, 1946	7.88	Sept. 12, 1935
		May 30, 1946		
27-7-10bb	65.16	Mar. 27, 1940	66.40	Oct. 17, 1941
<u>Arthur County</u>				
17-39-31dc	2.31	May 7, 1942	6.37	Mar. 9, 1945
<u>Blaine County</u>				
22-24-33ca	2.41	Oct. 14, 1946	5.65	Aug. 4, 1946
<u>Box Butte County</u>				
24-47-1db	11.62	June 3, 1946	12.45	May 14, 1946
24-48-4bb	13.32	Apr. 11, 1946	13.76	Dec. 17, 1946
24-48-10bb	10.50	June 2-5, 1946	11.23	Dec. 23-27, 1946
		June 7, 1946		Dec. 29, 1946
				Dec. 30, 1946
24-48-11dd	5.03	May 23, 1946	7.05	Nov. 12, 1946
24-48-31ba	38.80	Dec. 15, 1946	39.20	June 8, 16, 18, 30, 1946
24-50-10aa	48.68	June 3, 1946	52.02	July 2, 1938
24-52-13cb	77.65	Feb. 27, 1946	78.26	Sept. 20, 1938
24-52-35aa	97.61	July 22, 1940	99.13	May 9, 1946
25-47-19aa	20.35	July 21, 1938	22.77	Sept. 14, 1946
25-47-31cc	15.13	July 22, 1946	16.22	Oct. 11, 1946
25-48-4dd	63.15	July 22, 1946	63.91	Dec. 17, 1946
25-48-14aa	48.26	June 14, 1946	48.95	Dec. 16, 1946
25-48-25bb2	70.76	Mar. 29, 1946	74.76	July 29, 1946
25-48-27db2	67.90	May 13, 1946	69.45	Sept. 13, 1946
25-48-30ad	12.54	July 11, 1946	15.40	July 22, 1940
		July 22, 1946		
25-49-14da	31.43	May 13, 1946	32.45	Mar. 12, 1946
25-50-22aa	132.01	May 13, 1946	132.29	Nov. 13, 1946
25-50-31ab	102.80	Feb. 27, 1946	103.41	Oct. 20, 1941
25-51-14aa	87.52	July 22, 1940	90.04	Feb. 27, 1946
26-47-17dd	53.16	Nov. 7, 1946	53.39	July 1, 1946
26-47-15dc	90.46	Mar. 29, 1946	91.21	Aug. 5, 1946
26-50-12dc	100.77	Mar. 29, 1946	102.38	Nov. 12, 1946
26-51-25bc	95.49	July 22, 1940	96.18	June 12, 1946
26-52-10bc	93.37	July 22, 1938	99.11	Sept. 13, 1946
26-52-17ab	73.54	Dec. 20, 1946	74.17	Oct. 21, 1941
27-47-12da	7.71	June 5, 1946	12.23	Apr. 19, 1935
27-47-25ba	20.51	Feb. 28, 1946	29.94	Nov. 2, 1940
27-49-21cb	118.00	Feb. 27, 1946	119.41	Oct. 20, 1941
27-50-20aa	173.99	Feb. 27, 1946	174.82	Aug. 10, 1938
27-51-6bb	220.35	Oct. 10, 1946	220.67	Apr. 1, 1946
28-51-6dd	1.67	Mar. 27, 1936	4.08	July 20, 1940
28-51-8bc	85.03	Apr. 1, 1946	86.40	Mar. 30, 1940

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Boyd County</u>				
32-10-1cc	7.44	Jan. 15, 1936	10.18	Oct. 30, 1940
33-13-9cb	12.83	May 30, 1936	19.08	Oct. 31, 1940
34-13-10ad	11.03	July 11, 1935	14.47	Oct. 31, 1940
<u>Buffalo County</u>				
8-16-3cb	10.48	Dec. 3, 1946	13.22	Aug. 7, 1946
8-16-10cc	1.76	Nov. 7, 1946	3.71	Sept. 5, 1946
8-16-12cc	1.59	Apr. 25, 1933	6.92	Oct. 29, 1936
8-17-1da	4.18	Oct. 7, 1946	11.90	Nov. 3, 1934
8-17-4bc	5.26	Dec. 3, 1946	10.05	Sept. 5, 1946
8-17-12dd	1.20	Feb. 16, 1932	4.95	Aug. 20, 1936
8-18-4cb	7.30	Oct. 7, 1946	9.62	Sept. 5, 1946
9-13-5cb	16.54	May 20, 1931	22.54	Sept. 5, 1946
9-13-9cc	11.92	July 11, 1932	17.09	Oct. 4, 1946
9-13-22bc	7.63	June 20, 1932	12.74	Sept. 5, 1946
9-14-1dc	18.47	Dec. 26, 1946	19.79	Sept. 5, 1946
		Dec. 27, 1946		
9-14-4cc	20.06	June 7, 1946	23.11	Sept. 5, 1946
9-14-13cb	16.62	June 20, 1932	23.05	Oct. 15, 1941
9-14-19dd	22.55	June 9, 1931	28.53	Oct. 15, 1941
9-14-21cc	17.62	July 11, 1932	22.11	Nov. 24, 1939
9-14-22bb	17.27	July 10, 1946	19.56	Sept. 5, 1946
9-14-34bb	9.25	June 20, 1932	15.68	Oct. 27, 1940
		June 27, 1932		
9-15-11cb	25.16	May 22, 1933	29.96	Oct. 15, 1941
		May 29, 1933		
9-15-16cc	33.45	Dec. 3, 1946	35.02	Sept. 5, 1946
9-15-34bb	16.60	June 16, 1931	21.23	Oct. 29, 1936
9-17-31cd	8.02	Oct. 7, 1946	11.12	Feb. 13, 1946
9-18-27dd	3.63	Oct. 7, 1946	9.39	July 10, 1946
9-18-31cc	7.38	Oct. 8, 1946	12.49	Sept. 6, 1936
10-13-24bc	17.91	May 13, 1931	26.28	Sept. 5, 1946
<u>Burt County</u>				
A22-8-35aa	.63	July 9, 1938	8.76	Nov. 22, 1939
<u>Butler County</u>				
A14-3-8ba	11.25	Feb. 19, 1946	18.63	Oct. 15, 1940
A16-1-17bc	3.42	Mar. 11, 1946	5.47	Sept. 3, 1946
A16-2-14cc	4.55	July 8, 1946	6.35	Oct. 12, 1946
A16-2-30bc	21.96	Jan. 8, 1946	22.68	Aug. 5, 1946
A16-3-1dc	10.37	July 8, 1946	12.25	Nov. 5, 1946
A16-3-8dd	2.93	Dec. 9, 1946	4.43	Oct. 12, 1946
A16-3-15cd	14.14	July 8, 1946	17.28	Aug. 5, 1946
A17-4-28cd	20.57	Mar. 11, 1946	22.10	Oct. 11, 1946
<u>Cass County</u>				
A12-9-32ca	39.07	Dec. 30, 1946	43.05	Oct. 15, 1940
<u>Cedar County</u>				
A28-3-4ca	5.78	July 12, 1940	9.13	Oct. 27, 1942
A31-2-31ab	11.78	Jan. 8, 1935	13.39	July 10, 1935
<u>Chase County</u>				
5-36-7ba	15.80	Oct. 24, 1946	16.39	Aug. 15, 1946
		Dec. 16, 1946		
5-36-11dc	62.53	Dec. 16, 1946	63.92	Aug. 21, 1935

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Cherry County</u>				
31-25-20ad	2.25	May 16, 1945	6.38	Sept. 12, 1936
33-27-17cb	1.88	Mar. 29, 1940	3.38	Aug. 9, 1937
34-27-31da	98.02	Aug. 25, 1934	100.39	Oct. 19, 1941
34-31-3ad	1.25	June 6, 1935	5.47	Oct. 31, 1940
34-38-14cb	6.19	Aug. 1, 1944	8.14	Aug. 9, 1937
<u>Clay County</u>				
5-7-32ac	12.16	Oct. 18, 1938	14.14	Nov. 14, 1940
<u>Colfax County</u>				
A17-2-16bc	25.11	Mar. 11, 1946	26.32	Sept. 4, 1946
A17-2-22dd	4.97	July 9, 1946	6.10	Sept. 4, 1946
A17-3-4cc	5.45	Dec. 9, 1946	6.28	Oct. 11, 1946
A17-3-11dd	8.87	July 9, 1946	10.18	Nov. 5, 1946
A17-3-18dc	2.65	Mar. 11, 1946	4.82	Sept. 4, 1946
A17-3-23cc	4.00	Dec. 9, 1946	5.27	Sept. 3, 1946
A17-3-29aa	8.15	Dec. 9, 1946	8.63	Oct. 11, 1946
A17-4-1cc	4.45	Mar. 21, 1940	7.26	Oct. 9, 1941
A17-4-4bb	13.14	Dec. 28, 1945	17.11	Aug. 6, 1946
A20-2-2dd	6.85	May 7, 1946	9.73	Oct. 28, 1942
A20-4-7aa	9.47	May 7, 1946	19.62	Nov. 21, 1939
<u>Cuming County</u>				
A21-6-23bb	4.86	May 27, 1935	8.93	Oct. 10, 1941
<u>Dawes County</u>				
31-52-3dc	16.79	Aug. 22, 1942	21.51	Aug. 27, 1934
32-51-1db	19.05	June 16, 1937	20.64	Aug. 7, 1946
34-49-11bc	8.73	Aug. 2, 1945	13.53	Nov. 1, 1946
<u>Dawson County</u>				
9-19-16ab	6.50	Dec. 3, 1946	10.68	Sept. 6, 1946
9-19-25bb	5.92	Oct. 8, 1946	9.23	Feb. 14, 1946
9-19-33bb	5.03	Oct. 8, 1946	9.04	Sept. 6, 1946
9-20-3dd	8.72	Dec. 3, 1946	12.52	Sept. 6, 1946
9-20-5bc	19.01	Dec. 3, 1946	22.82	Aug. 8, 1946
9-20-13bc	6.90	Dec. 3, 1946	11.45	Sept. 6, 1946
9-20-22cc	7.74	Dec. 3, 1946	12.63	Sept. 6, 1946
9-20-33dd	2.41	Nov. 7, 1946	4.59	Sept. 6, 1946
9-21-6ad	1.39	Oct. 8, 1946	8.30	July 11, 1946
9-21-6da	1.01	Oct. 8, 1946	7.45	Aug. 21, 1934
9-21-7aa	4.52	Oct. 8, 1946	8.99	Aug. 21, 1934
9-21-7da	4.13	Oct. 8, 1946	7.15	Sept. 6, 1946
9-21-12cb	9.29	Oct. 8, 1946	13.19	Aug. 10, 1937
9-21-18aa	2.50	Apr. 30, 1944	7.24	Aug. 14, 1934
9-21-18da	2.72	Oct. 8, 1946	6.48	Sept. 21, 1934
9-21-19aa1	1.45	Oct. 8, 1946	5.55	Nov. 14, 1934
9-21-19aa2	a 1.23	Feb. 25, 1932	2.75	Aug. 10, 1937
9-21-19da	.95	Feb. 25, 1932	5.86	Sept. 16, 1936
9-21-19dd	2.83	Feb. 25, 1932	7.62	Nov. 14, 1934
9-21-24aa	2.28	June 10, 1939	6.29	Sept. 21, 1934
9-21-29bc	.10	May 3, 1933	5.21	Sept. 30, 1940
9-21-30da	3.63	Oct. 8, 1946	9.20	Sept. 30, 1940
9-21-31aa1	11.82	Oct. 8, 1946	19.54	Nov. 2, 1940
9-21-31aa2	10.06	Apr. 4, 1946	15.49	Aug. 29, 1940
9-21-31cc	27.34	July 11, 1946	54.33	Aug. 29, 1940
9-21-31da	8.16	Dec. 3, 1946	22.90	July 24, 1940
9-21-31dd	4.16	Oct. 8, 1946	19.82	Nov. 5, 1940

a Above land-surface datum.

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Dawson County--Continued</u>				
9-21-32aa	2.84	Apr. 6, 1939	6.84	Nov. 2, 1940
9-21-32dd	9.75	May 5, 1939	14.38	Mar. 5, 1940
9-22-1da	1.08	May 4, 1945	5.30	Aug. 30, 1940
9-22-6cc	4.08	Mar. 2, 1939	7.17	Oct. 1, 1940
9-22-7ad	3.64	May 12, 1944	6.75	Oct. 1, 1940
9-22-17dd	2.62	Oct. 9, 1946	16.19	Oct. 1, 1940
9-22-23cb	2.96	Jan. 9, 1946	9.04	Sept. 30, 1940
9-22-23cd	14.42	Dec. 29, 1945	18.35	Sept. 6, 1946
9-22-25dc	3.54	Dec. 5, 1946	17.28	Nov. 2, 1940
9-22-26aa	5.98	Apr. 10, 1946	15.62	Aug. 7, 1943
9-23-2dc	15.06	Dec. 5, 1946	18.24	Aug. 9, 1946
9-23-12da a	.82	Dec. 5, 1946	9.96	Nov. 4, 1940
9-23-30cd	6.32	Apr. 5, 1944	9.57	Oct. 3, 1939
9-24-1dc	16.75	Nov. 9, 1946	17.90	Sept. 7, 1946
10-20-21cd	23.40	Dec. 3, 1946	25.79	Sept. 6, 1946
10-20-35bb	15.58	Dec. 3, 1946	17.78	Sept. 6, 1946
10-21-6da	7.00	May 4, 1931	11.88	Sept. 21, 1934
10-21-7aa	5.63	Apr. 6, 1931	12.55	Sept. 21, 1934
10-21-7dal	6.22	Apr. 13, 1931	13.44	Sept. 21, 1934
10-21-18aa	4.96	June 12, 1935	12.84	Sept. 21, 1934
10-21-18dd	10.07	Oct. 27, 1930	17.27	Sept. 21, 1934
10-21-19aa	11.88	July 20, 1931	18.80	July 24, 1940
10-21-19da	11.68	May 25, 1931	18.81	July 24, 1940
10-21-23ab	9.53	Dec. 3, 1946	13.94	Aug. 8, 1946
10-21-30aa	6.38	Dec. 3, 1946	10.02	Aug. 8, 1946
10-21-30da	4.57	May 11, 1931	12.35	Aug. 21, 1934
10-21-31aa	1.67	June 12, 1935	8.98	Aug. 21, 1934
10-21-31da	3.29	June 12, 1935	9.27	Sept. 21, 1934
10-22-11ba	4.53	Oct. 9, 1946	9.69	Aug. 8, 1946
10-22-29aa	3.08	Oct. 9, 1946	7.45	Nov. 5, 1940
10-23-5bb	4.29	Dec. 4, 1946	8.40	July 11, 1946
10-23-9aa	10.00	Oct. 20, 1930	17.98	Aug. 21, 1934
10-23-29bb	2.02	Oct. 9, 1946	6.51	Sept. 7, 1946
10-23-30bc	5.80	Oct. 9, 1946	10.91	June 4, 1946
10-24-7bb	10.35	Oct. 9, 1946	13.52	July 12, 1946
10-24-15cc	4.37	Oct. 9, 1946	7.83	Sept. 7, 1946
10-24-17bb	2.72	Nov. 9, 1946	19.78	May 1, 1941
10-21-31dd	23.83	Oct. 27, 1930	33.28	July 24, 1940
11-22-28aa	26.92	June 6, 1946	30.89	Sept. 6, 1946
11-23-21bc	13.03	Nov. 9, 1946	15.11	July 11, 1946
11-23-23cc	.42	Oct. 8, 1946	5.28	Sept. 6, 1946
11-24-16bb	3.56	Oct. 9, 1946	8.42	Sept. 6, 1946
11-24-20ca	9.62	June 13, 1935	14.97	Sept. 22, 1934
11-24-24cb	6.91	Dec. 4, 1946	12.40	June 28, 1946
11-25-8ad	1.03	Apr. 7, 1939	5.04	Aug. 4, 1939
11-25-19cc	5.69	Dec. 5, 1946	14.30	Oct. 2, 1939
11-25-20cc	7.74	June 23, 1944	13.78	Sept. 5, 1939
11-25-21cc	4.18	Nov. 17, 1931	20.57	Aug. 2, 1933
11-25-34bc	12.72	Dec. 5, 1946	14.35	July 12, 1946
12-24-30ab	42.50	May 9, 1946	44.65	Oct. 8, 1946
12-25-34cc	28.57	Jan. 16, 1946	30.40	July 11, 1946

Dodge County

A17-5-2bb	2.32	Dec. 10, 1946	4.80	Sept. 3, 1946
A17-6-6aa	.68	June 22, 1945	9.65	Mar. 22, 1937
A17-6-8bc	2.93	Mar. 12, 1946	5.55	Sept. 4, 1946
A17-8-4aa	3.35	June 22, 1945	12.21	Feb. 3, 1940
A17-8-4dd	3.71	June 22, 1945	13.33	Feb. 3, 1940
A17-8-9da	4.15	June 22, 1945	14.29	Oct. 22, 1940
A17-8-16ad	6.11	June 22, 1945	14.19	Oct. 22, 1940
A17-8-22cb	2.07	June 22, 1945	8.14	Feb. 3, 1940
A17-8-28ad	2.98	Mar. 12, 1946	7.29	Feb. 21, 1940

a Above land-surface datum.

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Dodge County--Continued</u>				
A17-8-28dd	2.39	Oct. 11, 1946	5.57	Aug. 5, 1946
A17-9-24dc	5.80	Oct. 27, 1944	10.70	Oct. 20, 1936
A18-8-28da	60.86	Oct. 8, 1941	68.72	Mar. 20, 1940
A18-8-28dd	23.63	Oct. 8, 1941	31.92	Feb. 3, 1940
A18-8-33aa	3.00	Oct. 8, 1941	9.36	Mar. 20, 1940
A18-9-18ac	6.76	July 9, 1940	9.33	Oct. 18, 1940
<u>Douglas County</u>				
A15-10-4bd	5.81	Dec. 26, 1946	9.35	July 24, 1934
<u>Dundy County</u>				
1-37-7ab	61.05	Mar. 19, 1946	61.88	Oct. 21, 1946
1-37-19ba	9.45	Dec. 15, 1946	12.45	Aug. 16, 1946
1-37-31cd	3.78	Dec. 15, 1946	4.29	Aug. 16, 1946
1-38-20bc	16.30	Dec. 15, 1946	18.42	Aug. 10, 1936
1-38-25bd	12.26	Dec. 15, 1946	13.10	Mar. 19, 1946
1-38-29ad	8.01	Dec. 15, 1946	9.00	Aug. 16, 1946
1-39-21ac	4.72	June 12, 1936	6.23	July 29, 1940
1-39-22cc	11.43	June 11, 1946	13.02	Aug. 16, 1946
1-39-26aa	25.59	July 12, 1946	26.12	Oct. 22, 1946
1-39-30bb	12.30	Dec. 15, 1946	12.94	Oct. 23, 1946
1-40-20cb	2.49	Dec. 15, 1946	3.71	Aug. 16, 1946
1-40-24cd	8.52	Dec. 15, 1946	9.35	Aug. 16, 1946
1-40-27ab	18.66	June 11, 1946	20.87	Aug. 16, 1946
1-40-29bb	12.00	July 13-18, 1946	12.58	Oct. 3, 1946
				Oct. 4, 1946
1-41-20dd	2.71	Dec. 15, 1946	4.26	Aug. 16, 1946
1-41-27ca	4.05	Dec. 15, 1946	5.70	Aug. 16, 1946
1-42-10cd	3.53	Dec. 15, 1946	6.01	Aug. 16, 1946
1-42-13bb	3.85	Dec. 15, 1946	5.62	Aug. 16, 1946
1-42-36aa	9.88	Oct. 23, 1946	10.77	Aug. 16, 1946
2-36-24ca	14.29	Oct. 21, 1946	14.42	Dec. 16, 1946
2-36-29ac	21.65	June 11, 1946	22.94	Aug. 16, 1946
2-36-31bc	22.00	Dec. 15, 1946	22.45	Oct. 21, 1946
<u>Franklin County</u>				
1-13-1cc	4.59	Oct. 26, 1946	7.36	Aug. 12, 1946
1-13-1bc	7.12	Oct. 26, 1946	9.15	Aug. 12, 1946
1-13-3ca	4.48	Oct. 26, 1946	8.35	Aug. 12, 1946
1-13-4cb	10.48	Oct. 26, 1946	12.72	Aug. 12, 1946
1-13-7bb	2.56	Oct. 26, 1946	6.26	Aug. 12, 1946
1-14-2cd	5.70	Dec. 18, 1946	10.15	Feb. 13, 1946
1-14-3ba	.91	Oct. 27, 1946	5.94	Aug. 13, 1946
1-14-6bc	5.34	Oct. 27, 1946	8.57	Feb. 14, 1946
1-14-7bb1	.70	Oct. 27, 1946	5.40	Nov. 13, 1940
1-14-7bb2	3.45	Oct. 27, 1946	6.28	Aug. 12, 1946
1-15-5ca	.62	Oct. 26, 1946	5.75	Aug. 13, 1946
1-15-8cb	8.93	Oct. 26, 1946	11.74	Aug. 13, 1946
1-16-9bc	10.25	Oct. 26, 1946	13.68	Mar. 7, 1946
1-16-10bd	.70	Oct. 26, 1946	5.19	Aug. 13, 1946
1-16-14ab	37.40	Oct. 26, 1946	42.41	Aug. 13, 1946
2-13-31ad	53.73	Dec. 18, 1946	54.80	Mar. 8, 1946
2-13-32dd	4.50	Oct. 26, 1946	8.44	Aug. 12, 1946
2-15-36bd	27.49	June 14, 1946	29.28	Aug. 21, 1936
<u>Furnas County</u>				
3-21-2cc	6.47	Oct. 25, 1946	8.98	Aug. 13, 1946
3-21-12dc	3.40	Oct. 25, 1946	6.35	Aug. 13, 1946
3-22-2ba	4.89	Oct. 25, 1946	7.63	Aug. 13, 1946

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Furnas County--Continued</u>				
3-25-4bb	3.23	Nov. 16, 1946	7.37	Oct. 3, 1946
4-21-32cc	12.64	Oct. 25, 1946	16.74	Aug. 13, 1946
4-22-25cc	8.29	Dec. 17, 1946	11.50	June 12, 1946
4-22-29ad	15.94	Dec. 18, 1946	17.60	Aug. 13, 1946
4-22-32dd	7.71	Oct. 25, 1946	10.81	Aug. 13, 1946
4-22-34bb	12.79	Oct. 25, 1946	14.39	Feb. 1, 1946
4-23-20ab	26.42	Dec. 11, 1946	31.28	Aug. 14, 1946
4-23-23bd	28.99	June 17, 1936	30.89	Sept. 13, 1943
4-23-27dd	9.11	Dec. 17, 1946	11.65	Aug. 13, 1946
4-23-30cc	52.29	Mar. 18, 1946	52.80	Oct. 25, 1946
4-23-36aa	17.43	Dec. 17, 1946	23.17	Aug. 13, 1946
4-24-13cd	17.90	Dec. 11, 1946	19.73	Aug. 14, 1946
4-24-15cc	12.15	Dec. 11, 1946	14.20	Aug. 14, 1946
4-24-19cc	12.90	Oct. 25, 1946	15.05	June 12, 1946
4-24-22dd	5.00	Oct. 25, 1946	6.78	Aug. 14, 1946
4-24-29cd	20.75	Mar. 20, 1946	23.57	Aug. 14, 1946
4-25-32cd	3.66	Oct. 25, 1946	6.37	Aug. 14, 1946
4-25-34ad	15.18	Dec. 17, 1946	17.76	Jan. 31, 1946

Gage County

A2-6-10bc	69.99	Oct. 23, 1942	73.48	Nov. 14, 1939
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Garden County

15-42-1ca	16.19	July 13, 1944	21.45	June 1, 1937
15-42-3cb	16.75	June 10, 1941	19.89	Oct. 6, 1944
17-44-22cc	20.83	Oct. 25, 1935	27.30	July 26, 1940
17-46-34bb	1.97	Apr. 25, 1935	5.95	July 26, 1940
20-44-5db	4.30	Oct. 21, 1934	8.04	Jan. 13, 1938
				Dec. 15, 1939
20-44-9ca	3.16	May 4, 1934	7.18	Nov. 5, 1937
				Nov. 23, 1937
20-45-13ab	2.00	June 6, 1935	5.12	Sept. 29, 1939
20-45-17ba	3.66	June 6, 1935	7.49	Aug. 19, 1937
21-44-29ab	2.09	June 20, 1935	5.86	Apr. 2, 1938
21-44-35ca	.44	Feb. 12, 1934	4.84	Aug. 20, 1937
21-45-3bd	2.75	Mar. 26, 1946	7.87	Nov. 30, 1938
		Apr. 1, 1946		
		May 6, 1946		
21-45-10cd	2.42	Dec. 18, 1946	6.66	July 29, 1934
21-45-27cb	3.32	Mar. 20, 1946	6.64	Oct. 9, 1937
		June 20, 1946		

Gosper County

8-21-2cc	3.14	May 2, 1940	6.65	Mar. 5, 1940
8-21-3ac	2.37	Oct. 2, 1942	9.52	Sept. 30, 1940
8-21-3bb	3.01	June 4, 1942	10.18	Sept. 30, 1940
8-21-3bc	2.25	Sept. 15, 1942	10.48	Sept. 30, 1940
8-21-3dc	12.46	Oct. 9, 1946	14.13	Jan. 15, 1946
8-21-3dd	7.95	Aug. 4, 1942	12.72	Nov. 2, 1940
8-21-4ad	5.51	Oct. 2, 1942	13.97	Sept. 30, 1940
8-21-4ba	6.82	Apr. 6, 1939	10.16	Dec. 5, 1939
8-21-4cc	26.68	Nov. 17, 1944	34.74	Sept. 30, 1940
8-21-4da	7.83	Oct. 2, 1942	15.63	Sept. 30, 1940
8-21-5aa	9.20	July 21, 1942	15.76	Sept. 30, 1940
8-21-5ad	13.39	Aug. 7, 1943	21.62	Sept. 30, 1940
8-21-5da	19.53	Aug. 7, 1943	28.10	Sept. 30, 1940
8-21-6aa	8.83	Sept. 14, 1943	16.40	Sept. 30, 1940
8-21-6da1	24.19	Sept. 30, 1940	32.56	Nov. 2, 1940
8-21-6da2	23.56	Aug. 9, 1943	31.96	Sept. 30, 1940
8-21-6dd	42.15	Apr. 4, 1946	50.83	Sept. 30, 1940

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Gosper County--Continued</u>				
8-21-10da	15.57	May 12, 1944	17.96	Sept. 2, 1941
8-21-11aa	3.09	Aug. 7, 1943	5.98	Oct. 3, 1939
8-21-11bb	9.36	Aug. 4, 1942	13.27	Nov. 2, 1940
8-21-12aa	4.99	June 4, 1942	9.11	July 27, 1940
8-21-12bc	8.36	Mar. 6, 1942	13.20	Nov. 1, 1937
8-22-8cd	146.93	Aug. 20, 1946	223.87	Jan. 3, 1941
<u>Grant County</u>				
24-37-25ac	3.59	June 8, 1935	6.62	July 22, 1940
24-40-36bb	12.32	June 8, 1935	14.10	July 22, 1940
<u>Hall County</u>				
9-10-4dc	4.70	Dec. 6, 1946	6.87	Sept. 7, 1946
9-11-8bc	4.65	Dec. 2, 1946	7.82	Sept. 5, 1946
9-11-14cb	7.12	Jan. 10, 1946	8.87	Aug. 9, 1946
		Feb. 15, 1946		
9-11-21bb	7.44	Dec. 6, 1946	9.52	Sept. 7, 1946
9-12-1dc	2.47	May 6, 1931	7.78	Sept. 20, 1934
9-12-9ba	18.83	June 27, 1932	23.35	Sept. 6-12, 1946
10-9-3-cb	1.95	May 29, 1938	6.70	Dec. 24, 1940
10-9-4cb	2.46	July 10, 1944	6.55	Dec. 24, 1940
10-9-8cc	1.90	May 29, 1938	6.35	Dec. 24, 1940
10-9-10bb	7.41	Dec. 6, 1946	9.35	Sept. 5, 1946
10-9-27bb	13.68	Feb. 29, 1932	17.11	Oct. 29, 1936
				Oct. 15, 1941
10-9-28cc	14.49	Apr. 17, 1946	15.32	Sept. 3, 1946
10-10-8cc	19.52	June 20, 1932	24.08	Sept. 5, 1946
10-10-13dd	4.73	June 3, 1946	5.27	Aug. 6, 1946
10-11-15dc	15.92	July 11, 1932	21.12	Sept. 5, 1946
10-11-30bc	15.67	June 23, 1937	23.92	Aug. 18, 1944
		June 30, 1931		
10-12-20dd	29.07	Apr. 10, 1946	30.97	Sept. 5, 1946
11-9-3bc	11.83	May 6, 1946	17.63	Nov. 2, 1940
11-9-4cc	10.08	Oct. 1, 1945	16.70	July 27, 1940
11-9-4cd	11.42	Jan. 28, 1942	19.05	Feb. 5, 1941
11-9-8da	13.58	Oct. 1, 1945	23.25	Aug. 28, 1941
11-9-8db	12.92	Apr. 8, 1946	18.90	Aug. 28, 1941
11-9-9aa	17.25	Oct. 1, 1945	25.50	July 27, 1940
11-9-9bd	15.08	Oct. 1, 1945	24.25	July 27, 1940
				Apr. 18, 1941
11-9-9cc	17.66	Oct. 1, 1945	26.15	Feb. 5, 1941
				Aug. 28, 1941
11-9-9da	25.16	Oct. 1, 1945	33.65	Nov. 2, 1940
11-9-9dd	25.58	Oct. 1, 1945	33.70	Dec. 24, 1940
11-9-12dc	4.60	July 10, 1944	8.40	Feb. 13, 1937
11-9-15bb1	23.75	Oct. 1, 1945	31.40	July 19, 1941
11-9-15bb2	26.50	Oct. 1, 1945	35.40	July 19, 1941
11-9-15cc	3.66	June 10, 1946	17.45	Nov. 2, 1940
11-9-15db	5.92	Oct. 1, 1945	18.66	May 21, 1943
11-9-15dd	6.06	July 10, 1944	11.00	Dec. 24, 1940
11-9-16ad	30.06	Jan. 21, 1946	41.95	Aug. 28, 1941
11-9-16bc	23.75	June 10, 1946	36.62	Nov. 2, 1940
11-9-16bd	31.66	Dec. 18, 1944	45.30	July 27, 1940
11-9-16ca	31.25	Dec. 9, 1946	42.45	Nov. 2, 1940
11-9-16cb	16.83	Oct. 1, 1945	35.65	Feb. 5, 1941
11-9-16db	29.25	Oct. 1, 1945	37.34	Nov. 2, 1940
11-9-17ba	11.83	Oct. 1, 1945	21.25	Feb. 5, 1941
11-9-17bd	15.25	Oct. 1, 1945	26.35	Feb. 5, 1941
11-9-17cd	17.42	Oct. 1, 1945	33.75	Nov. 2, 1940
11-9-21bb	24.25	Aug. 5, 1946	33.15	Feb. 5, 1941
11-9-21bd	27.25	Oct. 1, 1945	36.27	May 29, 1944

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Hall County--Continued</u>				
11-9-22cb	6.95	May 12, 1936	10.42	July 17, 1942
11-9-26aa	2.56	July 10, 1944	8.75	Dec. 6, 1942
11-9-27cb	1.40	June 6, 1931	9.06	June 26, 1940
11-9-28ba	6.15	Mar. 31, 1936	15.60	Feb. 26, 1944
		May 2, 1936		
11-9-29bb	19.60	Dec. 2, 1935	26.00	Dec. 24, 1940
11-9-32cc	1.90	May 29, 1938	6.05	Oct. 17, 1936
11-9-34aa	2.54	July 10, 1944	7.30	Dec. 24, 1940
11-9-34cb	2.50	July 10, 1944	7.15	Dec. 24, 1940
11-9-35dc	2.50	July 10, 1944	6.10	Dec. 24, 1940
11-10-11dc	6.31	July 8, 1946	12.40	Dec. 24, 1940
				Mar. 26, 1941
11-10-13ab	8.92	Nov. 9, 1946	15.75	Mar. 26, 1941
11-10-14dd	10.07	Jan. 25, 1946	11.68	Aug. 6, 1946
11-10-16bb	10.56	Dec. 2, 1946	11.07	Mar. 8, 1946
11-10-24cb	13.92	Nov. 9, 1946	19.95	Dec. 24, 1940
11-10-26dd	5.64	July 7, 1944	17.70	Dec. 28, 1935
11-10-27dc	17.13	May 8, 1946	17.72	June 7, 1946
11-11-25cc	16.80	Sept. 5, 1946	17.10	Oct. 4, 1946
11-11-32cb	29.04	May 20, 1931	36.75	Sept. 4, 1946
11-11-37cb	19.92	Oct. 19, 1930	26.07	Sept. 4, 1946
		Oct. 21, 1930		
11-12-34dc	25.68	July 10, 1946	26.82	Sept. 5, 1946
12-9-27cb	5.08	Mar. 11, 1946	9.05	Dec. 24, 1940
12-9-32aa1	8.56	July 8, 1946	12.80	Dec. 24, 1940
12-9-32aa2	12.08	Apr. 9, 1946	13.35	Sept. 4, 1946
12-9-32cc	8.00	July 8, 1946	12.80	Dec. 24, 1940
12-10-1cc	6.00	July 8, 1946	12.00	Dec. 24, 1940
12-11-24cd	11.29	May 8, 1946	12.26	Oct. 4, 1946
<u>Hamilton County</u>				
9-6-34bb	39.50	June 27, 1934	44.29	Nov. 14, 1940
9-8-9dc	52.93	Aug. 14, 1937	58.40	Dec. 31, 1946
11-6-13cb	89.06	Jan. 24, 1935	93.99	Jan. 21, 1941
11-8-28bc	29.96	Jan. 10, 1946	32.23	Sept. 3, 1946
13-5-19aa	24.97	Dec. 9, 1946	27.28	Aug. 5, 1946
13-6-27cc	6.85	June 30, 1935	11.41	Nov. 14, 1940
<u>Harlan County</u>				
1-17-1da	1.95	Oct. 25, 1946	7.57	Aug. 13, 1946
1-17-12da	12.71	Oct. 26, 1946	17.35	Feb. 14, 1946
2-19-5cb	20.32	Dec. 17, 1946	24.19	Aug. 13, 1946
2-19-17da	19.07	Oct. 25, 1946	22.20	Aug. 13, 1946
2-19-28dd	6.82	Dec. 17, 1946	10.74	Nov. 12, 1946
2-19-34bc	20.69	Dec. 17, 1946	23.70	Aug. 13, 1946
3-20-7ab	30.08	Dec. 17, 1946	32.00	Aug. 13, 1946
3-20-16bb	3.95	Oct. 25, 1946	9.44	Aug. 13, 1946
3-20-18ca	13.60	Dec. 17, 1946	16.56	Aug. 13, 1946
3-20-22dd	24.79	Dec. 17, 1946	26.29	Aug. 13, 1946
3-20-25cc	11.56	Dec. 17, 1946	16.16	Aug. 13, 1946
<u>Hayes County</u>				
5-33-30cb	18.71	Dec. 16, 1946	20.00	Aug. 15, 1946
5-33-31dc	6.64	Apr. 9, 1937	14.44	Sept. 11, 1943
5-34-28bc	57.67	Mar. 19, 1946	58.48	Aug. 15, 1946
5-34-30ba	10.55	Oct. 24, 1946	11.47	Aug. 15, 1946
5-35-17da	8.22	Oct. 24, 1946	9.18	Aug. 15, 1946

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Hitchcock County</u>				
2-33-2aa	9.69	Mar. 19, 1946	10.73	Oct. 23, 1946
2-33-6cb	10.22	Dec. 16, 1946	10.45	Aug. 16, 1946
				Oct. 23, 1946
2-33-10ab	7.45	Dec. 11, 1946	8.01	Aug. 15, 1946
2-34-8da	18.88	Mar. 19, 1946	20.02	Aug. 16, 1946
2-34-11dc	10.75	Dec. 11, 1946	10.82	Aug. 15, 1946
2-35-13bb	13.55	Aug. 16, 1946	15.30	Dec. 16, 1946
2-35-21bc	19.97	June 16, 1935	21.73	Sept. 24, 1946
2-35-24aa	4.73	Dec. 11, 1946	6.08	Aug. 16, 1946
3-31-14bc	13.70	Oct. 24, 1946	15.88	Aug. 15, 1946
3-31-15cb	7.09	Oct. 21, 1946	8.26	Aug. 14, 1946
3-31-17cd	7.48	Dec. 11, 1946	8.78	Aug. 15, 1946
3-31-20da	7.85	Dec. 11, 1946	8.40	Aug. 15, 1946
3-32-11bb	13.20	May 29, 1946	14.00	Aug. 15, 1946
3-32-12cc	21.20	Oct. 24, 1946	21.97	Mar. 19, 1946
3-32-26dd	28.05	Dec. 11, 1946	29.30	Aug. 14, 1946
3-32-31aa	5.92	Dec. 16, 1946	6.74	Aug. 15, 1946
3-33-35dc	9.59	Mar. 4, 1943	11.33	Dec. 9, 1946
4-32-33db	33.95	Jan. 5, 1946	34.85	May 29, 1946
4-33-8bb	54.95	Mar. 19, 1946	55.74	Aug. 15, 1946
4-33-23ad	12.55	Dec. 16, 1946	13.82	Aug. 15, 1946
<u>Holt County</u>				
27-9-27dd	4.70	May 29, 1944	8.96	Oct. 30, 1940
27-9-34da	4.00	June 4, 1935	9.77	Sept. 14, 1936
<u>Hooker County</u>				
24-35-23dd	.19	June 8, 1935	20.28	Dec. 24, 1946
<u>Howard County</u>				
13-9-26dd	7.59	June 4, 1946	9.68	Sept. 4, 1946
				Oct. 3, 1946
<u>Jefferson County</u>				
A1-4-19ac	28.31	July 1, 1938	31.43	Oct. 23, 1937
A2-4-26dd	11.84	Sept. 13, 1944	21.92	Nov. 1, 1941
A3-1-14ba	29.82	Dec. 30, 1946	33.05	Apr. 12, 1940
A4-2-18cb	144.04	June 16, 1936	145.70	Dec. 30, 1946
<u>Johnson County</u>				
A6-9-26bb	33.01	July 14, 1934	36.65	Dec. 23, 1946
<u>Kearney County</u>				
6-16-20bb	90.87	May 27, 1946	100.50	Oct. 29, 1938
8-13-12cb	4.84	Dec. 6, 1946	7.12	Aug. 9, 1946
8-13-16bc	4.15	Dec. 6, 1946	6.77	Sept. 7, 1946
8-14-13db	6.59	Nov. 15, 1946	10.98	Oct. 27, 1940
8-14-19cc	2.38	Nov. 15, 1946	6.18	Sept. 7, 1946
8-14-23ba	2.63	Nov. 15, 1946	5.25	Aug. 9, 1946
8-15-21dc	3.20	Nov. 15, 1946	7.00	Sept. 7, 1946
8-16-23dd	2.22	Oct. 10, 1946	5.65	Aug. 9, 1946
8-16-28aa	4.36	Oct. 10, 1946	7.60	Sept. 7, 1946
<u>Keith County</u>				
13-35-5cc	6.90	May 8, 1942	15.29	Sept. 17, 1936
13-36-3ca	4.61	May 8, 1942	10.25	Sept. 27, 1940

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Keith County--Continued</u>				
13-36-6bc	2.03	May 8, 1942	6.32	Aug. 2, 1943
13-36-8cc	3.69	Mar. 28, 1946	5.79	Aug. 17-21, 1946
13-36-9ad	a .02	Mar. 16, 1946	3.74	Aug. 17-22, 1946
13-37-3ab	10.55	May 8, 1942	15.55	Aug. 6, 1946
13-37-5aa	8.04	May 8, 1942	13.85	Aug. 2, 1943
13-38-3ba	9.27	May 8, 1942	15.79	Aug. 2, 1943
13-38-6dc	9.94	May 8, 1942	14.75	Aug. 6, 1946
13-39-10cc	1.48	Aug. 12, 1942	7.41	Oct. 31, 1941
14-35-13bb	2.78	Mar. 2, 1942	6.43	Aug. 30, 1940
14-35-16db	5.20	Apr. 5, 1939	9.24	Aug. 30, 1940
14-35-24da	2.83	Sept. 7, 1942	6.34	Aug. 30, 1940
14-35-27aa	3.94	Sept. 10, 1938	6.42	Aug. 30, 1940
14-35-28bb	2.96	July 10, 1943	4.94	May 1, 1940
14-36-8cb	3.52	May 3, 1946	8.96	Aug. 28, 1940
14-36-15bb	1.55	Apr. 5, 1939	7.40	Aug. 13, 1944
14-37-4ad	3.08	June 2, 1939	6.09	Sept. 30, 1940
				Nov. 1, 1940
14-37-5ab	2.60	June 6, 1941	6.79	Aug. 28, 1940
14-37-5bb	2.07	Apr. 10, 1946	5.24	Aug. 28, 1940
14-37-11bb	3.37	Apr. 5, 1939	6.73	Aug. 28, 1940
14-37-12bb	2.52	Apr. 5, 1939	6.59	Aug. 3, 1943
14-38-3da	2.47	Feb. 27, 1939	5.79	Nov. 5, 1941
14-38-7db	127.15	July 16, 1946	166.90	Oct. 6, 1940
14-38-17ba	150.50	Nov. 22, 1946	163.38	Oct. 3, 1941
14-39-2cc	166.60	Nov. 22, 1946	182.62	Apr. 2, 1937
14-39-4cc	101.59	Mar. 17, 1943	106.42	Aug. 3, 1946
14-39-32dc	b 3.92	July 16, 1946	58.09	Jan. 2, 1941
				Feb. 4, 1941
				July 3, 1941
15-37-29cc	1.33	May 3, 1946	7.56	Sept. 30, 1940
15-38-4da	.88	June 30, 1938	5.30	Jan. 23, 1946
15-38-20aa	16.40	Aug. 13, 1936	19.26	Dec. 2, 1941
15-38-21dd	8.70	Nov. 29, 1946	34.29	Sept. 4, 1941
15-38-23cc	8.02	July 15, 1946	11.85	Dec. 1, 1937
15-38-28aa	35.38	June 3, 1946	95.17	Nov. 28, 1940
15-38-34ac	4.40	Apr. 3, 1939	10.08	July 24, 1940
15-38-34ad	4.47	Apr. 3, 1939	9.30	Dec. 2, 1941
15-38-34ca	6.17	Apr. 3, 1939	10.31	July 24, 1940
15-38-36bb	7.68	May 4, 1938	11.10	Aug. 2, 1946
15-38-36dc	4.30	Mar. 2, 1942	8.35	Aug. 28, 1940
15-39-5bc	22.90	June 1, 1938	35.90	Nov. 21, 1946
15-39-17aa	6.02	June 1, 1938	8.95	Sept. 2, 1941
15-39-24da	43.40	Nov. 29, 1946	83.36	Mar. 3, 1942
15-39-31bc	78.27	July 16, 1946	108.45	Mar. 3, 1941
15-40-17cc	65.54	Aug. 3, 1946	73.96	Dec. 1, 1941
15-40-26aa	18.91	June 5, 1946	60.07	Oct. 31, 1940
15-40-27dd	98.84	July 16, 1946	109.49	Mar. 3, 1941
16-38-7aa	7.63	May 4, 1942	10.24	Nov. 5, 1943
16-38-7cc	5.11	May 4, 1942	8.77	June 3, 1946
16-38-28ad	10.25	May 4, 1942	13.90	Aug. 2, 1946
16-38-30aa	8.58	Sept. 29, 1938	11.48	Aug. 28, 1940
16-38-33ad	a .26	May 31, 1938	2.50	July 16, 1936
16-38-34bc	4.94	May 31, 1938	10.32	Oct. 3, 1941
16-39-7aa	5.87	Aug. 7, 1942	9.80	Feb. 4, 1941
16-39-20aa	8.44	Feb. 2, 1937	10.52	Apr. 30, 1942
16-39-32bc	7.90	July 30, 1936	11.80	Nov. 21, 1946
16-40-2da	10.96	July 8, 1937	13.40	Nov. 21, 1946
16-40-14bb	10.22	May 7, 1942	12.78	Oct. 1, 1941
16-41-34dc	10.44	Mar. 2, 1941	20.46	Sept. 30, 1936

a Above land-surface datum.

b Well flooded April, May, and June.

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Kimball County</u>				
15-57-32bb	33.67	June 15, 1935	35.04	July 28, 1940
<u>Knox County</u>				
30-3-11aa	20.28	May 28, 1935	23.25	Oct. 9, 1937
32-6-8dd	11.08	July 13, 1938	16.18	Oct. 30, 1940
33-7-30bc	12.76	Dec. 28, 1946	16.04	Oct. 30, 1940
33-7-30cb	8.60	Dec. 24, 1935	11.98	Oct. 30, 1940
		Mar. 25, 1936		
<u>Lancaster County</u>				
A7-7-35cb	24.91	Dec. 23, 1946	26.46	Oct. 17, 1940
A9-5-21aa	20.70	Dec. 23, 1946	28.40	Jan. 4, 1936
A9-7-28cc	4.43	Oct. 20, 1942	11.65	Oct. 6, 1937
<u>Lincoln County</u>				
11-26-15bb	6.06	Aug. 3, 1942	16.19	July 29, 1940
11-26-15cc	8.88	Sept. 20, 1944	21.38	Oct. 2, 1939
11-26-16bb	9.00	Oct. 30, 1946	21.62	Apr. 6, 1939
12-25-31ca	1.90	June 14, 1943	5.47	Sept. 5, 1939
12-26-35db	9.74	Dec. 4, 1946	10.37	Mar. 28, 1946
12-27-11bd	2.53	Feb. 2, 1943	7.87	Aug. 29, 1940
12-27-14aa	2.98	July 2, 1935	7.07	Aug. 30, 1941
12-27-16aa	2.45	May 1, 1942	5.07	Sept. 6, 1939
12-27-20dd	14.10	Dec. 4, 1946	18.68	Oct. 1, 1940
12-27-26dc	5.85	Mar. 6, 1945	14.07	Oct. 2, 1939
12-27-27ad	1.74	Sept. 11, 1942	7.36	Nov. 1, 1939
12-27-34da	22.74	Sept. 20, 1944	31.65	Nov. 4, 1940
12-27-35aa	14.42	June 14, 1943	23.40	Oct. 2, 1939
12-27-35ad	16.62	June 14, 1943	25.02	Oct. 1, 1940
12-27-35bb	16.95	May 18, 1944	26.96	Nov. 1, 1939
12-27-35bc	19.73	Sept. 20, 1944	27.86	Nov. 4, 1940
12-27-35cb	25.64	Sept. 20, 1944	38.90	Nov. 1, 1939
12-27-35dal	21.91	Sept. 20, 1944	33.66	Oct. 2, 1939
12-27-35da2	24.26	Aug. 2, 1946	31.05	Oct. 1, 1940
12-27-36ad	3.02	July 1, 1941	9.02	Oct. 2, 1939
12-28-4ad	2.78	May 1, 1942	6.62	Sept. 6, 1939
12-28-9bc	4.77	Dec. 4, 1946	10.65	Nov. 1, 1939
12-28-11aa	.75	May 1, 1942	4.33	Aug. 29, 1940
12-28-14dd	27.59	Dec. 5, 1946	37.43	Oct. 1, 1940
12-28-15ba	11.96	Oct. 30, 1946	16.85	Oct. 1, 1940
13-27-32bd	1.40	May 1, 1942	5.13	Aug. 4, 1939
13-28-21da	1.05	May 1, 1942	6.48	Aug. 29, 1940
13-28-29cc	3.28	Apr. 7, 1939	6.31	Aug. 30, 1941
13-28-31cc	3.39	Oct. 30, 1946	10.84	Aug. 3, 1939
13-29-4cc	1.56	May 8, 1942	6.24	Sept. 14, 1944
13-29-5bc	1.42	Feb. 2, 1937	5.04	July 7, 1943
13-29-5cb	1.03	May 5, 1937	4.72	July 26, 1940
13-29-6ba	2.14	May 8, 1942	5.31	July 26, 1940
13-29-6bb	1.88	May 11, 1944	5.67	July 26, 1940
13-29-6bd	2.98	May 8, 1942	6.45	Oct. 2, 1939
13-29-6ca	3.07	June 7, 1946	7.08	Oct. 2, 1939
13-29-6dd	2.41	Dec. 3, 1937	6.92	Sept. 1, 1939
13-29-9bc	2.40	May 8, 1942	5.70	Sept. 4, 1944
13-29-16ad	3.85	Mar. 3, 1939	6.46	Sept. 30, 1940
13-29-17bc	1.86	Apr. 30, 1941	8.74	Aug. 3, 1939
13-29-18bb	1.37	Apr. 6, 1939	6.35	Nov. 1, 1939
				Dec. 4, 1942
13-29-20aa	1.57	May 11, 1942	5.45	Aug. 15, 1936
13-29-20bb	5.15	Sept. 11, 1942	12.19	Oct. 2, 1936
13-29-21dd	.85	Apr. 30, 1941	4.60	Sept. 5, 1939

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Lincoln County--Continued</u>				
13-29-25bb	3.05	Apr. 7, 1939	6.86	Nov. 22, 1944
13-30-1ba	4.60	Feb. 2, 1938	7.68	Apr. 4, 1945
13-30-3ad	2.10	May 8, 1942	6.47	Sept. 27, 1940
13-30-13bc	.65	May 1, 1942	7.28	Sept. 15, 1936
13-30-13dd	9.09	Sept. 11, 1942	15.98	Aug. 2, 1937
13-30-14dc	2.42	May 11, 1942	10.57	Aug. 28, 1936
13-30-21bb	11.61	May 13, 1943	19.92	Sept. 17, 1936
13-34-32da	9.57	May 8, 1942	13.37	Sept. 27, 1940
14-30-8cb	2.02	May 8, 1942	4.27	Aug. 6, 1939
14-30-19bc	1.57	May 8, 1942	4.66	Dec. 3, 1945
14-30-26bb	a .28	May 8, 1942	3.34	Aug. 30, 1940
14-30-29db	3.77	Mar. 8, 1942	6.27	Nov. 6, 1939
		Sept. 10, 1943		
14-30-32cd	1.94	May 8, 1942	6.11	July 26, 1940
14-31-5ba	2.52	Apr. 15, 1946	5.69	Aug. 2, 1939
14-32-5aa	2.62	May 8, 1942	6.00	Aug. 2, 1939
14-32-18ad	1.55	Aug. 6, 1946	6.84	May 7, 1941
14-32-20dd	1.94	Aug. 8, 1942	7.18	Apr. 12, 1945
14-33-8bb	1.04	Feb. 3, 1941	3.82	July 26, 1940
14-33-16da	.37	Sept. 7, 1942	4.70	Aug. 30, 1940
14-33-17bc	2.15	Sept. 7, 1942	5.48	Aug. 30, 1940
14-33-17da	.45	Aug. 3, 1945	4.60	Aug. 30, 1940
14-33-27aa	8.16	Sept. 10, 1942	10.77	Dec. 30, 1940
14-33-27da	3.10	May 18, 1944	5.42	Sept. 28, 1943
				Oct. 2, 1943
14-33-29ca	6.87	Sept. 10, 1942	11.01	Aug. 30, 1940
14-34-21bc	2.57	Oct. 6, 1941	5.74	Sept. 3, 1941
<u>Madison County</u>				
22-1-33cb	a .04	Aug. 1, 1945	4.25	Aug. 18, 1936
23-2-5aa	2.93	June 4, 1935	4.86	July 16, 1936
24-2-32dc	2.89	June 4, 1935	6.55	Aug. 10, 1935
<u>Merrick County</u>				
11-8-3dd	1.04	Nov. 5, 1946	3.22	Sept. 4, 1946
11-8-18ab	3.23	July 7, 1944	7.10	Feb. 26, 1944
11-8-19dc	6.16	July 7, 1944	11.20	Dec. 24, 1940
12-7-7aa	6.00	Dec. 2, 1946	7.32	Sept. 4, 1946
12-8-7dc	10.87	July 9, 1946	13.79	Sept. 4, 1946
12-8-28dc	1.24	Dec. 2, 1946	3.40	Sept. 4, 1946
13-6-2bc	4.62	Dec. 2, 1946	6.66	Sept. 4, 1946
13-6-7bb	5.00	Dec. 2, 1946	6.50	Oct. 3, 1946
13-6-19cb	3.87	June 4, 1946	5.58	Oct. 3, 1946
13-6-28bb	5.85	Dec. 2, 1946	7.49	Sept. 4, 1946
13-7-4bc	6.20	June 4, 1946	7.46	May 7, 1946
13-7-29cb	1.00	Nov. 6, 1946	4.07	Aug. 6, 1946
14-4-18bb	3.52	Dec. 9, 1946	5.72	Sept. 3, 1946
14-6-15bb	2.60	Dec. 10, 1946	5.64	Sept. 4, 1946
14-7-21cb	6.24	Dec. 2, 1946	9.74	Dec. 20, 1934
14-7-26cc	12.47	July 9, 1946	13.00	May 7, 1946
15-4-15dd	6.28	Dec. 10, 1946	8.30	Sept. 4, 1946
15-4-31cc	3.11	Dec. 10, 1946	5.02	Sept. 4, 1946
15-5-8dd	13.19	Dec. 10, 1946	14.15	June 4, 1946
15-5-27dd	3.03	Dec. 10, 1946	4.49	Sept. 4, 1946
16-3-27cc	6.22	July 9, 1946	9.84	Nov. 1, 1934

a Above land-surface datum.

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Morrill County</u>				
20-49-30ac	17.07	Nov. 7, 1946	21.22	June 11, 1946
20-50-17bb	11.96	Nov. 7, 1946	15.93	May 9, 1946
20-50-28bb	13.18	Nov. 16, 1944	14.49	July 26, 1940
20-50-32aa	2.00	May 14, 1942	5.42	Aug. 16-21, 1940
21-50-33bc	34.49	Nov. 7, 1946	47.85	June 11, 1946
22-50-14bc	.55	May 9, 1946	2.33	Aug. 13, 1946
22-50-28bc	81.42	Apr. 5, 1940	82.46	Aug. 29, 1934
		Apr. 16, 1946		
23-51-32bb	101.18	Nov. 8, 1946	101.33	June 12, 1946
<u>Nemaha County</u>				
5-14-23cb	10.42	Oct. 24, 1944	20.56	July 6, 1940
<u>Nuckolls County</u>				
1-5-31cc	1.14	Dec. 18, 1946	4.19	June 10, 1946
1-6-30dd	33.42	Dec. 18, 1946	33.52	Oct. 27, 1946
1-6-35cc	9.83	Dec. 18, 1946	12.83	June 10, 1946
1-7-19cb	8.25	Dec. 18, 1946	9.20	Oct. 27, 1946
1-7-34bb	3.61	Dec. 18, 1946	7.04	Aug. 12, 1946
1-7-35da	7.84	Dec. 18, 1946	8.99	June 10, 1946
1-8-7dd	1.73	Oct. 27, 1946	5.66	Aug. 12, 1946
1-8-21dc	25.91	Dec. 18, 1946	27.43	June 10, 1946
1-8-22ab	2.39	Oct. 27, 1946	4.66	Aug. 12, 1946
2-5-8dd	108.43	Dec. 31, 1946	121.37	Apr. 12, 1940
4-7-26aa	53.25	Jan. 8, 1936	56.55	Dec. 31, 1946
<u>Otoe County</u>				
A7-12-35aa	16.90	Oct. 24, 1944	25.06	Oct. 17, 1940
A8-10-5bb	2.70	June 5, 1946	9.73	July 6, 1940
A8-11-7cc	5.54	Oct. 24, 1944	14.12	Nov. 17, 1939
<u>Pawnee County</u>				
A2-11-8aa	10.84	Oct. 24, 1944	28.56	Oct. 6, 1937
A2-11-8ad	3.45	Dec. 23, 1946	8.49	Oct. 17, 1940
<u>Phelps County</u>				
8-17-19db	11.04	Dec. 6, 1946	15.91	Oct. 27, 1940
8-17-24bc	7.75	May 9, 1933	12.23	Oct. 27, 1940
		Dec. 6, 1946		
8-18-9db	.94	Feb. 23, 1932	6.05	Nov. 3, 1934
8-18-16cc	6.69	Dec. 5, 1946	9.26	Aug. 9, 1946
8-18-24bb	8.28	Dec. 6, 1946	10.05	Sept. 7, 1946
8-19-7dc	4.52	Dec. 5, 1946	6.48	Aug. 9, 1946
8-19-14dc	10.95	Dec. 5, 1946	13.22	Sept. 6, 1946
8-20-8cb	6.90	May 12, 1944	12.22	Nov. 1, 1937
8-20-8cd	5.85	Nov. 15, 1946	8.90	Aug. 9, 1946
8-20-9cd	2.10	June 4, 1942	7.42	Sept. 30, 1940
8-20-14bc	13.90	May 12, 1944	19.22	Sept. 30, 1940
8-20-14db	5.01	June 4, 1942	9.19	Nov. 2, 1940
8-20-15bb	4.39	Nov. 17, 1944	11.01	Sept. 30, 1940
8-20-15db	8.23	May 12, 1944	13.90	Sept. 30, 1940
8-20-17aa	10.45	May 12, 1944	16.25	Nov. 1, 1937
8-20-17ba	6.53	June 15, 1938	12.67	July 2, 1940
<u>Pierce County</u>				
27-3-33ad	1.50	June 4, 1935	5.13	Oct. 30, 1940
28-1-33aa	5.20	Dec. 27, 1946	12.70	Oct. 25, 1940

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Platte County</u>				
A17-1-14cc	7.50	July 30, 1945	14.10	Aug. 25, 1936
A17-1-14dd	2.90	July 30, 1945	8.68	Aug. 26, 1936
A17-1-17dd	5.20	July 30, 1945	10.58	Aug. 3, 1937
A17-1-25aa	4.00	July 30, 1946	11.00	Apr. 30, 1940
A17-1-29da	7.90	July 3, 1944	12.00	Oct. 16, 1943
A20-1-18sb	1.86	Mar. 19, 1936	4.98	Nov. 21, 1939
16-2-9cc	1.55	Dec. 10, 1946	4.80	Sept. 4, 1946
16-2-12ab	6.79	July 5, 1935	11.79	Nov. 21, 1939
17-1-2cc	6.80	Apr. 13, 1942	13.29	Oct. 18, 1936
17-1-5ad	1.38	Aug. 25, 1939	7.40	Dec. 3, 1935
17-1-7ac	4.50	July 23, 1945	9.34	Dec. 21, 1936
17-1-14cc	9.20	July 23, 1945	11.50	Sept. 10, 1941
17-1-34dc	7.53	Oct. 17, 1945	9.40	Sept. 4, 1946
17-2-2cd	5.53	Dec. 10, 1946	8.80	Oct. 23, 1936
17-2-4bc	7.24	June 11, 1945	12.30	Aug. 31, 1942
				Oct. 14, 1943
18-1-28	60.80	Mar. 27, 1940	71.23	July 30, 1937
		Apr. 24, 1940		
<u>Polk County</u>				
13-4-34cc	7.77	Apr. 8, 1946	12.61	Apr. 2, 1940
14-4-19ab	2.54	Oct. 10, 1946	5.94	Sept. 3, 1946
15-2-4dc	6.25	Apr. 9, 1946	7.75	Oct. 12, 1946
15-2-7bb	6.35	May 6, 1946	8.18	Sept. 3, 1946
15-3-20cc	4.20	Dec. 9, 1946	6.69	Sept. 3, 1946
15-4-35dc	18.78	June 3, 1946	21.00	Sept. 3, 1946
16-1-14bb	4.63	Dec. 9, 1946	6.58	Sept. 3, 1946
16-1-36cd	20.13	Jan. 9, 1946	21.71	June 3, 1946
16-2-23dc	7.17	Apr. 8, 1946	8.18	Sept. 3, 1946
<u>Red Willow County</u>				
2-29-4aa	8.90	Oct. 25, 1946	10.99	Aug. 14, 1946
2-29-5ab	16.35	Dec. 7, 1946	19.80	Aug. 14, 1946
2-30-1aa	8.17	Oct. 24, 1946	11.19	Aug. 14, 1946
2-30-12ad	28.72	Oct. 24, 1946	30.81	June 12, 1946
3-26-5bb	43.60	June 12, 1946	45.87	Oct. 25, 1946
3-26-9cb	16.25	Dec. 17, 1946	17.02	Aug. 14, 1946
3-26-11bb	8.35	Dec. 17, 1946	9.08	Aug. 14, 1946
3-27-7dc	7.18	Dec. 11, 1946	9.62	Aug. 14, 1946
3-27-8ac	9.21	Oct. 21, 1946	13.49	Oct. 21, 1937
3-27-11aa	3.73	Oct. 21, 1946	7.50	Aug. 14, 1946
3-27-11cd	16.39	Jan. 30, 1946	17.62	Aug. 14, 1946
3-27-17cb	8.31	Oct. 25, 1946	9.95	Aug. 14, 1946
3-28-17da	9.83	Oct. 21, 1946	11.68	Aug. 14, 1946
3-28-20bb	9.27	Dec. 17, 1946	10.86	Aug. 14, 1946
3-28-21cd	8.48	Oct. 21, 1946	9.08	Aug. 14, 1946
3-29-32db	4.72	Oct. 25, 1946	7.10	Aug. 14, 1946
3-29-35da	18.12	Dec. 17, 1946	19.53	Jan. 29, 1946
3-30-19bb	6.88	Mar. 20, 1946	8.49	Aug. 15, 1946
3-30-26cb	8.05	Feb. 4, 1946	9.66	Aug. 14, 1946
3-30-29aa	3.08	Oct. 24, 1946	4.45	Aug. 14, 1946
3-30-34bb	12.34	Oct. 24, 1946	14.48	Aug. 14, 1946
4-26-34db	19.86	Dec. 11, 1946	20.88	Feb. 1, 1946
<u>Richardson County</u>				
A1-15-12dd	1.28	Dec. 23, 1946	7.61	Aug. 19, 1940
A2-13-4cd	4.83	Oct. 24, 1944	11.33	Aug. 19, 1940
A2-13-9bb	20.34	Oct. 24, 1944	21.79	Oct. 10, 1938
A2-14-22ab	2.99	Oct. 24, 1944	18.03	Oct. 29, 1940
A2-14-27ab	21.27	May 19, 1936	31.73	Oct. 22, 1934

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Rock County</u>				
30-17-8db	1.73	June 5, 1935	5.12	Nov. 22, 1935
30-19-10aa	.80	May 16, 1945	4.23	July 19, 1940
<u>Saline County</u>				
A6-1-24aa	20.73	Sept. 14, 1944	27.48	Dec. 19, 1936
A7-3-30aa	48.56	Dec. 30, 1946	52.88	June 29, 1937
<u>Sarpy County</u>				
A13-13-27da	1.20	July 8, 1938	4.89	July 30, 1934
A14-12-26cc	24.16	Dec. 26, 1946	40.24	Oct. 8, 1941
<u>Saunders County</u>				
A13-9-11dd	1.66	Mar. 17, 1936	8.42	Oct. 7, 1937
A13-9-12dc	4.19	Mar. 19, 1940	7.94	Oct. 7, 1941
A13-9-24cc	1.50	Apr. 28, 1944	7.92	Aug. 30, 1934
A13-9-24dc	4.74	Mar. 19, 1940	12.48	Oct. 15, 1940
A14-5-35cd	2.50	Dec. 30, 1946	14.49	Oct. 15, 1940
<u>Seward County</u>				
A11-3-22aa	26.19	June 30, 1935	28.80	Dec. 30, 1946
<u>Sheridan County</u>				
24-41-34da	7.23	June 24, 1938	9.37	Oct. 21, 1941
24-42-27ba	12.19	Apr. 4, 1946	13.23	Dec. 18, 1946
24-43-15da	5.97	Apr. 4, 1946	8.08	Nov. 4, 1940
24-44-14da	4.05	Apr. 4, 1946	6.18	Aug. 15, 1946
24-44-18bb	4.25	May 14, 1946	5.50	Aug. 15, 1946
24-45-8dd	.96	May 14, 1946	3.29	Aug. 15, 1946
24-46-10cb	2.26	Apr. 4, 1946	7.35	Aug. 15, 1946
25-45-32ad	32.86	Dec. 28, 1946	33.84	Sept. 16, 1946
		Dec. 29, 1946		
27-46-34bb	21.33	May 17, 1946	21.44	Dec. 19, 1946
28-46-32ad	24.83	Apr. 23, 1946	25.33	Aug. 16, 1946
31-44-10dd	2.68	Apr. 1, 1937	5.24	Sept. 12, 1936
31-46-8ad	3.80	June 16, 1937	6.20	Nov. 1, 1940
<u>Sioux County</u>				
29-55-33cc	174.41	Aug. 28, 1934	175.74	June 27, 1946
<u>Stanton County</u>				
A23-3-11bb	3.68	Dec. 26, 1946	6.51	Oct. 27, 1936
<u>Thayer County</u>				
3-2-31ad	104.95	Sept. 14, 1944	105.93	Nov. 1, 1941
4-4-22ab	7.78	Dec. 30, 1946	12.14	Nov. 14, 1940
<u>Thomas County</u>				
23-28-9da	9.79	June 8, 1935	10.98	July 23, 1940
24-30-20ab	2.33	Mar. 27, 1936	3.12	Apr. 26, 1946
<u>Thurston County</u>				
A26-8-13bc	8.95	Mar. 24, 1937	13.37	Aug. 1, 1936

Highest and lowest recorded water levels, in feet below land-surface datum,
in 731 observation wells in Nebraska--Continued

Well	Highest level	Date	Lowest level	Date
<u>Valley County</u>				
17-16-26dc	3.01	May 3, 1944	6.83	Dec. 26, 1946
<u>Washington County</u>				
A17-11-5da	4.63	Oct. 27, 1944	10.52	Dec. 18, 1935
A18-11-3aa	23.73	Oct. 27, 1944	30.91	Oct. 18, 1940
<u>Wayne County</u>				
A26-3-13cb	26.74	July 10, 1938	31.31	Oct. 11, 1941
<u>Webster County</u>				
1-9-11cb	2.50	Dec. 18, 1946	5.27	Aug. 12, 1946
1-9-13ad	5.50	Oct. 27, 1946	9.07	Aug. 12, 1946
1-9-16bc	10.14	Dec. 18, 1946	11.83	Mar. 8, 1946
1-10-1dcl	9.51	Oct. 29, 1941	10.92	Sept. 25, 1939
1-10-1dc2	16.98	Mar. 8, 1946	17.71	Oct. 30, 1939
		June 12, 1946		
1-10-3ad	8.42	Oct. 27, 1946	9.97	Aug. 12, 1946
1-10-9ad	15.66	Oct. 27, 1946	17.54	Aug. 12, 1946
1-11-1da	5.72	Dec. 18, 1946	9.33	June 10, 1946
1-11-5bc	2.64	Dec. 18, 1946	6.55	Mar. 8, 1946
1-11-1lab	3.82	Nov. 14, 1946	9.10	June 17, 1946
1-11-16aa	19.95	Dec. 18, 1946	21.25	Aug. 12, 1946
1-12-2bb	2.77	Oct. 26, 1946	6.52	Aug. 12, 1946
1-12-4bb	3.10	Oct. 27, 1946	8.17	Aug. 12, 1946
1-12-8aa	1.95	Oct. 26, 1946	5.28	Aug. 12, 1946
2-9-24bd	15.08	Mar. 8, 1946	17.76	Oct. 16, 1939
2-10-36db	26.67	Dec. 18, 1946	28.07	Feb. 12, 1946
2-12-34cd	17.30	Oct. 26, 1946	19.62	Oct. 2, 1936
3-10-34cb	34.43	Feb. 13, 1946	37.14	Aug. 1, 1940

Length of record, difference between highest and lowest water levels, net
change in water level in 1946, and net change in water level during
period of record in 731 observation wells in Nebraska

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Adams County</u>				
5-11-10bc	10	1.16	.....	+0.27
6-10-23bb	10	4.31	.....	+4.02
8-12-8ab	1	1.74	+1.41	+1.41
<u>Antelope County</u>				
24-6-2aa	12	4.57	+1.09	+2.84
27-7-10bb	7	1.24	- .68	-1.04
<u>Arthur County</u>				
17-39-31dc	11	4.06	- .29	-1.50
<u>Blaine County</u>				
22-24-33ca	12	3.24	+ .43	+ .35

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Box Butte County</u>				
24-47-1db	1	0.83	-0.22	-0.22
24-48-4bb	1	.44	-.44	-.44
24-48-10bb	1	.73	-.66	-.66
24-48-11dd	1	2.02	-1.64	-1.64
24-48-31ba	1	.40	+1.15	+1.15
24-50-10aa	9	3.34	-.22	+1.39
24-52-13cb	9	.61	-.02	+1.22
24-52-55aa	9	1.52	-.14	+1.77
25-47-19aa	9	2.42	-.96	-1.99
25-47-31cc	1	1.09	-.36	-.36
25-48-4dd	1	.76	-.49	-.49
25-48-14aa	1	.69	-.62	-.62
25-48-25bb2	1	4.00	-1.09	-1.09
25-48-27db2	1	1.55	-.69	-.69
25-48-50ad	9	2.86	-.31	+1.99
25-49-14da	1	1.02	+1.64	+1.64
25-50-22aa	1	.28	-.01	-.01
25-50-31ab	12	.61	-.20	-.08
25-51-14aa	9	2.52	+1.92	+1.71
26-47-17dd	1	.23	+1.01	+1.01
26-49-13dc	1	.75	-.31	-.31
26-50-12dc	9	1.61	-1.54	-.18
26-51-25bc	9	.69	-.22	-.43
26-52-10bc	9	5.74	-1.01	-2.61
26-52-17ab	9	.63	+1.25	+1.06
27-47-12da	12	4.52		+4.12
27-47-23ba	9	9.45	-.46	+7.71
27-49-21cb	11	1.41	-.52	-.04
27-50-20aa	9	.83	-.10	+1.41
27-51-6bb	1	.32	+1.18	+1.18
28-51-6dd	11	2.41	-.38	-.13
28-51-8bc	9	1.37	+1.43	+1.53
<u>Boyd County</u>				
32-10-1cc	12	2.74	.....	+1.05
33-13-9cb	12	6.25	.....	+3.33
34-13-10ad	12	3.44	.....	+2.33
<u>Buffalo County</u>				
8-16-3cb	1	2.74	+1.63	+1.63
8-16-10cc		1.95	+1.37	+1.37
8-16-12cc	16	5.33	+1.44	-.16
8-17-1da	15	6.72	+5.77	+2.53
8-17-4bc	1	4.79	+2.70	+2.70
8-17-12dd	15	3.75	-.44	+1.39
8-18-4cb		2.32	+1.47	+1.47
9-13-5cb	16	6.00	-.80	-1.91
9-13-9cc	16	5.17	-.29	-1.49
9-13-22bc	16	5.11	+1.52	+3.08
9-14-1dc		1.32	+1.84	+1.84
9-14-4cc	1	3.05	-.19	-.19
9-14-15cb	16	6.43	.00	-.44
9-14-19dd	16	5.98	+1.37	-1.72
9-14-21cc	16	4.49	+1.03	-1.03
9-14-22bb		2.29	-.21	-.21
9-14-34bb	16	6.43	+1.90	+1.36

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Buffalo County--Continued</u>				
9-15-11cb	15	4.80	+0.09	-2.59
9-15-16cc		.43	+.43	+.43
9-17-31cd	1	3.10	+2.69	+2.69
9-18-27dd	1	5.76	+4.12	+4.12
9-18-31cc	1	5.11	+1.47	+1.47
10-13-24bc	16	8.57	-.63	-5.75
<u>Burt County</u>				
A22-8-35aa	11	8.13	.....	-3.47
<u>Butler County</u>				
A14-3-8ba	7	7.38	.....	+5.78
A16-1-17bc	1	2.05	-.35	-.35
A16-2-14cc	1	1.80	-.02	-.02
A16-2-30bc	1	.72	-.48	-.48
A16-3-1dc	1	1.88	-.54	-.54
A16-3-8dd		1.50	+1.50	+1.50
A16-3-15cd	1	3.14	-.21	-.21
A17-4-28cd	1	1.53	-.37	-.37
<u>Cass County</u>				
A12-9-32ca	12	3.98	.....	+1.36
<u>Cedar County</u>				
A28-3-4ca	12	3.55	.....	+1.40
A31-2-31ab	12	1.61	.....	.00
<u>Chase County</u>				
5-36-7ba	1	.59	+.25	+.25
5-36-11dc	12	1.39	+.11	+1.21
<u>Cherry County</u>				
31-25-20ad	11	4.13	.....	+.47
33-27-17cb	11	1.50	.....	-.64
34-27-31da	12	2.37	.....	-.01
34-31-3ad	12	4.22	.....	+1.18
34-38-14cb	10	1.95	.....	-.63
<u>Clay County</u>				
5-7-32ac	10	1.98	.....	-.84
<u>Golfax County</u>				
A17-2-16bc	1	1.21	-.36	-.28
A17-2-22dd	1	1.13	+.36	+.36
A17-3-4cc		.83	+.83	+.83
A17-3-11dd	1	1.31	-.44	-.92
A17-3-18dc	1	2.17	+.65	+.65
A17-3-23cc	1	1.27	+.48	+.48
A17-3-29aa		1.48	+.48	+.48
A17-4-1cc	7	2.81	-.01	-.47
A17-4-4bb	1	3.97	-1.53	-2.06
A20-2-2dd	7	2.88	+.08	+.21
A20-4-7aa	11	10.15	+.07	+2.21

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Cuming County</u>				
A21-6-23bb	12	4.17	.....	+0.43
<u>Dawes County</u>				
31-52-3dc	12	4.72	+ .47	+3.17
32-51-1db	11	1.59	.....	-1.36
34-49-11bc	7	4.80	.....	+3.50
<u>Dawson County</u>				
9-19-16ab	1	4.18	+2.04	+2.04
9-19-25bb	1	3.31	+2.74	+2.74
9-19-33bb	1	4.01	+2.40	+2.40
9-20-3dd		3.80	+3.80	+3.80
9-20-5bc	1	3.81	+2.51	+2.51
9-20-13bc	1	4.55	+3.35	+3.35
9-20-22cc	1	4.89	+3.24	+3.24
9-20-33dd		2.18	+2.12	+2.12
9-21-6ad	16	6.91	+2.06	+ .71
9-21-6da	16	6.44	+1.43	+ .84
9-21-7aa	16	4.47	+1.14	+1.02
9-21-7da	16	3.02	+ .71	- .51
9-21-12cb	12	3.90	+1.70	+1.17
9-21-18aa	16	4.74	+1.29	+ .64
9-21-18da	16	3.76	+1.29	+ .31
9-21-19aa1	16	4.10	+ .43	- .15
9-21-19aa2	16	3.98	+ .39	- .61
9-21-19da	16	4.91	- .19	-1.11
9-21-19dd	16	4.79	- .14	-1.05
9-21-24aa	16	4.01	+1.44	+ .44
9-21-29bc	16	5.11	+ .07	- .50
9-21-30da	16	5.57	+ .21	- .04
9-21-31aa1	16	7.72	+1.60	+3.70
9-21-31aa2	8	5.43	-2.10	- .87
9-21-31cc	7	26.99	+ .90	+26.99
9-21-31da	16	14.74	+2.41	+6.94
9-21-31dd	8	15.66	+2.34	+9.90
9-21-32aa	8	4.00	-1.56	-2.74
9-21-32dd	8	4.63	-1.02	-2.83
9-22-1da	8	4.22	-1.69	-1.00
9-22-6cc	8	3.09	-1.00	-2.14
9-22-7ad	8	3.11	-1.11	- .07
9-22-17dd	17	13.23	+2.29	+10.98
9-22-23cb	8	6.08	-1.36	+1.97
9-22-23cd	1	3.93	+1.17	-1.69
9-22-25dc	8	13.74	+1.80	+12.92
9-22-26aa	8	9.64	-1.82	+1.31
9-23-2dc	1	3.18	+2.32	+2.34
9-23-12da	8	10.78	+3.23	+10.19
9-23-30cd	9	3.25	+ .02	.00
9-24-1dc		1.15	+1.01	+1.01
10-20-21cb	1	2.39	+1.12	+1.12
10-20-35bb		2.20	+2.20	+2.20
10-21-6da	16	4.88	- .55	-1.02
10-21-7aa	16	6.92	+1.28	-1.68
10-21-7da	16	7.22	+ .58	-1.09
10-21-18aa	16	7.88	+1.73	-1.52
10-21-18dd	16	7.20	+1.52	-2.03

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
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Dawson County--Continued

10-21-19aa	16	6.92	+1.33	-2.65
10-21-19da	16	7.13	+1.52	-2.39
10-21-23ab	1	4.41	+2.57	+2.57
10-21-30aa	16	3.64	+2.11	-1.64
10-21-30da	16	7.78	+2.63	-1.26
10-21-31aa	16	7.31	+2.37	-1.27
10-21-31da	16	5.98	+2.13	-.33
10-22-11ba	1	5.16	+2.57	+2.57
10-22-29aa	15	4.37	+1.27	+2.27
10-23-5bb	1	4.11	+2.47	+2.60
10-23-9aa	16	7.98	+3.47	+0.01
10-23-29bb		4.49	+1.78	+1.78
10-23-30bc	1	5.11	+3.04	+3.14
10-24-7bb	1	3.17	+.98	+.98
10-24-15cc	1	3.46	+3.41	+3.41
10-24-17bb	8	17.06	+1.97	+14.07
11-21-31dd	16	9.45	+1.52	-1.51
11-22-28aa	1	3.97	-.15	-.49
11-23-21bc	1	2.08	+1.56	+.91
11-23-23cc		4.86	+3.09	+3.09
11-24-16bb	1	4.86	+2.03	+1.96
11-24-20ca	14	5.55	+2.31	+1.91
11-24-24cb	1	5.49	+5.49	+5.49
11-25-8ad	8	4.01	+.76	+1.63
11-25-19cc	8	8.61	+2.21	+5.05
11-25-20cc	8	6.04	+.36	+3.31
11-25-21cc	16	16.19	+1.08	+2.62
11-25-34bc	1	2.63	+1.08	+.96
12-24-30ab	1	2.15	-1.15	-1.15
12-25-34cc	14	1.83	-.23	+.83

Dodge County

A17-5-2bb	0	2.48	+2.48	+2.48
A17-6-6aa	10	8.97	+.52	+1.93
A17-6-8bc	1	2.62	-.35	-.35
A17-8-4aa	7	8.86	-.63	+6.73
A17-8-4dd	7	9.62	-.26	+4.88
A17-8-9da	7	10.14	+.55	+4.63
A17-8-16ad	7	8.08	-.84	+3.16
A17-8-22cb	7	6.07	+1.36	+4.79
A17-8-28ad	7	5.31	+.43	+2.89
A17-8-28dd	7	3.18	-.99	-1.09
A17-9-24dc	12	4.90	....	+3.22
A18-8-28da	7	7.86	-1.43	+4.02
A18-8-28dd	7	8.29	+.45	+6.26
A18-8-33aa	7	6.36	-.01	+2.73
A18-9-18ac	10	2.57	+.39	+.70

Douglas County

A15-10-4bd	12	3.54	+3.54
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Dundy County

1-37-7ab	1	.83	-.41	-.41
1-37-19ba	0	3.00	+3.00	+3.00
1-37-31cd	0	.51	+.51	+.51

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
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Dundy County--Continued

1-38-20bc	11	2.12	+0.72	+1.84
1-38-25bd	1	.74	+.06	+.06
1-38-29ad	0	.99	+.99	+.99
1-39-21ac	11	1.51	-.24	-.55
1-39-22cc	1	1.59	+.06	+.06
1-39-26aa	0	.53	-.05	-.05
1-39-30bb	0	.64	+.62	+.62
1-40-20cb	0	1.22	+1.22	+1.22
1-40-24cd	0	.83	+.83	+.83
1-40-27ab	1	2.21	-.02	-.02
1-40-29bb	1	.58	-.03	-.03
1-41-20dd	0	1.55	+1.55	+1.55
1-41-27ca	0	1.65	+1.65	+1.65
1-42-10cd	0	2.48	+2.48	+2.48
1-42-13bb	0	1.77	+1.77	+1.77
1-42-36aa	0	.89	+.34	+.34
2-36-24ca	0	.23	-.18	-.18
2-36-29ac	1	1.29	+.09	+.09
3-36-31bc	0	.45	+.35	+.35

Franklin County

1-13-1cc	1	2.77	+2.01	+2.01
1-13-2bc	1	2.03	+.99	+.99
1-13-3ca	1	3.87	+1.38	+1.38
1-13-4cb	1	2.24	+1.39	+1.39
1-13-7bb	1	3.70	+1.52	+1.52
1-14-2cd	1	4.45	+4.45	+4.45
1-14-3ba	1	5.03	+3.10	+3.10
1-14-6bc	1	3.23	+2.99	+2.99
1-14-7bb1	6	4.70	+1.62	+3.05
1-14-7bb2	1	2.83	+.76	+.76
1-15-5ca	1	5.13	+2.66	+2.66
1-15-8cb	1	2.81	+.80	+.80
1-16-9bc	1	3.43	+1.11	+1.11
1-16-10bd	1	4.49	+2.54	+2.54
1-16-14ab	1	5.01	+1.81	+1.81
2-13-31ad	1	1.07	+1.07	+1.07
2-13-32dd	1	3.94	+1.73	+1.73
2-15-36bd	12	1.79	-1.31	+.06

Furnas County

3-21-2cc	1	2.51	+.72	+.72
3-21-12dc	1	2.95	+1.28	+1.28
3-22-2ba	1	2.74	+2.09	+2.09
3-25-4bb	1	4.14	+2.16	+2.16
4-21-32cc	1	4.10	+1.63	+1.63
4-22-25cc	1	3.21	+2.93	+2.93
4-22-29ad	1	1.66	+1.45	+1.45
4-22-32dd	1	3.10	+.75	+.75
4-22-34bb	1	1.60	+1.37	+1.37
4-23-20ab	1	4.86	+1.34	+1.34
4-23-23bd	11	1.90	+.65	+.65
4-23-27dd	1	2.54	+1.72	+1.72
4-23-30cc	1	.51	-.13	-.13
4-23-36aa	1	5.74	+2.14	+2.14
4-24-13cd	1	1.83	+1.16	+1.16

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
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Furnas County--Continued

4-24-15cc	1	2.05	+0.68	+0.68
4-24-19cc	1	2.15	+1.75	+1.75
4-24-22dd	1	1.78	+35	+35
4-24-29cd	1	2.82	+0.09	+0.09
4-25-32cd	1	2.71	+1.30	+1.30
4-25-34ad	1	2.58	+2.58	+2.58

Gage County

A2-6-10bc	12	3.49	+2.26
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Garden County

15-42-1ca	10	5.26	-1.11	+2.84
15-42-3cb	10	3.14	+0.06	-.06
17-44-22cc	12	6.47	-5.94
17-46-34bb	12	3.98	.....	-.83
20-44-5db	12	3.74	+80	-2.04
20-44-9ca	13	4.02	-.40	-2.15
20-45-13ab	12	3.12	-.60	+1.24
20-45-17ba	12	3.83	+60	+1.88
21-44-29ab	12	3.77	-.20	+53
21-44-35ca	13	4.40	+10	-1.20
21-45-3db	12	5.12	-.30	+1.35
21-45-10cd	13	4.24	+10	+1.18
21-45-27cb	12	3.32	-.20	+1.42

Gosper County

8-21-2cc	8	3.51	-.16	-1.29
8-21-3ac	6	6.55	+61	+5.24
8-21-3bb	6	7.17	+01	+5.03
8-21-3bc	6	8.23	-.04	+7.73
8-21-3dc	1	1.67	+84	+84
8-21-3dd	6	4.77	+3.08	+3.56
8-21-4ad	6	8.46	+1.66	+7.23
8-21-4ba	8	3.34	+02	-2.11
8-21-4cc	6	8.06	+19	+6.18
8-21-4da	6	7.80	+46	+6.33
8-21-5aa	6	6.56	+19	+5.13
8-21-5ad	6	7.23	-.29	+6.12
8-21-5da	6	8.57	-.35	+6.56
8-21-6aa	6	7.57	+30	+7.01
8-21-6dal	6	8.37	-.51	-2.93
8-21-6da2	6	8.40	-.64	+6.93
8-21-6dd	6	8.68	+13	+8.40
8-21-10da	6	2.39	+16	+1.54
8-21-11aa	8	2.89	-.40	-1.40
8-21-11bb	6	3.91	-.35	+1.94
8-21-12aa	9	4.12	-.56	+23
8-21-12bc	9	3.94	+18	+2.46
8-22-8cd	6	76.94	+4.79	+76.44

Grant County

24-37-25ac	12	3.03	-.42	-.89
24-40-36bb	12	1.68	-.26	-1.21

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
<u>Hall County</u>				
9-10-4dc	1	2.17	+0.74	+0.74
9-11-8bc	1	3.17	+1.27	+1.14
9-11-14cb	1	1.75	-.01	-.01
9-11-21bb	1	2.08	+.80	+.80
9-12-1dc	16	5.31	+1.66	+2.49
9-12-9ba	16	4.52	+1.09	-.96
10-9-3cb	11	4.75	+1.33	+1.65
10-9-4cb	11	4.09	+1.00	+1.93
10-9-8cc	11	4.45	-.17	+1.32
10-9-10bb	1	1.94	+.59	+.59
10-9-27bb	16	3.43	+.01	-.35
10-9-28cc	1	.83	-.03	-.03
10-10-8cc	16	4.56	-.41	+.38
10-10-13dd	1	.54	+.37	+.37
10-11-15dc	16	5.20	-.54	-1.75
10-11-30bc	16	8.25	-.18	-4.72
10-12-20dd	1	1.90	-.80	-.80
11-9-3bc	11	5.90	+1.42	+1.12
11-9-4cc	11	6.62	-.74	+1.04
11-9-4cd	11	7.63	-.92	+.64
11-9-8da	11	9.67	-.84	+2.08
11-9-8db	11	5.98	.....	+1.63
11-9-9aa	11	8.25	-.76	+.78
11-9-9bd	11	9.17	-.92	-.23
11-9-9cc	11	8.49	-.74	+1.84
11-9-9da	11	8.49	-1.00	+1.12
11-9-9dd	11	8.12	+.50	+2.25
11-9-12dc	11	3.80	+1.00	+2.05
11-9-15bb1	11	7.65	-.75	+1.45
11-9-15bb2	11	8.90	-1.76	+2.28
11-9-15cc	11	13.79	-2.75	+4.95
11-9-15db	11	12.74	-.13	+1.00
11-9-15dd	11	4.94	-.68	-.39
11-9-16ad	11	11.89	-2.08	+1.74
11-9-16bc	11	12.87	+.34	+1.70
11-9-16bd	11	13.64	+1.51	+2.57
11-9-16ca	11	11.20	+4.09	+8.00
11-9-16cb	11	18.82	-1.16	+3.54
11-9-16db	11	8.09	+.08	+3.06
11-9-17ba	11	9.42	-.76	+1.53
11-9-17bd	11	11.10	-3.84	+.78
11-9-17cd	11	16.33	-11.93	-1.75
11-9-21bb	11	8.90	-.09	-.20
11-9-21bd	11	9.02	-.58	-1.56
11-9-22cb	11	3.47	-.42	-2.37
11-9-26aa	11	6.19	+2.33	+1.62
11-9-27cb	15	7.66	+.82	-1.27
11-9-28ba	11	9.45	-.41	-4.95
11-9-29bb	11	6.40	-.84	-1.74
11-9-32cc	11	4.15	+1.00	+1.70
11-9-34aa	11	4.76	+.92	+1.10
11-9-34cb	11	4.65	+1.17	+1.12
11-9-35dc	11	3.60	+4.42	+1.48
11-10-11dc	11	6.09	+.66	+1.76
11-10-13ab	11	6.83	+.42	+2.23
11-10-14dd	1	1.61	-.35	-.35
11-10-16bb	1	.51	+.51	+.51
11-10-24cb	11	6.03	+.08	+.88

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
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Hall County--Continued

11-10-26dd	11	12.06	+0.41	+1.95
11-10-27dc	1	.59	-.02	-.02
11-11-25cc	0	.30	-.12	-.12
11-11-32cb	16	7.71	-.70	-6.62
11-11-36cb	16	6.15	-.42	-3.83
11-12-34dc	1	1.14	-.54	-.54
12-9-27cb	11	3.97	-2.17	-.50
12-9-32aa1	11	4.24	+ .08	+1.38
12-9-32aa2	1	1.27	-.09	-.09
12-9-32cc	11	4.80	+ .08	+1.33
12-10-1cc	11	6.00	+ .42	+1.50
12-11-24cd	1	.97	-.15	-.15

Hamilton County

9-6-34bb	12	4.79	.....	-1.83
9-8-9dc	12	5.47	.....	-3.94
11-6-13cb	12	4.93	-.45	-2.87
11-8-28bc	1	2.27	-.51	-.51
13-5-19aa	1	2.31	+ .42	+ .42
13-6-27cc	12	4.56	-.13	-.70

Harlan County

1-17-1da	1	5.62	+1.98	+1.98
1-17-12da	1	4.64	+3.82	+3.82
2-19-5cb	1	3.87	+ .98	+ .88
2-19-17da	1	3.13	+2.78	+2.78
2-19-28dd	6	3.92	+2.11	+3.48
2-19-34bc	1	3.01	+ .17	+ .17
3-20-7ab	1	1.92	+ .47	+ .47
3-20-16bb	1	5.49	+1.49	+1.49
3-20-18ca	1	2.96	+2.26	+2.26
3-20-22dd	1	1.50	+1.16	+1.16
3-20-25cc	1	4.60	+3.69	+3.69

Hayes County

5-33-30cb	1	1.29	+ .46	+ .46
5-33-31dc	10	7.80	-.07	-6.77
5-34-28bc	1	.81	-.79	-.79
5-34-30ba	1	.92	+ .19	+ .19
5-35-17da	0	.96	+ .83	+ .83

Hitchcock County

2-33-2aa	1	1.04	-.48	-.48
2-33-6cb	0	.23	+ .23	+ .23
2-33-10ab	0	.56	+ .56	+ .56
2-34-8da	1	1.14	-.43	-.43
2-34-11dc	0	.07	+ .07	+ .07
2-35-13bb	0	1.75	-1.75	-1.75
2-35-21bc	12	1.76	+ .72	+1.23
2-35-24aa	0	1.35	+1.35	+1.35
3-31-14bc	1	2.18	+1.36	+1.36
3-31-15cb	1	1.17	+ .72	+ .72
3-31-17cd	0	1.30	+1.30	+1.30
3-31-20da	1	.55	+ .34	+ .34

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
<u>Hitchcock County--Continued</u>				
3-32-11bb	1	0.80	-0.03	-0.03
3-32-12cc	1	.77	+.46	+.46
3-32-26dd	1	1.25	+.49	+.49
3-32-31aa	0	.82	+.82	+.82
3-33-35dc	11	1.74	+.01	-.38
4-32-33db	1	.90	-.90	-.90
4-33-8bb	1	.79	-.14	-.14
4-33-23ad	0	1.27	+1.27	+1.27
<u>Holt County</u>				
27-9-27dd	10	4.26	+.97	+1.03
27-9-34da	12	5.77	+.90	+1.22
<u>Hooker County</u>				
24-35-23dd	12	20.19	-.73	-9.38
<u>Howard County</u>				
13-9-26dd	1	2.09	+.90	+.90 •
<u>Jefferson County</u>				
A1-4-19ac	12	3.12	.....	+1.76
A2-4-26dd	12	10.08	.....	+4.01
A3-1-14ba	12	3.23	.....	+.30
A4-2-18cb	12	1.66	.....	-1.59
<u>Johnson County</u>				
A6-9-26bb	12	3.64	.....	-3.64
<u>Kearney County</u>				
6-16-20bb	12	9.63	+.34	+8.01
8-13-12cb	1	2.28	+2.04	+2.04
8-13-16bc	0	2.62	+2.00	+2.00
8-14-13db	16	4.39	+1.71	+1.93
8-14-19cc	1	3.80	+1.30	+1.30
8-14-23ba	1	2.62	+1.57	+1.57
8-15-21dc	1	3.80	+2.19	+2.19
8-16-23dd	1	3.43	+1.84	+1.84
8-16-28aa	0	3.24	+2.70	+2.70
<u>Keith County</u>				
13-35-5cc	12	8.39	-.32	+7.03
13-36-3ca	8	5.64	-.77	-.80
13-36-6bc	10	4.29	-.69	+.78
13-36-8cc	1	2.10	-.37	-.37
13-36-9ad	1	3.76	-.98	-.98
13-37-3ab	11	5.00	-1.32	-.20
13-37-5aa	10	5.81	-.72	+.86
13-38-3ba	10	6.52	-.46	+.43
13-38-6dc	10	4.81	-1.36	-.91
13-39-10cc	10	5.93	-.35	-.27
14-35-13bb	8	3.65	+.07	+1.23

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
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Keith County--Continued

14-35-16db	8	4.04	-0.82	+0.34
14-35-24da	8	3.51	+1.34	-.26
14-35-27aa	8	2.48	+.56	-1.46
14-35-28bb	8	1.98	+.26	+1.02
14-36-8cb	8	5.46	+.17	+2.33
14-36-15bb	8	5.85	-.90	+.27
14-37-4ad	8	3.01	+.31	+.44
14-37-5ab	8	4.19	+.10	+.25
14-37-5bb	8	3.17	+.09	+.84
14-37-11bb	8	3.36	+.74	+.55
14-37-12bb	8	4.07	+.92	+1.94
14-38-3da	8	3.32	+.15	-.62
14-38-7db	10	39.75	+3.77	+34.24
14-38-17ba	10	12.88	+3.70	+11.10
14-39-2cc	10	16.02	+3.47	+15.65
14-39-4cc	10	4.83	+.60	+.93
14-39-32dc	10	54.17	-.25	+47.97
15-37-29cc	8	6.23	+1.11	+2.36
15-38-4da	11	4.42	+.40	-1.65
15-38-20aa	11	2.86	+.36	+.10
15-38-21dd	10	26.59	+5.58	+22.85
15-38-23cc	10	3.83	+.69	+1.90
15-38-28aa	10	59.79	+2.86	+52.02
15-38-34ad	8	4.83	+.85	-.81
15-38-34ac	8	5.68	+.41	-2.08
15-38-34ca	8	4.14	+1.31	-1.32
15-38-36bb	10	3.42	+.75	+.20
15-38-36dc	8	4.05	+.30	-.13
15-39-5bc	10	13.00	-.08	-1.90
15-39-17aa	10	2.93	+.49	+.90
15-39-24da	10	39.96	+7.29	+30.34
15-39-31bc	10	30.18	+4.90	+27.91
15-40-17cc	10	8.42	+2.34	+4.47
15-40-26aa	10	41.16	+.70	+31.92
15-40-27dd	10	10.65	+3.50	+9.28
16-38-7aa	11	2.61	-.11	-2.00
16-38-7cc	11	3.66	+.51	-1.80
16-38-28ad	11	3.65	+.11	-1.30
16-38-30aa	11	2.90	-.12	-1.20
16-38-33ad	11	2.76	-.24	+.65
16-38-34bc	11	5.38	+.04	-1.69
16-39-7aa	10	3.93	-.16	-1.40
16-39-20aa	10	2.06	-.22	-1.10
16-39-32bc	10	3.90	-.81	-3.90
16-40-2da	10	2.44	-.57	-2.26
16-40-14bb	10	2.56	+.19	-.58
16-41-34dc	10	10.02	-1.40	+6.36

Kimball County

15-57-32bb	12	1.37	+.28	+ 62
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Knox County

30-3-11aa	12	2.97	+1.18
32-6-8dd	11	5.10	-1.14
33-7-30bc	10	3.28	+.86
33-7-30cb	11	3.38	-.26

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
<u>Lancaster County</u>				
A7-7-35cb	6	1.55	.....	+1.41
A9-5-21aa	12	7.70	.....	+1.65
A9-7-28cc	11	7.22	.....	+3.66
<u>Lincoln County</u>				
11-26-15bb	8	10.13	+.28	+2.18
11-26-15cc	8	12.50	+.17	+7.31
11-26-16bb	8	12.62	+1.01	+11.63
12-25-31ca	8	3.57	+.71	+1.44
12-26-35db	1	.63	+.63	+.63
12-27-11bd	8	5.24	-.95	-1.65
12-27-14aa	12	4.09	-.16	-.38
12-27-16aa	8	2.62	-.06	-.72
12-27-20dd	8	4.58	+.12	+3.12
12-27-26dc	8	8.22	+.32	+4.30
12-27-27ad	8	5.62	+.51	+.48
12-27-34da	6	8.91	+.49	+7.70
12-27-35aa	8	8.98	+.24	+6.61
12-27-35ad	6	8.40	+.71	+7.44
12-27-35bb	8	10.01	+.02	+3.70
12-27-35bc	6	8.13	-.68	+5.32
12-27-35cb	8	13.26	-.54	+6.73
12-27-35dal	8	11.75	+.46	+9.39
12-27-35da2	6	6.79	+.12	+6.79
12-27-36ad	8	6.00	-.08	+3.23
12-28-4ad	8	3.84	-1.61	-1.18
12-28-9bc	8	5.88	+.24	+4.02
12-28-11aa	8	3.58	-1.69	-.05
12-28-14dd	8	9.84	+.28	+9.23
12-28-15ba	8	4.89	+.22	+3.54
13-27-32db	8	3.73	-.65	-.14
13-28-21da	8	5.43	+.12	+2.89
13-28-29cc	8	3.03	-.11	-.65
13-28-31cc	8	7.45	+.88	+6.34
13-29-4cc	10	4.68	+.41	-.12
13-29-5bc	10	3.62	-.86	+.37
13-29-5cb	10	3.69	-1.67	+.42
13-29-6ba	8	3.17	-.19	+.66
13-29-6bb	10	3.79	-1.50	+.59
13-29-6bd	8	3.47	-1.39	-.22
13-29-6ca	8	4.01	-.77	+.54
13-29-6dd	10	4.51	-.60	+1.61
13-29-9bc	10	3.30	-.47	-1.04
13-29-16ad	8	2.61	-.30	-1.26
13-29-17bc	10	6.88	+.44	+3.30
13-29-18bb	10	4.98	+.25	+1.10
13-29-20aa	10	3.88	+.58	+1.90
13-29-20bb	10	7.04	+.54	+5.75
13-29-21dd	8	3.75	-.11	+2.02
13-29-25bb	8	3.81	+.32	-.14
13-30-1ba	10	3.08	+.69	+.56
13-30-3ad	8	4.37	+.08	+.32
13-30-13bc	10	6.63	+.38	+4.24
13-30-13dd	10	6.89	+.36	+5.32
13-30-14dc	10	8.15	+.61	+6.20
13-30-21bb	12	8.31	+.19	+5.39
13-34-32da	8	3.80	-.29	-.20

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (years)
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Lincoln County--Continued

14-30-8cb	8	2.25	+ .42	+1.02
14-30-19bc	8	3.09	+1.80	+1.38
14-30-26bb	8	3.62	+1.15	+1.60
14-30-29db	8	2.50	+1.05	-.29
14-30-32cd	8	4.17	-1.90	-2.09
14-31-5ba	8	3.17	-2.52	-.40
14-32-5aa	8	3.38	+ .63	+ .85
14-32-18ad	8	5.29	+4.36	+2.16
14-32-20dd	8	5.24	+ .80	-.70
14-33-8bb	8	2.78	-.90	-.61
14-33-16da	8	4.33	+ .58	-.62
14-33-17bc	8	3.33	+1.61	-.13
14-33-17da	11	4.15	+ .96	+1.15
14-33-27aa	8	2.61	+ .26	-.62
14-33-27da	4	2.32	-.53	-1.89
14-33-29ca	8	4.14	+ .41	+1.06
14-34-21bc	8	3.17	+ .34	+ .30

Madison County

22-1-33cb	12	4.21	.....	+ .02
23-2-5aa	12	1.93	+1.14	+1.81
24-2-32dc	12	3.66	+1.49	+1.95

Merrick County

11-8-3dd	1	2.18	+ .43	+ .43
11-8-18ab	11	3.87	+1.00	+1.95
11-8-19dc	11	5.04	.....	+2.12
12-7-7aa	1	1.32	+ .36	+ .35
12-8-7dc	1	2.92	-.25	-.25
12-8-28dc	1	2.16	+ .71	+1.06
13-6-2bc	1	2.04	+ .74	+ .83
13-6-7bb	1	1.50	+ .58	+ .48
13-6-19cb	1	1.71	-.07	+ .04
13-6-28bb	1	1.64	+ .14	+ .14
13-7-4bc	1	1.26	+ .71	+ .70
13-7-29cb	1	3.07	+ .60	+ .60
14-4-18bb	1	2.20	+ .46	+ .46
14-6-15bb	1	3.04	+1.13	+1.50
14-7-21cb	12	3.50	+1.18	+3.50
14-7-26cc	1	.53	+ .26	+ .26
15-4-15dd	1	2.02	+1.67	+1.63
15-4-31cc	1	1.91	+ .75	+ .95
15-5-8dd	1	.96	+ .83	+ .83
15-5-27dd	1	1.46	+ .33	+ .33
16-3-27cc	12	3.62	+ .30	+3.75

Morrill County

20-49-30ac	1	4.15	+2.44	+2.44
20-50-17bb	1	3.97	+2.57	+2.57
20-50-28bb	12	1.31	+ .38	+ .53
20-50-32aa	17	3.42	-.16	-.55
21-50-33bc	1	13.36	+11.53	+11.53
22-50-14bc	1	1.78	-1.61	-1.61
22-50-28bc	12	1.04	.00	+ .78
23-51-32bb	1	.15	-.03	-.03

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Nemaha County</u>				
-5-14-23cb	12	10.14	.....	+7.29
<u>Nuckolls County</u>				
1-5-31cc	1	3.05	+2.81	+2.81
1-6-30dd	1	.10	+.08	+.08
1-6-35cc	1	3.00	+1.73	+1.73
1-7-19cb	1	.95	+.41	+.41
1-7-34bb	1	3.45	+1.78	+1.78
1-7-35da	1	1.15	+.73	+.73
1-8-7dd	1	3.93	+1.34	+1.34
1-8-21dc	1	1.52	+1.33	+1.33
18-8-22ab	1	2.27	-.93	-.93
2-5-8dd	12	12.94	.....	+7.50
4-7-26aa	11	3.50	.....	-3.27
<u>Otoe County</u>				
A7-12-35aa	12	8.16	.....	+3.11
A8-10-3bb	7	7.03	.....	+7.03
A8-11-7cc	12	8.58	.....	+7.03
<u>Pawnee County</u>				
A2-11-8aa	12	17.72	.....	+8.57
A2-11-8ad	7	5.04	.....	+3.24
<u>Phelps County</u>				
8-17-19db	16	4.87	+1.26	+2.22
8-17-24bc	16	4.48	+1.45	+1.71
8-18-9db	15	5.11	-.39	+.35
8-18-16cc	1	2.57	+1.39	+1.39
8-18-24bb	1	1.77	+1.29	+1.29
8-19-7dc	1	1.96	+.60	+.60
8-19-14dc	1	2.27	+1.82	+1.82
8-20-8cb	9	5.32	+.91	+3.87
8-20-8cd	1	3.19	+2.34	+2.34
8-20-9cd	9	5.32	+1.20	+2.77
8-20-14bc	8	5.32	+.18	+2.30
8-20-14db	9	4.18	-.27	+3.30
8-20-15bb	9	6.62	-.83	+1.24
8-20-15db	9	5.67	+.32	+3.78
8-20-17aa	9	5.80	+.68	+4.40
8-20-17ba	9	6.14	+1.14	+4.58
<u>Pierce County</u>				
27-3-33ad	12	3.63	.....	+1.89
28-1-33aa	7	7.50	.....	+6.80
<u>Platte County</u>				
A17-1-14cc	11	6.60	+.09	+2.09
A17-1-14dd	11	5.78	+.20	+1.60
A17-1-17dd	11	5.38	+.59	+.29
A17-1-25aa	11	7.00	-.60	+.30
A17-1-29da	11	4.10	+1.10	+3.30

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
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Piatte County--Continued

A20-1-18cb	11	3.12	+0.64	+1.03
16-2-9cc	1	3.25	+2.35	+2.35
16-2-12ab	12	5.00	+1.03	+2.83
17-1-2cc	11	6.49	+ .71	+2.81
17-1-5ad	11	6.02	+1.50	+5.10
17-1-7ac	11	4.84	+1.60	+3.40
17-1-14cc	11	2.30	+ .88	+1.98
17-1-34dc	1	1.87	+ .40	- .61
17-2-2cd	12	3.27	+ .96	+2.46
17-2-4bc	11	5.06	+ .99	+1.99
18-1-28cd	11	10.43	-.90	+1.50

Polk County

13-4-34cc	6	4.84	-1.28	+3.56
14-4-19ab	1	3.40	+ .11	+ .11
15-2-4dc	1	1.50	-.24	-.24
15-2-7bb	1	1.83	+ .44	+ .44
15-3-20cc	1	2.49	+1.49	+1.49
15-4-35dc	1	2.22	+ .01	+ .01
16-1-14bb	1	1.75	+1.41	+1.41
16-1-36cd	1	1.58	-.78	-.78
16-2-23dc	1	1.01	+ .67	+ .67

Red Willow County

2-29-4aa	1	2.09	+1.55	+1.55
2-29-5ab	1	3.43	+1.37	+1.37
2-30-1aa	1	3.02	+1.52	+1.52
2-30-12ad	1	2.09	+1.28	+1.28
3-26-5bb	1	2.27	-.37	-.37
3-26-9cb	1	.77	+ .48	+ .48
3-26-11bb	1	.73	-.27	+ .27
3-27-7dc	1	2.44	+2.08	+2.08
3-27-8ac	12	4.28	+1.57	+2.82
3-27-11aa	1	3.77	+2.89	+2.89
3-27-11cd	1	1.23	-.18	-.18
3-27-17cb	1	1.64	+ .17	-.17
3-28-17da	1	1.85	+ .94	+ .94
3-28-20bb	1	1.59	+1.15	+1.15
3-28-21cd	1	.60	-.38	-.38
3-29-32db	7	2.38	+ .71	+1.61
3-29-35da	1	1.41	+1.41	+1.41
3-30-19bb	1	1.61	-.05	-.05
3-30-26cb	1	1.61	-.23	-.23
3-30-29aa	1	1.37	+ .83	+ .83
3-30-34bb	1	2.14	+ .81	+ .81
4-26-34db	1	.92	+ .92	+ .92

Richardson County

A1-15-12dd	10	6.33	.....	+3.00
A2-13-4cd	10	6.50	.....	+2.14
A2-13-9bb	10	1.45	.....	-.56
A2-14-22ab	10	15.04	.....	+4.27
A2-14-27ab	12	10.46	.....	+4.61

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Rock County</u>				
3-17-18db	12	3.39	.....	+0.80
30-19-10aa	6	3.45	.....	+1.50
<u>Saline County</u>				
A6-1-24aa	12	6.75	.....	+5.69
A7-3-30aa	11	4.32	.....	+.61
<u>Sarpy County</u>				
A13-13-27da	12	3.69	.....	+1.71
A14-12-26cc	12	16.08	.....	+8.28
<u>Saunders County</u>				
A13-9-11dd	12	6.76	.....	+4.56
A13-9-12dc	10	3.75	.....	+2.88
A13-9-24cc	13	6.42	+2.45	+4.34
A13-9-24dc	12	7.74	.....	+.65
A14-5-35cd	12	11.99	.....	+6.24
<u>Seward County</u>				
A11-3-22aa	12	2.61	.....	-1.24
<u>Sheridan County</u>				
24-41-34da	12	2.14	-.31	-1.69
24-42-27ba	1	1.04	-1.04	-1.04
24-43-15da	6	2.11	-.38	+1.26
24-44-14da	1	2.13	-.71	-.71
24-44-18bb	1	1.25	-.63	-.63
24-45-8dd	11	2.33	-1.08	+1.02
24-46-10cb	1	5.09	-4.74	-4.74
25-45-32ad	0	.98	+.72	+.72
27-46-34bb	1	.11	-.05	-.05
28-46-32ad	1	.50	-.02	-.02
31-44-10dd	11	2.56	.....	-.80
31-46-8ad	10	2.40	.....	-.56
<u>Sioux County</u>				
29-55-33cc	12	1.33	.....	-1.33
<u>Stanton County</u>				
A23-3-11bb	10	2.83	.....	+.96
<u>Thayer County</u>				
3-2-31ad	12	.98	.....	-.32
4-4-22ab	10	4.36	.....	+3.39
<u>Thomas County</u>				
23-28-9da	12	1.19	-.16	-.20
24-30-20ab	12	.79	+.07	-.04

Length of record, difference between highest and lowest water levels, net change in water level in 1946, and net change in water level during period of record in 731 observation wells in Nebraska--Continued

Well	Length of record (years)	Difference between highest and lowest water levels (feet)	Net rise (+) or net decline (-) in 1946 (feet)	Net rise (+) or net decline (-) for period of record (feet)
<u>Thurston County</u>				
A26-8-13bc	12	4.42	.....	+2.24
<u>Valley County</u>				
17-16-26dc	3	3.82	+0.04	+0.39
<u>Washington County</u>				
A17-11-5da	12	5.89	.....	+2.09
A18-11-3aa	12	7.18	.....	+5.88
<u>Wayne County</u>				
A26-3-13cb	12	4.57	.....	+1.37
<u>Webster County</u>				
1-9-11cb	1	2.77	+1.39	+1.39
1-9-13ad	1	3.57	+1.36	+1.36
1-9-16bc	1	1.69	+0.72	+0.72
1-10-1dc1	7	1.41	-0.01	+0.47
1-10-1dc2	7	.73	-0.32	+0.04
1-10-3ad	1	1.55	+0.74	+0.74
1-10-9ad	1	1.88	+0.40	+0.40
1-11-1da	1	3.61	+3.33	+3.33
1-11-5bc	1	3.91	+3.91	+3.91
1-11-11ab	1	5.28	+2.88	+2.88
1-11-16aa	1	1.30	+0.42	+0.42
1-12-2bb	1	3.75	+2.31	+2.31
1-12-4bb	1	5.07	+3.14	+3.14
1-12-8aa	1	3.33	+0.78	+0.78
2-9-24bd	12	2.68	-0.70	+0.18
2-10-36db	7	1.40	+1.40	+0.61
2-12-34cd	7	2.32	-0.14	+1.69
3-10-34cb	12	2.71	-0.17	+0.58

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 installed 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 1946 a total of approximately 42,878.3 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.^{1/}

^{1/} Wenzel, L. K., Local overdevelopment of ground water supplies with special reference to conditions at Grand Island, Nebraska: U. S. Geol. Survey Water-Supply Paper 836-E, pp. 244-247, 1940.

Monthly pumpage, in millions of gallons, for the public supply at Grand Island, Nebr., 1936-46

	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
Total	1,972.4	1,817.2	1,854.9	2,074.5	1,999.8	1,791.4

	1942	1943	1944	1945	1946
Jan.	126.0	156.6	189.7	228.1	210.3
Feb.	88.4	151.6	178.3	209.3	196.5
Mar.	132.5	177.0	209.6	269.3	218.7
Apr.	128.9	212.3	196.1	205.9	258.0
May	137.2	223.6	224.9	213.4	247.7
June	251.9	244.3	228.7	225.0	304.4
July	225.1	301.3	275.2	289.5	342.4
Aug.	250.4	299.6	320.6	286.3	354.8
Sept.	202.3	250.1	234.8	271.8	250.6
Oct.	198.4	235.2	228.8	231.7	245.7
Nov.	168.9	188.9	227.0	215.6	211.5
Dec.	161.3	189.4	223.6	214.2	217.6
Total	2,071.3	2,629.9	2,737.3	2,860.1	3,058.2

Average daily pumpage, in millions of gallons, for public supply of Grand Island, Nebr., 1918-46

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
a	1.64	1.53	1.44	1.59	1.76	1.83	2.04	2.15	2.29	2.12
	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937
a	2.51	3.65	3.52	4.16	4.11	4.90	5.72	5.34	5.41	5.00
	1938	1939	1940	1941	1942	1943	1944	1945	1946	
	5.08	5.68	5.47	4.90	5.67	7.20	7.50	7.84	8.38	

a Does not include water pumped for condenser use at municipal electric plant.

Monthly pumpage, in millions of gallons, for public supply of Lincoln, Nebr., from well field north of Ashland, 1932-46

	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
Total	894.5	2,235.7	2,508.7	2,228.8	2,832.9	2,819.5	2,533.7	2,979.1

Monthly pumpage, in millions of gallons, for public supply of Lincoln, Nebr., from well field north of Ashland, 1932-46--Continued

	1940	1941	1942	1943	1944	1945	1946
Jan.	195.8	193.4	198.5	248.2	281.4	310.1	286.9
Feb.	182.8	181.2	178.4	227.6	246.1	283.9	259.6
Mar.	193.9	195.1	199.3	253.5	274.0	317.7	288.3
Apr.	177.1	173.8	213.8	246.9	274.3	313.3	330.7
May	246.5	289.2	243.4	290.0	297.2	319.6	327.2
June	290.7	286.3	292.4	324.6	353.1	312.1	353.0
July	374.3	382.4	372.5	379.8	381.0	365.6	374.2
Aug.	290.7	377.8	399.8	377.1	361.0	361.0	340.0
Sept.	314.1	277.0	269.3	334.0	343.3	334.7	341.8
Oct.	264.4	201.2	234.1	304.8	327.1	324.0	341.3
Nov.	170.8	197.7	200.5	237.4	291.4	311.5	312.8
Dec.	201.5	205.3	241.8	263.9	307.5	291.9	312.5
Total	2,902.3	2,960.4	3,045.8	3,487.8	3,737.4	3,845.4	3,868.3

Average daily pumpage, in millions of gallons, for public supply of Lincoln, Nebr., from Ashland well field, 1932-46

Lincoln, Nebr., from Ashland Well Field, 1932-46														
1932	a	5.84	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	8.53								

a Pumping from Ashland well field began in August 1932.

WELL-NUMBERING SYSTEM

The following well-numbering system has been adopted in the Missouri Basin and is being used in Nebraska for the first time in this report. The State has been divided into two principal divisions. The numbers of those wells located east of the 6th Principal Meridian, which passes through Columbus, are preceded by the capital letter A. Those located 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 located within the given tract of land.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Adams County

5-11-10bc. University of Nebraska. Driven observation well, diameter 1 inch, depth 20.7 feet. Measuring point, top of pipe, 3.4 feet above land-surface datum. Highest observed stage in period of record, 9.65 on Dec. 31, 1946; lowest, 10.81 on Nov. 13, 1940.

Water level, in feet below land-surface datum, 1937-38, 1940-41, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 13, 1937	9.92	June 30, 1938	9.90	Nov. 13, 1940	10.81
June 28	10.12	Oct. 30	10.10	Oct. 30, 1941	10.22
Oct. 22	10.06	Aug. 1, 1940	10.63	Dec. 31, 1946	9.65

6-10-23bb (Well 448 in previous reports) (*886, p. 289; 908, p. 188; 946, p. 189). University of Nebraska. Water level, in feet below land-surface datum, 1946: Dec. 31, 6.41, highest observed stage in period of record.

8-12-8ab. E. Woodman. Drilled irrigation well, diameter 18 inches, depth 85 feet. Measuring point, plate top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.98 on Dec. 6, 1946; lowest, 9.72 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	9.39	Apr. 11	9.30	July 12	9.31	Nov. 15	8.11
Feb. 15	9.30	May 10	9.35	Sept. 7	9.72	Dec. 6	7.98
Mar. 13	9.29	June 5	9.37	Oct. 4	9.20		

Antelope County

24-6-1bb (Well 202 in previous reports) (*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). University of Nebraska. Water levels, in feet below land-surface datum, 1946: Aug. 6, 5.19; Dec. 28, 4.10.

27-7-10bb. Beberniss. Drilled domestic well, diameter 2 inches, depth 72 feet. Measuring point, top of pipe, 1.4 feet above land-surface datum. Highest observed stage in period of record, 65.16 on Mar. 27, 1940; lowest, 66.40 on Oct. 17, 1941.

Water level, in feet below land-surface datum, 1940-42, 1944-46

Date	Water level	Date	Water level	Date	Water level
Mar. 27, 1940	65.16	Oct. 17, 1941	66.40	Aug. 1, 1945	65.56
May 18	65.27	29, 1942	66.27	6, 1946	65.52
July 18	65.64	July 31, 1944	65.84	Dec. 28	66.20
Oct. 30	65.86				

Arthur County

17-38-21bd (Well 250 in previous reports) (*840, p. 190; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189; 988, p. 188; 1018, p. 164). University of Nebraska. No measurements made in 1946.

17-39-31dc (Well N31 in previous reports) (*988, p. 187; 1018, p. 164; 1025, p. 158). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	5.61	May 4	5.26	July 17	5.35	Nov. 21	5.90
Apr. 2	5.28	June 6	4.93	Aug. 5	5.69		

Banner County

17-55-6dd (Well 354 in previous reports) (*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 946, p. 189). A. Anderson. No measurements made in 1946.

19-55-29ac (Well 238 in previous reports) (*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). F. Grant. No measurements made in 1946.

Blaine County

22-24-33ca (Well 211 in previous reports) (*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). Key well US 57. University of Nebraska. Highest observed stage in period of record, 2.41 on Oct. 14, 1946; lowest, 5.65 on Aug. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	3.86	Apr. 26	3.96	June 24	4.72	Oct. 1	4.47
29	3.82	29	3.63	July 2	5.05	14	2.41
Feb. 27	3.65	May 14	4.10	Aug. 4	5.65	Dec. 3	3.13
Mar. 29	3.17	22	4.15	15	5.54	24	3.43
Apr. 4	3.44	June 3	4.09				

23-22-22cb (Well 434 in previous reports) (*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

23-22-22cc (Well 210 in previous reports) (*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). University of Nebraska. No measurements made in 1946.

24-25-7aa (Well 433 in previous reports) (*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

24-25-7ca (Well 237 in previous reports) (*817, p. 93; 840, p. 191; 845, p. 169; 886, p. 289; 908, p. 188; 938, p. 157; 946, p. 189). Cox & Sons. No measurements made in 1946.

Boone County

18-7-4ca (Well 426 in previous reports) (*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

18-7-5ad (Well 207 in previous reports) (*817, p. 94; 840, p. 191; 845, p. 169; 886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

21-7-26ca (Well 425 in previous reports) (*886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

21-7-26da (Well 201 in previous reports) (*817, p. 94; 840, p. 191; 845, p. 169; 886, p. 290; 908, p. 189; 938, p. 157; 946, p. 190). University of Nebraska. No measurements made in 1946.

Box Butte County

24-47-ldb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 3,910.4 feet above sea level. Highest observed stage in period of record, 11.62 on June 3, 1946; lowest, 12.45 on May 14, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 4	11.77	June 10	11.82	July 11	11.91	Oct. 11	12.07
May 14	12.45	17	11.92	22	12.07	Nov. 12	12.06
23	11.88	24	11.83	29	12.18	Dec. 17	11.99
June 3	11.62	July 1	11.90	Aug. 5	12.26		

24-48-4bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.43 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 3,943.8 feet above sea level. Highest observed stage in period of record, 13.32 on Apr. 11, 1946; lowest, 13.76 on Dec. 17, 1946.

24-48-4bb--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 11	13.32	June 10	13.46	July 11	13.42	Sept. 12	13.59
May 9	13.46	17	13.48	22	13.45	Oct. 11	13.64
23	13.50	24	13.47	29	13.46	Nov. 12	13.72
June 3	13.46	July 1	13.44	Aug. 5	13.49	Dec. 17	13.76

24-48-10bb. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 23 feet. Measuring point, top of casing, 2.2 feet above land-surface datum and 3,943.3 feet above sea level. Reference point, top of concrete post, set in ground 12 feet east of well, altitude 3,941.8 feet above sea level. Drilled Apr. 25, 1946; Stevens Type F, 8-day automatic water-stage recorder installed Apr. 29, 1946. Highest observed stage in period of record, 10.50 on June 2, 3, 4, 5, and 7, 1946; lowest, 11.23 on Dec. 23, 24, 25, 26, 27, 29, and 30, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	10.53	10.51	10.59	10.74	10.96	11.05	11.14	11.17
2	10.52	10.50	10.59	10.74	10.96	11.06	11.15	11.17
3	10.52	10.50	10.58	10.76	10.97	11.06	11.14	11.17
4	10.52	10.50	10.58	10.77	10.97	11.07	11.14	11.17
5	10.52	10.50	10.57	10.78	10.97	11.07	11.14	11.17
6	10.54	10.51	10.56	10.79	10.98	11.08	11.15	11.17
7	10.55	10.50	10.56	10.80	10.98	11.08	11.15	11.18
8	10.55	10.51	10.55	10.81	10.99	11.08	11.16	11.18
9	10.54	10.51	10.55	10.82	10.99	11.08	11.16	11.18
10	10.54	10.51	10.55	10.82	10.99	11.09	11.18	11.18
11	10.53	10.52	10.55	10.83	11.00	11.09	11.18	.....
12	10.53	10.53	10.55	10.85	11.00	11.09	11.18	.....
13	10.52	10.53	10.55	10.86	11.01	11.09	11.17	.....
14	10.53	10.54	10.56	10.86	11.02	11.09	11.16	.....
15	10.54	10.54	10.56	10.87	11.02	11.09	11.16	.....
16	10.55	10.55	10.56	10.87	11.02	11.10	11.15	.....
17	10.54	10.55	10.57	10.88	11.03	11.10	11.16	.....
18	10.55	10.56	10.58	10.88	11.03	11.10	11.16	.....
19	10.55	10.57	10.60	10.88	.....	11.10	11.16	.....
20	10.55	10.58	10.61	10.89	.....	.....	11.16	.....
21	10.55	10.58	10.62	10.90	11.03	.....	11.16	.....
22	10.55	10.58	10.62	10.92	11.03	11.12	11.16	.....
23	10.54	10.58	10.63	10.92	11.04	11.13	11.17	11.23
24	10.54	10.57	10.65	10.94	11.04	11.13	11.17	11.23
25	10.57	10.66	10.94	11.04	11.14	11.17	11.23
26	10.57	10.67	10.94	11.04	11.14	11.17	11.23
27	10.58	10.68	10.95	11.05	11.16	11.17	11.23
28	10.54	10.58	10.69	10.95	11.05	11.16	11.17	11.22
29	10.57	10.53	10.58	10.70	10.96	11.05	11.16	11.17	11.23
30	10.56	10.53	10.58	10.71	10.96	11.05	11.15	11.17	11.23
31	10.51	.....	10.72	10.96	.....	11.15	.....	.....

24-48-11dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 13.5 feet. Measuring point, top of pipe, 1.5 feet above land-surface datum, and 3,951.7 feet above sea level. Highest observed stage in period of record, 5.03 on May 23, 1946; lowest, 7.05 on Nov. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 11	5.26	June 10	5.15	July 11	5.67	Sept. 14	6.96
May 13	5.04	17	5.44	22	5.99	Oct. 11	7.03
23	5.03	24	5.36	29	6.18	Nov. 12	7.05
June 3	5.05	July 1	5.50	Aug. 5	6.35	Dec. 17	6.90

24-48-31ba. O. A. Odell. Unused drilled irrigation well, diameter 12 inches, depth 70 feet. Measuring point, top of steel oil drum, 0.46 foot above land-surface datum, and 4,019.46 feet above sea level. Reference point, railroad spike in fence post 9 feet west of well, altitude 4,019.91 feet above sea level. Stevens Type F, 8-day automatic water-stage recorder installed May 3, 1946. Highest observed stage in period of record, 39.20 on June 8, 16, 18, and 30, 1946; lowest 38.80, on Dec. 15, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	39.19	39.17	39.06	39.04	38.87	38.89	38.91
2	.....	39.18	39.17	39.02	38.99	38.94	39.00	38.93
3	39.10	39.17	39.16	39.07	38.95	38.95	39.01	38.93
4	39.08	39.13	39.19	39.04	38.95	38.91	38.97	38.89
5	39.11	39.11	39.13	39.04	39.01	39.01	38.92	38.90
6	39.12	39.11	39.14	39.03	39.02	38.97	38.82	38.86
7	39.11	39.19	39.12	39.05	38.99	38.92	38.88	38.86
8	39.05	39.20	39.08	39.06	38.97	38.94	38.90	38.89
9	39.12	39.16	39.17	39.06	39.00	38.94	38.86	38.92
10	39.08	39.14	39.16	39.04	39.00	38.99	38.89	38.89
11	39.05	39.18	39.14	39.02	38.97	38.97	38.94	38.83
12	39.04	39.18	39.07	39.01	38.96	38.93	38.95	38.90
13	39.06	39.17	39.09	39.01	38.95	38.93	38.90	38.90
14	39.09	39.10	39.10	39.04	38.94	38.93	38.83	38.87
15	39.09	39.12	39.08	39.01	38.93	38.94	38.97	38.80
16	.....	39.20	39.05	39.00	38.92	38.93	39.00	39.00
17	39.09	39.17	39.08	39.07	39.00	38.88	38.93	38.97
18	39.19	39.20	39.12	39.04	38.98	38.92	38.87	38.89
19	39.19	39.19	39.11	38.99	38.97	38.94	38.85	38.85
20	39.18	39.14	39.08	38.99	38.89	.....	38.88	38.90
21	39.11	39.13	39.05	39.01	38.99	.....	38.99	38.89
22	39.12	39.12	39.01	39.01	39.01	38.86	38.95	38.91
23	39.16	39.16	.....	38.99	39.00	38.94	38.85	38.93
24	39.19	39.17	.....	38.97	38.97	38.90	38.95	38.93
25	39.18	39.16	.....	39.01	38.95	38.86	38.95	38.87
26	39.13	39.12	.....	39.02	38.93	38.94	39.00	38.85
27	39.12	39.12	.....	39.01	38.97	38.94	39.00	38.91
28	39.12	39.19	.....	39.02	39.03	38.89	38.95	38.95
29	39.11	39.14	39.00	39.01	38.99	38.96	38.90	.....
30	39.16	39.20	39.01	38.96	38.90	38.98	39.00	.....
31	39.17	.....	39.05	39.02	.....	38.93	.....	.....

24-50-10aa (Well 474 in previous reports) (Box Butte 3 in #845, p. 170 and 886, p. 290; 946, p. 190; *1018, p. 165). John Nolan. Measuring point lowered 0.2 foot on Feb. 27, 1946, to top of wooden casing, 0.5 foot above land-surface datum. Highest observed stage in period of record, 48.68 on June 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	49.67	June 10	49.66	July 11	49.58	Sept. 12	49.69
Apr. 13	49.67	17	49.65	22	49.63	Oct. 10	49.83
May 9	49.69	24	49.65	29	49.64	Nov. 12	49.85
24	49.71	July 1	49.64	Aug. 5	49.63	Dec. 21	49.89
June 3	48.68						

24-52-13cb (Well 475 in previous reports) (Box Butte 5 in #845, p. 170 and 886, p. 290; 946, p. 190; *1018, p. 165). Dr. G. D. Shephard. Highest observed stage in period of record, 77.65 on Feb. 27, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	77.65	July 12	78.15	Sept. 12	78.07	Dec. 20	77.67
Apr. 16	77.85	Aug. 14	78.04	Nov. 13	77.67		

24-52-35aa (Well 476 in previous reports) (Box Butte 6 in #845, p. 170 and 886, p. 291; 946, p. 190; 1018, p. 166). Mr. Bailey. Measurements resumed in 1946. Lowest observed stage in period of record, 99.13 on May 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	98.06	July 12	98.06	Sept. 12	98.12	Nov. 13	98.12
May 9	99.13	Aug. 14	98.28	Oct. 10	98.21	Dec. 20	98.20
June 12	98.50						

25-47-19aa (Box Butte 17 in previous reports) (#845, p. 171). Measurements resumed in 1946. Measuring point, top of casing, 1.0 foot above land-surface datum, and 3,932.1 feet above sea level. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 119.42. Lowest observed stage in period of record, 22.77 on Sept. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 3	21.59	July 1	21.77	July 29	21.92	Oct. 11	22.65
10	21.70	11	21.85	Aug. 5	22.16	Nov. 7	22.55
17	21.69	22	21.80	Sept. 14	22.77	Dec. 17	22.55
24	21.76						

25-47-31cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 3,943.719 feet above sea level. Highest observed stage in period of record, 15.13 on July 22, 1946; lowest, 16.22 on Oct. 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 11	15.36	June 10	15.45	July 11	15.14	Sept. 14	16.08
May 15	15.19	17	15.26	22	15.13	Oct. 11	16.22
23	15.33	24	15.36	29	15.18	Nov. 12	16.08
June 3	15.39	July 1	15.19	Aug. 5	15.47	Dec. 17	15.72

25-48-4dd. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter $1\frac{1}{4}$ inches, depth 98 feet. Measuring point, top of pipe, 1.85 feet above land-surface datum, and 4,034.8 feet above sea level. Highest observed stage in period of record, 63.15 on July 22, 1946; lowest, 63.91 on Dec. 17, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 14	63.42	June 17	63.36	July 22	63.15	Oct. 11	63.56
24	63.65	24	63.27	29	63.37	Nov. 7	63.42
June 3	63.49	July 1	63.44	Aug. 5	63.32	Dec. 17	63.91
10	63.34	11	63.50	Sept. 14	63.45		

25-48-14aa. L. F. Powell. Abandoned drilled domestic well diameter 6 inches, depth 65 feet. Measuring point, top of casing, 0.7 foot above land-surface datum, and 3,984.4 feet above sea level. Reference point, railroad spike in telephone pole in southeast corner of nearby crossroad, altitude 3,965.6 feet above sea level. Stevens Type F, 8-day automatic water-stage recorder, installed June 14, 1946. Highest observed stage in period of record, 48.26 on June 14, 1946; lowest, 48.95 on Dec. 16, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	48.51	48.43	48.58	48.48	48.68	48.68
2	48.56	48.57	48.51	48.55	48.80	48.76
3	48.58	48.42	48.47	48.61	48.79	48.76
4	48.43	48.41	48.47	48.55	48.75	48.72
5	48.40	48.40	48.56	48.73	48.69	48.73
6	48.59	48.36	48.58	48.63	48.57	48.69
7	48.59	48.43	48.54	48.55	48.69	48.69
8	48.54	48.48	48.52	48.57	48.71	48.79

25-48-14aa--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
9	.....	48.46	48.49	48.59	48.59	48.70	48.82
10	.....	48.46	48.37	48.59	48.67	48.72	48.82
11	.....	48.42	48.36	.....	48.64	48.78	48.71
12	.....	48.30	48.32	.....	48.63	48.78	48.80
13	.....	48.34	48.42	.....	48.63	48.70	48.80
14	48.26	48.38	48.42	48.50	48.63	48.70	48.77
15	48.28	48.37	48.42	48.47	48.66	48.81	48.68
16	48.32	48.34	48.43	48.49	48.65	48.85	48.95
17	48.27	48.35	48.52	48.60	48.59	48.75	48.93
18	48.35	48.48	48.49	48.61	48.67	48.65	48.78
19	48.35	48.48	48.44	48.58	48.67	48.62	48.72
20	48.32	48.41	48.40	48.49	.....	48.62	48.83
21	48.30	48.39	48.46	48.57	.....	48.82	48.80
22	48.30	48.42	48.46	48.65	48.63	48.78	48.84
23	48.30	48.43	48.44	48.61	48.66	48.66	48.86
24	48.33	48.41	48.42	48.59	48.65	48.87	48.87
25	48.33	48.41	48.48	48.56	48.57	48.85	48.79
26	48.31	48.36	48.48	48.54	48.71	48.92	48.77
27	48.29	48.39	48.47	48.64	48.71	48.90	48.88
28	48.34	48.38	48.49	48.69	48.66	48.81	.....
29	48.31	48.36	48.49	48.66	48.73	48.71	.....
30	.....	48.33	.....	48.51	48.76	48.81	.....
31	.....	48.37	48.55	.....	48.69	.....	.....

25-48-25bb2. Dr. George Burnham. Abandoned drilled well, diameter 18 inches, depth 161 feet. Measuring point, top of casing, at land-surface datum, and 3,990.8 feet above sea level. Highest observed stage in period of record, 70.76 on Mar. 29, 1946; lowest, 74.76 on July 29, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 18	71.81	June 10	71.80	July 11	72.24	Oct. 11	73.64
Mar. 29	70.76	17	71.80	29	74.76	Nov. 7	73.22
May 13	71.65	24	71.89	Sept. 14	74.70	Dec. 17	72.90
June 3	71.92	July 1	72.69				

25-48-27db2. Andrew Pepplar. Abandoned drilled irrigation well, diameter 24 inches, reported depth 122 feet. Measuring point, top of casing, 0.8 foot below land-surface datum, and 4,001.4 feet above sea level. Reference point, railroad spike in telephone pole 125 feet northwest of well, altitude 4,004.6 feet above sea level. Highest observed stage in period of record, 67.90 on May 13, 1946; lowest, 69.45 on Sept. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 7	67.99	May 14	68.24	July 1	68.50	Oct. 11	68.75
29	67.99	June 3	68.02	11	68.50	Nov. 7	68.72
May 13	67.90	24	69.00	Sept. 13	69.45	Dec. 17	68.68

25-48-30ad (Well 473 in previous reports) (Box Butte 2 in #845, p. 169 and 885, p. 290; 946, p. 190; #1018, p. 165; 1025, p. 159). Mrs. E. A. Wells. Measuring point lowered 0.4 foot May 13, 1946, to mark inside casing, 0.1 foot above land-surface datum. Highest observed stage in period of record, 12.54 on July 11 and 22, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	12.70	June 10	12.75	July 11	12.54	Sept. 13	12.87
May 13	12.74	17	12.83	22	12.54	Oct. 11	12.79
24	12.73	24	12.73	29	12.63	Dec. 21	13.01
June 3	12.74	July 1	12.65	Aug. 5	12.63		

25-49-14da. John Sass. Drilled stock well, diameter 6 inches. Measuring point, top edge of casing, 1.4 feet above land-surface datum, and 4,036.1 feet above sea level. Reference point, copper nail and washer in base between two posts 75 feet west of well, altitude 4,038.9 feet above sea level. Highest observed stage in period of record, 31.43 on May 13, 1946; lowest, 32.45 on Mar. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 12	32.45	June 3	31.48	July 11	31.54	Oct. 11	31.69
Apr. 1	31.46	10	31.45	22	31.47	Nov. 12	31.78
May 13	31.43	17	31.49	Sept. 13	31.68	Dec. 21	31.81
24	31.49	24	31.50				

25-50-22aa. Anna Hollister. Abandoned dug well, diameter 3 feet, depth 135 feet. Measuring point, wooden platform, 0.8 foot above land-surface datum, and 4,222.3 feet above sea level. Reference point, chiseled square on concrete foundation of former building nearby, altitude 4,221.7 feet above sea level. Highest observed stage in period of record, 132.01 on May 13, 1946; lowest, 132.29 on Nov. 13, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 1	132.22	July 12	132.20	Sept. 12	132.16	Nov. 13	132.29
May 13	132.01	Aug. 14	132.12	Oct. 10	132.17	Dec. 20	132.23
June 12	132.23						

25-50-31ab (Well 129 in previous reports) (#817, p. 94; 840, p. 191; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190; *1018, p. 165). M. Jacobson. Measuring point is 4,220.9 feet above sea level. Highest observed stage in period of record, 102.80 on Feb. 27, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 27	102.80	July 12	102.88	Sept. 12	102.87	Nov. 13	102.89
May 9	102.93	Aug. 14	102.98	Oct. 10	103.06	Dec. 20	103.00
June 12	103.03						

25-51-14aa (Well 477 in previous reports) (Box Butte 7 in #845, p. 170 and 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166). C. A. Allen. Lowest observed stage in period of record, 90.04 on Feb. 27, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 27	90.04	June 12	88.97	Sept. 12	88.00	Nov. 13	88.01
Apr. 1	88.73	July 12	88.96	Oct. 10	88.13	Dec. 20	88.12
May 13	88.97	Aug. 14	88.94				

26-47-17dd. David R. Lawrence. Drilled stock well, diameter 6 inches, depth 129 feet. Measuring point, top of casing, 0.63 foot above land-surface datum, and 3,985.9 feet above sea level. Reference point, copper nail and washer on southeast leg of windmill tower, altitude 3,987.7 feet above sea level. Highest observed stage in period of record, 53.16 on Nov. 7, 1946; lowest, 53.39 on July 1, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 22	53.26	June 10	53.30	July 22	53.30	Oct. 11	53.18
May 16	53.21	17	53.36	Aug. 5	53.36	Nov. 7	53.16
24	53.27	July 1	53.39	Sept. 13	53.26	Dec. 17	53.25
June 3	53.35						

26-49-13dc. A. C. Mabin. Abandoned drilled stock well, diameter 6 inches, depth 139 feet. Measuring point, top of casing, 0.6 foot above land-surface datum, and 4,137.0 feet above sea level. Reference point, chiseled square on old concrete house foundation 63 feet east of well, altitude 4,136.8 feet above sea level. Highest observed stage in period of record, 90.46 on Mar. 29, 1946; lowest, 91.21 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 29	90.46	June 17	90.69	July 22	90.65	Oct. 10	90.66
May 15	90.74	24	90.59	29	90.90	Nov. 12	90.81
June 3	90.98	July 1	90.89	Aug. 5	91.21	Dec. 17	90.77
10	90.67	11	90.94	Sept. 12	90.67		

26-50-12dc (Well 480 in previous reports) (Box Butte 10 in #845, p. 171; 946, p. 191; 988, p. 189; 1018, p. 166). Mrs. L. A. Rosenberg. Highest observed stage in period of record, 100.77 on Mar. 29, 1946, lowest, 102.38 on Nov. 12, 1946. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract 200.52.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	100.84	Mar. 29	100.77	June 12	100.89	Aug. 14	100.83
Mar. 19	100.93	May 15	100.89	July 11	100.92	Nov. 12	102.38

26-51-25bc (Well 478 in previous reports) (Box Butte 8 #845, p. 170; and 886, p. 291; 946, p. 191; 988, p. 189; #1018, p. 166). O. J. Wilkens. Measuring point lowered 0.5 foot Feb. 27, 1946, to top of casing, 0.5 foot above land-surface datum, and 4,299.74 feet above sea level. Lowest observed stage in period of record, 96.18 on June 12, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	95.95	June 12	96.18	Sept. 12	96.02	Nov. 13	96.02
Apr. 1	96.15	July 12	96.01	Oct. 10	96.21	Dec. 20	96.17
May 13	96.02	Aug. 14	96.10				

26-52-10bc. G. E. Dyer. Drilled irrigation well, diameter 24 inches, depth 198 feet. Measuring point, top of 1-inch pipe at side of pump, at land-surface datum. Highest observed stage in period of record, 93.37 on July 22, 1938; lowest, 99.11 on Sept. 13, 1946.

Water level, in feet below land-surface datum, 1938-40, 1942, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 22, 1938	93.37	Apr. 1, 1940	93.68	July 12, 1946	95.44		
Aug. 24	95.55	Nov. 13, 1942	95.86	Sept. 13	99.11		
Sept. 3	96.40	Feb. 27, 1946	94.97	Oct. 10	97.45		
Oct. 20	94.90	Apr. 12	98.89	Nov. 13	96.33		
Oct. 3	94.48	May 13	94.54	Dec. 20	95.98		
June 8, 1939	93.86	June 12	95.29				

26-52-17ab (Well 479 in previous reports) (Box Butte 9 in #845, p. 170 and 886, p. 291; 946, p. 191; 988, p. 189; #1018, p. 166). Lew Bauer. Highest observed stage in period of record, 73.54 on Dec. 20, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 13	73.79	July 12	73.79	Sept. 13	73.84	Nov. 13	73.56
June 12	73.84	Aug. 14	73.80	Oct. 10	73.79	Dec. 20	73.54

27-47-12da (Well 78 in previous reports) (#817, p. 94; 840, p. 191). F. Krejci. Measurements reported discontinued in 1939, but were resumed in 1946. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.14. Highest observed stage in period of record, 7.71 on June 5, 1946. Water level, in feet below land-surface datum, 1946: June 5, 7.71.

27-47-23ba (Well 483 in previous reports) (Box Butte 15 in #845, p. 171 and 886, p. 291; 946, p. 191; 988, p. 189; #1018, p. 167). Mr. Shremik. Measuring point is 3,890.8 feet above sea level. Highest observed stage in period of record, 20.51 on Feb. 28, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28	20.51	Aug. 14	21.04	Oct. 11	20.81	Dec. 17	20.97
Apr. 12	21.17	Sept. 13	21.09	Nov. 7	20.65		

27-49-21cb (Well 338 in previous reports) (#817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 190; #1018, p. 165; 1025, p. 159). E. Wildy. Highest observed stage in period of record, 118.00 on Feb. 27, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	118.00	June 12	118.50	Sept. 13	118.28	Nov. 12	118.54
Mar. 29	118.10	July 11	118.53	Oct. 10	118.27	Dec. 17	118.52
May 15	118.33						

27-50-20aa (Well 481 in previous reports) (Box Butte 12 in #845, p. 171; 946, p. 191; 988, p. 189; *1018, p. 166). Measuring point lowered 0.3 foot on May 15, 1946, to hole in casing, 1.70 feet above land-surface datum, and 4,371.2 feet above sea level. Highest observed stage in period of record, 173.99 on Feb. 27, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	173.99	June 12	174.39	Sept. 13	174.23	Nov. 13	174.26
Mar. 29	174.11	July 11	174.37	Oct. 10	174.17	Dec. 30	174.09
May 15	174.23	Aug. 14	174.15				

27-51-6bb. L. Homrighausen. Abandoned drilled irrigation well, diameter 6 inches, depth 223 feet. Measuring point, top of concrete platform, 0.3 foot above land-surface datum, and 4,493.9 above sea-level. Highest observed stage in period of record, 220.35 on Oct. 10, 1946; lowest, 220.67 on Apr. 1, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 1	220.67	Oct. 10	220.35	Dec. 20	220.49
Sept. 13	220.48	Nov. 13	220.49		

28-49-17cc. Durland Trust Co. Abandoned drilled stock well, diameter 6 inches, depth 155.3 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 144.64 on Sept. 13, 1946; lowest, 144.94 on Nov. 12, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 13, 144.64; Oct. 10, 144.73; Nov. 12, 144.94; Dec. 20, 144.67.

28-51-6dd (Well 378 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	1.97	May 15	2.65	Sept. 13	2.79	Nov. 13	2.36
Apr. 1	2.20	July 11	3.53	Oct. 10	2.42	Dec. 20	2.31

28-51-8bc (Well 482 in previous reports) (Box Butte 13 in #845, p. 171 and 886, p. 291; 946, p. 191; 988, p. 189; *1018, p. 166; 1025, p. 160). W. J. Gregg. Measuring point is 4,200.6 feet above sea level. Highest observed stage in period of record, 85.03 on Apr. 1, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 27	85.60	June 12	85.39	Sept. 13	85.55	Nov. 13	85.28
Apr. 1	85.03	July 11	85.36	Oct. 10	85.47	Dec. 20	85.17
May 15	85.14	Aug. 14	85.63				

Boyd County

32-10-1cc (Well 209 in previous reports) (*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 108.50. Water level, in feet below land-surface datum, 1946: Dec. 28, 4.85.

33-13-9cb (Well 75 in previous reports) (*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). E. Engelhaupt. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.81. Water level, in feet below land-surface datum, 1946: Dec. 28, 13.71.

34-13-10ad (Well 74 in previous reports) (*817, p. 95; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 938, p. 158; 946, p. 191). A. Christman. Measuring point lowered 0.4 foot to top of casing, at land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.16. Water level, in feet below land-surface datum, 1946: Dec. 28, 11.33.

Brown County

30-22-27dc (Well 243 in previous reports) (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 189; 988, p. 190; *1018, p. 167; 1025, p. 160). F. Bower. No measurements made in 1946.

Buffalo County

8-16-3cb. A. E. Sheldon. Drilled irrigation well, diameter 18 inches, depth 32 feet. Measuring point, plug in south side of turbine, 0.5 foot above land-surface datum. Highest observed stage in period of record, 10.48 on Dec. 3, 1946; lowest, 13.22 on Aug. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	12.11	Apr. 10	11.98	July 10	12.78	Oct. 7	11.55
Feb. 13	12.05	May 8	11.64	Aug. 7	13.22	Nov. 7	10.98
Mar. 14	11.97	June 7	12.30	Sept. 5	12.22	Dec. 3	10.48

8-16-10cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 8.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.76 on Nov. 7, 1946; lowest, 3.71 on Sept. 5, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 5, 3.71; Oct. 7, 2.53; Nov. 7, 1.76; Dec. 3, 2.34.

8-16-12cc (Well 274 in previous reports) (*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 155; 946, p. 192; 988, p. 191; 1018, p. 168; 1025, p. 161). M. Garvin.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	4.70	Apr. 10	5.00	July 10	5.20	Oct. 7	4.05
Feb. 13	5.25	May 8	5.28	Aug. 7	5.42	Nov. 7	4.51
Mar. 13	4.96	June 5	4.99	Sept. 5	5.62	Dec. 3	4.26

8-17-1da (Well 278 in previous reports) (*817, p. 101; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 938, p. 158; 946, p. 192; 988, p. 199; 1018, p. 168; 1025, p. 161). University of Nebraska. Highest observed stage in period of record, 4.18 on Oct. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	7.64	Apr. 10	7.12	July 10	8.27	Oct. 7	4.18
Feb. 13	7.67	May 8	7.84	Aug. 7	6.02	Nov. 7	5.53
Mar. 14	7.37	June 6	7.62	Sept. 5	6.63	Dec. 3	5.11

8-17-4bc. Henry Richards. Bored observation well, diameter 24 inches, depth 30 feet. Measuring point, top of brick casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.26 on Dec. 3, 1946; lowest, 10.05 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	7.96	Apr. 10	6.88	July 10	8.42	Oct. 7	7.95
Feb. 13	7.57	May 8	7.77	Aug. 7	9.23	Nov. 7	7.49
Mar. 14	7.20	June 6	7.69	Sept. 5	10.05	Dec. 3	5.26

8-17-12dd (Well 279 in previous reports) (*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). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 102.19.

8-17-12dd--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	2.32	Apr. 10	2.47	July 10	3.07	Oct. 7	2.29
Feb. 13	1.67	May 8	2.67	Aug. 7	3.32	Nov. 7	2.01
Mar. 14	2.38	June 6	2.53	Sept. 5	3.37	Dec. 3	2.76

8-18-4cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 16.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.30 on Oct. 7, 1946; lowest, 9.62 on Sept. 5, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 5, 9.62 Oct. 7, 7.30; Nov. 7, 8.18; Dec. 3, 8.15.

9-13-5cb (Well 265 in previous reports) (*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). F. Scott. Lowest observed stage in period of record, 22.54 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	20.10	Apr. 10	19.85	July 10	20.65	Oct. 4	22.02
Feb. 13	20.02	May 8	19.76	Aug. 7	22.22	Nov. 7	19.42
Mar. 13	19.95	June 7	19.99	Sept. 5	22.54	Dec. 2	20.90

9-13-9cc (Well 264 in previous reports) (*817, p. 97; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 988, p. 190; 1018, p. 167; 1025, p. 161). B. Smith. Lowest observed stage in period of record, 17.09 on Oct. 4, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	13.93	Apr. 10	13.60	July 10	13.91	Nov. 7	14.99
Feb. 13	13.79	May 8	13.60	Oct. 4	17.09	Dec. 2	14.22
Mar. 13	13.72	June 7	13.60				

9-13-22bc (Well 263 in previous reports) (*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). E. Stubblefield. Lowest observed stage in period of record, 12.74 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	8.39	Apr. 10	8.03	July 10	9.22	Oct. 4	11.47
Feb. 13	8.21	May 8	8.27	Aug. 7	10.97	Nov. 7	8.49
Mar. 13	8.17	June 7	8.38	Sept. 5	12.74	Dec. 2	7.87

9-14-1dc. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 37.5 feet. Measuring point, top of casing, 0.8 foot above land-surface datum. Stevens Type A-35 recorder installed Nov. 14, 1946. Highest observed stage in period of record, 18.47 on Dec. 27 and 28, 1946; lowest, 19.79 on Sept. 5, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Aug. 7	a 19.32	Nov. 23	18.72	Dec. 6	18.59	Dec. 19	18.52
Sept. 5	19.79	24	18.70	7	18.58	20	18.50
Oct. 4	a 19.49	25	18.70	8	18.57	21	18.50
Nov. 7	a 18.89	26	18.69	9	18.57	22	18.50
14	a 18.73	27	18.68	10	18.57	23	18.49
15	18.77	28	18.67	11	18.56	24	18.49
16	18.79	29	18.66	12	18.55	25	18.49
17	18.79	30	18.65	13	18.55	26	18.47
18	18.77	Dec. 1	18.65	14	18.55	27	18.47
19	18.76	2	18.64	15	18.54	28	18.48
20	18.75	3	18.61	16	18.54	29	18.48
21	18.74	4	18.61	17	18.55	30	18.48
22	18.74	5	18.60	18	18.55	31	18.48

a Tape measurement.

9-14-4cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 20.06 on June 7, 1946; lowest, 23.11 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 7	20.06	Aug. 7	22.42	Oct. 7	21.80	Dec. 3	20.25
July 10	20.68	Sept. 5	23.11	Nov. 7	20.70		

9-14-13cb (Well 267 in previous reports) (*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). M. Davis.

Water level, in feet below land-surface datum, 1946							
Jan. 17	19.32	Apr. 10	19.20	July 10	19.75	Nov. 7	19.60
Feb. 13	19.27	May 8	19.20	Sept. 5	21.55	Dec. 2	19.32
Mar. 13	19.22	June 7	19.15	Oct. 4	21.04		

9-14-19dd (Well 270 in previous reports) (*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). Key well US 129. T. Lewis.

Water level, in feet below land-surface datum, 1946							
Jan. 17	25.04	Apr. 10	24.78	July 10	24.79	Oct. 29	25.84
29	25.00	29	24.71	29	25.90	Nov. 29	25.29
Feb. 28	24.87	May 29	24.92	Aug. 29	27.26	Dec. 29	24.67
Mar. 29	24.71	June 28	24.70	Sept. 29	26.86		

9-14-21cc (Well 269 in previous reports) (*817, p. 99; 840, p. 193; 845, p. 172; 886, p. 292; 908, p. 190; 946, p. 192; 988, p. 190; *1018, p. 168; 1025, p. 161). W. Adair.

Water level, in feet below land-surface datum, 1946							
Jan. 17	19.20	Apr. 10	18.97	July 10	20.30	Nov. 7	19.60
Feb. 13	19.12	May 8	18.90	Aug. 7	21.58	Dec. 3	19.17
Mar. 13	19.04	June 7	18.88	Oct. 7	20.19		

9-14-22bb. Drilled irrigation well, diameter 18 inches. Measuring point, hole in turbine base, at land-surface datum. Highest observed stage in period of record, 17.27 on July 10, 1946; lowest 19.56 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946						
Date	Water level	Date	Water level	Date	Water level	
July 10	17.27	Sept. 5	19.56	Nov. 7	17.86	
Aug. 7	17.62	Oct. 7	19.13	Dec. 3	17.48	

9-14-34bb (Well 268 in previous reports) (*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). C. Nicholson.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	11.82	Apr. 10	11.15	July 10	12.47	Oct. 7	12.40
Feb. 13	11.27	May 8	11.36	Aug. 7	13.75	Nov. 7	11.39
Mar. 13	11.18	June 7	11.35	Sept. 5	14.37	Dec. 3	9.92

9-15-11cb (Well 272 in previous reports) (*817, p. 100; 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). C. Aldeen.

Water level, in feet below land-surface datum, 1946							
Jan. 17	27.29	Apr. 10	27.27	July 10	27.69	Oct. 7	28.08
Feb. 13	27.30	May 8	27.32	Aug. 7	28.07	Nov. 7	27.35
Mar. 13	27.27	June 7	27.39	Sept. 5	28.39	Dec. 3	27.20

9-15-16cc. Drilled irrigation well, diameter 18 inches. Measuring point, hole in north side of turbine, at land-surface datum. Highest observed stage in period of record, 33.45 on Dec. 3, 1946; lowest, 35.02 on Sept. 5, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 5, 35.02; Oct. 7, 34.29; Nov. 7, 33.84; Dec. 3, 33.45.

9-15-34bb (Well 273 in previous reports) (*817, p. 100; 840, p. 193; 886, p. 292; 1025, p. 161). J. Wolford.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 17	20.33	Mar. 13	20.50	May 8	(a)
Feb. 13	20.63	Apr. 10	20.75		

a Measuring point destroyed.

9-17-31cd. Geological Survey, U. S. Dept. of Interior. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 19.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.02 on Oct. 7, 1946; lowest, 11.12 on Feb. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 13	11.12	May 8	10.79	Aug. 7	10.53
Mar. 14	10.90	June 6	10.49	Sept. 5	10.42
Apr. 10	10.61	July 10	10.74	Oct. 7	8.02
				Nov. 7	8.71
				Dec. 3	8.43

9-18-27dd. Geological Survey, U. S. Dept. of Interior. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 14.4 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum. Highest observed stage in period of record, 3.63 on Oct. 7, 1946; lowest, 9.39 on July 10, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 13	8.45	May 9	8.93	Aug. 7	8.77	Nov. 7	4.96
Mar. 14	8.57	June 6	9.02	Sept. 5	8.01	Dec. 3	4.33
Apr. 10	8.49	July 10	9.39	Oct. 7	3.63		

9-18-31cc. Mrs. Dworak. Drilled irrigation well, diameter 24 inches, depth 32 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 7.38 on Oct. 8, 1946; lowest, 12.49 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 14	11.42	May 9	11.17	Sept. 6	12.49	Nov. 7	10.22
Mar. 14	11.40	June 6	11.33	Oct. 8	7.38	Dec. 3	9.95
Apr. 10	11.37	July 10	11.70				

10-13-24bc (Well 262 in previous reports) (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190). B. M. Bentley. Well was redug and rebuilt in 1942. Depth is now 52 feet. Measuring point, edge of steel beam, at land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 120.88. Lowest observed stage in period of record, 26.28 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
Nov. 14, 1944	24.27	June 6, 1946	24.06	Oct. 4, 1946	25.42
Mar. 13, 1946	24.25	June 10	24.02	Nov. 6	25.05
Apr. 10	24.16	Sept. 5	26.28	Dec. 2	24.88
May 8	24.14				

10-17-21cd (Well 232 in previous reports) (*817, p. 96; 840, p. 192; 845, p. 172; 886, p. 291; 908, p. 190; 938, p. 158; 946, p. 192). W. Buettner. No measurements made in 1946.

12-14-2cb (Well 52 in previous reports) (*817, p. 96; 840, p. 192; 845, p. 172; 946, p. 192). No measurements made in 1946.

Burt County

A21-11-34ab (Well 64 in previous reports) (*946, p. 192; *1018, p. 168). Tom Turk. No measurements made in 1946.

A22-8-35aa (Well 402 in previous reports) (*886, p. 292; 908, p. 190; 938, p. 158; 946, p. 193; *1018, p. 168). University of Nebraska. Water level, in feet below land-surface datum, 1946: Dec. 28, 4.82.

Butler County

A14-3-8ba (Well 508 in previous report) (*946, p. 193). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 116.91. Highest observed stage in period of record, 11.25 on Feb. 19, 1946. Water level, in feet below land-surface datum, 1946: Feb. 19, 11.25.

A16-1-17bc. Walt Deitzler. Drilled irrigation well, diameter 24 inches, depth 38 feet. Measuring point, lower edge of discharge pipe, 4 feet above land-surface datum. Highest observed stage in period of record, 3.42 on Mar. 11, 1946; lowest, 5.47 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	3.50	Apr. 8	3.98	July 8	4.44	Oct. 12	4.82
Feb. 11	4.10	May 6	3.70	Aug. 5	5.40	Nov. 4	4.82
Mar. 11	3.42	June 3	4.39	Sept. 3	5.47	Dec. 9	3.85

A 16-2-14cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 12.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.55 on July 8, 1946; lowest, 6.35 on Oct. 12, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 11	5.18	May 6	5.29	Aug. 5	5.68	Nov. 4	6.24
Mar. 11	4.97	June 3	5.55	Sept. 3	6.22	Dec. 9	5.20
Apr. 8	5.09	July 8	4.55	Oct. 12	6.35		

A16-2-30bc. John Foel. Drilled irrigation well, diameter 18 inches, reported depth 88 feet. Measuring point, lower edge of discharge pipe, 3.8 feet above land-surface datum. Highest observed stage in period of record, 21.96 on Jan. 8, 1946; lowest, 22.68 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 8	21.96	Apr. 8	22.09	July 8	22.10	Oct. 12	22.39
Feb. 11	22.00	May 6	22.14	Aug. 5	22.68	Nov. 4	22.50
Mar. 11	21.97	June 3	22.17	Sept. 3	22.26	Dec. 9	22.44

A16-3-1dc. A. J. Viglicky. Drilled irrigation well, diameter 36 inches, depth 37 feet. Measuring point, turbine base, at land-surface datum. Highest observed stage in period of record, 10.37 on July 8, 1946; lowest, 12.25 on Nov. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 8	10.77	Apr. 8	10.92	July 8	10.37	Oct. 11	12.20
Feb. 12	10.80	May 6	11.35	Aug. 5	11.53	Nov. 5	12.25
Mar. 11	10.72	June 3	11.84	Sept. 3	12.17	Dec. 9	11.31

A16-3-8dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 12.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.93 on Dec. 9, 1946; lowest, 4.43 on Oct. 12, 1946. Water levels, in feet below land-surface datum, 1946: Oct. 12, 4.43; Nov. 4, 4.30; Dec. 9, 2.93.

A16-3-15cd. A. C. Fortna. Drilled irrigation well, diameter 18 inches, depth 70 feet. Measuring point, bottom edge of turbine, at land-surface datum. Highest observed stage in period of record, 14.14 on July 8, 1946; lowest, 17.28 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	14.85	Apr. 8	14.84	July 8	14.14	Oct. 11	15.26
Feb. 11	14.80	May 6	15.02	Aug. 5	17.28	Nov. 4	15.19
Mar. 11	14.77	June 3	15.16	Sept. 3	15.10	Dec. 9	14.64

A17-4-28cd. E. J. Duda. Drilled irrigation well, diameter 22 inches, depth 66 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 20.57 on Mar. 11, 1946; lowest, 22.10 on Oct. 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	20.90	Apr. 8	20.78	July 8	21.09	Oct. 11	22.10
Feb. 12	20.86	May 6	20.97	Aug. 5	21.64	Nov. 5	21.81
Mar. 11	20.57	June 3	21.38	Sept. 3	22.09	Dec. 9	21.27

Cass County

A10-13-26ba (Well 18 in previous reports) (#817, p. 103; 840, p. 194; 845, p. 173; 886, p. 292; 908, p. 190; 938, p. 159; 946, p. 193; 988, p. 191). W. Stine. No measurements made in 1946.

A12-9-32ca (Well 16 in previous reports) (#817, p. 103; 840, p. 194; 845, p. 173; 886, p. 292; 908, p. 190; 938, p. 159; 946, p. 193; #1018, p. 168). E. McNevelin. Highest observed stage in period of record, 39.07 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 36.07.

Cedar County

A28-3-4ca (Well 65 in previous reports) (#908, p. 191; 938, p. 159; 946, p. 193). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 110.41. Water level, in feet below land-surface datum, 1946: Dec. 27, 7.80.

A31-2-31ab (Well 66 in previous reports) (#817, p. 103; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193). J. Leise. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.65. Water level, in feet below land-surface datum, 1946: Dec. 27, 13.00.

A32-2-23bd (Well 369 in previous reports) (#817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 193). H. Kleinberg. Well destroyed; measurements discontinued.

Chase County

5-36-7ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 19.10. Measuring point, top of pipe, 0.7 foot above land-surface datum. Highest observed stage in period of record, 15.80 on Oct. 24, and Dec. 16, 1946; lowest, 16.39 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: May 29, 16.05; Aug. 15, 16.39; Oct. 24, 15.80; Dec. 16, 15.80.

5-36-11dc (Well 153 in previous reports) (#817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193; 988, p. 191; 1018, p. 169). J. Redden. Highest recorded stage in period of record, 62.53 on Dec. 16, 1946.

5-36-11dc--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 6	62.64	May 28	62.69	Oct. 24	62.57
Mar. 19	62.55	Aug. 15	63.27	Dec. 16	62.53

7-38-20dd (Well 152 in previous reports) (*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 946, p. 193; *1018, p. 169). A. Banks. No measurements made in 1946.

Cherry County

26-32-28ad (Well 312 in previous reports) (*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; *1018, p. 169). R. Osborne. No measurements made in 1946.

31-25-20ad (Well 116 in previous reports) (*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). University of Nebraska. Water level, in feet below land-surface datum, 1946: Aug. 6, 5.04.

33-27-17cb (Well 399 in previous reports) (*840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 988, p. 192; 1018, p. 169; 1025, p. 163). University of Nebraska. Water level, in feet below land-surface datum, 1946: Aug. 7, 2.87.

34-27-31da (Well 115 in previous reports) (*817, p. 104; 840, p. 194; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; *1018, p. 169; 1025, p. 162). Nebraska Agricultural College. Water level, in feet below land-surface datum, 1946: Aug. 7, 98.03.

34-27-32cb (Well 146 in previous reports) (*988, p. 192). University of Nebraska. No measurements made in 1946.

34-31-3ad (Well 257 in previous reports) (*817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159). University of Nebraska. Erroneously listed as destroyed in Water-Supply Paper 946. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.93.

Water level, in feet below land-surface datum, 1941-46					
Date	Water level	Date	Water level	Date	Water level
Mar. 15, 1941	5.08	Mar. 1, 1942	3.67	Mar. 11, 1943	2.81
July 8	5.02	June 1	1.50	Aug. 1, 1944	2.78
Oct. 1	5.17	Aug. 24	3.68	2, 1945	2.82
19	5.01	Oct. 1	3.68	7, 1946	3.80

34-36-1dc (Well 256 in previous reports) (*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. 162). University of Nebraska. No measurements made in 1946.

34-38-14bc (Well 431 in previous reports) (*886, p. 293; 908, p. 191; 938, p. 159; *1018, p. 169; 1025, p. 163). University of Nebraska. Water level, in feet below land-surface datum, 1946: Aug. 7, 7.36.

Cheyenne County

12-51-22aa (Well 92 in previous reports) (*817, p. 106; 840, p. 196; 845, p. 173; 886, p. 293; 908, p. 192; 938, p. 159; 946, p. 194). G. Fay. No measurements made in 1946.

14-47-26cb (Well 444a in previous reports) (*938, p. 159; 946, p. 194; *1018, p. 170). University of Nebraska. No measurements made in 1946.

14-50-35ac (Well 91 in previous reports) (*817, p. 106; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194; *1018, p. 170). F. Mather Estate. No measurements made in 1946.

14-52-5ca (Well 90 in previous reports) (*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). W. Goding. No measurements made in 1946.

15-49-2bb (Well 87 in previous reports) (*777, p. 92; 817, p. 105; 840, p. 195; 845, p. 173; 886, p. 293; 908, p. 191; 938, p. 159; 946, p. 194). A. Linn. No measurements made in 1946.

Clay County

5-7-32ac: University of Nebraska. Driven observation well, diameter 1.0 inch, depth 23 feet. Measuring point, top of pipe, 3.3 feet above land-surface datum. Highest observed stage in period of record, 12.16 on Oct. 18, 1938; lowest, 14.14 on Nov. 14, 1940.

Water level, in feet below land-surface datum, 1937-38, 1940-41, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 13, 1937	12.45	Oct. 18, 1938	12.16	Nov. 14, 1940	14.14
June 28	12.80	Apr. 11, 1940	13.19	Oct. 31, 1941	12.39
Oct. 23	12.84	Aug. 2	13.68	Dec. 31, 1946	13.29
July 1, 1938	12.30				

Colfax County

A17-2-16bc. -T. Stibal. Drilled irrigation well, diameter 24 inches, depth 112 feet. Measuring point, plug in bottom plate of turbine, 0.8 foot above land-surface datum. Highest observed stage in period of record, 25.11 on Mar. 11, 1946; lowest, 26.32 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1945-46

Dec. 28, 1945	25.43	May 7, 1946	25.39	Sept. 4, 1946	26.32
Feb. 12, 1946	25.35	June 4	25.62	Oct. 11	26.28
Mar. 11	25.11	July 9	25.56	Nov. 5	26.10
Apr. 9	25.44	Aug. 6	26.02	Dec. 9	25.71

A17-2-22dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 13 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.97 on July 9, 1946; lowest, 6.10 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	5.63	May 6	5.09	Aug. 6	5.70	Nov. 5	6.04
Mar. 11	5.18	June 4	5.22	Sept. 4	6.10	Dec. 9	5.27
Apr. 9	5.22	July 9	4.97	Oct. 11	6.07		

A17-3-4cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 16 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.45 on Dec. 9, 1946; lowest, 6.28 on Oct. 11, 1946. Water levels, in feet below land-surface datum, 1946: Oct. 11, 6.28; Nov. 5, 6.10; Dec. 9, 5.45.

A17-3-11dd. T. O. Bailey. Drilled irrigation well, diameter 16 inches, depth 90 feet. Measuring point, top of platform, 0.2 foot above land-surface datum. Highest observed stage in period of record, 8.87 on July 9, 1946; lowest, 10.18 on Nov. 5, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	9.00	May 7, 1946	9.47	Sept. 4, 1946	9.67
Feb. 12, 1946	9.48	June 3	9.44	Oct. 11	10.05
Mar. 12	9.60	July 9	8.87	Nov. 5	10.18
Apr. 9	9.51	Aug. 6	9.35	Dec. 10	9.92

A17-3-18dc. K. J. Folda. Drilled irrigation well, diameter 24 inches, depth 61 feet. Measuring point, edge of casing, at land-surface datum. Highest observed stage in period of record, 2.65 on Mar. 11, 1946; lowest, 4.82 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	3.18	Apr. 9	3.54	July 9	3.52	Oct. 11	4.76
Feb. 12	3.53	May 6	3.24	Aug. 6	4.68	Nov. 5	3.43
Mar. 11	2.65	June 4	3.66	Sept. 4	4.82	Dec. 9	2.83

A17-3-23cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 11 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.00 on Dec. 9, 1946; lowest 5.27 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	4.48	May 6	4.22	Aug. 5	5.02	Nov. 5	4.45
Mar. 11	4.02	June 3	4.68	Sept. 3	5.27	Dec. 9	4.00
Apr. 9	4.58	July 8	4.16	Oct. 11	4.83		

A17-3-29aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 16 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.15 on Dec. 9, 1946; lowest, 8.63 on Oct. 11, 1946. Water levels, in feet below land-surface datum, 1946: Oct. 11, 8.63; Nov. 5, 8.54; Dec. 9, 8.15.

A17-4-1cc (Well 37A in previous report) (*1025, p. 163). H. Schlemmer.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.91	May 7	4.89	Aug. 6	5.98	Nov. 5	5.26
Mar. 12	4.49	June 3	5.32	Sept. 4	6.05	Dec. 10	4.92
Apr. 9	4.80	July 8	5.61	Oct. 11	5.25		

A17-4-4bb. E. Maxes. Drilled irrigation well, diameter 24 inches, depth 36.3 feet. Measuring point, hole in turbine base, 0.1 foot above land-surface datum. Highest observed stage in period of record, 13.14 on Dec. 28, 1945; lowest, 17.11 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1945-46					
Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	13.14	May 7, 1946	13.88	Sept. 4, 1946	16.37
Feb. 12, 1946	13.67	June 3	13.98	Oct. 11	15.39
Mar. 12	13.64	July 9	13.31	Nov. 5	15.48
Apr. 9	13.82	Aug. 6	17.11	Dec. 9	15.20

A20-2-2dd (Well 343a in previous reports) (*938, p. 160; 946, p. 195). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 112.71. Highest observed stage in period of record, 6.85 on May 7, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 11, 6.93; May 7, 6.85.

A20-4-7aa (Well 332 in previous reports) (*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 194). University of Nebraska. New casing, diameter 1½ inches, depth 31.5 feet, installed May 8, 1940. Measuring point, top of pipe, 1.8 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 115.43 for measurements made prior to Oct. 23, 1936, from 114.41 for measurements made from Oct. 23, 1936, to Mar. 21, 1940, inclusive, and from 114.31 for measurements made after Mar. 21, 1940. Highest observed stage in period of record, 9.47 on May 7, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 11, 9.54; May 7, 9.47.

Cuming County

A21-6-23bb (Well 69 in previous reports) (*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195; 988, p. 193; 1018, p. 170). University of Nebraska. Water level, in feet below land-surface datum, 1946: Dec. 26, 5.30.

A23-7-6bb (Well 61 in previous reports) (*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195; 988, p. 193). University of Nebraska. Well destroyed; measurements discontinued.

Custer County

15-23-2bb (Well 219 in previous reports) (*817, p. 108; 840, p. 197; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. No measurements made in 1946.

16-23-35cb (Well 436 in previous reports) (*886, p. 295; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. No measurements made in 1946.

17-25-27cc (Well 435 in previous reports) (*886, p. 295; 908, p. 192; 938, p. 160; 946, p. 195). University of Nebraska. No measurements made in 1946.

19-18-9aa (Well 53 in previous reports) (*817, p. 107; 840, p. 196; 845, p. 173; 886, p. 294; 908, p. 192; 938, p. 160; 946, p. 195; 1018, p. 170; 1025, p. 164). University of Nebraska. No measurements made in 1946.

Dakota County

A27-8-28da (Well 104 in previous reports) (*777, p. 92; 817, p. 109; 840, p. 197; 845, p. 174; 886, p. 245; 908, p. 192). R. Nelson. No measurements made in 1946.

A29-7-21db (Well 453 in previous reports) (*886, p. 295; 908, p. 192; 938, p. 160). John Boyle. Location erroneously listed as Range 5 in previous reports. No measurements made in 1946.

Dawes County

31-52-3dc (Well 123 in previous reports) (*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). Key well US 60. T. Moody.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 30, 1945	18.86	May 30, 1946	20.80	Oct. 1, 1946	18.95
Jan. 31, 1946	18.81	June 28	17.84	30	18.34
Feb. 26	18.85	June 30	18.25	Nov. 28	18.34
Mar. 30	18.86	Aug. 7	18.72	Dec. 29	18.34
Apr. 29	18.85	30	18.25		

32-51-1db (Well 396 in previous reports) (*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; *1018, p. 171). W. Howard. Lowest observed stage in period of record, 20.64 on Aug. 7, 1946. Water level, in feet below land-surface datum, 1946: Aug. 7, 20.64.

33-48-21ba (Well 315 in previous reports) (*817, p. 109; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160). A. McIntyre. Measurements discontinued.

34-49-11bc. H. Braddock. Drilled stock well, diameter 18 inches, depth 38.2 feet. Measuring point, top of platform, 2.2 feet above land-surface datum. Well destroyed and replaced by well 34-49-11bc.

34-49-11bc--Continued.

Water level, in feet below land-surface datum, 1934-36

Date	Water level	Date	Water level	Date	Water level
Aug. 28, 1934	22.37	July 14, 1935	22.69	Jan. 17, 1936	21.96
Nov. 10	22.58	Aug. 14	21.22	Mar. 26	22.21
Jan. 4, 1935	22.46	Sept. 14	21.28	June 2	21.16
Feb. 25	22.50	Oct. 22	21.55	July 20	20.91
Apr. 18	22.54	Nov. 23	21.71	Sept. 11	21.27
June 6	22.31	Dec. 28	21.82		

34-49-11bc. University of Nebraska. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 24 feet. Measuring point, top of pipe, 1.8 feet above land-surface datum, and 7.63 feet below measuring point of old well. Highest observed stage in period of record, 8.73 on Aug. 2, 1945; lowest, 13.53 on Nov. 1, 1940.

Water level, in feet below land-surface datum, 1940-45

July 20, 1940	12.23	Oct. 20, 1941	13.22	Aug. 2, 1945	8.73
Nov. 1	13.53	Nov. 14, 1942	13.05		

Dawson County

9-19-16ab. A. Kapp. Drilled irrigation well, diameter 24 inches, depth 34 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Highest observed stage in period of record, 6.50 on Dec. 3, 1946; lowest, 10.68 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	8.54	Apr. 10	9.14	July 11	9.89	Oct. 8	10.09
Feb. 14	9.40	May 9	9.49	Aug. 8	10.31	Nov. 7	7.06
Mar. 14	9.34	June 6	9.69	Sept. 6	10.68	Dec. 3	6.50

9-19-25bb. E. Bliss. Drilled irrigation well, diameter 24 inches, depth 52 feet. Measuring point, hole in base of turbine, 0.4 foot above land-surface datum. Highest observed stage in period of record, 5.92 on Oct. 8, 1946; lowest, 9.23 on Feb. 14, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	9.12	Apr. 10	8.90	July 10	8.49	Oct. 8	5.92
Feb. 14	9.23	May 9	6.80	Aug. 7	8.32	Nov. 7	7.08
Mar. 14	9.17	June 6	8.04	Sept. 6	9.00	Dec. 3	6.38

9-19-33bb. R. J. Gamble. Drilled irrigation well, diameter 18 inches, depth 35 feet. Measuring point, bottom of steel beam, 0.2 foot above land-surface datum. Highest observed stage in period of record, 5.03 on Oct. 8, 1946; lowest, 9.04 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	7.70	Apr. 10	7.12	July 10	7.56	Oct. 8	5.03
Feb. 14	7.66	May 9	7.19	Aug. 7	7.99	Nov. 7	5.93
Mar. 14	7.53	June 6	7.07	Sept. 6	9.04	Dec. 3	5.30

9-20-3dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.72 on Dec. 3, 1946; lowest, 12.52 on Sept. 6, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 6, 12.52; Oct. 8, 9.66; Nov. 7, 9.26; Dec. 3, 8.72.

9-20-5bc. M. Rhoadarmer. Drilled irrigation well, diameter 18 inches, depth 52.5 feet. Measuring point, hole in side of turbine, 0.6 foot above land-surface datum. Highest observed stage in period of record, 19.01 on Dec. 3, 1946; lowest, 22.82 on Aug. 8, 1946.

9-20-5bc--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	21.52	Apr. 10	21.35	July 11	22.50	Oct. 8	20.81
Feb. 14	21.61	May 9	21.89	Aug. 8	22.82	Nov. 7	19.45
Mar. 14	21.41	June 6	21.81	Sept. 6	22.60	Dec. 3	19.01

9-20-13bc (Well 280 in previous reports) (#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). J. Brick. Highest observed stage in period of record, 6.90 on Dec. 3, 1946; lowest, 11.45 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	10.25	May 9	9.80	Sept. 6	11.45	Nov. 7	7.80
Mar. 14	10.00	June 6	9.88	Oct. 8	8.55	Dec. 3	6.90
Apr. 10	9.51	Aug. 8	10.97				

9-20-22cc. J. Priel. Drilled irrigation well, diameter 18 inches, depth 36.5 feet. Measuring point, bottom edge of metal plate, 0.5 foot above land-surface datum. Highest observed stage in period of record, 7.74 on Dec. 3, 1946; lowest, 12.63 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	10.98	Apr. 10	10.60	July 11	11.48	Nov. 7	8.66
Feb. 14	10.98	May 9	11.08	Sept. 6	12.63	Dec. 3	7.74
Mar. 14	10.80	June 6	11.08	Oct. 8	11.09		

9-20-33dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 12.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.41 on Nov. 7, 1946; lowest, 4.59 on Sept. 6, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 6, 4.59; Oct. 8, 3.07; Nov. 7, 2.41; Dec. 3, 2.47.

9-21-6ad (Well 293 in previous reports) (#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). University of Nebraska. Highest observed stage in period of record, 1.39 on Oct. 8, 1946; lowest, 8.30 on July 11, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	6.03	Apr. 11	5.64	July 11	8.50	Oct. 8	1.39
Feb. 14	5.76	May 9	6.42	Aug. 8	7.01	Nov. 8	3.92
Mar. 14	5.47	June 6	6.73	Sept. 6	7.15	Dec. 3	3.97

9-21-6da (Well 294 in previous reports) (#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). University of Nebraska. Highest observed stage in period of record, 1.01 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	4.45	Apr. 11	4.43	July 11	5.49	Oct. 8	1.01
Feb. 14	4.45	May 9	4.76	Aug. 8	5.03	Nov. 8	3.06
Mar. 14	4.43	June 6	4.75	Sept. 6	5.61	Dec. 3	3.02

9-21-7aa (Well 295 in previous reports) (#817, p. 115; 840, p. 198; 845, p. 174; 886, p. 296; 908, p. 193; 938, p. 161; 936, p. 196; 988, p. 197; 1018, p. 173; 1025, p. 166). University of Nebraska. Highest observed stage in period of record, 4.52 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 17	7.25	Apr. 11	7.55	Aug. 8	7.48	Nov. 8	6.18
Feb. 14	7.53	June 6	7.35	Sept. 6	8.19	Dec. 3	6.11
Mar. 14	7.53	July 11	7.75	Oct. 8	4.52		

9-21-7da (Well 296 in previous reports) (#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). University of Nebraska. Highest observed stage in period of record, 4.13 on Oct. 8, 1946; lowest, 7.15 on Sept. 6, 1946.

9-21-7da--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	6.88	Apr. 11	6.80	July 11	7.10	Oct. 8	4.13
Feb. 14	6.56	May 9	6.94	Aug. 8	7.10	Nov. 8	6.14
Mar. 14	6.50	June 6	6.74	Sept. 6	7.14	Dec. 3	6.17

9-21-12cb (Well 314 in previous reports) (*817, p. 121; 840, p. 299; 845, p. 174; 886, p. 297; 908, p. 194; 988, p. 199; 1018, p. 175; 1025, p. 168). C. Myers. Highest observed stage in period of record, 9.29 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	11.15	May 9	11.41	Aug. 8	12.35	Nov. 7	9.80
Mar. 14	10.91	June 6	11.33	Sept. 5	12.22	Dec. 3	9.45
Apr. 10	10.86	July 11	11.52	Oct. 8	9.29		

9-21-18aa (Well 297 in previous reports) (*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. 167). University of Nebraska.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 14	5.17	May 9	5.50	Aug. 8	5.81	Nov. 8	4.05
Mar. 14	5.08	June 6	5.32	Sept. 6	5.82	Dec. 3	3.88
Apr. 11	5.04	July 11	5.76	Oct. 8	2.99		

9-21-18da (Well 298 in previous reports) (*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). University of Nebraska. Highest observed stage in period of record, 2.72 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	5.18	Apr. 11	5.00	July 11	5.61	Oct. 8	2.72
Feb. 14	5.08	May 9	5.30	Aug. 8	5.66	Nov. 8	3.97
Mar. 14	5.07	June 6	5.37	Sept. 6	5.90	Dec. 3	3.89

9-21-19aa1 (Well 299 in previous reports) (*817, p. 117; 840, p. 199; 845, p. 174; 886, p. 296; 908, p. 194; 946, p. 197; 988, p. 198; 1018, p. 174; 1025, p. 167). University of Nebraska. New pipe installed Aug. 7, 1946, diameter $1\frac{1}{4}$ inches, depth 12 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.45 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 14	3.68	May 9	4.10	Aug. 8	4.62	Nov. 8	3.14
Mar. 14	3.68	June 6	4.07	Sept. 6	4.60	Dec. 3	3.25
Apr. 11	3.84	July 11	4.63	Oct. 8	1.45		

9-21-19aa2 (Well 300 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	0.69	Apr. 11	0.58	July 11	1.62	Oct. 8	a 0.74
Feb. 14	.58	May 9	1.06	Aug. 8	1.57	Nov. 8	.17
Mar. 14	.57	June 6	1.07	Sept. 6	1.48	Dec. 3	.30

a Above land-surface datum.

9-21-19da (Well 301 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	3.47	Apr. 4	3.66	July 11	4.20	Oct. 8	2.11
Feb. 15	3.70	11	3.73	Aug. 8	4.20	Nov. 8	3.60
28	a 3.50	May 9	3.85	20	a 4.41	Dec. 3	3.66
Mar. 15	4.51	June 5	3.79	Sept. 6	4.08		

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-19dd (Well 302 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	5.18	Apr. 4 a	5.33	July 11	6.00
Feb. 15	5.09	11	5.44	Aug. 8	6.04
28 a	5.22	May 9	5.56	20 a	6.21
Mar. 15	5.23	June 5	5.47	Sept. 6	5.82
				Oct. 8	3.11
				Nov. 8	5.24
				Dec. 3	5.32

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-24aa (Well 317 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	3.88	Apr. 10	3.62	July 11	4.97
Feb. 14	3.80	May 9	4.45	Aug. 8	5.04
Mar. 14	3.70	June 6	4.38	Sept. 6	4.85
				Oct. 8	(a)
				Nov. 8	2.62
				Dec. 3	2.44

a Flooded.

9-21-29bc (Well 303 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	2.79	Apr. 4 a	2.80	July 11	3.53
Feb. 15	2.70	11	2.95	Aug. 8	3.50
28 a	2.76	May 9	3.02	Sept. 6	3.25
Mar. 15	2.75	June 5	2.87	Dec. 3	2.72

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-30da (Well 304 in previous reports) (*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). University of Nebraska. Highest observed stage in period of record, 3.63 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	6.28	May 9	6.24	Aug. 8	6.65
Feb. 15	6.22	June 5	6.18	20 a	6.87
Mar. 15	6.22	July 11	6.47	Sept. 6	6.43
Apr. 11	6.23			Dec. 3	6.07

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-31aa1 (Well 305 in previous reports) (*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). University of Nebraska. Highest observed stage in period of record, 11.82 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	14.00	Apr. 11	13.82	July 11	13.99
Feb. 15	13.85	May 9	13.75	Aug. 8	13.45
Mar. 15	13.79	June 5	13.53	Sept. 6	14.82
				Dec. 3	12.40

9-21-31aa2 (Well U60 in previous reports) (*988, p. 206; 1018, p. 177; 1025, p. 171). 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, 10.06 on Apr. 4, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 18	10.17	Apr. 4	10.06	July 11	10.27
Feb. 28	10.11	May 9	10.10	Aug. 20	12.27

9-21-31cc (Well U73 in previous reports) (*988, p. 208; 1018, p. 178; 1025, p. 171). 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, 27.34 on July 11.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	28.24	Apr. 4	27.83	July 11	27.34
Feb. 28	28.12	May 9	27.51		

9-21-31da (Well 306 in previous reports) (*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). University of Nebraska. Highest observed stage in period of record, 8.16 on Dec. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	10.57	Apr. 11	10.15	July 11	11.18	Oct. 8	8.70
Feb. 15	10.35	May 9	10.09	Aug. 8	13.07	Nov. 8	8.45
28	10.21	June 5	9.92	Sept. 6	11.63	Dec. 3	8.16
Mar. 15	10.11						

9-21-31dd (Well U61 in previous reports) (*988, p. 206; 1018, p. 177; 1025, p. 171). Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 4.16 on Oct. 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	7.94	Apr. 10	7.43	Aug. 8	8.50	Oct. 8	4.16
Feb. 15	7.72	May 9	7.53	19 a	8.96	Nov. 8	5.95
28 a	7.60	June 5	7.28	Sept. 6	8.57	Dec. 3	5.60
Apr. 4 a	7.42	July 11	7.61				

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-21-32aa (Well U64 in previous reports) (*988, p. 207; 1018, p. 178; 1025, p. 171). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	4.08	Apr. 4	3.98	July 11	4.46
Feb. 28	4.05	May 9	4.17	Aug. 19	5.64

9-21-32dd (Well U62 in previous reports) (*988, p. 207; 1018, p. 178; 1025, p. 171). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	11.89	Apr. 4	11.54	July 11	11.66
Feb. 28	11.75	May 9	11.70	Aug. 19	12.91

9-22-1da (Well U53 in previous reports) (*988, p. 203; 1018, p. 176; 1025, p. 169). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.56	Apr. 4	2.70	June 11	3.46	Aug. 20	4.25
Feb. 28	2.60	May 7	3.05	July 10	3.64		

9-22-6cc (Well U52 in previous reports) (#988, p. 202; 1018, p. 176; 1025, p. 169). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	5.54	Apr. 4	5.68	June 11	6.09	Aug. 20	6.54
Feb. 28	5.59	May 7	5.86	July 10	6.19		

9-22-7ad (Well U55 in previous reports) (#988, p. 203; 1018, p. 177; 1025, p. 170). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	3.87	Apr. 4	3.64	June 11	4.51	Aug. 20	4.98
Feb. 28	3.79	May 7	4.08	July 10	4.65		

9-22-17dd (Well 318 in previous reports) (#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. 175; 1025, p. 168). University of Nebraska. Highest observed stage in period of record, 2.62 on Oct. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9 a	5.27	Mar. 15	4.91	June 5	4.68	Aug. 20	5.33
17	5.45	Apr. 4 a	4.78	11 a	4.78	Oct. 9	2.62
Feb. 15	5.20	11	4.91	July 12	5.13	Nov. 9	3.15
28 a	5.08	May 10	4.89	Aug. 9	5.39	Dec. 5	2.98

a Measurement supplied through courtesy of Central Nebraska Public Power and Irrigation District.

9-22-23cb (Well U57 in previous reports) (#988, p. 204; 1018, p. 177; 1025, p. 170). 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, 2.96 on Jan. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.96	Apr. 10	3.71	June 11	3.95	Aug. 20	4.32
Feb. 28	3.51	May 7	3.85	July 10	4.13		

9-22-23cd. Mrs. Handley. Drilled irrigation well, diameter 18 inches, depth 52 feet. Measuring point, east side of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 14.42 on Dec. 29, 1945; lowest, 18.35 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 29, 1945	14.42	Apr. 11, 1946	16.83	Sept. 6, 1946	18.35
Jan. 17, 1946	17.28	May 10	16.92	Oct. 9	16.54
Feb. 15	17.00	June 5	16.68	Nov. 9	16.25
Mar. 15	16.82	July 12	17.07	Dec. 5	16.11

9-22-25dc (Well U59 in previous reports) (#988, p. 205; 1018, p. 177; 1025, p. 170). 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, 3.54 on Dec. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	5.34	Apr. 4	4.89	July 11	5.06	Dec. 5 a	3.54
Feb. 28	5.20	May 7	5.08	Aug. 20	5.76		

a By U. S. Geological Survey.

9-22-26aa (Well U58 in previous reports) (*988, p. 205; 1018, p. 177; 1025, p. 170). 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, 5.98 on Apr. 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	6.45	Apr. 10	5.98	June 11	6.22	Aug. 20	8.27
Feb. 28	6.13	May 7	6.35	July 10	7.15		

9-23-2dc. Leon Neil. Drilled irrigation well, diameter 24 inches, depth 53 feet. Measuring point, in pump base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 15.06 on Dec. 5, 1946; lowest, 18.24 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 29, 1945	17.40	Apr. 11, 1946	17.07	Aug. 9, 1946	18.24
Jan. 17, 1946	17.38	May 10	17.32	Oct. 9	16.40
Feb. 15	17.28	June 5	17.28	Nov. 9	15.46
Mar. 15	17.15	July 12	17.55	Dec. 5	15.06

9-23-12da (Well U54 in previous reports) (*988, p. 203; 1018, p. 177; 1025, p. 170). Central Nebraska Public Power and Irrigation District. Measuring point raised 2.0 feet on May 7. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 0.82 above land-surface datum on Dec. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 9	2.41	June 11	1.34	Aug. 20	1.56
May 7	1.49	July 10	1.37	Dec. 5	ab .82

a By U. S. Geological Survey.

b Above land-surface datum.

9-23-30cd (Well U51 in previous reports) (*988, p. 202; 1018, p. 176; 1025, p. 169). Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	8.49	Apr. 4	8.24	June 11	8.48	Aug. 20	8.47
Feb. 28	8.45	May 7	8.42	July 10	8.61		

9-24-1dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 35.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 16.75 on Nov. 9, 1946; lowest, 17.90 on Sept. 7, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 7, 17.90; Oct. 9, 16.81; Nov. 9, 16.75; Dec. 5, 16.89.

9-25-31db (Well 99 in previous reports) (*817, p. 110; 840, p. 197; 845, p. 174; 886, p. 295; 908, p. 193; 938, p. 160; 946, p. 196; 1018, p. 171). L. Tell Estate. No measurements made in 1946.

10-20-21cb. Harry Hill. Drilled irrigation well, diameter 24 inches, depth 54.6 feet. Measuring point, east side of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 23.40 on Dec. 3, 1946; lowest, 25.79 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	24.52	Apr. 10	24.62	July 11	25.74	Nov. 8	23.65
Feb. 14	24.58	May 9	25.01	Sept. 6	25.79	Dec. 3	23.40
Mar. 14	24.59	June 6	25.25	Oct. 8	24.55		

10-20-35bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 25.9 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 15.58 on Dec. 3, 1946; lowest, 17.78 on Sept. 6, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 6, 17.78; Oct. 8, 16.49; Nov. 7, 15.78; Dec. 3, 15.58.

10-21-6da (Well 282 in previous reports) (*988, p. 195; 1018, p. 172; 1025, p. 165). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	7.75	May 9	8.38	Aug. 8	8.90	Nov. 8	8.55
Mar. 14	7.95	June 6	8.64	Sept. 6	8.90	Dec. 3	8.30
Apr. 11	8.08	July 11	8.79	Oct. 9	7.86		

10-21-7aa (Well 283 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	8.79	Apr. 11	8.89	July 11	10.56	Oct. 9	7.70
Feb. 14	8.75	May 9	9.38	Aug. 8	10.08	Nov. 8	7.78
Mar. 14	8.78	June 6	8.87	Sept. 6	9.90	Dec. 3	7.51

10-21-7da (Well 284 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	8.40	Apr. 11	8.60	July 11	10.83	Oct. 9	7.73
Feb. 14	8.47	May 9	8.82	Aug. 8	9.50	Nov. 8	8.05
Mar. 14	8.66	June 6	10.26	Sept. 6	10.35	Dec. 3	7.82

10-21-18aa (Well 285 in previous reports) (*817, p. 111; 840, p. 198; 908, p. 193; 938, p. 160; 946, p. 196; 988, p. 195; 1018, p. 172; 1025, p. 165). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	8.86	Apr. 11	8.94	July 11	10.13	Oct. 9	(a)
Feb. 14	8.89	May 9	8.96	Aug. 8	9.71	Nov. 8	7.31
Mar. 14	8.83	June 6	9.46	Sept. 6	9.78	Dec. 3	7.13

a Flooded.

10-21-18dd (Well 286 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	13.77	Apr. 11	13.82	July 11	15.12	Oct. 9	14.30
Feb. 14	13.74	May 9	14.30	Aug. 8	15.50	Nov. 8	12.47
Mar. 14	13.72	June 6	14.32	Sept. 6	17.02	Dec. 3	12.25

10-21-19aa (Well 287 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	16.05	Apr. 11	16.24	July 11	17.05	Oct. 9	16.20
Feb. 14	16.07	May 9	17.00	Aug. 8	17.93	Nov. 8	15.01
Mar. 14	16.07	June 6	16.28	Sept. 6	17.49	Dec. 3	14.72

10-21-19da (Well 288 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	15.96	Apr. 11	15.85	July 11	16.43	Oct. 9	15.72
Feb. 14	15.98	May 9	16.88	Aug. 8	18.47	Nov. 8	14.78
Mar. 14	16.10	June 6	15.73	Sept. 6	17.05	Dec. 3	14.44

10-21-23ab. L. Delap. Drilled irrigation well, diameter 24 inches, depth 42 feet. Measuring point, north side of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.53 on Dec. 3, 1946; lowest, 13.94 on Aug. 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	12.10	Apr. 10	12.10	July 11	13.40	Oct. 8	10.99
Feb. 14	12.14	May 9	12.47	Aug. 8	13.94	Nov. 8	9.72
Mar. 14	12.10	June 6	12.77	Sept. 7	11.72	Dec. 3	9.53

10-21-30aa (Well 289 in previous reports) (*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. 172; 1025, p. 166). University of Nebraska. Highest stage in period of record, 6.58 on Dec. 3, 1946; lowest, 10.02 on Aug. 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	8.49	Apr. 11	8.60	July 10	9.72	Oct. 9	6.99
Feb. 14	8.46	May 9	9.52	Aug. 8	10.02	Nov. 8	6.84
Mar. 14	8.40	June 6	8.95	Sept. 6	9.74	Dec. 3	6.58

10-21-30da (Well 290 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	9.18	Apr. 11	9.20	July 11	9.75	Oct. 9	5.68
Feb. 14	9.16	May 9	10.07	Aug. 8	8.17	Nov. 8	6.94
Mar. 14	9.06	June 6	8.07	Sept. 6	9.24	Dec. 3	6.55

10-21-31aa (Well 291 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	5.85	Apr. 11	5.92	July 11	7.19	Oct. 9	(a)
Feb. 14	5.94	May 9	7.00	Aug. 8	5.95	Nov. 8	3.68
Mar. 14	6.06	June 6	6.46	Sept. 6	6.16	Dec. 3	3.48

a Flooded.

10-21-31da (Well 292 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	6.94	Apr. 11	6.88	July 11	8.35	Oct. 9	(a)
Feb. 14	6.95	May 9	7.70	Aug. 8	7.50	Nov. 8	4.89
Mar. 14	7.08	June 5	8.05	Sept. 6	7.55	Dec. 3	4.81

a Flooded.

10-22-11ba. H. J. Brunner. Drilled irrigation well, diameter 20 inches, depth 48.5 feet. Measuring point, edge of casing, 0.5 foot above land-surface datum. Highest observed stage in period of record, 4.53 on Oct. 9, 1946; lowest, 9.69 on Aug. 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	8.15	Apr. 11	8.60	July 11	9.25	Nov. 9	5.68
Feb. 14	8.37	May 9	8.92	Aug. 8	9.69	Dec. 4	5.58
Mar. 14	8.46	June 6	8.73	Oct. 9	4.53		

10-22-29aa (Well 319 in previous reports) (*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). University of Nebraska. Highest observed stage in period of record, 3.08 on Oct. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	4.46	Apr. 10	4.18	July 11	6.13	Oct. 9	3.08
Feb. 14	4.36	May 9	4.76	Aug. 8	6.47	Nov. 9	4.71
Mar. 14	4.19	June 6	5.35	Sept. 6	6.31	Dec. 4	3.19

10-23-5bb. V. Ogorsolka. Drilled irrigation well, diameter 18 inches, depth, 42 feet. Measuring point, pump base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.29 on Dec. 4, 1946; lowest, 8.40 on July 11, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	6.89	Apr. 10, 1946	6.48	Sept. 6, 1946	8.32
Jan. 17, 1946	6.76	May 9	7.30	Oct. 8	6.42
Feb. 14	6.62	June 5	7.17	Nov. 9	5.84
Mar. 14	6.44	July 11	8.40	Dec. 4	4.29

10-23-9aa (Well 308 in previous reports) (*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. 175; 1025, p. 168). E. Fleming.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	14.82	Apr. 10	14.36	July 11	16.33	Oct. 9	11.72
Feb. 14	14.29	May 9	14.92	Aug. 8	15.21	Nov. 9	11.62
Mar. 15	14.24	June 6	14.44	Sept. 6	13.90	Dec. 4	11.35

10-23-29bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 12.9 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.02 on Oct. 9, 1946; lowest, 6.51 on Sept. 7, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 7, 6.51; Oct. 9, 2.02; Nov. 9, 4.84; Dec. 5, 4.73.

10-23-30bc. G. Heller. Drilled irrigation well, diameter 18 inches, depth 35 feet. Measuring point, edge of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.80 on Oct. 9, 1946; lowest, 10.91 on June 4, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	10.30	May 9, 1946	10.76	Sept. 6, 1946	9.09
Jan. 17, 1946	10.20	June 4	10.91	Oct. 9	5.80
Feb. 14	10.25	5	9.97	Nov. 9	7.12
Mar. 15	10.55	July 9	10.76	Dec. 5	7.16
Apr. 11	10.37	12	10.63		

10-24-7bb. F. C. McDowell. Drilled irrigation well, diameter 18 inches, depth 38 feet. Measuring point, in base of turbine, 0.5 foot above land-surface datum. Highest observed stage in period of record, 10.35 on Oct. 9, 1946; lowest, 13.52 on July 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	13.18	Apr. 11	13.26	July 12	13.52	Oct. 9	10.35
Feb. 15	13.17	May 9	13.32	Aug. 9	12.66	Nov. 9	12.12
Mar. 15	13.14	June 5	13.29	Sept. 7	13.12	Dec. 5	12.20

10-24-15cc. A. A. Kauffman. Drilled irrigation well, diameter 18 inches, depth 52 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.37 on Oct. 9, 1946; lowest 7.83 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	7.35	Apr. 11, 1946	7.15	Sept. 7, 1946	7.83
Jan. 17, 1946	7.35	May 9	7.52	Oct. 9	4.37
Feb. 15	7.20	June 5	7.49	Nov. 9	5.25
Mar. 15	7.07	July 11	7.66	Dec. 5	4.94

10-24-17bb (Well U48 in previous reports) (*988, p. 201; 1018, p. 176; 1025, p. 169). 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, 2.72 on Nov. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	5.62	May 7	5.69	July 10	5.66	Nov. 9	a 2.72
Feb. 28	5.68	June 11	5.45	Aug. 20	4.08	Dec. 5	a 3.65
Apr. 4	5.68						

a By Geological Survey, U. S. Dept. of Interior.

11-21-31dd (Well 281 in previous reports) (*988, p. 194; 1018, p. 171; 1025, p. 165). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Jan. 17	26.86	Apr. 11	27.29	July 11	26.27	Oct. 9	24.74
Feb. 14	27.02	May 9	27.20	Aug. 8	31.51	Nov. 8	25.08
Mar. 14	27.13	June 6	26.19	Sept. 6	26.05	Dec. 3	25.34

11-22-28aa. B. G. Velte. Drilled irrigation well, diameter 24 inches, depth 110 feet. Measuring point, in pump base, 0.5 foot above land-surface datum. Highest observed stage in period of record, 26.92 on June 6, 1946; lowest, 30.89 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 29, 1945	27.38	Apr. 11, 1946	27.14	Sept. 6, 1946	30.89
Jan. 17, 1946	27.72	May 9	27.17	Oct. 8	29.21
Feb. 14	27.25	June 6	26.92	Nov. 9	28.26
Mar. 14	27.13	July 11	28.05	Dec. 4	27.87

11-23-21bc. E. Robertson. Drilled irrigation well, diameter 20 inches, depth 63 feet. Measuring point, in pump base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.03 on Nov. 9, 1946; lowest, 15.11 on July 11, 1946.

Water level, in feet below land-surface datum, 1945-46

Dec. 29, 1945	14.08	Apr. 11, 1946	14.96	Oct. 8, 1946	13.07
Jan. 17, 1946	14.73	May 9	14.77	Nov. 9	13.03
Feb. 14	14.52	June 5	14.54	Dec. 4	13.17
Mar. 14	14.73	July 11	15.11		

11-23-23cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 13.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 0.42 on Oct. 8, 1946; lowest, 5.28 on Sept. 6, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 6, 5.28; Oct. 8, 0.42; Nov. 9, 2.25; Dec. 4, 2.19.

11-24-16bb. F. Ballmer. Drilled irrigation well, diameter 24 inches, depth 58 feet. Measuring point, in base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.56 on Oct. 9, 1946; lowest, 8.42 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1945-46

Dec. 29, 1945	6.35	May 9, 1946	6.26	Sept. 6, 1946	8.42
Jan. 16, 1946	6.42	June 5	7.07	Oct. 9	3.56
Feb. 14	6.58	July 11	7.44	Nov. 8	4.67
Mar. 15	6.49	Aug. 8	8.01	Dec. 4	4.39
Apr. 10	6.67				

11-24-20ca (Well 309 in previous reports) (*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). J. Owings.

11-24-20ca--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	12.45	Apr. 10	13.72	June 5	12.81	Nov. 9	10.50
Feb. 14	12.45	May 9	12.66	July 11	13.07	Dec. 4	10.14
Mar. 15	12.58						

11-24-24cb. W. L. Powell. Drilled irrigation well, diameter 18 inches, depth 53.5 feet. Measuring point, turbine base, 1.2 feet above land-surface datum. Highest observed stage in period of record, 6.91 on Dec. 4, 1946; lowest, 12.40 on June 28, 1946. Water levels, in feet below land-surface datum, 1946: June 28, 12.40; Nov. 9, 7.58; Dec. 4, 6.91.

11-25-8ad (Well U49 in previous reports) (*988, p. 201; 1018, p. 176; 1025, p. 169). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	2.09	Apr. 10	2.07	June 6	2.33	Oct. 30	a 1.33
Feb. 27	2.09	May 16	2.94	Aug. 6	3.90	Dec. 4	a 1.33

a By Geological Survey, U. S. Dept. of Interior.

11-25-19cc (Well U44 in previous reports) (*988, p. 200; 1018, p. 176; 1025, p. 169). 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, 5.69 on Dec. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	7.90	May 17	7.90	Aug. 6	7.16	Dec. 5	a 5.69
Apr. 8	7.81	June 10	8.27	Oct. 30	a 6.04		

a By Geological Survey, U. S. Dept. of Interior.

11-25-20cc (Well U45 in previous reports) (*988, p. 200; 1018, p. 176; 1025, p. 169). 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, 1946: Jan. 15, 9.80; Apr. 8, 9.20; May 17, 9.44; June 10, 9.44.

11-25-21cc (Well 311 in previous reports) (*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). E. Clark.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	9.50	Apr. 11	9.78	July 12	8.47	Oct. 9	7.70
Feb. 15	9.68	May 9	7.34	Aug. 8	7.32	Nov. 9	8.20
Mar. 15	9.71	June 5	7.88	Sept. 7	6.88	Dec. 5	8.42

11-25-34bc. W. E. Clark. Drilled irrigation well, diameter 18 inches, depth 58 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.72 on Dec. 5, 1946; lowest, 14.35 on July 12, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1945	13.68	Apr. 11, 1946	13.97	Sept. 7, 1946	13.55
Jan. 17, 1946	13.80	May 9	14.11	Oct. 9	13.05
Feb. 15	13.82	June 5	14.11	Nov. 9	12.77
Mar. 15	13.84	July 12	14.35	Dec. 5	12.72

12-24-30ab. H. Geiken. Drilled irrigation well, diameter 24 inches, depth 119 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 42.50 on May 9, 1946; lowest, 44.65 on Oct. 8, 1946.

12-24-30ab--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	42.92	Apr. 10	42.89	June 5	42.72	Nov. 9	43.82
Feb. 14	42.89	May 9	42.50	Oct. 8	44.65	Dec. 4	44.07
Mar. 15	42.75						

12-25-34cc (Well 310 in previous reports) (*817, p. 121; 840, p. 199; 845, p. 174; 886, p. 297; 908, p. 194; 946, p. 198; 1018, p. 175; 1025, p. 168). J. Block. Highest observed stage in period of record, 28.57 on Jan. 16, 1946; lowest, 30.40 on July 11, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16	28.57	Apr. 10	29.02	July 11	30.40	Nov. 9	28.89
Feb. 14	28.71	May 9	29.05	Sept. 6	29.69	Dec. 4	28.80
Mar. 15	28.75	June 5	29.07	Oct. 9	29.18		

Deuel County

12-42-1bb (Well 94 in previous reports) (*817, p. 122; 840, p. 200; 886, p. 297; 908, p. 195; *1018, p. 178). W. Kimball. No measurements made in 1946.

13-45-28ad (Well 130A in previous reports) (*1018, p. 178). Mrs. Jacobson. No measurements made in 1946.

Dixon County

A30-6-23cc (Well 333 in previous reports) (*817, p. 123; 840, p. 200; 845, p. 174; 886, p. 297; 908, p. 195; 938, p. 162; 946, p. 198). F. Millie. No measurements made in 1946.

Dodge County

A17-5-2bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.1 feet above land-surface datum. Highest observed stage in period of record, 2.32 on Dec. 10, 1946; lowest, 4.80 on Sept. 3, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 3, 4.80; Oct. 11, 3.99; Nov. 5, 3.84; Dec. 10, 2.32.

A17-6-6aa (Well 420 in previous reports) (*886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199; *1018, p. 179; 1025, p. 172). University of Nebraska.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.10	Apr. 8	1.92	July 8	1.99	Oct. 11	3.41
Feb. 12	1.85	May 7	1.78	Aug. 6	3.09	Nov. 5	2.84
Mar. 12	1.44	June 3	2.44	Sept. 4	3.69	Dec. 10	1.58

A17-6-8bc. Abandoned drilled stock well, diameter 6 inches, depth 15 feet. Measuring point, top of casing, 2.0 feet above land-surface datum. This well replaces well 34. Highest observed stage in period of record, 2.93 on Mar. 12, 1946; lowest, 5.55 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 12	3.00	May 7	3.63	Aug. 6	5.19	Nov. 5	4.00
Mar. 12	2.93	June 3	4.40	Sept. 4	5.55	Dec. 10	3.35
Apr. 8	3.39	July 8	4.08	Oct. 11	4.32		

A17-8-4aa (Well 464 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.85	Apr. 8	5.20	July 8	5.00	Oct. 11	6.26
Feb. 12	4.76	May 6	5.17	Aug. 5	5.83	Nov. 5	5.69
Mar. 12	5.20	June 3	5.66	Sept. 3	7.10	Dec. 10	5.48

A17-8-4ad (Well 463 in previous reports) (*1018, p. 179; 1025, p. 172). City of Fremont. Well destroyed on Aug. 5; measurements discontinued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	6.18	Mar. 12	5.93	May 6	6.07	July 8	5.69
Feb. 12	6.20	Apr. 8	6.92	June 3	6.42		

A17-8-4dd (Well 462 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.19	Apr. 8	8.28	July 8	8.28	Oct. 11	8.49
Feb. 12	8.27	May 6	8.30	Aug. 5	8.30	Nov. 5	8.48
Mar. 12	8.28	June 3	8.28	Sept. 3	8.37	Dec. 10	8.45

A17-8-9-da (Well 461 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	9.88	Apr. 8	9.22	July 8	8.82	Oct. 11	10.14
Feb. 12	9.27	May 6	9.40	Aug. 5	9.45	Nov. 5	9.89
Mar. 12	9.09	June 3	9.60	Sept. 3	9.66	Dec. 10	9.33

A17-8-16aa (Well 460 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont. Well destroyed on Aug. 5; measurements discontinued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	10.18	Mar. 12	10.81	May 6	11.10	July 8	11.03
Feb. 12	10.60	Apr. 8	10.97	June 3	11.28		

A17-8-16ad (Well 459 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	8.98	Apr. 8	9.63	July 8	9.11	Oct. 11	10.08
Feb. 12	9.42	May 6	9.69	Aug. 5	9.52	Nov. 5	10.16
Mar. 12	9.59	June 3	9.76	Sept. 3	9.72	Dec. 10	9.82

A17-8-22cb (Well 457 in previous reports) (*988, p. 209; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	4.71	Apr. 8	2.49	July 8	2.42	Oct. 11	4.90
Feb. 12	3.45	May 6	2.25	Aug. 5	3.68	Nov. 5	4.62
Mar. 12	2.87	June 3	2.96	Sept. 3	4.27	Dec. 10	3.35

A17-8-28ad (Well 456 in previous reports) (*988, p. 209; 1018, p. 179; 1025, p. 172). City of Fremont. Highest observed stage in period of record, 2.98 on Mar. 12, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	3.83	Apr. 8	3.09	July 8	3.10	Oct. 11	4.30
Feb. 12	3.30	May 6	3.14	Aug. 5	4.13	Nov. 5	3.77
Mar. 12	2.98	June 3	3.59	Sept. 3	4.35	Dec. 10	3.40

A17-8-28dd (Well 455 in previous reports) (*988, p. 209; 1018, p. 179; 1025, p. 172). City of Fremont. Highest observed stage in period of record, 2.39 on Oct. 11, 1946; lowest, 5.57 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	2.97	Apr. 8	3.84	July 8	5.40	Oct. 11	2.39
Feb. 12	2.48	May 6	4.22	Aug. 5	5.57	Nov. 5	4.16
Mar. 12	2.58	June 3	3.80	Sept. 3	4.90	Dec. 10	3.96

A17-9-24dc (Well 31 in previous reports) (*817, p. 124; 840, p. 200; 845, p. 174; 866, p. 297; 908, p. 195; 938, p. 162; 946, p. 199; *1018, p. 179). Water level, in feet below land-surface datum, 1946: Dec. 26, 7.33.

A18-8-28da (Well 468 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 173). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	63.11	Apr. 8	64.29	July 8	64.32	Oct. 11	64.39
Feb. 12	64.17	May 6	64.33	Aug. 5	64.42	Nov. 5	64.51
Mar. 12	64.24	June 3	64.39	Sept. 3	64.42	Dec. 10	64.54

A18-8-28dd (Well 467 in previous reports) (*988, p. 210; 1018, p. 179; 1025, p. 172). City of Fremont.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 2	26.01	Apr. 8	25.95	July 8	25.87	Oct. 11	25.27
Feb. 12	25.96	May 6	25.92	Aug. 5	25.83	Nov. 5	25.70
Mar. 12	25.97	June 3	25.88	Sept. 3	25.82	Dec. 10	25.66

A18-8-33aa. City of Fremont. Drilled observation well, diameter 2 inches, depth 38 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.00 on Oct. 8, 1941; lowest, 9.36 on Mar. 20, 1940.

Water level, in feet below land-surface datum, 1940-41, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 3, 1940	8.04	Mar. 12, 1946	5.34	Aug. 5, 1946	5.32
Mar. 20	9.36	Apr. 8	5.35	Sept. 3	5.30
Oct. 8, 1941	3.00	May 6	5.34	Oct. 11	5.29
Jan. 2, 1946	5.50	June 3	5.34	Nov. 5	5.28
Feb. 6	5.04	July 8	5.28	Dec. 10	5.31
12	5.30				

A18-9-18ac (Well 401 in previous reports) (*840, p. 201; 845, p. 174; 886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199; 988, p. 209; *1018, p. 179). Water levels, in feet below land-surface datum, 1946: Jan. 3, 8.73; May 6, 8.34.

Douglas County

A15-10-4bd (Well 24 in previous reports) (*817, p. 124; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 195; 938, p. 162; 946, p. 199; *1018, p. 180). Robinson Seed Co. Highest observed stage in period of record, 5.81 on Dec. 26, 1946. Water level, in feet below land-surface datum, 1946: Dec. 26, 5.81.

Dundy County

1-37-7ab. R. H. Lingo. Drilled irrigation well, diameter 24 inches, depth 77 feet. Measuring point, turbine base, 3.0 feet above land-surface datum. Highest observed stage in period of record, 61.05 on Mar. 19, 1946, lowest, 61.88 on Oct. 21, 1946. Water levels, in feet below land-surface datum, 1946: Feb. 5, 61.20; Mar. 19, 61.05; Oct. 21, 61.88; Dec. 15, 61.61.

1-37-16dd. M. Jones. Drilled irrigation well, diameter 24 inches. Measuring point, turbine base, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Oct. 21, 39.02; Dec. 15, 38.77.

1-37-19ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.45 on Dec. 15, 1946; lowest, 12.45 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 12.45; Oct. 21, 11.67; Dec. 15, 9.45.

1-37-31cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.5 feet above land-surface datum. Highest observed stage in period of record, 3.78 on Dec. 15, 1946; lowest, 4.29 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 4.29; Oct. 21, 4.04; Dec. 15, 3.78.

1-38-20bc. E. Morris. Drilled well, diameter 6 inches, depth 26 feet. Measuring point, edge of casing, 1.5 feet above land-surface datum. Highest observed stage in period of record, 16.30 on Dec. 15, 1946; lowest, 18.42 on Aug. 10, 1946.

Water level, in feet below land-surface datum, 1936-36, 1946.

Date	Water level	Date	Water level	Date	Water level
Dec. 1, 1935	18.14	June 12, 1936	17.96	June 11, 1946	16.91
Jan. 4, 1936	18.05	Aug. 10	18.42	Aug. 16	17.61
23	17.98	Feb. 6, 1946	17.02	Oct. 23	16.39
Apr. 2	17.88	Mar. 19	16.87	Dec. 15	16.30

1-38-21cb (Well 445 in previous reports) (*886, p. 298; 908, p. 196; 938, p. 163; 946, p. 199; *988, p. 211; 1018, p. 180). University of Nebraska. No measurements made in 1946.

1-38-25bd. D. Jones. Drilled irrigation well, diameter 24 inches, depth 42 feet. Measuring point, edge of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.26 on Dec. 15, 1946; lowest, 13.10 on Mar. 19, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 5	12.32	June 11	12.40	Oct. 23	12.93
Mar. 19	13.10	Aug. 16	13.09	Dec. 15	12.26

1-38-29ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 22.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.01 on Dec. 15, 1946; lowest, 9.00 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 9.00; Oct. 23, 8.55; Dec. 15, 8.01.

1-39-21ac (Well 380 in previous reports) (*817, p. 125; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 938, p. 162; 946, p. 199; *988, p. 211). L. Krutsinger. Highest observed stage in period of record, 5.00 on Mar. 19, 1946; lowest, 6.09 on Aug. 16, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 6	5.18	June 11	5.46	Oct. 23	5.59
Mar. 19	5.00	Aug. 16	6.09	Dec. 15	5.42

1-39-22cc. Dundy County. Drilled well, diameter 4 inches, depth 21 feet. Measuring point, opening inside of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 11.43 on June 11, 1946; lowest, 13.02 on Aug. 16, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 20	11.52	Aug. 16	13.02	Dec. 15	11.46
June 11	11.43	Oct. 23	12.25		

1-39-26aa. Pringle. Drilled observation well, diameter 6 inches, depth 39.45 feet. Measuring point, top of casing, 3.2 feet above land-surface datum. Highest observed stage in period of record, 25.59 on July 12, 1946; lowest, 26.12 on Aug. 22, 1946. Water levels, in feet below land-surface datum, 1946: July 12, 25.59; Aug. 16, 25.98; Oct. 22, 26.12; Dec. 15, 25.64.

1-39-30bb. 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, 12.30 on Dec. 15, 1946; lowest, 12.94 on Oct. 23, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 12.92; Oct. 23, 12.94; Dec. 15, 12.30.

1-40-20cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.49 on Dec. 15, 1946; lowest, 3.71 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 3.71; Oct. 23, 2.89; Dec. 15, 2.49.

1-40-24cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.52 on Dec. 15, 1946; lowest, 9.35 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 9.35; Oct. 23, 8.91; Dec. 15, 8.52.

1-40-27ab. A. H. Minton. Drilled irrigation well, diameter 16 inches, depth 94 feet. Measuring point, in turbine base, 1.5 feet above land-surface datum. Highest observed stage in period of record, 18.66 on June 11, 1946; lowest, 20.87 on Aug. 16, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 6	19.08	June 11	18.66	Oct. 23	19.50
Mar. 19	18.99	Aug. 16	20.87	Dec. 15	19.10

1-40-29bb. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 21 feet. Measuring point, top of casing, 1.6 feet above land-surface datum. Stevens Type A-35, 60-day automatic water-stage recorder installed May 21, 1946. Highest observed stage in period of record, 12.00 on July 13-18, 1946; lowest, 12.58 on Oct. 3, 4, 1946.

Lowest daily water level, in feet below land-surface datum, 1946

(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	12.09	12.10	.....	12.42	12.57	12.53	12.39
2	.....	12.08	12.11	.....	12.43	12.57	12.53	12.38
3	.....	12.07	12.12	.....	12.44	12.58	12.54	12.37
4	.....	12.07	12.13	.....	12.44	12.58	12.54	12.37
5	.....	12.06	12.13	.....	12.45	.....	12.53	12.37
6	.....	12.05	12.10	.....	12.47	.....	12.52	12.36
7	.....	12.05	12.06	.....	12.47	.....	12.52	12.35
8	.....	12.05	12.04	.....	12.48	.....	12.52	12.34
9	.....	12.05	12.03	.....	12.48	.....	12.52	12.34
10	.....	12.05	12.02	12.22	12.48	.....	12.52	12.33
11	.....	12.06	12.02	12.23	12.49	.....	12.51	12.32
12	.....	12.06	12.01	12.24	12.49	.....	12.51	12.32
13	.....	12.06	12.00	12.25	12.50	.....	12.51	12.32
14	.....	12.06	12.00	12.27	12.50	.....	12.50	12.32
15	.....	12.06	12.00	12.27	12.50	.....	12.50	12.32
16	.....	12.06	12.00	12.28	12.52	.....	12.50	12.32
17	.....	12.06	12.00	12.29	12.52	.....	12.50	12.32
18	.....	12.07	12.00	12.30	12.53	.....	12.49	12.31
19	.....	12.07	.....	12.32	12.53	.....	12.48	12.30
20	.....	12.07	.....	12.33	12.54	.....	12.48	12.30
21	12.24	12.07	.....	12.34	12.54	.....	12.46	12.30
22	12.20	12.06	.....	12.35	12.54	.....	12.45	12.29
23	12.17	12.05	.....	12.37	12.55	12.55	12.45	12.29
24	12.15	12.05	.....	12.37	12.55	12.54	12.43	12.28
25	12.15	12.06	.....	12.38	12.55	12.54	12.43	12.28
26	12.14	12.06	.....	12.39	12.56	12.54	12.42	12.28
27	12.13	12.07	.....	12.41	12.56	12.54	12.42	12.27
28	12.11	12.08	.....	12.42	12.57	12.54	12.41	12.27
29	12.10	12.08	.....	12.42	12.57	12.54	12.41	12.27
30	12.10	12.09	.....	12.42	12.57	12.54	12.39	12.27
31	12.10	.....	.....	12.42	.....	12.54	.....	12.27

1-41-20dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.71 on Dec. 15, 1946; lowest, 4.26 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 4.26; Oct. 23, 2.78; Dec. 15, 2.71.

1-41-27ca. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.05 on Dec. 15, 1946; lowest, 5.70 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 5.70; Oct. 23, 4.40; Dec. 15, 4.05.

1-41-34ac (Well 361 in previous reports) (*817, p. 125; 840, p. 201; 845, p. 175; 886, p. 298; 908, p. 196; 946, p. 199; *988, p. 211). O. Scrivner. Well destroyed; measurements discontinued.

1-42-10cd. 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, 3.53 on Dec. 15, 1946; lowest, 6.01 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 6.01; Oct. 23, 4.26; Dec. 15, 3.53.

1-42-13bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.85 on Dec. 15, 1946; lowest, 5.62 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 5.62; Oct. 22, 4.48; Dec. 15, 3.85.

1-42-36aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.88 on Oct. 23, 1946; lowest, 10.77 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 10.77; Oct. 23, 9.88; Dec. 15, 10.43.

2-36-24ca. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 22.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 14.29 on Oct. 21, 1946; lowest, 14.42 on Dec. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 14.34; Oct. 21, 14.29; Dec. 16, 14.42.

2-36-29ac. A. Howard. Drilled irrigation well, diameter 18 inches, depth 37 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Highest observed stage in period of record, 21.65 on June 11, 1946; lowest, 22.94 on Aug. 16, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 4	21.80	June 11	21.65	Oct. 31	21.98
Mar. 19	21.68	Aug. 16	22.94	Dec. 15	21.71

2-36-31bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 27.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 22.00 on Dec. 15, 1946; lowest, 22.45 on Oct. 21, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 22.35; Oct. 21, 22.45; Dec. 15, 22.00.

Franklin County

1-13-1cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 15.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.59 on Oct. 26, 1946; lowest, 7.36 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 7	6.76	Aug. 12	7.36	Dec. 18	4.75
June 12	7.19	Oct. 26	4.59		

1-13-2bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.12 on Oct. 26, 1946; lowest, 9.15 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 7	9.08	Aug. 12	9.15	Dec. 18	8.09
June 12	9.07	Oct. 26	7.12		

1-13-3ca. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.48 on Oct. 26, 1946; lowest, 8.35 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	8.18	Aug. 12	8.35	Dec. 18	6.80
June 12	7.97	Oct. 26	4.48		

1-13-4cb. J. O. Ziegler. Drilled irrigation well, diameter 24 inches, depth 47.5 feet. Measuring point, edge of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.48 on Oct. 26, 1946; lowest, 12.72 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 13	11.93	June 12	11.74	Oct. 26	10.48
Mar. 7	11.90	Aug. 12	12.72	Dec. 18	10.54

1-13-7bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.56 on Oct. 26, 1946; lowest, 6.26 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	5.48	Aug. 12	6.26	Dec. 18	3.96
June 12	5.79	Oct. 26	2.56		

1-14-2cd. W. Sindt. Drilled irrigation well, diameter 24 inches, depth 44 feet. Measuring point, bottom edge of steel beam, 2.0 feet above land-surface datum. Highest observed stage in period of record, 5.70 on Dec. 18, 1946; lowest, 10.15 on Feb. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 13	10.15	June 12	10.14	Dec. 18	5.70
Mar. 7	10.13	Oct. 26	6.33		

1-14-3ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 0.91 on Oct. 27, 1946; lowest, 5.94 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	5.06	June 12	4.63	Oct. 27	0.91
Mar. 7	5.04	Aug. 13	5.94	Dec. 18	1.96

1-14-6bc. E. Blank. Drilled irrigation well, diameter 24 inches, depth 40 feet. Measuring point, edge of tile wall, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.34 on Oct. 27, 1946; lowest, 8.57 on Feb. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 14	8.57	June 14	5.74	Dec. 18	5.58
Mar. 7	8.43	Oct. 27	5.34		

1-14-7bb1. University of Nebraska. Driven observation well, diameter 1 inch, depth 20 feet. Measuring point, top of pipe, 2.5 feet above land-surface datum. Highest observed stage in period of record, 0.70 on Oct. 27, 1946; lowest, 5.40 on Nov. 13, 1946.

Water level, in feet below land-surface datum, 1940-42, 1946

Date	Water level	Date	Water level	Date	Water level
Aug. 1, 1940	4.73	Nov. 25, 1942	3.86	Aug. 12, 1946	4.17
Nov. 13	5.40	Mar. 7, 1946	3.30	Oct. 27	.70
Oct. 29, 1941	4.29	June 12	3.72	Dec. 18	1.68

1-14-7bb2. H. Blank. Drilled irrigation well, diameter 24 inches, depth 29 feet. Measuring point, edge of casing, at land-surface datum. Highest observed stage in period of record, 3.45 on Oct. 27, 1946; lowest, 6.28 on Aug. 12, 1946.

1-14-7bb2--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 14	5.18	June 12	5.98	Oct. 27	3.45
Mar. 7	6.10	Aug. 12	6.28	Dec. 18	4.42

1-15-5ca. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.6 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 0.62 on Oct. 26, 1946; lowest, 5.75 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 4.59; Aug. 13, 5.75; Oct. 26, 0.62; Dec. 18, 1.93.

1-15-8cb. A. E. Townsend. Drilled irrigation well, diameter 24 inches, depth 36 feet. Measuring point, edge of casing, 2.2 feet above land-surface datum. Highest observed stage in period of record, 8.93 on Oct. 26, 1946; lowest, 11.74 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 14	10.78	June 13	11.12	Oct. 26	8.93
Mar. 7	10.90	Aug. 13	11.74	Dec. 18	9.98

1-16-9bc. W. Post. Abandoned drilled irrigation well, diameter 24 inches, depth 49 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.25 on Oct. 26, 1946; lowest, 13.68 on Mar. 7, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 19	12.70	June 13	13.62	Oct. 26	10.25
Mar. 7	13.68	Aug. 13	12.88	Dec. 17	11.59

1-16-10bd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 0.70 on Oct. 26, 1946; lowest, 5.19 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 14, 3.90; Aug. 13, 5.19; Oct. 26, 0.70; Dec. 17, 1.36.

1-16-14ab. C. Howell. Drilled irrigation well, diameter 24 inches, depth 80 feet. Measuring point, turbine base, at land-surface datum. Highest observed stage in period of record, 37.40 on Oct. 26, 1946; lowest, 42.41 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 14	40.10	June 13	40.02	Oct. 26	37.40
Mar. 7	40.20	Aug. 13	42.41	Dec. 17	38.29

2-13-3lad. Abandoned drilled well, diameter 4 inches, depth 71 feet. Measuring point, iron strap, 1.0 foot above land-surface datum. Highest observed stage in period of record, 53.73 on Dec. 18, 1946; lowest, 54.80 on Mar. 8, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 8, 54.80; Oct. 26, 53.81; Dec. 18, 53.73.

2-13-32dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.50 on Oct. 26, 1946; lowest, 8.44 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 7	7.32	Aug. 12	8.44	Dec. 18	5.59
June 12	7.85	Oct. 26	4.50		

2-15-56bd (Well 156 in previous reports) (#817, p. 126; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 199; #1018, p. 180). J. Wessels. Highest observed stage in period of record, 27.49 on June 14, 1946; lowest, 29.04 on Dec. 18, 1946.

2-15-36bd--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 13	27.73	June 14	27.49	Oct. 26	28.67
Mar. 7	27.57	Aug. 13	28.04	Dec. 18	29.04

3-14-36dd (Well 221 in previous reports) (*817, p. 126; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 199). University of Nebraska. No measurements made in 1946.

4-14-10da (Well 224 in previous reports) (*817, p. 126; 840, p. 202; 845, p. 176; 886, p. 299; 908, p. 196; 946, p. 199). Gilgen Bros. No measurements made in 1946.

Frontier County

7-27-34cb (Well 136 in previous reports) (*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 200). O. Worley. No measurements made in 1946.

Furnas County

1-25-6ba (Well 149 in previous reports) (*817, p. 127; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 196; 946, p. 200). S. Shoemaker. No measurements made in 1946.

2-25-27cc (Well 388 in previous reports) (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200). E. Hunt. No measurements made in 1946.

2-25-28dc (Well 387 in previous reports) (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 946, p. 200). J. Loar. No measurements made in 1946.

3-21-1aa (Well 180 in previous reports) (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 196; 938, p. 163; 946, p. 200). A. Askey. Well destroyed; measurements discontinued.

3-21-2cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 16.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 6.47 on Oct. 25, 1946; lowest, 8.98 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 8.57; Aug. 13, 8.98; Oct. 25, 6.47; Dec. 17, 7.85.

3-21-12dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 13.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.40 on Oct. 25, 1946; lowest, 6.35 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 5.22; Aug. 13, 6.35; Oct. 25, 3.40; Dec. 17, 3.94.

3-22-2ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 13.6 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.89 on Oct. 29, 1946; lowest, 7.63 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 7.44; Aug. 13, 7.63; Oct. 25, 4.89; Dec. 17, 5.35.

3-23-34cc (Well 147 in previous reports) (*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; *988, p. 211). H. Lambert. No measurements made in 1946.

3-25-4bb. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 21.8 feet. Measuring point, top of casing, 1.7 feet above land-surface datum. Stevens Type A-35, 60-day automatic water-stage recorder installed May 17, 1946. Highest observed stage in period of record, 4.16 on Nov. 24, 1946; lowest, 7.37 on Oct. 3, 1946.

3-25-4bb--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	5.25	5.95	a 6.04	6.99	7.35	4.79	4.26
2	....	5.27	5.95	a 6.08	7.01	7.36	4.80	4.26
3	....	5.29	5.95	a 6.12	7.02	7.37	4.81	4.27
4	....	5.32	5.95	a 6.15	7.04	....	4.83	4.28
5	....	5.34	5.95	a 6.19	7.06	....	4.84	4.28
6	....	5.37	5.95	a 6.23	7.08	....	4.84	4.28
7	....	5.40	5.95	a 6.27	7.09	....	4.82	4.28
8	....	5.42	5.95	a 6.30	7.10	....	4.76	4.28
9	....	5.50	5.95	a 6.33	7.11	....	4.75	4.29
10	....	5.57	5.95	a 6.37	7.12	....	4.68	4.29
11	....	5.60	5.95	a 6.41	7.13	....	4.60	4.30
12	....	5.62	5.97	a 6.44	7.15	....	4.58	4.30
13	....	5.64	5.98	a 6.48	7.15	....	4.57	4.31
14	....	5.65	5.98	6.50	7.17	....	4.54	4.32
15	....	5.67	5.97	6.52	7.18	....	4.50	4.32
16	....	5.75	5.82	6.55	7.20	....	....	4.33
17	....	5.82	5.78	6.60	7.23	....	....	4.40
18	6.77	5.85	5.78	6.65	7.24	....	....	4.42
19	6.71	5.85	5.78	6.69	7.25	....	....	4.44
20	6.72	5.86	5.79	6.73	7.25	....	....	4.46
21	6.72	5.87	5.79	6.77	7.26	4.65	....	4.48
22	6.69	5.87	5.79	6.80	7.27	4.67	....	4.50
23	6.67	5.89	5.79	6.83	7.27	4.68	....	4.51
24	6.36	5.90	5.80	6.85	7.29	4.68	4.16	4.52
25	6.30	5.92	5.80	6.87	7.30	4.70	4.18	4.53
26	6.29	5.93	5.81	6.90	7.31	4.72	4.20	4.54
27	5.99	5.94	5.82	6.92	7.32	4.73	4.22	4.55
28	5.99	5.95	a 5.87	6.93	7.33	4.74	4.23	4.55
29	5.87	5.95	a 5.91	6.95	7.34	4.75	4.24	4.56
30	5.48	5.95	a 5.95	6.96	7.34	4.77	4.25	4.58
31	5.24	....	a 6.00	6.97	....	4.78	....	4.61

a Interpolated.

4-21-9bd. R. Ballard. Drilled irrigation well, diameter 24 inches, depth 51 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Mar. 22, 14.75; Dec. 17, 13.82.

4-21-32cc. C. Rhynolds. Abandoned drilled irrigation well, diameter 18 inches, depth 40 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.64 on Oct. 25, 1946; lowest, 16.74 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 22	14.66	Aug. 13	16.74	Dec. 17	13.03
June 13	15.70	Oct. 25	12.64		

4-22-25cc. N. H. Hays. Drilled irrigation well, diameter 18 inches, depth 35.8 feet. Measuring point, top of casing, at land-surface datum. Highest observed stage in period of record, 8.29 on Dec. 17, 1946; lowest, 11.50 on June 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	11.22	June 12	11.50	Oct. 25	8.77
Mar. 18	11.10	Aug. 13	11.30	Dec. 17	8.29

4-22-29ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 23.05 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 15.94 on Dec. 18, 1946; lowest, 17.60 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 18	17.39	Aug. 13	17.60	Dec. 18	15.94
June 12	17.33	Oct. 25	16.07		

4-22-32dd. Mrs. E. A. Coker. Driller irrigation well, diameter 24 inches, depth 40.2 feet. Measuring point, top of casing, 1.5 feet above land-surface datum. Highest observed stage in period of record, 7.71 on Oct. 25, 1946; lowest, 10.81 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 21	9.05	Aug. 13	10.81	Dec. 17	8.30
June 12	10.22	Oct. 25	7.71		

4-22-34bb. C. Payne. Drilled irrigation well, diameter 18 inches, depth 61 feet. Measuring point, turbine base, 0.5 foot above land-surface datum. Highest observed stage in period of record, 12.79 on Oct. 25, 1946; lowest, 14.39 on Feb. 1, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	14.39	June 12	14.36	Dec. 17	13.02
Mar. 18	14.12	Oct. 25	12.79		

4-23-20ab. C. Larson. Drilled irrigation well, diameter 18 inches, depth 80 feet. Measuring point, turbine base, 2.0 feet above land-surface datum. Highest observed stage in period of record, 26.42 on Dec. 11, 1946; lowest, 31.28 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	27.76	June 12	27.66	Oct. 25	28.02
Mar. 18	27.69	Aug. 14	31.28	Dec. 11	26.42

4-23-23bd (Well 395 in previous reports) (*840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; 988, p. 212; 1018, p. 181). O. V. Moore.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	29.79	June 12	29.75	Oct. 25	29.14
Mar. 18	29.68	Aug. 13	29.94	Dec. 17	29.14

4-23-27dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.35 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.11 on Dec. 17, 1946; lowest, 11.65 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 18	10.83	Aug. 13	11.65	Dec. 17	9.11
June 12	11.31	Oct. 25	9.90		

4-23-30cc. Bremling Bros. Drilled irrigation well, diameter 24 inches, depth 93 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Highest observed stage in period of record, 52.29 on Mar. 18, 1946; lowest, 52.80 on Oct. 25, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	52.37	June 12	52.45	Dec. 17	52.50
Mar. 18	52.29	Oct. 25	52.80		

4-23-36aa. H. Watson. Drilled irrigation well, diameter 18 inches, depth 63 feet. Measuring point, edge of turbine opening, 3.0 feet above land-surface datum. Highest observed stage in period of record, 17.43 on Dec. 17, 1946; lowest, 23.17 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	19.57	June 12	20.34	Oct. 25	18.00
Mar. 18	20.33	Aug. 13	23.17	Dec. 17	17.43

4-24-13cd. C. Thomas. Drilled irrigation well, diameter 18 inches, depth 59 feet. Measuring point, on a 2- by 6-inch board, 0.6 foot above land-surface datum. Highest observed stage in period of record, 17.90 on Dec. 11, 1946; lowest, 19.73 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	19.06	June 12	19.26	Oct. 25	18.82
Mar. 18	19.03	Aug. 14	19.73	Dec. 11	17.90

4-24-15cc. 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. Highest observed stage in period of record, 12.15 on Dec. 11, 1946; lowest, 14.20 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 8	12.83	June 12	13.44	Oct. 25	12.60
Mar. 18	13.69	Aug. 14	14.20	Dec. 11	12.15

4-24-19cc. E. T. Purington. Drilled irrigation well, diameter 22 inches, depth 30 feet. Measuring point, top of casing, 1.0 foot below land-surface datum. Highest observed stage in period of record, 12.90 on Oct. 25, 1946; lowest, 15.05 on June 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	14.77	June 12	15.05	Dec. 11	13.02
Mar. 20	14.50	Oct. 25	12.90		

4-24-22dd. 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. Highest observed stage in period of record, 5.00 on Oct. 25, 1946; lowest, 6.78 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 5.67; Aug. 14, 6.78; Oct. 25, 5.00; Dec. 17, 5.32.

4-24-29cd. D. Andrews. Drilled irrigation well, diameter 18 inches, depth 80 feet. Measuring point, edge of side opening in turbine, 0.6 foot above land-surface datum. Highest observed stage in period of record, 20.75 on Mar. 20, 1946; lowest, 23.57 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	20.94	June 12	21.15	Oct. 25	21.22
Mar. 20	20.75	Aug. 14	23.57	Dec. 17	20.85

4-25-26bb (Well 145 in previous reports) (*817, p. 127; 840, p. 202; 845, p. 175; 886, p. 299; 908, p. 196; 938, p. 163; 946, p. 200; 1018, p. 181). G. Sayer. Measurements resumed on Feb. 1, 1946 and discontinued on Dec. 11, 1946. Water levels, in feet below land-surface datum, 1946: Feb. 1, 18.89; Mar. 20, 18.90; June 13, 19.23; Aug. 14, 19.95.

4-25-32cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.25 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.66 on Oct. 25, 1946; lowest, 6.37 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 8	5.57	June 12	4.99	Oct. 25	3.66
Mar. 20	5.10	Aug. 14	6.37	Dec. 17	4.27

4-25-34ad. J. C. Sayer. Drilled irrigation well, diameter 18 inches, depth 73.5 feet. Measuring point, turbine base, at land-surface datum. Highest observed stage in period of record, 15.18 on Dec. 17, 1946; lowest, 17.76 on Jan. 31, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	17.76	June 12	16.95	Dec. 17	15.18
Mar. 20	17.72	Oct. 25	15.52		

Gage County

A2-6-10bc (Well 230 in previous reports) (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; *1018, p. 181). J. Witzenburg. Water level, in feet below land-surface datum, 1946: Dec. 30, 71.44.

A5-5-31ba (Well 231 in previous reports) (*817, p. 128; 840, p. 203; 845, p. 175; 886, p. 300; 908, p. 187; *1018, p. 181). E. Miller. No measurements made in 1946.

Garden County

15-42-1ca (Well S13 in previous reports) (*988, p. 214; 1018, p. 183; 1025, p. 176). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	17.19	May 3	17.63	July 16	17.94	Nov. 21	18.30
Apr. 12	17.46	June 5	17.77	Aug. 3	18.57		

15-42-3cb (Well S11 in previous reports) (*988, p. 214; 1018, p. 182; 1025, p. 175). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	18.86	May 3	17.80	July 17	18.74	Nov. 21	18.80
Apr. 12	18.67	June 5	18.35	Aug. 5	18.32		

17-44-22cc (Well 326 in previous reports) (*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202; *1018, p. 182; 1025, p. 175). G. Morris. Water level, in feet below land-surface datum, 1946: Apr. 24, 26.92.

17-46-34bb (Well 218 in previous reports) (*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202; *1018, p. 182). University of Nebraska. Water level, in feet below land-surface datum, 1946: Apr. 24, 4.58.

20-44-5db (Well 27 in previous reports) (*908, p. 200; 938, p. 165; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. West of Island Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1946: Mar. 21, 7.80; June 19, 7.10; Sept. 20, 7.30; Dec. 17, 7.00.

20-44-9ca (Well 3 in previous reports) (*777, p. 93; 817, p. 129; 840, p. 203; 845, p. 175; 886, p. 300; 946, p. 200; *988, p. 212; 1018, p. 181; 1025, p. 174). Crescent Lake Migratory Bird Refuge. North side of Crescent Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1946: Mar. 20, 5.21; June 3, 5.31; Sept. 19, 5.91; Dec. 17, 5.61.

20-45-13ab (Well 21 in previous reports) (*886, p. 303; 908, p. 200; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. West of Blue Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1946: Mar. 20, 2.82; June 20, 2.82; Sept. 20, 3.72; Dec. 17, 3.42.

20-45-17ba (Well 19 in previous reports) (*886, p. 302; 908, p. 200; 938, p. 164; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. 1 mile southwest of Swan Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1946: Mar. 20, 5.26; June 20, 5.26; Sept. 20, 4.86; Dec. 17, 4.66.

21-44-28ab (Well 25 in previous reports) (*886, p. 304; 908, p. 200; 938, p. 165; 946, p. 201; *988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. Half a mile south of Goose Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Water levels, in feet below land-surface datum, 1946: Mar. 20, 3.26; June 20, 3.26; Sept. 20, 3.76; Dec. 17, 3.46.

21-44-35ca (Well 4 in previous reports) (*886, p. 300; 908, p. 197; 938, p. 163; 946, p. 200; 988, p. 212; 1018, p. 182; 1025, p. 174). Key well US 59. Crescent Lake Migratory Bird Refuge. North side of Island Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	3.01	Apr. 8	2.11	July 8	2.81	Oct. 8	3.91
14	2.81	15	2.22	15	2.91	15	3.81
22	2.81	22	2.32	22	3.41	21	3.71
27	2.71	29	2.52	29	3.41	30	3.61
Feb. 4	2.71	May 6	1.81	Aug. 5	3.61	Nov. 4	3.61
11	2.61	13	1.91	12	3.81	15	3.71
18	2.41	21	1.91	19	3.81	22	3.71
25	2.31	28	1.81	26	4.21	29	3.61
Mar. 4	2.31	June 10	1.91	Sept. 3	4.11	Dec. 9	3.11
11	2.21	17	2.31	10	4.01	17	3.01
18	2.21	24	2.51	17	4.11	23	2.81
26	2.11	July 1	2.71	30	4.11	31	2.91
Apr. 1	2.11						

21-45-3bd (Well 12 in previous reports) (*908, p. 199; 938, p. 164; 946, p. 201; 988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. Northwest corner of refuge. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 2.75 on Mar. 26, Apr. 1, 8, May 6, 28, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	3.55	Apr. 8	2.75	July 8	3.25	Oct. 8	4.05
14	3.45	15	2.85	15	3.45	15	3.95
22	3.45	22	2.85	22	3.65	21	3.85
27	3.35	29	3.05	29	3.85	30	3.85
Feb. 4	3.25	May 6	2.75	Aug. 5	3.95	Nov. 4	3.95
11	3.35	13	2.85	12	4.05	15	3.85
18	3.35	21	2.85	19	4.15	22	3.85
25	3.25	28	2.75	26	4.15	29	3.75
Mar. 4	3.05	June 10	2.95	Sept. 4	4.25	Dec. 9	3.95
11	2.95	17	3.25	11	4.15	17	3.95
20	2.85	24	3.15	18	4.25	23	3.85
26	2.75	July 1	3.35	31	4.15	31	3.85
Apr. 1	2.75						

21-45-10cd (Well 5 in previous reports) (*908, p. 197; 938, p. 164; 946, p. 201; 988, p. 213; 1018, p. 182; 1025, p. 174). Crescent Lake Migratory Bird Refuge. Northwest of Smith Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 2.42 on Dec. 18, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 20, 2.52; June 20, 2.52; Sept. 19, 2.82; Dec. 18, 2.42.

21-45-27cb (Well 17 in previous reports) (*886, p. 301; 908, p. 200; 938, p. 164; 946, p. 201; 988, p. 213; 1018, p. 182; 1025, p. 175). Crescent Lake Migratory Bird Refuge. Half a mile south of Bean Lake. Measurements supplied through courtesy of Fish and Wildlife Service, U. S. Dept. of Interior. Highest observed stage in period of record, 3.32 on Mar. 20, and June 20, 1946.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Dec. 11, 1945	4.52	June 20, 1946	3.32	Dec. 17, 1946	3.52
Mar. 20, 1946	3.32	Sept. 20	3.82		

Garfield County

21-16-31ac (Well 55 in previous reports) (*817, p. 129; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). F. Robke. No measurements made in 1946.

Gosper County

5-22-12ab (Well 183 in previous reports) (*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 305; 908, p. 202; 938, p. 165; 946, p. 202). M. Berntson. No measurements made in 1946.

5-22-12bb (Well 447 in previous reports) (*886, p. 305; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. No measurements made in 1946.

8-21-2cc (Well 1 in previous reports) (*988, p. 215; 1018, p. 183; 1025, p. 176). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	6.46	Apr. 10	6.43	Aug. 19	6.62
Feb. 28	6.44	May 9	6.59		

8-21-3ac (Well U96 in previous reports) (*988, p. 222; 1018, p. 185; 1025, p. 179). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	4.89	Apr. 4	4.32	July 11	4.36
Feb. 28	4.79	May 9	4.38	Aug. 19	4.28

8-21-3bb (Well U89 in previous reports) (*988, p. 220; 1018, p. 185; 1025, p. 178). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	5.16	Apr. 4	5.16	July 11	5.17
Feb. 28	5.16	May 9	5.16	Aug. 19	5.15

8-21-3bc (Well U90 in previous reports) (*988, p. 220; 1018, p. 185; 1025, p. 178). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	3.71	Apr. 4	3.73	July 11	3.74
Feb. 28	3.71	May 9	3.74	Aug. 19	3.75

8-21-3dc. Jeffrey Bros. Drilled irrigation well, diameter 24 inches, depth 58.2 feet. Measuring point, on base of turbine, at land-surface datum. Highest observed stage in period of record, 12.46 on Aug. 9, 1946; lowest, 14.13 on Jan. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	14.13	Apr. 11	13.55	July 12	12.90	Oct. 9	12.79
Feb. 15	13.86	May 10	13.26	Aug. 9	12.46	Nov. 15	13.00
Mar. 15	13.77	June 5	13.26	Sept. 6	13.40	Dec. 5	13.29

8-21-3dd (Well U97 in previous reports) (*988, p. 222; 1018, p. 185; 1025, p. 179). 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, 1946: Jan. 18, 12.22; Apr. 10, 10.68; May 9, 10.01; Aug. 19, 9.14.

8-21-4ad (Well U92 in previous reports) (*988, p. 221; 1018, p. 185; 1025, p. 178). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	8.40	Apr. 4	7.48	July 11	7.65
Feb. 28	8.30	May 9	7.75	Aug. 19	6.74

8-21-4ba (Well U63 in previous report) (*988, p. 207). Central Nebraska Public Power and Irrigation District. Published erroneously in previous reports as being in Dawson County. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946

Jan. 18	9.33	Apr. 4	9.03	July 11	9.23
Feb. 28	9.28	May 9	9.26	Aug. 19	9.31

8-21-4cc (Well U85 in previous reports) (*988, p. 219; 1018, p. 184; 1025, p. 177). 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, 1946

Jan. 18	28.75	Apr. 4	28.24	July 11	28.28
Feb. 28	28.61	May 9	28.32	Aug. 19	28.56

8-21-4da (Well U93 in previous reports) (*988, p. 221; 1018, p. 185; 1025, p. 178). 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, 1946

Jan. 18	9.76	Apr. 4	9.14	July 11	9.17
Feb. 28	9.53	May 9	9.54	Aug. 19	9.30

8-21-5aa (Well U88 in previous reports) (*988, p. 220; 1018, p. 185; 1025, p. 178). 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, 1946

Jan. 18	10.82	Apr. 4	10.64	July 11	10.62
Feb. 28	10.78	May 9	10.60	Aug. 19	10.63

8-21-5ad (Well U87 in previous reports) (*988, p. 219; 1018, p. 184; 1025, p. 178). 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, 1946

Jan. 18	15.21	Apr. 4	14.94	July 11	15.43
Feb. 28	15.09	May 9	15.07	Aug. 19	15.50

8-21-5da (Well U86 in previous reports) (*988, p. 219; 1018, p. 184; 1025, p. 178). 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, 1946

Jan. 18	21.19	Apr. 4	21.04	July 11	21.52
Feb. 28	21.15	May 9	22.10	Aug. 19	21.54

8-21-6aa (Well U81 in previous reports) (*988, p. 217; 1018, p. 184; 1025, p. 177). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	9.69	Apr. 4	9.40	July 11	9.30
Feb. 28	9.55	May 9	10.23	Aug. 19	9.39

8-21-6dal (Well U83 in previous reports) (*988, p. 218; 1018, p. 184; 1025, p. 177). 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, 1946

Jan. 18	26.61	Apr. 4	26.47	July 11	27.16
Feb. 28	26.58	May 9	26.66	Aug. 19	27.12

8-21-6da2 (Well U82 in previous reports) (*988, p. 218; 1018, p. 184; 1025, p. 177). 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, 1946

Jan. 18	24.39	Apr. 4	24.28	July 11	24.95
Feb. 28	24.36	May 9	24.51	Aug. 19	25.03

8-21-6dd (Well U84 in previous reports) (*988, p. 218; 1018, p. 184; 1025, p. 177). 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, 42.15 on Apr. 4, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 18	42.56	Apr. 4	42.15	July 11	42.43
Feb. 28	42.43	May 9	42.42	Aug. 19	42.43

8-21-10da (Well U99 in previous reports) (*988, p. 223; 1018, p. 186; 1025, p. 179). 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, 1946: Jan. 18, 15.94; Feb. 28, 15.91; Apr. 10, 15.90; May 9, 15.78.

8-21-11aa (Well 2 in previous reports) (*988, p. 215; 1018, p. 183; 1025, p. 176). 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, 1946: Jan. 18, 5.46; Apr. 10, 5.53; May 9, 5.83; Aug. 19, 5.86.

8-21-11bb (Well U98 in previous reports) (*988, p. 222; 1018, p. 186; 1025, p. 179). 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, 1946: Jan. 18, 10.85; Feb. 28, 11.00; Apr. 10, 11.19; May 9, 11.20.

8-21-12aa (Well 4 in previous reports) (*988, p. 216; 1018, p. 183; 1025, p. 176). 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, 1946: Jan. 18, 6.96; Apr. 10, 7.09; May 9, 7.22; Aug. 19, 7.52.

8-21-12bc (Well 3 in previous reports) (*988, p. 216; 1018, p. 183; 1025, p. 176). 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, 1946: Jan. 18, 10.02; Apr. 10, 9.84; May 9, 9.77; Aug. 19, 9.84.

8-22-8cd (Well U76 in previous reports) (*988, p. 217; 1018, p. 184; 1025, p. 177). Central Nebraska Public Power and Irrigation District. Measurements supplied through the courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 146.93 on Aug. 20, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 21	151.72	May 7	149.97	July 10	148.06
Feb. 28	151.00	June 11	148.61	Aug. 20	146.93

Grant County

24-37-25ac (Well 215 in previous reports) (*817, p. 130; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	5.17	June 24	5.48	Sept. 2	6.15	Dec. 24	5.59
May. 22	5.25	Aug. 15	6.28	Oct. 14	5.84		

24-40-36bb (Well 216 in previous reports) (*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202; *1018, p. 186; 1025, p. 179). University of Nebraska. Measuring point, raised 3.2 feet on Aug. 28, 1946. To convert water levels from feet above assumed datum, as published in reports previous to 1945, to feet below land-surface datum, subtract from 112.81.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	13.82	June 24	13.95	Aug. 28	13.83	Oct. 14	14.01
26	13.94	Aug. 15	14.08	Sept. 2	13.88	Dec. 24	14.08
May 22	13.89						

Greeley County

17-10-10cb (Well 347 in previous reports) (*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. No measurements made in 1946.

20-9-20cc (Well 206 in previous reports) (*817, p. 131; 840, p. 204; 845, p. 176; 886, p. 306; 908, p. 202; 938, p. 166; 946, p. 202). University of Nebraska. No measurements made in 1946.

Hall County

9-10-4dc. L. C. Hilsbeck. Unused dug irrigation well, diameter 24 inches, depth 25.2 feet. Measuring point, top of casing, 2.0 feet above land-surface datum. Highest observed stage in period of record, 4.70 on Dec. 6, 1946; lowest, 6.87 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	5.44	Apr. 11	5.34	July 12	6.50	Oct. 4	6.45
Feb. 15	5.34	May 10	6.01	Aug. 9	6.76	Nov. 15	5.87
Mar. 13	5.15	June 4	5.55	Sept. 7	6.87	Dec. 6	4.70

9-11-8bc. R. Abbot. Drilled irrigation well, diameter 18 inches, depth 80 feet. Measuring point, base of turbine, 0.3 foot above land-surface datum. Highest observed stage in period of record, 4.65 on Dec. 2, 1946; lowest, 7.82 on Sept. 5, 1946.

9-11-8bc--Continued.

Water level, in feet below land-surface datum, 1945-46

Date	Water level	Date	Water level	Date	Water level
Oct. 18, 1945	5.79	Apr. 10, 1946	5.90	Sept. 5, 1946	7.82
Dec. 12	6.37	May 8	6.35	Oct. 4	7.18
Jan. 18, 1946	5.92	June 7	6.49	Nov. 6	5.75
Feb. 13	5.92	July 10	6.73	Dec. 2	4.65
Mar. 13	5.93	Aug. 7	7.62		

9-11-14cb. C. Cox. Drilled irrigation well, diameter 18 inches, depth 30 feet. Measuring point, inside discharge pipe, 2.0 feet below land-surface datum. Highest observed stage in period of record, 7.12 on Jan. 10 and Feb. 15, 1946; lowest, 8.82 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	7.12	Apr. 11	7.59	July 12	8.61	Oct. 4	8.09
Feb. 15	7.12	May 10	7.92	Aug. 9	8.87	Nov. 15	7.57
Mar. 13	7.48	June 5	7.80	Sept. 7	8.81	Dec. 6	7.13

9-11-21bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 15.1 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.44 on Dec. 6, 1946; lowest, 9.52 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 10	8.24	July 12	8.86	Sept. 7	9.52	Nov. 15	7.71
June 5	8.16	Aug. 9	9.43	Oct. 4	8.50	Dec. 6	7.44

9-12-1dc (Well 259 in previous reports) (*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. J. Kipp.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	4.97	Apr. 10	4.37	July 10	5.42	Oct. 4	6.77
Feb. 13	4.93	May 8	4.89	Aug. 7	6.68	Nov. 12	3.80
Mar. 13	4.75	June 7	5.19	Sept. 5	7.26	Dec. 2	3.29

9-12-9ba (Well 260 in previous reports) (*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). S. Spahr. Highest observed stage in period of record, 23.35 on Sept. 6-12, 1946.

Lowest daily water level, in feet below land-surface datum, 1946

(From recorder charts)											
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov. Dec.
1	21.97	22.00	21.95	21.78	.....	.....	21.86	22.40	23.30	22.82	21.47
2	21.94	22.00	21.96	21.79	.....	.....	21.85	22.43	23.32	22.81	21.49
3	21.94	21.98	21.93	21.82	21.90	.....	21.83	22.48	23.33	22.80	21.50
4	21.96	21.97	21.95	21.84	.....	.....	.....	22.52	23.33	22.80	21.50
5	21.96	21.97	21.94	21.83	.....	.....	.....	22.57	23.33	22.79	21.47
6	22.02	21.98	21.93	21.79	.....	22.03	.....	22.60	23.35	22.77	21.43
7	22.02	21.97	21.95	21.78	21.89	22.06	.....	22.62	23.35	22.73	.....
8	21.98	22.00	21.95	21.80	21.89	22.08	.....	22.66	23.35	22.67	.....
9	21.99	22.00	21.95	21.80	21.96	22.07	.....	22.71	23.35	22.53	.....
10	21.99	21.95	21.96	21.74a	21.96	22.06	21.90	22.74	23.35	22.46	.....
11	21.98	21.96	21.91	21.83a	21.97	.....	.....	22.77	23.35	22.24	.....
12	22.00	21.95	21.89	21.83a	21.97	.....	21.92	22.80	23.35	22.07	.....
13	21.98	21.95	21.90	21.79a	21.96	.....	21.91	22.84	.....	21.98	.....
14	21.96	21.96	21.90	21.80a	21.98	.....	21.94	22.87	.....	21.92	.....
15	21.97	21.96	21.89	21.82a	21.99	.....	21.94	22.90	.....	21.86	21.27
16	21.94	21.97	21.90	21.83a	21.98	.....	21.93	22.93	23.10	21.81	21.26
17	21.95	21.98	21.90	21.81a	21.98	.....	21.93	22.95	23.09	21.78	21.18
18	21.94	21.96	21.90	21.82	.....	.....	21.94	.....	23.08	.....	21.11
19	21.94	21.95	21.88	21.86	.....	.....	21.96	.....	23.06	21.59	21.06
20	21.97	21.95	21.85	21.86	.....	.....	21.98	.....	23.02	21.60	21.04

a Accuracy questionable.

9-12-9ba--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
21	21.97	21.93	21.81	21.89	.....	.....	21.99	.....	22.98	21.58	21.07	.....
22	21.96	21.94	21.81	21.89	.....	.....	22.00	.....	22.96	21.56	21.05	.....
23	21.96	21.95	21.79	21.88	.....	.....	22.07	23.14	22.94	21.54	20.98	.....
24	21.96	21.96	21.79	21.88	22.00	.....	22.09	23.15	22.92	21.53	21.00	.....
25	21.95	21.93	21.79	21.89	.....	21.85	22.13	23.18	22.91	21.51	20.99	.....
26	22.00	21.96	21.79	.....	.....	21.84	22.15	23.20	22.90	21.50	20.95	.....
27	21.98	21.97	21.80	.....	22.03	21.84	22.20	23.21	22.88	.....	20.97	20.88
28	21.99	21.95	21.77	.....	22.03	21.84	22.23	23.23	22.85	.....	20.92	.....
29	21.94	.....	21.79	.....	22.02	21.84	22.26	23.26	22.84	21.49	20.92	.....
30	21.96	.....	21.81	21.89	.....	21.85	22.30	23.27	22.83	21.51	.....	.....
31	21.96	.....	21.80	.....	.....	.....	22.34	23.29	.....	21.50	.....	.....

10-9-3cb (Well GI248 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	5.08	July 8	4.58	Nov. 9	3.75
May 6	4.58	Sept. 16	5.50		

10-9-4cb (Well GI249 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	4.42	July 8	4.31	Nov. 9	3.42
May 6	4.56	Sept. 16	5.50		

10-9-8cc (Well GI250 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1946: Mar. 11, 3.66; May 6, 3.83.

10-9-10bb. P. Herman. Dug irrigation well, diameter 18 inches, depth 52 feet. Measuring point, base of pump, 0.6 foot above land-surface datum. Highest observed stage in period of record, 7.41 on Dec. 6, 1946; lowest, 9.35 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	8.00	Apr. 8	7.81	July 8	8.27	Oct. 7	8.74
Feb. 11	7.97	May 6	8.26	Aug. 5	8.90	Nov. 4	8.12
Mar. 11	7.80	June 3	7.46	Sept. 5	9.35	Dec. 6	7.41

10-9-27bb (Well 244 in previous reports) (*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 229; 1018, p. 191; 1025, p. 180). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	14.75	Apr. 8	14.60	July 8	15.01	Oct. 7	15.28
Feb. 11	14.35	May 6	14.85	Aug. 5	15.32	Nov. 4	15.05
Mar. 11	14.52	June 3	14.77	Sept. 3	15.51	Dec. 6	14.74

10-9-28cc. Drilled irrigation well, diameter 22 inches, depth 52.8 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 14.49 on Apr. 17, 1946; lowest, 15.32 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	14.49	July 8	14.70	Sept. 3	15.32	Nov. 4	14.81
May 6	14.63	Aug. 5	15.14	Oct. 7	15.01	Dec. 6	14.52
June 3	14.57						

10-10-8cc (Well 246 in previous reports) (*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. 191; 1025, p. 180). F. Dahlstrom. Lowest observed stage in period of record, 24.08 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	20.69	Apr. 10	21.72	July 10	21.97	Oct. 4	22.54
Feb. 13	21.78	May 8	21.87	Aug. 7	23.75	Nov. 6	22.11
Mar. 13	21.72	June 7	21.77	Sept. 5	24.08	Dec. 2	21.10

10-10-13dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.4 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum. Highest observed stage in period of record, 4.73 on June 3, 1946; lowest, 5.27 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 8	5.16	July 8	5.16	Sept. 3	5.21	Nov. 4	5.04
June 3	4.73	Aug. 6	5.27	Oct. 4	4.85	Dec. 6	4.79

10-11-15dc (Well 248 in previous reports) (*988, p. 224; 1018, p. 191; 1025, p. 180). W. A. Bouton. Lowest observed stage in period of record, 21.12 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	18.16	Apr. 10	18.66	Sept. 5	21.12	Nov. 6	19.20
Feb. 13	18.35	June 6	18.76	Oct. 4	20.22	Dec. 2	18.70
Mar. 13	18.31	Aug. 7	21.02				

10-11-30bc (Well 258 in previous reports) (*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). J. Weldon.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	20.54	Apr. 10	20.47	July 10	20.40	Oct. 4	21.91
Feb. 13	20.52	May 8	20.55	Aug. 7	21.93	Nov. 6	21.97
Mar. 13	20.51	June 7	20.52	Sept. 5	22.40	Dec. 2	21.72

10-12-20dd. Drilled irrigation well, diameter 18 inches, depth 68.4 feet. Measuring point, top of steel beam, at land-surface datum. This well replaces 261. Highest observed stage in period of record, 29.07 on Apr. 10, 1946; lowest, 30.97 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	29.24	Apr. 10	29.07	July 10	29.08	Nov. 6	30.23
Feb. 13	29.19	May 8	29.13	Sept. 5	30.97	Dec. 2	30.04
Mar. 13	29.15	June 7	29.33	Oct. 4	30.59		

11-9-3bc (Well GI207 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 11.83 on May 6, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 11, 11.92; May 6, 11.83.

11-9-4cc (Well GI209 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.42	June 10	11.58	Oct. 28	12.25
Apr. 8	11.58	Aug. 5	12.50	Dec. 9	12.16

11-9-4cd (Well GI208 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

11-9-4cd--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 21	11.75	June 10	12.16	Oct. 28	13.00
Apr. 8	11.75	Aug. 5	12.58	Dec. 9	12.66

11-9-8da (Well GI210 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	14.58	June 10	18.58	Oct. 28	15.83
Apr. 8	16.08	Aug. 5	20.58	Dec. 9	15.42

11-9-8db (Well GI211 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 12.92 on Apr. 8, 1946. Water level, in feet below land-surface datum, 1946: Apr. 8, 12.92.

11-9-9aa (Well GI212 in previous reports) (*836-E, pp. 252, 272; 886, p. 309; 908, p. 204; 938, p. 166; 946, p. 204; *988, p. 225; 1018, p. 188; 1025, p. 181). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	18.16	June 10	18.58	Oct. 28	19.58
Apr. 8	18.50	Aug. 5	18.55	Dec. 9	18.92

11-9-9bd (Well GI 214 in previous reports) (*836-E, pp. 252; 273; 886, p. 309; 908, p. 203; 938, p. 167; 946, p. 204; *988, p. 226; 1018, p. 188; 1025, p. 181). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	16.16	June 10	16.91	Oct. 28	17.34
Apr. 8	16.58	Aug. 5	18.58	Dec. 9	17.08

11-9-9cc (Well GI215 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	18.92	June 10	19.00	Oct. 28	20.00
Apr. 8	19.66	Aug. 5	21.58	Dec. 9	19.66

11-9-9da (Well GI216 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	26.08	June 10	25.75	Oct. 28	27.16
Apr. 8	25.50	Aug. 5	26.34	Dec. 9	27.08

11-9-9dd (Well GI217 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

11-9-9dd--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 21	25.75	June 10	25.75	Oct. 28	27.34
Apr. 8	25.83	Aug. 5	27.42	Dec. 9	27.25

11-9-12dc (Well GI219 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Mar. 11	6.00	July 8	6.54	Nov. 9	5.00
May 6	6.08	Sept. 16	6.66		

11-9-15bb1 (Well GI222 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Jan. 21	25.00	June 10	24.83	Oct. 28	26.16
Apr. 8	25.15	Aug. 5	24.83	Dec. 9	25.75

11-9-15bb2 (Well GI221 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Jan. 21	26.66	June 10	26.83	Oct. 28	28.34
Apr. 8	26.92	Aug. 5	29.16	Dec. 9	28.42

11-9-15cc (Well GI223 in previous reports) (*836-E, p. 252, 274; 886, p. 311, 908, p. 204; 938, p. 167; 946, p. 205; *988, p. 227; 1018, p. 189; 1025, p. 182). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 3.66 on June 10, 1946.

Water level, in feet below land-surface datum, 1946					
Jan. 21	6.25	June 10	3.66	Oct. 28	6.92
Apr. 8	7.92	Aug. 5	8.16	Dec. 9	9.00

11-9-15db (Well GI224 in previous reports) (*836-E, pp. 252, 275; 886, p. 311; 908, p. 204; 946, p. 205; *988, p. 227; 1018, p. 189; 1025, p. 182). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Jan. 21	7.92	June 10	7.66	Oct. 28	8.50
Apr. 8	7.92	Aug. 5	8.50	Dec. 9	8.05

11-9-15dd (Well GI225 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water levels, in feet below land-surface datum, 1946: Mar. 11, 7.66; May 6, 7.58; July 8, 7.42; Sept. 16, 8.54.

11-9-16ad (Well GI226 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 30.08 on Jan. 21, 1946.

Water level, in feet below land-surface datum, 1946					
Jan. 21	30.08	Aug. 5	33.25	Dec. 9	32.16
June 10	30.58	Oct. 28	31.92		

11-9-163c (Well GI227 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 23.75 on June 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 21	28.34	June 10	23.75	Oct. 28	29.36
Apr. 8	28.66	Aug. 5	29.58	Dec. 9	28.00

11-9-16bd (Well GI228 in previous reports) (*836-E, pp. 253, 275; 886, p. 312; 908, p. 204; 938, p. 167; 946, p. 206). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 138.65.

Water level, in feet below land-surface datum, 1944-46

Apr. 3, 1944	39.79	Apr. 20, 1945	37.33	June 10, 1946	36.75
May 29	39.83	July 19	37.75	Aug. 5	37.50
Aug. 7	36.16	Oct. 11	35.58	Oct. 28	37.25
Oct. 9	37.60	Jan. 21, 1946	36.34	Dec. 9	34.83
Dec. 18	31.66	Apr. 8	36.34		

11-9-16ca (Well GI229 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 31.25 on Dec. 9, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 21	35.34	Aug. 5	36.16	Dec. 9	31.25
June 10	36.16	Oct. 28	33.75		

11-9-16cb (Well GI230 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	28.50	June 10	29.92	Oct. 28	29.92
Apr. 8	29.58	Aug. 5	30.08	Dec. 9	29.66

11-9-161b (Well GI231 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	30.42	June 10	30.75	Oct. 28	31.42
Apr. 8	30.50	Aug. 5	31.66	Dec. 9	30.34

11-9-17ba (Well GI232 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	14.16	June 10	15.00	Oct. 28	15.03
Apr. 8	14.65	Aug. 5	15.66	Dec. 9	14.92

11-9-17bd (Well GI233 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Jan. 21	16.58	June 10	19.25	Oct. 28	19.83
Apr. 8	20.16	Aug. 5	18.83	Dec. 9	20.42

11-9-17cd (Well GI234 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 21	20.32	June 10	22.58	Oct. 28	30.92
Apr. 11	31.25	Aug. 5	21.42	Dec. 9	32.25

11-9-21bb (Well GI237 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 24.25 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 21	29.16	June 10	29.32	Oct. 28	30.42
Apr. 8	28.75	Aug. 5	24.25	Dec. 9	29.25

11-9-21bd (Well GI238 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 21	29.58	June 10	31.75	Oct. 28	33.16
Apr. 8	29.83	Aug. 5	33.58	Dec. 9	30.16

11-9-22cb (Well GI239 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Mar. 11	9.50	July 8	9.35	Nov. 9	9.92
May 6	9.25	Sept. 16	10.34		

11-9-26aa (Well GI240 in previous reports) (*836-E, pp. 253, 278; 886, p. 315; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 183). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Mar. 11	6.16	July 8	4.42	Nov. 11	3.83
May 6	4.66	Sept. 16	5.58		

11-9-27cb (Well 245 in previous reports) (*817, p. 131; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *988, p. 223). University of Nebraska.

Water level, in feet below land-surface datum, 1943-46					
Date	Water level	Date	Water level	Date	Water level
July 31, 1943	a 5.08	May 14, 1945	6.75	June 3, 1946	6.80
Oct. 11	a 7.04	Aug. 6	a 5.75	July 8	7.03
Nov. 2	7.73	Oct. 29	a 6.75	Aug. 5	7.45
Feb. 28, 1944	a 8.33	Jan. 5, 1946	7.31	Sept. 3	7.96
Apr. 16	7.80	Feb. 11	7.39	Oct. 7	7.91
July 10	a 4.90	Mar. 11	7.42	Nov. 4	6.26
Sept. 11	a 7.50	Apr. 8	7.56	Dec. 6	6.49
Jan. 22, 1945	7.42	May 6	7.23		

a Measurement supplied through courtesy of Grand Island Water Department.

11-9-28ba (Well GI241 in previous reports) (*836-E, pp. 253, 278; 886, p. 315; 908, p. 205; 938, p. 168; 946, p. 207; *988, p. 229; 1018, p. 191; 1025, p. 183). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Mar. 11	11.34	July 8	13.34	Nov. 9	11.75
May 6	10.92	Sept. 16	14.58		

11-9-29bb (Well GI242 in previous reports) (#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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	20.50	July 8	20.34	Nov. 9	21.34
May 6	20.66	Sept. 16	20.92		

11-9-32cc (Well GI243 in previous reports) (#836-E, pp. 253, 278; 886, p. 316; 946, p. 207; #988, p. 229; 1018, p. 191; 1025, p. 183). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	3.75	July 8	3.83	Nov. 9	2.75
May 6	3.92	Sept. 16	4.58		

11-9-34aa (Well GI244 in previous reports) (#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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	4.92	July 8	4.50	Nov. 9	4.00
May 6	5.00	Sept. 16	5.58		

11-9-34cb (Well GI246 in previous reports) (#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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	5.25	July 8	4.58	Nov. 9	4.08
May 6	4.92	Sept. 16	5.58		

11-9-35dc (Well GI247 in previous reports) (#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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	3.34	July 8	3.50	Nov. 9	2.92
May 6	3.58	Sept. 16	4.58		

11-10-11dc (Well GI252 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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Measurements published in Water-Supply Paper 988 are in error. Correct measurements are: Aug. 23, 10.36; Oct. 11, 10.56. Highest observed stage in period of record, 6.31 on July 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	7.00	July 8	6.31	Oct. 28	6.34
May 6	6.83	Sept. 16	6.92		

11-10-13ab (Well GI253 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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 8.92 on Nov. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	9.34	July 8	9.25	Nov. 9	8.92
May 6	9.75	Sept. 16	9.75		

11-10-14dd. H. Thomas. Drilled irrigation well, diameter 24 inches, depth 73 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.07 on Jan. 25, 1946; lowest, 11.68 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	10.07	Apr. 9	11.09	July 9	10.54	Oct. 4	11.03
Feb. 13	10.95	May 8	11.14	Aug. 6	11.68	Nov. 6	10.54
Mar. 13	10.99	June 4	10.90	Sept. 5	10.92	Dec. 2	10.42

11-10-16bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 19 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.56 on Dec. 2, 1946; lowest, 11.07 on May 8, 1946.

Water level, in feet below land-surface datum, 1946

May 8	11.07	July 9	10.75	Sept. 5	10.96	Nov. 6	10.64
June 4	10.81	Aug. 6	10.79	Oct. 4	11.02	Dec. 2	10.56

11-10-24cb (Well GI254 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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 13.92 on Nov. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	14.00	July 8	14.00	Nov. 9	13.92
May 6	14.58	Sept. 16	14.34		

11-10-26dd (Well GI255 in previous reports) (*836-E, pp. 253, 280; 886, p. 319; 946, p. 208; *988, p. 230; 1018, p. 192; 1025, p. 184). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Mar. 11	7.16	July 8	7.75	Nov. 9	6.75
May 6	7.34	Sept. 16	8.58		

11-10-27dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 22.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 17.13 on May 8, 1946; lowest, 17.72 on June 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 8	17.13	July 10	17.15	Sept. 5	17.45	Nov. 6	17.29
June 7	17.72	Aug. 6	17.40	Oct. 4	17.66	Dec. 2	17.15

11-11-25cc. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 37 feet. Measuring point, top of casing, 1.6 feet above land-surface datum. Stevens Type A-35 60 day recorder installed Oct. 30, 1946. Highest observed stage in period of record, 16.80 on Sept. 5, 1946; lowest, 17.10 on Oct. 4, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Sept. 5	a 16.80	Nov. 6	17.01	Nov. 15	16.98	Nov. 24	16.95
Oct. 4	a 17.10	7	17.00	16	16.97	25	16.96
30	17.33	8	17.00	17	16.98	26	16.96
31	17.03	9	17.00	18	16.98	27	16.96
Nov. 1	17.03	10	16.99	19	16.97	28	16.95
2	17.02	11	16.99	20	16.97	29	16.95
3	17.02	12	16.99	21	16.97	30	16.93
4	17.02	13	16.99	22	16.97	Dec. 1	16.93
5	17.02	14	16.98	23	16.96	2	16.92

a Tape measurement.

11-11-32cb (Well 249 in previous reports) (*817, p. 133; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; 938, p. 166; *988, p. 224; 1018, p. 192; 1025, p. 180). F. Hughes. Lowest observed stage in period of record, 36.75 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	35.32	Apr. 10	35.12	July 10	34.98	Nov. 6	36.08
Feb. 13	35.27	May 8	35.10	Sept. 4	36.75	Dec. 2	36.02
Mar. 13	35.20	June 7	35.01	Oct. 4	36.55		

11-11-36cb (Well 247 in previous reports) (*817, p. 132; 840, p. 205; 845, p. 176; 886, p. 306; 908, p. 203; *988, p. 223; 1018, p. 186; 1025, p. 180). E. Batie. Lowest observed stage in period of record, 26.07 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 18	23.33	Apr. 10	23.29	July 10	23.16	Oct. 4	24.62
Feb. 13	23.34	May 8	23.30	Aug. 7	25.05	Nov. 6	23.88
Mar. 13	23.32	June 7	23.27	Sept. 4	26.07	Dec. 2	23.75

11-12-34dc. Drilled irrigation well, diameter 24 inches, depth 58 feet. Measuring point, turbine base, 1.0 foot above land-surface datum. Highest observed stage in period of record, 25.68 on July 10, 1946; lowest, 26.82 on Sept. 5, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
June 7	25.70	Sept. 5	26.82	Nov. 6	26.29
July 10	25.68	Oct. 4	26.68	Dec. 2	26.24

12-9-27cb (Well GI202 in previous reports) (*886, p. 306; 908, p. 203; 938, p. 166; 946, p. 203; *1018, p. 187; 1025, p. 180). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 5.08 on Mar. 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	5.08	July 8	5.16	Nov. 9	7.25
May 6	5.42	Sept. 16	6.42		

12-9-32aa1 (Well GI203 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 8.56 on July 8, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	9.00	July 8	8.56	Nov. 9	8.92
May 6	9.00	Sept. 16	10.00		

12-9-32aa2. E. H. Stobbe. Drilled irrigation well, diameter 18 inches, depth 92 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 12.08 on Apr. 9, 1946; lowest, 13.35 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11	12.50	Apr. 9	12.08	Sept. 4	13.35	Nov. 6	12.56
Feb. 13	12.27	May 8	12.15	Oct. 4	13.10	Dec. 2	12.39
Mar. 12	12.14	Aug. 6	13.02				

12-9-32cc (Well GI204 in previous reports) (*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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 8.00 on July 8, 1946.

12-9-32cc--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Mar. 11	8.50	July 8	8.00	Nov. 9	8.42
May 6	8.42	Sept. 16	8.83		

12-10-1cc (Well GI251 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). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Highest observed stage in period of record, 6.00 on July 8, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Mar. 11	6.92	July 8	6.00	Nov. 9	6.50
May 6	6.83	Sept. 16	6.83		

12-11-24cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 11.29 on May 8, 1946; lowest, 12.26 on Oct. 4, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 8	11.29	July 9	11.54	Sept. 5	12.10	Nov. 6	11.74
June 4	11.34	Aug. 6	11.85	Oct. 4	12.26	Dec. 2	11.44

Hamilton County

9-6-34bb (Well 173 in previous reports) (*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; *1018, p. 193). T. Wild. Water level, in feet below land-surface datum, 1946: Dec. 31, 43.25.

9-8-9dc (Well 160 in previous reports) (*817, p. 135; 840, p. 205; 845, p. 176; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; *1018, p. 192). R. Phillips. Lowest observed stage in period of record, 58.40 on Dec. 31, 1946. Water level, in feet below land-surface datum, 1946: Dec. 31, 58.40.

11-6-13cb (Well 158 in previous reports) (*817, p. 135; 840, p. 205; 845, p. 176; 938, p. 168; 946, p. 209; *1018, p. 192). O. Swedberg.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 5	92.96	Mar. 11	93.08	June 3	93.32
Feb. 11	93.18	May 6	93.24	July 8	93.23
				Sept. 3	93.86
				Nov. 4	93.41

11-8-28bc. H. J. Rathje. Drilled irrigation well, diameter 18 inches, depth 90 feet. Measuring point, base of turbine, 1.0 foot below land-surface datum. Highest observed stage in period of record, 29.96 on Jan. 10, 1946; lowest, 32.23 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 10	29.96	Apr. 8	30.35	July 8	30.86
Feb. 11	30.04	May 6	30.59	Sept. 3	32.23
Mar. 11	30.19	June 3	30.37	Oct. 12	32.11
				Nov. 4	30.78
				Dec. 6	30.47

13-5-19aa. E. L. Clayton. Drilled irrigation well, diameter 18 inches, depth 70 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 24.97 on Dec. 8, 1946; lowest, 27.28 on Aug. 5, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 10	25.39	Apr. 8	25.25	July 8	26.05
Feb. 11	25.35	May 6	25.50	Aug. 5	27.28
Mar. 11	25.10	June 3	25.62	Sept. 3	26.68
				Dec. 9	24.97

13-6-27cc (Well 330 in previous reports) (*817, p. 135; 840, p. 206; 845, p. 176; 886, p. 319; 908, p. 206; 946, p. 209; *1018, p. 193). H. Lock.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	8.90	Apr. 8	8.86	July 8	9.40	Oct. 12	9.37
Feb. 11	8.91	May 6	9.55	Aug. 5	10.52	Nov. 4	9.52
Mar. 11	8.79	June 3	9.20	Sept. 3	10.45	Dec. 9	9.03

Harlan County

1-17-1da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.95 on Oct. 25, 1946; lowest, 7.57 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 6.54; Aug. 13, 7.57; Oct. 25, 1.95; Dec. 17, 4.56.

1-17-12da. Mrs. Edna Godeken. Drilled irrigation well, diameter 24 inches, depth 48 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 12.71 on Oct. 26, 1946; lowest, 17.35 on Feb. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 14	17.35	June 13	16.94	Dec. 17	13.53
Mar. 7	17.29	Oct. 26	12.71		

2-18-33cd (Well 155 in previous reports) (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209; *1018, p. 193). C. Feese. Water level, in feet below land-surface datum, 1946: Feb. 14, 11.80.

2-19-5cb. L. E. Short. Drilled irrigation well, diameter 18 inches, depth 51 feet. Measuring point, side of turbine opening, 1.0 foot above land-surface datum. Highest observed stage in period of record, 20.32 on Dec. 17, 1946; lowest, 24.19 on Aug. 13, 1946.

WWater level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 22	21.20	Aug. 13	24.19	Dec. 17	20.32
June 13	22.95	Oct. 25	20.62		

2-19-17da. B. Korte. Dug irrigation well, diameter 72 inches, depth 42 feet. Measuring point, top of platform, 1.0 foot above land-surface datum. Highest observed stage in period of record, 19.07 on Oct. 25, 1946; lowest, 22.20 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 21	21.89	Aug. 13	22.20	Dec. 17	19.11
June 13	22.10	Oct. 25	19.07		

2-19-28dd. University of Nebraska. Driven observation well, diameter 1 inch, depth 22 feet. Measuring point, top of pipe, 1.2 feet above land-surface datum. Highest observed stage in period of record, 6.82 on Dec. 17, 1946; lowest, 10.74 on Nov. 12, 1940.

Water level, in feet below land-surface datum, 1940-41, 1946

Date	Water level	Date	Water level	Date	Water level
July 31, 1940	10.30	Oct. 29, 1941	8.86	Aug. 13, 1946	9.37
Nov. 12	10.74	June 13, 1946	8.93	Dec. 17	6.82

2-19-34bc. C. Fishbeck. Drilled irrigation well, diameter 24 inches, depth 61 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 20.69 on Dec. 17, 1946; lowest, 23.70 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 21, 20.86; June 13, 22.30; Aug. 13, 23.70; Dec. 17, 20.69.

3-17-21da (Well 329 in previous reports) (#817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 938, p. 168; 946, p. 209). G. Remke. No measurements made in 1946.

3-17-27bb (Well 222 in previous reports) (#817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 206; 946, p. 209). University of Nebraska. No measurements made in 1946.

3-20-7ab. C. L. Struve. Drilled irrigation well, diameter 24 inches, depth 90 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 30.08 on Dec. 17, 1946; lowest, 32.00 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 22	30.55	Aug. 13	32.00	Dec. 17	30.08
June 13	30.51	Oct. 25	30.26		

3-20-16bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.95 on Oct. 25, 1946; lowest, 9.44 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 7.49; Aug. 13, 9.44; Oct. 25, 3.95; Dec. 17, 6.00.

3-20-18ca. Fish Implement Co. Drilled irrigation well, diameter 18 inches, depth 57 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.60 on Dec. 17, 1946; lowest, 16.56 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 22	15.86	Aug. 13	16.56	Dec. 17	13.60
June 13	14.75	Oct. 25	14.18		

3-20-22dd. C. Murdock. Drilled stock well, diameter 4 inches. Measuring point, top of casing, 3.0 feet above land-surface datum. Highest observed stage in period of record, 24.79 on Dec. 17, 1946; lowest, 26.29 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 25.95; Aug. 13, 26.29; Oct. 25, 24.91; Dec. 17, 24.79.

3-20-25cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 23.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 11.56 on Dec. 17, 1946; lowest, 16.16 on Aug. 13, 1946. Water levels, in feet below land-surface datum, 1946: June 13, 15.25; Aug. 13, 16.16; Oct. 25, 11.73; Dec. 17, 11.56.

• Hayes County

5-32-25dc (Well 141 in previous reports) (#817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 269; 946, p. 209; *1018, p. 193). E. Joy. No measurements made in 1946.

5-33-30cb. R. Scott. Drilled irrigation well, diameter 22 inches, depth 90 feet. Measuring point, plug in side of turbine, 0.6 foot above land-surface datum. Highest observed stage in period of record, 18.71 on Dec. 16, 1946; lowest, 20.00 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 6	19.17	May 29	19.11	Oct. 24	18.84
Mar. 19	18.88	Aug. 15	20.00	Dec. 16	18.71

5-33-31dc (Well 446 in previous reports) (#886, p. 320; 908, p. 207; 938, p. 169; 946, p. 209; 988, p. 231; 1018, p. 193). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 6	13.34	Aug. 15	13.05	Dec. 16	13.41
May 29	11.64	Oct. 24	13.50		

5-34-28bc. T. T. Schrieber. Drilled irrigation well, diameter 16 inches, depth 131 feet. Measuring point, top of 1-inch pipe, 0.5 foot above land-surface datum. Highest observed stage in period of record, 57.67 on Mar. 19, 1946; lowest, 58.48 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Feb. 6, 57.69; Mar. 19, 57.67; May 29, 58.30; Aug. 15, 58.48.

5-34-30ba. 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, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.55 on Oct. 24, 1946; lowest, 11.47 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: May 29, 11.00; Aug. 15, 11.47; Oct. 24, 10.55; Dec. 16, 10.81.

5-35-17da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.22 on Oct. 24, 1946; lowest, 9.18 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 9.18; Oct. 24, 8.22; Dec. 16, 8.35.

7-34-4ac (Well 142 in previous reports) (*817, p. 136; 840, p. 206; 845, p. 177; 886, p. 319; 908, p. 207; 938, p. 169). Laird & Ward Estate. No measurements made in 1946.

Hitchcock County

2-33-2aa. M. O. Wertz. Drilled irrigation well, diameter 18 inches, depth 47 feet. Measuring point, base of turbines, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.69 on Mar. 19, 1946; lowest, 10.73 on Oct. 23, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 4	9.76	June 11	9.99	Dec. 16	10.24
Mar. 19	9.69	Oct. 23	10.73		

2-33-6cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.22 on Dec. 16, 1946; lowest, 10.45 on Aug. 16 and Oct. 23, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 10.45; Oct. 23, 10.45; Dec. 16, 10.22.

2-33-10ab. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.45 on Dec. 11, 1946; lowest, 8.01 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 8.01; Oct. 21, 7.79; Dec. 11, 7.45.

2-34-8da. H. Pollman. Drilled irrigation well, diameter 24 inches, depth 58 feet. Measuring point, turbine base, at land-surface datum. Highest observed stage in period of record, 18.88 on Mar. 19, 1946; lowest, 20.02 on Aug. 16, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 4	18.94	Aug. 16	20.02	Dec. 16	19.37
Mar. 19	18.88	Oct. 23	19.80		

2-34-11dc. 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, 10.75 on Dec. 11, 1946; lowest, 10.82 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 10.82; Oct. 21, 10.80; Dec. 11, 10.75.

2-35-13bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 22 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.55 on Aug. 16, 1946; lowest, 15.30 on Dec. 16, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 13.55; Oct. 21, 15.16; Dec. 16, 15.30.

2-35-21bc (Well 178 in previous reports) (*817, p. 137; 840, p. 206; 845, p. 177; 886, p. 329; 908, p. 207; 938, p. 169). O. Bloomfield. Measuring point lowered 0.3 foot to cover over casing, at land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.46. Well was erroneously listed as destroyed in Water-Supply Paper 1018. Measurements have been discontinued on wells formerly shown as 178A and 178B.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 4	20.72	June 11	20.42	Oct. 21	20.39
Mar. 19	20.60	Aug. 16	21.19	Dec. 16	20.50

2-35-24aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.1 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.73 on Dec. 11, 1946; lowest, 6.08 on June 11, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 16, 6.08; Oct. 21, 5.43; Dec. 11, 4.73.

3-31-14bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 26.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.70 on Oct. 24, 1946; lowest, 15.88 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: June 11, 15.51; Aug. 15, 15.88; Oct. 24, 13.70; Dec. 16, 14.15.

3-31-15cb. J. Kautz. Bored domestic well, diameter 4 inches, depth 15 feet. Measuring point, top of casing, 2.0 feet above land-surface datum. Highest observed stage in period of record, 7.09 on Oct. 21, 1946; lowest, 8.26 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 2	7.88	June 11	7.78	Oct. 21	7.09
Mar. 17	7.94	Aug. 14	8.26	Dec. 11	7.16

3-31-17cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.9 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.48 on Dec. 11, 1946; lowest, 8.78 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 8.78; Oct. 21, 7.52; Dec. 11, 7.48.

3-31-20da. 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. Highest observed stage in period of record, 7.85 on Dec. 11, 1946; lowest, 8.40 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: June 11, 8.19; Aug. 15, 8.40; Oct. 21, 8.32; Dec. 11, 7.85.

3-32-11bb. 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, 13.20 on May 29, 1946; lowest, 14.00 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: May 29, 13.20; Aug. 15, 14.00; Oct. 24, 12.26; Dec. 16, 13.33.

3-32-12cc. Mrs. Maude Morthole. Drilled irrigation well, diameter 24 inches, depth 81 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 21.20 on Oct. 24, 1946; lowest, 21.97 on Mar. 19, 1946.

3-32-12cc--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 5	21.89	May 28	21.68	Dec. 16	21.43
Mar. 19	21.97	Oct. 24	21.20		

3-32-26dd. E. Meintz. Drilled irrigation well, diameter 18 inches, depth 74 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 28.05 on Dec. 11, 1946; lowest, 29.30 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	28.54	June 11	28.76	Oct. 21	28.63
Mar. 19	28.30	Aug. 14	29.30	Dec. 11	28.05

3-32-31aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.92 on Dec. 16, 1946; lowest, 6.74 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 6.74; Oct. 23, 6.18; Dec. 16, 5.92.

3-33-35dc (Well 362 in previous reports) (*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). S. Lawrence. Water levels, in feet below land-surface datum, 1946: Aug. 15, 10.54; Oct. 23, 11.05; Dec. 16, 10.53.

4-32-33db. J. Bowen. Drilled irrigation well, diameter 18 inches, depth 92 feet. Measuring point, base of turbine, 0.8 foot above land-surface datum. Highest observed stage in period of record, 33.95 on Jan. 5, 1946; lowest, 34.85 on May 29, 1946. Water levels, in feet below land-surface datum, 1946: Jan. 5, 33.95; Mar. 19, 34.54; May 29, 34.85.

4-33-8bb. R. Handel. Drilled irrigation well, diameter 18 inches, depth 93.6 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 54.95 on Mar. 19, 1946; lowest, 55.74 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 6	55.04	May 29	55.26	Oct. 24	55.25
Mar. 19	54.95	Aug. 15	55.74	Dec. 16	55.18

4-33-23ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.9 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.55 on Dec. 16, 1946; lowest, 13.82 on Aug. 15, 1946. Water levels, in feet below land-surface datum, 1946: Aug. 15, 13.82; Oct. 24, 12.62; Dec. 16, 12.55.

Holt County

26-12-24aa (Well 424 in previous reports) (*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. No measurements made in 1946.

27-9-27dd (Well 428 in previous reports) (*886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; *988, p. 231; 1018, p. 194; 1025, p. 186). University of Nebraska. Water levels, in feet below land-surface datum, 1946: Jan. 1, 8.14; Mar. 31, 7.48; June 29, 6.17; Oct. 1, 7.17.

27-9-34da (Well 203 in previous reports) (*817, p. 137; 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). University of Nebraska. Key well US 56.

27-9-34da--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1	9.00	Apr. 30	8.89	July 28	9.38	Nov. 1	7.85
30	8.86	May 30	8.11	Sept. 1	9.61	30	8.71
Feb. 27	8.81	June 28	8.98	Oct. 1	9.04	Dec. 30	8.10
Mar. 29	6.98						

27-14-28bc (Well 374 in previous reports) (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). L. Nessen. No measurements made in 1946.

28-14-29aa (Well 373 in previous reports) (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210). University of Nebraska. No measurements made in 1946.

29-12-14ba (Well 112 in previous reports) (*817, p. 137; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 946, p. 210). G. Shoemaker. No measurements made in 1946.

Hooker County

24-35-23dd (Well 214 in previous reports) (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 320; 908, p. 207; 938, p. 169; 946, p. 210; *1018, p. 194; 1025, p. 186). University of Nebraska. Casing driven 1.0 foot deeper on Aug. 28. Lowest observed stage in period of record, 20.28 on Dec. 24, 1946.

Water level, in feet below land-surface datum, 1946							
Apr. 4	19.55	May 22	19.98	Aug. 15	20.07	Oct. 14	20.16
26	20.00	June 24	20.17	Sept. 2	20.10	Dec. 24	20.28

Howard County

13-9-26dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 19.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.59 on June 4, 1946; lowest, 9.68 on Sept. 4 and Oct. 3, 1946.

Water level, in feet below land-surface datum, 1946							
May 8	8.99	July 9	7.73	Sept. 4	9.68	Nov. 6	9.19
June 4	7.59	Aug. 6	9.10	Oct. 3	9.68	Dec. 2	8.09

13-9-27ca (Well 51 in previous reports) (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; *1018, p. 194). Placks Estate. No measurements made in 1946.

13-12-29ba (Well 98 in previous reports) (*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 210). O. Young. No measurements made in 1946.

14-10-14bb (Well 46 in previous reports) (*817, p. 138; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; *1018, p. 194). University of Nebraska. No measurements made in 1946.

16-11-27dc (Well 59 in previous reports) (*817, p. 139; 840, p. 207; 845, p. 177; 886, p. 321; 908, p. 207; 938, p. 169; 946, p. 210; 988, p. 232). M. Augustyn. No measurements made in 1946.

Jefferson County

Al-4-19ac (Well 227 in previous reports) (*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208). R. Garrot. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.92. Water level, in feet below land-surface datum, 1946: Dec. 30, 28.99.

A2-4-26dd (Well 226 in previous reports) (*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 210; *1018, p. 195). C. Ellis. Water level, in feet below land-surface datum, 1946: Dec. 30, 15.42.

A3-1-14ba (Well 228 in previous reports) (*817, p. 139; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). A. Knispel. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 131.43. Highest observed stage in period of record, 29.82 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 29.82.

A4-2-18cb (Well 229 in previous reports) (*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211). E. Simpkins. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 244.65. Highest observed stage in period of record, 145.70 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 145.70.

Johnson County

A6-9-26bb (Well 2 in previous reports) (*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 169; 946, p. 211; *1018, p. 195). L. Miller. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 133.23. Lowest observed stage in period of record, 36.65 on Dec. 23, 1946. Water level, in feet below land-surface datum, 1946: Dec. 23, 36.65.

Kearney County

6-16-20bb (Well 181 in previous reports) (*817, p. 140; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211). E. Carlson. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 199.63. Water levels, in feet below land-surface datum, 1946: Mar. 18, 91.16; May 27, 90.82.

8-13-12cb. O. H. Holl. Dug irrigation well, diameter 24 inches, depth 15 feet. Measuring point, base of pump, 0.2 foot above land-surface datum. Highest observed stage in period of record, 4.84 on Dec. 6, 1946; lowest, 7.12 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10	6.88	Apr. 11	6.69	July 12	6.70	Oct. 4	6.11
Feb. 15	6.89	May 10	6.99	Aug. 9	7.12	Nov. 15	5.21
Mar. 13	6.84	June 5	6.96	Sept. 7	6.82	Dec. 6	4.84

8-13-16bc. H. H. Howard. Drilled irrigation well, diameter 24 inches, depth 77 feet. Measuring point, side of turbine, 1.4 feet above land-surface datum. Highest observed stage in period of record, 4.15 on Dec. 6, 1946; lowest, 6.77 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
July 23	6.15	Oct. 4	5.75	Dec. 6	4.15
Sept. 7	6.77	Nov. 15	4.39		

8-14-13db (Well 266 in previous reports) (*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). H. Yenson. Highest observed stage in period of record, 6.59 on Nov. 15, 1946.

8-14-13db--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 17	8.71	Apr. 11	8.29	July 12	8.10
Feb. 15	8.36	May 10	8.67	Aug. 9	9.66
Mar. 13	8.32	June 5	8.63	Sept. 7	9.42
				Oct. 4	8.30
				Nov. 15	6.59
				Dec. 6	7.00

8-14-19cc. G. Nielson. Dug irrigation well, diameter 18 inches, depth 21 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.38 on Nov. 15, 1946; lowest, 6.18 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 11	4.40	Apr. 11	5.20	July 12	5.35
Feb. 15	5.32	May 10	5.62	Aug. 9	6.05
Mar. 13	5.10	June 5	5.64	Sept. 7	6.18
				Oct. 10	2.72
				Nov. 15	2.38
				Dec. 6	3.10

8-14-23ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.63 on Nov. 15, 1946; lowest, 5.25 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
May 10	5.02	July 12	4.68	Sept. 7	4.88
June 5	4.89	Aug. 9	5.25	Oct. 4	4.60
				Nov. 15	2.63
				Dec. 6	3.45

8-15-21dc. G. Raffety. Drilled irrigation well, diameter 18 inches, depth 32 feet. Measuring point, top of turbine plate, 0.5 foot above land-surface datum. Highest observed stage in period of record, 3.20 on Nov. 15, 1946; lowest, 7.00 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 10	6.18	Apr. 11	5.92	July 12	6.46
Feb. 15	6.03	May 10	6.32	Aug. 9	6.85
Mar. 13	5.88	June 5	6.27	Sept. 7	7.00
				Oct. 10	3.60
				Nov. 15	3.20
				Dec. 6	3.99

8-16-23dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum. Highest observed stage in period of record, 2.22 on Oct. 10, 1946; lowest, 5.65 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 15	4.94	May 10	5.35	Aug. 9	5.65
Mar. 13	4.82	June 5	5.22	Sept. 7	5.56
Apr. 11	4.96	July 12	5.28	Oct. 10	2.22
				Nov. 15	2.55
				Dec. 6	3.10

8-16-28aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 14.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.36 on Oct. 10, 1946; lowest, 7.60 on Sept. 7, 1946. Water levels, in feet below land-surface datum, 1946: Sept. 7, 7.60; Oct. 10, 4.36; Nov. 15, 4.58; Dec. 6, 4.90.

Keith County

13-35-5cc (Well 93 in previous reports) (*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). D. Thiessen. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 13	7.68	May 8	7.74	July 18	8.30
Apr. 15	7.60	June 4	7.82	Aug. 6	8.40
				Nov. 23	8.00

13-36-3ca (Well E37 in previous reports) (*988, p. 241; 1018, p. 198; 1025, p. 190). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 31	8.33	May 8	8.82	July 18	9.48
Apr. 15	8.30	June 4	8.98	Aug. 6	9.70
				Nov. 23	9.10

13-36-6bc (Well S28 in previous reports) (*988, p. 257; 1018, p. 203; 1025, p. 195). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	4.11	May 8	4.97	July 18	5.71	Nov. 23	4.80
Apr. 15	4.49	June 4	5.10	Aug. 6	5.90		

13-36-8cc. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 15 inches, depth 11 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Stevens Type F 8-day recorder installed Feb. 7, 1946. Highest observed stage in period of record, 3.69 on Mar. 28, 1946; lowest, 5.79 on Aug. 17-22, 1946.

Lowest daily water level, in feet below land-surface datum, 1946

(From recorder charts)

Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	4.10	3.83	4.46	4.52	5.36	5.66	5.49	5.50	4.72	4.24
2	....	4.09	3.84	4.36	4.52	5.38	5.67	5.50	5.06	4.74	4.17
3	....	4.10	3.90	4.37	4.52	5.40	5.68	5.49	5.07	4.75	4.17
4	....	4.11	3.91	4.39	4.53	5.41	5.69	5.49	5.07	4.74	4.13
5	....	4.11	3.91	4.43	4.54	5.43	5.70	5.48	5.06	4.74	4.12
6	....	4.09	3.92	4.45	4.57	5.43	5.71	5.48	5.05	4.71	4.11
7	3.78	4.14	3.95	4.45	4.60	5.43	5.72	5.46	5.05	4.69	4.11
8	3.80	4.13	3.95	4.45	4.65	5.42	5.72	5.43	4.93	4.69	4.14
9	3.79	4.11	3.95	4.45	4.69	5.41	....	5.38	4.92	4.67	4.14
10	3.83	4.08	3.91	4.46	4.73	5.42	....	5.20	4.90	4.66	4.12
11	3.82	3.99	3.90	4.47	4.75	5.44	....	5.00	4.90	4.65	4.08
12	3.88	4.00	3.87	4.49	4.84	5.46	....	4.96	4.88	....	4.09
13	3.89	4.00	3.86	4.50	4.89	5.48	5.75	4.94	4.87	4.66	4.09
14	3.91	3.98	3.94	4.52	4.95	5.49	5.75	4.93	4.86	4.65	4.03
15	3.91	3.98	3.97	4.54	5.00	5.49	5.77	4.92	4.85	4.58	4.09
16	3.95	3.94	3.99	4.55	5.04	5.50	5.78	4.91	4.84	4.50	4.14
17	3.96	3.81	4.03	4.56	5.06	5.51	5.79	4.91	4.81	4.44	4.14
18	3.99	3.76	4.05	4.59	5.07	5.52	5.79	4.91	4.81	4.37	4.04
19	4.01	3.75	4.08	4.61	5.07	5.53	5.79	4.91	....	4.33	4.00
20	4.01	3.74	4.12	4.63	5.09	5.55	5.79	4.90	....	4.34	4.00
21	4.04	3.79	4.15	4.64	5.10	5.55	5.79	4.91	4.76	4.34	3.97
22	4.06	3.79	4.21	4.66	5.12	5.56	5.79	4.95	4.76	4.29	3.91
23	4.08	3.79	4.22	4.68	5.14	5.58	5.75	4.95	4.75	4.27	3.88
24	4.08	3.80	4.26	4.68	5.17	5.60	5.68	....	4.75	4.28	3.84
25	4.09	3.83	4.30	4.66	5.20	5.60	5.63	....	4.74	4.25	3.85
26	4.10	3.81	4.32	4.64	5.22	5.61	5.58	4.99	4.75	4.25	3.86
27	4.10	3.72	4.36	4.63	5.25	5.61	5.53	5.02	4.75	4.27	3.95
28	4.10	3.69	4.40	4.62	5.28	5.61	5.50	5.03	4.73	4.23	3.98
29		3.76	4.43	4.61	5.31	5.63	5.48	5.04	4.74	4.22	4.05
30		3.77	4.46	4.58	5.34	5.65	5.47	5.04	4.75	4.24	4.15
31		3.78		4.54	....	5.48		4.74	....	....	....

13-37-3ab (Well 350 in previous reports) (*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). Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Lowest observed stage in period of record, 15.55 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	12.68	May 8	13.24	July 18	13.83	Nov. 23	14.00
Apr. 15	12.96	June 4	13.00	Aug. 6	15.55		

13-37-5aa (Well S27 in previous reports) (*908, p. 217; 938, p. 173; 946, p. 214; *988, p. 256; 1018, p. 203; 1025, p. 195). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	11.28	May 8	11.89	July 18	12.27	Nov. 23	12.00
Apr. 15	11.57	June 4	12.00	Aug. 6	13.00		

13-38-3ba (Well S26 in previous reports) (*908, p. 216; 938, p. 173; 946, p. 214; *988, p. 256; 1018, p. 203; 1025, p. 195). Central Nebraska Public Power and Irrigation District. Measurements supplied through Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	13.54	May 8	13.52	July 18	14.65	Nov. 23	14.00
Apr. 15	13.44	June 4	13.14	Aug. 6	15.05		

13-38-6bc (Well S29 in previous reports) (*988, p. 257; 1018, p. 204; 1025, p. 196). 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, 14.75 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	12.84	May 8	13.28	July 18	14.43	Nov. 22	14.20
Apr. 15	13.10	June 4	13.16	Aug. 6	14.75		

13-36-9ad. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 15 inches, depth 11 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Stevens Type F 8-day recorder installed on Feb. 7, 1946. Highest observed stage in period of record, 0.02 foot above land-surface datum on Mar. 16, 1946; lowest, 3.74 on Aug. 17-22, 1946.

Lowest daily water level, in feet below land-surface datum, 1946

(From recorder charts)											
Day	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	...	0.75	0.89	1.89	1.17	2.91	3.54	2.97	2.95	2.72	2.08
2	...	.76	.88	.80	1.26	2.94	3.54	3.02	2.96	2.73	2.08
3	...	.74	.94	1.09	1.35	2.95	3.57	3.03	2.97	...	2.08
4	...	.83	.97	1.22	1.47	2.98	3.58	3.08	2.97	2.73	2.06
5	...	.83	1.00	1.29	1.59	2.98	3.60	3.13	2.91	2.73	2.03
6	...	.85	1.01	.90	1.74	2.97	3.61	3.13	2.85	2.71	2.00
7	.86	.88	1.03	.99-	1.87	2.96	3.61	3.12	2.86	2.66	1.98
8	.87	.87	1.03	1.17	1.98	3.01	3.61	3.06	2.77	2.62	1.96
9	.83	.70	.56	1.30	2.11	3.05	3.61	2.98	2.75	2.61	1.95
10	.73	.28	.48	1.30	2.20	3.10	3.61	2.93	2.77	2.60	1.94
11	.76	.24	.62	1.32	2.25	3.13	3.61	2.94	2.77	2.60	1.94
12	.81	.25	.72	1.44	2.32	3.17	3.61	2.94	2.77	...	1.93
13	.80	.40	.75	1.54	2.39	3.21	3.55	2.94	2.77	2.59	1.92
14	.86	.45	.89	1.61	2.47	3.21	3.62	...	2.77	2.59	1.92
15	.85	.45	.97	1.67	2.53	3.20	3.69	...	2.75	2.54	1.91
16	.81	a.02	1.04	1.67	2.58	3.22	3.71	2.94	2.75	2.46	1.87
17	.74	.16	1.16	1.75	2.60	3.26	3.74	2.94	...	2.34	1.89
18	.66	.18	1.23	1.85	2.44	3.30	3.74	2.93	...	2.28	1.93
19	.68	.19	1.29	1.90	1.98	3.33	3.74	2.89	...	2.24	1.93
20	.64	.29	1.34	1.95	2.13	3.32	3.74	2.88	...	2.23	1.93
21	.59	.40	1.39	2.02	2.23	3.34	3.74	2.88	2.75	2.20	1.90
22	.59	.20	1.47	2.07	2.35	3.38	3.74	2.90	2.75	2.21	1.85
23	.59	.49	1.52	2.11	2.49	3.42	3.62	2.91	2.75	2.21	1.83
24	.57	.53	1.57	1.80	2.56	3.42	3.51	...	2.75	2.17	1.81
25	.56	.56	1.63	1.09	2.63	3.45	3.46	...	2.75	2.16	1.79
26	.65	...	1.69	1.34	2.69	3.44	3.42	2.93	2.75	2.16	1.75
27	.67	.32	1.75	1.52	2.74	3.43	3.33	2.95	2.75	2.15	...
28	.72	.58	1.79	1.53	2.79	3.38	3.20	2.96	2.75	2.13	...
29		.68	1.85	1.08	2.83	3.39	3.11	2.95	2.73	2.10	...
30		.85	1.89	.94	2.87	3.43	3.02	2.94	2.73	2.08	1.84
31		.87		1.05		3.50	2.93		2.73		...

a Above land-surface datum.

b Accuracy questionable.

13-39-10cc (Well S25 in previous reports) (*988, p. 256; 1018, p. 203; 1025, p. 195). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Published erroneously in previous reports as being Sec. 1, T. 13 N., R. 39 W.

13-39-10cc--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	4.85	May 8	5.32	July 18	5.72	Nov. 22	5.20
Apr. 15	4.56	June 4	5.20	Aug. 6	6.10		

13-39-34dd (Well 360 in previous reports) (*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 1946.

13-40-19cd (Well 358 in previous reports) (*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 322; 908, p. 209; 938, p. 170; *1018, p. 196). G. McGinley. No measurements made in 1946.

14-35-13bb (Well E17 in previous reports) (*988, p. 239; 1018, p. 197; 1025, p. 189). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	3.37	May 8	3.47	July 18	5.32	Nov. 23	3.30
Apr. 15	3.51	June 4	3.44	Aug. 6	5.32		

14-35-16db (Well E16 in previous reports) (*988, p. 238; 1018, p. 197; 1025, p. 189). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	6.38	May 8	5.66	July 18	8.09	Nov. 23	7.20
Apr. 15	5.77	June 4	5.76	Aug. 6	8.43		

14-35-24da (Well E21 in previous reports) (*988, p. 240; 1018, p. 198; 1025, p. 190). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	5.44	May 8	5.62	July 18	4.34	Nov. 23	4.10
Apr. 15	5.62	June 4	5.13	Aug. 6	4.25		

14-35-27aa (Well E18 in previous reports) (*988, p. 229; 1018, p. 198; 1025, p. 190). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	5.96	May 8	4.92	July 18	4.26	Nov. 23	5.40
Apr. 15	6.13	June 4	4.92	Aug. 6	4.03		

14-35-28bb (Well E20 in previous reports) (*988, p. 240; 1018, p. 198; 1025, p. 190). Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	3.36	May 8	3.23	July 18	3.56	Nov. 23	3.10
Apr. 15	3.40	June 4	3.10	Aug. 6	3.66		

14-36-8cb (Well E14 in previous reports) (*988, p. 237; 1018, p. 197; 1025, p. 189). 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, 3.52 on May 3, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	5.37	May 3	3.52	July 15	6.91	Nov. 29	5.20
Apr. 10	4.68	June 3	4.07	Aug. 2	7.74		

14-36-15bb (Well E15 in previous reports) (*988, p. 238; 1018, p. 197; 1025, p. 189). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	4.20	May 3	2.52	July 15	5.80	Nov. 29	5.10
Apr. 10	4.95	June 3	2.12	Aug. 2	5.99		

14-37-4ad (Well E11 in previous reports) (*988, p. 236; 1018, p. 197; 1025, p. 189). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	4.91	May 3	4.10	July 15	4.94	Nov. 29	4.60
Apr. 10	4.08	June 3	3.57	Aug. 2	5.27		

14-37-5ab (Well E9 in previous reports) (*988, p. 236; 1018, p. 197; 1025, p. 188). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	5.10	May 3	4.29	July 15	4.86	Nov. 29	5.00
Apr. 10	4.28	June 3	4.10	Aug. 2	4.95		

14-37-5bb (Well E7 in previous reports) (*988, p. 235; 1018, p. 196; 1025, p. 188). 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, 2.07 on Apr. 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	3.79	May 3	2.12	July 15	4.35	Nov. 29	3.70
Apr. 10	2.07	June 3	2.80	Aug. 2	4.60		

14-37-11bb (Well E12 in previous reports) (*988, p. 237; 1018, p. 197; 1025, p. 189). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	5.24	May 3	3.95	July 15	5.25	Nov. 29	4.50
Apr. 10	4.20	June 3	3.56	Aug. 2	5.50		

14-37-12bb (Well E13 in previous reports) (*988, p. 237; 1018, p. 197; 1025, p. 189). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	4.12	May 3	2.99	July 15	5.11	Nov. 29	3.20
Apr. 10	2.79	June 3	2.95	Aug. 2	5.55		

14-38-3cd (Well S10 in previous reports) (*908, p. 213; 938, p. 172; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 194). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. No measurements made in 1946.

14-38-3da (Well E19 in previous reports) (*988, p. 240; 1018, p. 198; 1025, p. 190). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	4.15	May 2	3.25	July 16	3.02	Nov. 29	4.00
Apr. 10	4.34	June 5	4.15	Aug. 2	3.20		

14-38-7db (Well S19 in previous reports) (*908, p. 214; 938, p. 172; 946, p. 213; *988, p. 255; 1018, p. 202; 1025, p. 194). 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, 127.15 on July 16, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	140.57	May 3	128.42	July 16	127.15	Nov. 22	131.80
Apr. 11	131.85	June 5	127.45	Aug. 3	129.63		

14-38-17ba (Well S18 in previous reports) (*886, p. 323; 908, p. 214; 938, p. 172; 946, p. 213; *988, p. 255; 1018, p. 202; 1025, p. 194). 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, 150.50 on Nov. 22, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 31	153.80	May 3	152.80	July 16	151.45	Nov. 22	150.50
Apr. 11	153.40	June 5	152.29	Aug. 3	153.00		

14-39-2cc (Well S20 in previous reports) (*908, p. 215; 938, p. 172; 946, p. 214; *988, p. 255; 1018, p. 202; 1025, p. 194). 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, 166.60 on Nov. 22, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 29	170.07	May 3	169.52	July 16	168.45	Nov. 22	166.60
Apr. 11	170.28	June 6	168.95	Aug. 3	170.25		

14-39-4cc (Well S21 in previous reports) (*886, p. 323; 908, p. 215; 938, p. 172; 946, p. 214; *988, p. 255; 1018, p. 203; 1025, p. 194). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Published erroneously in Water-Supply Papers 988, 1018, and 1025, as being in Sec. 4, T. 14 N., R. 34 W. Lowest observed stage in period of record, 106.42 on Aug. 3, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 29	149.80	May 3	104.69	July 16	104.78	Nov. 22	104.20
Apr. 11	104.60	June 5	104.85	Aug. 3	106.42		

14-39-32dc (Well S32 in previous reports) (*908, p. 217; 938, p. 173; 946, p. 214; *988, p. 258; 1018, p. 204; 1025, p. 196). Ellen Kelly. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 3.92 on July 16, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 29	9.25	May 3	(a)	July 16	3.92	Nov. 22	9.50
Apr. 11	(a)	June 5	(a)	Aug. 3	7.22		

a Flooded.

15-37-29cc (Well E8 in previous reports) (*988, p. 235; 1018, p. 197; 1025, p. 189). 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, 1.33 on May, 3, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 23	4.41	May 3	1.33	July 15	4.94	Nov. 29	3.30
Apr. 10	1.97	June 3	2.83	Aug. 2	5.78		

15-38-4da (Well N6 in previous reports) (*908, p. 210; 938, p. 170; 946, p. 212; *988, p. 242; 1018, p. 198; 1025, p. 191). 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, 5.30 on Jan. 23, 1946.

15-38-4da--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	5.30	May 2	5.23	July 15	5.12	Nov. 29	4.90
Apr. 11	5.25	June 3	4.70	Aug. 2	5.25		

15-38-16bb (Well N5 in previous reports) (*908, p. 209; 938, p. 170; 946, p. 212; *988, p. 242; 1018, p. 198). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Well dry; measurements discontinued.

15-38-20aa (Well N4 in previous reports) (*908, p. 209; 938, p. 170; 946, p. 212; *988, p. 241; 1019, p. 198; 1025, p. 190). 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, 1946							
Jan. 23	17.16	May 2	17.02	July 15	16.99	Nov. 29	16.80
Apr. 11	17.07	June 3	17.06	Aug. 2	16.98		

15-38-21dd (Well N18 in previous reports) (*908, p. 211; 938, p. 171; 946, p. 212; *988, p. 247; 1018, p. 200; 1025, p. 192). 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, 8.70 on Nov. 29, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 23	14.28	May 2	12.17	July 15	10.45	Nov. 29	8.70
Apr. 11	12.66	June 3	11.38	Aug. 2	10.00		

15-38-23cc (Well N19 in previous reports) (*988, p. 247; 1018, p. 200; 1025, p. 192). 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, 8.02 on July 15, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 23	9.69	May 2	8.16	July 15	8.02	Nov. 29	9.00
Apr. 11	8.80	June 3	8.13	Aug. 2	8.72		

15-38-27cc (Well N23 in previous reports) (*988, p. 249; 1018, p. 200; 1025, p. 192). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Well flooded; measurements discontinued.

15-38-28aa (Well N42 in previous reports) (*908, p. 213; 938, p. 172; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 194). 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, 35.38 on June 3, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 23	44.76	May 2	36.50	July 15	36.04	Nov. 29	41.90
Apr. 11	38.38	June 3	35.38	Aug. 2	37.49		

15-38-34ad (Well E1 in previous reports) (*988, p. 233; 1018, p. 196; 1025, p. 188). 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, 1946					
Date	Water level	Date	Water level	Date	Water level
Jan. 23	7.35	May 3	6.78	July 15	7.02
Apr. 10	7.00	June 3	6.44	Nov. 29	6.50

15-38-34ac (Well E2 in previous reports) (*988, p. 234; 1018, p. 196; 1025, p. 188). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 23	7.51	May 3	6.95	July 15	6.14
Apr. 10	8.06	June 5	7.38	Nov. 29	7.30

15-38-34ca (Well E3 in previous reports) (*988, p. 234; 1018, p. 196; 1025, p. 188). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 23	9.71	May 3	8.65	July 15	8.18
Apr. 10	9.30	June 5	9.34	Nov. 29	8.40

15-38-36bb (Well N20 in previous reports) (*988, p. 248; 1018, p. 200; 1025, p. 192). 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, 11.10 on Aug. 2, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	10.45	May 3	10.12	July 15	10.60	Nov. 29	9.70
Apr. 10	10.18	June 3	9.45	Aug. 2	11.10		

15-38-36dc (Well E6 in previous reports) (*988, p. 234; 1018, p. 196; 1025, p. 188). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	7.70	May 3	7.12	July 15	7.53	Nov. 29	7.40
Apr. 10	7.23	June 3	6.72	Aug. 2	8.02		

15-39-1aa (Well N16 in previous reports) (*988, p. 246; 1018, p. 200). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. No measurements made in 1946.

15-39-5bc (Well N25 in previous reports) (*908, p. 212; 938, p. 171; 946, p. 213; *988, p. 250; 1018, p. 201; 1025, p. 193). 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, 35.90 on Nov. 21, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	35.82	May 4	35.86	July 17	35.89	Nov. 21	35.90
Apr. 12	35.85	June 6	35.86	Aug. 5	35.25		

15-39-17aa (Well N24 in previous reports) (*988, p. 249; 1018, p. 200; 1025, p. 192). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	6.79	May 4	6.56	July 17	6.78	Nov. 21	6.30
Apr. 10	6.48	June 6	6.52	Aug. 5	7.00		

15-39-24da (Well N41 in previous reports) (*908, p. 213; 938, p. 171; 946, p. 213; *988, p. 254; 1018, p. 202; 1025, p. 193). 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, 43.40 on Nov. 29, 1946.

15-39-24da--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	50.69	May 2	47.99	July 15	43.95	Nov. 29	43.40
Apr. 11	48.50	June 3	46.54	Aug. 2	43.72		

15-39-31bc (Well S22 in previous reports) (#908, p. 215; 938, p. 172; 946, p. 214; #988, p. 255; 1018, p. 203; 1025, p. 195). 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, 78.27 on July 16, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 29	84.20	May 3	81.02	July 16	78.27	Nov. 22	79.30
Apr. 11	82.10	June 5	78.87	Aug. 3	78.45		

15-40-17cc (Well S24 in previous reports) (#908, p. 216; 938, p. 173; 946, p. 214; #988, p. 256; 1018, p. 203; 1025, p. 195). 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, 65.54 on Aug. 3, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 29	69.54	May 3	67.65	July 16	65.70	Nov. 21	67.20
Apr. 11	68.53	June 5	67.34	Aug. 3	65.54		

15-40-26aa (Well S34 in previous reports) (#988, p. 258; 1018, p. 204; 1025, p. 196). Mary E. Paul. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 18.91 on June 5, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 29	28.10	May 3	19.90	July 16	20.63	Nov. 22	27.40
Apr. 11	22.03	June 5	18.91	Aug. 3	22.62		

15-40-27dd (Well S23 in previous reports) (#886, p. 323; 908, p. 216; 938, p. 173; 946, p. 214; #988, p. 255; 1018, p. 203; 1025, p. 195). C. Samuelson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 98.84 on July 16, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 29	102.80	May 3	102.00	July 16	98.84	Nov. 22	99.30
Apr. 11	102.75	June 5	100.80	Aug. 3	99.96		

16-38-7aa (Well N12 in previous reports) (#988, p. 244; 1018, p. 199; 1025, p. 191). Key well US 58. 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, 1946							
Jan. 23	9.69	Apr. 1	9.70	June 3	9.43	Aug. 2	9.92
Feb. 2	9.72	11	9.52	July 1	9.57	31	10.09
Mar. 1	9.70	May 1	9.52	15	9.74	Nov. 29	9.80

16-38-7cc (Well N13 in previous reports) (#988, p. 244; 1018, p. 199; 1025, p. 191). 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, 8.77 on June 3, 1946.

Water level, in feet below land-surface datum, 1946							
Jan. 23	8.51	May 2	8.22	July 15	7.35	Nov. 29	8.00
Apr. 11	8.50	June 3	8.77	Aug. 2	7.58		

16-38-28ad (Well N9 in previous reports) (#908, p. 211; 938, p. 171; 946, p. 212; #988, p. 243; 1018, p. 199; 1025, p. 191). 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, 13.90 on Aug. 2, 1946.

16-38-28ad--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	13.51	May 2	13.40	July 15	13.67	Nov. 29	13.40
Apr. 11	13.55	June 3	13.31	Aug. 2	13.90		

16-38-30aa (Well N14 in previous reports) (*988, p. 245; 1018, p. 199; 1025, p. 191). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	10.28	May 2	9.72	July 15	10.46	Nov. 29	10.40
Apr. 11	10.30	June 3	10.32	Aug. 2	10.55		

16-38-30ab (Well 255 in previous reports) (*817, p. 141; 840, p. 208; 845, p. 177; 886, p. 321; 908, p. 208; 938, p. 170; 946, p. 211; *1018, p. 196). University of Nebraska. No measurements made in 1946.

16-38-33ad (Well N8 in previous reports) (*988, p. 242; 1018, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	(a)	May 2	1.90	July 15	1.72	Nov. 29	1.50
Apr. 11	1.26	June 3	1.22	Aug. 2	1.82		

a Frozen.

16-38-34bc (Well N7 in previous reports) (*908, p. 210; 938, p. 170; 946, p. 212; *988, p. 242; 1018, p. 199; 1025, p. 191). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23	10.23	May 2	10.18	July 15	10.04		
Apr. 11	10.19	June 3	10.05	Aug. 2	10.19		

16-39-7aa (Well N30 in previous reports) (*988, p. 251; 1018, p. 201; 1025, p. 193). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	9.14	May 4	9.43	July 17	9.18	Nov. 21	9.30
Apr. 12	9.43	June 6	9.43	Aug. 5	8.94		

16-39-20aa (Well N28 in previous reports) (*988, p. 250; 1018, p. 201; 1025, p. 193). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	9.78	May 4	9.62	July 17	9.72	Nov. 21	10.00
Apr. 12	9.64	June 6	9.50	Aug. 5	9.84		

16-39-32bc (Well N26 in previous reports) (*988, p. 250; 1018, p. 201; 1025, p. 193). 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, 11.80 on Nov. 21, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	10.99	May 4	10.64	July 17	11.08	Nov. 21	11.80
Apr. 12	10.55	June 6	10.75	Aug. 5	11.02		

16-40-2da (Well N32 in previous reports) (*988, p. 252; 1018, p. 201; 1025, p. 193). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels as published for 1944 are incorrect; corrected water levels are included in tabulation below.

Water level, in feet below land-surface datum, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 11, 1944	12.33	Oct. 6, 1944	12.49	June 6, 1946	13.25
June 7	12.32	Jan. 29, 1946	12.83	July 17	13.33
July 13	12.36	Apr. 12	13.23	Aug. 5	13.34
Aug. 4	12.40	May 4	13.29	Nov. 21	13.40
Sept. 14	12.47				

16-40-14bb (Well N33 in previous reports) (*988, p. 253; 1018, p. 201; 1025, p. 193). 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, 1946: Jan. 29, 12.13; Apr. 12, 12.09; May 4, 11.94.

16-41-34dc (Well N37 in previous reports) (*886, p. 323; 938, p. 171; 908, p. 213; 946, p. 213; *988, p. 253; 1018, p. 201; 1025, p. 193). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	12.60	May 4	11.76	July 17	11.32	Nov. 21	14.00
Apr. 12	12.18	June 6	11.30	Aug. 5	12.10		

Keya Paha County

32-20-19dc (Well 375 in previous reports) (*817, p. 143; 840, p. 209; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 988, p. 259; 1018, p. 204). University of Nebraska. No measurements made in 1946.

Kimball County

15-55-17cc (Well 327 in previous reports) (*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). Kimball Irrigation District. No measurements made in 1946.

15-57-32bb (Well 88 in previous reports) (*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). W. Settlemire. Water levels, in feet below land-surface datum, 1946: Jan. 30, 34.34; Mar. 5, 34.31; Dec. 16, 34.06.

16-54-12aa (Well 89 in previous reports) (*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). H. McGowan. No measurements made in 1946.

Knox County

29-2-27dd (Well 370 in previous reports) (*817, p. 145; 840, p. 211; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). Lunberg Bros. No measurements made in 1946.

30-3-11aa (Well 67 in previous reports) (*817, p. 144; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). W. Krohm. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 121.47. Water level, in feet below land-surface datum, 1946: Dec. 28, 21.27.

32-6-8dd (Well 336 in previous reports) (*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). W. MacGraw. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.12. Water level, in feet below land-surface datum, 1946: Dec. 28, 13.95.

33-7-30bc (Well 429 in previous reports) (*886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 113.69. Highest observed stage in period of record, 12.76 on Dec. 28, 1946. Water level, in feet below land-surface datum, 1946: Dec. 28, 12.76.

33-7-30cb (Well 335 in previous reports) (*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 324; 908, p. 218; 938, p. 174; 946, p. 215; *988, p. 259). University of Nebraska. Water level, in feet below land-surface datum, 1946: Dec. 28, 10.25.

Lancaster County

A7-7-34da (Well 1 in previous reports) (*817, p. 145; 840, p. 210; 908, p. 219). Mrs. Burling. Measurements discontinued. Replaced by well A7-7-35cb.

A7-7-35cb. University of Nebraska. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 42 feet. Measuring point, top of casing, 0.5 foot above land-surface datum. Lowest observed stage in period of record, 26.46 on Oct. 17, 1946.

Water level, in feet below land-surface datum, 1940-42, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
July 6, 1940	26.32	Oct. 7, 1941	25.95	Oct. 24, 1944	25.17
Oct. 17	26.46	16, 1942	25.73	Dec. 23, 1946	24.91

A9-5-21aa (Well 13 in previous reports) (*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). Miss Brady. Certain previously published water levels are in error; complete record of measurements is presented in table below. Highest observed stage in period of record, 20.70 on Dec. 23, 1946; lowest, 28.40 on Jan. 4, 1936.

Water level, in feet below land-surface datum, 1934-42, 1946.

July 23, 1934	22.35	Nov. 11, 1935	23.37	Oct. 10, 1938	23.37
Oct. 25	22.49	Dec. 16	24.44	May 23, 1939	23.75
Dec. 13	22.96	Jan. 4, 1936	28.40	Nov. 17	24.26
Feb. 9, 1935	22.80	July 27	28.13	Mar. 19, 1940	24.46
Apr. 8	23.27	Oct. 6	25.56	July 8	24.70
May 24	22.82	Mar. 18, 1937	24.48	Oct. 16	25.03
July 2	21.33	June 2	24.49	4, 1941	24.73
31	22.90	Aug. 3	24.38	23, 1942	23.71
Sept. 3	22.78	Oct. 7	24.47	Dec. 23, 1946	20.70
Oct. 5	23.00	July 7, 1938	23.87		

A9-7-28cc (Well 366 in previous reports) (*817, p. 146; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 215). H. Holian. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 109.46. Water level, in feet below land-surface datum, 1946: Dec. 23, 5.93.

A10-6-35cc (Well 367 in previous reports) (*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219). F. Jappert. Measurements discontinued.

A11-6-6ab (Well 14 in previous reports) (*817, p. 145; 840, p. 210; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; *018, p. 205). W. Brightenburg. Water levels, in feet below land-surface datum, 1946: Feb. 13, 40.98; Mar. 8, 40.78; June 12, destroyed.

Lincoln County

9-29-4cb (Well 134 in previous reports) (*817, p. 146; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216; *1018, p. 205). G. Roethemeyer. No measurements made in 1946.

10-32-17cc (Well 144 in previous reports) (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 174; 946, p. 216; *1018, p. 205). J. Fristo. No measurements made in 1946.

11-26-15bb (Well U41 in previous reports) (*988, p. 285; 1018, p. 214; 1025, p. 208). 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, 1946: Jan. 15, 9.28; Apr. 8, 9.22; May 17, 9.00.

11-26-15cc (Well U42 in previous reports) (*908, p. 224; 938, p. 177; 946, p. 219; *988, p. 285; 1018, p. 214; 1025, p. 208). Sheldon. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 15, 11.70; Apr. 8, 12.39; May 17, 11.48; June 10, 11.53.

11-26-16bb (Well U40 in previous reports) (*908, p. 224; 938, p. 171; 946, p. 219; *988, p. 285; 1018, p. 214; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	10.18	May 17	10.83	Aug. 2	10.45	Dec. 4	a 9.17
Apr. 8	10.95	June 10	10.82	Oct. 30	a 9.00		

a By U. S. Geological Survey.

11-26-22dd (Well U43 in previous reports) (*908, p. 225; 938, p. 177; 946, p. 219; *988, p. 286; 1018, p. 214; 1025, p. 208). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. New windmill to be installed; measurements discontinued after Dec. 10.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	25.66	May 17	26.83	Aug. 6	24.78
Apr. 10	27.01	June 10	26.98	Dec. 10	a 23.99

a By U. S. Geological Survey.

12-25-31ca (Well U46 in previous reports) (*988, p. 286; 1018, p. 214; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	3.26	May 17	2.60	Aug. 2	2.55
Apr. 8	3.40	June 8	2.62		

12-26-35db. R. D. McWha. Drilled irrigation well, diameter 24 inches, depth 42 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.74 on Dec. 4, 1946; lowest, 10.37 on Mar. 28, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 28, 10.37; Oct. 9, 10.32; Oct. 31, 9.94; Dec. 4, 9.74.

12-27-11bd (Well U37 in previous reports) (*988, p. 284; 1018, p. 213; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 9	6.29	Apr. 10	6.47	June 6	5.32
Feb. 27	6.33	May 16	6.84	Aug. 6	7.24

12-27-14aa (Well 241 in previous reports) (*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). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	a 5.57	May 16	a 6.16	Aug. 6	a 6.17	Oct. 31	5.87
Feb. 27	a 5.61	June 6	a 5.23	Oct. 9	5.17	Dec. 4	5.73
Apr. 10	a 5.83						

a Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

12-27-16aa (Well U30 in previous reports) (*988, p. 282; 1018, p. 213; 1025, 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, 1946

Jan. 9	4.12	May 16	4.67	Aug. 6	4.47	Dec. 4	a 4.18
Apr. 10	4.44	July 31	4.54	Oct. 30	a 4.22		

a By U. S. Geological Survey.

12-27-20dd (Well U34 in previous reports) (*908, p. 223; 938, p. 177; 946, p. 218; *988, p. 283; 1018, p. 213; 1025, 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, 14.10 on Dec. 4, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	14.22	May 17	14.34	Aug. 2	14.39	Dec. 4	a 14.10
Apr. 8	15.22	June 8	14.11	Oct. 30	a 14.15		

a By U. S. Geological Survey.

12-27-26dc (Well U38 in previous reports) (*908, p. 224; 938, p. 177; 946, p. 219; *988, p. 284; 1018, p. 214; 1025, p. 207). 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, 1946: Jan. 15, 6.55; Apr. 8, 6.62; May 17, 6.55; June 8, 6.23.

12-27-27ad (Well U31 in previous reports) (*988, p. 282; 1018, p. 213; 1025, 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, 1946

Jan. 15	4.88	May 17	5.00	Aug. 2	5.40	Dec. 5	a 4.37
Apr. 8	4.61	June 8	4.47	Oct. 30	a 4.53		

a By U. S. Geological Survey.

12-27-34da (Well U77 in previous reports) (*988, p. 286; 1018, p. 215; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	24.31	May 17	23.58	Aug. 2	23.82
Apr. 8	24.84	June 8	23.67		

12-27-35aa (Well JS4 in previous reports) (*908, p. 221; 938, p. 176; 946, p. 217; *988, p. 269; 1018, p. 209; 1025, p. 202). 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, 1946

Jan. 15	15.33	May 17	15.31	Aug. 2	15.09
Apr. 8	15.74	June 8	14.99		

12-27-35ad (Well U79 in previous reports) (*988, p. 287; 1018, p. 215; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	18.29	May 17	17.95	Aug. 2	17.58
Apr. 8	19.12	June 8	17.71		

12-27-35bb (Well JS2 in previous reports) (*908, p. 221; 938, p. 175; 946, p. 217; *988, p. 268; 1018, p. 209; 1025, p. 202). 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, 1946

Jan. 15	18.67	May 17	18.28	Aug. 2	18.65
Apr. 8	19.05	June 8	18.12		

12-27-35bc (Well U78 in previous reports) (*988, p. 287; 1018, p. 215; 1025, 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, 1946

Jan. 15	21.70	May 17	20.80	Aug. 2	22.38
Apr. 8	22.89	June 8	21.02		

12-27-35cb (Well JS1 in previous reports) (*908, p. 221; 938, p. 175; 946, p. 217; *988, p. 268; 1018, p. 209; 1025, p. 201). 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, 1946

Jan. 15	26.41	May 17	26.05	Aug. 2	26.95
Apr. 8	26.96	June 8	26.05		

12-27-35da1 (Well JS3 in previous reports) (*908, p. 221; 938, p. 176; 946, p. 217; *988, p. 268; 1018, p. 209; 1025, p. 202). 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, 1946

Jan. 15	22.78	May 17	22.44	Aug. 2	22.52
Apr. 8	23.30	June 8	22.35		

12-27-35da2 (Well U80 in previous reports) (*988, p. 287; 1018, p. 215; 1025, p. 209). 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, 24.26 on Aug. 2, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	24.38	May 17	24.39	Aug. 2	24.26
Apr. 8	24.42	June 8	24.33		

12-27-36ad (Well U39 in previous reports) (*988, p. 284; 1018, p. 215; 1025, 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	4.78	May 17	5.44	Aug. 2	3.89	Dec. 5	4.86
Apr. 8	5.16	June 8	4.44	Oct. 30	4.72		

a By U. S. Geological Survey.

12-28-4ad (Well U28 in previous reports) (*988, p. 281; 1018, p. 212; 1025, p. 206). 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, 1946: Jan. 9, 4.25; Apr. 10, 4.00; May 6, 4.73; Aug. 6, 5.86.

12-28-9bc (Well U23 in previous reports) (*988, p. 278; 1018, p. 212; 1025, p. 205). 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, 4.77 on Dec. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	5.09	May 17	5.30	Aug. 2	5.79	Dec. 4	a 4.77
Apr. 8	5.13	June 8	5.06	Oct. 30	a 5.12		

a By U. S. Geological Survey.

12-28-11aa (Well U29 in previous reports) (*988, p. 281; 1018, p. 212; 1025, p. 206). 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, 1946: Jan. 9, 2.13; Apr. 10, 2.11; May 16, 2.72; Aug. 6, 3.82.

12-28-14dd (Well U33 in previous reports) (*908, p. 223; 938, p. 177; 946, p. 218; *988, p. 283; 1018, p. 213; 1025, 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, 27.59 on Dec. 5, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	27.87	May 17	27.98	Aug. 2	28.25	Dec. 5	a 27.59
Apr. 8	27.91	June 8	28.02	Oct. 30	a 27.79		

a By U. S. Geological Survey.

12-28-15ba (Well U32 in previous reports) (*908, p. 223; 938, p. 176; 946, p. 218; *988, p. 282; 1018, p. 213; 1025, 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, 11.96 on Oct. 30, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 15	12.21	May 17	12.57	Aug. 2	12.51	Dec. 5	a 11.99
Apr. 8	12.35	June 8	12.39	Oct. 30	a 11.96		

a By U. S. Geological Survey.

13-27-32bd (Well U36 in previous reports) (*988, p. 283; 1018, p. 213; 1025, 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, 1946

Jan. 9	2.30	Apr. 10	2.79	June 6	2.81	Oct. 31	a 3.24
Feb. 27	2.55	May 16	3.55	Aug. 6	4.19	Dec. 4	a 2.95

a By U. S. Geological Survey.

13-28-21da (Well U27 in previous reports) (*988, p. 280; 1018, p. 212; 1025, p. 205). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 9	1.71	June 7	2.44	Oct. 31	a 2.25
Apr. 10	2.02	Aug. 6	5.71	Dec. 4	a 1.59

a By U. S. Geological Survey.

13-28-25bc. M. Roberts. Drilled irrigation well, diameter 6 inches, depth 18 feet. Measuring point, top of 6-inch pipe, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Oct. 31, 4.48; Dec. 4, 3.62.

13-28-29cc (Well U26 in previous reports) (*988, p. 280; 1018, p. 212; 1025, p. 205). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 9	4.89	May 16	5.46	Dec. 4	a 5.00
Apr. 10	5.14	Oct. 31	a 4.72		

a By U. S. Geological Survey.

13-28-31cc (Well U22 in previous reports) (*908, p. 223; 938, p. 176; 946, p. 218; *988, p. 278; 1018, p. 212; 1025, p. 205). 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, 3.39 on Oct. 30, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	4.54	May 17	5.24	Aug. 2	4.73	Dec. 4	a 3.66
Apr. 5	4.82	June 10	4.92	Oct. 30	3.39		

a By U. S. Geological Survey.

13-29-4cc (Well U8 in previous reports) (*988, p. 272; 1018, p. 210; 1025, p. 203). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	5.53	June 7	5.56	Oct. 31	a 5.32		
Apr. 5	5.40	Aug. 2	6.19	Dec. 4	a 5.12		

a By U. S. Geological Survey.

13-29-5bc (Well U6 in previous reports) (*988, p. 271; 1018, p. 210; 1025, p. 202). 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, 1946: Jan. 8, 2.37; Apr. 5, 2.39; June 7, 2.50; Aug. 2, 3.23.

13-29-5cb (Well U5 in previous reports) (*988, p. 270; 1018, p. 210; 1025, p. 202). 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, 1946: Jan. 8, 2.26; Apr. 5, 2.21; June 7, 2.59; Aug. 2, 3.93.

13-29-6ba (Well U17 in previous reports) (*988, p. 276; 1018, p. 211; 1025, p. 204). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	2.55	June 7	2.83	Oct. 31	a 2.95		
Apr. 5	2.62	Aug. 2	4.00	Dec. 4	a 2.74		

a By U. S. Geological Survey.

13-29-6bb (Well U3 in previous reports) (*988, p. 269; 1018, p. 209; 1025, p. 202). 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, 1946: Jan. 8, 3.01; Apr. 5, 3.05; June 7, 3.31; Aug. 2, 4.31.

13-29-6bd (Well U18 in previous reports) (*988, p. 277; 1018, p. 2211; 1025, p. 204). 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, 1946: Jan. 8, 3.43; Apr. 5, 3.35; June 7, 3.50; Aug. 2, 4.82.

13-29-6ca (Well U19 in previous reports) (*988, p. 277; 1018, p. 211; 1025, p. 204). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Measurement on June 7 by U. S. Geological Survey. Highest observed stage in period of record, 3.07 on June 7, 1946. Water levels, in feet below land-surface datum, 1946: Jan. 8, 3.08; Apr. 5, 3.17; June 7, 3.07; Aug. 2, 3.85.

13-29-6dd (Well U4 in previous reports) (*988, p. 269; 1018, p. 210; 1025, p. 202). Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 8, 3.99; Apr. 5, 4.66; June 7, 4.79; Aug. 2, 4.59.

13-29-9bc (Well U7 in previous reports) (*988, p. 271; 1018, p. 210; 1025, p. 203). 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, 1946: Jan. 8, 4.87; Apr. 5, 5.41; June 7, 5.67; Aug. 2, 5.34.

13-29-16ad (Well U25 in previous reports) (*988, p. 279; 1018, p. 212; 1025, p. 205). 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, 1946: Jan. 9, 5.69; Apr. 10, 5.66; May 16, 5.99.

13-29-17bc (Well U13 in previous reports) (*988, p. 274; 1018, p. 211; 1025, p. 203). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	3.84	May 17	3.78	Aug. 2	3.26
Apr. 5	3.77	June 13	3.71	Dec. 3	3.40

13-29-18bb (Well U11 in previous reports) (*988, p. 273; 1018, p. 210; 1025, p. 203). 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, 1946

Jan. 15	4.05	May 17	4.07	Aug. 2	4.15
Apr. 5	4.04	June 7	4.10	Dec. 3	3.80

13-29-20aa (Well U15 in previous reports) (*988, p. 275; 1018, p. 211; 1025, p. 204). 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, 1946

Jan. 15	3.88	May 17	3.88	Aug. 2	4.03
Apr. 5	3.59	June 13	3.82	Dec. 3	3.30

13-29-20bb (Well U14 in previous reports) (*908, p. 222; 938, p. 176; 946, p. 218; *988, p. 275). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Well reported plugged after Aug. 6, 1943; measurements resumed Feb. 14, 1945.

Water level, in feet below land-surface datum, 1945-46

Feb. 14, 1945	6.54	July 5, 1945	6.63	May 17, 1946	6.59
Mar. 1	6.52	Aug. 6	6.60	June 13	6.02
Apr. 5	6.63	Sept. 1	6.65	Aug. 2	6.69
May 2	6.65	Jan. 15, 1946	6.69	Oct. 30	a 5.94
June 1	6.64	Apr. 5	6.41	Dec. 4	a 6.15

a By U. S. Geological Survey.

13-29-21dd (Well U20 in previous reports) (*988, p. 278; 1018, p. 211; 1025, p. 204). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	1.69	May 17	2.09	Aug. 20	3.10
Apr. 5	1.75	June 13	2.44	Dec. 3	1.80

13-29-25bb (Well U24 in previous reports) (*988, p. 279; 1018, p. 212; 1025, p. 205). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 9	4.66	May 16	4.92	Oct. 31	a 4.15
Apr. 10	4.51	Aug. 6	5.09	Dec. 4	a 4.34

a By U. S. Geological Survey.

13-29-35ab (Well U21 in previous reports) (*908, p. 222; 938, p. 176; 946, p. 218; *988, p. 278; 1018, p. 211; 1025, p. 204). 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, 1946: Jan. 15, 8.91; Apr. 5, 9.16; May 17, 9.38. Measurements discontinued.

13-29-35bb. Drilled irrigation well, diameter 24 inches, depth 49.7 feet. Measuring point, base of turbine, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Oct. 31, 15.39; Dec. 4, 16.15.

13-30-1ba (Well U16 in previous reports) (*988, p. 276; 1018, p. 211; 1025, p. 204). 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, 1946: Jan. 8, 7.23; Apr. 5, 7.35; June 7, 7.26; Aug. 2, 6.54.

13-30-3ad. Central Nebraska Public Power and Irrigation District. Driven observation well, diameter 2 inches. Measuring point, top of pipe, 0.5 foot above land-surface datum. Highest observed stage in period of record, 2.10 on May 8, 1942; lowest, 2.47 on Sept. 27, 1940.

Water level, in feet below land-surface datum, 1938-46

Dec. 9, 1938	4.29	Feb. 28, 1941	3.78	Nov. 8, 1943	4.66
Jan. 3, 1939	4.23	Apr. 11	4.11	Dec. 13	4.40
Feb. 2	4.12	May 6	3.88	Jan. 6, 1944	4.35
Mar. 3	4.06	June 11	4.20	Mar. 8	3.60
Apr. 5	3.69	July 8	4.96	May 11	3.34
May 5	3.99	Aug. 5	4.31	Aug. 21	5.31
June 3	4.24	Oct. 6	4.18	Sept. 14	5.14
July 6	5.12	Nov. 5	4.18	Oct. 23	4.83
Aug. 5	5.08	Dec. 4	4.20	Nov. 20	4.71
Sept. 1	6.09	May 2, 1942	3.90	Dec. 18	4.32
Oct. 2	6.09	Apr. 9	3.55	Jan. 10, 1945	4.23
31	5.48	May 8	2.10	Feb. 11	4.09
Dec. 6	5.05	Sept. 10	2.70	Mar. 1	4.13
Jan. 2, 1940	4.75	Oct. 9	3.88	Apr. 4	4.26
31	4.40	Dec. 2	4.10	May 2	4.15
Mar. 2	4.23	Jan. 26, 1943	4.04	June 1	4.06
Apr. 3	4.19	Feb. 2	3.92	July 5	4.20
May 4	4.31	Mar. 2	3.82	Aug. 6	4.24
27	5.26	Apr. 6	3.91	Oct. 17	4.31
June 28	5.19	May 10	4.01	Jan. 8, 1946	4.05
July 26	6.03	June 7	3.75	Apr. 5	4.07
Aug. 30	6.22	July 7	4.33	June 7	3.94
Sept. 27	6.47	Aug. 5	5.08	Aug. 2	5.42
Oct. 30	5.27	Sept. 13	5.72	Oct. 31	a 4.00
Dec. 30	4.79	Oct. 7	5.08	Dec. 4	a 3.97
Feb. 3, 1941	4.48				

a By U. S. Geological Survey.

13-30-4cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 2,802.55 feet above sea level. Measurement supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 4.97 on Oct. 9, 1946; lowest, 6.54 on Oct. 30, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 24	6.70	Sept. 12	6.80	Oct. 15	5.80	Dec. 4 a	6.47
July 9	6.75	24	6.80	30 a	6.54	14	6.60
Aug. 2	7.00	Oct. 9 a	4.97				

a By U. S. Geological Survey.

13-30-9cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 2,800.85 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 11	2.70	Sept. 24	2.90	Oct. 15	1.60	Dec. 4 a	1.55
Aug. 2	3.24	Oct. 9 a	1.31	31 a	1.85	14	1.75
Sept. 12	3.00						

a By U. S. Geological Survey.

13-30-13bc (Well U9 in previous reports) (*988, p. 272; 1018, p. 210; 1025, p. 203). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	2.98	May 17	3.00	Aug. 2	4.04
Apr. 5	2.72	June 13	3.08	Dec. 3	2.60

13-30-13dd (Well U12 in previous reports) (*908, p. 222; 938, p. 176; 946, p. 218; *988, p. 274; 1018, p. 210; 1025, p. 203). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	10.14	May 17	10.18	Aug. 2	11.39	Dec. 4 a	9.78
Apr. 5	9.82	June 13	9.96	Oct. 30 a	10.01		

a By U. S. Geological Survey.

13-30-14dc (Well U10 in previous reports) (*988, p. 273; 1018, p. 210; 1025, p. 203). 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, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 15	4.86	May 17	4.61	Aug. 2	5.23
Apr. 5	4.45	June 13	4.40	Dec. 3	4.35

13-30-21bb (Well 242 in previous reports) (*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). Nebraska Agricultural College. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District.

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13-30-21bb--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	b 11.94	Apr. 25	11.70	Aug. 2	b 12.89	Oct. 15	12.10
21	12.00	May 4	11.70	9	12.80	30	a 11.94
Feb. 20	11.80	17	b 11.70	Sept. 12	12.70	Dec. 4	a 11.75
Mar. 22	11.70	June 1	11.70	24	12.75	14	11.60
Apr. 5	b 11.67	13	b 11.88	Oct. 9	a 12.12		

a By U. S. Geological Survey.

b Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

13-30-25bb (Well 383 in previous reports) (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). Lech Bros. No measurements made in 1946.

13-34-32da (Well E38 in previous reports) (*908, p. 220; 938, p. 175; 946, p. 217; *988, p. 267; 1018, p. 209; 1025, p. 201). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	11.91	May 8	12.22	July 18	12.75	Nov. 23	12.20
Apr. 15	12.03	June 4	12.24	Aug. 6	12.90		

14-30-8cb (Well E32 in previous reports) (*988, p. 265; 1018, p. 208; 1025, p. 200). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	2.82	May 8	2.70	July 18	3.77	Nov. 23	2.40
Apr. 15	2.50	June 4	2.60	Aug. 6	3.89		

14-30-9ca. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 25.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 2,833.35 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 3.78 on Dec. 4, 1946; lowest, 6.05 on Sept. 12, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 23	4.50	July 11	5.00	Oct. 9	a 3.90	Dec. 4	a 3.78
25	3.90	Sept. 12	6.05	31	a 4.16	18	4.00

a By U. S. Geological Survey.

14-30-16db. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 2,807.83 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 0.40 on Oct. 9, 1946; lowest, 2.50 on July 11, 1946.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 23	1.50	Sept. 12	2.00	Oct. 30	a 0.79	Dec. 18	0.85
July 11	2.50	Oct. 9	a .40	Dec. 4	a .55		

a By U. S. Geological Survey.

14-30-19bc (Well E34 in previous reports) (*988, p. 266; 1018, p. 208; 1025, p. 201). 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, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	3.80	May 8	3.65	July 18	2.34	Nov. 23	2.10
Apr. 15	3.25	June 4	3.42	Aug. 6	1.78		

14-30-21cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, and 2,802.50 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 2.89 on Oct. 9, 1946; lowest, 3.80 on May 24, and July 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 24	3.80	Sept. 12	3.70	Oct. 31	a 3.38	Dec. 18	3.50
July 11	3.80	Oct. 9	a 2.89	Dec. 4	a 3.40		

a By U. S. Geological Survey.

14-30-28dc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum, 2,799.85 feet above sea level. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 5.30 on May 24, 1946; lowest, 6.10 on Sept. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 24	5.30	Sept. 12	6.10	Oct. 31	5.56	Dec. 18	5.65
July 11	5.60	Oct. 9	a 5.51	Dec. 4	a 5.57		

a By U. S. Geological Survey.

14-30-26bb (Well E33 in previous reports) (*988, p. 266; 1018, p. 208; 1025, p. 201). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	1.45	May 8	1.92	July 18	2.82	Nov. 23	0.30
Apr. 15	1.33	June 4	1.40	Aug. 6	2.82		

14-30-29db (Well E35 in previous reports) (*988, p. 267; 1018, p. 208; 1025, p. 201). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	5.95	Apr. 15	5.22	June 4	5.04	Aug. 6	5.02
Apr. 5	5.15	May 8	5.24	July 18	5.00	Nov. 23	4.90

14-30-32cd (Well E36 in previous reports) (*988, p. 267; 1018, p. 208; 1025, p. 201). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	4.08	May 17	4.66	Aug. 2			5.98
Apr. 5	3.80	June 13	5.21				

14-30-33cd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Measurements supplied through courtesy of Platte Valley Public Power and Irrigation District. Highest observed stage in period of record, 6.14 on Oct. 9, 1946; lowest, 7.30 on Sept. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 9	6.30	May 29	6.10	Oct. 5	7.20	Oct. 10	6.20
14	6.43	June 18	6.47	7	6.70	31	a 6.43
24	6.20	Sept. 12	7.30	9	a 6.14	Dec. 4	a 6.31

a By U. S. Geological Survey.

14-30-34cc (Well E39 in previous reports) (*988, p. 268; 1018, p. 209). Central Nebraska Public Power and Irrigation District. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. No measurements made in 1946.

14-31-5ba (Well E31 in previous reports) (*988, p. 265; 1018, p. 208; 1025, p. 200). 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, 2.52 on Apr. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 31	2.83	May 8	3.02	July 18	4.97
Apr. 15	2.52	June 4	3.00	Aug. 6	5.35

14-32-5aa (Well E30 in previous reports) (*988, p. 264; 1018, p. 208; 1025, p. 200). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	4.03	May 8	3.92	July 18	5.32	Nov. 23	3.40
Apr. 15	3.50	June 4	3.58	Aug. 6	4.92		

14-32-18ad (Well E29 in previous reports) (*988, p. 264; 1018, p. 208; 1025, p. 200). 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, 1.55 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	5.91	May 8	6.48	July 18	2.02		
Apr. 15	6.65	June 4	4.50	Aug. 6	1.55		

14-32-20dd (Well E28 in previous reports) (*988, p. 264; 1018, p. 207; 1025, p. 200). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	6.90	May 8	7.02	July 18	5.74	Nov. 23	6.10
Apr. 15	7.11	June 4	6.50	Aug. 6	4.94		

14-32-21bb (Well 131 in previous reports) (*817, p. 146; 908, p. 219; 938, p. 174). Great Western Sugar Co. No measurements made in 1946.

14-33-8bb (Well E24 in previous reports) (*988, p. 262; 1018, p. 207; 1025, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	2.00	May 8	2.01	July 18	3.42	Nov. 23	2.90
Apr. 15	2.13	June 4	2.09	Aug. 6	3.35		

14-33-16da (Well E25 in previous reports) (*988, p. 263; 1018, p. 207; 1025, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	3.32	May 8	2.78	July 18	2.70	Nov. 23	1.90
Apr. 15	3.10	June 4	2.09	Aug. 6	2.26		

14-33-17c (Well E23 in previous reports) (*988, p. 262; 1018, p. 207; 1025, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	5.01	May 8	5.10	July 18	3.76	Nov. 23	3.40
Apr. 15	5.14	June 4	4.29	Aug. 6	3.49		

14-33-17da (Well 405 in previous reports) (*886, p. 325; 908, p. 220; 938, p. 175; 946, p. 216; *988, p. 261; 1018, p. 206; 1025, p. 198). University of Nebraska. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	3.86	May 8	4.00	July 18	3.76	Nov. 23	2.90
Apr. 15	4.10	June 4	3.05	Aug. 6	3.22		

14-33-27aa (Well E26 in previous reports) (*908, p. 220; 938, p. 175; 946, p. 217; *988, p. 263; 1018, p. 207; 1025, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	10.16	May 8	10.30	July 18	8.94	Nov. 23	9.90
Apr. 15	10.26	June 4	9.30	Aug. 6	9.18		

14-33-27da (Well 600 in previous reports) (*988, p. 261; 1018, p. 206; 1025, p. 198). 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, 1946

(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4.66	4.32	4.41	4.33	4.77	4.79	4.94	5.15	5.00	4.90	4.73	4.84
2	4.59	4.53	4.45	4.34	4.72	4.77	4.95	5.16	5.00	4.91	4.75	4.85
3	4.49	4.33	4.44	4.37	4.69	4.75	4.95	5.16	4.99	4.92	4.76	....
4	4.36	4.34	4.46	4.39	4.69	4.74	4.96	5.16	4.99	4.92	4.77	....
5	4.25	4.35	4.46	4.40	4.71	4.74	4.97	5.16	5.01	4.87	4.78	....
6	4.15	4.35	4.48	4.41	4.74	4.74	4.97	5.16	5.01	4.81	4.78	....
7	4.06	4.34	4.51	4.43	4.76	4.76	4.98	5.16	5.01	4.78	4.78	....
8	3.97	4.32	4.52	4.46	4.77	4.78	4.98	5.16	5.00	4.64	4.78	....
9	3.94	4.30	4.53	4.46	4.79	4.80	4.99	5.16	4.97	4.63	4.78	4.92
10	3.94	4.29	4.53	4.47	4.80	4.82	5.00	5.16	4.93	4.59	4.78	4.93
11	3.98	4.28	4.51	4.47	....	4.83	5.01	5.16	4.91	4.57	....	4.94
12	4.00	4.28	4.47	4.47	....	4.85	5.02	5.16	4.88	4.57	4.78	4.96
13	4.03	4.29	4.45	4.46	4.84	4.86	5.03	5.14	4.87	4.58	4.77	4.98
14	4.09	4.29	4.42	4.49	4.86	4.87	5.04	5.14	4.85	4.59	4.76	4.99
15	4.12	4.29	4.41	4.49	4.87	4.89	5.04	5.15	4.84	4.61	4.77	5.00
16	4.16	4.31	4.41	4.50	4.88	4.90	5.05	5.16	4.83	4.62	4.77	5.02
17	4.17	4.31	4.39	4.51	4.89	4.91	5.06	5.17	4.82	4.63	4.76	5.03
18	4.18	4.31	4.36	4.52	4.91	4.90	5.07	5.17	4.82	4.63	4.74	5.04
19	4.19	4.31	4.34	4.53	4.92	4.87	5.07	5.18	4.82	....	4.72	5.05
20	4.19	4.32	4.32	4.55	4.93	4.84	5.08	5.18	4.81	....	4.72	5.07
21	4.19	4.33	4.30	4.56	4.93	4.83	5.09	5.18	4.80	4.65	4.73	5.08
22	4.18	4.35	4.50	4.58	4.94	4.83	5.11	5.18	4.81	4.65	4.73	5.10
23	4.23	4.35	4.30	4.60	4.95	4.85	5.12	5.15	4.81	4.66	4.72	5.12
24	4.23	....	4.30	4.62	4.95	4.87	5.13	5.12	4.82	4.66	4.74	5.13
25	4.24	4.35	4.32	4.64	4.93	....	5.13	5.10	4.83	4.66	4.76	5.14
26	4.24	4.37	4.32	4.66	4.90	4.90	5.13	5.08	4.85	4.68	4.78	5.14
27	4.24	4.38	4.32	4.68	4.89	4.91	5.13	5.06	4.87	4.69	4.79	5.16
28	4.24	4.39	4.31	4.71	4.89	4.92	5.13	5.05	4.89	4.69	4.80	5.18
29	4.24	....	4.50	4.74	4.87	4.92	5.14	5.04	4.89	4.70	4.81	5.18
30	4.28	....	4.31	4.76	4.85	4.93	5.14	5.02	4.89	4.72	4.83	5.19
31	4.29	....	4.31	....	4.81	....	5.14	5.01	....	4.72	....	....

14-33-29ca (Well E27 in previous reports) (*908, p. 200; 938, p. 175; 946, p. 217; *988, p. 263; 1018, p. 207; 1025, p. 200). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31	9.61	May 8	10.35	July 18	10.32	Nov. 23	9.20
Apr. 15	10.32	June 4	9.65	Aug. 6	10.22		

14-33-32cd (Well 406 in previous reports) (*886, p. 327; 908, p. 220; 938, p. 175). University of Nebraska. No measurements made in 1946.

14-34-21bc (Well E22 in previous reports) (*988, p. 261; 1018, p. 207; 1025, p. 199). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 1	3.24	May 8	3.27	July 18	3.84	Nov. 23	2.90
Apr. 15	3.28	June 4	3.19	Aug. 6	3.91		

15-31-13dd (Well 252 in previous reports) (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). University of Nebraska. No measurements made in 1946.

16-31-4ab (Well 253 in previous reports) (*817, p. 147; 840, p. 211; 845, p. 178; 886, p. 325; 908, p. 219; 938, p. 175; 946, p. 216). University of Nebraska. No measurements made in 1946.

Logan County

17-27-5aa (Well 404 in previous reports) (*886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. No measurements made in 1946.

Loup County

21-18-22aa (Well 345 in previous reports) (*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. No measurements made in 1946.

21-18-26bc (Well 422 in previous reports) (*886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. No measurements made in 1946.

24-19-25db (Well 234 in previous reports) (*817, p. 148; 840, p. 211; 845, p. 178; 886, p. 326; 908, p. 225; 946, p. 219). University of Nebraska. No measurements made in 1946.

McPherson County

18-31-16dd (Well 254 in previous reports) (*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 219). University of Nebraska. No measurements made in 1946.

Madison County

21-4-34cb (Well 334 in previous reports) (*817, p. 149; 840, p. 212; 845, p. 178; 908, p. 226; 938, p. 178; 946, p. 220). O. Engelsgard. No measurements made in 1946.

22-1-33cb (Well 110 in previous reports) (*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. 209). A. Christian. Water levels, in feet below land-surface datum, 1946: Aug. 6, 1.02; Dec. 28, ice.

23-2-5aa (Well 109 in previous reports) (*817, p. 149; 840, p. 212; 908, p. 226; 938, p. 178; 946, p. 220; *1018, p. 216; 1025, p. 209). J. Bredehoft. Water levels, in feet below land-surface datum, 1946: Aug. 6, 4.45; Dec. 28, 3.31.

24-2-32dc (Well 108 in previous reports) (*817, p. 148; 840, p. 212; 845, p. 178; 886, p. 326; 908, p. 225; 938, p. 178; 946, p. 220; *1018, p. 216; 1025, p. 209). F. Frauner. Water levels, in feet below land-surface datum, 1946: Aug. 6, 5.31; Dec. 28, 3.82.

Merrick County

11-8-3dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 9.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.04 on Nov. 5, 1946; lowest, 3.22 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 7	2.31	July 9	2.90	Sept. 4	3.22	Nov. 5	1.04
June 4	2.10	Aug. 6	3.09	Oct. 3	2.29	Dec. 2	1.88

11-8-18ab (Well GI200 in previous reports) (*836-E, pp. 252, 270; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 288; 1018, p. 216; 1025, p. 210). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 11	4.50	July 8	5.00	Nov. 9	3.50
May 6	4.75	Sept. 16	5.50		

11-8-19dc (Well GI201 in previous reports) (*836-E, pp. 252, 271; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *988, p. 288; 1018, p. 216; 1025, p. 210). City of Grand Island. Measurements supplied through courtesy of Grand Island Water Department. Water level, in feet below land-surface datum, 1946: May 6, 7.58.

12-7-7aa (Well 603 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 6.00 on Dec. 2, 1946; lowest, 7.32 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	6.36	Apr. 9	6.11	July 9	6.62	Oct. 3	7.26
Feb. 13	6.37	May 7	6.46	Aug. 6	6.98	Nov. 6	6.64
Mar. 12	6.20	June 4	6.37	Sept. 4	7.32	Dec. 2	6.00

12-8-7dc. Drilled irrigation well, diameter 22 inches, depth 46.7 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.87 on July 9, 1946; lowest, 13.79 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	11.19	June 4	11.32	Sept. 4	13.79	Nov. 6	11.73
May 8	12.50	July 9	10.87	Oct. 3	12.40	Dec. 2	11.44

12-8-28dc (Well 602 in previous reports) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 1.24 on Dec. 2, 1946; lowest, 3.40 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	1.95	May 7	1.96	Aug. 6	2.87	Nov. 6	2.20
Feb. 13	1.80	June 4	1.55	Sept. 4	3.40	Dec. 2	1.24
Apr. 9	1.59	July 9	2.15	Oct. 3	3.32		

13-6-2bc (Well 608 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 4.62 on Dec. 2, 1946; lowest, 6.66 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	5.36	Apr. 9	4.87	July 9	5.46	Oct. 3	6.59
Feb. 12	5.29	May 7	5.11	Aug. 6	6.59	Nov. 6	5.82
Mar. 12	5.04	June 4	5.08	Sept. 4	6.66	Dec. 2	4.62

13-6-7bb (Well 606 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 5.00 on Dec. 2, 1946; lowest, 6.50 on Oct. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	5.58	Apr. 9	5.18	July 9	5.45	Oct. 3	6.50
Feb. 13	5.61	May 7	5.48	Aug. 6	5.96	Nov. 6	5.78
Mar. 12	5.45	June 4	5.20	Sept. 4	6.45	Dec. 2	5.00

13-6-19cb (Well 607 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 3.87 on June 4, 1946; lowest, 5.58 on Oct. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	4.24	Apr. 9	3.98	July 9	4.47	Oct. 3	5.58
Feb. 13	4.34	May 7	4.17	Aug. 6	5.18	Nov. 6	5.00
Mar. 12	4.13	June 4	3.87	Sept. 4	5.50	Dec. 2	4.31

13-6-28bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.85 on Dec. 2, 1946; lowest, 7.49 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 8	5.99	July 9	6.77	Sept. 4	7.49	Nov. 6	6.78
May 7	6.18	Aug. 6	7.25	Oct. 3	7.00	Dec. 2	5.85
June 4	6.32						

13-7-4bc (Well 604 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 6.30 on June 4, 1946; lowest, 7.46 on May 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.19	Apr. 9	7.38	July 9	6.77	Oct. 3	7.20
Feb. 13	7.20	May 7	7.46	Aug. 6	6.77	Nov. 6	6.73
Mar. 12	7.34	June 4	6.20	Sept. 4	7.07	Dec. 2	6.48

13-7-29cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 11 feet. Measuring point, top of pipe, 1.8 feet above land-surface datum. Highest observed stage in period of record, 1.00 on Nov. 6, 1946; lowest, 4.07 on Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13	2.48	May 7	2.88	Aug. 6	4.07	Nov. 6	1.00
Mar. 12	2.07	June 4	1.98	Sept. 4	3.74	Dec. 2	1.88
Apr. 9	2.62	July 9	3.58	Oct. 3	3.58		

14-4-18bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.24 feet. Measuring point, top of pipe, 2.3 feet above land-surface datum. Highest observed stage in period of record, 3.52 on Dec. 9, 1946; lowest, 5.72 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	3.98	July 8	4.53	Sept. 3	5.72	Nov. 4	4.22
May 7	4.04	Aug. 5	5.29	Oct. 10	3.89	Dec. 9	3.52

14-5-9cc (Well 610 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Graded out; measurements discontinued after Aug. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.80	Apr. 9	3.20	June 4	2.88	Aug. 6	4.32
Feb. 12	3.82	May 7	3.20	July 9	3.42		

14-6-15bb (Well 605 in previous report) (*1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 2.60 on Dec. 10, 1946; lowest, 5.64 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.73	Apr. 9	3.44	July 9	4.02	Oct. 10	3.30
Feb. 12	3.74	May 7	3.55	Aug. 6	5.61	Nov. 6	3.55
Mar. 12	3.05	June 4	2.88	Sept. 4	5.64	Dec. 10	2.60

14-7-21cb (Well 49 in previous reports) (#817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; 1025, p. 210). H. Trudy. Highest observed stage in period of record, 6.24 on Dec. 2, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.42	Apr. 9	6.94	July 9	7.72	Oct. 3	7.94
Feb. 13	7.36	May 7	7.32	Aug. 6	8.12	Nov. 6	6.95
Mar. 12	7.18	June 4	6.82	Sept. 4	8.29	Dec. 2	6.24

14-7-26cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.47 on July 9, 1946; lowest, 13.00 on May 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	12.95	July 9	12.47	Sept. 4	12.84	Nov. 6	12.79
May 7	13.00	Aug. 6	12.70	Oct. 3	12.95	Dec. 2	12.69
June 4	12.66						

15-4-15dd (Well 611 in previous report) (#1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 6.28 on Dec. 10, 1946; lowest, 8.30 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	7.95	Apr. 9	7.36	July 9	7.75	Oct. 10	7.71
Feb. 12	7.96	May 7	7.46	Aug. 6	8.02	Nov. 6	7.44
Mar. 12	7.76	June 4	7.77	Sept. 4	8.30	Dec. 10	6.28

15-4-31cc (Well 609 in previous report) (#1025, p. 210). Geological Survey, U. S. Dept. of Interior. Highest observed stage in period of record, 3.11 on Dec. 10, 1946; lowest, 5.02 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	3.86	Apr. 9	3.44	July 9	3.89	Oct. 10	4.44
Feb. 12	3.96	May 7	3.28	Aug. 6	4.70	Nov. 6	4.56
Mar. 12	3.67	June 4	3.40	Sept. 4	5.02	Dec. 10	3.11

15-5-8dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 19.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 13.19 on Dec. 10, 1946; lowest, 14.15 on June 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	14.02	July 9	13.80	Sept. 4	13.83	Nov. 6	13.67
May 7	14.14	Aug. 6	13.68	Oct. 10	13.21	Dec. 10	13.19
June 4	14.15						

15-5-27dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.03 on Dec. 10, 1946; lowest, 4.49 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	3.36	July 9	3.31	Sept. 4	4.49	Nov. 6	3.64
May 7	3.35	Aug. 6	4.14	Oct. 10	4.09	Dec. 10	3.03
June 4	3.06						

16-3-27cc (Well 42 in previous reports) (#817, p. 149; 840, p. 212; 845, p. 179; 886, p. 326; 908, p. 226; 938, p. 178; 946, p. 220; #1018, p. 216; 1025, p. 209). P. Pearson. Highest observed stage in period of record, 6.22 on July 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	6.54	Apr. 9	6.32	July 9	6.22	Oct. 10	7.44
Feb. 12	6.40	May 7	6.29	Aug. 6	7.44	Nov. 6	6.91
Mar. 12	6.35	June 4	6.67	Sept. 4	7.99	Dec. 10	6.24

Morrill County

20-49-30ac. A. Stewart. Abandoned drilled domestic well, diameter 6 inches, depth 56 feet. Measuring point, base of pump, 0.6 foot above land-surface datum. Highest observed stage in period of record, 17.07 on Nov. 7, 1946; lowest, 21.22 on June 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	19.81	June 11	21.22	Aug. 13	19.95	Dec. 20	17.37
May 9	20.82	July 12	20.18	Nov. 7	17.07		

20-50-17bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 22.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 11.96 on Nov. 7, 1946; lowest, 15.93 on May 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
May 9	15.93	July 12	13.12	Nov. 7	11.96
June 11	14.86	Aug. 13	13.31	Dec. 20	13.36

20-50-28bb (Well 97 in previous reports) (*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 179; 946, p. 221; *1018, p. 217; 1025, p. 211). F. Smith.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20	13.40	May 9	13.81	July 12	14.00	Nov. 7	13.50
Apr. 24	13.91	June 11	13.95	Aug. 13	13.89	Dec. 20	13.52

20-50-32aa (Well 85 in previous reports) (*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). State of Nebraska, Department of Roads and Irrigation.

Water level, in feet below land-surface datum, 1946

Jan. 5	4.44	Apr. 5	4.61	June 20	4.86	Sept. 15	4.54
12	4.49	10	4.68	27	4.91	20	4.48
15	4.54	15	4.72	July 1	4.92	26	4.47
20	4.60	19	4.71	5	4.99	30	4.48
25	4.62	24	4.79	9	4.93	Oct. 6	4.43
31	4.66	30	4.87	15	5.07	10	4.38
Feb. 5	4.69	May 2	4.80	20	5.13	16	4.37
10	4.67	5	4.82	25	5.12	20	4.34
15	4.68	6	4.81	29	5.13	25	4.35
20	4.70	10	4.79	Aug. 5	5.15	31	4.37
25	4.68	15	4.85	8	5.13	Nov. 5	4.37
28	4.68	21	4.90	12	5.07	12	4.36
Mar. 5	4.70	25	4.80	15	4.91	15	4.36
10	4.71	31	4.70	20	4.98	20	4.33
15	4.70	June 3	4.71	25	4.92	26	4.35
17	4.54	4	4.71	31	4.68	30	4.39
20	4.47	10	4.88	Sept. 5	4.65	Dec. 5	4.47
25	4.47	15	4.95	10	4.72	31	4.60
31	4.50						

21-50-33bc. L. Winters. Abandoned drilled domestic well, diameter 6 inches, depth 93 feet. Measuring point, top of casing, 2.8 feet above land-surface datum. Highest observed stage in period of record, 34.49 on Nov. 7, 1946; lowest, 47.85 on June 11, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
May 9	47.18	July 12	47.74	Nov. 7	34.49
June 11	47.85	Aug. 13	43.80	Dec. 20	35.65

22-50-14bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 0.55 on May 9, 1946; lowest, 2.33 on Aug. 13, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 16	0.66	June 11	0.58	Aug. 13	2.33	Dec. 20	2.27
May 9	.55	July 12	.78	Nov. 7	1.47		

22-50-28bc (Well 84 in previous reports) (*817, p. 150; 840, p. 212; 845, p. 179; 886, p. 327; 908, p. 226; 938, p. 178; 946, p. 220; *1018, p. 216). J. Jensen. Highest observed stage in period of record, 81.42 on Apr. 16, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 18	81.68	May 9	81.61	July 12	81.51	Nov. 7	81.60
Apr. 16	81.42	June 11	81.61	Aug. 13	81.53	Dec. 20	81.68

23-51-32bb. E. Green. Abandoned drilled stock well, diameter 6 inches, depth 117 feet. Measuring point, edge of clamp on pipe, 0.8 foot above land-surface datum. Highest observed stage in period of record, 101.18 on Nov. 8, 1946; lowest, 101.33 on June 12, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 16	101.24	June 12	101.33	Aug. 14	101.24	Dec. 20	101.27
May 9	101.26	July 12	101.19	Nov. 8	101.18		

Nance County

17-4-24db (Well 43 in previous reports) (*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 227; 938, p. 179; 946, p. 221). Greek Estate. No measurements made in 1946.

17-6-34ad (Well 371 in previous reports) (*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 228; 938, p. 179; 946, p. 221). W. Christiansen. No measurements made in 1946.

Nemaha County

A5-14-23cb (Well 11 in previous reports) (*817, p. 151; 840, p. 214; 845, p. 180; 886, p. 328; 908, p. 228; 938, p. 179; 946, p. 221; *988, p. 290; 1018, p. 217). Mrs. Horm. Water level, in feet below land-surface datum, 1946: Dec. 23, 12.31.

Nuckolls County

1-5-31cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.14 on Dec. 18, 1946; lowest, 4.19 on June 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	3.95	June 10	4.19	Oct. 27	1.42
Mar. 8	3.98	Aug. 12	4.08	Dec. 18	1.14

1-6-30dd. M. Day. Abandoned bored well, diameter 6 inches, depth 48 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 33.42 on Dec. 18, 1946; lowest, 33.52 on Oct. 27, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 19	33.50	June 10	33.43	Oct. 27	33.52
Mar. 8	33.50	Aug. 12	33.48	Dec. 18	33.42

1-6-35cc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.6 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.83 on Dec. 18, 1946; lowest, 12.83 on June 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	11.56	June 10	12.83	Oct. 27	10.98
Mar. 8	11.60	Aug. 12	12.82	Dec. 18	9.83

1-7-2dd (Well 164 in previous reports) (*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179). F. Hornbussel. Measuring point destroyed. No measurements made in 1946.

1-7-19cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 17.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.25 on Dec. 18, 1946; lowest, 9.20 on Oct. 27, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	8.66	June 10	9.15	Oct. 27	9.20
Mar. 8	8.48	Aug. 12	9.16	Dec. 18	8.25

1-7-34bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.61 on Dec. 18, 1946; lowest, 7.04 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	5.39	June 10	6.06	Oct. 27	3.69
Mar. 8	5.25	Aug. 12	7.04	Dec. 18	3.61

1-7-35da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 15.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 7.84 on Dec. 18, 1946; lowest, 8.99 on June 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	8.57	June 10	8.99	Oct. 27	8.24
Mar. 8	8.70	Aug. 12	8.46	Dec. 18	7.84

1-7-36cc (Well 407 in previous reports) (*886, p. 329; 908, p. 228). University of Nebraska. No measurements made in 1946.

1-8-7dd. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 11.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.73 on Oct. 27, 1946; lowest, 5.66 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	3.77	June 10	5.20	Oct. 27	1.73
Mar. 8	2.97	Aug. 12	5.66	Dec. 18	2.43

1-8-21dc. K. Teachworth. Drilled irrigation well, diameter 18 inches, depth 56 feet. Measuring point, base of turbine, 0.2 foot above land-surface datum. Highest observed stage in period of record, 25.91 on Dec. 18, 1946; lowest, 27.43 on June 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 12	27.24	June 10	27.43	Dec. 18	25.91
Mar. 8	27.07	Oct. 27	27.02		

1-8-22ab. L. Smith. Drilled irrigation well, diameter 12 inches, depth 20.5 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.39 on Oct. 27, 1946; lowest, 4.66 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 12	2.44	June 10	4.06	Oct. 27	2.39
Mar. 8	3.70	Aug. 12	4.66	Dec. 18	3.37

2-5-8dd (Well 165 in previous reports) (*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179). E. Dillon. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 216.38. Water level, in feet below land-surface datum, 1946: Dec. 31, 108.43.

4-7-26aa (Well 393 in previous reports) (*817, p. 152; 840, p. 215; 845, p. 180; 886, p. 329; 908, p. 228; 938, p. 179). W. Statz. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 153.17. Lowest observed stage in period of record, 56.55 on Dec. 31, 1946. Water level, in feet below land-surface datum, 1946: Dec. 31, 56.55.

Otoe County

A7-12-35aa (Well 10 in previous reports) (*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222; *1018, p. 218). L. Damme. Water level, in feet below land-surface datum, 1946: Dec. 23, 18.84.

A8-10-3bb (Well 8a in previous reports) (*946, p. 222; *1018, p. 218). University of Nebraska. Highest observed stage in period of record, 2.70 on June 5, 1946. Water level, in feet below land-surface datum, 1946: June 5, 2.70.

A8-11-7cc (Well 9 in previous reports) (*817, p. 152; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222; *1018, p. 218). W. Gellerman. Water level, in feet below land-surface datum, 1946: Dec. 23, 6.70.

Pawnee County

A2-11-8aa (Well 4 in previous reports) (*777, p. 92; 817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 946, p. 222; *1018, p. 218). E. Hunzeker. Water level, in feet below land-surface datum, 1946: Dec. 23, 13.71.

A2-11-8ad. University of Nebraska. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 23 feet. Measuring point, top of pipe, 2.2 feet above land-surface datum. Highest observed stage in period of record, 3.45 on Dec. 23, 1946; lowest, 8.49 on Oct. 17, 1940.

Water level, in feet below land-surface datum, 1940-42, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
July 6, 1940	6.69	Oct. 7, 1941	7.15	Oct. 24, 1944	3.82
Oct. 17	8.49	16, 1942	6.04	Dec. 23, 1946	3.45

Perkins County

11-39-35dd (Well 151 in previous reports) (*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180; 946, p. 222). A. Lagler. No measurements made in 1946.

Phelps County

5-18-4ab (Well 157 in previous reports) (*817, p. 153; 840, p. 215; 845, p. 181; 886, p. 330; 908, p. 228; 938, p. 180). Western Public Service Co. No measurements made in 1946.

8-17-19db (Well 276 in previous reports) (*817, p. 154; 840, p. 216; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 222; *988, p. 290; 1018, p. 219). W. Bamford. Highest observed stage in period of record, 11.04 on Dec. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	12.30	Apr. 11	12.28	July 11	12.45	Nov. 15	11.38
Feb. 15	12.31	May 10	12.52	Aug. 9	12.92	Dec. 6	11.04
Mar. 15	12.29	June 5	12.35	Sept. 7	12.74		

8-17-24bc (Well 275 in previous reports) (*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). F. Skiles. Highest observed stage in period of record, 7.75 on Dec. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	9.20	Apr. 11	9.17	July 12	9.87	Nov. 15	9.68
Feb. 15	9.12	May 10	9.53	Aug. 9	10.18	Dec. 6	7.75
Mar. 15	9.13	June 5	9.59	Sept. 7	10.44		

8-18-9db (Well 277 in previous reports) (*817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 946, p. 223; *988, p. 290; 1018, p. 219). Water levels, in feet below land-surface datum, 1946: Jan. 17, 3.40; Mar. 18, 3.79.

8-18-16cc. G. A. Nelson. Drilled irrigation well, diameter 24 inches, depth 36 feet. Measuring point, edge of opening in side of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 6.69 on Dec. 5, 1946; lowest, 9.26 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	8.09	Apr. 11	7.97	July 12	8.20	Oct. 10	7.32
Feb. 15	8.10	May 10	8.11	Aug. 9	9.26	Nov. 15	6.82
Mar. 15	8.04	June 5	7.93	Sept. 7	8.60	Dec. 5	6.69

8-18-24bb. W. Skiles. Drilled irrigation well, diameter 24 inches, depth 35.4 feet. Measuring point, side of casing, at land-surface datum. Highest observed stage in period of record, 8.28 on Dec. 6, 1946; lowest, 10.05 on Sept. 7, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	9.57	Apr. 11	9.30	July 12	9.32	Oct. 10	9.21
Feb. 15	9.60	May 10	9.56	Aug. 9	9.74	Nov. 15	8.51
Mar. 15	9.50	June 5	9.10	Sept. 7	10.05	Dec. 6	8.28

8-19-7dc. M. Labart. Drilled irrigation well, diameter 24 inches, depth 41.2 feet. Measuring point, edge of steel plate, 0.5 foot below land-surface datum. Highest observed stage in period of record, 4.52 on Dec. 5, 1946; lowest, 6.48 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	5.12	Apr. 11	5.36	July 12	5.98	Oct. 9	4.59
Feb. 15	5.18	May 10	5.69	Aug. 9	6.48	Nov. 15	4.71
Mar. 15	5.14	June 5	5.05	Sept. 6	5.93	Dec. 5	4.52

8-19-14dc. H. Crawford. Dug irrigation well, diameter 24 inches, depth 48 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 10.95 on Dec. 5, 1946; lowest, 13.22 on Sept. 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	12.77	Apr. 11	12.38	July 12	12.79	Nov. 15	11.12
Feb. 15	12.57	May 10	12.57	Sept. 6	13.22	Dec. 5	10.95
Mar. 15	12.45	June 5	12.25	Oct. 9	12.41		

8-20-8cb (Well 5 in previous reports) (*988, p. 291; 1018, p. 218; 1025, p. 212). Andrew O. Matson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 18, 9.26; Apr. 10, 8.89; May 9, 8.54; Aug. 19, 8.35.

8-20-8cd. A. D. Matson. Drilled irrigation well, diameter 24 inches, depth 48 feet. Measuring point, bottom edge of discharge pipe, 4.6 feet from land-surface datum. Highest observed stage in period of record, 5.71 on Oct. 9, 1946; lowest, 8.90 on Aug. 9, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 15	8.22	Apr. 11	7.83	July 11	7.35	Oct. 9	5.71
Feb. 15	8.20	May 10	7.45	Aug. 9	8.90	Nov. 15	5.85
Mar. 15	8.26	June 5	7.38	Sept. 6	6.60	Dec. 5	5.88

8-20-9cd (Well 8 in previous reports) (*988, p. 292; 1018, p. 219; 1025, p. 213). Lewis W. Jones. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 18	3.90	May 9	4.36	Nov. 15	a 2.70
Apr. 10	4.07	Aug. 19	4.38	Dec. 5	a 2.70

a By U. S. Geological Survey.

8-20-14bc. Drilled irrigation well, diameter 24 inches, depth 57.2 feet. Measuring point, top of casing, at land-surface datum. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Highest observed stage in period of record, 13.90 on May 12, 1944; lowest, 19.22 on Sept. 30, 1940.

Water level, in feet below land-surface datum, 1939-46

May 3, 1939	17.22	June 3, 1941	17.76	June 4, 1943	15.00
June 6	16.88	July 2	17.61	July 9	14.86
July 5	16.12	30	18.14	Sept. 15	15.29
Sept. 6	17.94	Sept. 2	18.43	Oct. 13	15.30
Oct. 3	18.35	Oct. 6	18.27	Nov. 9	15.32
Nov. 2	18.39	Nov. 6	18.02	Jan. 8, 1944	15.39
Dec. 5	18.28	28	17.85	Feb. 16	15.34
Jan. 7, 1940	17.88	Jan. 7, 1942	17.73	Mar. 17	15.29
29	17.75	Feb. 2	17.57	May 12	13.90
Mar. 5	17.45	Mar. 6	17.39	Sept. 18	14.96
Apr. 4	17.51	Apr. 7	17.10	Oct. 25	14.95
May 2	17.47	29	16.82	Nov. 17	15.13
29	17.68	June 4	15.63	Jan. 9, 1945	15.17
July 2	18.29	July 21	14.90	Feb. 17	15.24
Aug. 29	19.11	Oct. 2	14.95	Mar. 9	15.32
Sept. 30	19.22	Nov. 20	14.96	Apr. 18	15.46
Nov. 2	19.12	Dec. 8	14.89	May 4	15.42
Dec. 30	18.60	Jan. 7, 1943	14.97	June 4	15.35
Feb. 5, 1941	18.27	Feb. 1	14.96	Jan. 18, 1946	15.10
Mar. 4	18.15	Mar. 3	14.91	Apr. 10	15.23
Apr. 8	17.99	Apr. 5	15.08	May 9	15.39
May 2	17.88	May 6	14.75	July 16	a 14.92

a By U. S. Geological Survey.

8-20-14db (Well 11 in previous reports) (*988, p. 293; 1018, p. 219; 1025, p. 213). 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, 1946: Jan. 18, 5.14; Apr. 10, 5.27; May 9, 5.52; Aug. 19, 5.41.

8-20-15bb (Well 9 in previous reports) (*988, p. 293; 1018, p. 219; 1025, p. 213). Wm. Carlson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 18, 7.17; Apr. 10, 7.43; May 9, 7.82; Aug. 19, 8.00.

8-20-15db (Well 10 in previous reports) (*988, p. 293; 1018, p. 219; 1025, p. 213). 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, 1946: Jan. 18, 9.47; Apr. 10, 9.69; May 9, 9.70; Aug. 19, 9.15.

8-20-17aa (Well 6 in previous reports) (*988, p. 291; 1018, p. 218; 1025, p. 212). Breuer W. Nelson. Measurements supplied through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 18, 12.53; Apr. 10, 12.32; May 9, 11.91; Aug. 19, 11.85.

8-20-17ba (Well 7 in previous reports) (*988, p. 292; 1018, p. 218; 1025, p. 212). Albert S. Hanson. Measurements shown through courtesy of Central Nebraska Public Power and Irrigation District. Water levels, in feet below land-surface datum, 1946: Jan. 18, 8.96; Apr. 10, 8.61; May 9, 8.25; Aug. 19, 7.82.

Pierce County

27-3-33ad (Well 70 in previous reports) (#817, p. 155; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). Village of Foster. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.68. Water level, in feet below land-surface datum, 1946: Dec. 28, 2.46.

28-1-33aa. University of Nebraska. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 24 feet. Measuring point, top of pipe, at land-surface datum. This well replaces well shown as 68 in previous reports. Highest observed stage in period of record, 5.20 on Dec. 27, 1946; lowest, 12.70 on Oct. 25, 1940.

Water level, in feet below land-surface datum, 1940-42, 1946

Date	Water level	Date	Water level	Date	Water level
July 12, 1940	12.06	Oct. 11, 1941	10.76	Dec. 27, 1946	5.20
Oct. 25	12.70	Oct. 27, 1942	11.03		

Platte County

A17-1-14cc. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.5 feet. Measuring point, top of pipe, 1.7 feet above land-surface datum, and 1,426.7 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 7.50 on July 30, 1945; lowest, 14.10 on Aug. 25, 1936.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Oct. 28, 1935	11.40	Feb. 15, 1939	10.46	Jan. 6, 1943	9.90
Nov. 12	11.90	Mar. 9	10.48	Feb. 5	9.70
Dec. 2	12.20	Apr. 12	10.37	Apr. 22	9.80
16	12.30	May 19	10.30	May 28	9.90
27	12.60	June 6	10.18	June 24	9.70
Jan. 15, 1936	12.90	July 14	10.21	Sept. 13	10.20
Feb. 1	12.90	Aug. 22	10.28	Nov. 18	10.30
Mar. 10	13.30	Sept. 23	10.32	Jan. 21, 1944	10.40
16	12.70	Oct. 17	10.38	Mar. 9	10.30
Apr. 2	13.20	Nov. 14	10.26	June 28	8.30
June 17	13.80	Dec. 19	10.00	Oct. 26	9.40
July 14	13.90	Feb. 28, 1940	9.90	Dec. 22	9.70
Aug. 25	14.10	Mar. 26	9.70	Jan. 18, 1945	9.80
Feb. 5, 1937	12.69	Apr. 29	9.50	May 17	9.50
25	12.22	May 24	9.40	June 28	8.10
Mar. 24	11.89	June 29	9.10	July 30	7.50
June 25	11.37	July 20	9.10	Aug. 20	8.00
Aug. 3	11.23	Aug. 26	9.60	Oct. 17	8.90
Oct. 5	11.13	Sept. 2	9.60	Nov. 7	9.00
Nov. 30	11.00	Mar. 6, 1942	9.80	Dec. 13	9.20
Jan. 4, 1938	10.92	Apr. 8	9.70	Jan. 28, 1946	9.40
Feb. 17	10.80	May 20	9.70	Feb. 12	9.40
Mar. 29	10.63	June 10	9.50	Mar. 26	9.40
Apr. 29	10.55	July 21	9.70	Apr. 12	9.40
May 25	10.41	Aug. 4	9.70	May 17	9.50
June 22	10.32	20	9.90	June 13	9.60
July 19	10.17	Sept. 1	9.90	July 19	9.20
Aug. 16	10.18	9	9.70	Aug. 9	9.50
Sept 20	10.20	23	9.80	Oct. 11	a 9.58
Oct. 11	10.20	Oct. 15	9.80	25	9.50
Nov. 25	10.32	Nov. 14	9.70	Nov. 5	a 9.90
Dec. 9	10.37	Dec. 6	9.90	Dec. 10	a 9.31
Jan. 18, 1939	10.44				

a By U. S. Geological Survey.

Al7-1-14dd. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 11.4 feet. Measuring point, top of pipe, at land-surface datum, and 1,417.6 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 2.90 on July 30, 1945; lowest, 8.68 on Aug. 26, 1936.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1935	6.60	Oct. 11, 1938	6.35	Sept. 1, 1942	5.60
Oct. 28	7.40	Nov. 25	6.55	29	5.20
Nov. 7	7.70	Dec. 4	6.58	Oct. 23	5.40
Dec. 2	7.70	Jan. 18, 1939	6.38	Dec. 16	5.50
16	7.80	Feb. 15	6.70	Jan. 6, 1943	5.40
27	7.80	Mar. 9	6.71	Feb. 8	5.30
Jan. 15, 1936	8.00	Apr. 12	6.58	Apr. 22	5.50
Feb. 1	8.00	May 17	6.56	May 28	5.60
Mar. 10	8.20	June 6	6.30	Sept. 13	6.20
16	7.30	July 14	6.47	Nov. 18	6.30
Apr. 2	7.70	Aug. 22	6.60	Mar. 9, 1944	6.40
June 17	8.40	Sept. 13	6.66	Oct. 26	5.60
July 14	8.40	Oct. 17	6.68	Dec. 22	5.80
Aug. 26	8.68	Nov. 24	6.67	Jan. 17, 1945	5.80
Feb. 5, 1937	8.19	Dec. 19	6.60	June 27	5.70
25	7.85	Feb. 28, 1940	6.40	July 30	2.90
Mar. 24	7.06	Mar. 26	6.20	Aug. 20	4.10
June 17	7.01	Apr. 29	6.10	Oct. 17	4.70
Aug. 3	6.82	May 24	6.00	Jan. 28, 1946	5.20
Oct. 5	6.81	June 29	5.50	Feb. 12	5.05
Nov. 30	6.87	July 20	6.10	Mar. 26	4.90
Jan. 4, 1938	6.87	Aug. 26	6.40	Apr. 12	5.10
Feb. 17	6.86	Sept. 2	6.30	May 17	5.30
Mar. 29	6.73	Mar. 6, 1942	5.80	June 13	5.50
Apr. 29	6.70	Apr. 8	5.10	July 19	4.90
May 25	6.50	May 20	5.50	Oct. 11	a 5.45
June 22	6.42	June 10	5.30	25	5.40
July 19	6.22	July 21	5.30	Nov. 5	a 5.47
Aug. 16	6.39	Aug. 4	4.50	Dec. 10	a 4.85
Sept. 20	6.24	20	5.70	18	5.00

a By U. S. Geological Survey.

Al7-1-17dd. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 26.4 feet. Measuring point, top of pipe, 2.8 feet above land-surface datum, and 1,439.2 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 5.20 on July 30, 1945; lowest, 10.58 on Aug. 3, 1937.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Nov. 5, 1935	8.40	Jan. 4, 1938	7.12	Sept. 13, 1939	8.90
18	8.40	Feb. 9	6.72	Oct. 17	9.13
Dec. 2	8.20	Mar. 29	6.30	Nov. 14	9.02
16	7.80	Apr. 27	6.30	Dec. 19	8.60
28	7.80	May 25	5.93	Feb. 21, 1940	8.10
Jan. 15, 1936	7.60	June 15	6.47	Mar. 26	7.50
Feb. 1	7.60	July 19	6.70	Apr. 29	7.30
10	7.70	Aug. 16	7.70	May 24	7.30
Mar. 16	6.70	Sept. 7	7.72	26	7.40
Apr. 2	7.10	Oct. 11	8.18	July 20	9.20
June 17	7.90	Nov. 25	8.26	Aug. 14	9.30
July 14	8.70	Dec. 9	8.15	Sept. 2	9.30
Aug. 25	8.20	Jan. 19, 1939	8.01	Mar. 6, 1942	8.00
Feb. 5, 1937	10.36	Feb. 15	7.95	Apr. 13	7.30
19	10.36	Mar. 9	7.70	May 20	7.80
Apr. 10	10.34	Apr. 12	7.46	June 10	8.00
June 11	10.45	May 17	8.00	July 8	7.80
Aug. 3	10.58	June 6	7.34	21	8.20
Oct. 5	8.85	July 14	8.28	Aug. 4	8.50
Nov. 26	7.56	Aug. 22	8.57	20	8.30

A17-1-17dd--Continued.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
Sept. 1, 1942	9.20	Nov. 18, 1943	10.30	Jan. 28, 1946	8.70
29	9.10	Jan. 21, 1944	9.80	Feb. 12	8.75
Oct. 23	9.10	Mar. 9	9.60	Mar. 26	8.20
Nov. 20	9.00	July 3	6.80	Apr. 19	8.40
Dec. 16	8.80	Oct. 26	8.90	May 22	8.70
Jan. 6, 1943	8.60	Dec. 22	8.90	June 13	8.90
Feb. 8	8.50	Jan. 18, 1945	8.90	July 19	8.40
Mar. 16	8.40	June 28	6.10	Aug. 9	9.10
Apr. 22	8.30	July 30	5.20	Oct. 11	a 9.30
May 28	8.30	Aug. 20	7.00	Nov. 5	a 9.00
June 24	8.40	Nov. 7	8.50	Dec. 10	a 8.11
Sept. 20	9.60	Dec. 13	8.90		

a By U. S. Geological Survey.

A17-1-25aa. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.6 feet. Measuring point, top of pipe, 4.2 feet above land-surface datum, and 1,416.6 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 4.00 on July 30, 1945; lowest, 11.00 on Apr. 30, 1940.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Sept. 30, 1935	8.20	Jan. 18, 1939	10.38	Oct. 22, 1942	8.30
Nov. 7	9.10	Feb. 21	10.47	Dec. 16	8.60
Dec. 2	8.70	Mar. 17	10.47	Jan. 6, 1943	8.60
14	9.10	Apr. 19	10.48	Feb. 8	8.80
27	9.10	May 19	10.53	Apr. 1	8.90
Jan. 15, 1936	9.00	June 6	10.52	May 28	8.80
Feb. 1	9.10	July 19	10.56	June 24	8.50
Mar. 16	8.60	Aug. 23	10.53	Nov. 18	9.30
Apr. 2	8.60	Sept. 13	10.53	Jan. 21, 1944	9.70
June 17	8.90	Oct. 31	10.75	Feb. 18	9.70
July 14	8.90	Nov. 28	10.81	Oct. 27	8.20
Aug. 25	9.30	Dec. 19	10.80	Dec. 22	8.50
Feb. 6, 1937	10.16	Feb. 28, 1940	10.80	Jan. 17, 1945	8.70
25	10.19	Mar. 26	10.80	June 27	5.70
Mar. 24	10.16	Apr. 30	11.00	July 30	4.00
June 23	9.69	May 9	10.70	Aug. 20	5.10
Aug. 19	9.69	June 29	10.30	Oct. 5	6.10
Oct. 5	10.04	July 20	10.30	Nov. 7	6.50
Dec. 3	10.32	Aug. 26	10.19	Dec. 21	7.10
Jan. 4, 1938	10.40	Sept. 2	10.20	Jan. 14, 1946	7.30
Feb. 17	10.42	Mar. 6, 1942	9.70	Feb. 12	7.50
Mar. 29	10.32	Apr. 1	9.20	Mar. 26	7.40
Apr. 29	10.34	13	9.10	Apr. 12	7.50
May 25	9.94	May 20	8.90	May 17	7.60
June 28	9.73	June 10	8.60	June 10	7.70
July 20	9.46	July 8	7.70	July 15	7.10
Aug. 16	9.55	21	7.80	Oct. 4	8.20
Sept. 21	9.83	Aug. 4	7.80	11	a 8.20
Oct. 18	9.98	20	8.30	Nov. 5	a 8.34
Nov. 25	10.17	Sept. 1	8.10	Dec. 10	a 7.76
Dec. 16	10.26	23	8.30	18	7.90

a By U. S. Geological Survey.

A17-1-29da. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches. Measuring point, top of pipe, 2.6 feet above land-surface datum, and 1,435.9 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 7.90 on July 3, 1944; lowest, 12.00 on Oct. 16, 1943.

A17-1-29da--Continued.

Water level, in feet below land-surface datum, 1935-40, 1942-44, 1946

Date	Water level	Date	Water level	Date	Water level
Nov. 5, 1935	10.80	Feb. 21, 1939	10.40	Nov. 18, 1942	11.10
Dec. 12	10.80	Mar. 17	9.97	Dec. 16	11.10
Dec. 2	10.30	Apr. 14	9.94	Jan. 6, 1943	11.10
Dec. 14	10.20	May 19	10.23	Feb. 8	10.80
Dec. 27	10.20	June 7	10.34	Feb. 26	10.60
Jan. 15, 1936	10.00	July 19	10.78	Mar. 12	10.70
Feb. 1	10.00	Aug. 23	11.04	Apr. 1	10.50
Mar. 16	9.00	Sept. 13	11.35	Apr. 22	10.60
Apr. 2	9.40	Oct. 24	11.48	May 28	10.60
June 17	10.00	Nov. 28	11.26	June 24	10.40
July 14	9.50	Dec. 19	11.20	July 8	10.50
Aug. 26	10.10	Feb. 28, 1940	11.30	Oct. 16	12.00
Feb. 6, 1937	11.40	Mar. 26	10.10	Nov. 18	11.90
Feb. 27	10.05	Apr. 29	9.70	Jan. 21, 1944	11.60
Mar. 24	9.99	May 9	9.70	July 3	7.90
June 24	10.33	June 29	10.30	Jan. 4, 1946	10.60
Aug. 19	11.08	July 20	10.80	July 7	10.50
Oct. 5	10.98	Aug. 26	11.40	Oct. 10	10.50
Dec. 2	10.32	Sept. 2	11.70	Dec. 12	10.40
Jan. 4, 1938	10.00	Mar. 6, 1942	11.60	Dec. 14	10.50
Feb. 18	9.77	Apr. 1	10.00	Dec. 17	10.50
Mar. 30	9.44	Apr. 13	10.00	Feb. 12	10.40
Apr. 24	9.50	May 20	9.80	Mar. 26	10.30
May 25	9.22	June 10	10.30	Apr. 12	10.40
June 27	9.78	July 8	9.90	May 13	10.60
July 20	9.87	July 21	10.40	June 7	10.70
Aug. 16	10.50	Aug. 4	10.50	July 15	10.20
Sept. 21	9.67	Aug. 20	11.00	Oct. 4	11.40
Oct. 18	9.91	Sept. 1	11.20	Nov. 5	a 10.97
Nov. 25	9.71	Oct. 29	10.80	Dec. 10	a 10.48
Dec. 16	9.66	Oct. 22	11.20	Dec. 18	10.50
Jan. 18, 1939	10.49				

a By U. S. Geological Survey.

A20-1-18cb (Well 342 in previous reports) (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.28. The height of measuring point above land-surface datum was erroneously published in Water-Supply Paper 817 as 1.5 feet. Measuring point, top of casing, 1.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Jan. 4, 2.86; Feb. 11, 2.29; May 7, 2.22.

16-2-9cc. J. Nyffeler. Drilled irrigation well, diameter 24 inches, depth 38 feet. Measuring point, base of turbine, 1.2 feet above land-surface datum. Highest observed stage in period of record, 1.55 on Dec. 10, 1946; lowest, 4.80 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25	3.90	Apr. 9	3.50	July 9	3.71	Oct. 10	3.66
Feb. 12	3.84	May 7	3.22	Aug. 6	4.44	Nov. 5	3.55
Mar. 12	3.34	June 4	3.81	Sept. 4	4.80	Dec. 10	1.55

16-2-12ab (Well 41 in previous reports) (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223; *1018, p. 220; 1025, p. 214). H. Ernst.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	9.36	Apr. 9	8.80	July 9	8.96	Oct. 10	10.39
Feb. 12	9.14	May 7	8.84	Aug. 6	10.25	Nov. 5	9.70
Mar. 12	8.92	June 4	9.19	Sept. 4	10.67	Dec. 10	8.33

17-1-2cc. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.6 feet. Measuring point, top of casing, at land-surface datum, and 1,469.4 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 6.80 on Apr. 13, 1942; lowest, 13.29 on Oct. 18, 1936.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
Nov. 18, 1935	12.70	May 25, 1939	7.34	Mar. 8, 1943	10.50
Dec. 3	12.80	June 30	8.64	Apr. 5	10.40
16	12.70	July 20	8.88	May 28	10.80
31	12.60	Aug. 16	8.57	June 14	10.70
Jan. 14, 1936	12.70	Sept. 15	8.90	Aug. 30	11.20
30	12.70	Oct. 11	9.01	Nov. 10	11.20
Mar. 13	10.00	Nov. 10	8.95	Dec. 21	11.20
27	12.30	Dec. 8	8.90	Jan. 22, 1944	11.20
June 16	12.70	Feb. 13, 1940	8.70	Feb. 2	11.10
Oct. 18	13.29	Mar. 22	8.50	Mar. 9	10.90
Dec. 17	13.08	Apr. 24	8.60	June 28	9.70
Feb. 25, 1937	12.61	May 6	8.60	Oct. 26	10.70
Apr. 9	12.32	June 22	8.30	Jan. 19, 1935	10.80
May 26	11.90	June 26	8.30	June 28	9.70
Aug. 10	11.26	July 9	8.90	July 23	9.00
Oct. 1	10.66	20	9.00	Aug. 17	9.70
Nov. 29	9.48	25	9.00	Oct. 12	10.50
Jan. 5, 1938	8.81	Aug. 6	9.10	Nov. 15	10.60
Feb. 11	8.26	14	9.10	Dec. 21	10.70
Mar. 21	7.76	Sept. 2	9.20	Jan. 11, 1946	10.60
Apr. 26	7.82	Oct. 3	9.30	Feb. 25	8.30
May 9	7.67	19	9.20	Mar. 15	10.10
June 14	7.98	Nov. 8	9.20	Apr. 19	10.60
July 22	8.02	Mar. 28, 1942	9.60	May 29	10.70
Aug. 11	8.42	Apr. 13	6.80	June 21	10.10
Sept. 23	8.35	May 20	9.90	July 12	8.20
Oct. 11	8.54	June 11	10.00	Aug. 22	11.10
Nov. 18	8.57	July 8	10.00	Oct. 11	a 10.61
Dec. 16	8.68	Aug. 1	10.40	28	10.40
Jan. 17, 1939	8.54	19	10.80	Nov. 5	a 10.39
Feb. 14	8.56	Sept. 1	10.90	29	9.80
Mar. 16	8.17	23	10.30	Dec. 10	a 9.89
Apr. 14	8.03				

a By U. S. Geological Survey.

17-1-5ad. Loup River Public Power District. Driven observation well, diameter 2 inches, depth 16 feet. Measuring point, top of pipe, 3.7 feet above land-surface datum, and 1,475.23 feet above sea level. Highest observed stage in period of record, 1.38 on Aug. 25, 1939; lowest, 7.40 on Dec. 3, 1935.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Nov. 18, 1935	6.60	Feb. 15, 1938	3.56	Aug. 25, 1939	1.38
25	5.80	Mar. 25	3.20	Sept. 15	3.27
Dec. 3	7.40	Apr. 26	2.95	Oct. 11	3.27
16	6.20	May 20	2.43	Nov. 24	3.18
31	6.20	June 14	2.91	Dec. 20	3.10
Jan. 14, 1936	6.30	July 22	2.68	Feb. 19, 1940	3.00
30	6.20	Aug. 12	3.37	Mar. 25	2.60
Mar. 13	5.50	Sept. 20	2.47	Apr. 24	2.40
27	5.80	Oct. 18	2.77	May 27	2.30
June 15	6.30	Nov. 30	2.65	June 20	2.60
Oct. 9	6.82	Dec. 16	2.65	28	2.60
Dec. 21	6.54	Jan. 13, 1939	2.50	July 19	2.70
Feb. 12, 1937	6.34	Feb. 21	2.68	Aug. 13	3.10
Apr. 9	5.60	Mar. 21	2.10	Sept. 9	3.80
May 26	5.30	Apr. 14	2.40	Mar. 6, 1942	2.10
Aug. 10	4.85	May 23	2.66	Apr. 1	2.10
Nov. 29	4.20	June 30	2.78	13	2.60
Jan. 5, 1938	3.90	July 30	3.42	May 14	3.80

17-1-5ad--Continued.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
July 18, 1942	2.90	June 24, 1943	3.50	Oct. 12, 1945	2.90
21	3.50	Aug. 30	2.60	Nov. 15	3.00
Aug. 4	4.50	Oct. 18	4.70	Dec. 18	3.10
19	4.10	Nov. 17	2.50	Jan. 11, 1946	3.00
31	3.80	Jan. 22, 1944	4.60	Feb. 25	2.70
Sept. 22	3.50	Feb. 3	4.60	Mar. 11	2.80
Oct. 20	3.60	Mar. 9	4.20	Apr. 11	2.80
Nov. 17	3.60	June 28	2.40	June 24	3.40
Dec. 16	3.80	Oct. 26	3.30	Aug. 22	3.70
Jan. 6, 1943	3.80	Jan. 19, 1945	3.60	Oct. 3	3.30
Feb. 9	3.40	May 17	2.50	Oct. 11	a 1.64
Feb. 25	3.60	June 28	2.00	Nov. 5	a 2.10
Mar. 11	3.70	July 23	1.40	Dec. 5	1.50
Apr. 21	3.50	Aug. 13	2.20	10	a 1.50
May 28	3.80				

a By U. S. Geological Survey.

17-1-7ac. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.5 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum, and 1,480.4 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 4.50 on July 23, 1945; lowest, 9.34 on Dec. 21, 1936.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Nov. 5, 1935	9.20	Apr. 14, 1939	7.45	Feb. 25, 1943	8.20
18	9.00	May 25	7.54	Mar. 11	8.30
Dec. 3	9.30	June 30	7.44	Apr. 1	8.20
18	9.00	July 20	7.78	21	8.10
31	9.00	Aug. 25	7.96	May 28	8.20
Jan. 14, 1936	9.10	Sept. 15	8.10	June 24	8.00
30	9.10	Oct. 25	8.31	July 15	8.10
Mar. 13	7.90	Nov. 24	8.38	Aug. 26	8.50
27	8.10	Dec. 30	8.40	Oct. 18	9.00
June 16	8.50	Feb. 21, 1940	8.20	Nov. 17	9.00
Oct. 8	9.27	Mar. 26	8.10	Jan. 21, 1944	9.10
Dec. 21	9.34	Apr. 24	7.80	June 28	5.88
Feb. 16, 1937	9.27	May 27	7.40	Oct. 26	5.00
Apr. 6	8.80	June 28	7.60	Jan. 18, 1945	7.80
May 22	8.80	July 19	7.60	June 28	5.60
Aug. 10	8.62	Aug. 13	7.70	July 23	4.50
Oct. 1	8.84	Sept. 9	8.00	Aug. 13	5.50
Nov. 27	8.65	Mar. 10, 1942	8.10	Oct. 12	6.70
Jan. 7, 1938	8.55	Apr. 1	7.50	Nov. 15	7.00
Feb. 15	8.42	18	7.50	Dec. 21	7.40
Mar. 25	8.16	May 14	7.40	Jan. 11, 1946	7.40
Apr. 26	7.98	June 10	7.50	Mar. 11	7.40
May 20	7.82	July 8	7.40	Apr. 11	7.20
June 8	7.74	21	7.60	May 22	7.20
July 22	7.35	Aug. 4	7.90	June 24	5.30
Aug. 12	7.62	19	8.20	July 19	6.40
Sept. 20	7.36	31	8.20	Aug. 22	7.20
Oct. 18	7.55	Sept. 22	8.10	Oct. 3	7.60
Nov. 30	7.80	Oct. 21	8.20	11	a 7.35
Dec. 16	7.81	Nov. 17	8.30	Nov. 5	a 6.50
Jan. 13, 1939	7.83	Dec. 16	8.40	Dec. 10	a 5.74
Feb. 21	7.80	Jan. 6, 1943	8.40	18	5.80
Mar. 22	7.50	Feb. 9	8.10		

a By U. S. Geological Survey.

17-1-14cc. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 20.2 feet. Measuring point, top of pipe, 2.3 feet above land-surface datum, and 1,466.5 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 9.20 on July 23, 1945; lowest, 11.50 on Sept. 10, 1940.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
Nov. 5, 1935	11.40	May 23, 1939	11.07	Feb. 26, 1943	10.70
15	11.10	June 30	11.11	Mar. 11	10.70
Dec. 3	10.90	July 20	11.34	Apr. 1	10.50
18	11.20	Aug. 16	11.25	28	10.40
31	11.10	Sept. 15	11.30	May 28	10.70
Jan. 14, 1936	11.00	Oct. 11	11.25	June 24	10.60
30	10.90	Nov. 10	11.11	July 15	10.60
Mar. 13	10.20	Dec. 8	11.00	Aug. 30	11.30
27	10.50	Feb. 21, 1940	10.70	Oct. 18	11.20
June 16	11.10	Mar. 25	10.60	Nov. 17	10.90
Oct. 18	11.30	Apr. 24	10.80	Jan. 22, 1944	11.00
Dec. 17	11.10	May 22	10.80	Feb. 2	10.90
Feb. 16, 1937	10.79	June 22	10.80	Mar. 9	10.80
Apr. 6	10.87	26	10.80	Oct. 26	10.20
May 22	11.10	July 20	11.00	Dec. 22	10.40
Aug. 10	11.40	Aug. 14	11.30	Jan. 18, 1945	10.20
Sept. 30	11.46	Sept. 10	11.50	June 28	9.70
Nov. 29	11.01	18	11.20	July 23	9.20
Jan. 5, 1938	10.95	Mar. 6, 1942	10.30	Aug. 13	9.70
Feb. 11	10.80	Apr. 13	10.20	Oct. 12	10.20
Mar. 25	10.70	May 14	10.60	Nov. 15	10.20
Apr. 26	10.80	June 10	10.70	Dec. 21	10.40
May 9	10.65	July 8	10.70	Jan. 11, 1946	10.30
June 14	10.82	21	10.70	Mar. 11	10.00
July 22	10.91	Aug. 4	11.10	Apr. 11	10.00
Aug. 11	11.22	19	11.00	May 17	10.00
Sept. 23	11.17	31	11.40	June 24	9.30
Oct. 14	11.25	Sept. 22	11.00	July 6	9.70
Nov. 18	11.06	Oct. 21	10.70	Oct. 3	10.30
Dec. 16	11.04	Nov. 18	10.90	11	a 10.00
Jan. 17, 1939	10.98	Dec. 16	11.00	Nov. 5	a 10.10
Feb. 14	10.93	Jan. 6, 1943	10.80	Dec. 5	9.50
Mar. 21	10.76	Feb. 5	10.80	10	a 9.42
Apr. 14	10.77				

a By U. S. Geological Survey.

17-1-34dc. J. Ernst. Drilled irrigation well, diameter 24 inches, depth 65.2 feet. Measuring point, base of pump, 0.3 foot above land-surface datum. Highest observed stage in period of record, 7.53 on Oct. 17, 1945; lowest, 9.40 on Sept. 4, 1946.

Water level, in feet below land-surface datum, 1945-46

Oct. 17, 1945	7.53	May 7, 1946	8.39	Sept. 4, 1946	9.40
Jan. 4, 1946	8.54	June 4	8.59	Oct. 10	9.16
Feb. 12	8.40	July 9	8.11	Nov. 5	8.78
Mar. 12	8.25	Aug. 6	9.23	Dec. 10	8.14
Apr. 9	8.27				

17-2-2cd (Well 40 in previous reports) (*817, p. 156; 840, p. 216; 845, p. 181; 886, p. 330; 908, p. 229; 938, p. 180; 946, p. 223). E. Schacher. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 107.93. Highest observed stage in period of record, 5.53 on Dec. 10, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 4	6.49	May 7	6.13	Dec. 10	5.53
Feb. 11	6.47	Nov. 5	6.08		

17-2-4bc. Loup River Public Power District. Driven observation well, diameter $1\frac{1}{4}$ inches. Measuring point, top of pipe, 3.1 feet above land-surface datum, and 1,510.42 feet above sea level. Measurements supplied through courtesy of Loup River Public Power District. Highest observed stage in period of record, 7.24 on June 11, 1945; lowest, 12.30 on Aug. 31, 1942, and Oct. 14, 1943.

Water level, in feet below land-surface datum, 1935-40, 1942-46

Date	Water level	Date	Water level	Date	Water level
Nov. 5, 1935	11.20	Apr. 21, 1939	9.80	May 26, 1943	10.80
18	10.80	May 26	10.03	June 22	10.40
Dec. 3	10.90	June 23	10.12	July 15	10.90
18	10.50	July 21	10.97	Aug. 5	11.50
30	10.60	Aug. 29	10.66	26	12.20
Jan. 13, 1936	10.30	Sept. 19	11.25	Oct. 14	12.30
28	10.50	Oct. 27	11.12	Nov. 16	11.80
Feb. 27	9.80	Nov. 24	10.92	Jan. 20, 1944	11.10
Mar. 12	9.00	Dec. 30	10.70	June 27	9.20
27	9.70	Feb. 19, 1940	10.10	Oct. 25	10.50
June 15	10.40	Mar. 26	9.70	Dec. 21	10.10
Oct. 13	11.00	Apr. 23	9.40	Jan. 15, 1945	10.00
Dec. 21	10.61	Jan. 19, 1942	10.90	Apr. 24	9.10
Feb. 12, 1937	9.63	Mar. 10	10.10	May 11	9.34
Apr. 6	9.28	Apr. 1	9.60	17	9.00
May 21	9.60	8	9.80	31	7.93
July 26	10.06	May 14	10.30	June 4	7.76
Sept. 27	10.64	June 9	10.60	11	7.24
Nov. 29	10.12	July 7	10.60	25	8.00
Jan. 12, 1938	9.80	21	11.10	July 23	8.30
Feb. 21	9.40	Aug. 4	11.70	Oct. 12	10.60
Mar. 26	9.43	19	11.90	Nov. 12	10.50
Apr. 26	9.60	31	12.30	Dec. 12	10.30
May 27	9.50	Sept. 22	11.30	Jan. 9, 1946	10.20
June 17	9.90	Oct. 21	11.40	Mar. 21	9.80
July 26	9.96	Nov. 12	11.60	May 8	10.10
Aug. 13	10.80	Dec. 10	10.80	June 14	10.20
Sept. 14	10.44	Jan. 5, 1943	10.40	July 8	9.10
Oct. 19	10.74	Feb. 22	10.00	Aug. 8	10.80
Nov. 30	10.45	Mar. 11	10.00	Oct. 11	a 10.32
Dec. 21	10.33	31	10.10	21	9.90
Jan. 12, 1939	10.17	Apr. 21	10.10	Nov. 5	a 9.95
Feb. 22	10.02	May 11	10.60	Dec. 10	a 9.21
Mar. 23	9.50				

a By U. S. Geological Survey.

A18-1-28cd (Well US 150 in previous reports) (*988, p. 294; 1018, p. 220; 1025, p. 214). Loup River Public Power District.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	67.90	Apr. 30	63.30	July 27	68.40	Oct. 28	68.80
Feb. 28	68.00	May 27	68.30	Aug. 28	68.50	Dec. 27	68.80
Mar. 28	68.10	June 28	68.10	Sept. 27	68.70		

Polk County

13-4-34cc. University of Nebraska. Bored observation well, diameter 1 inch, depth 24 feet. Measuring point, top of pipe, 1.3 feet above land-surface datum. Highest observed stage in period of record, 7.77 on Apr. 8, 1946; lowest, 12.61 on Aug. 2, 1940.

Water level, in feet below land-surface datum, 1940-41, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
Aug. 2, 1940	12.61	Oct. 30, 1941	9.71	Apr. 8, 1946	7.77
Nov. 14	12.40	25, 1944	8.54	Dec. 31	9.05

14-4-19ab. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13 feet. Measuring point, top of casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.54 on Oct. 10, 1946; lowest, 5.94 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	4.13	May 6	4.28	Aug. 5	5.75	Nov. 4	4.56
Mar. 11	4.21	June 3	4.32	Sept. 3	5.94	Dec. 9	4.02
Apr. 8	4.40	July 8	4.97	Oct. 10	2.54		

15-2-4dc. Drilled irrigation well, diameter 18 inches, depth 50.8 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 6.25 on Apr. 9, 1946; lowest, 7.75 on Oct. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9	6.25	July 8	6.94	Sept. 3	7.69	Nov. 4	7.49
May 7	6.34	Aug. 5	7.42	Oct. 12	7.75	Dec. 9	6.49
June 3	6.92						

15-2-7bb. 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. Highest observed stage in period of record, 8.18 on Sept. 3, 1946; lowest, 6.35 on May 6, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11	6.84	May 6	6.35	Aug. 5	8.08	Nov. 4	7.30
Mar. 11	6.50	June 3	6.92	Sept. 3	8.18	Dec. 9	6.40
Apr. 8	6.55	July 8	7.25	Oct. 12	7.70		

15-3-20cc. R. Norris. Dug irrigation well, diameter 12 inches, depth 21 feet. Measuring point, top of steel beam, 0.2 foot above land-surface datum. Highest observed stage in period of record, 4.20 on Dec. 9, 1946; lowest, 6.69 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946,

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	5.69	Apr. 8	5.64	July 8	6.27	Oct. 12	5.69
Feb. 11	5.55	May 6	5.26	Aug. 5	6.44	Nov. 4	5.39
Mar. 11	5.34	June 3	6.19	Sept. 3	6.69	Dec. 9	4.20

15-4-35dc. C. Carlson. Drilled irrigation well, diameter 24 inches, depth 80 feet. Measuring point, base of 1-inch pipe, 0.6 foot above land-surface datum. Highest observed stage in period of record, 18.78 on June 3, 1946; lowest, 21.00 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	19.99	Apr. 8	19.74	July 8	19.81	Oct. 12	20.65
Feb. 11	19.78	May 6	19.92	Aug. 5	20.89	Nov. 4	20.45
Mar. 11	19.79	June 3	18.78	Sept. 3	21.00	Dec. 9	19.98

16-1-14bb. J. Czafla. Abandoned driven domestic well, diameter $1\frac{1}{4}$ inches, depth 13 feet. Measuring point, top of casing, 1.4 foot above land-surface datum. Highest observed stage in period of record, 4.63 on Dec. 9, 1946; lowest, 6.38 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 8	6.04	Apr. 8	5.86	July 8	5.44	Oct. 12	6.08
Feb. 11	5.98	May 6	5.36	Aug. 5	6.15	Nov. 4	5.65
Mar. 11	5.75	June 3	5.69	Sept. 3	6.38	Dec. 9	4.63

16-1-36cd. H. Bugham. Drilled irrigation well, diameter 18 inches, depth 108 feet. Measuring point, bottom edge of discharge pipe, 3.2 feet from land-surface datum. Highest observed stage in period of record, 20.13 on Jan. 9, 1946; lowest, 21.71 on June 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	20.13	Apr. 8	20.48	July 8	20.54	Nov. 4	21.28
Feb. 11	20.23	May 6	20.61	Sept. 3	21.07	Dec. 9	20.91
Mar. 11	20.39	June 3	21.71	Oct. 12	20.89		

16-2-23dc. R. Nitsch. Drilled irrigation well, diameter 24 inches, depth 40 feet. Measuring point, top of steel beam, 0.5 foot above land-surface datum. Highest observed stage in period of record, 7.17 on Apr. 8, 1946; lowest, 8.18 on Sept. 3, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9	7.87	Apr. 8	7.17	Aug. 5	7.95	Nov. 4	7.82
Feb. 11	7.58	May 6	7.37	Sept. 3	8.18	Dec. 9	7.20
Mar. 11	7.40	July 8	7.44	Oct. 12	8.07		

Red Willow County

2-29-4aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 16.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.90 on Oct. 25, 1946; lowest, 10.99 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 10.48; Aug. 14, 10.99; Oct. 25, 8.90; Dec. 17, 8.93.

2-29-5ab. R. Wilcox. Drilled irrigation well, diameter 24 inches, depth 52 feet. Measuring point, 4- by 6-inch crossbar, 1.0 foot above land-surface datum. Highest observed stage in period of record, 16.35 on Dec. 7, 1946; lowest, 19.80 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 29	18.12	Aug. 14	19.80	Dec. 7	16.35
Mar. 20	18.20	Oct. 25	16.73		

2-29-33ca (Well 179 in previous reports) (*817, p. 157; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 229; 938, p. 180). J. Clamp. No measurements made in 1946.

2-30-1aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 18.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.17 on Oct. 24, 1946; lowest, 11.19 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 10.03; Aug. 14, 11.19; Oct. 24, 8.17; Dec. 17, 8.51.

2-30-12ad. C. Schmidt. Drilled irrigation well, diameter 22 inches, depth 75.3 feet. Measuring point, turbine opening, 1.3 feet above land-surface datum. Highest observed stage in period of record, 28.72 on Oct. 24, 1946; lowest, 30.81 on June 12, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 29	30.38	June 12	30.81	Oct. 24	28.72
Mar. 20	30.65	Aug. 14	29.38	Dec. 17	29.10

3-26-5bb. H. Carr. Drilled irrigation well, diameter 18 inches, depth 97 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 43.60 on June 12, 1946; lowest, 45.87 on Oct. 25, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 30	44.30	June 12	43.60	Dec. 11	44.67
Mar. 20	43.87	Oct. 25	45.87		

3-26-9cb. C. Fucha. Drilled irrigation well, diameter 18 inches, depth 46 feet. Measuring point, base of turbine, at land-surface datum. Highest observed stage in period of record, 16.25 on Dec. 17, 1946; lowest, 17.02 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 30	16.73	June 12	16.80	Oct. 25	16.63
Mar. 20	16.58	Aug. 14	17.02	Dec. 17	16.25

3-26-11bb. 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, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.35 on Dec. 17, 1946; lowest, 9.08 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 8.62; Aug. 14, 9.08; Oct. 25, 8.40; Dec. 17, 8.35.

3-27-7dc. A. Helm. Dug irrigation well, diameter 26 inches, depth 30 feet. Measuring point, edge of concrete, at land-surface datum. Highest observed stage in period of record, 7.18 on Dec. 11, 1946; lowest, 9.62 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 30	9.20	June 12	9.48	Oct. 21	7.55
Mar. 20	8.99	Aug. 14	9.62	Dec. 11	7.18

3-27-8ac (Well 137 in previous reports) (#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). F. Duckworth. Highest observed stage in period of record, 9.21 on Oct. 21, 1946.

Water level, in feet below land-surface datum, 1946

Mar. 20	12.09	Aug. 14	12.17	Dec. 11	10.52
June 12	12.20	Oct. 21	9.21		

3-27-11aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 13.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.73 on Oct. 21, 1946; lowest, 7.50 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 7.15; Aug. 14, 7.50; Oct. 21, 3.73; Dec. 11, 4.26.

3-27-11cd. J. Tiller. Drilled irrigation well, diameter 18 inches, depth 64 feet. Measuring point, base of turbine, 0.1 foot above land-surface datum. Highest observed stage in period of record, 16.39 on Jan. 30, 1946; lowest, 17.62 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 30	16.39	June 12	16.99	Oct. 25	16.44
Mar. 20	16.60	Aug. 14	17.62	Dec. 17	16.57

3-27-17cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.31 on Oct. 25, 1946; lowest, 9.95 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 8	9.10	June 12	9.42	Oct. 25	8.31
Mar. 19	9.08	Aug. 14	9.95	Dec. 17	9.27

3-28-17da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.1 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.83 on Oct. 21, 1946; lowest, 11.68 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Feb. 8	10.79	June 12	11.16	Oct. 21	9.83
Mar. 19	10.54	Aug. 14	11.68	Dec. 17	9.85

3-28-20bb. K. Tridle. Drilled irrigation well, diameter 15 inches, depth 39 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 9.27 on Dec. 17, 1946; lowest, 10.86 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Jan. 30	10.42	June 12	10.72	Oct. 21	9.32
Mar. 20	10.22	Aug. 14	10.86	Dec. 17	9.27

3-28-21cd. P. Vogue. Drilled irrigation well, diameter 18 inches, depth 45 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.48 on Oct. 21, 1946; lowest, 9.08 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 30	8.56	June 12	8.88	Oct. 21	8.48
Mar. 20	8.56	Aug. 14	9.08	Dec. 17	8.94

3-29-32db (Well 494 in previous reports) (*988, p. 295; 1018, p. 220). University of Nebraska. Highest observed stage in period of record, 4.72 on Oct. 25, 1946; lowest, 7.10 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 6	5.54	June 12	6.69	Oct. 25	4.72
Mar. 20	5.46	Aug. 14	7.10	Dec. 17	4.83

3-29-35da. L. Hickman. Drilled irrigation well, diameter 24 inches, depth 40 feet. Measuring point, north side of car frame, 2.0 feet above land-surface datum. Highest observed stage in period of record, 18.12 on Dec. 17, 1946; lowest, 19.53 on Jan. 29, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Jan. 29	19.53	June 12	19.48	Oct. 25	18.69
Mar. 20	19.39	Aug. 14	19.42	Dec. 17	18.12

3-30-19bb. Mrs. F. Cain. Drilled irrigation well, diameter 24 inches. Measuring point, top of casing, 6.0 feet below land-surface datum. Highest observed stage in period of record, 6.88 on Mar. 20, 1946; lowest, 8.49 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 2	6.90	June 11	7.54	Oct. 24	6.95
Mar. 20	6.88	Aug. 15	8.49	Dec. 16	6.95

3-30-26cb. O. Brown. Drilled irrigation well, diameter 18 inches, depth 58 feet. Measuring point, hole in casing, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.05 on Feb. 4, 1946; lowest, 9.66 on Aug. 14, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 4	8.05	June 12	8.96	Oct. 21	8.34
Mar. 20	8.32	Aug. 14	9.66	Dec. 11	8.28

3-30-29aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{2}$ inches, depth 12.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.08 on Oct. 24, 1946; lowest, 4.45 on Aug. 14, 1946. Water levels, in feet below land-surface datum, 1946: June 12, 4.00; Aug. 14, 4.45; Oct. 24, 3.08; Dec. 16, 3.17.

3-30-34bb. J. Hauxwell. Drilled irrigation well, diameter 18 inches, depth 53 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.34 on Oct. 24, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 2	13.30	June 12	13.82	Oct. 24	12.34
Mar. 20	13.27	Aug. 14	14.48	Dec. 17	12.49

4-28-34db. J. Selover. Drilled irrigation well, diameter 24 inches, depth 76 feet. Measuring point, base of turbine, 1.0 foot above land-surface datum. Highest observed stage in period of record, 19.96 on Dec. 11, 1946; lowest, 20.88 on Feb. 1, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 1	20.88	June 12	20.65	Dec. 11	19.96
Mar. 20	20.69	Oct. 25	20.63		

Richardson County

A1-14-11cb (Well 408 in previous reports) (*886, p. 331; 908, p. 332; 938, p. 181; 946, p. 224; *988, p. 296; 1018, p. 221). S. A. Miles. Water level, in feet below land-surface datum, 1946: Dec. 23, dry.

A1-15-12dd (Well 419 in previous reports) (*886, p. 331; 908, p. 233; 938, p. 181; 946, p. 224; *988, p. 296; 1018, p. 221). University of Nebraska. Highest observed stage in period of record, 1.28 on Dec. 23, 1946. Water level, in feet below land-surface datum, 1946: Dec. 23, 1.28.

A1-16-19bb (Well 417 in previous reports) (*908, p. 233). University of Nebraska. No measurements made in 1946.

A1-17-16bb (Well 7 in previous reports) (*817, p. 157; 840, p. 217; 845, p. 181; 908, p. 230; 938, p. 181; *1018, p. 221). University of Nebraska. No measurements made in 1946.

A2-13-4cd (Well 410 in previous reports) (*908, p. 232; 946, p. 224; *1018, p. 221). University of Nebraska. Water level, in feet below land-surface datum, 1946: Dec. 23, 6.95.

A2-13-9bb. University of Nebraska. Bored observation well, diameter 3 inches, depth 24.5 feet. Measuring point, top of casing, 2.1 feet above land-surface datum. Highest observed stage in period of record, 20.34 on Oct. 24, 1944; lowest, 21.79 on Oct. 10, 1938.

Water level, in feet below land-surface datum, 1936-38, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
Oct. 12, 1936	20.69	Aug. 3, 1937	21.23	Oct. 10, 1938	21.79
Mar. 18, 1937	20.55	Oct. 6,	21.50	Oct. 24, 1944	20.34
June 2	21.12	July 6, 1938	21.46	Dec. 23, 1946	21.25

A2-14-22ab (Well 416 in previous reports) (*886, p. 331; 908, p. 233; 938, p. 181; 946, p. 224; *988, p. 296; 1018, p. 221). Mrs. Wittler. Water level, in feet below land-surface datum, 1946: Dec. 23, 5.39.

A2-14-27ab (Well 5 in previous reports) (*817, p. 157; 840, p. 217; 845, p. 181; 886, p. 331; 908, p. 230; 938, p. 181; 946, p. 223; *988, p. 295; 1018, p. 221). W. Hogue. Water level, in feet below land-surface datum, 1946: Dec. 23, 27.64.

Rock County

30-17-8db (Well 117 in previous reports) (*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). University of Nebraska. Conversion statement and water level published in Water-Supply Paper 988 are erroneous. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 104.65. Water levels, in feet below land-surface datum: Mar. 11, 1943, 3.92; Aug. 6, 1946, 3.10.

30-19-10aa. University of Nebraska. Bored observation well, diameter $1\frac{1}{4}$ inches, depth 15 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum. The measurements below were erroneously published for well 198 which was destroyed in 1937. Highest observed stage in period of record, 0.80 on May 16, 1945; lowest, 4.23 on July 19, 1940.

Water level, in feet below land-surface datum, 1940, 1944-45

July 19, 1940	4.23	July 31, 1944	2.41	Aug. 1, 1945	2.73
Oct. 31	4.08	May 16, 1945	.80		

Saline County

A6-1-24aa (Well 194 in previous reports) (*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 332; 908, p. 233; 938, p. 181; 946, p. 224; *1018, p. 221). Prybl Estate. Water level, in feet below land-surface datum, 1946: Dec. 30, 21.15.

A7-3-30aa (Well 341 in previous reports) (*817, p. 158; 840, p. 217; 845, p. 181; 886, p. 332; 908, p. 233; 938, p. 181; 946, p. 224; *1018, p. 221). A. Kohout. Highest observed stage in period of record, 48.56 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 48.56.

Sarpy County

A13-13-26ba (Well 26a in previous reports) (*938, p. 181). University of Nebraska. No measurements made in 1946.

A13-13-27da (Well 27 in previous reports) (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 946, p. 225). Chicago, Burlington & Quincy Railroad. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.37. Water level, in feet below land-surface datum, 1946: Dec. 26, 3.19.

A14-12-26cc (Well 323 in previous reports) (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225). S. Arbuthnot. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 132.39. Highest observed stage in period of record, 24.16 on Dec. 26, 1946. Water level, in feet below land-surface datum, 1946: Dec. 26, 24.16.

Saunders County

A13-9-11dd (Well 21 in previous reports) (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 222). City of Lincoln. Water level, in feet below land-surface datum, 1946: Dec. 30, 2.50.

A13-9-12dc. City of Lincoln. Driven observation well, diameter 1½ inches, depth 11.2 feet. Measuring point, top of pipe, 0.2 foot above land-surface datum. Highest observed stage in period of record, 4.19 on Mar. 19, 1940; lowest, 7.94 on Oct. 7, 1941.

Water level, in feet below land-surface datum, 1936-42, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
Oct. 16, 1936	7.16	Oct. 10, 1938	4.31	Oct. 15, 1940	6.65
Mar. 19, 1937	5.71	Mar. 23, 1939	5.38	7, 1941	7.94
June 3	5.49	Nov. 18	6.86	22, 1942	5.75
Aug. 4	6.50	Mar. 19, 1940	4.19	27, 1944	5.73
Oct. 7	6.92	July 6	5.26	Dec. 30, 1946	4.28
July 7, 1938	4.58				

A13-9-24cc (Well 2-6600W in previous reports) (*988, p. 297; 1018, p. 222). Key well US 62. City of Lincoln.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	5.85	May 29	5.36	July 27	5.35	Nov. 1	3.75
Feb. 28	5.30	June 1	5.53	Aug. 31	4.65	29	3.40
Mar. 29	4.60	28	3.80	Oct. 1	5.50		

A13-9-24dc (Well 22 in previous reports) (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 222). City of Lincoln. Water level, in feet below land-surface datum, 1946: Dec. 30, 9.55.

A14-5-35cd (Well 331 in previous reports) (*817, p. 160; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 222). Union Pacific Railroad. Highest observed stage in period of record, 2.50 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 2.50.

A14-8-29bc (Well 19 in previous reports) (*817, p. 159; 840, p. 218; 845, p. 182; 886, p. 332; 908, p. 234; 938, p. 181; *1018, p. 222). Filled in; measurements discontinued.

A17-5-23bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 8.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Oct. 11, 1.13; Nov. 5, 1.19; Dec. 10, 1.09.

Scotts Bluff County

22-56-4dd (Well 442 in previous reports) (*840, p. 229; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 223). University of Nebraska. No measurements made in 1946.

23-56-21da (Well 438 in previous reports) (*840, p. 228; 845, p. 190; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 222). University of Nebraska. No measurements made in 1946.

23-56-28ad (Well 439 in previous reports) (*840, p. 228; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 222). University of Nebraska. No measurements made in 1946.

23-56-28dd (Well 440 in previous reports) (*840, p. 228; 845, p. 191; 886, p. 332; 908, p. 234; 938, p. 181; 946, p. 225; *1018, p. 223). University of Nebraska. No measurements made in 1946.

23-57-22cb (Well 502 in previous reports) (*946, p. 225). Harry Long. No measurements made in 1946.

Seward County

All-3-22aa (Well 171 in previous reports) (*817, p. 160; 840, p. 229; 845, p. 192; 886, p. 332; 908, p. 234; 938, p. 182; 946, p. 225). Kilpatrick Estate. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 127.07. Highest observed stage in period of record, 28.80 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 28.80.

Sheridan County

24-41-34da (Well 217 in previous reports) (*817, p. 161; 840, p. 229; 845, p. 192; 886, p. 332; 908, p. 235; 938, p. 182; 946, p. 226; *1018, p. 223; 1025, p. 217). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 1	8.10	May 14	8.03	Sept. 2	8.85	Nov. 15	8.44
22	7.88	Aug. 15	8.94	Oct. 14	8.54	Dec. 18	8.41
Apr. 4	7.85						

24-42-27ba. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 18.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 12.19 on Apr. 4, 1946; lowest, 13.23 on Dec. 18, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	12.19	June 24	12.38	Oct. 14	13.13	Dec. 18	13.23
May 14	12.33	Aug. 15	12.37	Nov. 15	13.12		

24-43-15da. University of Nebraska. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 21.0 feet. Measuring point, top of pipe, 1.8 feet above land-surface datum. Replaces well 82. Highest observed stage in period of record, 5.97 on Apr. 4, 1946; lowest, 8.08 on Nov. 4, 1940.

24-43-15da--Continued.

Water level, in feet below land-surface datum, 1940-42, 1944, 1946

Date	Water level	Date	Water level	Date	Water level
July 22, 1940	7.90	Mar. 1, 1946	6.26	Aug. 15, 1946	6.84
Nov. 4,	8.08	22	6.01	Sept. 2	7.00
Oct. 20, 1941	7.86	Apr. 4	5.97	Oct. 19	6.78
Nov. 13, 1942	6.23	May 14	6.16	Nov. 15	6.66
Aug. 17, 1944	6.95	June 24	6.35	Dec. 18	6.64
17, 1945	6.52				

24-44-14da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 10.8 feet. Measuring point, top of pipe, 1.5 feet above land-surface datum. Highest observed stage in period of record, 4.05 on Apr. 4, 1946; lowest, 6.18 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 4	4.05	Aug. 15	6.18	Nov. 15	4.86
May 14	4.42	Oct. 14	5.26	Dec. 18	4.76

24-44-18bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.3 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 4.25 on May 14, 1946; lowest, 5.50 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 4	4.30	Aug. 15	5.50	Nov. 15	5.04
May 14	4.25	Oct. 14	5.13	Dec. 18	5.03

24-45-8dd (Well 379 in previous reports) (#817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 103.28. Highest observed stage in period of record, 0.96 on May 14, 1946; lowest, 3.29 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 14	0.96	Aug. 15	3.29	Oct. 14	2.23	Dec. 18	2.04
June 24	1.47	Sept. 2	2.20	Nov. 15	1.91		

24-46-10cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.26 on Apr. 4, 1946; lowest, 7.35 on Aug. 15, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 4	2.26	June 24	6.69	Oct. 14	7.31	Dec. 18	7.00
May 14	6.15	Aug. 15	7.35	Nov. 15	7.12		

25-41-28ad. Ballinger. Abandoned drilled well, diameter 6 inches, depth 37 feet. Measuring point, top of casing, 2.2 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 20, 9.02; Nov. 15, 9.01; Dec. 18, 9.16.

25-45-32ad. Herrian. Drilled observation well, diameter 4 inches, depth 79 feet. Measuring point, top of casing, 1.3 feet above land-surface datum. Stevens Type F 8-day automatic water-stage recorder installed Sept. 9, 1946. Highest observed stage in period of record, 32.86 on Dec. 29-30, 1946; lowest, 33.86 on Sept. 16, 1946.

Lowest daily water level, in feet below land-surface datum, 1946

(From recorder charts)

Sept. 9	33.59	Sept. 15	33.83	Sept. 21	33.49	Sept. 27	33.53
10	33.60	16	33.84	22	33.48	28	33.56
11	33.63	17	33.83	23	33.49	29	33.58
12	33.63	18	33.61	24	33.49	30	33.61
13	33.67	19	33.44	25	33.49	Oct. 1	33.61
14	33.75	20	33.42	26	33.49	2	33.59

25-45-32ad--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 3	33.58	Oct. 26	33.13	Nov. 17	32.97	Dec. 9	32.91
4	33.55	27	33.13	18	32.94	10	32.91
5	33.53	28	33.13	19	32.93	11	32.91
6	33.49	29	33.12	20	32.91	12	32.88
7	33.44	30	33.11	21	32.91	13	32.88
8	33.35	31	33.11	22	32.91	14	32.87
9	33.31	Nov. 1	33.12	23	32.92	15	32.87
10	33.26	2	33.15	24	32.92	16	32.88
11	33.26	3	33.17	25	32.93	17	32.90
12	33.25	4	33.17	26	32.94	18	32.90
13	33.22	5	33.17	27	32.95	19	32.90
14	33.20	6	33.14	28	32.95	20	32.92
15	33.20	7	33.09	29	32.95	21	32.92
16	33.20	8	33.09	30	32.95	22	32.91
17	33.20	9	33.09	Dec. 1	32.98	23	32.90
18	33.18	10	33.07	2	32.99	24	32.90
19	33.14	11	33.05	3	32.99	25	32.90
20	33.12	12	33.03	4	32.99	26	32.88
21	33.11	13	33.03	5	32.97	27	32.87
22	33.11	14	33.02	6	32.95	28	32.86
23	33.11	15	32.99	7	32.93	29	32.86
24	33.12	16	32.97	8	32.91	30	32.87
25	33.13						

25-45-33bc. 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, 1946

Sept. 11	0.96	Oct. 8	1.02	Oct. 29	1.08	Dec. 8	1.26
16	.90	14	1.05	Nov. 4	1.04	15	1.28
22	.96	22	1.08	12	1.16	23	1.28
30	.90						

26-41-24cd. Abandoned drilled well, diameter 4 inches, depth 31 feet. Measuring point, top of casing, 4.7 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 17, 16.70; Nov. 15, 16.70; Dec. 18, 16.76.

27-41-29ba. Bixby. Abandoned drilled well, diameter 2 inches, depth 74 feet. Measuring point, top of pipe, 3.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 19, 36.33; Nov. 15, 35.97; Dec. 18, 36.09.

27-46-34bb. F. Messersmith. Abandoned drilled stock well, diameter 4½ inches, depth 28 feet. Measuring point, top of casing, 2.0 feet above land-surface datum. Highest observed stage in period of record, 21.33 on May 17, 1946; lowest, 21.44 on Dec. 19, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 17	21.39	Aug. 16	21.37	Dec. 19	21.44
May 17	21.33	Nov. 14	21.35		

28-42-15bc. Drilled stock well, diameter 4 inches, depth 15 feet. Measuring point, top of casing, 0.2 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 25, 5.13; Nov. 15, 5.30; Dec. 18, 5.54.

28-46-4ac. H. Nickels. Abandoned drilled well, diameter 6 inches, depth 41 feet. Measuring point, top of casing, 0.6 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Nov. 27, 23.01; Dec. 19, 22.93.

28-46-32ad. H. Jaggars. Abandoned drilled stock well, diameter 4 inches, depth 49.5 feet. Measuring point, top of casing, 2.0 feet above land-surface datum. Highest observed stage in period of record, 24.83 on Apr. 23, 1946; lowest, 25.33 on Aug. 16, 1946. Water levels, in feet below land-surface datum, 1946: Apr. 23, 24.83; Aug. 16, 25.33; Nov. 14, 24.84; Dec. 19, 24.85.

31-44-10dd (Well 376 in previous reports) (*817, p. 161; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226; *1018, p. 223; 1025, p. 217). University of Nebraska. Water level, in feet below land-surface datum, 1946: Aug. 7, 4.55.

31-46-5dd (Well 120 in previous reports) (*817, p. 161; 840, p. 229; 845, p. 192; 908, p. 235; 938, p. 182). C. Johnson. No measurements made in 1946.

31-46-8ad. University of Nebraska. Driven observation well, diameter 1 inch, depth 14.7 feet. Measuring point, top of pipe, 3.0 feet above land-surface datum. Highest observed stage in period of record, 3.80 on June 16, 1937; lowest, 6.20 on Nov. 1, 1940.

Water level, in feet below land-surface datum, 1937-42, 1944-46

Date	Water level	Date	Water level	Date	Water level
June 16, 1937	3.80	June 6, 1939	3.91	Oct. 20, 1941	5.21
Aug. 9	5.52	Nov. 29	5.17	Aug. 23, 1942	4.04
Oct. 14	5.60	Mar. 29, 1940	4.09	Aug. 1, 1944	3.83
July 14, 1938	5.09	July 20	6.02	Aug. 2, 1945	4.06
Oct. 22	5.65	Nov. 1	6.20	Aug. 7, 1946	4.36

Sherman County

15-15-24da (Well 58 in previous reports) (*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. 217). J. Kociemba. No measurements made in 1946.

Sioux County

28-55-6cb (Well 377 in previous reports) (*817, p. 163; 840, p. 231; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). University of Nebraska. Well destroyed; measurements discontinued.

29-55-33cc (Well 81 in previous reports) (*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 938, p. 182; 946, p. 226). J. Cook. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 274.58. Lowest observed stage in period of record, 175.74 on June 27, 1946. Water level, in feet below land-surface datum, 1946: June 27, 175.74.

31-56-10da (Well 125 in previous reports) (*817, p. 162; 840, p. 230; 845, p. 192; 886, p. 333; 908, p. 235; 946, p. 226). Village of Harrison. No measurements made in 1946.

Stanton County

A23-3-11bb (Well 421 in previous reports) (*886, p. 333; 908, p. 235; 946, p. 226). University of Nebraska. To convert water levels from feet above assumed datum, as published in previous reports, subtract from 106.89. Highest observed stage in period of record, 3.68 on Dec. 26, 1946. Water level, in feet below land-surface datum, 1946: Dec. 26, 3.68.

Thayer County

3-2-3lad (Well 166 in previous reports) (*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 235; 938, p. 182; *1018, p. 224). H. Eggert. Water level, in feet below land-surface datum, 1946: Dec. 30, 105.48.

4-4-4cc (Well 187 in previous reports) (*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 235; 938, p. 182). L. Williams. Well destroyed; measurements discontinued.

4-4-22ab (Well 452 in previous reports) (*886, p. 334; 908, p. 235; 938, p. 182). University of Nebraska. To convert water levels from feet above assigned datum, as published in previous reports, to feet below land-surface datum, subtract from 108.81. Highest observed stage in period of record, 7.78 on Dec. 30, 1946. Water level, in feet below land-surface datum, 1946: Dec. 30, 7.78.

Thomas County

23-28-9da (Well 212 in previous reports) (*817, p. 163; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 946, p. 226; *1018, p. 224; 1025, p. 218). University of Nebraska.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 5	10.54	May 22	10.67	Aug. 15	10.97	Oct. 14	10.66
26	10.71	June 24	10.84	Sept. 2	10.87	Dec. 24	10.70

24-30-20ab (Well 213 in previous reports) (*817, p. 164; 840, p. 231; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227; *1018, p. 224; 1025, p. 218). University of Nebraska. Lowest observed stage in period of record, 3.12 on Apr. 26, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4	2.71	May 22	2.87	Aug. 15	3.04	Oct. 14	2.70
26	3.12	June 24	3.04	Sept. 2	2.86	Dec. 24	2.64

Thurston County

A25-6-26dc (Well 60 in previous reports) (*817, p. 164; 840, p. 231; 908, p. 236; 938, p. 182; 946, p. 227). S. French. No measurements made in 1946.

A26-8-13bc (Well 103 in previous reports) (*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 182; 946, p. 227). D. Leap. Water level, in feet below land-surface datum, 1946: Dec. 27, 9.85.

Valley County

17-16-26ab (Well 54 in previous reports) (*817, p. 164; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183). E. Esterbrook. Well destroyed; measurements discontinued.

17-16-26dc (Well 601 in previous reports) (*1018, p. 225; 1025, p. 218). Geological Survey, U. S. Dept. of Interior. Lowest observed stage in period of record, 6.83 on Dec. 26, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	5.17	5.09	4.76	....	5.88	5.03	5.39	6.41	6.41	5.75	....	4.69
2	5.13	5.12	4.77	5.01	5.79	5.11	5.46	6.43	6.42	5.77	....	4.72
3	5.10	5.13	4.77	5.07	5.52	5.17	5.53	6.44	6.42	5.79	....	4.76
4	5.08	5.13	4.81	5.13	5.46	5.24	5.60	6.46	6.37	5.80	....	4.69
5	5.05	5.10	4.84	5.17	5.50	5.32	5.66	6.47	6.34	5.71	....	4.65
6	5.03	5.06	4.81	5.21	5.54	5.39	5.72	6.47	6.34	4.30	....	4.66
7	5.02	5.03	4.73	5.25	5.58	5.48	5.77	6.45	6.34	3.82	....	4.67
8	5.02	5.01	4.69	5.29	5.62	5.56	5.82	6.46	6.30	3.35	....	4.70
9	5.03	5.01	4.64	5.30	5.65	5.63	5.86	6.47	6.23	3.53	....	4.76
10	5.03	4.99	4.66	5.29	5.62	5.70	5.92	6.49	6.16	3.46	....	4.78
11	5.05	4.99	4.66	5.19	5.26	5.78	5.98	6.51	6.13	3.81	....	4.77
12	5.09	....	4.71	5.08	5.14	5.85	6.03	6.52	6.11	3.88	....	4.80
13	5.12	4.99	4.77	5.14	5.19	5.99	6.08	6.52	6.11	4.14	....	4.84
14	5.14	....	4.80	5.22	5.29	5.95	6.13	6.47	6.09	4.30	....	4.85

17-16-26dc--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
15	5.14	....	4.82	5.26	5.37	6.00	6.15	6.44	6.05	4.37	....	4.82
16	5.14	....	4.73	5.31	5.43	6.05	6.15	6.42	6.02	4.40	....	4.84
17	5.18	....	4.10	5.35	5.48	6.08	6.05	6.46	6.01	4.39	....	4.93
18	5.17	4.92	4.22	5.39	5.54	5.43	6.03	6.50	6.01	3.90	4.07	4.99
19	5.11	4.92	4.34	5.44	5.60	4.58	6.08	6.53	6.00	3.95	4.11	5.00
20	5.06	4.90	....	5.48	5.66	4.02	6.13	6.57	5.85	4.16	4.17	5.00
21	5.09	4.87	....	5.53	5.72	5.04	6.16	6.58	5.74	4.30	4.34	4.98
22	5.10	4.85	....	5.58	5.76	4.24	6.19	6.59	5.70	4.42	4.45	4.92
23	5.14	4.82	....	5.64	5.78	4.53	6.24	6.59	5.70	4.42	4.42	4.91
24	5.13	4.80	....	5.67	5.68	4.72	6.26	6.59	5.71	4.50	4.49	4.87
25	5.07	4.78	....	5.71	5.09	4.87	6.29	6.57	5.74	4.56	4.59	4.84
26	5.05	4.75	....	5.74	4.91	4.97	6.31	6.54	5.77	4.62	4.58	6.83
27	5.08	4.78	4.64	5.78	4.88	5.06	6.33	6.49	5.80	4.64	4.60	6.82
28	5.11	4.76	4.71	5.81	5.09	5.15	6.35	6.46	5.83	4.66	4.60	4.92
29	5.11	....	4.92	5.85	5.17	5.22	6.37	6.43	5.82	....	4.60	5.04
30	5.06	....	....	5.86	5.17	5.31	6.39	6.42	5.78	....	4.65	5.13
31	5.06	....	....	....	4.99	....	6.40	6.40	....	....	....	....

18-13-23dd (Well 57 in previous reports) (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). W. T. Hutchins. No measurements made in 1946.

19-14-6dc (Well 56 in previous reports) (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). C. Verzal. No measurements made in 1946.

Washington County

A17-11-5da (Well 32 in previous reports) (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; *1018, p. 225). A. Matzen. Water level, in feet below land-surface datum, 1946: Dec. 26, 6.75.

A18-11-3aa (Well 33 in previous reports) (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227; *1018, p. 225). E. Jensen. Water level, in feet below land-surface datum, 1946: Dec. 26, 22.41.

Wayne County

A26-3-13cb (Well 100 in previous reports) (*817, p. 165; 840, p. 232; 845, p. 193; 886, p. 334; 908, p. 236; 938, p. 183; 946, p. 227). W. Andrews. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 130.41. Water level, in feet below land-surface datum, 1946: Dec. 27, 28.29.

Webster County

1-9-11cb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.5 feet. Measuring point, top of pipe, 2.0 feet above land-surface datum. Highest observed stage in period of record, 2.50 on Dec. 18, 1946; lowest, 5.27 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 28	3.89	June 10	4.00	Oct. 27	2.54
Mar. 8	3.72	Aug. 12	5.27	Dec. 18	2.50

1-9-13ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.25 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.50 on Oct. 27, 1946; lowest, 9.07 on Aug. 12, 1946.

1-9-13ad--Continued.

Water level, in feet below land-surface datum, 1946					
Date	Water level	Date	Water level	Date	Water level
Feb. 28	8.18	June 10	8.56	Oct. 27	5.50
Mar. 8	8.10	Aug. 12	9.07	Dec. 18	6.82

1-9-16bc. G. Ohmstede. Drilled irrigation well, diameter 36 inches, depth 34 feet. Measuring point, steel beam, 1.0 foot above land-surface datum. Highest observed stage in period of record, 10.14 on Dec. 18, 1946; lowest, 11.83 on Mar. 8, 1946.

Water level, in feet below land-surface datum, 1946					
Feb. 13	10.86	June 10	11.39	Dec. 18	10.14
Mar. 8	11.83	Oct. 27	11.47		

1-10-1dc (Well 12 in previous report) (#886, p. 336). Measurements reported discontinued in Water-Supply Paper 908; resumed in 1940. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 110.10. Highest observed stage in period of record, 9.51 on Oct. 29, 1941.

Water level, in feet below land-surface datum, 1940-41, 1946					
Apr. 10, 1940	10.48	June 12, 1946	10.26	Oct. 27, 1946	10.33
Oct. 29, 1941	9.51	Aug. 12	10.52	Dec. 18	10.19
Mar. 8, 1946	10.18				

1-10-1dc2 (Well 13 in previous report) (#886, p. 336). Measurements reported discontinued in Water-Supply Paper 908; resumed in 1940. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 116.81. Highest observed stage in period of record, 16.98 on Mar. 8 and June 12, 1946.

Water level, in feet below land-surface datum, 1940, 1946					
Apr. 10, 1940	17.22	June 12, 1946	16.98	Oct. 27, 1946	17.16
Mar. 8, 1946	16.98	Aug. 12	17.32	Dec. 18	17.30

1-10-3ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 8.42 on Oct. 27, 1946; lowest, 9.97 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946					
Mar. 8	9.42	Aug. 12	9.97	Dec. 18	8.68
June 10	9.87	Oct. 27	8.42		

1-10-9ad. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 23.15 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 15.66 on Oct. 27, 1946; lowest, 17.54 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946					
Mar. 8	16.34	Aug. 12	17.54	Dec. 18	15.94
June 10	17.20	Oct. 27	15.66		

1-11-1da. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 16.4 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 5.72 on Dec. 18, 1946; lowest, 9.33 on June 10, 1946.

Water level, in feet below land-surface datum, 1946					
Mar. 8	9.05	Aug. 12	8.78	Dec. 18	5.72
June 10	9.33	Oct. 27	5.86		

1-11-5bc. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 15.2 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.64 on Dec. 18, 1946; lowest, 6.55 on Mar. 8, 1946.

1-11-5bc--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 8	6.55	Aug. 12	5.92	Dec. 18	2.64
June 12	6.53	Oct. 27	2.69		

1-11-11ab. Geological Survey, U. S. Dept. of Interior. Drilled observation well, diameter 8 inches, depth 16.9 feet. Measuring point, top of casing, 1.1 feet above land-surface datum. Stevens Type A-35 (60-day) recorder installed May 24, 1946. Highest observed stage in period of record, 3.82 on Nov. 14, 1946; lowest, 9.10 on June 17, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	....	8.90	7.81	....	8.20	5.33	4.65	4.88
2	....	8.91	7.84	....	8.10	5.33	4.63	4.89
3	....	8.91	7.87	....	8.11	5.32	4.55	4.96
4	....	8.91	7.88	....	8.17	....	4.48	4.96
5	....	8.91	7.90	....	5.70	....	4.41	4.98
6	....	8.92	7.93	....	5.70	....	4.63	4.99
7	....	8.93	6.05	....	4.43	....	4.52	5.00
8	....	8.95	5.87	....	4.22	....	4.57	5.01
9	....	8.95	6.93	....	4.22	....	4.56	5.09
10	....	8.98	....	....	4.22	....	3.94	5.13
11	....	9.00	....	7.80	4.35	....	3.89	5.13
12	....	9.00	....	7.81	4.45	....	3.90	5.16
13	....	9.01	....	7.82	4.43	....	3.83	5.21
14	....	9.02	....	7.85	4.43	....	3.82	5.25
15	....	9.03	....	7.88	4.43	....	3.90	5.25
16	....	9.05	....	7.92	4.43	....	4.13	5.27
17	....	9.10	....	7.94	4.42	....	4.20	5.36
18	....	9.08	....	7.97	4.42	....	4.20	5.45
19	....	8.99	....	8.00	4.42	....	4.28	5.47
20	....	7.52	....	8.02	4.42	....	4.28	5.53
21	....	7.39	....	8.04	4.53	....	4.38	5.56
22	....	7.42	....	8.05	4.53	....	4.43	5.56
23	....	7.48	....	8.07	4.62	....	4.43	5.61
24	8.88	7.55	....	8.08	4.72	....	4.47	5.63
25	8.88	7.61	....	8.09	4.80	4.52	4.53	5.60
26	8.88	7.67	....	8.10	5.05	4.65	4.63	5.60
27	8.88	7.70	....	8.12	5.08	4.71	4.71	5.65
28	8.88	7.76	....	8.12	5.14	4.74	4.74	5.70
29	8.91	7.75	....	8.13	5.20	4.75	4.74	5.74
30	8.89	7.80	....	8.15	5.27	4.75	4.82	5.84
31	8.89	....	....	8.17	....	4.70	....	6.00

1-11-16aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 32.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 19.95 on Dec. 18, 1946; lowest, 21.25 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 8	20.37	Aug. 12	21.25	Dec. 18	19.95
June 10	20.58	Oct. 27	20.45		

1-12-2bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter 1½ inches, depth 12.5 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 2.77 on Oct. 26, 1946; lowest, 6.52 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	5.45	Aug. 12	6.52	Dec. 18	3.14
June 12	6.00	Oct. 26	2.77		

1-12-4bb. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 15.8 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 3.10 on Oct. 27, 1946; lowest, 8.17 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	6.68	Aug. 12	8.17	Dec. 18	3.54
June 12	7.26	Oct. 27	3.10		

1-12-8aa. Geological Survey, U. S. Dept. of Interior. Driven observation well, diameter $1\frac{1}{4}$ inches, depth 12.7 feet. Measuring point, top of pipe, 1.0 foot above land-surface datum. Highest observed stage in period of record, 1.95 on Oct. 26, 1946; lowest, 5.28 on Aug. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Mar. 7	4.06	Aug. 12	5.28	Dec. 18	3.28
June 12	4.29	Oct. 26	1.95		

2-9-24bd (Well 163 in previous reports) (*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 228). H. Pederson. Measuring point is now on platform 4.6 feet below land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 116.12. Highest observed stage in period of record, 15.08 on Mar. 8, 1946. Water levels, in feet below land-surface datum, 1946: Mar. 8, 15.08; June 10, 15.39; Aug. 12, 15.78.

2-10-36db (Well 162 in previous reports) (*817, p. 166; 840, p. 233; 845, p. 193; 946, p. 227). H. Somerhalder. To convert water levels prior to 1939 from feet above assumed datum to feet below land-surface datum, subtract from 124.02; for subsequent water levels, subtract from 126.86. Highest observed stage in period of record, 26.67 on Dec. 18, 1946; lowest, 28.07 on Feb. 12, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Feb. 12	28.07	June 10	27.16	Dec. 18	26.67
Mar. 8	27.04	Oct. 27	26.84		

2-12-34cd (Well 9 in previous report) (*886, p. 336). B. McNenny. Measurements reported discontinued in 1940 but were resumed in 1942. To convert water levels from feet above assumed datum, as published in previous report, to feet below land-surface datum, subtract from 118.81. Highest observed stage in period of record, 17.30 on Oct. 26, 1946. Water levels, in feet below land-surface datum: Nov. 25, 1942, 18.66; Mar. 7, 1946, 17.68; Oct. 26, 1946, 17.30; Dec. 18, 1946, 17.82.

3-10-34cb (Well 161 in previous reports) (*817, p. 166; 840, p. 232; 845, p. 193; 886, p. 336; 908, p. 236; 938, p. 183; 946, p. 227). R. Adams. To convert water level from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 135.16. Highest observed stage in period of record, 34.43 on Feb. 13, 1946. Water levels, in feet below land-surface datum, 1946: Feb. 13, 34.43; Dec. 31, 34.60.

Wheeler County

21-12-22ad (Well 205 in previous reports) (*817, p. 167; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 237; 938, p. 183). University of Nebraska. No measurements made in 1946.

23-11-12bb (Well 204 in previous reports) (*817, p. 166; 840, p. 233; 845, p. 193; 886, p. 336; 908, p. 237; 938, p. 183; 946, p. 228). University of Nebraska. No measurements made in 1946.

York County

11-3-32db (Well 167 in previous reports) (*817, p. 167; 840, p. 233; 845, p. 193; 908, p. 237; 938, p. 183; 946, p. 228; *1018, p. 226). H. Moore. No measurements made in 1946.

NORTH DAKOTA

By P. D. Akin

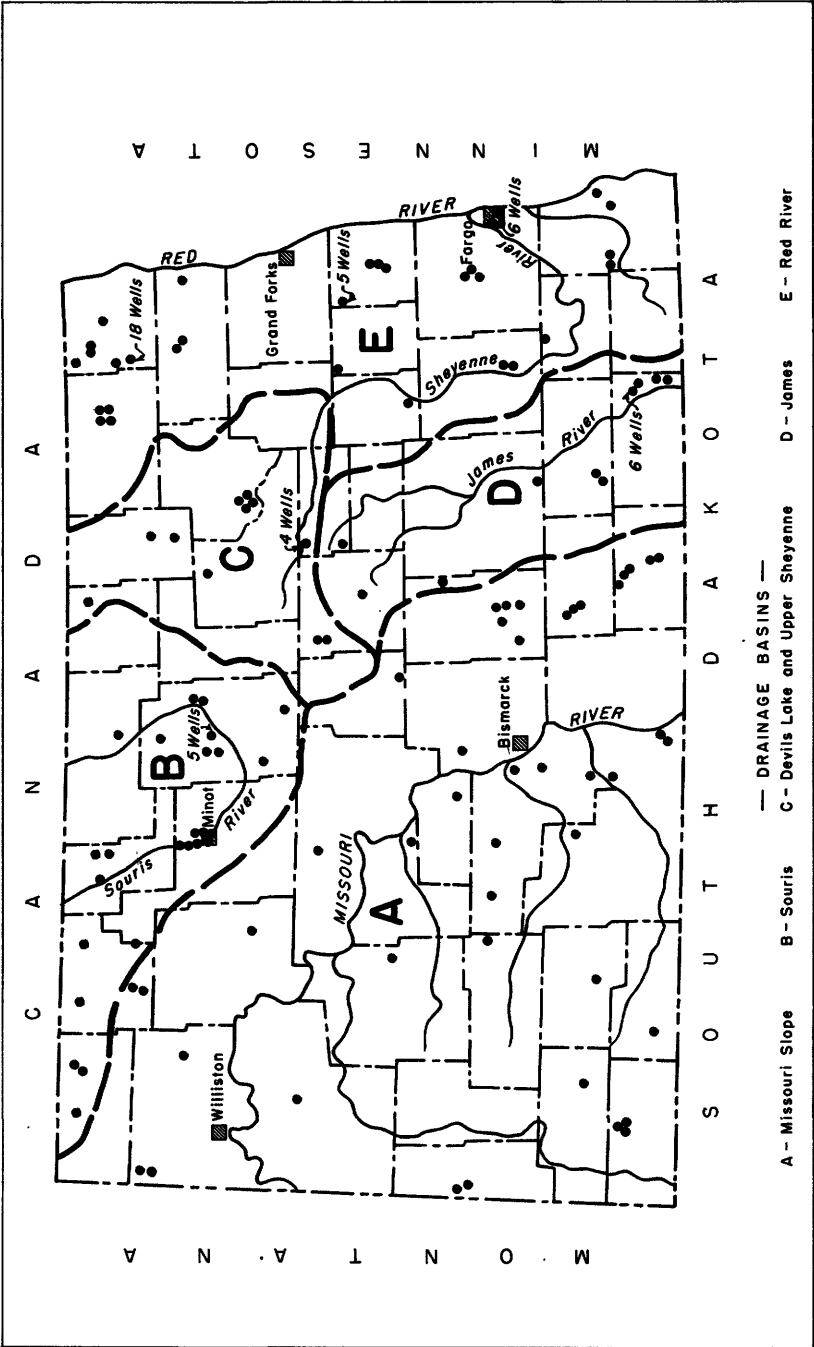
PROGRAM OF WORK

Ground-water investigations and the measurement of water levels in observation wells in North Dakota were continued in 1946 in cooperation with the North Dakota State Geological Survey and the North Dakota State Water Conservation Commission. At the end of 1946 water levels were being measured in 158 observation wells, of which 13 were equipped with automatic water-stage recorders. Water levels in 19 wells were being measured weekly by local observers. Measurements were discontinued in 10 wells. Records of a total of 1,517 water-level measurements are given in this report and, in addition, 2,904 water-level determinations obtained from the wells equipped with automatic water-stage recorders.

Field work in connection with the investigation of the ground-water conditions in the vicinity of Minot was completed in 1946 and field work was done in connection with studies of the ground-water conditions in the vicinities of the towns of Fessenden, Maddock, Minnewaukan, and Buxton, and also in the Fargo-Moorhead area in Cass County, North Dakota, and Clay County, Minnesota. Reports on ground-water conditions in the vicinities of Mountain, Oakes, Fessenden, and Dickinson, all in North Dakota, were published in mimeographed form.

PRECIPITATION

The average annual precipitation for the State in 1946, as reported by the United States Weather Bureau, was 16.65 inches or 0.45 inch below the 1892-1946 average. Departures from normal precipitation range from -5.60 inches to +6.30 inches at different stations in the State. Greatest negative departures from the normal occurred in the north-central part of the State near the Canadian border and the greatest positive departures occurred in the south-central part of the State near the South Dakota border. In general, the precipitation was below normal in the northern half of the State and above normal in the southern half. Average



precipitation for the State was below normal for all months except February, March, September, and December. The greatest monthly departures were -1.23 inches in October and +0.95 inch in September.

FLUCTUATIONS OF WATER LEVEL

The average monthly water levels for the State from 1937 through 1946 are shown in the following table. These averages are based on water-level measurements in selected observation wells. The averages for 1946 were computed from records from eight wells distributed over the State 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 7 is a graphical presentation of these data.

Average monthly water levels, in feet above assumed datum planes, in observation wells in North Dakota, 1937-46

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	99.58	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	100.43	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

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

As in previous years, the water levels were low during the winter, the lowest stage of the year occurring in January. The water levels rose slightly in February and declined slightly in March, but rose rapidly in April and May due to recharge from melting snow in conjunction with thawing of the ground surface. The highest water levels of the year were attained in May. After May, the water levels dropped until September. They rose slightly during October and November, probably due to rainfall in September and October, and then dropped slightly in December. The average water level for December 1946 was 0.13 foot higher than the average for December 1945.

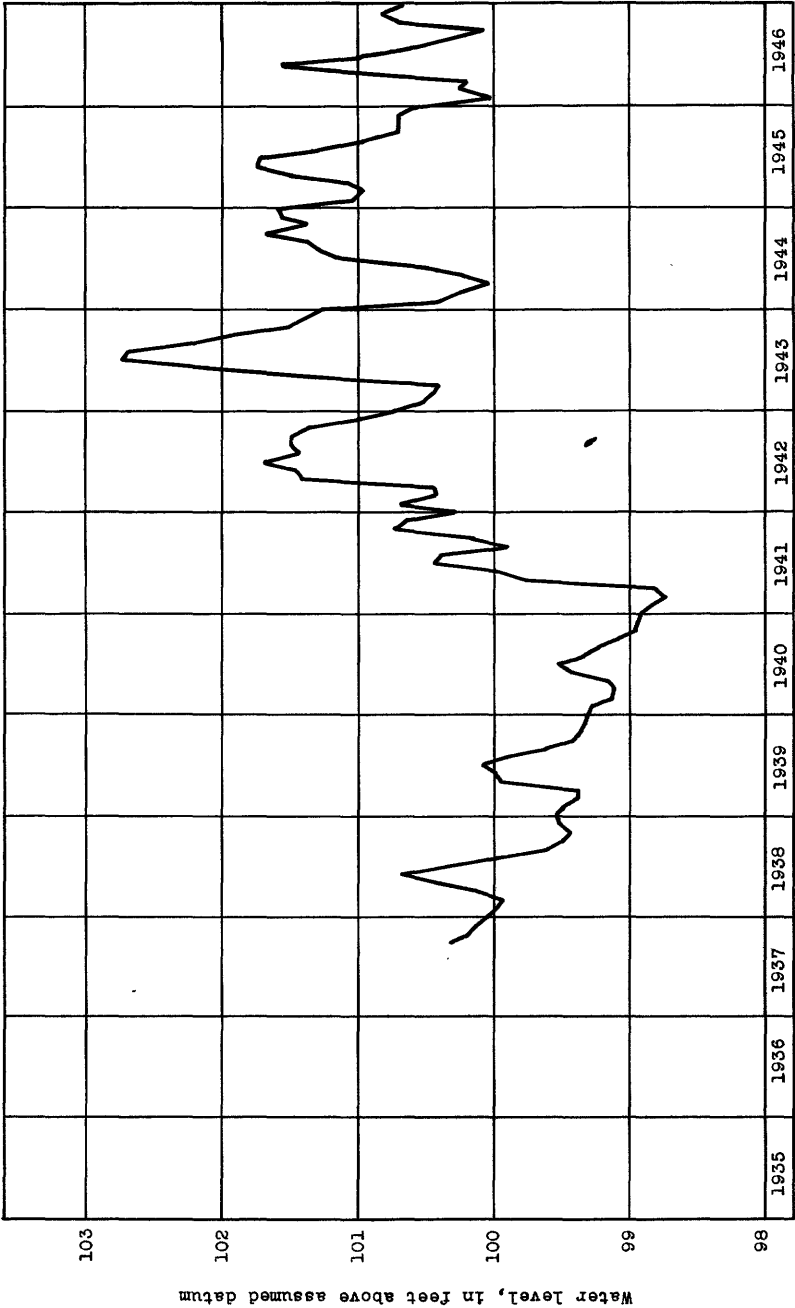


Figure 7.--Graph showing average monthly water level in 8 to 42 selected observation wells in North Dakota, 1937-46.

The following table shows the general fluctuations and net change in ground-water levels during 1946 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 decline for the year in all regions except one, while the computations from the eight wells described above indicate an average net rise in water level. This apparent discrepancy is due to the fact that data from many of the wells used in preparing the table by drainage basins are obtained in the early fall of the year. The average water level for September 1946, as computed from the 8 wells, was 0.64 foot lower than that for September 1945.

Average high and low water levels, in feet below land-surface datum, and average fluctuations and average net changes in water level, in feet, in selected observation wells in five drainage basins in North Dakota in 1946

Basin	Number of wells	High	Low	Fluctuation	Net change
Red River	11	8.34	12.07	3.73	-1.10
Devils Lake and Upper Sheyenne River	4	15.04	15.53	.49	-.04
James River	4	19.53	21.31	1.78	-2.53
Souris River	9	33.58	35.24	1.66	+.38
Missouri River	9	34.30	37.82	3.52	-.75

WELL-NUMBERING SYSTEM

The well numbers have been changed in this report to 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 new number is reported first in the well description of each individual well and the number used for the well in previous publications is given in parenthesis immediately following the new well number.

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, i. e., all townships are north and all ranges are west.

The new 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 (Well 1 in previous publications) (*908, p. 240; 938, p. 187; 946, p. 232; *988, p. 307; 1018, p. 233; 1025, p. 223). Mrs. Halverson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 130 N., R. 97 W. Water levels, in feet below land-surface datum, 1946: May 17, 49.28; Sept. 21, 49.54.

Barnes County

138.57.5cb1 (Well 97 in previous publications) (*886, p. 531; 908, p. 240; 938, p. 187; 946, p. 232; *988, p. 307; 1018, p. 233; 1025, p. 223). H. H. Wilkins. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 138 N., R. 57 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	40.47	Jan. 19	40.49	Feb. 2	40.47	Oct. 1	39.23
12	40.48	26	40.48	Apr. 18	39.79		

138.57.5cb2 (Well 98 in previous publications) (*886, p. 531; 908, p. 240; 938, p. 188; 946, p. 233; *988, p. 307; 1018, p. 233; 1025, p. 223). H. H. Wilkins. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 138 N., R. 57 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	37.50	Jan. 19	37.49	Feb. 2	37.49	Oct. 1	36.52
12	37.48	26	37.48	Apr. 18	36.33		

Benson County

156.69.36cal (Well 111 in previous publications) (*908, p. 240; 938 p. 188; 946, p. 233; *988, p. 307; 1018, p. 233; 1025, p. 224). H. Biltingsrud. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 156 N., R. 69 W. Water levels, in feet below land-surface datum, 1946: May 3, 15.85; Sept. 25, 15.50.

Bottineau County

161.78.25ddl (Well 112 in previous publications) (*908, p. 241; 938, p. 188; 946, p. 233; *988, p. 308; 1018, p. 234; 1025, p. 224). Frank Churchill. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 161 N., R. 78 W. No measurements made in 1946.

Bowman County

131.102.11bal (Well 83 in previous publications) (*908, p. 241; 938, p. 189; 946, p. 233; 988, p. 308; *1018, p. 234; 1025, p. 224). City of Bowman. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 131 N., R. 102 W. Water levels, in feet below land-surface datum, 1946: May 17, 20.76; Aug. 21, 19.08.

131.102.11cal (Well 84 in previous publications) (*908, p. 242; 938, p. 189; 946, p. 233; *988, p. 308; 1018, p. 234; 1025, p. 224). City of Bowman. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 131 N., R. 102 W. Water levels, in feet below land-surface datum, 1946: May 17, 20.13; Sept. 2, 19.88.

131.102.11ca2 (Well 85 in previous publications) (*908, p. 242; 938, p. 189; 946, p. 233; 988, p. 308; *1018, p. 234; 1025, p. 224). City of Bowman. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 11, T. 131 N., R. 102 W. Water level, in feet below land-surface datum, 1946: May 17, 33.92.

Burke County

159.91.4ddl (Well 116 in previous publications) (*908, p. 243; 938, p. 190; 946, p. 234; *988, p. 308; 1018, p. 234; 1025, p. 224). Dept. of Interior, Fish and Wildlife Service. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 159 N., R. 91 W. Water levels, in feet below land-surface datum, 1946: May 6, 76.28; Sept. 26, 76.82.

160.91.21cd1 (Well 115 in previous publications) (*908, p. 243; 938, p. 190; 946, p. 234; *988, p. 308; 1018, p. 234; 1025, p. 224). Dept. of Interior, Fish and Wildlife Service. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 160 N., R. 91 W. Water levels, in feet below land-surface datum, 1946: May 6, 57.37; Sept. 26, 57.30.

162.89.5ddl (Well 66 in previous publications) (*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). Mrs. P. M. Peterson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 5, T. 162 N., R. 89 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 7	69.98	July 8	70.44	Sept. 19	70.58	Oct. 23	70.58
June 18	70.42	22	70.25	30	70.61	Nov. 2	70.55
July 1	70.42	Aug. 2	70.33				

163.93.34cc2. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 163 N., R. 93 W. Unused bored well, diameter 12 inches, depth 22 feet. Recorder installed Sept. 12, 1946. Measuring point, top of well casing, 1.00 foot above land-surface datum.

Daily noon water level, in feet below land-surface datum, 1946

(From recorder charts)

May 27	a 15.12	Sept. 17	14.83	Sept. 23	14.85	Sept. 29	14.94
Sept. 12	14.90	18	14.87	24	14.85	30	14.95
13	14.89	19	14.88	25	14.87	Oct. 1	14.94
14	14.88	20	14.88	26	14.88	2	14.91
15	14.85	21	14.86	27	14.89	3	14.89
16	14.83	22	14.84	28	14.90	4	14.88

a Tape measurement.

163.93.34cc2--Continued.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 5	14.90	Oct. 21	14.91	Nov. 3	14.97	Nov. 16	15.02
6	14.91	22	14.91	4	14.99	17	15.03
7	14.94	23	14.91	5	15.01	18	15.04
8	14.94	24	14.90	6	15.02	19	15.05
9	14.90	25	14.89	7	15.02	20	15.06
10	14.91	26	14.89	8	15.00	21	15.06
14	14.92	27	14.90	9	15.00	22	15.06
15	14.93	28	14.94	10	15.00	23	15.06
16	14.94	29	14.94	11	15.00	24	15.06
17	14.95	30	14.94	12	15.01	25	15.06
18	14.94	31	14.94	13	15.01	26	15.06
19	14.93	Nov. 1	14.94	14	15.02	27	15.06
20	14.93	2	14.94	15	15.02	28	15.06

Burleigh County

141.80.35cc1 (Well 1 in previous publications) (*908, p. 244; 938, p. 190; 946, p. 234; *988, p. 309; 1018, p. 234; 1025, p. 225). Celia De Long. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 35, T. 141 N., R. 80 W. Water level, in feet below land-surface datum, 1946: May 18, 14.34; Oct. 2, 15.17.

Cass County

139.48.6ccd1 (Well 3 in previous publications) (*908, p. 246; 938, p. 171; 946, p. 236; *988, p. 310; 1018, p. 235; 1025, p. 225). The Pierce Co. 101 $\frac{1}{2}$ First Avenue North, Fargo.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	31.23	31.01	31.16	31.29	31.37	31.42	31.59	35.72	35.30	34.08	33.53
2	.....	31.25	31.02	31.16	31.31	31.39	31.42	31.60	35.79	35.23	34.05	33.53
3	.....	31.25	31.05	31.16	31.32	31.41	31.42	31.64	35.82	35.16	34.05	33.49
4	31.18	31.25	31.08	31.13	31.32	31.41	31.42	31.70	35.84	35.12	34.05	33.46
5	31.17	31.22	31.08	31.12	31.30	31.40	31.42	31.78	35.88	35.08	34.05	33.44
6	31.16	31.14	31.08	31.12	31.31	31.39	31.42	31.89	35.92	35.00	34.03	33.44
7	31.19	31.08	31.08	31.12	31.33	31.35	31.42	32.03	35.96	34.96	33.96	33.40
8	31.20	31.05	31.12	31.13	31.33	31.37	31.43	32.20	36.00	34.91	33.89	33.38
9	31.20	31.06	31.12	31.15	31.32	31.39	31.43	32.42	36.02	34.85	.....	33.35
10	31.20	31.06	31.13	31.16	31.32	31.39	31.40	32.60	36.02	34.76	.....	33.35
11	31.21	31.05	31.13	31.19	31.31	31.40	31.44	32.79	36.05	34.70	.....	33.32
12	31.26	31.05	31.09	31.20	31.31	31.40	31.45	32.98	36.06	.....	.....	33.28
13	31.26	31.05	31.09	31.20	31.30	31.42	31.45	33.17	36.06	.....	.....	33.28
14	31.26	31.04	31.11	31.18	31.29	31.43	31.46	33.36	36.05	.....	.....	33.29
15	31.27	31.04	31.13	31.20	31.32	31.43	31.49	33.55	36.02	.....	33.74	.....
16	31.27	31.03	31.14	31.21	31.32	31.42	31.49	33.74	35.97	.....	33.73	33.27
17	31.24	31.05	31.17	31.22	31.32	31.44	31.49	33.93	35.92	.....	33.76	33.23
18	31.24	31.05	31.20	31.23	31.30	31.46	31.48	34.12	35.89	34.47	33.75	33.23
19	31.24	31.05	31.21	31.24	31.30	31.47	31.50	34.31	35.84	34.45	33.72	33.22
20	31.24	31.05	31.21	31.25	31.30	31.47	31.51	34.50	35.76	34.43	33.70	33.18
21	31.25	31.05	31.19	31.25	31.30	31.44	31.51	34.68	35.69	34.39	33.67	33.16
22	31.25	31.06	31.18	31.25	31.30	31.41	31.51	34.87	35.62	34.34	33.63	33.16
23	31.22	31.06	31.18	31.25	31.30	31.41	31.51	35.02	35.58	34.32	33.63	33.15
24	31.23	31.07	31.18	31.25	31.30	31.40	31.54	35.13	35.55	34.28	33.57	33.15
25	31.22	31.07	31.16	31.27	31.34	31.39	31.56	35.21	35.52	34.22	33.55	33.15
26	31.26	31.04	31.16	31.28	31.35	31.40	31.57	35.28	35.49	34.20	33.53	33.15
27	31.26	31.05	31.15	31.28	31.36	31.39	31.57	35.36	35.44	34.20	33.53	33.13
28	31.25	31.04	31.14	31.27	31.36	31.39	31.57	35.47	35.39	34.20	33.53	33.09
29	31.25	.....	31.15	31.26	31.36	31.39	31.57	35.57	35.38	34.18	33.54	33.10
30	31.23	.....	31.17	31.27	31.36	31.39	31.57	35.64	35.37	34.13	33.53	33.11
31	31.23	.....	31.17	.....	31.35	.....	31.58	35.66	.....	34.10	.....	33.12

139.48.3cddl (Well 1 in previous publications) (*908, p. 248; 938, p. 193; 946, p. 237; *988, p. 310; 1018, p. 236; 1025, p. 226). Gardner Hotel, First Street North and Roberts Street, Fargo.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	31.44	31.32	31.35	31.46	31.55	31.61	.....	34.01	35.15	34.46	.....
2	.....	31.44	31.32	31.35	31.47	31.55	31.61	31.76	34.09	35.15	34.43	.....
3	.....	31.04	31.32	31.35	31.47	31.55	31.61	31.76	34.16	35.10	34.43	.....
4	31.40	31.44	31.32	31.36	31.47	31.55	31.61	31.77	34.24	35.12	34.40	.....
5	31.40	31.44	31.32	31.37	31.47	31.55	31.62	31.78	34.33	.....	34.39	.....
6	31.40	31.44	31.32	31.37	31.47	31.55	31.62	31.79	34.44	.....	34.37	33.77
7	31.40	31.43	31.32	31.37	31.48	31.56	31.62	31.82	34.51	.....	34.34	33.75
8	31.40	31.43	31.31	31.36	31.48	31.56	31.62	31.86	34.57	35.10	34.31	33.73
9	31.40	31.43	31.31	31.36	31.48	31.56	31.62	31.90	34.63	35.09	34.27	33.71
10	31.40	31.42	31.31	31.37	31.49	31.56	31.62	31.94	34.69	35.07	34.25	33.70
11	31.40	31.42	31.31	31.39	31.49	31.56	31.62	32.00	34.75	35.02	34.23	33.67
12	31.41	31.41	31.31	31.41	31.49	31.56	31.62	32.06	34.80	34.95	34.21	33.65
13	31.41	31.40	31.31	31.41	31.49	31.57	31.62	32.13	34.85	34.93	34.19	33.62
14	31.41	31.39	31.31	31.41	31.49	31.58	31.62	32.21	34.89	34.92	34.17	.....
15	31.41	31.38	31.31	31.41	31.50	31.58	31.63	32.29	34.93	34.90	34.14	.....
16	31.41	31.37	31.31	31.41	31.50	31.58	31.64	32.39	34.96	34.87	.....	.....
17	31.42	31.36	31.32	31.41	31.51	31.58	31.65	32.46	35.01	34.83	.....	.....
18	31.42	31.36	31.33	31.42	31.51	31.58	31.67	32.57	35.03	34.82	.....	.....
19	31.42	31.36	31.33	31.43	31.51	31.59	31.69	32.66	35.05	34.80	.....	.....
20	31.42	31.36	31.34	31.43	31.52	31.60	31.69	32.76	35.06	34.78	.....	.....
21	31.43	31.35	31.34	31.43	31.52	31.61	31.70	32.87	35.07	34.76	.....	.....
22	31.43	31.35	31.34	31.44	31.52	31.61	31.70	33.03	35.09	34.73	.....	.....
23	31.43	31.35	31.34	31.44	31.52	31.61	31.70	33.16	35.10	34.70	.....	.....
24	31.44	31.35	31.34	31.44	31.53	31.61	31.71	33.26	35.11	34.67	.....	.....
25	31.44	31.35	31.34	31.45	31.53	31.61	31.72	33.35	35.13	34.65	.....	.....
26	31.44	31.34	31.34	31.45	31.54	31.61	31.73	33.45	35.14	34.61	.....	.....
27	31.44	31.34	31.34	31.45	31.54	31.61	.....	33.57	35.15	34.59	.....	.....
28	31.44	31.33	31.35	31.45	31.54	31.61	.....	33.65	35.15	34.57	.....	.....
29	31.44	.....	31.35	31.46	31.55	31.61	.....	33.75	35.39	34.55	.....	.....
30	31.44	.....	31.35	31.46	31.55	31.61	.....	33.86	35.15	34.53	.....	.....
31	31.44	.....	31.35	.....	31.55	.....	.....	33.94	.....	34.50	.....	.....

139.48.7acbl (Well 4 in previous publications) (*908, p. 247; 938, p. 192; 946, p. 236; *988, p. 310; 1018, p. 236; 1025, p. 225). City of Fargo. In Island Park.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	40.30	40.09	40.11	40.30	40.37	40.44	40.94	41.30	41.16	40.98	41.10
2	.....	.....	40.12	40.17	40.30	40.38	40.44	40.97	41.31	41.12	41.05	41.10
3	.....	.....	40.14	40.17	40.29	40.40	40.41	41.02	41.31	41.12	41.09	41.04
4	40.24	.....	40.16	40.09	40.28	40.38	40.41	41.04	41.28	41.15	41.10	41.01
5	40.23	.....	40.15	40.11	40.27	40.35	40.42	41.05	41.26	41.14	41.10	41.03
6	40.30	.....	40.11	40.11	40.30	40.35	40.42	41.06	41.32	41.12	41.09	41.03
7	40.30	.....	40.16	40.09	41.30	40.30	40.40	41.06	41.33	41.10	41.01	40.97
8	40.28	40.14	40.16	40.11	40.28	40.36	40.40	41.08	41.33	41.05	41.00	40.97
9	40.30	.....	40.16	40.11	40.29	40.37	40.39	41.16	41.30	41.03	41.01	40.97
10	40.29	.....	40.17	40.11	40.31	40.33	40.40	41.19	41.16	.....	41.00	40.98
11	40.32	.....	40.15	40.12	40.30	40.36	41.45	41.19	41.19	40.97	41.00	40.96
12	40.35	.....	40.08	41.12	40.30	40.38	40.45	41.18	41.19	40.97	41.03	40.94
13	40.35	.....	40.13	40.10	40.26	40.41	40.43	41.18	41.19	40.98	41.03	40.99
14	40.36	.....	40.13	40.10	40.28	40.41	40.48	41.14	41.17	40.99	41.00	40.99
15	.....	40.09	41.13	40.16	40.33	40.39	40.49	41.13	41.17	41.00	40.95	40.99
16	.....	40.12	40.14	40.16	40.32	40.44	40.48	41.13	41.16	41.01	41.06	40.97
17	.....	40.15	40.19	40.16	40.30	40.48	40.48	41.16	41.18	41.01	41.08	40.94
18	40.31	40.16	40.20	40.18	40.26	40.53	40.52	41.21	41.20	41.00	41.07	40.95
19	40.31	40.14	40.19	41.19	40.27	40.53	40.61	41.23	41.13	41.02	41.04	40.95
20	40.28	40.15	40.15	40.19	40.28	40.48	40.65	41.25	41.12	41.02	41.05	40.91
21	40.30	40.12	40.13	40.18	40.28	40.44	40.67	41.27	41.10	41.01	41.01	40.95
22	40.30	41.16	40.06	40.18	40.28	40.44	40.67	41.29	41.10	41.01	41.07	40.95
23	40.28	40.16	39.99	40.19	40.28	40.44	40.70	41.30	41.11	41.01	41.06	40.93
24	40.28	40.16	39.91	40.19	40.31	40.43	40.74	41.30	41.12	40.97	41.03	40.95

139.48.7acbl--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	40.30	40.12	39.83	40.24	40.33	40.43	40.77	41.31	41.12	40.96	41.03	40.96
26	40.13	39.79	40.25	40.34	40.46	40.76	41.31	41.12	41.03	41.03	40.98
27	40.13	39.77	40.25	40.35	40.42	40.77	41.31	41.14	41.07	41.06	40.95
28	40.10	39.76	40.24	40.35	40.41	40.80	41.33	41.18	41.07	41.06	40.98
29	40.00	40.25	40.35	40.41	40.84	41.31	41.18	.....	41.06	.....
30	40.15	40.27	40.33	40.42	40.86	41.25	41.18	.....	41.08	.....
31	40.15	.....	.....	40.33	.....	40.89	41.24	.....	.....	.....	.....

139.48.18abl (Well 67 in previous publications) (*845, p. 352; 886, p. 533; *908, p. 252; 938, p. 197; 946, p. 240; *988, p. 315; 1018, p. 239; 1025, p. 228). City of Fargo. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 139 N., R. 48 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	33.97	33.72	33.71	34.03	34.16	34.22	34.56	35.35	.....	.....	.....
2	.....	33.99	33.74	33.80	34.05	34.16	34.22	34.58	35.37	.....	.....	.....
3	.....	33.99	33.76	33.81	34.06	34.17	34.21	34.65	35.37	.....	.....	.....
4	33.88	33.93	33.79	33.72	34.04	.....	34.20	34.64	35.34	.....	.....	.....
5	33.87	33.90	33.77	33.73	34.03	.....	34.22	.....	35.34	.....	.....	.....
6	33.94	33.75	33.71	33.73	34.05	.....	.....	.....	35.44	.....	.....	.....
7	33.96	33.76	33.79	33.69	34.05	.....	.....	.....	35.45	.....	.....	.....
8	33.94	33.80	33.79	33.72	34.03	.....	.....	.....	35.43	.....	.....	.....
9	33.95	33.79	33.78	33.73	34.03	.....	.....	.....	35.41	.....	.....	.....
10	33.94	33.78	33.79	33.73	34.06	.....	.....	.....	35.31	.....	.....	.....
11	33.99	33.80	33.75	33.74	34.05	.....	.....	.....	35.33	.....	.....	.....
12	34.01	33.78	33.68	33.74	34.04	.....	.....	.....	35.34	.....	.....	.....
13	34.01	33.78	33.73	33.72	34.02	.....	.....	.....	35.32	.....	.....	34.85
14	.....	33.73	33.74	33.75	34.05	34.22	.....	.....	35.29	.....	.....	34.85
15	.....	33.79	33.75	33.81	34.08	34.21	.....	.....	35.30	.....	.....	34.84
16	.....	33.78	33.76	33.80	34.09	34.26	.....	34.92	35.31	.....	.....	34.78
17	.....	33.80	33.78	33.81	34.08	34.28	.....	34.94	35.30	.....	.....	34.80
18	33.99	33.80	33.80	33.84	34.04	34.30	.....	34.98	35.31	.....	.....	34.80
19	33.99	33.79	33.79	33.87	34.06	34.29	34.36	35.00	35.21	.....	.....	34.79
20	33.96	33.80	33.74	33.87	34.06	34.22	34.37	35.05	35.16	.....	.....	34.74
21	33.98	33.75	33.68	33.88	34.06	34.20	34.38	35.11	.....	.....	.....	34.79
22	33.96	33.80	33.60	33.88	34.06	34.21	34.37	35.16	.....	.....	.....	34.79
23	33.95	33.80	33.52	33.88	34.06	34.20	34.41	35.19	.....	.....	.....	34.76
24	33.95	33.80	33.40	33.89	34.09	34.20	34.44	35.19	.....	.....	.....	34.78
25	33.98	33.74	33.24	33.93	34.12	34.20	34.47	35.22	.....	.....	.....	34.79
26	33.98	33.77	33.14	33.95	34.13	34.24	34.48	35.24	.....	.....	.....	34.80
27	33.92	33.77	33.11	33.93	34.15	34.21	34.48	35.24	.....	.....	.....	34.75
28	33.95	33.73	33.28	33.93	34.16	34.18	34.51	35.25	.....	.....	.....	34.79
29	33.94	.....	33.65	33.96	34.17	34.18	34.53	35.27	.....	.....	.....	34.80
30	33.92	.....	33.76	33.98	34.16	34.20	34.55	35.28	.....	.....	.....	34.83
31	33.93	.....	33.76	.....	34.13	.....	34.55	35.33	.....	.....	.....	34.83

139.49.1cbl (Well 28 in previous publications) (*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). City of Fargo. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 139 N., R. 49 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4	39.42	Mar. 29	39.67	July 12	39.94	Oct. 4	50.43
11	39.48	5	39.69	19	39.90	18	48.26
18	39.57	12	39.78	Aug. 2	43.20	25	47.28
25	39.62	19	39.72	9	64.02	Nov. 1	46.55
Feb. 1	39.67	26	39.74	17	76.33	8	45.73
9	39.54	3	39.77	23	75.35	15	45.35
15	39.49	10	39.81	30	71.85	22	45.13
22	39.49	18	39.79	Sept. 6	71.39	29	44.74
Mar. 1	39.47	24	39.76	13	63.86	Dec. 6	43.96
8	39.53	7	39.63	20	57.95	20	43.96
15	39.55	14	39.81	27	54.13	27	43.50
22	39.62	21	39.88				

139.49.1cc1 (Well 12 in previous publications) (*840, p. 321; 846, p. 349; 886, p. 532; *908, p. 249; *938, p. 195; 946, p. 238; *988, p. 310; 1018, p. 237; 1025, p. 227). City of Fargo. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 139 N., R. 49 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	39.60	39.44	39.71	39.83	39.84	39.79	44.70	.....	51.89	46.35	44.45
2	.....	39.67	39.58	39.81	39.80	39.83	39.89	.....	.....	51.63	46.30	44.40
3	.....	39.62	39.50	39.73	39.81	39.95	39.90	.....	.....	51.21	46.29	44.35
4	39.39	39.61	39.70	39.65	39.78	39.99	39.77	.....	.....	50.98	46.18	44.48
5	39.38	39.52	39.61	39.63	39.78	39.97	39.81	.....	.....	50.72	46.12	44.34
6	39.47	39.45	39.59	39.73	39.79	39.86	39.80	.....	.....	50.35	46.00	44.25
7	39.49	39.37	39.74	39.59	39.79	39.90	39.78	.....	.....	50.18	45.86	44.25
8	39.47	39.47	39.59	39.73	39.80	39.83	39.93	.....	.....	49.84	45.75	44.18
9	39.50	39.52	39.67	39.76	39.85	39.89	39.89	.....	.....	49.62	45.74	44.10
10	39.48	39.41	39.57	39.67	39.77	39.88	39.91	.....	.....	49.36	45.68	44.10
11	39.77	39.46	39.62	39.75	39.79	39.89	40.05	.....	.....	49.17	45.58	43.96
12	39.70	39.41	39.63	39.73	39.81	39.89	40.05	.....	64.50	49.01	45.52	43.95
13	39.60	39.52	39.53	39.64	39.76	39.99	40.04	.....	62.62	48.84	45.47	43.95
14	49.82	39.44	39.56	39.64	39.73	40.02	39.97	.....	61.22	48.68	45.38	43.91
15	39.74	39.42	39.66	39.76	39.87	39.97	40.10	.....	60.00	48.50	45.32	43.85
16	39.67	39.58	39.69	39.81	39.79	39.84	40.01	.....	58.92	48.36	46.70	43.75
17	39.74	39.51	39.58	39.76	39.74	39.90	39.96	.....	.....	48.18	45.45	43.75
18	39.64	39.48	39.61	39.81	39.68	39.93	39.97	.....	.....	47.99	45.38	43.74
19	39.70	39.61	39.61	39.86	39.74	39.93	40.08	.....	.....	47.90	45.18	43.73
20	39.61	39.48	39.64	39.76	39.74	39.89	40.10	.....	58.30	47.75	45.12	43.59
21	39.78	39.42	39.64	39.76	39.79	39.85	40.04	.....	57.18	47.60	44.97	43.62
22	39.60	39.57	39.75	39.81	39.72	39.74	40.09	.....	56.27	47.46	44.95	43.62
23	39.65	39.56	39.80	39.81	39.69	39.83	40.14	.....	55.60	47.33	44.92	43.55
24	39.61	39.45	39.62	39.81	39.84	39.92	40.16	.....	54.94	47.21	44.75	43.55
25	39.67	39.45	39.67	39.77	39.74	39.77	40.21	.....	54.29	47.01	44.77	43.51
26	39.57	39.57	39.75	39.83	39.74	39.79	40.23	.....	53.90	46.92	44.70	43.50
27	39.71	39.45	39.74	39.74	39.89	39.79	40.20	.....	53.38	46.90	44.67	43.41
28	39.59	39.45	39.70	39.72	39.96	39.77	40.14	.....	53.07	46.76	44.56	43.45
29	39.62	.....	39.70	39.76	39.96	39.84	40.29	.....	52.67	46.66	44.52	43.44
30	39.56	.....	39.75	39.83	39.90	39.85	40.29	.....	52.27	46.49	44.51	43.40
31	39.72	.....	39.70	.....	39.82	.....	40.31	.....	.....	46.44	.....	43.40

139.49.6ad1 (Well 58 in previous publications) (*845, p. 351; 886, p. 533; 908, p. 251; 938, p. 197; 946, p. 239; *988, p. 314; 1018, p. 238; 1025, p. 228). Union Stockyards. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 139 N.; R. 49 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	59.54	61.63	59.20	58.55	58.36	59.42	61.45	61.46	60.50	62.41	.....
2	.....	59.54	61.81	58.72	58.74	58.36	59.45	61.45	61.17	60.56	62.42	.....
3	.....	59.39	61.77	58.60	59.01	58.28	59.50	61.44	60.86	60.63	62.42	.....
4	61.46	59.11	61.44	58.47	59.12	58.55	59.50	61.42	60.72	60.75	62.30	.....
5	61.34	59.16	61.56	58.36	59.09	58.68	59.23	.....	60.67	60.75	62.26	.....
6	61.27	.....	.....	58.45	58.75	58.85	59.13	.....	60.82	60.73	62.28	62.44
7	61.23	.....	.....	58.43	58.60	59.11	59.06	61.42	60.84	60.54	62.28	62.50
8	61.60	.....	62.00	57.99	58.65	59.11	.....	61.51	60.83	60.43	62.36	62.50
9	61.71	.....	62.38	57.80	58.68	59.03	58.93	61.67	60.60	60.43	62.47	62.38
10	61.76	.....	62.38	59.97	58.96	58.85	59.15	61.69	61.40	60.52	62.47	62.47
11	61.84	.....	62.12	58.15	58.96	58.88	59.46	61.68	60.25	60.68	62.37	62.53
12	61.83	.....	61.85	58.90	58.80	58.94	59.82	61.55	60.20	60.70	62.35	62.57
13	61.43	.....	61.63	59.10	58.44	59.06	59.88	61.64	60.25	60.69	62.51	62.65
14	60.82	.....	61.49	59.09	58.20	59.36	59.87	61.67	60.25	60.57	62.61	62.65
15	60.80	.....	61.51	58.84	58.19	59.36	59.87	61.67	60.25	60.83	62.64	62.63
16	60.53	61.15	61.61	58.86	58.29	59.25	60.12	61.63	60.14	61.31	.....	62.45
17	59.82	61.22	61.60	58.94	58.73	58.96	60.53	61.63	60.07	61.54	.....	62.30
18	59.43	61.72	61.22	59.05	58.83	58.85	60.56	61.55	60.13	61.85	62.59	62.22
19	59.29	61.92	60.98	59.20	58.81	58.93	60.90	61.35	60.13	62.03	62.57	62.15
20	59.10	62.25	60.74	59.25	58.46	59.00	61.07	61.30	60.03	62.05	62.58	62.16
21	58.93	62.28	60.39	59.21	58.28	59.41	61.07	61.35	60.00	62.15	62.58	62.19
22	58.84	62.28	60.05	58.87	58.30	59.58	61.03	61.43	59.98	62.67	62.65	62.19
23	58.57	62.41	60.10	58.60	58.33	59.57	60.89	61.51	59.86	62.75	62.66	62.09

139.49.6ad1--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	58.41	62.38	60.07	58.67	58.35	59.42	60.93	61.55	59.85	62.77	62.65	62.00
25	58.27	61.97	59.65	58.81	58.35	59.47	61.02	61.55	59.88	62.79	62.48	61.94
26	58.23	.....	59.35	58.76	58.29	59.50	61.30	61.37	60.04	62.78	62.44	61.76
27	58.23	.....	59.29	58.86	58.04	59.58	61.30	61.29	60.32	62.67	62.44	61.68
28	58.54	.....	59.32	58.83	58.03	59.59	61.25	61.33	60.42	62.40	62.43	61.68
29	59.06	.....	59.60	58.48	58.20	59.59	60.98	61.43	60.42	62.21	62.37	61.67
30	59.47	.....	59.70	58.17	58.24	59.48	61.02	61.51	60.42	62.16	.....	61.53
31	59.49	.....	59.68	.....	58.34	.....	61.22	61.51	.....	62.22	.....	61.43

140.52.14dd1 (Well 8 in previous publications) (*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). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 140 N., R. 52 W. Water levels, in feet below land-surface datum, 1946: May 15, 14.91; Oct. 1, 12.99.

140.52.14dd3 (Well 10 in previous publications) (*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). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 140 N., R. 52 W. Water levels, in feet below land-surface datum, 1946: Apr. 15, 17.27; Oct. 1, 17.77.

140.52.14dd4 (Well 29 in previous publications) (*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). Mrs. Arthur D. South. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 140 N., R. 52 W. Water levels, in feet below land-surface datum, 1946: Apr. 15, 14.09; Oct. 1, 14.77.

Cavalier County

161.60.14cd1 (Well 43 in previous publications) (*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). City of Langdon. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 14, T. 161 N., R. 60 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	17.80	Apr. 7	16.92	July 8	17.02	Oct. 5	18.09
12	17.82	13	16.84	13	17.04	12	18.07
19	18.13	20	16.71	20	17.21	19	18.04
26	18.15	27	16.59	27	17.25	26	18.04
Feb. 2	18.30	May 4	16.52	Aug. 3	17.21	Nov. 2	18.13
9	18.30	11	16.52	10	17.63	9	18.08
16	18.36	18	16.50	17	17.63	16	17.98
23	18.55	27	16.55	24	17.79	23	18.07
Mar. 2	18.57	June 2	16.71	31	18.13	30	18.12
10	18.61	8	16.71	Sept. 7	18.04	Dec. 7	18.13
17	18.71	15	16.67	14	18.00	14	18.21
23	18.34	22	16.81	21	17.88	21	18.33
Apr. 1	16.84	29	16.90	28	18.13	28	18.46

161.60.14dal (Well 46 in previous publications) (*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. 230). City of Langdon. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 161 N., R. 60 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	7.55	Mar. 2	10.15	Apr. 27	5.53	June 22	8.36
12	7.88	9	10.23	May 4	5.48	29	7.31
19	10.98	16	9.19	11	5.55	July 8	8.44
26	8.05	23	9.19	18	5.15	13	10.07
Feb. 2	8.15	Apr. 1	6.84	25	5.29	20	8.40
9	8.46	6	6.61	June 1	5.90	27	7.98
16	8.73	13	6.03	8	6.09	Aug. 3	7.98
23	9.98	20	5.59	15	7.07	10	8.48

161.60.14dal--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 17	8.81	Sept. 21	8.40	Oct. 26	6.77	Nov. 30	6.72
24	8.81	28	8.45	Nov. 2	6.76	Dec. 7	6.87
31	9.15	Oct. 5	8.30	9	6.40	14	7.06
Sept. 7	10.41	12	6.98	16	6.23	21	7.60
14	10.14	19	7.81	23	6.32	28	7.73

161.60.14dcl (Well 44 in previous publications) (*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). City of Langdon. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 161 N., R. 60 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	20.29	Apr. 7	19.10	July 8	20.00	Oct. 5	20.81
12	20.35	13	19.15	13	20.06	12	20.49
19	20.38	20	19.31	20	20.33	19	20.70
26	20.41	27	19.42	27	20.70	26	20.77
Feb. 2	20.46	May 4	19.48	Aug. 3	21.10	Nov. 2	20.68
9	20.52	11	19.52	10	21.35	9	20.53
16	20.52	18	19.52	17	21.26	16	20.44
23	20.58	27	19.70	24	21.35	23	20.46
Mar. 2	20.56	June 2	19.85	31	21.43	30	20.67
10	20.60	8	19.91	Sept. 7	21.60	Dec. 7	20.64
17	20.60	15	20.06	14	21.67	14	20.72
23	18.77	22	20.27	21	21.66	21	20.77
Apr. 1	18.77	29	20.20	28	21.71	28	20.95

161.60.23bcl (Well 45 in previous publications) (*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). City of Langdon. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 23, T. 161 N., R. 60 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	17.22	Apr. 6	14.47	July 8	39.72	Oct. 5	42.88
12	17.85	13	10.55	13	40.74	12	43.70
19	17.74	20	11.78	20	45.13	19	42.47
26	17.97	27	13.97	27	18.55	26	25.59
Feb. 2	19.14	May 4	19.76	Aug. 3	12.80	Nov. 2	19.67
9	20.14	11	21.97	10	14.63	9	17.22
16	20.10	18	19.88	17	15.97	16	17.22
23	21.18	25	16.63	24	16.10	23	17.05
Mar. 2	17.97	June 1	19.63	31	20.13	30	18.80
9	19.18	8	19.63	Sept. 7	22.76	Dec. 7	19.92
16	18.62	15	18.80	14	20.48	14	19.05
23	9.55	22	20.30	21	20.38	21	21.13
Apr. 1	16.75	29	40.43	28	29.13	28	22.80

Dickey County

129.59.7bal (Well 101 in previous publications) (*908, p. 256; *938, p. 202; 946, p. 244; *988, p. 318; 1018, p. 241; 1025, p. 230). D. C. Botts. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 7, T. 129 N., R. 59 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 17	6.31	Apr. 30	6.55	May 22	6.37
23	6.34	May 14	6.55	Aug. 28	8.10

129.60.24ccl (Well 135 in previous publications) (*908, p. 258; 938, p. 204; 946, p. 246; 988, p. 319). V. S. Doyen. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 129 N., R. 60 W. Water levels, in feet below land-surface datum, 1946: Apr. 17, 10.88; Aug. 28, 11.10.

130.59.3bc1 (Well 121 in previous publications) (*938, p. 203; 946, p. 245; *988, p. 318; 1018, p. 242; 1025, p. 231). M. J. Reinhart. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 130 N., R. 59 W. Water levels, in feet below land-surface datum, 1946: Apr. 17, 5.20; Aug. 28, 6.40.

130.59.9bc1 (Well 105 in previous publications) (*908, p. 256; 938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 242; 1025, p. 230). H. G. Martin, administrator. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 130 N., R. 59 W. Water level, in feet below land-surface datum, 1946: Aug. 28, 8.38.

131.59.16dd1 (Well 102 in previous publications) (*908, p. 256; 938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 241; 1025, p. 230). State of North Dakota. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 131 N., R. 59 W. Water levels, in feet below land-surface datum, 1946: Apr. 14, 21.25; Aug. 28, 21.50.

131.59.28ba1 (Well 128 in previous publications) (*908, p. 257; 938, p. 203; 946, p. 246; *988, p. 318; 1018, p. 242; 1025, p. 231). City of Oakes. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 131 N., R. 59 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 17	6.90	June 18	7.61	Aug. 5	7.99	Sept. 30	8.19
23	7.15	24	7.55	12	8.06	Oct. 8	7.97
29	7.10	July 1	7.65	19	8.16	14	7.86
May 6	7.20	5	7.68	26	8.16	21	7.86
13	7.24	8	7.66	Sept. 3	8.27	28	7.95
20	7.29	16	7.69	10	8.18	Nov. 4	7.98
27	7.39	22	7.70	16	8.26	Dec. 5	8.16
June 4	7.50	29	7.83	23	8.15	23	8.16
10	7.59						

131.59.29aa1 (Well 136 in previous publications) (*988, p. 319; 1018, p. 242; 1025, p. 231). Fred Sletvold. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 29, T. 131 N., R. 59 W. Water levels, in feet below land-surface datum, 1946: Apr. 17, 9.82; Aug. 29, 10.89.

131.59.33cc1 (Well 104 in previous publications) (*938, p. 202; 946, p. 245; *988, p. 318; 1018, p. 241; 1025, p. 230). Lynus Sitts, Jr. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 131 N., R. 59 W. Water levels, in feet below land-surface datum, 1946: Apr. 17, 6.69; Aug. 28, 8.00.

131.64.36a1 (Well 72A in previous publications) (*886, p. 535; 908, p. 235; 938, p. 201; 946, p. 244; *988, p. 317; 1018, p. 241). State of North Dakota. NE $\frac{1}{4}$ sec. 36, T. 131 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 4, 7.77; Aug. 29, 7.78.

Divide County

162.97.6da1. Adolf Carlson. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 162 N., R. 97 W. Unused bored well, diameter 18 inches, depth 25 feet. Measuring point, top edge of iron curb, 0.50 foot above land-surface datum. Water-stage recorder installed Sept. 11, 1946.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Apr. 9	a 16.22	Sept. 22	18.03	Oct. 6	18.06	Oct. 20	17.81
July 18	a 16.98	23	18.04	7	18.06	21	17.79
Aug. 31	a 18.17	24	18.05	8	18.05	22	17.77
Sept. 11	17.85	25	18.06	9	18.04	23	18.12
12	17.87	26	18.06	10	18.05	24	18.15
13	17.89	27	18.06	11	18.00	25	18.13
14	17.91	28	18.07	12	17.98	26	18.13
15	17.93	29	18.08	13	17.97	27	18.12
16	17.94	30	18.08	14	17.95	28	18.10
17	17.97	Oct. 1	18.07	15	17.93	29	18.08
18	17.99	2	18.06	16	17.90	30	18.07
19	18.00	3	18.06	17	17.87	31	18.06
20	18.01	4	18.06	18	17.84	Nov. 1	18.04
21	18.02	5	18.06	19	17.82	2	18.04

a Tape measurement.

162.97.6dal--Continued.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 3	18.04	Nov. 18	17.93	Dec. 3	17.91	Dec. 18	17.89
4	18.03	19	17.93	4	17.91	19	17.90
5	18.02	20	17.93	5	17.91	20	17.90
6	18.01	21	17.93	6	17.91	21	17.90
7	18.00	22	17.93	7	17.90	22	17.91
8	17.99	23	17.92	8	17.90	23	17.92
9	17.98	24	17.92	9	17.90	24	17.93
10	17.98	25	17.91	10	17.90	25	17.94
11	17.97	26	17.91	11	17.89	26	17.95
12	17.97	27	17.91	12	17.89	27	17.95
13	17.96	28	17.91	13	17.89	28	17.95
14	17.95	29	17.91	14	17.89	29	17.95
15	17.93	30	17.91	15	17.89	30	17.95
16	17.93	Dec. 1	17.91	16	17.89	31	17.95
17	17.93	2	17.91	17	17.89		

163.97.23cdl (Well 70 in previous publications)(#845, p. 355; 886, p. 536; 908, p. 259; 938, p. 204; 946, p. 246; #988, p. 319; 1018, p. 242; 1025, p. 231). J. M. Johnson. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T. 163 N., R. 97 W. Water levels, in feet below land-surface datum, 1946: May 7, 6.40; June 6, 9.16; Sept. 19, 10.95.

163.100.34aal (Well 117 in previous publications)(#908, p. 259; 938, p. 204; 946, p. 246; #988, p. 319; 1018, p. 242; 1025, p. 231). A. U. Anderson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 163 N., R. 100 W. Water levels, in feet below land-surface datum, 1946: May 7, 13.91; Sept. 20, 14.91.

Dunn County

145.92.25adl (Well 90 in previous publications)(#946, p. 246; #988, p. 319; 1018, p. 242; 1025, p. 231). S. F. Lesmeister. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 25, T. 145 N., R. 92 W.

Water level, in feet below land-surface datum, 1946

Feb. 15	8.50	June 14	9.21	Aug. 23	9.50	Nov. 15	9.75
May 15	7.84	21	9.33	30	10.34	Dec. 6	8.75
31	8.17	28	8.04	Oct. 4	9.50	20	8.25
June 7	8.22						

Eddy County

148.67.28dal (Well 154 in previous publications)(#908, p. 260; 938, p. 205; 946, p. 247; 988, p. 320; 1018, p. 243; 1025, p. 232). Pfau Estate. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 148 N., R. 67 W. Flow, in gallons a minute, 1946: Apr. 26, 15.

150.66.9bal (Well 21 in previous publications)(#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). Elmer Moe. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 150 N., R. 66 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 19.65; Sept. 26, 19.14.

150.66.9bd1 (Well 19 in previous publications)(#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). Gilbert Olson. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 150 N., R. 66 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 14.61; Sept. 26, 15.16.

150.66.9bd1 (Well 20 in previous publications)(#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). Knute Egger. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 150 N., R. 66 W. Measurements discontinued.

150.66.9cbl (Well 18 in previous publications) (*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). U. S. 49, Stockyards. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 150 N., R. 66 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 16	8.20	May 4	7.30	June 29	7.35	Sept. 7	7.73
23	7.48	11	7.34	July 6	7.38	14	7.82
Apr. 6	7.45	18	7.35	13	7.42	21	7.78
13	7.26	25	7.41	20	7.41	Oct. 12	7.85
20	7.24	June 1	7.44	Aug. 10	7.70	19	7.88
26	7.34	8	7.45	24	7.67	26	7.94
27	7.28	22	7.48	31	7.71		

150.66.9cd1 (Well 17 in previous publications) (*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). L. S. Rude. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 150 N., R. 66 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 9.43; Sept. 26, 9.50.

Foster County

145.66.22ab1 (Well 125 in previous publications) (*908, p. 260; *938, p. 206; 946, p. 247; *988, p. 320; 1018, p. 243; 1025, p. 232). J. W. Wampler. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 145 N., R. 66 W. Measurements discontinued.

Golden Valley County

139.106.2dd1 (Well 1 in previous publications) (*908, p. 260; 938, p. 206; 946, p. 248; 988, p. 320; 1018, p. 243). Mrs. Tangen. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 159 N., R. 106 W. Water level, in feet below land-surface datum, 1946: Sept. 21, 70.50.

140.106.25cb1 (Well 2 in previous publications) (*846, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232). City of Beach. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 140 N., R. 106 W. Water level, in feet below land-surface datum, 1946: Sept. 2, 24.86.

Grant County

134.85.10aal (Well 121 in previous publications) (*908, p. 260; 938, p. 206; 946, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232). R. O. Ozburn. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 134 N., R. 85 W. Water levels, in feet below land-surface datum, 1946: May 17, 21.10; Sept. 24, 21.19.

Griggs County

144.59.20bc1 (Well 1 in previous publications) (*908, p. 260; 938, p. 206; 946, p. 248; *988, p. 320; 1018, p. 243; 1025, p. 232). Griffith Loan & Investment Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 20, T. 144 N., R. 59 W. Water levels, in feet below land-surface datum, 1946: Apr. 11, 20.66; Oct. 1, 19.94.

Hettinger County

133.93.5bd1 (Well 82 in previous publications) (*845, p. 357; 886, p. 538; 908, p. 260; 938, p. 206; 946, p. 248; 988, p. 320). L. F. Everhart. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 5, T. 133 N., R. 93 W. Measurements discontinued. Water level, in feet below land-surface datum, 1946: Oct. 15, 48.32.

Kidder County

138.73.9cc1 (Well 50 in previous publications) (*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). U. S. 53. Herman Peterson. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 138 N., R. 73 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 6.62; Oct. 2, 7.20.

139.71.3ccl (Well 166 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 233). Jake Schaurer. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 139 N., R. 71 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 11.20; Oct. 2, 11.91.

139.71.10bcl (Well 149 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 243; 1025, p. 232). Village of Tappen. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 139 N., R. 71 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 7.78; Oct. 21, 8.82.

139.71.27.ccl (Well 147 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 248; *988, p. 321; 1018, p. 243; 1025, p. 232). Phillip Mitteleider. Center of S $\frac{1}{2}$ sec. 27, T. 139 N., R. 71 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 0.37; Oct. 2, 2.77.

139.72.10cal (Well 148 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 243; 1025, p. 232). Chas. Woessner. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 10, T. 139 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 12.18; Oct. 2, 13.68.

142.70.12acl (Well 152 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232). Northern Pacific Railway. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 12, T. 142 N., R. 70 W. Water level, in feet below land-surface datum, 1946: May 18, 35.02. Well plugged at 32 feet. Measurements discontinued.

142.70.23abl (Well 151 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 232). Mrs. Fagereng. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 142 N., R. 70 W. Water levels, in feet below land-surface datum, 1946: May 18, 18.16; Oct. 2, 21.77.

LaMoure County

133.64.3bcl (Well 1 in previous publications)(*908, p. 261; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 233). Town of Edgeley. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 3, T. 133 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 18, 27.73; Aug. 29, 28.05.

134.64.24dcl (Well 2A in previous publications)(*886, p. 538; 908, p. 262; 938, p. 207; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 233). Mrs. Fidelia Davis. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 134 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 18, 0.60; Aug. 29, 0.15.

Logan County

135.72.17ccl (Well 143 in previous publications)(*908, p. 262; 938, p. 208; 946, p. 249; *988, p. 321; 1018, p. 244; 1025, p. 233). Oscar France. W $\frac{1}{2}$ SW $\frac{1}{4}$ sec. 17, T. 135 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 16.18; Oct. 2, 16.94.

135.72.21.bcl (Well 144 in previous publications)(*908, p. 262; 938, p. 208; 946, p. 249; 988, p. 321). Pete Draeger. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 21, T. 135 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 8.87; Oct. 2, 8.50.

135.72.27bb1 (Well 146 in previous publications)(*908, p. 262; 938, p. 208; 946, p. 249; *988, p. 322; 1018, p. 244; 1025, p. 233). George Dummiland. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 135 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 29.41; Oct. 2, 30.15.

McHenry County

151.77.1dcl (Well 113 in previous publications)(*908, p. 263; 938, p. 209; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234). Mrs. H. Notbohm. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1, T. 151 N., R. 77 W. Water levels, in feet below land-surface datum, 1946: May 2, 10.45; Sept. 26, 12.59.

152.79.6bcl (Well 156 in previous publications)(*908, p. 263; *938, p. 209; 946, p. 250; *988, p. 322; 1018, p. 245; 1025, p. 234). Minneapolis, St. Paul & Sault Ste. Marie Railway Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 152 N., R. 79 W. Water levels, in feet below land-surface datum, 1946: May 2, 12.77; Sept. 26, 13.39.

153.78.9ddl (Well 157 in previous publications)(#908, p. 263; 938, p. 210; 946, p. 250; #988, p. 322; 1018, p. 245; 1025, p. 234). Federal Land Bank. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 153 N., R. 78 W. Measurements discontinued.

155.79.8aal (Well 158 in previous publications)(#908, p. 263; 938, p. 210; 946, p. 250; 988, p. 322). Cities Service. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 8, T. 155 N., R. 79 W. Measurements resumed in 1945. Water levels, in feet below land-surface datum: Aug. 19, 1945, 7.70; May 2, 1946, 8.17; Sept. 25, 1946, 10.85.

156.76.11bd1 (Well 161 in previous publications)(#908, p. 264; 938, p. 210; 946, p. 250; #988, p. 323; 1018, p. 245; 1025, p. 234). Village of Towners. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 156 N., R. 76 W. Water levels, in feet below land-surface datum, 1946: May 2, 12.89; Sept. 25, 12.34.

156.78.36bc1 (Well 101 in previous publications)(#886, p. 539; 908, p. 262; 938, p. 208; 946, p. 250; #988, p. 322; 1018, p. 244; 1025, p. 233). Denbigh Forest Experimental Station well 1. U. S. Dept. of Agriculture, Forest Service. SW. corner SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 156 N., R. 78 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	3.30	June 15	4.70	Aug. 1	4.30	Oct. 1	5.30
May 1	3.50	July 1	4.10	Sept. 1	5.00	Nov. 1	5.00
June 1	4.50						

156.78.36bc2 (Well 102 in previous publications)(#886, p. 540; 908, p. 263; 938, p. 208; 946, p. 250; #988, p. 322; 1018, p. 244; 1025, p. 233). U. S. 50. Denbigh Forest Experimental Station well 2. U. S. Dept. of Agriculture, Forest Service. NW. corner SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 156 N., R. 78 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	4.20	June 15	4.90	Aug. 1	5.00	Oct. 1	6.30
May 1	4.30	July 1	5.10	Sept. 1	5.90	Nov. 1	6.10
June 1	4.80						

156.78.36bc3 (Well 103 in previous publications)(#886, p. 541; 908, p. 263; 938, p. 208; 946, p. 250; 988, p. 322; 1018, p. 244; 1025, p. 233). Denbigh Forest Experimental Station well 3. U. S. Dept. of Agriculture, Forest Service. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 156 N., R. 78 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	3.50	June 15	4.00	Aug. 1	4.40	Oct. 1	5.40
May 1	3.60	July 1	4.20	Sept. 1	5.10	Nov. 1	5.10
June 1	3.90						

156.78.36bc4 (Well 104 in previous publications)(#886, p. 542; 908, p. 263; 938, p. 209; 946, p. 250; 988, p. 322; 1018, p. 244; 1025, p. 233). Denbigh Forest Experimental Station well 4. U. S. Dept. of Agriculture, Forest Service. SE. corner SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 156 N., R. 78 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 15	3.20	June 15	3.70	Aug. 1	4.30	Oct. 1	5.00
May 1	3.30	July 1	3.90	Sept. 1	4.60	Nov. 1	4.90
June 1	3.60						

156.78.36ddl (Well 105 in previous publications)(#886, p. 543; 908, p. 263; 938, p. 209; 946, p. 250; 988, p. 322; 1018, p. 245; 1025, p. 234). Denbigh Forest Experimental Station well 5. U. S. Dept. of Agriculture, Forest Service. SE. corner SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 36, T. 156 N., R. 78 W. Water levels, in feet below land-surface datum, 1946: Apr. 15, 3.30; June 15, 3.90; Nov. 1, 4.90.

156.79.33dcl (Well 159 in previous publications)(#908, p. 263; 938, p. 210; 946, p. 250; #988, p. 322; 1018, p. 245; 1025, p. 234). Harold H. Sullwold. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 156 N., R. 79 W. Water levels, in feet below land-surface datum, 1946: May 2, 8.22; Sept. 25, 10.25.

157.75.31dcl (Well 160 in previous publications)(#908, p. 263; 938, p. 210; 946, p. 250; #988, p. 322; 1018, p. 245; 1025, p. 234). U. S. Dept. of Agriculture, Forest Service. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 51, T. 157 N., R. 75 W. Water levels, in feet below land-surface datum, 1946: May 2, 3.28; Sept. 26, 3.82.

158.78.3dcl (Well 162 in previous publications)(#908, p. 264; 938, p. 210; 946, p. 250; #988, p. 323; 1018, p. 245; 1025, p. 234). Walter Arneson. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 158 N., R. 78 W. Water levels, in feet below land-surface datum, 1946: May 2, 26.05; Sept. 19, 12.53.

McIntosh County

130.69.7cd1 (Well 93 in previous publications)(#845, p. 357; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251; #988, p. 323; 1018, p. 245; 1025, p. 234). Freida Forrest. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 150 N., R. 69 W. Water levels, in feet below land-surface datum, 1946: Apr. 18, 1.33; Oct. 2, 10.72.

130.69.7cd2 (Well 94 in previous publications)(#845, p. 358; 886, p. 545; 908, p. 264; 938, p. 210; 946, p. 251; #988, p. 323; 1018, p. 245; 1025, p. 234). Freida Forrest. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 150 N., R. 69 W. Water levels, in feet below land-surface datum, 1946: Apr. 18, 2.40; Oct. 2, 11.80.

132.70.28dal (Well 139 in previous publications)(#908, p. 265; 938, p. 211; 946, p. 251; #988, p. 323; 1018, p. 246; 1025, p. 235). Dan Nigisch. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 132 N., R. 70 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 15.23; Oct. 2, 19.46.

132.71.15aal (Well 141 in previous publications)(#908, p. 265; #938, p. 211; 946, p. 251; #988, p. 323; 1018, p. 246; 1025, p. 235). U. S. 55. Town of Wishek. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 132 N., R. 71 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	23.64	Feb. 15	23.74	Mar. 30	23.65	May 11	23.47
12	23.65	26	23.75	Apr. 6	23.65	18	23.46
19	23.67	Mar. 2	23.75	13	23.59	25	23.44
26	23.69	9	23.73	20	23.55	June 1	23.44
Feb. 2	23.67	16	23.71	27	23.50	8	23.42
9	23.72	23	23.67	May 4	23.50		

132.71.24ad1 (Well 137 in previous publications)(#908, p. 264; 938, p. 211; 946, p. 251; #988, p. 323; 1018, p. 245; 1025, p. 235). Federal Land Bank. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 132 N., R. 71 W. Water levels, in feet below land-surface datum, 1946: Apr. 19, 7.70; Oct. 2, 8.87.

McKenzie County

145.98.8bal (Well 119 in previous publications)(#908, p. 265; 938, p. 211; 946, p. 252; #988, p. 324; 1018, p. 246; 1025, p. 235). Federal Land Bank. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 145 N., R. 98 W. Measurements discontinued.

150.100.12cc1 (Well 81 in previous publications)(#845, p. 358; 886, p. 545; 908, p. 265; 938, p. 211; 946, p. 252; #988, p. 324; 1018, p. 246; 1025, p. 235). Chas. E. Fleck. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 12, T. 150 N., R. 100 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	113.97	Apr. 13	113.95	July 13	114.14	Oct. 5	114.24
12	114.15	20	114.01	20	114.18	12	114.03
19	114.05	27	114.16	27	114.20	19	114.08
26	113.96	May 4	114.03	Aug. 3	114.16	26	114.32
Feb. 9	113.91	11	114.11	10	114.15	Nov. 2	114.48
16	114.33	18	114.32	17	114.19	9	114.03
23	114.20	25	114.14	24	114.04	16	114.30
Mar. 2	114.10	June 1	114.30	31	114.08	23	113.77
9	114.36	8	114.27	Sept. 7	114.15	30	114.39
16	114.30	15	114.15	14	114.03	Dec. 7	114.03
23	113.93	22	114.05	21	114.01	14	114.05
30	114.12	29	114.05	28	114.28	21	114.08
Apr. 6	113.95	July 6	114.15				

McLean County

149.84.15bcl (Well 27 in previous publications) (*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). State of North Dakota. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 15, T. 149 N., R. 84 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	45.15	Apr. 5	45.35	July 6	45.06	Oct. 4	45.31
12	45.44	12	45.27	13	45.14	11	45.22
19	45.35	20	45.19	20	45.06	18	45.22
26	45.27	26	45.19	27	45.14	25	45.18
Feb. 2	45.23	May 3	45.18	Aug. 3	45.10	Nov. 1	45.18
9	45.35	10	45.18	10	45.23	8	45.35
15	45.27	17	45.01	17	45.10	15	45.25
22	45.23	27	45.14	24	45.05	21	45.25
Mar. 1	45.27	31	45.06	31	45.10	28	45.18
8	45.31	June 6	45.06	Sept. 7	45.35	Dec. 7	45.27
15	45.40	17	45.10	14	45.10	14	45.22
22	45.46	23	45.06	21	45.10	24	45.39
29	45.44	29	45.10	27	45.27	28	45.43

Mercer County

144.85.22ad1 (Well 118 in previous publications) (*908, p. 266; 938, p. 212; 946, p. 252; *988, p. 325; 1018, p. 247; 1025, p. 236). Maichel Bros. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 144 N., R. 85 W. Water levels, in feet below land-surface datum, 1946: May 15, 22.75; Oct. 21, 16.25.

Morton County

134.32.36cb1 (Well 4 in previous publications) (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236). Albrecht & Johnson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T. 134 N., R. 82 W. Water levels, in feet below land-surface datum, 1946: May 17, 16.40; Sept. 24, 16.64.

136.81.6dcl (Well 3 in previous publications) (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236). Joe Lenz, Jr. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 136 N., R. 81 W. Water levels, in feet below land-surface datum, 1946: May 17, 21.68; Sept. 24, 21.70.

138.81.4bb1 (Well 49 in previous publications) (*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). U. S. 54. U. S. Dept. of Agriculture, Soil Conservation Service. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 4, T. 138 N., R. 61 W.

Water level, in feet below land-surface datum, 1946

May 14	15.22	Sept. 23	14.02	Sept. 30	14.16	Nov. 9	20.14
17	15.05	24	14.04	Oct. 1	14.17	10	20.16
Aug. 1	17.68	25	14.06	2	14.18	11	20.17
Sept. 19	13.93	26	14.08	3	14.20	12	20.19
20	13.95	27	14.10	4	14.22	13	20.20
21	13.97	28	14.12	5	14.25	14	20.22
22	13.99	29	14.14	Nov. 8	20.13		

139.85.15cc1 (Well 1 in previous publications) (*938, p. 212; 946, p. 252; *988, p. 325; 1018, p. 247; 1025, p. 236). Fred Lehde. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 15, T. 139 N., R. 85 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	36.27	Mar. 2	35.98	Apr. 27	36.62	June 15	36.77
12	36.31	9	36.77	May 4	36.62	22	36.91
19	36.27	16	36.28	11	36.64	29	34.25
28	36.19	23	36.37	17	36.63	July 6	33.51
Feb. 2	36.26	30	36.43	19	36.60	13	33.80
9	36.34	Apr. 8	36.47	25	36.62	22	35.40
16	37.04	13	36.52	June 1	36.61	30	36.33
24	35.81	20	36.58	8	36.66	Aug. 3	36.50

139.85.15ccl--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 10	36.50	Sept. 21	36.52	Oct. 26	36.52	Nov. 30	36.67
17	36.33	28	36.51	Nov. 2	36.52	Dec. 7	36.70
26	36.52	Oct. 6	36.43	9	36.60	14	36.67
Sept. 1	36.41	12	36.52	16	36.71	21	36.65
7	36.52	19	36.60	23	36.71	28	36.67
14	36.52						

139.88.32ab1 (Well 2 in previous publications) (*938, p. 212; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236). Henry Polenber. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 32, T. 139 N., R. 88 W. Water level, in feet below land-surface datum, 1946: May 17, 7.18.

Mountrail County

152.89.6aal (Well 90 in previous publications) (*845, p. 359; 886, p. 546; 908, p. 266; 938, p. 213; 946, p. 253; *988, p. 325; 1018, p. 247; 1025, p. 236). Emil Molter. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 152 N., R. 89 W. Water levels, in feet below land-surface datum, 1946: May 7, 47.64; Sept. 20, 47.96.

Nelson County

152.59.5aal (Well 47 in previous publications) (*886, p. 546; 908, p. 267; *938, p. 213; 946, p. 253; *988, p. 325; 1018, p. 248; 1025, p. 236). Tom Miller. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 152 N., R. 59 W. Measurements discontinued.

Oliver County

141.82.10bal (Well 1 in previous publications) (*908, p. 267; 938, p. 213; 946, p. 253; *988, p. 326; *1018, p. 248; 1025, p. 237). Otis Tye. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 141 N., R. 82 W. New measuring point, top of new corrugated-steel well cover at north side of well, 1.32 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: May 15, 15.86; Oct. 2, 16.88.

Pembina County

160.56.8dcal. Paul B. Olafson. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 160 N., R. 56 W. Used dug well, diameter 4 feet, depth 10 feet. Equipped with small rotary pump and $\frac{1}{2}$ horsepower gasoline engine. Measuring point, top of concrete well curb at northwest side of well, 0.70 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946							
Apr. 24	4.17	June 24	3.93	Sept. 2	6.38	Nov. 4	5.92
29	3.13	July 1	3.70	9	6.10	11	5.48
May 7	3.34	8	3.78	16	7.10	18	4.80
13	3.00	15	4.09	23	5.73	25	4.92
20	2.88	22	4.26	30	5.63	Dec. 2	5.02
27	3.11	29	5.39	Oct. 7	4.94	9	5.38
June 3	3.20	Aug. 12	5.63	14	4.61	16	5.57
10	3.34	19	7.05	21	4.63	23	5.69
17	3.63	26	7.55	28	4.80	30	5.75

160.56.9ccbl. Ole Soli. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 9, T. 160 N., R. 56 W. Used dug well, diameter 4 feet, depth 8 feet. Measuring point, top of concrete curb at north side of well, 1.50 feet above land-surface datum. Water level, in feet below land-surface datum, 1946: Sept. 24, 4.90.

160.56.9dccl. J. Anderson. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T. 160 N., R. 56 W. Used dug well, diameter 3.5 feet, depth 18 feet. Equipped with hand pump. Measuring point, top of concrete well curb at east side of well, 3.00 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 5.87; Sept. 24, 7.10.

160.56.16aaa1. S. J. Hanson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 12 feet. Equipped with hand pump. Measuring point, top of concrete well curb at east side of well, 1.00 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 6.22; Sept. 24, 6.84.

160.56.16aaa2. Gritherun Thorstenson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 25.5 feet. Equipped with hand pump. Measuring point, bottom of 2- by 4-inch board just east of pump, 0.50 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 22.54; Sept. 24, 23.00.

160.56.16aab1. S. J. Hallgrimson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 21.8 feet. Equipped with hand pump. Measuring point, top of concrete curb at south side of well, 1.50 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 9.25; Sept. 24, 11.57.

160.56.16aab2. Lutheran Parsonage. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, diameter 4 feet, depth 28.20 feet. Equipped with hand pump. Measuring point, top of concrete well curb at north side of well, 1.50 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 9.08; Sept. 24, 11.64.

160.56.16aab3. H. J. Hallgrimson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 19.40 feet below land-surface. Equipped with hand pump. Measuring point, top of tile casing on east side of well, 1.50 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 24	8.19	Oct. 21	10.58	Nov. 10	10.50	Dec. 8	10.62
Sept. 24	10.82	28	10.83	21	10.42	16	10.66
Oct. 7	10.75	Nov. 4	10.75	Dec. 1	10.50	30	10.66
14	10.67						

160.56.16aab4. H. J. Hjaltalin. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, diameter 5 feet, depth 17 feet. Equipped with hand pump. Measuring point, top of concrete well curb at east side of well, 0.50 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946							
Apr.	Water level	June	Water level	July	Water level	Aug.	Water level
17	7.50	21	5.75	19	5.50	30	4.50
24	7.68	29	5.75	10	5.50	6	4.67
30	8.26	5	5.83	16	5.00	14	4.50
June 7	7.27	12	5.92	24	4.50	24	11.70
14	7.42						

160.56.16aac1. Mountain School. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Unused dug well, diameter 4 feet, depth 17 feet. Measuring point, top of concrete at west side of opening, 0.80 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 7.60; Sept. 24, 9.44.

160.56.16aad1. Mr. Paulson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 59 W. Used drilled well, depth 40 feet. Equipped with hand pump. Measuring point, top of tile well casing on south side of well, 1.25 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 19.28; Sept. 24, 19.64.

160.56.16adal. Oscar Byron. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used bored well, diameter 20 inches, depth 20 feet. Equipped with small centrifugal pump and $\frac{1}{2}$ -horsepower electric motor. Measuring point, top of wooden well curbing at east side of well, 1.00 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Sept. 24, 17.89.

160.56.16ada2. Oscar Byron. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, diameter 4 feet, depth 15 feet. Equipped with hand pump. Measuring point, top of concrete curb at east side of well, 0.50 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 24	11.17	June 12	12.44	July 17	12.45	Aug. 21	11.36
May 8	11.46	19	12.44	24	12.47	Oct. 18	13.46
15	12.41	26	12.45	31	12.46	28	13.47
22	9.48	July 3	12.45	Aug. 7	12.46	Nov. 11	12.46
June 6	12.43	10	12.45				

160.59.16ada3. Walter Hallison. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used bored well, diameter 20 inches, depth 17 feet. Equipped with hand pump. Measuring point, top of wooden well curb at east side of well, 0.66 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 12.68; Sept. 24, 8.30.

160.59.16ada4. Mr. Olafson. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 59 W. Dug well, depth 22 feet. Equipped with hand pump. Measuring point, top of floor of wooden box over well, 4 $\frac{1}{4}$ inches above concrete well curb, 1.66 feet above land-surface datum. Water level, in feet below land-surface datum, 1946: Sept. 24, 14.59.

160.56.16adb1. H. Olafson. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 18.5 feet. Measuring point, top of inside edge of cribbing at north side of well near center, 1.40 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 9.64; Sept. 24, 11.64.

160.56.16accl. H. Olafson. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 12 feet, 6- by 6-foot square. Equipped with hand pump. Measuring point, top of wooden well curbing at southeast corner of well, 2.00 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 3.28; Sept. 24, 6.72.

160.56.16bdal. H. T. Hjaltalin. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 16, T. 160 N., R. 56 W. Used dug well, depth 16 feet, diameter 4 feet. Equipped with hand pump. Measuring point, top of concrete well curb at east side of well, 0.50 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 6.90; Sept. 24, 9.45.

161.56.22bbl (Well 1 in previous publications)(*938, p. 213; 946, p. 253; *988, p. 326; 1018, p. 248; 1025, p. 237). E. J. Lander Co. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 161 N., R. 56 W.

Water level, in feet below land-surface datum, 1946							
Jan. 5	7.60	Apr. 6	5.93	June 29	6.83	Sept. 28	8.90
12	7.66	13	5.64	July 6	6.77	Oct. 5	8.81
19	7.66	20	5.53	13	7.17	12	8.62
26	7.73	24	5.59	20	7.42	19	8.65
Feb. 2	7.79	27	5.57	27	8.25	26	8.45
9	7.83	May 4	5.70	Aug. 3	7.83	Nov. 2	8.39
16	7.92	11	5.83	10	8.00	9	8.35
23	7.95	18	5.89	17	8.25	16	8.26
Mar. 2	7.97	25	6.00	24	8.42	23	8.25
9	7.98	June 1	6.19	31	9.25	30	8.22
16	7.75	8	6.24	Sept. 7	8.75	Dec. 7	8.20
23	7.40	15	6.53	14	8.87	14	8.25
30	6.78	22	6.79	21	8.88	21	8.25

162.53.31ccl (Well 5 in previous publications)(*938, p. 214; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 237). Garnett A. Snell. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 31, T. 162 N., R. 53 W.

162.53.31cc1--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	8.78	Apr. 13	7.86	July 7	8.47	Oct. 5	11.38
12	8.96	20	7.76	13	8.68	12	10.43
19	8.97	24	7.58	20	9.03	19	10.35
26	9.07	27	7.36	27	9.23	26	10.31
Feb. 2	9.15	May 4	7.22	Aug. 3	9.75	Nov. 2	10.29
9	9.22	11	7.09	10	10.08	9	10.14
16	9.32	18	7.05	17	10.53	16	10.18
23	9.33	25	7.17	24	10.56	23	10.06
Mar. 2	9.50	June 1	7.28	31	10.83	30	10.07
9	9.55	8	7.59	Sept. 7	10.96	Dec. 7	10.20
16	9.50	15	7.94	14	11.04	14	10.12
23	9.02	22	8.19	21	10.86	21	10.07
30	8.57	29	8.36	28	10.78		

162.55.3dd1 (Well 50 in previous publications)(*938, p. 214; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 237). Albert C. McCurdy. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 162 N., R. 55 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	7.76	Apr. 14	6.20	July 7	6.91	Oct. 6	9.15
13	7.84	21	5.83	14	7.20	13	9.02
20	7.88	24	5.76	21	7.26	20	8.85
27	7.97	28	5.70	28	7.70	27	8.79
Feb. 3	8.10	May 4	5.78	Aug. 4	7.97	Nov. 3	8.72
10	8.21	12	4.89	11	8.26	10	8.56
17	8.33	19	5.88	18	8.53	17	8.45
24	8.47	26	6.01	25	8.77	23	8.38
Mar. 3	8.55	June 2	6.26	Sept. 1	9.01	Dec. 1	8.32
10	8.70	9	6.53	8	9.20	8	8.52
17	8.03	16	6.79	15	9.38	15	8.59
24	8.03	23	7.03	22	9.38	22	8.74
31	7.40	30	7.03	29	9.30	29	8.45
Apr. 7	6.80						

162.55.3dd2. Albert C. McCurdy. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 162 N., R. 55 W. Used drilled well, diameter 8 inches, depth 21 feet. Equipped with windmill. Measuring point, south corner of hole in top of well platform, 3.20 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 24, 6.04; Sept. 17, 12.34.

163.51.27bb1 (Well 41 in previous publications)(*840, p. 324; 845, p. 360; 886, p. 547; 900, p. 267; 938, p. 214; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 237). George Harris. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 163 N., R. 51 W. Water level, in feet below land-surface datum, 1946: Apr. 24, 3.71. Measurements discontinued.

163.56.9aal (Well 72 in previous publications)(*938, p. 215; 946, p. 254; *988, p. 326; 1018, p. 248; 1025, p. 238). Herman Tesmer. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 163 N., R. 56 W. Water levels, in feet below land-surface datum, 1946: Apr. 24, 8.00; Sept. 17, 9.56.

Pierce County

156.72.10bal (Well 1 in previous publications)(*908, p. 267; 938, p. 215; 946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238). Eric Hammel. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 156 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: May 3, 22.74; Sept. 25, 22.80.

Ramsey County

153.64.5aal (Well 110 in previous publications)(*946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238). Ray Young. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 153 N., R. 64 W. Water level, in feet below land-surface datum, 1946: Apr. 12, 23.84.

153.64.20cdl (Well 111 in previous publications) (*946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238). W. H. Summers. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T. 153 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 50.34; Sept. 25, 50.64.

153.64.25cal (Well 112 in previous publications) (*988, p. 327; 1018, p. 249; 1025, p. 238). Camp Grafton Military Reserve. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 153 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 53.75; Sept. 25, 54.00.

153.65.14acl (Well 48 in previous publications) (*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). Mrs. Bonnie Boland. SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 153 N., R. 65 W. Water levels, in feet below land-surface datum, 1946: Apr. 12, 57.15; Sept. 25, 57.25.

Ransom County

136.56.3abl (Well 1 in previous publications) (*908, p. 268; 938, p. 216; 946, p. 255; *988, p. 327; 1018, p. 249; 1025, p. 238). Melfird Skramstad. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 3, T. 136 N., R. 56 W. Water levels, in feet below land-surface datum, 1946: Apr. 16, 14.90; Oct. 3, 14.47.

Renville County

161.84.13cdl (Well 167 in previous publications) (*908, p. 268; 938, p. 216; 946, p. 255; *988, p. 328; 1018, p. 250). Town of Mohall. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 161 N., R. 84 W. Measurements discontinued.

161.84.13cd2 (Well 169 in previous publications) (*908, p. 269; 938, p. 216; 946, p. 256; *988, p. 328; 1018, p. 250; 1025, p. 238). Fred Paris. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 161 N., R. 84 W. Water-stage recorder installed Oct. 24, 1946. New measuring point, floor of recorder shelter, 1.06 feet above previous measuring point and land-surface datum.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 6	a 6.77	Nov. 4	9.49	Nov. 16	9.38	Nov. 28	9.34
Sept. 26	a 9.65	5	9.46	17	9.40	29	9.34
Oct. 24	9.53	6	9.42	18	9.35	30	9.33
25	9.50	7	9.41	19	9.37	Dec. 1	9.37
26	9.52	8	9.42	20	9.36	2	9.31
27	9.55	9	9.41	21	9.35	3	9.32
28	9.52	10	9.40	22	9.36	4	9.30
29	9.49	11	9.38	23	9.32	5	9.31
30	9.48	12	9.37	24	9.32	6	9.28
31	9.47	13	9.36	25	9.32	7	9.29
Nov. 1	9.47	14	9.35	26	9.31	8	9.29
2	9.47	15	9.34	27	9.34	9	9.30
3	9.48						

a Tape measurement.

161.84.24abl (Well 168 in previous publications) (*908, p. 268; 938, p. 216; 946, p. 255; *988, p. 328; 1018, p. 250; 1025, p. 238). J. Dighton Taylor. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 24, T. 161 N., R. 84 W. Water levels, in feet below land-surface datum, 1946: May 6, 8.87; Sept. 24, 11.67.

161.85.20aal (Well 26 in previous publications) (*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). Minnesota Trust Co. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20, T. 161 N., R. 85 W.

Water level, in feet below land-surface datum, 1946

Jan. 12	82.90	Mar. 18	82.88	June 13	82.76	Sept. 7	83.00
19	82.91	30	82.85	20	82.78	26	82.96
Feb. 18	82.92	Apr. 13	82.74	24	82.78	Nov. 2	82.86
25	82.91	May 4	83.07	29	82.78	11	82.91
Mar. 5	82.90	6	82.82	Aug. 26	82.99	30	82.87
11	82.89	11	82.75				

Richland County

132.49.12dal (Well 2 in previous publications) (*845, p. 361; 886, p. 548; 908, p. 269; 938, p. 216; 946, p. 256; *988, p. 328; 1018, p. 250; 1025, p. 238). Ira Madden. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 12, T. 132 N., R. 49 W. Water level, in feet below land-surface datum, 1946: Apr. 16, 0.80.

133.47.7cc1. R. Barber. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T. 133 N., R. 47 W. Used dug well, depth 50 feet, 3 $\frac{1}{2}$ - by 3 $\frac{1}{2}$ -feet square. Equipped with hand pump. Measuring point, edge of piece of flashing painted red and attached to 2-by 4-inch board inside well cover, 5.05 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 16, 2.44; Oct. 3, 3.72.

133.52.32cd1. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 32, T. 133 N., R. 52 W. Used driven well, diameter 1 $\frac{1}{2}$ inches, depth 20 feet. Measuring point, top of 1 $\frac{1}{2}$ -inch pipe, 2.32 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 16, 3.58; Oct. 3, 5.38.

133.52.33cd1 (Well 5 in previous publications) (*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). U. S. 52. John Liljemark. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 33, T. 133 N., R. 52 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	7.75	Apr. 13	3.25	July 7	4.23	Oct. 5	6.77
13	7.75	16	3.55	14	4.90	12	6.27
19	7.77	20	3.78	20	3.77	19	6.23
27	7.94	27	3.68	28	6.31	26	6.18
Feb. 3	8.04	May 5	4.10	Aug. 4	6.72	Nov. 2	7.02
10	8.10	12	4.55	10	7.01	9	5.97
17	8.09	19	4.87	17	6.77	16	5.93
23	8.13	27	5.10	24	7.21	23	5.93
Mar. 4	8.15	June 2	5.23	31	7.25	30	6.02
9	8.02	8	5.89	Sept. 7	7.37	Dec. 7	5.85
16	8.63	15	6.23	14	7.39	14	5.93
23	6.08	24	5.85	21	7.14	21	5.72
30	4.42	30	5.65	28	7.06	28	5.77
Apr. 6	3.02						

Rollette County

162.69.17al (Well 165 in previous publications) (*908, p. 269; *938, p. 217; 946, p. 256; *988, p. 329; 1018, p. 250; 1025, p. 239). Town of Rolla well 4. NE $\frac{1}{4}$ sec. 17, T. 162 N., R. 69 W. Water levels, in feet below land-surface datum, 1946: Apr. 25, 25.44; Sept. 18, 24.73.

Sargent County

130.58.19bal (Well 116 in previous publications) (*908, p. 270; *938, p. 217; 946, p. 256; *988, p. 329; 1018, p. 250; 1025, p. 239). Reko Realty. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 19, T. 130 N., R. 58 W. Measurements discontinued.

Sheridan County

145.75.28bbl (Well 95 in previous publications) (*845, p. 362; 886, p. 549; 908, p. 270; 938, p. 217; 946, p. 256; *988, p. 329; 1018, p. 250; 1025, p. 239). Bank of North Dakota. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 145 N., R. 75 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	53.96	Mar. 2	53.96	Apr. 27	53.95	June 22	53.96
12	53.96	9	53.96	May 4	53.96	29	53.96
19	53.97	16	53.96	11	53.96	July 6	53.96
26	53.96	23	53.96	18	53.97	13	53.96
Feb. 2	53.96	30	53.96	25	53.97	20	53.94
9	53.97	Apr. 6	53.97	June 1	53.96	27	53.97
16	53.96	13	53.97	8	53.96	Aug. 3	53.97
23	53.96	20	53.96	15	53.97	10	53.97

145.75.28bbl--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 17	53.99	Sept. 21	53.96	Oct. 26	53.97	Nov. 19	53.97
24	53.97	28	53.96	Nov. 2	53.96	30	53.97
31	53.97	Oct. 5	53.96	9	53.97	Dec. 7	53.97
Sept. 9	53.97	12	53.97	16	53.97	14	53.97
14	53.97	19	53.96				

Sioux County

130.79.7c1 (Well 1 in previous publications)(*908, p. 270; 938, p. 217; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 239). Mrs. Lookingout. SW $\frac{1}{4}$ sec. 7, T. 130 N., R. 79 W. Water levels, in feet below land-surface datum, 1946: May 17, 9.74; Sept. 24, 10.77.

130.80.23dal (Well 2 in previous publications)(*938, p. 217; 936, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 239). Mrs. Mulache. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 130 N., R. 80 W. Water levels, in feet below land-surface datum, 1946: May 17, 23.63; Sept. 24, 23.79.

133.82.25bal. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 133 N., R. 82 W. Unused drilled well, diameter 2 inches. Measuring point, top of 2-inch pipe, 3.00 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: May 17, 4.36; Sept. 24, 4.21.

Slope County

134.100.4ad1 (Well 1 in previous publications)(*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 240). Arthur Neseth. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 134 N., R. 100 W. Water levels, in feet below land-surface datum, 1946: May 16, 14.82; Sept. 21, 14.82.

Stark County

139.91.2bal (Well 120 in previous publications)(*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 329; 1018, p. 251; 1025, p. 240). Roland and George Funk. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 139 N., R. 91 W. Water levels, in feet below land-surface datum, 1946: Apr. 17, 3.70; Oct. 15, 3.95.

Steele County

148.57.15aal (Well 1 in previous publications)(*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 330; 1018, p. 251; 1025, p. 240). Mrs. Snortland. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 15, T. 148 N., R. 57 W. Water levels, in feet below land-surface datum, 1946: Apr. 26, 7.80; Sept. 26, 8.45.

Stutsman County

137.64.33ccl (Well 124 in previous publications)(*908, p. 270; 938, p. 218; 946, p. 257; *988, p. 330; 1018, p. 251; 1025, p. 240). Union Central Life Insurance Co. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33, T. 137 N., R. 64 W. Water levels, in feet below land-surface datum, 1946: Apr. 18, 46.98; Aug. 29, 47.37.

Towner County

158.66.20d1 (Well 170 in previous publications)(*946, p. 258; *988, p. 330; 1018, p. 252; 1025, p. 240). S. L. Isaacson. In town of Cando, in lot 12, block 16. No measurements made in 1946.

160.66.28bal (Well 59 in previous publications)(*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). Bank of North Dakota. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 160 N., R. 66 W.

160.66.28bal--Continued.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	15.11	Apr. 6	14.85	June 29	15.06	Sept. 21	15.15
12	15.10	13	14.90	July 6	15.06	28	15.16
19	15.10	20	14.94	13	15.07	Oct. 5	15.17
26	15.09	25	15.38	20	15.09	12	15.17
Feb. 2	15.01	27	14.81	27	15.09	19	15.19
9	15.04	May 4	14.78	Aug. 3	15.10	26	15.19
16	15.02	11	14.77	10	15.10	Nov. 2	15.19
23	14.67	18	14.77	17	15.09	9	15.23
Mar. 2	14.68	25	14.78	24	15.10	16	15.23
9	14.70	June 1	15.00	31	15.15	23	15.23
16	14.72	8	15.01	Sept. 7	15.15	30	15.26
23	14.93	15	15.02	14	15.15	Dec. 7	15.26
30	14.92	22	15.05				

Trail County

145.51.14bal. Carl Nelson. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 14, T. 145 N., R. 51 W. Used bored well, depth 46 feet. Equipped with hand pump. Measuring point, top of 2-inch planking at base of pump, 0.25 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 10, 8.90; Oct. 3, 3.90.

146.51.24cd1 (Well 15 in previous publications) (*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). A. C. Skyberg. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 146 N., R. 51 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5	17.53	Feb. 23	17.61	Apr. 10	17.61	May 25	17.67
12	17.53	Mar. 2	17.63	13	17.70	June 4	17.67
19	17.53	9	17.65	20	17.70	8	17.65
26	17.57	16	17.70	May 1	17.71	22	17.61
Feb. 2	17.57	23	17.76	4	17.73	23	17.65
9	17.61	30	17.174	13	17.69	29	17.53
16	17.59	Apr. 6	17.72				

146.51.24bcl. A. C. Peterson. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 146 N., R. 51 W. Used dug well, depth 21 feet, 4- by 4-foot square. Equipped with hand pump. Measuring point, top of plank cover over well, 1.25 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 10	14.17	May 4	14.77	June 4	14.71	June 23	13.75
20	14.75	13	14.73	8	14.69	29	13.75
May 1	14.75	25	14.71	22	17.17		

148.53.18aal (Well 33 in previous publications) (*840, p. 326; 845, p. 366; 908, p. 272; 938, p. 219; 946, p. 258; *988, p. 331; 1018, p. 252; 1025, p. 241). City of Hatton. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 148 N., R. 53 W.

Water level, in feet below land-surface datum, 1946							
Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 7	10.50	June 22	8.46	Aug. 18	13.93	Oct. 6	15.05
20	7.84	30	9.17	24	14.66	13	14.02
27	7.78	July 7	9.54	31	16.84	19	14.07
May 6	7.89	21	10.68	Sept. 7	15.42	26	14.07
18	8.13	27	11.52	14	15.78	Nov. 3	12.08
26	8.16	Aug. 4	12.93	22	15.79	9	12.05
June 2	8.13	11	13.35	29	15.01	16	12.02

148.53.18abl (Well 34 in previous publications) (*845, p. 365; 886, p. 550; 908, p. 272; 938, p. 219; 946, p. 259; *988, p. 331; 1018, p. 253; 1025, p. 241). City of Hatton. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 148 N., R. 53 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 7	8.97	June 22	8.92	Aug. 18	9.30	Oct. 6	13.51
20	8.68	30	9.02	24	12.11	13	12.49
27	8.82	July 7	8.68	31	12.92	19	12.49
May 6	8.59	21	10.12	Sept. 7	13.32	26	12.51
18	8.95	27	10.33	14	12.78	Nov. 3	11.49
26	8.61	Aug. 4	9.24	22	13.00	9	11.48
June 2	8.60	11	9.72	29	13.49	16	11.47

148.53.18ad1. City of Hatton. NE $\frac{1}{4}$ sec. 18, T. 148 N., R. 53 W. Dug well, diameter 72 inches, depth 41 feet. Measuring point, top of 2-inch planking in manhole, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 26, 8.49; Sept. 26, 10.40.

148.53.18ad2. City of Hatton. NE $\frac{1}{4}$ sec. 18, T. 148 N., R. 53 W. Dug well, diameter 60 inches, depth 32 feet. Measuring point, top of well cover, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Apr. 26, 9.29; Sept. 26, 11.68.

148.53.18ad3 (Well 32 in previous publications) (*845, p. 364; 886, p. 550; 908, p. 271; 938, p. 219; 946, p. 258; *988, p. 331; 1018, p. 253; 1025, p. 241). City of Hatton. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 148 N., R. 53 W.

Water level, in feet below land-surface datum, 1946

Apr. 7	11.42	June 22	11.36	Aug. 18	14.73	Oct. 6	12.86
20	11.11	30	11.48	24	14.36	13	12.85
27	11.06	July 7	11.58	31	13.84	19	11.84
May 6	11.06	21	12.38	Sept. 7	13.82	26	12.84
18	11.27	27	13.15	14	13.88	Nov. 3	11.89
26	10.96	Aug. 4	13.73	22	13.54	9	11.89
June 2	10.91	11	13.80	29	12.83	16	11.84

Walsh County

157.51.16dc1 (Well 38 in previous publications) (*840, p. 326; 845, p. 366; 886, p. 551; 908, p. 272; 938, p. 219; 946, p. 259; *988, p. 331; 1018, p. 253; 1025, p. 241). Henry Dipple. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 157 N., R. 51 W. Measurements discontinued.

157.51.16dc2 (Well 39 in previous publications) (*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). U. S. 48. Henry Dipple. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 157 N., R. 51 W. Water level, in feet below land-surface datum, 1946: Sept. 17, 8.13.

157.55.17cc1 (Well 96 in previous publications) (*886, p. 551; 908, p. 273; 938, p. 220; 946, p. 260; *988, p. 332; 1018, p. 253; 1025, p. 242). C. D. Lewis. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 157 N., R. 55 W.

Water level, in feet below land-surface datum, 1946

Jan. 5	6.35	Apr. 6	3.96	June 29	4.67	Sept. 28	7.02
12	6.37	13	3.82	July 6	4.96	Oct. 5	6.87
19	6.37	20	3.67	13	5.39	12	6.47
26	6.38	23	3.74	20	5.69	19	6.39
Feb. 2	6.38	27	3.95	27	5.89	26	6.37
9	6.40	May 4	3.94	Aug. 3	6.25	Nov. 2	6.22
16	6.41	11	3.92	10	6.58	9	6.12
23	6.44	18	3.67	17	6.84	16	6.14
Mar. 2	6.49	25	3.92	24	8.77	23	6.89
9	6.50	June 1	4.15	31	7.09	30	6.89
16	6.13	8	4.35	Sept. 7	7.24	Dec. 7	6.90
23	5.52	15	4.59	14	7.37	14	6.89
30	4.39	22	4.83	21	7.26		

155.57.17cd1 (Well 37 in previous publications)(*840, p. 326; 845, p. 365; 886, p. 550). C. D. Lewis. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 157 N., R. 55 W. Measurements resumed in 1946. Water levels, in feet below land-surface datum, 1946: Apr. 23, 2.39; Sept. 17, 6.13.

Ward County

155.83.13cdd1 (Well 152 in previous publications)(*1025, p. 242). Minot Flour Milling Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 155 N., R. 83 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	49.30	Mar. 12	47.33	Mar. 30	47.01	Apr. 24	46.27
7	48.54	13	47.53	Apr. 7	46.21	25	46.26
8	48.24	14	47.42	8	46.30	26	46.26
9	48.59	15	47.41	9	46.31	27	46.17
10	48.52	16	47.50	10	46.45	28	46.01
11	48.34	17	47.49	11	46.25	29	46.43
12	48.58	18	47.33	12	45.95	30	46.42
Feb. 28	47.51	19	47.20	13	46.27	May 1	46.64
Mar. 1	47.50	20	47.48	14	45.95	2	46.70
2	47.71	21	47.36	15	46.11	3	46.61
3	48.04	22	47.27	16	46.07	June 16	46.33
4	48.44	23	47.25	17	46.22	17	46.46
5	48.44	24	47.01	18	46.10	18	46.47
6	48.06	25	47.08	19	46.02	19	46.87
7	48.02	26	46.87	20	46.04	20	47.04
8	47.70	27	47.13	21	45.89	21	47.34
9	48.07	28	47.00	22	45.94	22	47.50
10	48.03	29	46.96	23	45.92	23	47.50
11	47.46						

155.83.14dcal (Well 151 in previous publications)(*1025, p. 244). People's Ice Co. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 14, T. 155 N., R. 83 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44.48	.....	45.03	.....	42.79	46.27	51.35	50.79	.....
2	44.54	.....	45.42	.....	43.26	45.74	51.40	50.89	.....
3	44.79	45.38	45.90	.....	43.34	45.82	51.58	.....	.....
4	44.85	44.87	46.24	.....	.....	46.00	.....	.....	.....
5	45.02	44.98	46.30	.....	.....	46.85	.....	.....	.....
6	45.03	45.47	45.71	.....	.....	47.14	.....	.....	.....
7	44.96	45.45	45.10	.....	.....	47.13	51.92	.....	.....
8	44.62	45.09	45.23	.....	.....	.....	50.97	.....	.....
9	45.17	45.19	45.67	.....	.....	.....	50.47	.....	.....
10	45.10	44.76	.....	.....	.....	.....	50.37	.....	.....
11	44.78	44.87	.....	.....	.....	.....	50.29	.....	.....
12	45.07	44.91	45.08	.....	44.77	.....	50.56	.....	.....
13	44.87	45.36	45.14	.....	44.93	.....	50.37	.....	.....
14	44.75	45.14	45.06	.....	44.94	.....	50.43	.....	.....
15	44.46	45.38	45.10	.....	45.25	.....	50.49	.....	50.36
16	44.61	45.27	45.08	.....	45.51	51.03	50.49	.....	50.53
17	45.08	45.12	45.20	.....	45.54	51.08	50.68	.....	50.60
18	45.09	45.22	44.98	.....	45.46	51.08	48.19	.....	50.76
19	45.01	45.20	45.14	.....	45.30	51.06	48.19	.....	50.32
20	.....	45.26	45.23	44.41	45.35	51.39	48.33	.....	49.75
21	.....	45.11	45.23	44.60	45.30	51.66	48.48	.....	49.67
22	.....	45.34	45.09	44.61	45.38	51.68	48.64	.....	.....
23	45.22	45.23	45.02	45.09	45.66	51.68	48.95	.....	.....
24	45.05	45.20	44.94	45.12	45.82	51.68	49.12	.....	.....
25	45.00	45.18	44.70	45.24	45.94	50.92	49.31	.....	.....
26	45.00	45.07	45.09	45.12	46.06	50.65	49.55	.....	.....
27	44.82	45.00	44.96	44.87	46.33	51.06	49.88	.....	.....
28	44.88	45.00	.....	44.98	45.27	51.31	50.16	.....	.....
29	.....	.....	45.06	45.29	47.09	51.31	50.28	.....	.....
30	.....	.....	.....	44.85	47.16	50.77	50.49	.....	.....
31	.....	.....	.....	.....	46.57	.....	50.65	.....	.....

155.83.23baal (Well 150 in previous publications)(*1025, p. 243).
City of Minot supply well 2. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 155 N., R. 83 W.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Oct.	Nov.
1	46.23	45.60	45.48	45.35	.....	47.01	53.02	54.05	.....	49.75
2	46.58	47.06	46.98	46.66	46.88	47.07	49.85	54.36	.....	49.75
3	46.80	46.80	47.31	45.36	46.84	47.76	53.07	54.16	50.47	49.57
4	46.51	46.36	47.39	45.28	46.80	50.66	53.29	54.11	50.23	49.49
5	46.94	46.64	47.39	45.18	46.61	51.19	53.12	54.11	50.48	49.31
6	47.03	46.91	45.42	45.13	45.39	51.27	53.00	54.20	50.15	49.38
7	46.50	46.59	45.43	46.13	46.53	46.88	48.96	54.46	50.13	48.23
8	46.98	46.71	47.00	46.32	46.79	47.74	49.02	51.18	49.78	49.02
9	47.26	46.66	47.16	46.38	46.74	48.22	52.14	51.20	49.93	49.21
10	45.78	46.45	46.83	46.38	46.38	48.50	49.11	51.20	49.74	49.21
11	46.63	46.65	45.50	44.73	46.43	51.89	48.81	51.21	49.75	49.19
12	47.11	46.64	46.59	46.13	46.19	52.16	51.92	51.21	49.66	49.13
13	46.76	46.93	46.79	46.41	46.58	52.18	52.27	54.26	49.69	49.15
14	46.62	45.58	45.88	46.51	46.62	52.33	52.35	51.40	49.08	48.91
15	46.62	46.76	46.75	45.23	46.76	52.56	52.11	51.31	49.58	49.11
16	47.03	45.58	46.93	46.54	46.81	52.51	52.09	51.29	49.60	48.91
17	47.15	46.68	47.10	46.53	46.74	50.18	52.06	51.31	49.59	48.95
18	46.78	46.80	46.48	45.18	46.80	52.37	49.31	51.29	49.36	.....
19	46.98	46.83	46.64	45.20	46.78	52.47	52.02	54.59	49.52	.....
20	46.91	46.72	47.03	45.12	46.75	53.02	52.55	54.61	49.43	.....
21	47.28	45.53	46.87	46.18	46.61	53.34	49.29	54.55	49.62	.....
22	46.99	46.93	45.88	46.25	46.98	53.37	52.80	51.76	49.68	.....
23	47.48	45.58	46.73	46.38	47.00	53.36	49.85	51.30	49.65	.....
24	45.82	46.85	46.81	46.58	46.99	49.75	49.99	.....	49.73	.....
25	47.14	46.74	45.53	46.35	47.10	49.54	53.16	.....	49.70	.....
26	47.29	46.83	46.60	46.54	47.11	49.53	53.46	.....	49.55	.....
27	46.94	45.45	46.90	45.14	50.65	49.78	53.65	.....	49.81	.....
28	47.01	45.53	45.51	46.59	50.98	49.94	53.64	.....	49.70	.....
29	46.89	.....	46.75	46.72	51.16	49.41	53.92	.....	49.65	.....
30	47.08	.....	46.73	46.79	50.94	52.60	53.90	.....	49.65	.....
31	46.57	.....	46.73	.....	47.77	.....	54.09	.....	49.55	.....

156.83.14aal. Marie Selfors. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 156 N., R. 83 W.
Unused bored well, diameter 20 inches, depth 50 feet. Measuring point,
top of 2-inch wooden well cover, 1.20 feet above land-surface datum. Water-
stage recorder installed June 20, 1946.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	.....	24.79	21.68	20.34	18.85	18.93	.....
2	.....	24.70	21.63	20.32	18.49	18.30	.....
3	.....	24.55	21.70	20.04	18.65	18.41	.....
4	.....	24.45	21.62	19.82	18.86	18.53	.....
5	.....	24.40	21.47	19.83	18.91	18.33	.....
6	.....	24.23	21.25	20.12	19.01	18.02	.....
7	.....	24.15	21.13	20.22	19.04	17.95	.....
8	.....	23.88	21.02	20.02	18.70	18.12	.....
9	.....	23.55	21.26	19.73	18.53	18.10	17.61
10	.....	23.66	21.31	19.70	18.66	17.93	.....
11	.....	23.80	21.28	19.84	18.69	18.00	17.03
12	.....	23.55	21.13	19.68	18.53	18.22	17.54
13	.....	23.39	20.93	19.53	18.63	18.04	17.58
14	.....	23.49	20.92	19.43	18.54	.....	.....
15	.....	23.33	20.77	19.25	18.80	.....	.....
16	.....	23.09	20.78	19.19	18.69	18.10	.....
17	.....	22.95	20.78	19.29	18.44	18.20	.....
18	.....	22.94	20.77	19.54	18.41	.....	.....
19	.....	22.97	20.79	19.34	18.44	17.98	.....
20	25.65	22.96	20.77	19.05	18.32	17.93	.....
21	25.57	22.82	20.76	19.81	18.19	.....	.....
22	25.50	22.48	20.78	18.93	18.33	.....	.....
23	25.41	22.57	20.72	19.01	18.06	.....	.....
24	25.28	22.56	20.61	19.07	17.98	.....	.....

156.83.14aal--Continued.

Daily noon water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
25	25.23	22.53	20.54	19.00	17.92	.....	.....
26	25.11	22.24	20.50	19.05	18.18	.....	.....
27	25.01	22.18	20.66	18.99	18.52	.....	.....
28	24.98	22.22	20.68	19.35	18.28	.....	.....
29	24.85	22.04	20.67	19.39	18.13	.....	.....
30	24.81	21.92	20.42	19.85	18.05	.....	.....
31		21.64	20.18		18.05		.....

157.84.5cd1 (Well 71 in previous publications) (*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). U. S. 51. U. S. Dept. of Interior, Fish and Wildlife Service. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 157 N., R. 84 W. Water level, in feet below land-surface datum, 1946: May 6, 5.94.

157.84.2lcal (Well 74 in previous publications) (*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). U. S. Dept. of Interior, Fish and Wildlife Service. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 157 N., R. 84 W. Water levels, in feet below land-surface datum, 1946: May 6, 7.74; Oct. 1, 10.74.

157.84.2lddl (Well 73 in previous publications) (*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). U. S. Dept. of Interior, Fish and Wildlife Service. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 21, T. 157 N., R. 84 W. Water levels, in feet below land-surface datum, 1946: May 6, 5.54; Oct. 1, 6.76.

160.89.3lab1 (Well 50 in previous publications) (*946, p. 261; *988, p. 333; 1018, p. 254; 1025, p. 242). U. S. Dept. of Interior, Fish and Wildlife Service. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31, T. 160 N., R. 89 W. Water level, in feet below land-surface datum, 1946: May 6, 7.74.

Wells County

147.70.23aal (Well 153 in previous publications) (*908, p. 275; 938, p. 222; 946, p. 262; *988, p. 334; 1018, p. 254; 1025, p. 246). Hayden Jones. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 147 N., R. 70 W. Water levels, in feet below land-surface datum, 1946: Apr. 11, 5.63; Sept. 26, 6.53.

150.72.2lcd1 (Well 23 in previous publications) (*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). City of Harvey. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 150 N., R. 72 W. Water levels, in feet above land-surface datum, 1946: Apr. 12, 0.07; Sept. 26, 3.15.

150.72.28bal (Well 24 in previous publications) (*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). City of Harvey. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 28, T. 150 N., R. 72 W. Water levels, in feet below land-surface datum, 1946: Apr. 12, 13.67; Sept. 26, 15.55.

Williams County

157.96.29ccl (Well 79 in previous publications) (*845, p. 369; 886, p. 555; 908, p. 276; 938, p. 223; 946, p. 262; *988, p. 335; 1018, p. 255; 1025, p. 246). Mrs. Gus B. Swanson Estate. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 157 N., R. 96 W. Water levels, in feet below land-surface datum, 1946: Jan. 5, 19.72; May 6, 16.83; Sept. 20, 26.33.

159.103.24ad1 (Well 77 in previous publications) (*886, p. 554; 908, p. 275; 938, p. 223; 946, p. 262; *988, p. 334; 1018, p. 255; 1025, p. 246). Hans O. Lottstad. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 159 N., R. 103 W.

159.103.24ad1--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	30.19	Apr. 14	18.91	July 7	15.98	Oct. 6	24.10
13	30.20	21	19.09	14	17.59	13	24.84
20	30.24	28	19.30	21	16.65	20	24.67
27	30.26	May 5	19.76	28	16.40	27	24.96
Feb. 3	30.29	7	20.02	Aug. 4	17.92	Nov. 3	25.79
17	30.35	12	20.05	11	19.21	10	25.51
24	30.37	19	20.78	18	20.34	16	25.77
Mar. 3	30.36	26	21.08	25	20.94	24	25.96
10	30.28	June 2	21.88	Sept. 1	21.71	Dec. 1	26.24
17	29.75	8	19.90	4	22.26	9	26.35
24	23.00	16	13.92	15	22.72	15	26.49
31	19.69	23	13.60	22	22.84	22	26.76
Apr. 7	18.90	29	14.59	29	23.76	29	26.93

159.103.24ad2 (Well 78 in previous publications)(*845, p. 368; 886, p. 555; 908, p. 275; 938, p. 223; 946, p. 262; *988, p. 334; 1018, p. 255; 1025, p. 246). Hans O. Lottstad. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 159 N., R. 103 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	25.77	Apr. 14	14.71	July 7	11.82	Oct. 6	17.70
13	25.91	21	14.45	14	12.66	13	18.02
20	25.99	28	14.33	21	13.04	20	18.27
27	25.96	May 5	14.29	28	13.57	27	18.56
Feb. 3	25.99	7	14.43	Aug. 4	14.08	Nov. 3	18.90
17	26.14	12	14.29	11	14.65	10	19.06
24	26.16	19	14.71	18	15.11	16	19.42
Mar. 3	26.31	26	14.85	25	15.66	24	19.44
10	25.93	June 2	15.30	Sept. 1	16.15	Dec. 1	19.72
17	21.87	8	14.24	4	16.23	9	19.90
24	17.24	16	9.91	15	16.76	15	20.02
31	15.90	23	10.98	22	16.92	22	20.42
Apr. 7	15.16	29	11.31	29	17.50	29	20.77

WISCONSIN

By F. C. Foley

PROGRAM OF WORK

Observations of water levels in wells in Wisconsin were continued during 1946. The period of record at the end of 1946 was over 2 years for 10 wells in the northern Wisconsin River Valley and over 12 years for 9 wells in the Coon Creek area in Vernon and Monroe counties.

In February 1946 an extensive investigation of the ground-water resources of Wisconsin was begun in cooperation with the University of Wisconsin. During the year 77 new wells were added to the program and 12 automatic water-stage recorders were installed. Thirteen recorders were in operation at the end of the year. The new cooperative investigation was concentrated in the eastern part of Wisconsin with special emphasis on the deep artesian aquifers.

FLUCTUATIONS OF WATER LEVEL

Precipitation in Wisconsin during 1946 averaged 29.69 inches which is 0.93 inch below normal. Wells measured in previous years and for which comparable records are available, showed considerable differences in fluctuations. Of the 10 wells in the northern Wisconsin River Valley, 7 showed a net decline during the year ranging from 0.02 foot to 4.38 feet while 3 showed a net rise ranging from 0.12 foot to 1.52 foot. The three wells that showed a net rise are all in Oneida County where precipitation was above normal--3.53 inches above normal at Rhineland and 5.10 inches above normal at Tomahawk. Of seven wells in the Coon Creek area, four showed a net decline ranging from 0.05 to 0.90 foot and three a net rise ranging from 0.07 to 0.28 foot.

The Wisconsin Conservation Department installed nine observation wells at ranger stations in northern Wisconsin from 1935 to 1937. Records of measurements in the wells were published in Water-Supply Papers 777, 817, 840, and 845. No records of them have been published since 1938. Measurements have continued on five of the wells without break through 1946 and

have been furnished to the United States Geological Survey through the courtesy of the Wisconsin Conservation Department. Measurements were made daily but only weekly measurements from 1939 through 1946 are published here to complete the record.

The period of record of observation wells established during 1946 is too short to be truly significant and no comparison can be made with previous years. Measurements do show that artesian wells in heavily pumped areas, particularly the Milwaukee-Waukesha area, have a seasonal drop of 25 to 50 feet with minimum water levels occurring in September.

WELL DESCRIPTIONS AND WATER-LEVEL MEASUREMENTS

Ashland County

As 1 (*988, p. 351; 1018, p. 272; 1025, p. 255). 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. No measurements made in 1946.

Brown County

Bn 8. Wisconsin Public Service. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 30, T. 24 N., R. 21 E. Unused drilled industrial well, diameter 8 inches, depth 885 feet. Measuring point, top of recorder base, 1 foot above land-surface datum. Stevens Type "F" 8-day automatic water-stage recorder installed Sept. 19, 1946. Chief aquifer is Cambrian sandstone.

Daily high and low water level, in feet below land-surface datum, 1946 (From recorder charts)

	July		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low
1	123.61	126.39	121.90	123.40	121.88	122.89
2	123.55	125.88	121.82	123.02	122.02	123.33
3	123.56	127.68	122.01	122.91	121.86	123.36
4	123.55	126.90	122.04	123.27	121.97	123.24
5	122.49	123.59	122.40	123.59
6	122.45	123.69	122.05	123.35
7	121.02	123.49	122.12	123.18
8	120.71	122.54	121.80	122.92
9	121.75	122.94	121.65	123.44
10	121.58	122.65	122.22	123.73
11	a123.87	.....	.....	.....	121.63	123.29	122.52	123.89
12	122.32	123.82	122.43	123.58
13	122.39	123.73	122.68	123.90
14	121.81	123.81	122.76	123.52
15	121.43	122.73	122.34	123.20
16	121.76	122.86	121.72	122.87
17	121.90	122.72	122.11	123.74
18	122.58	123.84	120.15	122.67	122.47	123.93
19	122.58	123.77	119.52	121.15	121.73	123.60
20	122.37	124.01	122.12	123.14	121.04	122.60	121.12	122.17
21	123.20	125.19	122.02	123.03	121.88	122.90	120.01	121.82
22	123.28	124.17	122.01	123.18	122.12	123.48	119.45	120.73
23	123.40	125.67	122.63	123.84	122.24	123.34	119.54	121.41
24	123.68	126.08	122.48	123.75	121.72	122.58	120.53	122.10

a Tape measurement, not necessarily high or low for day.

Bn-8--Continued.

Daily high and low water level, in feet below land-surface datum, 1946 (From recorder charts)

Day	July		September		October		November		December	
	High	Low	High	Low	High	Low	High	Low	High	Low
25	123.99	123.67	126.51	122.31	123.33	121.86	123.25	120.72	121.83
26	123.64	126.40	122.62	123.56	122.48	123.80	120.49	121.82
27	123.17	126.17	122.29	123.23	122.71	123.47	119.97	121.40
28	123.48	126.18	122.21	123.02	122.11	123.27	119.68	120.87
29	122.82	125.36	122.32	123.34	121.89	123.31	119.54	120.62
30	122.81	126.26	122.40	123.62	121.94	123.05	119.78	121.31
31	122.83	123.85	.....	.....	120.32	121.92

a Tape measurement, not necessarily high or low for day.

Burnett County

Bt 2 (*840, p. 642; 845, p. 716). Wisconsin Conservation Department. NE 1/4 sec. 17, T. 39 N., R. 16 W. Bored observation well, diameter 8 inches, depth 46 feet. Measuring point, pointer on Kinnison float gage, 4.87 feet above land-surface datum. Measurements supplied through courtesy of Wisconsin Conservation Department. To convert water levels from feet above an assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 46.83.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Jan. 1, 1939	36.63	Sept. 30, 1941	35.23	July 31, 1944	33.59
31	36.62	Oct. 30	35.13	Aug. 31	33.68
Feb. 28	36.43	Nov. 25	35.08	Sept. 30	33.76
Mar. 31	36.23	Dec. 28	34.97	Nov. 1	33.69
Apr. 30	35.64	Apr. 1, 1942	34.93	30	33.74
May 31	35.54	30	33.05	Dec. 31	33.69
June 30	35.54	May 31	33.12	Jan. 31, 1945	33.63
July 31	35.49	June 30	34.62	Feb. 26	33.69
Aug. 31	35.51	July 31	34.67	Mar. 31	33.33
Sept. 30	35.55	Aug. 31	34.61	Apr. 20	32.91
Oct. 31	35.37	Sept. 30	34.41	30	33.71
Nov. 30	35.35	Oct. 30	34.37	May 30	33.67
Dec. 31	35.91	Nov. 28	34.27	June 29	33.49
Jan. 31, 1940	35.41	Dec. 29	34.21	July 31	33.63
Feb. 28	35.45	Feb. 1, 1943	34.13	Aug. 31	32.26
Mar. 31	35.51	27	34.14	Sept. 27	33.56
Apr. 30	35.60	Apr. 1	34.14	Oct. 31	33.22
May 31	35.41	29	34.12	Nov. 30	33.43
June 30	35.41	May 31	33.18	Dec. 30	33.29
July 31	35.44	June 30	33.13	Jan. 31, 1946	33.26
Aug. 31	35.44	July 30	33.87	Feb. 28	33.24
Sept. 30	35.50	Aug. 31	34.04	Mar. 31	32.47
Oct. 31	35.49	Sept. 28	34.11	Apr. 30	33.21
Dec. 1	35.43	Oct. 31	34.05	May 31	33.28
30	35.45	Dec. 7	34.13	June 30	33.23
Jan. 23, 1941	35.59	Jan. 1, 1944	34.05	July 31	33.23
Apr. 1	35.53	30	34.12	Aug. 31	33.15
30	35.16	Feb. 26	34.04	Sept. 27	33.16
May 31	35.46	Mar. 31	34.00	Oct. 30	32.89
June 30	35.37	Apr. 27	33.99	Nov. 30	32.99
July 31	35.36	May 31	33.84	Dec. 31	32.99
Aug. 31	35.32	June 19	33.57		

Calumet County

Ca 1. Carnation Milk Co. $SE\frac{1}{4}NW\frac{1}{4}$ sec. 18, T. 18 N., R. 20 E. Unused drilled industrial well, diameter 16 inches, depth 900 feet. Measuring point, inside of bottom edge of 4-inch diameter nipple, 4.1 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 29, 53.13; Sept. 13, 52.97.

Dane County

Dn 1. Robert Tollafson. $NE\frac{1}{4}NW\frac{1}{4}$ sec. 11, T. 7 N., R. 6 E. Unused drilled farm well, diameter 6 inches, depth 80 feet. Measuring point, bottom outside edge of 3/8-inch diameter hole in pump base, 0.5 foot above land-surface datum. Chief aquifer is Potsdam sandstone. Water levels, in feet below land-surface datum, 1946: July 9, 48.30; Aug. 13, 49.04; Nov. 19, 49.08.

Dn 3. Gerald Hendrickson. $SE\frac{1}{4}SE\frac{1}{4}$ sec. 32, T. 5 N., R. 8 E. Unused drilled farm well, diameter 6 inches. Measuring point, bottom outside edge of 3/8-inch diameter hole in pump base, 0.5 foot above land-surface datum. Chief aquifer is St. Peter sandstone. Possibly taps lower "Magnesian" limestone. Water levels, in feet below land-surface datum, 1946: July 11, 65.00; Aug. 16, 65.54; Nov. 19, 66.60.

Dn 4. J. N. Hanley. $NW\frac{1}{4}NE\frac{1}{4}$ sec. 34, T. 9 N., R. 11 E. Unused drilled farm well, diameter 6 inches, depth 70 feet. Measuring point, top inside edge of flange on casing, 0.9 foot above land-surface datum. Chief aquifer is St. Peter sandstone.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
July 19	44.90	Sept. 11	46.59	Dec. 17	47.65
Aug. 20	45.93	Nov. 22	47.99	27	48.01

Dn 5. State of Wisconsin. In State Capitol building, in basement of southwest wing. Unused drilled public-supply well, diameter 8 inches, depth, 1,015 feet. Measuring point, top of 1 1/4-inch diameter collar on top of ejector pipe, at land-surface datum. Aquifer is Potsdam sandstone. Water levels, in feet below land-surface datum, 1946: July 21, 105.28; Aug. 12, 102.91; Sept. 11, 102.28; Nov. 13, 102.05.

Dodge County

Dg 3. A. A. Corrigan. $NW\frac{1}{4}SE\frac{1}{4}$ sec. 15, T. 13 N., R. 13 E. Used drilled domestic well, diameter 6 inches, depth 170 feet. Measuring point, top edge of 6-inch coupling on top of casing, 0.75 foot above land-surface datum. Equipped with jet-type pump. Water levels, in feet below land-surface datum, 1946: Aug. 13, 10.60; Sept. 11, 11.14.

Dg 9. Ashippun Fire Department. $SE\frac{1}{4}SE\frac{1}{4}$ sec. 30, T. 9 N., R. 17 E. Used drilled fire well, diameter 4 inches, depth 60 feet. Measuring point, invert of 4-inch discharge pipe, 1.8 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 15, 10.20; Sept. 11, 10.83; Nov. 22, 10.54.

Dg 10. Ashippun Fire Department. $SE\frac{1}{4}SE\frac{1}{4}$ sec. 30, T. 9 N., R. 17 E. Used drilled fire well, diameter 6 inches, depth 200 feet. Measuring point, invert of 4-inch discharge pipe, 2.3 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 15, 10.23; Sept. 11, 10.86; Nov. 22, 11.64.

Dg 11. F. C. Etscheid. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 9 N., R. 13 E. Unused drilled farm well, diameter 6 inches, depth 1,380 feet. Measuring point, inside edge of top of casing, 0.2 foot above land-surface datum. A Stevens Type "F" 8-day automatic water-stage recorder installed Dec. 10, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 16	41.12	Nov. 22	43.30	Dec. 17	45.70	Dec. 30	46.32
Sept. 11	41.34	Dec. 10	44.90	25	45.94		

Dg 12. Baker Canning Co. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 12 N., R. 17 E. Used drilled industrial well, diameter 16 inches, depth 955 feet. Measuring point, invert of 3/4-inch diameter horizontal breather pipe in concrete base, 0.83 foot above land-surface datum. Subtract 1.70 feet horizontal correction from tape measurement. Equipped with turbine pump. Water levels, in feet below land-surface datum, 1946: Aug. 30, 84.38; 6 minutes after pump stopped; Dec. 18, 51.42.

Dg 14. Chicago & Northwestern Railroad. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 10 N., R. 15 E. Used drilled railroad well, diameter 12 inches, depth 700 feet. Measuring point, hole in west side of pump base, 1.0 foot above land-surface datum. Equipped with turbine pump. Water levels, in feet below land-surface datum, 1946: Sept. 12, 54.20; Nov. 22, 57.22.

Dg 15. Mayville Construction Co. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 12 N., R. 16 E. Used drilled industrial well, diameter 12 inches, depth 920 feet. Measuring point, top of casing, 4.3 feet below land-surface datum. Equipped with hand pump. Water level, in feet below land-surface datum, 1946: Dec. 18, 25.99.

Door County

Dr 5. City of Sturgeon Bay. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 8, T. 27 N., R. 26 E. Used drilled municipal well, diameter 12 inches, depth 1,169 feet. Measuring point, bottom inside edge of hole in casing, 2.1 feet above land-surface datum. Aquifers are Niagara limestone and St. Peter and Jordan sandstones. Water levels, in feet below land-surface datum, 1946: July 26, 8.51; Sept. 12, 5.83.

Dr 7. Fred Peterson. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 29 N., R. 27 E. Unused drilled farm well, diameter 4 inches. Measuring point, 3/8-inch hole in pump base, 1 foot above land-surface datum. Aquifer is Niagara limestone. Water levels, in feet below land-surface datum, 1946: July 26, 46.39; Sept. 12, 46.40.

Douglas County

Ds 1. (*840, p. 642; 845, p. 715). Wisconsin Conservation Department. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 47 N., R. 10 W. Bored observation well, diameter 8 inches, depth 40 feet. Measuring point, pointer on Kinnison float gage, 4.33 feet above land-surface datum. To convert water levels from feet above an assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 39.07. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1939-41, 1944-46

Date	Water level	Date	Water level	Date	Water level
Jan. 7, 1939	28.58	Aug. 26, 1939	29.79	Apr. 27, 1940	28.71
28	28.50	Sept. 30	28.60	May 25	27.99
Feb. 25	28.56	Oct. 28	28.62	June 29	28.87
Mar. 25	28.01	Nov. 25	28.63	July 27	28.97
Apr. 29	27.87	Dec. 30	28.66	Aug. 31	29.07
May 27	28.27	Jan. 27, 1940	28.67	Sept. 28	29.07
July 1	27.99	Feb. 24	28.77	Oct. 26	29.07
29	29.59	Mar. 30	28.72	Nov. 30	28.27

Ds 1--Continued.

Water level, in feet below land-surface datum, 1939-41, 1944-46

Date	Water level	Date	Water level	Date	Water level
Dec. 28, 1940	29.37	Nov. 25, 1944	28.37	Dec. 25	28.02
Jan. 25, 1941	29.03	Dec. 16	27.98	Jan. 26, 1946	27.99
Mar. 1	29.18	Jan. 27, 1945	28.33	Feb. 24	28.03
29	27.94	Feb. 24	28.36	Mar. 30	28.03
Apr. 26	29.04	Mar. 31	27.13	Apr. 27	28.10
May 31	29.26	Apr. 28	27.29	May 25	28.14
June 28	29.22	May 26	28.27	June 29	28.10
July 26	29.22	June 30	28.12	July 27	28.22
Aug. 30	28.50	July 28	28.13	Aug. 31	28.23
Sept. 27	28.89	Sept. 1	28.09	Sept. 28	28.22
Oct. 18	28.13	29	28.10	Oct. 26	28.25
Sept. 2, 1944	28.44	Oct. 27	28.07	Nov. 30	28.16
30	28.39	Dec. 1	28.04	Dec. 28	28.17
Oct. 28	28.34				

Fond du Lac County

FL 10. City of Fond du Lac. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11, T. 15 N., R. 17 E. Unused test well, diameter 6 inches, depth 595 feet. Measuring point, top of platform sill in front of recorder shelter, 2.0 feet above land-surface datum. Chief aquifer is Potsdam sandstone. A Stevens "Type F" 7-day automatic water-stage recorder installed Dec. 5, 1946

Lowest daily water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 30	a43.65	Dec. 11	46.38	Dec. 18	46.43	Dec. 25	46.03
Sept. 13	a44.38	12	46.45	19	46.57	26	46.12
Dec. 6	46.43	13	46.67	20	46.53	27	45.88
7	46.46	14	46.52	21	46.28	28	46.14
8	46.10	15	46.12	22	46.05	29	45.63
9	46.52	16	46.00	23	46.19	30	46.17
10	46.44	17	46.42	24	46.32	31	46.34

a Tape measurement, not necessarily lowest for day.

FL 16. Mrs. Amanda Kohn. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 23, T. 13 N., R. 18 E. Drilled well, depth 1,200 feet. Wooden plug at 18 feet below land surface. Water level is that of water table in Niagara dolomite. Measuring point, base of pitcher pump, 4.0 feet above land-surface datum. Used for watering garden. Water levels, in feet below land-surface datum, 1946: Aug. 28, 12.86; Sept. 12, 12.69.

Grant County

Gr 1. Carl Doeringsfeld. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 2 W. Unused drilled farm well, diameter 5 inches, depth 31.4 feet. Measuring point, top of bent edge of casing at northwest side, at land-surface datum. Aquifer is Platteville limestone.

Water level, in feet below land-surface datum, 1946

May 15	9.57	Aug. 19	9.99	Sept. 23	9.97	Nov. 18	8.98
July 10	9.86	26	9.99	Oct. 14	9.99	Dec. 2	9.99
29	10.00	Sept. 2	10.00	21	10.00	16	10.01
Aug. 5	9.99	9	11.06	28	9.99	30	9.97
12	9.99	17	8.99	Nov. 4	9.96		

Gr 2. Carl Doeringsfeld. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7, T. 6 N., R. 2 W. Unused drilled farm well, diameter 5 inches, depth 17.9 feet. Measuring point, top of casing at bent corner on northeast side, at land-surface datum. Aquifer is Platteville limestone.

Gr 2--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 15	3.25	Aug. 19	4.99	Sept. 23	5.97	Nov. 18	5.00
July 10	5.22	26	5.07	Oct. 14	5.04	Dec. 2	5.03
29	5.04	Sept. 2	5.05	21	5.05	16	5.03
Aug. 5	5.04	9	5.00	28	5.02	30	4.99
12	5.03	17	5.00	Nov. 4	4.05		

Gr 3. Chester H. Graham. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 6 N., R. 2 W. Used drilled farm well, diameter 8 inches. Measuring point, northwest edge of pump base, 2.2 feet above land-surface datum. Equipped with cylinder pump.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 15	19.90	Aug. 19	19.77	Sept. 23	19.81	Nov. 18	19.76
July 10	20.15	26	19.85	Oct. 19	19.80	Dec. 2	20.76
29	19.85	Sept. 2	19.86	21	19.80	16	20.75
Aug. 5	19.85	9	19.81	28	19.80	30	19.86
12	19.85	17	19.80	Nov. 4	19.80		

Gr 4. Henry Jones Estate. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 6 N., R. 1 W. Unused drilled farm well, diameter 6 inches, depth 165 feet. Measuring point, west edge of pump base, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 10, 63.03; Aug. 14, 63.40; Nov. 20, 64.79.

Gr 5. Clarence Gratz. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 6, T. 5 N., R. 2 W. Unused drilled farm well, diameter 6 inches, depth 35 feet. Measuring point, southwest edge of pump base, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 10, 14.65; Aug. 14, 14.86; Nov. 20, 15.22.

Green County

Gn 1. Charles Segner. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 21, T. 2 N., R. 7 E. Unused drilled farm well, diameter 6 inches, depth 71 feet. Measuring point, 3/8-inch hole in southeast side of pump base, 0.5 foot above land-surface datum. Aquifer is Galena-Platteville limestone. Water levels, in feet below land-surface datum, 1946: July 11, 61.83; Aug. 15, 62.45; Nov. 19, 63.62.

Gn 2. Earl Waddington. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 3 N., R. 6 E. Unused drilled farm well. Measuring point, 3/8-inch hole in southeast side of pump base, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 12, 134.85; Aug. 16, 134.86.

Iowa County

Iw 1. Raymond Crook. NE $\frac{1}{4}$ NF $\frac{1}{4}$ sec. 3, T. 7 N., R. 3 E. Unused dug farm well, depth 60 feet. Measuring point, south edge of pump base, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: June 25, 33.34; Nov. 20, 32.24.

Jefferson County

Je 1. Owner unknown. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3., T. 6 N., R. 13 E. Unused driven farm well, diameter 1 $\frac{1}{2}$ inches. Measuring point, top of 1 $\frac{1}{2}$ -inch drive pipe at south side, 3.5 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 23	1.72	Aug. 2	4.17	Sept. 18	4.51
July 19	3.81	Sept. 11	4.35	Oct. 24	4.65

Je 7. Village of Johnson Creek. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 18, T. 7 N., R. 14 E. Used drilled municipal well, diameter 10 inches, depth 361 feet. Measuring point, edge of pressure gage opening in pump base, 1.5 feet above land-surface datum. Subtract 0.47 foot horizontal correction from tape measurement. Equipped with turbine pump. Water levels, in feet below land-surface datum, 1946: Aug. 27, 2.70; Sept. 11, 1.01.

Je 9. Chicago & Northwestern Railroad. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 7 N., R. 14 E. Used drilled railroad well, depth 716 feet. Measuring point, pump base, 2.1 feet above land-surface datum. Equipped with turbine pump. Pumps 40,000 gallons a day. Water levels, in feet below land-surface datum, 1946: Sept. 6, 30.32; Sept. 11, 25.25.

Kenosha County

Ke 1. U. S. Standard Products Laboratories. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 1 N., R. 21 E. Unused drilled industrial well, diameter 8 inches, depth 1,040 feet. Measuring point, edge of hole in cap on well casing, 1.7 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 17	52.30	Sept. 6	57.73	Oct. 18	60.13	Nov. 15	64.57
July 29	60.17	11	52.75	25	52.80	29	53.24
Aug. 12	52.47	27	53.97	Nov. 1	53.41	Dec. 6	53.04
23	53.91	Oct. 11	53.55	8	53.34	23	51.86
30	59.07						

Ke 3. Stanley Ruzicki and Wm. Schutzen. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 8, T. 1 N., R. 21 E. Old industrial well now equipped with 3/4-horsepower electric turbine pump. Diameter 8 inches, depth 692 feet. Measuring point, top of well casing, 1.0 foot below land-surface datum.

Water level, in feet below land-surface datum, 1946

June 17	97.79	July 15	98.87	Aug. 1	98.82	Aug. 30	98.50
24	98.85	22	99.64	12	98.44	Sept. 6	98.37
July 1	99.08	29	98.62	23	98.24	11	98.11
8	99.48						

Ke 4. Sunset Ridge Memorial Park. NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 27, T. 2 N., R. 22 E. Used drilled domestic well, diameter 6.5 inches, depth 190 feet. Measuring point, edge of bolt hole in casing cover, 7.0 feet below land-surface datum. Equipped with plunger-type pump having 3/4-horsepower electric motor.

Water level, in feet below land-surface datum, 1946

June 24	73.82	Aug. 1	75.71	Aug. 23	76.57	Sept. 6	77.64
July 22	75.08	12	76.10	30	76.06	11	76.31
29	75.47						

Ke 5. J. Bishop. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 20, T. 2 N., R. 22 E. Dug farm well, depth 28.4 feet. Measuring point, bottom of pump stand at east side, 0.8 foot above land-surface datum. Equipped with plunger pump. Used occasionally.

Water level, in feet below land-surface datum, 1946

June 24	3.73	Aug. 1	5.52	Aug. 23	6.33	Sept. 6	7.15
July 29	5.50	12	5.94	30	6.62	11	7.26

Ke 6. Kenosha County. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T. 2 N., R. 22 E. Used irrigation well, diameter 10 inches, depth 1,751 feet. Measuring point, invert of gate valve in pipe connected to casing, 2.0 feet below land-surface datum. Subtract 2.40 feet horizontal correction from tape measurement. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 30	24.05	Aug. 30	23.44	Sept. 27	23.84	Nov. 15	23.79
Aug. 12	23.72	Sept. 6	24.40	Oct. 18	24.21	Dec. 23	23.77
23	23.80	11	24.30	Nov. 1	24.15		

Lafayette County

Lf 1. Erickson. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 3 N., R. 5 E. Unused drilled well diameter 6 inches, depth 55 feet. Measuring point, bent edge of casing at west side, 0.5 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 11, 22.52; Aug. 15, 22.97; Nov. 19, 22.62.

Langlade County

La 26 (*1018, p. 272; 1025, p. 256). Geological Survey, U. S. Dept. of Interior. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 31 N., R. 11 E.

Water level, in feet below land-surface datum, 1946

Jan. 6	5.01	Apr. 6	4.61	July 7	5.42	Oct. 6	7.26
12	5.69	14	4.54	14	5.51	13	7.39
19	5.12	21	4.87	21	5.72	20	7.48
27	5.31	28	5.02	25	5.94	27	7.58
Feb. 2	5.55	May 5	5.15	28	6.06	Nov. 3	7.44
10	5.51	12	5.26	Aug. 4	6.13	10	7.17
16	5.77	19	5.47	11	6.34	17	7.31
23	5.81	26	5.45	18	6.44	24	7.17
Mar. 2	6.06	June 2	5.51	25	6.65	30	7.37
10	5.38	9	5.78	Sept. 1	6.78	Dec. 8	7.47
16	4.36	15	5.75	15	7.03	14	7.54
24	4.37	23	5.87	22	7.09	21	7.63
31	4.48	30	5.42	29	7.18	29	7.78

Lincoln County

Ln 25 (*1018, p. 273; 1025, p. 256). 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, 1946

Jan. 6	4.87	Apr. 7	4.96	July 8	4.83	Oct. 7	5.67
13	5.12	14	4.98	14	5.33	13	5.56
20	5.28	22	5.00	21	5.73	27	5.27
27	5.43	29	5.34	29	4.96	Nov. 4	5.10
Feb. 3	5.51	May 5	5.40	Aug. 4	4.92	11	4.89
10	5.33	13	5.54	12	5.37	17	4.92
17	5.56	19	5.46	18	5.58	24	5.09
24	5.59	26	5.16	26	5.87	Dec. 8	5.10
Mar. 3	5.53	June 2	5.57	Sept. 2	6.01	15	5.45
10	5.18	8	5.60	9	5.36	22	5.54
17	4.58	18	5.66	16	5.82	29	5.62
25	4.70	24	4.92	23	5.55		
31	4.86	30	4.72	29	5.46		

Marathon County

Mr 27 (*1018, p. 273; 1025, p. 256). Conrad Krensreiter. SE $\frac{1}{4}$ SR $\frac{1}{4}$ sec. 24, T. 29 N., R. 3 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6	5.11	Apr. 1	3.79	June 17	2.87	Sept. 11	7.12
13	5.05	8	4.11	July 10	2.96	15	7.29
27	5.09	14	3.87	14	3.19	Oct. 7	7.12
Feb. 3	5.77	22	4.34	22	3.67	14	7.92
13	5.56	28	4.47	23	4.66	27	5.26
17	5.77	May 6	4.79	29	4.39	Nov. 4	4.91
24	5.81	13	4.89	Aug. 4	4.82	11	3.45
Mar. 3	6.02	22	4.88	12	5.63	18	3.54
11	6.01	26	4.69	19	6.02	Dec. 1	5.89
17	5.29	June 2	4.06	Sept. 2	7.02	9	5.18
24	4.59	9	4.11				

Mr 28 (*1018, p. 273; 1025, p. 257). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	17.56	Apr. 8	17.46	July 8	18.00	Sept. 30	18.32
15	17.46	15	17.49	15	18.04	Oct. 7	18.40
21	17.49	22	17.50	22	18.06	14	18.44
28	17.50	29	17.54	23	18.06	28	18.46
Feb. 4	17.51	May 6	17.60	29	18.09	Nov. 4	18.58
10	17.58	14	17.65	Aug. 5	18.13	11	18.62
18	17.68	20	17.68	12	18.17	18	18.65
25	17.70	27	17.76	19	18.19	Dec. 2	18.76
Mar. 4	17.76	June 3	17.82	26	18.22	9	18.80
11	17.73	10	17.86	Sept. 2	18.25	16	18.79
18	17.55	17	17.89	9	18.27	23	18.91
25	17.41	24	17.96	16	18.31	30	19.00
Apr. 1	17.37	July 1	17.95	23	18.32		

Marinette County

Mt 1. S. Kidmore. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 30 N., R. 24 E. Unused drilled domestic well, diameter 5 inches, depth 700 feet. Measuring point, invert of elbow on pipe on top of casing, 3.0 feet below land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 22, 21.27; Sept. 12, 13.60.

Milwaukee County

Mt 8. Milwaukee County, McGovern Park. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 35, T. 8 N., R. 21 E. Used drilled park well, diameter 10 inches, depth 1,100 feet. Measuring point, bottom edge of pump base above air-line pipe on east side of pump, 1.5 feet below land-surface datum and 675.27 feet above sea level. Equipped with turbine pump. Pumps approximately 100,000 gallons a day during summer months only for swimming pool.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	56.78	May 16	55.33	July 11	72.99	Aug. 22	78.77
5	57.05	23	55.03	19	64.91	29	77.78
12	56.81	29	54.89	25	75.50	Sept. 5	74.72
18	56.56	June 6	55.43	31	77.79	11	79.15
26	56.03	20	66.21	Aug. 8	79.47	Dec. 13	65.76
May 3	56.06	26	69.99	15	78.39	27	62.56
10	55.57	July 3	73.94				

M1 36. A. O. Smith, 3533 N. 27th St., Milwaukee. Unused drilled industrial well, diameter 13-3/8 inches, depth 1,091 feet. Measuring point, top of flange on top of casing, 2.0 feet above land-surface datum. A Stevens Type "F" 8-day automatic water-stage recorder was installed Sept. 18, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	150.47	146.52	141.24
2	a145.84	.....	150.37	146.18	141.23
3	150.36	146.09	140.81
4	a151.97	150.37	145.91	140.78
5	150.42	145.70	140.75
6	150.36	145.43	140.74
7	150.16	144.88	140.68
8	149.95	144.64	140.68
9	149.84	144.64	140.51
10	149.82	144.35	140.45
11	150.01	144.03	140.46
12	150.18	143.93	140.33
13	150.19	143.59	140.64
14	150.02	143.23	140.73
15	149.78	143.03	140.70
16	149.40	142.79	140.60
17	149.26	142.90	140.70
18	148.99	142.72	140.84
19	a141.07	.....	151.02	149.06	142.10	140.84
20	150.81	148.98	141.79	140.80
21	150.75	148.72	141.59	140.79
22	150.64	148.40	141.63	140.82
23	148.30	141.63	140.61
24	148.17	141.06	140.65
25	147.89	141.16	140.66
26	150.58	147.97	141.14	140.61
27	150.61	147.97	141.27	140.52
28	150.75	147.73	141.28	140.36
29	150.77	147.12	141.29	140.37
30	150.64	146.66	141.10	140.43
31	146.64	.....	140.58

a Tape measurement, not necessarily lowest for day.

M1 45. Milwaukee Journal, 333 W. State St., Milwaukee. Unused drilled industrial well, diameter 8 inches, depth 1,410 feet. Measuring point, base of upper flange on top of casing, 7.0 feet below land-surface datum and 583.53 feet above sea level. Stevens Type "F" 8-day automatic water-stage recorder installed Sept. 18, 1946.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 23	93.33	May 29	83.06	July 3	113.48	Aug. 16	118.90
30	83.80	June 6	83.75	25	120.78	22	128.28
May 9	81.03	13	90.75	31	122.23	29	128.77
16	85.55	20	86.97	Aug. 2	120.57	Sept. 5	116.82
23	83.51	26	99.69	9	118.45	12	117.36

Daily high and low water-level, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	106.51	112.35	100.68	108.42	98.14	98.43
2	106.23	114.35	99.21	103.65	97.93	98.14
3	107.46	120.36	98.07	101.98	98.11	98.42
4	112.30	121.15	96.91	98.07	98.07	98.42

M1 45--Continued.

Daily high and low water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
5	.....	.....	112.76	121.70	95.70	97.02	98.02	98.23
6	.....	.....	108.36	117.01	94.23	95.75	97.97	98.23
7	.....	.....	106.94	117.74	93.36	102.82	97.35	97.98
8	.....	.....	108.67	117.14	96.07	102.15	97.15	98.30
9	.....	.....	108.72	117.43	94.32	96.07	98.31	99.11
10	.....	.....	108.96	120.00	92.78	94.32	98.03	99.13
11	.....	.....	107.05	118.21	92.27	92.86	97.38	98.03
12	.....	.....	102.33	107.05	91.68	92.33	97.18	97.90
13	.....	.....	100.08	102.33	90.88	91.68	97.90	91.44
14	.....	.....	99.72	107.26	90.57	90.89	98.35	98.52
15	.....	.....	102.09	111.05	90.33	93.25	98.24	98.41
16	.....	.....	102.06	108.05	91.19	96.10	97.99	98.51
17	.....	.....	100.24	102.07	91.39	94.35	98.52	99.18
18	.....	127.75	98.60	100.60	90.37	91.39	99.10	99.43
19	118.10	130.24	97.88	102.13	89.83	92.94	99.43	99.63
20	121.55	129.92	98.18	102.18	90.32	93.71	99.47	99.63
21	119.81	129.54	97.58	104.29	90.59	98.57	99.50	99.77
22	116.00	124.26	99.05	107.84	96.01	98.15	99.48	99.79
23	114.65	123.48	101.29	110.47	96.39	96.70	99.18	99.61
24	115.11	123.70	103.66	115.36	96.63	97.19	99.41	99.79
25	115.17	121.90	102.93	110.96	97.19	97.84	99.12	99.78
26	116.10	129.64	102.15	109.00	97.69	98.11	99.21	99.36
27	121.72	132.05	99.06	106.01	98.11	98.60	98.15	99.24
28	123.76	133.46	97.99	108.40	98.24	98.64	98.35	98.70
29	114.12	120.35	102.84	115.29	98.44	98.64	98.31	98.60
30	109.08	114.12	107.50	117.77	98.17	98.53	98.45	98.70
31			105.27	109.64			98.70	99.02

M1 56. National Enamelling, N. 10th St. & West St. Paul Ave., Milwaukee. Unused drilled industrial well, diameter 14 inches, depth 2,100 feet. Measuring point, invert of outer edge of light gauge breather pipe in concrete pump base, 6.5 feet below land-surface datum and 582.24 feet above sea level. Subtract 0.85 foot horizontal correction from tape measurement.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 25	77.02	June 6	74.97	July 18	88.61	Aug. 22	94.55
May 2	75.38	13	77.63	25	90.27	29	97.38
9	74.82	20	77.70	Aug. 1	92.49	Sept. 5	94.54
16	77.24	27	84.11	9	94.29	12	99.87
23	75.96	July 3	85.91	16	96.48	Dec. 27	82.17
29	75.62	11	87.21				

M1 79. Forrest Home Cemetery. SE 1/4 sec. 7, T. 6 N., R. 21 E. Unused drilled cemetery well, diameter 6 inches, depth 1,605 feet. Stevens Type "F" 8-day automatic water-stage recorder installed Sept. 18, 1946. Measuring point, top of casing, 5 feet below land-surface datum and 657.74 feet above sea level.

Water level, in feet below land-surface datum, 1946

June 5	154.39	July 3	160.92	Aug. 1	173.87	Aug. 29	180.60
13	160.16	11	164.05	9	174.01	Sept. 5	177.82
20	161.82	18	168.58	16	169.82	12	178.87
27	165.29	25	172.58	22	171.03		

M1 79--Continued.

Daily high and low water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	September		October		November		December	
	High	Low	High	Low	High	Low	High	Low
1	.....	.....	174.57	175.20	173.07	173.54	167.35	169.54
2	.....	.....	175.14	175.70	171.17	173.47	166.87	168.54
3	.....	.....	175.60	176.19	169.30	171.21	168.46	169.58
4	.....	.....	176.12	176.82	169.12	171.14	169.48	169.79
5	.....	.....	174.76	176.87	171.14	172.05	169.72	170.40
6	.....	.....	172.87	174.77	171.92	172.40	169.95	170.42
7	.....	.....	172.40	174.14	171.80	172.42	167.37	170.03
8	.....	.....	174.10	174.85	172.36	173.40	166.21	168.26
9	.....	.....	174.72	175.37	171.06	173.40	165.80	167.46
10	.....	.....	175.02	175.48	169.14	171.06	167.28	168.42
11	.....	.....	175.36	176.24	168.69	170.90	168.16	168.44
12	.....	.....	174.01	176.32	170.90	171.59	168.20	169.07
13	.....	.....	172.02	174.14	.....	.....	168.93	169.55
14	.....	.....	.....	.....	.....	.....	168.10	169.55
15	.....	.....	.....	.....	.....	.....	166.89	168.10
16	.....	.....	.....	.....	.....	.....	166.54	168.11
17	.....	.....	.....	.....	169.51	170.59	168.08	169.18
18	173.45	174.68	.....	.....	.....	.....	169.09	169.66
19	174.61	175.36	.....	.....	.....	.....	169.57	169.96
20	175.34	176.00	171.29	173.69	.....	.....	169.76	170.06
21	174.06	176.04	170.67	172.42	.....	.....	167.91	169.79
22	171.87	174.06	172.40	173.47	.....	.....	166.68	168.02
23	171.40	173.96	173.37	173.94	.....	.....	166.05	167.37
24	173.91	175.16	.....	.....	168.35	169.83	166.56	167.30
25	174.94	175.92	.....	.....	.....	.....	164.84	166.56
26	175.83	176.58	.....	.....	.....	.....	164.46	164.88
27	176.21	177.04	170.64	172.52	.....	.....	163.70	164.73
28	174.57	177.07	170.04	171.74	.....	.....	164.12	164.85
29	172.91	174.63	171.63	172.26	.....	.....	163.79	164.27
30	172.40	174.63	171.86	172.65	.....	.....	164.10	166.24
31	.....	.....	172.54	173.28	.....	.....	165.78	167.03

M1 88. Milwaukee Vinegar Works. NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 25, T. 6 N., R. 22 E. Used drilled industrial well, depth 1,312 feet. Measuring point, edge of breather hole in north side of pump base, 1.5 feet above land-surface datum, and 687.24 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 24	115.11	July 11	117.84	Aug. 29	117.07	Nov. 2	117.57
May 1	114.44	18	119.65	Sept. 12	117.90	9	124.12
16	115.14	25	120.46	Oct. 5	118.52	16	117.24
23	116.95	31	119.00	12	117.52	30	117.02
29	115.28	Aug. 9	117.26	19	119.19	Dec. 7	116.83
June 13	117.21	15	119.22	25	117.53	27	116.81
July 3	114.92	22	116.72				

M1 91. U. S. Government. In Greendale, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 6 N., R. 21 E. Drilled public-supply well, used as standby, diameter 16 inches, depth 1,855 feet. Measuring point, edge of breather hole in pump base, 9.5 feet below land-surface datum and 750.38 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

June 6	200.17	July 25	204.38	Sept. 5	207.06	Nov. 2	207.99
12	200.62	31	205.47	12	207.04	9	207.61
20	204.65	Aug. 9	205.45	Oct. 5	207.16	16	207.18
27	201.48	15	205.54	12	207.55	30	207.17
July 3	201.39	22	205.93	19	207.44	Dec. 7	206.91
18	202.68	29	206.71	25	207.44	27	206.30

M1 94. Milwaukee County, Whitnall Park. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32. T. 6 N., R. 21 E. Used drilled park well, diameter 20 inches, depth 1,845 feet. Measuring point, invert of 3-inch pipe in pump base, 15 feet below land-surface datum and 758.20 feet above sea level. Subtract horizontal correction of 0.79 foot from tape measurements. Well is used very little during winter months. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 10	199.97	Aug. 29	204.20	Oct. 19	205.89	Nov. 30	205.62
18	200.15	Sept. 12	205.05	25	205.56	Dec. 7	205.46
31	202.54	24	205.06	Nov. 2	205.73	14	205.40
Aug. 9	203.01	Oct. 5	207.17	9	205.79	21	205.43
15	203.28	12	205.52	16	205.92	27	204.85
22	203.47						

M1 118. A. Schaefer, 5465 N. 51st St., Milwaukee. Used drilled domestic well, diameter 6 inches, depth 134.5 feet. Measuring point, top of coupling on casing 0.6 foot above land-surface datum and 679.85 feet above sea level. Equipped with injector pump.

Water level, in feet below land-surface datum, 1946

Apr. 12	33.66	June 20	39.56	July 31	46.94	Sept. 5	43.08
19	33.74	26	42.05	Aug. 8	46.77	11	43.58
May 10	35.09	July 3	42.47	15	44.74	Oct. 12	43.70
16	34.70	11	42.66	22	44.25	Dec. 13	41.40
29	35.53	19	43.43	29	43.97	27	40.56
June 6	33.60	25	44.65				

M1 119. Robert Cerletty. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T. 8 N., R. 21 E. Used drilled domestic well, diameter 4 inches, depth 48.2 feet. Measuring point, top of collar on casing, 3.8 feet below land-surface datum. Equipped with jet pump.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level
Apr. 11	6.87	July 31	9.85	Dec. 13	11.36
18	7.48	Aug. 15	10.55	27	11.40

M1 120. Nunn Bush Shoe Co. North 5th and West Hadley Sts., Milwaukee. Unused drilled industrial well, diameter 10 inches, depth 400 feet. Measuring point, concrete pump base, 8.75 feet below land-surface datum. Stevens Type "F" 8-day automatic water-stage recorder installed Sept. 18, 1946. Well is sensitive to earthquakes.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
1	88.17	87.95	86.73
2	88.08	87.68	86.76
3	88.07	87.67	86.60
4	a81.82	.....	a88.24	88.16	87.85	86.56
5	88.56	87.91	86.54
6	88.46	87.79	86.50
7	88.32	87.42	86.44
8	88.23	87.39	86.43
9	a82.85	.....	.....	.....	88.09	87.39	86.48
10	88.01	87.35	86.75
11	88.09	87.40	86.77
12	88.23	87.41	86.53
13	88.24	87.37	86.76
14	88.16	87.19	86.82

a Tape measurement, not necessarily lowest for day.

M1 120--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Apr.	May	June	July	Sept.	Oct.	Nov.	Dec.
15	88.19	87.13	86.79
16	87.98	87.17	86.60
17	a88.58	.....	87.95	87.38	86.68
18	87.89	87.44	86.81
19	87.88	88.05	87.08	86.80
20	a81.82	.....	.....	87.73	88.09	86.96	86.75
21	87.66	87.95	86.90	86.61
22	87.47	87.89	86.96	86.61
23	87.42	87.86	86.96	86.41
24	a83.03	.....	.....	.....	87.43	87.78	86.61	86.41
25	87.48	87.56	86.61	86.41
26	87.60	87.76	86.62	86.11
27	a81.83	.....	.....	87.83	87.77	86.83	86.05
28	88.14	87.75	86.83	85.78
29	88.15	87.59	86.73	85.78
30	a83.15	.....	.....	.....	88.15	87.82	86.67	85.93
31	87.94	.....	86.29

a Tape measurement, not necessarily lowest for day.

M1 121. F. M. Nimphius, 311 Marion St. So. Milwaukee. Unused drilled industrial well, diameter 8 inches, depth unknown. Measuring point, top of coupling on casing, at land-surface datum and 643.82 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 16	56.71	July 3	57.11	Aug. 22	57.21	Oct. 25	57.20
23	56.73	11	56.79	29	57.14	Nov. 2	57.36
29	56.95	18	56.68	Sept. 5	57.03	9	57.50
June 6	56.70	25	57.07	12	57.45	16	57.35
13	56.96	31	57.00	Oct. 5	57.46	30	57.65
20	56.64	Aug. 9	56.46	12	57.10	Dec. 12	57.58
27	56.90	15	56.85	19	57.46	27	57.39

M1 124. Good Hope Cemetery. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 6 N., R. 21 E. Used drilled cemetery well, diameter 12 inches, depth 1,869 feet. Measuring point, opening in pump base, 2.0 feet above land-surface datum and 774.16 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

May 21	131.69	June 27	142.10	July 31	143.40	Oct. 12	132.46
29	136.29	July 3	141.00	Aug. 9	148.48	25	133.33
June 6	147.50	11	144.23	15	147.26	Nov. 2	119.27
13	141.52	18	140.37	29	150.91	30	109.66
20	134.77	25	145.30	Sept. 5	145.84	Dec. 27	114.37

M1 130. Milwaukee County, Greenfield Park. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 6 N., R. 21 E. Used drilled park well, diameter 8 inches, depth about 500 feet. Measuring point, edge of breather hole on east side of pump base, 8.0 feet below land-surface datum and 779.74 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

May 28	57.56	July 3	58.53	Aug. 8	59.47	Sept. 5	59.31
June 13	58.00	11	58.06	15	59.20	12	58.60
20	57.50	18	58.89	22	59.26	Dec. 27	58.74
27	58.65	25	59.22	29	60.24		

M1 132. White Manor Water Coop. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 13, T. 6 N., R. 21 E. Unused drilled public-supply well, diameter 12 inches, depth 1,150 feet. Measuring point, bottom of notch in top of casing, 1.1 feet above land-surface datum and 730.67 feet above sea level. Water-stage recorder maintained on well since Sept. 17, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	202.57	201.44	201.96
2	202.06	202.08	201.95
3	a200.08	.....	.....	201.85	202.47	201.42
4	202.18	202.46	201.17
5	a195.72	.....	.....	a201.35	203.06	201.15	201.27
6	202.98	200.00	201.38
7	202.69	199.28	201.46
8	202.19	200.51	201.46
9	a203.51	.....	201.72	201.11	201.12
10	201.29	201.45	200.56
11	a199.96	.....	.....	202.02	201.64	200.32
12	202.85	201.65	200.27
13	202.88	201.62	200.72
14	202.01	201.82	.....
15	a203.59	.....	201.32	201.89	.....
16	201.05	202.39	.....
17	201.56	202.68	.....
18	a199.60	.....	.....	202.51	202.23	.....
19	202.82	199.96	.....
20	a199.71	.....	.....	.....	202.39	199.01	.....
21	201.49	199.58	.....
22	a204.65	.....	200.60	200.64	201.90
23	200.75	200.82	201.82
24	a201.75	201.18	201.10	201.59
25	a202.75	.....	.....	201.79	201.46	201.45
26	202.58	201.46	201.01
27	a197.68	.....	.....	.....	202.83	201.81	200.49
28	202.39	201.97	200.00
29	a204.10	203.15	200.55	202.07	200.25
30	203.01	199.81	201.89	200.29
31	a200.23	.....	.....	200.79	.....	200.32

a Tape measurement, not necessarily lowest for day.

M1 135. Leonard Budzein, 920 West Armour Ave., Town of Lake. Used dug irrigation well, depth 20 feet. Measuring point, top of wooden platform over well, 2.0 feet below land-surface datum, and 664.55 feet above sea level. Equipped with shallow-well pump and used for greenhouse and truck garden irrigation.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 1	8.52	July 3	a12.27	July 31	a11.15	Aug. 29	11.37
June 6	a13.56	11	12.38	Aug. 9	10.77	Sept. 5	11.38
13	9.40	18	10.22	15	10.79	12	11.22
20	9.30	25	10.22	22	a12.03	Dec. 27	12.06
27	9.75						

a Pump stopped a few minutes prior to measurement.

M1 146. Mr. Huel, 9090 Lake Drive, Milwaukee. Unused drilled domestic well, diameter 5 inches, depth 110 feet. Measuring point, top of casing, 5 feet below land-surface datum and 675.07 feet above sea level.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 6	60.08	July 3	60.05	July 31	62.34	Aug. 29	63.10
13	59.48	11	59.93	Aug. 8	64.96	Sept. 5	63.52
20	58.70	19	60.90	15	62.91	11	61.19
26	61.04	25	62.20	22	62.72	Dec. 27	61.09

Ml 148. Milwaukee County. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 6 N., R. 21 E. Unused drilled well. diameter 5 inches, depth 179.5 feet. Measuring point, top of casing, 1 foot above land-surface datum and 775.16 feet above sea level. Water-stage recorder maintained on well since Sept. 17, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	31.82	32.22	32.94
2	31.78	32.21	32.92
3	a30.37	.....	.....	31.80	32.36	32.63
4	31.99	32.43	32.63
5	a31.45	32.02	32.46	32.63
6	31.97	32.27	32.59
7	31.93	31.90	32.62
8	31.81	32.33	32.74
9	a30.83	.....	31.84	32.38	32.84
10	31.75	32.32	32.95
11	31.90	32.56	32.95
12	a31.66	32.09	32.56	32.87
13	32.16	32.40	32.99
14	32.05	32.33	33.00
15	a30.94	.....	32.05	32.31	32.88
16	31.91	32.65	32.78
17	31.87	32.82	33.02
18	a30.41	.....	.....	32.02	32.69	33.01
19	a30.07	.....	.....	.....	32.16	32.32	32.96
20	32.23	32.33	32.80
21	32.10	32.34	32.96
22	a31.29	.....	32.35	32.64	33.02
23	32.13	32.62	32.96
24	31.98	32.55	33.10
25	a30.87	.....	31.78	32.00	32.82	33.07
26	31.70	32.31	32.78	33.07
27	a30.26	.....	.....	31.75	32.41	32.86	32.95
28	31.84	32.31	32.81	33.09
29	a31.41	31.89	32.09	32.75	33.25
30	31.87	32.22	32.65	33.26
31	a30.83	.....	.....	32.24	.....	33.33

a Tape measurement, not necessarily lowest for day.

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30	7.00	Apr. 27	6.50	July 27	7.51	Oct. 30	7.27
Feb. 27	7.10	May 27	7.20	Aug. 28	7.70	Nov. 29	7.08
Mar. 29	6.10	June 27	7.09	Sept. 29	8.38	Dec. 26	7.60

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 29	9.93	Apr. 29	9.84	July 31	9.99	Oct. 27	9.85
Feb. 28	10.20	May 28	10.11	Sept. 9	10.29	Dec. 1	8.63
Mar. 27	7.98	June 26	9.95	28	9.25	27	9.72

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).

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 28	6.35	May 30	6.55	July 31	6.65	Oct. 29	4.77
Feb. 28	6.20	June 27	6.53	Aug. 29	6.80	Nov. 29	6.40
Mar. 29	5.40	July 24	6.57	Sept. 29	6.45	Dec. 28	6.45
Apr. 29	6.40						

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). 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, 1946

Feb. 28	27.16	May 30	27.12	Aug. 2	26.92	Oct. 4	27.12
Mar. 29	27.09	June 27	27.15	29	27.18	Nov. 29	27.20
Apr. 28	27.14	July 25	27.19				

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).

Water level, in feet below land-surface datum, 1946

Jan. 24	9.60	May 23	9.99	July 30	10.04	Oct. 24	9.93
Mar. 27	9.39	June 16	9.89	31	9.99	Nov. 15	9.90
Apr. 22	9.74	25	9.99	Aug. 22	10.08	26	10.00
29	9.90	26	9.86	Sept. 25	9.47	Dec. 25	10.09

Oconto County

Oc 1. Oconto Utilities. NW $\frac{1}{4}$ sec. 19, T. 28 N., R. 22 E. Unused drilled municipal well, diameter 6 inches, depth unknown. Measuring point, edge of hole in cover plate on casing, at land-surface. Water levels, in feet below land-surface datum, 1946: Aug. 22, 17.25; Sept. 11, 11.04.

Oneida County

On 8 (*817, p. 504; *840, p. 647; 845, p. 717.) Wisconsin Conservation Department. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 38 N., R. 7 E., at McNaughton State Forestry camp. Bored observation well, diameter 8 inches. Measuring point, pointer on Kinnison float gage, 4.0 feet above land-surface datum. To convert water levels from feet above assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 10.90. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1939	0.82	Jan. 31, 1940	(a)	Jan. 31, 1941	(a)
Feb. 28	.92	Feb. 29	(a)	Feb. 28	(a)
Mar. 31	.23	Mar. 31	1.01	Mar. 31	.06
Apr. 30	.26	Apr. 30	.43	Apr. 30	.92
May 31	.36	May 31	.28	May 31	.30
June 30	.14	June 30	.08	June 30	.72
July 31	.60	July 30	.08	July 31	1.10
Aug. 31	1.11	Aug. 31	.51	Aug. 31	b .02
Sept. 30	.94	Sept. 30	.97	Sept. 30	.72
Oct. 31	.92	Oct. 31	.65	Oct. 31	.43
Nov. 30	1.13	Nov. 30	.92	Nov. 30	.99
Dec. 31	1.15	Dec. 31	.72	Dec. 31	.86

a Well frozen.

b Above land-surface datum.

On 8--Continued.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1942	0.95	Sept. 30, 1943	0.82	May 31	0.78
Feb. 28	.97	Oct. 24	.64	June 30	.95
Mar. 31	.73	Nov. 30	.58	July 31	.92
Apr. 30	.44	Dec. 31	.76	Aug. 31	.69
May 31	.22	Jan. 31, 1944	.74	Sept. 30	.63
June 30	.60	Feb. 29	.80	Oct. 31	.76
July 31	.76	Mar. 31	.79	Nov. 30	.72
Aug. 31	.90	Apr. 23	.69	Dec. 31	.85
Sept. 30	.33	May 31	.39	Jan. 31, 1946	.93
Oct. 31	.49	June 30	.45	Feb. 28	.83
Nov. 30	.50	July 31	.54	Mar. 30	.50
Dec. 31	.93	Aug. 31	.78	Apr. 30	.71
Jan. 31, 1943	.92	Sept. 30	1.00	May 31	.96
Feb. 28	.77	Oct. 31	1.04	June 30	.43
Mar. 31	.10	Nov. 30	1.04	July 31	.75
Apr. 30	.37	Dec. 31	1.18	Aug. 31	1.08
May 31	.34	Jan. 31, 1945	1.18	Sept. 30	.45
June 27	.24	Feb. 28	1.09	Oct. 31	.48
July 31	.52	Mar. 26	.60	Nov. 30	.53
Aug. 31	1.00	Apr. 29	.65	Dec. 31	.72

a Well frozen.

b Above land-surface datum.

On 22 (*1018, p. 274; 1025, p. 258). Wisconsin Valley Improvement Co. NW $\frac{1}{4}$ sec. 18, T. 39 N., R. 8 E. on Rainbow snow course. Measurements by Wisconsin Valley Improvement Co.

Water level at noon, in feet below land-surface datum, 1946
(From recorder charts)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.99	16.10	16.25	16.50	16.11	16.00	15.65	15.33	15.66	15.94	16.16	15.93
2	15.99	16.12	16.26	16.49	16.09	16.02	15.62	15.33	15.69	15.94	16.15	15.93
3	16.00	16.14	16.29	16.49	16.08	16.03	15.61	15.32	15.70	15.94	16.16	15.89
4	16.00	16.14	16.33	16.45	16.05	16.04	15.58	15.32	15.71	15.94	16.16	15.88
5	15.99	16.12	16.36	16.46	16.04	16.04	15.55	15.33	15.71	15.95	16.16	15.87
6	15.96	16.09	16.35	16.46	16.05	16.03	15.53	15.34	15.72	15.96	16.15	15.87
7	16.01	16.12	16.39	16.46	16.05	16.03	15.50	15.35	.....	15.98	16.09	15.85
8	16.01	16.13	16.42	16.43	16.03	16.03	15.47	15.35	.....	15.99	16.09	15.84
9	16.02	16.14	16.44	16.43	16.02	16.05	15.45	15.36	.....	15.99	16.11	15.84
10	16.02	16.15	16.46	16.43	16.01	16.05	15.42	15.39	15.76	15.99	16.08	15.84
11	16.02	16.16	16.47	16.42	16.00	16.05	15.40	15.42	15.78	15.98	16.09	15.83
12	16.02	16.16	16.47	16.40	15.99	16.05	15.39	15.44	15.80	16.01	16.09	15.82
13	16.04	16.16	16.49	16.37	15.97	16.05	15.36	15.45	15.81	16.03	16.06	15.83
14	16.04	16.16	16.51	16.33	15.96	16.05	15.34	15.46	15.81	16.04	16.06	15.85
15	16.06	16.17	16.52	16.32	15.96	16.02	15.34	15.48	15.81	16.04	16.04	15.85
16	16.06	16.17	16.53	16.32	15.95	15.99	15.33	15.49	15.82	16.06	16.02	15.85
17	16.05	16.19	16.54	16.30	15.95	15.99	15.34	15.50	15.84	16.06	16.08	15.86
18	16.04	16.21	16.56	16.29	15.95	16.00	15.33	15.51	15.86	16.06	16.09	15.89
19	16.05	16.19	16.56	16.26	15.95	16.00	15.33	15.51	15.86	16.09	16.07	15.89
20	16.06	16.19	16.56	16.26	15.96	15.99	15.33	15.55	15.86	16.10	16.07	15.87
21	16.07	16.20	16.56	16.23	15.96	15.98	15.33	15.58	15.87	16.10	16.05	15.86
22	16.07	16.20	16.56	16.21	15.97	15.98	15.33	15.61	15.89	16.11	16.04	15.87
23	16.07	16.21	16.56	16.20	15.97	15.98	15.33	15.62	15.89	16.13	16.06	15.85
24	16.06	16.22	16.56	16.17	15.97	15.96	15.33	15.63	15.89	16.11	16.01	15.85
25	16.05	16.22	16.56	16.16	15.98	15.93	15.33	15.63	15.91	16.11	16.03	15.86
26	16.08	16.22	16.56	16.16	15.99	15.91	15.33	15.63	15.91	16.14	16.00	15.87
27	16.08	16.23	16.57	16.13	16.00	15.86	15.33	15.63	15.91	16.17	15.99	15.85
28	16.08	16.24	16.56	16.11	16.00	15.80	15.33	15.63	15.92	16.15	15.96	15.86
29	16.10		16.56	16.11	16.00	15.74	15.34	15.63	15.94	16.15	15.96	15.86
30	16.09		16.56	16.11	16.00	15.68	15.34	15.63	15.94	16.11	15.93	15.86
31	16.08		16.56		16.00		15.34	15.63		16.15		15.87

On 23 (*1018, p. 274; 1025, p. 258). Geological Survey, U. S. Dept. of Interior. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 22, T. 37 N., R. 6 E.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7	30.24	Apr. 15	30.34	July 15	28.80	Oct. 7	28.48
14	30.30	22	30.28	22	30.60	14	28.45
21	30.31	28	30.27	24	28.54	21	28.60
28	30.30	May 6	30.27	29	28.42	28	28.65
Feb. 4	30.40	12	30.26	Aug. 5	28.35	Nov. 4	28.69
11	30.42	19	30.26	12	28.30	11	28.75
18	30.45	27	30.29	19	28.24	18	28.65
24	30.46	June 3	30.32	26	28.22	25	28.74
Mar. 4	30.51	10	30.16	Sept. 1	28.23	Dec. 2	28.73
11	30.52	17	30.81	9	28.25	9	28.70
18	30.40	24	29.80	16	28.32	16	28.70
25	30.45	July 1	29.35	23	28.36	23	28.74
Apr. 1	30.40	8	29.05	30	28.45	30	28.70
8	30.35						

On 24 (*1018, p. 274; 1025, p. 259). 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, 1946

Jan. 5	20.63	Apr. 1	20.25	July 8	19.35	Sept. 24	19.65
13	20.50	7	20.25	15	19.20	Oct. 1	19.68
21	20.50	14	20.25	22	19.15	8	19.69
27	20.55	22	20.25	25	19.18	19	19.81
Feb. 3	20.56	29	20.37	29	19.15	30	19.88
11	20.64	May 6	20.40	Aug. 6	19.20	Nov. 5	19.89
17	20.65	13	20.45	13	19.25	11	19.90
24	20.67	26	20.55	18	19.30	18	19.85
Mar. 3	20.68	June 2	20.57	26	19.40	Dec. 1	19.91
11	20.70	10	20.40	Sept. 3	19.50	8	19.85
17	20.52	17	20.17	9	19.50	16	19.87
24	30.30	25	20.00	16	19.57	24	19.23

Outagamie County

On 2. City of Kaukauna. SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 21 N., R. 18 E., at city pump station. Unused drilled public-supply well, diameter 12 inches, depth 700 feet. Measuring point, top of shelf for recorder installation, 8.0 feet above land-surface datum. Well is strongly affected by occasional pumping of nearby city well. Water levels, in feet above land-surface datum, 1946: Dec. 4, 1.84; Dec. 11, 0.08; Dec. 18, 0.24; Dec. 31, 0.54.

Ozaukee County

Oz 18. Canning Co. In Cedarburg, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 10 N., R. 21 E. Unused drilled industrial well, diameter 12 inches, depth 1,250 feet. Measuring point, hole in steel plate over casing, 1.5 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 16, 63.25; Sept. 11, 51.86.

Portage County

Pt 30 (*1018, p. 275; 1025, p. 259). 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, 1946

Jan. 3	8.11	Mar. 17	9.33	Apr. 21	8.11	May 27	8.88
6	8.22	24	9.22	28	8.77	June 2	9.33
13	9.11	31	8.55	May 5	8.88	9	9.33
20	9.11	Apr. 8	8.55	12	8.77	16	8.99
27	9.22	14	8.22	19	9.11	23	8.77

Pt 30--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 2	7.88	Aug. 4	8.44	Sept. 22	9.55	Nov. 24	9.22
7	7.77	11	8.66	29	9.55	Dec. 1	9.44
14	7.77	18	8.88	Oct. 6	8.77	8	9.55
21	8.11	25	9.11	13	8.55	15	9.55
23	7.99	Sept. 1	9.22	20	9.77	22	9.77
25	8.09	8	9.44	27	9.88	29	9.88
28	8.55	15	8.55	Nov. 15	9.44		

Price County

Pr 6 (*840, p. 645; 845, p. 717). Wisconsin Conservation Department. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 40 N., R. 1 W. Dug observation well, diameter 8 inches, depth 18 feet. Measuring point, pointer on Kinnison float gage, 3.98 feet above land-surface datum. To convert water levels from feet above an assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 12.82. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1939	2.73	Sept. 30, 1941	1.75	May 31, 1944	2.30
Feb. 28	2.96	Oct. 31	1.31	June 30	1.79
Mar. 31	1.68	Nov. 29	1.75	July 31	2.43
Apr. 30	1.56	Dec. 31	2.15	Aug. 31	3.90
May 31	1.69	Jan. 31, 1942	2.05	Sept. 30	2.75
June 30	1.05	Feb. 28	2.93	Oct. 31	3.46
July 31	1.98	Mar. 31	1.23	Nov. 30	3.60
Aug. 31	2.22	Apr. 30	1.94	Dec. 31	4.16
Sept. 30	2.70	May 31	.81	Jan. 31, 1945	4.57
Oct. 31	2.69	June 30	1.46	Mar. 1	4.58
Nov. 30	3.07	July 31	1.64	31	1.69
Dec. 31	3.17	Aug. 31	3.15	Apr. 30	2.40
Jan. 31, 1940	3.62	Sept. 30	2.16	May 31	1.75
Feb. 29	3.66	Oct. 31	2.59	June 30	2.44
Mar. 31	2.41	Nov. 30	2.68	July 31	2.64
Apr. 30	2.45	Dec. 31	3.00	Aug. 31	2.30
May 31	2.16	Jan. 31, 1943	3.14	Sept. 30	2.04
June 30	2.29	Feb. 28	1.79	Oct. 31	3.06
July 31	2.63	Mar. 31	.21	Nov. 30	3.12
Aug. 31	2.15	Apr. 30	.34	Dec. 31	3.68
Sept. 30	2.68	May 31	.70	Jan. 31, 1946	3.36
Oct. 31	2.65	June 30	1.26	Feb. 28	3.41
Nov. 30	2.61	July 31	1.71	Mar. 31	1.30
Dec. 31	2.63	Aug. 31	2.36	Apr. 30	2.86
Jan. 31, 1941	2.96	Sept. 30	2.45	May 31	2.76
Feb. 28	3.13	Oct. 31	2.75	June 29	b .41
Mar. 31	1.86	Nov. 30	2.89	July 31	1.87
Apr. 30	1.91	Dec. 31	3.59	Aug. 31	2.73
May 31	1.88	Jan. 31, 1944	3.04	Sept. 30	2.22
June 30	2.40	Feb. 29	3.50	Oct. 31	1.31
July 31	2.79	Mar. 31	3.49	Nov. 30	2.05
Aug. 31	a 1.09	Apr. 30	1.84	Dec. 31	2.84

a Day after 3.40 inches of rain.

b Above land surface, following period of heavy precipitation.

Racine County

Ra 3. City of Burlington. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 30, T. 3 N., R. 19 E. South well in basement of water works building. Unused drilled municipal well, diameter 8 inches, depth 1,008 feet. Measuring point, bottom of 2-inch tee at top of casing, 2 feet below land-surface datum.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 29	16.75	Aug. 12	17.23	Aug. 30	17.77	Sept. 11	18.48
Aug. 1	16.66	23	17.32	Sept. 5	17.69		

Ra 4. Pure Milk Association. NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 3 N., R. 20 E. Unused industrial well, diameter 6 inches, depth 200 feet. Measuring point, base of pump at air-line hole, at land-surface datum and 823.52 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

July 29	48.44	Aug. 23	48.00	Oct. 11	49.44	Nov. 29	49.92
Aug. 1	48.32	30	48.36	18	49.46	Dec. 6	49.93
12	47.90	Sept. 5	48.79	25	49.46	23	50.03
16	47.40	11	48.98	Nov. 8	49.58		

Ra 5. Chicago, Milwaukee & St. Paul Railway Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 3 N., R. 22 E. Sturtevant. Unused drilled railroad well, diameter and depth unknown. Measuring point, at outer edge of hole in pump base, 1.0 foot above land-surface datum and 731.06 feet above sea level. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

July 29	109.00	Aug. 30	109.21	Oct. 11	111.57	Nov. 15	112.20
Aug. 1	109.02	Sept. 5	109.43	18	112.03	29	111.87
12	109.12	11	110.46	25	111.80	Dec. 7	111.64
16	108.94	27	115.25	Nov. 2	111.42	23	112.25
23	109.42	Oct. 4	112.21	8	111.81		

Ra 6. LeRoy Radtke. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18, T. 4 N., R. 22 E. Used drilled domestic well, diameter 4 $\frac{1}{2}$ inches, depth 115 feet. Measuring point, top of casing, at land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 16, 19.18; Aug. 23, 1935; Aug. 30, 18.76; Sept. 5, 18.99.

Ra 8. Harold Wollmer. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 10, T. 4 N., R. 21 E. Used drilled domestic well, diameter 5 inches, depth 368 feet. Measuring point, edge of bolt hole at top of casing, 5 feet below land-surface datum. Equipped with plunger pump. Water levels, in feet below land-surface datum, 1946: Aug. 28, 65.69; Sept. 5, 66.79; Sept. 12, 65.78.

Sauk County

Sk 1. Badger Ordnance Works. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 3, T. 10 N., R. 6 E. Unused drilled well, diameter 16 inches, depth 435 feet. Measuring point, top of plywood recorder base, 2.5 feet above land-surface datum. Chief aquifer is Eau Claire sandstone. Automatic water-stage recorder installed Oct. 16, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	75.61	74.62
2	a63.73	.....	a70.75	.....	.....	75.53	74.16
3	75.23	74.31
4	74.61	75.20
5	74.53	75.69

a Tape measurement, not necessarily lowest for day.

Sk 1--Continued.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Day	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	a63.94	.....	.....	.....	.....	.....	74.98	76.14
7	a74.17	.....	74.97	76.16
8	a64.05	.....	.....	.....	.....	.....	.....	75.43	75.97
9	a63.63	.....	.....	.....	.....	75.44	75.22
10	75.13	75.27
11	a73.58	.....	74.57	75.28
12	74.03	75.23
13	a73.80	73.82	75.73
14	a63.79	.....	.....	.....	.....	.....	74.74	75.85
15	75.33	75.59
16	a63.74	.....	a73.16	a72.98	75.40	74.75
17	a64.08	.....	.....	.....	.....	.....	73.39	75.42	75.50
18	73.77	74.82	75.96
19	73.87	74.45	76.00
20	73.65	75.15	76.10
21	73.06	75.27	76.10
22	73.22	75.30	76.00
23	a63.96	.....	.....	74.03	75.26	75.17
24	a74.67	.....	74.75	74.50	.....
25	a63.54	.....	.....	.....	74.94	73.95	.....
26	a63.54	.....	.....	.....	74.95	74.39	.....
27	74.81	75.43	75.09
28	74.16	75.45	.....
29	a64.22	.....	.....	.....	.....	.....	.....	73.87	75.34	.....
30	74.81	74.94	74.91
31	75.58	.....	75.01

a Tape measurement, not necessarily lowest for day.

Sk 6. Baraboo Iron Co. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 1, T. 11 N., R. 6 E. Unused drilled iron prospect well, diameter 5-5/8 inches. Measuring point, top of cap on top of 4-inch casing, 5 feet above land-surface datum. Measurements by LeLand Shaw, water superintendent, Baraboo.

Water level, in feet above land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 5	3.23	June 26	2.71	Sept. 6	2.53	Nov. 11	2.71
15	3.05	July 3	2.55	14	2.45	16	2.81
29	2.95	July 9	2.65	19	2.45	21	2.85
May 7	2.90	19	2.60	26	2.38	29	2.77
18	2.91	30	2.07	Oct. 7	2.56	Dec. 4	2.58
June 3	2.70	Aug. 10	2.45	14	2.63	17	2.59
13	2.74	22	2.51	26	2.48	26	2.58
25	2.71	28	2.48				

Sawyer County

Sw 7 (*840, p. 646; 845, p. 717). Wisconsin Conservation Department. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 41 N., R. 9 W. Dug and bailed observation well, diameter 8 inches, depth 25 feet. Measuring point, pointer on Kinnison float gage, 4.58 feet above land-surface datum. To convert water levels from feet above an assumed datum, as published in previous reports, to feet below land-surface datum, subtract from 26.52. Measurements supplied through courtesy of Wisconsin Conservation Department.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1939	16.61	Apr. 30, 1939	15.62	July 31, 1939	16.25
Feb. 28	16.66	May 31	15.77	Aug. 31	16.46
Mar. 31	15.99	June 30	15.67	Sept. 30	16.66

Sw 7--Continued.

Water level, in feet below land-surface datum, 1939-46

Date	Water level	Date	Water level	Date	Water level
Oct. 31, 1939	16.78	Mar. 31, 1942	16.14	Aug. 31, 1944	16.45
Nov. 30	16.81	Apr. 30	16.24	Sept. 30	16.30
Dec. 31	16.83	May 31	16.20	Oct. 31	16.37
Jan. 31, 1940	16.90	June 30	15.94	Nov. 30	16.48
Feb. 29	16.89	July 31	16.29	Dec. 31	16.59
Mar. 31	16.80	Aug. 31	16.43	Jan. 31, 1945	16.65
Apr. 30	15.97	Sept. 30	15.94	Feb. 28	16.68
May 31	15.90	Oct. 31	16.36	Mar. 31	15.39
July 1	16.24	Nov. 30	16.62	Apr. 28	15.23
31	16.60	Dec. 31	16.60	May 26	15.88
Aug. 31	16.72	Jan. 31, 1943	16.64	June 30	15.25
Sept. 30	16.81	Feb. 28	16.68	July 28	15.82
Oct. 31	16.89	Mar. 31	16.17	Sept. 1	16.12
Nov. 30	16.70	Apr. 30	16.08	29	16.30
Dec. 31	16.67	May 31	16.02	Oct. 27	16.45
Jan. 31, 1941	16.78	June 30	15.81	Nov. 30	16.52
Feb. 28	16.78	July 31	16.40	Dec. 31	16.57
Mar. 31	16.68	Aug. 31	16.42	Jan. 31, 1946	16.55
Apr. 30	15.79	Sept. 30	15.81	Feb. 28	16.57
May 31	16.22	Oct. 31	16.66	Mar. 31	16.00
June 30	16.31	Nov. 30	16.59	Apr. 30	16.25
July 31	16.54	Dec. 31	16.62	May 31	16.49
Aug. 31	16.64	Jan. 31, 1944	16.66	June 30	15.79
Sept. 30	14.98	Feb. 29	16.62	July 31	16.17
Oct. 31	15.84	Mar. 31	16.52	Aug. 31	16.50
Nov. 30	15.98	Apr. 30	16.02	Sept. 30	16.40
Dec. 31	16.24	May 31	15.47	Oct. 31	16.11
Jan. 31, 1942	16.47	June 30	15.45	Nov. 30	16.00
Feb. 28	16.61	July 31	16.17	Dec. 31	16.32

a Precipitation on Aug. 30, 10.52 inches; Aug. 31, 2.70 inches.

Vernon County

Ve 4 (777, p. 267; 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; 1025, p. 259). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27	10.15	May 23	10.11	July 31	10.11	Oct. 22	9.00
Feb. 24	10.22	June 27	9.85	Aug. 26	10.13	Nov. 25	9.70
Mar. 23	8.93	July 23	10.05	Sept. 23	8.96	Dec. 25	9.98
Apr. 27	9.95						

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). 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, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17	49.41	May 25	48.50	Aug. 1	48.61	Oct. 23	48.50
Feb. 23	48.49	June 22	49.41	22	49.34	Nov. 23	48.50
Mar. 22	48.49	28	48.63	Sept. 23	48.58	Dec. 26	49.31
Apr. 20	48.50	July 31	49.32				

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). F. Lenser. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 14, T. 14 N., R. 7 W. Water levels, in feet below land-surface datum, 1946: June 28, 47.35; Aug. 1, 47.26.

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). Chris Benrud. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 6, T. 14 N., R. 4 W.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14	7.10	June 27	7.58	July 31	7.67	Oct. 7	7.30
Feb. 8	7.00	July 30	7.60	Sept. 3	7.60	Nov. 12	6.80

Vilas County

Vi 21 (*1018, p. 275; 1025, p. 260). 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, 1946

Jan. 7	14.61	Apr. 15	14.28	July 15	14.36	Oct. 7	14.78
14	14.53	22	14.32	23	14.37	14	14.82
21	14.58	29	14.35	24	14.38	22	14.88
28	14.70	May 6	14.41	29	14.42	28	15.10
Feb. 4	14.76	13	14.42	Aug. 6	14.43	Nov. 5	14.95
18	14.76	20	14.49	13	14.47	11	14.95
25	14.00	27	14.53	19	14.52	20	15.00
Mar. 4	14.50	June 3	14.55	26	14.56	26	14.99
11	14.30	10	14.58	Sept. 3	14.61	Dec. 3	14.99
18	14.21	17	14.62	10	14.63	9	15.06
25	14.17	24	14.63	18	14.67	17	15.10
Apr. 1	14.22	July 1	14.42	24	14.72	24	15.13
8	14.28	8	14.37	30	14.75	31	15.16

Walworth County

Ww 1. Village of Genoa Junction. SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 1 N., R. 18 E. Used drilled municipal well, diameter 12 inches, depth 1,080 feet. Measuring point, edge of flange at top of casing, 2.0 feet above land-surface datum.

Water level, in feet below land-surface datum, 1946

Aug. 13	25.55	Sept. 6	25.94	Oct. 11	26.03	Nov. 15	26.08
26	25.82	11	26.06	18	26.10	29	26.29
Sept. 3	25.92	27	25.99	Nov. 1	26.10	Dec. 23	26.36

Ww 2. G. Bergstram, 201 Bonita Street, Walworth. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 22, T. 1 N., R. 16 E. Unused drilled domestic well, diameter 6 inches, depth 85 feet. Measuring point, top of casing, 6.0 feet below land-surface datum.

Water level, in feet below land-surface datum, 1946

Aug. 14	63.94	Sept. 3	64.12	Sept. 11	64.11	Dec. 23	65.15
26	64.03	6	64.11	Nov. 29	64.87		

Ww 3. War Assets Administration. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 2 N., R. 15 E. Unused drilled industrial well, diameter 6 inches, depth 303 feet. Measuring point, bolt hole in cap over casing, 1.0 foot above land-surface datum.

Water level, in feet below land-surface datum, 1946

Aug. 14	42.40	Sept. 3	42.50	Sept. 11	42.48	Dec. 23	42.94
26	42.52	6	42.44	Nov. 29	42.88		

Ww 4. United Milk Products. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33, T. 1 N., R. 15 E. Unused drilled industrial well, diameter 6 inches, depth unknown. Measuring point, top of casing, 1.8 feet above land-surface datum.

Ww 4--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 14	51.24	Sept. 3	52.03	Sept. 11	52.12	Dec. 23	54.46
26	51.74	6	51.99	Nov. 29	54.22		

Washington County

Wn 1. John Thiesen. SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 10, T. 11 N., R. 18 E. Unused drilled well, diameter and depth unknown. Measuring point, north edge of concrete pump base, 1.0 feet above land-surface datum. Water levels, in feet below land-surface datum, 1946: July 16, 44.52; Sept. 11, 46.71.

Wn 2. City of Hartford. In Hartford, between powerhouse and railroad. Unused drilled municipal well, diameter 16 inches, depth about 600 feet. Measuring point, bottom of hole in side of casing, 1 foot above platform. 0.85 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 14, 42.71; Sept. 11, 40.23; Nov. 22, 37.80.

Wn 3. City of West Bend. Basement of city police station. Unused drilled municipal well, diameter 8 inches, depth 1,200 feet. Measuring point, top of casing, 3 feet below land-surface datum and 916.49 feet above sea level. Water-stage recorder maintained on well since Sept. 26, 1946.

Lowest daily water level, in feet below land-surface datum, 1946
(From recorder charts)

Aug. 29	44.95	Oct. 20	13.96	Nov. 14	14.68	Dec. 8	13.19
Sept. 12	45.23	21	13.68	15	14.66	9	13.08
26	15.18	22	13.93	16	14.36	10	13.62
27	15.10	23	14.15	17	13.76	11	13.51
29	14.18	24	14.06	18	13.28	12	13.51
30	13.47	25	13.70	19	13.88	13	14.00
Oct. 1	13.98	26	14.09	20	13.58	14	14.40
2	13.49	27	13.60	21	13.21	15	14.00
3	14.26	28	13.28	22	13.62	16	13.40
4	13.57	29	13.75	23	13.70	17	14.10
5	14.09	30	13.88	24	13.14	18	14.56
6	14.03	31	14.08	25	13.39	19	14.24
7	13.57	Nov. 1	14.04	26	13.53	20	14.51
8	13.62	2	13.64	27	14.09	21	14.29
9	13.60	3	13.88	28	13.31	22	13.80
10	13.87	4	13.56	29	13.25	23	13.84
11	14.09	5	13.89	30	13.60	24	13.92
12	14.20	6	14.45	Dec. 1	13.33	25	13.61
13	13.84	7	14.04	2	13.07	26	13.24
14	13.42	8	14.36	3	14.04	27	13.73
15	14.41	9	14.00	4	14.20	28	13.85
16	14.82	10	13.76	5	13.80	29	13.46
17	14.34	11	13.59	6	13.61	30	13.54
18	14.61	12	14.63	7	13.30	31	13.70
19	14.49	13	14.52				

a Tape measurement, not necessarily lowest for day.

Waukesha County

Wk 2. Sisters of Notre Dame. NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 24, T. 7 N., R. 20 E. Unused drilled well, diameter 16 inches, depth 1,182. Measuring point, top of casing, 1.0 foot above land-surface datum. Water-stage recorder maintained on well since Dec. 9, 1946.

Water level, in feet below land-surface datum, 1946

Apr. 10	73.44	May 10	71.59	June 6	72.69	July 3	74.05
18	72.74	16	71.94	14	73.42	11	74.46
26	72.30	23	71.65	19	72.90	18	75.11
May 3	71.98	29	71.89	27	73.47	19	74.97

Wk 2--Continued.

Water level, in feet below land-surface datum, 1946

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 25	76.51	Aug. 22	79.08	Sept. 24	77.37	Dec. 9	75.41
31	77.79	29	78.41	Oct. 4	78.01	14	74.83
Aug. 8	78.88	Sept. 4	78.95	Nov. 22	76.65	21	74.16
15	77.96	12	78.24	30	75.59	28	73.85

Wk 3. Village of Menomonie Falls. NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 10, T. 8 N., R. 20 E. Used drilled municipal well, diameter 12 inches, depth 1,140 feet. Measuring point, opening in pump base, 1.0 foot above land-surface datum. Equipped with turbine pump.

Water level, in feet below land-surface datum, 1946

June 21	20.56	July 25	25.44	Sept. 5	24.70	Nov. 2	24.04
27	22.54	31	24.79	11	23.65	23	24.13
July 3	24.85	Aug. 15	24.62	5	23.86	Dec. 7	23.93
11	24.13	22	23.63	12	23.67	13	24.89
18	24.24	29	23.52	26	23.61	27	24.07

Wk 14. Veterans Administration Hospital. In Waukesha, in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2, T. 6 N., R. 19 E. Unused drilled hospital well, diameter 8 inches, depth 1,300 feet. Measuring point, top of casing, at land-surface datum and 875.03 feet above sea level. Water levels, in feet below land-surface datum 1946: Sept. 11, 280.03; Oct. 20, 270.24; Oct. 27, 266.50.

Wk 20. G. W. Aepler. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 6, T. 7 N., R. 17 E. Drilled well, used for garden irrigation, diameter 10 inches, depth 773 feet. Measuring point, highest point on top of casing at east side, 7.0 feet below land-surface datum and 866 feet above sea level. Water levels, in feet below land-surface datum, 1946: Aug. 15, 30.61; Nov. 22, 31.13.

Wk 22. Mrs. Bartholomew. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 24, T. 5 N., R. 19 E., in village of Big Bend. Used drilled domestic well, diameter 6 inches, depth 109 feet. Measuring point, edge of bolt hole at top of casing, 1.0 foot above land-surface datum. Water levels, in feet below land-surface datum, 1946: Aug. 27, 27.87; Sept. 12, 26.65.

Winnebago County

W1 1. Oak Hill Cemetery. SE $\frac{1}{4}$ sec. 20, T. 20 N., R. 17 E. Drilled cemetery well, used occasionally during summer only, depth 340 feet. Measuring point, opening beside pump base opposite air line, 4.0 feet below land-surface datum and 772 feet above sea level. Equipped with turbine pump. Water levels, in feet below land-surface datum, 1946: Aug. 28, 48.88; Sept. 11, 52.04.

Wood County

Wd 29 (#1018, p. 276; 1025, p. 260). 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, 1946

Jan. 7	5.36	Apr. 15	6.37	July 15	6.42	Oct. 14	10.42
14	5.75	22	5.86	23	6.67	21	10.36
28	6.14	29	5.71	29	6.65	28	10.64
Feb. 4	5.95	May 6	5.64	Aug. 5	6.67	Nov. 4	10.89
11	5.79	13	6.42	12	6.66	11	10.86
18	6.50	20	6.36	26	6.96	18	10.74
25	6.34	27	6.32	Sept. 2	8.05	25	10.86
Mar. 4	6.66	June 3	6.04	10	7.98	Dec. 2	10.88
11	6.18	10	5.86	17	7.78	9	11.14
18	5.72	17	5.94	23	9.65	16	10.72
25	5.70	July 1	6.40	30	9.65	23	10.37
Apr. 1	5.74	8	6.28	Oct. 7	10.15	30	10.40
8	5.34						